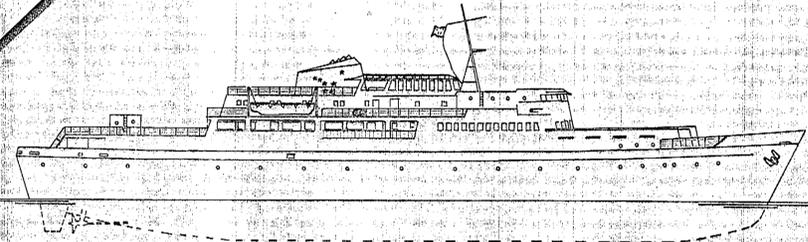
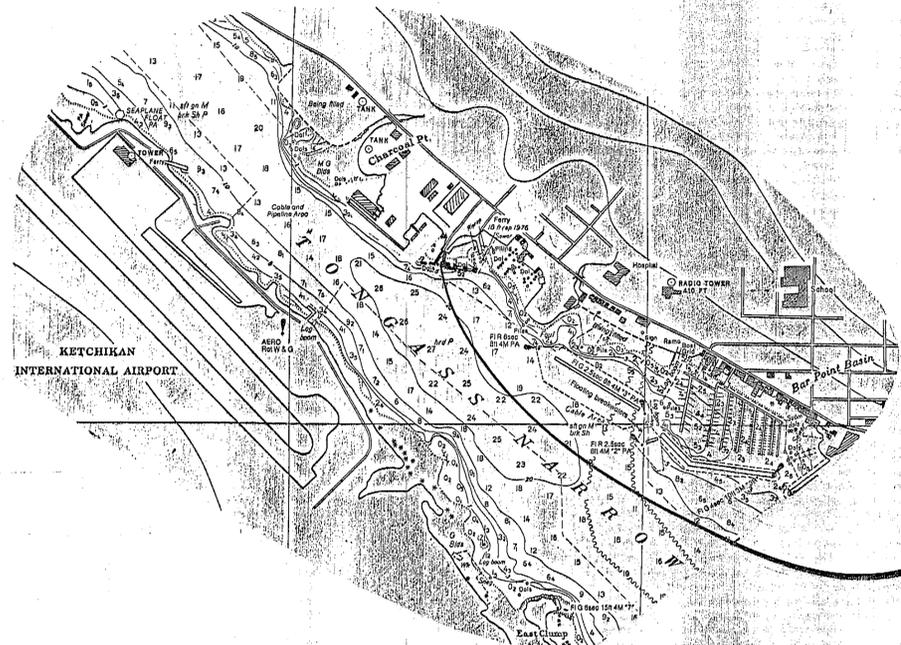
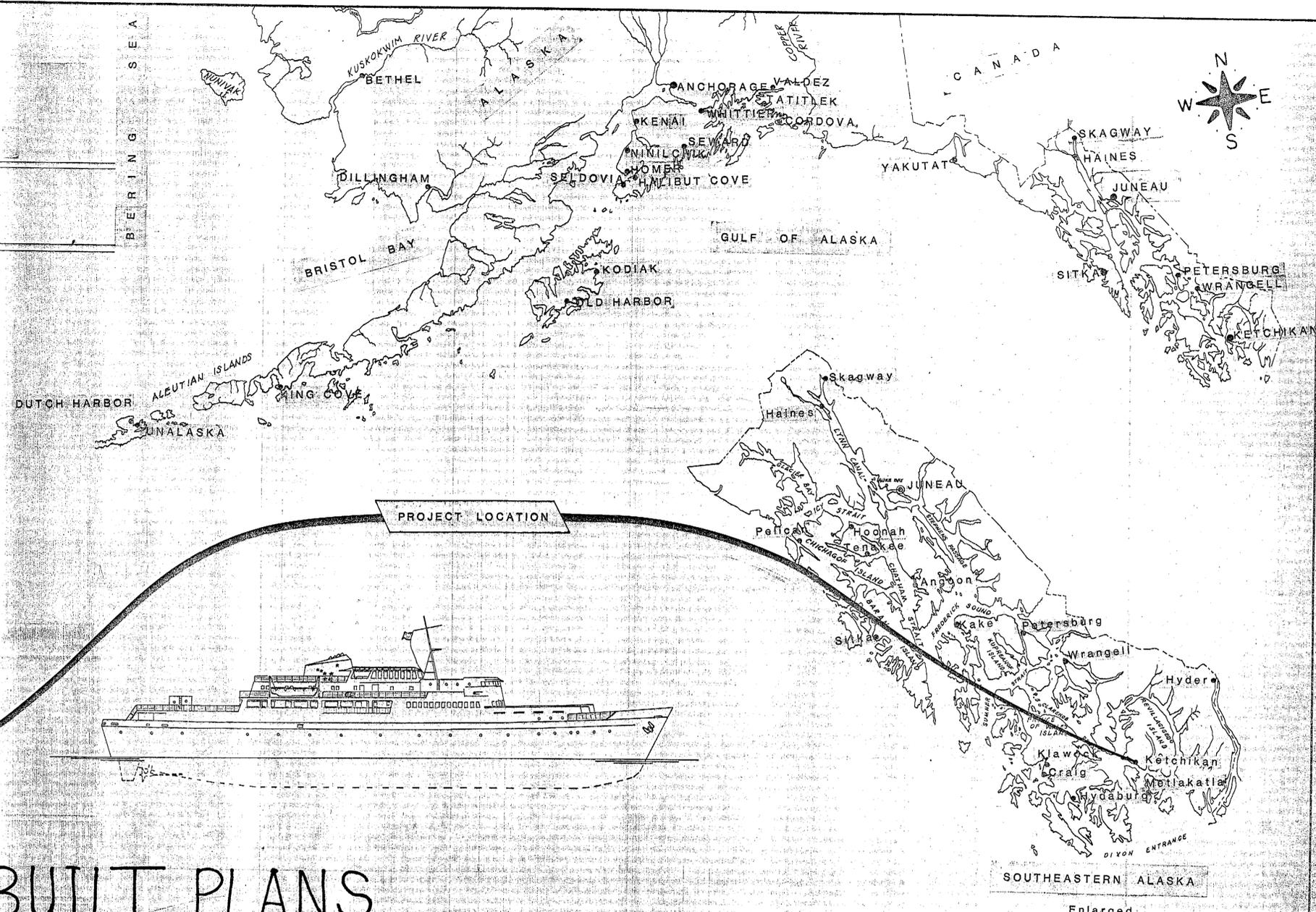


# KETCHIKAN STAGING AREA EXPANSION

PROJECT NO. F-091-1(4) 75113



## AS-BUILT PLANS

FEB. 1991 TO FEB. 1992

D.F. ROBBINS - PROJECT ENGINEER

NOAA  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
UNITED STATES DEPARTMENT OF COMMERCE  
ALASKA - SOUTHEAST COAST  
KETCHIKAN HARBOR

Mercator Projection  
Scale 1:10,000 at Lat. 55°20'  
North American 1983 Datum  
SOUNDINGS IN FATHOMS  
(FATHOMS AND FEET TO ELEVEN FATHOMS)  
AT MEAN LOWER LOW WATER

From NOAA 17430

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STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

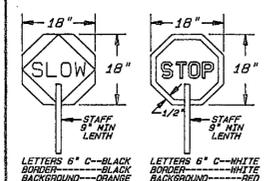
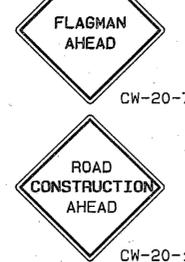
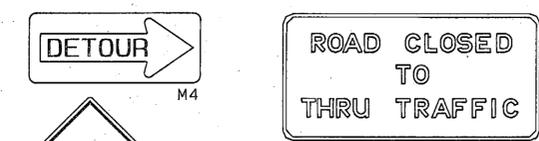
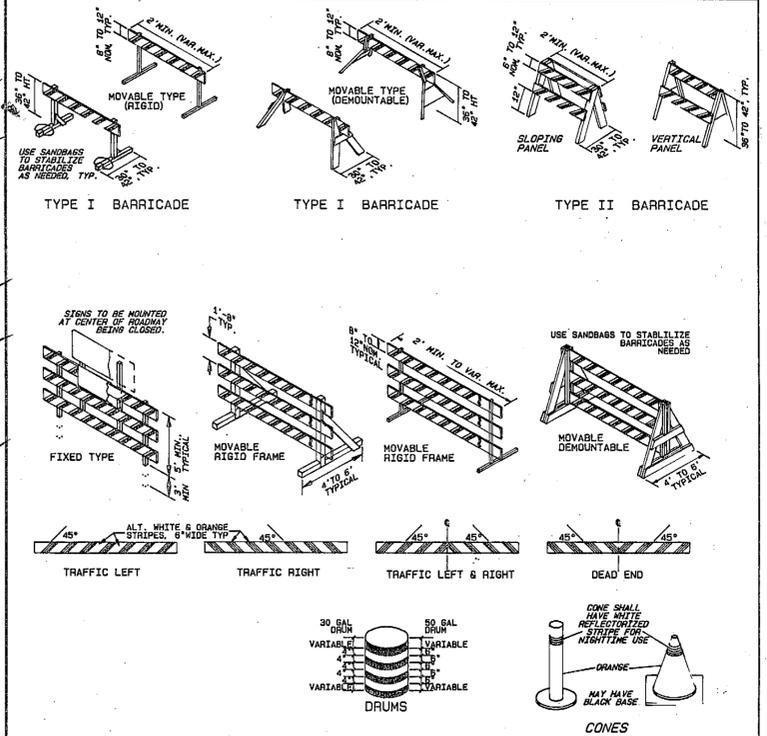
MARINE FACILITIES

APPROVED  
*[Signature]*  
DIRECTOR  
Recommend *[Signature]*  
For Approval Group Design Chief  
Sheet 1 of 31

# ESTIMATE OF QUANTITIES

| ITEM NO. | ITEM DESCRIPTION                          | PAY UNIT | ESTIMATED QUANTITIES | UNIT | TOTALS    |
|----------|---|----------|----------------------|------|-----------|
| 109      | PETROLEUM ADJUSTMENT                      | C.S.     | ALL REQ'D            | C.S. | ALL REQ'D |
| 110      | MOBILIZATION AND DEMOBILIZATION           | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 111      | TEMP. EROSION AND POLLUTION CONTROL       | C.S.     | ALL REQ'D            | C.S. | ALL REQ'D |
| 114 (1)  | TRAFFIC MAINTENANCE AND CONTROL           | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 114 (2)  | FLAGGING                                  | M.H.     | 250                  | M.H. | 250       |
| 116      | EQUIPMENT AND MAINTAINING FIELD OFFICE    | DELETED  | CO#1                 | L.S. | ALL REQ'D |
| 120 (1)  | DBE ADJUSTMENT                            | C.S.     | ALL REQ'D            | C.S. | ALL REQ'D |
| 202 (1)  | PONTOON EXCAVATION CO#3                   | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 201      | REMOVAL OF STRUCTURES AND OBSTRUCTIONS    | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 202      | BASIN EXCAVATION                          | C.Y.     | 49,350               | C.Y. | 49,350    |
| 203 (1)  | DRAINAGE SYSTEM                           | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 203 (2)  | SUBBASE                                   | TON      | 6,700                | TON  | 6,700     |
| 203 (3)  | CRUSHED AGGREGATE BASE                    | TON      | 4,705                | TON  | 4,705     |
| 203 (4)  | AMHS WAREHOUSE DRAINAGE CO#10             | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 203 (5)  | BORROW ROCK                               | L.S.     | 4,400                | C.Y. | 4,400     |
| 203 (6)  | EXISTING CULVERT ADJUSTMENT CO#4          | L.F.     | +20                  | L.F. | 20        |
| 205 (1)  | RIPRAP, CLASS I CO#2                      | C.Y.     | 3,010                | C.Y. | 3,010     |
| 205 (2)  | RIPRAP, CLASS II                          | C.Y.     | 4,600                | C.Y. | 4,600     |
| 205 (3)  | RIPRAP, CLASS III                         | C.Y.     | 2,550                | C.Y. | 2,550     |
| 207 (1)  | HOT ASPHALT PAVEMENT, CLASS I             | TON      | 1,423                | TON  | 1,423     |
| 207 (2)  | AC-5 ASPHALT CEMENT                       | TON      | 85                   | TON  | 85        |
| 608 (2)  | EXTRA STAGING AREA STRIPING CO#13         | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 501 (1)  | ELECTRICAL AND ILLUMINATION               | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 501 (2)  | BUILDING ELECTRICAL COMMUNICATIONS SYSTEM | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 501 (3)  | FUTURE VAULTS & CONDUITS CO#8             | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 601      | GUARDRAIL CO#2                            | L.F.     | 900                  | L.F. | 900       |
| 601 (2)  | REMOVAL OF GUARDRAIL CO#6                 | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 602      | CONCRETE SIDEWALK                         | S.Y.     | 1,070                | S.Y. | 1,070     |
| 603      | CURB AND GUTTER                           | L.F.     | 3,150                | L.F. | 3,150     |
| 610      | INCIDENTAL CONSTRUCTION DETAILS CO#12     | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 606      | SIGNS                                     | S.F.     | 220                  | S.F. | 220       |
| 607 (3)  | SHIPYARD FENCE & GATE CO#11               | L.F.     | 941                  | L.F. | 941       |
| 607 (1)  | 4 FT. FENCE AND GATES                     | L.F.     | 465                  | L.F. | 465       |
| 607 (2)  | 6 FT. FENCE AND GATES                     | L.F.     | 1,465                | L.F. | 1,465     |
| 605 (1)  | PIPE HANDRAIL & RETAINING WALL CO#9       | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 608      | STRIPING AND MARKING                      | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |
| 607 (19) | VALVE BOX ADJUSTMENTS CO#5                | EACH     | 6                    | EACH | 6         |
| 609      | SEWER OUTFALL REPLACEMENT                 | L.S.     | ALL REQ'D            | L.S. | ALL REQ'D |

# CONSTRUCTION BARRICADES and SIGNS



1. Construction barricades and construction signs shall be made of wood, metal, or other suitable weather resistant material.
2. Barricades shall be fabricated structurally sound and sufficiently rigid to maintain the purpose and intent of a barricade facility and not be a hazard to motorists.
3. Barricades and traffic control devices shall be maintained in a neat and orderly fashion prior to and during construction and maintenance operations. They shall remain in place only as needed.
4. Barricades shall be subject to the approval of the engineer.
5. Orange and white stripes shall be reflectorized.
6. Type I and Type II barricades shall be striped on both sides, and stripes shall slope down toward the traffic side of barricade.
7. Weights of concrete, stone, or brick shall not be allowed, and weights other than sandbags used to stabilize barricades shall be rigidly attached to the barricade so as not to create a hazard when struck by a vehicle.
8. Construction signs shall be reflectorized or illuminated and per Alaska Sign Design Specifications (ASDS) and as per the MUTCD Alaska Supplement.

**NOTES:**

1. REFER TO SECTION 114-2.01 FOR NUMBER OF TRAFFIC CONTROL DEVICES AND SIGNS TO BE PROVIDED FOR THIS PROJECT.
2. REFER TO SECTION 201-2.01 THRU 201-2.04 FOR A SUMMARY OF MAJOR REMOVAL, DISPOSAL, RELOCATION, AND SALVAGE ITEMS.
3. BASIN EXCAVATION TO BE DISPOSED OF IN ORDER OF PRIORITY PER SECT. 202-3.02:
  - A. EMBANKMENT AREA = APPROX. 30,000 CY.
  - B. EMBANKMENT ADJ. TO BOYER & TONGASS AVE. = APPROX. 5,500 CY.
  - C. EMBANKMENT NORTH & WEST OF POST OFFICE = APPROX. 3,300 CY.
  - D. EMBANKMENT SOUTH BERTH ACCESS RD. & MISC. = APPROX. 1,000 CY.
 EMBANKMENT TOTAL = APPROX. 40,050 CY.  
 BASIN EXCAVATION QUANTITY OF 49,350 CY. IS BASED ON PLAN SECTION MEASURE AND INCLUDES ONE (1) FOOT OF THEORETICAL OVERDEPTH APPROX. 1,300 CY.
4. REFER TO PLAN SHEETS 6 AND 9 FOR DRAINAGE SYSTEM SUMMARY.
5. LINEAL FOOTAGE SHOWN IS PLAN MEASURE THRU & INCLUDING GATES.
6. QUANTITY SHOWN IS PLAN SECTION MEASURE IN CUBIC YARDS TO COMPLY WITH U.S. ARMY, CORPS OF ENGINEERS PERMIT STIPULATIONS - REFER TO SPECIAL PROVISIONS SECT. 107-1.09 AND SECTION 203 IN THE SPECIFICATIONS.

**ESTIMATING FACTORS**

| ITEM NO. | ITEM              | FACTOR         |
|----------|-------------------|----------------|
| 203 (2)  | SUBBASE           | 1.8 TON/CY     |
| 203 (3)  | CRUSHED AGG. BASE | 1.96 TON/CY    |
| 207 (1)  | ASPHALT PAVEMENT  | 114 LB/SY/IN   |
| 207 (2)  | ASPHALT CEMENT    | 6 % OF 207 (1) |

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

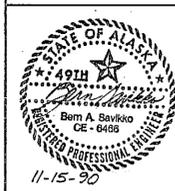
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

KETCHIKAN ALASKA

## QUANTITIES AND GENERAL NOTES

DESIGNED BAS    CHECKED JS    DRAWN BN/JS    DATE NOV 1990

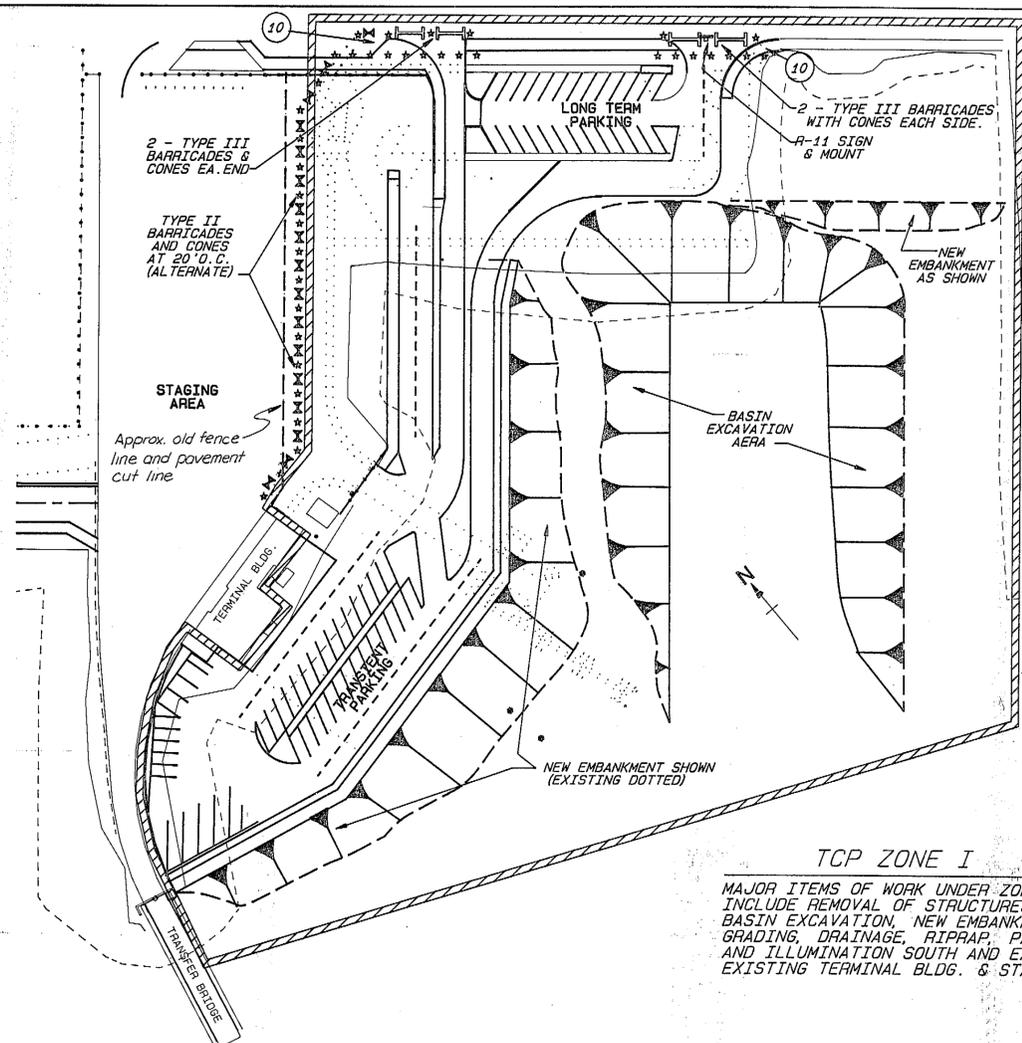
PROJECT NO. F-091-1 (4)    SHEET 2 OF 31



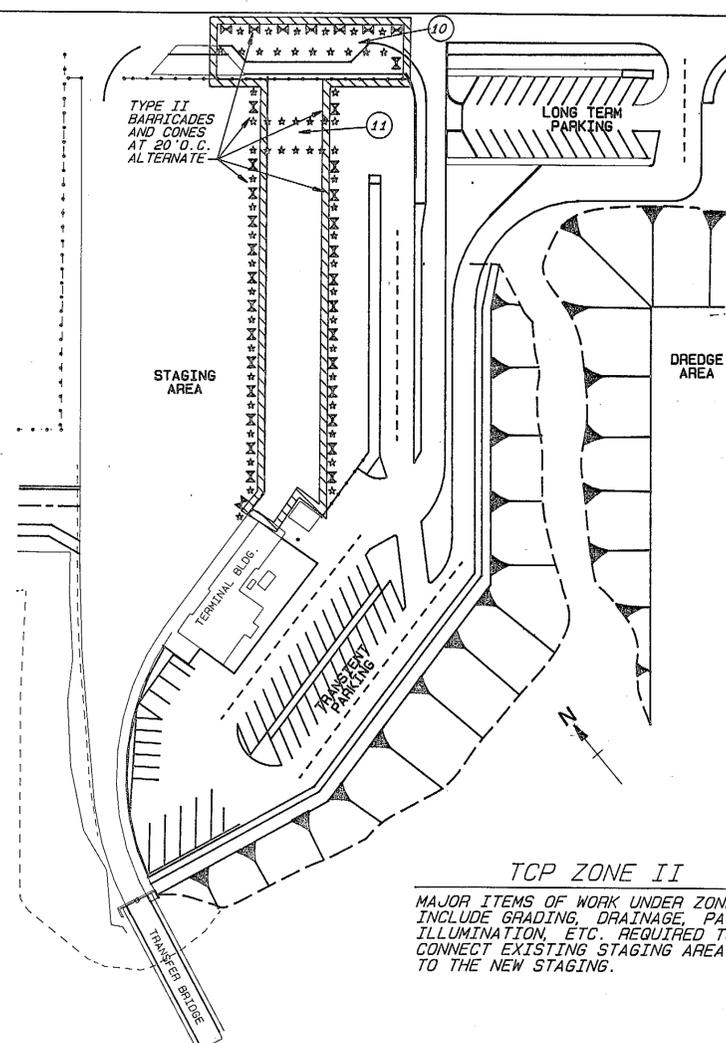


Traffic Control Plan

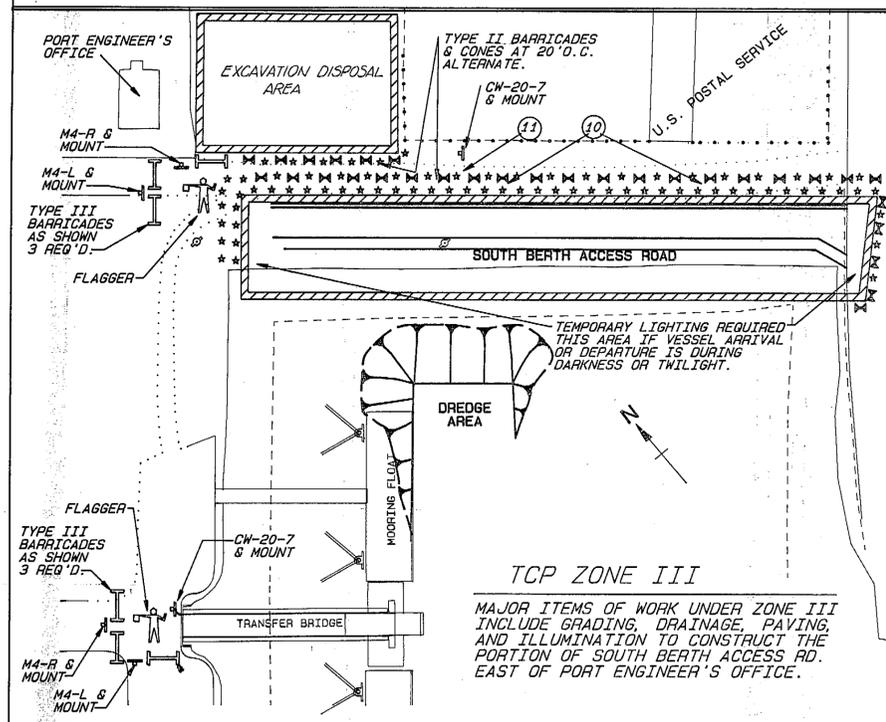
- The Contractor shall designate one of his employees the responsibility of installing and maintaining all required traffic control elements. All traffic control elements shall be maintained 24 hr/day. Refer to Section 114 of the specifications.
- All construction signing shall remain in place until the condition they delineate no longer exists.
- Once the Contractor begins improvements the following traffic controls will remain in force until the project is completed.
  - The Contractor shall conduct his operations so as not to interfere with normal scheduled ferry access or vehicular traffic to and from the existing ferry facilities.
  - Ferry traffic shall have priority over construction activities and it shall be the Contractor's responsibility to coordinate his activities with ferry arrivals and departures.
  - Terminal personnel will dock, linehandle, stage traffic, and operate the transfer equipment.
  - Contractor shall provide safe access and lighting for terminal personnel to tie up points as required throughout the contract.
- The Contractor shall not stockpile any materials in the existing staging area without approval of the Engineer.
- Construction Phasing Plans and a Traffic Control Plan for each phase shall be required in accordance with Section 114 of the Specifications.
- Refer to Section 114 for minimum number of signs and barricades to be provided. Signs shown show ASDS coding. All signs to be Class S.L.
- Provide Flaggers for Work Zones III & IV from 1/2 hour prior to vessel arrival until 1/2 hour after vessel departure. If vessel lays over or does not begin loading within 1/2 hour of arrival then Flaggers may be dismissed until 1/2 hour before loading begins.
- For Work Zone IV, Contractor shall coordinate AMHS vessel embark/disembark traffic with Ship Yard traffic. Ship Yard shall be notified by the Contractor prior to Flagger's or Traffic Supervisor's erection of M4 and CW-20-7 signs and associated barricades.
- Contractor's Hauling Vehicals which are travelling "north" on Tongass Avenue shall use the Ketchikan Shipyard exit north of the U.S. Post Office.
- Delineate pedestrian access with cones as required during work (cones at 10' max.).
- Provide vehicular access thru work zone.



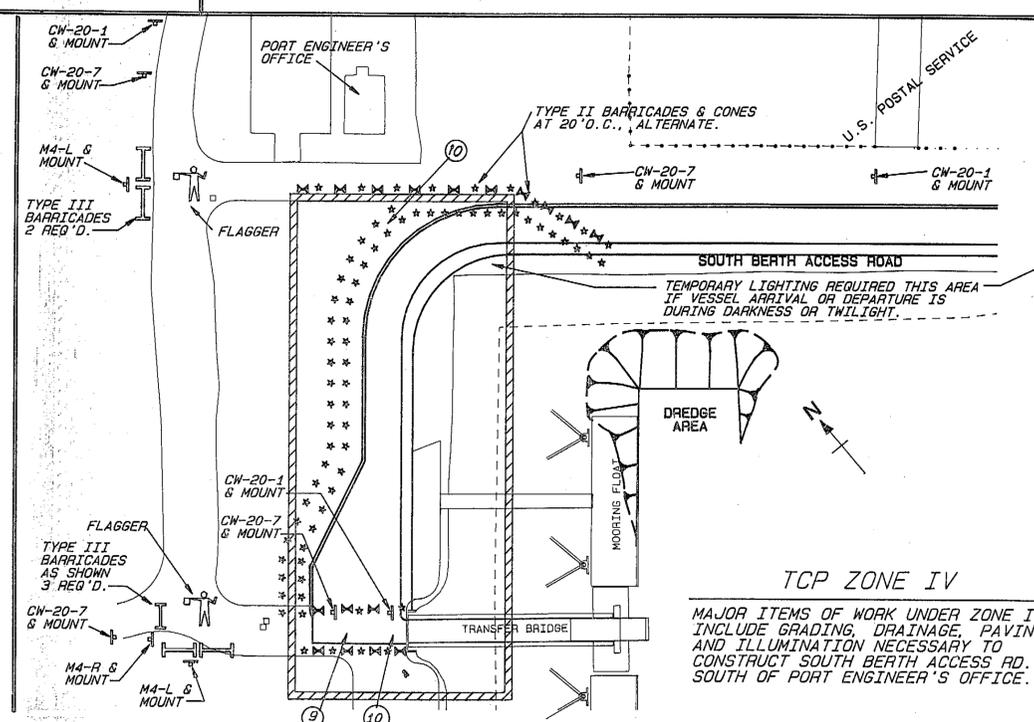
**TCP ZONE I**  
 MAJOR ITEMS OF WORK UNDER ZONE I INCLUDE REMOVAL OF STRUCTURES, BASIN EXCAVATION, NEW EMBANKMENT, GRADING, DRAINAGE, RIPRAP, PAVING, AND ILLUMINATION SOUTH AND EAST OF EXISTING TERMINAL BLDG. & STAGING.



**TCP ZONE II**  
 MAJOR ITEMS OF WORK UNDER ZONE II INCLUDE GRADING, DRAINAGE, PAVING, ILLUMINATION, ETC. REQUIRED TO CONNECT EXISTING STAGING AREA TO THE NEW STAGING.



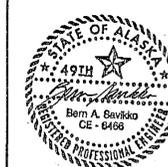
**TCP ZONE III**  
 MAJOR ITEMS OF WORK UNDER ZONE III INCLUDE GRADING, DRAINAGE, PAVING, AND ILLUMINATION NECESSARY TO CONSTRUCT THE PORTION OF SOUTH BERTH ACCESS RD. EAST OF PORT ENGINEER'S OFFICE.



**TCP ZONE IV**  
 MAJOR ITEMS OF WORK UNDER ZONE IV INCLUDE GRADING, DRAINAGE, PAVING, AND ILLUMINATION NECESSARY TO CONSTRUCT SOUTH BERTH ACCESS RD. SOUTH OF PORT ENGINEER'S OFFICE.

- LEGEND:
- SIGNS
  - \* --- CONES
  - TYPE II BARRICADE
  - TYPE III BARRICADE
  - FLAGGER
  - ① --- NOTE NUMBER

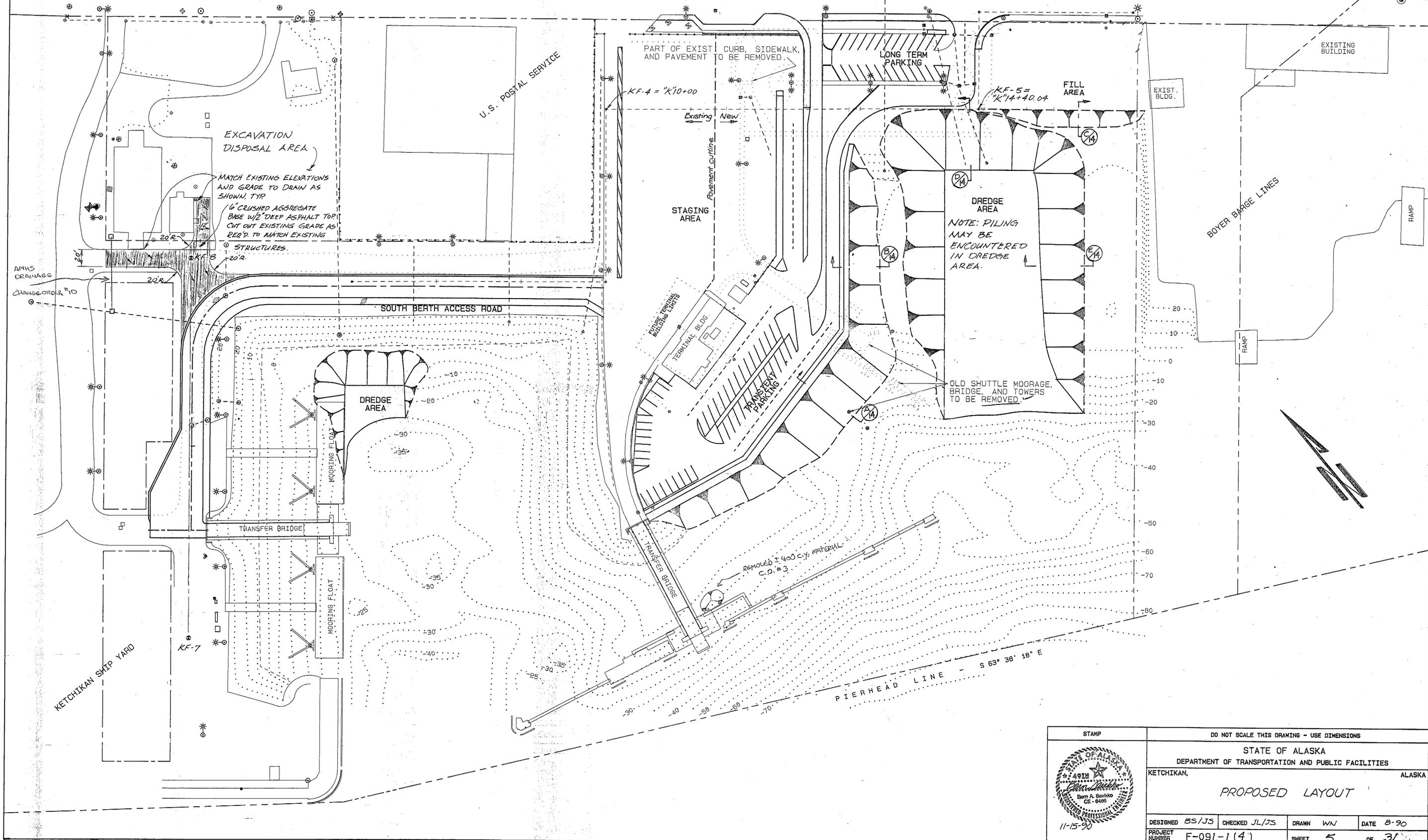
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| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |            |  |               |
| KETCHIKAN   |            | ALASKA                                     |               |
| <b>TRAFFIC CONTROL</b> ✓  |            |  |               |
| DESIGNED JS   | CHECKED BS | DRAWN WN                                   | DATE Sept '90 |
| PROJECT NO. F-091-1(4)  |            | SHEET 4                                    | OF 31         |



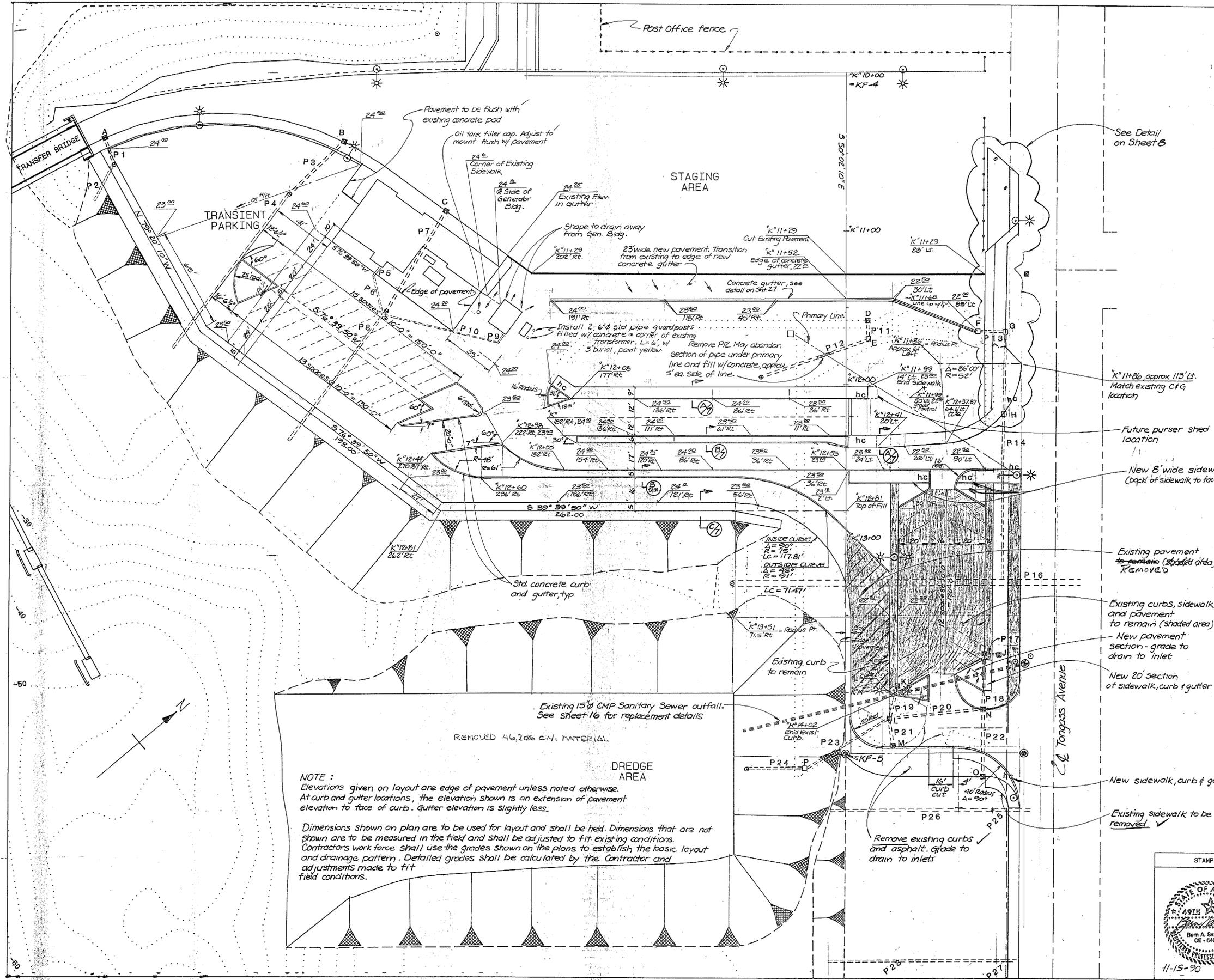
P.I. 26+88.47 TO P.O.T. 43+03.18 BK = 43+10.74 AHD  
S 50°02'05"E - 1620.87' (1621.17' MEAS.)

☉ TONGASS AVENUE

KF-2



|   |               |  |           |
|---|---------------|--|-----------|
| STAMP   |               | DO NOT SCALE THIS DRAWING - USE DIMENSIONS |           |
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |               |  |           |
| KETCHIKAN,  |               | ALASKA                                     |           |
| <i>PROPOSED LAYOUT</i>  |               |  |           |
| DESIGNED BS/JS  | CHECKED JL/JS | DRAWN WN                                   | DATE 8-90 |
| PROJECT NUMBER F-091-1(4)   | SHEET 5       | OF 31                                      |           |



| PIPE SUMMARY |         |      |        |       |           |        |  |                                     |
|--------------|---------|------|--------|-------|-----------|--------|--|-------------------------------------|
| PIPE         | SIZE    | TYPE | LENGTH | SLOPE | ELEVATION |        | NOTES  |                                     |
|              |         |      |        |       | INLET     | OUTLET |  |                                     |
| P1           | 18"     | CMP  | -      | -     | -         | 20.9   | Outlet partially buried  |                                     |
| P2           | 18"     | CMP  | 25'    | 1%    | 20.9      | -      | Connect to P1 w/ 45° elbow and clamping bands  |                                     |
| P3           | 14"     | CMP  | -      | -     | -         | 17.8   | Cut 6" off end   |                                     |
| P4           | 14"     | CMP  | 125'   | 1%    | 17.8      | 16.6   | Connect to P3 w/ clamping band   |                                     |
| P5           | 4"      | PVC  | -      | -     | -         | 22.5   | Rain gutter and foundation drain   |                                     |
| P6           | 4"      | PVC  | 25'    | -     | 22.5      | 17.5   | Cut hole in P8 and connect & seal with bituminous mastic sealer. Connect to P5 with angle connection & glue. |                                     |
| P7           | 18"     | CMP  | -      | -     | -         | 17.0   | Cut 6" off end   |                                     |
| P8           | 18"     | CMP  | 105'   | 1%    | 17.0      | 16.0   | Connect to P7 w/ clamping band   |                                     |
| P9           | 4"      | PVC  | -      | -     | -         | 23     | Rain gutter and footing drain  |                                     |
| P10          | 4"      | PVC  | 75'    | -     | 23        | 17.5   | Cut hole in P8 and connect & seal with bituminous mastic sealer. Connect to P9 with angle connection & glue. |                                     |
| P11          | 18"     | CMP  | -      | -     | -         | 19.3   | To be removed  |                                     |
| P12          | 18"     | CMP  | -      | -     | -         | 19.3   | To be removed - See note on plans  |                                     |
| P13          | 18"     | CMP  | 16'    | 1%    | 19.9      | 19.7   | Grout outlet into side of existing inlet "G"   |                                     |
| P14          | 18"     | CMP  | 160'   | 1.5%  | -         | -      | Modify for Inlet "H"   |                                     |
| P15          | 18"     | CMP  | -      | -     | -         | -      | OMIT   |                                     |
| P16          | 58'x36' | CMPA | -      | -     | -         | 10.2   | To Remain  |                                     |
| P17          | 18"     | CMP  | -      | -     | -         | 18.5   | To Remain  |                                     |
| P18          | 18"     | CMP  | -      | -     | -         | -      | To Remain  |                                     |
| P19          | 18"     | CMP  | -      | -     | -         | -      | To Remain  |                                     |
| P20          | 18"     | CMP  | -      | -     | -         | -      | To Remain  |                                     |
| P21          | 18"     | CMP  | -      | -     | -         | 16.8   | 15.9   | To Remain                           |
| P22          | 18"     | CMP  | -      | -     | -         | 17.7   | 16.9   | Shorten approx. 15'                 |
| P23          | 18"     | CMP  | -      | -     | -         | 15.8   | 15.7   | Cut back to fit slope               |
| P24          | 18"     | CMP  | -      | -     | -         | 15.6   | 15.2   | To be removed                       |
| P25          | 18"     | CMP  | -      | -     | -         | 15.5   | -  | Crushed - Cut back 2' and Clean out |
| P26          | 18"     | CMP  | 105'   | 1%    | 15.5      | 14.4   | Connect to P25 w/ clamping band  |                                     |
| P27          | 12"x20" | CMPA | -      | -     | -         | 17.7   | To Remain  |                                     |
| P28          | 18"     | CMP  | 110'   | 1%    | 17.7      | 16.6   | Connect to P27 with special fabricated transition band   |                                     |

| INLET BOX SUMMARY |                 |   |
|-------------------|-----------------|---|
| INLET             | GRATE ELEVATION | NOTES   |
| A                 |                 | To Remain   |
| B                 |                 | To Remain   |
| C                 |                 | To Remain   |
| D                 | 22.25           | To Be Removed   |
| E                 | 23.60           | To Be Removed   |
| F                 | 22.00           | New Type "A", Tie into G  |
| G                 | 22.10           | Rotate curb inlet grate to fit into new curb - modify as req'd. |
| H                 | 22.05           | New Type "A", cut section out of P14 (See detail, sh. B)        |
| I                 | 22.09           | To Remain   |
| J                 | 21.32           | To Remain   |
| K                 | 21.95           | To Remain   |
| L                 | 21.87           | Replace curb inlet grate with field inlet grate *               |
| M                 | 21.97           | Rotate curb inlet grate 180° and install in new curb            |
| N                 | 21.86           | To Remain   |
| O                 | 21.57           | Move approx. 15' toward N, install in new curb                  |
| P                 | 21.60           | To Be Removed   |

\* Grate elevation to remain approx. the same.

**NOTE :**  
 Elevations given on layout are edge of pavement unless noted otherwise. At curb and gutter locations, the elevation shown is an extension of pavement elevation to face of curb. Gutter elevation is slightly less.

Dimensions shown on plan are to be used for layout and shall be held. Dimensions that are not shown are to be measured in the field and shall be adjusted to fit existing conditions. Contractor's work force shall use the grades shown on the plans to establish the basic layout and drainage pattern. Detailed grades shall be calculated by the Contractor and adjustments made to fit field conditions.

STAMP

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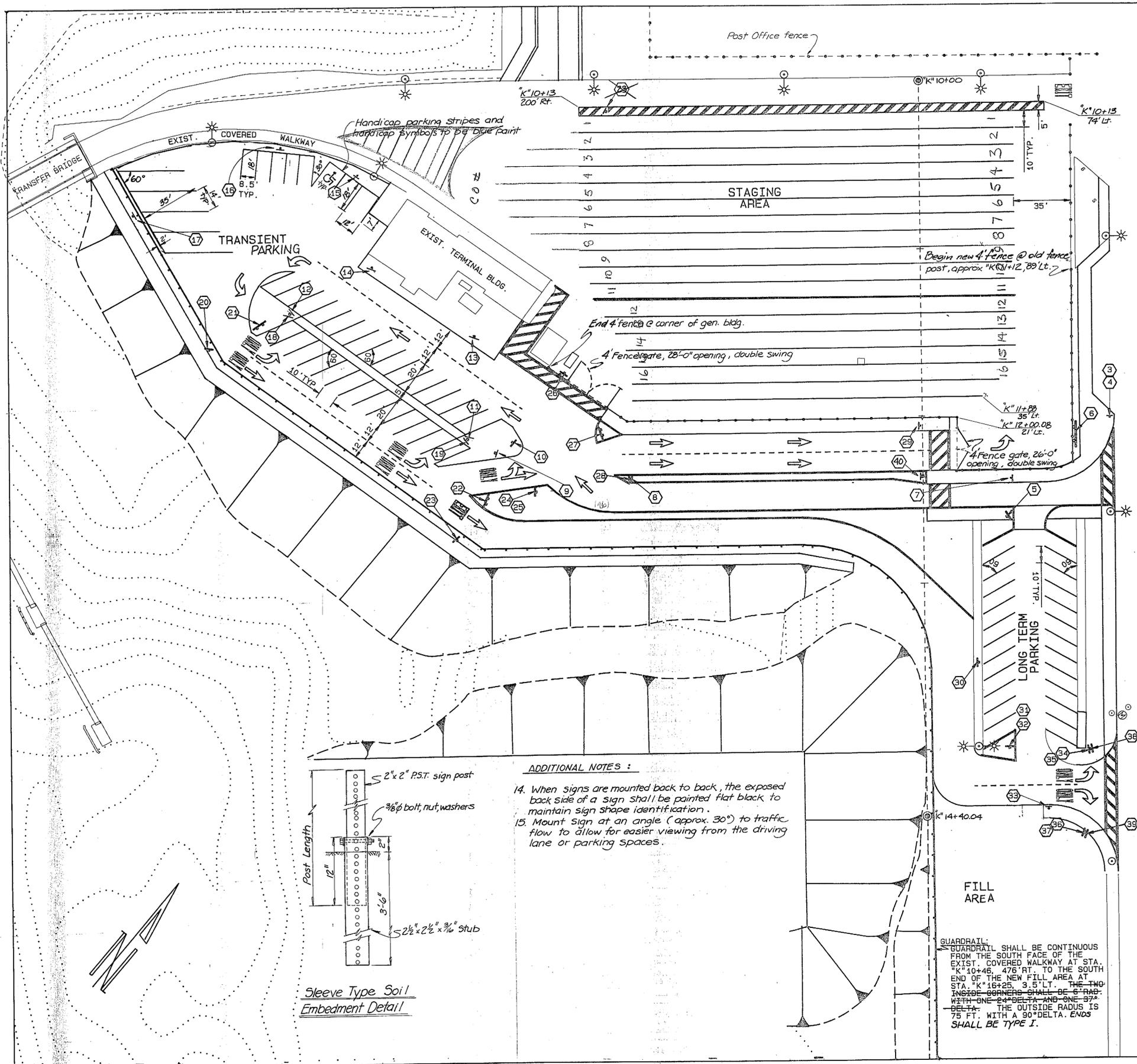
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

KETCHIKAN, ALASKA

**STAGING AREA  
 GRADING AND DRAINAGE**

DESIGNED B.S. CHECKED J.A.L. DRAWN W.N. DATE  
 PROJECT NUMBER F-091-1(4) SHEET 6 OF 31

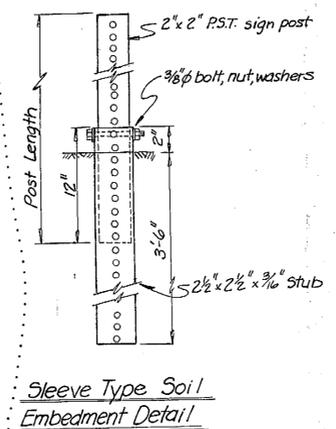
11-15-90



**ADDITIONAL NOTES :**

14. When signs are mounted back to back, the exposed back side of a sign shall be painted flat black to maintain sign shape identification.

15. Mount sign at an angle (approx. 30°) to traffic flow to allow for easier viewing from the driving lane or parking spaces.



**GUARDRAIL:**  
 GUARDRAIL SHALL BE CONTINUOUS FROM THE SOUTH FACE OF THE EXIST. COVERED WALKWAY AT STA. "K"10+46 TO 476 FT TO THE SOUTH END OF THE NEW FILL AREA AT STA. "K"16+25. 3.5' LT. THE TWO INSIDE CORNERS SHALL BE 6" RAD. WITH ONE 24" DELTA AND ONE 37" DELTA. THE OUTSIDE RADIUS IS 75 FT. WITH A 90° DELTA. ENDS SHALL BE TYPE J.

### SIGN SCHEDULE

| NO. | STATION    | OFFSET  |       | CODE      | LEGEND   | SIGN PANEL AREA S.F. | POST NO. | LENGTH   | FACING TRAFFIC |
|-----|------------|---------|-------|-----------|--|----------------------|----------|----------|----------------|
|     |            | LEFT    | RIGHT |           |  |                      |          |          |                |
| 1   | "K"12+75   | 160     |       | NOTE 6    | FERRY (GRAPHIC)  | N/A                  | 1        | EXIST.   | N.B.           |
| 2   | WITH ABOVE |         |       | W/ABOVE   | (ARROW) ←  |                      |          | W/ABOVE  |                |
| 3   | "K"11+88   | 112     |       | NOTE 6    | FERRY (GRAPHIC)  | N/A                  | 1        | EXIST.   | S.B.           |
| 4   | WITH ABOVE |         |       | W/ABOVE   | (ARROW) →  |                      |          | W/ABOVE  |                |
| 5   | "K"12+50   | 50      |       | D1-4      | LONG TERM PARKING ENTRANCE PASSENGER CARS ONLY           | 9.0 (84x36)          | 2        | 9'-0"    | W.B.           |
| 6   | "K"12+12   | 90      |       | NOTE 7    | "ALASKA MARINE HIGHWAYS KETCHIKAN TERMINAL-Reservations" | (48x96)              | 2        | 10'-0"   | W.B.           |
| 7   | "K"12+39   | 48      |       | R2-1      | SPEED LIMIT 10   | 5.0 (24x30)          | 1        | 10'-0"   | W.B.           |
| 8   | "K"12+35   | 173     |       | R3-1-RT   | (RIGHT TURN PROHIBITED)                                  | 4.0 (24x24)          | 1        | 9'-6"    | W.B.           |
| 9   | "K"12+19   | 252     |       | R5-1      | DO NOT ENTER   | 2.25 (18x18)         | BACK     | 34       | W.B.           |
| 10  | "K"12+12   | 242     |       | R4-7B     | KEEP RIGHT   | 1.5 (12x18)          | 1        | 9'-6"    | W.B.           |
| 11  | "K"12+10   | NOTE 15 | 270   | R7-10B    | 2 HOUR PARKING DAY OR NIGHT                              | 1.5 (12x18)          | NOTE 8   |          | PARKED         |
| 12  | "K"11+75   | NOTE 15 | 370   | R7-10B    | 2 HOUR PARKING DAY OR NIGHT                              | 1.5 (12x18)          | NOTE 8   |          | PARKED         |
| 13  | "K"11+50   | NOTE 15 | 265   | R7-10B    | LOADING ZONE   | 1.5 (12x18)          | 1        | 9'-6"    | W.B.           |
| 14  | "K"11+07   | NOTE 15 | 325   | R7-10B    | LOADING ZONE   | 1.5 (12x18)          | 1        | 9'-6"    | W.B.           |
| 15  | "K"10+53   |         | 332   | R7-8      | RESERVED PARKING "C"                                     | 1.5 (12x18)          | 1        | 9'-6"    | PARKED         |
| 16  | "K"10+36   |         | 376   | R7-10B    | 2 HOUR PARKING DAY OR NIGHT                              | 1.5 (12x18)          | NOTE 9   |          | PARKED         |
| 17  | "K"10+75   |         | 464   | R7-10B    | 2 HOUR PARKING DAY OR NIGHT                              | 1.5 (12x18)          | 1        | 8'-0"    | PARKED         |
| 18  | "K"11+25   | NOTE 15 | 370   | R7-10B    | 2 HOUR PARKING DAY OR NIGHT                              | 1.5 (12x18)          | NOTE 8   |          | PARKED         |
| 19  | "K"12+10   |         | 270   | R7-10B    | 2 HOUR PARKING DAY OR NIGHT                              | 1.5 (12x18)          | NOTE 8   |          | PARKED         |
| 20  | "K"11+55   |         | 422   | D1-2      | RIGHT LANE EXIT ONLY                                     | 8.0 (24x48)          | 2        | 10'-0"   | E.B.           |
| 21  | "K"11+42   |         | 392   | D1-2      | LEFT LANE ONLY TO SHIP STAGING                           | 17.5 (24x72)         | 2        | 10'-0"   | E.B.           |
| 22  | "K"12+47   |         | 258   | D1-3      | TO SHIP STAGING EXIT                                     | 24.0 (48x72)         | 3        | 10'-0"   | E.B.           |
| 23  | "K"12+70   | NOTE 15 | 277   | D1-1      | EXIT   | 8.0 (24x48)          | 2        | 10'-0"   | E.B.           |
| 24  | "K"12+42   |         | 228   | R1-2      | YIELD  | 7.75 (36x31)         | 1        | 10'-0"   | E.B.           |
| 25  | WITH ABOVE |         |       | R3-1-RT   | (RIGHT TURN PROHIBITED)                                  | 4.0 (24x24)          | 1        | W/ABOVE  | E.B.           |
| 26  | "K"11+72   |         | 212   | R5-1      | DO NOT ENTER   | 6.25 (30x30)         | 1        | 10'-0"   | E.B.           |
| 27  | "K"12+08   |         | 190   | D1-2      | TO SHIP STAGING  | 12.0 (24x72)         | 2        | 10'-0"   | E.B.           |
| 28  | "K"12+35   |         | 173   | R4-7A (L) | KEEP LEFT  | 1.5 (12x18)          | 1        | 10'-0"   | E.B.           |
| 29  | "K"12+08   |         | 1     | R1-1      | STOP   | 5.17 (30x30)         | 1        | 10'-0"   | E.B.           |
| 30  | "K"13+48   |         | 31    | R7-1      | NO PARKING AT ANY TIME                                   | 1.5 (12x18)          | 1        | 10'-0"   | E.B.           |
| 31  | "K"14+00   |         | 49    | R1-1      | STOP   | 5.17 (30x30)         | 1        | 10'-0"   | S.B.           |
| 32  | WITH ABOVE |         |       | R6-1-LT   | ONE WAY  | 3.0 (12x36)          |          | W/ ABOVE | S.B.           |
| 33  | "K"14+36   |         | 72    | R6-1-LT   | ONE WAY  | EXIST.               | NOTE 6   |          | S.B.           |
| 34  | "K"14+02   |         | 97    | R1-1      | STOP   | 5.17 (30x30)         | 1        | 10'-0"   | E.B.           |
| 35  | WITH ABOVE |         |       | R3-1-LT   | ONLY   | 1.5 (12x18)          |          | W/ ABOVE | E.B.           |
| 36  | "K"14+52   |         | 93    | R1-1      | STOP   | 5.17 (30x30)         | 1        | 10'-0"   | E.B.           |
| 37  | WITH ABOVE |         |       | R3-1-RT   | ONLY   | 1.5 (12x18)          |          | W/ ABOVE | E.B.           |
| 38  | "K"14+02   |         | 97    | R5-1      | DO NOT ENTER   | 6.25 (30x30)         | BACK     | 34       | W.B.           |
| 39  | "K"14+52   |         | 93    | R5-1      | DO NOT ENTER   | 6.25 (30x30)         | BACK     | 36       | W.B.           |
| 40  | "K"12+35   |         | 1     | R1-1      | STOP   | 5.17 (30x30)         | 1        | 10'-0"   | E.B.           |

NOTES: 1. STATIONS AND OFFSETS ARE APPROXIMATE, AND SHALL BE FIELD ADJUSTED IF NECESSARY TO BETTER FIT CONDITIONS AS DIRECTED BY THE STATE'S ENGINEER.  
 2. CODE: DENOTES A STANDARD FROM THE ALASKA SIGN DESIGN SPECIFICATIONS.  
 3. ALL SIGNS SHALL BE CLASS "L" AND SHALL BE ON 0.080" THICK SHEET ALUMINUM.  
 4. ALL POSTS SHALL BE 2" x 2" P.S.T., WITH SLEEVE TYPE SOIL EMBEDMENT 3'-6" DEEP.  
 5. POST LENGTHS GIVEN ARE APPROXIMATE.  
 6. REUSE EXIST. SIGN(S) & POST, AND SUPPLY SLEEVE TYPE SOIL EMBEDMENT AS REQ'D.  
 7. REUSE EXIST. ALASKA MARINE HIGHWAY ENTRANCE SIGN.  
 8. SECURE TO LIGHT STANDARD W/ CHANNEL TYPE STAND-OFF & STAINLESS STEEL BANDING.  
 9. SECURE TO STRUCTURE W/ CHANNEL TYPE STAND-OFF & FASTENERS AS REQ'D.  
 10. STRIPING BETWEEN STAGING LANES AND, BETWEEN & ACROSS ENDS OF PARKING SPACES SHALL BE WHITE: 4" WIDE.  
 11. DASHED STRIPES BETWEEN LANES SHALL BE WHITE: 6" WIDE x 10' LONG AT 20' O.C.  
 12. CROSSWALK BORDER STRIPES SHALL BE WHITE: 12" WIDE SPACED 8' OR 12' OUT/OUT AS SHOWN. DIAGONAL STRIPING SHALL BE WHITE: 12" WIDE, 5' O.C. @ 45° TO BORDER  
 13. OTHER DIAGONAL STRIPING SHALL BE WHITE: 12" WIDE, 5' O.C. AT 45° TO BORDER.

STAMP

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STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

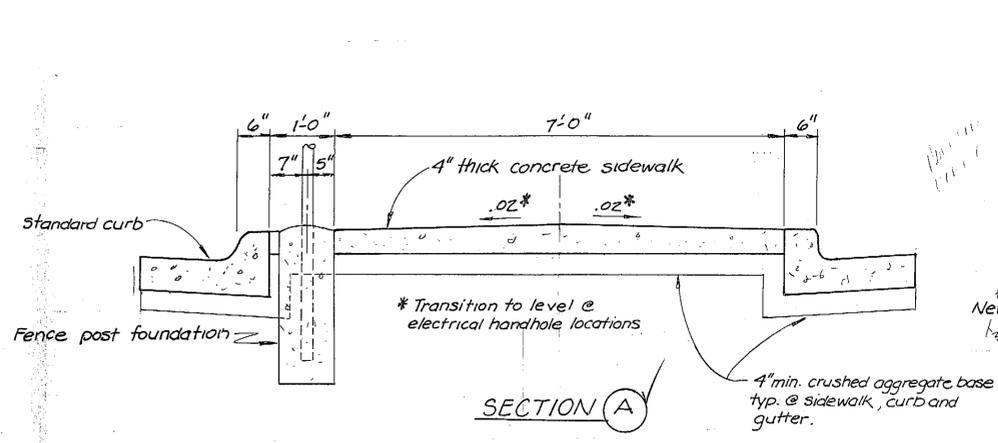
KETCHIKAN, ALASKA

**STAGING AREA SIGNING AND STRIPING PLAN**

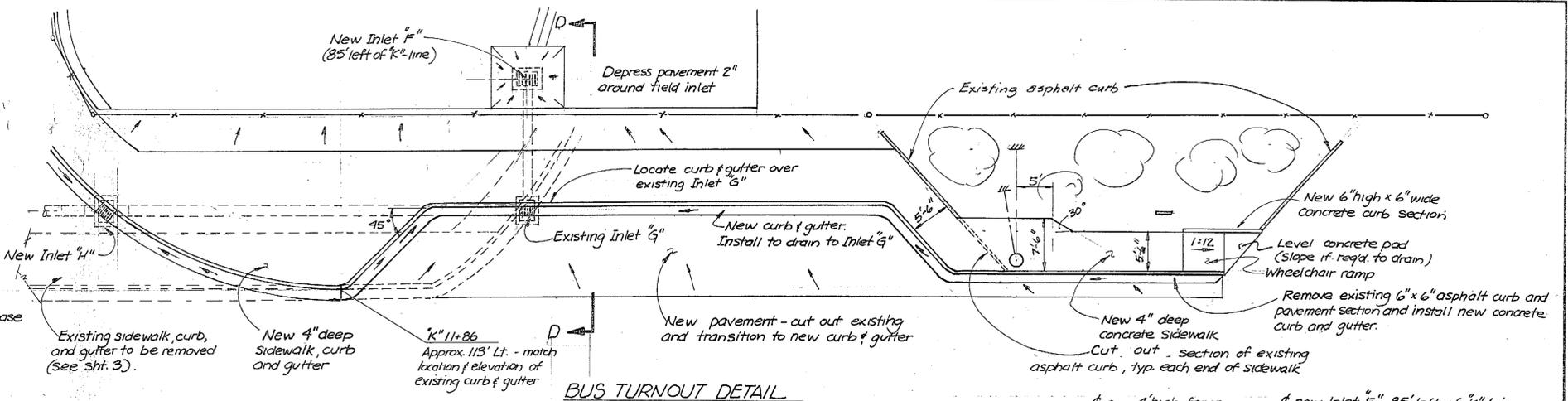
DESIGNED B.S. CHECKED JS/JL DRAWN W.N. DATE AUG., 1990

PROJECT NUMBER F-091-1 (4) SHEET 7 OF 31

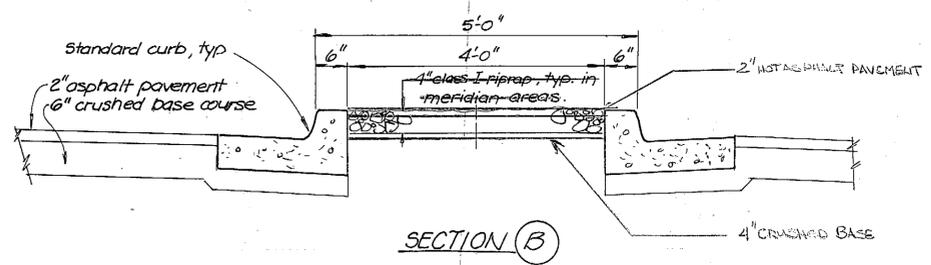
11-15-90



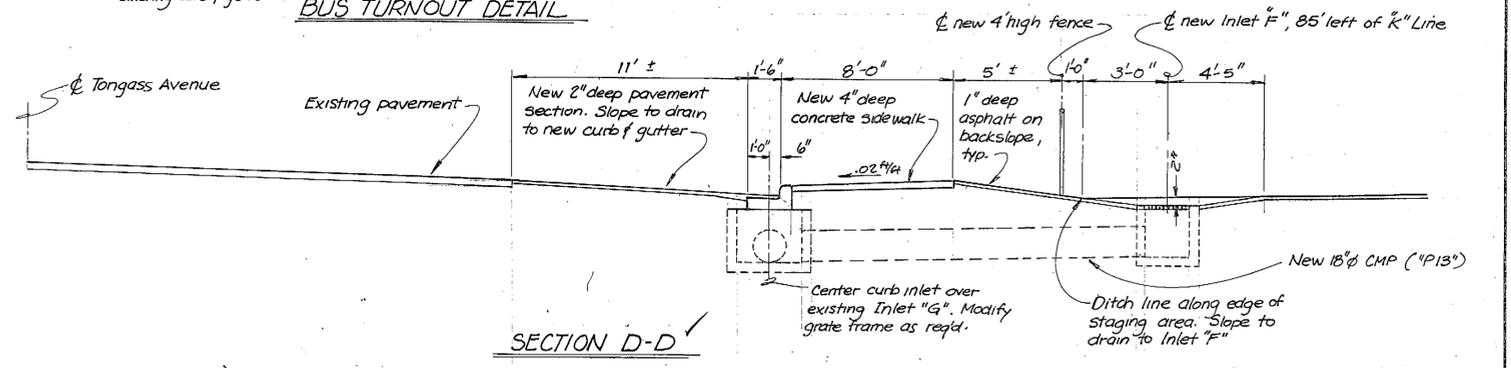
SECTION A



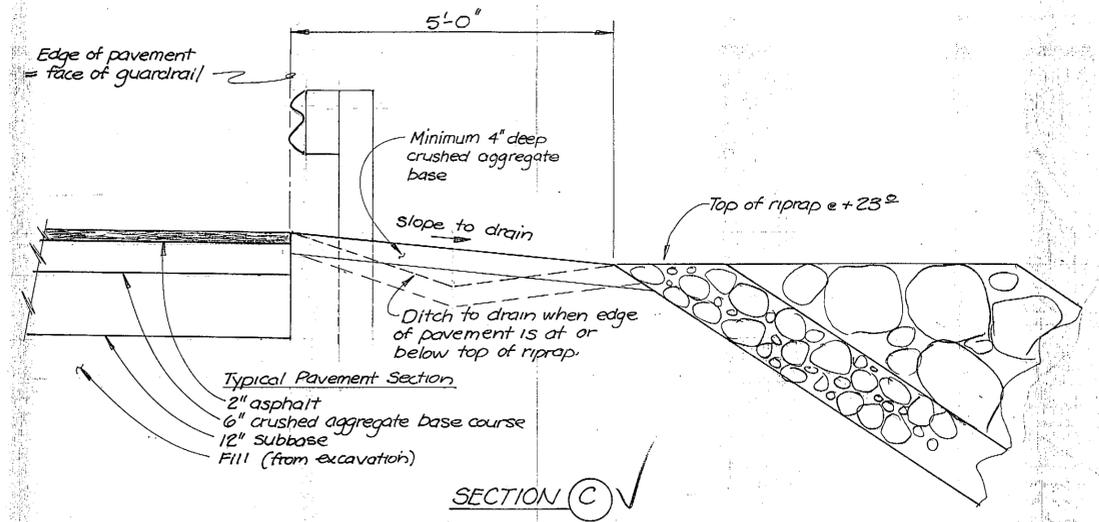
BUS TURNOUT DETAIL



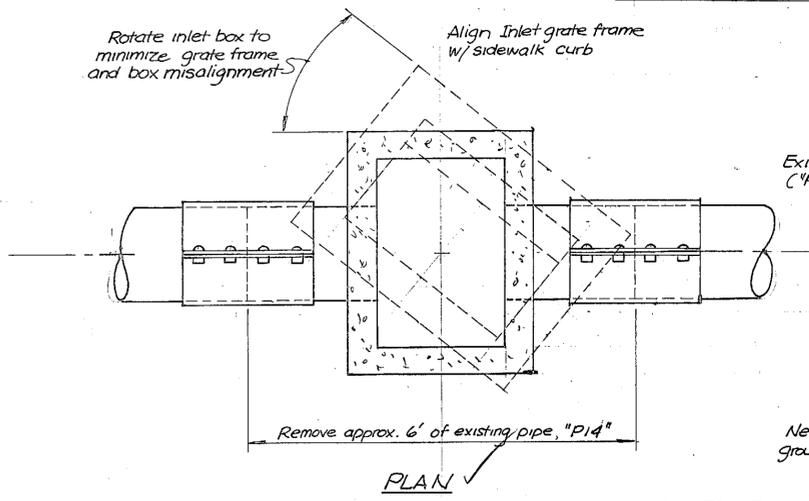
SECTION B



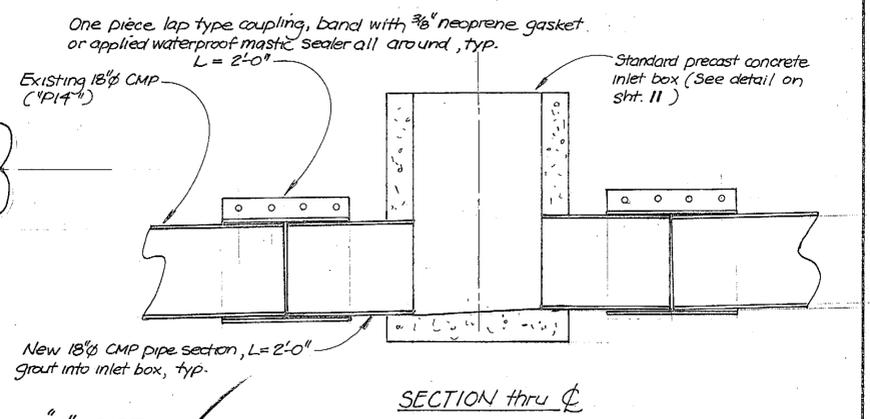
SECTION D-D



SECTION C



PLAN



INLET BOX "H" DETAIL

SECTION thru

|  |  |               |               |  |
|--|--|---------------|---------------|--|
|  | DO NOT SCALE THIS DRAWING - USE DIMENSIONS         |               |               |  |
|  | STATE OF ALASKA                                    |               |               |  |
|  | DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |               |               |  |
|  | Ketchikan, Alaska                                  |               |               |  |
| STAGING AREA<br>GRADING & DRAINAGE DETAILS |  |               |               |  |
| DESIGNED BS                                | CHECKED JL   | DRAWN BS      | DATE Aug. '90 |  |
| PROJECT NUMBER F-021-1(4)                  |  | SHEET 8 OF 31 |               |  |

### SIGN SCHEDULE

| NO. | STATION      | OFFSET |       | CODE  | LEGEND                                  | SIGN PANEL   |              | POST NO. | POST LENGTH  | FACING TRAFFIC |
|-----|--------------|--------|-------|-------|---|--------------|--------------|----------|--------------|----------------|
|     |              | LEFT   | RIGHT |       |   | AREA         | S.F.         |          |              |                |
| 1   | "F" 7+35     | 18     |       | D1-3  | ← MAIN BERTH<br>→ SOUTH BERTH<br>EXIT → | 21.0<br>12.0 | 26.0<br>18.0 | 2        | 10'-0"       | N.B.           |
| 2   | "F" 7+35     | 18     |       | D1-1  | ← EXIT                                  |              |              |          | 4.0 (12x48)  | BACK 1 S.B.    |
| 3   | "F" 7+20     |        | 15.5  | R1-1  | STOP                                    |              |              |          | 5.17 (30x30) | 1 10'-0" S.B.  |
| 4   | WITH ABOVE   |        |       | R3-5  | ← ONLY                                  |              |              |          | 1.5 (12x18)  | W/ABOVE        |
| 5   | "F" 3+50     | 17     |       | W1-1L | (TURN SIGN)                             |              |              |          | 6.25 (30x30) | 1 10'-0" N.B.  |
| 6   | "F" 1+90     |        | 22    | W1-1R | (TURN SIGN)                             |              |              |          | 6.25 (30x30) | 1 10'-0" E.B.  |
| 7   | "F" 0+09     | 40     |       | W1-6  | (ARROW)                                 |              |              |          | 8.0 (24x48)  | 2 8'-0" N.B.   |
| 8   | "F" (-) 0+11 | 24     |       | W1-6  | (ARROW)                                 |              |              |          | 8.0 (24x48)  | 2 8'-0" W.B.   |

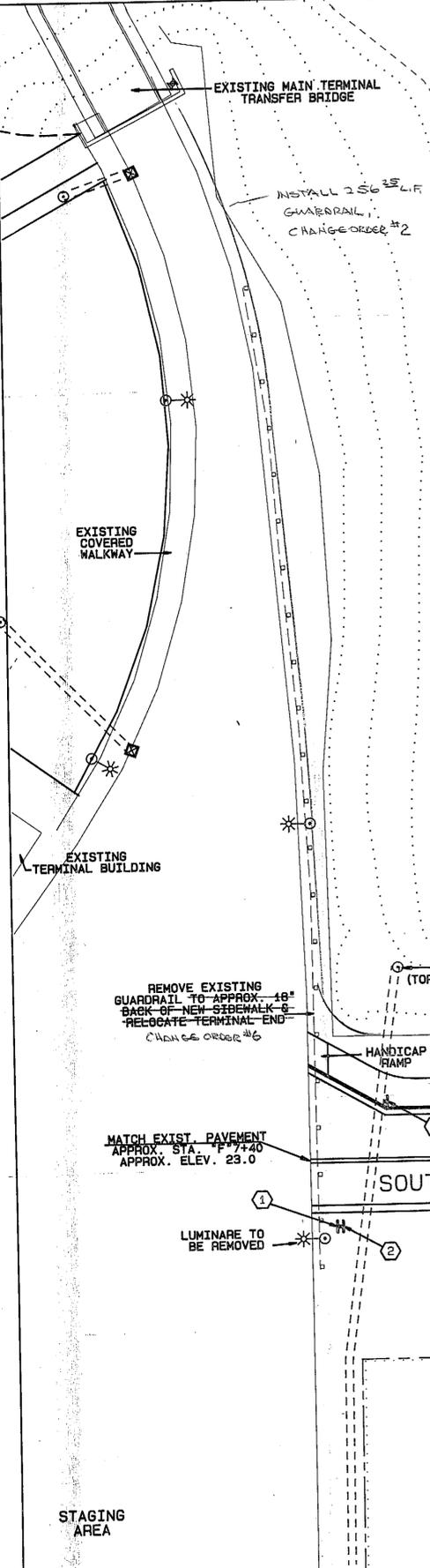
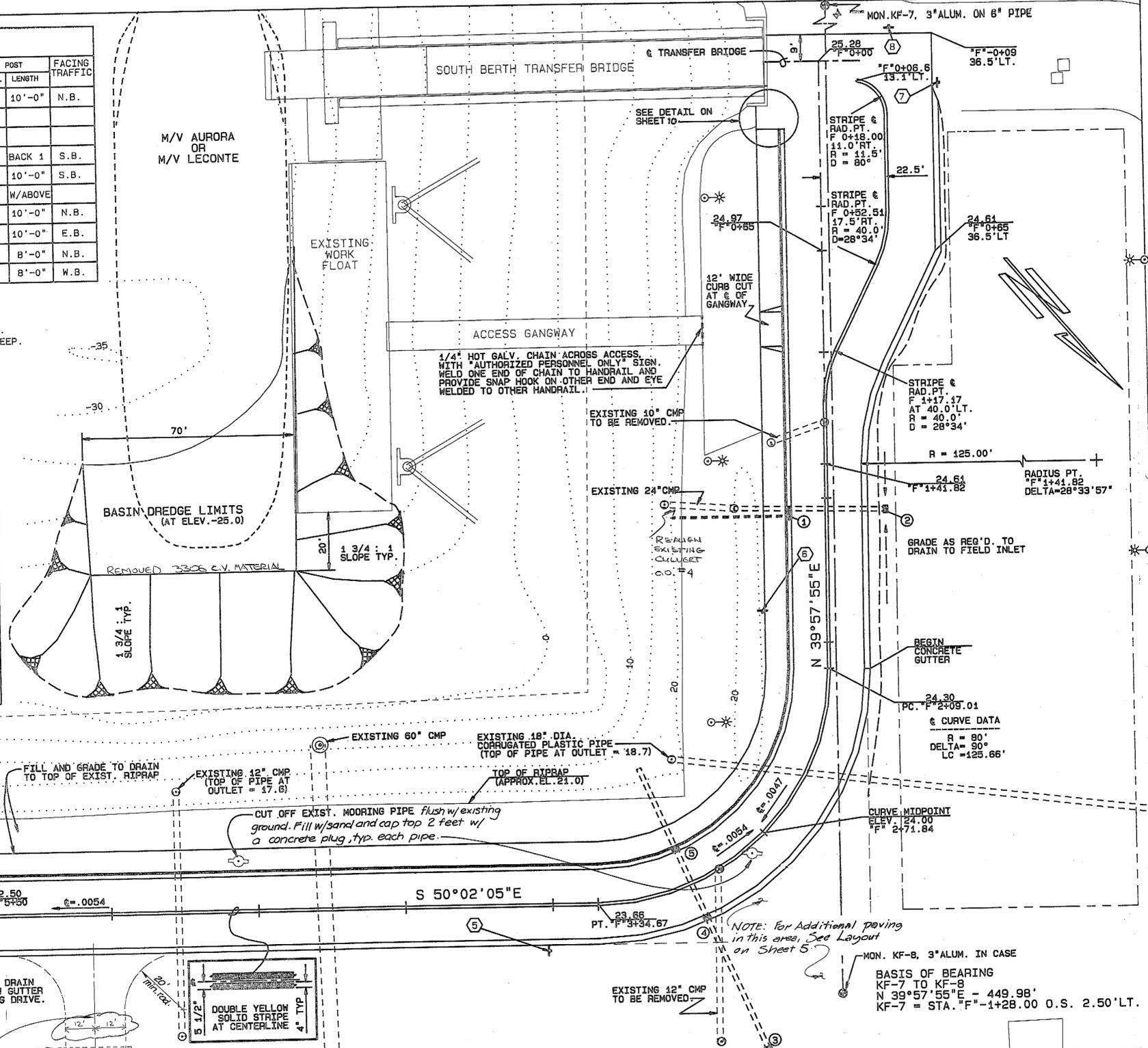
NOTES: 1. STATIONS AND OFFSETS ARE APPROXIMATE, AND SHALL BE FIELD ADJUSTED IF NECESSARY TO BETTER FIT CONDITIONS AS DIRECTED BY THE STATE'S ENGINEER.  
 2. CODE: DENOTES A STANDARD FROM THE ALASKA SIGN DESIGN SPECIFICATIONS.  
 3. ALL SIGNS SHALL BE CLASS "L" AND SHALL BE ON 0.080" THICK SHEET ALUMINUM.  
 4. ALL POSTS SHALL BE 2"x 2" P.S.T., WITH SLEEVE TYPE SOIL EMBEDMENT 3'-6" DEEP.  
 5. POST LENGTHS GIVEN ARE APPROXIMATE.

#### DRAINAGE STRUCTURE SUMMARY

| INLET | STATION / OFFSET               | EDGE P.V.M. ELEVATION | ELEV. TOP OF INLET BOX | OUTLET INVERT | INLET INVERT | NOTES:         |
|-------|--------------------------------|-----------------------|------------------------|---------------|--------------|----------------|
| 1     | TRENCH INLET "F"1+54 / 13' RT. | 24.32                 | 24.19                  | 23.19         | N/A          | DETAILS SHT. 9 |
| 2     | "F"1+54 / 21' LT.              | FIELD INLET           | 22.80                  | 19.22         | N/A          | FIELD INLET    |
| 3     | "F"3+02 / 63' LT.              | FIELD INLET           | 23.75                  | 19.50         | N/A          | FIELD INLET    |
| 4     | "F"3+02 / 13' LT.              | 23.60                 | 23.45                  | 18.46         | 18.54        | GUTTER INLET   |
| 5     | "F"3+02 / 13' RT.              | 23.60                 | 23.45                  | 17.89         | 17.98        | CURB INLET     |
| 6     | "F"5+50 / 13' RT.              | 22.26                 | 21.64                  | 18.54         | 18.62        | CURB INLET     |
| 7     | "F"5+50 / 13' LT.              | 22.26                 | 21.64                  | 19.10         | N/A          | GUTTER INLET   |

#### PIPE SUMMARY

| STA.     | DIA. | LENGTH     | SLOPE | COMMENTS:   |
|----------|------|------------|-------|---|
| "F"1+54  | 24"  | 52'        | 0.010 | (ALUM. BAND TO EXIST, CAUTION: 60 UNDER PRIM. ELECT.) |
| "F"1+54  | 4"   | 40'        | 0.050 | PVC PIPE  |
| "F"3+02  | 18"  | 50'        | 0.020 | CMP UNDER NEW ELECT. & TEL.                           |
| "F"3+02  | 18"  | 25'        | 0.020 | CMP   |
| "F"3+02  | 18"  | 30'        | 0.020 | CMP OUTFALL   |
| "F"5+50  | 18"  | 24'        | 0.020 | CMP   |
| "F"5+50  | 18"  | 30'        | 0.020 | CMP OUTFALL   |
| Variable | 12"  | 25' varies |       | See note for approach between "F"4+50 & "F"5+25       |



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STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

KETCHIKAN, ALASKA  
**SOUTH BERTH ACCESS ROAD AND DREDGING**

|                |            |         |           |       |      |      |              |
|----------------|------------|---------|-----------|-------|------|------|--------------|
| DESIGNED       | B.S.       | CHECKED | J.S./J.L. | DRAWN | W.N. | DATE | AUGUST, 1990 |
| PROJECT NUMBER | F-091-1(4) | SHEET   | 9         | OF    | 31   |      |              |

11-15-90

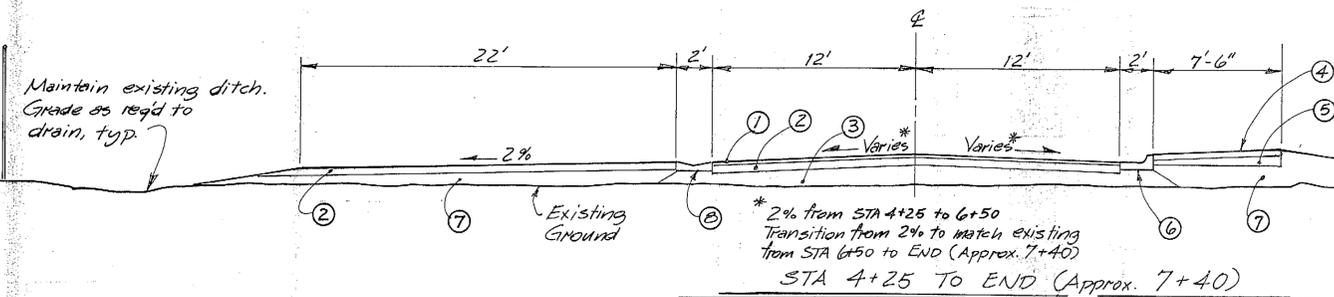
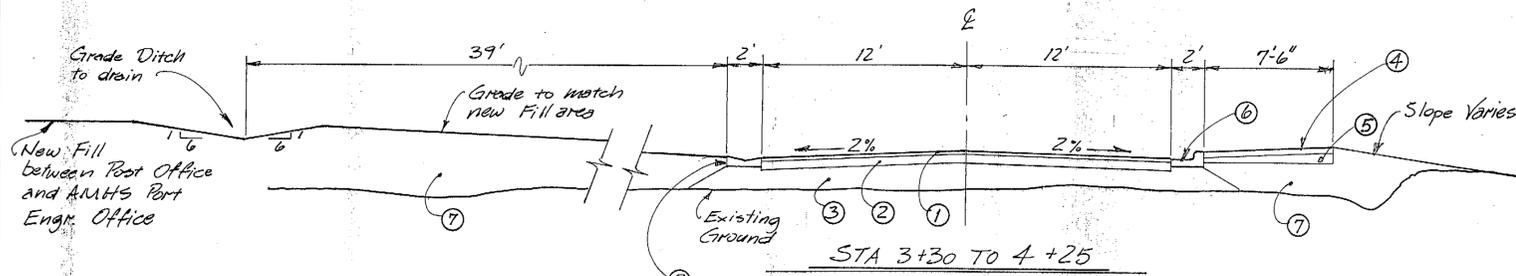
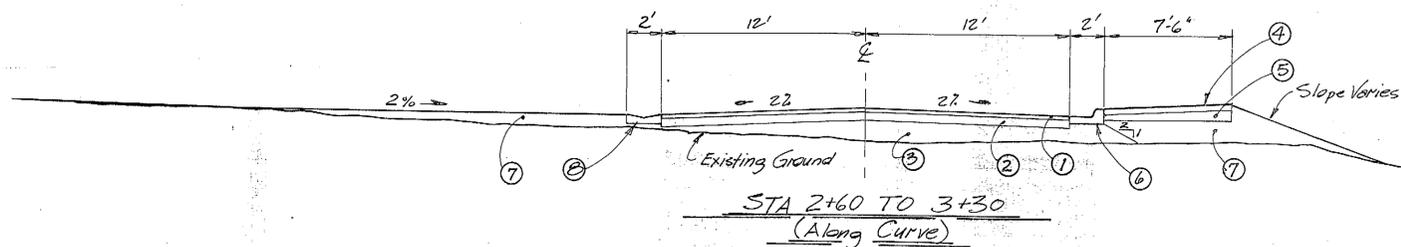
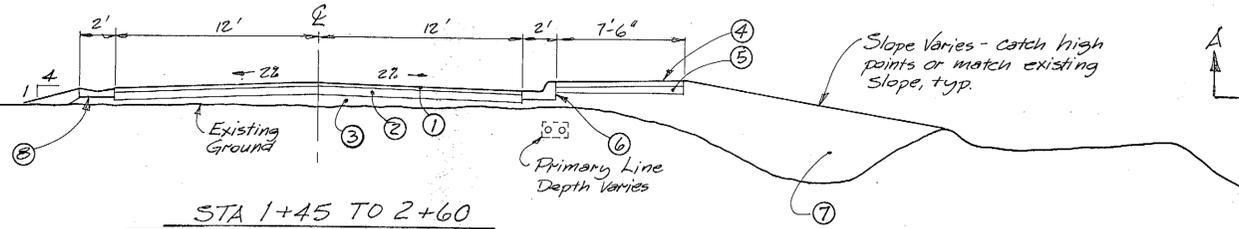
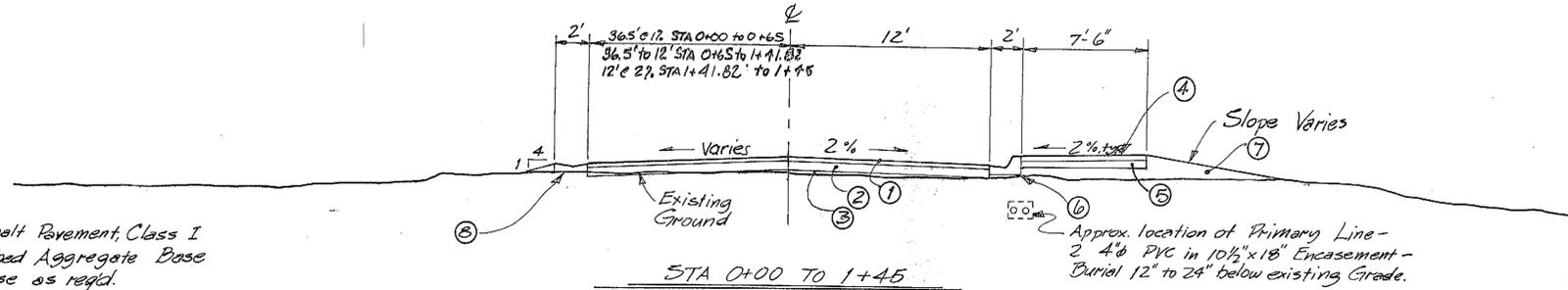
12' x 25' CMP. Excavate as req'd to install w/ 12' min. cover and slope to drain to existing CMPs. Approach to be constructed w/ crushed aggregate base = 20' wide travelled way, min. 20' radius ea. side, as shown. Station of approach to be field located between "F"4+50 and "F"5+25 as directed by the Engineer. Incidental to South BERTH access road items.

U.S. POSTAL SERVICE

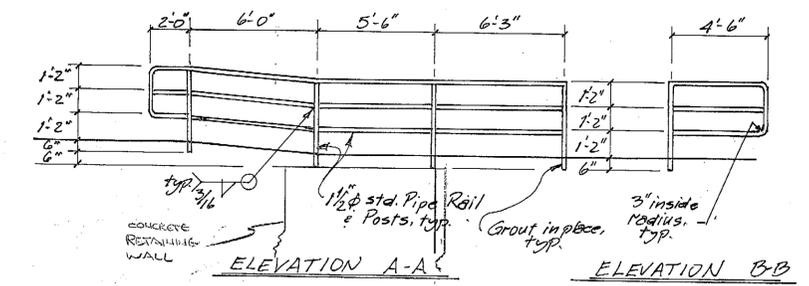
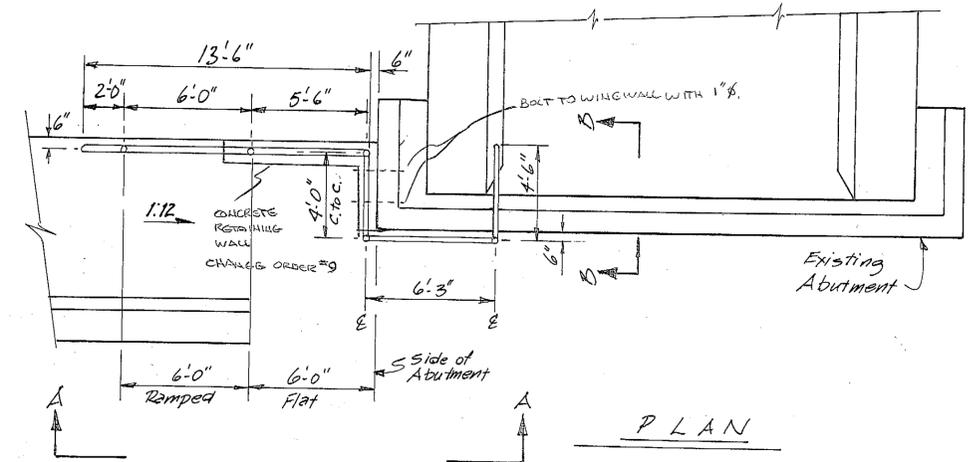
STAGING AREA

ADDENDUM #1

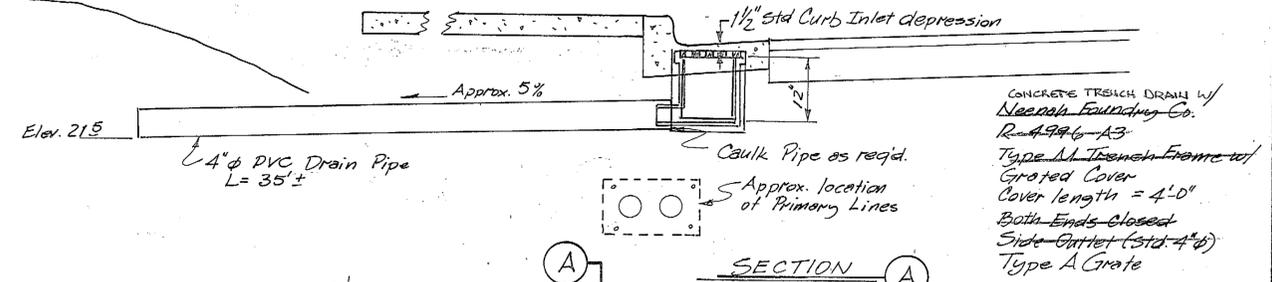
- ① 2" Asphalt Pavement, Class I
- ② 6" Crushed Aggregate Base
- ③ Subbase as req'd.
- ④ 4" Concrete Sidewalk
- ⑤ 4" Minimum Crushed Aggregate Base
- ⑥ Standard Concrete Curb
- ⑦ Borrow From Excavation
- ⑧ Concrete Gutter, see Sheet 27



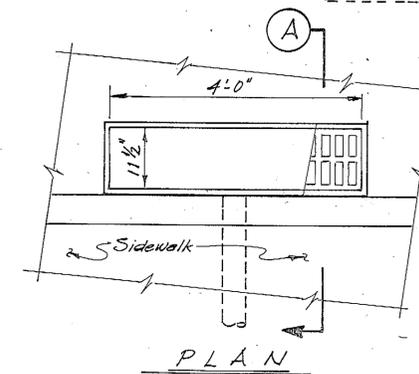
**SECTIONS**



**HANDRAIL DETAIL @ ABUTMENT**

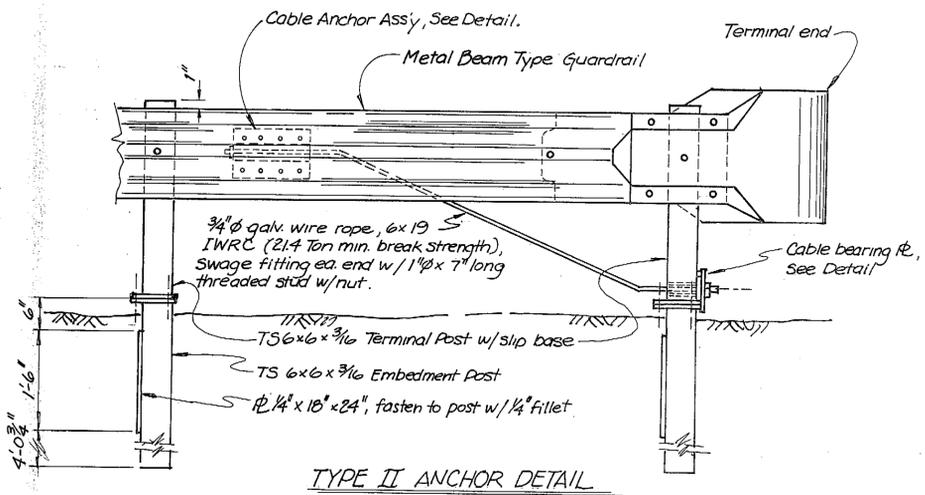


CONCRETE TRENCH DRAIN w/  
Nexcon Encasing Co.  
R-4946-A3  
Type M. Trench Frame w/  
Grated Cover  
Cover length = 4'-0"  
Both Ends Closed  
Side Inlet (std. 4" Ø)  
Type A Grate

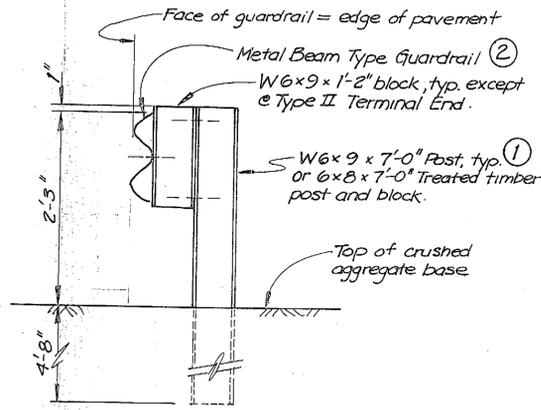


**TRENCH INLET DETAIL @ "E" 1+54, 13' RT**

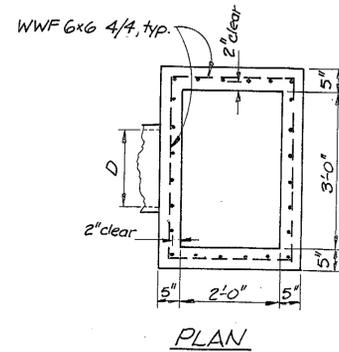
|                                       |            |  |       |        |       |
|---------------------------------------|------------|--|-------|--------|-------|
| STAMP                                 |            | DO NOT SCALE THIS DRAWING - USE DIMENSIONS         |       |        |       |
|                                       |            | STATE OF ALASKA                                    |       |        |       |
|                                       |            | DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |       |        |       |
|                                       |            | Ketchikan  |       | Alaska |       |
| <b>SOUTH BERTH ACCESS ROAD</b>        |            |  |       |        |       |
| <b>TYPICAL SECTIONS &amp; DETAILS</b> |            |  |       |        |       |
| DESIGNED                              | BAS        | CHECKED  | JAL   | DRAWN  | DB    |
| PROJECT NUMBER                        | F-091-1(4) |  | DATE  | 8-90   |       |
|                                       |            |  | SHEET | 10     | OF 31 |



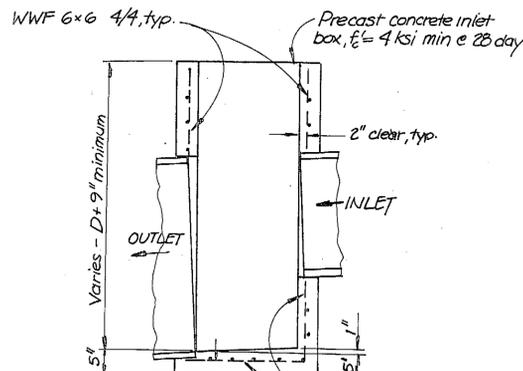
TYPE II ANCHOR DETAIL



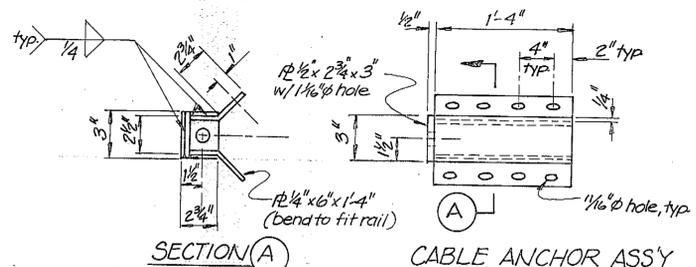
TYPICAL SECTION



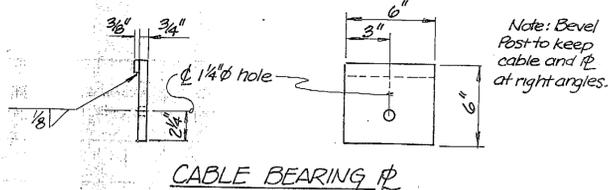
PLAN



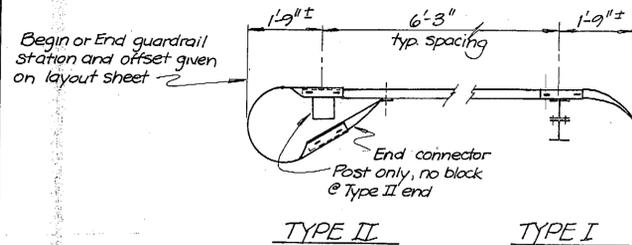
ELEVATION  
TYPICAL PRECAST  
CONCRETE INLET BOXES



CABLE ANCHOR ASSY



CABLE BEARING PL

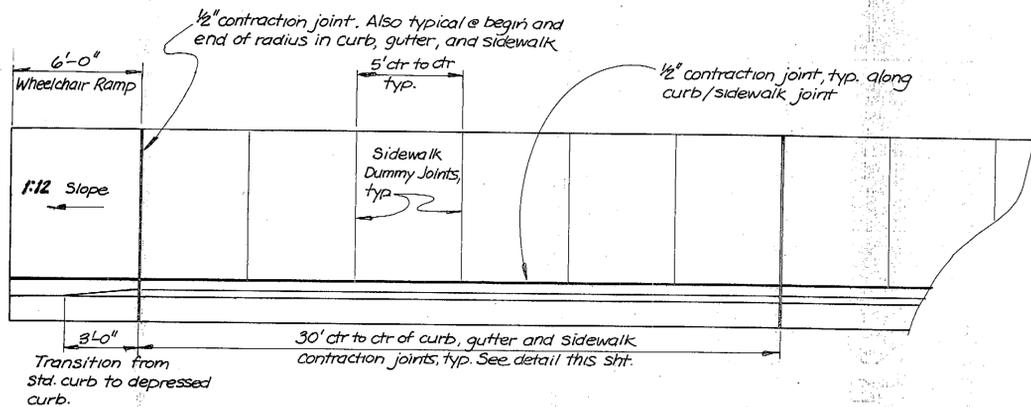


TYPE II TERMINAL END

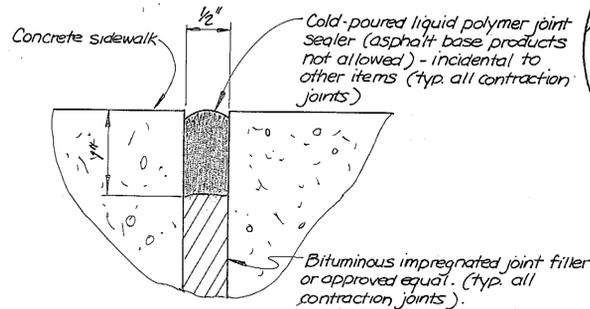
NOTES:

- Posts, blocks, rails and hardware shall be galvanized after fabrication.
- Metal Beam Guardrail and hardware shall conform to AASHTO M-180 Class A, Type 2.
- Alternate Type II Anchor and Post details are allowed (See Section 601-2.02)

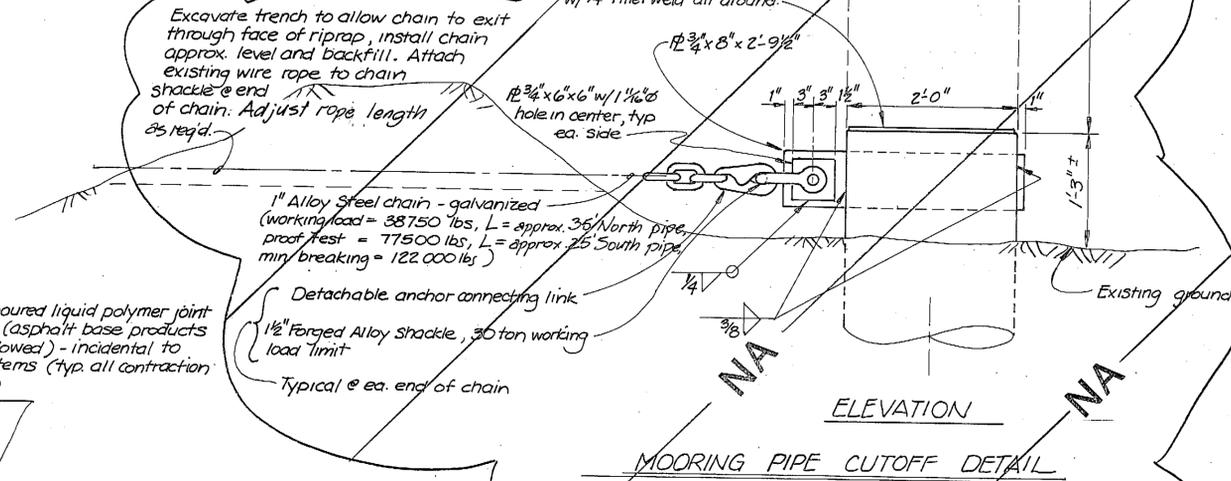
GUARDRAIL DETAILS



SIDEWALK DETAILS - PLAN

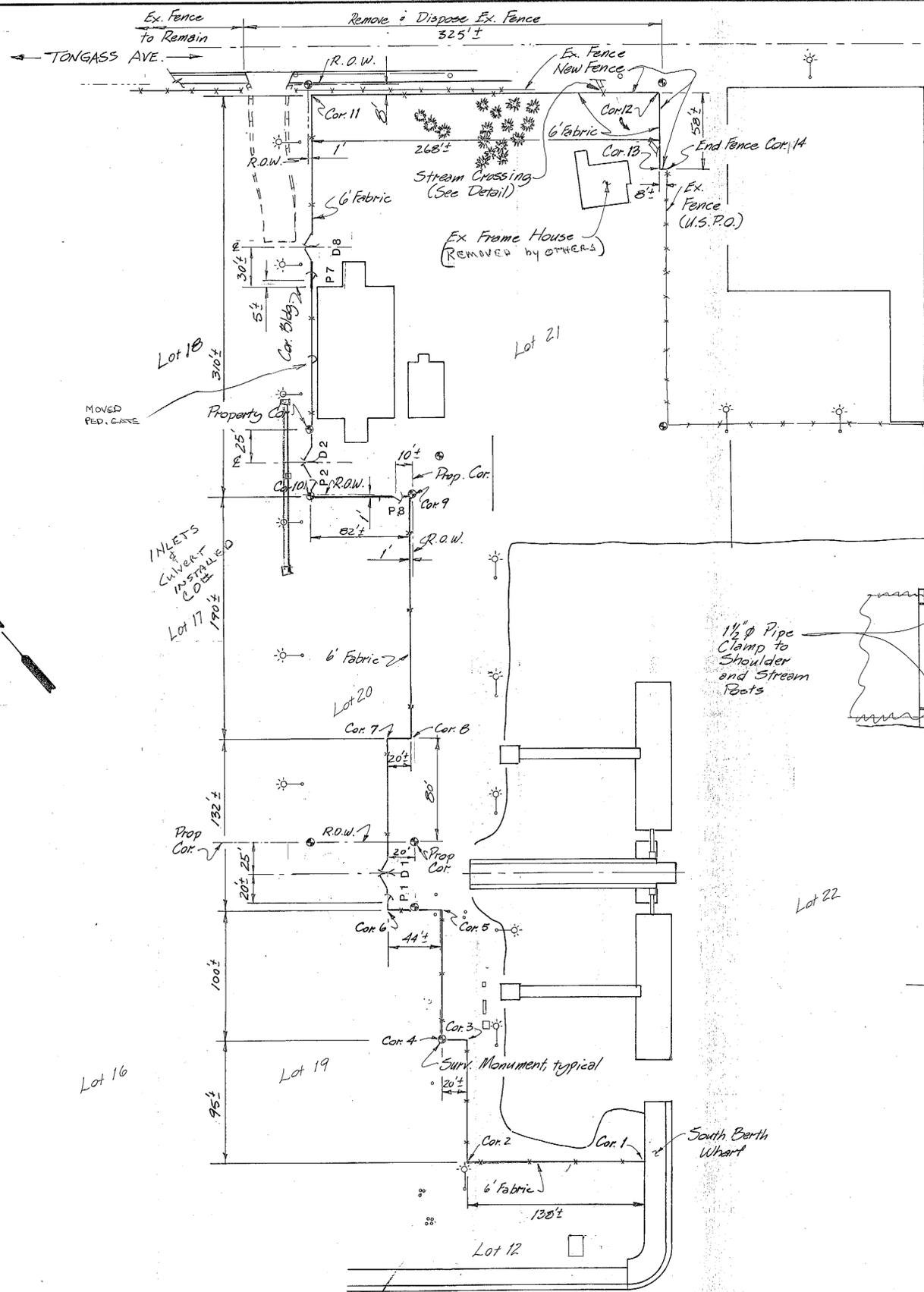


TYPICAL CONTRACTION JOINT

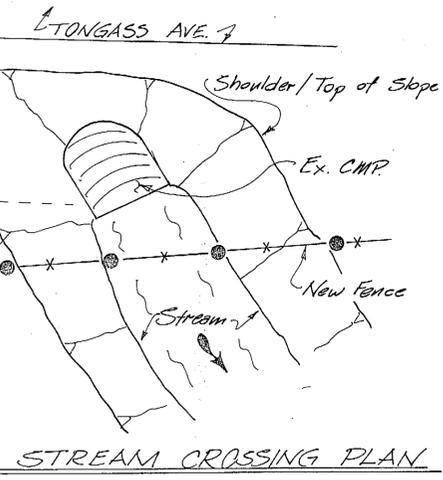
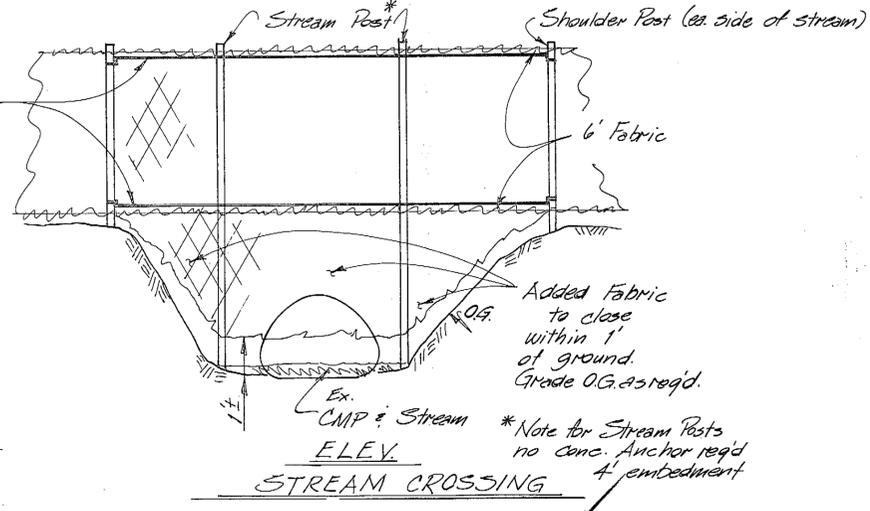
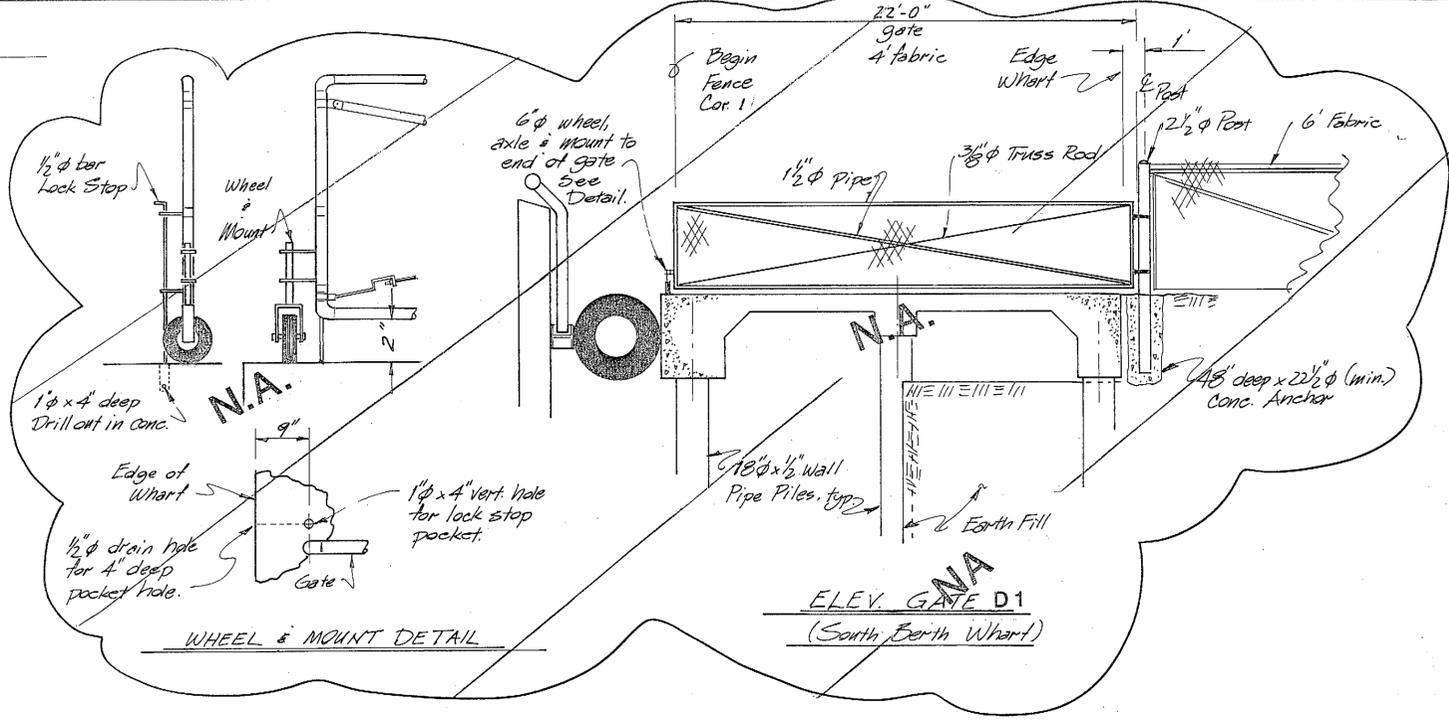


MOORING PIPE CUTOFF DETAIL  
(Incidental to Item 201)

|   |             |  |              |
|---|-------------|--|--------------|
| STAMP   |             | DO NOT SCALE THIS DRAWING - USE DIMENSIONS |              |
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |             |  |              |
| Ketchikan   |             | Alaska                                     |              |
| GUARDRAIL, SIDEWALK, and<br>INLET BOX DETAILS                         |             |  |              |
| DESIGNED BS   | CHECKED JAL | DRAWN BS                                   | DATE Aug '90 |
| PROJECT NUMBER F-091-1(4)   | SHEET 11    |  | OF 31        |



FENCE LAYOUT

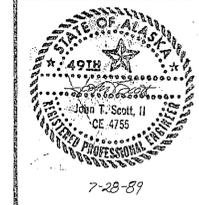


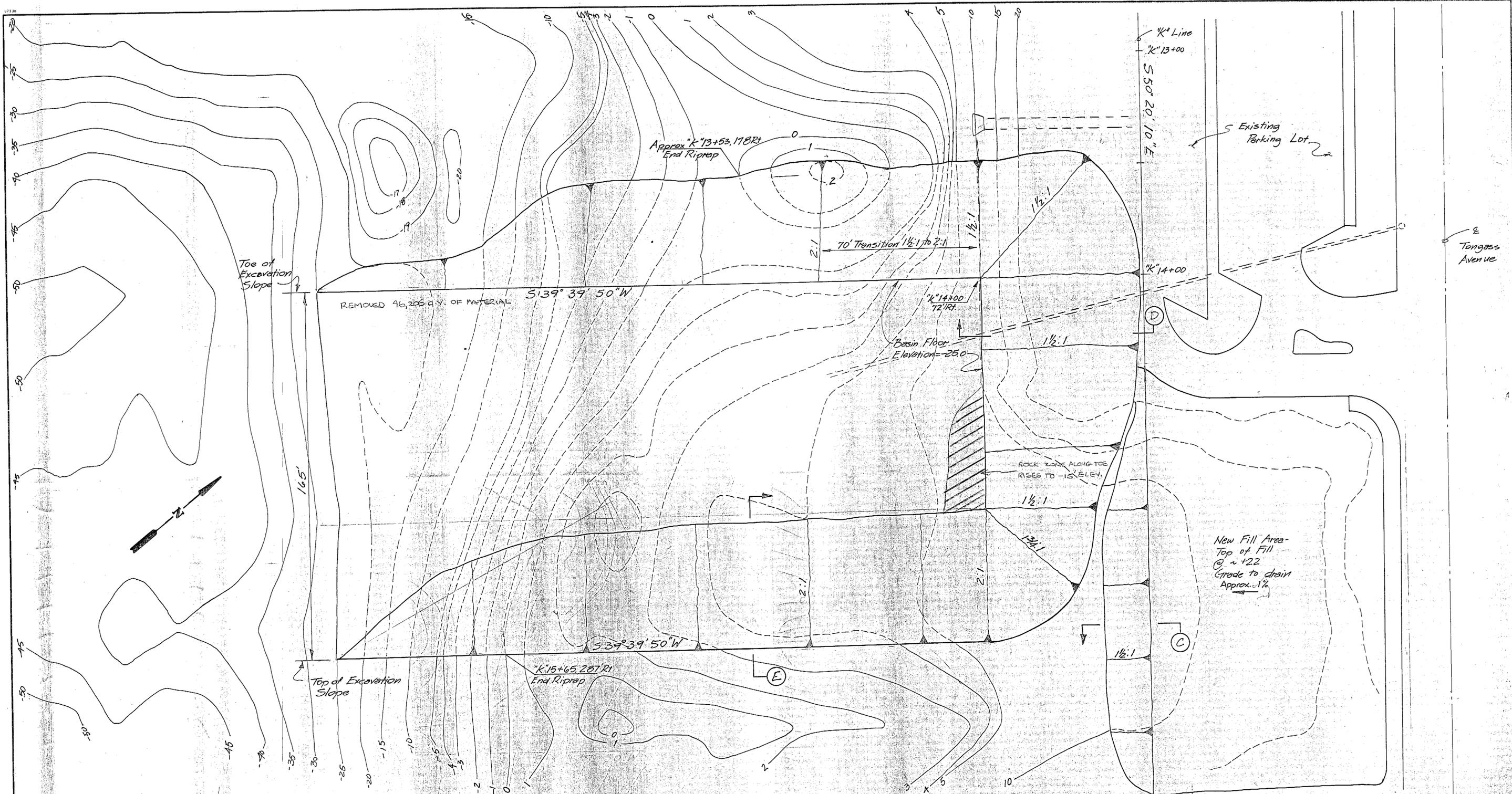
STREAM CROSSING PLAN

NOTES:

- Gates are labeled: D = Drive Thru P = Pedestrian  
D1 thru D3 = 6'x20' (Double Swing Gates) as shown  
P1 thru P3 = 6'x4' (Single Swing Gates) as shown
- For Gate Details/Hardware/Anchors, see Std. Dwg. F-01 & F-03 attached.
- For Buried Utilities, See As-Built drawings which may be reviewed during normal office hours of AMHS, Marine Engineering, Shore Design & Construction offices at 3132 Channel Drive, Room 140, Juneau, Alaska. Contractor shall be responsible for verifying location of buried utilities and shall adjust post spacing (10' max.) to avoid as required or use substitute anchors as shown on Std. Dwg. F-01.

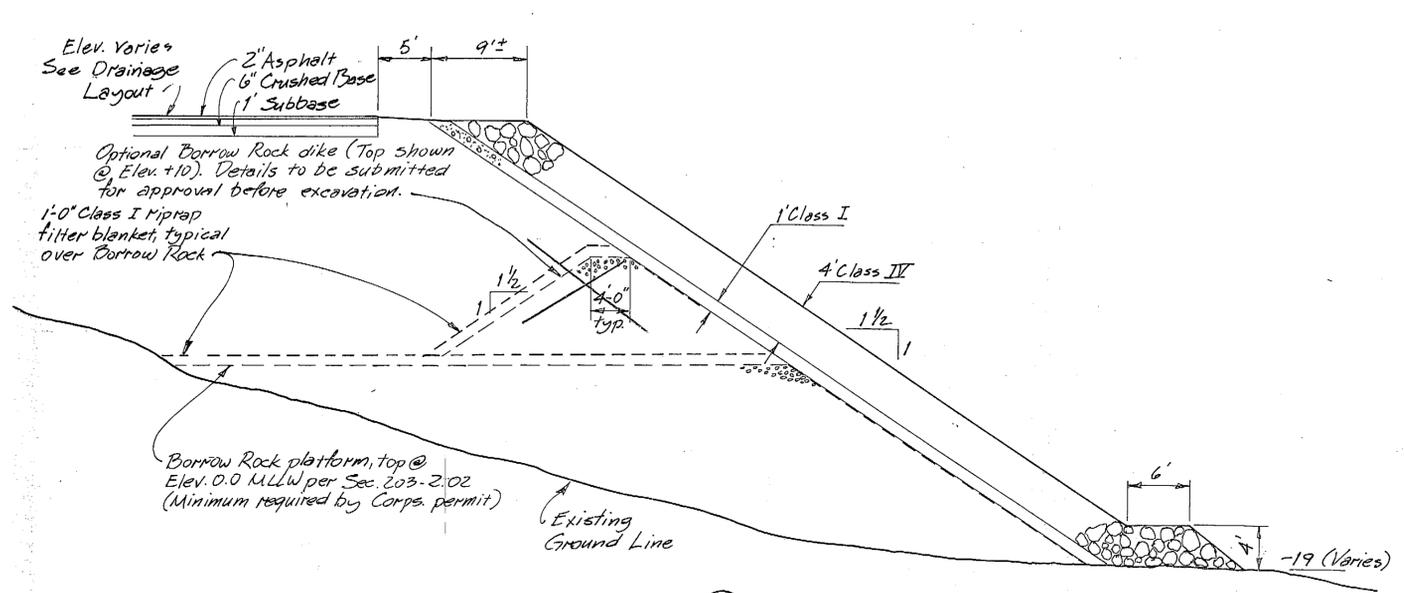
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|---|-------------|--|------------|
| STAMP   |             | DO NOT SCALE THIS DRAWING - USE DIMENSIONS |            |
| STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |             |  |            |
| Ketchikan   |             | Alaska                                     |            |
| <b>KSY<br/>FENCE &amp; ENTRANCE<br/>MODIFICATIONS</b>                 |             |  |            |
| DESIGNED JS   | CHECKED JAL | DRAWN DB                                   | DATE 10-90 |
| PROJECT NUMBER F-091-1 (4)  |             | SHEET 12 OF 31                             |            |



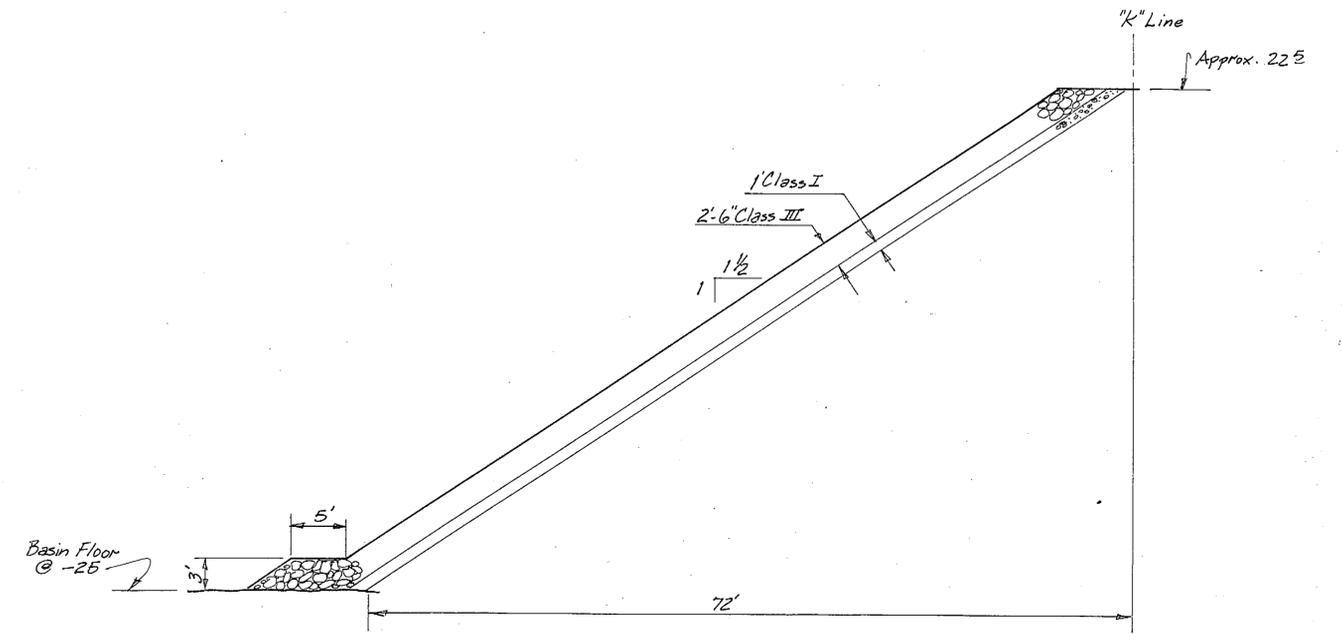


NOTE: Excavation and Embankments shown without riprap slope protection. See Sheet 14 for Sections.

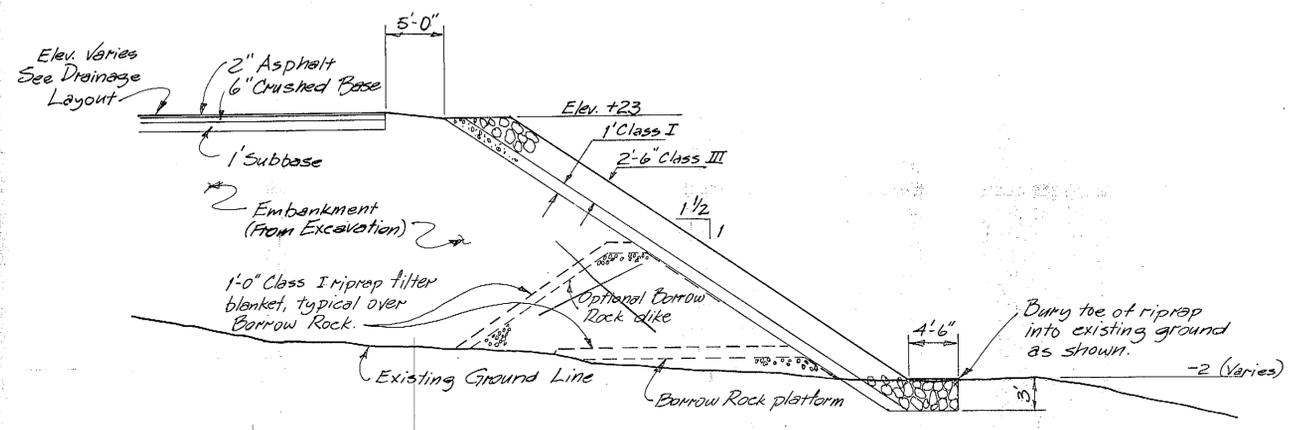
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|                               |            | STATE OF ALASKA                                    |      |        |          |
|                               |            | DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |      |        |          |
|                               |            | Ketchikan  |      | Alaska |          |
| LAYUP BASIN : EMBANKMENT PLAN |            |  |      |        |          |
| DESIGNED                      | BAS        | CHECKED  | JAL  | DRAWN  | DB       |
| PROJECT NUMBER                | F-091-1(4) | DATE   | 6-90 | SHEET  | 13 OF 31 |



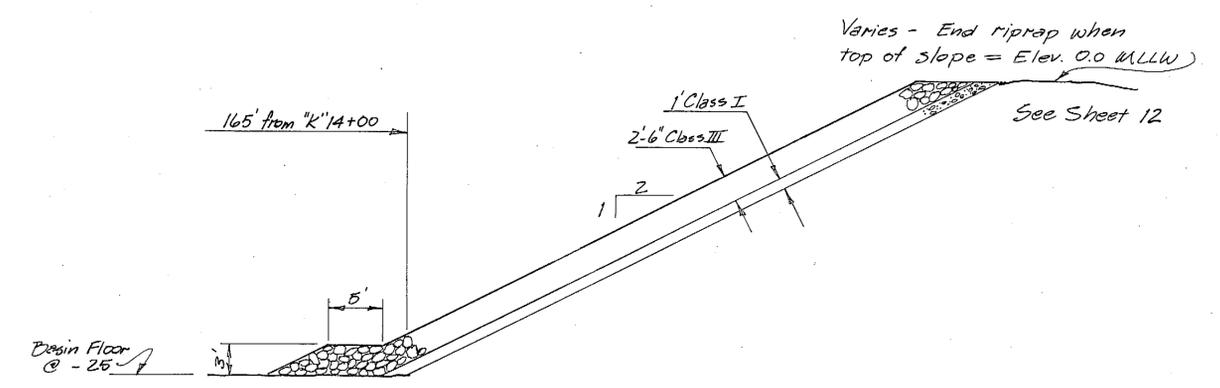
SECTION A  
(from Sheet 5)



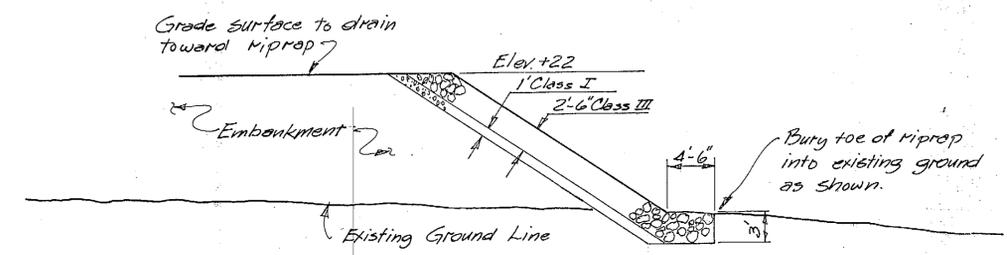
SECTION D  
(from Sheet 5 & 13)



SECTION B  
(from Sheet 5)



SECTION E  
(from Sheet 5 & 13)



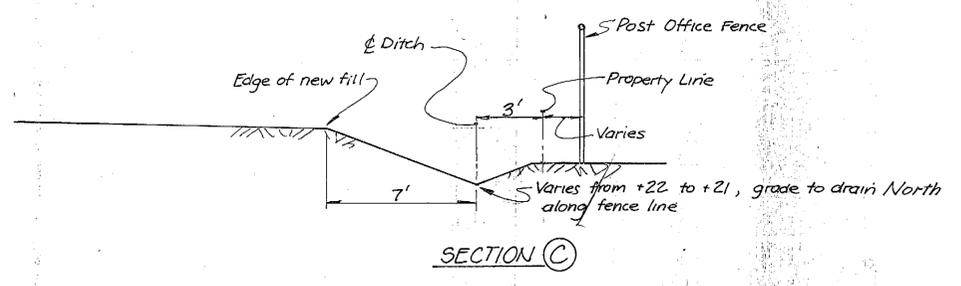
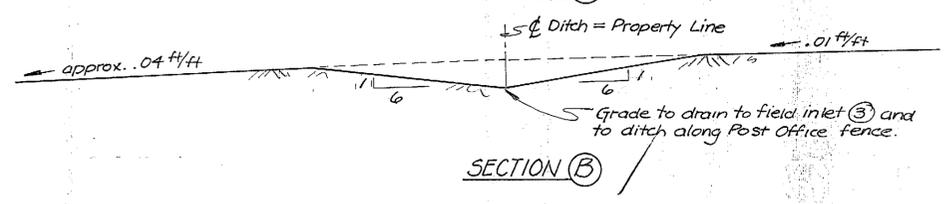
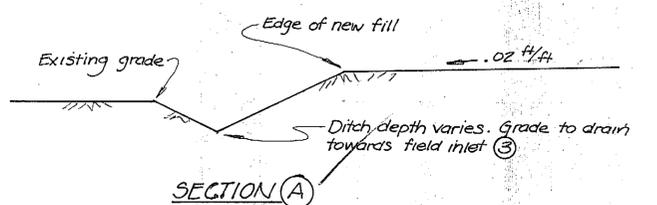
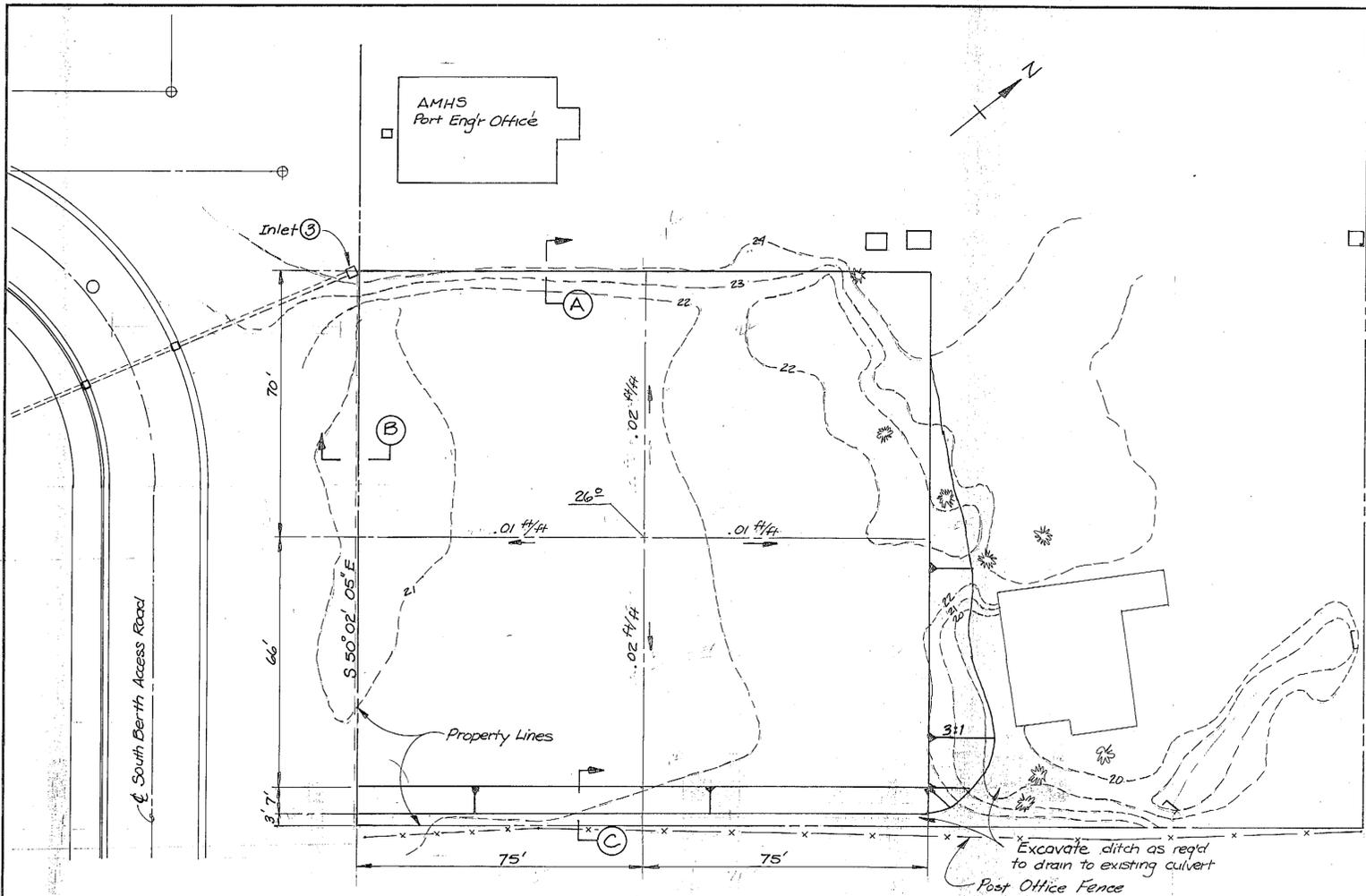
SECTION C  
(from Sheet 5 & 13)

EMBANKMENT SECTIONS

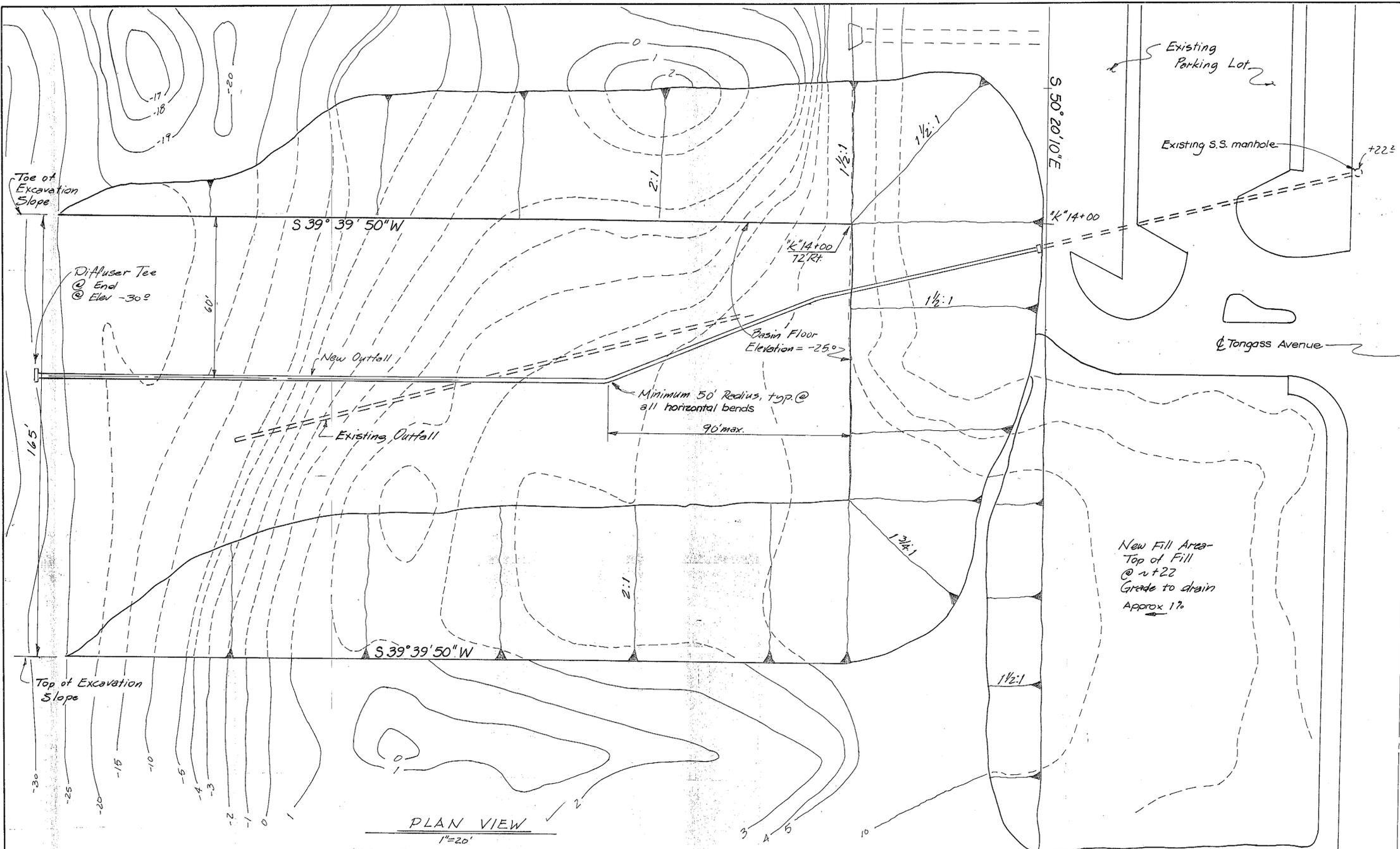
Platform to MLLW Fill = 4405 cy.

EXCAVATION SECTIONS

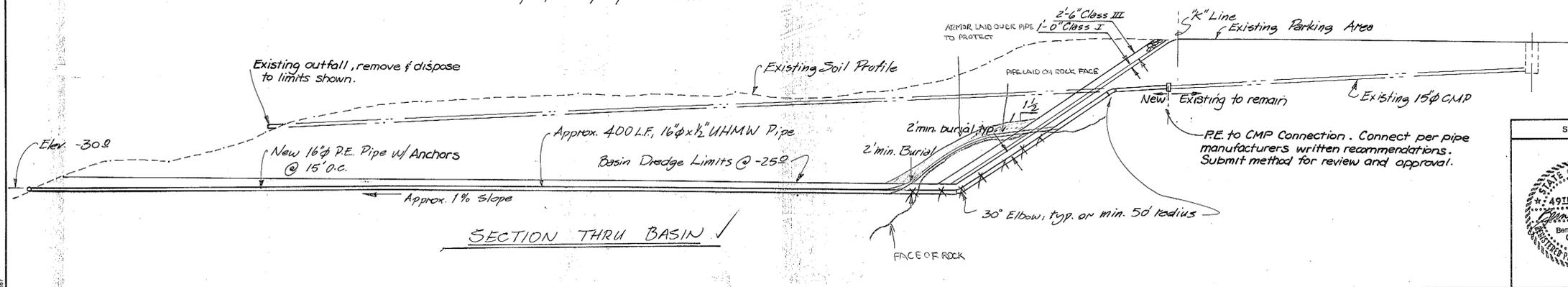
|   |            |  |      |       |          |
|---|------------|--|------|-------|----------|
| STAMP   |            | DO NOT SCALE THIS DRAWING - USE DIMENSIONS         |      |       |          |
|  |            | STATE OF ALASKA                                    |      |       |          |
|   |            | DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |      |       |          |
|   |            | RIPRAP SECTIONS                                    |      |       |          |
| DESIGNED  | BAS        | CHECKED  | JAL  | DRAWN | DB       |
| PROJECT NUMBER  | F-091-1(4) | DATE   | 8-90 | SHEET | 14 OF 31 |
| 11-15-90  |            |  |      |       |          |



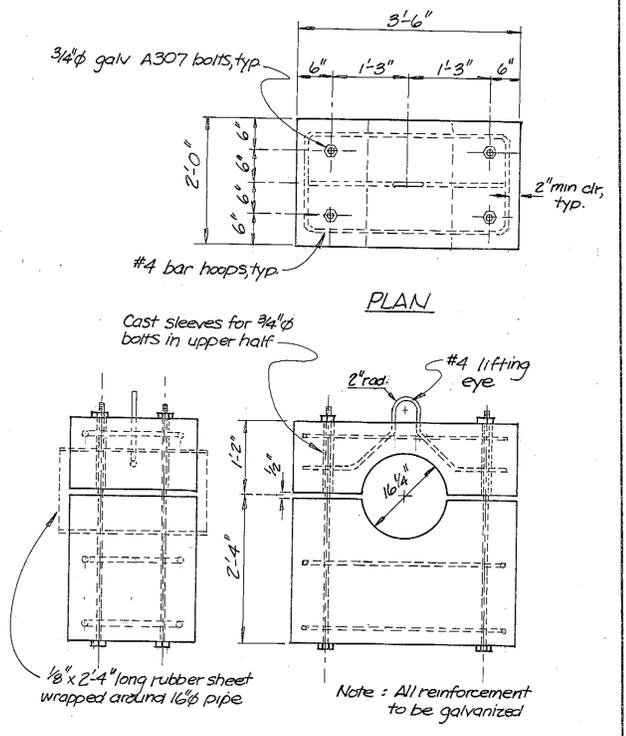
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|---------------------------|-------------|--|--------------|
| STAMP                     |             | DO NOT SCALE THIS DRAWING - USE DIMENSIONS         |              |
|                           |             | STATE OF ALASKA                                    |              |
|                           |             | DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |              |
|                           |             | Ketchikan  | Alaska       |
|                           |             | SOUTH BERTH<br>EXCAVATION DISPOSAL AREA            |              |
| DESIGNED BS               | CHECKED JAL | DRAWN BS   | DATE Aug '90 |
| PROJECT NUMBER F-091-1(4) | SHEET 15    |  | OF 31        |



**PLAN VIEW**  
 1"=20'  
 NOTE: Excavation and Embankments shown without riprap slope protection.

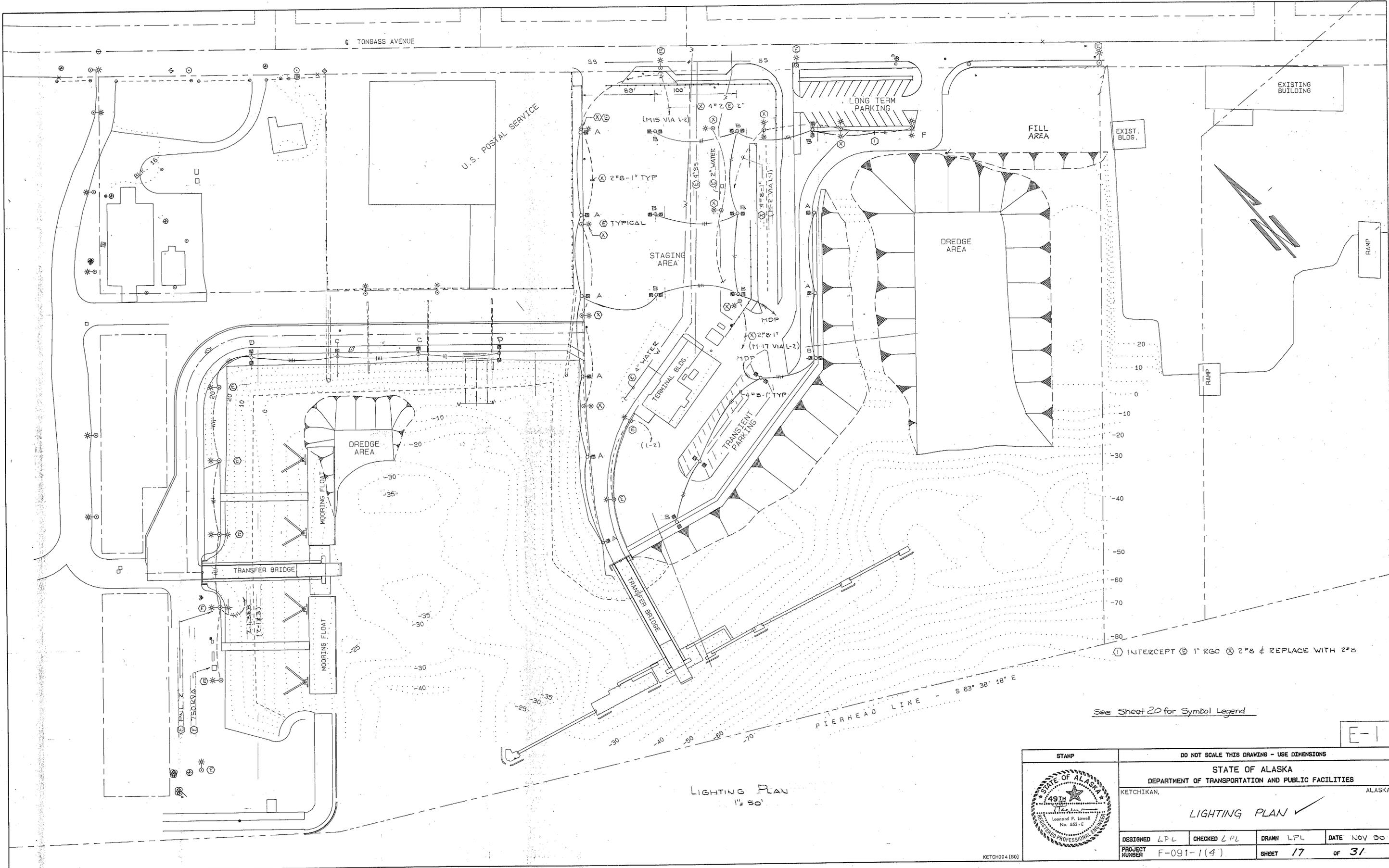


**SECTION THRU BASIN**



**ELEVATION**  
**PIPE ANCHORS**  
 Fasten to 16" PE outfall pipe @ 15' o.c.  
 Approx. wt. = 3300 lbs.

|                                  |  |                              |                  |  |
|----------------------------------|--|------------------------------|------------------|--|
| STAMP                            | DO NOT SCALE THIS DRAWING - USE DIMENSIONS         |                              |                  |  |
|                                  | STATE OF ALASKA                                    |                              |                  |  |
|                                  | DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |                              |                  |  |
|                                  | Ketchikan  |                              | Alaska           |  |
| <b>SEWER OUTFALL REPLACEMENT</b> |  |                              |                  |  |
| DESIGNED <b>DBS</b>              | CHECKED <b>JL/JS</b>                               | DRAWN <b>DB</b>              | DATE <b>8-90</b> |  |
| PROJECT NUMBER <b>F-091-1(4)</b> |  | SHEET <b>16</b> OF <b>31</b> |                  |  |



LIGHTING PLAN  
1" = 50'

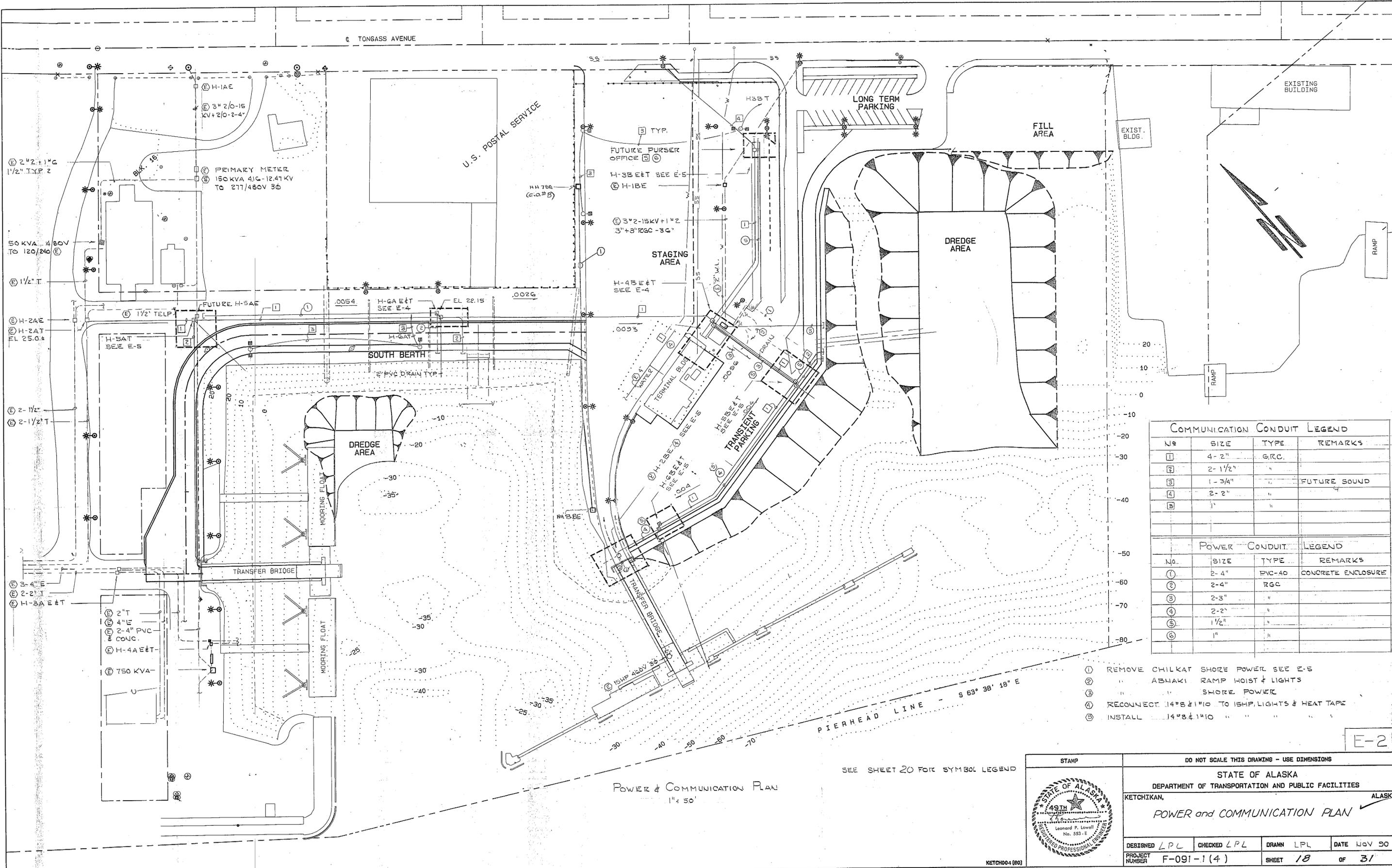
① INTERCEPT @ 1" RGC @ 2" & REPLACE WITH 2" B

See Sheet 20 for Symbol Legend

E-1

|   |            |  |     |        |        |
|---|------------|--|-----|--------|--------|
| STAMP   |            | DO NOT SCALE THIS DRAWING - USE DIMENSIONS         |     |        |        |
|  |            | STATE OF ALASKA                                    |     |        |        |
|   |            | DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |     |        |        |
|   |            | KETCHIKAN,   |     | ALASKA |        |
|   |            | LIGHTING PLAN ✓                                    |     |        |        |
| DESIGNED  | LPL        | CHECKED  | LPL | DRAWN  | LPL    |
| PROJECT NUMBER  | F-091-1(4) | SHEET  | 17  | DATE   | NOV 90 |
|   |            |  | OF  |        | 31     |

KETCH004 (60)



| COMMUNICATION CONDUIT LEGEND |        |      |              |
|------------------------------|--------|------|--------------|
| No.                          | SIZE   | TYPE | REMARKS      |
| 1                            | 4-2"   | GRC. |              |
| 2                            | 2-1/2" | "    |              |
| 3                            | 1-3/4" | "    | FUTURE SOUND |
| 4                            | 2-2"   | "    |              |
| 5                            | 1"     | "    |              |

| POWER CONDUIT LEGEND |        |        |                    |
|----------------------|--------|--------|--------------------|
| No.                  | SIZE   | TYPE   | REMARKS            |
| 1                    | 2-4"   | PVC-40 | CONCRETE ENCLOSURE |
| 2                    | 2-4"   | RGC    |                    |
| 3                    | 2-3"   | "      |                    |
| 4                    | 2-2"   | "      |                    |
| 5                    | 1 1/2" | "      |                    |
| 6                    | 1"     | "      |                    |

- 1 REMOVE CHILKAT SHORE POWER SEE E-5
- 2 ABYAKI RAMP HOIST & LIGHTS
- 3 SHORE POWER
- 4 RECONNECT 14"8 & 14"10 TO 15HP, LIGHTS & HEAT TAPE
- 5 INSTALL 14"8 & 14"10

Power & Communication Plan  
1" = 50'

SEE SHEET 20 FOR SYMBOL LEGEND

STAMP

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

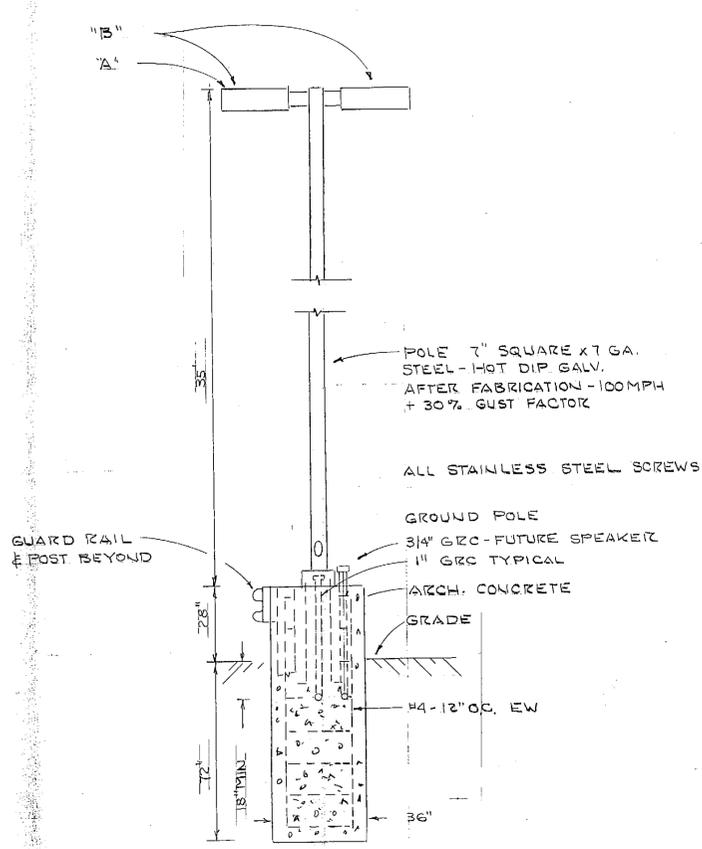
KETCHIKAN, ALASKA

*POWER and COMMUNICATION PLAN*

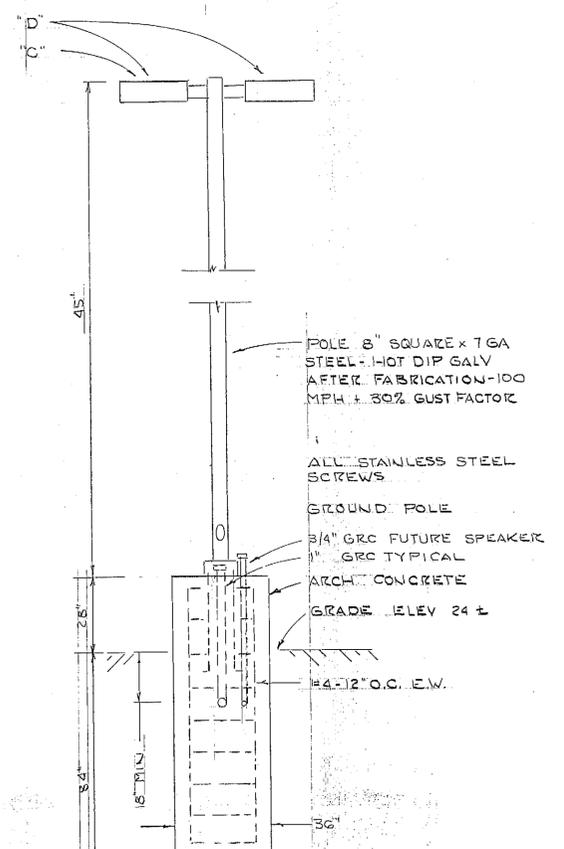
|                           |                |           |             |
|---------------------------|----------------|-----------|-------------|
| DESIGNED LPL              | CHECKED LPL    | DRAWN LPL | DATE Nov 90 |
| PROJECT NUMBER F-091-1(4) | SHEET 18 OF 31 |           |             |



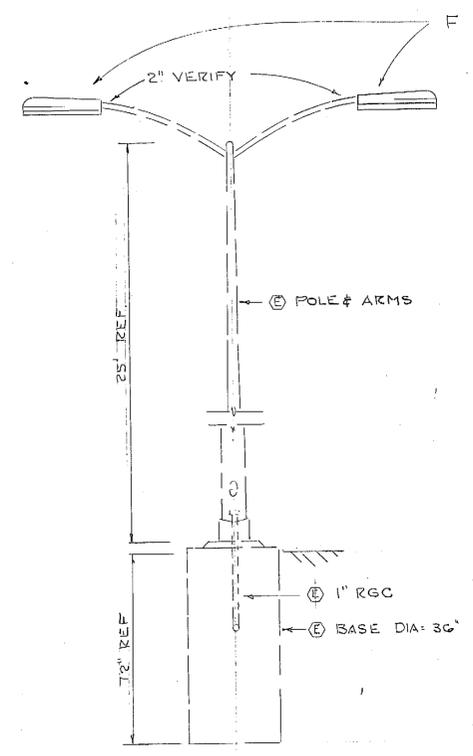
KETCH004 (60)



FIXTURE "A" & "B"  
3/8" x 1'-0"

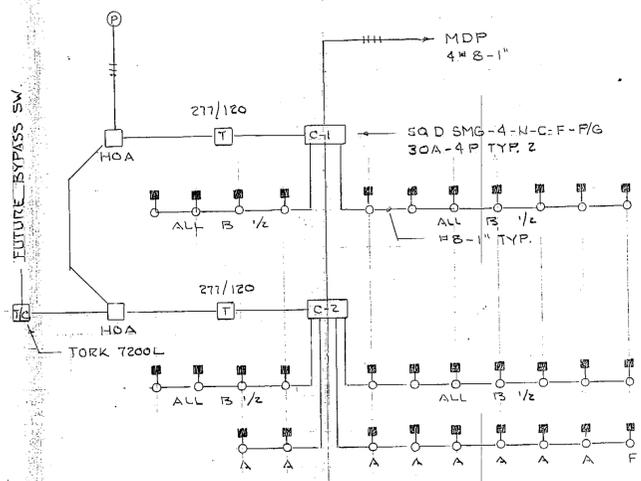


FIXTURE "C" & "D"  
3/8" x 1'-0"



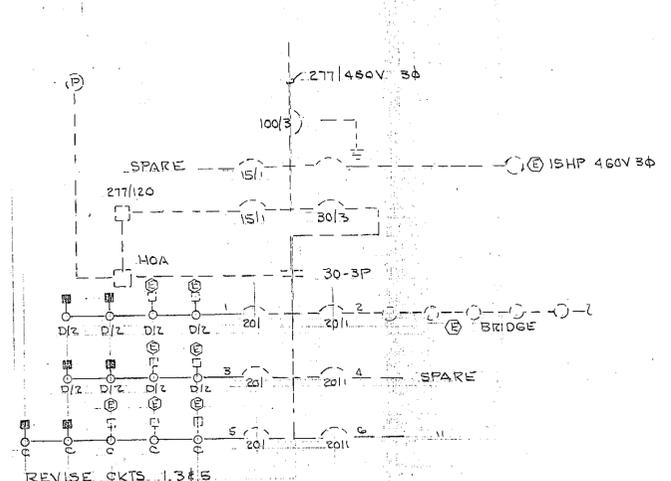
FIXTURE "E" & "F"  
3/8" x 1'-0"

| FIXTURE SCHEDULE |           |                          |          |                       |
|------------------|-----------|--------------------------|----------|-----------------------|
| TYPE             | MFG       | W                        | REMARKS  |                       |
| A                | DEVINE    | PCR 1G28A-400HPS-DB-277  | 400HPS   | SEE DETAIL - 35' POLE |
|                  | McPHILBEN | 17R3-1D-DB-277           | "        | " " " "               |
|                  | RUDD      | PR2540M-DB-277           | "        | " " " "               |
| B                | DEVINE    | PCR 1G28B-400HPS-DB-277  | 2-400HPS | " " " "               |
|                  | McPHILBEN | 17R3-2D-DB-277           | "        | " " " "               |
|                  | RUDD      | PR2540M-DB-277           | "        | " " " "               |
| C                |           |                          | 400HPS   | " " " " 45            |
|                  | SAME AS A |                          | "        | " " " "               |
| D                |           |                          | 2-400HPS | " " " "               |
|                  | SAME AS B |                          | "        | " " " "               |
| E                | NOT USED  |                          |          |                       |
| F                | HUBBELL   | EL-CD-25534-021-1250-277 | 2-250HPS | " " " "               |
|                  |           |                          |          |                       |



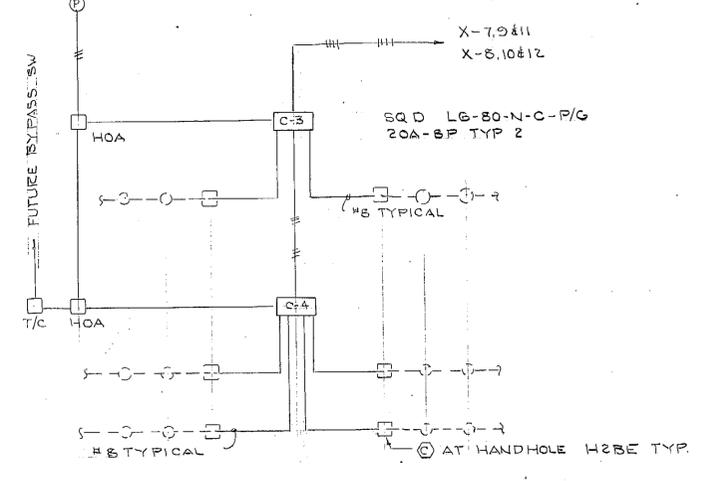
ALL ON AT DARK  
2/3 OFF AT 24:00 WITH T/C  
2/3 ON AT 06:00  
ALL OFF AT DAYLITE

CONTROL DIAGRAM  
NO SCALE



REVISE CKTS 1, 3 & 5 AS SHOWN

PANEL "Z" DIAGRAM  
NO SCALE



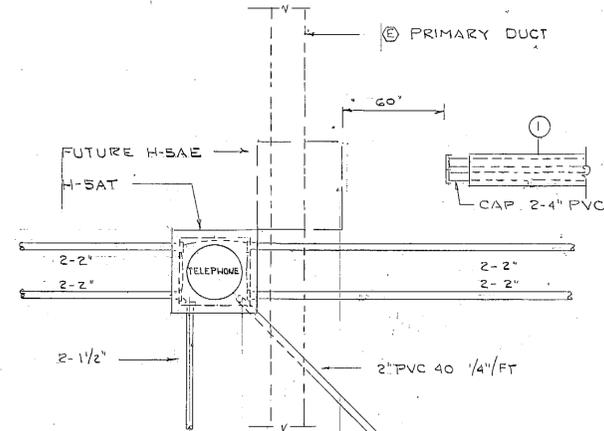
BRIDGE LIGHT CONTROL DIAGRAM  
NO SCALE

E-3

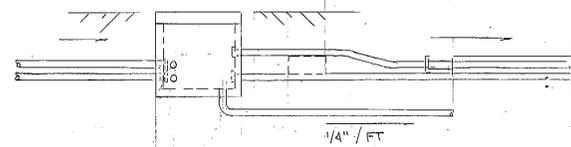
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|---------------------------|---|-----------|--------------|--|
|                           | DO NOT SCALE THIS DRAWING - USE DIMENSIONS                            |           |              |  |
|                           | STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |           |              |  |
| Ketchikan                 |   | Alaska    |              |  |
| LIGHTING DETAILS          |   |           |              |  |
| DESIGNED LPL              | CHECKED LPL   | DRAWN LPL | DATE NOV. 80 |  |
| PROJECT NUMBER F-091-1(4) | SHEET 19  |           | OF 31        |  |

KETCHIKAN

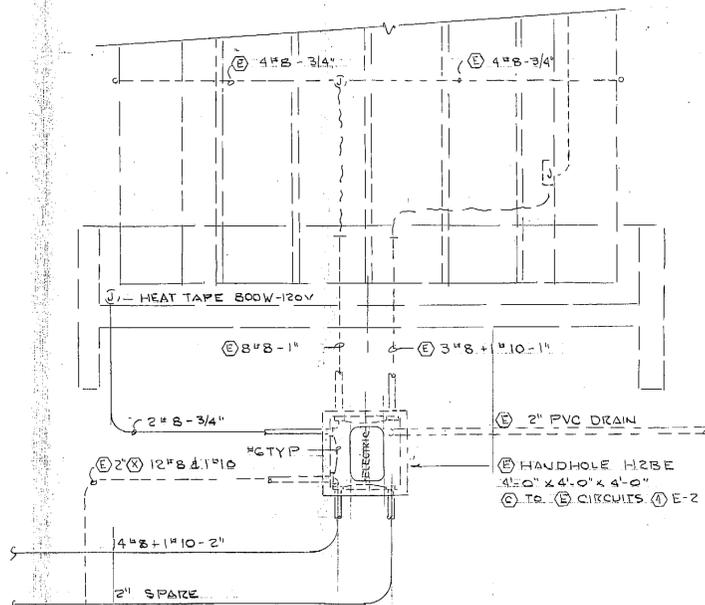




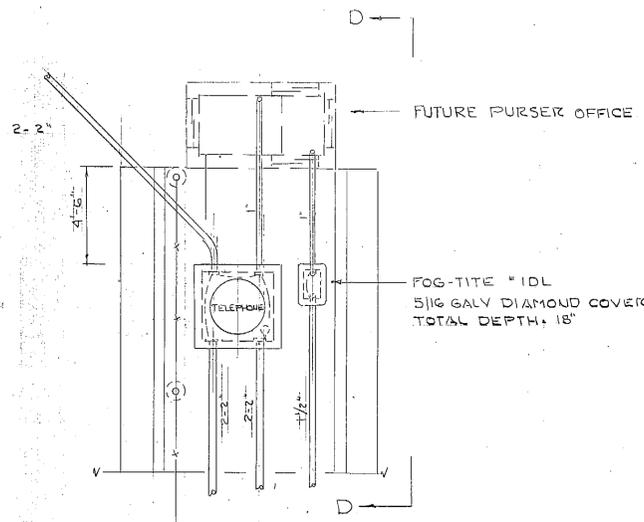
HAND HOLE SAT PLAN  
1/4" = 1'-0"



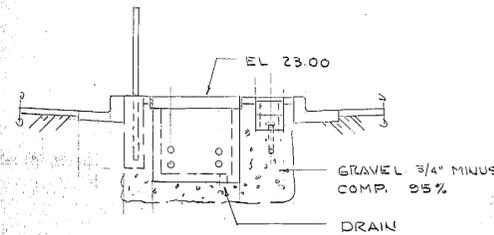
ELEVATION  
1/4" = 1'-0"



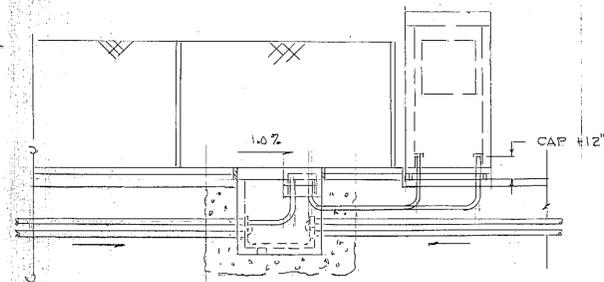
HAND HOLE H2BE PLAN  
1/4" = 1'-0"



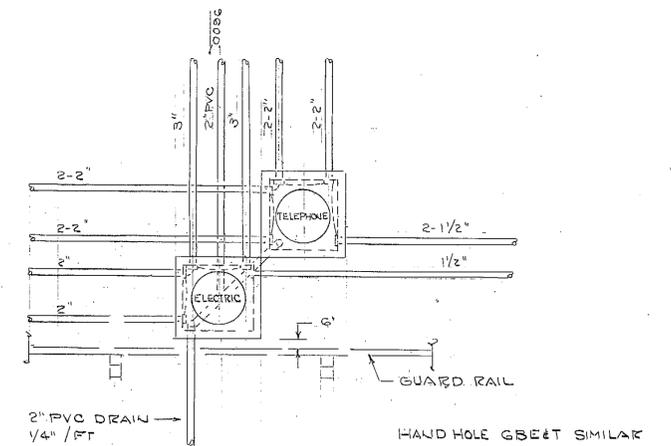
HAND HOLE 3BE#T PLAN  
1/4" = 1'-0"



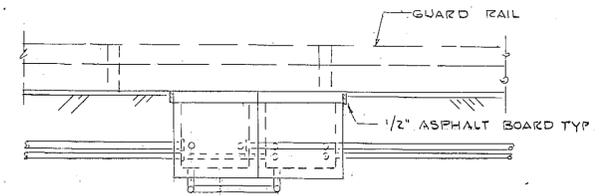
ELEVATION  
1/4" = 1'-0"



SECTION D-D  
1/4" = 1'-0"



HAND HOLE 5BE#T  
1/4" = 1'-0"



ELEVATION  
1/4" = 1'-0"

| HAND HOLE COVER SLOPE |       |       |       |         |
|-----------------------|-------|-------|-------|---------|
| N <sup>o</sup>        | SHEET | DIR.  | SLOPE | REMARKS |
| H-SAT                 | E-2#5 | —     | 0     |         |
| H-GAET                | E-2#4 | —     | 0     |         |
| H-3BT                 | E-2#5 | NE/SW | 1.0%  |         |
| H-4BE#T               | E-2#4 | N/S   | 1.0%  |         |
| H-5BE#T               | E-2#5 | N/S   | 1.0%  |         |
| H-6BE#T               | E-2#5 | N/S   | 1.0%  |         |

VERIFY SLOPES - FIELD ADJUSTMENT NOT ACCEPTABLE FOR H-20

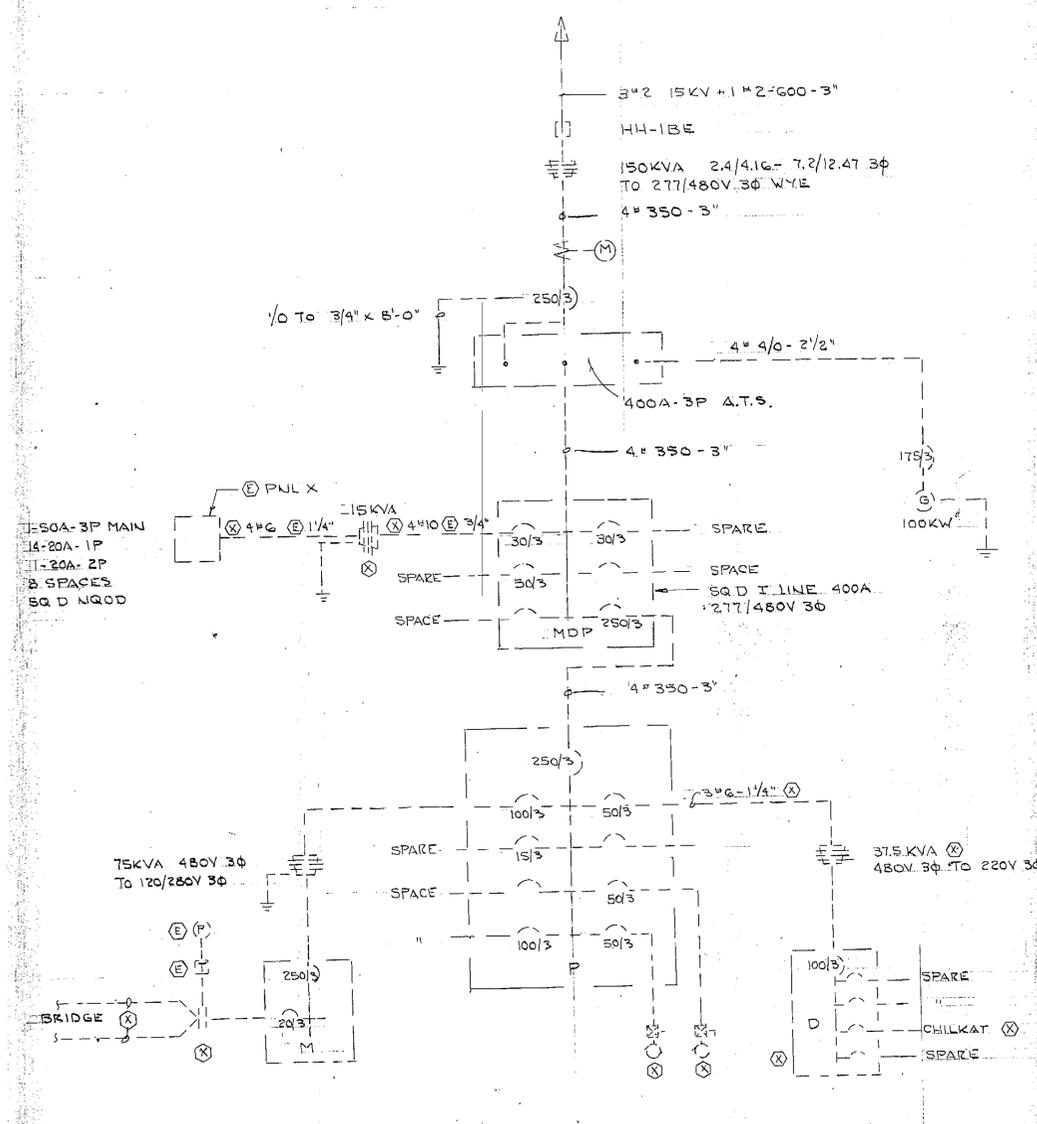
E-5

|                                  |  |                              |                    |  |
|----------------------------------|--|------------------------------|--------------------|--|
|                                  | DO NOT SCALE THIS DRAWING - USE DIMENSIONS   |                              |                    |  |
|                                  | STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES<br><i>Ketchikan</i> <span style="float: right;"><i>Alaska</i></span> |                              |                    |  |
| <b>ELECTRICAL HANDHOLES</b>      |  |                              |                    |  |
| DESIGNED <i>LPL</i>              | CHECKED <i>LPL</i>   | DRAWN <i>LPL</i>             | DATE <i>NOV 90</i> |  |
| PROJECT NUMBER <i>F-091-1(4)</i> |  | SHEET <i>21</i> OF <i>31</i> |                    |  |

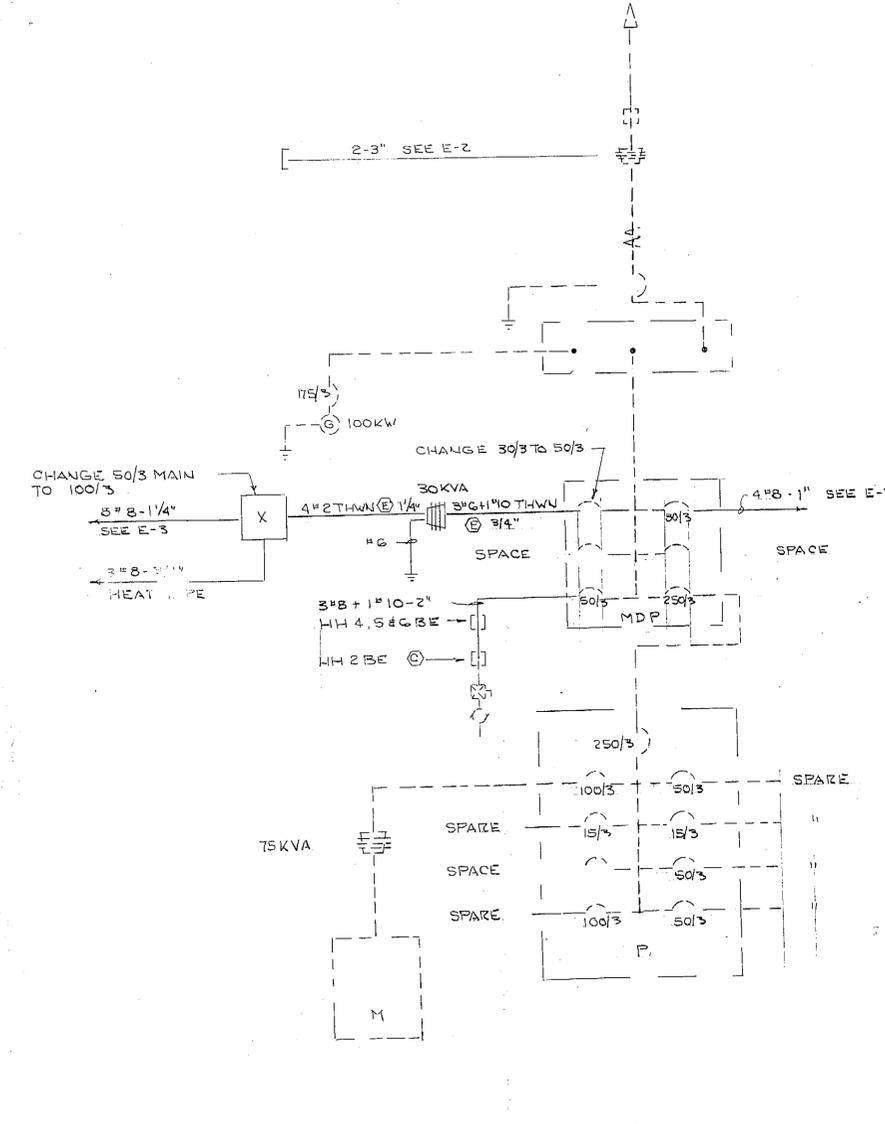
KETCHIKAN

| TYPE          |               | PANEL       |      | SECTION    |     | ,000 A/C  |   |                  |        |
|---------------|---------------|-------------|------|------------|-----|-----------|---|------------------|--------|
| VOLTS 120/208 |               | PHASE 3     |      | MAIN CB 50 |     | 150 GND   |   |                  |        |
| AMPS 100      |               | WIRES 4 # 2 |      | MAIN LUGS  |     | FEED THRU |   |                  |        |
|               |               |             |      |            |     | FLUSH MTD |   |                  |        |
|               |               |             |      |            |     | BTM FEED  |   |                  |        |
| CKT NO        | DESCRIPTION   | A           | B    | C          | A/P | B         | C | DESCRIPTION      | CKT NO |
| 1             | LIGHTS        | 500         |      |            | 20  |           |   | HEATER GEN # 2   | 2      |
| 3             | RECP          |             |      | 600        | 20  |           |   | RECP # 4         | 4      |
| 5             | DAY TANK      |             | 1000 |            | 20  |           |   | F/A              | 6      |
| 7             | LIGHTS BRIDGE | 700         |      |            | 20  |           |   | BRIDGE LIGHTS    | 8      |
| 9             | "             |             | 700  |            | 20  |           |   | "                | 10     |
| 11            | "             |             |      | 700        | 20  |           |   | "                | 12     |
| 13            | HEAT TAPE     | 800         |      |            | 20  |           |   | SPARE            | 14     |
| 15            | SPACE         |             |      |            | 20  |           |   | HEATER ROOM # 16 | 16     |
| 17            | "             |             |      |            | 20  |           |   | "                | 18     |
| 19            | "             |             |      |            | 20  |           |   | SPACE            | 20     |
| 21            | "             |             |      |            | 20  |           |   | "                | 22     |
| 23            | "             |             |      |            | 20  |           |   | "                | 24     |
| 25            | "             |             |      |            | 20  |           |   | "                | 26     |
| 27            | "             |             |      |            | 20  |           |   | "                | 28     |
| 29            | "             |             |      |            | 20  |           |   | "                | 30     |
| 31            | "             |             |      |            | 20  |           |   | "                | 32     |
| 33            | "             |             |      |            | 20  |           |   | "                | 34     |
| 35            | "             |             |      |            | 20  |           |   | "                | 36     |
| 37            | "             |             |      |            | 20  |           |   | "                | 38     |
| 39            | "             |             |      |            | 20  |           |   | "                | 40     |
| 41            | "             |             |      |            | 20  |           |   | "                | 42     |

\* EXIST CKTS VERIFY



EXISTING ONE LINE DIAGRAM  
 NO SCALE



REVISED ONE LINE DIAGRAM  
 NO SCALE

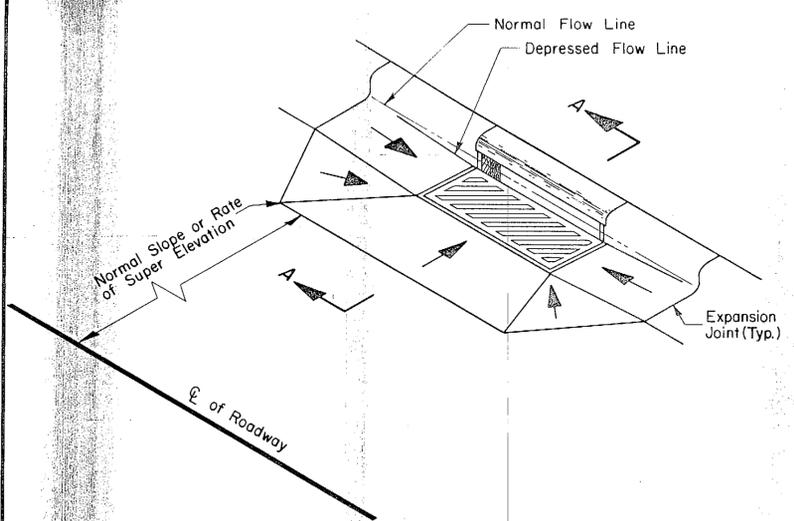
E-6

|                           |   |                |             |  |
|---------------------------|---|----------------|-------------|--|
|                           | DO NOT SCALE THIS DRAWING - USE DIMENSIONS                            |                |             |  |
|                           | STATE OF ALASKA<br>DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES |                |             |  |
|                           | Ketchikan   |                | Alaska      |  |
|                           | ELECTRICAL DIAGRAMS   |                |             |  |
| DESIGNED LPL              | CHECKED LPL   | DRAWN LPL      | DATE NOV 30 |  |
| PROJECT NUMBER F-091-1(4) |   | SHEET 22 OF 31 |             |  |

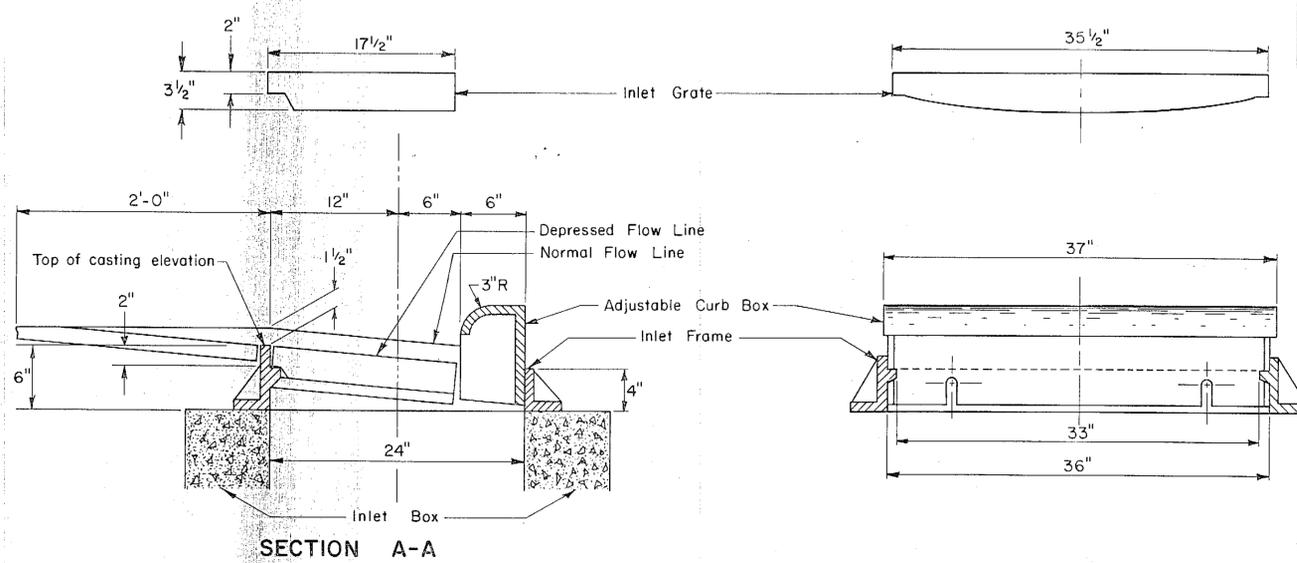
KETCHIKAN

### GENERAL NOTES

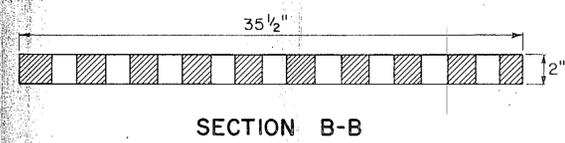
1. Details shown are to indicate general design only. Dimensions and design may vary among the manufacturers.
2. Minimum casting weight shall be 330 lbs. for Curb Inlet Frame with Curb Box and 200 lbs. for Inlet Grate.
3. The outside dimensions of Inlet Grate shall be 35 1/2" x 17 1/2" and all grates shall be interchangeable.
4. Minimum drainage area of Inlet Grate shall be 255 square inches.
5. Inlet Grate type G-3R or G-3L shall be used in all cases except where drainage is from both directions, in which case type G-4 shall be used.



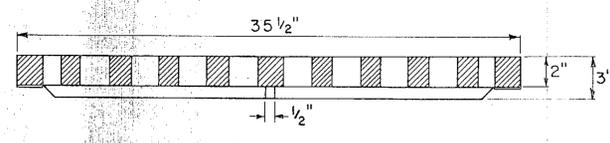
STANDARD CURB INLET INSTALLATION



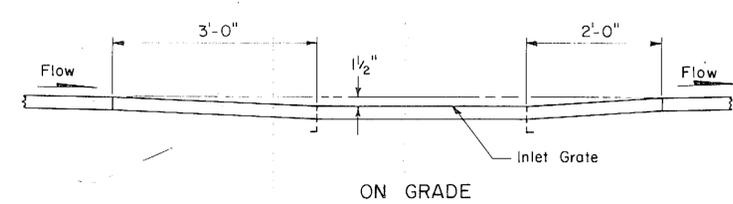
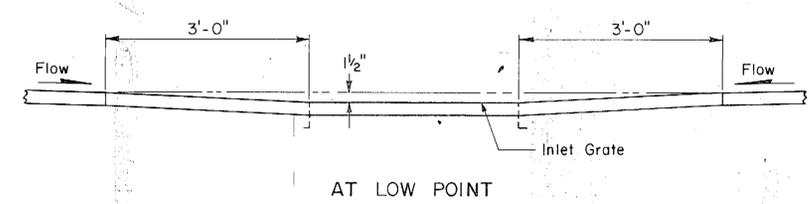
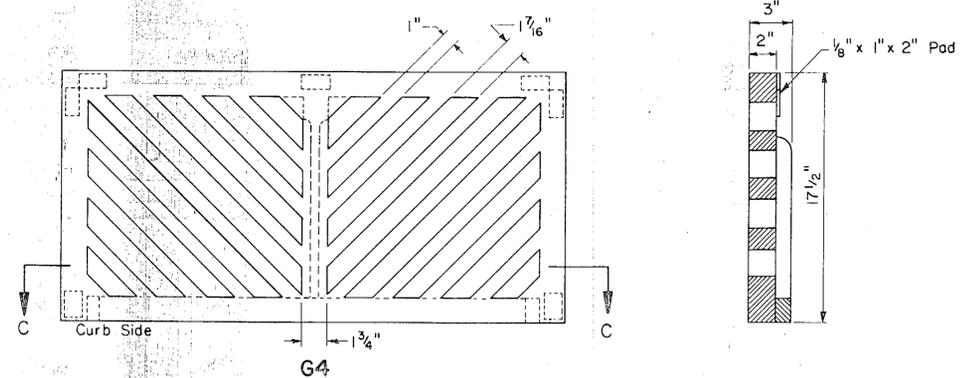
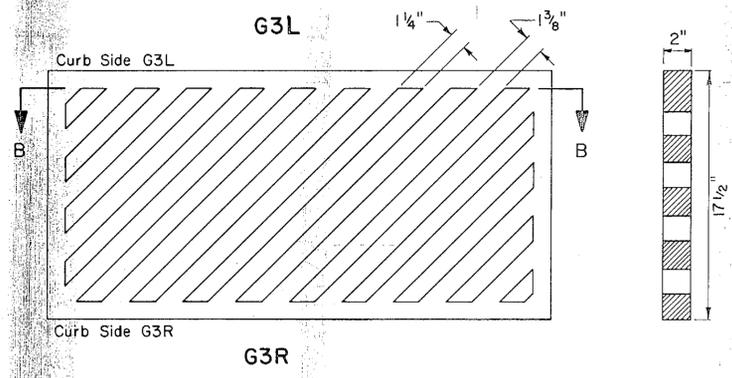
SECTION A-A



SECTION B-B



SECTION C-C



DEPRESSION IN FLOW LINE AT INLET CONSTRUCTION DETAILS

| REVISIONS |             |    |
|-----------|-------------|----|
| Date      | Description | By |
|           |             |    |
|           |             |    |
|           |             |    |

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

### CURB INLET BOX, FRAME & GRATE

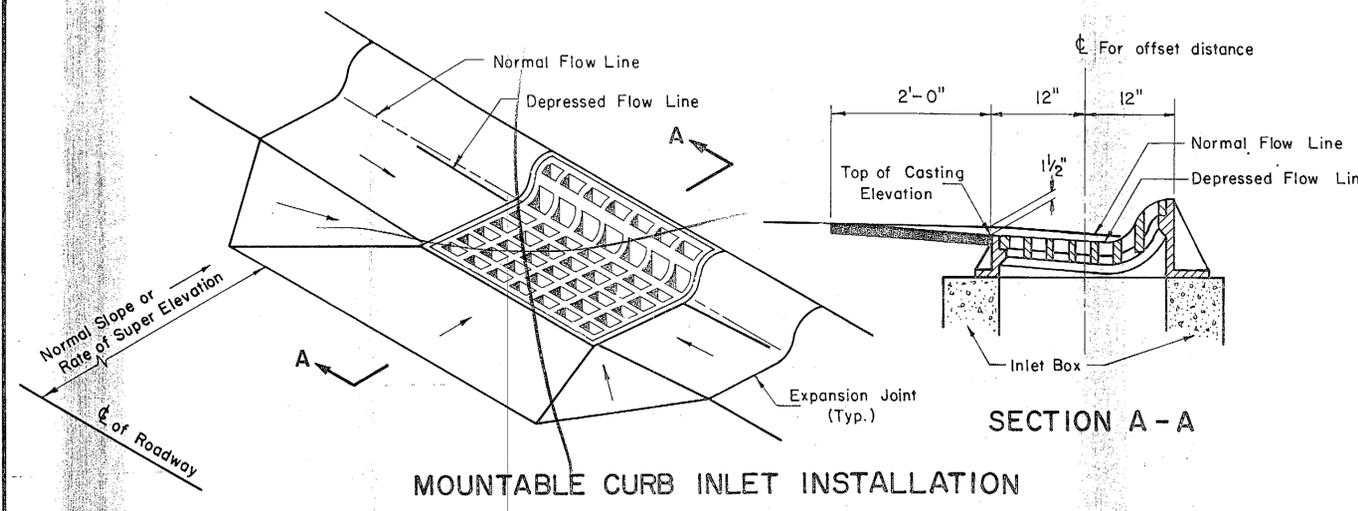


METRIC CONVERSION  
 1" = exactly 25.4mm (millimeters)  
 1'-0" = exactly 0.3048m (meters)

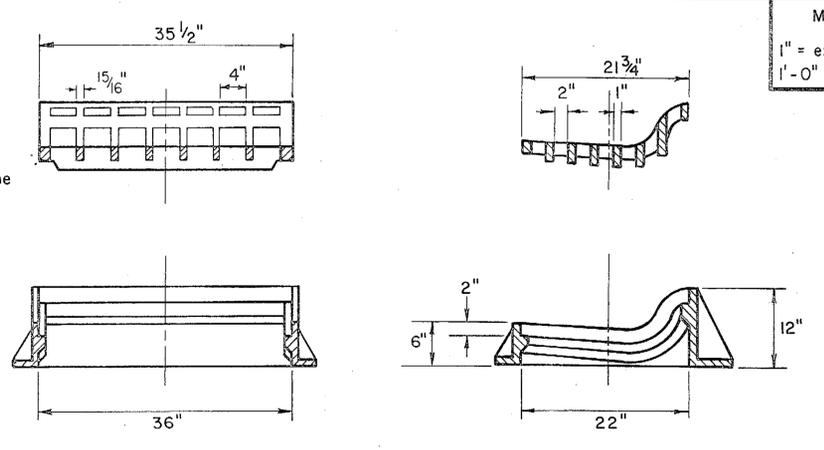
**D-24.00**

**GENERAL NOTES:**

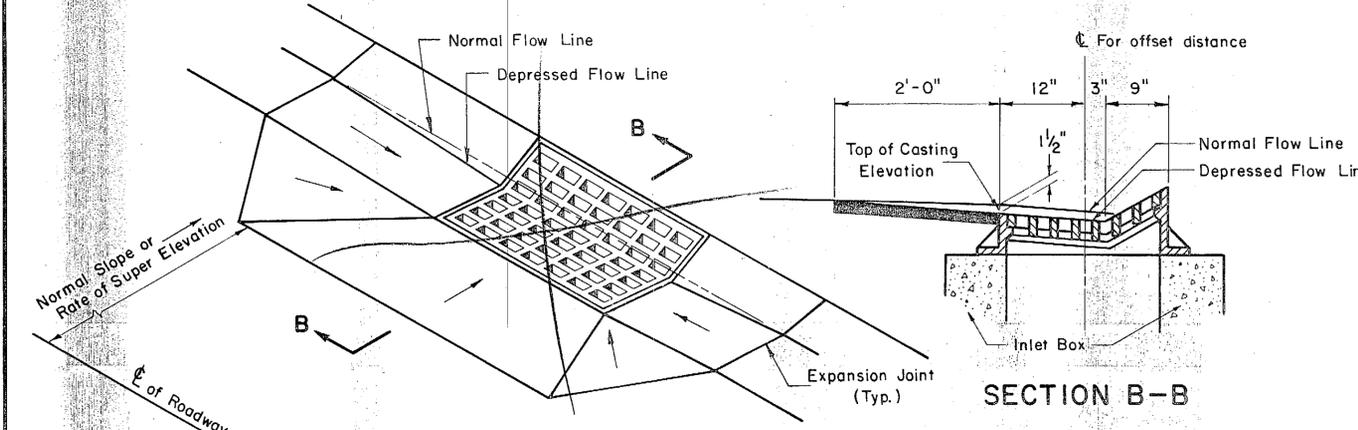
1. Details shown are to indicate general design only. Dimensions and design may vary among the manufacturers. Except inlet grate outside dimension shall be as shown on this drawing.
2. Minimum casting weight shall be 550lbs. for Curb Inlet Frame and Grate, 450lbs. for Gutter Inlet Frame and Grate, and 300lbs. for Field Inlet Frame and Grate.
3. Field Inlet Frame may be welded assembly of L 1-3/4" x 1-3/4" x 1/4" angle equivalent to ASTM A-36 steel.



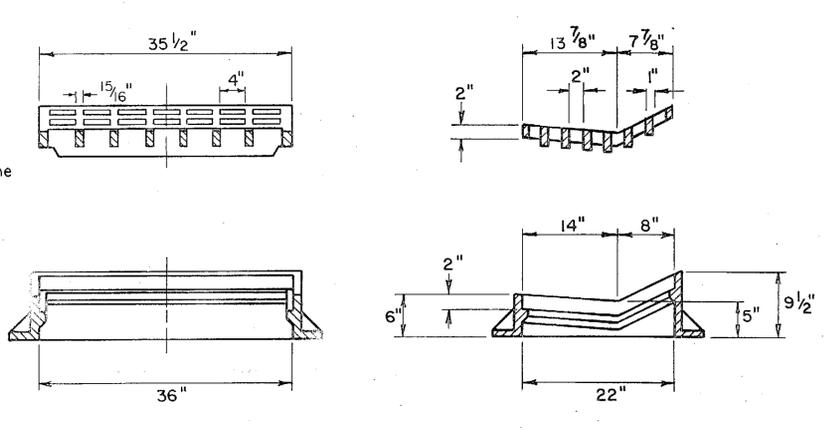
**MOUNTABLE CURB INLET INSTALLATION**



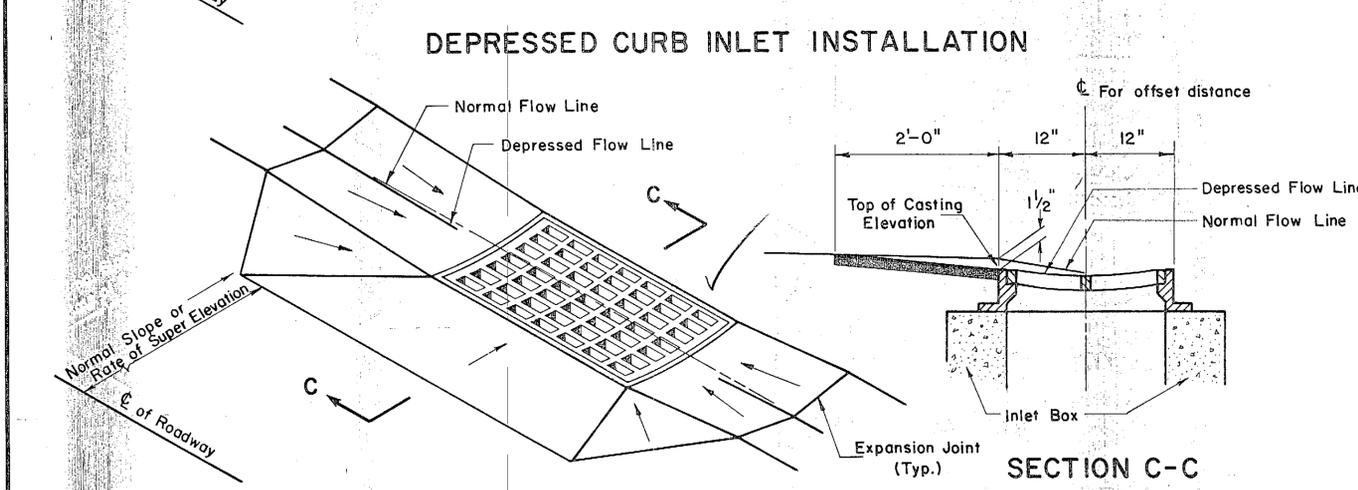
**MOUNTABLE CURB INLET FRAME AND GRATE**



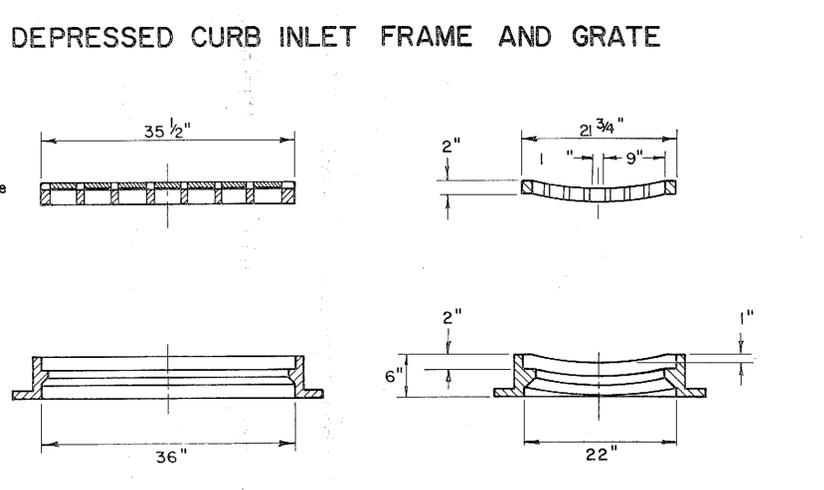
**DEPRESSED CURB INLET INSTALLATION**



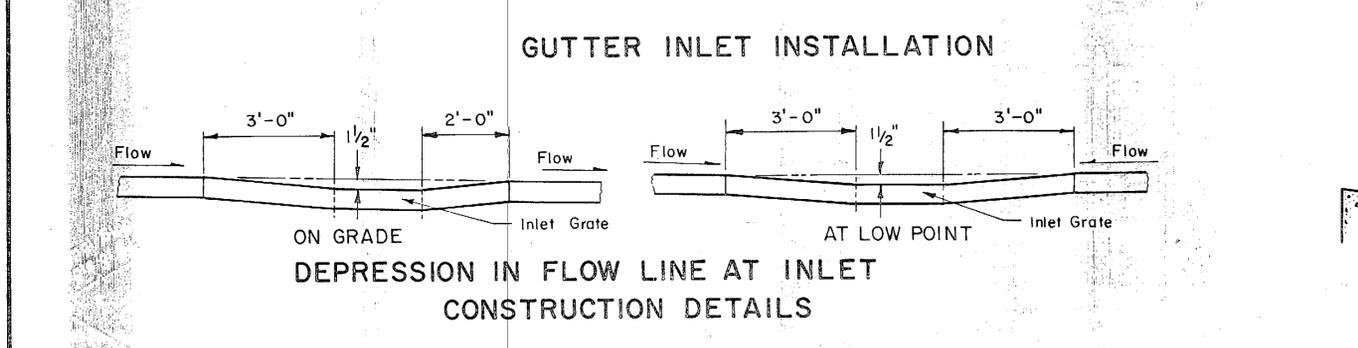
**DEPRESSED CURB INLET FRAME AND GRATE**



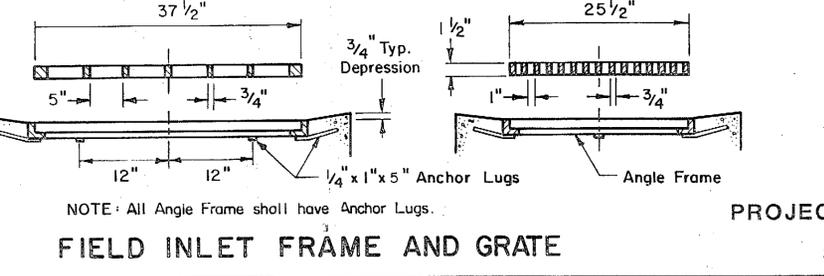
**GUTTER INLET INSTALLATION**



**GUTTER INLET FRAME AND GRATE**



**DEPRESSION IN FLOW LINE AT INLET CONSTRUCTION DETAILS**



**FIELD INLET FRAME AND GRATE**

PROJECT NO. F-091-1(4)  
 SHEET 24 OF 30

| REVISIONS |             |    |
|-----------|-------------|----|
| Date      | Description | By |
|           |             |    |
|           |             |    |
|           |             |    |
|           |             |    |

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

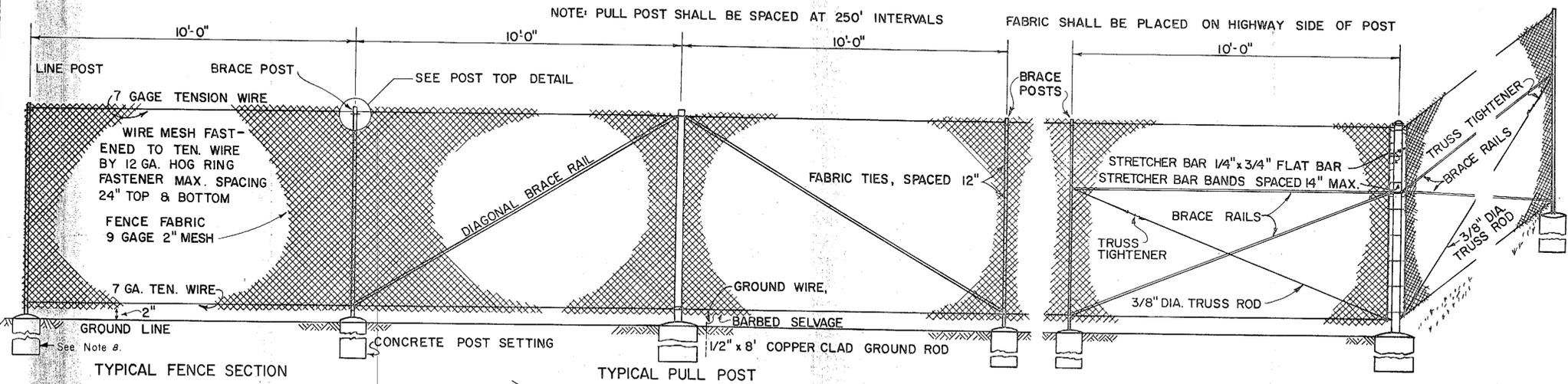
**INLET FRAMES  
 AND GRATES**

APPROVED

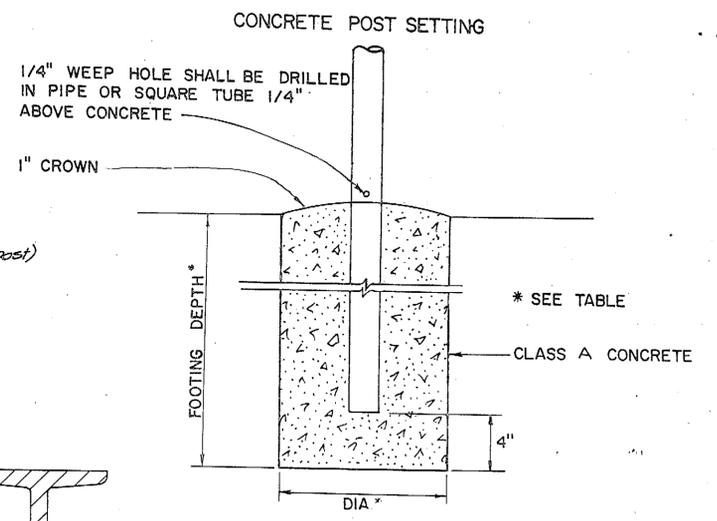
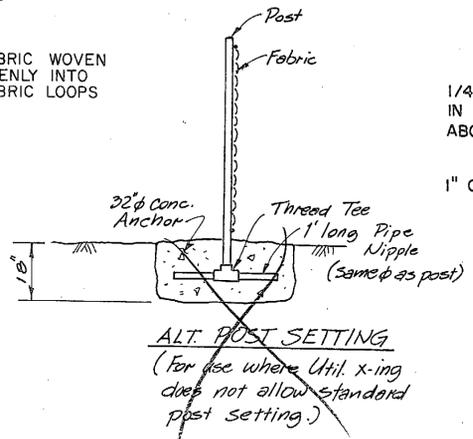
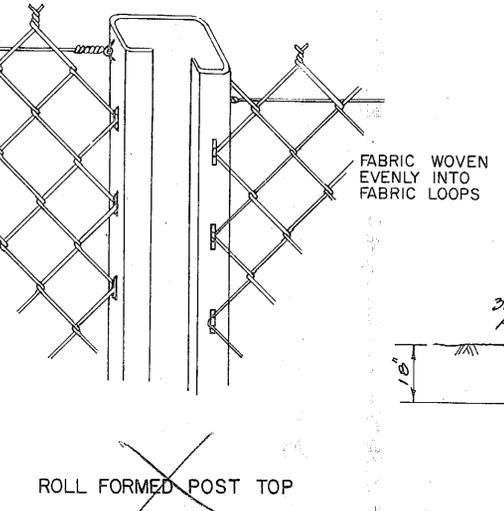
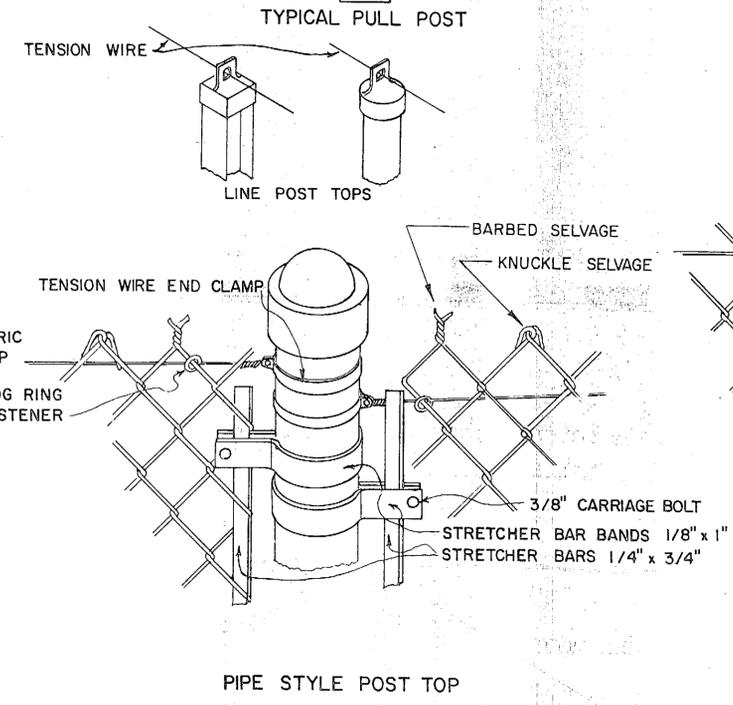
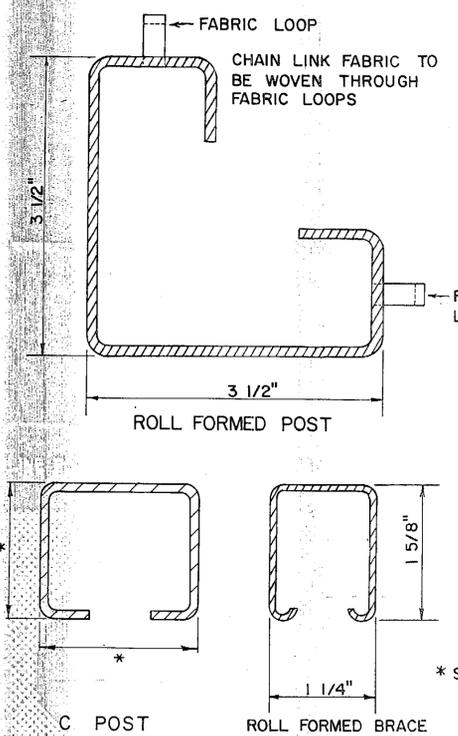
PROJECT NO. F-091-1(4)  
 SHEET 24 OF 30  
 Date 7/15/82

METRIC CONVERSION  
 1" = exactly 25.4mm (millimeters)  
 1'-0" = exactly 0.3048m (meters)

**F-01.01**



- ### GENERAL NOTES
1. Posts shall be spaced equal distances apart. Maximum spacing shall be 10 feet unless directed otherwise by the engineer.
  2. Post tops shall be securely fastened to post.
  3. Brace rails and truss rods shall be securely fastened to post with brace bands with threaded take-up adaptor for truss rods.
  4. Ground wire shall be attached to fence fabric by means of a split bolt.
  5. Fabric shall be stretched to a smooth uniform appearance.
  6. Details shown indicate general design and dimensions may vary among manufacturers.
  7. For fence gate details see Standard Drawing Chain Link Fence Gate.
  8. Line post shall be set in concrete unless shown otherwise on the plans.



| FABRIC HEIGHT | POST            |              |                  |                     |                  |                     |               |              |                   |              |                  |                | TOP OR BRACE RAIL |              |            |              |                  |                     | ALTERNATE POST   |                |                 |                |
|---------------|-----------------|--------------|------------------|---------------------|------------------|---------------------|---------------|--------------|-------------------|--------------|------------------|----------------|-------------------|--------------|------------|--------------|------------------|---------------------|------------------|----------------|-----------------|----------------|
|               | END-CORNER-PULL |              |                  |                     | LINE-BRACE       |                     |               |              | TOP OR BRACE RAIL |              |                  |                |                   |              | LINE-BRACE |              |                  |                     |                  |                |                 |                |
|               | PIPE SIZE       | PIPE WT./FT. | SQUARE TUBE SIZE | SQUARE TUBE WT./FT. | ROLL FORMED SIZE | ROLL FORMED WT./FT. | FOOTING DEPTH | FOOTING DIA. | PIPE SIZE         | PIPE WT./FT. | C POST SIZE      | C POST WT./FT. | FOOTING DEPTH     | FOOTING DIA. | PIPE SIZE  | PIPE WT./FT. | ROLL FORMED SIZE | ROLL FORMED WT./FT. | H POST SIZE      | H POST WT./FT. | H POST SIZE     | H POST WT./FT. |
| 3'            | 2"              | 3.65#        | 2" x 2"          | 4.31#               | 3-1/2" x 3-1/2"  | 4.84#               | 40"           | 10"          | 1-1/2"            | 2.72#        | 1-7/8" x 1-5/8"  | 2.28#          | 28"               | 10"          | 1-1/4"     | 2.27#        | 1-5/8"           | 1.35#               | 1-1/2" x 1-5/16" | 2.27#          | 1-7/8" x 1-5/8" | 2.72#          |
| 4'            | "               | "            | "                | "                   | "                | "                   | "             | "            | "                 | "            | "                | "              | "                 | "            | "          | "            | "                | "                   | "                | "              | "               | "              |
| 5'            | 2"              | 3.65#        | 2" x 2"          | 4.31#               | 3-1/2" x 3-1/2"  | 4.84#               | 40"           | 10"          | 1-1/2"            | 2.72#        | 1-7/8" x 1-5/8"  | 2.28#          | 28"               | 10"          | "          | "            | "                | "                   | "                | "              | 1-7/8" x 1-5/8" | 2.72#          |
| 6'            | 2-1/2"          | 5.79#        | 2-1/2" x 2-1/2"  | 5.59#               | 3-1/2" x 3-1/2"  | 4.84#               | 48"           | 15"          | 2"                | 3.65#        | 2-1/4" x 1-45/64 | 2.64#          | 40"               | 12"          | "          | "            | "                | "                   | "                | "              | 2-1/4" x 2"     | 4.1#           |
| 7'            | "               | "            | "                | "                   | "                | "                   | "             | "            | "                 | "            | "                | "              | "                 | "            | "          | "            | "                | "                   | "                | "              | "               | "              |
| 8'            | 2-1/2"          | 5.79#        | 2-1/2" x 2-1/2"  | 5.59#               | 3-1/2" x 3-1/2"  | 4.84#               | 48"           | 15"          | 2"                | 3.65#        | 2-1/4" x 1-45/64 | 2.64#          | 40"               | 12"          | "          | "            | "                | "                   | "                | "              | 2-1/4" x 2"     | 4.1#           |

| REVISIONS |                    |        |
|-----------|--------------------|--------|
| Date      | Description        | By     |
| 3/1/83    | Revised Gen. Notes | WTF/KE |
|           |                    |        |
|           |                    |        |
|           |                    |        |

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

**CHAIN LINK FENCE**

DATE: 7/15/82

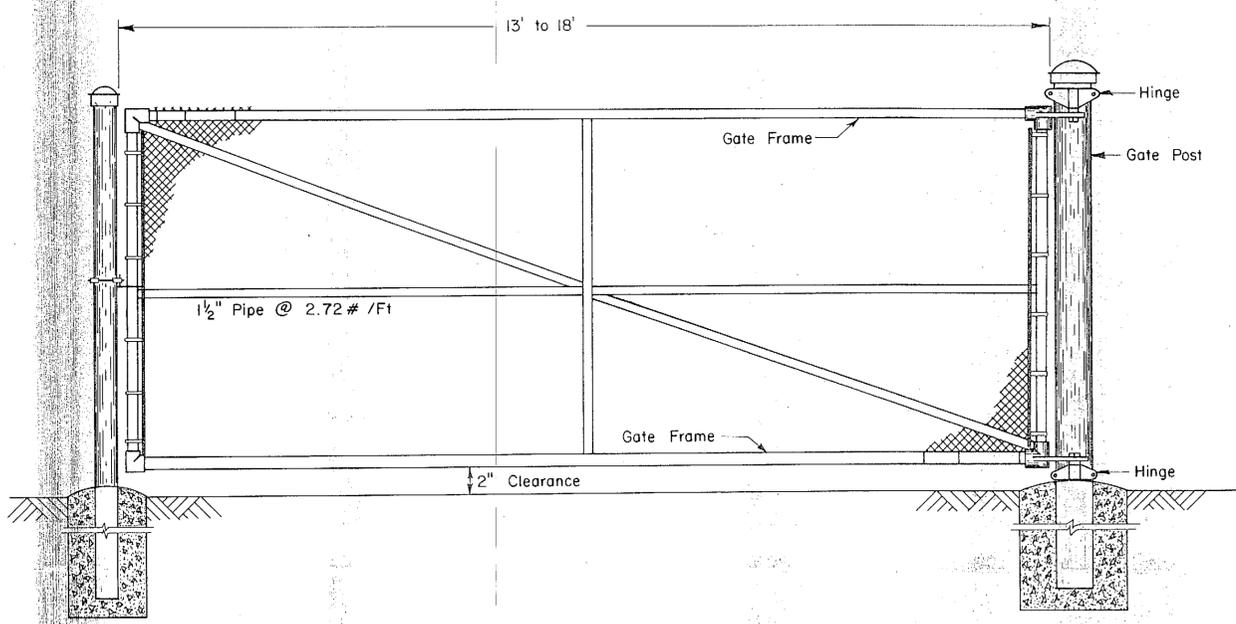
METRIC CONVERSION  
 1" = exactly 25.4 mm (millimeters)  
 1'-0" = exactly 0.3048 m (meters)

**F-03.01**

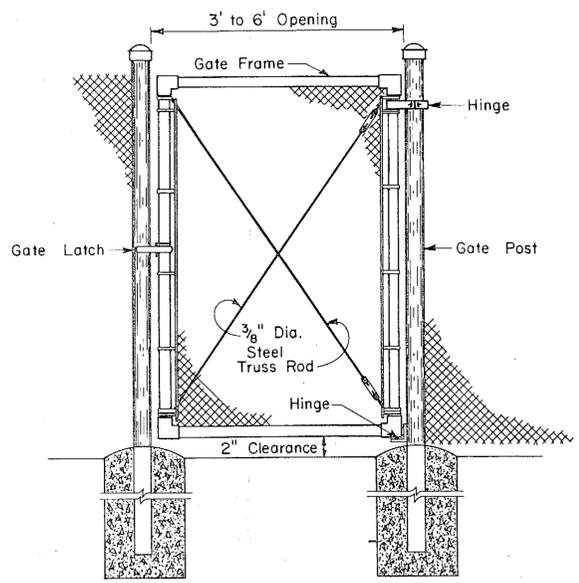
**GENERAL NOTES:**

1. Details shown are to indicate general design only. Dimensions may vary slightly among the manufacturers.
2. Gate fabric shall be of the same design and height of line fence fabric.
3. Gate fabric shall be furnished with knuckle selvage top and bottom.
4. Concrete footings shall be class A concrete.- See Specs.
5. Concrete footings shall be of the same depth as end posts with a diameter 1/2 times larger except as shown for gate stop.
6. Gate frames may be fabricated by welding or riveting and shall be braced to eliminate sagging. Hinges, latches and other gate appurtenances shall be of sufficient strength and design to assure easy trouble free operation.

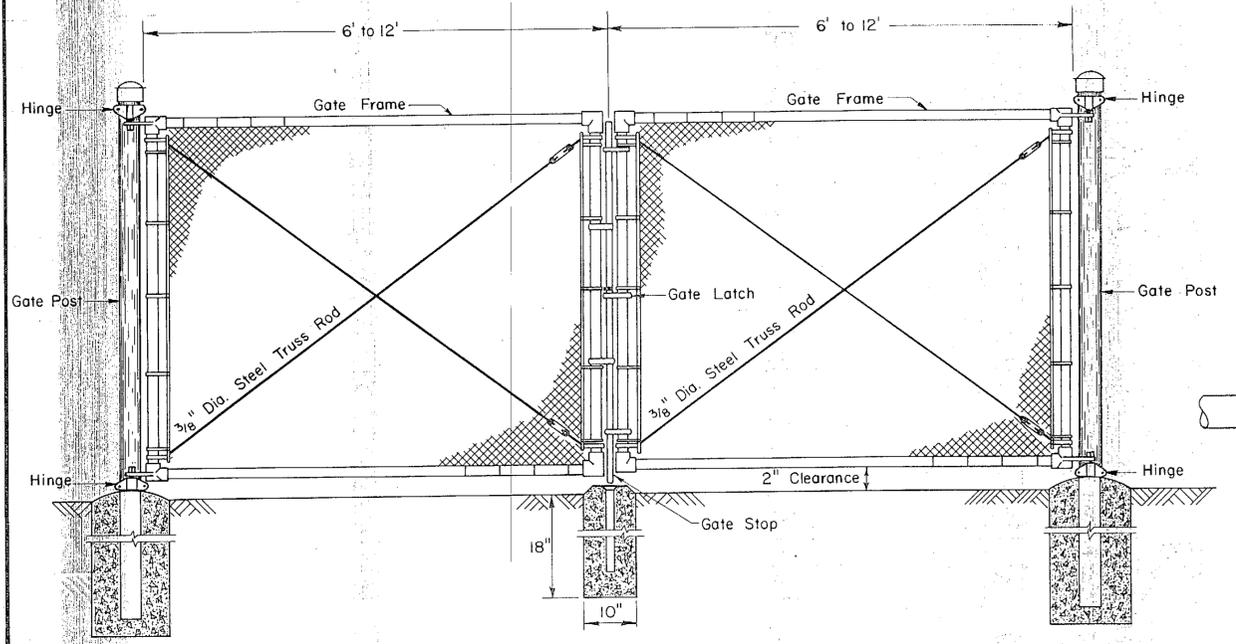
**DOUBLE OR SINGLE SWING GATE**



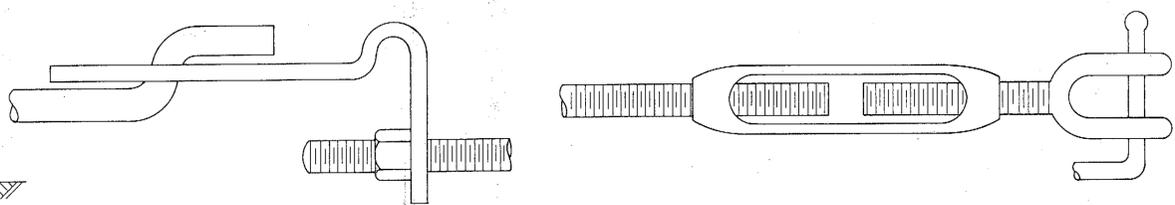
**PEDESTRIAN GATE**



**DOUBLE SWING GATE**



| Gate Fabric Height | Gate Opening |             | GATE POST      |              |                  |              |                  |         | GATE FRAME     |              |                  |              |
|--------------------|--------------|-------------|----------------|--------------|------------------|--------------|------------------|---------|----------------|--------------|------------------|--------------|
|                    | SINGLE GATE  | DOUBLE GATE | ST'D PIPE SIZE | PIPE WT./FT. | SQUARE TUBE SIZE | TUBE WT./FT. | ROLL FORMED SIZE | WT./FT. | ST'D PIPE SIZE | PIPE WT./FT. | SQUARE TUBE SIZE | TUBE WT./FT. |
| 3' to 5'           | 3' to 6'     | 6' to 12'   | 2"             | 3.65 #       | 2" x 2"          | 4.31 #       | 3 1/2" x 3 1/2"  | 5.14 #  | 1 1/2"         | 2.72 #       | 2" x 2"          | 4.31 #       |
| "                  | 7' to 12'    | 13' to 24'  | 2 1/2"         | 5.79 #       | 2 1/2" x 2 1/2"  | 5.59 #       | " "              | " "     | " "            | " "          | " "              | " "          |
| "                  | 13' to 18'   | 25' to 36'  | "              | "            | "                | "            | "                | "       | "              | "            | "                | "            |
| 6' to 8'           | 3' to 6'     | 6' to 12'   | 2 1/2"         | 5.79 #       | 2 1/2" x 2 1/2"  | 5.59 #       | 3 1/2" x 3 1/2"  | 5.14 #  | 1 1/2"         | 2.72 #       | " "              | " "          |
| "                  | 7' to 12'    | 13' to 24'  | 3 1/2"         | 9.11 #       | 3 1/2" x 3 1/2"  | 8.14 #       | " "              | " "     | 2"             | 3.65 #       | " "              | " "          |
| "                  | 13' to 18'   | 25' to 36'  | 6"             | 18.97 #      | 6" x 6"          | 18.82 #      | " "              | " "     | " "            | " "          | 2" x 2"          | 4.31 #       |



TYPICAL TRUSS ROD TIGHTENERS

| REVISIONS |                    |        |
|-----------|--------------------|--------|
| Date      | Description        | By     |
| 3/1/83    | Revised Gen. Notes | WSP/12 |
|           |                    |        |
|           |                    |        |

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

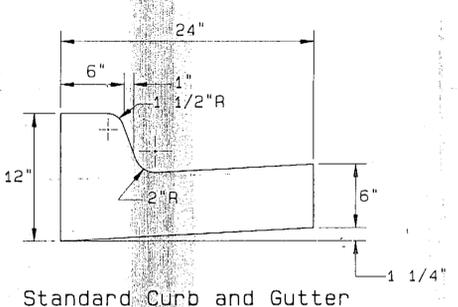
CHAIN FENCE LINK GATE ✓

APPROVED

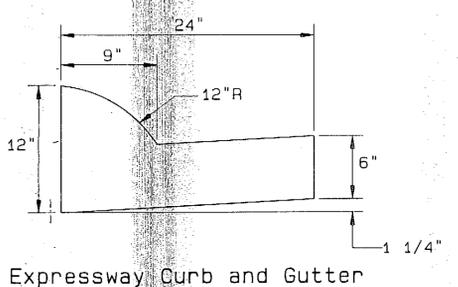
F-0301

## GENERAL NOTES

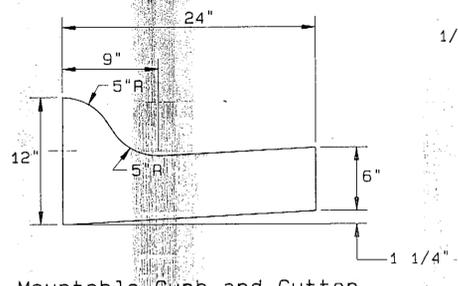
1. Type of Curb and/or Gutter shall be specified on the plans.
2. Mountable or Expressway Curbs shall be used on medians and traffic islands.



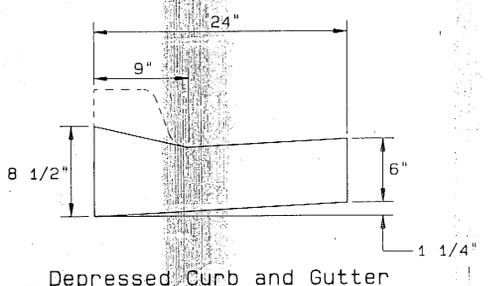
Standard Curb and Gutter



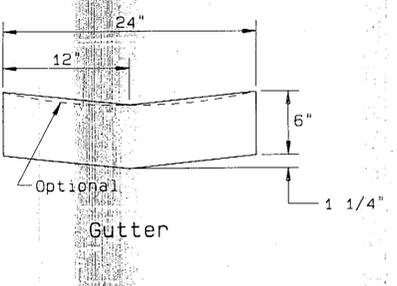
Expressway Curb and Gutter



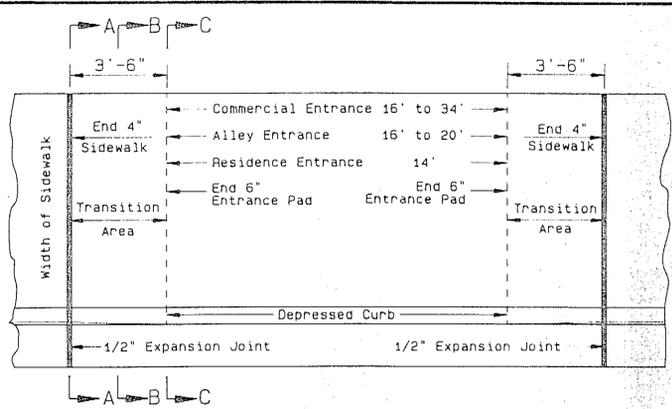
Mountable Curb and Gutter



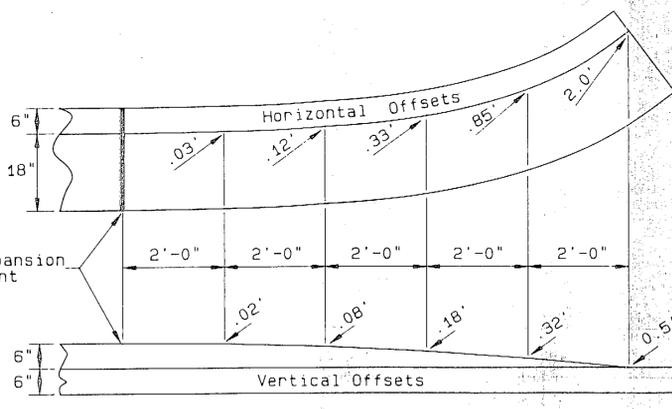
Depressed Curb and Gutter



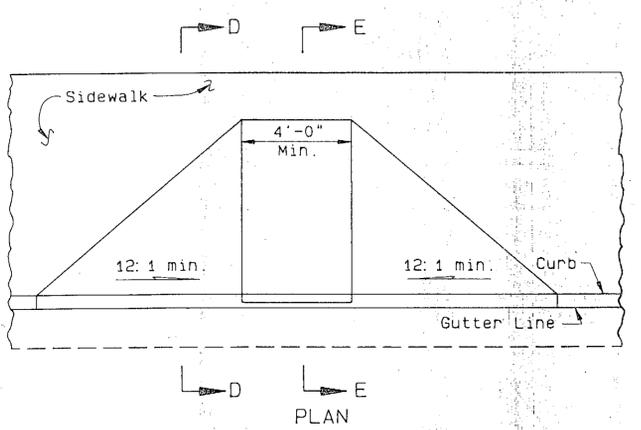
CURB and GUTTER DETAILS



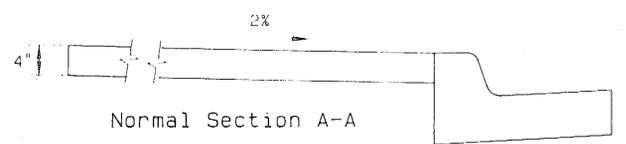
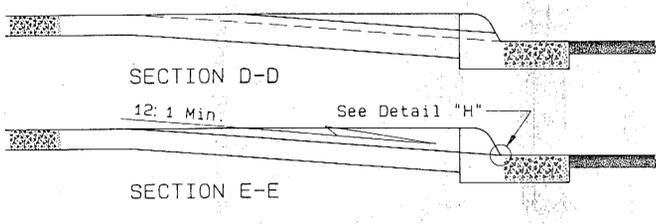
VEHICULAR CURB CUT DETAILS



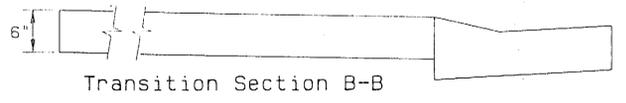
CURB and GUTTER TERMINATION TRANSITIONS



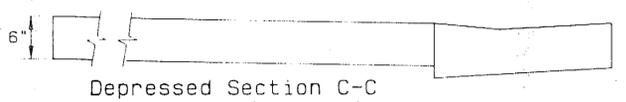
FLARED SIDED CURB RAMP for PEDESTRIANS



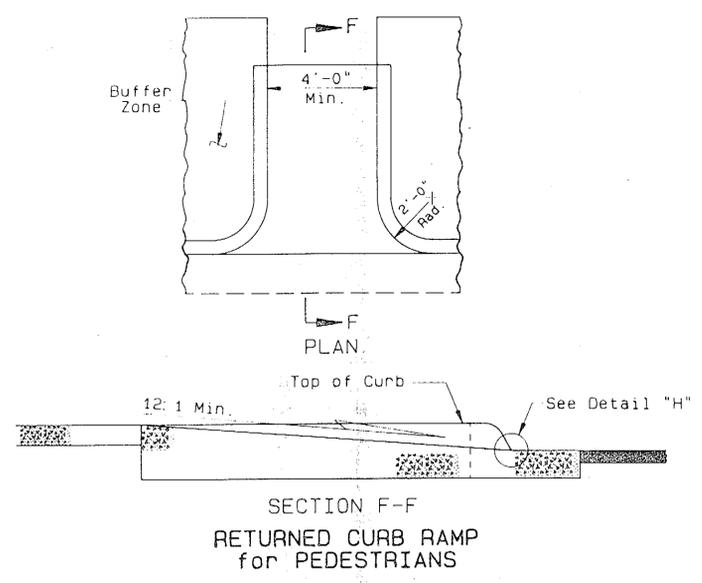
Normal Section A-A



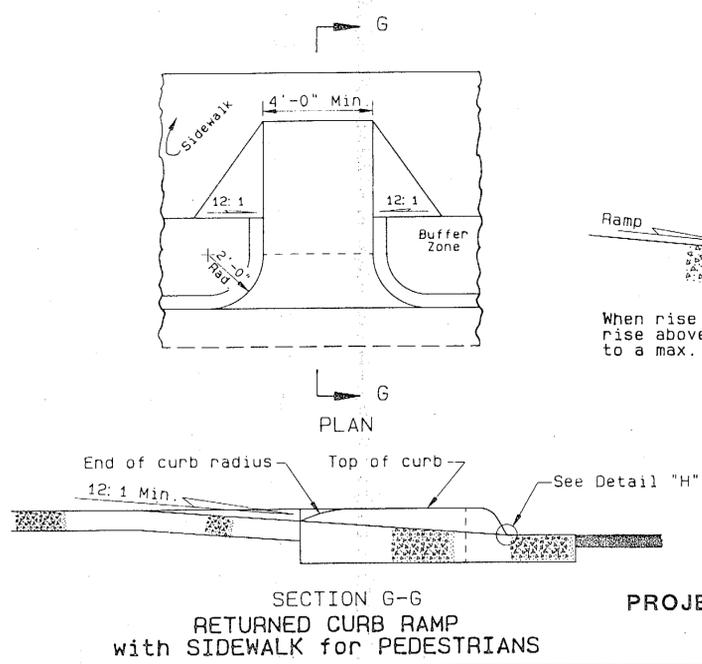
Transition Section B-B



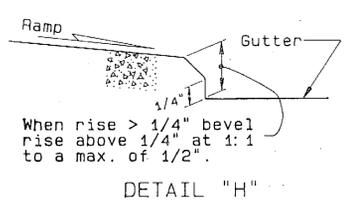
Depressed Section C-C



RETURNED CURB RAMP for PEDESTRIANS



RETURNED CURB RAMP with SIDEWALK for PEDESTRIANS

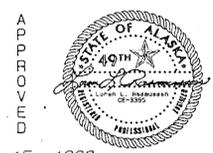


DETAIL "H"

| REVISIONS |                  |     |
|-----------|------------------|-----|
| Date      | Description      | By  |
| 5/15/89   | Added Curb Ramps | Gdo |
|           |                  |     |
|           |                  |     |
|           |                  |     |

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**CURB CUT, CURB AND GUTTER  
AND CURB RAMP  
DETAILS**



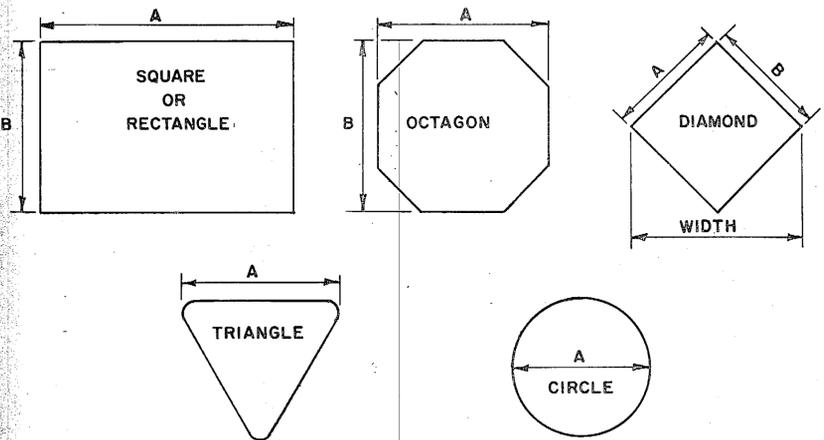
PROJECT NO. F-091-1(4)

SHEET 27 OF 37

Date July 15, 1982

METRIC CONVERSION  
 1" = exactly 25.4mm (millimeters)  
 1'-0" = exactly 0.3048m (meters)

**S - 00.00**



**LIGHT SIGNS**

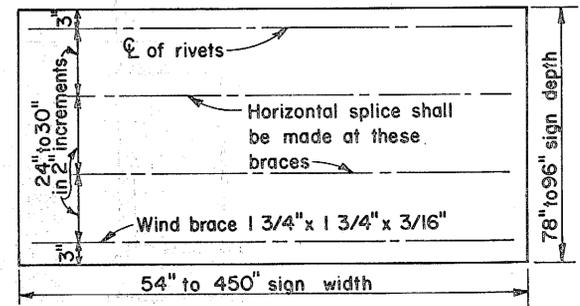
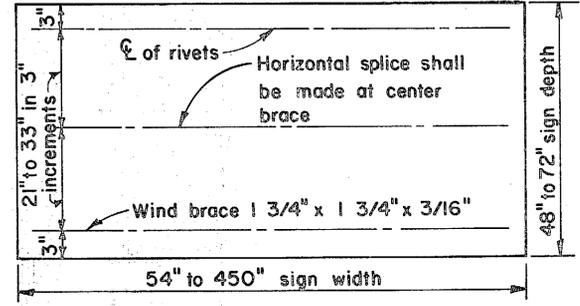
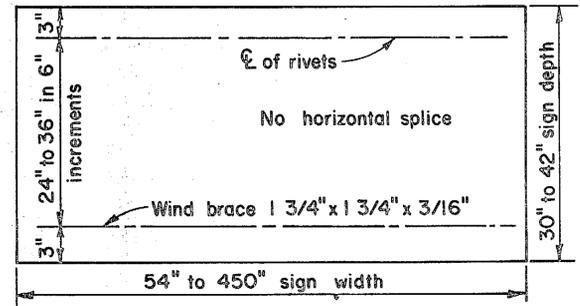
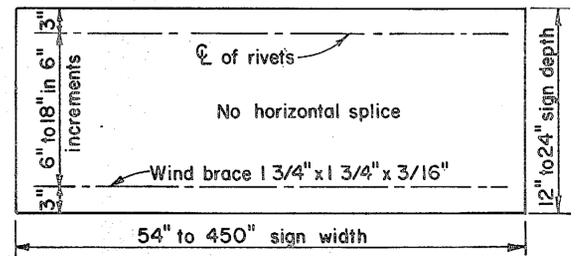
Maximum unframed alloy 6061-T6 aluminum sign blank per installation for light sign structure single and double post.

| Sign Shapes      | Thickness inches | Single Post |     | Double Post |     | Sign Width | Post Spacing |
|------------------|------------------|-------------|-----|-------------|-----|------------|--------------|
|                  |                  | A           | B   | A           | B   |            |              |
| Squares          | 0.080"           | 36"         | 36" | 60"         | 60" | 12"        | 7"           |
| Shields          | 0.100"           | 42"         | 42" | 72"         | 72" | 18"        | 11"          |
| Rte. Markers     | 0.125"           | 54"         | 54" | 90"         | 90" | 24"        | 14"          |
| Rectangles       | 0.080"           | 36"         | 96" | 60"         | 96" | 30"        | 18"          |
|                  | 0.100"           | 42"         | 84" | 72"         | 96" | 36"        | 22"          |
| Diamonds         | 0.125"           | 54"         | 66" | 90"         | 78" | 42"        | 25"          |
|                  | 0.080"           | 30"         | 30" | 48"         | 48" | 48"        | 29"          |
| Triangles        | 0.100"           | 36"         | 36" | 54"         | 54" | 54"        | 32"          |
|                  | 0.125"           | 42"         | 42" | 66"         | 66" | 60"        | 36"          |
| Round & Octagons | 0.080"           | 42"         |     | 72"         |     | 66"        | 40"          |
|                  | 0.100"           | 54"         |     | 90"         |     | 72"        | 43"          |
|                  | 0.080"           | 60"         |     | 96"         |     | 78"        | 47"          |
|                  | 0.100"           | 54"         |     | 90"         |     | 84"        | 50"          |
|                  | 0.125"           | 60"         |     | 96"         |     | 90"        | 54"          |
|                  |                  |             |     |             |     | 96"        | 58"          |

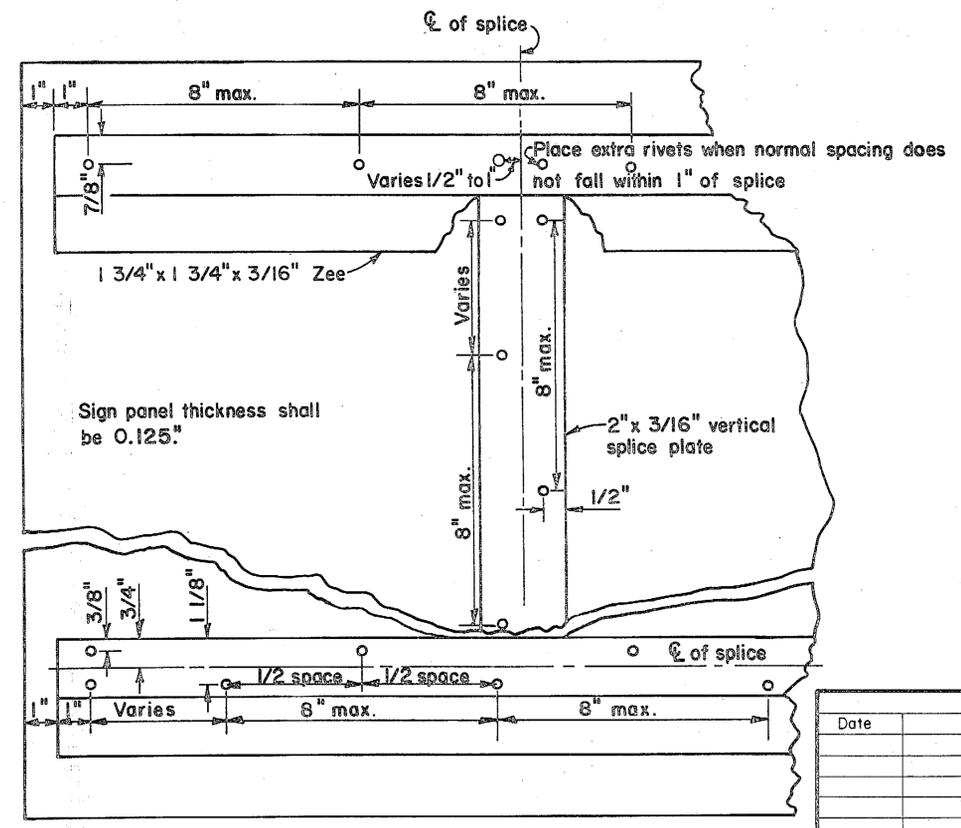
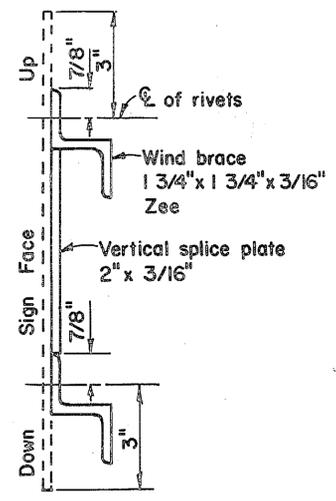
**Heavy sign structure and multi-post spacing**

| Sign Width         | No. of Post | Post Spacing |                   |          |
|--------------------|-------------|--------------|-------------------|----------|
|                    |             | Overhang     | Between Post      | Overhang |
| 12 1/2'            | 2           | 0.2W         | 1 space at 0.6W   | 0.2W     |
| 13' to 21 1/2'     | 3           | 0.15W        | 2 spaces at 0.35W | 0.15W    |
| 22' to 30'         | 4           | 0.125W       | 3 spaces at 0.25W | 0.125W   |
| 30 1/2' to 37 1/2' | 5           | 0.1W         | 4 spaces at 0.2W  | 0.1W     |

Heavy sign structures shall require framing.



**HEAVY SIGN STRUCTURE**



**RIVET DETAIL FOR ZEE WIND BRACE & SPLICE PLATE**

**GENERAL NOTES**

1. Aluminum alloy 6061-T6 shall be used for sign sheets and extruded zeos.
2. Rivets shall be 3/16" diameter conforming to aluminum alloy 6061-T6 for cold driven rivets, or aluminum alloy 6061-T43 for hot driven rivets.
3. Alternative to zee wind brace as shown may be substituted with approval of the engineer if the alternative equals or exceeds in strength the design shown.
4. Extruded sign panels and extruded wind beams may be used if manufacturers guarantee their design is equal to or exceed strength design shown on this drawing.

| REVISIONS |             |    |
|-----------|-------------|----|
| Date      | Description | By |
|           |             |    |
|           |             |    |
|           |             |    |

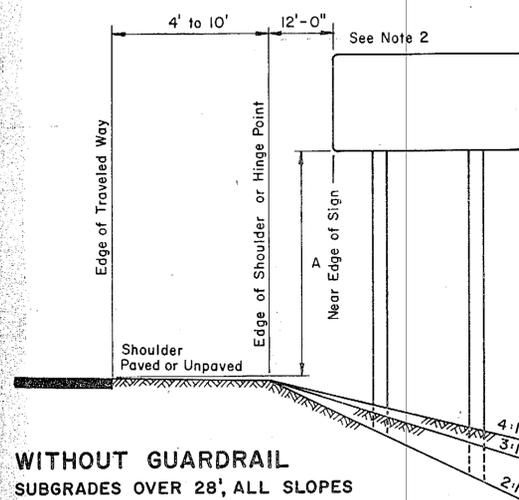
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**SHEET ALUMINUM SIGN AND FRAMING**

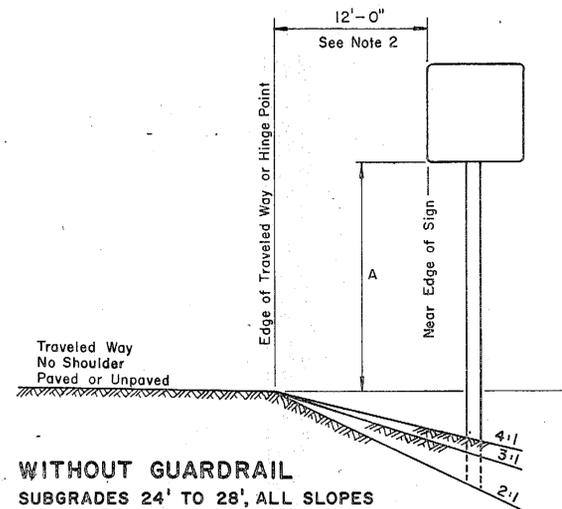


METRIC CONVERSION  
 1" = exactly 25.4 mm (millimeters)  
 1'-0" = exactly 0.3048m (meters)

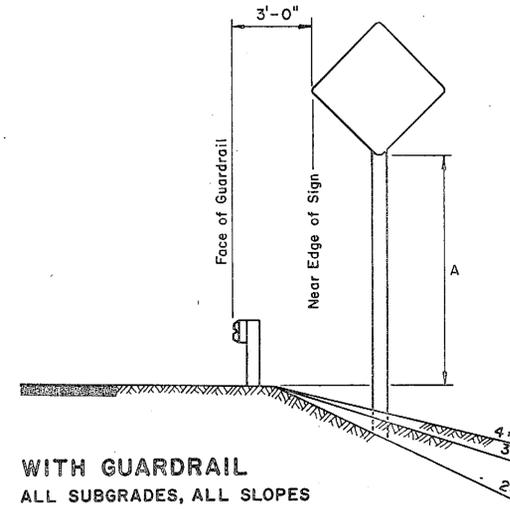
S-05.00



**WITHOUT GUARDRAIL**  
 SUBGRADES OVER 28', ALL SLOPES



**WITHOUT GUARDRAIL**  
 SUBGRADES 24' TO 28', ALL SLOPES



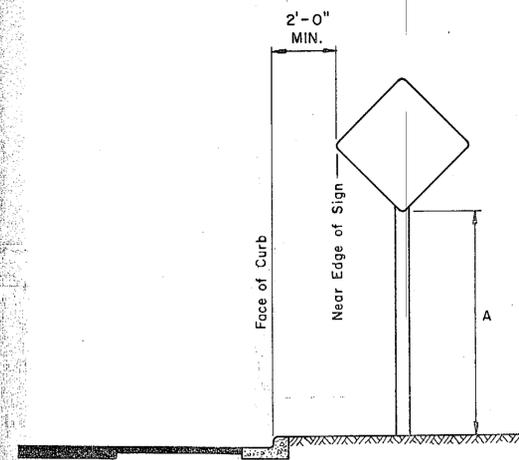
**WITH GUARDRAIL**  
 ALL SUBGRADES, ALL SLOPES

**GENERAL NOTES:**

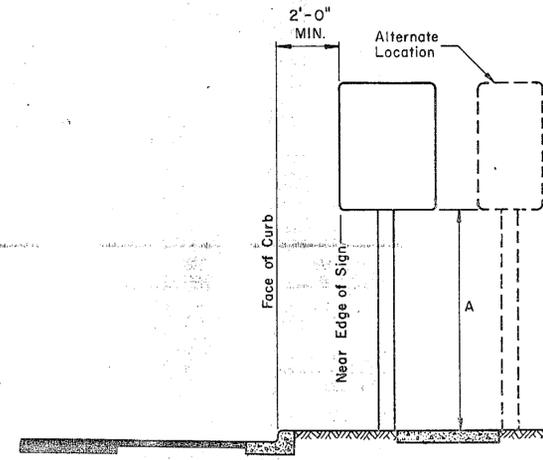
1. Signs in median shall be placed at midpoint of median up to a maximum distance of 20ft. from Edge of Traveled Way. When appropriate, signs for opposing directions shall be placed back to back.

2. Unless shown on plans, or as directed by the engineer the standard sign offset is 12'. The minimum shall be 2'-0".

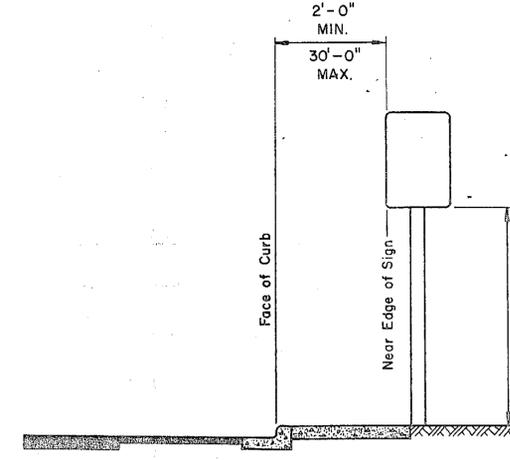
3. Where local condition requires signs over sidewalk, they shall be mounted on a single post with a cantilever or unbalance style mount and a minimum of 7'-0" clearance over sidewalk, unless noted otherwise on the plan sheet.



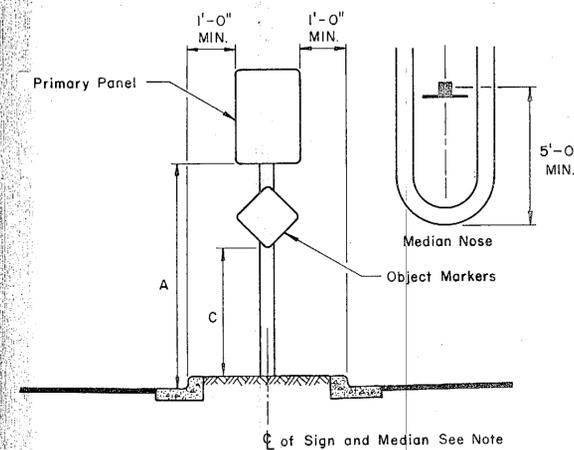
**CURB WITHOUT SIDEWALK**



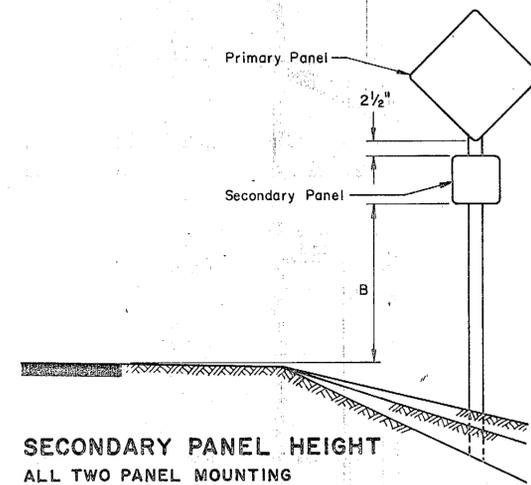
**CURB WITH PARKWAY AND SIDEWALK**  
 (If R/W width permits, signs should be placed behind sidewalk.)



**CURB WITH SIDEWALK WITHOUT PARKWAY**



**MEDIANS**  
 MINIMUM 4' WIDTH FOR SIGNING

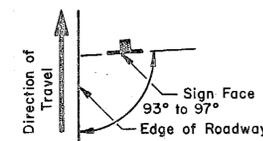


**SECONDARY PANEL HEIGHT**  
 ALL TWO PANEL MOUNTING

**DIMENSION TABLE**

| ROADWAY    | DIMENSION |       |       |
|------------|-----------|-------|-------|
|            | A         | B     | C     |
| PAVED      |           |       |       |
| RURAL      | 5'-0"     | 4'-0" | 4'-0" |
| EXPRESSWAY | 7'-0"     | 6'-0" | 4'-0" |
| URBAN      | 7'-0"     | 7'-0" | 4'-0" |

NOTE: For Unpaved Roadway Add 0'-6" to Dimensions



**SIGN POSITIONING**

| REVISIONS |             |    |
|-----------|-------------|----|
| Date      | Description | By |
|           |             |    |
|           |             |    |
|           |             |    |
|           |             |    |

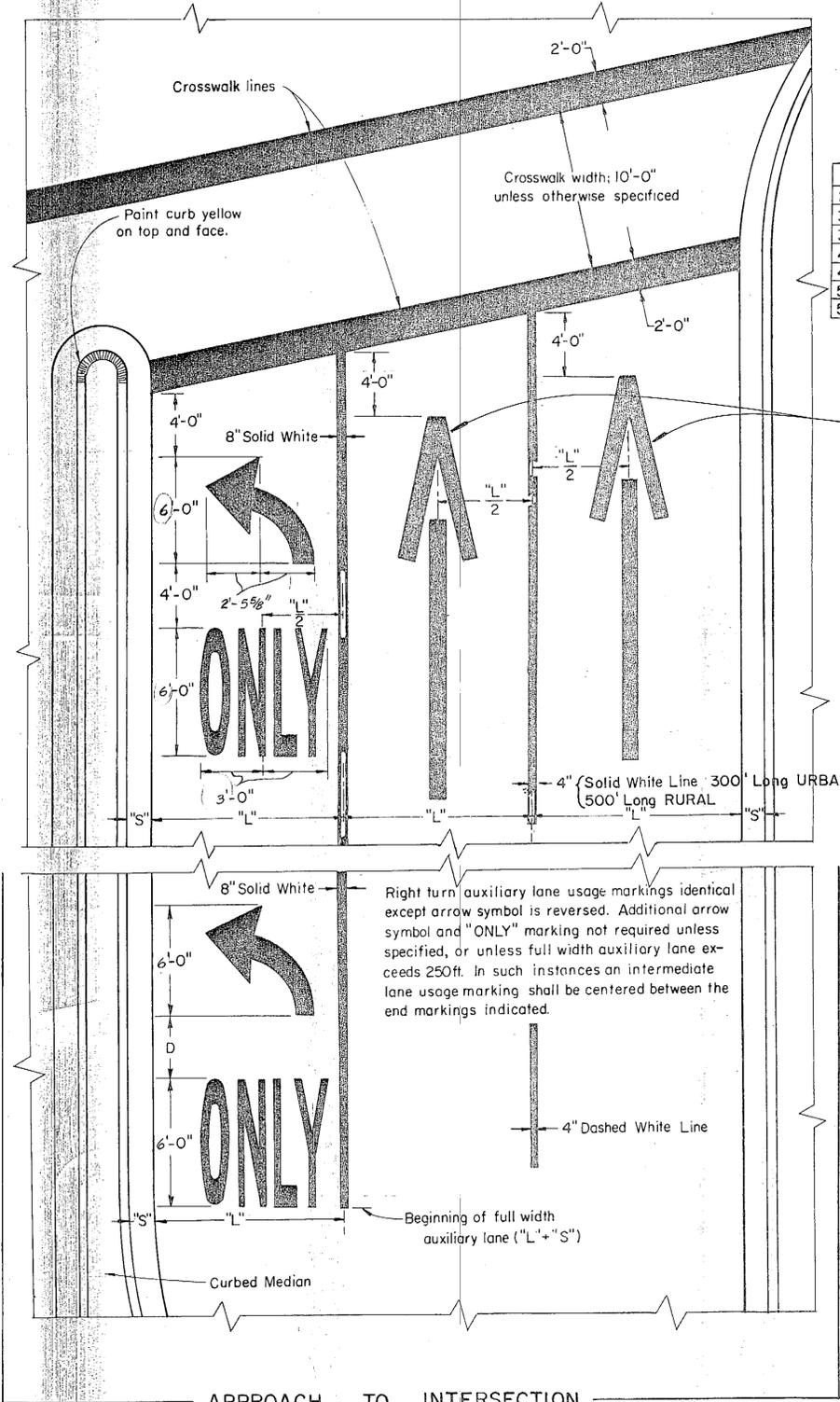
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**SIGN POST LOCATION MOUNTED**



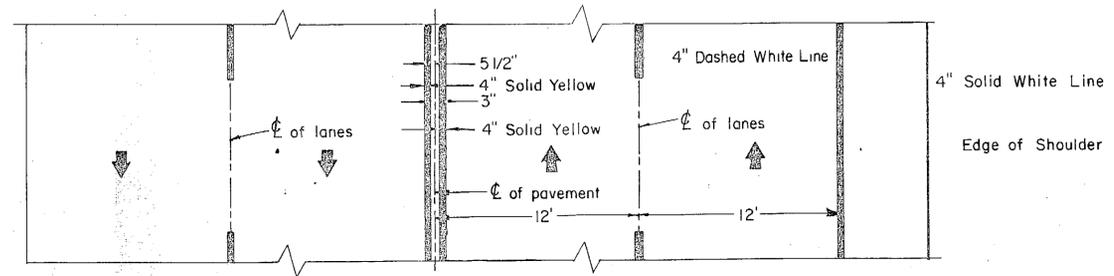
**NOTES:**

1. All markings white unless indicated otherwise
2. Straight ahead and combination arrows shall be used only on one-way roadways unless otherwise indicated in the plans.
3. Lane lines for auxiliary lanes are unbroken solid white.

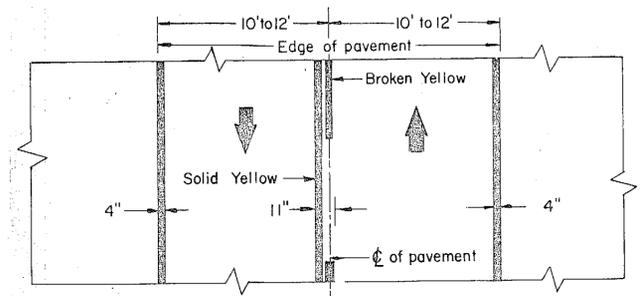


| V          | D   |
|------------|-----|
| 25 or less | 35' |
| 30         | 45' |
| 35         | 50' |
| 40         | 60' |
| 45         | 65' |
| 50         | 75' |
| 55 or more | 80' |

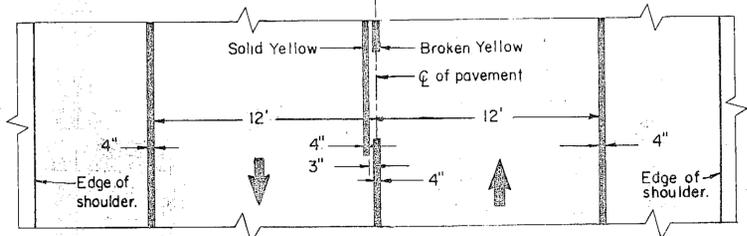
See Sheet 31 for correct arrows



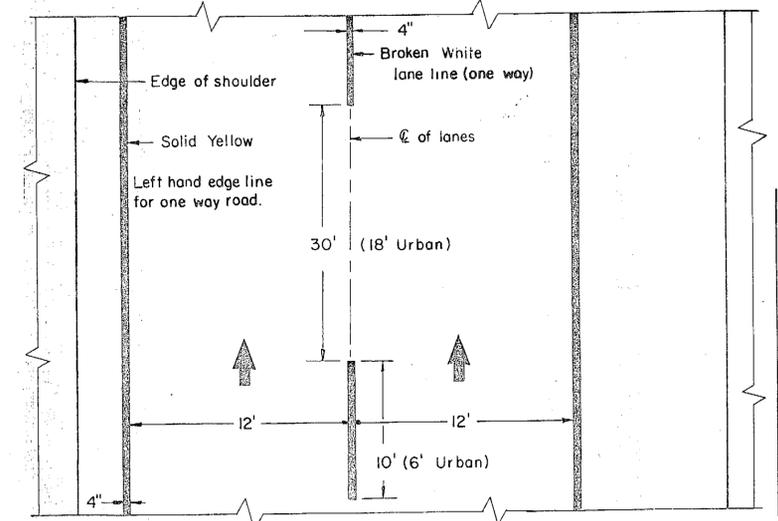
**4 LANE UNDIVIDED**



**UNPAVED SHOULDER OR NO SHOULDER**



**PAVED SHOULDER**



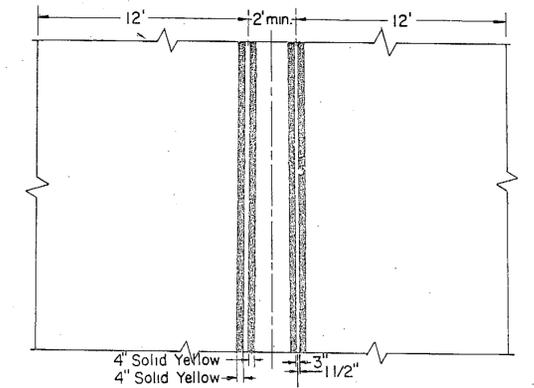
**LEFT HAND EDGE LINE FOR ONE WAY ROAD**

- NOTES:**
1. All markings solid white unless indicated otherwise.
  2. Lengths of stripe and gap for lane and center lines identical

**CENTER LINES, LANE LINES, EDGE LINES and SHOULDER MARKINGS**

**METRIC CONVERSION**

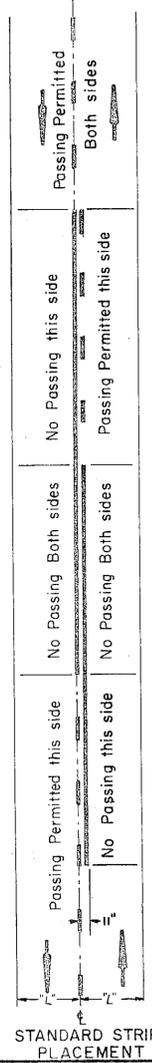
1" = exactly 25.4mm (millimeters)  
1'-0" = exactly 0.3048m (meters)



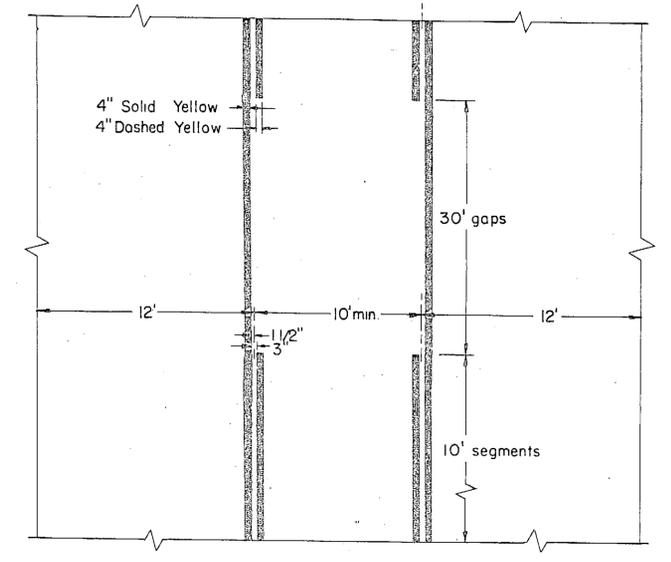
**PAINTED MEDIANS**

**General Notes**

1. All marking shall be reflectorized.
2. "L" = driving lane width.
3. "S" = shy distance as designated, otherwise 1 to 2 feet.



**STANDARD STRIPE PLACEMENT**



**BI-DIRECTIONAL LANE MARKINGS**

**PROJECT NO. F-091-1(4)**  
**SHEET 30 OF 30**

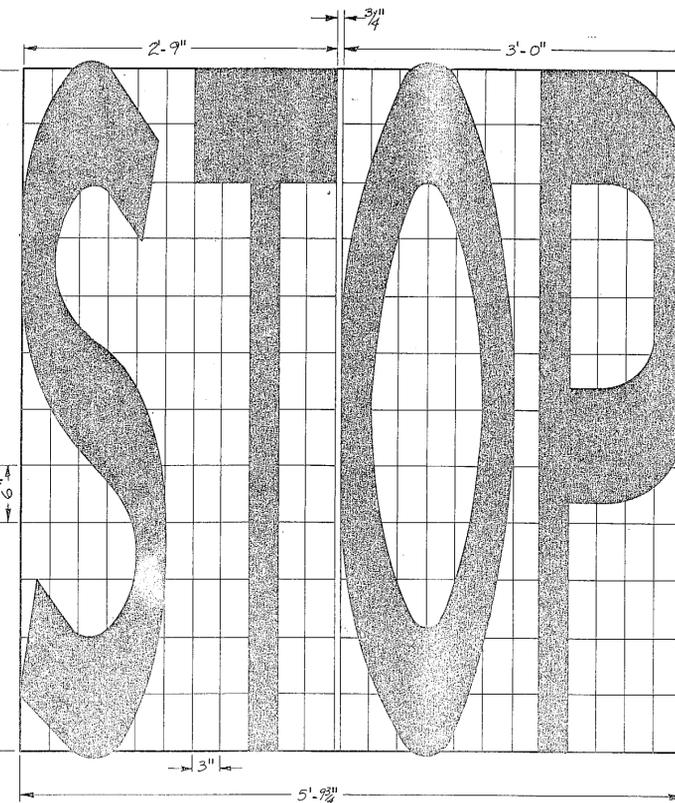
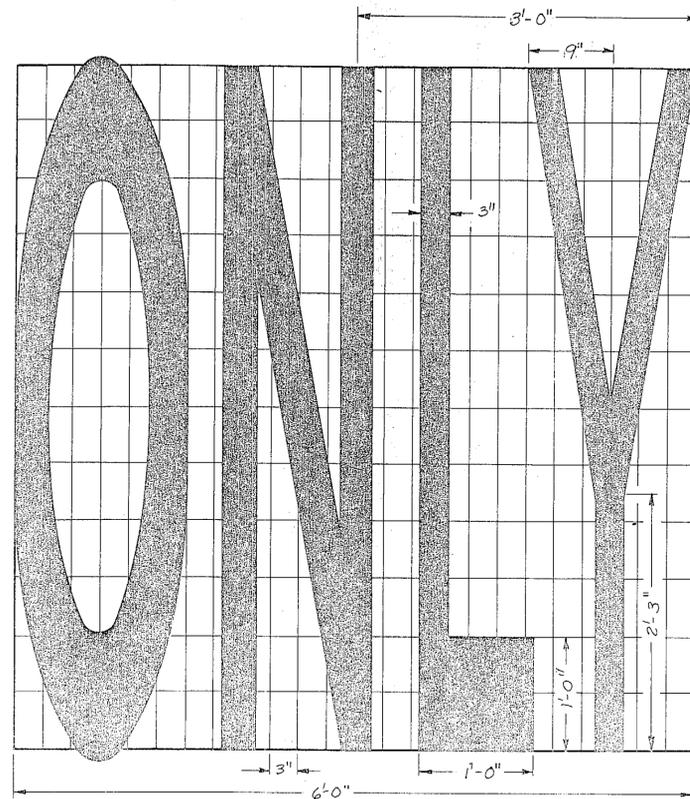
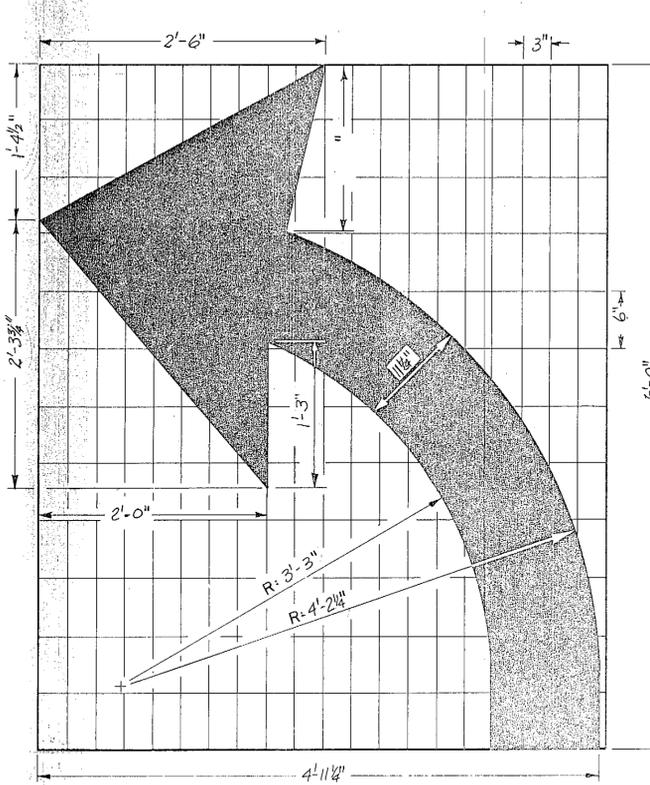
| REVISIONS |                              |     |
|-----------|------------------------------|-----|
| Date      | Description                  | By  |
| 1/1/86    | Arrow Dimension              | GDO |
| 9-90      | Arrow & "ONLY" dim. modified | JR  |
|           |                              |     |
|           |                              |     |

STATE OF ALASKA  
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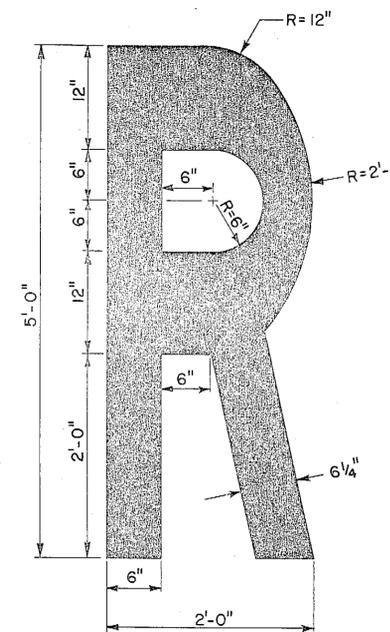
**PAVEMENT MARKING APPLICATIONS**

ADDRESS

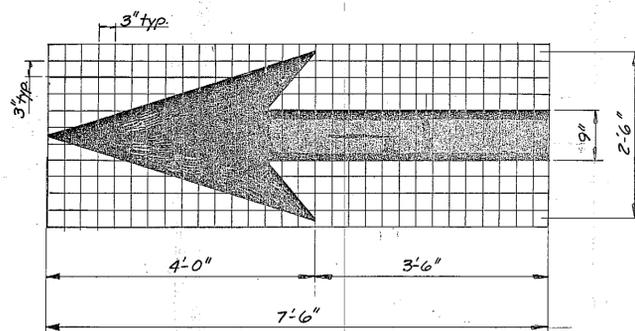
Date 7/15/82



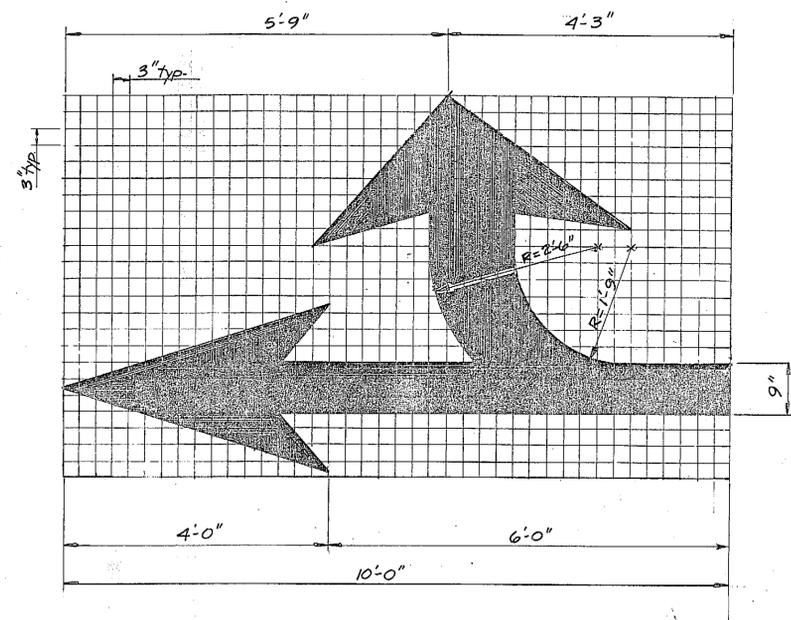
LAYOUT TEMPLATES FOR STENCILS



RAILROAD SYMBOL



STRAIGHT AHEAD ARROW



COMBINATION ARROW

| REVISIONS |                      |     |
|-----------|----------------------|-----|
| Date      | Description          | By  |
| 1/1/86    | Redraft - Arrow Dim. | Gob |
| 9-90      | Modify Dim.          | SB  |
| 9-90      | Modify Arrows        | Bar |

STATE OF ALASKA  
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& PUBLIC FACILITIES  
PAVEMENT MARKING  
SYMBOL DIMENSIONS

