

**STATE OF ALASKA**  
**DEPARTMENT OF TRANSPORTATION**  
**&**  
**PUBLIC FACILITIES**

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**PLAN AND PROFILE**  
**PROPOSED HIGHWAY PROJECT**  
**PETERSON CREEK**  
**BRIDGE**  
 BR-093-3(1) (67457)

STATE	PROJECT	SHEET NO.	TOTAL SHEETS
ALASKA	BR-093-3(1)	1	13

SHEET NO.	INDEX OF SHEETS
1	TITLE SHEET
2	TYPICAL SECTION
3	ESTIMATE OF QUANTITIES
	TRAFFIC CONTROL PLAN
4	PLAN AND PROFILE
5-12	BRIDGE PLANS
13	EROSION & POLLUTION CONTROL

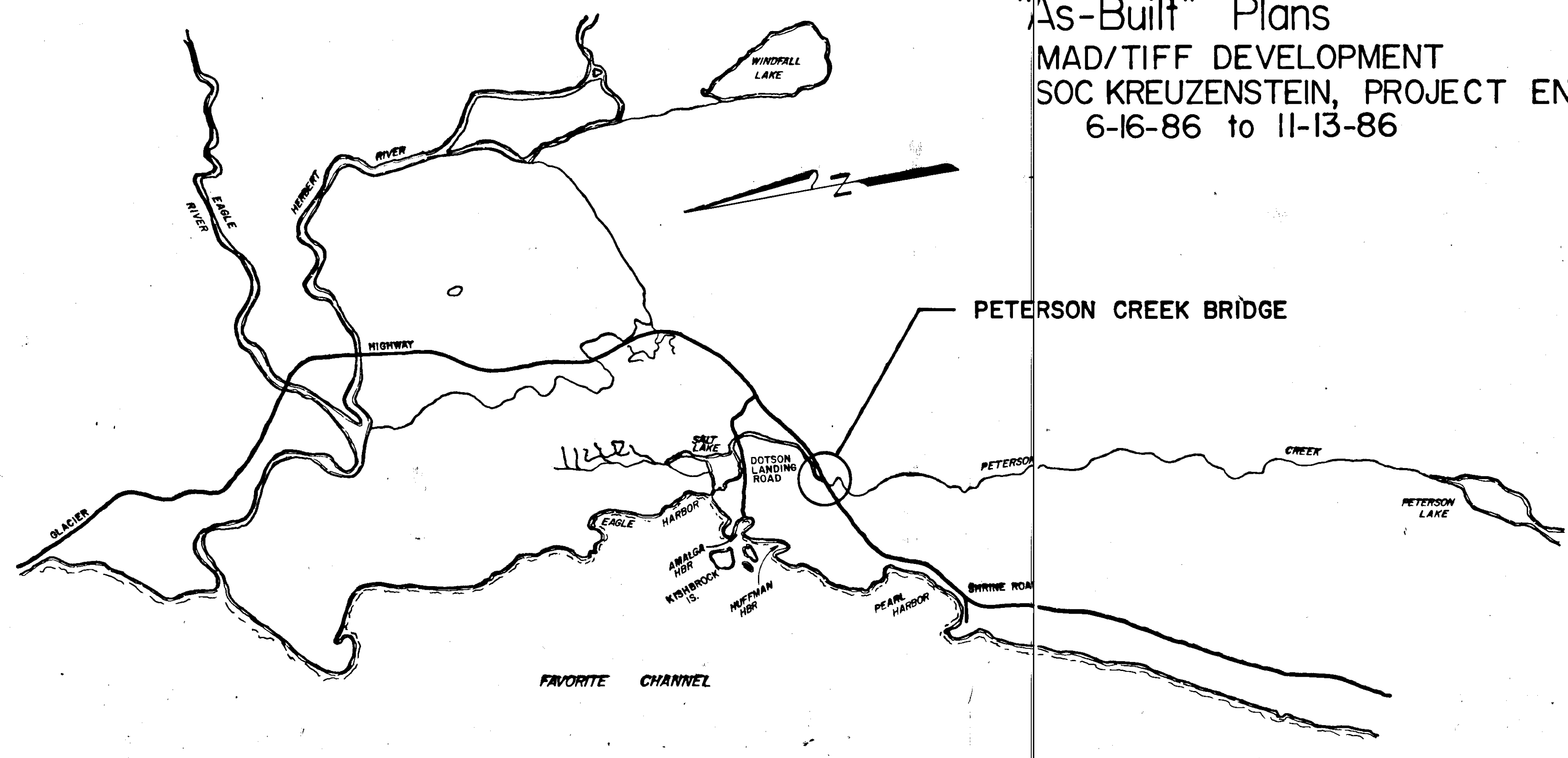
THE FOLLOWING STANDARD DRAWINGS SHALL APPLY TO THIS PROJECT: A-1, C-01.02, C-02.00, C-04.00, E-00.00, E-09.00, G-04.02 S, G-04.02 W, G-14.03 S, G-14.03 W, G-18.01, G-24.03 S, G-24.03 W, S-00.00, S-05.00, S-20.00, S-32.01, T-03.01, T-05.00, T-20.00, T-21.01

**PROJECT SUMMARY**

WIDTH OF SUBBASE = Varies 12' to 42'  
 WIDTH OF BRIDGE = 41'  
 LENGTH OF GRADING = 405' = 0.077 mi.  
 LENGTH OF BRIDGE = 80'-3" = 0.015 mi.  
 LENGTH OF PROJECT = 485' = 0.092 mi.

**DESIGN DESIGNATION**

ADT 1984 ..... 450  
 ADT 2005 ..... 737  
 DHV 11% ..... 81  
 % T ..... 4%  
 T.I. .... 6.0  
 V ..... 60



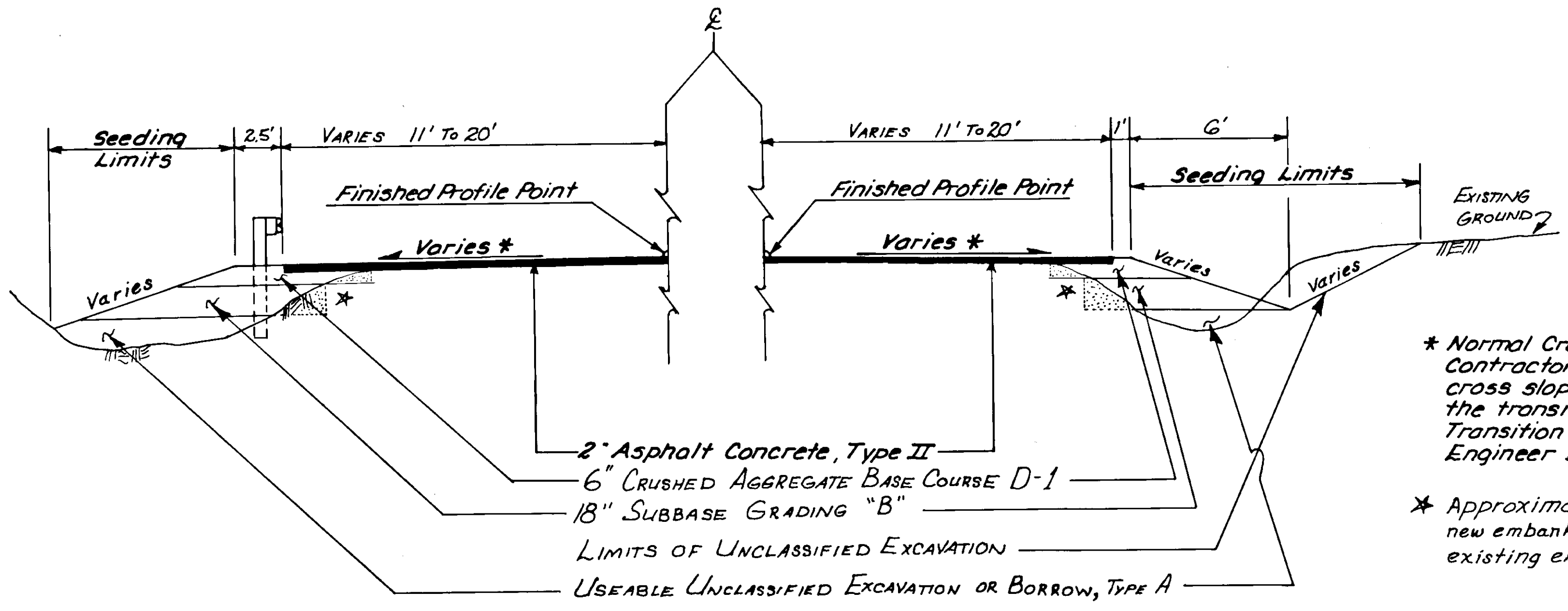
"As-Built" Plans  
 MAD/TIFF DEVELOPMENT  
 SOC KREUZENSTEIN, PROJECT ENGR.  
 6-16-86 to 11-13-86

STATE OF ALASKA  
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APPROVED  
*[Signature]* Date 3-28-86  
 Southeastern Region Design/Const. Engineer

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APPROVED  
*[Signature]* Date 3-28-86  
 Director, Highway Design/Construction



**TYPICAL SECTION OF IMPROVEMENT**

TYPICAL EACH SIDE  
 "L" 787+20 to "L" 787+81.89  
 and  
 "L" 788+62.14 to "L" 789+30

TYPICAL EACH SIDE  
 "L" 785+80 to "L" 787+20  
 and  
 "L" 789+30 to "L" 790+65

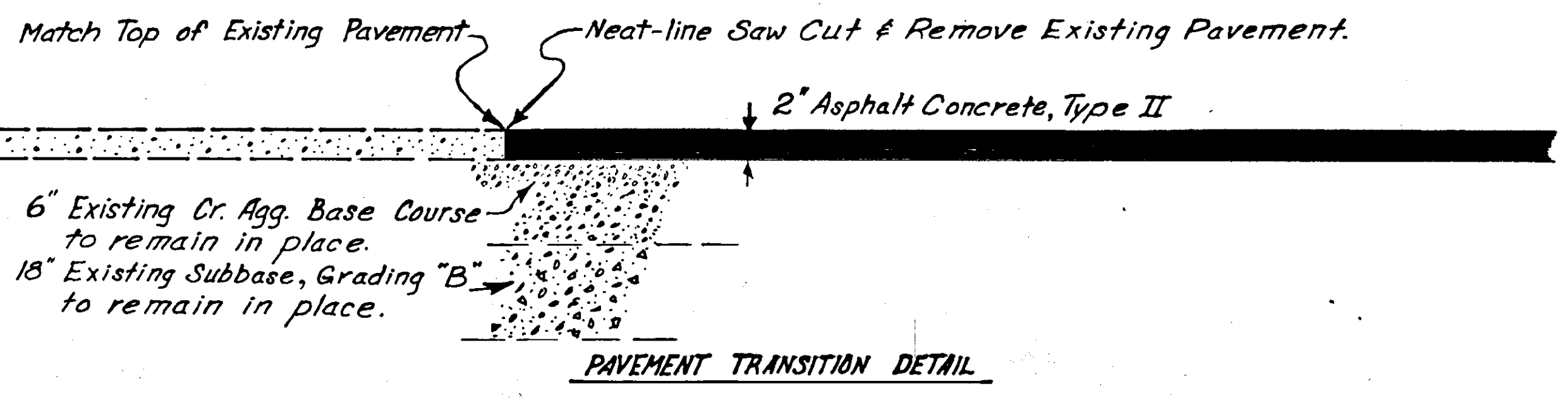
Height	Slope
0-5 ft.	4 : 1
5-10 ft.	3 : 1
10-15 ft.	2 : 1
15+ ft.	1 1/2 : 1

\* Normal Crown = 0.02'/ft.  
 Contractor shall match existing superelevation cross slope at "L" 785+80, P.O.C., and design the transition to normal crown at the bridge. Transition design to be approved by the Engineer before staking.

\* Approximate limits of benching required when new embankment is to be compacted against existing embankments.

**GENERAL NOTES**

- Any clearing and grubbing required shall be considered incidental to Item 203(B), Unclassified Excavation, and no additional payment will be made therefore.
- All existing monuments within the project limits shall be referenced and if disturbed, reset. Referencing and resetting of monuments shall be considered incidental to Item 114(1), Construction Surveying by the Contractor. Monuments are to be reset by a licenced land surveyor.
- All existing pavement within the project limits is to be removed and may be used as borrow at areas selected by the Contractor and approved by the Engineer. Pavement removal is incidental to Item 203(B).
- In stream work, consisting of detour mudsill and pier work, active channel bridge removal and sheetpile installation, boulder placement and stream gravel excavation, is limited to the time period of June 15 to July 31.
- Peterson Creek is an important sportfishing stream. Measures in accordance with the contractors Erosion Control Plan, submitted at the Preconstruction Meeting for approval, will be taken to prevent siltation or degradation of the stream.
- Vegetation and streambanks between the sheetpiling and the stream will not be disturbed by construction activities except as required to construct the detour embankment.
- Fueling operations will be conducted in such a manner that pollution of the stream is avoided.
- Waste areas will be approved by the Engineer prior to their use.
- Compaction of the new asphalt concrete pavement shall be Compaction by Coverage in accordance with part 4, section 401-3.12 of the Standard Specifications.
- All work involved with the construction, maintenance and obliteration of the detour shall be as directed by the Engineer and paid for under Bid Item 115(1), Traffic Maintenance.



# TRAFFIC CONTROL PLAN

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	BR-093-3(1)	1986	3	13

## ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
109(2)	DBE & MBE Adjustments	C.S.	All Required
110(2)	Mobilization & Demobilization	L.S.	All Required
111(1)	Temporary Erosion & Pollution Control	C.S.	All Required
114(1)	Construction Surveying by the Contractor	L.S.	All Required
115(1)	Traffic Maintenance	L.S.	All Required
116(1)	Furnishing & Maintaining Field Office	L.S.	All Required
202(1)	Removal of Structures & Obstructions	L.S.	All Required
203(5A)	Borrow, Type A	C.Y.	688.5 564.7
203(9)	Unclassified Excavation	L.S.	All Required
301(1)	Crushed Aggregate Base Course	Ton	198.7
304(1)	Subbase Grading "B"	Ton	347.1
401(1)	Asphalt Concrete, Type II	Ton	232.0
401(2)	Asphalt Cement, AC-5	Ton	13.1
301(3)	CRUSHED AGGREGATE BASE COURSE	EWO #1	L.S. ALL REQUIRED
304(A)	SUBBASE GRADING "B"	EWO #1	L.S. ALL REQUIRED
402(E)	ASPHALT FOR TACK COAT	EWO #2	L.S. ALL REQUIRED
502(1)	Prestressed Concrete Structural Members 80" x 3" Bulb Tees	Each	6
505(9)	Structural Steel Sheet Piles Furnished & Driven	S.F.	5,850 5142.64
507(1)	Metal Bridge Railing	L.F.	161 160.4
509(1)	Deck Protection	L.S.	All Required
509(1A)	DECK JOINT WATERPROOFING	EWO #2	L.S. ALL REQUIRED
606(1)	Beam Type Guardrail, Type 1 Post	L.F.	262.5
606(5)	Removal & Disposal of Guardrail	L.F.	212 200
606(6)	End Anchorages	Each	4
615(1)	Standard Signs	S.F.	16
618(1)	Seeding (approximately 8,000 sq.ft.)	L.S.	All Required
670(1)	Painted Traffic Markings	L.S.	All Required

## BASIS OF ESTIMATE

ITEM NO.	ITEM	FACTOR
203(8)	Embankment	1.8 Tons / C.Y.
301(1)	Crushed Aggregate Base Course	1.9% Tons / C.Y.
304(1)	Subbase Grading "B"	1.90 Tons / C.Y.
401(1)	Asphalt Concrete, Type II	116 lbs. / S.Y. / Inch Depth
401(2)	Asphalt Cement, AC-5	6% of Item 401(1)

## SIGNING SCHEDULE

STATION	OFFSET	CODE	LEGEND	SIGN PANEL THICKNESS		POSTS				FACING TRAFFIC		
				SIZE	UNFRAMED AREA	NO. OF POSTS	TYPE	SIZE	LENGTH		EMBEDEMENT	
787+50	23'	I-3	Peterson	24"x48"	.080	8 S.F.	1	PST	2"x2"	10'	3'	N.B.
788+90	23'	I-3	Creek	24"x48"	.080	8 S.F.	1	PST	2"x2"	10'	3'	S.B.

## GENERAL SIGNING NOTES

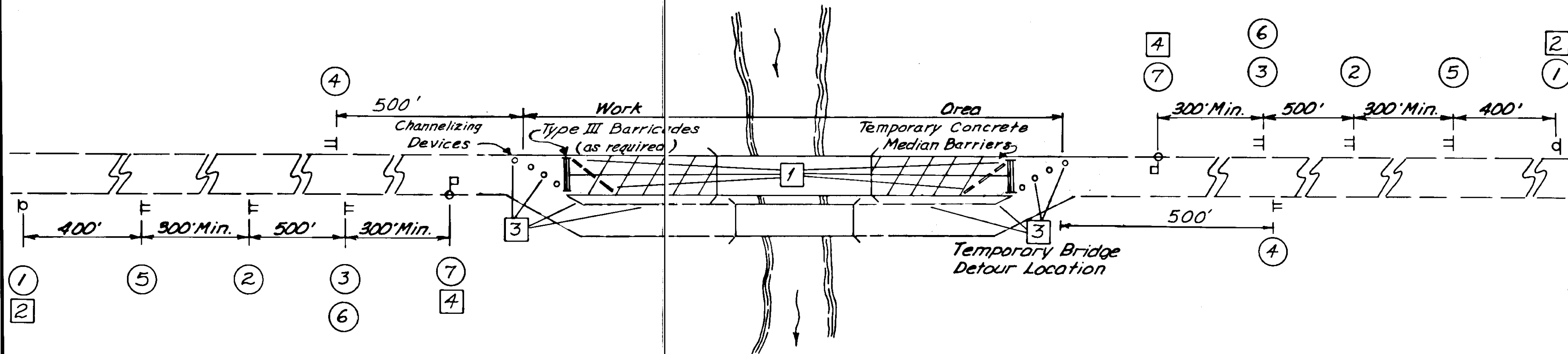
Sign locations are approximate only and are subject to minor revisions.

All existing signs and posts shall be removed, salvaged and delivered to the Department of Transportation & Public Facilities maintenance yard at 7 mile, Glacier Highway.

All sign posts shall be telescoping, perforated, galvanized steel. The 2" size shall be used above ground and the 2 1/4" shall be used below ground.

Sign post length includes the 1' telescoped inside the base. Lengths are for estimating only. Actual lengths may vary.

See legend for each sign.



## LIGHTS & SIGNS REQUIRED AT BRIDGE SITE

### LIGHTING DEVICES

The addition of flashing lights to advance construction signs and the illumination of night work areas will be required.

#### Warning Lights:

Most of the warning lights in use are portable, lens directed, enclosed units and may be used on channelizing devices, barriers and signs. Detailed discussions on the use and operating requirements of warning lights are contained in detail in Section 6E-5 of the MUTCD.

The principal types and uses of warning lights are:

**Type A Low Intensity** Warning lights to call attention to hazardous conditions at night. They are commonly mounted on drums or barricades.

**Type B High Intensity** Flashing Warning lights are appropriate to use on advance construction signs day and night.

**Type C Steady-burn** lights are appropriate to use on channelizing devices or barriers to delineate the proper vehicle path through the construction area.

#### Traffic Control Lights:

Portable Traffic Control Signals are used for work zone traffic control through short sections of road when opposing directions of traffic use the same lane for travel alternately.

### TRAFFIC CONTROL NOTES

- Signs for detour areas shall be of a portable nature and shall be moved as required to maintain their proper spacing.
- Flagmen and corresponding signing will only be required when directed by the Engineer.
- No more excavation will be performed than what can be backfilled by the end of the shift so as to leave the roadway in a safe condition during non-working hours.
- The Contractor shall be responsible for keeping the public advised through the local news media of his construction activities and scheduling.
- All work involved with the installation, removal, and maintenance of Construction signs shall be paid for under Bid Item 115(1) Traffic Maintenance.
- All TCP shall be used in conjunction with and in addition to the Standard Drawings, the Standard and Special Provisions, the Alaska Traffic Manual, the Manual on Uniform Traffic Control Devices, and current industry standards for safe and efficient operation.
- Signs shown in schematics shall be in place only when the conditions exist.
- The Contractor shall designate one of his employees the responsibility to install and maintain all required traffic control devices. All traffic control elements shall be maintained 24 hours a day.
- The Contractor shall use the following Traffic Control Plan (TCP) during the construction of this project. The Contractor may submit a TCP of his own, however any changes to this TCP will require written approval of the Engineer prior to beginning any construction. See section 115 of the Special Provisions for more details.
- The Construction Sign Summary shown herein is to be used for cost estimating only. Other signs may be required by the Engineer or used at the Contractor's Option.
- The detour shall be surfaced with 4 inches of crushed aggregate base course material and kept in a safe traversable condition, free of rutting or washboarding, as directed by the Engineer.

## LIGHTING DEVICE SUMMARY

LIGHT NO.	TYPE
1	A, Low Intensity, Flashing
2	B, High Intensity, Flashing
3	C, Steady-burn
4	Portable Traffic Control Signals

## CONSTRUCTION SIGN SUMMARY

SIGN NO.	MUTCD NO.	LEGEND	NO. OF SIGNS	SIZE
1	CW20-1E	Road Construction 1500 Feet	2	48"x48"
2	CW20-4	One Lane Road 1000 Feet	2	48"x48"
3	CW20-7A	Symbol Flagman with Supplemental Plate 500 Feet	2	36"x36" 24"x18"
4	G20-2	End Construction	2	60"x24"
5	CW20-1F	Road Construction Ahead	2	48"x48"
6	CW20-8	Be Prepared to Stop	2	48"x48"
7	R10-6	STOP HERE ON RED	2	24"x30"

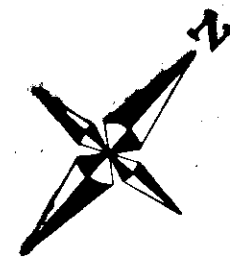


**SUPERELEVATION**

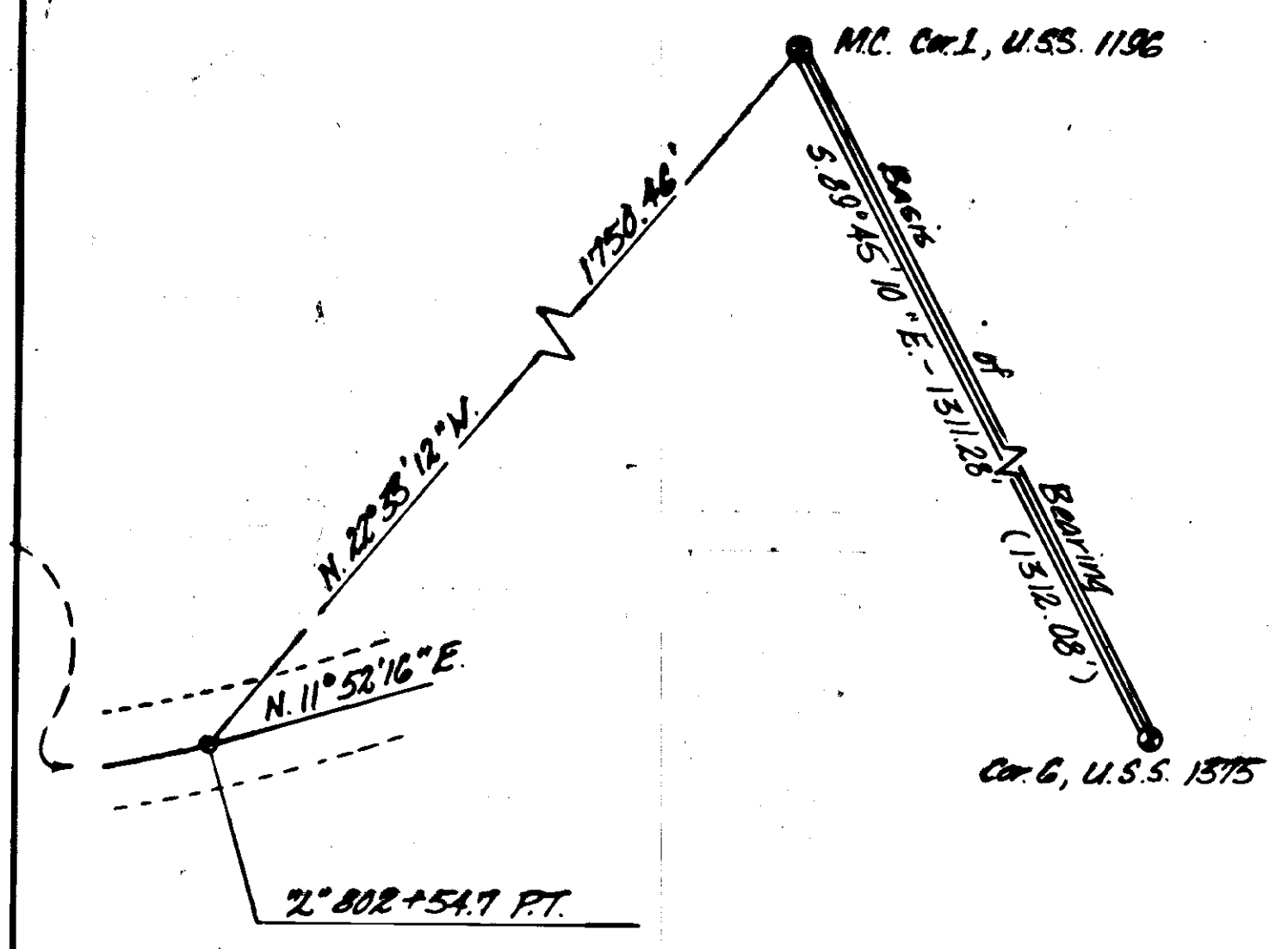
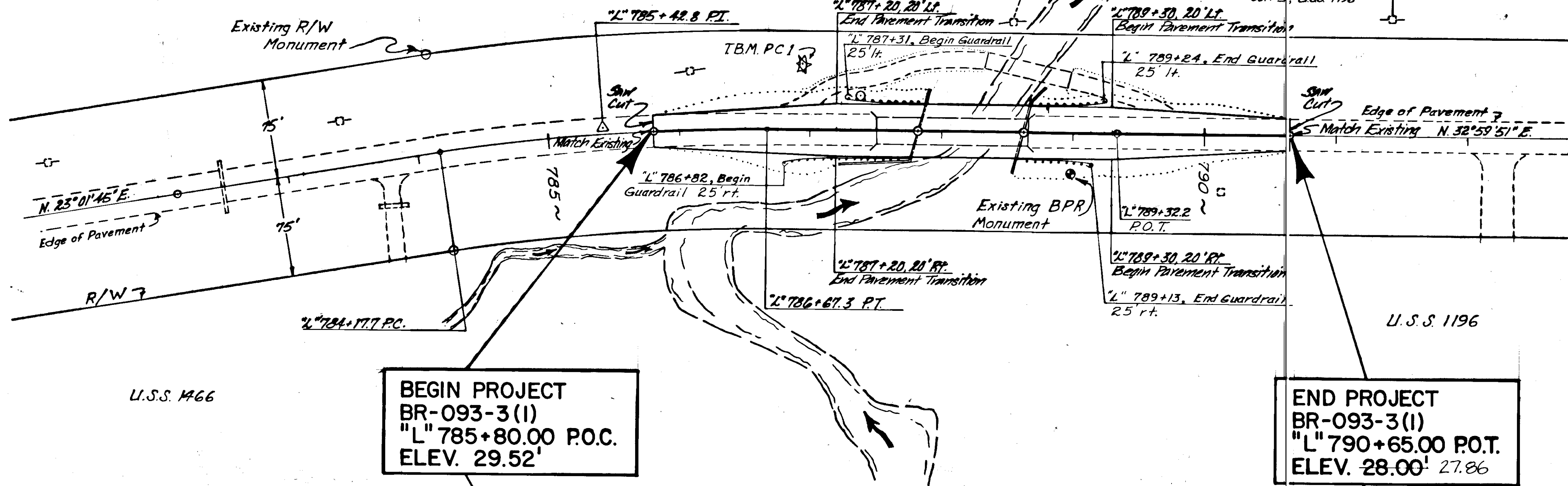
Match existing super at Sta. 785+80.0 P.O.C.  
 End existing super at Sta. 786+67.3 P.T.  
 Begin superlevation transition at Sta. 786+67.3 P.T.  
 End superlevation transition at Sta. 786+70

"L"  
 B = 9°59'  
 D = 4°00' RT.  
 T = 125.1'  
 L = 249.6'  
 R = 1432.4'

U.S.S. 1286



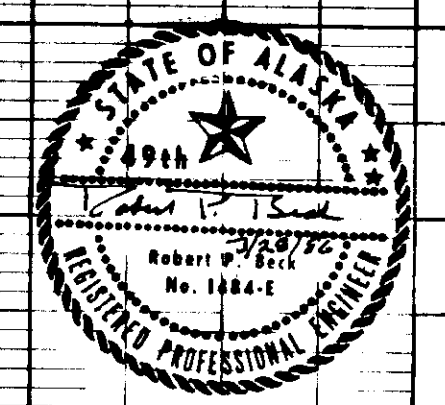
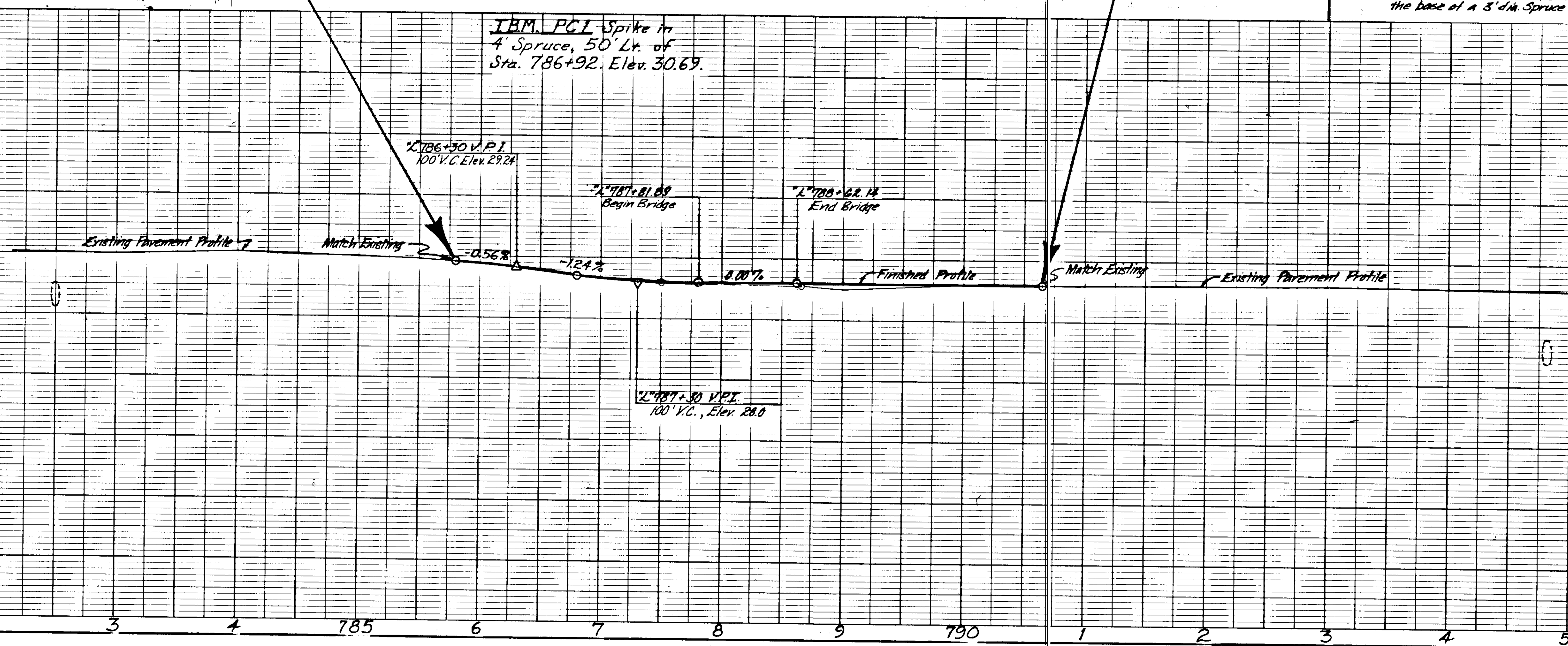
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**Basis of Horizontal Control**  
 The Basis of Horizontal Control is the bearing between MC-1, U.S.S. 1196 and Cor. G, U.S.S. 1375, with an accepted calculated bearing of S. 89°45'10" E.

**Basis of Vertical Control**  
 Vertical Control is based on T.B.M. 1, Elev. 29.35' M.L.L.W., a B.P.R. Monument which bears S. 17°31' W., 3.58' from Cor. G, U.S.S. 1375. The Tidal Datum was determined by Time Coordinated Observation on Jan 17, 1955. T.B.M. PC-1, Elev. 30.60 is a spike in the root of a 4" dia. Spruce Tree 50' Lt. of Sta. L' 786+92. T.B.M. PC-2, Elev. 27.33, is a spike in the base of a 3" dia. Spruce Tree 40' Lt. of Sta. L' 800+30.

T.B.M. PCI Spike in 4" Spruce, 50' Lt. of Sta. 786+92. Elev. 30.69.



**(A) GENERAL**  
 Concern about the effects of highway construction on the environment has led to the introduction of methods to limit disturbed soil from moving onto adjacent lands or into nearby streams, lakes and/or ponds. This sheet attempts to provide the contractor with some ideas that may minimize this impact. It is not intended to be a complete listing, nor is any one idea guaranteed to work. Its purpose is to assist the contractor in assessing several items before he prepares his Erosion Control Plan in accordance with Section III, Temporary Erosion and Pollution Control.

- (B) NOTES**
- Basins, traps, dams etc must be cleaned often, or at least after every storm or heavy rainfall.
  - Any temporary erosion control feature that is aesthetically pleasing and/or still functions in its original intent may be left after completion of the project for permanent erosion control.
  - Some items detailed on this sheet may already be covered by another pay item, and therefore not considered as temporary erosion control.

**(C) STOCKPILE of MATERIALS**  
 The contractor shall have a stockpile of the following items on the project prior to the start of significant grading operations. Payment will be made under Section III, Temporary Erosion and Pollution Control, and will be based upon certified receipts. Items not incorporated into the work shall become the property of the contractor.

ITEM	QUANTITY
STRAW BALES 4" PINS	12 ea
WOOD EXCELSIOR MAT	5 roll
SAND BAGS	500 ea
FILTER CLOTH	500 L.F. roll
PLASTIC LINING	roll

**(D) PERMITS**  
 THE FOLLOWING PERMITS HAVE BEEN APPLIED FOR AND RECEIVED BY DOT

PERMIT	DATE
COE SECTION 404	
DEC SECTION 401	
USCG SECTION 9	
ADFG TITLE 16	4/15/86
FAA AIRPORT CLEARANCE	
THE ALASKA RAILROAD	

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**TEMPORARY EROSION  
 POLLUTION CONTROL**  
 GENERAL DETAIL SHEET

