

State of Alaska

Department of Transportation and Public Facilities

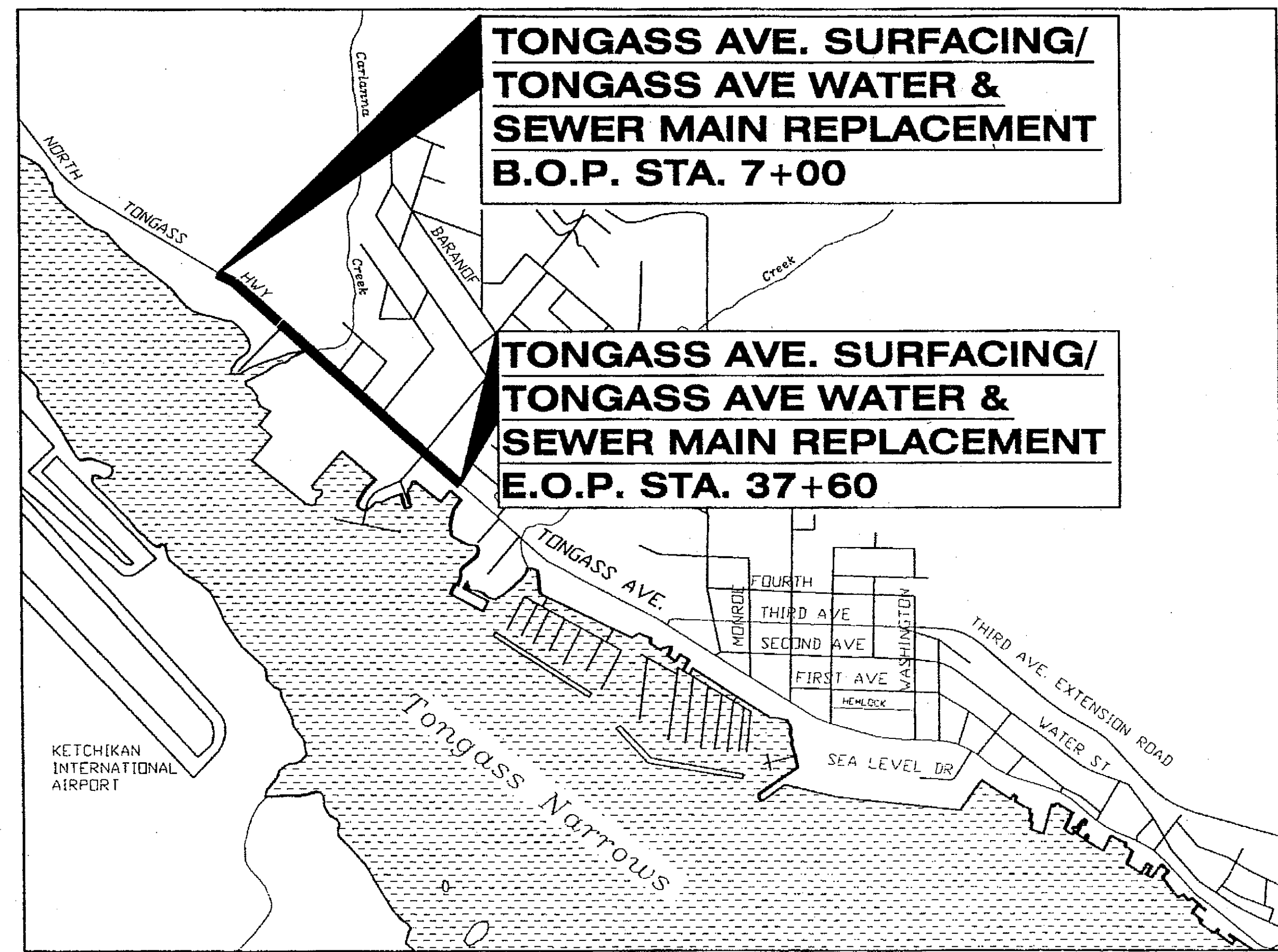
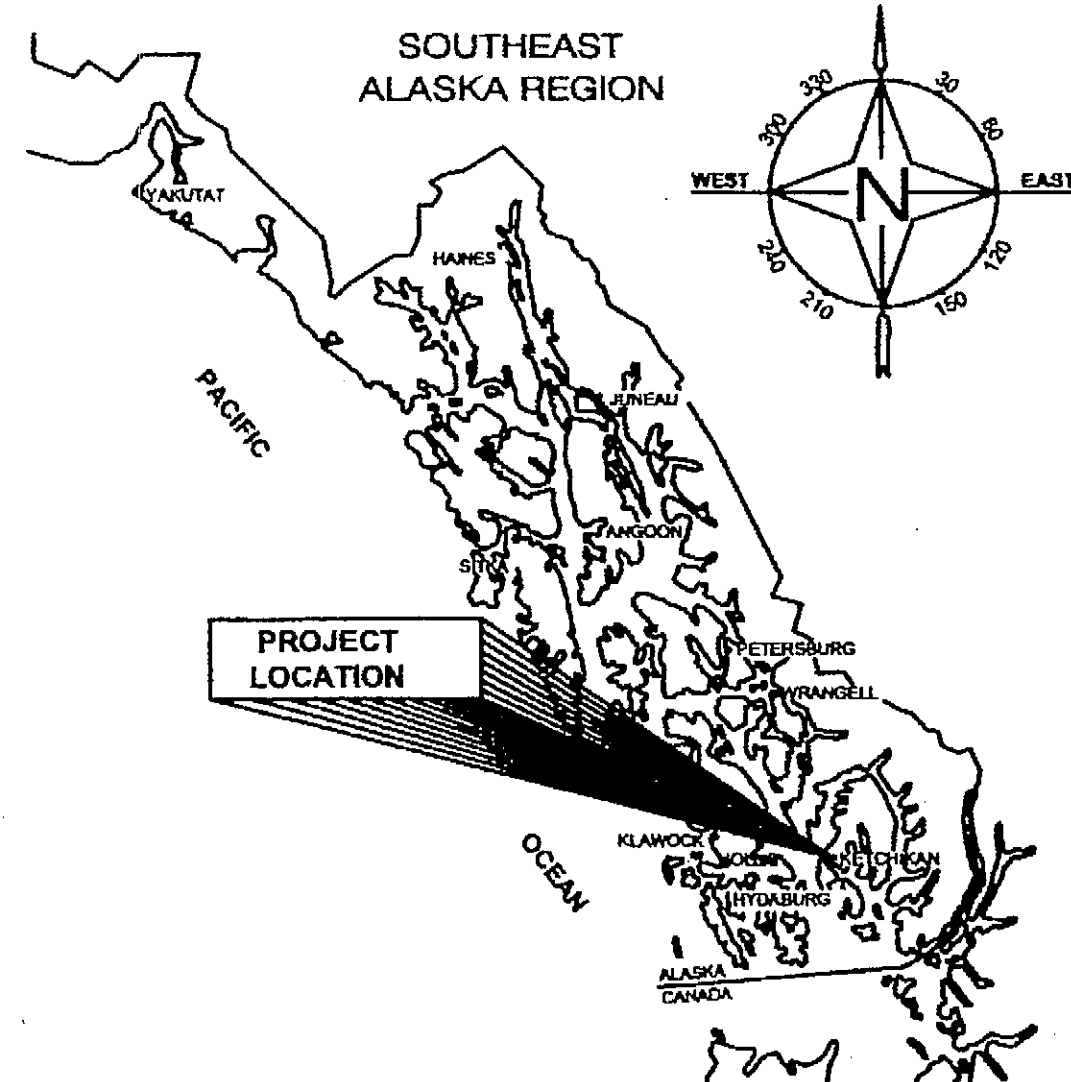
Design and Engineering Services Division-Southeast Region

KETCHIKAN, ALASKA KTN AIRPORT FERRY TERMINAL TO THIRD AVENUE SURFACING

AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1
PROJECT No. NHS-IM-000S(495)~68366

TONGASS AVENUE WATER & SEWER MAIN REPLACEMENT

AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1
PROJECT No. RSA 68830 / RSA 68831



VICINITY MAP

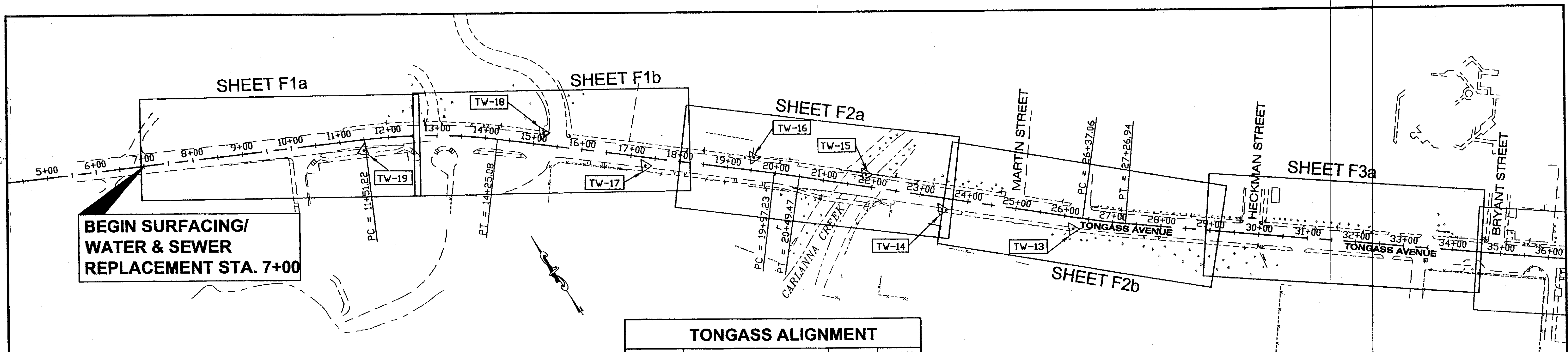
TIDAL DATA

EHW: 20.8'
EHT: 19.4'
MHHW: 15.3'
MHW: 14.4'
ELW: -5.0

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

A-1	D-04.21	D-35.00	I-21.01	S-20.10	T-20.02
C-03.10	D-22.01	D-36.00	M-13.01	S-21.02	T-21.02
C-04.12	D-24.00	G-30.00	M-16.01	S-23.00	T-22.03
C-05.10	D-25.00	G-31.00	S-00.10	S-30.03	U-03.00
D-01.02	D-26.02	I-20.13	S-05.01		

INDEX				
SHEET NO.		DESCRIPTION		
COMBINED				
AA1		COMBINED TITLE SHEET		
AA2		COMBINED SURVEY CONTROL		
AA3		COMBINED ESTIMATE OF QUANTITIES		
TONGASS AVE SURFACING				
A1-K5		24 TOTAL SHEETS		
TONGASS AVE WATER & SEWER REPLACEMENT				
C1-W11		27 TOTAL SHEETS		
~~RED-LINE SET~~				
AS-Built Plans				
Project Engineer: Jack Lee				
Contractor: Secon Inc.				
Beginning Date: April 21, 2006				
Ending Date: August 6, 2008				
PATH: Q:\KTN\68366\PLANSET\68366-A1_TITLE.DWG TAB:AA1				
PLOT: PSPACE OR MSPAGE: 1=1(F)				
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-SOUTHEAST REGION				
APPROVED: 2/10/06				
REGIONAL PRE-CONSTRUCTION ENGINEER PATRICK J. KEMP, P.E.				
APPROVED: 2/10/06				
DIRECTOR, SOUTHEAST REGION MALCOLM A. MENZIES, P.E.				
CERTIFIED TRUE & CORRECT AS-BUILT OF ACTUAL FIELD CONDITION:				
CONSTRUCTION PROJECT MANAGER DATE				
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NHS-IM-000S(495)~68366	2006	AA1	54



CONTROL POINTS					
STATION	OFFSET TO C	DESCRIPTION	ELEV.	NORTHING	EASTING
11+47.09	21.60' RT	TW-19	26.16	93981.94	95022.46
15+18.63	24.17' LT	TW-18	23.81	93806.62	95350.70
17+30.96	16.66' RT	TW-17	24.21	93638.10	95486.17
19+51.88	26.43' LT	TW-16	28.67	93528.02	95682.50
21+84.94	24.49' LT	TW-15	29.85	93371.97	95856.54
23+49.31	23.09' RT	TW-14	29.33	93226.81	95947.15
26+20.55	23.74' RT	TW-13	27.06	93045.23	96148.65
42+35.69	26.09' LT	TW-12	27.94	92079.60	97445.90
46+01.43	25.38' RT	TW-11	27.10	91812.58	97701.07

TONGASS ALIGNMENT				
STATION	TANGENT-CURVE DATA		NORTHING	EASTING
BOP 7+00.00	N 63°22'30" W	451.22	94201.614	94632.460
PC 11+51.22	Delta: 13°41'35"	Type: RIGHT	93999.400	95035.833
	Radius: 1145.92'	DOC: 5°00'00"		
	Length: 273.86'	Tangent: 137.59'		
PT 14+25.08	N 49°40'55" W	572.15'	93848.718	95263.733
PC 19+97.23	Delta: 01°34'02"	Type: RIGHT	93478.521	95699.977
	Radius: 1909.86'	DOC: 03°00'00"		
	Length: 52.24'	Tangent: 26.12'		
PT 20+49.47	N 48°06'53" W	587.59'	93444.179	95739.341
PC 26+37.06	Delta: 03°35'43"	Type: LEFT	93051.877	96176.795
	Radius: 1432.40'	DOC: 04°00'00"		
	Length: 89.88'	Tangent: 44.95'		
PT 27+26.94	N 51°42'36" W	1033.05'	92994.008	96245.546
EOP 37+60			92353.884	97056.371

BASIS OF CONTROL

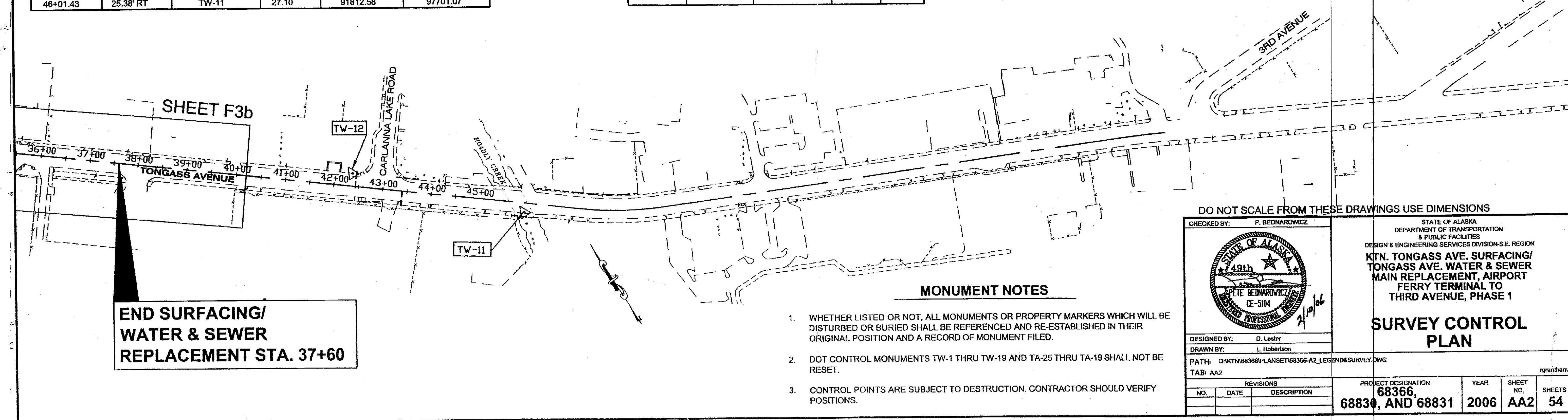
HORIZONTAL CONTROL

THE BASIS OF HORIZONTAL CONTROL FOR THIS PROJECT IS THE BEARING OF N 62°08'43" W FROM DOT/PF CONTROL MONUMENT TW-9, A 2" ALUMINUM SURVEY CAP STAMPED "TW-9 1993", GROUTED INTO THE SIDEWALK AT THE NE CORNER OF THE INTERSECTION OF TONGASS AVE. AND MADISON WITH PROJECT COORDINATES OF N. 90869.365, E. 100048.842 AND TW-10, A 2" ALUMINUM SURVEY CAP STAMPED "TW-10 1993", GROUTED INTO THE NORTH SIDEWALK OF TONGASS AVE. IN FRONT OF THE KPC STEPS AT 3RD AND TONGASS, WITH PROJECT COORDINATES OF: N. 91288.600, E. 98877.160.

THIS PROJECT IS ON THE SAME BASIS OF CONTROL AS THE 3RD. AVE. RECONSTRUCTION AND 3RD AVE. EXTENSION PROJECTS. SEE PROJECT BOOK KTN 17(1) FOR THE ORIGINAL BASIS OF CONTROL.

VERTICAL CONTROL

THE BASIS OF VERTICAL CONTROL FOR THIS PROJECT IS THE DOT/PF CONTROL MONUMENT SB-73 WITH AN ACCEPTED ELEVATION OF 23.74' ABOVE MLLW.



MONUMENT NOTES

- WHETHER LISTED OR NOT, ALL MONUMENTS OR PROPERTY MARKERS WHICH WILL BE DISTURBED OR BURIED SHALL BE REFERENCED AND RE-ESTABLISHED IN THEIR ORIGINAL POSITION AND A RECORD OF MONUMENT FILED.
- DOT CONTROL MONUMENTS TW-1 THRU TW-19 AND TA-25 THRU TA-19 SHALL NOT BE RESET.
- CONTROL POINTS ARE SUBJECT TO DESTRUCTION. CONTRACTOR SHOULD VERIFY POSITIONS.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

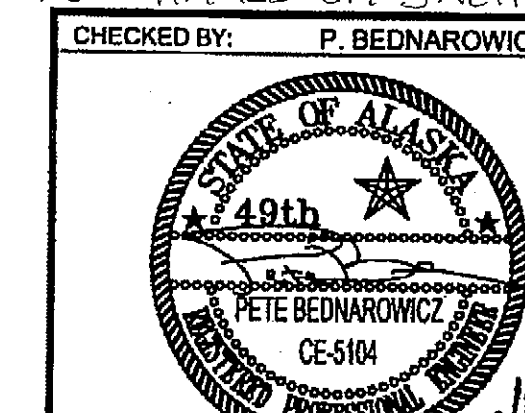
CHECKED BY: P. BEDNAROWICZ 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION KTN. TONGASS AVE. SURFACING/ TONGASS AVE. WATER & SEWER MAIN REPLACEMENT, AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1	
DESIGNED BY: D. Lester DRAWN BY: L. Robertson PATH: Q:\KTN\68366\PLANSET\68366-A2_LEGEND\ASURVEY.DWG TAB: AA2		SURVEY CONTROL PLAN	
PROJECT DESIGNATION 68366, 68830, AND 68831		YEAR 2006	SHEET NO. AA2
		SHEETS 54	

ESTIMATE OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	PAY UNIT	QUANTITY				ITEM NO	ITEM DESCRIPTION	PAY UNIT	QUANTITY			
			STATE 68366	CITY 68830	CITY 68831	COMBINED				STATE 68366	CITY 68830	CITY 68831	COMBINED
202 (1)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	626 (2B)	SEWER SERVICE CONNECTION, 8 INCH	EACH			-5- 6	-5- 6
202 (2)	REMOVAL OF PAVEMENT	SQUARE YARD	-406- 425.45			406	626 (3)	COMBINATION AIR / VACUUM VALVE ASSEMBLY	EACH	DELETED PER C.O. #20	-1- 6	-1- 6	-1- 6
202 (13)	REMOVAL OF CONCRETE	SQUARE YARD	-4710- 4525.08	4730- 132.87	4730- 132.88	8,170- 2700.83	626 (4A)	GATE VALVE, 4 INCH	EACH			3	3
203 (2)	ROCK EXCAVATION	CUBIC YARD		250- 216.80	250- 238.68	500- 455.48	626 (4B)	GATE VALVE, 8 INCH	EACH			6	6
204 (2)	FLOWABLE FILL, EXCAVATABLE	CUBIC YARD	155- 48.56	-66- 0.0		215- 48.56	626 (4C)	GATE VALVE, 24 INCH	EACH				
204 (3)	UTILITY BACKFILL	CUBIC YARD		870- 2376.25	870- 94.65	1,740- 2470.90	626 (4D)	GATE VALVE, 30 INCH	EACH	DID NOT USE THIS ITEM	-2- 0	-2- 0	-2- 0
204 (4)	FOUNDATION MATERIAL	CUBIC YARD		512- 0	744- 52.77	1,256- 52.77	626 (5)	CONNECT TO EXISTING SEWER	EACH			1	1
301 (1)	AGGREGATE BASE COURSE, GRADING D-1	TON	3008- 2108.61	220- 236.14	228- 236.13	3,446- 180.88	626 (6)	CONNECT TO EXISTING PUMP STATIONS	EACH			15- 14	15- 14
306 (1)	ATB	TON	-1640- 1337.64	-1060- 1259.85	-1060- 222.80	3,760- 4425.79	627 (1A)	WATER CONDUIT, 30 INCH, HDPE	LINEAR FOOT		-3108- 2946.38	-3108- 2946.38	-3108- 2946.38
401 (1)	ASPHALT CONCRETE, SP, TYPE A, B	TON	1640- 1823.02	420- 174.37	420- 174.36	1,880- 171.75	627 (1B)	WATER CONDUIT, 18 INCH, HDPE	LINEAR FOOT		-100- 164.66	-100- 164.66	-100- 164.66
401 (2)	ASPHALT CEMENT, GRADE PG 64-28	TON	-164- 136.02	-51- 62.46	-52- 61.25	287- 319.94	627 (1C)	WATER CONDUIT, 8 INCH DUCTILE IRON	LINEAR FOOT		-160- 230.04	-160- 230.04	-160- 230.04
401 (6)	ASPHALT PRICE ADJUSTMENT	CONTINGENT SUM	2171.75 TONS/B	8,959.38		ALL REQUIRED	627 (1D)	WATER CONDUIT, 6 INCH, DUCTILE IRON	LINEAR FOOT		-625- 7612.10	-625- 7612.10	-625- 7612.10
401 (9)	PAVEMENT PATCHING	LUMP SUM		ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	627 (1E)	WATER CONDUIT, 24 INCH DUCTILE IRON ARCTIC PIPE	LINEAR FOOT		-120- 123.53	-120- 123.53	-120- 123.53
402 (1)	STE-1 ASPHALT FOR TACK COAT	TON	-12- 2.86	-1- 0.81	-1- 0.81	14- 4.48	627 (2)	CONNECTION TO EXISTING WATER MAIN	EACH		-6- 5	-6- 5	-6- 5
408 (1A)	PAVEMENT COLD PLANING-ASPHALT	SQUARE YARD	-9530- 2374.11	-2995- 2384.55	-2995- 2384.54	15,520- 5243.20	627 (3)	FIRE HYDRANT INSTALLATION	EACH		10		10
501 (4)	CLASS A CONCRETE	CUBIC YARD		-4- 12.30		-4- 12.30	627 (4A)	2 INCH WATER SERVICE	EACH		-4- 3	-4- 3	-4- 3
501 (9)	DRILL AND BOND DOWELS	EACH	34			34	627 (4B)	1 INCH WATER SERVICE	EACH		-8- 7	-8- 7	-8- 7
501 (10)	CARLANNA CREEK PRESTRESSED SUPPORT BEAM	LUMP SUM	DELETED PER C.O. #11	ALL REQUIRED		ALL REQUIRED	627 (5A)	INSTALL 24 INCH, BUTTERFLY VALVE	EACH		12		12
501 (11)	CONCRETE RESTORATION	SQUARE YARD		-35- 76.1		-35- 76.1	627 (5B)	INSTALL 12 INCH, BUTTERFLY VALVE	EACH		2		2
504 (3)	STEEL DECK DRAINS	EACH	8			8	627 (5C)	INSTALL 10 INCH, GATE VALVE	EACH		1		1
507 (1)	STEEL BRIDGE RAILING	LINEAR FOOT	-86- 25.65			-86- 25.65	627 (5D)	INSTALL 8 INCH, GATE VALVE	EACH		10		10
507 (6)	COMBINATION RAILING	LINEAR FOOT	104			104	627 (5E)	INSTALL 6 INCH, GATE VALVE	EACH		-19- 22	-19- 22	-19- 22
508 (1)	WATERPROOFING MEMBRANE	LUMP SUM	ALL REQUIRED			ALL REQUIRED	628 (1)	HOSPITAL WATER LINE	LUMP SUM		ALL REQUIRED		ALL REQUIRED
603 (19)-21X15	21 INCH X 15 INCH PIPE ARCH	LINEAR FOOT	-160- 171.4			-160- 171.4	635 (1)	INSULATION BOARD	SQUARE FOOT	DID NOT USE THIS ITEM	-200- 0	-200- 0	-200- 0
603 (19)-42X29	42 INCH X 29 INCH PIPE ARCH	LINEAR FOOT	140			140	640 (1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
603 (19)-57X38	57 INCH X 38 INCH PIPE ARCH	LINEAR FOOT	-58- 45.7			-58- 45.7	640 (4)	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
603 (21)-18	18 INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	-510- 559.03			-510- 559.03	641 (1)	EROSION AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
604 (1A)	STORM SEWER MANHOLE, TYPE II	EACH	-1- 2			-1- 2	641 (3)	TEMPORARY EROSION AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
604 (1B)	STORM SEWER MANHOLE, TYPE III	EACH	-3- 4			-3- 4	641 (4)	TEMPORARY EROSION AND POLLUTION CONTROL AMENDMENTS	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
604 (2A)	SANITARY SEWER MANHOLE, 48 INCH	EACH			-12- 14	12- 14	641 (5)	INLET PROTECTION	EACH		-35- 51	-35- 51	-35- 51
604 (2B)	SANITARY SEWER MANHOLE, 60 INCH	EACH			-4- 3	4- 3	642 (1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
604 (4)	ADJUST EXISTING MANHOLE	EACH	-3- 4			5- 6	642 (8)	ADJUST EXISTING MONUMENT	EACH		-5- 5	-5- 5	-5- 5
604 (5)	INLET TYPE A	EACH	15			15	643 (2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
606 (12)	GUARDRAIL/BRIDGE RAIL CONNECTION	EACH	1			1	643 (3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
606 (13)	CRASH CUSHION	EACH	1			1	643 (15)	FLAGGING	CONTINGENT SUM	64519.06	125,024.56	69,616.38	259,160.00
608 (1A)	CONCRETE SIDEWALK, 4 INCHES THICK	SQUARE YARD	-290- 363.27	-248- 299.03	-160- 226.57	704- 888.87	643 (23)	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
608 (6)	CURB RAMP	EACH	-9- 13			-9- 13	643 (25)	TRAFFIC CONTROL	CONTINGENT SUM	56042.67	130,548.88	122,946.30	309,537.85
609 (2)	CURB & GUTTER	LINEAR FOOT	-580- 1069.96	-458- 734.45	-297- 1274.47	1,336- 3078.88	644 (6)	VEHICLES	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
615 (1)	STANDARD SIGN	SQUARE FOOT	258- 308.62			258- 308.62	646 (1)	CPM SCHEDULING	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
626 (1A)	SANITARY SEWER CONDUIT, 6 INCH, C900 GRAVITY	LINEAR FOOT			-460- 459.0	-460- 459.0	670 (8)	RECESSED PAVEMENT MARKER	EACH		-100- 133	-100- 133	-100- 133
626 (1B)	SANITARY SEWER CONDUIT, 8 INCH, C900 GRAVITY	LINEAR FOOT			4738- 592.50	4,738- 592.50	670 (10)	METHYL METHACRYLATE PAVEMENT MARKINGS	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
626 (1C)	SANITARY SEWER CONDUIT, 10 INCH, C900 GRAVITY	LINEAR FOOT			-45- 42.60	-45- 42.60	204 (5)	BEDDING FOR CMP/PIPE STRUCTURES - CHANGE ORDER #1	TON	255.08		483.36	738.44
626 (1D)	SANITARY SEWER CONDUIT, 12 INCH, C900 GRAVITY	LINEAR FOOT			1342- 237.20	1,342- 237.20	204 (6)	BEDDING FOR CPP - CHANGE ORDER #1	TON	437.32			437.32
626 (1E)	SANITARY SEWER CONDUIT, 24 INCH, C900 GRAVITY	LINEAR FOOT			-30- 12.4	-30- 12.4	401 (1B)	ASPHALT CONCRETE, TYPE II CLASS C - CHANGE ORDER #18	TON	41.91			41.91
626 (1F)	SANITARY SEWER CONDUIT, 30 INCH, C900 GRAVITY	LINEAR FOOT			-347- 324.50	-347- 324.50	501 (12)	PUMP STATION TO CONCRETE RETAINING WALL - CHANGE ORDER #21	Lump Sum			ALL REQUIRED	ALL REQUIRED
626 (1G)	SANITARY SEWER CONDUIT, 8 INCH, HDPE FORCE MAIN	LINEAR FOOT			4944- 1683.40	4,944- 1683.40	501 (13)	PRE-STRESSED SUPPORT BEAM - CHANGE ORDER #11	Lump Sum		ALL REQUIRED		ALL REQUIRED
626 (1H)	SANITARY SEWER CONDUIT, 24 INCH, HDPE FORCE MAIN	LINEAR FOOT			410- 101.00	410- 101.00	508 (1A)	Bridge Surface Repair - Change Order #8	Lump Sum	ALL REQUIRED			ALL REQUIRED
626 (2A)	SEWER SERVICE CONNECTION, 6 INCH	EACH			14	14	603 (21)-36	36-INCH CORRUGATED POLYETHYLENE PIPE - CHANGE ORDER #2	LINEAR FOOT	108.8			108.8

BASIS OF ESTIMATE

ITEM NO	PAY ITEM	QUANTITY	ITEM NO	PAY ITEM	QUANTITY
202(1)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS		301 (1)	CRUSHED AGGREGATE BASE COURSE, D-1	1.98 TON/CY
	ABANDON EXISTING MANHOLES	18 EACH	306 (1)	ATB	120 LB/SY/IN
	REMOVE EXISTING MANHOLES	13 EACH	401 (1)	ASPHALT CONCRETE, SP, TYPE A	120 LB/SY/IN
	REMOVE EXISTING CLEANOUTS	2 EACH	401 (2)	ASPHALT CEMENT, GRADE PG 64-28	4.5% OF ITEM 306 (1), 6% OF ITEM 401 (1)
	REMOVAL / PLUGGING OF PIPES	60 PLACES	402 (1)	STE-1 ASPHALT FOR TACK COAT	0.1 GAL/SY, 243 GAL/TON
	REMOVAL OF PAVEMENT FROM CARLANNA CREEK BRIDGE	406 SY	504 (3)	STEEL DECK DRAINS	8 EA.
	REMOVAL OF BRIDGE RAILING FROM CARLANNA CREEK BRIDGE	190 FT	508 (1)	WATERPROOFING MEMBRANE	410 SY.
	REMOVAL OF CURB AND GUTTER	1290 LF	626 & 627	TRENCHING ITEMS	300 CY. ROCK EXCAVATION (APPROX.)
	REMOVAL OF SIDEWALK (SY)	696 SY			



DESIGNED BY: D. LESTER
 DRAWN BY: L. ROBERTSON
 PATH: Q:\KTN\68366\PLANSET\68366-C1_EST.DWG
 TAB: A43

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 & PUBLIC FACILITIES
 DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION
 KTN. TONGASS AVE. SURFACING/
 TONGASS AVE. WATER & SEWER
 MAIN REPLACEMENT, AIRPORT
 FERRY TERMINAL TO
 THIRD AVENUE, PHASE 1

COMBINED ESTIMATE
OF QUANTITIES

REVISIONS			PROJECT DESIGNATION		YEAR	SHEET NO.	SHEETS
NO.	DATE	DESCRIPTION	68366, 68830, AND 68831		2006	AA3	54

Item No.	Item Description	Pay Unit	QUANTITY			Combined
			68366 State	68830 City	68831 City	
604(2C)	Sanitary Sewer Manhole - 72 inch - C.O. # 13	Lump Sum			All Required	All Required
604(7)	Sewer Relocate Manhole B2-1 - C.O. # 4	Lump Sum			All Required	All Required
606(14)	Nested Guardrail/Crash Cushion - C.O. # 16	Each	1			1
626(3A)	Combination Air/Vacuum Assembly Revised C.O. # 20	Lump Sum			All Required	All Required
626(7)	Install locating Wire - C.O. # 13	Lump Sum			All Required	All Required
626(8)	Misc. Sewer System Changes - C.O. # 3	Lump Sum			All Required	All Required
626(9)	Pump Station # 6 Water Service Upgrade - C.O. # 13	Lump Sum			All Required	All Required
627(1A-A)	Equitable Adjustments for HDPE Water Conduit - C.O. #15	Lump Sum		All Required		All Required
627(1A1)	30 Inch HDPE /P-15 Conflict - C.O. # 12	Lump Sum		All Required		All Required
627(1A2)	30 Inch HDPE/Martin St. Conflict - C.O. # 12	Lump Sum		All Required		All Required
627(1A3)	30 Inch HDPE/Arctic Pipe Revised Connection - C.O. # 10	Lump Sum		All Required		All Required
627(1A4)	Misc. Waterline Work - C.O. # 10	Lump Sum		All Required		All Required
627(1A5)	30 Inch HDPE /Heckman St. Conflict - C.O. # 9	Lump Sum		All Required		All Required
627(6)	Water Service Changes & Addition - C.O. # 10	Lump Sum		All Required		All Required
628(2)	Hospital Additional Clearing - C.O. # 7	Lump Sum		All Required		All Required
628(3)	Hospital Water/Electrical Conflict - C.O. # 10	Lump Sum		All Required		All Required
642(13)	Set Primary Monuments and Cases - C.O. # 22	Each	5			5
670(1)	Painted Traffic Markings - C.O. #17	Lump Sum				All Required
202(14)	Asbestos Abatement - C.O. #14	Lump Sum	All Required	All Required	All Required	All Required

A-1	D-04.21	D-36.00	M-13.01	S-20.10	T-22.03
C-03.10	D-22.01	G-30.00	M-16.01	S-30.03	T-23.00
C-04.12	D-24.00	D-37.01	S-21.02	T-20.02	U-03.00
C-05.10	D-25.00	I-20.13	S-00.10	T-21.02	
D-01.02	D-26.02	I-21.01	S-05.01		

BEGIN SURFACING
B.O.P. STA. 7+00

SHEET F1a

SHEET F1b

SHEET F2a

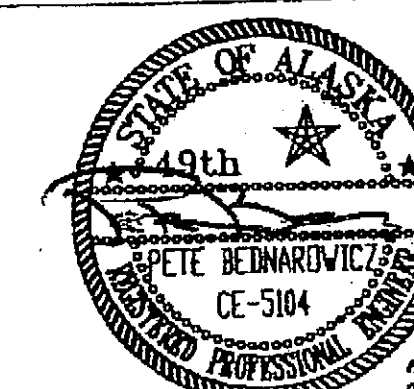
SHEET F3a

END SURFACING
E.O.P. STA. 37+60

SHEET F3b

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. BEDNAROWICZ



DESIGNED BY: D. LESTER

DRAWN BY: L. ROBERTSON

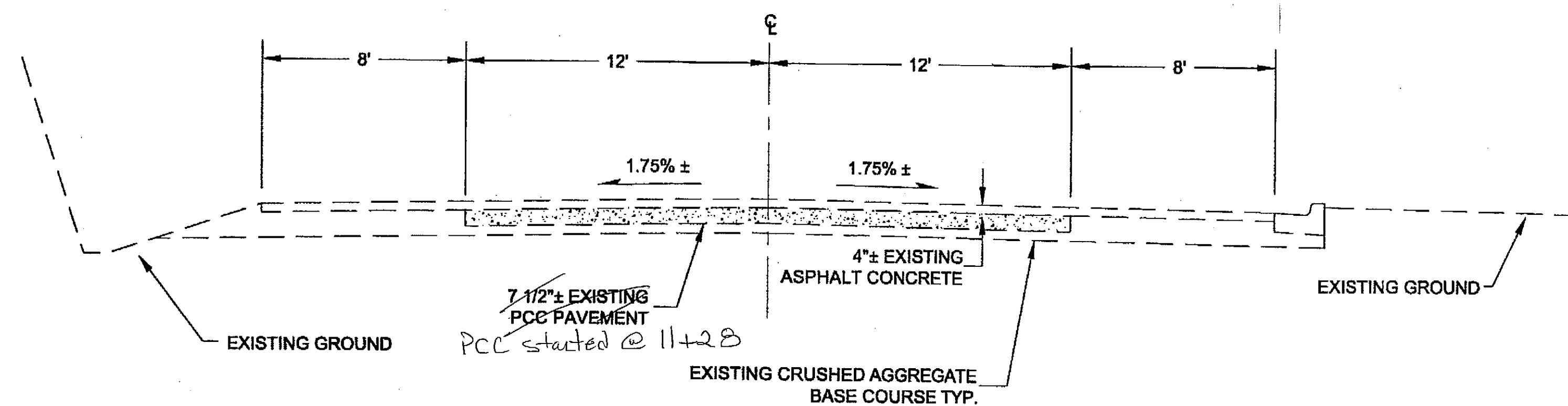
PATH: Q:\KTN\68366\PLANSET\68366-A2.Legend\SURVEY.DWG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION

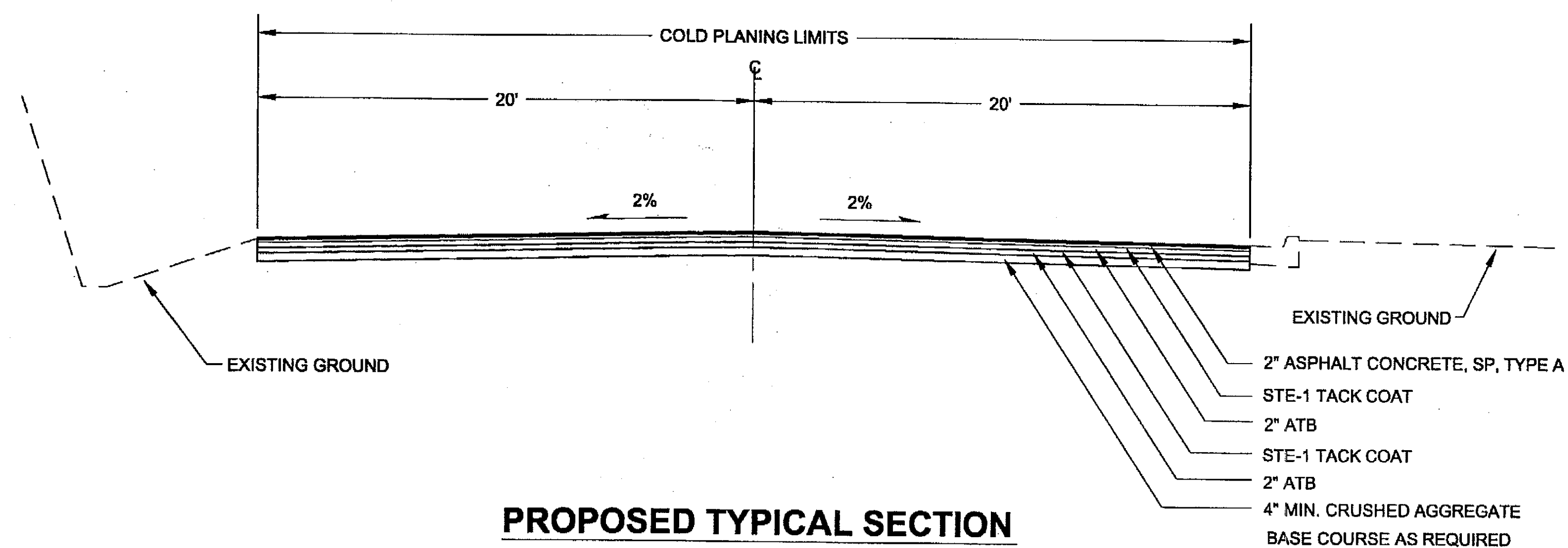
KETCHIKAN
TONGASS AVENUE SURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE, PHASE 1

SHEET LAYOUT

REVISIONS			PROJECT DESIGNATION			
NO.	DATE	DESCRIPTION	NHS-IM-000S(495) ~68366			
			YEAR	SHEET NO.	SHEETS	
			2006	A2	24	



**EXISTING TYPICAL SECTION
STA. 7+00 TO STA. 11+26**



**PROPOSED TYPICAL SECTION
7+00 TO 11+26
(SEE RSA 68830 & 68831, KPU DESIGNATED WORK)**

GENERAL NOTES

1. INFORMATION CONTAINED IN THESE DOCUMENTS HAS BEEN COMPILED FROM AS-BUILT DRAWINGS AND AERIAL PHOTOGRAPHY. AN AS-BUILT SURVEY SHALL BE REQUIRED TO FIELD VERIFY ALL EXISTING SITE CONDITIONS AND DIMENSIONS.
2. THE PCC CONCRETE PAVEMENT RUNS THE ENTIRE LENGTH OF THE PROJECT AND SHALL BE REMOVED. PAYMENT SHALL BE MADE UNDER ITEM 202(13).
3. SUMMARY TABLES ARE FOR BIDDING INFORMATION ONLY. ALL MANHOLES, MONUMENT CASES, VALVE BOXES, ETC SHALL BE FIELD LOCATED, PRIOR TO COLD PLANING OPERATIONS.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SET CONTROL FOR THE PAVING, COLD PLANING, TEMPORARY AND PERMANENT TRAFFIC MARKINGS AND OTHER ITEMS NECESSARY TO COMPLETE THE WORK.
5. FINISH GRADE SHALL BE CONTROLLED BY AND MATCH EXISTING CURB AND GUTTER ELEVATION.
6. ALL NAMED SIDE STREETS SHALL BE PAVED WITH A MINIMUM 2" AC AND 2" ATB.
7. DRAINAGE CULVERT PIPES SHALL HAVE A MINIMUM 0.5% SLOPE.

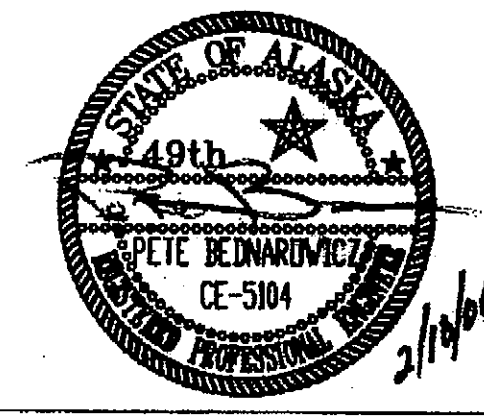
COLD PLANING NOTES

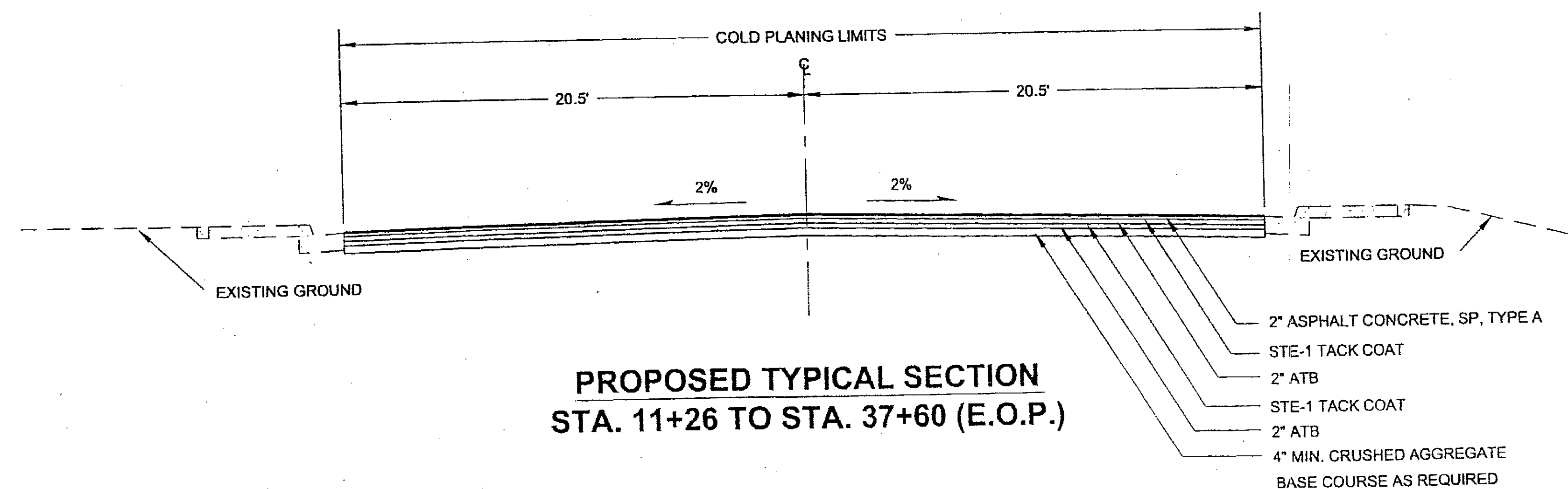
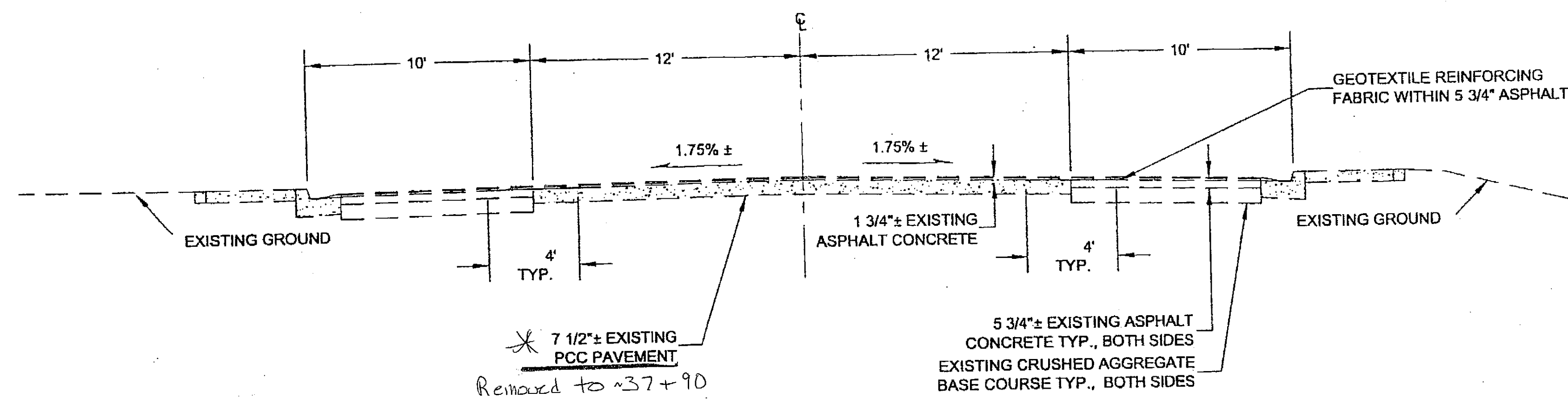
1. COLD PLANING WIDTHS AND DEPTHS MAY VARY AND ARE SUBJECT TO MINOR REVISIONS.
2. COLD PLANING EQUIPMENT SHALL BE OPERATED IN SUCH A MANNER AS TO PREVENT DAMAGE TO MANHOLES, WATER VALVES, MONUMENTS, REBAR, AND OTHER OBSTRUCTIONS.
3. EXISTING TRAFFIC MARKINGS DAMAGED BY OVERPLANING OR BLOTTED OUT BY SURFACING OPERATIONS SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATIONS. SETTING CONTROL POINTS FOR REINSTALLING TRAFFIC MARKINGS SHALL BE COORDINATED WITH THE ENGINEER.
4. PRIOR TO PLANING OPERATIONS, INLETS OR CATCH BASINS THAT MIGHT BE AFFECTED SHALL BE SUFFICIENTLY BARRICADED SO AS TO PREVENT DEBRIS OR RUNOFF FROM PLUGGING THE DRAINAGE SYSTEM.
5. COLD PLANING OPERATIONS SHALL COMMENCE ON THE LOWEST SIDE OF ROADWAY TO FACILITATE DRAINAGE.

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. *[Signature]* Date 3/2/09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. BEDNAROWICZ  DESIGNED BY: D. LESTER DRAWN BY: L. ROBERTSON PATH: G:\KTN\68366\PLANSET\68366-B1_TYP.DWG		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION KETCHIKAN TONGASS AVENUE SURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1	
TYPICAL SECTIONS		PROJECT DESIGNATION NHS-1M-000S(495) ~68366	
REVISIONS NO. DATE DESCRIPTION	YEAR 2006	SHEET NO. B1	SHEETS 24



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. *[Signature]* Date 3-2-07

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

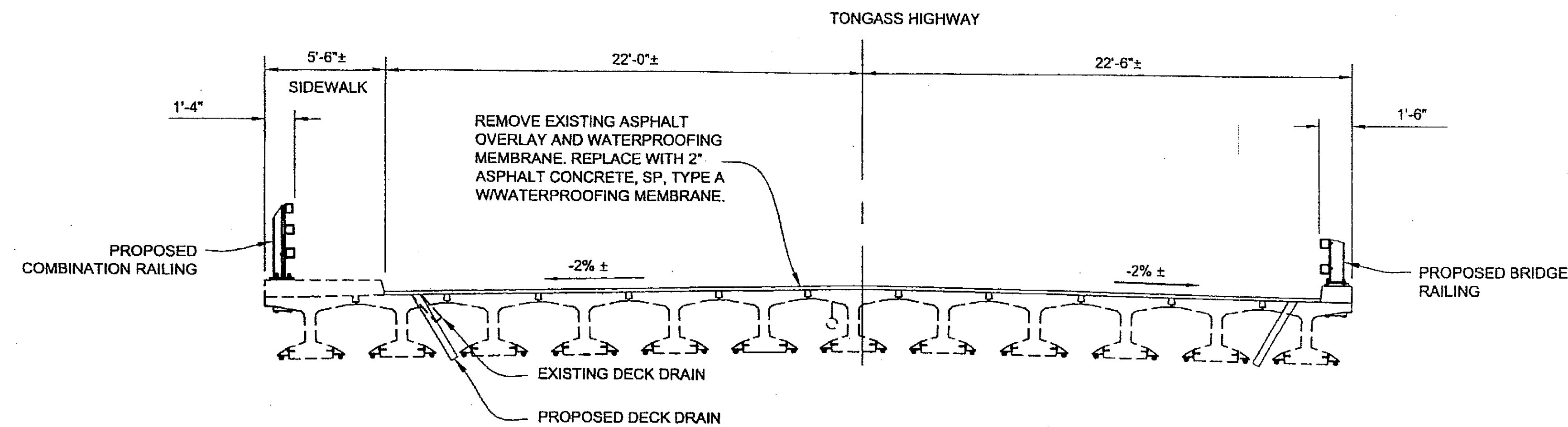
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DESIGNED BY: D. LESTER										
DRAWN BY: L. ROBERTSON										
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REVISIONS										
NO.	DATE	DESCRIPTION								

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION

**KETCHIKAN
TONGASS AVENUE SURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE, PHASE 1**

TYPICAL SECTIONS

PROJECT DESIGNATION		YEAR	SHEET NO.	SHEETS
NHS-IM-000S(495) ~68366		2006	B2	24

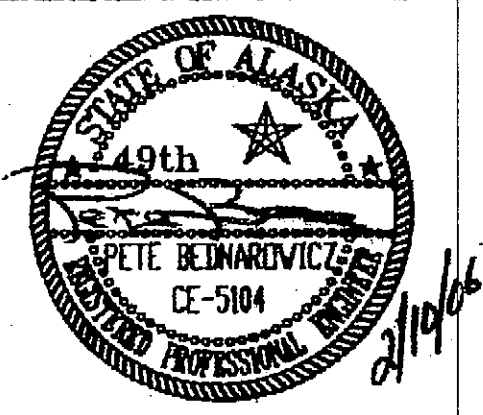


**PROPOSED TYPICAL SECTION
CARLANNA CREEK BRIDGE**

NOTE:
ALL ASPHALT REMOVED FROM BRIDGE SURFACE SHALL BE REMOVED WITH LOADERS OR OTHER STATIC EQUIPMENT. PAYMENT SHALL BE MADE UNDER ITEM 202(2).

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng. *[Signature]* Date: 3-28-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P.BEDNAROWICZ  DESIGNED BY: D.LESTER DRAWN BY: L.ROBERTSON PATH: Q:\KTN\68366\PLANSET\68366-B1.TYP.DWG		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION KETCHIKAN TONGASS AVENUE SURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1																			
TYPICAL SECTIONS		PROJECT DESIGNATION NHS-IM-000S(495) ~68366																			
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NO.	DATE	DESCRIPTION																			
YEAR	SHEET NO.	SHEETS																			
2006	B3	24																			

ESTIMATE OF QUANTITIES <i>See Sheet AAS Combined Quantities</i>			
ITEM NO	ITEM DESCRIPTION	PAY UNIT	QUANTITY
202 (1)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQUIRED
202 (2)	REMOVAL OF PAVEMENT	SQUARE YARD	406
202 (13)	REMOVAL OF CONCRETE	SQUARE YARD	4710
204 (2)	FLOWABLE FILL, EXCAVATABLE	CUBIC YARD	155
301 (1)	AGGREGATE BASE COURSE, GRADING D-1	TON	3000
306 (1)	ATB	TON	1640
401 (1)	ASPHALT CONCRETE, SP, TYPE A	TON	1640
401 (2)	ASPHALT CEMENT, GRADE PG 64-28	TON	164
401 (6)	ASPHALT PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
402 (1)	STE-1 ASPHALT FOR TACK COAT	TON	12
408 (1A)	PAVEMENT COLD PLANING-ASPHALT	SQUARE YARD	9530
501 (9)	DRILL AND BOND DOWELS	EACH	34
504 (3)	STEEL DECK DRAINS	EACH	8
507 (1)	STEEL BRIDGE RAILING	LINEAR FOOT	86
507 (6)	COMBINATION RAILING	LINEAR FOOT	104
508 (1)	WATERPROOFING MEMBRANE	LUMP SUM	ALL REQUIRED
603 (19)-21X15	21 INCH X 15 INCH PIPE ARCH	LINEAR FOOT	150
603 (19)-42X29	42 INCH X 29 INCH PIPE ARCH	LINEAR FOOT	140
603 (19)-57X38	57 INCH X 38 INCH PIPE ARCH	LINEAR FOOT	50
603 (21)-18	18 INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	510
604 (1A)	STORM SEWER MANHOLE, TYPE II	EACH	1
604 (1B)	STORM SEWER MANHOLE, TYPE III	EACH	3
604 (4)	ADJUST EXISTING MANHOLE	EACH	3
604 (5)	INLET TYPE A	EACH	15
606 (12)	GUARDRAIL/BRIDGE RAIL CONNECTION	EACH	1
606 (13)	CRASH CUSHION	EACH	1
608 (1A)	CONCRETE SIDEWALK, 4 INCHES THICK	SQUARE YARD	290
608 (6)	CURB RAMP	EACH	9
609 (2)	CURB & GUTTER	LINEAR FOOT	580
615 (1)	STANDARD SIGN	SQUARE FOOT	250
635 (1)	INSULATION BOARD	SQUARE FOOT	200
640 (1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
640 (4)	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
641 (1)	EROSION AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
641 (3)	TEMPORARY EROSION AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
641 (4)	TEMPORARY EROSION AND POLLUTION CONTROL AMENDMENTS	CONTINGENT SUM	ALL REQUIRED
641 (5)	INLET PROTECTION	EACH	35
642 (1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
642 (8)	ADJUST EXISTING MONUMENT	EACH	5
643 (2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643 (3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED
643 (15)	FLAGGING	CONTINGENT SUM	ALL REQUIRED
643 (23)	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
643 (25)	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED
644 (6)	VEHICLES	LUMP SUM	ALL REQUIRED
646 (1)	CPM SCHEDULING	LUMP SUM	ALL REQUIRED
670 (8)	RECESSED PAVEMENT MARKER	EACH	100
670 (10)	METHYL METHACRYLATE PAVEMENT MARKINGS	LUMP SUM	ALL REQUIRED

BASIS OF ESTIMATE		
ITEM NO	PAY ITEM	QUANTITY
202(1)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	
	REMOVAL OF PAVEMENT FROM CARLANNA CREEK BRIDGE	406 SY
	REMOVAL OF BRIDGE RAILING FROM CARLANNA CREEK BRIDGE	190 FT
	REMOVAL OF CURB AND GUTTER	530 LF
	REMOVAL OF SIDEWALK	280 SY
301 (1)	CRUSHED AGGREGATE BASE COURSE, D-1	1.98 TON/CY
306 (1)	ATB	120 LB/SY/IN
401 (1)	ASPHALT CONCRETE, SP, TYPE A	120 LB/SY/IN
401 (2)	ASPHALT CEMENT, GRADE PG 64-28	4.5% OF ITEM 306 (1), 6% OF ITEM 401 (1)
402 (1)	STE-1 ASPHALT FOR TACK COAT	0.1 GAL/SY, 243 GAL/TON
504 (3)	STEEL DECK DRAINS	8 EA.
508 (1)	WATERPROOFING MEMBRANE	410 SY.

GENERAL NOTE:

THE LOCATIONS OF EXISTING FEATURES AND UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTORS SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AS NECESSARY TO COMPLETE THE WORK AND PRIOR TO EXCAVATION. THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES ENCOUNTERED IN THE FIELD SHALL BE RECORDED ON THE CONTRACTORS RECORD DRAWINGS. SEE SECTION 105 OF THE SPECIFICATIONS.

CAUTION:

THE LOCATIONS OF EXISTING UTILITIES SHOWN ON DRAWINGS ARE APPROXIMATE. THERE MAY ALSO BE ADDITIONAL UTILITIES NOT SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING EXCAVATION:

KPU..... (907) 225-1000
WATER..... (907) 225-1000
WASTEWATER..... (907) 225-8750
ELECTRIC..... (907) 225-5505
TELEPHONE..... (907) 225-5408

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Engr. *[Signature]* Date *3-3-09*

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS			
CHECKED BY: P.BEDNAROWICZ		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION	
		KETCHIKAN TONGASS AVENUE SURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1	
DESIGNED BY: D.LESTER DRAWN BY: L.ROBERTSON		ESTIMATE OF QUANTITIES	
PATH: Q:\KTM68366\PLANSET\68366-C1_EST.DWG			
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NO.	DATE	DESCRIPTION	2006
		SHEET NO.	SHEETS
		C1	24

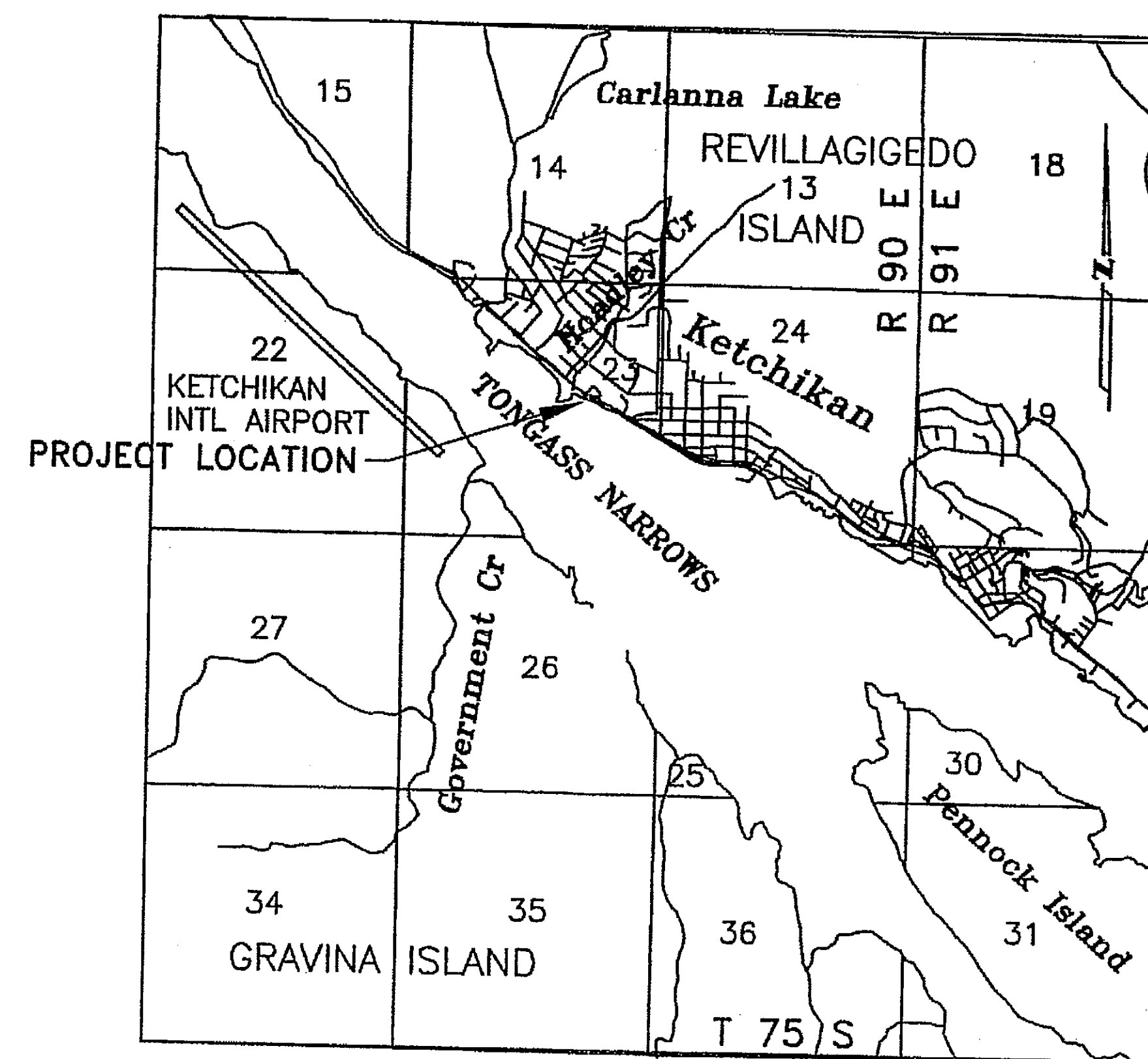
CITY OF KETCHIKAN / KPU

TONGASS AVENUE WATER & SEWER MAIN REPLACEMENT

AIRPORT FERRY TERMINAL TO THIRD AVENUE

PHASE I & KETCHIKAN HOSPITAL SERVICE

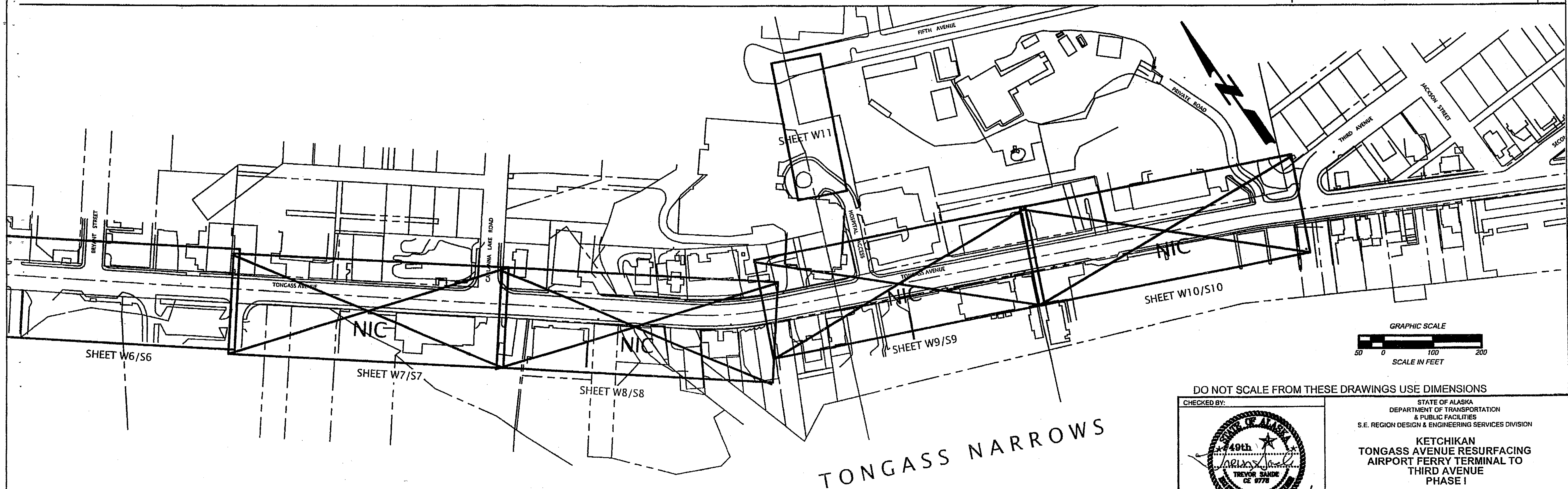
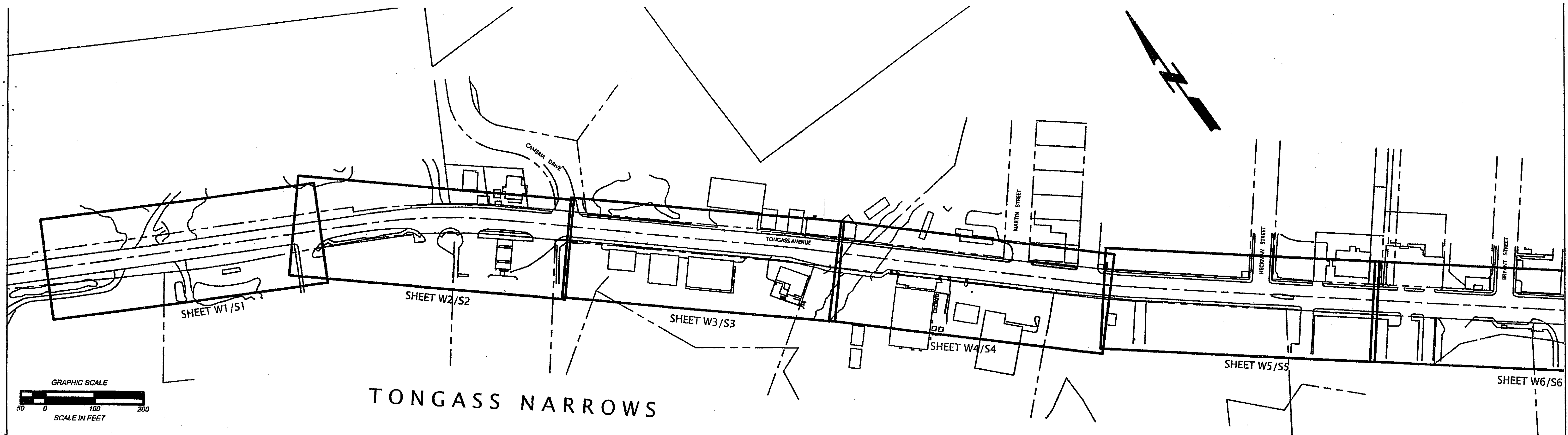
SHEET INDEX	
C1	TITLE SHEET / VICINITY MAP
C2	KEY MAP
C3	ESTIMATE OF QUANTITIES
C4	SUMMARY TABLES
D1	GENERAL DETAILS
D2	GENERAL DETAILS
D3	GENERAL DETAILS
D4	GENERAL DETAILS
D5	GENERAL DETAILS
D6	GENERAL DETAILS
D7	TYPICAL SECTIONS
D8	SEWER DETAILS
D9	HOADLEY CREEK BRIDGE
D10	CARLANNA CREEK BRIDGE
D11	HOSPITAL TEMP. WATER DETAILS
S1	SEWER PLAN & PROFILE STA 7+00 TO 11+00
S2	SEWER PLAN & PROFILE STA 11+00 TO 16+50
S3	SEWER PLAN & PROFILE STA 17+00 TO 22+50
S4	SEWER PLAN & PROFILE STA 22+50 TO 28+50
S5	SEWER PLAN & PROFILE STA 28+00 TO 33+50
S6	SEWER PLAN & PROFILE STA 33+50 TO 39+00
S7	SEWER PLAN & PROFILE STA 39+00 TO 44+50
S8	SEWER PLAN & PROFILE STA 44+50 TO 50+50
S9	SEWER PLAN & PROFILE STA 50+50 TO 55+50
S10	SEWER PLAN & PROFILE STA 55+50 TO 60+50
S11	NEW EMERGENCY OUTFALL BAR HARBOR
W1	WATER PLAN & PROFILE STA 7+00 TO 11+00
W2	WATER PLAN & PROFILE STA 11+00 TO 16+50
W3	WATER PLAN & PROFILE STA 17+00 TO 22+50
W4	WATER PLAN & PROFILE STA 22+50 TO 28+50
W5	WATER PLAN & PROFILE STA 28+00 TO 33+50
W6	WATER PLAN & PROFILE STA 33+50 TO 39+00
W7	WATER PLAN & PROFILE STA 39+00 TO 44+50
W8	WATER PLAN & PROFILE STA 44+50 TO 50+50
W9	WATER PLAN & PROFILE STA 50+50 TO 55+50
W10	WATER PLAN & PROFILE STA 55+50 TO 60+50
W11	WATER PLAN & PROFILE KETCHIKAN GENERAL HOSPITAL



FROM KETCHIKAN B-5 QUADRANGLE
SCALE 1"=1 MILE

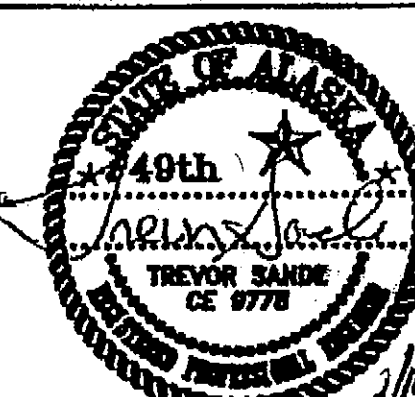
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CHECKED BY: 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION									
DESIGNED BY: T. SANDE DRAWN BY: J. ROBINSON		KETCHIKAN TONGASS AVENUE RESURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE PHASE I									
TITLE SHEET											
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NO.	DATE	DESCRIPTION									



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CHECKED BY:



DESIGNED BY: T. SANDE
DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

KETCHIKAN
TONGASS AVENUE RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I

KEY MAP

REVISIONS			PROJECT DESIGNATION	YEAR	SHEET NO.	SHEETS
NO.	DATE	DESCRIPTION				
			RSA 68830 / 68831	2006	C2	

See Sheet AA3 for Revised Quantities ESTIMATE OF QUANTITIES					
ITEM NO	PAY ITEM	PAY UNIT	QUANTITY		
			CITY 68830	CITY 68831	COMBINED
202 (1)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
202(13)	REMOVAL OF CONCRETE	SQUARE YARD	1730	1730	3460
203 (2)	ROCK EXCAVATION	CUBIC YARD	250	250	500
204 (2)	FLOWABLE FILL, EXCAVATABLE	CUBIC YARD	60		60
204 (3)	UTILITY BACKFILL	CUBIC YARD	870	870	1740
204 (4)	FOUNDATION MATERIAL	CUBIC YARD	512	744	1256
301 (1)	AGGREGATE BASE COURSE, GRADING D-1	TON	220	220	440
306 (1)	ATB	TON	1060	1060	2120
401 (1)	ASPHALT CONCRETE, SP, TYPE A	TON	120	120	240
401 (2)	ASPHALT CEMENT, GRADE PG 64-28	TON	51	52	103
401 (9)	PAVEMENT PATCHING	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
402 (1)	STE-1 ASPHALT FOR TACK COAT	TON	1	1	2
408 (1A)	PAVEMENT COLD PLANING-ASPHALT	SQUARE YARD	2995	2995	5990
501 (4)	CLASS A CONCRETE	CUBIC YARD	4		4
501(10)	CARLANNA CREEK PRESTRESSED SUPPORT BEAM	LUMP SUM	ALL REQUIRED		ALL REQUIRED
501(11)	CONCRETE RESTORATION	SQUARE YARD	35		35
604 (2A)	SANITARY SEWER MANHOLE, 48 INCH	EACH		12	12
604 (2B)	SANITARY SEWER MANHOLE, 60 INCH	EACH		4	4
608 (1A)	CONCRETE SIDEWALK, 4 INCHES THICK	SQUARE YARD	248	166	414
609 (2)	CURB & GUTTER	LINEAR FOOT	459	297	756
626 (1A)	SANITARY SEWER CONDUIT, 6 INCH, C900 GRAVITY	LINEAR FOOT		460	460
626 (1B)	SANITARY SEWER CONDUIT, 8 INCH, C900 GRAVITY	LINEAR FOOT		1738	1738
626 (1C)	SANITARY SEWER CONDUIT, 10 INCH, C900 GRAVITY	LINEAR FOOT		45	45
626 (1D)	SANITARY SEWER CONDUIT, 12 INCH, C900 GRAVITY	LINEAR FOOT		1342	1342
626 (1E)	SANITARY SEWER CONDUIT, 24 INCH, C900 GRAVITY	LINEAR FOOT		30	30
626 (1F)	SANITARY SEWER CONDUIT, 30 INCH, C900 GRAVITY	LINEAR FOOT		347	347
626 (1G)	SANITARY SEWER CONDUIT, 8 INCH, HDPE FORCE MAIN	LINEAR FOOT		1941	1941
626 (1H)	SANITARY SEWER CONDUIT, 24 INCH, HDPE FORCE MAIN	LINEAR FOOT		110	110
626 (2A)	SEWER SERVICE CONNECTION, 6 INCH	EACH		14	14
626 (2B)	SEWER SERVICE CONNECTION, 8 INCH	EACH		5	5
626 (3)	COMBINATION AIR/VACUUM ASSEMBLY	EACH		1	1
626 (4A)	GATE VALVE, 4 INCH	EACH		3	3
626 (4B)	GATE VALVE, 8 INCH	EACH		6	6
626 (4C)	GATE VALVE, 24 INCH	EACH		2	2
626 (4D)	GATE VALVE, 30 INCH	EACH		1	1
626 (5)	CONNECT TO EXISTING SEWER	EACH		15	15
626 (6)	CONNECT TO EXISTING PUMP STATIONS	EACH		2	2
627 (1A)	WATER CONDUIT, 30 INCH, HDPE	LINEAR FOOT	3100		3100
627 (1B)	WATER CONDUIT, 18 INCH, HDPE	LINEAR FOOT	100		100
627 (1C)	WATER CONDUIT, 8 INCH, DUCTILE IRON	LINEAR FOOT	160		160
627 (1D)	WATER CONDUIT, 6 INCH, DUCTILE IRON	LINEAR FOOT	625		625
627 (1E)	WATER CONDUIT, 24 INCH DUCTILE IRON ARCTIC PIPE	LINEAR FOOT	120		120
627 (2)	CONNECTION TO EXISTING WATER MAIN	EACH	6		6
627 (3)	FIRE HYDRANT INSTALLATION	EACH	10		10
627 (4A)	2 INCH WATER SERVICE	EACH	4		4
627 (4B)	1 INCH WATER SERVICE	EACH	8		8
627 (5A)	INSTALL 24 INCH, BUTTERFLY VALVE	EACH	12		12
627 (5B)	INSTALL 12 INCH, BUTTERFLY VALVE	EACH	2		2
627 (5C)	INSTALL 10 INCH, GATE VALVE	EACH	1		1
627 (5D)	INSTALL 8 INCH, GATE VALVE	EACH	10		10
627 (5E)	INSTALL 6 INCH, GATE VALVE	EACH	19		19
635 (1)	INSULATION BOARD	SQUARE FOOT	2400		2400
628 (1)	HOSPITAL WATER LINE	LUMP SUM	ALL REQUIRED		ALL REQUIRED
643 (23)	TRAFFIC PRIE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
646 (1)	CPM SCHEDULING	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED

ESTIMATE OF QUANTITIES					
ITEM NO	PAY ITEM	PAY UNIT	QUANTITY		
			CITY 68830	CITY 68831	COMBINED
640 (1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
640 (4)	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
641 (1)	EROSION AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
641 (3)	TEMPORARY EROSION AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
641 (4)	TEMPORARY EROSION AND POLLUTION CONTROL AMENDMENTS	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
642 (1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
643 (2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
643 (3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
643(15)	FLAGGING	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED
643(25)	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED	ALL REQUIRED	ALL REQUIRED

BASIS OF ESTIMATE		
ITEM NO	PAY ITEM	QUANTITY
202(1)	REMOVAL OF STRUCTURE AND OBSTRUCTIONS	
	ABANDON EXISTING MANHOLES	14 EACH
	REMOVE EXISTING MANHOLES	1 EACH
	REMOVE EXISTING CLEANOUTS	1 EACH
	REMOVAL / PLUGGING OF PIPES	34 PLACES
306 (1)	ATB	120 LB/SY/IN
401 (2)	ASPHALT CEMENT, GRADE PG 64-28	4.5% OF ITEM 306 (1), 6% OF ITEM 401 (1)

GENERAL NOTE:

THE LOCATIONS OF EXISTING FEATURES AND UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTORS SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AS NECESSARY TO COMPLETE THE WORK AND PRIOR TO EXCAVATION. THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES ENCOUNTERED IN THE FIELD SHALL BE RECORDED ON THE CONTRACTORS RECORD DRAWINGS. SEE SECTION 105 OF SPECIFICATIONS.

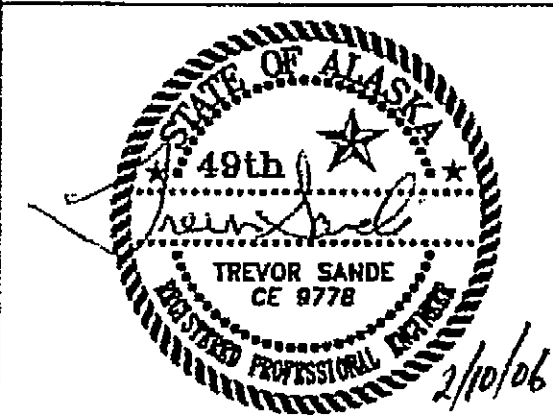
CAUTION:

THE LOCATIONS OF EXISTING UTILITIES SHOWN ON DRAWINGS ARE APPROXIMATE. THERE MAY ALSO BE ADDITIONAL UTILITIES NOT SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING EXCAVATION:

KPU..... (907) 225-1000
WATER..... (907) 225-1000
WASTEWATER..... (907) 225-8750
ELECTRIC..... (907) 225-5505
TELEPHONE..... (907) 225-5408

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they represent the project as constructed.
David E. Smith 3-3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY:		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION			
		KETCHIKAN TONGASS AVENUE RESURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE PHASE I			
DESIGNED BY: T. SANDE		ESTIMATE OF QUANTITIES			
DRAWN BY: J. ROBINSON					
REVISIONS		PROJECT DESIGNATION		YEAR	SHEET NO.
NO.	DATE	DESCRIPTION			SHEETS
		RSA 68830 / 68831		2006	C3

SEWER

STRUCTURES TO BE REMOVED / ABANDONED

MANHOLE	STATION
MH AA-5	08+09.0 RT
MH A-1	11+37.1 RT
MH A-2	12+79.2 RT
MH A-3	14+52.8 RT
NO LABEL	14+53.1 LT
MH A-4	17+28.2 RT
MH A-6	17+53.5 LT
MH B1-3	24+96.0 RT
MH B1-2	27+29.7 RT
MH B1-1	29+78.4 RT
MH B4-2	32+28.6 RT
~~MH B2-1~~	34+66.3 LT
MH B2-1-3	34+66.4 LT
MH B4-1	34+93.5 RT
MH B2-1-1	37+19.9 LT

CONNECT TO EXISTING

STATION	ITEM
08+08.3	8" PIPE TO EXISTING MH
11+36.8	8" PIPE TO EXISTING 8" BYPASS
15+64.3	8" PIPE TO EXISTING MH
21+20.9	8" PIPE TO EXISTING PIPE
22+21.0	8" PIPE TO EXISTING PIPE
24+55.2	8" PIPE TO EXISTING FM
24+83.4	8" PIPE TO EXISTING MH
24+97.4	8" PIPE TO EXISTING MH
25+64.7	24" PIPE TO EXISTING FM
25+59.2	24" PIPE TO EXISTING VAULT
29+78.9	8" PIPE TO EXISTING 8" PIPE
~~37+44.6~~	~~48" PIPE TO EXISTING MH~~ Deleted.
34+94.1	10" PIPE TO EXISTING MH
37+46.1	24" PIPE TO EXISTING MH
34+18.2	24" PIPE TO EXISTING FM

NEW STRUCTURES

ITEM	STATION
MH AA-5 ✓	88+10.8 ~~8H12.9~~ +6.6 R ~~76.1~~ R
MH A-1 ✓	~~11+88.2~~ 11+39.3 ~~40.8 R~~ 11.3 R
MH A-2 ✓	12+73.3 11.9 R
MH A-3 ✓	14+47.1 14.0 R
MH A-3-1 ✓	15+64.3 14.0 R
MH A-4 ✓	17+20.0 14.0 R
MH A-4-1 ✓	19+76.6 14.8 R
MH B1-3 ✓	~~25+91.4~~ 25+04.5 14.9 R
MH B1-2 ✓	27+34.6 ~~16.6 R~~ 14.3 R
MH B1-1 ✓	~~30+88.7~~ 29+72.2 14.7 R
MH B4-2 ✓	~~32+38.8~~ 32+20.3 14.7 R
MH B2-1-3 ✓	34+66.4 45.2 L
MH B2-1-2 ✓	34+70.2 11.6 L
MH B4-1 ✓	34+88.4 14.7 R
MH B2-1-1 ✓	37+15.3 12.8 L
MH B2-1 ^{Change To 72"} ✓	37+38.2 14.7 R CO # 13/CO # 4
AIR RELEASE	22+14.4 22.6 R Delete/Use Existing
B4-1 New 48" MH	37+27.2 14.7 R
MH D1-9-1 New 48"	27+7.8 25.1 L

NEW SERVICES

PIPE SIZE	STATION
8"	11+36.0
6"	13+53.9 28 $\frac{1}{2}$ FT
6"	13+58.8
6"	14+21.5 33 $\frac{1}{2}$ FT
6"	14+47.1 25 $\frac{3}{4}$ FT
8"	17+21.3
6"	17+77.6 17+79 $\frac{1}{2}$ 34 $\frac{1}{2}$ FT
6"	18+09.0 19+47 $\frac{1}{2}$ 29 $\frac{1}{2}$ FT
6"	18+44.6 18+87 $\frac{1}{2}$ 34 $\frac{1}{2}$ FT
6"	19+76.6 29 $\frac{1}{2}$ FT
6"	19+76.6 20+05 L+
8" TO MATCH EXISTING	27+32.1
8"	27+34.6
8"	29+80.7
6"	31+05.7 31+10
8"	32+38.9 32+20 $\frac{1}{4}$
6"	33+36.0
6"	33+60 33+71
6" OR 8" (CONFIRM SIZE)	34+92.4 34+93.2 L+
8"	17+20 30 $\frac{1}{2}$ FT CAP FOR FUTURE USE

CONNECT TO PUMP STATION

CONNECT TO PUMP STATION #6	INLET - STATION 34+66.4 OUTLET - STATION 34+30.1
CONNECT TO PUMP STATION #7	INLET - STATION 11+42.1 OUTLET - STATION 11+58.2

MAIN LINE SEWER VALVES

STATION	ITEM
7+34	8" GATE VALVE
7+35	8" GATE VALVE
11+36	~~8" GATE VALVE~~ 12" <i>over flow</i>
11+40	8" GATE VALVE
11+60	4" GATE VALVE
11+64	8" GATE VALVE
11+66	4" GATE VALVE
24+98	8" GATE VALVE
24+98	4" GATE VALVE
37+34	30" GATE VALVE

ADJUST EXISTING SEWER MANHOLES

STATION	OFFSET	ITEM
8+08.7 ✓	8.9 LEFT	MH AA-4
37+46.1 ✓	19.9 RIGHT	UNLABELED MANHOLE

NEW STRUCTURES

ITEM	STATION
HYDRANT	~~48+77.5~~ ~~28.0'L~~ 9+81.2 36+1.7
HYDRANT	~~42+04.8~~ ~~29.0'L~~ 12+70.2 29.4'L
HYDRANT 15+91.2 29° LT	~~46+20.0~~ 29.0'L 15+20.3 VALVE
HYDRANT 18+60.3 28° LT	~~48+44.0~~ ~~28.5'L~~ 18+59.8 SADDLE
HYDRANT 20+90.2 29° LT	~~20+88.9~~ 28.5'L 20+91.3 SADDLE
HYDRANT	22+60.5 29.0'L
HYDRANT	24+61.5 29.0'L
HYDRANT	~~27+07.1~~ ~~26.5'L~~ 27+63.9 29.3'L
HYDRANT	30+19.0 29.0'L
HYDRANT	35+14.8 28.1'L

NEW SERVICES

PIPE SIZE	STATION
18" (REQUIRES 12" VALVE)	~~07+25.0~~ 17+25 ³
2"	11+62.1
1" (CONNECT TO 3/4")	~~13+10.1~~ 13+48 ⁴
6"	13+56.4
1" (CONNECT TO 3/4")	13+60.8
1" (CONNECT TO 3/4")	~~14+00.0~~ 14+53 ⁰
8" SADDLE 13+103 ⁰	~~17+07.1~~ 18+30 ⁰ RT CAP FOR FUTURE USE
6" SADDLE 14+23 ⁵	~~18+20.0~~ 19+16
8" & (3) 1" OFF 8"	~~20+21.3~~ 20+23 ⁴
8" SADDLE 22+84 ²	~~22+56.0~~
6"	~~23+02.3~~ 23+64 ⁴ SADDLE
1" (CONNECT TO 3/4")	24+80.6
6"	~~26+10.1~~ 25+12 ³
1" & 2"	25+30 (SERVICE TO PUBLIC WORKS)
8"	~~27+10.0~~ 27+14 ⁵
6"	~~27+10.0~~ 27+45 ²
6"	~~27+70.6~~ 27+77 ⁹
6" SADDLE 31+14 ⁴	~~31+10.1~~ 31+11 ⁴ / 29 ⁰ RT
8" SADDLE 32+40 ⁰	32+44.0
2"	~~34+30.2~~ 34+41 ⁴
6" SADDLE 34+78 ⁴	~~34+62.1~~
6" SADDLE 34+97 ⁴	~~34+07.0~~
2"	~~36+04.0~~ 35+79 ²
	11+51 ¹ LT
	23+67 ⁵ RT
	27+83 ⁰ RT

CONNECT TO EXISTING

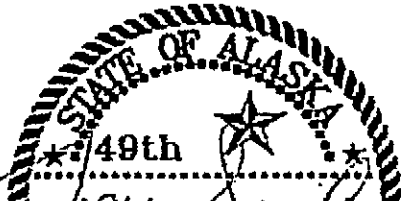
STATION	ITEM
07+01.7 6.8' L	30" HDPE TO EXISTING 8" LINE
15+47.2 28.7' L	8" DI TO EXISTING 8" DI
24+78.0 49.0' L	18" HDPE TO EXISTING 12" DI
25+67.1	8" HDPE TO EXISTING EXISTING VAULT
29+93.1 32.0' L	8" HDPE TO EXISTING 8" HDPE
37+45.4 3.6' R	10" HDPE TO EXISTING 10" LINE

MAIN LINE WATER VALVES

STATION	VALVE SIZE
7+02 6+99	8" GATE VALVE
7+03 7+00.4	8" GATE VALVE
7+04 <i>Delete</i>	8" GATE VALVE
7+15 7+06	24" BFV
15+45.5	24" BFV
15+47.5	8" GV
15+49.5	24" BFV
20+97	24" BFV
22+56	24" BFV
24+83.5	24" BFV
24+85.5	12" BFV
24+87.5	24" BFV
29+91	24" BFV
29+93	8" GV
29+95	24" BFV
35+13	24" BFV
35+17	24" BFV
37+30	24" BFV
37+41	10" GV

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they represent the project as constructed.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY:			STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC UTILITIES S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION																										
			KETCHIKAN TONGASS AVENUE RESURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE PHASE I																										
DESIGNED BY: T. SANDE			SUMMARY TABLES																										
DRAWN BY: J. ROBINSON																													
<table><tr><th colspan="3">REVISIONS</th></tr><tr><th>NO.</th><th>DATE</th><th>DESCRIPTION</th></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>			REVISIONS			NO.	DATE	DESCRIPTION										<table><tr><th>PROJECT DESIGNATION</th><th>YEAR</th><th>SHEET NO.</th><th>SHEETS</th></tr><tr><td>RSA 68830 / 68831</td><td>2006</td><td>C4</td><td> </td></tr></table>				PROJECT DESIGNATION	YEAR	SHEET NO.	SHEETS	RSA 68830 / 68831	2006	C4	
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RSA 68830 / 68831	2006	C4																											

202 REMOVAL OF INLETS AND MANHOLES				
STATION	OFFSET		TYPE	COMMENTS
	LEFT	RIGHT		
15+90		22	CURB INLET	
29+98		26	SDMH	
30+03		22	CURB INLET	
32+52		23	CURB INLET	
32+60	29		INLET	
32+60	20		CURB INLET	
33+44	29		INLET	
33+69		24		BURIED
33+75	29		SDMH	FIELD
34+64	20		CURB INLET	
35+12	20		CURB INLET	
35+86	20		CURB INLET	
36+71	20		CURB INLET	
36+95		21	SDMH	CURB INLET
37+09	20		CURB INLET	
38+26	20		CURB INLET	Did Not Remove

202 REMOVAL OF CULVERT PIPE					
STATION	OFFSET		DIAMETER (IN)	LENGTH (FT)	COMMENTS
	LEFT	RIGHT			
16+12		21	18	41	BENEATH C&G, STRUCT TO S-2
16+27		0	21"W X 15"H	44	HWY CROSS-CULVERT, STRUCT TO S-2
29+76		0	43"W X 27"H	104	HWY CROSS-CULVERT, STRUCT TO S-6
30+00		24	18	6	STRUCT TO S-6
30+01		30	43"W X 27"H	12	S-6 TO OUTLET
31+05		0	43"W X 27"H	50	HWY CROSS-CULVERT, STRUCT TO STRUCT
32+60	24		12	8	BENEATH SIDEWALK, S-9 TO S-10
33+01	29		12	84	BEHIND SIDEWALK, S-10 TO S-11
33+61	29		12	31	BEHIND SIDEWALK, S-11 TO S-13
33+72		0	21"W X 15"H	54	HWY CROSS-CULVERT, S-12 TO S-13
34+90	20		18	48	BRYANT ST INTERSECTION, S-14 TO S-15
35+50	20		18	74	BENEATH C&G, S-15 TO S-16
35+90	20		6	8	S-16 TO TEE
36+39	22		18	85	S-16 TO STRUCT
36+85	20		18	22	STRUCT TO S-17
36+94		0	58"W X 36"H	42	HWY CROSS-CULVERT, S-17 TO S-18

608(6) CURB RAMP			
STATION	OFFSET		REMARKS
	LEFT	RIGHT	
15+45		X	
30+04	X		PEDESTRIAN CROSSWALK
30+07		X	PEDESTRIAN CROSSWALK
34+04	X	*	29+60
32+55		X	USPO
32+64	*	X	32+85 USPO
34+07		X	
34+68	X		BRYANT ST
35+09	X		BRYANT ST
9+95		X	
15+25	X		
WHEN CONSTRUCTING CURB RAMP, MATCH RADIUS EXISTING PRIOR TO CONSTRUCTION. REFER TO STD. DWG I-21.01 FOR RAMP REQUIREMENT AND DETAILS.			
33+18		X	USPO
35+34	X		X Walk

604 MANHOLES AND INLETS						
STRUCT. NO.	STATION	OFFSET		STRUCT. FUNCT.	STRUCT. TYPE	REMARKS
		LEFT	RIGHT			
S-1A	15+39		30.6	INLET	A	GUTTER INLET
S-1B	15+56		21.7	INLET	A	NO SUMP, GUTTER INLET
S-2	46+34 16+23		21.5 20.1	INLET	A	DEPRESSED CURB INLET
S-3	18+53		21.5	INLET	A	CURB INLET FRAME & GRATE
S-4	18+53	21.6		INLET	A	CURB INLET FRAME & GRATE
S-5	25+84	21.4		INLET	A	CURB INLET FRAME & GRATE
S-6	29+97		24.5	INLET	3	84" DIAM, CURB INLET FRAME & GRATE
S-7	30+12	20.5		INLET	A	CURB INLET FRAME & GRATE
S-8	32+52 32+50 32+49		22.7 23.8	INLET	A	CURB INLET FRAME & GRATE
S-9	32+60 32+52 32+49	20.3 22.1		INLET	A	CURB INLET FRAME & GRATE
S-10	32+60	26.8 29.2		INLET	A	FIELD INLET W/FLUSH GRATE
S-11	33+44 33+43 33+42	28.0 28.0		INLET	A	FIELD INLET W/FLUSH GRATE
S-12	33+60 33+59 33+58		25.5	INLET	A	FIELD INLET W/FLUSH GRATE
S-13	33+75 33+74 33+73	20.3 28.0		INLET	2	FIELD INLET W/BEEHIVE GRATE
S-14	34+64 34+53 34+52	20.2 21.7		INLET	A	CURB INLET FRAME & GRATE
S-15	35+12 35+10 35+09	20.2 22.2		INLET	A	CURB INLET FRAME & GRATE
S-16	35+86	20.1		INLET	A	CURB INLET FRAME & GRATE
S-17	36+93	20.1		INLET	3	84" DIAM, DEPRESSED CURB INLET
S-18	36+95		23.5	INLET	3	84" DIAM, CURB INLET FRAME & GRATE
S-19	31+02		24.5	Inlet	2	Field Inlet w/ Flush Grate
S-20	31+10	27.0		Inlet	2	Field Inlet w/ Flush Grate
ALL NEW INLETS AND STORM DRAIN MANHOLES SHALL HAVE 18" MIN. SUMP UNLESS NOTED.						

603 PIPE SUMMARY							
PIPE LABEL	PIPE SIZE	FROM STRUCTURE	* DIST BETWEEN LID & INV (FT)	TO STRUCTURE	* DIST BETWEEN LID & INV (FT)	CEN-CEN LENGTH	PIPE SLOPE
P-1A	18" CPP	S-1A		S-1-B		19 11.2	0.63%
P-1B	18" CPP	S-1B		S-2		70 67	1.19%
P-2	21" X 15"	EXISTING INLET	2.6	S-2		44 43.1	
P-3	21" X 15"	S-3		S-4	2.5	44 43.5	
P-4	42" X 29"	EXISTING SDMH		S-6	5.9	60 58.5	
P-5	18" CPP	EXISTING SDMH		S-7		54 53.15	1.61%
P-6	42" X 29"	S-6	6.0	OUTLET		13	
P-7	42" X 29"	EXISTING STRUCT	3.4	EXISTING SDMH	4.4	60 57.0	
P-8	18" CPP	S-9		S-10		70 68.5	2.20%
P-9	18" CPP	S-10	2.5	S-11	2.5	44 74.8	0.21%
P-10	18" CPP	S-11	2.6	S-13		32 35.35	0.79%
P-11	21" X 15"	S-13	3.6	S-12		55 53.3	
P-12	18" CPP	S-14	2.3	S-15	2.3	40 65.2	0.38%
P-13	18" CPP	S-15	2.4	S-16		75 90.5	
P-14	18" CPP	S-16		S-17	3.3	108 78.8	
P-15	57" X 38"	S-17		S-18	8.4	44 45.7	
P-12-A	18" CPP EXISTING SD BRYANT ST.			S-14		21.0	
	18" CPP	21" X 15"	42" X 29"	57" X 38"			
	510	150	140	50			
P-12-B	18" CPP EXISTING SD BRYANT ST.			S-15		20.1	5.28%

* DISTANCES BETWEEN LID & PIPE INVERTS ARE ESTIMATED BASED ON FIELD INVESTIGATION OF EXISTING CONDITIONS. ADJUSTMENTS MAY BE NECESSARY AND SHALL BE APPROVED BY THE ENGINEER.

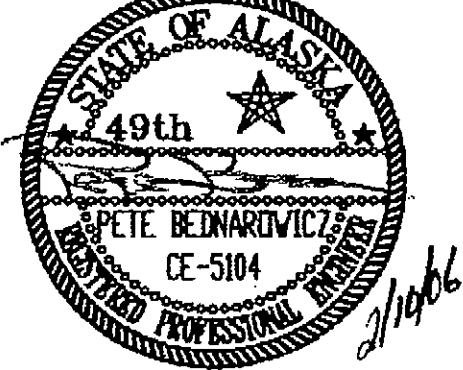
BASED ON FIELD MEASUREMENTS, THE DISTANCE FROM THE TOP OF LID/GRATE TO THE PIPE INVERT IS ANTICIPATED TO BE FOUR (4) FEET OR LESS FOR ALL PIPES EXCEPT WHERE LISTED DIFFERENTLY IN THE PIPE SUMMARY AND WITH THE EXCEPTIONS AS FOLLOWS:

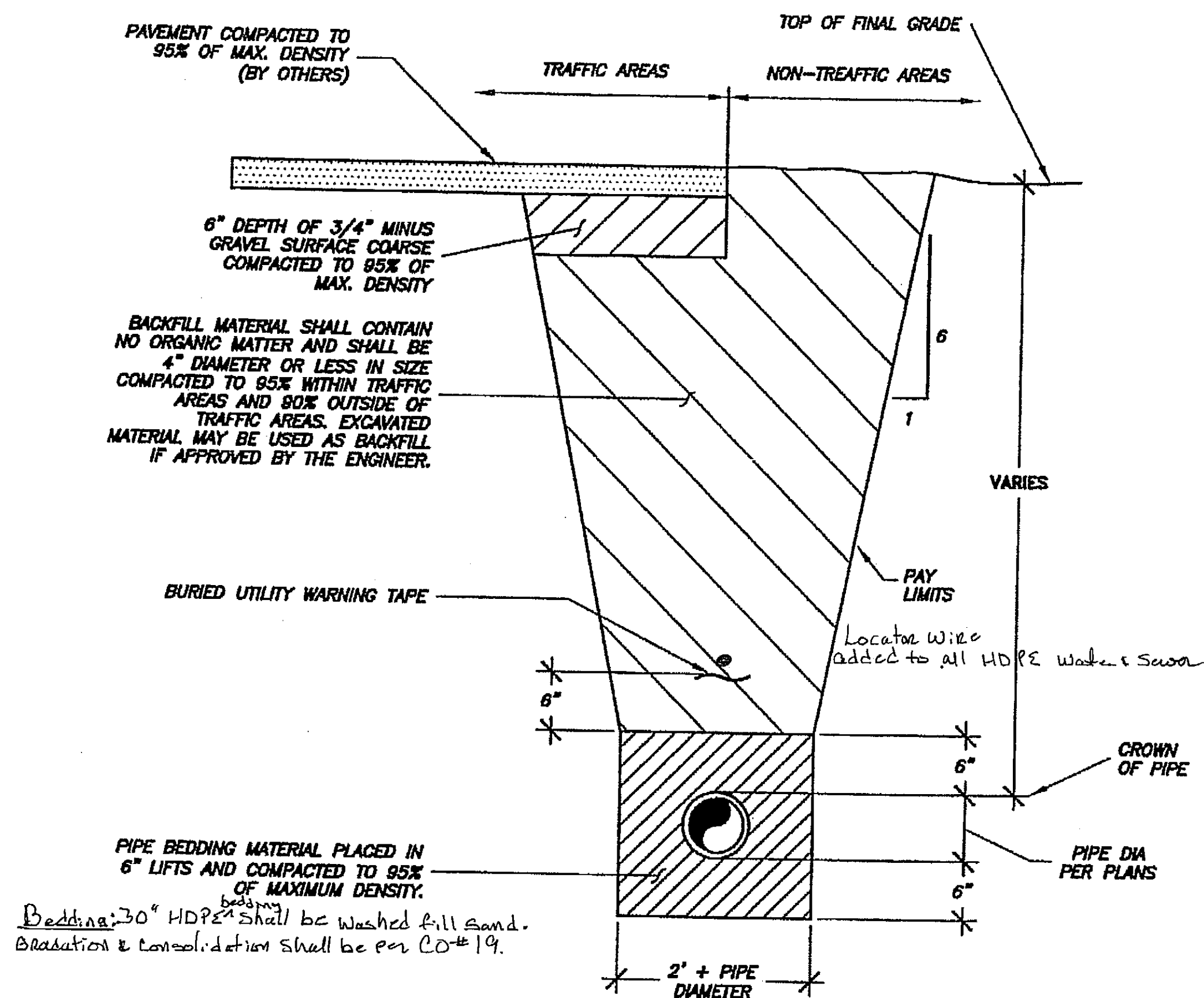
PIPE LABEL	INLET APPROX. DIST LID TO PIPE INV (FT)	OUTLET APPROX. DIST LID TO PIPE INV (FT)
P-4	6	5.9
P-11	3.6	4.6
P-15	8	8.4

642(8) ADJUST EXISTING MONUMENT					
MON. No.	STATION	OFFSET (FT)		NORTHING	EASTING
		LEFT	RIGHT		
*1	18+23.50		23.5 19.53	94136.85	94738.15
*2	112+20 12+67.43	25 10.05		92951.37	95442.77
*3	20+50 20+43.32	0.04	25	93448.25	95734.76
*4	27+00 26+82.01	15	0.71	93024.08	96240.26
*5	34+70 35+38.23	38 22.42		92470.90	96882.32

5 New Mon Set out at Traveler Way (Sta/Offset Pending from ROW) Set
NOTE: adjacent to existing. See Plan sheets for approx. New Location
MONUMENTS LISTED ARE CURRENTLY BURIED UNDER EXISTING ASPHALT. ADJUST TO FINISHED GRADE AS DETAILED ON SHEET E1.

604(4) ADJUST EXISTING MANHOLE		
STATION	OFFSET (FT)	REMARKS
15+64	19.2 LT	SSMH
24+97	26.6 LT	SSMH
34+94	26.8 LT	SSMH
37+45	19.9 Rt	SS

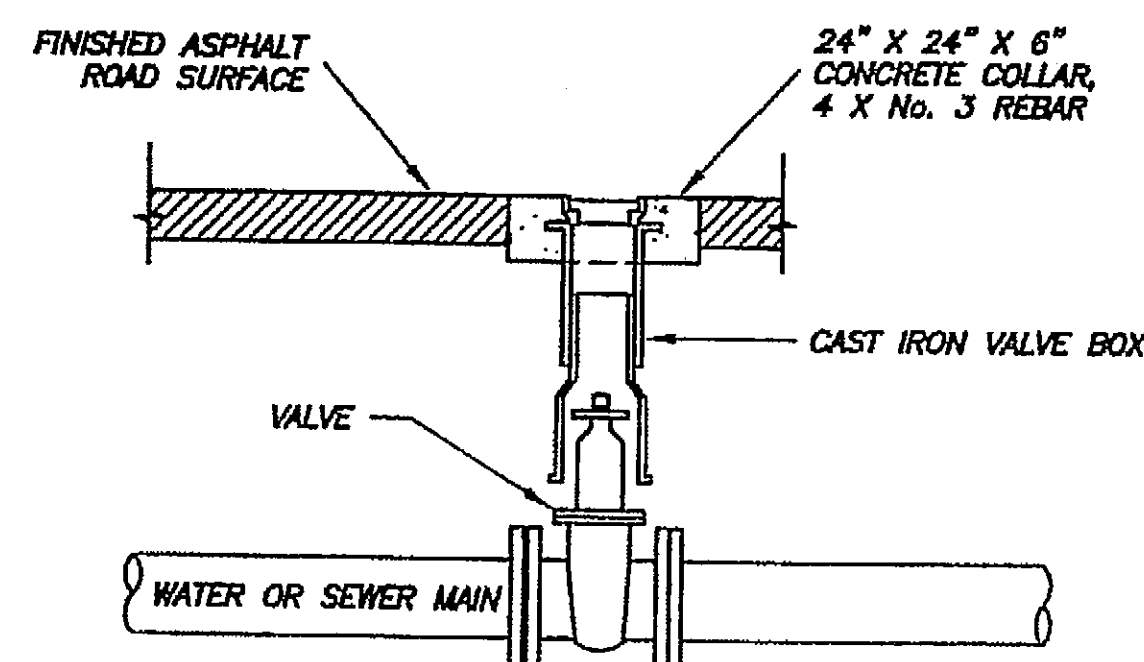
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS	
CHECKED BY: P.BEDNAROWICZ	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION
	KETCHIKAN TONGASS AVENUE SURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1
DESIGNED BY: D.LESTER DRAWN BY: L.ROBERTSON PATH: Q:\KTN68366\PLANSET\68366-01_SUM.DWG	SUMMARY SHEETS
REVISIONS NO. DATE DESCRIPTION	PROJECT DESIGNATION NHS-IM-000S(495) -68366
YEAR 2006	SHEET NO. D1
	SHEETS 24



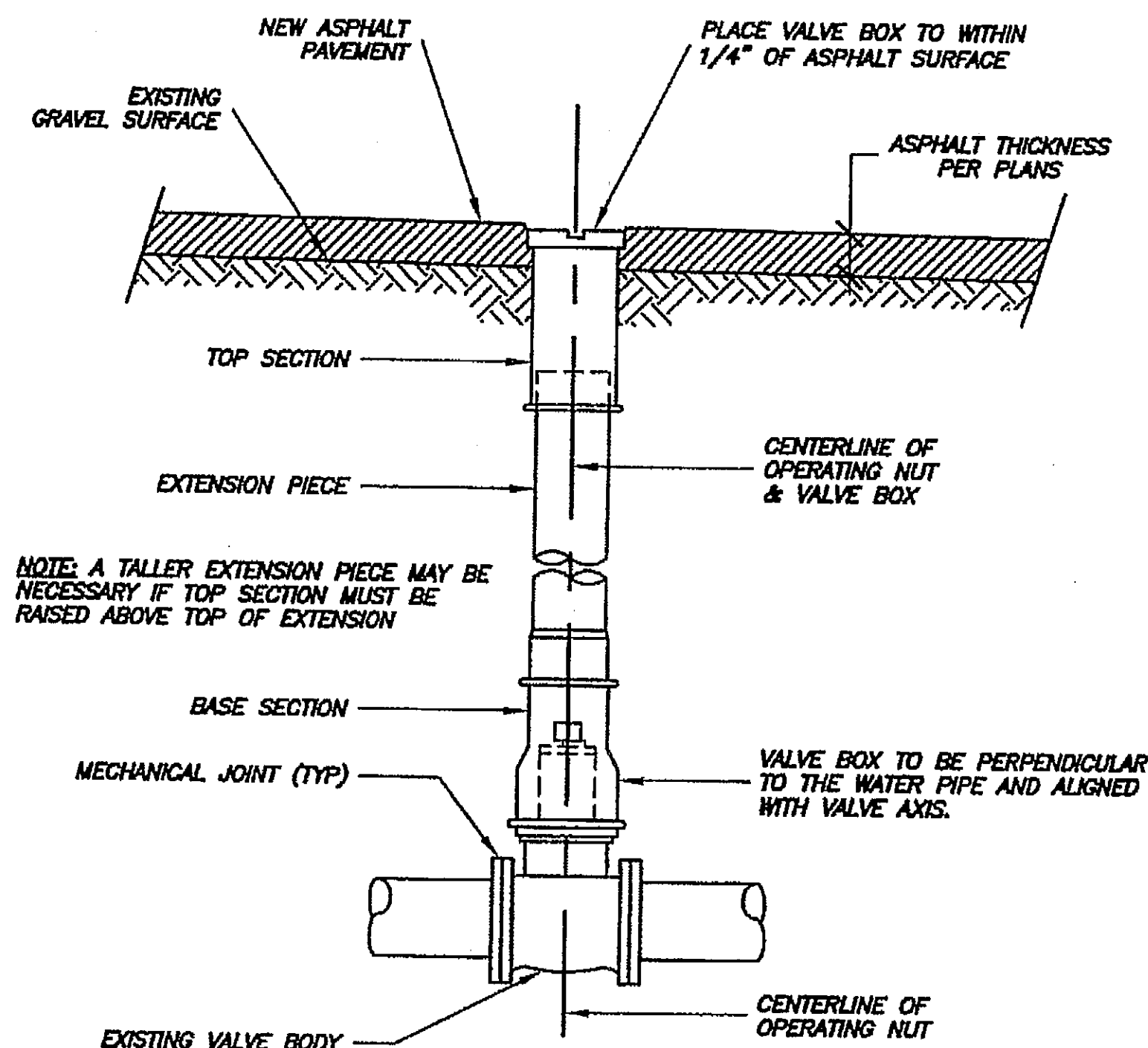
NOTES:

1. BACKFILL MATERIAL SHALL BE PLACED IN 6" MAXIMUM LIFTS AS STATED IN SPECIFICATIONS.
2. TRENCH EXCAVATION AND SHORING SHALL COMPLY WITH LOCAL, STATE, AND OSHA REGULATIONS AND REQUIREMENTS. INDICATED SLOPE IS FOR PAY QUANTITY DETERMINATION ONLY FOR IMPORTED BACKFILL GRAVEL AND RESURFACING REQUIREMENTS.
3. IF UNSUITABLE PIPE FOUNDATION MATERIAL IS ENCOUNTERED DURING EXCAVATION, ENGINEER MAY DIRECT THE CONTRACTOR TO OVER-EXCAVATE AND BACKFILL WITH SUITABLE MATERIAL.
4. THE DITCHLINE, IF ONE EXISTS, SHALL BE RESHAPED IN SUCH A MANNER TO ALLOW POSITIVE DRAINAGE TO MATCH PRE-CONSTRUCTION CONDITIONS.
5. TRENCH SECTION APPLICABLE FOR BOTH SEWER AND WATER PIPE.

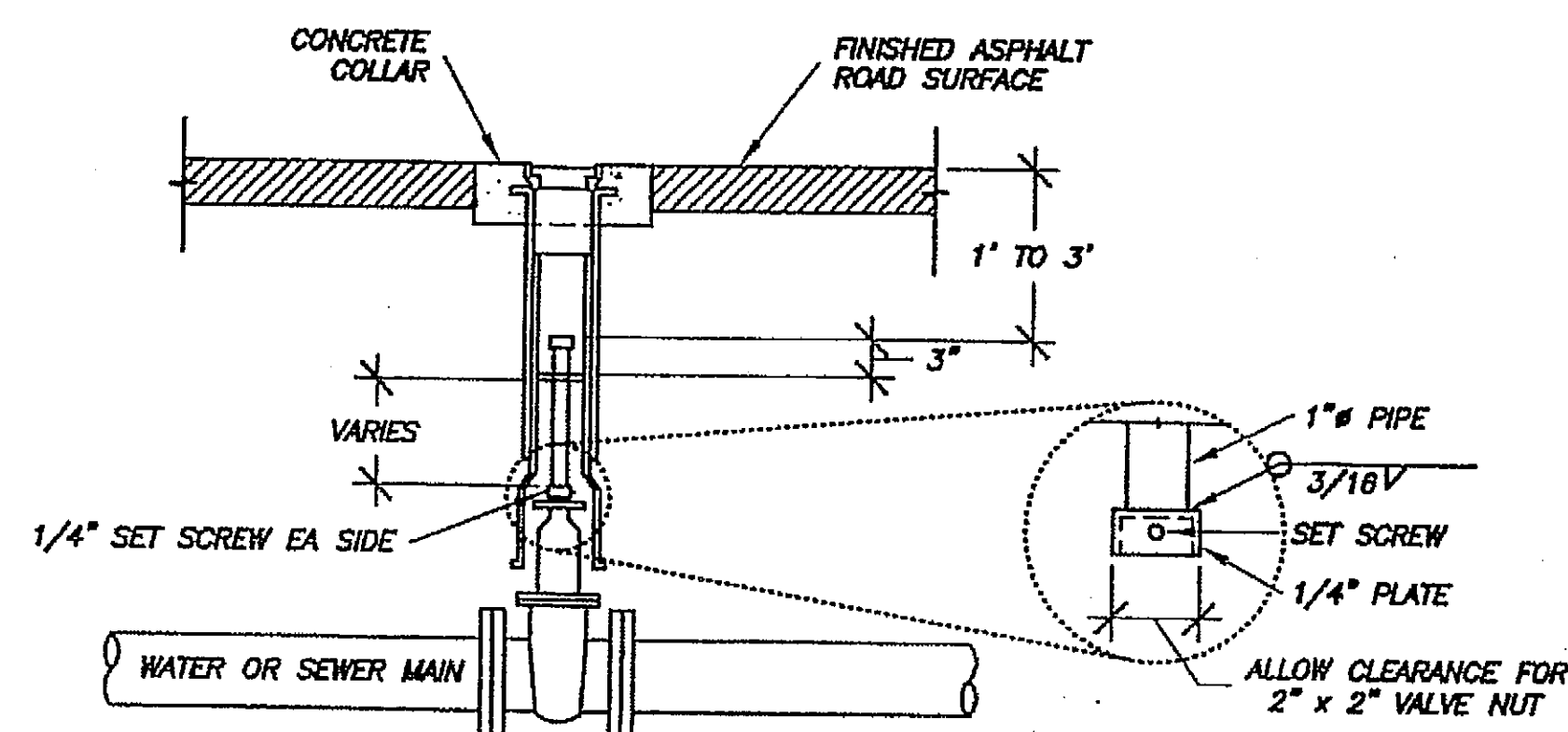
1 TYPICAL TRENCH DETAIL
D1 NOT TO SCALE



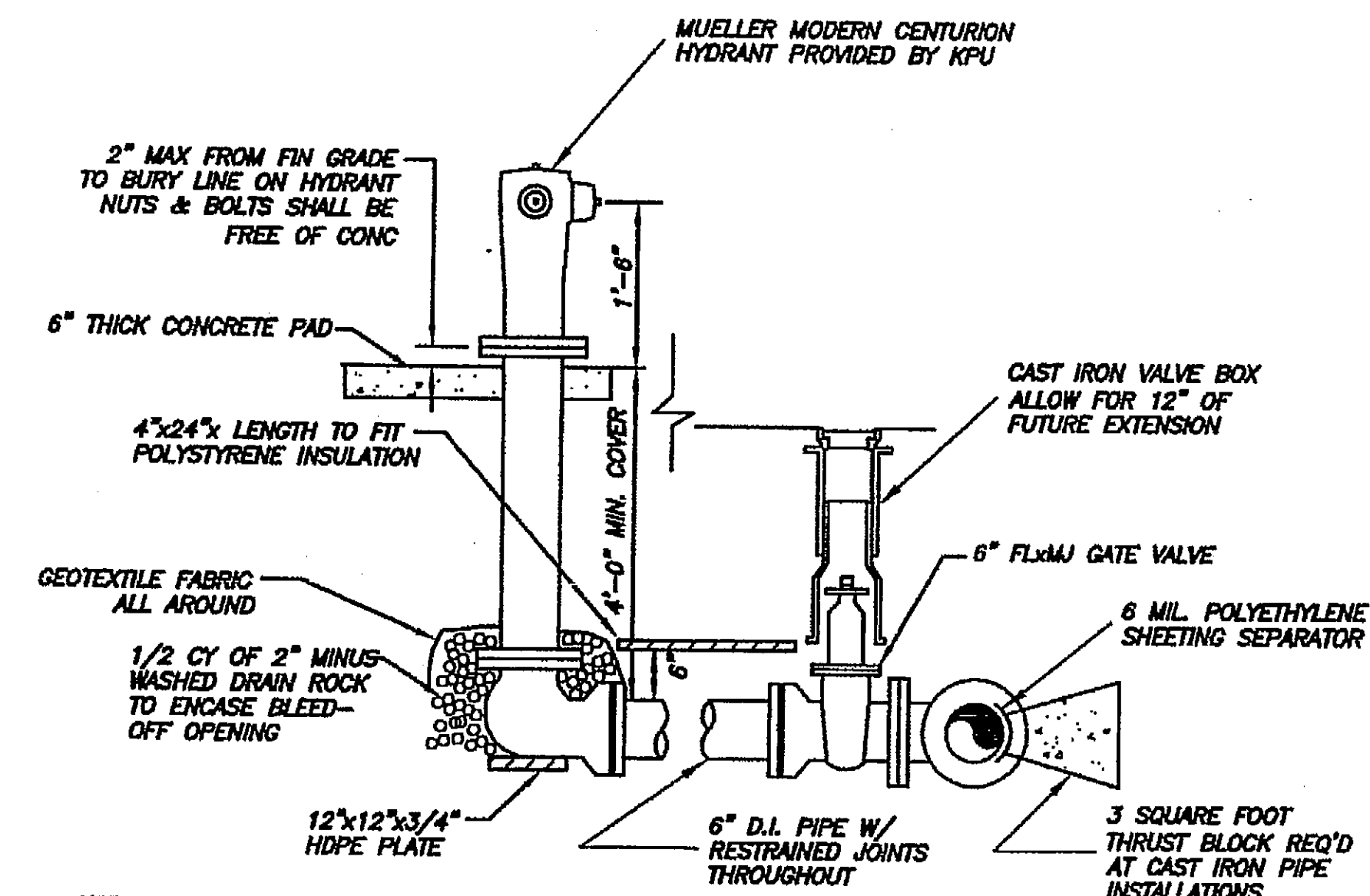
4 TYPICAL BURIED MAIN LINE VALVE
D1 NOT TO SCALE



2 WATER VALVE BOX ADJUSTMENT
D1 NOT TO SCALE



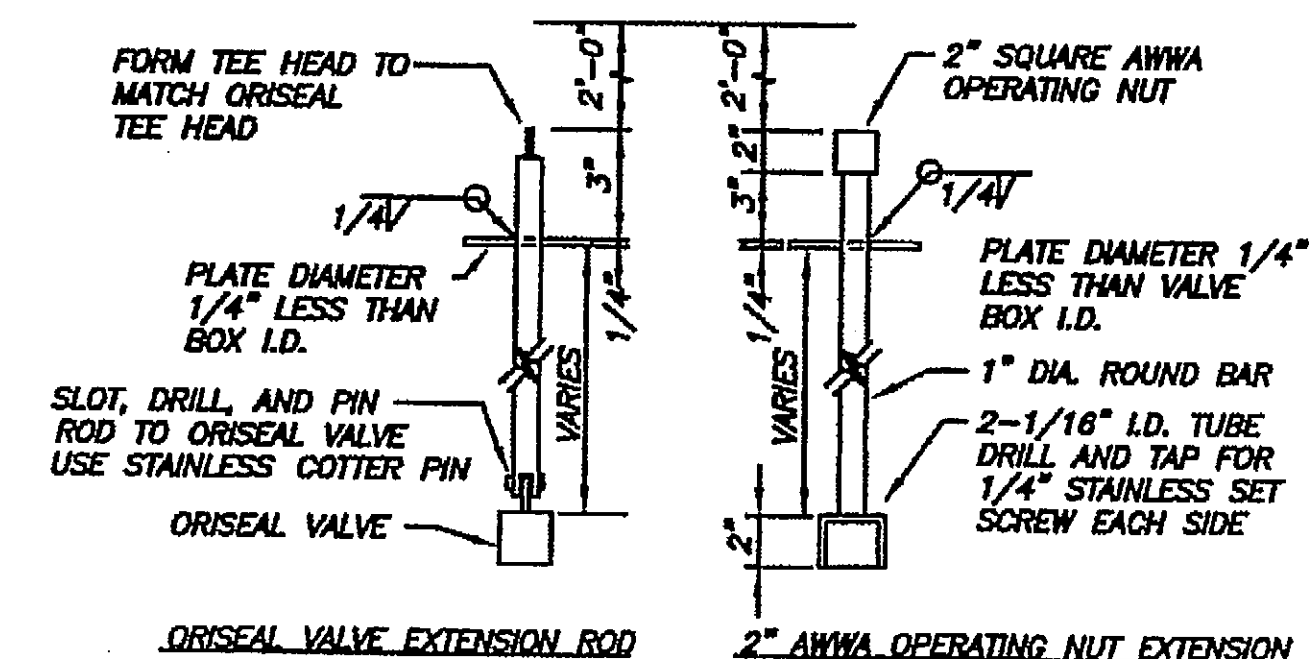
5 MAIN VALVE OPERATING ROD
D1 NOT TO SCALE



NOTES:

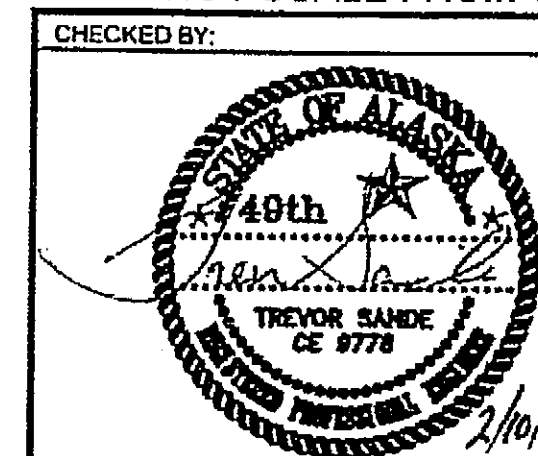
1. ALL BOLT THREADS TO BE GREASED PRIOR TO INSTALLATION.
2. MECHANICAL RESTRAINED JOINTS TO BE USED THROUGHOUT.
3. HYDRANT PAINT SHALL BE SPECIFIED BY THE ENGINEER.
4. DOUBLE DIPPED GALVANIZED NUTS AND BOLTS SHALL BE FREE OF CONCRETE.
5. PLACE BURIED UTILITY WARNING TAPE ABOVE THE HYDRANT LEAD.
6. THRUST BLOCK MAY BE OMITTED IF PIPE BEYOND VALVE IS CONNECTED TOGETHER W/ RESTRAINED JOINTS 40 FEET EACH WAY.

3 TYPICAL BURIED FIRE HYDRANT
D1 NOT TO SCALE



6 VALVE EXTENSION DETAILS
D1 NOT TO SCALE

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



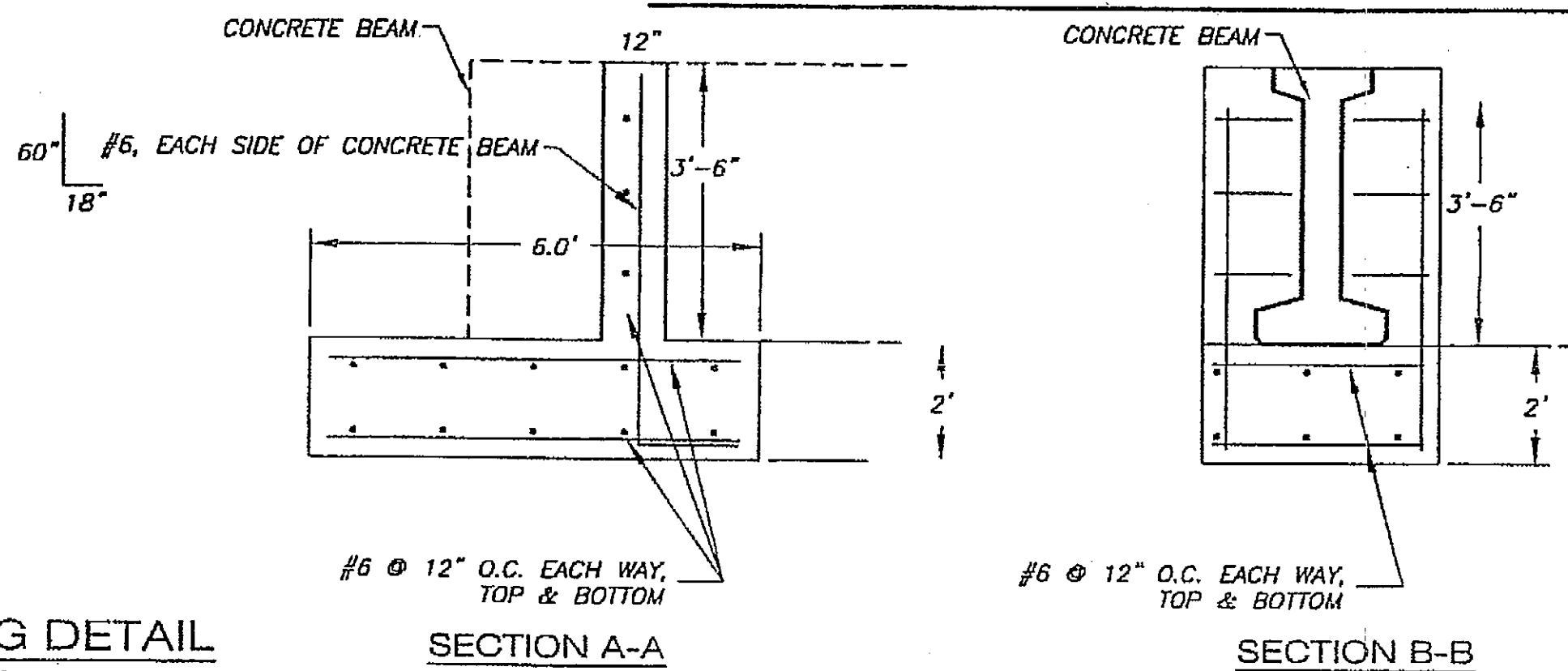
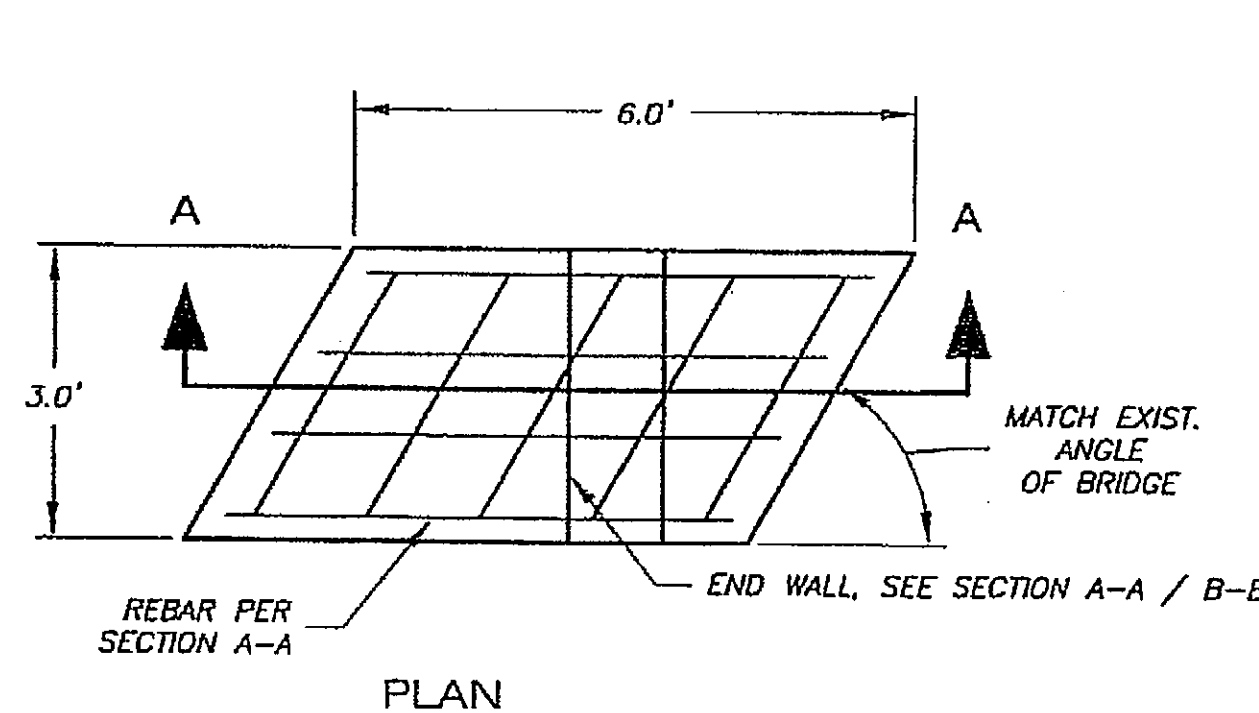
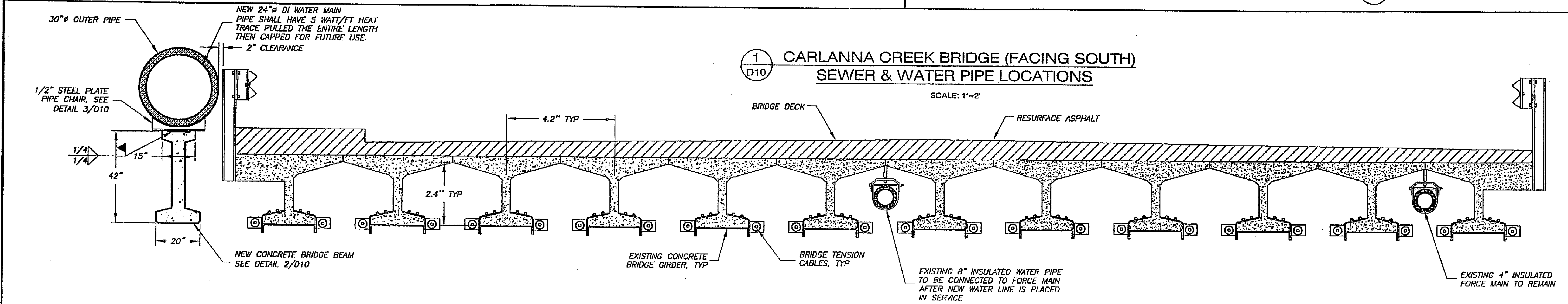
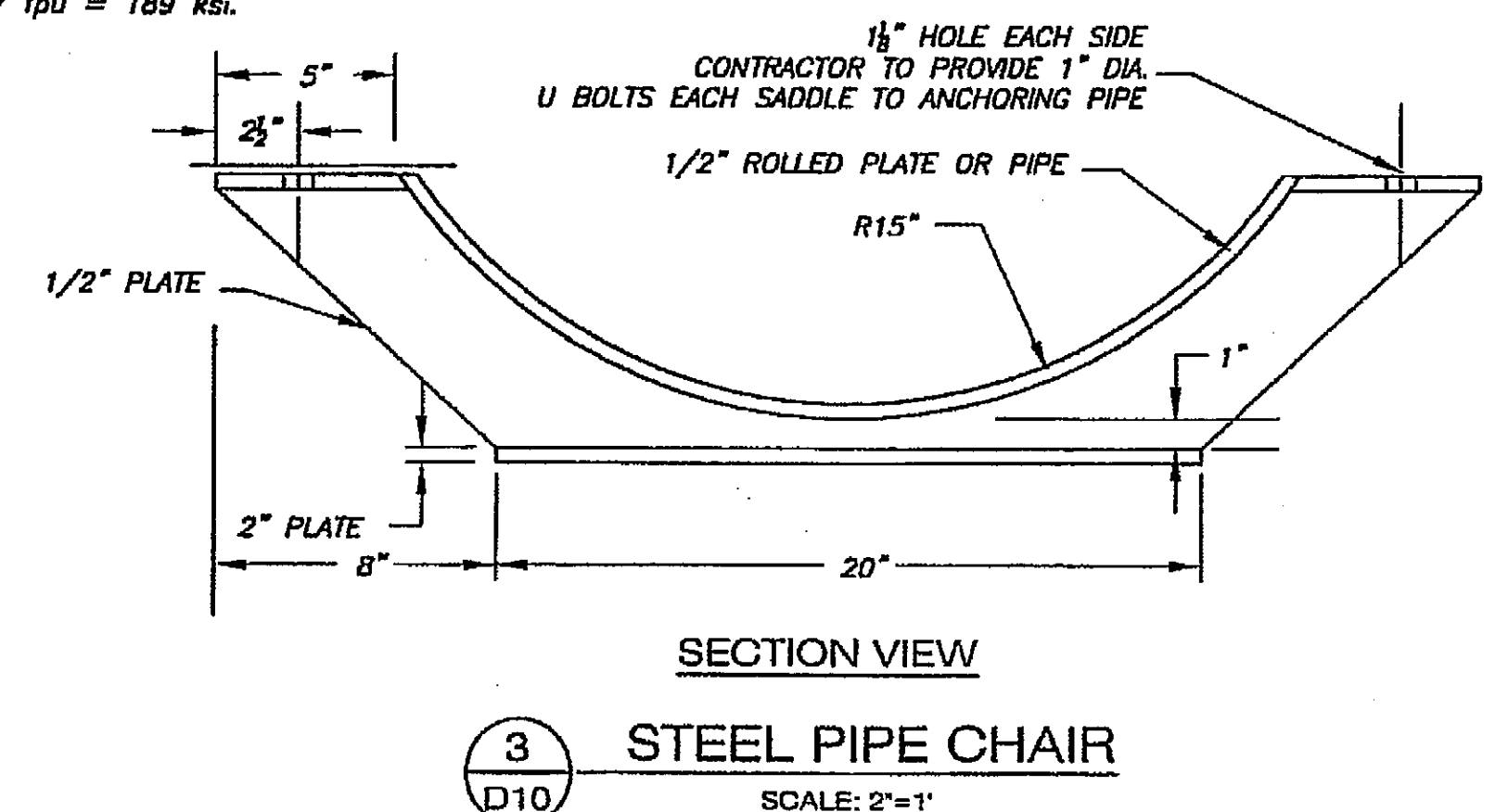
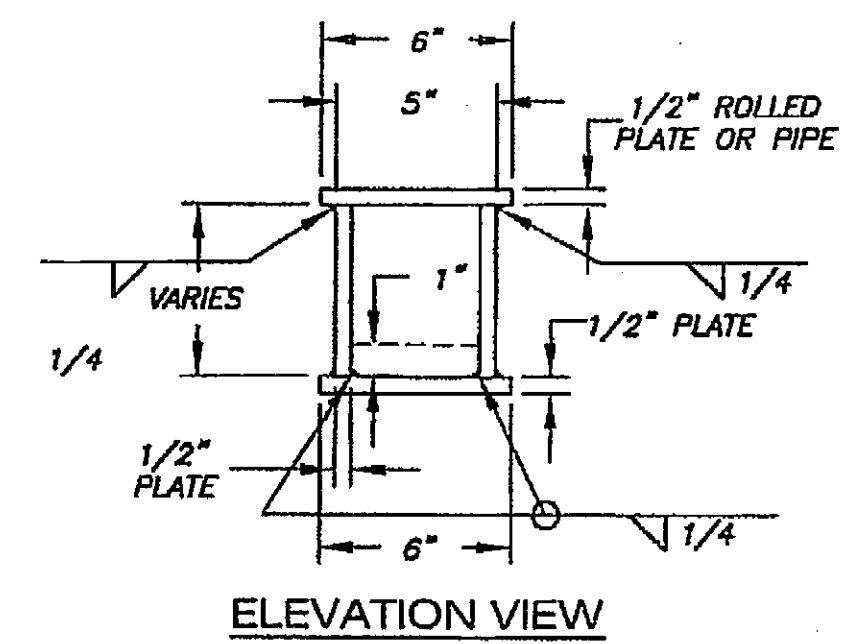
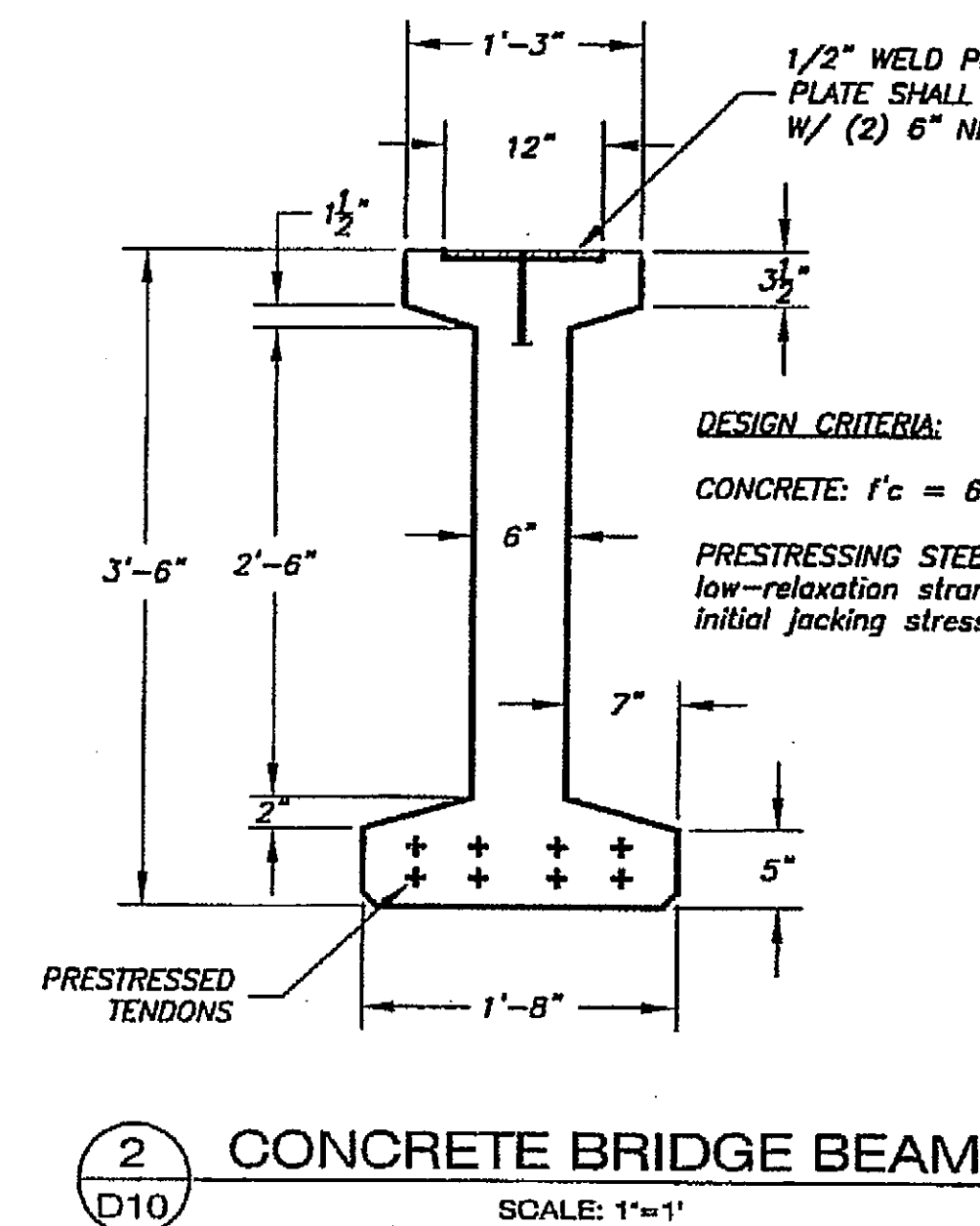
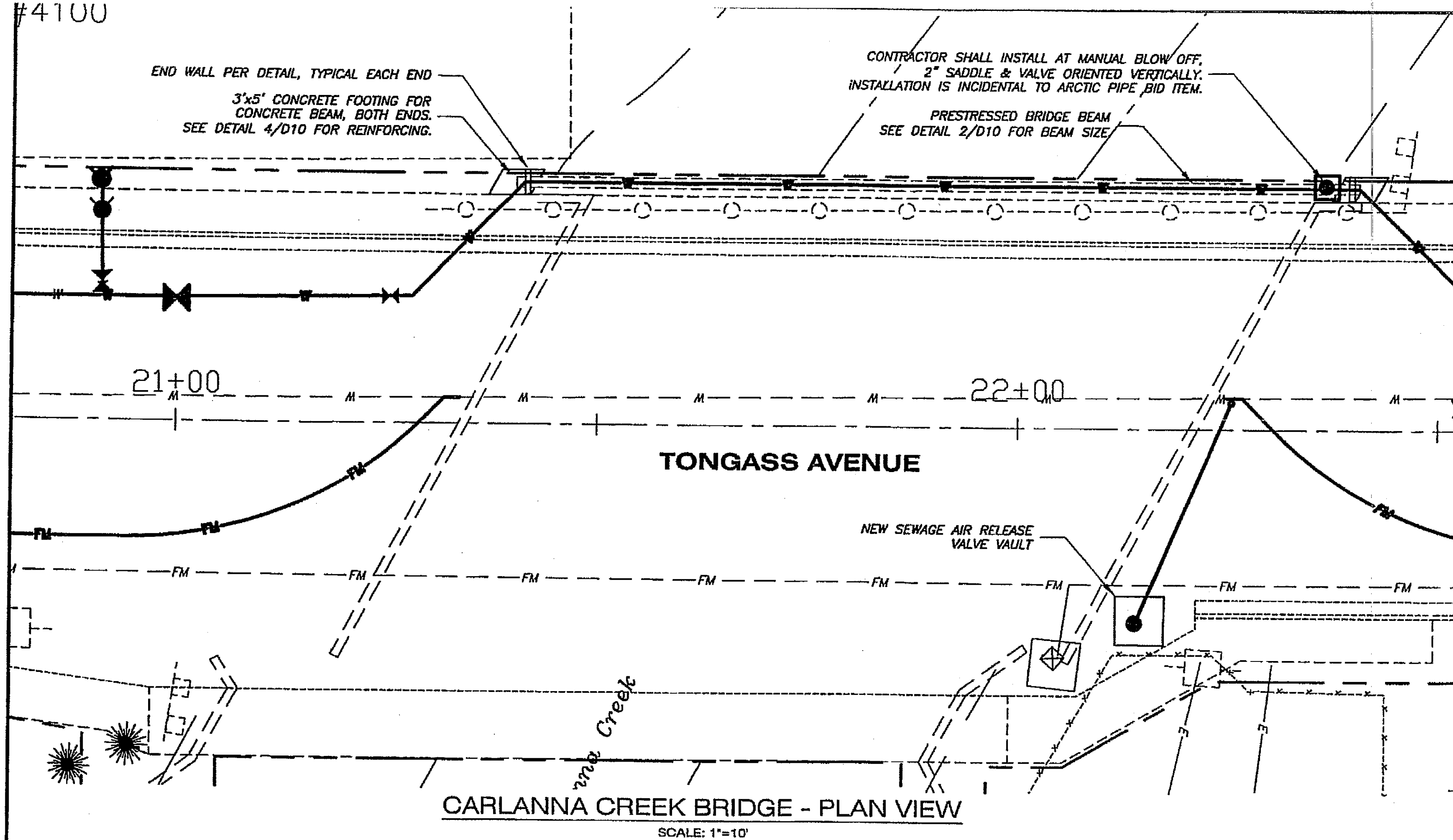
DESIGNED BY: T. SANDE
DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION
**KETCHIKAN
TONGASS AVENUE RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I**

GENERAL DETAILS

REVISIONS			PROJECT DESIGNATION	YEAR	SHEET NO.	SHEETS
NO.	DATE	DESCRIPTION	RSA 68830	2006	D1	

#4100



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: I. NAME
DESIGNED BY: T. SANDE
DRAWN BY: J. ROBINSON

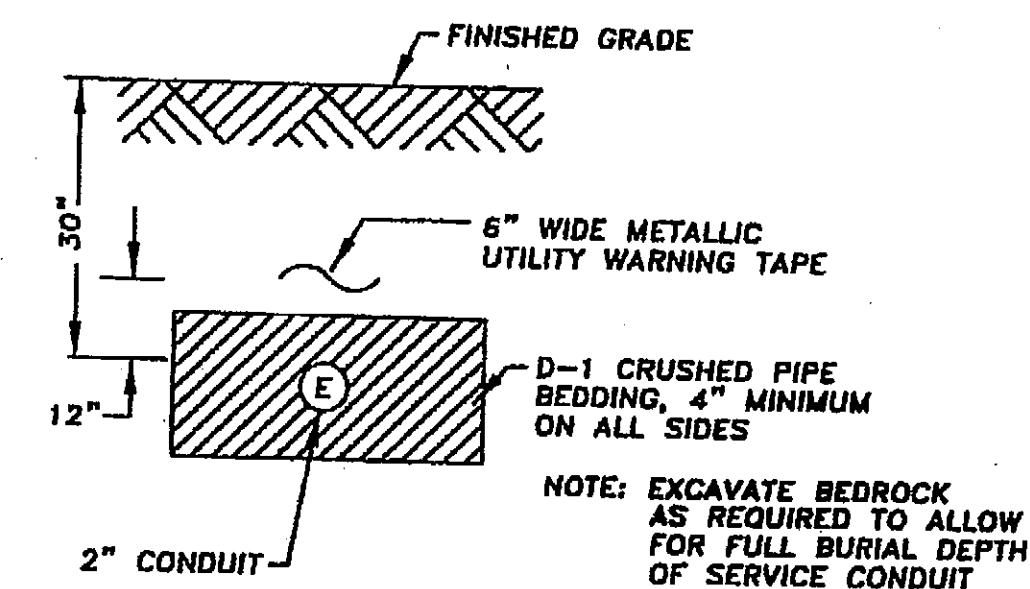
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

KETCHIKAN
TONGASS AVENUE RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I

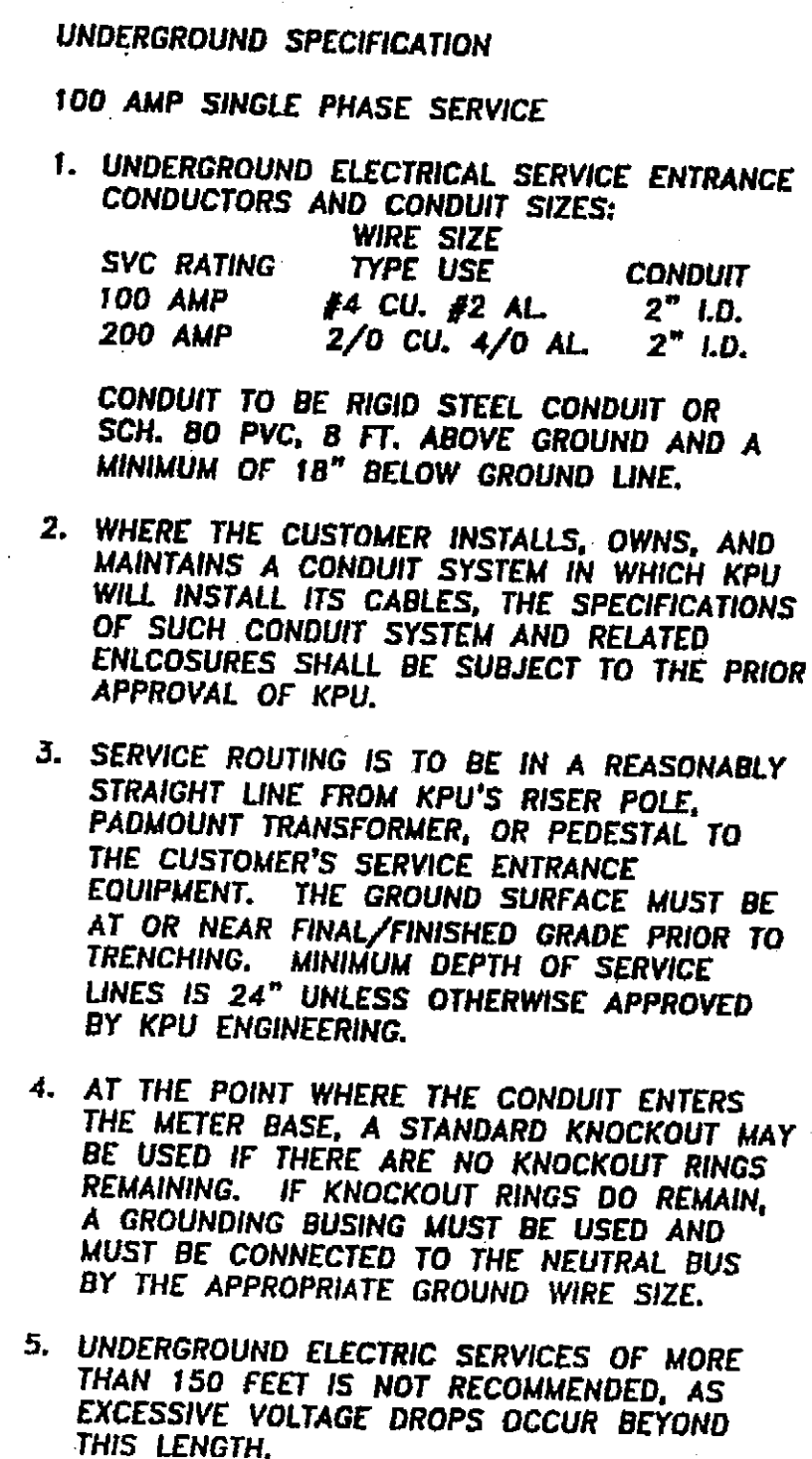
BRIDGE CROSSING DETAILS

REVISIONS			PROJECT DESIGNATION	YEAR	SHEET NO.	SHEETS
NO.	DATE	DESCRIPTION				
			RSA 68830 / 68831	2006	D10	

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng. *[Signature]* Date 3-3-09



2 SERVICE CONDUIT BEDDING DETAIL
D11 NOT TO SCALE



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng.  3-3-09
Date

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
NO.	DATE	DESCRIPTION

10+00 —————
15+00 —————
20+00 —————
25+00 —————
30+00 —————
35+00 —————
40+00 —————
45+00 —————
50+00 —————
55+00 —————
60+00 —————

PLAN LEGEND

CHECKED BY: _____ I NAME _____



2/10/06

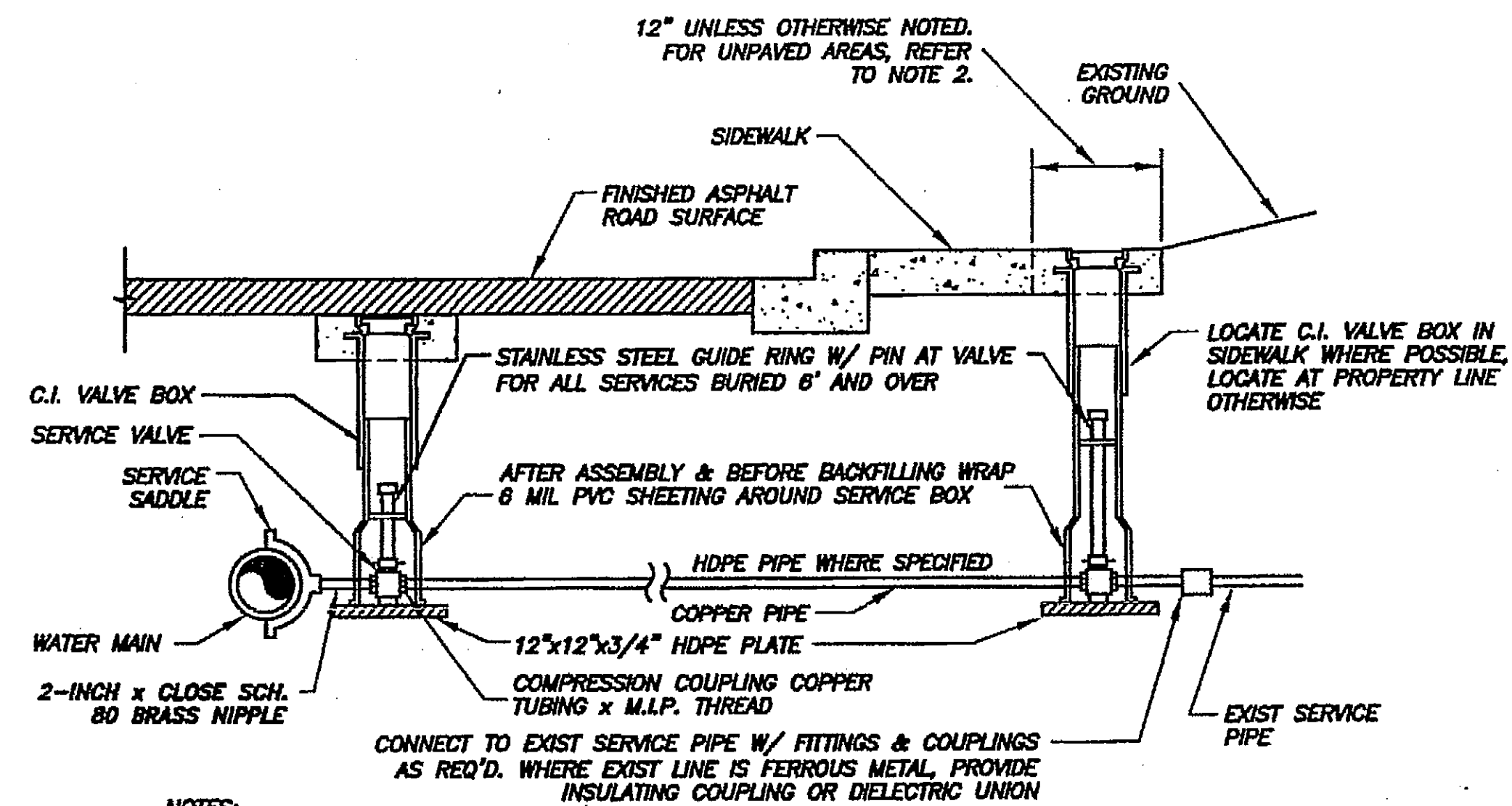
DESIGNED BY: T. SANDE
DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES
DIVISION
KETCHIKAN
TONGASS AVENUE
RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I
KTN GENERAL HOSPITAL
TEMP. WATER DETAILS

PROJECT DESIGNATION

RSA 68830

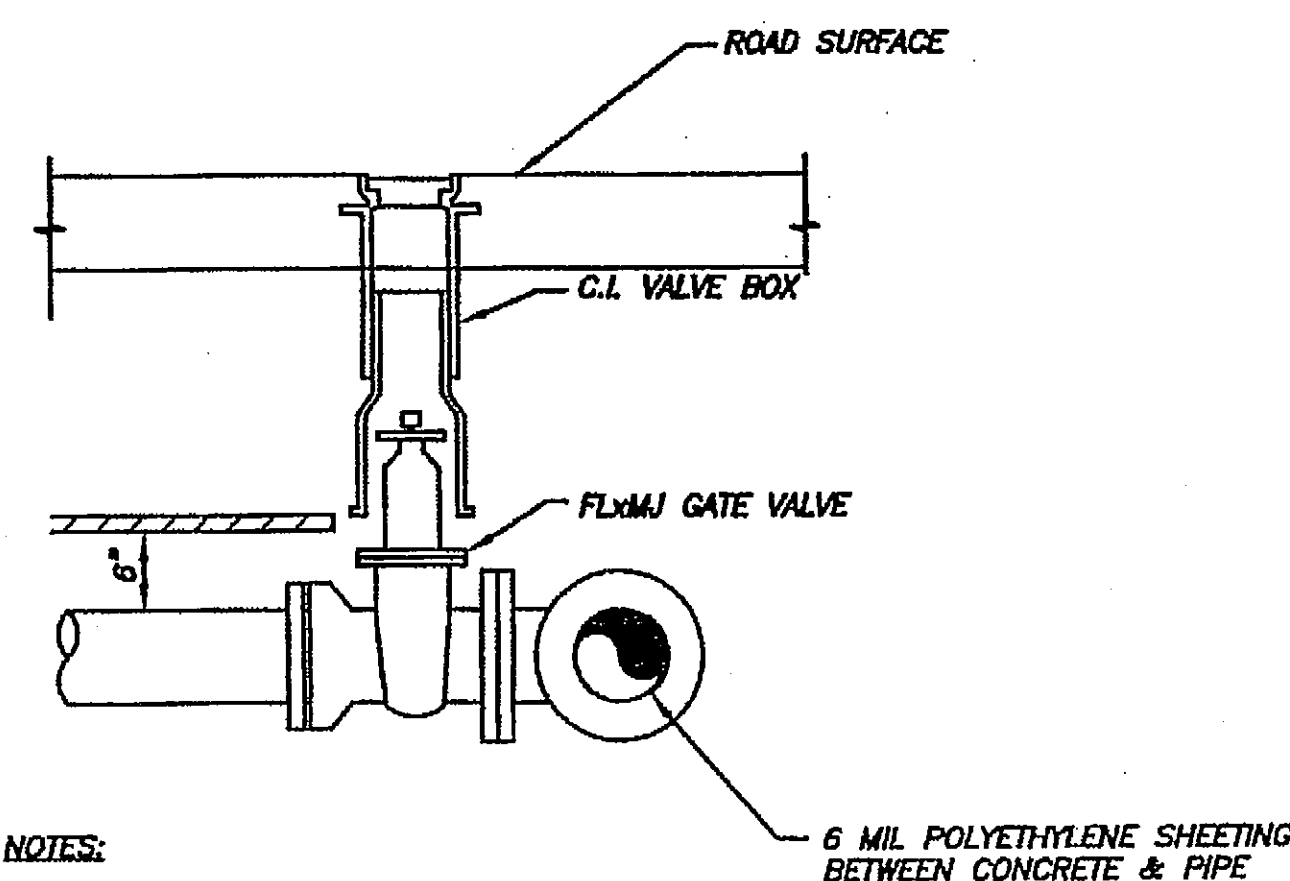
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
D11	



NOTES:

- 1) INSTALL TOP OF VALVE BOX IN SIDEWALK 1/4" BELOW TOP OF PAVED SURFACE.
- 2) ALLOW 12" FOR RAISING VALVE BOX.
- 3) ENLARGED BASE IS REQUIRED FOR 1" SERVICE VALVES AND LARGER.
- 4) WHERE THERE IS NO EXISTING SERVICE, TERMINATE COPPER TUBING W/ COPPER TUBE x FEMALE IPT COUPLING & BRASS PLUG.
- 5) A SERVICE VALVE ROD EXTENSION IS REQUIRED ON ALL SERVICE VALVES 4' OR MORE BELOW FINISHED SURFACE. SEE DETAIL 2/D1.

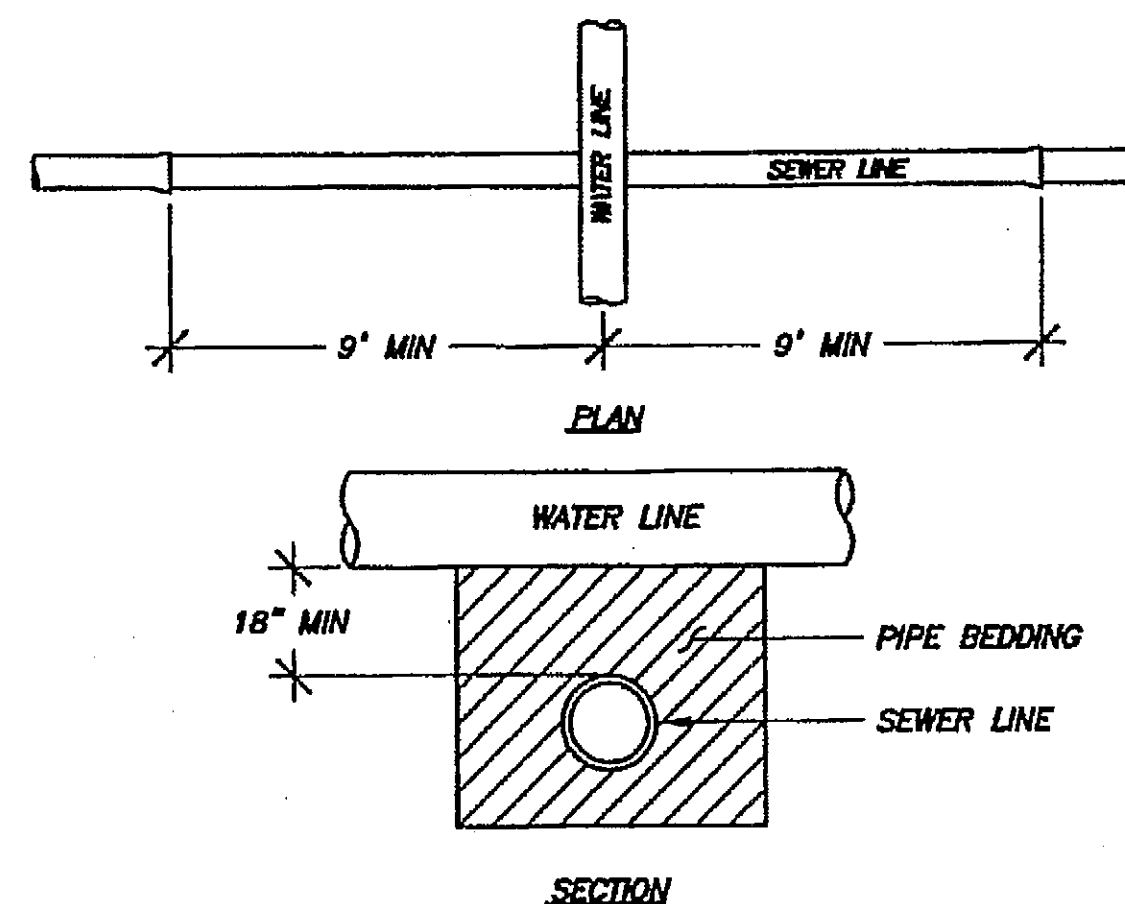
1 TYPICAL BURIED WATER SERVICE
2" AND SMALLER
NOT TO SCALE



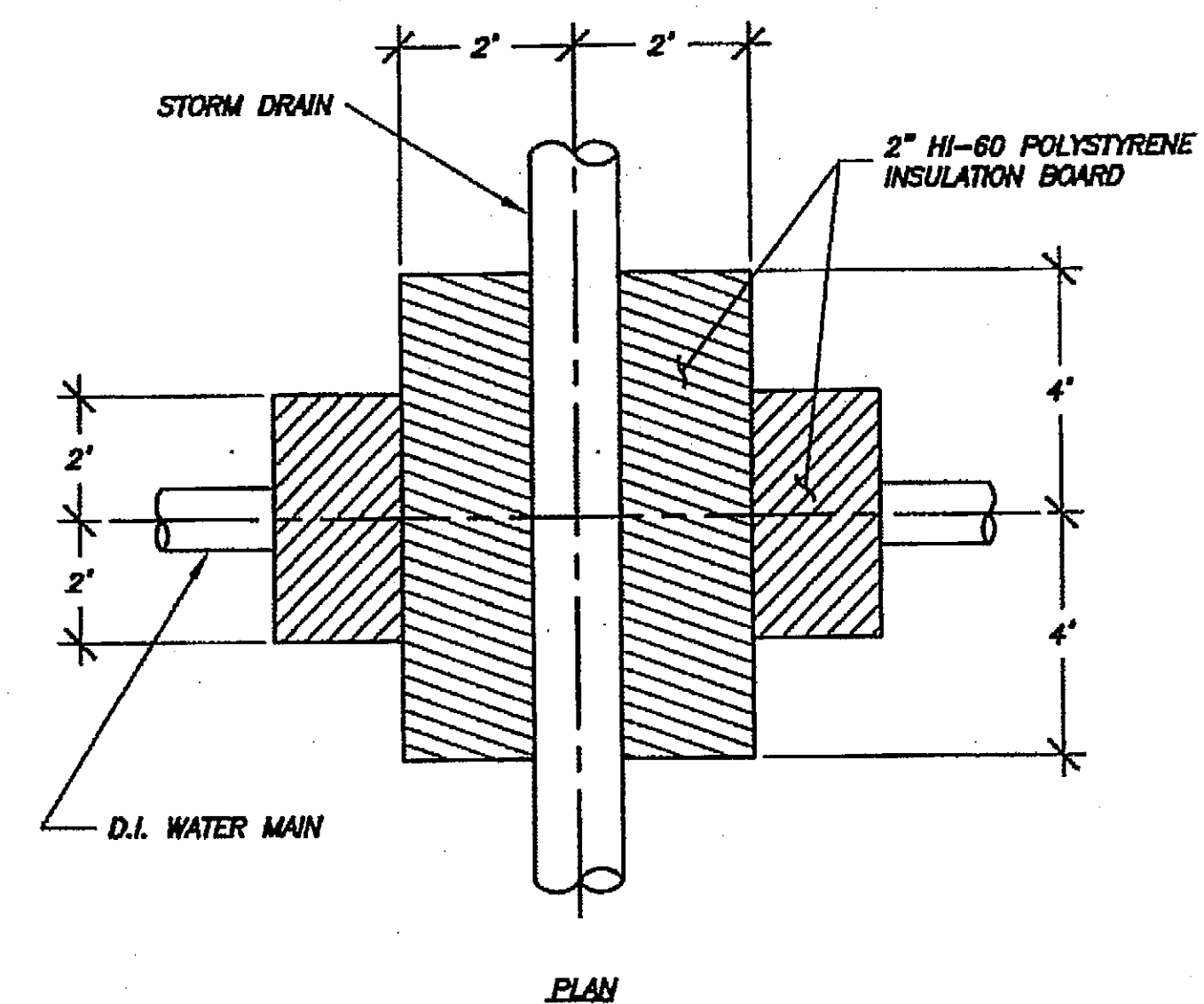
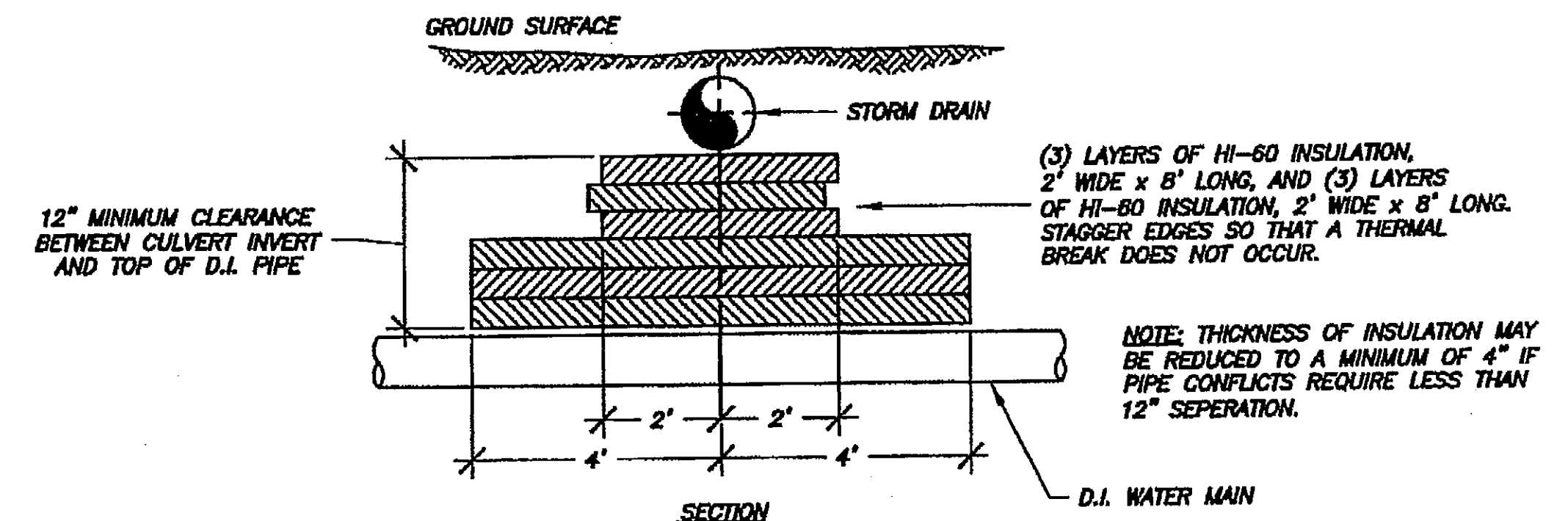
NOTES:

1. ALL BOLT THREADS TO BE GREASED PRIOR TO INSTALLATION.
2. THRUST BLOCK MAY BE OMITTED IF MECHANICAL JOINT RESTRAINTS INSTALLED.
3. SERVICES SHALL BE DUCTILE IRON UNLESS NOTED OTHERWISE.

3 TYPICAL BURIED WATER SERVICE
LARGER THAN 2"
NOT TO SCALE



2 WATER AND SEWER CROSSING
NOT TO SCALE



NOTES:

1. THIS INSULATION DETAIL IS ONLY FOR SITUATIONS WHERE WATER FLOW RATES ARE LOW AND THE POTENTIAL FOR FREEZING IS HIGH.
2. WHERE WATER FLOW RATES ARE HIGHER, REDUCE THE PANEL WIDTH FROM 4' TO 2' WHILE STILL MAINTAINING THE 1' OF HI-60 INSULATION BETWEEN THE CULVERT AND THE WATER MAIN.

5 RIGID INSULATION AT WATER MAIN
AND CULVERT CROSSINGS
NOT TO SCALE

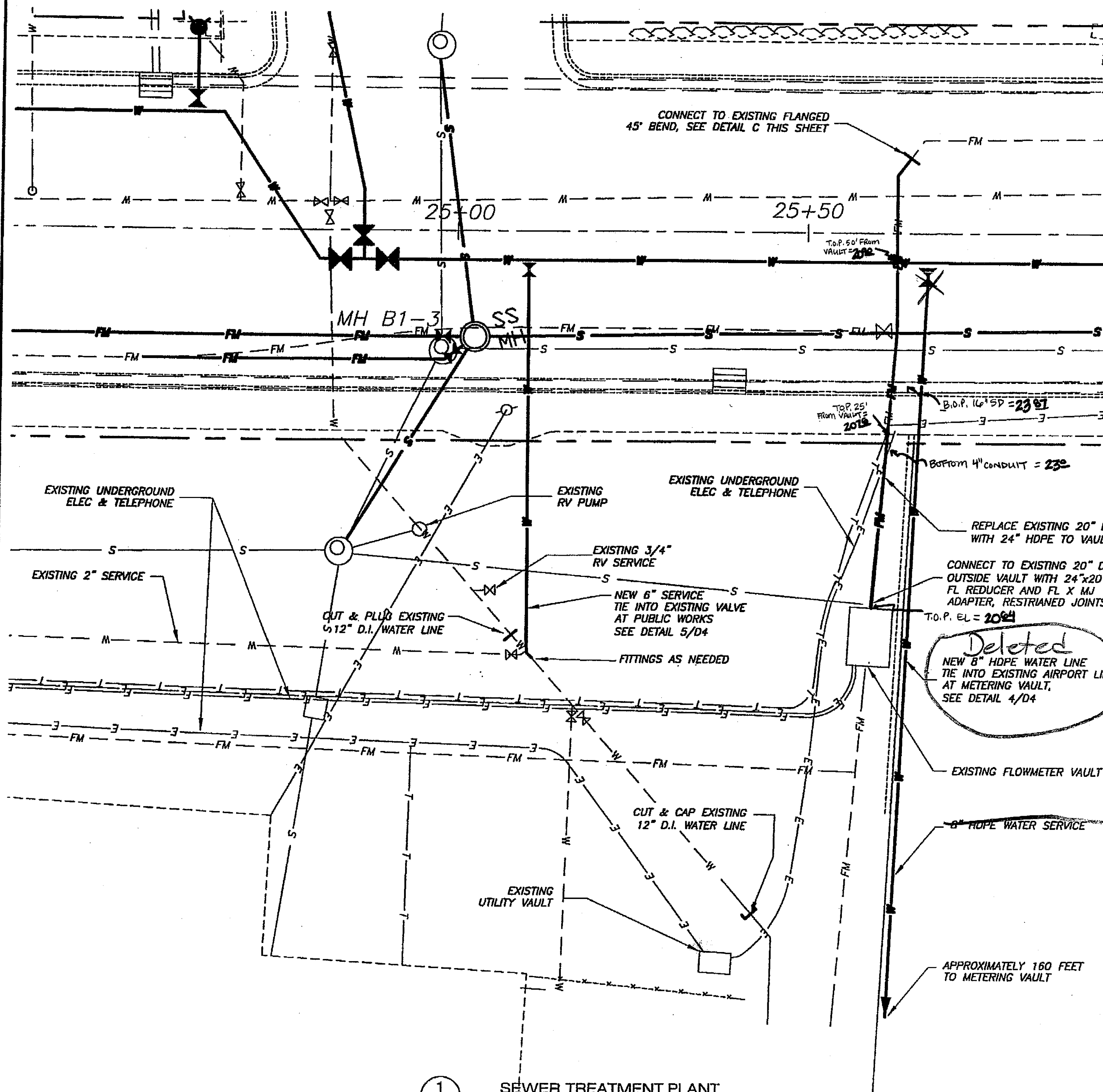
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. *[Signature]* Date 3-3-07

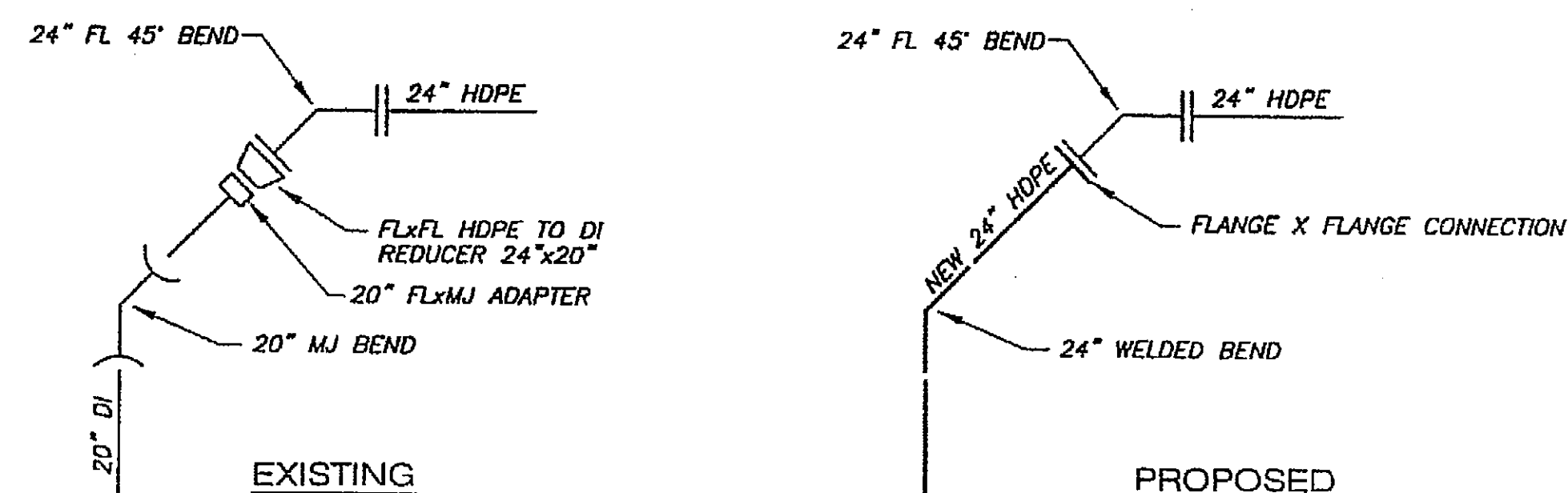
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION KETCHIKAN TONGASS AVENUE RESURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE PHASE I	
DESIGNED BY: T. SANDE DRAWN BY: J. ROBINSON		GENERAL DETAILS	
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION RSA 68830	YEAR 2006
		SHEET NO. D2	SHEETS

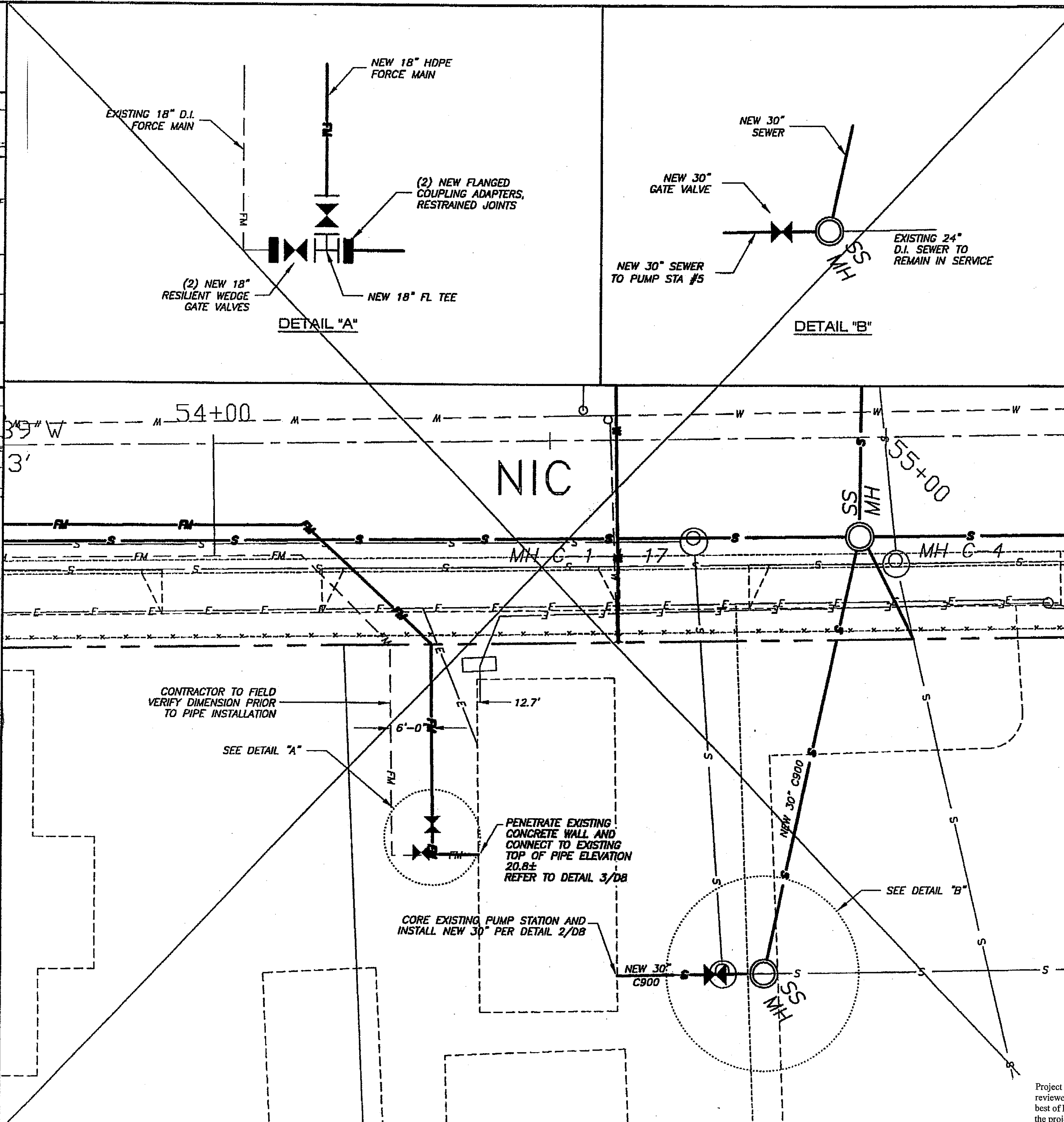
FM INFO FROM T.B.



1
D3
SEWER TREATMENT PLANT
PIPE CONNECTION DETAIL
1"=10'

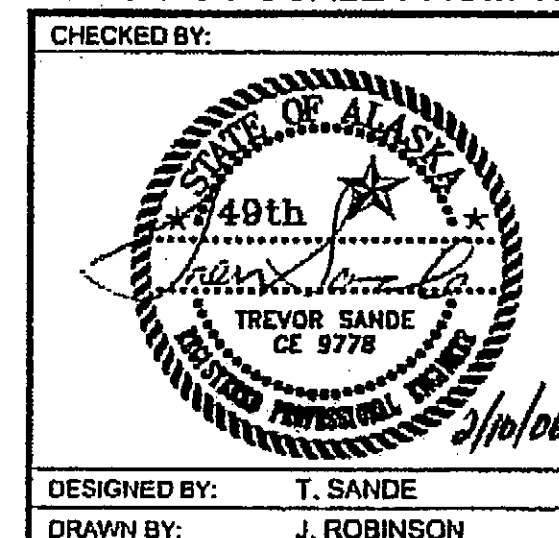


DETAIL C



2
D3
PUMP STATION No. 5
CONNECTION DETAIL
1"=10'

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



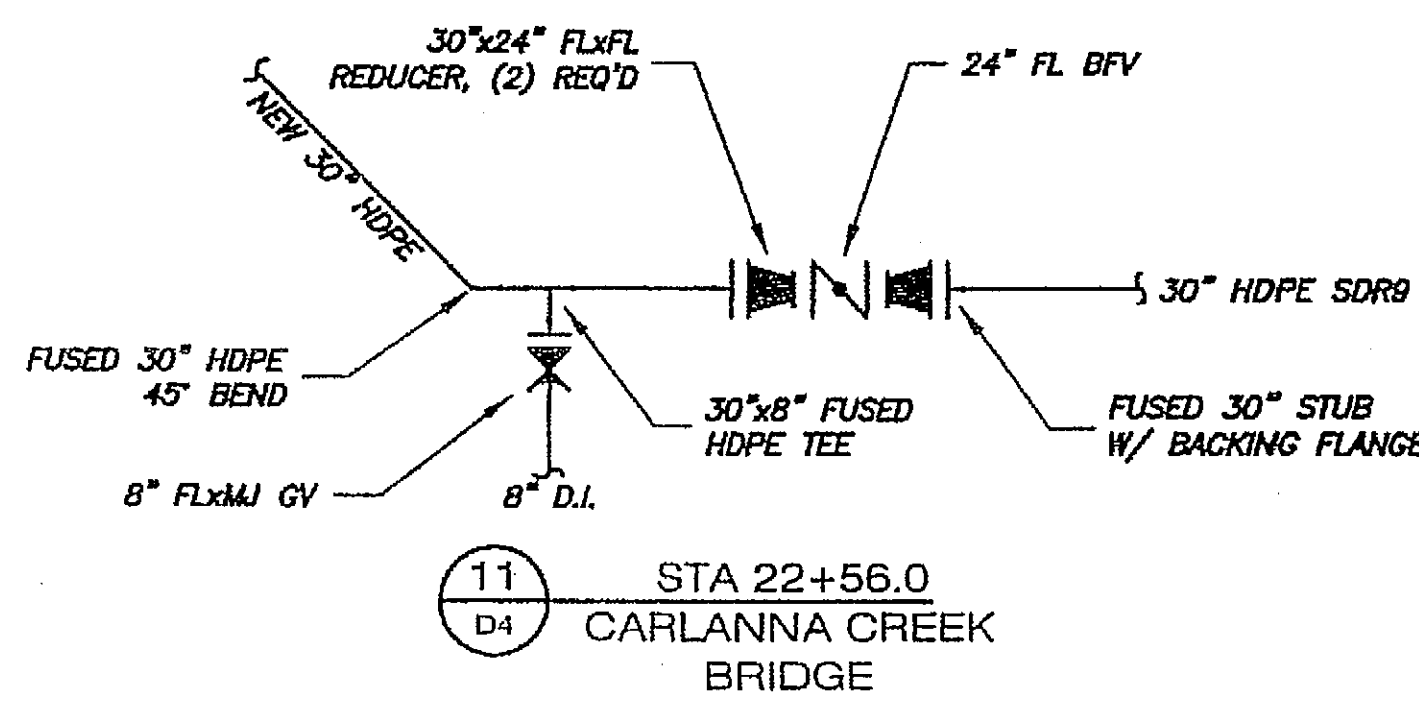
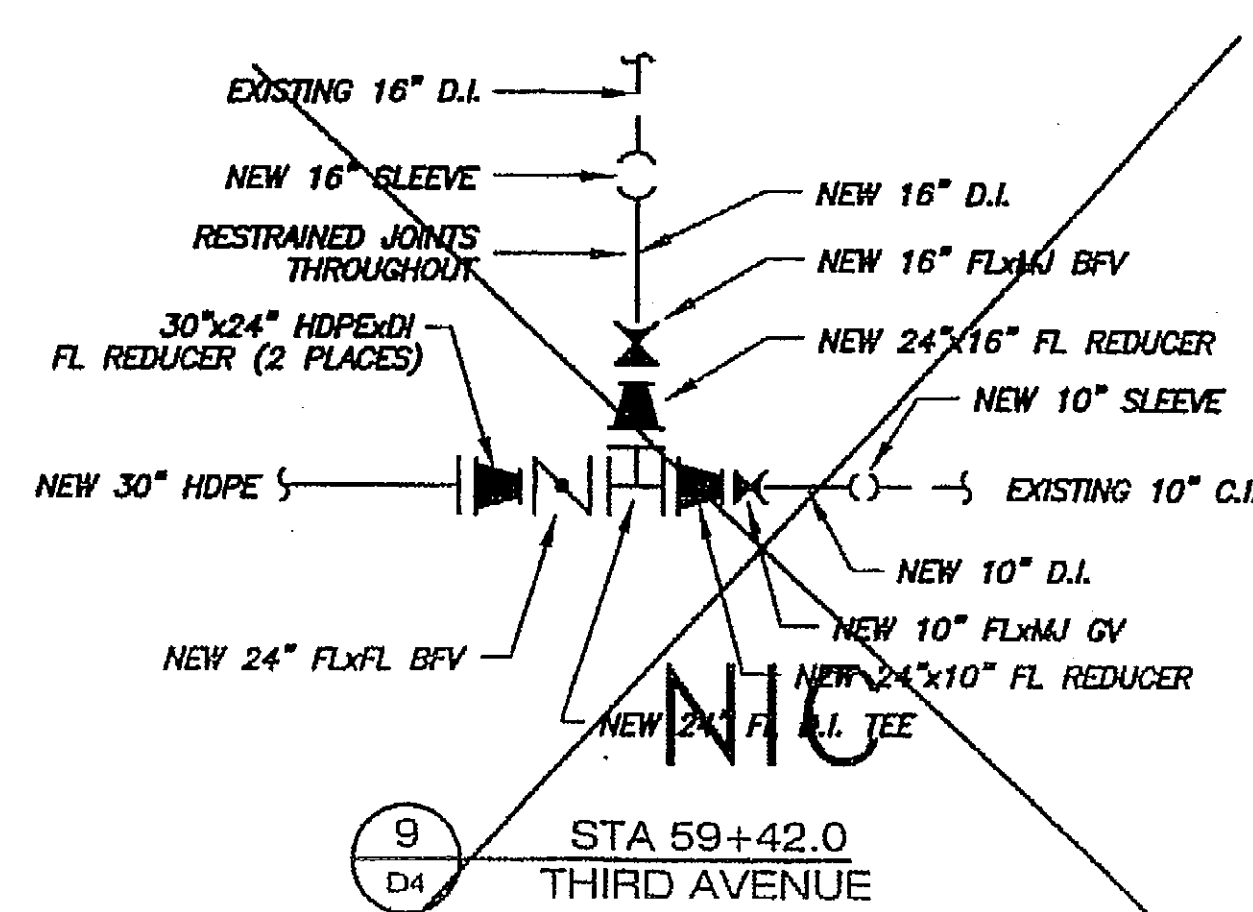
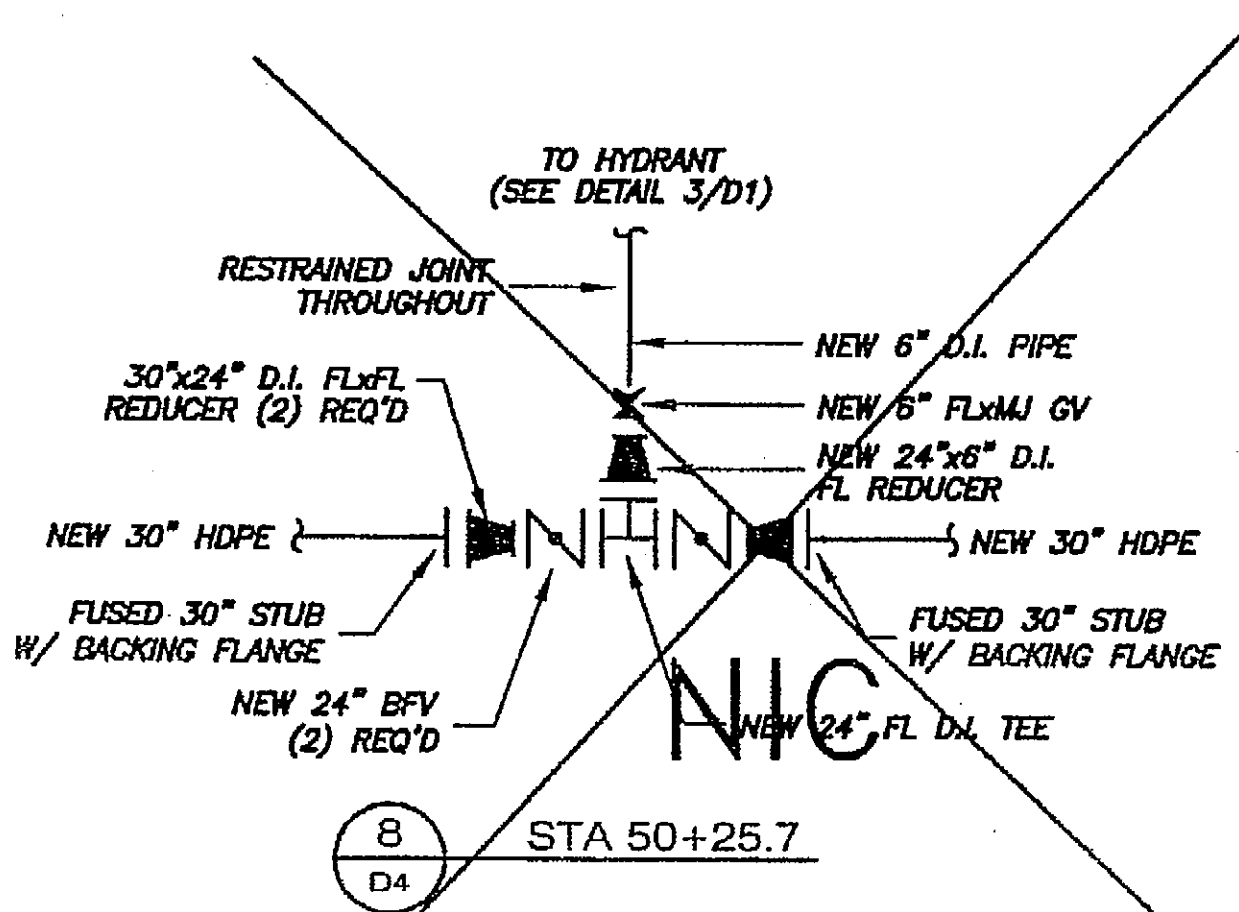
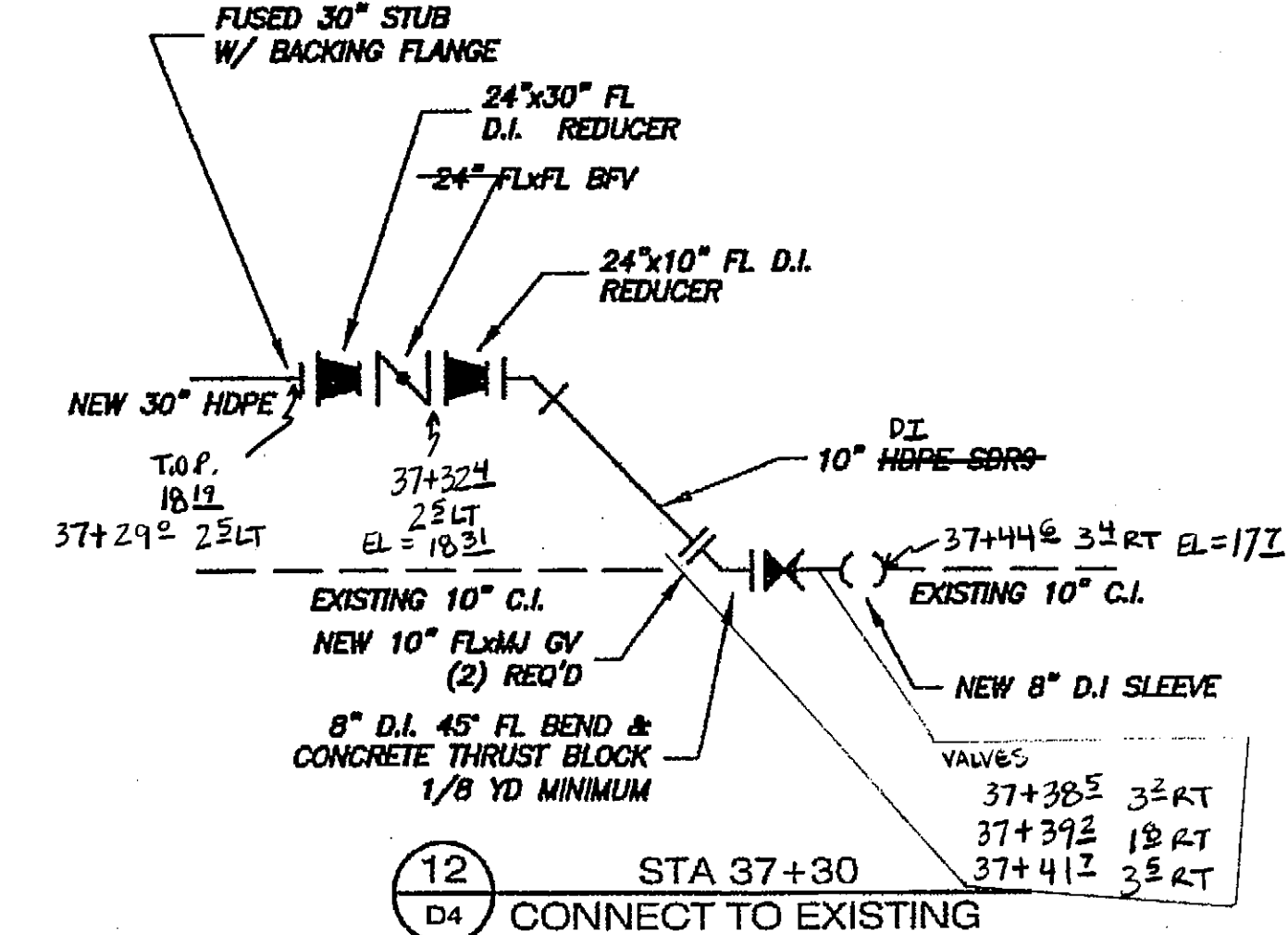
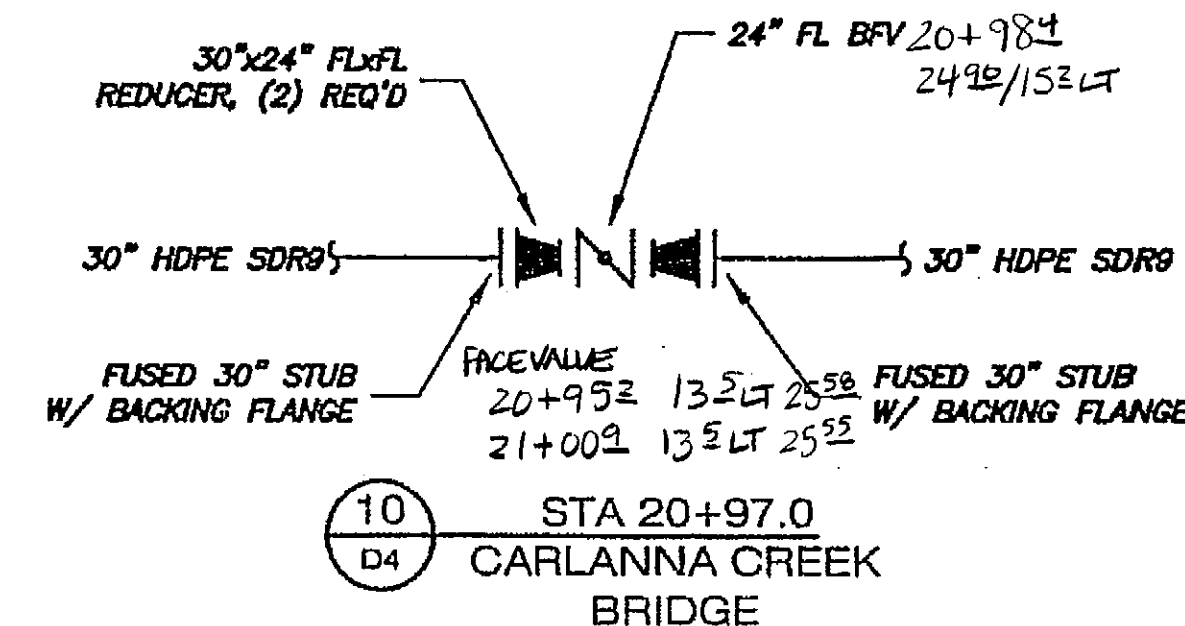
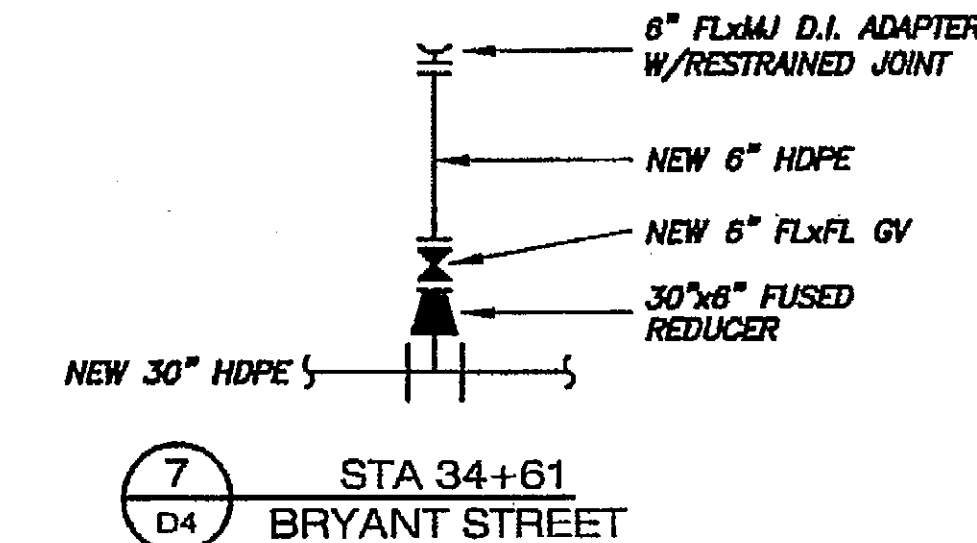
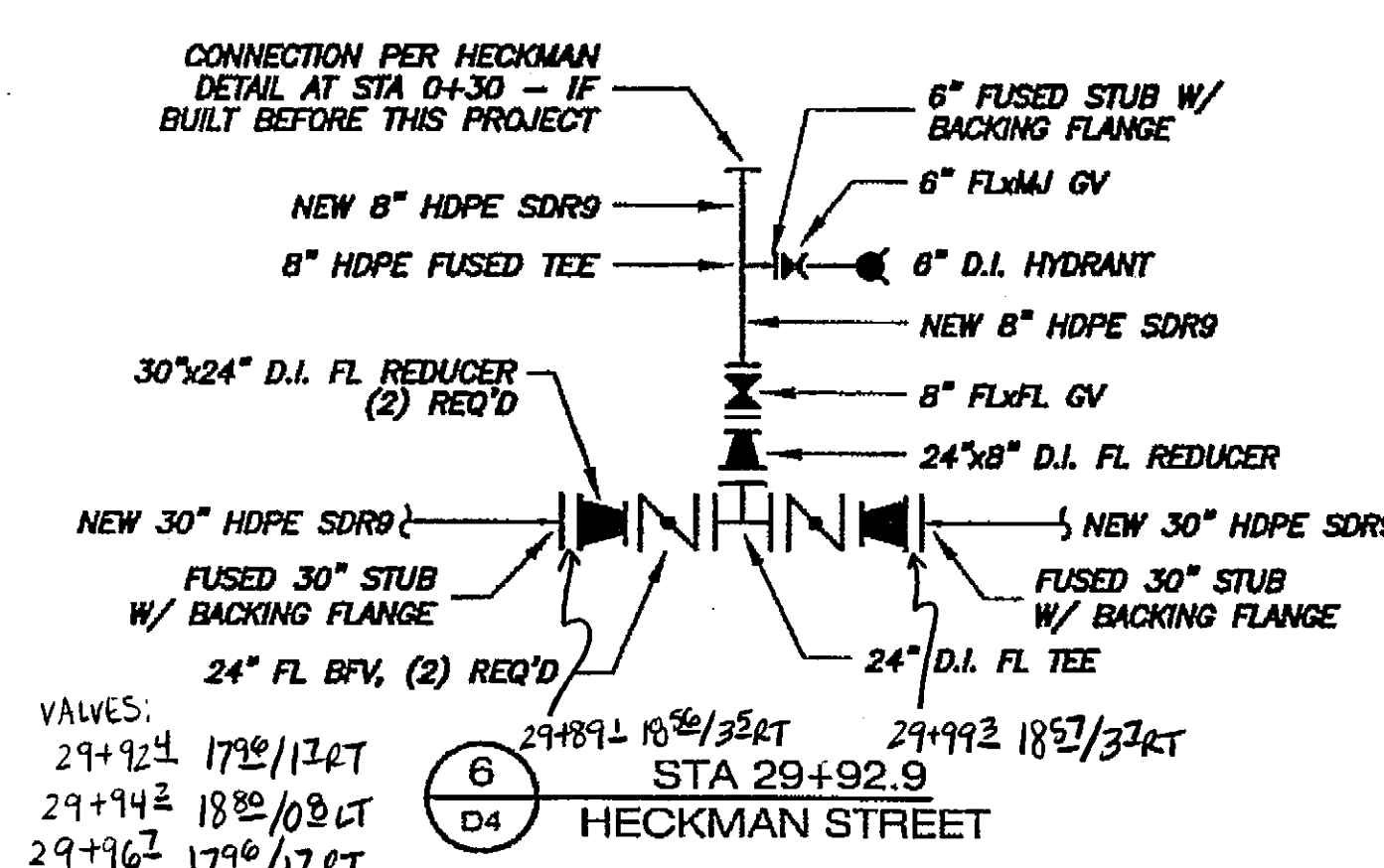
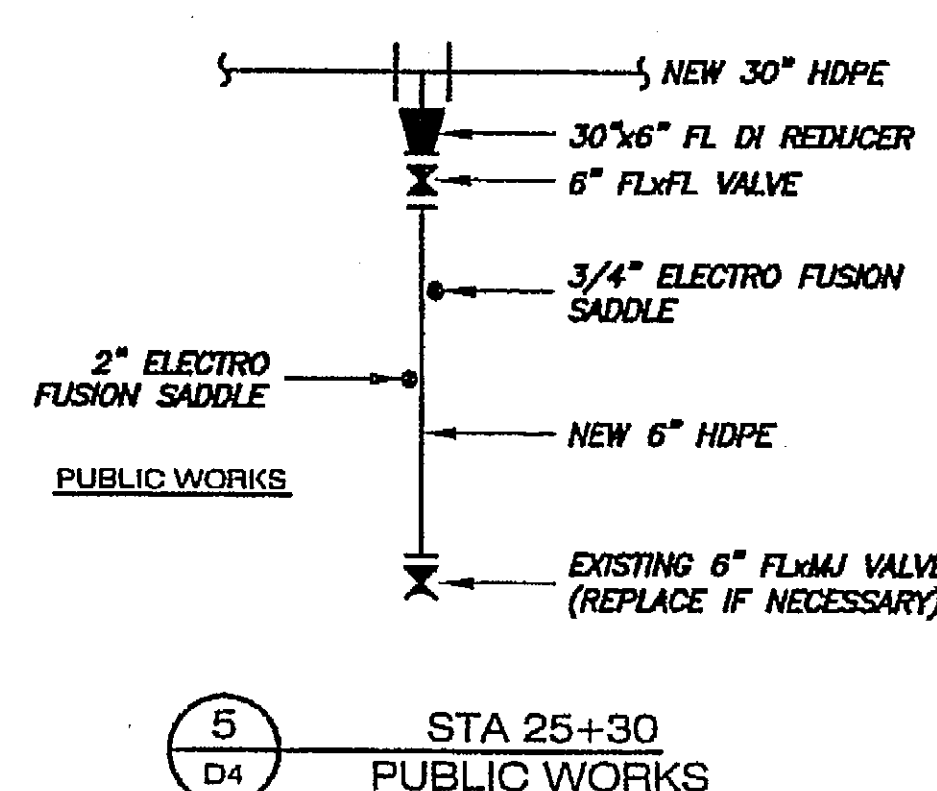
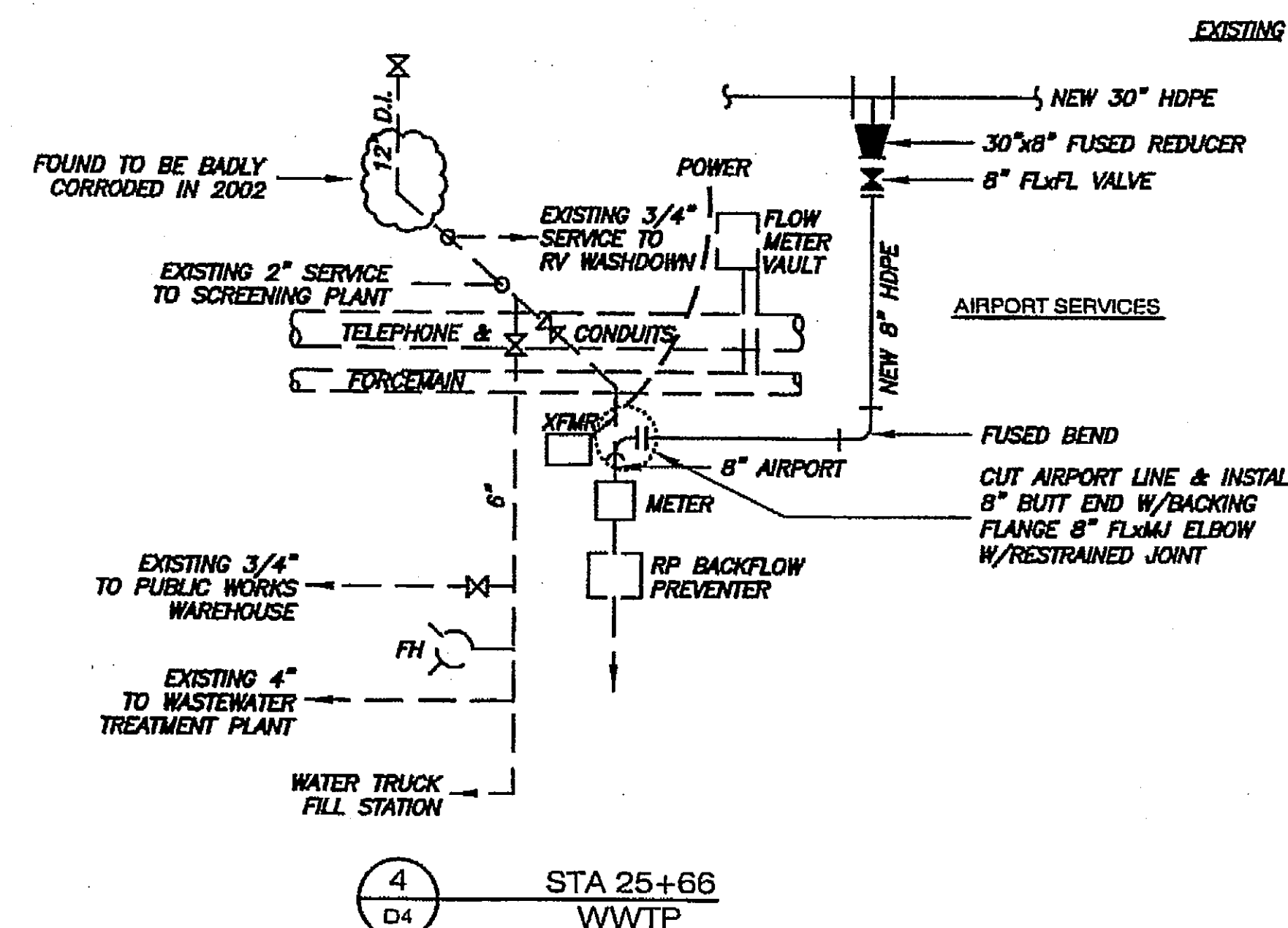
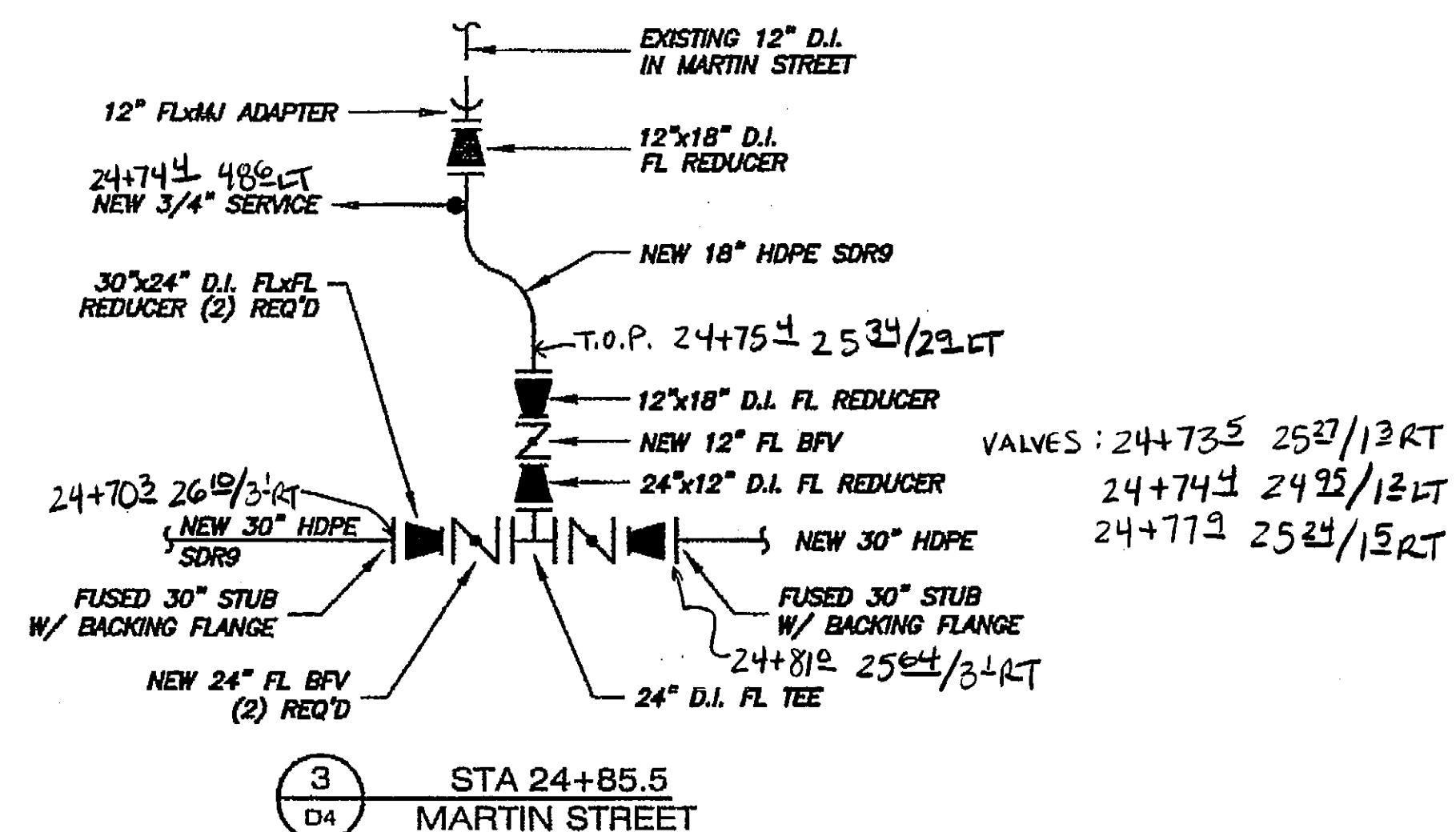
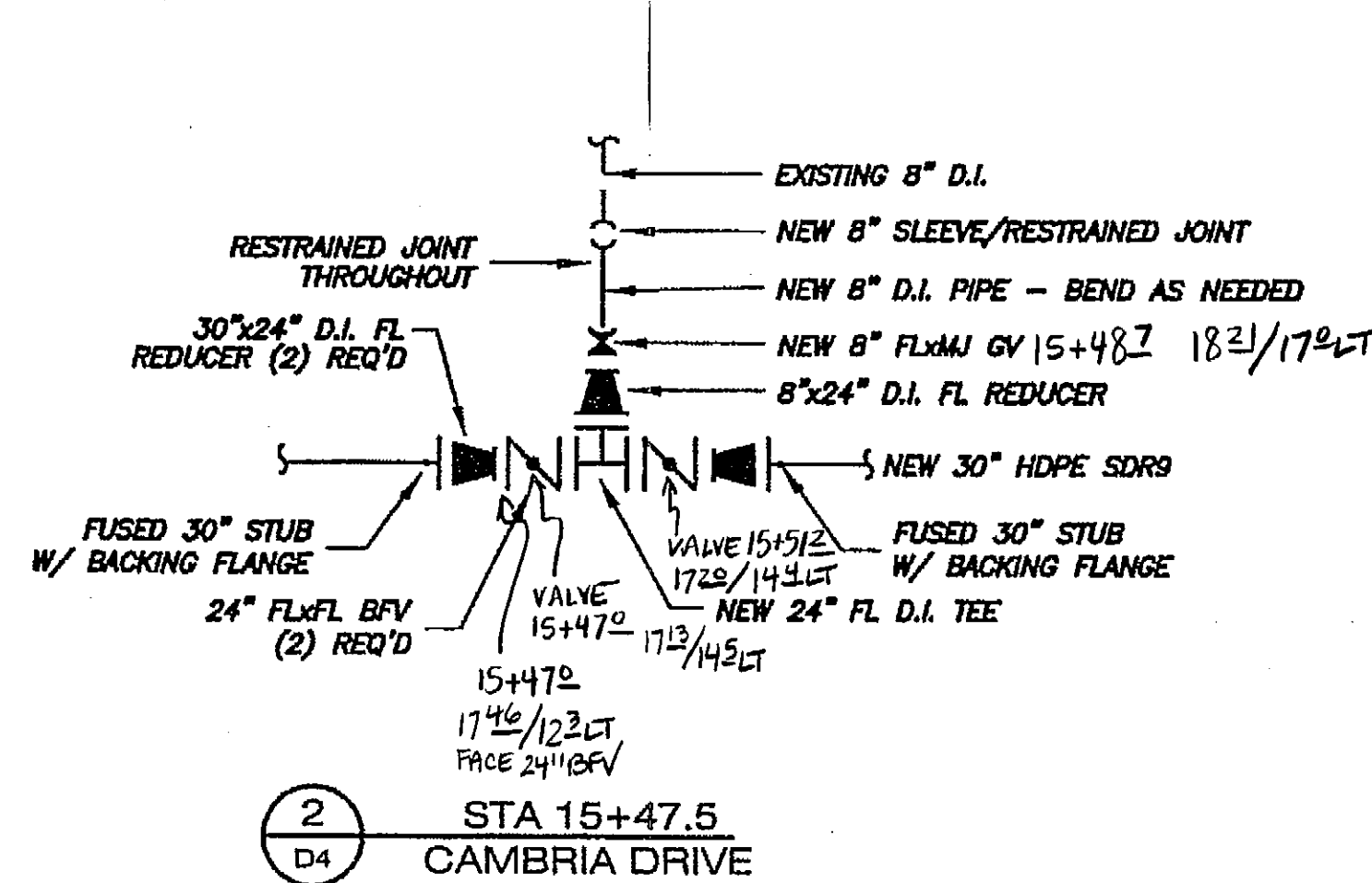
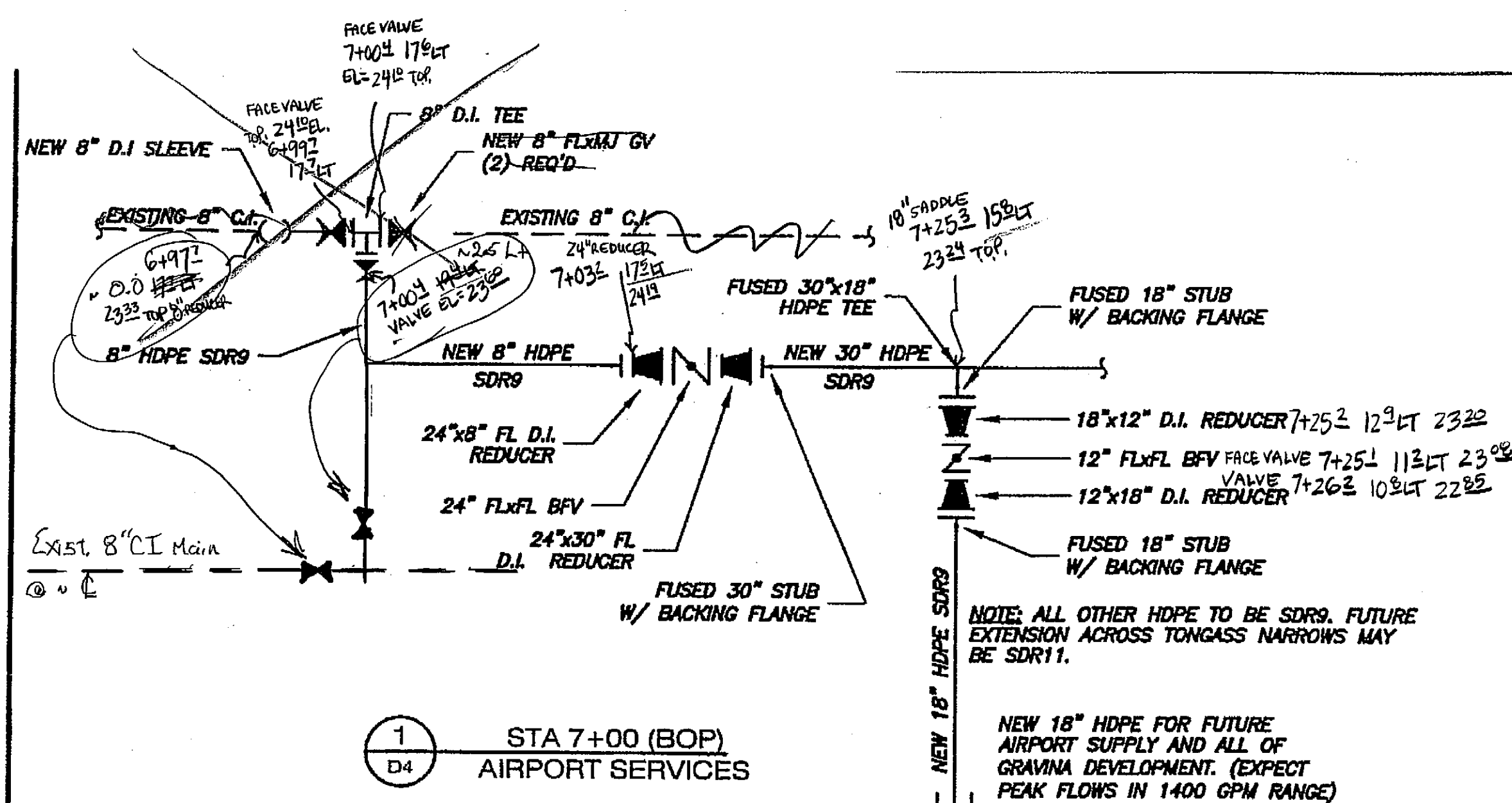
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

KETCHIKAN
TONGASS AVENUE RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I

GENERAL DETAILS

REVISIONS			PROJECT DESIGNATION	YEAR	SHEET NO.	SHEETS
NO.	DATE	DESCRIPTION				
			RSA 68830 / 68831	2006	D3	

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng. *[Signature]* Date 3-3-09



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: 2/10/06

DESIGNED BY: T. SANDE
DRAWN BY: J. ROBINSON

PROJECT DESIGNATION: RSA 68830
YEAR: 2006
SHEET NO.: D4
SHEETS: 1

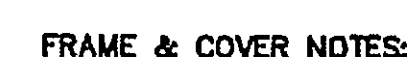
REVISIONS:

NO.	DATE	DESCRIPTION
1	8/4/05	ADDENDUM

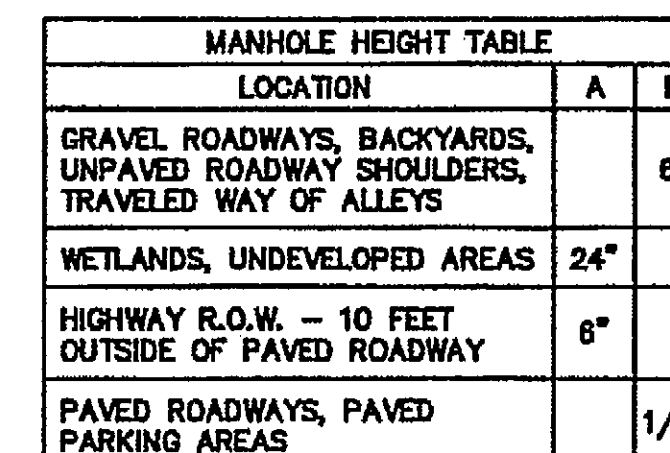
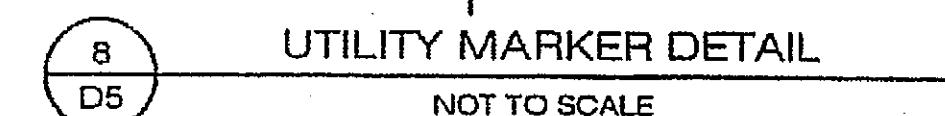
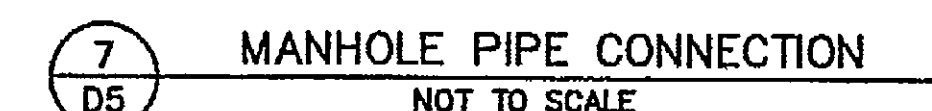
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. Date 3-3-09

1. All manhole sections shall conform to ASTM C-478, latest edition, including minimum steel requirements. Steel shall be embedded in base so that first riser section is connected to base.
2. All joints shall include a pre-molded rubber gasket such as "Rom-Nek," or equal. The exterior of all joints shall be plastered with at least 1" of bantomite cement sealing plaster.
3. Channel depth shall be equal to the pipe diameter or greater. Channel and shelf shall have a broom finish.
4. Ends of pipe shall extend between 1" and 3" into the manhole.
5. Seal manhole at pipe connections at sleeves in Detail 7/D3 and as recommended by the seal manufacturer. No steel reinforcement shall extend into pipe opening.
6. When manhole height is less than 7', replace concrete cone section with pre-cast reducing slab. See Detail 9/D3.
7. Install orange utility marker per Detail 8/D5.
8. Manhole riser rings shall be LADTEC plastic rings. Joints on riser shall be watertight using butyl and mortar joints.
9. For manholes accepting a flexible connector for 30" C800sewer pipe, manholes shall be 60" inside diameter.



1. Cover and frame shall be heavy duty and rated for H-20 Loading. Minimum total weight shall be 350 pounds.
2. Lockdown bolts shall not be allowed.
3. Frame shall be machined to fit watertight cover. Cover shall have a "SEWER" cast in, and shall be provided with an integral lift handle.
4. Frame and cover dimensions shall be in accordance with the guidelines indicated. Variations shall be approved by the Engineer.
5. All frames and covers shall be identical for all manhole installations.

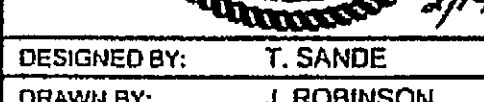


1. Where installed in paved roadways or paved parking areas, manhole lid shall conform to the grade and cross slope of the pavement. Dimension is to the top of embossed lettering if lettering is higher than the frame.
2. Typical manhole heights shall be applied to the top of any sanitary sewer cleanout covers installed.
3. Buried manholes or cleanouts shall be marked with an orange carsonite marker. See special provisions.



Proj. Eng. Date 3-3-09

CHECKED BY:	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
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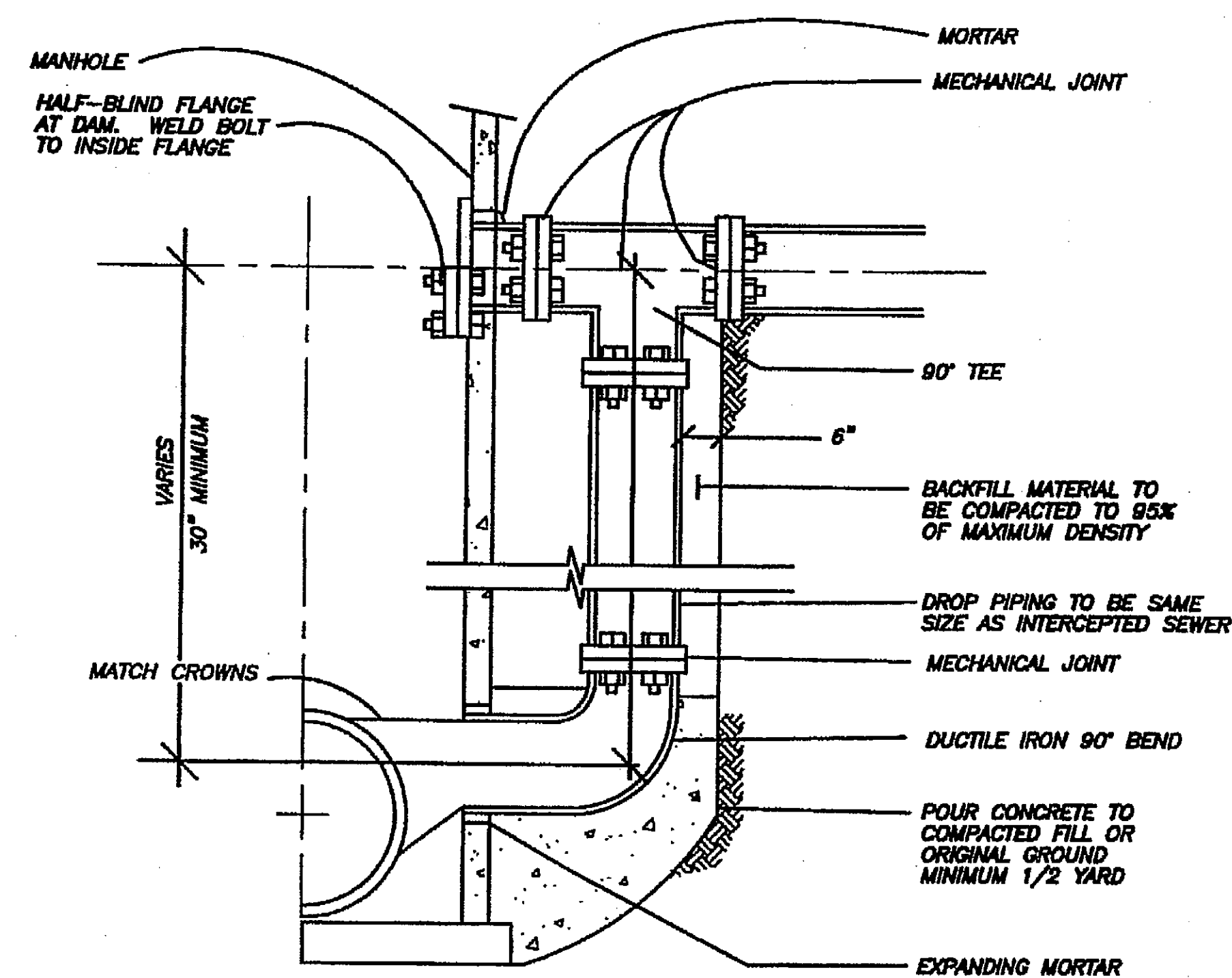
GENERAL DETAILS

REVISIONS			PROJECT DESIGNATION	YEAR	SHEET NO.	SHEET
NO.	DATE	DESCRIPTION				

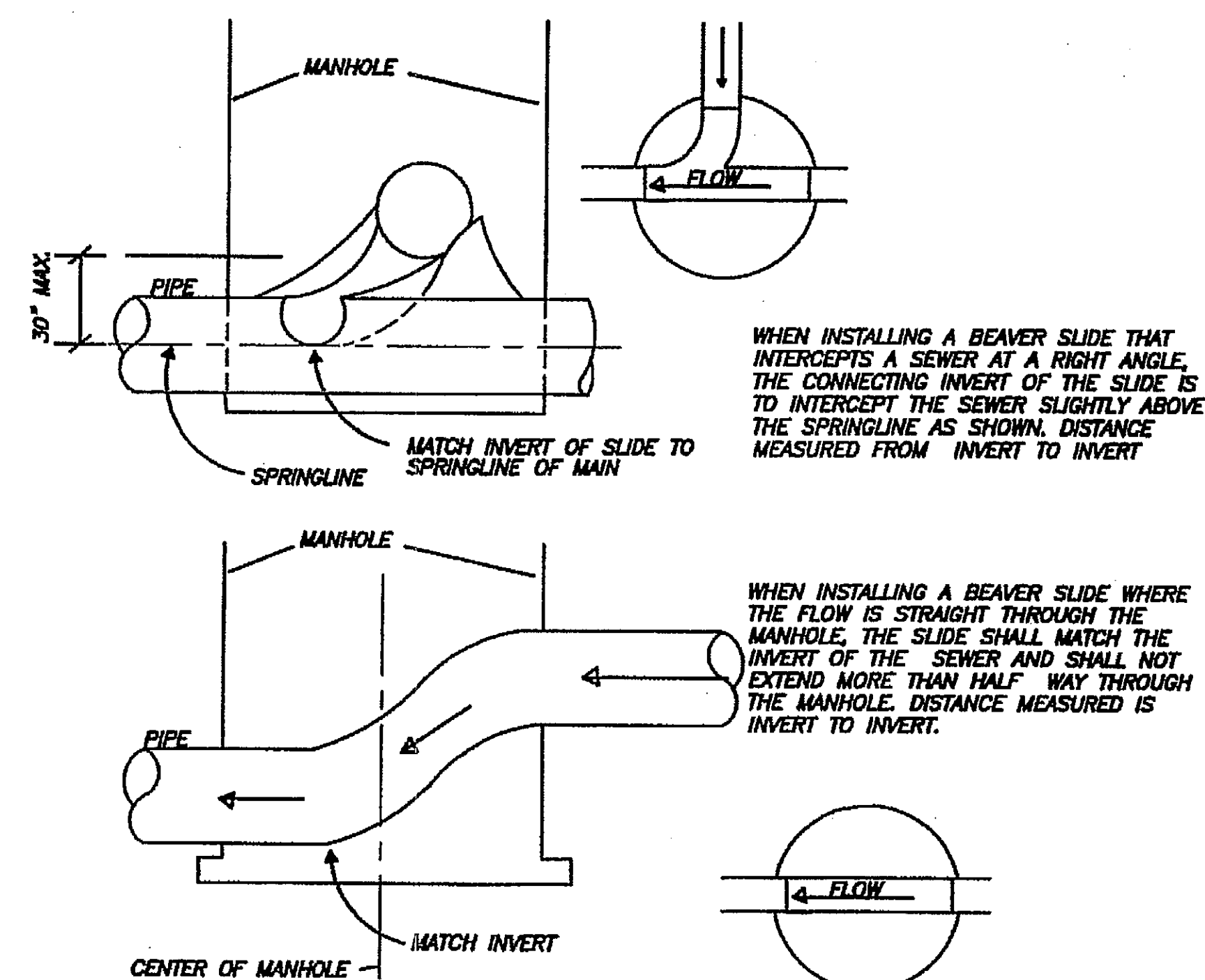
RSA 68831

2006

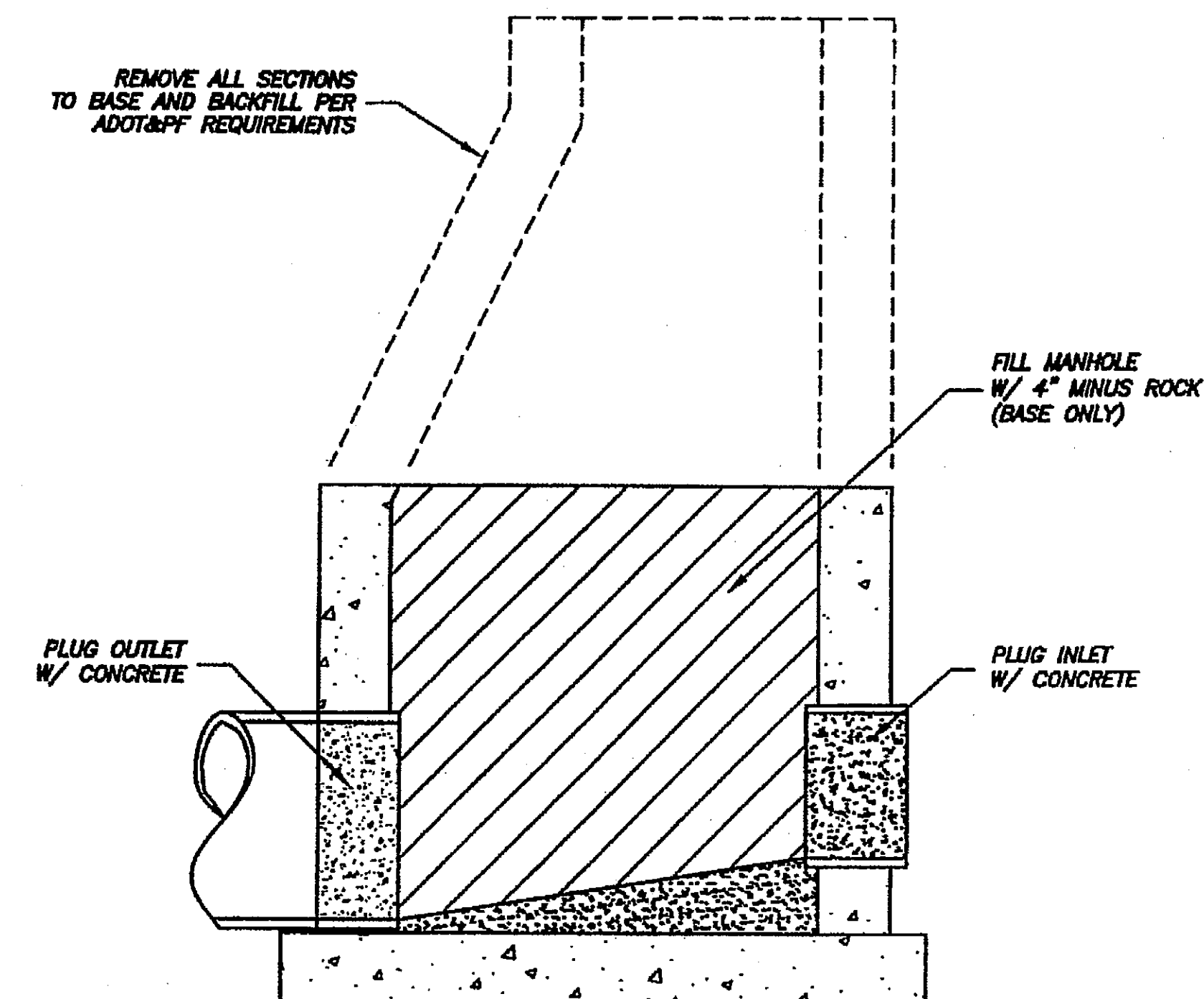
D5



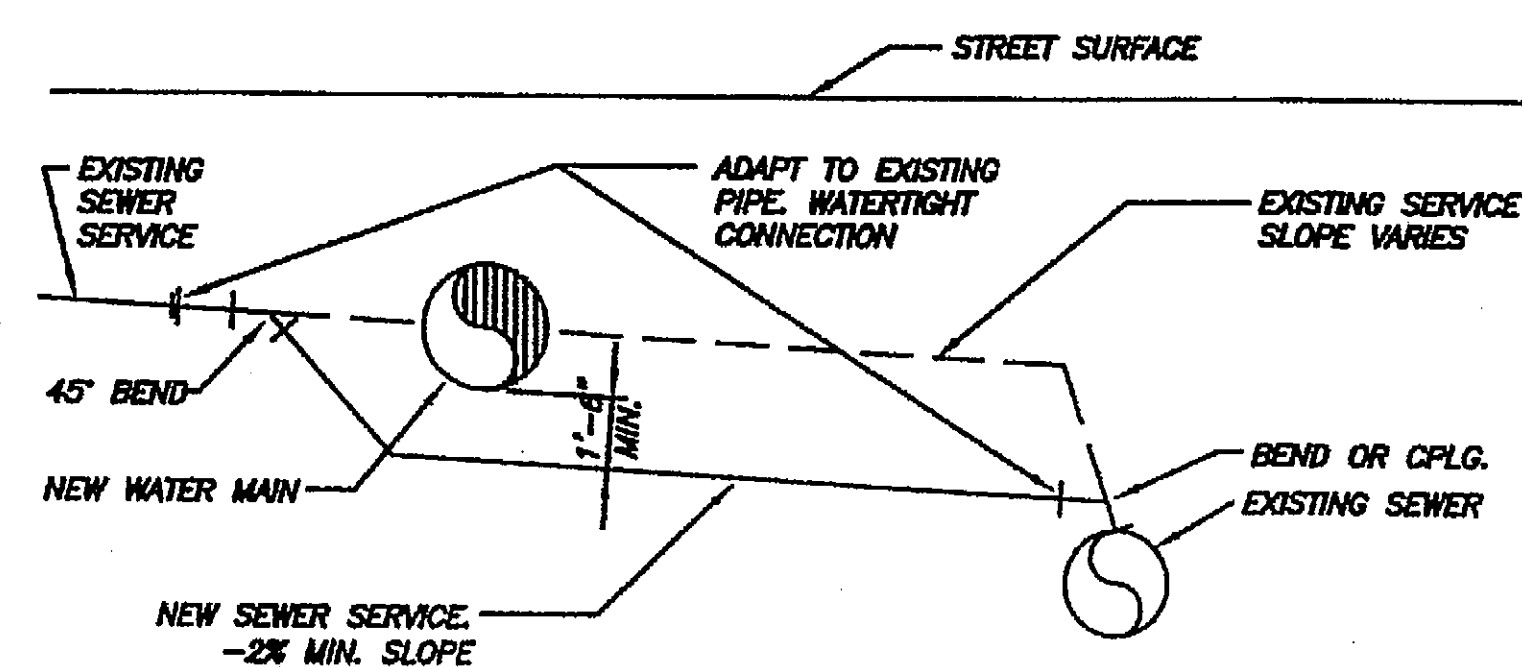
1
D6
ALL PIPE & FITTINGS TO BE DUCTILE IRON
OUTSIDE DROP MANHOLE CONNECTION
NOT TO SCALE



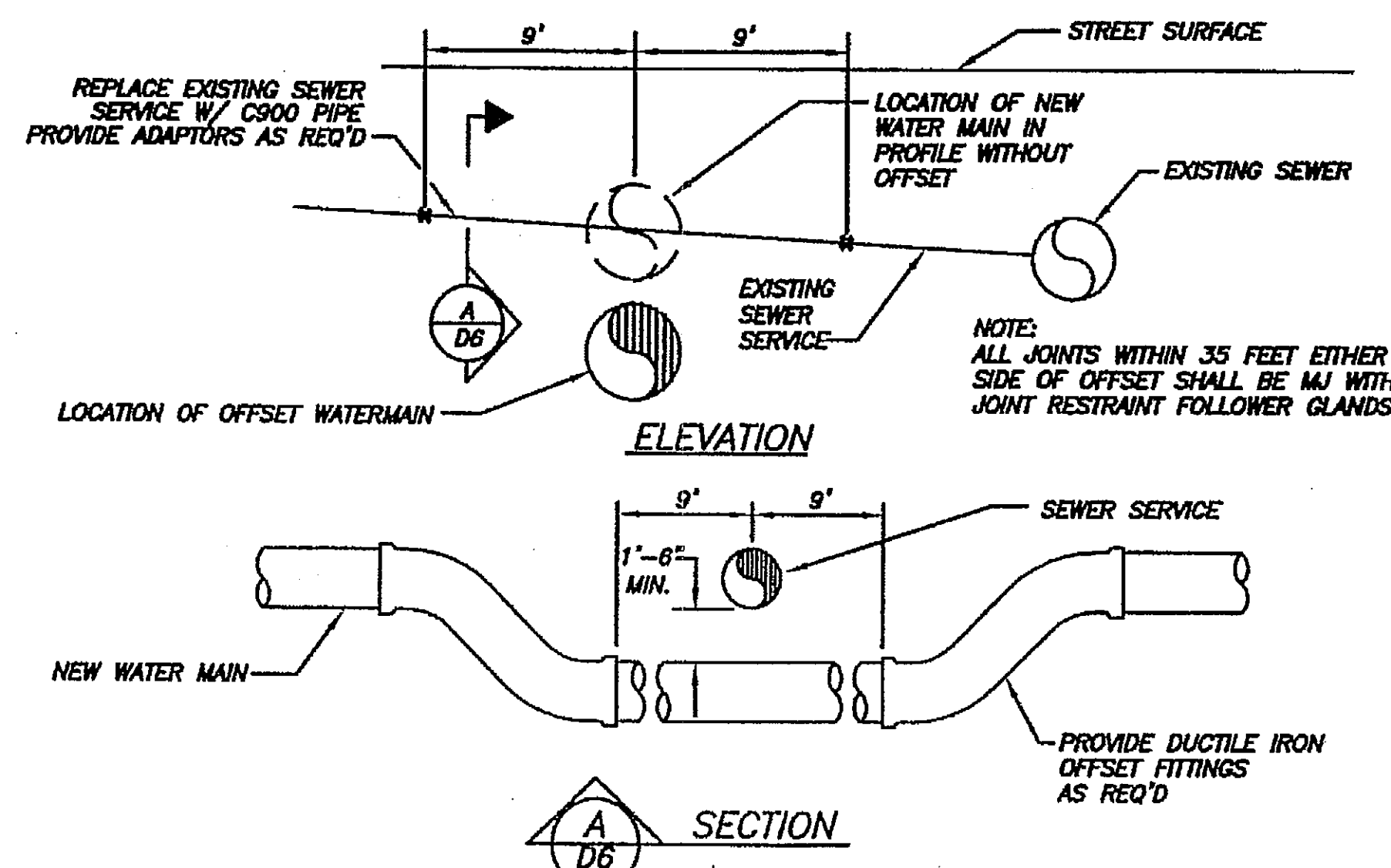
2
D6
BEAVER SLIDE DETAIL
NOT TO SCALE



3
D6
MANHOLE ABANDONMENT DETAIL
NOT TO SCALE
PAY ITEM 202(1)



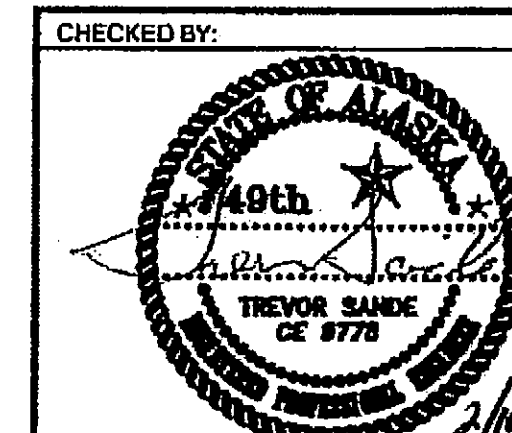
CASE #1 - SEWER LOW RELATIVE TO WATER



NOTE: SEWER SERVICES ARE OF VARYING SIZES AND MUST BE FIELD VERIFIED
CASE #2 - SEWER HIGH RELATIVE TO WATER

4
D6
SEWER SERVICE ADJUSTMENT
NOT TO SCALE

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



DESIGNED BY: T. SANDE
DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION

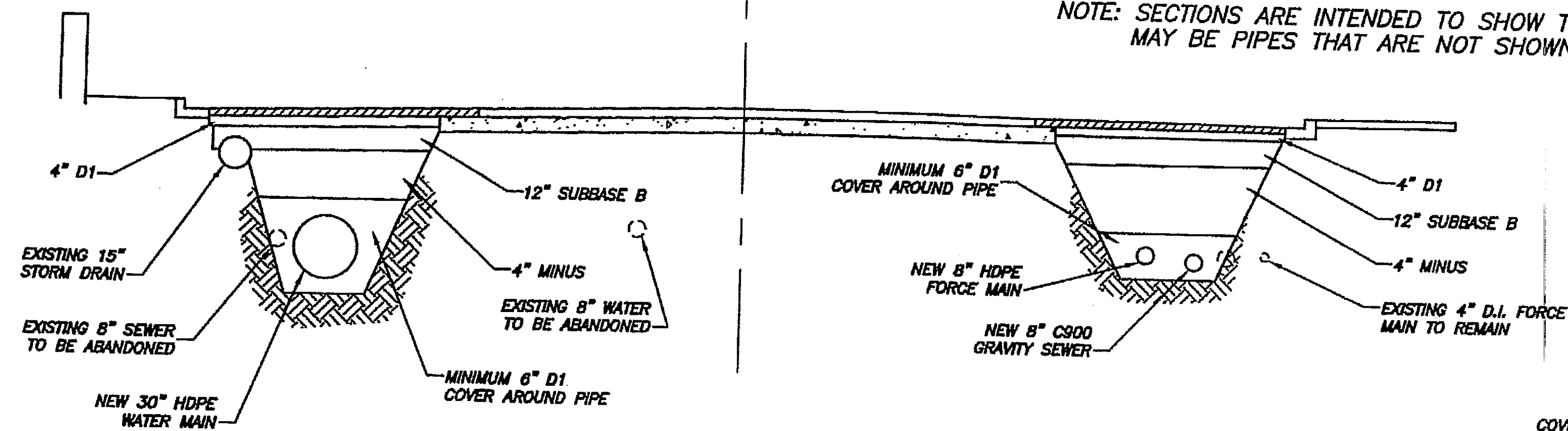
KETCHIKAN
TONGASS AVENUE RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I

GENERAL DETAILS

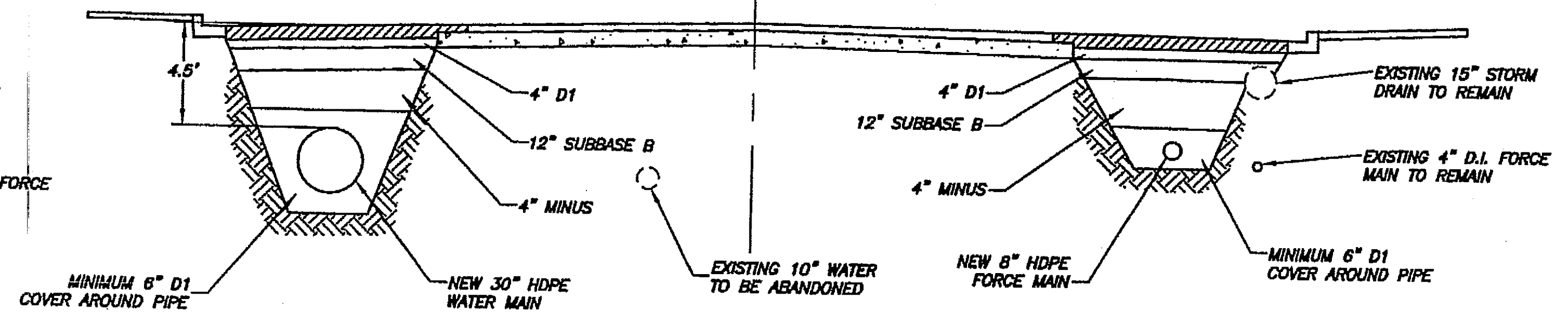
REVISIONS			PROJECT DESIGNATION	YEAR	SHEET NO.	SHEETS
NO.	DATE	DESCRIPTION				
			RSA 68831	2006	D6	

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
3-3-09
Date

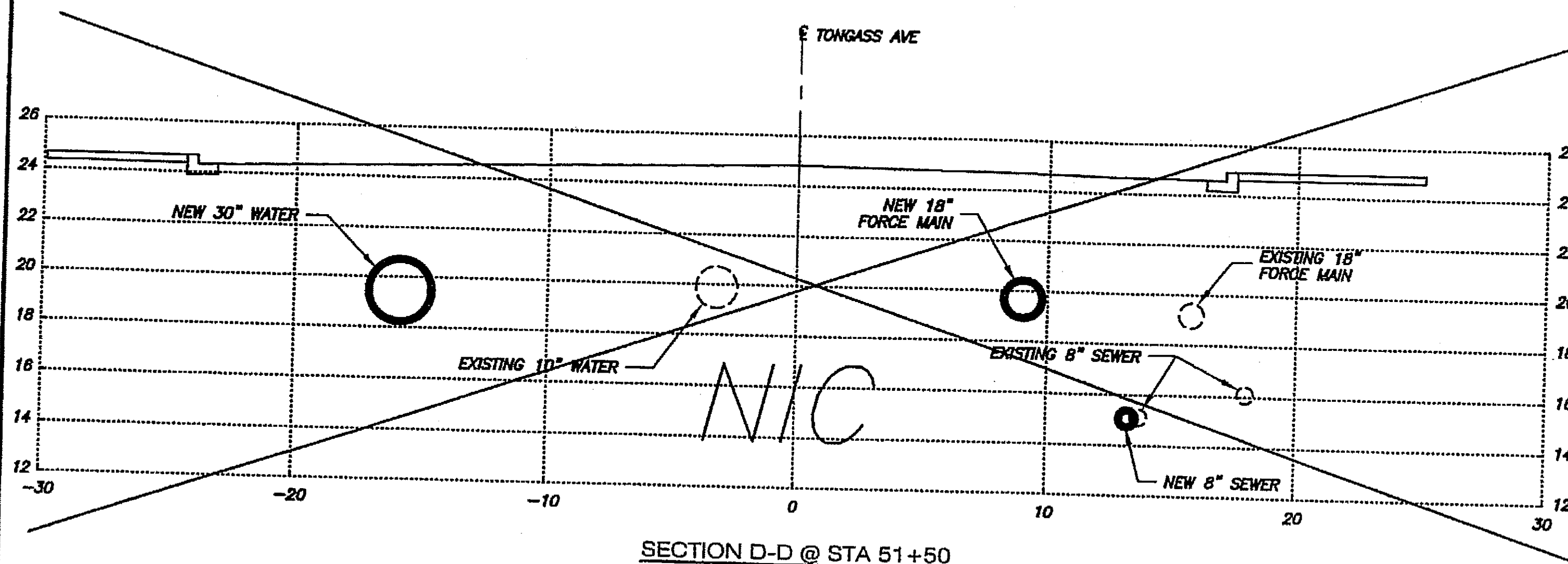
NOTE: SECTIONS ARE INTENDED TO SHOW THE GENERAL LOCATIONS OF THE PIPING. THERE MAY BE PIPES THAT ARE NOT SHOWN IN THESE SECTIONS.



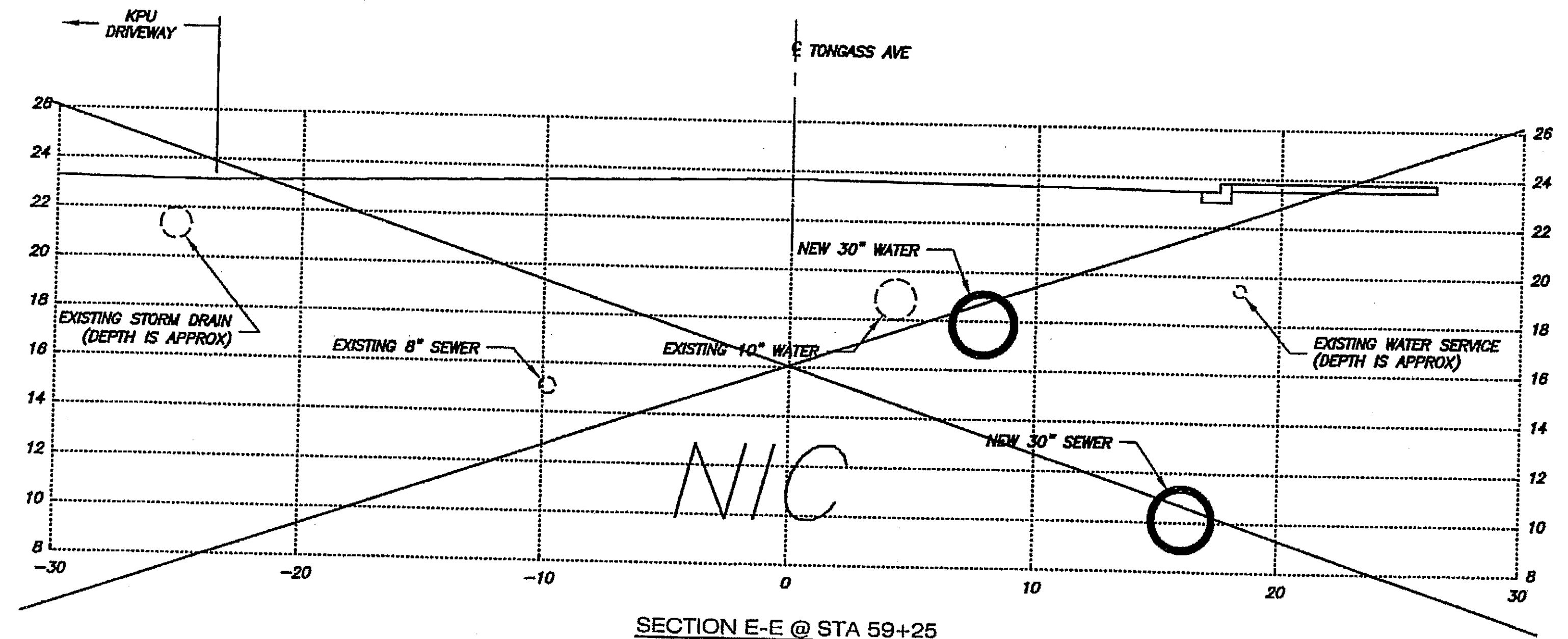
SECTION A-A @ STA 17+00



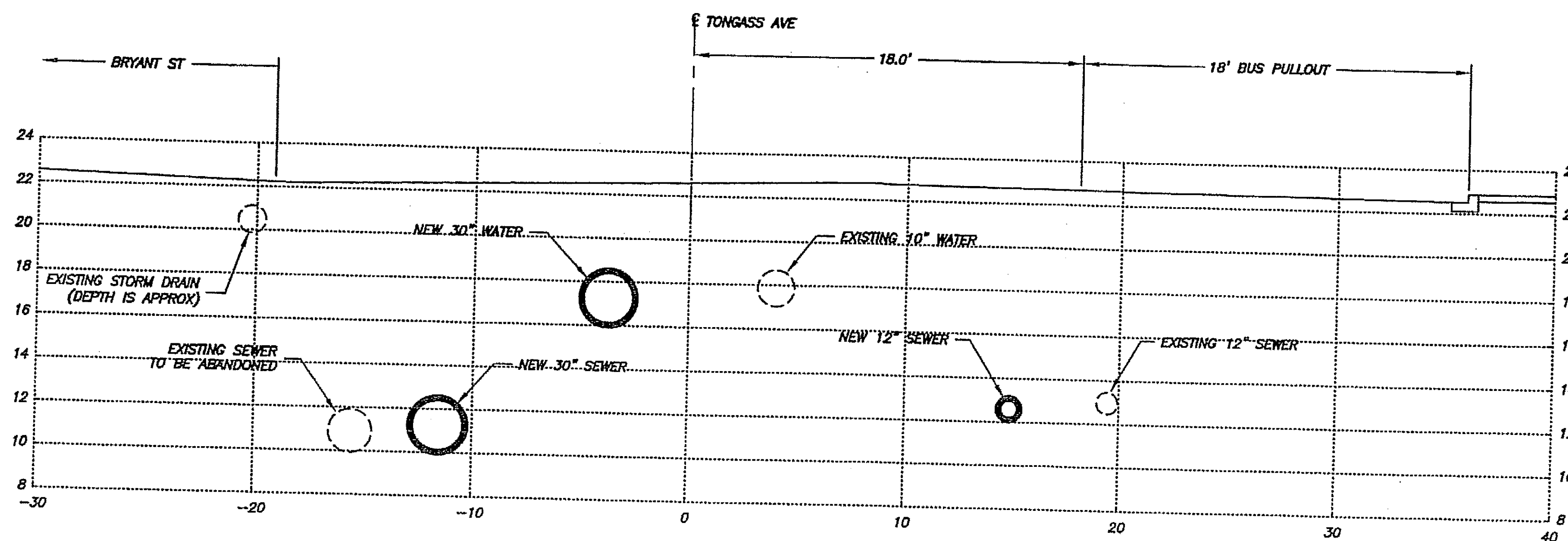
SECTION B-B @ STA 24+50



SECTION D-D @ STA 51+50



SECTION E-E @ STA 59+25

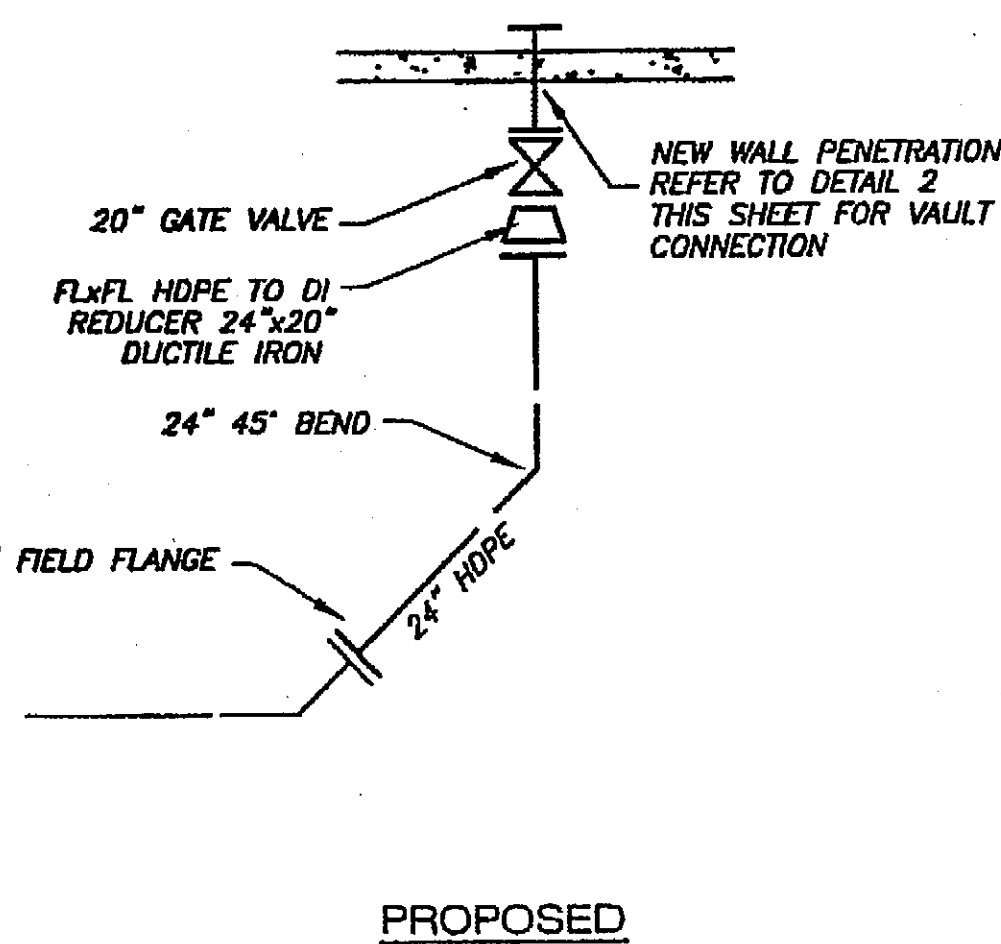
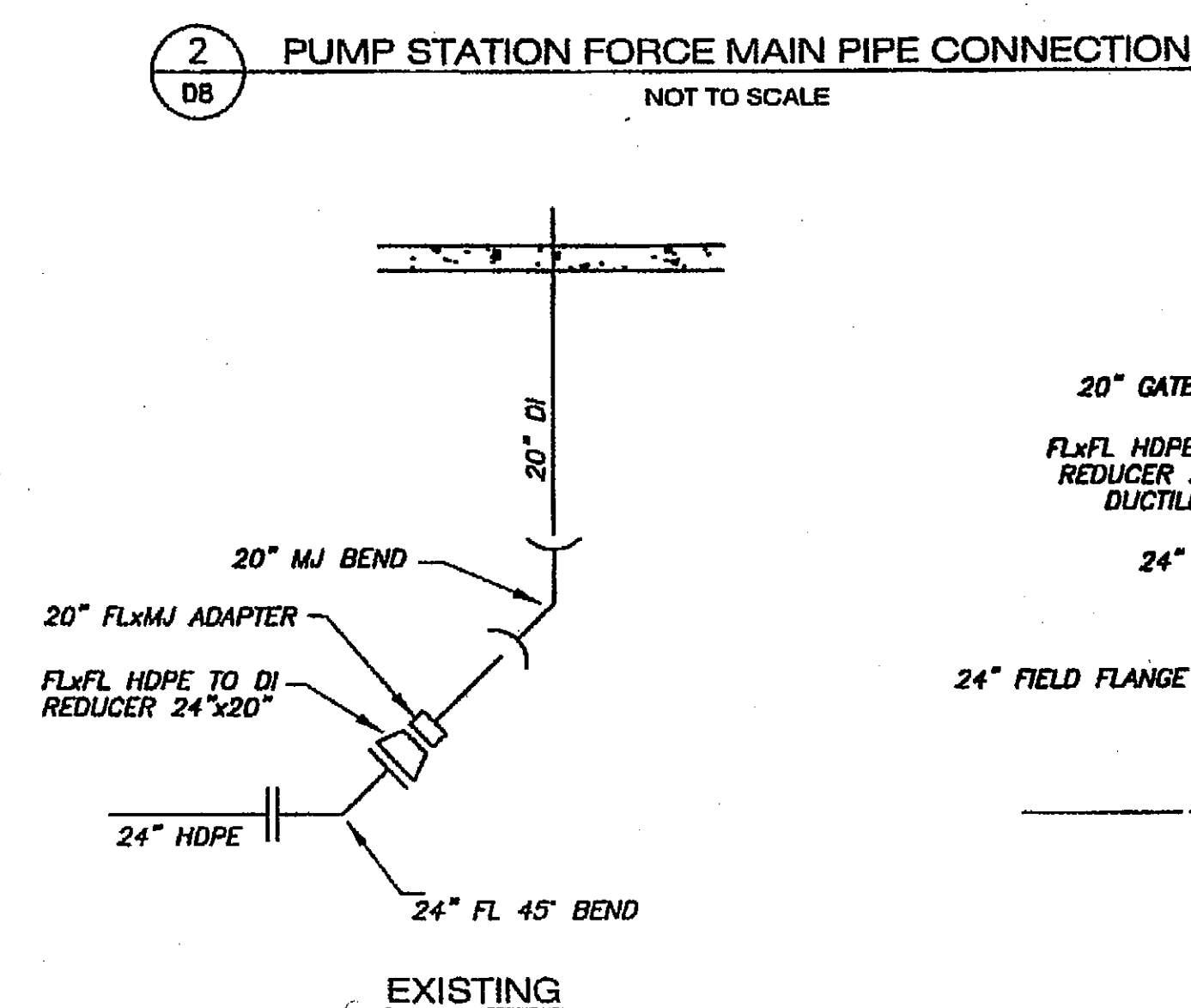
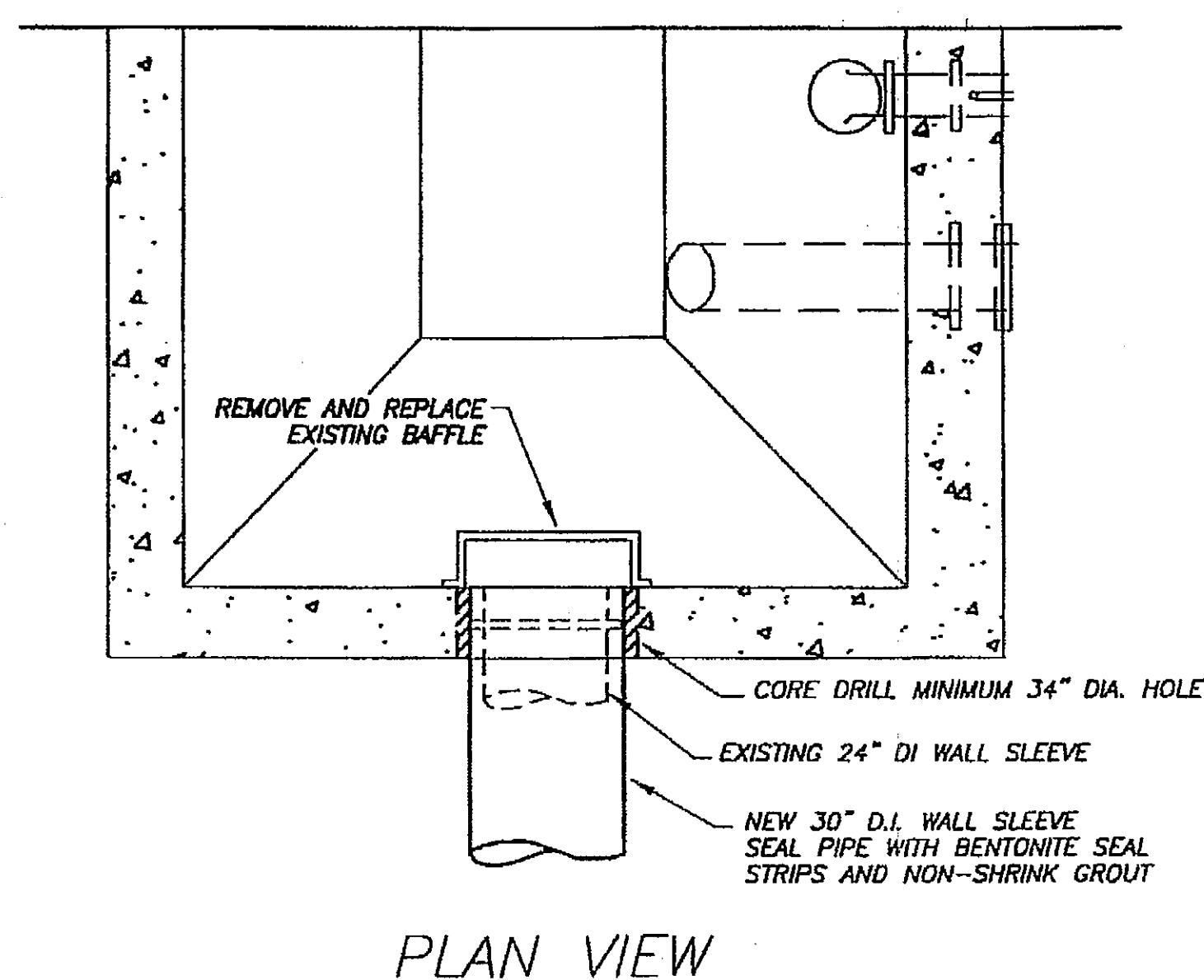
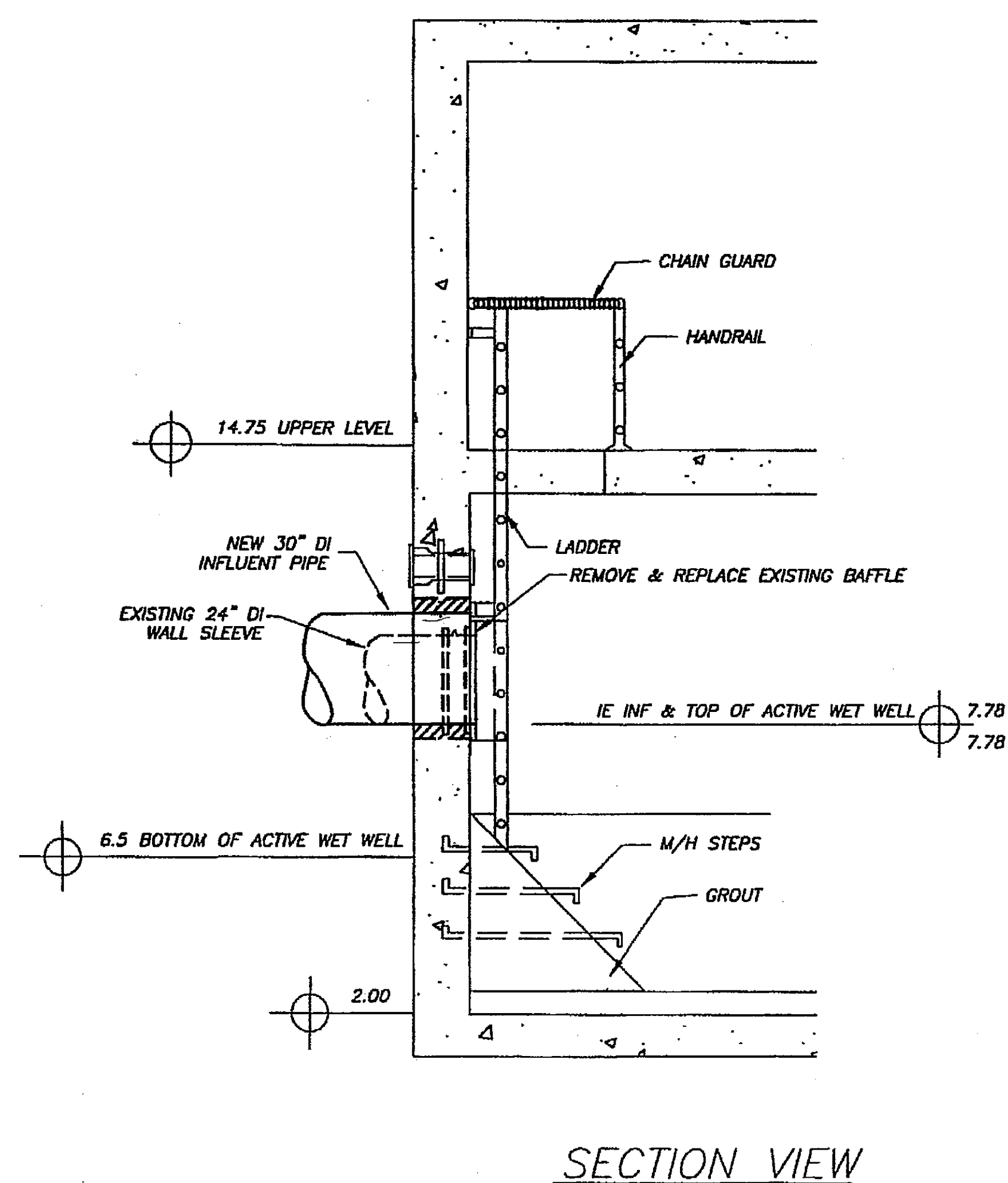
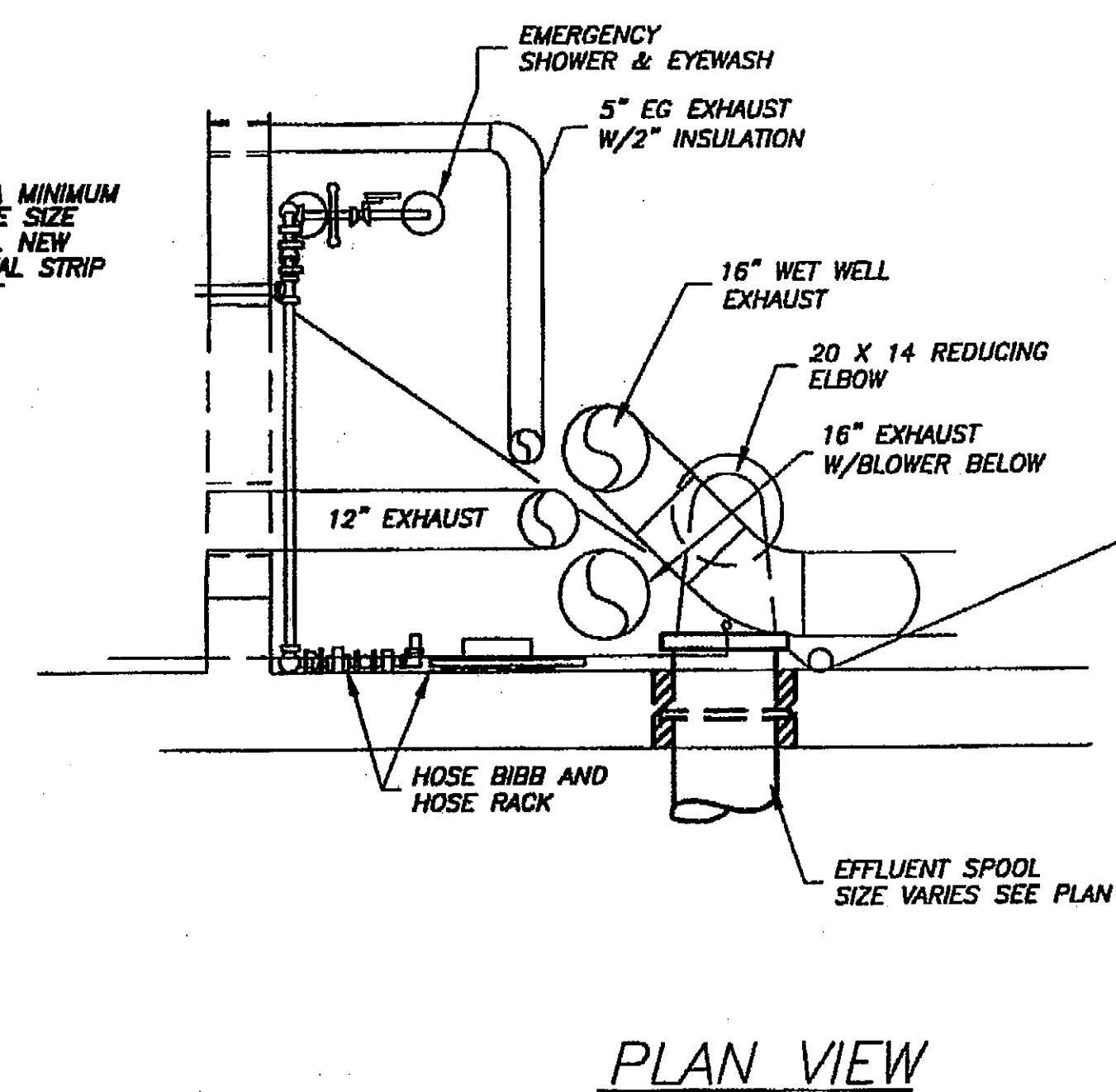
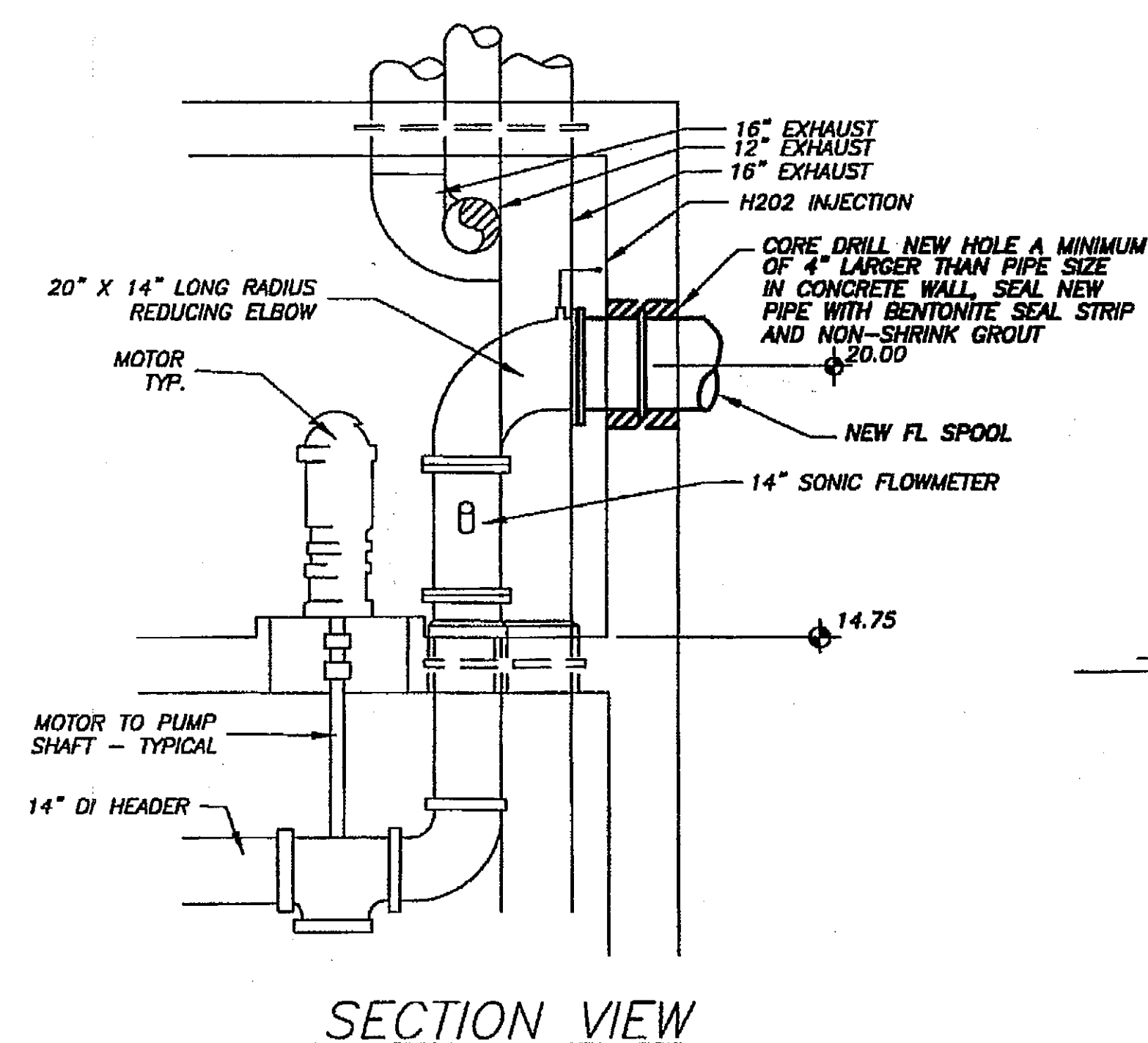
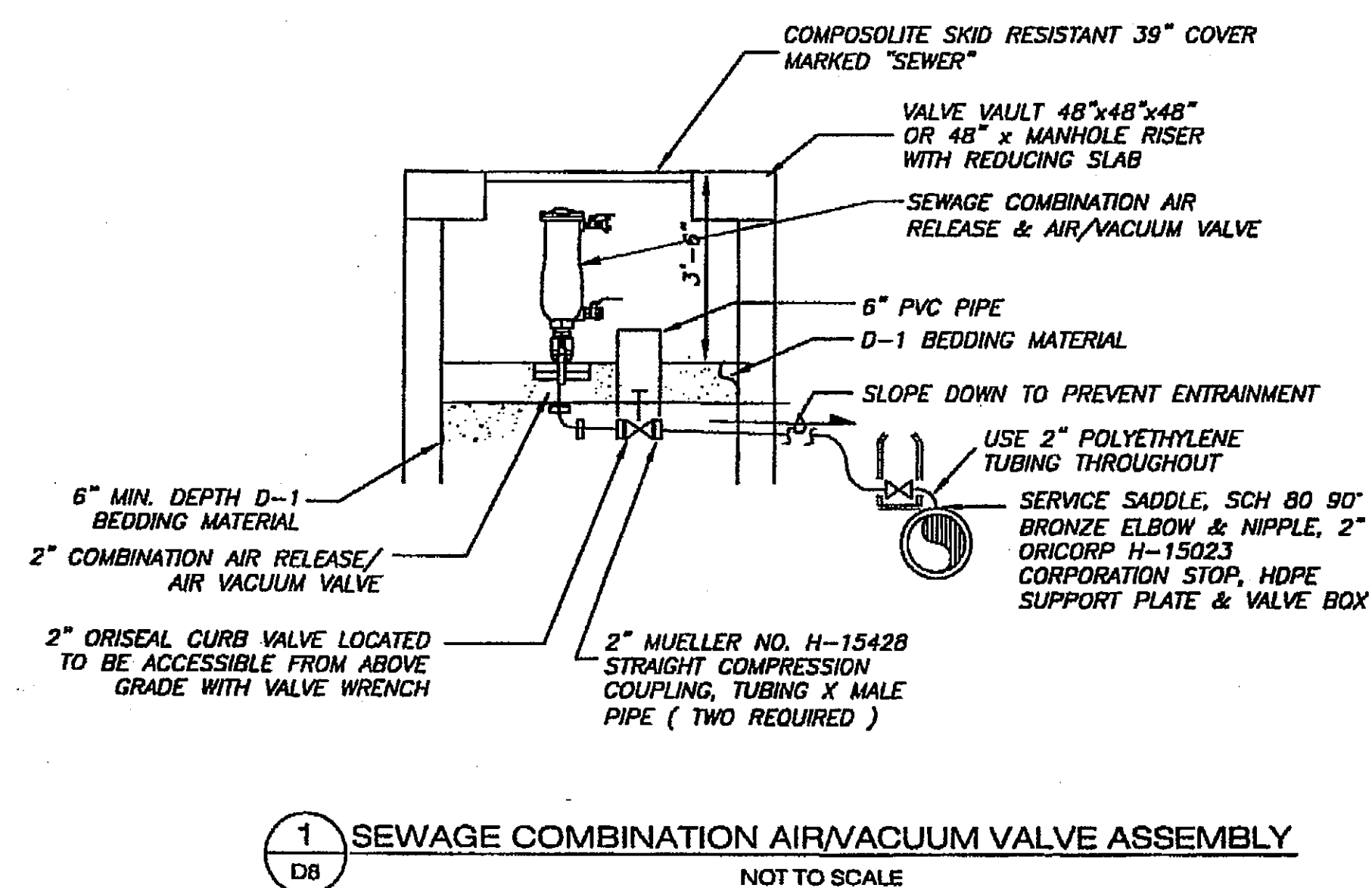


SECTION C-C @ STA 35+00

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: I NAME		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION	
		KETCHIKAN TONGASS AVENUE RESURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE PHASE I	
		ROADWAY SECTIONS	
DESIGNED BY: T. SANDE		Trevor	
DRAWN BY: J. ROBINSON			
REVISIONS		PROJECT DESIGNATION	YEAR
NO.	DATE	DESCRIPTION	SHEET NO.
			D7
		RSA 68830 / 68831	2006
			SHEETS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Drawn By: *[Signature]* Date: 3-3-09



2 DB PUMP STATION NO. 6 FORCE MAIN CONNECTION

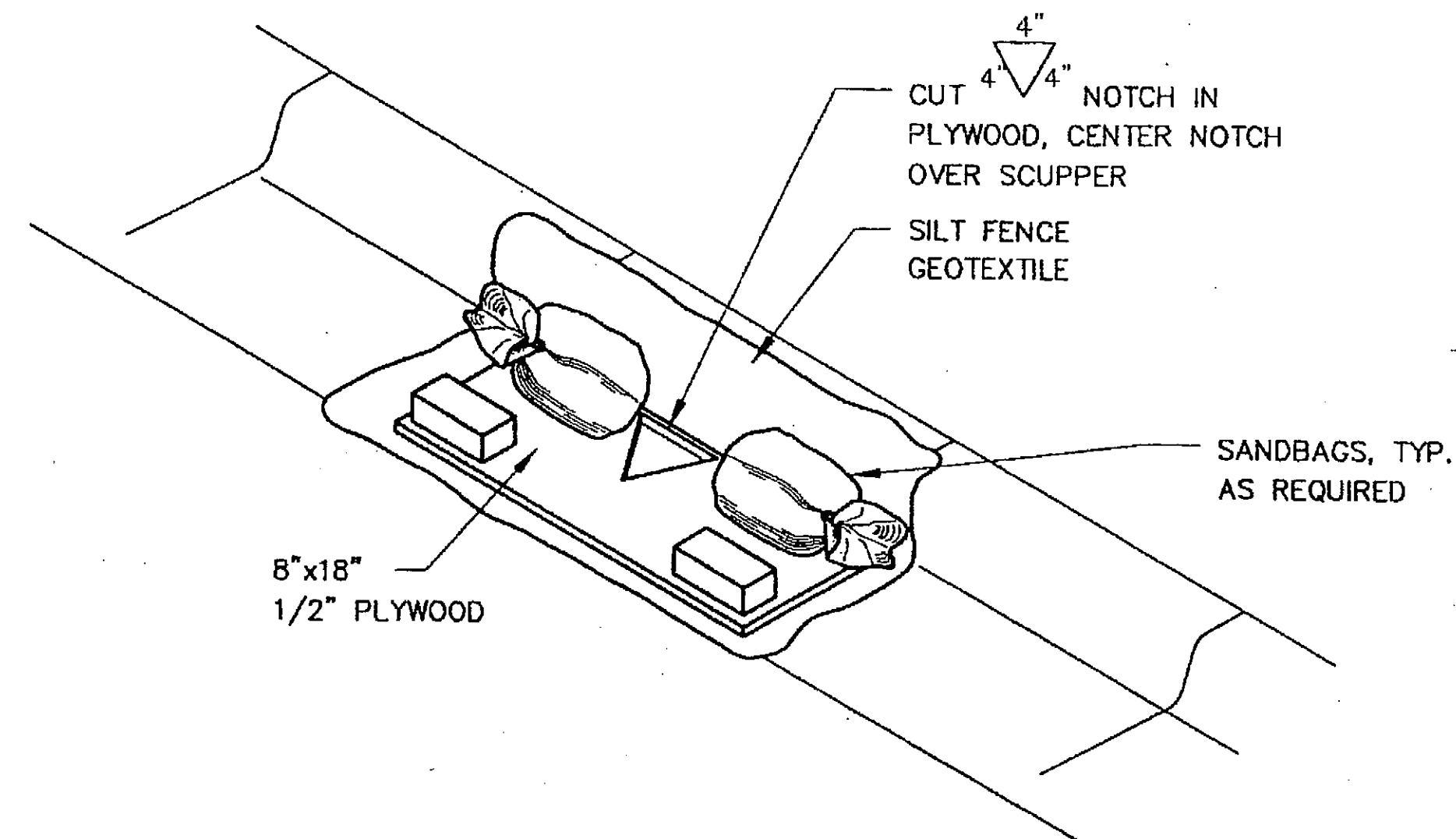
3 DB PUMP STATION GRAVITY PIPE CONNECTION

INV. @ MH = 8.50
P56 INFO FROM T.B. INV. @ VALVE = 8.20

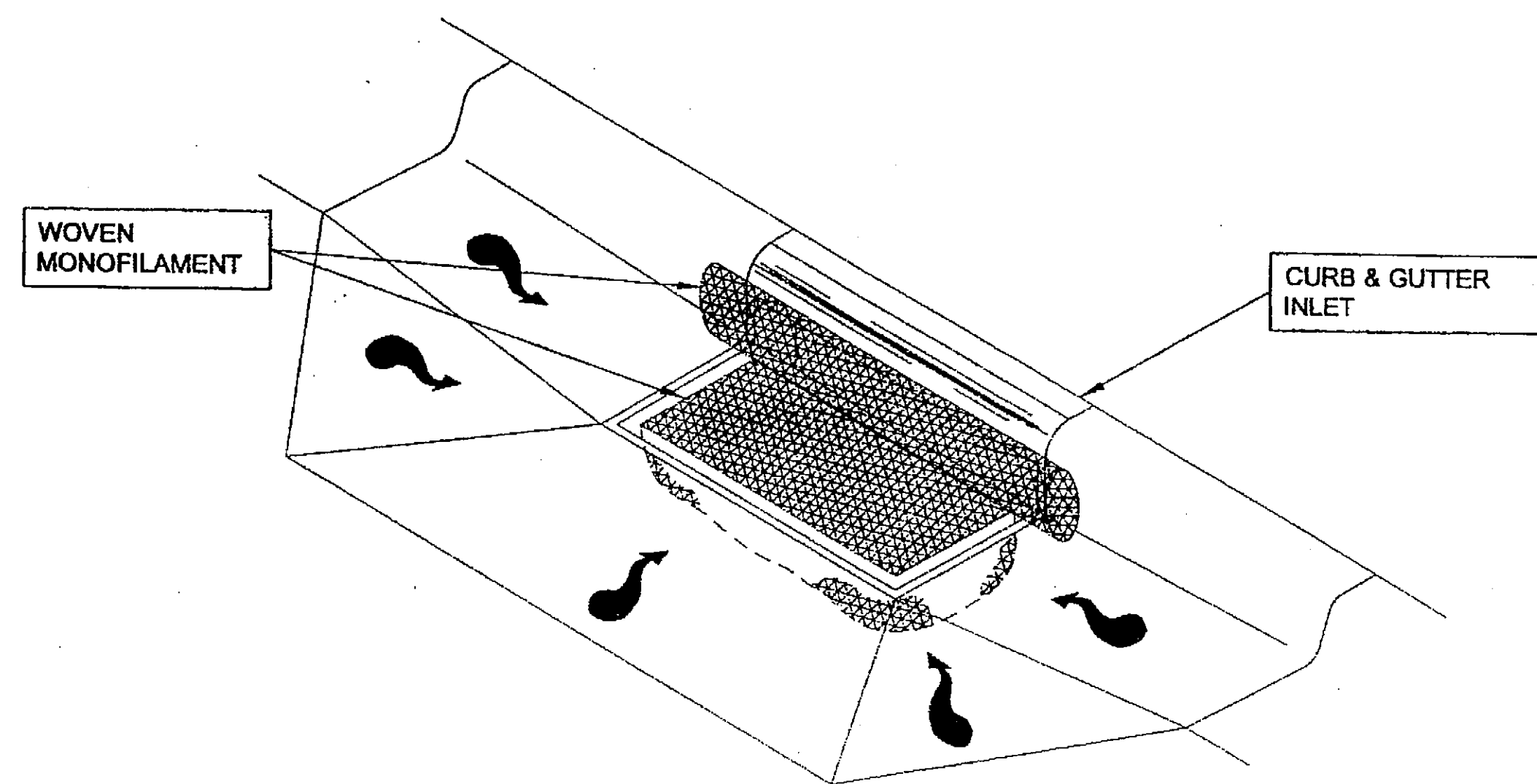
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION KETCHIKAN TONGASS AVENUE RESURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE PHASE I	
DESIGNED BY: T. SANDE DRAWN BY: J. ROBINSON		GENERAL DETAILS	
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION RSA 68831	YEAR 2006
		SHEET NO. D8	SHEETS

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
3-3-09

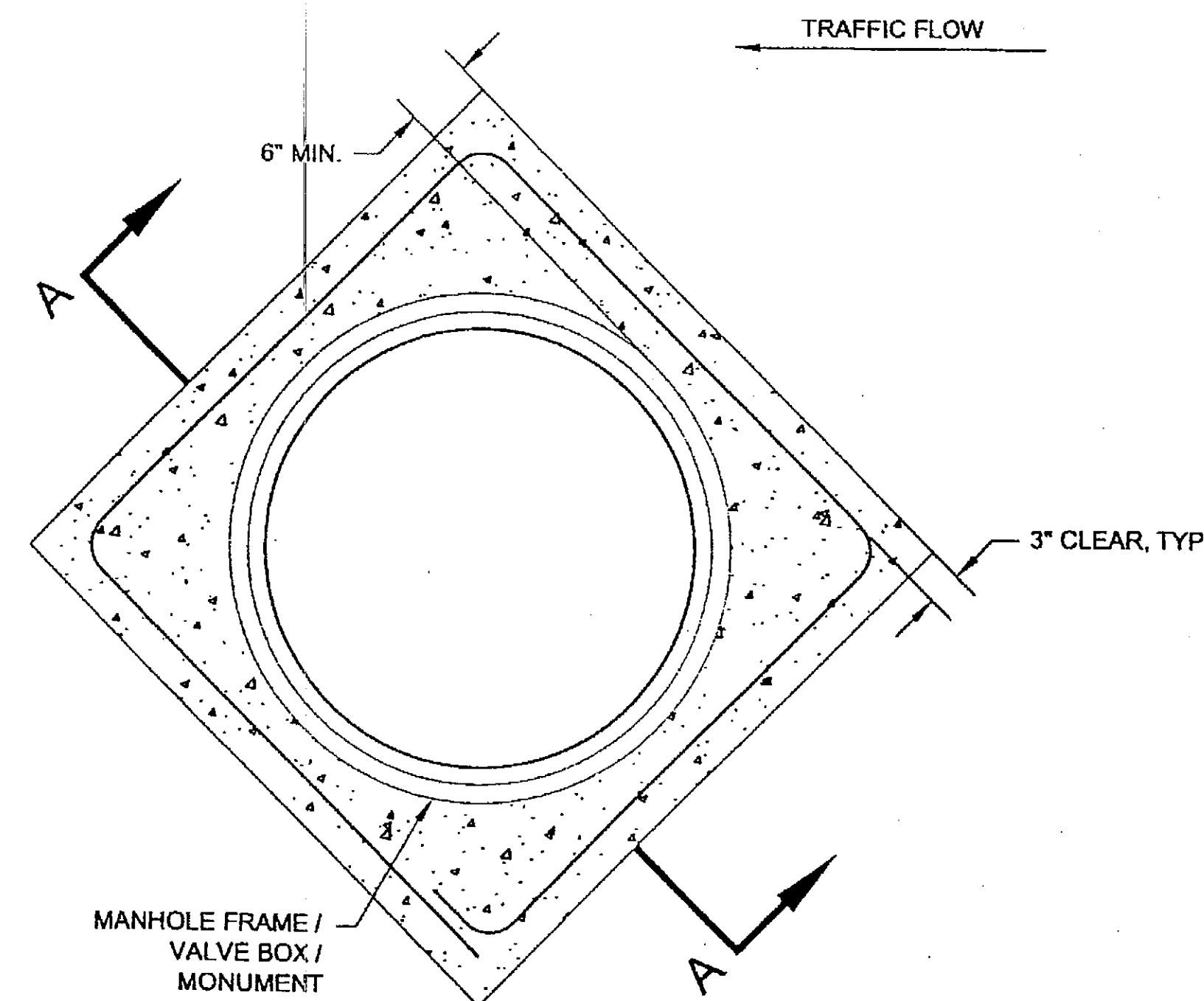


BRIDGE DECK DRAIN

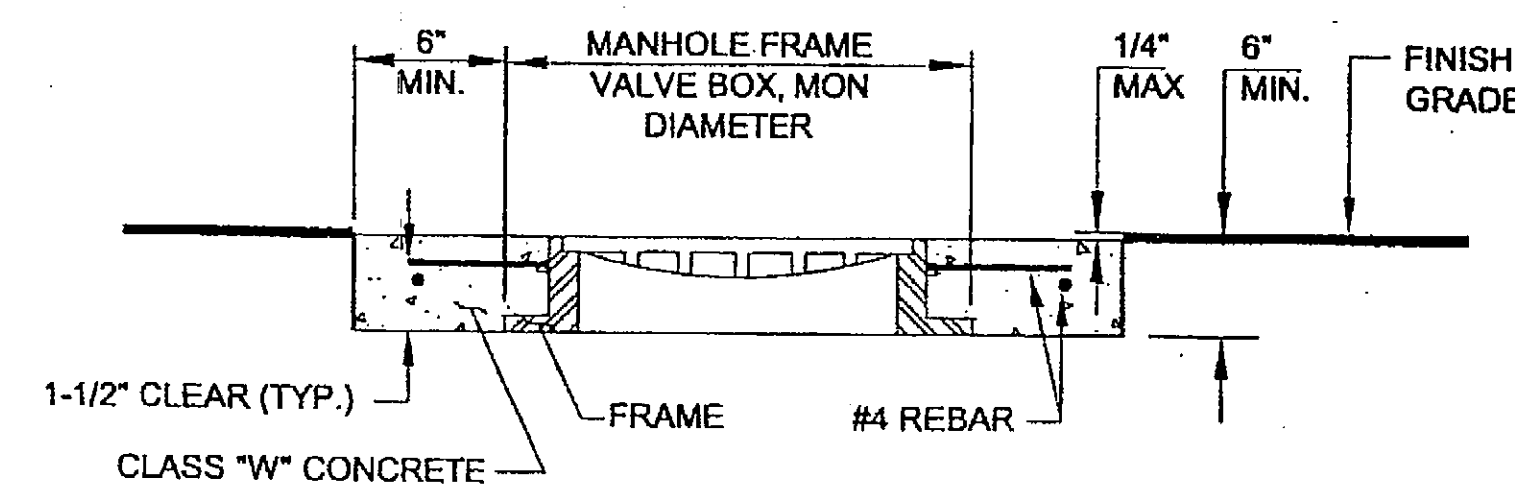


EROSION AND SEDIMENT CONTROL DETAIL

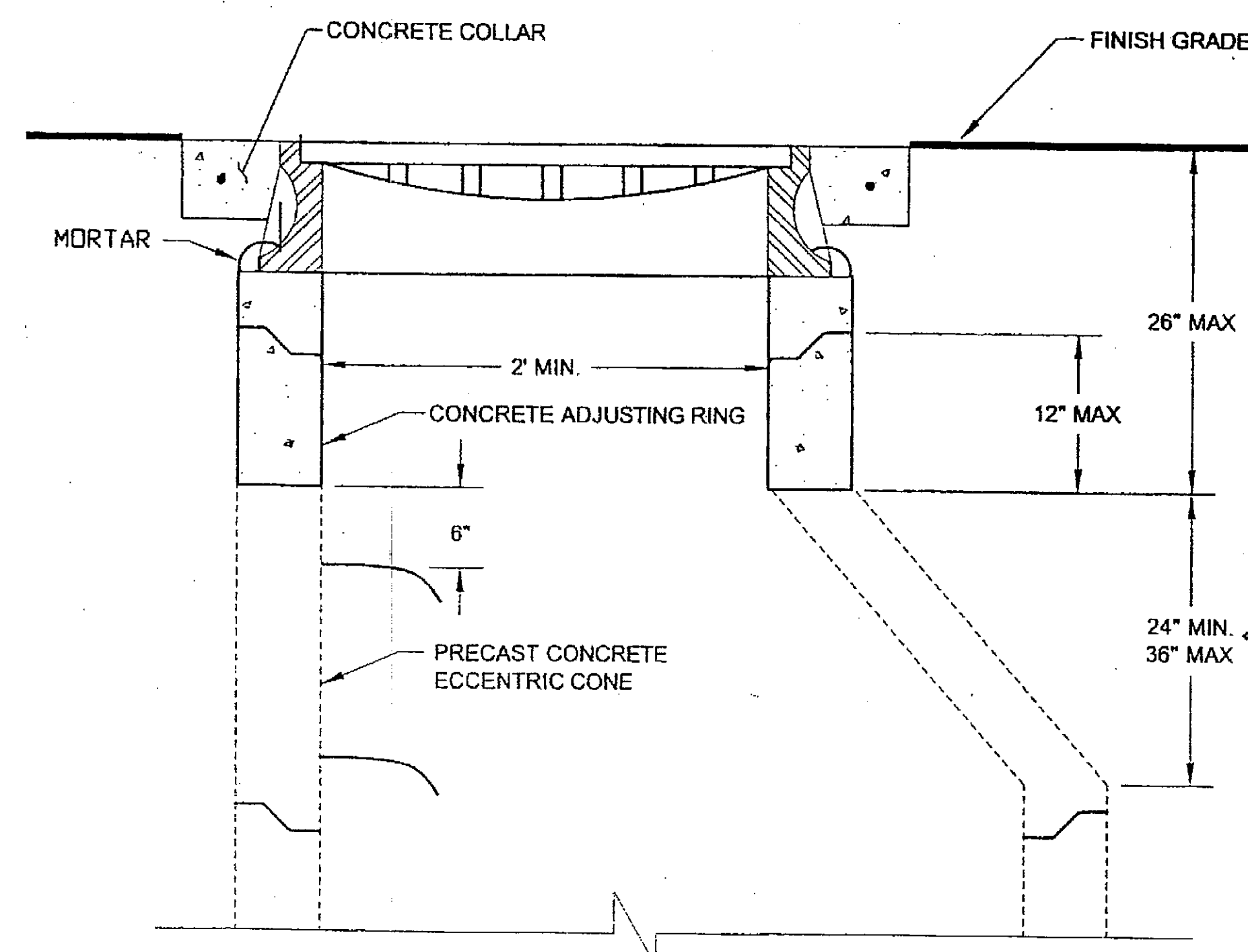
1. CONTRACTOR IS RESPONSIBLE TO DIVERT WATER AROUND WORK ZONE WHEN INSTALLING/ REPLACING DRAINAGE STRUCTURES AND CULVERTS.
2. IF VERY LITTLE WATER IS PRESENT, WATER MAY BE PUMPED AND CHanneled AWAY INTO ANOTHER INLET.
3. IF SILT FENCE BECOMES NECESSARY INSTALL IN ACCORDANCE WITH STANDARD DRAWING E-13.00.



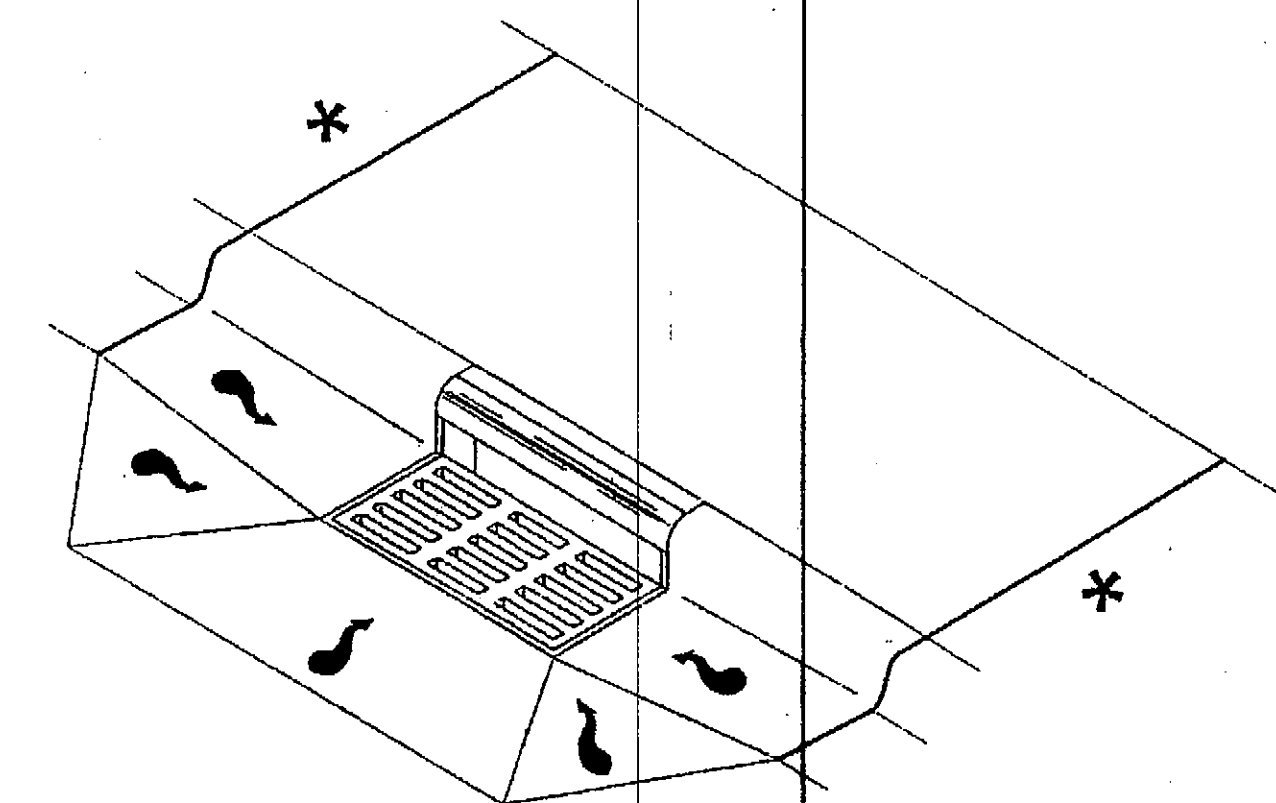
CONCRETE COLLAR ENCASEMENT DETAIL



SECTION A-A



MANHOLE ADJUSTMENT DETAIL

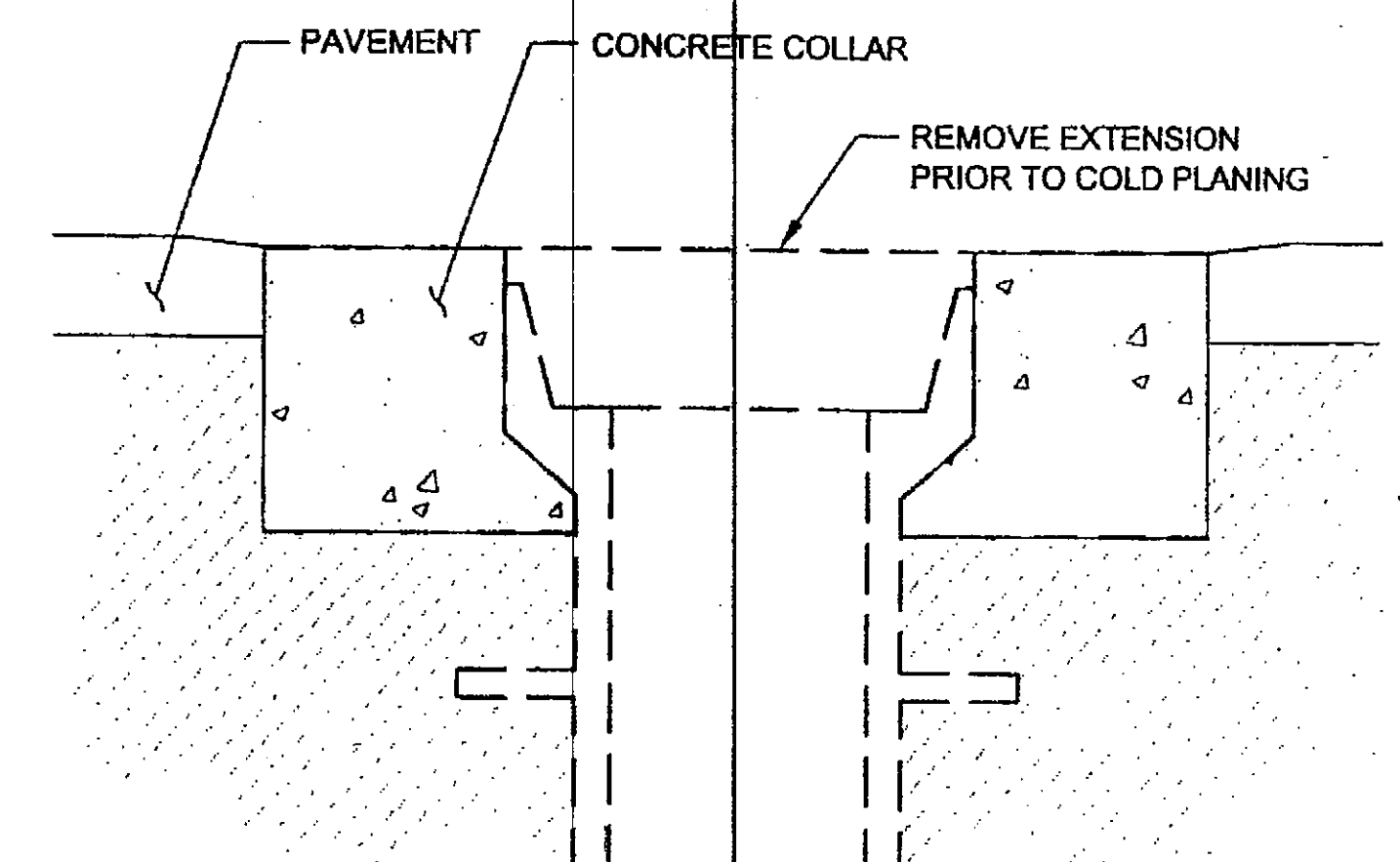


- * SAWCUT AT EXISTING JOINT IF POSSIBLE AND MATCH EXISTING SIDEWALK, CURB AND GUTTER.

INLET SAWCUT DETAIL

- NOTES:
WHEN REPLACING:
1. EXPANSION JOINTS EVERY 30FT OR MATCH EXISTING SPACING.
 2. CONSTRUCTION JOINTS EVERY 10 FT OR MATCH EXISTING SPACING.
 3. USE 1/2 INCH OIL IMPREGNATED FELT FOR EXPANSION JOINT.

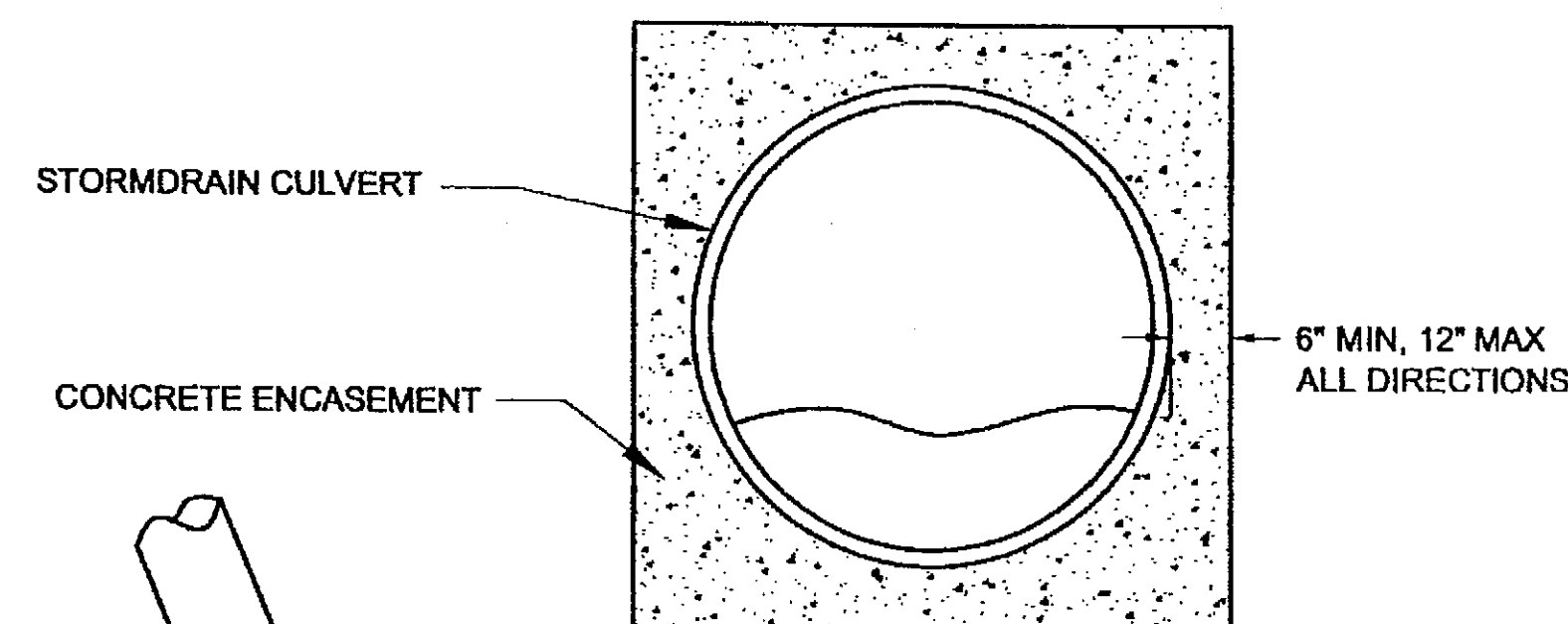
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
Proj. Eng. *[Signature]* Date: 3-3-09



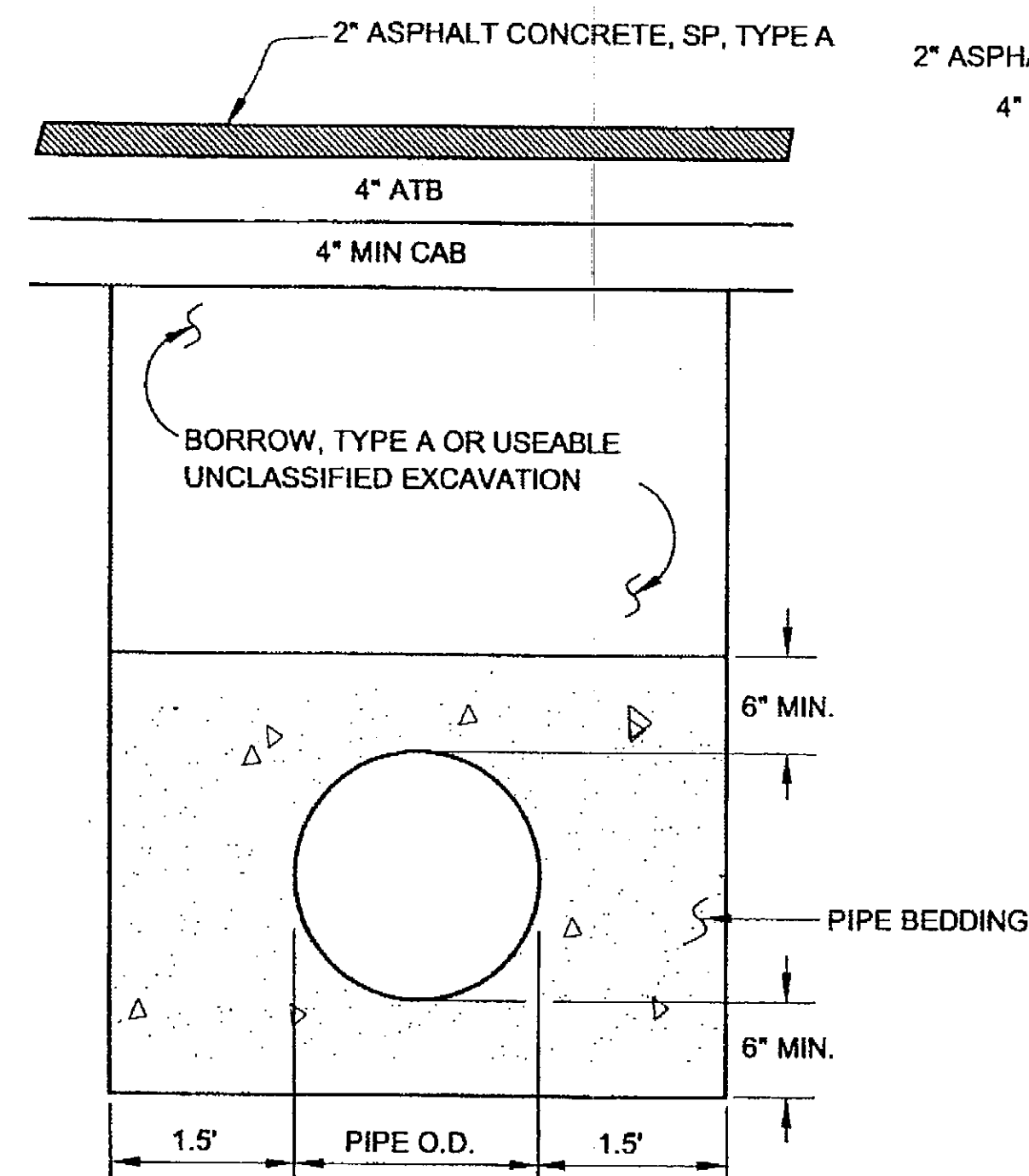
MONUMENT ADJUSTMENT DETAIL

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

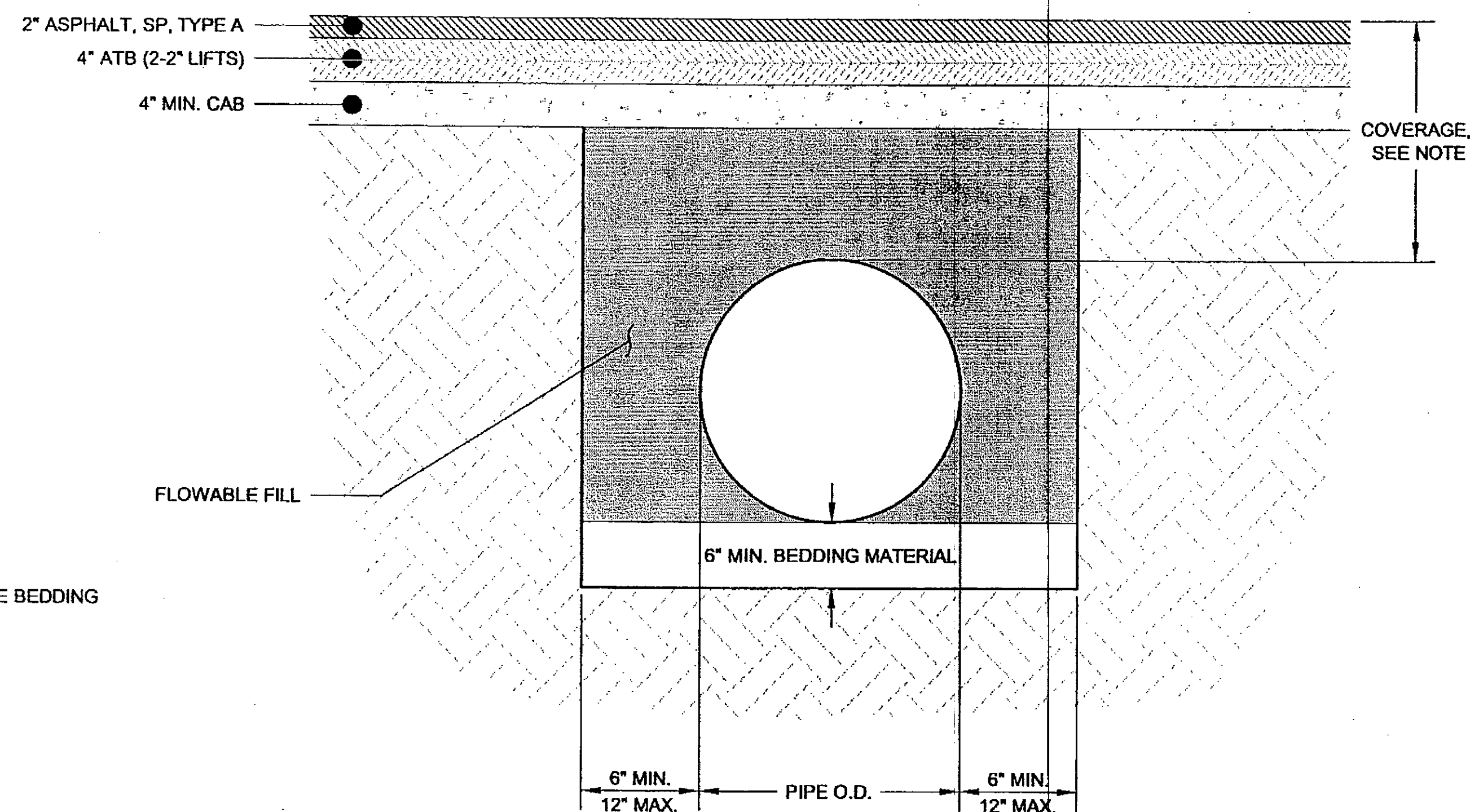
CHECKED BY: P. BEDNAROWICZ		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION										
		KETCHIKAN TONGASS AVENUE SURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1										
DESIGNED BY: D. LESTER		MISC. DETAILS										
DRAWN BY: L. ROBERTSON												
PATH: Q:\KTMB8366\PLANSET\68366-E1_MISC.DWG		PROJECT DESIGNATION NHS-M-000S(495) -68366										
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS			NO.	DATE	DESCRIPTION				YEAR 2006	SHEET NO. E1
REVISIONS												
NO.	DATE	DESCRIPTION										
			SHEETS 24									



END VIEW



STORM DRAIN BEDDING/BACKFILL DETAIL



NOTE: WHEN COVERAGE IS LESS THAN 2 FEET, ENCASE CULVERT WITH FLOWABLE FILL.

PIPE BEDDING IN EXCAVATABLE FLOWABLE FILL DETAIL

PIPE BEDDING IN FLOWABLE FILL SUMMARY SHALLOW BURIAL

PIPE LABEL	PIPE SIZE	LENGTH (FT)	REMARKS
✓ P-2	21" X 15"	44	TONGASS HWY
✓ P-3	21" X 15"	44	TONGASS HWY
~~P-9~~	18"	84	APPROACH
~~P-10~~	18"	15	APPROACH
~~P-11~~	21" X 15"	55	TONGASS HWY
✓ P-12	18"	48	BRYANT ST

THE ENGINEER MAY RECOMMEND ADDITIONAL PIPES TO BE ENCASED IN EXCAVATABLE FLOWABLE FILL.

CULVERT ENCASEMENT AT WATERLINE SUMMARY

PIPE LABEL	PIPE SIZE	LENGTH (FT)	REMARKS
~~P-4~~	42" X 29"	30	
✓ P-7	42" X 29"	22	

USE EXCAVATABLE FLOWABLE FILL FOR ENCASEMENT.

EXTEND CONCRETE ENCASEMENT AROUND STORMDRAIN CULVERT UNTIL CLEARANCE FROM WATERLINE EXCEEDS 10 FEET

MAINTAIN CULVERT JOINTS 9" MIN SEPARATION FROM WATERLINE.

10 FEET CLEARANCE BETWEEN

WATER LINE BELOW

**PLAN VIEW
CONCRETE ENCASEMENT DETAIL**

WATERLINE ENCASEMENT IS NOT REQUIRED IF CULVERT IS ENCASED IN FLOWABLE FILL.

THIS SAW-CUT SHALL NOT BE MADE UNTIL WITHIN 24 HOURS MAX. PRIOR TO FINAL PAVING

EXISTING PAVEMENT TO REMAIN
EXISTING PAVEMENT TO BE REMOVED WITHIN 24 HOURS MAX. PRIOR TO FINAL PAVING
EXISTING SUBGRADE TO REMAIN
2" ASPHALT CONCRETE, SP, TYPE A
4" ASPHALT TREATED BASE COURSE
BASE COURSE AS REQUIRED

PAVEMENT MATCH JOINT DETAIL

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Drawn: [Signature] Date: 3-3-07

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. BEONAROWICZ 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION KETCHIKAN TONGASS AVENUE SURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1 MISC. DETAILS	
DESIGNED BY: D. LESTER DRAWN BY: L. ROBERTSON PATH: Q:\KTN\68366\PLANSET\68366-E1_MISC.DWG		PROJECT DESIGNATION NHS-IM-000S(495) ~68366	
REVISIONS NO. DATE DESCRIPTION		YEAR 2006	SHEET NO. E2
			SHEETS 24

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND
PUBLIC FACILITIES
Computations

Item No. _____

DATE 6-3-08

Project No. _____

Project Name Tongue Ave

Calc. by _____

Checked By _____

For

ON PG

FZ

VALVE BOX LOCATION FOR HOPE
TRACE WIRE ON 8" FORCED SEWER MAIN

PROJECT
LEFT?

South END of
bridge rail, RIGHT

LAST
BOLT ON TOP
OF BRIDGE RAIL
SOUTH

CRASH CUSHION

STA 22+29.5

NORTH

VALVE BOX NORTH

CARLANNA BRIDGE



Top of BOLT

SOUTH

18.9 FACE OF CURB LT

PROJECT RT. ?

South END of Combination RAIL,
LAST POST CONNECTION, LEFT

NOTE: FOR STATION
REFERENCE, SOUTH
END OF COMBINATION
RAIL, LEFT is 22+40.9

CARLANNA CREEK

sign POST

VALVE BOX SOUTH
CARLANNA CR.
BRIDGE

Top CENTER

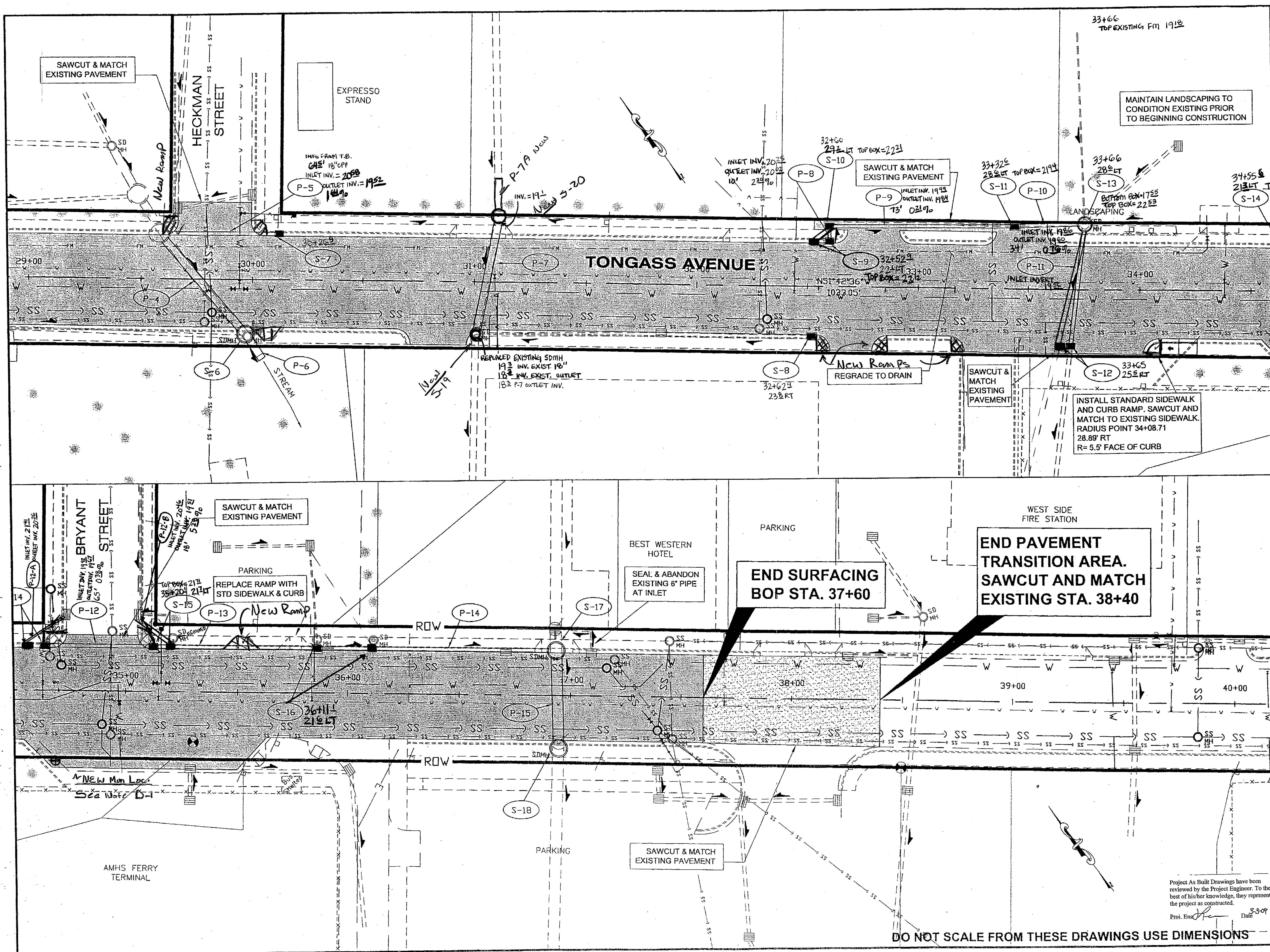
FIRE HYDRANT

STA 21+47.5

20.15 FACE OF CURB LT

SOUTH

NOTE: FOR STATION
REFERENCE, NORTH
END OF COMBINATION
RAIL, LEFT 21+36.9



PATH:
Q:\KTN\68366\PLANSET\68366-F1_P&P.DWG

TAB: F3

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

10+00

15+00

20+00

25+00

30+00

35+00

40+00

45+00

50+00

55+00

PLAN LEGEND

CHECKED BY: P. BEDNAROWICZ

DESIGNED BY: D. LESTER

DRAWN BY: L. ROBERTSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION

KETCHIKAN
TONGASS AVENUE RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE, PHASE 1

PLAN

PROJECT DESIGNATION

NHS-IM-000S(495)-68366

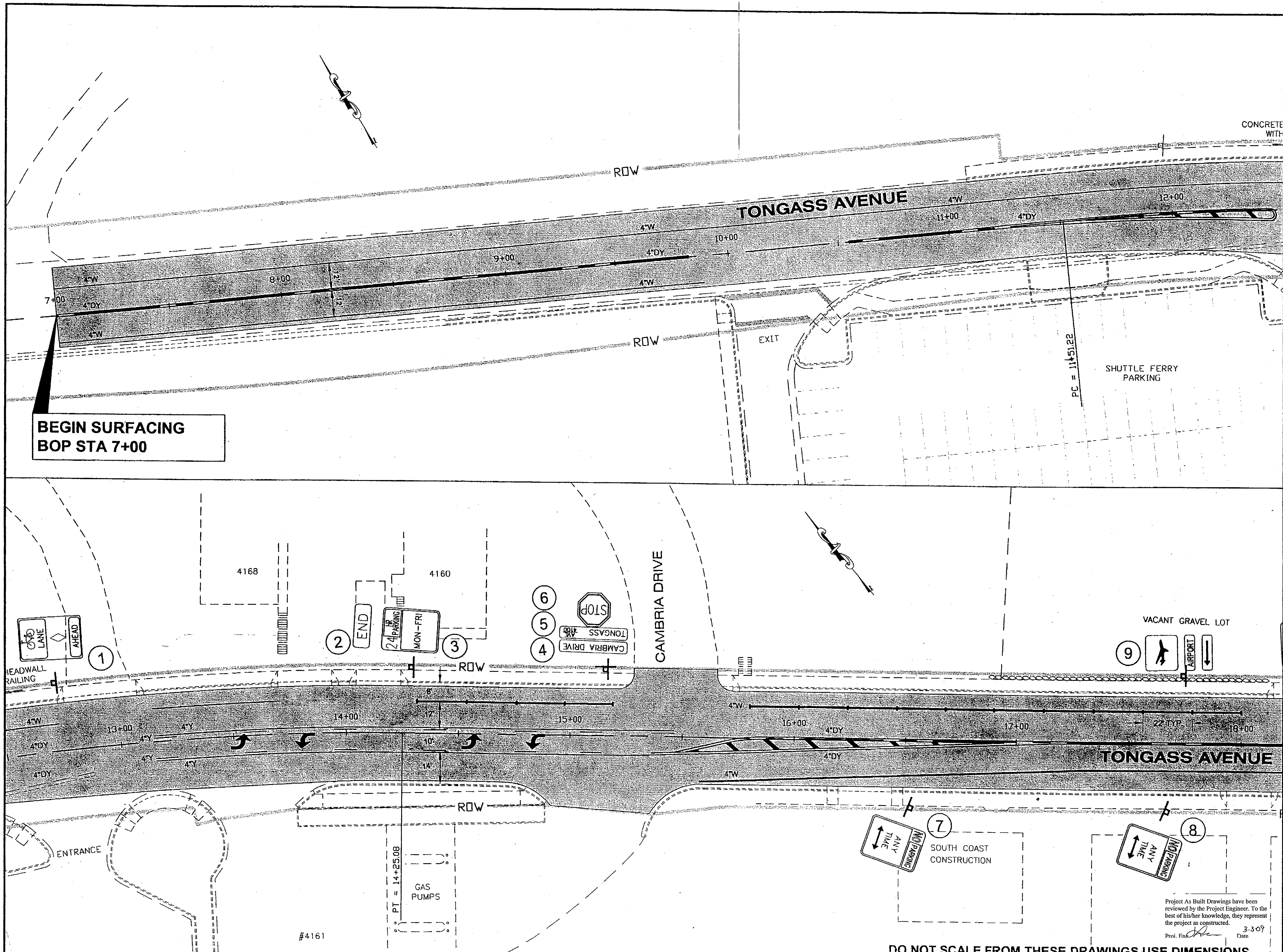
STATE	YEAR
ALASKA	2006

SHEET NUMBER	TOTAL SHEETS
F3	24

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Proj. Eng. *[Signature]* Date 3-3-09

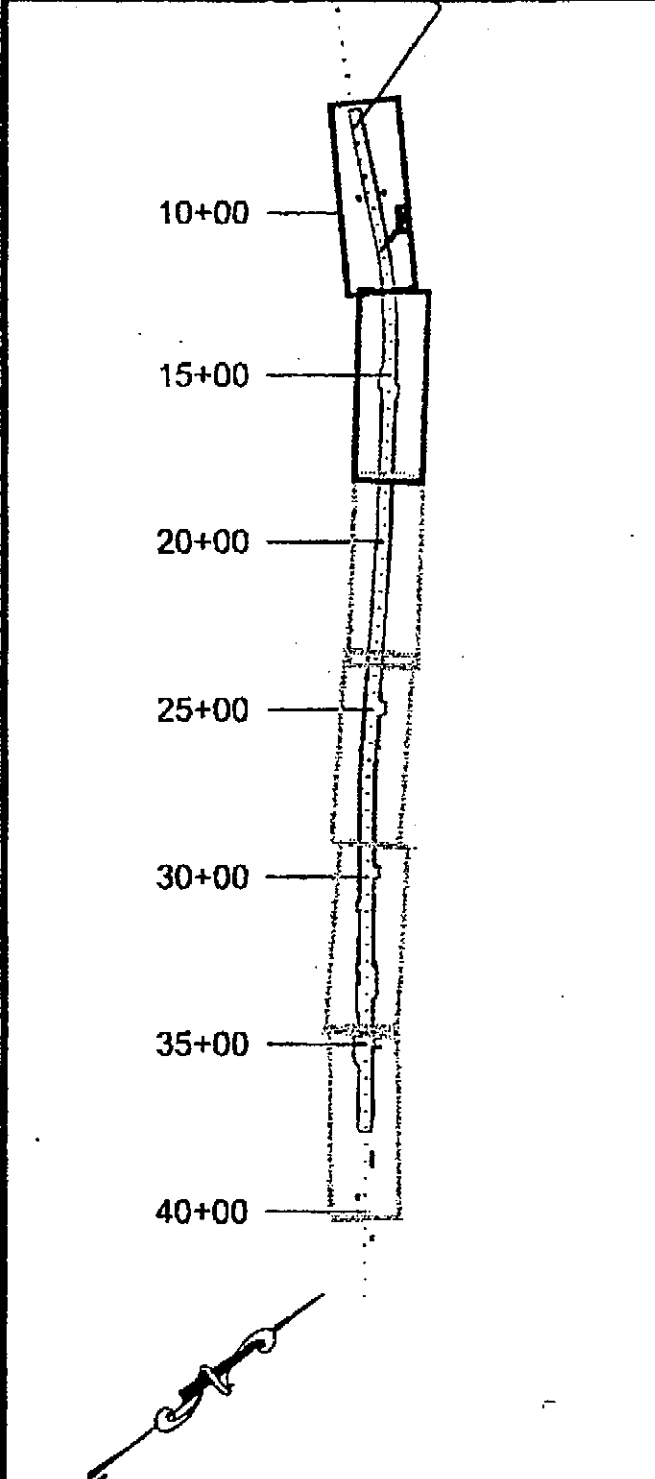
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



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TAB: H1

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. BEDNAROWICZ

DESIGNED BY: D. LESTER

DRAWN BY: L. ROBERTSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION

KETCHIKAN
TONGASS AVENUE RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE, PHASE 1

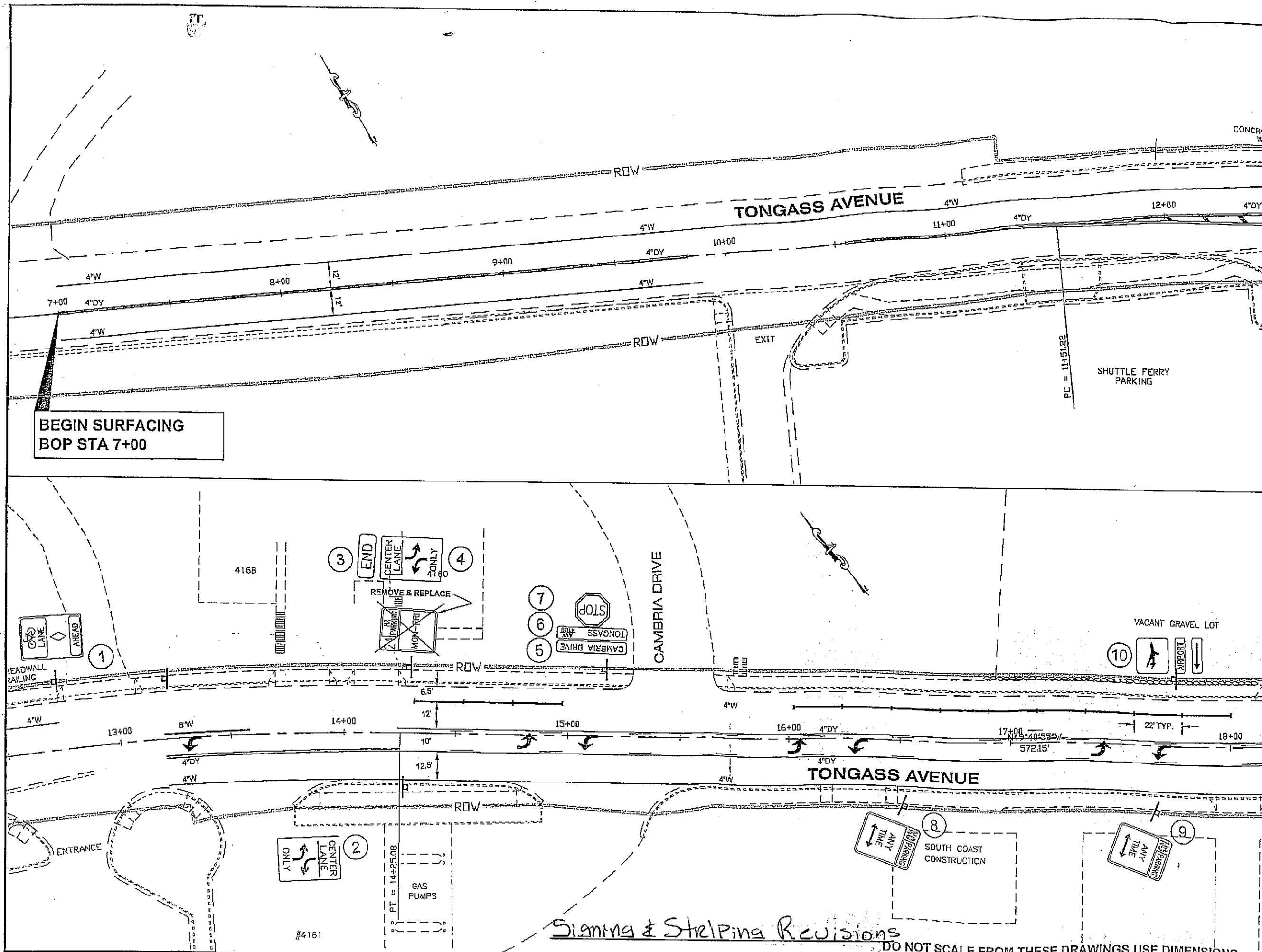
SIGNING AND STRIPING

PROJECT DESIGNATION
NHS-IM-000S(495)-68366

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
H1	24

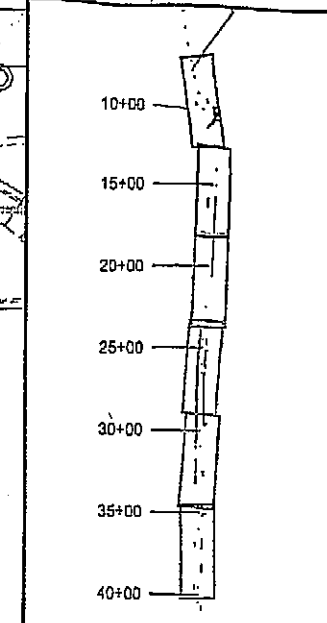
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Prof. Engr. *[Signature]* Date 3-3-07



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ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. BEDNAROWICZ

DESIGNED BY: D. LESTER

DRAWN BY: L. ROBERTSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION

KETCHIKAN
TONGASS AVENUE RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE, PHASE 2

SIGNING AND STRIPING

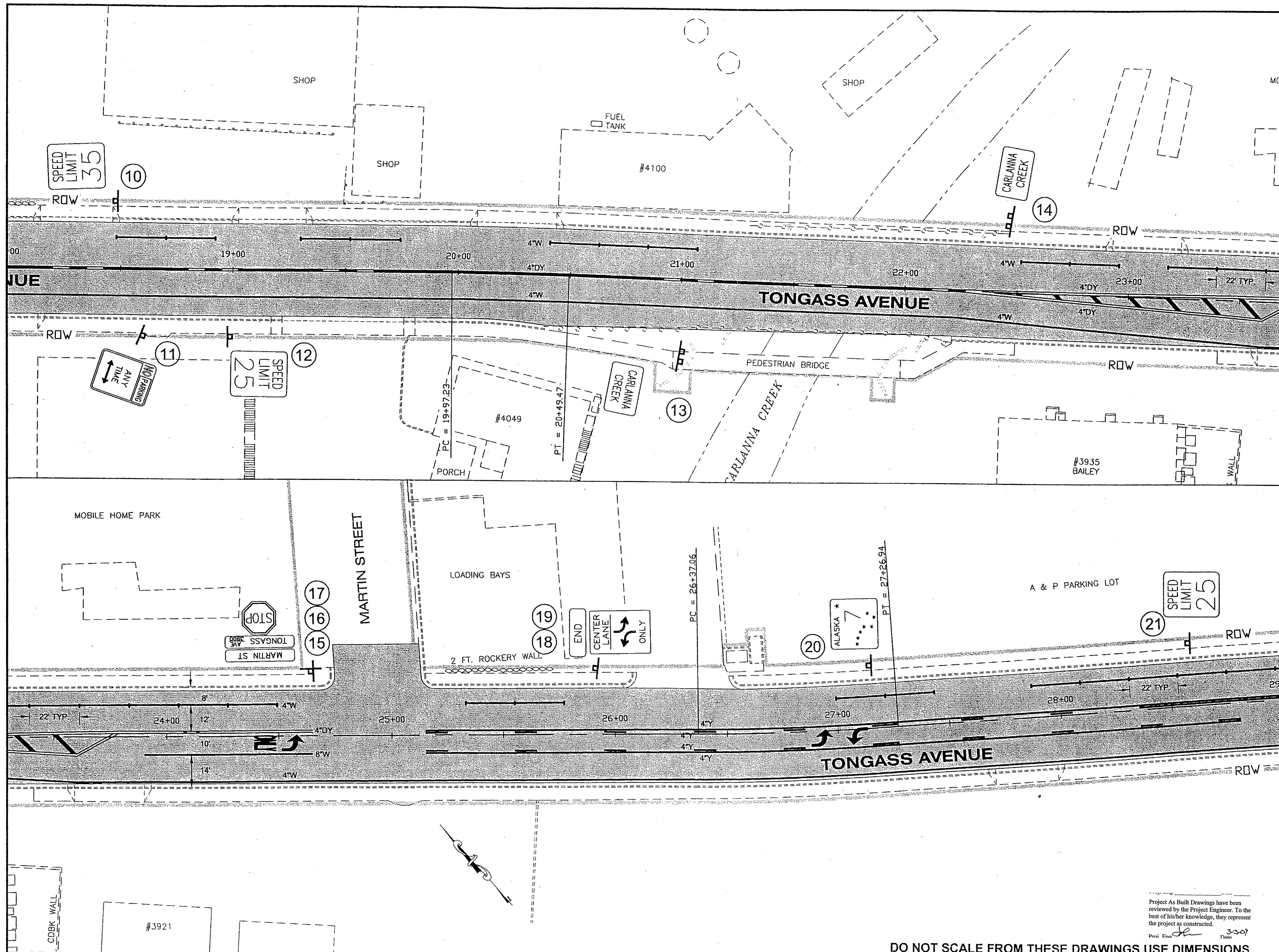
PROJECT DESIGNATION
NHS-IM-000S(495)-68366

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
H1	24

Signing & Striping Revisions

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

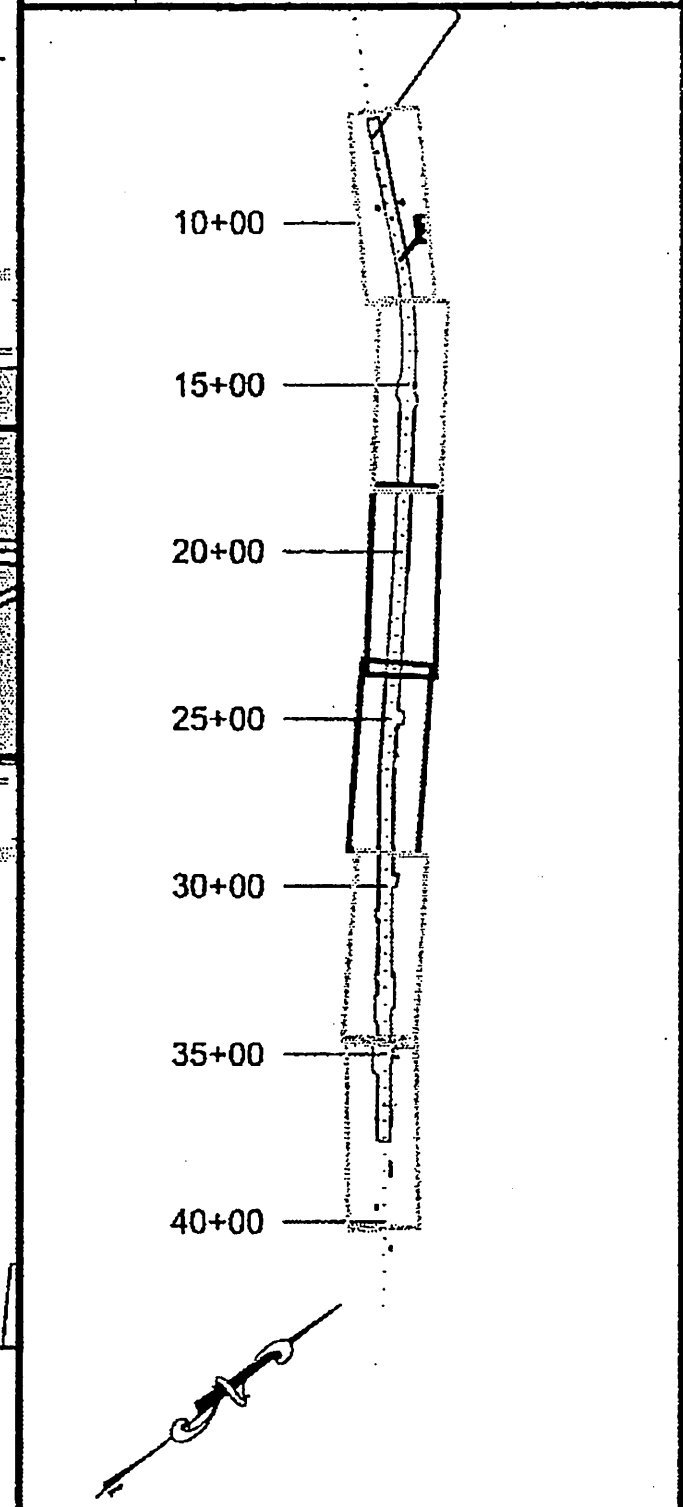
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3/6/08



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ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. BEDNAROWICZ

DESIGNED BY: D. LESTER

DRAWN BY: L. ROBERTSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION

KETCHIKAN
TONGASS AVENUE RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE, PHASE 1

SIGNING AND STRIPING

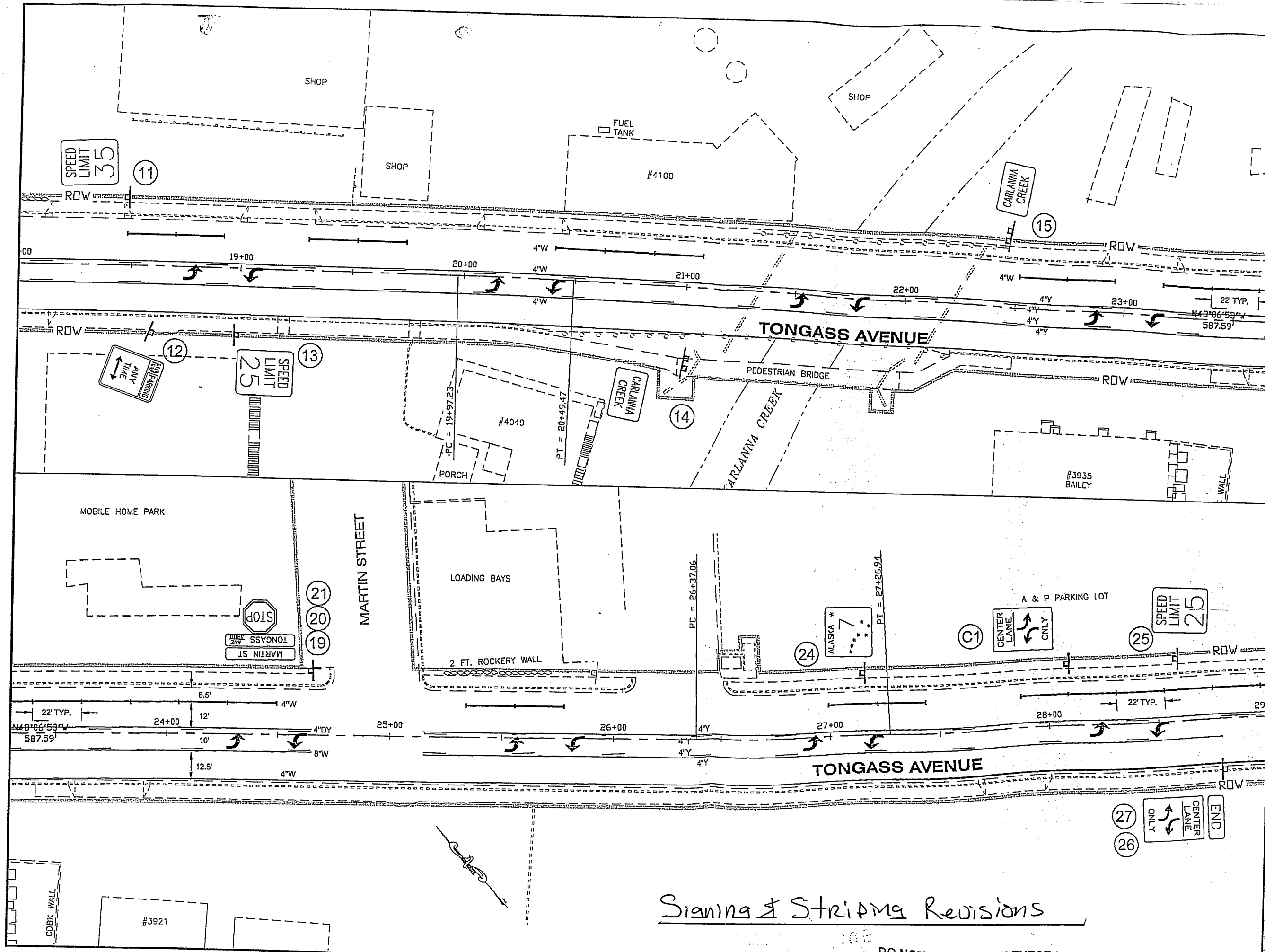
PROJECT DESIGNATION
NHS-IM-000S(495)-68366

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
H2	24

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Print Date: 3/30/07

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



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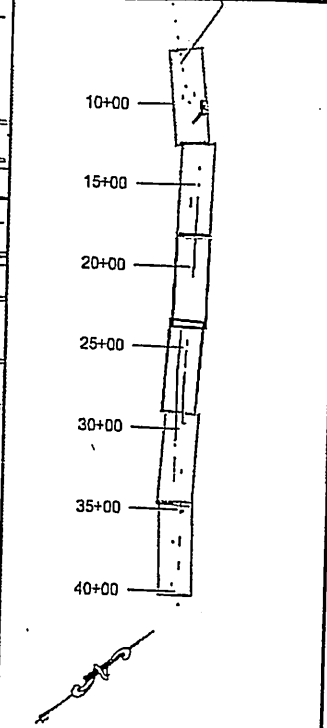
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ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. BEDNAROWICZ

DESIGNED BY: D. LESTER

DRAWN BY: L. ROBERTSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION

KETCHIKAN
TONGASS AVENUE RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE, PHASE 2

SIGNING AND STRIPING

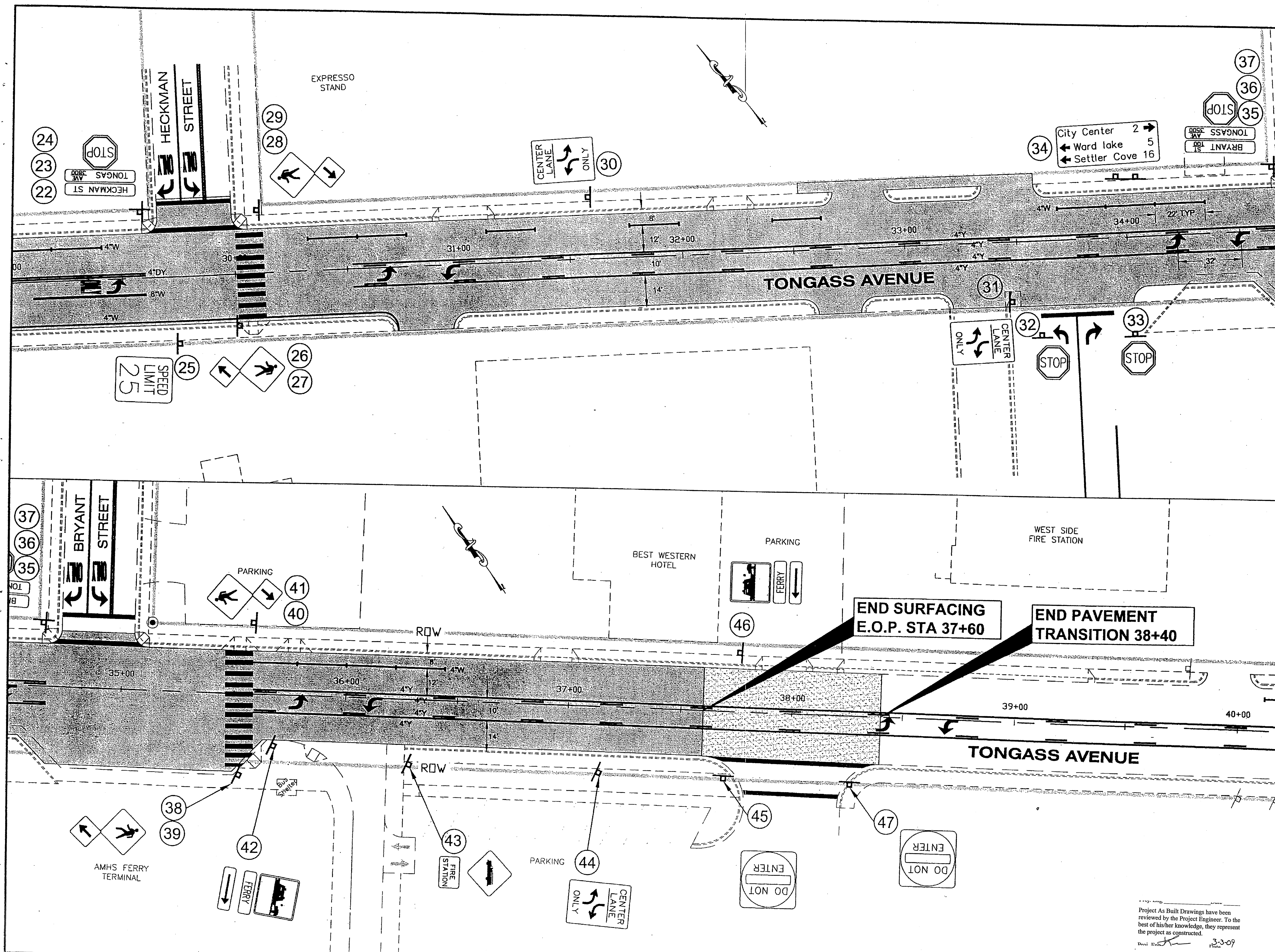
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NHS-IM-000S(495)-68366

STATE	YEAR
ALASKA	2006

SHEET NUMBER	TOTAL SHEETS
H2	24

Signing & Striping Revisions

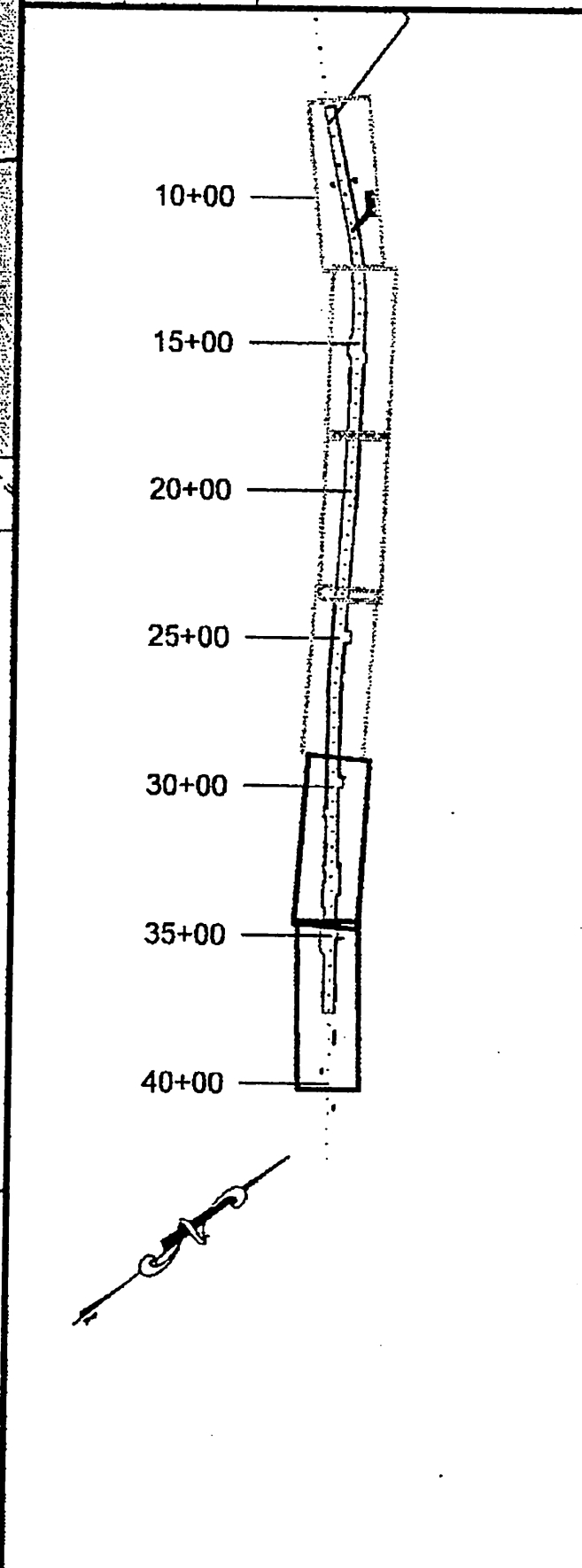
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RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

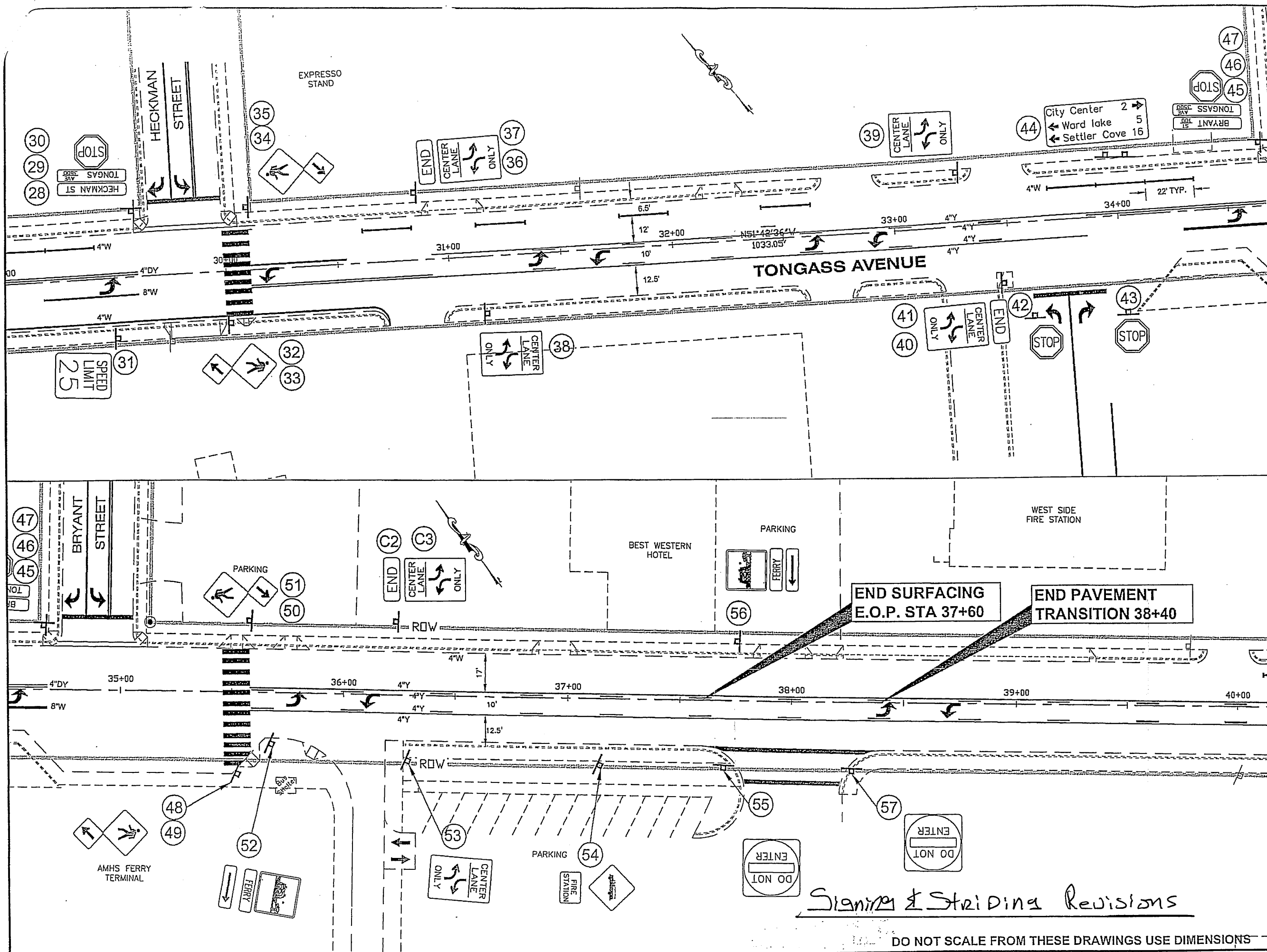


PLAN LEGEND	
CHECKED BY: P. BEDNAROWICZ	
DESIGNED BY: D. LESTER	
DRAWN BY: L. ROBERTSON	
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION SOUTHEAST REGION	
KETCHIKAN TONGASS AVENUE RESURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1	
SIGNING AND STRIPING	
PROJECT DESIGNATION	
NHS-IM-000S(495)-68366	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
H3	24

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Drawn By: *[Signature]* Date: 3-3-09

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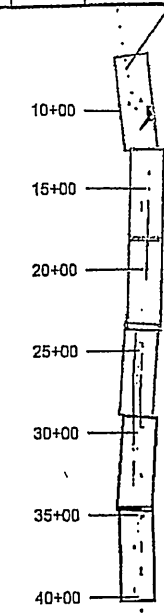
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ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: P. BEDNAROWICZ	
DESIGNED BY: D. LESTER	
DRAWN BY: L. ROBERTSON	
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION SOUTHEAST REGION	
KETCHIKAN TONGASS AVENUE RESURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 2	
SIGNING AND STRIPING	
PROJECT DESIGNATION	
NHS-IM-000S(495)-68366	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
H3	24

Signing & Striping Revisions

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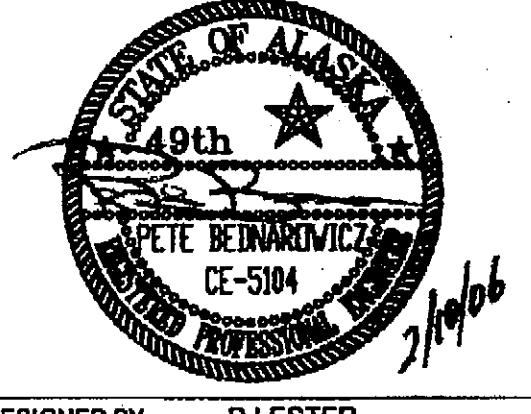
615 (1) STANDARD SIGN SUMMARY													
SIGN NO.	STA	OFFSET		TYPE	LEGEND	FACING	HEIGHT (IN)	WIDTH (IN)	AREA (SQ FT)	POST			REMARKS
		L	R							NO.	SIZE (IN)	TYPE	
1	12+74.70	30.10		R3-16	BIKE LANE AHEAD (SYMBOL)	NB	30	24	5.00	1	2.5" X 2.5"	P.S.T.	
2	14+29.90	29.10		R7-202EG	END	NB	6	12	0.50	1	2.5" X 2.5"	P.S.T.	
3	14+29.90	29.10		R7-108M	24 HR PARKING MON-FRI	NB	18	12	1.50				UNDER SIGN 2
4	15+17.20	29.40		D3-1	CAMBRIA DRIVE	NB/SB	8	42	2.33	1	2.5" X 2.5"	P.S.T.	
5	15+17.20	29.40		D3-1D	TONGASS AVE 4100	WB	8	42	2.33				UNDER SIGN 4
6	15+17.20	29.40		R1-1	STOP	WB	30	30	6.25				UNDER SIGN 5
7	16+51.20		29.00	R7P-101LR	NO PARKING ANYTIME	SB	18	12	1.50	1	2.5" X 2.5"	P.S.T.	
8	17+65.70		29.40	R7P-101LR	NO PARKING ANYTIME	SB	18	12	1.50	1	2.5" X 2.5"	P.S.T.	
9	17+75.00	30.00		I-5	AIRPORT (SYMBOL)	NB	30	30	6.25	1	2.5" X 2.5"	P.S.T.	
10	18+48.60	30.00		R2-1	SPEED LIMIT 35	NB	36	30	7.50	1	2.5" X 2.5"	P.S.T.	
11	18+58.80		29.40	R7P-101LR	NO PARKING ANYTIME	SB	18	12	1.50	1	2.5" X 2.5"	P.S.T.	
12	18+97.60		29.80	R2-1	SPEED LIMIT 25	SB	36	30	7.50	1	2.5" X 2.5"	P.S.T.	
13	21+00.00		31.80	I-3	CARLANNA CREEK	SB	24	54	9.00	2	2.0" X 2.0"	P.S.T.	
14	22+46.30	29.50		I-3	CARLANNA CREEK	NB	24	54	9.00	2	2.0" X 2.0"	P.S.T.	
15	24+65.70	28.60		D3-1D	MARTIN ST 100	NB/SB	8	36	2.00	1	2.5" X 2.5"	P.S.T.	
16	24+65.70	28.60		D3-1D	TONGASS AVE 3900	WB	8	42	2.33				UNDER SIGN 15
17	24+65.70	28.60		R1-1	STOP	WB	30	30	6.25				UNDER SIGN 16
18	25+92.50	29.20		M4-6	END	NB	12	24	2.00	1	2.5" X 2.5"	P.S.T.	
19	25+92.50	29.20		R3-9B	CENTER LANE TWLTL ONLY (ARROWS)	NB	36	24	6.00				UNDER SIGN 18
20	27+16.60	27.90		M1-5	ALASKA ROUTE MARKER (SYMBOL)	NB	36	36	9.00	1	2.5" X 2.5"	P.S.T.	
21	28+60.00	27.90		R2-1	SPEED LIMIT 25	NB	36	30	7.50	1	2.5" X 2.5"	P.S.T.	
22	29+60.00	29.10		D3-1D	HECKMAN ST 100	NB/SB	8	40	2.22	1	2.5" X 2.5"	P.S.T.	
23	29+60.00	29.10		D3-1D	TONGASS AVE 3800	WB	8	42	2.33				UNDER SIGN 22
24	29+60.00	29.10		R1-1	STOP	WB	30	30	6.25				UNDER SIGN 23
25	29+73.00		29.80	R2-1	SPEED LIMIT 25	SB	36	30	7.50	1	2.5" X 2.5"	P.S.T.	
26	29+99.80		23.10	W11-2	PEDESTRIAN CROSSING (SYMBOL)	SB	36	36	9.00	1	2.5" X 2.5"	P.S.T.	
27	29+99.80		23.10	W16-7PL	DIAGONAL PLATE LEFT	SB	18	30	3.75				UNDER SIGN 26
28	30+11.70	27.70		W11-2	PEDESTRIAN CROSSING (SYMBOL)	NB	36	36	9.00	1	2.5" X 2.5"	P.S.T.	
28	30+11.70	27.70		W16-7PL	DIAGONAL PLATE LEFT	NB	18	30	3.75				UNDER SIGN 28
30	31+60.30	27.30		R3-9B	CENTER LANE TWLTL ONLY (ARROWS)	NB	36	24	6.00	1	2.5" X 2.5"	P.S.T.	
31	33+45.80		26.50	R3-9B	CENTER LANE TWLTL ONLY (ARROWS)	SB	36	24	6.00	1	2.5" X 2.5"	P.S.T.	
32	33+64.60		43.40	R1-1	STOP	EB	30	30	6.25	1	2.5" X 2.5"	P.S.T.	
33	34+01.70		44.30	R1-1	STOP	EB	30	30	6.25	1	2.5" X 2.5"	P.S.T.	
34	34+04.80	25.60			THREE DESTINATIONS W/ARROWMILES	EB							EXISTING, NO ACTION
35	34+66.40	28.40		D3-1D	BRYANT ST 100	NB/SB	8	36	2.00	1	2.5" X 2.5"	P.S.T.	
36	34+66.40	28.40		D3-1D	TONGASS AVE 3500	WB	8	42	2.33				UNDER SIGN 35
37	34+66.40	28.40		R1-1	STOP	WB	30	30	6.25				UNDER SIGN 36
38	35+52.00		35.50	W11-2	PEDESTRIAN CROSSING (SYMBOL)	SB	36	36	9.00	1	2.5" X 2.5"	P.S.T.	
39	35+52.00		35.50	W16-7PL	DIAGONAL PLATE LEFT	SB	18	30	3.75				
40	35+59.00	31.60		W11-2	PEDESTRIAN CROSSING (SYMBOL)	NB	36	36	9.00	1	2.5" X 2.5"	P.S.T.	
41	35+59.00	31.60		W16-7PL	DIAGONAL PLATE LEFT	NB	18	30	3.75				
42	35+67.00		22.20	I-100	FERRY TERMINAL (SYMBOL)	SB	30	30	6.25	1	2.5" X 2.5"	P.S.T.	
43	36+27.90		28.40	W11-8	FIRE TRUCK (SYMBOL)	SB	36	36	9.00	1	2.5" X 2.5"	P.S.T.	
44	37+13.30		28.90	R3-9B	CENTER LANE TWLTL ONLY (ARROWS)	SB	36	24	6.00	1	2.5" X 2.5"	P.S.T.	
45	37+69.80		28.50	R5-1	DO NOT ENTER (SYMBOL)	WB	36	36	9.00	1	2.5" X 2.5"	P.S.T.	
46	37+76.90	26.20		I-100	FERRY TERMINAL (SYMBOL)	NB	30	30	6.25	1	2.5" X 2.5"	P.S.T.	
47	38+27.00		29.20	R5-1	DO NOT ENTER (SYMBOL)	WB	36	36	9.00	1	2.5" X 2.5"	P.S.T.	

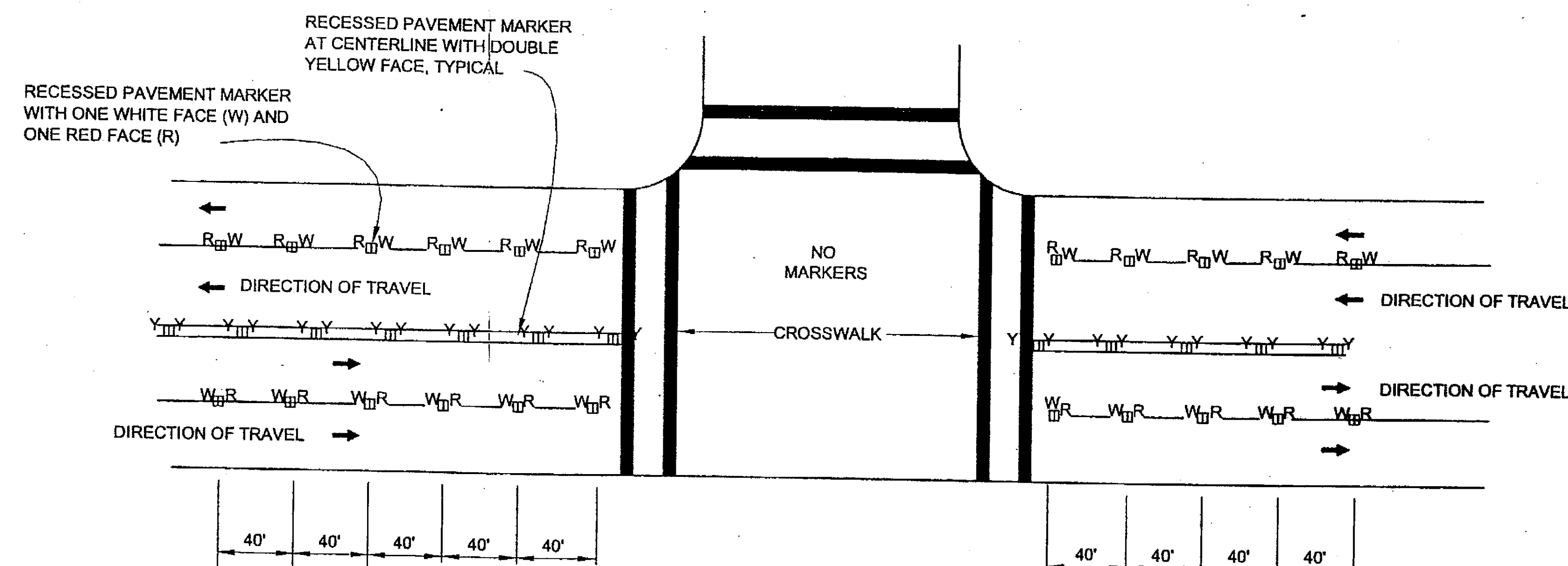
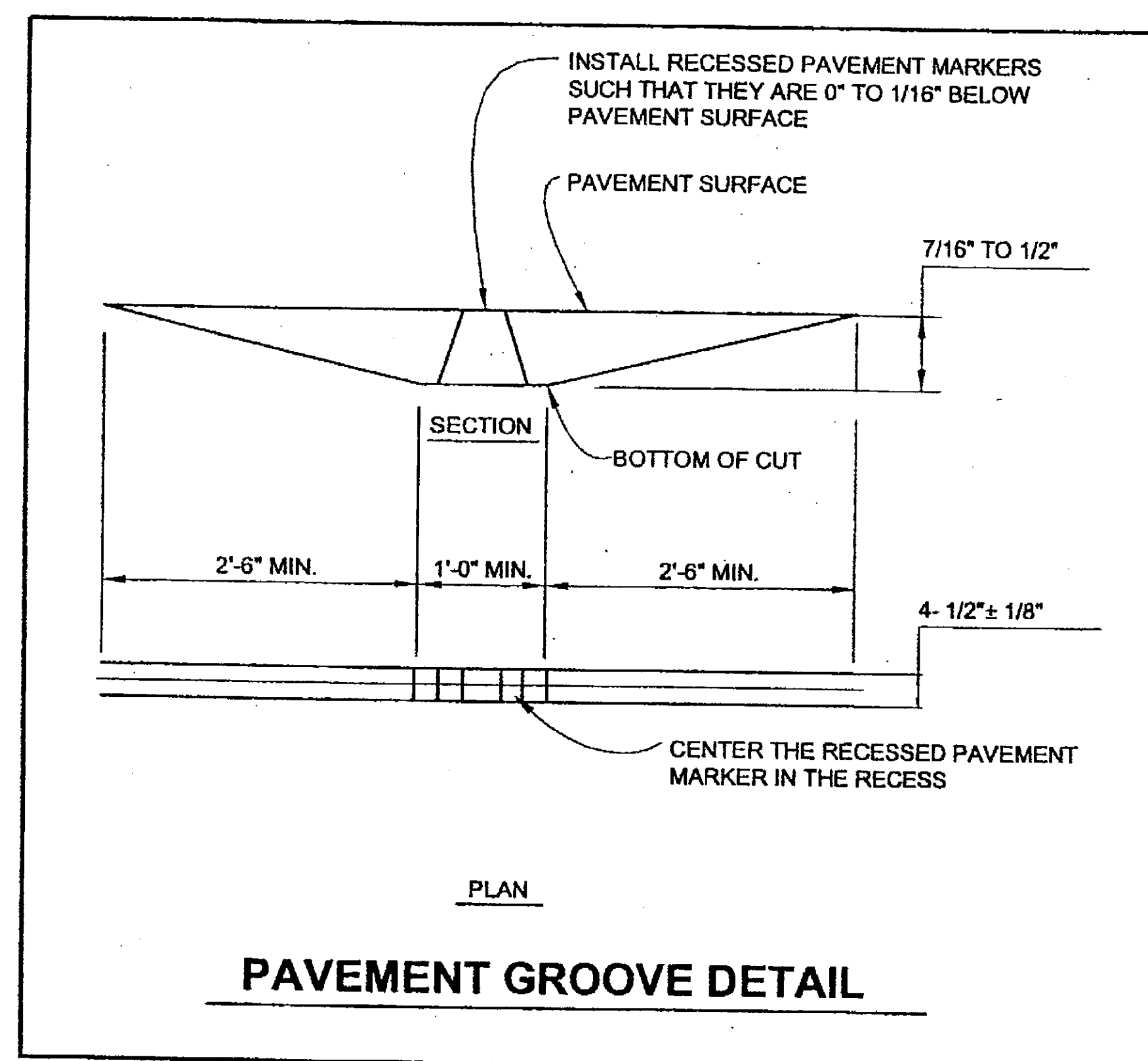
See Revisions Sheets H1 to H3

Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

3-3-09

- SIGNING NOTES:
- FOR THE PURPOSES OF THIS TABLE, TONGASS HWY IS CONSIDERED AS RUNNING NORTH OR SOUTH. (NB OR SB) TRAFFIC FROM OR ONTO SIDE STREETS OR APPROACHES IS CONSIDERED AS RUNNING EAST OR WEST. (EB OR WB)
 - SIGNING LOCATIONS ARE APPROXIMATE ONLY AND SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
 - SEE STANDARD DRAWINGS S-00.10, S-01.00, S-05.01, S-20.10, S-30.03.
 - EXISTING SIGNS SHALL BE REMOVED AND DISPOSED OR SALVAGED AS DIRECTED BY THE ENGINEER.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION																
CHECKED BY: P.BEDNAROWICZ																		
DESIGNED BY: D.LESTER	KETCHIKAN TONGASS AVENUE SURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1																	
DRAWN BY: L.ROBERTSON	SIGN SUMMARY																	
PATH: Q:\KTN68366\PLANSET\68366-H1_SIGN.DWG																		
<table> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		REVISIONS			NO.	DATE	DESCRIPTION				PROJECT DESIGNATION NHS-IM-000S(495) -68366	<table> <tr> <th>YEAR</th> <th>SHEET NO.</th> <th>SHEETS</th> </tr> <tr> <td>2006</td> <td>H4</td> <td>24</td> </tr> </table>	YEAR	SHEET NO.	SHEETS	2006	H4	24
REVISIONS																		
NO.	DATE	DESCRIPTION																
YEAR	SHEET NO.	SHEETS																
2006	H4	24																

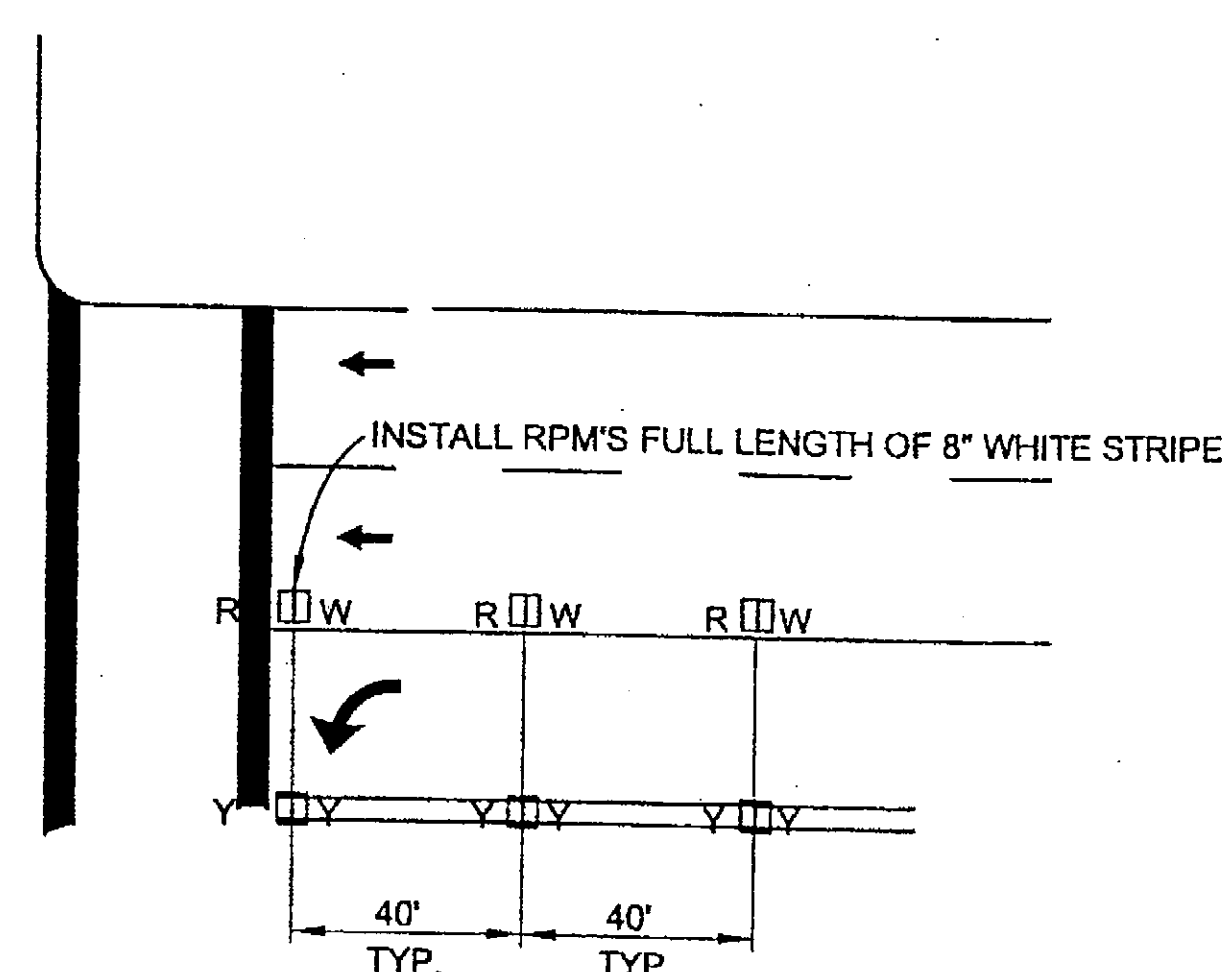


RPM PLACEMENT AND INTERSECTION APPROACH DETAIL

NOTE: POSITION MARKERS CENTERED BETWEEN DASHED STRIPES.

RECESSED PAVEMENT MARKER NOTES

1. LATERAL PLACEMENT OF RECESSED PAVEMENT MARKERS (RPM) SHALL BE BETWEEN DOUBLE YELLOW STRIPES AND/OR LANE LINE.
2. LOCATIONS OF RPM'S IN AREAS WITH UNUSUAL GEOMETRICS WILL BE AS DIRECTED.
3. RECESSED PAVEMENT MARKER QUANTITY IS APPROXIMATE AND MAY VARY.
4. RPM'S SHALL BE SPACED EVERY 80' EXCEPT AS DETAILED ON THIS SHEET AND STANDARD DWG. T-06.00



RPM PLACEMENT FOR LEFT TURN LANE DETAIL

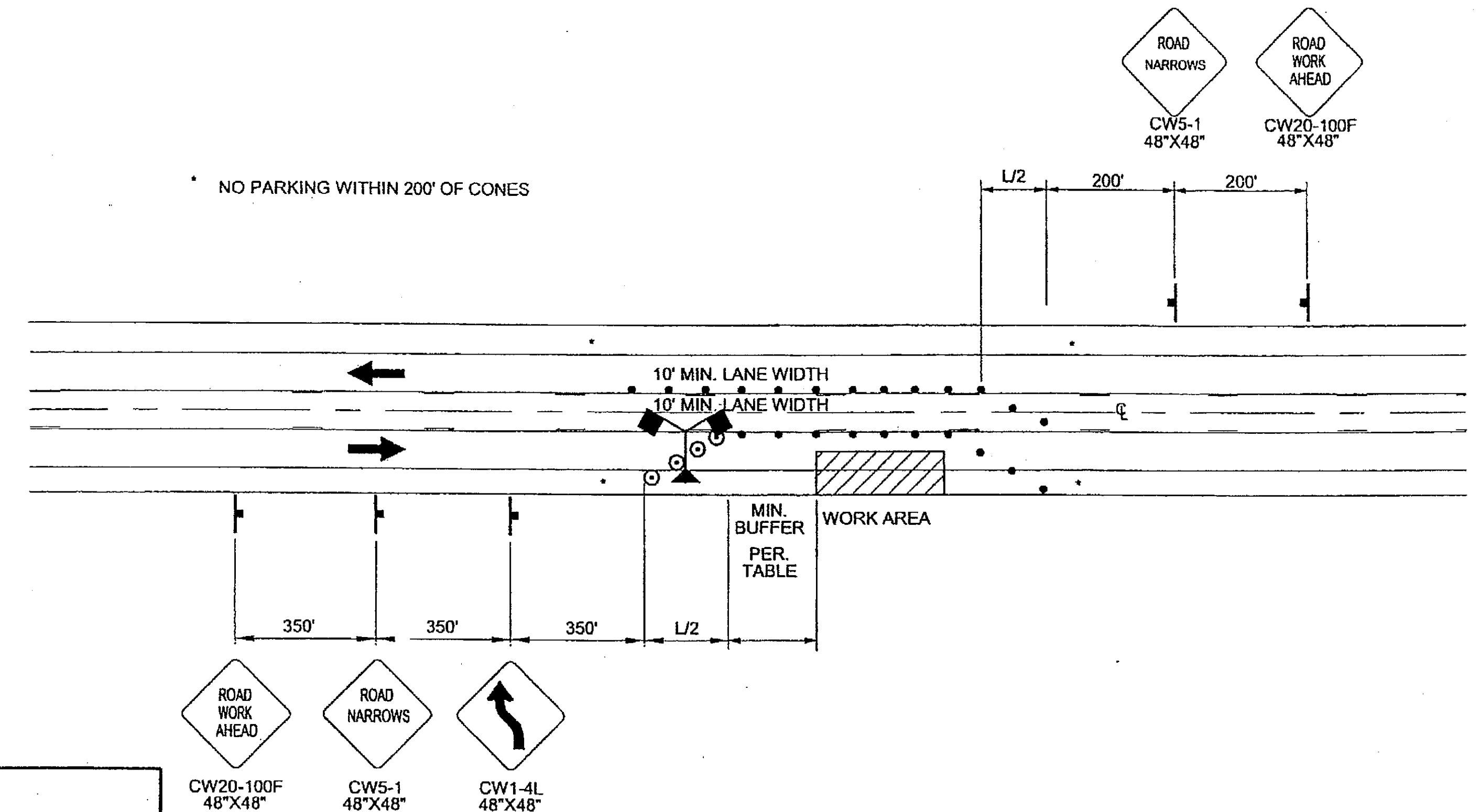
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

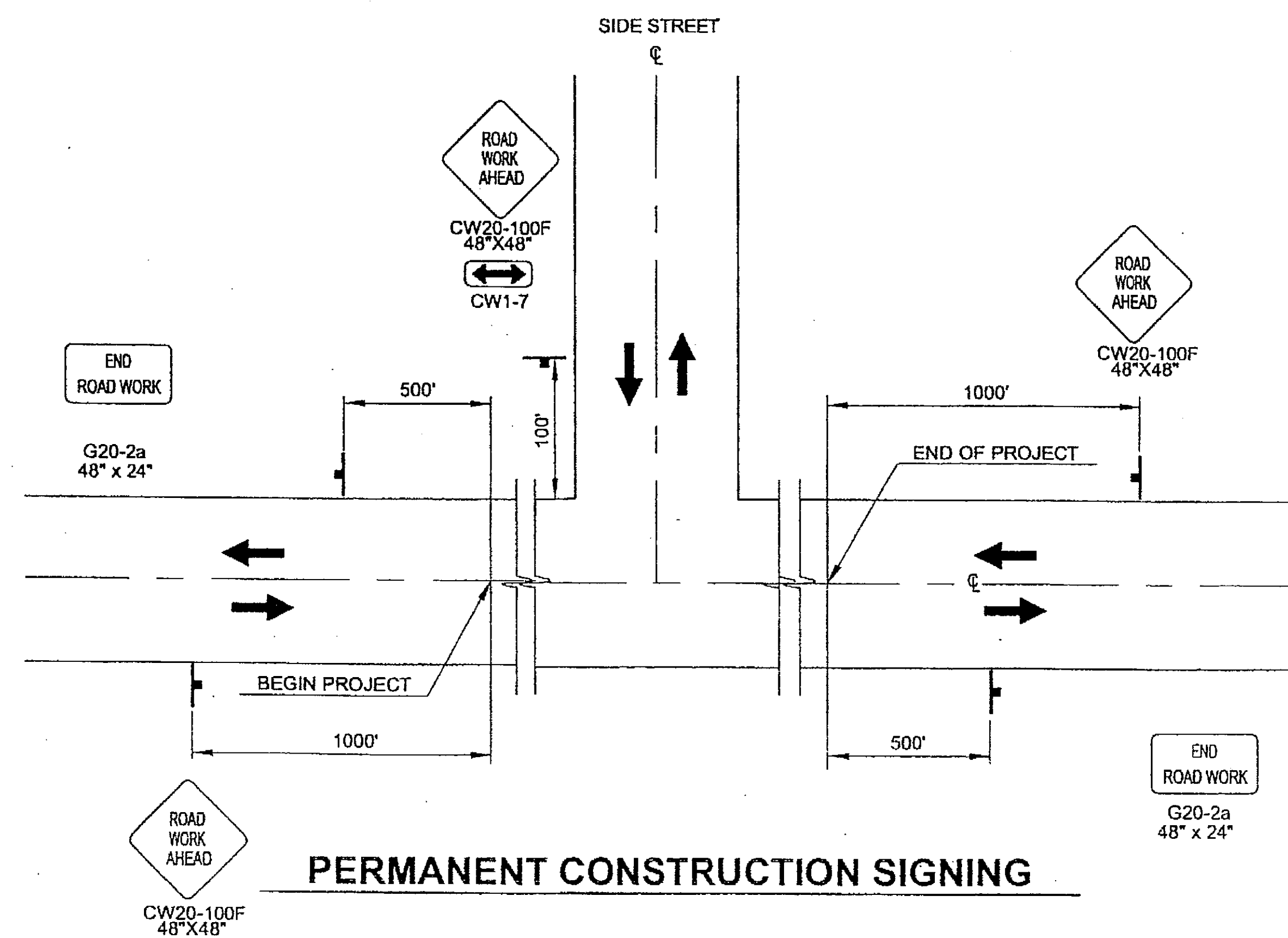
CHECKED BY: P. BEDNAROWICZ 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION KETCHIKAN TONGASS AVENUE SURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1 RECESSED PAVEMENT MARKER DETAILS							
DESIGNED BY: D. LESTER DRAWN BY: L. ROBERTSON PATH: Q:\KTW\68366\PLANSET\68366-H11_SIGN.DWG		PROJECT DESIGNATION NHS-IM-000S(495) ~68366							
REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DATE	DESCRIPTION				YEAR 2006	SHEET NO. H5
NO.	DATE	DESCRIPTION							
SHEETS 24		SHEETS 24							

TRAFFIC CONTROL NOTES

1. TWO-LANE, TWO WAY TRAFFIC WILL BE MAINTAINED AT ALL TIMES. WHEN WORK IS TO BEGIN ON THE CARLANNA LAKE ROAD INTERSECTION, PROVIDE 14 DAYS WRITTEN NOTICE TO THE ADOT/PF TRAFFIC SECTION SO THEY CAN MAKE THE APPROPRIATE SIGNAL TIMING CHANGES.
2. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME BUT NOT ALL OF THE TRAFFIC CONTROL CONFIGURATIONS THAT WILL BE REQUIRED BY THIS PROJECT. TRAFFIC CONTROL PLANS FOR CONFIGURATIONS NOT COVERED BY THIS TCP SHALL BE DEVELOPED AND SUBMITTED FOR APPROVAL PRIOR TO USE.
3. TRAFFIC LANES SHALL BE A MINIMUM OF 10 FEET WIDE.
4. TEMPORARY PAVEMENT MARKINGS WILL BE REQUIRED AS DESCRIBED IN SECTION 643-3.04 OF THE SPECIFICATIONS.
5. ACCESS TO BUSINESSES AND HOMES WILL BE OPENED WITHIN ONE HOUR AFTER THE GRINDING OPERATION.
6. TO KEEP THE PUBLIC INFORMED OF CONSTRUCTION ACTIVITIES, USE THE LOCAL NEWS MEDIA. NEWS RELEASES SHALL BE APPROVED PRIOR TO THEIR RELEASE. NEWS RELEASES WILL BE REQUIRED BUT NOT LIMITED TO, THE ONSET OF WORK, GRINDING, PAVING, AND CHANGES IN THE LANE CONFIGURATIONS.
7. IF TRAFFIC DELAYS BECOME LONGER THAN 3 MINUTES AVERAGE PER VEHICLE, NIGHTTIME OPERATIONS MAY BE DIRECTED.
8. WORK ZONE DOUBLE TRAFFIC FINE SIGNS SHALL BE USED AS DIRECTED BY THE ENGINEER AND PER STANDARD DRAWING C-04.12.
9. CONSTRUCTION SHALL BE LIMITED TO SEGMENTS AND SHALL NOT EXCEED 1,500 FEET IN LENGTH. THE FIRST LAYER OF ATB SHALL BE IN PLACE BEFORE BEGINNING THE NEXT SEGMENT OF WORK.
10. THE CONTRACTOR IS RESPONSIBLE FOR ALL WINTER MAINTENANCE ON PORTIONS OF THE WORK LEFT WITHOUT AN ATB OR AC SURFACE.



TWO-WAY TRAFFIC USING CENTER LANE



PERMANENT CONSTRUCTION SIGNING

LEGEND

- SIGN
- CONE
- DRUM
- TYPE III BARRICADE
- FLAGGING STATION
- HI-LEVEL WARNING DEVICE

FORMULAS FOR L (TAPER LENGTH)

40 MPH OR LESS $L = \frac{W \times S^2}{60}$

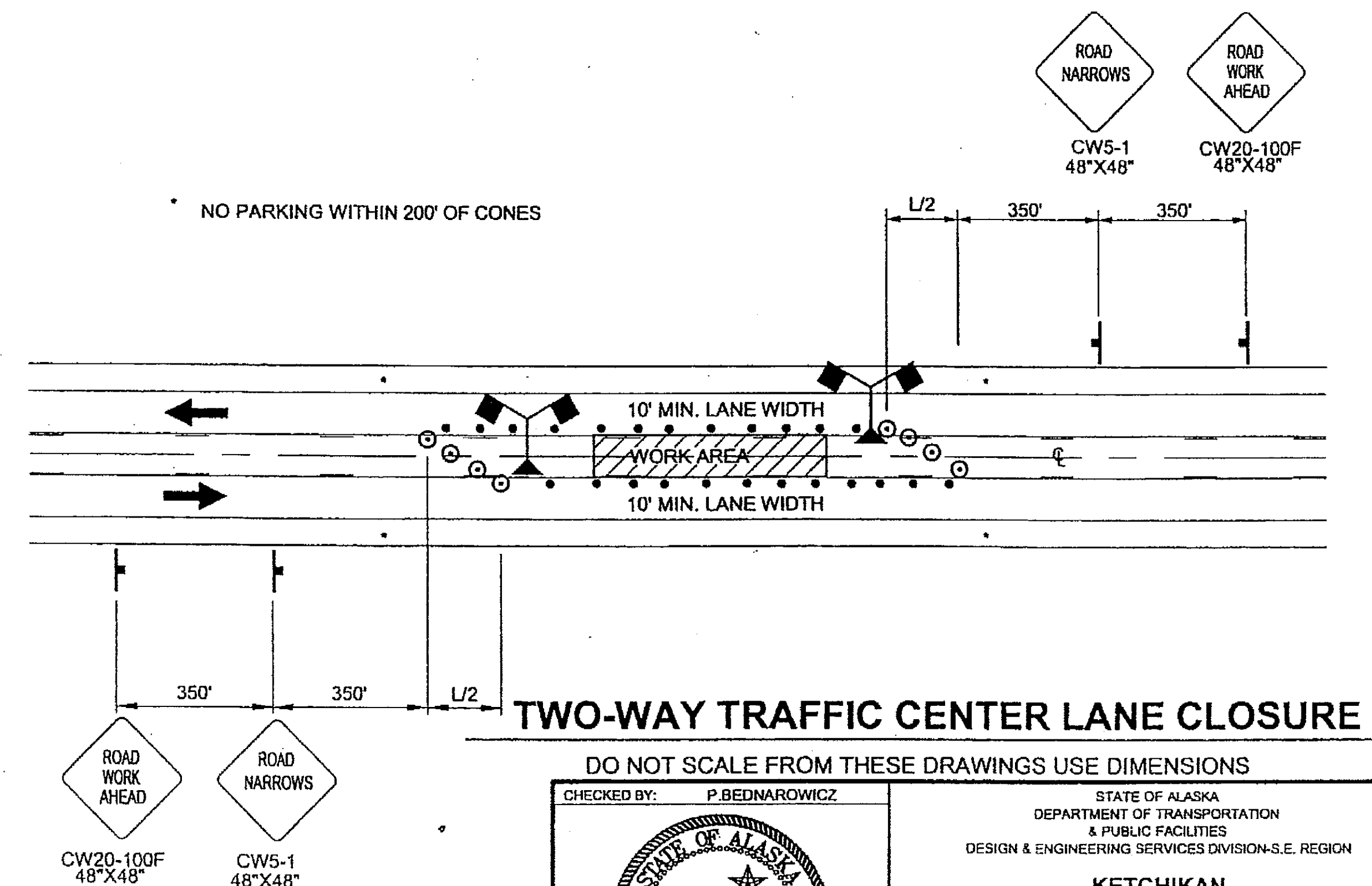
45 MPH OR GREATER $L = W \times S$

WHERE W = WIDTH OF OFFSET

S = POSTED SPEED LIMIT
OR ANTICIPATED
OPERATING SPEED

DRUM OR CONE SPACING = S (IN FEET)

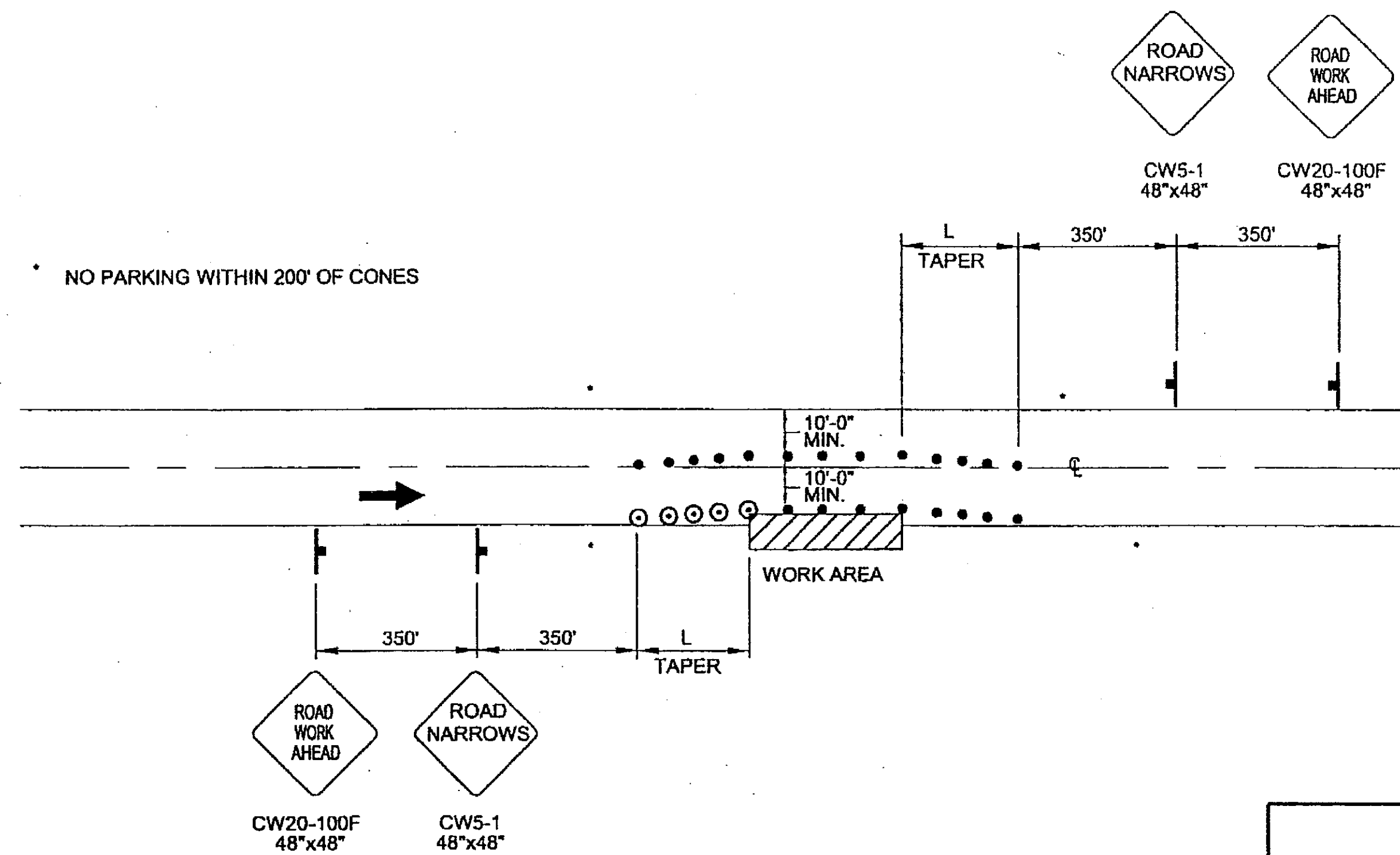
MIN. BUFFER	
S	LENGTH
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485



TWO-WAY TRAFFIC CENTER LANE CLOSURE

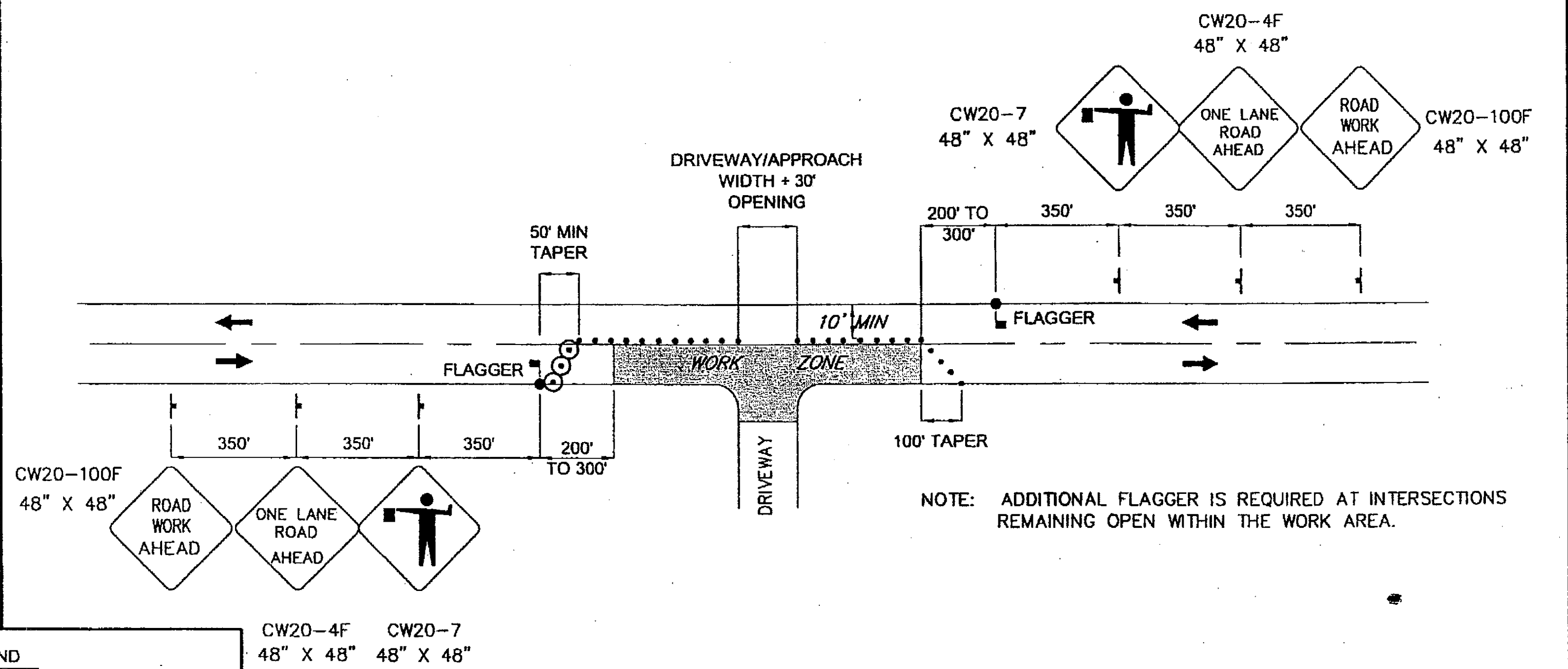
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. BEDNAROWICZ		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION																				
DESIGNED BY: D. LESTER		KETCHIKAN TONGASS AVENUE SURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1																				
DRAWN BY: L. ROBERTSON		TRAFFIC CONTROL PLAN																				
P.A.T.H.: Q:\KTN\68366\PLANSET\68366-J1_TRAFFIC.DWG																						
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		REVISIONS			NO.	DATE	DESCRIPTION										<table border="1"> <tr> <td>PROJECT DESIGNATION NHS-IM-000S(495) ~68366</td> <td>YEAR 2006</td> <td>SHEET NO. J1</td> <td>SHEETS 24</td> </tr> </table>		PROJECT DESIGNATION NHS-IM-000S(495) ~68366	YEAR 2006	SHEET NO. J1	SHEETS 24
REVISIONS																						
NO.	DATE	DESCRIPTION																				
PROJECT DESIGNATION NHS-IM-000S(495) ~68366	YEAR 2006	SHEET NO. J1	SHEETS 24																			

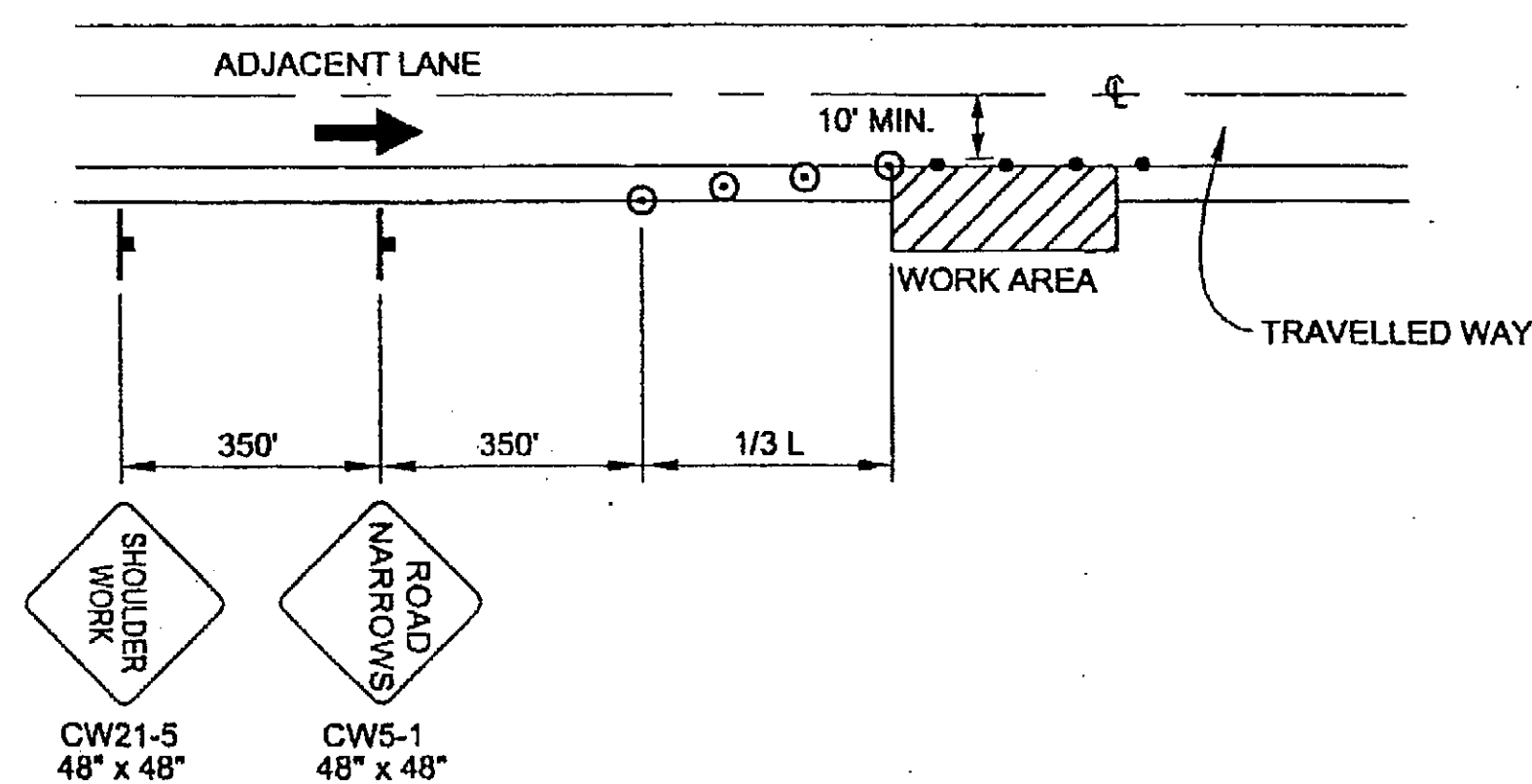


ROADWAY ENCROACHMENT

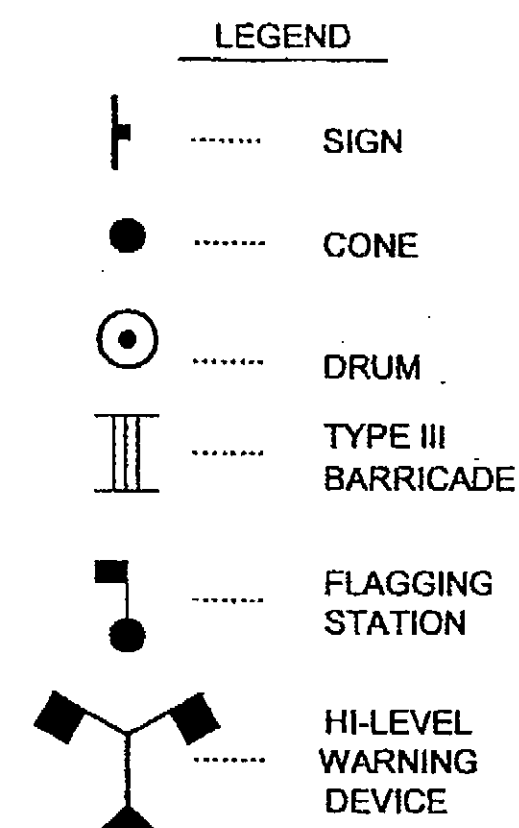
NOTE: IF ONLY ONE LANE IS EFFECTED BY ROAD WORK (THAT IS, THE CONES ALONG THE WORK AREA ARE NO CLOSER THAN 10' TO CENTERLINE) THE CENTERLINE CONES FOR THE OPPOSING LANE MAY BE DELETED.



TWO-LANE ROAD - SINGLE LANE CLOSURE DOUBLE FLAGGER



SHOULDER WORK



FORMULAS FOR L (TAPER LENGTH)

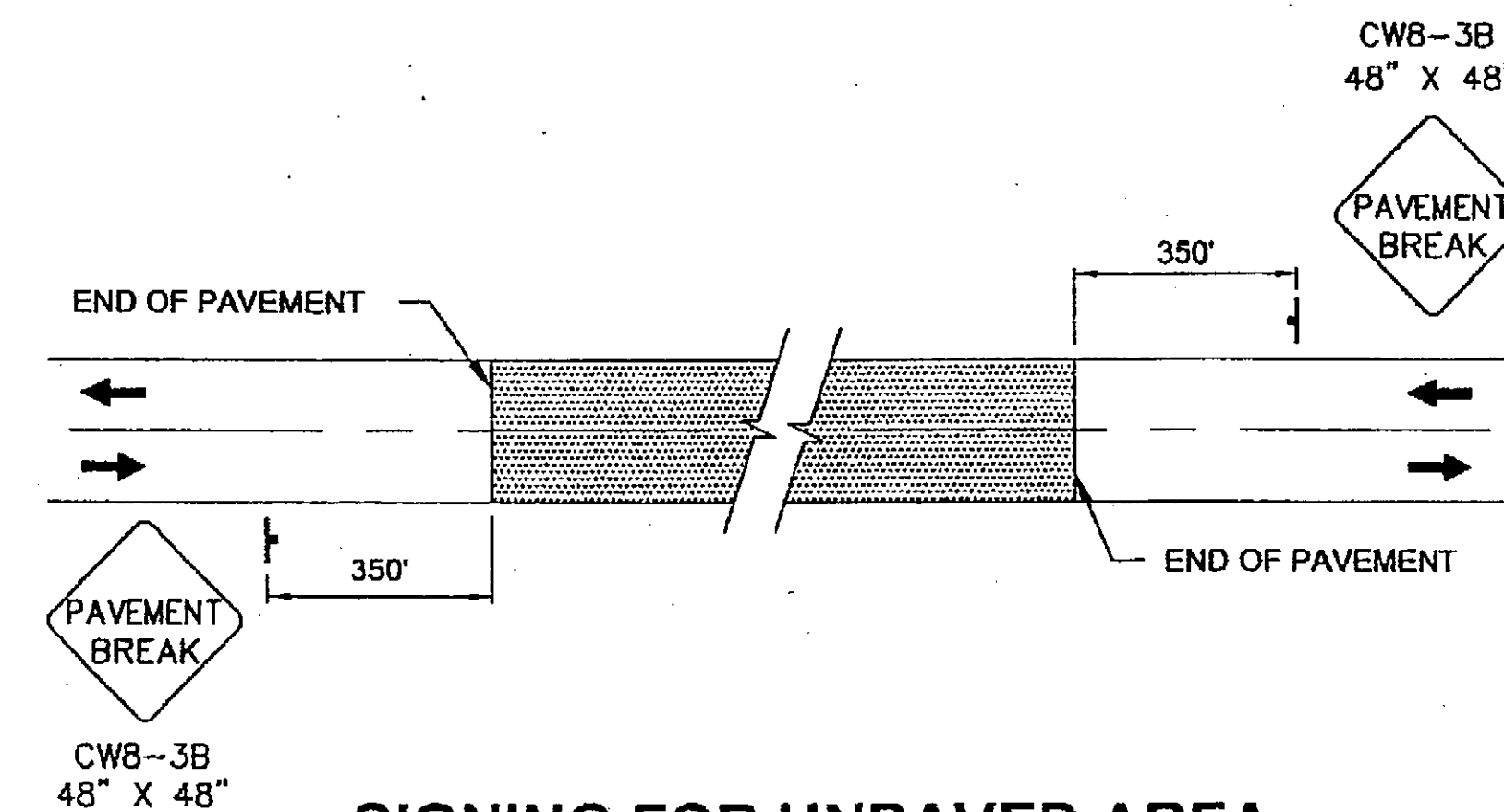
40 MPH OR LESS $L = \frac{W \times S^2}{60}$

45 MPH OR GREATER $L = W \times S$

WHERE W = WIDTH OF OFFSET
S = POSTED SPEED LIMIT
OR ANTICIPATED
OPERATING SPEED

DRUM OR CONE SPACING = S (IN FEET)

S	MIN. BUFFER LENGTH
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

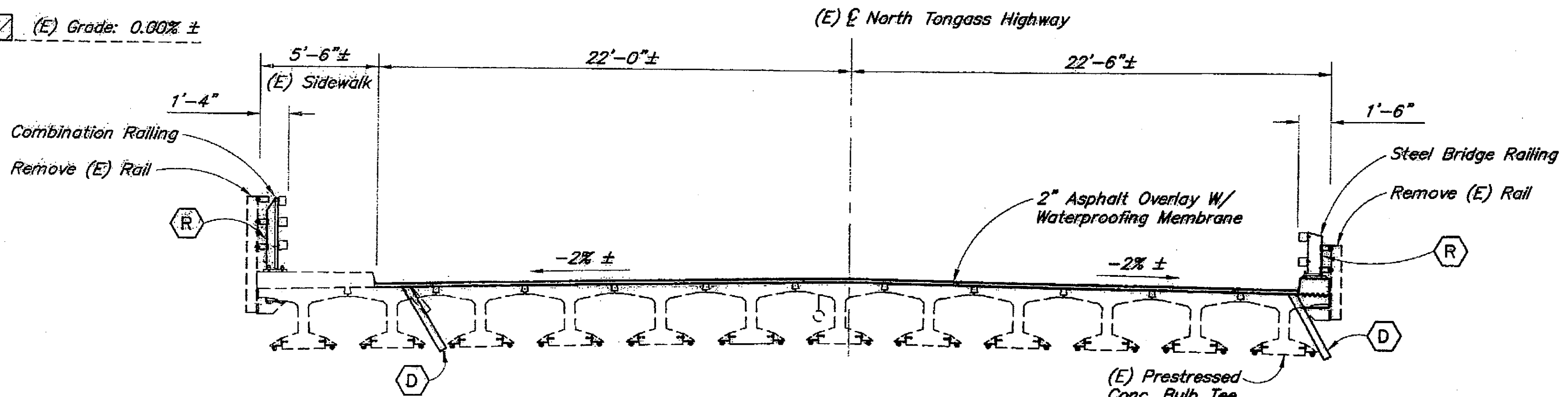
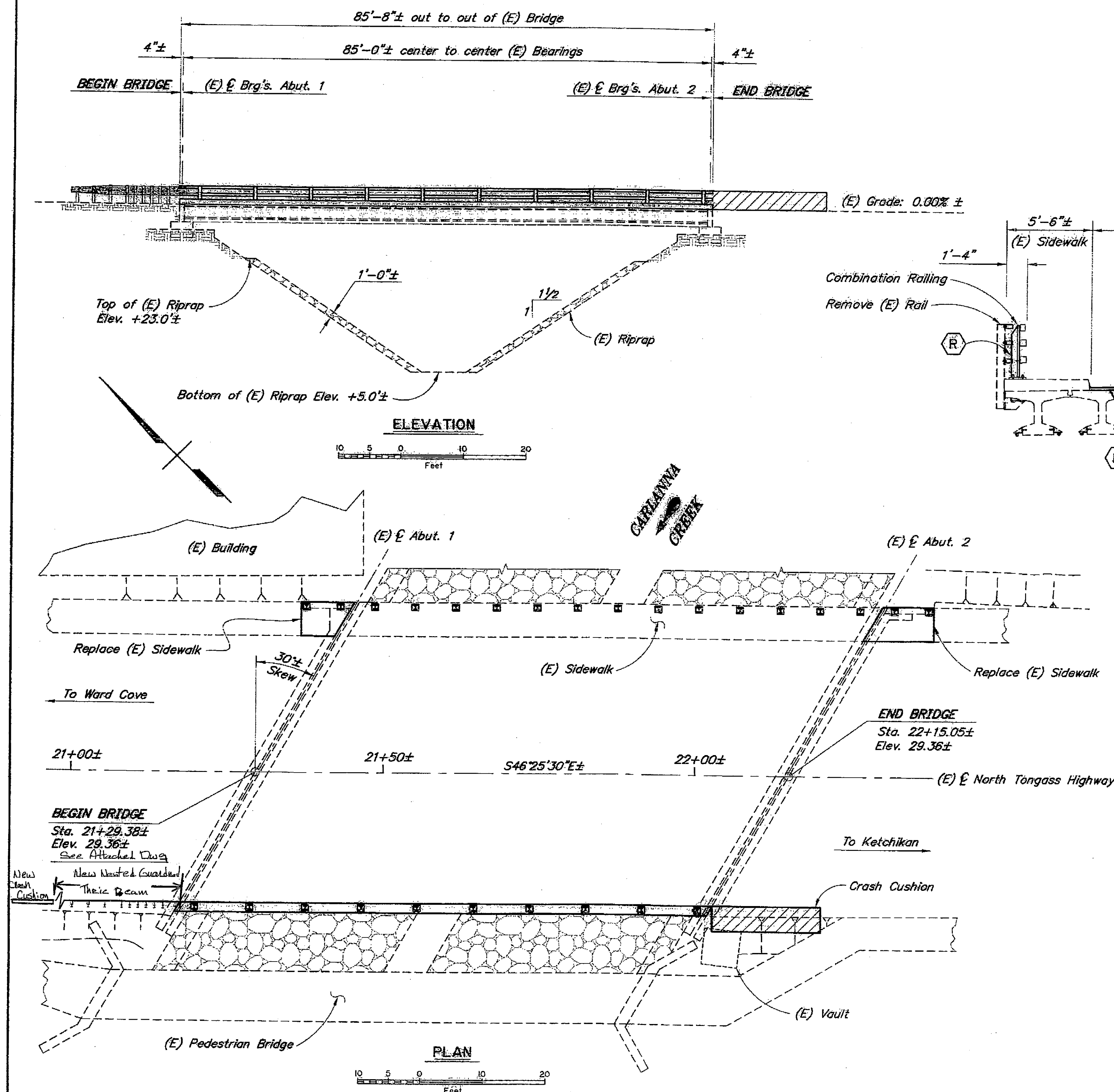


SIGNING FOR UNPAVED AREA

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. BEDNAROWICZ		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES DESIGN & ENGINEERING SERVICES DIVISION-S.E. REGION	
DESIGNED BY: D. LESTER		KETCHIKAN TONGASS AVENUE SURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE, PHASE 1	
DRAWN BY: L. ROBERTSON		TRAFFIC CONTROL PLAN	
PATH: Q:\KTR68366\PLANSET\68366-J1_TRAFFIC.DWG			
REVISIONS		PROJECT DESIGNATION NHS-IM-000S(495) ~68366	
NO.	DATE	DESCRIPTION	YEAR 2006
			SHEET NO. J2
			SHEETS 24

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-000S(49S)/68366	2005	KI	



BRIDGE BASIS OF ESTIMATE					
ITEM NO.	ITEM	UNIT	SUBST.	SUPER.	TOTAL
501(9)	Drill and Bond Dowels	EA	---	34	34
504(3)	Steel Deck Drains	EA	---	8	8
507(1)	Steel Bridge Railing	LF	---	86	86
507(6)	Combination Railing	LF	---	104	104
508(1)	Waterproofing Membrane	LS-Yd ²	---	410	410
606(12)	Guardrail/Bridge Rail Connection	EA	---	1	1
606(13)	Crash Cushion	EA	---	1	1

Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

LEGEND	
(R)	Bridge Railing
(D)	Deck Drain

DRAWING INDEX	
TITLE	DWG. NO.
GENERAL LAYOUT	1
TYPICAL SECTION	2
REHABILITATION DETAILS	3
STEEL BRIDGE RAILING	4
COMBINATION RAILING	5

NOTES:

- (E) = Existing
- = Existing
- = Denotes this contract

Elevations, Bearings and Dimensions are based on "AS-BUILT" plans and shop drawings. Verify all controlling field dimensions before ordering or fabricating any material.

REHABILITATION

DESIGNED BY: D. Soden	CHECKED BY: S. Lee	LAYOUT BY: D. Soden	CHECKED BY: S. Lee
DRAWN BY: R. Grantham	CHECKED BY: D. Soden	SPECIFICATIONS BY: D. Soden	PLANS & SPEC. COMPARED BY: S. Lee
QUANTITIES BY: D. Soden	CHECKED BY: S. Lee	APPROVAL RECOMMENDED BY: Richard Pratt	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION



CARLANNA CREEK BRIDGE
NORTH TONGASS HIGHWAY
GENERAL LAYOUT

BRIDGE NO. 749
DWG. NO. 1

CD#16 Nested Guardrail / Crash Cushion

Use Std. Dwg. G-31.00
for Bridge Rail / Guardrail
Transition Details

4 SPACES
1' - 8 3/4"

* BRIDGERAIL

12' 6"

BRIDGERAIL TRANSITION

12' 8"

THREE BEAM WITH BLOCKS

3' - 1 1/2"
POST SPACING

POLE Flare Guardrail to Clear
Concrete Pole base. Use blocks on
nested section Per Std. Dwg G-27.11,
Case C.

37' 6"

NESTED THREE BEAM
NO BLOCKS

9' 8" PAD (CONCRETE OR ASPHALT)

TAU II (6') LONG
CRASH CUSHION
RATED 41 MPH

Use TAU-II that is
NCHRP 350, TL 2 crash
Rated to 40 MPH.



FENCE
COMPANY

ACME FENCE COMPANY, INC.
6230 A ST.
ANCHORAGE, AK 99518
(907) 522-1155

GUARD RAIL LAY OUT
Ketchikan-Tongass Ave. Surfacing

DRAWN BY: 07/24/07

SCALE: NONE

PAGE:

REVISED: 07/24/07

FILE: ktm2nd

1 of 1

of

27

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-000S(498)/68366	2005	K2	

GENERAL NOTES

DESIGN:..... AASHTO Standard Specifications for Highway Bridges, 17th Edition, with Latest Interim Specifications.

LIVE LOAD:..... HS 25

DEAD LOAD:..... Includes 50 psf for all wearing surfacing.

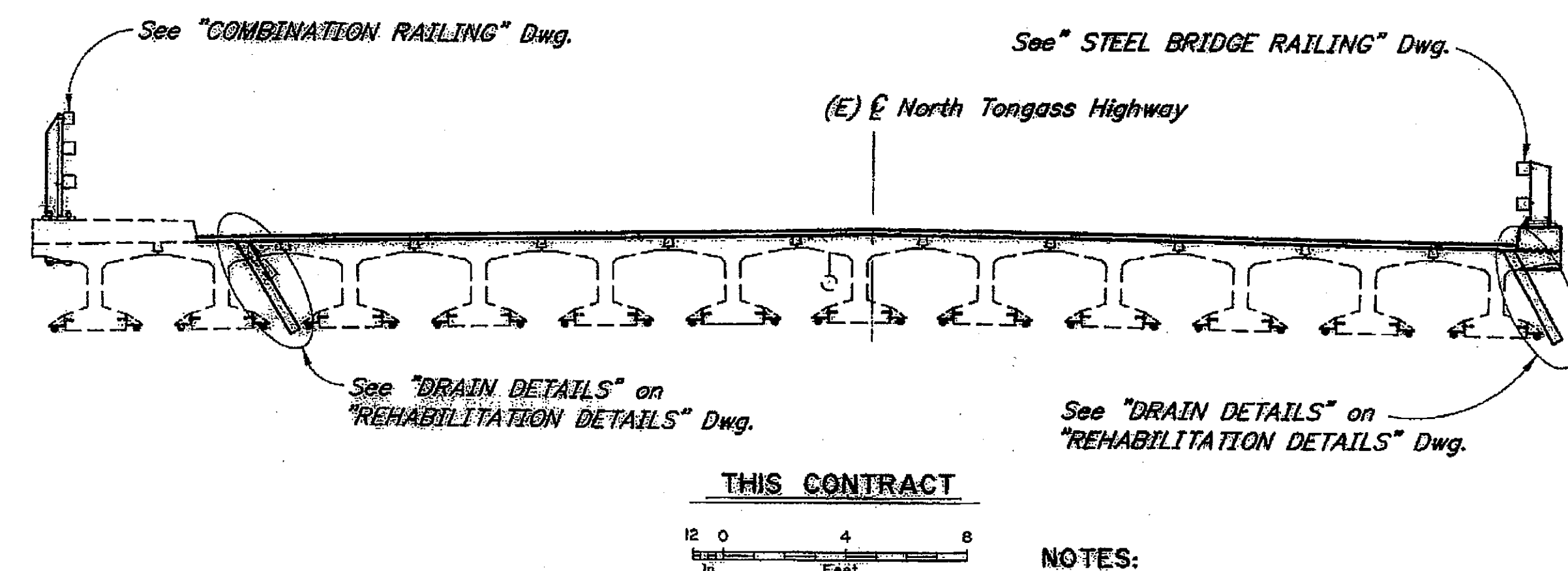
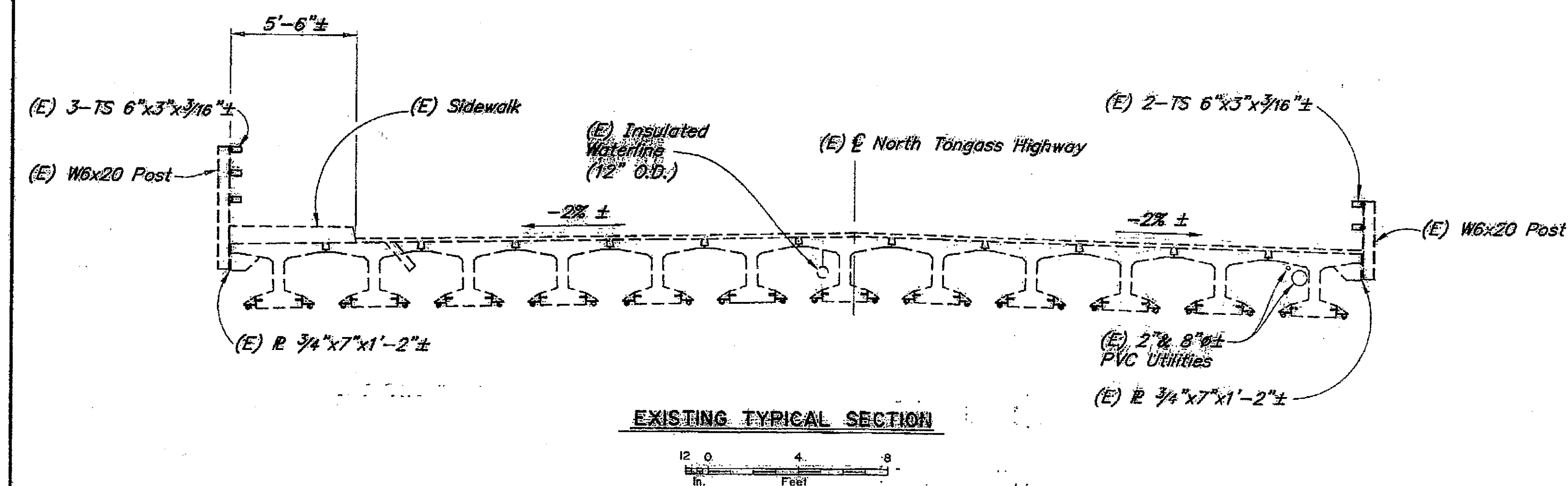
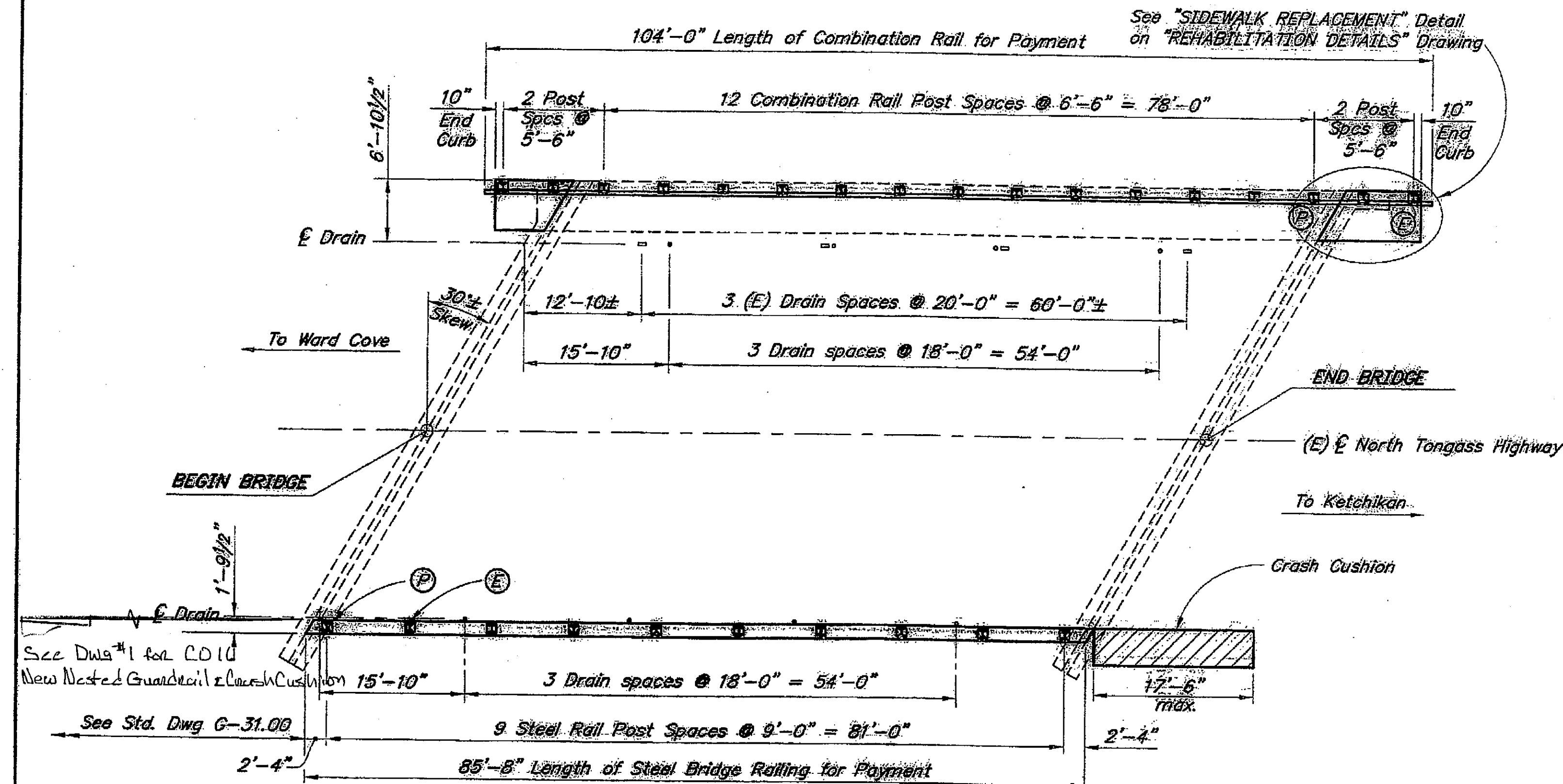
REINFORCEMENT:..... ASTM A615, $F_y = 60,000$ psi
Space reinforcement evenly unless otherwise noted.

EPOXY-COATED REINFORCEMENT:..... ASTM A615, $F_y = 60,000$ psi
Space reinforcement evenly unless otherwise noted.

CONCRETE:..... Use Class A Concrete concrete unless otherwise noted,
 $f'_c = 4000$ psi

STRUCTURAL STEEL:..... ASTM A709, Grade 36, $F_y = 36,000$ psi.
Galvanize all structural steel in accordance with AASHTO M11 and M232 unless otherwise noted.

HIGH STRENGTH BOLTS:..... Galvanized ASTM A325 unless otherwise noted.



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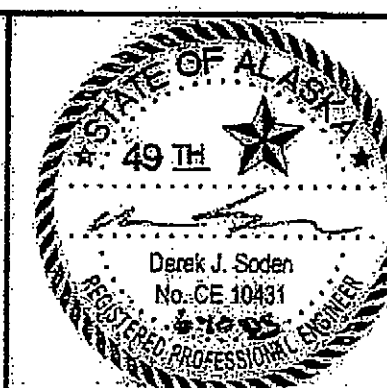
Ⓟ - Denotes New location of Bridge Number Plate.
 Ⓜ - Denotes Existing location of Bridge Number Plate.

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they represent the project as constructed.
 Proj. Eng. *[Signature]* Date *3-3-09*

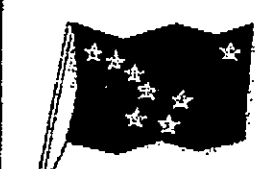
DESIGNED BY: <i>D. Soden</i>	CHECKED: <i>Steve Lee</i>
DRAWN BY: <i>R. Grantham</i>	CHECKED: <i>D. Soden</i>
QUANTITIES BY: <i>D. Soden</i>	CHECKED: <i>Steve Lee</i>

REHABILITATION

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 BRIDGE SECTION



CARLANNA CREEK BRIDGE
 NORTH TONGASS HIGHWAY
 TYPICAL SECTION



BRIDGE NO. 749
 DWG. NO. 2

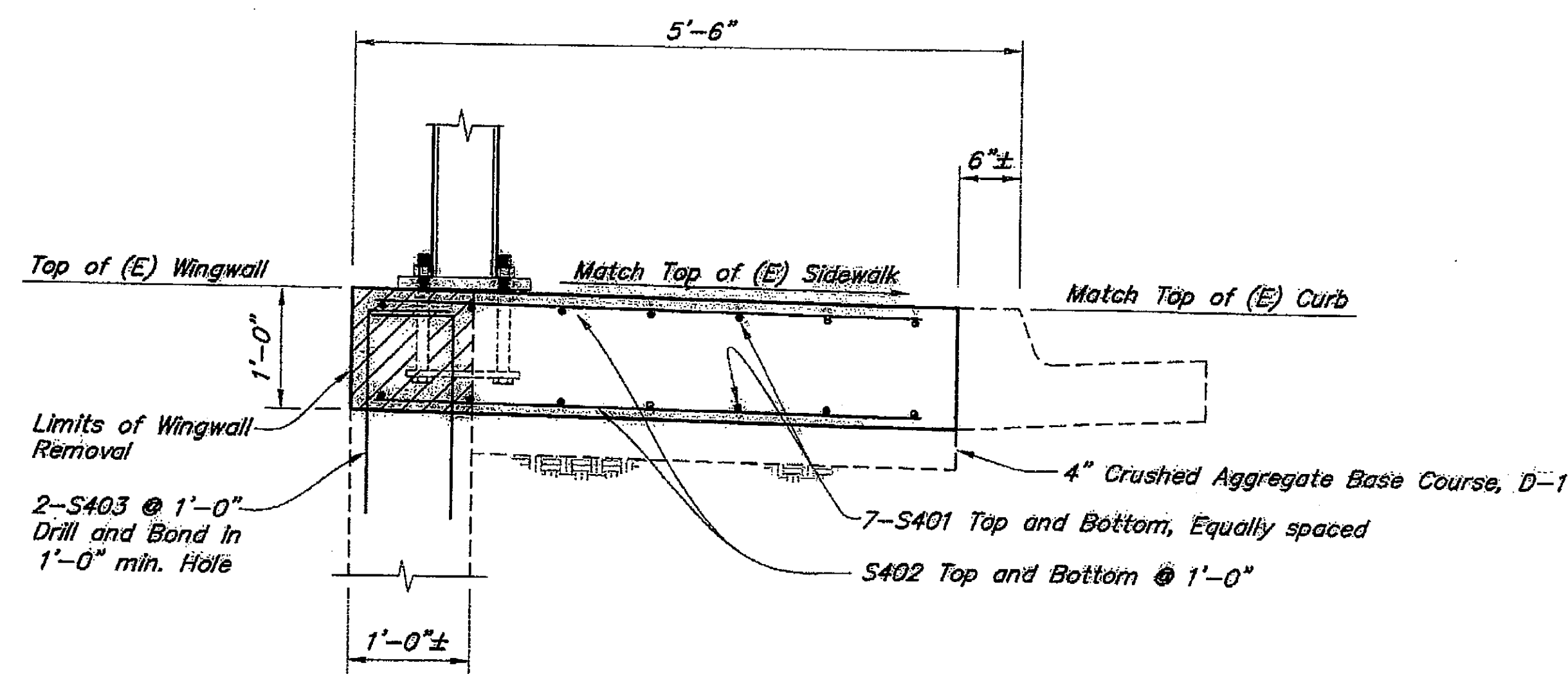
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-000S(496)/68366	2005	K3	

REINFORCING STEEL - BOTH ABUTMENTS

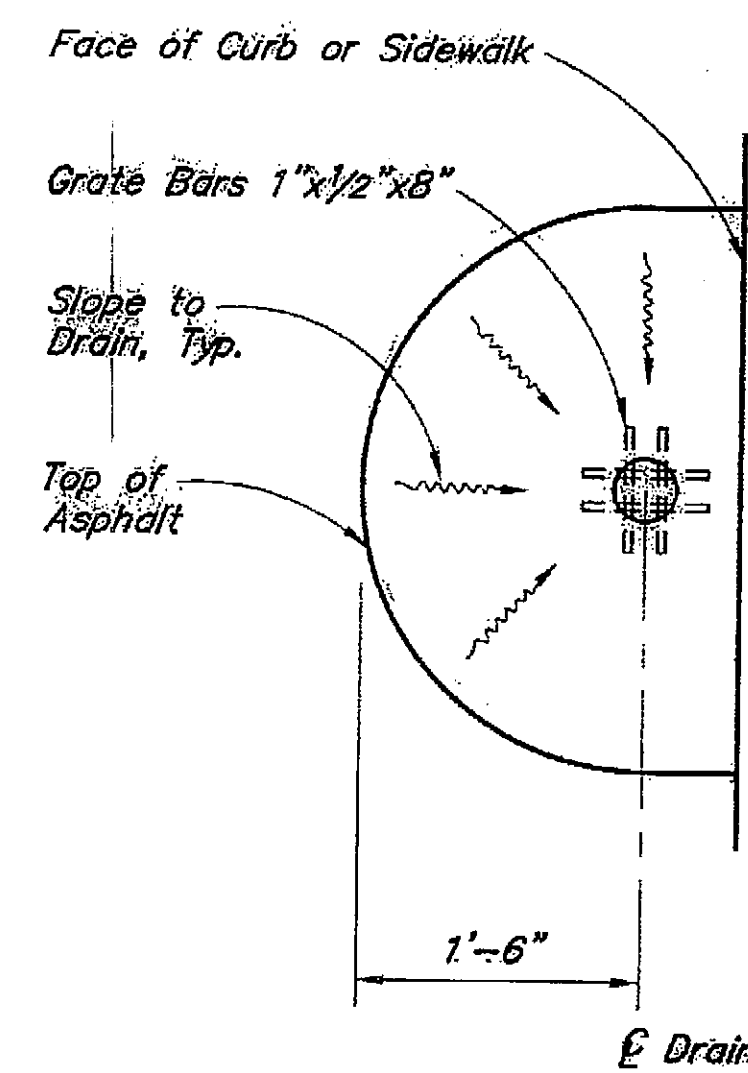
MARK	SIZE	NO.	LENGTH	TYPE
S401	#4	28	Varies	
S402	#4	34	Varies	
S403	#4	34	2'-6"	Bent

4'-10" min. 10'-5" max.	
S401	
2'-9" min. 4'-6" max.	
S402	
	8"
	1'-10"
	S403

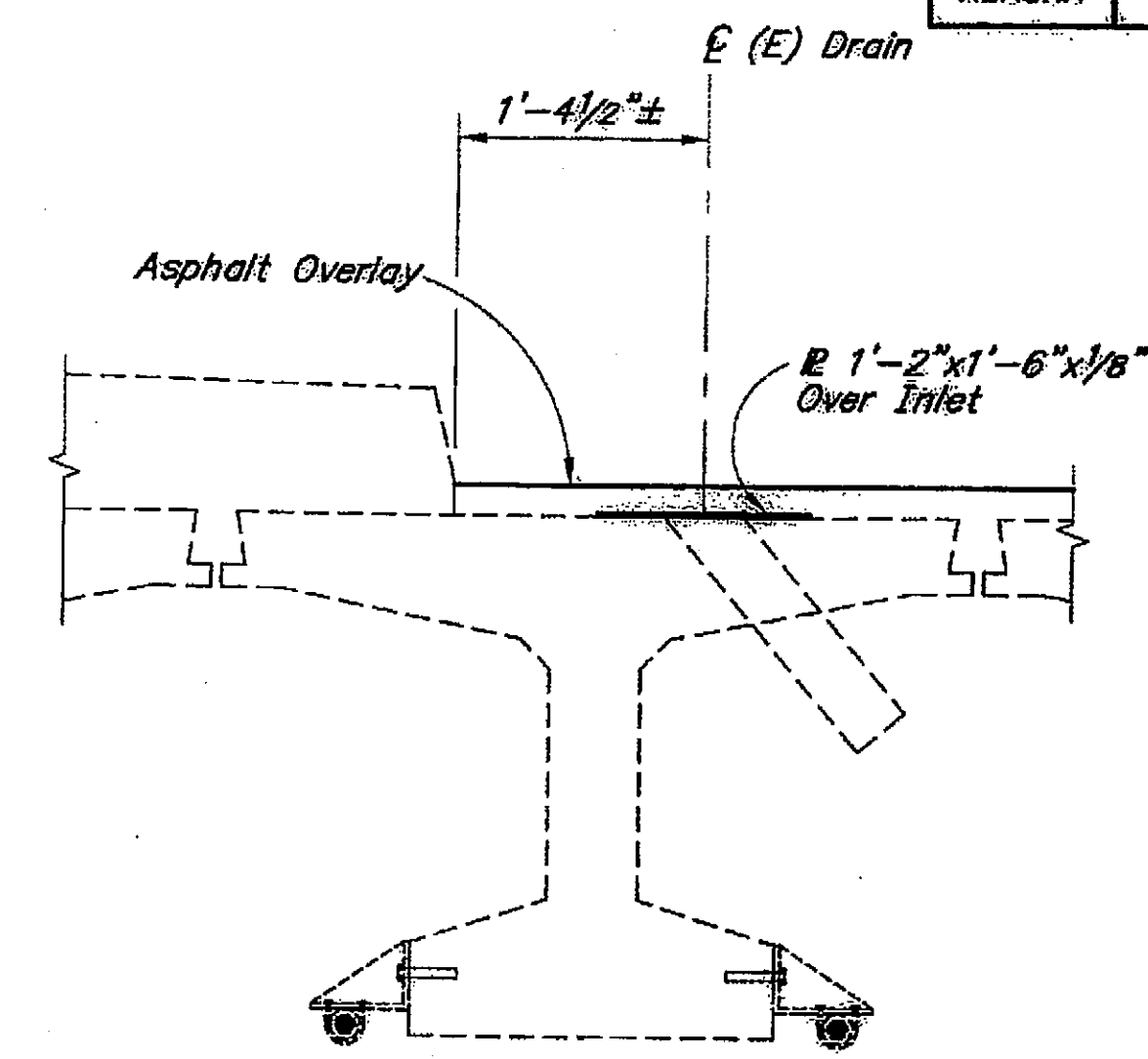
a - Epoxy coat all reinforcement



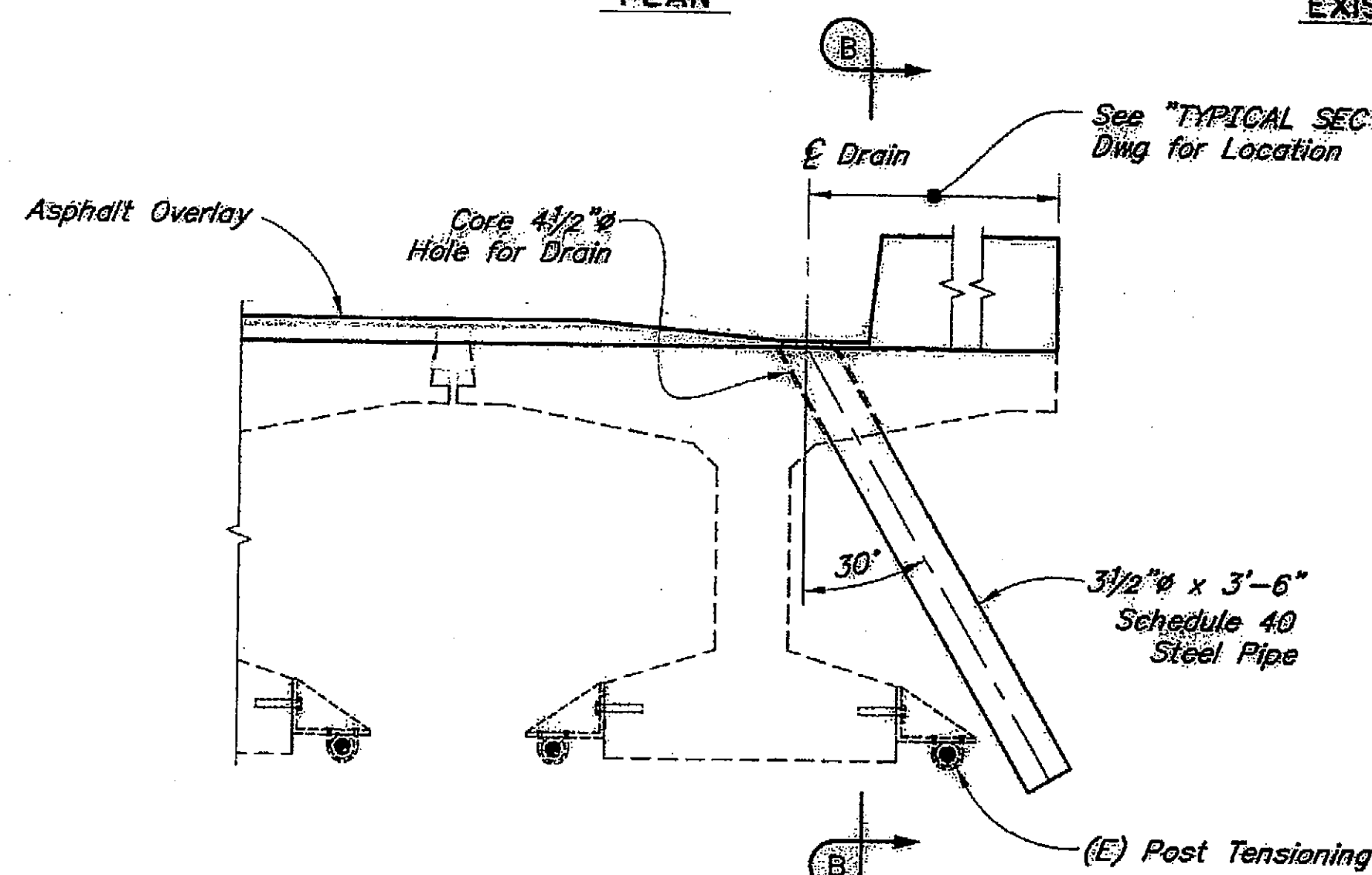
SECTION A-A
Typical Both Abutments



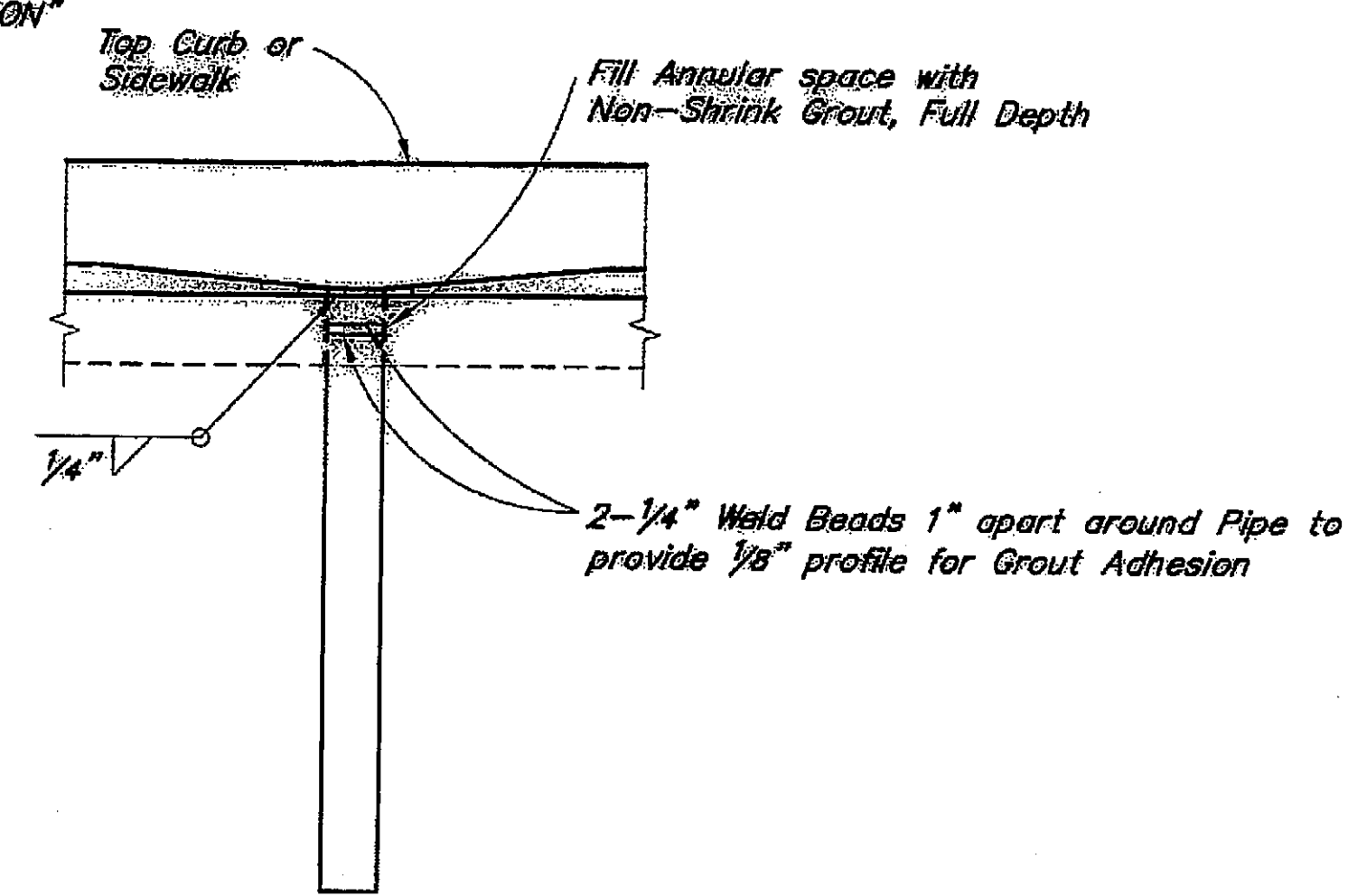
PLAN



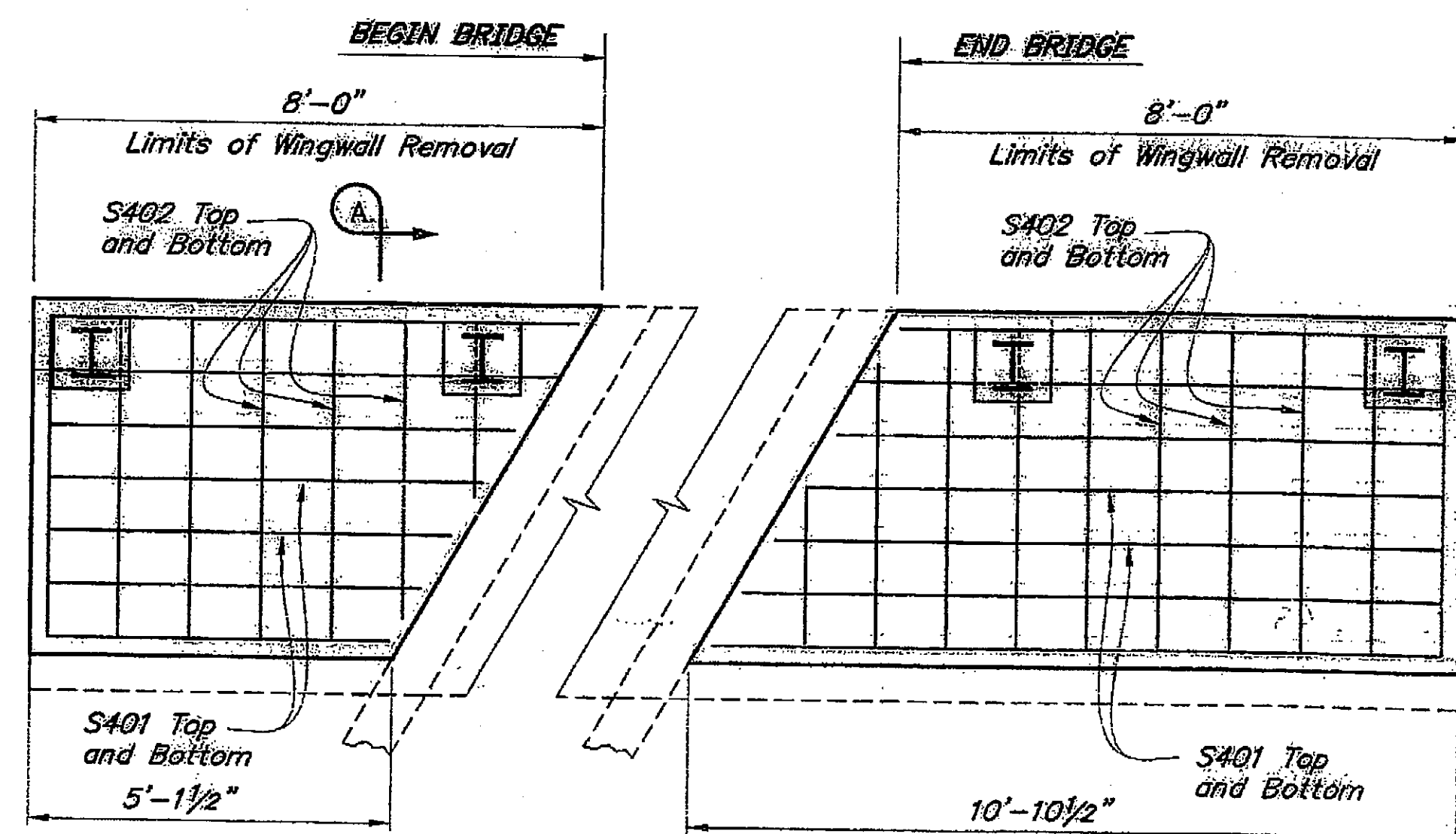
EXISTING DRAIN - LEFT SIDE



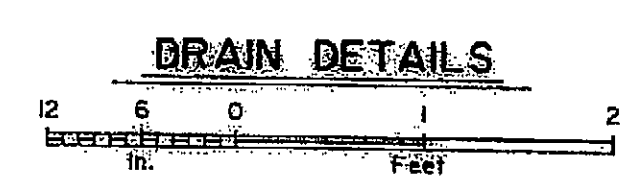
ELEVATION



SECTION B-B



PLAN
SIDEWALK REPLACEMENT



NOTES:

- (E) = Existing
- = Existing
- = Denotes this contract

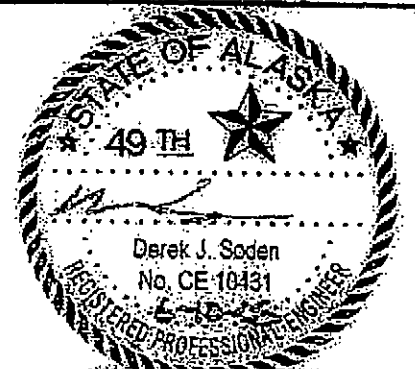
Elevations, Bearings and Dimensions are based on "AS-BUILT" plans and shop drawings. Verify all controlling field dimensions before ordering or fabricating any material.

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they represent the project as constructed.
Proj. Eng. *[Signature]* Date 3-3-09

DESIGNED BY: <i>Derek Soden</i>	CHECKED: <i>Steve Lee</i>
DRAWN BY: <i>R. Grantham</i>	CHECKED: <i>D. Soden</i>
QUANTITIES BY: <i>Derek Soden</i>	CHECKED: <i>Steve Lee</i>

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION



CARLANNA CREEK BRIDGE
NORTH TONGASS HIGHWAY
REHABILITATION DETAILS

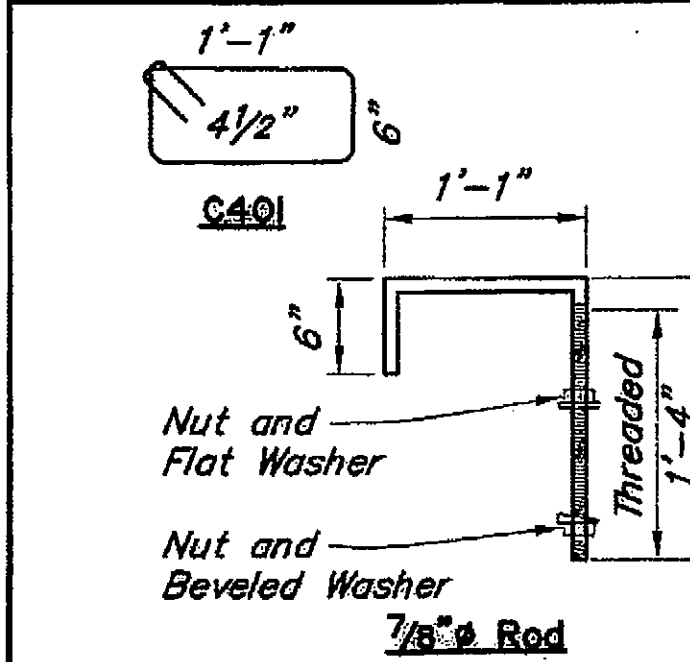


BRIDGE NO. 749
DWG. NO. 3

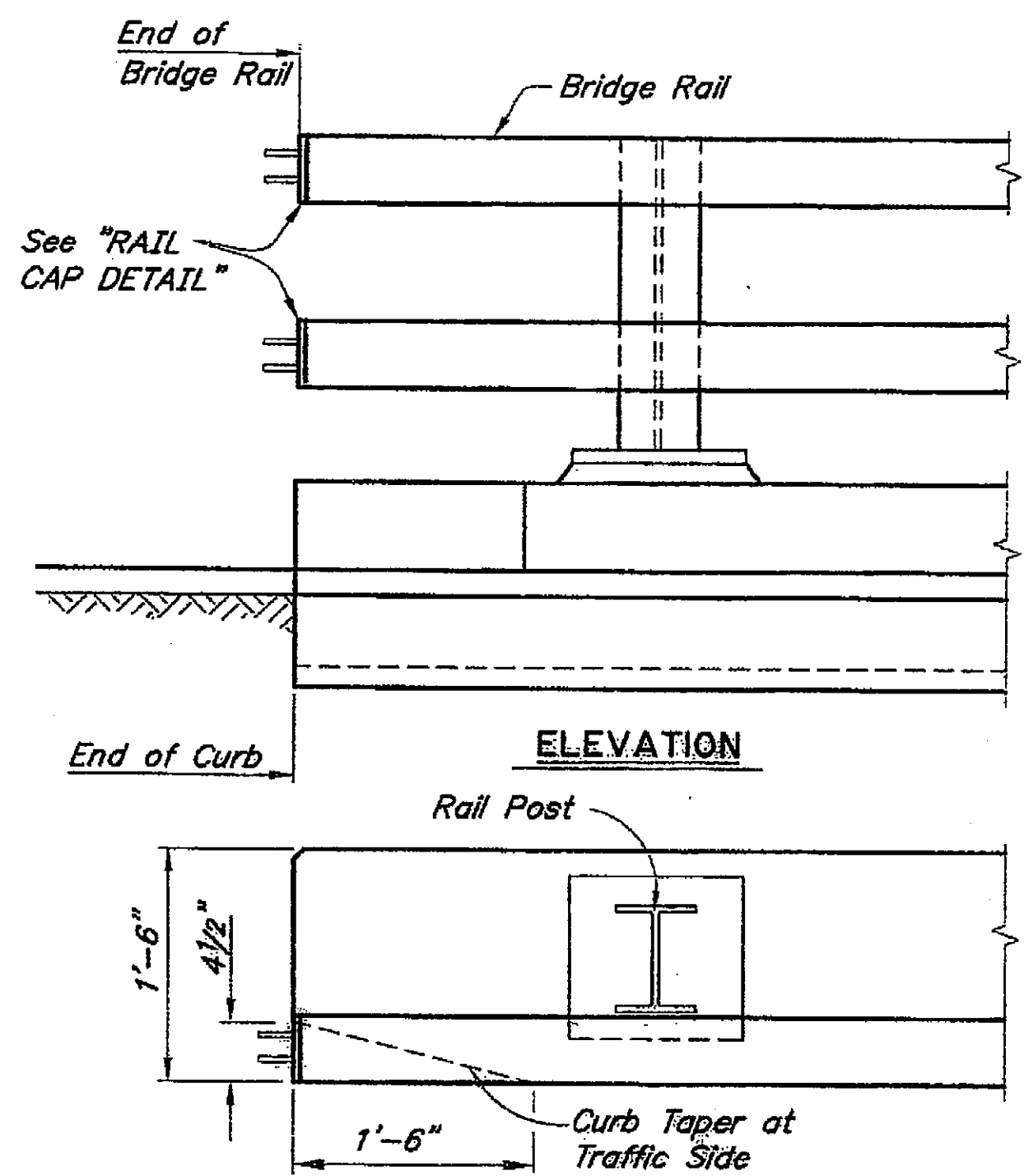
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-000S(495)/68366	2005	K4	

REINFORCING STEEL- ONE CURB

MARK	SIZE	NO.	LENGTH	TYPE
C401	4	76	3'-11"	Bent
C501	5	4	85'-4"	



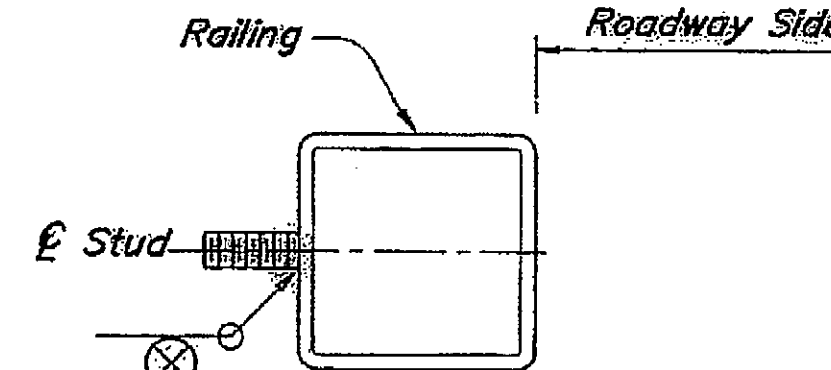
a - Epoxy coat all curb reinforcement



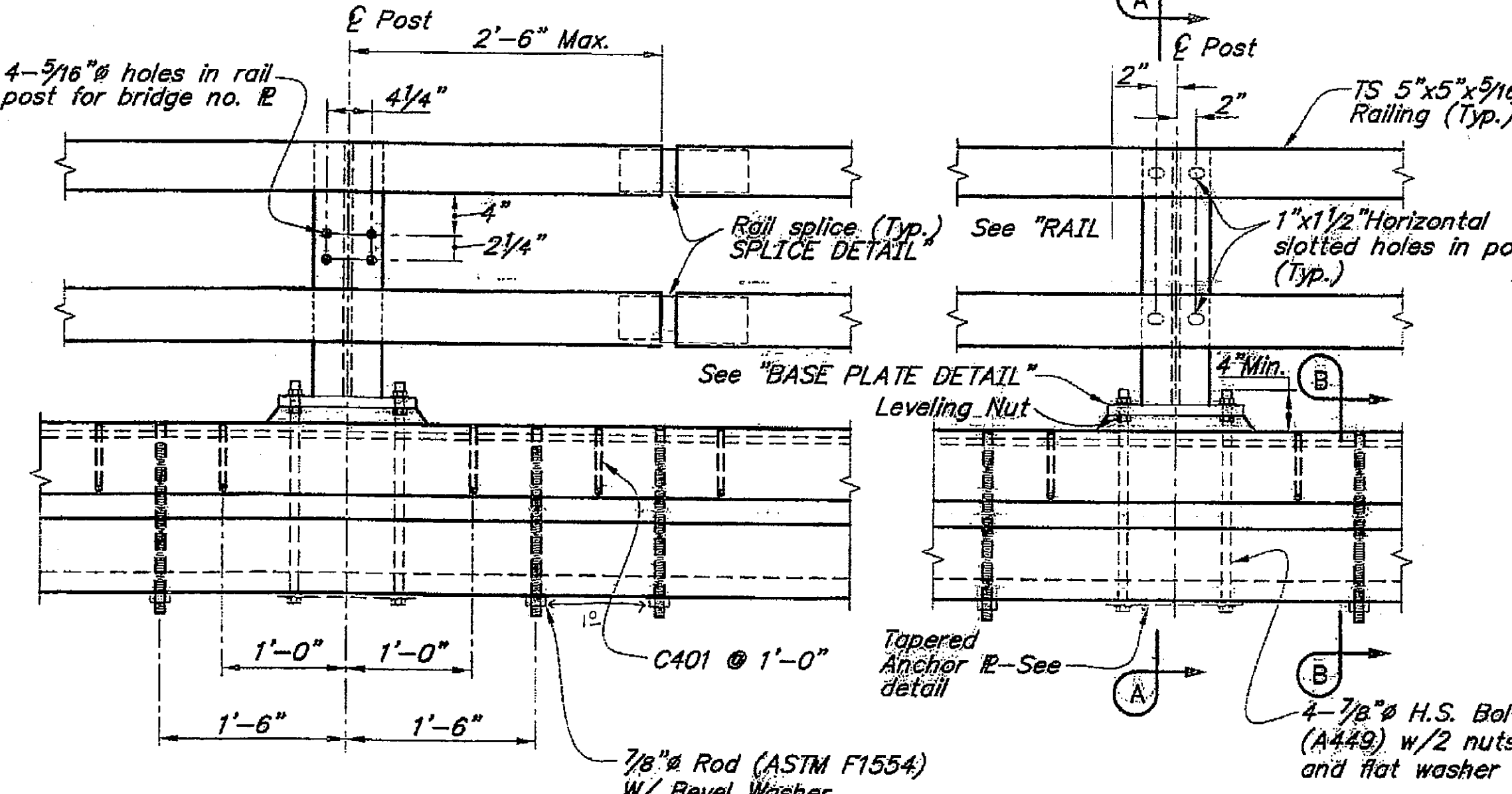
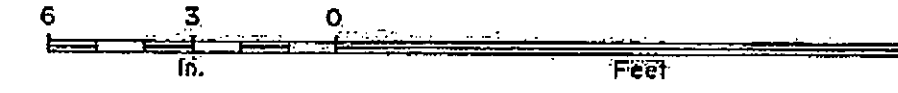
ELEVATION

PLAN

END POST DETAIL

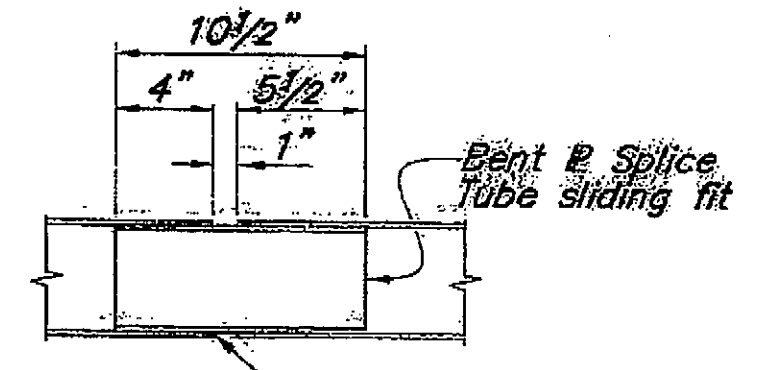
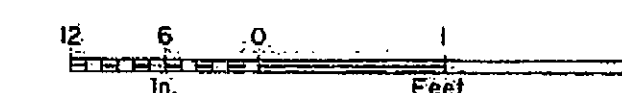
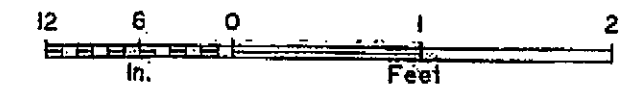


RAILING STUD DETAIL

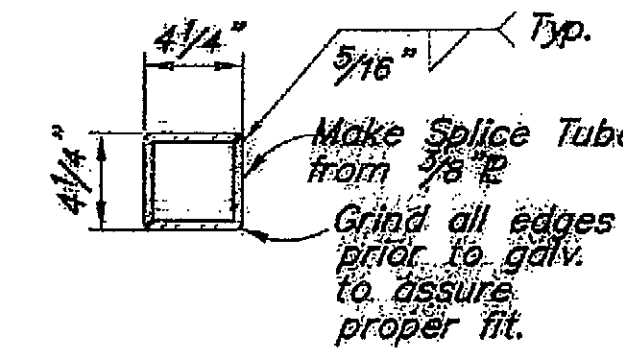


EXPANSION JOINT

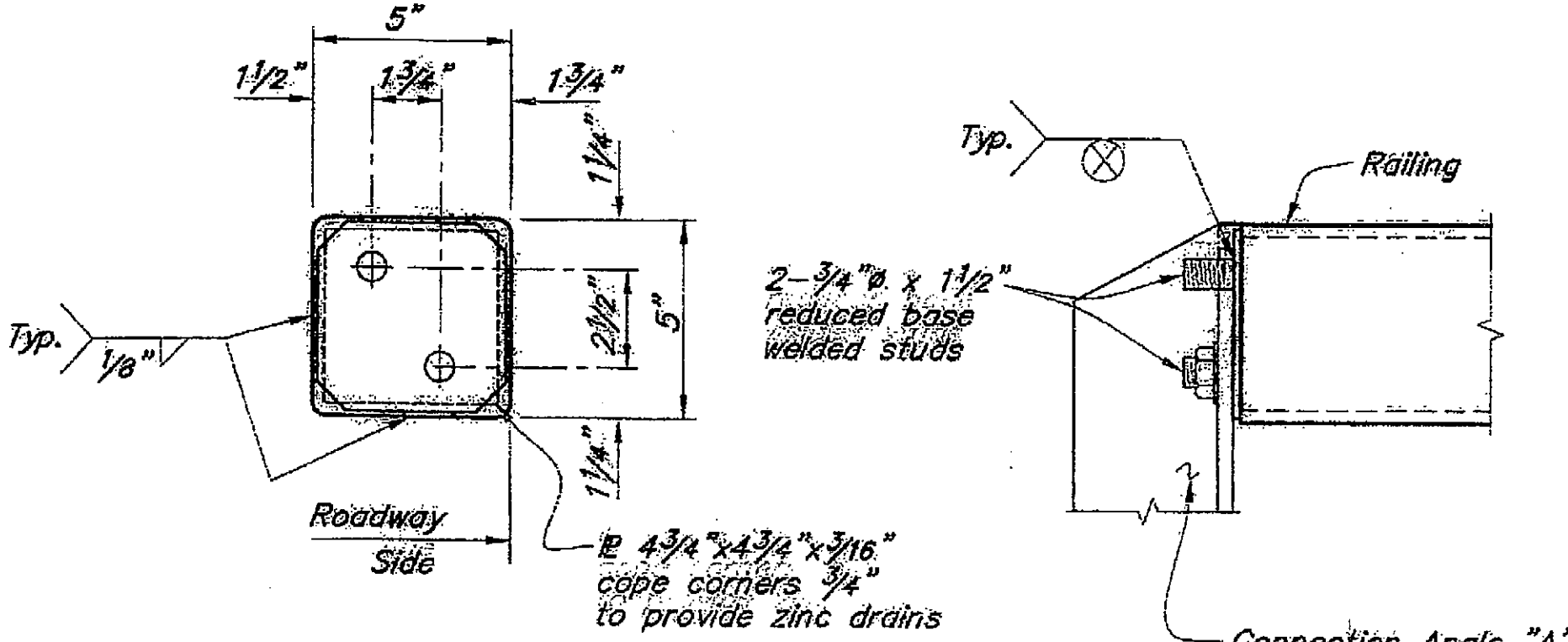
TYPICAL POST ELEVATION



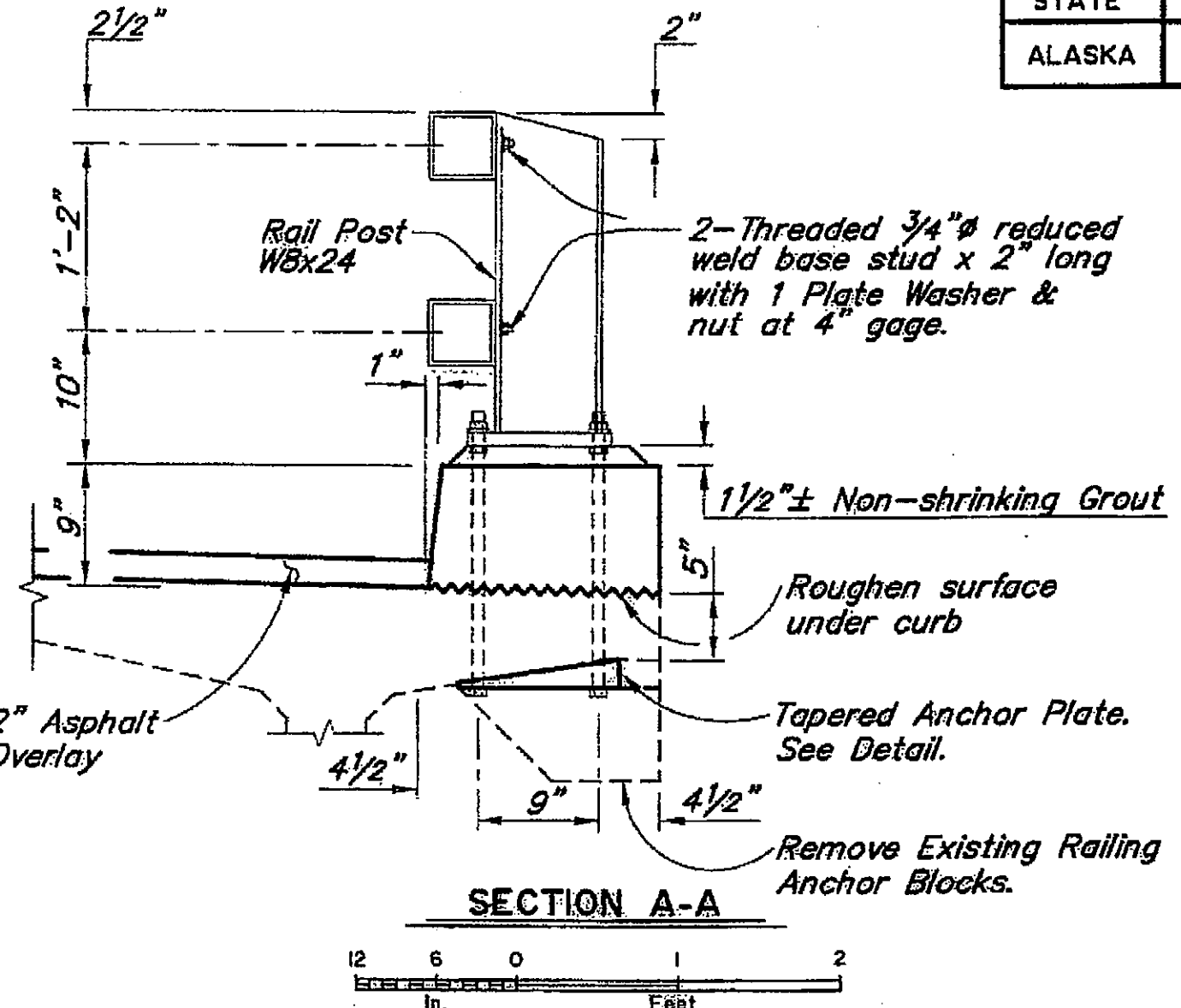
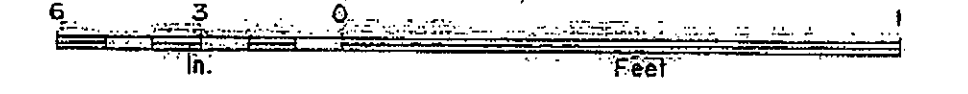
RAIL SPLICE DETAIL



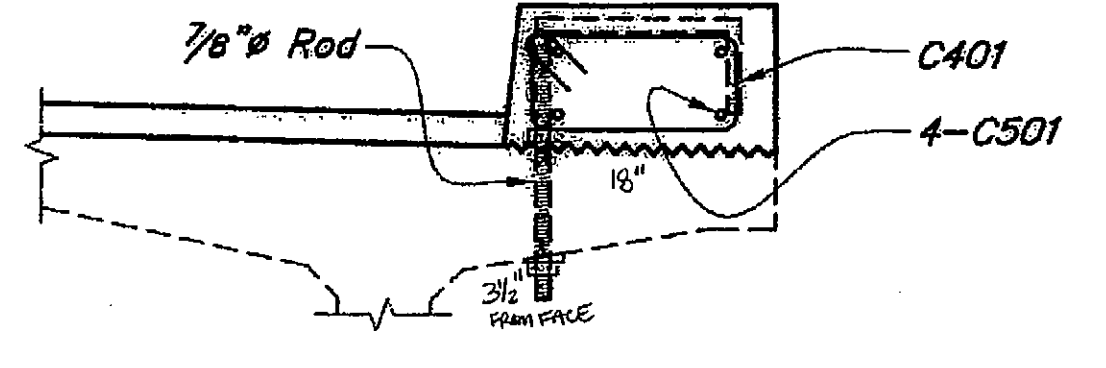
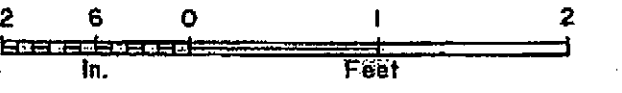
SPLICE TUBE



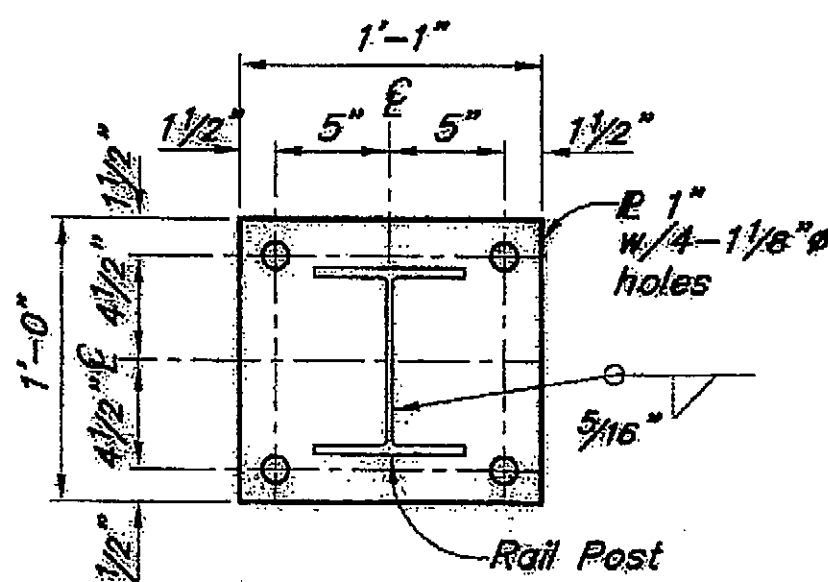
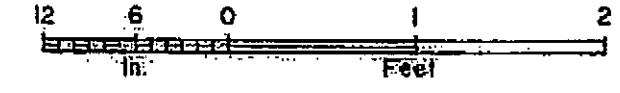
RAIL CAP DETAIL



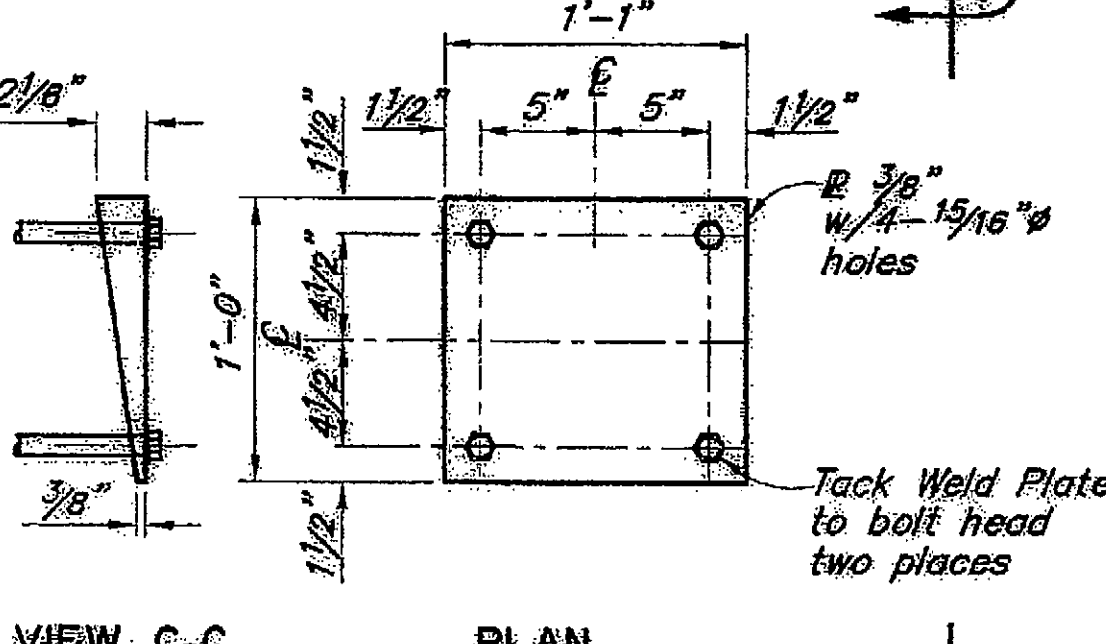
SECTION A-A



SECTION B-B



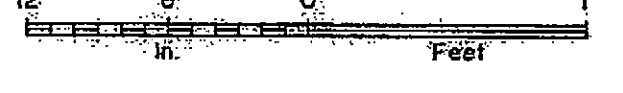
BASE PLATE DETAIL



VIEW C-C

PLAN

TAPERED ANCHOR PLATE DETAIL



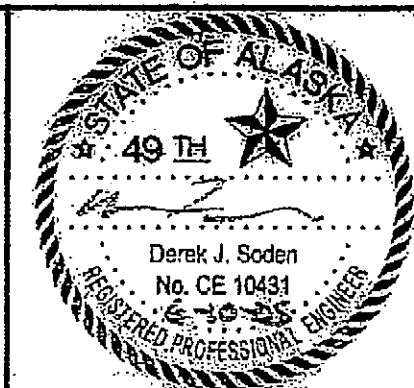
NOTES:

1. Core and Bond Anchor Bolts in 1/8" holes through the existing deck.
2. Provide railing expansion joints at 50'-0" max. intervals. Provide a minimum of 2 rail posts between railing expansion joints.
3. Install all posts plumb.
4. Locate bridge number plates on right hand side of approaching traffic at Ward Cove end. See "TYPICAL SECTION" dwg for number plate location.
5. Remove existing bridge no. plate from second existing railpost at Ward Cove end and attach to new railing with 4-1/4" x 1" ribbed neck carriage bolts with steel tamper proof nuts (McMaster-Carr 90084A029 or equal), galvanized or cadmium plated.
6. Use grout that conforms to ASTM C1107, Grade C, with a minimum 28 day f'c of 9000 psi.
7. See "TYPICAL SECTION" drawing for rail post spacing.
8. See Std. Dwg. G-31.00 for Thrie Beam Transition.

DESIGNED BY: D. Soden	CHECKED: S. Lee
DRAWN BY: R. Grantham	CHECKED: D. Soden
QUANTITIES BY: D. Soden	CHECKED: S. Lee

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION

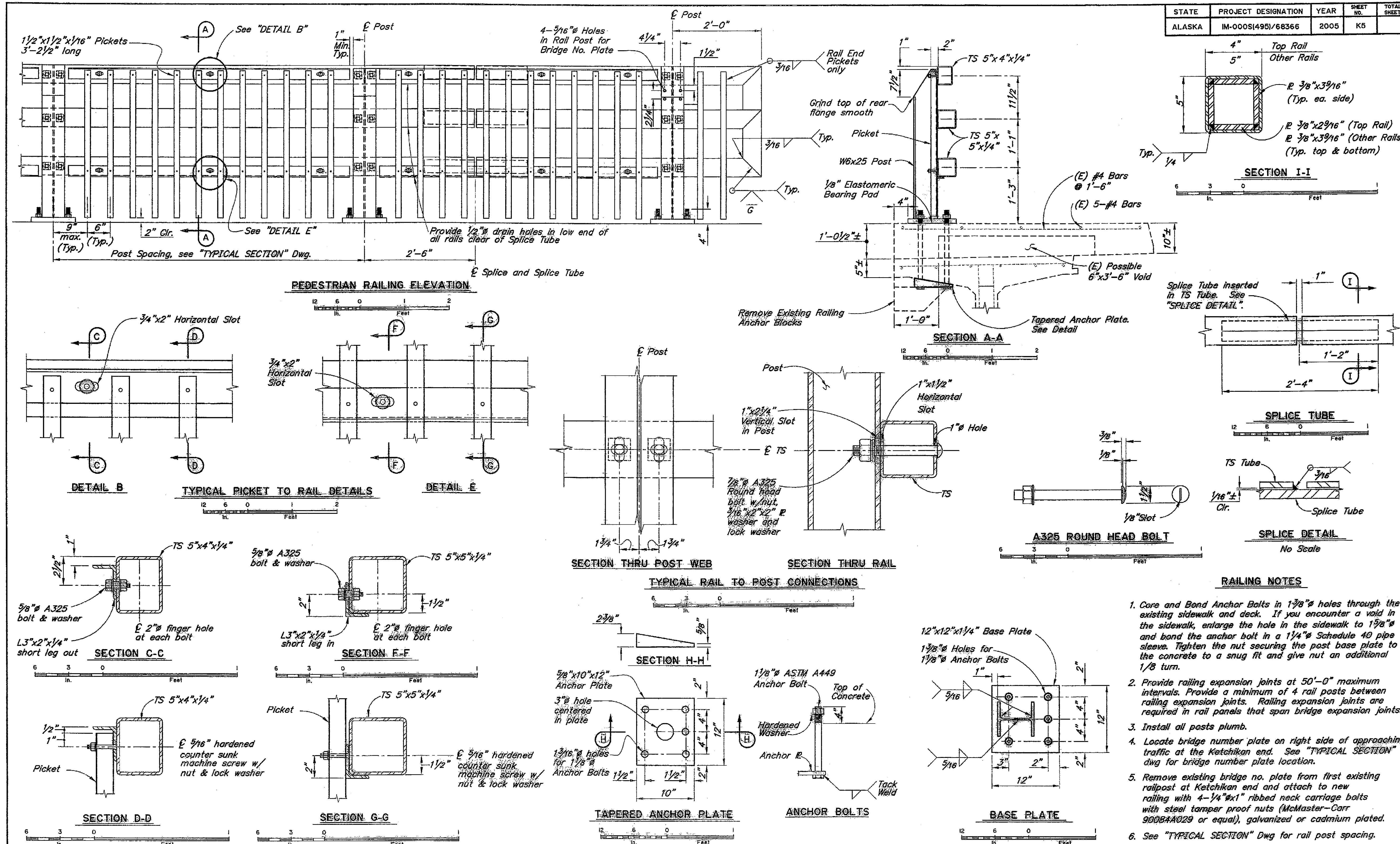


CARLANNA CREEK BRIDGE
NORTH TONGASS HIGHWAY
STEEL BRIDGE RAILING

BRIDGE NO. 749
DWG. NO. 4

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they represent the project as constructed.
Date: 3-3-07

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	IM-000S(495)/68366	2005	K5	



- RAILING NOTES**
1. Core and Bond Anchor Bolts in 1 3/8" holes through the existing sidewalk and deck. If you encounter a void in the sidewalk, enlarge the hole in the sidewalk to 1 3/8" and bond the anchor bolt in a 1 1/4" Schedule 40 pipe sleeve. Tighten the nut securing the post base plate to the concrete to a snug fit and give nut an additional 1/8 turn.
 2. Provide railing expansion joints at 50'-0" maximum intervals. Provide a minimum of 4 rail posts between railing expansion joints. Railing expansion joints are required in rail panels that span bridge expansion joints.
 3. Install all posts plumb.
 4. Locate bridge number plate on right side of approaching traffic at the Ketchikan end. See "TYPICAL SECTION" dwg for bridge number plate location.
 5. Remove existing bridge no. plate from first existing railpost at Ketchikan end and attach to new railing with 4-1/4" x 1" ribbed neck carriage bolts with steel tamper proof nuts (McMaster-Carr 90084A029 or equal), galvanized or cadmium plated.
 6. See "TYPICAL SECTION" Dwg for rail post spacing.

DESIGNED BY: Derek Sober	CHECKED: S. Leo
DRAWN BY: R. Grantham	CHECKED: D. Sober
QUANTITIES BY: D. Sober	CHECKED: S. Leo

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION



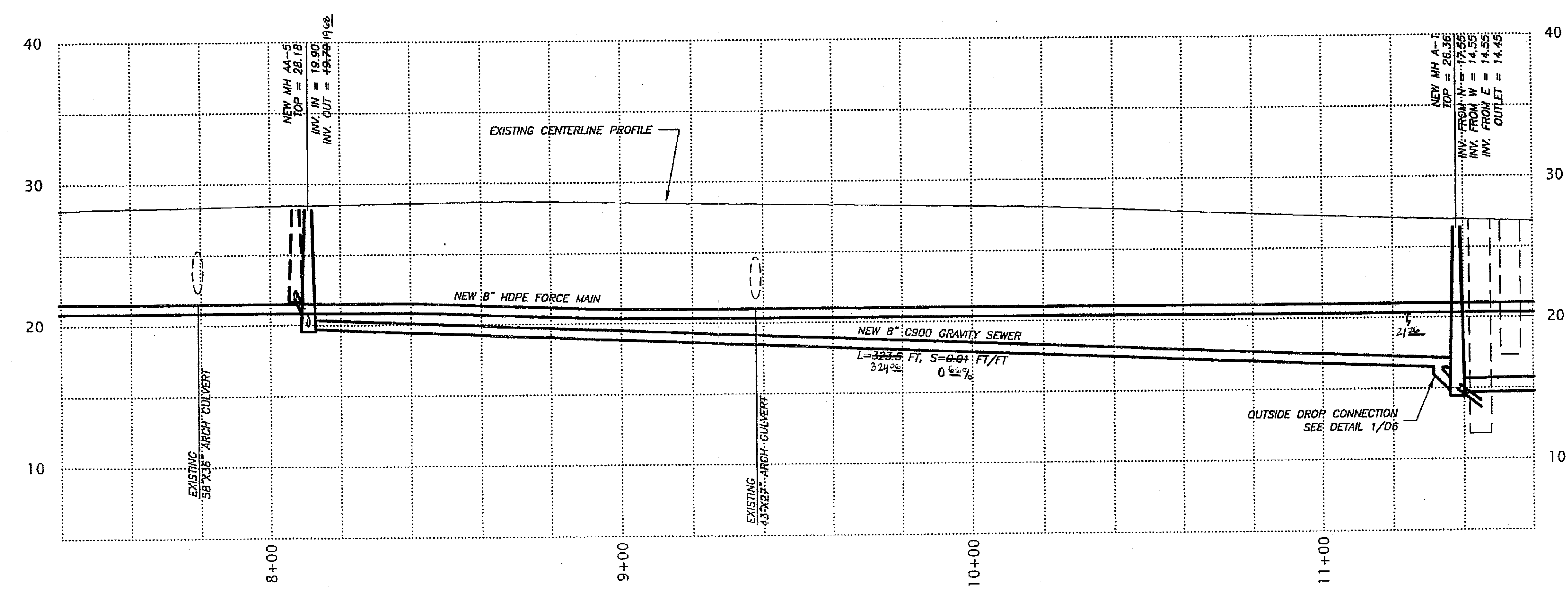
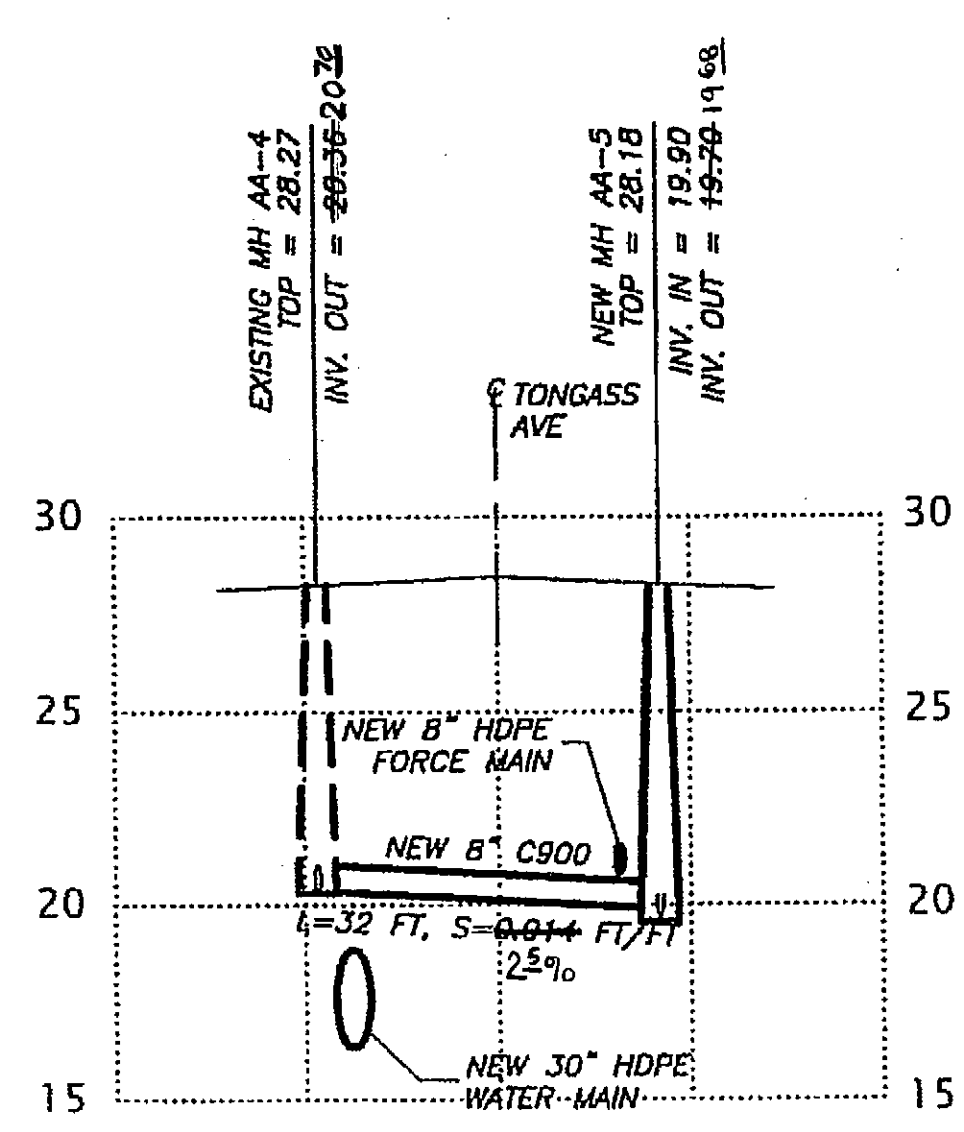
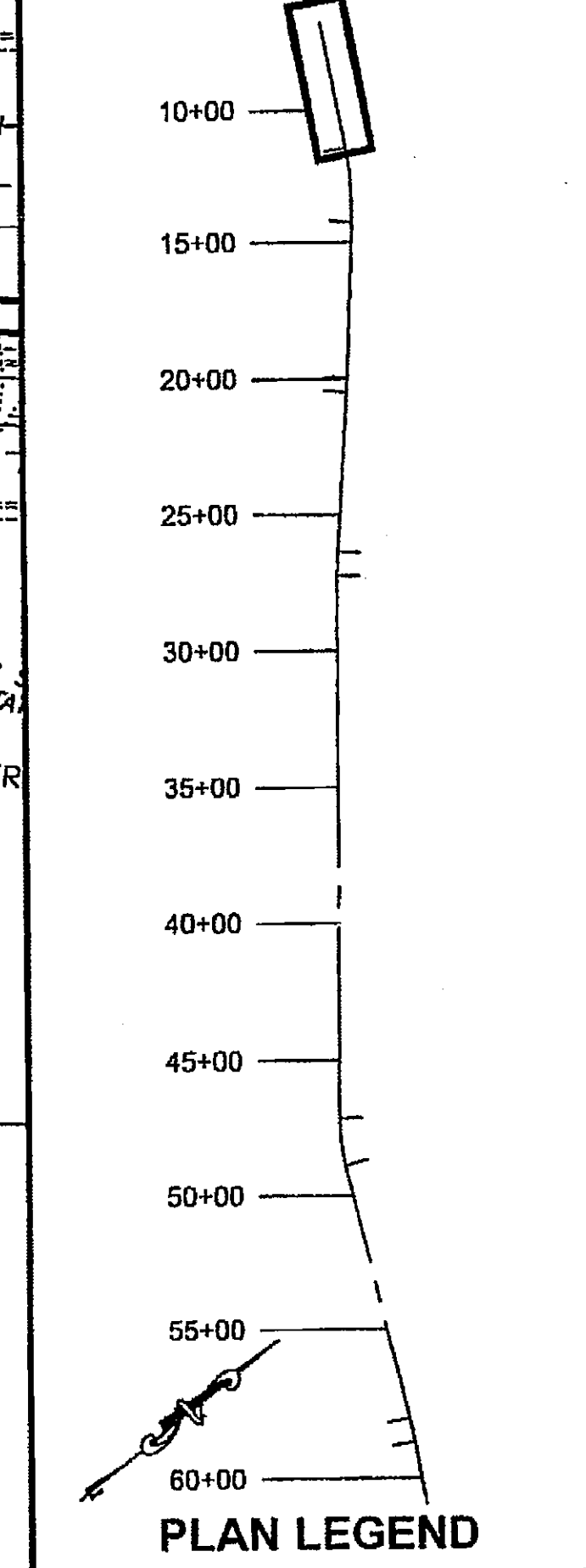
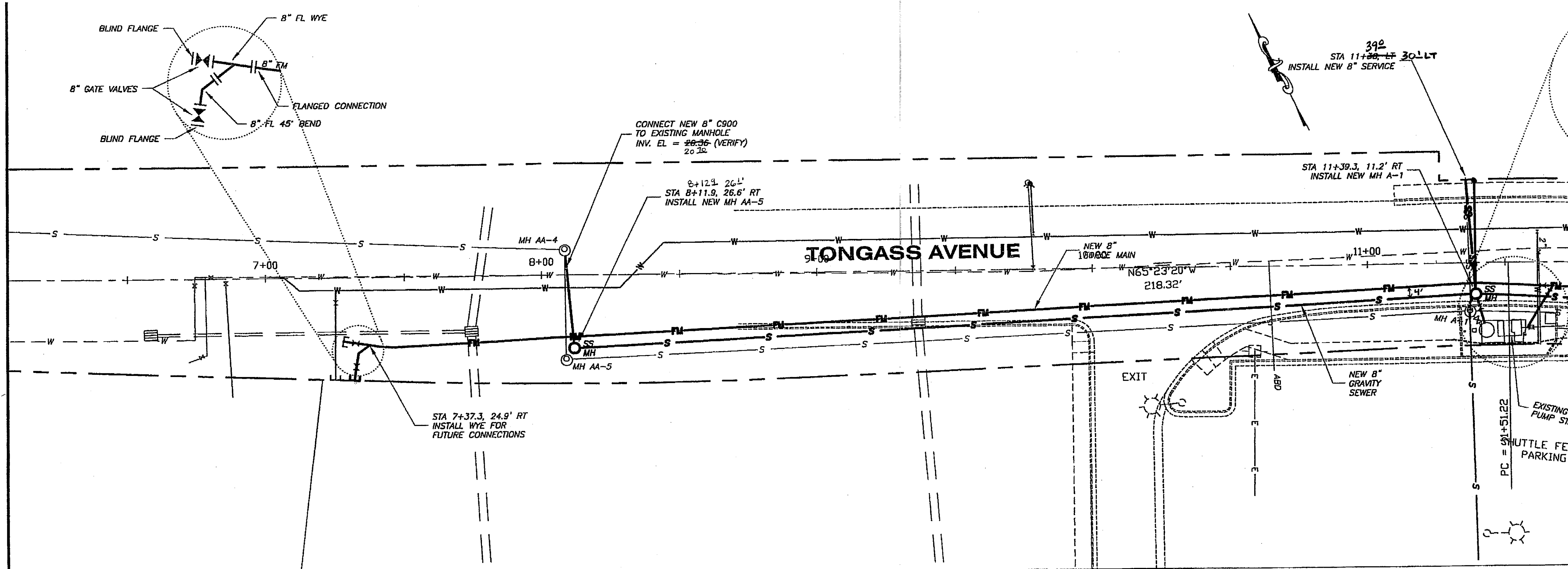
CARLANNA CREEK BRIDGE
NORTH TONGASS HIGHWAY
COMBINATION RAILING

BRIDGE NO. 749
DWG. NO. 5

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they represent the project as constructed.
Date 3-3-07

PATH: Q:\KTN\68381\PLANSET\KREFS\68381-TBP.DWG
 Thursday, December 23, 2004 - 02:03 PM Trevor
 TAB: S1

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.
 Proj. Eng. *[Signature]* Date 3-3-07

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY:

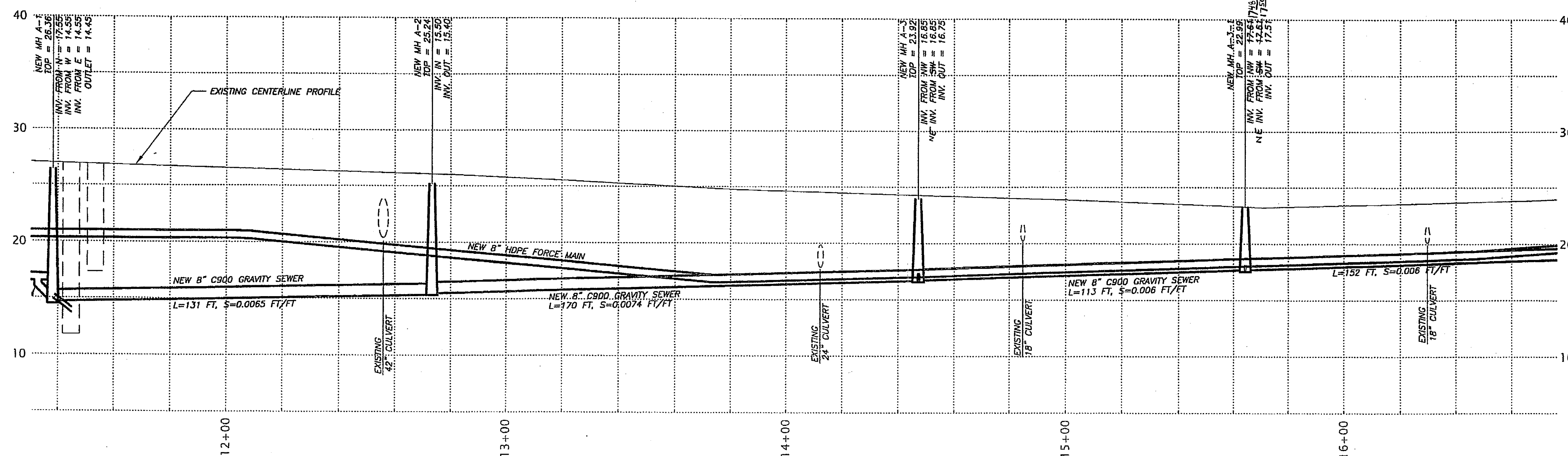
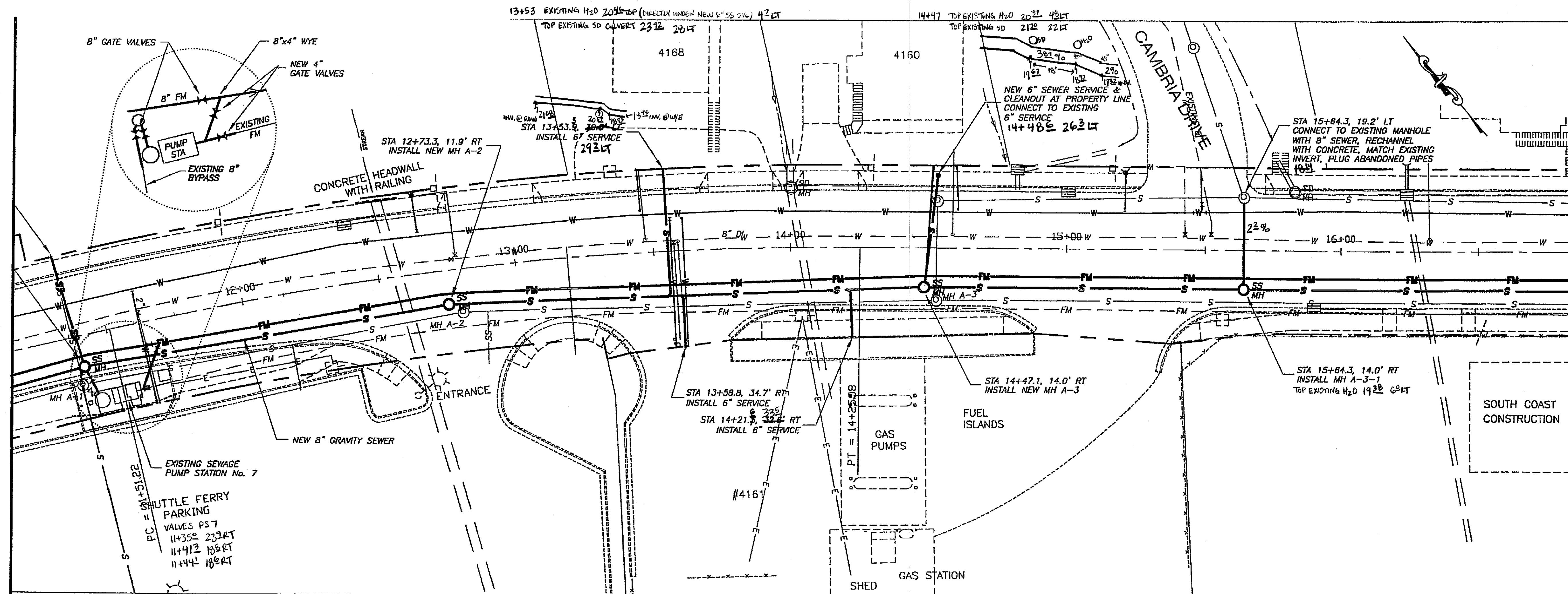
DESIGNED BY: T. SANDE
 DRAWN BY: J. ROBINSON

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
 S.E. REGION DESIGN & ENGINEERING SERVICES

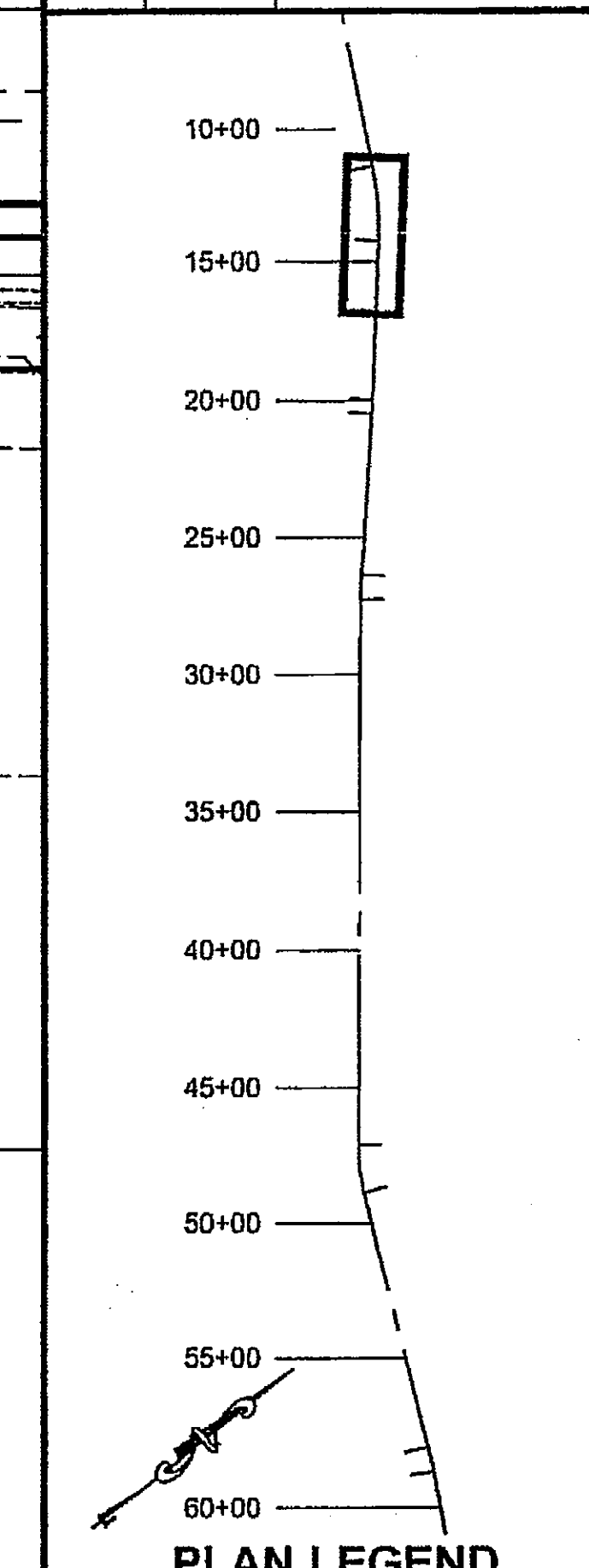
**KETCHIKAN
 TONGASS AVENUE
 RESURFACING
 AIRPORT FERRY TERMINAL TO
 THIRD AVENUE
 PHASE I
 NEW SEWER
 PLAN AND PROFILE**

PROJECT DESIGNATION
RSA 68831

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
S1	



RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY:

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

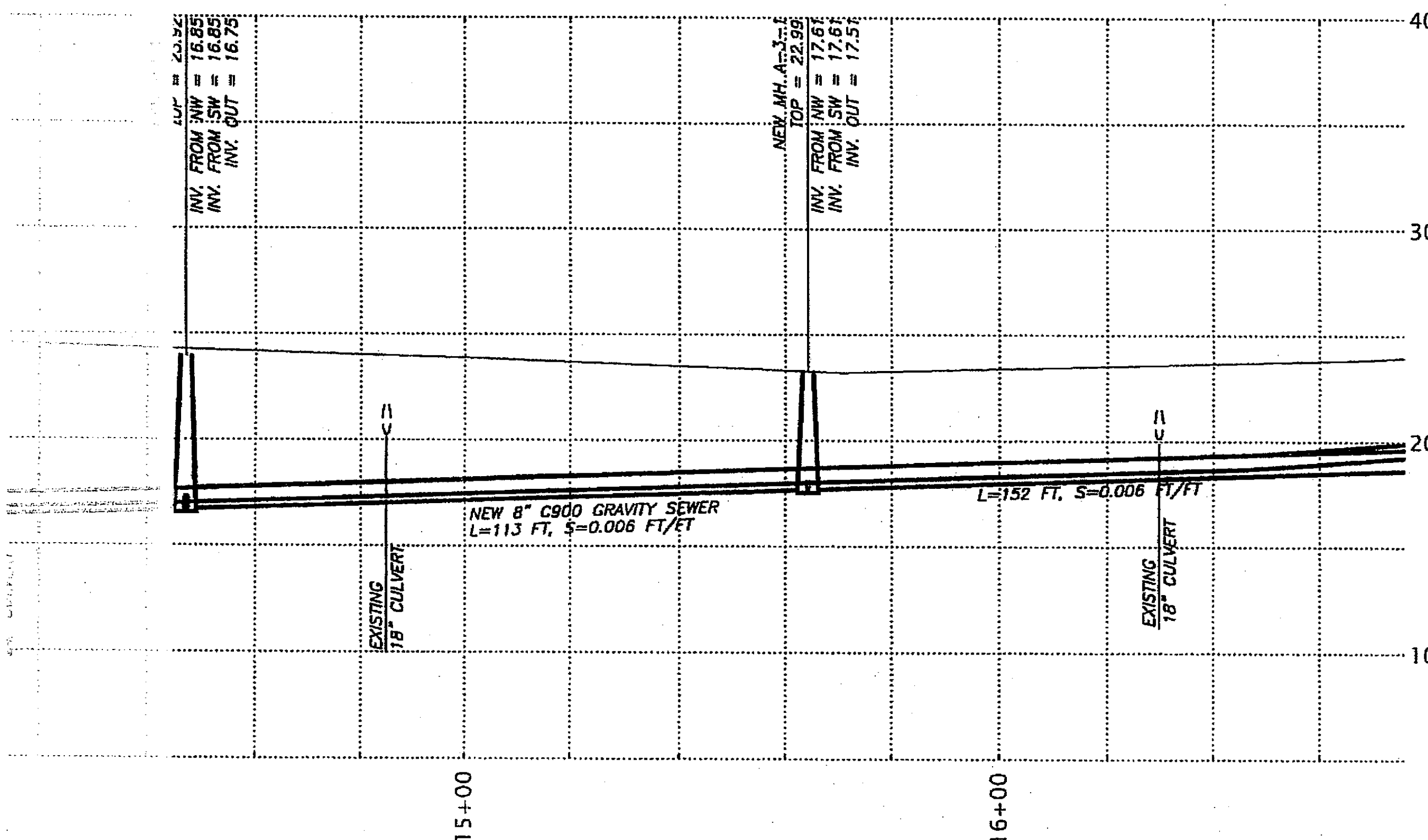
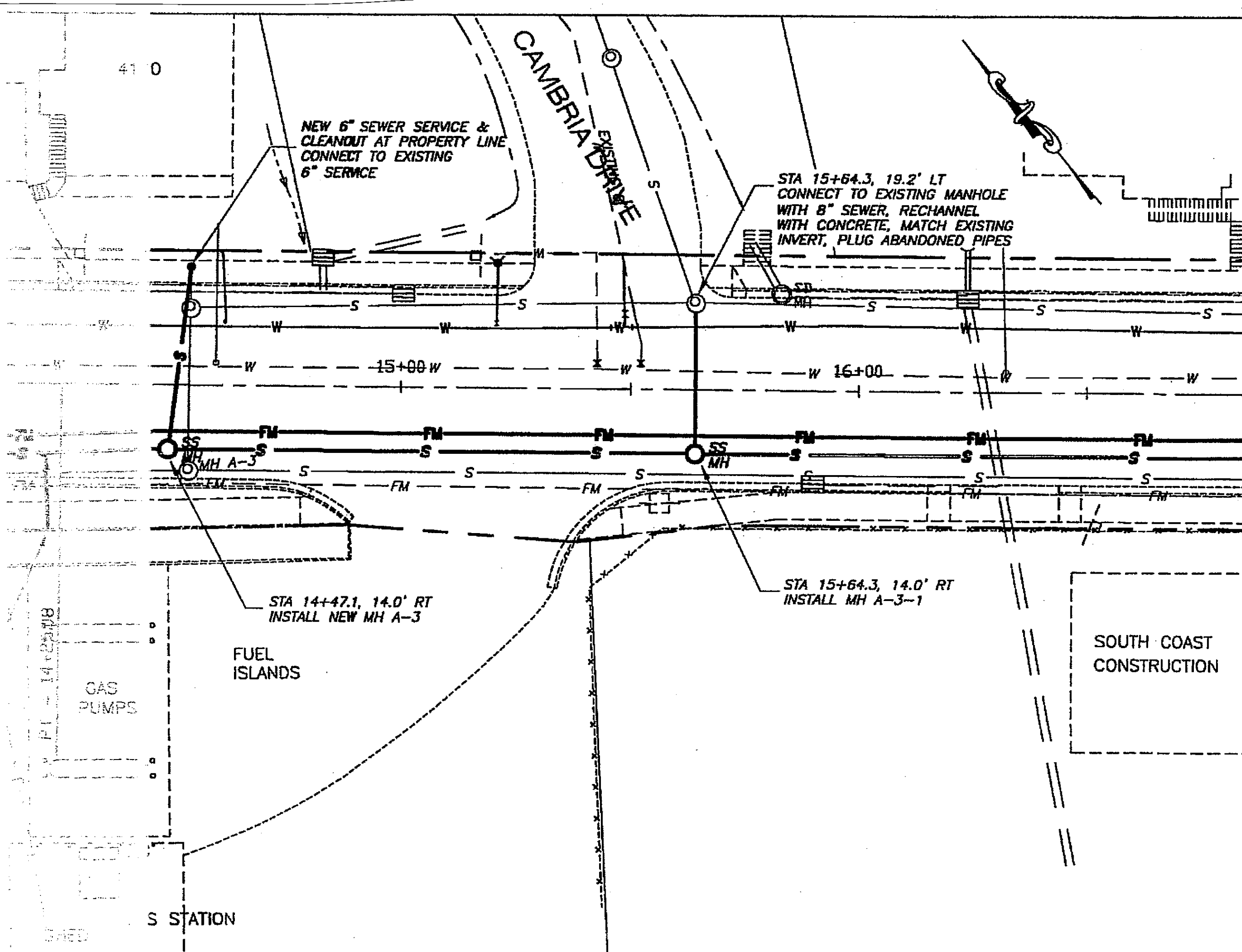
STATE OF ALASKA
49th
TREVOR SANDE
CE 9778
2/19/06

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES
DIVISION
KETCHIKAN
TONGASS AVENUE
RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I
NEW SEWER
PLAN AND PROFILE

PROJECT DESIGNATION
RSA 68831

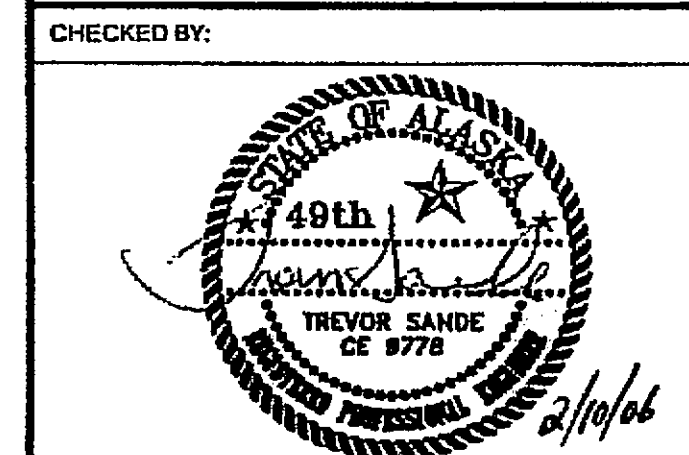
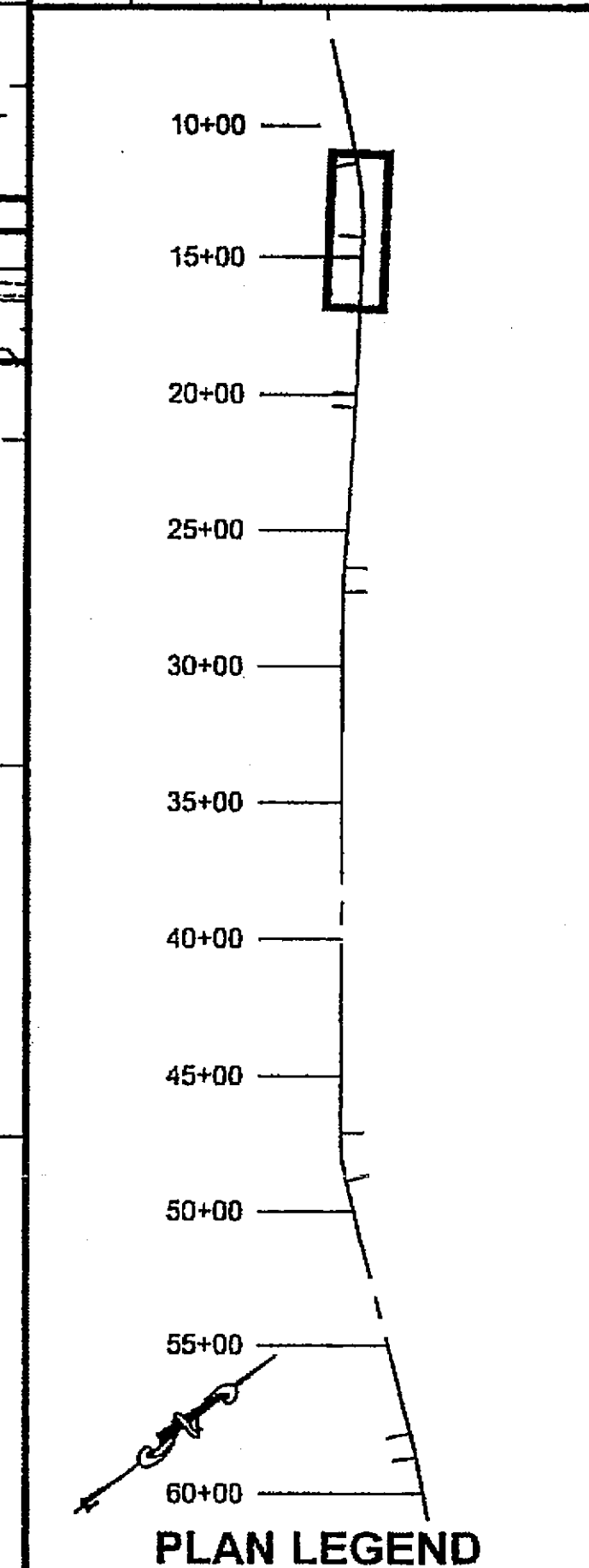
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
S2	

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



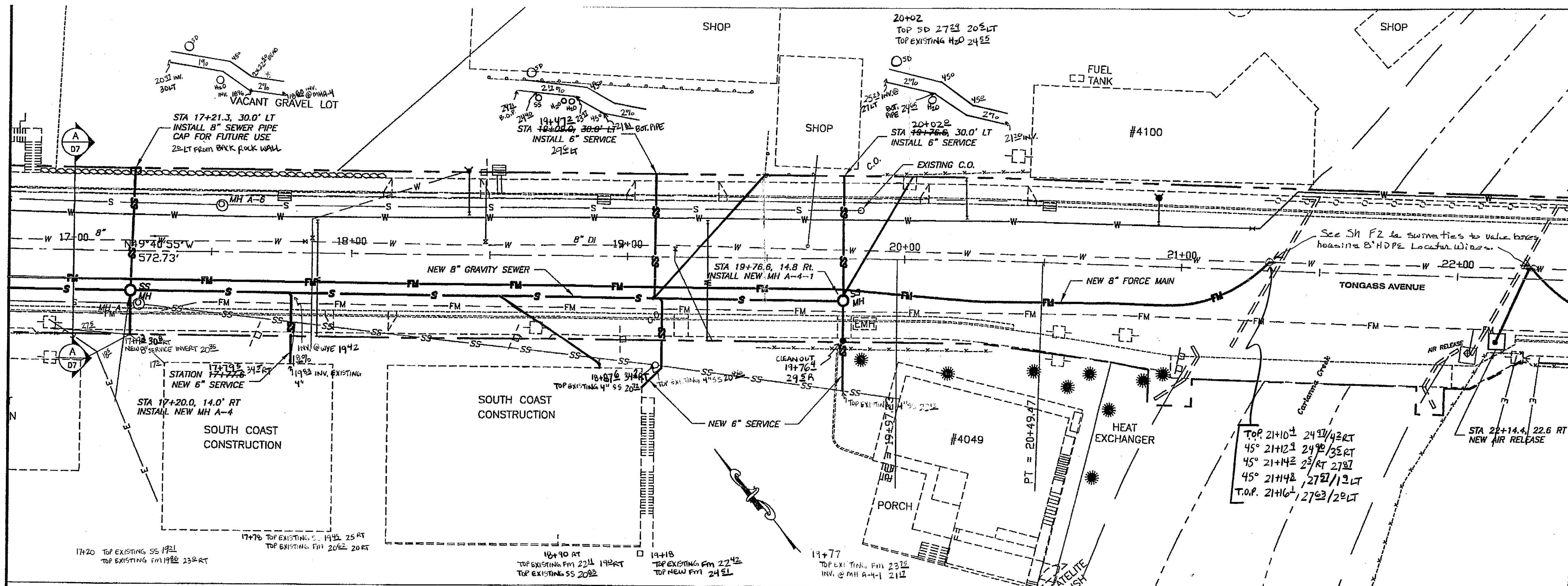
DESIGNED BY: T. SANDE
 DRAWN BY: J. ROBINSON

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 & PUBLIC FACILITIES
 S.E. REGION DESIGN & ENGINEERING SERVICES
 DIVISION
KETCHIKAN
TONGASS AVENUE
RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I
NEW SEWER
PLAN AND PROFILE

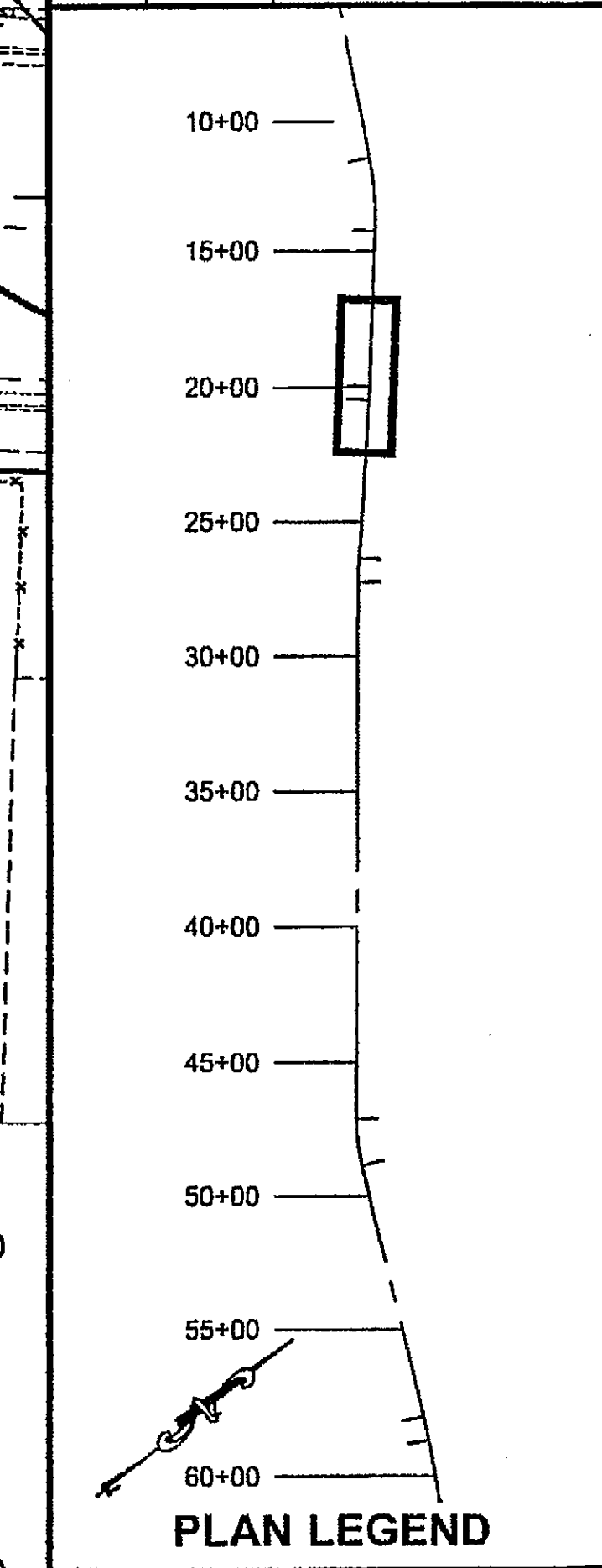
PROJECT DESIGNATION	
RSA 68831	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
S2	

17+21
TOP EXISTING H₂O 2002 43.17
TOP 10" SD 23.22 21.12
TOP EXISTING SS 19.22

19+49
TOP EXISTING H₂O 23.22 [MAIN @ 19+20 & SERVICE @ 19+27]
TOP EXISTING SS 24.12 19+40 17.12
TOP STORM DRAIN 26.00 19+42 21.12
TOP EXISTING 2" (CONDUIT) 24.12 27.12



RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY:

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES
DIVISION
KETCHIKAN
TONGASS AVENUE
RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I
NEW SEWER
PLAN AND PROFILE

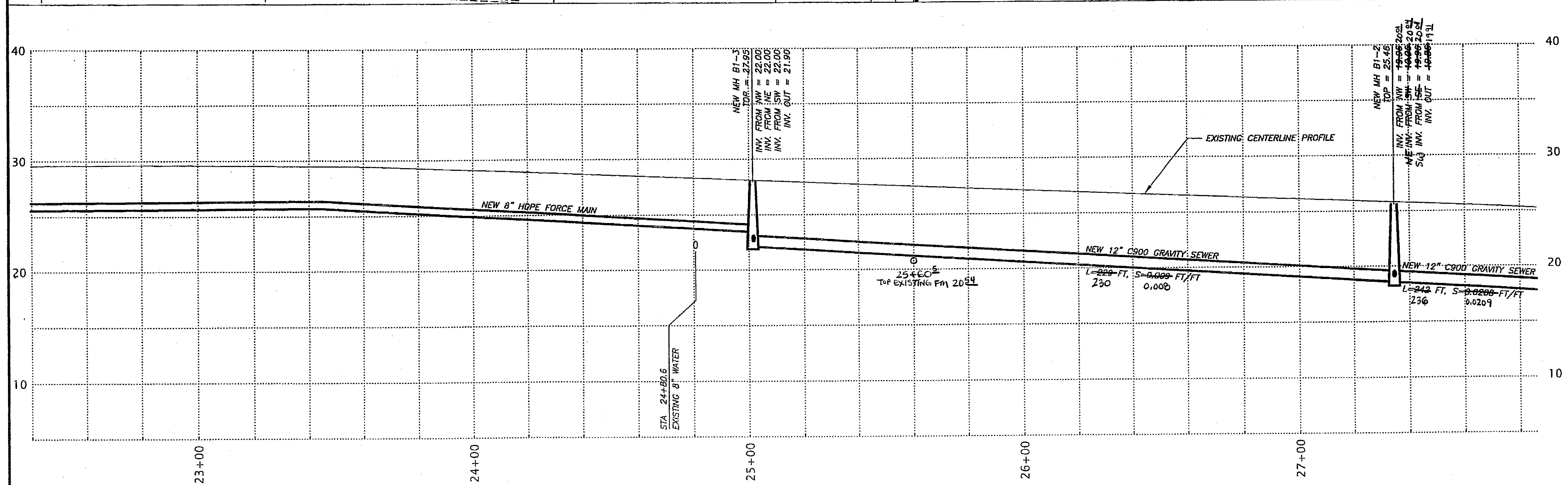
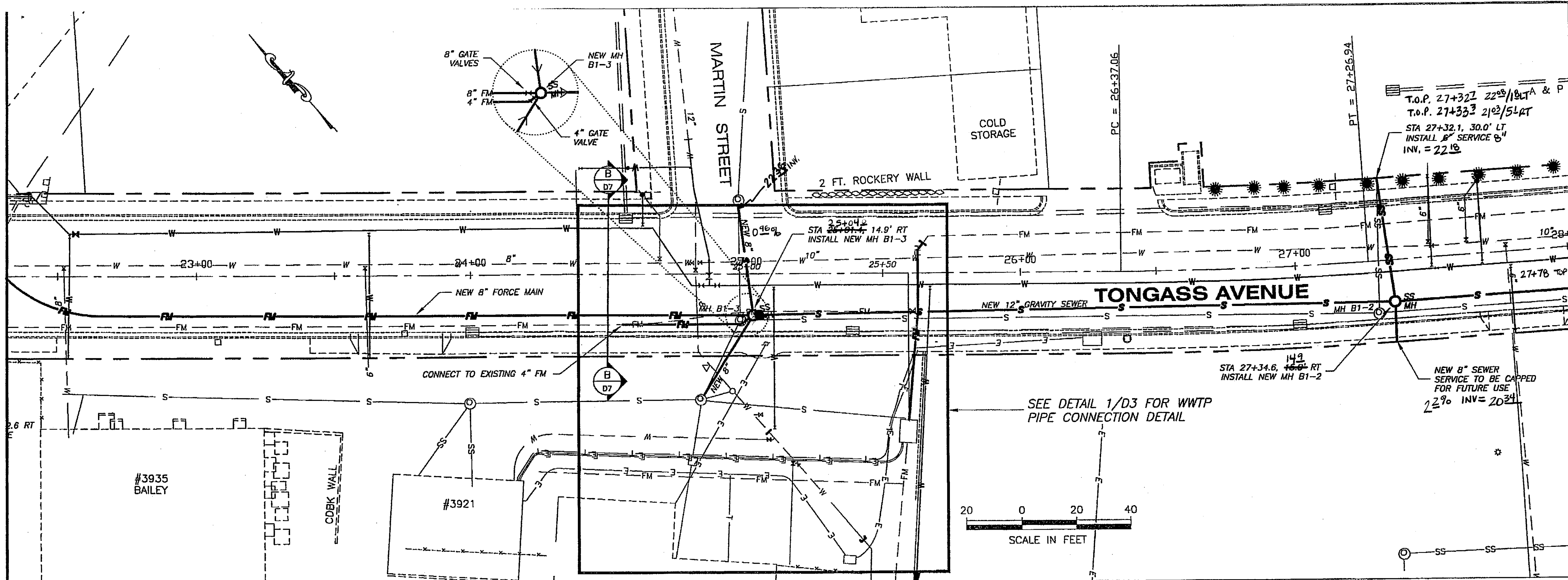
PROJECT DESIGNATION
RSA 68831

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
S3	

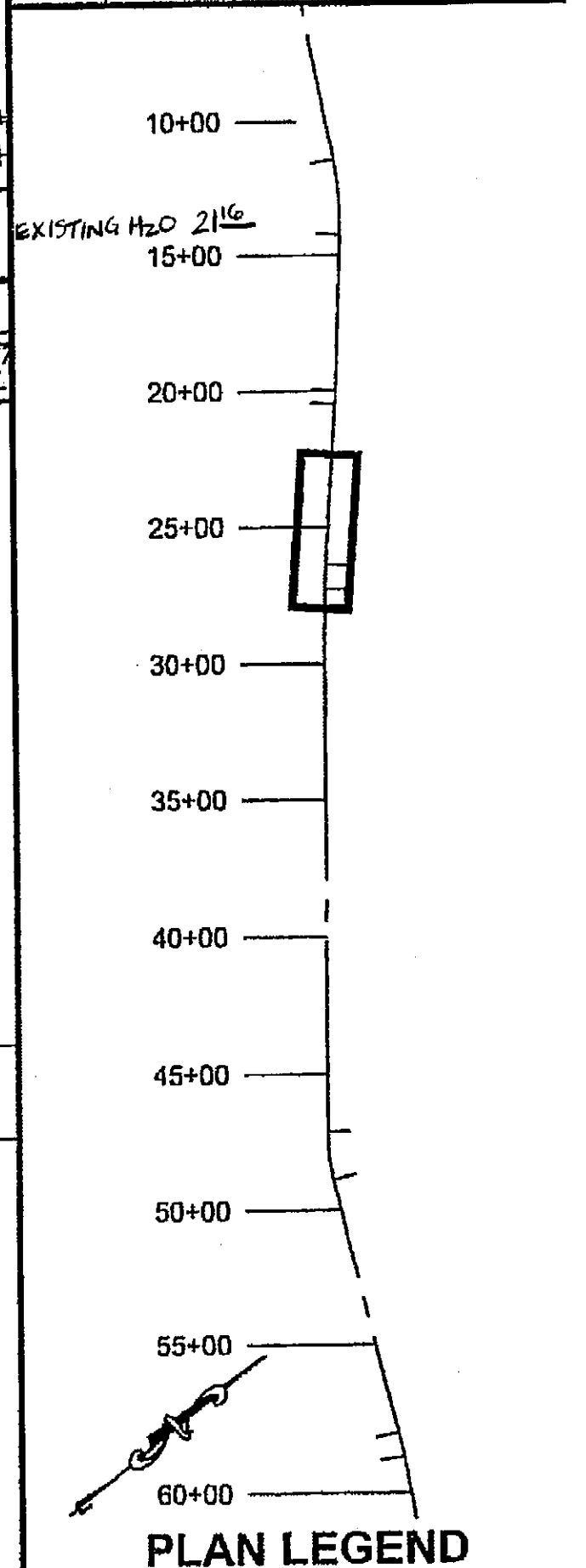
Project As Built Drawings have been reviewed by the Project Engineer. To the best of his/her knowledge, they represent the project as constructed.

Print Date: 3-3-09
Date:

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RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY:

DESIGNED BY: T. SANDE
 DRAWN BY: J. ROBINSON

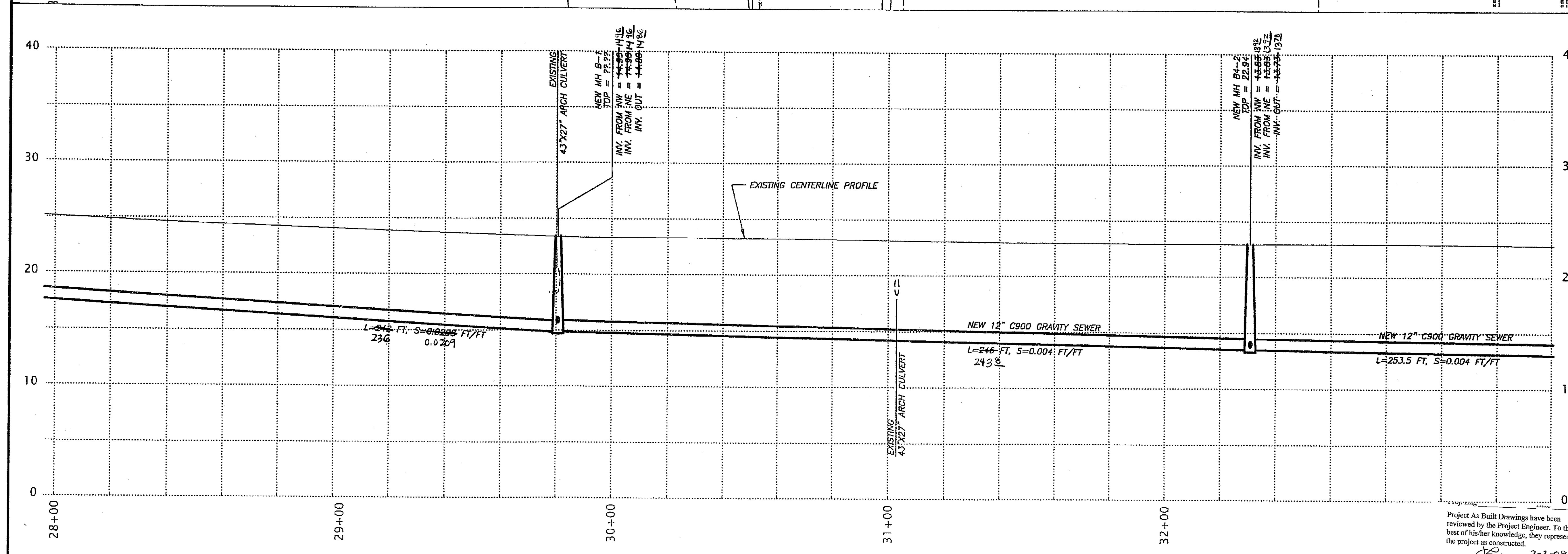
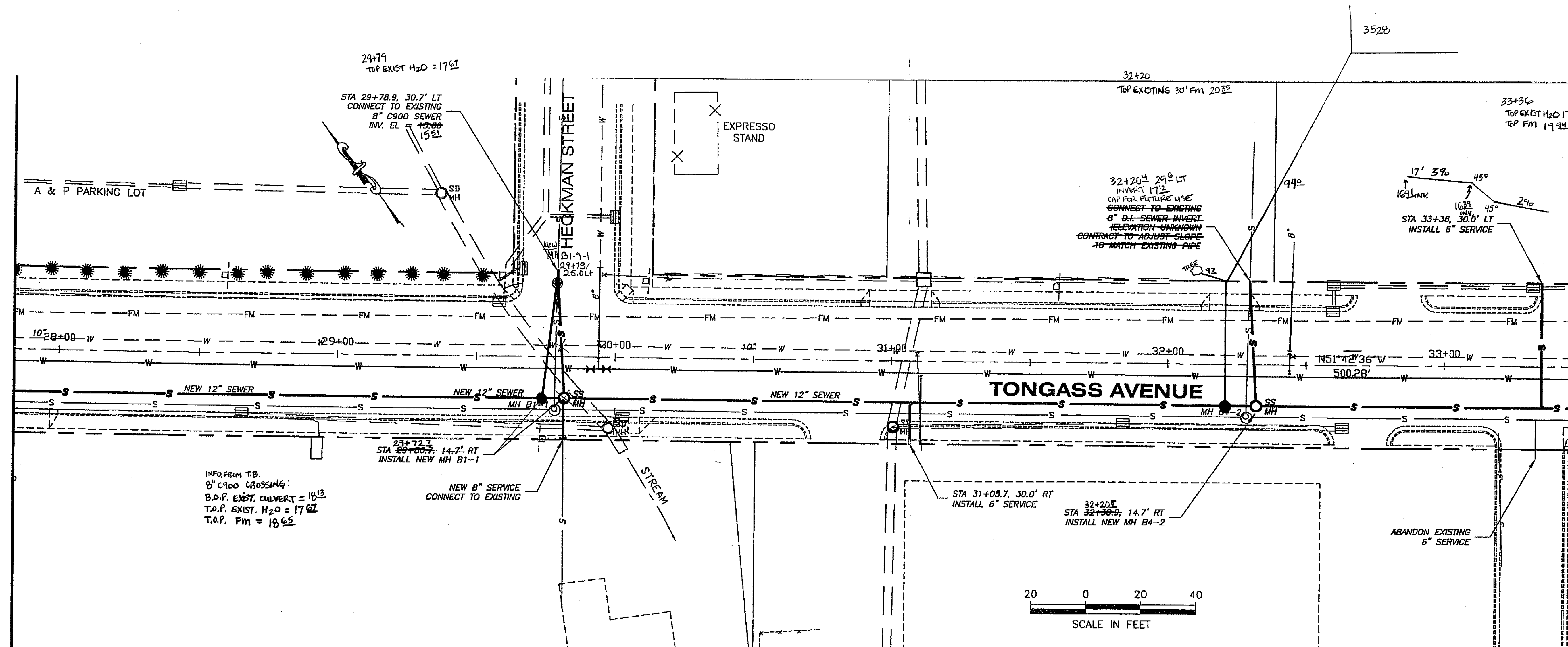
STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 & PUBLIC FACILITIES
 S.E. REGION DESIGN & ENGINEERING SERVICES
 DIVISION

**KETCHIKAN
 TONGASS AVENUE
 RESURFACING
 AIRPORT FERRY TERMINAL TO
 THIRD AVENUE
 PHASE I
 NEW SEWER
 PLAN AND PROFILE**

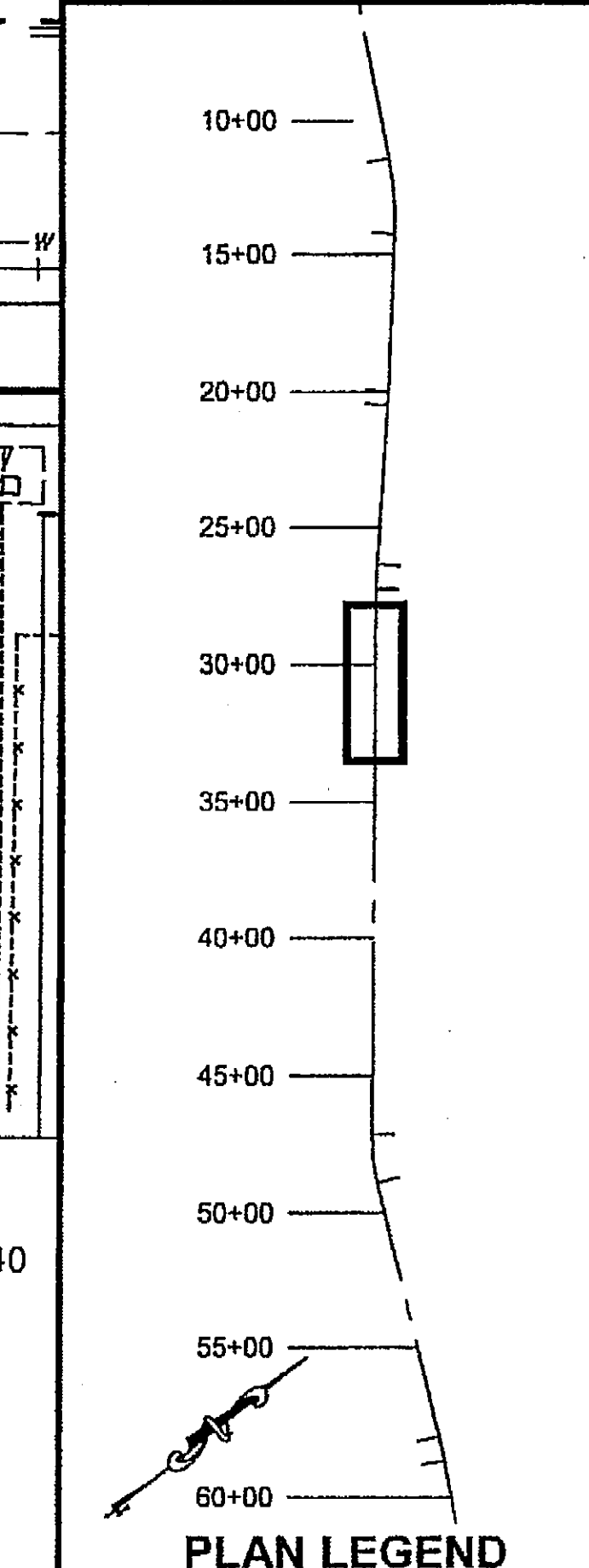
PROJECT DESIGNATION
RSA 68831

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
S4	

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY:

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

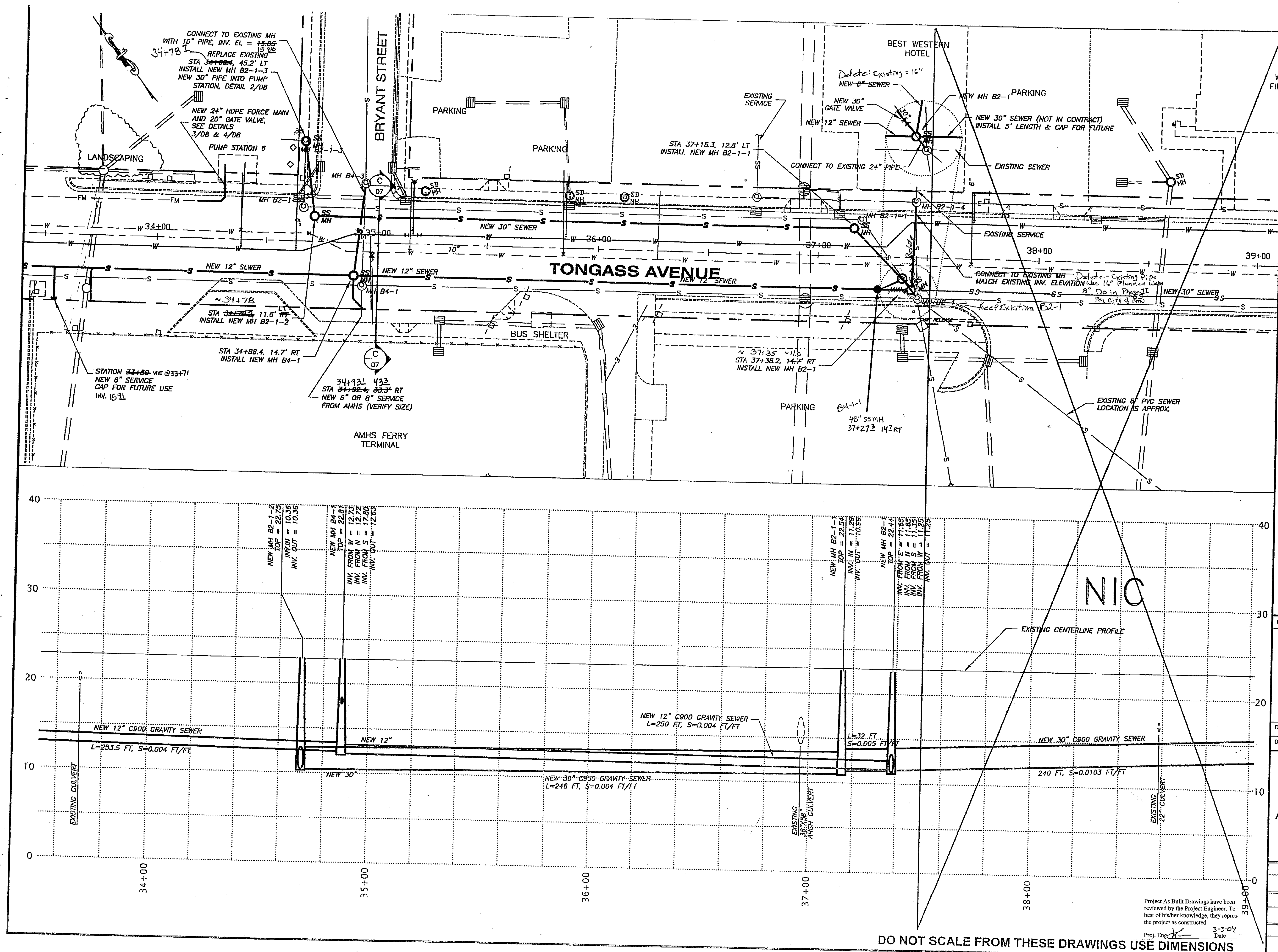
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES
DIVISION

KETCHIKAN
TONGASS AVENUE
RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I
NEW SEWER
PLAN AND PROFILE

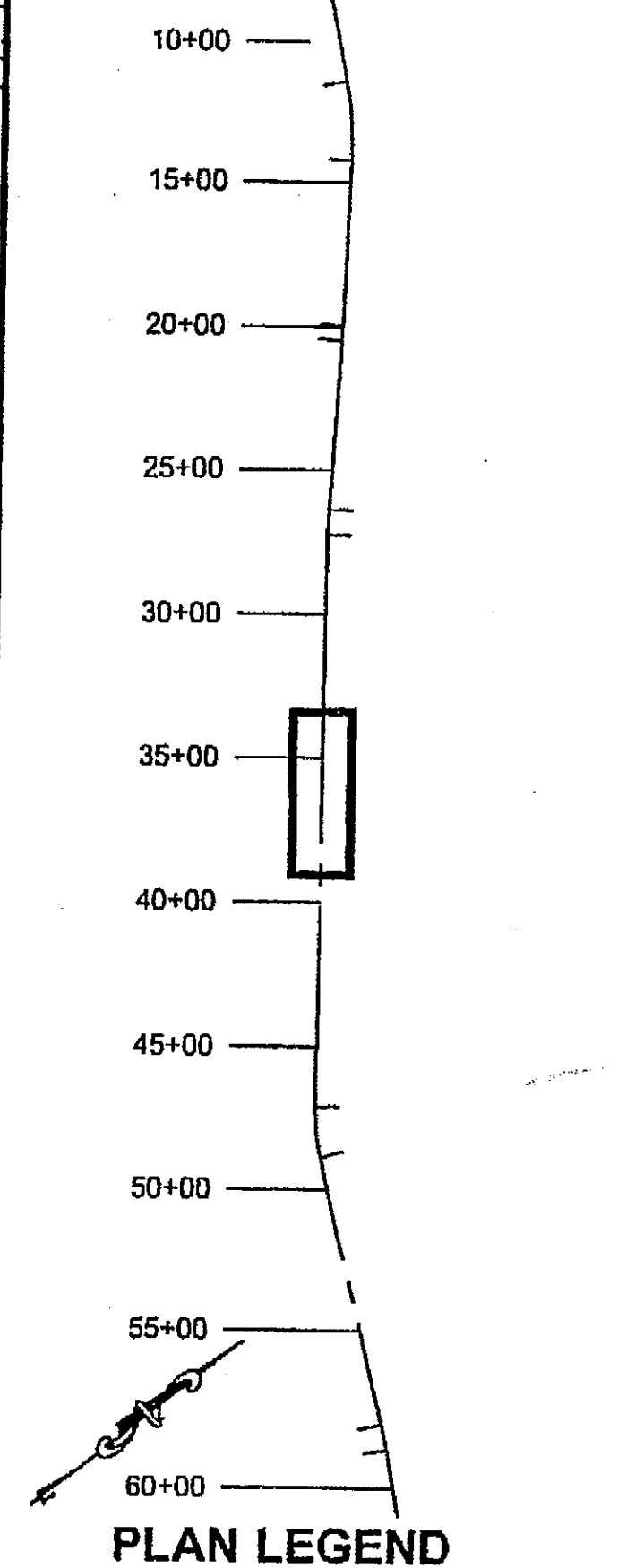
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RSA 68831

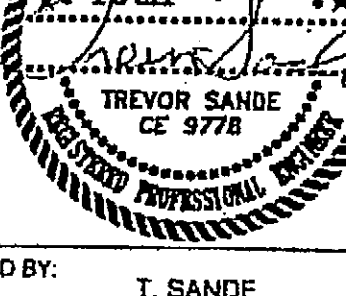
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
S5	

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

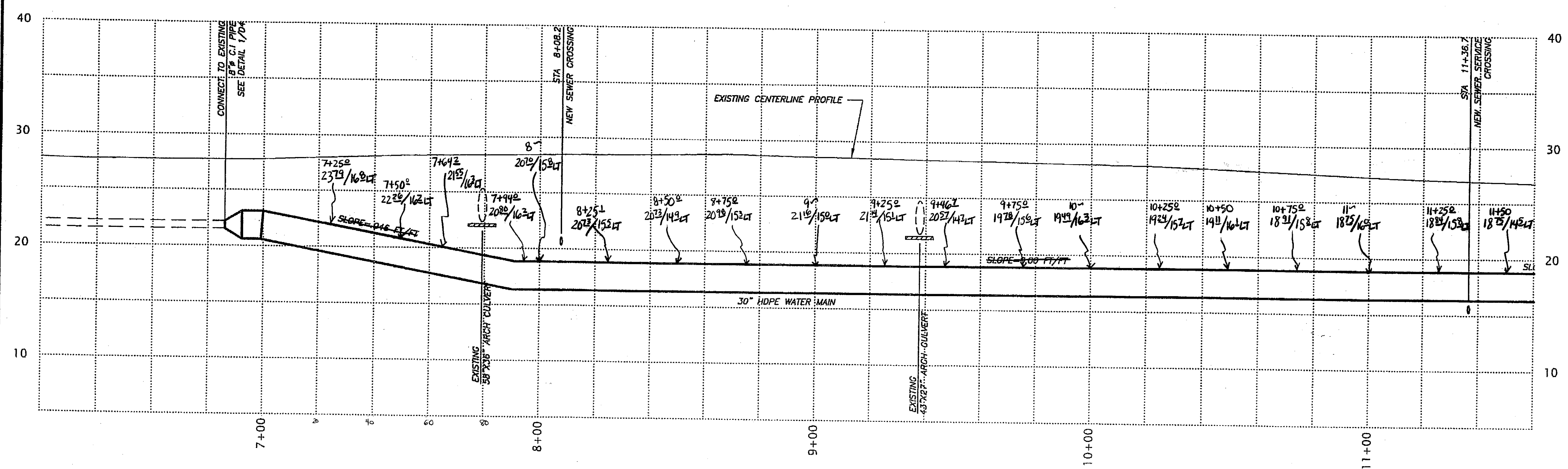
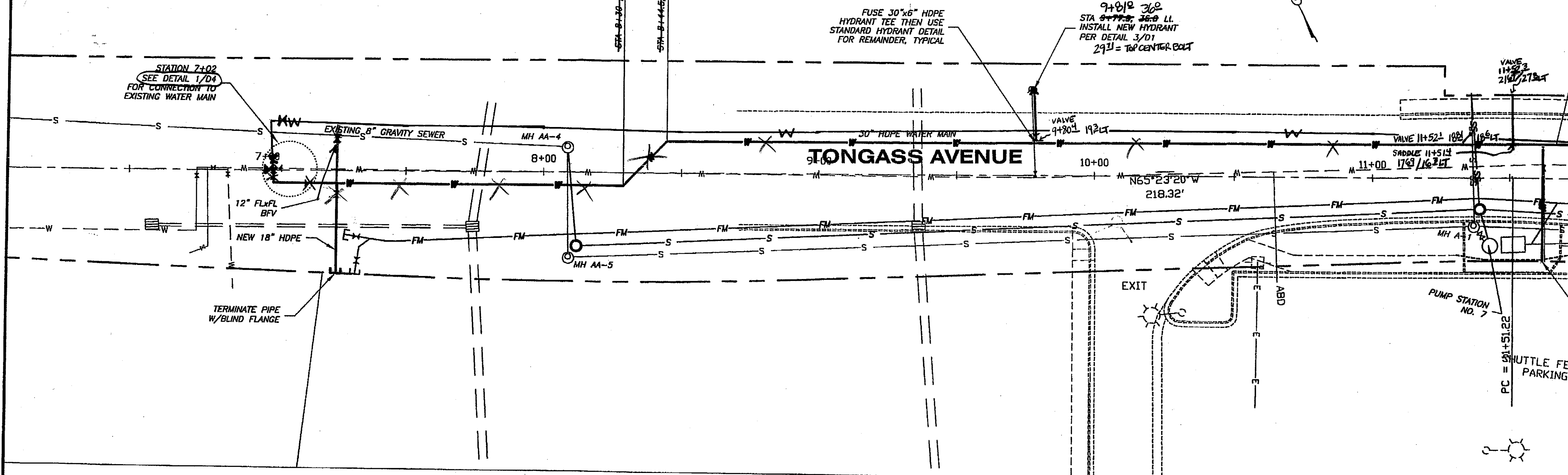


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No.	DATE	DESCRIPTION

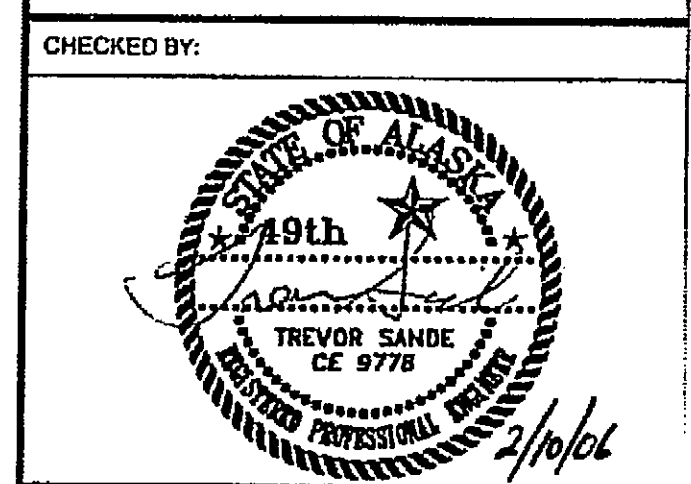
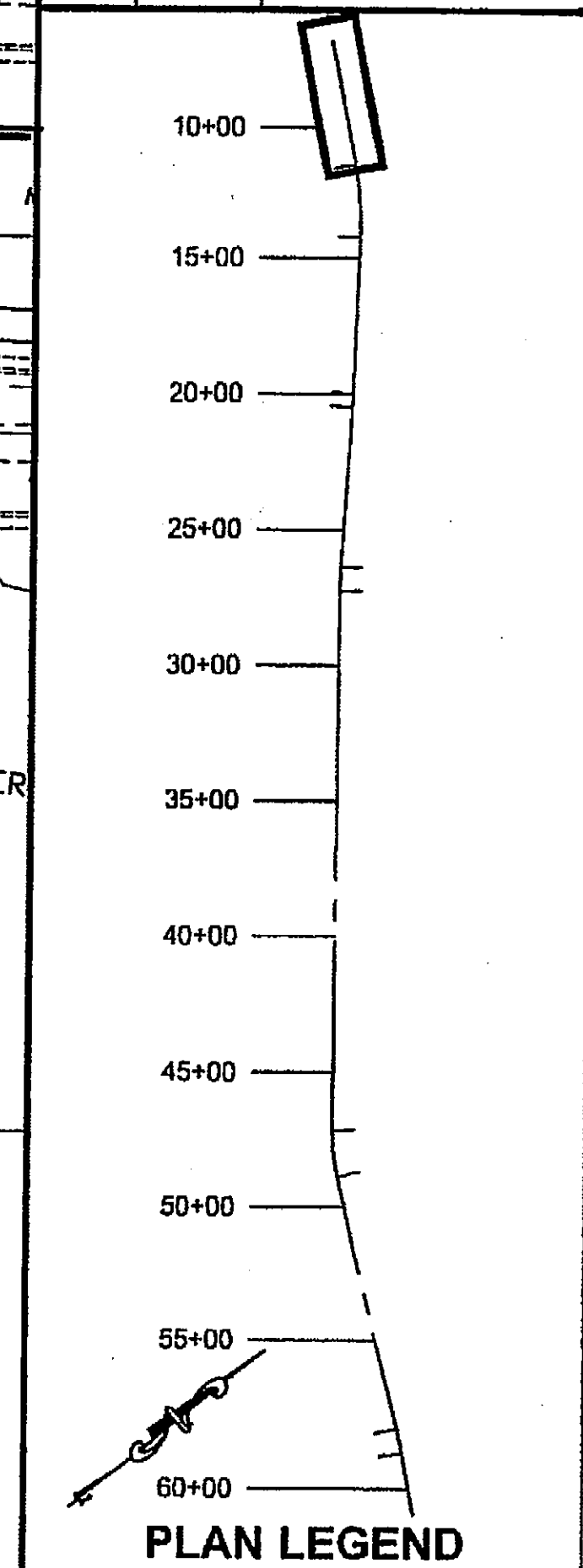


CHECKED BY: _____	
	
DESIGNED BY: _____	
T. SANDE	
DRAWN BY: _____	
J. ROBINSON	
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION KETCHIKAN TONGASS AVENUE RESURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE PHASE I NEW SEWER PLAN AND PROFILE	
PROJECT DESIGNATION	
RSA 68831	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
S6	

NOTE: 30" HDPE Alignment shifted to ~15' LT. BOP to M1+50 to Allow for 2-Way Traffic during Construction.



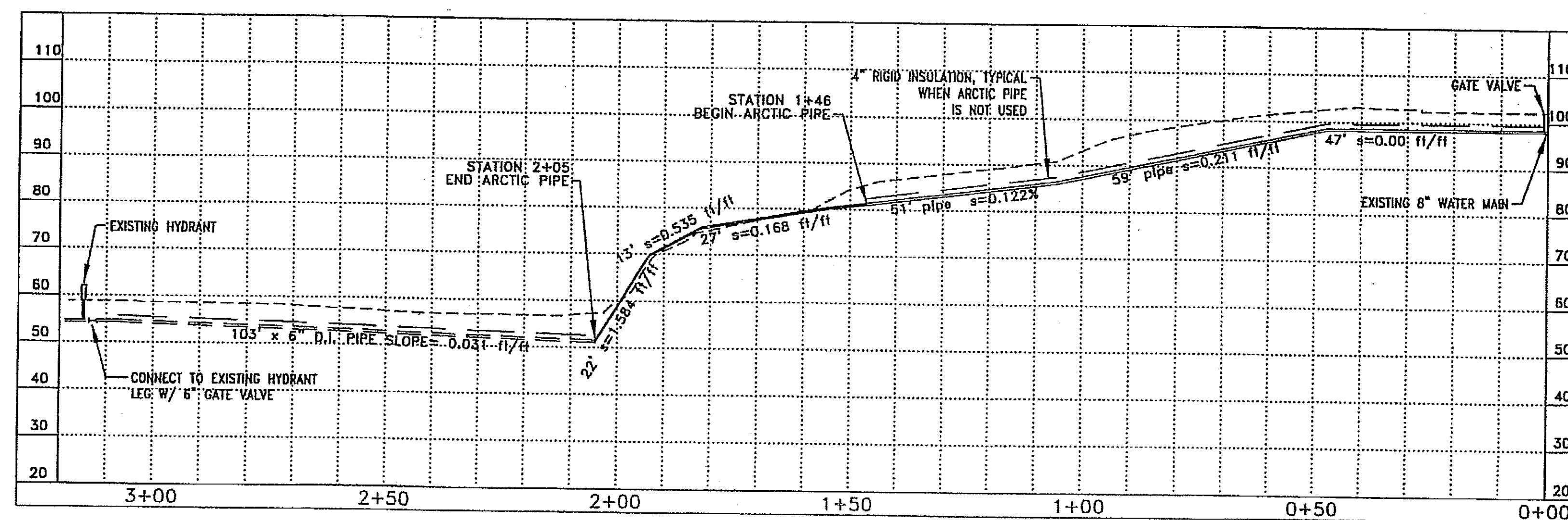
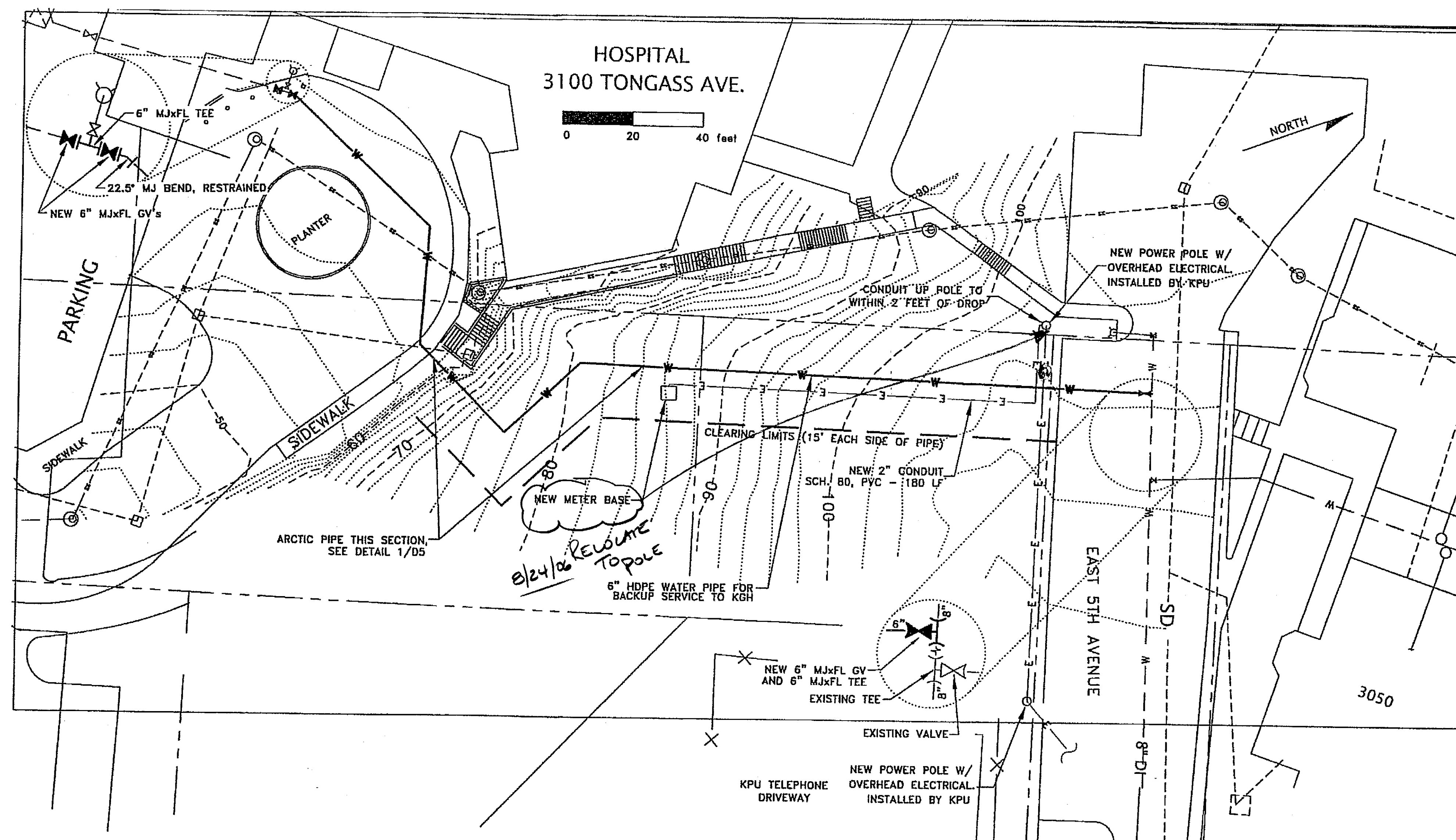
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



DESIGNED BY:	T. SANDE
DRAWN BY:	J. ROBINSON
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION DESIGN & ENGINEERING SERVICES DIVISION	
KETCHIKAN TONGASS AVENUE RESURFACING AIRPORT FERRY TERMINAL TO THIRD AVENUE PHASE I NEW WATERMAIN PLAN AND PROFILE	
PROJECT DESIGNATION	
RSA 68830	
STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
W1	

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they represent the project as constructed.
Proj. Eng. *[Signature]* Date 3-3-07

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PROFILE VIEW

STATIONS ARE ALONG PIPE CENTERLINE
STARTING FROM THE EXISTING WATER
PIPELINE IN 5TH AVENUE

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they represent the project as constructed.

Proj. Eng. _____ Date _____

3-3-89

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

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TAB:		
ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

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30+00 ———

35+00 ———

40+00 ———

45+00 ———

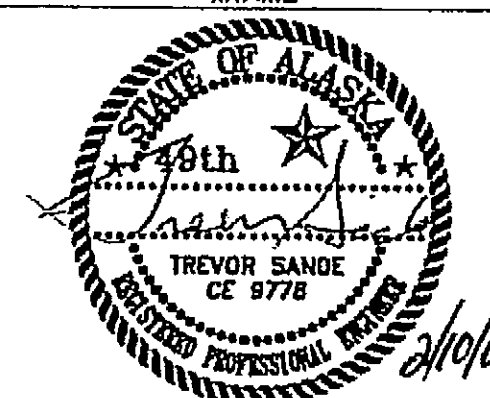
50+00 ———

55+00 ———

60+00 ———

PLAN LEGEND

CHECKED BY: I.NAME



DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

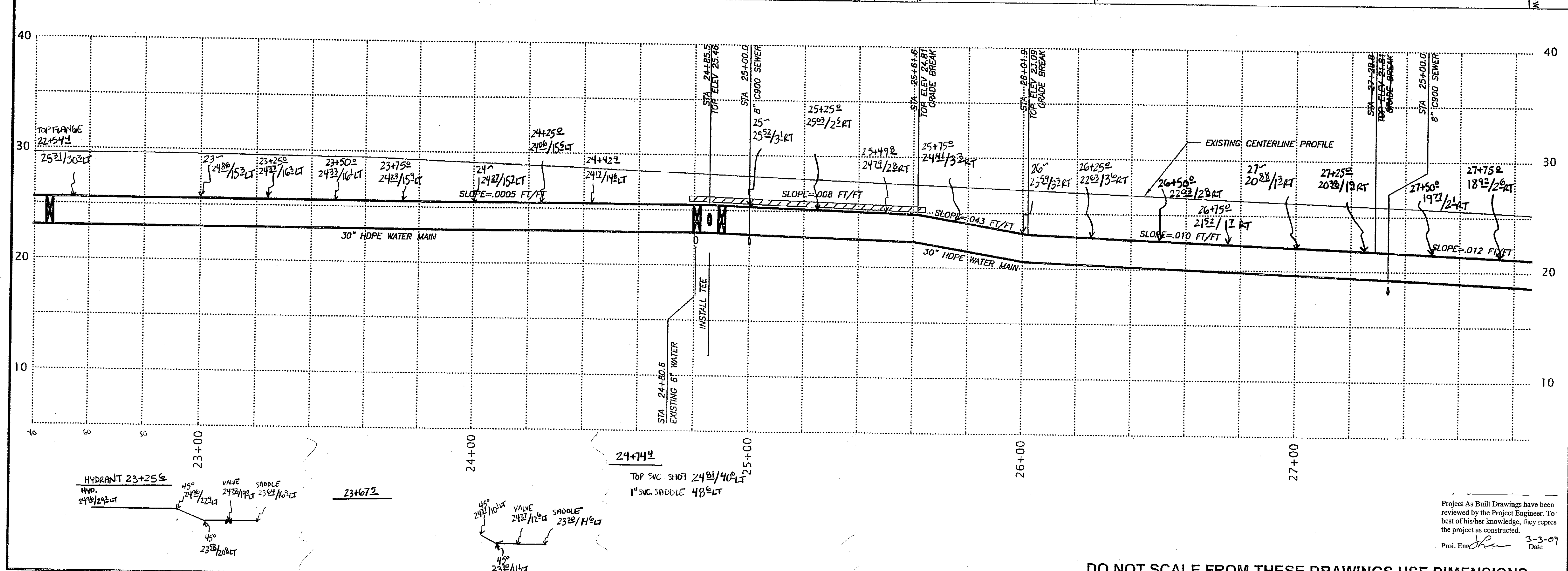
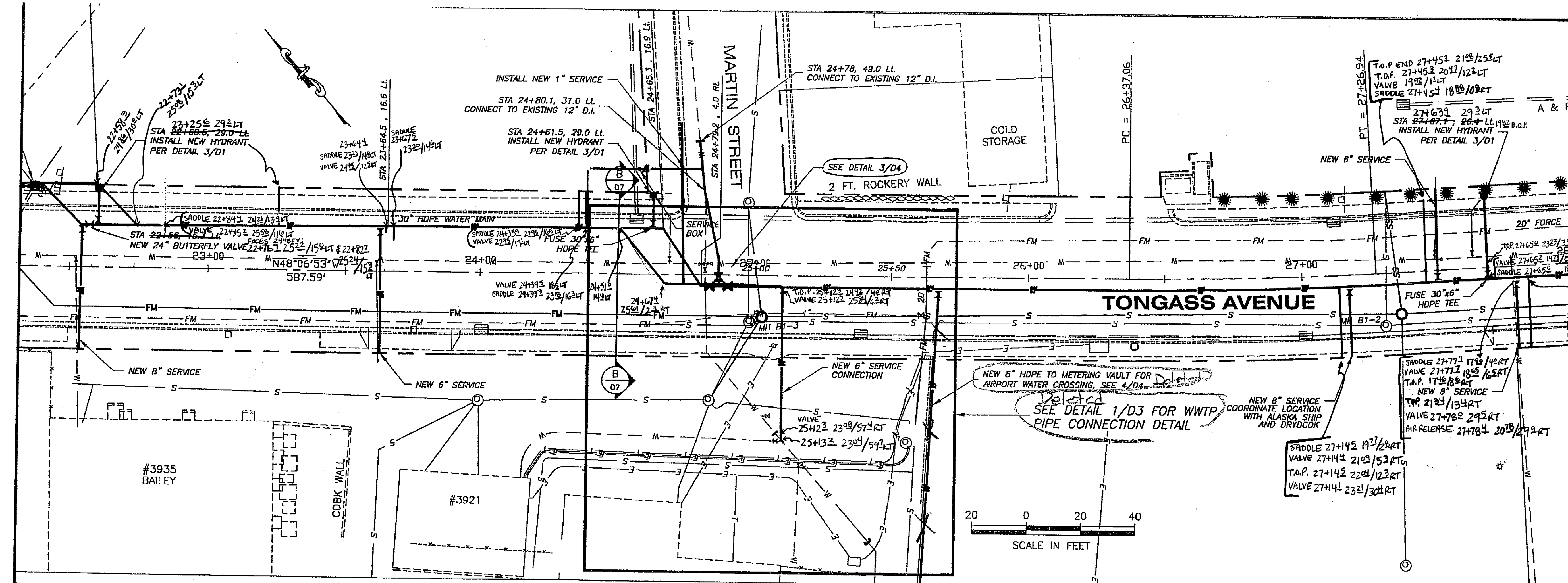
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES

DIVISION
KETCHIKAN
TONGASS AVENUE
RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I
KTN GENERAL HOSPITAL
WATER SERVICE

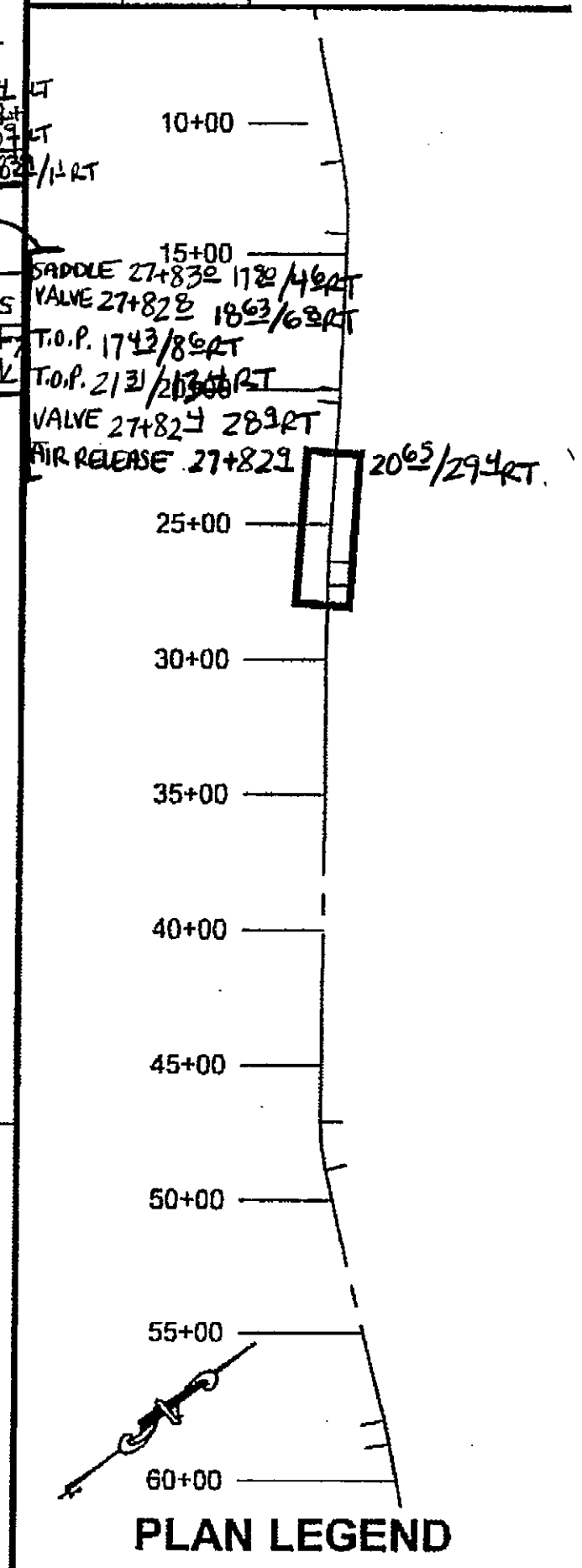
PROJECT DESIGNATION

RSA 68830

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
W11	



ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY:

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES
DIVISION

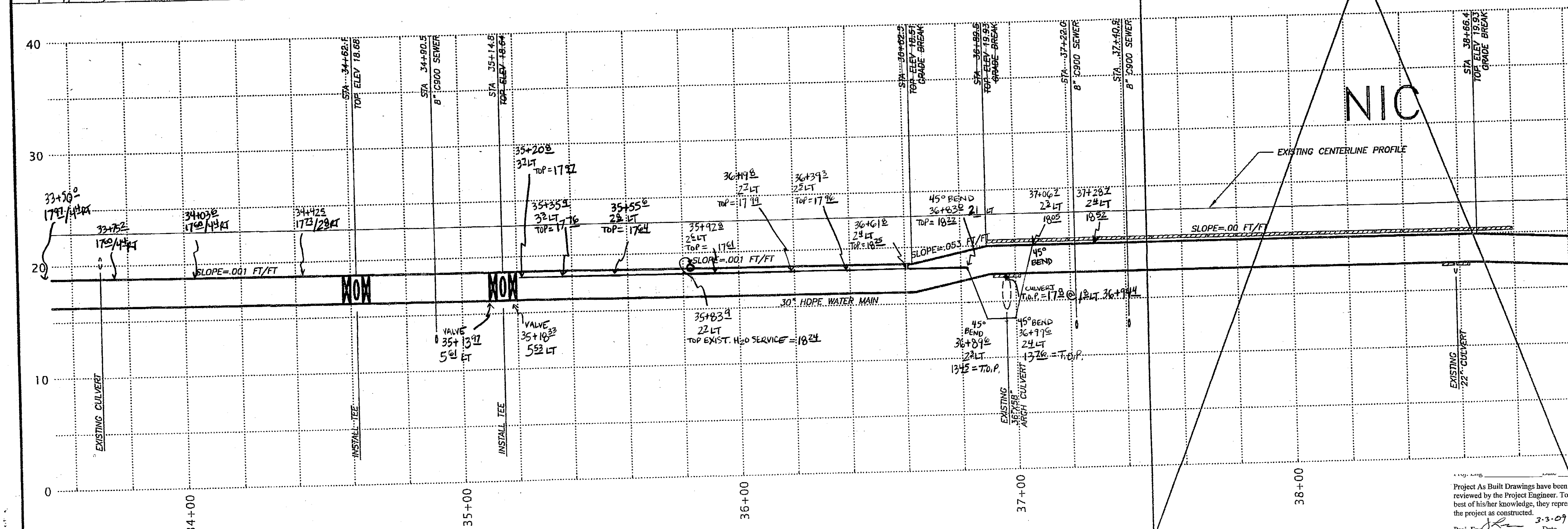
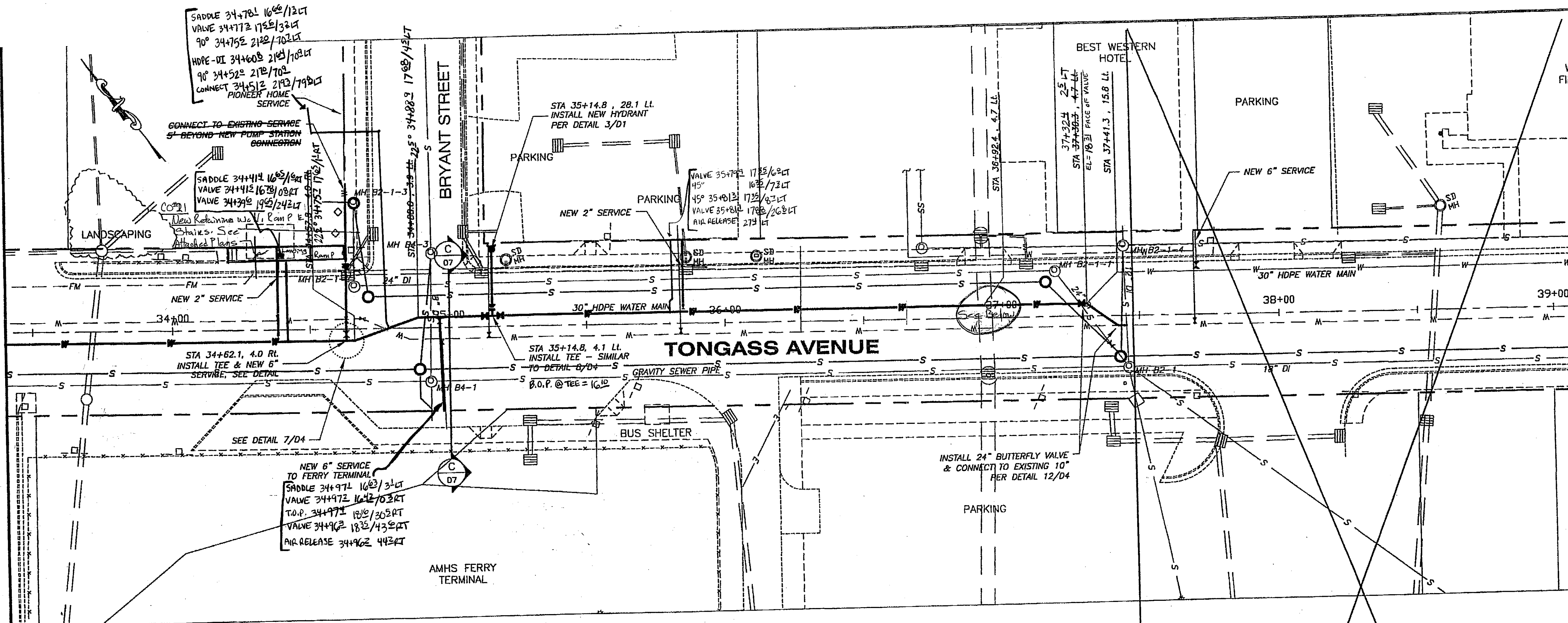
**KETCHIKAN
TONGASS AVENUE
RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I
NEW WATERMAIN
PLAN AND PROFILE**

PROJECT DESIGNATION
RSA 68830

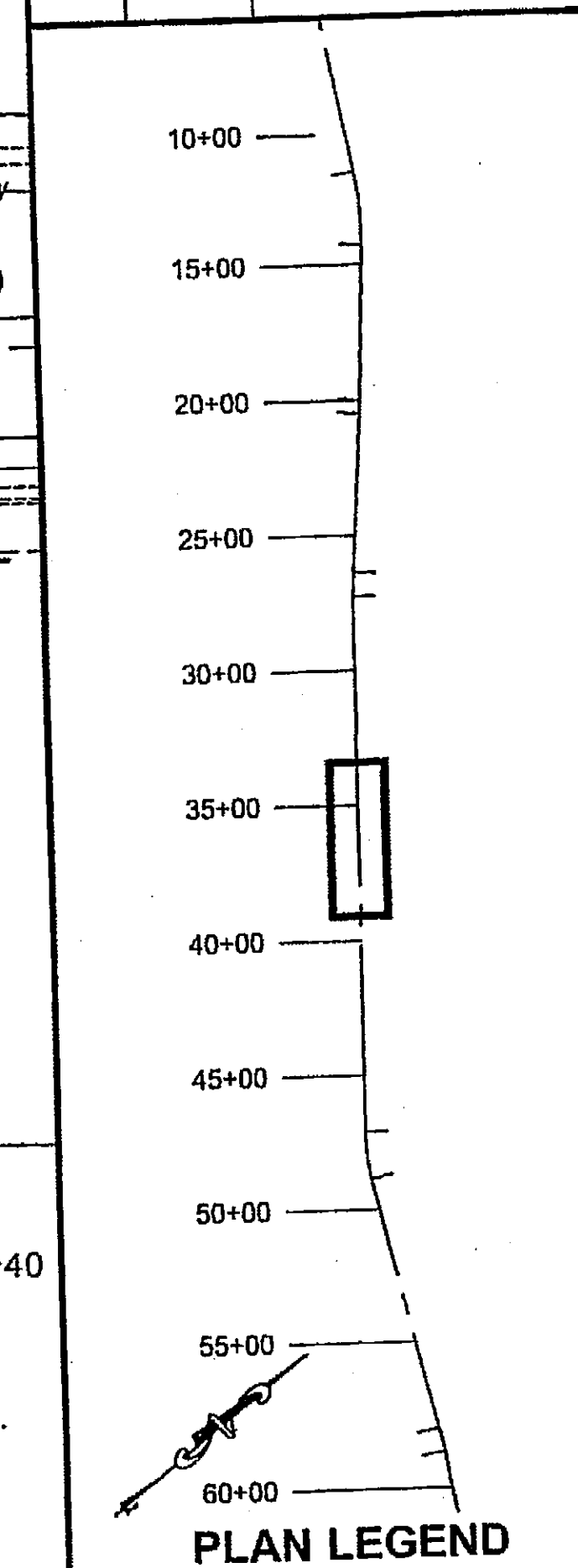
STATE	YEAR
ALASKA	2006

SHEET NUMBER	TOTAL SHEETS
W4	

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: _____

DESIGNED BY: T. SANDE

DRAWN BY: J. ROBINSON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION DESIGN & ENGINEERING SERVICES
DIVISION

KETCHIKAN
TONGASS AVENUE
RESURFACING
AIRPORT FERRY TERMINAL TO
THIRD AVENUE
PHASE I
NEW WATERMAIN
PLAN AND PROFILE

PROJECT DESIGNATION
RSA 68830

STATE	YEAR
ALASKA	2006
SHEET NUMBER	TOTAL SHEETS
W6	

Project As Built Drawings have been reviewed by the Project Engineer. To best of his/her knowledge, they represent the project as constructed.

3-3-09

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

Item 501(12)

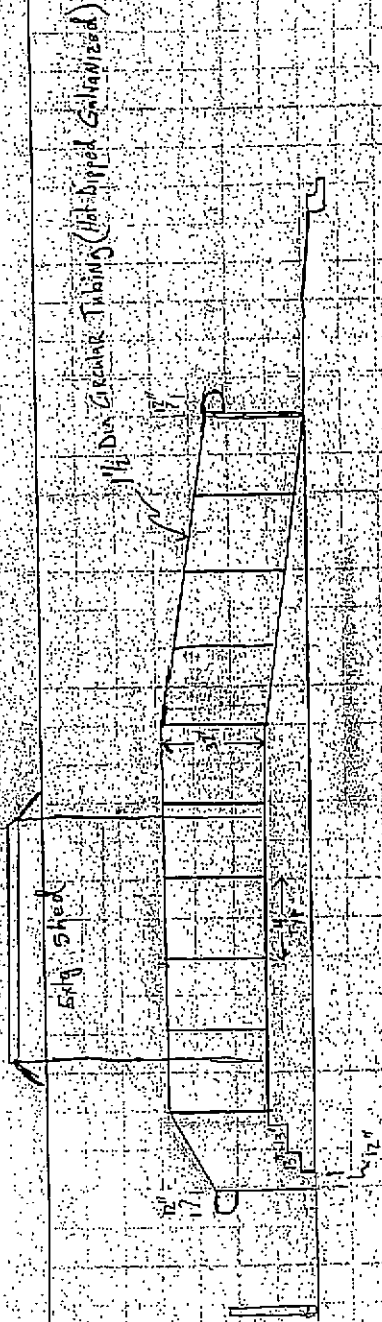
Plan View: 2 square = 1' H





14-301 50 SHEETS EYE BASE 5 SQUARE
14-302 100 SHEETS EYE BASE 5 SQUARE
14-303 200 SHEETS EYE BASE 5 SQUARE

National Brand



Hand Rail Detail