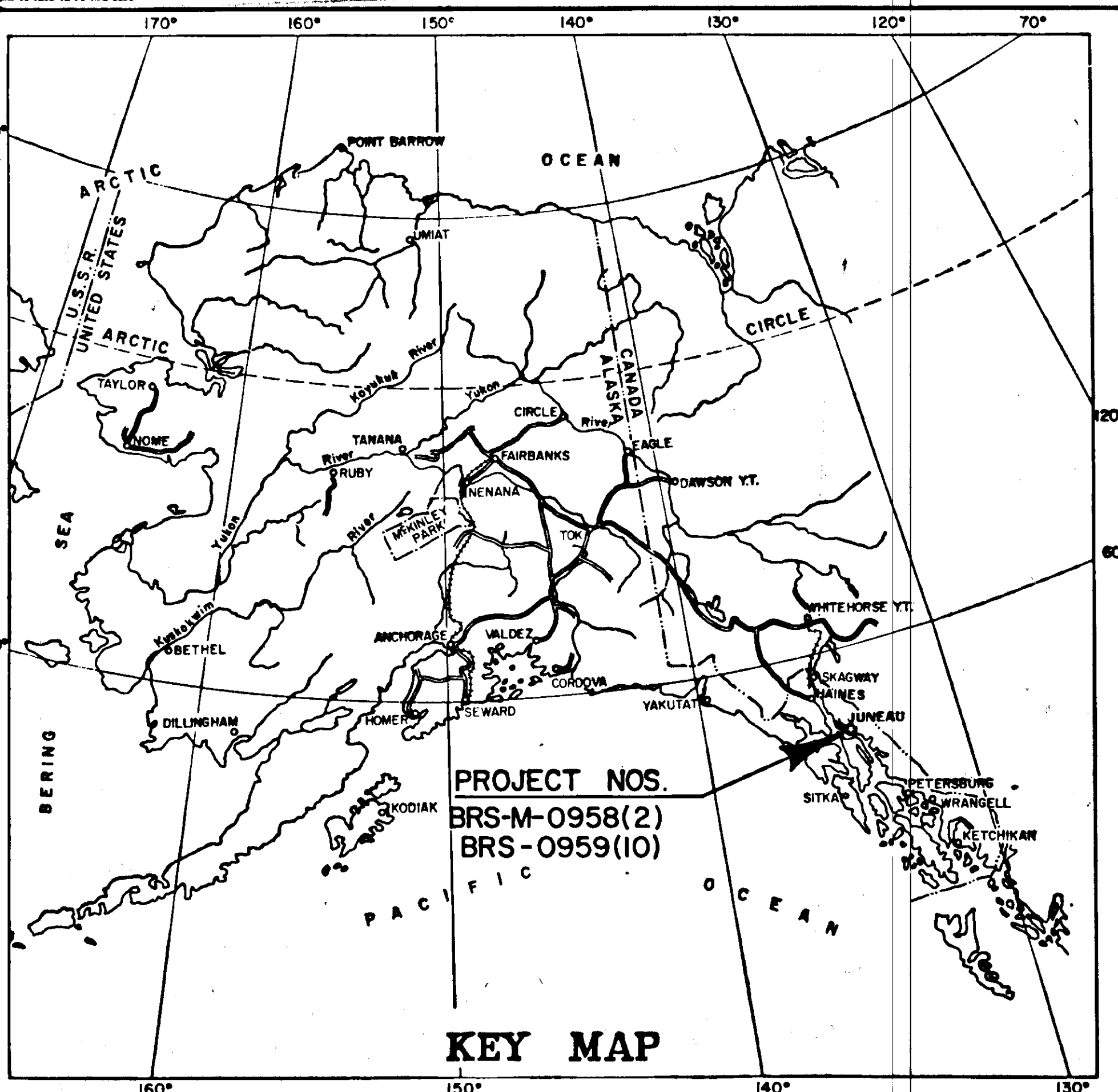


| | | | |
|--------|-------------------------------|-----------|--------------|
| STATE | PROJECT | SHEET NO. | TOTAL SHEETS |
| ALASKA | BRS-M-0958(2) BRS-0959(10) | 1 | 110 |



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

PLAN AND PROFILE PROPOSED HIGHWAY PROJECT

BRS-M-0958(2)
GASTINEAU CHANNEL CROSSING, PHASE II
BRIDGE SUPERSTRUCTURE & APPROACH CONSTRUCTION

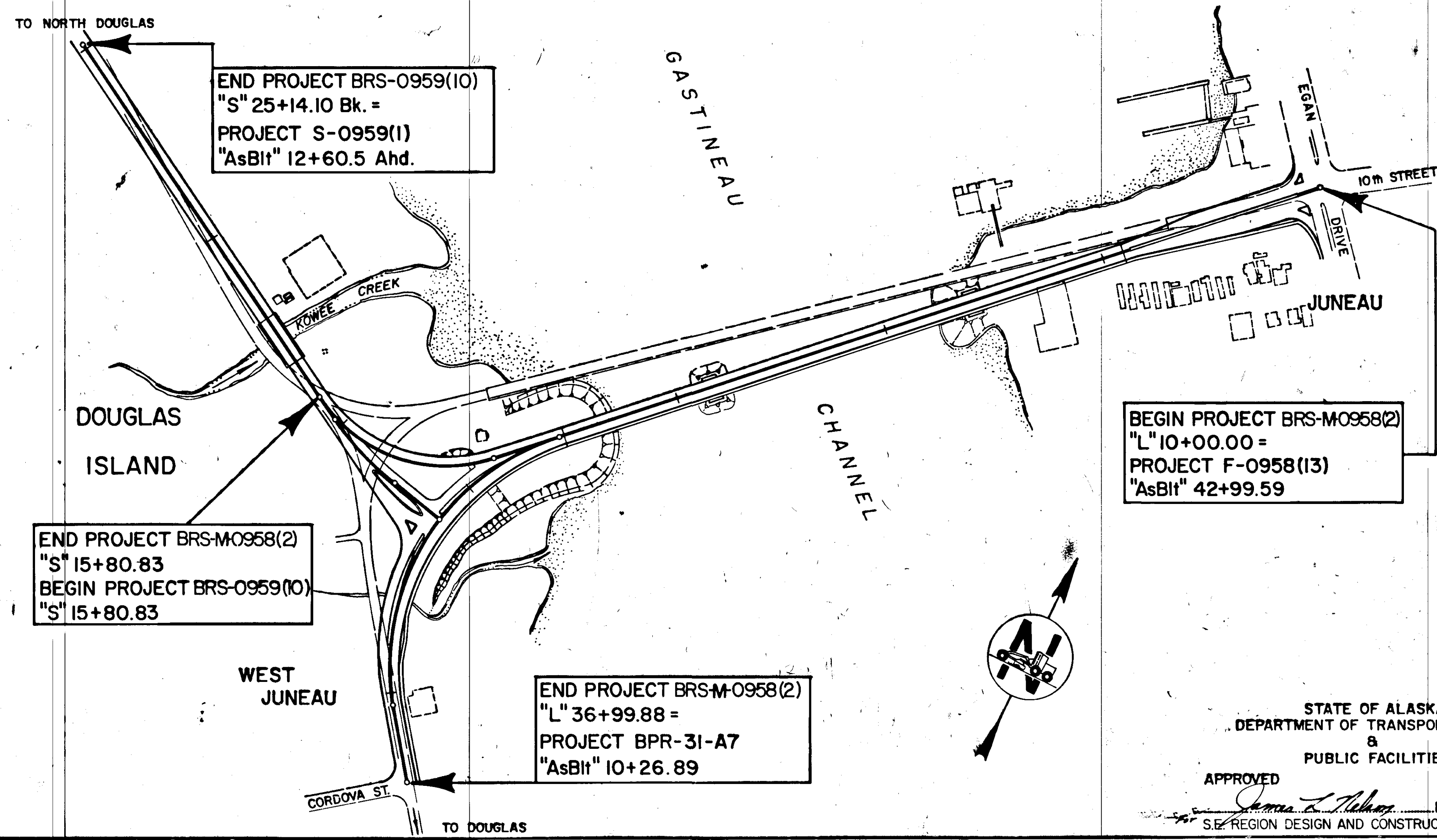
BRS-0959(10)
KOWEE CREEK BRIDGE
BRIDGE & APPROACH CONSTRUCTION

| INDEX OF SHEETS | |
|-----------------|---|
| Sheet No. | DESCRIPTION |
| 1 | TITLE SHEET |
| 2 | ROADWAY PLANS INDEX SHEET |
| 3-61 | ROADWAY PLANS |
| 62 | BRIDGE SUPERSTRUCTURE PLANS INDEX SHEET |
| 63-101 | GASTINEAU CHANNEL BRIDGE PLANS |
| 102-110 | KOWEE CREEK BRIDGE PLANS |

THE FOLLOWING STANDARD DRAWINGS APPLY TO THESE PROJECTS: A-1, B-04.00, B-05.00, C-00.04, C-10.03, C-11.03, D-02.02, D-20.10, D-23.01, D-24.13, D-26.02, F-01.21, F-03.00, G-04.13, G-14.05, G-18.10, G-24.00, I-20.01, I-40.11, I-80.00, L-03.11, L-10.13, L-20.03, L-23.03, L-30.01, M-13.01, M-16.03, S-00.11, S-05.00, S-20.10, S-21.00, S-30.11, S-34.11, S-41.00, T-20.03, T-21.02, T-22.00, T-30.00, T-31.01, T-32.01, T-33.03, T-34.03, T-40.00, T-52.01, U-03.00

| DESIGN DESIGNATION | | | |
|--------------------|---------------------------------|---------------------------------|---------------------------------|
| | "L" 10+00.00 to "L" 27+75.12 | "L" 27+75.12 to "L" 36+99.88 | "S" 10+00.00 to "S" 25+14.10 |
| ADT 1979 | 8,303 | 5,261 | 3,520 |
| ADT 2000 | 19,899 | 12,608 | 8,870 |
| DHV (12%) | 2,388 | 1,513 | 1,064 |
| D | 60-40 | 60-40 | 60-40 |
| T | 7% | 7% | 7% |
| V | 35 MPH | 35 MPH | 35 MPH |
| T.I. | 9.5 | 9.0 | 8.5 |

| PROJECT SUMMARY | | |
|-------------------|-----------------------|----------------------|
| | BRS-M-0958(2) | BRS-0959(10) |
| WIDTH OF PAVEMENT | 76'-36", 21' | 36' |
| LENGTH OF PAVING | 2695.25 = 0.5105 Mi. | 933.27' = 0.1768 Mi. |
| | 580.83' = 0.1100 Mi. | |
| | 377.47' = 0.0715 Mi. | |
| LENGTH OF GRADING | 1408.91 = 0.2668 Mi. | 819.27 = 0.1552 Mi. |
| | 580.83' = 0.1100 Mi. | |
| | 377.47' = 0.0715 Mi. | |
| LENGTH OF BRIDGE | 1286.34' = 0.2436 Mi. | 114.00' = 0.0216 Mi. |
| LENGTH OF PROJECT | 2699.88 = 0.5113 Mi. | 933.27' = 0.1768 Mi. |
| | 580.83' = 0.1100 Mi. | |
| | 377.47' = 0.0715 Mi. | |



As BUILT PLANS
MOSEMAN CONSTRUCTION COMPANY
PROJECT ENGINEER: VERN HIRSH and PAT KEMP
NOTICE TO PROCEED: JANUARY 21, 1980
CONSTRUCTION BEGAN: MARCH 19, 1980
CONSTRUCTION ENDED: SEPTEMBER 1982

BEGIN PROJECT BRS-M0958(2)
"L" 10+00.00 =
PROJECT F-0958(13)
"AsBlt" 42+99.59

END PROJECT BRS-0959(10)
"S" 25+14.10 Bk. =
PROJECT S-0959(11)
"AsBlt" 12+60.5 Ahd.

END PROJECT BRS-M0958(2)
"S" 15+80.83
BEGIN PROJECT BRS-0959(10)
"S" 15+80.83

END PROJECT BRS-M-0958(2)
"L" 36+99.88 =
PROJECT BPR-31-A7
"AsBlt" 10+26.89

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
APPROVED
[Signature]
S.E. REGION DESIGN AND CONSTRUCTION ENGINEER

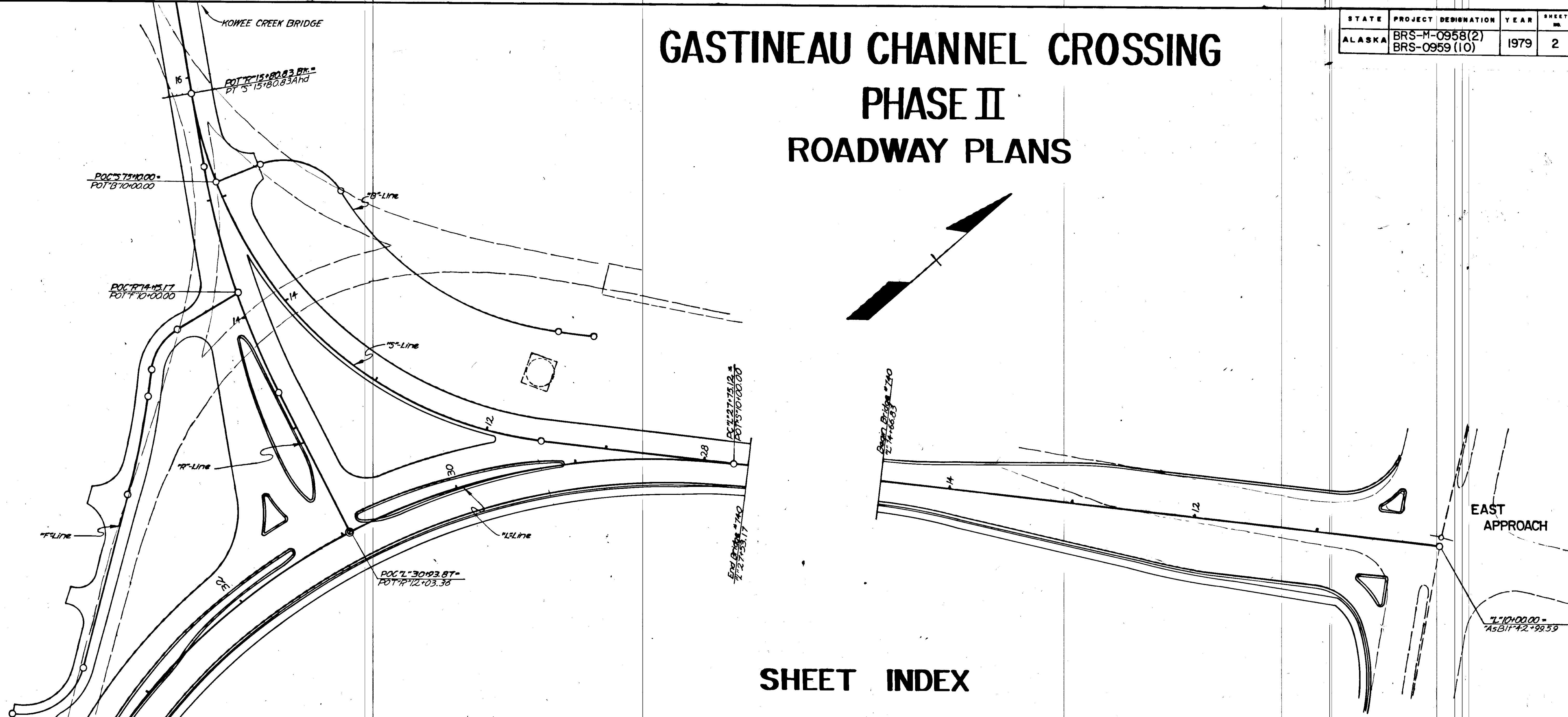
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES
APPROVED
[Signature]
DIRECTOR - HIGHWAY DESIGN AND CONSTRUCTION

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) BRS-0959(10) | 1979 | 2 | 110 |

GASTINEAU CHANNEL CROSSING

PHASE II

ROADWAY PLANS



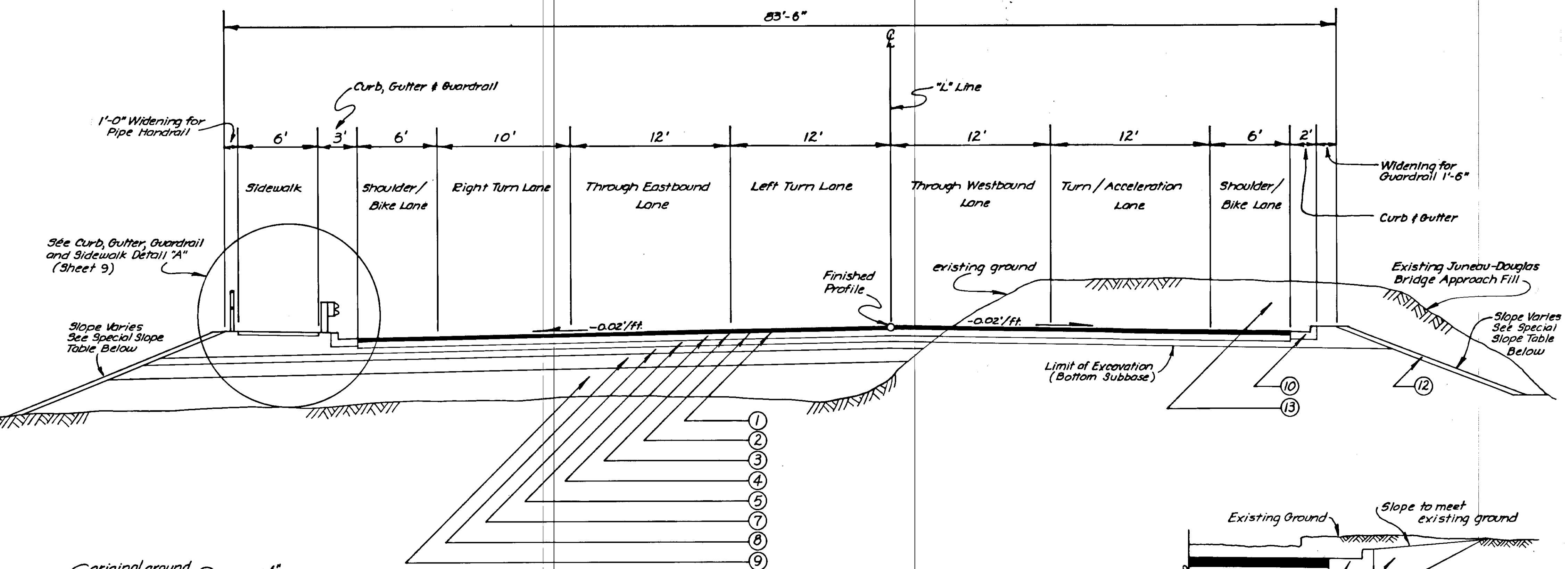
SHEET INDEX

| TITLE | CONTENT | SHEET NO. | TITLE | CONTENT | SHEET NO. | TITLE | CONTENT | SHEET NO. |
|---------------------------------|---------------------------------------|-----------|---------------------------------|--|-----------|------------------------------------|-------------------------------|-----------|
| Typical Section & Gen'l Notes | East Approach & Roadway General Notes | 3 | "H"-Line | Private Driveway | 23 | Utility Plan and Profile | "R"&"S"-Lines | 43 |
| Typical Section | Roadway @ Bridge Abutments | 4 | "M"-Line | Private Driveway | 24 | Utility Plan and Profile | "S"15+80.83 to 21+75 | 44 |
| Typical Section | West Approach to Douglas | 5 | "T"-Line | Commercial Approach Road | 25 | Utility Plan and Profile | "S"21+75 to "AsBl"13+26.60 | 45 |
| Typical Section | "R"&"S"-Lines; N. Douglas Highway | 6 | Intersection Detail | "L"10+00 to 12+50 | 26 | Utility Details | Water and Sewer Details | 46 |
| Estimate of Quantities | Bid Items tabulated | 7 | Intersection Detail | "L"12+50 to 15+00 | 27 | Utility Details | Electrical Details | 47 |
| Estimate of Quantities (cont'd) | same, Basis of Estimate | 8 | Intersection Detail | "L"27+50 to 30+00 | 28 | Signalization Details | Tables and Diagrams | 48 |
| Miscellaneous Details | Special Details | 9 | Intersection Detail | "L"30+00 to 32+50 | 29 | Signalization Plans | Intersection Layout and Loops | 49 |
| Miscellaneous Details | same | 10 | Intersection Detail | "L"32+50 to 36+99.88 | 30 | Striping, Signing and Illumination | "L"10+00 to 12+50 | 50 |
| Traffic Control Plan | East Approach | 11 | Intersection Detail | "R"&"S"-Lines | 31 | Striping, Signing and Illumination | "L"12+50 to 14+66.83 | 51 |
| Traffic Control Plan | West Approach | 12 | Drainage Details | Structure and Pipe Summaries & Details | 32 | Striping, Signing and Illumination | Bridge | 52 |
| Control Layout | Vert. & Hor. Control, Mat'l Site | 13 | Drainage Details | Subdrain System Detail | 33 | Striping, Signing and Illumination | "L"27+53.17 to 30+00 | 53 |
| Plan and Profile | "L"10+00 to 15+00 | 14 | Reinforced Earth Retaining Wall | General Layout | 34 | Striping, Signing and Illumination | "L"30+00 to 32+00 | 54 |
| Plan and Profile | "L"27+00 to 32+00 | 15 | Reinforced Earth Retaining Wall | Wall Details | 35 | Striping, Signing and Illumination | "L"32+00 to 36+99.88 | 55 |
| Plan and Profile | "L"32+00 to 36+99.88 | 16 | Concrete Toe Wall | East Approach Retaining Wall | 36 | Striping, Signing and Illumination | "R"&"S"-Lines | 56 |
| Plan and Profile | "R"-Line | 17 | Utility Plan and Profile | Ninth St. & Summaries of Util. Const. | 37 | Striping, Signing and Illumination | "S"15+80.83 to 21+75 | 57 |
| Plan and Profile | "S"-Line | 18 | Utility Plan and Profile | "L"10+00 to 15+00 | 38 | Striping, Signing and Illumination | "S"21+75 to "AsBl"13+26.60 | 58 |
| Plan and Profile | "S"15+80.83 to 21+75 | 19 | Utility Plan and Profile | "L"15+00 to 21+00 | 39 | Signaling Schedule | Table of Signs | 59 |
| Plan and Profile | "S"21+75 to "AsBl"13+26.60 | 20 | Utility Plan and Profile | "L"21+00 to 27+00 | 40 | Landscaping | East Approach | 60 |
| "B"-Line | Approach Rd. to Sewer Pump Station | 21 | Utility Plan and Profile | "L"27+00 to 32+00 | 41 | Landscaping | West Approach | 61 |
| "F"-Line | Approach Rd. to Sitka Street | 22 | Utility Plan and Profile | "L"32+00 to 36+99.88 | 42 | | | |

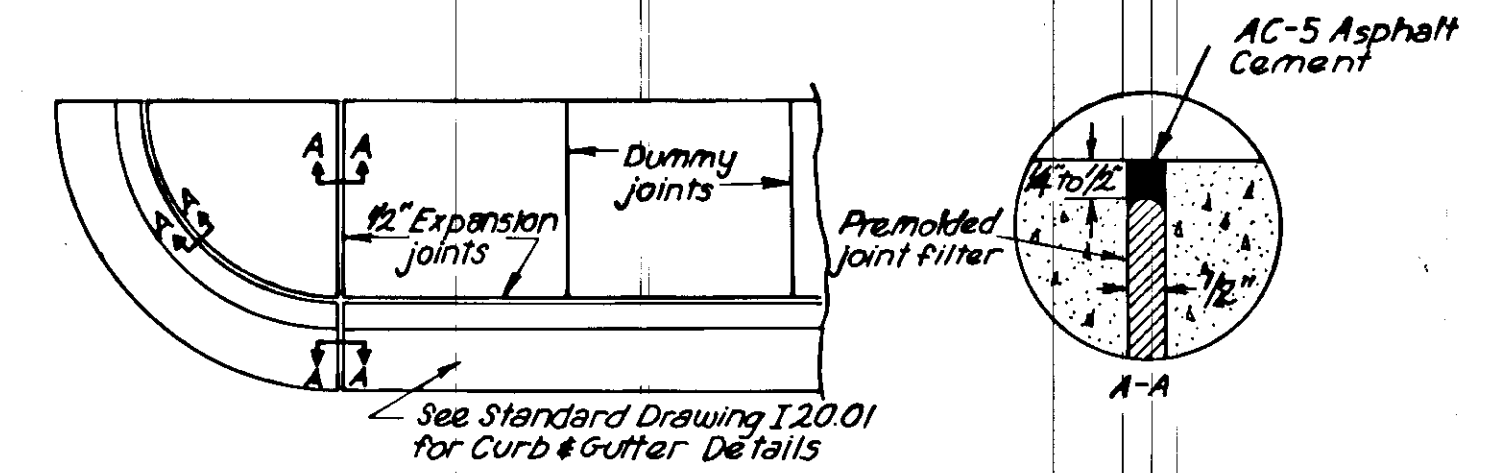
TYPICAL SECTIONS OF IMPROVEMENT

ROADWAY GENERAL NOTES

1. Height of fill for determining side slopes shall be the difference between the elevation of the point on the shoulder (or extension) where side slope begins, and the elevation of the original ground below.
2. All constructed fore and back slopes shall be covered with 4 inches (measured normal to face of slope) of topsoil and seeded unless otherwise specified on the plans.
3. The Contractor shall insure that adjacent property owners are not denied access to or from their homes or businesses; any construction activity which causes more than a minor blocking of access of short duration, shall have the prior approval of the Engineer.



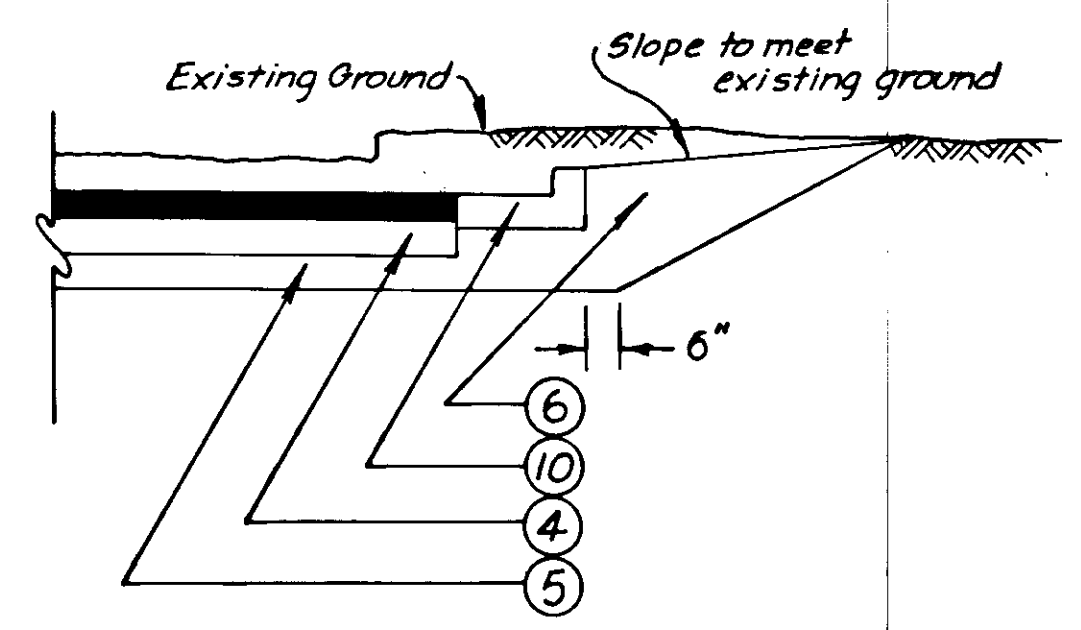
TYPICAL SECTION (Juneau Approach)
 Stations "L" 10+33.74 to "L" 14+58.00
 (Turning Lanes in Transition from "L" 10+33.74 to "L" 11+25.41 & "L" 12+31.75 to "L" 14+58.00)



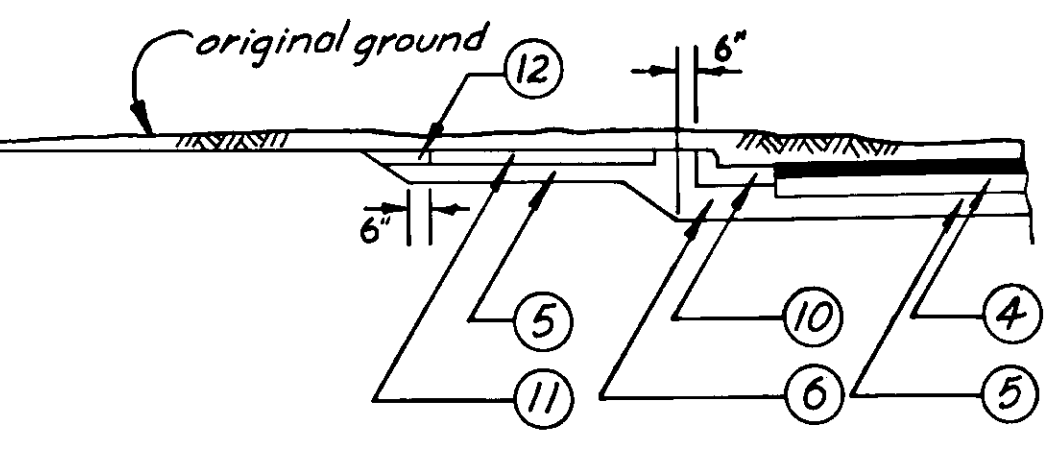
TYPICAL CURB & SIDEWALK JOINT DETAIL

NOTES:

1. Premolded expansion joint filler and AC-5 Asphalt Cement (see specifications) shall be considered incidental to pay Item 608(1) "Concrete Sidewalk" and no separate payment will be made therefore.
2. Curb and Gutter expansion joints shall be at each end of the curb returns, and immediately following and preceding curb cuts. Thereafter they shall be placed at intervals of 30' except where shorter sections are needed for closure.
3. Sidewalk expansion joints shall be opposite expansion joints in adjoining curb and gutter. Dummy joints shall be equally spaced between expansion joints and spacing shall not exceed 5'.



CURB AND GUTTER CONSTRUCTION IN CUT DETAIL



SIDEWALK CONSTRUCTION IN CUT SECTION

| SPECIAL SLOPE TABLE (LEFT) | |
|----------------------------|---------|
| STATION | SLOPE |
| "L" 11+25 | 10:1 |
| "L" 11+50 to 11+75 | 4:1 |
| "L" 12+00 | 3:1 |
| "L" 12+25 to 13+50 | 2:1 |
| "L" 13+75 to 14+58 | 1 1/2:1 |

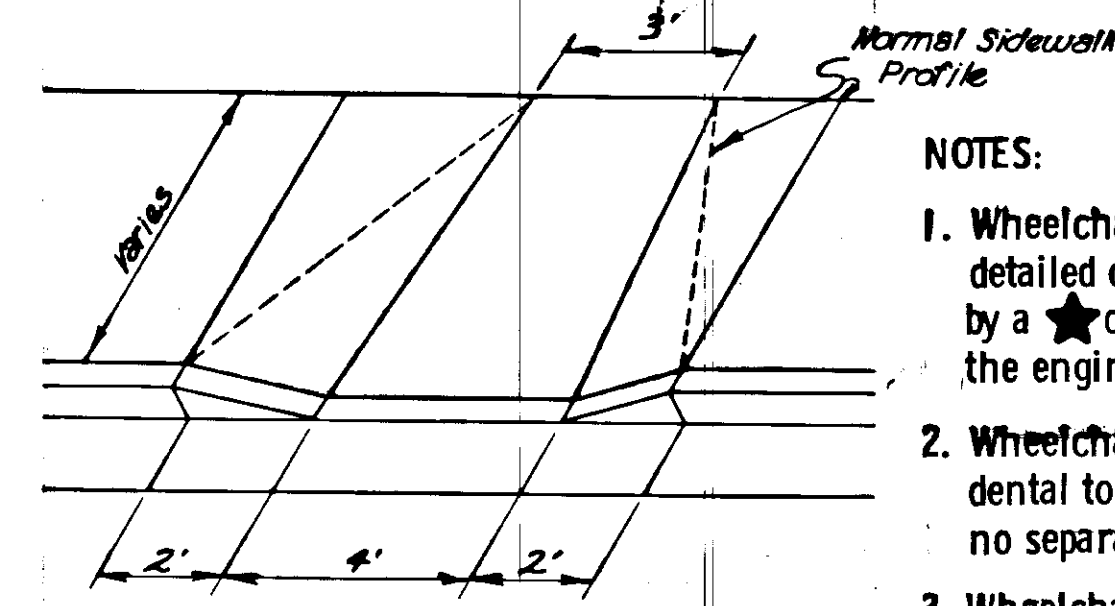
MATERIAL LABELS

- 1 Hot Asphalt Pavement, 4" Depth (2-2" lifts)
- 2 CSS-1 Emulsified Asphalt for Tack Coat
- 3 MC-30 Liquid Asphalt for Prime Coat
- 4 6" Crushed Aggregate Base Course
- 5 6" Subbase, Grading A
- 6 Varying Thickness Subbase, Grading A
- 7 6" Selected Material II
- 8 12" Selected Material I
- 9 Useable Unclassified Excavation and/or Borrow
- 10 Concrete Standard Curb and Gutter
- 11 4" Concrete Sidewalk
- 12 4" Topsoil with Seeding
- 13 Unclassified Excavation
- 14 Hot Asphalt Pavement, 1 1/2" Depth

| SPECIAL SLOPE TABLE (RIGHT) | |
|-----------------------------|---------|
| STATION | SLOPE |
| "L" 11+50 | 10:1 |
| "L" 11+75 to 12+00 | 4:1 |
| "L" 12+25 to 12+75 | 3:1 |
| "L" 13+00 to 13+50 | 2 1/2:1 |
| "L" 13+75 to 14+25 | 2:1 |
| "L" 14+50 to 14+58 | 1 1/2:1 |

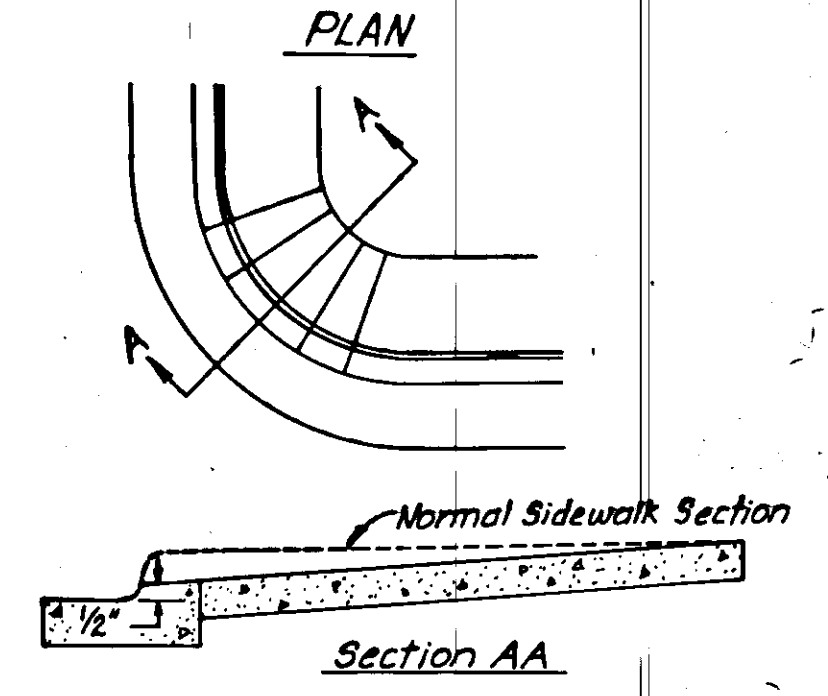
| SLOPE TABLE | |
|-----------------------|---------------------------------|
| Height of Fill or Cut | Slope, horizontal to vertical * |
| 0 - 10' | 4 : 1 |
| 10' - 15' | 2 1/2 : 1 |
| 15' - 20' | 2 : 1 |
| over 20' | 1 1/2 : 1 |

* special slopes labelled



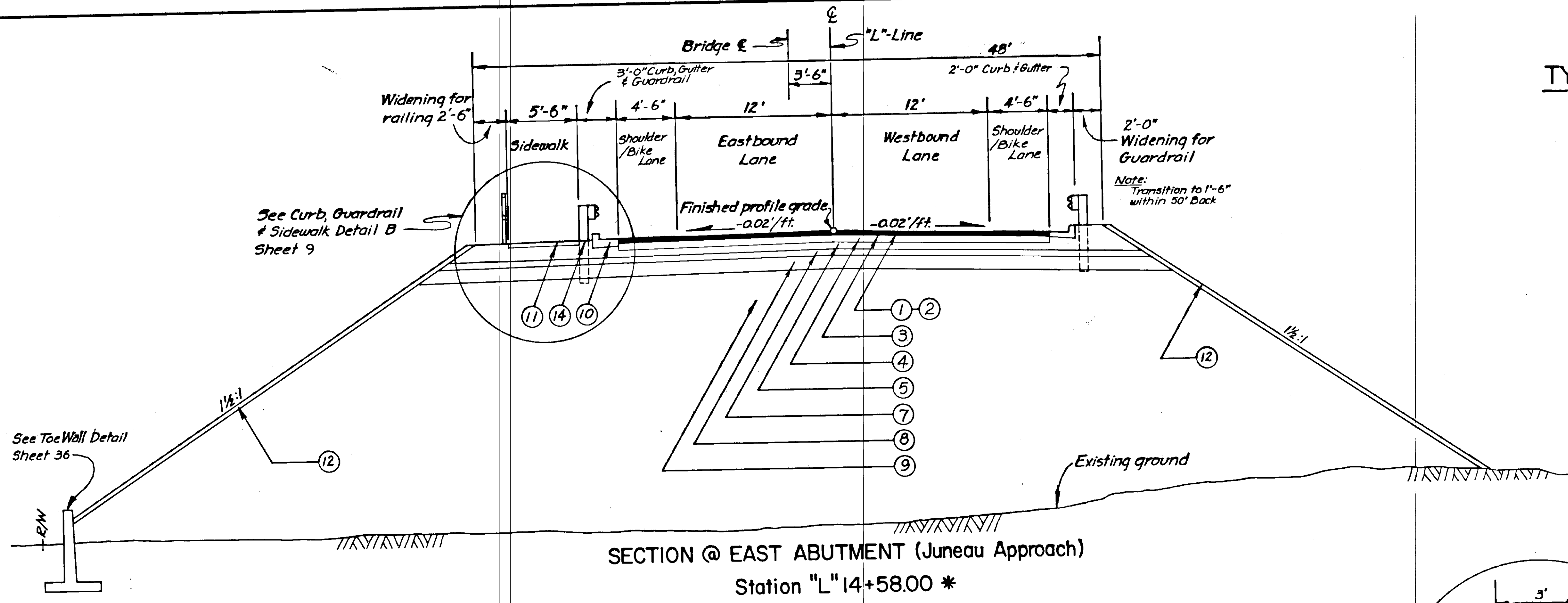
NOTES:

1. Wheelchair ramps shall be constructed as detailed on this sheet at locations designated by a star on the plan sheet, or as directed by the engineer.
2. Wheelchair ramps shall be considered incidental to Item 608(1), Concrete Sidewalk and no separate payment will be made therefore.
3. Wheelchair ramps shall have a wood float finish or rougher finish.
4. Wheelchair ramps shall have a curb face of 1/2".
5. For wheelchair ramps on traffic island located left of "L" Sta. 10+50, the length of transition from the face of curb to the finish grade of the island shall be 4'.
6. The two wheelchair ramps located outside the project limits at 10th and Egan shall be paid for under Item 608(1) Concrete Sidewalk.

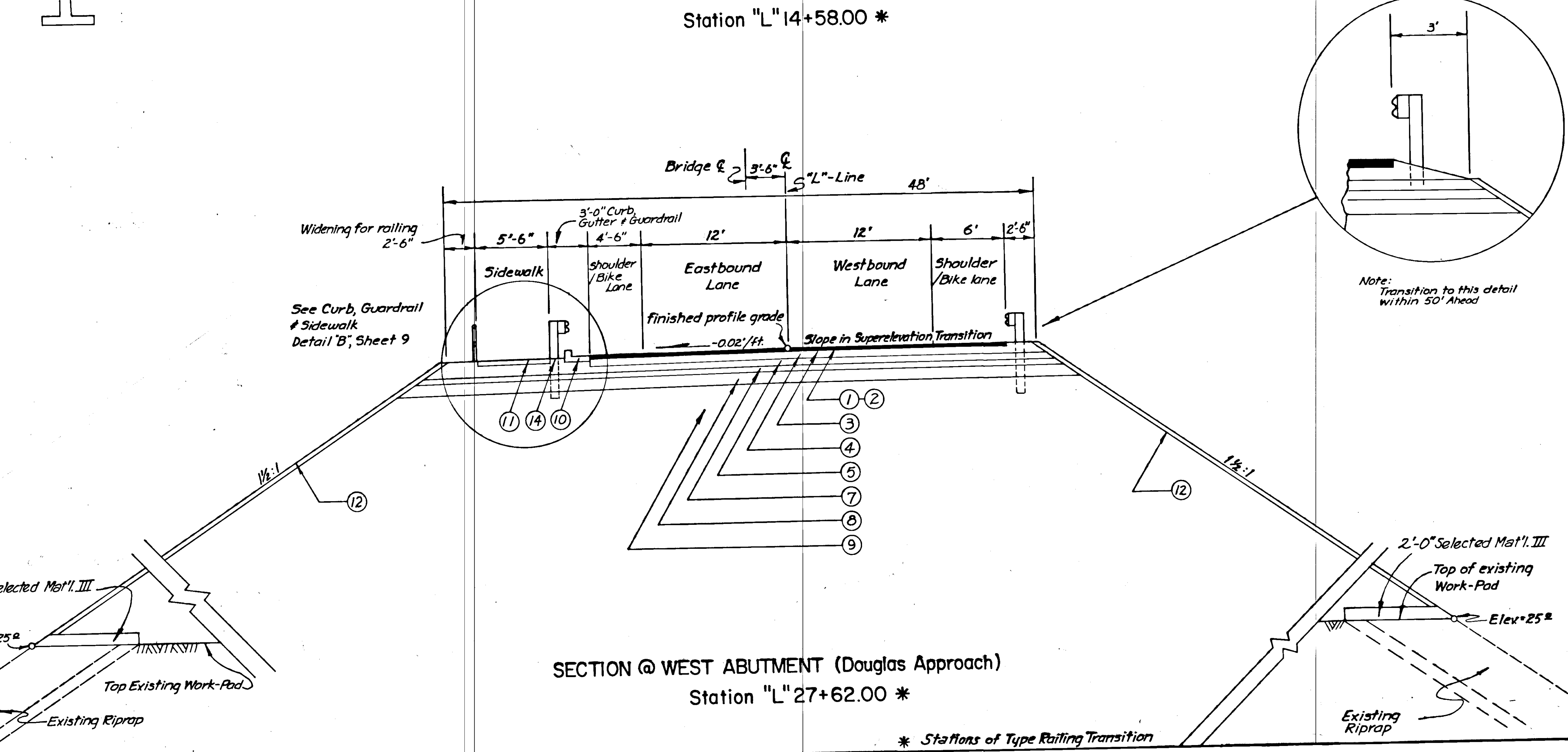


WHEELCHAIR RAMP DETAIL

TYPICAL SECTIONS OF IMPROVEMENT (CONT'D)



SECTION @ EAST ABUTMENT (Juneau Approach)
Station "L"14+58.00 *



SECTION @ WEST ABUTMENT (Douglas Approach)
Station "L"27+62.00 *

- NOTES:
- Both sections shown are looking ahead on stations.
 - Rocks, broken concrete or other solid materials which would interfere with pile driving shall not be placed between stations "L"14+50 and 15+00 or stations "L"27+20 and 27+90.

MATERIAL LABELS

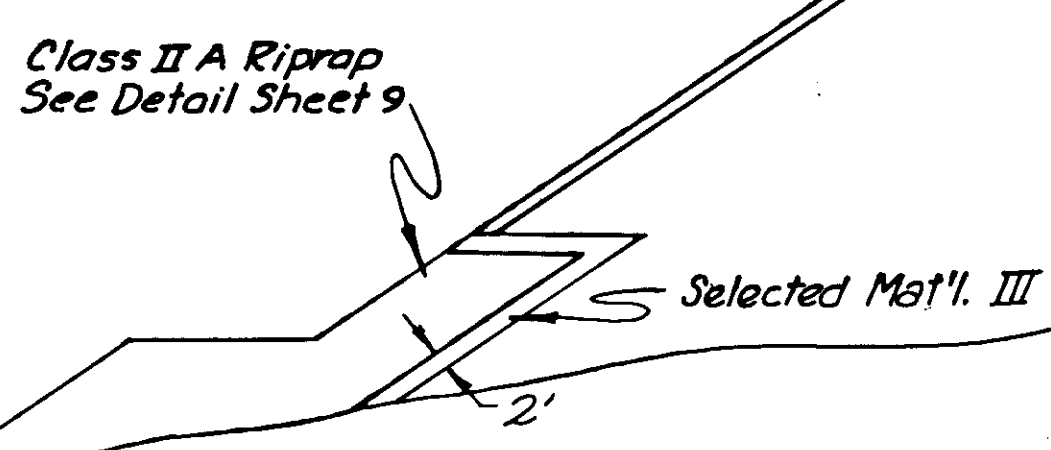
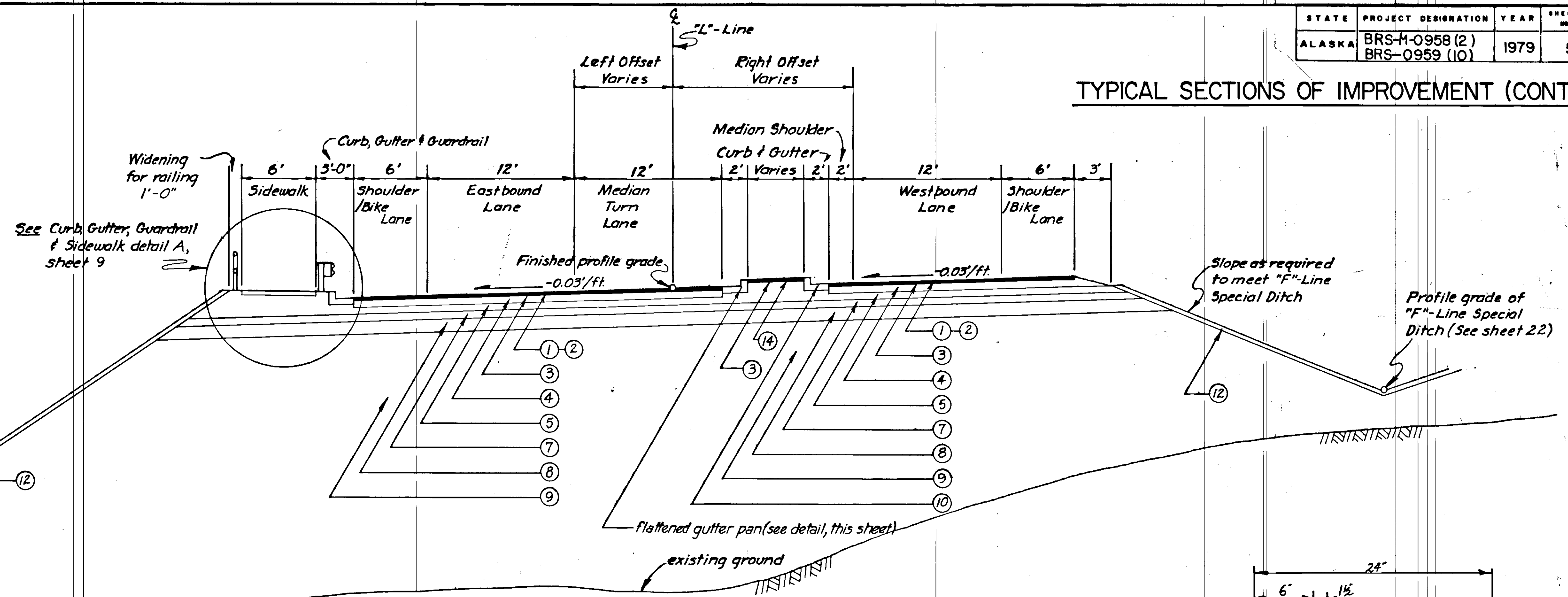
- Hot Asphalt Pavement, 4" Depth (2-2" lifts)
- CSS-1 Emulsified Asphalt for Tack Coat
- MC-30 Liquid Asphalt for Prime Coat
- 6" Crushed Aggregate Base Course
- 6" Subbase, Grading A
- Varying Thickness Subbase, Grading A
- 6" Selected Material II
- 12" Selected Material I
- Usable Unclassified Excavation and/or Borrow
- Concrete Standard Curb and Gutter
- 4" Concrete Sidewalk
- 4" Topsoil with Seeding
- Unclassified Excavation
- Hot Asphalt Pavement, 1 1/2" Depth

* Stations of Type Railing Transition

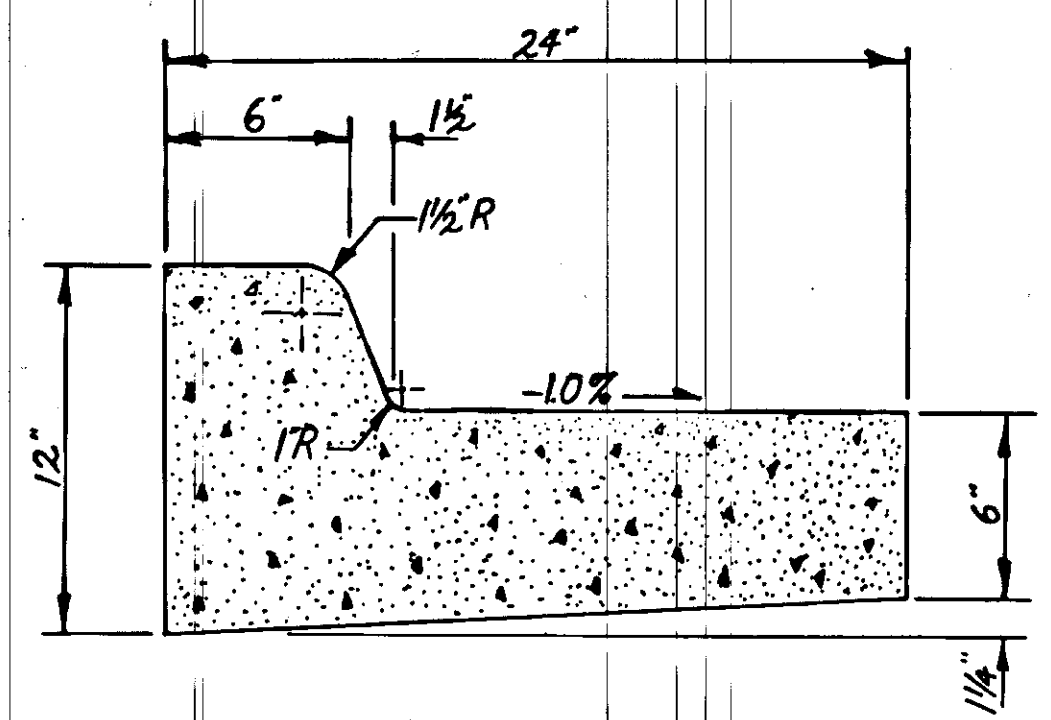
TYPICAL SECTIONS OF IMPROVEMENT (CONT'D)

| Height of Fill | Slope, horizontal to vertical * |
|----------------|---------------------------------|
| 0 - 10' | 4 : 1 |
| 10' - 15' | 2½ : 1 |
| 15' - 20' | 2 : 1 |
| over 20' | 1½ : 1 |

* special slopes labelled



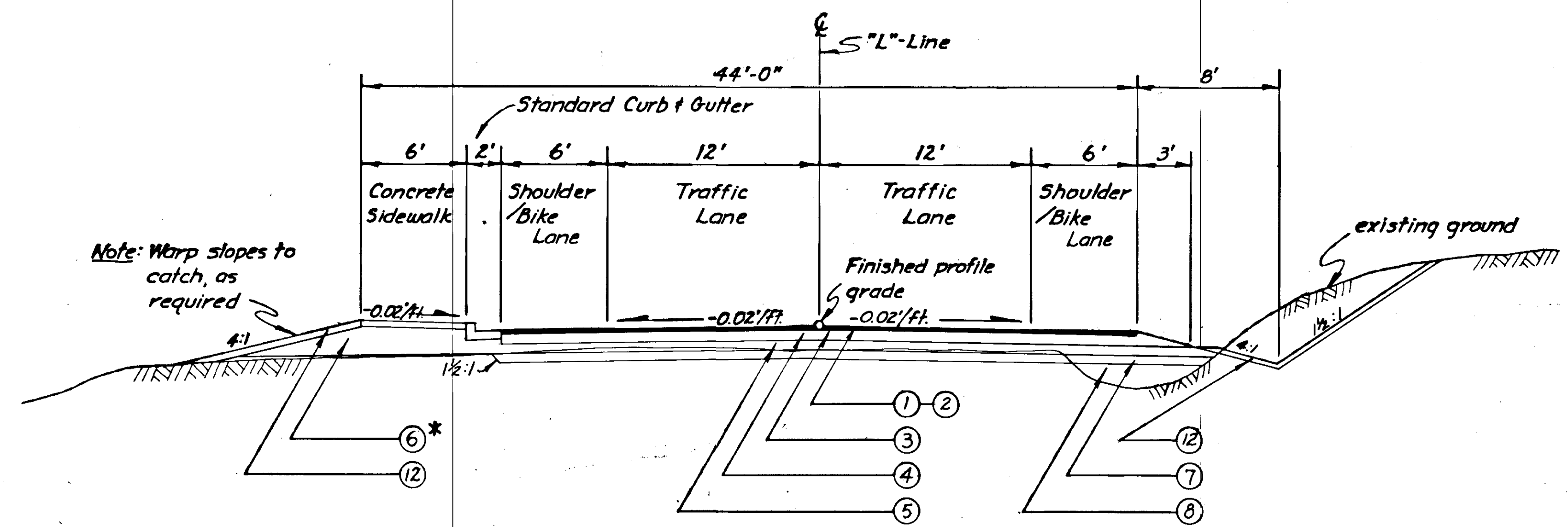
VARYING WIDTH MEDIAN ISLAND SECTION (DOUGLAS APPROACH)
Stations "L" 27+62.00 to "L" 35+43.79
(Island & median turn lane widths in transition)



FLATTENED GUTTER PAN DETAIL
(use only in areas designated)

MATERIAL LABELS

- ① Hot Asphalt Pavement, 4" Depth (2-2" lifts)
- ② CSS-1 Emulsified Asphalt for Tack Coat
- ③ MC-30 Liquid Asphalt for Prime Coat
- ④ 6" Crushed Aggregate Base Course
- ⑤ 6" Subbase, Grading A
- ⑥ Varying Thickness Subbase, Grading A
- ⑦ 6" Selected Material II
- ⑧ 12" Selected Material I
- ⑨ Useable Unclassified Excavation and/or Borrow
- ⑩ Concrete Standard Curb and Gutter
- ⑪ 4" Concrete Sidewalk
- ⑫ 4" Topsoil with Seeding
- ⑬ Unclassified Excavation
- ⑭ Hot Asphalt Pavement, 1½" Depth



TYPICAL SECTION (DOUGLAS APPROACH)
Stations "L" 35+43.79 to "L" 36+99.88 EOP

* Cut, if required, to obtain 6" minimum thickness under sidewalk and curb & gutter

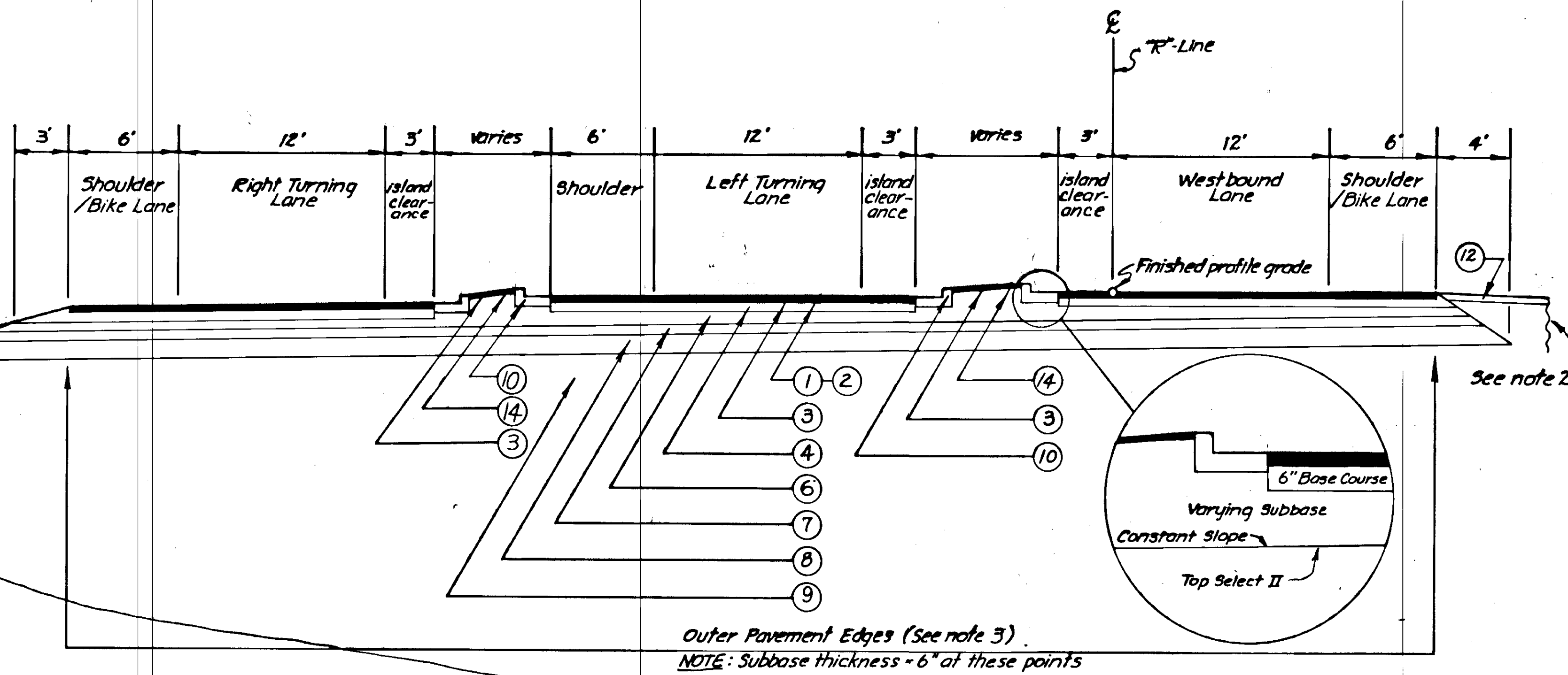
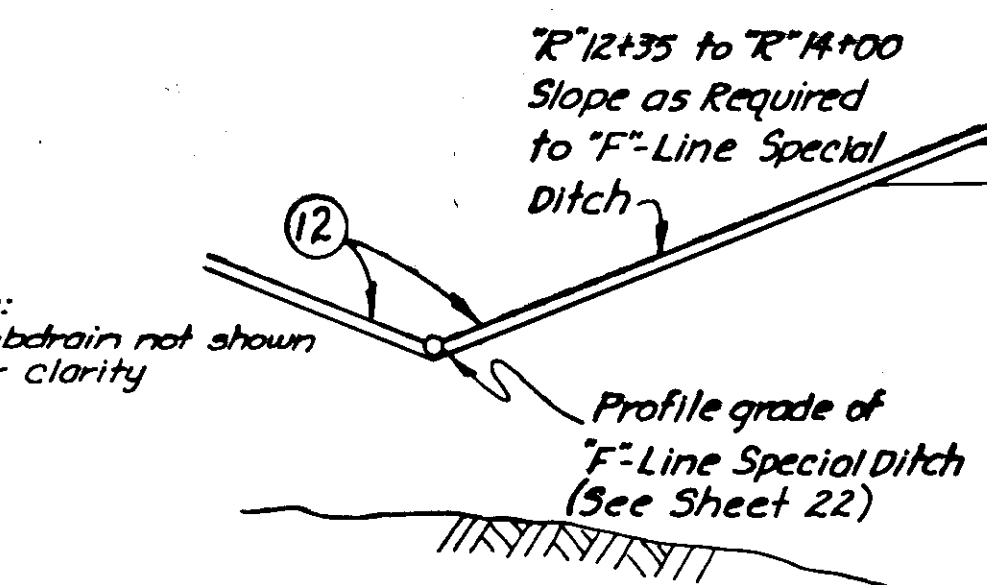
TYPICAL SECTIONS OF IMPROVEMENT (CONT'D)

NOTES

- All lane cross slopes shall be warped to fit as shown by the elevations on the Intersection Detail Sheets 28-31.
- The large triangular island bordered by the "R"-Line, the "S"-Line and the "L"-Line shall be constructed of Useable Unclassified Excavation and/or Borrow, and shall have topsoil to a minimum depth of 4" on top; it shall be sloped to drain as shown on the Intersection Detail Plans and the Drainage Plans.
- Between Stations "R" 12+33 and "R" 14+75, "R"-Line subgrade materials shall be straight-lined between outer edges of pavement (as shown in "R"-Line Typical Section) up to top of Selected Material II; super-elevation warping and differential cross-sloping thickness variations shall be accomplished in the subbase lift. Pavement edge elevations are shown in the Intersection Detail Plans, Sheets 28-31.
- The pavement joint between the "L"-Line roadway and the "R"-Line roadway shall be at the normal edge of the "L" roadway; no warping to match adjacent roadway shall be permitted within the limits of the "L"-Line roadway.
- The pavement joint between the "R"-Line roadway and the "S"-Line roadway shall be at the "S"-Line as the two roadways merge; the "S" Typical Section controls the cross-slope of the portion of the roadway shared by the merging lanes.

| Bk. Slope |
|-----------|
| 4:1 |
| 3:1 |
| 2:1 |
| 2:1 |
| 1 1/2:1 |
| 1 1/4:1 |
| 1 1/2:1 |
| 1 1/2:1 |

LEFT SLOPE DETAIL



"R"-LINE FULL LANE WIDTHS SECTION @ INTERSECTION STATIONS "R" 12+03.36 to "R" 15+80.83 (section skewed to show lane widths)

NOTE: Construct flattened gutter pan in the following areas (see detail, sheet 5):
 "R" 13+00.00, 4.50' Lt. to "R" 13+91.23, 81' Lt.
 "L" 3+51.62, 3700' Rt. to "R" 12+60.30, 1977' Lt.

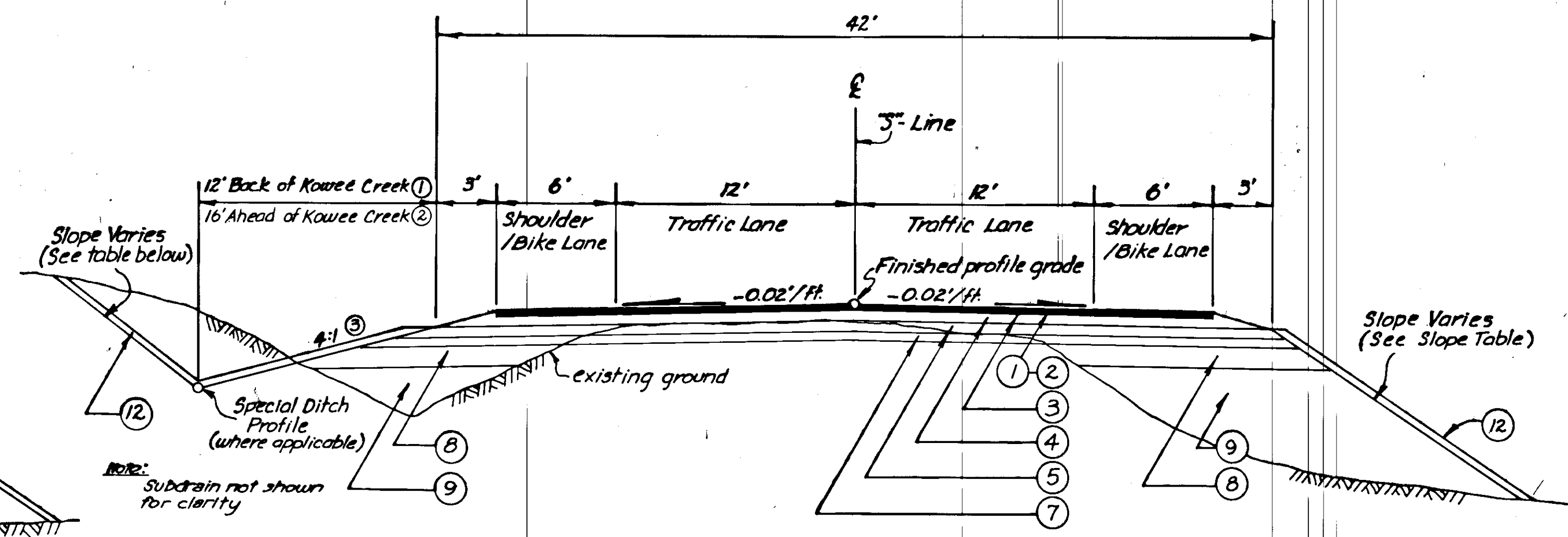
MATERIAL LABELS

- Hot Asphalt Pavement, 4" Depth (2-2" lifts)
- SS-1 Emulsified Asphalt for Tack Coat
- AC-30 Liquid Asphalt for Prime Coat
- Crushed Aggregate Base Course
- Subbase, Grading A
- Varying Thickness Subbase, Grading A
- Selected Material II
- 2" Selected Material I
- Useable Unclassified Excavation and/or Borrow
- Concrete Standard Curb and Gutter
- Concrete Sidewalk
- Topsoil with Seeding
- Unclassified Excavation
- Hot Asphalt Pavement, 1 1/2" Depth

"S"-LINE TYPICAL SECTION (DOUGLAS APPROACH) STATIONS "S" 10+00.00 to "S" 15+80.83 (width in transition between "S" 10+00.00 to "S" 11+93.49 width in transition between "S" 14+48.26 to "S" 15+80.83)

| STATION | BK.SLP. | STATION | BK.SLP. | STATION | BK.SLP. | STATION | BK.SLP. | STATION | BK.SLP. |
|--------------|---------|-----------|---------|-----------|---------|------------|---------|-----------|---------|
| "S" 15+80.83 | 1 1/2:1 | "S" 18+65 | 4:1 | "S" 20+25 | 2 1/4:1 | "S" 22+100 | 1 1/4:1 | "S" 23+75 | 1:1 |
| 16+00 | 1 1/2:1 | 18+75 | 4:1 | 20+50 | 2 1/4:1 | 22+25 | 1 1/4:1 | 24+00 | 1:1 |
| 16+25 | 4:1 | 19+00 | 4:1 | 20+75 | 2 1/4:1 | 22+50 | 1 1/2:1 | 24+25 | 1:1 |
| 16+50 | 4:1 | 19+25 | 4:1 | 21+00 | 2:1 | 22+75 | 1 1/2:1 | 24+50 | 1:1 |
| 16+75 | 4:1 | 19+50 | 3:1 | 21+25 | 1 1/2:1 | 23+00 | 1 1/4:1 | 24+75 | 1:1 |
| | | 19+75 | 3:1 | 21+50 | 1 1/4:1 | 23+25 | 1 1/2:1 | 25+00 | 1:1 |
| | | 20+00 | 2 1/4:1 | 21+75 | 1 1/2:1 | 23+50 | 1:1 | 25+14.12 | 1:1 |

"S"-LINE TYPICAL SECTION (KOWEE CREEK) Stations "S" 15+80.83 to "S" 25+14.12



- Width transitions from 12' to 21' between Stations "S" 16+25 to "S" 16+56
- 25' from "S" 17+60 to "S" 18+30, transitions to 16' from "S" 18+30 to "S" 18+61
- Varies in areas of Special Ditches

ESTIMATE OF QUANTITIES

| | | | | |
|--------|-------------------------------|------|-----------|--------------|
| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
| ALASKA | BRS-M-0958(2) BRS-0959(10) | 1979 | 7 | 11 |

| ITEM NO. | ITEM | UNIT | BRS-M-0958(2) - GASTINEAU CHANNEL CROSSING | | | | BRS-0959(10) - KOWEE CREEK BRIDGE | | | | GRAND TOTAL |
|----------|---|---------|--|-----------------|--------------------|--------------|-----------------------------------|-----------------|--------------------|--------------|--------------|
| | | | ROADWAY SUBTOTAL | BRIDGE SUBTOTAL | UTILITIES SUBTOTAL | TOTAL | ROADWAY SUBTOTAL | BRIDGE SUBTOTAL | UTILITIES SUBTOTAL | TOTAL | |
| 1 | Furnishing and Maintaining Engineering Facilities | L. S. | | | | All Required | | | | All Required | All Required |
| 110(1) | Mobilization | L. S. | | | | All Required | | | | All Required | All Required |
| 111(1) | Temporary Erosion and Pollution Control | C. S. | | | | All Required | | | | All Required | All Required |
| 112(1) | Training Program IAW FHWA Order Interim 7-2(2) | C. S. | | | | All Required | | | | All Required | All Required |
| 113(1) | Flagging | M. H. | 400 | | | 400 | | | 300 | 300 | 700 |
| 114(1) | Construction Engineering by the Contractor | L. S. | | | | All Required | | | | All Required | All Required |
| 115(2) | Temporary Pavement Markings | L. F. | 943 | | | 943 | | | 500 | 500 | 943 |
| 115(3) | Construction Signing | L. S. | | | | All Required | | | | All Required | All Required |
| 115(4) | Temporary Lighting | Ea. | 4 | | | 4 | | | 2 | 2 | 6 |
| 115(5) | Detour Embankment | Ton | 0 | | | 0 | | | | | 0 |
| 115(6) | Portable Concrete Protective Barrier | L. F. | 562 1/2 | | | 562 1/2 | | | | | 562 1/2 |
| 115(7) | Temporary Stairway | L. S. | All Required | | | All Required | | | | | All Required |
| 115(8) | Type II Barricades | Ea. | 30 | | | 30 | | | 15 | 15 | 50 |
| 201(3B) | Clearing and Grubbing | L. S. | All Required | | | All Required | | | All Required | All Required | All Required |
| 202(1A) | Removal of Existing Gastineau Channel Bridge | L. S. | | All Required | | All Required | | | | All Required | All Required |
| 202(1B) | Removal of Existing Kowee Creek Bridge | L. S. | | | | | | | | | All Required |
| 202(1C) | Removal of Temporary Access Fill | L. S. | | All Required | | All Required | | | All Required | All Required | All Required |
| 202(2) | Removal of Pavement | Sq. Yd. | 2,461 | | | 2,461 | | | | | 2,461 |
| 202(3) | Removal of Sidewalks | Sq. Yd. | 257 | | | 257 | | | | | 257 |
| 202(4) | Removal and Disposal of Culvert Pipe | L. F. | 217 | | | 217 | | 48 | | 48 | 265 |
| 202(5) | Removal of Manholes | Ea. | 1 | | 2 | 3 | | | | | 3 |
| 202(7) | Removal of Inlets | Ea. | 3 | | | 3 | | | | | 3 |
| 202(8) | Removal of Curb and Gutter | L. F. | 963 | | | 963 | | | | | 963 |
| 203(3) | Unclassified Excavation | C. Y. | 5,647 | | | 5,647 | | 18,619 | | 18,619 | 24,266 |
| 203(5B) | Borrow | Ton | 249,421 | | | 249,421 | | 5,584 | | 5,584 | 255,005 |
| 301(1) | Crushed Aggregate Base Course | Ton | 4,086 | | | 4,086 | | 1,295 | | 1,295 | 5,381 |
| 304(1) | Subbase, Grading A | Ton | 9,036 | | | 9,036 | | 2,031 | | 2,031 | 11,067 |
| 401(1) | Hot Asphalt Pavement, Class I | Ton | 2906.63 | 619.43 | | 3526.06 | 787.10 | 64.25 | | 851.35 | 4377.41 |
| 401(2) | AC-5 Asphalt Cement | Ton | 176.79 | 37.57 | | 214.36 | 47.80 | 3.9 | | 51.7 | 266.06 |
| 401(4) | Anti-Stripping Additive | C. S. | All Required | All Required | | All Required | All Required | All Required | | All Required | All Required |
| 402(3) | CSS-1 Emulsified Asphalt for Tack Coat | L. S. | All Required | | | All Required | All Required | All Required | | All Required | All Required |
| 403(1) | MC-30 Liquid Asphalt for Prime Coat | Ton | 0 | | | 0 | 1.7 | | | 1.7 | 1.7 |
| 407(1) | Membrane Waterproofing | L. S. | | All Required | | All Required | | All Required | | All Required | All Required |
| 501(1) | Class X Concrete | L. S. | | All Required | | All Required | | All Required | | All Required | All Required |
| 501(2) | Expansion Joint Seals | L. F. | | Deleted | | | | | | | Deleted |
| 501(3) | Concrete Toe Wall | L. S. | All Required | | | All Required | | | | | All Required |
| 502(1) | Prestressed Concrete 112' Structural Members (Bulb Tee) | Ea. | | | | | | 6 | | 6 | 6 |
| 503(1) | Reinforcing Steel | L. S. | | All Required | | All Required | | All Required | | All Required | All Required |
| 503(2) | Reinforcing Steel (epoxy coated) | L. S. | | All Required | | All Required | | All Required | | All Required | All Required |
| 505(3) | Structural Steel Piles, Furnished and Driven | L. F. | | 5960.4 | | 5960.4 | | | | | 5960.4 |
| 507(1) | Metal Bridge Railing | L. F. | | 1303.6 | | 1303.6 | | | | | 1303.6 |
| 507(2) | Pedestrian Railing | L. F. | | 1305.1 | | 1305.1 | | | | | 1305.1 |
| 507(3) | Combination Railing | L. F. | | 1304.6 | | 1304.6 | | 228 | | 228 | 1532.6 |
| 508(1) | Prestressing System | L. S. | | All Required | | All Required | | | | | All Required |
| 508(2) | Erection Equipment | L. S. | | All Required | | All Required | | | | | All Required |
| 510(1) | Reinforced Earth Retaining Wall | L. S. | All Required | | | All Required | | | | | All Required |
| 603(22E) | 18" Pipe Conduit | L. F. | 938 | | | 938 | | 82 | | 82 | 1,020 |
| 603(22K) | 48" Pipe Conduit | L. F. | 164 | | | 164 | | | | | 164 |
| 604(1) | Storm Sewer Manhole | Ea. | 1 | | | 1 | | | | | 1 |
| 604(2) | Sanitary Sewer Manhole | Ea. | | | 2 | 2 | | | | | 2 |
| 604(4) | Adjust Existing Manholes | Ea. | | | 5 | 5 | | | | | 5 |
| 604(5) | Inlets | Ea. | 13 | | | 13 | | | | | 13 |
| 604(7) | 36" Pipe Conduit Manholes | Ea. | 1 | | | 1 | | | | | 1 |
| 605(6) | Subdrain System | L. S. | All Required | | | All Required | | All Required | | All Required | All Required |
| 606(1) | Beam Type Guardrail Type I Post | L. F. | 1,900 | | | 1,900 | | 750 | | 750 | 2,650 |
| 606(4) | Removal and Disposal of Guardrail | L. F. | 563.75 | | | 563.75 | | 120 | | 120 | 683.75 |
| 607(3) | Chain Link Fence | L. F. | 62 | | | 62 | | | | | 62 |
| 608(1) | Concrete Sidewalk 4" Depth | Sq. Yd. | 1,016 | | | 1,016 | | | | | 1,016 |
| 609(2) | Curb and Gutter, Type I | L. F. | 3,347 | | | 3,347 | | | | | 3,347 |
| 611(2A) | Riprap, Class II | Ton | | | | | 1677 | | | 1677 | 1677 |
| 611(2B) | Riprap, Class IIA | Ton | 988 | | | 988 | | | | | 988 |
| 614(1) | Survey Monuments | Ea. | 6 | | | 6 | | | | | 6 |

ESTIMATE OF QUANTITIES (CONT'D)

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) BRS-0959(10) | 1979 | 8 | 110 |

| ITEM NO. | ITEM | UNIT | BRS-M-0958(2) - GASTINEAU CHANNEL CROSSING | | | | BRS-0959(10) - KOWEE CREEK BRIDGE | | | | GRAND TOTAL | |
|----------|--|----------|--|-----------------|--------------------|--------------|-----------------------------------|-----------------|--------------------|--------------|-------------|--------------|
| | | | ROADWAY SUBTOTAL | BRIDGE SUBTOTAL | UTILITIES SUBTOTAL | TOTAL | ROADWAY SUBTOTAL | BRIDGE SUBTOTAL | UTILITIES SUBTOTAL | TOTAL | | |
| 614(2) | Monument Cases | Ea. | 6 | | | 6 | | | | | | |
| 615(1) | Standard Sign | Sq. Ft. | 439.65 | | | 439.65 | | | | | | 475.65 |
| 618(1) | Seeding | M. S. F. | 113.58 | | | 113.58 | | | | | | 187.44 |
| 618(2) | Water for Maintenance | M. Gal. | 143 | | | 143 | | | | | | 236 |
| 620(1) | Topsoil | M. S. F. | 113.58 | | | 113.58 | | | | | | 187.44 |
| 621(1A) | Furnishing and Planting Trees (Mountain Ash) | Ea. | 3 | | | 3 | | | | | | 3 |
| 621(1B) | Furnishing and Planting Trees (Sitka Spruce) | Ea. | 10 | | | 10 | | | | | | 10 |
| 621(1C) | Furnishing and Planting Shrubs (Mugho Pine) | Ea. | 80 | | | 80 | | | | | | 80 |
| 625(1) | Pipe Handrail | L. F. | 830 | | | 830 | | | | | | 830 |
| 626(1) | 8" Sewer Conduit | L. F. | | | 114.6 | 114.6 | | | | | | 114.6 |
| 626(2) | 10" Sewer Conduit | L. F. | | | | | | | | | | 67 |
| 626(3) | 12" Sewer Conduit | L. F. | | | | | | | | | | 67 |
| 627(1) | Watering | M. Gal. | 36 | | 1738.7 | 1738.7 | | | | | | 1738.7 |
| 628(2A) | 8" Ductile Iron Water Conduit | L. F. | | | 158 | 158 | 12 | | | 12 | | 48 |
| 628(2D) | 14" Ductile Iron Water Conduit | L. F. | | | 3242.4 | 3242.4 | | | 40 | 40 | | 198 |
| 628(4) | Install Valve Box | Ea. | | | 17 | 17 | | | | | | 3242.4 |
| 628(7) | Fire Hydrant Relocation | Ea. | | | 1 | 1 | | | | | | 12 |
| 628(9A) | 1" Water Service Connection | Ea. | | | 1 | 1 | | | | | | 1 |
| 628(9B) | 2" Water Service Connection | Ea. | | | 1 | 1 | | | | | | 1 |
| 628(10A) | Install 8" Gate Valve | Ea. | | | 2 | 2 | | | | | | 1 |
| 628(10D) | Install 14" Gate Valve | Ea. | | | 11 | 11 | | | | | | 2 |
| 628(11) | Adjustment of Valve Box | Ea. | | | 3 | 3 | | | | | | 11 |
| 660(1) | Traffic Signal System Complete | L. S. | All Required | | | All Required | | | | | | All Required |
| 660(3) | Highway Lighting System Complete | L. S. | All Required | | | All Required | | | | | | All Required |
| 660(10) | Bridge Internal Lighting and Navigation Lights | L. S. | | All Required | | All Required | All Required | | | All Required | | All Required |
| 670(6) | Thermoplastic Pavement Markers | L. S. | All Required | All Required | | All Required | All Required | All Required | | All Required | | All Required |
| 680(1A) | 2" P. V. C. Conduit | L. F. | | | 1277 | 1277 | | | | | | 1277 |
| 680(1B) | 4" P. V. C. Conduit | L. F. | | | 6,826 | 6,826 | | | 1,158 | 1,158 | | 7,984 |
| 680(3) | 5' X 10' X 7' Vault | Ea. | | | 1 | 1 | | | | | | 1 |
| 680(4) | 4' X 4' X 4' Vault | Ea. | | | 1,280 | 1,280 | | | | | | 1,280 |
| 680(5) | Cable Ladders for Telephone and Television | L. F. | | | All Required | All Required | | | | | | All Required |
| 680(6) | Cable Ladder Supporting Structures | L. S. | | | 12,917 | 12,917 | | | 2,225 | 2,225 | | 15,142 |
| 681(2) | 5" P. V. C. Conduit | L. F. | | | 2 | 2 | | | | | | 3 |
| 681(3) | 6' X 8' X 6' Vault | Ea. | | | 322 | 322 | | | 265 | 265 | | 587 |
| 681(4) | Concrete Encasement | L. F. | | | | | | | | | | |

| BASIS OF ESTIMATE | |
|-------------------|------------------------------------|
| ITEM | FACTOR |
| 203(5B) | 1.89 Tons/Cu. Yd. |
| 301(1) | 1.96 Tons/Cu. Yd. |
| 304(1) | 1.96 Tons/Cu. Yd. |
| 401(1) | 115 lbs./Sq. Yd./Inch Depth |
| 401(2) | 6% of Item 401(1) |
| 402(1) | 0.50 Gal./Sq. Yd. — 253 Gal./Ton * |
| 403(1) | 0.25 Gal./Sq. Yd. — 256 Gal./Ton |
| 611(2A) | 1.90 Tons/Cu. Yd. |
| 611(2B) | 1.90 Tons/Cu. Yd. |

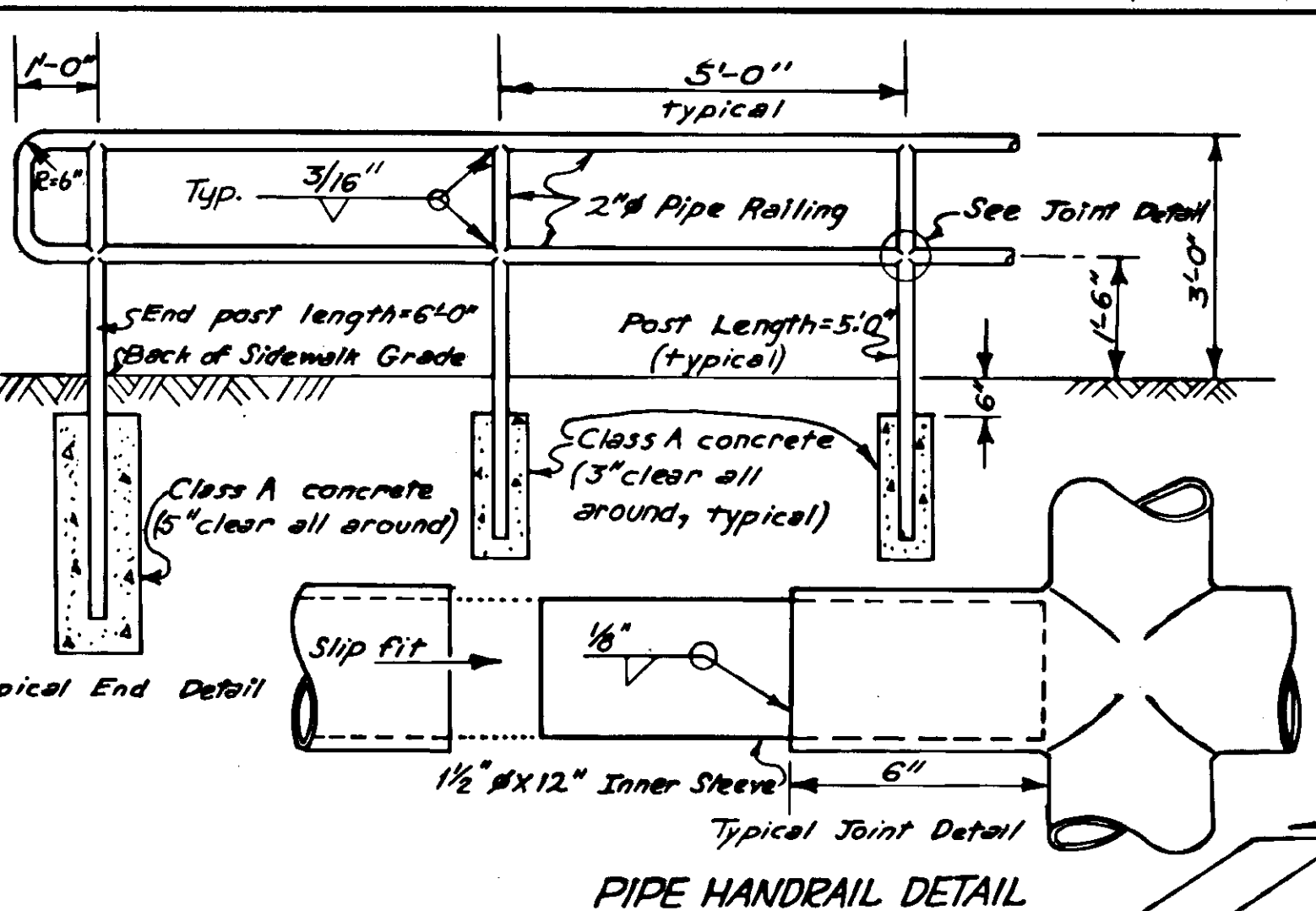
*Estimated Quantity 3 Tons

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------------------|------|-----------|--------------|
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MISCELLANEOUS DETAILS

SIDEWALK NOTES

1. The gap between back of curb and front of sidewalk varies from "L" 10+50 to "L" 12+25 and "L" 33+25 to "L" 34+25 to accommodate the guardrail transition flares as shown on Intersection Detail Sheets.
2. Sidewalk transition from Detail "A" to Detail "B" (this sheet) occurs from "L" 14+17.83 to "L" 14+58.00; transition from Detail "B" to Detail "A" occurs from "L" 27+62.00 to "L" 28+37.20.
3. Sidewalk grade transition from normal section to depressed sidewalk shall occur over a Longitudinal distance of 40'.
4. Install Post Corner Guard on all guardrail constructed adjacent to sidewalk (see detail); this work incidental to 606(1) Beam Type Guardrail.
5. Post Corner Guard shall be butt-jointed at Guardrail Post.



PIPE HANDRAIL NOTES

All fabricated parts shall be hot dip galvanized prior to erection.

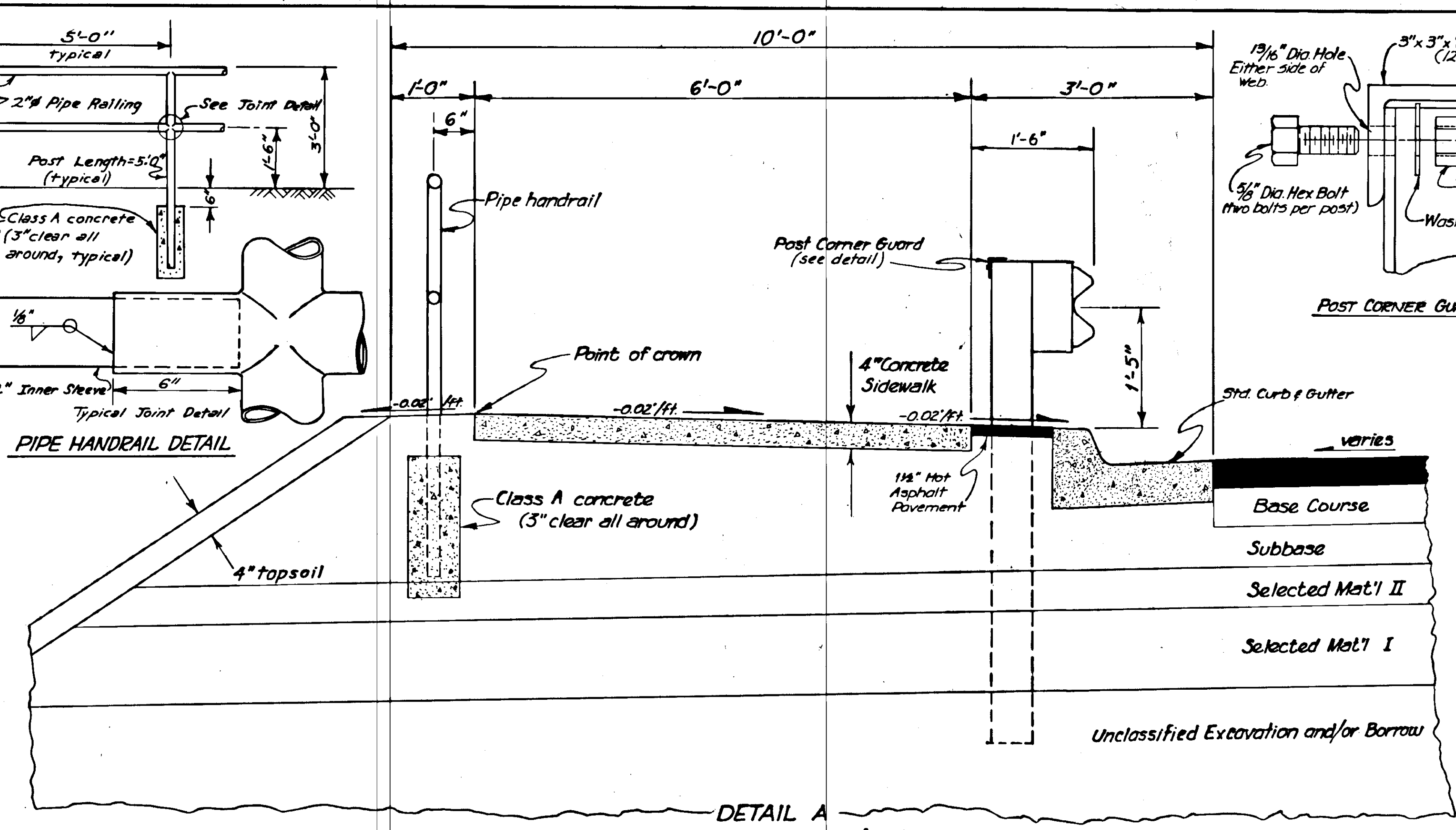
All burrs, cuts and welds shall be ground smooth prior to galvanizing.

Class A Concrete utilized in securing the railing posts shall be considered incidental to Item 625(1), Pipe Handrail.

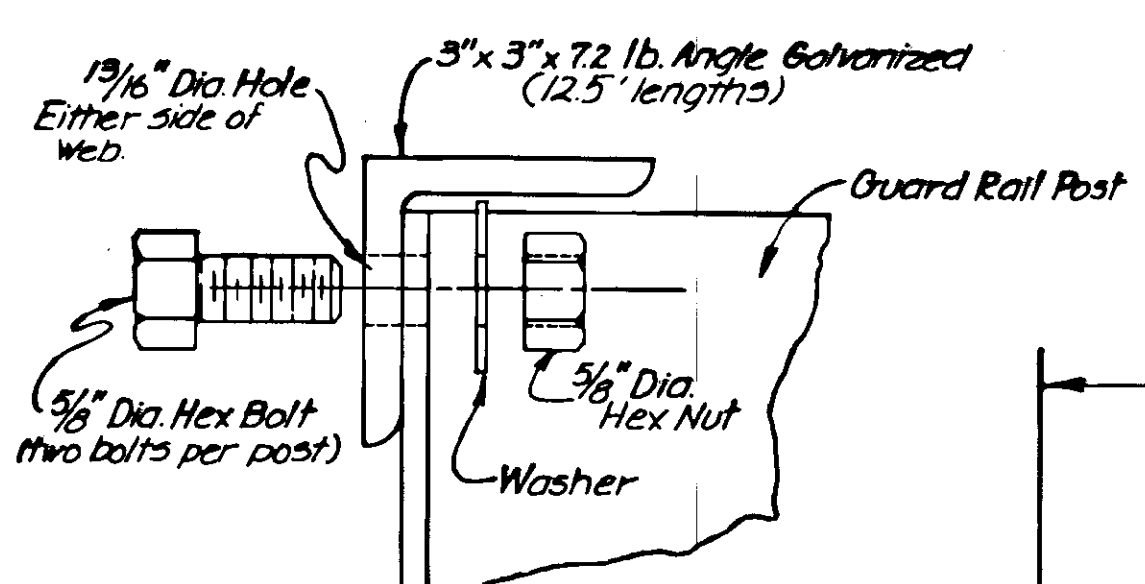
Pipe posts shall be normal to ground surface in a longitudinal direction and plumb in a transverse direction.

Finished gap between rail elements at slip joint shall be 1/8" or less.

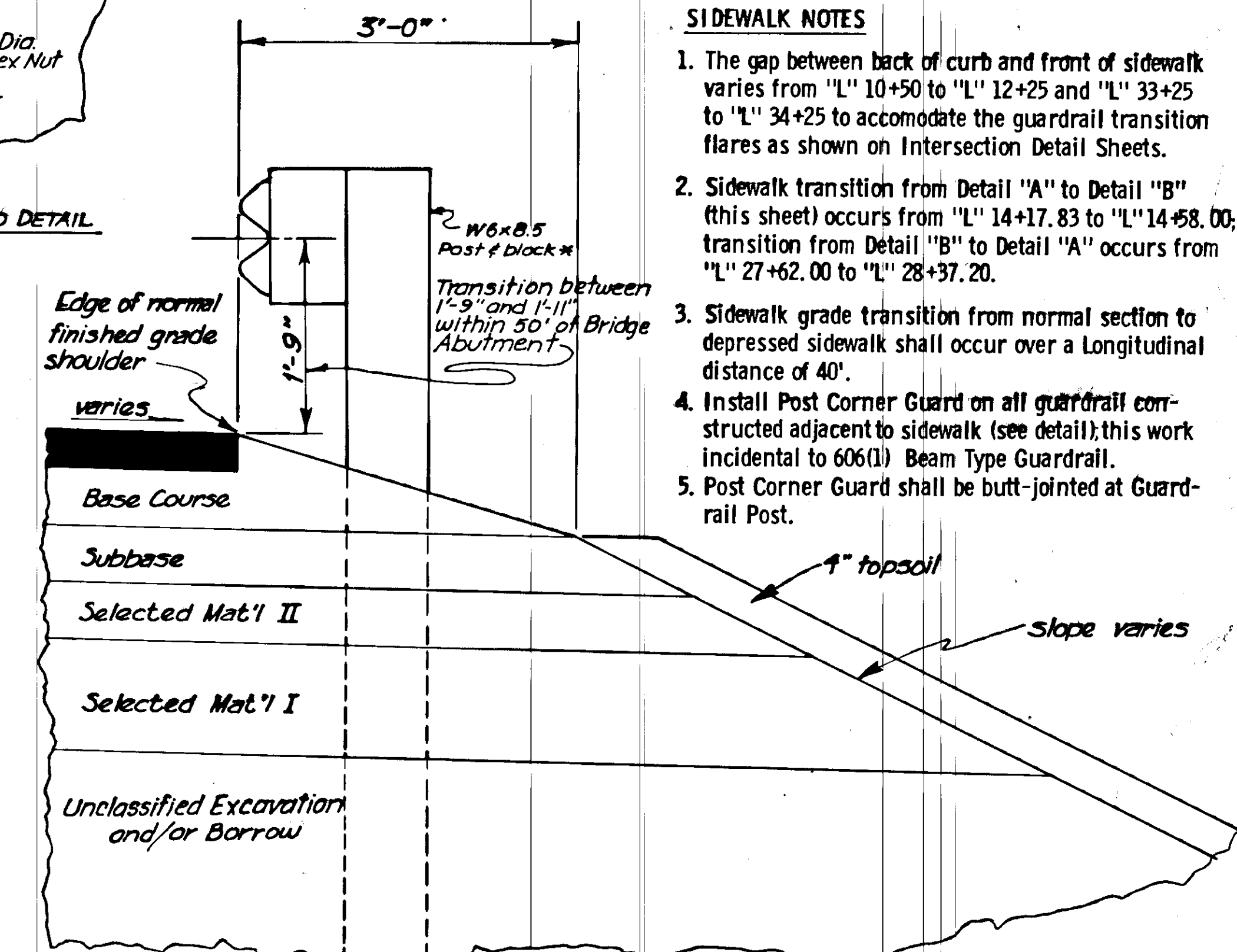
Points as detailed shall be provided at every third post.



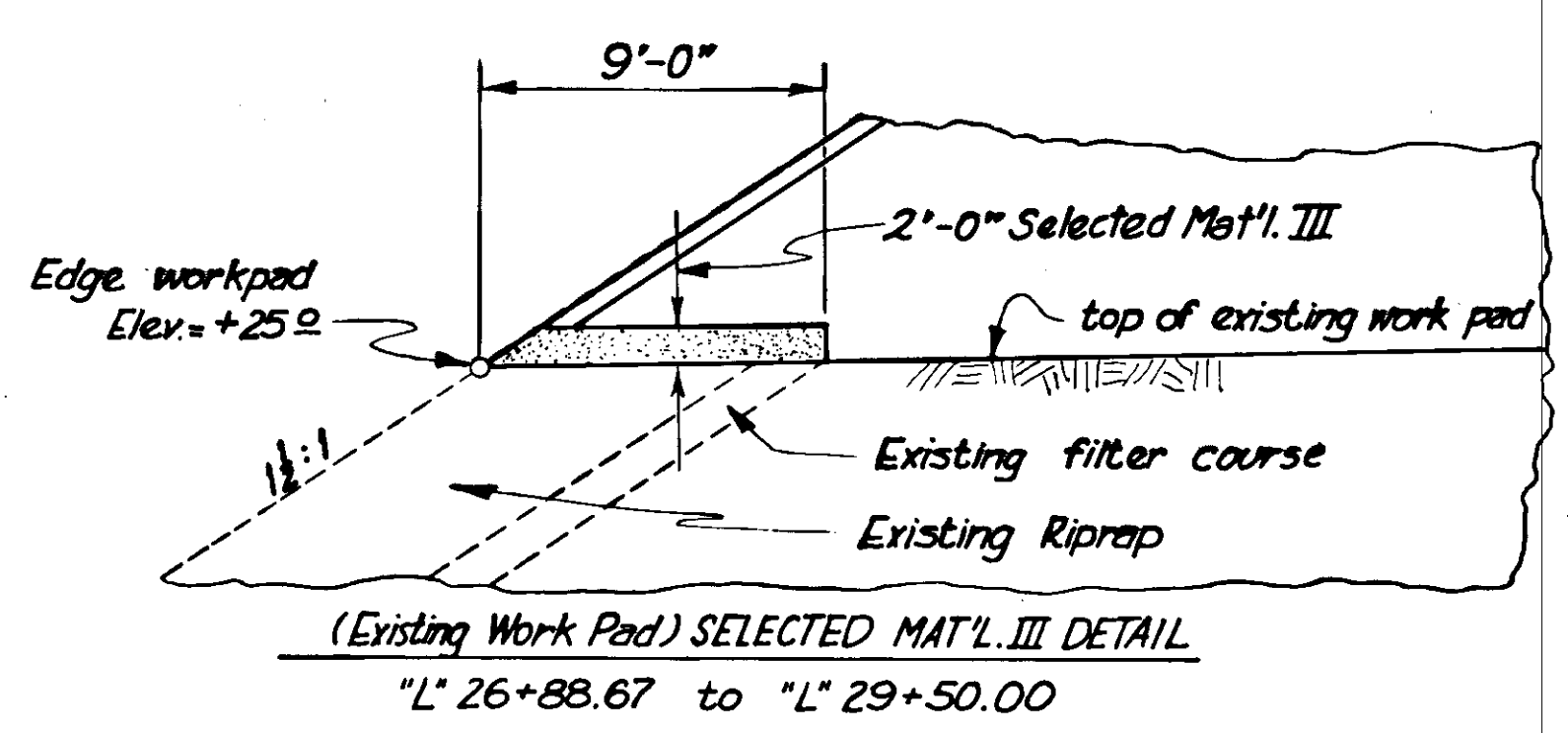
DETAIL A
CURB, GUTTER, GUARDRAIL & SIDEWALK
(Normal Section)



POST CORNER GUARD DETAIL

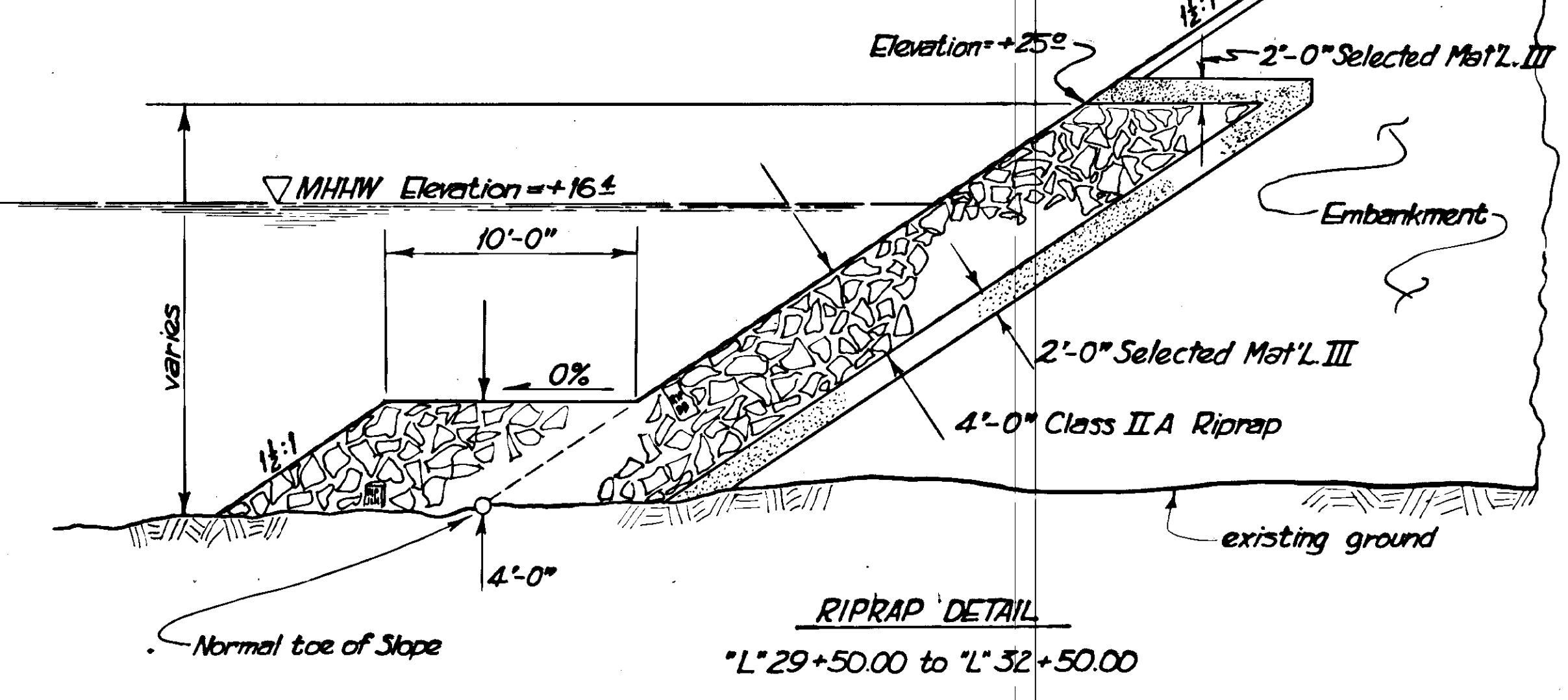


GUARDRAIL DETAIL

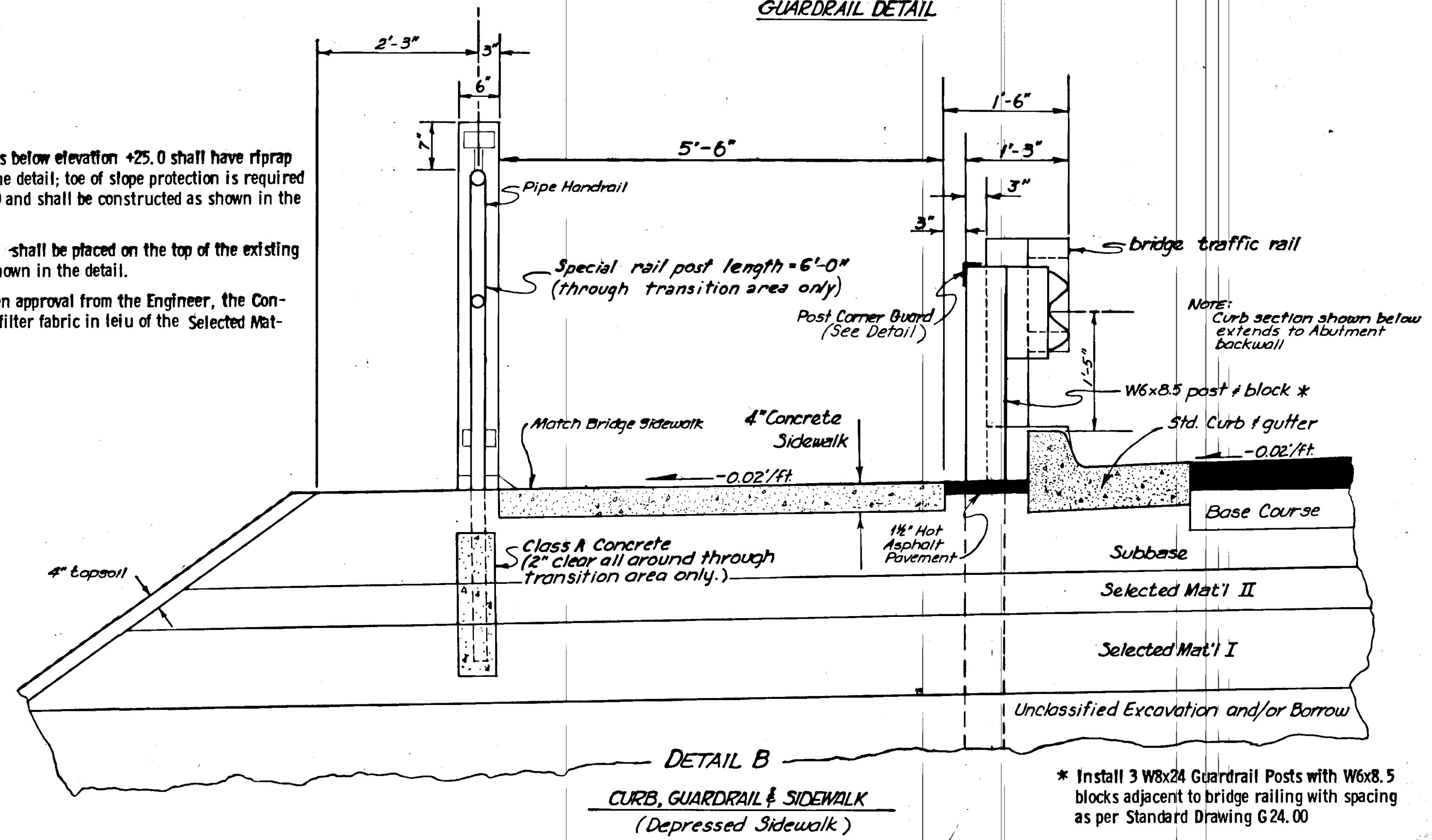


RIPRAP NOTES

1. All constructed slopes below elevation +25.0 shall have riprap placed as shown in the detail; toe of slope protection is required below elevation +25.0 and shall be constructed as shown in the detail.
2. Selected Material III shall be placed on the top of the existing work-pad riprap as shown in the detail.
3. Upon receiving written approval from the Engineer, the Contractor may utilize a filter fabric in lieu of the Selected Material III course.



RIPRAP DETAIL
"L" 29+50.00 to "L" 32+50.00

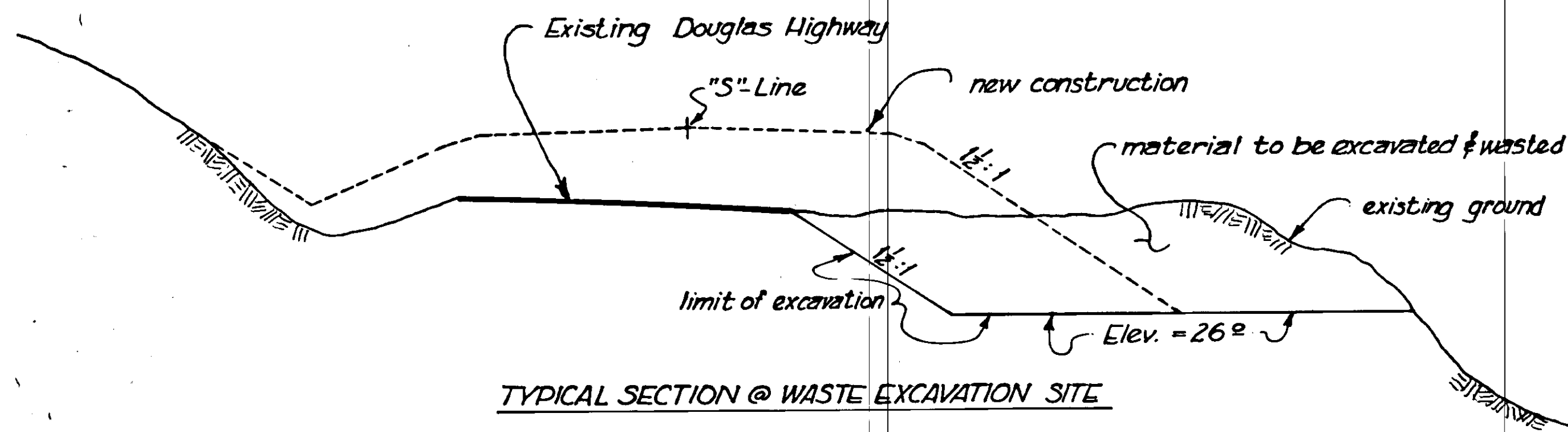


DETAIL B
CURB, GUARDRAIL & SIDEWALK
(Depressed Sidewalk)

* Install 3 W8x24 Guardrail Posts with W6x8.5 blocks adjacent to bridge railing with spacing as per Standard Drawing G24.00

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------------------------|------|-----------|--------------|
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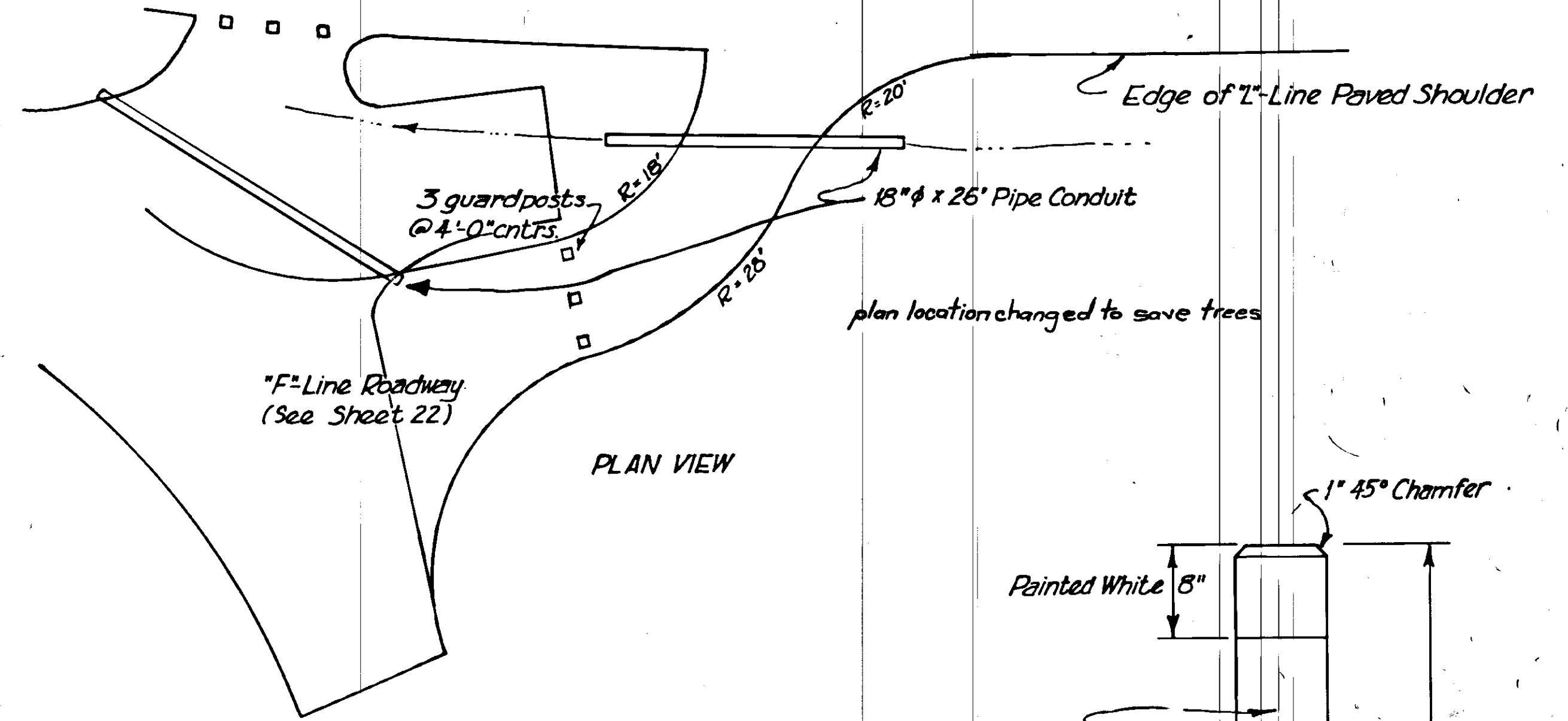
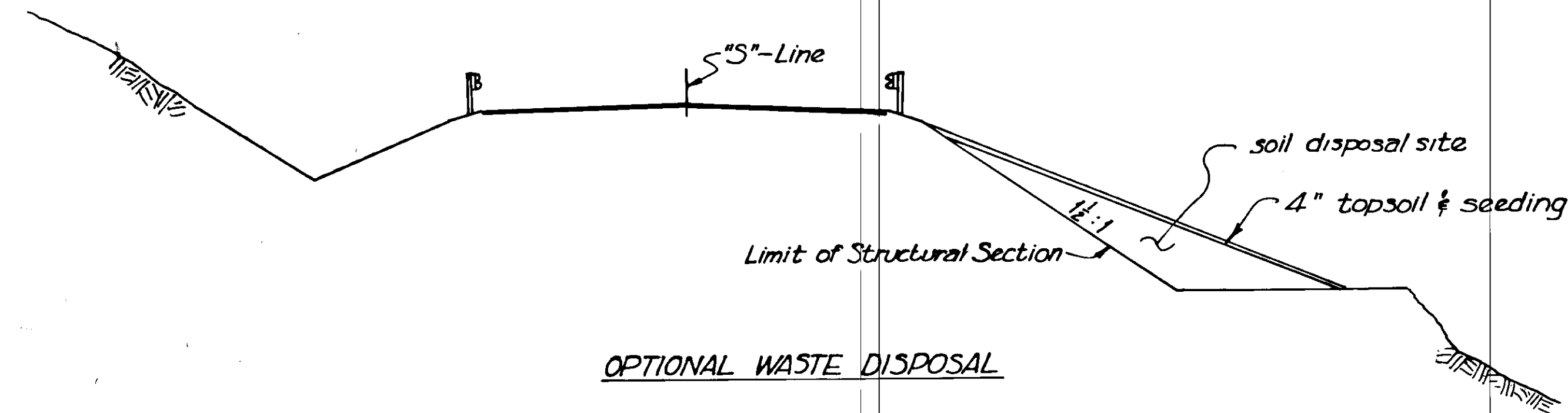
MISCELLANEOUS DETAILS



Waste Excavation Notes:

1. Begin waste excavation at "S" 15+50 at existing ground elevation; taper down to elevation 26.00 at "S" 15+80.83.
2. Limit of excavation shall be from the edge of existing pavement, sloping @ 1 1/2:1 to elev 26.00 as shown above.
3. All this work shall be paid for as Item 201 (3A) Clearing and Grubbing
4. After removing all tree trunks and limbs, car bodies, and other deleterious debris from the excavated material, the Contractor may dispose of the remaining soil as detailed below; the Contractor shall be responsible for disposing of all removed material.
5. Removal of waste material shall be as described above from "S" 15+50 to "S" 16+50.

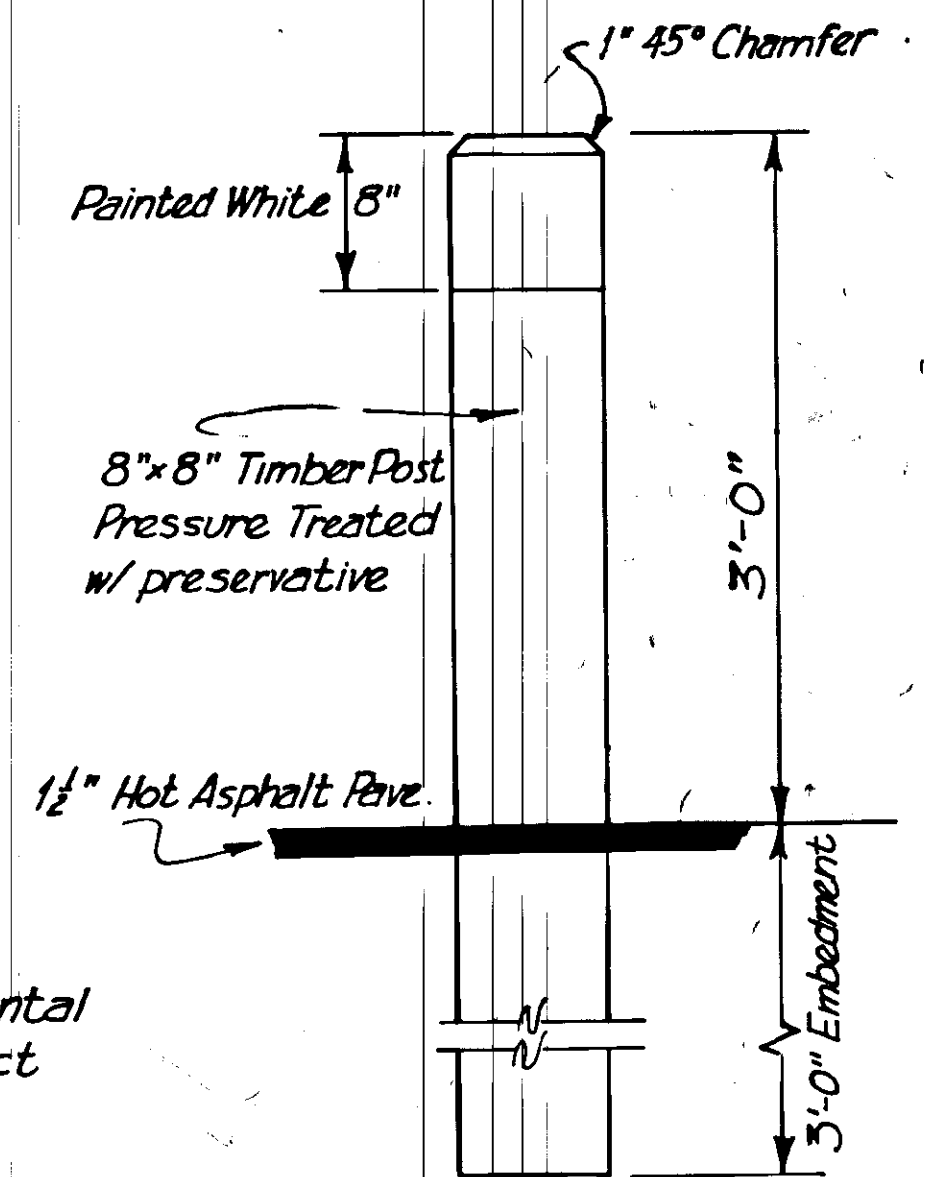
| Approximate Waste Excavation Quant. |
|-------------------------------------|
| BRS - M - 0958(2) - 150cy |
| BRS - 0959(10) - 520cy |



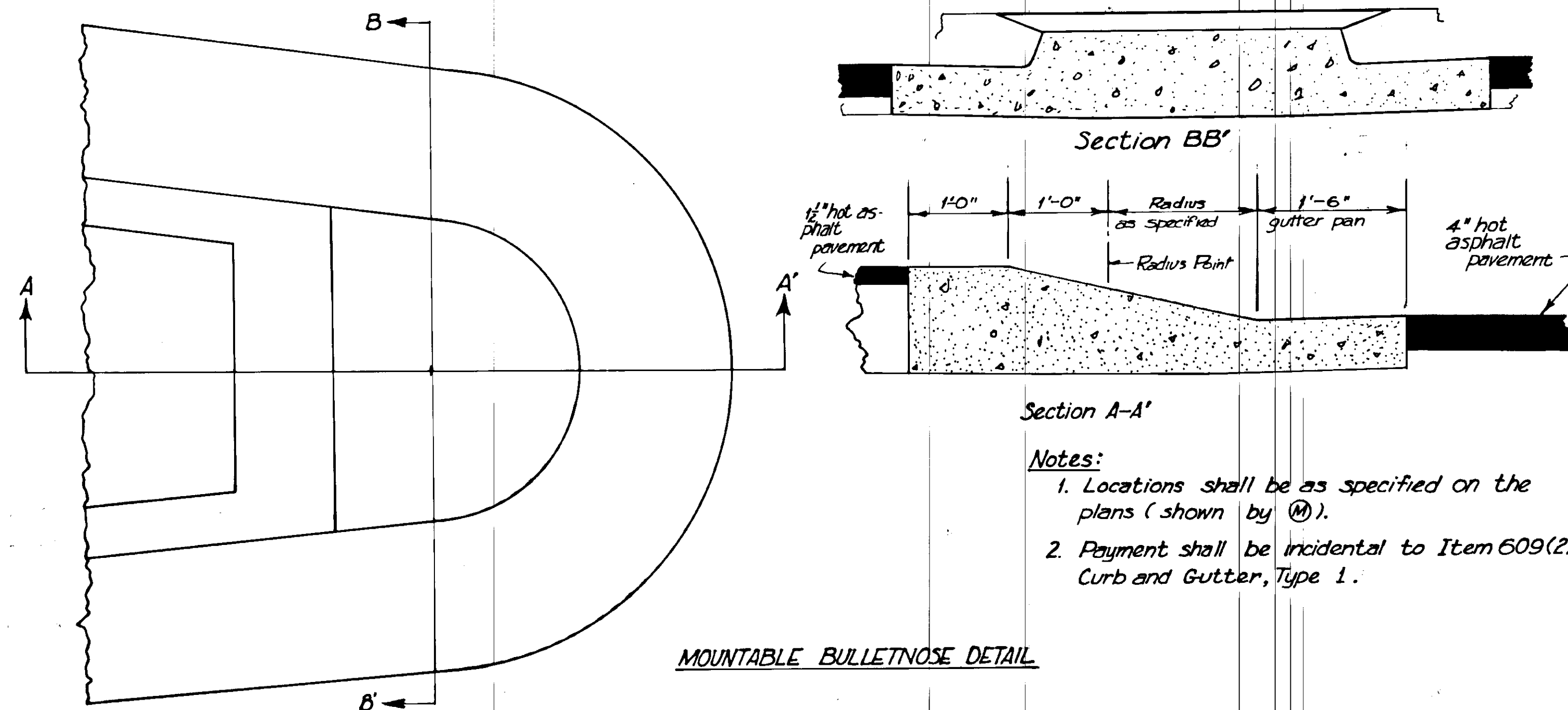
BIKEPATH CONNECTION DETAIL

Notes:

1. Bikepath connection shall be field-fit and shall be sloped to drain.
2. Guardposts shall be considered incidental to other item of work in this Contract and no special payment shall be made therefor.



GUARDPOST DETAIL



Notes:

1. Locations shall be as specified on the plans (shown by (X)).
2. Payment shall be incidental to Item 609(2) Curb and Gutter, Type 1.

MOUNTABLE BULLETNOSE DETAIL

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 11 | 110 |

TRAFFIC CONTROL PLAN

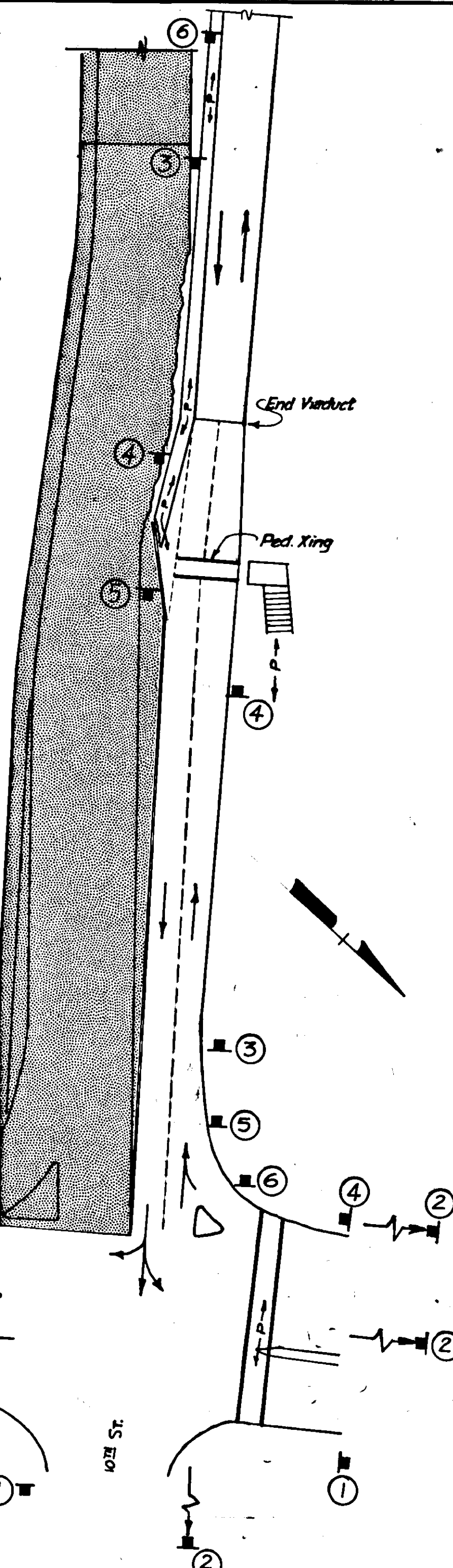
(EAST APPROACH)

NOTES:

- Following is a schematic plan depicting the sequence of public traffic routing to be used during the construction of this project. The Contractor shall use this Traffic Control Plan (TCP) or a plan of his own which shall have prior written approval of the Engineer.
- This work shall be scheduled to occur at such time when the new Gastineau Channel Bridge is near the stage of construction which will allow traffic to utilize it for crossing the channel. A total of 60 days will be allowed for construction of this approach, and for routing the traffic under this plan.
- This work shall also be scheduled to take place during the period between April 1 and November 1 of the construction year.
- The TCP shall be used in conjunction with, and in addition to, the Standard Drawings, the Standard and Special Provisions, the Alaska Traffic Manual and current industry standards for safe and efficient operation.
- Signs shown in the schematic shall be in-place only when the condition they warn about exists.
- The Contractor shall designate one of his employees to be responsible for the installation and maintenance for all required traffic control elements.
- Jersey Barrier shall have adequate traffic safety end-section, and shall require written approval of the Engineer.
- All temporary pavement markings shall conform to the Alaska Traffic Manual; the lines shown in the TCP are schematic only.

STAGE 1 SEQUENCE

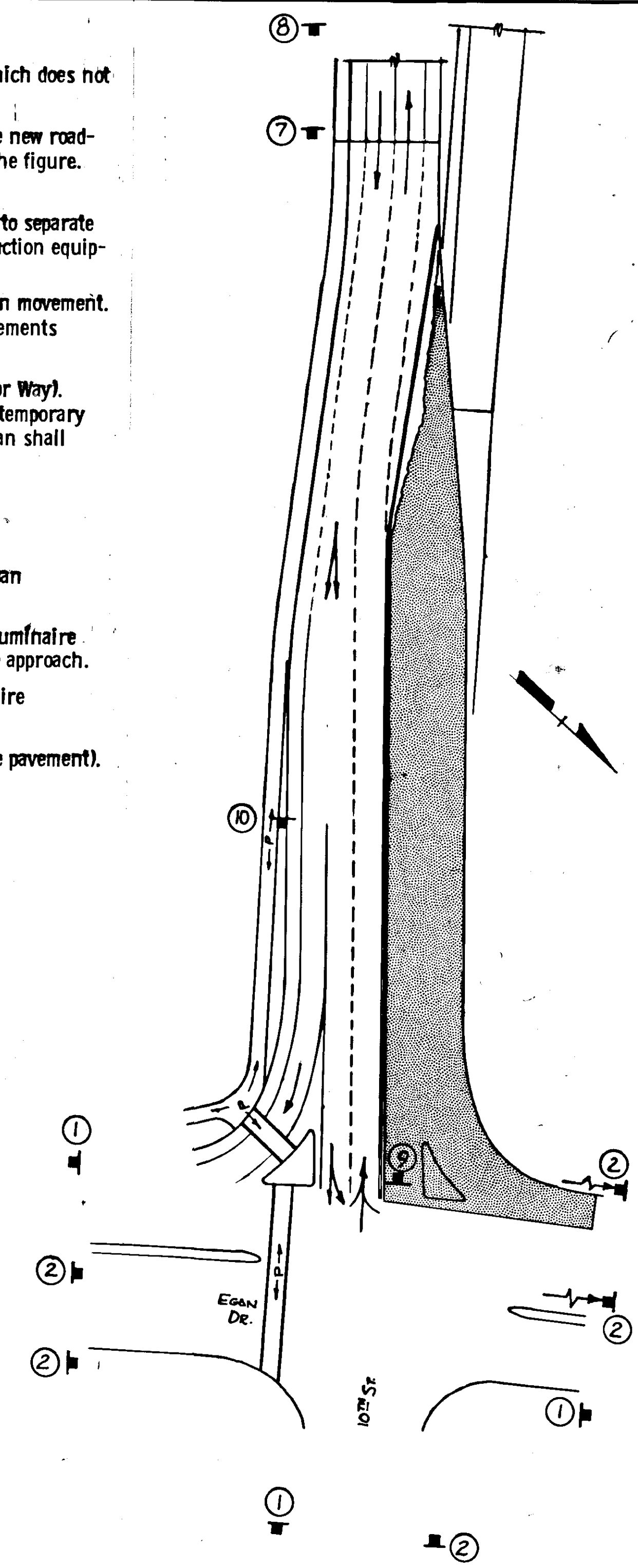
- Construct the new Gastineau Channel Bridge, the east abutment and the portion of the new approach fill which does not conflict with the existing roadway or sidewalk.
- The limit of construction is shown in the figure at left by the shaded area and extends to the center-line of the new roadway; as the new roadway and existing roadway diverge, full roadway width shall be constructed, as shown on the figure. The zone perimeter normally accessible to public vehicle intrusion shall be blocked with Type II Barricades.
- Portable Concrete Protective Barrier (Jersey Barrier) shall be installed adjacent to the detoured traffic lanes, to separate the construction zone from traffic. Sections of this Barrier may be moved occasionally to accommodate construction equipment, as approved by the Engineer.
- Temporary traffic markings shall be installed, as shown, to delineate the re-routed traffic lanes and pedestrian movement. Minimum maintained lane-width shall be 10 feet and shall be aligned as straight as possible with turning movements adequate to accommodate an AASHTO SU Design Vehicle.
- Pedestrian traffic shall be routed across the existing approach as shown, and down to the frontage road (Harbor Way). Crossing of the 10th Street and Egan Drive shall be via the temporary pavement marking crosswalk shown. A temporary timber frame stairway with railing shall be constructed down the slope from the approach to Harbor Way; a plan shall be submitted to the Engineer for approval.
- Traffic signal shall be modified as follows:
 - A loop shall be installed to actuate the signal for traffic coming off the bridge.
 - Pedestrian heads shall be installed to accommodate the pedestrians negotiating the temporary crossing of Egan Drive.
- Temporary illumination shall be installed at the Egan Drive - 10th Street Intersection to replace the removed luminaire in the construction zone. Temporary illumination shall also be placed to serve the pedestrian crossing on the approach.
- Transitions to and from the above described detour, and occasional interruptions of detoured traffic, will require flagging operations.
- Pave construction zone with 2" lift of pavement to within 50' of the new bridge (then full depth to match bridge pavement). Temporary pavement wedges shall be utilized at connections.



STAGE 1

STAGE 2 SEQUENCE

- Transition from Stage 1 detour to Stage 2 detour shall require a shifting of the Jersey Barrier to left of "L"-line or edge of new pavement resulting from Stage 1 construction.
- Temporary traffic markings shall be installed, as shown, to delineate the re-routed traffic lanes; minimum maintained lane width shall be 10 feet and shall be aligned as straight as possible with turning movements of adequate radius to accommodate an AASHTO SU Design Vehicle.
- Temporary illumination and signalization from Stage 1 can be removed and replaced with the permanent facility specified in the project. Services of these items shall be continuous during the transfer of detours.
- Divert traffic onto new bridge and portion of approach completed during Stage 1 (East and West).
- All portions of work which involve activity adjacent to the unprotected traffic shall be kept to a minimum and shall require continuous flagging operation. Construction zone perimeter normally accessible to public vehicle intrusion shall be blocked with Type II Barricades.
- Remove concrete viaduct portion of the existing Gastineau Channel Bridge in conformance with these plans and specifications; construct the shaded portion in figure as required, paving to a depth of 2".
- Disassemble and remove Jersey Barrier using flagging operation to protect travelling public during this operation.
- Final 2" lift of pavement shall be placed adjacent to "L"-line and, in a working-outward fashion, completed to the curb and gutter. Continuous flagging and signing, normal to paving procedures, shall be required during this portion of the work.
- Install permanent pavement markings and open completed approach to public use.



STAGE 2

CONSTRUCTION SIGN TABLE (All Inclusive)

| Q'ty | Type | Legend | Size | Total |
|------|---------|----------------------------|---------|-----------------|
| | CI-2 | End Construction | 60 X 24 | 50 |
| | CW20-1 | Road Construction 1000 Ft. | 48 X 48 | 80 |
| | CW21-4 | Road Work Ahead | 36 X 36 | 36 |
| | CW11A-2 | Pedestrian Crossing | 36 X 36 | 18 |
| | R5-3 | Pedestrians Prohibited | 24 X 12 | 4 |
| | CW21-5 | Shoulder Work | 30 X 30 | 12.50 |
| | CW21-1 | Men Working | 30 X 30 | 12.50 |
| | CW20-7A | Flagman 500 Ft. | 48 X 48 | 32 |
| | CW20-7F | Flagman Ahead | 48 X 48 | 32 |
| | R3-7R | Right Lane Must Turn Right | 30 X 30 | 6.25 |
| | CW20-4 | One Lane Road 500 Ft. | 48 X 48 | 32 |
| | CW20-2F | Detour Ahead | 48 X 48 | 64 |
| | CW21-7 | Truck Crossing | 36 X 36 | 18 |
| | M4-10R | Detour → | 48 X 18 | 12 |
| | M4-10L | ← Detour | 48 X 18 | 12 |
| | CW20-2 | Detour 500 Ft. | 48 X 48 | 32 |
| | RI-1 | Stop | 30 X 30 | 6.25 |
| | | TOTAL | | 459.50sf |

ESTIMATE OF TRAFFIC CONTROL QUANTITIES

| Item No. | Item | Unit | Quant. |
|----------|--------------------------------------|----------|-----------|
| 115(1) | Flagging | Man-Hr | 650 |
| 115(2) | Temporary Pavement Markings | Lin. Ft. | 3,000 |
| 115(3) | Construction Signing | Lump Sum | All Req'd |
| 115(4) | Temporary Lighting | Each | 6 |
| 115(5) | Detour Embankment | Ton | 900 |
| 115(6) | Portable Concrete Protective Barrier | Lin. Ft. | 700 |
| 115(7) | Temporary Stairway | Lump Sum | All Req'd |
| 115(8) | Type II Barricades | Each | 45 |

LEGEND

- (Applies to East and West Approach)
- Zone Under Construction
 - Portable Concrete Protective Barrier (Jersey Barrier)
 - Temporary Pavement Marking
 - Lane of Traffic Flow
 - Pedestrian Movement
 - Temporary Sign and Ident. Code
 - Temporary Illumination

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) BRS-0959(10) | 1979 | 12 | 110 |

TRAFFIC CONTROL PLAN

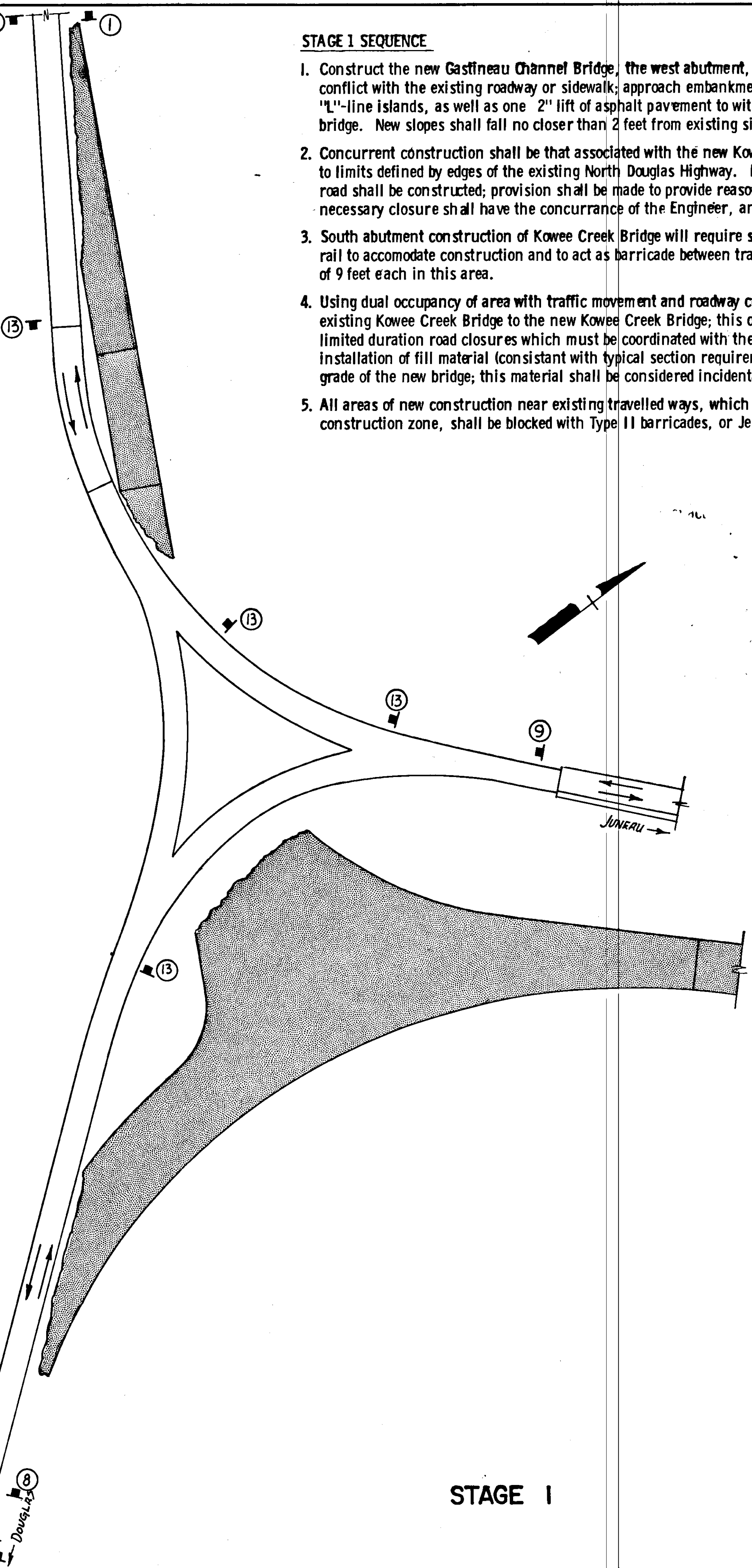
(WEST APPROACH)

NOTES:

- Following is a schematic plan depicting the sequence of public traffic routing to be used during the construction of this project. The Contractor shall use this Traffic Control Plan (TCP) or a plan of his own which will have the prior written approval of the Engineer.
- This work shall be scheduled to occur at such time when the new Gastineau Channel Bridge is near the stage of construction which will allow traffic to utilize it for crossing the channel. A total of 90 days will be allowed for construction of this approach, and for routing the traffic under this plan.
- This work shall also be scheduled to take place during the period between April 1 and November 1 of the construction year.
- The TCP shall be used in conjunction with, and in addition to, the Standard Drawings, The Standard and Special Provisions, the Alaska Traffic Manual and current industry standards for safe and efficient operation.
- Signs shown in the schematic shall be in-place only when the condition they warn about exists.
- The Contractor shall designate one of his employees to be responsible for the installation and maintenance for all required traffic control elements.
- The existing school crossing and warning flasher shall be protected, maintained and kept functioning during the periods from April 1 to June 10 and from August 15 to November 1.
- Temporary Pavement markings shall conform to the Alaska Traffic Manual; lines shown on the TCP are schematic only.

STAGE 1 SEQUENCE

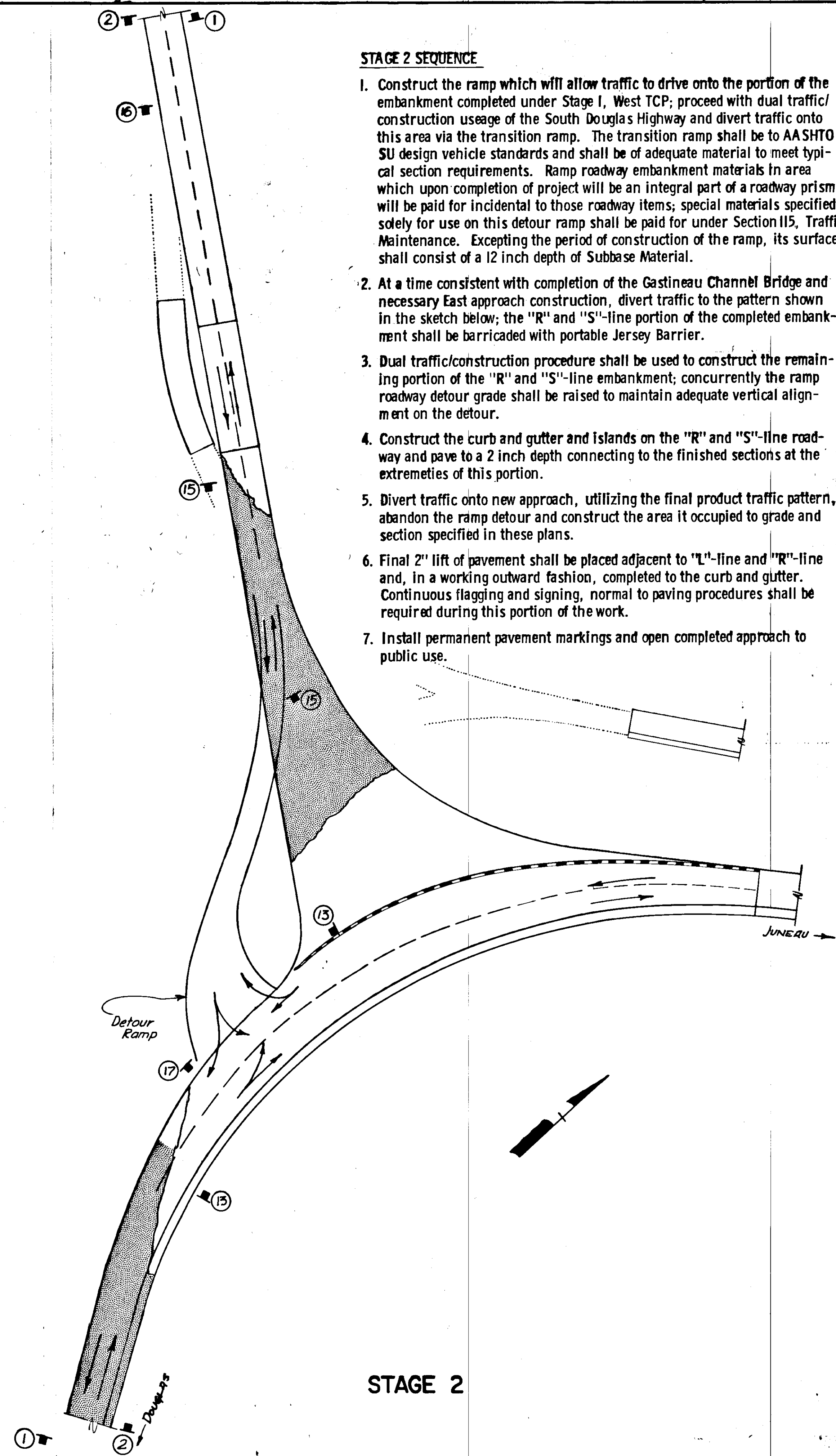
- Construct the new Gastineau Channel Bridge, the west abutment, and the portion of the new approach fill which does not conflict with the existing roadway or sidewalk; approach embankment construction shall include completion of sidewalk and "L"-line islands, as well as one 2" lift of asphalt pavement to within 50' of new bridge, then transitioning to full depth at bridge. New slopes shall fall no closer than 2 feet from existing sidewalk or travelled way of the existing Douglas Highway.
- Concurrent construction shall be that associated with the new Kowee Creek Bridge. Construct approach fills for that bridge to limits defined by edges of the existing North Douglas Highway. During this portion of construction, the "T"-line approach road shall be constructed; provision shall be made to provide reasonable continuous access for the property owner, any necessary closure shall have the concurrence of the Engineer, and shall be of limited duration.
- South abutment construction of Kowee Creek Bridge will require slight intrusion into the existing roadway; reposition guard-rail to accommodate construction and to act as barricade between traffic and work area. Traffic lanes shall be a minimum width of 9 feet each in this area.
- Using dual occupancy of area with traffic movement and roadway construction, begin the transition of traffic useage from the existing Kowee Creek Bridge to the new Kowee Creek Bridge; this operation will require the use of flagmen and occasional limited duration road closures which must be coordinated with the Engineer. South approach connection will require the installation of fill material (consistant with typical section requirements) to accomodate the approximately 2-foot higher grade of the new bridge; this material shall be considered incidental to roadway embankment items.
- All areas of new construction near existing travelled ways, which are capable of having public traffic infiltrate the construction zone, shall be blocked with Type II barricades, or Jersey Barrier, as specified.



STAGE 1

STAGE 2 SEQUENCE

- Construct the ramp which will allow traffic to drive onto the portion of the embankment completed under Stage 1, West TCP; proceed with dual traffic/construction useage of the South Douglas Highway and divert traffic onto this area via the transition ramp. The transition ramp shall be to AASHTO SU design vehicle standards and shall be of adequate material to meet typical section requirements. Ramp roadway embankment materials in area which upon completion of project will be an integral part of a roadway prism will be paid for incidental to those roadway items; special materials specified solely for use on this detour ramp shall be paid for under Section 115, Traffic Maintenance. Excepting the period of construction of the ramp, its surface shall consist of a 12 inch depth of Subbase Material.
- At a time consistent with completion of the Gastineau Channel Bridge and necessary East approach construction, divert traffic to the pattern shown in the sketch below; the "R" and "S"-line portion of the completed embankment shall be barricaded with portable Jersey Barrier.
- Dual traffic/construction procedure shall be used to construct the remaining portion of the "R" and "S"-line embankment; concurrently the ramp roadway detour grade shall be raised to maintain adequate vertical alignment on the detour.
- Construct the curb and gutter and islands on the "R" and "S"-line roadway and pave to a 2 inch depth connecting to the finished sections at the extremities of this portion.
- Divert traffic onto new approach, utilizing the final product traffic pattern, abandon the ramp detour and construct the area it occupied to grade and section specified in these plans.
- Final 2" lift of pavement shall be placed adjacent to "L"-line and "R"-line and, in a working outward fashion, completed to the curb and gutter. Continuous flagging and signing, normal to paving procedures shall be required during this portion of the work.
- Install permanent pavement markings and open completed approach to public use.

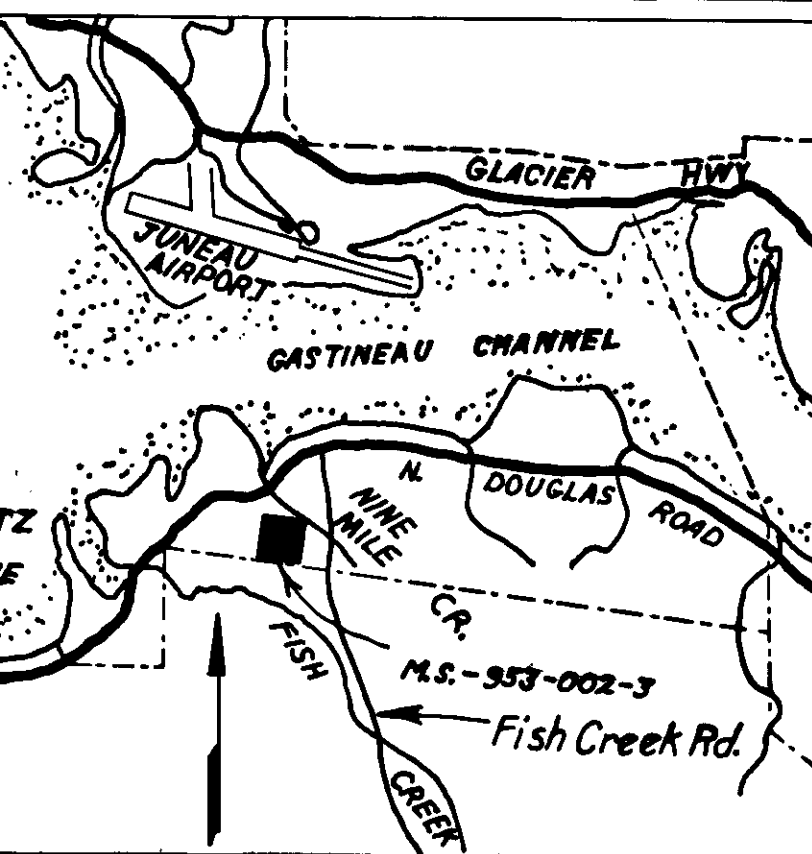


STAGE 2

See Sheet #11 for Legend, Estimate of Traffic Control Quantities, and Signing Codes.

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) BRS-0959(10) | 1979 | 13 | 110 |

CONTROL



STATE FURNISHED MATERIALS SITE

DISCRIPTION

M. S. 953-002-3

A portion of Lot 1, USS 3559, Section 11, R66E, T41S CRM (protracted) more particularly described as follows:

Beginning at Cor. No. 1 M. S. 953-002-3, a point on line 2-3 USS 3559 common with a line of USS 5504 from which Cor. No. 3, Lot US\$ 3559 common with Cor. 3 USS 3559 BEARS N83°18' W a distance of 2,949.44 feet; Thence N 6°42' E a distance of 1100 feet to Cor. 2 M. S. 953-002-3; Thence S 83°18' E, a distance of 1,000.00 feet to Cor. 3; Thence S 6°42' W, a distance of 1100 feet to Cor. 4 M. S. 953-002-3; Thence N 83°18' W a distance of 1,000.00 feet to Cor. 1 M. S. 953-002-3, the place of Beginning: Containing in all 25.25 acres.

NOTES:

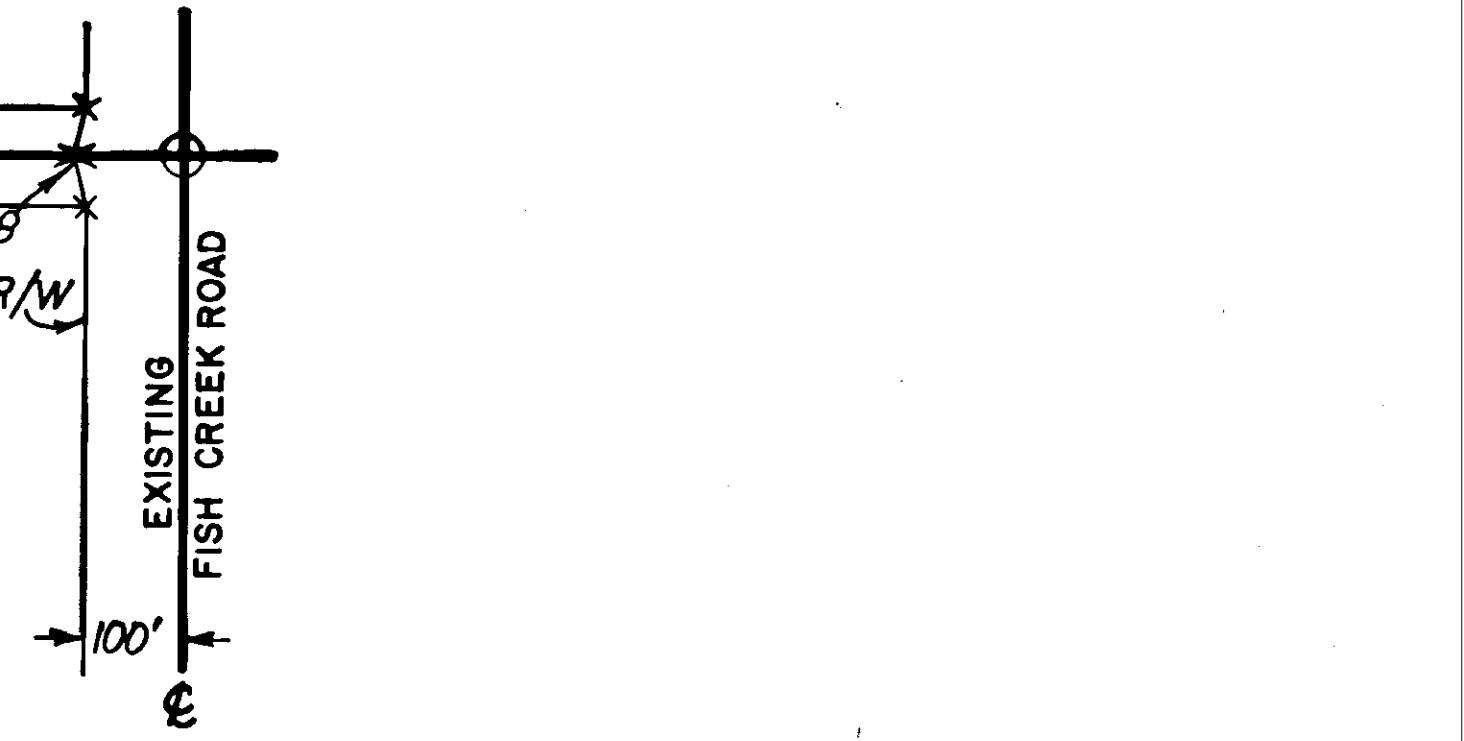
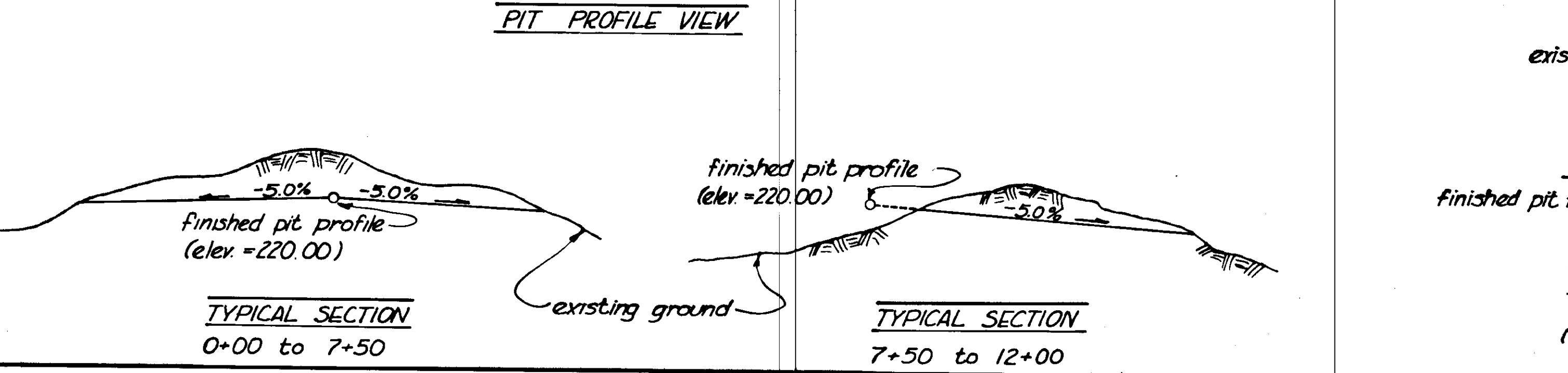
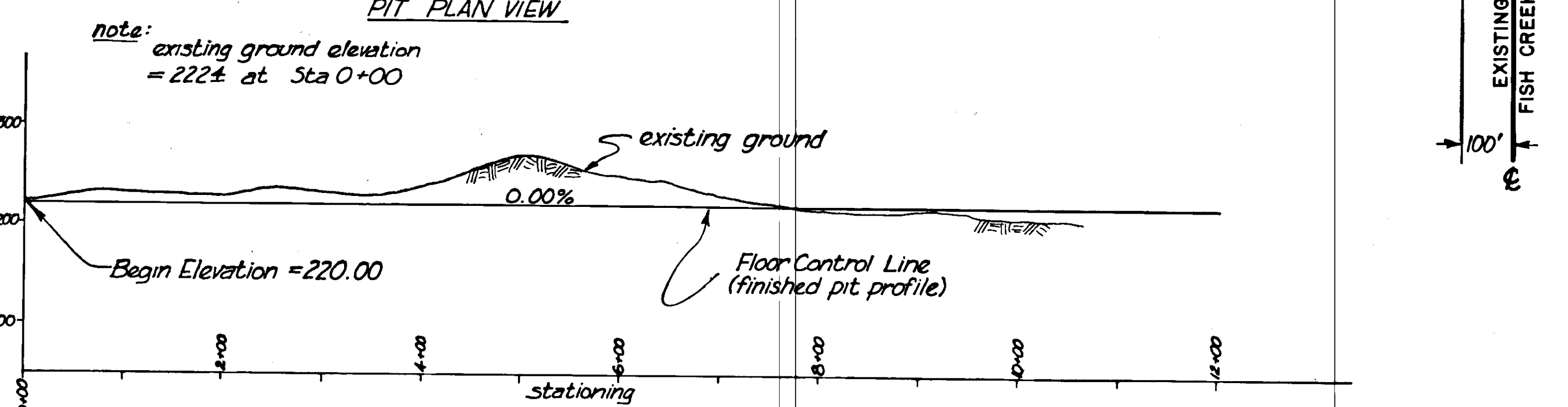
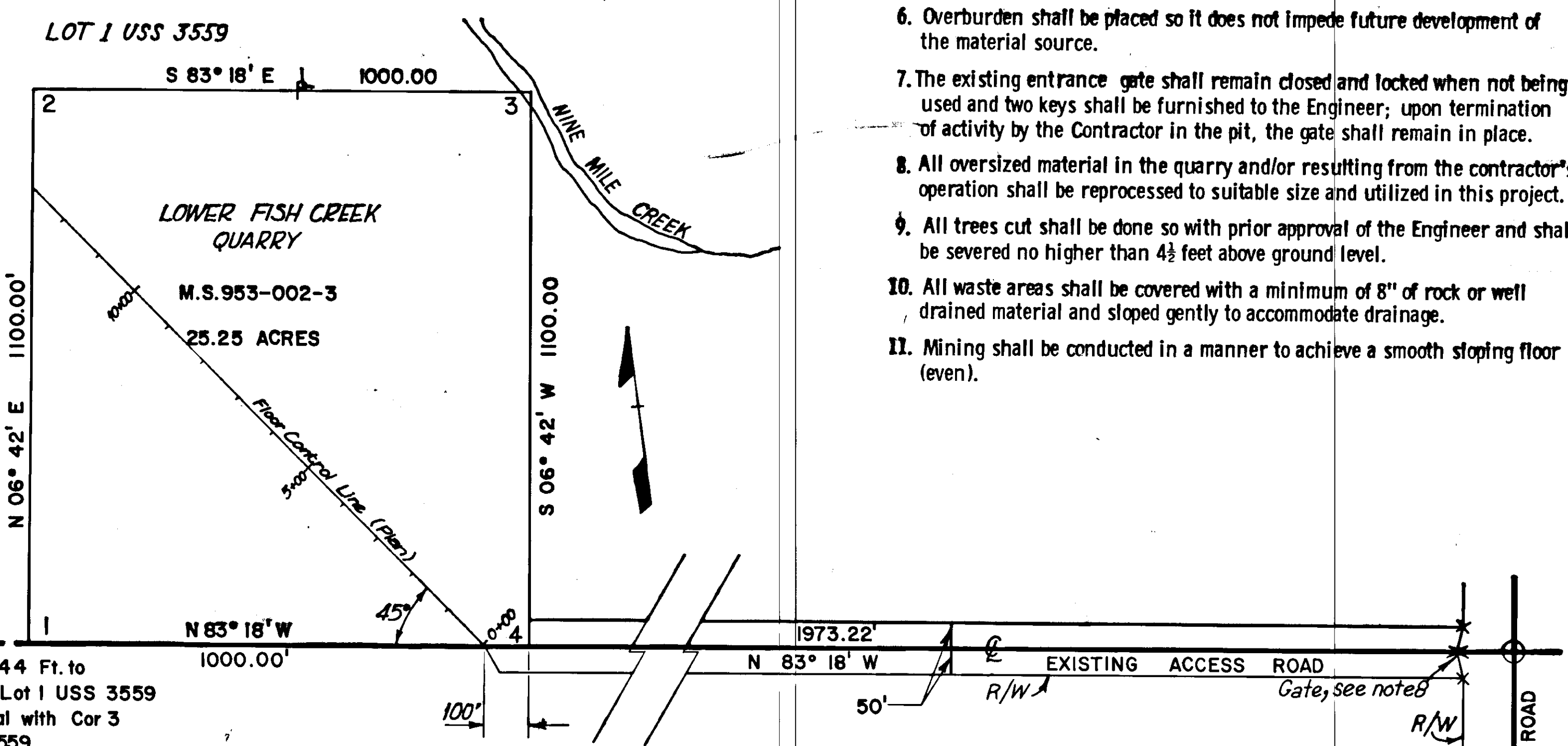
1. If material is to be excavated in such a manner as to leave near-vertical faces, no unbenched face shall be left greater than 20' in height.
2. On benched faces, the benches shall be accessible and of sufficient width to allow future development of this area as a source of material.
3. No excavation shall remain upon completion of materials removal which can impound water.
4. No stockpile shall remain upon completion of materials removal unless approved by the Engineer.
5. Upon completion of materials removal, no equipment or debris shall remain in the area. Clean-up shall be performed to the satisfaction of the Engineer.
6. Overburden shall be placed so it does not impede future development of the material source.
7. The existing entrance gate shall remain closed and locked when not being used and two keys shall be furnished to the Engineer; upon termination of activity by the Contractor in the pit, the gate shall remain in place.
8. All oversized material in the quarry and/or resulting from the contractor's operation shall be reprocessed to suitable size and utilized in this project.
9. All trees cut shall be done so with prior approval of the Engineer and shall be severed no higher than 4½ feet above ground level.
10. All waste areas shall be covered with a minimum of 8" of rock or well drained material and sloped gently to accommodate drainage.
11. Mining shall be conducted in a manner to achieve a smooth sloping floor (even).
12. The contractor shall maintain that portion of the Fish Creek Road between the North Douglas Highway and the access road to the State Furnished Materials Site in a safe, passable condition whenever material is being transported from the materials site. Maintenance shall include, but not to be limited to, blading, watering for dust control, snow removal and sanding as required. When hauling operations have been completed, both the aforementioned portion of Fish Creek Road and the access road to the materials site shall be returned to their original condition by the contractor. All work and materials required for this maintenance shall be considered incidental to other items of work.
13. Upon commencement of work in the Pit, the Contractor shall begin removing material from Station 0+00 and continue removal ahead on-station at the alignment, grade and section shown.
14. All trees, stumps, brush and other organic substance removed to obtain material from the Pit, shall be disposed of by the Contractor.
15. A 100' minimum undisturbed buffer area shall be maintained between the quarry and Ninemile Creek; no direct runoff from the quarry will be allowed to be discharged into defined drainages to include Ninemile Creek.

VERTICAL CONTROL

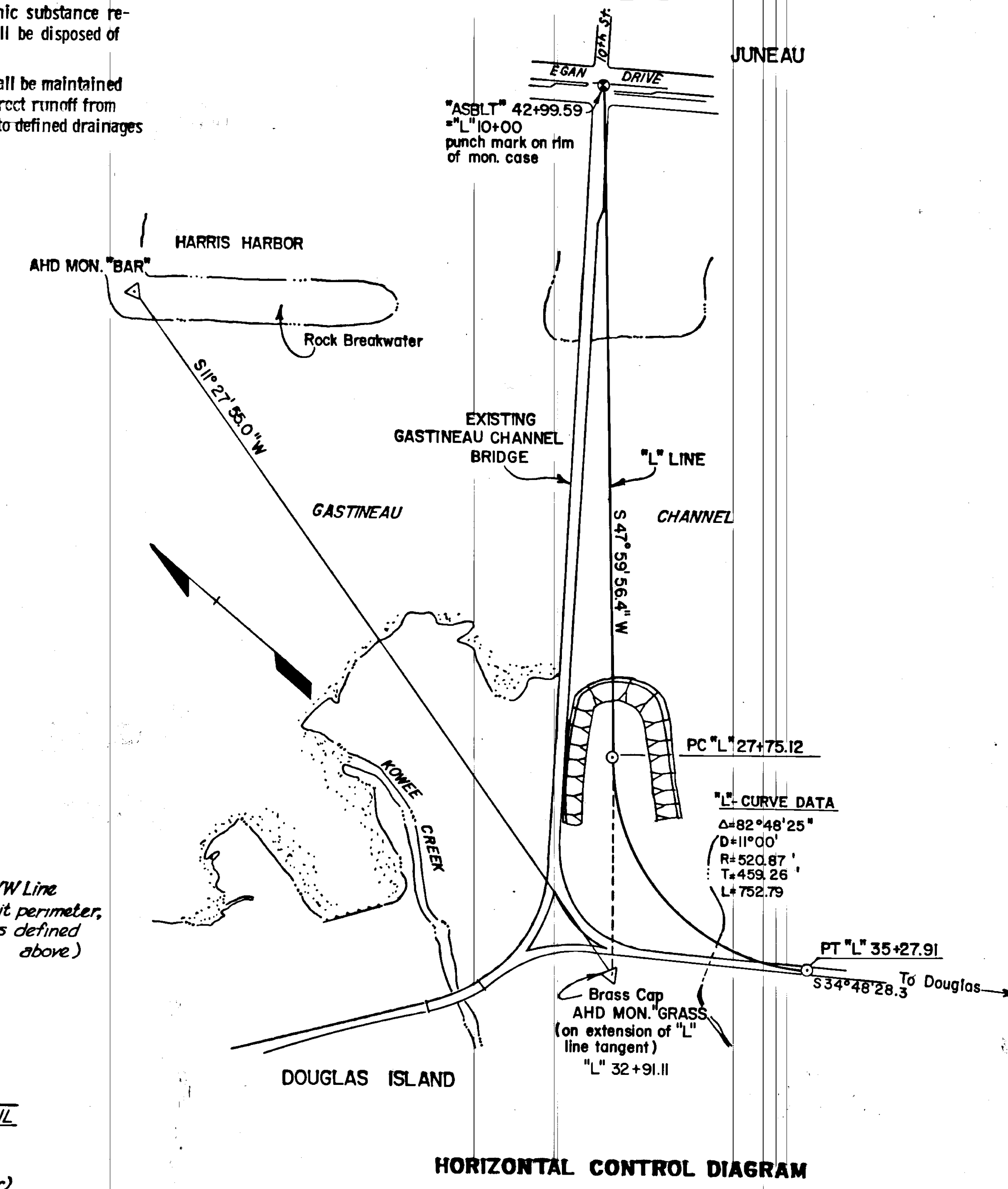
The datum employed was based upon USC&GS 1960 MLLW Elevation of O. O. Tidal Bench Mark #21, located in the circular base for a flagpole in front of the Alaska National Guard Armory, is 25.93 feet above MLLW, and its elevation is 25.93. (MLLW=Mean Lower Low Water)

HORIZONTAL CONTROL

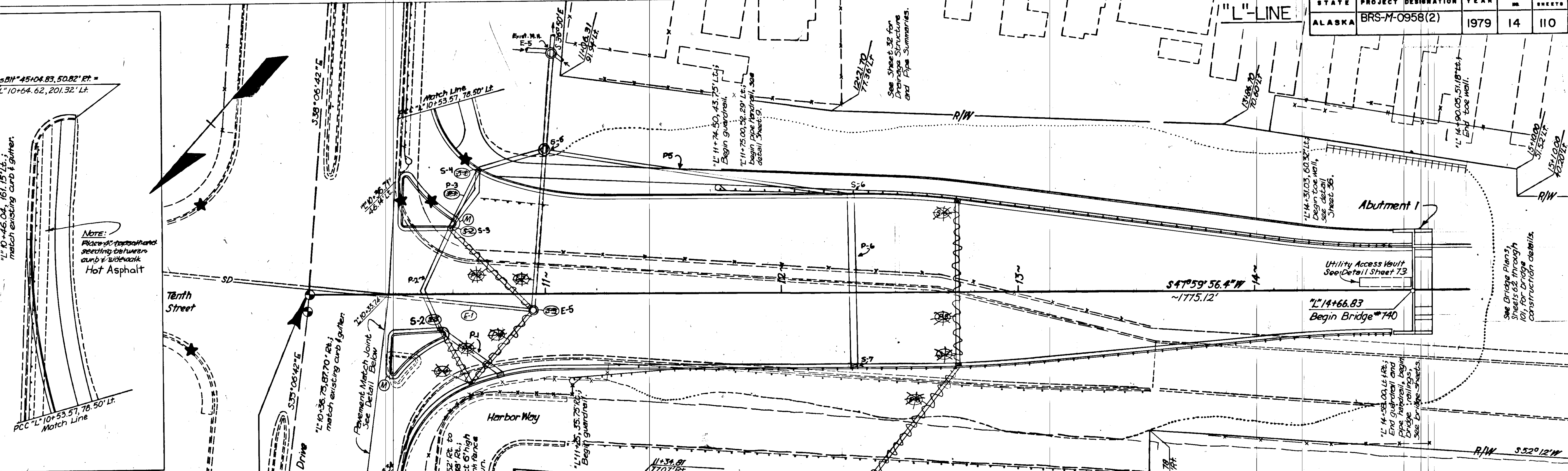
Alaska Highway Department (AHD) Monuments "BAR" (N 2 363 998.907, E 2 538 876.690) and "GRASS" (N 2 361 986.725, E 2 538 443.832) are used as base reference line; the mean azimuth correction is $\delta = -0^{\circ}40'30''$ and the mean scale factor = 0.999933.



PIT FLOOR/PERIMETER INTERSECTION DETAIL
not to scale
(for use where section does not daylight prior to intersection with pit perimeter)



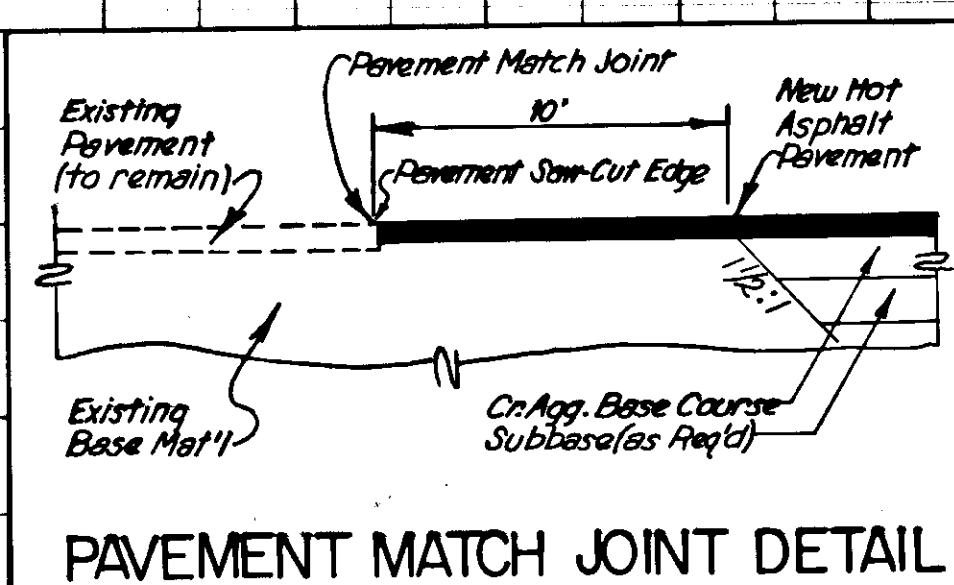
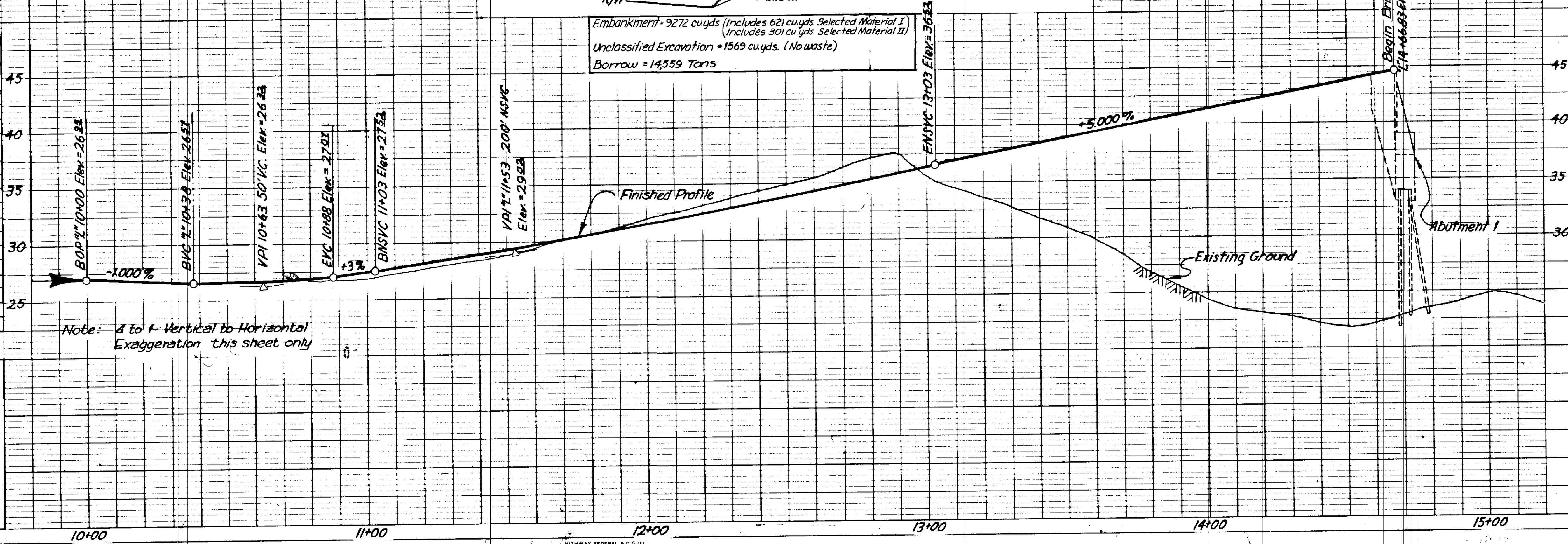
HORIZONTAL CONTROL DIAGRAM



BEGIN PROJECT BRS-M-0958(2)
 "L" 10+00 = "AsBit" 42+99.59
 PROJECT F-0958(13)

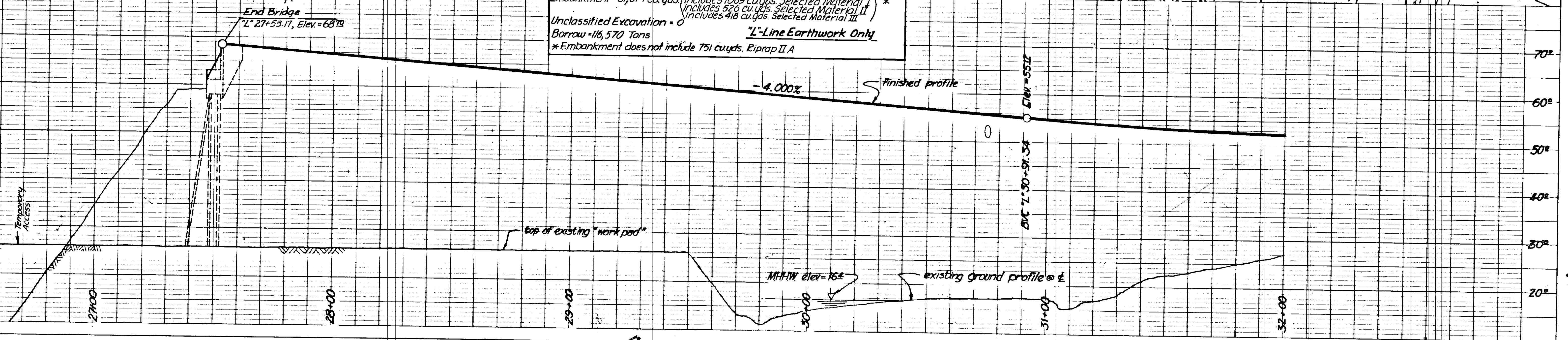
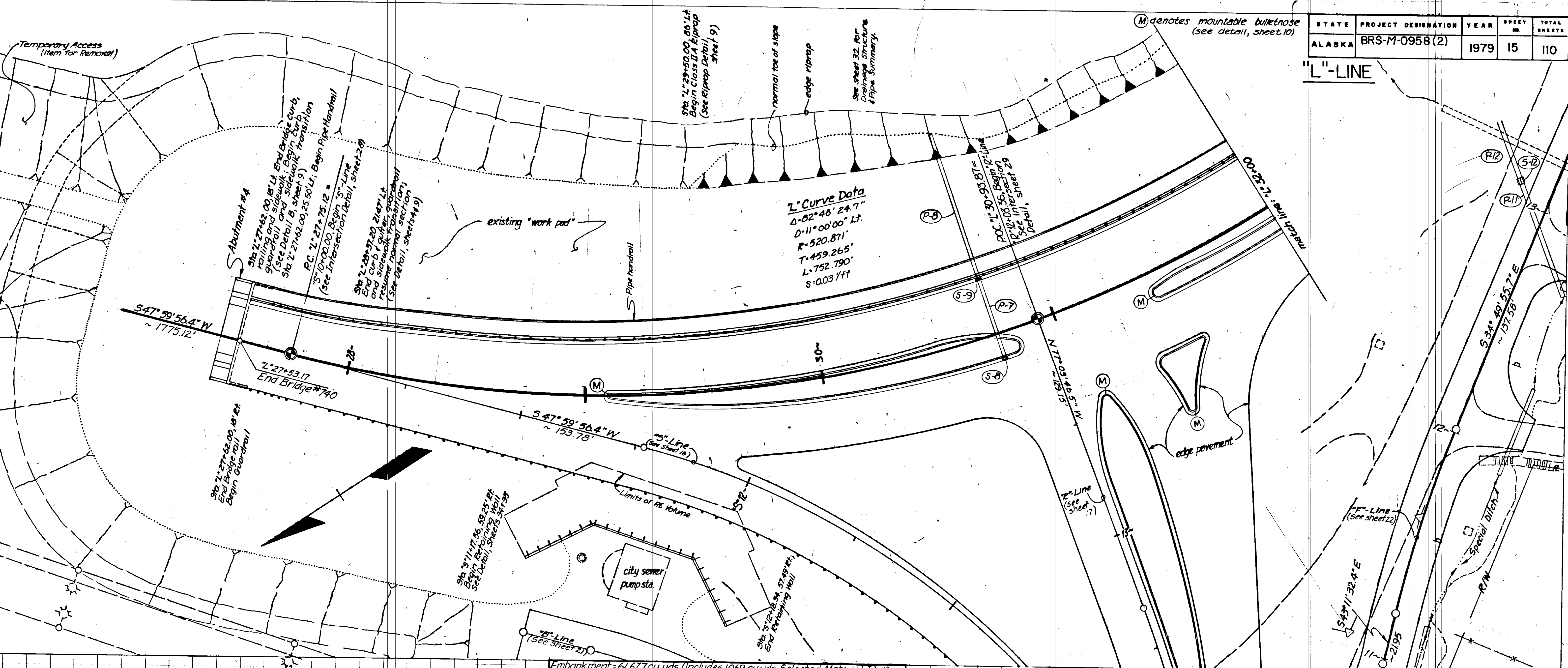
| EXISTING ITEMS FOR REMOVAL (THIS SHEET) | | | |
|---|----------------|---------------|----------|
| ITEM | FROM | TO | QUANTITY |
| Pavement | L+10+26 | L+13+59 | 1393 SY |
| Grassed Island | 10+32.30' Rt. | 10+47.30' Rt. | 11 SY |
| Drainage | 10+48.189' Lt. | 10+38.55' Rt. | 135 LF |
| Drainage | 10+73.40' Lt. | 11+01.38' Lt. | 28 LF |
| Drainage | 11+26.30' Rt. | 13+56.42' Rt. | 232 LF |
| Curb & Gutter | 10+65.202' Lt. | 13+59.21' Lt. | 520 LF |
| Curb & Gutter | 10+32.30' Rt. | 10+47.30' Rt. | 45 LF |
| Curb & Gutter | 10+37.83' Rt. | 13+57.42' Rt. | 350 LF |
| Concrete Sidewalk | 10+60.200' Lt. | 13+58.21' Lt. | 244 SY |
| Manhole | 10+68.13' Lt. | - | 1 EA |
| Manhole | 10+59.36' Rt. | - | 1 EA |
| Invert Pipe | 10+68.13' Lt. | 10+94.6' Rt. | 29 LF |
| Invert Pipe | 10+59.36' Rt. | 10+94.7' Rt. | 44 LF |
| Main Link Fence | 11+00.18' Lt. | 13+56.14' Rt. | 258 LF |
| Main Link Fence | 10+57.52' Rt. | 11+26.30' Rt. | 76 LF |
| Manhole | 10+95.7' Rt. | - | 1 EA |

* Incidental to other Removal Items



| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958 (2) | 1979 | 15 | 110 |

"L"-LINE



"L" Curve Data
 $\Delta = 82^\circ 48' 24.7''$
 $D = 11^\circ 00' 00''$ Lt.
 $R = 520.871'$
 $T = 459.26'$
 $L = 752.79'$
 $S = 0.03/11'$

Curb Cut Summary

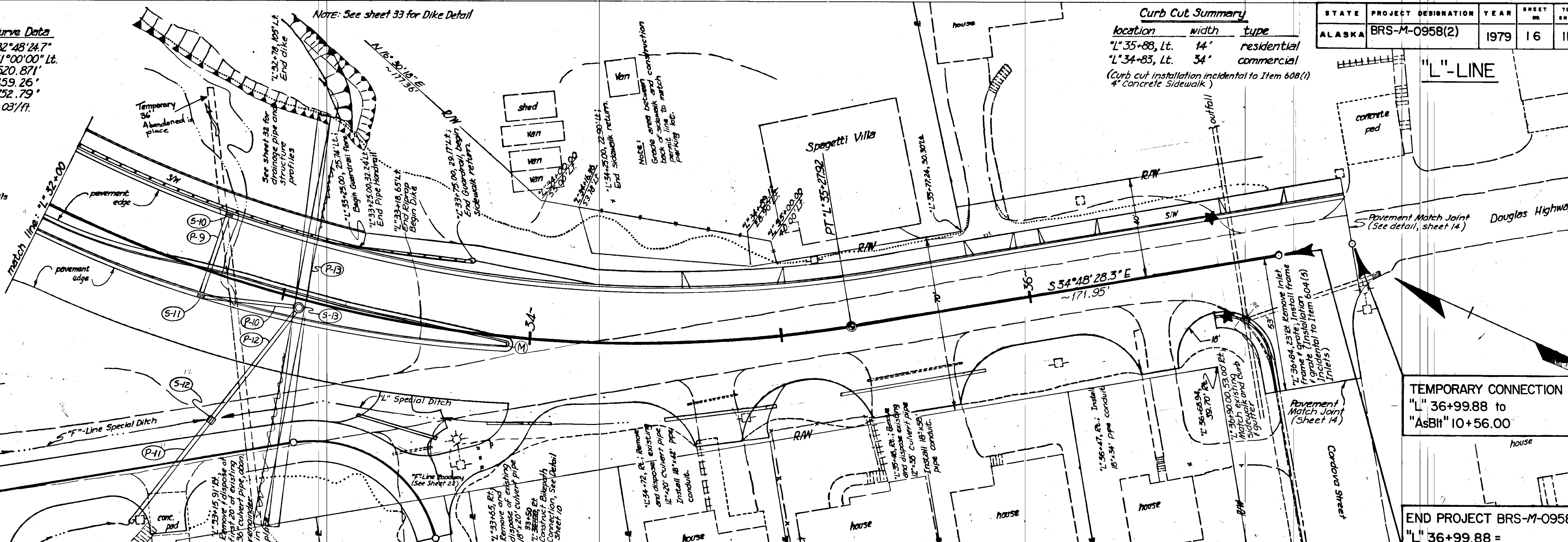
| Location | Width | Type |
|----------------|-------|-------------|
| "L" 35+88, Lt. | 14' | residential |
| "L" 34+83, Lt. | 34' | commercial |

(Curb cut installation incidental to Item 608(1)
 4" Concrete Sidewalk)

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 16 | 110 |

NOTE: For "F"-Line details See sheet 22

NOTE: See sheet 33 for Dike Detail



SPECIAL DITCH - RIGHT OF "L"-LINE

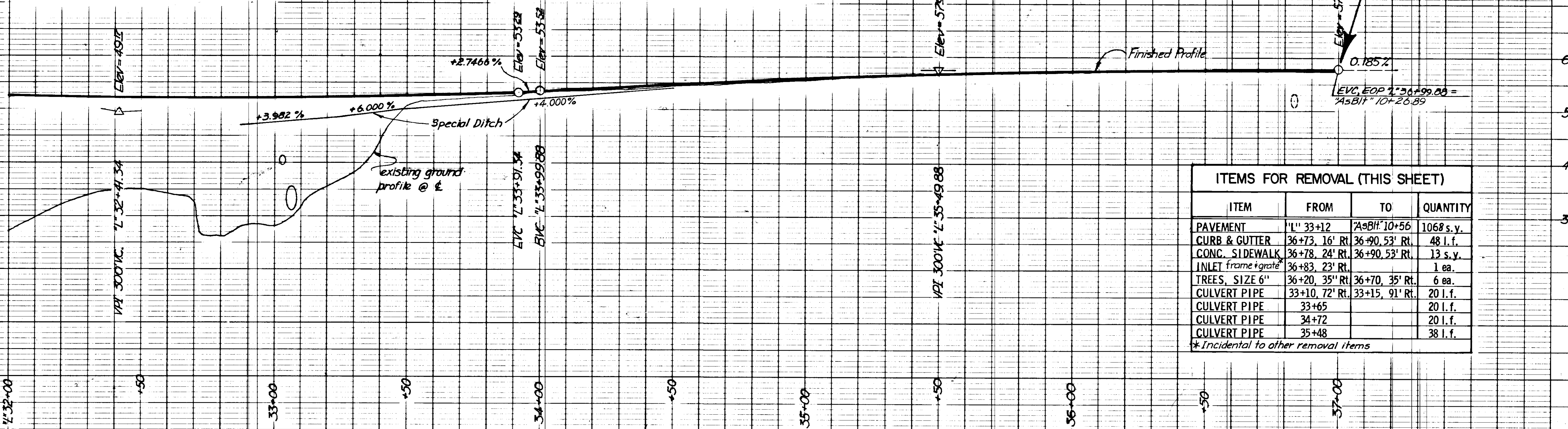
| From Sta. | Offset | Elev. | To Sta. | Offset | Elev. |
|-----------|--------|-------|---------|--------|-------|
| S-14 | 55.11 | 47.00 | 33+25 | 36.50 | 48.50 |
| 33+25 | 36.5 | 48.50 | 33+50 | 36.16 | 50.00 |
| 33+50 | 36.16 | 50.00 | 34+50 | 30.29 | 54.00 |

See sheet 22 for "F"-Line Special Ditch

Embankment = 9,465 cu.yds. (Includes 407 cu.yds. Selected Material I
 Includes 539 cu.yds. Selected Material II
 Includes 44 cu.yds. Selected Material III)
 Unclassified Excavation = 1275 cu.yds. (no waste)
 Borrow = 15,479 Tons
 * Embankment does not include 125 cu.yds. of Riprap II A
"L"-Line Earthwork Only

TEMPORARY CONNECTION
 "L" 36+99.88 to
 "AsBlt" 10+56.00

END PROJECT BRS-M-0958(2)
 "L" 36+99.88 =
 PROJECT BPR-31-A7
 "AsBlt" 10+26.89

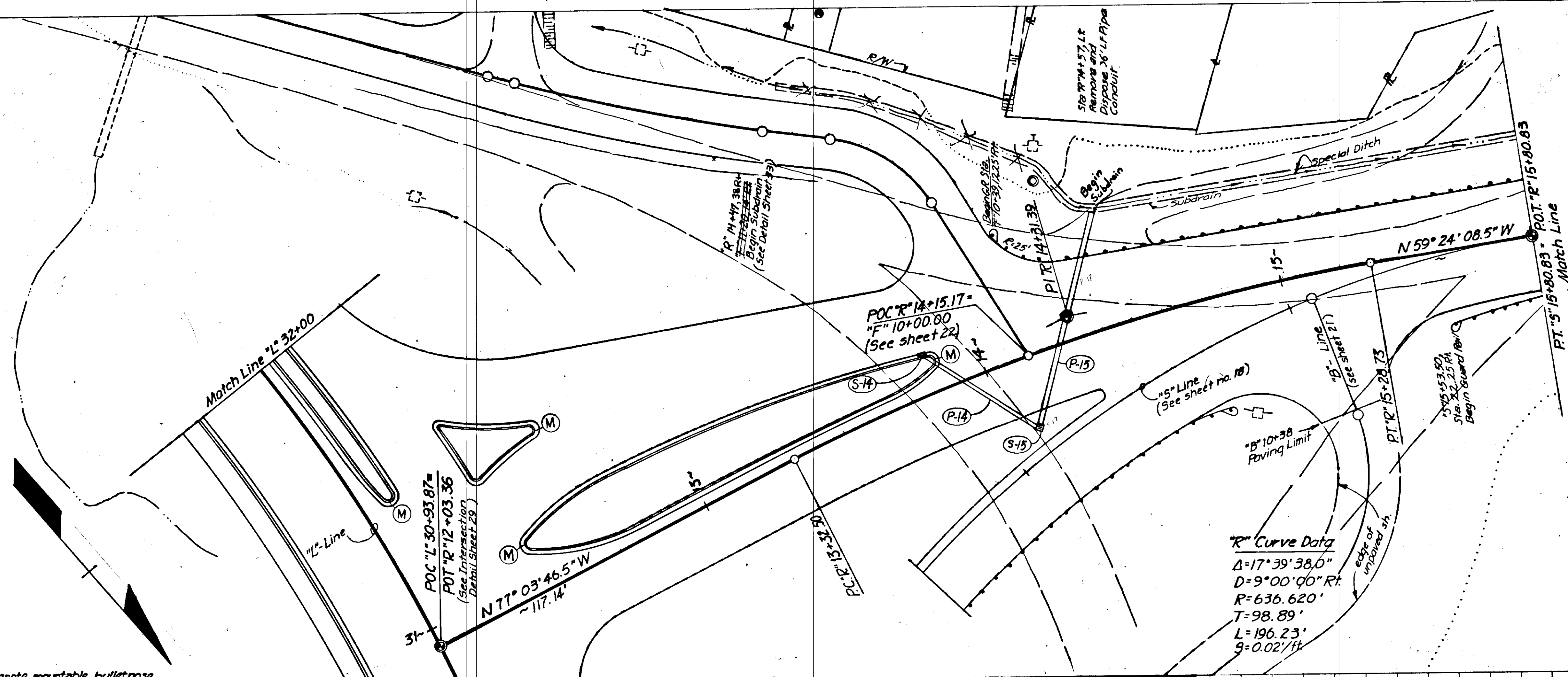


ITEMS FOR REMOVAL (THIS SHEET)

| ITEM | FROM | TO | QUANTITY |
|---------------------|----------------|----------------|-----------|
| PAVEMENT | "L" 33+12 | "AsBlt" 10+56 | 1068 s.y. |
| CURB & GUTTER | 36+73, 16' Rt. | 36+90, 53' Rt. | 48 l.f. |
| CONC. SIDEWALK | 36+78, 24' Rt. | 36+90, 53' Rt. | 13 s.y. |
| INLET frame & grate | 36+83, 23' Rt. | | 1 ea. |
| TREES, SIZE 6" | 36+20, 35' Rt. | 36+70, 35' Rt. | 6 ea. |
| CULVERT PIPE | 33+10, 72' Rt. | 33+15, 91' Rt. | 20 l.f. |
| CULVERT PIPE | 33+65 | | 20 l.f. |
| CULVERT PIPE | 34+72 | | 20 l.f. |
| CULVERT PIPE | 35+48 | | 38 l.f. |

* Incidental to other removal items

"R" LINE

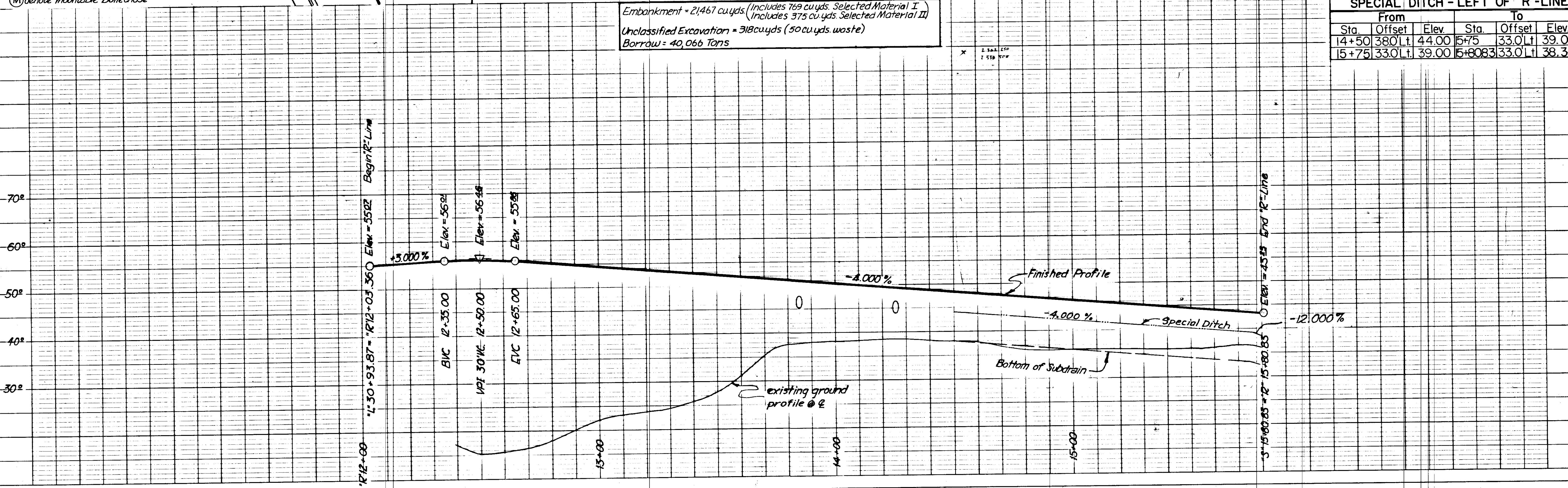


(M) denote mountable bulletnose

Embankment = 21,467 cu yds. (Includes 769 cu yds. Selected Material I
 Unclassified Excavation = 318 cu yds. (50 cu yds. waste)
 Borrow = 40,066 Tons

SPECIAL DITCH - LEFT OF "R"-LINE

| From | | To | |
|-------|--------|----------|--------|
| Sta. | Offset | Sta. | Offset |
| 14+50 | 380.1 | 15+75 | 33.0 |
| 15+75 | 33.0 | 15+80.83 | 33.0 |

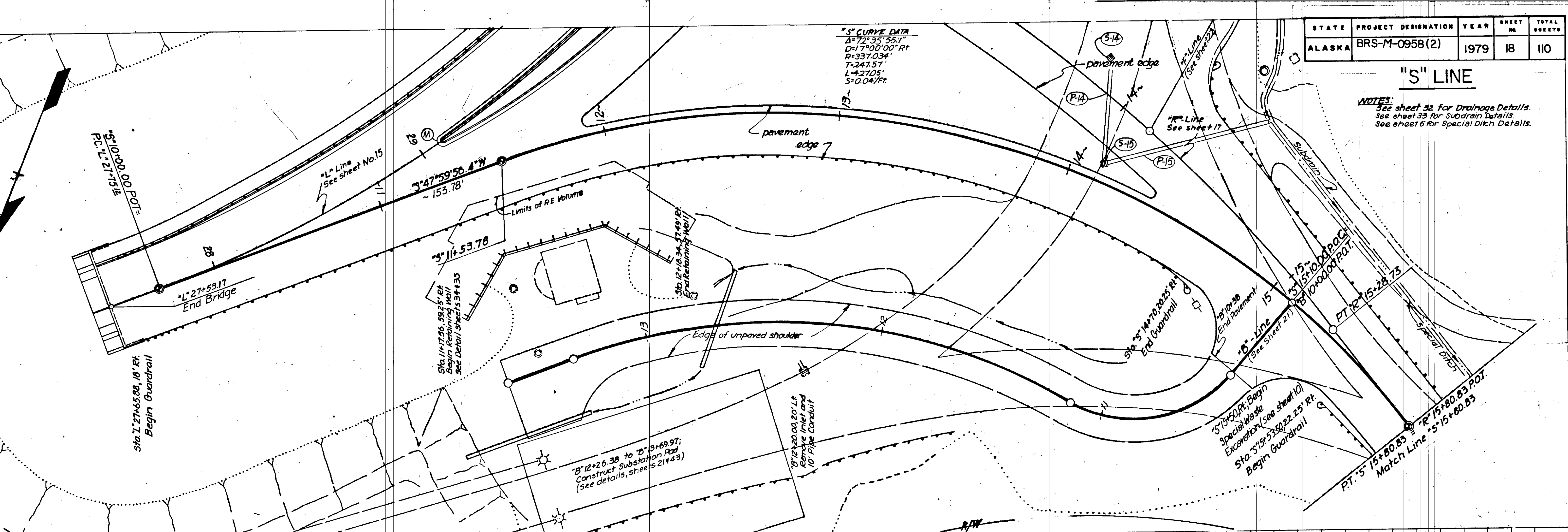


| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 18 | 110 |

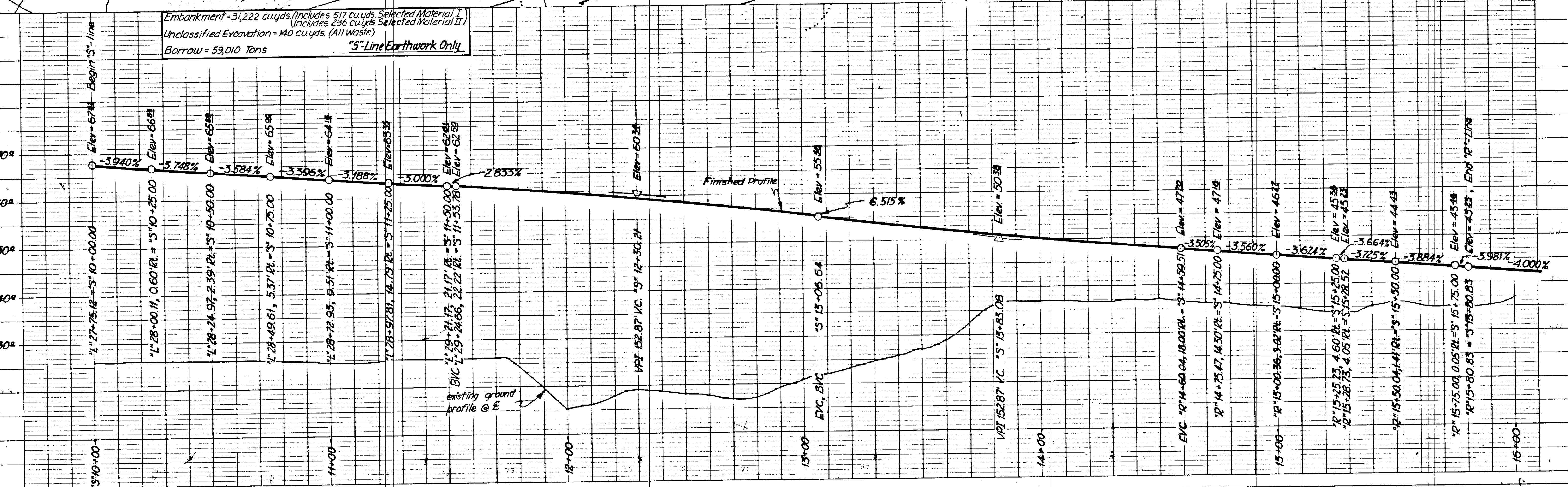
"S" LINE

NOTES:
 See sheet 32 for Drainage Details.
 See sheet 33 for Subdrain Details.
 See sheet 6 for Special Ditch Details.

5" CURVE DATA
 $\Delta = 72^{\circ} 35' 55.1''$
 $D = 1700.00' \text{ Rt}$
 $R = 337.034'$
 $T = 247.57'$
 $L = 270.5'$
 $S = 0.04/\text{ft}$

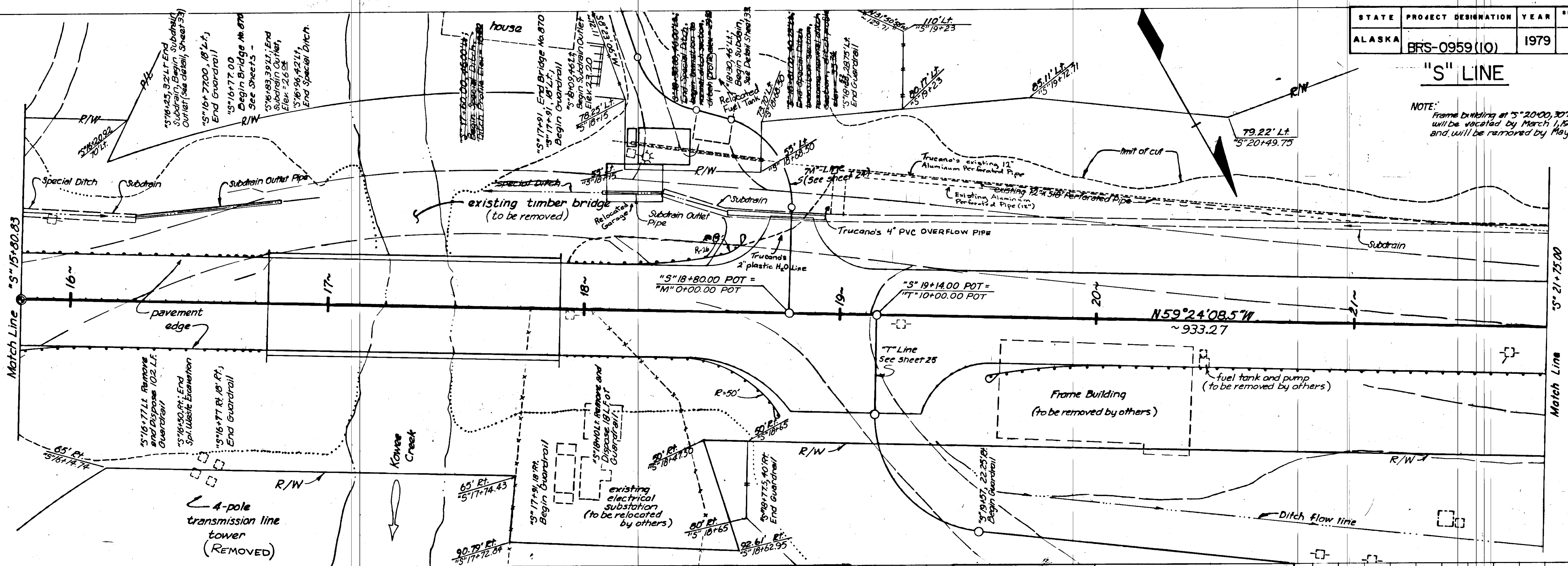


Embankment = 31,222 cu yds. (Includes 517 cu yds. Selected Material I, (Includes 236 cu yds. Selected Material II))
 Unclassified Excavation = 140 cu yds. (All Waste)
 Borrow = 59,010 Tons
"S"-Line Earthwork Only

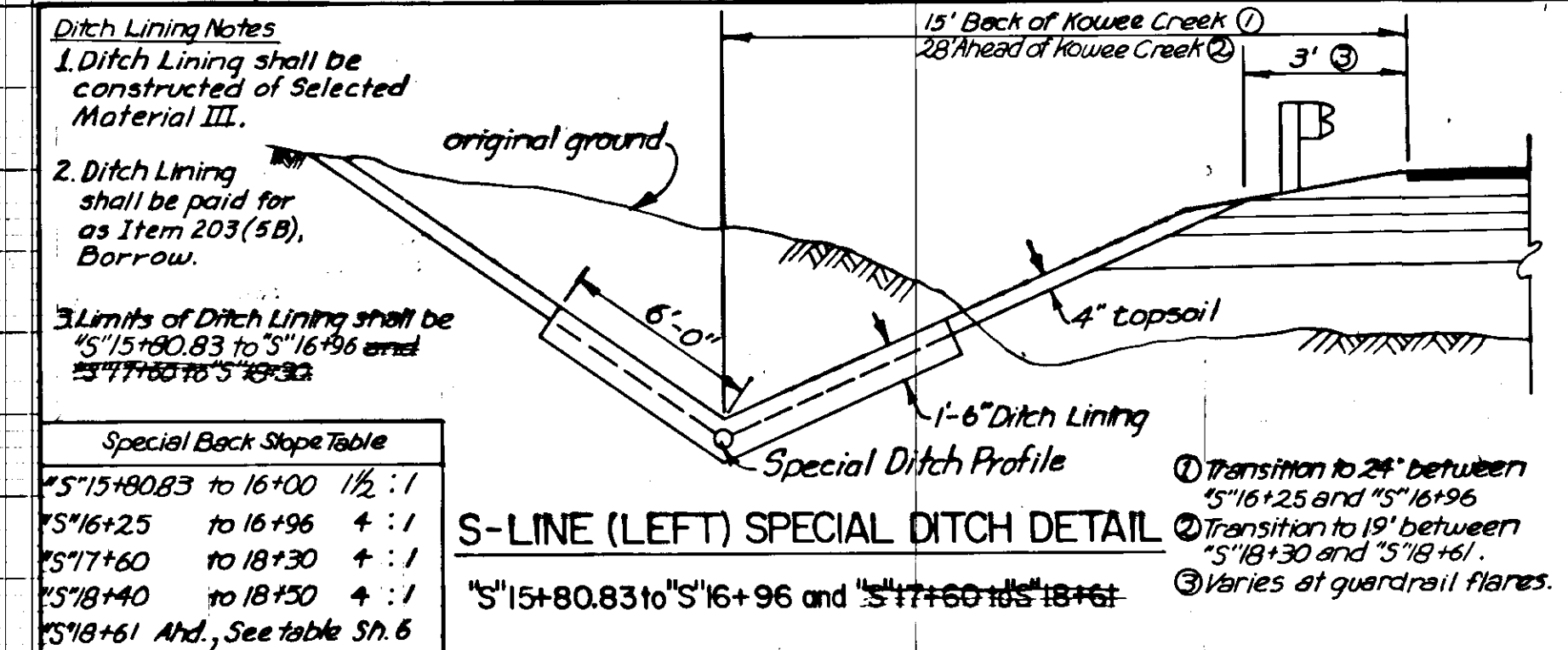


"S" LINE

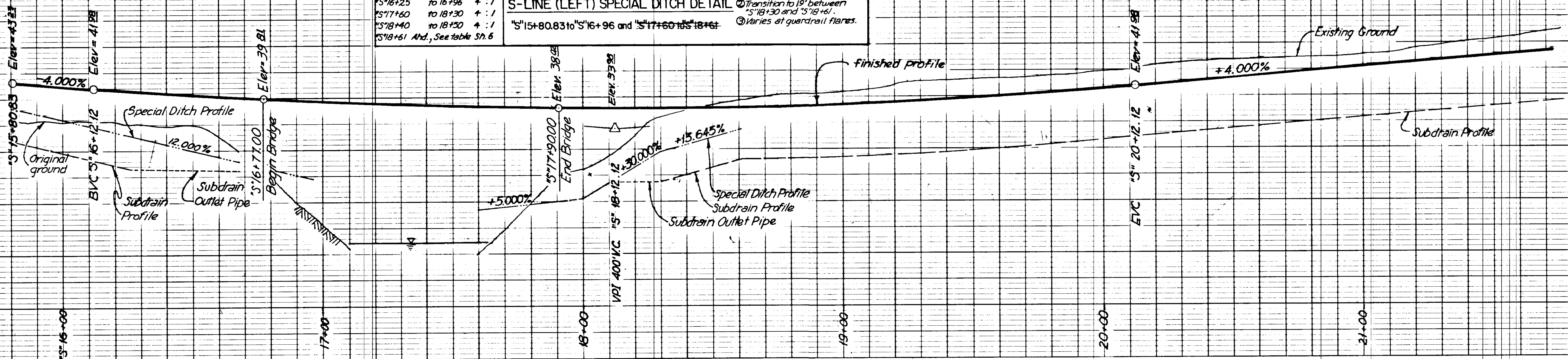
NOTE: Frame building at 5° 20' 00.00" RTA will be vacated by March 1, 1980 and will be removed by May 1, 1980.



| Sta. | Offset | Elev. | Sta. | Offset | Elev. |
|----------|--------|-------|-------|--------|-------|
| 16+80.83 | 33.0' | 38.30 | 16+25 | 33.0' | 33.00 |
| 16+25 | 33.0' | 33.00 | 16+96 | 42.0' | 24.48 |



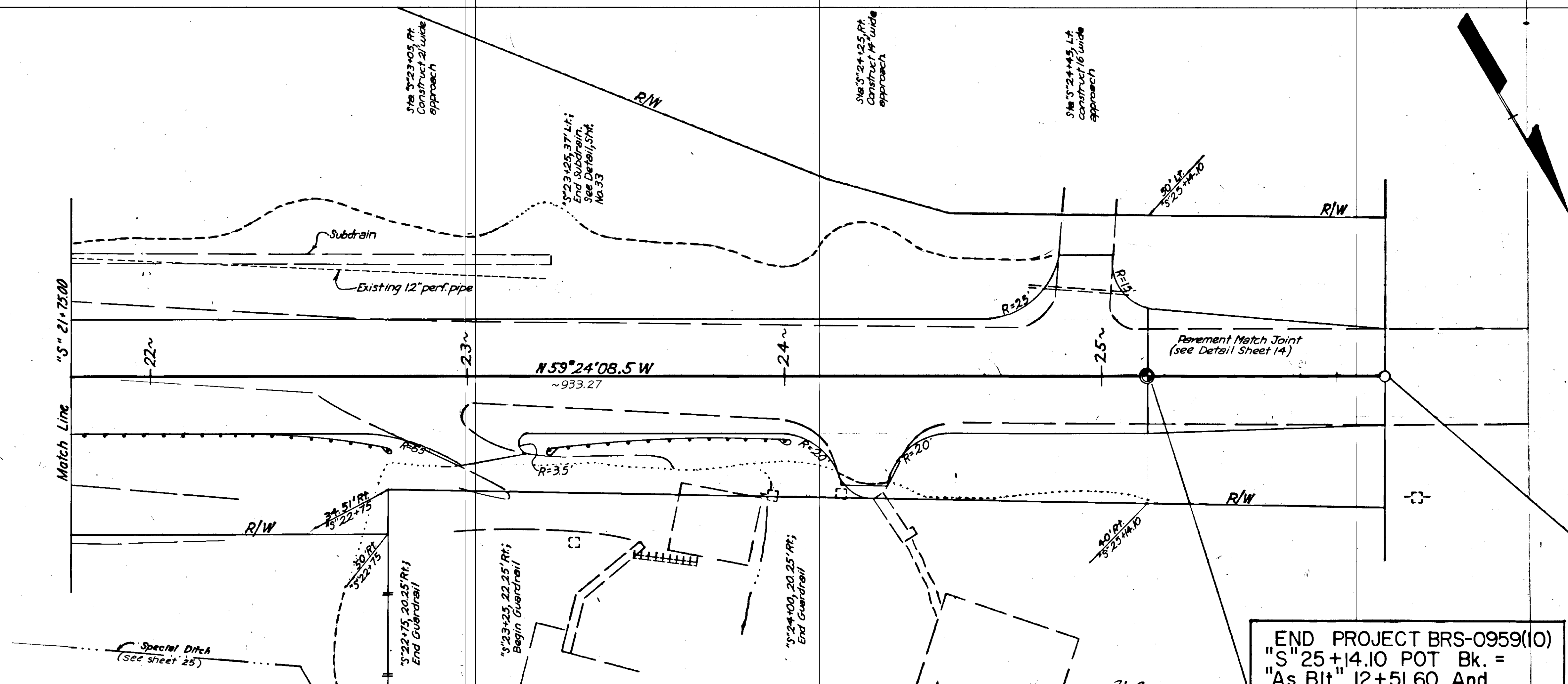
Embankment = 4122 cu yds. (Includes 977 cu yds. Selected Material I, Includes 443 cu yds. Selected Material II, Includes 120 cu yds. Selected Material III) *
 Unclassified Excavation = 14522 cu yds. (8802 waste)
 Borrow = 2,650 Tons
 *Emb does not include 550 cu yds. Riprap II



| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-0959(10) | 1979 | 20 | 110 |

"S" LINE

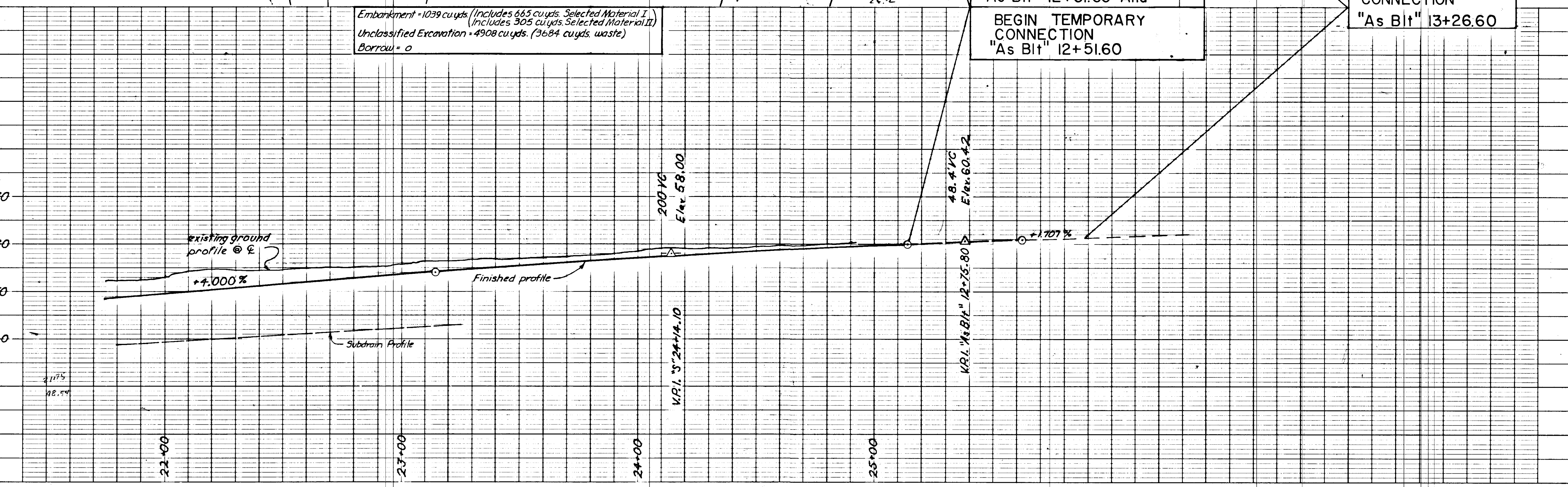
Note: Pavement width shall be transitioned from 36' to 30' between "As Bit" Sta 12+51.60 and "As Bit" Sta 13+26.60



Embankment = 1039 cu yds. (Includes 665 cu yds. Selected Material I
 Unclassified Excavation = 4908 cu yds. (3684 cu yds. waste)
 Borrow = 0

END PROJECT BRS-0959(10)
 "S" 25+14.10 POT Bk. =
 "As Bit" 12+51.60 And
 BEGIN TEMPORARY
 CONNECTION
 "As Bit" 12+51.60

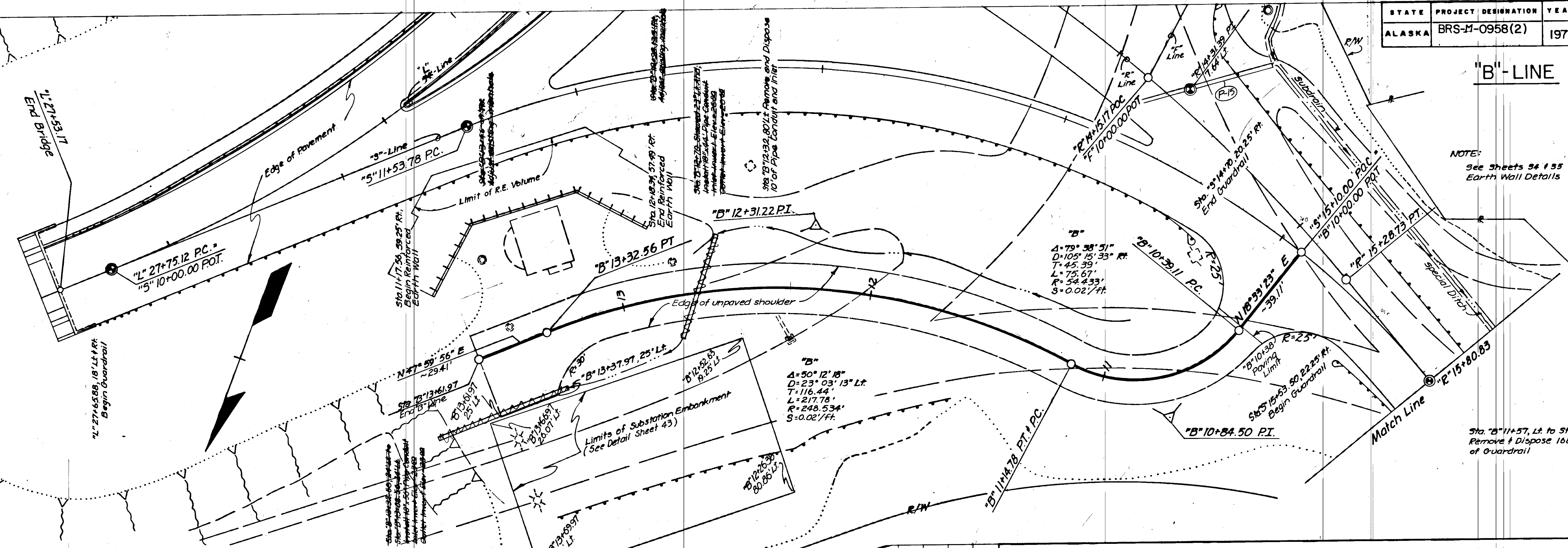
END TEMPORARY
 CONNECTION
 "As Bit" 13+26.60



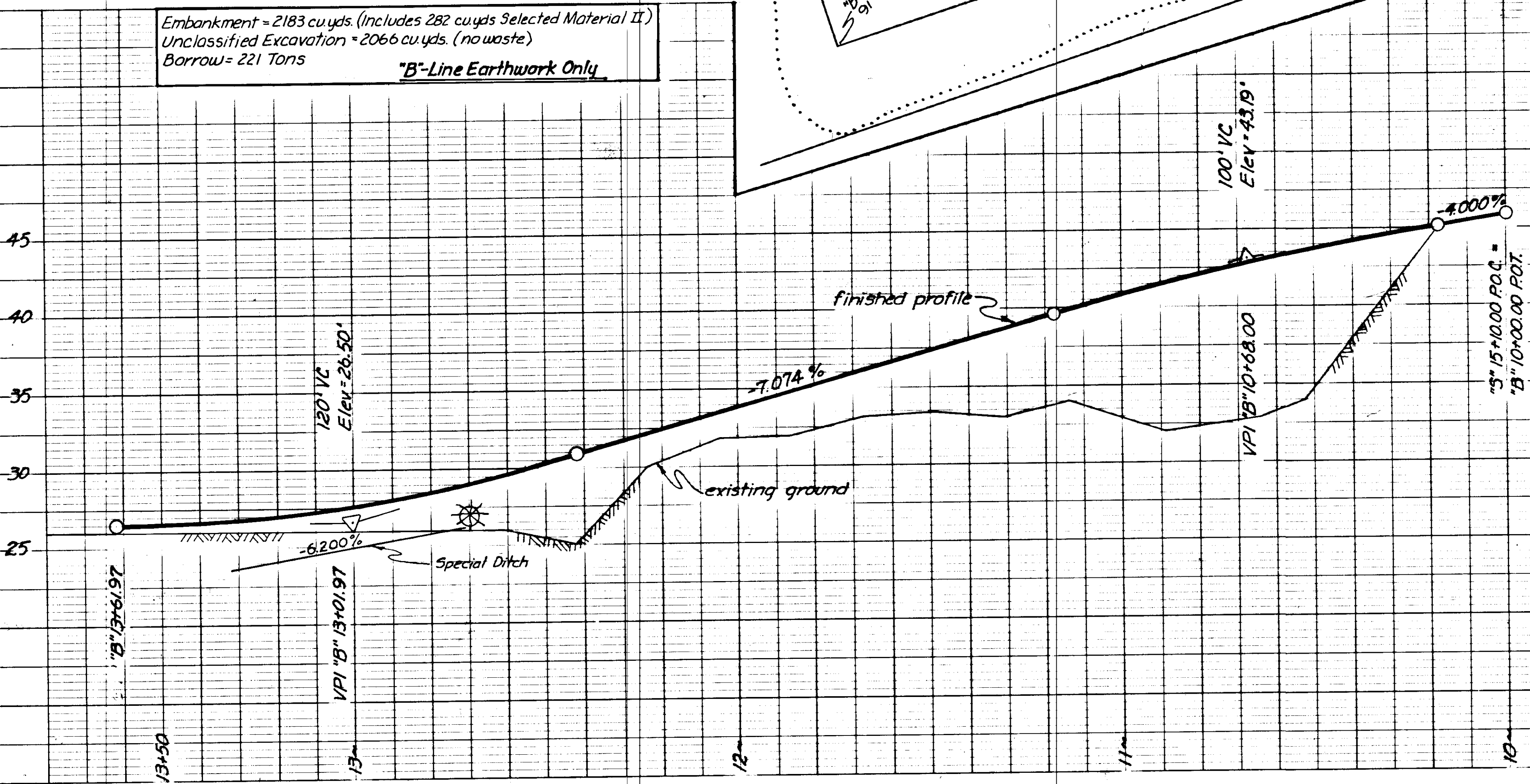
"B"-LINE

NOTE:
See Sheets 54 & 55
Earth Wall Details

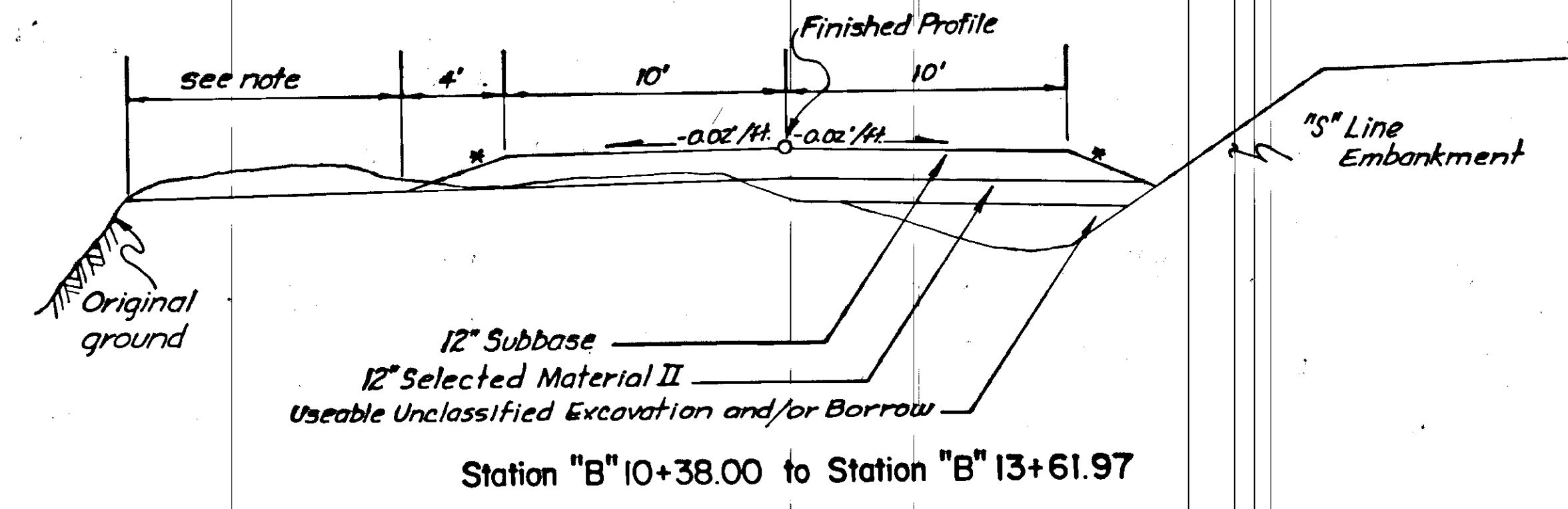
Sta. "B" 11+57, Lt. to Sta. "B" 13+55, Lt.
Remove & Dispose 168.75 L.F.
of Guardrail



Embankment = 2183 cu.yds. (Includes 282 cu.yds Selected Material II)
Unclassified Excavation = 2066 cu.yds. (no waste)
Borrow = 221 Tons
"B"-Line Earthwork Only



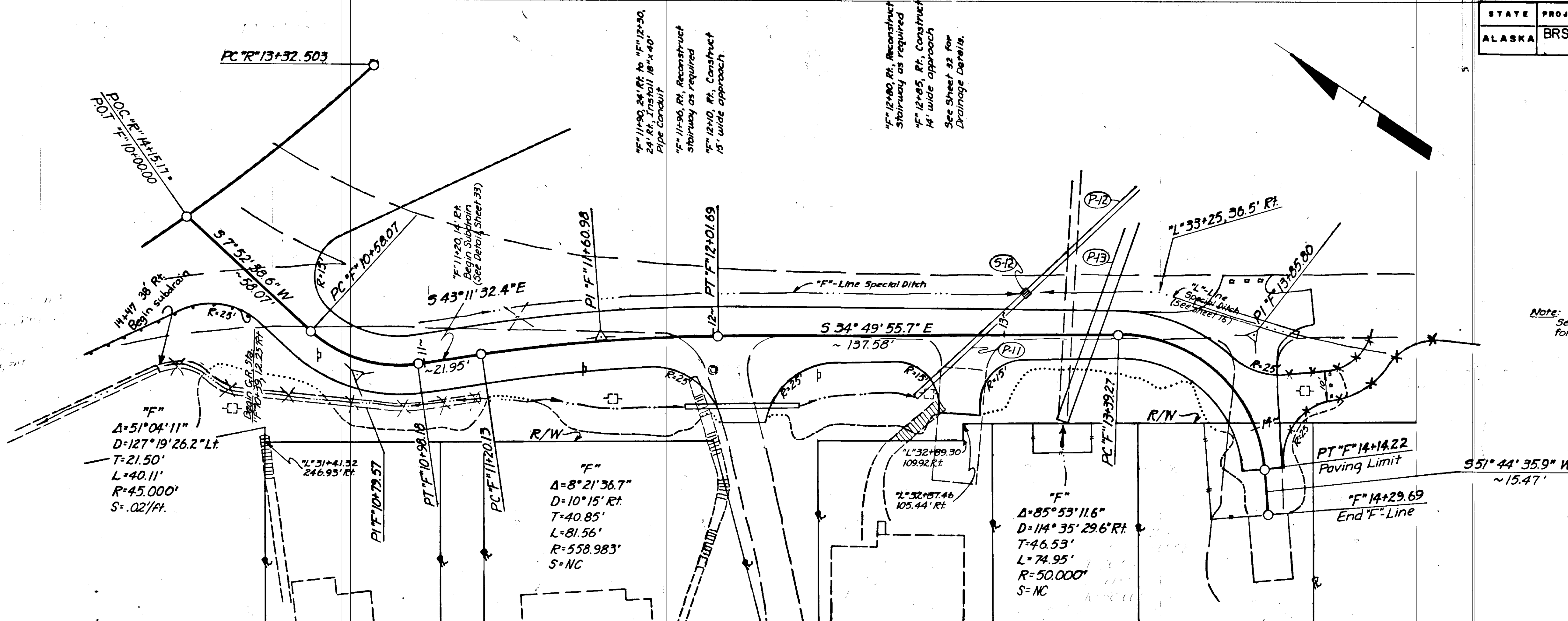
TYPICAL SECTION OF IMPROVEMENT



NOTE:
Between Sta. "B" 11+65 and Sta. "B" 12+15,
the slope shall be graded to daylight
@ Elevation 26.00.
Between Sta. "B" 12+15 and Sta. "B" 13+69.97,
see substation pad detail on sheet No. 43

| Station | Lt. | Rt. |
|----------------------|-----|-----|
| Station "B" 10+38 | 2:1 | 2:1 |
| Station "B" 11+14 | 2:1 | 2:1 |
| Station "B" 11+50 | 4:1 | 4:1 |
| Station "B" 13+61.97 | 4:1 | 4:1 |

"F"-LINE



Note: See sheet 16 for 'L' Special Ditch

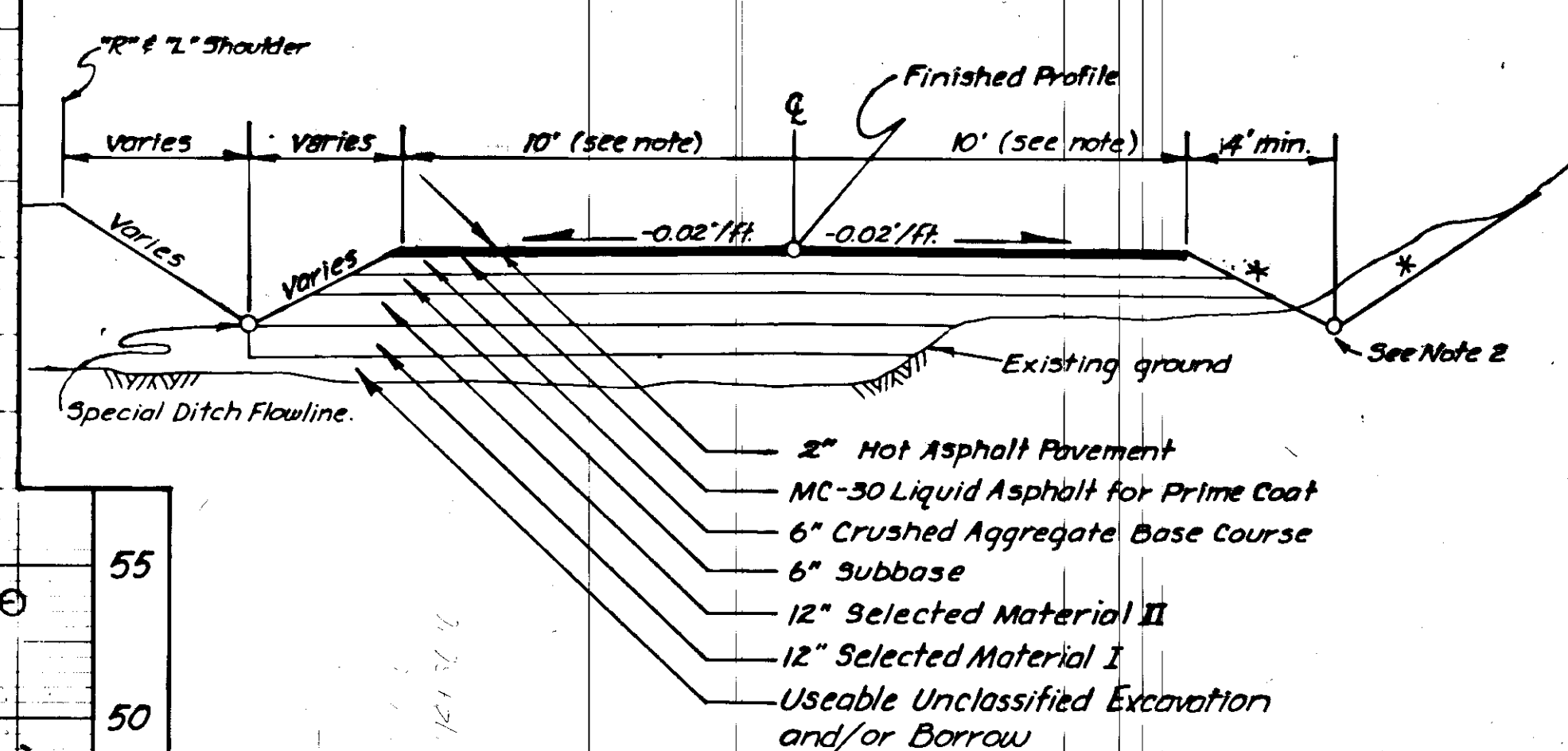
| SPECIAL DITCH-LEFT OF "F"-LINE | | | | | |
|--------------------------------|--------|-------|-------|--------|-------|
| From | | | To | | |
| Sta. | Offset | Elev. | Sta. | Offset | Elev. |
| 11+00 | 14.5' | 50.50 | 12+00 | 14.5' | 50.00 |
| 12+00 | 14.5' | 50.00 | S-4 | 14.5' | 47.00 |

See sheet for "L"-Line Special Ditch

Embankment = 1908 cu yds. (Includes 283 cu yds. Selected Material I and 299 cu yds. Selected Material II)
 Unclassified Excavation = 200 cu yds. (75 cu yds. waste)
 Borrow = 3370 Tons

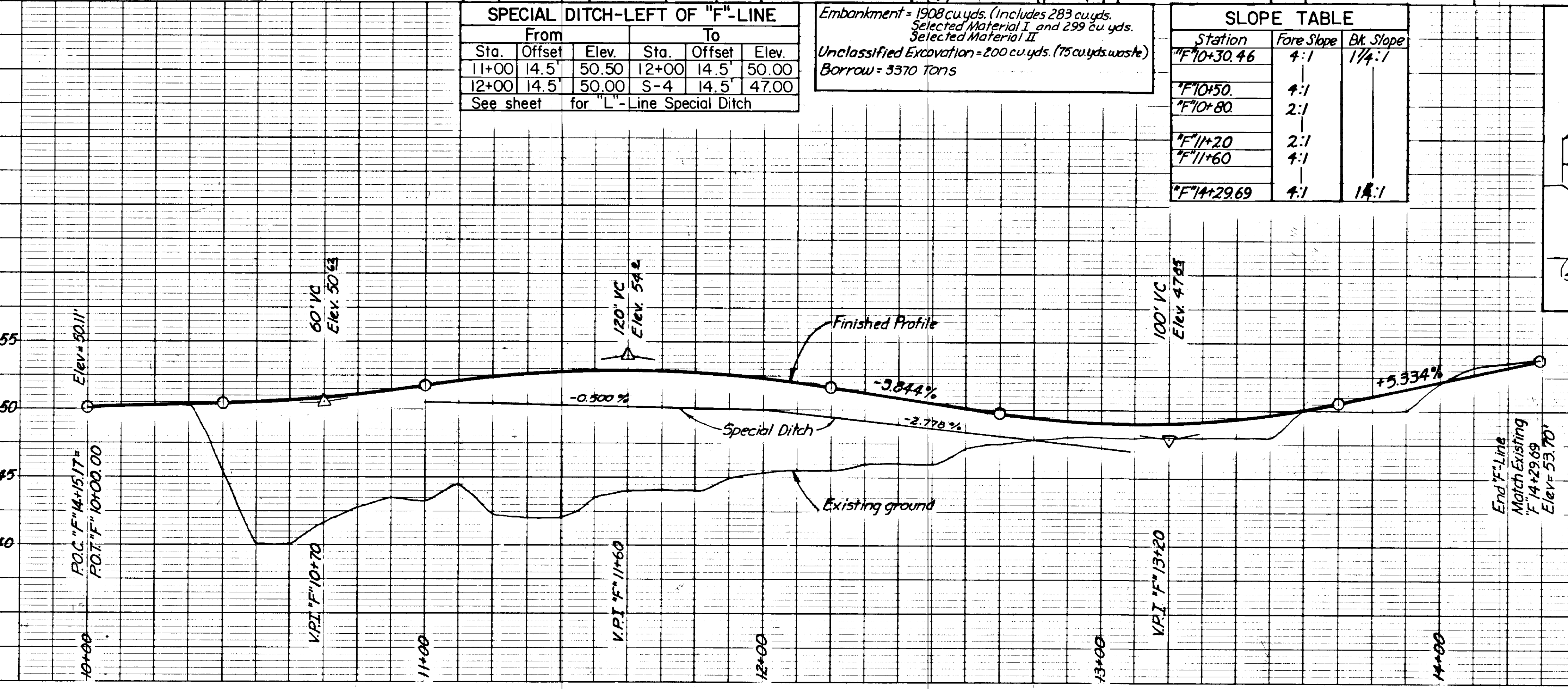
| SLOPE TABLE | | |
|--------------|------------|------------|
| Station | Fore Slope | Back Slope |
| "F" 10+30.46 | 4:1 | 1 1/4:1 |
| "F" 10+50 | 4:1 | |
| "F" 10+80 | 2:1 | |
| "F" 11+20 | 2:1 | |
| "F" 11+60 | 4:1 | |
| "F" 14+29.69 | 4:1 | 1 1/4:1 |

TYPICAL SECTION



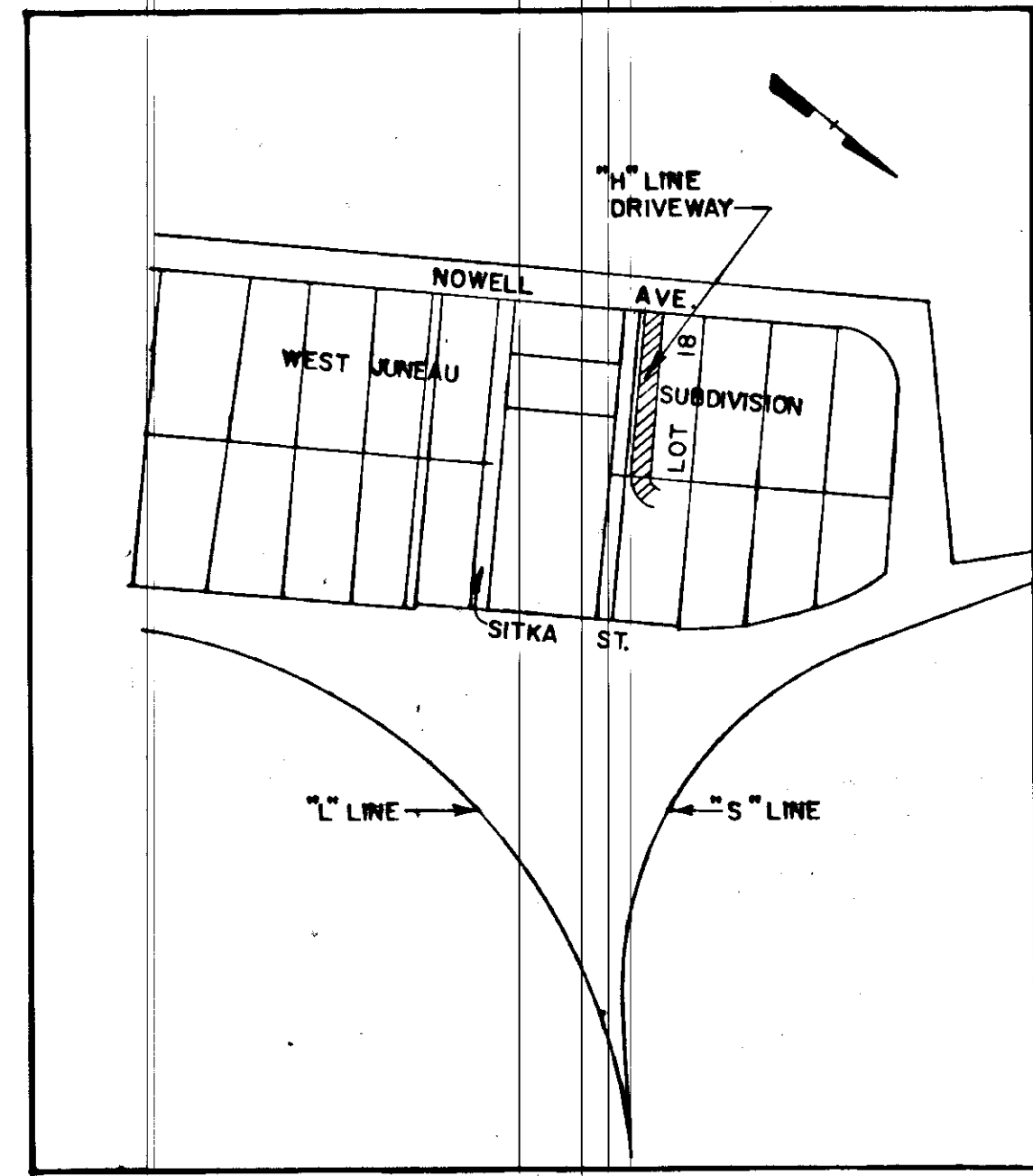
- * See Slope Table This Sheet
- Pavement width shall be transitioned from 20' @ Sta. "F" 12+01.69 to 14' @ Sta. "F" 14+14.22.
 - Between Sta. "F" 11+90 & Sta. "F" 12+30, the ditch line grade will be 1.72% with a beginning elevation of 49.92 and an ending elevation of 48.18. Between Sta. "F" 12+30 & Sta. "F" 12+70, the ditch line grade will be 2.575% with a beginning elevation of 48.18 and an ending elevation of 47.15.

"F" 10+30.46 to "F" 14+29.69

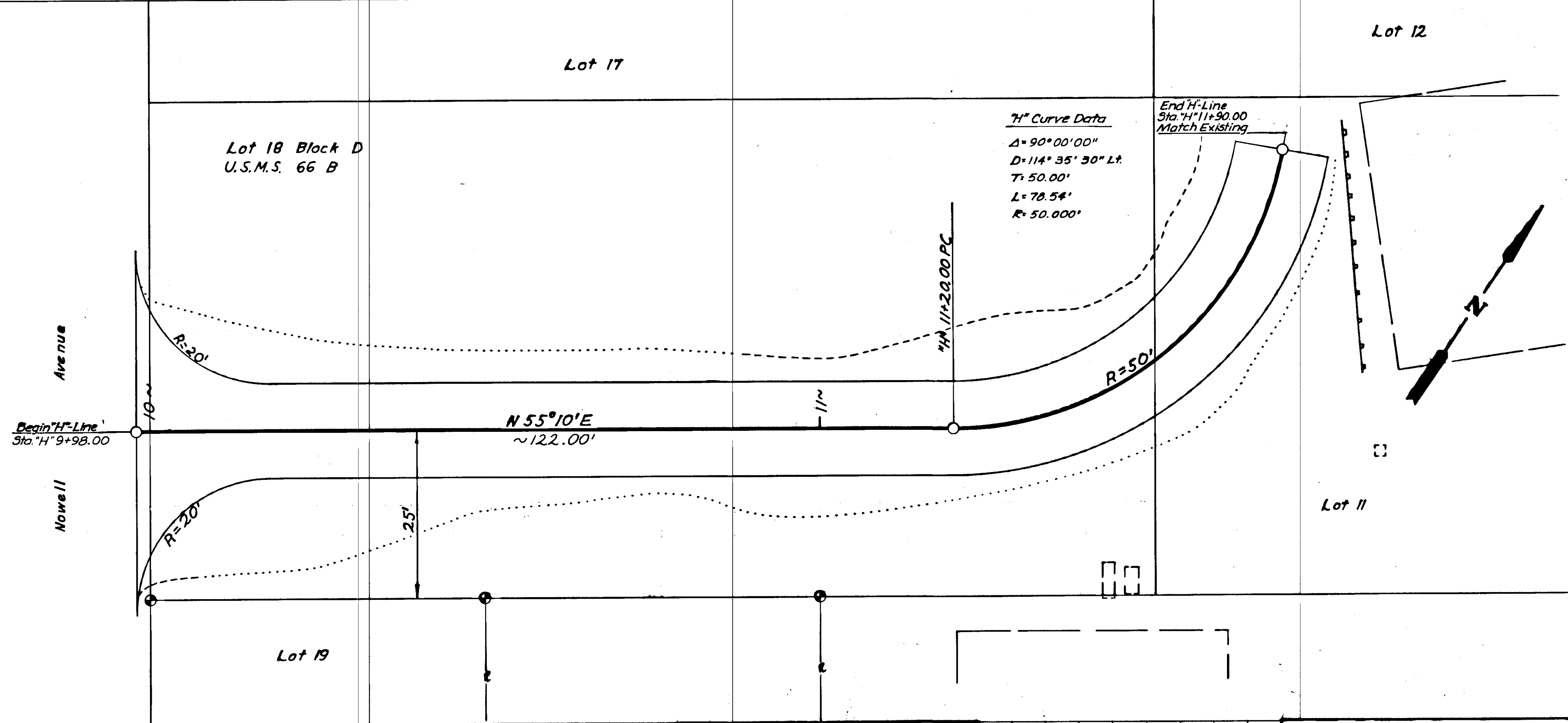


| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) BRS-Q959(10) | 1979 | 23 | 110 |

"H" LINE

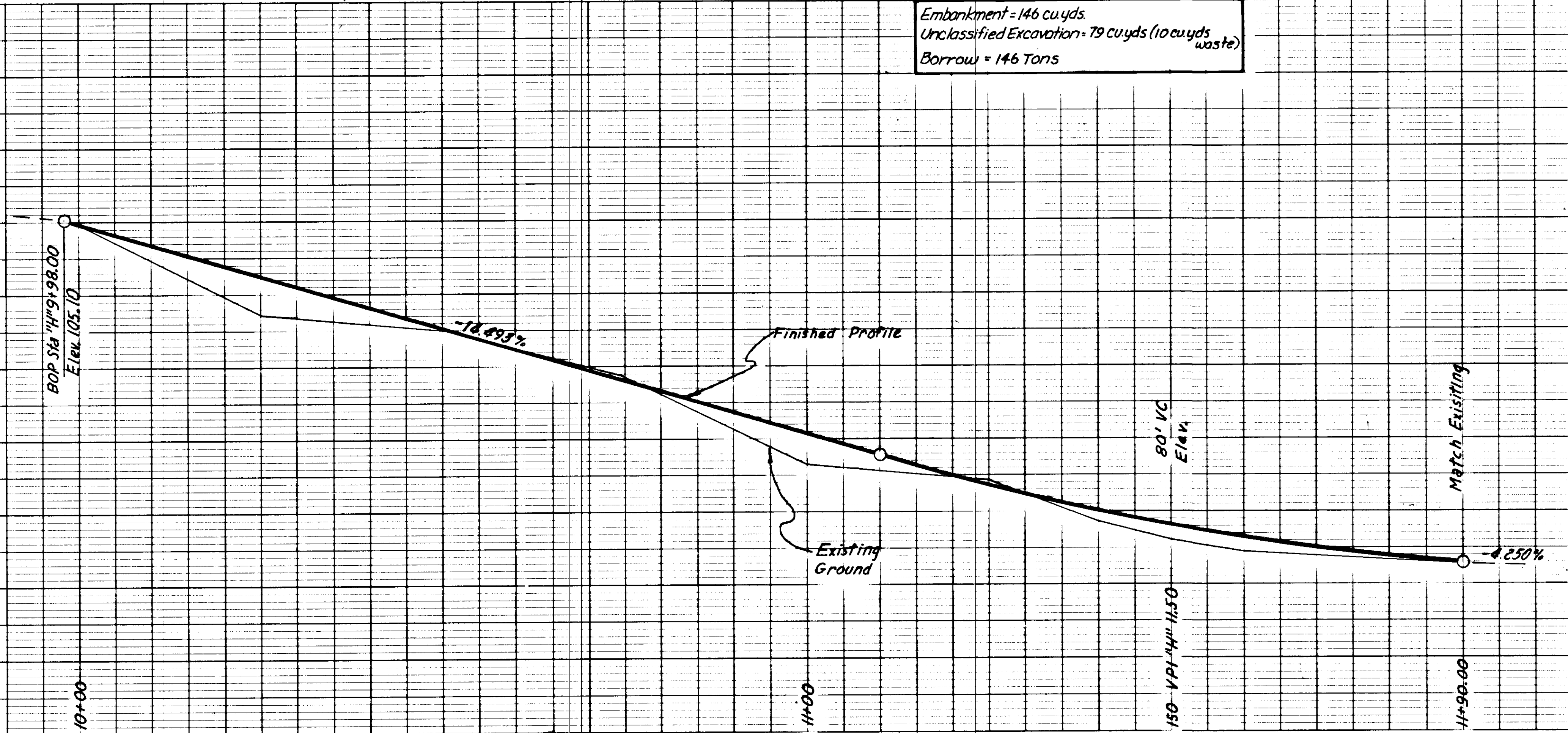


VICINITY MAP

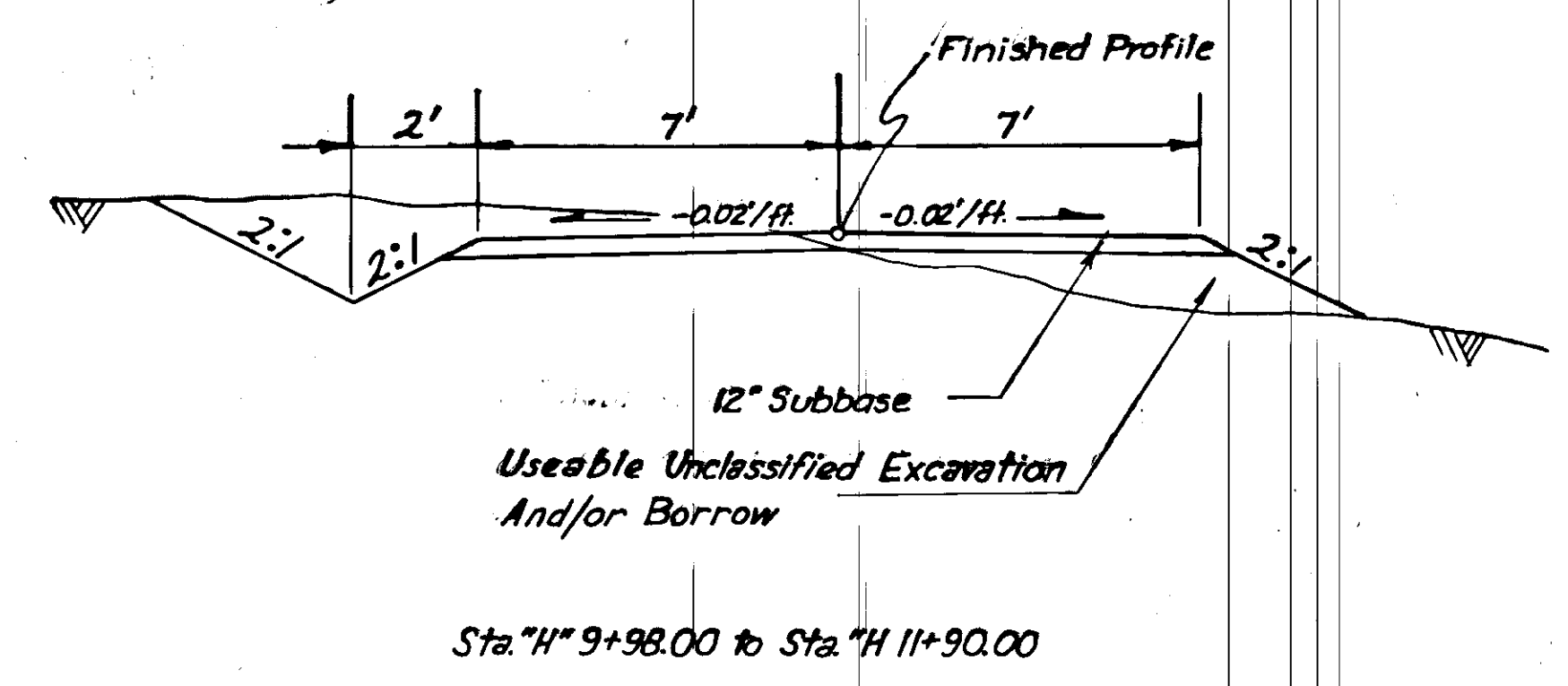


H Curve Data
 $\Delta = 90^{\circ}00'00''$
 $D = 114^{\circ}35'30''$
 $T = 50.00'$
 $L = 78.54'$
 $R = 50.000'$

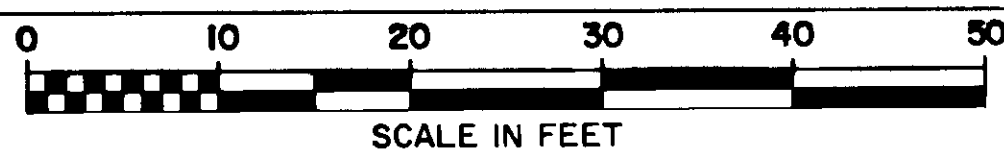
Embankment = 146 cu.yds.
 Unclassified Excavation = 79 cu.yds (10 cu.yds waste)
 Borrow = 146 Tons



TYPICAL SECTION OF IMPROVEMENT



Note:
 1. This work shall be done prior to any construction affecting existing driveway serving house.

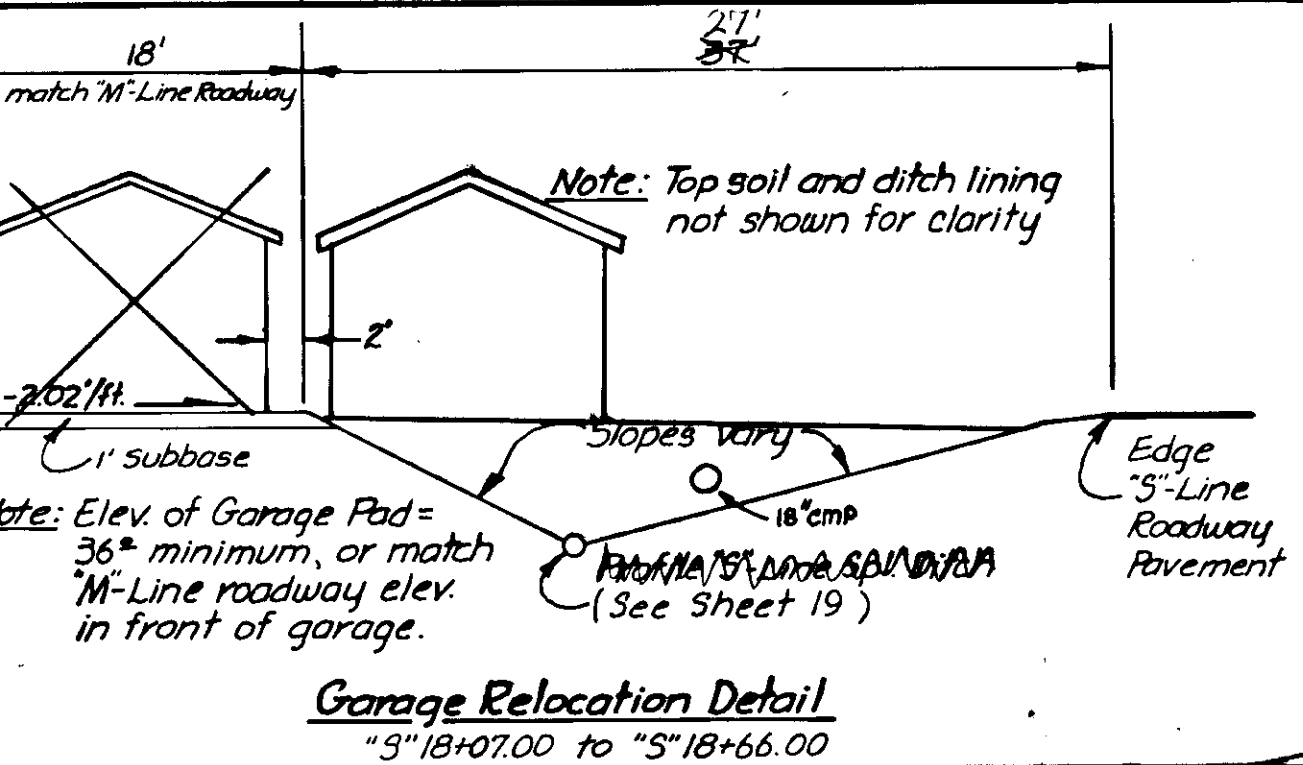
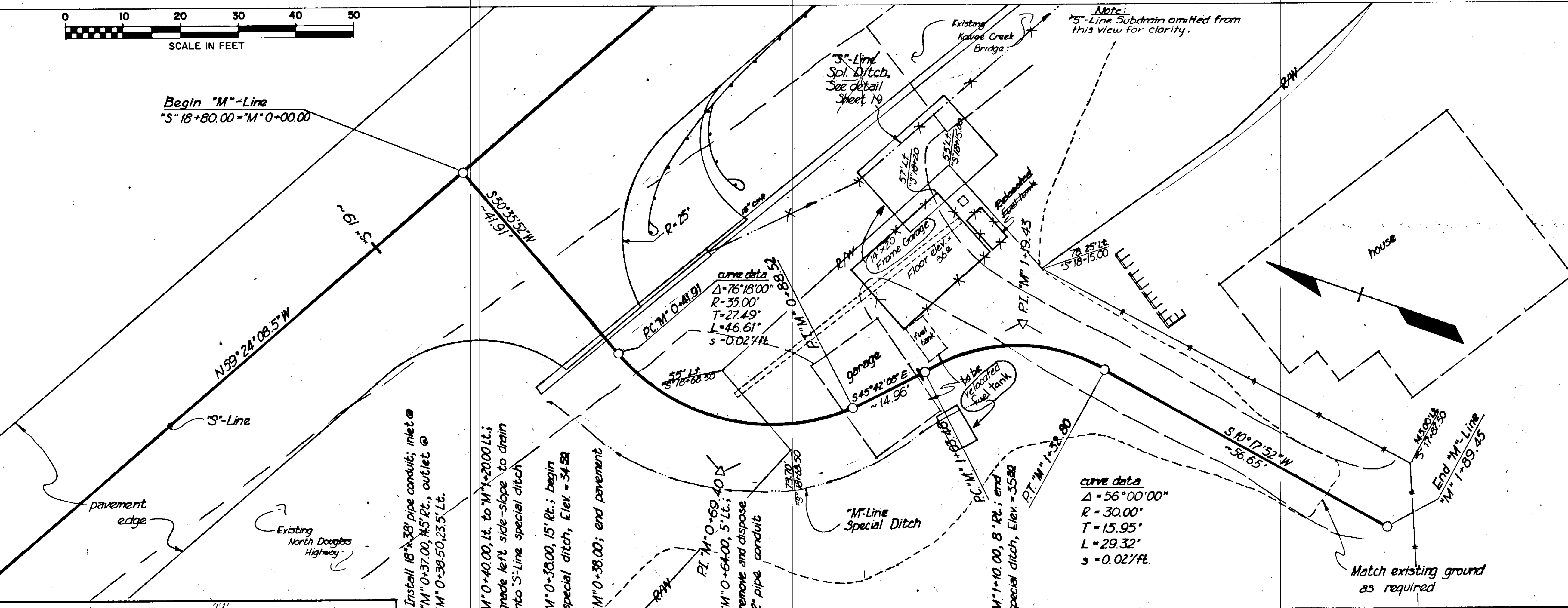


| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-0959(TO) | 1979 | 24 | 110 |

M-LINE

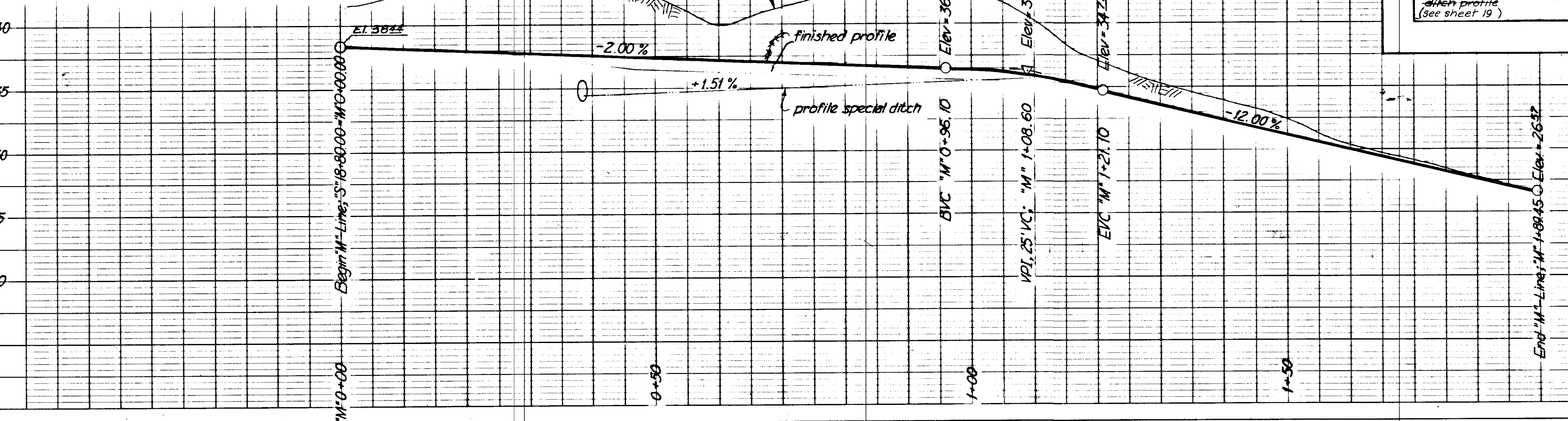
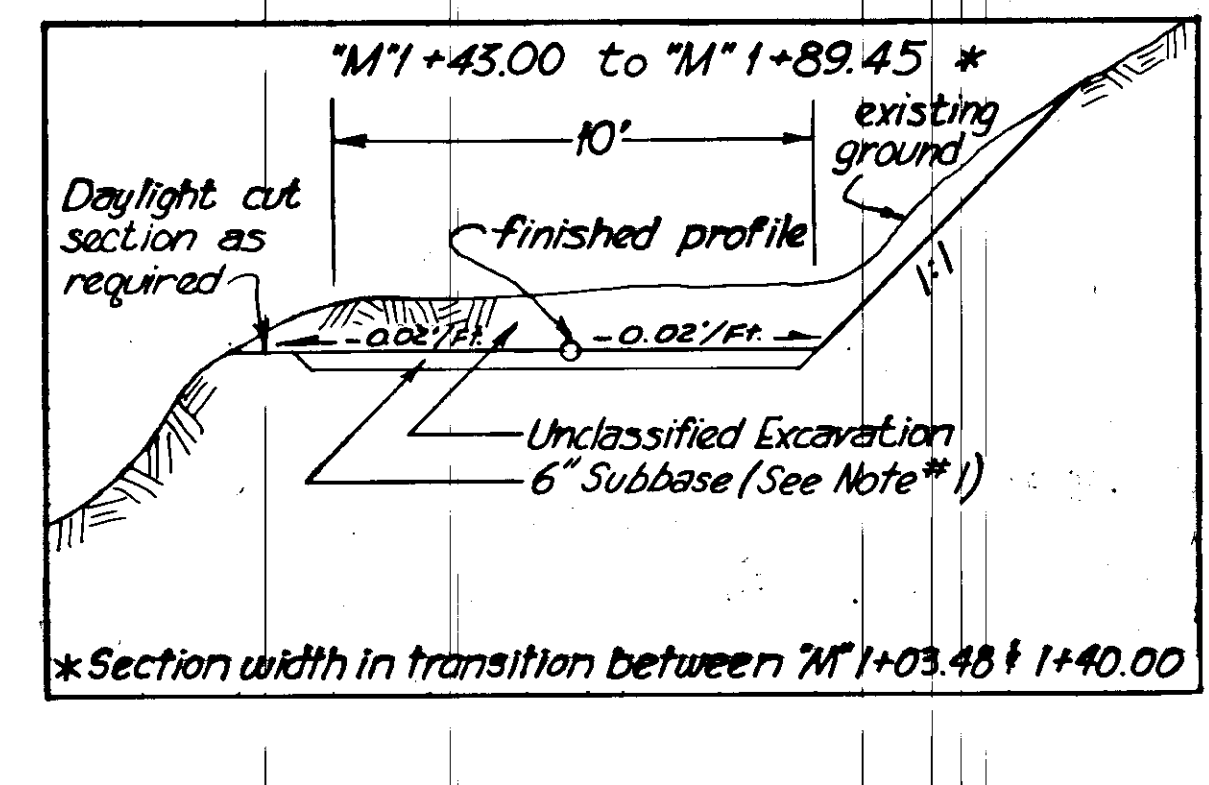
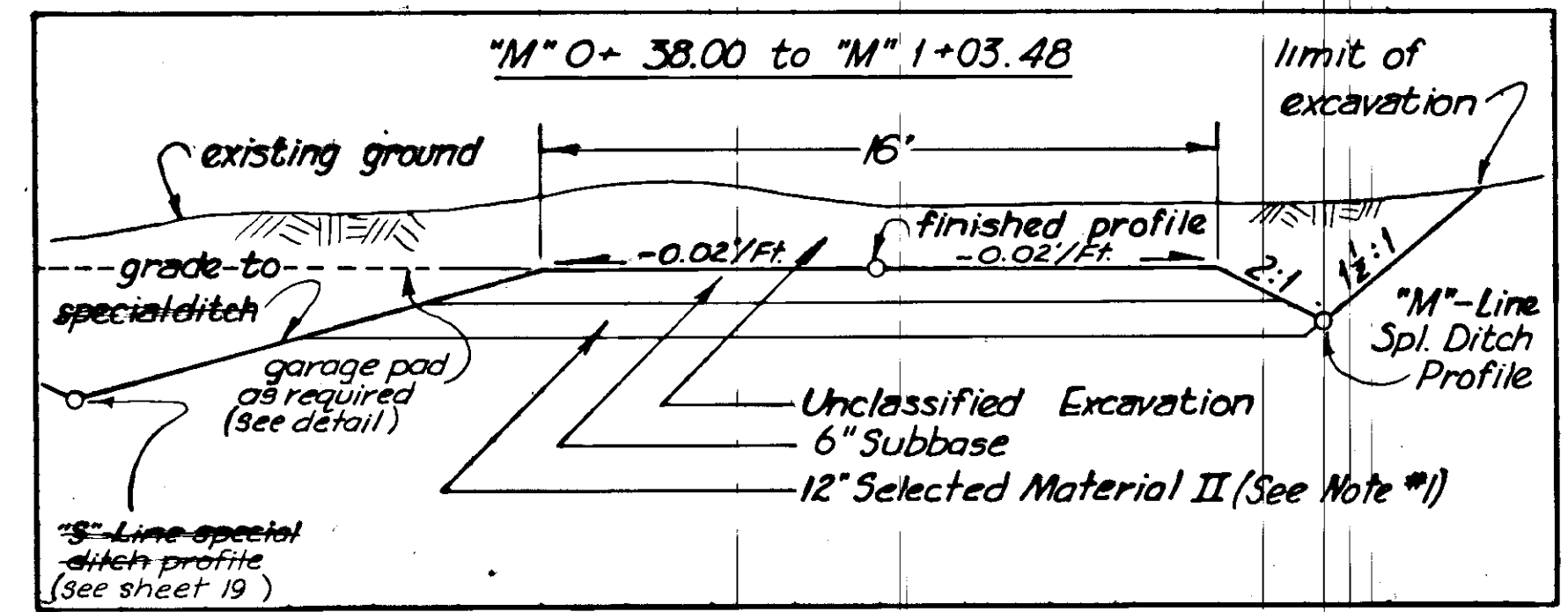
NOTES

- At the option of the Engineer, base materials may be omitted when suitable native foundation materials are encountered during excavation and left in place to finished grade.
- All constructed fore and back slopes shall be covered with topsoil and seeded except such slopes as may be excluded by the Engineer.
- The Contractor shall maintain reasonable access for the property owner to his house during construction; any closure of access shall have prior agreement by the Engineer.
- The existing frame garage (timber foundation) and fuel tank shall be relocated as shown on these plans; this work shall be considered a subsidiary obligation of the Contractor and shall be incidental to other items of work.



Embankment = 94 cu yds. (Includes 94 cu yds. Selected Material II)
 Unclassified Excavation = 1589 cu yds. (100 cu yds. waste)
 Borrow = 0

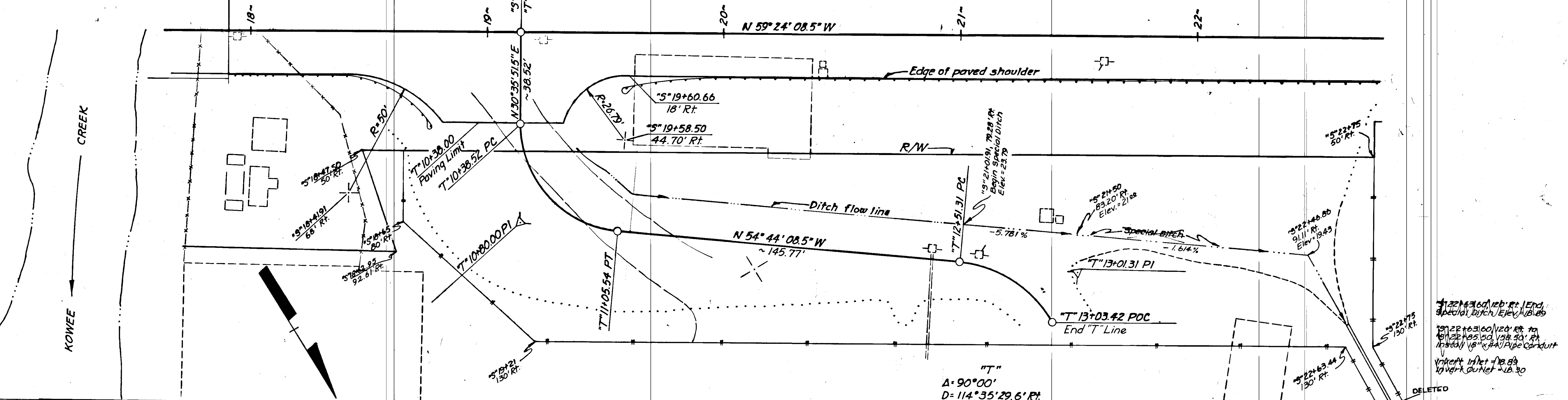
TYPICAL SECTION OF IMPROVEMENT



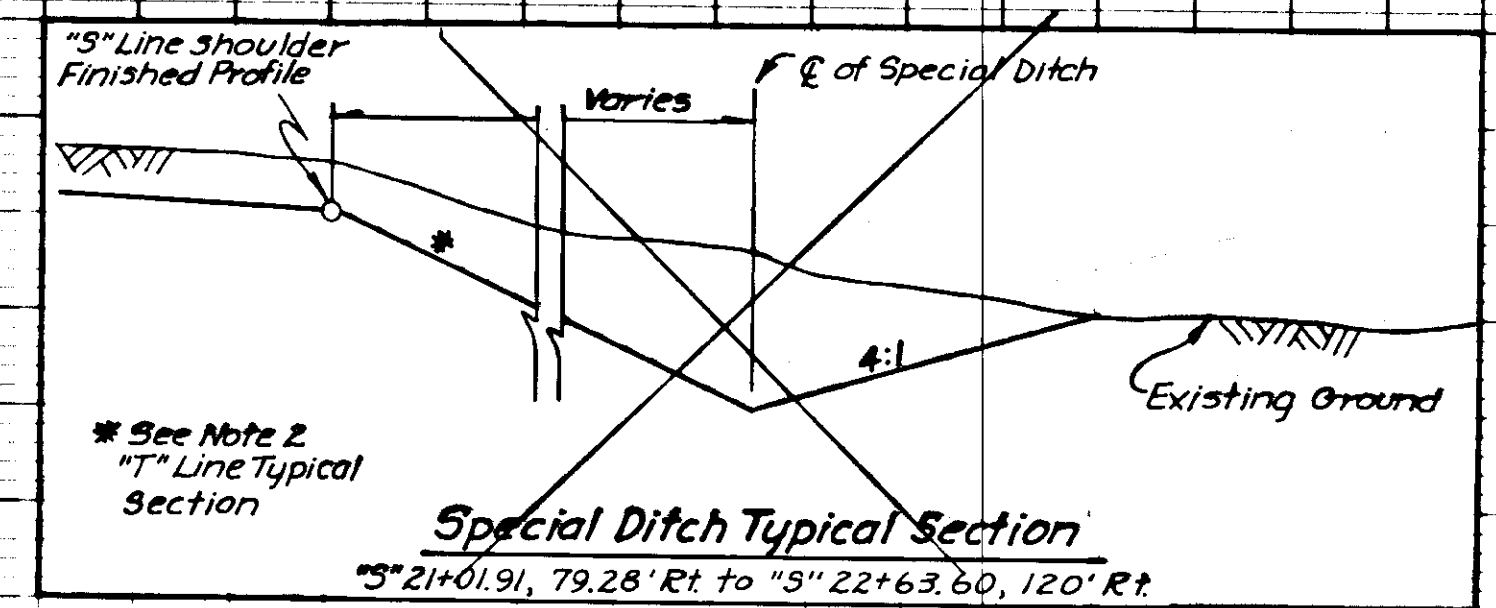
| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-0959(10) | 1979 | 25 | 110 |

"T" LINE

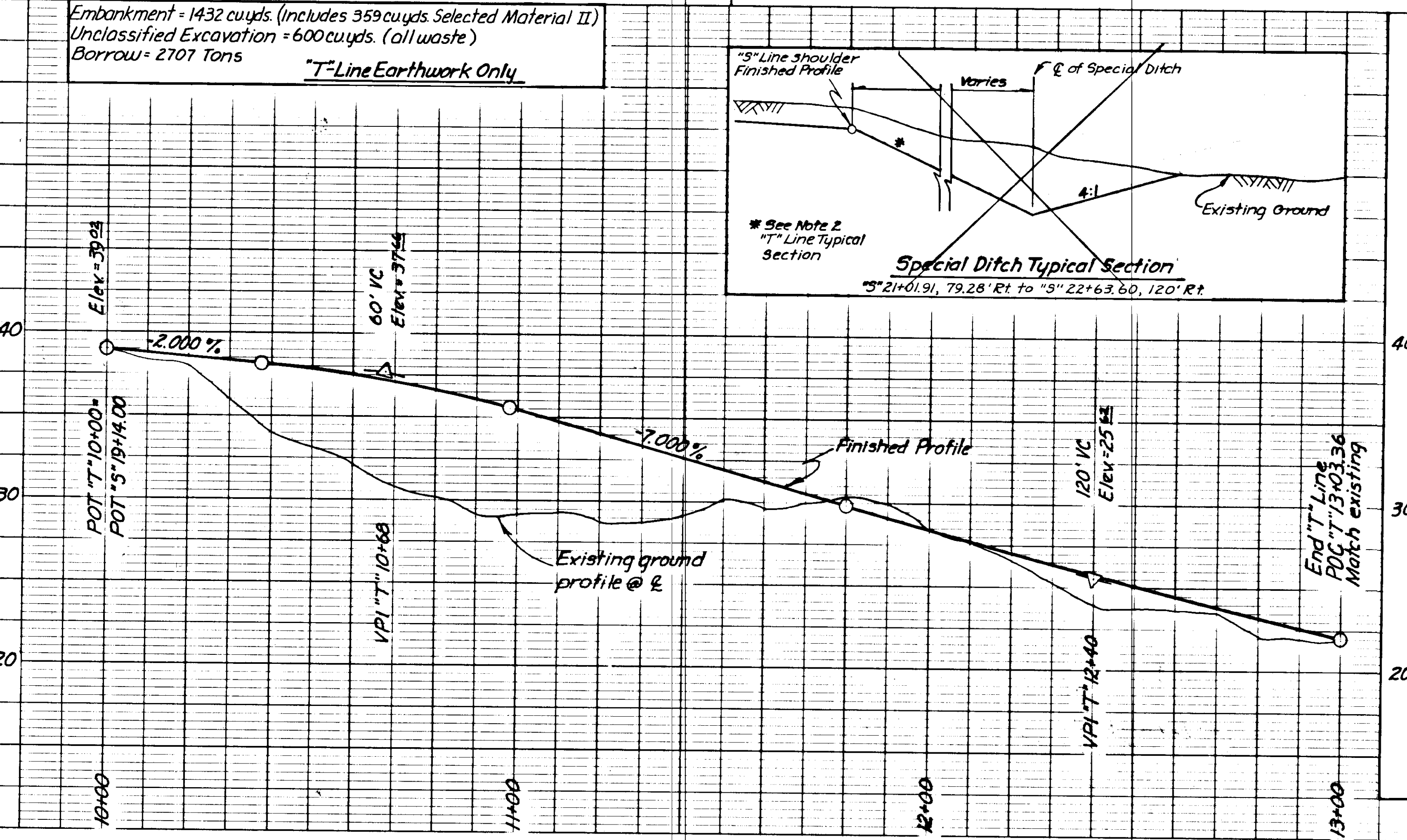
"T"
 $\Delta = 85^\circ 20'$
 $D = 127^\circ 19' 26.2" L.R.$
 $T = 41.48'$
 $L = 67.02'$
 $R = 45.000'$
 $S = 0.02'/ft.$



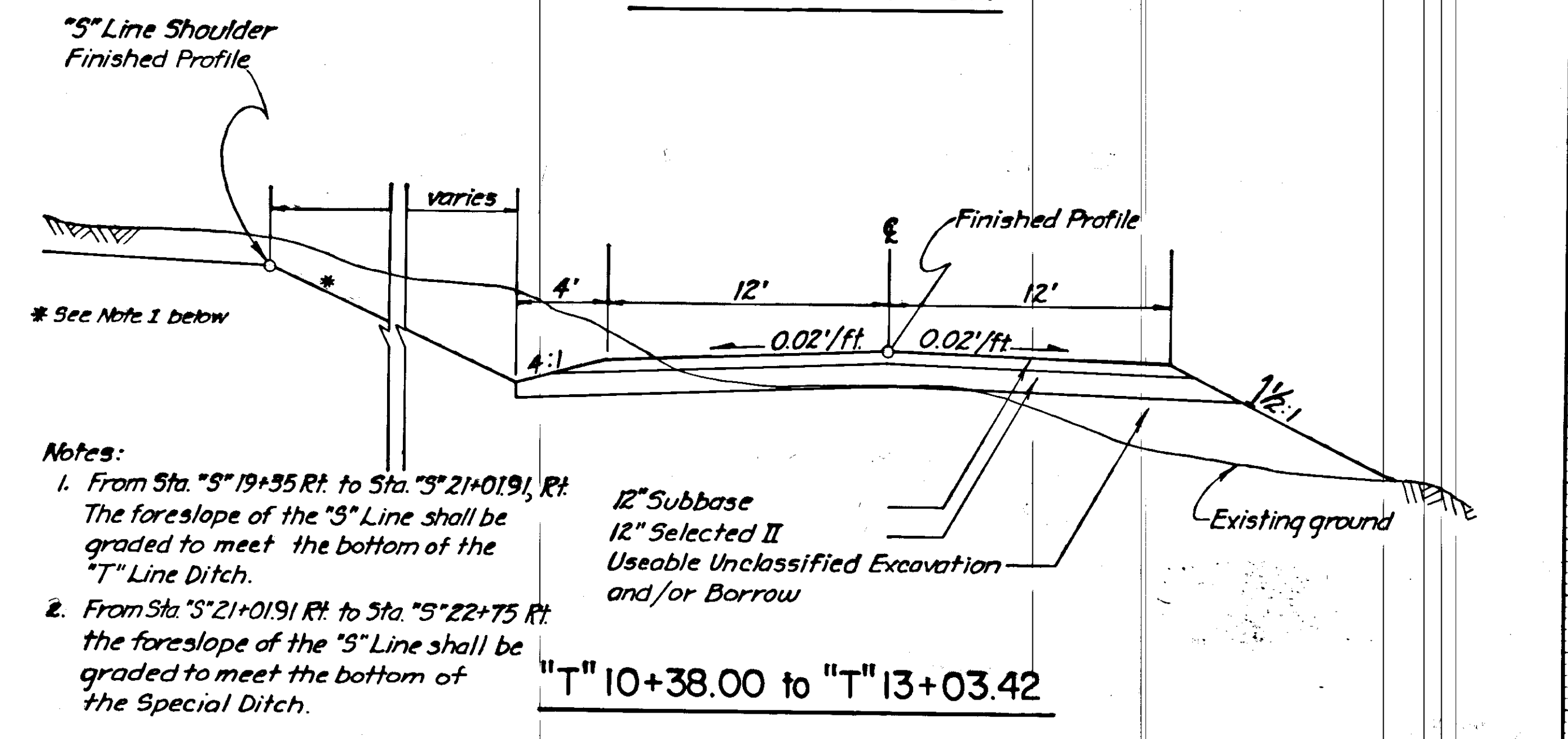
Embankment = 1432 cu yds. (includes 359 cu yds. Selected Material II)
 Unclassified Excavation = 600 cu yds. (all waste)
 Borrow = 2707 Tons
"T" Line Earthwork Only



"T"
 $\Delta = 90^\circ 00'$
 $D = 114^\circ 35' 29.6" R.R.$
 $T = 50.00'$
 $L = 78.54'$
 $R = 50.00'$
 $S = 0.02'/ft.$

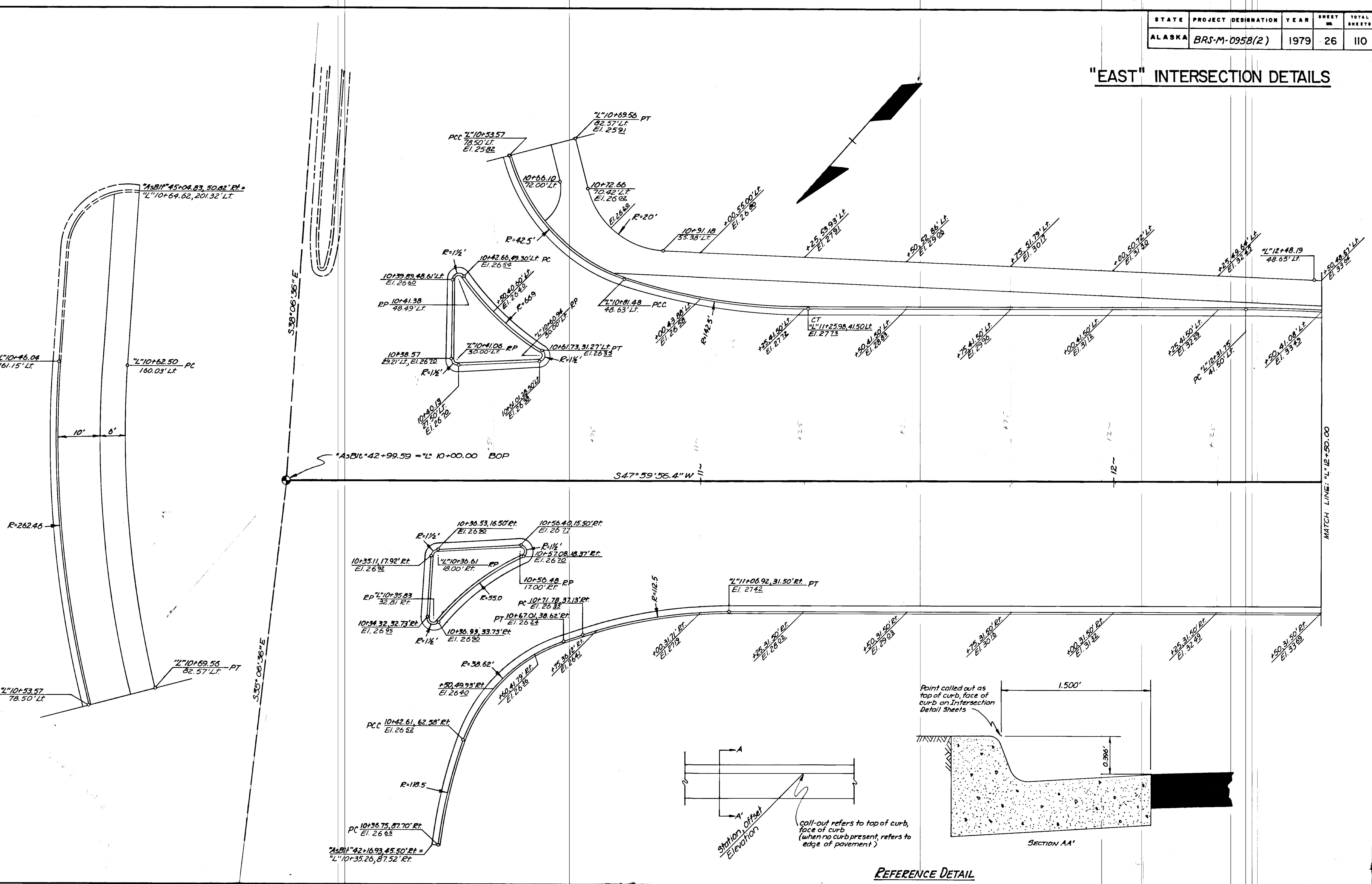


TYPICAL SECTION



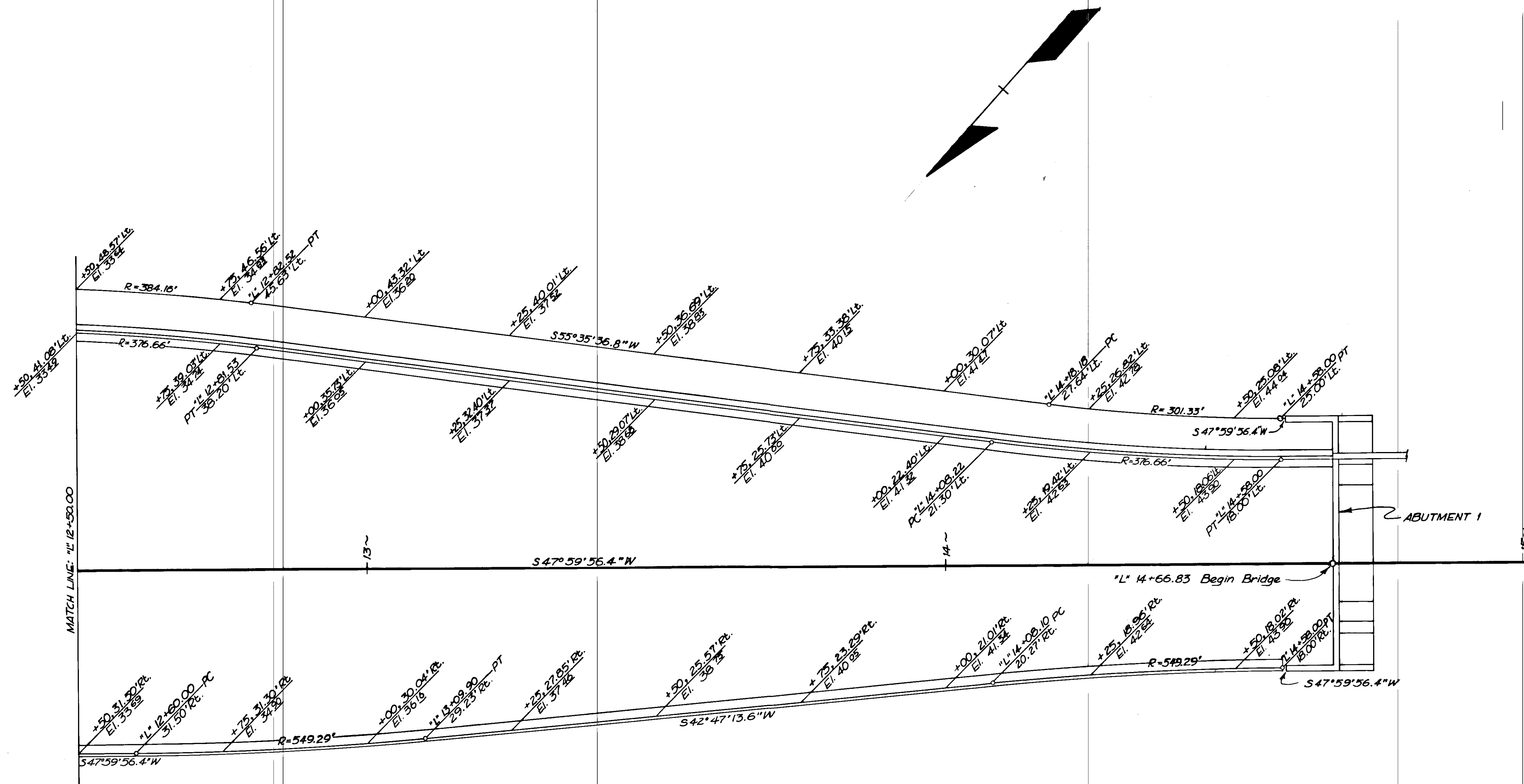
| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 26 | 110 |

"EAST" INTERSECTION DETAILS



| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 27 | 110 |

"EAST" INTERSECTION DETAILS



"WEST" INTERSECTION DETAILS

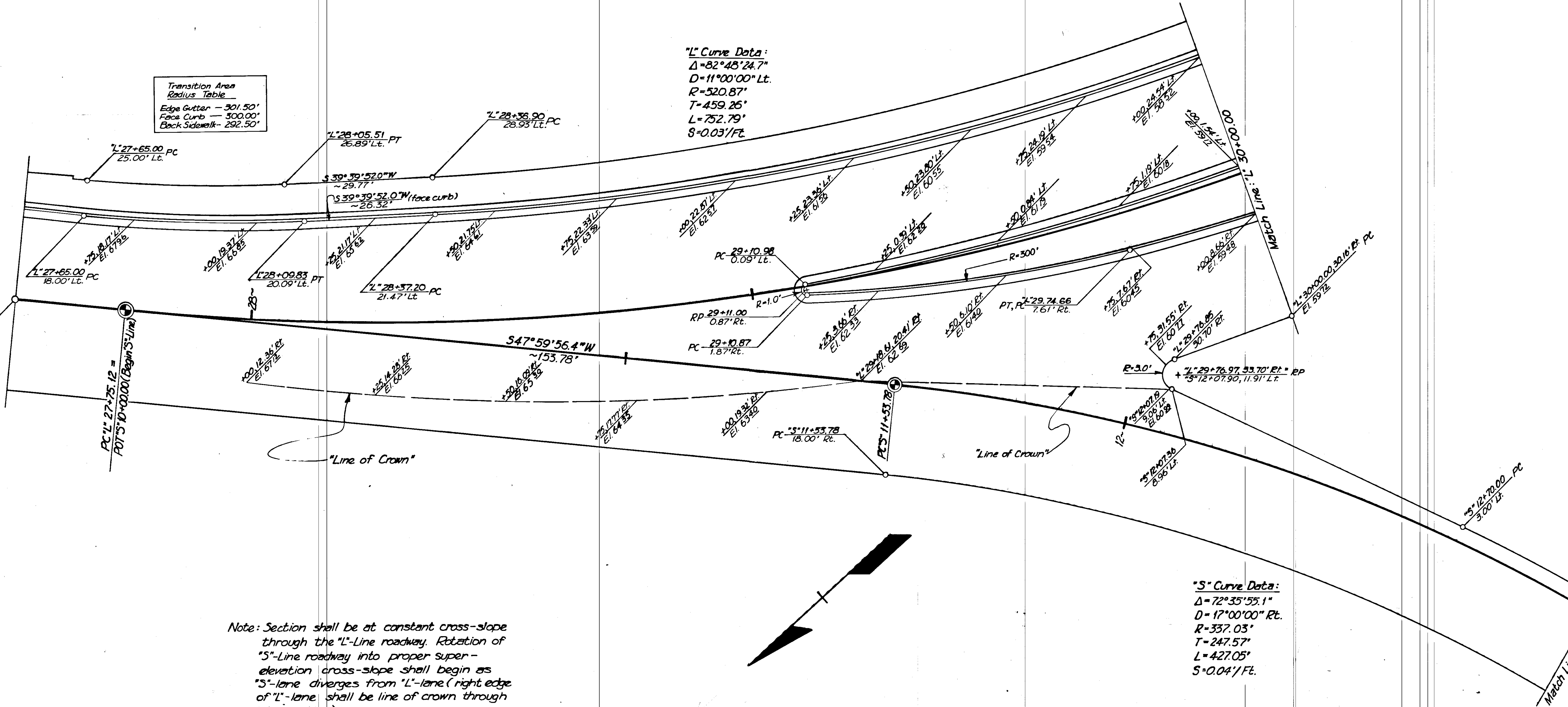
Transition Area
Radius Table
Edge Gutter - 301.50'
Face Curb - 500.00'
Back Sidewalk - 292.50'

"L" Curve Data:
 $\Delta = 82^\circ 45' 24.7"$
 $D = 11^\circ 00' 00" \text{ Lt.}$
 $R = 520.87'$
 $T = 459.26'$
 $L = 752.79'$
 $S = 0.03'/\text{ft.}$

"S" Curve Data:
 $\Delta = 72^\circ 35' 55.1"$
 $D = 17^\circ 00' 00" \text{ Rt.}$
 $R = 337.03'$
 $T = 247.57'$
 $L = 427.05'$
 $S = 0.04'/\text{ft.}$

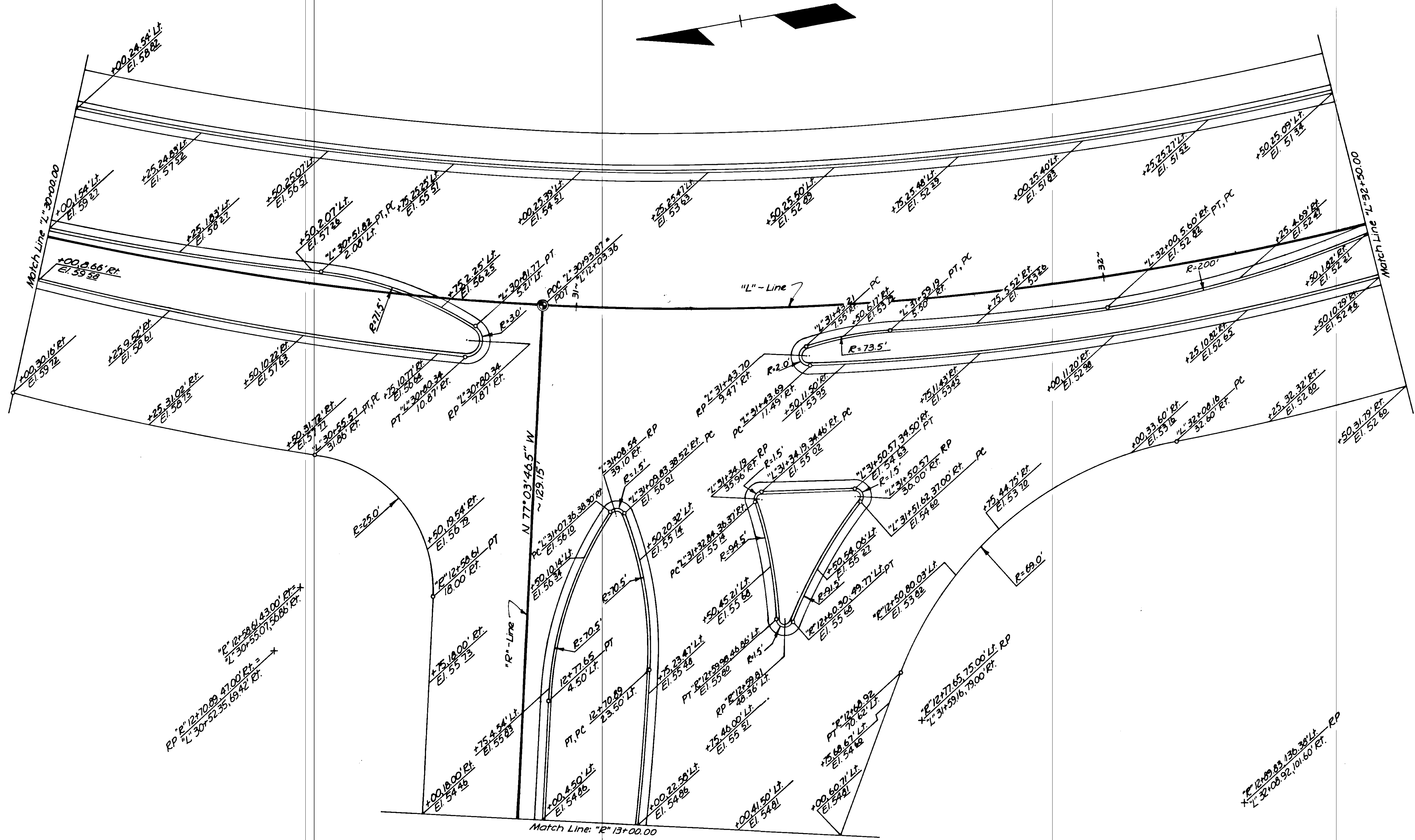
Note: Section shall be at constant cross-slope through the "L-Line" roadway. Rotation of "S-Line" roadway into proper super-elevation cross-slope shall begin as "S"-lane diverges from "L"-lane (right edge of "L"-lane shall be line of crown through intersection).

End Bridge No. 740
"L" 27+53.17



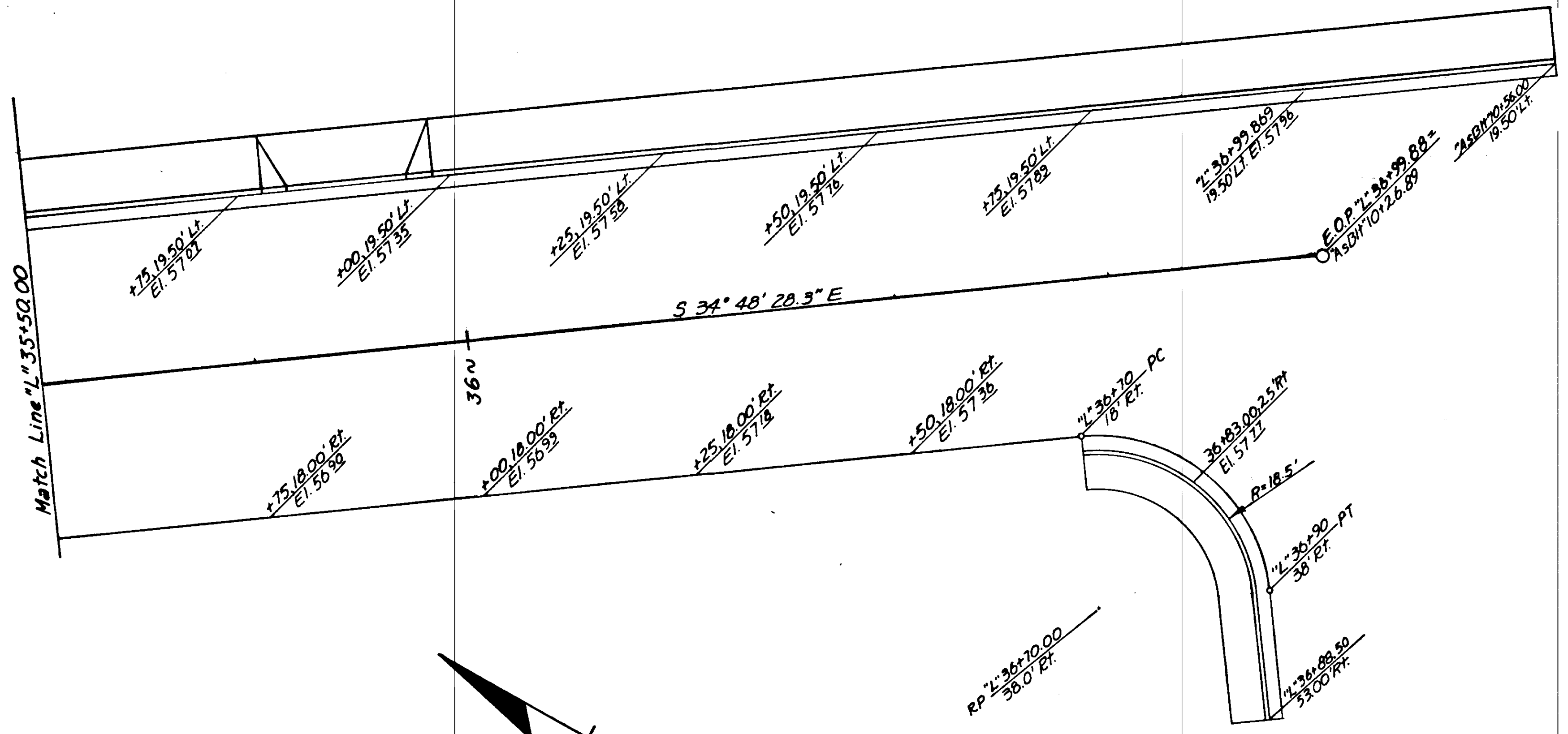
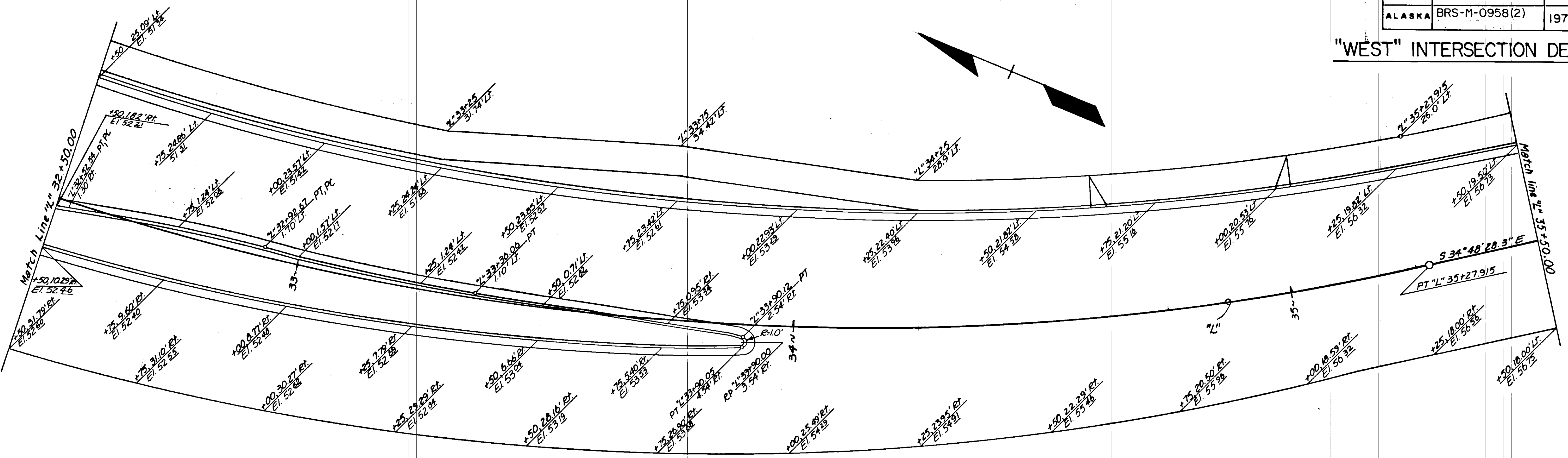
| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 29 | 110 |

"WEST" INTERSECTION DETAILS



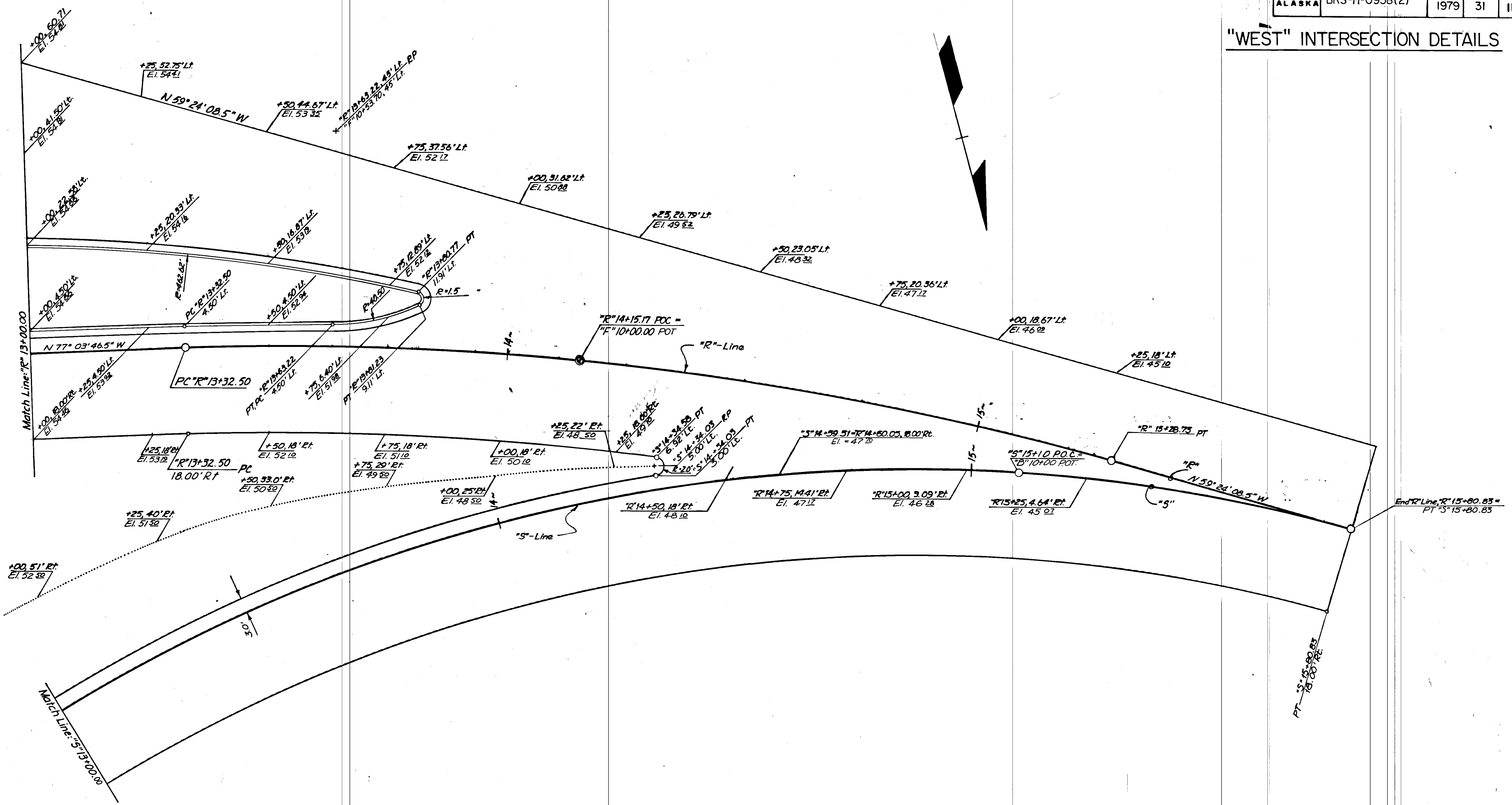
| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 30 | 110 |

"WEST" INTERSECTION DETAILS



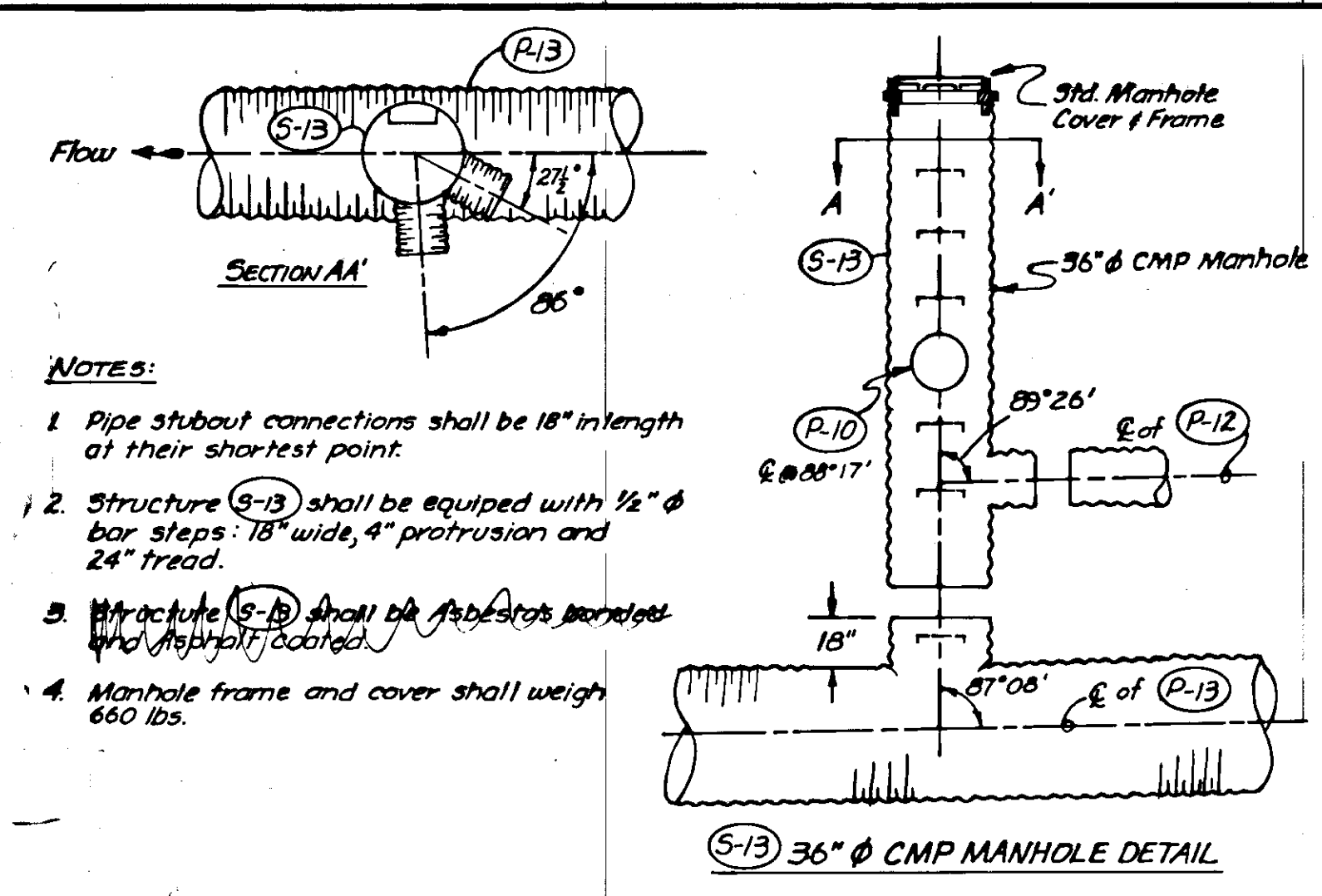
| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 31 | 110 |

"WEST" INTERSECTION DETAILS



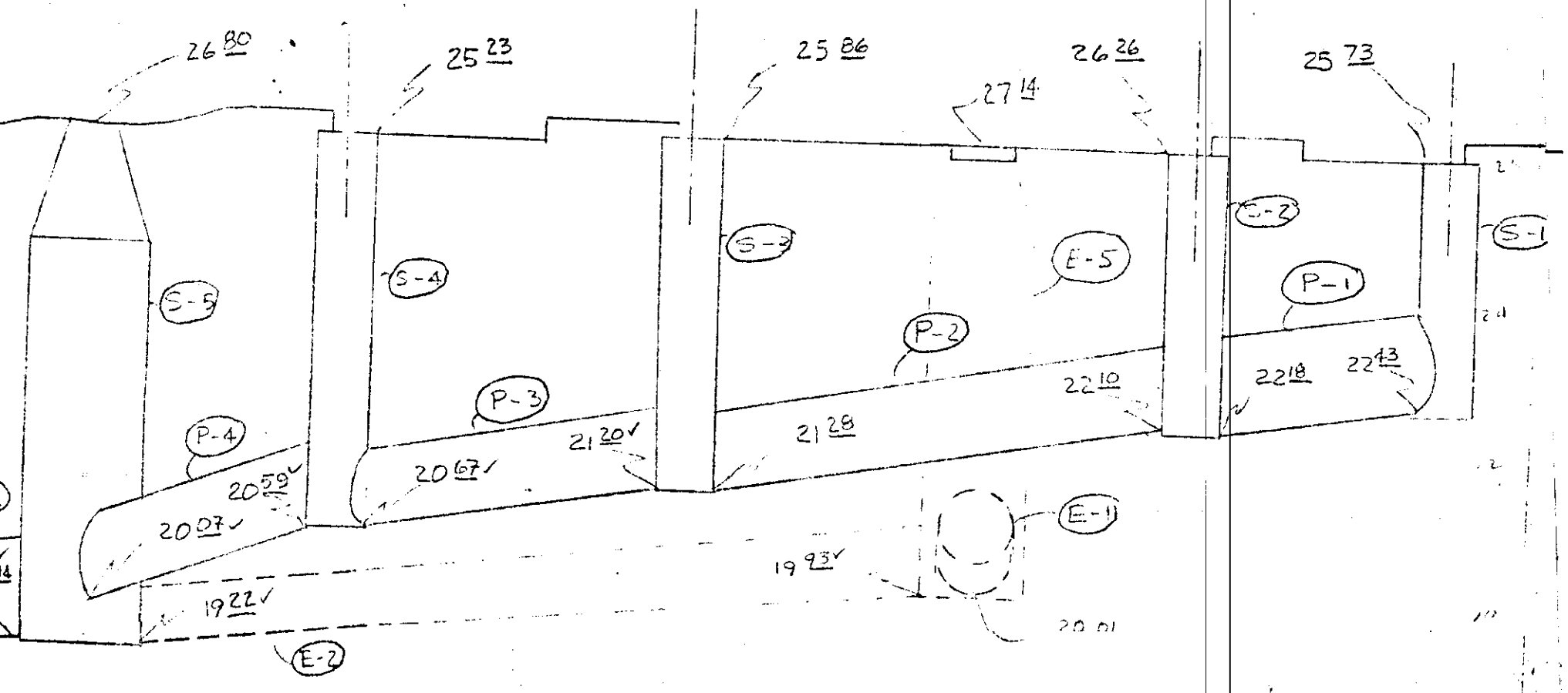
DRAINAGE DETAILS

NOTES:
 1. Profiles below show a schematic relationship of the structures, pipes and the portion of the roadway in which they are installed; these schematic drawings are not to scale.



NOTES:
 1. Pipe stubout connections shall be 18" in length at their shortest point.
 2. Structure (S-13) shall be equipped with 1/2" diameter bar steps: 18" wide, 4" protrusion and 24" tread.
 3. Structure (S-13) shall be fabricated from galvanized steel pipe.
 4. Manhole frame and cover shall weigh 660 lbs.

S-13 36" Ø CMP MANHOLE DETAIL

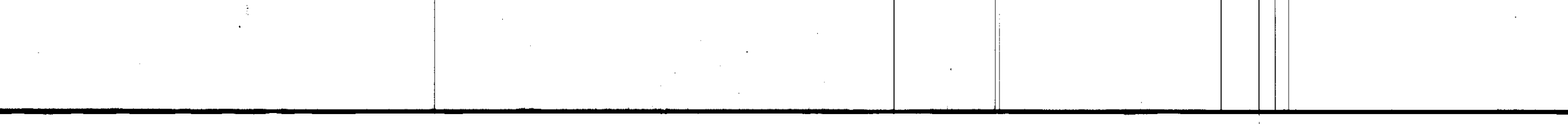
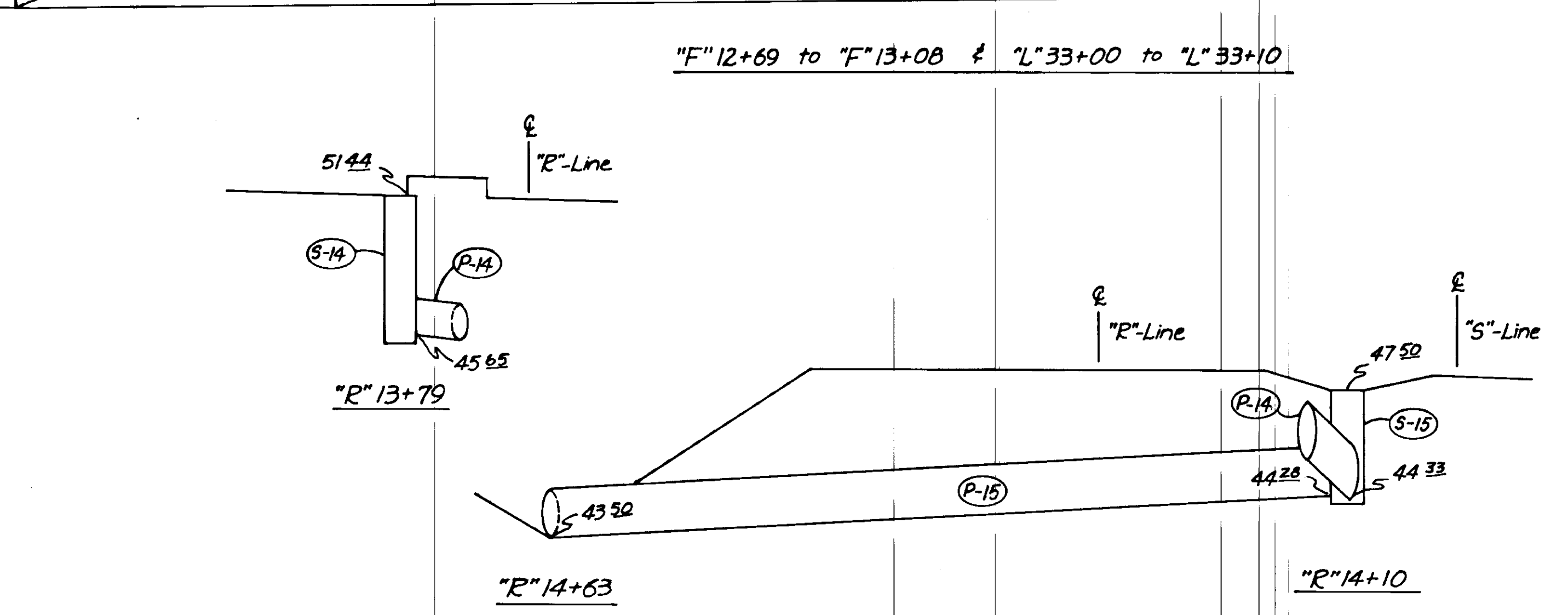
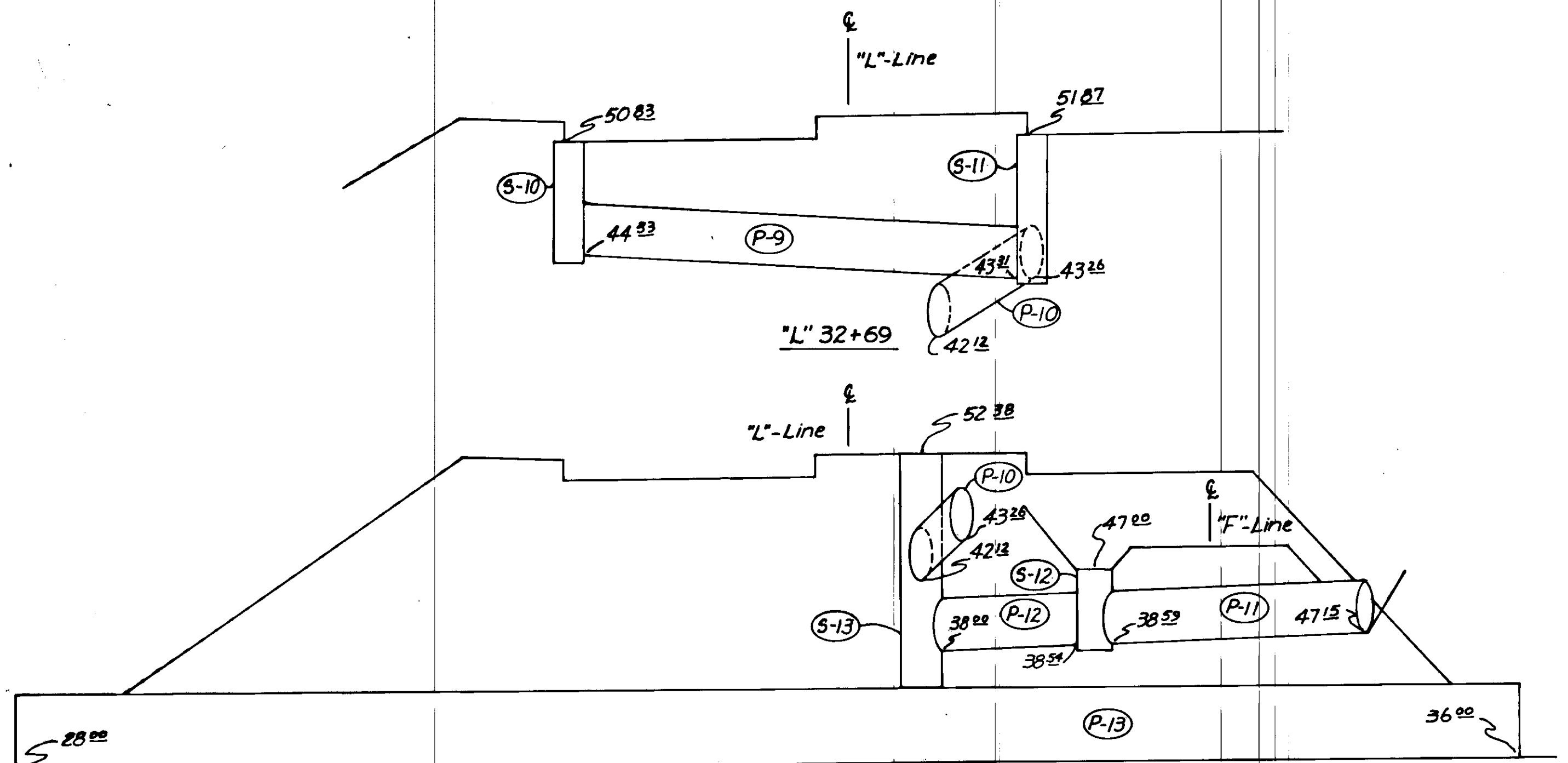
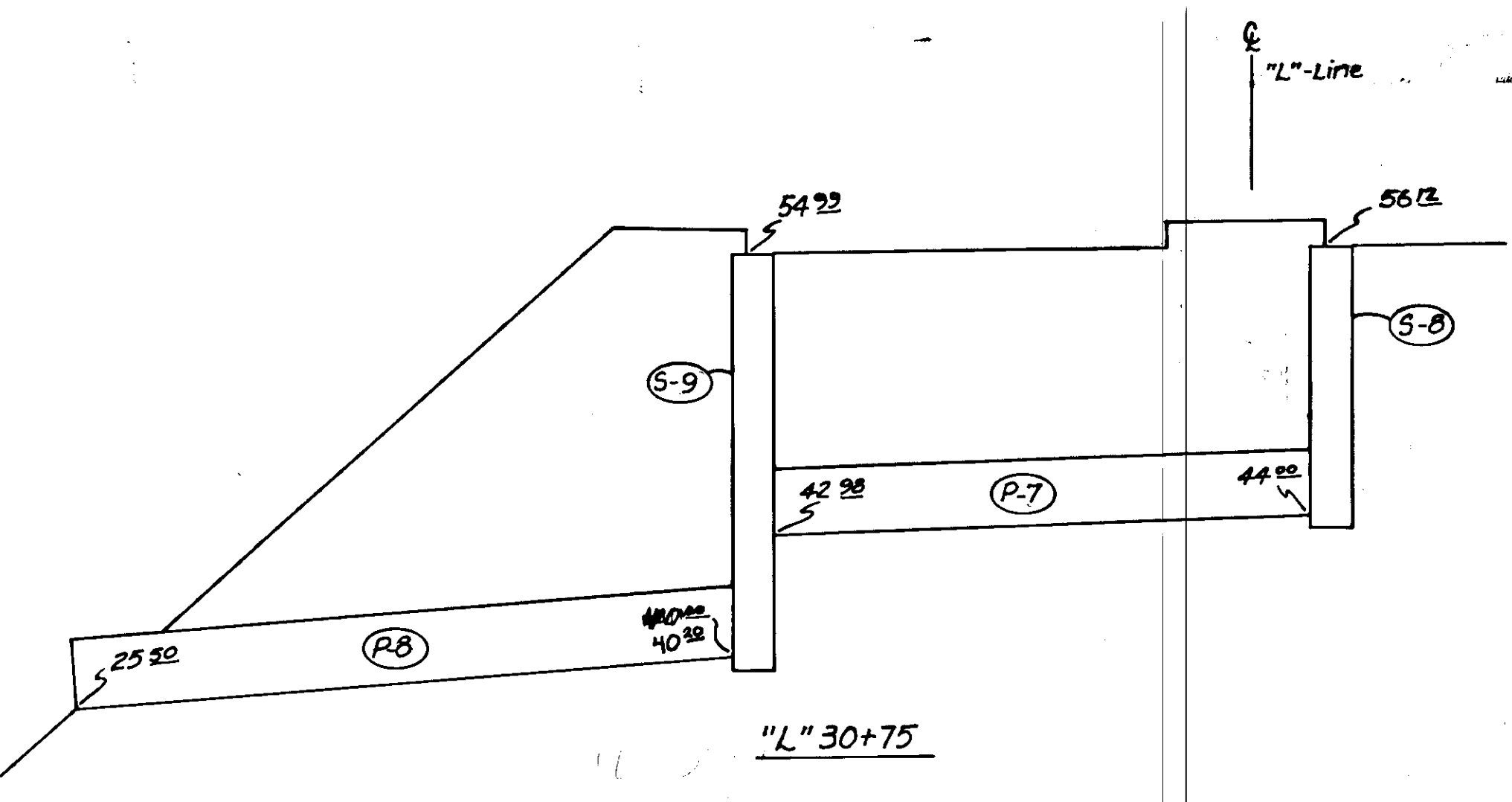
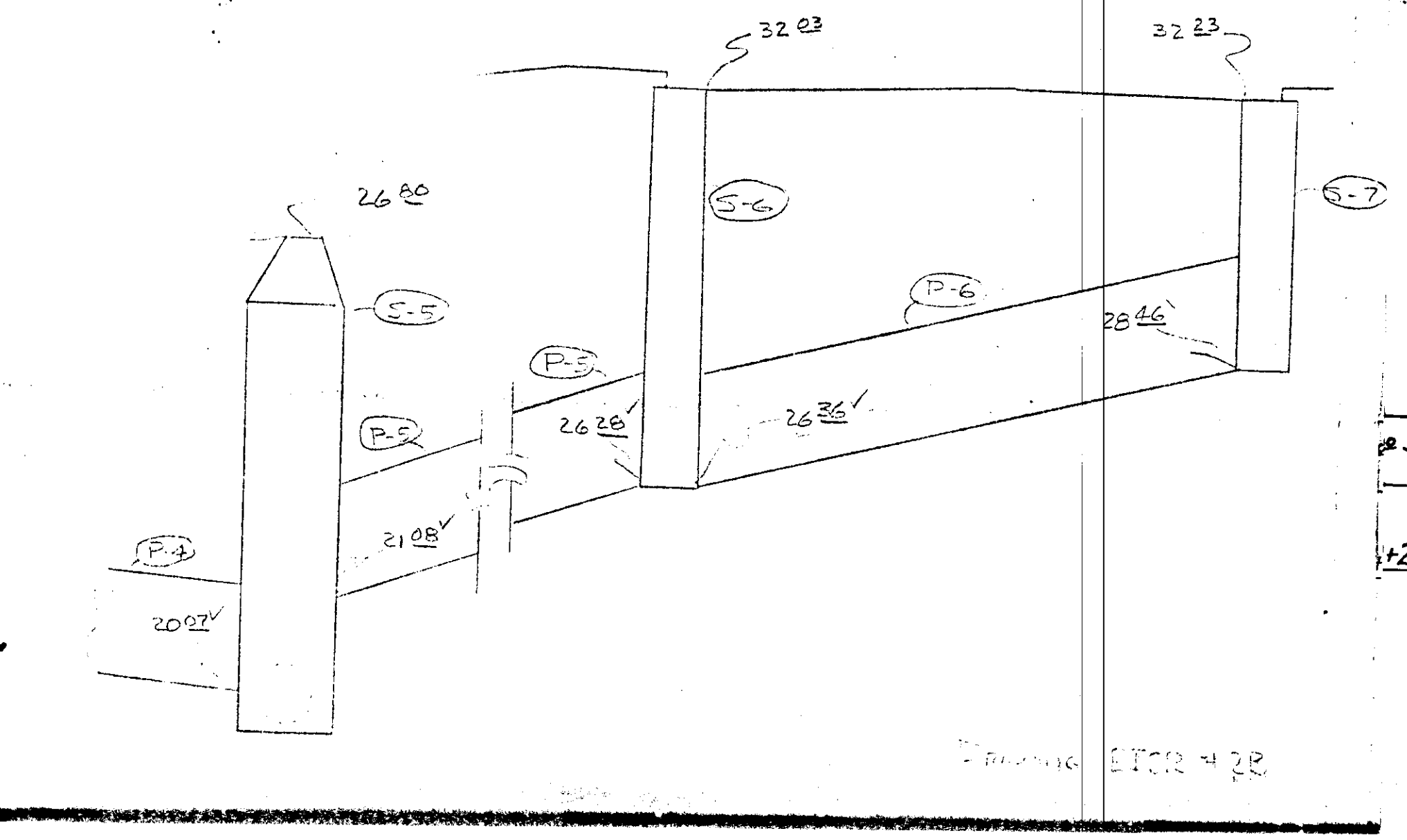


| STRUCTURE SUMMARY | | | | | | |
|-------------------|------------------|-------------|------------|------------|------------|-----------|
| No. | Type | Station | Offset | Elevations | | |
| | | | | Top Curb | Grate/Cvr. | Invert * |
| S-1 | "A" Curb Inlet | "L" 10+73 | 52' Lt. | 25.75 | 25.22 | 21.47 |
| S-2 | "A" Curb Inlet | "L" 10+59 | 28' Lt. | 26.38 | 25.86 | 21.16 |
| S-3 | "A" Curb Inlet | "L" 10+55 | 15' Rt. | 26.77 | 26.24 | 22.27 |
| S-4 | "A" Curb Inlet | "L" 10+69 | 38' Rt. | 26.25 | 25.74 | 21.75 |
| S-5 | Manhole | "L" 10+95 | 7' Rt. | N/A | 27.14 | 19.90 (1) |
| S-6 | "A" Curb Inlet | "L" 12+75 | 38' Lt. | 34.74 | 34.22 | 28.00 |
| S-7 | "A" Curb Inlet | "L" 12+75 | 30' Rt. | 34.90 | 34.38 | 22.00 |
| S-8 | "A" Curb Inlet | "L" 30+75 | 11.5' Rt. | 56.64 | 56.12 | 44.00 |
| S-9 | "A" Curb Inlet | "L" 30+75 | 24.5' Lt. | 55.51 | 54.99 | 40.00 |
| S-10 | "A" Curb Inlet | "L" 32+69 | 24.9' Lt. | 51.35 | 50.83 | 44.33 |
| S-11 | "A" Curb Inlet | "L" 32+69 | 9.8' Rt. | 52.39 | 51.87 | 43.26 |
| S-12 | "A" Field Inlet | "F" 13+08 | 14.5' Lt. | N/A | 47.00 | 38.54 |
| S-13 | Manhole | "L" 33+07 | 3.5' Rt. | N/A | 52.38 | N/A |
| S-14 | "A" Curb Inlet | "L" 13+79 | 13.0' Lt. | 51.96 | 51.44 | 45.65 |
| S-15 | "A" Field Inlet | "R" 14+10 | 23.0' Rt. | N/A | 47.50 | 44.28 |
| S-1 | "A" Curb Inlet | "L" 10+69 | 37.5' Rt. | 26.25 | 25.73 | 22.60 |
| S-2 | "A" Curb Inlet | "L" 10+54 | 15.2' Rt. | 26.78 | 26.26 | 22.14 |
| S-3 | "A" Curb Inlet | "L" 10+58 | 27.86' Lt. | 26.38 | 25.86 | 21.24 |
| S-4 | "A" Curb Inlet | "L" 10+73 | 51.91' Lt. | 25.75 | 25.23 | 20.63 |
| S-5 | Storm Sewer M.H. | "L" 10+96.3 | 59.5' Lt. | | | 19.18 |

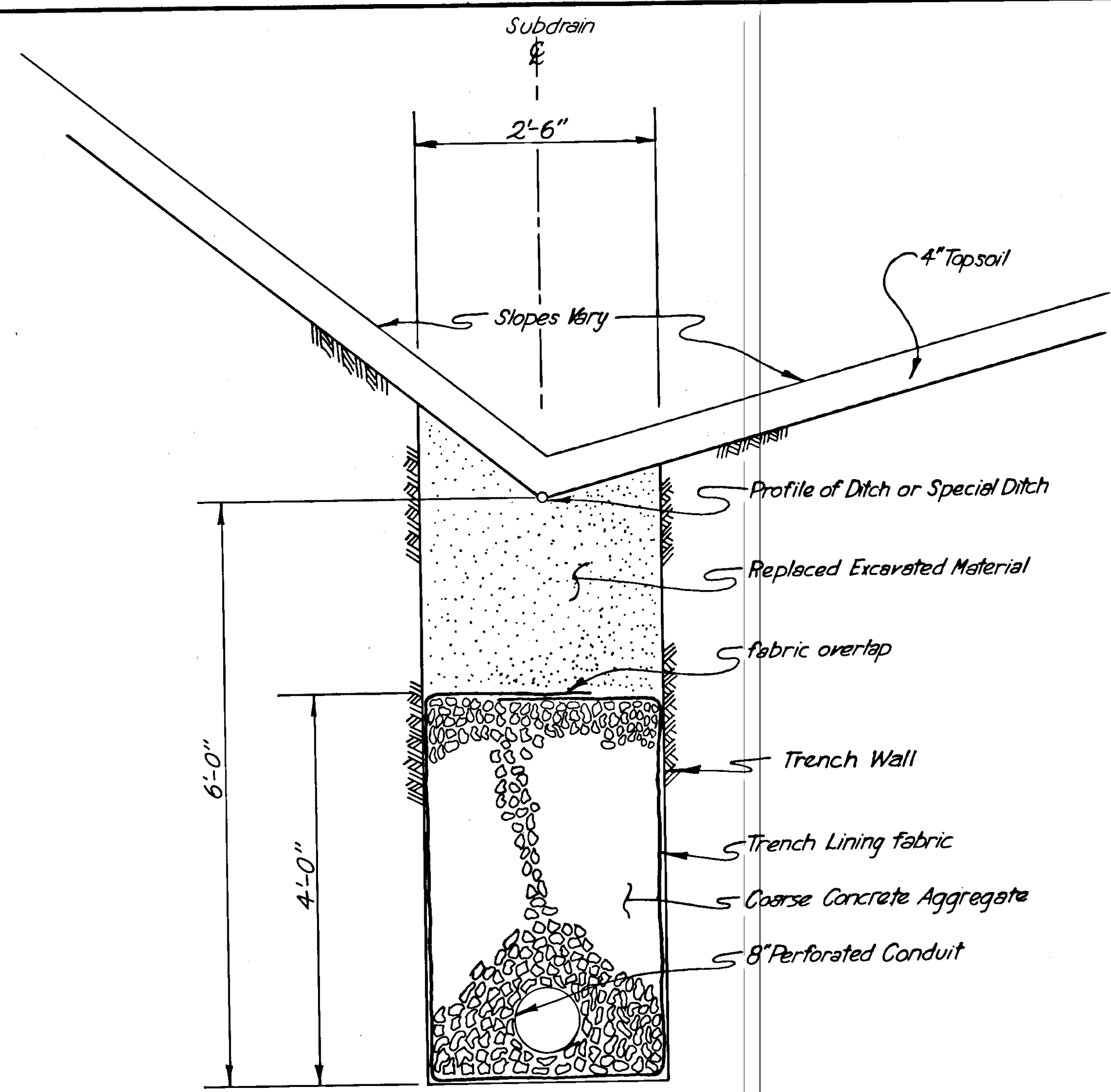
| PIPE SUMMARY | | | | | | | |
|--------------|------|------|-----------|------------------------|-----------|------------------------|-----------|
| No. | Dia. | Lgth | Grade (%) | Flowing From | | Flowing To | |
| | | | | Structure/Sta. | Inv. El. | Structure/Sta. | Inv. El. |
| P-1 | 18" | 26' | 1.0% | S-1 | 21.47 | S-2 | 21.21 |
| P-2 | 18" | 48' | 1.0% | S-2 | 21.16 | S-3 | 20.80 |
| P-3 | 18" | 29' | 2.0% | S-3 | 22.27 | S-4 | 21.80 |
| P-4 | 18" | 38' | 4.6% | S-4 | 21.75 | S-5 | 20.00 |
| E-1 | 8" | N/A | N/A | Existing Line | N/A | S-5 | 19.90 (1) |
| E-2 | 12" | N/A | N/A | S-5 | 19.90 (1) | Existing Line | N/A |
| P-5 | 18" | 66' | 5.3% | S-6 | 26.00 | S-7 | 22.50 |
| P-6 | 18" | 80' | 7.5% | S-7 | 22.00 | "L" 12+25.94' Rt. (4) | 16.00 |
| P-7 | 18" | 34' | 3.0% | S-8 | 44.00 | S-9 | 42.98 |
| P-8 | 18" | 56' | 26% | S-9 | 40.00 | "L" 30+75, 80' Lt. (4) | 25.50 |
| P-9 | 18" | 34' | 3.0% | S-10 | 44.33 | S-11 | 43.31 |
| P-10 | 18" | 38' | 3.0% | S-11 | 43.26 | S-13 | 42.12 |
| P-11 | 18" | 52' | 17% | "F" 12+69, 20' Rt. (5) | 47.15 | S-12 | 38.59 |
| P-12 | 18" | 54' | 1.0% | S-12 | 38.54 | S-13 | 38.00 |
| P-13 | 48" | 164' | 4.9% | "F" 13+20, 30' Rt. (5) | 36.00 | "L" 33+00, 32' Lt. (4) | 28.00 |
| P-14 | 18" | 44' | 3.0% | S-14 | 45.65 | S-15 (5) | 44.33 |
| P-15 | 18" | 78' | 1.0% | S-15 | 44.28 | "R" 14+63, 36' Lt. (4) | 43.50 |
| P-1 | 18" | 30' | 1.0% | S-1 | 22.43 | S-2 | 22.18 |
| P-2 | 18" | 40' | 2.1% | S-2 | 22.10 | S-3 | 21.28 |
| P-3 | 18" | 26' | 2.0% | S-3 | 21.20 | S-4 | 20.67 |

NOTES:
 (1) May vary slightly due to existing line deviation from expected elev.
 (4) Outfall
 (5) Ditch Intercept

| | | | | | | | |
|-----|-----|------|--|-----|-------|-----|-------|
| P-4 | 18" | 27' | | S-4 | 20.59 | S-5 | 20.07 |
| P-5 | 18" | 130' | | S-6 | 26.28 | S-5 | 21.08 |
| P-6 | 18" | 72' | | S-7 | 28.46 | S-6 | 26.36 |



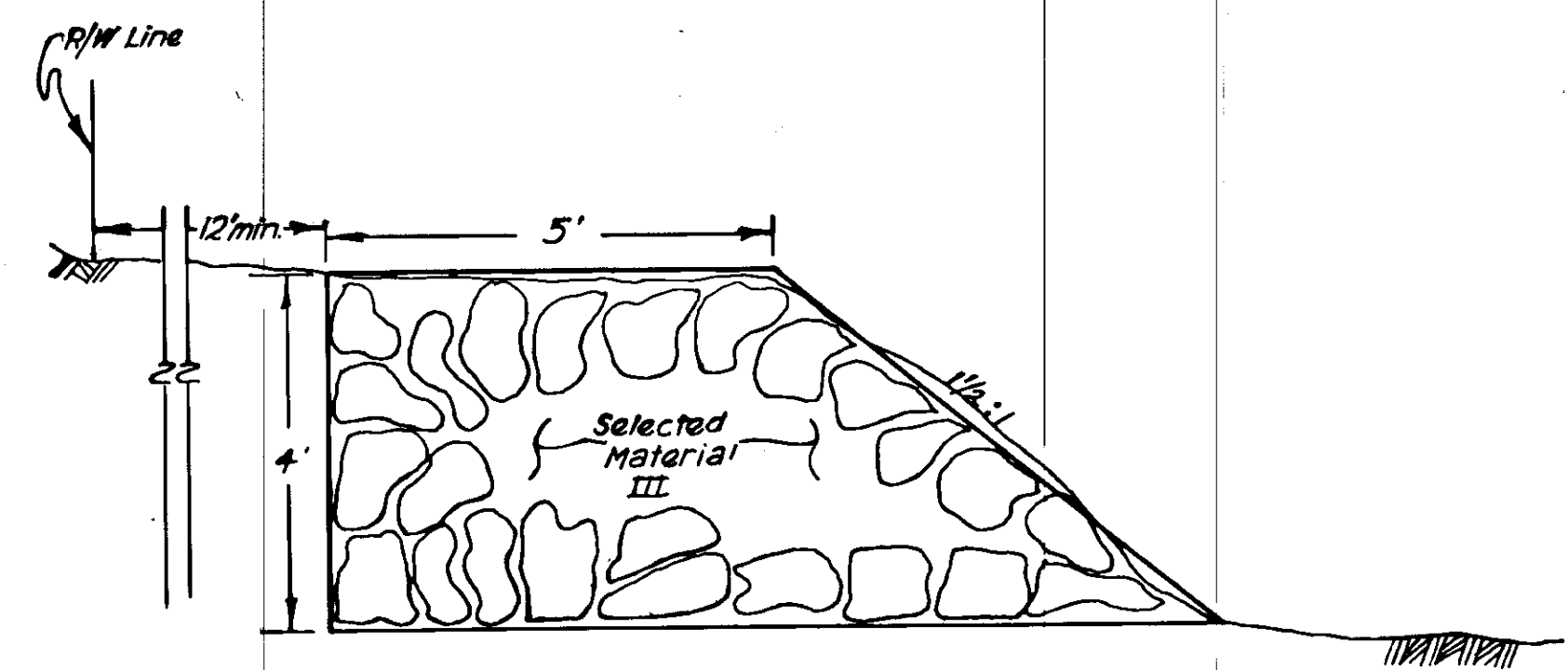
DRAINAGE DETAIL



SUBDRAIN SECTION DETAIL

Subdrain Notes:

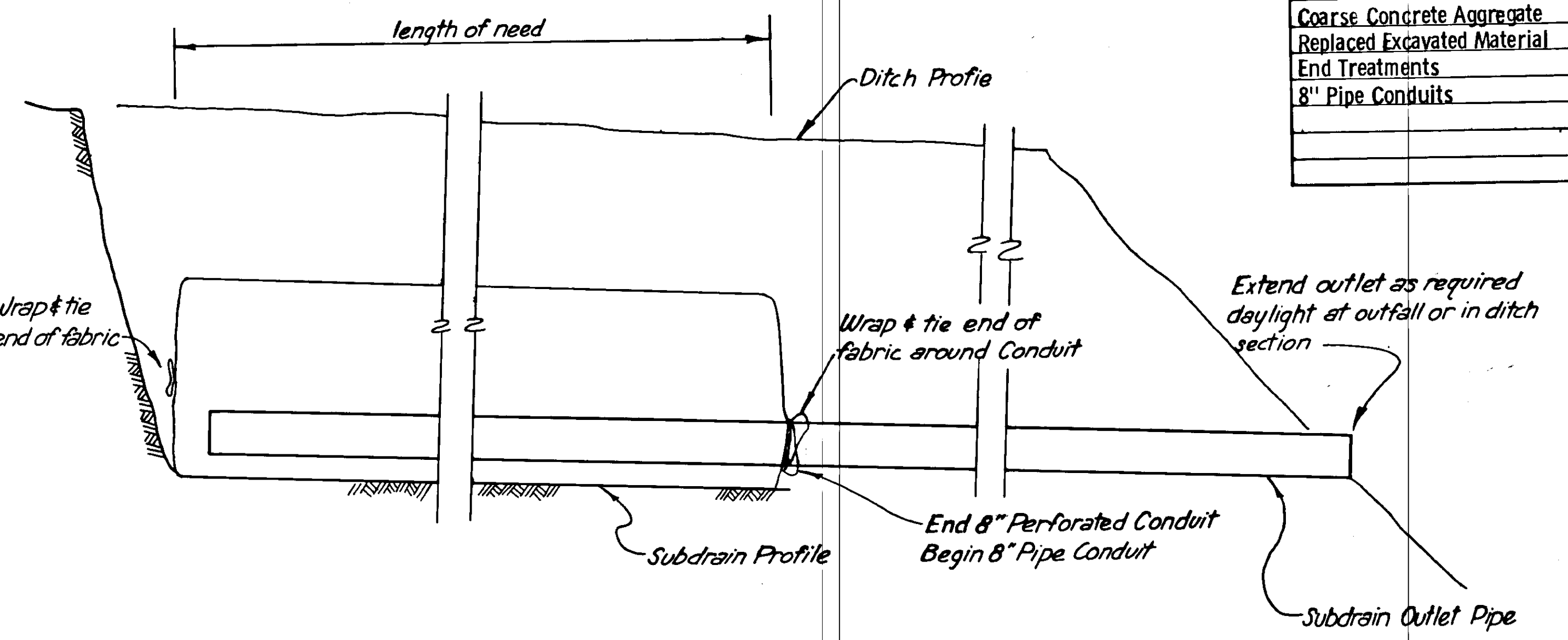
1. Excavation trench shall be shored as necessary during construction.
2. Aggregate shall be placed in a fashion to insure proper final position of trench lining fabric; care shall be taken to avoid tearing or punching holes in fabric during placing aggregate.
3. After placing aggregate within trench lining fabric, the fabric shall be lapped over the aggregate and secured adequately to provide a fit which will not allow the intrusion of soil particles through the seam.
4. Previously excavated silty material shall be replaced in the remainder in the trench in such a manner as to render the ditch bottom impervious.
5. Existing water service @ "S" 18+05 consists of a collection box at the end of the existing 12" perforated pipe shown on the plans. An adequate supply of potable water shall be maintained for the users of this water service throughout construction of the project. The contractor shall have the option of using stage construction for the new subdrain or providing an alternate supply of potable water until the new subdrain and collection box have been installed and are capable of supplying an adequate amount of potable water. All work and materials associated with re-establishing the water service and maintaining water service during construction shall be considered incidental to other items.



STREAM CHANNEL DIVERSION DIKE DETAIL
"L" 33+18,65' Lt. to "L" 32+78,105' Lt.

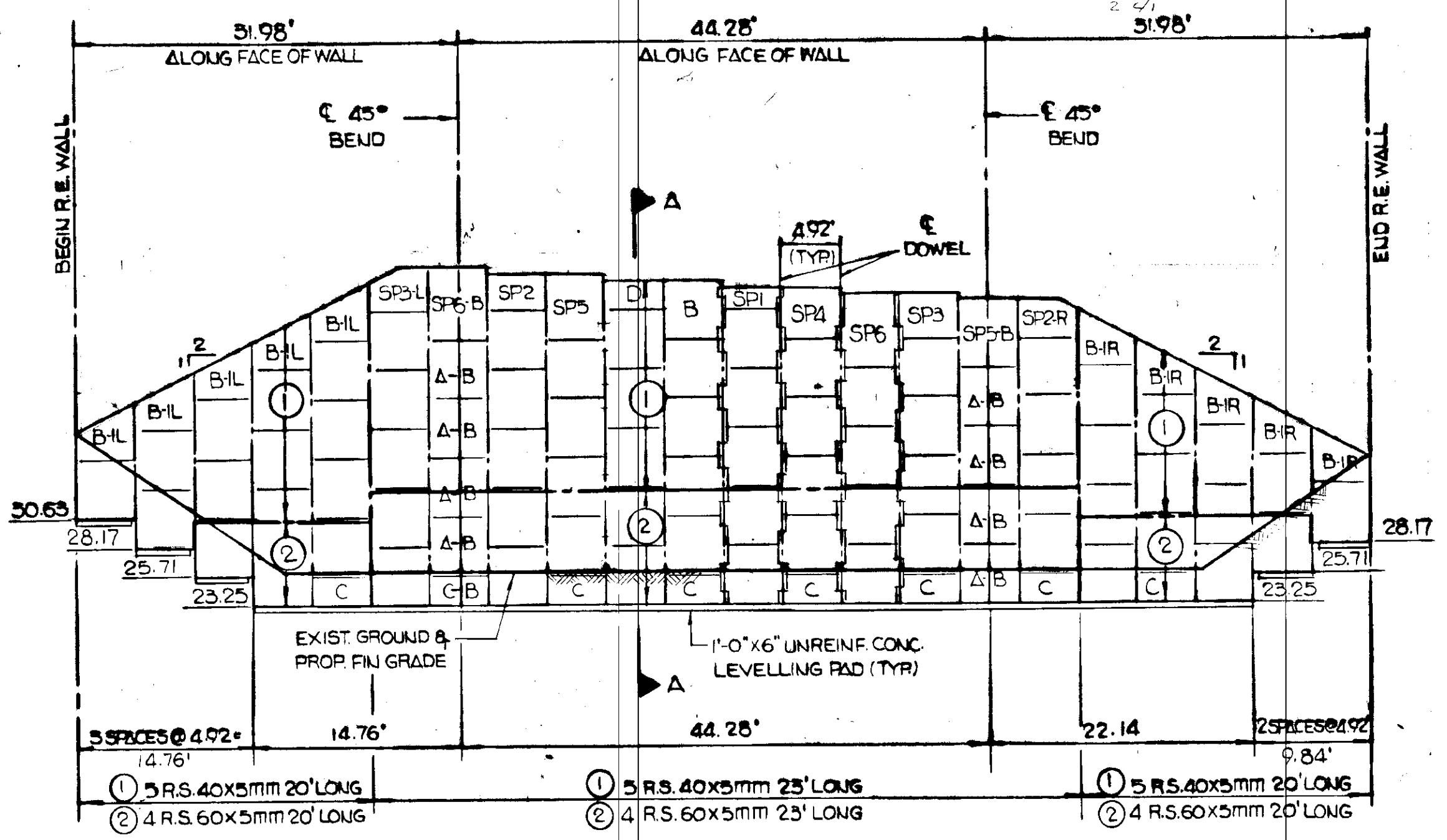
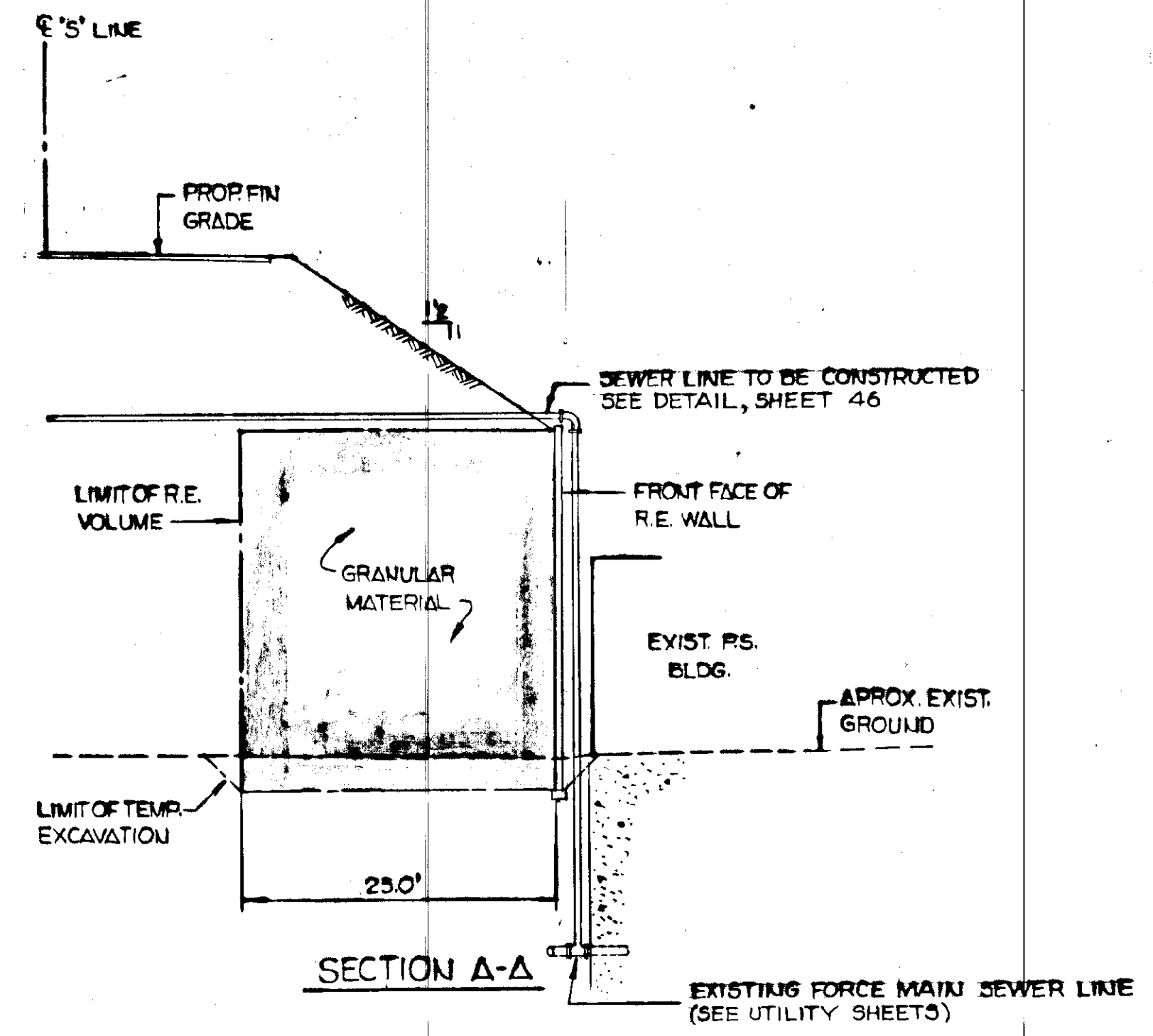
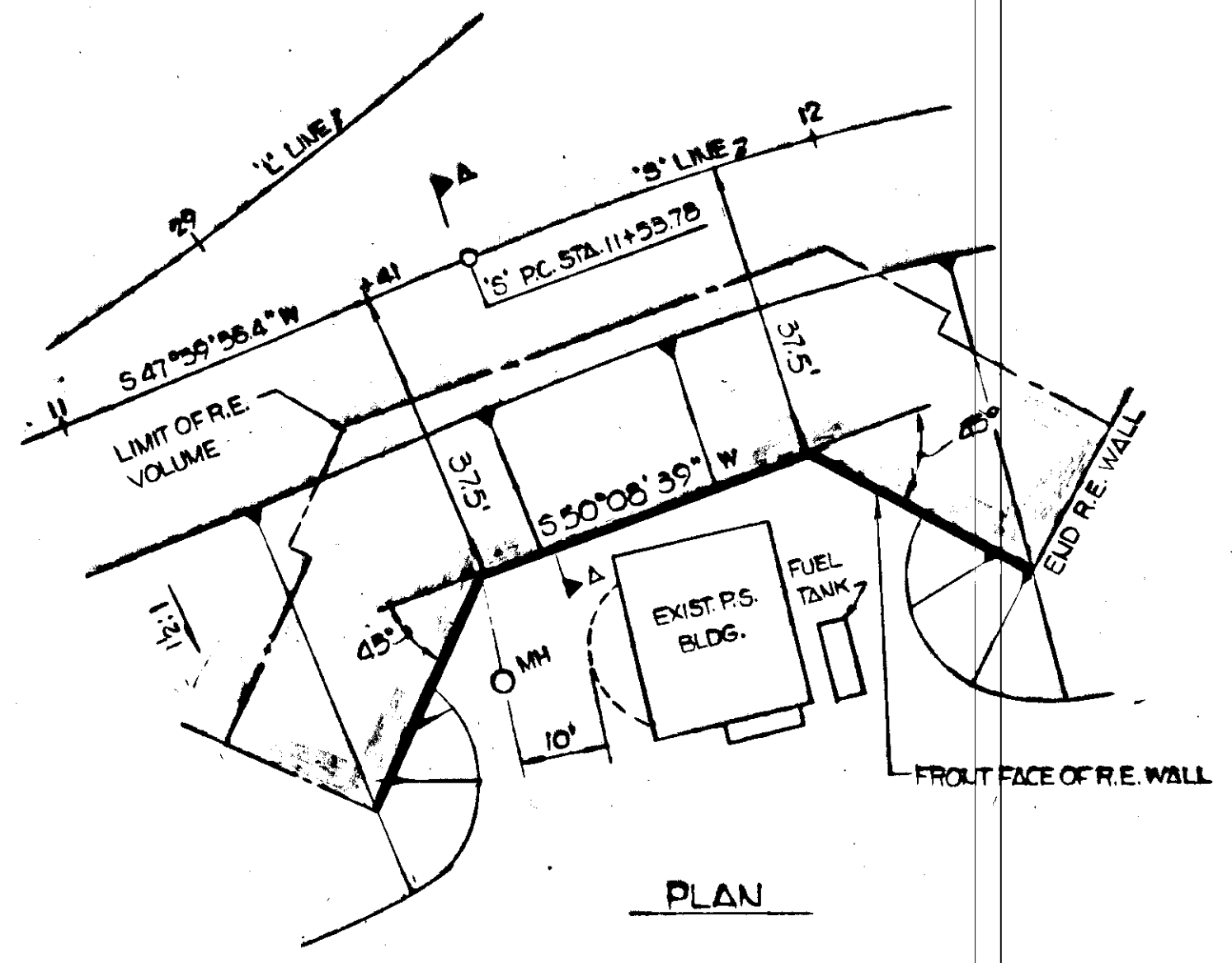
Dike shall be constructed of Selected Material III, and shall be field located within the approximate limits as shown on plan sheet #16, or as directed by the Engineer.

| APPROXIMATE SUBDRAIN QUANTITIES | | | |
|---------------------------------|------|---------------|--------------|
| ITEM | UNIT | BRS-U-0958(2) | BRS-0959(10) |
| Trench Excavation | C.Y. | 146 | 314 |
| Trench Lining Fabric | L.F. | 250 | 539 |
| 8" Perforated Conduit | L.F. | 250 | 539 |
| Coarse Concrete Aggregate | C.Y. | 93 | 200 |
| Replaced Excavated Material | C.Y. | 53 | 114 |
| End Treatments | Ea. | 1 | 3 |
| 8" Pipe Conduits | L.F. | 0 | 79 |



SUBDRAIN PROFILE & END DETAIL

| | | | | |
|--------|---------------------|------|-----------|--------------|
| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
| ALASKA | BRS-M-0958(2) | 1979 | 34 | 110 |



| THICKNESS | TYPE | NO. T.S. | A | B | C | D | SP1 | SP2 | SP3 | SP4 | SP5 | SP6 | AB | C-B | SP5-B | SP6-B | B-1L | B-1R | SP2R | SP3-L | |
|--------------------------|------|----------|-----------------|-----|-----|-----|-----|------|------|------|------|------|------|-----|-------|-------|------|------|------|-------|---|
| 7 1/8" | 2 | - | - | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 3 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 4 | 30 | - | - | - | - | - | - | - | - | - | - | 4 | - | - | - | 5 | 5 | - | - | - |
| | 5 | 41 | 1 | - | - | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | - |
| 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - |
| PANEL SURFACE AREA | | | 242 | 242 | 121 | 121 | 8.8 | 14.9 | 17.9 | 20.9 | 27.0 | 30.0 | 24.2 | 121 | 27.0 | 30.0 | 196 | 196 | 14.6 | 16.9 | |
| TOTAL WALL SURFACE AREA: | | | 2,448.9 SQ. FT. | | | | | | | | | | | | | | | | | | |

| TYPE | LENGTH | 20' | 25' |
|--------|--------|-----|-----|
| 40x5mm | 131 | 205 | |
| 60x5mm | 35 | 96 | |

- NOTES:
- ALL PANELS ARE TYPE 'A' UNLESS OTHERWISE NOTED
 - FOR PANEL DETAILS SEE SHEET NO.2
 - IT IS ASSUMED THAT ALL BACKFILL MATERIAL USED IN THE REINFORCED EARTH VOLUME CONFORMS TO THE FOLLOWING GRADATION:

| SIEVE SIZE | PERCENT PASSING |
|------------|-----------------|
| 6 INCHES | 100 |
| 3 INCHES | 75-100 |
| NO. 200 | 0-15 |

GASTINEAU CHANNEL CROSSING
 JUNEAU, ALASKA
 PLAN, ELEVATION & SECTION
REINFORCED EARTH WALL

State of Alaska
DEPARTMENT OF TRANSPORTATION
 Juneau, Alaska

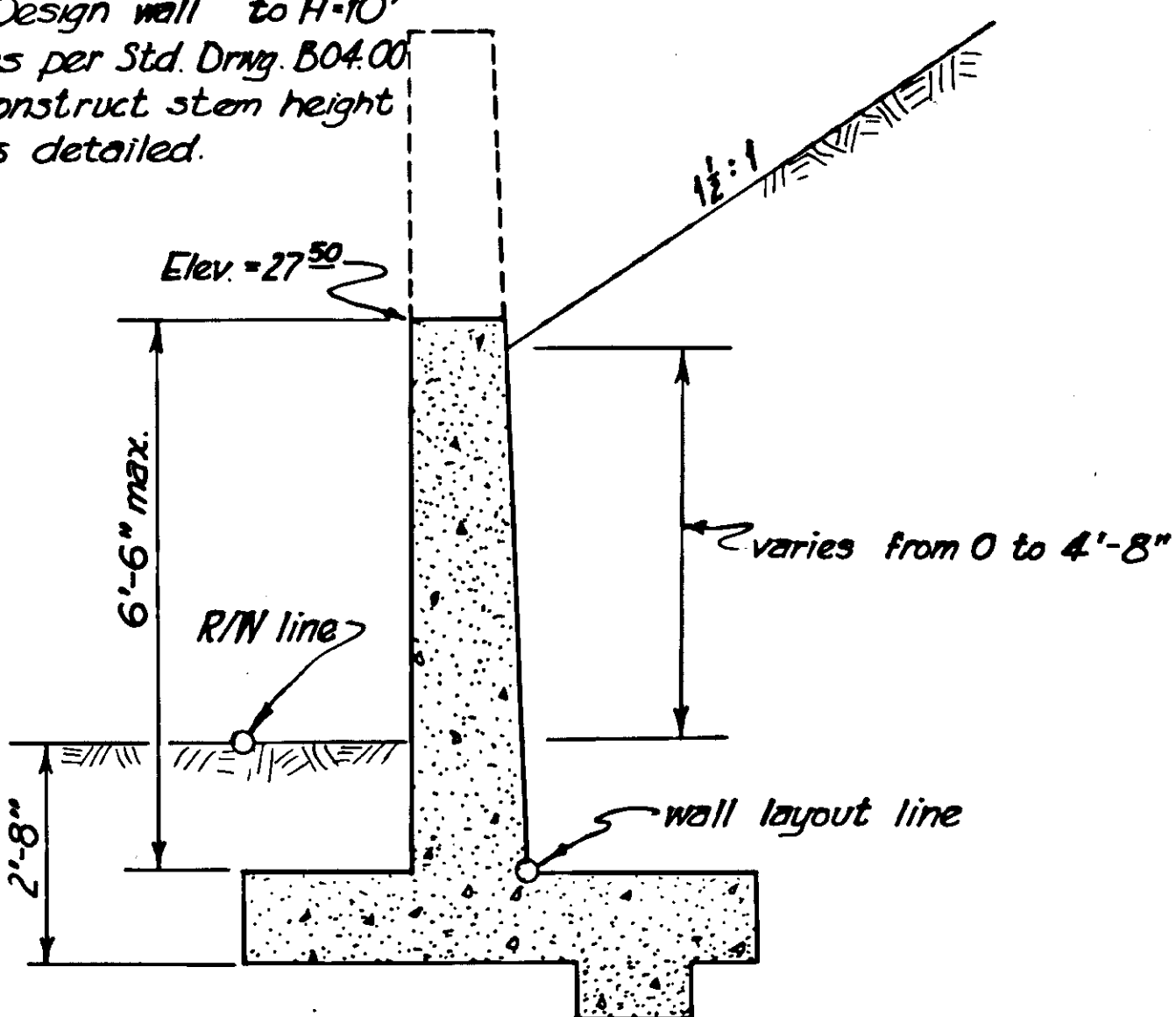
This drawing contains information proprietary to The Reinforced Earth Company, and is being furnished for the use of ALASKA DEPARTMENT OF TRANSPORTATION only in connection with this project, and the information contained herein is not to be transmitted to any other organization unless specifically authorized in writing by The Reinforced Earth Company. The Reinforced Earth Company is exclusive licensee in the United States under patents issued to Henri Vidal, and the furnishing of this drawing does not constitute an express or implied license under the Vidal patents.

Date _____ Approved _____

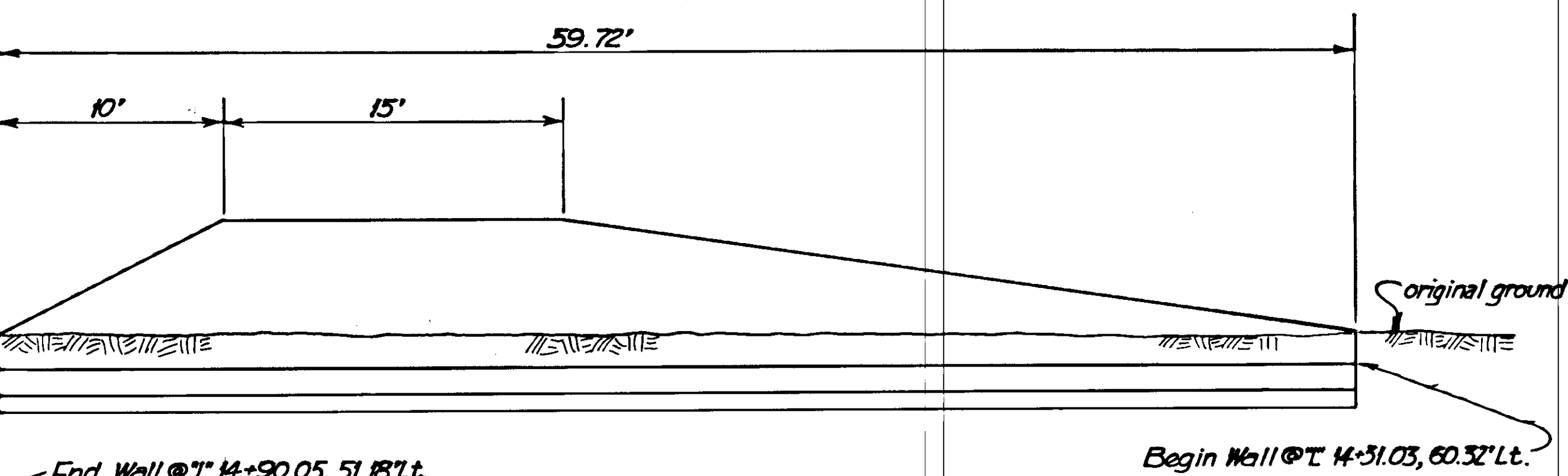
BRIDGE NO. _____ DWNG. NO. _____

TOE WALL DETAIL

Note:
Design wall to H-10'
as per Std. Draw. B04.00
Construct stem height
as detailed.

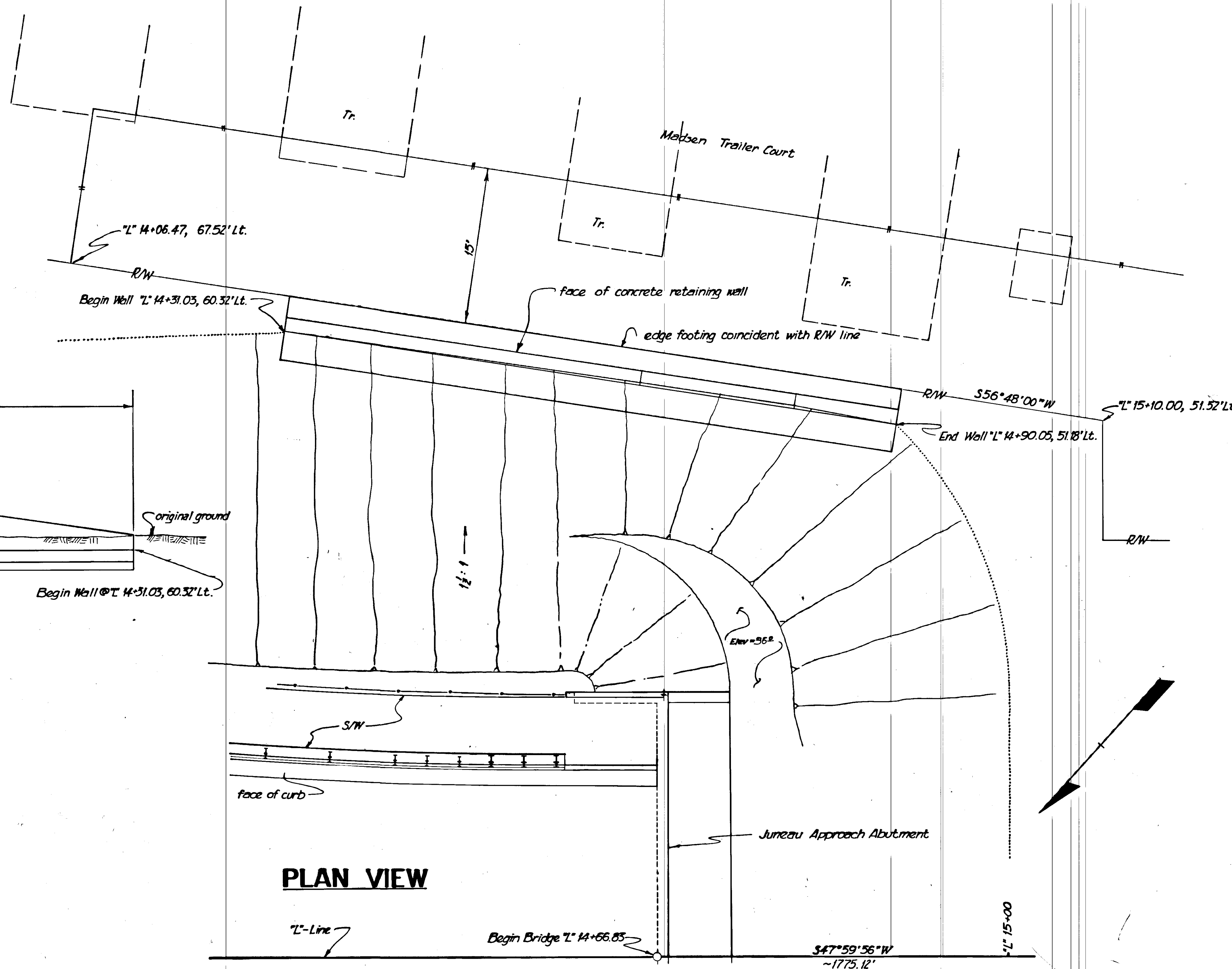


SECTION VIEW



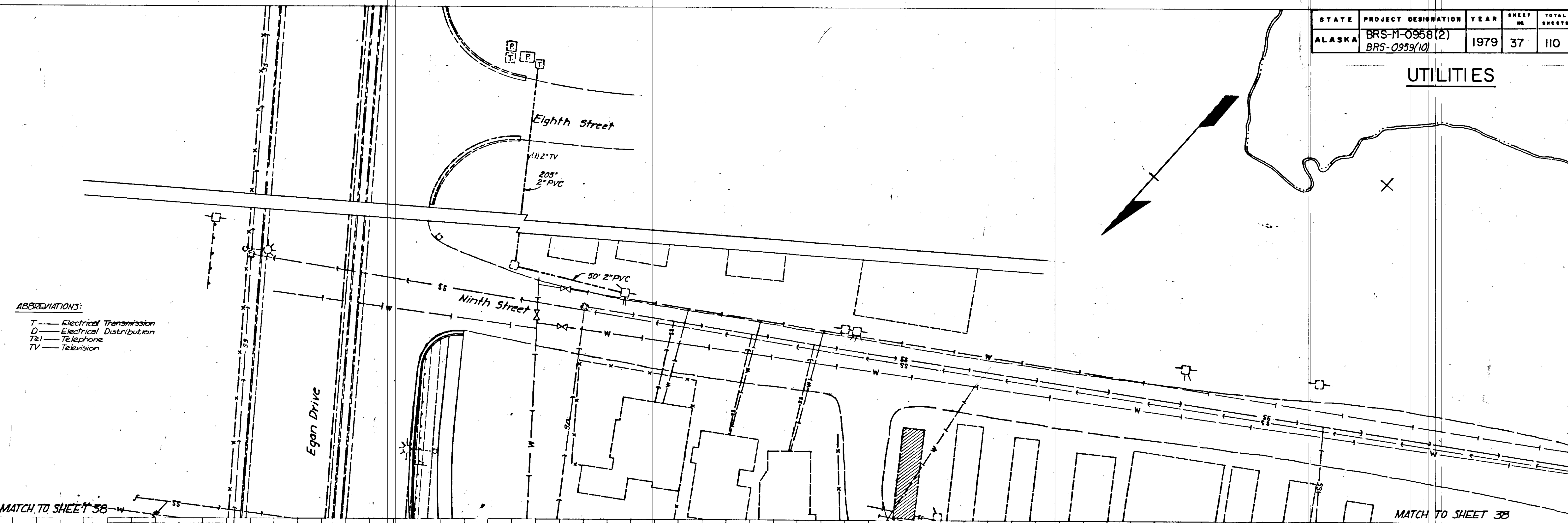
WALL FRONT ELEVATION VIEW
(stationing shown Right to Left, this view)

| TOE-WALL QUANTITIES ESTIMATE | | |
|-----------------------------------|---------|----------|
| ITEM | UNIT | QUANTITY |
| Concrete, Class A | Cu. Yd. | 32.5 |
| Reinforcing Steel | Lb. | 1600 |
| Class I Excavation for Structures | Cu. Yd. | 60 |



PLAN VIEW

UTILITIES



ABBREVIATIONS:
 T — Electrical Transmission
 D — Electrical Distribution
 Tel — Telephone
 TV — Television

SUMMARIES OF UTILITIES CONSTRUCTION

| CONCRETE ENCASED ELECTRICAL CONDUITS | | | | | |
|--------------------------------------|----------|------------|----------|---------------------|----------|
| From Station | Offset | To Station | Offset | No. & Size Conduits | Length |
| "L"13+87 | 25' Rt. | "L"14+66 | Abut. #1 | (8) 5" | 800 L.F. |
| "L"27+53 | Abut. #4 | "L"28+38 | 23' Rt. | (8) 5" | 50 L.F. |
| "L"29+88 | 80' Rt. | "L"30+35 | 26' Lt. | (8) 5" | 120 L.F. |
| "S"16+26 | 20' Rt. | "S"16+77 | Abut. | (7) 5" | 50 L.F. |
| "S"17+91 | Abut. | "S"18+32 | 26' Rt. | (4) 5" | 40 L.F. |
| "S"17+91 | Abut. | "S"19+62 | 28' Rt. | (3) 5" | 175 L.F. |
| "S"12+58 | 31' Lt. | "S"13+05 | 38' Lt. | (12) 5" | 42 L.F. |

| VAULT AND HANDHOLE SUMMARY | | | |
|----------------------------|---------|-----------|----------------------------|
| Station | Offset | Size | Work |
| "F"11+70 | 15' Rt. | 5'x10'x7' | Install Telephone Vault |
| "S"16+42 | 23' Lt. | 4'x4'x4' | Install Telephone Handhole |
| "L"30+35 | 26' Lt. | 6'x8'x6' | Install Electrical Vault |
| AsBit10+38 | 23' Lt. | 6'x8'x6' | Install Electrical Vault |
| "S"15+84 | 55' Rt. | 6'x8'x6' | Install Electrical Vault |

| ELECTRICAL CONDUIT SUMMARY * | | | | | | |
|------------------------------|----------|------------|----------|---------------------|--------------|--|
| From Station | Offset | To Station | Offset | No. & Size Conduits | Total Length | |
| "L"13+87 | 85' Rt. | "L"14+66 | Abut. #1 | (8) 5" PVC | 1440 L.F. | |
| "L"27+53 | Abut. #4 | "B"13+45 | 35' Lt. | (8) 5" PVC | 2000 L.F. | |
| "B"12+58 | 31' Lt. | "B"13+05 | 38' Lt. | (12) 5" PVC | 501 L.F. | |
| "B"12+65 | 20' Lt. | "B"13+14 | 24' Rt. | (2) 4" PVC | 160 L.F. | |
| "B"12+65 | 20' Lt. | "L"30+35 | 26' Lt. | (8) 5" PVC | 1800 L.F. | |
| "B"12+65 | 20' Lt. | "L"28+63 | 69' Rt. | (2) 4" PVC | 300 L.F. | |
| "L"30+44 | 26' Lt. | AsBit10+38 | 23' Lt. | (8) 5" PVC | 5200 L.F. | |
| AsBit10+45 | 23' Lt. | AsBit10+55 | 28' Lt. | (4) 5" PVC | 40 L.F. | |
| AsBit10+44 | 19' Lt. | AsBit10+56 | 27' Rt. | (4) 5" PVC | 186 L.F. | |
| AsBit10+56 | 27' Rt. | "L"35+23 | 35' Rt. | (1) 2" PVC | 220 L.F. | |
| "L"35+23 | 35' Rt. | "L"36+23 | 87' Rt. | (1) 2" PVC | 175 L.F. | |
| "L"35+23 | 35' Rt. | "L"35+55 | 70' Rt. | (1) 2" PVC | 75 L.F. | |
| "L"35+23 | 35' Rt. | "L"35+43 | 63' Rt. | (1) 2" PVC | 65 L.F. | |
| "L"35+23 | 35' Rt. | "L"34+87 | 67' Rt. | (1) 2" PVC | 90 L.F. | |
| "L"35+23 | 35' Rt. | "L"33+89 | 95' Rt. | (1) 2" PVC | 210 L.F. | |
| "B"12+42 | 60' Lt. | "S"15+80 | 55' Rt. | (7) 5" PVC | 1750 L.F. | |
| "S"15+86 | 55' Rt. | "S"17+91 | Abut. | (7) 5" PVC | 1540 L.F. | |
| "S"17+91 | Abut. | "S"18+32 | 26' Rt. | (4) 5" PVC | 160 L.F. | |
| "S"17+91 | Abut. | "S"19+62 | 28' Rt. | (3) 5" PVC | 525 L.F. | |

* 4" & 5" - Schedule 40, 2" - Schedule 80

| TELEPHONE/T.V. CONDUIT SUMMARY | | | | | |
|--------------------------------|----------|------------|----------|---------------------|--------------|
| From Station | Offset | To Station | Offset | No. & Size Conduits | Total Length |
| "L"10+57 | 25' Lt. | "L"14+67 | Abut. #1 | (4) 4" PVC | 1640 L.F. |
| "L"27+53 | Abut. #4 | "F"11+70 | 15' Rt. | (4) 4" PVC | 2080 L.F. |
| "F"11+70 | 15' Rt. | "S"15+80 | 32' Lt. | (3) 4" PVC | 861 L.F. |
| "F"11+70 | 15' Rt. | AsBit10+56 | 27' Rt. | (3) 4" PVC | 1785 L.F. |
| "S"15+80 | 32' Rt. | "S"19+62 | 27' Rt. | (3) 4" PVC | 1158 L.F. |
| 8th Street | | 9th Street | | (1) 2" PVC | 270 L.F. |

| SANITARY SEWER MANHOLE SUMMARY | | |
|--------------------------------|---------|-----------|
| Station | Offset | Work |
| "L"35+89 | 15' Lt. | Adjust |
| "L"35+50 | 20' Rt. | Adjust |
| "F"12+00 | 12' Rt. | Adjust |
| "R"14+33 | 52' Lt. | Construct |
| "R"14+43 | 43' Lt. | Remove |
| "S"13+79 | 8' Rt. | Remove |
| "B"12+78 | 13' Rt. | Adjust |
| "B"13+46 | 7' Rt. | Adjust |
| "L"15+77 | 30' Lt. | Construct |

| WATER-LINE VALVE SUMMARY | | | |
|--------------------------|---------|------|--------------------------------|
| Station | Offset | Size | Work |
| "L"10+49 | 28' Rt. | - | adjust valve box |
| "L"10+68 | 37' Rt. | - | adjust valve box |
| "L"14+25 | 40' Lt. | 14" | install gate valve & valve box |
| "L"14+30 | 37' Lt. | 14" | install gate valve & valve box |
| "L"14+35 | 40' Lt. | 14" | install gate valve & valve box |
| "L"14+40 | 37' Lt. | 14" | install gate valve & valve box |
| "L"14+45 | 40' Lt. | 14" | install gate valve & valve box |
| "F"11+14 | 22' Lt. | 14" | install gate valve & valve box |
| "F"11+19 | 24' Lt. | 14" | install gate valve & valve box |
| "F"11+19 | 12' Lt. | 8" | install gate valve & valve box |
| "F"11+22 | 24' Lt. | 14" | install gate valve & valve box |
| "F"11+25 | 21' Lt. | 14" | install gate valve & valve box |
| "F"12+07 | 13' Rt. | 8" | install gate valve & valve box |
| "F"12+12 | 12' Rt. | - | adjust valve box |
| "L"37+09 | 30' Rt. | 14" | install gate valve & valve box |

| WATER-LINE APPURTENANCE SUMMARY | | | |
|---------------------------------|---------|-------|--------------------------|
| Station | Offset | Size | Work |
| "L"14+25 | 40' Lt. | 14" | cap |
| "L"14+47 | 3' Lt. | 14" | cap |
| "L"15+02 | 39' Lt. | 8x14 | reducer |
| "F"11+14 | 22' Lt. | 14" | cap |
| "F"11+19 | 17' Lt. | 8x14 | reducer |
| "F"11+73 | 12' Rt. | - | remove fire hydrant |
| "F"12+10 | 34' Rt. | 14" | blind cap tapped for 2" |
| "F"12+31 | 29' Rt. | - | relocate fire hydrant |
| "L"29+96 | 42' Rt. | 1" | water service to Pump St |
| "L"37+11 | 30' Rt. | 8x14 | reducer |
| "L"37+11 | 30' Rt. | 10x14 | reducer |

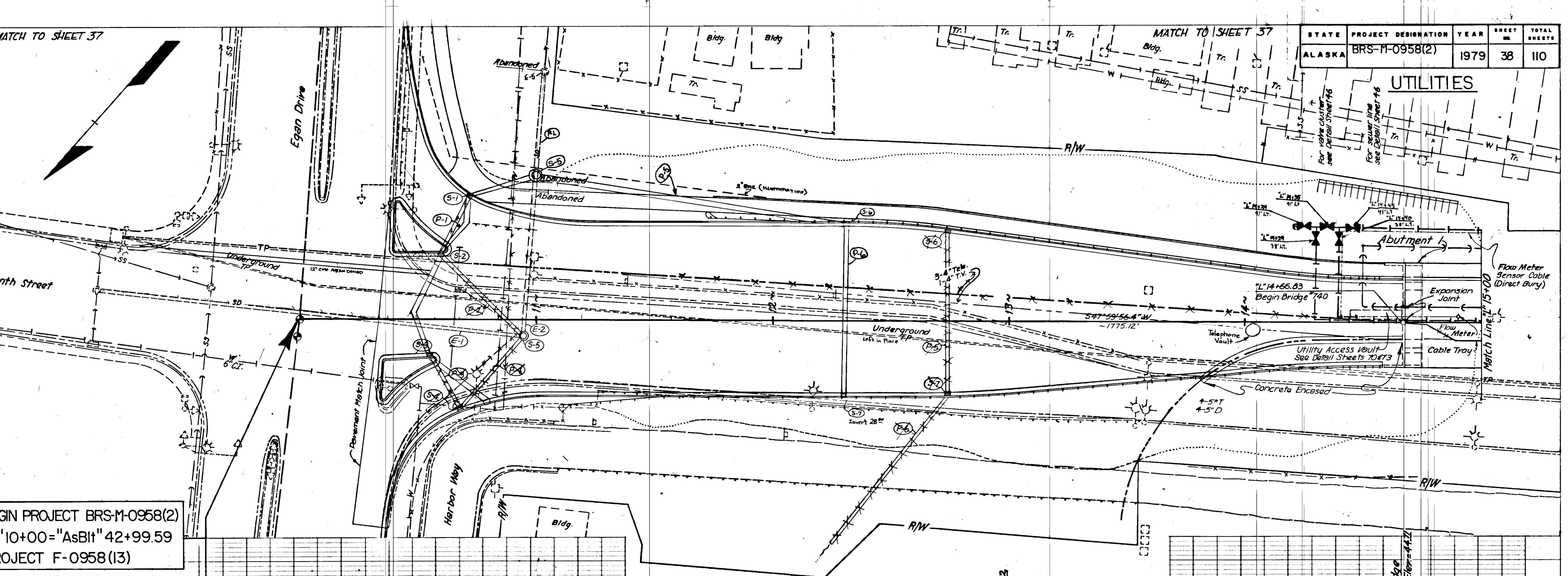
Plus elbows, tees and crosses; all work incidental to 628(2), D. I. Water Conduit unless specified pay item.

| MISCELLANEOUS SEWER CONSTRUCTION | | | | | | |
|----------------------------------|----------|------------|----------|---------------------------------|----------|--------------------|
| From Station | Offset | To Station | Offset | Work | Amount | Sheets Where Shown |
| "S"13+79 | 43' Rt. | "R"14+33 | 52' Lt. | extend 8" D. I. Sewer Conduit | 112 L.F. | 43 |
| "L"27+53 | Abut. #4 | "S"11+60 | Rt. | construct Force Main Connection | - | 41, 46 |
| "L"15+77 | 30' Lt. | "L"14+66 | Abut. #1 | construct Sewer Connection | - | 37, 46 |
| "S"16+71 | Rt. | "S"18+19 | Rt. | construct Sewer Stubouts | - | 44, 46, 105 |

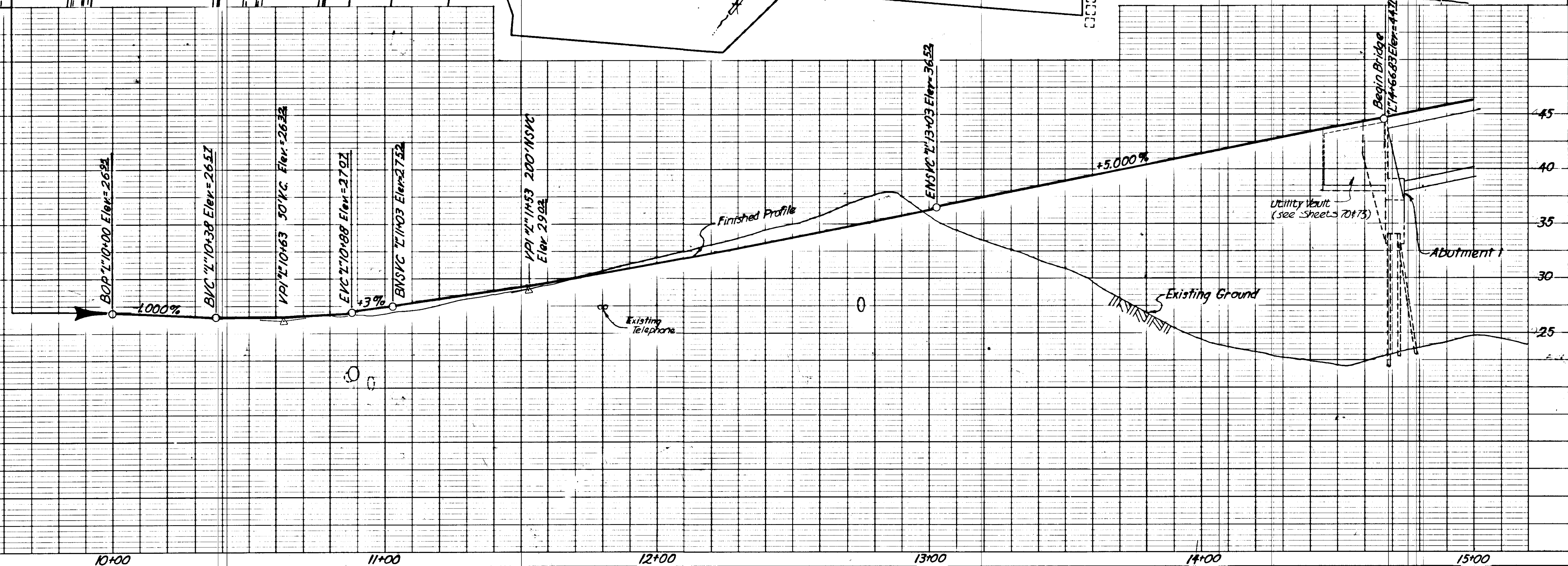
MATCH TO SHEET 37

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 38 | 110 |

UTILITIES



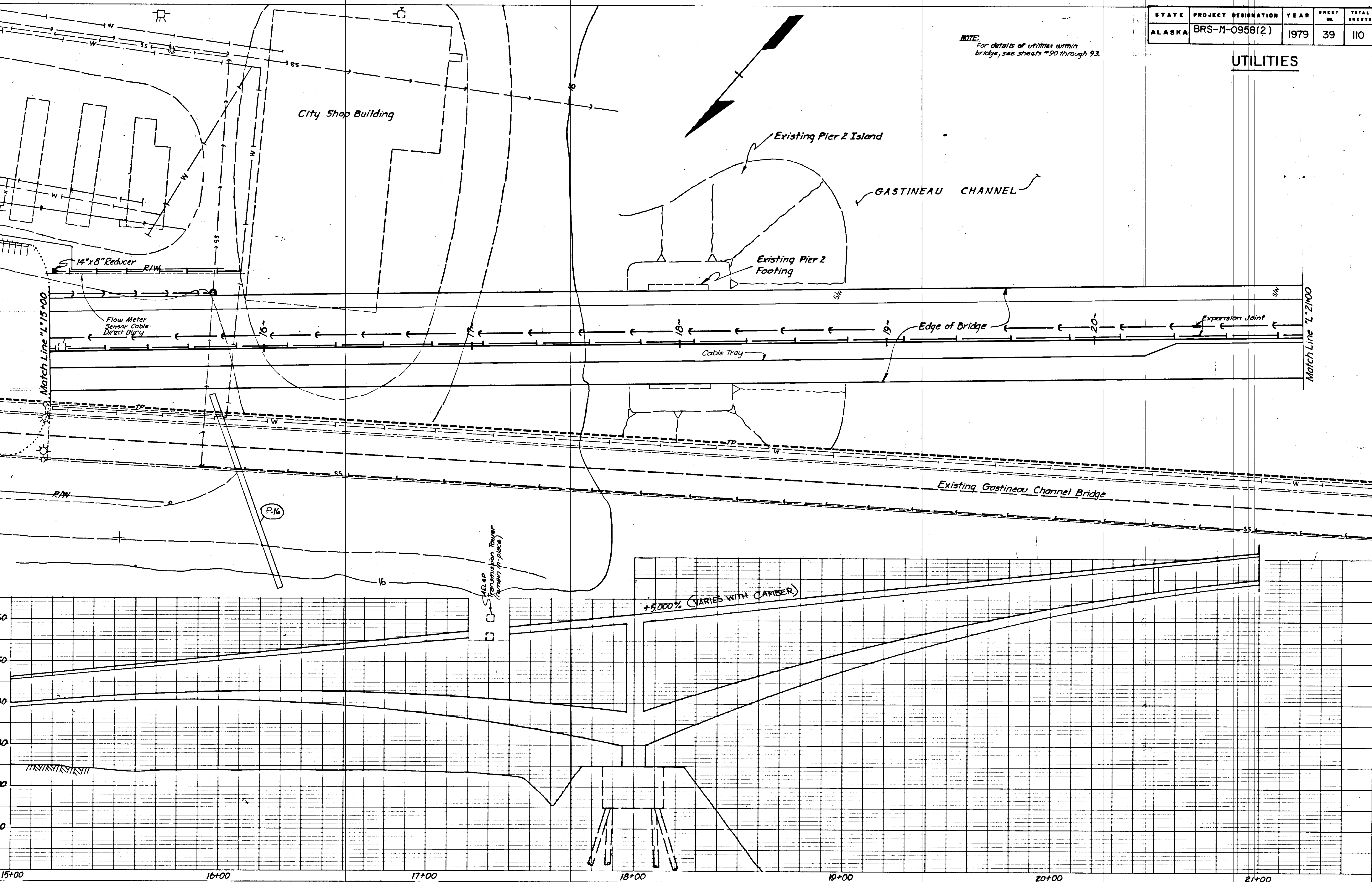
GIN PROJECT BRS-M-0958(2)
 '10+00="AsBlt" 42+99.59
 PROJECT F-0958(13)



| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 39 | 110 |

UTILITIES

NOTE:
For details of utilities within bridge, see sheets # 90 through 93.

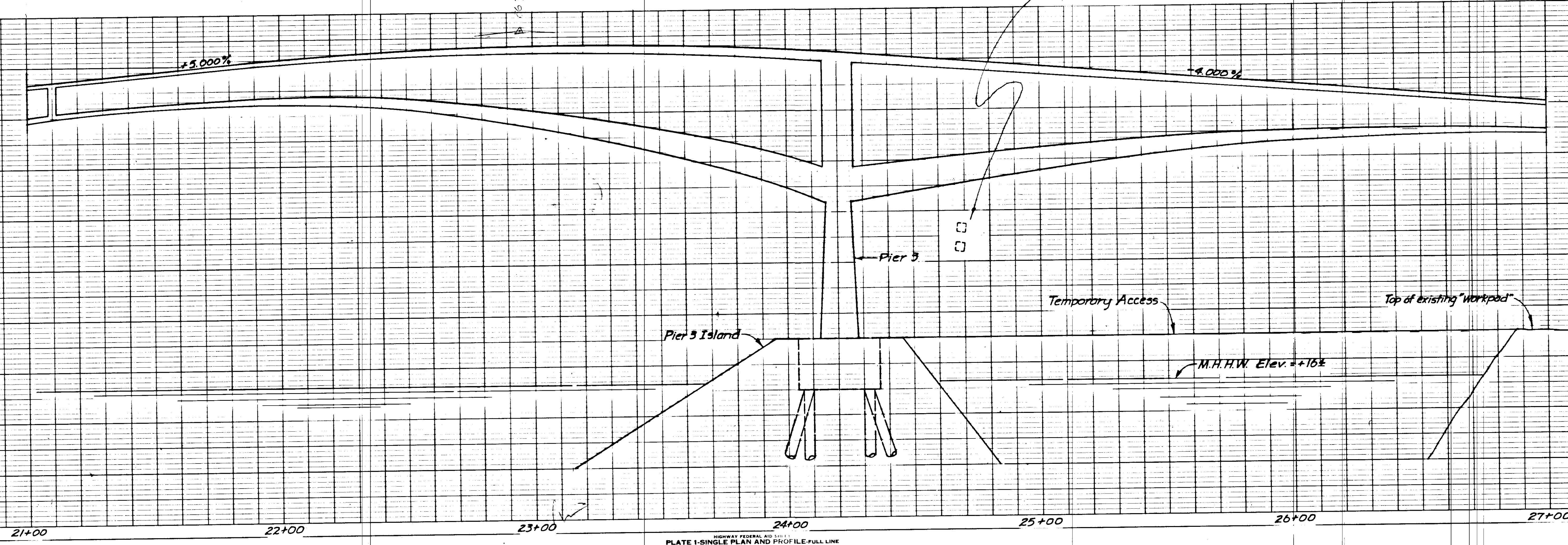
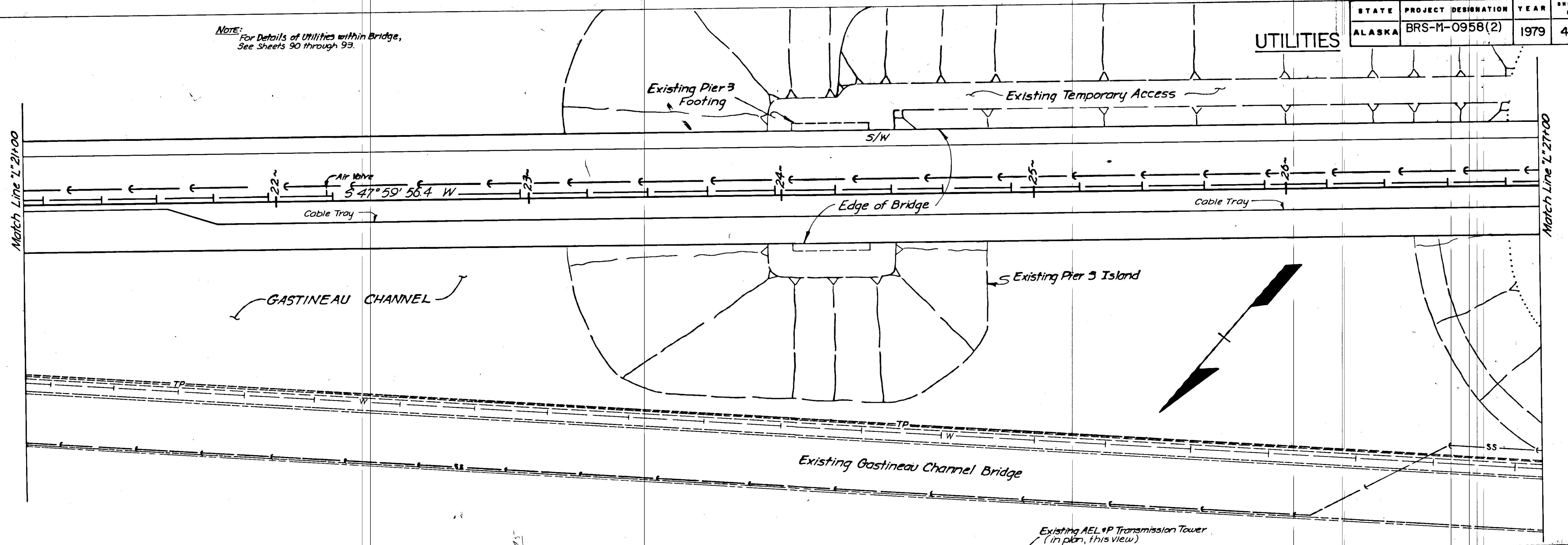


ENGINEERING AID SHEET
 PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
 PRINTED IN U.S.A.

NOTE: For Details of Utilities within Bridge, See Sheets 90 through 93.

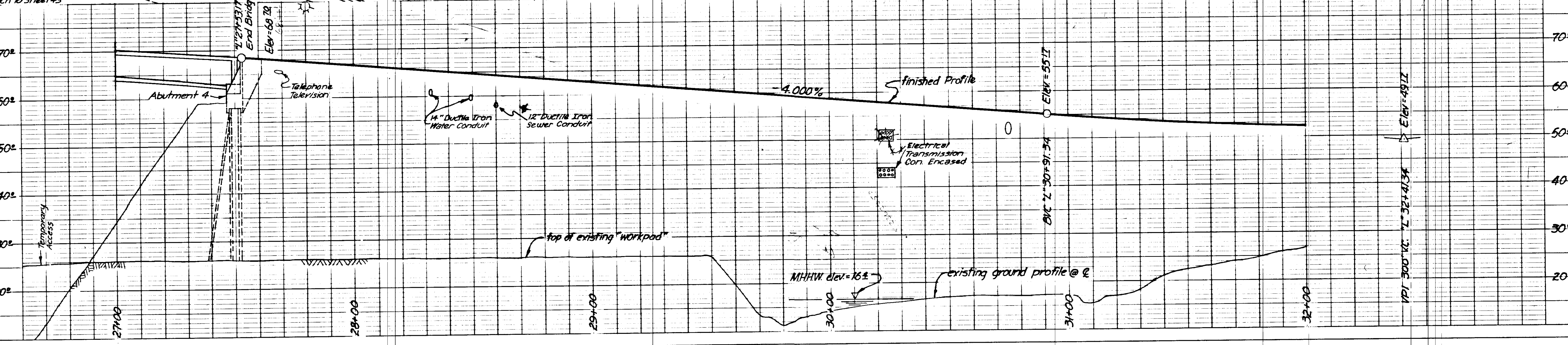
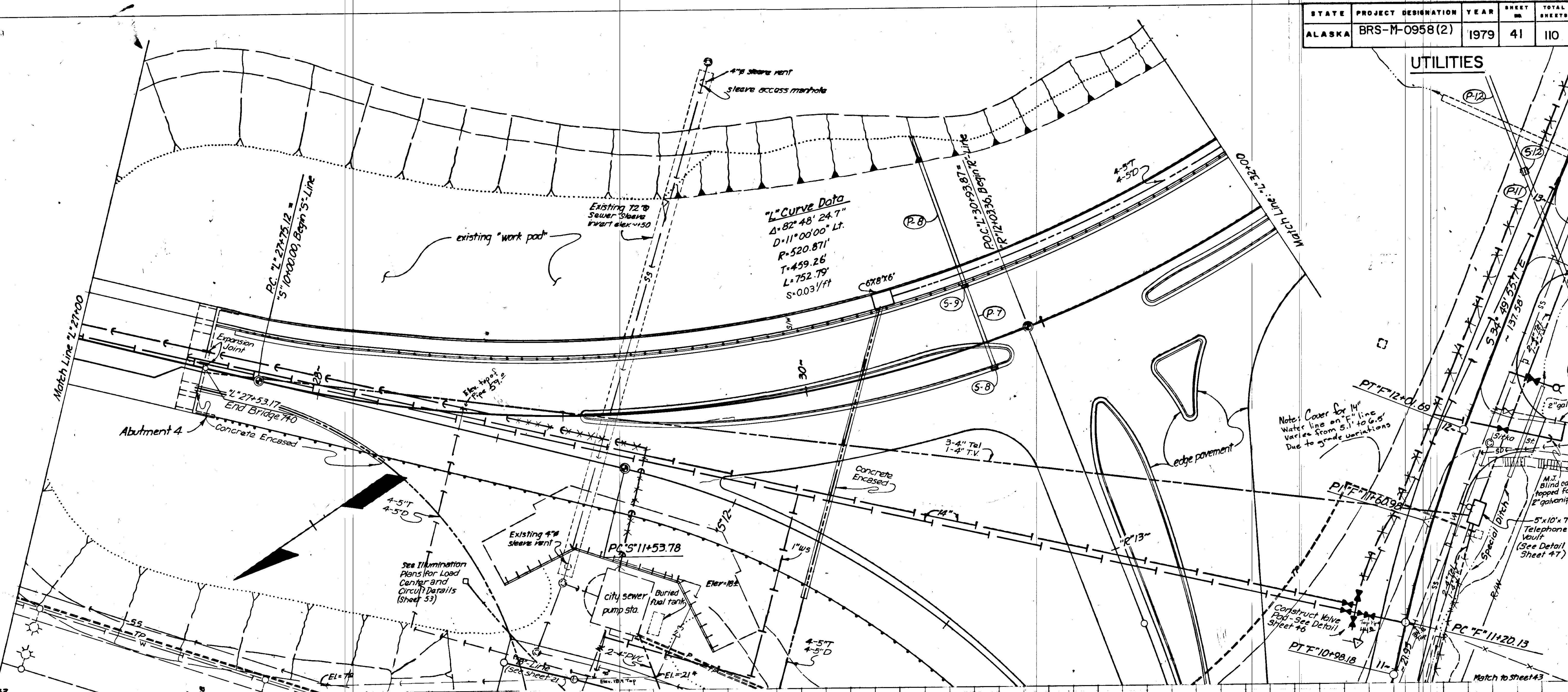
| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 40 | 110 |

UTILITIES



| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 41 | 110 |

UTILITIES



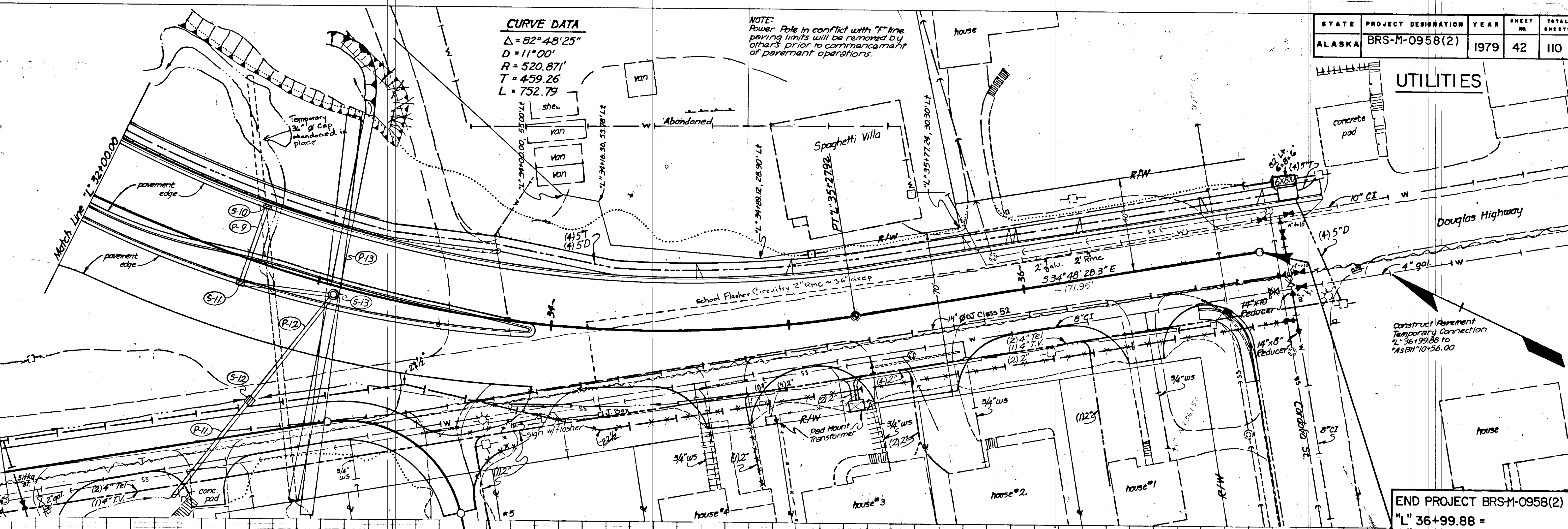
HIGHWAY FEDERAL AID SHEET
 PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
 TITLE BLOCK
 PRINTED IN U.S.A.

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 42 | 110 |

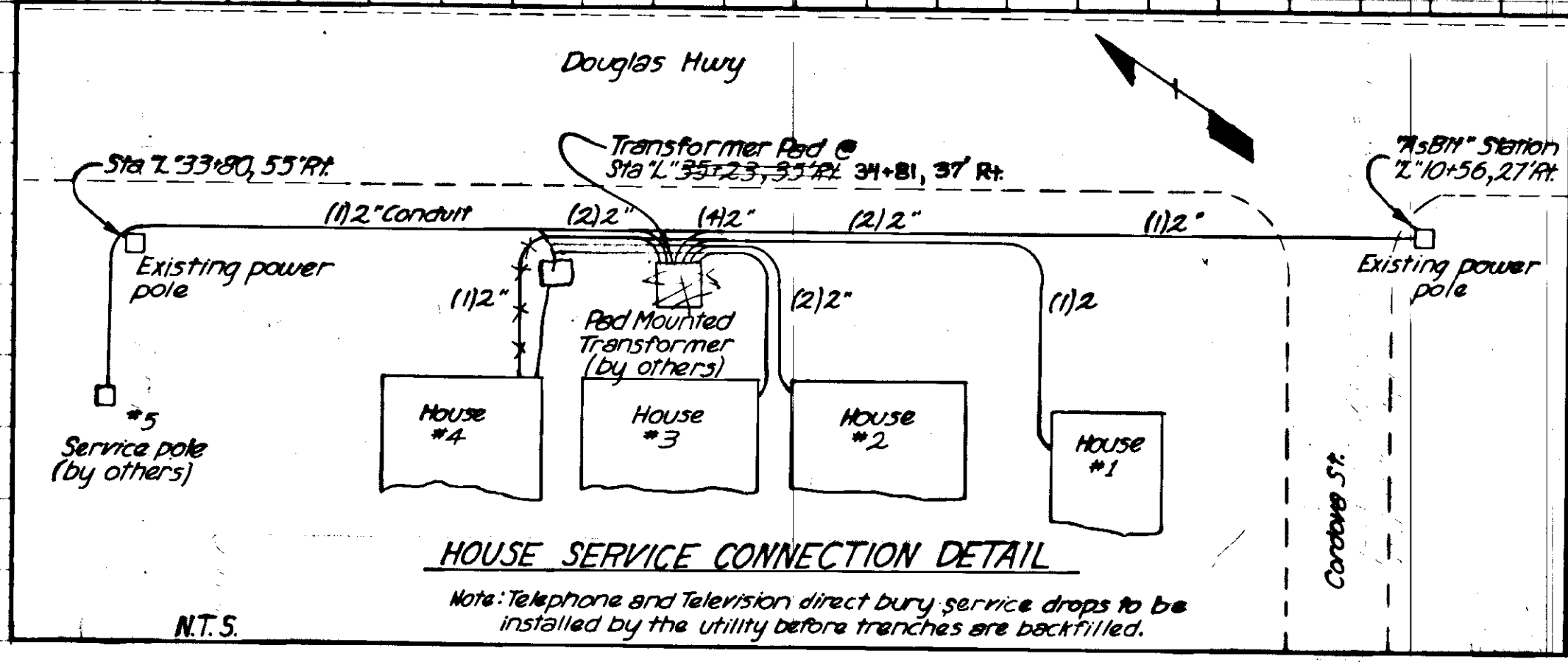
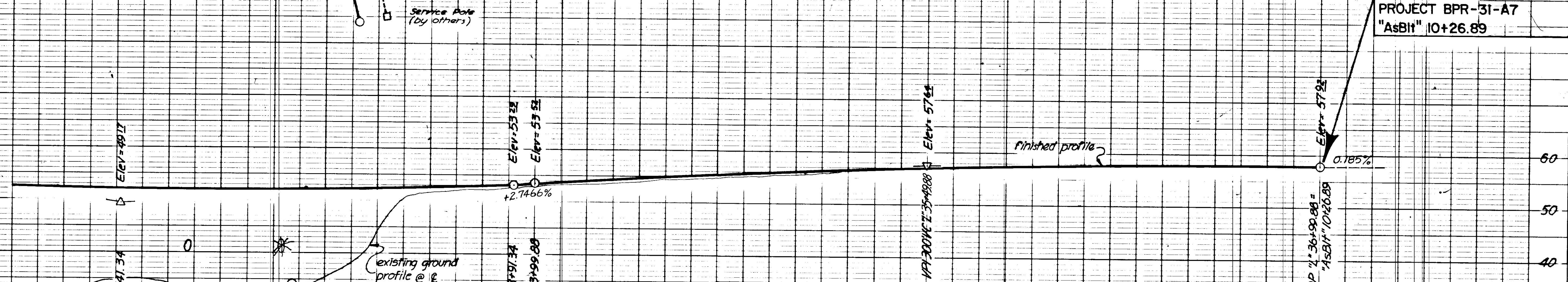
CURVE DATA

$\Delta = 82^\circ 48' 25''$
 $D = 11^\circ 00'$
 $R = 520.871'$
 $T = 459.26'$
 $L = 752.79'$

NOTE: Power Pole in conflict with "F" line paving limits will be removed by other's prior to commencement of pavement operations.



END PROJECT BRS-M-0958(2)
 "L" 36+99.88 =
 PROJECT BPR-31-A7
 "AsBlt" 10+26.89

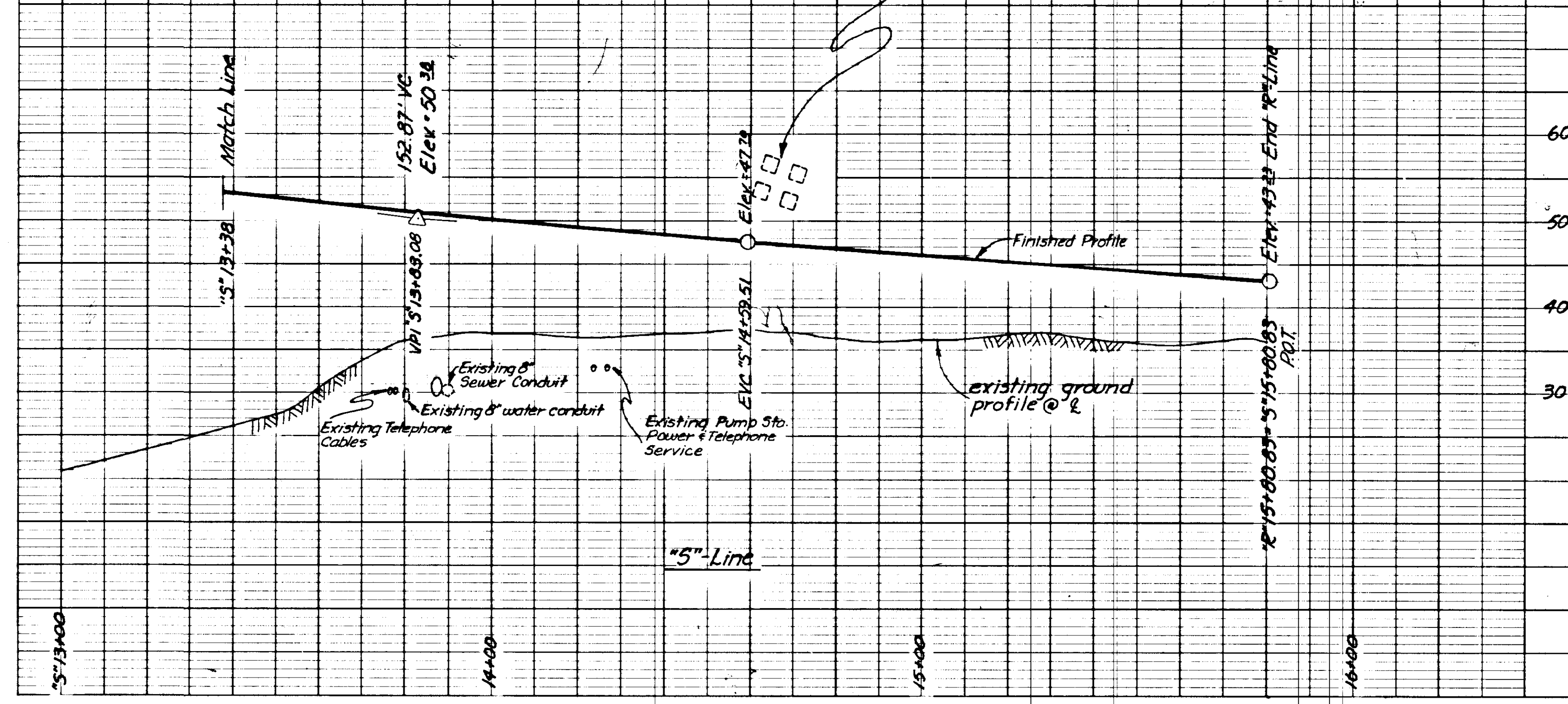
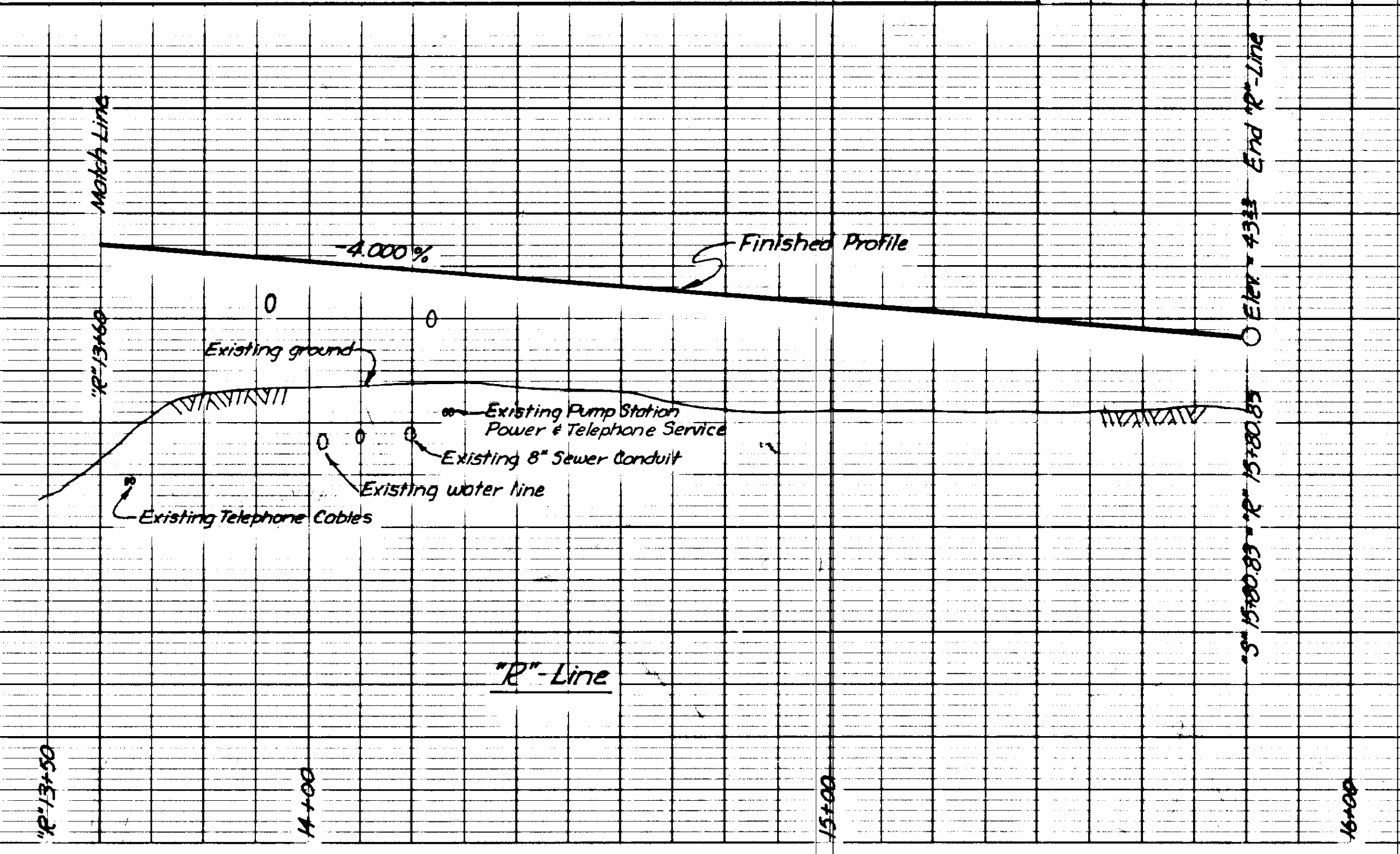
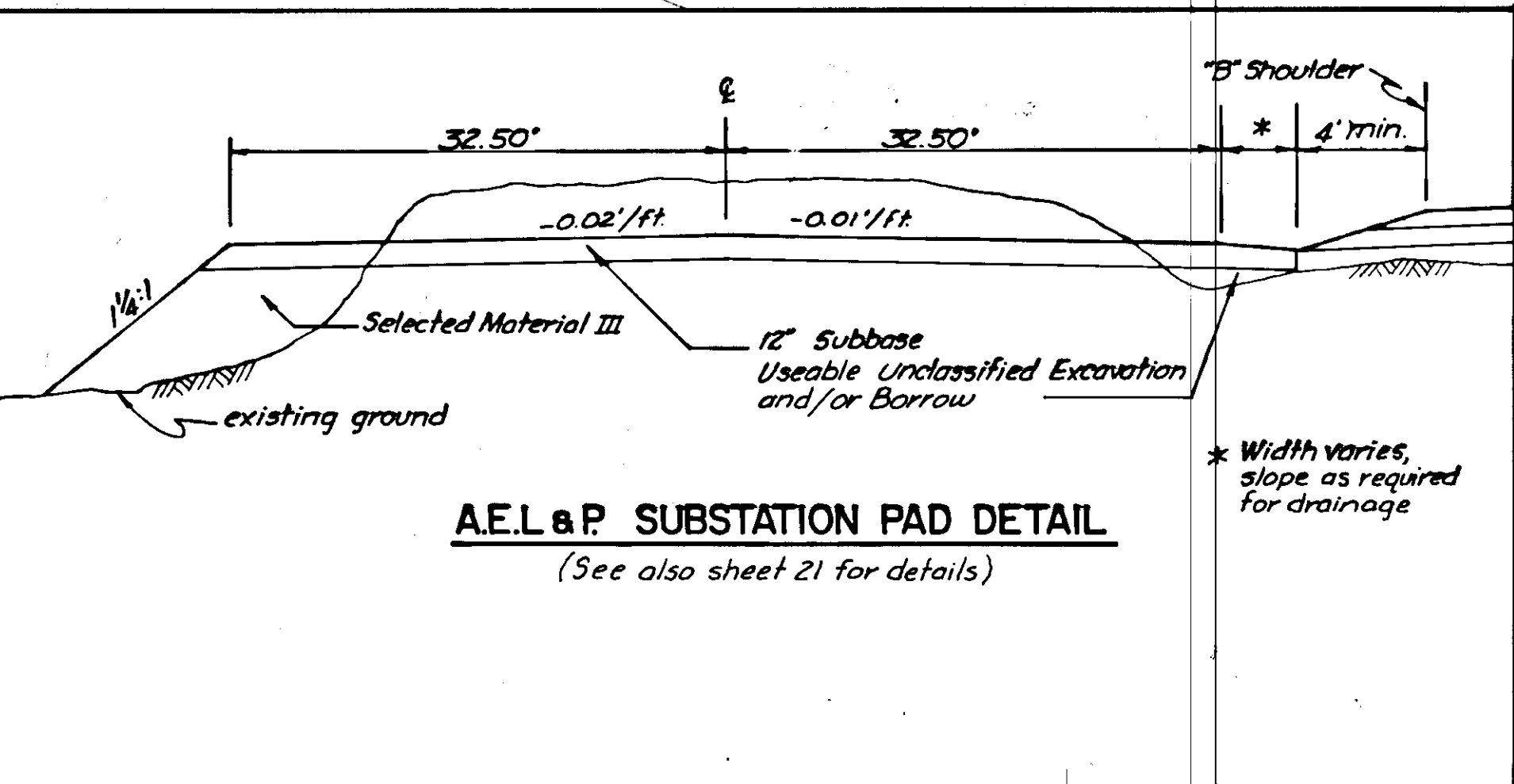
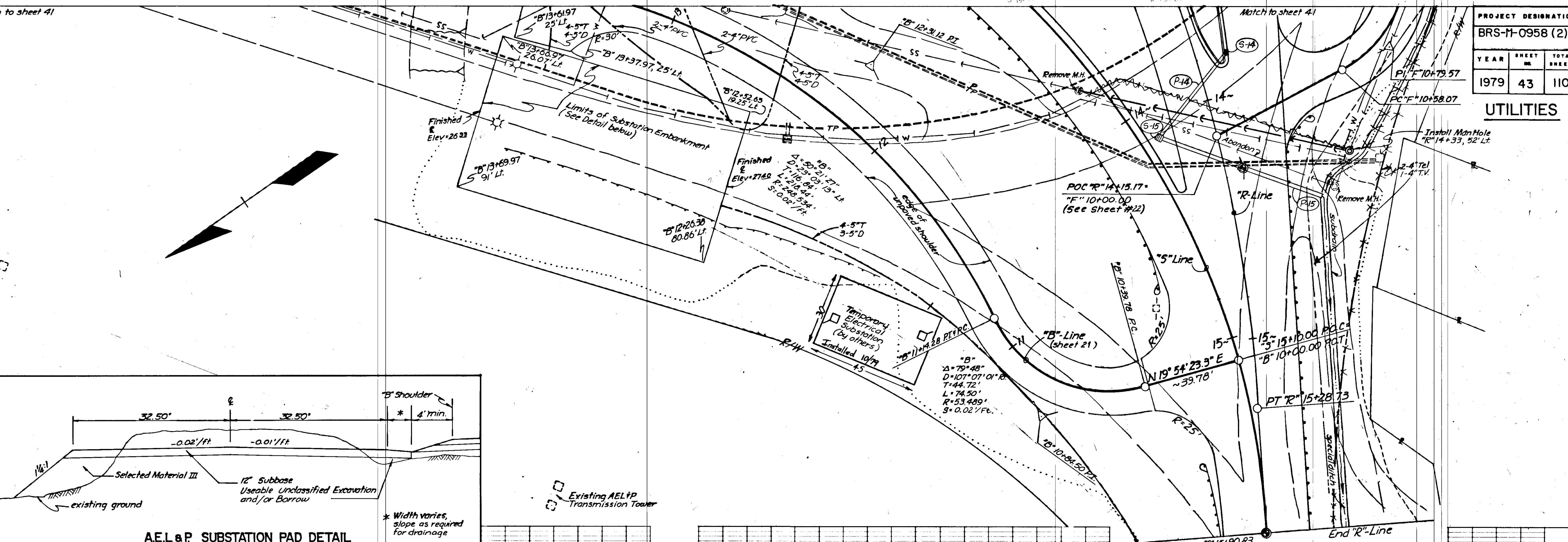


HOUSE SERVICE CONNECTION DETAIL

Note: Telephone and Television direct bury service drops to be installed by the utility before trenches are backfilled.

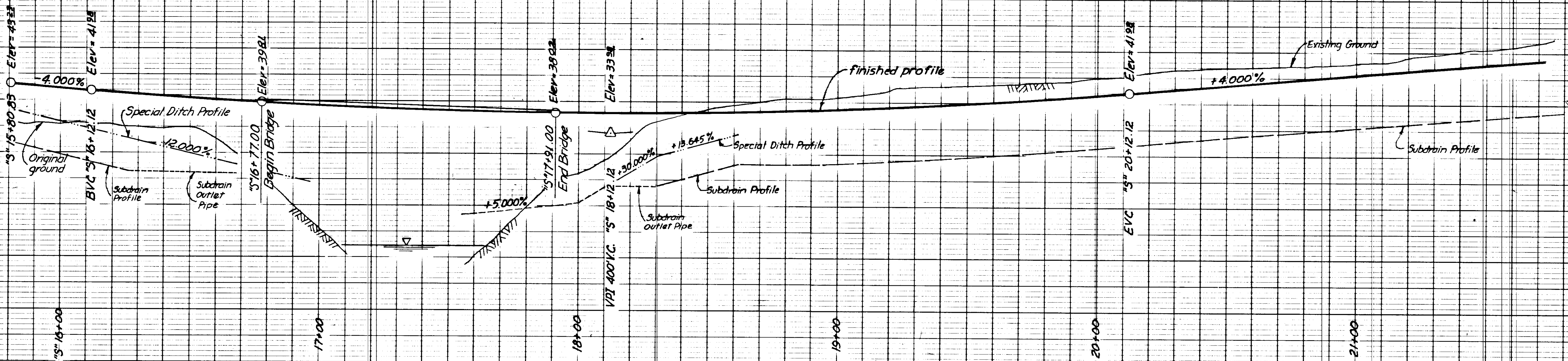
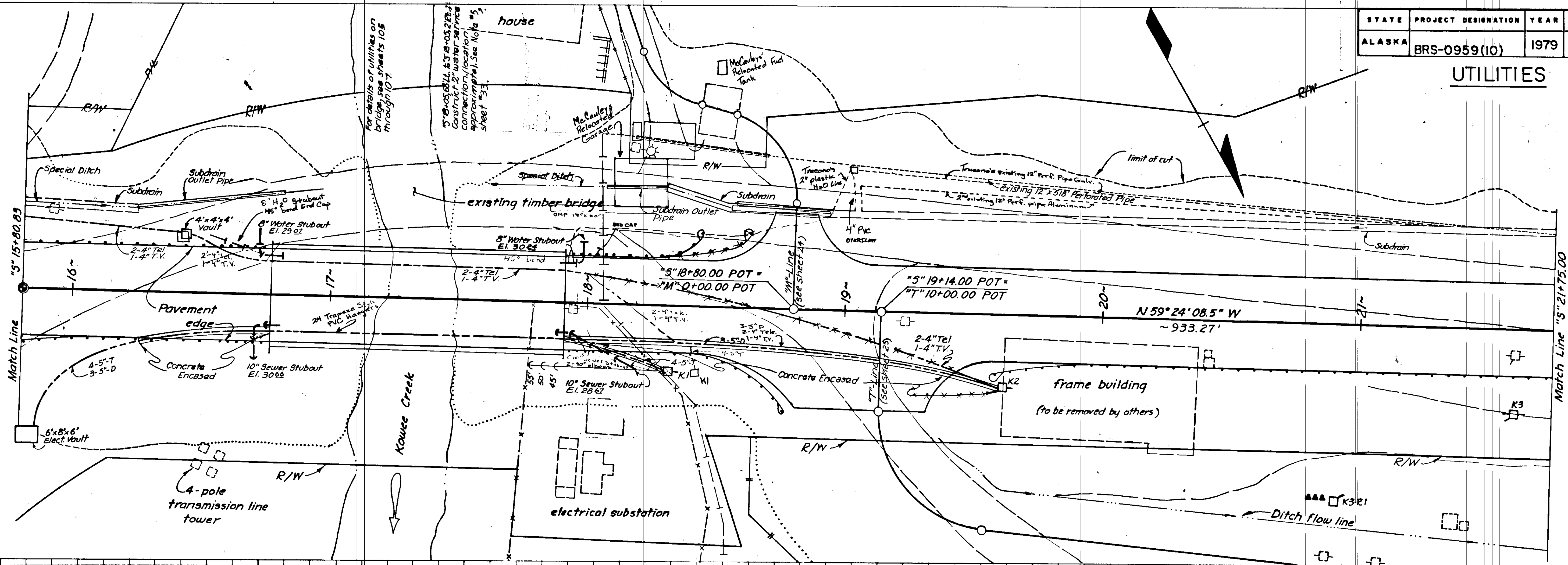
| PROJECT DESIGNATION | | |
|---------------------|-----------|--------------|
| BRS-M-0958 (2) | | |
| YEAR | SHEET NO. | TOTAL SHEETS |
| 1979 | 43 | 110 |

UTILITIES



| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-0959(10) | 1979 | 44 | 110 |

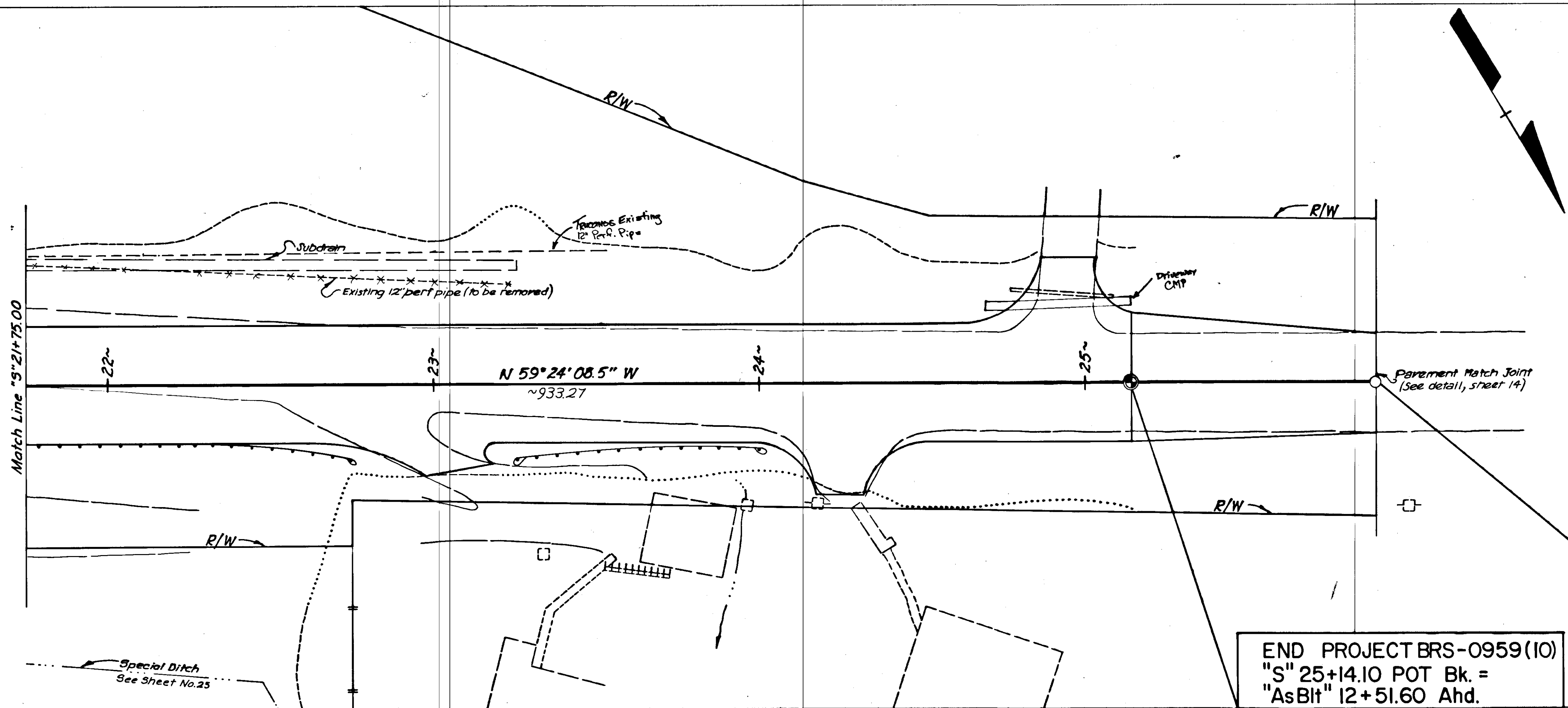
UTILITIES



| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-0959 (10) | 1979 | 45 | 110 |

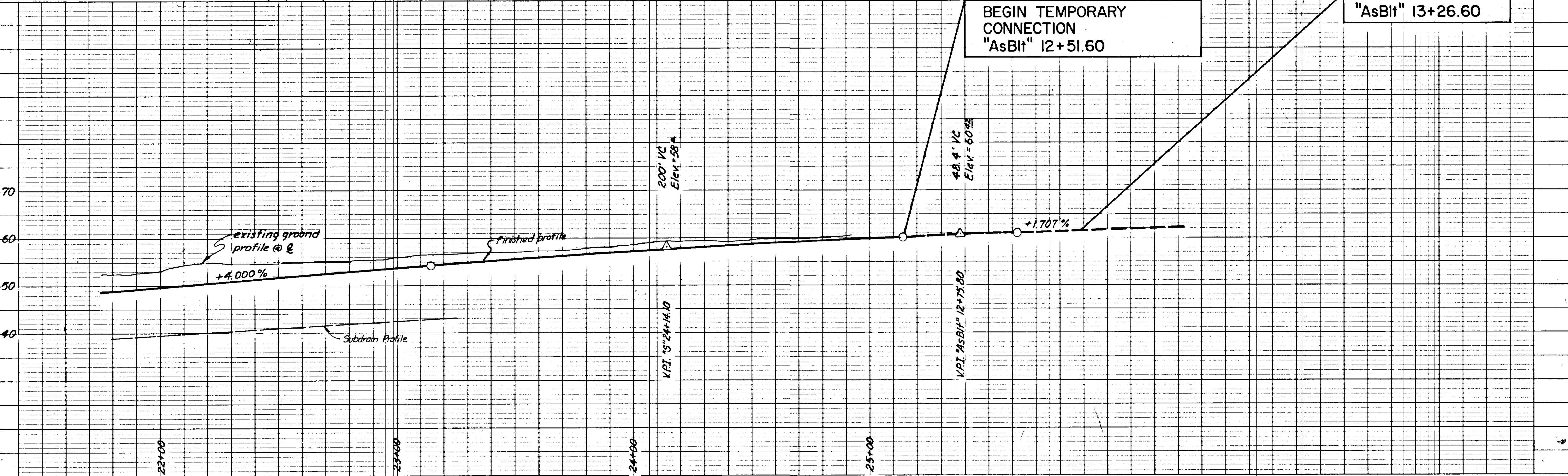
UTILITIES

Note:
 * Pavement width shall be transitioned from 36' to 30' between "AsBit" Sta. 12+51.60 and "AsBit" Sta. 13+26.60

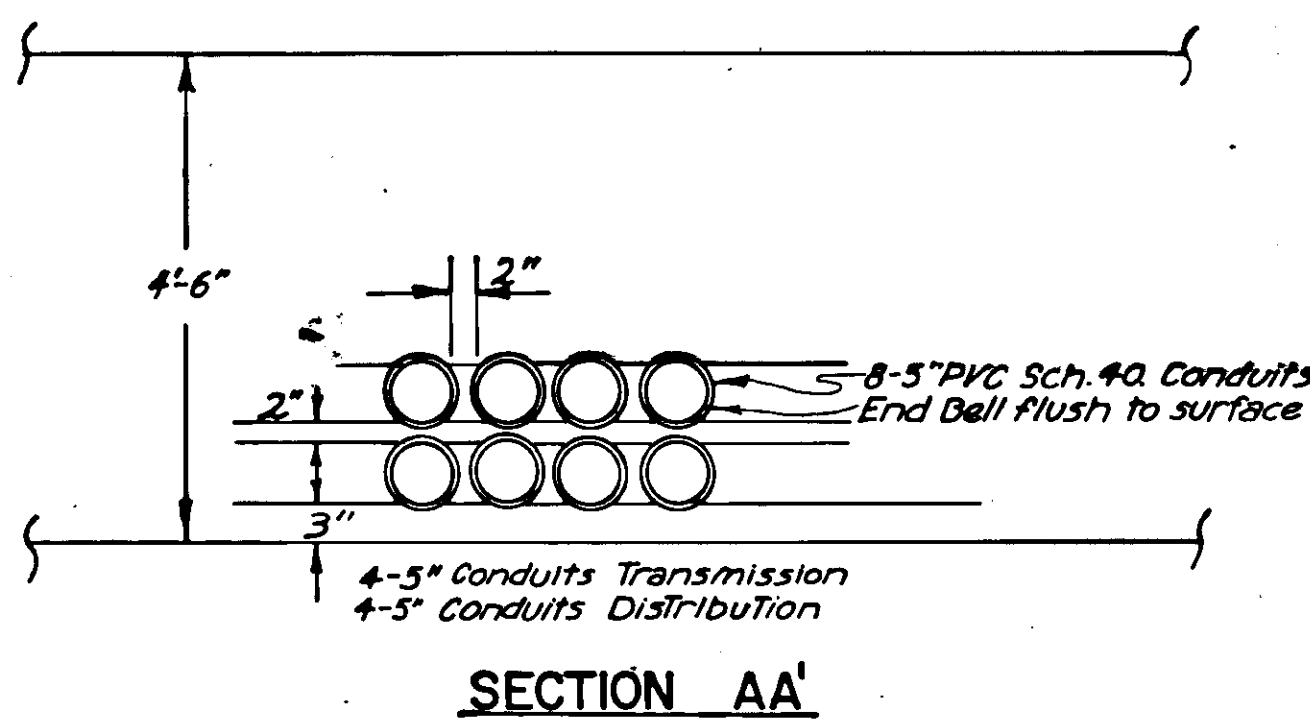


END PROJECT BRS-0959(10)
 "S" 25+14.10 POT Bk. =
 "AsBit" 12+51.60 Ahd.
 BEGIN TEMPORARY
 CONNECTION
 "AsBit" 12+51.60

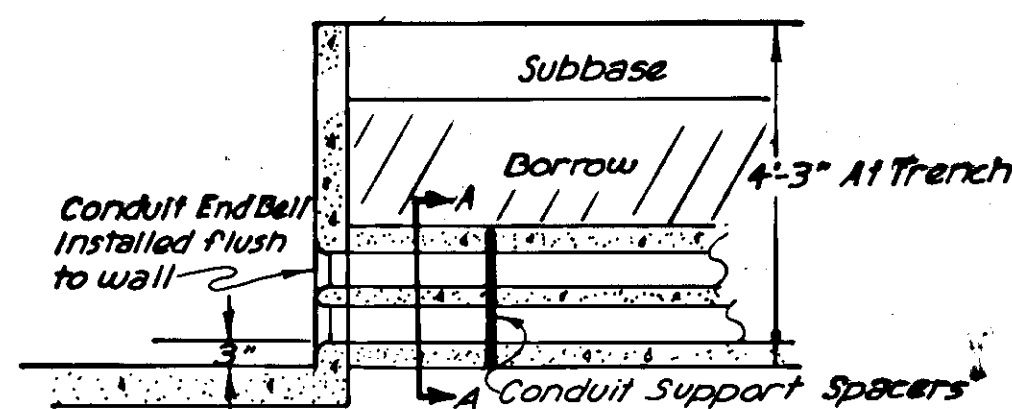
END TEMPORARY
 CONNECTION
 "AsBit" 13+26.60



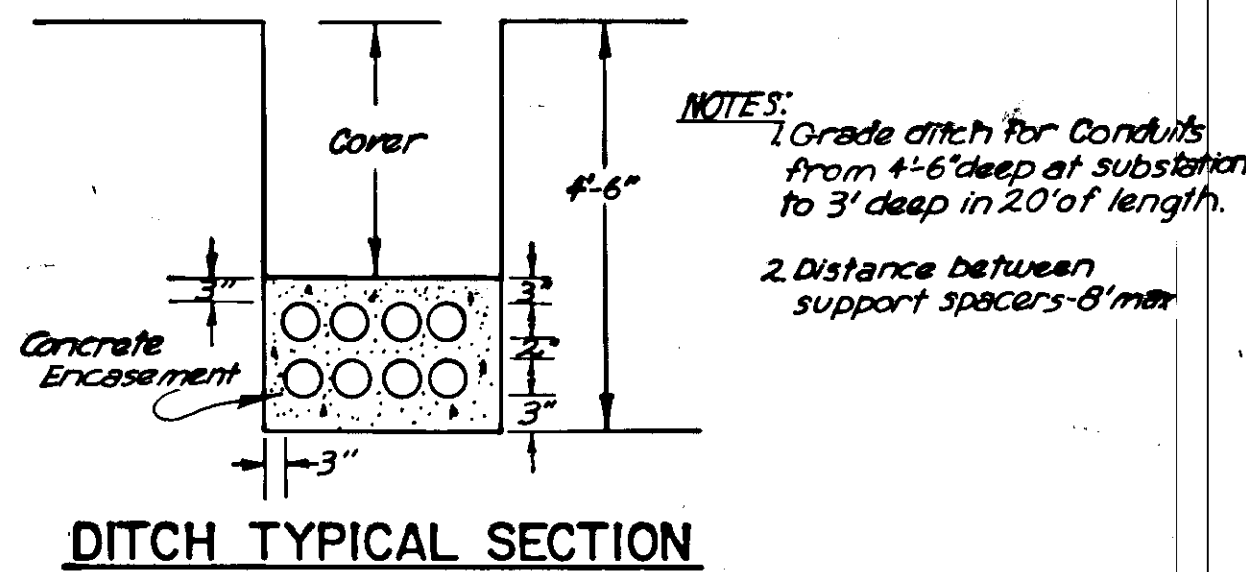
CABLE TRENCH ENTRANCE



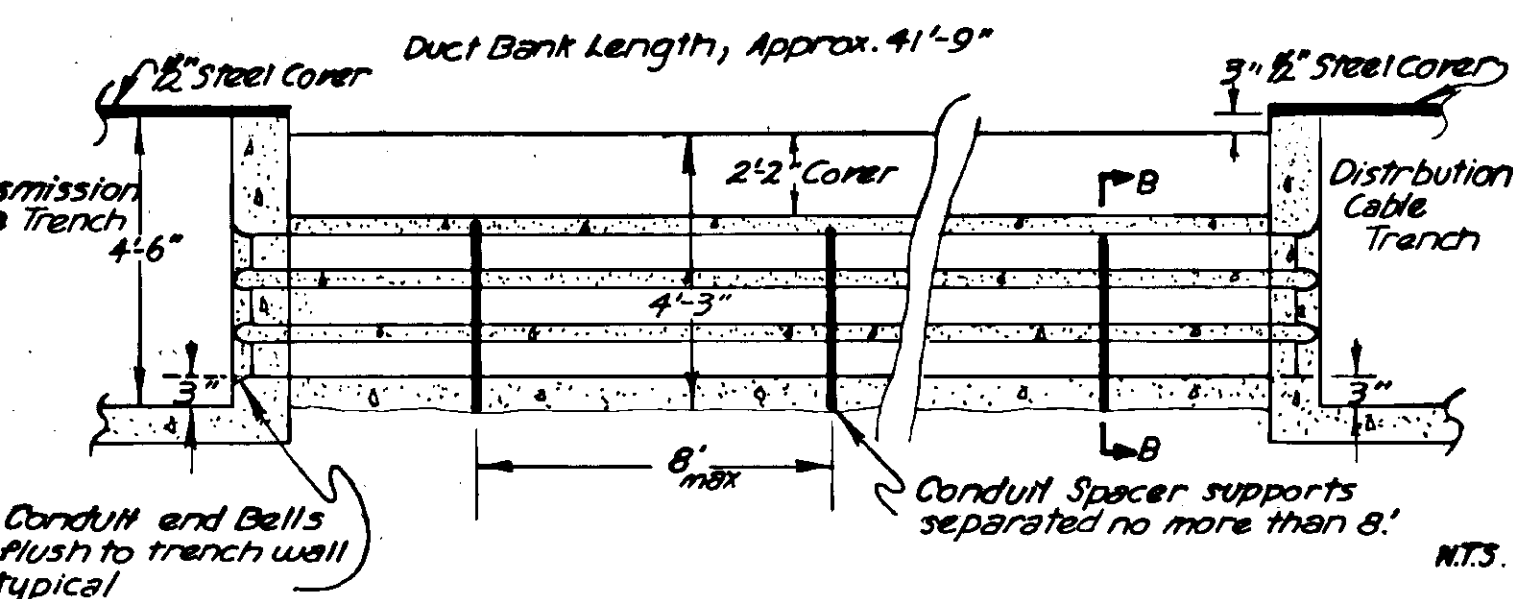
SECTION AA



SIDE ELEVATION

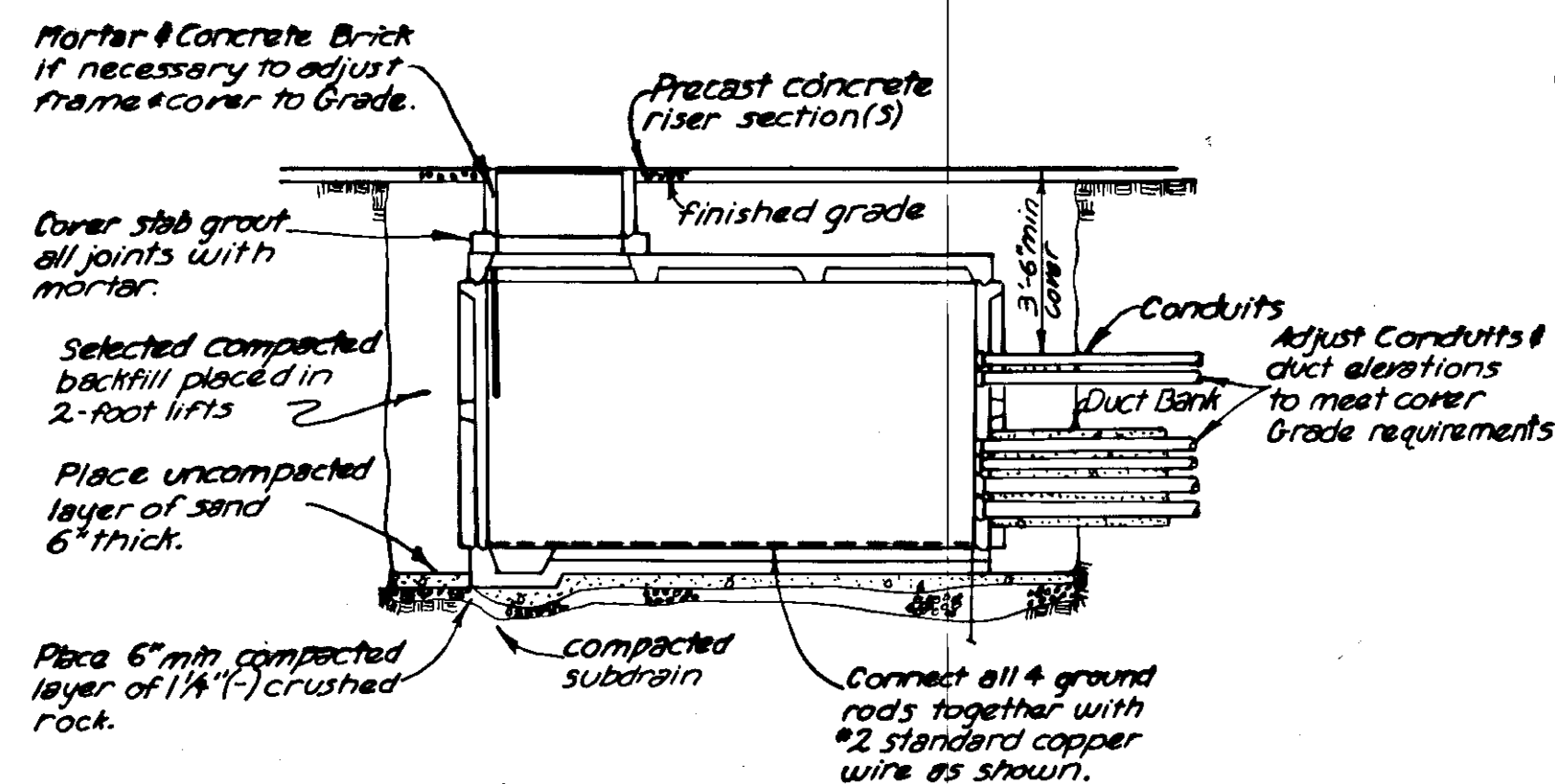


DITCH TYPICAL SECTION

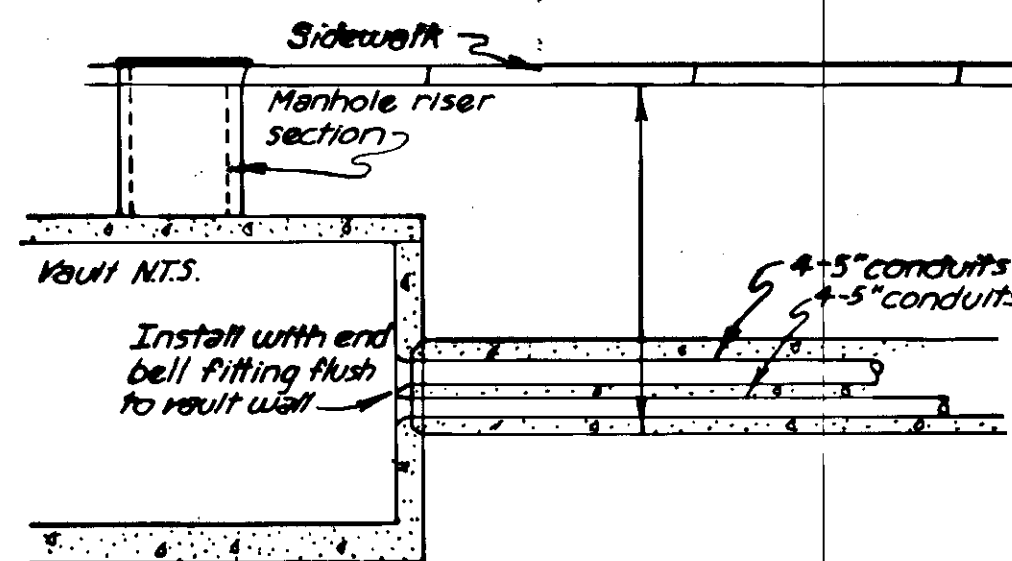


SECTION BB

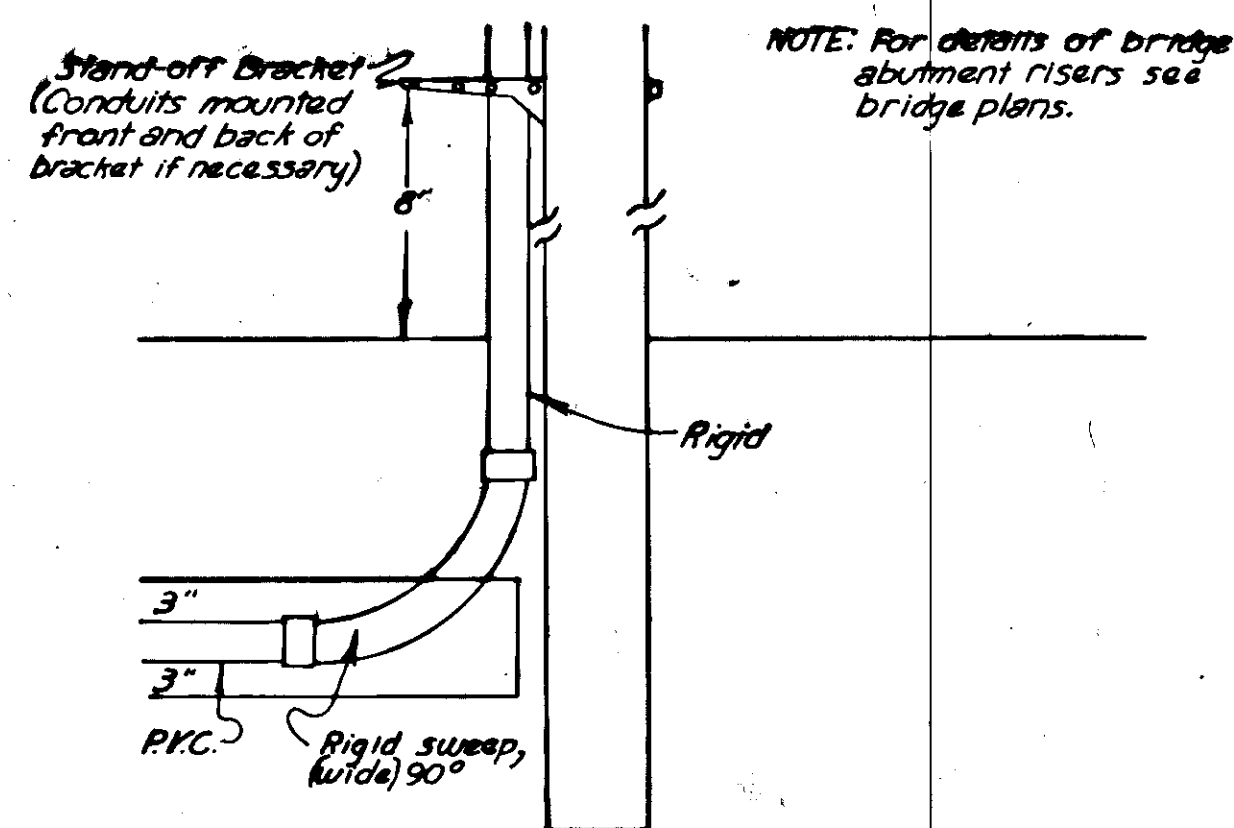
PERMANENT SUBSTATION DUCT BANK DETAIL



TYPICAL VAULT INSTALLATION DETAIL



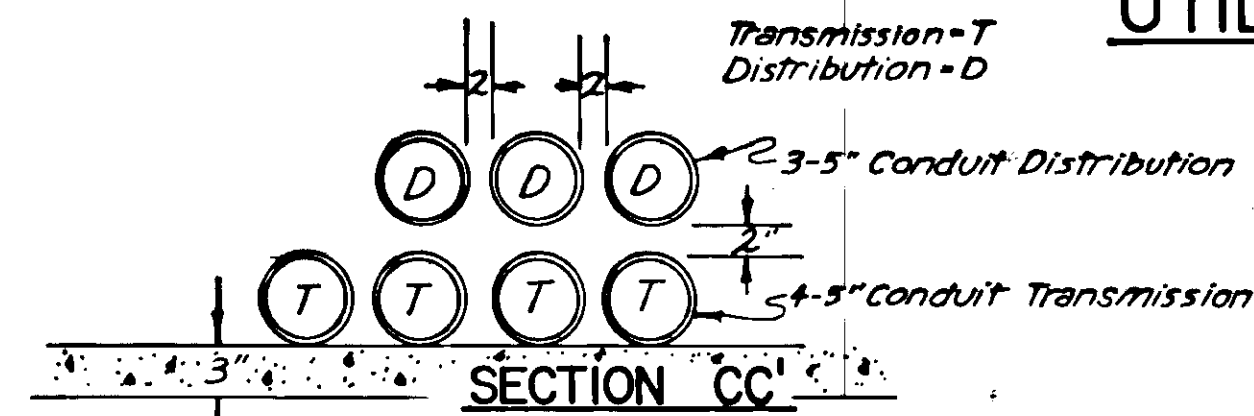
TYPICAL VAULT CONNECTION TO ENCASED CONDUIT BANK



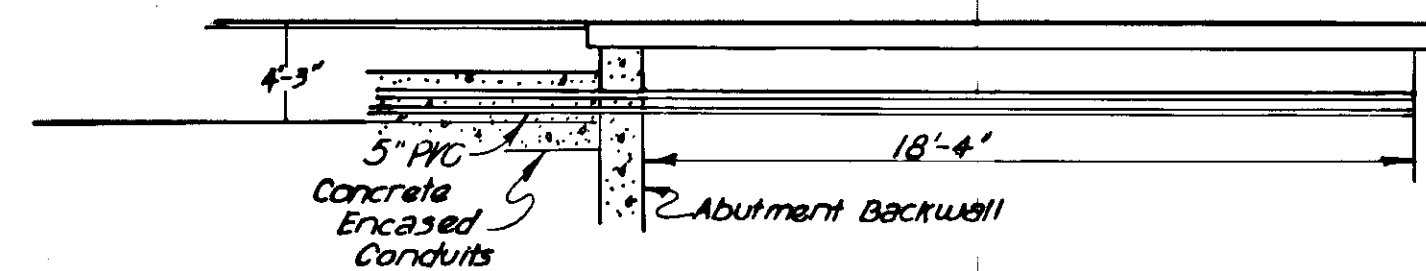
RISER DETAIL

UTILITY DETAILS

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) BRS-0959(10) | 1979 | 47 | 110 |

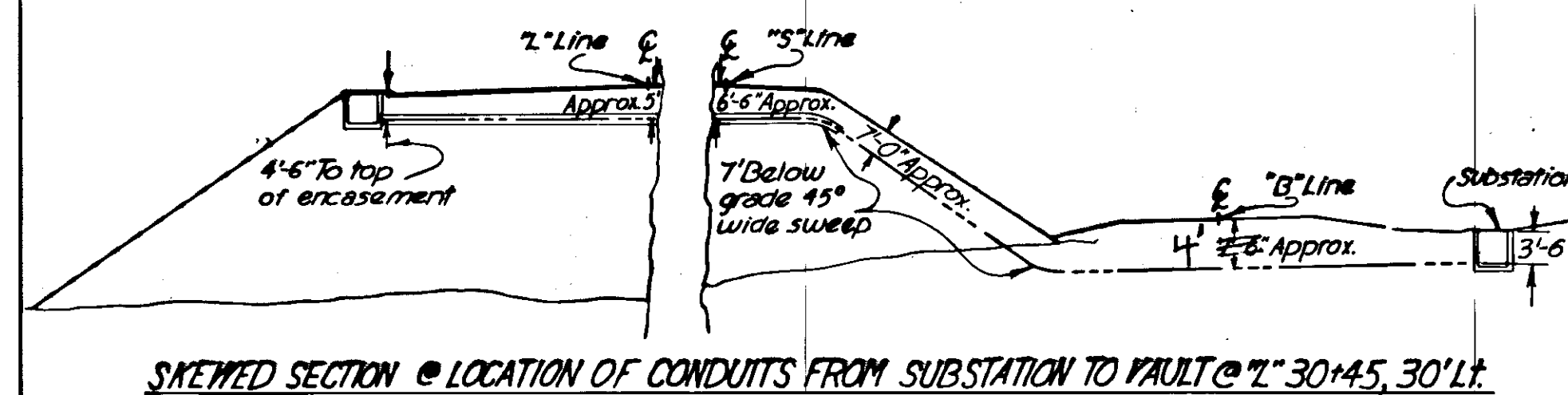


CABLE TRENCH EXIT DETAIL

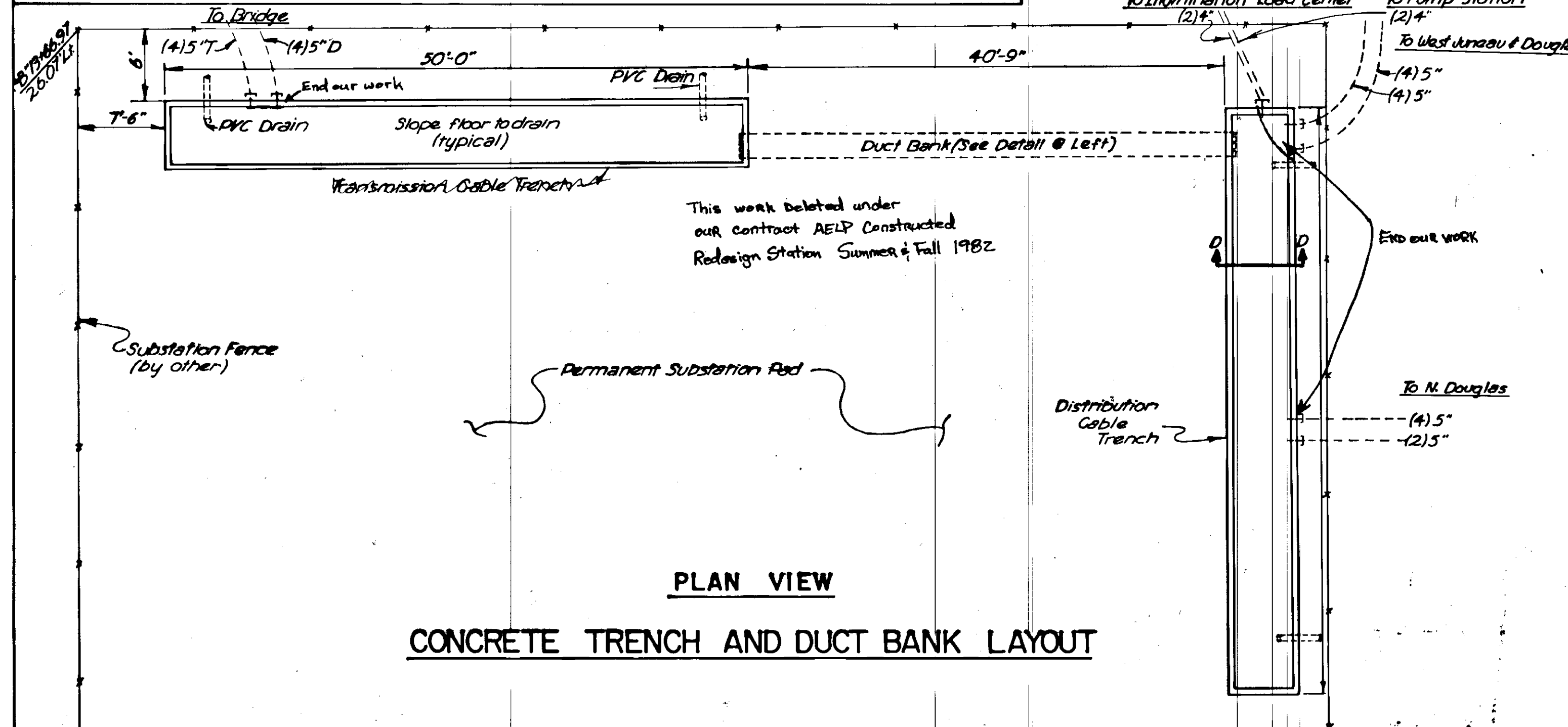


SIDE VIEW

KOWEE CREEK ATTACHMENTS DETAIL

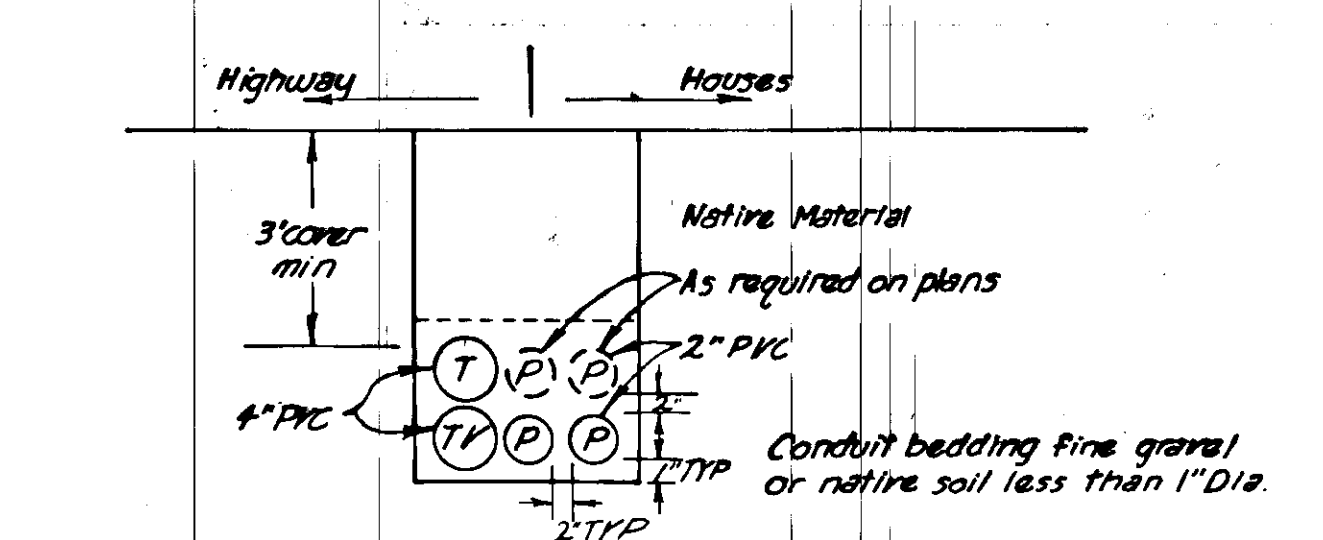


SKEWED SECTION @ LOCATION OF CONDUITS FROM SUBSTATION TO VAULT @ 7° 30' 45\"/>

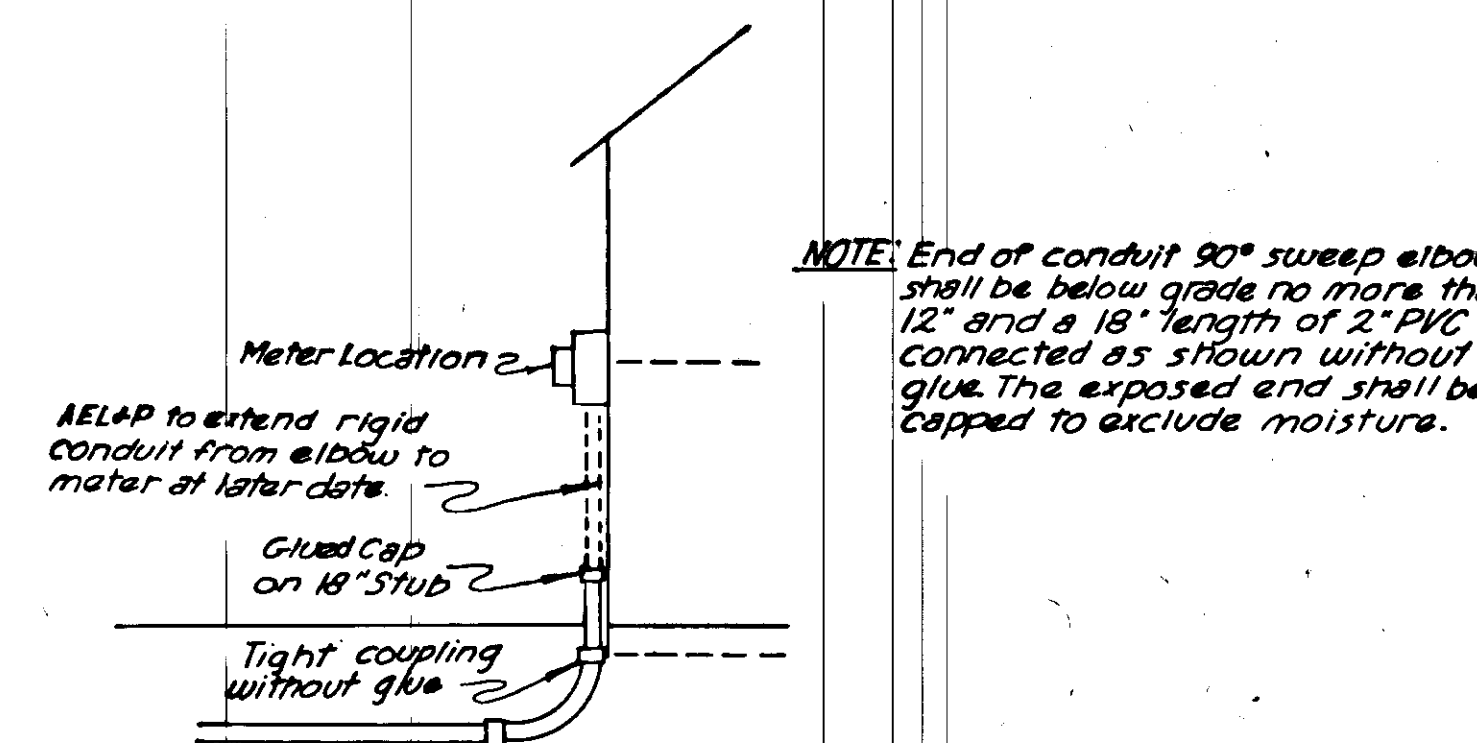


PLAN VIEW

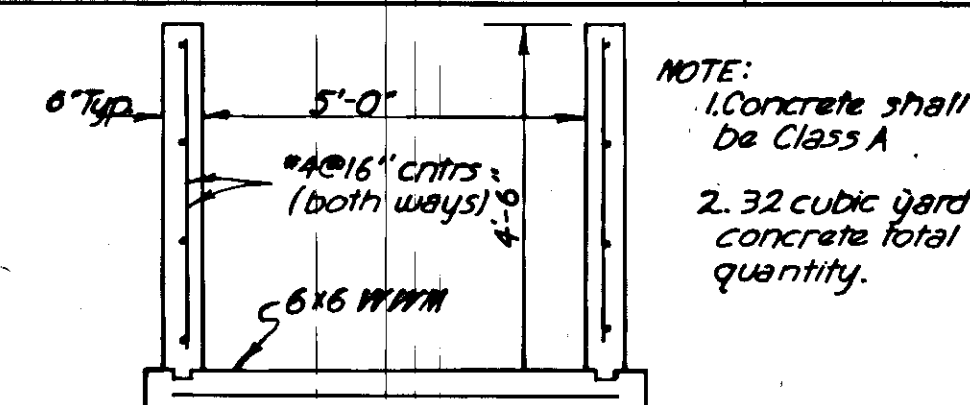
CONCRETE TRENCH AND DUCT BANK LAYOUT



CONDUIT IN TRENCH ARRANGEMENT DETAIL



HOUSE OR POLE SERVICE DETAIL

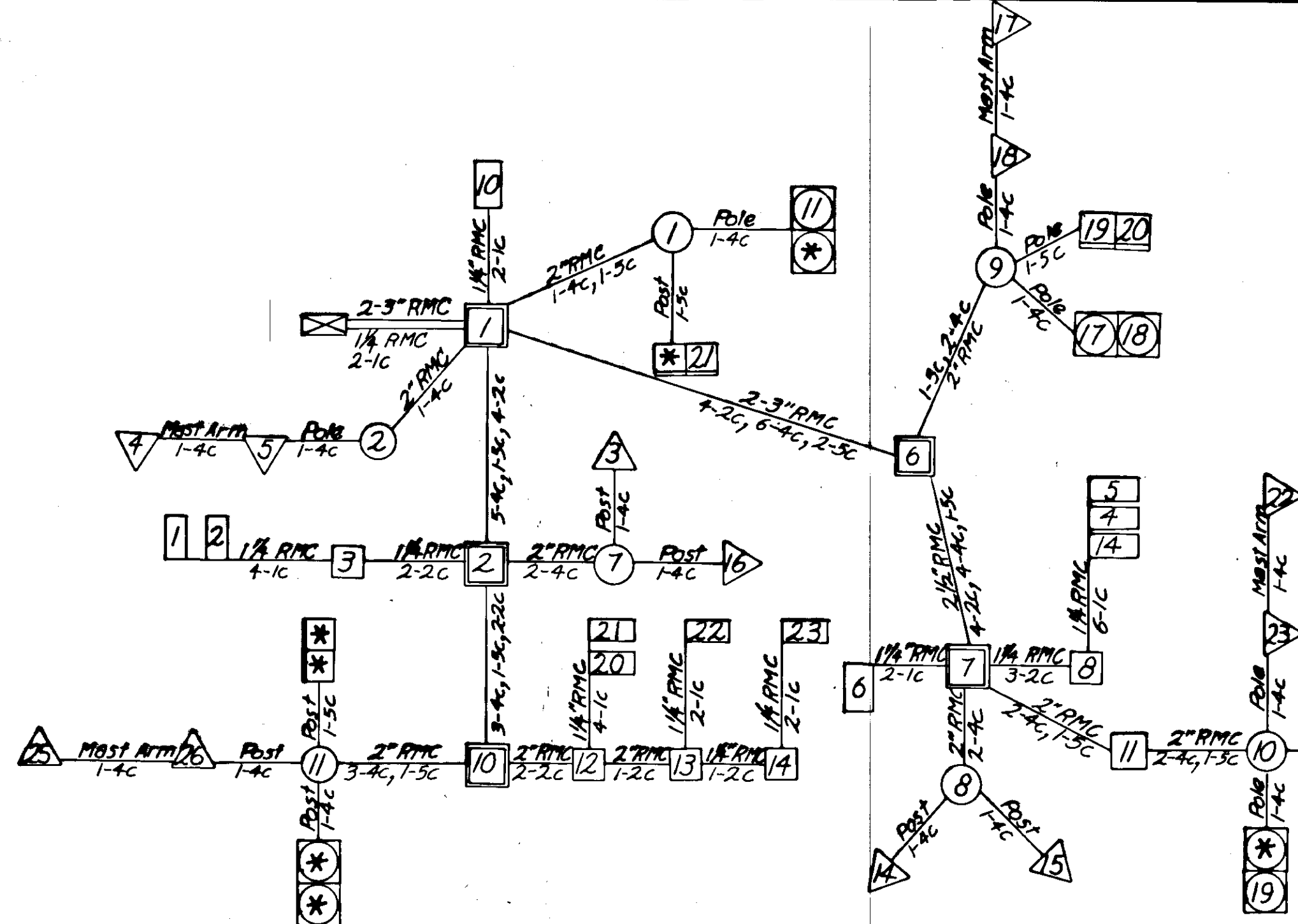
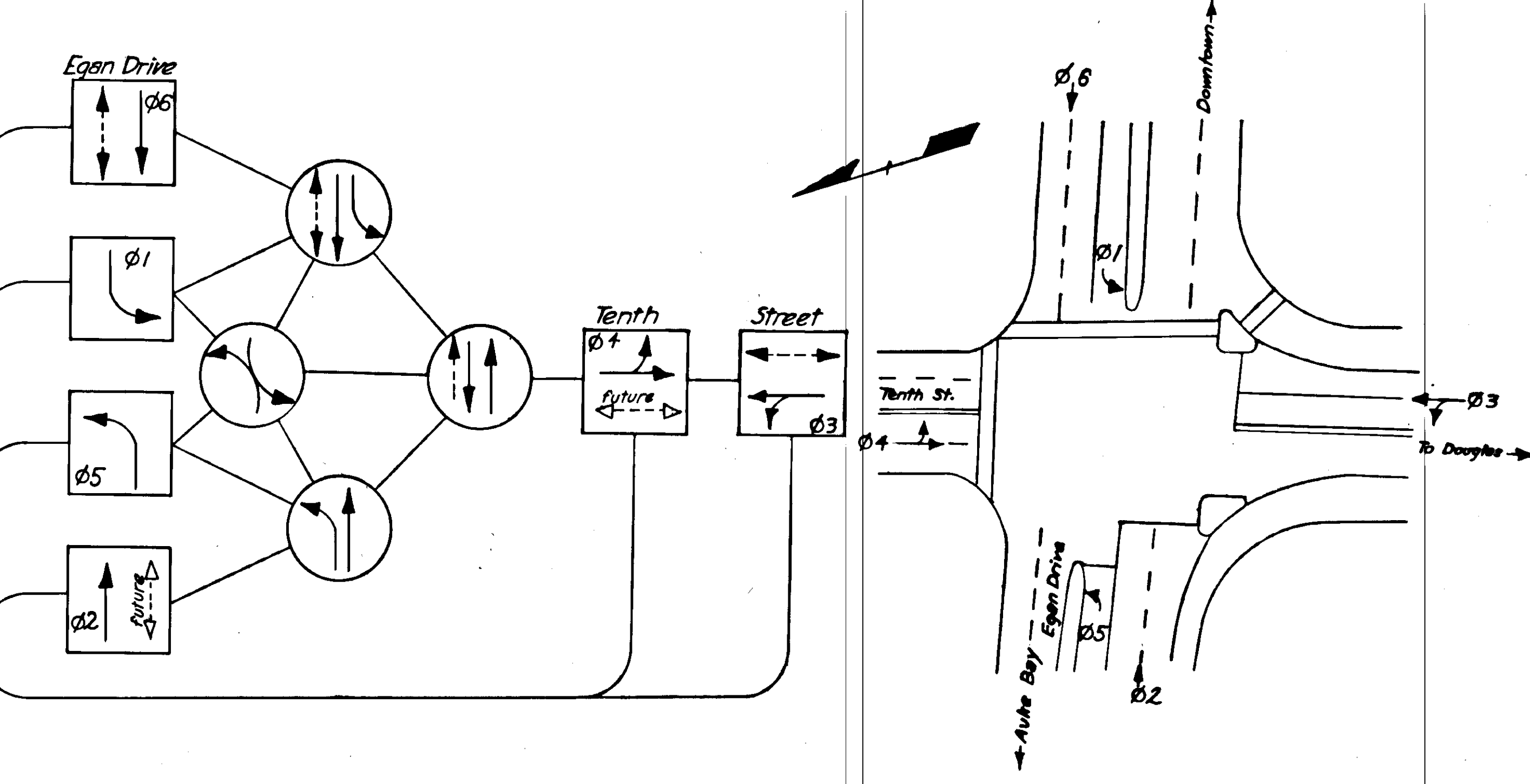


Section DD

NOTE:
1. Concrete shall be Class A
2. 32 cubic yards concrete total quantity.

SIGNALIZATION DETAILS

- Locations shown are approximate only and are subject to change by the Engineer.
- All existing J-Boxes shall be cleaned of any silt and mud collected in them to their original condition. When all the wires are removed from a conduit, the inside of the conduit shall be cleaned by mechanical means and compressed air.
- Design wind load for signal poles and mast arms shall be 100 mph.
- Overhead traffic signals shall be mounted 16'-6" min. and 19'-0" max. above the roadway, as shown in Standard Drawing T-52.01. Combination poles shall have the luminaire mounted 30' above the roadway. Pole lengths shall be as required to meet signal and luminaire mounting height requirements.
- All existing signals, poles, and appurtenances not specifically called for re-installation or re-use shall be returned to the State.
- All conduit shall be Rigid Metal (RMC) of the size shown in the plan.
- The existing cabinet and controller shall be salvaged as a unit and returned to the D. O. T. / P. F. maintenance yard.
- The new P-1 cabinet shall have the special feature "Manual Phase Selector Controls" as described in Section 660-3.05 of the Standard Specifications.
- The new controller shall have 8 phase capability, be fully actuated with volume density, be operator push-button programmable and have LED function and timing indications. (Honeywell HMP-190 or equal).
- The existing loop detector amplifiers may be reused. (Canoga Controls Proximitor Model 404). All other equipment in the cabinet shall be new and meet current NEMA standards.
- The existing Plectron fire pre-emptor shall be re-installed on the outside of the new cabinet. Pre-emption shall be All Red. A new Plectron remote antenna shall be supplied by the Contractor, be mounted on pole #2 and be connected by co-axial cable running through the existing conduit to the pre-emptor.
- Flash shall be yellow to Egan Drive N & S through movement faces (#6 + 2), all other signals shall flash red.
- No wire splices will be allowed, except as shown on plan. When new conductors are added to a conduit, the existing conductor shall be removed and all conductors pulled at once.
- A Flagman will be required during traffic signal shut-down.
- Pedestrian push button signs shall be incidental to signalization.



WIRING DIAGRAM

* (Indicates Future Installation, Not In This Contract. Un-used wire ends shall be taped.)

SIGNAL HEADS

| Size | Indications | Typ Mtng Std Dwg. T30.00 and T52.0 | Phase | | Remarks |
|------|-------------|--|-------|-----|-------------------------|
| | | | Exist | New | |
| 2" | R-Y-G | Plumbizer | A2 | | Remove |
| 8" | R-Y-G | S-1 | A2 | | Remove |
| 2" | LR-LY-LG | S-1 | B2 | | (Programmable) In Place |
| 2" | R-Y-G | Plumbizer | A1 | | In Place |
| 8" | R-Y-G | S-1 | A1 | | In Place |
| 1/2" | R-Y-G-LG | T-1 | A3 | | Remove See Note #1 |
| 1/2" | R-Y-G-LG | T-1 | A3 | | Remove |
| 1/2" | R-Y-G-LG | T-1 | A4 | | Remove |
| 1/2" | R-Y-G-LG | T-1 | A4 | | Remove |
| Ped | W-DW | SW-1 | A1 | | Remove |
| Ped | W-DW | SW-2 | A1 | | Remove |
| Ped | W-DW | SW-2 | PA4 | | Remove |
| Ped | W-DW | SW-1 | PA4 | | Remove |
| 2" | LR-LY-LG | T-1 | B1 | | (Programmable) In Place |
| 2" | LR-LY-LG | S-1 | B2 | | In Place |
| 2" | LR-LY-LG | S-1 | B1 | | In Place |
| 2" | R-Y-G-LG | Plumbizer | | Ø3 | Install |
| 1/2" | R-Y-G-LG | S-1 | | Ø3 | Install |
| Ped | W-DW | SW-2 | | Ø6 | Install |
| Ped | W-DW | SW-2 | | Ø3 | Install |
| Ped | W-DW | SW-1 | | Ø6 | Install |
| 2" | R-Y-G | Plumbizer | | Ø2 | Install |
| 8" | R-Y-G | S-1 | | Ø2 | Install |
| Ped | W-DW | SW-1 | | Ø3 | Install |
| 2" | R-Y-G-LG | Plumbizer | | Ø4 | Install |
| 1/2" | R-Y-G-LG | S-1 | | Ø4 | Install |

JUNCTION BOX SCHEDULE

| No. | Location | Station | Offset | Type | Remarks |
|-----|------------|----------------|--------|------|----------|
| 1 | Egan Drive | "AsBit" 42+60 | 47'L | II | In Place |
| 2 | Egan Drive | "AsBit" 42+26 | 5'L | II | In Place |
| 3 | Egan Drive | "AsBit" 40+55 | 5'L | I | In Place |
| 4 | Tenth St. | "L" 10+40 | 33'R | I | Remove |
| 5 | Tenth St. | "L" 10+75 | 32'R | I | Remove |
| 6 | Tenth St. | "L" 9+51 | 21'R | II | In Place |
| 7 | Egan Drive | "AsBit" 43+67 | 5'R | II | In Place |
| 8 | Egan Drive | "AsBit" 45+26 | 5'R | I | In Place |
| 9 | Egan Drive | "As Bit" 43+62 | 44.5'R | I | Remove |
| 10 | Tenth St. | "L" 10+38 | 28'R | II | Install |
| 11 | Egan Drive | "AsBit" 43+69 | 57'R | I | Install |
| 12 | Tenth St. | "L" 10+79 | 37'R | I | Install |
| 13 | Tenth St. | "L" 11+30 | 33'R | I | Install |
| 14 | Tenth St. | "L" 11+98 | 33'R | I | Install |

DETECTOR SCHEDULE

| No. | Location | Offset | Type | Phase | | Size | Remarks |
|-----|---------------|--------|-----------------|-------|-----|------|---------------------|
| | | | | Old | New | | |
| 1 | "AsBit" 40+50 | 15'R | Loop | A2 | 2 | 6X6 | In Place |
| 2 | "AsBit" 40+50 | 28'R | Loop | A2 | 2 | 6X6 | In Place |
| 3 | "AsBit" 42+25 | 4'R | Loop | B1 | 5 | 28X6 | In Place |
| 4 | "AsBit" 45+30 | 15'L | Loop | A1 | 6 | 6X6 | In Place |
| 5 | "AsBit" 45+30 | 30'L | Loop | A1 | 6 | 6X6 | In Place |
| 6 | "AsBit" 43+45 | 4'L | Loop | B2 | 1 | 30X6 | In Place |
| 7 | - | - | - | - | - | - | None |
| 8 | "L" 10+55 | 6 | Loop | A3 | 3 | 35X6 | Abandon in Place |
| 9 | - | - | - | - | - | - | None |
| 10 | "L" 9+65 | 5'L | Loop | A4 | 4 | 30X6 | In Place |
| 11 | Pole#1 | - | Ped Push Button | A1P1 | 6P | - | In Place |
| 12 | Pole#4 | - | Ped Push Button | - | - | - | Remove |
| 13 | Pole#6 | - | Ped Push Button | - | - | - | Remove |
| 14 | "AsBit" 45+30 | 4'L | Loop | B2 | 1 | 6X6 | In Place |
| 15 | Pole#4 | - | Ped Push Button | A4P | 3P | - | Remove |
| 16 | Pole#8 | - | Ped Push Button | A4P | - | - | Remove |
| 17 | Pole#9 | - | Ped Push Button | - | 3P | - | Install, See Note 1 |
| 18 | Pole#9 | - | Ped Push Button | - | 6P | - | Install, See Note 2 |
| 19 | Pole#10 | - | Ped Push Button | - | 3P | - | Install, See Note 2 |
| 20 | "L" 10+67 | 13'L | Loop | - | 3 | 6X18 | Install-See Diagram |
| 21 | "L" 10+82 | 13'L | Loop | - | 3 | 6X18 | Install-See Diagram |
| 22 | "L" 11+33 | 13'L | Loop | - | 3 | 6X18 | Install-See Diagram |
| 23 | "L" 12+00 | 13'L | Loop | - | 3 | 6X18 | Install-See Diagram |

POLE & BASE SCHEDULE

| No. | Location | Station | Offset | Type Base | "K" As Per Std Dwg T-52.01 | Remarks |
|-----|----------|----------------|--------|-------------|-------------------------------|--|
| 1 | 10th St. | "L" 9 + 47 | 26' L | | | In Place |
| 2 | Egan Dr. | "AsBH" 42 + 39 | 44.5'L | | | In Place |
| 3 | 10th St. | "L" 10 + 40 | 28'R | | | Remove |
| 4 | 10th St. | "L" 42 + 42 | 42'L | | | Remove Pole Only |
| 5 | Egan Dr. | "AsBH" 43 + 54 | 44.5'R | | | Remove |
| 6 | 10th St. | "L" 10 + 55 | 31' L | | | Remove |
| 7 | Egan Dr. | "AsBH" 42 + 40 | 5'L | | | In Place |
| 8 | Egan Dr. | "AsBH" 43 + 60 | 5'R | | | In Place |
| 9 | 10th St. | "L" 42 + 42 | 42'L | See Note #1 | 32 feet | Install Pole and Mast Arm on Existing Base |
| 10 | Egan Dr. | "AsBH" 43 + 73 | 59'R | As Per Std. | 38 feet | Install Combination Pole See Note #2 |
| 11 | 10th St. | "L" 10 + 70 | 40'R | As Per Std. | 34 feet | Install Combination Pole See Note #2 |

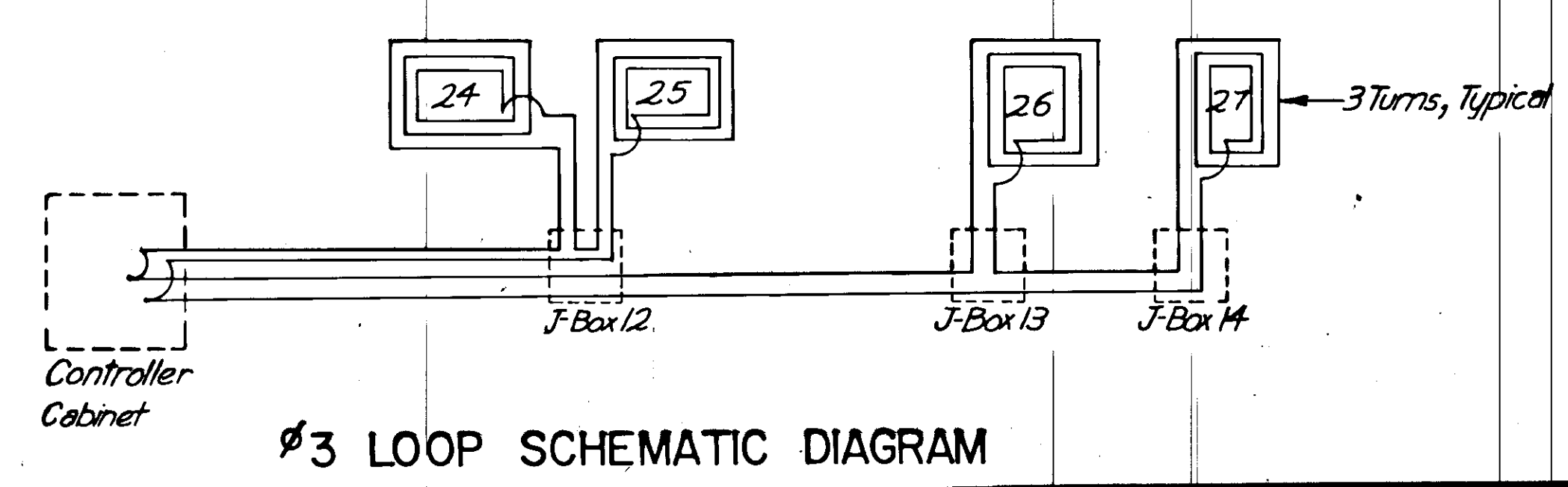
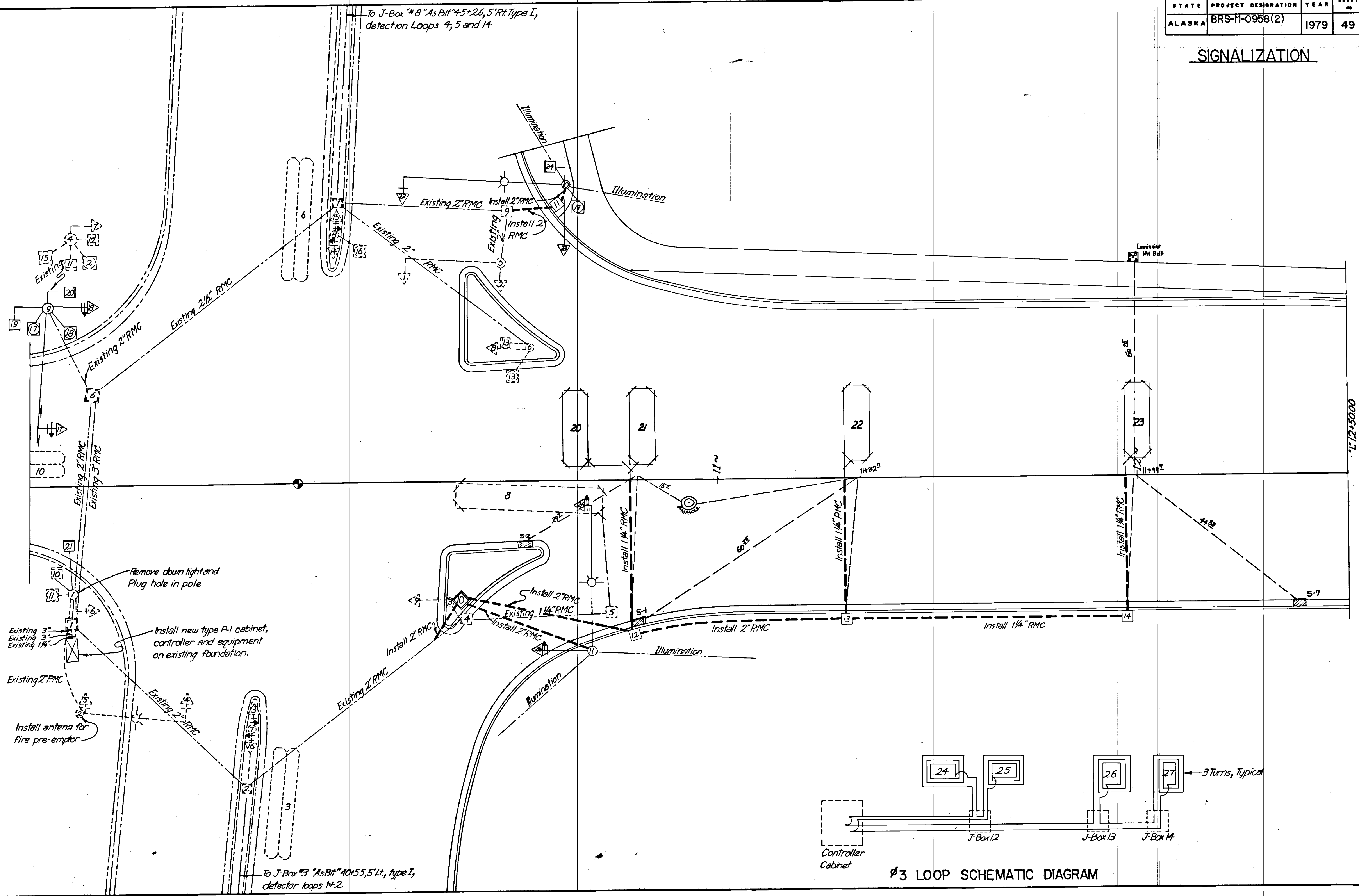
- Existing base has a 22" Bolt circle diameter and the bolt size is 2". The required nuts shall be supplied by the Contractor. The smaller bolts used for the removed pole shall be cut-off flush with the top of the base.
- See illumination plans for luminaire type and mast arm length.

- Install with sign R10-4A(R) "To Cross Street Push Button Wait for Walk", arrow right.
- Install with sign R10-4A(L) "To Cross Street Push Button Wait for Walk", arrow left.

to remain in place. Cap top of pole. Remove street name and brackets.

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 49 | 110 |

SIGNALIZATION



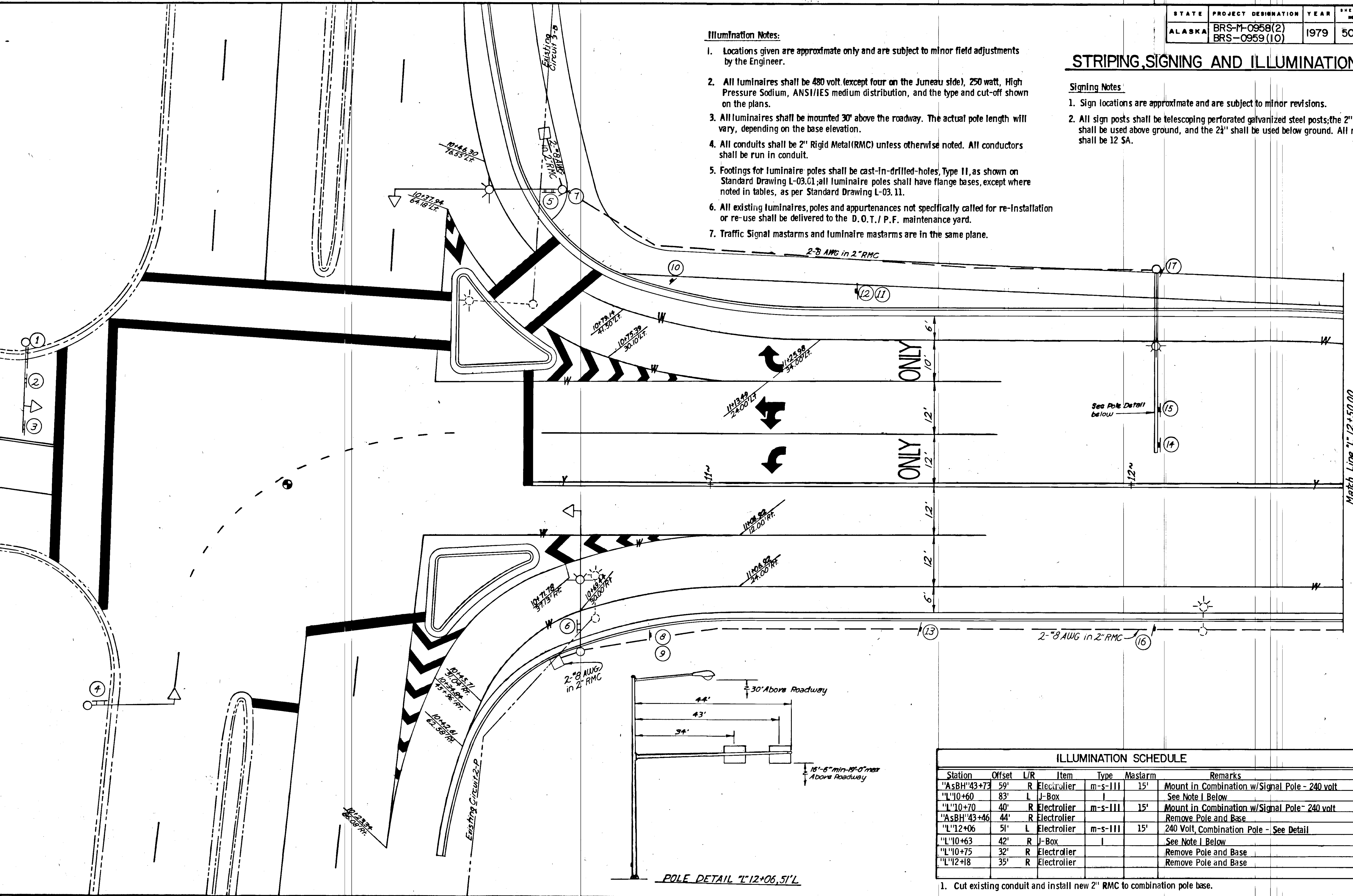
STRIPING, SIGNING AND ILLUMINATION

Signing Notes

1. Sign locations are approximate and are subject to minor revisions.
2. All sign posts shall be telescoping perforated galvanized steel posts; the 2" size shall be used above ground, and the 2 1/2" shall be used below ground. All materials shall be 12 SA.

Illumination Notes:

1. Locations given are approximate only and are subject to minor field adjustments by the Engineer.
2. All luminaires shall be 480 volt (except four on the Juneau side), 250 watt, High Pressure Sodium, ANSI/IES medium distribution, and the type and cut-off shown on the plans.
3. All luminaires shall be mounted 30' above the roadway. The actual pole length will vary, depending on the base elevation.
4. All conduits shall be 2" Rigid Metal (RMC) unless otherwise noted. All conductors shall be run in conduit.
5. Footings for luminaire poles shall be cast-in-drilled-holes, Type II, as shown on Standard Drawing L-03.01; all luminaire poles shall have flange bases, except where noted in tables, as per Standard Drawing L-03.11.
6. All existing luminaires, poles and appurtenances not specifically called for re-installation or re-use shall be delivered to the D. O. T. / P. F. maintenance yard.
7. Traffic Signal mastarms and luminaire mastarms are in the same plane.



ILLUMINATION SCHEDULE

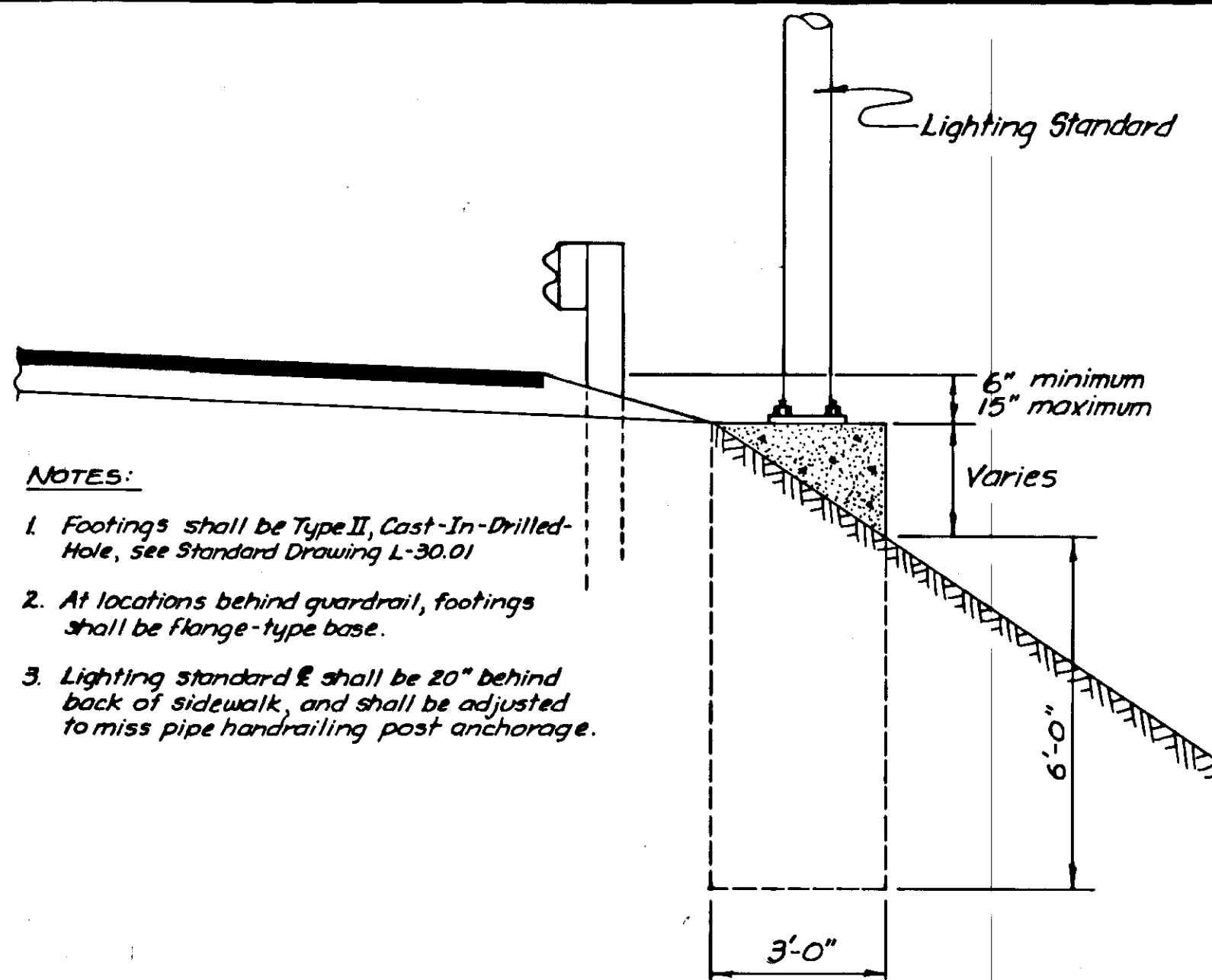
| Station | Offset | L/R | Item | Type | Mastarm | Remarks |
|-------------|--------|-----|-------------|---------|---------|---|
| "AsBH"43+73 | 59' | R | Electrolier | m-s-III | 15' | Mount in Combination w/Signal Pole - 240 volt |
| "L"10+60 | 83' | L | J-Box | I | | See Note I Below |
| "L"10+70 | 40' | R | Electrolier | m-s-III | 15' | Mount in Combination w/Signal Pole - 240 volt |
| "AsBH"43+46 | 44' | R | Electrolier | | | Remove Pole and Base |
| "L"12+06 | 51' | L | Electrolier | m-s-III | 15' | 240 Volt, Combination Pole - See Detail |
| "L"10+63 | 42' | R | J-Box | I | | See Note I Below |
| "L"10+75 | 32' | R | Electrolier | | | Remove Pole and Base |
| "L"12+18 | 35' | R | Electrolier | | | Remove Pole and Base |

1. Cut existing conduit and install new 2" RMC to combination pole base.

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|--------------------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958 (2) BRS-0959(10) | 1979 | 51 | 110 |

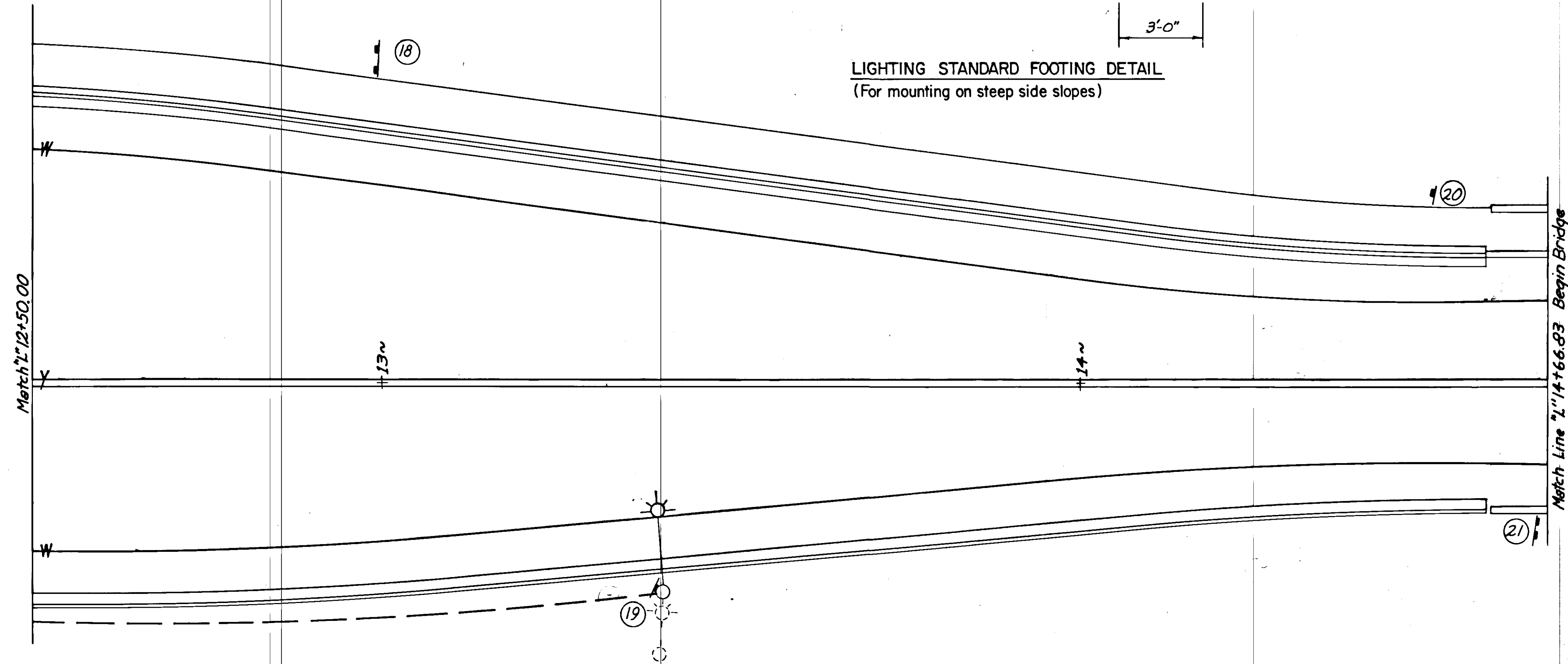
STRIPING, SIGNING AND ILLUMINATION

| ILLUMINATION SCHEDULE | | | | | | |
|-----------------------|--------|-----|-------------|--------|---------|----------------------|
| Station | Offset | L/R | Item | Type | Mastarm | Remarks |
| "L"13+40 | 30' R | | Electrolier | m-s-11 | 10' | 240 Volt |
| "L"13+44 | 41' R | | Electrolier | | | Remove pole and base |



- NOTES:**
1. Footings shall be Type II, Cast-In-Drilled-Hole, see Standard Drawing L-30.01
 2. At locations behind guardrail, footings shall be flange-type base.
 3. Lighting standard shall be 20" behind back of sidewalk, and shall be adjusted to miss pipe handrailing post anchorage.

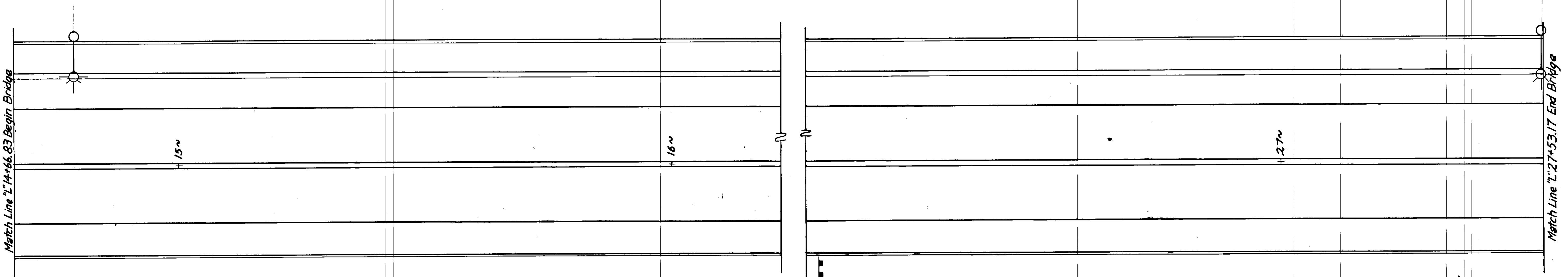
LIGHTING STANDARD FOOTING DETAIL
(For mounting on steep side slopes)



STRIPING, SIGNING AND ILLUMINATION

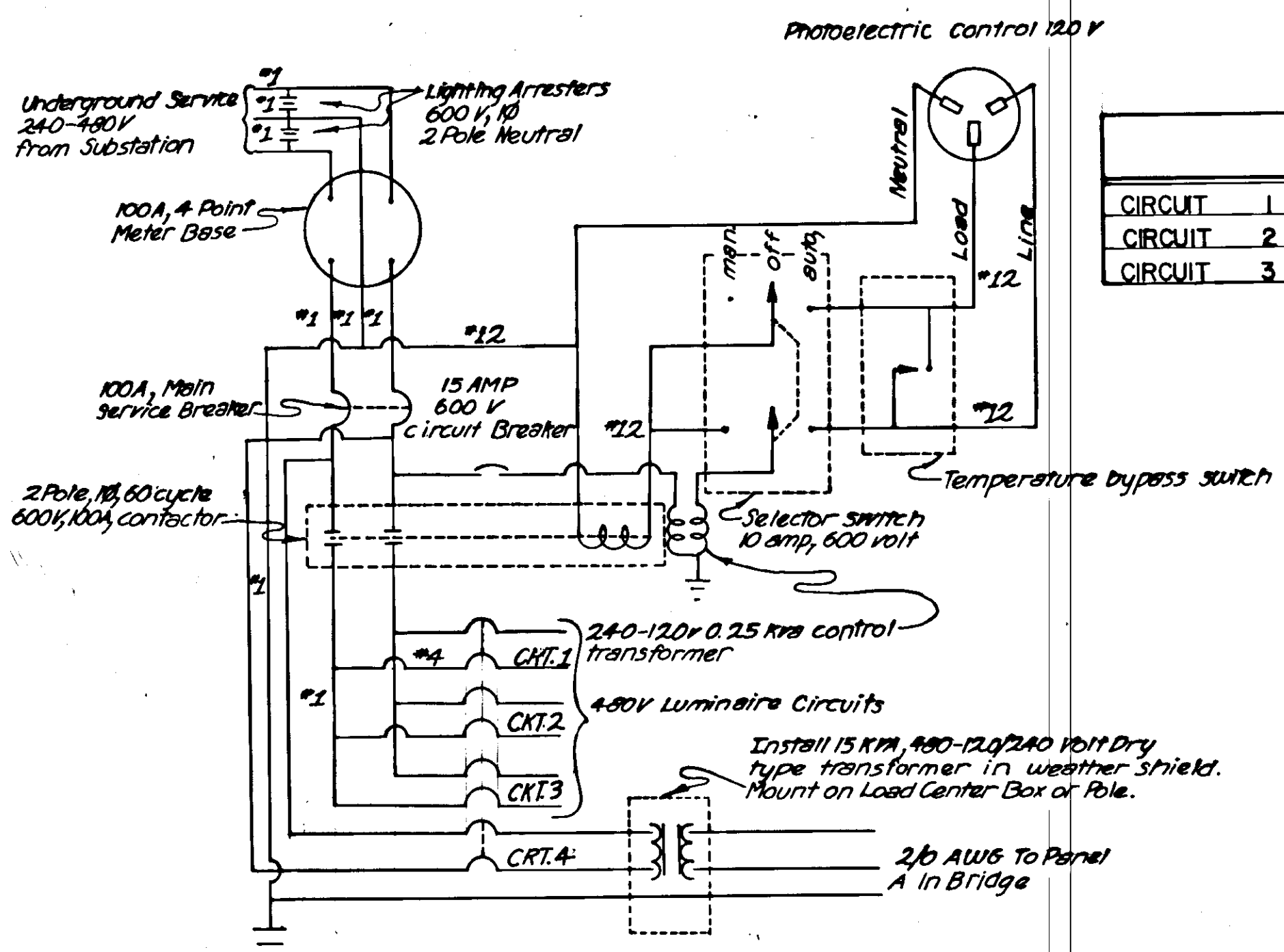
ILLUMINATION SCHEDULE

| Station | Offset | L/R | Item | Type | Mastarm | Remarks |
|----------|--------|-----|-------------|--------|---------|------------------|
| "L"14+74 | | L | Electrolier | m-c-II | 6' | See Bridge Plans |
| "L"16+33 | | L | Electrolier | m-c-II | 6' | " |
| "L"17+92 | | L | Electrolier | m-c-II | 6' | " |
| "L"19+51 | | L | Electrolier | m-c-II | 6' | " |
| "L"21+10 | | L | Electrolier | m-c-II | 6' | " |
| "L"22+69 | | L | Electrolier | m-c-II | 6' | " |
| "L"24+28 | | L | Electrolier | m-c-II | 6' | " |
| "L"25+87 | | L | Electrolier | m-c-II | 6' | " |
| "L"27+53 | | L | Electrolier | m-c-II | 6' | " |



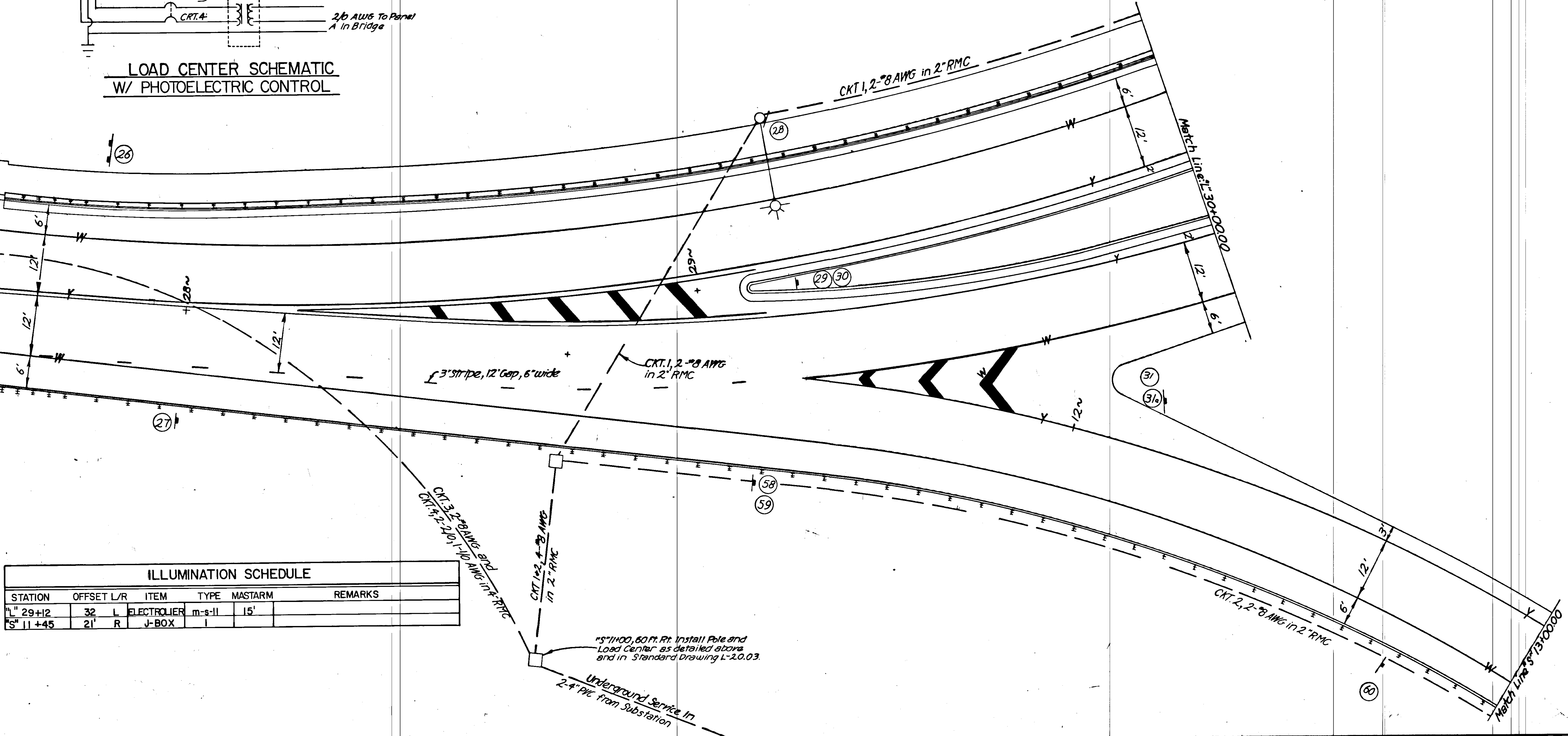
@ 25' 100 ← N
 (25)
 See Bridge plans for
 Mounting Bracket Detail

STRIPING, SIGNING AND ILLUMINATION



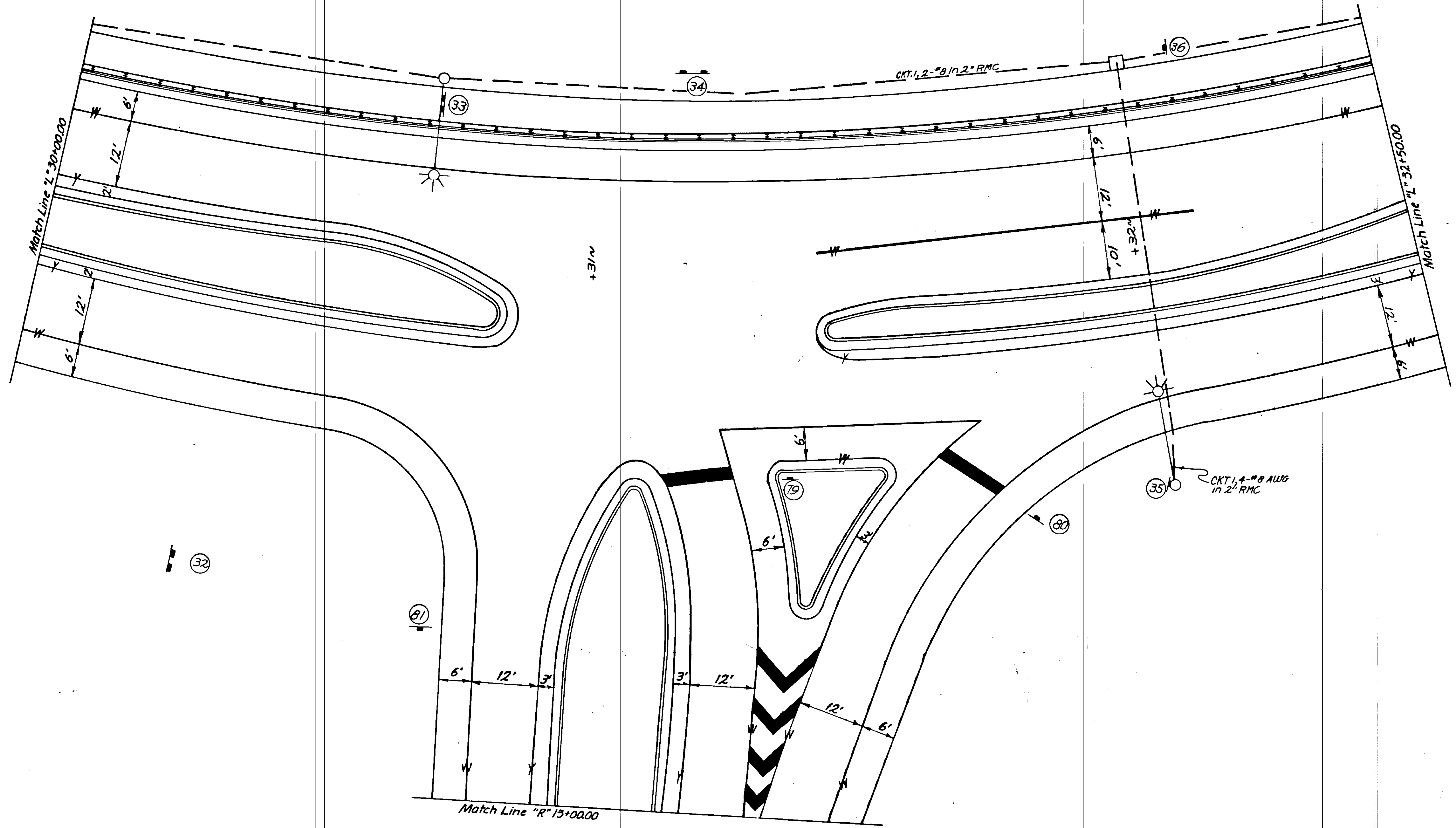
| BREAKER RATING | | | |
|----------------|---|---------|----------------------|
| CIRCUIT | 1 | 50 AMPS | BRIDGE DECK LIGHTING |
| CIRCUIT | 2 | 50 AMPS | ROADWAY LIGHTING |
| CIRCUIT | 3 | 20 AMPS | BRIDGE INTERIOR |

LOAD CENTER SCHEMATIC W/ PHOTOELECTRIC CONTROL



| ILLUMINATION SCHEDULE | | | | | |
|-----------------------|------------|---------------|--------|---------|---------|
| STATION | OFFSET L/R | ITEM | TYPE | MASTARM | REMARKS |
| "L" 29+12 | 32 | L ELECTROLIER | m-s-11 | 15' | |
| "S" 11+45 | 21 | R J-BOX | I | | |

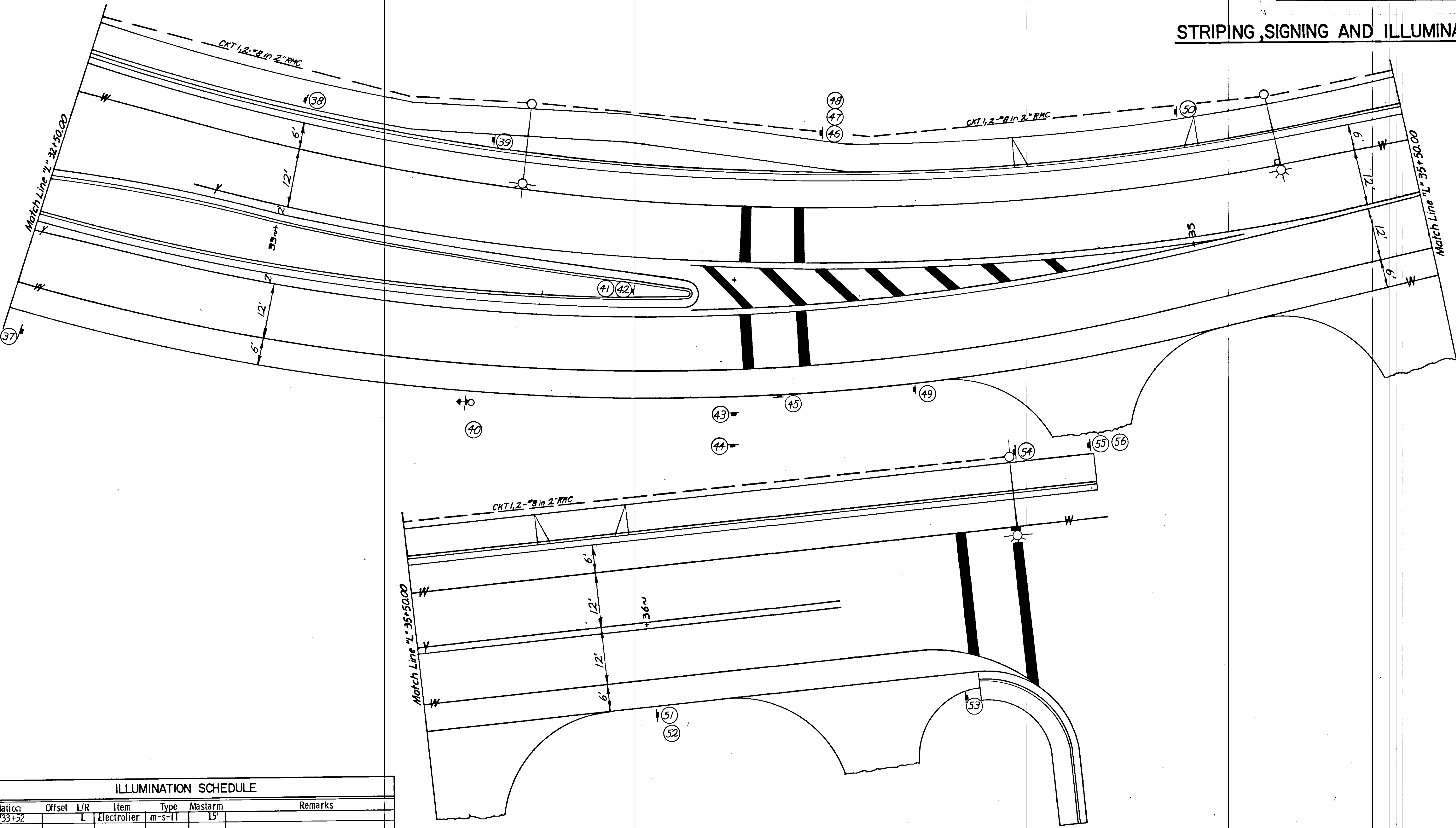
STRIPING, SIGNING AND ILLUMINATION



ILLUMINATION SCHEDULE

| Station | Offset | L/R | Item | Type | Mastarm | Remarks |
|----------|--------|-----|-------------|--------|---------|------------------------------|
| "L"30+70 | 34' | L | Electrolier | m-s-II | 15' | Combination Pole for Sign 33 |
| "L"31+95 | 42' | R | Electrolier | m-s-II | 15' | Slip Base |
| "L"32 | 34' | L | J-Box | I | | |

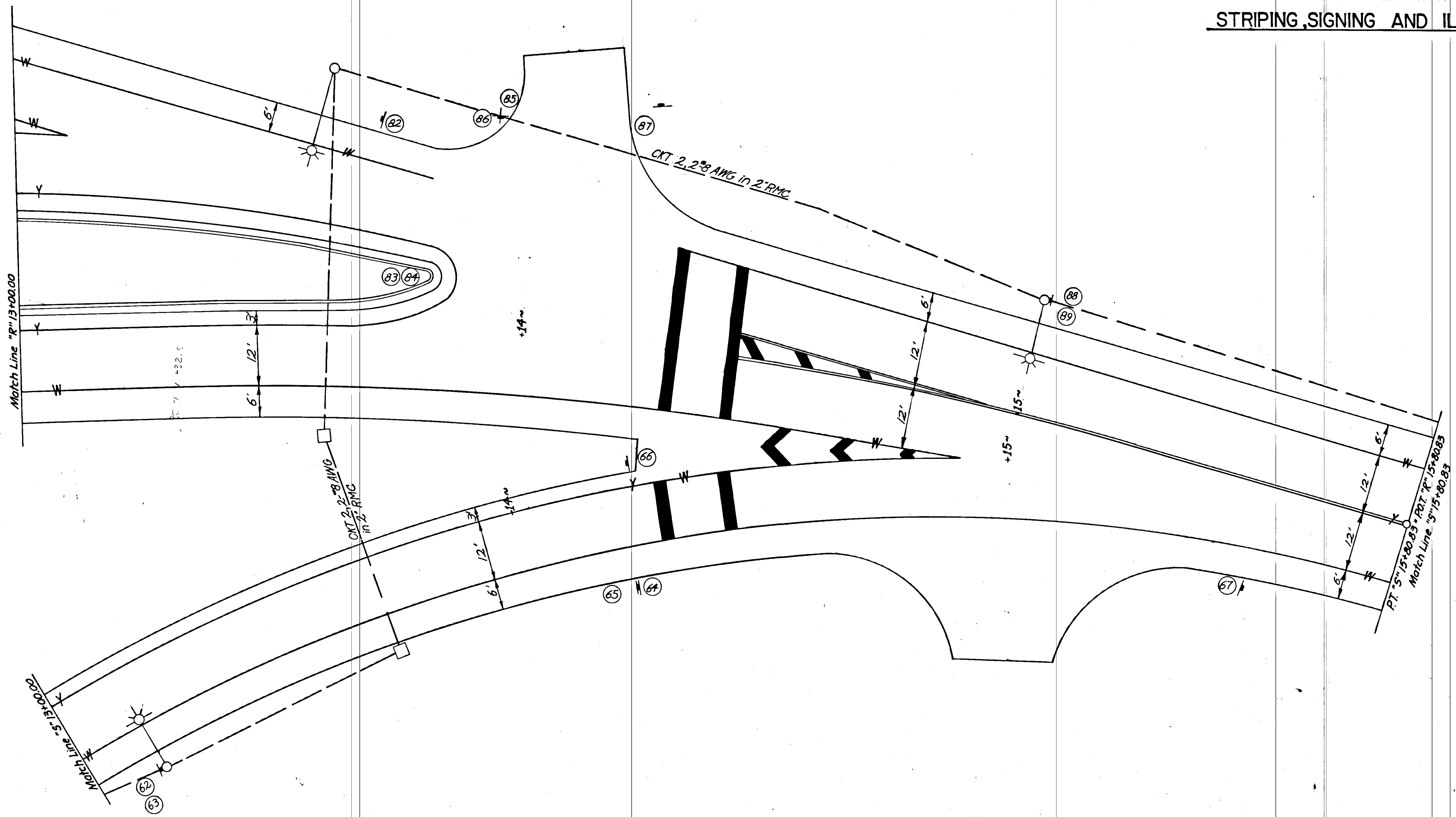
STRIPING, SIGNING AND ILLUMINATION



ILLUMINATION SCHEDULE

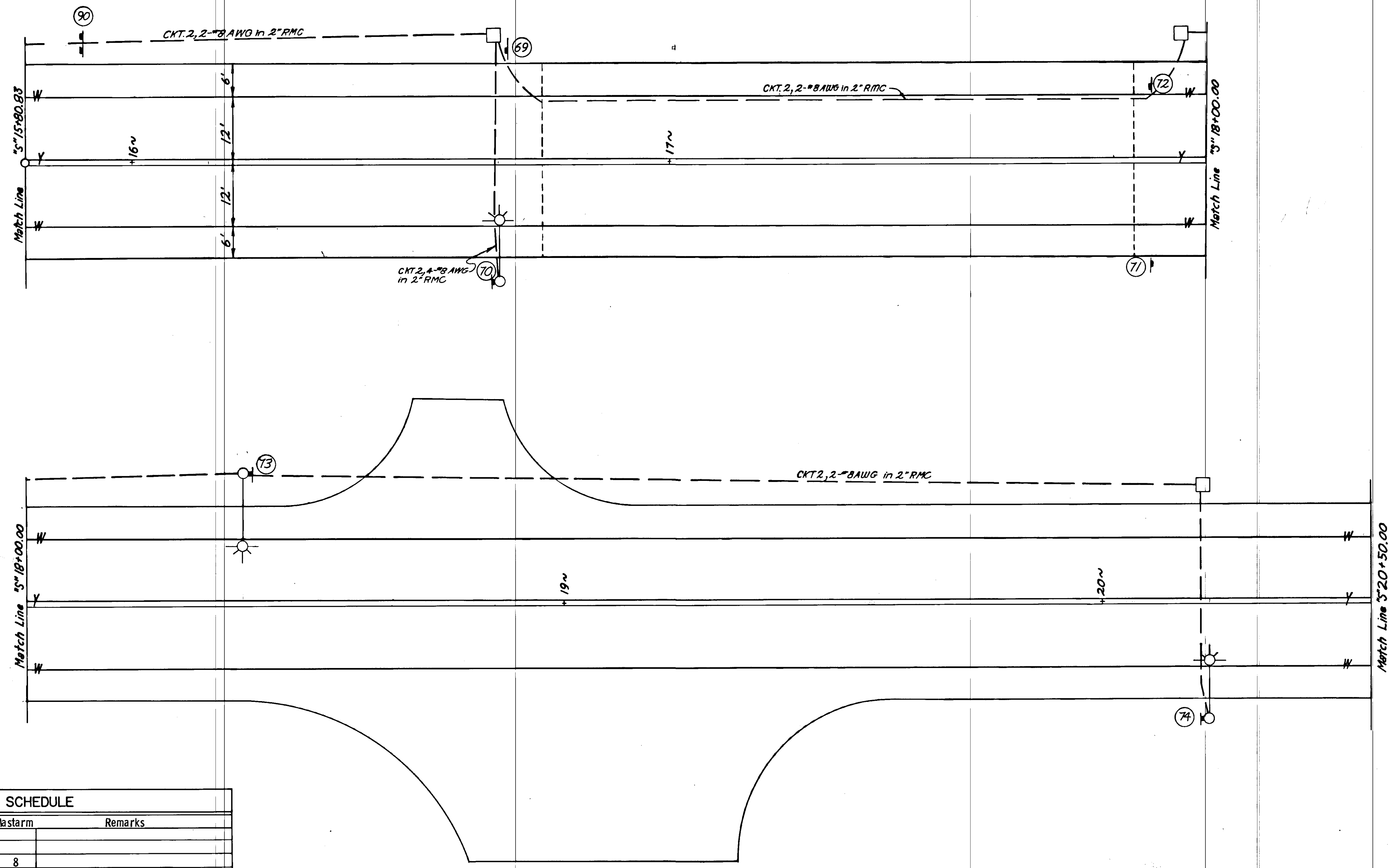
| Station | Offset | L/R | Item | Type | Mastarm | Remarks |
|---------|--------|-----|-------------|--------|---------|-----------|
| 33+52 | | L | Electrolier | m-s-11 | 15' | |
| 35+22 | | L | Electrolier | m-s-11 | 15' | Slip Base |
| 36+82 | | L | Electrolier | m-s-11 | 15' | |

STRIPING, SIGNING AND ILLUMINATION



| ILLUMINATION SECHDULE | | | | | | |
|-----------------------|--------|-----|-------------|--------|---------|-----------|
| Station | Offset | L/R | Item | Type | Mastarm | Remarks |
| "R"13+60 | 52' | L | Electrolier | m-s-II | 15' | Slip Base |
| "R"13+60 | 21' | R | J-Box | I | | |
| "R"15+00 | 23' | L | Electrolier | m-s-II | 8' | |
| "S"13+14 | 22' | R | Electrolier | m-s-II | 8' | |
| "S"13+67 | 20' | R | J-Box | I | | |

STRIPING, SIGNING AND ILLUMINATION

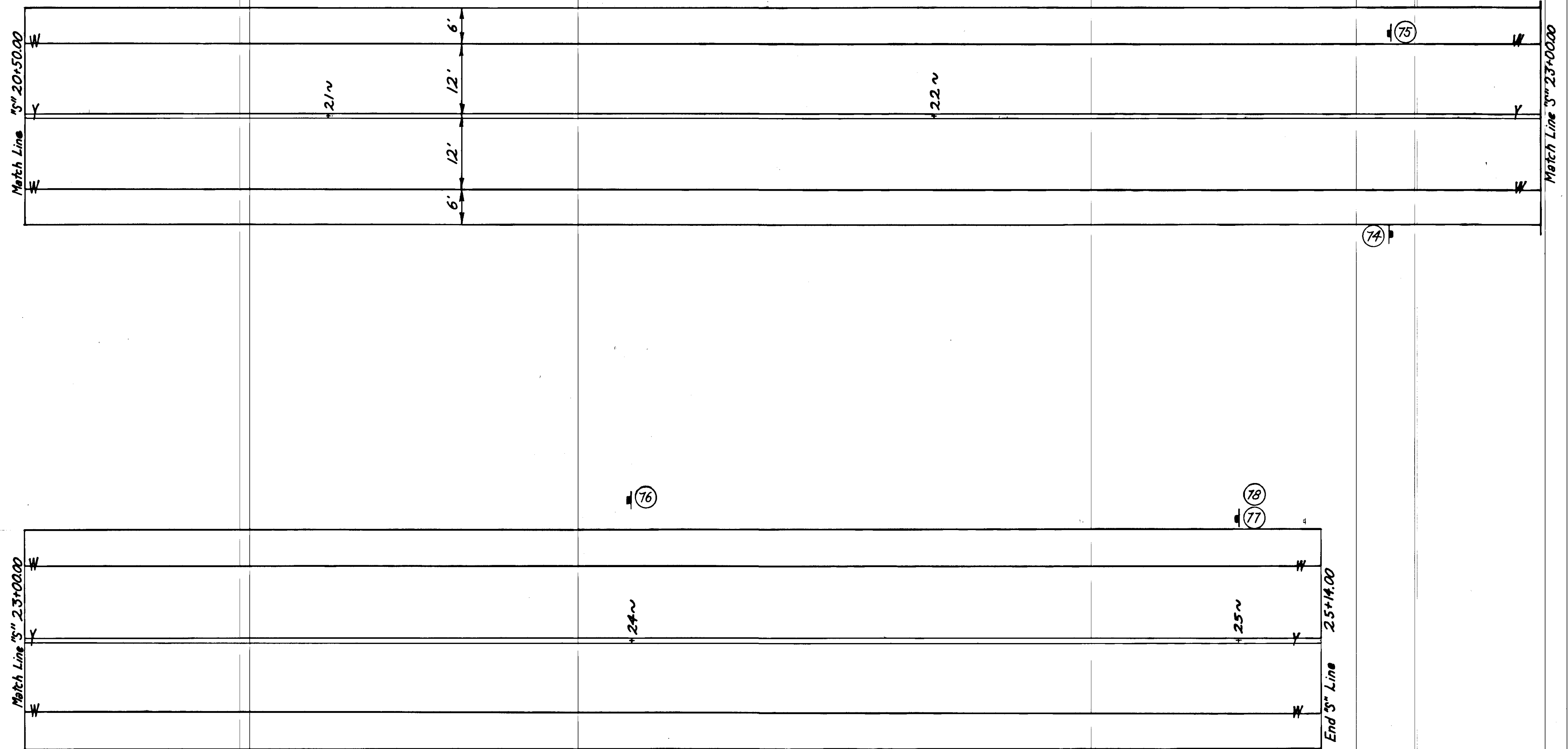


ILLUMINATION SCHEDULE

| Station | Offset | L/R | Item | Type | Mastarm | Remarks |
|---------|--------|-----|-------------|--------|---------|-----------|
| 16 + 68 | 23' | L | J-Box | I | | |
| 16 + 68 | 22' | R | Electrolier | m-s-II | 8 | |
| 17 + 95 | 23' | L | J-Box | I | | |
| 18 + 40 | 24' | L | Electrolier | m-s-II | 10 | Slip Base |
| 20 + 20 | 22' | R | Electrolier | m-s-II | 8 | |
| 20 + 20 | 22' | L | J-Box | I | | |

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-0959 (10) | 1979 | 58 | 110 |

STRIPING, SIGNING AND ILLUMINATION



SIGNING SCHEDULE

| Station | Dist. from Lt. Rt. | Code No. | Legend | Sign Panel Thickness | | | Post | | | | Facing Traffic | Remarks | |
|---------|--------------------|----------|------------------------------|----------------------|--------------------|--------------|------|------|--------|-----------|----------------|----------------------------------|----------------------------------|
| | | | | Size | Unframed Area S.F. | No. of Posts | Type | Size | Length | Embedment | | | |
| 9 + 40 | 32' | D3-1B | Egan Drive** | 108"X30" | .125 | 22.5 | | | | | EB | Mount on Signal Mast Arm | |
| 9 + 40 | 25' | R3-5L | | 30"X36" | .063 | 7.5 | | | | | EB | Mount on Signal Mast Arm | |
| 9 + 40 | 14' | R3-6L | Only | 30"X36" | .063 | 7.5 | | | | | EB | Mount on Signal Mast Arm | |
| 9 + 50 | 50' | D3-1B | 10th Street** | 84"X30" | .100 | 17.5 | | | | | NB | Mount on Signal Mast Arm | |
| 10 + 61 | 65' | D3-1B | 10th Street** | 84"X30" | .100 | 17.5 | | | | | SB | Mount on Signal Mast Arm | |
| 10 + 66 | 29' | D3-1B | Egan Drive** | 108"X30" | .125 | 22.5 | | | | | WB | Mount on Signal Mast Arm | |
| 10 + 78 | 63' | R9-5 | (Bikes)* Use Ped Signal | 12"X18" | .063 | 1.5 | | | | | SB | Mount on Signal Above Ped Button | |
| 10 + 85 | 37' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | 1 | Tube | 2" | 9.8 | 3' | WB | |
| 10 + 85 | 37' | M4-11 | Begin | 24"X6" | .063 | 1.0 | | | | | WB | Mount Above #8 On Same Post | |
| 11 + 18 | 43' | R9-6 | (Bikes)* Yield to Peds | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | | 3' | SEB | Place Perpendicular to Curb Cut |
| 11 + 35 | 46' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | 1 | Tube | 2" | 10' | 3' | EB | |
| 11 + 35 | 46' | M4-12 | End | 24"X6" | .063 | 1.0 | | | | | | EB | Mount Above #11 on Same Post |
| 12 + 06 | 5' | R3-6L | Only | 30"X36" | .063 | 7.5 | | | | | EB | Mount Overhead See Detail p. 50 | |
| 12 + 06 | 16' | R3-5L | | 30"X36" | .063 | 7.5 | | | | | EB | Mount Overhead See Detail p. 50 | |
| 12 + 06 | 38' | R2-1 | Speed Limit 30 | 30"X36" | .063 | 7.5 | 1 | Tube | 2" | 12.5 | 3' | WB | |
| 12 + 06 | 51' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | | | | | | WB | Band to Luminaire Pole |
| 13 + 00 | 45' | D1-2 | ←Auke Bay/Thane*** | 78"X24" | .125 | 13.0 | 2 | Tube | 2" | 28.0 | 3' | WB | |
| 13 + 40 | 30' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | | | | | | | Band to Luminaire Pole |
| 14 + 50 | 32' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 13.5 | 3' | EB | |
| 14 + 65 | 25' | T1-1 | Gastineau Channel | 54"X24" | .100 | 9.0 | 2 | Tube | 2" | 24.0 | 3' | WB | |
| 17 + 92 | 25' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | | | | | | EB | Band to Luminaire |
| 21 + 10 | 25' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | | | | | | EB | Band to Luminaire |
| 24 + 28 | 25' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | | | | | | EB | Band to Luminaire |
| 25 + 00 | 20' | D1-2 | ←Douglas/N. Douglas Rd.→ | 102"X24" | .125 | 17.0 | | | | | | | See Bridge Plans |
| 27 + 80 | 32' | T1-1 | Gastineau Channel | 54"X24" | .100 | 9.0 | 2 | Tube | 2" | 29.0 | 3' | EB | |
| 28 + 00 | 24' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 10.5 | 3' | WB | |
| 29 + 12 | 32' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 13.0 | 3' | EB | |
| 29 + 19 | 2' | R4-7 | Keep Right | 24"X30" | .063 | 5.0 | 1 | Tube | 2" | 8.5 | 3' | WB | |
| 29 + 19 | 2' | OM-1 | Yellow 9 Button | 18"X18" | .063 | 1.5 | | | | | | WB | Mount Below #29 on Same Post |
| 29 + 85 | 38' | W12-1 | Double Arrow | 24"X24" | .063 | 4.0 | 1 | Tube | 2" | 13.0 | 3' | WB | |
| 29 + 85 | 38' | OM-1 | Yellow 9 Button | 18"X18" | .063 | 2.25 | | | | | | WB | Mount Below #31 on Same Post |
| 30 + 35 | 60' | R12-6 | No Studded Tires | 84"X66" | .100 | 38.5 | 2 | Tube | 2" | 33.0 | 3' | WB | |
| 30 + 70 | 28' | D3-1B | No. Douglas Rd. * | 108"X18" | .125 | 13.5 | | | | | | WB | Mount on Luminaire Comb. Pole |
| 31 + 19 | 36' | D1-2 | ←Juneau/Douglas→ | 72"X24" | .080 | 12.0 | 2 | Tube | 2" | 28.0 | 3' | SB | |
| 32 + 00 | 37' | S1-1 | School Advance | 36" | .080 | 6.75 | 1 | Tube | 2" | | 3' | WB | Band to Luminaire |
| 32 + 10 | 35' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 8.5 | 3' | EB | |
| 32 + 55 | 35' | W11-1 | (Bikes)* | 30"X30" | .063 | 6.25 | 1 | Tube | 2" | 9.5 | 3' | WB | |
| 33 + 00 | 35' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 9.0 | 3' | EB | |
| 33 + 45 | 27' | R2-1 | Speed Limit 30 | 30"X36" | .063 | 7.5 | 1 | Tube | 2" | 11.0 | 3' | EB | |
| 33 + 45 | 32' | | Speed Limit 20 When Flashing | 24"X48" | | | | | | | | WB | See Note 1 |
| 33 + 78 | 2' | R4-7 | Keep Right | 24"X30" | .063 | 5.0 | 1 | Tube | 2" | 9.5 | 3' | EB | |
| 33 + 78 | 2' | OM-1 | Yellow 9 Button | 18"X18" | .063 | 1.5 | | | | | | EB | Mount Below #41 On Same Post |
| 34 + 00 | 29' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | 1 | Tube | 2" | 8.5 | 3' | NB | Mount Perpendicular to Bike Path |
| 34 + 00 | 37' | R5-3 | No Motor Vehicles | 24"X24" | .063 | 4.0 | 1 | Tube | 2" | 10.5 | 3' | NB | Mount Perpendicular to Bike Path |
| 34 + 08 | 25' | R1-1 | Stop | 18"X18" | .063 | 2.25 | 1 | Tube | 2" | 8.5 | 3' | NB | Mount Perpendicular to Bike Path |
| 34 + 20 | 30' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | 1 | Tube | 2" | 10.0 | 3' | EB | |
| 34 + 20 | 30' | D11-1R | → | 24"X6" | .063 | 1.0 | | | | | | EB | Mount Below #46 on Same Post |
| 34 + 20 | 30' | D11-1 | No. Douglas**** | 24"X6" | .063 | 1.0 | | | | | | EB | Mount Above #46 on Same Post |
| 34 + 37 | 34' | R7-9 | No Parking Bike Route | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 8.0 | 3' | WB | |
| 35 + 00 | 30' | R7-9 | No Parking Bike Route | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 9.5 | 3' | EB | |
| 36 + 00 | 20' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | 1 | Tube | 2" | 7.0 | 3' | WB | |
| 36 + 00 | 20' | D11-1M | End | 24"X6" | .063 | 1.0 | | | | | | WB | Mount Above #51 on Same Post |
| 36 + 67 | 22' | S2-1 | School Crossing | 36" | .080 | 6.75 | 1 | Tube | 2" | 9.0 | 3' | WB | |
| 36 + 84 | 30' | S2-1 | School Crossing | 36" | .080 | 6.75 | 1 | Tube | 2" | 11.0 | 3' | EB | |
| 37 + 00 | 30' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | 1 | Tube | 2" | 8.0 | 3' | EB | |
| 37 + 00 | 30' | D11-1K | Begin | 24"X6" | .063 | 1.0 | | | | | | EB | Mount Above #55 on Same Post |
| 39 + 55 | 30' | W11-1 | (Bikes)* | 36"X36" | .063 | 9.0 | 1 | Tube | 2" | 8.5 | 3' | EB | |
| 11+40 | 24' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | 1 | Tube | 2" | 11.0 | 3' | WB | |
| 11+40 | 24' | D11-1R | → | 24"X6" | .063 | 1.0 | | | | | | WB | Mount Above #58 on Same Post |
| 12 + 75 | 24' | W11-1 | (Bikes)* | 36"X36" | .063 | 9.0 | 1 | Tube | 2" | 11.5 | 3' | WB | |
| 14 + 14 | 22' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | 1 | Tube | 2" | 12.0 | 3' | SWB | Band to Luminaire |
| 14 + 14 | 22' | D11-1L | ← | 24"X6" | .063 | 1.0 | | | | | | SWB | Mount Below #62 on Same Pole |
| 14 + 21 | 26' | R5-1 | Do Not Enter | 36"X36" | .063 | 9.0 | | | | | | SB | Mount on Back #65 on Same Post |
| 14 + 21 | 26' | R1-2 | Yield | 36" | .063 | 3.9 | 1 | Tube | 2" | 8.5 | 3' | NB | |
| 14+25 | 5' | R5-1 | Do Not Enter | 36"X36" | .063 | 9.0 | 1 | Tube | 2" | 8.5 | 3' | SB | |
| 15+53 | 24' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | 1 | Tube | 2" | 10.5 | 3' | NB | |

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) BRS-U959(10) | 1979 | 59 | 110 |

SIGNING SCHEDULE

| No. | Station | Dist. from Lt. Rt. | Code No. | Legend | Sign Panel Thickness | | | Post | | | | Facing Traffic | Remarks | |
|-----|-------------|--------------------|----------|----------------------|----------------------|--------------------|--------------|------|------|--------|-----------|----------------|---------|----------------------------------|
| | | | | | Size | Unframed Area S.F. | No. of Posts | Type | Size | Length | Embedment | | | |
| 69 | "S" 15 + 85 | 26' | W11-1 | (Bikes)* | 36"X36" | .063 | 9.0 | 1 | Tube | 2" | 11.5 | 3' | SB | |
| 70 | "S" 16 + 70 | 24' | T1-1 | Kowee Creek | 42"X24" | .080 | 7.0 | 1 | Tube | 2" | 10.0 | 3' | NB | |
| 71 | "S" 17 + 90 | 24' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 10.0 | 3' | NB | |
| 72 | "S" 17 + 90 | 24' | T1-1 | Kowee Creek | 42"X24" | .080 | 7.0 | 1 | Tube | 2" | 11.0 | 3' | SB | |
| 73 | "S" 18 + 40 | 24' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | | | | | | | Band to Luminaire |
| 74 | "S" 20 + 20 | 22' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | | | | | | | Band to Luminaire |
| 74 | "S" 22 + 75 | 30' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 9.5 | 3' | NB | |
| 75 | "S" 22 + 75 | 30' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 10.5 | 3' | SB | |
| 76 | "S" 24 + 00 | 30' | R7-9 | No Parking Bike Lane | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 10.5 | 3' | SB | |
| 77 | "S" 25 + 00 | 30' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | 1 | Tube | 2" | 11.0 | 3' | SB | |
| 78 | "S" 25 + 00 | 30' | D11-1K | Begin | 24"X6" | .063 | 1.0 | | | | | | SB | Mount Above #77 on Same Post |
| 79 | "R" 12 + 32 | 43' | R1-1 | Stop | 30"X30" | .063 | 6.25 | 1 | Tube | 2" | 7.5 | 3' | SB | |
| 80 | "R" 12 + 43 | 90' | R1-2 | Yield | 36" | .063 | 3.9 | 1 | Tube | 2" | 14.5 | 3' | SB | |
| 81 | "R" 12 + 65 | 22' | W11-1 | (Bikes)* | 36"X36" | .063 | 9.0 | 1 | Tube | 2" | 8.0 | 3' | NB | |
| 82 | "R" 13 + 65 | 45' | R7-1D | No Parking Anytime | 12"X18" | .063 | 1.5 | 1 | Tube | 2" | 11.0 | 3' | SWB | |
| 83 | "R" 13 + 80 | 12' | R4-7 | Keep Right | 24"X30" | .063 | 5.0 | 1 | Tube | 2" | 8.5 | 3' | SB | |
| 84 | "R" 13 + 80 | 12' | | Type I Hazard Marker | 18"X18" | .063 | 2.25 | | | | | | SB | Mount Below #83 on Same Post |
| 85 | "R" 13 + 92 | 43' | R1-1 | Stop | 30"X30" | .063 | 6.25 | 1 | Tube | 2" | 12.0 | 3' | ES | |
| 86 | "R" 13 + 92 | 43' | D3-1 | Sitka Street | 36"X8" | .063 | 2.0 | | | | | | SB | Mount on Top of #85 on Same Post |
| 87 | "R" 14 + 18 | 47' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | 1 | Tube | 2" | 7.5 | 3' | WB | Locate on Sitka Street |
| 88 | "R" 15 + 00 | 29' | D11-1 | Bike Route | 24"X18" | .063 | 3.0 | | | | | | SB | Band to Luminaire |
| 89 | "R" 15 + 00 | 29' | D11-1R | → | 24"X6" | .063 | 1.0 | | | | | | SB | Mount Below #88 on Same Pole |
| 90 | "R" 15 + 90 | 27' | D1-2 | ←Juneau/Douglas→ | 72"X24" | .080 | 12.0 | 2 | Tube | 2" | 9.5 | 3' | SB | |

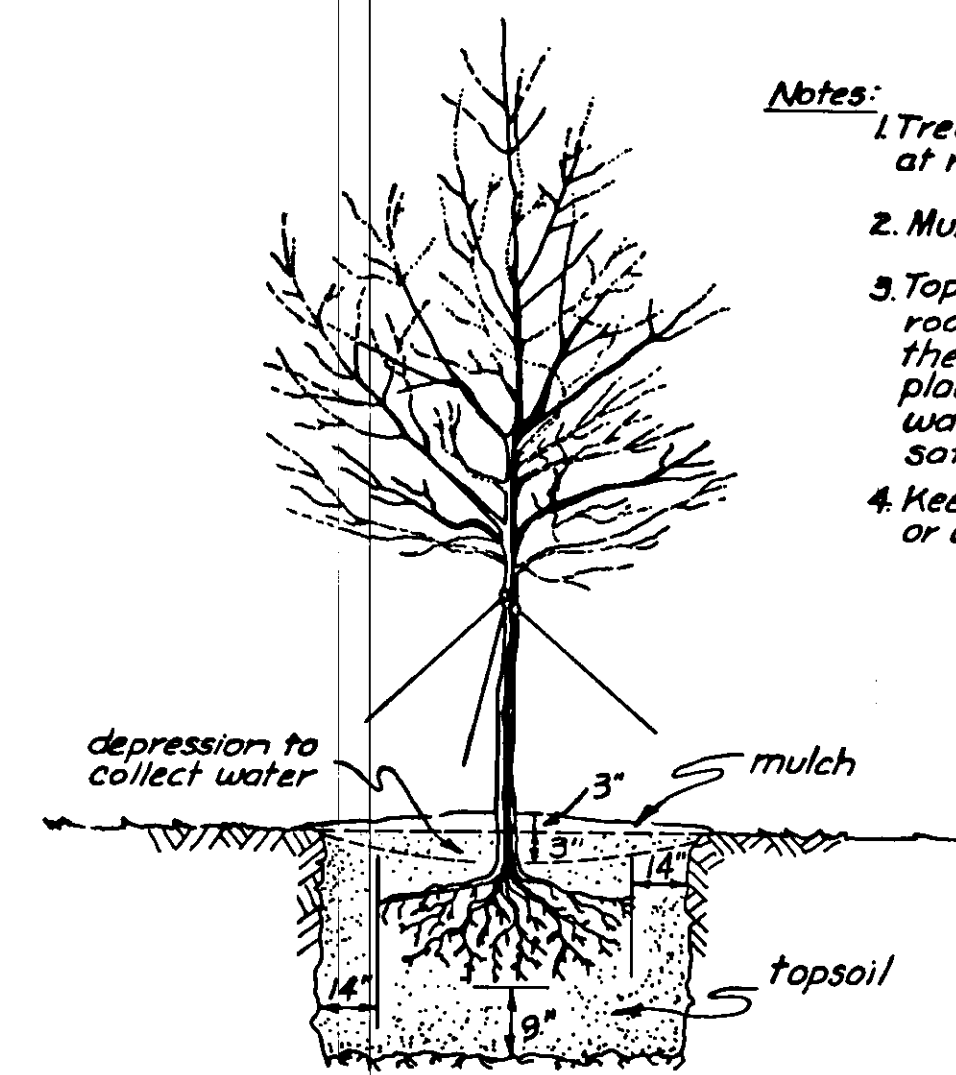
- * (Bikes) - Bike Symbol
 - ** Letter Size = 10.5" U.C. + 8" L.C.
 - *** Letter Size = 6" U.C. + 4.5" L.C.
 - **** Letter Size = 3" U.C.
1. Relocate existing sign and flasher. All work shall be incidental to signing.

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 60 | 110 |

LANDSCAPING PLAN (East Approach)

NOTES

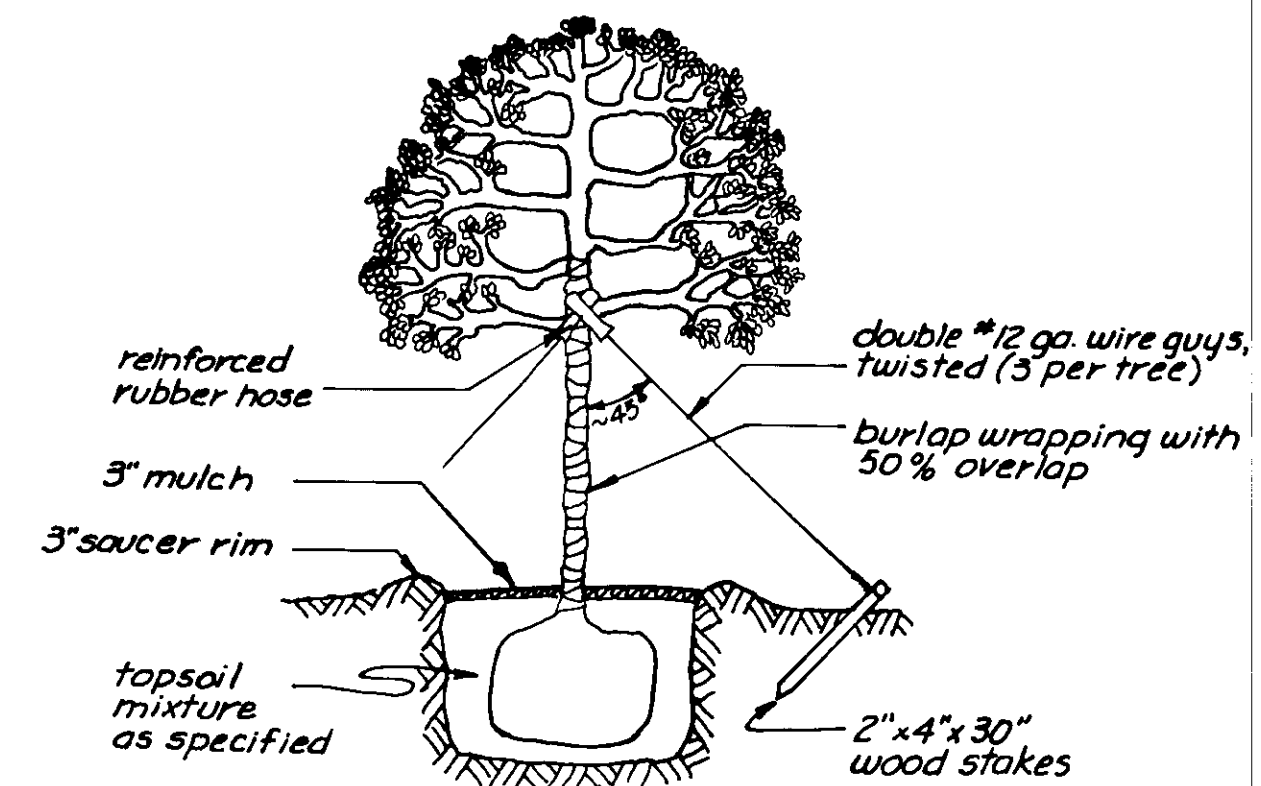
1. All trees shall be Sitka Spruce (*Picea Sitchensis*) 8-10 feet tall from ground junction unless otherwise approved by the Engineer.
2. Trees shall be planted in-line no closer than 5 feet to the Right-Of-Way line.
3. Locations shall be approximately as shown on Plan View in 2 groups of 5 trees, planted 15 feet on center.



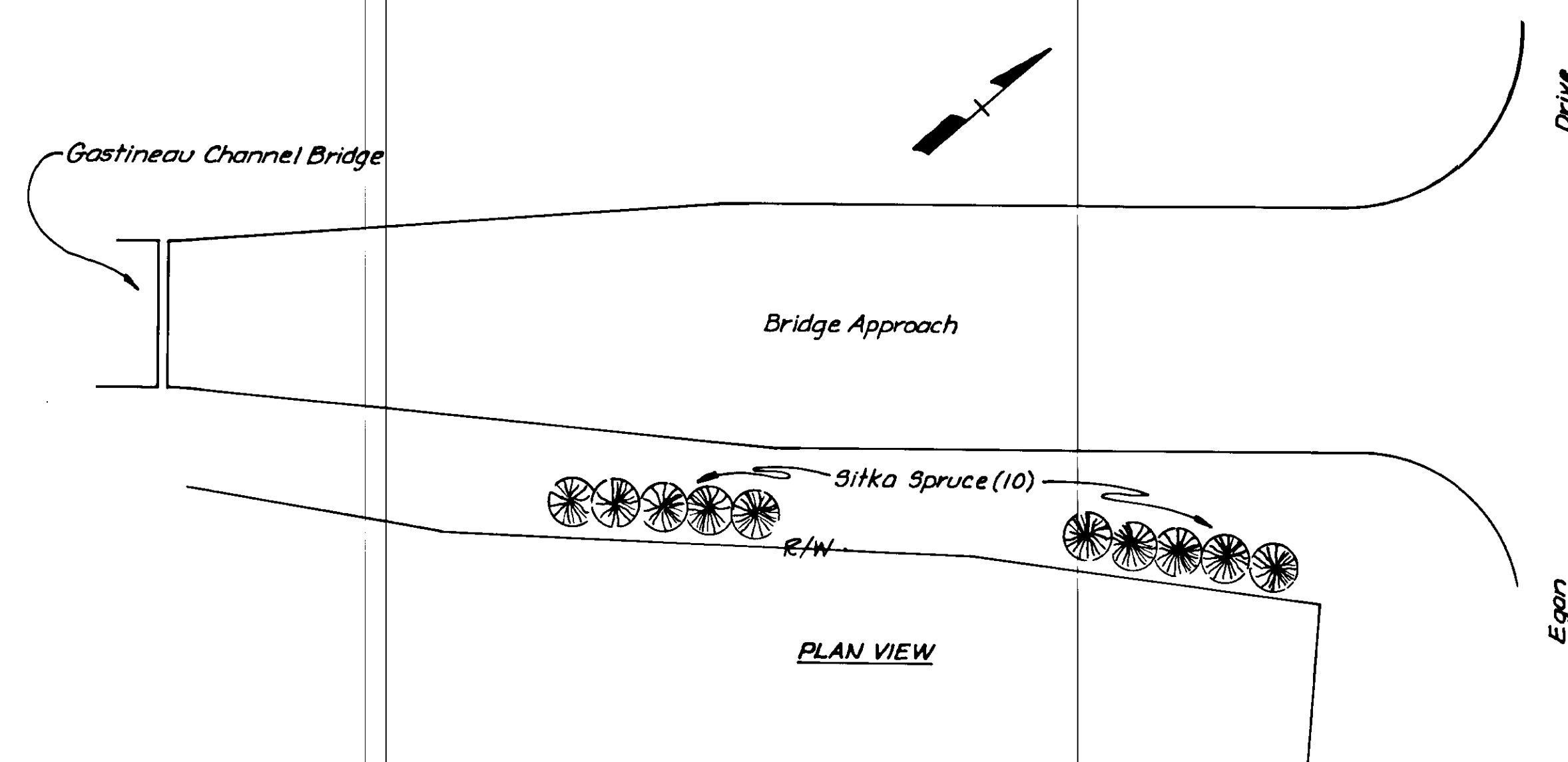
TYPICAL PLANTING OF BARE ROOT TREES

(No Scale)

- Notes:**
1. Trees shall be guyed as shown in typical at right.
 2. Mulch- use well-rotted sawdust or peat moss.
 3. Topsoil shall be carefully worked around roots by hand. Topsoil shall be soaked around the roots and the lower layers of topsoil by placing a hose down in the soil or by pouring water on top until both layers are completely saturated.
 4. Keep roots covered with moist soil, wet packing, or wet sacks until planted.



TYPICAL GUY DETAIL FOR ALL TREES



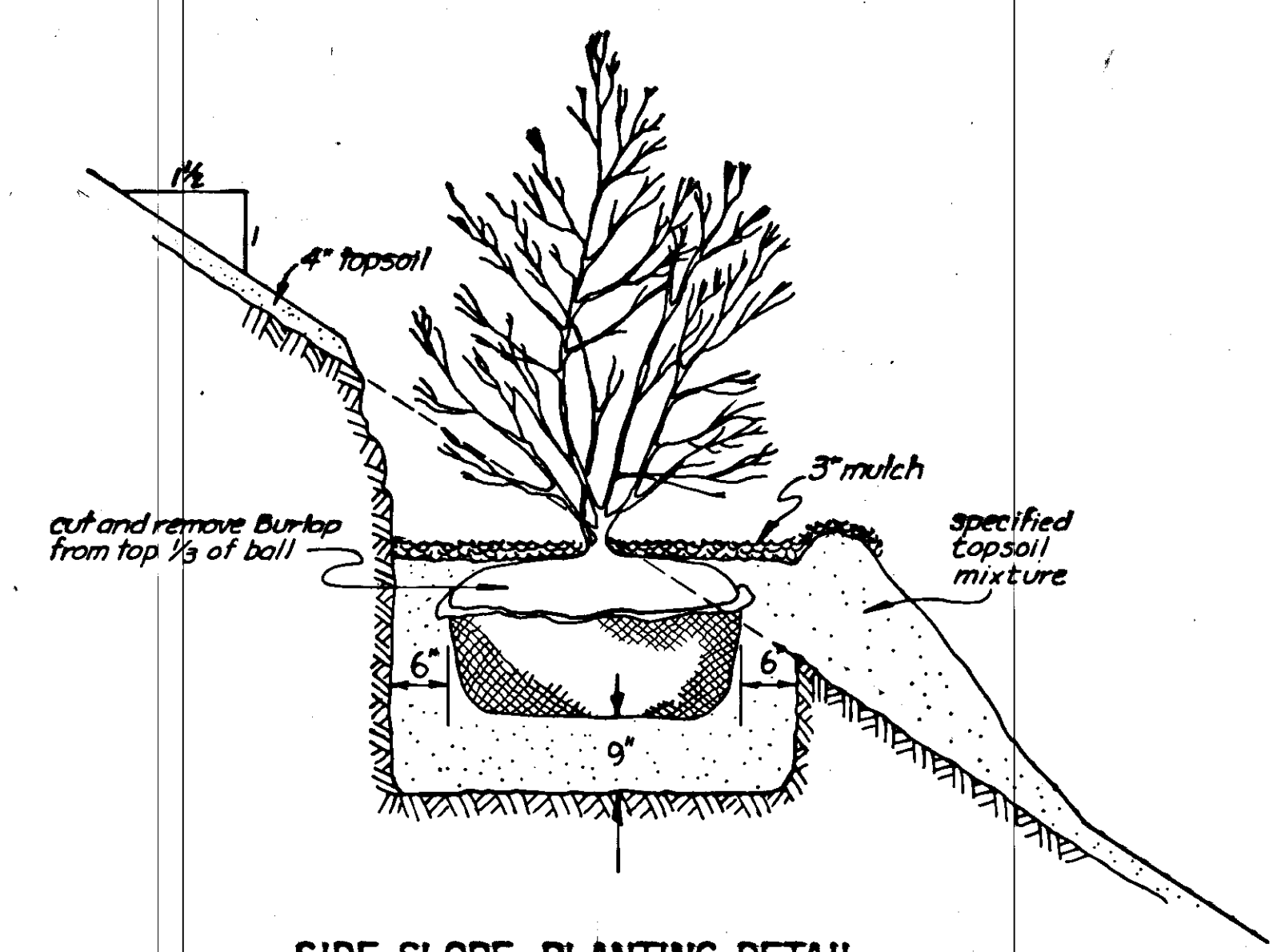
PLAN VIEW

| STATE | PROJECT DESIGNATION | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|---------------------|------|-----------|--------------|
| ALASKA | BRS-M-0958(2) | 1979 | 61 | 110 |

LANDSCAPING PLAN
(West Approach)

NOTES

1. Trees shall be European Mountain Ash (*Sorbus Aucuparia*) 8-10 feet tall from ground junction unless otherwise approved by the Engineer.
2. Shrubs shall be Mugho Pine (*Pinus Mugo*), 1 to 2 feet tall from ground junction.
3. Locations of trees and shrubs shall be approximately as shown on Plan View, in groups as detailed; trees and shrubs shall be spaced on 15 foot intervals.



SIDE SLOPE PLANTING DETAIL
(Mugho Pine)
Note: Similar application for Mountain Ash trees

