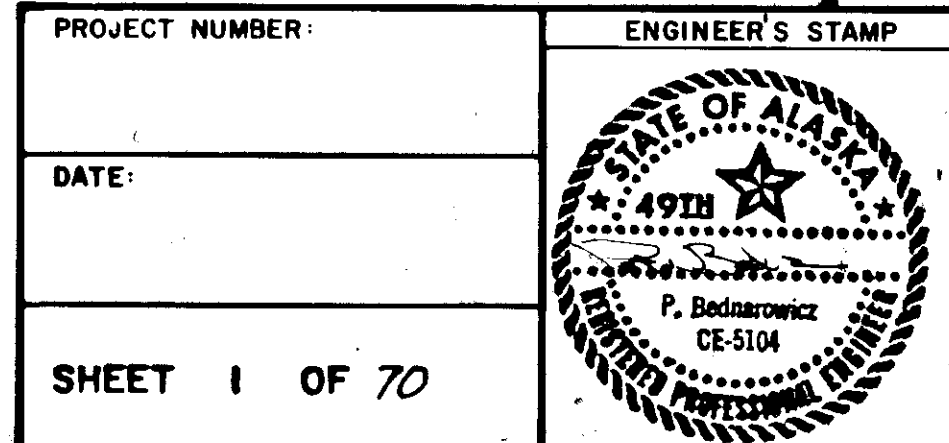
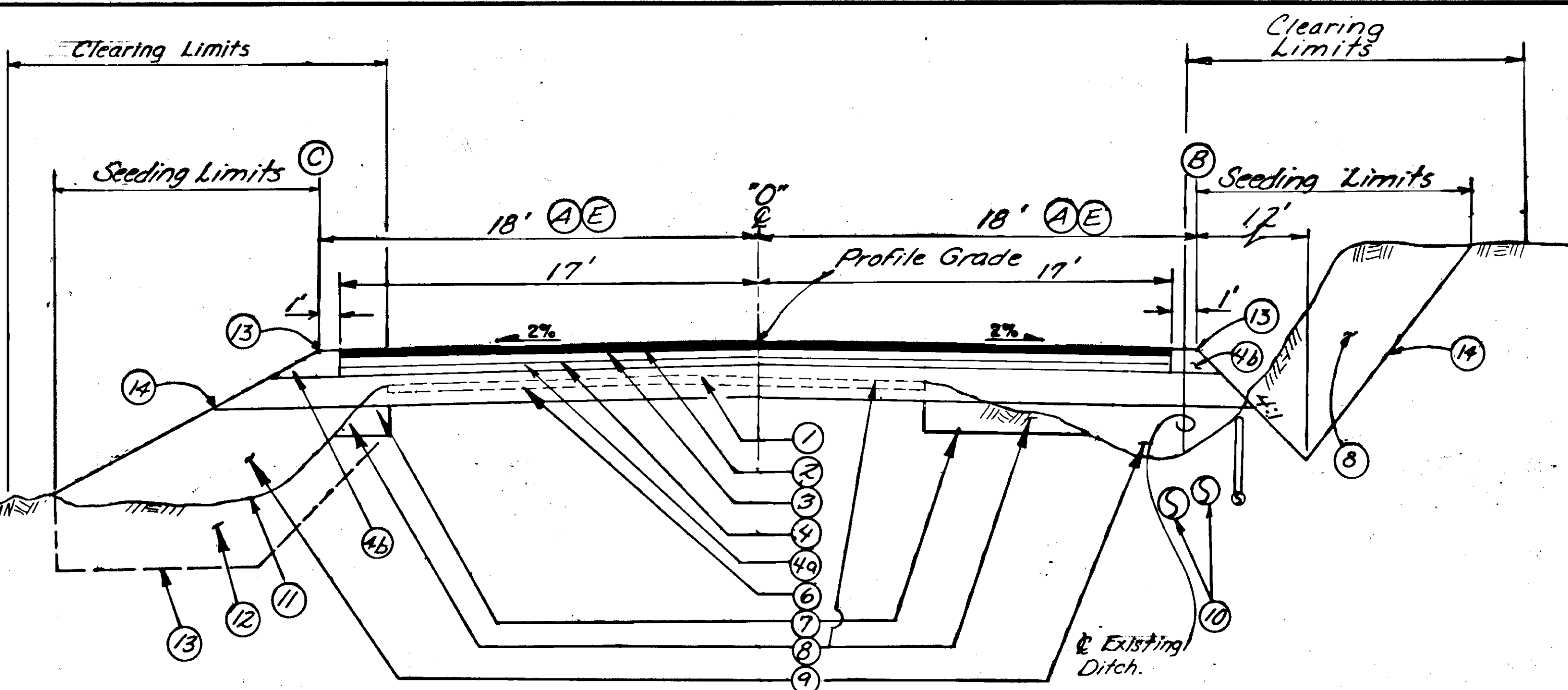
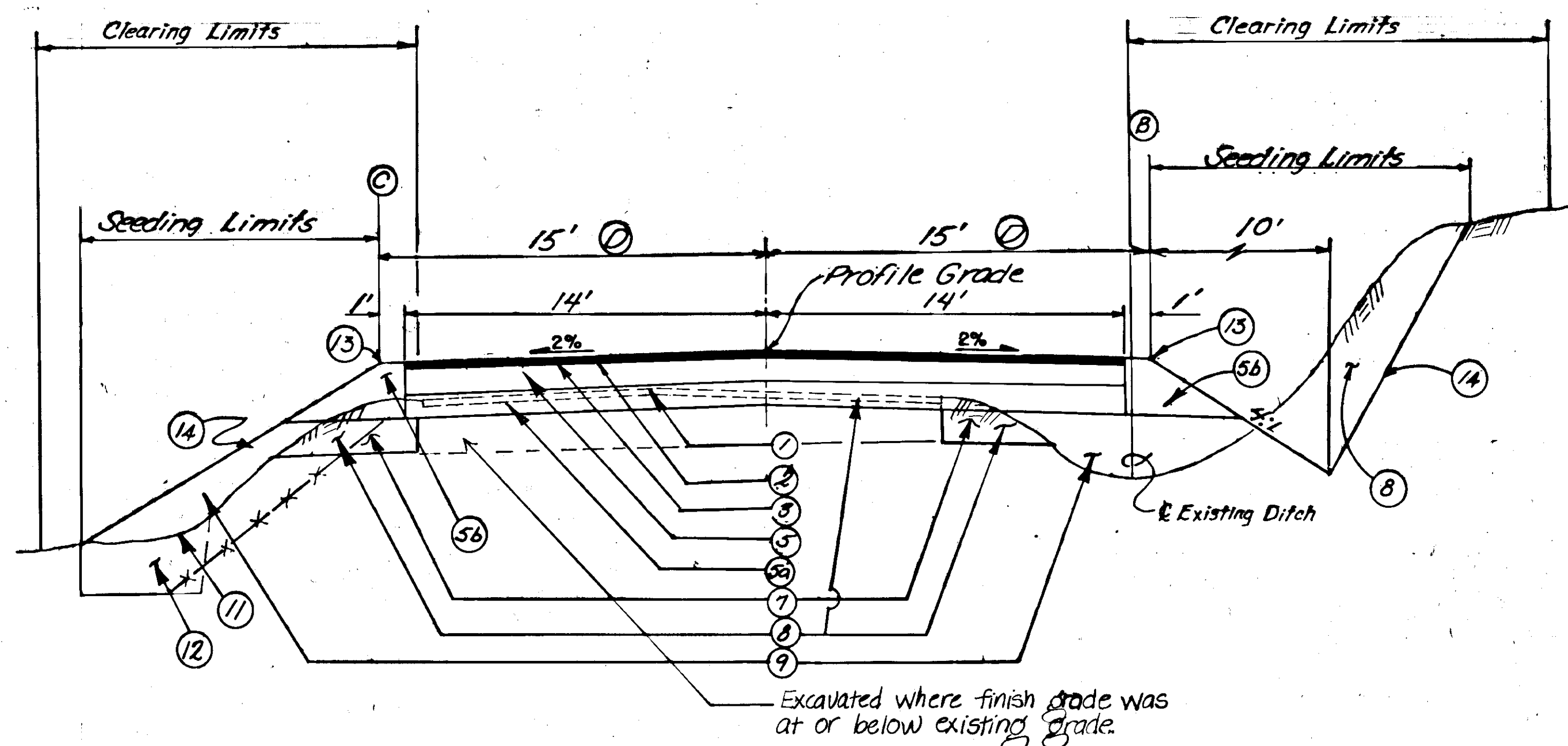






"0" 338+00 TO "0" 419+50  
 "0" 379+00 to "0" 402+00 Peat  
 Excavation req'd, See Sht. 3 for details



"0" 419+50 TO "0" 478+38

| BASIS OF ESTIMATE |          |                                      |
|-------------------|----------|--------------------------------------|
| ITEM              | ITEM NO. | FACTOR                               |
| BORROW            | 203(6)   | 190 +8 TONS / CU. YD.                |
| SUBBASE           | 304(1)   | 1.85 TONS / CU. YD.                  |
| CRUSHED AGG.      | 301(1)   | 1.96 TONS / CU. YD.                  |
| ASPHALT CONC.     | 401(1)   | 113.1 +15 LBS. / SQ. YD. / IN. DEPTH |
| ASPHALT CEMENT    | 401(2)   | 6% OF 401(1)                         |
| PRIME             | 403(2)   | Not used<br>RATE AS DIRECTED         |

| LABELING INDEX |                                                                                                               |  |  |
|----------------|---------------------------------------------------------------------------------------------------------------|--|--|
| 1.             | EXISTING ASPHALT                                                                                              |  |  |
| 2.             | 1 1/2" ASPHALT CONCRETE                                                                                       |  |  |
| 3.             | <del>TACK COAT</del> Not Used                                                                                 |  |  |
| 4.             | 3" RAP I BASE,                                                                                                |  |  |
| 4a             | 3" OF RAP II BASE                                                                                             |  |  |
| 4b             | <del>CRUSHED AGGREGATE BASE</del> 6" RAP II Base                                                              |  |  |
| 5.             | 4" RAP I BASE                                                                                                 |  |  |
| 5a             | 4" RAP II BASE                                                                                                |  |  |
| 5b             | <del>CRUSHED AGGREGATE BASE</del> 8" RAP II Base                                                              |  |  |
| 6.             | 14" SUBBASE, GRADING "E"                                                                                      |  |  |
| 7.             | 10" BORROW, TYPE "B"                                                                                          |  |  |
| 8.             | UNCLASSIFIED EXCAVATION                                                                                       |  |  |
| 9.             | BORROW, OR USEABLE EXCAVATION MEETING REQUIREMENTS OF BORROW, TYPE "B"                                        |  |  |
| 10.            | WATER MAIN/UNDERDRAIN-SEE SHT. 14 FOR UNDERDRAIN DETAILS AND SHT. 54-70 FOR WATER MAIN DETAILS                |  |  |
| 11.            | TOE OF EXISTING FILL                                                                                          |  |  |
| 12.            | UNCLASSIFIED EXCAVATION FOR BENCHING                                                                          |  |  |
|                | STA. TO STA. DEPTH                                                                                            |  |  |
|                | 364+35 340+00 364+33 379+00 2.5'                                                                              |  |  |
|                | 361+25 402+00 361+75 407+00 1.5' 2.5'                                                                         |  |  |
|                | 357+93 407+00 359+24 420+00 2.0' 50'                                                                          |  |  |
|                | 351+50 457+00 352+27 476+00 1.5' 2.5'                                                                         |  |  |
|                | 374+00 375+50 2.5'                                                                                            |  |  |
| 13.            | POINT OF SUPER ROTATION IS THE INSIDE SHOULDER, Excepted where noted otherwise.                               |  |  |
| 14.            | SLOPE VARIES, SEE SHT. 3A FOR DETAILS                                                                         |  |  |
| A              | "0" 338+00 TO "0" 340+00 TRANSITION ROADWAY FROM 24' TO 36'.                                                  |  |  |
| B              | SEE SHT. 3 & 3A FOR DETAILS                                                                                   |  |  |
| C              | SEE SHT. 3 & 3A FOR DETAILS                                                                                   |  |  |
| D              | "0" 419+50 TO "0" 421+00 TRANSITION ROADWAY 36' TO 30'.                                                       |  |  |
| E              | SEE SHTS. 22-24 FOR WIDENING AT SOUTH POINT LENA ROAD. See sheets 27-29 for widening at North Lena Loop Road. |  |  |

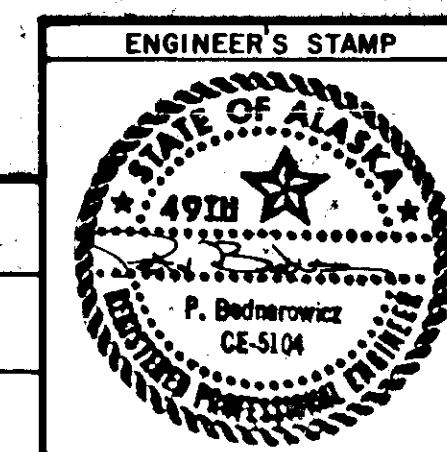
## GENERAL NOTES

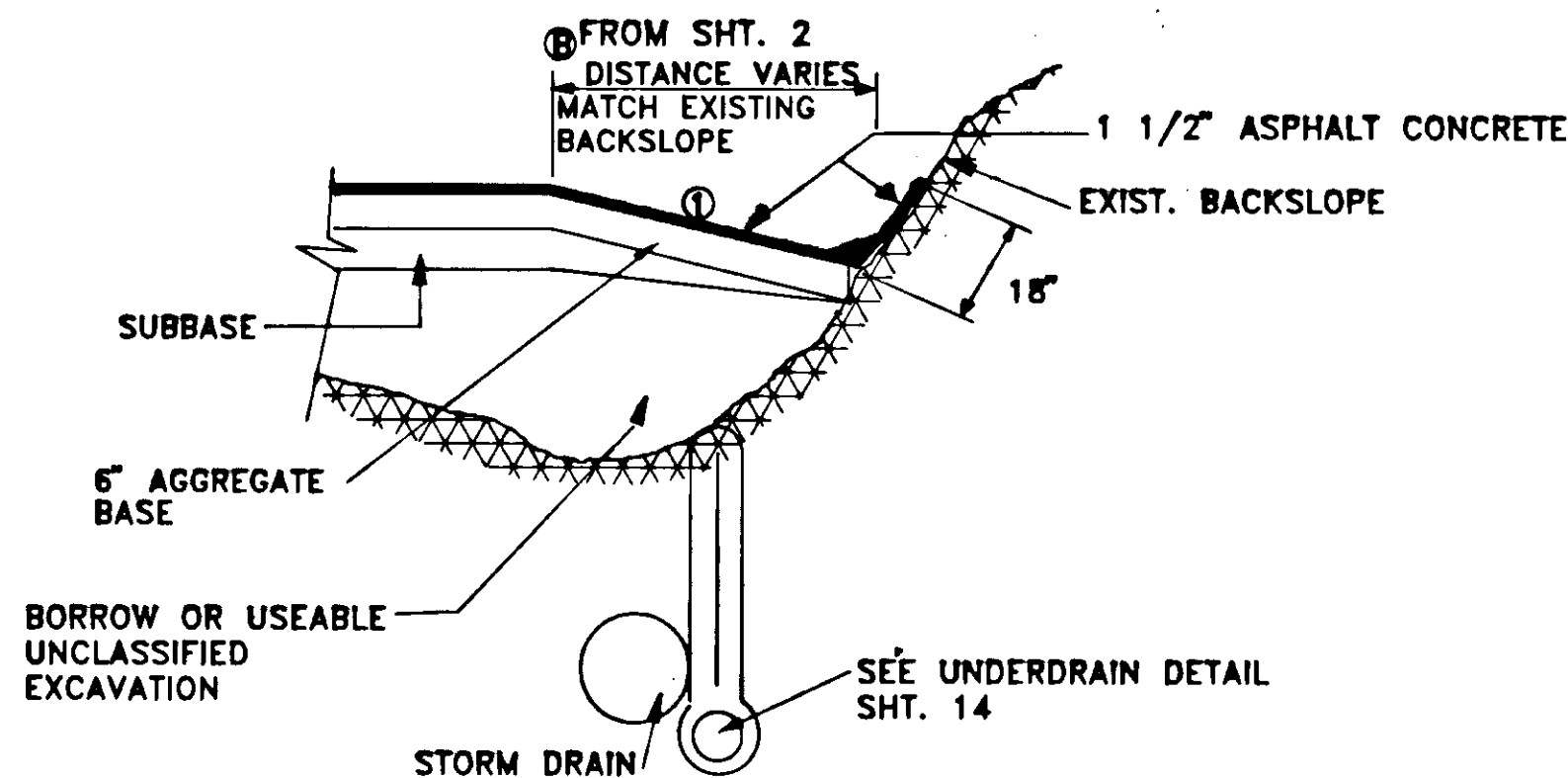
- VERTICAL AND HORIZONTAL ALIGNMENTS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS.
- PIPE LENGTHS AND LOCATIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO FIELD ADJUSTMENTS.
- CLEARING LIMITS SHALL BE 5 FEET BEYOND FILL SLOPES AND 10 FEET BEYOND CUT SLOPE LIMITS OR TO THE RIGHT OF WAY, EASEMENT OR PERMIT LINE, WHICHEVER IS LESS. ADDITIONAL AREA FOR THE POWER LINE RELOCATION IS NOTED IN SUBSECTION 681-3.01 OF THE SPECIAL PROVISIONS.
- WHEN CONSTRUCTING WIDENED EMBANKMENTS, SEE SHEET 3A FOR DETAILS, WASTE EXCAVATION SHALL NOT BE PLACED AROUND LIVING TREES.
- DURING RECONSTRUCTION OF THE AREA BETWEEN 879+00 AND 422+50, ALASKA DEPARTMENT OF FISH AND GAME RESTRICTIONS APPLY TO INSTREAM WORK AND WATER QUALITY DRAINING TO THE ANADROMOUS FISH STREAMS CROSSING THE ROADWAY AT STATIONS 394+60, 398+42 AND 420+27. SEE SUBSECTION 107-1.12 OF THE SPECIAL PROVISIONS FOR ADDITIONAL DETAILS.
- SEE SHEET 14 FOR A LIST OF PRIVATE WATER SYSTEMS AND SUBSECTION 603-3.00 FOR REQUIREMENTS ON INTERRUPTING AND MAINTAINING WATER SERVICE
- EMBANKMENT SLOPES TO BE FLATTENED WITH WASTE MATERIAL SHALL UTILIZE MATERIALS, OTHER THAN PEAT, FOUND WITHIN THE CONSTRUCTION LIMITS. SEE SECTION 203 OF THE SPECIAL PROVISIONS.
- ALL INTERSECTIONS SHALL BE CONSTRUCTED WITH THE STRUCTURAL SECTION INDICATED FOR THE MAINLINE. HOWEVER, CRUSHED AGGREGATE SHALL BE USED IN LIEU OF R.A.P. BASE. A TYPICAL SECTION FOR DRIVEWAYS IS DETAILED ON SHEET 5 OF 70.

| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |      |                       |
|------------------------------------------------------------------------------------------------------------------|------|-----------------------|
| BY                                                                                                               | DATE | DESCRIPTION OF CHANGE |
| RECORD OF REVISIONS                                                                                              |      |                       |

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
 POINT LOUISA TO TEE HARBOR

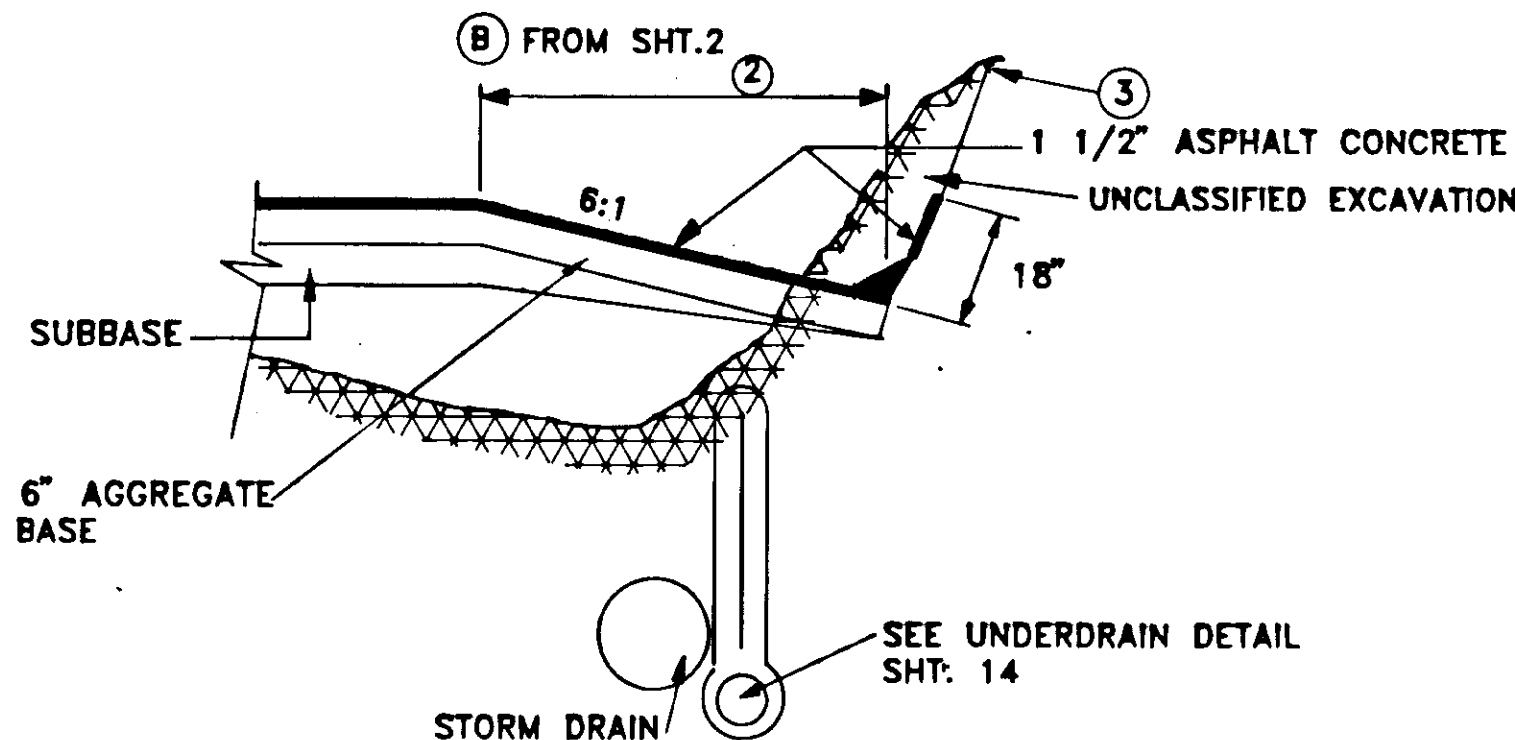
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|------------------------|--------------|---------------|
| APPROVED BY:           | DESIGNED BY: | SCALE:        |
| DESIGN GROUP CHIEF     | M. B.        | NONE          |
| RECOMMENDED BY:        | DRAWN BY:    | DATE:         |
| DESIGN ENGINEER, GROUP | R. S.        |               |
| PREPARED BY:           | CHECKED BY:  |               |
| PROJECT MANAGER        | P. B.        |               |
| LEAD DESIGNER          |              |               |
|                        |              | SHEET 2 OF 70 |





| STATION TO STATION |        | LT. | RT. | ①    |
|--------------------|--------|-----|-----|------|
| 348+75             | 350+50 |     | X   | 6:1  |
| 350+80             | 351+00 |     | X   | 6:1  |
| 361+50+00          | 362+00 |     | X   | 6:1  |
| 365+50             | 366+50 |     | X   | 10:1 |
| 366+50*            | 367+50 |     | X   | 10:1 |

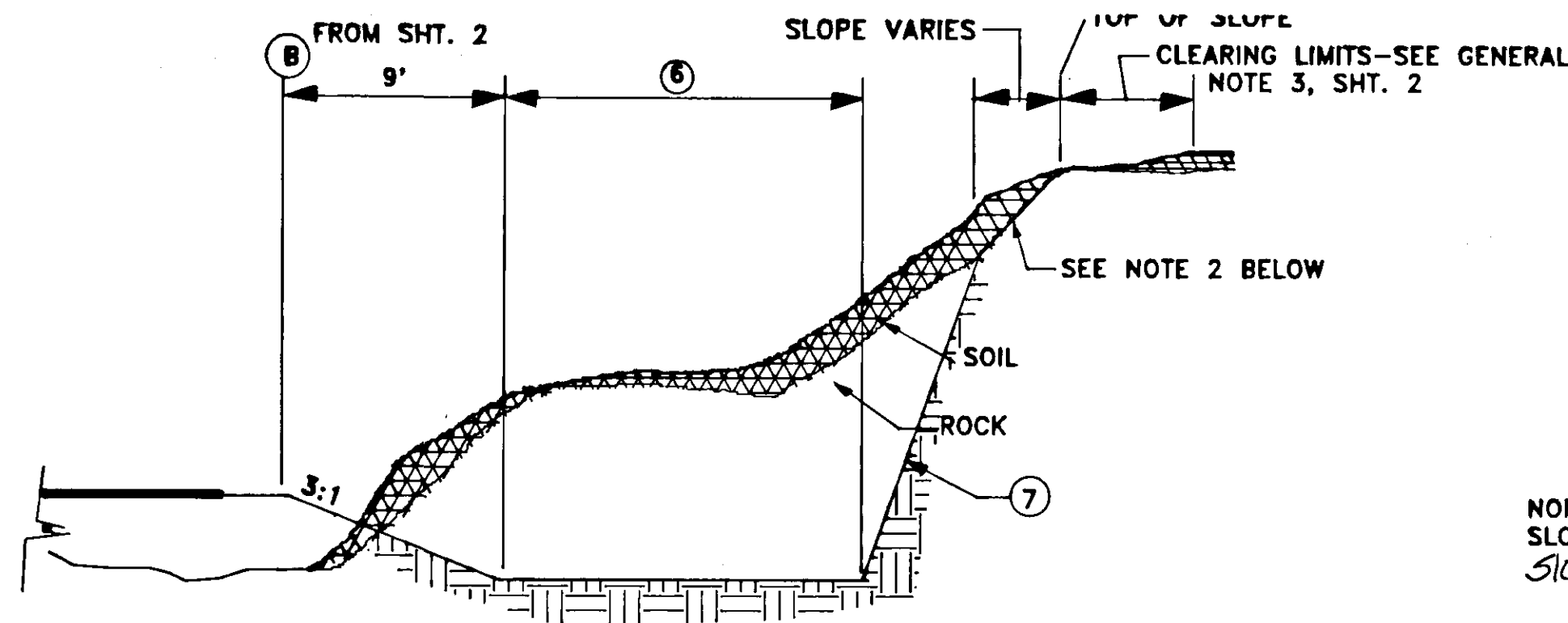
\* MATCH INLET ELEVATIONS. SEE SHT'S. 20&21.



| STATION TO STATION |        | LT. | RT. | ③     |
|--------------------|--------|-----|-----|-------|
| 344+50             | 346+80 | 10' | X   | 1.5:1 |
| 347+10             | 351+00 | 8'  | X   |       |
| 350+50             | 348+75 | 8'  | X   |       |
| 358+25             | 350+80 | 8'  | X   |       |
| 362+00             | 361+50 | 8'  | X   | *     |
| 364+50             | 364+50 | 12' | X   | 1.5:1 |

\* SEE ROCKERY WALL DETAIL, SHEET 50  
\* Paved Bottom Ditch

### ① PAVED DITCH DETAILS



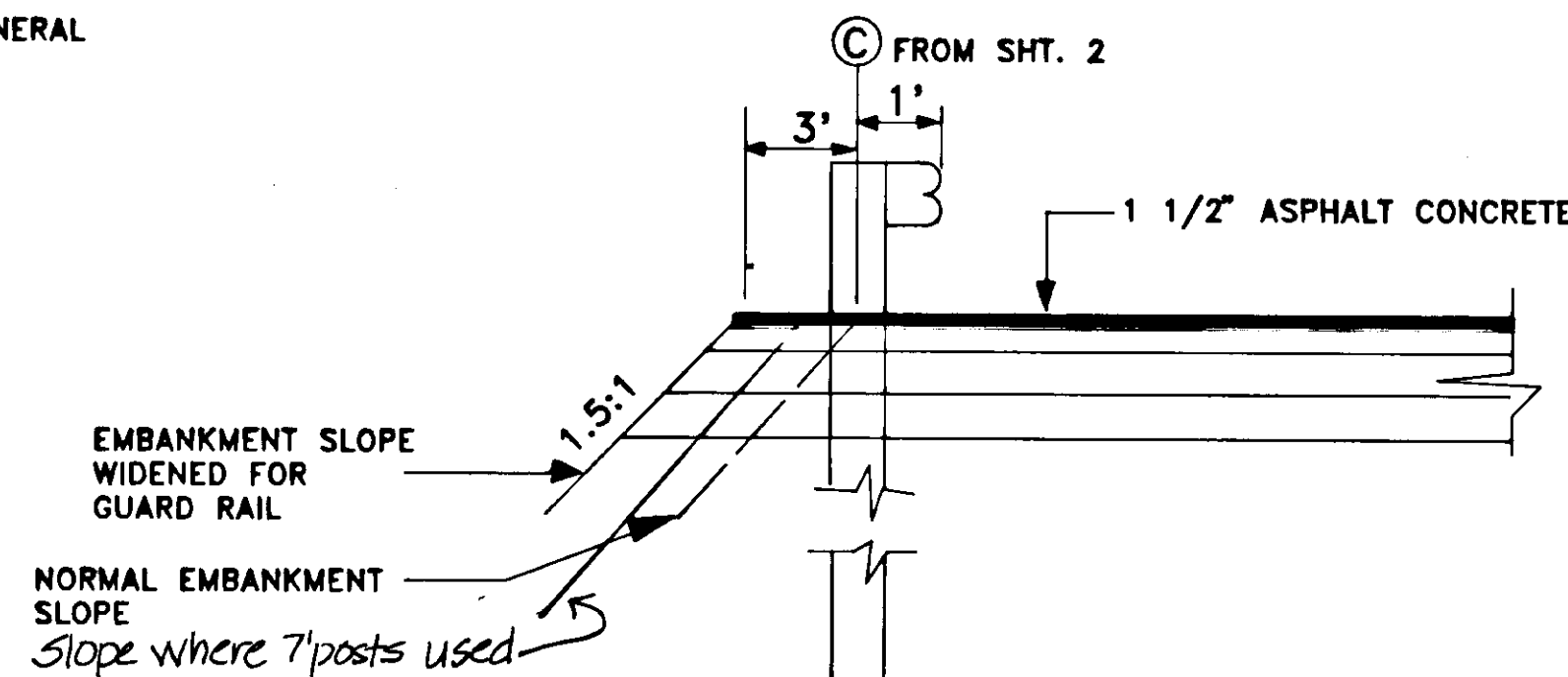
### NOTES

1. TRANSITION FROM TYPICAL DITCH TO ROCK DITCH SHALL BE 50'.
2. THE SLOPE FROM TOP OF SOLID MATERIAL TO SURFACE OF ORIGINAL GROUND (TOP OF SLOPE) SHALL BE AS STEEP AS THE MATERIAL WILL STAND WITHOUT SLUFFING UNTIL IT CAN BE SEED.

| RIGHT SIDE ONLY    |          |         |
|--------------------|----------|---------|
| STATION TO STATION | ⑥        | ⑦       |
| 370+00 TO 372+01   | 10' FLAT | 1/4:1   |
| 372+00 TO 373+00   | 5' FLAT  | 1 1/2:1 |
| 403+00 TO 406+00   | 10' FLAT | 1/4:1   |
| 435+00 TO 437+00   | 10' FLAT | 1/4:1   |
| 442+00 TO 444+00   | 10' FLAT | 1/4:1   |
| 444+00 TO 451+00   | 10' FLAT | 1/4:1   |
| 451+00 TO 455+00   | 5' FLAT  | 1/4:1   |
| 455+00 TO 458+00   | 10' FLAT | 1/4:1   |

### ② ROCK EXCAVATION DETAIL

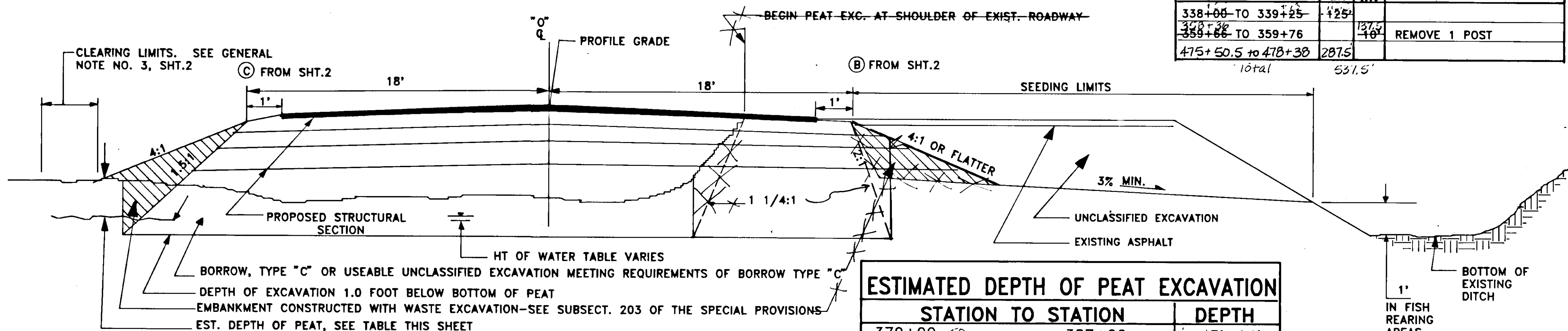
### ③ GUARDRAIL PLACEMENT DETAIL



| STATION TO STATION   |             | LENGTH | TERM  | REMARKS        |
|----------------------|-------------|--------|-------|----------------|
| "O" STA. TO "O" STA. |             | LEFT   | RIGHT | END SECT.      |
| 366+82               | 368+60      | 175    |       | 2              |
| 338+88               | 339+25      | 125    |       | 1              |
| 349+00               | 350+00      | 100    |       | 1-2 *Spade End |
| 350+85               | 352+50      | 165    |       | 1-2 *Spade End |
| 354+00               | 355+87.5    | 187.5  |       | 2 ①            |
| 357+00               | 359+25      | 225    |       | 2              |
| 365+75               | 367+50      | 175    |       | 2              |
| 372+50               | 375+50      | 300    |       | 2              |
| 444+00               | 445+50      | 150    |       | 2 ①            |
| 445+87.5             | 448+50      | 262.5  |       | 2 ①            |
| 368+85               | 369+15      | 30     |       | 2              |
| 474+50               | Reconstruct | 37.5   |       | 1 ②            |
| 365+50               | 366+43      | 93     |       | 2              |
|                      |             | 1725   |       | 18             |

- ① FILL TO BE CONSTRUCTED ON 1.25:1 WITH TYPE C BORROW.
- ② FACTORY BENT RADIUS OF 12.5'

| STATION TO STATION   |         | LENGTH | REMARKS       |
|----------------------|---------|--------|---------------|
| "O" STA. TO "O" STA. | LT. RT. |        |               |
| 338+00 TO 339+25     | 125     |        |               |
| 359+68 TO 359+76     | 8       |        | REMOVE 1 POST |
| 475+50.5 TO 478+38   | 287.5   |        |               |
|                      | total   | 531.5' |               |



### ④ PEAT EXCAVATION DETAIL

| STATION TO STATION |        | DEPTH         |
|--------------------|--------|---------------|
| 379+00+50          | 387+00 | 8'-20" 3'-14" |
| 387+00             | 398+00 | 5'-8" 4'-"    |
| 398+42             | 402+42 | 2'-5'         |

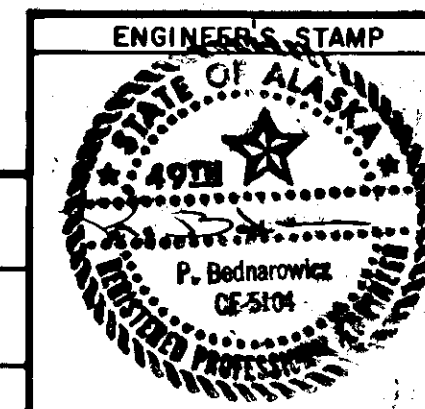
| BY | DATE | DESCRIPTION OF CHANGE |
|----|------|-----------------------|
|    |      | RECORD OF REVISIONS   |

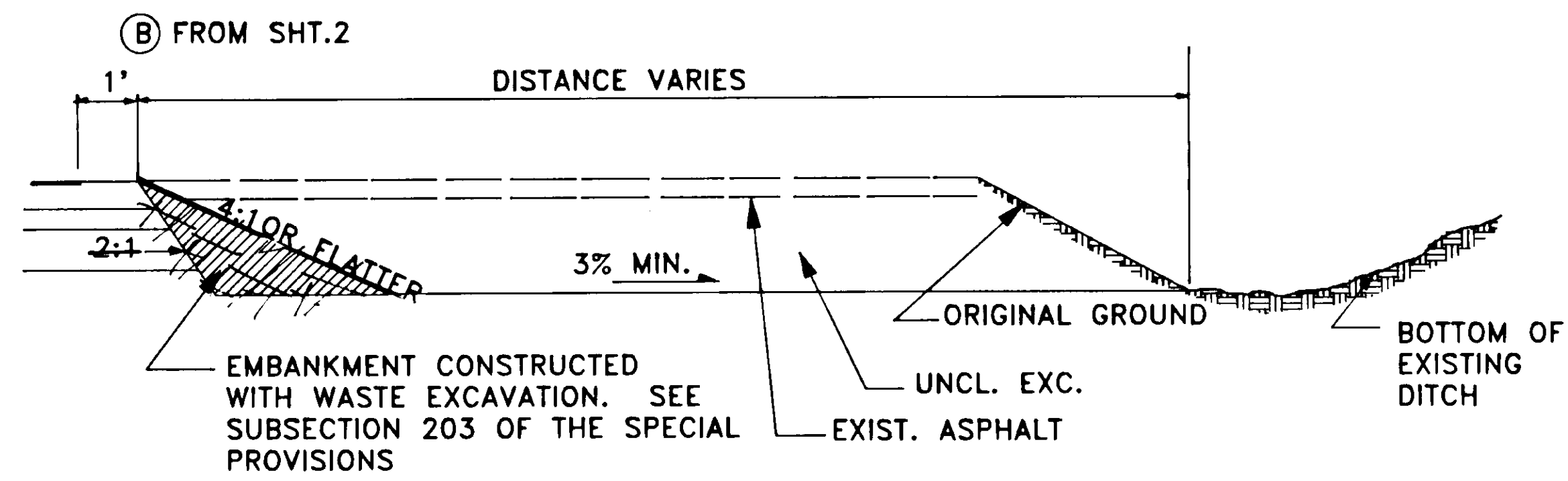
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY  
PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR

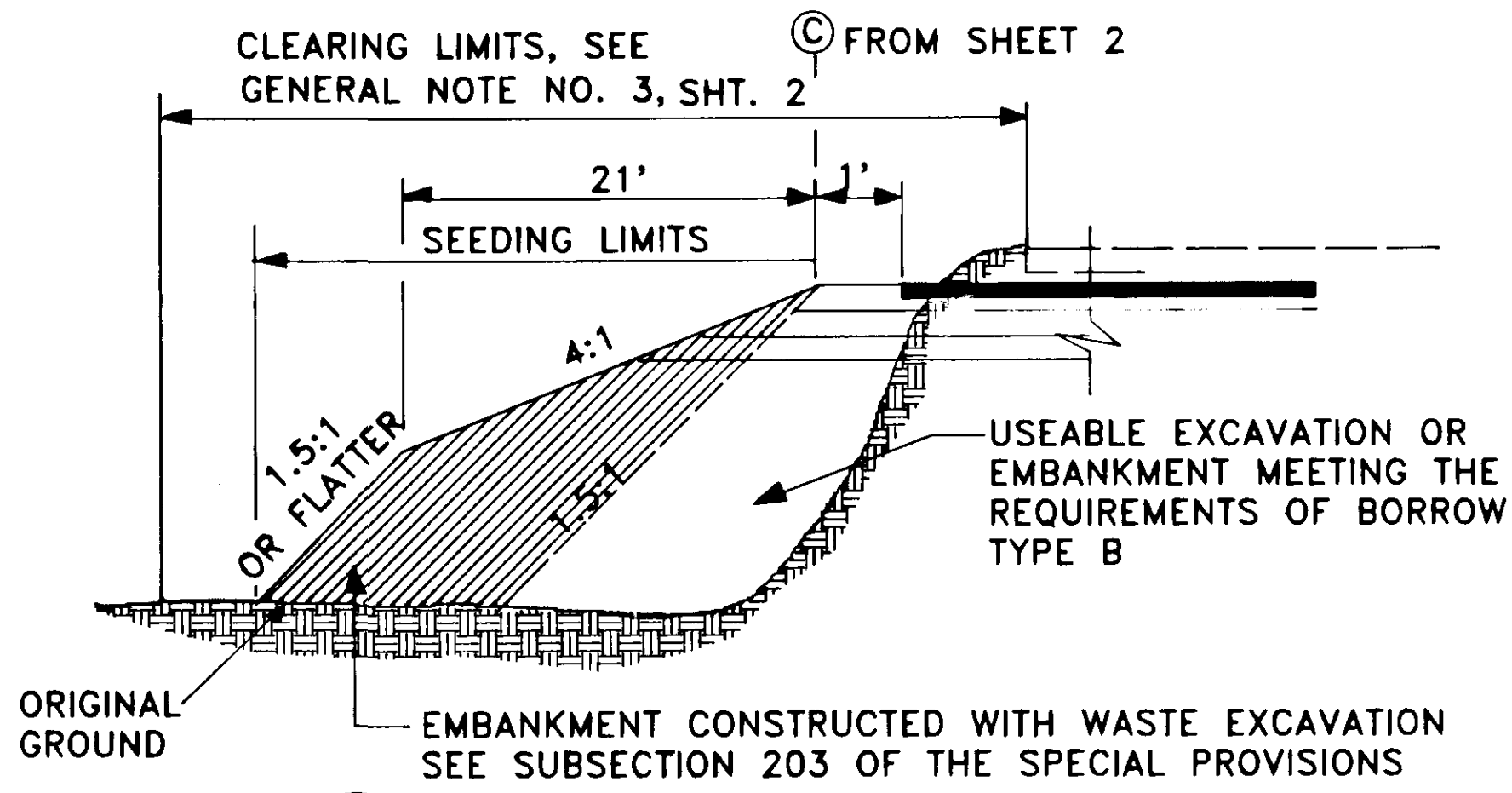
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|-----------------|---------------|
| APPROVED BY:    | DESIGNED BY:  |
| RECOMMENDED BY: | DRAWN BY:     |
| PREPARED BY:    | CHECKED BY:   |
| PROJECT MANAGER | LEAD DESIGNER |

|               |      |
|---------------|------|
| SCALE:        | None |
| DATE:         |      |
| SHEET 3 OF 70 |      |

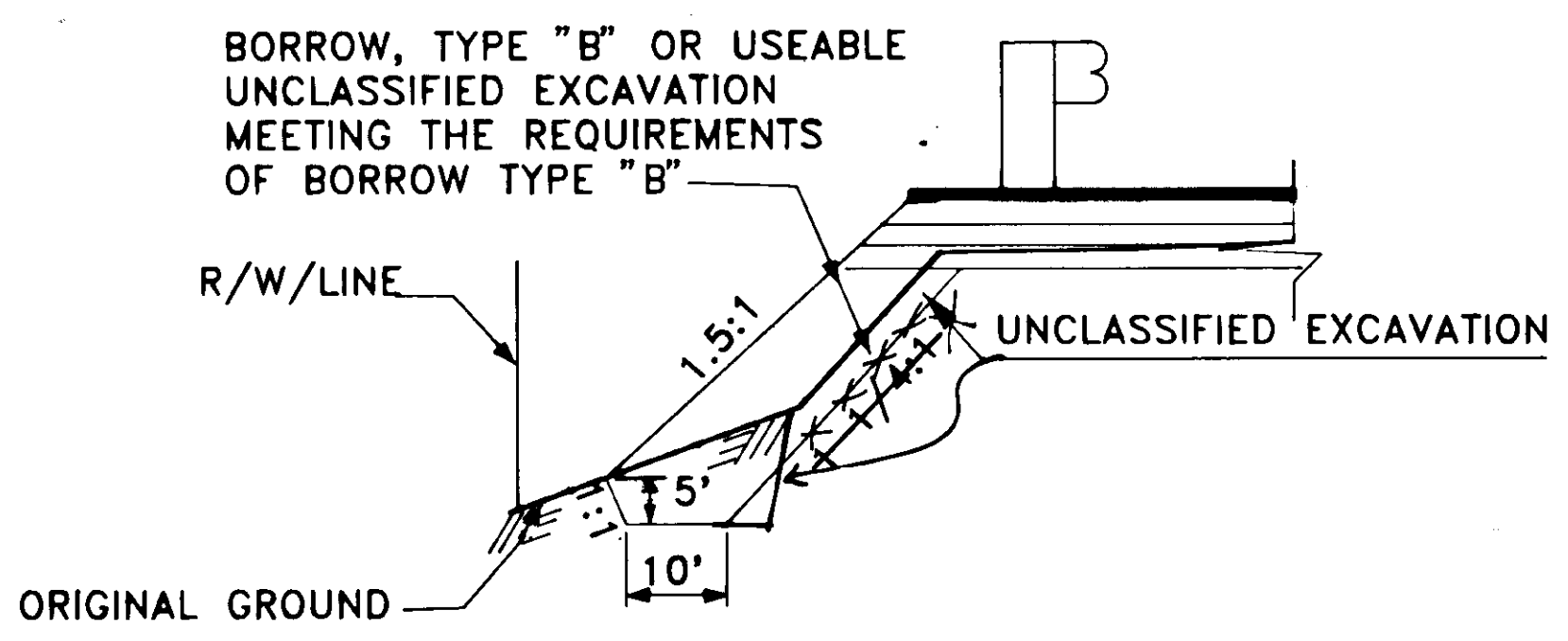




(V) EXCAVATE ROADBED DETAIL



(VI) WASTE FILL DETAIL



(VII) SHEAR KEY DETAIL  
STA. 357+90 TO 359+50

| SLOPE TABLE *              |                       |                |                    |           |           |      | SLOPE TABLE *         |                      |                         |       |           |           |          | SLOPE TABLE *      |                    |           |           |           |  |  |
|----------------------------|-----------------------|----------------|--------------------|-----------|-----------|------|-----------------------|----------------------|-------------------------|-------|-----------|-----------|----------|--------------------|--------------------|-----------|-----------|-----------|--|--|
| LEFT                       |                       |                | STATION TO STATION | RIGHT     |           | LEFT |                       |                      | STATION TO STATION      | RIGHT |           | LEFT      |          |                    | STATION TO STATION | RIGHT     |           |           |  |  |
| CUT                        |                       | FILL           |                    | CUT       |           | FILL | CUT                   |                      |                         | FILL  | CUT       |           | FILL     |                    |                    |           |           |           |  |  |
| FORESLOPE                  | BACK-SLOPE            |                |                    | FORESLOPE | BACKSLOPE |      | FORESLOPE             | BACKSLOPE            |                         |       | FORESLOPE | BACKSLOPE |          | FORESLOPE          |                    | BACKSLOPE | FORESLOPE | BACKSLOPE |  |  |
|                            |                       | II             | 338+00 TO 339+00   | 4:1       |           |      | II 2:1                | 373+00 TO 374+00     | 4:1                     |       |           | V         | DAYLIGHT | 436+50 TO 438+00   | SEE SHT. 44        | 4:1       | 1 1/4:1   |           |  |  |
|                            |                       | 4:1            | 339+00 TO 340+25   | 4:1       |           |      | II w/ 1 1/4:1         | 374+00 TO 375+00     | 4:1                     |       |           | V         |          | 438+50 TO 442+50   |                    | 4:1       | 1 1/2:1   |           |  |  |
|                            |                       | VI             | 340+25 TO 341+75   | 4:1       |           |      | II w/ 1 1/4:1         | 375+00 TO 375+50     |                         | 4:1   | 2:1       |           |          | 442+50 TO 444+00   | SEE SHT. 45        | II        |           |           |  |  |
|                            |                       |                | 341+75 TO 342+25   |           | 4:1       | 2:1  |                       | 375+50 TO 378+00     |                         | 4:1   | 2:1       |           | III      | 444+00 TO 445+50   |                    | II        |           |           |  |  |
| 3% TO DAYLITE PARKING AREA |                       | VI             | 342+25 TO 343+75   |           | 4:1       | 2:1  |                       |                      |                         |       |           |           | III      | 445+50 TO 445+87.5 |                    | II        |           |           |  |  |
|                            |                       |                |                    |           |           |      |                       |                      |                         |       |           |           | III      | 445+87.5 TO 448+50 |                    | II        |           |           |  |  |
|                            |                       |                | 343+75 TO 344+50   |           | 4:1       | 2:1  |                       | 378+00 TO 379+00     | 4:1                     |       | V         |           |          |                    |                    |           | II        |           |  |  |
|                            |                       |                | 344+50 TO 348+75   |           |           |      | IV                    | 379+00 TO 386+67     | 4:1                     |       | IV        |           |          | 448+50 TO 452+00   |                    | II        |           |           |  |  |
| 3% TO DAYLITE PARKING AREA |                       | 4:1            | 344+50 TO 348+75   |           |           |      | IV SPECIAL DITCH DET. | 386+67 TO 388+00     | 4:1                     |       | IV        |           | 4:1      | 452+00 TO 453+00   |                    | II        |           |           |  |  |
|                            |                       | 4:1            | 348+75 TO 349+00   |           |           |      | IV                    | 388+00 TO 402+42     | 4:1                     |       | IV        |           | 4:1      | 453+00 TO 453+30   | 4:1                | II        |           |           |  |  |
|                            |                       | III            | 349+00 TO 350+00   |           |           |      |                       |                      |                         |       |           |           | 4:1      | 453+30 TO 458+00   |                    | II        |           |           |  |  |
|                            | 2% TO RE-TAINING WALL |                | 350+00 TO 350+50   |           |           |      |                       | 402+42 TO 403+00     |                         |       | V         |           | V        | 458+00 TO 470+50   | 4:1                |           |           |           |  |  |
|                            | 2% TO RE-TAINING WALL |                |                    |           |           |      |                       | 404+403+00 TO 406+00 |                         |       | II        |           | V        | 470+50 TO 471+00   |                    | 4:1       | 3:1       |           |  |  |
|                            |                       |                | 350+50 TO 350+80   |           |           |      |                       | 406+00 TO 412+00     |                         |       | 4:1       | 2:1       |          |                    |                    |           |           |           |  |  |
|                            |                       | III 2:1        | 350+50 TO 350+85   |           |           |      | V                     | 412+00 TO 415+30     |                         |       | 4:1       | 2:1       |          | 4:1                | 471+00 TO 472+00   | 4:1       |           |           |  |  |
|                            |                       | III VII        | 351+00 TO 352+50   |           |           |      | V                     | 415+30 TO 419+25     |                         |       | 4:1       | 1 1/2:1   |          | 4:1                | 472+00 TO 474+25   | 4:1       | 3:1       |           |  |  |
|                            |                       | 4:1            | 352+50 TO 354+00   |           |           |      |                       | 419+25 TO 419+75     |                         |       | 4:1       | 2:1       |          | 4:1                | 474+25 TO 474+50   | 4:1       | 3:1       |           |  |  |
|                            |                       | III w/ 1 1/4:1 | 354+00 TO 355+87.5 |           |           |      | HEADWALLS SEE SHT. 12 | 419+75 TO 421+00     | SEE SHT. 12 & HEADWALLS |       |           |           |          | 4:1                | 474+50 TO 475+00   | 4:1       | 3:1       |           |  |  |
|                            |                       |                |                    |           |           |      | 2:1                   | 421+00 TO 421+30     | 4:1                     |       |           |           |          | 4:1                | 475+00 TO 478+38   | 4:1       | 1/4:1     |           |  |  |
|                            | 2% PARKING PAD DETAIL |                | 355+87.5 TO 356+25 |           |           |      |                       | 421+30 TO 421+80     | 4:1                     |       |           |           | MATCH    | 478+38             | MATCH              |           |           |           |  |  |
|                            | 4:1                   |                | 356+25 TO 357+00   |           |           |      |                       | 421+80 TO 422+50     | 4:1                     |       |           |           |          |                    |                    |           |           |           |  |  |
|                            | III & RET. WALL       |                | 357+00 TO 357+75   |           |           |      | V                     | 422+50 TO 423+50     |                         |       | 4:1       | 2:1       |          |                    |                    |           |           |           |  |  |
|                            |                       | VII            | 357+75 TO 358+25   |           |           |      | V                     | 423+50 TO 424+20     |                         |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       | VII            | 358+25 TO 359+25   |           |           |      |                       |                      |                         |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       | 4:1            | 359+25 TO 361+50   |           |           |      |                       | 424+20 TO 424+72     |                         |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       |                |                    |           |           |      |                       | 424+72 TO 425+30     |                         |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       |                | 361+50 TO 362+00   |           |           |      |                       | 425+30 TO 426+75     |                         |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       |                | 362+00 TO 363+50   |           |           |      |                       | 426+75 TO 427+70     |                         |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       |                | 363+50 TO 364+50   |           |           |      |                       | 427+70 TO 425+35     |                         |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       |                | 364+50 TO 365+50   |           |           |      |                       | 428+35 TO 429+00     | 4:1                     |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       |                | 365+50 TO 365+75   |           |           |      |                       | 429+00 TO 430+50     | 4:1                     |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       |                | 365+75 TO 367+50   |           |           |      |                       | 430+50 TO 431+00     | 4:1                     |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       | III            | 367+50 TO 368+00   |           |           |      |                       | 431+00 TO 432+25     | 3:1                     |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       |                | 368+00 TO 368+50   |           |           |      |                       | 432+25 TO 433+25     |                         |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       |                | 368+50 TO 369+00   |           |           |      |                       | 433+25 TO 433+75     |                         |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       |                | 369+00 TO 370+00   |           |           |      |                       | 433+75 TO 435+00     |                         |       |           |           |          |                    |                    |           |           |           |  |  |
|                            |                       |                | 370+00 TO 373+00   |           |           |      |                       | 435+00 TO 436+50     |                         |       |           |           |          |                    |                    |           |           |           |  |  |

LEGEND

- PAVED DITCH DETAIL
- ROCK EXCAVATION DETAIL
- GUARDRAIL PLACEMENT DETAIL
- PEAT EXCAVATION DETAIL
- EXCAVATE ROADBED DETAIL
- WASTE FILL DETAIL
- SHEAR KEY DETAIL

\* DOES NOT INCLUDE DRIVEWAY GRADES

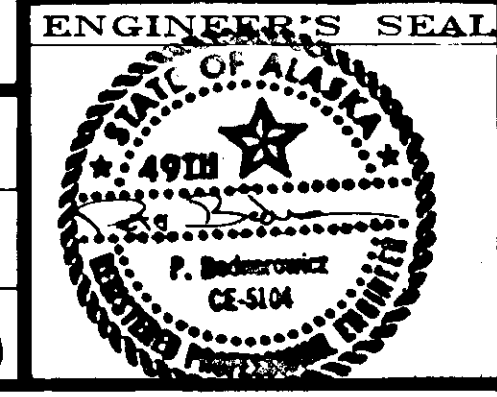
NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

|                     |          |                        |
|---------------------|----------|------------------------|
| BY:                 | DATE:    | DESCRIPTION OF CHANGE: |
| P.B./CSA            | 11/29/89 | ADDED DETAIL (VII)     |
| RECORD OF REVISIONS |          |                        |

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU-GLACIER HIGHWAY  
PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR

|                  |                |
|------------------|----------------|
| DESIGNED BY:     | SCALE          |
| E.J.C.           | NONE           |
| DRAWN BY:        | DATE:          |
| R.S./AUTOCAD/CSA |                |
| CHECKED BY:      |                |
| F. MURPHY        |                |
|                  | SHEET 3A OF 70 |

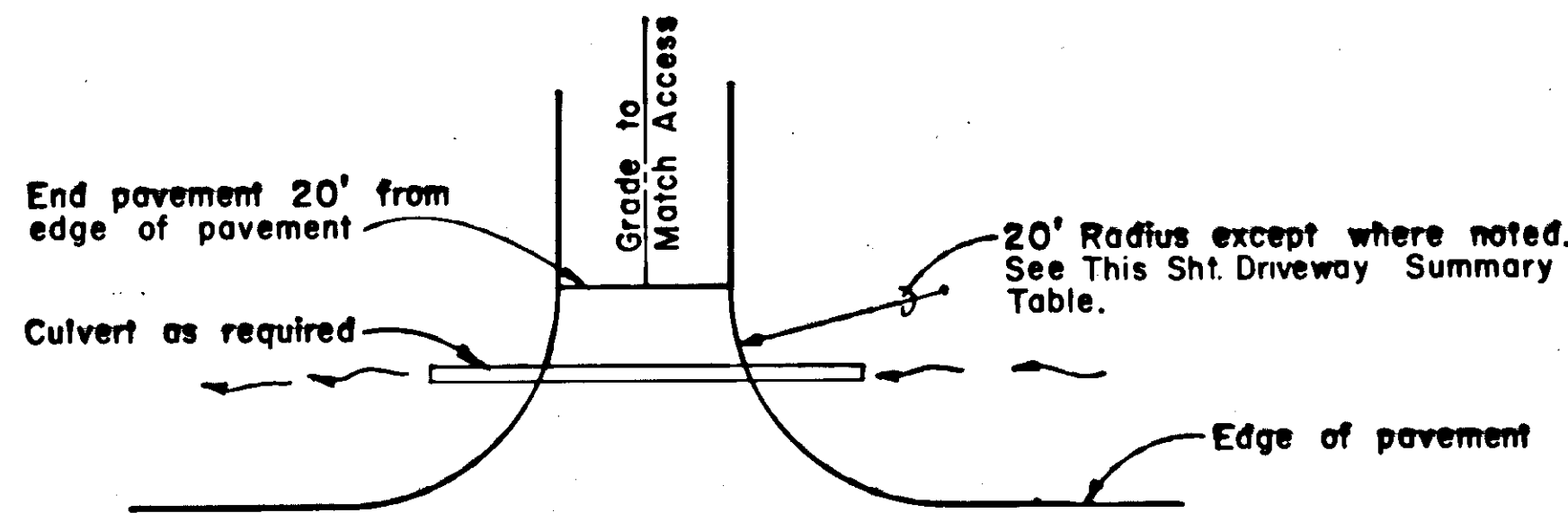


| ESTIMATE OF QUANTITIES |                                                                                         |          |                 |
|------------------------|-----------------------------------------------------------------------------------------|----------|-----------------|
| ITEM                   | DESCRIPTION                                                                             | UNIT     | TOTAL           |
| 120(1)                 | DBE ADJUSTMENT                                                                          | C.S.     | ALL REQ'D.      |
| 201(1A)                | CLEARING                                                                                | ACRE     | 9.5-6.801       |
| 201(6)                 | SELECTIVE TREE REMOVAL                                                                  | EA.      | 10-31           |
| 202(1)                 | REMOVAL OF STRUCTURES AND OBSTRUCTIONS                                                  | L.S.     | ALL REQ'D.      |
| 202(2)                 | REMOVAL OF PAVEMENT                                                                     | S.Y.     | 36,400-36,854   |
| 202(4)                 | REMOVAL OF CULVERT PIPE                                                                 | L.F.     | 3,331-3,170     |
| 202(10)                | SINGLE MAIL BOX INSTALL.                                                                | EA.      | 26              |
| 202(11)                | DOUBLE MAIL BOX INSTALL.                                                                | EA.      | 15-13           |
| 203(3)                 | UNCLASS. EXCAVATION                                                                     | C.Y.     | 81,000-83,542   |
| 203(6B)                | BORROW, TYPE "B"                                                                        | TON      | 23,000-29,926   |
| 203(6C)                | BORROW, TYPE "C"                                                                        | TON      | 37,000-43,835   |
| 203(10)                | CONTROLLED BLASTING                                                                     | L.F.     | 13,205-11,266   |
| 203(11A)               | WASHED ROCK <sup>Spawning gravel</sup> Deleted <sup>2.0.7</sup>                         | C.Y.     | 40-0            |
| 301(1)                 | CRUSHED AGGREGATE BASE COURSE                                                           | TON      | 6,000-112       |
| 304(1)                 | SUBBASE, GRADING "E"                                                                    | TON      | 32,000-38,949   |
| 308(1)                 | R.A.P. II BASE                                                                          | S.Y./IN. | 170,000-35,919  |
| 308(2)                 | R.A.P. I BASE                                                                           | S.Y./IN. | 170,000-155,216 |
| 401(1)                 | ASPHALT CONCRETE, TYPE II S.E.                                                          | TON      | 4,800-1,161     |
| 401(2)                 | AC-5 ASPHALT CEMENT                                                                     | TON      | 288-346.22      |
| 403(2)                 | CSS-1 EMULSIFIED ASPHALT FOR PRIME COAT                                                 | TON      | 42-0            |
| 504(3)                 | SOIL ANCHORS <sup>Addendum 4 Deleted</sup>                                              | EA.      | 13-0            |
| 506(5A)                | Additional Stairway Modifications <sup>20.9</sup>                                       | L.S.     | ALL REQ'D.      |
| 506(5)                 | STAIRWAY ADJUSTMENT                                                                     | L.S.     | ALL REQ'D.      |
| 506(6A)                | Additional Parking Pad Adjustment <sup>20.9</sup>                                       | L.S.     | ALL REQ'D.      |
| 506(6)                 | PARKING PAD ADJUSTMENT                                                                  | L.S.     | ALL REQ'D.      |
| 510(1)                 | STEEL BIN WALLS <sup>Addendum 4 Deleted</sup>                                           | EA.      | 900-0           |
| 511(1)                 | MECHANICALLY STABILIZED EMBANKMENTS <sup>Addendum 4 Retaining Wall</sup>                | S.F.     | 1,000-24,332    |
| 512(2)                 | ROCKERY WALL <sup>Counter Wall</sup> <sup>2.0.3</sup>                                   | S.Y.     | 242.7-975-631.7 |
| 512(1)                 | ROCKERY WALL                                                                            | S.Y.     | 910             |
| 602(1)                 | STRUCTURAL PLATE PIPE 72" DIA., 12 GAUGE <sup>Retaining Wall "B"</sup> <sup>2.0.5</sup> | L.F.     | 98-102.86       |
| 603(17-18)             | 18 INCH PIPE                                                                            | L.F.     | 1,768-2,034.7   |
| 603(17-24)             | 24 INCH PIPE                                                                            | L.F.     | 2,642-2,628     |
| 603(17-36)             | 36 INCH PIPE                                                                            | L.F.     | 301-318         |
| 603(17-48)             | 48 INCH PIPE                                                                            | L.F.     | 164             |

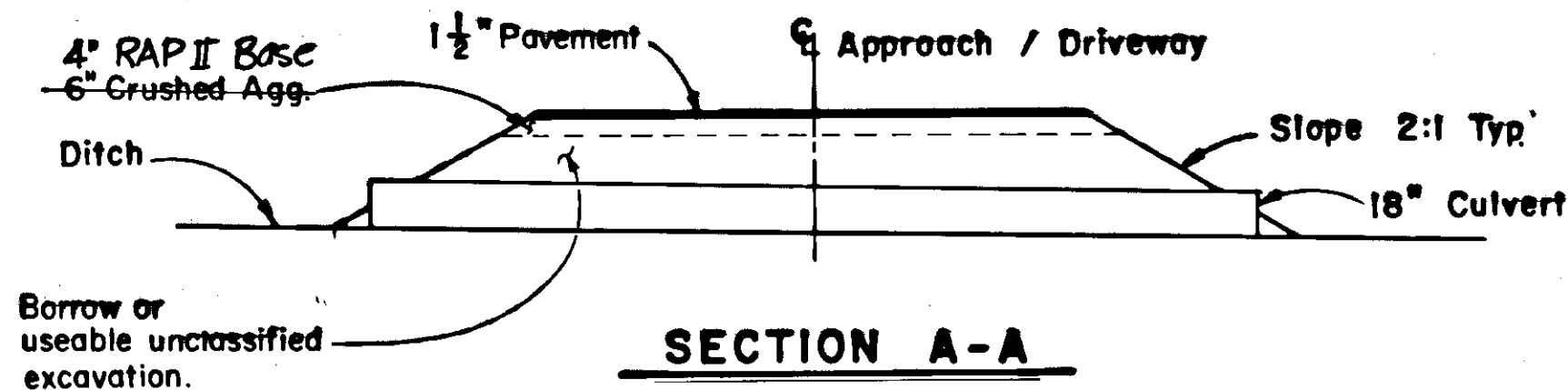
| ESTIMATE OF QUANTITIES |                                                  |              |                |
|------------------------|--------------------------------------------------|--------------|----------------|
| ITEM                   | DESCRIPTION                                      | UNIT         | TOTAL          |
| 605(9)                 | Residence Underdrain <sup>2.0.15</sup>           | L.S.         | ALL REQ'D.     |
| 605(8)                 | Retaining Wall Underdrain <sup>2.0.5</sup>       | L.F.         | 136            |
| 606(8)                 | Guardrail Posts, 7' Length <sup>2.0.10</sup>     | L.S.         | ALL REQ'D.     |
| 606(9)                 | Reconstruct Existing Guardrail <sup>2.0.10</sup> | L.S.         | ALL REQ'D.     |
| 604(5)                 | INLET TYPE "B"                                   | EA.          | 11             |
| 605(7)                 | MODIFIED UNDERDRAIN SYSTEM                       | L.F.         | 1,900-1,764    |
| 606(1)                 | W-BEAM GUARDRAIL                                 | L.F.         | 1,725-1,843.75 |
| 606(5)                 | REMOVAL AND DISPOSAL OF GUARDRAIL                | L.F.         | 135-537.5      |
| 606(6)                 | END ANCHORAGES                                   | EA.          | 18-22          |
| 607(7)                 | Chain Link Fence <sup>2.0.14</sup>               | L.S.         | ALL REQ'D.     |
| 611(1)                 | RIPRAP, CLASS I                                  | C.Y.         | 360-256        |
| 611(2)                 | Riprap, class III <sup>2.0.12</sup>              | L.S.         | ALL REQ'D.     |
| 613(1)                 | RIGHT OF WAY MONUMENTS                           | EA.          | 11-10          |
| 614(1)                 | SURVEY MONUMENTS                                 | EA.          | 19-18          |
| 614(2)                 | MONUMENT CASES                                   | EA.          | 19-18          |
| 615(1)                 | STANDARD SIGN                                    | SQ.FT.       | 322.4-341.2    |
| 618(1)                 | SEEDING                                          | ACRE         | 9.995-13.8     |
| 618(3)                 | WATER FOR SEEDING                                | M. GAL.      | 30-12          |
| 619(3)                 | Soil Stabilization Matting <sup>2.0.2</sup>      | S.Y.         | 2,510          |
| 625(1)                 | PIPE HAND RAIL                                   | L.F.         | 115-95         |
| 626(2)                 | Repair Existing Septic System <sup>2.0.12</sup>  | L.S.         | ALL REQ'D.     |
| 627(1)                 | Water System Repairs <sup>2.0.15</sup>           | L.S.         | ALL REQ'D.     |
| 639(1)                 | RESIDENCE DRIVEWAYS                              | EA.          | 71-82          |
| 640(1)                 | MOBILIZATION AND DEMOBILIZATION                  | L.S.         | ALL REQUIRED   |
| 641(1)                 | TEMPORARY EROSION AND POLLUTION CONTROL          | C.S.         | ALL REQUIRED   |
| 642(1)                 | CONSTRUCTION SURVEYING                           | L.S.         | ALL REQUIRED   |
| 642(2)                 | THREE PERSON SURVEY PARTY                        | HOUR         | 10-54.17       |
| 643(2)                 | TRAFFIC MAINTENANCE                              | L.S.         | ALL REQUIRED   |
| 643(3)                 | PERMANENT CONSTRUCTION SIGNING                   | EACH PER DAY | 1,620-2,637    |
| 643(4)                 | CONSTRUCTION SIGN                                | EACH PER DAY | 4,000-2,823    |
| 643(11)                | Portable Concrete Barrier <sup>Addendum 2</sup>  | Each Per Day | 1,179          |
| 643(5)                 | TYPE II BARRICADE                                | EACH PER DAY | 2,400-1,841    |
| 643(6)                 | TYPE III BARRICADE                               | EACH PER DAY | 150-67         |
| 643(7)                 | TRAFFIC CONE                                     | EACH PER DAY | 8,000-18,009   |
| 643(13)                | TEMP. PAVEMENT MARKING                           | STATION      | 274-158.8      |
| 643(15)                | FLAGGING                                         | MAN-HOUR     | 5,000-6,747.5  |

| ESTIMATE OF QUANTITIES |                                                 |          |              |
|------------------------|-------------------------------------------------|----------|--------------|
| ITEM                   | DESCRIPTION                                     | UNIT     | TOTAL        |
| 643(18)                | WATERING                                        | M-GAL    | 400-233.5    |
| 660(6B)                | Traffic Counter Modifications <sup>2.0.6</sup>  | L.S.     | ALL REQ'D.   |
| 644(1)                 | FIELD OFFICE                                    | L.S.     | ALL REQUIRED |
| 644(2)                 | FIELD LABORATORY                                | L.S.     | ALL REQUIRED |
| 645(1)                 | TRAINING PROGRAM                                | MAN HOUR | 1,000-0      |
| 660(6A)                | RELOCATE TRAFFIC COUNT SYSTEM COMPLETE          | L.S.     | ALL REQUIRED |
| 670(1)                 | PAINTED TRAFFIC MARKINGS                        | L.S.     | ALL REQUIRED |
| 670(1A)                | Additional Turn Lane Striping <sup>2.0.12</sup> | L.S.     | ALL REQ'D.   |
| 670(8)                 | RECESSED PAVEMENT MARKERS                       | EA.      | 274-307      |
| 681(1)                 | ELECTRICAL POWER RELOCATION                     | L.S.     | ALL REQUIRED |
| 681(2)                 | Overhead Utility Modifications <sup>2.0.6</sup> | L.S.     | ALL REQ'D.   |
| 20.03(1)               | Additional Rock Trenching <sup>2.0.8</sup>      | L.S.     | ALL REQ'D.   |
| 60.01(1.8)             | 8-INCH D.I. WATER PIPE                          | L.F.     | 24-0         |
| 60.01(1.12)            | 12-INCH D.I. WATER PIPE                         | L.F.     | 70-120       |
| 60.01(1.16)            | 16-INCH D.I. WATER PIPE                         | L.F.     | 4300-4,740   |
| 60.01(2.8)             | 8-INCH D.I. RESTRAINED JOINT WATER PIPE         | L.F.     | 325-347      |
| 60.01(2.16)            | 16-INCH D.I. RESTRAINED JOINT WATER PIPE        | L.F.     | 2970-2,520   |
| 60.01(3)               | AS-BUILT WATER SYSTEM PLANS                     | L.S.     | ALL REQ'D    |
| 60.02(1-6)             | 6-INCH GATE VALVE                               | EA.      | 6            |
| 60.02(1-8)             | 8-INCH GATE VALVE                               | EA.      | 4            |
| 60.02(1-12)            | 12-INCH GATE VALVE                              | EA.      | 2            |
| 60.02(2-16)            | 16-INCH BUTTERFLY VALVE                         | EA.      | 8            |
| 60.03(1)               | FIRE HYDRANT ASSEMBLY                           | EA.      | 12           |
| 60.04(1)               | AIR RELEASE VALVE                               | EA.      | 1            |
| 60.05(1-1)             | 1-INCH WATER SERVICE                            | EA.      | 56-58        |
| 60.05(1-2)             | 2-INCH WATER SERVICE                            | EA.      | 10-9         |
| 60.05(2)               | COPPER EXTENSIONS                               | EA.      | 22           |
| 60.05(3)               | INSULATED EXTENSIONS                            | EA.      | 8-9          |
| 60.07(1)               | PIPE INSULATION                                 | L.F.     | 1580-1,074   |
| 60.03(1A)              | Fire Hydrant Leg Extension <sup>2.0.8</sup>     | L.S.     | ALL REQ'D.   |
| 60.03(1B)              | Fire Hydrant Sub-Drain                          | L.S.     | ALL REQ'D.   |
| 60.04(1A)              | Air Release Vault Drain                         | L.S.     | ALL REQ'D.   |
| 60.05(1-1A)            | Relocate Curb Box <sup>2.0.8</sup>              | L.S.     | ALL REQ'D.   |
| 60.05(1-1B)            | Water Service Trench Drain                      | L.S.     | ALL REQ'D.   |
| 60.05(3A)              | Insulated Extension Thaw Wires <sup>2.0.8</sup> | L.S.     | ALL REQ'D.   |

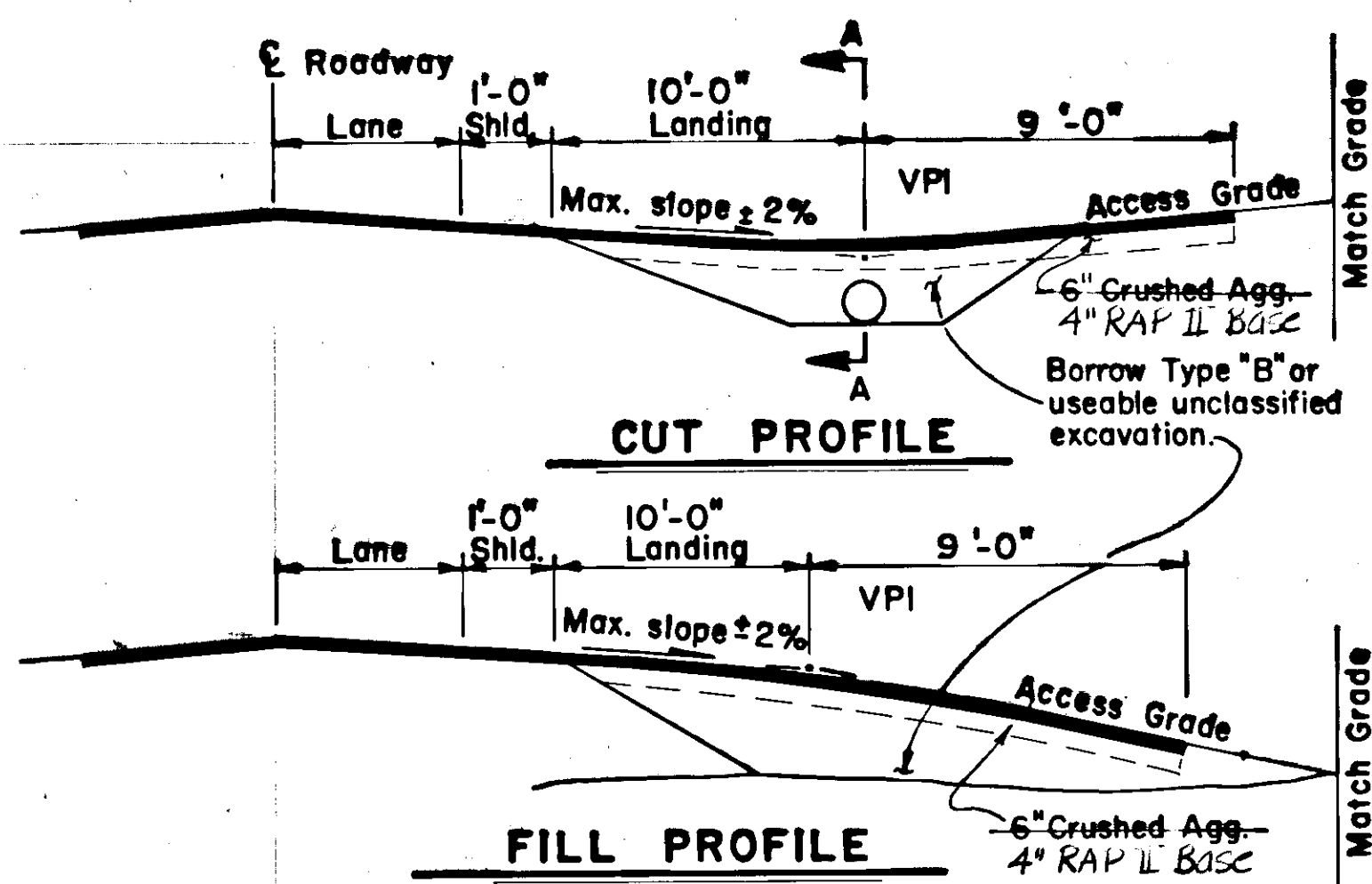
|                     |  |      |                       |                                                                                                               |  |                                                                           |  |                                                                                                                                              |  |                                                                             |  |                                              |  |                                                                                                              |  |  |  |
|---------------------|--|------|-----------------------|---------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------|--|----------------------------------------------|--|--------------------------------------------------------------------------------------------------------------|--|--|--|
| BY                  |  | DATE | DESCRIPTION OF CHANGE | STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  | ESTIMATE OF QUANTITIES<br>POINT LOUISA TO TEE HARBOR<br>PROJECT NO. 69845 |  | APPROVED BY: _____<br>DESIGNED BY: _____<br>RECOMMENDED BY: _____<br>DESIGN ENGINEER, GROUP # _____<br>PREPARED BY: _____<br>PROJECT MANAGER |  | DESIGNED BY: _____<br>DRAWN BY: _____<br>CHECKED BY: _____<br>LEAD DESIGNER |  | SCALE: _____<br>DATE: _____<br>SHEET 4 OF 70 |  | ENGINEER'S STAMP<br>STATE OF ALASKA<br>49TH<br>P. Bodnarowicz<br>CE-5104<br>REGISTERED PROFESSIONAL ENGINEER |  |  |  |
| RECORD OF REVISIONS |  |      |                       |                                                                                                               |  |                                                                           |  |                                                                                                                                              |  |                                                                             |  |                                              |  |                                                                                                              |  |  |  |



TYPICAL DRIVEWAY



SECTION A-A



DRIVEWAY PROFILES

# DRIVEWAY SUMMARY

| "0" STATION | OFFSET |     | RADIUS |     | WIDTH     | REMARKS                                                  |
|-------------|--------|-----|--------|-----|-----------|----------------------------------------------------------|
|             | LT.    | RT. | LT.    | RT. |           |                                                          |
| 339+65      |        | X   | 20'    | 20' | 14'       |                                                          |
| 341+96      |        | X   | 20'    | 20' | 14' 18"   |                                                          |
| 344+95      |        | X   | 20'    | 20' | 14'       |                                                          |
| 345+56      | X      |     | 20'    |     | 14' 17"   |                                                          |
| 345+80      | X      |     | 20'    |     | 14' 17"   |                                                          |
| 346+81      | X      |     | 20'    | 20' | 14' 90"   | PAVE TO EXIST. PAVED PARKING.                            |
| 346+87      |        | X   | 20'    | 20' | 14' 12"   |                                                          |
| 347+93      | X      |     | 20'    | 20' | 14' 18"   |                                                          |
| 350+23      |        | X   | 20'    | 20' | 14' 16.5" |                                                          |
| 353+83      |        | X   | 7'     | 40' | 14' 12"   |                                                          |
| 356+01      | X      |     | 13'    | 13' | 20' 22"   | PAVE TO EXIST. PAD APPROX. 6' FROM SHOULDER              |
| 356+50      | X      |     |        |     | 22.5'     |                                                          |
| 356+44      | X      |     | 13'    | 2'  | 14' 10"   |                                                          |
| 360+05      |        | X   | 7'     | 6'  | 14' 12"   | PAVE BOTH DRIVEWAYS APPROX. 7' FROM SHOULDER. SEE PLANS. |
| 363+73      | X      |     | 6'     | 6'  | 14' 12"   | PAVE BOTH DRIVEWAYS APPROX. 21'. See Detail Sht. 43      |
| 364+20      |        | X   | 20'    | 6'  | 14' 13'   |                                                          |
| 365+23      | X      |     | 20'    | 6'  | 14' 12"   | REPAVE 75' TO EXIST. PAVED DRIVEWAY.                     |
| 366+33      |        | X   | 20'    | 20' | 14' 14.5" |                                                          |
| 367+59      |        | X   | 20'    | 20' | 14' 18.5" |                                                          |
| 368+49      |        | X   | 20'    | 20' | 14' 17"   |                                                          |
| 369+93      | X      |     | 5'     | 20' | 14' 13'   | PAVE APPROX. 25'                                         |
| 370+83      | X      |     | 20'    | 10' | 14' 35.5" |                                                          |
| 371+85      |        | X   | 20'    | 5'  | 14' 13'   |                                                          |
| 372+15      |        | X   | 20'    | 20' | 24' 27"   | LEE DRIVE                                                |
| 373+67      |        | X   | 20'    | 20' | 14' 12"   |                                                          |
| 375+92      | X      |     | 20'    | 20' | 14' 12"   |                                                          |
| 377+24      |        | X   | 20'    | 20' | 14'       | Deleted                                                  |
| 378+03      |        | X   | 20'    | 20' | 14' 17"   |                                                          |
| 378+52      |        | X   |        |     | 21'       |                                                          |
| "LLS" 10+85 | X      |     | 20'    | 20' | 14'       |                                                          |
| 381+32      |        | X   | 20'    | 20' | 14' 21"   |                                                          |
| 384+48      |        | X   | 20'    | 20' | 24' 30.5" |                                                          |
| 386+84      |        | X   | 20'    | 20' | 14' 15'   |                                                          |
| 388+18      |        | X   | 20'    | 20' | 14'       |                                                          |
| 390+24      |        | X   | 20'    | 20' | 14' 14.5" |                                                          |
| 394+45      |        | X   | 20'    | 20' | 14' 14.5" |                                                          |
| 397+15      |        | X   | 20'    | 20' | 14' 15'   |                                                          |
| 399+32      |        | X   | 20'    | 20' | 14' 15.5" |                                                          |
| 401+00      |        | X   | 20'    | 20' | 14' 15'   |                                                          |
| 402+02      |        | X   | 20'    | 20' | 14' 15'   |                                                          |

|        |   |   |     |     |           |                                                                    |
|--------|---|---|-----|-----|-----------|--------------------------------------------------------------------|
| 421+23 | X |   | 20' | 20' | 14' 15'   |                                                                    |
| 422+16 |   | X | 20' | 12' | 14' 14.5" |                                                                    |
| 422+50 |   | X | 12' | 20' | 14'       |                                                                    |
| 423+40 |   | X | 20' | 20' | 14'       |                                                                    |
| 424+10 |   | X |     |     |           | REMOVE DRIVE                                                       |
| 424+48 | X |   | 20' | 20' | 14'       |                                                                    |
| 425+22 | X |   | 20' | 20' | 14' 15'   |                                                                    |
| 426+94 | X |   | 20' | 20' | 14'       |                                                                    |
| 427+69 |   | X | 20' | 20' | 14' 12.5" |                                                                    |
| 429+00 | X |   | 20' | 20' | 14'       |                                                                    |
| 430+12 |   | X | 20' | 20' | 14'       |                                                                    |
| 430+41 | X |   | 50' | 20' | 14' 16"   | See Detail, Sht. 43                                                |
| 430+74 |   | X | 20' | 20' | 14' 14.5" | PAVE 20', GRADE APPROX. 75' TO MATCH EXIST., & GRADE PARKING AREA. |
| 431+16 | X |   |     | 6'  | 20' 21"   | PAVE 8' TO MATCH.                                                  |
| 431+94 | X |   |     | 6'  | 24'       | PAVE 25' TO MATCH.                                                 |
| 433+18 | X |   | 12' | 12' | 24' 76"   | PAVE APPROX. 12' TO MATCH DECK.                                    |
| 433+92 | X |   | 12' | 12' | 28' 79"   | PAVE APPROX. 12' TO MATCH DECK.                                    |
| 433+93 |   | X |     |     |           | REMOVE DRIVE                                                       |
| 434+81 | X |   | 20' | 20' | 46' 51"   | PAVE APPROX. 13' TO MATCH DECK.                                    |
| 436+17 | X |   | 20' | 20' | 36' 40"   | PAVE APPROX. 11' TO MATCH DECK.                                    |
| 437+57 | X |   | 18' | 18' | 23' 24"   | PAVE APPROX. 16' TO MATCH DECK.                                    |
| 438+10 |   | X | 20' | 11' | 16' 9.5"  | See Detail, Sht. 44                                                |
| 440+21 | X |   | 20' | 20' | 18' 25"   | PAVE APPROX. 28' TO MATCH DECK.                                    |
| 440+46 | X |   |     |     | 10.5'     |                                                                    |
| 442+13 | X |   | 20' | 10' | 14'       |                                                                    |
| 450+53 |   | X |     |     | 15'       |                                                                    |
| 443+08 | X |   | 20' | 20' | 28' 29"   | PAVE APPROX. 28' TO MATCH DECK.                                    |
| 455+88 | X |   |     |     | 15'       |                                                                    |
| 443+69 | X |   | 20' | 5'  | 14' 11.5" | PAVE APPROX. 20' & GRADE APPROX. 45' TO MATCH EXIST.               |
| 466+87 | X |   |     |     | 14'       |                                                                    |
| 444+35 |   | X | 20' | 20' | 14' 13.5" | See Detail, Sht. 43                                                |
| 445+35 |   | X | 20' | 20' | 24' 27.5" |                                                                    |
| 469+90 | X |   |     |     | 24'       |                                                                    |
| 447+42 |   | X | 20' | 20' | 14' 13.5" |                                                                    |
| 448+86 | X |   | 20' | 20' | 14' 17.5" |                                                                    |
| 478+33 |   | X |     |     | 17.5'     |                                                                    |
| 450+15 | X |   | 20' | 7'  | 14' 15"   | PAVE APPROX. 20' & GRADE TO MATCH. See Detail, Sht. 45             |
| 454+32 | X |   | 20' | 20' | 14' 16"   |                                                                    |
| 457+00 | X |   | 20' | 20' | 14' 17"   | GRADE TO MATCH.                                                    |
| 460+14 | X |   | 12' | 20' | 14' 55.5" | PAVE APPROX. 20' & GRADE APPROX. 50' TO MATCH EXIST.               |
| 461+29 |   | X | 20' | 20' | 24' 25"   | ANDREANOFF DR.                                                     |
| 462+62 | X |   | 20' | 20' | 14' 15"   |                                                                    |
| 464+88 | X |   | 20' | 20' | 14' 15"   |                                                                    |
| 465+84 |   | X | 20' | 20' | 14'       |                                                                    |
| 474+20 |   | X | 20' | 20' | 24' 30.5" | LYNN CANAL. FIRE STATION.                                          |

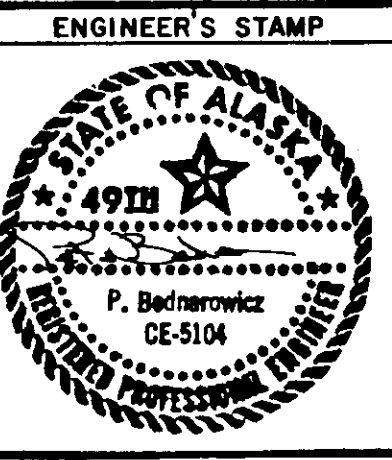
## INTERSECTION SUMMARY

|        |   |  |     |     |     |                                                         |
|--------|---|--|-----|-----|-----|---------------------------------------------------------|
| 378+79 | X |  | 75' | 50' | 24' | PT. LENA LOOP RD. (SOUTH) PAVE 50'. See Detail, Sht. 46 |
| 409+14 | X |  | 75' | 50' | 24' | PT. LENA LOOP RD. (NORTH) PAVE 50'. See Detail, Sht. 47 |
| 417+74 | X |  | 30' | 30' | 22' | PT. LENA LOOP SPUR (PICNIC GROUNDS).                    |
| 474+20 | X |  | 60' | 50' | 24' | ("T" HARBOR) PT. STEPHENS RD. See Detail, Sht. 47       |
|        |   |  |     |     |     | PAVE 50'.                                               |

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR

|                 |              |               |
|-----------------|--------------|---------------|
| APPROVED BY:    | DESIGNED BY: | SCALE:        |
| RECOMMENDED BY: | M.B.         | NONE          |
| PREPARED BY:    | DRAWN BY:    | DATE:         |
| PROJECT MANAGER | W.A.         |               |
| LEAD DESIGNER   | CHECKED BY:  | SHEET 5 OF 70 |
|                 | P.B.         |               |





| REMOVAL OF STRUCTURES AND OBSTRUCTIONS |      |                        |
|----------------------------------------|------|------------------------|
| STATION                                | SIDE | DESCRIPTION            |
| 350+55 to 350+85                       | LT.  | LOG RETAINING WALL     |
| 350+10                                 | LT.  | WOOD PARKING PAD       |
| 351+50                                 | LT.  | FUEL TANK              |
| 353+60                                 | LT.  | PROPANE TANK           |
| 354+10                                 | LT.  | WOOD PLANKS AND GARDEN |
| 354+90                                 | LT.  | SUPPLY RAMP            |
|                                        |      |                        |
| 358+50                                 | LT.  | OIL TANK               |
| 371+80                                 | LT.  | BUS SHELTER            |
| 421+55                                 | LT.  | BUS SHELTER            |
| 429+25                                 | LT.  | SHED                   |
|                                        |      |                        |
| 429+80                                 | RT.  | GARBAGE CAN DECK       |
| 432+80                                 | LT.  | GARBAGE CAN DECK       |
| 454+20                                 | LT.  | BOAT SHED              |

| WOOD STAIR ADJUSTMENT |      |                                                             |
|-----------------------|------|-------------------------------------------------------------|
| STATION               | SIDE | DESCRIPTION                                                 |
| 350+28                | LT.  | RELOCATE AND REPLACE 65 L.F. SEE PLAN AND PROFILE SHEETS    |
| 350+85                | LT.  | Replace top stairs and landing.                             |
| 352+70                | LT.  | REPLACE TOP 28 L.F. STAIRS                                  |
| 359+90                | LT.  | Replace top of stairs.                                      |
| 355+80                | LT.  | EXTEND AND REPLACE LANDING                                  |
| 371+00                | LT.  | Replace top of stairs & extend lighting system.             |
| 361+80                | LT.  | EXTEND AND REPLACE LANDING and lighting system.             |
|                       |      |                                                             |
| 354+00                | LT.  | REPLACE TOP 30 L.F. STAIRS AND WOODEN TRAM, and lift cable. |
|                       |      |                                                             |
| 360+15                | LT.  | REPLACE TOP 20 L.F. STAIRS                                  |

STAIRWAY ADJUSTMENT NOTES

1. STAIRWAYS SHALL BE MODIFIED IN ACCORDANCE WITH STANDARD DRAWING M-05.00 EXCEPT THE WIDTH SHALL BE THE SAME AS EXISTING.

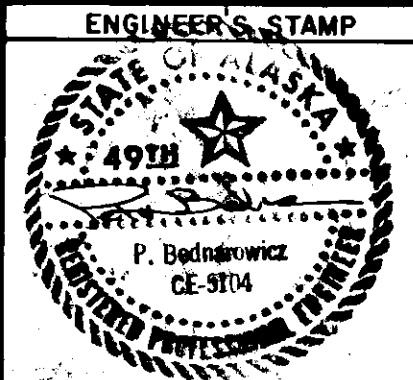
| CULVERT REMOVAL SUMMARY |           |        |   |     |           |               |        |   |     |
|-------------------------|-----------|--------|---|-----|-----------|---------------|--------|---|-----|
| STATION                 | LENGTH    | OFFSET |   |     | STATION   | LENGTH        | OFFSET |   |     |
|                         |           | LT.    | ℄ | RT. |           |               | LT.    | ℄ | RT. |
| 339+65                  | 30'       |        |   | 20' | 424+20    | 24'           |        |   | 17' |
| 341+35                  | 54'       |        | ℄ |     | 424+80    | 50'           |        | ℄ |     |
| 341+95                  | 24'       |        |   | 20' | 427+70    | 20'           |        |   | 25' |
| 344+25                  | 50'       |        | ℄ |     | 428+45    | 60'           |        | ℄ |     |
| 346+85                  | -104'-13' |        | ℄ |     | 430+45    | -44'-45'      |        | ℄ |     |
| 344+90                  | 24'       |        |   | 20' | 430+65    | 38'           |        |   | 75' |
| 347+50                  | -64'-68'  |        | ℄ |     |           |               |        |   |     |
| 349+00                  | -54'-57'  |        | ℄ |     | 430+85    | 20'           |        |   | 24' |
| 352+15                  | 46'       |        | ℄ |     | 432+65    | 54'           |        | ℄ |     |
| 353+50                  | -60'-59'  |        |   | 23' | 433+55    | 50'           |        | ℄ |     |
| 355+60                  | -54'-52'  |        | ℄ |     | 433+65    | 34'           |        |   | 30' |
|                         |           |        |   |     | 433+80    | 30'           |        |   | 3'  |
| 362+35                  | -60'-57'  |        | ℄ |     | 435+50    | 46'           |        | ℄ |     |
| 364+15                  | -34'-36'  |        |   | 20' | 436+65    | 50'           |        | ℄ |     |
| 365+50                  | -84'-52'  |        | ℄ |     | 440+55    | 52'           |        | ℄ |     |
| 366+30                  | -30'-33'  |        |   | 20' | 442+15    | 24'           |        |   | 1'  |
| 367+60                  | 25'       |        |   | 20' | 444+75    | -54'-57'      |        | ℄ |     |
|                         |           |        |   |     | 445+35    | 30'           |        |   | 33' |
| 368+00                  | -50'-53'  |        | ℄ |     |           |               |        |   |     |
| 368+45                  | 28'       |        |   | 22' | 447+70+60 | -54'-50'      |        | ℄ |     |
| 373+50                  | -60'-20'  |        | ℄ |     | 450+20+10 | 50'           |        | ℄ |     |
| 373+70                  | -70'-50'  |        |   | 22' | 453+17    | 45'           |        | ℄ |     |
| 378+10                  | 30'       |        |   | 40' | 459+15    | -50'-45'      |        | ℄ |     |
|                         |           |        |   |     | 460+10    | 54'           |        | ℄ |     |
| 379+35                  | 60'       |        | ℄ |     |           |               |        |   |     |
| 380+10                  | 32'       |        |   | 54' |           |               |        |   |     |
| 381+35                  | -32'-30'  |        |   | 50' | 461+30    | 40'           |        |   | 30' |
| 384+50                  | 44'       |        |   | 57' | 463+65    | 50'           |        | ℄ |     |
| 386+65                  | 54'       |        | ℄ |     | 465+55    | 64'           |        | ℄ |     |
| 386+68                  | 54'       |        | ℄ |     | 468+80    | 50'           |        | ℄ |     |
| 394+40                  | 24'       |        |   | 35' | 470+90    | 60'           |        |   | 20' |
| 386+90                  | 24'       |        |   | 55' | 473+93    | -64'-65'      |        | ℄ |     |
| 390+25                  | 30'       |        |   | 40' | 474+25    | 40'           |        |   | 12' |
| 394+50                  | -26'-30'  |        |   | 35' | 478+38    | 45'           |        |   | 20' |
| 394+70+60               | 60'       |        | ℄ | 60' |           |               |        |   |     |
| 397+25+10               | 20'       |        | ℄ | 60' |           |               |        |   |     |
| 398+45                  | -60'-55'  |        | ℄ |     |           |               |        |   |     |
| 399+40                  | 20'       |        |   | 60' | TOTAL     | 3,170'-3,331' |        |   |     |
| 402+15                  | -24'-22'  |        |   | 58' |           |               |        |   |     |
| 402+45                  | 54'       |        | ℄ |     |           |               |        |   |     |
| 403+55+45               | -50'-54'  |        | ℄ |     |           |               |        |   |     |
| 409+22                  | 94'       |        | ℄ |     |           |               |        |   |     |
| 411+70                  | 50'       |        | ℄ |     |           |               |        |   |     |
| 414+95                  | 50'       |        | ℄ |     |           |               |        |   |     |
|                         |           |        |   |     |           |               |        |   |     |
| 418+70                  | 54'       |        | ℄ |     |           |               |        |   |     |
| 420+40                  | 80'       |        | ℄ |     |           |               |        |   |     |
| 422+25                  | 20'       |        |   | 28' |           |               |        |   |     |
| 422+55                  | -20'-22'  |        |   | 27' |           |               |        |   |     |
| 423+50                  | -28'-24'  |        |   | 16' |           |               |        |   |     |

| MAILBOX SUMMARY |     |     |        |                  |         |
|-----------------|-----|-----|--------|------------------|---------|
| STATION         | LT. | RT. | SINGLE | DOUBLE (NO. EA.) | REMARKS |
|                 |     |     |        |                  |         |
|                 |     |     |        |                  | Station |
| 341+80          |     | X   |        | 1                | 342+15  |
| 345+32          | X   | X   |        | 1                | 345+40  |
| 346+99          |     | X   | X      |                  | 347+00  |
| 347+12          |     | X   | X      |                  | 347+00  |
| 350+02          |     | X   | -X-    | 1                | 354+00  |
|                 |     |     |        |                  | 360+15  |
| 353+95          |     | X   | X      |                  |         |
| 359+80          |     | X   |        | 1                |         |
| 361+72          | X   |     | X      |                  | 361+90  |
| 363+90          | X   |     |        | -2-1             | 363+50  |
| 364+00          |     | X   | X      |                  | 364+00  |
| 365+02          | X   |     | -X-    | -3-1             | 365+02  |
|                 |     |     |        |                  |         |
| 368+47          | X   |     | X      |                  | 370+10  |
| 370+20          | X   |     | X      |                  | 370+45  |
| 371+78          | X   |     | X      | -2-1             | 371+85  |
| 375+79          | X   |     | X      |                  | 375+75  |
| 394+21          |     | X   | -X-    | -2-1             | 394+60  |
| 399+50          |     | X   | X      |                  | 399+50  |
|                 |     |     |        |                  |         |
| 421+10          | X   |     | X      |                  | 421+50  |
| 424+95          | X   |     | X      |                  | 425+00  |
| 427+55          |     | X   | X      |                  | 427+90  |
| 428+65          | X   |     |        | -2-1             | 428+00  |
| 429+97          |     | X   | X      |                  | 429+85  |
| 430+95          | X   |     |        | 2-1              |         |
| 432+00          | X   |     | X      |                  | 430+75  |
|                 |     |     |        |                  |         |
| 432+90          |     | X   | X      | 2                | 430+85  |
| 433+70          | X   |     |        | 1                |         |
| 434+70          | X   |     | X      |                  | 432+80  |
| 436+45          | X   |     | X      |                  | 434+45  |
| 442+90          | X   |     | X      |                  | 435+25  |
| 444+62          |     | X   | X      | (2) 1            | 438+40  |
|                 |     |     |        |                  |         |
| 447+56          |     | X   |        | 1                | 445+61  |
| 448+68          | X   |     | X      | -1-              | 447+55  |
| 450+53          | X   |     | X      |                  | 448+60  |
| 454+46          | X   |     | X      |                  | 450+30  |
|                 |     |     |        |                  | 454+50  |
|                 |     |     |        |                  |         |
| 456+80          | X   |     | X      |                  | 456+75  |
| 460+90          |     | X   |        | (3) 1-2          | 460+70  |
| 462+90          | -X- | X   | X      |                  | 463+30  |
|                 |     |     |        |                  |         |
|                 |     |     |        |                  |         |
| TOTAL           |     |     | 26     | 13 15            |         |

|                                                  |      |                       |
|--------------------------------------------------|------|-----------------------|
| STATE OF ALASKA                                  |      |                       |
| DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES |      |                       |
| SOUTHEAST REGION DESIGN & CONSTRUCTION           |      |                       |
| BY                                               | DATE | DESCRIPTION OF CHANGE |
| RECORD OF REVISIONS                              |      |                       |

POINT LOUISA TO TEE HARBOR  
SUMMARY SHEET

|                 |               |               |
|-----------------|---------------|---------------|
| APPROVED BY:    | DESIGNED BY:  | SCALE:        |
| RECOMMENDED BY: | DRAWN BY:     | DATE:         |
| PREPARED BY:    | CHECKED BY:   | SHEET 7 OF 70 |
| PROJECT MANAGER | LEAD DESIGNER |               |



| SIGN SUMMARY |                             |                     |     |          |                         |       |           |           |                |                 |
|--------------|-----------------------------|---------------------|-----|----------|-------------------------|-------|-----------|-----------|----------------|-----------------|
| NO.          | "0" LINE STATION            | OFFSET LT.          | RT. | CODE NO. | LEGEND                  | SIZE  | AREA S.F. | NO. POSTS | FACING TRAFFIC | REMARKS         |
| 1            | 342+45                      | 24                  |     | W13-1    | 45 M.P.H.               | 24X24 | 4         | 1         | S.B.           | MOUNT BELOW #2  |
| 2.           | 342+45                      | 24                  |     | W1-2L    | (LEFT CURVE) ↶          | 36X36 | 9         |           | S.B.           |                 |
| 3.           | 344+10                      |                     | 21  | R2-1     | SPEED LIMIT 50 M.P.H.   | 30X36 | 7.5       | 1         | N.B.           |                 |
| 4.           | 345+00                      | 24                  |     | R8-1     | NO PARKING ON PAVEMENT  | 24X30 | 5         | 1         | S.B.           | MOUNT ABOVE #5  |
| 5.           | 345+00                      | 24                  |     | R8-1A    | OR WITHIN 8 FEET        | 12X24 | 2         |           | S.B.           |                 |
| 6.           | 351+08                      |                     | 24  | M10-2    | (MILEPOST) 16           | 6X12  | .5        | 1         | N.B.           |                 |
| 7.           | 370+07                      |                     | 24  | W1-2R    | (RIGHT CURVE) ↷         | 36X36 | 9         | 1         | N.B.           |                 |
| 8.           | 373+90                      |                     | 26  | D3-1     | LEE DRIVE               | 8X26  | 1.4       | 1         | N+S            | MOUNT ABOVE #9  |
| 9.           | 373+90                      |                     | 26  | R1-1     | STOP                    | 30X30 | 6.3       |           | W.B.           |                 |
| 10.          | 375+00                      | 26                  |     | R8-1     | NO PARKING ON PAVEMENT  | 24X30 | 5         | 1         | S.B.           | SEE NOTE 7      |
| 11.          | 375+00                      | 26                  |     | R8-1A    | OR WITHIN 8 FEET        | 12X24 | 2         |           | S.B.           | MOUNT BELOW #10 |
| 12.          | 375+65                      |                     | 28  | D1-2     | PT. LENA LOOP RD.       | 24X64 | 10.6      | 2         | N.B.           |                 |
| 13.          | 376+80                      | 30                  |     | R2-1     | SPEED LIMIT 50 M.P.H.   | 30X36 | 7.5       | 1         | S.B.           |                 |
| 14.          | <del>381+50</del><br>377+40 |                     | 30  | R1-1     | STOP                    | 30X30 | 6.3       | 1         | W.B.           |                 |
| 15.          | 378+45                      | 35                  |     | D3-1     | PT. LENA LOOP RD.       | 8X40  | 2.2       | 1         | N+S            | MOUNT ABOVE #16 |
| 16.          | 378+45                      | 35                  |     | R1-1     | STOP                    | 30X30 | 6.3       |           | E.B.           |                 |
| 17.          | 379+20                      | 90                  |     | R5-2     | NO TRUCK SYMBOL         | 30X30 | 6.3       | 1         | W.B.           | MOUNT ABOVE #18 |
| 18.          | 379+20                      | 90                  |     | R5-2A    | SERVICE VEHICLES EXEMPT | 24X24 | 4         |           | W.B.           |                 |
| 19.          | 380+35                      |                     | 30  | R2-1     | SPEED LIMIT 50 M.P.H.   | 30X36 | 7.5       | 1         | N.B.           |                 |
| 20.          | <del>382+00</del><br>382+03 | <del>28</del><br>26 |     | W1-2L    | (LEFT CURVE) ↶          | 36X36 | 9         | 1         | S.B.           |                 |
| 20a          | 382+00                      | 28                  |     | D1-2     | PT. LENA LOOP RD. →     | 24X64 | 10.6      | 2         | S.B.           |                 |
| 21.          | 404+00                      |                     | 24  | M10-2    | (MILEPOST) 17           | 6X12  | .5        | 1         | N.B.           |                 |
| 22.          | 407+50                      |                     |     | R2-1     | SPEED LIMIT 50 M.P.H.   | 30X36 | 7.5       | 1         | S.B.           |                 |
| 22a          | 406+00                      |                     | 28  | D1-2     | PT. LENA LOOP RD.       | 24X64 | 10.6      | 2         | N.B.           |                 |
| 23.          | 408+63                      | 35                  |     | R1-1     | STOP                    | 30X30 | 6.3       | 1         | E.B.           |                 |
| 24.          | 408+63                      | 35                  |     | D3-1     | PT. LENA LOOP RD.       | 8X40  | 2.2       |           | N+S            | MOUNT ABOVE #23 |
| 25.          | 411+40                      | 24                  |     | D1-2     | PT. LENA LOOP RD. →     | 24X64 | 10.6      | 2         | S.B.           | SEE NOTE 7      |
| 26.          | 412+10                      |                     | 24  | R2-1     | SPEED LIMIT 50 M.P.H.   | 30X36 | 7.5       | 1         | N.B.           |                 |
| 27.          | 414+00                      |                     | 25  | RS-044   | PICNIC                  | 18X18 | 2.8       | 1         | N.B.           | SYMBOL (TABLE)  |
| 28.          | 414+00                      |                     | 25  | D9-L     | LEFT ARROW              | 6X24  | 1         | 1         | N.B.           | MOUNT BELOW #27 |
| 29.          | 417+50                      | 26                  |     | R1-1     | STOP                    | 30X30 | 6.3       | 1         | E.B.           |                 |
| 30.          | 417+50                      | 26                  |     | D3-1     | LENA COVE RD.           | 8X34  | 1.9       |           | N+S            | MOUNT ABOVE #29 |
| 30a          | 417+54                      | 29                  |     | ---      | FOREST SERVICE SIGN     |       |           | 2         | S.B.           | LEAVE IN PLACE  |
| 31           | 420+00                      |                     | 24  | W1-2L    | LEFT CURVE ↶            | 36X36 | 9         | 1         | N.B.           |                 |
| 32           | 420+90                      | 20                  |     | RS-044   | PICNIC                  | 18X18 | 2.8       | 1         | S.B.           | SYMBOL (TABLE)  |
| 33           | 420+90                      | 20                  |     | D9-R     | RIGHT ARROW             | 6X24  | 1         |           | S.B.           | MOUNT BELOW #32 |
| 34           | 422+80                      | 21                  |     | R8-1     | NO PARKING ON PAVEMENT  | 24X30 | 5         | 1         | S.B.           | MOUNT BELOW #35 |
| 35           | 422+80                      | 21                  |     | R8-1A    | OR WITHIN 8 FEET        | 12X24 | 2         |           | S.B.           |                 |
| 36           | 430+80                      | 21                  |     | W1-2R    | (RIGHT CURVE) ↷         | 36X36 | 9         | 1         | S.B.           |                 |
| 37           | 439+30                      | 21                  |     | R8-1A    | NO PARKING ON PAVEMENT  | 24X30 | 5         | 1         | S.B.           | MOUNT BELOW #38 |
| 38           | 439+30                      | 21                  |     | R8-1     | OR WITHIN 8 FEET        | 12X24 | 2         |           | S.B.           |                 |

| SIGN SUMMARY |                             |            |     |          |                            |            |           |           |                |                 |
|--------------|-----------------------------|------------|-----|----------|----------------------------|------------|-----------|-----------|----------------|-----------------|
| NO.          | "0" LINE STATION            | OFFSET LT. | RT. | CODE NO. | LEGEND                     | SIZE       | AREA S.F. | NO. POSTS | FACING TRAFFIC | REMARKS         |
| 58.          | 471+50                      |            | 23' |          | Fire Truck Symbol          | 30 x 30    | 6.25      |           | N.B.           | Mount above #59 |
| 39.          | 451+17                      |            | 24  | W1-2R    | (RIGHT CURVE) ↷            | 36X36      | 9         | 1         | N.B.           | MOUNT ABOVE #40 |
| 40.          | 451+17                      |            | 24  | W13-1    | 45 M.P.H.                  | 24X24      | 4         |           | N.B.           |                 |
| 41.          | 451+90                      |            | 24  | R8-1     | NO PARKING ON PAVEMENT     | 24X30      | 5         | 1         | S.B.           | MOUNT ABOVE #42 |
| 42.          | 451+90                      |            | 24  | R8-1A    | OR WITHIN 8 FEET           | 12X24      | 2         |           | S.B.           |                 |
| 59.          | 471+50                      |            | 23' | W11-8    | Fire Station               | 24 x 18    | 3         |           | N.B.           |                 |
| 43.          | 455+50                      |            | 24  | M10-2    | (MILEPOST) 18              | 6X12       | .5        | 1         | N.B.           |                 |
| 44.          | 461+50                      |            | 20  | D3-1     | ANDREANOFF DRIVE           | 8X36       | 2         | 1         | N+S            | MOUNT BELOW #45 |
| 45.          | 461+50                      |            | 20  | R1-1     | STOP                       | 30X30      | 6.3       |           | W.B.           |                 |
| 46.          | 460+80                      |            | 18  | W1-2L    | (LEFT CURVE) ↶             | 36X36      | 9         | 1         | N.B.           |                 |
| 60.          | 478+00                      |            | 23' |          | Fire Truck Symbol          | 30 x 30    | 6.25      |           | S.B.           | Mount above #61 |
| 47.          | 461+85                      |            | 18  | W1-2L    | (LEFT CURVE) ↶             | 36X36      | 9         | 1         | S.B.           | MOUNT BELOW #48 |
| 48.          | 461+85                      |            | 18  | W13-1    | 45 M.P.H.                  | 24X24      | 4         |           | S.B.           |                 |
| 49.          | 470+00                      |            | 20  | D1-1     | TEE HARBOR                 | 12X72      | 6         | 2         | N.B.           | SEE NOTE 7      |
| 50.          | <del>471+50</del><br>471+50 |            | 23' | R16-1    | \$1,000 FINE FOR LITTERING | 42X42      | 12.3      | 2         | N.B.           |                 |
| 51.          | <del>472+95</del><br>472+95 |            | 18  | W1-2R    | (RIGHT CURVE) ↷            | 36X36      | 9         | 1         | S.B.           | MOUNT BELOW #52 |
| 61.          | 478+00                      |            | 23' | W11-8    | Fire Station               | 24 x 18    | 3         |           | S.B.           |                 |
| 53.          | <del>473+50</del><br>473+50 |            | 23' | R2-1     | SPEED LIMIT 50 M.P.H.      | 30X36      | 7.5       | 1         | S.B.           |                 |
| 54.          | 473+85                      |            | 20  | D3-1     | PT. STEPHENS RD.           | 8X36       | 2         | 1         | N+S            | MOUNT BELOW #55 |
| 55.          | 473+85                      |            | 20  | R1-1     | STOP                       | 30X30      | 6.3       |           | E.B.           |                 |
| 56.          | 475+00                      |            | 21  | R2-1     | SPEED LIMIT 55 M.P.H.      | 30X36      | 7.5       | 1         | N.B.           |                 |
| 57.          | 476+40                      |            | 21  | D1-1     | TEE HARBOR →               | 12X72      | 6         | 2         | S.B.           | SEE NOTE 7      |
| TOTAL        |                             |            |     |          |                            | 322.40     | S.F.      |           |                |                 |
| 62.          | 351+08                      |            | 24' | M10-2    | (Milepost) 16              | 6 x 12     | 0.5       |           | S.B.           | Mount with #6   |
| 63.          | 404+00                      |            | 24' | M10-2    | (Milepost) 17              | 6 x 12     | 0.5       |           | S.B.           | Mount with #21  |
| 64.          | 455+50                      |            | 20' | M10-2    | (Milepost) 18              | 6 x 12     | 0.5       |           | S.B.           | Mount with #43  |
| Total:       |                             |            |     |          |                            | 341.2 S.F. |           |           |                |                 |

SIGNING SUMMARY NOTES

1. SIGN LOCATIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO MINOR REVISIONS.

2. POST LENGTHS SHALL BE DETERMINED AS PER STD. DWG. S-05.00.

3. ALL SIGN POSTS SHALL BE TELESCOPING PERFORATED, GALVANIZED SQUARE STEEL POSTS. THE 2" SIZE SHALL BE USED ABOVE GROUND AND THE 2-1/4" SIZE SHALL BE USED BELOW GROUND.

4. ALL POSTS SHALL BE INSTALLED WITH THE SLEEVE TYPE EMBEDMENT IN ACCORDANCE WITH STD. DWG. S-30.01.

5. ALL NEW SIGNS SHALL BE UNFRAMED UNLESS OTHERWISE NOTED.

6. THE EXISTING SIGN TO BE RE-USED IN THIS CONTRACT SHALL BE INSTALLED WITH NEW POSTS.
7. LETTER SIZE SHALL BE 6" UPPER CASE WITH 4.5 LOWER CASE FOR SIGNS 12, 25, 49, AND 57.

8. ALL SIGNS SHALL BE CLASS "T" PER TRAFFIC MANUAL AND THE ALASKA DESIGN SPECIFICATIONS.

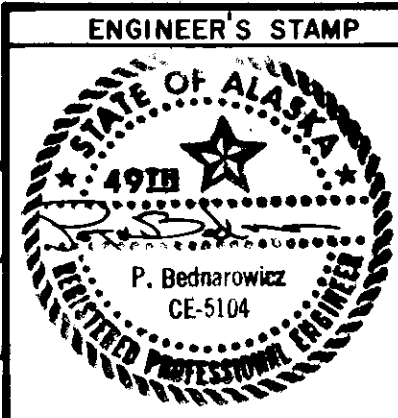
9. EXISTING SIGNS AND POSTS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

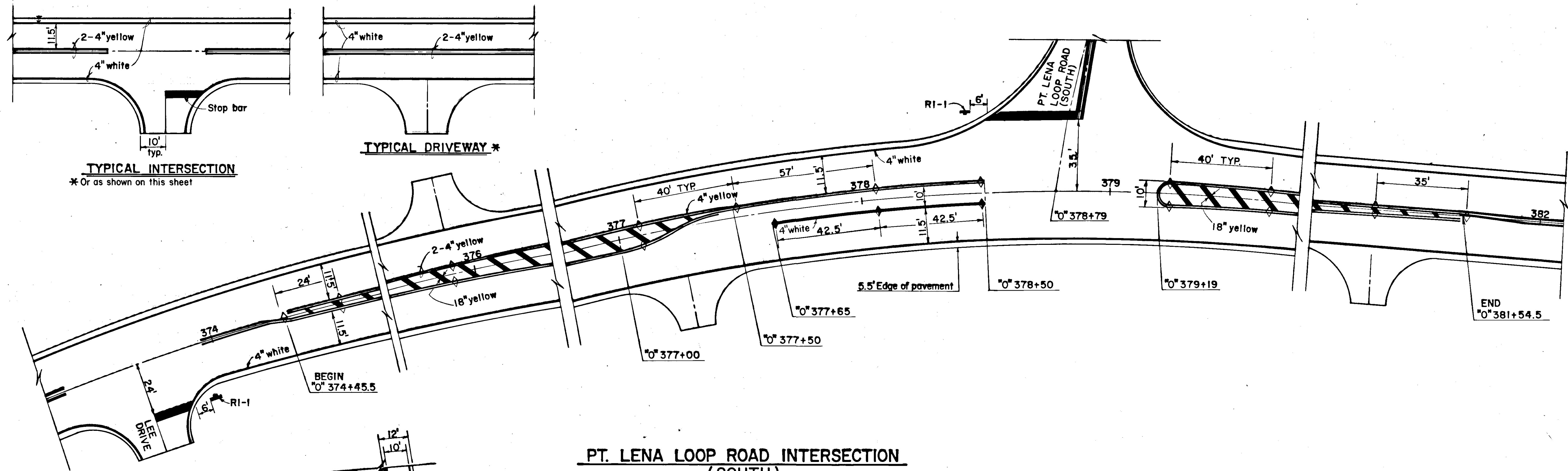
| EXISTING SIGNS TO BE REMOVED |     |     |         |     |     |
|------------------------------|-----|-----|---------|-----|-----|
| STATION                      | LT. | RT. | STATION | LT. | RT. |
| 342+45                       | X   |     | 439+30  | X   |     |
| 344+10                       |     | X   |         |     |     |
| 345+00                       | X   |     | 449+30  |     | X   |
| 351+10                       |     | X   | 451+90  | X   |     |
| 359+17                       | X   |     | 455+50  |     | X   |
| 367+85                       |     | X   | 461+70  |     | X   |
| 373+90                       |     | X   | 471+50  |     | X   |
| 375+00                       | X   |     | 473+50  | X   |     |
| 375+65                       |     | X   | 474+30  | X   |     |
| 377+50                       |     | X   | 475+30  |     | X   |
| 378+45                       | X   |     | 476+10  | X   |     |
| 379+05                       | X   |     | 478+40  | X   |     |
| 380+00                       | X   |     |         |     |     |
| 380+35                       |     | X   |         |     |     |
| 381+40                       | X   |     |         |     |     |
| 396+20                       |     | X   |         |     |     |
| 404+10                       |     | X   |         |     |     |
| 407+70                       | X   |     |         |     |     |
| 409+10                       | X   |     |         |     |     |
| 411+40                       | X   |     |         |     |     |
| 411+90                       | X   |     |         |     |     |
| 412+10                       |     | X   |         |     |     |
| 413+50                       |     | X   |         |     |     |
| 422+80                       | X   |     |         |     |     |
| TOTAL                        |     |     | 35 EACH |     |     |

|                                                  |      |                       |
|--------------------------------------------------|------|-----------------------|
| STATE OF ALASKA                                  |      |                       |
| DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES |      |                       |
| SOUTHEAST REGION DESIGN & CONSTRUCTION           |      |                       |
| BY                                               | DATE | DESCRIPTION OF CHANGE |
| RECORD OF REVISIONS                              |      |                       |

POINT LOUISA TO TEE HARBOR  
SIGNING SUMMARY

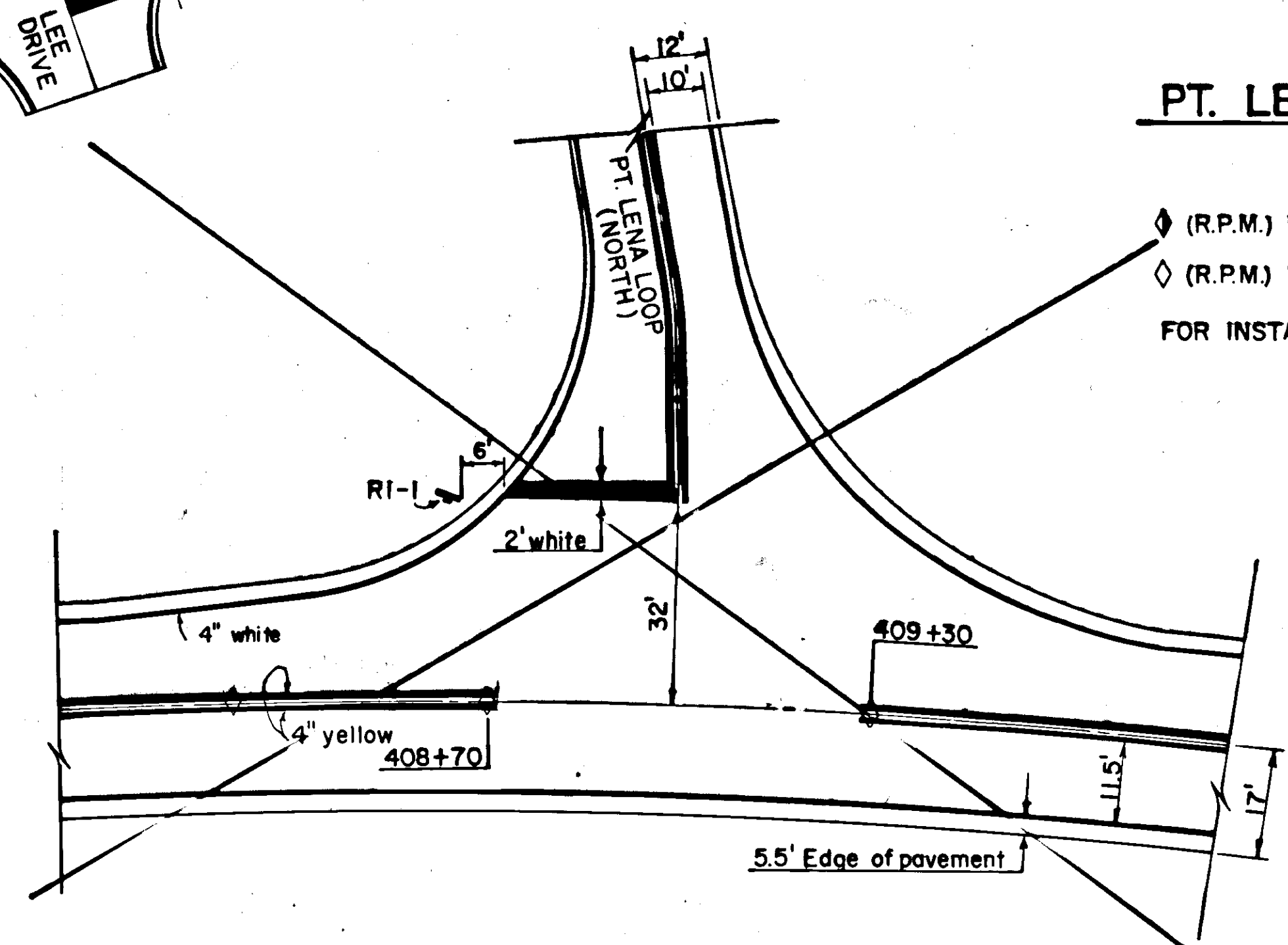
|                 |               |               |
|-----------------|---------------|---------------|
| APPROVED BY:    | DESIGNED BY:  | SCALE:        |
| RECOMMENDED BY: | DRAWN BY:     | DATE:         |
| PREPARED BY:    | CHECKED BY:   | SHEET 8 OF 70 |
| PROJECT MANAGER | LEAD DESIGNER |               |





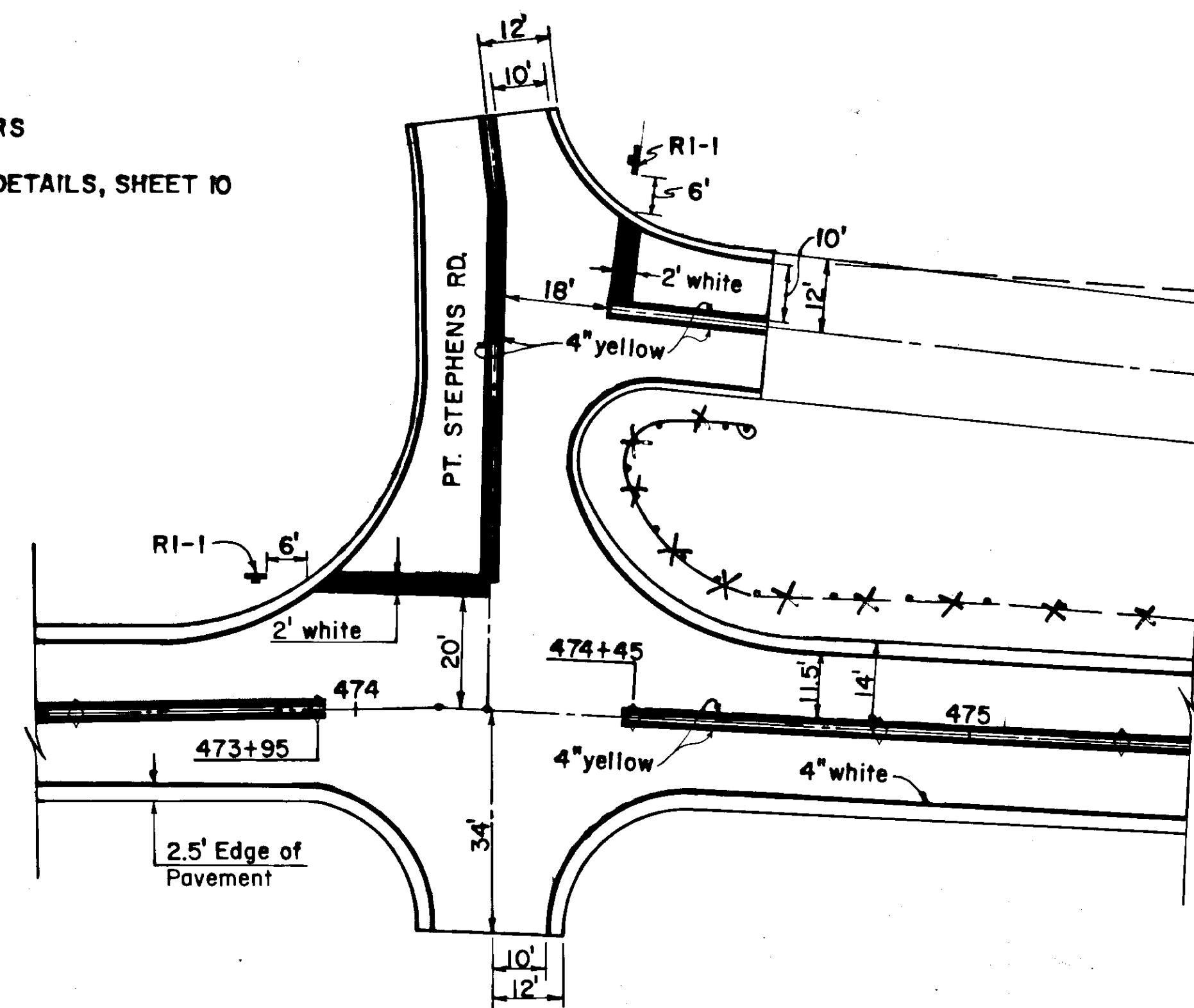
**PT. LENA LOOP ROAD INTERSECTION  
(SOUTH)**

(R.P.M.) RED / WHITE REFLECTIVE PAVEMENT MARKERS  
 (R.P.M.) DOUBLE YELLOW REFLECTIVE PAVEMENT MARKERS  
 FOR INSTALLATION SEE REFLECTIVE PAVEMENT MARKERS DETAILS, SHEET 10



**PT. LENA LOOP ROAD INTERSECTION  
(NORTH)**

See Sheets 28 & 29 for Turn Lane Striping similar to South Lena Intersection.



**PT. STEPHENS ROAD INTERSECTION**

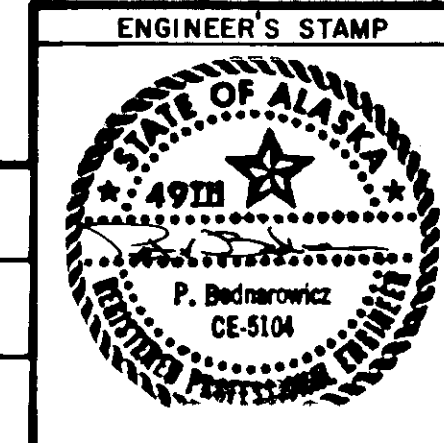
| BY                  | DATE | DESCRIPTION OF CHANGE |
|---------------------|------|-----------------------|
|                     |      |                       |
| RECORD OF REVISIONS |      |                       |

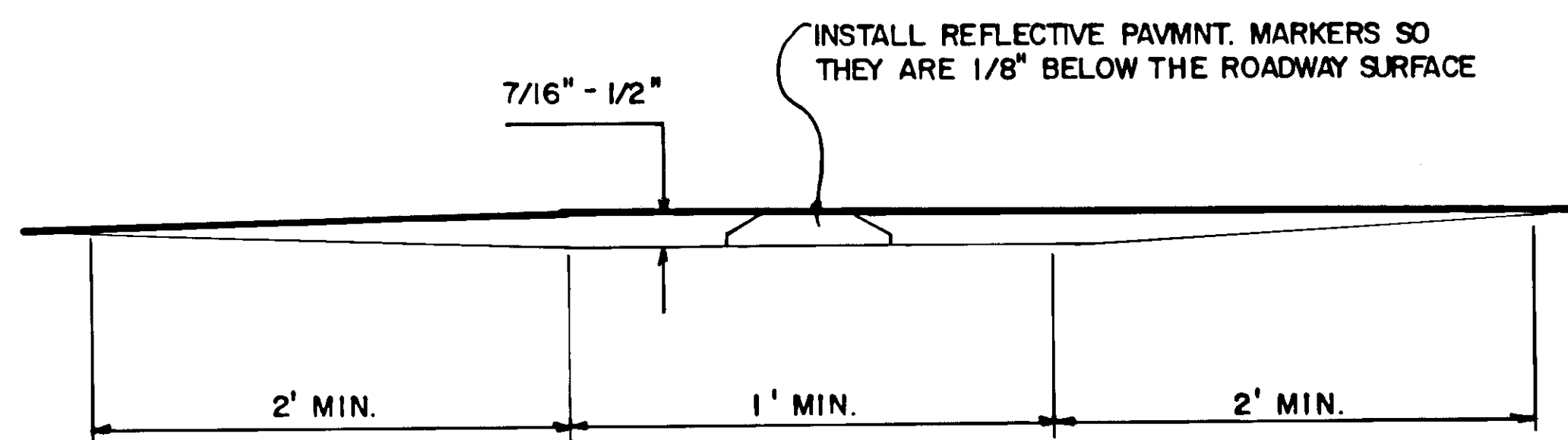
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES  
 SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
 POINT LOUISA TO TEE HARBOR  
 STRIPING PLAN

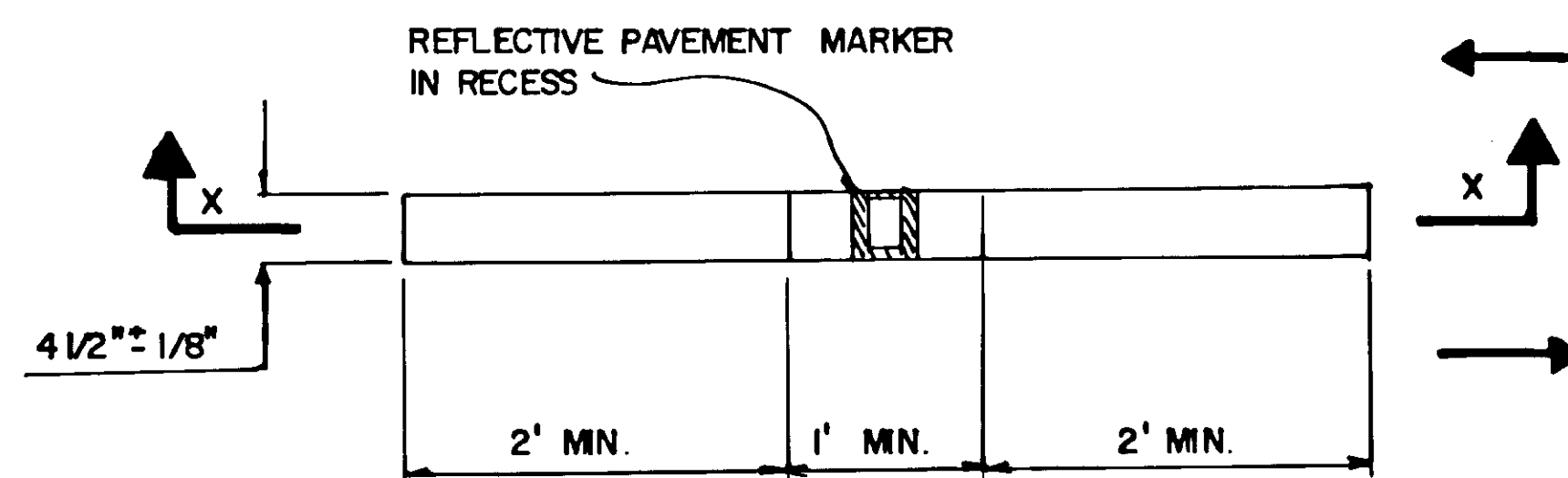
|                 |                        |               |
|-----------------|------------------------|---------------|
| APPROVED BY:    | DESIGN GROUP CHIEF     | DATE          |
| RECOMMENDED BY: | DESIGN ENGINEER, GROUP | DATE          |
| PREPARED BY:    | PROJECT MANAGER        | LEAD DESIGNER |

|              |      |               |
|--------------|------|---------------|
| DESIGNED BY: | M.B. | SCALE:        |
| DRAWN BY:    | R.S. | DATE:         |
| CHECKED BY:  | P.B. | SHEET 9 OF 70 |

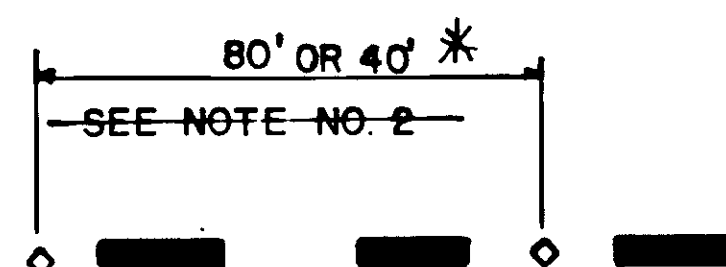




SECTION X-X



PLAN  
TWO-WAY TRAFFIC



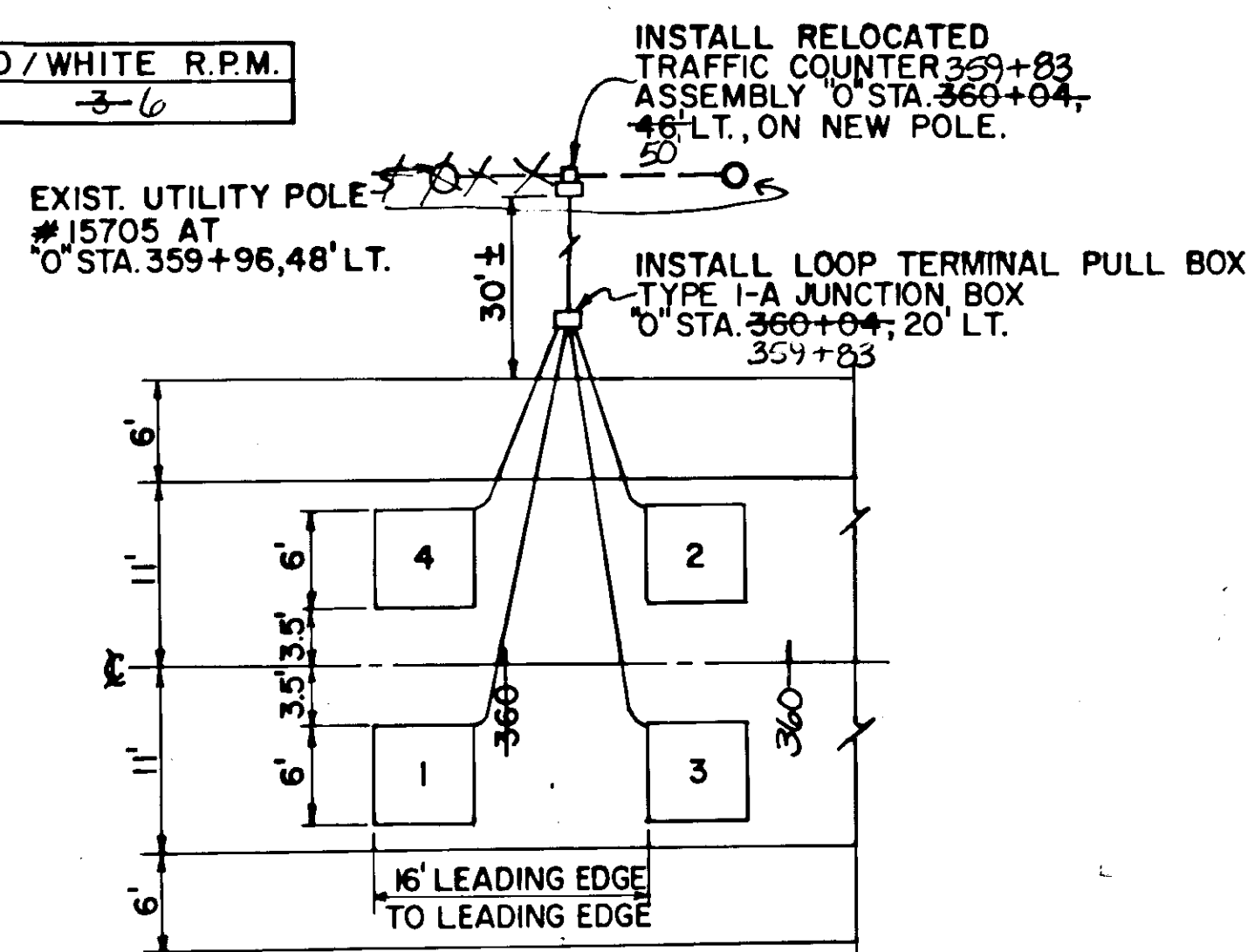
INSTALLATION  
REFLECTIVE PAVEMENT MARKER  
DETAILS

\* 80' spacing on tangents  
40' spacing on curves

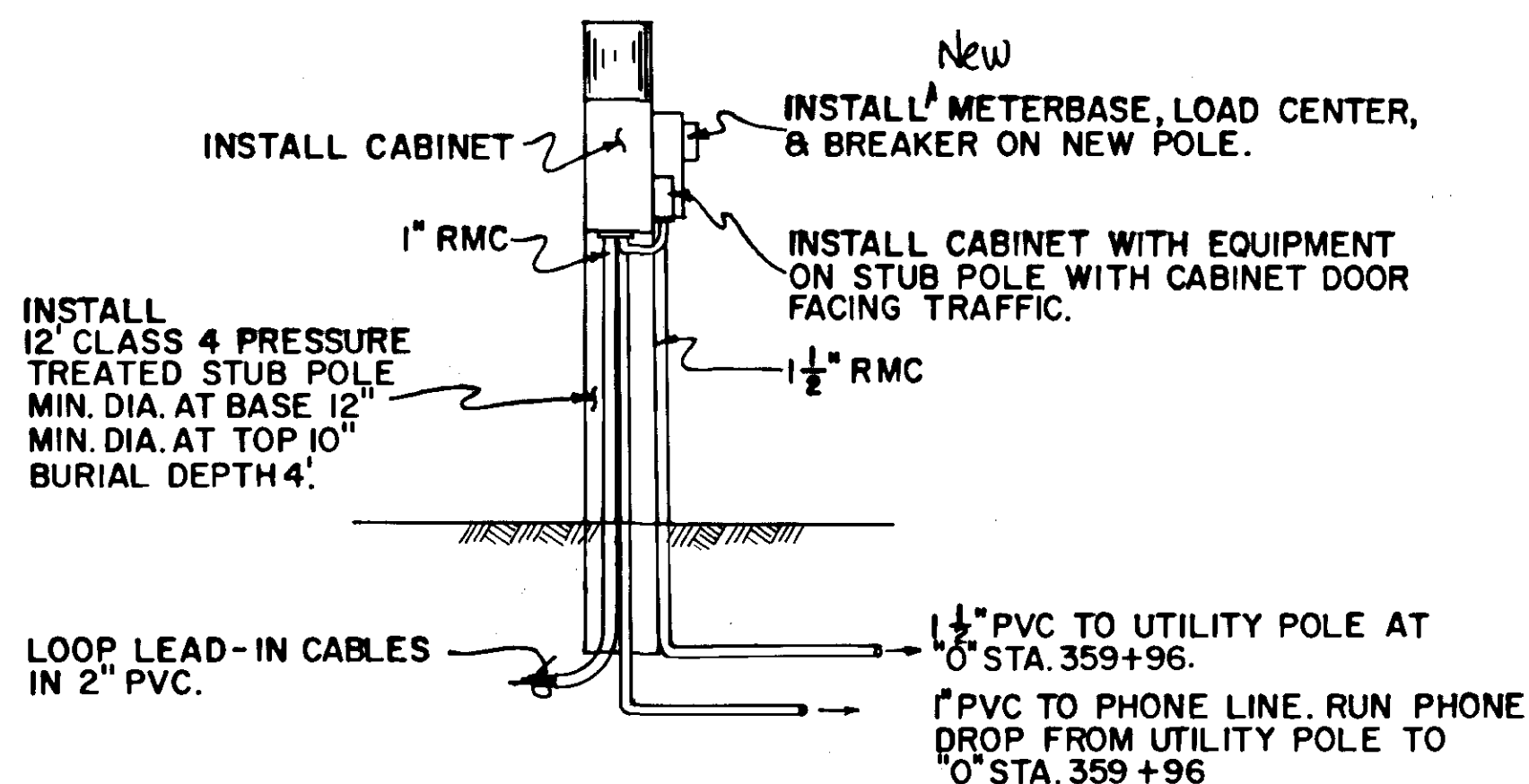
# REFLECTIVE NOTES: RAISED PAVEMENT MARKERS

1. INSTALL REFLECTIVE PAVEMENT MARKERS BETWEEN STA. 340+00 TO 478+38, SEE SHT. 9 FOR LOCATIONS.
2. R.P.M.'S SHALL BE PLACED BETWEEN THE DASHED CENTER STRIPE OR BETWEEN DOUBLE NO PASSING STRIPES ON CURVES.
3. INSTALLATION OF R.P.M.'S SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
4. LENSES SHALL BE STIMSONITE MODEL 944 OR EQUAL.

| YELLOW R.P.M. | RED/WHITE R.P.M. |
|---------------|------------------|
| -274-301      | -3-6             |



LOOP DETECTOR  
INSTALLATION  
DETAIL



TRAFFIC COUNTER INSTALLATION DETAIL

| EDGE STRIPES     |              |                  |              |
|------------------|--------------|------------------|--------------|
| "O" STA. LEFT    | APPROX. L.F. | "O" STA. RIGHT   | APPROX. L.F. |
| 338+00 to 378+76 | 4,135        | 338+00 to 373+55 | 3,570        |
| 379+00 to 408+07 | 3,005        | 373+79 to 445+11 | 7,163        |
| 409+07 to 417+63 | 872          | 445+47 to 474+08 | 2,892        |
| 417+85 to 474+08 | 5,686        | 474+32 to 478+38 | 445          |
| 474+32 to 478+38 | 645          |                  |              |

| DOUBLE NO PASSING STRIPES |              |                  |              |
|---------------------------|--------------|------------------|--------------|
| STATION                   | APPROX. L.F. | STATION          | APPROX. L.F. |
| 338+00 to 373+45          | 3,545        | 445+57 to 473+98 | 2,841        |
| 373+89 to 374+45.5        | 56           | 474+42 to 478+38 | 396          |
| 381+54.5 to 384+00        | 246          |                  |              |
| 391+00 to 407+97          | 1,697        |                  |              |
| 409+15 to 417+53          | 838          |                  |              |
| 417+95 to 445+01          | 2,706        |                  |              |

| CENTER STRIPES (DASHED) |     | APPROX. L.F. |
|-------------------------|-----|--------------|
| STATION                 |     |              |
| 384+00 to 391+00        | 700 |              |
| 391+50 to 391+00        | 750 |              |

| STOP BAR            |    | L.F. |
|---------------------|----|------|
| STATION             |    |      |
| 373+67, RT.         | 12 |      |
| 378+88, LT.         | 38 |      |
| 408+57, LT.         | 38 |      |
| 417+74, LT.         | 19 |      |
| 415+35, RT. 401+40  | 12 |      |
| 414+20, RT. LT. 474 | 38 |      |

## NOTES: STRIPING

1. PAVEMENT MARKINGS SHALL CONSIST OF CENTERLINE AND SHOULDER, IN ACCORDANCE WITH STANDARD DRAWING T-21.01, AND THE ALASKA TRAFFIC MANUAL.
2. ALL STATIONS ON STRIPING TABLES ARE APPROXIMATE. CONTRACTOR SHALL ADVISE PROJECT ENGINEER OF PAVING COMPLETION DATE. PROJECT ENGINEER WILL BE RESPONSIBLE FOR MARKING THE BEGINNING AND ENDING OF THE PASSING AND NO PASSING STRIPES.
3. TEMPORARY DELINEATION SHALL BE INSTALLED IN ACCORDANCE WITH SUBSECTION 643-3.04 (4) AND REMOVED IN ACCORDANCE WITH SUBSECTION 670-3.04

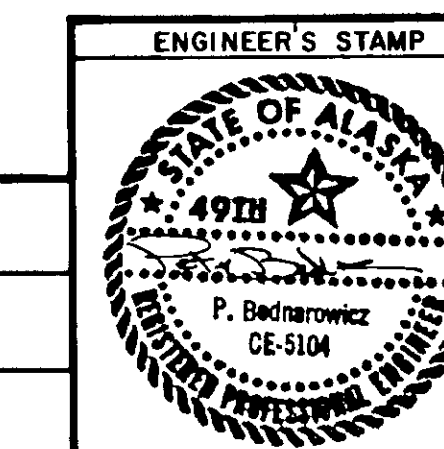
| (0' to 10') MEDIAN PASSING STRIPES |       |
|------------------------------------|-------|
| STATION TO STATION                 | L.F.  |
| 373+45.5 to 377+50                 | 404.5 |
| 379+19 to 381+54.5                 | 235.5 |

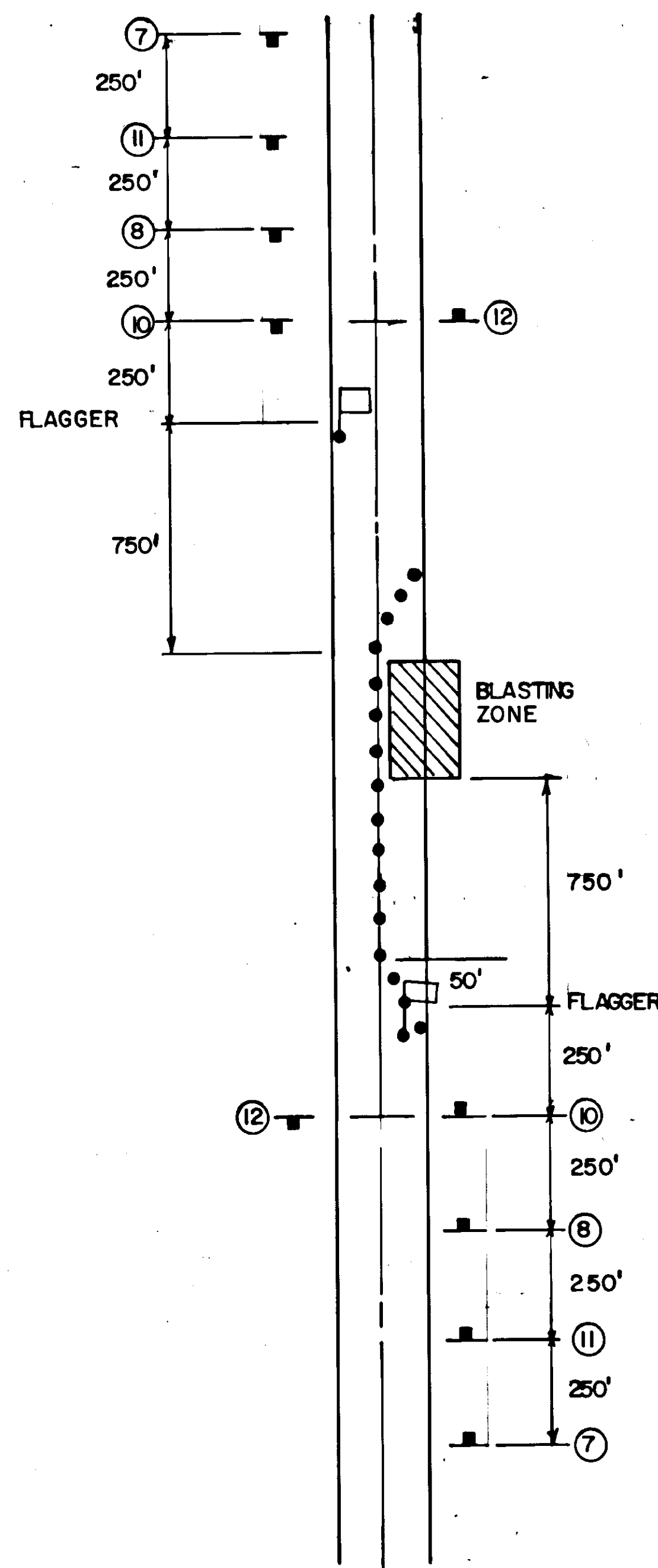
SEE PT. LENA LOOP ROAD INTERSECTION (SOUTH) STRIPING PLAN, SHEET 9.  
403+40 to 407+40 400  
409+00 to 411+75 275  
See Plan Sheets 27-29 for North Lena Loop Road Intersection Striping

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

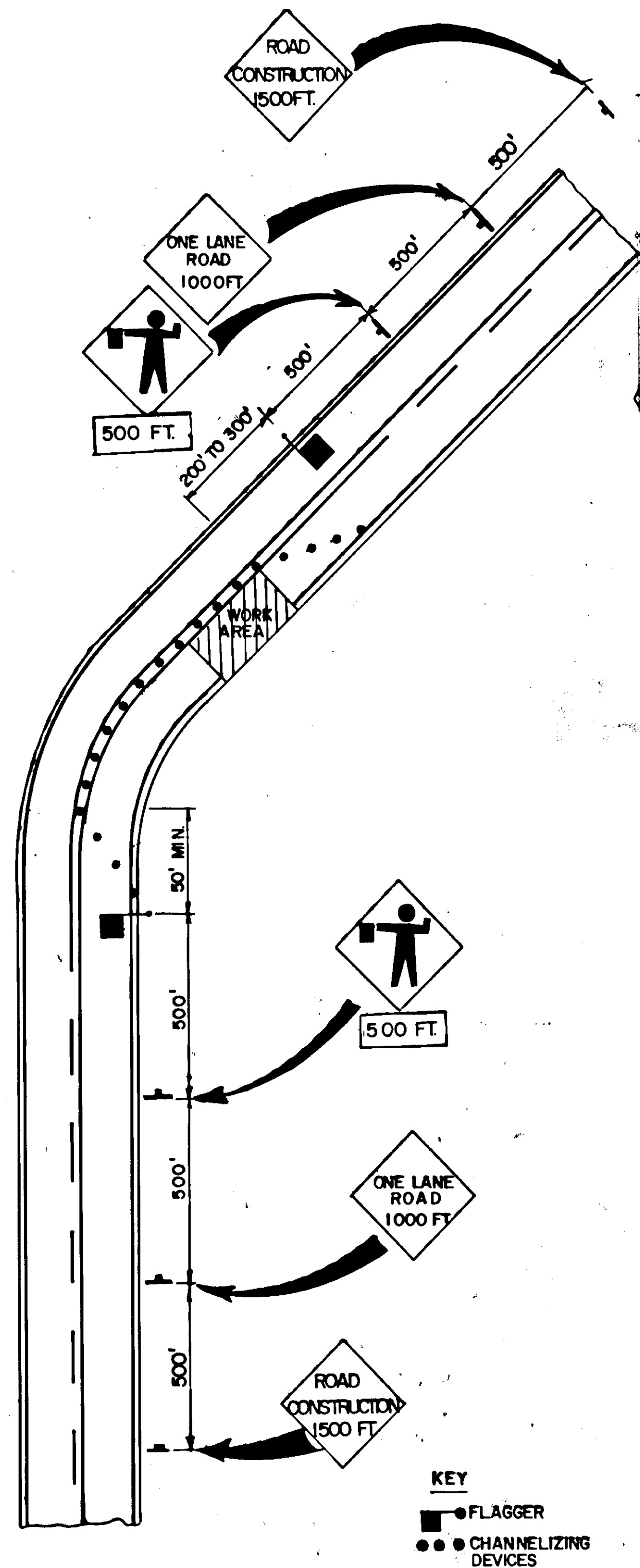
PT. LOUISA TO TEE HARBOR  
REFLECTIVE PAVEMENT MARKERS & STRIPING SUMMARIES

|                        |              |                |
|------------------------|--------------|----------------|
| APPROVED BY:           | DESIGNED BY: | SCALE:         |
| DESIGN GROUP CHIEF     | M.B.         | NONE           |
| RECOMMENDED BY:        | DRAWN BY:    | DATE:          |
| DESIGN ENGINEER, GROUP | C.B.         |                |
| PREPARED BY:           | CHECKED BY:  | SHEET 10 OF 70 |
| PROJECT MANAGER        | P.B.         |                |
| LEAD DESIGNER          |              |                |

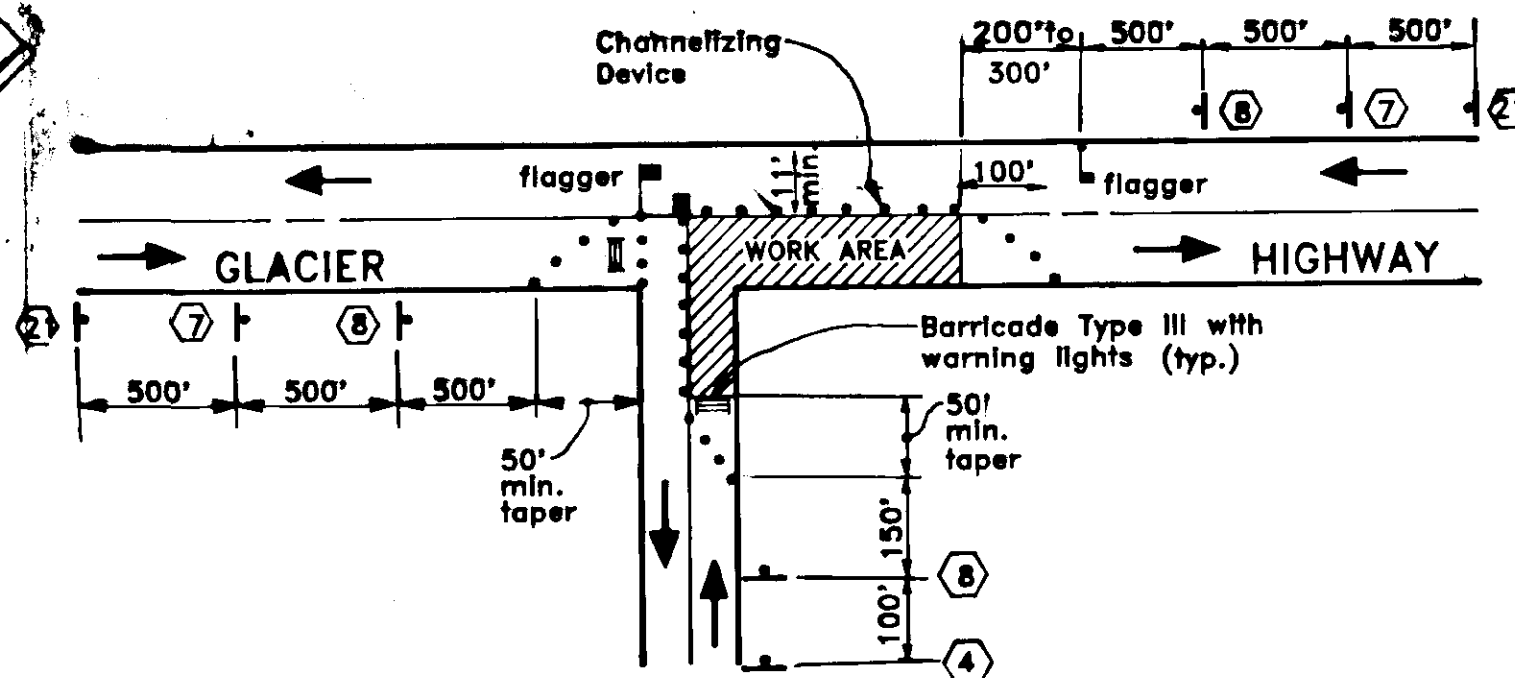




TYPICAL BLASTING ZONE PLAN

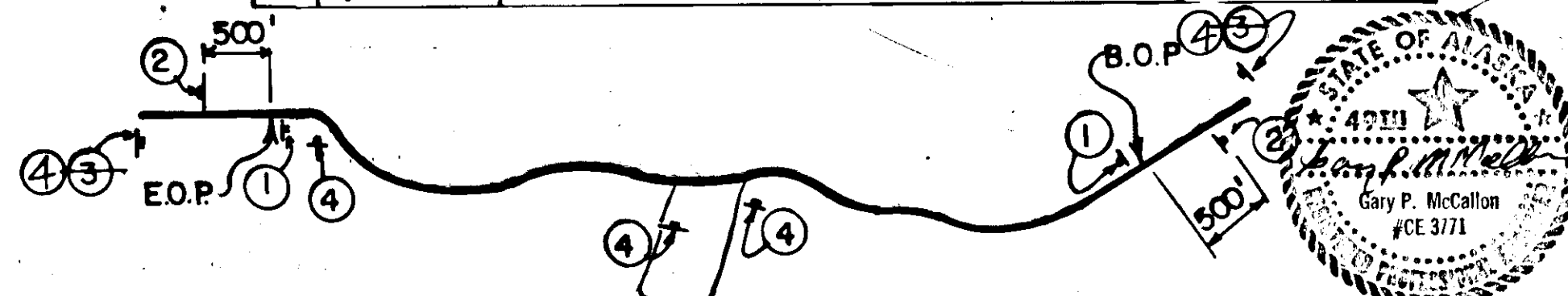


TYPICAL ONE LANE ROAD

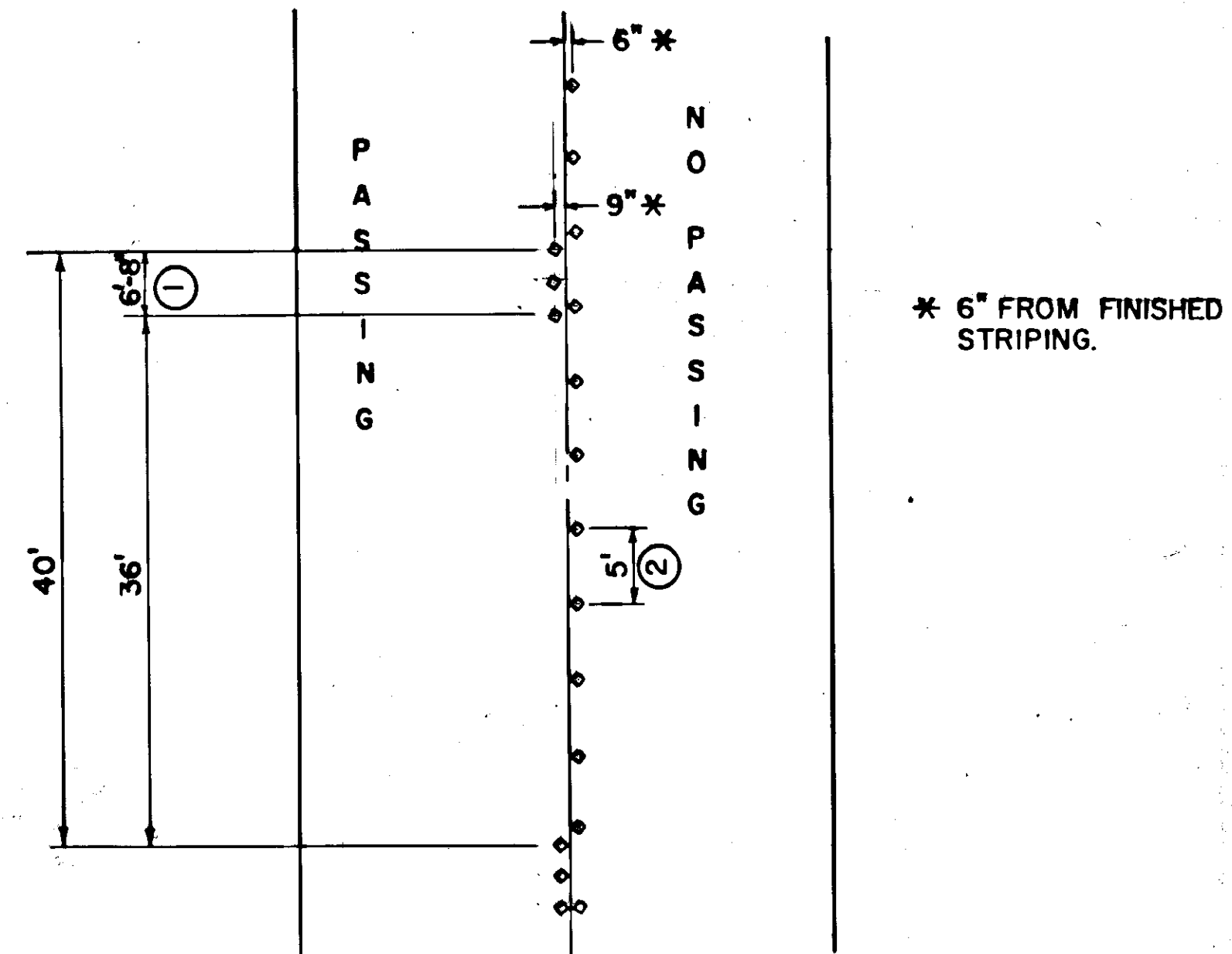


TYPICAL INTERSECTION WORK ZONE

| PERMANENT CONSTRUCTION SIGNS |         |                                   |            |          |
|------------------------------|---------|-----------------------------------|------------|----------|
| NO.                          | CODE    | LEGEND                            | SIZE (IN.) | QUANTITY |
| 1                            | G20-1   | Road Construction next 3 miles    | 60x36      | 2        |
| 2                            | G20-2   | End Construction                  | 60x24      | 2        |
| 3                            | CW20-1E | Road Construction 1500 ft.        | 48x48      | 2        |
| 4                            | CW20-1F | Road Construction Ahead           | 48x48      | 3        |
| CONSTRUCTION SIGNS           |         |                                   |            |          |
| 5                            | CW8-3A  | End Pavement Symbol               | 36x36      | 2        |
| 6                            | CW8-9A  | Low Shoulder                      | 36x36      | 2        |
| 7                            | CW20-4B | One lane Road 1000 ft.            | 48x48      | 6        |
| 8                            | CW20-7  | Flagger symbol and Flagger plaque | 36x36      | 6        |
| 9                            | CW21-5  | Shoulder Work                     | 30x30      | 2        |
| 10                           | CW22-1  | Blasting Zone 1000 ft.            | 48x48      | 2        |
| 11                           | CW22-2  | Turn off 2-Way Radio              | 42x36      | 2        |
| 12                           | CW22-3  | End Blasting Zone                 | 42x36      | 2        |
| 13                           | CW21-6  | Survey Crew                       | 30x30      | 2        |
| 14                           | CW21-4F | Road Work Ahead                   | 36x36      | 4        |
| 15                           | CW1-4L  | Reverse Turn                      | 36x36      | 2        |
| 16                           | CW1-4R  | Reverse Turn                      | 36x36      | 2        |
| 17                           | CW8-1   | Bump                              | 36x36      | 2        |
| 18                           | CW8-2   | Dip                               | 36x36      | 2        |
| 19                           | CW13-1  | 20 MPH                            | 24x24      | 4        |
| 20                           | CW13-1  | 30 MPH                            | 24x24      | 2        |
| 21                           | CW20-1E | Road Construction 1500 FT.        | 48x48      | 6        |
| 22                           | R4-1    | Do Not Pass                       | 30x36      | 6        |
| 23                           | R4-2    | Pass With Care                    | 30x36      | 2        |



PERMANENT CONSTRUCTION SIGNS



TEMPORARY PAVEMENT MARKINGS

14 CALENDAR DAYS OR LESS (3)  
EXAMPLE, PASSING (LT) NO PASSING (RT)

- SPACE 3 RAISED PAVEMENT MARKERS AT 3 FEET-4 INCHES TO SUBSTITUTE FOR 4 FOOT BROKEN LINE.
- SPACE RAISED PAVEMENT MARKERS AT 5 FOOT INTERVALS TO SUBSTITUTE FOR SOLID LINE.
- SEE SECTION 643-3.04, 4. OF SPECIAL PROVISIONS.

LANE CLOSURE, EXTENDED DURATION NOTES

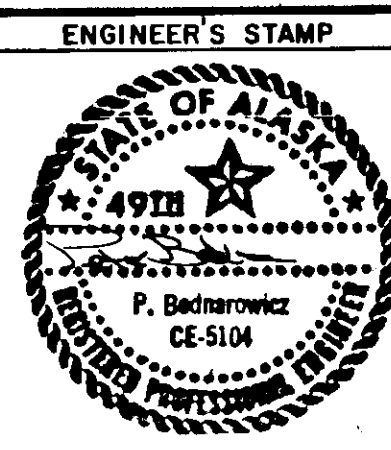
- FLOOD LIGHTS SHALL BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
- STEADY BURN WARNING LIGHTS SHALL BE USED TO MARK CHANNELIZING DEVICES AT NIGHT AS NEEDED.
- CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
- CONSTRUCTION SIGNS SHALL BE FABRICATED IN ACCORDANCE WITH THE ALASKA SIGN DESIGN SPECIFICATIONS IN ACCORDANCE WITH SECTION 615 OF THE ALASKA STD. SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

| BY | DATE | DESCRIPTION OF CHANGE |
|----|------|-----------------------|
|    |      |                       |
|    |      |                       |
|    |      |                       |

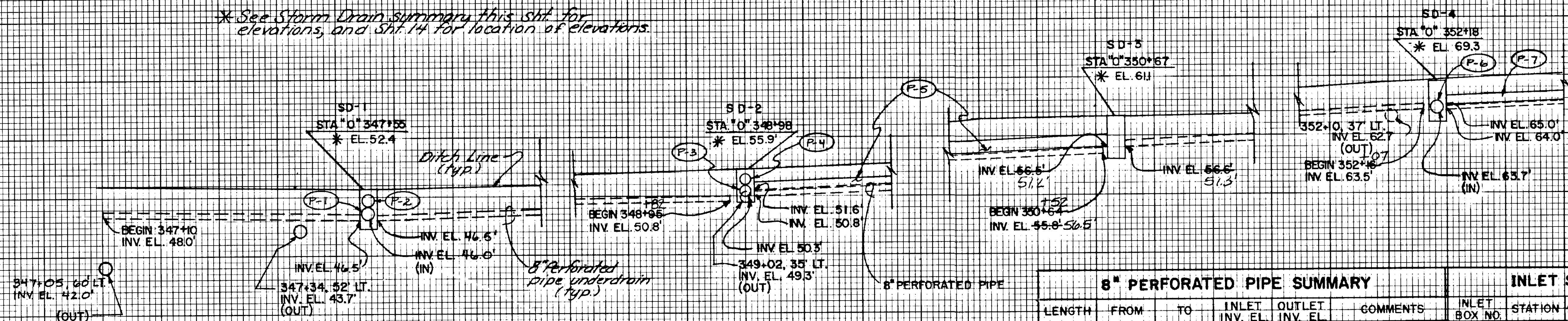
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

PT. LOUISA TO TEE HARBOR  
TRAFFIC CONTROL PLAN

|                 |              |                |
|-----------------|--------------|----------------|
| APPROVED BY:    | DESIGNED BY: | SCALE:         |
|                 | MB           | NONE           |
| RECOMMENDED BY: | DRAWN BY:    | DATE:          |
|                 |              |                |
| PREPARED BY:    | CHECKED BY:  | SHEET 11 OF 70 |
|                 | P.B.         |                |



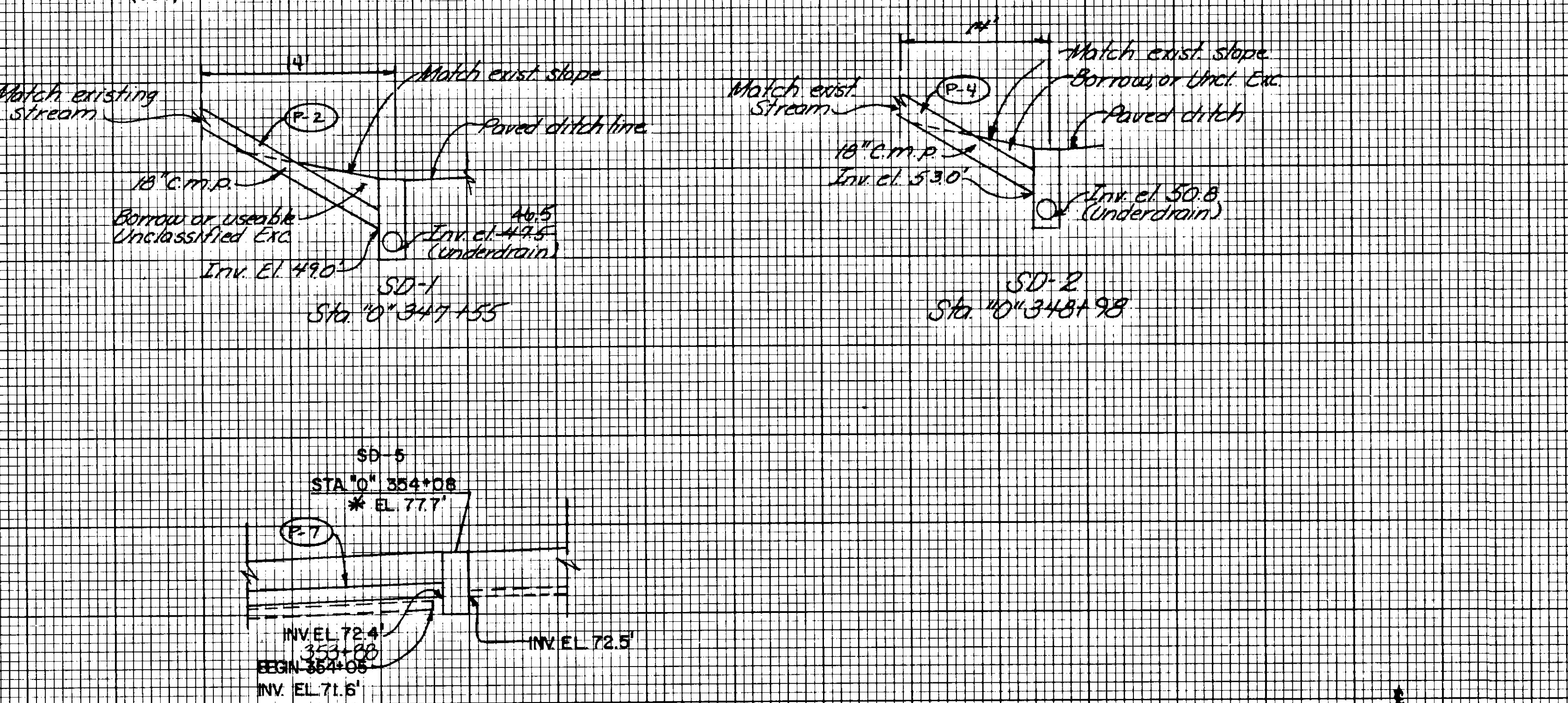
\* See Storm Drain summary this sht. for elevations, and Sht. 14 for location of elevations.



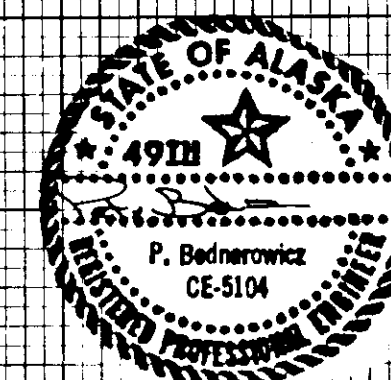
| 8" PERFORATED PIPE SUMMARY |        |       |                |                 |                       | INLET SUMMARY TABLE |         |                 |              |      |               | DISTANCE BETWEEN |                   |
|----------------------------|--------|-------|----------------|-----------------|-----------------------|---------------------|---------|-----------------|--------------|------|---------------|------------------|-------------------|
| LENGTH                     | FROM   | TO    | INLET INV. EL. | OUTLET INV. EL. | COMMENTS              | INLET BOX NO.       | STATION | 18" SUMP REQ'D. | SIDE LT. RT. | TYPE | * GRATE ELEV. | GRATE ELEV.      | BOTTOM OF STRUCT. |
| 40'-45"                    | 347+10 | SD-1  | 48.0'          | 46.5'           |                       | SD-1                | 347+55  |                 | 26'          | B    | 52.4'         | 52.4'            | 6.9               |
| 32'-45"                    | 348+55 | SD-2  | 50.8'          | 46.5'           |                       | SD-2                | 348+98  |                 | 27'          | B    | 55.9'         | 55.9'            | 7.6               |
| 52'-45"                    | 350+67 | SD-3  | 56.8'          | 50.8'           |                       | SD-3                | 350+67  |                 | 26'          | B    | 61.1'         | 61.1'            | 8.3               |
| 40'-45"                    | 352+18 | SD-4  | 63.5'          | 56.5'           |                       | SD-4                | 352+18  |                 | 26'          | B    | 69.3'         | 69.3'            | 7.6               |
| 170'-89"                   | 354+08 | SD-5  | 71.6'          | 64.0'           |                       | SD-5                | 354+08  |                 | 24'          | B    | 77.7'         | 77.7'            | 7.3               |
| 135'-60"                   | 356+15 | SD-6  | 75.0'          | 72.5'           |                       | SD-6                | 356+15  |                 | 26'-24"      | B    | 82.1'         | 82.1'            | 8.8               |
| 175'-85"                   | 358+22 | SD-7  | 78.4'          | 75.6'           |                       | SD-7                | 358+22  |                 | 26'          | B    | 88.5'         | 88.5'            | 12.0              |
| 44'-40"                    | 360+29 | SD-8  | 86.8'          | 78.5'           |                       | SD-8                | 360+29  |                 | 26'-25"      | B    | 91.9'         | 91.9'            | 7.3               |
| 20'                        | 362+36 | SD-9  | 87.2'          | 85.5'           | Did not run into SD-8 | SD-9                | 362+36  |                 | 25'          | B    | 90.8'         | 90.8'            | 7.0               |
| 146'-34"                   | 363+83 | SD-10 | 84.6'          | 83.4'           |                       | SD-10               | 363+83  |                 | 26'-25"      | B    | 89.7'         | 89.7'            | 8.4               |
| 88'-26"                    | 364+83 | SD-11 | 84.1'          | 82.1'           |                       | SD-11               | 364+83  |                 | 30'          | B    | 89.3'         | 89.3'            | 9.5               |
| 62'-62"                    | 366+50 | SD-12 | 85.6'          | 83.6'           |                       | SD-12               | 366+50  |                 |              |      |               |                  |                   |
| 60'-69"                    | 368+19 | SD-13 | 85.6'          | 83.6'           |                       | SD-13               | 368+19  |                 |              |      |               |                  |                   |
| TOTAL                      | 1400'  | 1764' |                |                 |                       |                     |         |                 |              |      |               |                  |                   |

\* Estimated 9,500 S.F. of Findrain above pipe.

\* See Typical Inlet Detail, Sht. 14, for location of elevation.

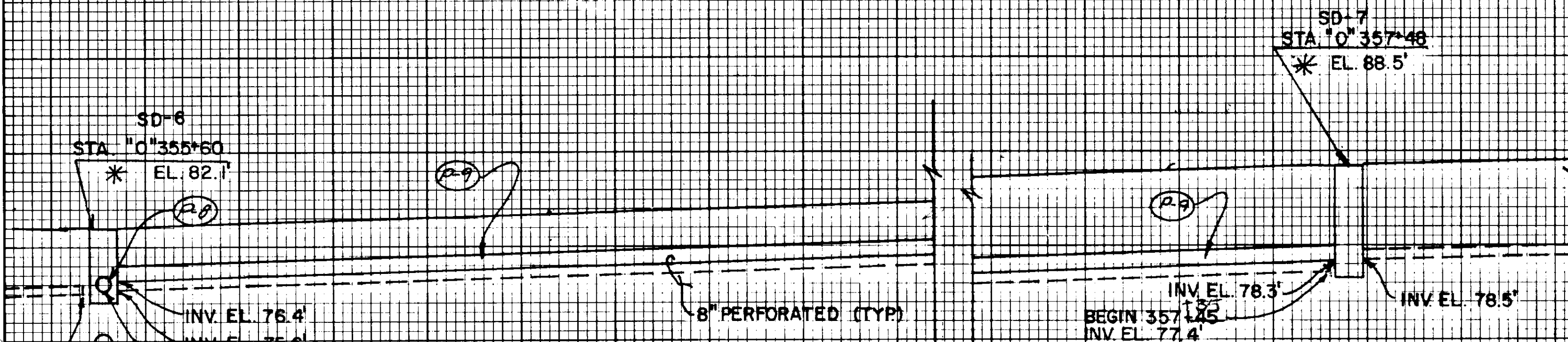


CROSS SECTION DETAIL  
0+ STA. 419+75 TO 421+00

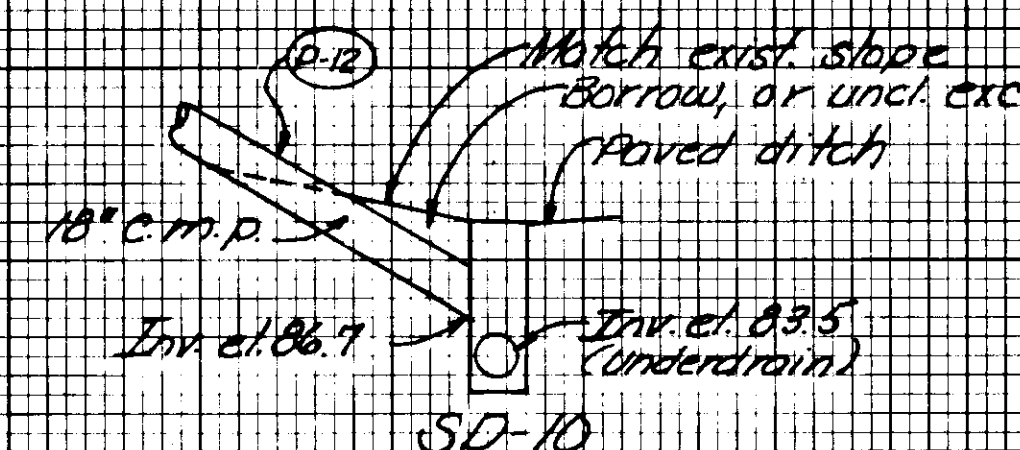
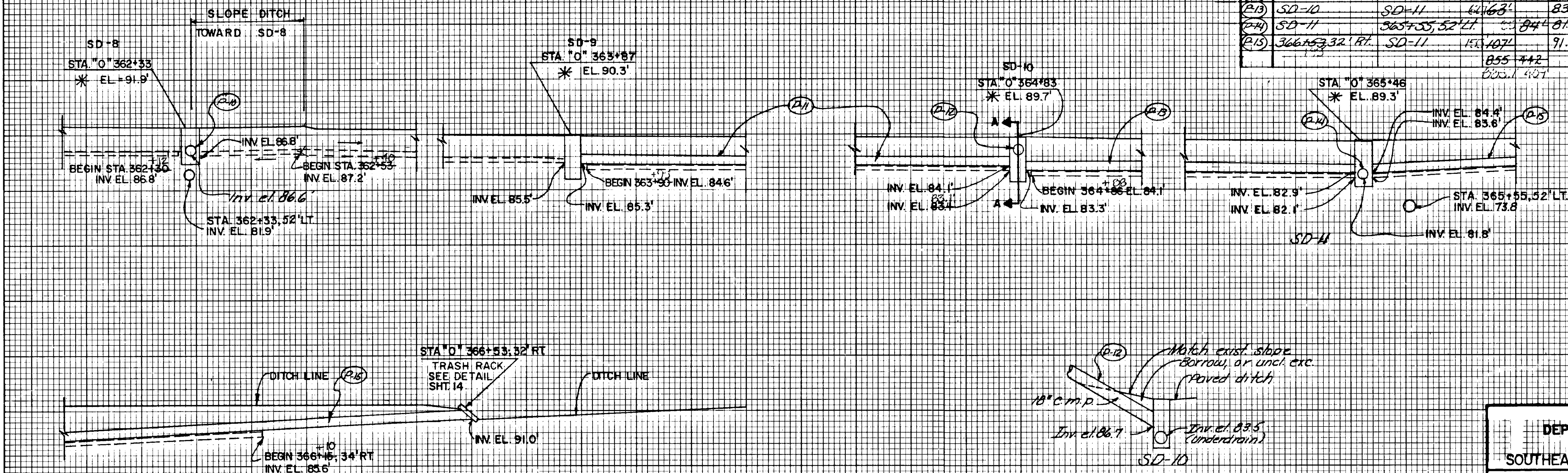


|                                                                                                                                                                                                                                        |                |               |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|----------------|
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>AND PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION<br>JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br><b>POINT LOUISA TO TEE HARBOR</b><br>UNDERDRAIN PROFILES & SUMMARY |                |               |                |
| APPROVED BY: _____                                                                                                                                                                                                                     |                |               |                |
| APPROVED BY: _____                                                                                                                                                                                                                     |                |               |                |
| BY                                                                                                                                                                                                                                     | DATE           | CHANGE        | REVISIONS      |
| AS SHOWN                                                                                                                                                                                                                               | DESIGNED: M.B. | CHECKED: P.B. | DRAWN: _____   |
|                                                                                                                                                                                                                                        |                |               | SHEET 12 OF 70 |

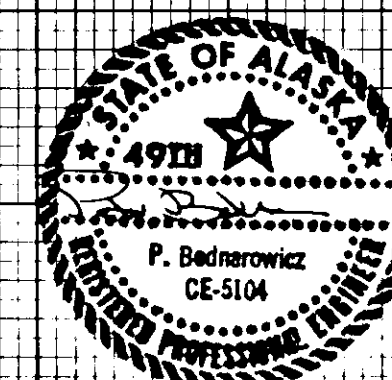
\* See Storm Drain Summary, Sht. 12, for elevation  
and Sht. 14 for location of elevation



| PIPE NO. | FROM          | TO            | LENGTH<br>18" 24" | INLET<br>INV. ELEV. | OUTLET<br>INV. ELEV. | COMMENTS              |
|----------|---------------|---------------|-------------------|---------------------|----------------------|-----------------------|
| (P-1)    | SD-1          | 347+34.52' LT | 72' 84"           | 46.0                | 43.7                 |                       |
| (P-2)    | 347+55.40' RT | SD-1          | 14'               | EXIST. 49.0         | 49.0                 |                       |
| (P-3)    | SD-2          | 349+02.35' LT | 60' 62"           | 50.3                | 49.3                 |                       |
| (P-4)    | 348+98.41' RT | SD-2          | 14'               | EXIST. 53.0         | 53.0                 |                       |
| (P-5)    | SD-3          | SD-2          | 1005' 499"        | 56.55' LT           | 51.6                 |                       |
| (P-6)    | SD-4          | 352+10.37' LT | 63' 62"           | 63.7                | 62.7                 | Match outlet          |
| (P-7)    | SD-5          | SD-4          | 183' 190"         | 72.4                | 65.0                 |                       |
| (P-8)    | SD-6          | 355+60.42' LT | 67' 72"           | 75.3                | 69.2                 | Match exist. Lt. side |
| (P-9)    | SD-7          | SD-6          | 130' 289"         | 78.3                | 76.4                 |                       |
| (P-10)   | SD-8          | 362+33.52' LT | 12' 78"           | 86.6                | 81.9                 |                       |
| (P-11)   | SD-9          | SD-10         | 98' 96"           | 85.3                | 84.1                 |                       |
| (P-12)   | 361+83.39' RT | SD-10         | 141'              | EXIST. 86.7         | 86.7                 |                       |
| (P-13)   | SD-10         | SD-11         | 62' 63"           | 83.3                | 82.9                 |                       |
| (P-14)   | SD-11         | 365+55.52' LT | 25' 84"           | 81.8                | 73.8                 |                       |
| (P-15)   | 366+53.32' RT | SD-11         | 153' 107"         | 91.0                | 84.4                 |                       |
|          |               |               | 855' 442"         |                     |                      |                       |

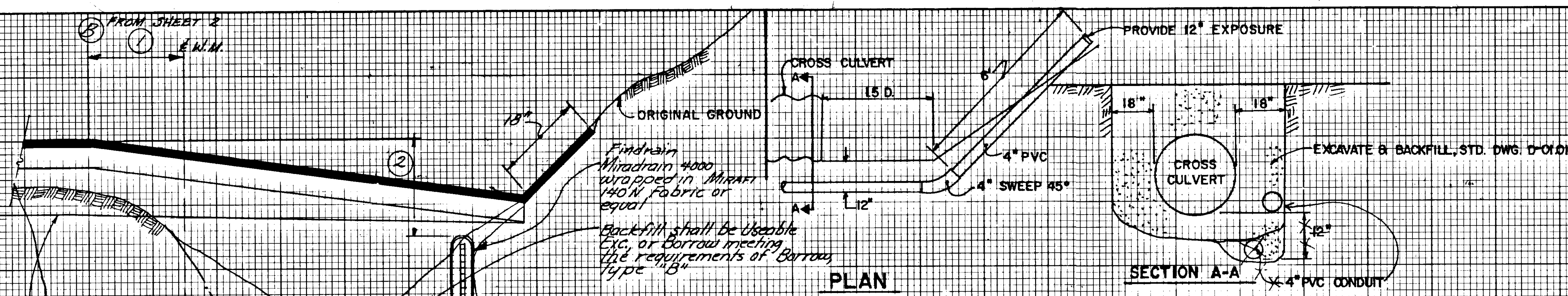


SECTION A-A



| BY | DATE | CHANGE |
|----|------|--------|
|    |      |        |
|    |      |        |
|    |      |        |

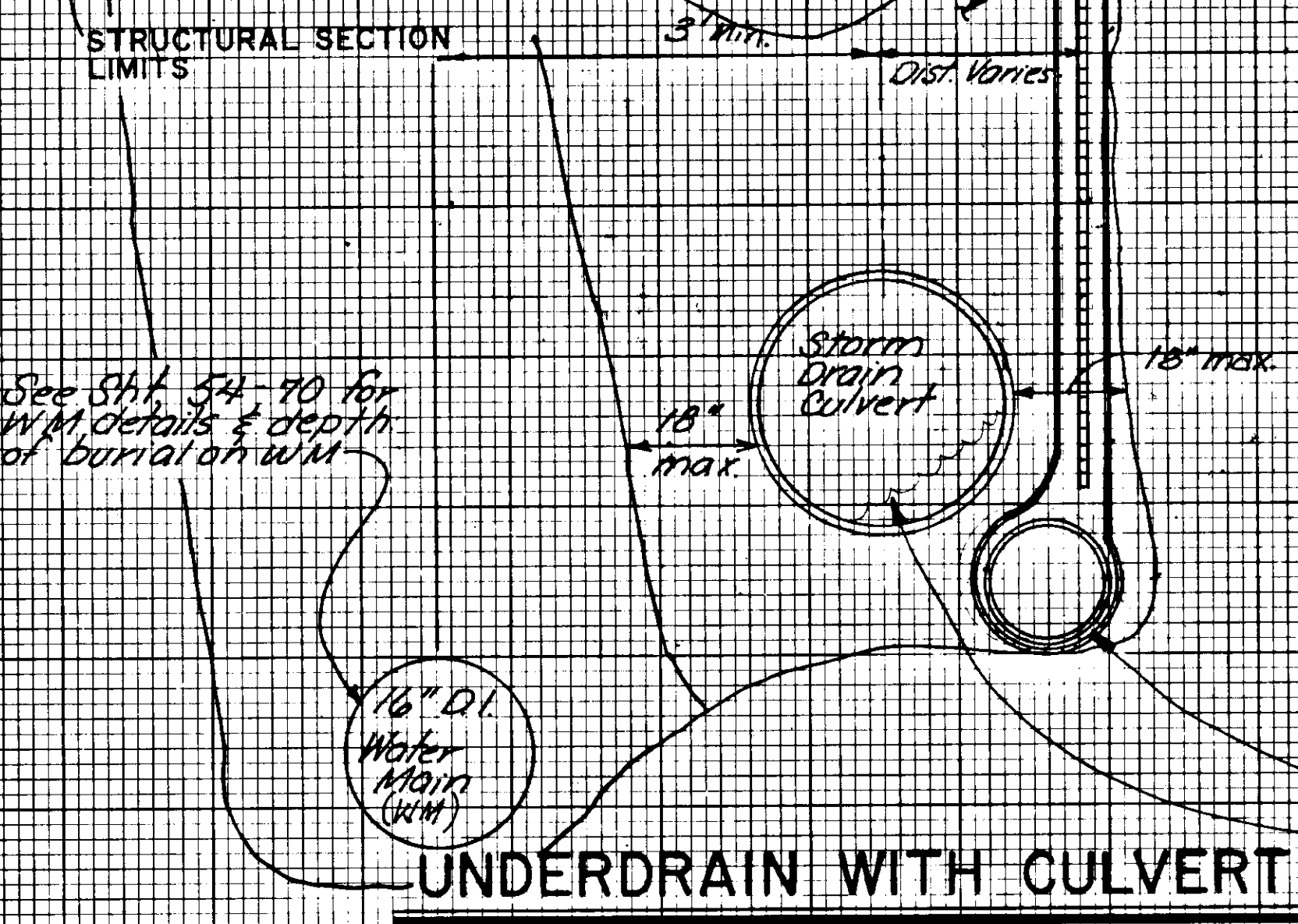
|                                                                                                                                                                  |                                 |                 |                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------|----------------|
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>AND PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION<br>JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845 |                                 |                 |                |
| POINT LOUISA TO TEE HARBOR                                                                                                                                       |                                 |                 |                |
| APPROVED BY: _____                                                                                                                                               |                                 |                 |                |
| APPROVED BY: _____                                                                                                                                               |                                 |                 |                |
| SCALE:<br>AS SHOWN                                                                                                                                               | DESIGNED: M.B.<br>CHECKED: P.B. | DRAWN:<br>DATE: | SHEET 13 OF 70 |



TYPICAL PRIVATE WATERLINE DETAIL

| PRIVATE WATERLINE / COLLECTION SUMMARY |                                |                                  |                        |
|----------------------------------------|--------------------------------|----------------------------------|------------------------|
| STATION                                | INSTALL WATERLINE (SEE NOTE 1) | RELOCATE COLLECTION (SEE NOTE 2) | INSTALL 4" PVC CONDUIT |
| 346+82                                 | X                              |                                  | 131' PVC               |
| 349+00                                 | X                              |                                  | 74' PVC                |
| 355+60                                 |                                | X                                |                        |
| 362+32                                 |                                | X                                |                        |
| 368+00                                 |                                | X                                |                        |
| 420+40                                 | X                              |                                  | 92' PVC                |
| 428+44                                 | X                              |                                  | 90' PVC                |
| 430+40                                 |                                | X                                |                        |
| 433+48                                 |                                | X                                |                        |
| 435+40                                 |                                | X                                |                        |
| 436+60                                 |                                | X                                |                        |

- NOTES:
- Install 4" PVC water conduit casing. See Typical Private Waterline Detail, this sheet.
  - Relocate original water collection system back to match original elevations. New culvert crossings on left side shall remain at original location and elevation. Install a 2 1/2" PVC tube from catch tub at 436+60 to catch tub at 435+40 to supplement water.

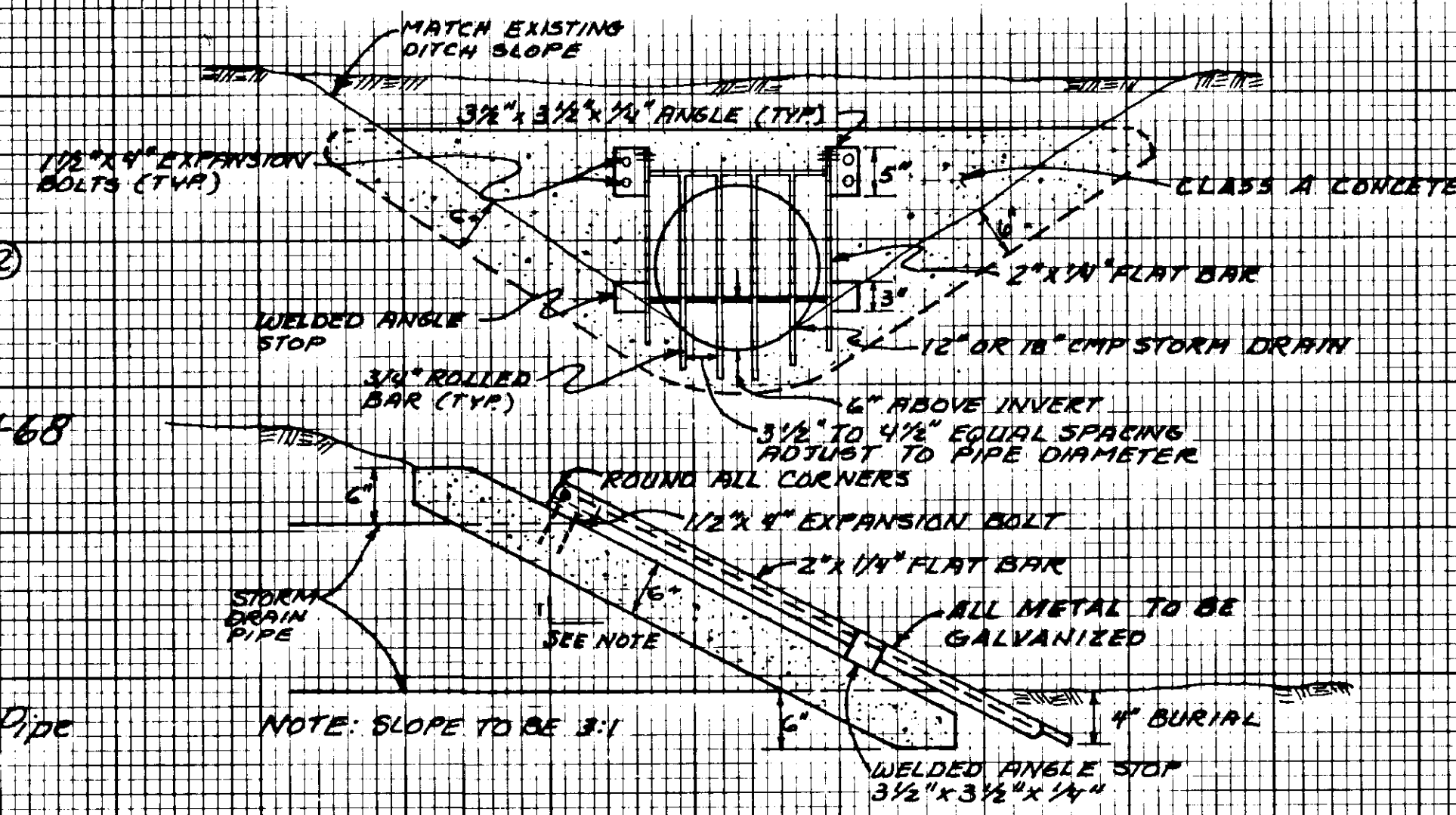


UNDERDRAIN WITH CULVERT

NO SCALE

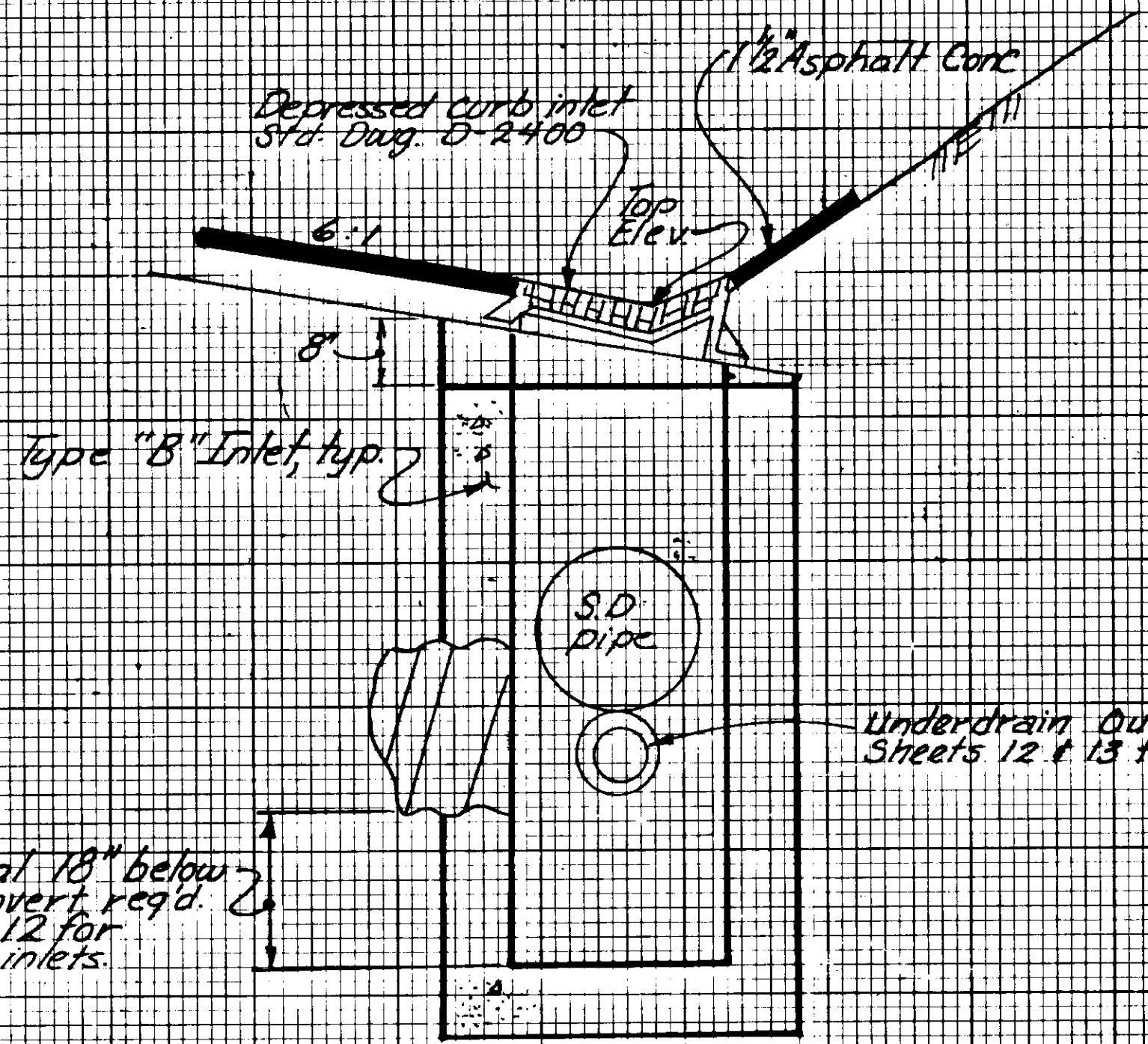
| STA. 1 | STA. 2 | Dist. 1                                        | Dist. 2 |
|--------|--------|------------------------------------------------|---------|
| 338+00 | 346+00 | 10'                                            | N/A     |
| 347+00 | 369+00 | 1'                                             | 1.5'    |
| 370+00 | 374+00 | 10'                                            | N/A     |
| 375+00 | 410+00 | See Shts. 61-68 for offsets & location of W.M. |         |

NOTE: USE 2 1/2" ELBOWS AS REQUIRED TO TRANSITION STORM DRAIN TO AND FROM INLETS. See Shts. 12 & 13 for Perforated Pipe and Storm Drain Culvert invert elevations.



TRASH RACK DETAIL

NOT TO SCALE



TYPICAL INLET DETAIL

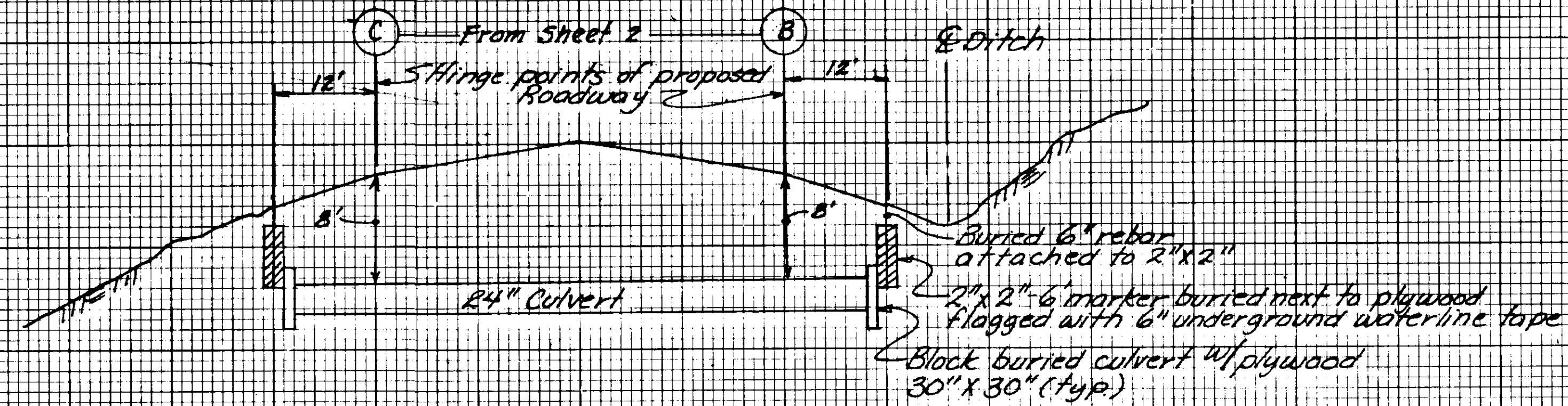
NO SCALE

| CULVERT CASING CROSSING |         |
|-------------------------|---------|
| STATION                 | L.F.    |
| 422+33                  | 54'     |
| 432+75                  | 58' 64" |
| 454+00                  | 54'     |
| 473+90                  | 54' 60" |

329+70  
474+55

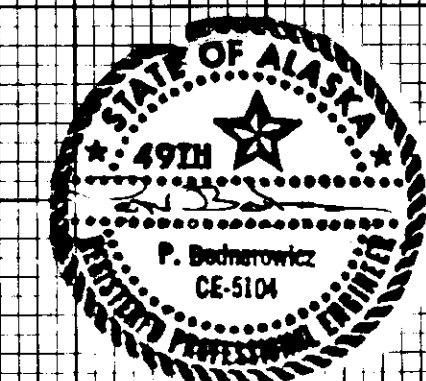
Underdrain outlet - See Sheets 12 & 13 for inverts

Additional 18" below lowest invert req'd. See Sht. 12 for depth of inlets.



TYPICAL CULVERT CASING CROSSING

For future City & Borough of Juneau Waterline



| BY | DATE | CHANGE |
|----|------|--------|
|    |      |        |
|    |      |        |
|    |      |        |

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION  
JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
**POINT LOUISA TO TEE HARBOR**  
CULVERT DETAILS

APPROVED BY: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_

SCALE: AS SHOWN  
DESIGNED: M.B.  
CHECKED: P.B.  
DRAWN: \_\_\_\_\_  
DATE: \_\_\_\_\_

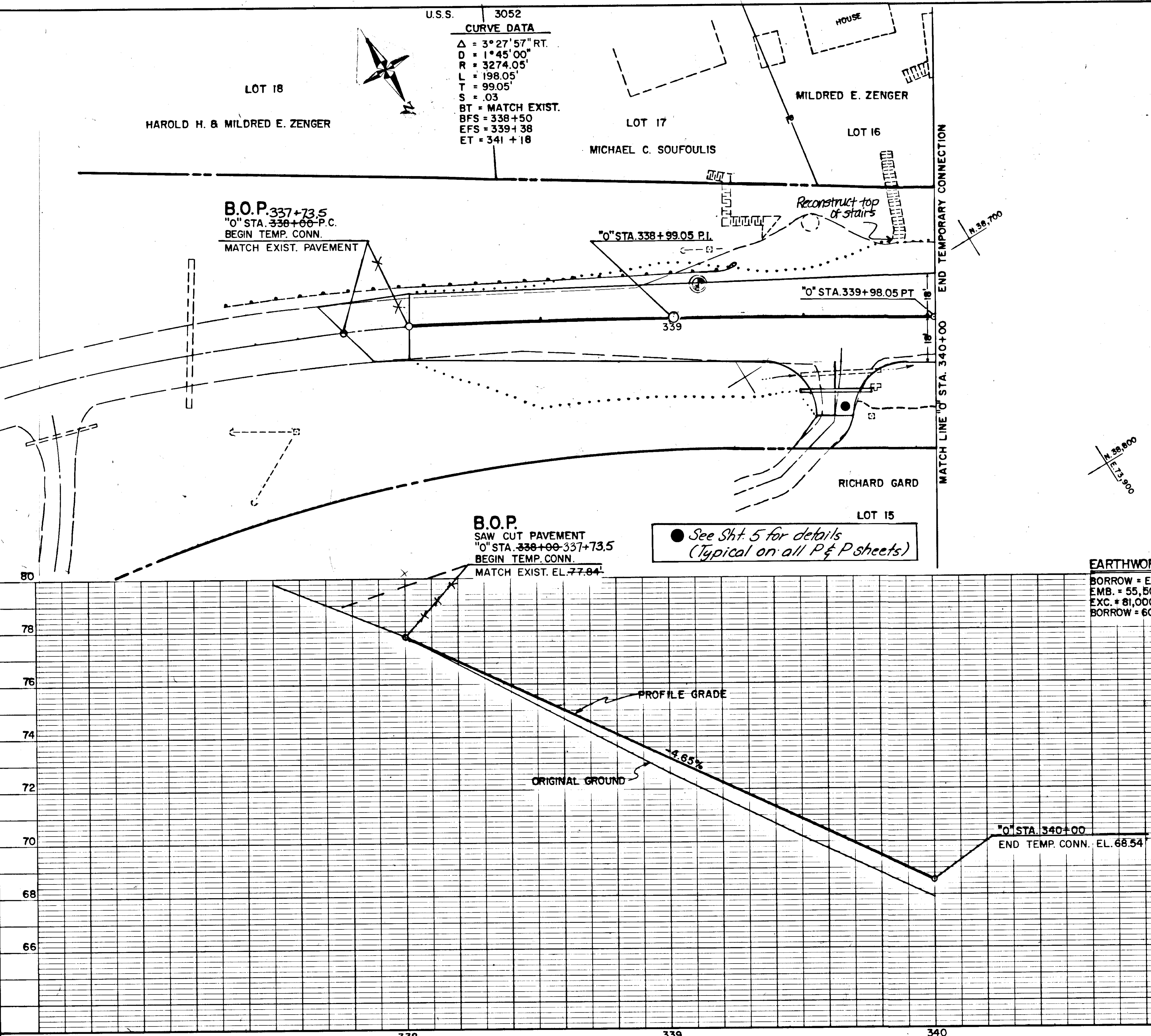
SHEET 14 OF 70

U.S.S. 3052  
CURVE DATA  
 $\Delta = 3^\circ 27' 57''$  RT.  
D = 1°45'00"  
R = 3274.05'  
L = 198.05'  
T = 99.05'  
S = .03  
BT = MATCH EXIST.  
BFS = 338+50  
EFS = 339+38  
ET = 341+18

| ADDITIONAL LEGEND             |      |
|-------------------------------|------|
| DESCRIPTION                   | ITEM |
| EXISTING POLE - TO REMAIN     | ⊠    |
| EXISTING POLE - TO BE REMOVED | ⊗    |
| NEW POLE - TO BE SET          | ■    |
| STREET LIGHT                  | ⊙    |
| GUY & ANCHOR                  | →    |
| OVERHEAD GUY                  | ---  |
| GUY STUB                      | GS   |
| 7.2 / 12.5 KV OVERHEAD LINES: |      |
| 1 PHASE & NEUTRAL             | ---  |
| 3 PHASE & NEUTRAL             | ---  |
| SECONDARY / SERVICE LINES     | ---  |
| PUSH BRACE                    | →    |

THE BASIS OF BEARING IS THE RECORD BEARING N. 58°16'02" W., 922.55' BETWEEN THE MONUMENTS OF THE P.I. (IN THE TEMPORARY CONNECTION) "O" STA. 338+99.05 OF GLACIER HIGHWAY AND THE MONUMENT OF THE P.C. "O" STA. 348+21.55 OF GLACIER HIGHWAY.  
THE BASIS OF VERTICAL CONTROL — THE EXISTING ALUMINUM MONUMENT "O" PC 348+21.55 WITH AN ACCEPTED ELEV. OF 54.97 ABOVE MLLW.

EARTHWORK EQUATION:  
BORROW = EMBANKMENT - USEABLE EXCAVATION X GRADING FACTOR.  
EMB. = 55,500 CY. + 9,400 CY. OF WASTE, EXC. TO FLATTEN SLOPES.  
EXC. = 81,000 CY. (INCLUDES 58,600 CY. OF WASTE)  
BORROW = 60,000 TONS (INCLUDES 37,000 TONS OF BORROW TYPE "C").



BY: DATE: DESCRIPTION OF CHANGE: RECORD OF REVISIONS

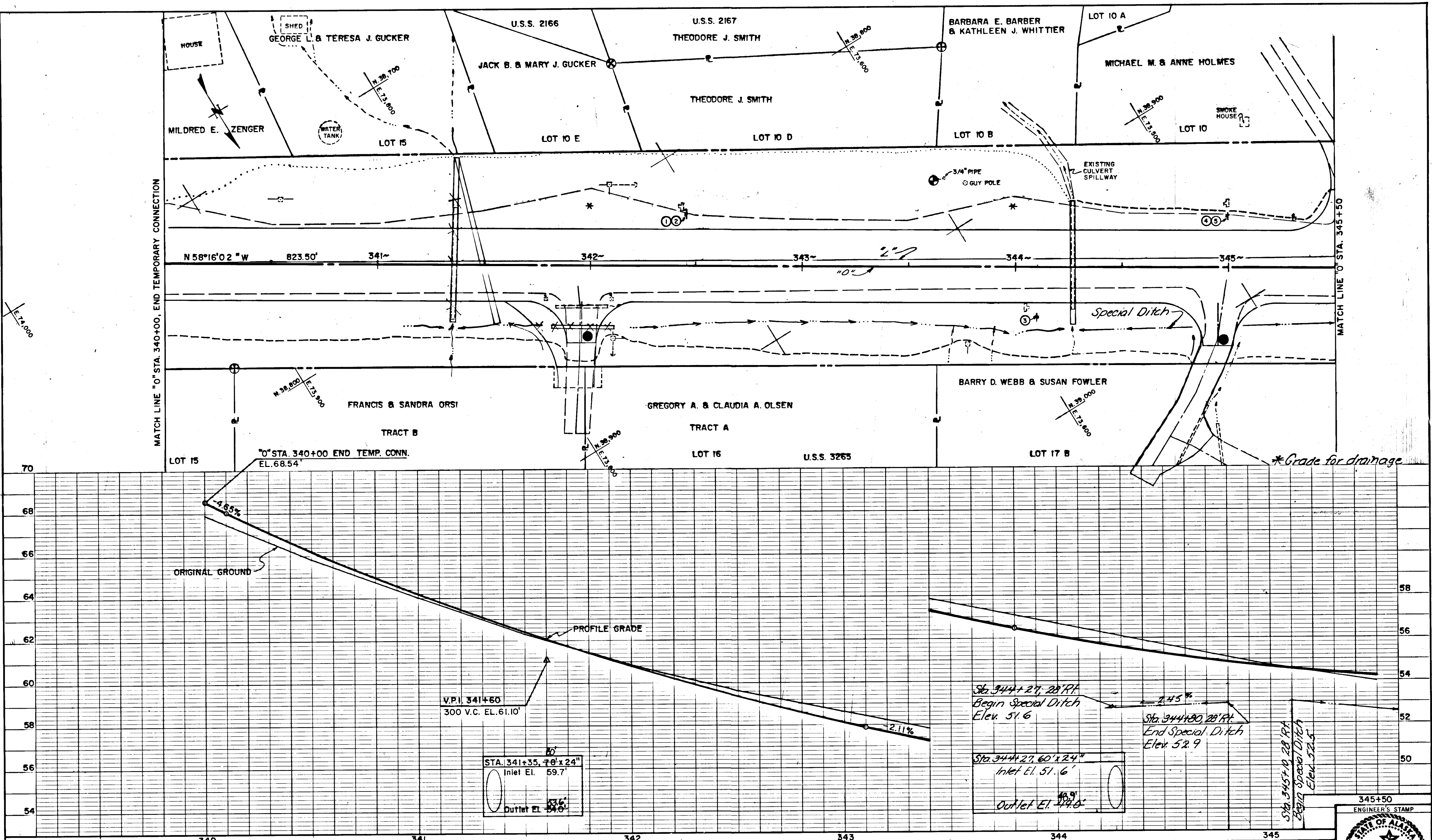
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
PLAN & PROFILE

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
DESIGNED BY: M.B.  
RECOMMENDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN BY: W.A.  
PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: P.B.  
PROJECT MANAGER: \_\_\_\_\_ LEAD DESIGNER: \_\_\_\_\_

HORIZ. SCALE: N.T.S.  
VERT. SCALE: \_\_\_\_\_  
DATE: \_\_\_\_\_  
SHEET 15 OF 70

ENGINEER'S STAMP  
STATE OF ALASKA  
49TH  
P. Badarowicz  
CE-5104  
REGISTERED PROFESSIONAL ENGINEER



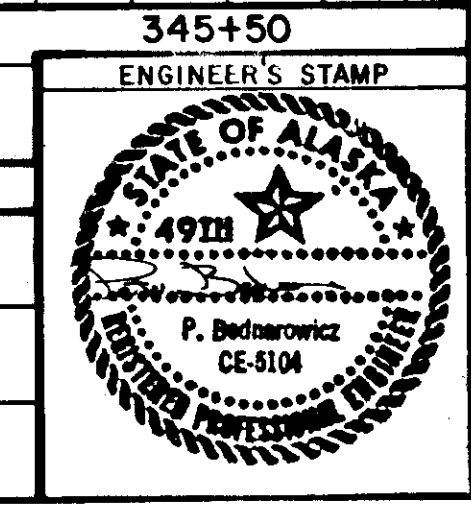
| BY                  | DATE | DESCRIPTION OF CHANGE |
|---------------------|------|-----------------------|
| RECORD OF REVISIONS |      |                       |

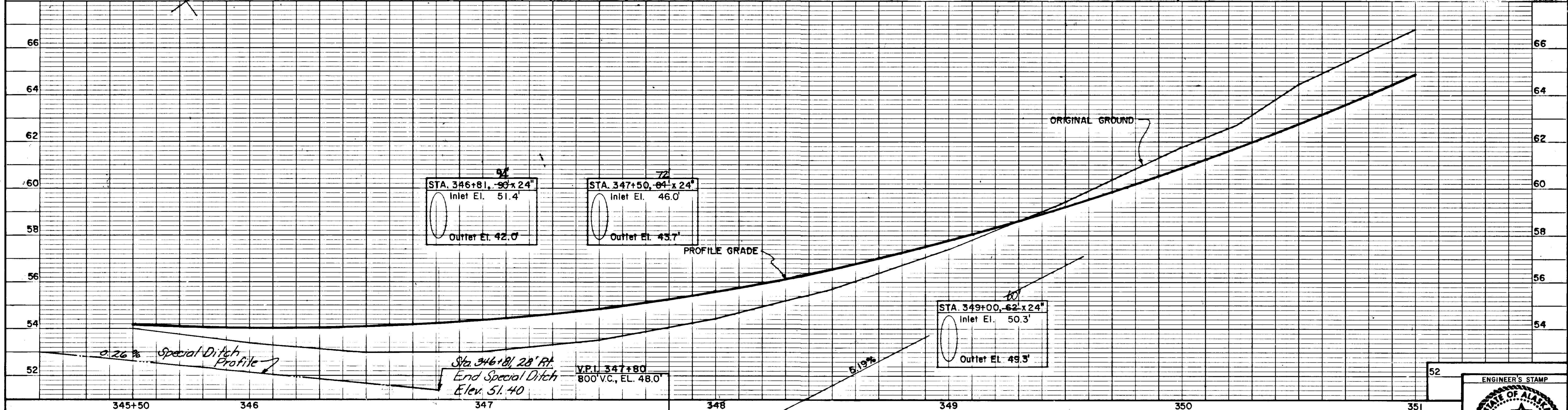
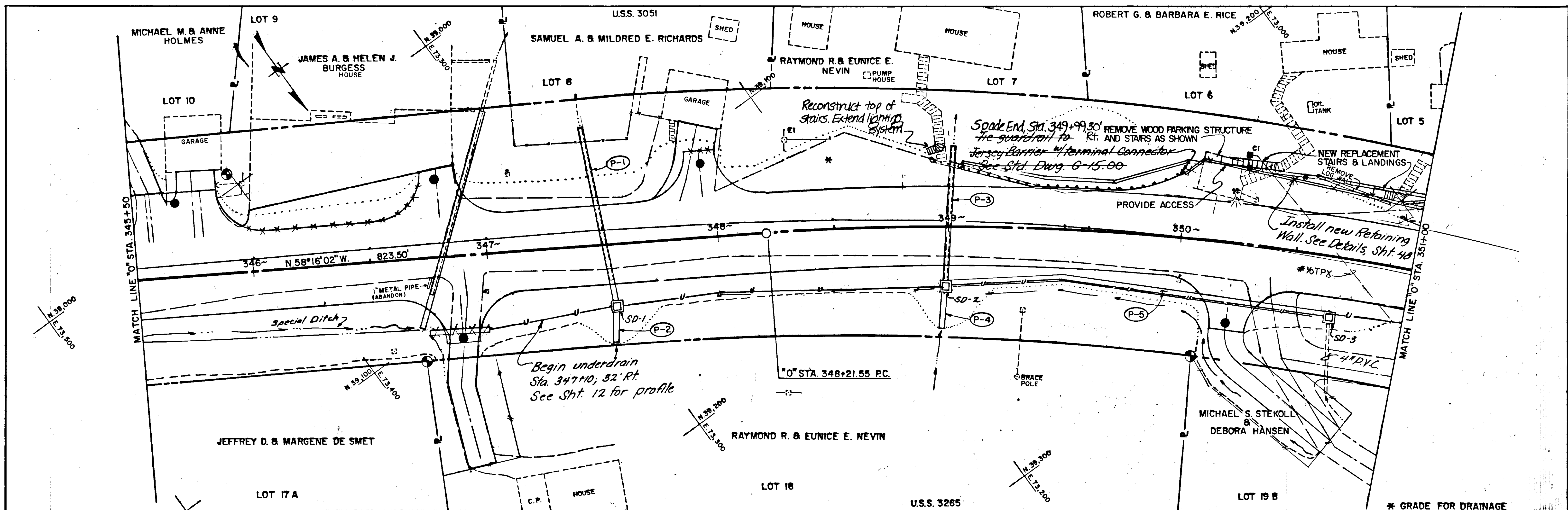
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
PLAN & PROFILE

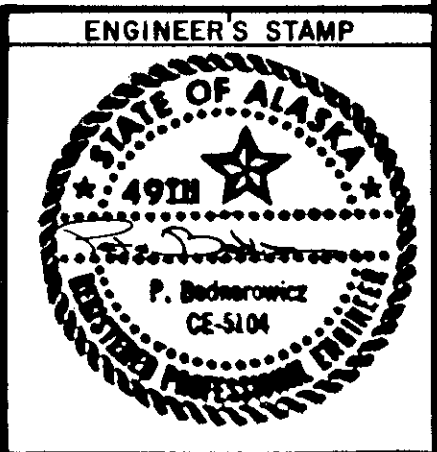
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|------------------------|---------------|---------------|
| APPROVED BY:           | DESIGNED BY:  | HORIZ. SCALE: |
| RECOMMENDED BY:        | M.B.          | N.T.S.        |
| DESIGN GROUP CHIEF     | DRAWN BY:     | DATE:         |
| DATE:                  | W.A.          |               |
| DESIGN ENGINEER, GROUP | CHECKED BY:   |               |
| DATE:                  | P.B.          |               |
| PROJECT MANAGER        | LEAD DESIGNER |               |

|                |
|----------------|
| SHEET 16 OF 70 |
|----------------|

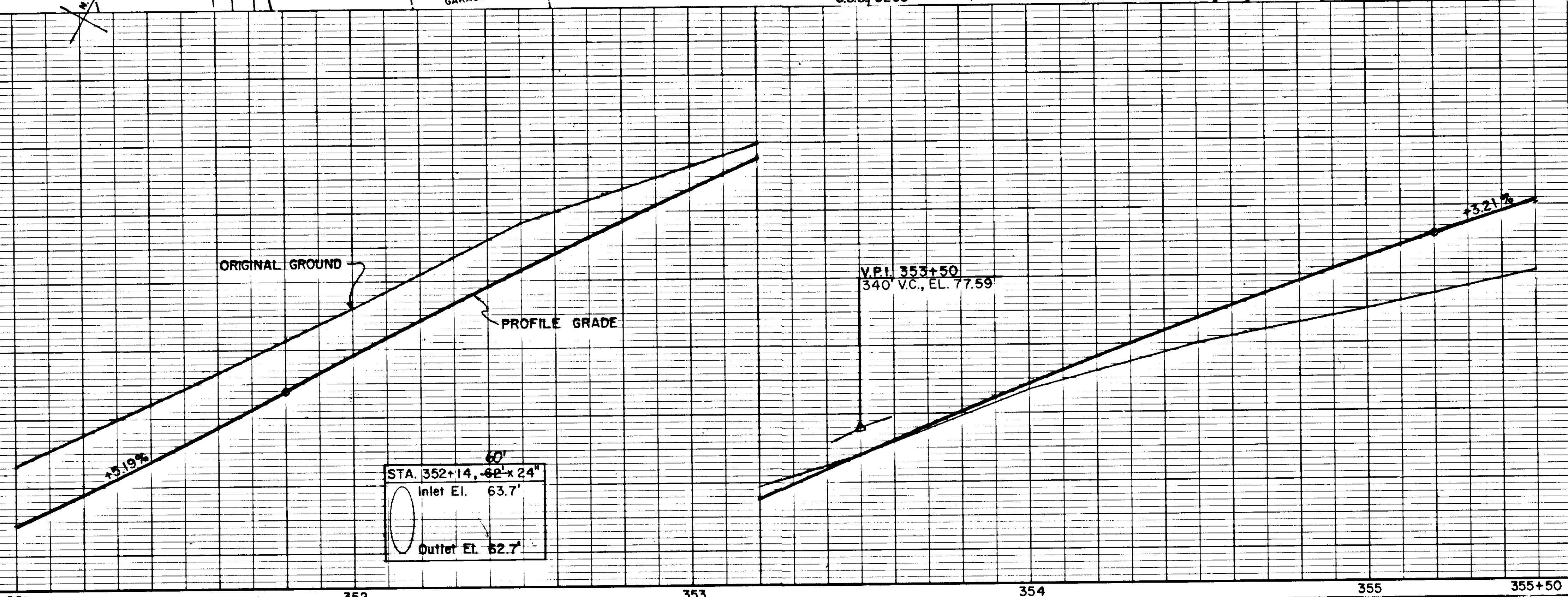
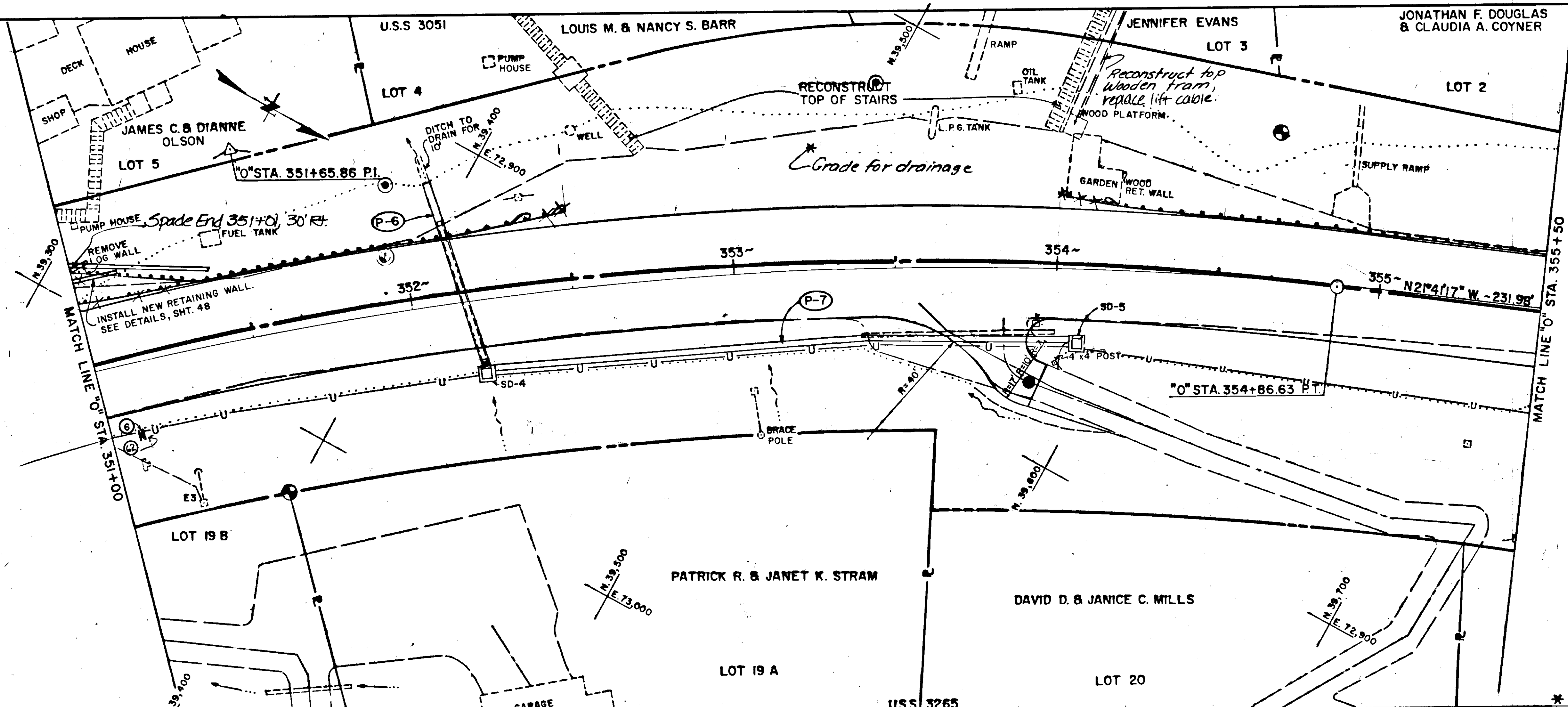




|                                                                                                               |  |  |                                                                                            |  |  |                                                                                                                                      |  |                                                                                                                       |  |                                                              |  |
|---------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------|--|
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  |  | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>PLAN & PROFILE |  |  | APPROVED BY: _____<br>RECOMMENDED BY: _____<br>PREPARED BY: _____<br>DESIGN GROUP CHIEF<br>DESIGN ENGINEER, GROUP<br>PROJECT MANAGER |  | DESIGNED BY: M.B.<br>DRAWN BY: W.A.<br>CHECKED BY: P.B.<br>DATE: _____<br>DATE: _____<br>DATE: _____<br>LEAD DESIGNER |  | HORIZ. SCALE: N.T.S.<br>VERT. SCALE: _____<br>SHEET 17 OF 70 |  |
| RECORD OF REVISIONS<br>BY: _____ DATE: _____ DESCRIPTION OF CHANGE: _____                                     |  |  |                                                                                            |  |  |                                                                                                                                      |  |                                                                                                                       |  |                                                              |  |



**CURVE DATA**  
 $\Delta = 36^\circ 34' 45''$  RT.  
 $D = 05^\circ 30' 00''$  RT.  
 $R = 1041.74'$   
 $L = 665.08'$   
 $T = 344.31'$   
 $S = .056$   
 $BT = 346+45$   
 $BFS = 349+10$   
 $EFS = 353+99$   
 $ET = 356+63$   
 $TL = 265'$

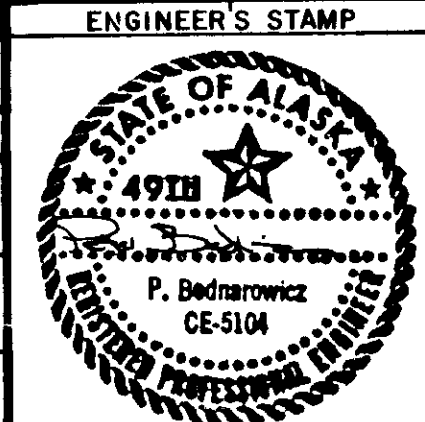


STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES  
 SOUTHEAST REGION DESIGN & CONSTRUCTION

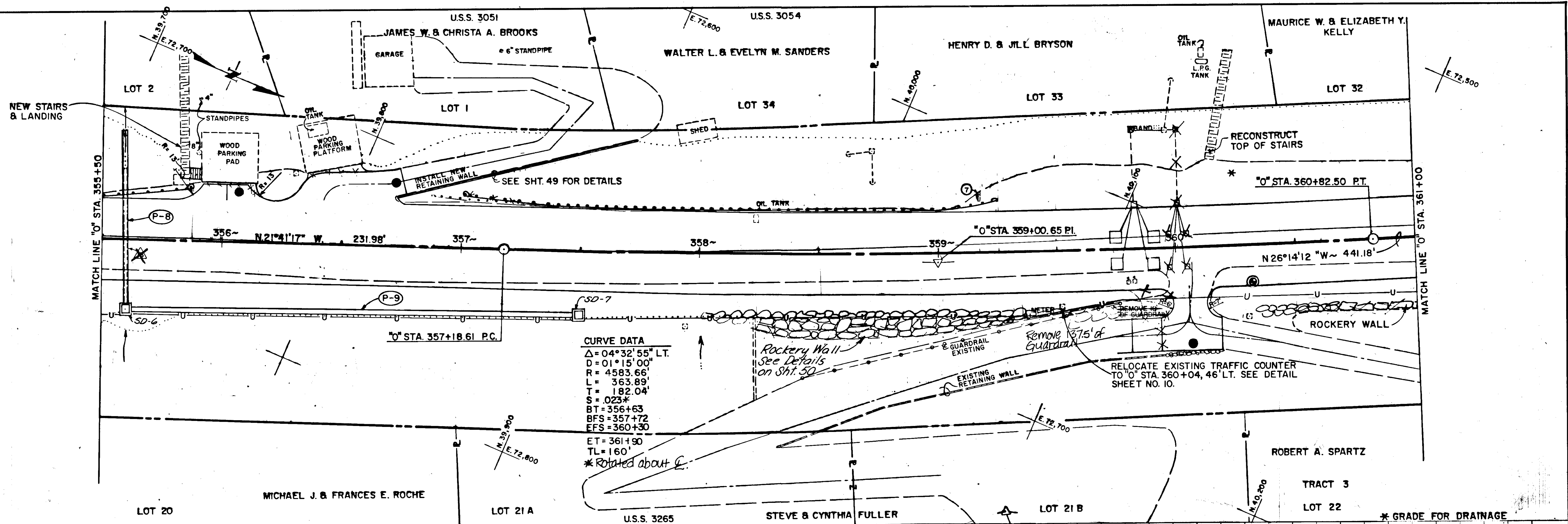
JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
 POINT LOUISA TO TEE HARBOR  
 PLAN & PROFILE

APPROVED BY: \_\_\_\_\_  
 DESIGN GROUP CHIEF \_\_\_\_\_ DATE \_\_\_\_\_  
 RECOMMENDED BY: \_\_\_\_\_  
 DESIGN ENGINEER, GROUP \_\_\_\_\_ DATE \_\_\_\_\_  
 PREPARED BY: \_\_\_\_\_  
 PROJECT MANAGER \_\_\_\_\_ LEAD DESIGNER \_\_\_\_\_

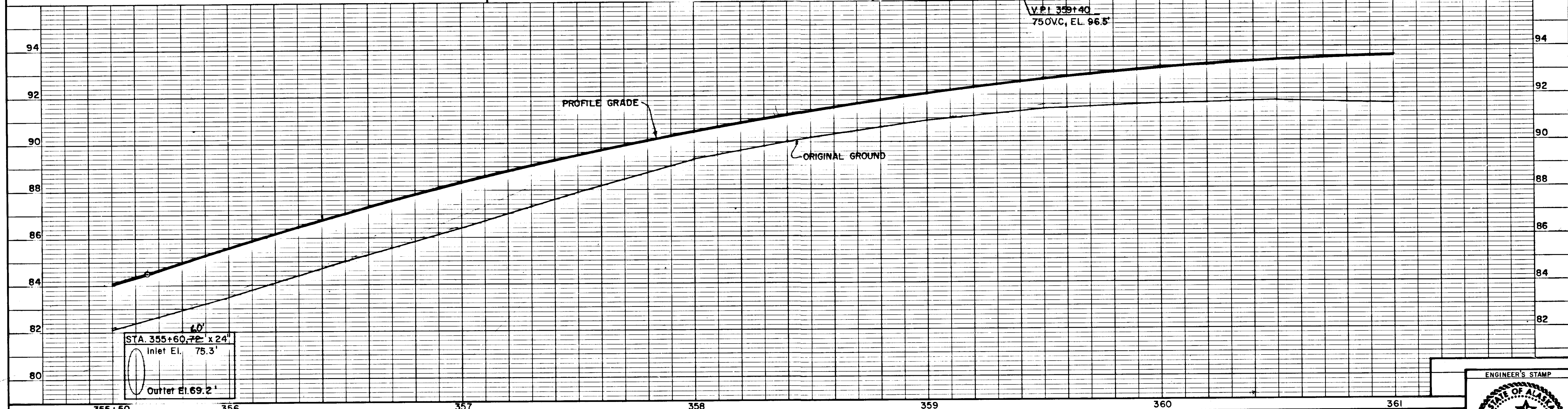
DESIGNED BY: M.B.  
 DRAWN BY: W.A.  
 CHECKED BY: P.B.  
 HORIZ. SCALE: N.T.S.  
 VERT. SCALE: N.T.S.  
 DATE: \_\_\_\_\_  
 SHEET 18 OF 70



DATE SUPPLIED: 11/20/20



CURVE DATA  
 $\Delta = 04^\circ 32' 55''$  LT.  
 $D = 01^\circ 15' 00''$   
 $R = 4583.66'$   
 $L = 363.89'$   
 $T = 182.04'$   
 $S = 0.023\%$   
 $BT = 356+63$   
 $BFS = 357+72$   
 $EFS = 360+30$   
 $ET = 361+90$   
 $TL = 160'$   
 \* Rotated about C.

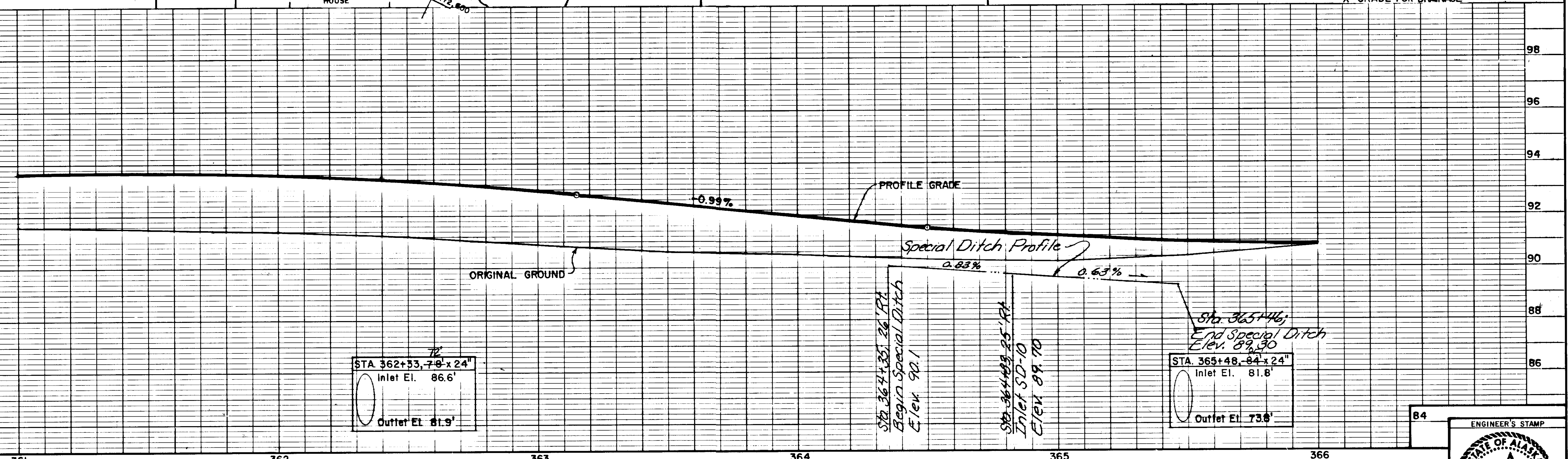
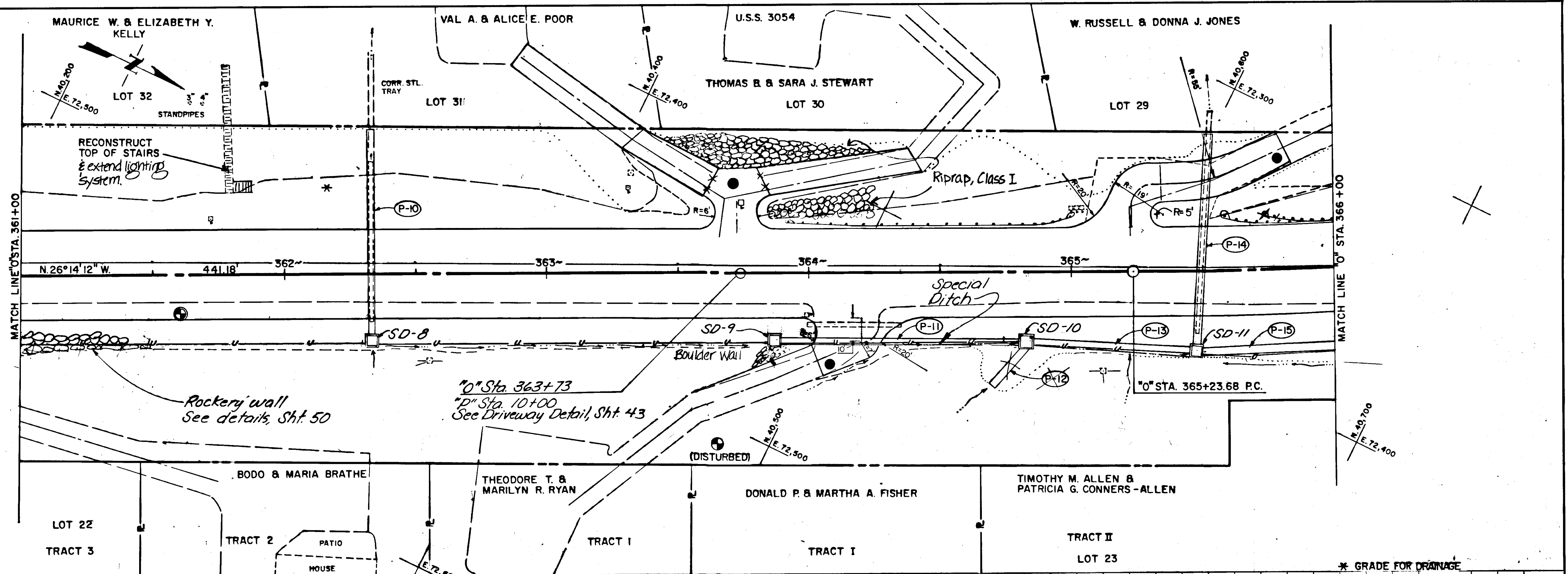


|                     |  |      |                       |
|---------------------|--|------|-----------------------|
| BY                  |  | DATE | DESCRIPTION OF CHANGE |
| RECORD OF REVISIONS |  |      |                       |

|                                                                                                                  |  |                                                                                            |  |
|------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------|--|
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>PLAN & PROFILE |  |
|------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------|--|

|                 |              |                     |
|-----------------|--------------|---------------------|
| APPROVED BY:    | DESIGNED BY: | HORIZ. SCALE:       |
| RECOMMENDED BY: | M.B.         | VERT. SCALE: N.T.S. |
| PREPARED BY:    | DRAWN BY:    | DATE:               |
| PROJECT MANAGER | W.A.         |                     |
| LEAD DESIGNER   | CHECKED BY:  | SHEET 19 OF 70      |
|                 | P.B.         |                     |

ENGINEER'S STAMP



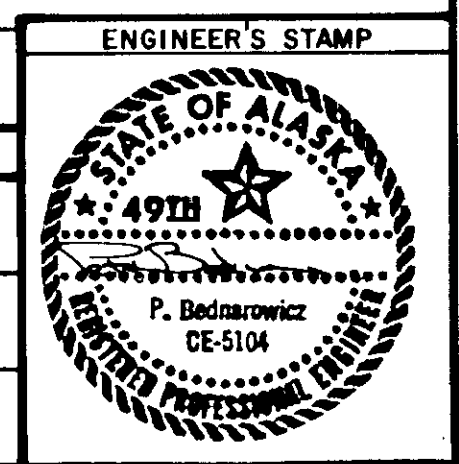
| BY                  | DATE | DESCRIPTION OF CHANGE |
|---------------------|------|-----------------------|
| RECORD OF REVISIONS |      |                       |

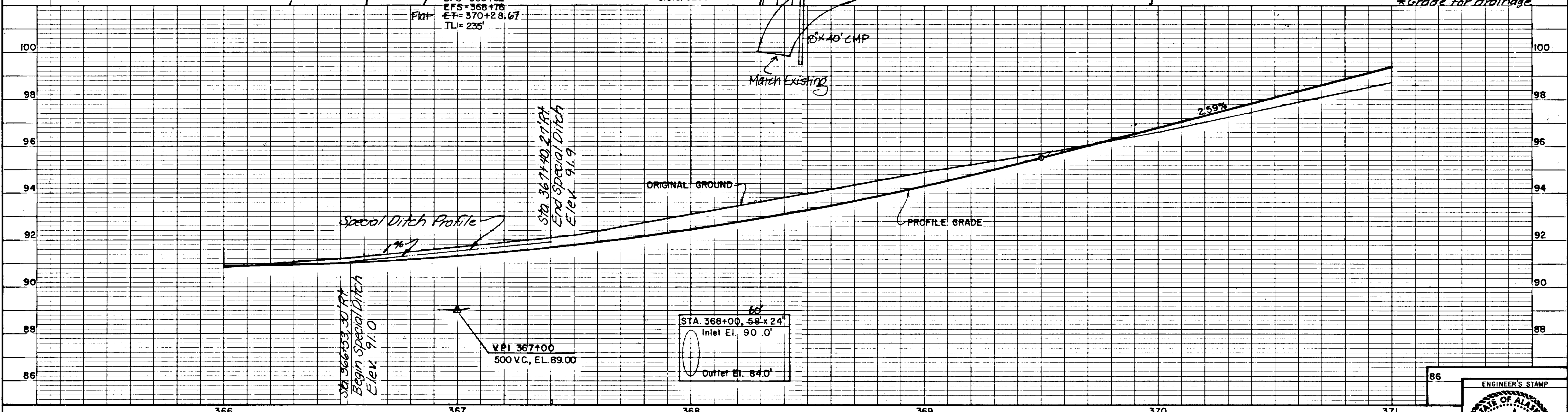
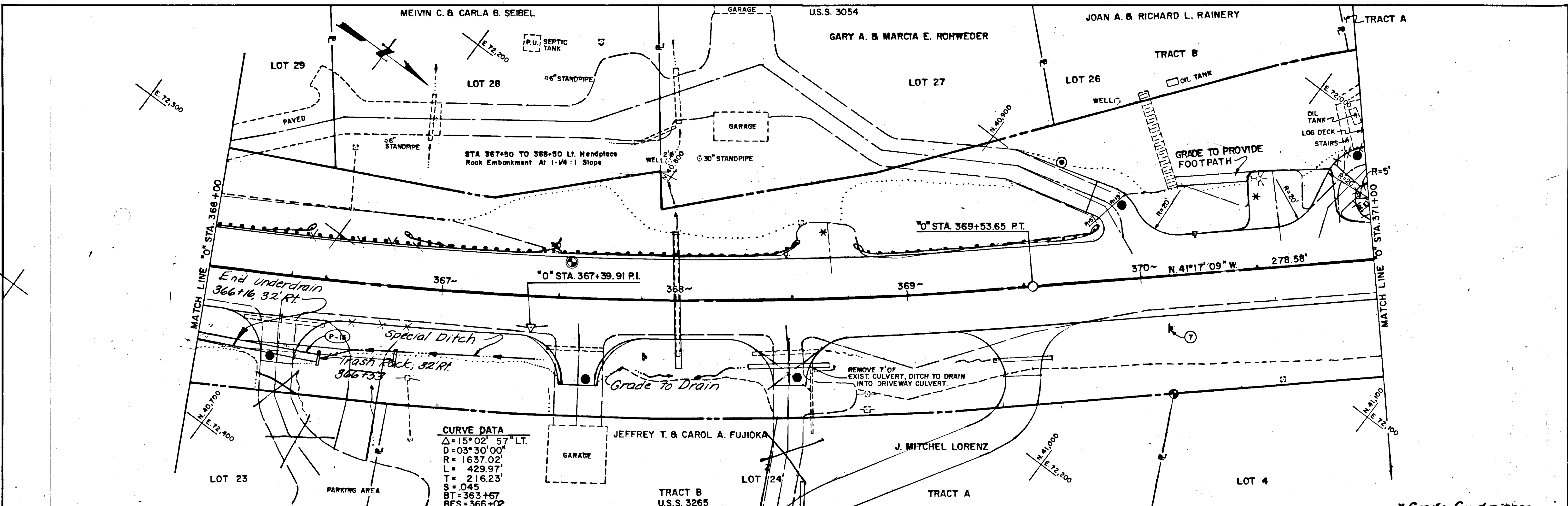
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
PLAN & PROFILE

APPROVED BY: \_\_\_\_\_  
DESIGNED BY: M.B.  
RECOMMENDED BY: \_\_\_\_\_  
DRAWN BY: W.A.  
PREPARED BY: \_\_\_\_\_  
CHECKED BY: P.B.

HORIZ. SCALE: N.T.S.  
VERT. SCALE: N.T.S.  
DATE: \_\_\_\_\_  
SHEET 20 OF 70





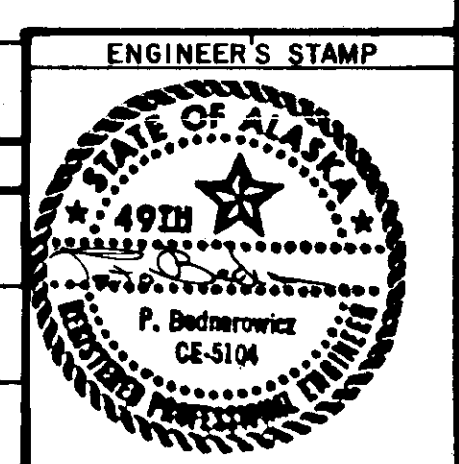
| BY | DATE | DESCRIPTION OF CHANGE |
|----|------|-----------------------|
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|    |      |                       |
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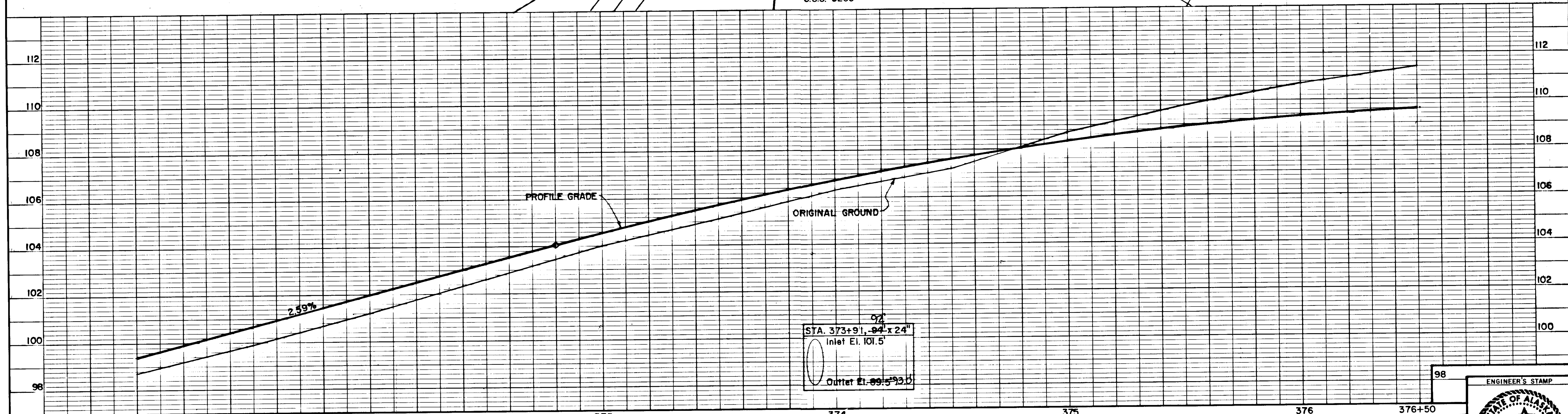
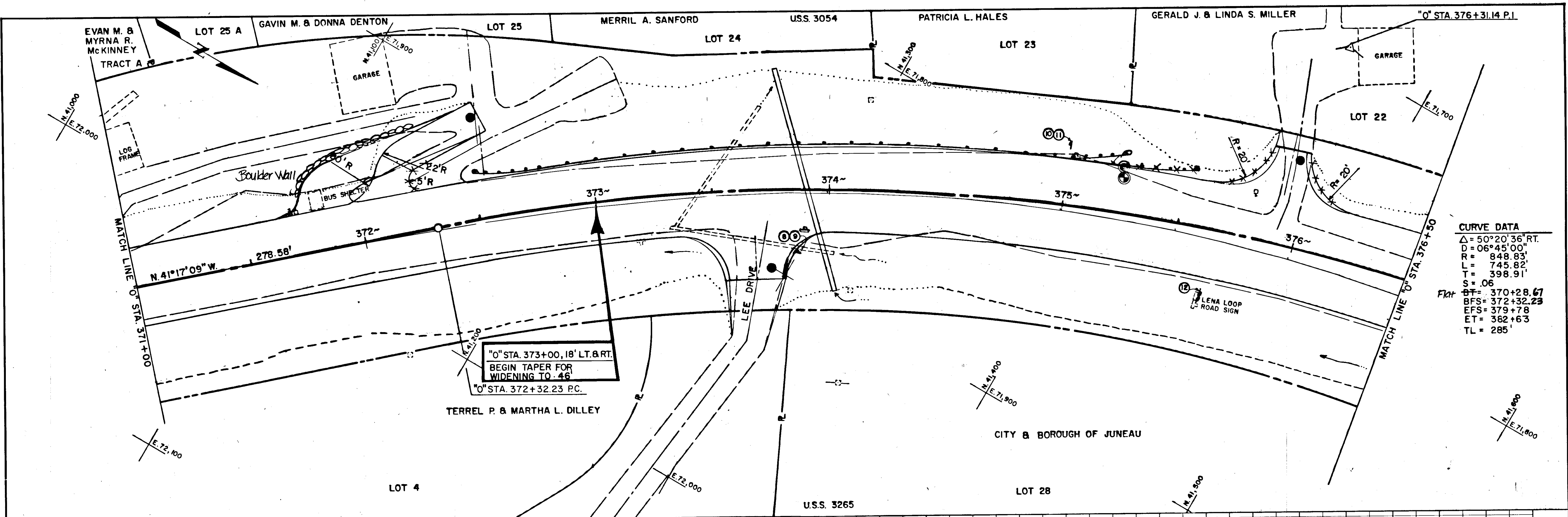
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
PLAN & PROFILE

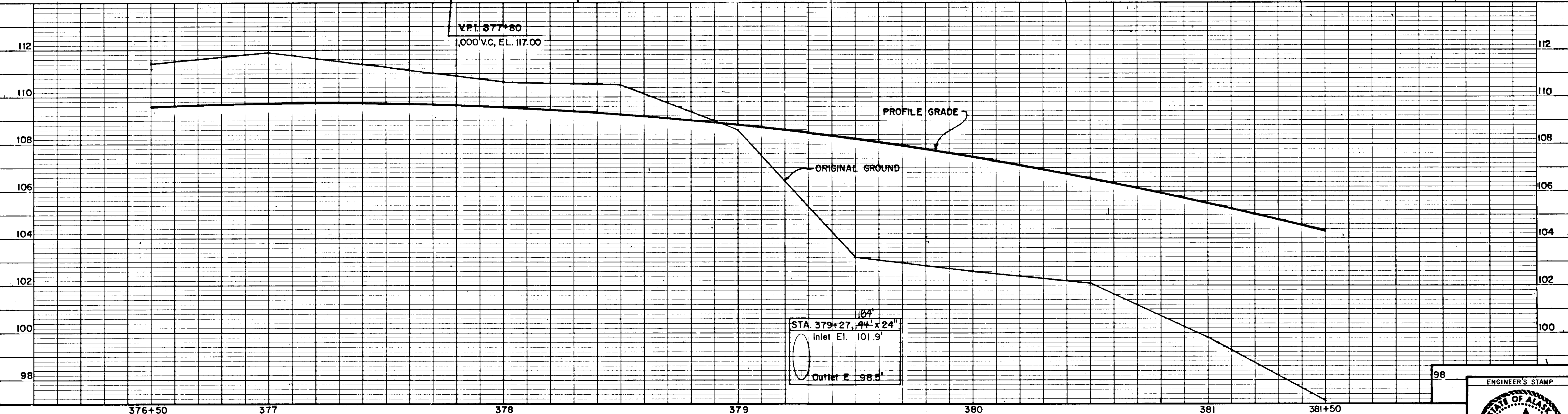
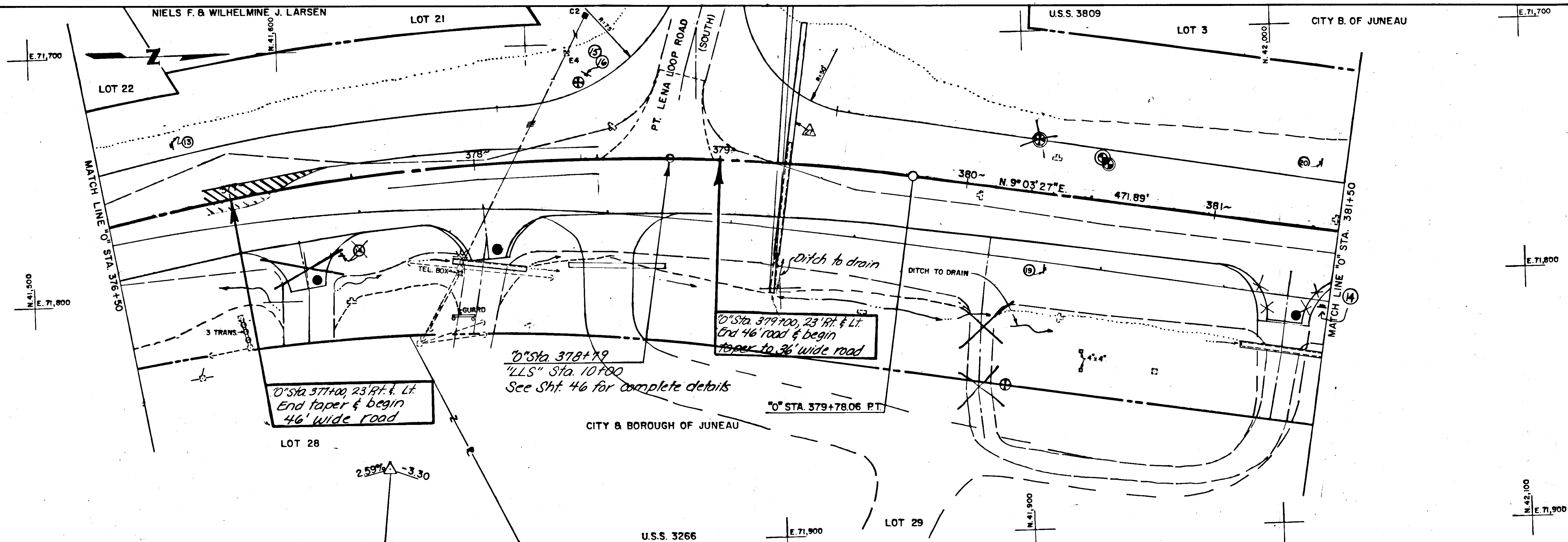
APPROVED BY: \_\_\_\_\_  
DESIGNED BY: M.B.  
RECOMMENDED BY: \_\_\_\_\_  
DRAWN BY: W.A.  
PREPARED BY: \_\_\_\_\_  
PROJECT MANAGER \_\_\_\_\_ LEAD DESIGNER \_\_\_\_\_

HORIZ. SCALE: N.T.S.  
VERT. SCALE: N.T.S.  
DATE: \_\_\_\_\_  
CHECKED BY: P.B.  
SHEET 21 OF 70

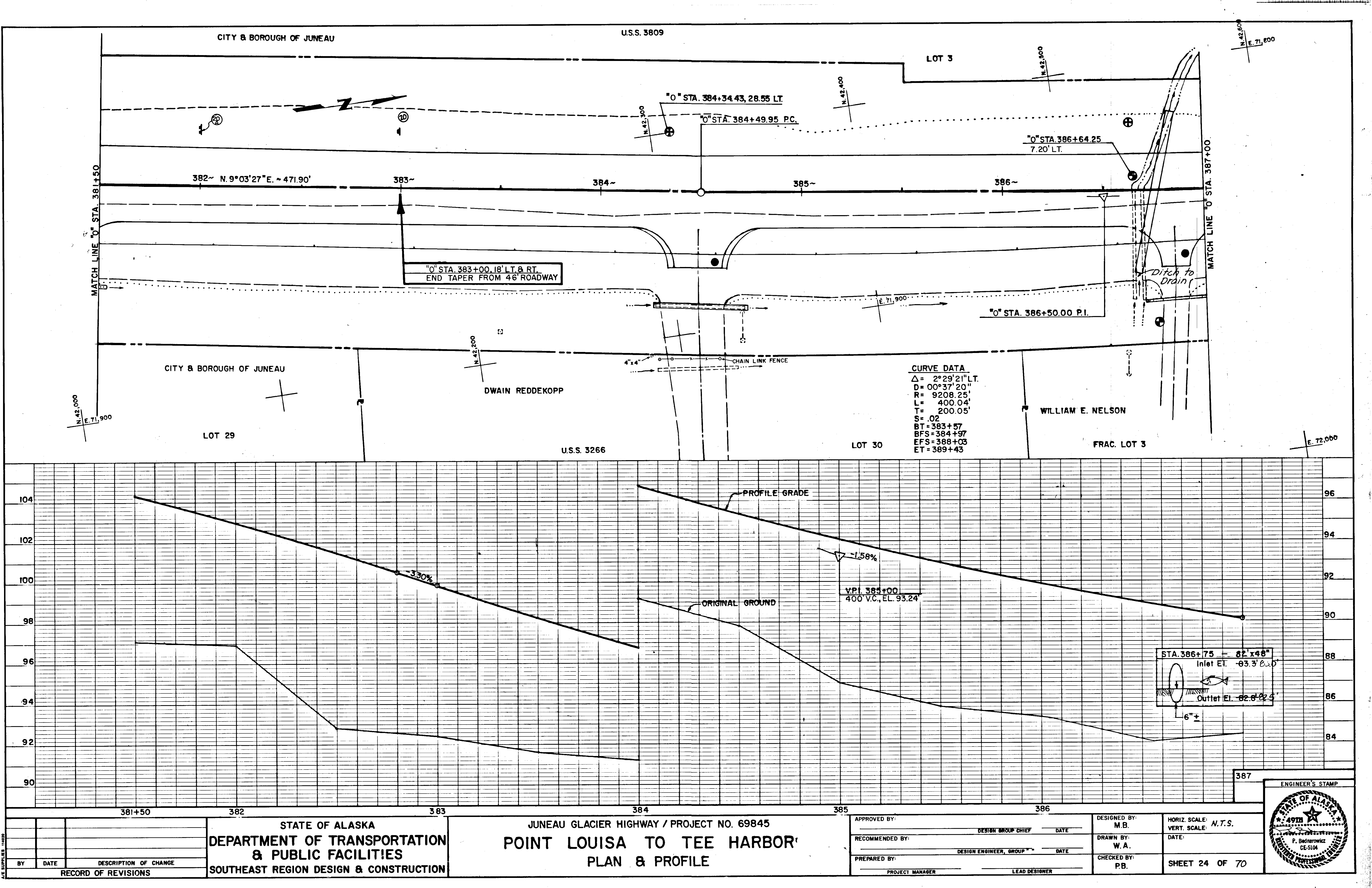




|                                                                           |  |                                                                                                                  |                                                                                            |                                                                                      |                                                                          |                                                                             |                      |
|---------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------|
| BY: _____ DATE: _____ DESCRIPTION OF CHANGE: _____<br>RECORD OF REVISIONS |  | STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>PLAN & PROFILE | APPROVED BY: _____<br>RECOMMENDED BY: _____<br>PREPARED BY: _____<br>PROJECT MANAGER | DESIGNED BY: M.B.<br>DRAWN BY: W.A.<br>CHECKED BY: P.B.<br>LEAD DESIGNER | HORIZ. SCALE: N.T.S.<br>VERT. SCALE: _____<br>DATE: _____<br>SHEET 22 OF 70 | ENGINEER'S STAMP<br> |
|---------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------|

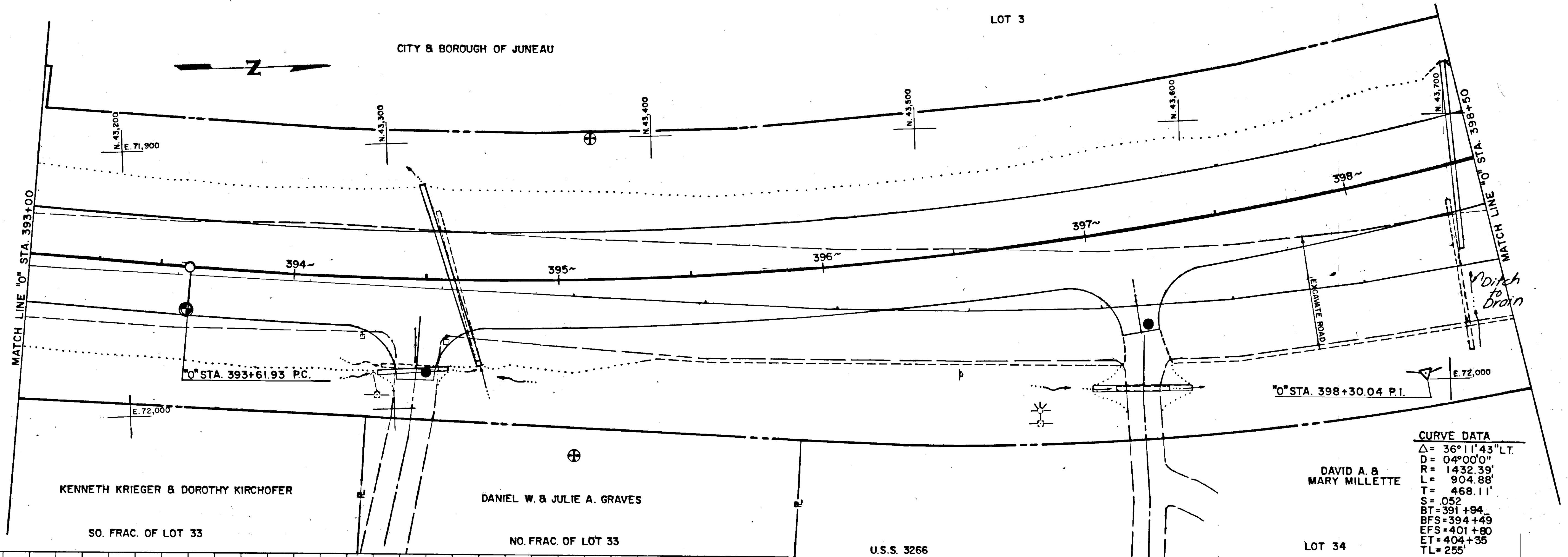


|                                                                                                               |  |  |                                                                                            |  |  |                                                                                                                                                                              |  |                                                                                                                         |  |                      |
|---------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------|--|----------------------|
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  |  | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>PLAN & PROFILE |  |  | APPROVED BY: _____<br>DESIGN GROUP CHIEF DATE _____<br>RECOMMENDED BY: _____<br>DESIGN ENGINEER, GROUP " " DATE _____<br>PREPARED BY: _____<br>PROJECT MANAGER LEAD DESIGNER |  | DESIGNED BY: M.B.<br>DRAWN BY: W.A.<br>CHECKED BY: P.B.<br>HORIZ. SCALE: N.T.S.<br>VERT. SCALE: _____<br>SHEET 23 OF 70 |  | ENGINEER'S STAMP<br> |
|---------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------|--|----------------------|

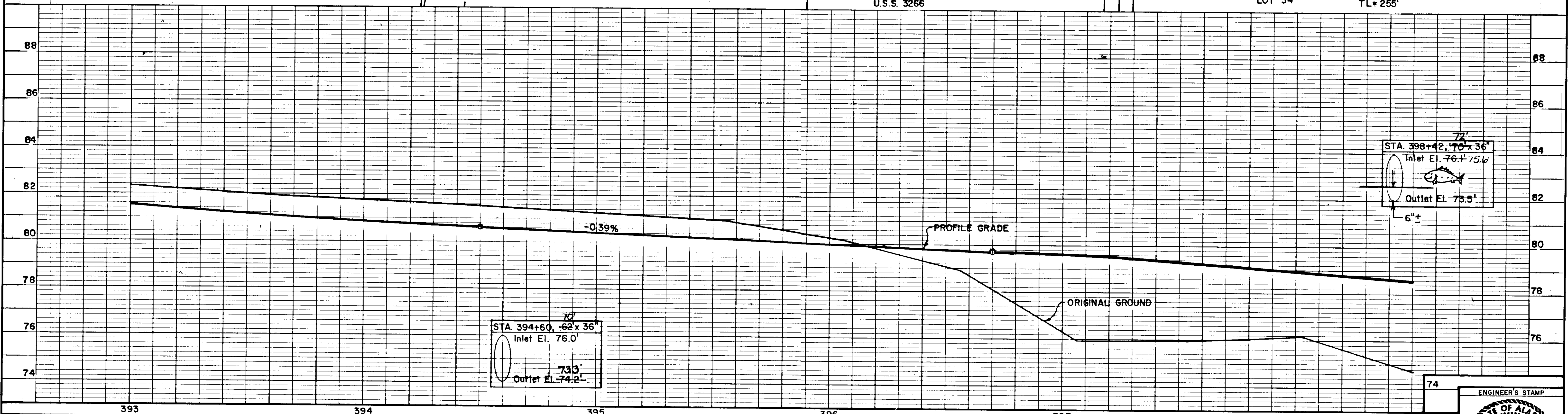




CITY &amp; BOROUGH OF JUNEAU



**CURVE DATA**  
 $\Delta = 36^\circ 11' 43''$  LT.  
 $D = 04^\circ 00' 0''$   
 $R = 1432.39'$   
 $L = 904.88'$   
 $T = 468.11'$   
 $S = .052$   
 $BT = 391+94$   
 $BFS = 394+49$   
 $EFS = 401+80$   
 $ET = 404+35$   
 $TL = 255'$

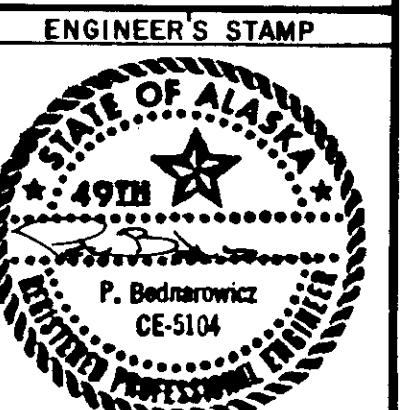


| BY | DATE | DESCRIPTION OF CHANGE |
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|    |      |                       |

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES  
 SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
 POINT LOUISA TO TEE HARBOR  
 PLAN & PROFILE

|                 |               |                     |
|-----------------|---------------|---------------------|
| APPROVED BY:    | DESIGNED BY:  | HORIZ. SCALE:       |
|                 | M.B.          | VERT. SCALE: N.T.S. |
| RECOMMENDED BY: | DRAWN BY:     | DATE:               |
|                 | W.A.          |                     |
| PREPARED BY:    | CHECKED BY:   |                     |
|                 | P.B.          |                     |
| PROJECT MANAGER | LEAD DESIGNER | SHEET 26 OF 70      |



"0" STA. 402+66.81 P.T.

Begin Taper  
403+00, 17' 4"

MATCH LINE "0" STA. 403+50

MATCH LINE "0" STA. 398+50

EXCAVATE ROAD

EXCAVATE ROAD

1144,000

403~

KERBY L. & CHARLA  
ARGO WRIGHT

LOT 35-B

LOT 35-A

STEPHAN &amp; NANCY THOMAS

**U.S.S. 3266**

TRACT 8

LOT / 36

EVAN & MARJORIE HAYNES

TRACT A

V.P.I. STA. 398+70  
EL. 79.00', 400' V.C.

**PROFILE GRADE**

-4.71%

Original Ground

|                         |
|-------------------------|
| STA. 403+45, 92' x 24"  |
| Inlet El. -68.2' 67.5'  |
| Outlet El. -62.0' 61.0' |

STA. 402+45.85 x 36"  
Inlet El. 67.5'  
Outlet El. 62.0'

$$398 + 50$$

399

400

401

402

403

|     |    |
|-----|----|
| 403 | 50 |
|-----|----|

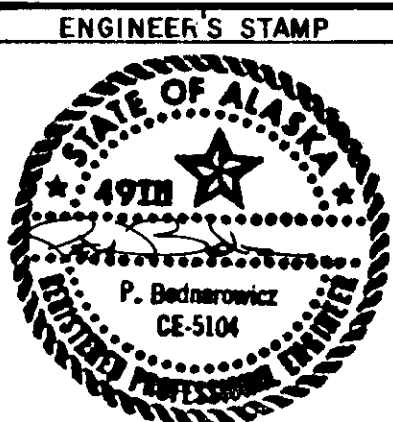
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

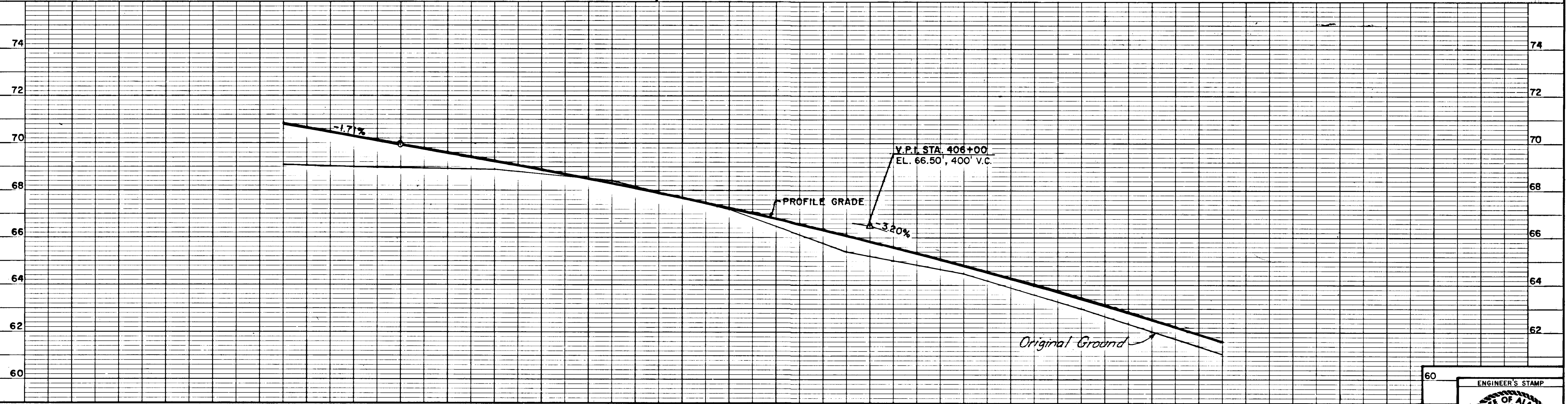
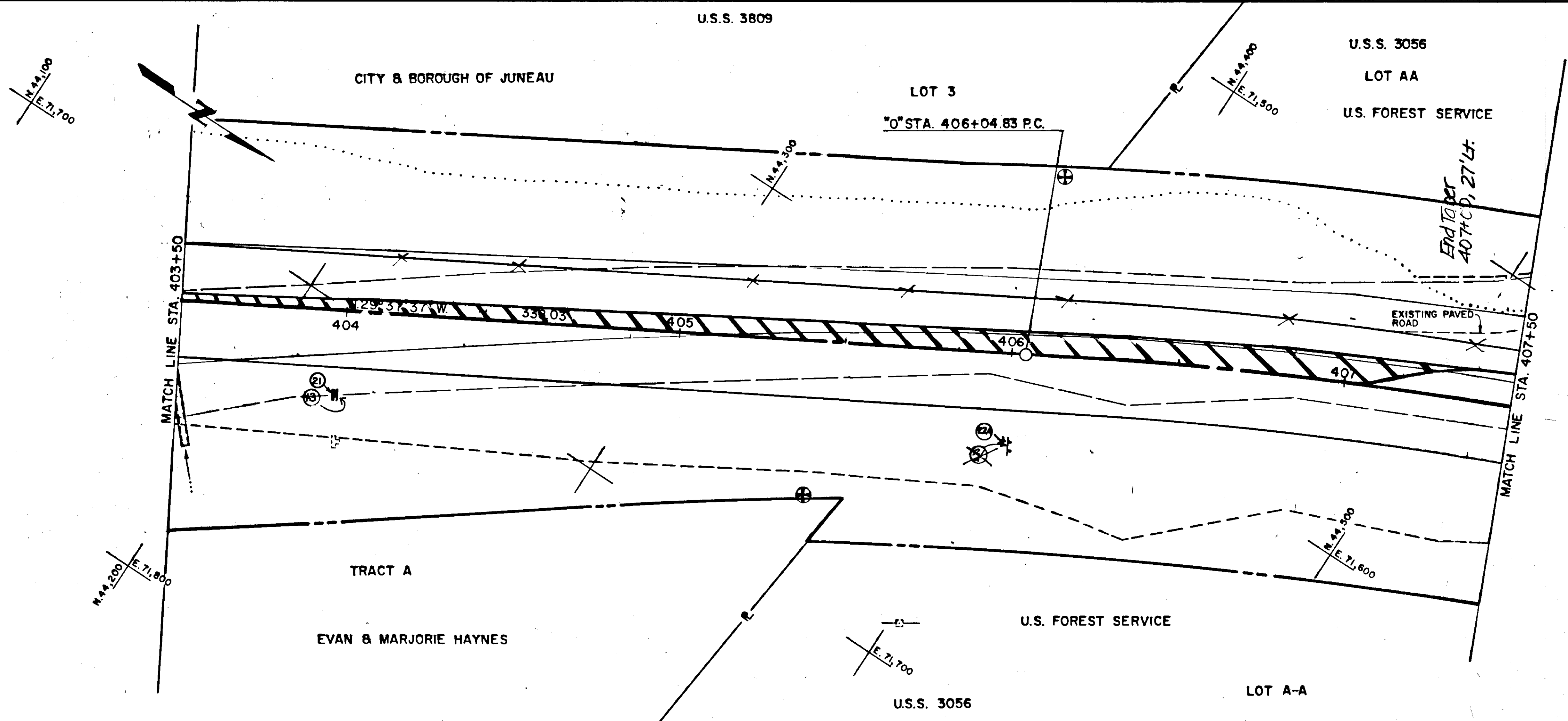
JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
PLAN & PROFILE

|                 |                        |               |
|-----------------|------------------------|---------------|
| APPROVED BY:    | DESIGN GROUP CHIEF     | DATE          |
| RECOMMENDED BY: | DESIGN ENGINEER, GROUP | DATE          |
| PREPARED BY:    | PROJECT MANAGER        | LEAD DESIGNER |

|              |      |
|--------------|------|
| DESIGNED BY: | M.S. |
| DRAWN BY:    | W.A. |
| CHECKED BY:  | P.B. |

|                |
|----------------|
| HORIZ. SCALE:  |
| VERT. SCALE:   |
| DATE:          |
| SHEET 27 OF 70 |





| RECORD OF REVISIONS |      | STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>PLAN & PROFILE |  | APPROVED BY:<br>DESIGNED BY:<br>RECOMMENDED BY:<br>PREPARED BY: |  | DESIGNED BY:<br>DRAWN BY:<br>CHECKED BY: |  | HORIZ. SCALE:<br>VERT. SCALE:<br>DATE: |  |
|---------------------|------|------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------|--|------------------------------------------|--|----------------------------------------|--|
| BY                  | DATE | DESCRIPTION OF CHANGE                                                                                            |  |                                                                                            |  | PROJECT MANAGER                                                 |  | P.B.                                     |  | SHEET 28 OF 70                         |  |

ENGINEER'S STAMP

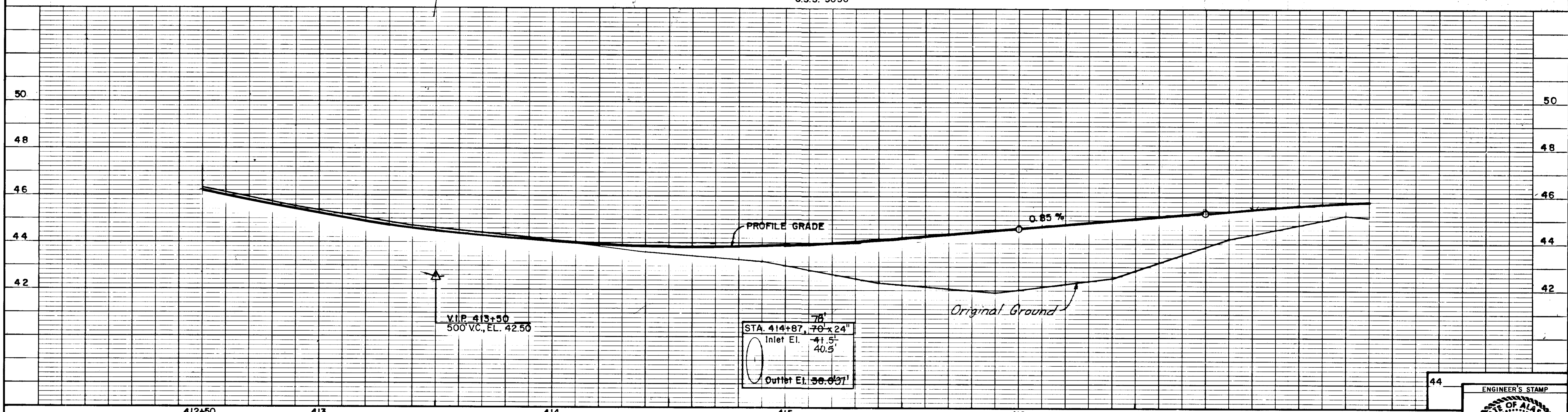
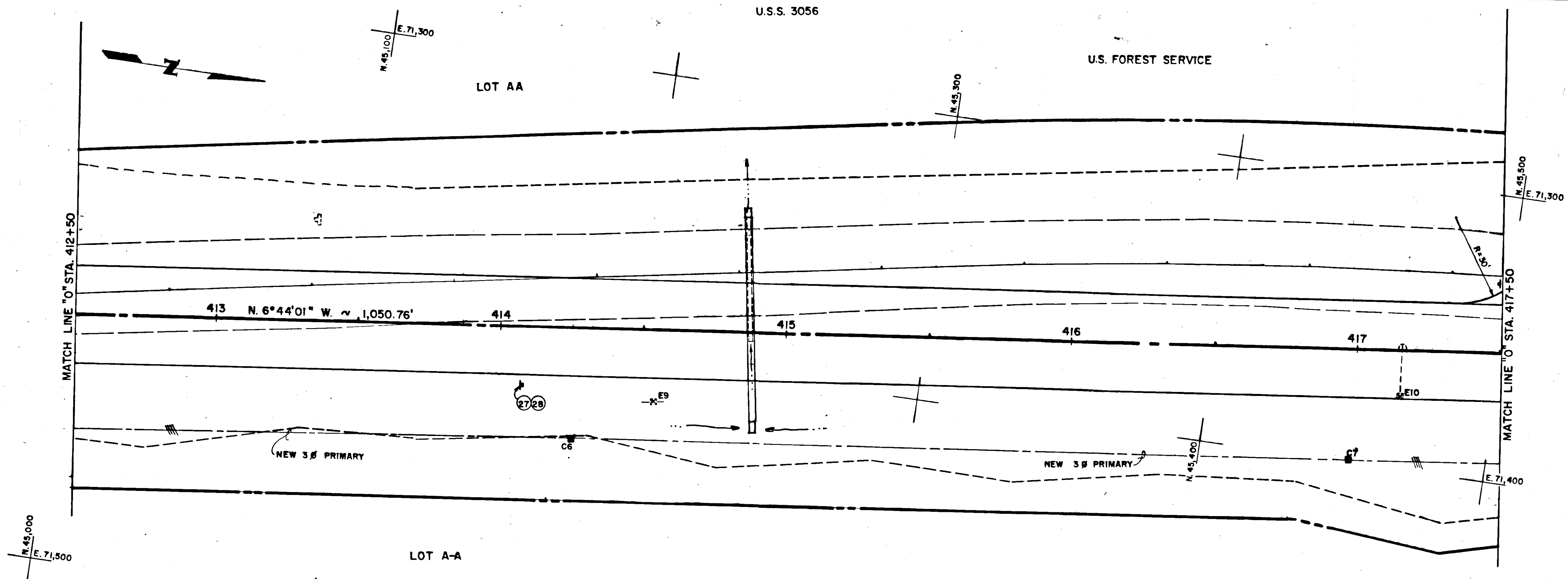
STATE OF ALASKA

49TH

P. Bodnarowicz

CE-5104





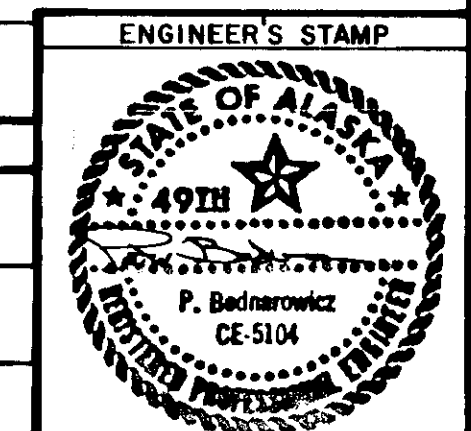
| BY | DATE | DESCRIPTION OF CHANGE |
|----|------|-----------------------|
|    |      |                       |
|    |      |                       |
|    |      |                       |

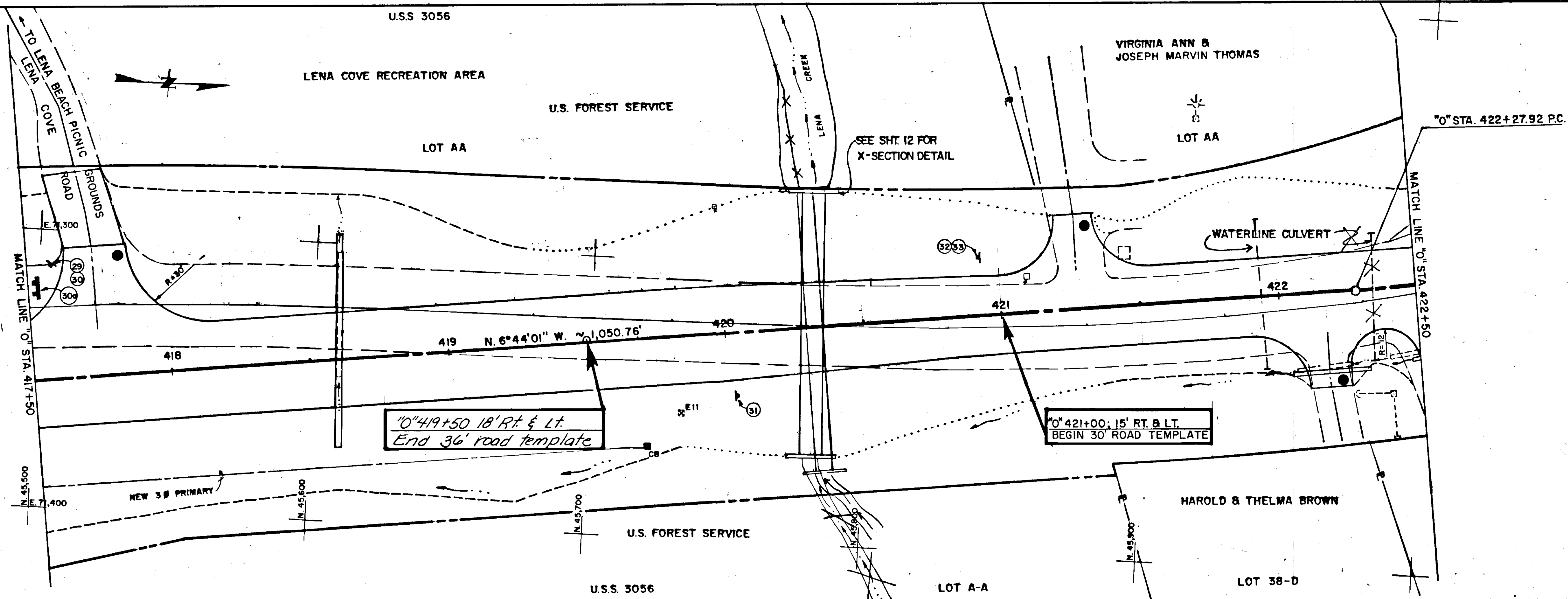
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
PLAN & PROFILE

APPROVED BY: \_\_\_\_\_  
DESIGNED BY: \_\_\_\_\_  
RECOMMENDED BY: \_\_\_\_\_  
DESIGN ENGINEER, GROUP "B"  
PREPARED BY: \_\_\_\_\_  
PROJECT MANAGER

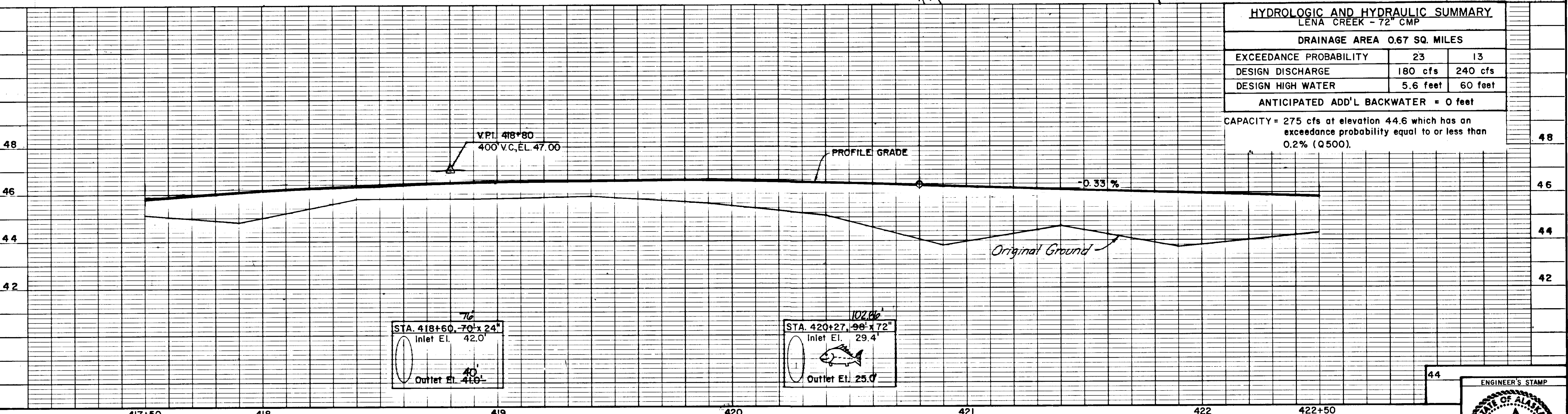
DESIGNED BY: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
P.B.  
HORIZ. SCALE: \_\_\_\_\_  
VERT. SCALE: \_\_\_\_\_  
DATE: \_\_\_\_\_  
SHEET 30 OF 70



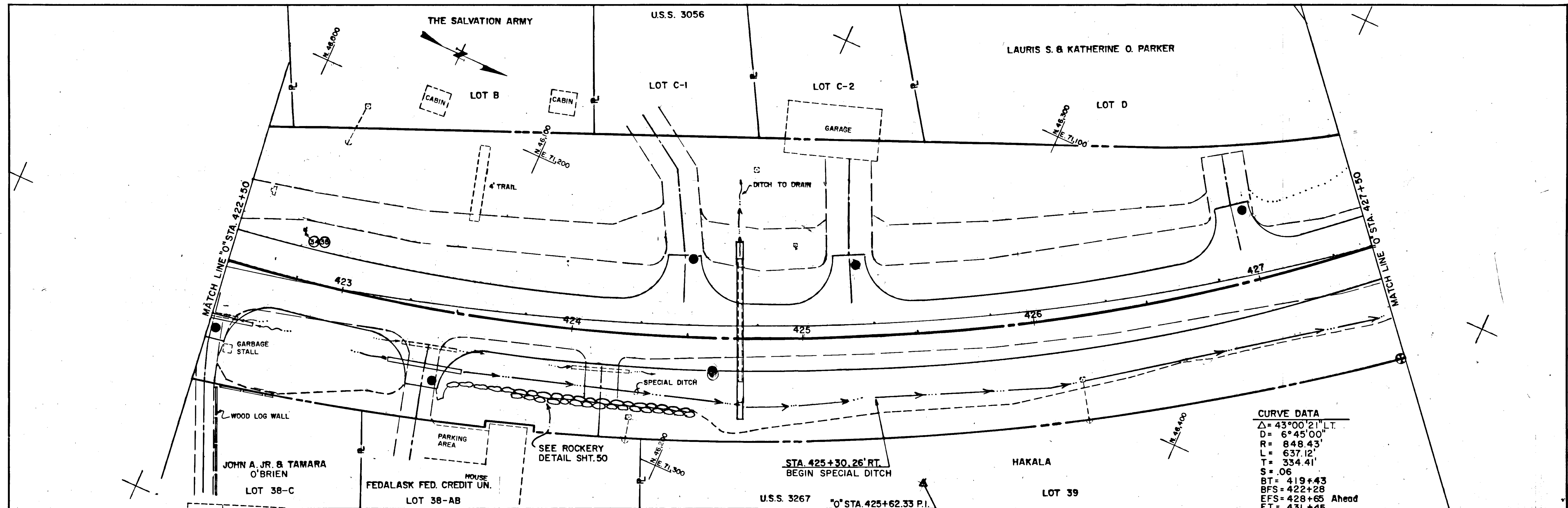


| HYDROLOGIC AND HYDRAULIC SUMMARY     |          |         |
|--------------------------------------|----------|---------|
| LENA CREEK - 72" CMP                 |          |         |
| DRAINAGE AREA 0.67 SQ. MILES         |          |         |
| EXCEEDANCE PROBABILITY               | 23       | 13      |
| DESIGN DISCHARGE                     | 180 cfs  | 240 cfs |
| DESIGN HIGH WATER                    | 5.6 feet | 60 feet |
| ANTICIPATED ADD'L BACKWATER = 0 feet |          |         |

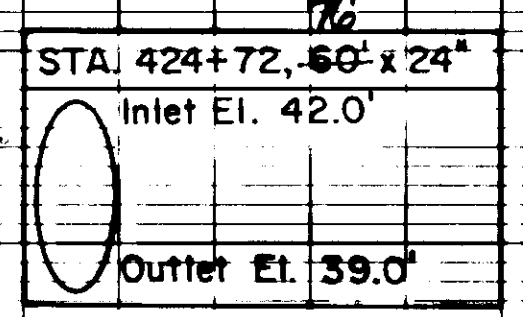
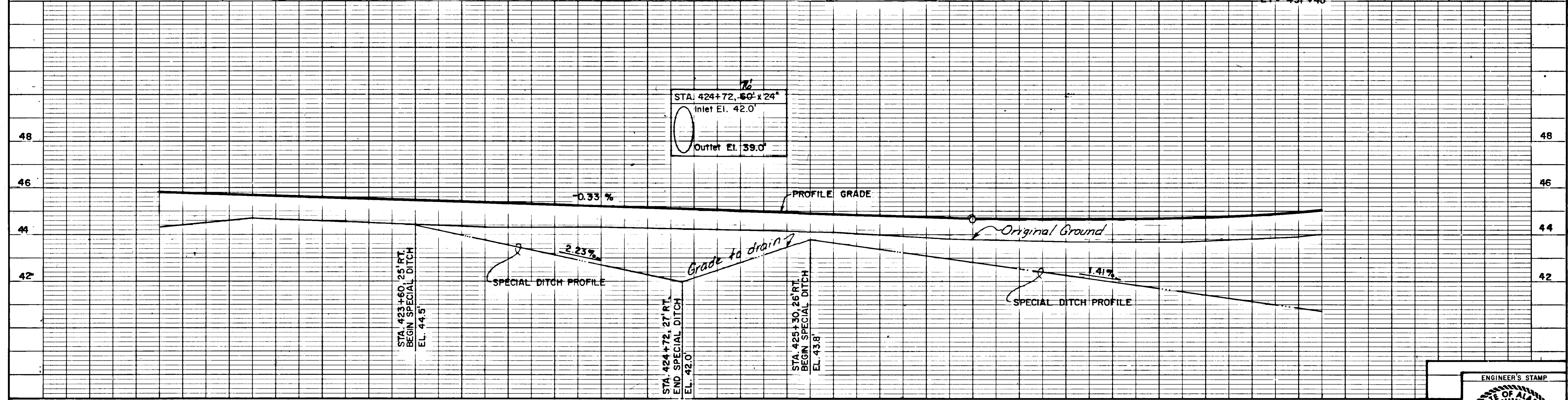
CAPACITY = 275 cfs at elevation 44.6 which has an exceedance probability equal to or less than 0.2% (Q500).



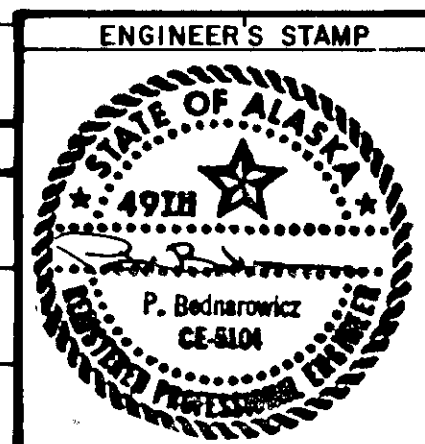
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|---------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------|--|--|-----------------------------------------------------------------------------------------------------------------------------|--|--|---------------------------------------------------------------------------------|--|--|
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  |  | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>PLAN & PROFILE |  |  | APPROVED BY: _____<br>DESIGNED BY: M.B.<br>RECOMMENDED BY: _____<br>DRAWN BY: W.A.<br>PREPARED BY: _____<br>PROJECT MANAGER |  |  | HORIZ. SCALE: _____<br>VERT. SCALE: _____<br>CHECKED BY: P.B.<br>SHEET 31 OF 70 |  |  |
| RECORD OF REVISIONS                                                                                           |  |  |                                                                                            |  |  |                                                                                                                             |  |  | ENGINEER'S STAMP<br>STATE OF ALASKA<br>1991<br>P. Bodnarowicz<br>CE-5104        |  |  |

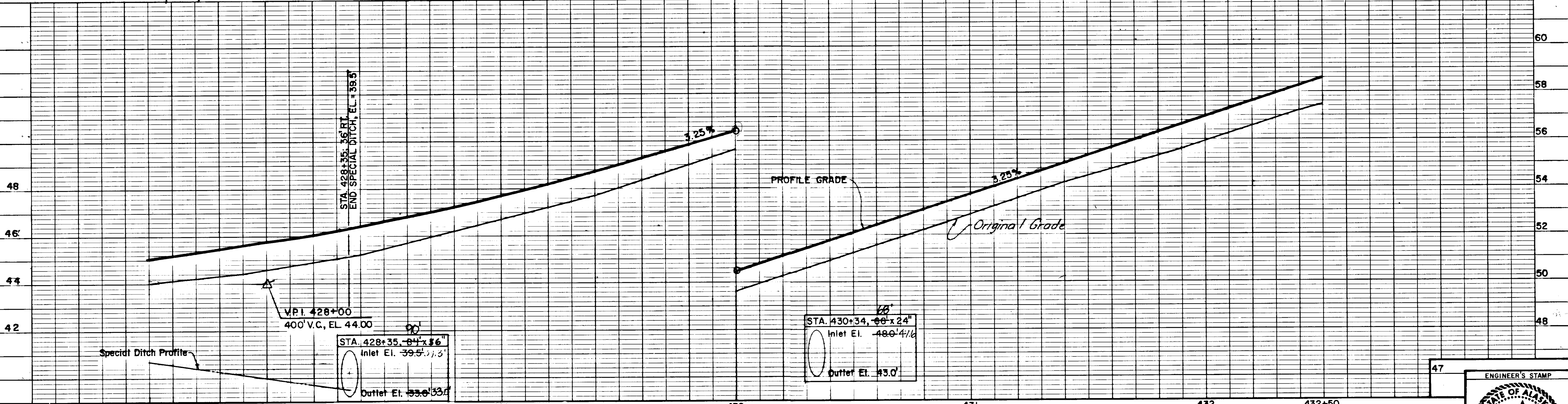
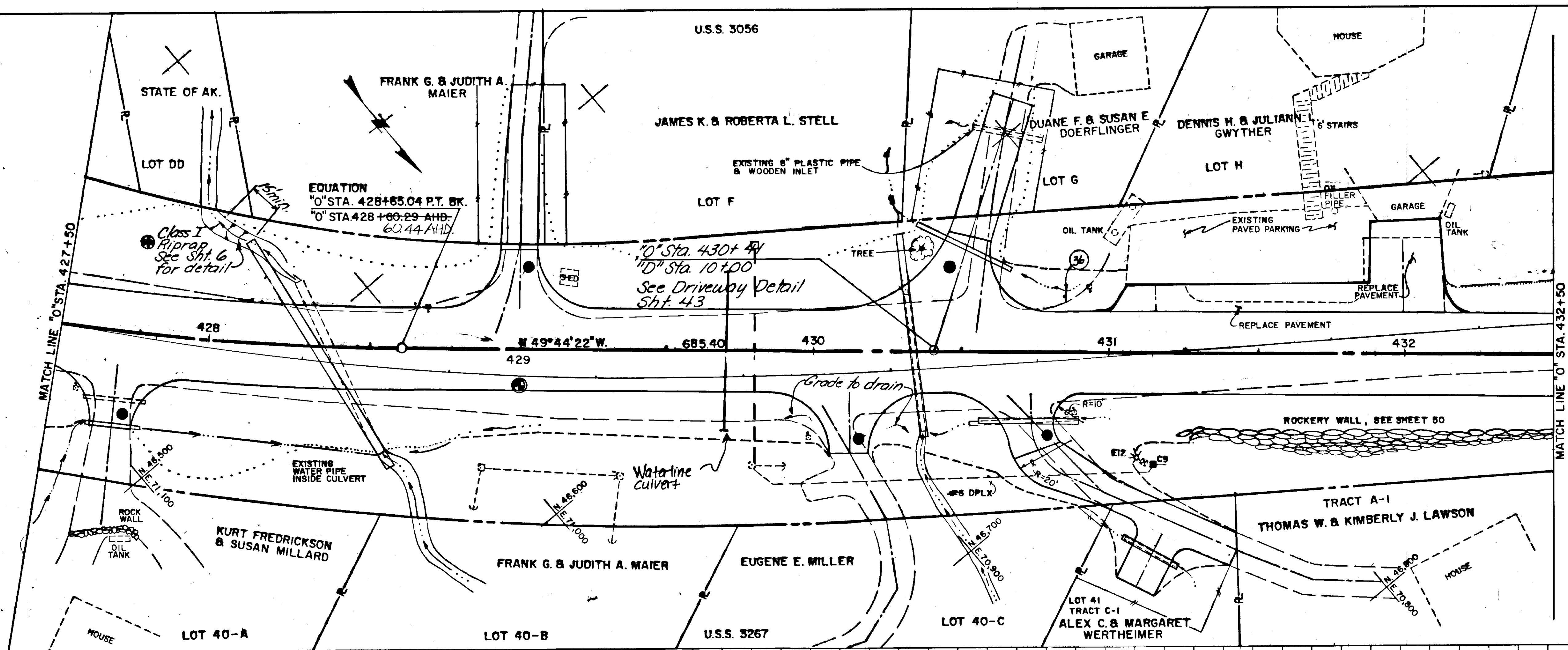


| CURVE DATA |                         |
|------------|-------------------------|
| $\Delta$   | $43^{\circ}00'21''$ LT. |
| D          | $6^{\circ}45'00''$      |
| R          | 848.43'                 |
| L          | 637.12'                 |
| T          | 334.41'                 |
| S          | .06                     |
| BT         | $419+43$                |
| BFS        | $422+28$                |
| EFS        | $428+65$ Ahead          |
| ET         | $431+46$                |



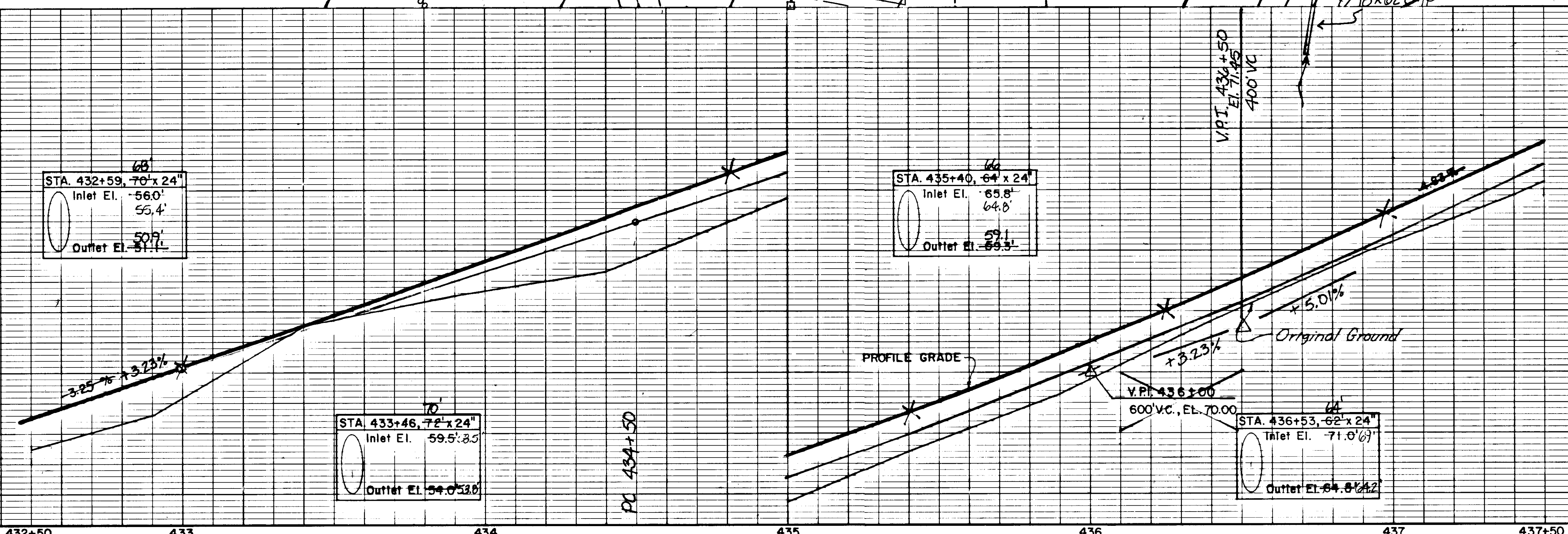
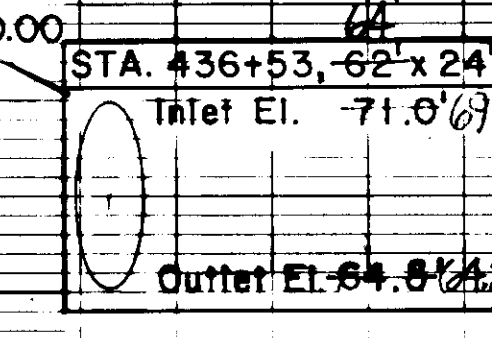
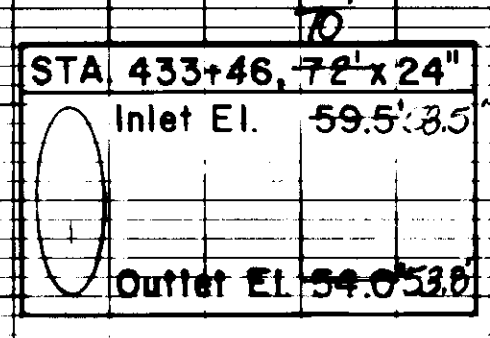
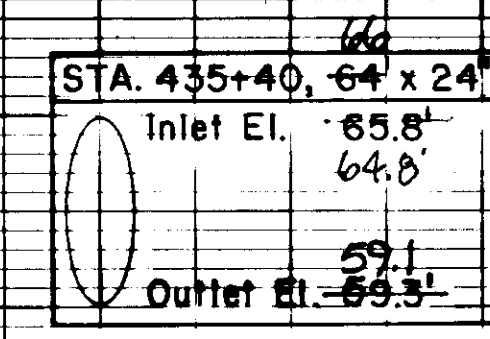
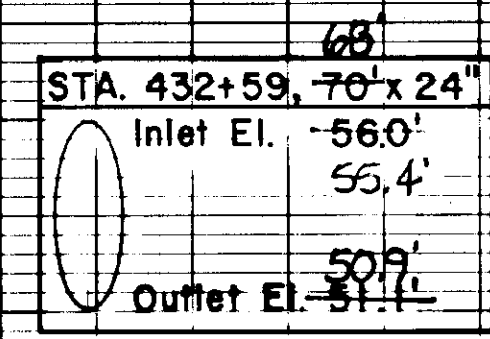
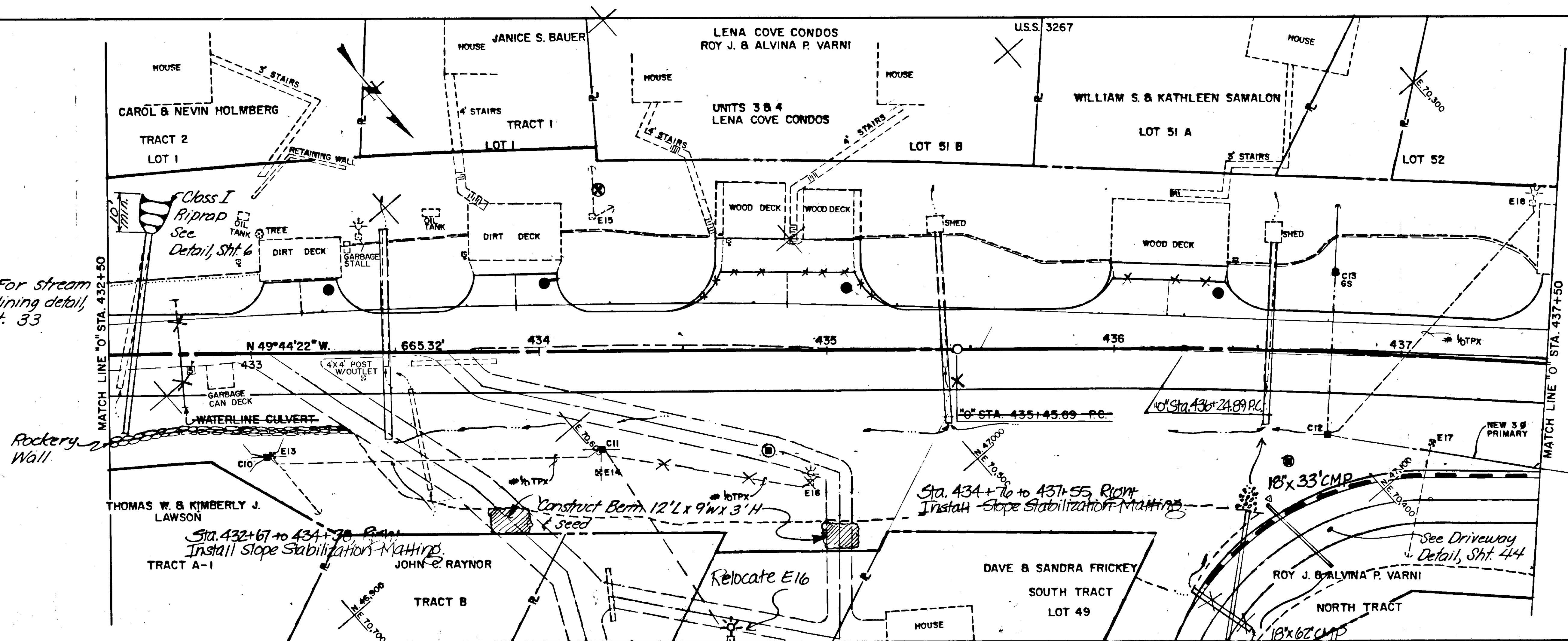
|                                                                                                                                           |  |                                                                                            |  |
|-------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------|--|
| BY _____ DATE _____                                                                                                                       |  | DESCRIPTION OF CHANGE                                                                      |  |
| RECORD OF REVISIONS                                                                                                                       |  |                                                                                            |  |
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION                          |  | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>PLAN & PROFILE |  |
| APPROVED BY: _____<br>DESIGNED BY: M.B.<br>RECOMMENDED BY: _____<br>DESIGN ENGINEER, GROUP _____<br>PREPARED BY: _____<br>PROJECT MANAGER |  | DATE _____<br>DATE _____<br>DATE _____<br>DATE _____<br>LEAD DESIGNER                      |  |
| HORIZ. SCALE: _____<br>VERT. SCALE: _____<br>DATE: _____                                                                                  |  | CHECKED BY: P.B.<br>SHEET 32 OF 70                                                         |  |





|                                                                                                                  |  |               |                       |
|------------------------------------------------------------------------------------------------------------------|--|---------------|-----------------------|
| BY                                                                                                               |  | DATE          | DESCRIPTION OF CHANGE |
| RECORD OF REVISIONS                                                                                              |  |               |                       |
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  |               |                       |
| JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>PLAN & PROFILE                       |  |               |                       |
| APPROVED BY:                                                                                                     |  | DESIGNED BY:  | HORIZ. SCALE:         |
| RECOMMENDED BY:                                                                                                  |  | DRAWN BY:     | VERT. SCALE:          |
| PREPARED BY:                                                                                                     |  | CHECKED BY:   | DATE:                 |
| PROJECT MANAGER                                                                                                  |  | LEAD DESIGNER | SHEET 33 OF 70        |

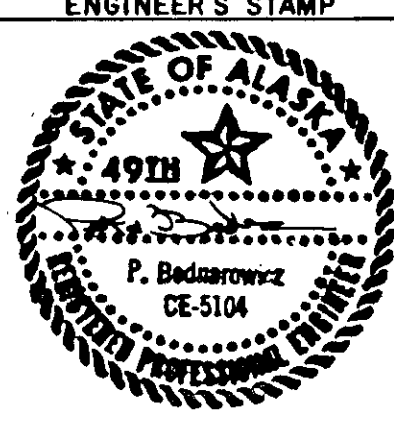
NOTE: For stream  
riprap lining detail,  
See Sht. 33



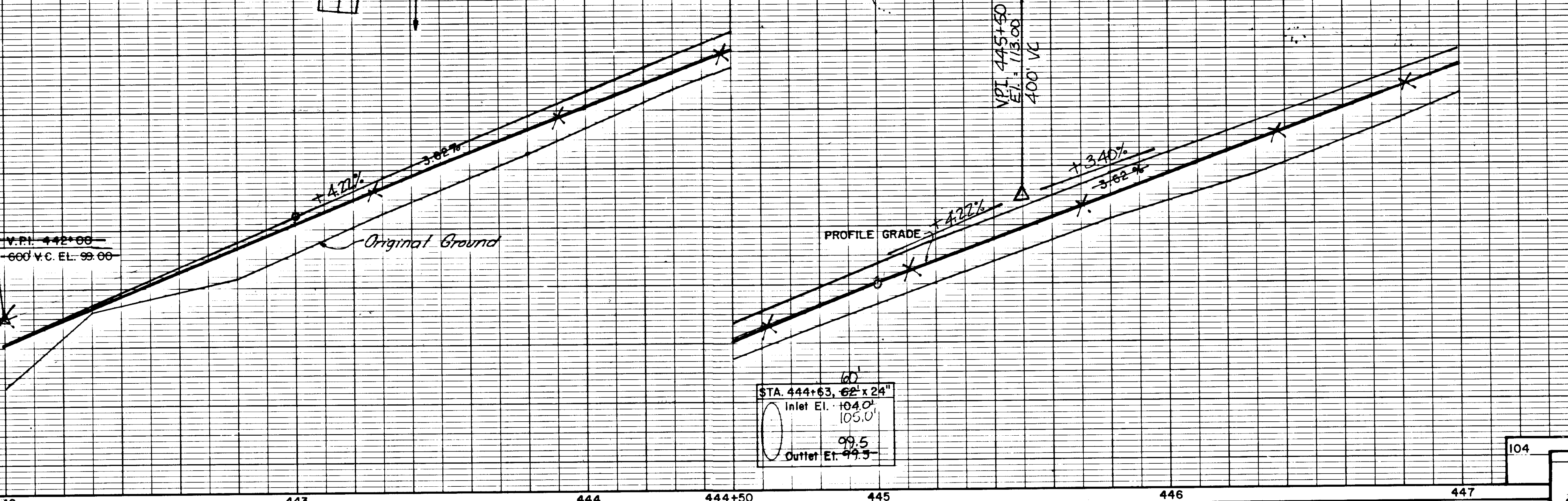
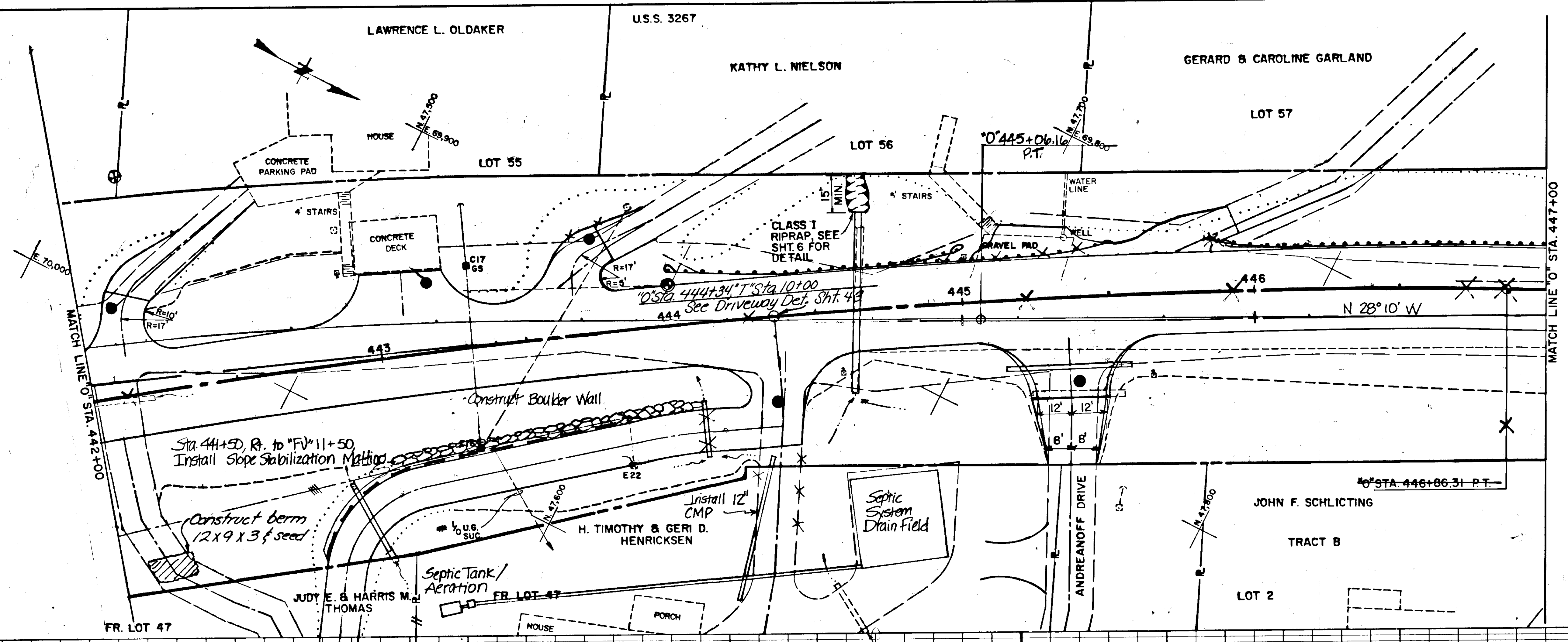
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
PLAN & PROFILE

APPROVED BY: \_\_\_\_\_  
DESIGNED BY: M.B.  
RECOMMENDED BY: \_\_\_\_\_  
DRAWN BY: W.A.  
PREPARED BY: \_\_\_\_\_  
CHECKED BY: P.B.  
HORIZ. SCALE: \_\_\_\_\_  
VERT. SCALE: \_\_\_\_\_  
SHEET 34 OF 70

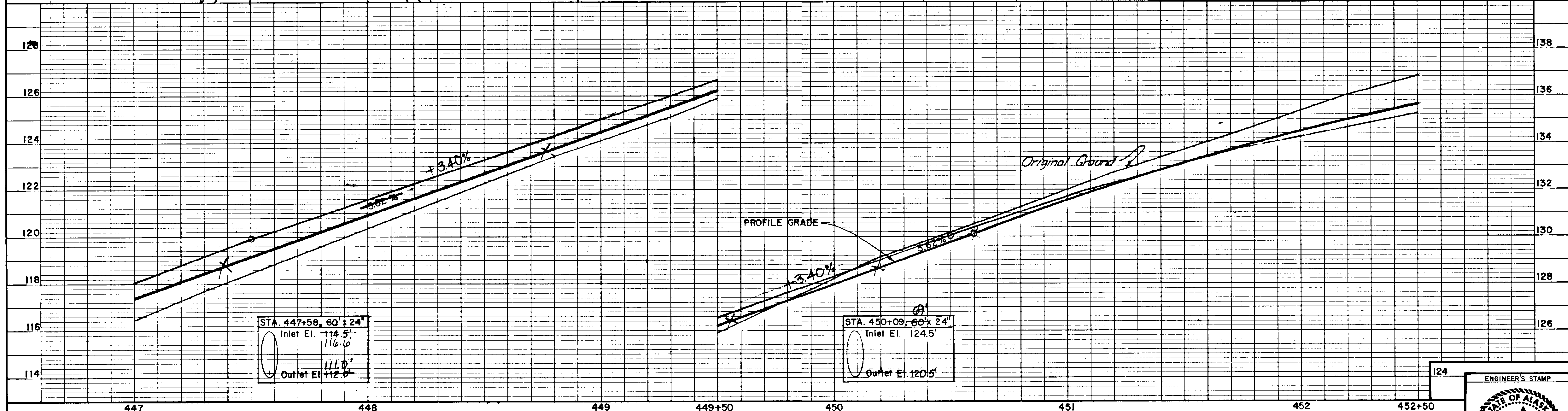






|                                                                                                                  |  |                                                                                            |  |                                                                                                                                                                                                  |  |                                                                                                                                       |  |                                                                                                            |
|------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------|
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>PLAN & PROFILE |  | APPROVED BY: _____<br>DESIGN GROUP CHIEF _____ DATE _____<br>RECOMMENDED BY: _____<br>DESIGN ENGINEER, GROUP _____ DATE _____<br>PREPARED BY: _____<br>PROJECT MANAGER _____ LEAD DESIGNER _____ |  | DESIGNED BY: M.B.<br>DRAWN BY: W.A.<br>CHECKED BY: P.B.<br>HORIZ. SCALE: _____<br>VERT. SCALE: _____<br>DATE: _____<br>SHEET 36 OF 70 |  | ENGINEER'S STAMP<br>STATE OF ALASKA<br>49TH<br>P. Bodnerowicz<br>CE-5104<br>LICENSED PROFESSIONAL ENGINEER |
|------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------|

| DATE    | DESCRIPTION OF CHANGE                     |
|---------|-------------------------------------------|
| 3-30-96 | Correct Slope Limits Sta 445+00 to 445+50 |



|                                                                                                                  |  |  |                                                                                            |  |                                                              |  |                             |  |                                           |  |                                                                                       |
|------------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------|--|--------------------------------------------------------------|--|-----------------------------|--|-------------------------------------------|--|---------------------------------------------------------------------------------------|
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  |  | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>PLAN & PROFILE |  | APPROVED BY: _____<br>_____<br>DESIGN GROUP CHIEF DATE _____ |  | DESIGNED BY: _____<br>M. B. |  | HORIZ. SCALE: _____<br>VERT. SCALE: _____ |  |  |
| RECOMMENDED BY: _____<br>_____<br>DESIGN ENGINEER, GROUP " " DATE _____                                          |  |  | DRAWN BY: _____<br>W. A.                                                                   |  | DATE: _____                                                  |  | CHECKED BY: _____<br>P. B.  |  | SHEET 37 OF 70                            |  |                                                                                       |
| PREPARED BY: _____<br>_____<br>PROJECT MANAGER LEAD DESIGNER                                                     |  |  |                                                                                            |  |                                                              |  |                             |  |                                           |  |                                                                                       |
| BY _____ DATE _____ DESCRIPTION OF CHANGE _____<br>RECORD OF REVISIONS                                           |  |  |                                                                                            |  |                                                              |  |                             |  |                                           |  |                                                                                       |

LOT 73  
RONALD O. SKOOG &  
MARIAN J. WILLIAMS

LOT 74  
WILLIAM & DONNA FLINT

LOT 75  
JOHN F. & JOAN A. KARINEN

LOT 76  
CRAIG & MARCIA MCKENZIE

CURVE DATA  
 $\Delta = 55^{\circ}38'14''$  RT  
 $D = 09^{\circ}00'00''$   
 $R = 636.62'$   
 $L = 618.15' - 627.92'$   
 $T = 335.92' - 342.16'$   
 $S = .06$   
 $BT = 451+50+40$   
 $BFS = 453+42+451+30$   
 $EFS = 455+80+450+65$   
 $ET = 461+52+461+55$

MATCH LINE TO STA. 452+50

MATCH LINE TO STA. 458+00

WATERLINE CULVERT

EXISTING DRIVEWAY

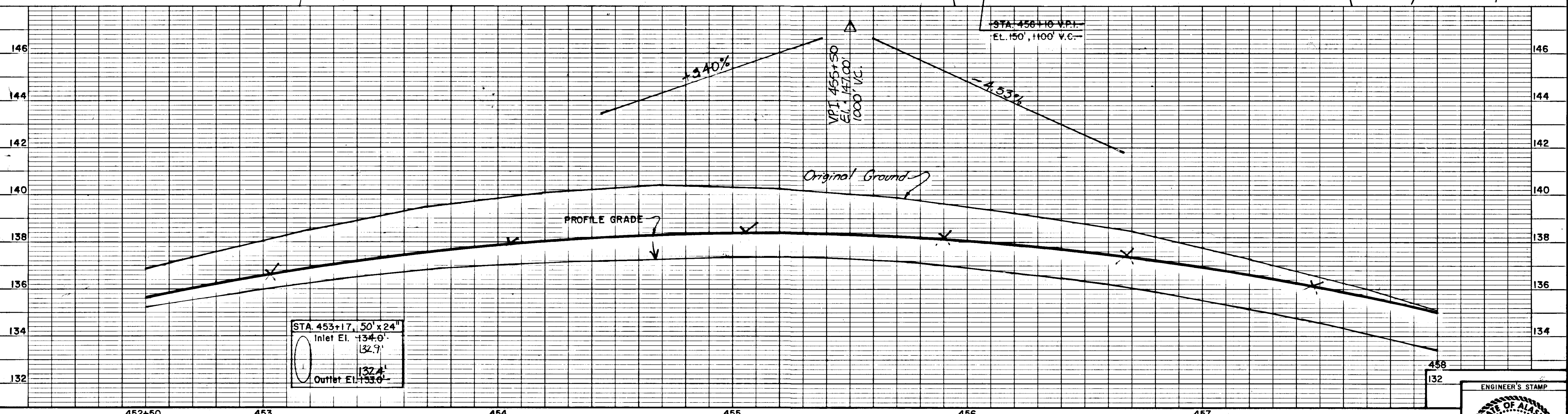
Install 1105'-5 feet high  
Chain Link Fence

LOT 69  
WALLACE I. & BARBARA DEBOFF

LOT 68

ROGER L. & ELIZABETH P. STEPHAN

LOT 67

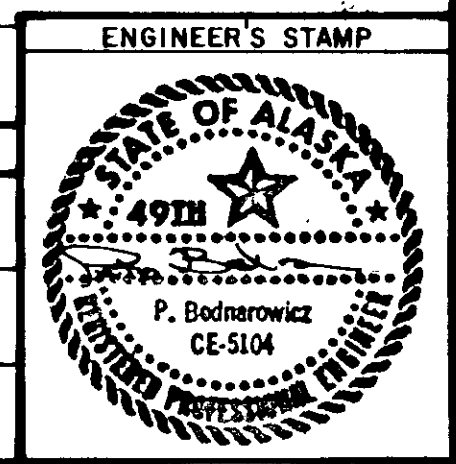


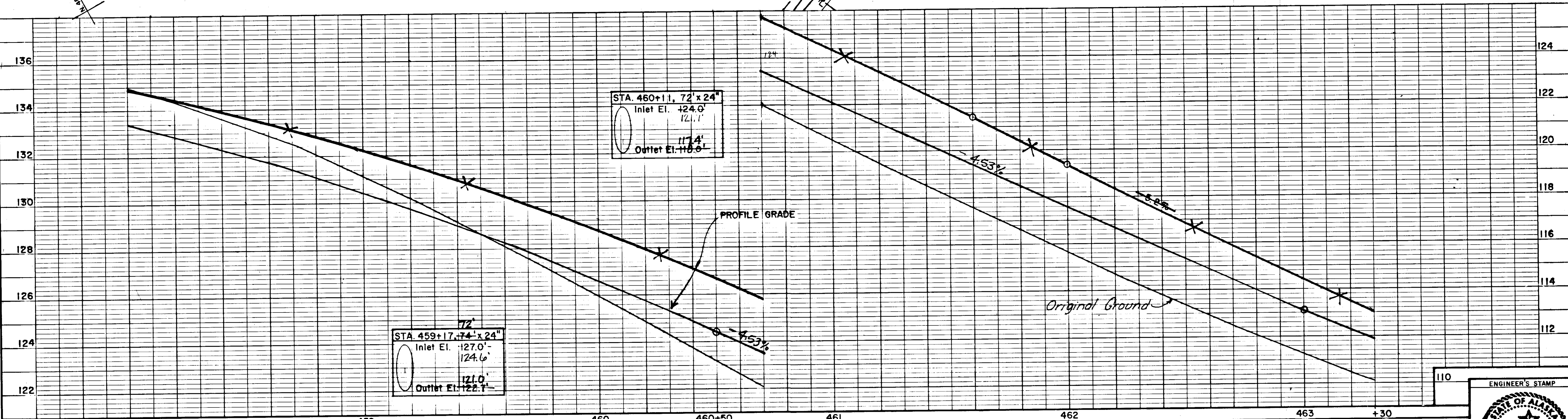
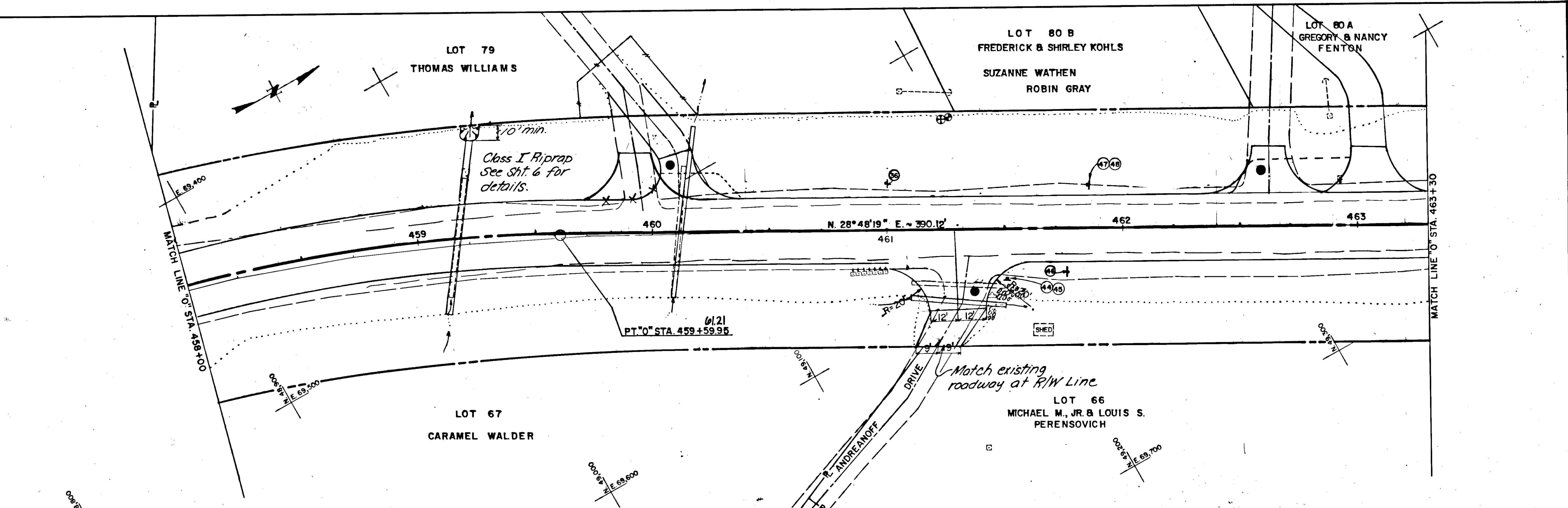
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
PLAN & PROFILE

|                        |              |               |
|------------------------|--------------|---------------|
| APPROVED BY:           | DESIGNED BY: | HORIZ. SCALE: |
| RECOMMENDED BY:        | M.B.         | VERT. SCALE:  |
| DESIGN GROUP CHIEF     | DATE         | DATE          |
| DESIGN ENGINEER, GROUP | DATE         | DATE          |
| PREPARED BY:           | CHECKED BY:  |               |
| PROJECT MANAGER        | P.B.         |               |
| LEAD DESIGNER          |              |               |

SHEET 38 OF 70





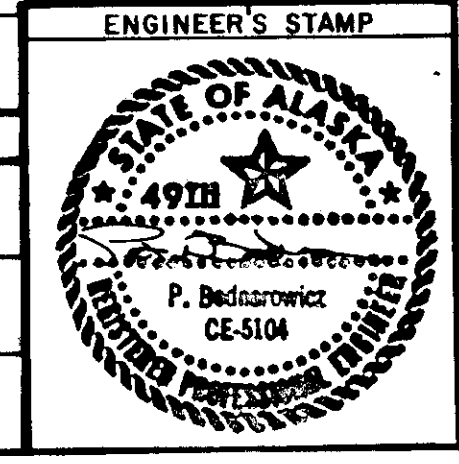
| BY                  | DATE | DESCRIPTION OF CHANGE |
|---------------------|------|-----------------------|
| RECORD OF REVISIONS |      |                       |

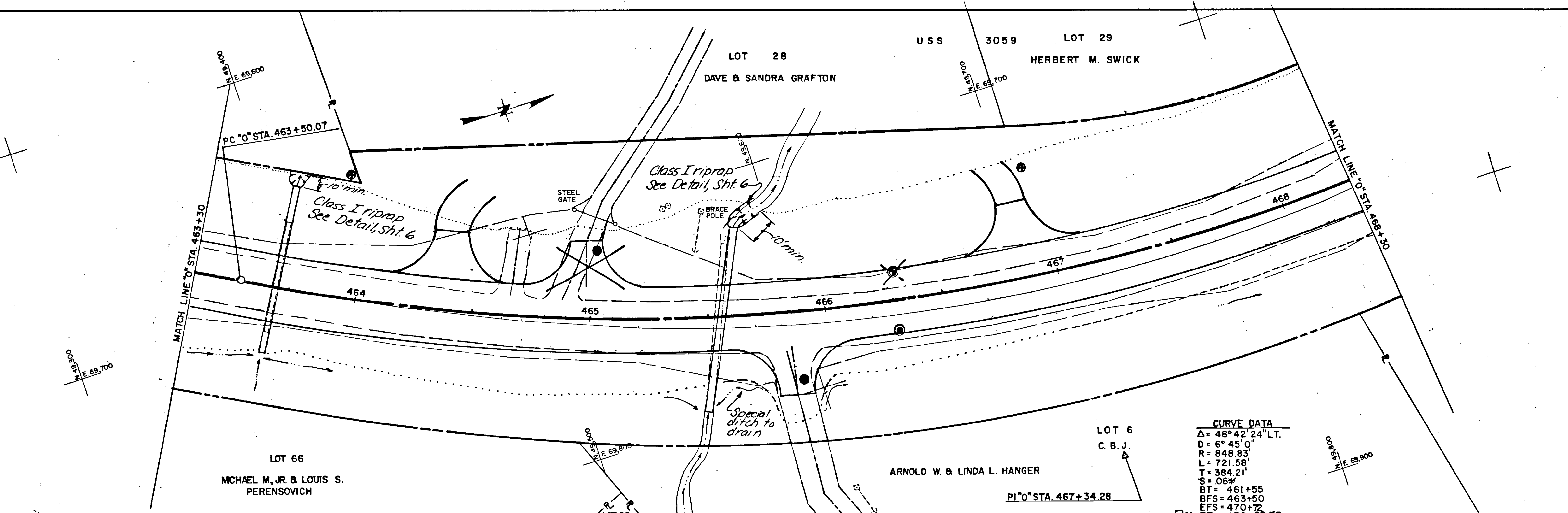
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
PLAN & PROFILE

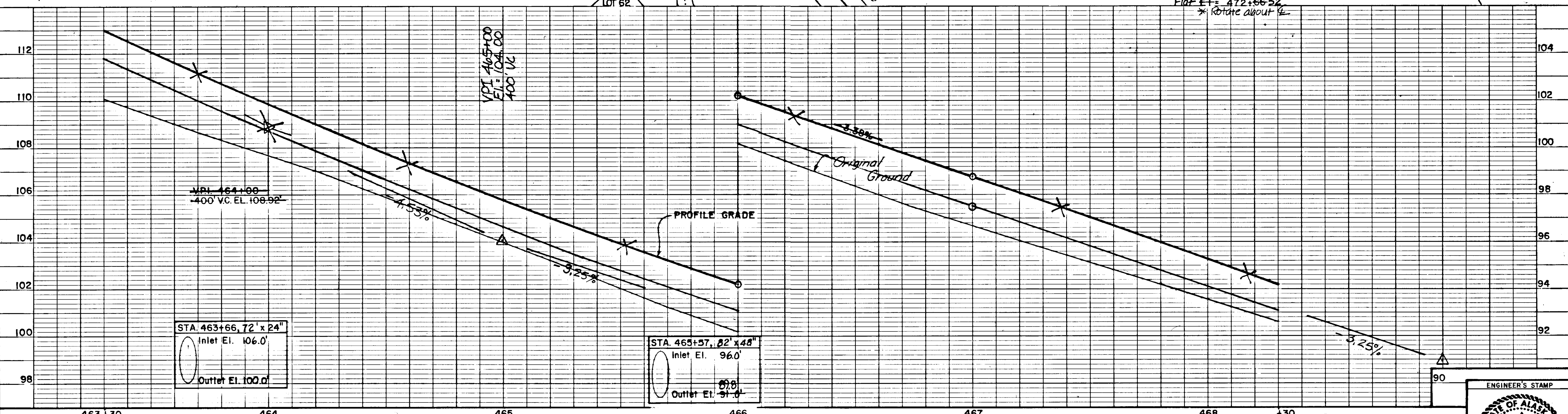
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|-----------------|---------------|
| APPROVED BY:    | DESIGNED BY:  |
| RECOMMENDED BY: | DRAWN BY:     |
| PREPARED BY:    | CHECKED BY:   |
| PROJECT MANAGER | LEAD DESIGNER |

|              |                |
|--------------|----------------|
| 463          | +30            |
| DESIGNED BY: | HORIZ. SCALE:  |
| DRAWN BY:    | VERT. SCALE:   |
| CHECKED BY:  | DATE:          |
| P.B.         | SHEET 39 OF 70 |



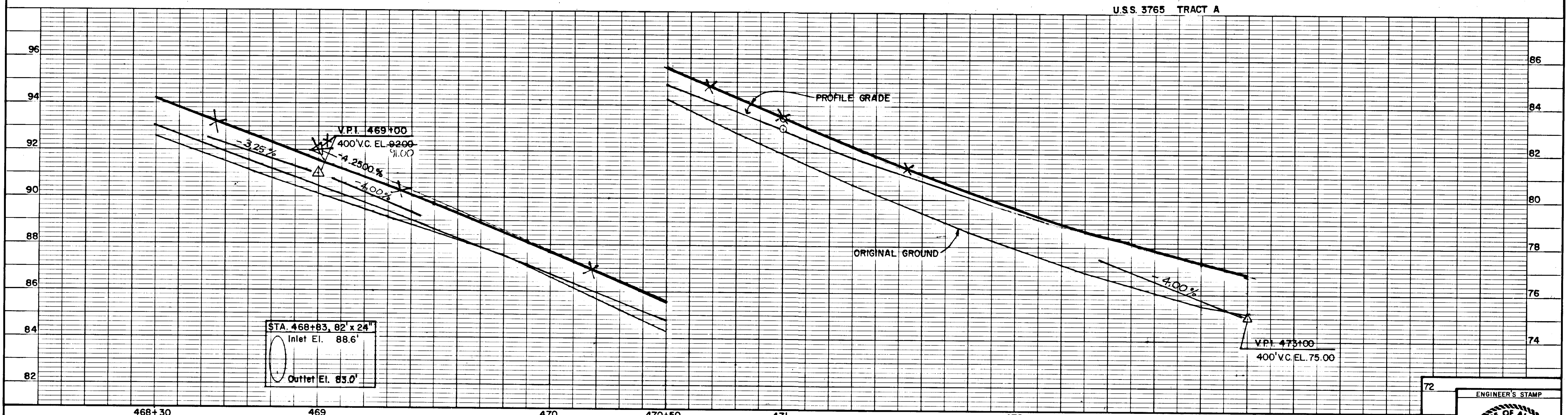
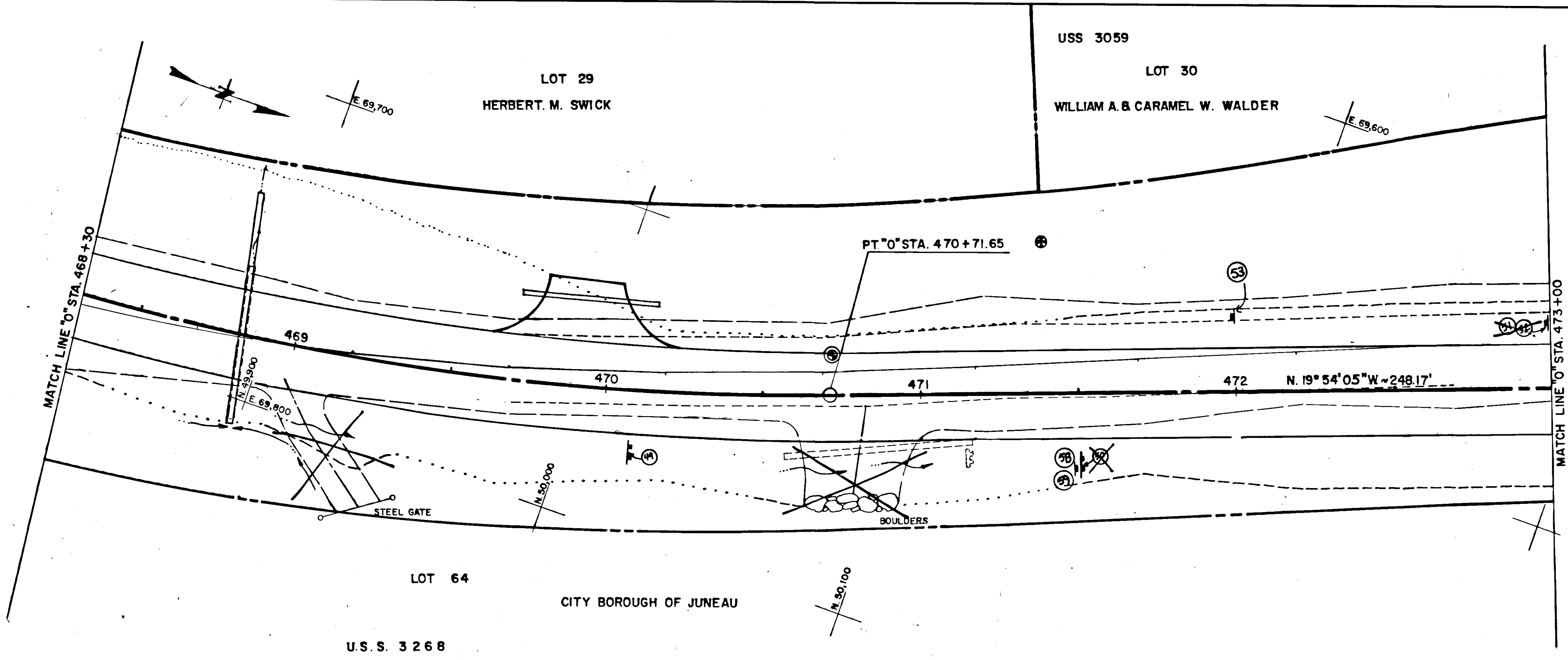


CURVE DATA  
Δ = 48°42'24" LT.  
D = 6°45'0"  
R = 848.83'  
L = 721.58'  
T = 384.21'  
S = 0.6%  
BT = 461+55  
BFS = 463+50  
EFS = 470+72  
Flat ET = 472+86.52  
\* Rotate about 1/2"



|                                                                                                                  |  |  |              |                       |
|------------------------------------------------------------------------------------------------------------------|--|--|--------------|-----------------------|
| BY                                                                                                               |  |  | DATE         | DESCRIPTION OF CHANGE |
| RECORD OF REVISIONS                                                                                              |  |  |              |                       |
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  |  |              |                       |
| JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>PLAN & PROFILE                       |  |  |              |                       |
| APPROVED BY:                                                                                                     |  |  | DESIGNED BY: | HORIZ. SCALE:         |
| RECOMMENDED BY:                                                                                                  |  |  | M.B.         | VERT. SCALE:          |
| PREPARED BY:                                                                                                     |  |  | DRAWN BY:    | DATE:                 |
| PROJECT MANAGER                                                                                                  |  |  | W.A.         |                       |
| LEAD DESIGNER                                                                                                    |  |  | CHECKED BY:  | SHEET 40 OF 70        |
|                                                                                                                  |  |  | P.B.         |                       |

ENGINEER'S STAMP



| BY | DATE | DESCRIPTION OF CHANGE |
|----|------|-----------------------|
|    |      |                       |
|    |      |                       |
|    |      |                       |

RECORD OF REVISIONS

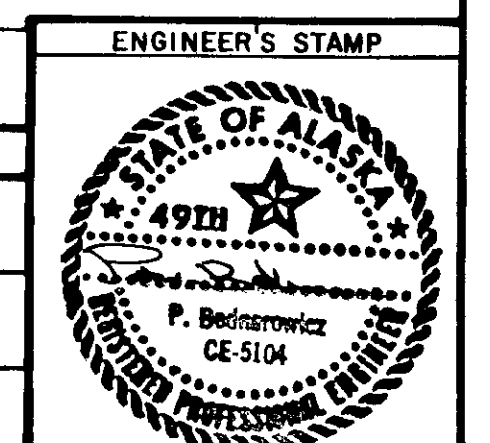
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

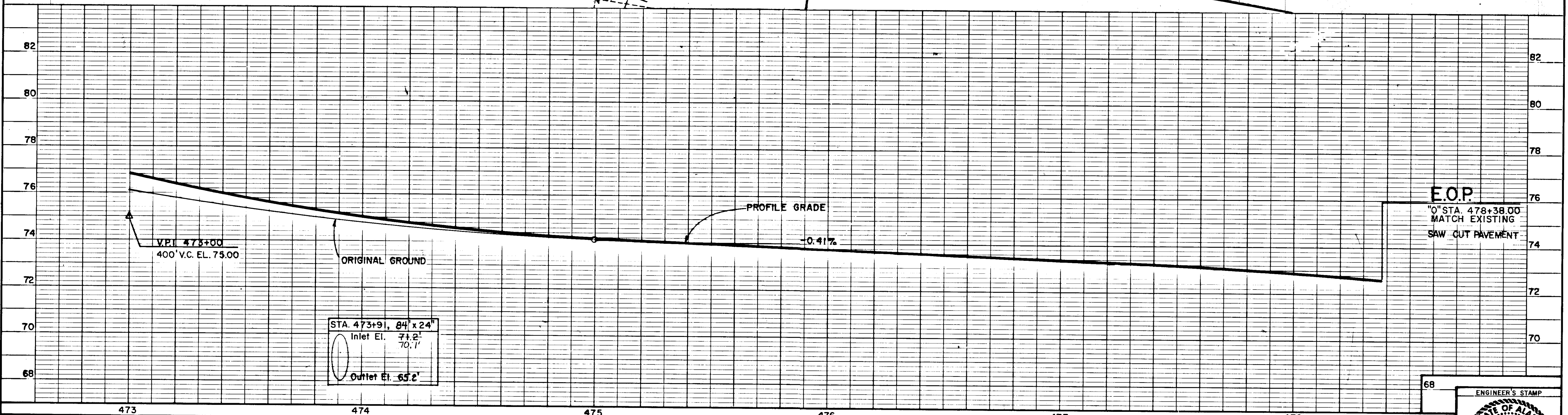
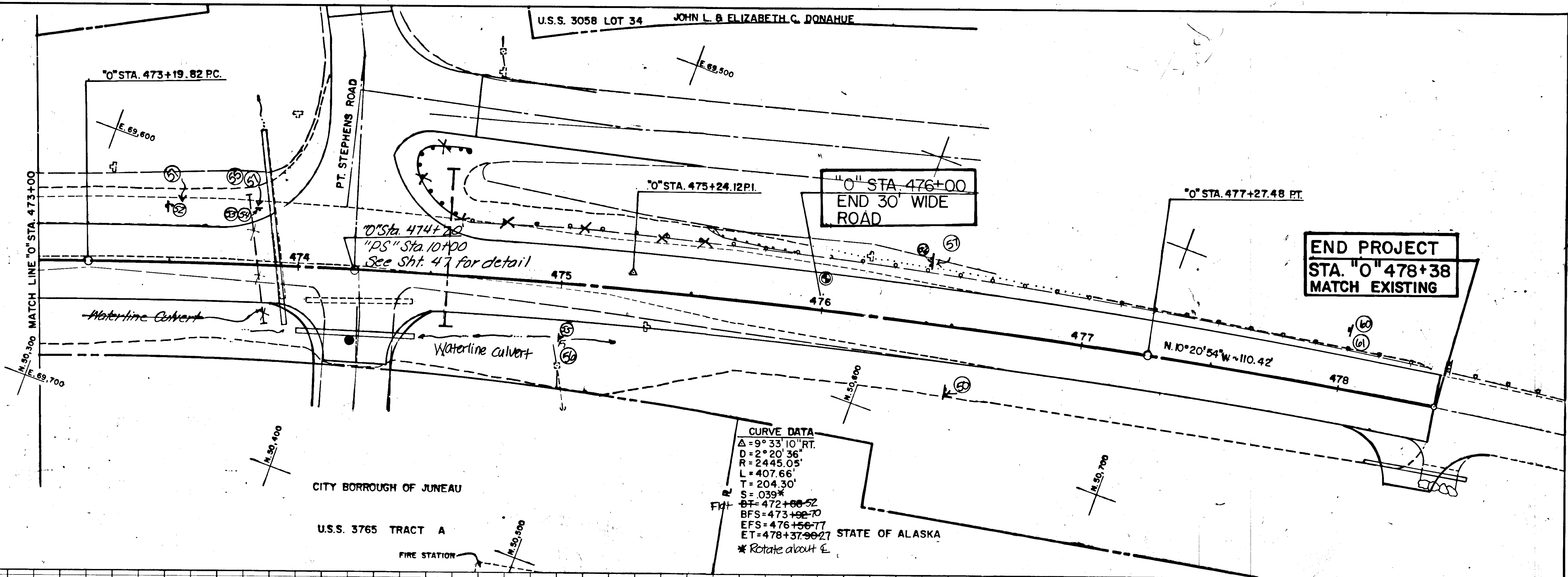
JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
PLAN & PROFILE

APPROVED BY: \_\_\_\_\_  
DESIGNED BY: M.B.  
RECOMMENDED BY: \_\_\_\_\_  
DRAWN BY: W.A.  
PREPARED BY: \_\_\_\_\_  
CHECKED BY: P.B.

DESIGN GROUP CHIEF DATE  
DESIGN ENGINEER, GROUP DATE  
PROJECT MANAGER LEAD DESIGNER

HORIZ. SCALE:  
VERT. SCALE:  
DATE:  
SHEET 41 OF 70





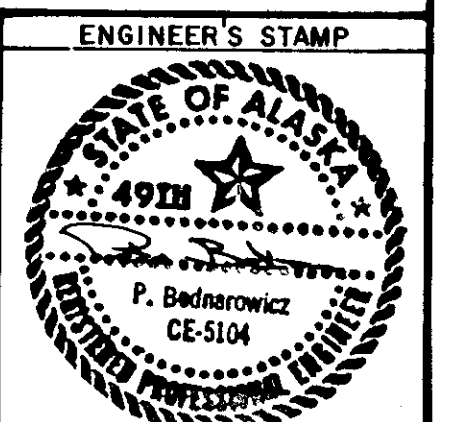
| BY | DATE | DESCRIPTION OF CHANGE |
|----|------|-----------------------|
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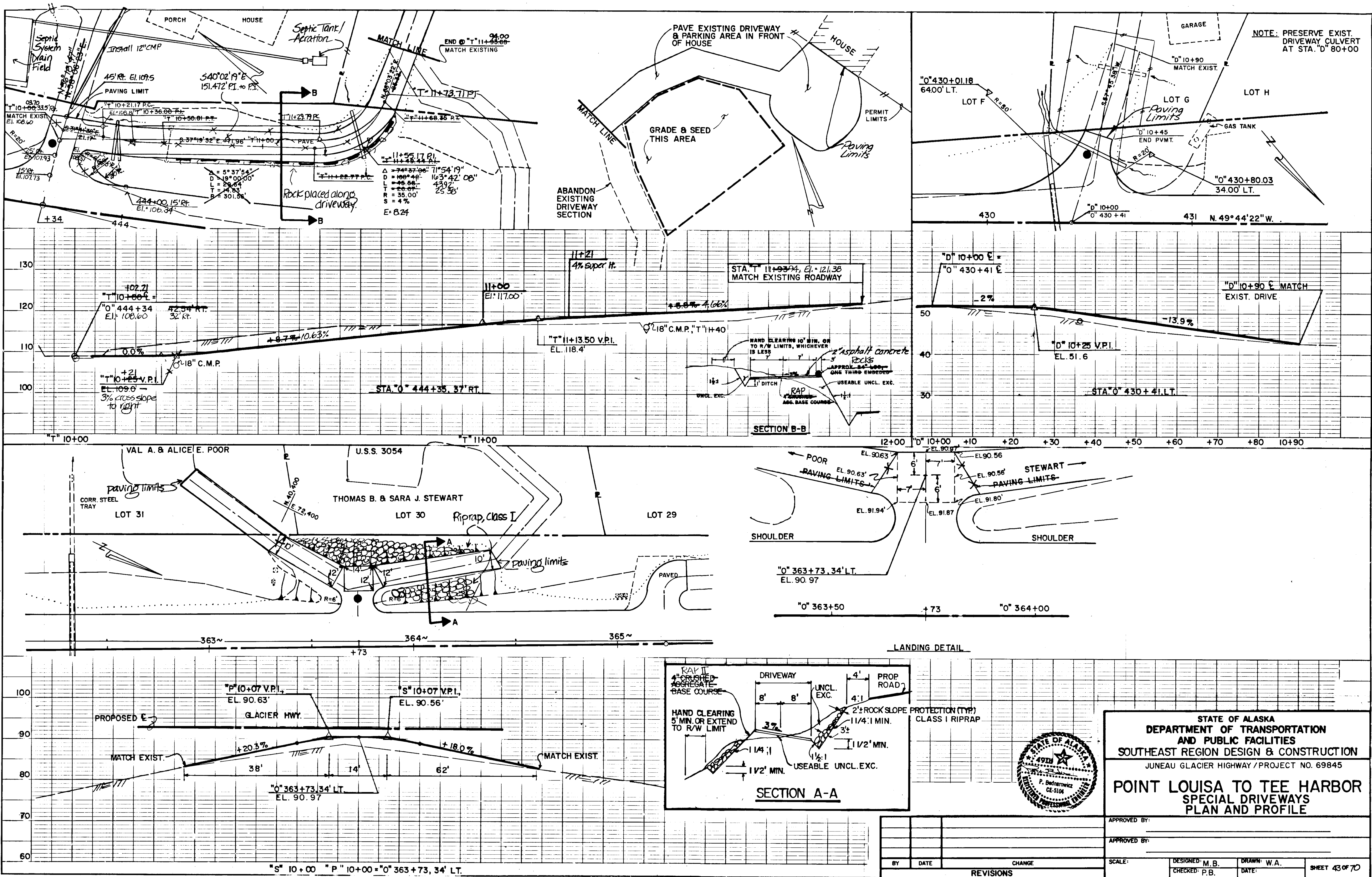
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
PLAN & PROFILE

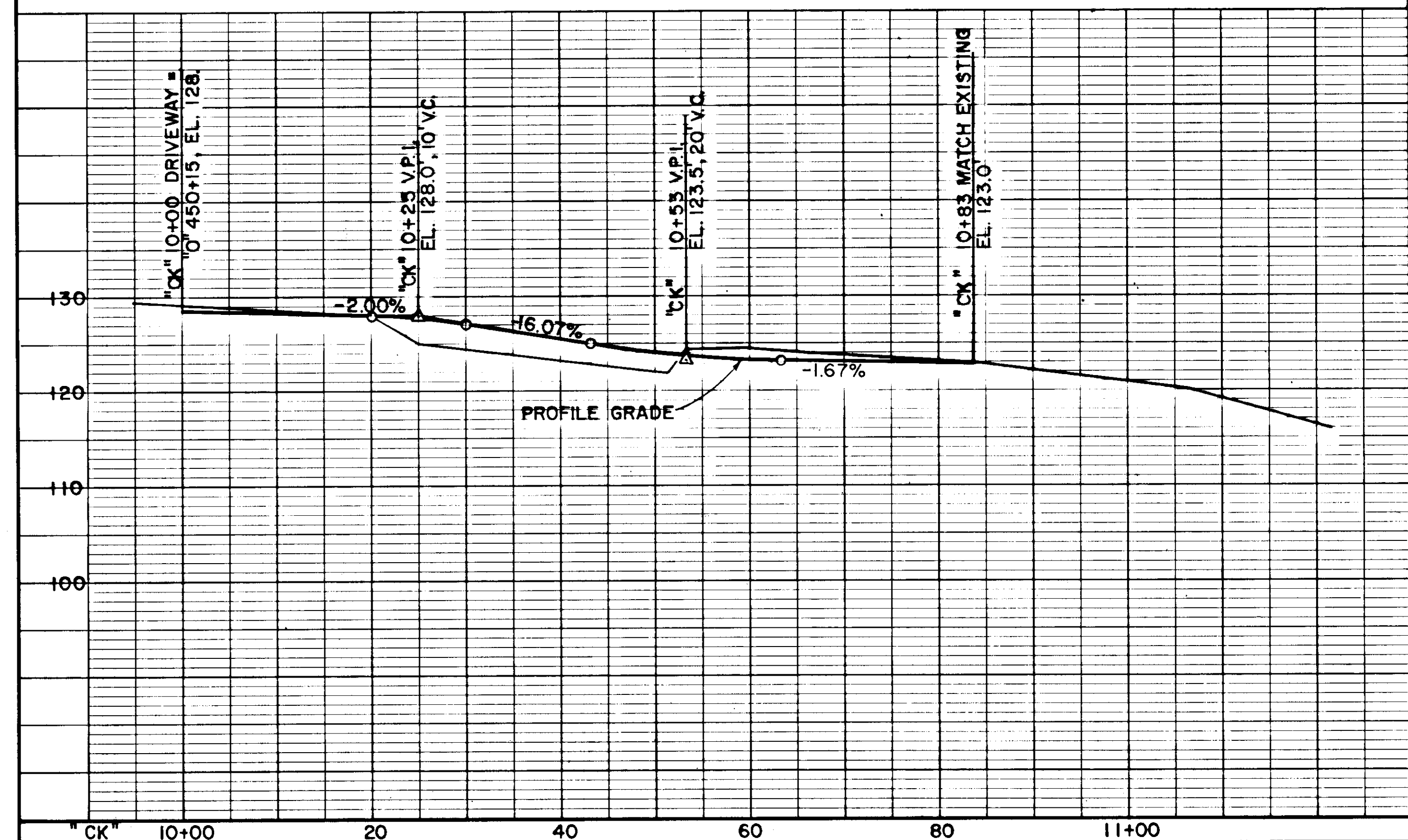
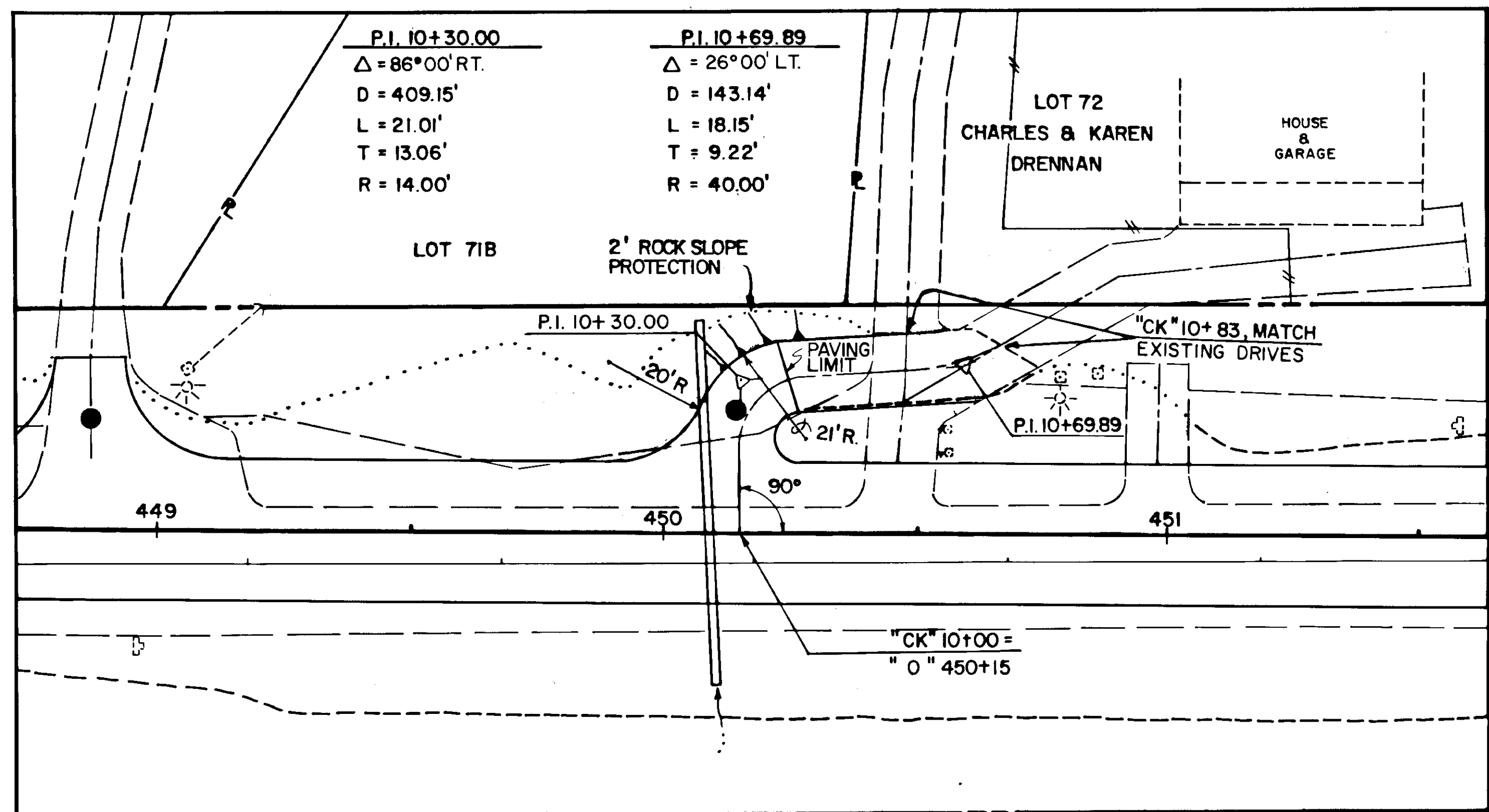
APPROVED BY: \_\_\_\_\_  
DESIGNED BY: M.B.  
RECOMMENDED BY: \_\_\_\_\_  
DESIGN ENGINEER, GROUP "A"  
PREPARED BY: \_\_\_\_\_  
PROJECT MANAGER

DESIGNED BY: M.B.  
DRAWN BY: W.A.  
CHECKED BY: P.B.  
HORIZ. SCALE: \_\_\_\_\_  
VERT. SCALE: \_\_\_\_\_  
DATE: \_\_\_\_\_  
SHEET 42 OF 70









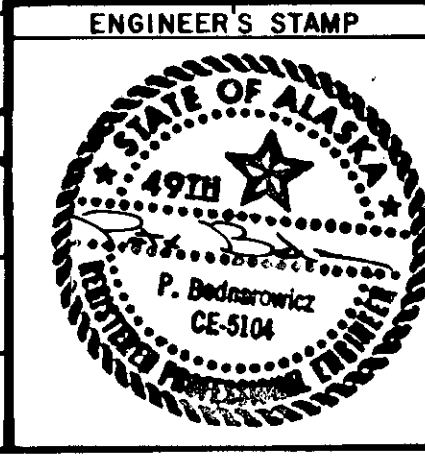
| BY                  | DATE | DESCRIPTION OF CHANGE |
|---------------------|------|-----------------------|
| RECORD OF REVISIONS |      |                       |

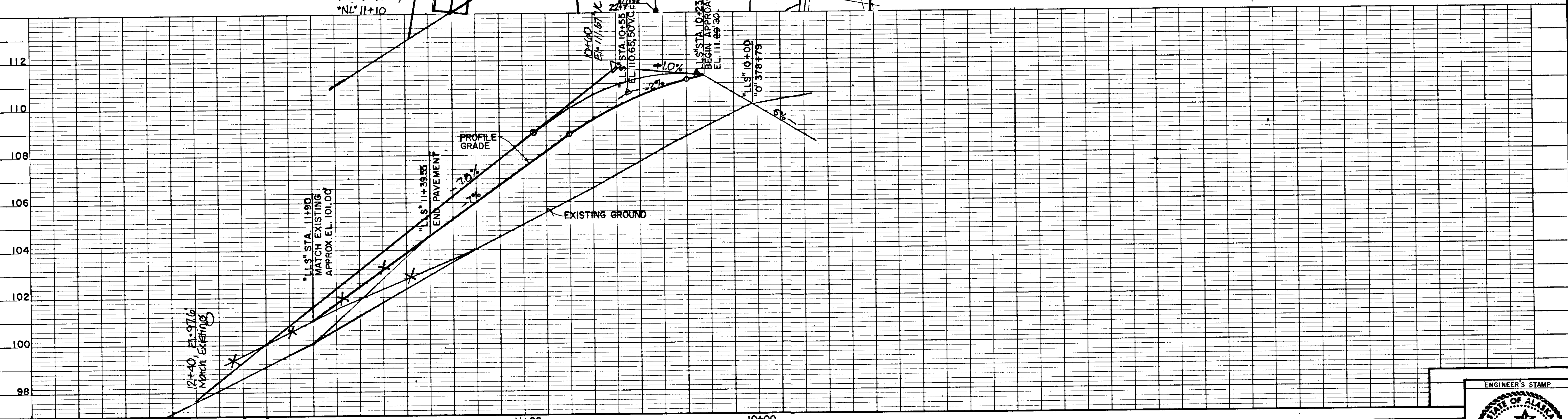
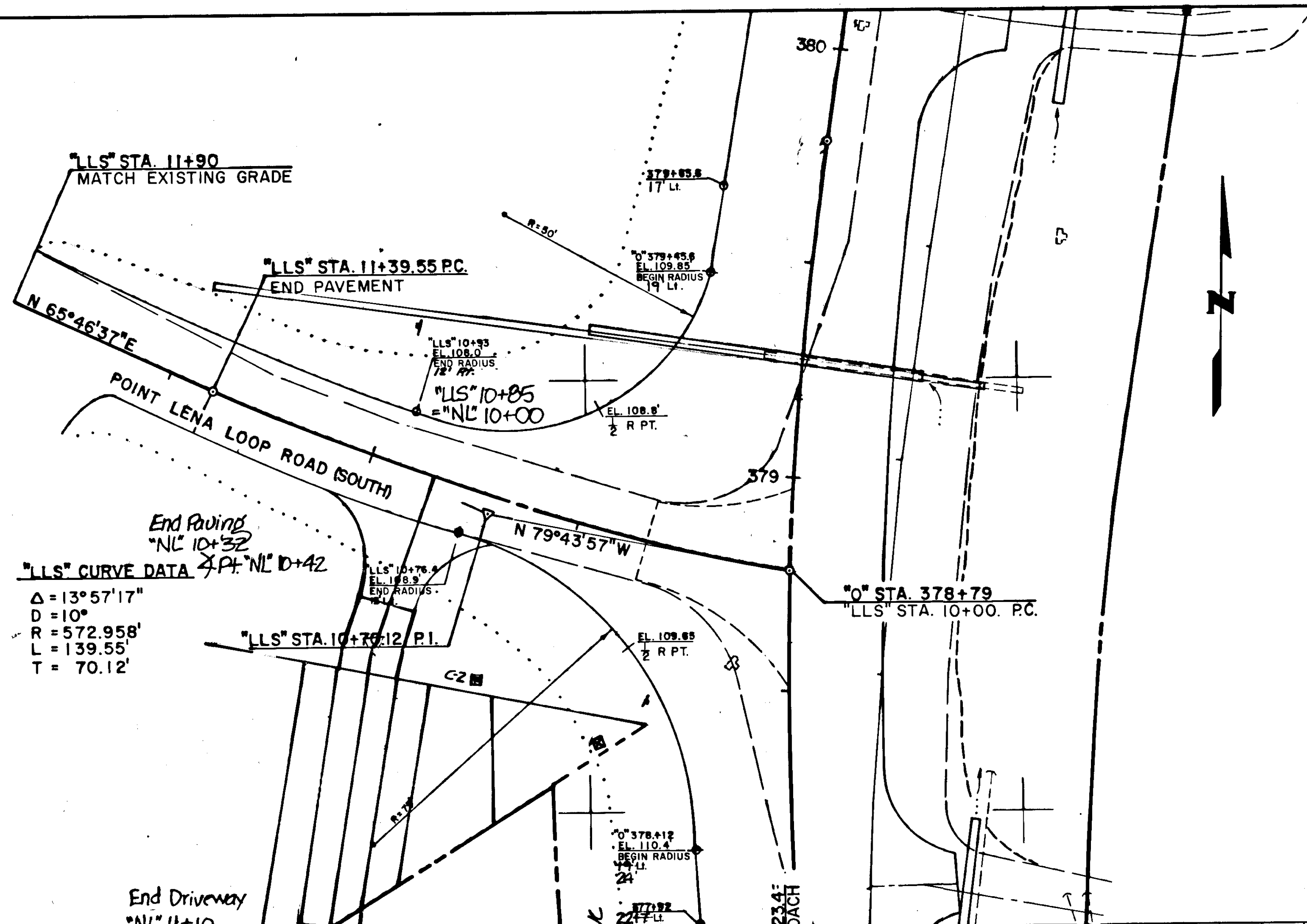
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
SEAL DRIVEWAY PLAN & PROFILE

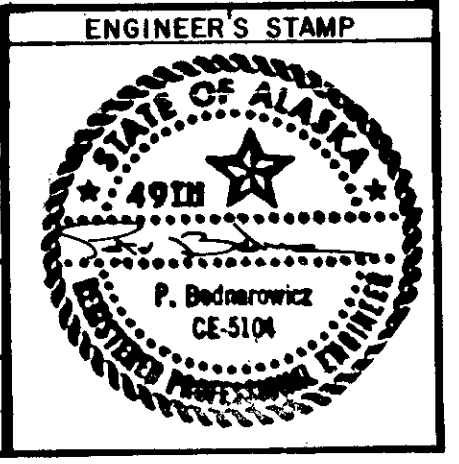
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DESIGNED BY: M.B.  
RECOMMENDED BY: \_\_\_\_\_  
DRAWN BY: W.A.  
PREPARED BY: \_\_\_\_\_  
CHECKED BY: P.B.

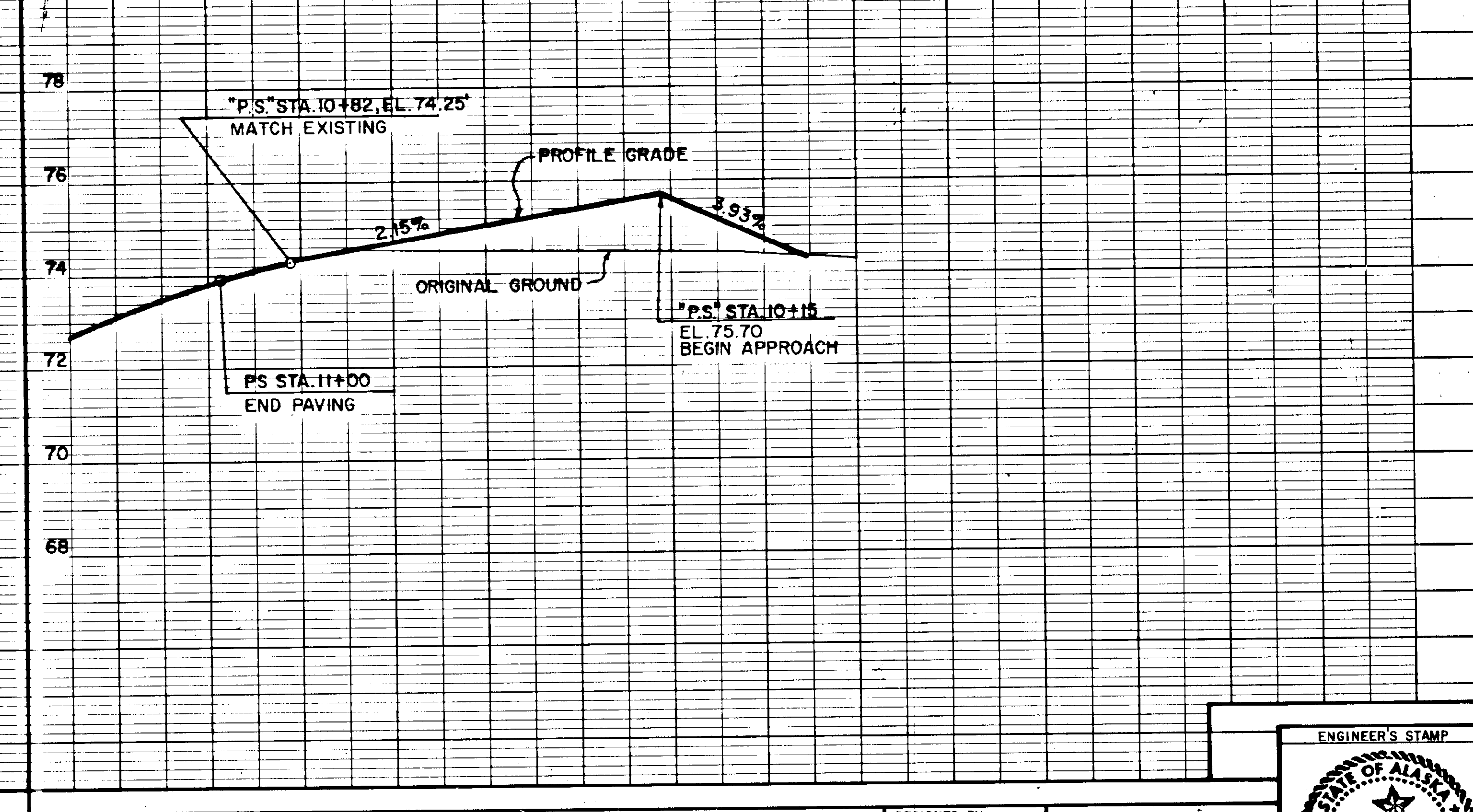
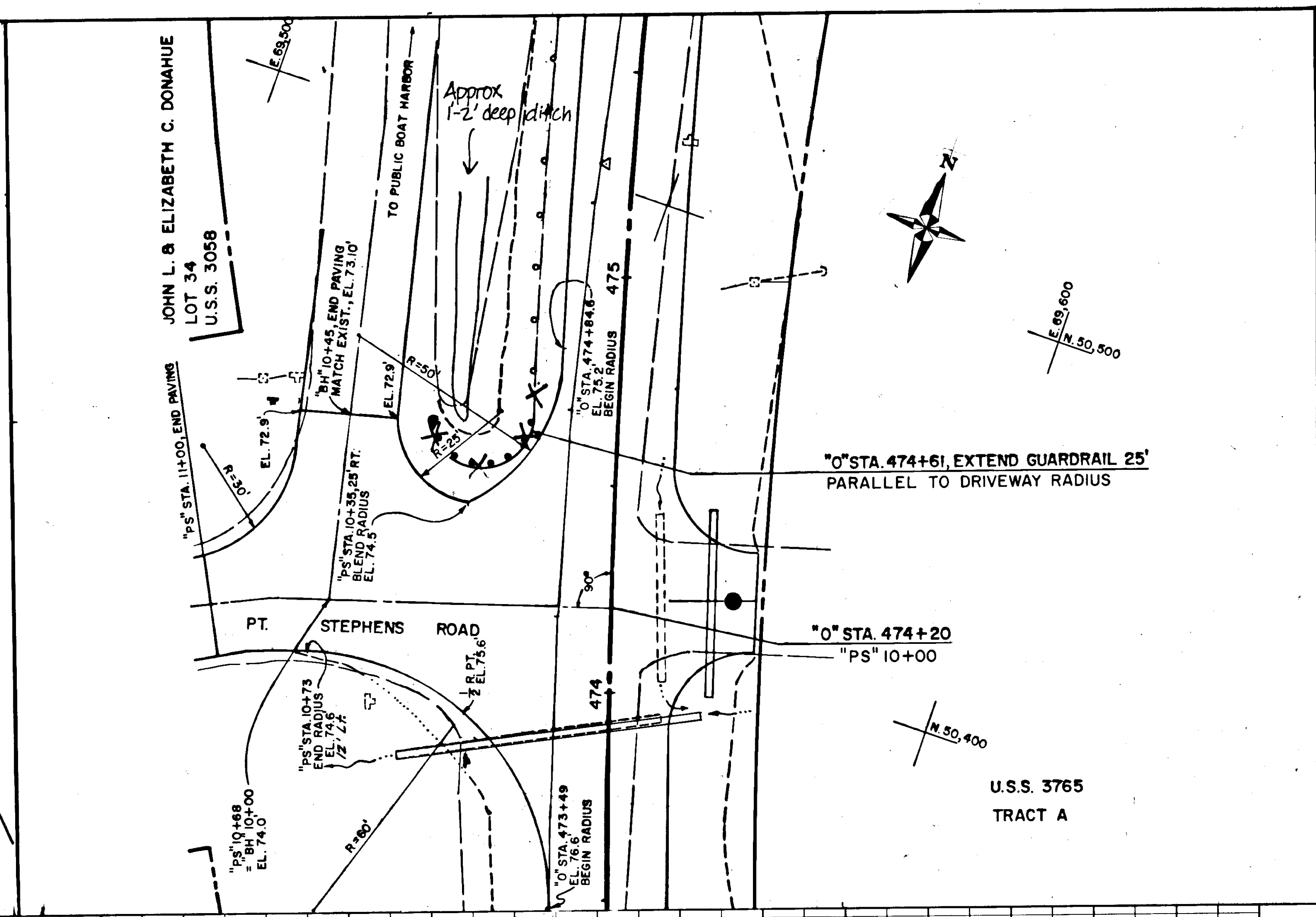
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VERT. SCALE: \_\_\_\_\_  
DATE: \_\_\_\_\_  
SHEET 45 OF 70





| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION                                                                                                                                          |      |                       | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>SPECIAL INTERSECTION PLAN & PROFILE |  |  | APPROVED BY: _____<br>DESIGN GROUP CHIEF _____ DATE _____<br>RECOMMENDED BY: _____<br>DESIGN ENGINEER, GROUP _____ DATE _____<br>PREPARED BY: _____<br>PROJECT MANAGER _____ LEAD DESIGNER _____ |  | DESIGNED BY: M.B.<br>DRAWN BY: R.S.<br>CHECKED BY: P.B.<br>HORIZ. SCALE: _____<br>VERT. SCALE: _____<br>DATE: _____<br>SHEET 46 OF 70 |  |    |      |                       |  |  |  |  |  |  |  |  |  |
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| <table border="1"> <thead> <tr> <th>BY</th> <th>DATE</th> <th>DESCRIPTION OF CHANGE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> |      |                       |                                                                                                                 |  |  |                                                                                                                                                                                                  |  |                                                                                                                                       |  | BY | DATE | DESCRIPTION OF CHANGE |  |  |  |  |  |  |  |  |  |
| BY                                                                                                                                                                                                                                                        | DATE | DESCRIPTION OF CHANGE |                                                                                                                 |  |  |                                                                                                                                                                                                  |  |                                                                                                                                       |  |    |      |                       |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                           |      |                       |                                                                                                                 |  |  |                                                                                                                                                                                                  |  |                                                                                                                                       |  |    |      |                       |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                           |      |                       |                                                                                                                 |  |  |                                                                                                                                                                                                  |  |                                                                                                                                       |  |    |      |                       |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                           |      |                       |                                                                                                                 |  |  |                                                                                                                                                                                                  |  |                                                                                                                                       |  |    |      |                       |  |  |  |  |  |  |  |  |  |





# ATTACHMENT NO. 4 ADDENDUM No. 4

## GENERAL NOTES

### SPECIFICATIONS:

DESIGN-AASHTO Standard Specifications for Highway Bridges, 1989 Edition with the latest Interim Specifications.

CONSTRUCTION-State of Alaska Standard Specifications for Highway Construction 1988, with the latest Standard Modifications and Special Provisions.

### DESIGN DATA:

REINFORCED BACKFILL:  $\phi=38^\circ$   
UNIT WEIGHT = 140

RETAINED BACKFILL:  $\phi=34^\circ$   
UNIT WEIGHT = 130

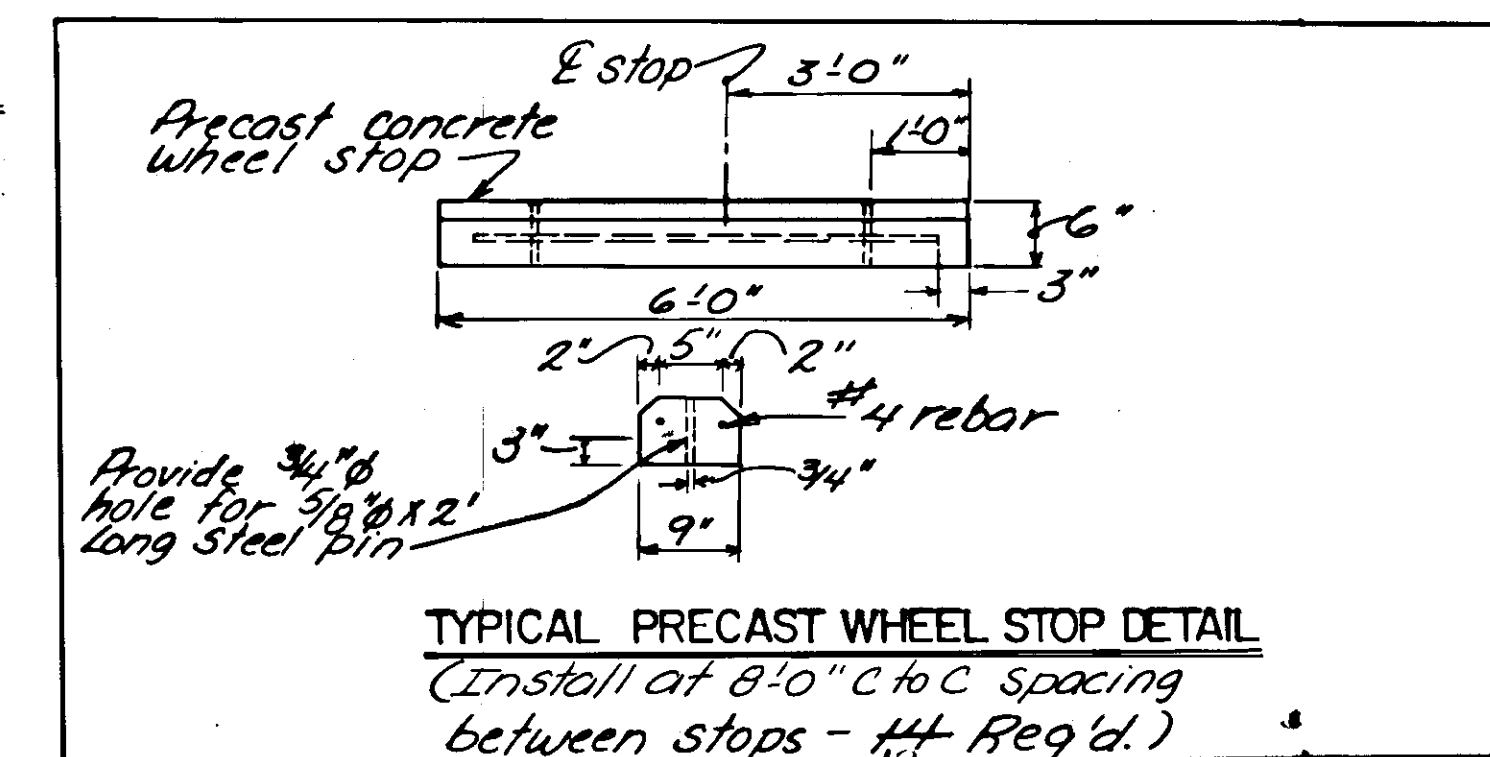
FOUNDATION SOIL:  $\phi=30^\circ$   
UNIT WEIGHT = 125

### GENERAL NOTES

- Prior to constructing the wall footing, the soil on which the wall footing is to be placed shall be thoroughly cleaned of all loose soil, rock, and deleterious material in order to produce a clean and sound base to set the structure on.
- Water may be encountered during excavation for the retaining walls. The contractor shall submit a drainage plan to the engineer for approval, prior to commencing excavation for each retaining wall site.
- All wall thickness dimensions shall be in addition to the thickness of aesthetic fascia, if used.
- Prior to construction of each wall, all overhead, surface, and underground utilities shall be located and verified by the Contractor so that the utilities do not interfere with the wall construction.
- Adjustments may be necessary to some retaining wall's line and grade. Prior to construction, the Contractor shall verify each retaining wall's line and grade with the Engineer.

6. Length of reinforcing elements per retaining wall system requirements (MSE Systems only).

7. MSE wall system illustrated. See Special Provisions, SECTION 511 for alternative allowable retaining wall designs.



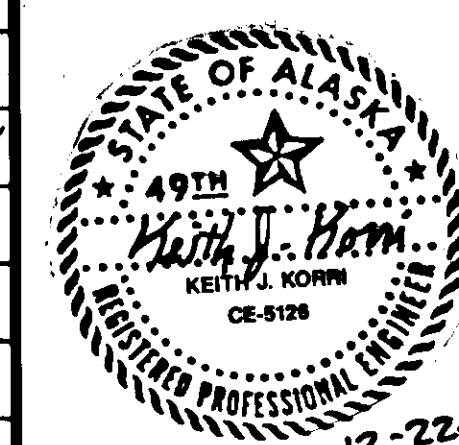
## RAILING DETAIL

NOTE: 3 rail detail shown. 2 rail detail similar except 2 1/4" c to c posts. See Plan for locations.

NOTE: Material for bolt & associated hardware for attaching railing to wall shall be same as parent metal.

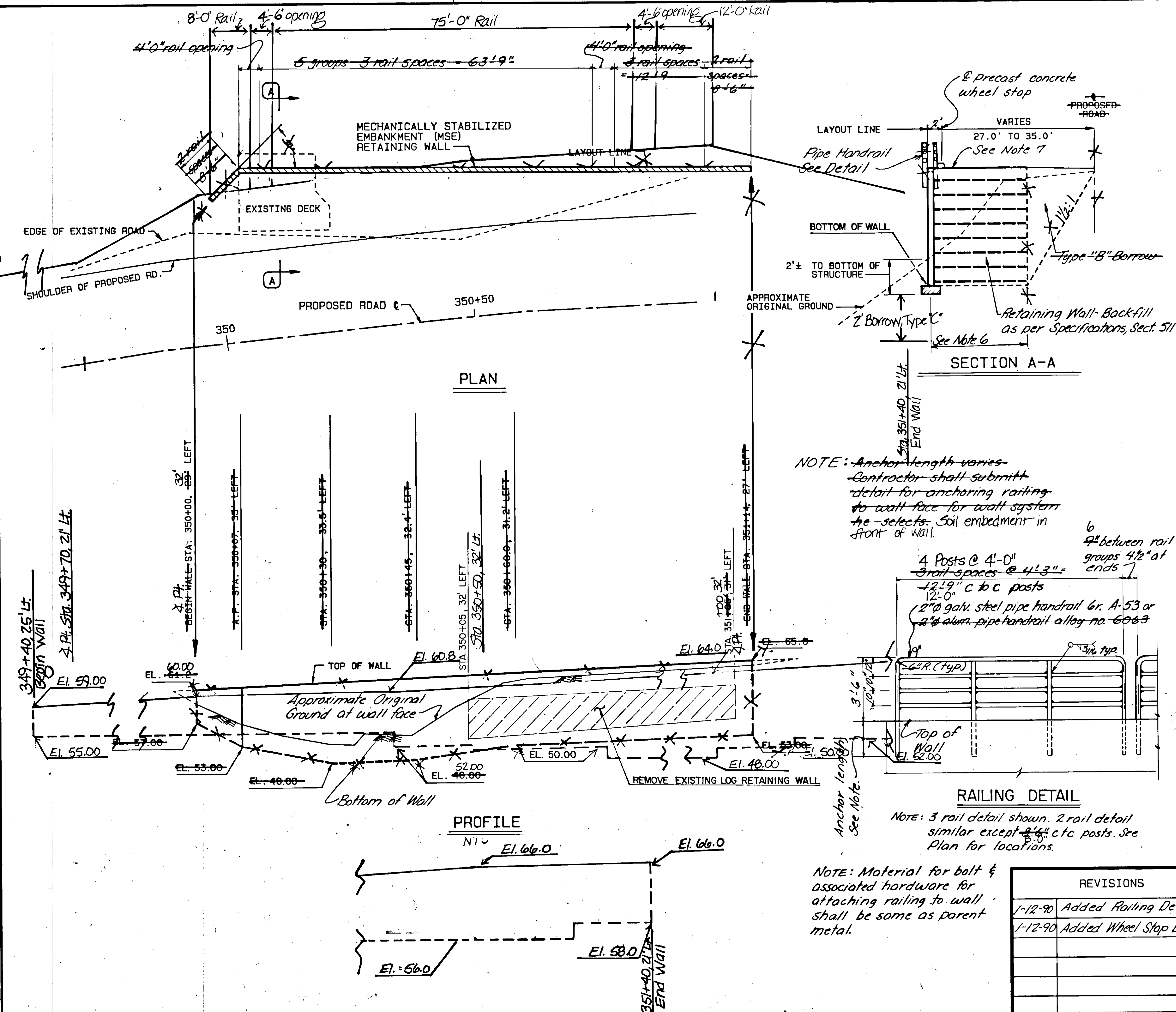
## REVISIONS

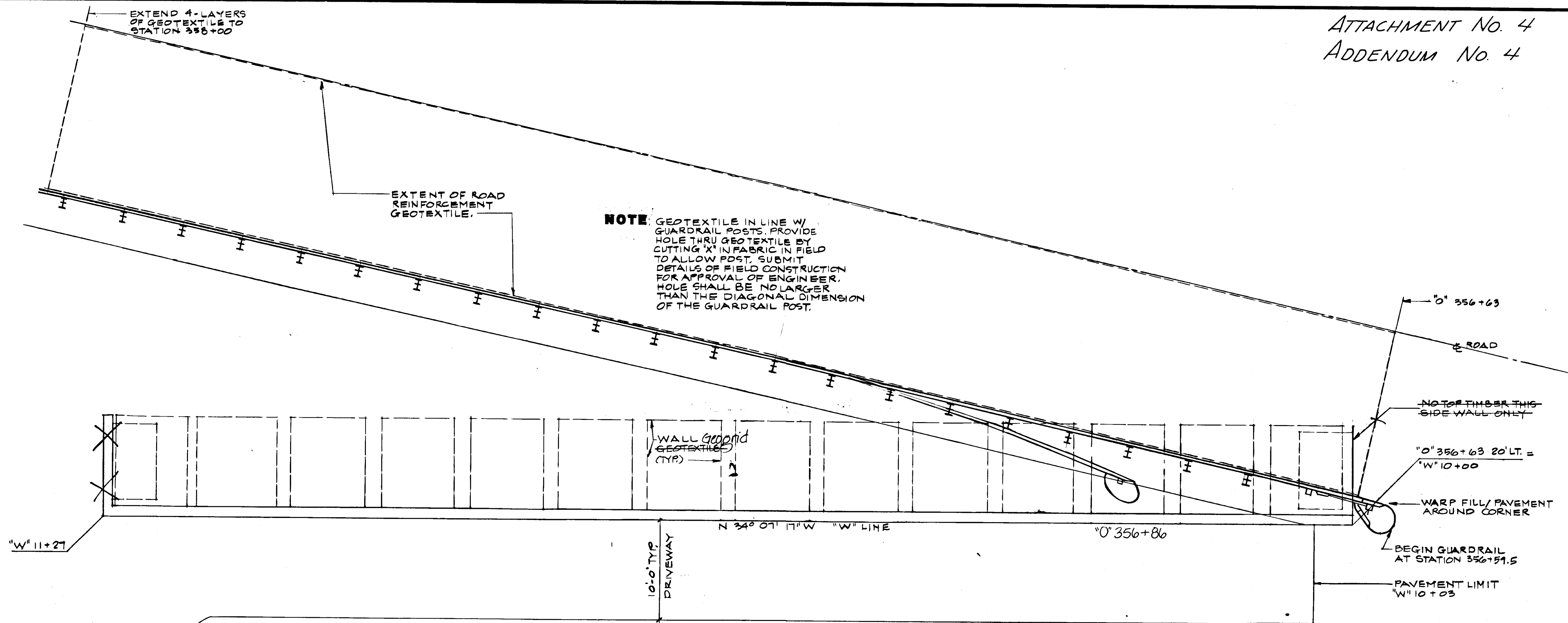
|         |                         |
|---------|-------------------------|
| 1-12-90 | Added Railing Details   |
| 1-12-90 | Added Wheel Stop Detail |



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND  
PUBLIC FACILITIES

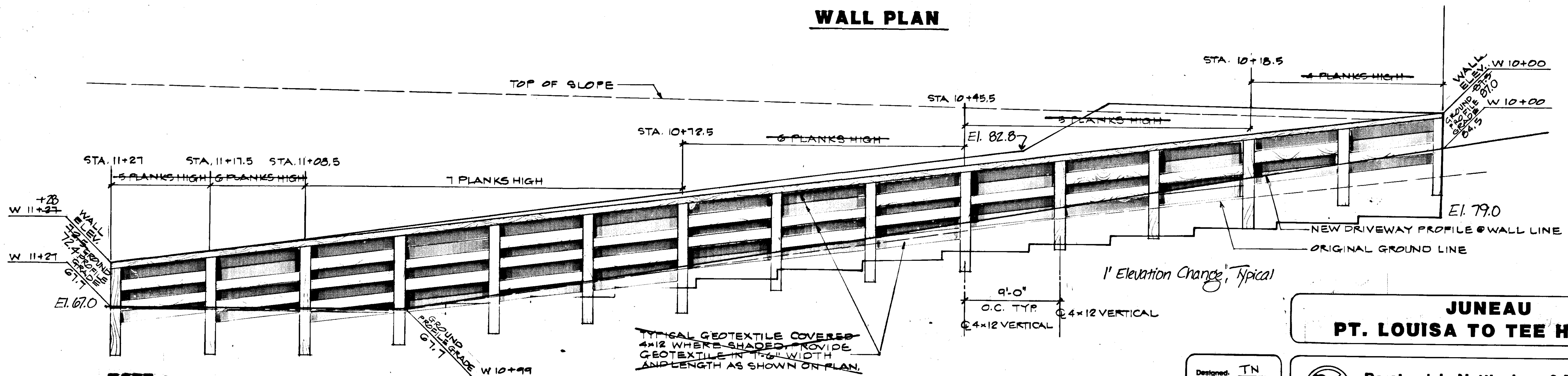
POINT LOUISA TO  
TEE HARBOR  
RETAINING WALL





Wall "B"

**WALL PLAN**



**NOTE** ~~GEOTEXTILE SHALL BE PLACED IN GRID PATTERN BETWEEN VERTICALS AS SHOWN, EXCEPT ON TOP & BOTTOM LAYERS WHERE~~

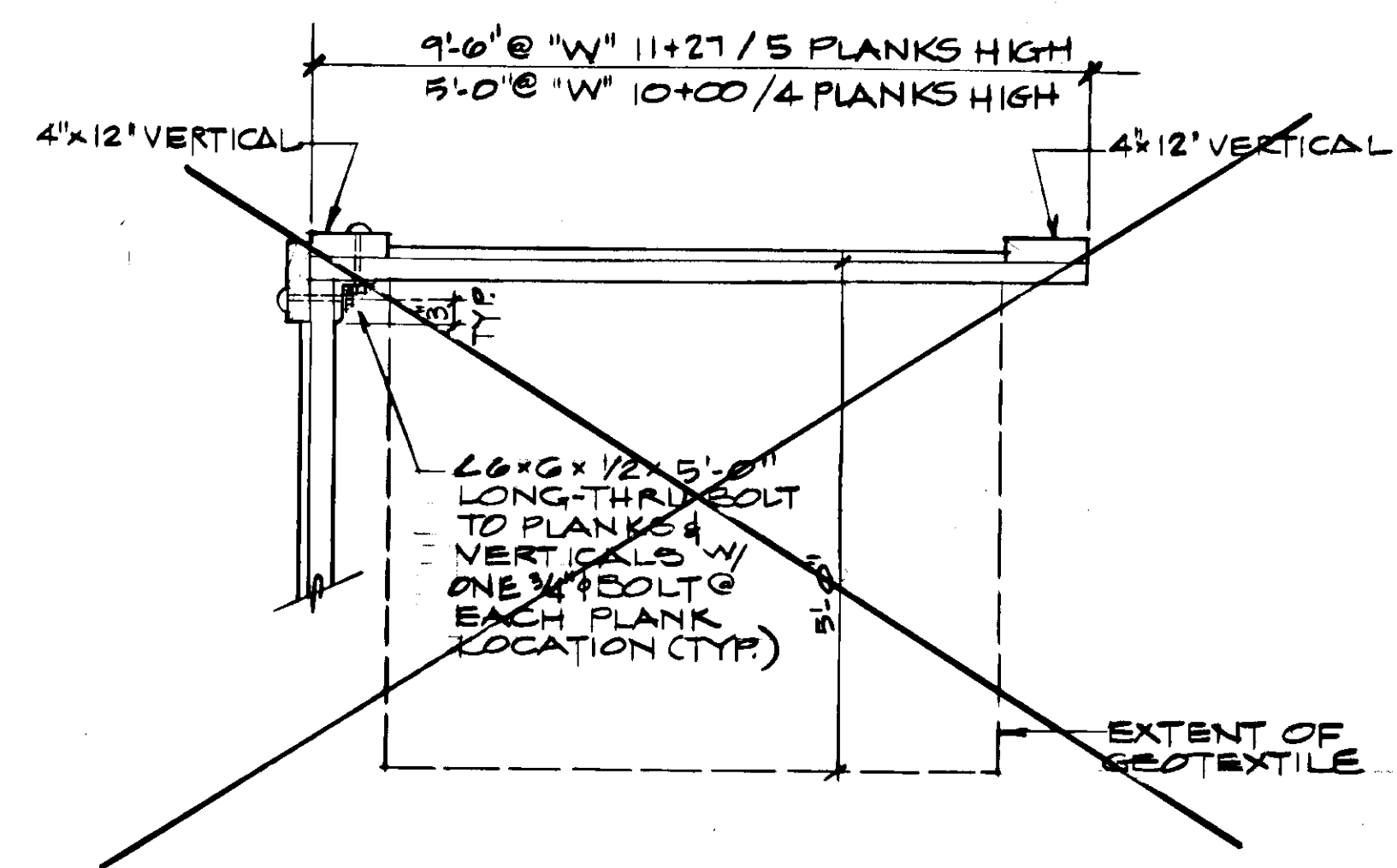
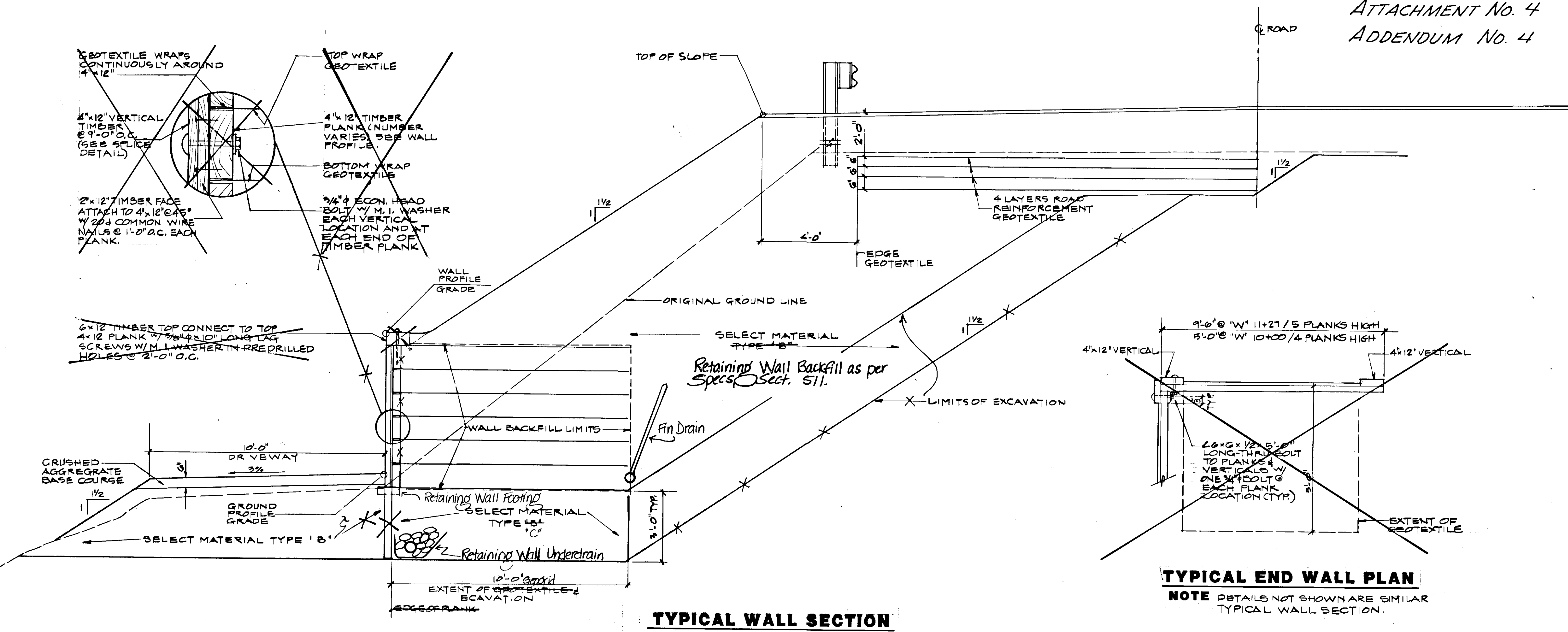
~~TYPICAL GEOTEXTILE COVERED  
4x12 WHERE SHADED. PROVIDE  
GEOTEXTILE IN 1'-6" WIDTH  
AND LENGTH AS SHOWN ON PLAN.~~

Wall "B"

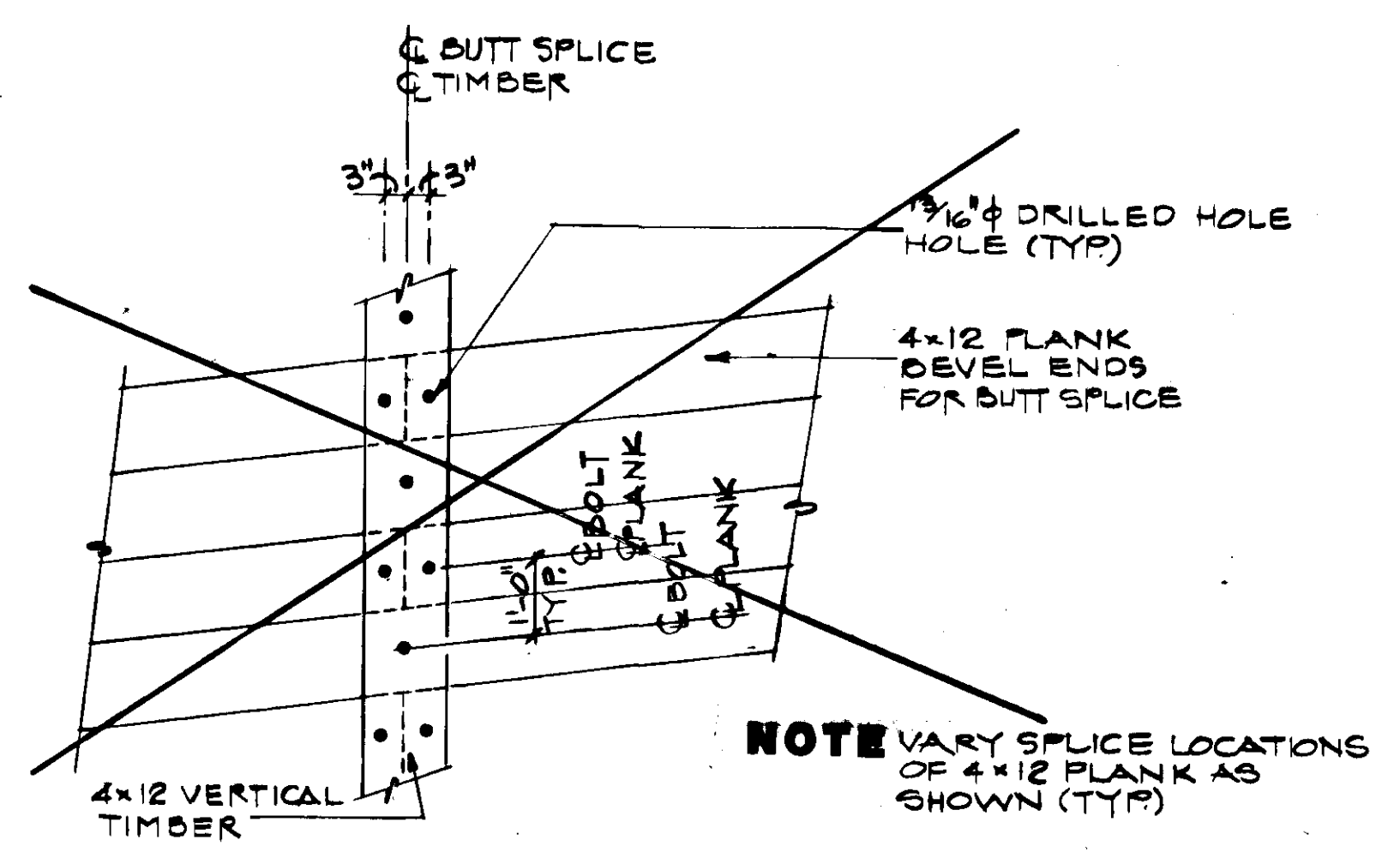
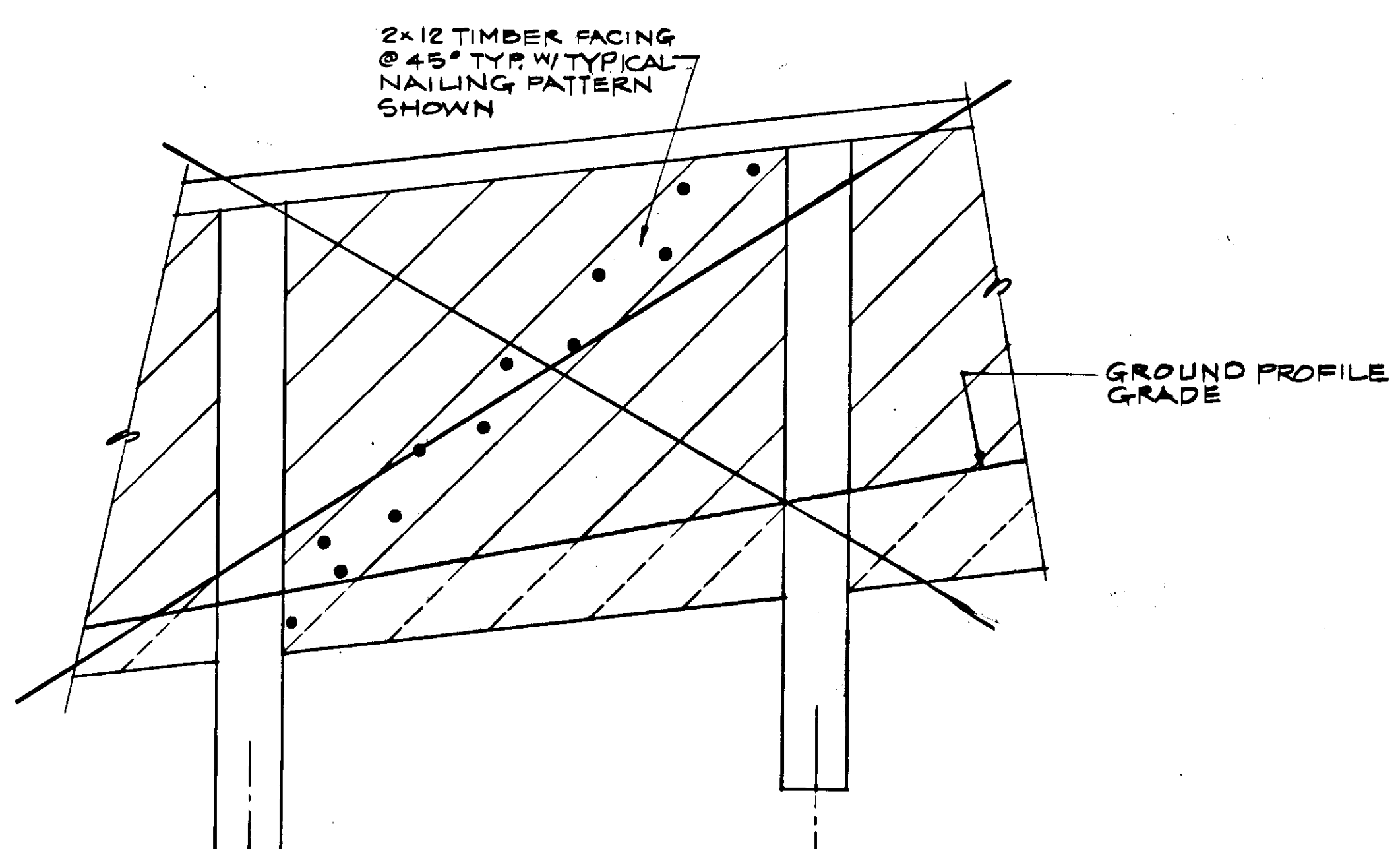
## JUNEAU PT. LOUISA TO TEE HARBOR

Designed: TN  
Drawn: KK  
Checked: JLN

 **Peratrovich, Nottingham & Drage, Inc.**  
Engineering Consultants



**NOTE** DETAILS NOT SHOWN ARE SIMILAR TYPICAL WALL SECTION.



PERATROVICH, NOTTINGHAM & DRAGE, INC. IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS OR PROCEDURES OF OPERATIONS OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THIS DRAWING. THE DRAWING IS FOR USE ON THIS PROJECT ONLY AND IS NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PN&D. THE DRAWING IS ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PERATROVICH, NOTTINGHAM & DRAGE, INC.

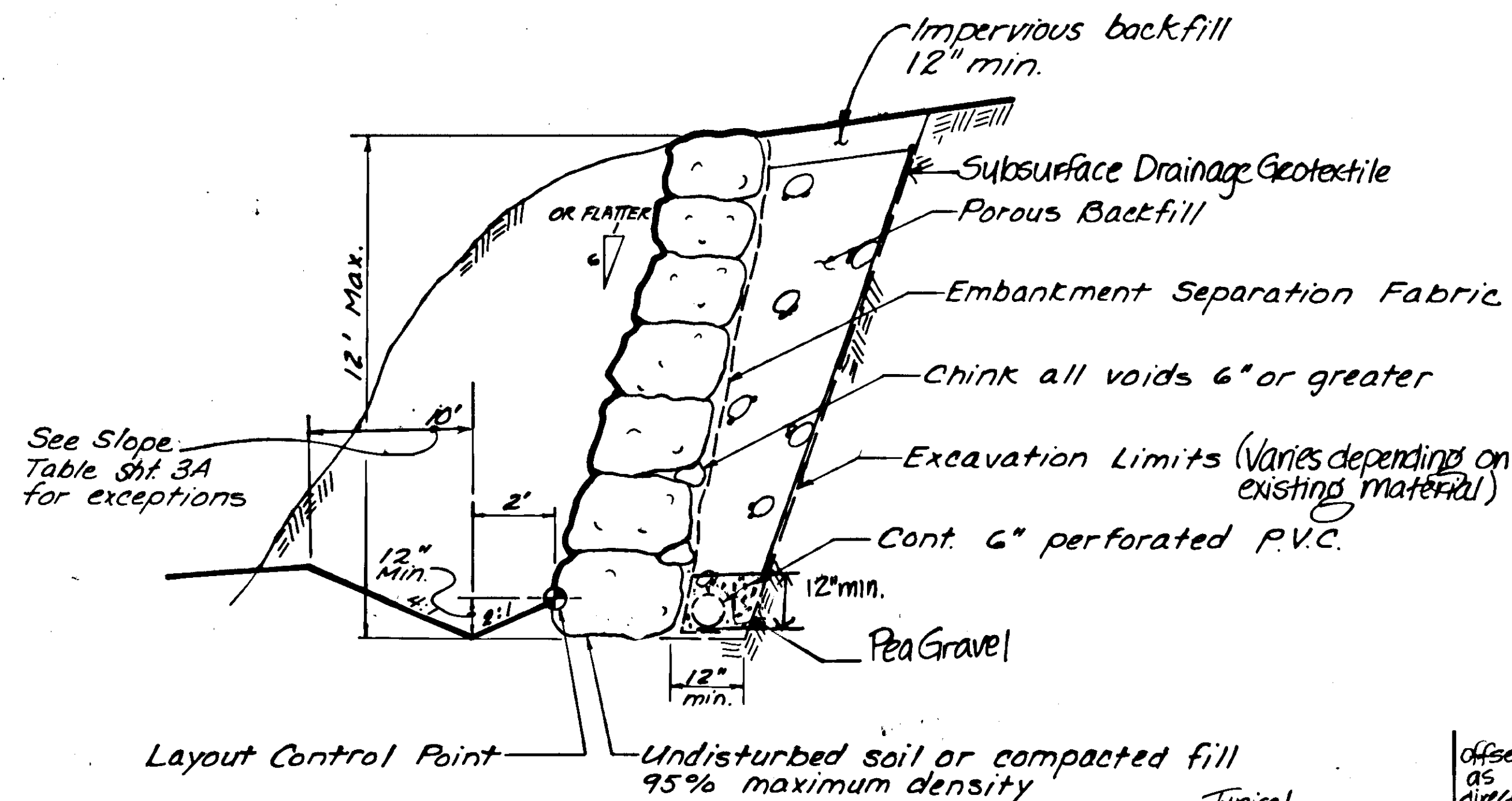
**JUNEAU  
PT. LOUISA TO TEE HARBOR**

Designed: T.N.  
Drawn: K.K.  
Checked: J.L.N.



**Peratrovich, Nottingham & Drage, Inc.**  
Engineering Consultants





The rockery shall be constructed of rock ranging in size as shown below.

|                                 | LEAST DIMENSION | MINIMUM WEIGHT |
|---------------------------------|-----------------|----------------|
| Top 3 ft. of rockery            | 13" to 18"      | 500 lbs.       |
| 3 to 6 ft. from top of rockery  | 18" to 24"      | 1500 lbs.      |
| 6 to 9 ft. from top of rockery  | 24" to 32"      | 3000 lbs.      |
| 9 to 12 ft. from top of rockery | 30" to 38"      | 4000 lbs.      |

### ROCKERY WALL

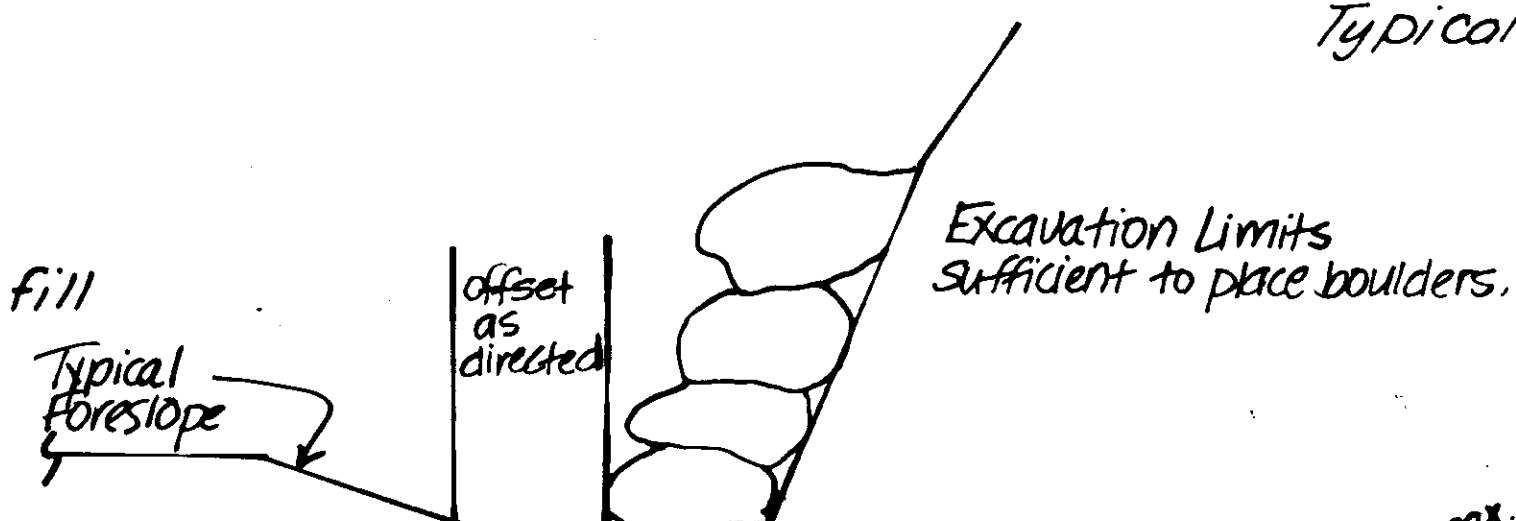
Sta. "O" 431+30 to Sta. "O" 433+25 Rt. 78 sq. yd.  
 \* Sta. "FV" 10+45 to Sta. "FV" 12+00 Lt. 572 sq. yd.  
 Sta. "O" 358+20 to Sta. "O" 359+50 Rt. 173 sq. yd.  
 Sta. "O" 360+50 to Sta. "O" 361+50 Rt. 87 sq. yd.  
 Sta. "O" 423+50 to Sta. "O" 424+50 Rt. 65 sq. yd.

\* See Sht. 44 for layout control point

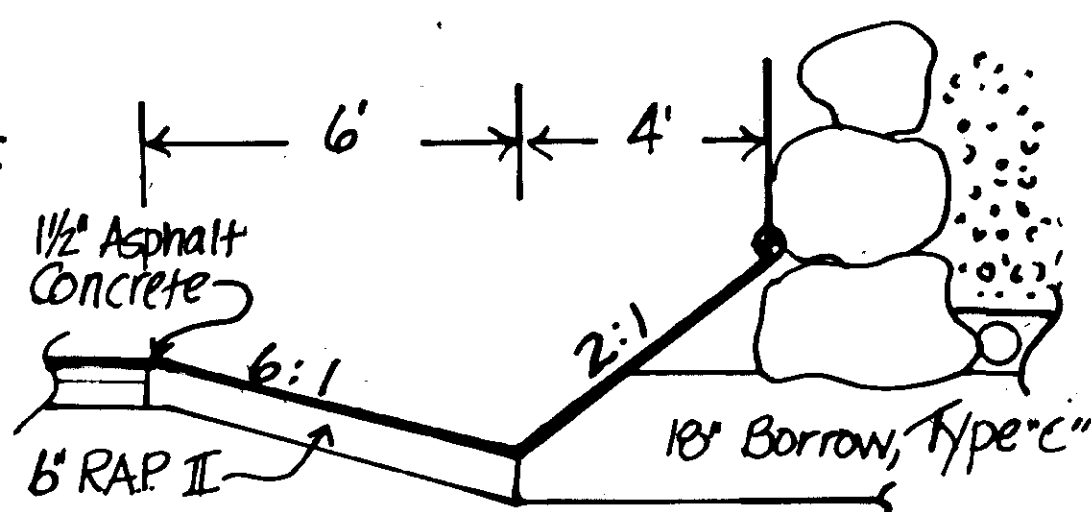
### Rockery Wall

431+23 to 433+29 Rt. 165 sq. yd.  
 \* 358+00 to 359+06, Rt. 219 sq. yd.  
 \* 360+35 to 361+43, Rt. 4608 sq. yd.  
 423+40 to 424+60, Rt. 68 sq. yd.

\* These walls have a modified rockery base.



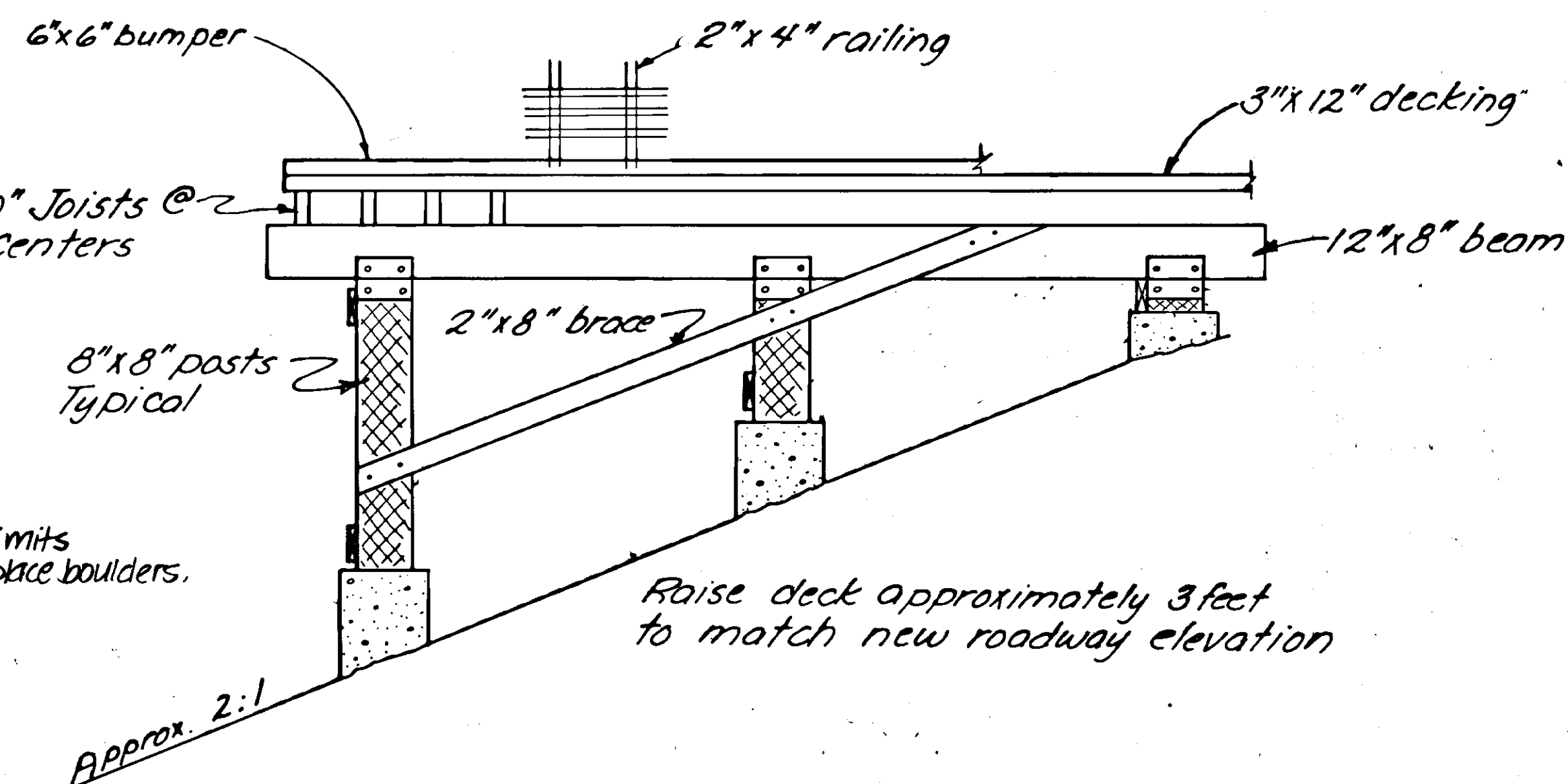
### Boulder Wall



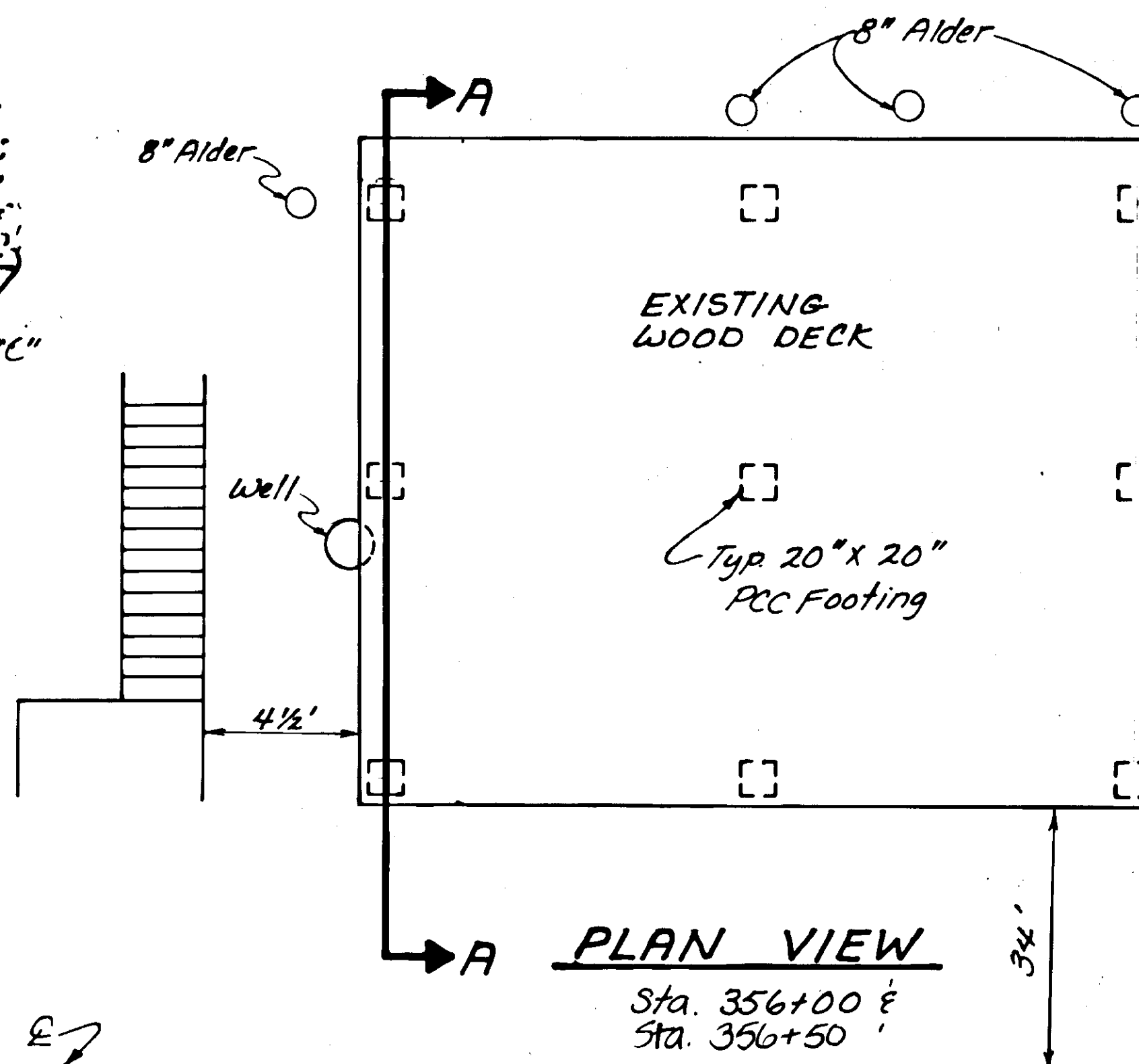
### Modified Rockery Base

### Boulder Wall

353+50 to 354+10, Rt. 65 sq. yd.  
 363+58 to 363+80, Rt. 27 sq. yd.  
 443+13 to 444+17, Rt. 107 sq. yd.  
 371+75 to 372+25, Lt. 44 sq. yd.



### SECTION A-A



### PARKING PLATFORM

Sta. 356+00, 34' Lt. E  
 Sta. 356+50, 40' Lt. E

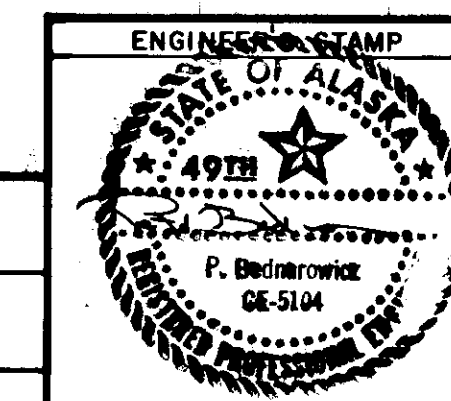
| BY | DATE | DESCRIPTION OF CHANGE |
|----|------|-----------------------|
|    |      |                       |
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|    |      |                       |

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES  
 SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
 POINT LOUISA TO TEE HARBOR

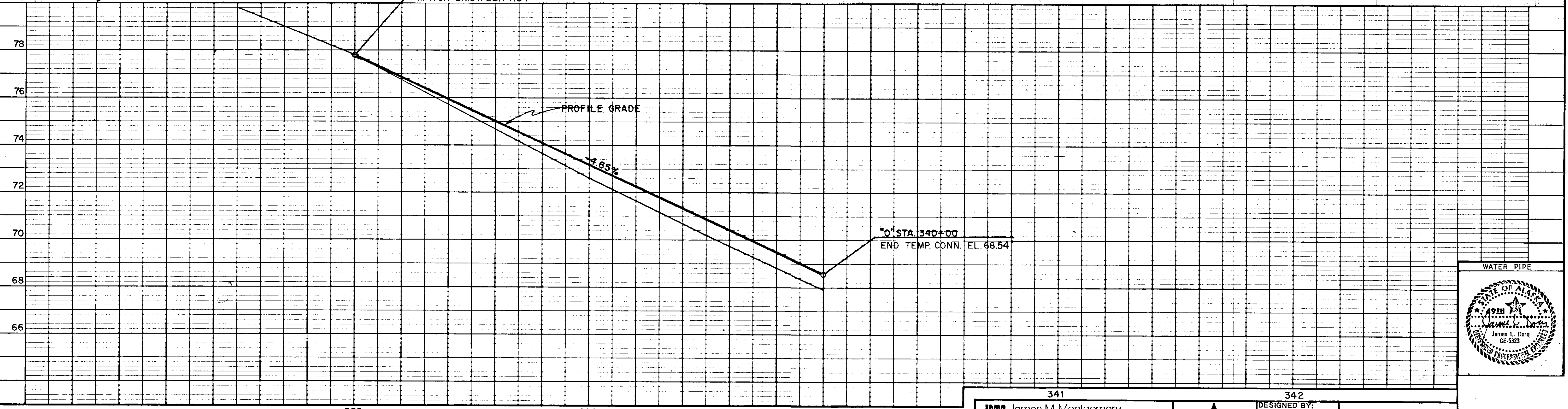
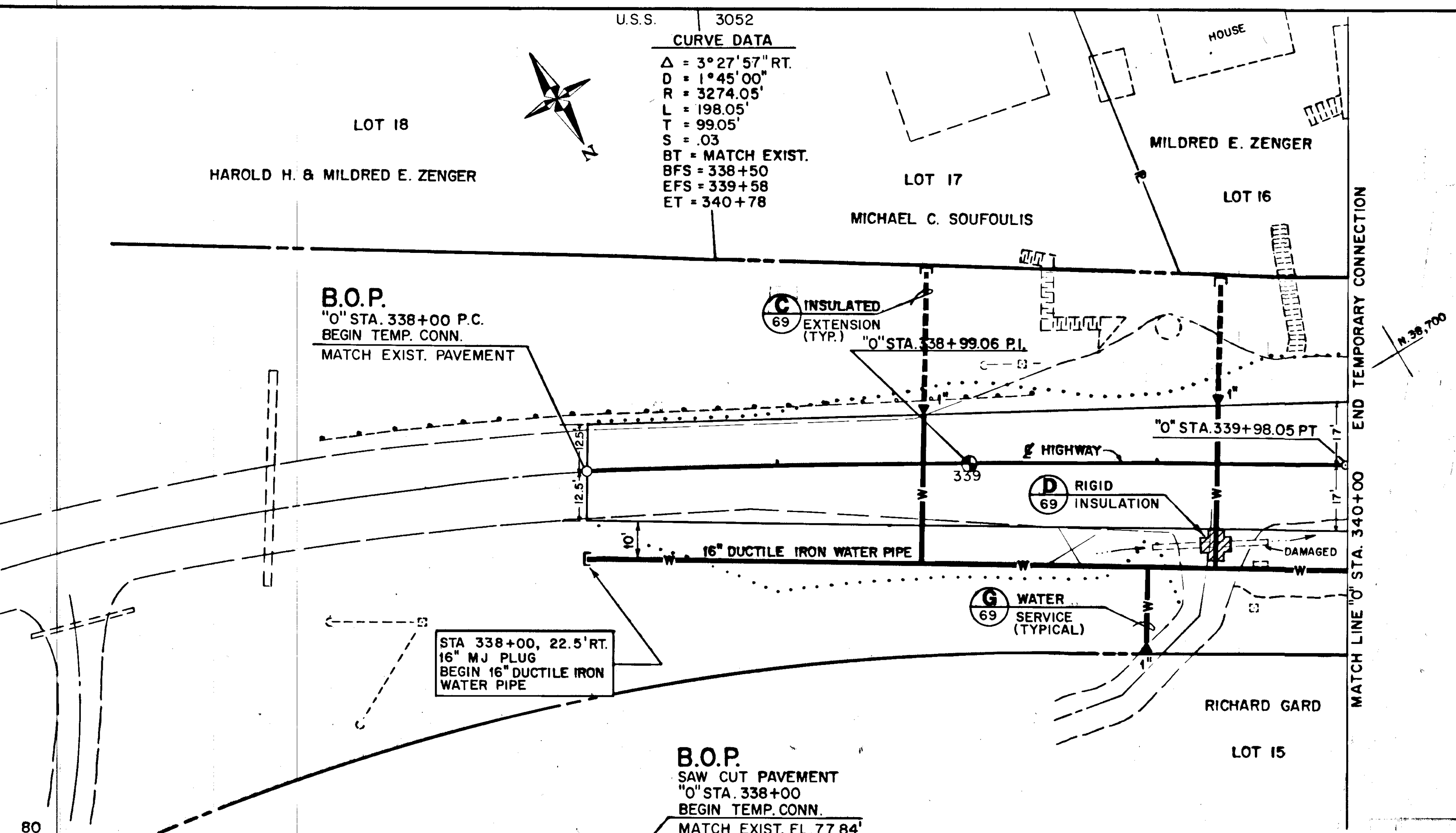
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 RECOMMENDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PROJECT MANAGER: \_\_\_\_\_ LEAD DESIGNER: \_\_\_\_\_

DESIGNED BY: \_\_\_\_\_ SCALE: NONE  
 DRAWN BY: R.K.S. DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ SHEET 50 OF 70



U.S.S. 3052  
CURVE DATA  
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 $D = 1^\circ 45' 00''$   
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 $L = 198.05'$   
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BT = MATCH EXIST.  
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ET = 340+78

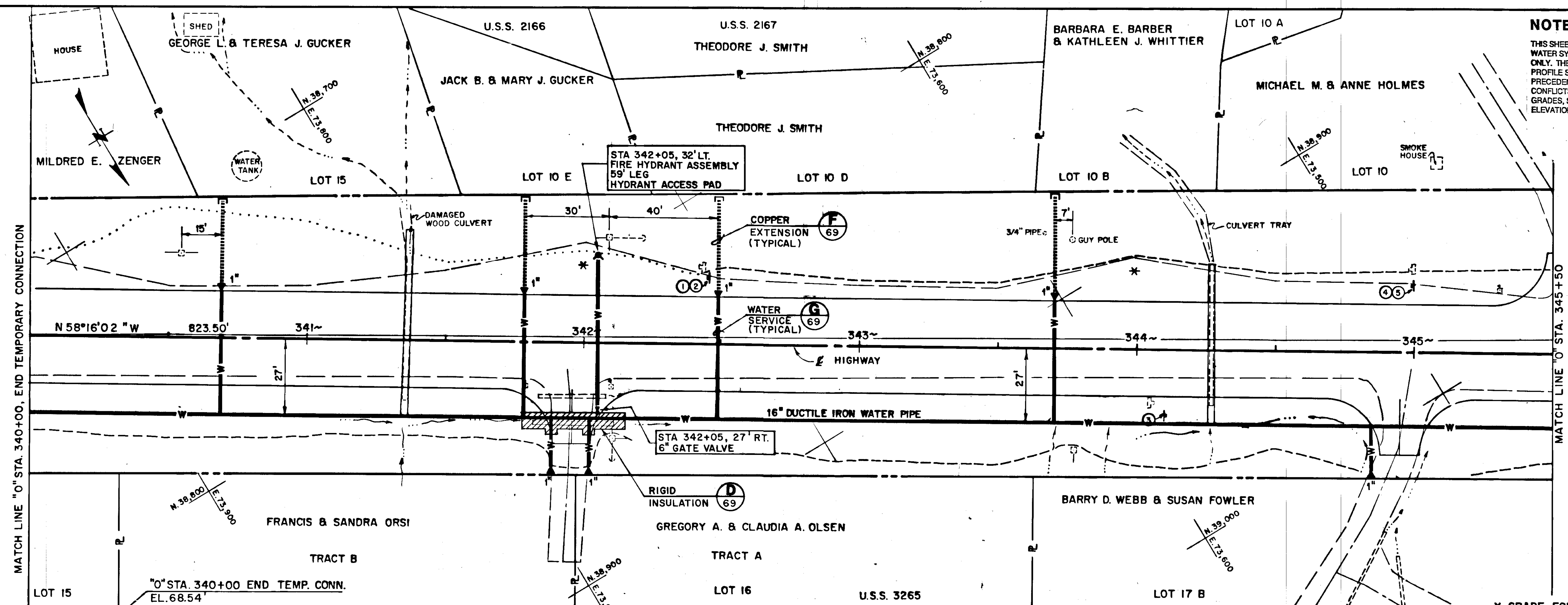
**NOTE :**  
THIS SHEET TO BE USED FOR  
WATER SYSTEM  
CONSTRUCTION ONLY. THE  
HIGHWAY PLAN AND PROFILE  
SHEETS SHALL TAKE  
PRECEDENCE IN THE CASE  
OF CONFLICTS FOR ROAD  
ALIGNMENT, GRADES, SIDE  
SLOPES, CULVERT  
ELEVATIONS AND  
LOCATIONS, ETC.



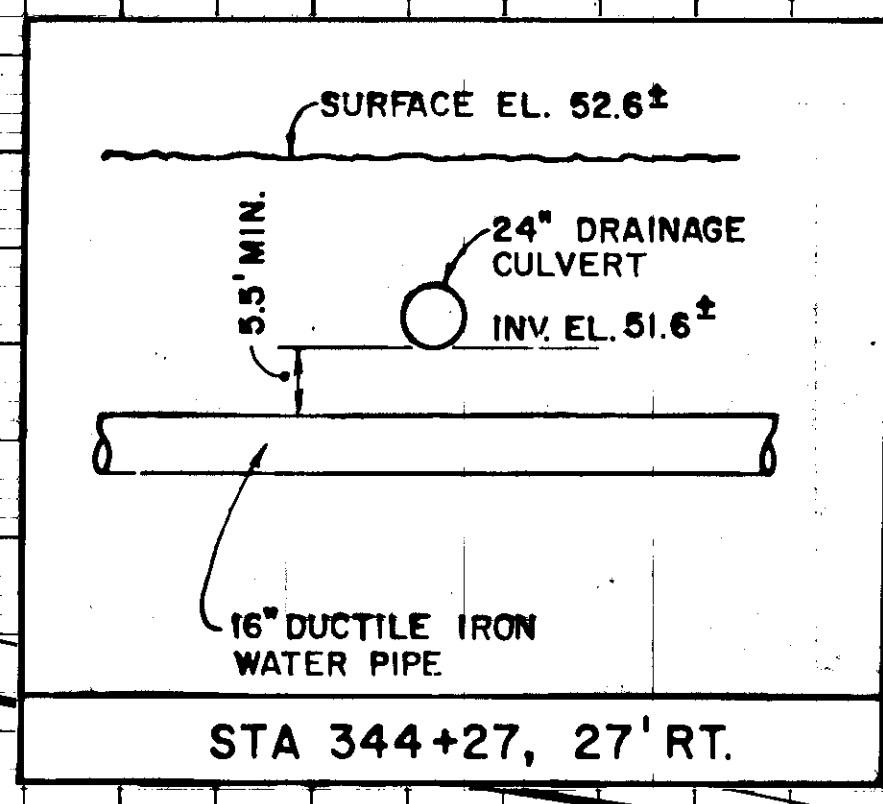
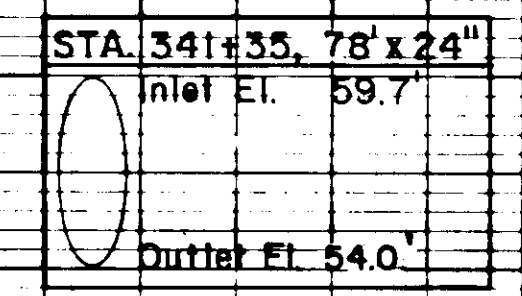
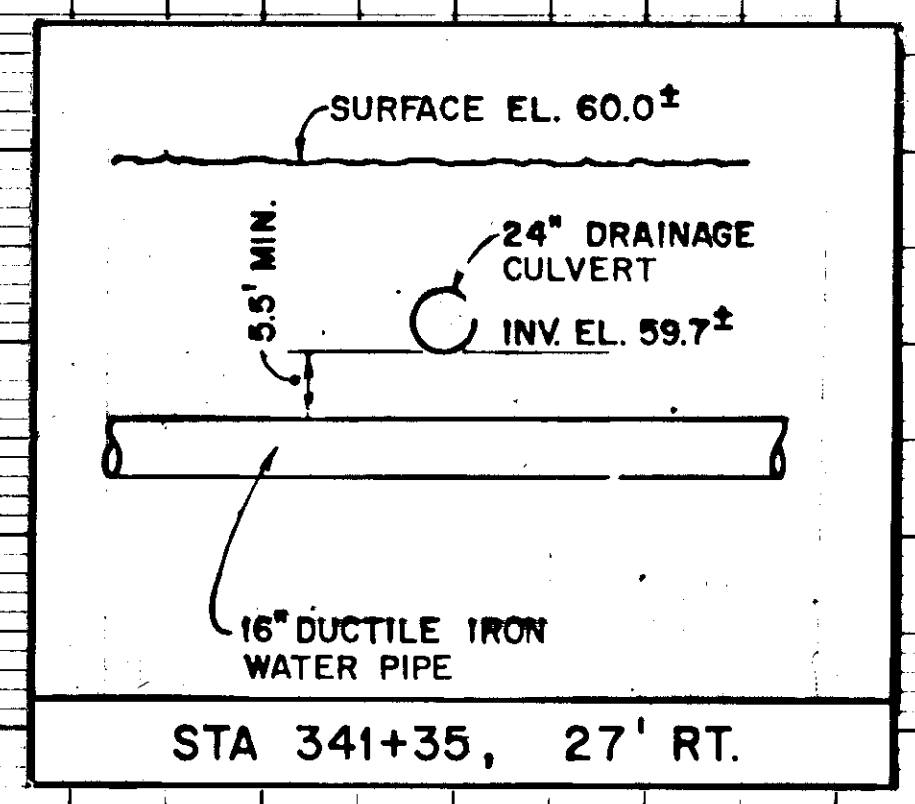
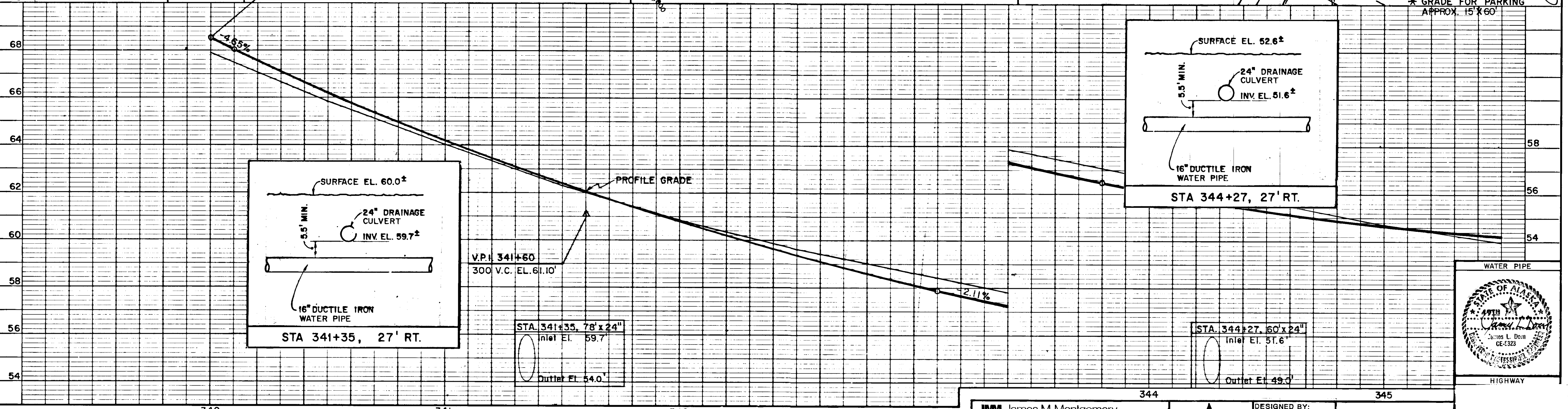
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| BY                  |  | DATE | DESCRIPTION OF CHANGE |
| RECORD OF REVISIONS |  |      |                       |

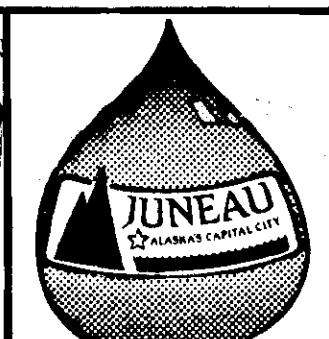
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| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>WATER PIPE STA 338+00 TO STA 340+00 |  | JMM James M. Montgomery<br>Consulting Engineers Inc.<br>712 WEST 12TH STREET<br>JUNEAU, ALASKA 99801<br>586-4447 |  | DESIGNED BY:<br>M.B. / S.S.<br>DRAWN BY:<br>W.A. / EED<br>CHECKED BY:<br>P.B. / J.D.<br>DATE:<br>SEPT., 1989<br>CBJ<br>FILE NO. |  | HORIZ. SCALE:<br>VERT. SCALE:<br>DATE:<br>SHEET 54 OF 70 |  |
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CBJ Red-line "As-Built" on file @ CBJ Engineering Dept.

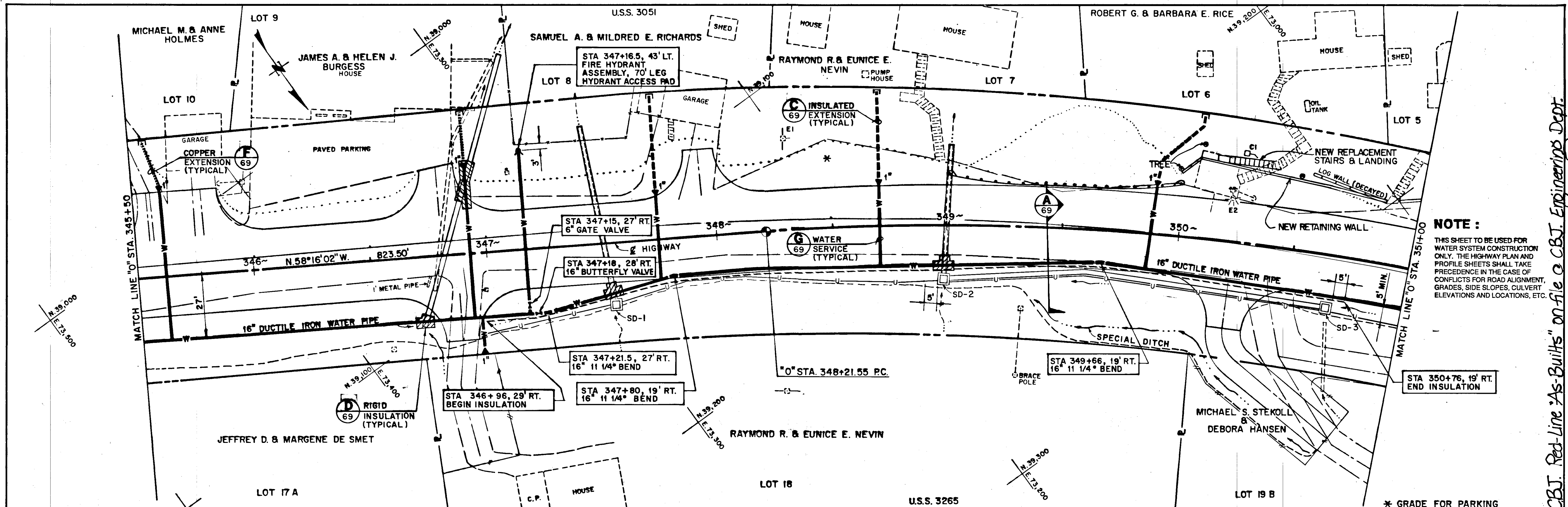


**NOTE :**  
THIS SHEET TO BE USED FOR WATER SYSTEM CONSTRUCTION ONLY. THE HIGHWAY PLAN AND PROFILE SHEETS SHALL TAKE PRECEDENCE IN THE CASE OF CONFLICTS FOR ROAD ALIGNMENT, GRADES, SIDE SLOPES, CULVERT ELEVATIONS AND LOCATIONS, ETC.

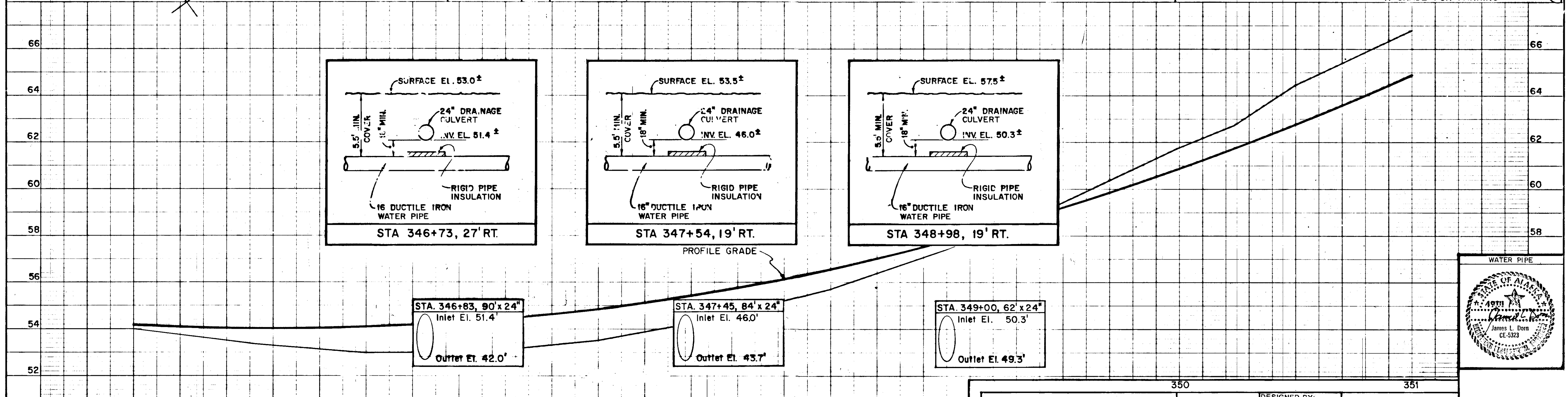


|                                                                                                                                            |  |  |                                                                                                                                      |  |  |                                                                                                                             |  |                                                                                                                                                                                                                                          |  |                                                                                      |  |
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| <b>STATE OF ALASKA</b><br><b>DEPARTMENT OF TRANSPORTATION &amp; PUBLIC FACILITIES</b><br><b>SOUTHEAST REGION DESIGN &amp; CONSTRUCTION</b> |  |  | <b>JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845</b><br><b>POINT LOUISA TO TEE HARBOR</b><br><b>WATER PIPE STA 340+00 TO STA 345+50</b> |  |  | <b>JMM James M. Montgomery</b><br>Consulting Engineers Inc.<br><br>712 WEST 12TH STREET<br>JUNEAU, ALASKA 99801<br>586-4447 |  | <br><b>DESIGNED BY:</b> M.B. / S.S.<br><b>DRAWN BY:</b> W.A. / EDD<br><b>CHECKED BY:</b> P.B. / J.D.<br><b>DATE:</b> SEPT., 1989<br><b>FILE NO.</b> |  | <b>HORIZ. SCALE:</b><br><b>VERT. SCALE:</b><br><b>DATE:</b><br><b>SHEET 55 OF 70</b> |  |
| <b>RECORD OF REVISIONS</b><br>BY:      DATE:      DESCRIPTION OF CHANGE                                                                    |  |  |                                                                                                                                      |  |  |                                                                                                                             |  |                                                                                                                                                                                                                                          |  |                                                                                      |  |

CBJ Red-line 'As-Built's' on file @ CBJ Engineering Dept.



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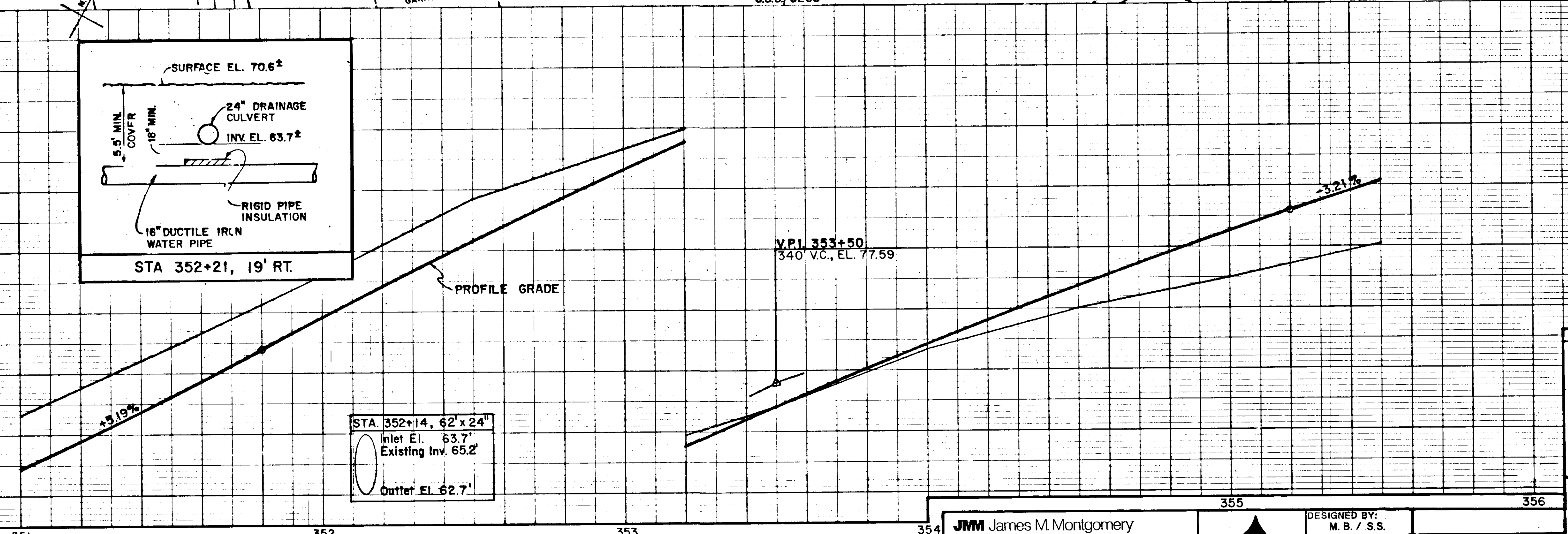
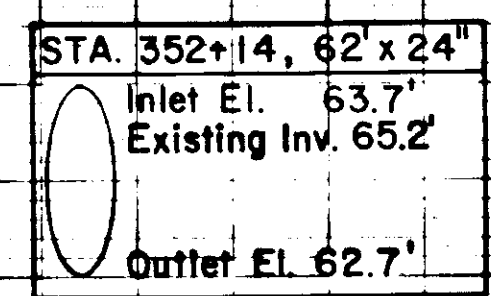
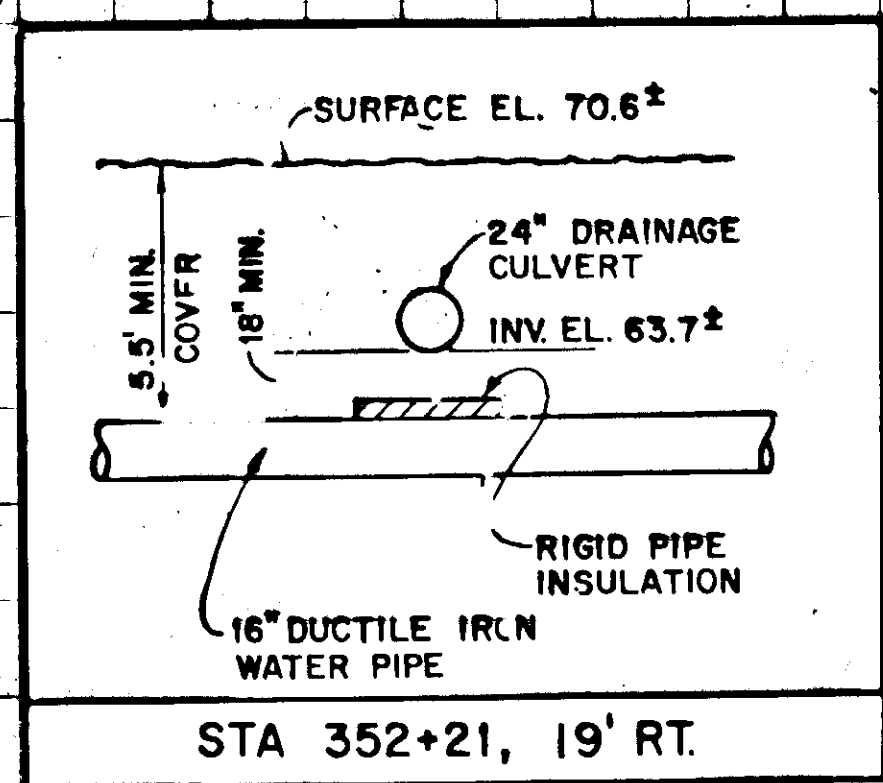
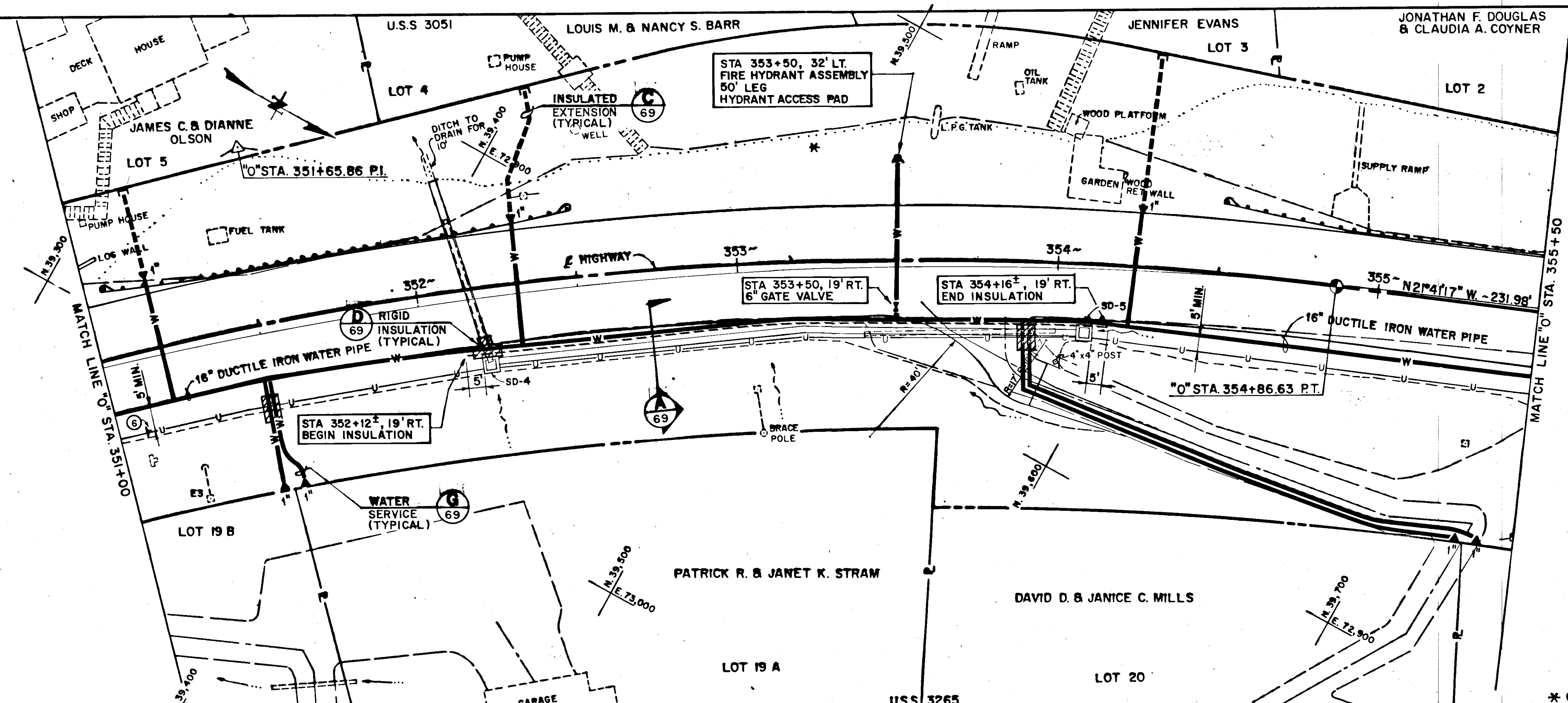


| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION                                                                                                                                                 |      |                       | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br><b>POINT LOUISA TO TEE HARBOR</b><br><b>WATER PIPE FROM STA 345+50 TO STA 351+00</b> |  |  | <b>JMM</b> James M. Montgomery<br>Consulting Engineers Inc.<br>712 WEST 12TH STREET<br>JUNEAU, ALASKA 99801<br>586-4447 |  | <br>DESIGNED BY: M.B. / S.S.<br>DRAWN BY: W.A. / J.D.<br>CHECKED BY: P.B. / J.D.<br>DATE: SEPT, 1989<br>FILE NO. |  | HORIZ. SCALE:<br>VERT. SCALE:<br>DATE:<br>SHEET 56 OF 70 |  |    |      |                       |                     |  |  |
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| BY                                                                                                                                                                                                                                                               | DATE | DESCRIPTION OF CHANGE |                                                                                                                                    |  |  |                                                                                                                         |  |                                                                                                                  |  |                                                          |  |    |      |                       |                     |  |  |
| RECORD OF REVISIONS                                                                                                                                                                                                                                              |      |                       |                                                                                                                                    |  |  |                                                                                                                         |  |                                                                                                                  |  |                                                          |  |    |      |                       |                     |  |  |

C.B.J. Red-Line "As-Built" on file at C.B.J. Engineering Dept.

**CURVE DATA**  
 $\Delta = 36^\circ 34' 45''$  RT.  
 $D = 05^\circ 30' 00''$  RT.  
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 $L = 665.08'$   
 $T = 344.31'$   
 $S = .056$   
 $BT = 347+01$   
 $BFS = 348+83$   
 $EFS = 354+25$   
 $ET = 356+50$

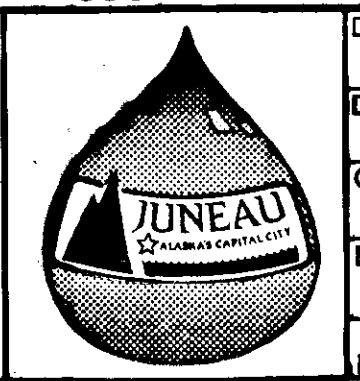
**NOTE:**  
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 WATER SYSTEM CONSTRUCTION  
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 PROFILE SHEETS SHALL TAKE  
 PRECEDENCE IN THE CASE OF  
 CONFLICTS FOR ROAD ALIGNMENT,  
 GRADES, SIDE SLOPES, CULVERT  
 ELEVATIONS AND LOCATIONS, ETC.



STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES  
 SOUTHEAST REGION DESIGN & CONSTRUCTION

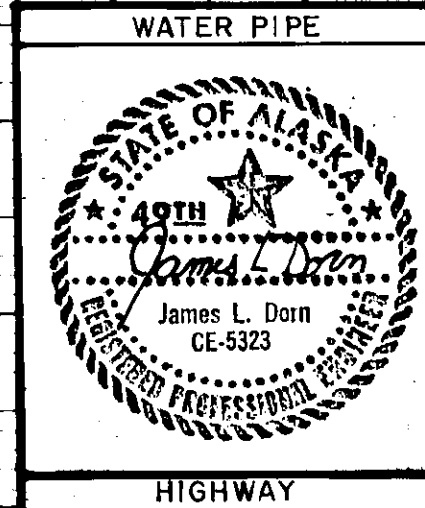
JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
 POINT LOUISA TO TEE HARBOR  
 WATER PIPE STA 351+00 TO STA 355+50

**JMM** James M. Montgomery  
 Consulting Engineers Inc.  
 712 WEST 12TH STREET  
 JUNEAU, ALASKA 99801  
 586-4447

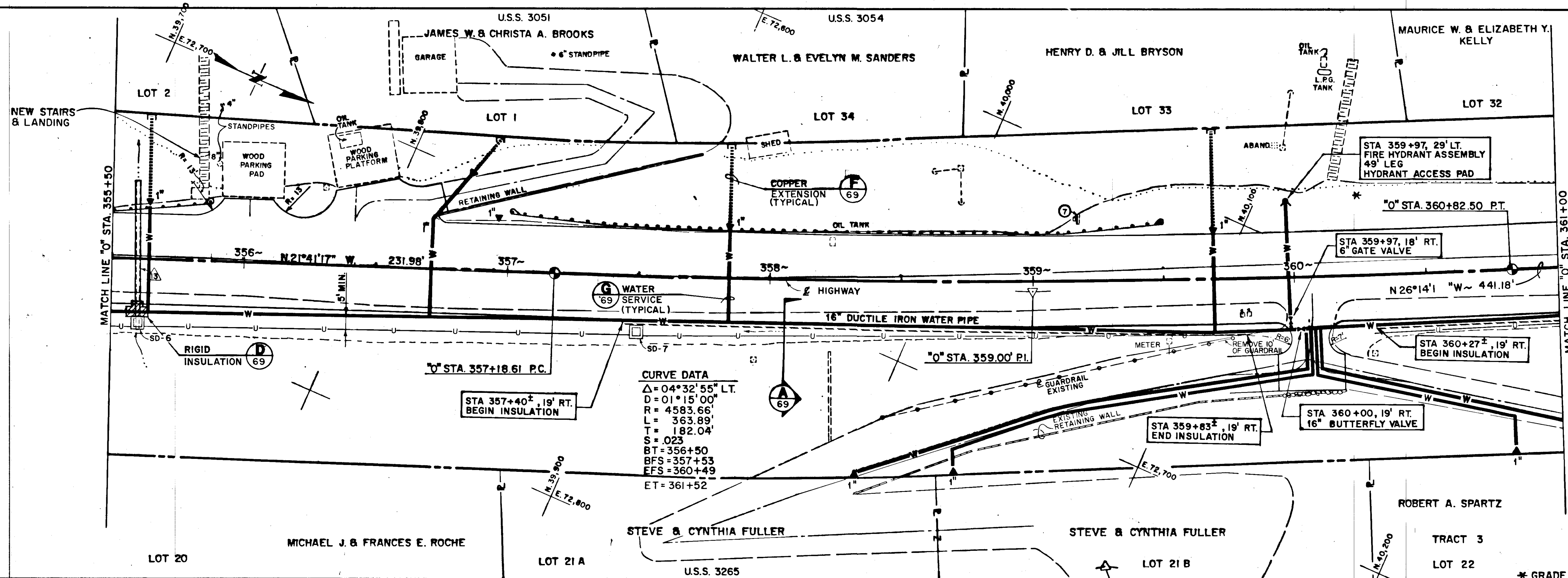


DESIGNED BY:  
 M. B. / S.S.  
 DRAWN BY:  
 W.A. / [initials]  
 CHECKED BY:  
 P. B. / J.D.  
 DATE:  
 SEPT., 1989  
 GBJ  
 FILE NO.

HORIZ. SCALE:  
 VERT. SCALE:  
 DATE:  
 SHEET 57 OF 70



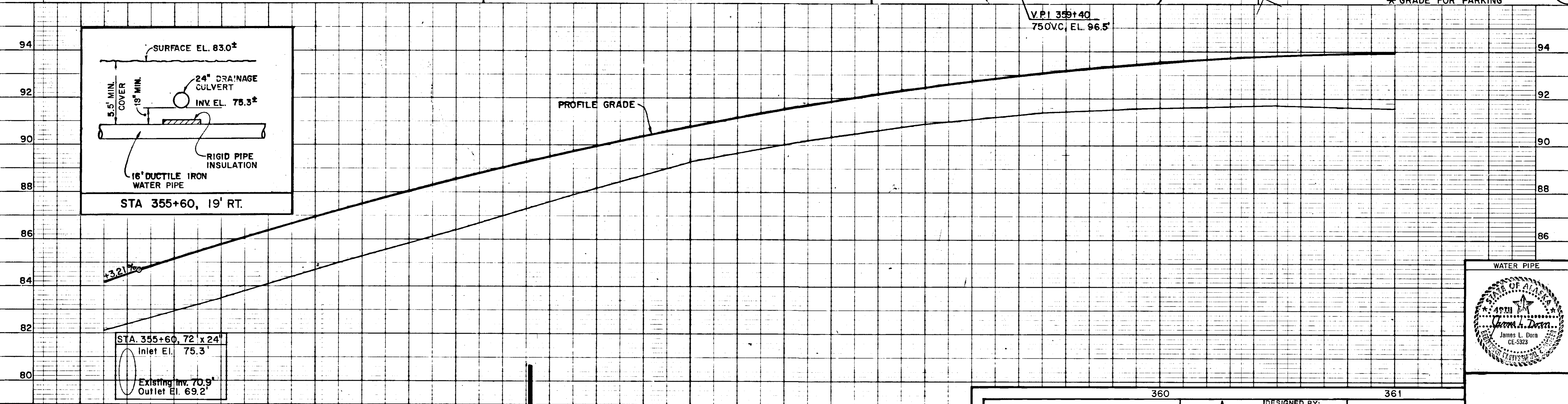
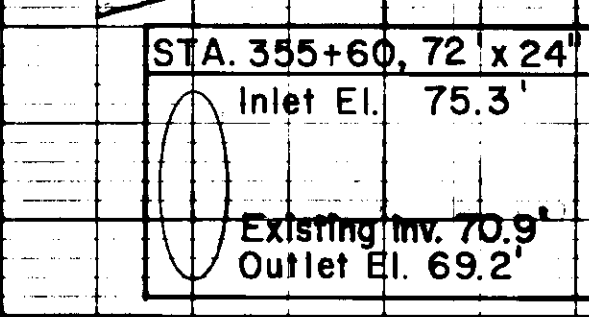
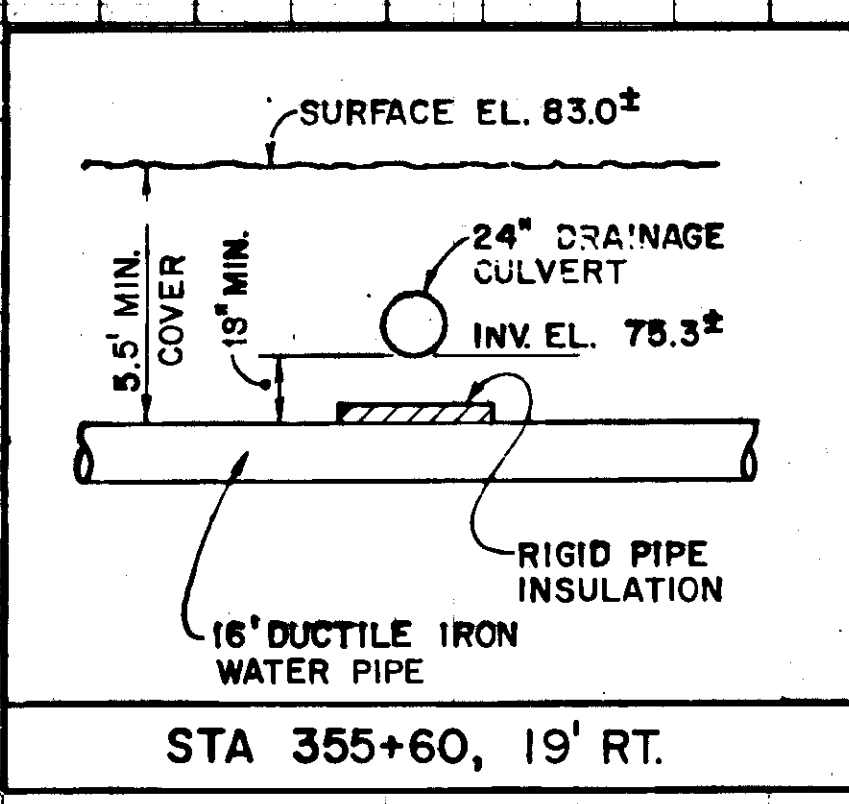
C.B.J. Red-Line "As-Built's" on file @ C&J Engineering Dept.



**NOTE :**  
THIS SHEET TO BE USED FOR WATER SYSTEM CONSTRUCTION ONLY. THE HIGHWAY PLAN AND PROFILE SHEETS SHALL TAKE PRECEDENCE IN THE CASE OF CONFLICTS FOR ROAD ALIGNMENT, GRADES, SIDE SLOPES, CULVERT ELEVATIONS AND LOCATIONS, ETC.

CBJ Red-line "As-Built" on file @ CBJ Engineering, Dept.

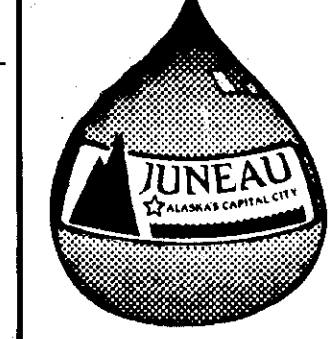
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 $ET = 361+52$



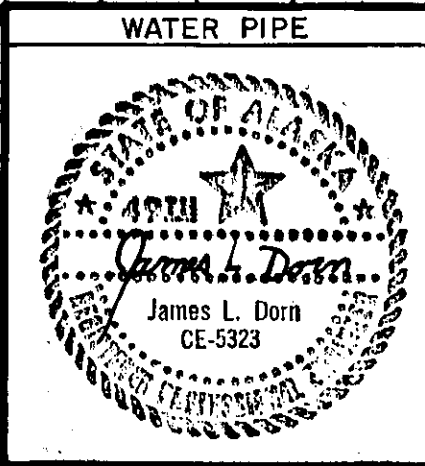
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |      |                       |
|------------------------------------------------------------------------------------------------------------------|------|-----------------------|
| BY                                                                                                               | DATE | DESCRIPTION OF CHANGE |
| RECORD OF REVISIONS                                                                                              |      |                       |

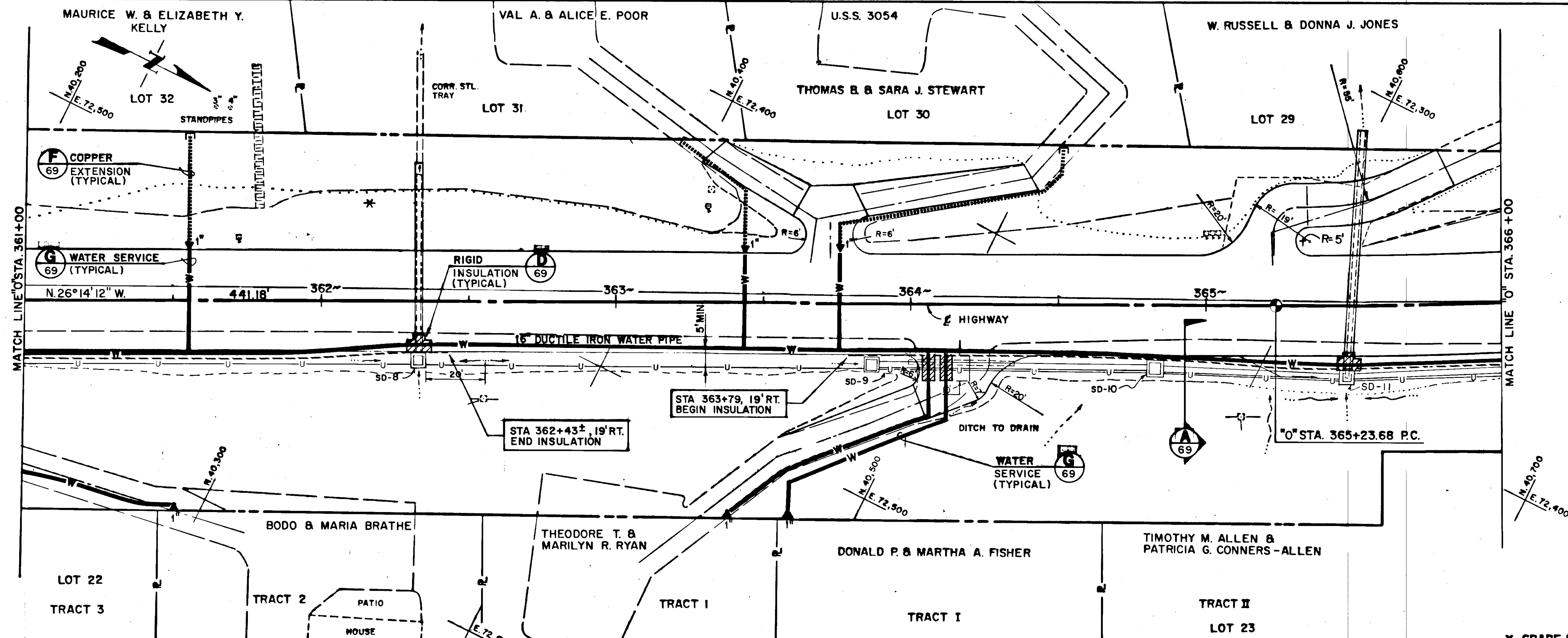
JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
**POINT LOUISA TO TEE HARBOR**  
**WATER PIPE STA 355+50 TO STA 361+00**

**JMM** James M. Montgomery  
 Consulting Engineers Inc.  
 712 WEST 12TH STREET  
 JUNEAU, ALASKA 99801  
 586-4447



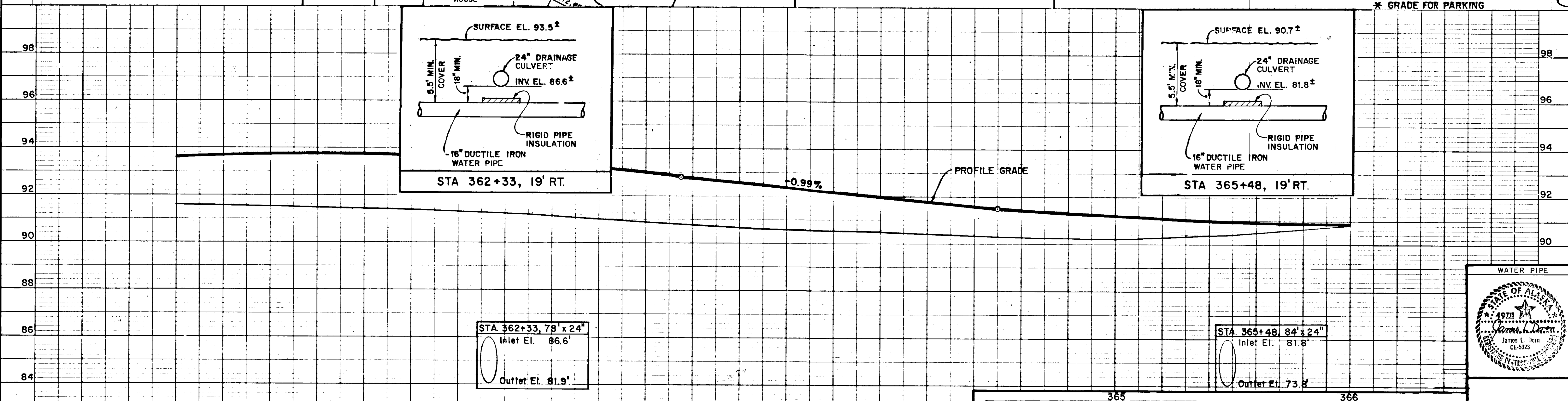
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| DESIGNED BY:<br>M.B. / S.S. | HORIZ. SCALE:<br>VERT. SCALE: |
| DRAWN BY:<br>W.A. / J.D.    |                               |
| CHECKED BY:<br>P.B. / J.D.  | DATE:                         |
| DATE:<br>SEPT, 1989         | SHEET 58 OF 70                |
| FILE NO.                    |                               |





**NOTE :**  
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GRADES, SIDE SLOPES, CULVERT  
ELEVATIONS AND LOCATIONS, ETC.

C.B.J. Red-line "As-Built" on file @ CBJ Engineering Dept.

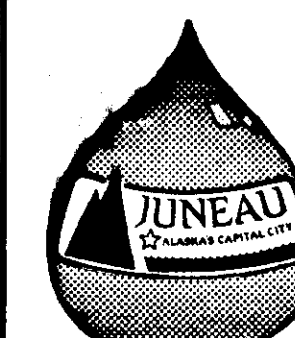


| BY | DATE | DESCRIPTION OF CHANGE |
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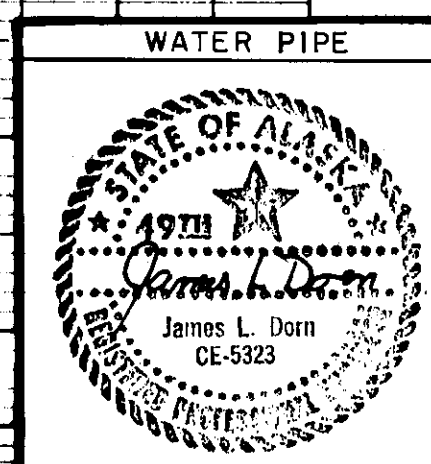
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

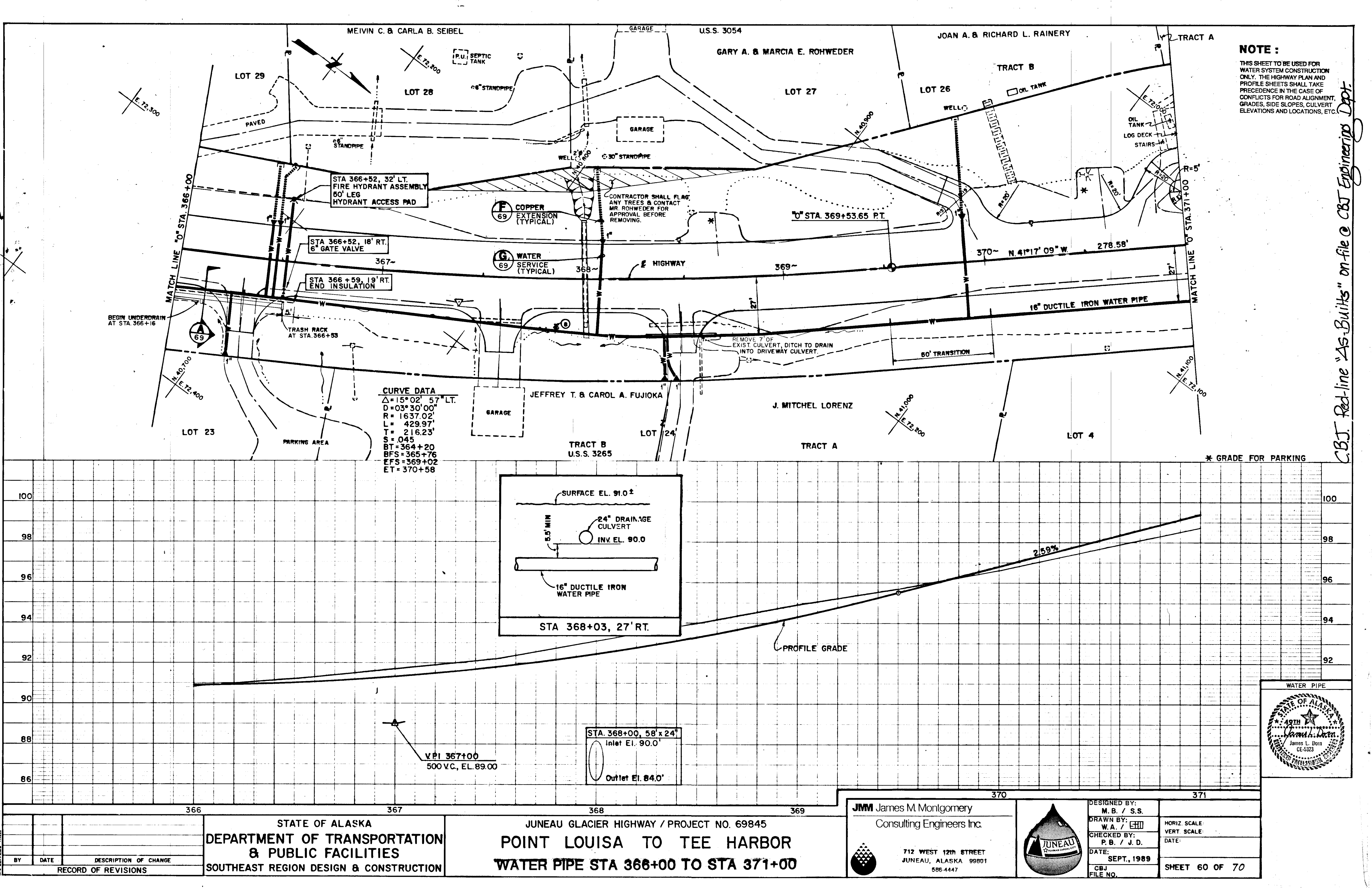
JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
**POINT LOUISA TO TEE HARBOR**  
**WATER PIPE STA 361+00 TO STA 366+00**

**JMM** James M. Montgomery  
Consulting Engineers Inc.  
712 WEST 12TH STREET  
JUNEAU, ALASKA 99801  
586-4447



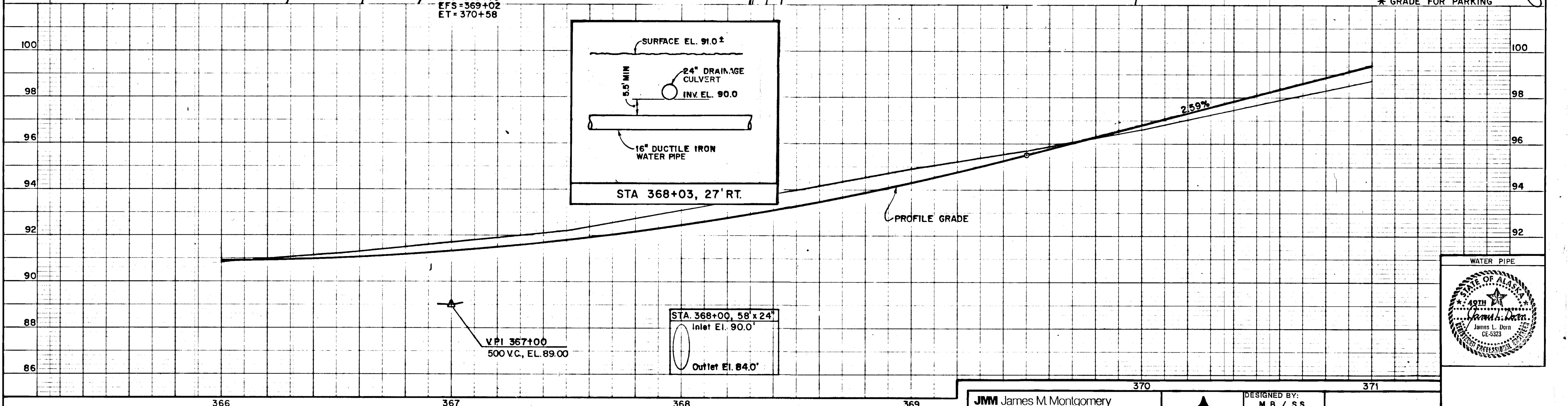
DESIGNED BY:  
M.B. / S.S.  
DRAWN BY:  
W.A. / E.H.  
CHECKED BY:  
P.B. / J.D.  
DATE:  
SEPT. 1989  
CBJ  
FILE NO.  
HORIZ. SCALE:  
VERT. SCALE:  
DATE:  
SHEET 59 OF 70



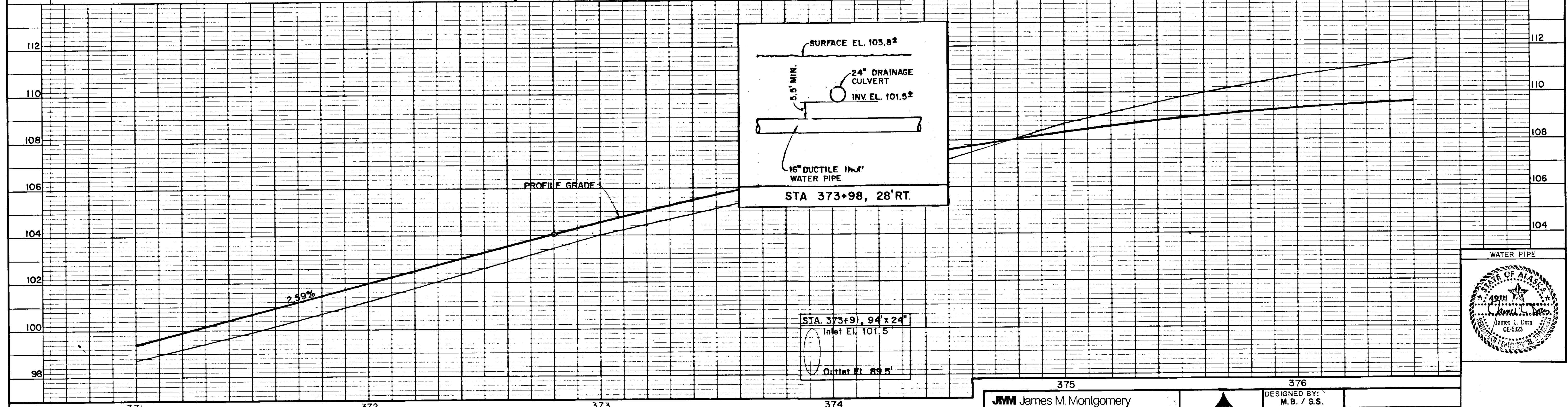
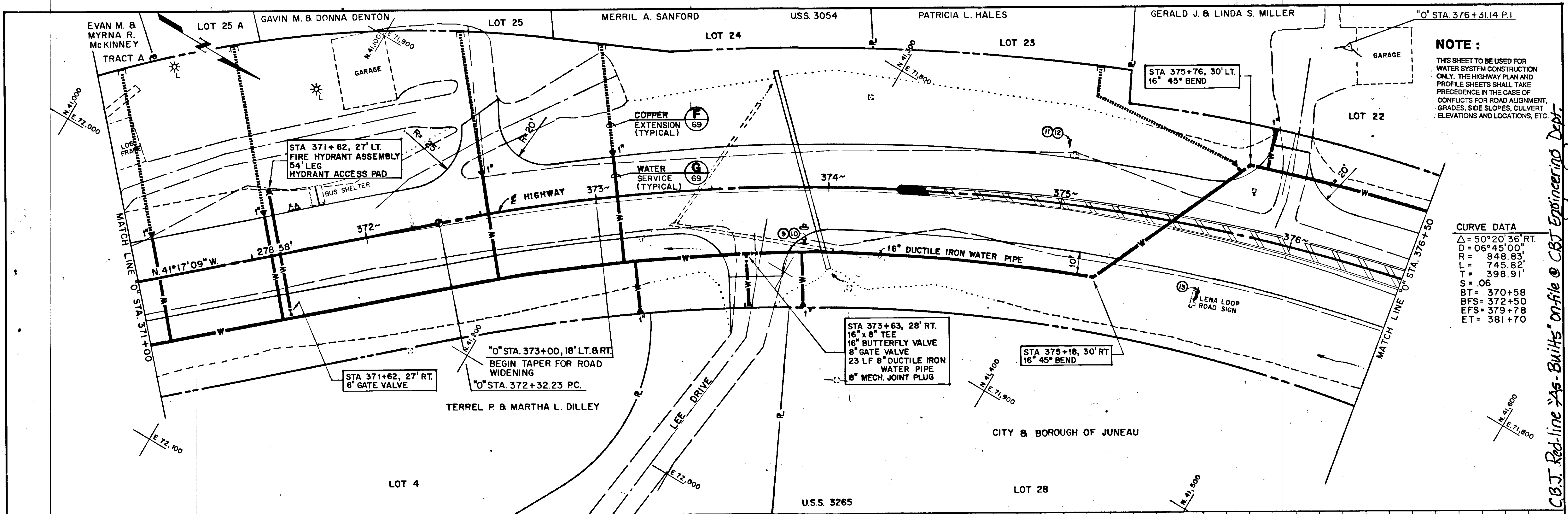


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CONFLICTS FOR ROAD ALIGNMENT,  
GRADES, SIDE SLOPES, CULVERT  
ELEVATIONS AND LOCATIONS, ETC.

CBJ Red-line "As-Built" on file @ CBJ Engineering Dept.

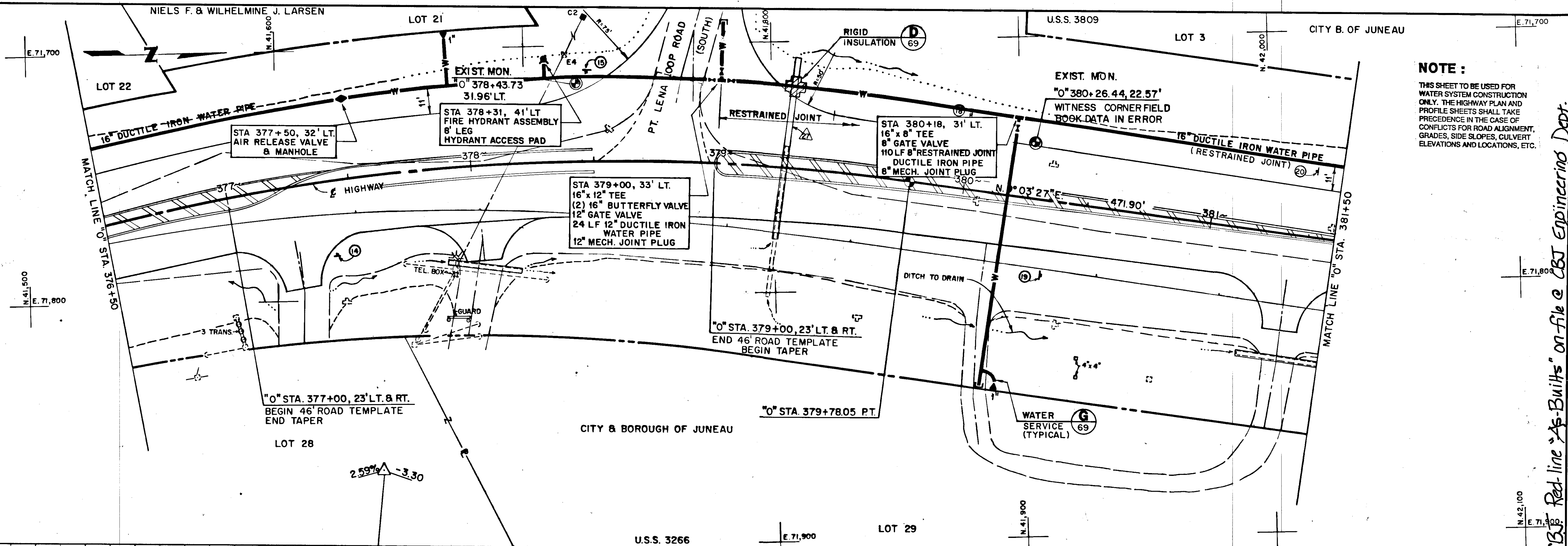


|                                                                                                                  |  |  |                                                                                                                                     |  |  |
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| BY: _____ DATE: _____ DESCRIPTION OF CHANGE: _____                                                               |  |  | RECORD OF REVISIONS                                                                                                                 |  |  |
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  |  |                                                                                                                                     |  |  |
| JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>WATER PIPE STA 366+00 TO STA 371+00  |  |  |                                                                                                                                     |  |  |
| JMM James M. Montgomery<br>Consulting Engineers Inc.<br>712 WEST 12TH STREET<br>JUNEAU, ALASKA 99801<br>586-4447 |  |  | DESIGNED BY:<br>M.B. / S.S.<br>DRAWN BY:<br>W.A. / [initials]<br>CHECKED BY:<br>P.B. / J.D.<br>DATE:<br>SEPT., 1989<br>CBJ FILE NO. |  |  |
| JUNEAU<br>ALASKA<br>CE-5323                                                                                      |  |  | HORIZ. SCALE:<br>VERT. SCALE:<br>DATE:<br>SHEET 60 OF 70                                                                            |  |  |

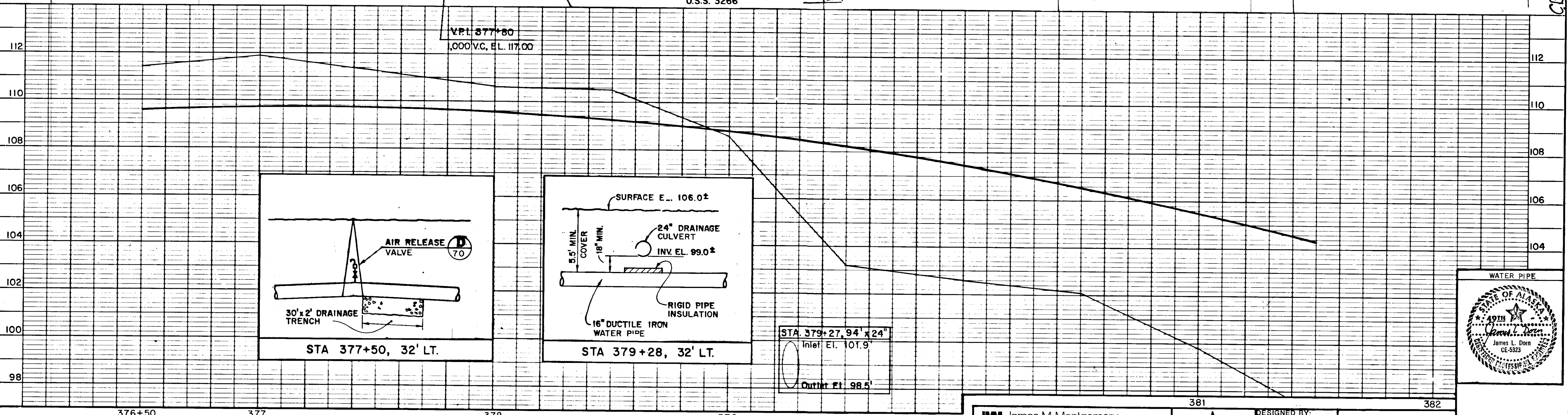


| RECORD OF REVISIONS |      |                       |
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| BY                  | DATE | DESCRIPTION OF CHANGE |
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|                                                                                                                  |  |                                                                                                                 |  |                                                                                                                  |  |                                                                                                                                      |  |                                                          |  |
|------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------|--|
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION<br>& PUBLIC FACILITIES<br>SOUTHEAST REGION DESIGN & CONSTRUCTION |  | JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845<br>POINT LOUISA TO TEE HARBOR<br>WATER PIPE STA 371+00 TO STA 376+50 |  | JMM James M. Montgomery<br>Consulting Engineers Inc.<br>712 WEST 12TH STREET<br>JUNEAU, ALASKA 99801<br>586-4447 |  | <br>DESIGNED BY:<br>M.B. / S.S.<br>DRAWN BY:<br>W.A. / J.D.<br>CHECKED BY:<br>P.B. / J.D.<br>DATE:<br>SEPT., 1989<br>CBJ<br>FILE NO. |  | HORIZ. SCALE:<br>VERT. SCALE:<br>DATE:<br>SHEET 61 OF 70 |  |
|------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------|--|



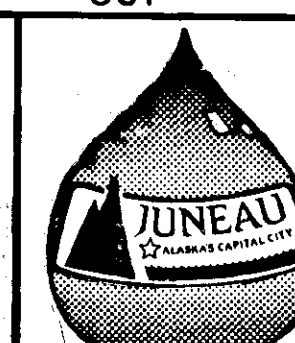
**NOTE :**  
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STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
WATER PIPE STA 376+50 TO STA 381+50

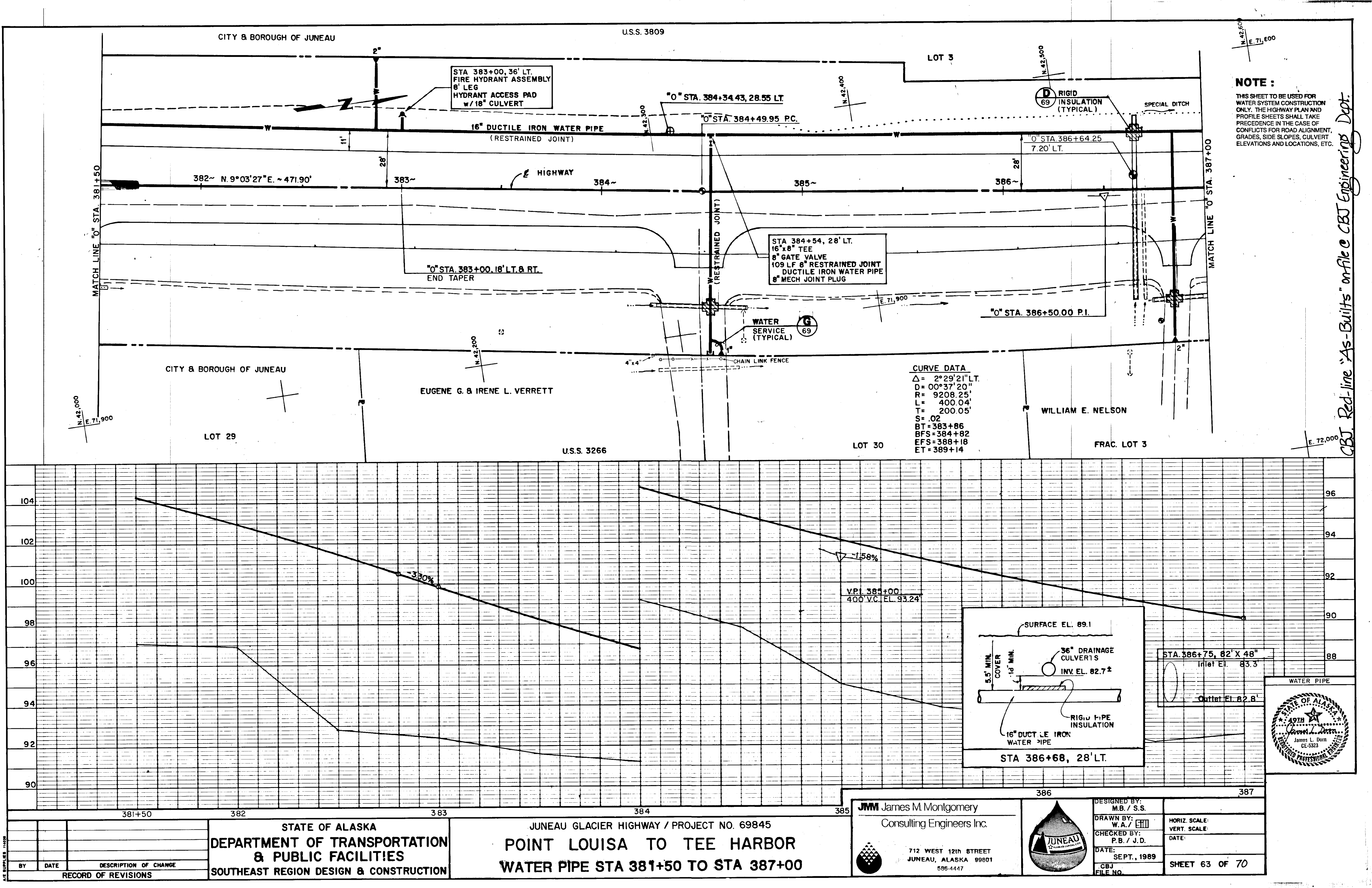
**JMM** James M. Montgomery  
Consulting Engineers Inc.  
712 WEST 12TH STREET  
JUNEAU, ALASKA 99801  
586-4447



DESIGNED BY:  
M.B. / S.S.  
DRAWN BY:  
W.A. / [Signature]  
CHECKED BY:  
P.B. / J.D.  
DATE:  
SEPT., 1989  
CBJ  
FILE NO.

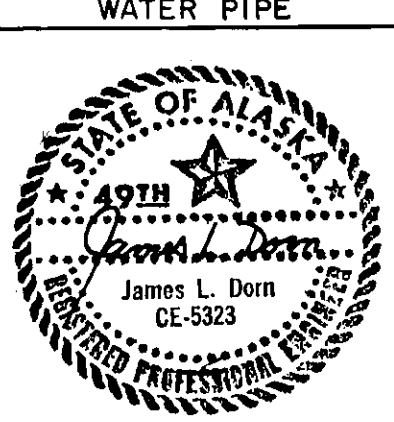
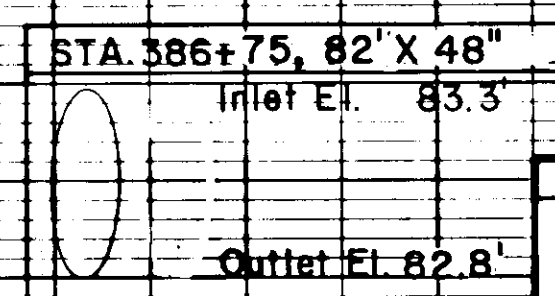
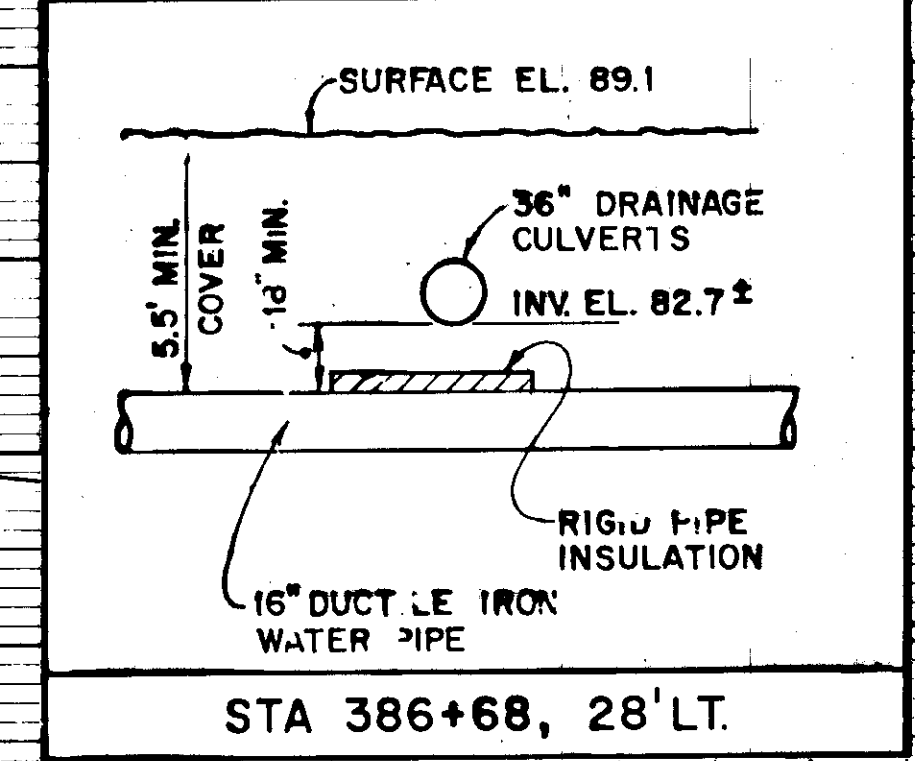
HORIZ. SCALE:  
VERT. SCALE:  
DATE:  
SHEET 62 OF 70

CBJ Red-line "As-Built" on file @ CBJ Engineering Dept.



**NOTE :**  
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WATER SYSTEM CONSTRUCTION  
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CONFLICTS FOR ROAD ALIGNMENT,  
GRADES, SIDE SLOPES, CULVERT  
ELEVATIONS AND LOCATIONS, ETC.

**CURVE DATA**  
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D = 00°37'20"  
R = 9208.25'  
L = 400.04'  
T = 200.05'  
S = .02  
BT = 383+86  
BFS = 384+82  
EFS = 388+18  
ET = 389+14

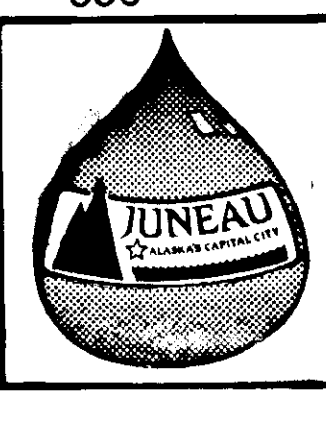


| BY | DATE | DESCRIPTION OF CHANGE |
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STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

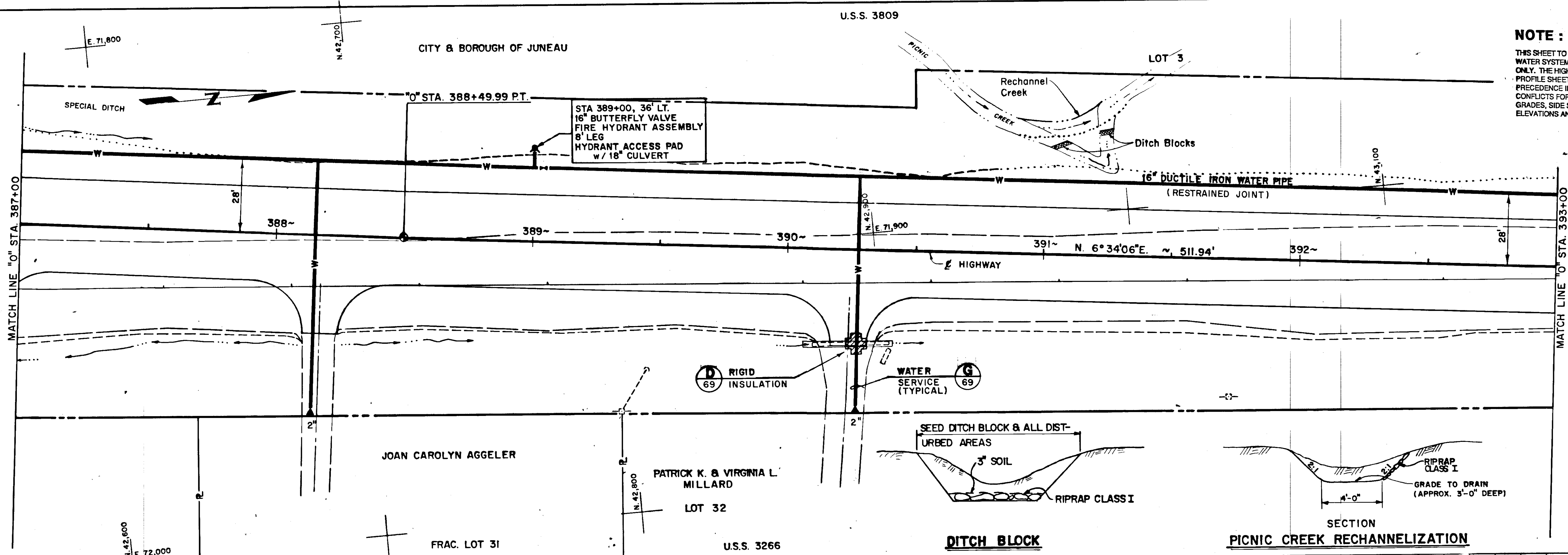
JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
**POINT LOUISA TO TEE HARBOR**  
**WATER PIPE STA 381+50 TO STA 387+00**

**JMM** James M. Montgomery  
Consulting Engineers Inc.  
712 WEST 12TH STREET  
JUNEAU, ALASKA 99801  
586-4447

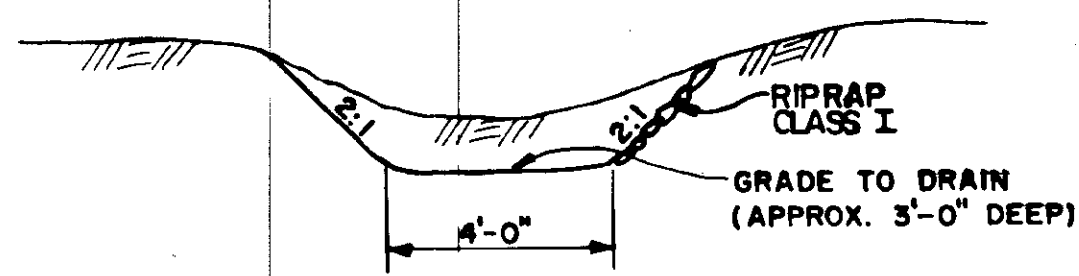
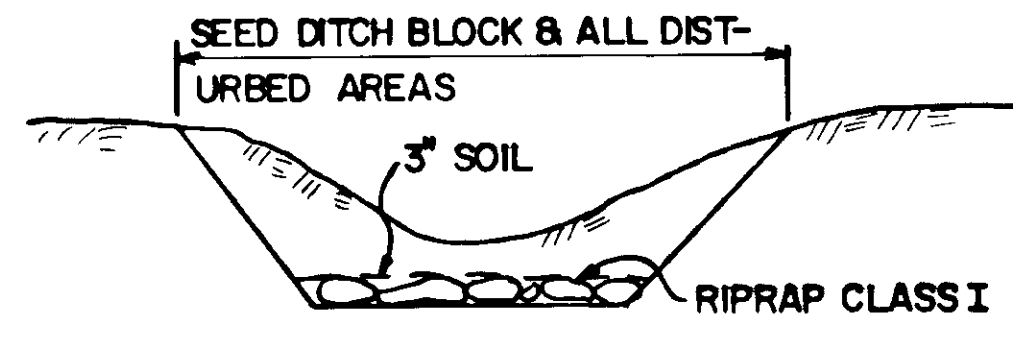


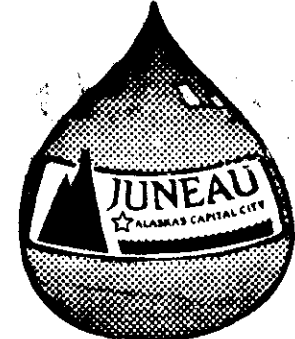
DESIGNED BY:  
M.B. / S.S.  
DRAWN BY:  
W.A. / J.D.  
CHECKED BY:  
P.B. / J.D.  
DATE:  
SEPT., 1989  
CBJ  
FILE NO.

HORIZ. SCALE:  
VERT. SCALE:  
DATE:  
SHEET 63 OF 70



**NOTE :**  
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PRECEDENCE IN THE CASE OF  
CONFLICTS FOR ROAD ALIGNMENT,  
GRADES, SIDE SLOPES, CULVERT  
ELEVATIONS AND LOCATIONS, ETC.

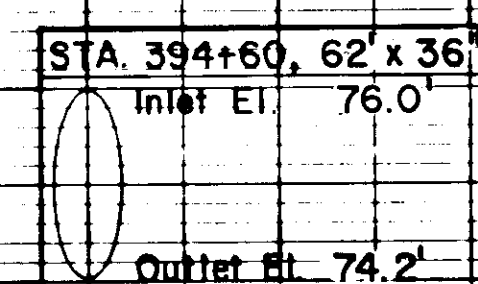
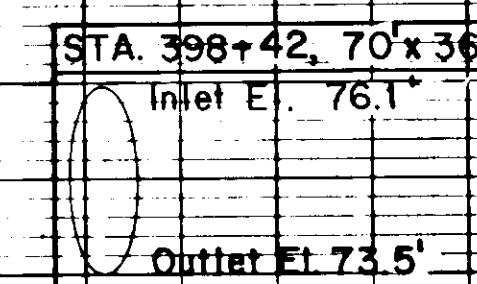
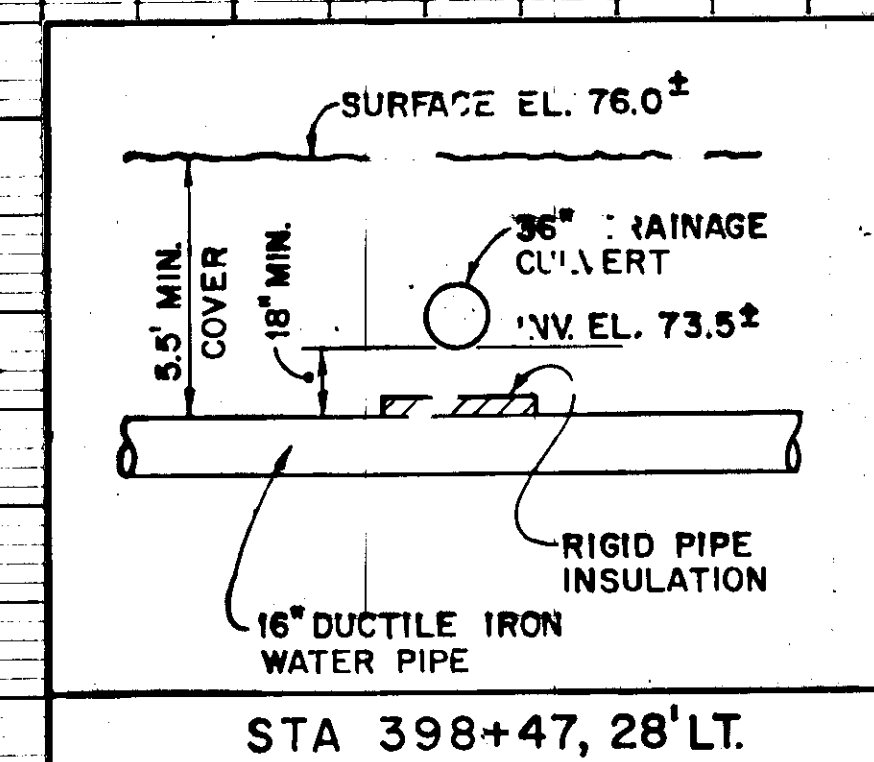
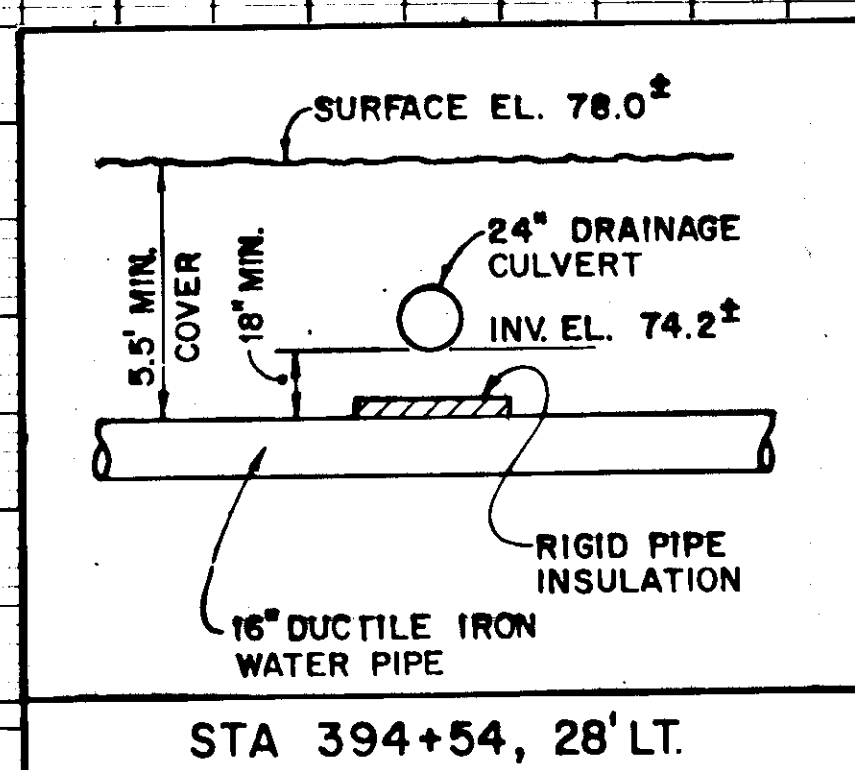
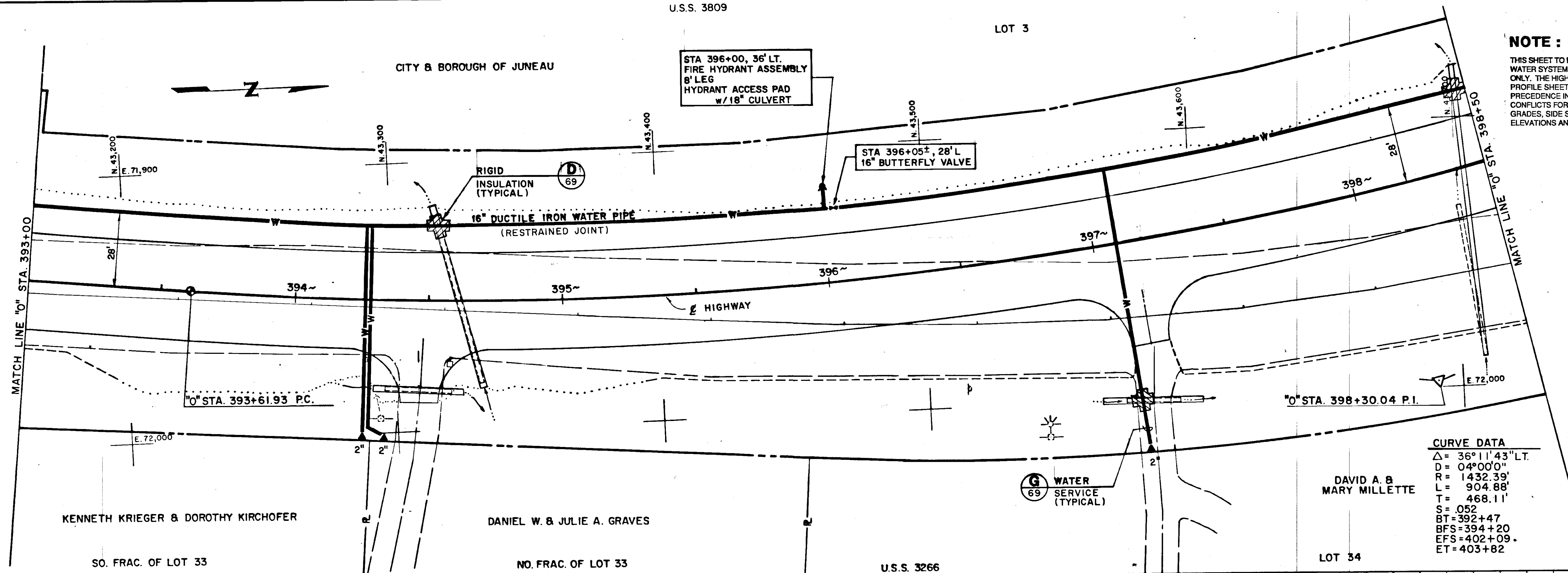


| <b>STATE OF ALASKA</b><br><b>DEPARTMENT OF TRANSPORTATION</b><br><b>&amp; PUBLIC FACILITIES</b><br><b>SOUTHEAST REGION DESIGN &amp; CONSTRUCTION</b>                     |      |                       | <b>JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845</b><br><b>POINT LOUISA TO TEE HARBOR</b><br><b>WATER PIPE STA 387+00 TO STA 393+00</b> |  |  | <b>JMM James M. Montgomery</b><br>Consulting Engineers Inc.<br>712 WEST 12TH STREET<br>JUNEAU, ALASKA 99801<br>586-4447 |  | <br><b>DESIGNED BY:</b><br>M.B. / S.S.<br><b>DRAWN BY:</b><br>W.A. / E.H.<br><b>CHECKED BY:</b><br>P.B. / J.D.<br><b>DATE:</b><br>SEPT., 1989<br>CBJ<br>FILE NO. |  | <b>HORIZ. SCALE:</b><br><b>VERT. SCALE:</b><br><b>DATE:</b><br><b>SHEET 64 OF 70</b> |  |    |      |                       |                     |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------|--|----|------|-----------------------|---------------------|--|--|
| <table border="1"><thead><tr><th>BY</th><th>DATE</th><th>DESCRIPTION OF CHANGE</th></tr></thead><tbody><tr><td colspan="3">RECORD OF REVISIONS</td></tr></tbody></table> |      |                       |                                                                                                                                      |  |  |                                                                                                                         |  |                                                                                                                                                                                                                                                       |  |                                                                                      |  | BY | DATE | DESCRIPTION OF CHANGE | RECORD OF REVISIONS |  |  |
| BY                                                                                                                                                                       | DATE | DESCRIPTION OF CHANGE |                                                                                                                                      |  |  |                                                                                                                         |  |                                                                                                                                                                                                                                                       |  |                                                                                      |  |    |      |                       |                     |  |  |
| RECORD OF REVISIONS                                                                                                                                                      |      |                       |                                                                                                                                      |  |  |                                                                                                                         |  |                                                                                                                                                                                                                                                       |  |                                                                                      |  |    |      |                       |                     |  |  |

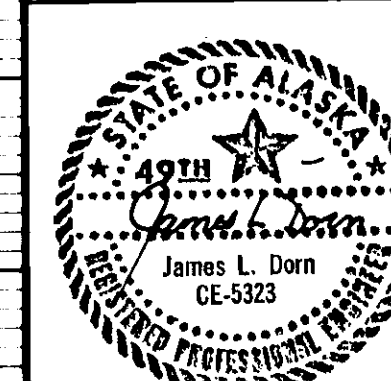
CBJ Red-line "As-Built" on file @ CBJ Engineering Dept.

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WATER PIPE

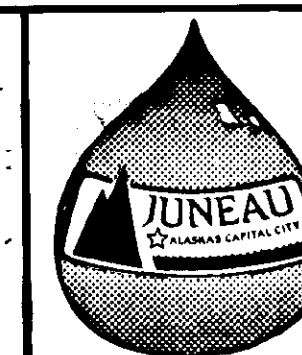


STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
WATER PIPE STA 393+00 TO STA 398+50

JMM James M. Montgomery  
Consulting Engineers Inc.

712 WEST 12TH STREET  
JUNEAU, ALASKA 99801  
586-4447



DESIGNED BY:  
M.B./S.S.  
DRAWN BY:  
W.A./J.D.  
CHECKED BY:  
P.B./J.D.  
DATE:  
SEPT. 1989  
CBJ  
FILE NO.

HORIZ. SCALE:  
VERT. SCALE:  
DATE:

SHEET 65 OF 70

RECORD OF REVISIONS

| BY | DATE | DESCRIPTION OF CHANGE |
|----|------|-----------------------|
|    |      |                       |
|    |      |                       |

STA 402+70, 28' LT  
16" x 8" TEE  
8" GATE VALVE  
106 LF 8" RESTRAINED JOINT  
DUCTILE IRON WATER PIPE  
8" MECH. JOINT PLUG

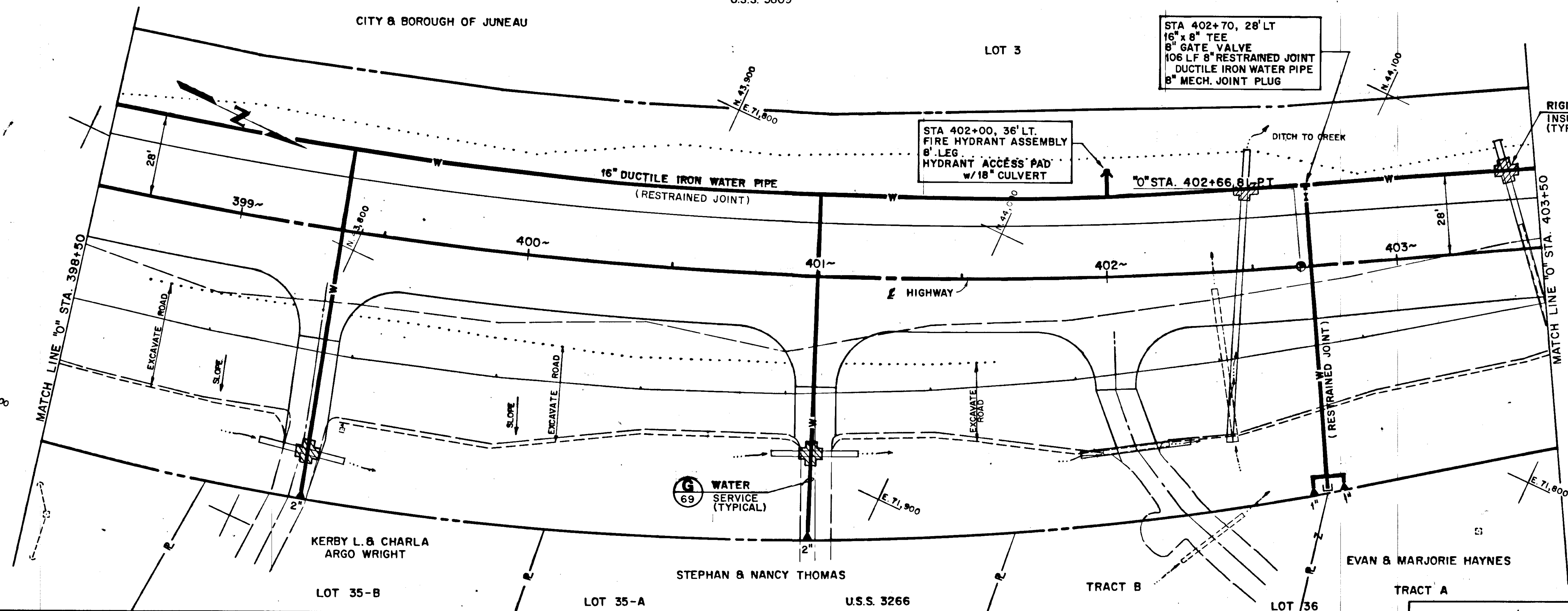
STA 402+00, 36' LT.  
FIRE HYDRANT ASSEMBLY  
8" LEG  
HYDRANT ACCESS PAD  
w/18" CULVERT

RIGID  
INSULATION  
(TYPICAL)

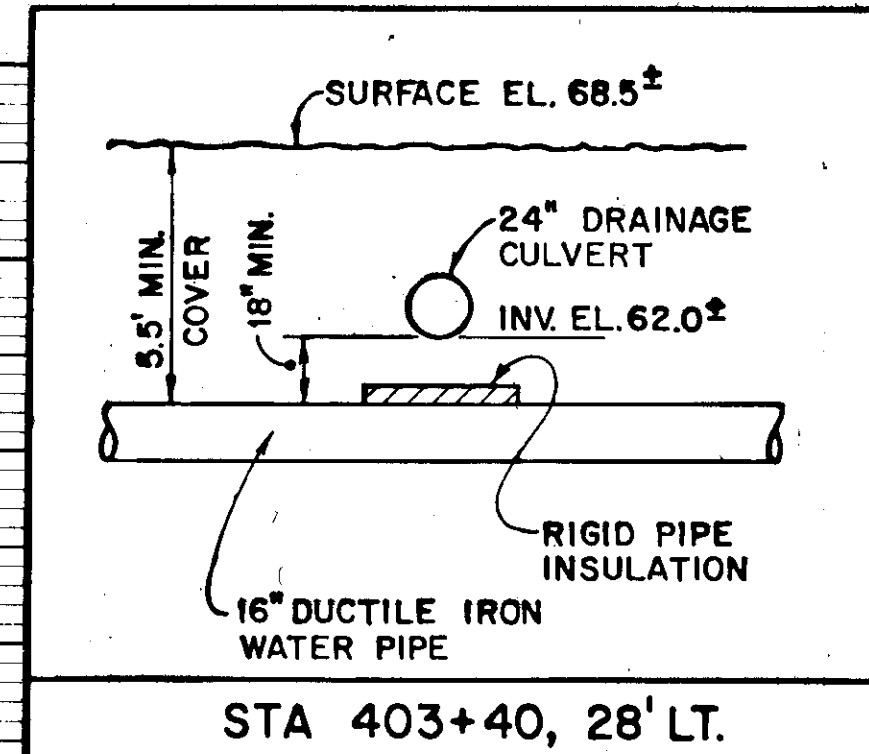
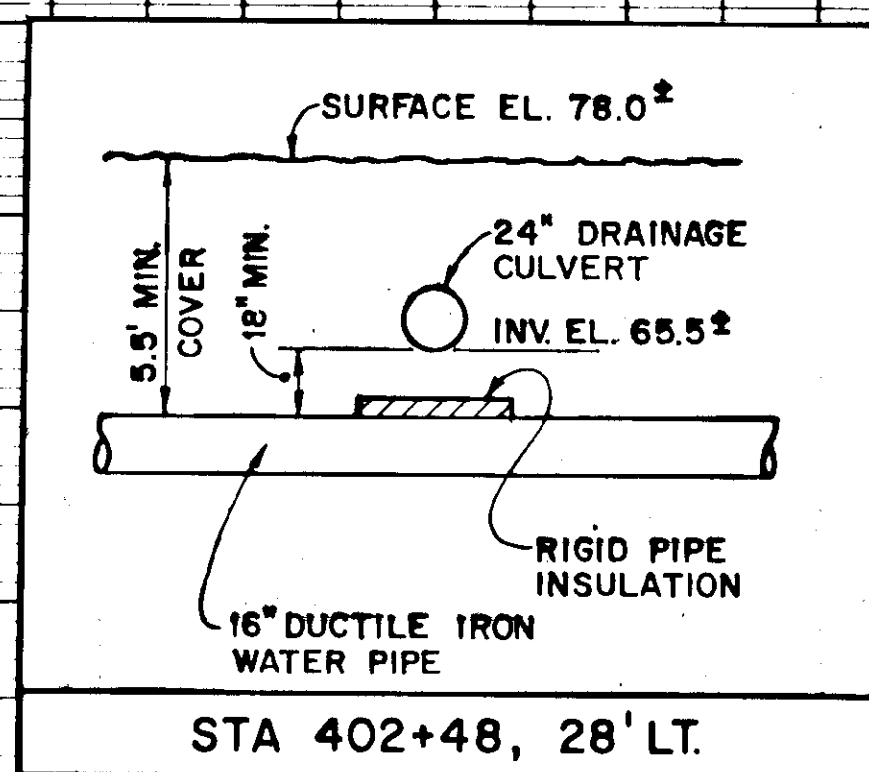
D  
69

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ELEVATIONS AND LOCATIONS, ETC.



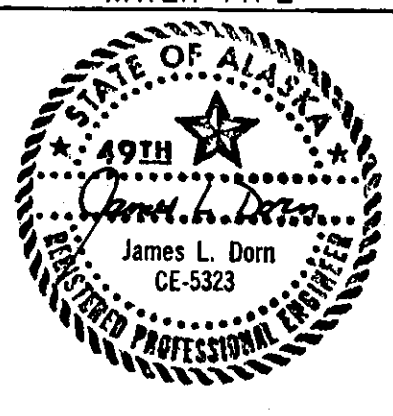
V.P.I. STA 398+70  
EL. 79.00', 400' V.C.



STA 403+45, 72' x 24"  
Inlet El. 68.2  
Outlet El. 62.0

STA 402+45, 85' x 36"  
Inlet El. 67.5'  
Outlet El. 65.5'

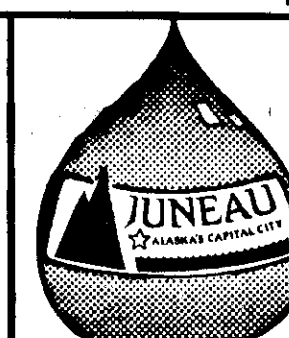
WATER PIPE



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

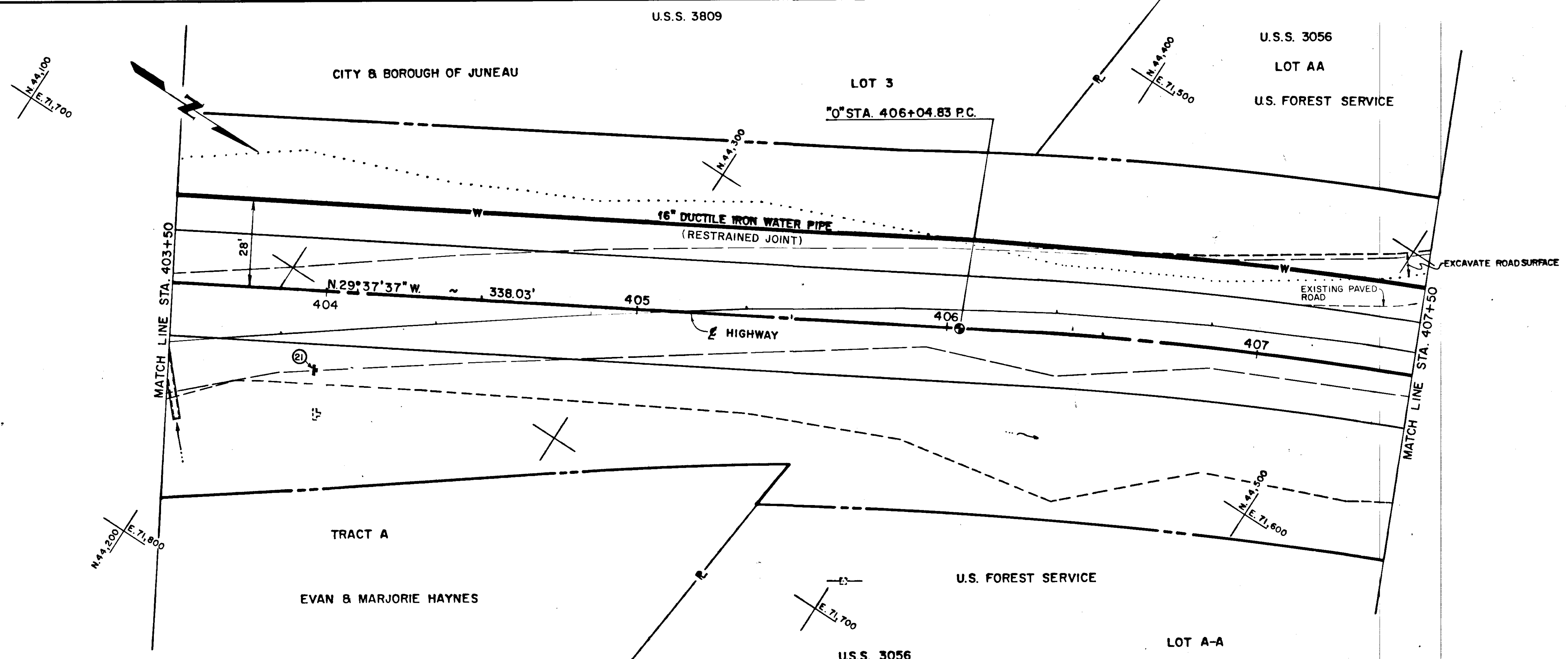
JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
WATER PIPE STA 398+50 TO STA 403+50

JMM James M. Montgomery  
Consulting Engineers Inc.  
712 WEST 12TH STREET  
JUNEAU, ALASKA 99801  
586-4447



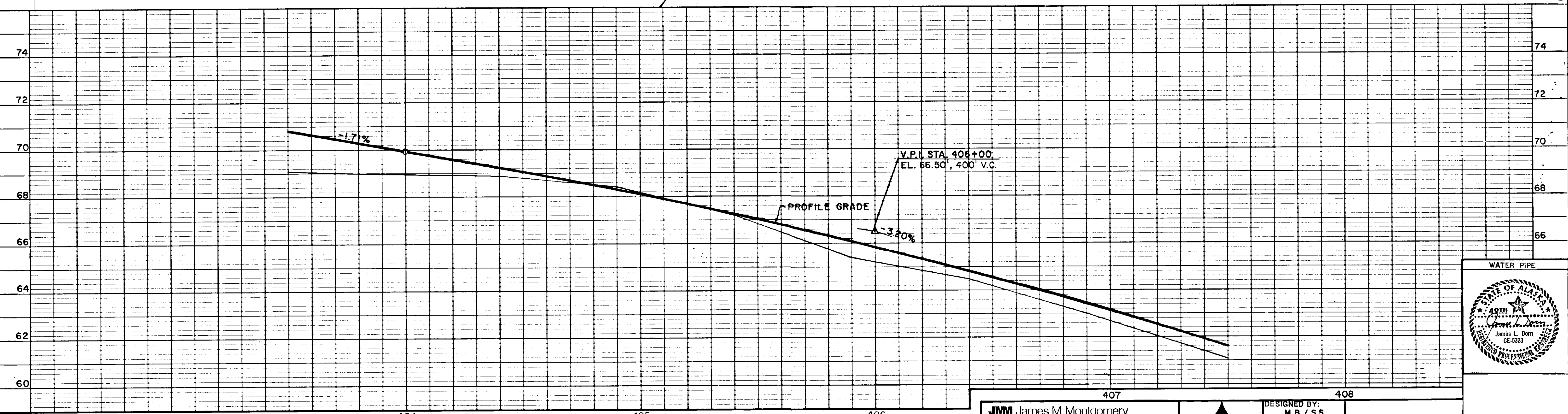
DESIGNED BY:  
M.S. / S.S.  
DRAWN BY:  
W.A. / EIT  
CHECKED BY:  
P.B. / J.D.  
DATE:  
SEPT., 1989  
FILE NO.  
HORIZ. SCALE:  
VERT. SCALE:  
DATE:  
SHEET 66 OF 70

| BY | DATE | DESCRIPTION OF CHANGE |
|----|------|-----------------------|
|    |      |                       |
|    |      |                       |
|    |      |                       |



**NOTE :**  
THIS SHEET TO BE USED FOR  
WATER SYSTEM CONSTRUCTION  
ONLY. THE HIGHWAY PLAN AND  
PROFILE SHEETS SHALL TAKE  
PRECEDENCE IN THE CASE OF  
CONFLICTS FOR ROAD ALIGNMENT,  
GRADES, SIDE SLOPES, CULVERT  
ELEVATIONS AND LOCATIONS, ETC.

CBJ Red-line "As-Built's" on file @ CBJ Engineering Dept.

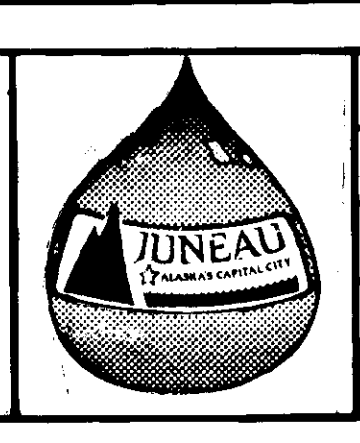


| RECORD OF REVISIONS |      |                       |
|---------------------|------|-----------------------|
| BY                  | DATE | DESCRIPTION OF CHANGE |
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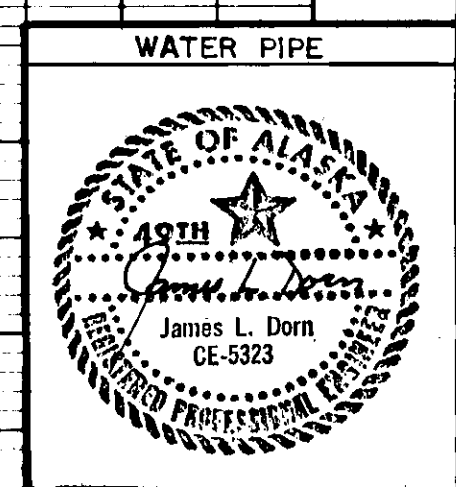
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
WATER PIPE STA 403+50 TO STA 407+50

**JMM** James M. Montgomery  
Consulting Engineers Inc.  
212 WEST 12TH STREET  
JUNEAU, ALASKA 99801  
586-4447



|                                         |                                                          |
|-----------------------------------------|----------------------------------------------------------|
| DESIGNED BY:<br>M.B. / S.S.             | HORIZ. SCALE:<br>VERT. SCALE:<br>DATE:<br>SHEET 67 OF 70 |
| DRAWN BY:<br>W.A. / [initials]          |                                                          |
| CHECKED BY:<br>P.B. / J.D.              |                                                          |
| DATE:<br>SEPT., 1989<br>CBJ<br>FILE NO. |                                                          |



SEE SHEET 47 FOR  
COMPLETE DETAILS

U.S.S. 3056

CURVE DATA  
 $\Delta = 22^\circ 53' 35''$  RT.  
 $D = 04^\circ 00' 00''$   
 $R = 1432.39'$   
 $L = 572.33'$   
 $T = 290.03'$   
 $S = 052$   
 $BT = 404+90$   
 $BFS = 406+53$   
 $EFS = 411+19$   
 $ET = 412+92$

U.S. FOREST SERVICE

LOT AA

**NOTE:**

THIS SHEET IS TO BE USED FOR  
WATER SYSTEM CONSTRUCTION  
ONLY. THE HIGHWAY PLAN AND  
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PRECEDENCE IN THE CASE OF  
CONFLICTS FOR ROAD ALIGNMENT,  
GRADES, SIDE SLOPES, CULVERT  
ELEVATIONS AND LOCATIONS, ETC.

STA 408+90, 28' LT  
16" x 12" TEE  
16" BUTTERFLY VALVE  
12" GATE VALVE  
45 LF 12" DUCTILE IRON  
WATER PIPE  
12" MECH. JOINT PLUG

STA 409+39, 38' LT  
FIRE HYDRANT ASSEMBLY  
10' LEG  
HYDRANT ACCESS PAD

STA 409+46, 28' LT  
16" 45° BEND

STA 410+05, 28' RT  
16" 45° BEND

STA 410+20, 28' RT.  
SPECIAL THRUST BLOCK  
6.5' x 6.5' x 6.5' CONCRETE CUBE  
WITH 3/4" TIE RODS, 4 EACH  
16" MECH. JOINT PLUG  
END WATER PIPE.

U.S. FOREST SERVICE

LOT A-A

U.S.S. 3056

64

62

60

58

56

54

52

50

56

54

52

50

48

SURFACE EL. 56.2'

24" DRAINAGE  
CULVERT  
INV. EL. 52.0'  
RIGID PIPE  
INSULATION  
16" DUCTILE IRON  
WATER PIPE

STA 409+15, 28' LT.

PROFILE GRADE

STA. 409+12, 108" x 24"  
Inlet El. 52.8'

Outlet El. 51.2'

3.20%

STA. 411+61, 76" x 24"  
Inlet El. 45.0'

Outlet El. 42.5'

407+50

408

409

410

411

412

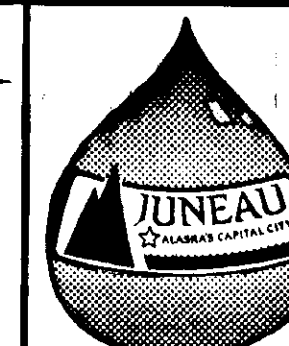
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU GLACIER HIGHWAY / PROJECT NO. 69845  
POINT LOUISA TO TEE HARBOR  
WATER PIPE STA 407+50 TO STA 408+90

JMM James M. Montgomery  
Consulting Engineers Inc.



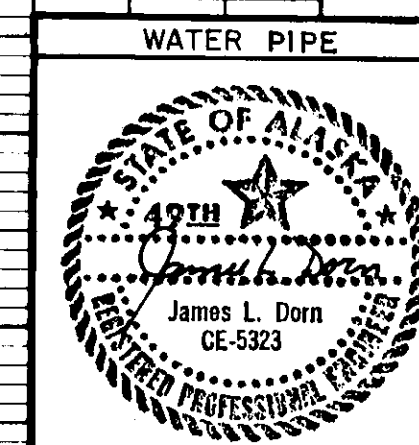
712 WEST 12TH STREET  
JUNEAU, ALASKA 99801  
586-4447



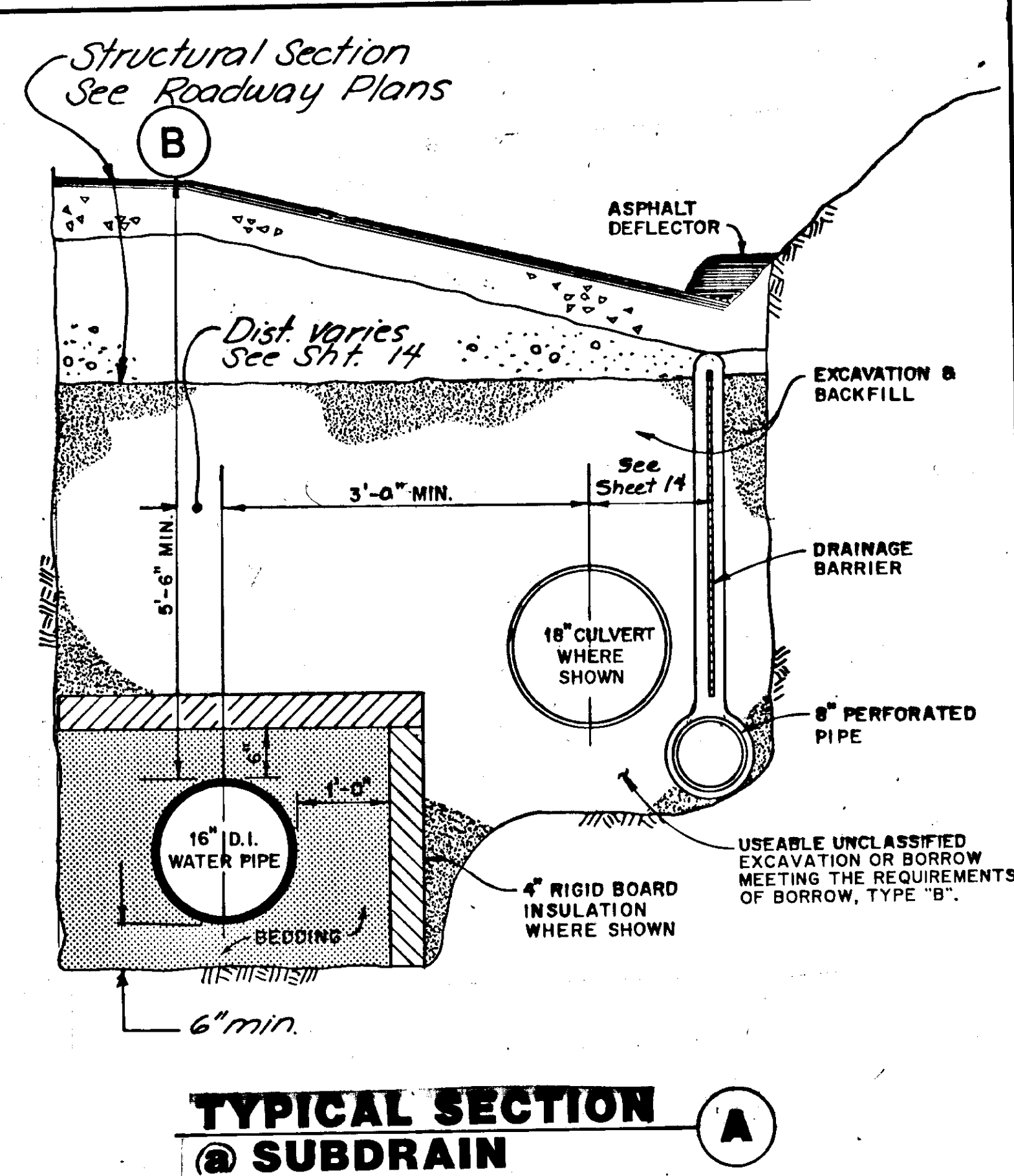
DESIGNED BY:  
M.B./S.S.  
DRAWN BY:  
W.A./[Signature]  
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DATE:  
SEPT., 1989  
CBJ  
FILE NO.

HORIZ. SCALE:  
VERT. SCALE:  
DATE:

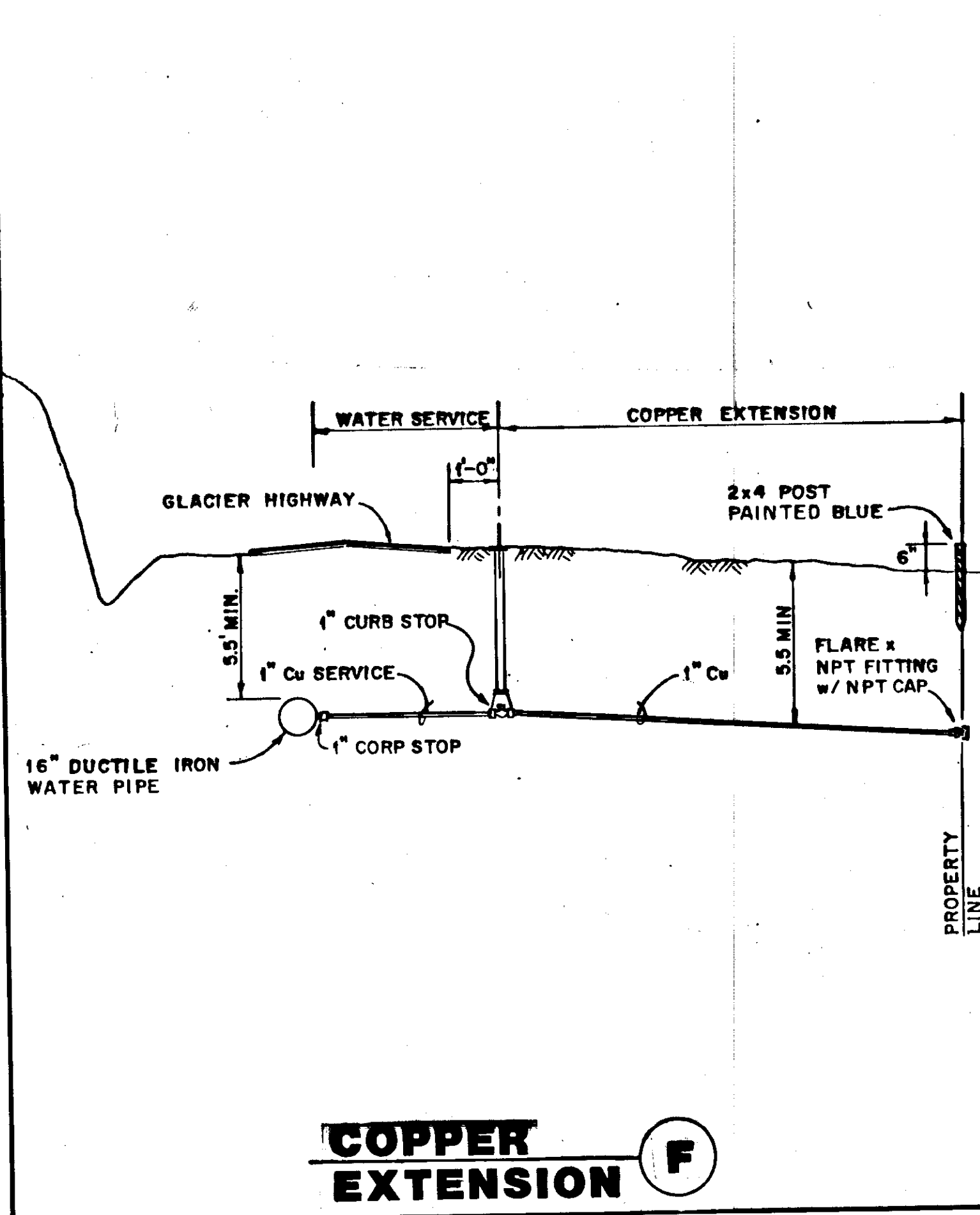
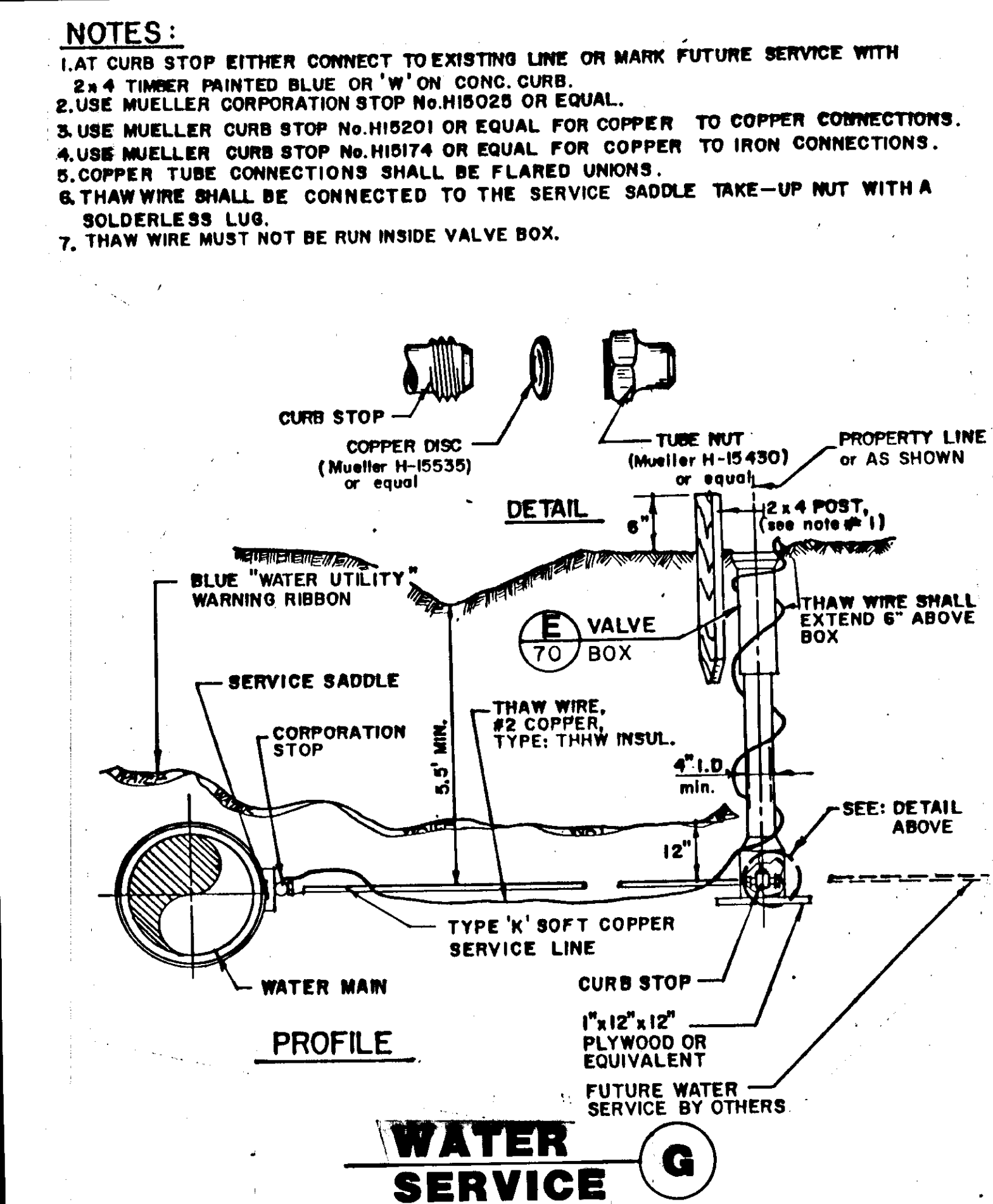
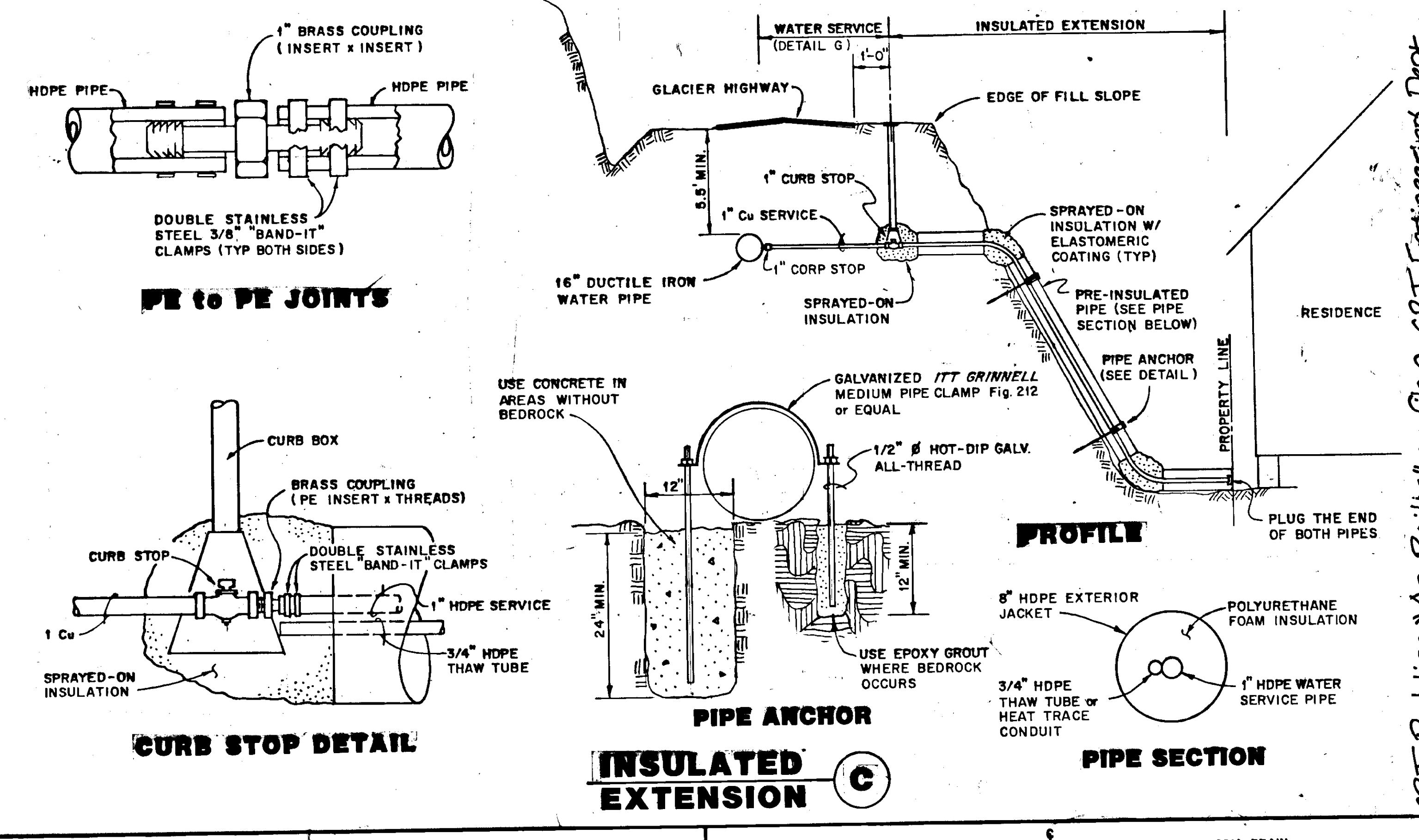
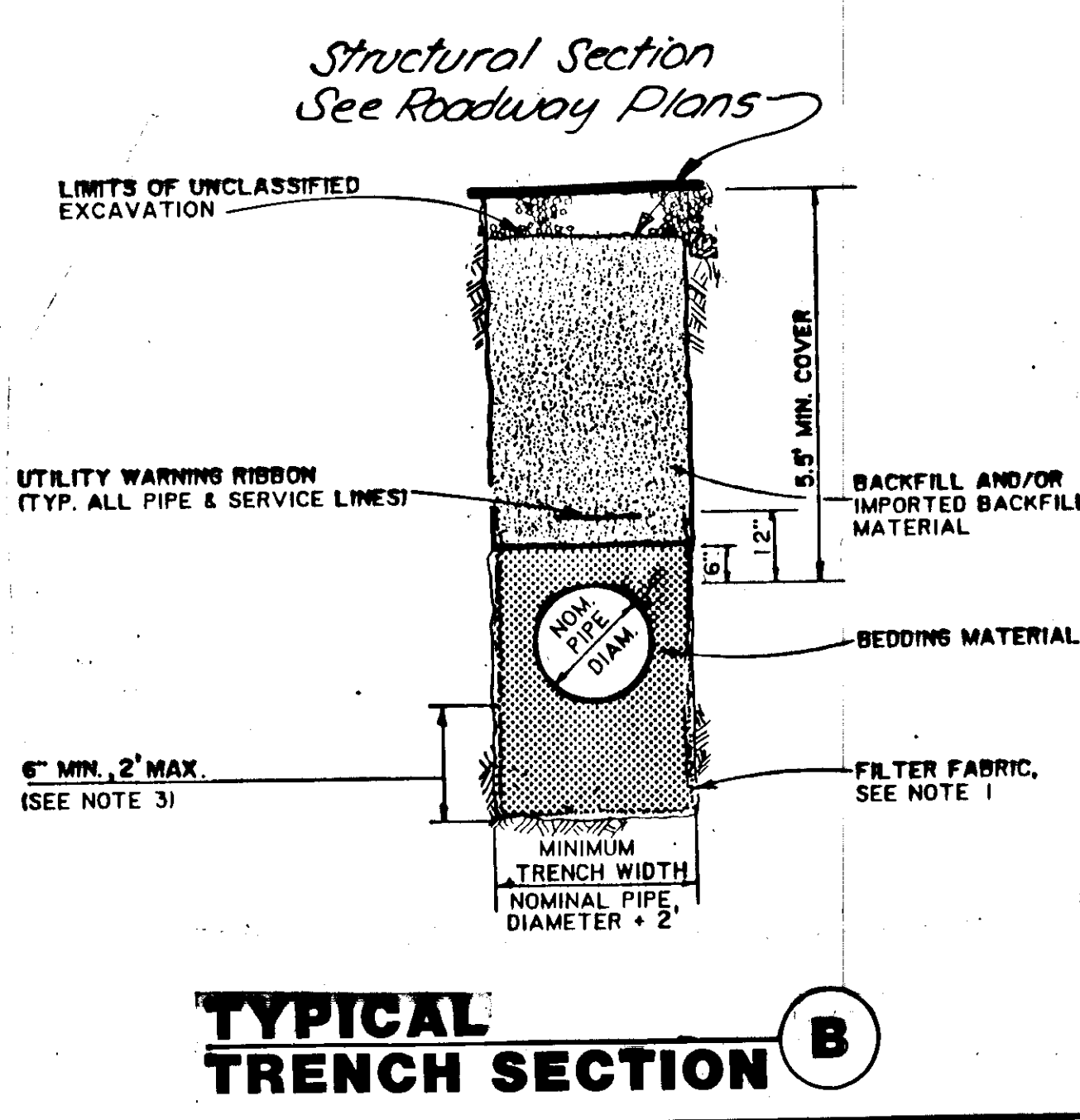
SHEET 68 OF 70



CBJ Red-line "As-Built" on file @ CBJ Engineering Dept.



- NOTES:
1. FILTER FABRIC SHALL BE USED WHERE NOTED ON PLANS.
  2. BEDDING & BACKFILL SHALL BE PLACED IN 6" OR THINNER LIFTS AND SHALL BE COMPACTED TO 95% IN ROAD PRISM; 90% ELSEWHERE.
  3. EXCAVATION MORE THAN 2' BELOW PIPE CONSTITUTES "ADDITIONAL TRENCH EXCAVATION" AND SHALL BE AS DIRECTED BY THE ENGINEER.



FOR BENDS 45° - 90°

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 6"        | 1.0                       | 3/4"          | 3.0                       |
| 8"        | 1.5                       | 3/4"          | 3.5                       |
| 10"       | 2.5                       | 3/4"          | 4.5                       |
| 12"       | 3.5                       | 3/4"          | 6.0                       |
| 14"       | 4.7                       | 1"            | 10.0                      |
| 16"       | 6.2                       | 1 1/8"        | 12.5                      |
| 18"       | 7.8                       | 1 1/4"        | 15.5                      |
| 20"       | 9.6                       | 1 5/8"        | 19.0                      |
| 24"       | 13.8                      | 1 1/2"        | 28.0                      |

FOR BENDS 90° BEND

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

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| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

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| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
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| 10"       | 0.5                       | 3/8"          | 0.3                       |
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| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
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| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
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| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

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| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

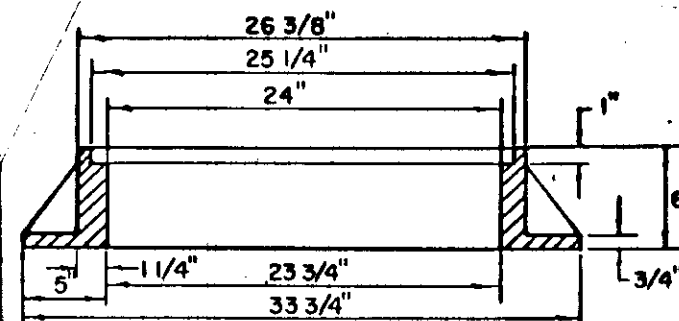
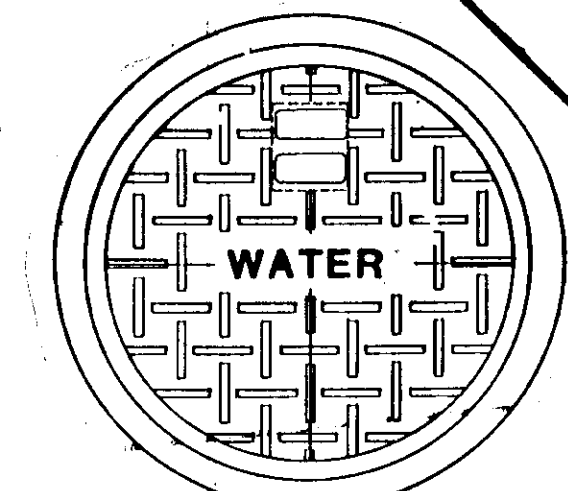
| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0.3                       |
| 14"       | 0.5                       | 3/8"          | 0.3                       |
| 16"       | 0.5                       | 3/8"          | 0.3                       |
| 18"       | 0.5                       | 3/8"          | 0.3                       |
| 20"       | 0.5                       | 3/8"          | 0.3                       |
| 24"       | 0.5                       | 3/8"          | 0.3                       |

FOR VALVES

| PIPE SIZE | MIN. CONC. VOL. (CU. YD.) | MIN. ROD SIZE | MIN. BRG. SURFACE SQ. FT. |
|-----------|---------------------------|---------------|---------------------------|
| 4"        | 0.3                       | 3/8"          | 0.25                      |
| 6"        | 0.5                       | 3/8"          | 0.25                      |
| 8"        | 0.5                       | 3/8"          | 0.3                       |
| 10"       | 0.5                       | 3/8"          | 0.3                       |
| 12"       | 0.5                       | 3/8"          | 0                         |

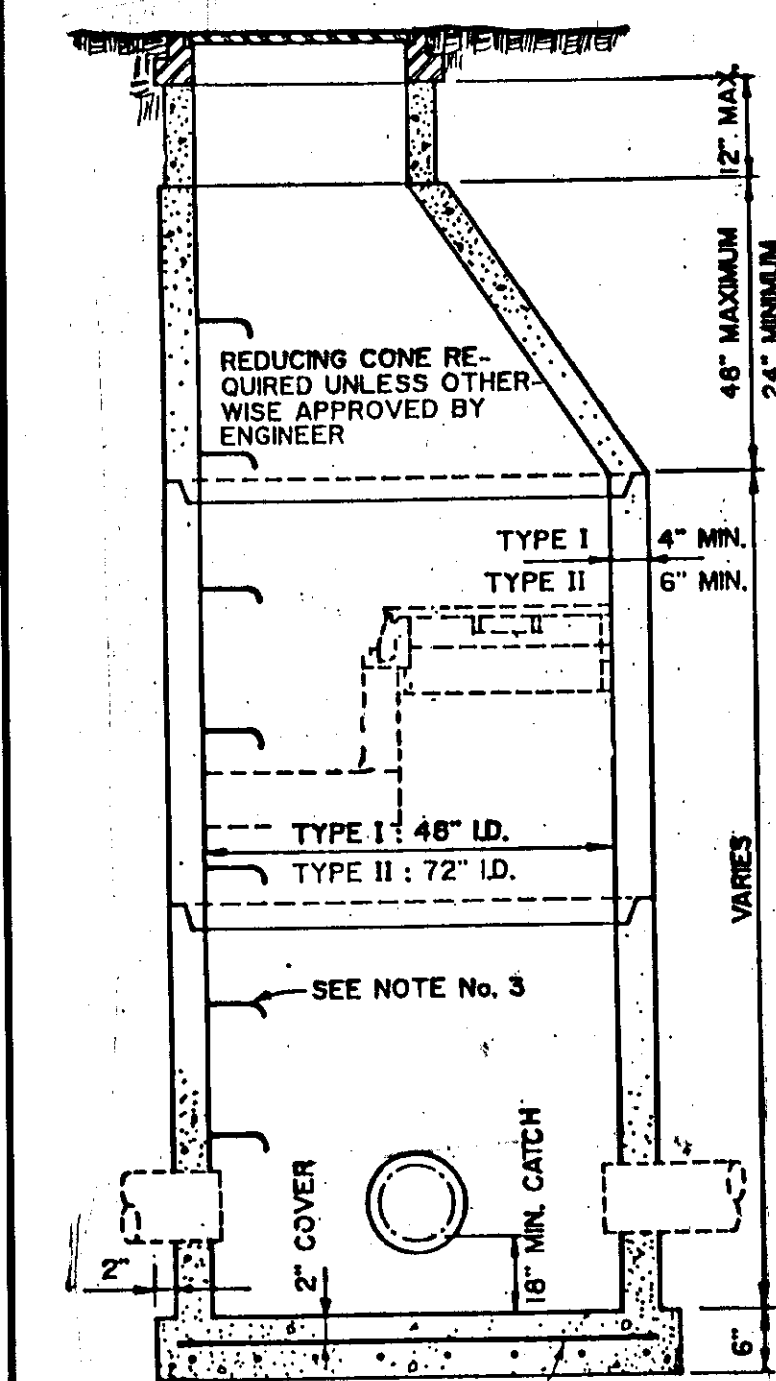


## PRECAST CONC. REDUCING SLAB H

GASKET DETAIL

- NOTES:
- COVER AND SEALING GASKET SHALL BE "NEENAH SELF-SEALING LIDS" OR APPROVED EQUAL.
  - FRAME MUST BE MACHINED TO FIT WATERTIGHT COVER.
  - COVER SHALL HAVE WORD "WATER" CAST IN AND SHALL BE PROVIDED WITH INTEGRAL LIFT HANDLE.
  - FRAME AND COVER DIMENSIONS SHALL BE IN ACCORDANCE WITH OLYMPIC CONSTRUCTION CASTINGS NO. MH30, OR AN APPROVED EQUIVALENT.

## WATERTIGHT MANHOLE COVER & FRAME G



### NOTES:

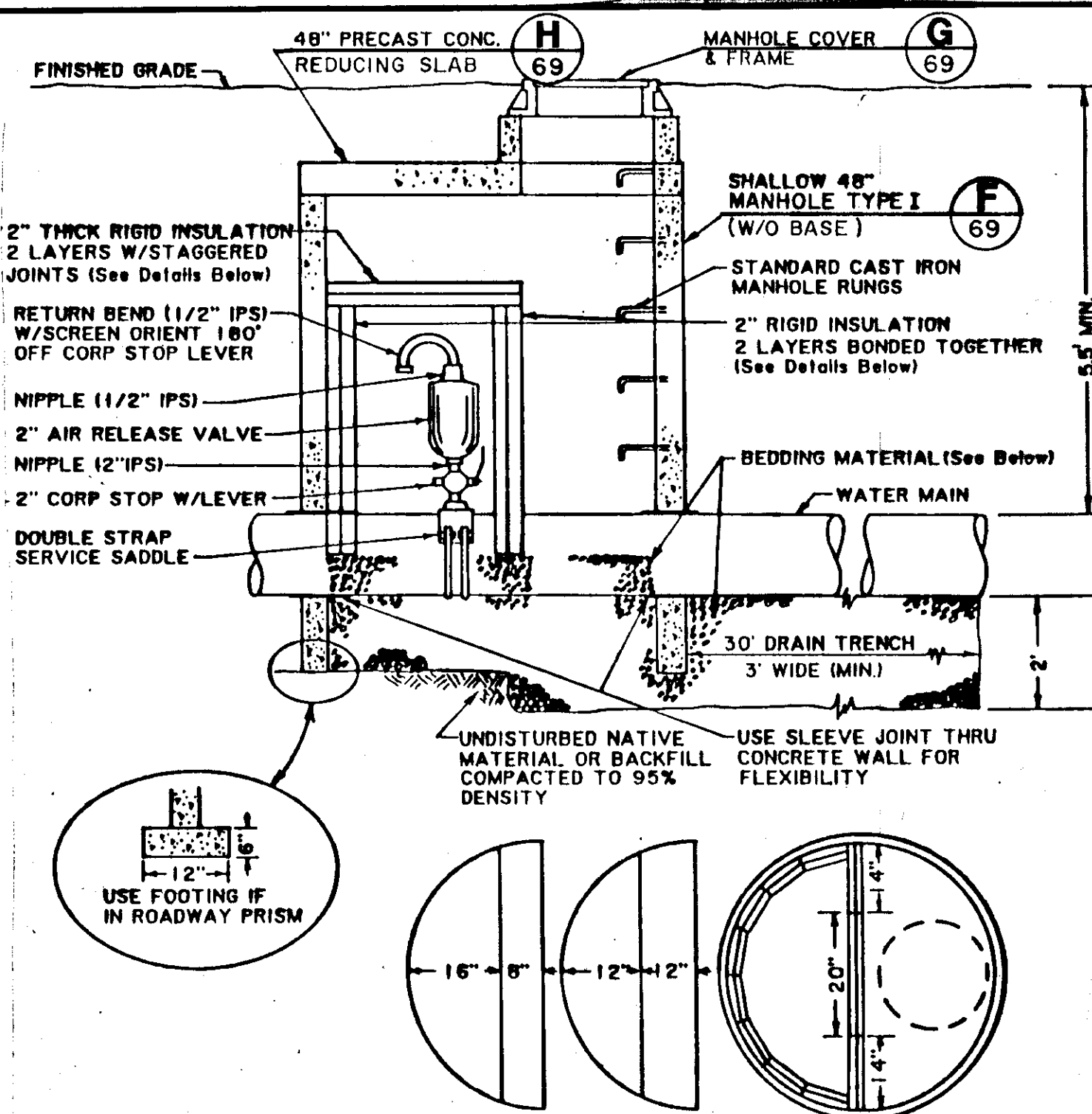
- REFER TO A.S.T.M. DESIGNATION C-478 FOR DESIGN REQUIREMENTS.
- MINIMUM STEEL REQUIRED FOR BARREL AS PER A.S.T.M. C-478-69 SHALL BE IMBEDDED IN BASE SO THAT FIRST BARREL SECTION IS CONNECTED WITH BASE.
- RINGS TO BE PLACED 12" O.C. ON UNOBSTRUCTED SIDE OF MANHOLE 18" MAXIMUM FROM BOTTOM OF MANHOLE AND 6" MAXIMUM FROM TOP OF CONE. IF UNOBSTRUCTED SIDE NOT AVAILABLE, BOTTOM RING TO BE PLACED 6" OVER SMALLEST PIPE.
- ALL PIPE TO EXTEND 2" INTO MANHOLE.
- BLOCKOUTS TO BE FORMED.

- TYPE I: 6. PRIMARY LEADS NOT TO EXCEED 30" CMP OR 27" R.C.P. WITH INCLUDED ANGLE BETWEEN LEADS NOT LESS THAN 135° OR PRIMARY LEAD NOT TO EXCEED 24" C.P.M. OR 21" R.C.P. WITH INCLUDED ANGLE LESS THAN 135°.
- TYPE II: 7. PRIMARY LEADS NOT TO EXCEED TWO 42" CMP OR 36" R.C.P. WITH INCLUDED ANGLE BETWEEN LEADS NOT LESS THAN 135° OR PRIMARY LEADS NOT TO EXCEED TWO 36" CMP OR R.C.P. WITH INCLUDED ANGLE BETWEEN LEADS LESS THAN 135°.

## STORM DRAIN MANHOLE TYPES I & II F

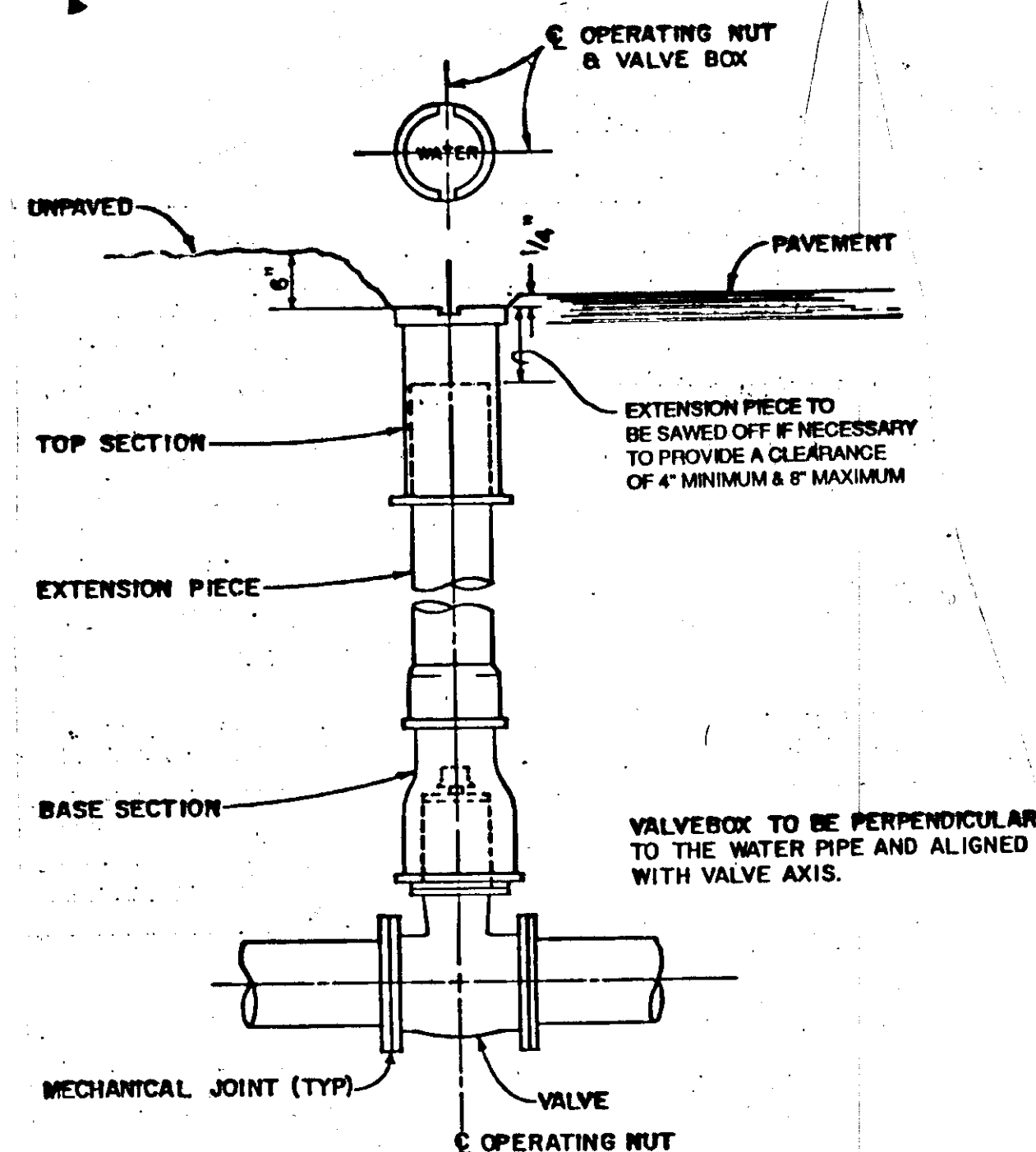
| BY                  | DATE | DESCRIPTION OF CHANGE |
|---------------------|------|-----------------------|
|                     |      |                       |
|                     |      |                       |
|                     |      |                       |
| RECORD OF REVISIONS |      |                       |

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION DESIGN & CONSTRUCTION

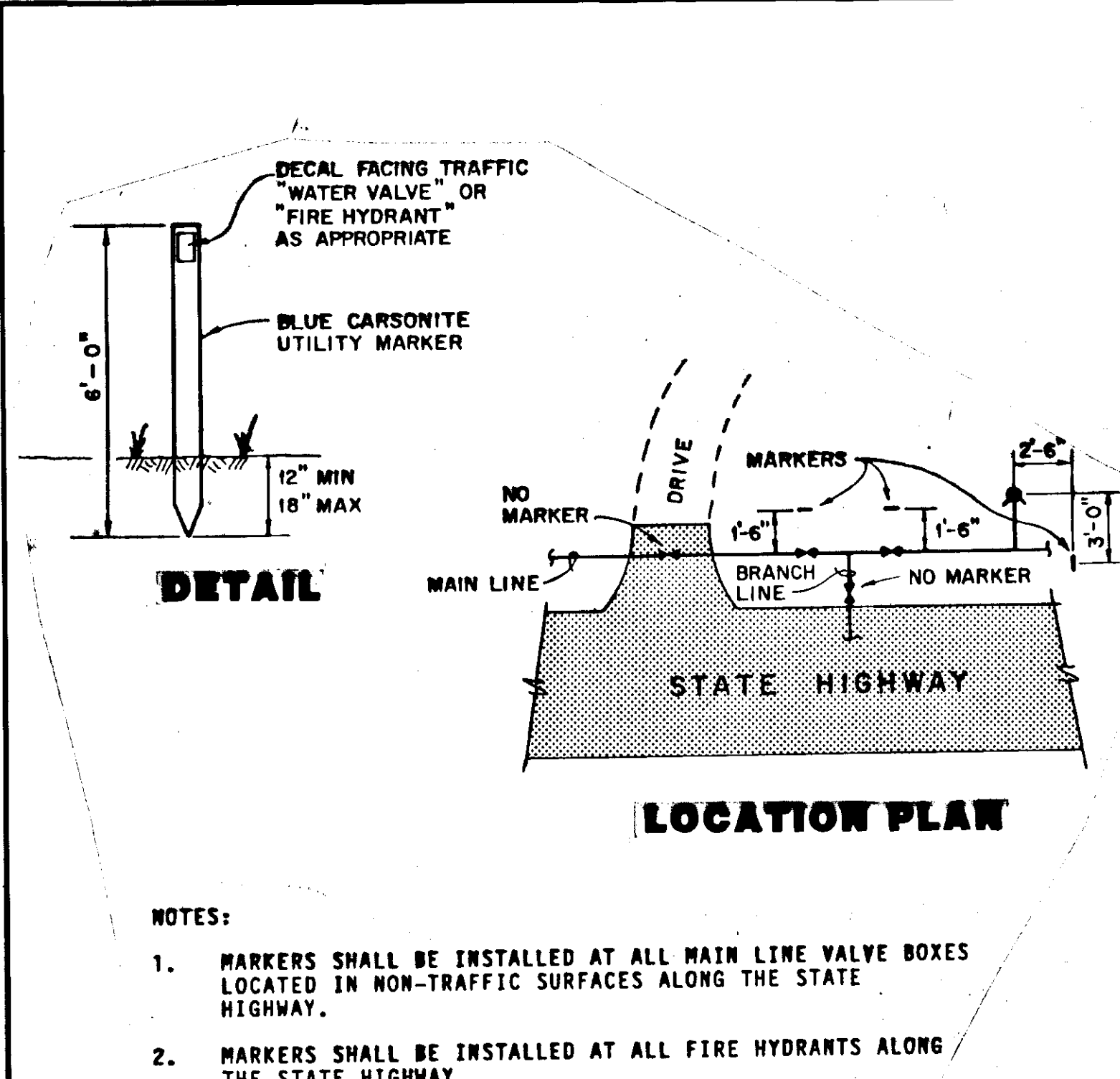


| NOTE: FILL DRAIN TRENCH WITH | SEIVE SIZE | % PASSING |
|------------------------------|------------|-----------|
|                              | 2          | 100       |
|                              | 4          | 0-10      |
|                              | 100        | 0-3       |

## AIR RELEASE VALVE D



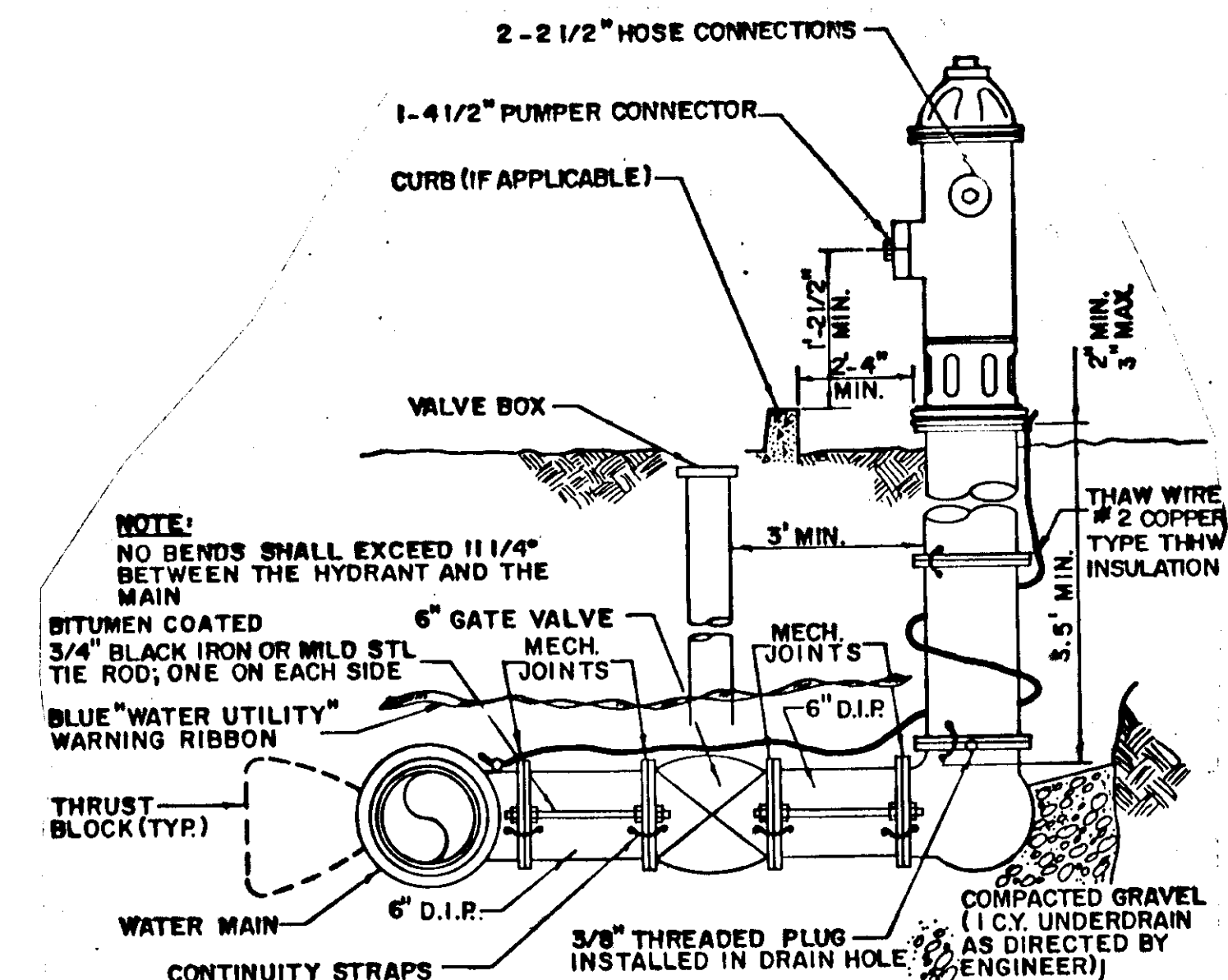
## VALVE BOX E



## UTILITY MARKERS C

### NOTES:

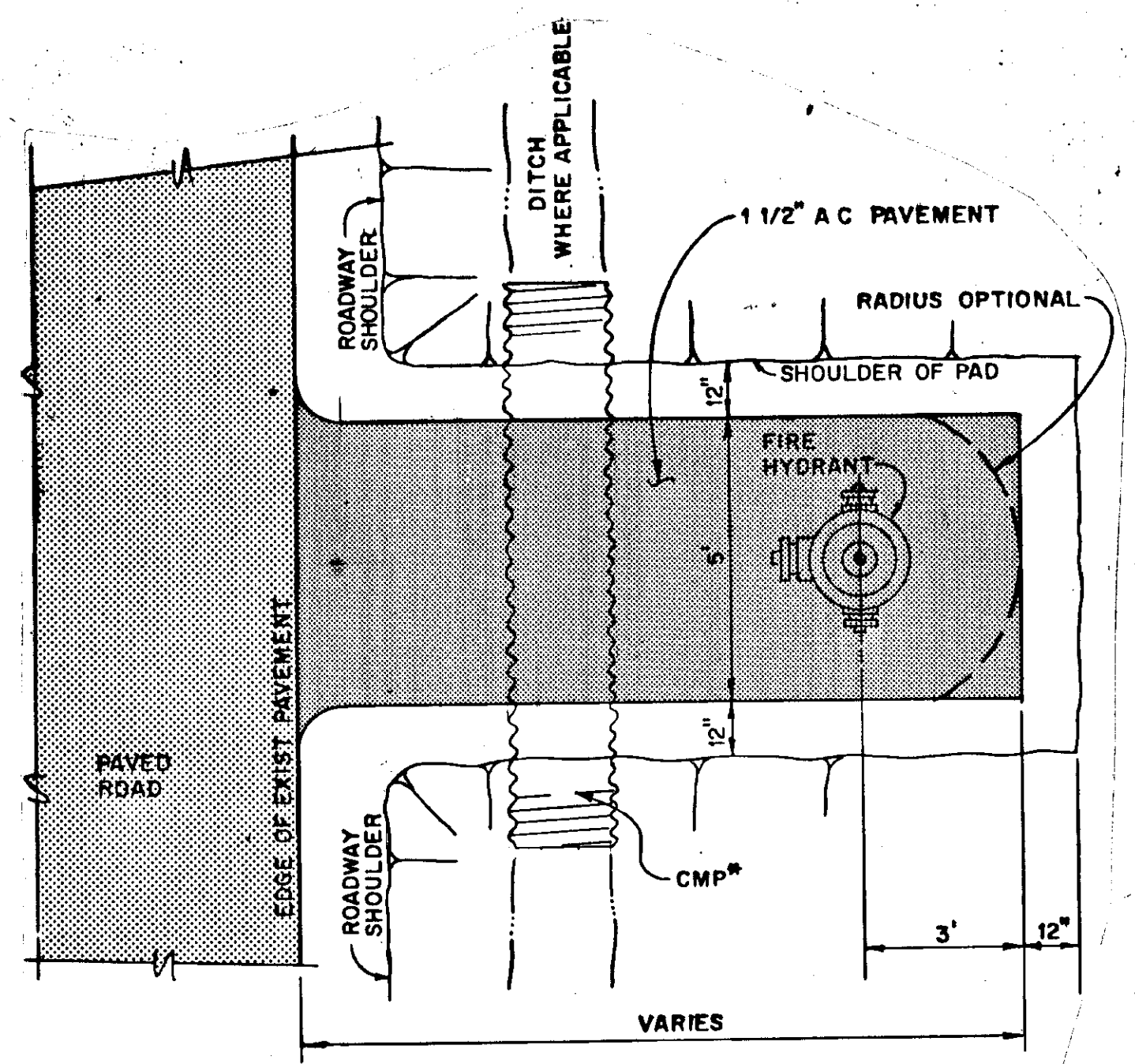
- MARKERS SHALL BE INSTALLED AT ALL MAIN LINE VALVE BOXES LOCATED IN NON-TRAFFIC SURFACES ALONG THE STATE HIGHWAY.
- MARKERS SHALL BE INSTALLED AT ALL FIRE HYDRANTS ALONG THE STATE HIGHWAY.



### NOTES:

- HYDRANT BARREL MUST BE PLUMB.
- COVER SHALL BE 5" MINIMUM.
- VALVE BOX SHALL BE SITUATED OUTSIDE ANY DITCH SECTION; OR IN ACCESS PAD.
- ALL HYDRANTS SHALL BE PAINTED CATERPILLAR YELLOW. HYDRANT BARREL, JUST BELOW CAP, SHALL HAVE NUMBER OF FEET TO VALVE PRINTED IN BLACK 1/2" BLOCK LETTERS. ALL HYDRANTS WITH PLUG DRAINS SHALL HAVE THE TOP CAP PAINTED BLUE.
- INSTALL CONTINUITY STRAPS BETWEEN ALL FIRE HYDRANT ASSEMBLY PIPE SPOOLS AND WATER MAIN (#2 COPPER WIRE). REFER TO SPECIFICATIONS FOR DETAILS OF INSTALLATION.
- MEGALUG IS AN ACCEPTABLE ALTERNATE FOR THE MECHANICAL JOINT RESTRAINT PIPE SHOWN.

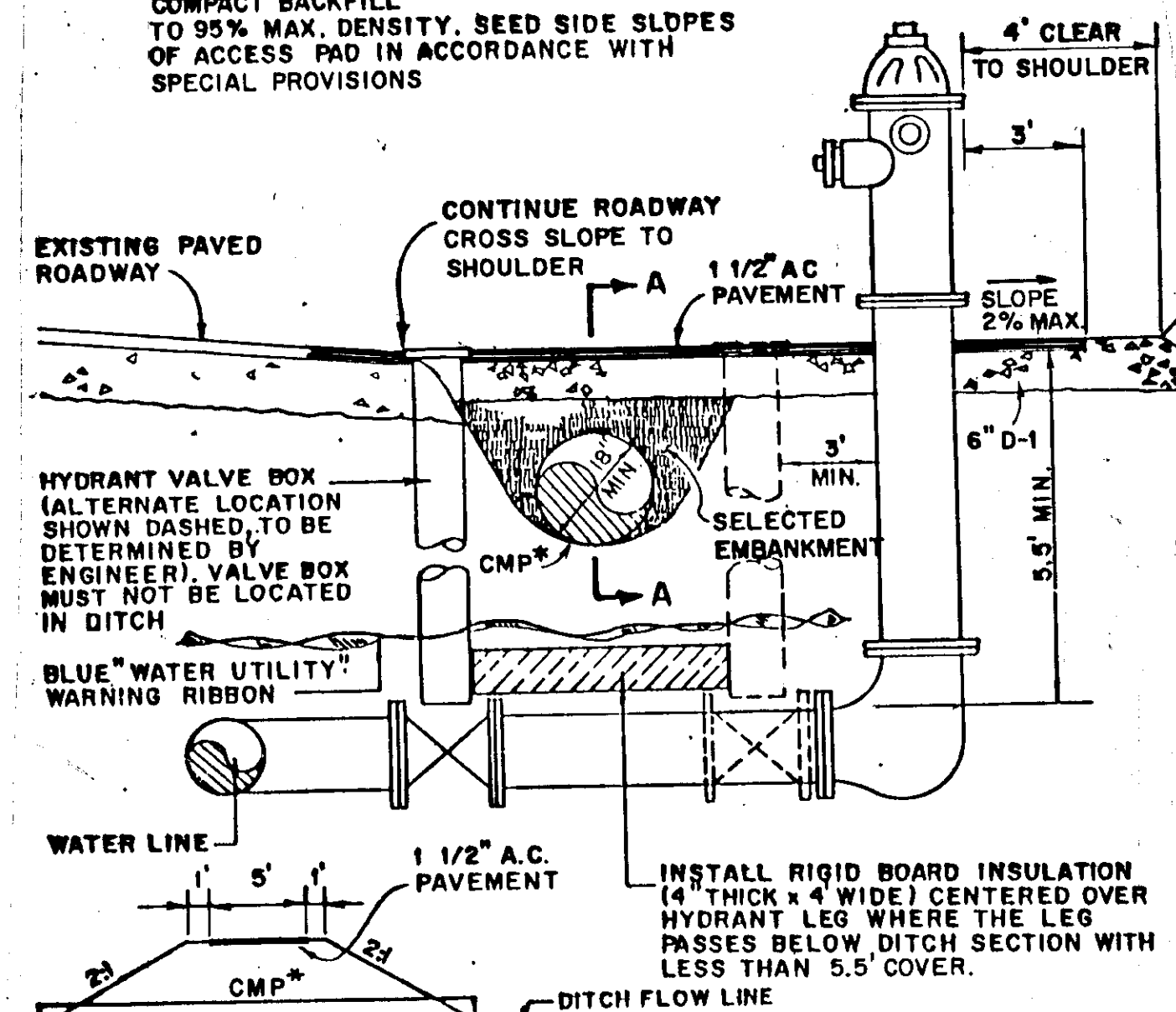
## FIRE HYDRANT ASSEMBLY B



### PLAN

\*CMP CULVERT AT REQ'D LOCATIONS  
MIN DIA: 18"  
MIN THICKNESS: .064" (16 GA.)

COMPACT BACKFILL TO 95% MAX. DENSITY. SEED SIDE SLOPES OF ACCESS PAD IN ACCORDANCE WITH SPECIAL PROVISIONS

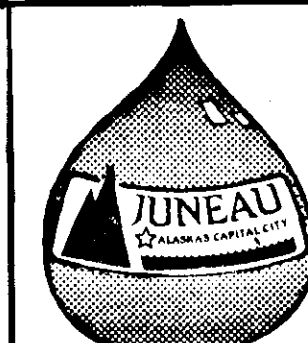


### ELEVATION

## FIRE HYDRANT ACCESS PAD A

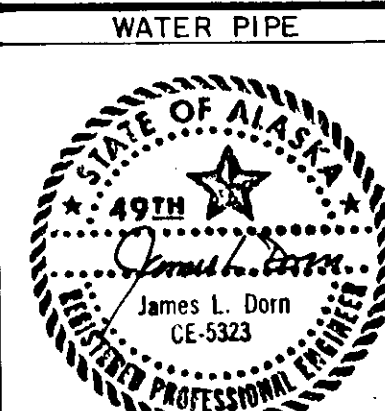
JMM James M. Montgomery  
Consulting Engineers Inc.

712 WEST 12TH STREET  
JUNEAU, ALASKA 99801  
586-4447



DESIGNED BY:  
S.S.  
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J.D.  
CHECKED BY:  
J.D.  
DATE:  
SEPT., 1989  
CBJ  
FILE NO.

HORIZ. SCALE  
VERT. SCALE  
DATE:  
SHEET 70 OF 70



CBJ Red-line "As-Builts" on file @ CBJ Engineering Dept.

Missing pages 51-53.