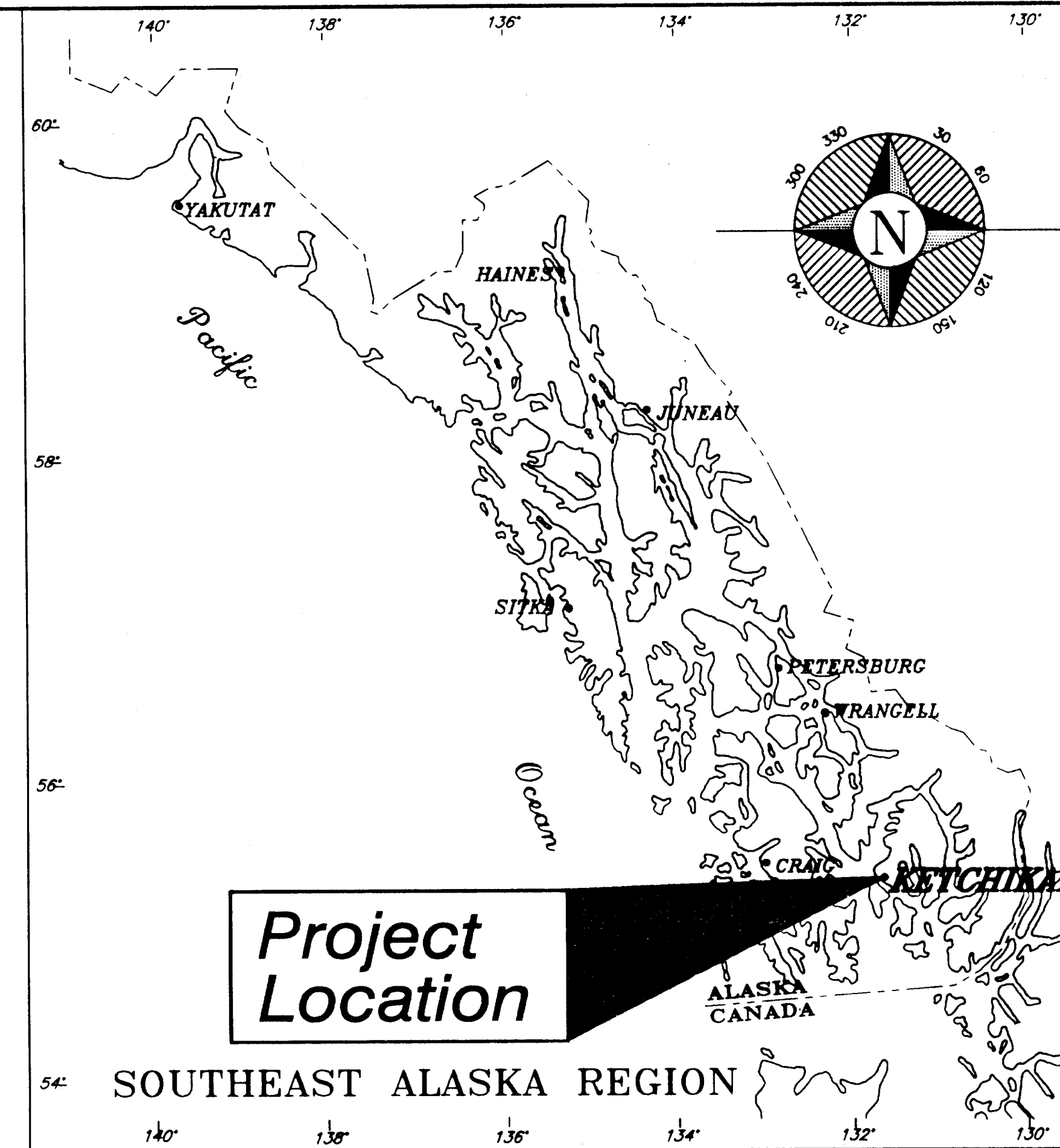


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND
PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN, ALASKA

KETCHIKAN VIADUCTS REHABILITATION

FED. NO. BR-0902(26) ~ PROJECT NO. 71111

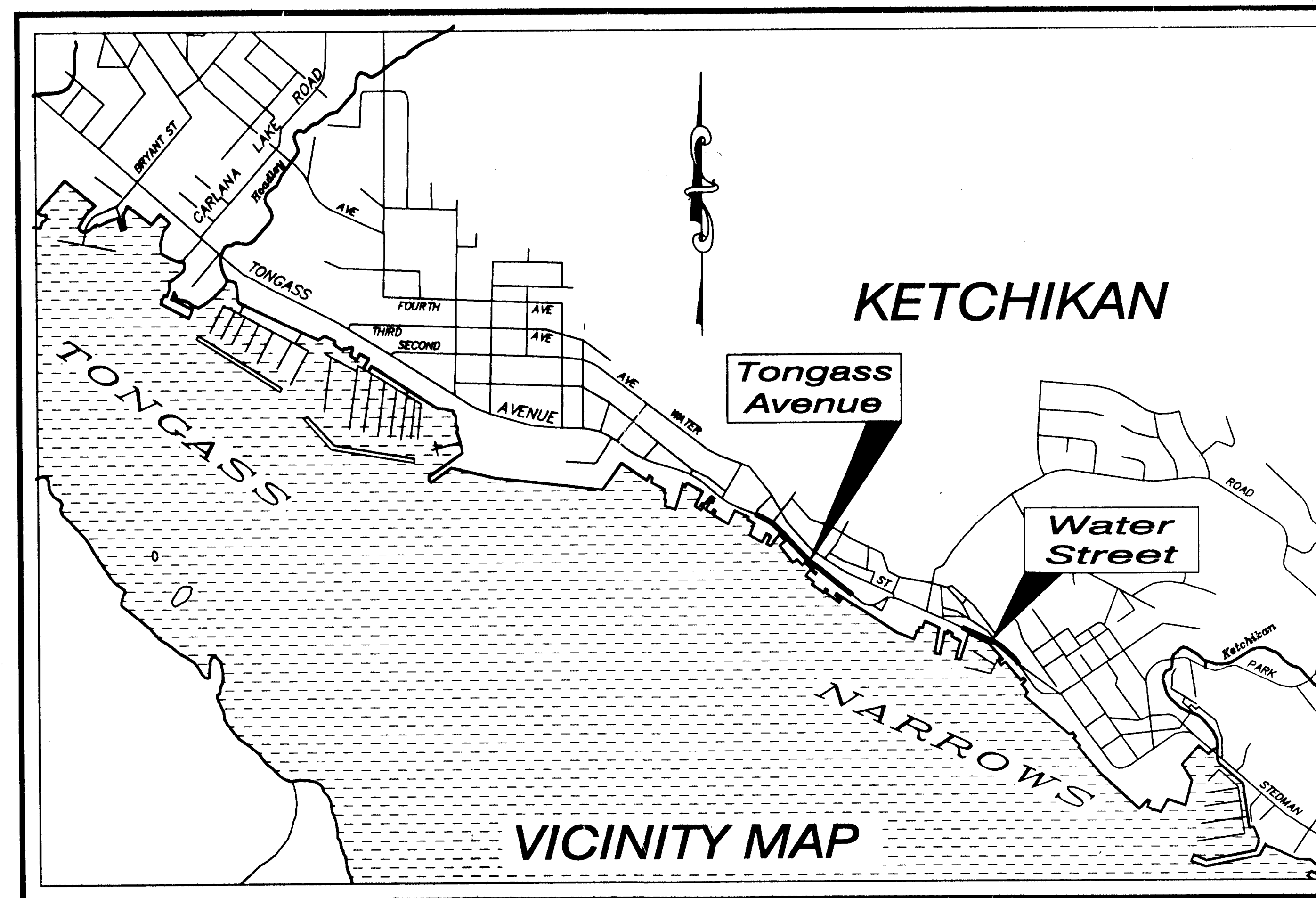


THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT

C-01.03 [M], C-02.01 [M], C-04.11 [M]

TIDAL DATA

ESTIMATED EXTREME HIGH WATER = 6.340 m
MEAN HIGHER HIGH WATER = 4.694 m
MEAN HIGH WATER = 4.420 m
MEAN TIDE WATER = 2.438 m
MEAN LOW WATER = 0.457 m
MEAN LOWER LOW WATER = 0.000 m
ESTIMATED EXTREME LOW WATER = -1.524 m



As per drawing
Contractor: South Coast Inc.
Project Engineer: Norman Fiering
Bridg Date: 10/10/99
ENC 1000 Dec 21, 2001

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND
PUBLIC FACILITIES

APPROVED
Regional Preconstruction Engineer Date 10/10/99

APPROVED
S.E. Regional Director Date 10/10/99

PROJECT NUMBER:	71111	ENGINEER'S SE
DATE:	1999	STATE OF ALASKA 19th Alan V. Steinberg CE-6440
SHEET	1 OF 104	

ABBREVIATIONS

A.B.	ANCHOR BOLT	LM	LINEAL METERS
ABAN	ABANDONED	LS	LUMP SUM
ABV	ABOVE	LT	LEFT
ABUT	ABUTMENT	M	METER (DIST. MEAS.)
AC	ASPHALT CONCRETE	MATL	MATERIAL
ADDL	ADDITIONAL	MAX	MAXIMUM
ADJ	ADJACENT	MEAS	MEASURE(MENT)
ADOT&PF	ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	MECH	MECHANICAL
AHD	AHEAD	MISC	MISCELLANEOUS
AK	ALASKA	MFR	MANUFACTURER
ALT	ALTERNATE	mG	MILLIGRAM
A	AMP	MH	MANHOLE
APPROX	APPROXIMATE	MHHW	MEAN HIGH HIGH WATER
ARCH	ARCHITECTURAL	MHW	MEAN HIGH WATER
AVE	AVENUE	MIN	MINIMUM
AVG	AVERAGE	MLLW	MEAN LOW LOW WATER
BB	BEGINNING OF BRIDGE	MLW	MEAN LOW WATER
BOT	BOTTOM	mm	MILLIMETER
BLDG	BUILDING	MPa	MEGA PASCAL
BLW	BELOW	MSDS	MFR SAFETY DATA SHEET
BR	BRIDGE	MSE	MECHANICALLY STABILIZED EARTH
BRG	BEARING	MTL	MATERIAL
CANT	CANTILEVERED	N	NEWTON
CIP	CAST-IN-PLACE	NO	NUMBER
C-C	CENTER TO CENTER	N.S.	NEAR SIDE
CL	CENTERLINE	N.T.S.	NOT TO SCALE
CLR	CLEAR	O.C.	ON CENTER
cm	CENTIMETER	O.D.	OUTSIDE DIAMETER
COL	COLUMN	O.F.	OUTSIDE FACE
CONC	CONCRETE	O.H.	OVERHANG
CONN	CONNECTION	OPNG	OPENING
CS	CONTINGENT SUM	OPP	OPPOSITE
CONST	CONSTRUCTION	ORNT	ORIENTATE(ION)
CONT	CONTINUOUS	PAR	PARALLEL
CU	COPPER	P/C	PRE-CAST
CM	CUBIC METER	PERP	PERPENDICULAR
DBL	DOUBLE	PG	PROFILE GRADE
DIP	DUCTILE IRON PIPE	PPM	PARTS PER MILLION
DIA	DIAMETER	PPT	PARTS PER THOUSAND
DIAG	DIAGONAL	P/S	PRE-STRESSED
DIAPH	DIAPHRAGM	PVC	POLY VINYL CHLORIDE
DIM	DIMENSION	PVMT	PAVEMENT
DIST	DISTANCE	QTY	QUANTITY
DTR	DETOUR	R	RADIUS
DWG	DRAWING	R/C	REINFORCED CONCRETE
DWL	DOWEL	RDWY	ROADWAY
EA	EACH	REF	REFERENCE
EB	END OF BRIDGE	REINF	REINFORCED
E.F.	EACH FACE	REQD	REQUIRED
EL, ELEV	ELEVATION	ROW	RIGHT-OF-WAY
EMBD	EMBEDDED	RT	RIGHT
ENG	ENGINEER	SCHD	SCHEDULE
EQ	EQUAL	SHT	SHEET
E.S.	EACH SIDE	SIM	SIMILAR
EXIST	EXISTING	SM	SQUARE METER
EXP	EXPANSION	SPC	SPACE(ING)
EXPD	EXPANDED	SPRT	SUPPORT
EXT	EXTERIOR	SQ	SQUARE
FE	FINISHED ELEVATION	SS	SANITARY SEWER
FAB	FABRICATION	SSD	SATURATED SURFACE DRY
FND	FOUNDATION	STD	STANDARD
FIN	FINISH(ED)	ST	STREET
FLEX	FLEXIBLE	STA	STATION
FLG	FLANGE	STIR	STIRRUP
FM	FORCE MAIN	STL	STEEL
FT	FOOT	STRUC	STRUCTURE(AL)
FTG	FOOTING	SYM	SYMMETRICAL
GALV	GALVANIZED	S/W	SIDEWALK
G	GRAM	TEMP	TEMPERATURE
GRD	GRADE	TEMP	TEMPORARY
HORZ	HORIZONTAL	THRD	THREADED
HS	HIGH STRENGTH	THRU	THROUGH
HWY	HIGHWAY	T.O.	TOP OF
I.D.	INSIDE DIAMETER	TRANS	TRANSVERSE
I.F.	INSIDE FACE	TEL	TELEPHONE
IN	INCH	TYP	TYPICAL
INT	INTERIOR	UBC	UNIFORM BLDG CODE
JNT	JOINT	VERT	VERTICAL
KG	KILOGRAM	V	VOLT
KGCM	KILOGRAMS PER CUBIC METER	VFY	VERIFY
KPU	KETCHIKAN PUBLIC UTILITIES	W	WATER
L	LITER	W/	WITH
LONG	LONGITUDINAL	W/C	WATER CEMENT RATIO
		W.P.	WORK POINT
		WWF	WELDED WIRE FABRIC

SYMBOLS USED AS ABBREVIATIONS	
&	AND
⊙	AT
⊥	CENTERLINE
∅	DIAMETER
'	FOOT
"	INCH
⊞	PLATE
±	PLUS OR MINUS
M2	SQUARE METER
M3	CUBIC METER

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M-1	SCOPE OF WORK
M-2	PLANS
M-2.2	WATER ST. BENTS 20-30
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M-3	ELEVATIONS
M-4	FULL SECTIONS
M-4.1	SECTIONS AND DETAILS
M-5	STANDARD DETAILS
M-5.1	PIPE DETAILS

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

T-1.

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PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1

DRAWN OR REVISED BY: CMF

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (28) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS

ALASKA

PROJECT GENERAL INFORMATION

DESIGNED BY:

DATE:

CHECKED BY:

SEPTEMBER, 1999
SHEET 2 OF 10

APPROVED BY:

BRIDGE NO. 797 &

[illegible]

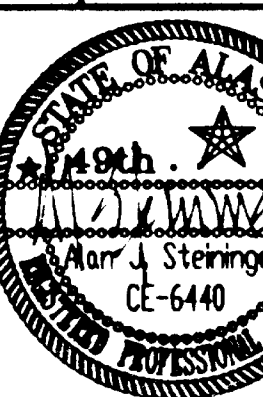
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RECORD OF REVISIONS		

KETCHIKAN

ALASKA

PROJECT NO. <i>71111</i>
DATE: <i>1999</i>
SHEET 3 OF 104

ESTIMATE OF QUANTITIES

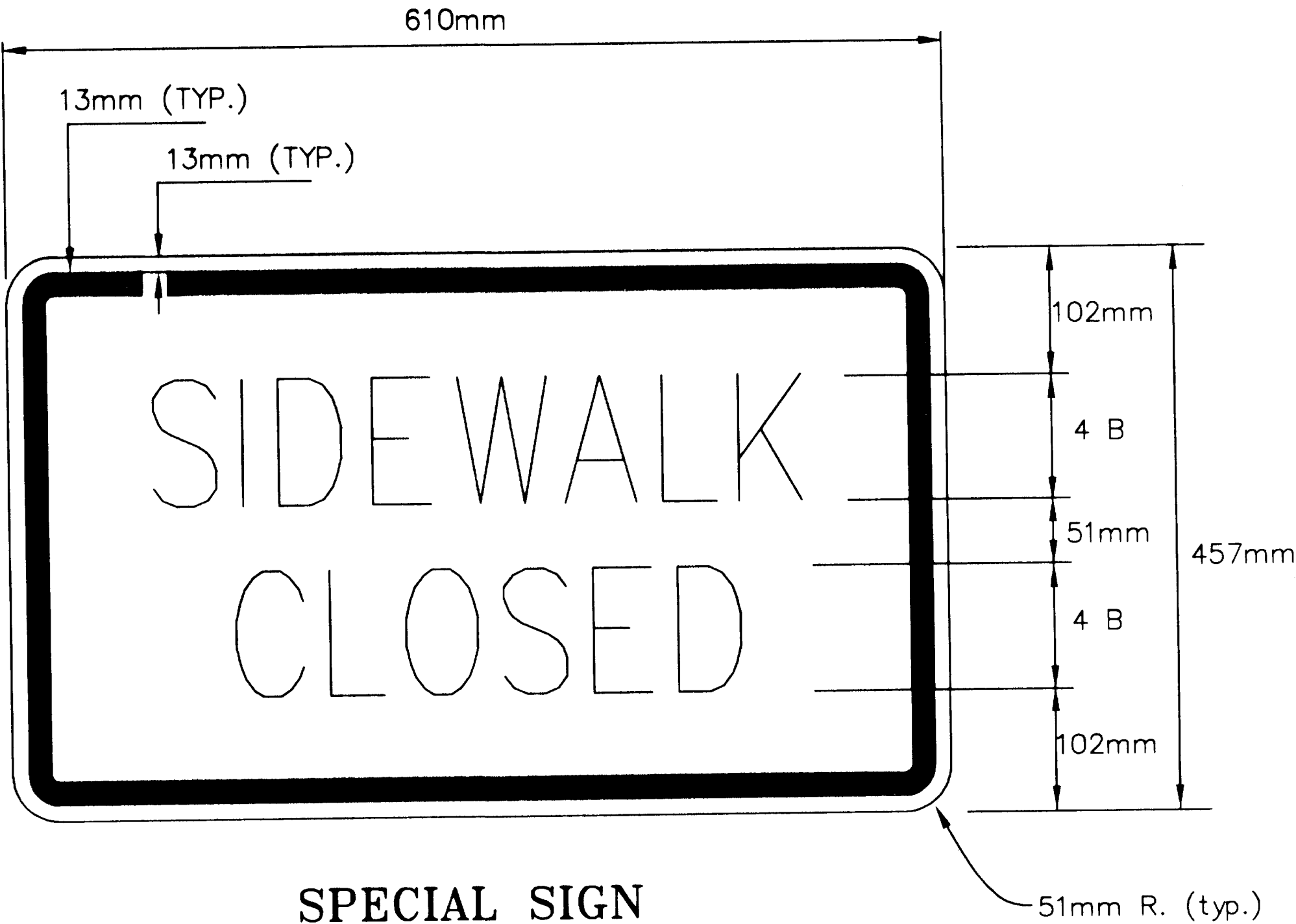


TRAFFIC CONTROL NOTES

- 1. TWO WAY TRAFFIC WILL BE MAINTAINED AT ALL TIMES WHEN LANES ARE CLOSED AT THE JEFFERSON STREET INTERSECTION. THE DOT/PF TRAFFIC SECTION WILL BE NOTIFIED SO THEY CAN MAKE THE APPROPRIATE SIGNAL TIMING CHANGES. TWO DAYS PRIOR NOTICE IS REQUIRED.
- 2. IT IS THE INTENT OF THE TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME, BUT NOT ALL OF THE TRAFFIC CONTROL CONFIGURATIONS THAT WILL BE REQUIRED BY THE PROJECT. TRAFFIC CONTROL PLANS FOR CONFIGURATIONS NOT COVERED BY THE TCP SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.
- 3. TRAFFIC LANES SHALL BE A MINIMUM OF 3 METERS.
- 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 AS SOON AS POSSIBLE AFTER THE GRINDING OPERATION.
- 6. THE CONTRACTOR WILL ATTEMPT TO RESTORE ACCESS TO BUSINESSES AS SOON AS POSSIBLE.
- 7. THE CONTRACOR SHALL KEEP THE PUBLIC INFORMED OF HIS CONSTRUCTION ACTIVITIES THROUGH THE USE OF THE LOCAL NEWS MEDIA. NEWS RELEASES SHALL BE APPROVED BYTHE PROJECT ENGINEER PRIOR TO THEIR RELEASE. NEWS RELEASES WILL BE REQUIRED BUT NOT LIMITED TO THE ONSET OF WORK, GRINDING, PAVING, AND CHANGES IN THE LANE COFIGURATIONS.
- 8. IF TRAFFIC DELAYS BECOME LONGER THAN 3 MINUTES AVERAGE PER VEHICLE, THE PROJECT ENGINEER MAY REQUIRE NIGHTTIME OPERATIONS.
- 9. PROPOSED CONSTRUCTION SEQUENCES OF MAJOR ITEMS OF WORK ARE:
 - a) ROTO GRIND EXISTING PAVEMENT AND INSTALL TEMPORARY MARKINGS WITH EXISTING LANE CONFIGURATIONS.
 - b) INSTALL JEFFERSON STREET TEMPORARY TRAFFIC SIGNAL.
 - c) COMPLETE JEFFERSON AND WASHINGTON STREET TRAFFIC SIGNAL. NEW TRAFFIC SIGNAL HEADS AND SIGNS SHALL BE KEPT COVERED.
 - d) SIMULTANEOUSLY CONVERT JEFFERSON STREET TRAFFIC SIGNAL TO NEW ONE. TURN ON WASHINGTON TRAFFIC SIGNAL, UNCOVER NEW SIGNS, REMOVE OLD SIGNS, AND REMOVE AND INSTALL TEMPORARY MARKINGS TO NEW LANE CONFIGURATION.
 - e) INSTALL PERMANENT LANE MARKINGS.

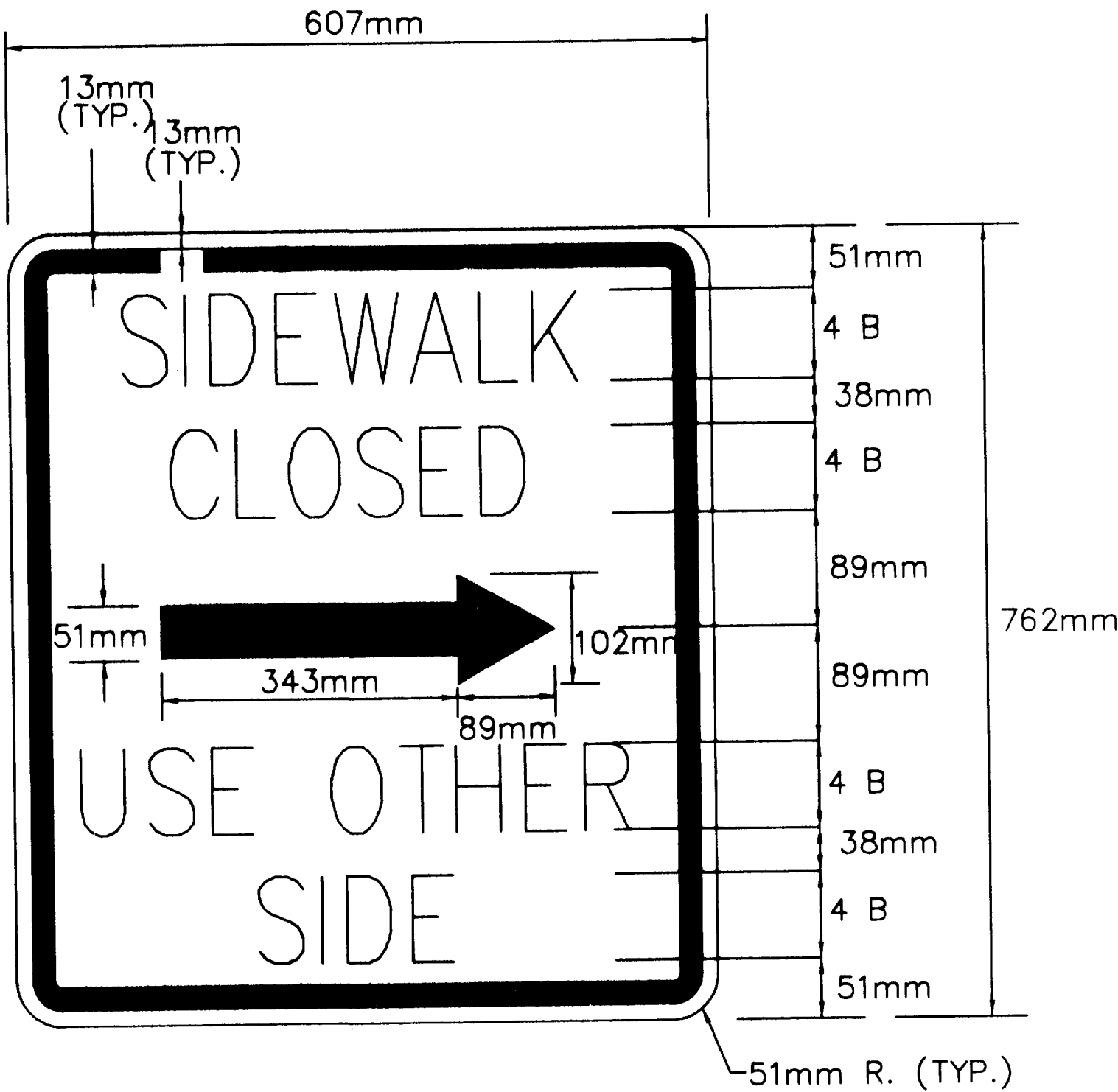
SIGN NOTES:

- 1. SIGNS SHALL HAVE WHITE BACKGROUND WITH BLACK LEGEND. LETTERING SHALL BE AS SHOWN ON THE PLAN.
- 2. SPECIAL SIGN "C" IS SHOWN. SPECIAL SIGN "D" SHALL HAVE THE ARROW POINTING IN THE OPPOSITE DIRECTION.
- 3. SIGNS SHALL CONFORM TO THE ALASKA SIGN DESIGN SPECIFICATIONS (ASDS). LETTERING SHALL BE 102 mm HIGH AND SERIES B.
- 4. WHERE IT IS IMPRACTICAL TO WALK AROUND THE CLOSED PORTION OF THE SIDEWALK, SPECIAL SIGNS "C" OR "D" SHALL BE SET UP AT THE NEAREST EXISTING CROSSWALK.

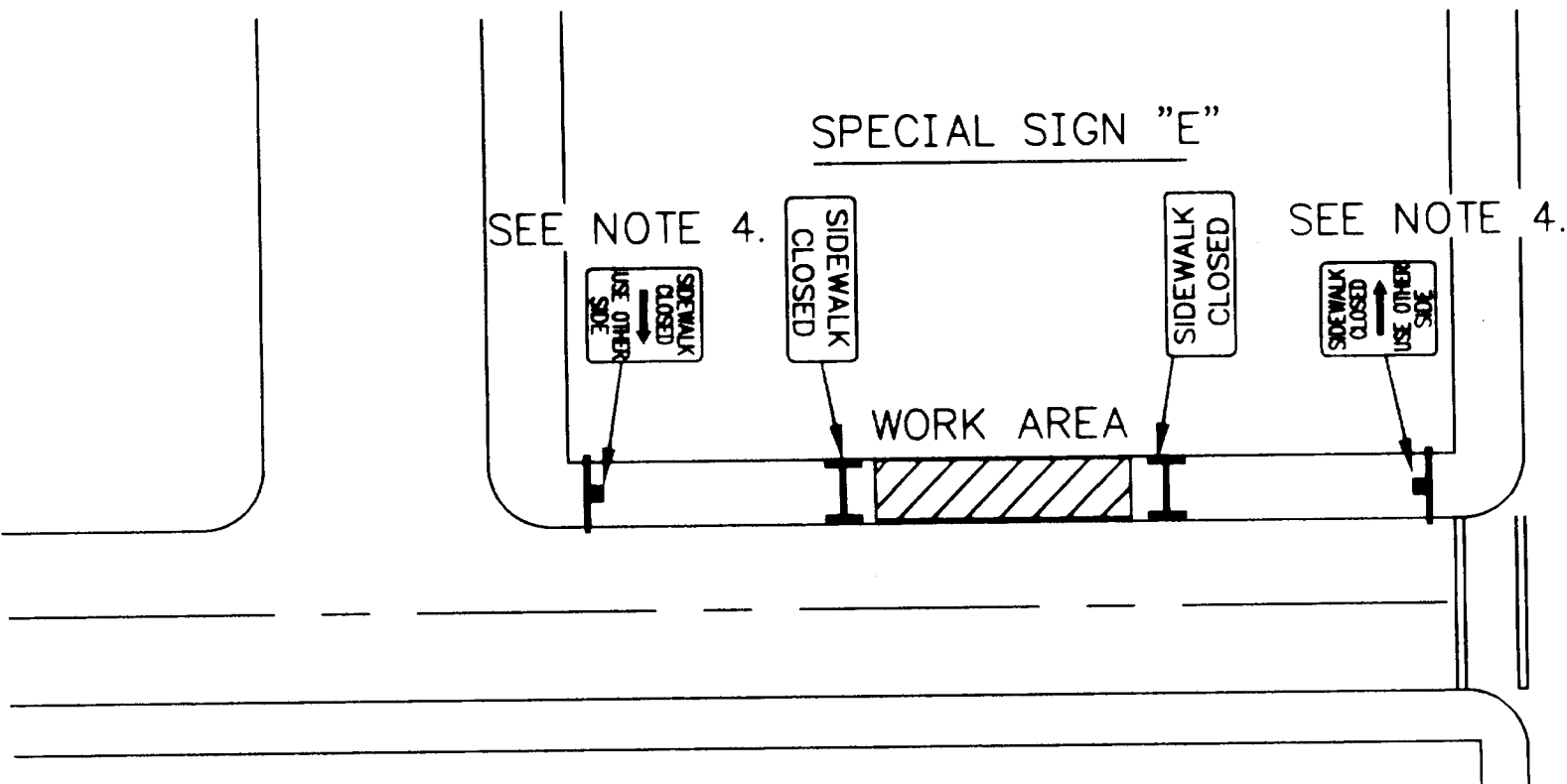


SPECIAL SIGN

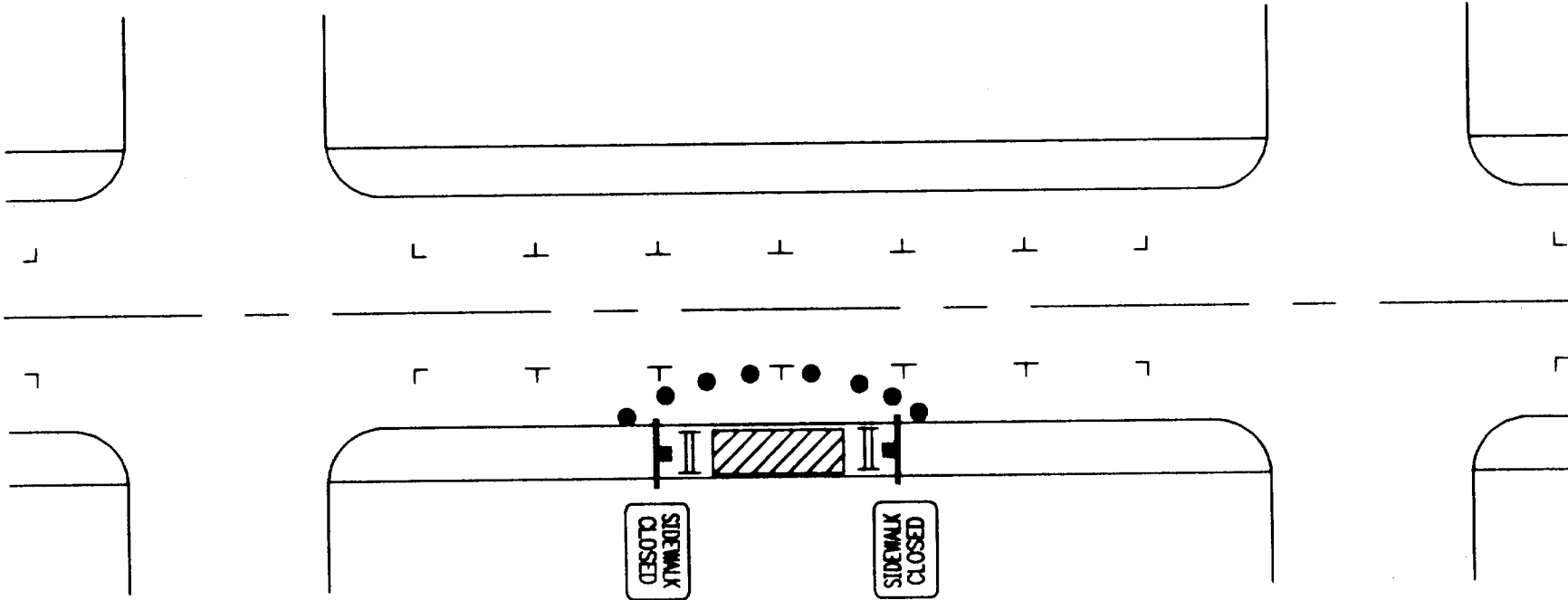
LEGEND - BLACK
BACKGROUND - ORANGE



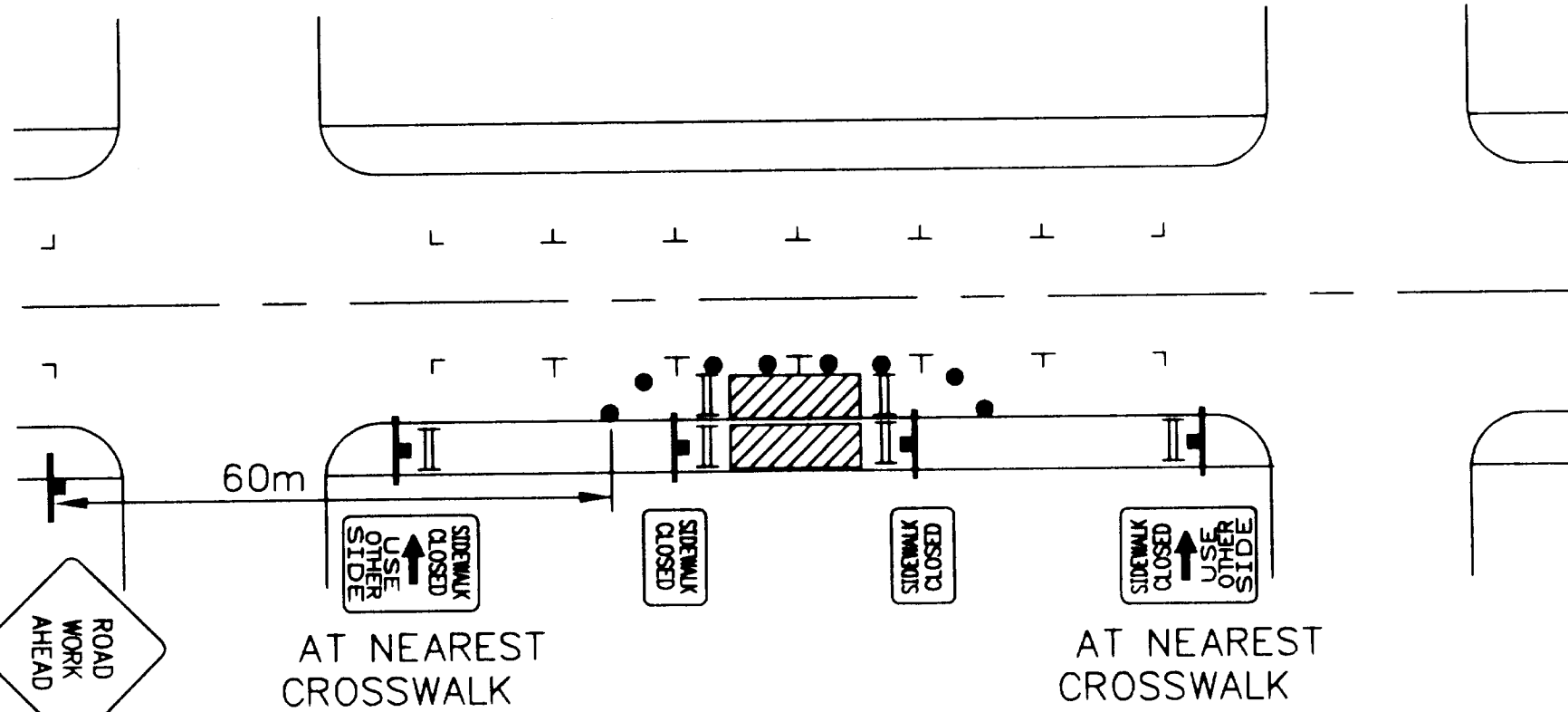
SPECIAL SIGN "C" (RIGHT ARROW)



EXISTING SIDEWALK
RECONSTRUCTION



SIDEWALK CLOSURE
BYPASS WALKWAY
(NO WORK IN PROGRESS)



CW21-4F
1219mm x 1219mm

SIDEWALK CLOSURE
NO ROADWAY ENCROACHMENT

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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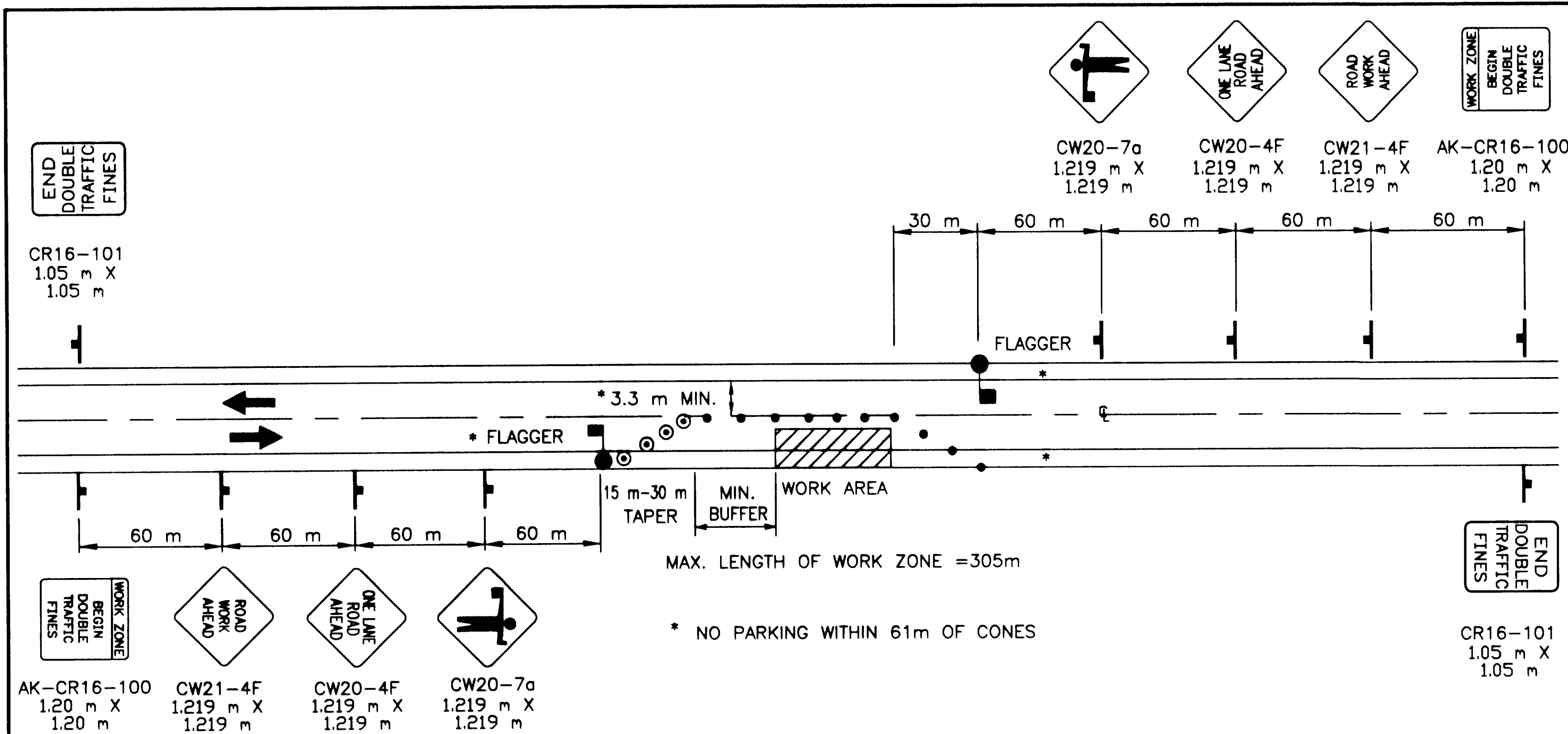
STATE OF ALASKA
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AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902(26) ~ PROJECT NO. 71111

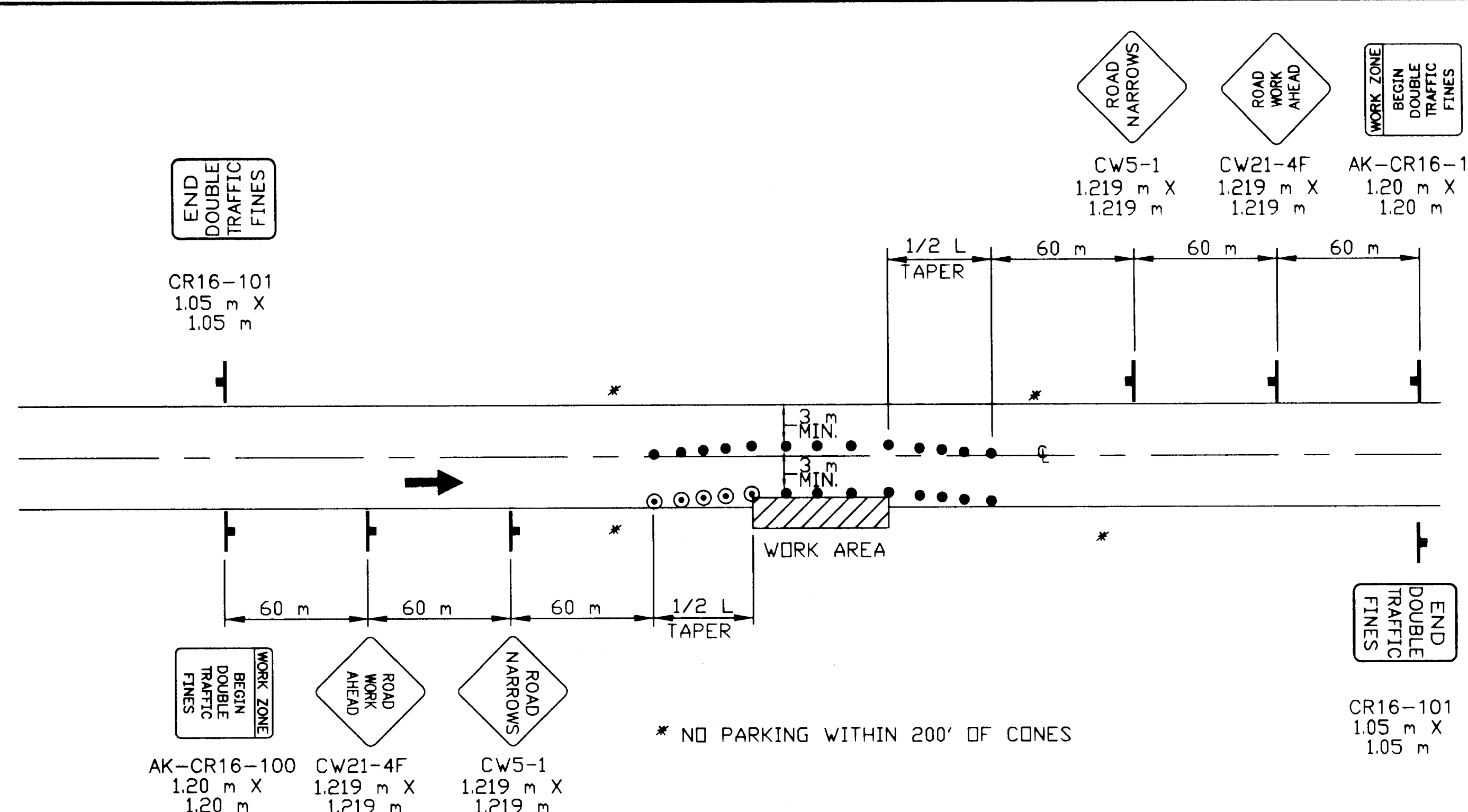
TRAFFIC CONTROL PLAN DETAILS

DESIGNED BY:	R. PURVES	PROJECT NO.	71111
DRAWN BY:	R. SNYDER	DATE:	1999
CHECKED BY:	M. LUKSHIN	SHEET 4 OF 104	



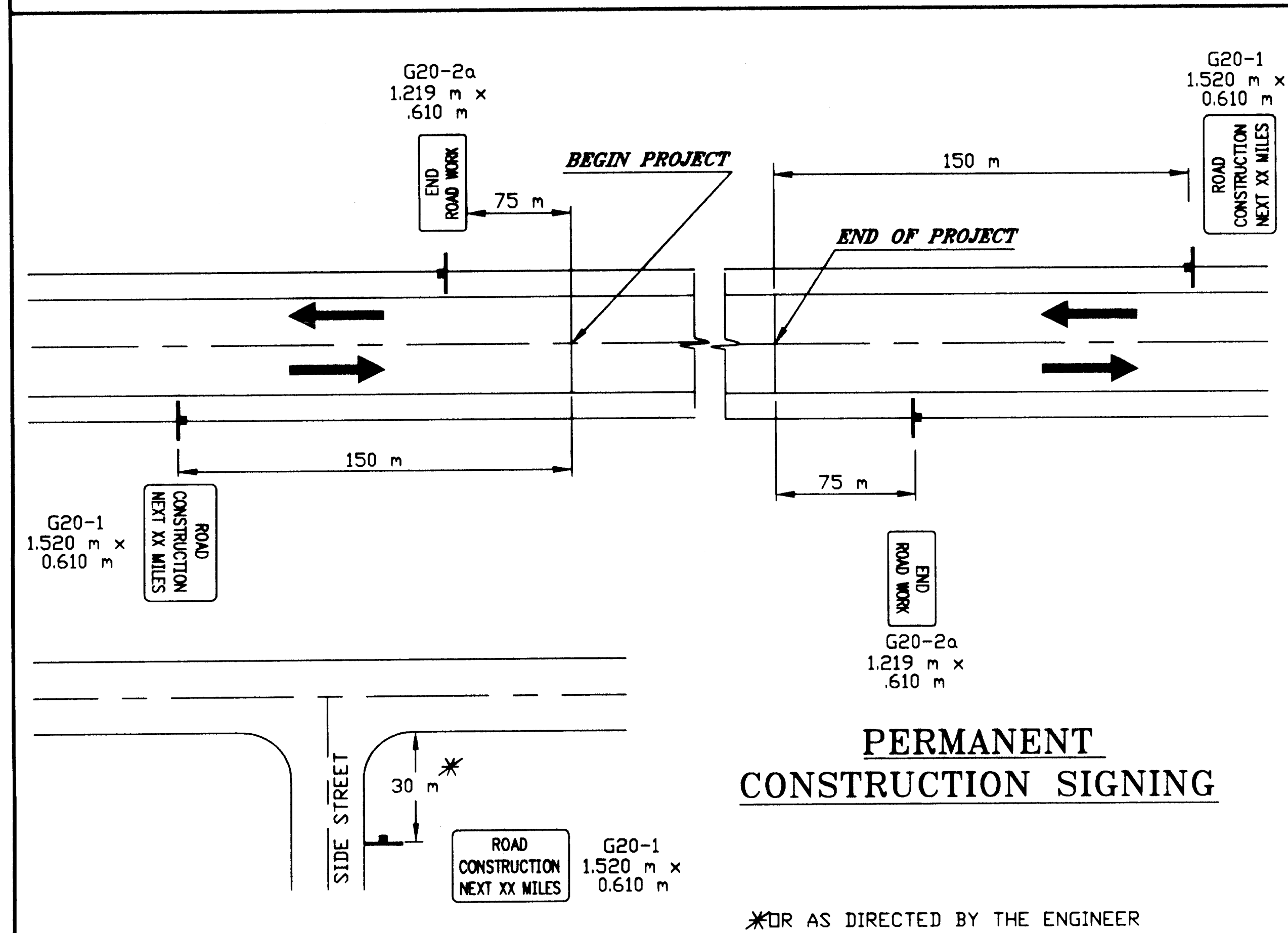


SINGLE LANE CLOSURE TWO LANE ROAD



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.



PERMANENT CONSTRUCTION SIGNING

LEGEND

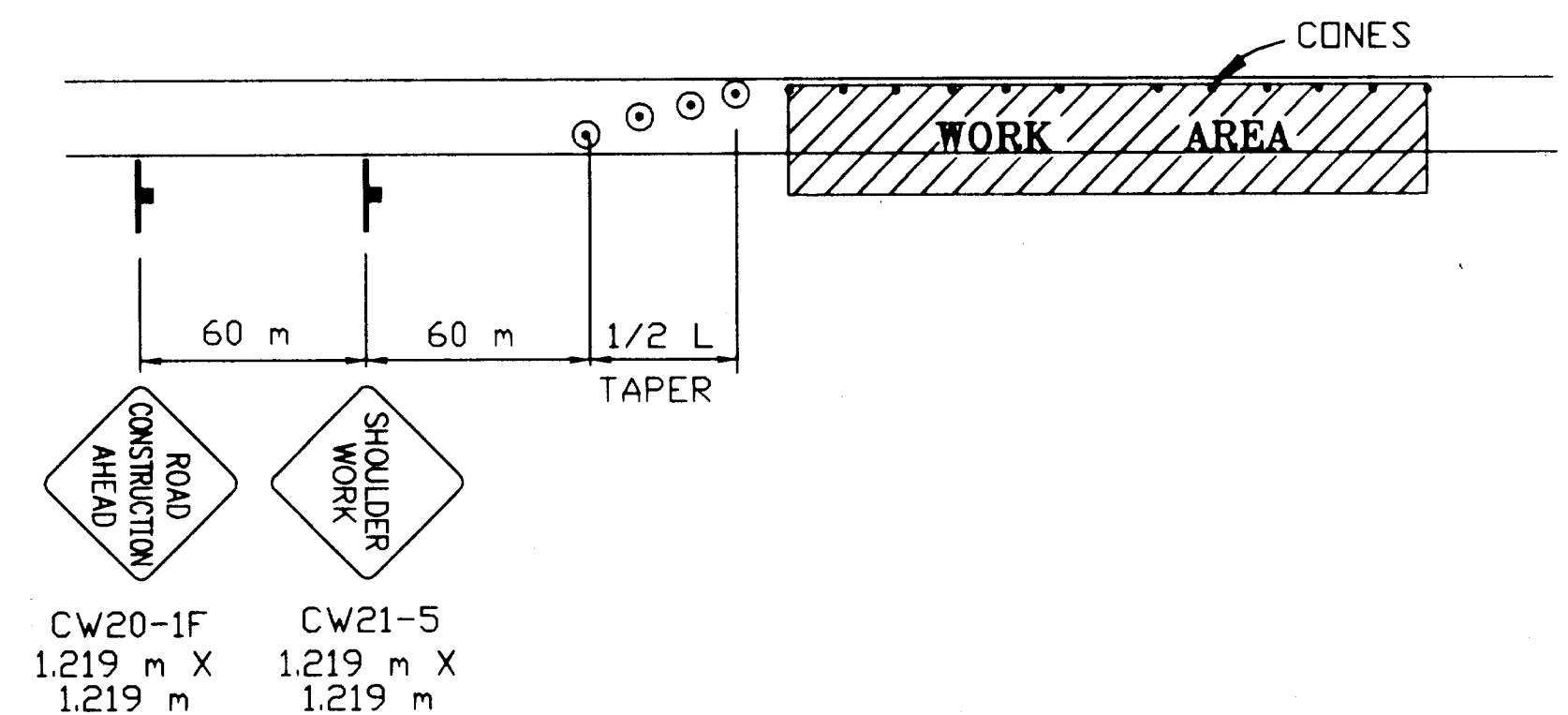
- SIGN
- CONE
- DRUM
- TYPE III BARRICADE
- FLAGGING STATION

$$L = W \times T$$

WHERE:
L = LENGTH OF TAPER
W = WIDTH OF OFFSET
T = TAPER FACTOR

TCP TABLE SETUP

SPEED (KILOMETERS PER HOUR)	SPEED (MILES PER HOUR)	BUFFER/ LENGTH (m)	CONE/DRUM SPACING (m)	TAPER FACTOR (T)
25	16	9	5	4:1
30	19	11	6	6:1
35	22	14	7	8:1
40	25	17	8	10:1
45	28	21	9	13:1
50	31	26	10	16:1
55	34	35	11	19:1
60	37	43	12	23:1
65	40	52	13	27:1
70	43	62	14	32:1
75	47	75	15	47:1
80	50	85	16	50:1
85	53	98	17	53:1
90	56	110	18	56:1



SHOULDER WORK

(NO ENCROACHMENT INTO TRAVELLED WAY)

NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS

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RECORD OF REVISIONS		

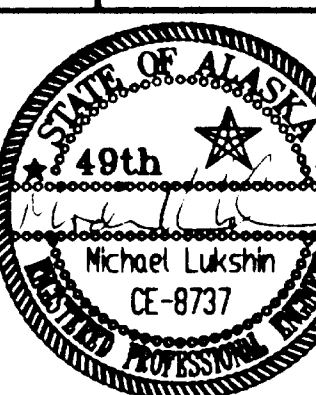
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902(26) ~ PROJECT NO. 71111

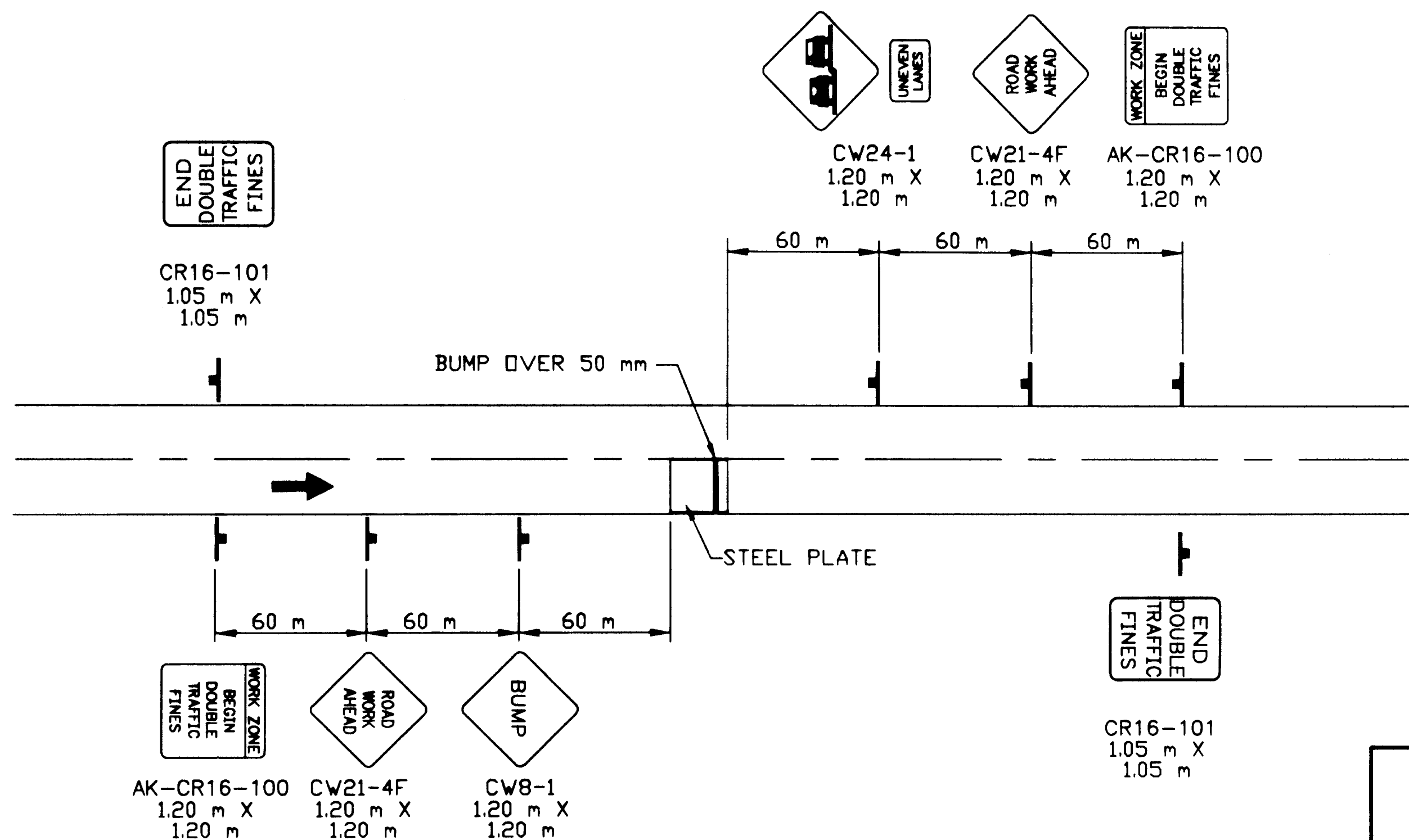
ALASKA

DESIGNED BY: R. PURVES	PROJECT NO. 71111
DRAWN BY: R. SNYDER	DATE: 1999
CHECKED BY: M. LUKSHIN	SHEET 5 OF 104



T-2.

TRAFFIC CONTROL DETAILS



VIADUCT REPAIR

LEGEND

- SIGN
- CONE
- DRUM
- TYPE III BARRICADE
- FLAGGING STATION

L = W x T

WHERE:
L = LENGTH OF TAPER
W = WIDTH OF OFFSET
T = TAPER FACTOR

TCP TABLE SETUP

SPEED (KILOMETERS PER HOUR)	SPEED (MILES PER HOUR)	BUFFER/ LENGTH (m)	CONE/DRUM SPACING (m)	TAPER FACTOR (T)
25	16	9	5	4:1
30	19	11	6	6:1
35	22	14	7	8:1
40	25	17	8	10:1
45	28	21	9	13:1
50	31	26	10	16:1
55	34	35	11	19:1
60	37	43	12	23:1
65	40	52	13	27:1
70	43	62	14	32:1
75	47	75	15	47:1
80	50	85	16	50:1
85	53	98	17	53:1
90	56	110	18	56:1

NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS

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STATE OF ALASKA
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AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902(26) ~ PROJECT NO. 71111

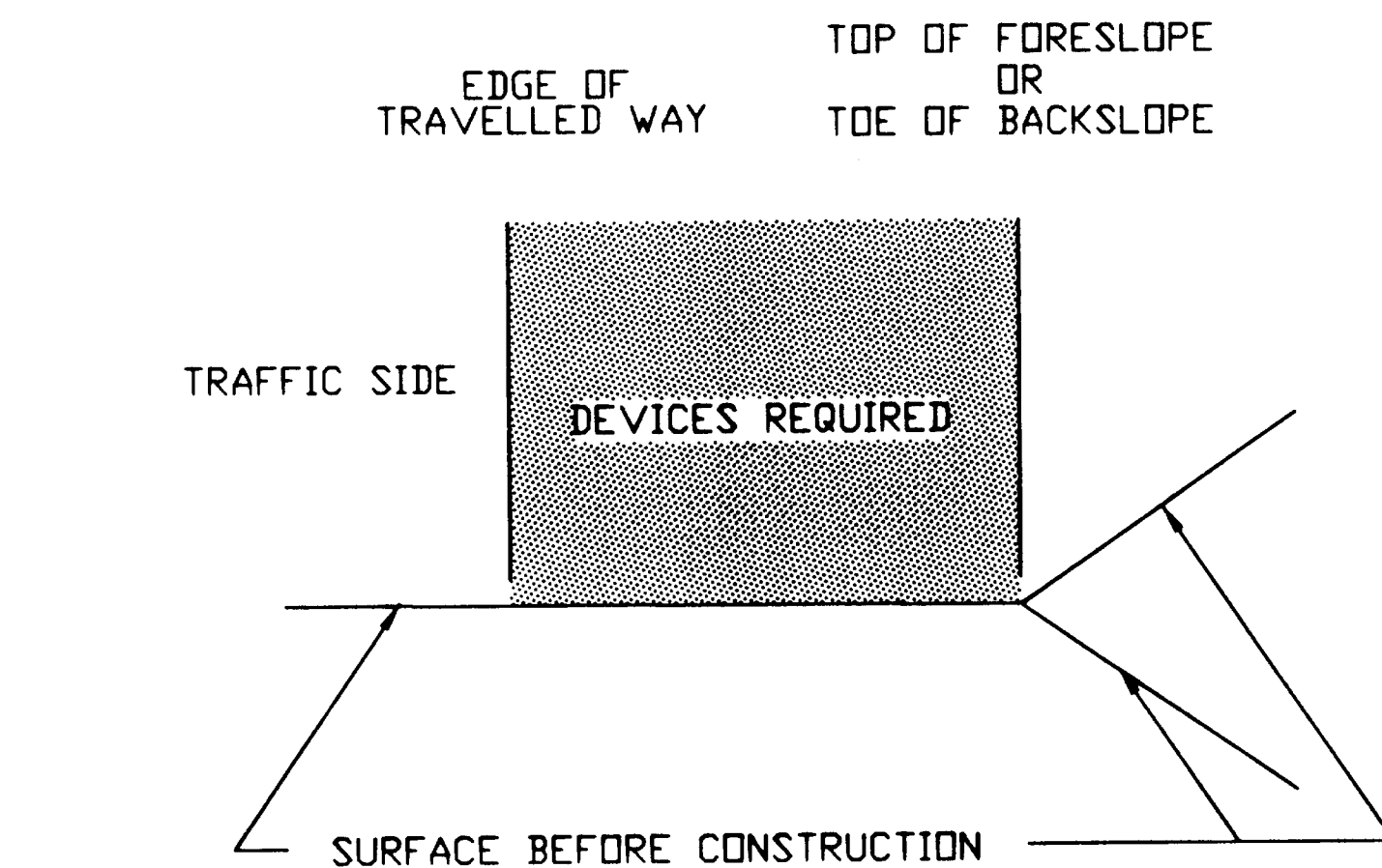
ALASKA

DESIGNED BY: R. PURVES	PROJECT NO. 71111
DRAWN BY: R. SNYDER	DATE: 1999
CHECKED BY: M. LUKSHIN	SHEET 6 OF 104

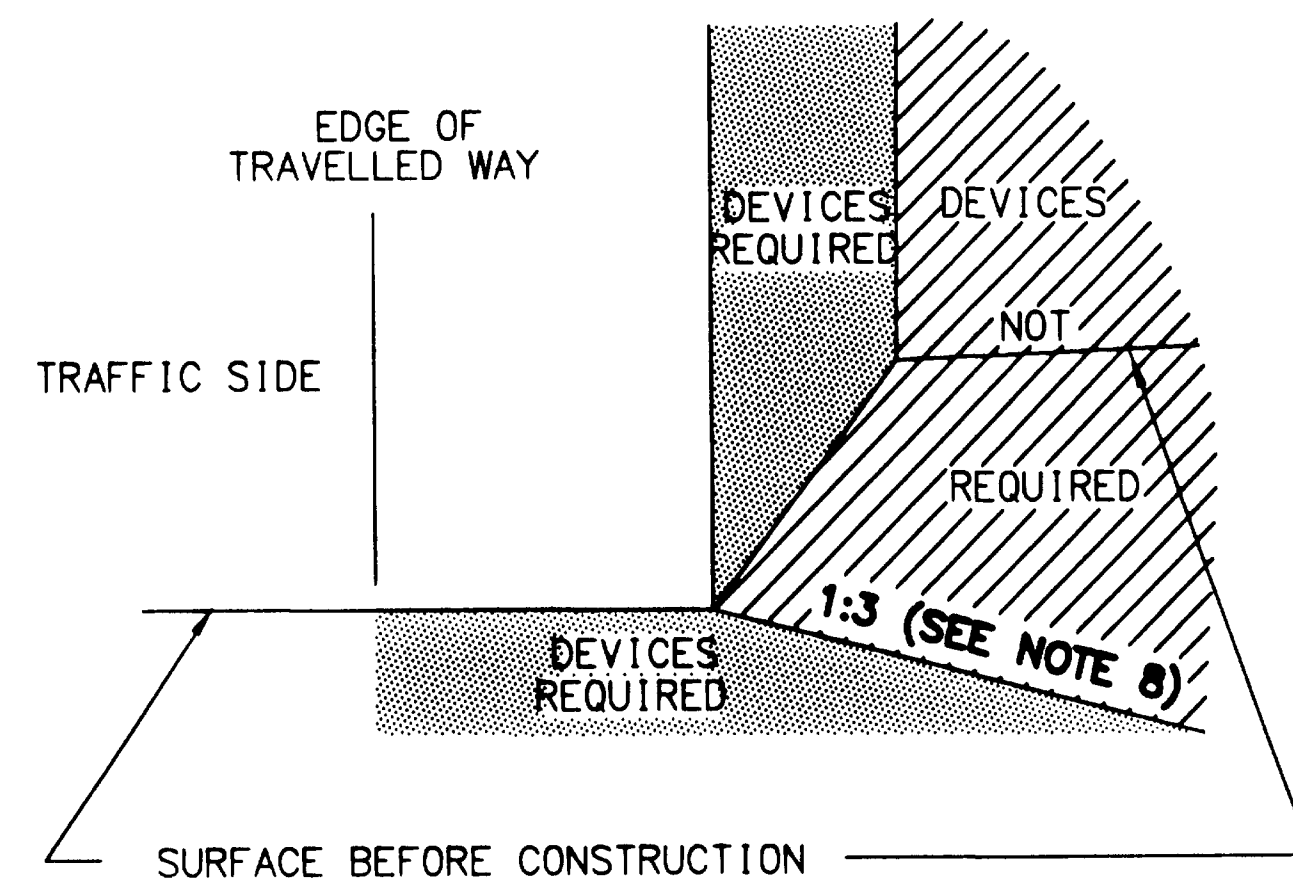
TRAFFIC CONTROL DETAILS

T-2.3

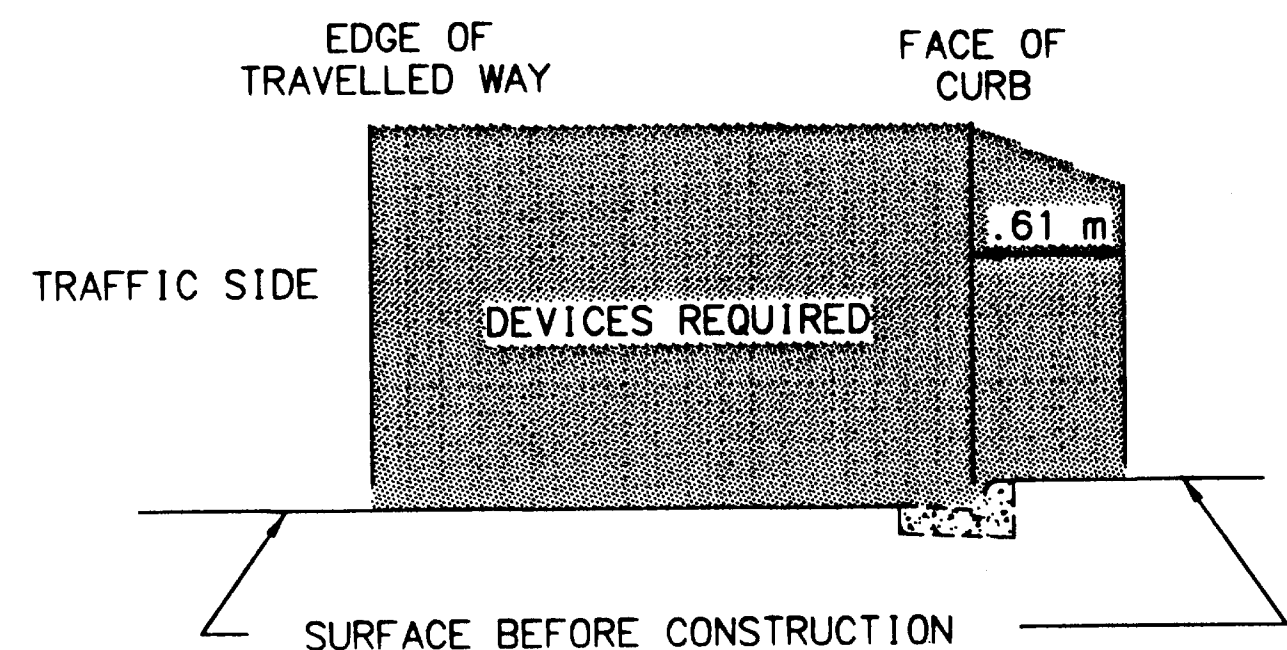




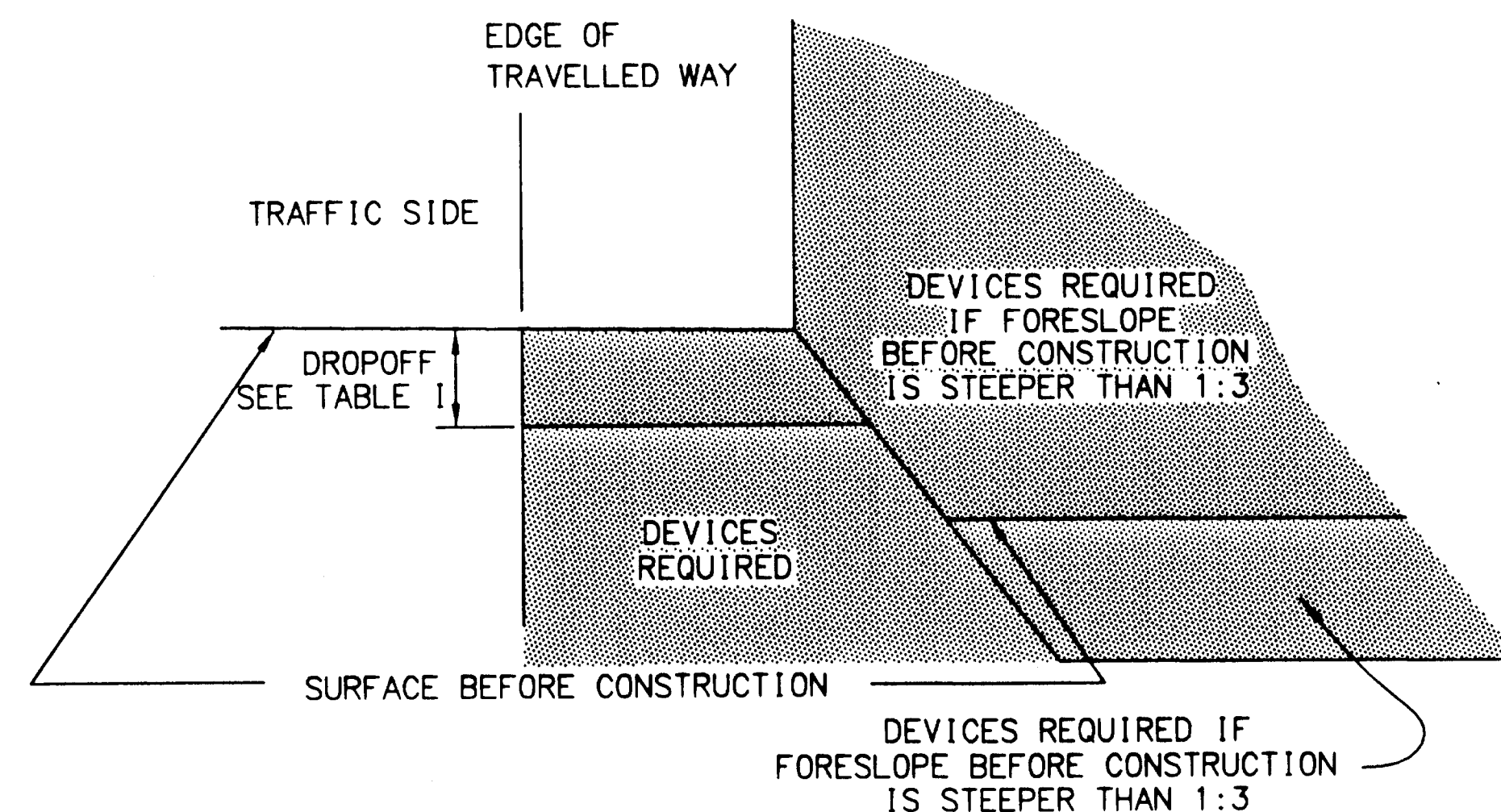
EMBANKMENT SECTION



BACKSLOPE SECTION



CURB AND GUTTER SECTION



FORESLOPE SECTION

LEGEND

- WORK AREA WHERE TRAFFIC CONTROL DEVICES ARE REQUIRED
- WORK AREA WHERE TRAFFIC CONTROL DEVICES ARE NOT REQUIRED
- SURFACE BEFORE CONSTRUCTION
- CONSTRUCTION AREA BOUNDARY

* TABLE 1 TRAFFIC CONTROL DEVICES REQUIRED FOR DROPOFFS ADJACENT TO TRAVELLED WAY			
ROADWAY TYPE	DROPOFF ≤ 51	51 < DROPOFF < 305	DROPOFF ≥ 305
AVERAGE DAILY TRAFFIC > 4000 OR SPEED > 64 kmh	TUBULAR CANDLES	TYPE 2 BARRICADES OR DRUMS	TEMPORARY PORTABLE CONCRETE BARRIER OR TEMPORARY GUARDRAIL
ALL OTHER ROADWAYS	NONE REQUIRED	TYPE 2 BARRICADES OR DRUMS	TYPE 2 BARRICADES OR DRUMS

* SPACE TUBULAR CANDLES, BARRICADES AND DRUMS IN ACCORDANCE THE ALASKA TRAFFIC MANUAL.

GENERAL NOTES:

- TRAFFIC CONTROL DEVICES REQUIRED BY THE GUIDELINES ON THIS SHEET ARE INTENDED FOR CONDITIONS WHICH WILL BE IN PLACE LONGER THAN THREE DAYS. FOR CONDITIONS WHICH WILL BE IN PLACE LESS THAN THREE DAYS LESSER REQUIREMENTS MAY APPLY. IN EITHER CASE, AN APPROVED TRAFFIC CONTROL PLAN IS REQUIRED PRIOR TO BEGINNING WORK.
- THE GROUND CROSS SECTION AT A LOCATION BEFORE CONSTRUCTION DETERMINES WHETHER TRAFFIC CONTROL DEVICES ARE NEEDED AT THE SAME LOCATION DURING CONSTRUCTION.
- GUARDRAIL EXISTING AT A LOCATION BEFORE CONSTRUCTION SHALL REMAIN IN PLACE DURING CONSTRUCTION OR APPROVED ALTERNATE DEVICES INSTALLED.
- INSTALL TRAFFIC CONTROL DEVICES BETWEEN THE EDGE OF TRAVELLED WAY AND THE WORK AREA ON ANY ROADWAY OPENED TO TRAFFIC WHEN REQUIRED BY THIS DRAWING.
- EXISTING ROADWAY ALIGNMENTS
INSTALL TRAFFIC CONTROL DEVICES WHEN WORK OCCURS IN THE DEVICES REQUIRED AREAS SHOWN ON THIS DRAWING.
- DETOURS, TEMPORARY ROADWAYS, OR NEW ROADWAYS NOT YET COMPLETE.
INSTALL TRAFFIC CONTROL DEVICES WHEN ANY OF THE FOLLOWING CONDITIONS EXIST:
 - THE HORIZONTAL OR VERTICAL CURVATURE IS MORE SEVERE THAN BEFORE CONSTRUCTION BEGAN.
 - THE ROADWAY OR SHOULDER WIDTH IS LESS THAN BEFORE CONSTRUCTION BEGAN.
 - THE BACKSLOPE OR FORESLOPE IS STEEPER THAN BEFORE CONSTRUCTION BEGAN.
 - THE HEIGHT OF THE FORESLOPE IS GREATER THAN BEFORE CONSTRUCTION BEGAN.
- DROPOFFS
INSTALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE FORESLOPE SECTION DETAIL AND TABLE 1.
- ON ANY NEWLY CONSTRUCTED SLOPE STEEPER THAN 1:4 TO 1:3 PROVIDE A 3 METER FLAT RECOVERY AREA AT THE TOE OF SLOPE OR INSTALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE FORESLOPE SECTION DETAIL.
- TRAFFIC CONTROL DEVICE REQUIREMENTS
 - ON ROADWAYS WITH A SPEED LIMIT GREATER THAN 64 KILOMETERS PER HOUR OR AVERAGE DAILY TRAFFIC VOLUME GREATER THAN 4000 VEHICLES PER DAY INSTALL TEMPORARY PORTABLE CONCRETE BARRIER, TEMPORARY GUARDRAIL OR ON MULTI-LANE ROADWAYS CLOSE THE LANE CLOSEST TO THE WORK AREA AND INSTALL DRUMS SPACED IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL.
TERMINATE RUNS OF TEMPORARY PORTABLE CONCRETE BARRIER USING ONE OF THE FOLLOWING THREE METHODS:
 - TEMPORARY CRASH ATTENUATOR.
 - RIGID TO SEMI-RIGID GUARDRAIL TRANSITION WITH SLOTTED RAIL TERMINAL OR OTHER APPROVED CRASHWORTHY END TREATMENT.
 - FLARE THE ENDS OF THE TEMPORARY BARRIER AWAY FROM THE ROADWAY AT A RATE OF 1:15 ON A TRANSVERSE SLOPE OF 1:10 OR FLATTER TO THE OUTSIDE EDGE OF THE CLEAR ZONE AND INSTALL A SLOPING END TREATMENT, PER STANDARD DRAWING G-45.01[M].TERMINATE RUNS OF TEMPORARY GUARDRAIL USING EITHER OF THE FOLLOWING TWO METHODS:
 - SLOTTED RAIL TERMINAL OR OTHER APPROVED CRASHWORTHY END TREATMENT.
 - FLARE THE ENDS OF THE TEMPORARY GUARDRAIL AWAY FROM THE ROADWAY AT A RATE OF 1:15 ON A TRANSVERSE SLOPE OF 1:10 OR FLATTER TO THE OUTSIDE EDGE OF THE CLEAR ZONE.
 - ON ALL OTHER ROADWAYS INSTALL TYPE II BARRICADES OR DRUMS WHEN DEVICES ARE REQUIRED. SPACE THE BARRICADES OR DRUMS IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: P: \Ktn\71111\Dr\T-2.4.dwg		
PLOT: 1=1		
BY:	DATE:	DESCRIPTION OF CHANGE:
RECORD OF REVISIONS		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902(26) ~ PROJECT NO. 71111

ALASKA

TRAFFIC CONTROL DEVICES

DESIGNED BY: R. PURVES	PROJECT NO. 71111
DRAWN BY: R. SNYDER	DATE: 1999
CHECKED BY: M. LUKSHIN	SHEET 7 OF 104



GENERAL NOTES

SPECIFICATION:

Design: AASHTO LRFD Bridge Design Specification, 1998 Edition, with the latest Interim Specifications.

Construction: State of Alaska 1998 Standard Specifications for Highway Construction with Special Provisions.

MATERIAL PROPERTIES:

Structural Steel: $F_y = 250$ MPa

Cast-in-Place Concrete: $f'_c = 31$ MPa

STRUCTURAL MATERIALS:

Concrete: Use Class "A" concrete unless otherwise noted.

Reinforcing Steel:.....Use standard metric size reinforcing steel conforming to ASTM A615M Grade 400.

Structural Steel: Use structural steel conforming to ASTM A36M unless otherwise noted.

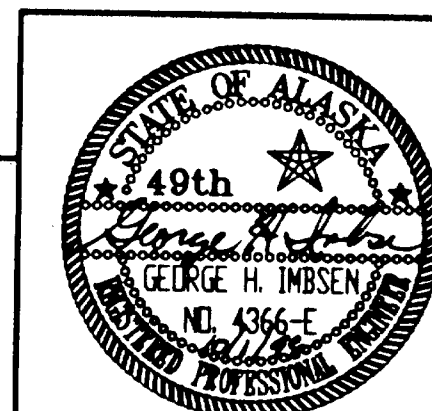
DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

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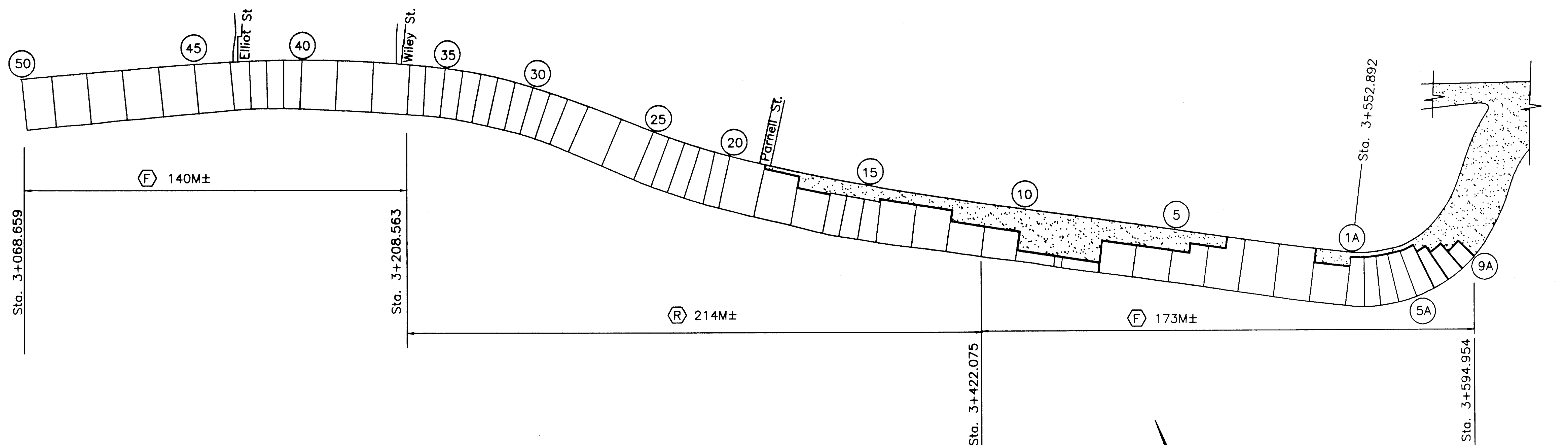
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STATE OF ALASKA
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AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN
KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS STRUCTURAL REPAIRS
ALASKA
GENERAL NOTES



BRIDGE DESIGN SECTION STATE OF ALASKA DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES JUNEAU, ALASKA		S-1.0
DESIGNED BY: GHI	DATE: SEPTEMBER, 1999	
CHECKED BY: EEM	SHEET 8 OF 104	
APPROVED BY:	BRIDGE NO. 797&99	

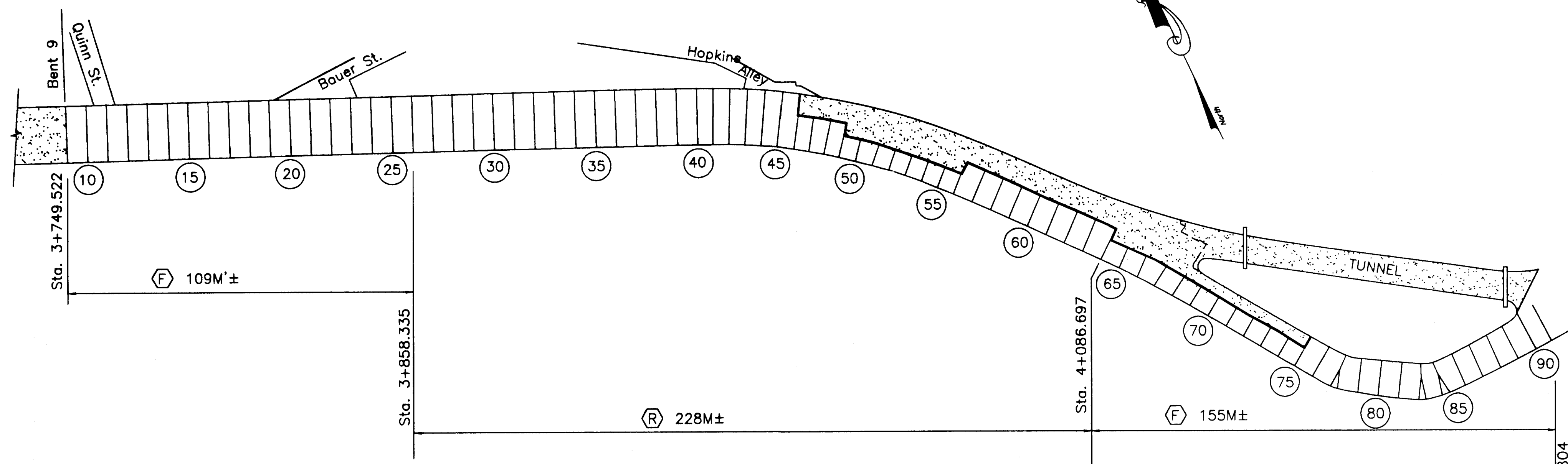


TONGASS AVENUE BR. NO. 997

Sta. 3+068.659 to Sta. 3+552.891

"S" CURVE

Sta. 3+552.892 to Sta. 3+594.954



WATER STREET BR. NO. 797

Sta. 3+749.522 to 4+241.804

LEGEND	
(F)	FILL (FUTURE)
(R)	REHABILITATION
(XX)	BENT NUMBER
[Pattern]	EARTH

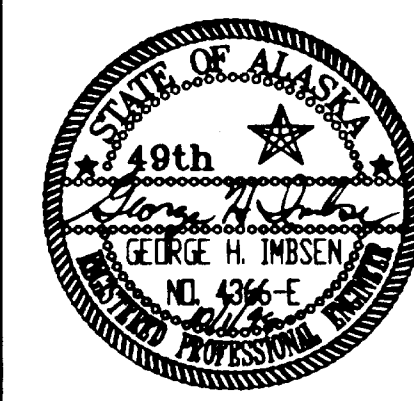
ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

 BRIDGE DESIGN SECTION STATE OF ALASKA DEPARTMENT OF TRANSPORTATION and PUBLIC FACILITIES JUNEAU, ALASKA		S-1.1
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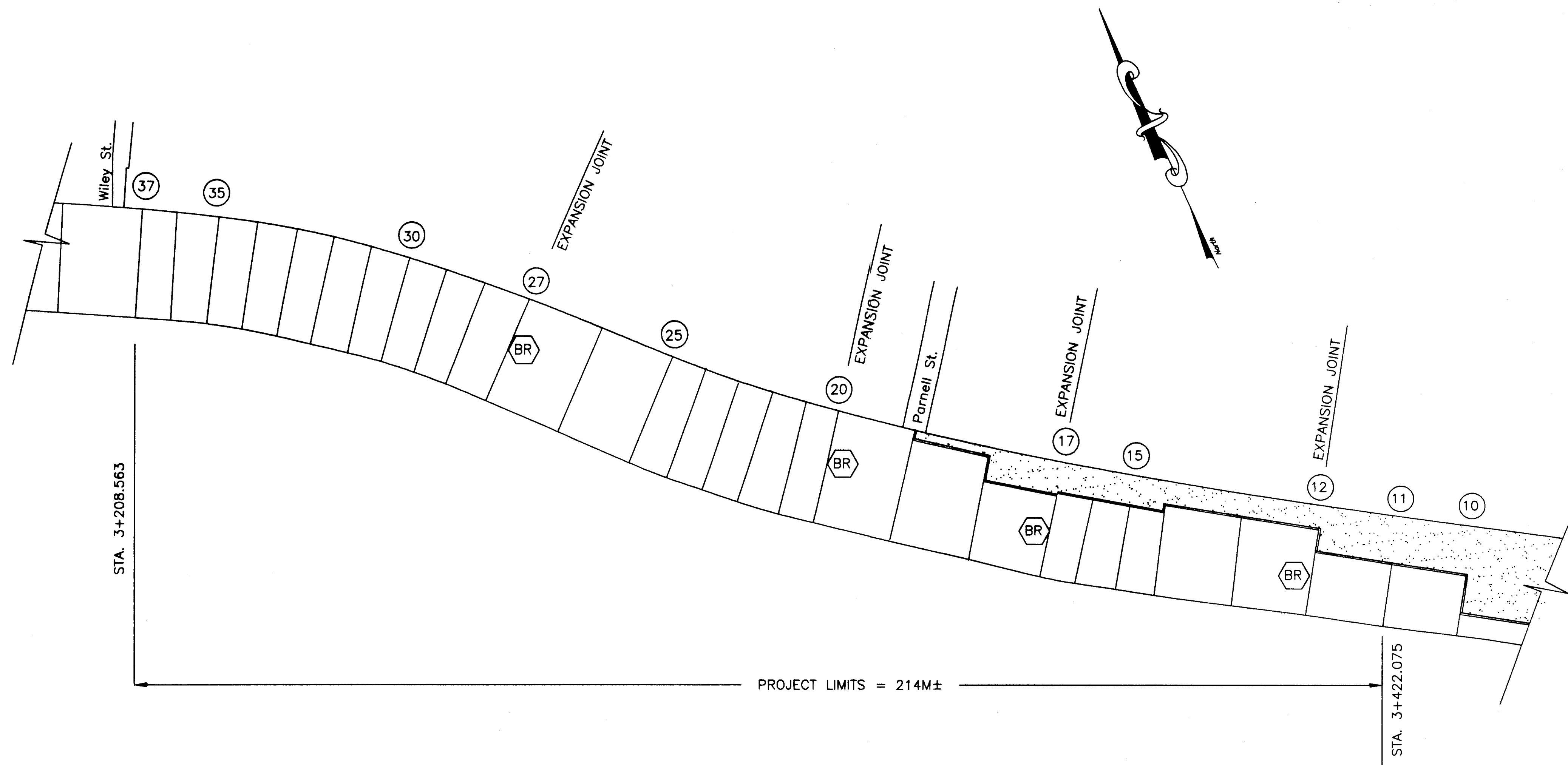
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CHECKED BY: EEM	SHEET 9 OF 104
APPROVED BY:	BRIDGE NO. 797&99



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KETCHIKAN
KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS STRUCTURAL REPAIRS
ALASKA
SCOPE OF WORK



TONGASS AVENUE BR #997

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
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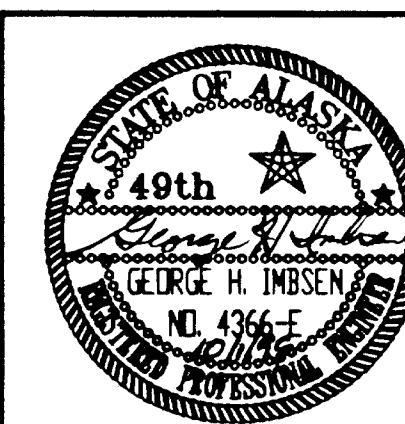
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	BEARING REPLACEMENT
	BENT NUMBER
	EARTH

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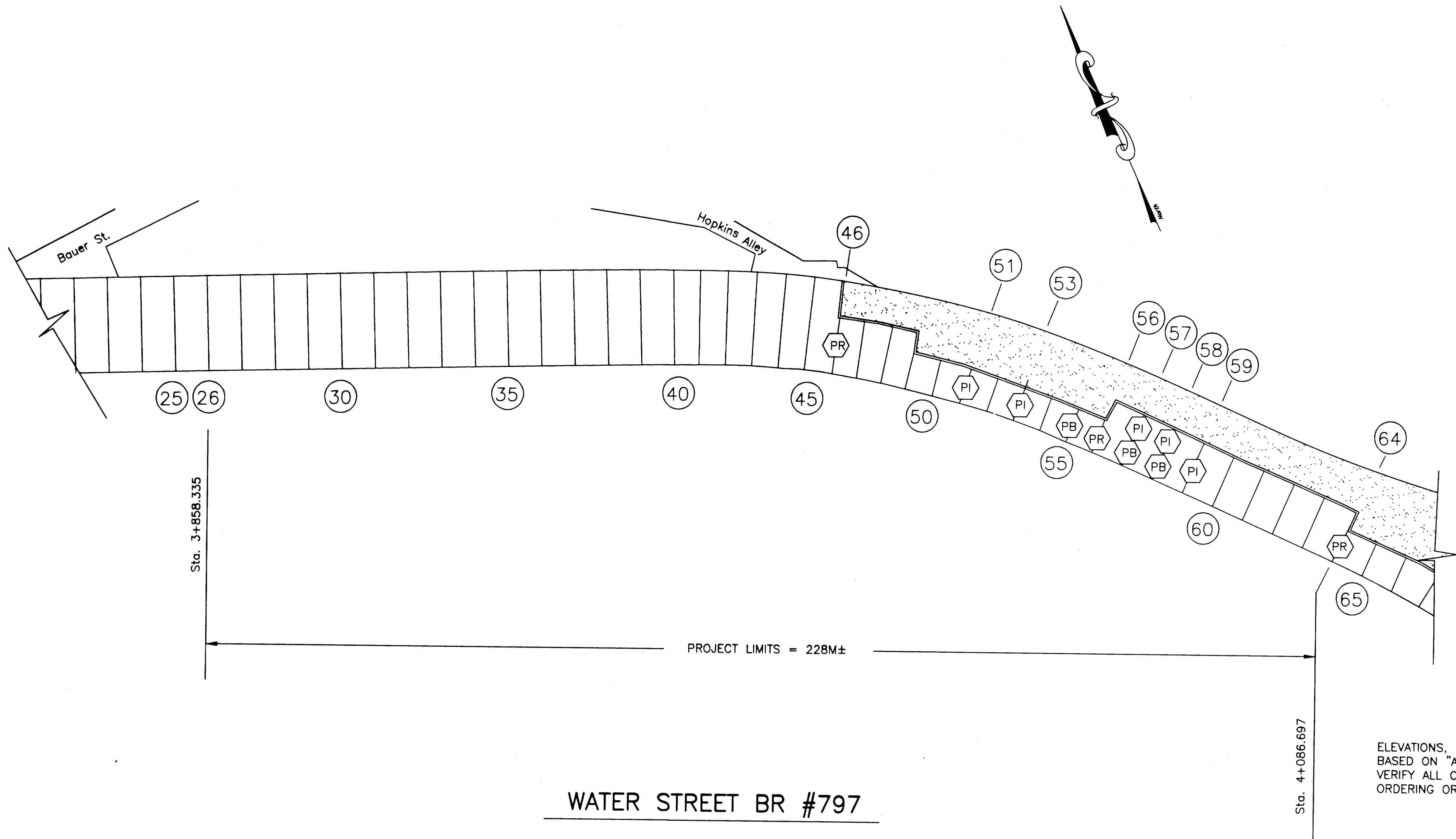
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (28) PROJECT NO. 71111
TONGASS AVENUE VIADUCT STRUCTURAL REPAIRS
ALASKA
TONGASS AVE. STRUCTURAL REPAIRS SCOPE



 BRIDGE DESIGN SECTION STATE OF ALASKA DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES JUNEAU, ALASKA		S-2.1
DESIGNED BY: GHI	DATE: SEPTEMBER, 1999	
CHECKED BY: EEM	SHEET 10 OF 104	
APPROVED BY:	BRIDGE NO. 997	



ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

LEGEND

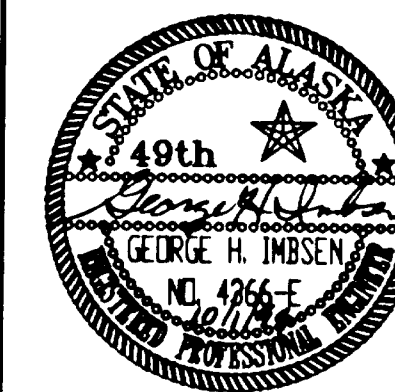
- (XX) BENT NUMBER
- (PI) PILASTER INJECTION
- (PR) PILASTER REPAIR
- (PB) PILE BAG
- EARTH

RECORD OF REVISIONS

DATE	BY	COMMENT

BRIDGE DESIGN SECTION
STATE OF ALASKA
DEPARTMENT of TRANSPORTATION
and PUBLIC FACILITIES
JUNEAU, ALASKA

S-2.2



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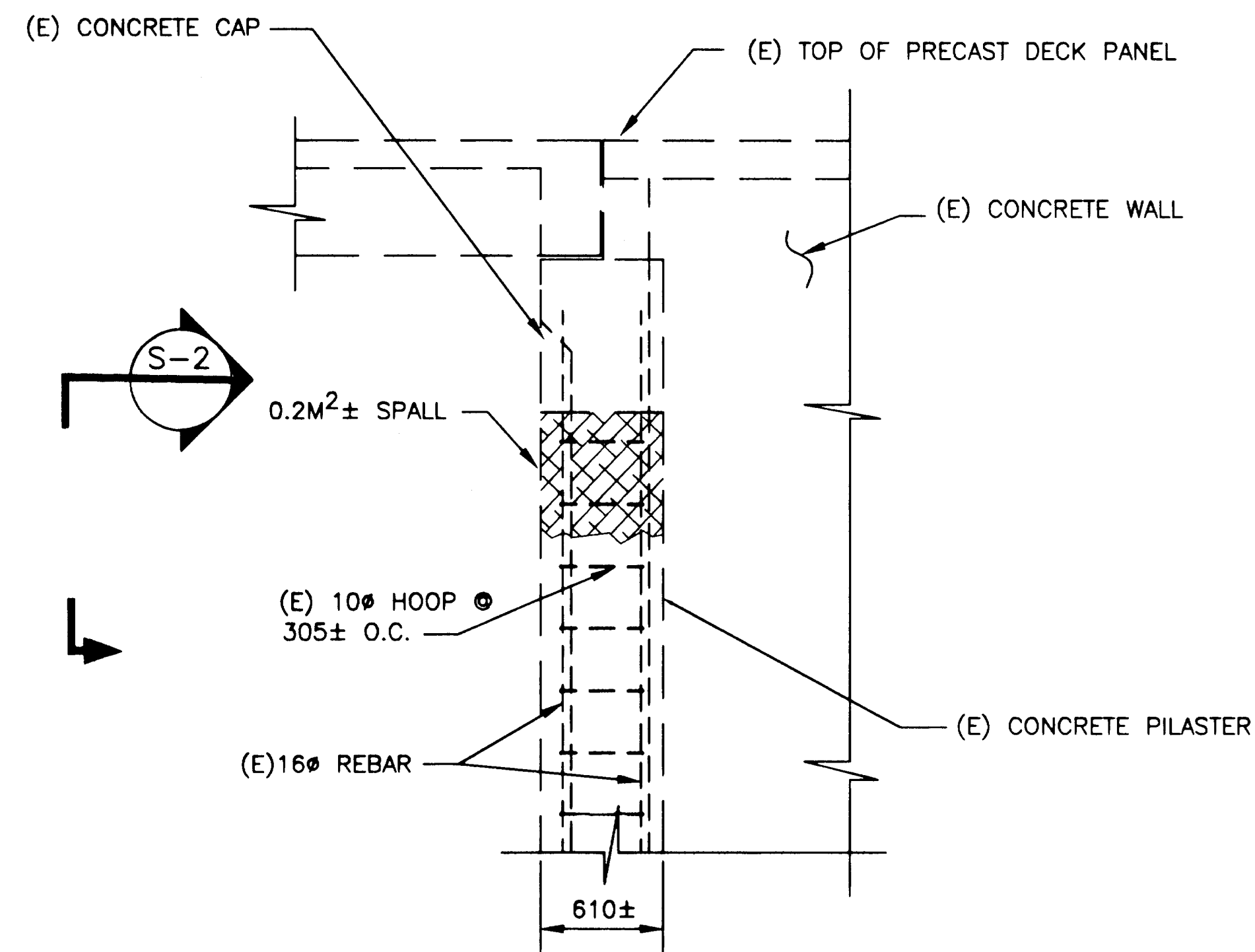
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SOUTHEAST REGION

KETCHIKAN

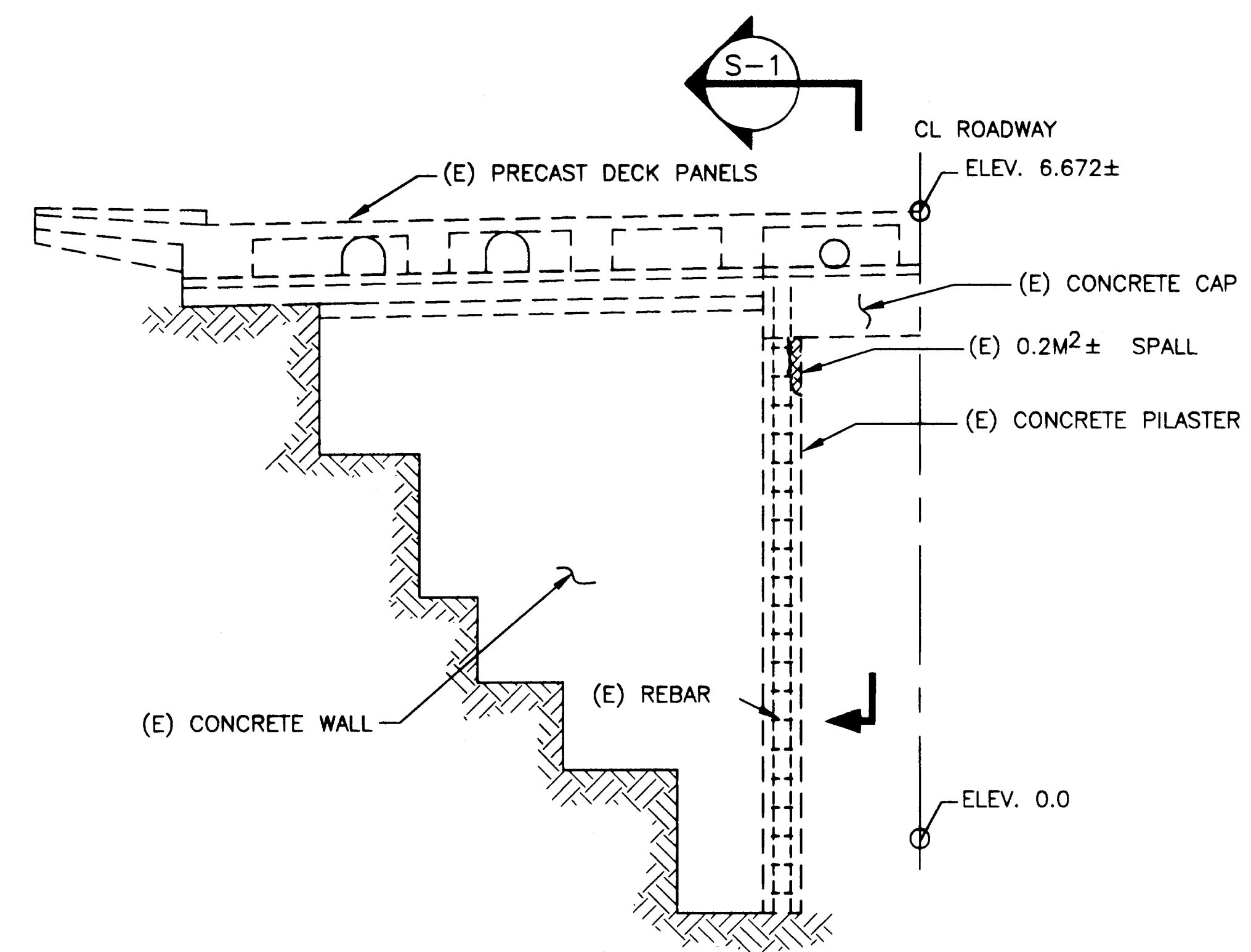
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WATER STREET VIADUCT STRUCTURAL REPAIRS

ALASKA

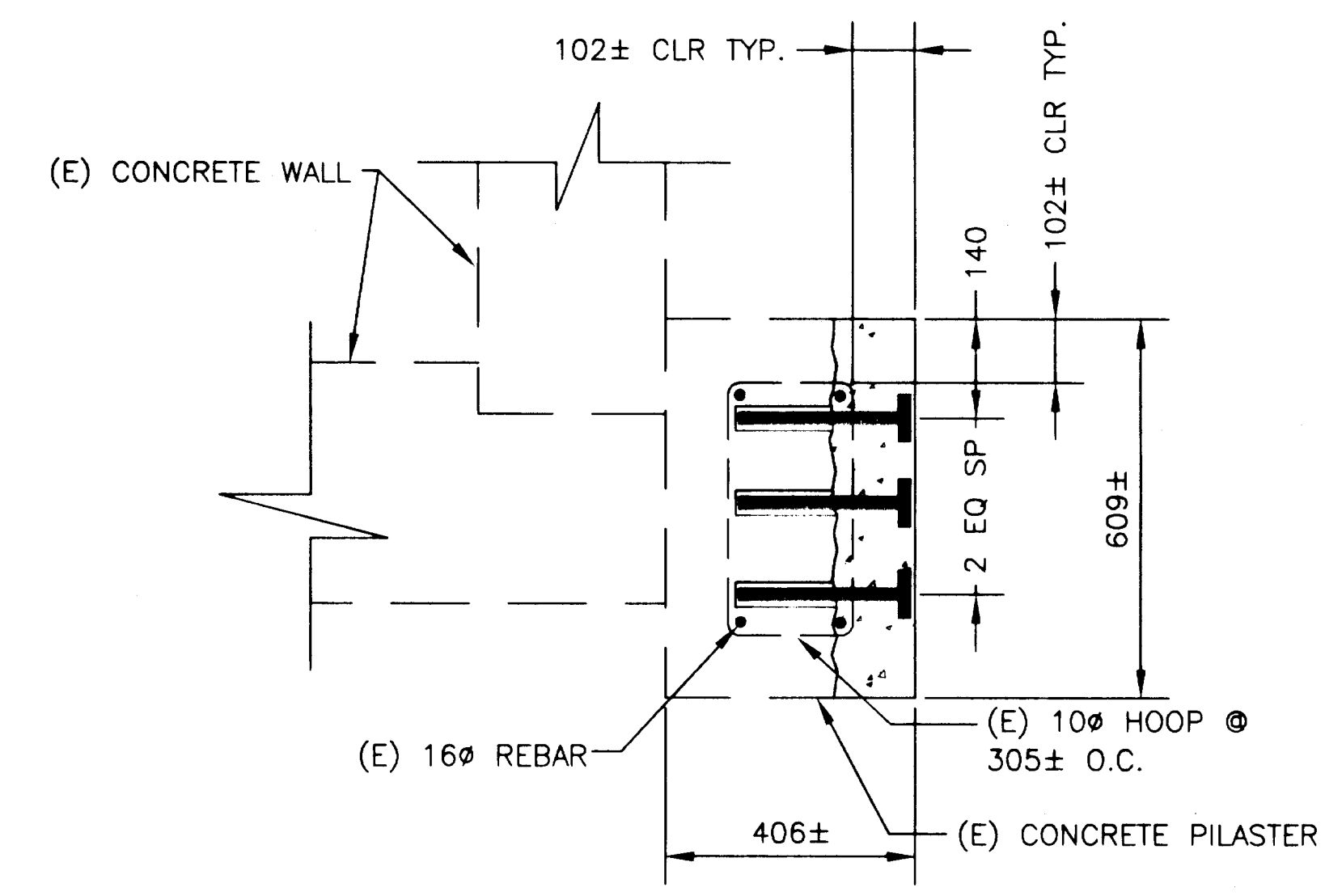
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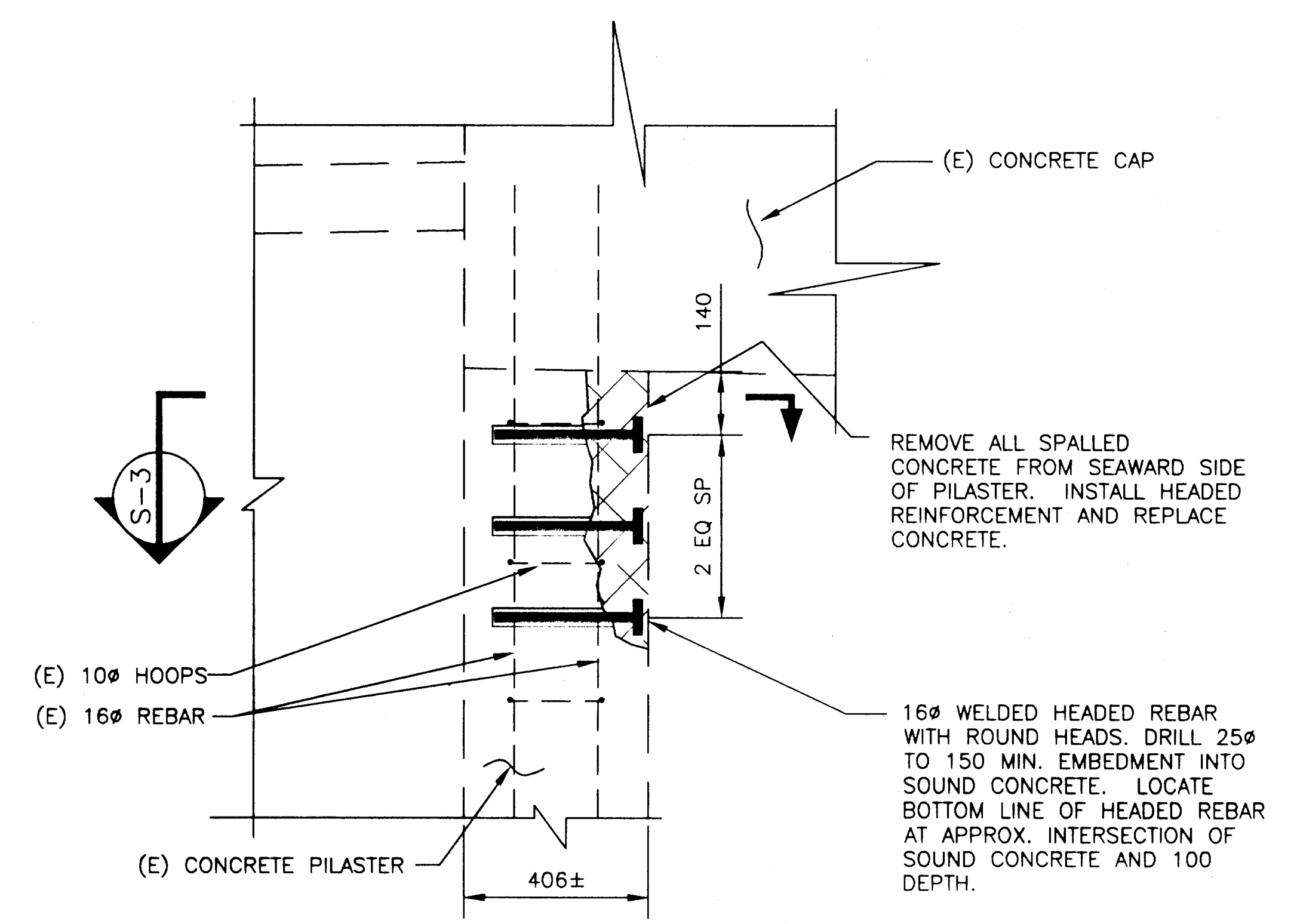
SECTION
SHOWING DAMAGE S-1



BENT 46



SECTION
SPALL REPAIR S-3



SECTION
SPALL REPAIR S-2

LEGEND:

- SPALL
- NEW CONCRETE
- DENOTES EXISTING
- DENOTES NEW CONSTRUCTION
- (E) EXISTING

NOTES:

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

REPAIR ALL SPALLS AND DELAMINATIONS AS OUTLINED IN AK. SPECIFICATION SPECIAL PROVISIONS BEFORE JACKETING.

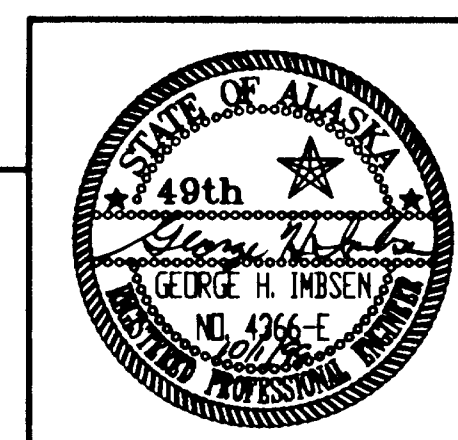
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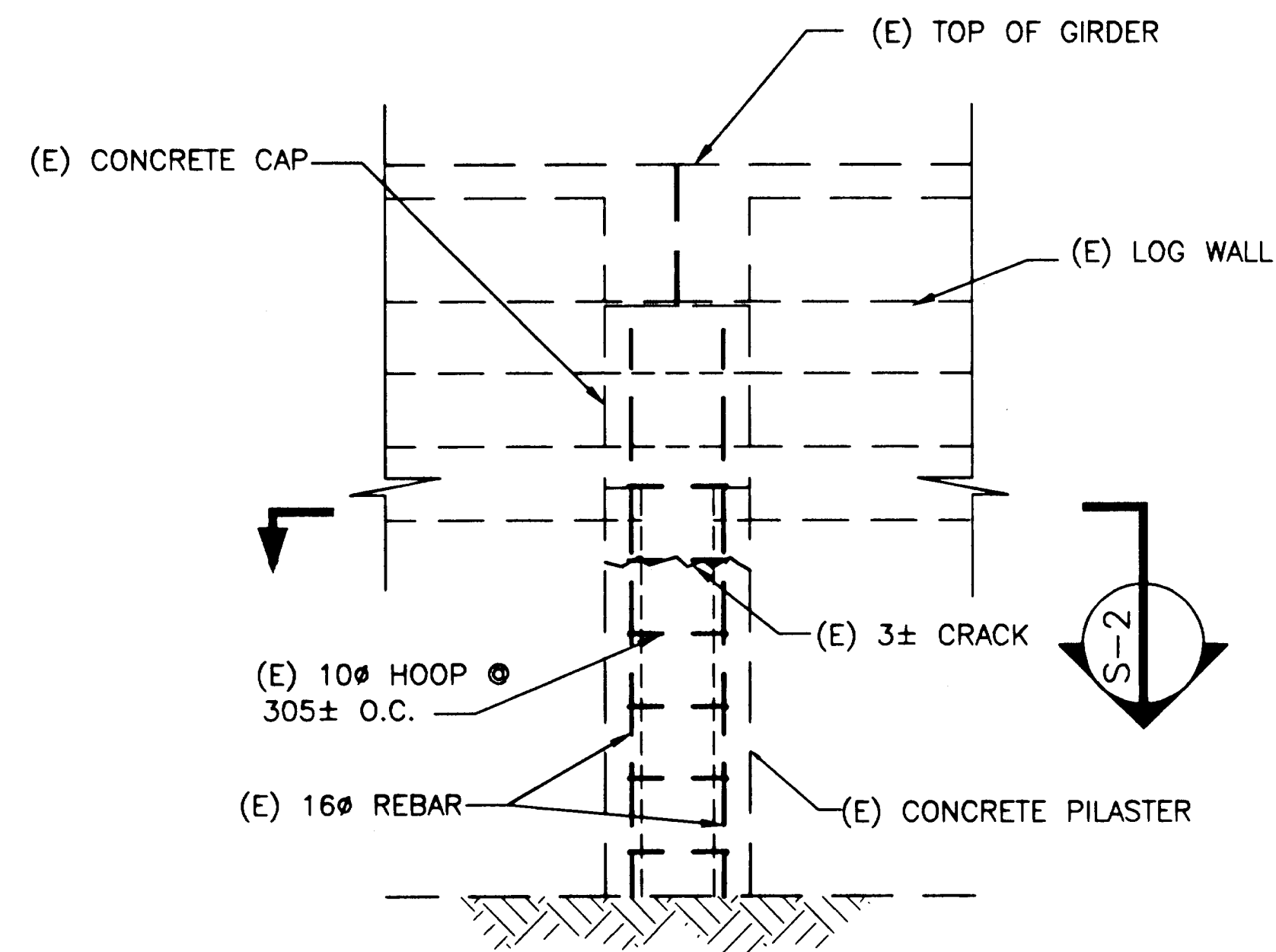
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 SOUTHEAST REGION

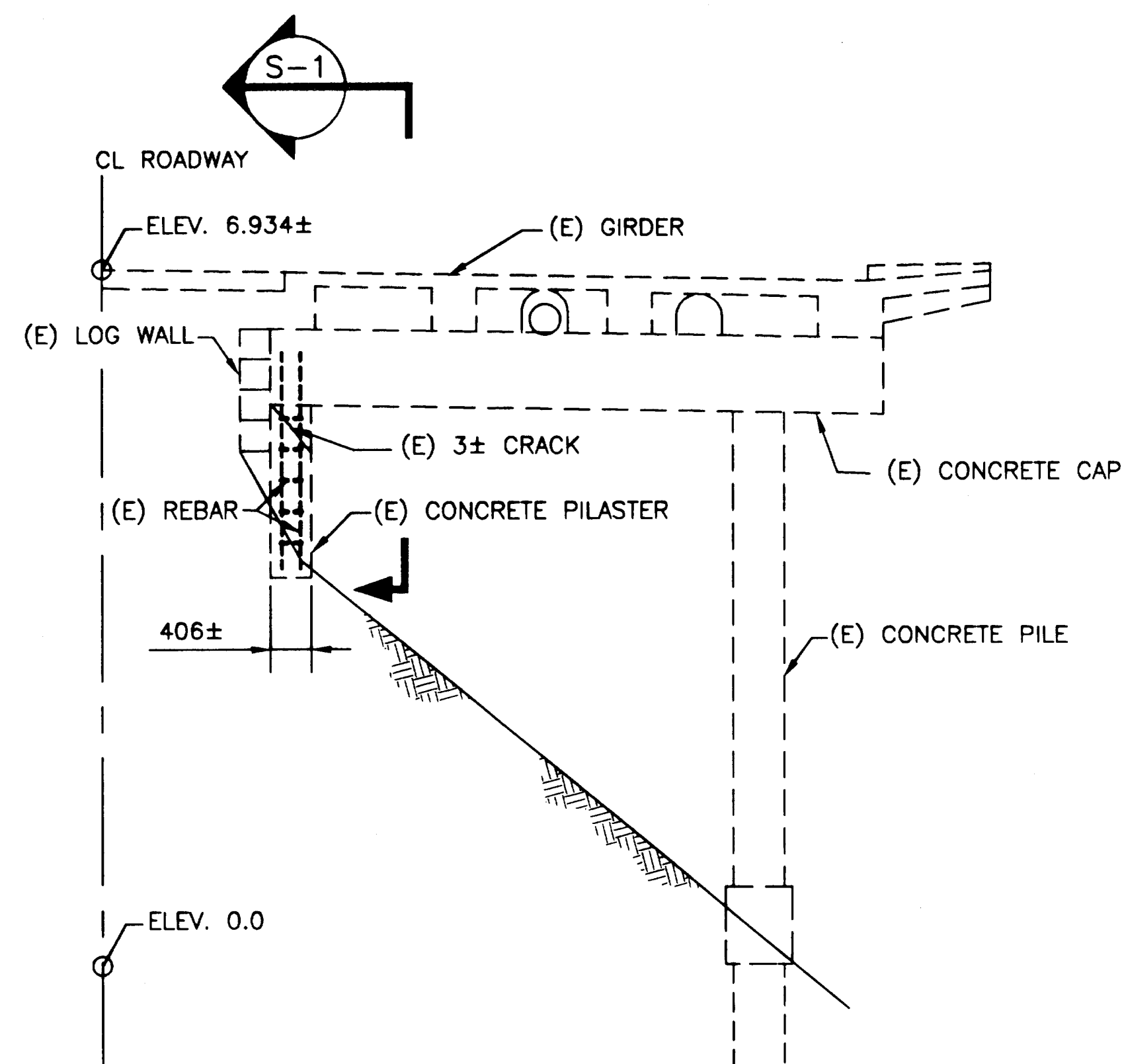
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 WATER STREET VIADUCT STRUCTURAL REPAIRS
 WATER ST. BENT 46 PILASTER REPAIR



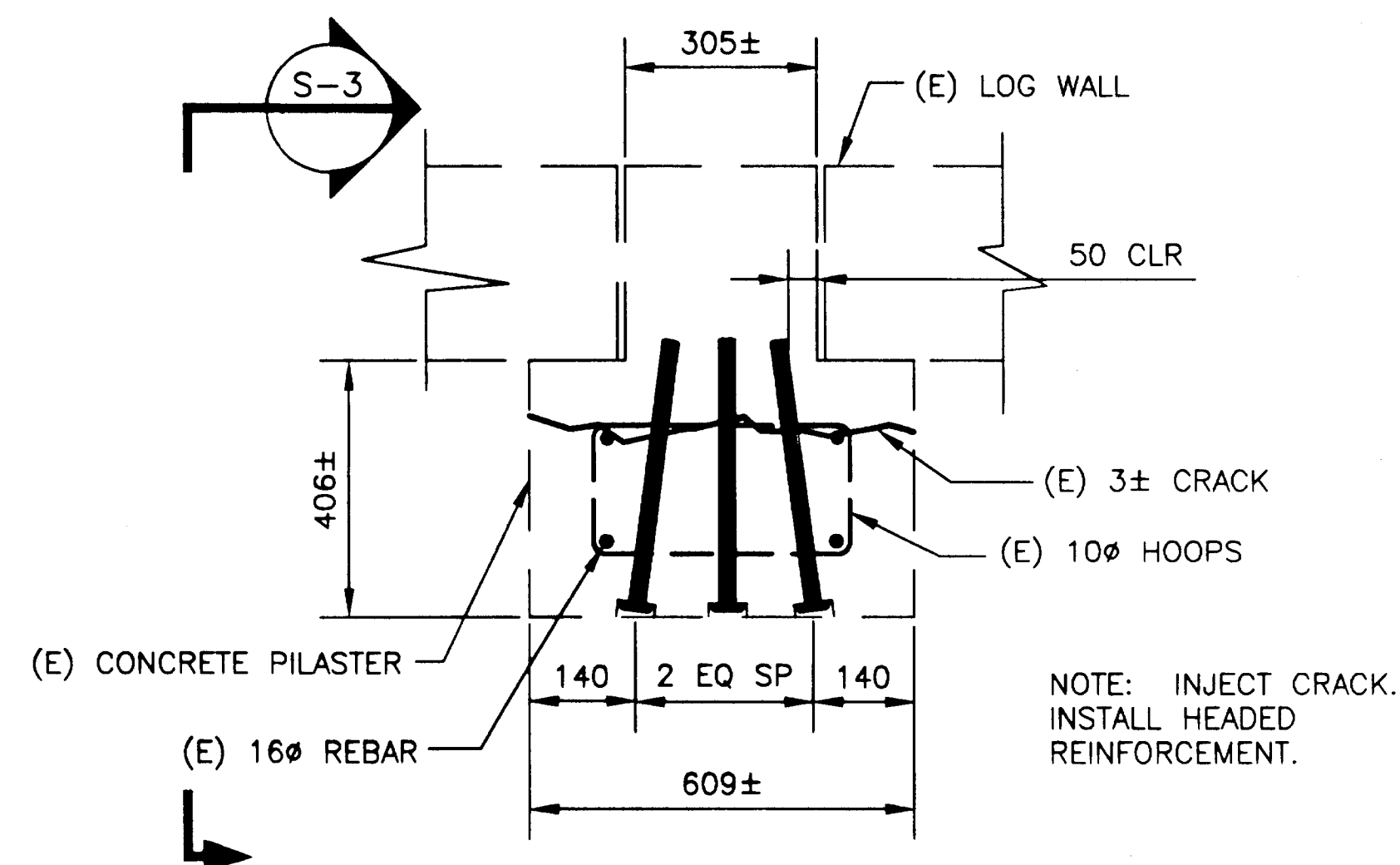
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DESIGNED BY: GHI	DATE: SEPTEMBER, 1999	
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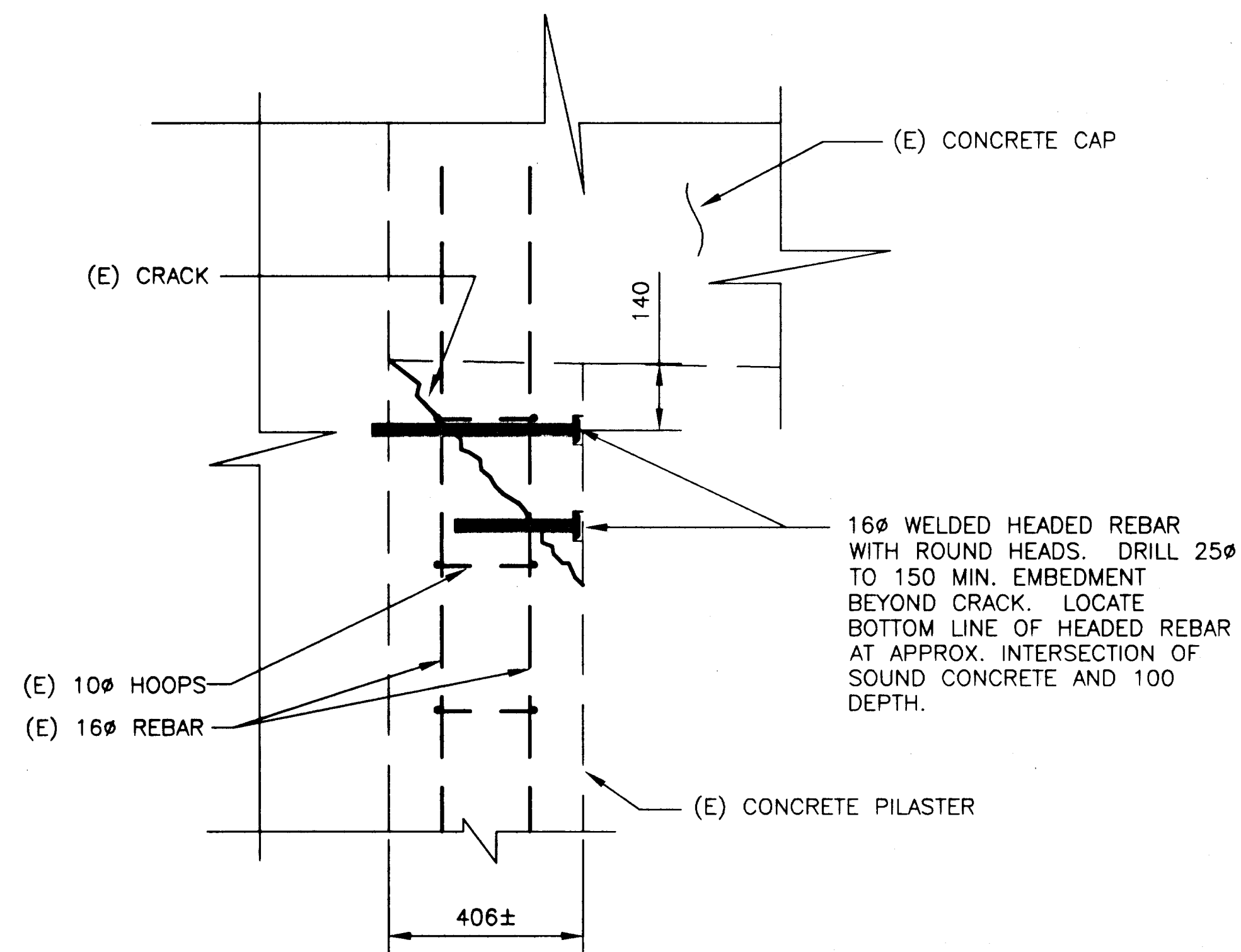
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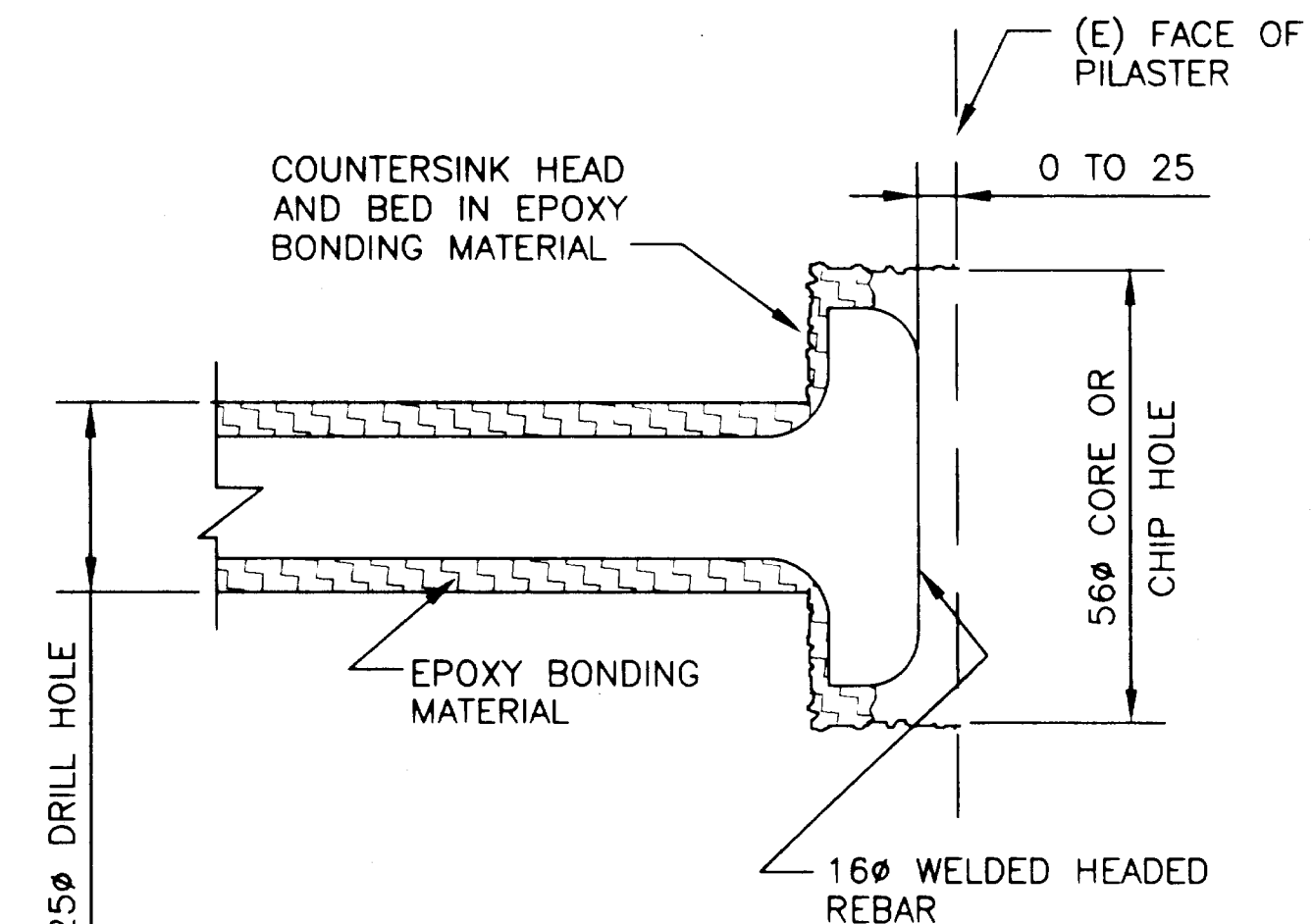
BENT 51



SECTION
CRACK REPAIR S-2



SECTION
CRACK REPAIR S-3



WELDED HEADED REBAR

LEGEND:

- EPOXY BONDING MATERIAL
- DENOTES EXISTING
- DENOTES NEW CONSTRUCTION
- (E) EXISTING

NOTES:

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

INJECT CRACKS AS OUTLINED IN AK. SPECIFICATION SPECIAL PROVISIONS BEFORE JACKETING.

DO NOT SCALE FROM THESE PLANS
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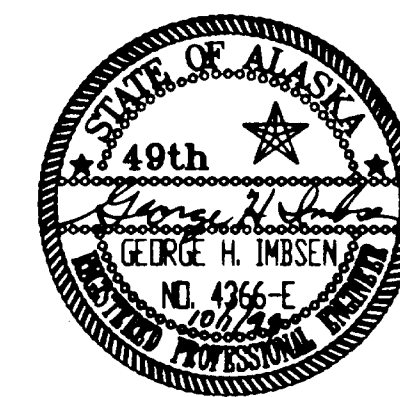
RECORD OF REVISIONS

DATE	BY	COMMENT

BRIDGE DESIGN SECTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
and PUBLIC FACILITIES
JUNEAU, ALASKA

S-3.2

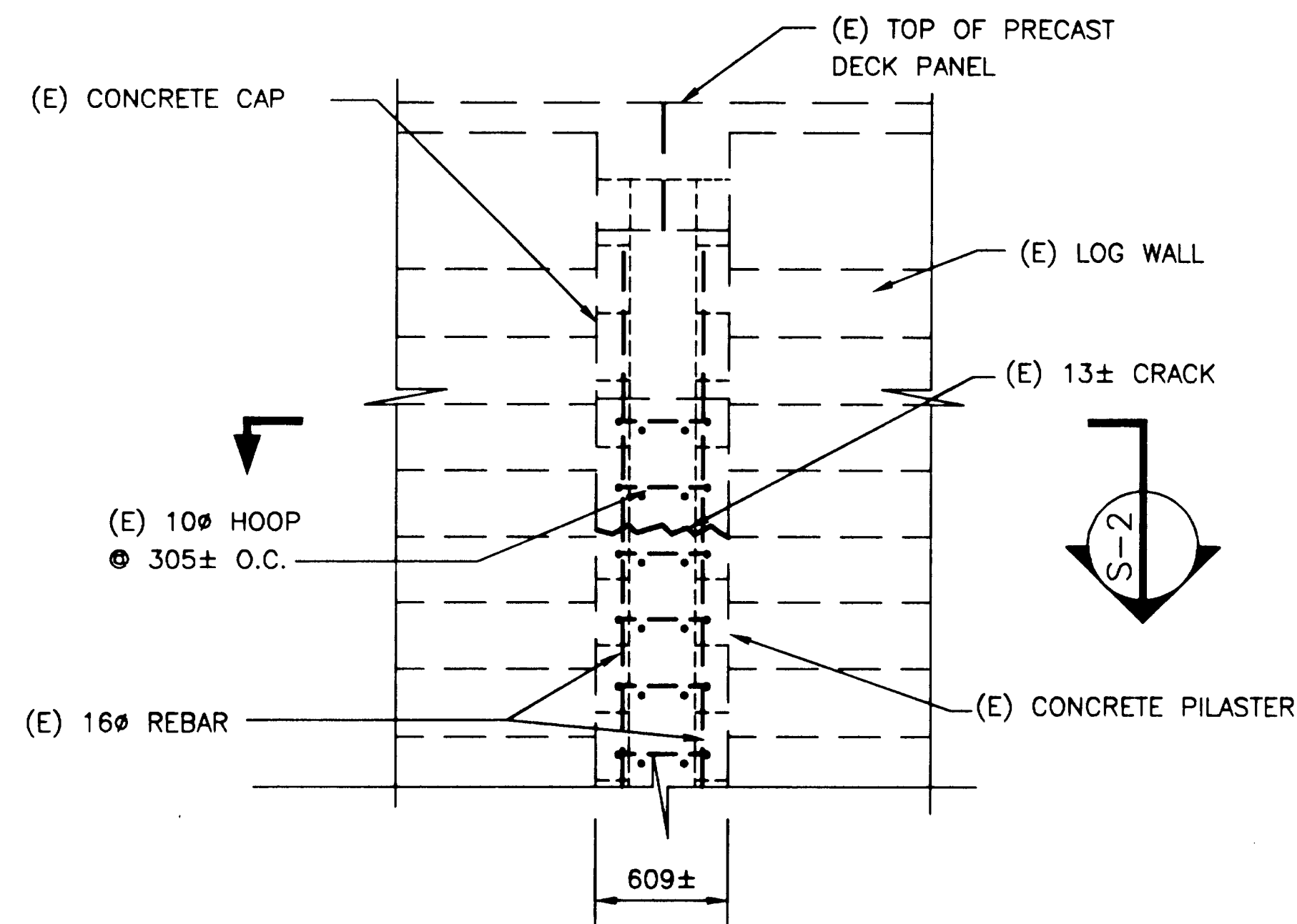


DESIGNED BY: <i>GHI</i>	DATE: SEPTEMBER, 1999
CHECKED BY: <i>EEM</i>	SHEET 13 OF 104
APPROVED BY:	BRIDGE NO. 797

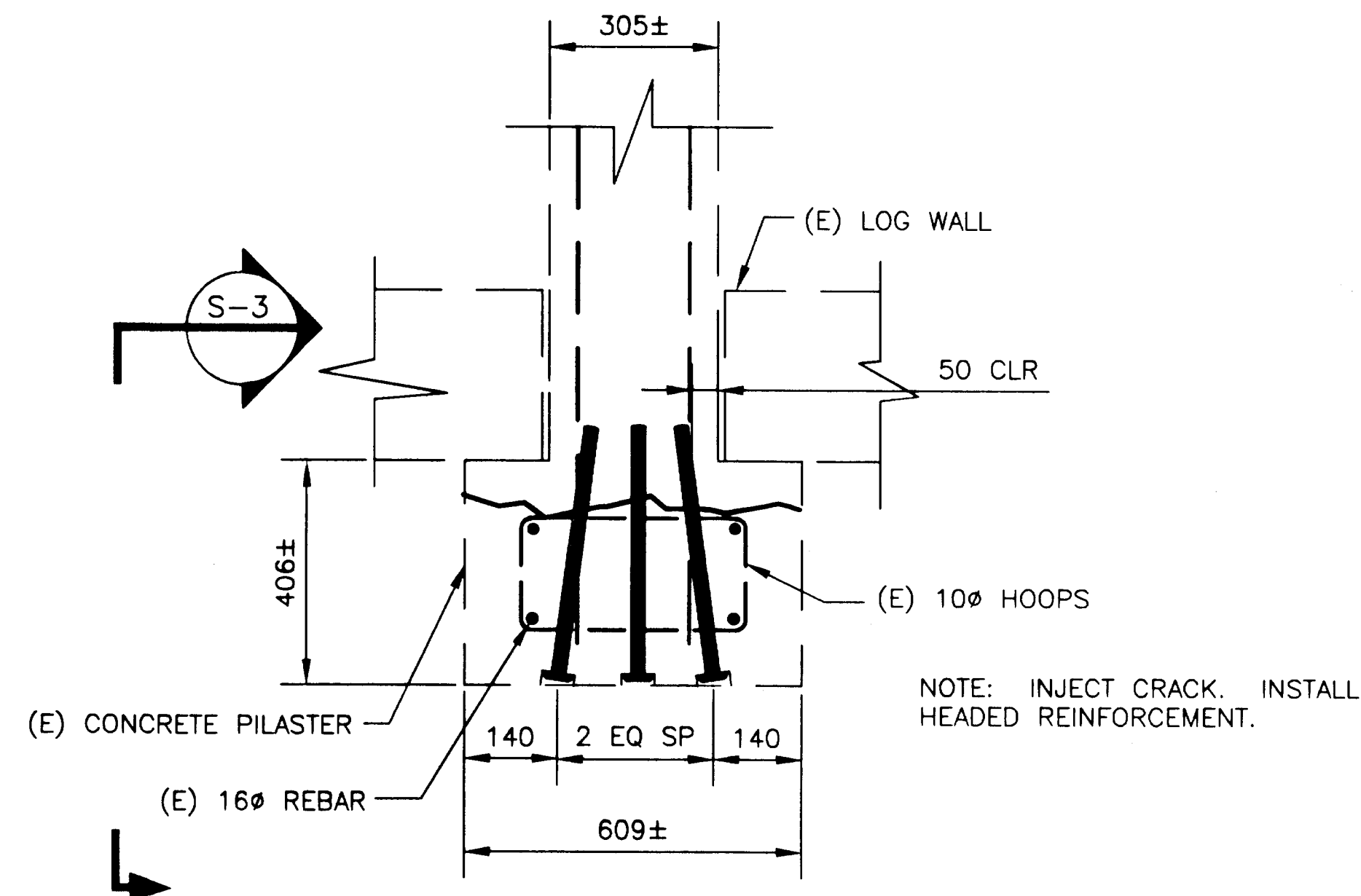
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DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

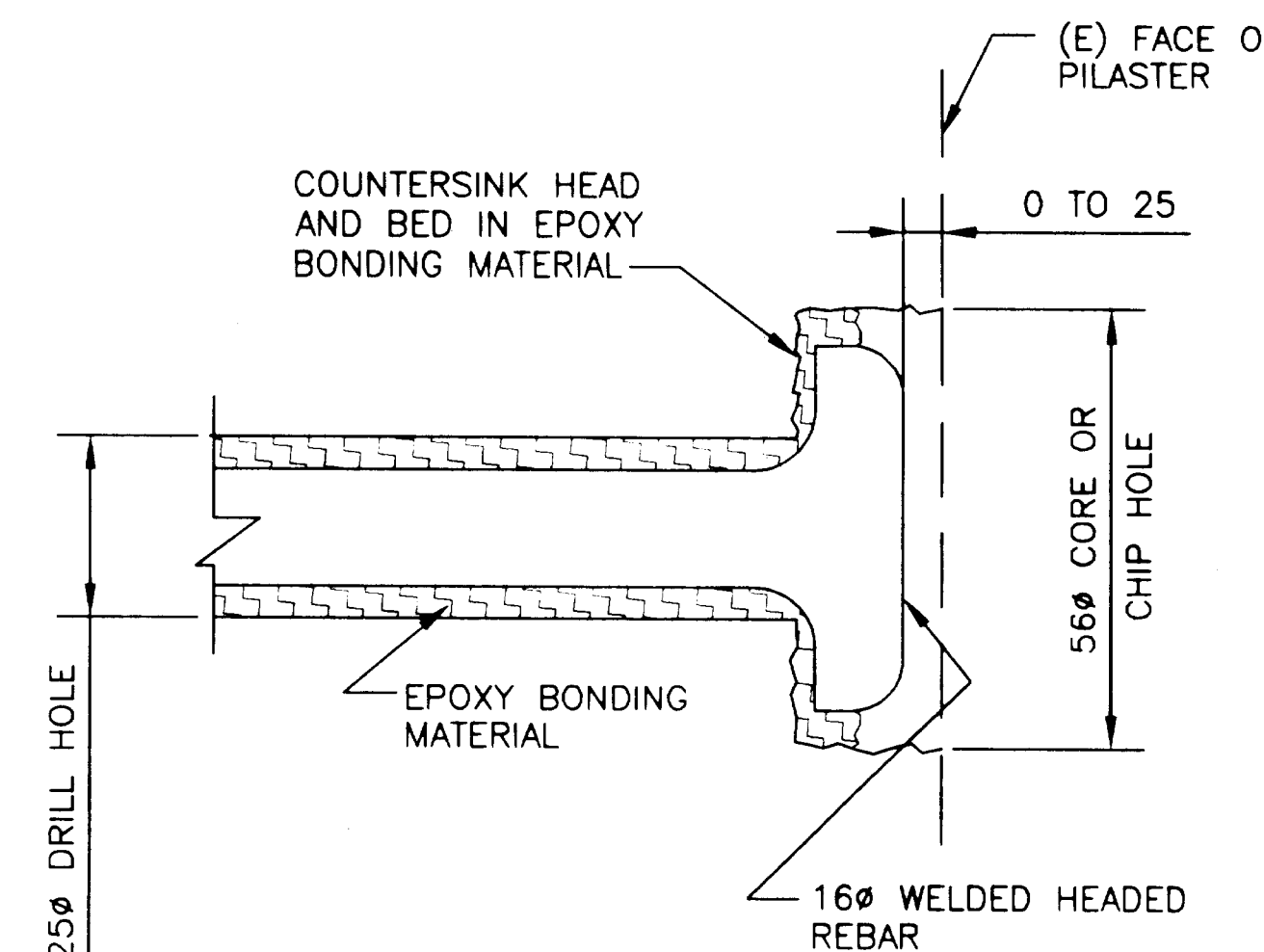
KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
 FED. NO. BR-0902 (28) PROJECT NO. 71111
 WATER STREET VIADUCT STRUCTURAL REPAIRS
WATER ST. BENT 51 PILASTER REPAIR
 ALASKA



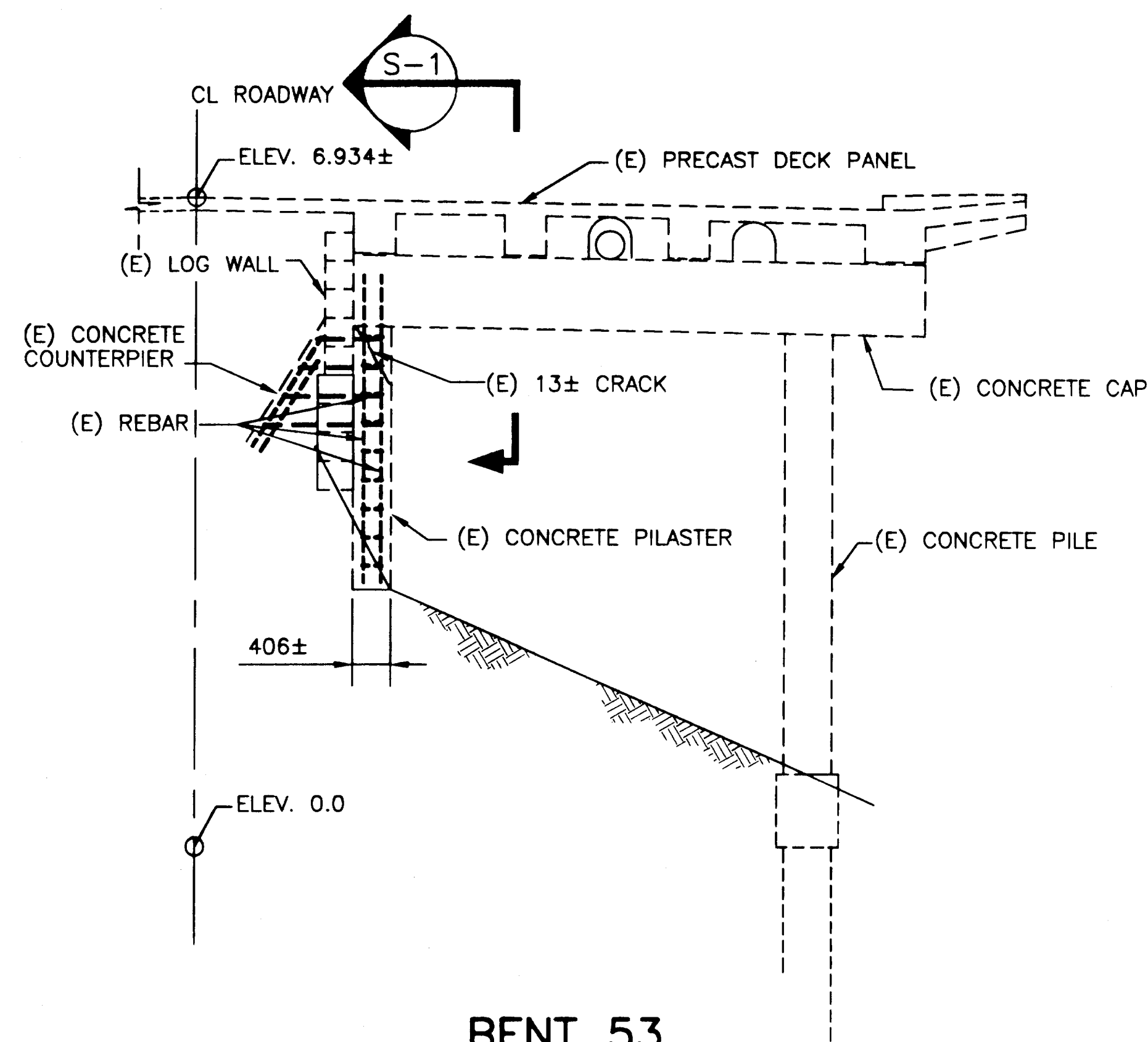
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SHOWING DAMAGE



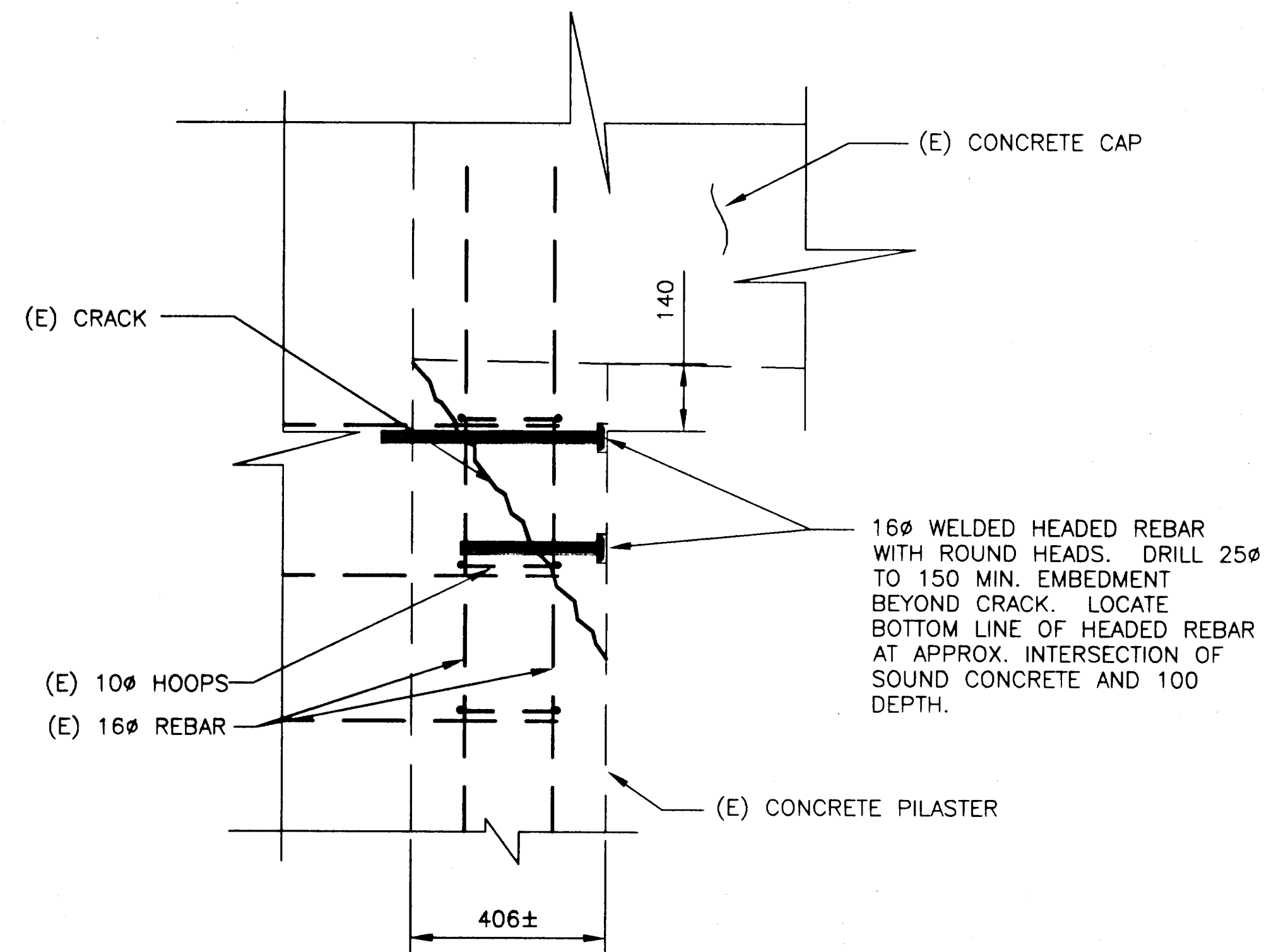
SECTION S-2
CRACK REPAIR



WELDED HEADED REBAR



BENT 53



SECTION S-3
CRACK REPAIR

LEGEND:

- EPOXY BONDING MATERIAL
- DENOTES EXISTING
- DENOTES NEW CONSTRUCTION
- (E) EXISTING

NOTES:

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

INJECT CRACKS AS OUTLINED IN AK. SPECIFICATION SPECIAL PROVISIONS BEFORE JACKETING.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS

DATE	BY	COMMENT

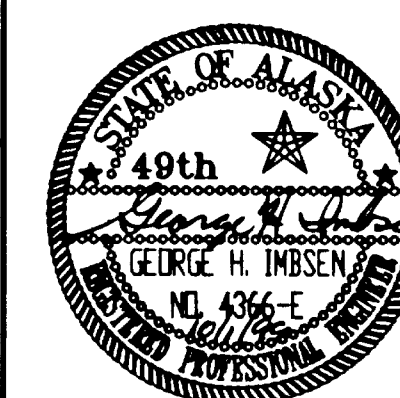
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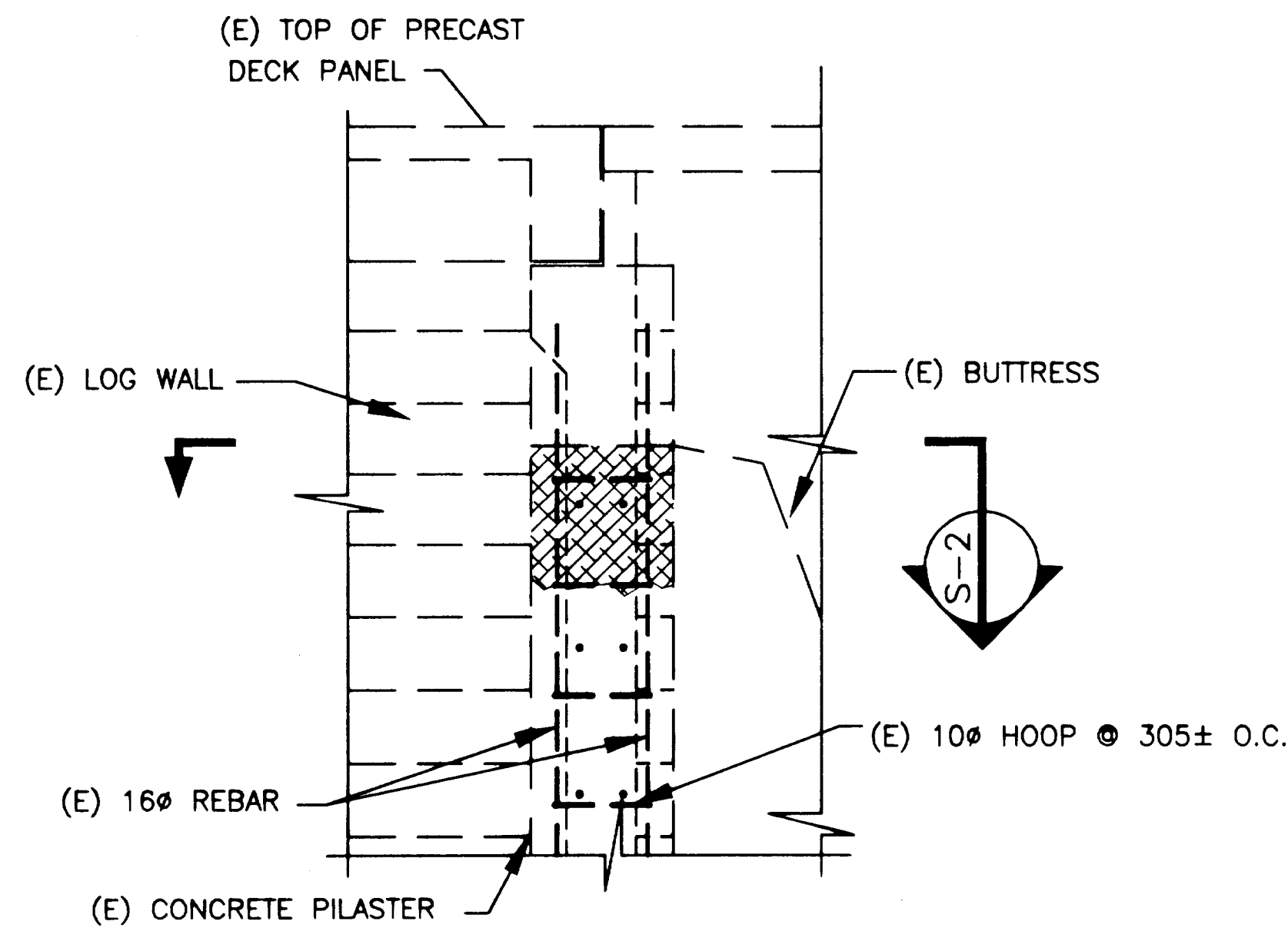
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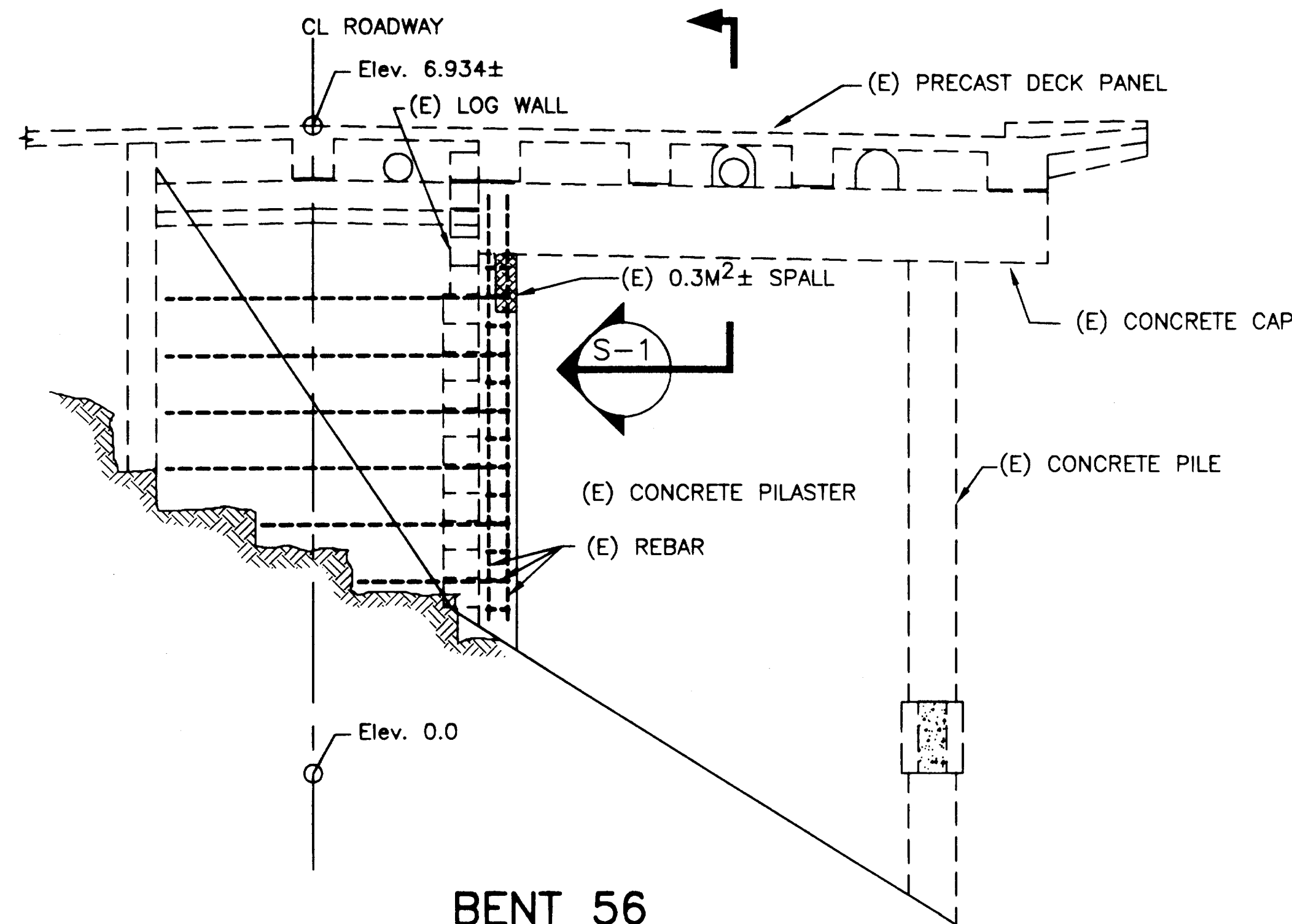
STATE OF ALASKA
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KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
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 WATER STREET VIADUCT STRUCTURAL REPAIRS
 WATER ST. BENT 53 PILASTER REPAIR

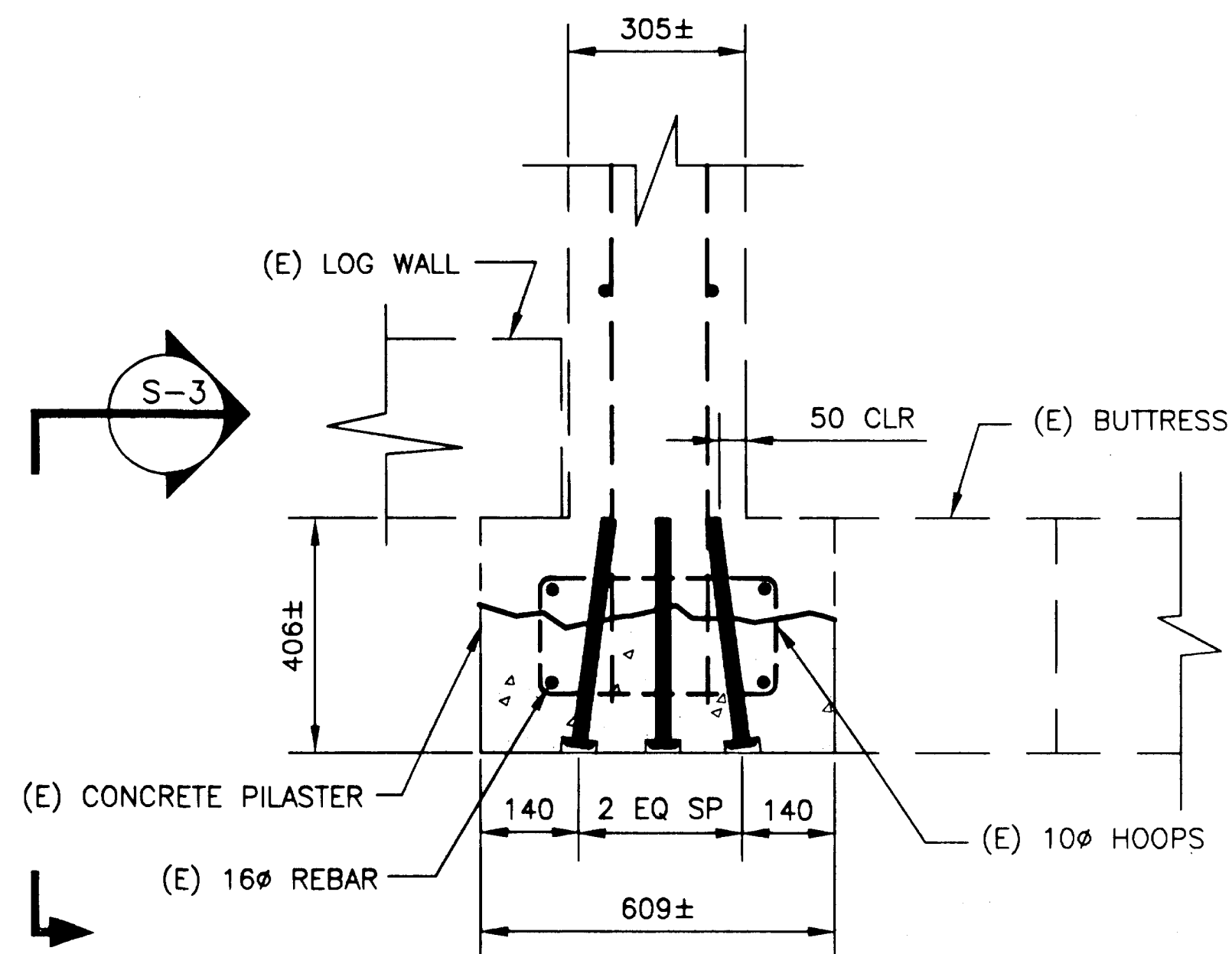




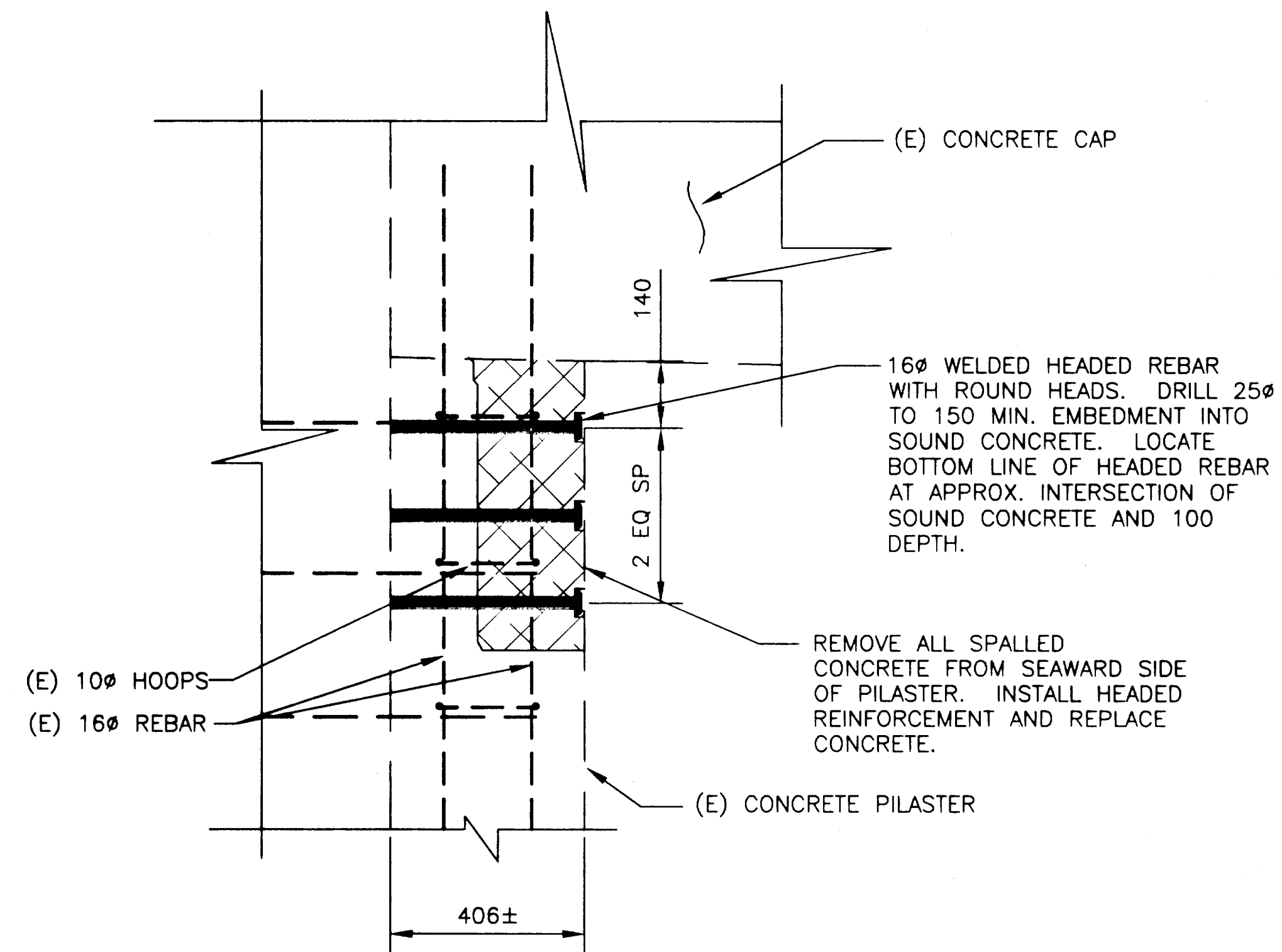
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SHOWING DAMAGE S-1



BENT 56

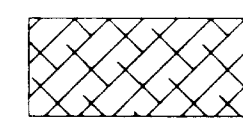


SECTION
SPALL REPAIR S-2



SECTION
SPALL REPAIR S-3

LEGEND:

-  SPALL
-  NEW CONCRETE
- DENOTES EXISTING
- DENOTES NEW CONSTRUCTION
- (E) EXISTING

NOTES:

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

REPAIR ALL SPALLS AND DELAMINATIONS AS OUTLINED IN AK. SPECIFICATION SPECIAL PROVISIONS BEFORE JACKETING.

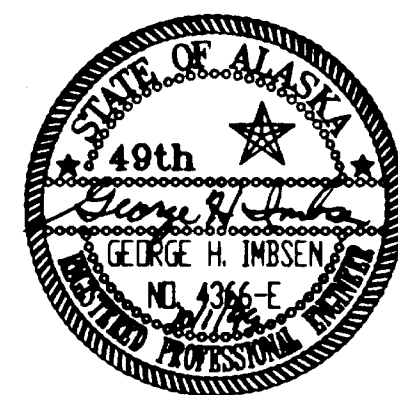
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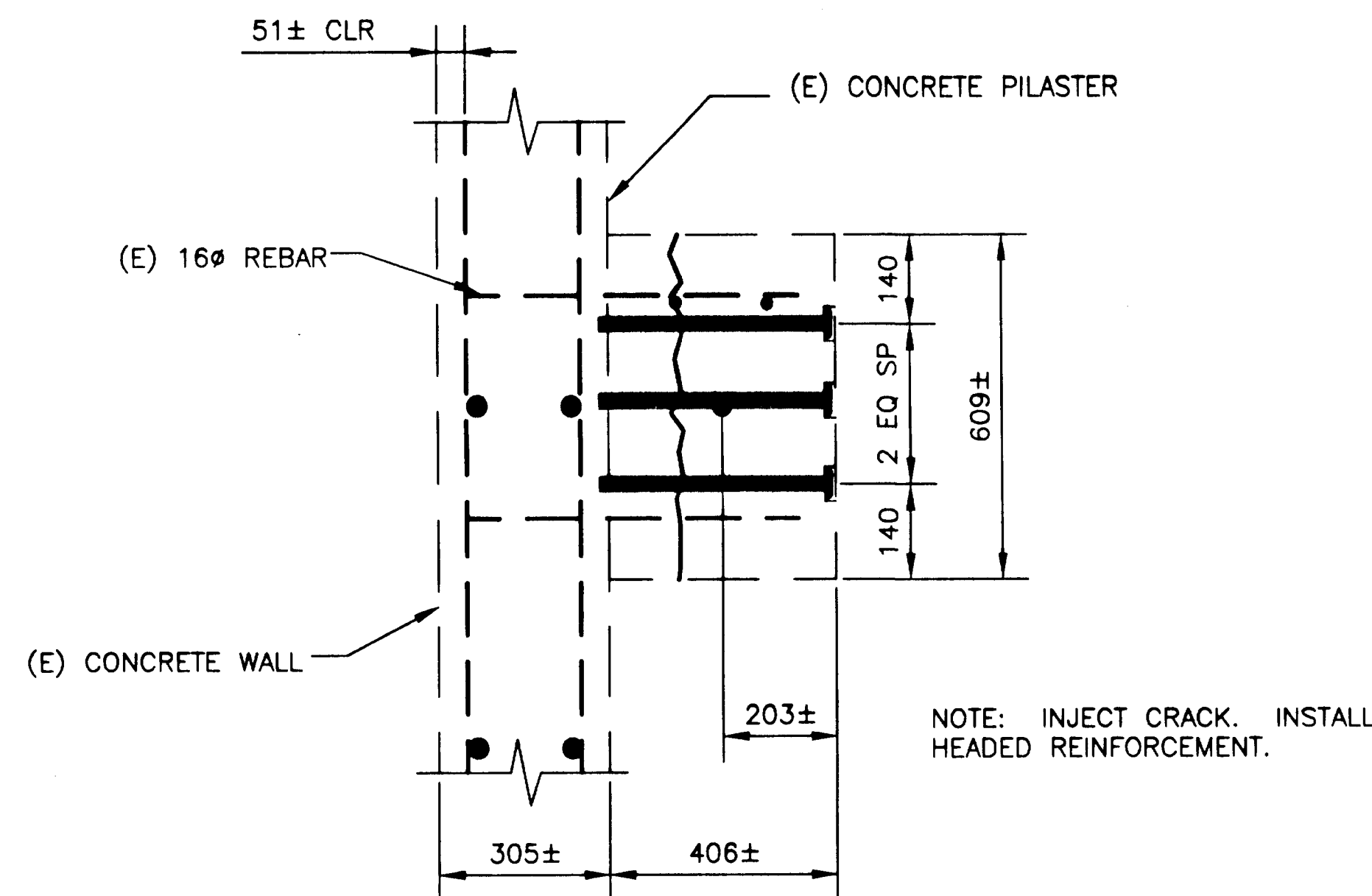
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AND PUBLIC FACILITIES
SOUTHEAST REGION

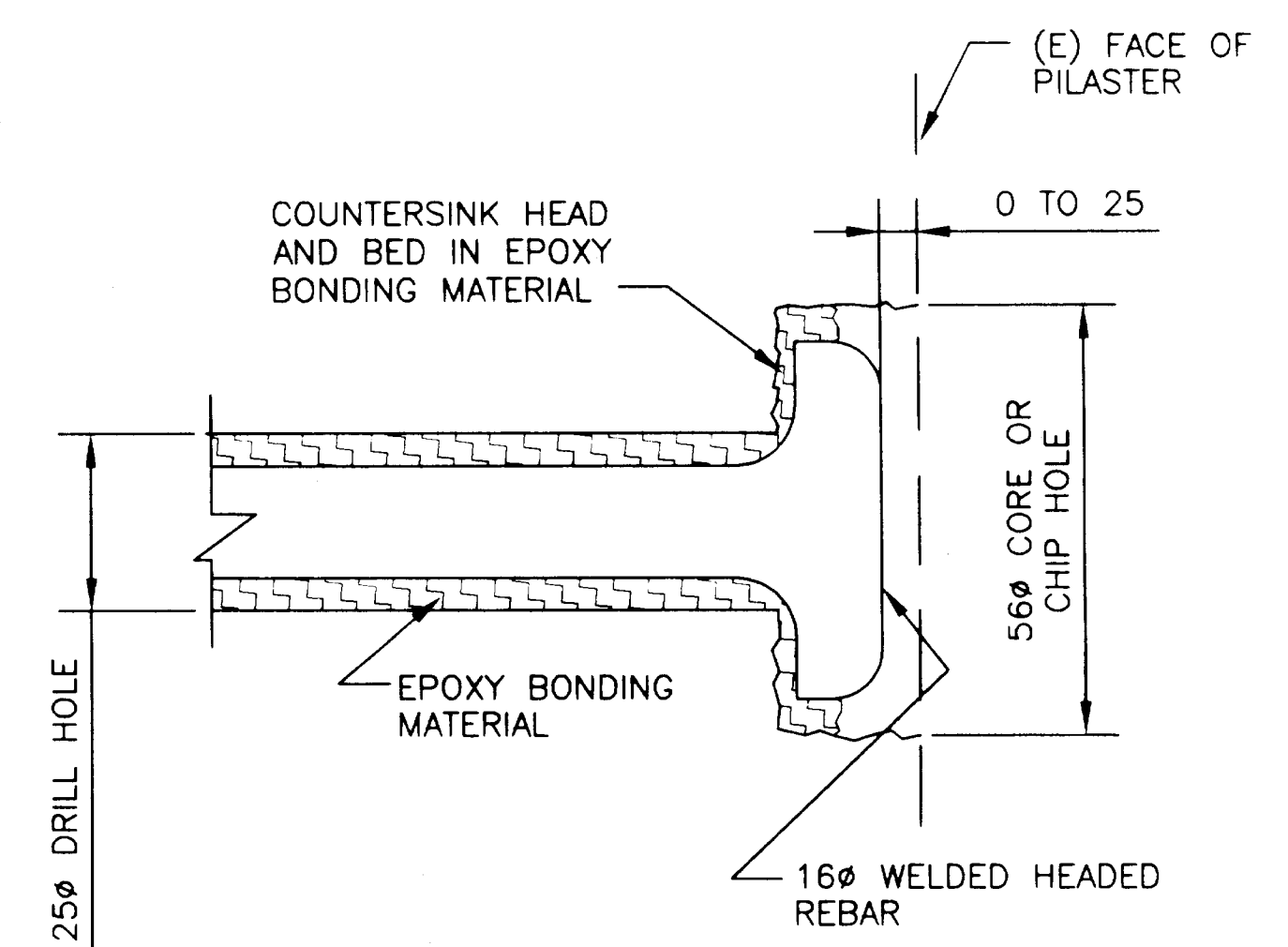
KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT STRUCTURAL REPAIRS
WATER ST. BENT 56 PILASTER REPAIR



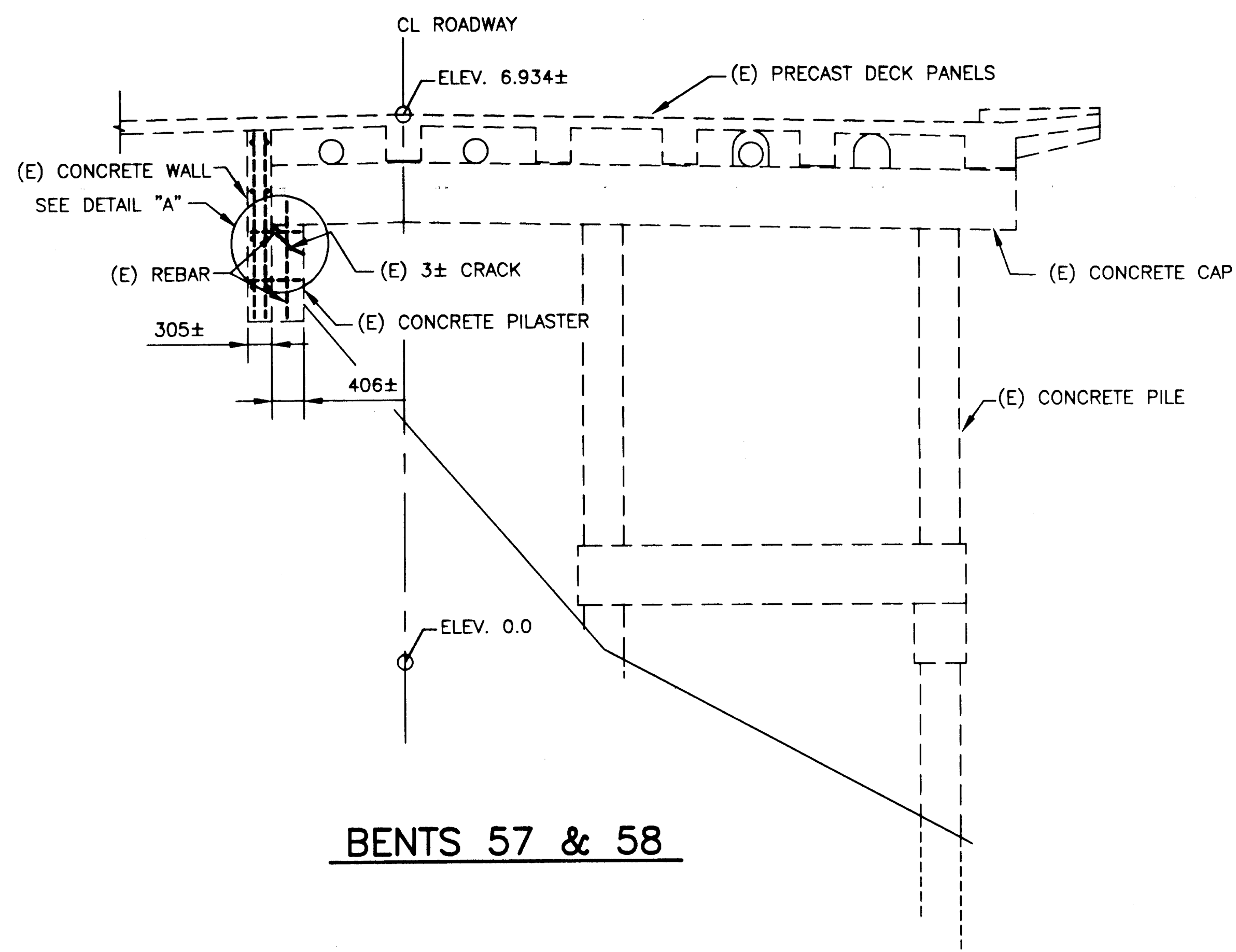
BRIDGE DESIGN SECTION STATE OF ALASKA DEPARTMENT OF TRANSPORTATION and PUBLIC FACILITIES JUNEAU, ALASKA		S-3
DESIGNED BY: GHI	DATE: SEPTEMBER, 1999	
CHECKED BY: EEM	SHEET 15 OF 1	
APPROVED BY:	BRIDGE NO. 797	



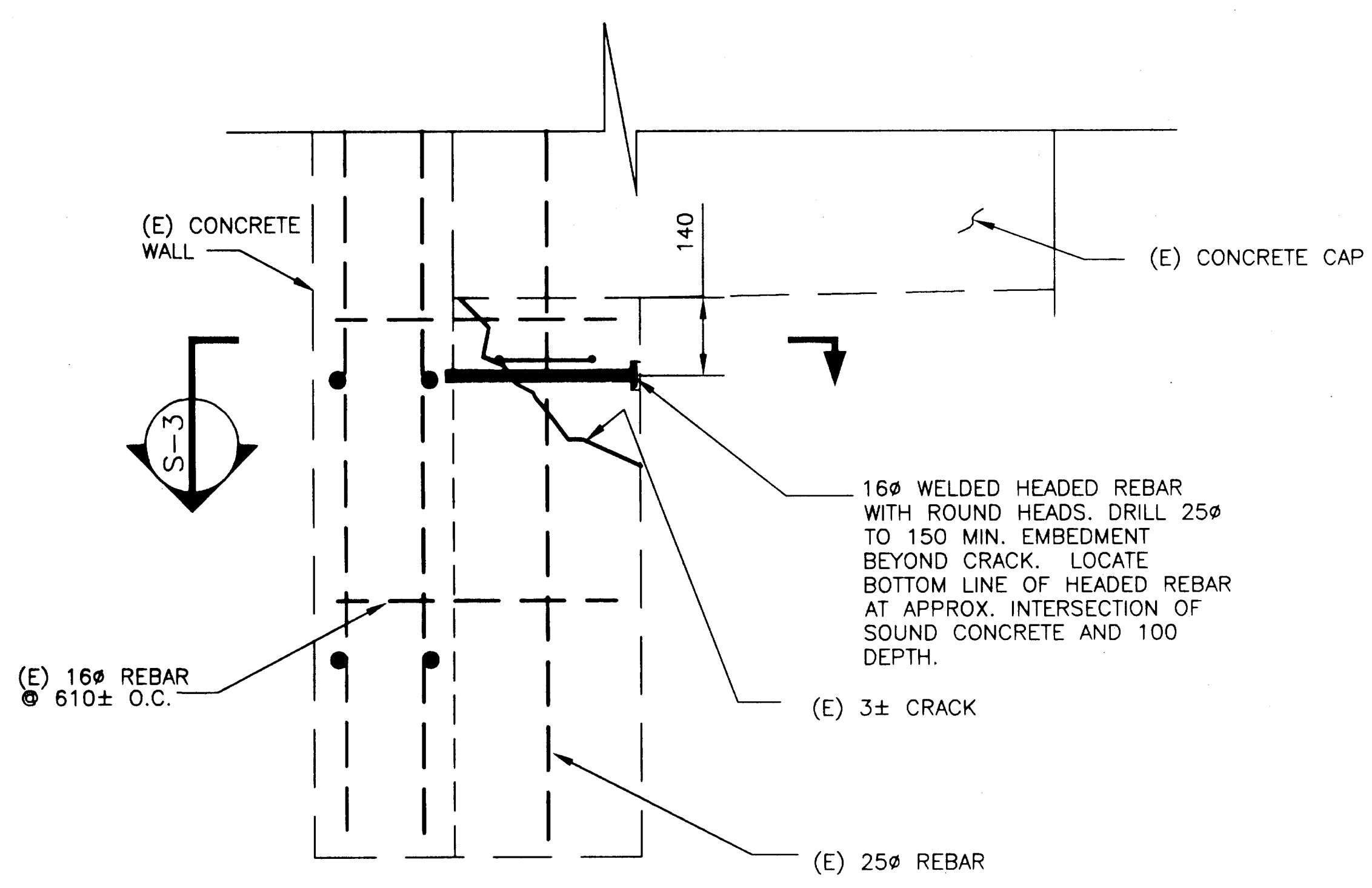
SECTION
CRACK REPAIR S-1



WELDED HEADED REBAR



BENTS 57 & 58



DETAIL "A"
CRACK REPAIR

LEGEND:

- EPOXY BONDING MATERIAL
- DENOTES EXISTING
- DENOTES NEW CONSTRUCTION
- (E) EXISTING

NOTES:

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

INJECT CRACKS AS OUTLINED IN AK. SPECIFICATION SPECIAL PROVISIONS BEFORE JACKETING.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

BRIDGE DESIGN SECTION
STATE OF ALASKA
DEPARTMENT of TRANSPORTATION
and PUBLIC FACILITIES
JUNEAU, ALASKA

S-3

PATH: P:\KTN\71111\DR\S-3.5.DWG

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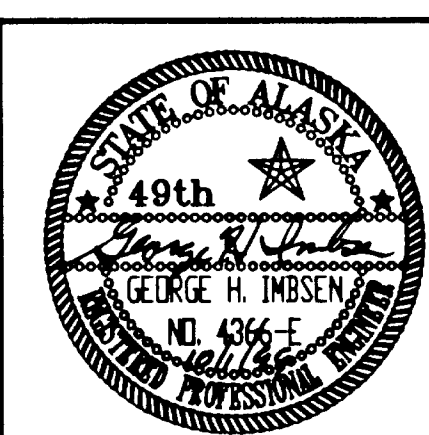
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PLOT SCALE: PLOT SCALE = 1:1

DRAWN OR REVISED BY: CMF

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT STRUCTURAL REPAIRS
WATER ST. BENTS 57 & 58 PILASTER REPAIR



DESIGNED BY:
GHI

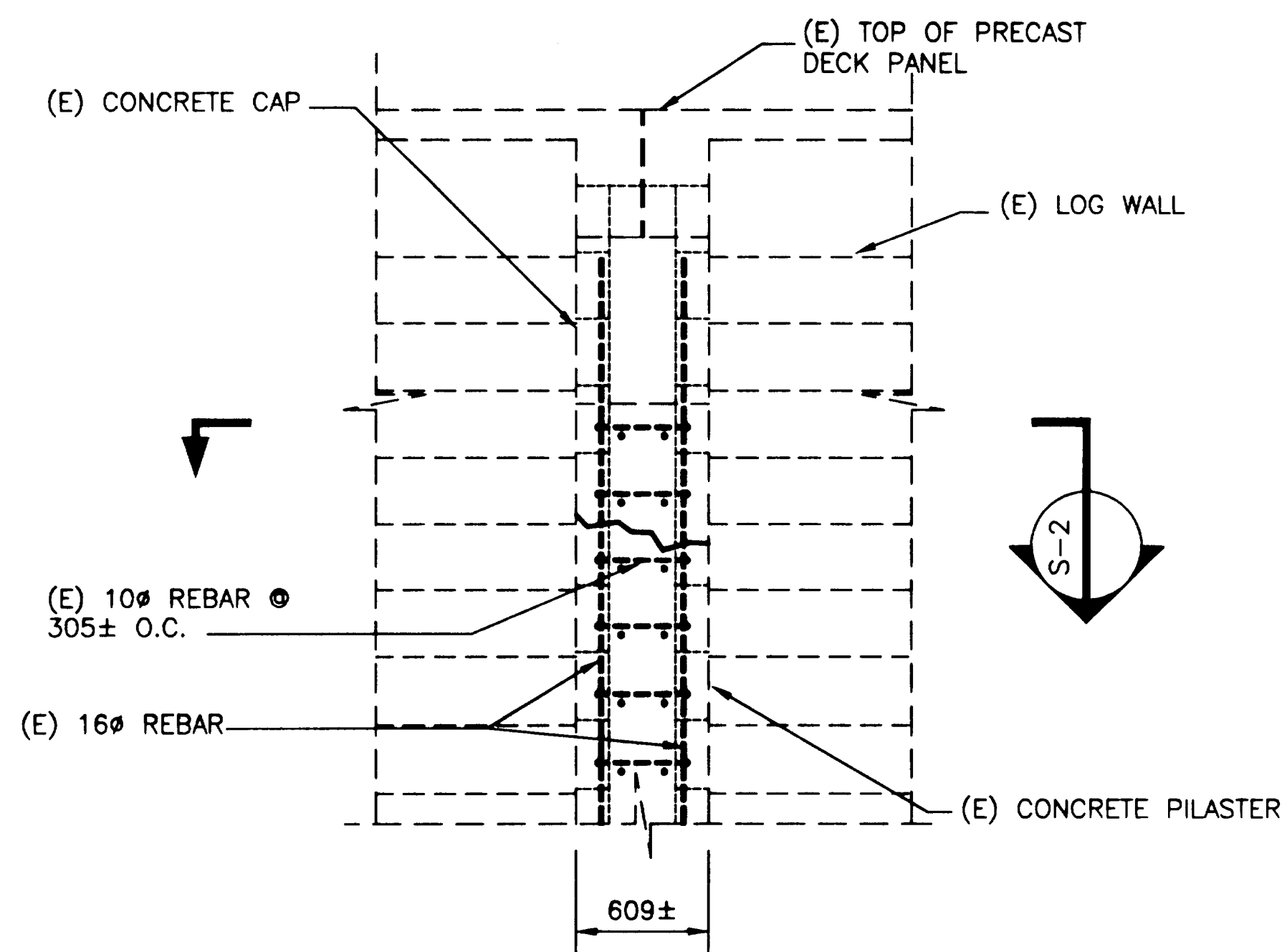
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EEM

APPROVED BY:

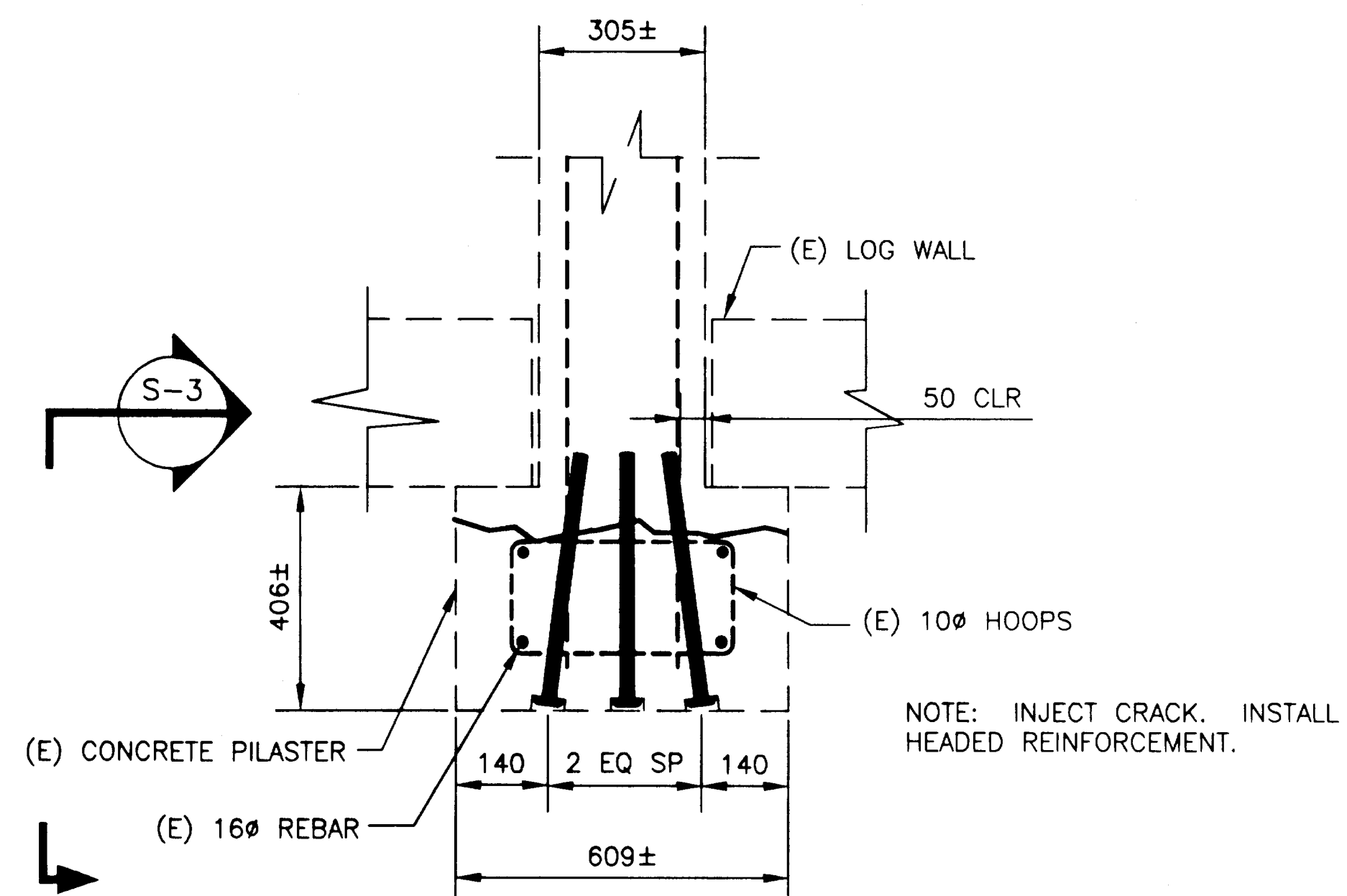
DATE:
SEPTEMBER, 199

SHEET 16 OF

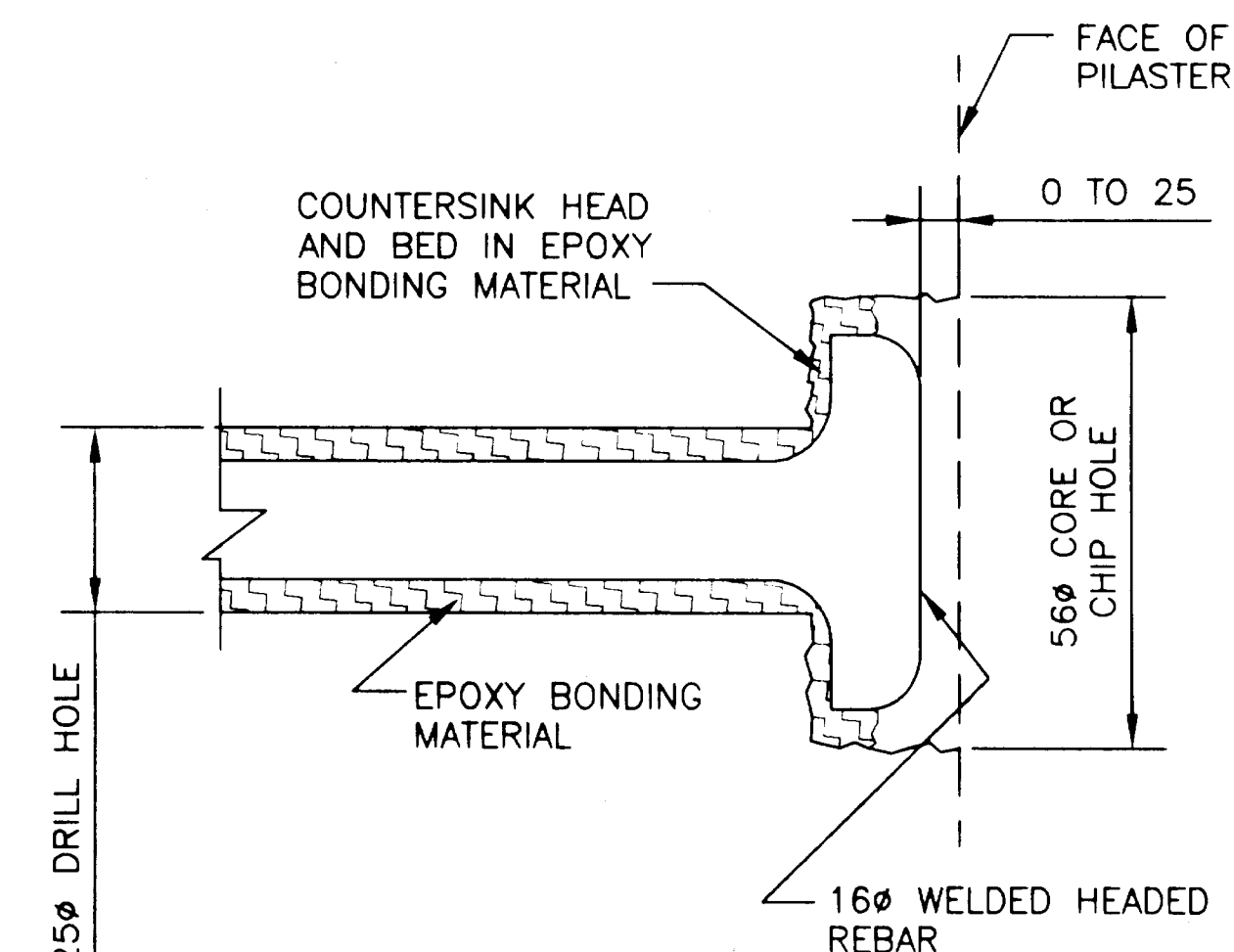
BRIDGE NO. 797



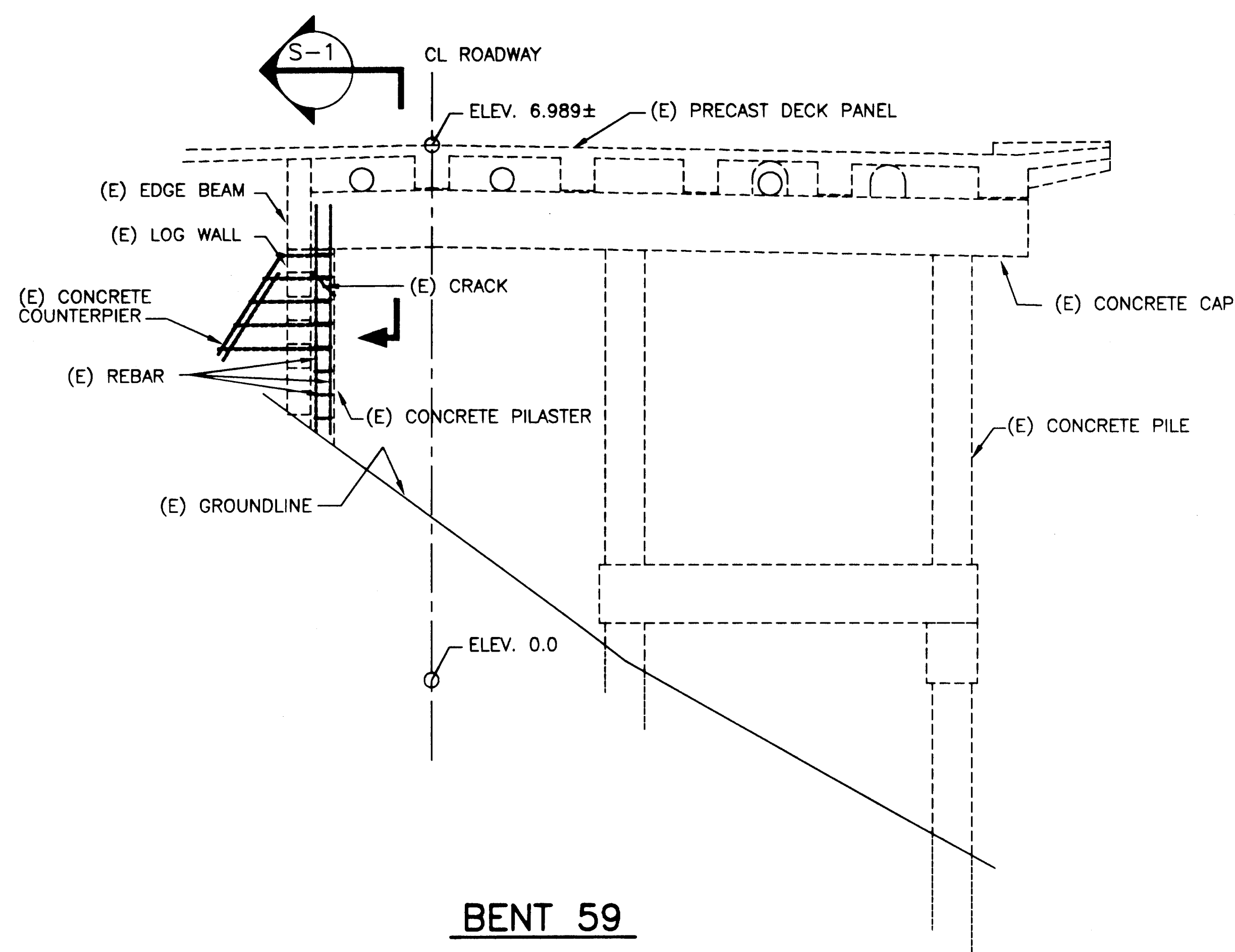
SECTION
SHOWING DAMAGE S-1



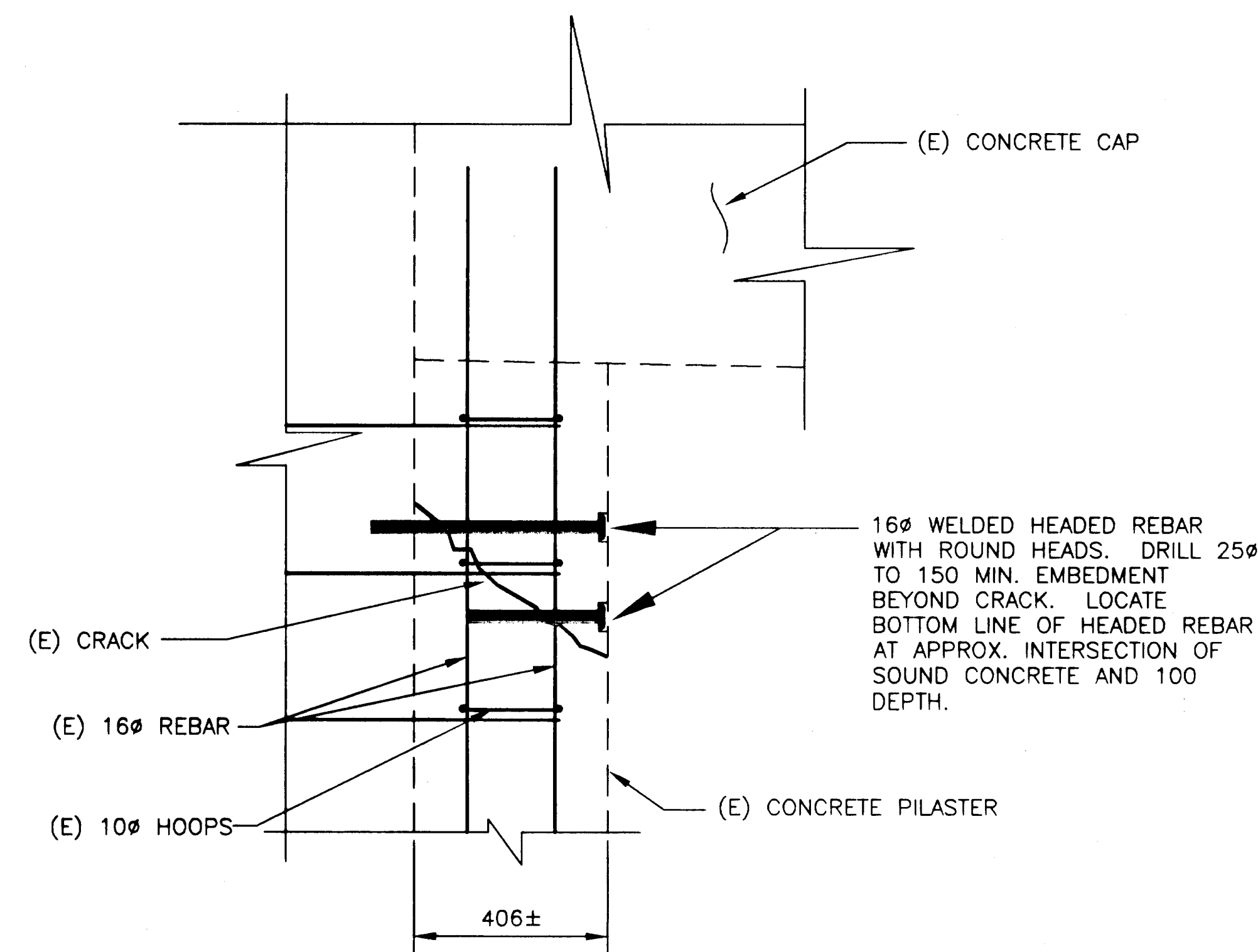
SECTION
CRACK REPAIR S-2



WELDED HEADED REBAR

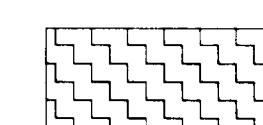


BENT 59



SECTION
CRACK REPAIR S-3

LEGEND:

-  EPOXY BONDING MATERIAL
- DENOTES EXISTING
- DENOTES NEW CONSTRUCTION
- (E) EXISTING

NOTES:

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

INJECT CRACKS AS OUTLINED IN AK. SPECIFICATION SPECIAL PROVISIONS BEFORE JACKETING.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

 BRIDGE DESIGN SECTION STATE OF ALASKA DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES JUNEAU, ALASKA		S-3.6
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DESIGNED BY: GHI	DATE: SEPTEMBER, 1999
CHECKED BY: EEM	SHEET 17 OF 104
APPROVED BY:	BRIDGE NO. 797

PATH: P:\KTN\71111\DR\S-3.6.DWG

PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1

DRAWN OR REVISED BY: CMF

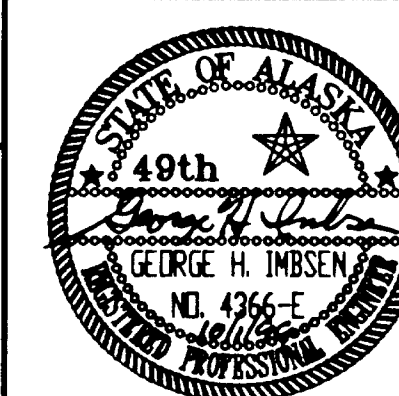
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

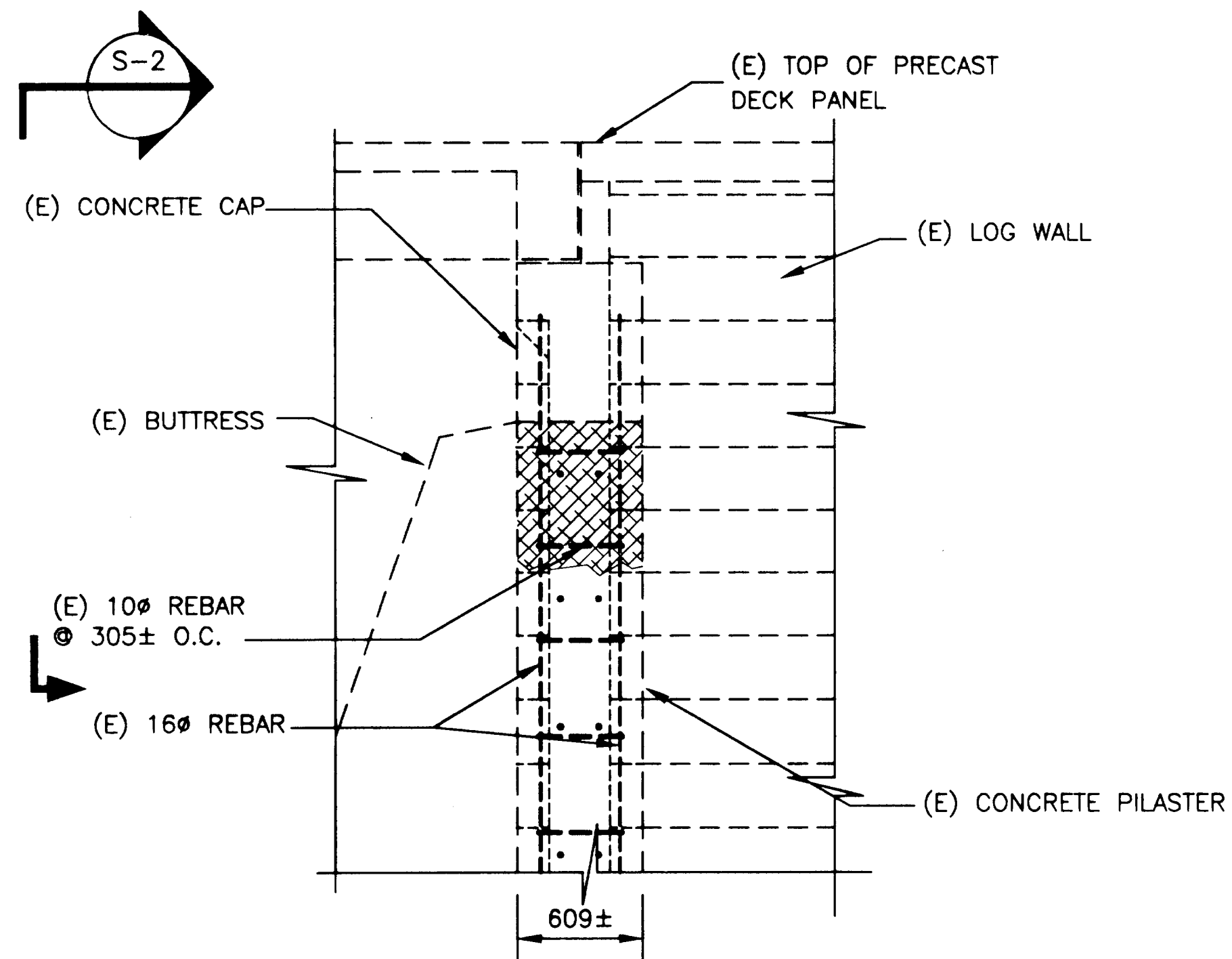
KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT STRUCTURAL REPAIRS

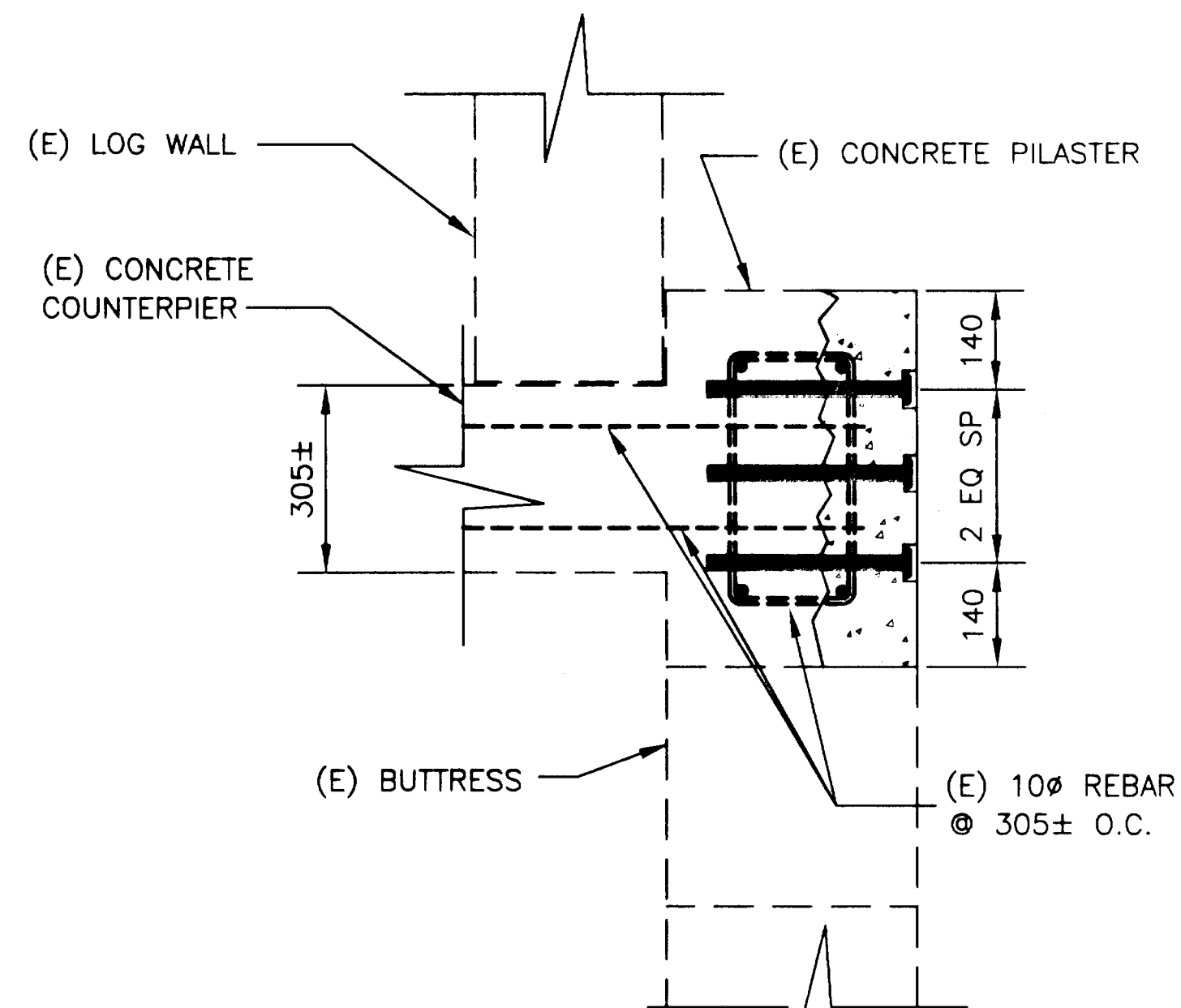
ALASKA

WATER ST. BENT 59 PILASTER REPAIR

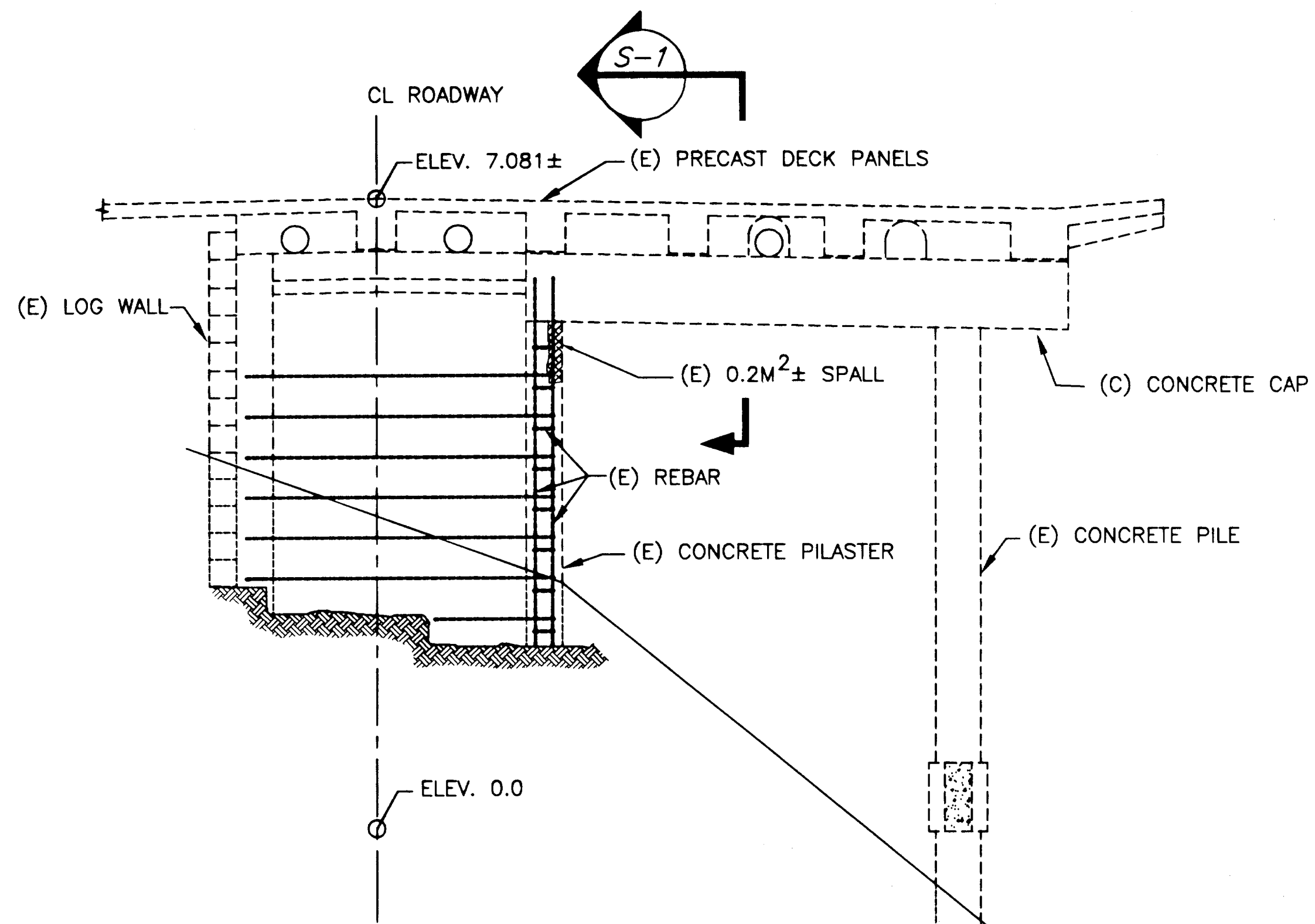




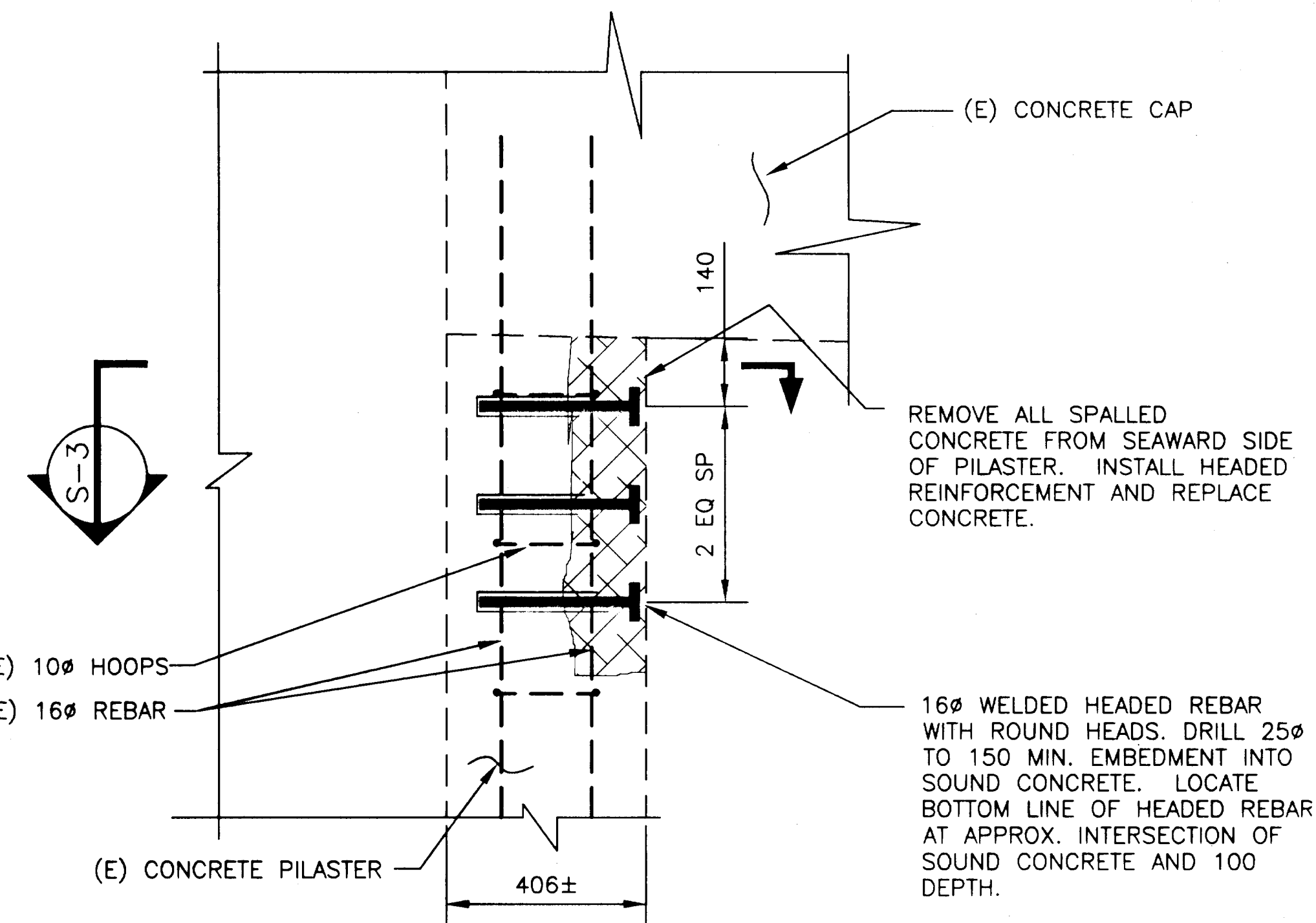
SECTION
SHOWING DAMAGE S-1



SECTION
SPALL REPAIR S-3

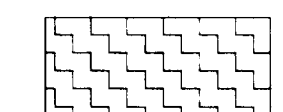


BENT 64



SECTION
SPALL REPAIR S-2

LEGEND:



EPOXY BONDING MATERIAL

--- DENOTES EXISTING

— DENOTES NEW CONSTRUCTION

(E) EXISTING

NOTES:

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

REPAIR ALL SPALLS AND DELAMINATIONS AS OUTLINED IN AK. SPECIFICATION SPECIAL PROVISIONS BEFORE JACKETING.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS

DATE	BY	COMMENT

PATH: P: \KTN\71111\DR\S-3.7.DWG

PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1

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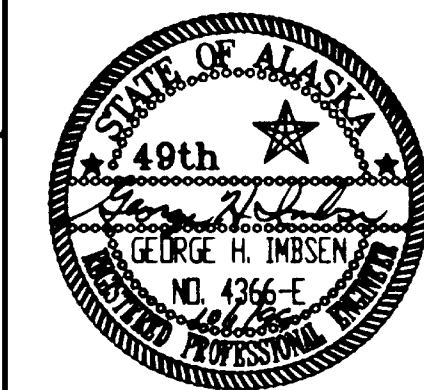
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT STRUCTURAL REPAIRS

ALASKA

WATER ST. BENT 64 PILASTER REPAIR

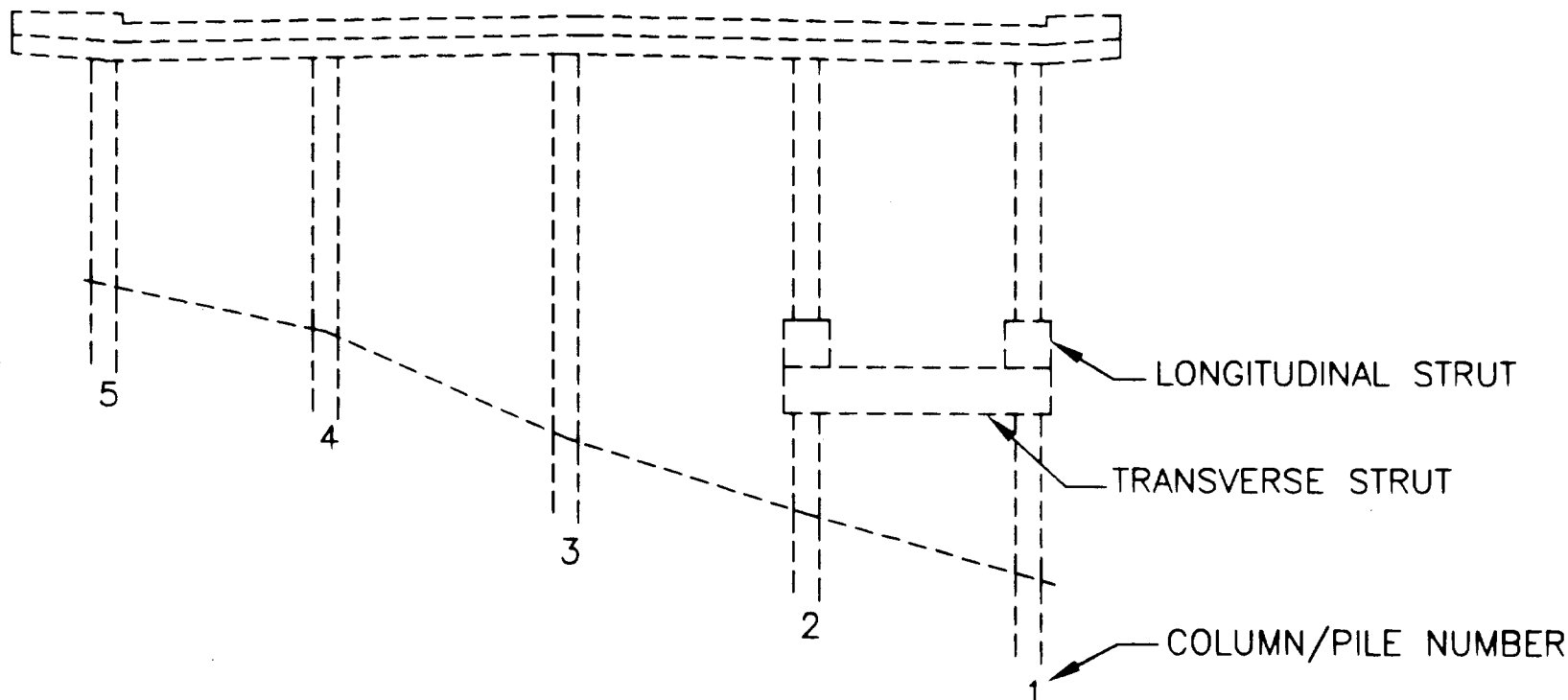


BRIDGE DESIGN SECTION
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
and PUBLIC FACILITIES
JUNEAU, ALASKA

S-3.7

DESIGNED BY: GHI	DATE: SEPTEMBER, 1999
CHECKED BY: EEM	SHEET 18 OF 10
APPROVED BY:	BRIDGE NO. 797

MISCELLANEOUS CONCRETE REPAIRS TO TONGASS AVENUE VIADUCT								
	DECK		GIRDER/DIAPHRAGMS		CAP		PILES	
BENT	SPALL/DELAM (M ²)	CRACKS (M)	SPALL/DELAM (M ²)	CRACKS (M)	SPALL/DELAM (M ²)	CRACKS (M)	SPALL/DELAM (M ²)	CRACKS (M)
37					.46	1.52	.19	
36					.46			
35					.93		.09	
	.09	3.35						
34					.56			
	.37							
33					.37			
32					.74			
31					.56			
30					.37			
29					.93			
28					.56		.56	
27					.74	1.22		
			.09					
26								
25					.56	3.66		
24					.84	.61	.09	
23					.81		.19	
22					.46		.46	
21					.09		.28	
20					1.21	6.10		
19						1.83		
18						6.40		
			.56					
17					.93			
16					.09			
15					.09			.61
14					.09	4.88		.61
			.19					
13					.74	5.18		
12						2.74		
11							.84	
SUBTOTAL	.46	3.35	.84	0.0	12.59	34.14	2.70	1.22
+25% EXTRA *	.12	.84	.21	0.0	3.15	8.54	.68	.31
TOTAL	.58	4.19	1.05	0.0	15.74	42.68	3.38	1.53



LEGEND:

- DENOTES EXISTING
— DENOTES NEW CONSTRUCTION
(E) EXISTING

NOTES:

- ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
- INJECT CRACKS IDENTIFIED IN TABLE AS OUTLINED IN AK. SPECIFICATION SPECIAL PROVISIONS.
- REPAIR ALL SPALLS AND DELAMINATIONS INDENTIFIED IN TABLE AS OUTLINED IN AK. SPECIFICATION SPECIAL PROVISIONS BEFORE JACKETING. VERTICAL SURFACES THAT WILL BE JACKETED NEED NOT BE HAND PATCHED.
- TABLE DOES NOT INCLUDE SPALLS, DELAMINATIONS, AND CRACKS FOR REPAIRS DETAILED ON SHEETS S-3.1 THROUGH S-3.7.
- * ESTIMATE OF QUANTITES FOR PATCHING AND INJECTING INCLUDE AN ADDITIONAL 25% ABOVE TABLE SUBTOTALS TO ALLOW ADDITIONAL WORK AS DIRECTED BY THE ENGINEER.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



BRIDGE DESIGN SECTION
STATE OF ALASKA
DEPARTMENT of TRANSPORTATION
and PUBLIC FACILITIES
JUNEAU, ALASKA

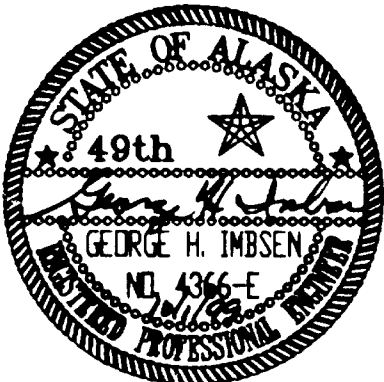
S-4.

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PLOT DATE:
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DRAWN OR REVISED BY: CMF

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN
KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE VIADUCT STRUCTURAL REPAIRS
TONGASS AVE. MISC. CONCRETE REPAIRS

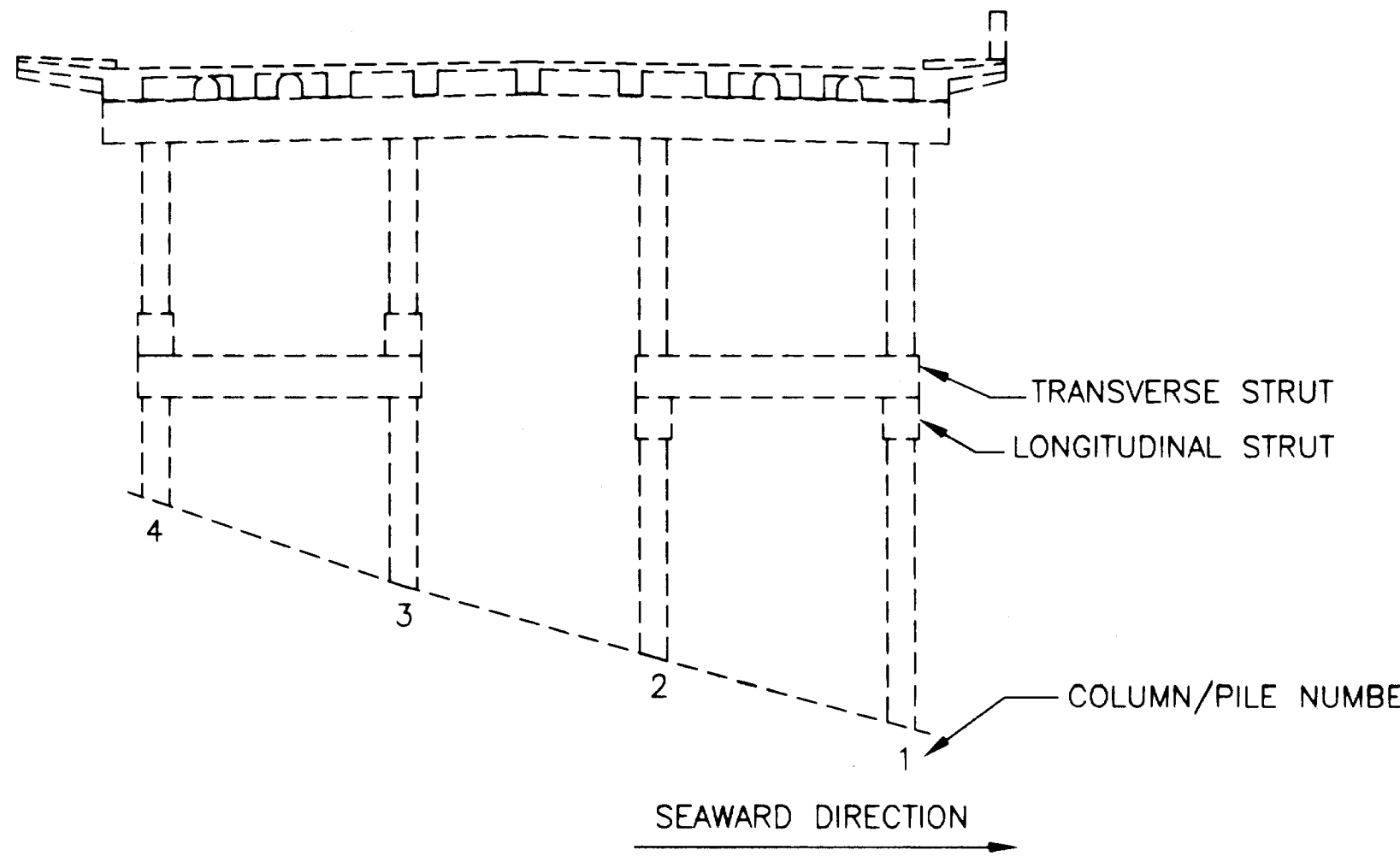
ALASKA



DESIGNED BY: GHI	DATE: SEPTEMBER, 1999
CHECKED BY: EEM	SHEET 19 OF 10
APPROVED BY:	BRIDGE NO. 997

P:\KTN\7111\DR\S-4.2.dwg Fri Oct 01 15:54:14 1999 DRAWN BY: SAM SOLLIE

MISCELLANEOUS CONCRETE REPAIRS TO WATER STREET VIADUCT								
	DECK		GIRDER/DIAPHRAGMS		CAP		PILES & STRUTS	
BENT	SPALL/DELAM (M ²)	CRACKS (M)	SPALL/DELAM (M ²)	CRACKS (M)	SPALL/DELAM (M ²)	CRACKS (M)	SPALL/DELAM (M ²)	CRACKS (M)
26						4.88		
27					.19	7.01		
28					.74	1.52		
			.51					
29					3.34	3.35	.09	
	.56							
30					1.02	1.83	.37	
			.74					
31					3.53	1.83	.56	
	.19		.56					
32					.56		.09	1.22
			.28	1.52				
33					1.15			6.11
34					.74	13.41		1.22
35					2.79	1.83		
			.65					
36					2.51	1.83		
			.09					
37					6.50			2.44
38					2.97		.19	
				5.79				
39					1.86	5.18	.09	1.83
40					2.88	1.22		
41					3.16	.91		1.83
							.09	
42					3.07			
43					4.00	3.66		4.88
							.09	
44					2.79			1.22
45					6.22		1.39	5.79
46					2.51		.19	
47					2.23		1.86	1.22
48					1.86			1.22
49					1.67			
	.03						.19	
50					1.67			
51					2.51		1.11	.91
52					.84			
53					.93		1.67	
54					2.04		.05	
							.19	
55					2.04		.79	2.74
56					.37	2.13	.28	
57					4.09			.91
58					7.62	1.22	.19	
59					13.38			
60					1.39		1.11	
61					1.49			
62					1.95			.91
63					11.52			.91
64					1.86	.91		.91
SUBTOTAL	.78	0.0	2.83	7.31	111.99	52.72	10.59	36.27
+25% EXTRA *	.20	0.0	.71	1.83	28.00	13.18	2.65	9.07
TOTAL	.98	0.0	3.54	9.14	139.99	65.90	13.24	45.34



BENT XX

- LEGEND:
- DENOTES EXISTING
 - DENOTES NEW CONSTRUCTION
 - (E) EXISTING

NOTES:

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

INJECT CRACKS IDENTIFIED IN TABLE AS OUTLINED IN AK. SPECIFICATION SPECIAL PROVISIONS.

REPAIR ALL SPALLS AND DELAMINATIONS INDENTIFIED IN TABLE AS OUTLINED IN AK. SPECIFICATION SPECIAL PROVISIONS BEFORE JACKETING. VERTICAL SURFACES THAT WILL BE JACKETED NEED NOT BE HAND PATCHED.

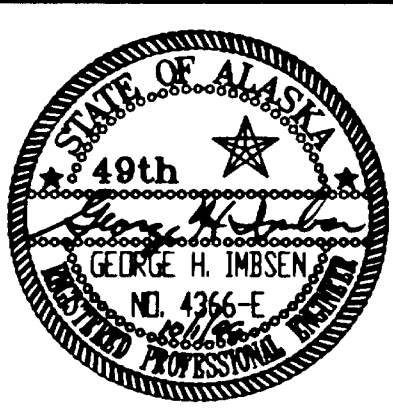
TABLE DOES NOT INCLUDE SPALLS, DELAMINATIONS, AND CRACKS FOR REPAIRS DETAILED ON SHEETS S-3.1 THROUGH S-3.7.

* ESTIMATE OF QUANTITES FOR PATCHING AND INJECTING INCLUDE AN ADDITIONAL 25% ABOVE TABLE SUMS TO ALLOW ADDITIONAL WORK AS DIRECTED BY THE ENGINEER.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

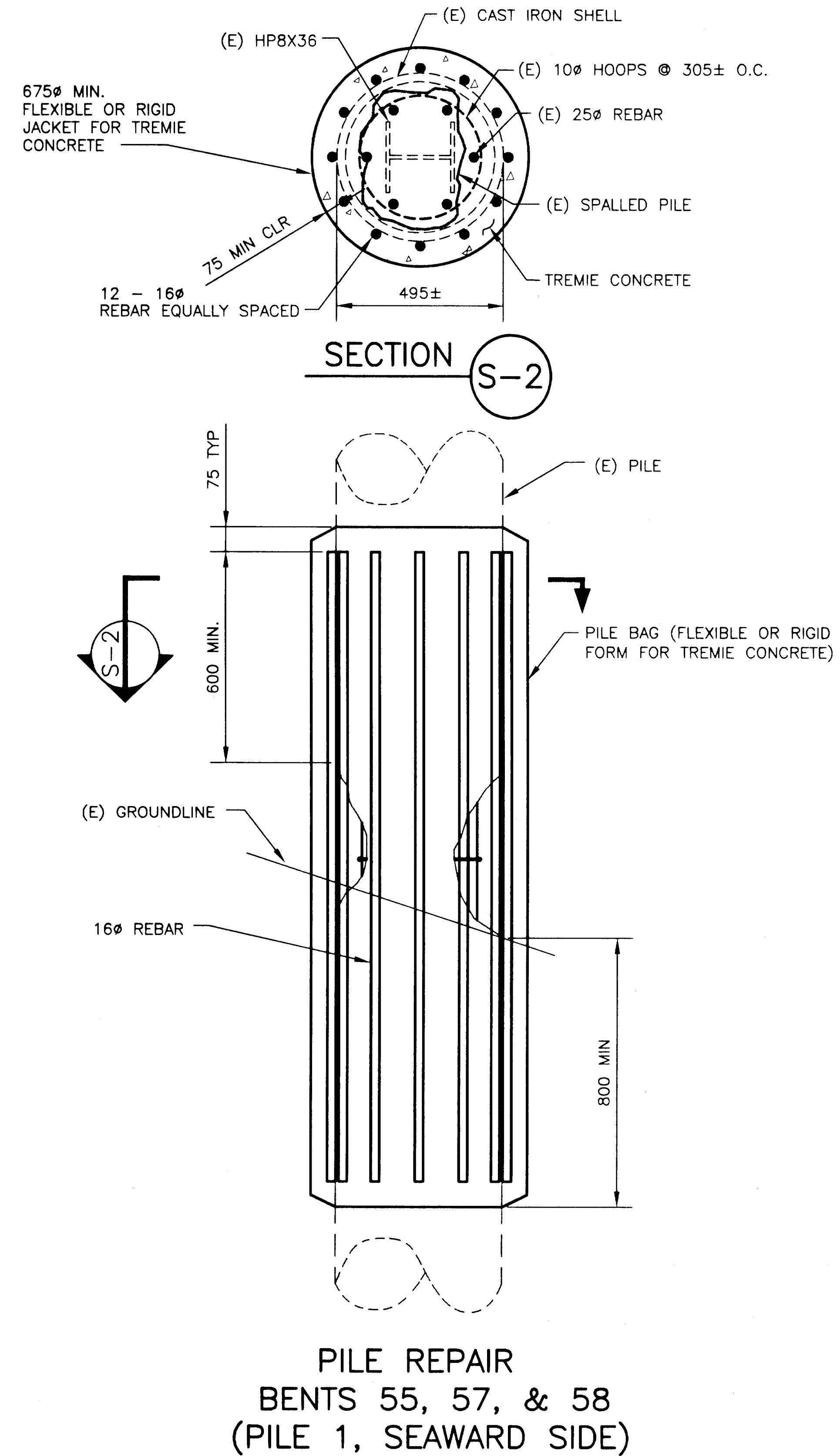
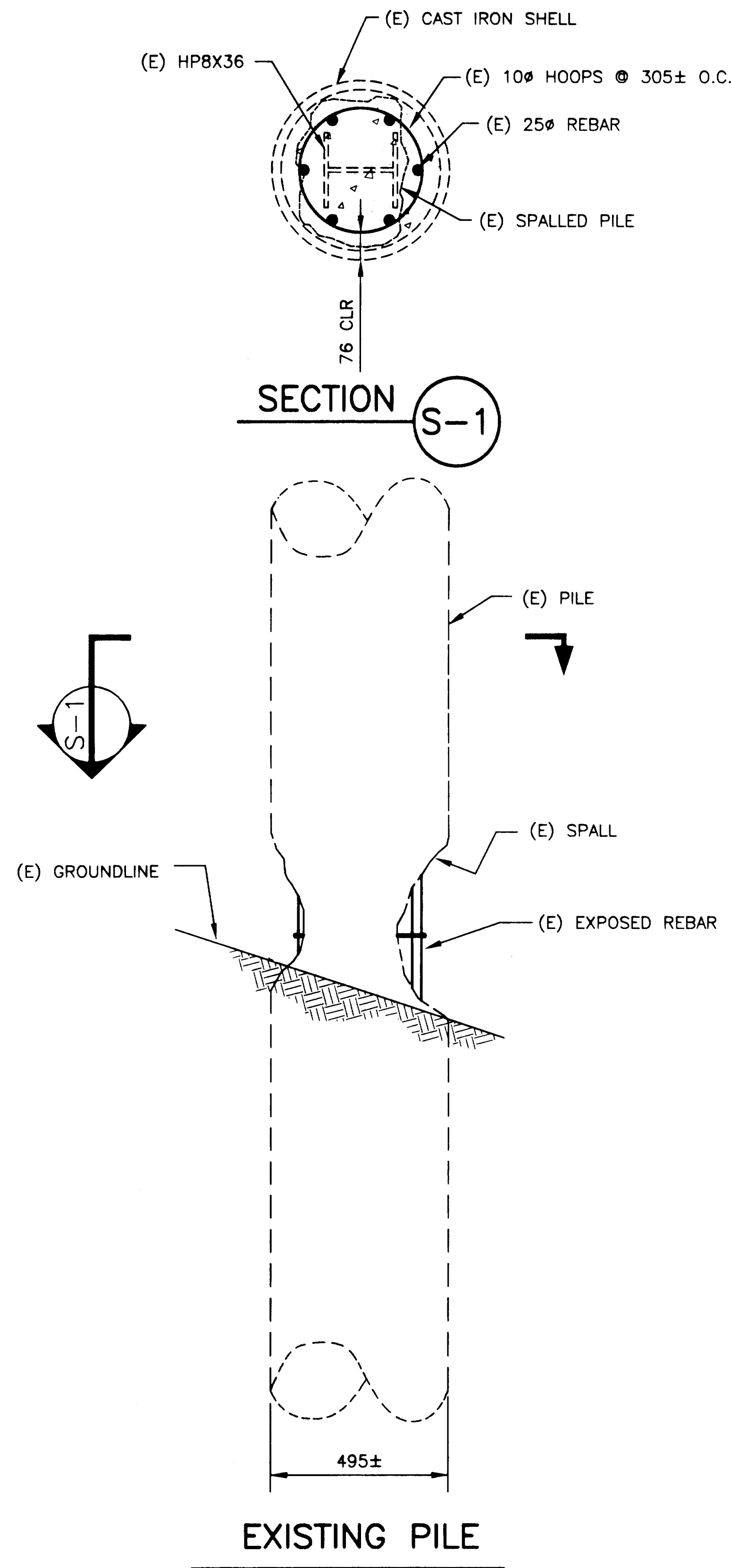
 BRIDGE DESIGN SECTION STATE of ALASKA DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES JUNEAU, ALASKA		S-4.
DESIGNED BY: GHI	DATE: SEPTEMBER, 1999	
CHECKED BY: EEM	SHEET 20 OF 10	
APPROVED BY:	BRIDGE NO. 797	



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PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1
DRAWN OR REVISED BY: CMF

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111 ALASKA
WATER STREET VIADUCT STRUCTURAL REPAIRS
WATER ST. MISC. CONCRETE REPAIRS



LEGEND:

- DENOTES EXISTING
- DENOTES NEW CONSTRUCTION
- (E) EXISTING

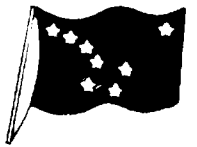
NOTES:

USE CLASS S CONCRETE PER ALASKA SPECS. FOR ALL TREMIE CONCRETE.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

 BRIDGE DESIGN SECTION STATE of ALASKA DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES JUNEAU, ALASKA		S-4.3
DESIGNED BY: GHI	DATE: SEPTEMBER, 1999	
CHECKED BY: EEM	SHEET 21 OF 104	
APPROVED BY:	BRIDGE NO. 797	

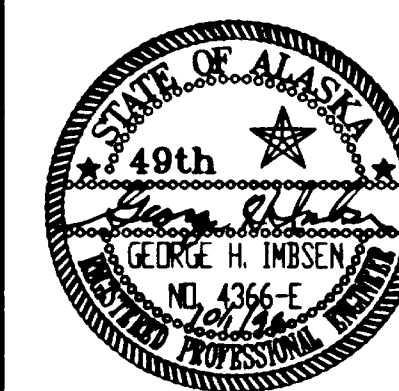
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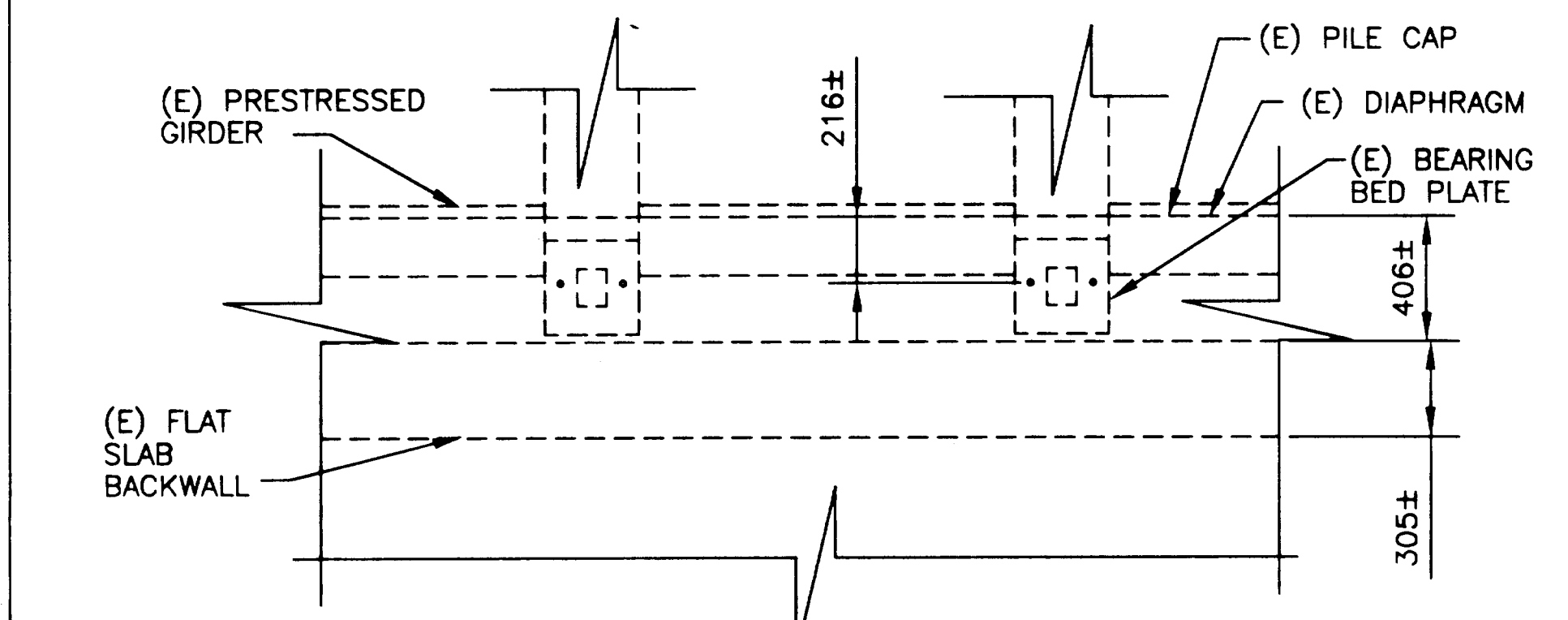
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN

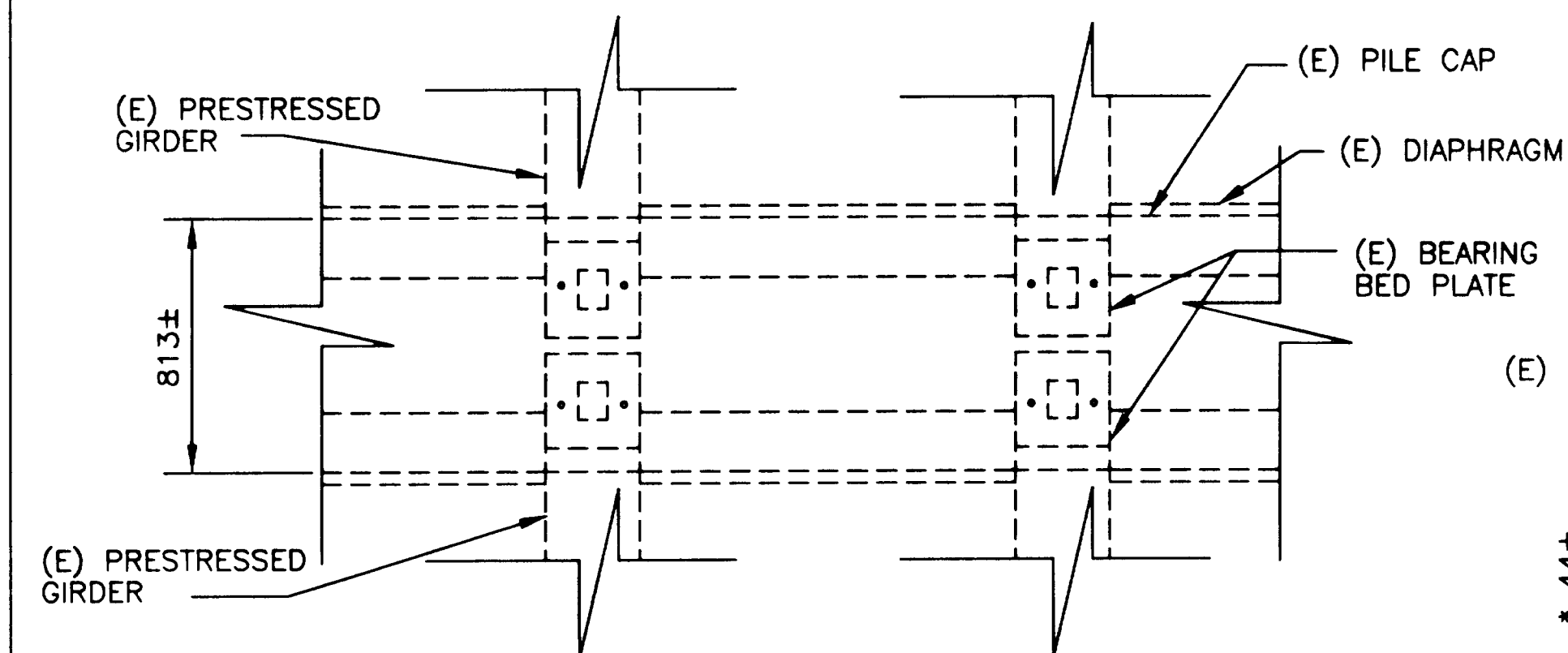
KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT STRUCTURAL REPAIRS
WATER ST. PILE REPAIR DETAILS

ALASKA

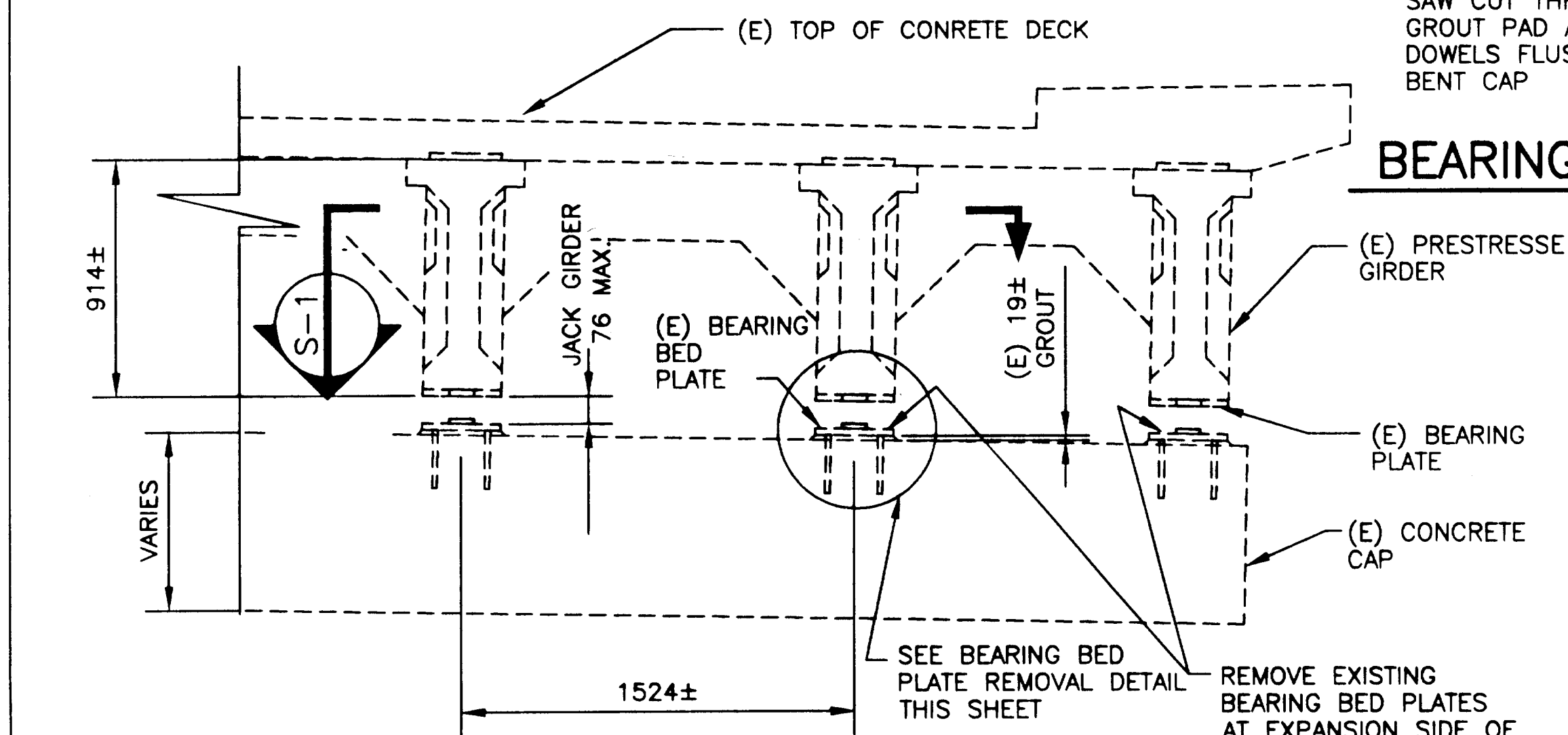




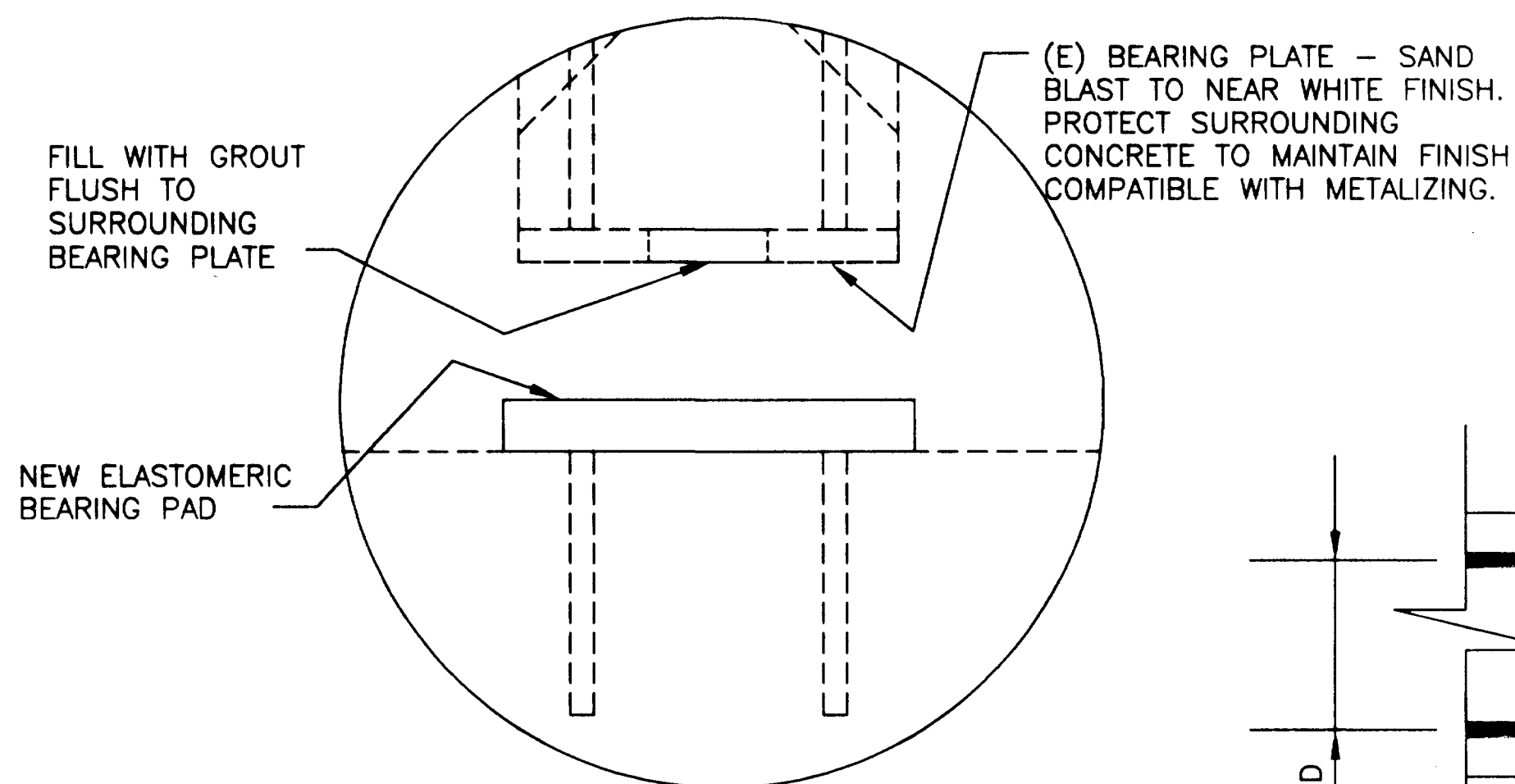
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BENTS 17, 20, 27 S-1



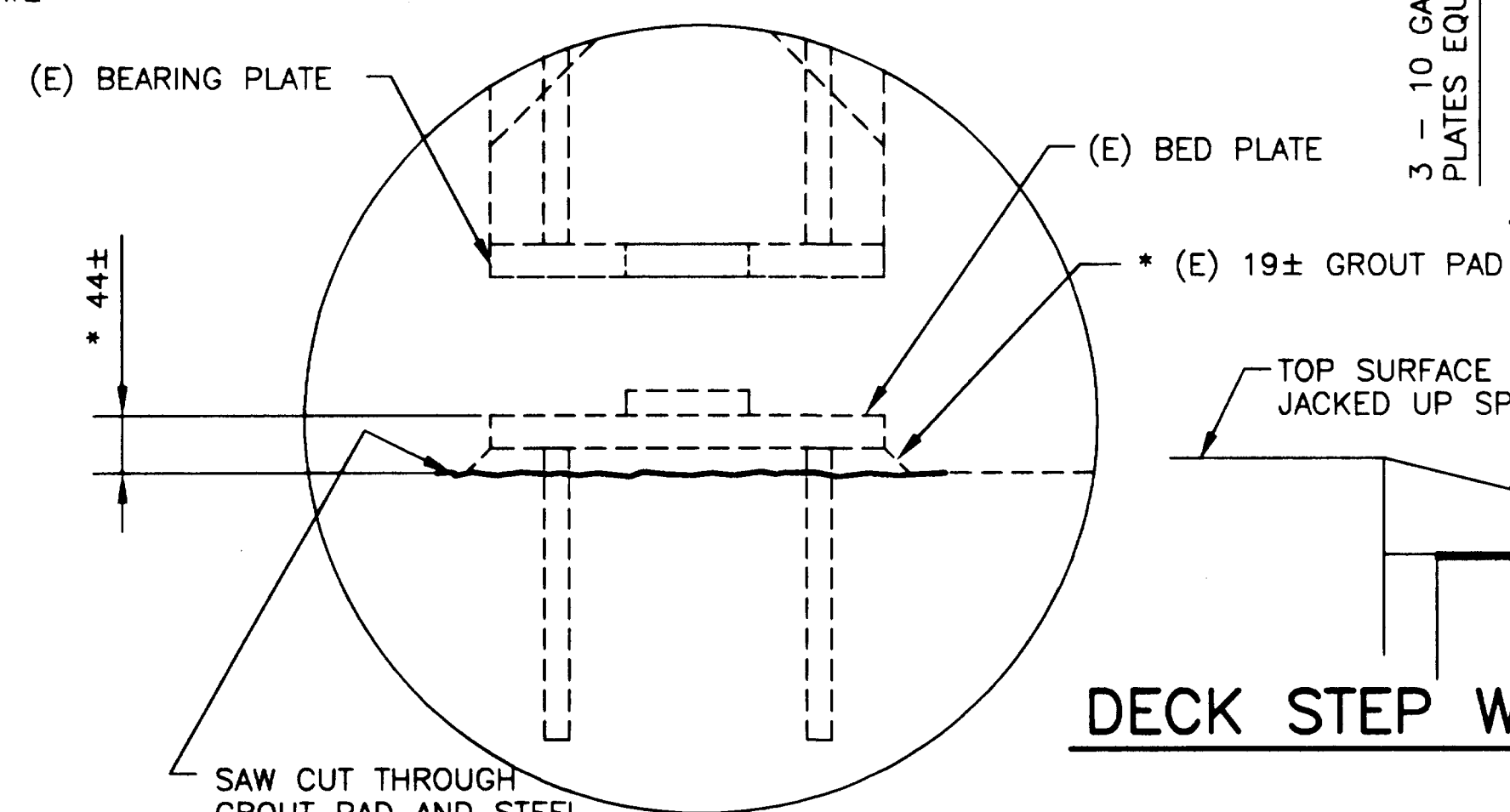
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EXISTING TYPICAL SECTION

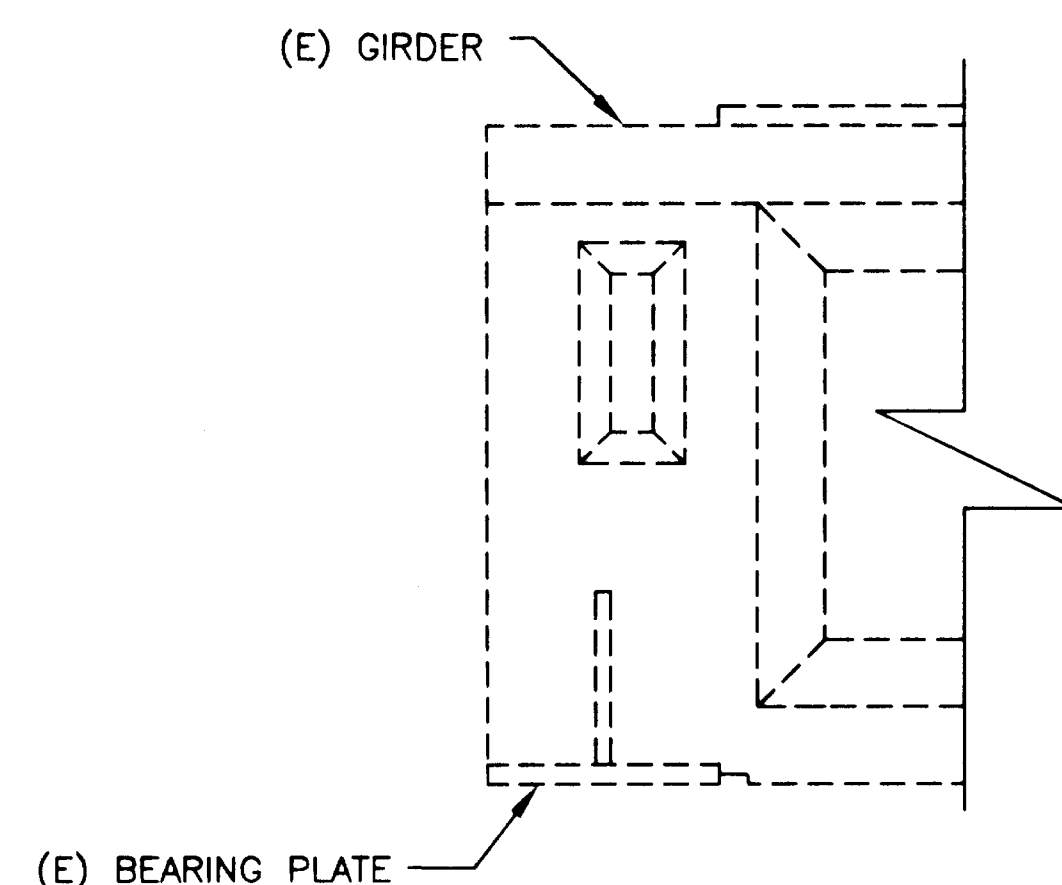


NEW BEARING PAD INSTALLATION

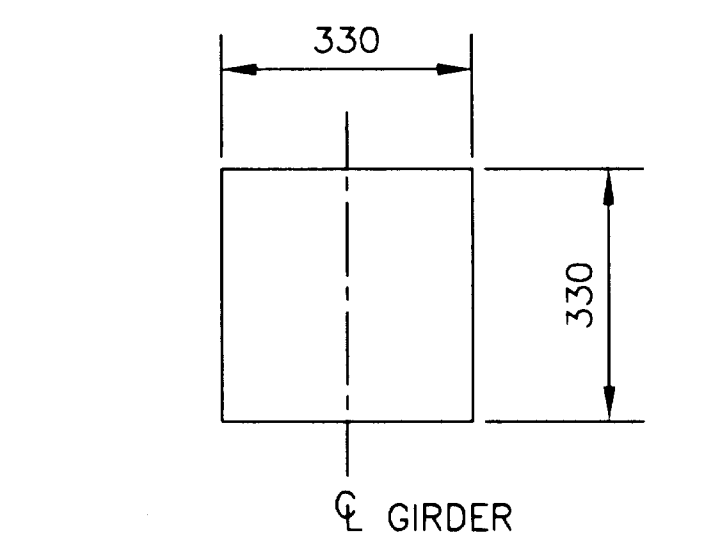


DECK STEP WEDGE

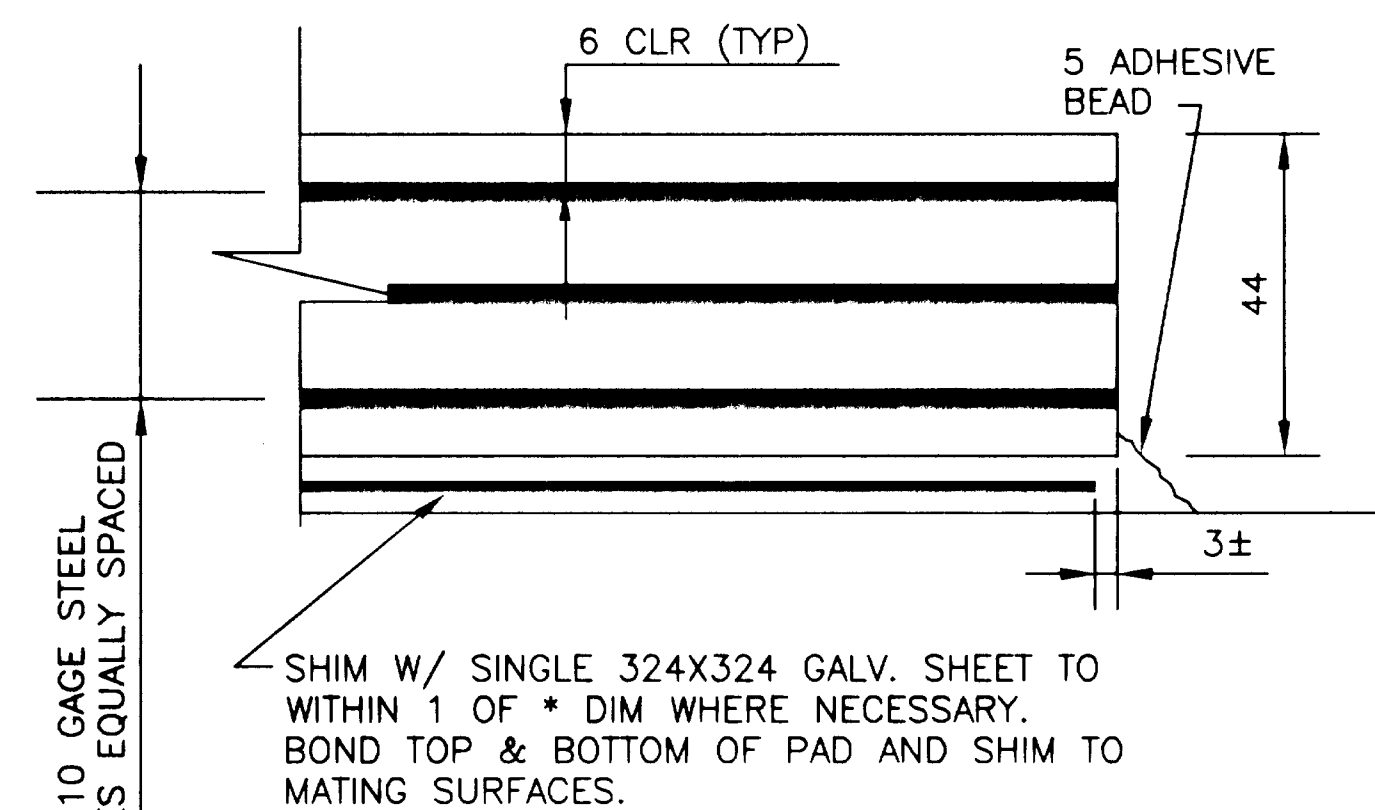
BEARING BED PLATE REMOVAL



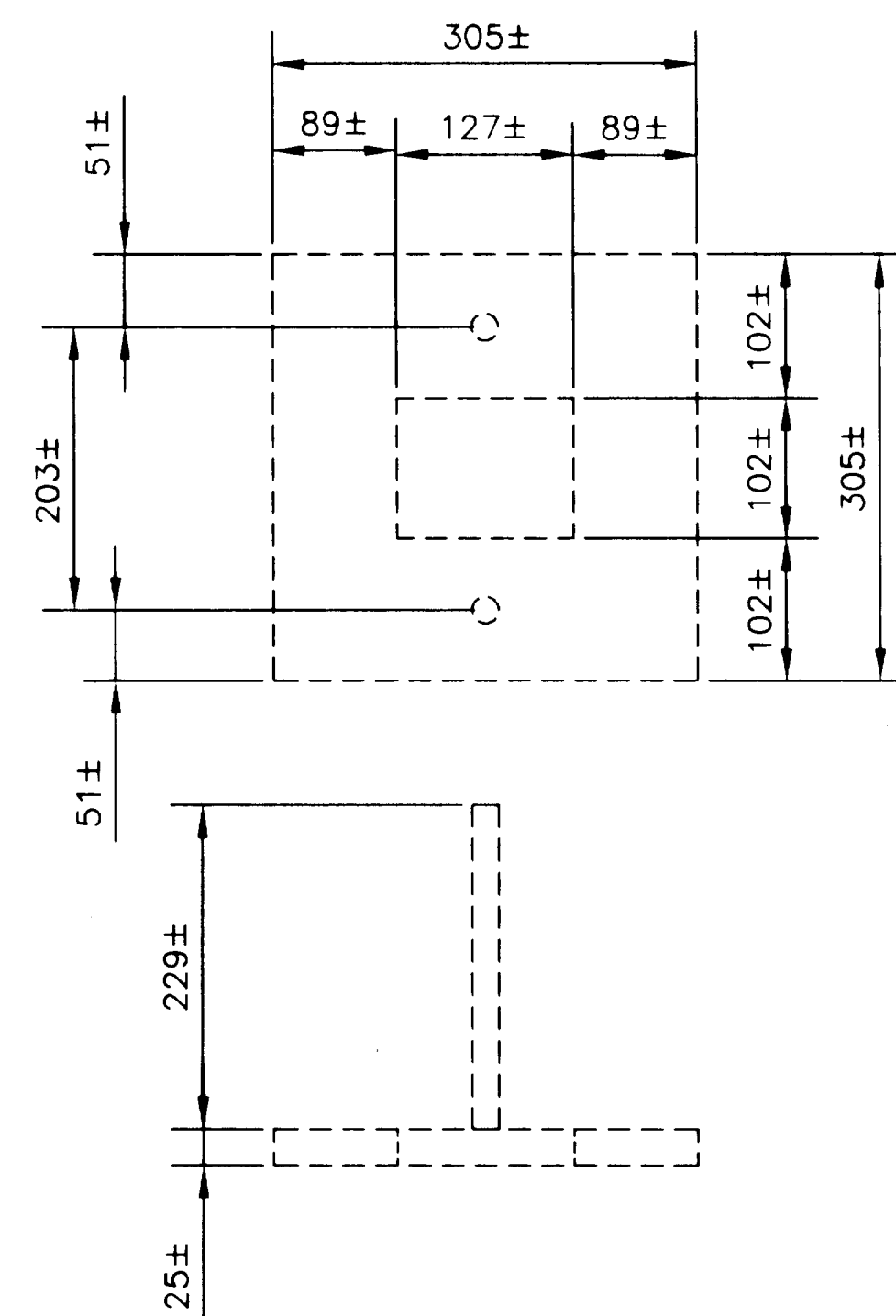
GIRDER END



ELASTOMERIC PAD



ELASTOMERIC PAD SECTION



EXISTING BEARING PLATE

LEGEND:

- DENOTES EXISTING
- DENOTES NEW CONSTRUCTION
- (E) EXISTING

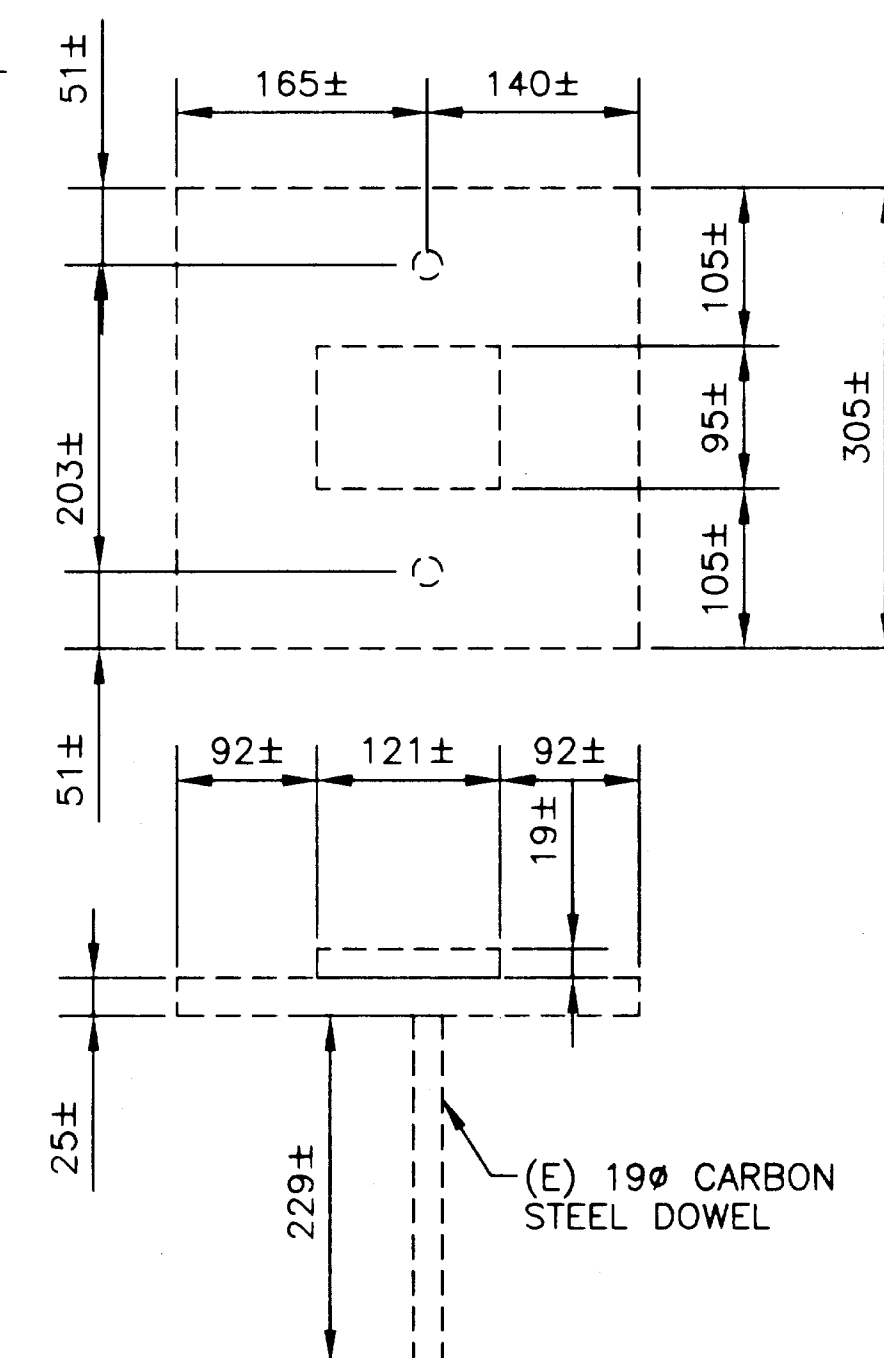
NOTES:

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

HOT DIP GALVANIZE ALL SHIMS AFTER FABRICATION.

* FIELD VERIFY DIM. FOR REPLACEMENT WITH ELASTOMERIC PAD THICKNESS SHOWN.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

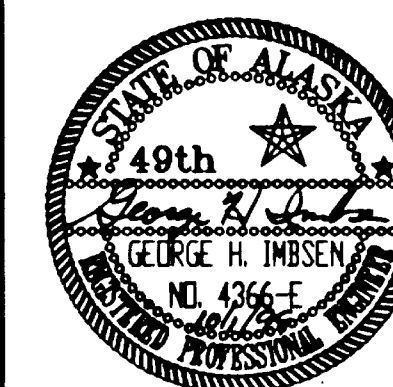


EXISTING BEARING BED PLATE

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PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1
DRAWN OR REVISED BY: CMF

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE VIADUCT STRUCTURAL REPAIRS
ALASKA
TONGASS AVE. BEARING REPLACEMENT



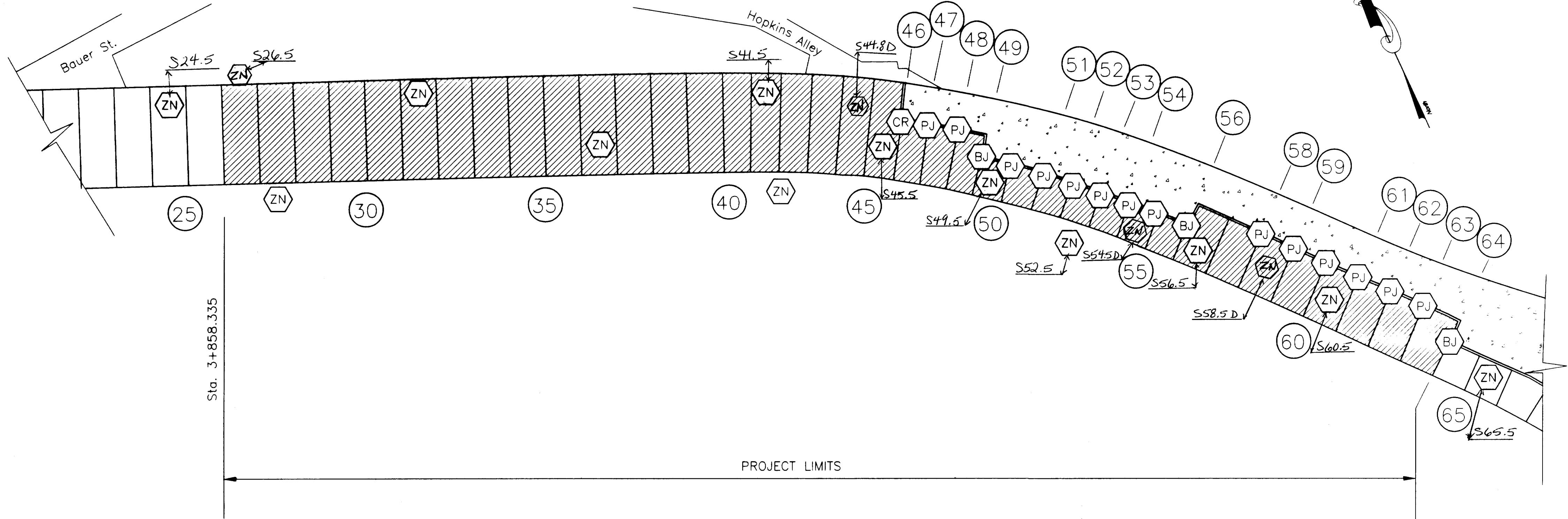
RECORD OF REVISIONS		
DATE	BY	COMMENT

 BRIDGE DESIGN SECTION STATE OF ALASKA DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES JUNEAU, ALASKA		S-4
DESIGNED BY: GHI	DATE: SEPTEMBER, 1999	
CHECKED BY: EEM	SHEET 22 OF 1	
APPROVED BY:	BRIDGE NO. 997	

NOTES

- METALLIZE ALL DECK AND SIDEWALK SOFFIT, LONGITUDINAL BEAMS, GIRDERS, DIAPHRAGMS AND CROSS-BRACES IN THE AREAS SHOWN. UNLESS A CAP JACKET IS INDICATED, METALLIZE THE PILE CAP.
- ALL METALLIZING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS, SPECIAL PROVISIONS AND DRAWINGS.
- AFTER SECURING ENGINEER APPROVAL, MAKE SPRAYED ZINC ANODE CONNECTION (SEE 1/CP-5.03) AT THE FOLLOWING LOCATIONS:
 - AT ONE (1) CENTRALLY LOCATED POSITION FOR EACH DECK-BEAM PANEL.
 - AT ONE (1) CENTRALLY LOCATED POSITION ON EACH METALLIZED PILE CAP.
- AFTER SECURING ENGINEER APPROVAL, MAKE CATHODIC PROTECTION SYSTEM CONNECTIONS TO EMBEDDED REINFORCING STEEL AT THE FOLLOWING LOCATIONS:
 - AT ONE (1) CENTRALLY LOCATED POSITION ON EACH PRECAST DECK PANEL. SEE DETAIL 1/CP-5.04.
 - AT ONE (1) CENTRALLY LOCATED POSITION ON EACH METALLIZED PILE CAP. SEE DETAILS 1 & 2/CP-5.04
 - AT ONE (1) CENTRALLY LOCATED POSITION ON EACH CONVENTIONALLY REINFORCED PILE OR COLUMN. SEE DETAILS 1 & 2/CP-5.04.
- THE CONTRACTOR SHALL INSTALL PILE, PILASTER, CORNER AND BUTTRESS JACKETS AT THE LOCATIONS INDICATED ON THE PLANS AND IN ACCORDANCE WITH THE SPECIFICATIONS.
- THE CONTRACTOR SHALL INSTALL SEVEN (7) REFERENCE CELLS ON WATER STREET IN ACCORDANCE WITH THE SPECIFICATIONS AT LOCATIONS SELECTED BY THE ENGINEER AND BASED ON THE CONTRACTOR'S REINFORCEMENT POTENTIAL SURVEY. SEE CP-5.07
- THE CONTRACTOR SHALL INSTALL TEST STATIONS AT FIVE (5) LOCATIONS SELECTED BY THE ENGINEER, AND RUN CONDUIT AND CABLE TO CONNECT SIX (6) OF THE REFERENCE CELLS, AND THEIR RESPECTIVE ANODE AND REINFORCEMENT CONNECTION CABLES, TO THOSE TEST STATIONS. SEE DRAWINGS CP-5.07 AND CP-5.08.
- THE CONTRACTOR SHALL INSTALL ONE (1) REMOTE MONITORING AT A LOCATION ALONG THE WATER STREET RIGHT-OF-WAY SELECTED BY THE ENGINEER, AND RUN CONDUIT AND CABLE TO CONNECT ONE (1) OF THE REFERENCE CELLS, AND THEIR RESPECTIVE ANODE AND REINFORCEMENT CONNECTION CABLES, TO THAT LOCATION. SEE DRAWINGS CP-5.07 AND CP-5.08.
- THE CONTRACTOR SHALL USE DUCT TAPE, OR SIMILAR PRODUCT, TO MASK EACH CATHODICALLY PROTECTED PILE CAP FROM THE ADJACENT SOFFIT AND GIRDER SYSTEMS. TO FACILITATE ESTABLISHING TEST AREAS, THE ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL MASKING AT NO ADDITIONAL COST TO THE OWNER.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



WATER STREET BR #797

LEGEND

BENT NUMBER	XX
BUTTRESSED JACKET	BJ
CORNER JACKET	CR
PILASTER JACKET	PJ
SQUARE JACKET	SQ
CAP JACKET	CJ
SOIL & SEDIMENT ZINC SAMPLING BASELINE & POST CONSTRUCTION	ZN
AREAS TO RECEIVE CP	[Hatched Box]
SLAB ON GRADE	[Dotted Box]

SAMPLE NO.
SEE FIELD BOOK # FILE 2-641(3)

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS

DATE	BY	COMMENT

PATH: P:\KTN\71111\DR\CP1-01.DWG

PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT

WATER STREET WORK PLAN

ALASKA

DESIGNED BY:

K.M. HOWELL

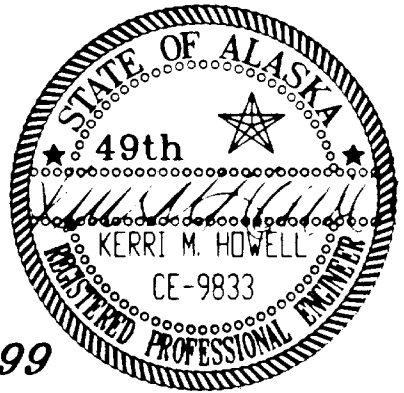
CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

DESIGNER:



CP-1.01

EXPIRES:

DEC. 31, 1999

DATE:

SEPTEMBER 15, 1999

SHEET 23 OF 104

BRIDGE NO. 797

INVESTIGATING THE INFRASTRUCTURE

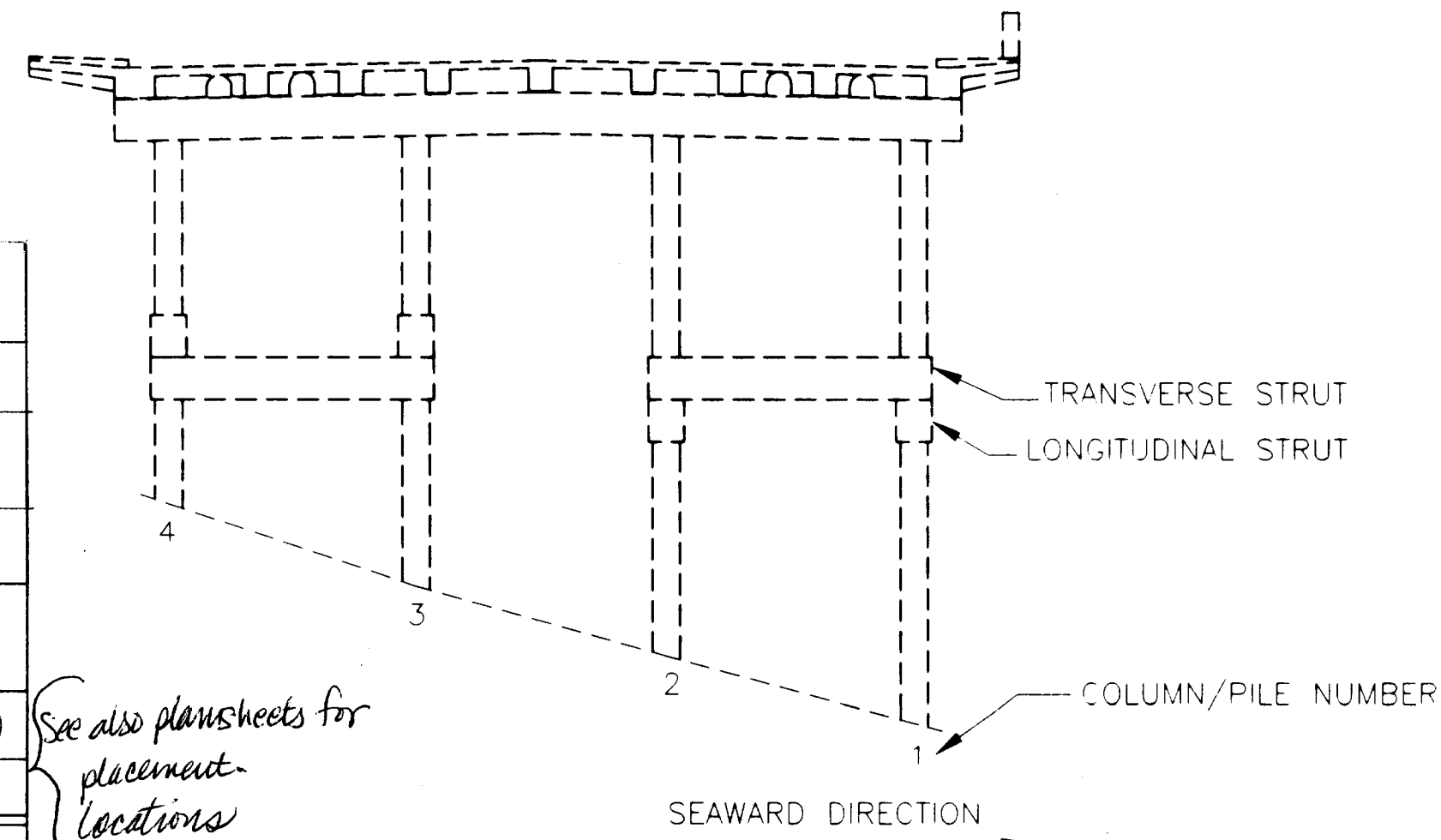
976 - 20TH AVENUE SEATTLE, WA 98122

PHONE: (206) 328-7872 FAX (206) 328-7916

tinnea@compuserve.com

*** ADDED BY CHANGE ORDER #8 ***

BENT **	DECK-S/W	CAP	PILE JKT.					BULK ANODES : 42 KG	
24			2 EA, P1-2 @ 3.6M					4 EA	
25			4 EA, P1-4 @ 1.8M					4 EA	
CORROSION CONTROL ELEMENTS FOR WATER ST. VIADUCT									
	ZINC METALLIZE (M ²)	PILE JKT, 1.8 M*	PILASTER JKT 0.6 M*	PILASTER JKT 1.8 M*	CORNER JKT 1.8 M*	BUTTRESSED JKT 1.8 M*	BULK ANODES (SEE CP-4.01)		
BENT**	DECK-S/W	CAP	(SEE 1&B/CP-4.02)	(SEE 1/CP-4.03)	(SEE 1/CP-4.03)	(SEE 1/CP-4.04)	(SEE 1/CP-4.06)	34 KG	42 KG
26	164	34	4EA, P1-4					2 EA	
27	164	34	4EA, P1-4						4EA
28	164	34	4EA, P1-4					2 EA	
29	164	34	4EA, P1-4						4EA
30	164	34	4EA, P1-4						2EA
31	164	34	4EA, P1-4						4EA
32	164	34	4EA, P1-4						2EA
33	164	34	4EA, P1-4						4EA
34	164	34	4EA, P1-4						2EA
35	164	34	4EA, P1-4						4EA
36	164	34	4EA, P1-4					2EA	4EA
37	164	34	4EA, P1-4						4EA
38	164	34	4EA, P1-4					2EA	4EA
39	164	34	4EA, P1-4						4EA
40	140	34	4EA, P1-4					2EA	4EA
41	140	34	4EA, P1-4						4EA
42	140	34	4EA, P1-4					2EA	4EA
43	140	34	4EA, P1-4					2EA	4EA
44	140	34	4EA, P1-4					2EA	
45	140	34	4EA, P1-4					2EA	4EA
46	84	20	2EA, P1-2			1EA, P3		2EA	1EA
47	84	20	2EA, P1-2		1EA, P3			2EA	
48	84	20	2EA, P1-2	1EA, P3				2EA	
49	55	13	1EA, P1			1EA, P2		2EA	
50	55	13	1EA, P1		1EA, P2			2EA	
51	55	13	1EA, P1		1EA, P2			2EA	
52	55	13	1EA, P1		1EA, P2			2EA	
53	55	13	1EA, P1		1EA, P2			2EA	
54	55	13	1EA, P1		1EA, P2			2EA	
55	55	13	1EA, P1		1EA, P2			2EA	
56	98	20	1EA, P1			1EA, P2		2EA	
57	98	20	2EA, P1-2					2EA	
58	98	20	2EA, P1-2	1EA, P3					2EA
59	98	20	2EA, P1-2		1EA, P3			2EA	
60	98	20	2EA, P1-2		1EA, P3			2EA	
61	98	20	2EA, P1-2		1EA, P3			2EA	
62	98	20	2EA, P1-2		1EA, P3			2EA	
63	98	20	2EA, P1-2		1EA, P3			2EA	
64		13	1EA, P1			1EA, P2		2EA	
TOTAL	4557 M ²	1004 M ²	109 EA	2 EA	12 EA	1 EA	3 EA	58 EA	44 EA



BENT (XX)

NOTES:

(E) Existing

----- Denotes Existing

————— Denotes New Construction

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

INSTALL CATHODIC PROTECTION EQUIPMENT IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR MUST COMPLETE CONCRETE REPAIRS, DISCUSSED ELSEWHERE, BEFORE INSTALLING JACKETS.

THE CONTRACTOR SHALL MODIFY THE JACKETS TO FIT AROUND EXISTING UTILITIES, HANGERS AND BRACKETS, SEE SPECIAL PROVISIONS.

* LENGTH AT TOP OF COLUMN INDICATES JACKET HEIGHT. IN EACH CELL, AFTER THE COUNT, PX OR PY-X IDENTIFIES THE REFERENCE NUMBER OF PILE(S) TO RECEIVE JACKET(S).

** BENT IDENTIFIES BENT OF CAP AND PILES. METALLIZED DECK, SIDEWALK (S/W), GIRDERS AND DIAPHRAGMS (DIAPH) REFER TO THE SPAN THAT EXTENDS IN A SOUTHERLY DIRECTION FROM THE REFERENCED CAP.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER:

EXPIRES: DEC. 31, 1999

CP-1.02

NOTES

1. METALLIZE ALL DECK AND SIDEWALK SOFFIT, LONGITUDINAL BEAMS, GIRDERS, DIAPHRAGMS AND CROSS-BRACES IN THE AREAS SHOWN. UNLESS A CAP JACKET IS INDICATED, METALLIZE THE PILE CAP.

2. ALL METALLIZING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS, SPECIAL PROVISIONS AND DRAWINGS.

3. MAKE SPRAYED ZINC ANODE CONNECTION (SEE 1/CP-5.03) AT THE FOLLOWING LOCATIONS:

A. AT TWO CENTRALLY LOCATED POSITIONS ON THE DECK-SIDEWALK SOFFIT ON EACH SPAN. LOCATIONS MUST BE SEPARATED BY 3 M (MIN).

B. AT ONE CENTRALLY LOCATED POSITION ON EACH METALLIZED PILE CAP.

C. AT ONE CENTRALLY LOCATED POSITION ON EACH METALLIZED COLUMN.

4. MAKE CATHODIC PROTECTION SYSTEM CONNECTIONS TO EMBEDDED REINFORCING STEEL AT THE FOLLOWING LOCATIONS:

A. AT TWO CENTRALLY LOCATED POSITIONS ON THE DECK-SIDEWALK SOFFIT ON EACH SPAN. LOCATIONS MUST BE SEPARATED BY 3 M (MIN). SEE DETAIL 1/CP-5.04.

B. AT ONE CENTRALLY LOCATED POSITION ON EACH METALLIZED PILE CAP. SEE DETAILS 1 & 2/CP-5.04

C. AT ONE CENTRALLY LOCATED POSITION ON EACH CONVENTIONALLY REINFORCED PILE OR COLUMN. SEE DETAILS 1 & 2/CP-5.04.

D. ON ALL STEEL TENDONS OF EACH PRESTRESSED PILE OR GIRDER. SEE DETAILS 1 & 2/5.06

5. THE CONTRACTOR SHALL INSTALL PILE AND CAP JACKETS AT THE LOCATIONS INDICATED ON THE PLANS AND IN ACCORDANCE WITH THE SPECIFICATIONS.

6. THE CONTRACTOR SHALL INSTALL SIX (6) REFERENCE CELLS ON TONGASS AVENUE IN ACCORDANCE WITH THE SPECIFICATIONS AT LOCATIONS SELECTED BY THE ENGINEER AND BASED ON THE CONTRACTOR'S REINFORCEMENT POTENTIAL SURVEY. SEE CP-5.07.

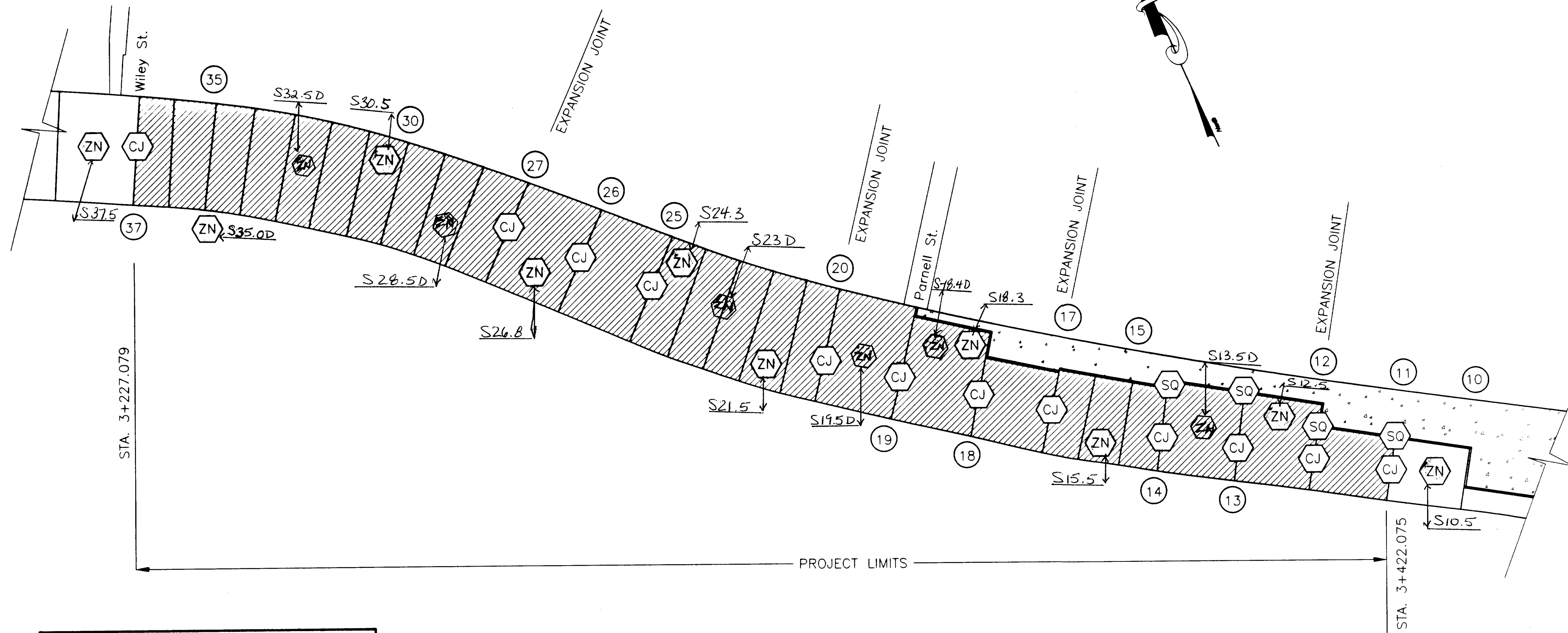
7. THE CONTRACTOR SHALL INSTALL TEST STATIONS AT FIVE (5) LOCATIONS SELECTED BY THE ENGINEER, AND RUN CONDUIT AND CABLE TO CONNECT FIVE (5) OF THE REFERENCE CELLS, AND THEIR RESPECTIVE ANODE AND REINFORCEMENT CONNECTION CABLES, TO THOSE TEST STATIONS. SEE DRAWINGS CP-5.07 AND CP-5.08.

8. THE CONTRACTOR SHALL INSTALL ONE (1) REMOTE MONITORING AT A LOCATION SELECTED BY THE ENGINEER, AND RUN CONDUIT AND CABLE TO CONNECT ONE (1) OF THE REFERENCE CELLS, AND THEIR RESPECTIVE ANODE AND REINFORCEMENT CONNECTION CABLES, TO THAT LOCATION. SEE DRAWINGS CP-5.07 AND CP-5.08.

9. THE CONTRACTOR SHALL USE DUCT TAPE, OR SIMILAR PRODUCT, TO MASK EACH CATHODICALLY PROTECTED PILE CAP FROM THE ADJACENT SOFFIT AND GIRDER SYSTEMS. TO FACILITATE ESTABLISHING TEST AREAS, THE ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL MASKING AT NO ADDITIONAL COST TO THE OWNER.

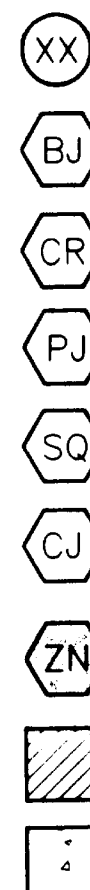
10. THE CONTRACTOR SHALL COMPLETE ALL BEARING PAD WORK PRIOR TO INSTALLING CATHODIC PROTECTION EQUIPMENT IN THOSE LOCATIONS.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



LEGEND

BENT NUMBER
BUTTRESSED JACKET
CORNER JACKET
PILASTER JACKET
SQUARE JACKET
CAP JACKET
SOIL & SEDIMENT ZINC SAMPLING
BASELINE & POST CONSTRUCTION
AREAS TO RECEIVE CP
SLAB ON GRADE



SAMPLES No.
[SEE FIELD BOOK # FILE C-2-64(3)]

TONGASS AVENUE BR #997

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS

DATE	BY	COMMENT

PATH: P:\KTN\71111\DR\CP1-03.DWG

PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

DRAWN OR REVISED BY: T.G. NORTON

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE VIADUCT

TONGASS AVENUE WORK PLAN

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-1.03

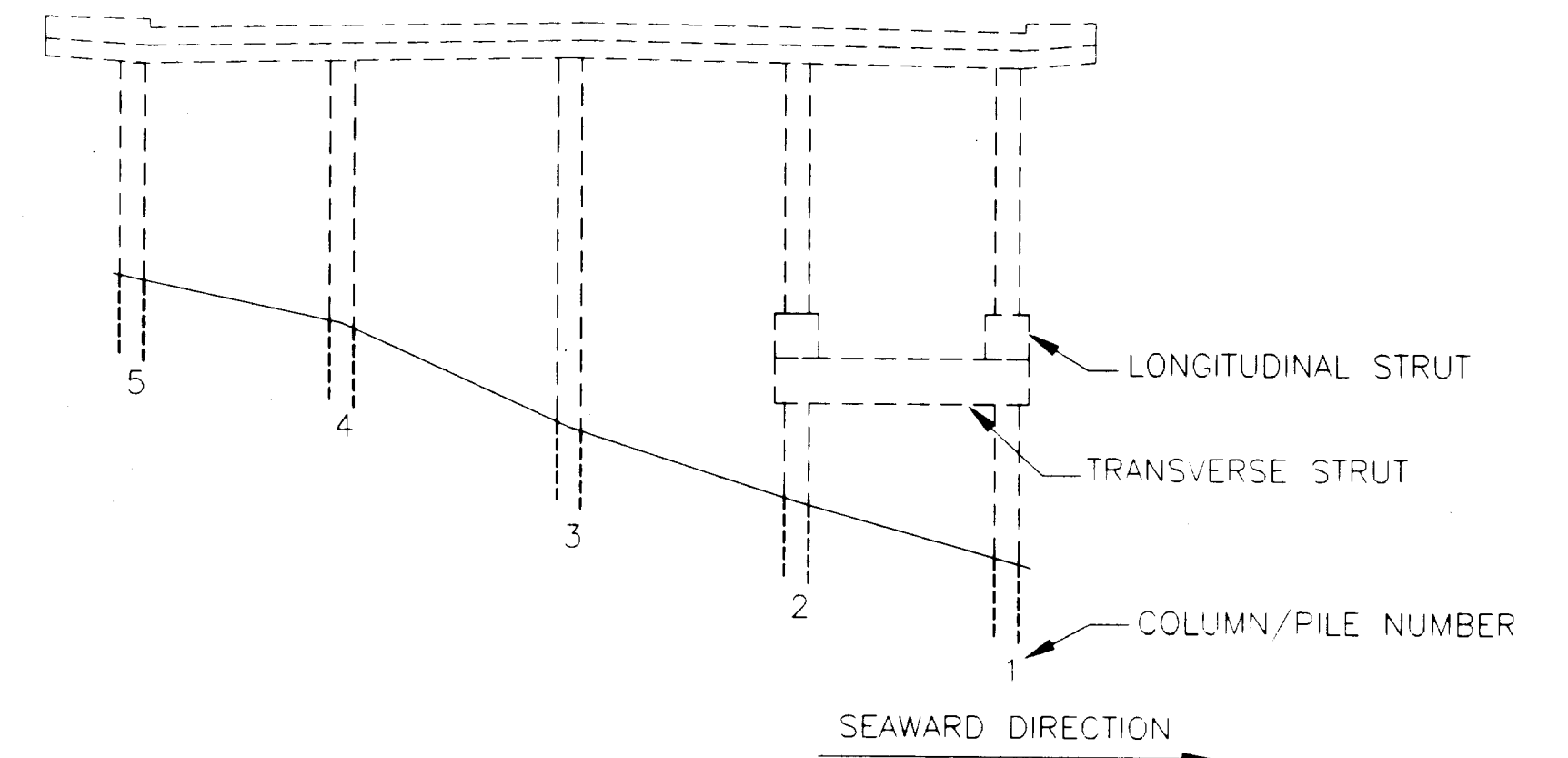
DATE:

SEPTEMBER 15, 1999

SHEET 25 OF 104

BRIDGE NO. 997

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com



BENT XX

CORROSION CONTROL ELEMENTS FOR TONGASS AVENUE VIADUCT										
BENT**	ZINC METALLIZE (M ²)			CAP JACKET (JKT)	PILE JKT (SEE 1&B/CP-4.02)*			PILE JKT 0.6 M	BULK ANODES (SEE CP-4.01)	
	DECK-S/W	GIRDER-DIAPH	CAP	(DWG. AS SHOWN)	1.2 M	1.8 M	2.4 M	(SEE 1/CP-4.05)	34 KG	42 KG
37	102	37		C-7 (SEE 1/CP-4.10)	5EA, P1-5				2EA	
36	102		27				5EA, P1-5		2EA	
35	102		27				4EA, P1-4		2EA	
34	102		37 ***				4EA, P1-4			2EA
33	102		33 ***				4EA, P1-4		2EA	
32	102		42 ***			1EA, P5	4EA, P1-4			2EA
31	102		27				5EA, P1-5		2EA	
30	102		27				5EA, P1-5			2EA
29	102		27				5EA, P1-5		2EA	
28	102		27				5EA, P1-5			2EA
27	167	361		C-7 (SEE 1/CP-4.10)	5EA, P1-5				2EA	
26	178	346		C-1 (SEE 1/CP-4.08)	5EA, P1-5				2EA	
25	102	37		C-7 (SEE 1/CP-4.10)	5EA, P1-5					4EA
24	102		27				5EA, P1-5		2EA	
23	102		27				5EA, P1-5			4EA
22	102		27				5EA, P1-5		2EA	
21	102		27				5EA, P1-5			3EA
20	167	361		C-7 (SEE 1/CP-4.10)	3EA, P3-5	2EA, P1-2			2EA	
19	173	314		C-1 (SEE 1/CP-4.08)		4EA, P1-4			2EA	
18	109	252		C-2 (SEE 2/CP-4.08)		3EA, P1-3			2EA	
17	73	26		C-5 (SEE 2/CP-4.10)	3EA, P1-3				2EA	
16	73		19				3EA, P1-3		2EA	
15	73		27 ***				3EA, P1-3		2EA	
14	126	293		C-9 (SEE 2/CP-4.10)		2EA, P1-2		1EA, P3	2EA	
13	126	282		C-3 (SEE 1/CP-4.09)		3EA, P1-3		1EA, P4	2EA	
12	95	220		C-3 (SEE 1/CP-4.09)		2EA, P1-2		1EA, P3	2EA	
11	95			C-4 (SEE 2/CP-4.09)		2EA, P1-2		1EA, P3	2EA	
TOTAL	2890 M ²	2529 M ²	428 M ²	12 JACKETS	26 EA	19 EA	67 EA	4 EA	40 EA	19 EA

- NOTES:
- ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
- INSTALL CATHODIC PROTECTION EQUIPMENT IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR MUST COMPLETE CONCRETE REPAIRS, DISCUSSED ELSEWHERE, BEFORE INSTALLING JACKETS.
- THE CONTRACTOR SHALL MODIFY THE JACKETS TO FIT AROUND EXISTING UTILITIES, HANGERS AND BRACKETS, SEE SPECIAL PROVISIONS.
- * LENGTH AT TOP OF COLUMN INDICATES JACKET HEIGHT. IN EACH CELL, AFTER THE COUNT, PX OR PX-X IDENTIFIES THE REFERENCE NUMBER OF PILE(S) TO RECEIVE JACKET(S).
- ** BENT IDENTIFIES BENT OF CAP AND PILES. METALLIZED DECK, SIDEWALK (S/W), GIRDERS AND DIAPHRAGMS (DIAPH) REFER TO THE SPAN THAT EXTENDS IN A SOUTHERLY DIRECTION FROM THE REFERENCED CAP.
- *** THE METALLIZED CAP AREAS INCLUDE APPLYING ZINC METALLIZING TO EXPOSED AREAS OF THE SHORE WARD MOST PILE.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER:		CP-1.04
EXPIRES:		
DEC. 31, 1999		
DESIGNED BY:	K.M. HOWELL	DATE:
CHECKED BY:	D.R. HELGESON	SEPTEMBER 15, 1999
APPROVED BY:	J.S. TINNEA	SHEET 26 OF 104
INVESTIGATING THE INFRASTRUCTURE 976 - 20TH AVENUE SEATTLE, WA 98122 PHONE: (206) 328-7872 FAX (206) 328-7916 tinnea@compuserve.com		BRIDGE NO. 997

MATCH LINE STA. 125+22.08

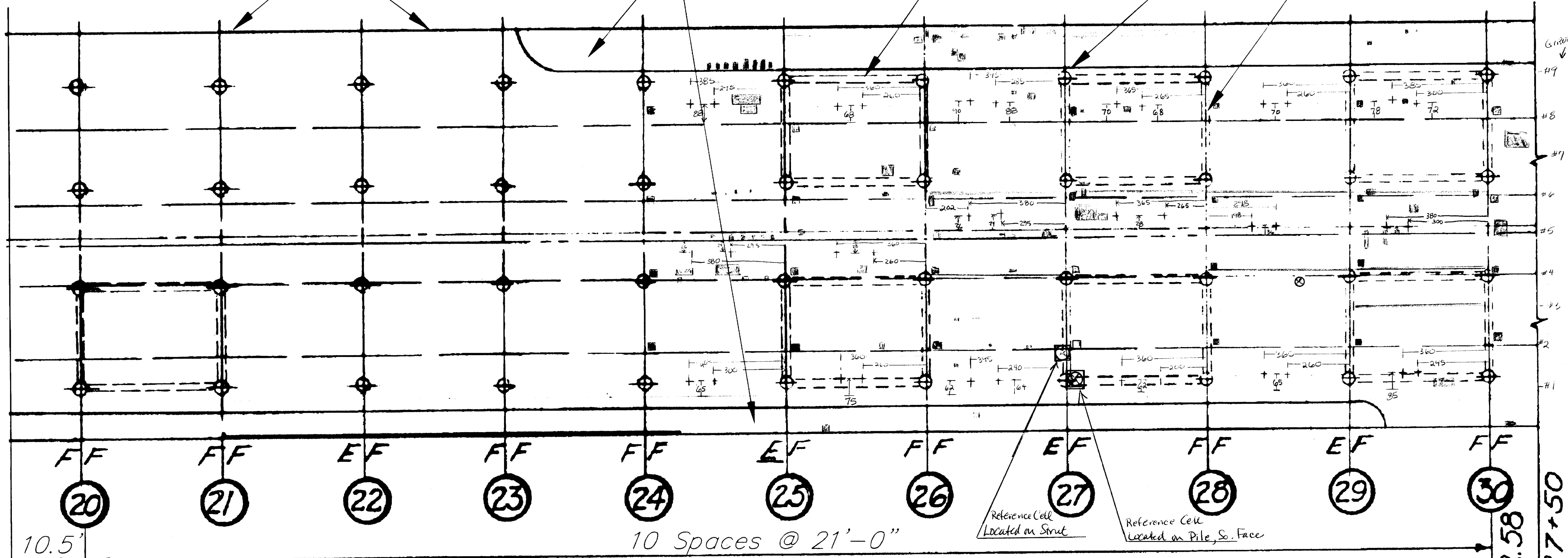
Driveway (TYP)

Sidewalk (TYP)

Longitudinal
Strut (TYP)

Pile (TYP)

Transverse
Strut (TYP)



Sta. 127+42.58
MATCH LINE Sta. 127+50

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

- Legend
- Concrete Repair
 - Continuity Connection (not a complete list) Every effort has been made to assure rebar is continuous - see Project Records for more information.
 - Positive Anode
 - System Negative
 - Reference Electrode (on the deck unless otherwise noted)
 - Test Station / Junction Box

PATH: P:\KTN\71111\DR\CP2-01.DWG
PLOT:
PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT
AS BUILT PLAN VIEW - BENTS 20-30

DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

DESIGNER:

EXPIRES:

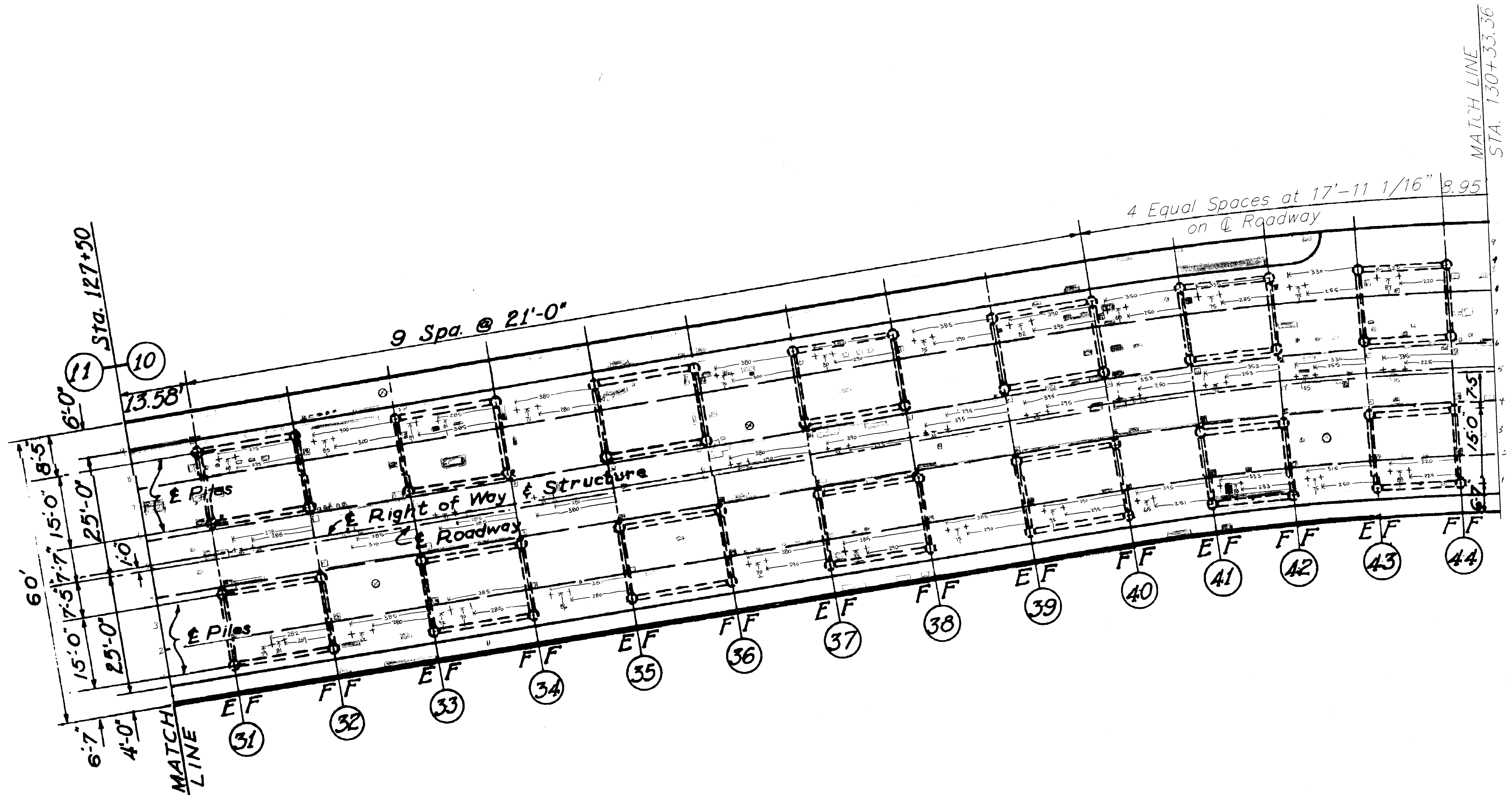
DEC. 31, 1999



CP-2.01

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

DATE:
SEPTEMBER 15, 1999
SHEET 27 OF 104
BRIDGE NO. 797



DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

Legend

- ☒ Concrete Repair
- ☒ Continuity Connections (not a complete list)
Every Effort has been made to assure that
rebar is continuous. See Project Records
for more information.
- ☒ Positive Anode
- ☒ System Negative
- ☒ Reference Electrode (on the deck unless noted otherwise)
- ☒ Junction Box / Test Station

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

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT

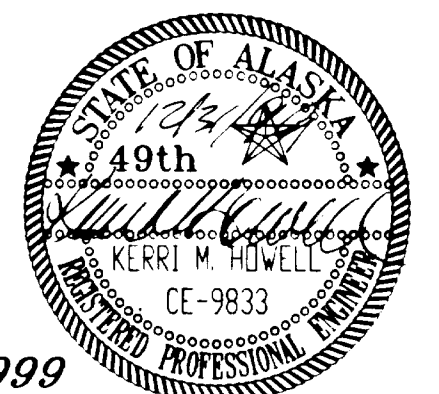
AS BUILT PLAN VIEW - BENTS 31-44

DESIGNED BY:
K.M. HOWELL
CHECKED BY:
D.R. HELGESON
APPROVED BY:
I.S. TINNEA

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-2.02

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:
SEPTEMBER 15, 1999

SHEET 2 OF 104

BRIDGE NO. 797

RECORD OF REVISIONS		
DATE	BY	COMMENT

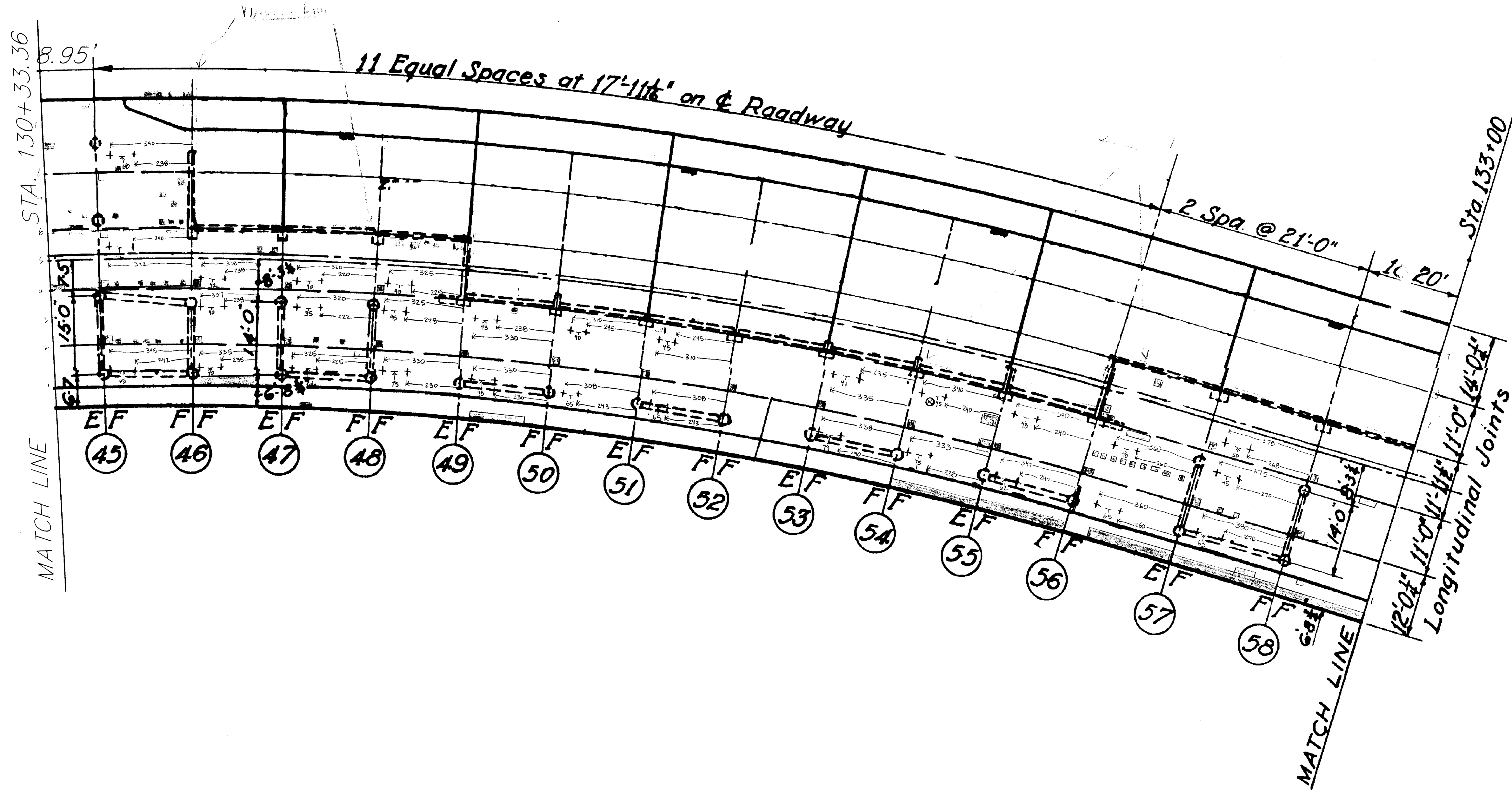
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PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

DRAWN OR REVISED BY: I.C. NORTON



Legend

☐	Concrete Repair
☐	Continuity Connection (Does not show all) Every effort has been made to assure rebar is continuous. See Project Records for more information.
☐	Positive Anode
☐	System Negative
☐	Reference Electrode (on the deck unless noted otherwise)
☐	Junction Box / Test Station

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

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT
AS BUILT PLAN VIEW - BENTS 45-58

DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-2.0

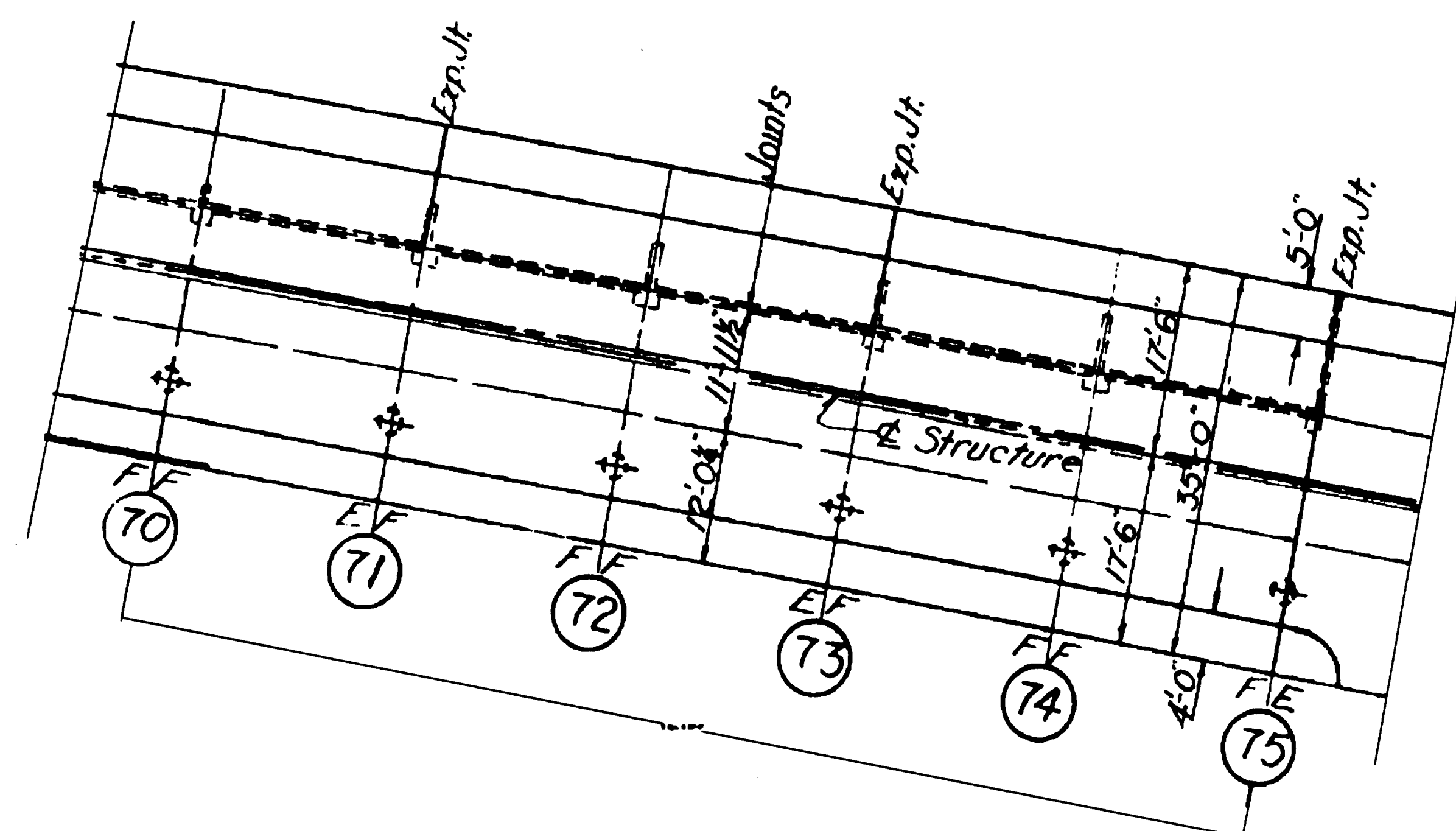
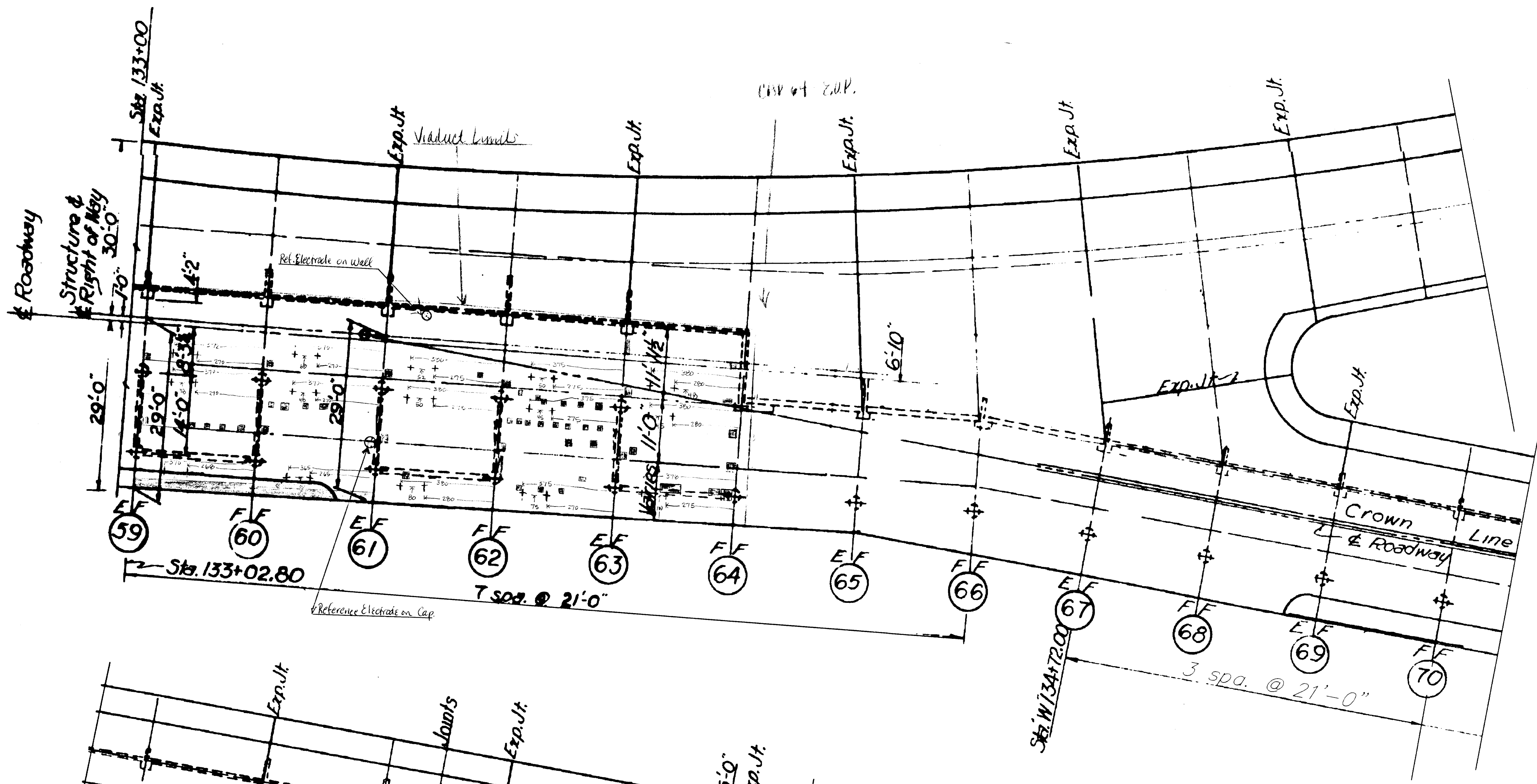
ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

RECORD OF REVISIONS		
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PATH: P:\KTN\71111\DR\CP2-03.DWG
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PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
DRAWN OR REVISED BY: T.C. NORTON

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE: SEPTEMBER 15, 1999
SHEET 29 OF 104
BRIDGE NO. 797



ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

LEGEND

- Concrete Repair
- Continuity Connection ... (Does not show all of them)
Every effort has been made to assure rebar is continuous. See Project Records for more information.
- Positive anode
- System negative
- Reference Electrode (on the deck unless noted otherwise)
- Junction Box / Test Station

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER:

EXPIRES: DEC. 31, 1999

CP-2.

PATH: P:\KTN\71111\DR\CP2-04.DWG
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 DRAWN OR REVISED BY: T.C. NORTON

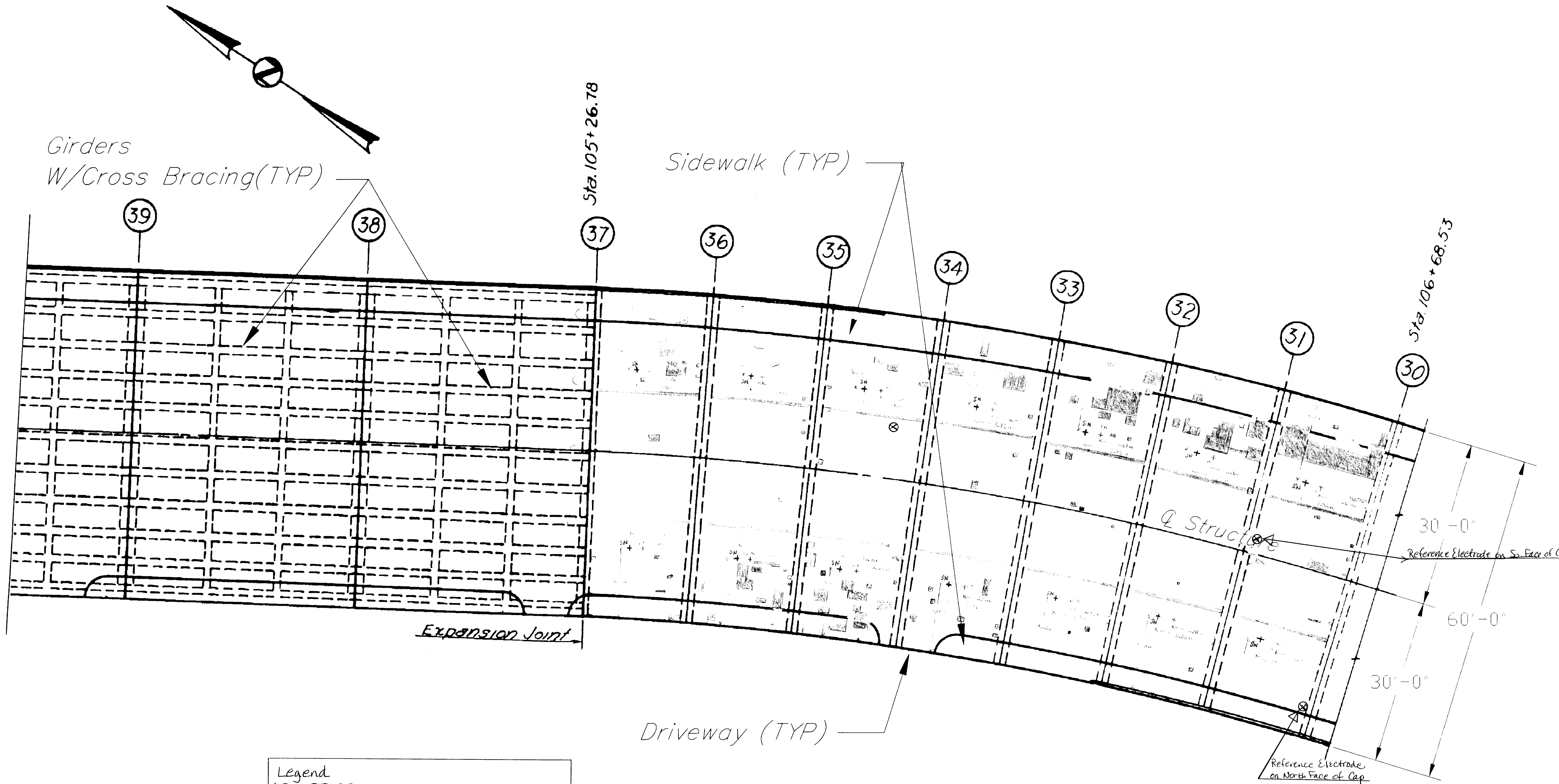
STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
 FED. NO. BR-0902 (26) PROJECT NO. 71111
 WATER STREET VIADUCT
AS BUILT PLAN VIEW - BENTS 59-75

DESIGNED BY: K.M. HOWELL
 CHECKED BY: D.R. HELGESON
 APPROVED BY: J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
 976 - 20TH AVENUE SEATTLE, WA 98122
 PHONE: (206) 328-7872 FAX: (206) 328-7916
 tinnea@compuserve.com

DATE: SEPTEMBER 15, 1999
 SHEET 30 OF 10
 BRIDGE NO. 797



DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

- Legend**
- Concrete Repair
 - Continuity Connections - (Does not show all)
Every effort has been made to assure rebar is continuous. See Project Records for more information.
 - ⊕ Positive anode
 - ⊖ System Negative
 - ⊗ Reference Electrode (on the deck unless noted otherwise)
 - ⊙ Junction Box / Test Station

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

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE VIADUCT
AS BUILT PLAN VIEW - BENTS 39-30

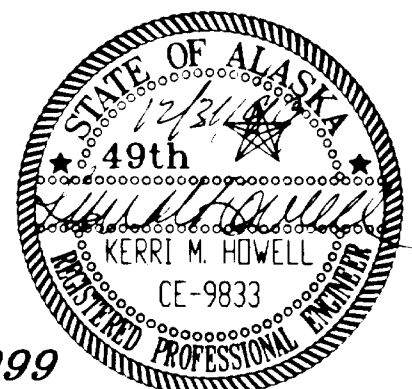
ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

DESIGNED BY:
K.M. HOWELL
CHECKED BY:
D.R. HELGESON
APPROVED BY:
J.S. TINNEA

DESIGNER:

EXPIRES:

DEC. 31, 1999

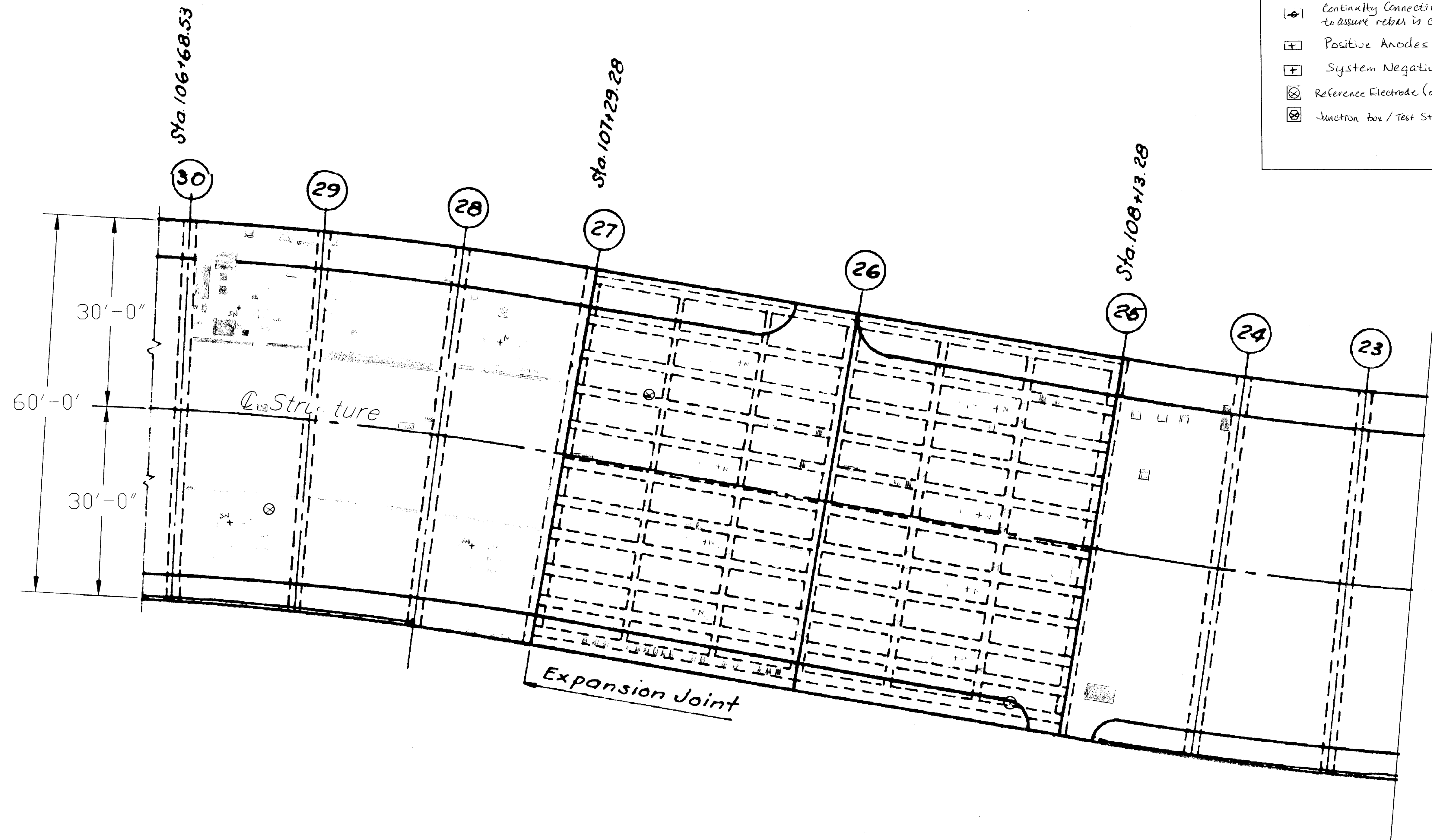


CP-2.0

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PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
DRAWN OR REVISED BY: T.C. NORTON

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tinnea@compuserve.com

DATE:
SEPTEMBER 15, 1999
SHEET 31 OF 104
BRIDGE NO. 997



- Reference Electrode Location
- Continuity Connections. not shown. Every effort has been made to assure rebar is continuous. See Project Records for details.
- Positive Anodes
- System Negative
- Reference Electrode (on the deck unless noted otherwise)
- Junction box / Test Station

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

PATH: P:\KTN\71111\DR\CP2-06.DWG
PLOT:
PLOT DATE:
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DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE VIADUCT
AS BUILT PLAN VIEW - BENTS 30-23

DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

DESIGNER: CP-2.06

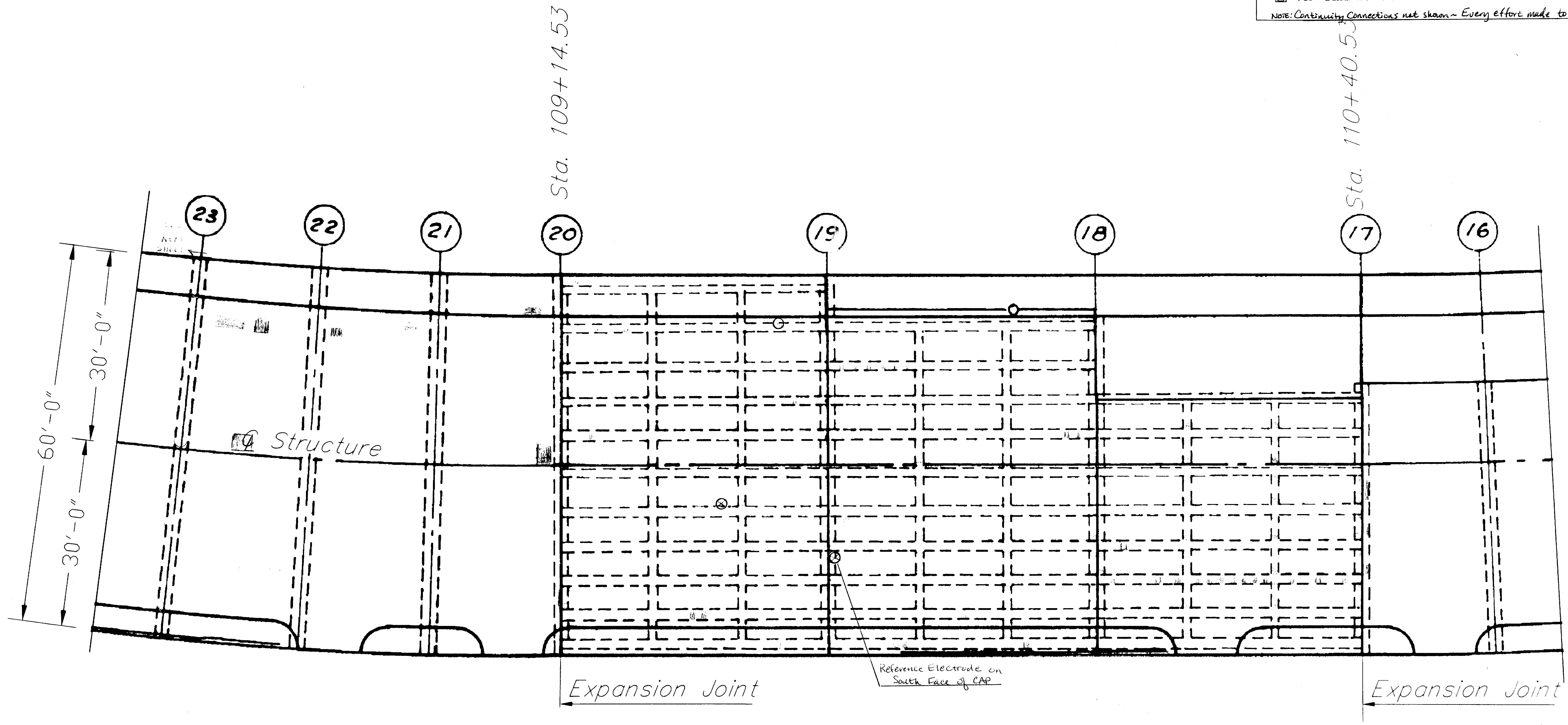
EXPIRES: DEC. 31, 1999

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
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VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

DATE: SEPTEMBER 15, 1999
SHEET 32 OF 104
BRIDGE NO. 997

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PHONE: (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

- ☐ REPLACE DAMAGED CONCRETE
 - ☐ Positive Anode
 - ☐ System Negative
 - ☒ Reference Electrode (on the deck unless noted otherwise.)
 - ☒ Test Station / Junction Box
- NOTE: Continuity Connections not shown - Every effort made to assure rebar continuous. See Proj. 1



DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
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VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER: 

EXPIRES: DEC. 31, 1999

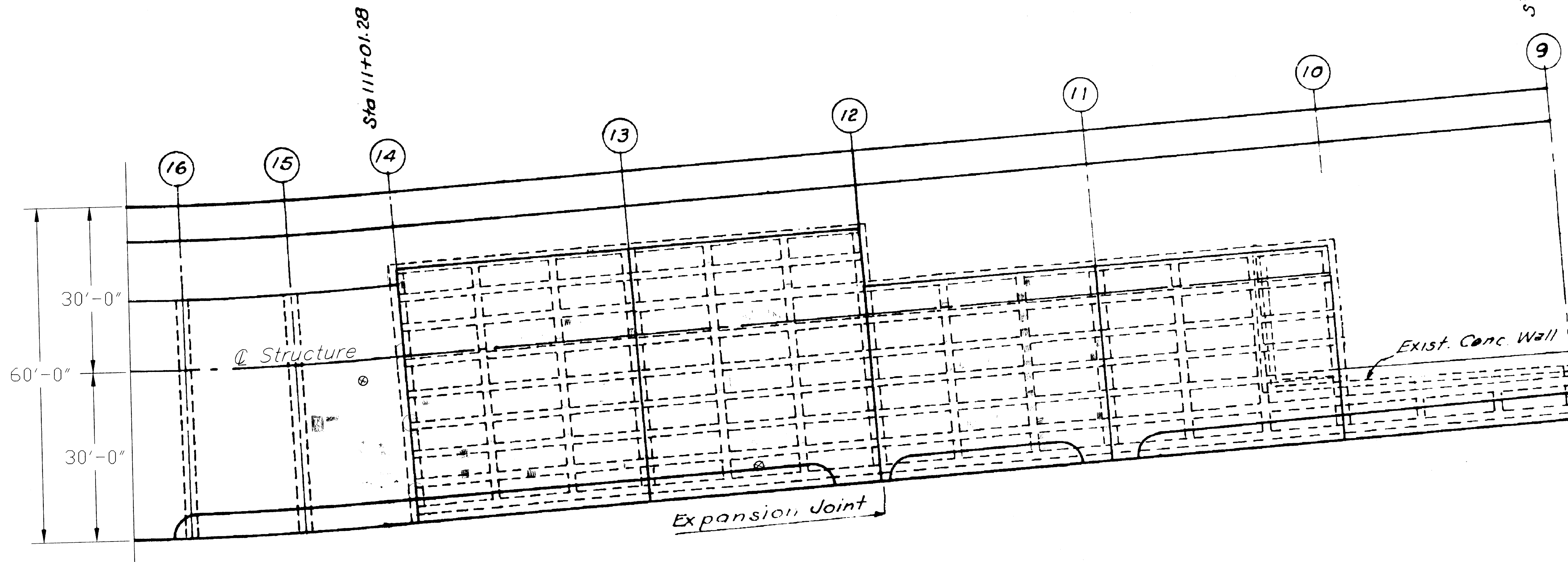
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 PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
 DRAWN OR REVISED BY: T.C. NORTON

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES SOUTHEAST REGION DESIGN & CONSTRUCTION	KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION FED. NO. BR-0902 (26) PROJECT NO. 71111 TONGASS AVENUE VIADUCT AS BUILT PLAN VIEW - BENTS 22-16	ALASKA	DESIGNED BY: K.M. HOWELL	DATE: SEPTEMBER 15, 1999 SHEET 33 OF 104 BRIDGE NO. 997
			CHECKED BY: D.R. HELGESON	
			APPROVED BY: J.S. TINNEA	

INVESTIGATING THE INFRASTRUCTURE
 976 - 20TH AVENUE SEATTLE, WA 98122
 PHONE: (206) 328-7872 FAX (206) 328-7916
 tinnea@compuserve.com

- REFRAME DAMAGED CONCRETE
- Positive Anode
- System Negative
- Continuity Connections are not shown on this sheet. Every effort has been made to assure rebar is continuous. See project records for details.
- Reference Electrodes (on deck unless otherwise noted)
- Test Station / Junction Box



DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

PATH: P:\KTN\71111\DR\CP2-08.DWG
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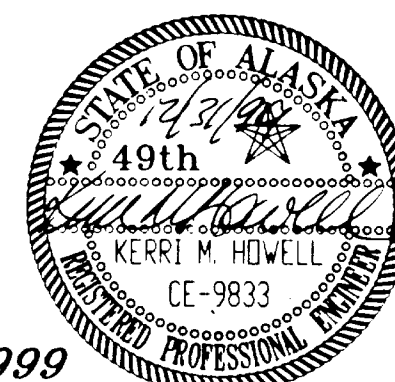
STATE OF ALASKA
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KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
 FED. NO. BR-0902 (26) PROJECT NO. 71111
 TONGASS AVENUE VIADUCT
AS BUILT PLAN VIEW - BENTS 16-9

DESIGNED BY: K.M. HOWELL
 CHECKED BY: D.R. HELGESON
 APPROVED BY: J.S. TINNEA

DESIGNER:

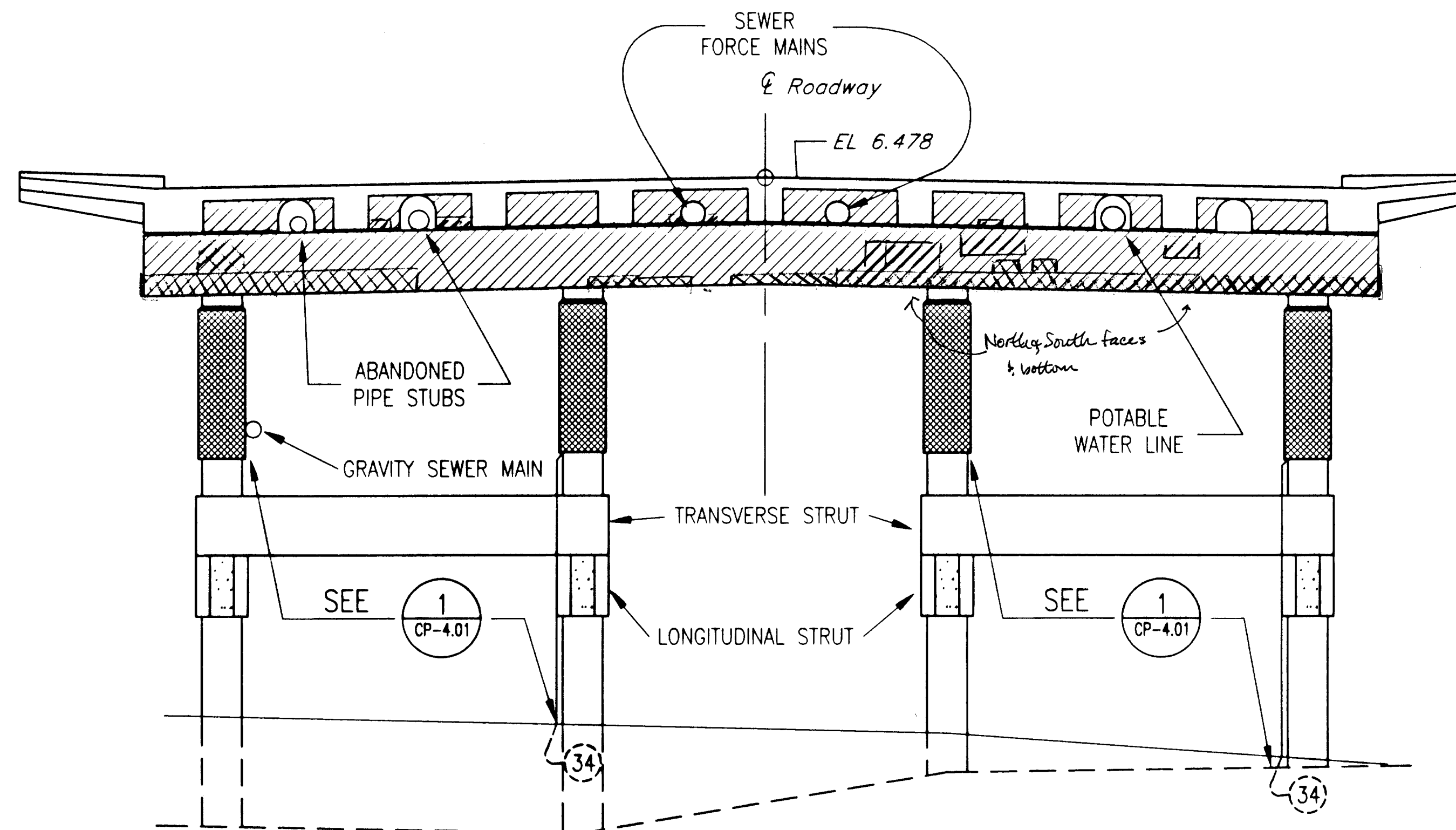
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 tinnea@compuserve.com

DATE: SEPTEMBER 15, 1999
 SHEET 34 OF 34
 BRIDGE NO. 9

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



MHHW
4.688M

MT
2.448M

MLLW
0.000M

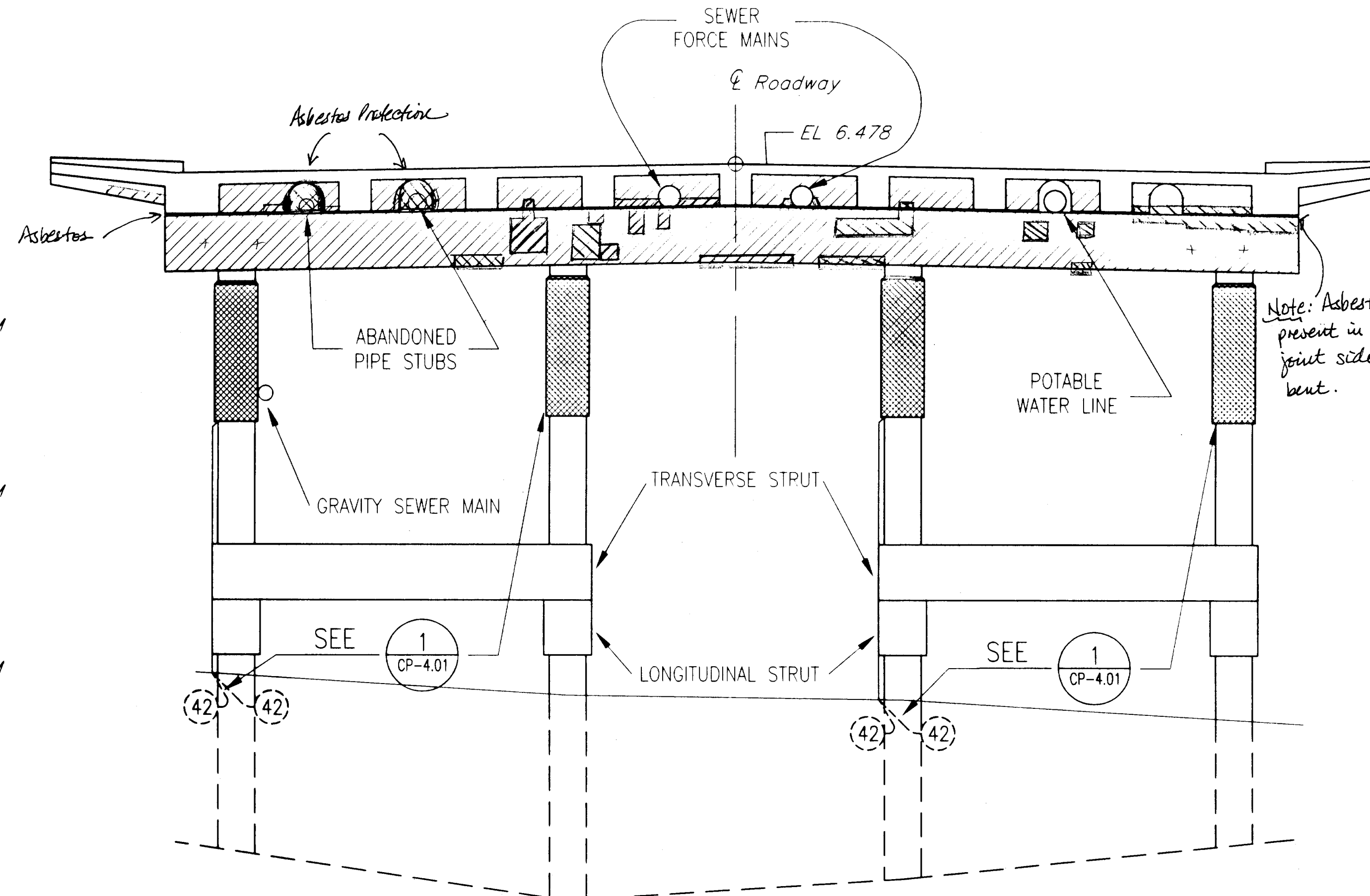
4

3

2

1

PILE NUMBER



Note: Asbestos is present in expansion joint side of this bent.

4

3

2

1

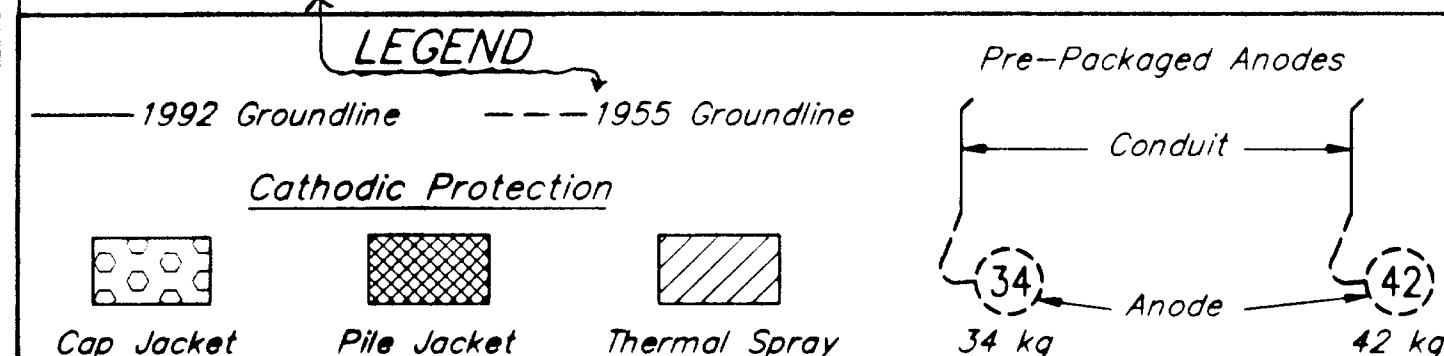
PILE NUMBER

1 BENT 24
CP-3.01 SCALE: N.T.S.

2 BENT 25
CP-3.01 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

- Concrete Repair - North Face
- Concrete Repair - South Face
- Concrete Repair - North & South Face
- Location of Asbestos in Expansion Joint
- System Negative
- Positive Anode



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

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EXPIRES:

DEC. 31, 1999



CP-3.01

PATH: P:\KTN\71111\DR\CP3-01.DWG

PLOT:

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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 24-25

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

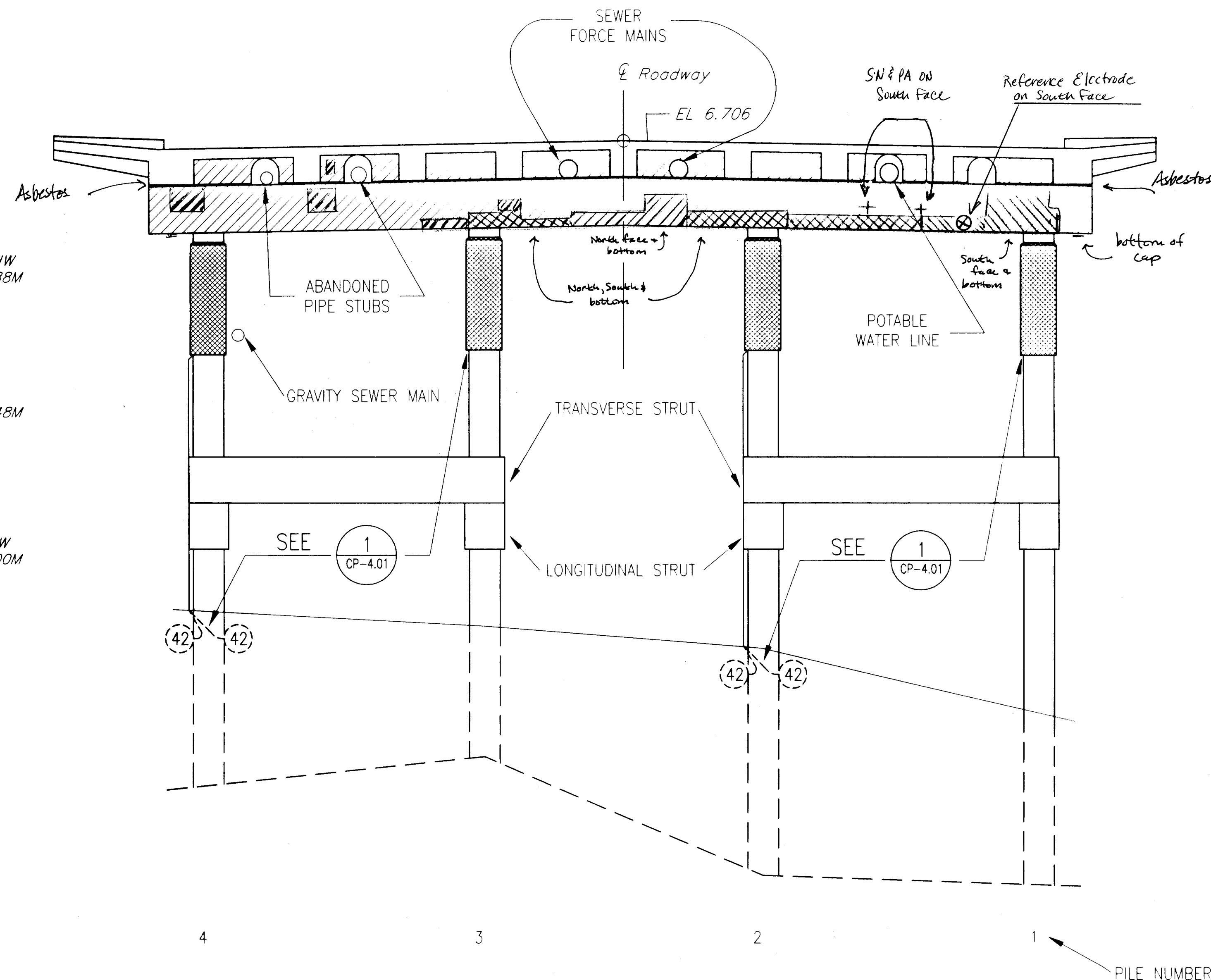
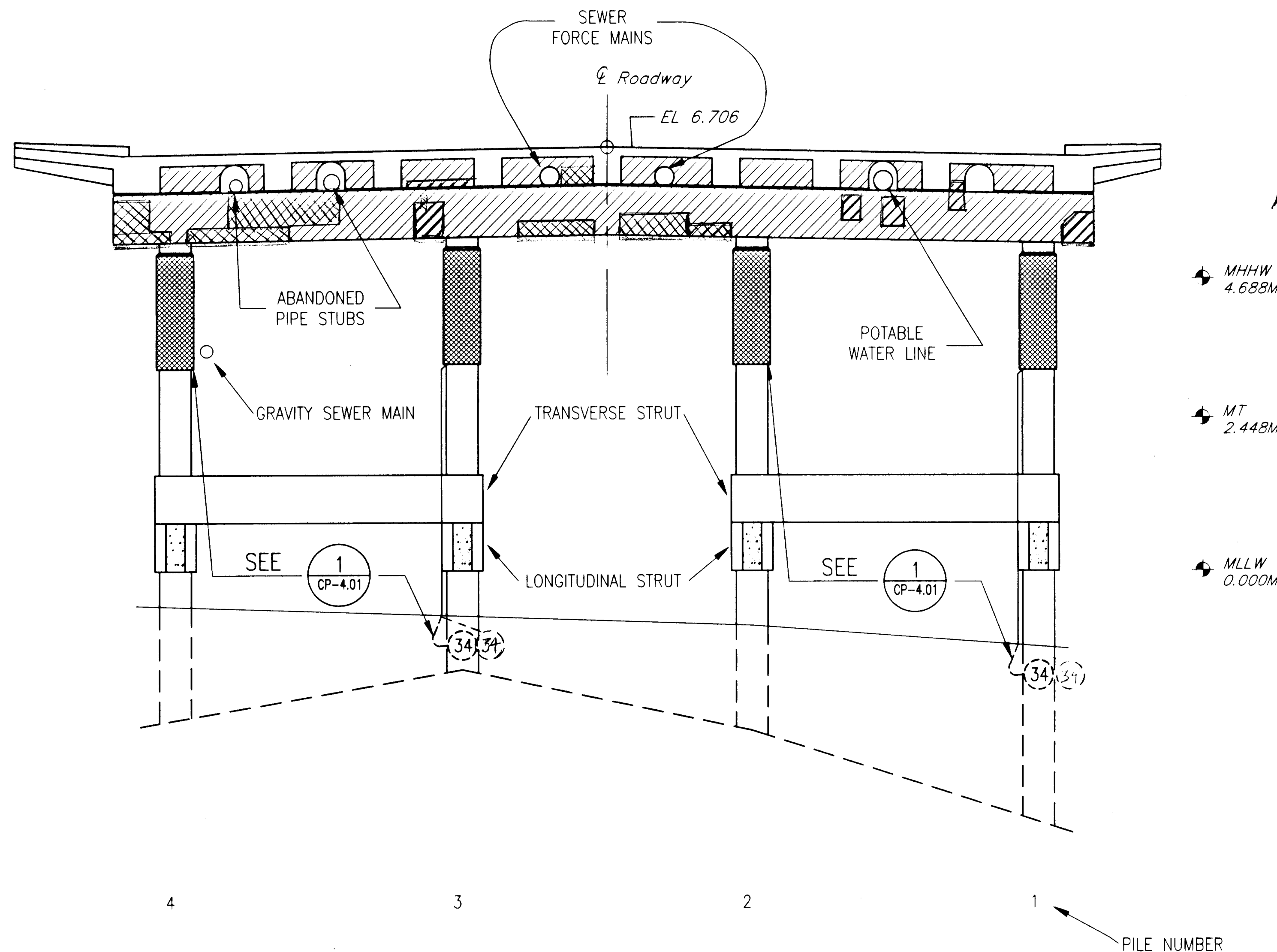
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976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 35 OF 104

BRIDGE NO. 797

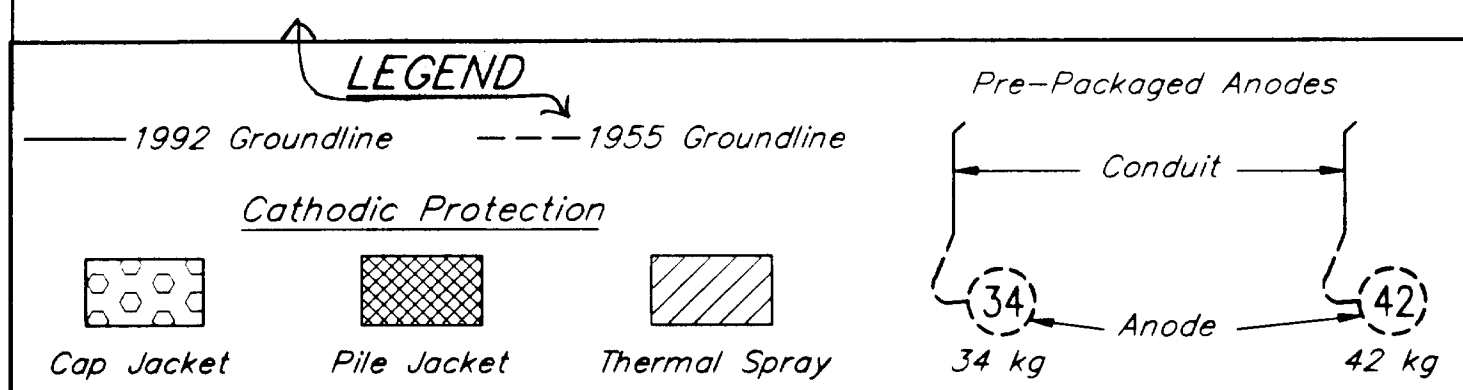


1 BENT 28
 CP-3.02 SCALE: N.T.S.

- | | |
|--|-----------------------------|
| Concrete Repair on North Face | Reference Electrode |
| Concrete Repair on South Face | Junction Box / Test Station |
| Concrete Repair on North & South Face | System Negative |
| Location of Asbestos in Expansion joint area | Positive Anode |
| Additional Submerged Anodes | |

DO NOT SCALE FROM THESE PLANS
 USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



2 BENT 29
 CP-3.02 SCALE: N.T.S.

Note: Asbestos is present in expansion joint side of this bent.
 N.T.S.

NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES:

DEC. 31, 1999



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PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

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 SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
 FED. NO. BR-0902 (26) PROJECT NO. 71111
 TONGASS AVENUE & WATER STREET VIADUCTS
 ELEVATION VIEW- BENTS 28-29

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

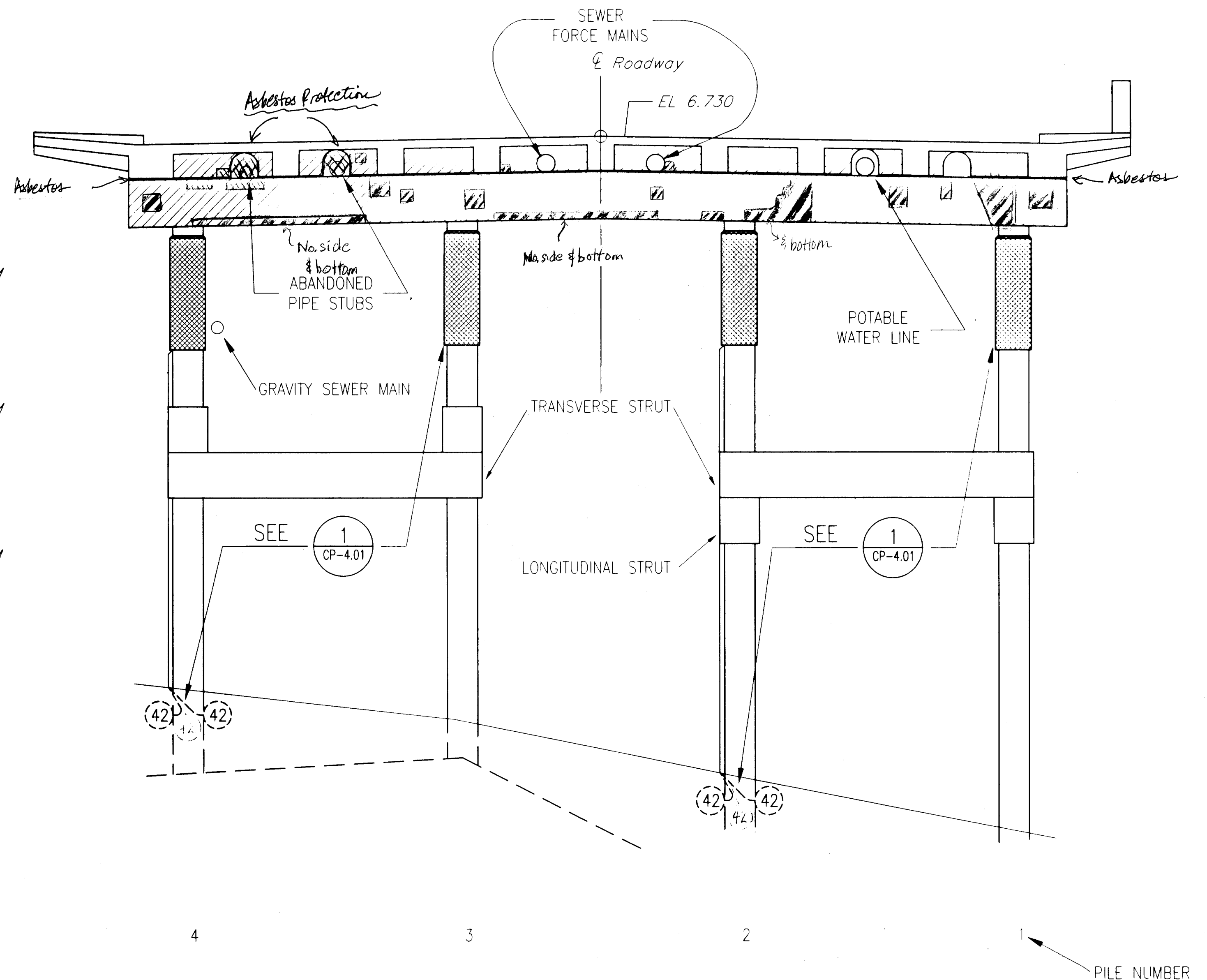
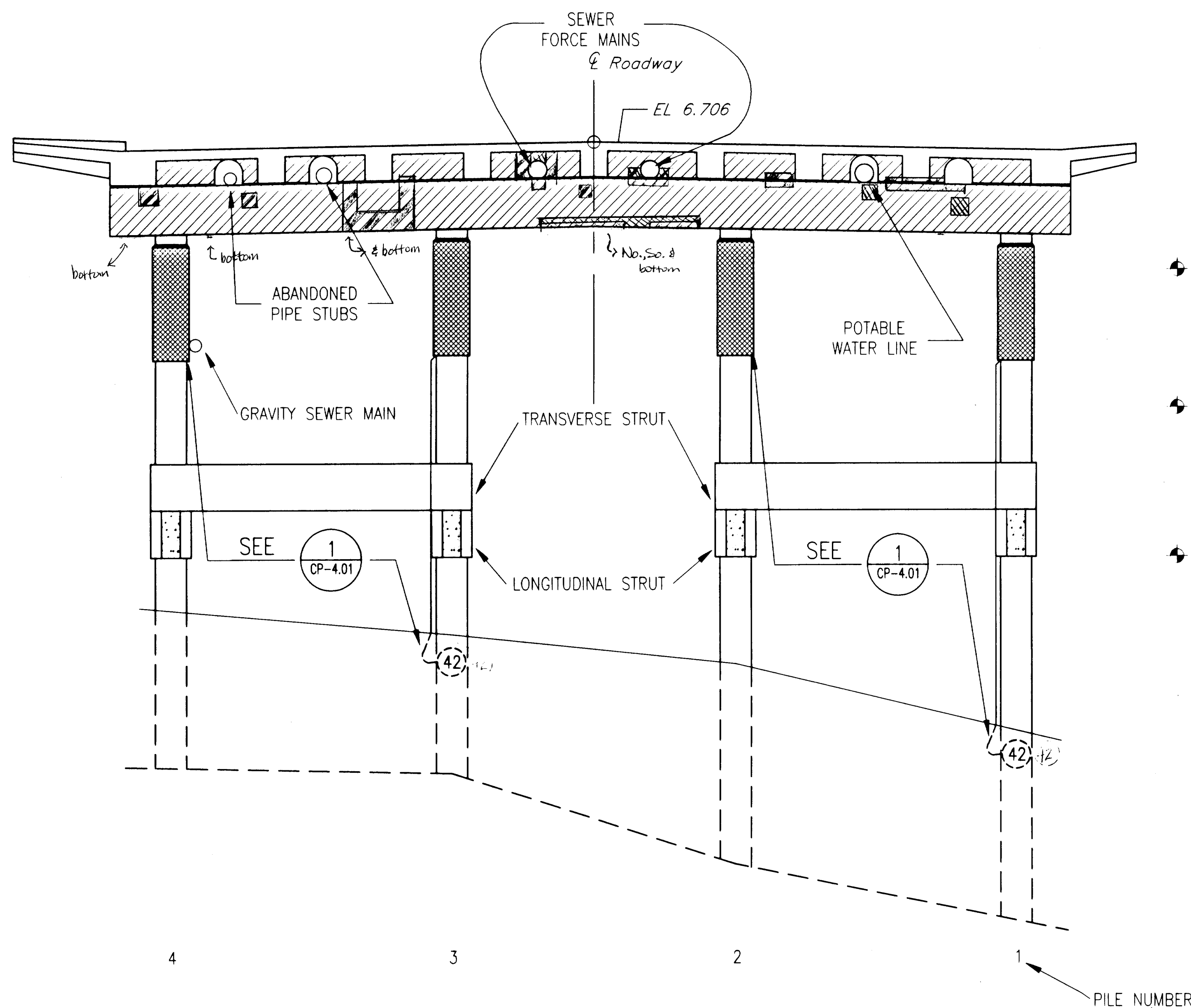
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 PHONE: (206) 328-7872 FAX (206) 328-7916
 tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 36 OF 104

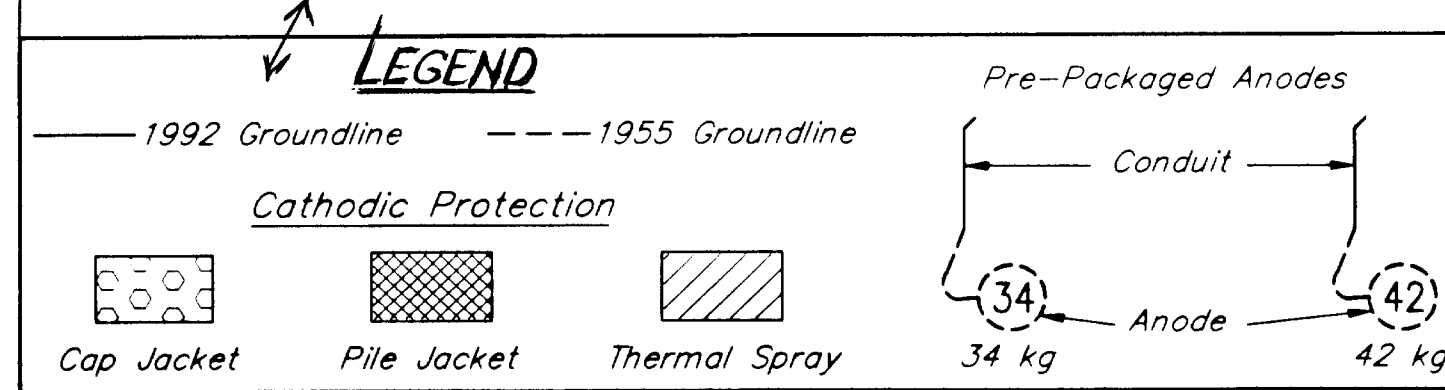
BRIDGE NO. 797



1 BENT 30
CP-3.03 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

- ☒ System Negative ☒ Positive Anode
☒ Additional Submerged Anodes
☒ Concrete Patch on North Side/FACE
☒ Concrete Patch on South Side/FACE
☒ Location of Asbestos on Expansion Joint Side of Bent



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 31 Note: Asbestos is present on Expansion Joint side of this bent.
CP-3.03 SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
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RECORD OF REVISIONS		
DATE	BY	COMMENT

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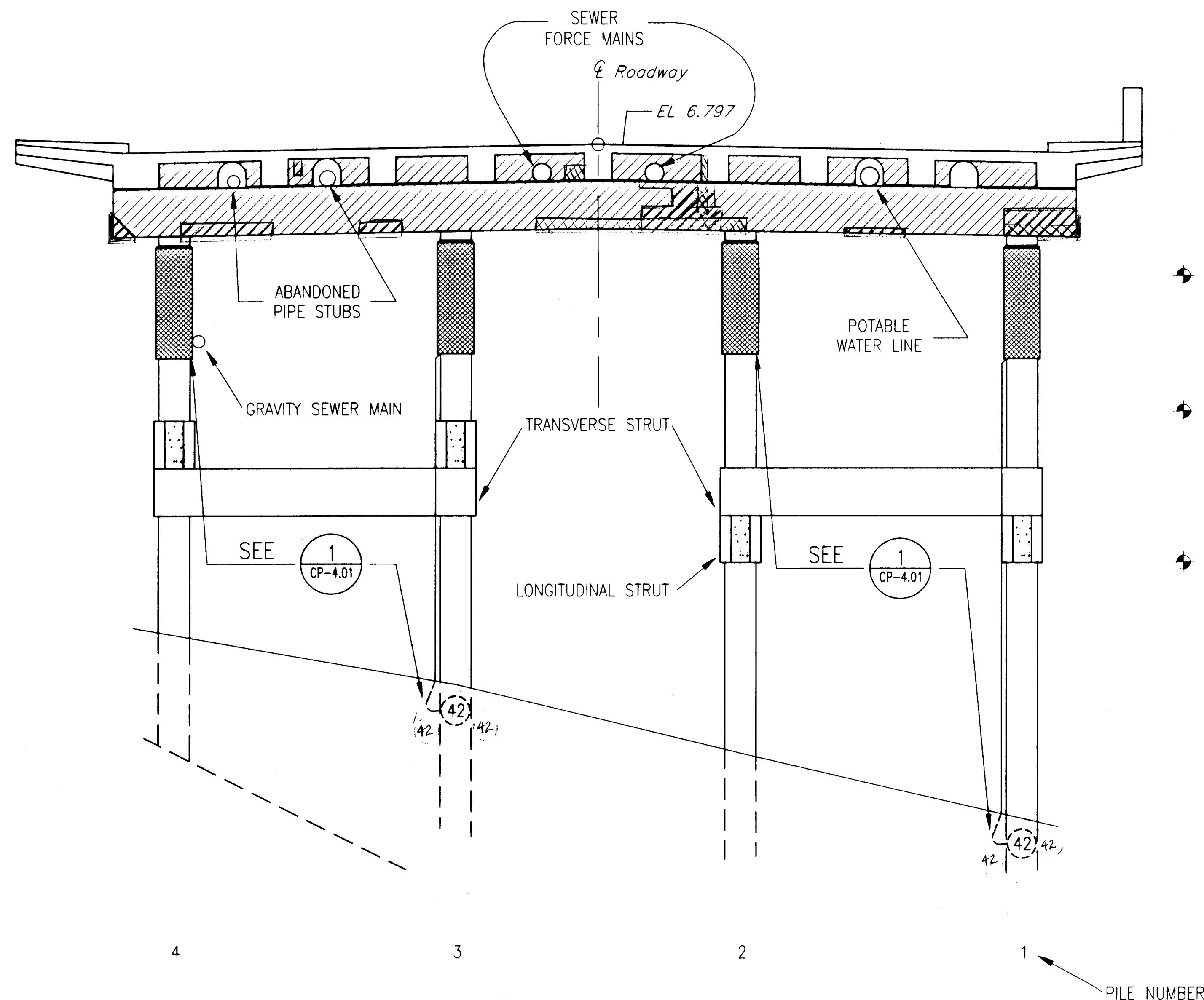
STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN
 KETCHIKAN VIADUCTS REHABILITATION
 FED. NO. BR-0902 (26) PROJECT NO. 71111
 TONGASS AVENUE & WATER STREET VIADUCTS
 ELEVATION VIEW- BENTS 30-31
 ALASKA

DESIGNED BY: K.M. HOWELL
 CHECKED BY: D.R. HELGESON
 APPROVED BY: J.S. TINNEA

DESIGNER:
 EXPIRES: DEC. 31, 1999
 CP-3.03

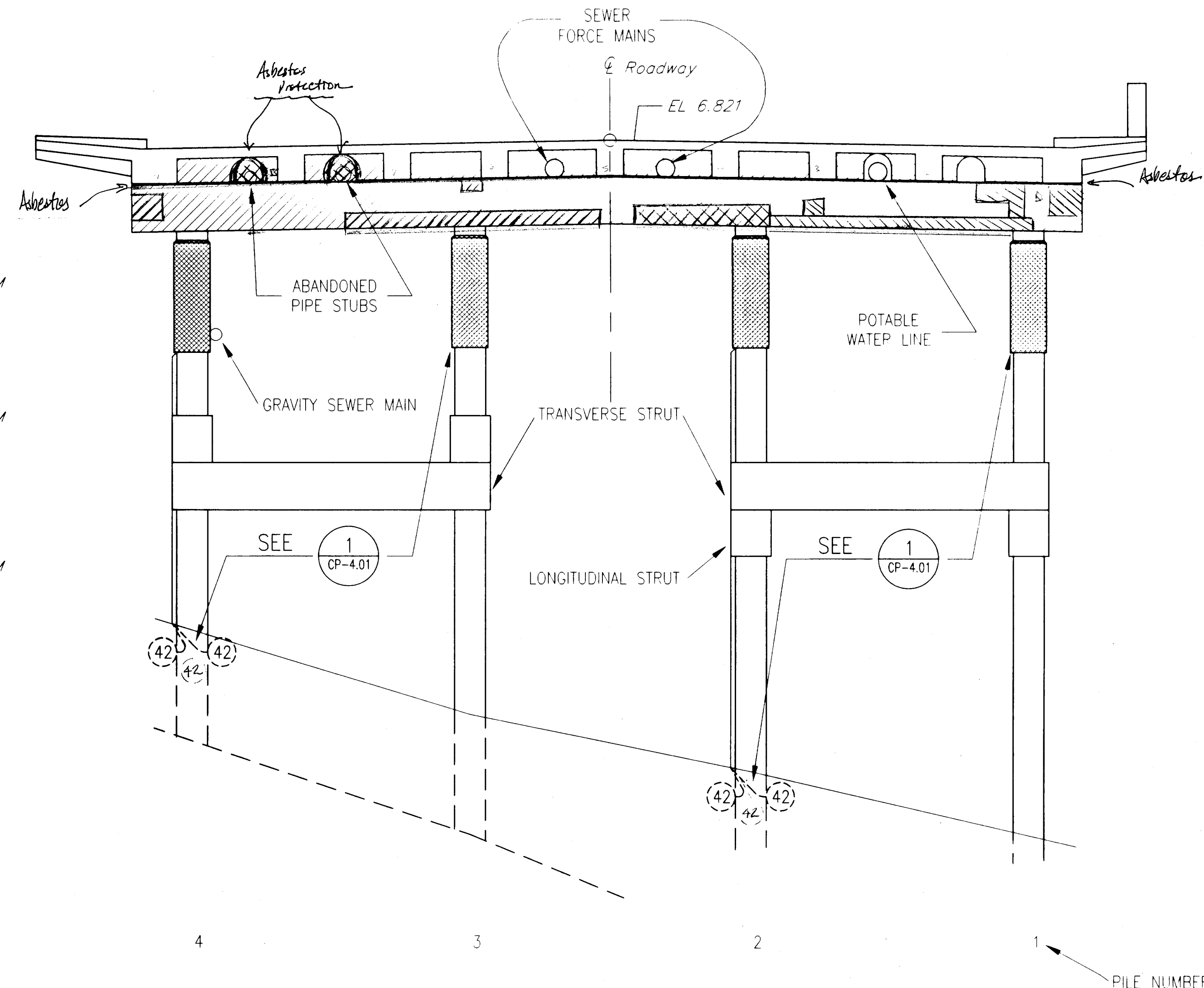
DATE: SEPTEMBER 15, 1999
 SHEET 37 OF 104
 BRIDGE NO. 797
 INVESTIGATING THE INFRASTRUCTURE
 976 - 20TH AVENUE SEATTLE, WA 98122
 PHONE: (206) 328-7872 FAX (206) 328-7916
 tinnea@compuserve.com



MHHW
4.688M

MT
2.448M

MLLW
0.000M

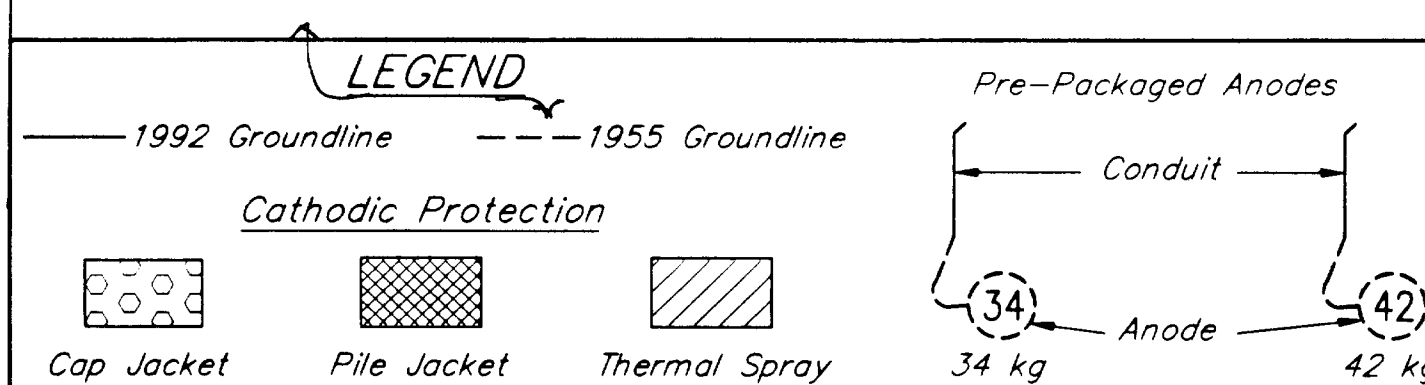


1 BENT 34
CP-3.05 SCALE:

- Concrete repair on North Face
Concrete repair on South Face
Concrete repair on North South Face
Concrete repair on bottom of Cap.
Asbestos location: on Expansion Side of Bent.
Additional Submerged Anodes
- System Negative
Positive Anode
- N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



2 BENT 35 Note: Asbestos is present on Expansion Joint side of Bent.
CP-3.05 SCALE: N.T.S.

NOTES

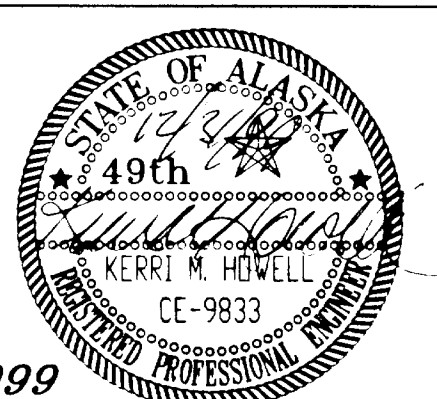
- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-3.0

PATH: P:\KTN\71111\DR\CP3-05.DWG

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PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

DRAWN OR REVISED BY: T.C. NORTON

STATE OF ALASKA
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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 34-35

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

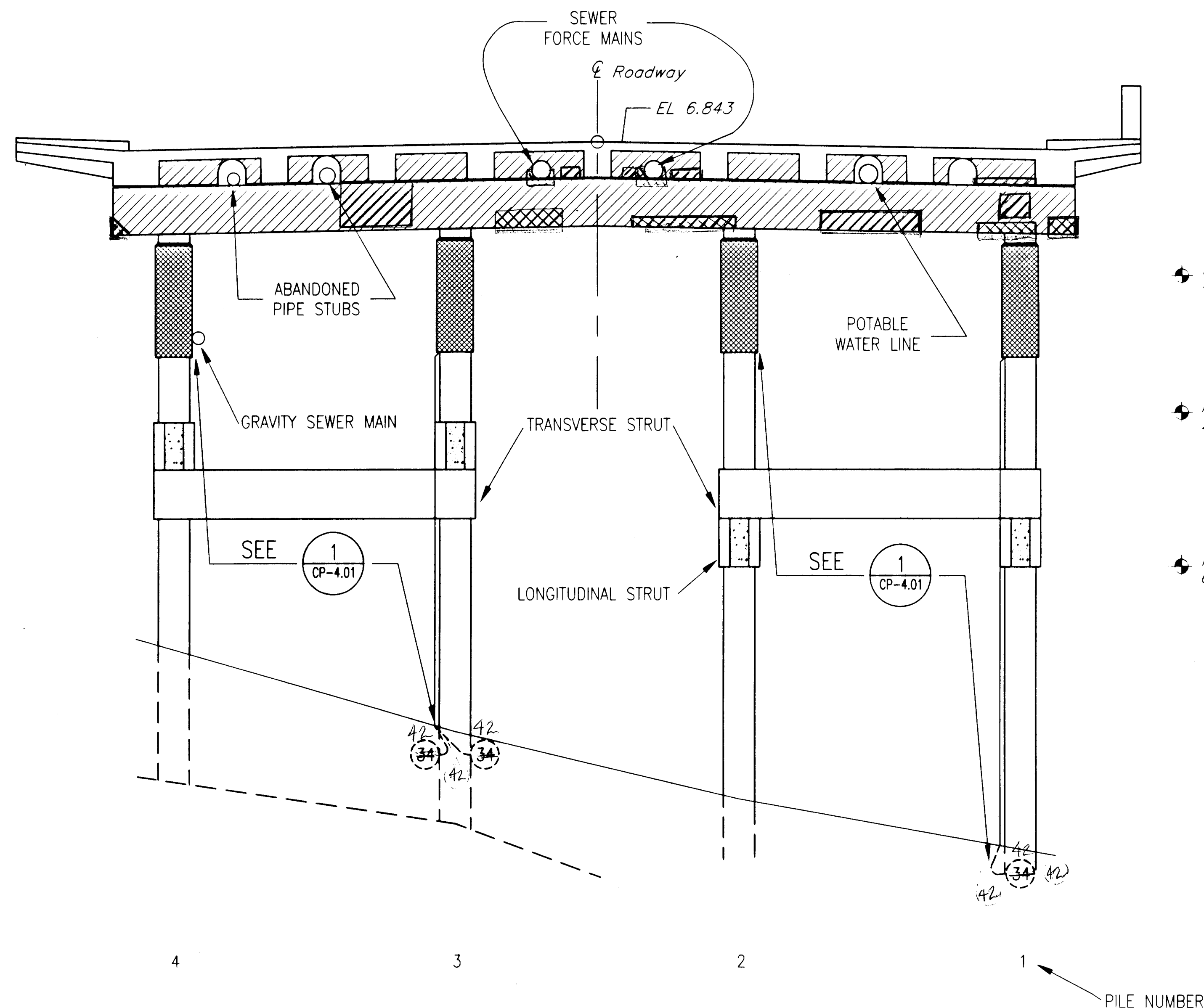
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PHONE: (206) 328-7872 FAX: (206) 328-7916
tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 39 OF 104

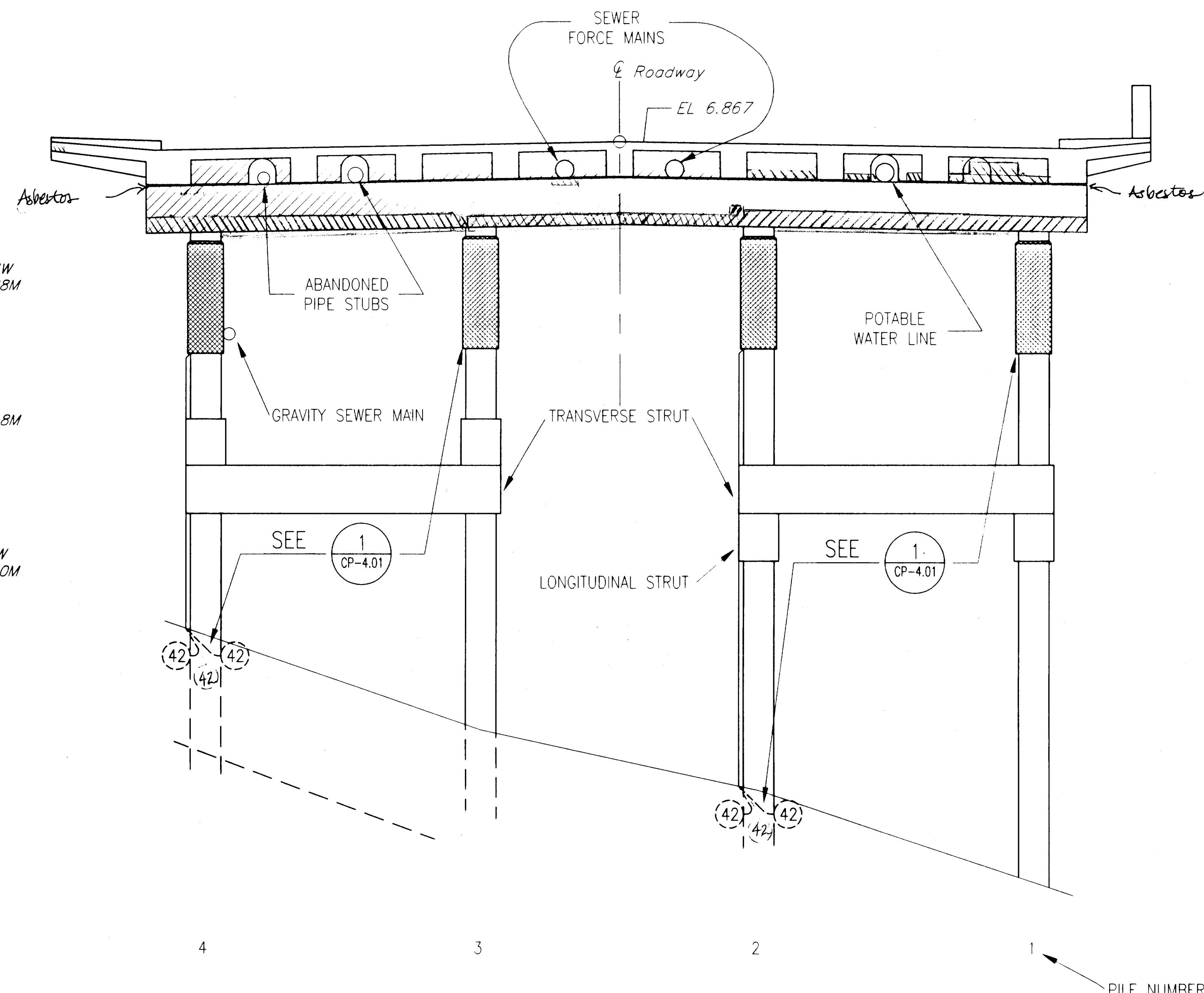
BRIDGE NO. 797



MHHW
4.688M

MT
2.448M

MLLW
0.000M



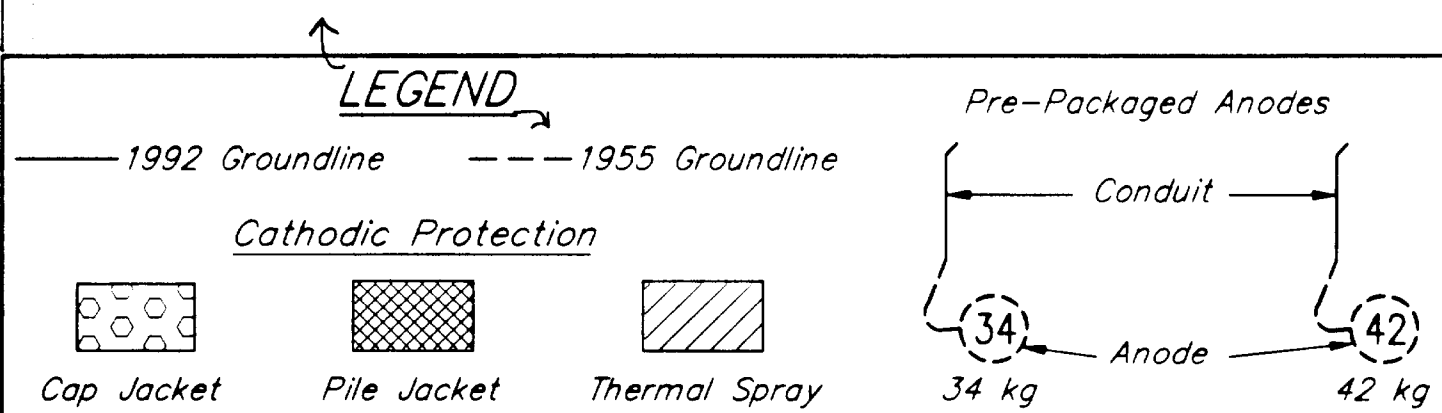
1 BENT 36
CP-3.06 SCALE:

- Concrete repair on North Face
- Concrete repair on South Face
- Concrete repair on North & South Face
- Concrete repair on Bottom of cap.
- Asbestos location on Expansion Joint Side of Bent.
- Additional Submerged Anodes

- N.T.S.
- System Negative
- Positive Anode

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 37 Note: Asbestos is present in Expansion Joint side of Bent.
CP-3.06 SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-3.06

PATH: P:\KTN\71111\DR\CP3-06.DWG
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PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 36-37

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

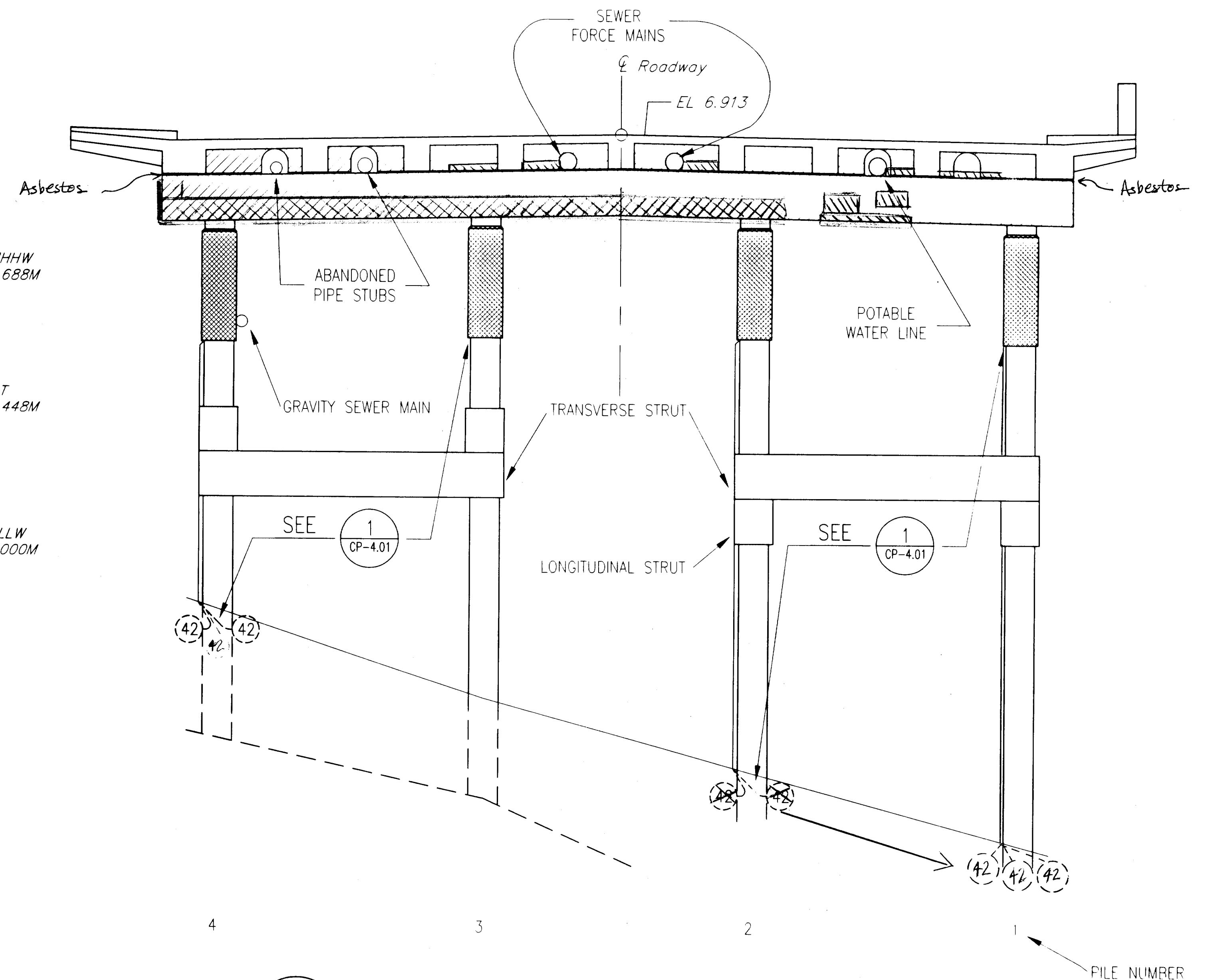
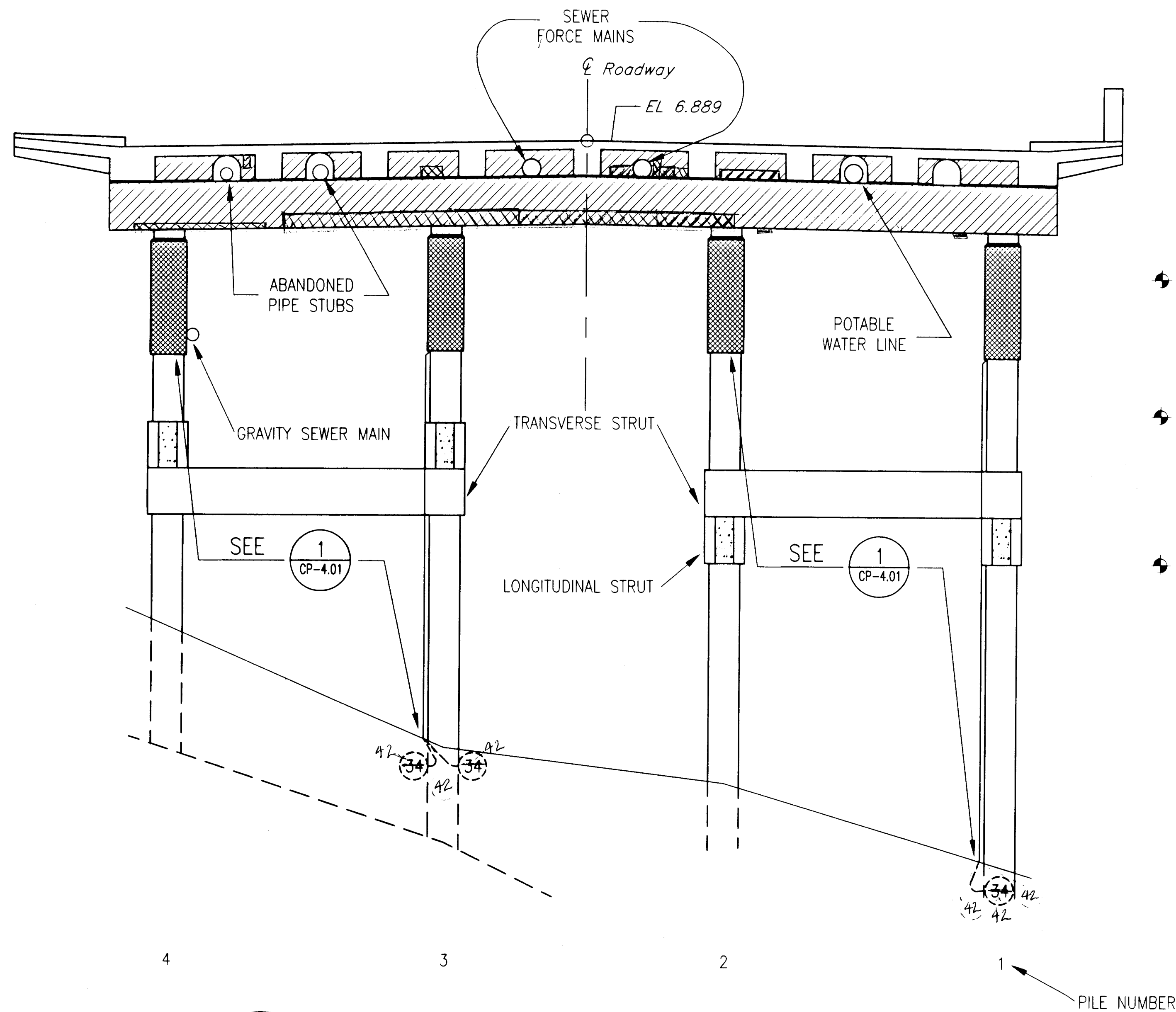
INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 40 OF 104

BRIDGE NO. 797



1 BENT 38
CP-3.07 SCALE:

Concrete Repair:

▨ - North Face

▨ - South Face

▨ - North & South

▨ - Bottom of Cap

▨ - Asbestos Location in Expansion joint side of Bent

N.T.S

▨ Additional Submerged Anodes

+ System Negative

+ Positive Anode

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS

DATE	BY	COMMENT

LEGEND

— 1992 Groundline --- 1955 Groundline

Cathodic Protection

Cap Jacket

Pile Jacket

Thermal Spray

Pre-Packaged Anodes

Conduit

34 kg

Anode

42 kg

NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 39
CP-3.07 SCALE:

Note: Asbestos is present in Expansion joint side of Bent.

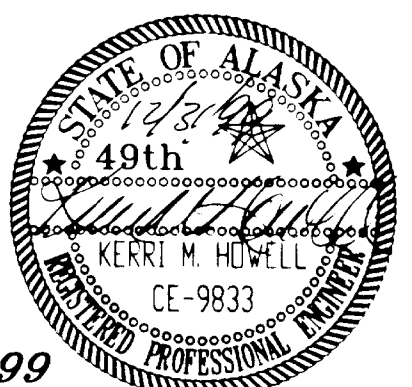
N.T.S

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES:

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CP-3.07

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PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

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FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 38-39

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

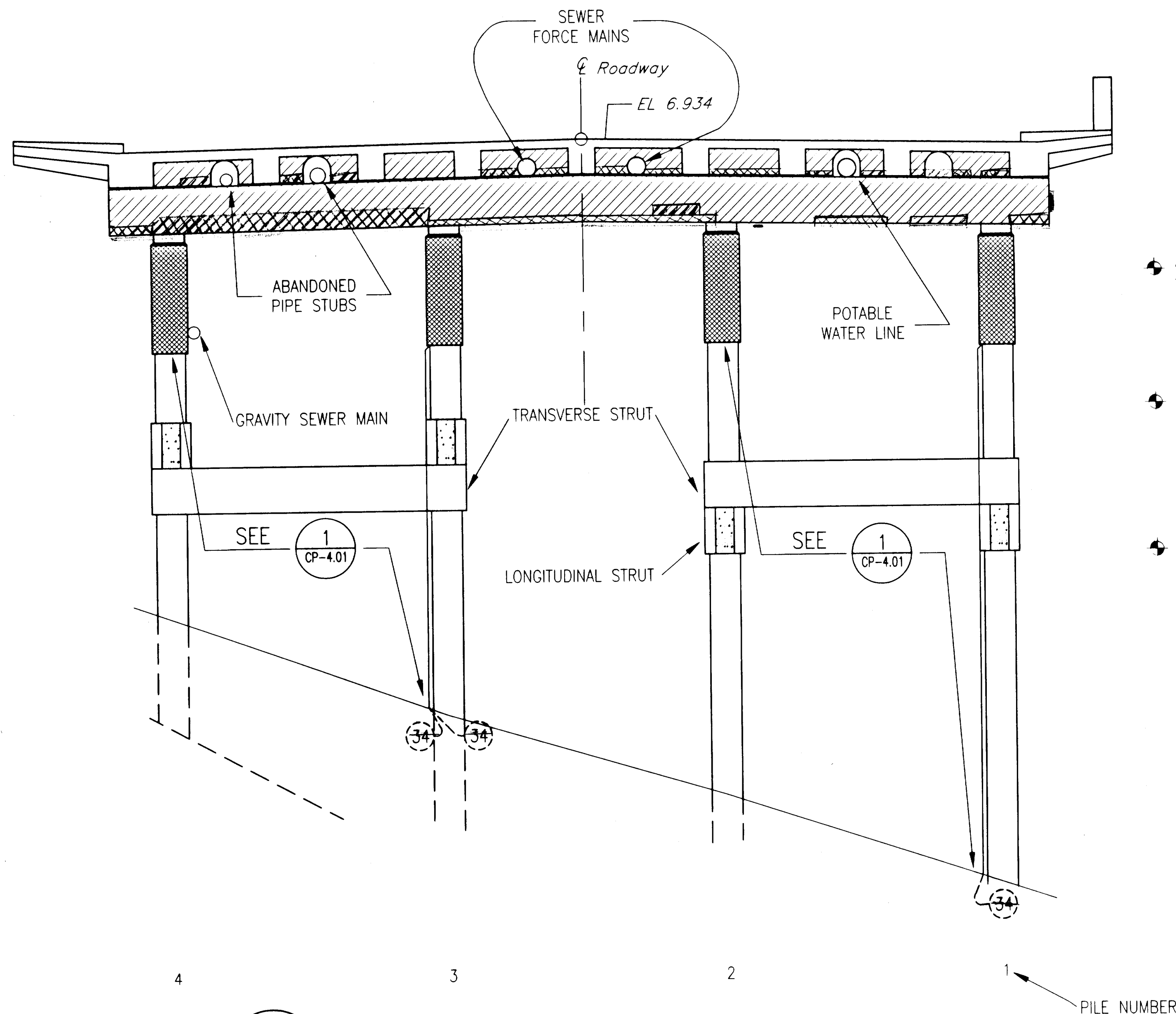
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tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 41 OF 104

BRIDGE NO. 797



1 BENT 40
 CP-3.08 SCALE:

- Concrete Repair N.T.S.
- North Face
 - South Face
 - Both North & South
 - Bottom of Cap
 - Asbestos location in Expansion Joint side of bent.
 - Additional Submerged Anodes
 - System Negative
 - Positive Anode

DO NOT SCALE FROM THESE PLANS
 USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

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 PLOT DATE:
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 FED. NO. BR-0902 (26) PROJECT NO. 71111
 TONGASS AVENUE & WATER STREET VIADUCTS
 ELEVATION VIEW- BENTS 40-41

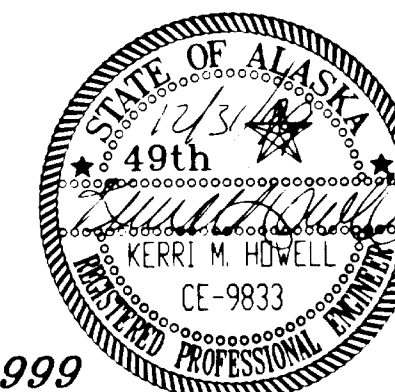
ALASKA

DESIGNED BY: K.M. HOWELL
 CHECKED BY: D.R. HELGESON
 APPROVED BY: J.S. TINNEA

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
 BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
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 ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES: DEC. 31, 1999



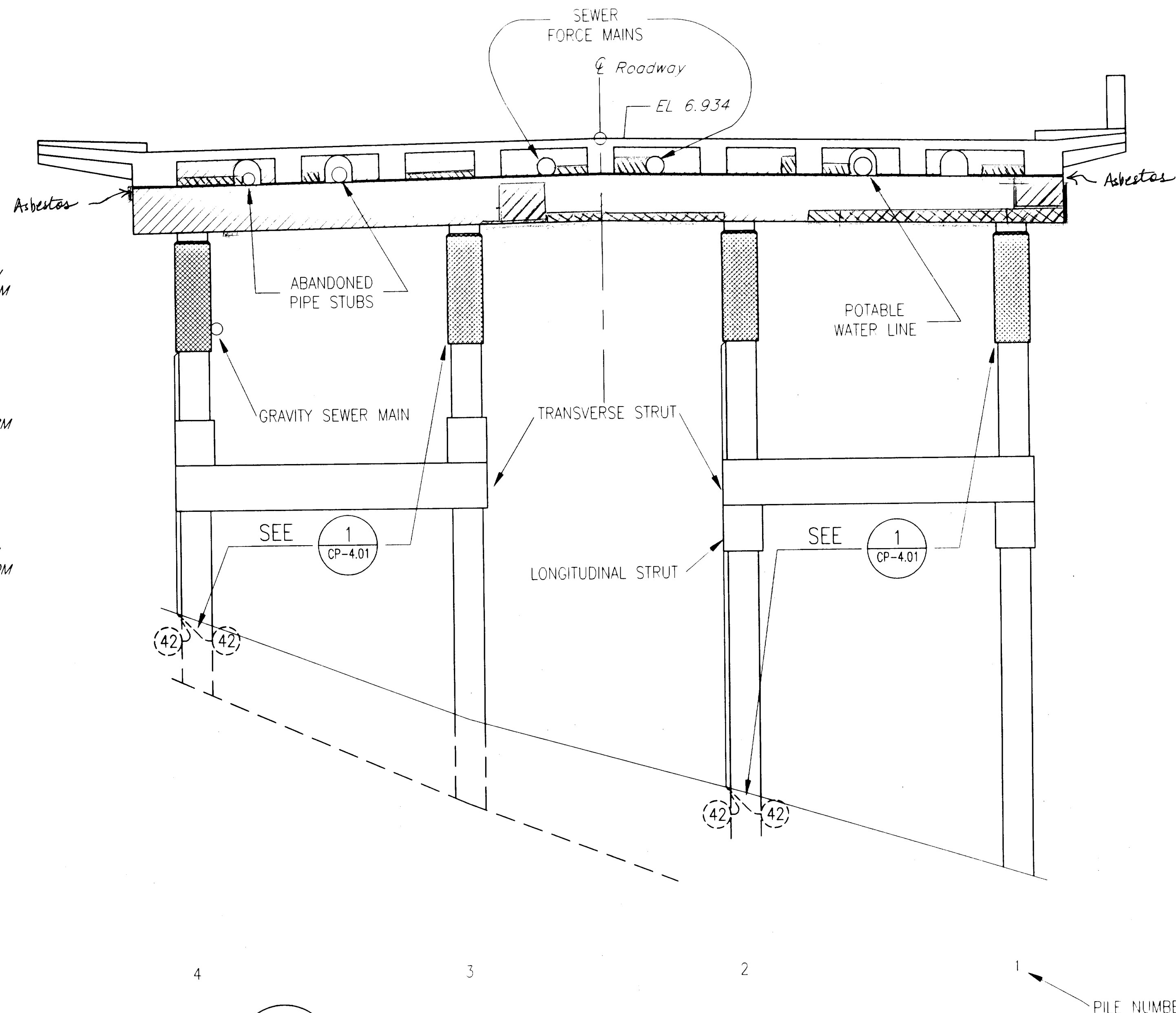
CP-3.08

DATE: SEPTEMBER 15, 1999
 SHEET 42 OF 104
 BRIDGE NO. 797

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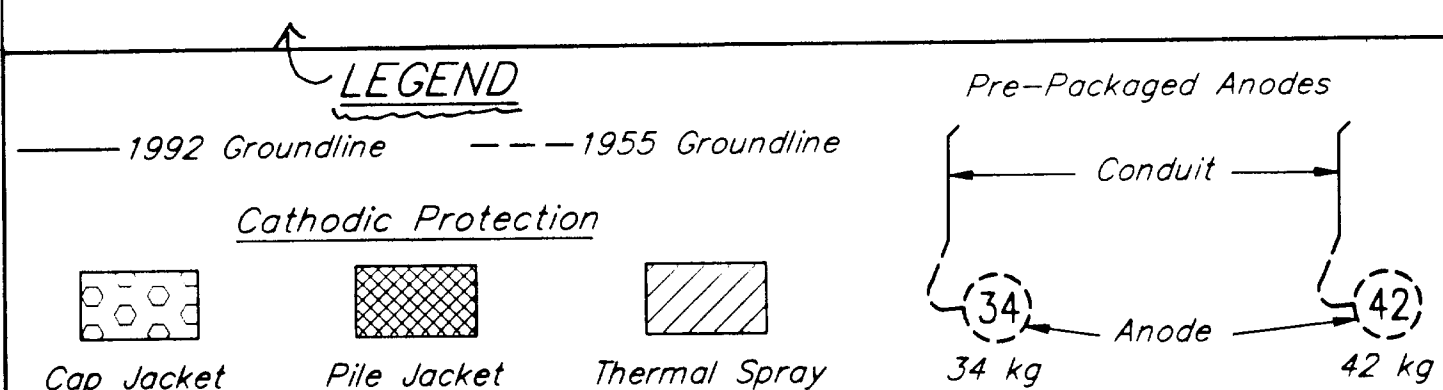
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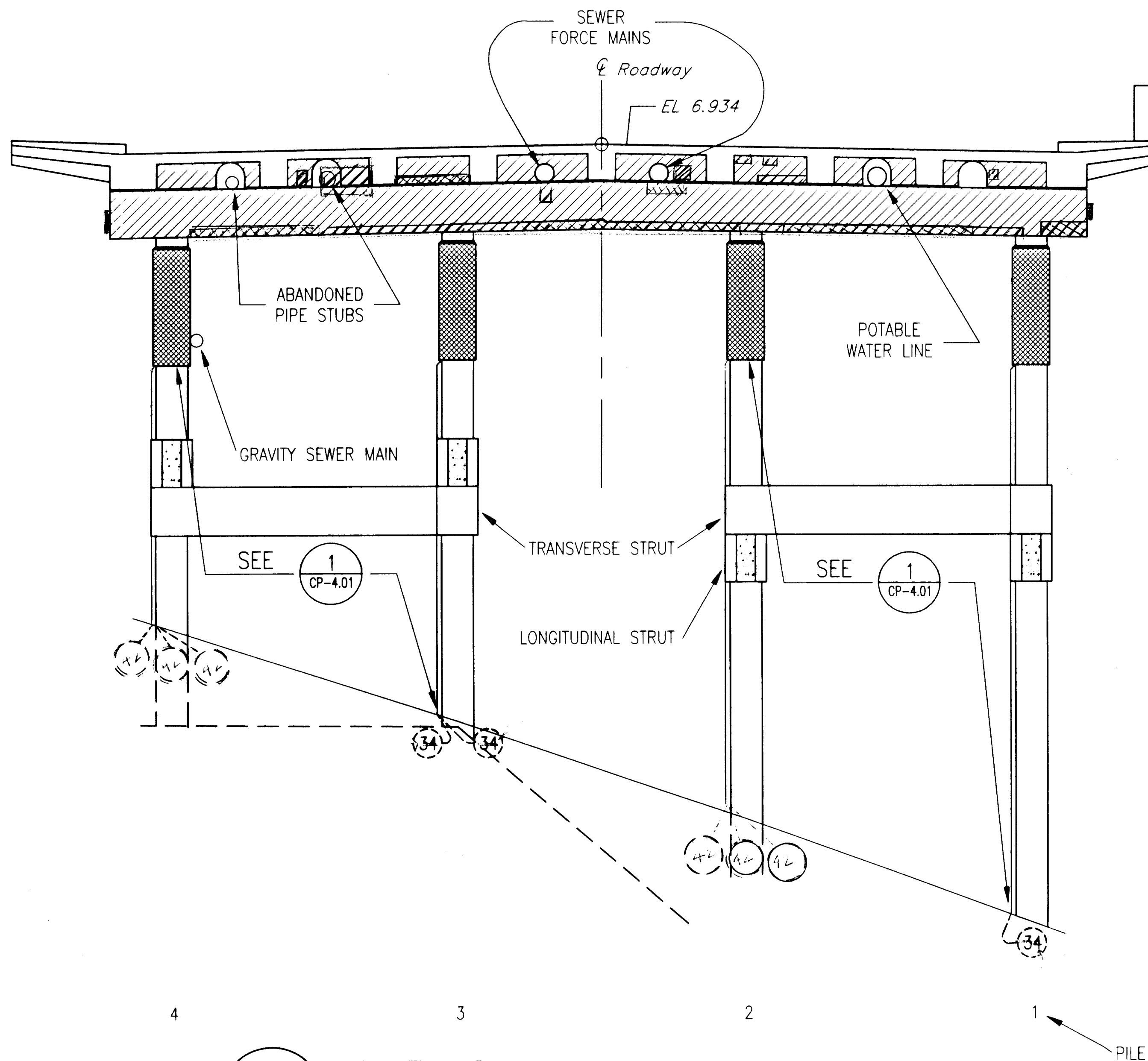
- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.



2 BENT 41
 CP-3.08 SCALE:

Note: Asbestos is present in Expansion Joint side of bent.
 N.T.S.

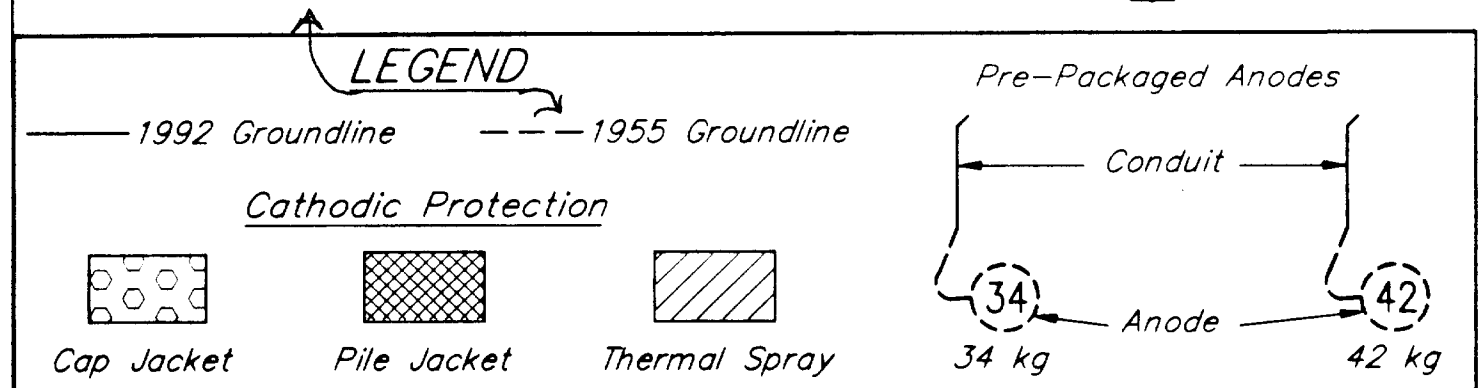




1 BENT 42
CP-3.09 SCALE: N.T.S.

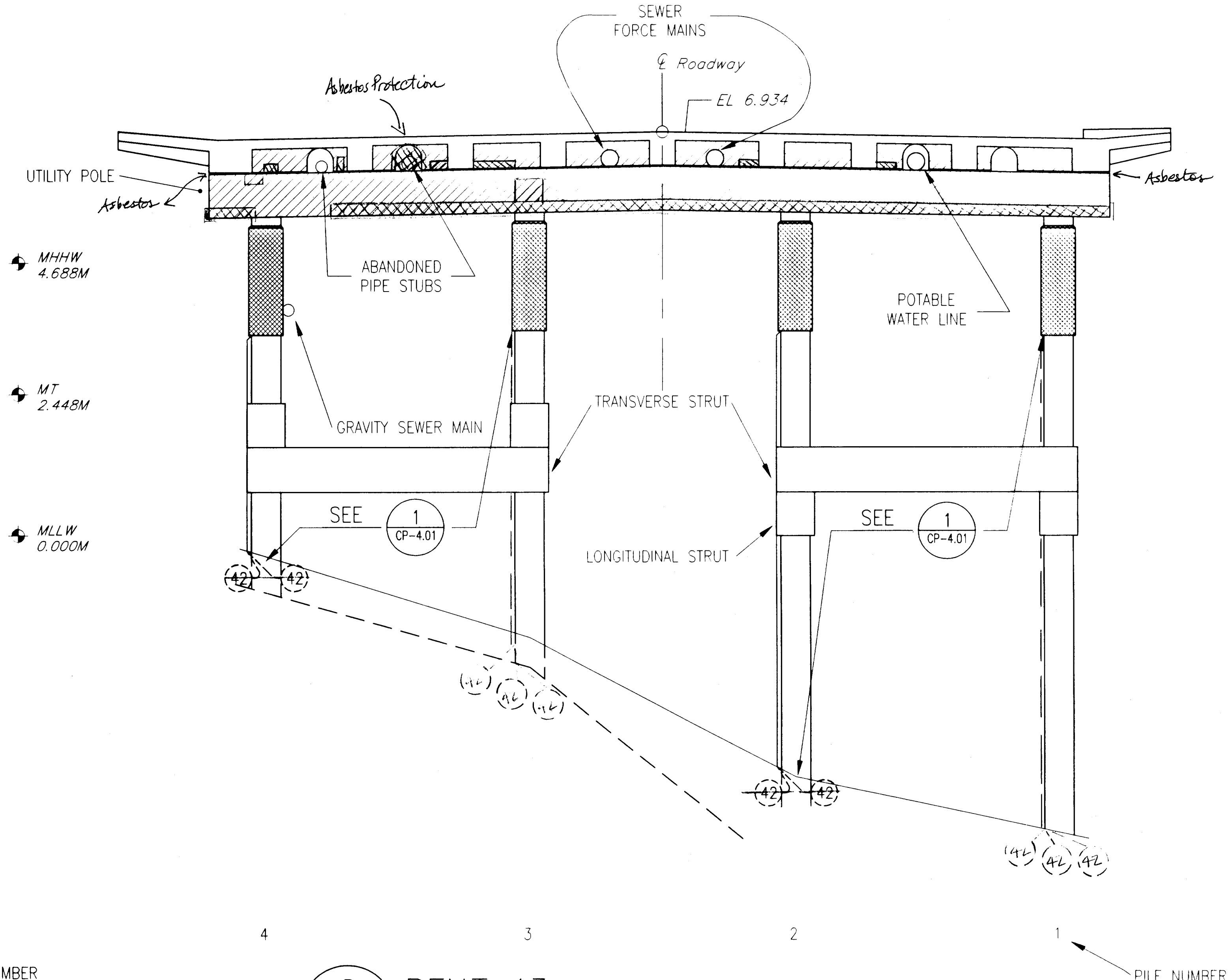
DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

- Concrete Repair:
- North Face of Cap
 - South Face of Cap
 - North & South Face
 - Bottom of Cap
 - Asbestos Location in Expansion Joint side of Bent
 - Additional Submerged Anodes
 - System Negative
 - Positive Anode



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.



2 BENT 43
CP-3.09 SCALE: N.T.S.

Note: Asbestos is present in Expansion Joint side of Bent.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES:

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CP-3.09

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FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 42-43

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

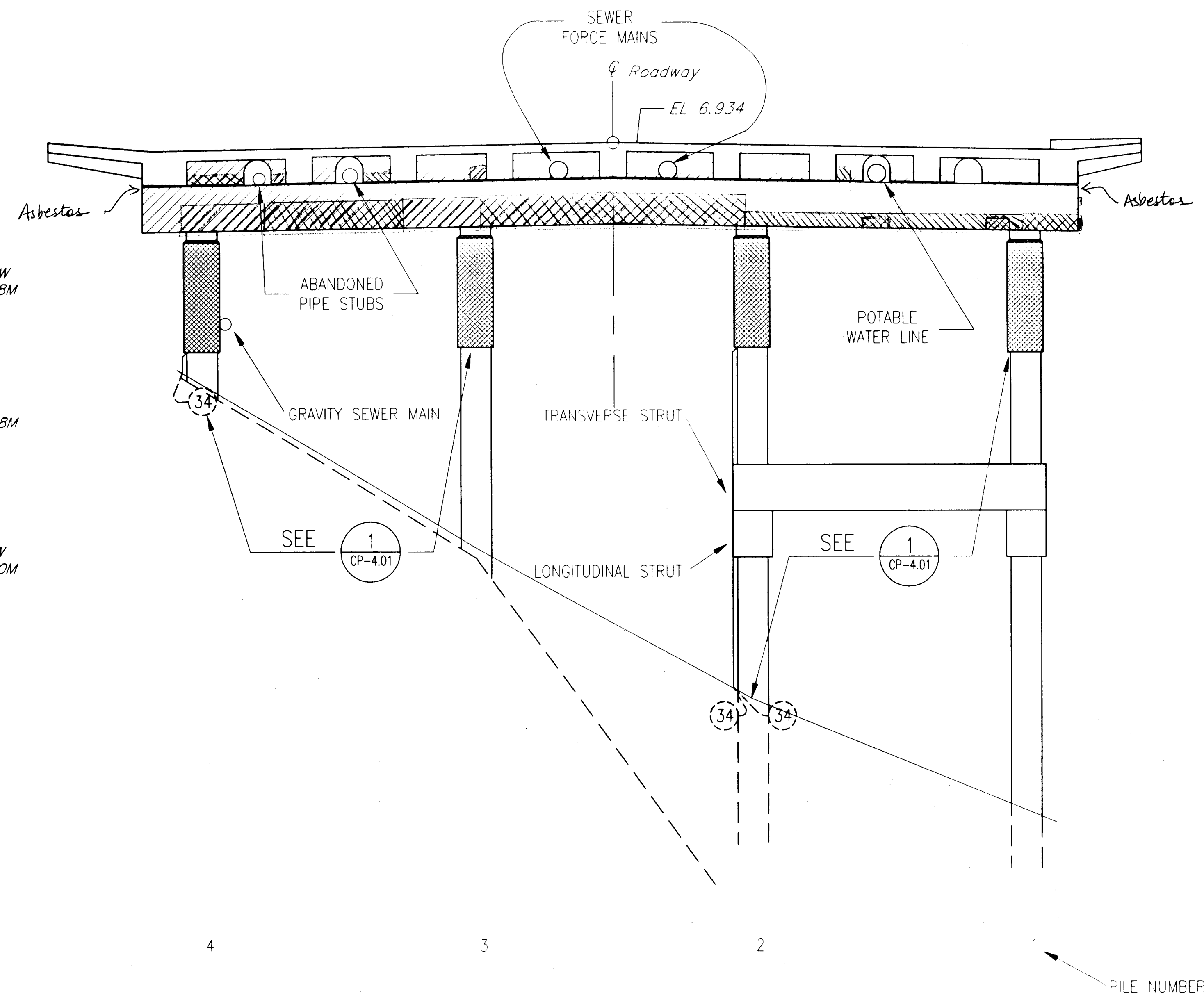
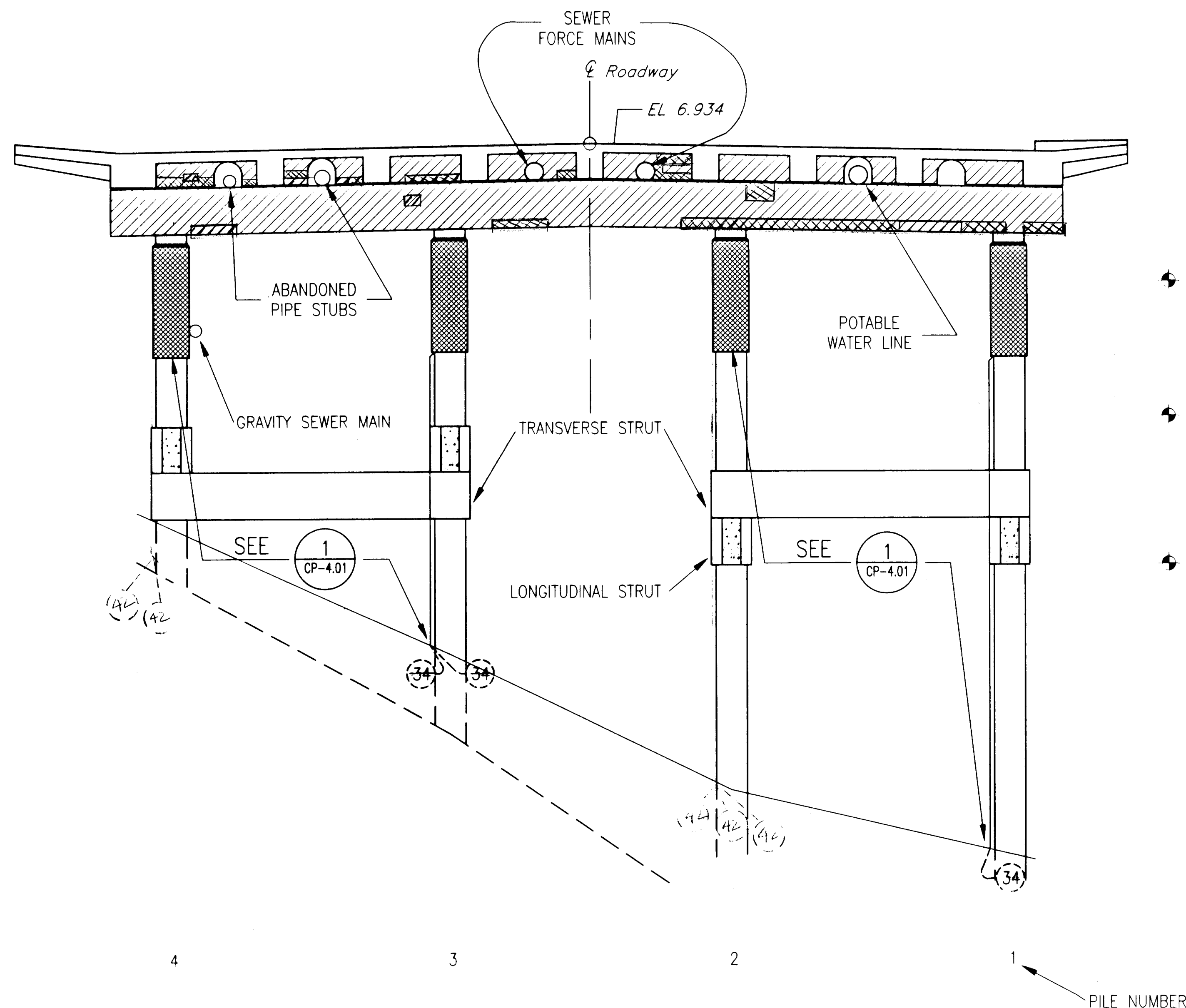
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tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 13 OF 104

BRIDGE NO. 797



1 BENT 44
CP-3.10 SCALE: N.T.S.

2 BENT 45
CP-3.10 SCALE: N.T.S.

Note: Asbestos is present in Expansion Joint side of Bent.
N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

LEGEND

1992 Groundline 1955 Groundline

Cathodic Protection

Cap Jacket Pile Jacket Thermal Spray

Conduit

Anode 34 kg Anode 42 kg

Pre-Packaged Anodes

Location of Asbestos in Expansion Joint side of Bent.

Additional Submerged Anodes System Negative Positive Anode

NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

RECORD OF REVISIONS		
DATE	BY	COMMENT

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FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 44-45

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-3.10

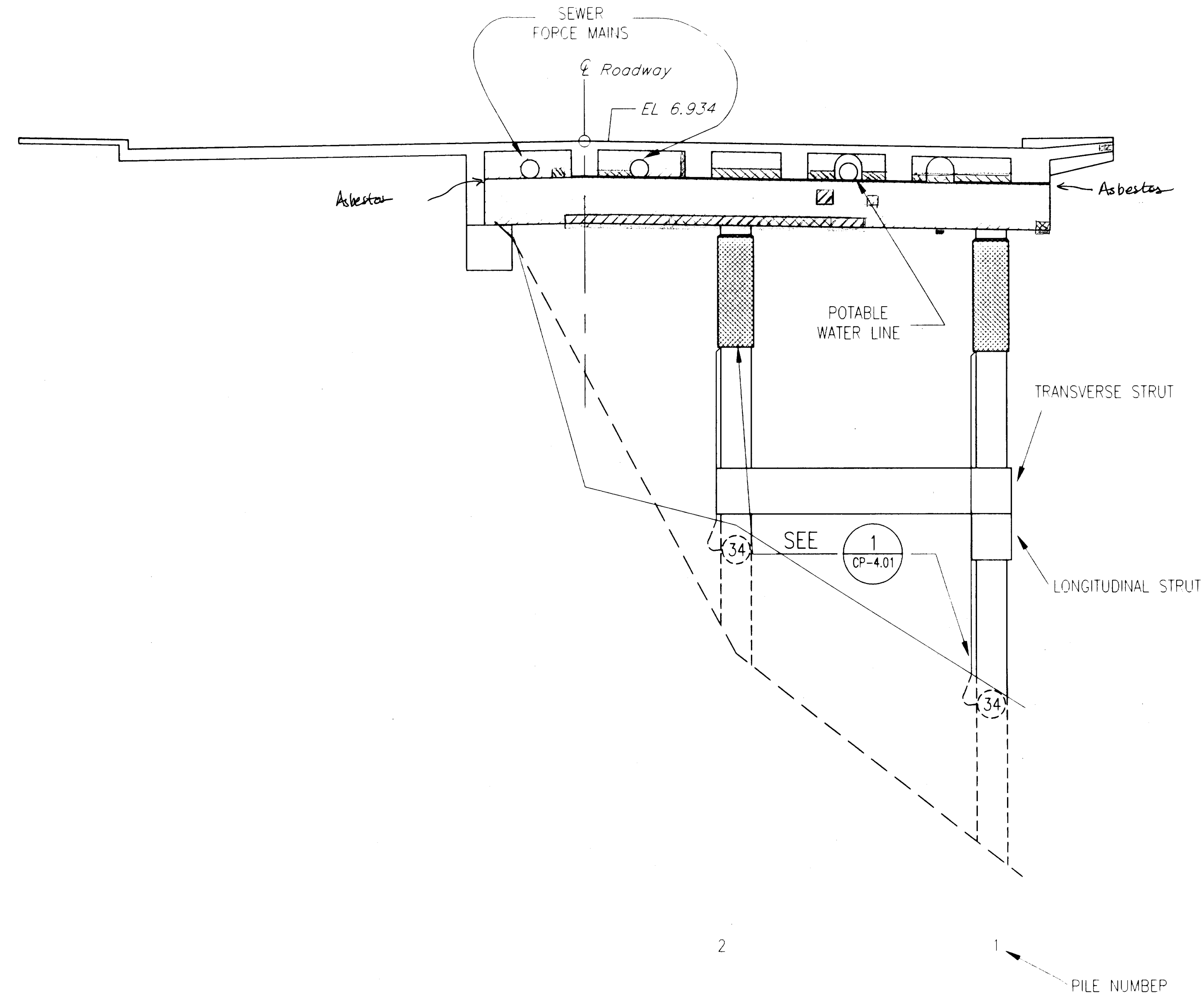
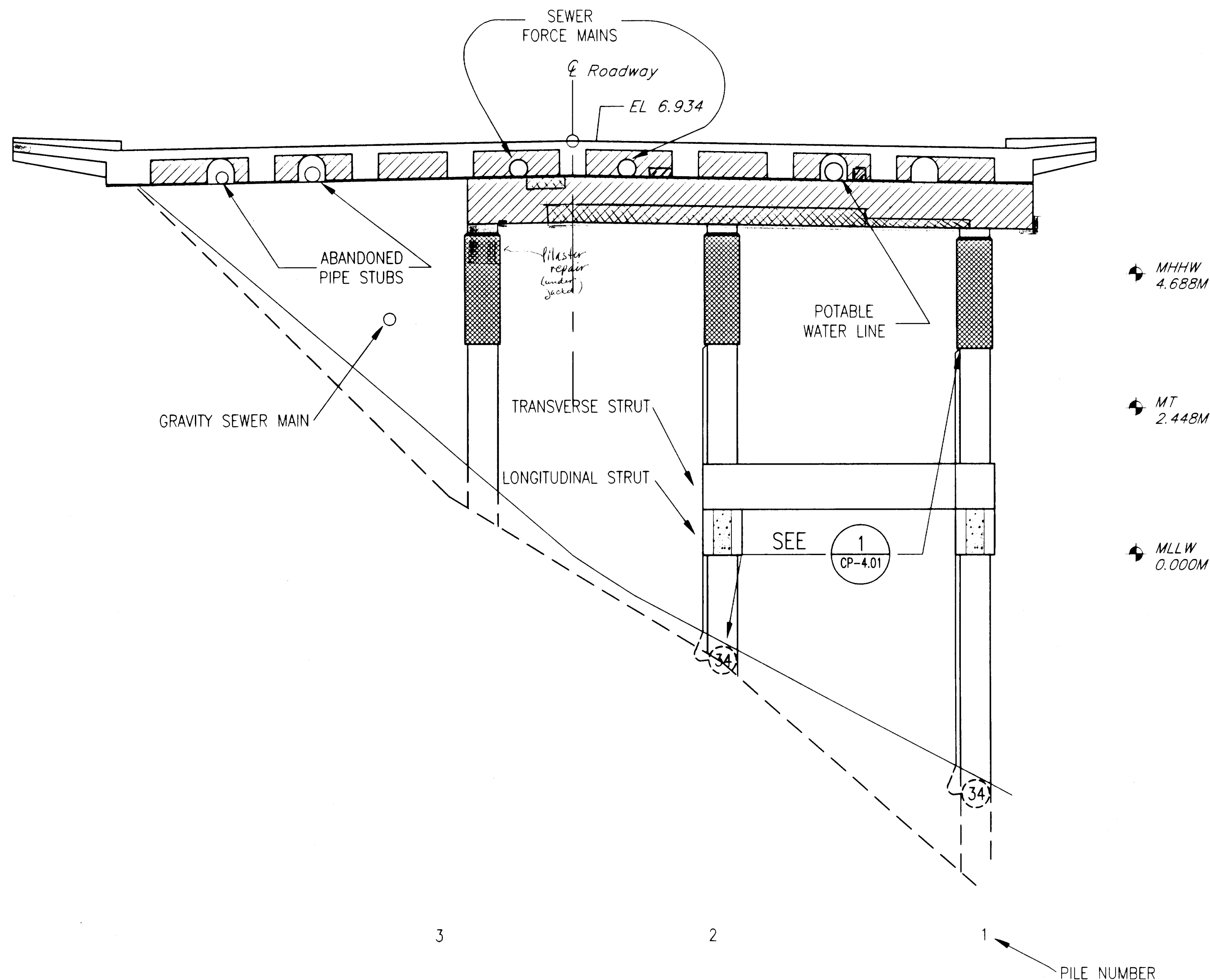
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SHEET 44 OF 104

BRIDGE NO. 797

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PHONE: (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com



1 BENT 46
 CP-3.11 SCALE: N.T.S.

2 BENT 47
 CP-3.11 SCALE: N.T.S.
 Note: Asbestos is present in Expansion Joint side of Bent.

DO NOT SCALE FROM THESE PLANS
 USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

1992 Groundline 1955 Groundline Cathodic Protection Cap Jacket Pile Jacket Thermal Spray		Pre-Packaged Anodes Conduit Anode 34 kg 42 kg
---	--	---

NOTES

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- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:



CP-3.11

EXPIRES:
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KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
 FED. NO. BR-0902 (26) PROJECT NO. 71111
 TONGASS AVENUE & WATER STREET VIADUCTS
 ELEVATION VIEW- BENTS 46-47

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

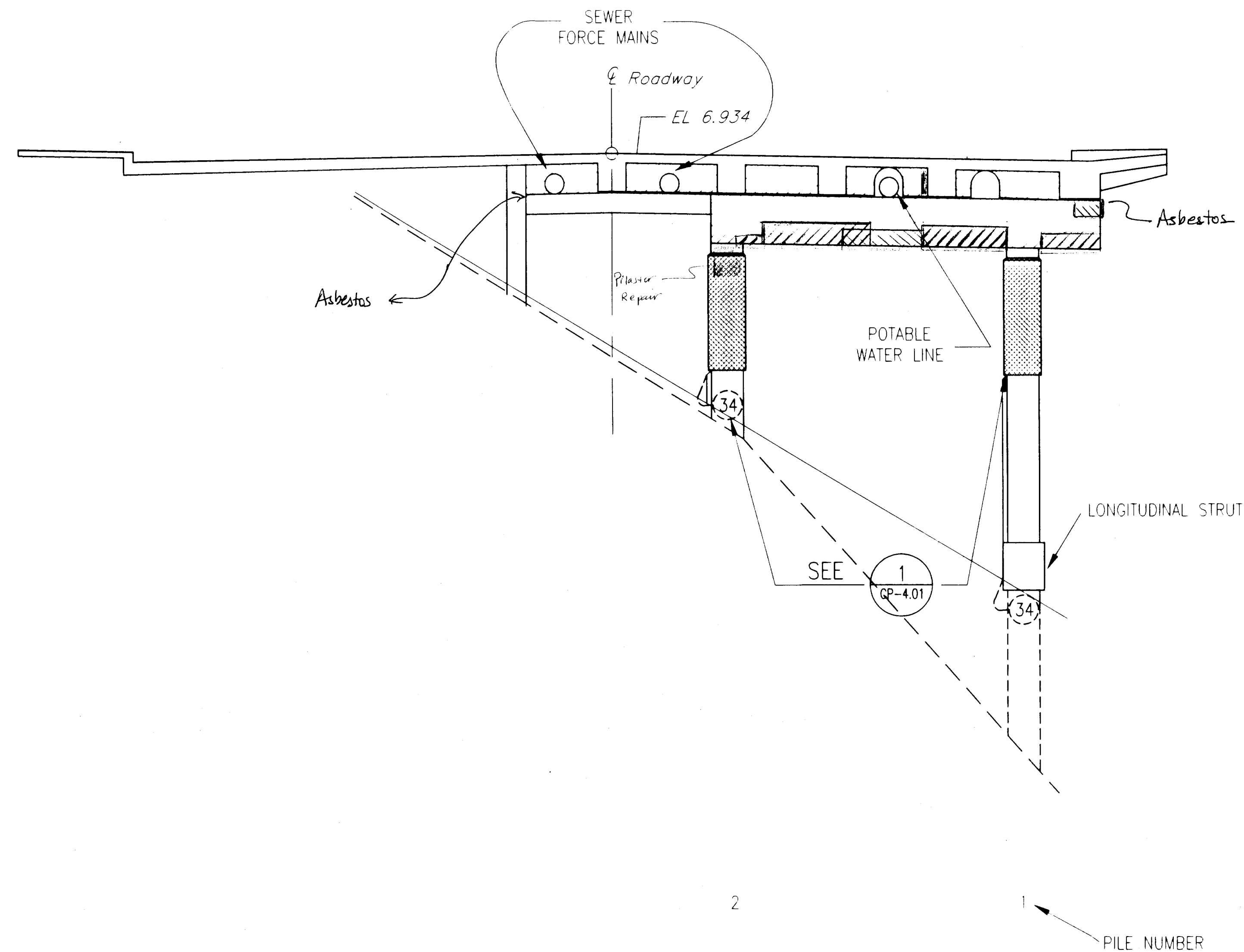
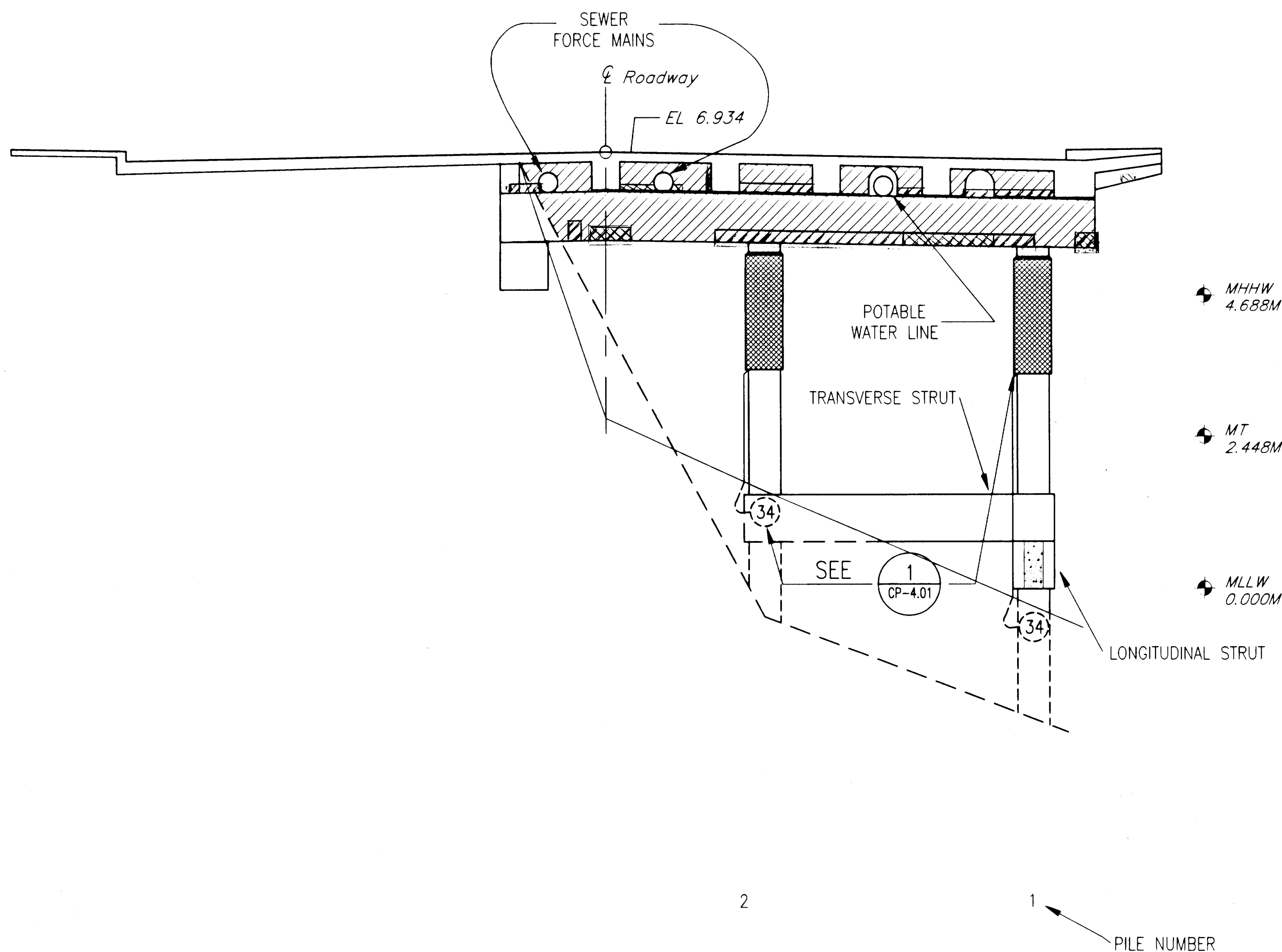
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 976 - 20TH AVENUE SEATTLE, WA 98122
 PHONE: (206) 328-7872 FAX: (206) 328-7916
 tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 45 OF 104

BRIDGE NO. 797



1 BENT 48
CP-3.12 SCALE: N.T.S.

2 BENT 49
CP-3.12 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

Concrete Repair:
 [Hatched] = North Face of Cap
 [Cross-hatched] = South Face of Cap
 [Diagonal lines] = North & South Face
 [Stippled] = Bottom of Cap
 [Symbol] = Location of Asbestos in Expansion joint side of Bent.
 [Symbol] = Additional Submerged Anodes [Symbol] System Negative [Symbol] Positive Anode

LEGEND
 — 1992 Groundline --- 1955 Groundline
 [Symbol] Cap Jacket [Symbol] Pile Jacket [Symbol] Thermal Spray
 [Symbol] Pre-Packaged Anodes
 [Symbol] Conduit [Symbol] Anode (34 kg) [Symbol] Anode (42 kg)

NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

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DESIGNER:



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FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 48-49

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

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PLOT DATE:		
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FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW - BENTS 50-51
ALASKA

DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: T.S. TINNEA

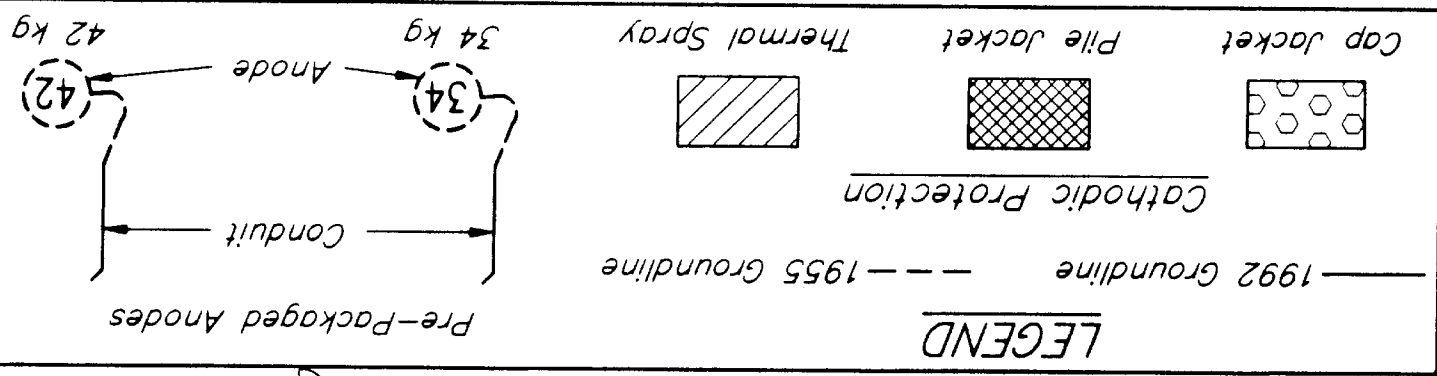
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tinnec@compuserve.com
DATE: SEPTEMBER 15, 1999
SHEET 47 OF 104
BRIDGE NO. 797

RECORD OF REVISIONS		
DATE	BY	COMMENT

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

1
CP-3.13
SCALE:

BENT 50



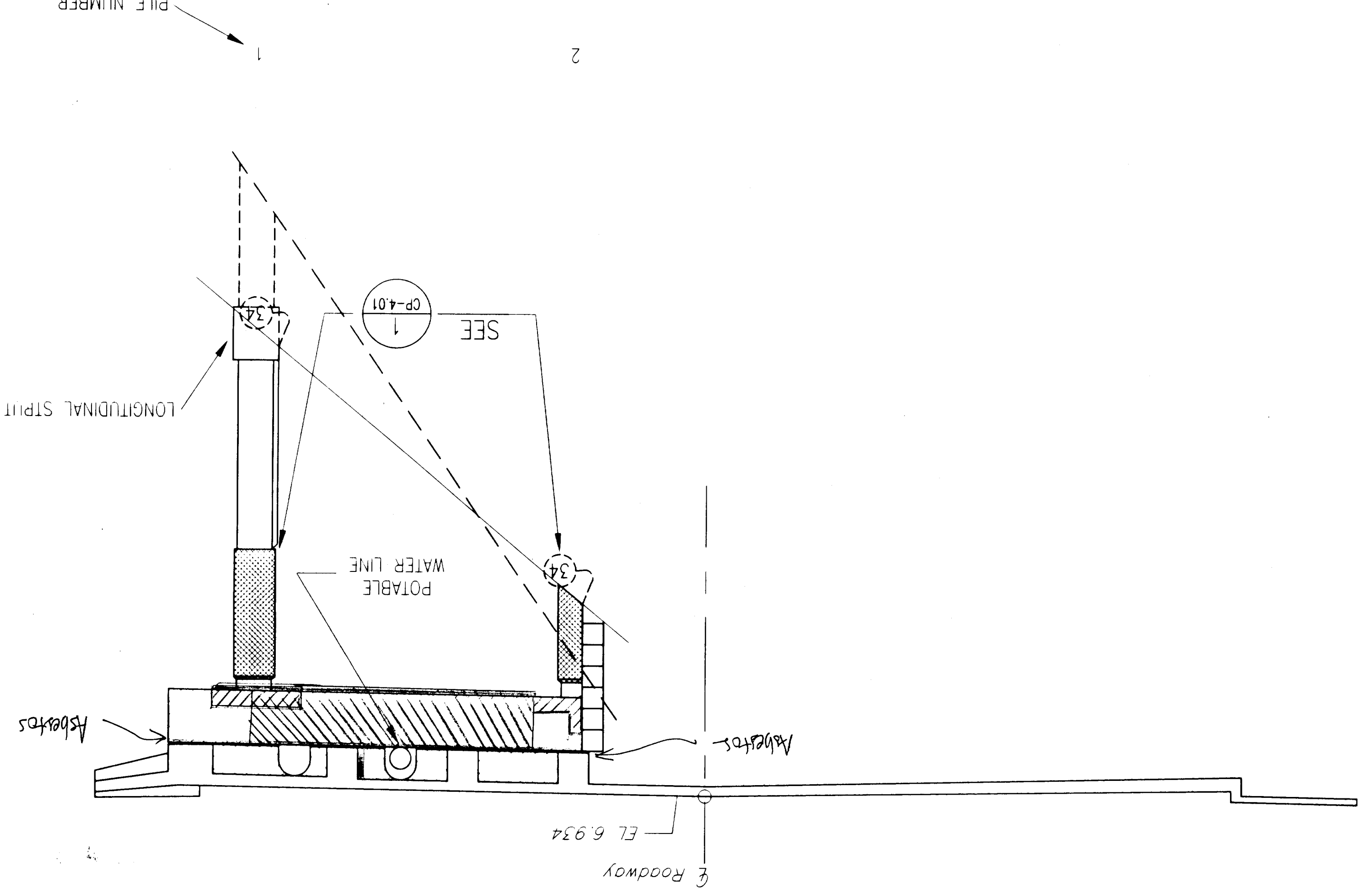
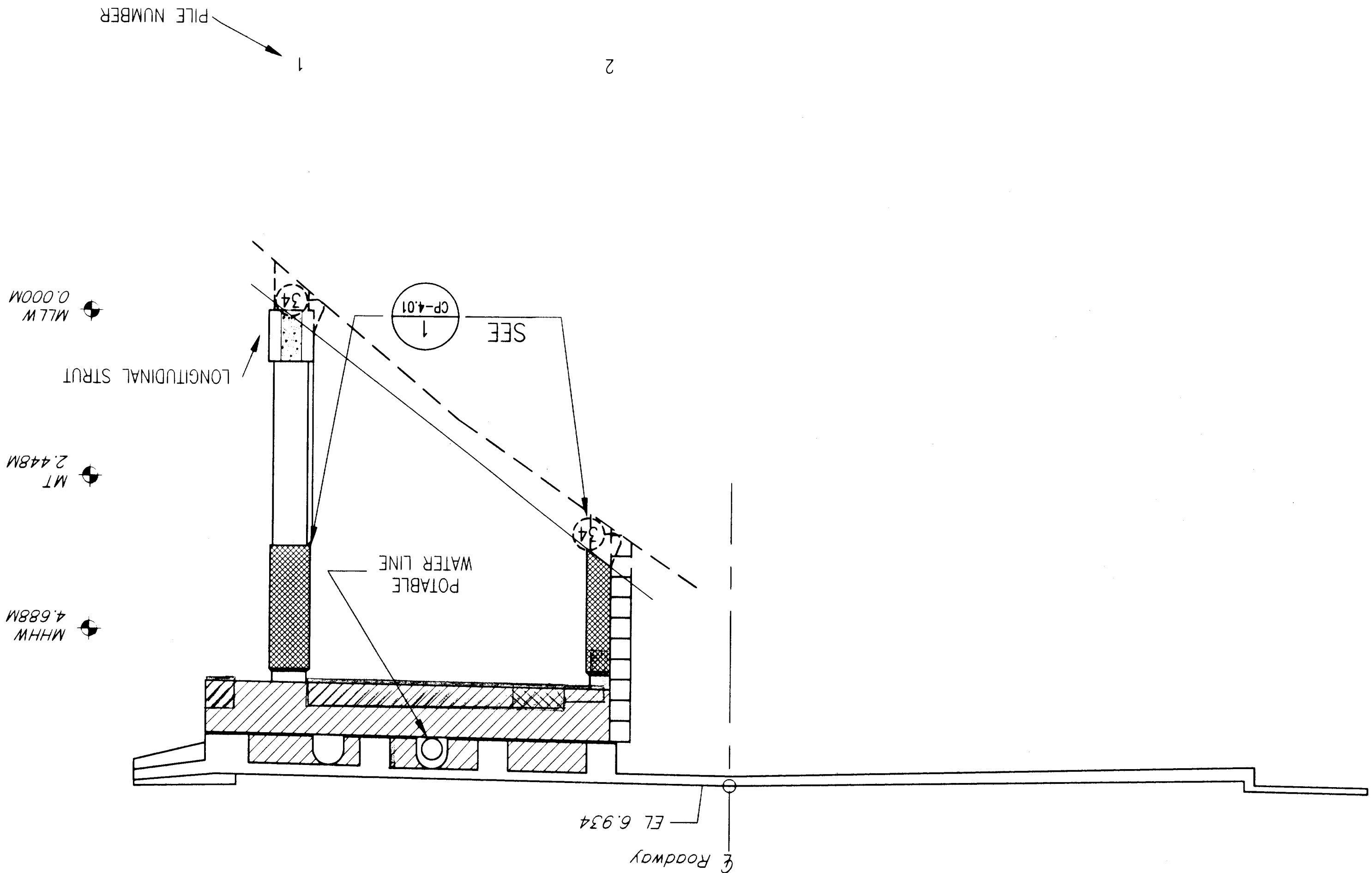
Concrete Repair:
+ North Face of Cap
+ South Face
+ North & South Face
+ Bottom of Cap
+ Additional Submerged Anodes
+ Location of Asbestos in Expansion Joint side of Bent.

NOTES

1. CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
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4. FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

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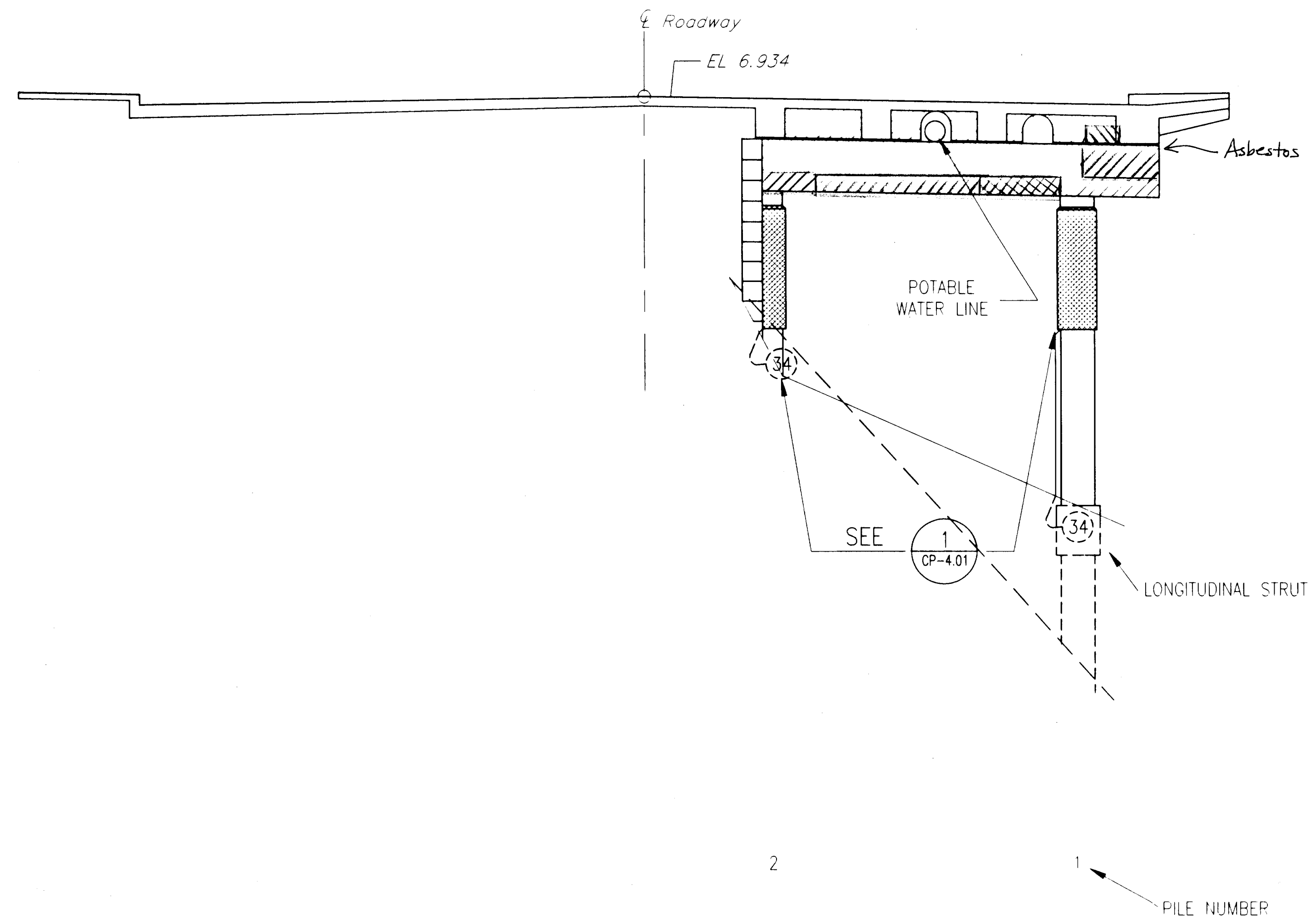
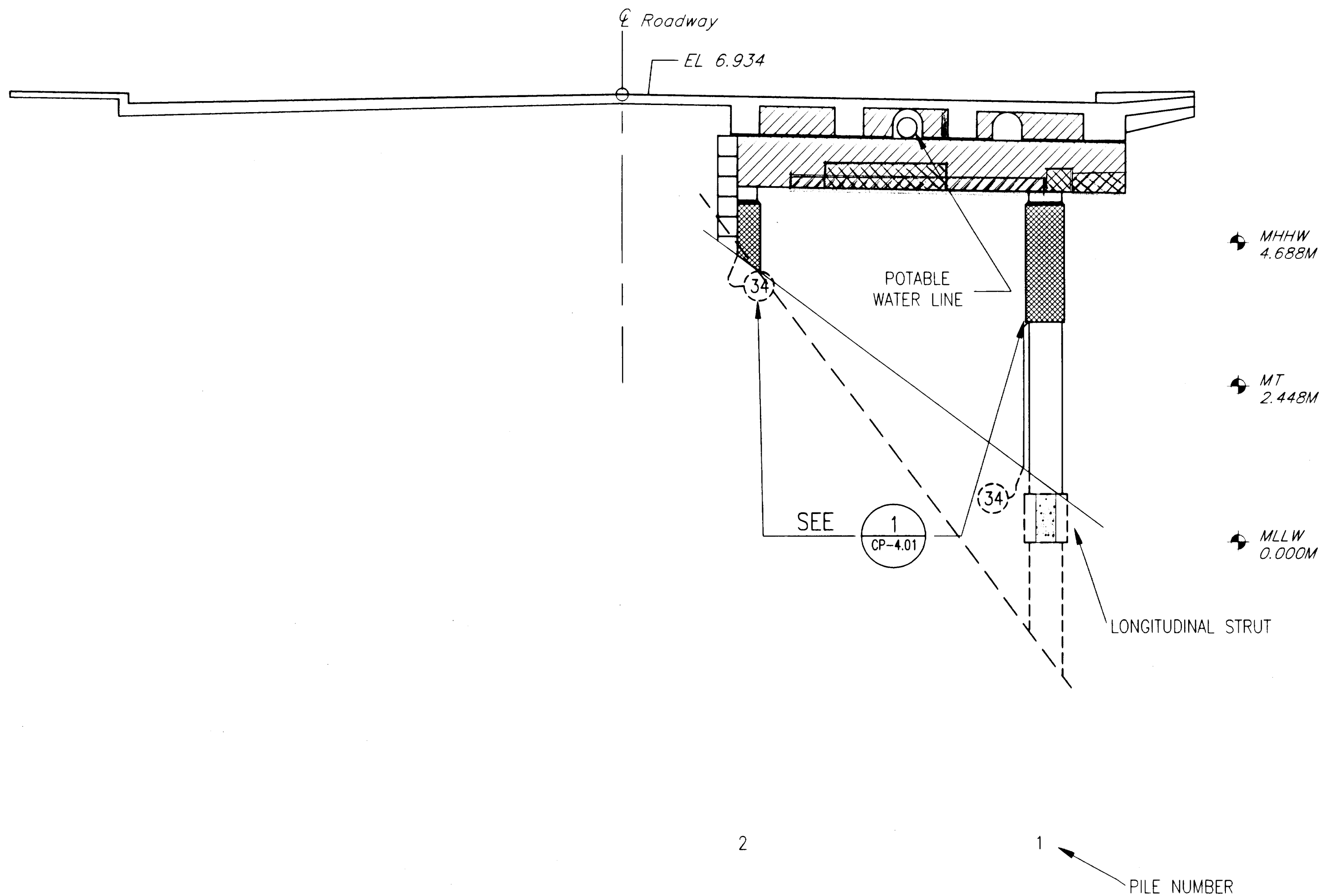
DESIGNER:
EXPIRES: DEC. 31, 1999
CP-3.13



BENT 51

2
CP-3.13
SCALE:

Note: Asbestos is present in Expansion Joint side of this Bent

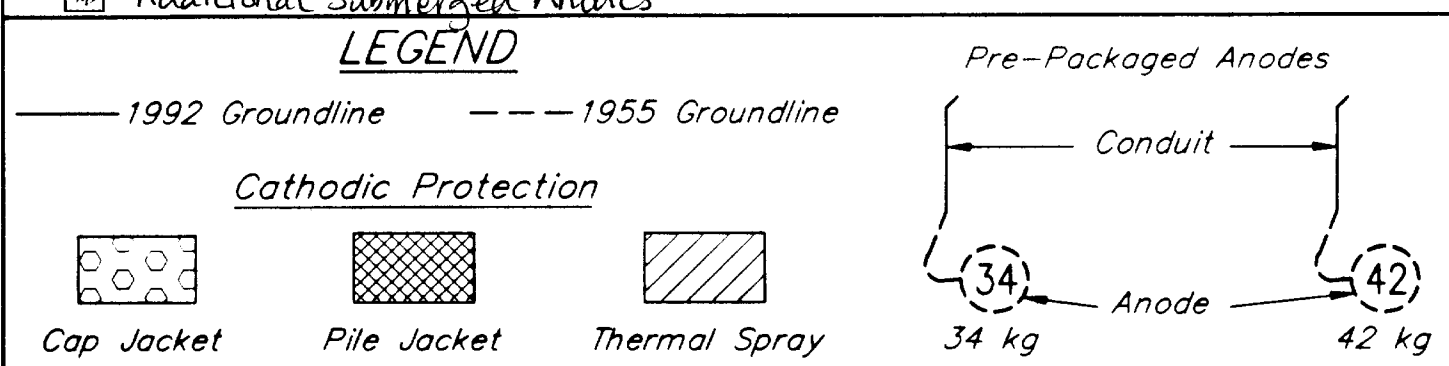


1 BENT 52
 CP-3.14 SCALE:

- Concrete Repairs:
- North Face Repair
 - South Face Repair
 - North & South Face
 - Repair on Bottom of Cap
 - Location of Asbestos in Expansion Joint side of Bent
 - Additional Submerged Anodes
- N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
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- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 53
 CP-3.14 SCALE:

Note: Asbestos is present in Expansion Joint side of Bent.
 N.T.S.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
 BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
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 ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:



EXPIRES:
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CP-3.14

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PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

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 FED. NO. BR-0902 (26) PROJECT NO. 71111
 TONGASS AVENUE & WATER STREET VIADUCTS
 ELEVATION VIEW- BENTS 52-53

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

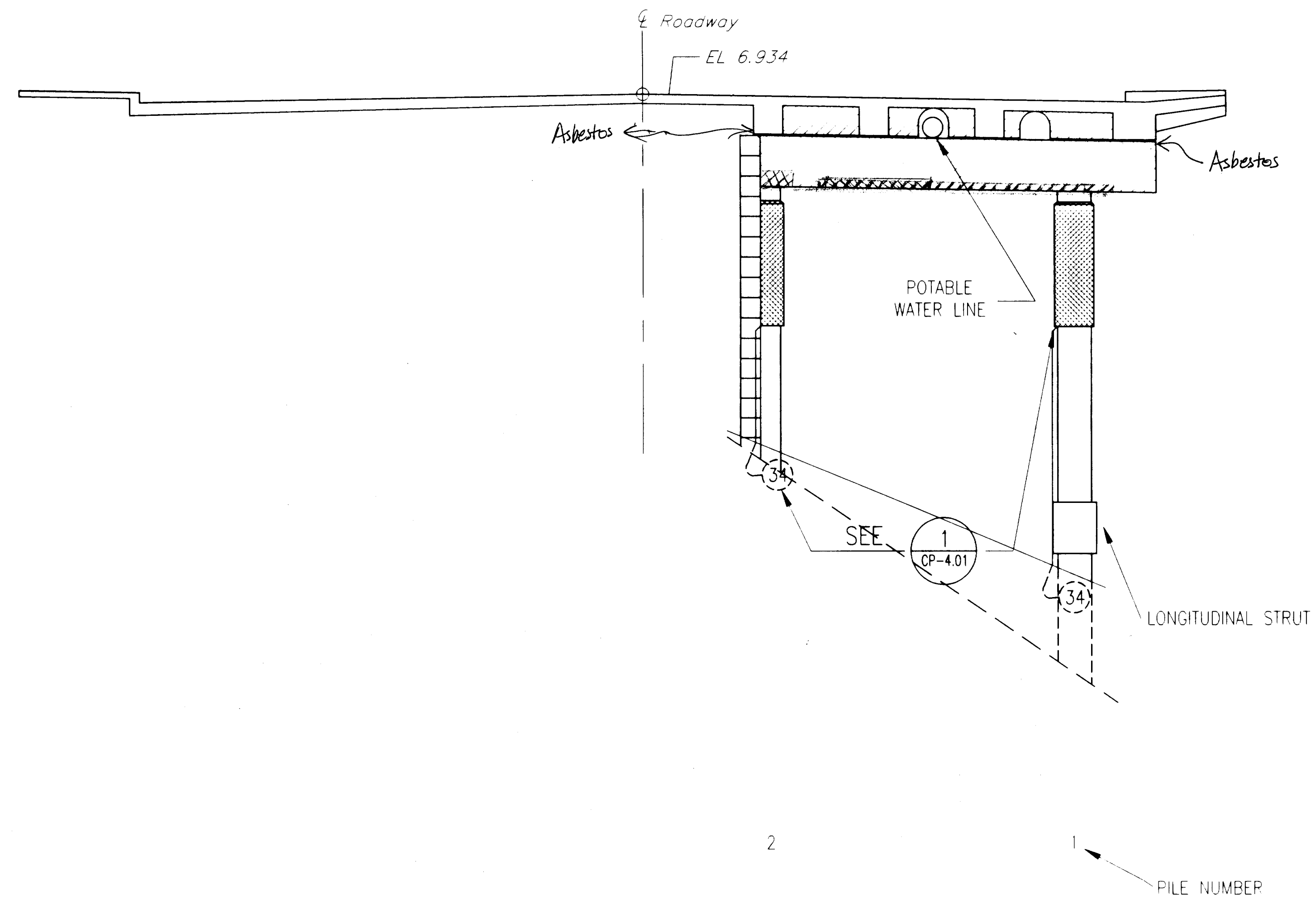
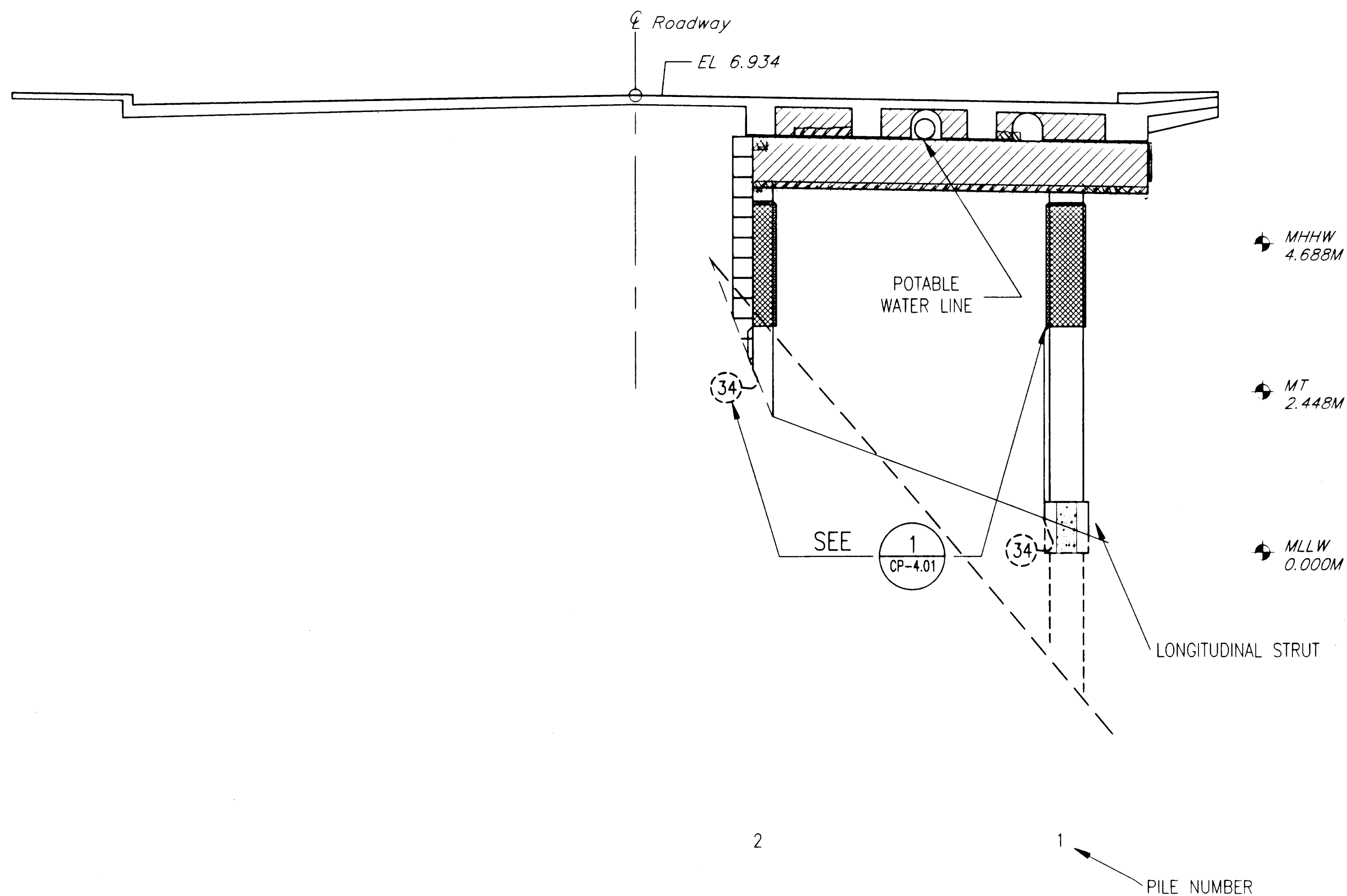
INVESTIGATING THE INFRASTRUCTURE
 976 - 20TH AVENUE SEATTLE, WA 98122
 PHONE (206) 328-7872 FAX (206) 328-7916
 tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 18 OF 104

BRIDGE NO. 797



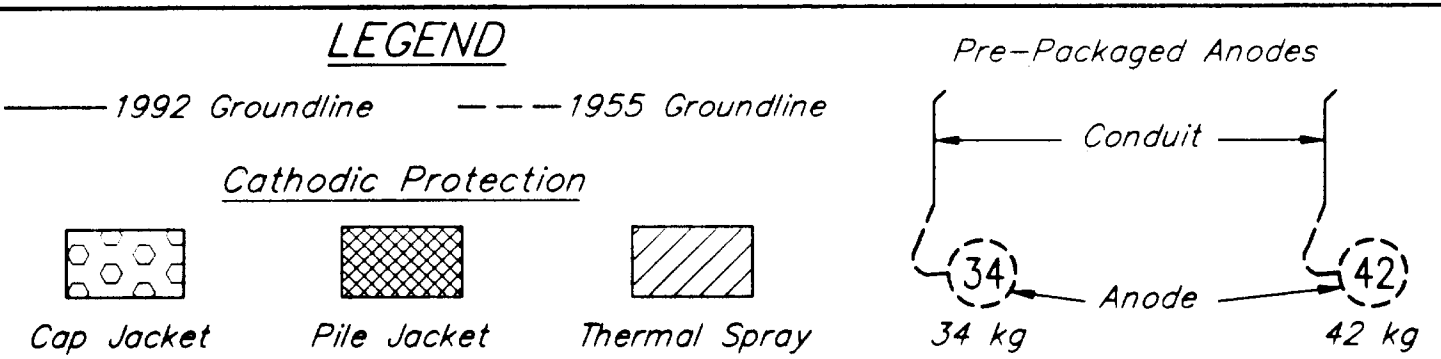
1 BENT 54
CP-3.15 SCALE:

Concrete Repair N.T.S.

☒ - Repair on North Face
☒ - Repair on South Face
☒ - Repair on North + South
☒ - Repair on Bottom of Cap
☒ - Additional Submerged Anodes ☒ System Negative ☒ Positive Anode
☒ - Location of Asbestos in Expansion Joint side of Bent.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 55
CP-3.15 SCALE:

Note: Asbestos is present in Expansion Joint side of Bent.
N.T.S.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES: DEC. 31, 1999



CP-3.15

PATH: P:\KTN\71111\DR\CP3-15.DWG
PLOT:
PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN

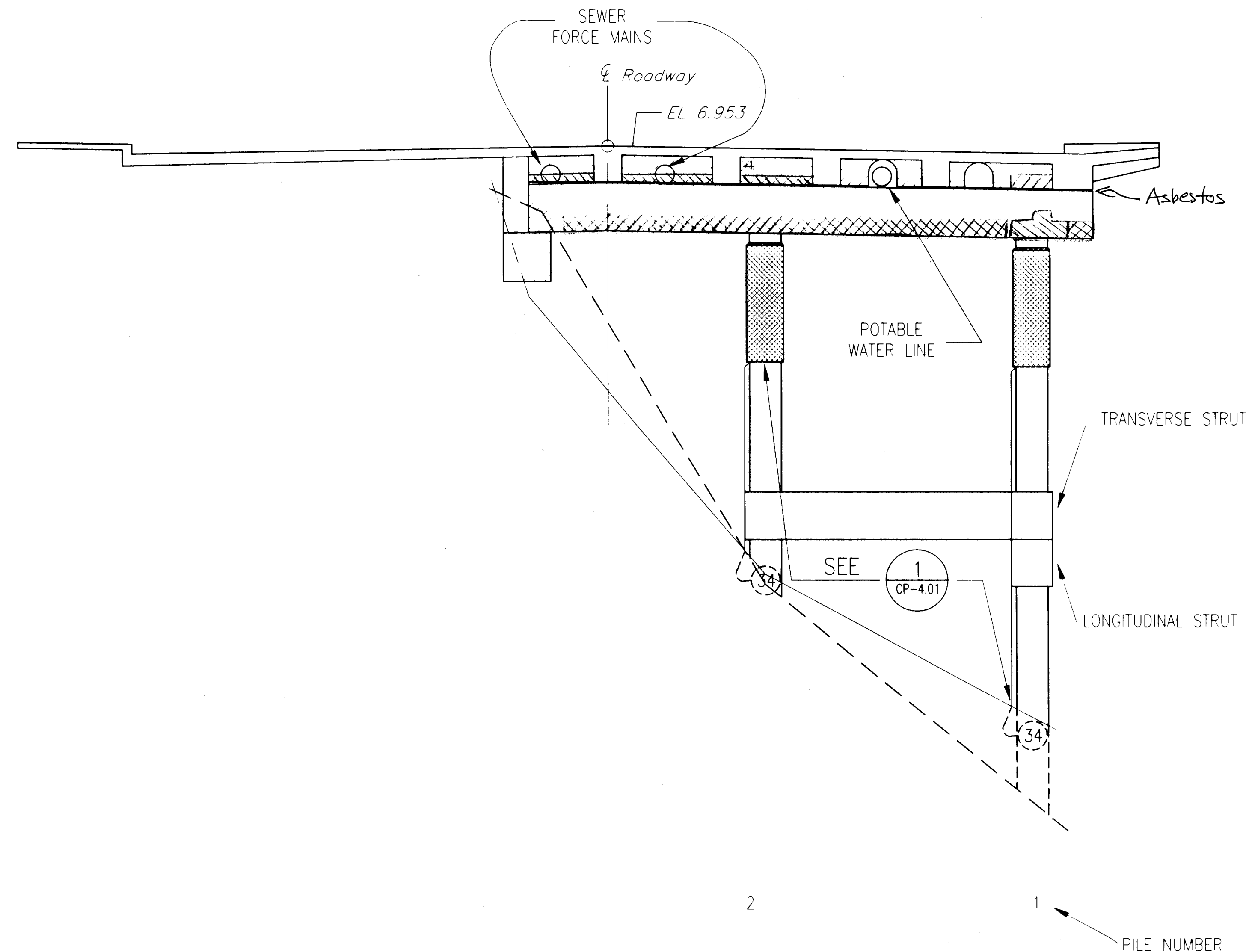
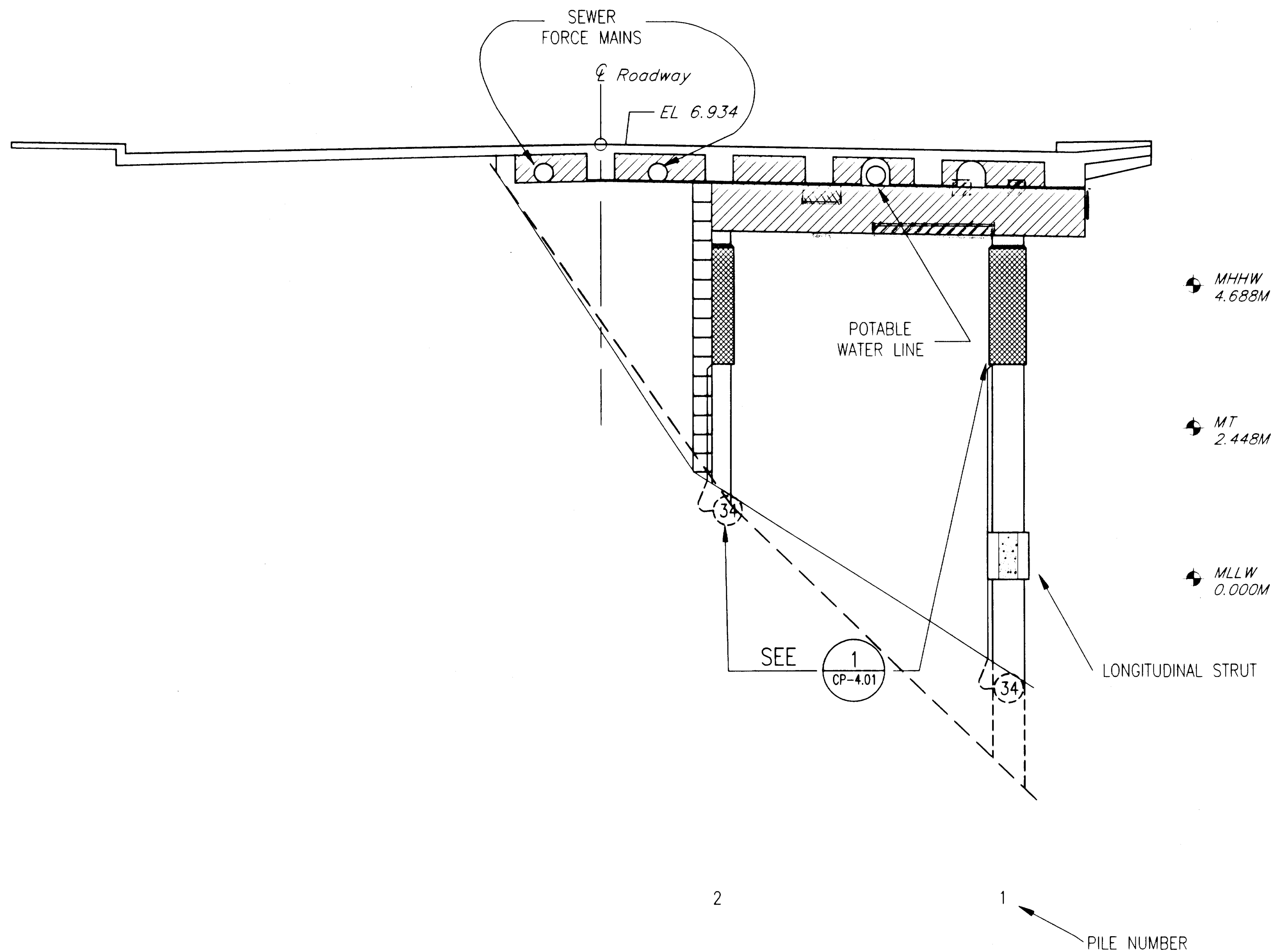
KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 54-55

ALASKA

DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
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tinnea@compuserve.com

DATE: SEPTEMBER 15, 1999
SHEET 49 OF 104
BRIDGE NO. 797

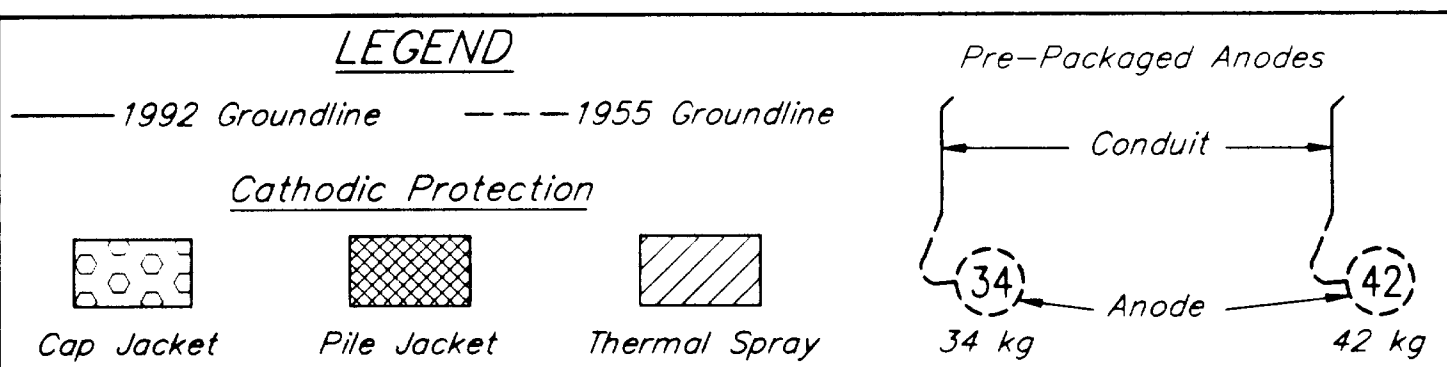


1 BENT 56
CP-3.16 SCALE:

- Concrete Repair: N.T.S.
- ▨ - Repairs on North Face
 - ▩ - Repairs on South Face
 - ▧ - Repairs on North + South Face
 - ▦ - Repair on Bottom of Cap
 - ⊞ - Additional Submerged Anodes
 - ⊕ System Negative
 - ⊖ Positive Anode
 - ▨ - Location of Asbestos in Expansion Joint side of Bent

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 57
CP-3.16 SCALE:

Note: Asbestos is present in Expansion Joint ~~on~~ side of Bent.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-3.16

PATH: P:\KTN\71111\DR\CP3-16.DWG

PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 56-57

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

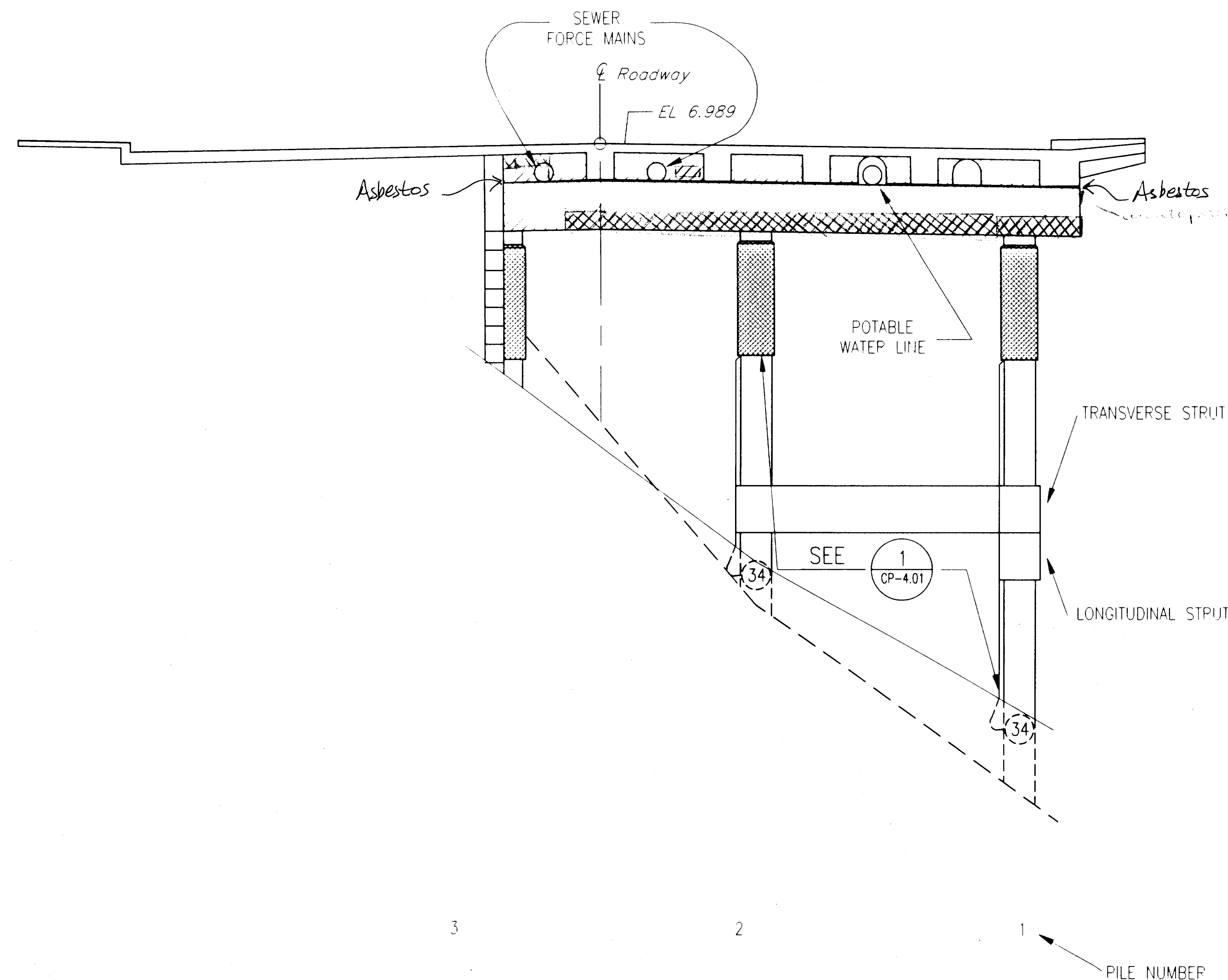
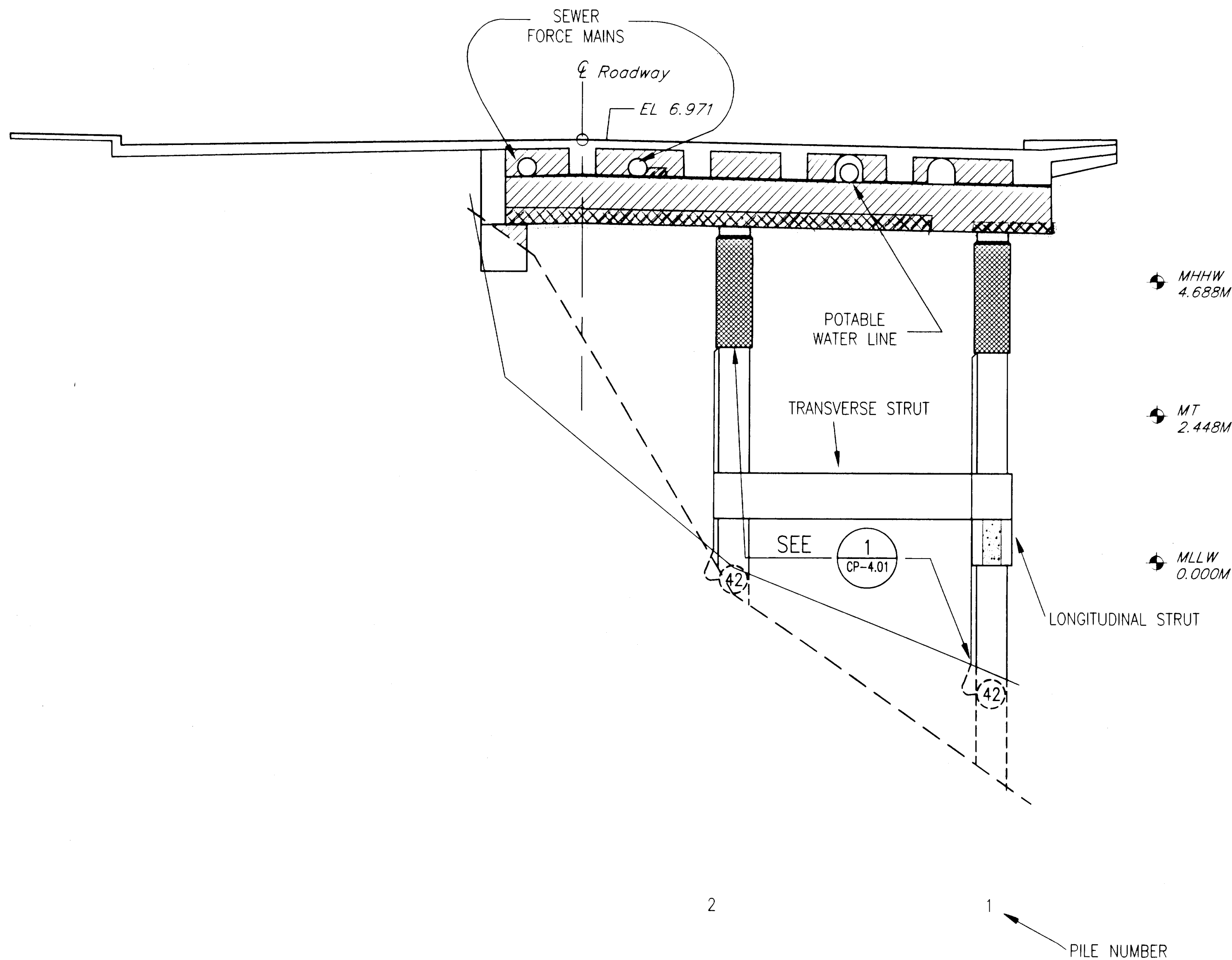
INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 50 OF 104

BRIDGE NO. 797

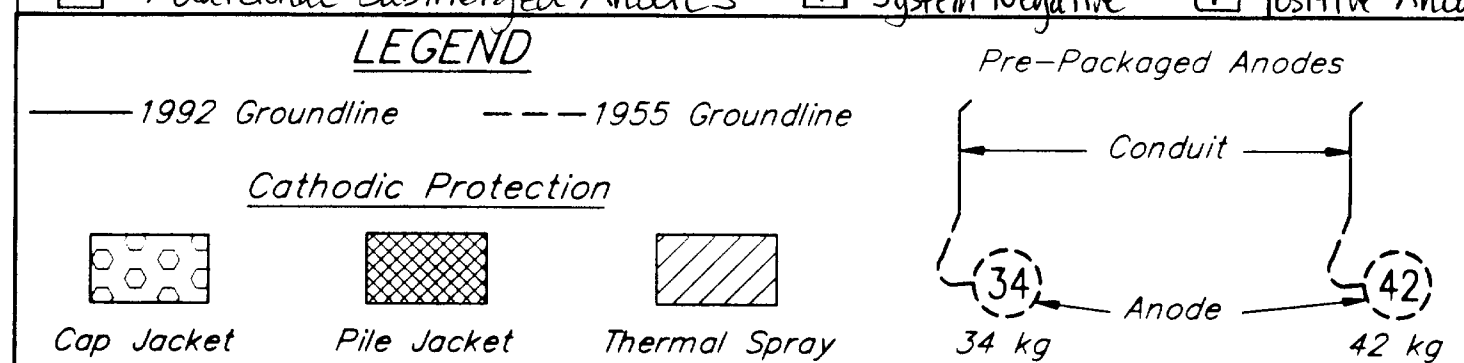


1 BENT 58
 CP-3.17 SCALE:

Concrete Repair: N.T.S.
 - Repairs on North Face
 - Repairs on South Face
 - Repairs to North + South Face
 - Repairs to Bottom of Cap
 - Asbestos Location in Expansion Joint side of Bent.
 - Additional Submerged Anodes + System Negative + Positive Anode

DO NOT SCALE FROM THESE PLANS
 USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 59
 CP-3.17 SCALE:

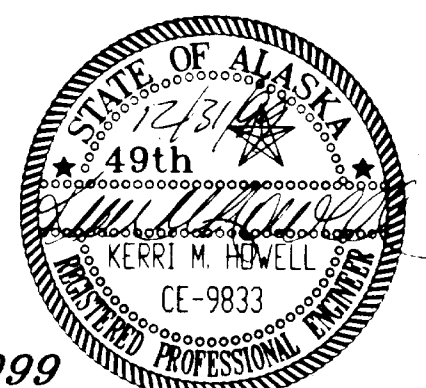
Note: Asbestos is present in Expansion Joint side of Bent.
 N.T.S.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-3.17

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
 FED. NO. BR-0902 (26) PROJECT NO. 71111
 TONGASS AVENUE & WATER STREET VIADUCTS
 ELEVATION VIEW- BENTS 58-59

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
 976 - 20TH AVENUE SEATTLE, WA 98122
 PHONE (206) 328-7872 FAX (206) 328-7916
 tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 51 OF 104

BRIDGE NO. 797

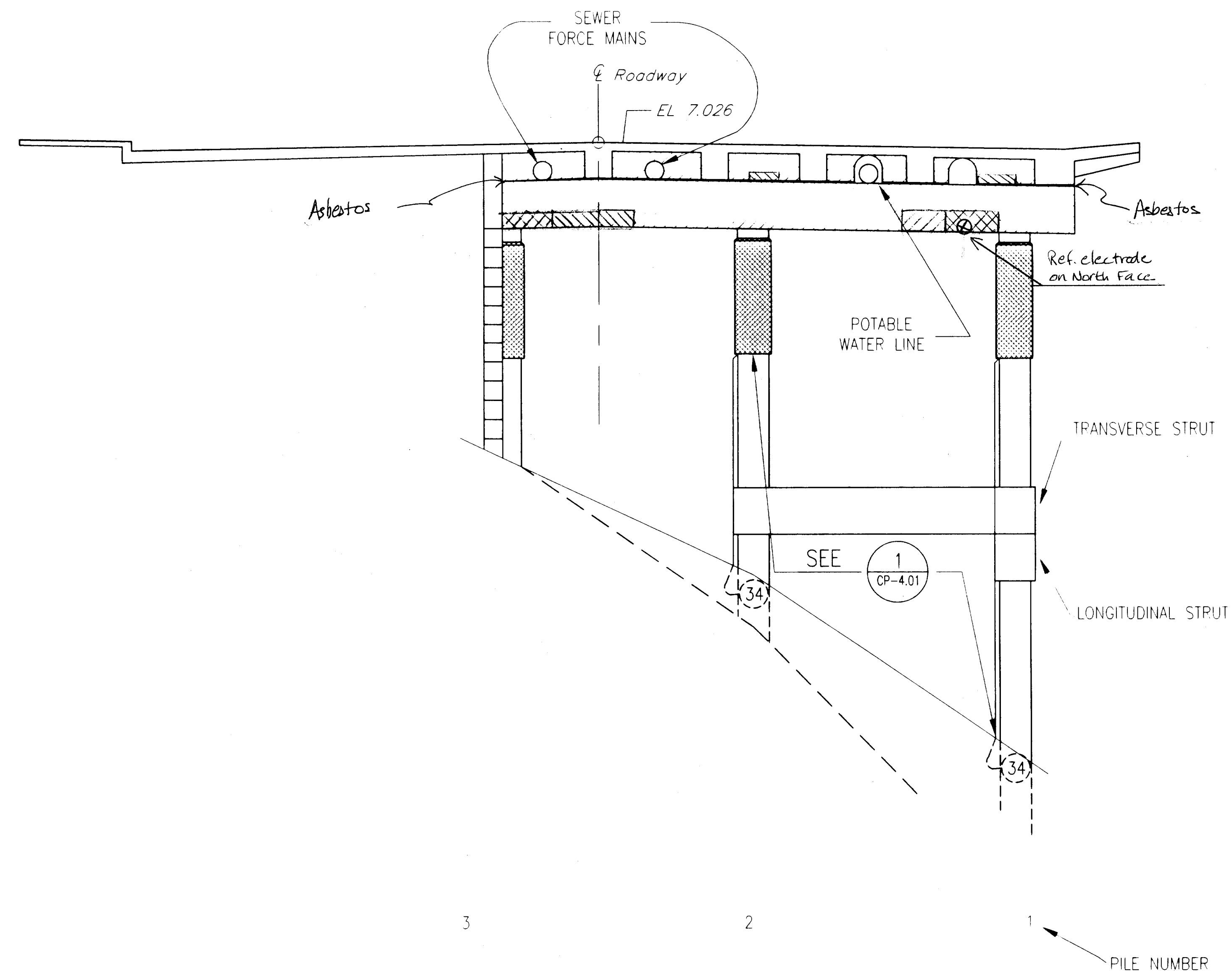
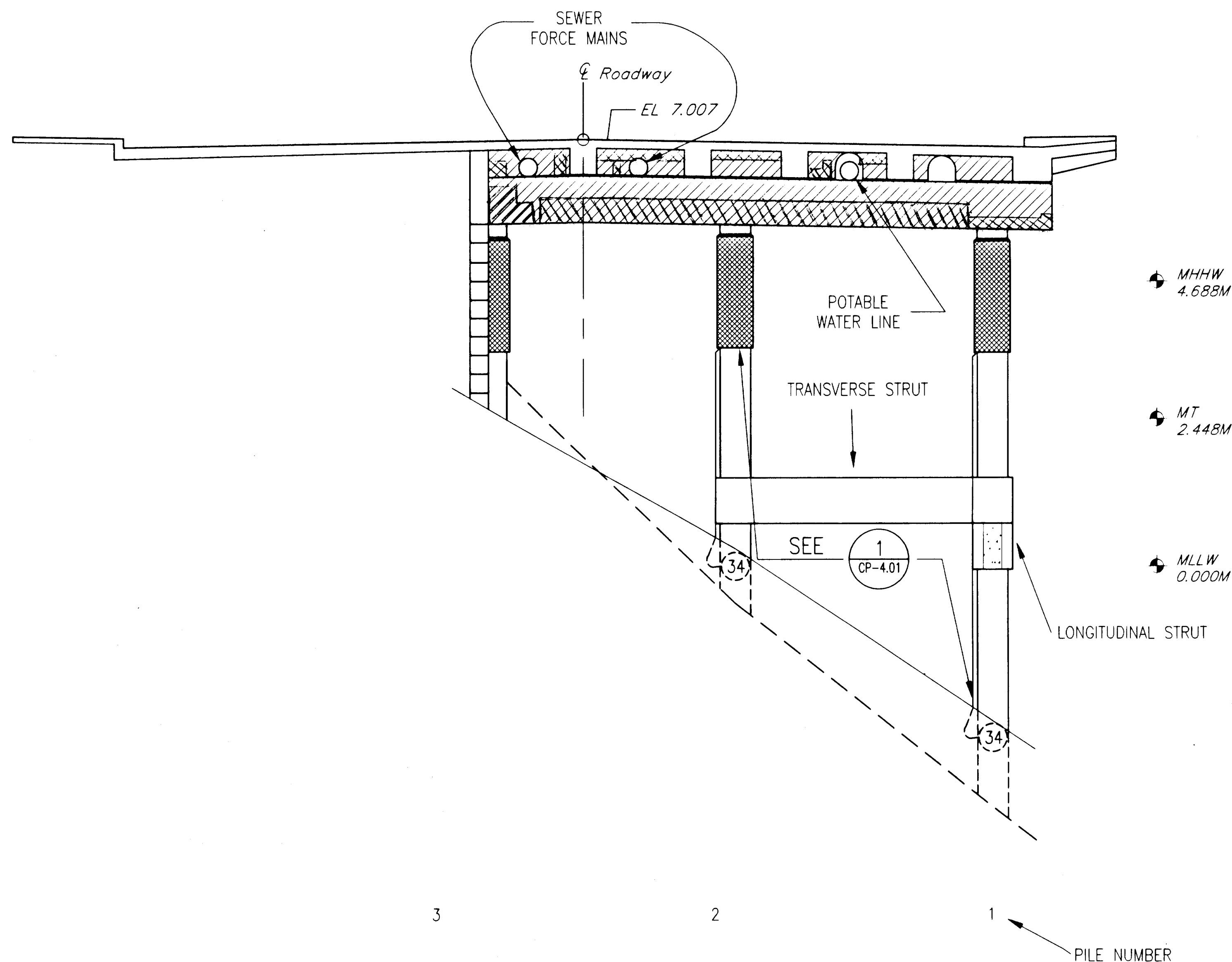
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PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

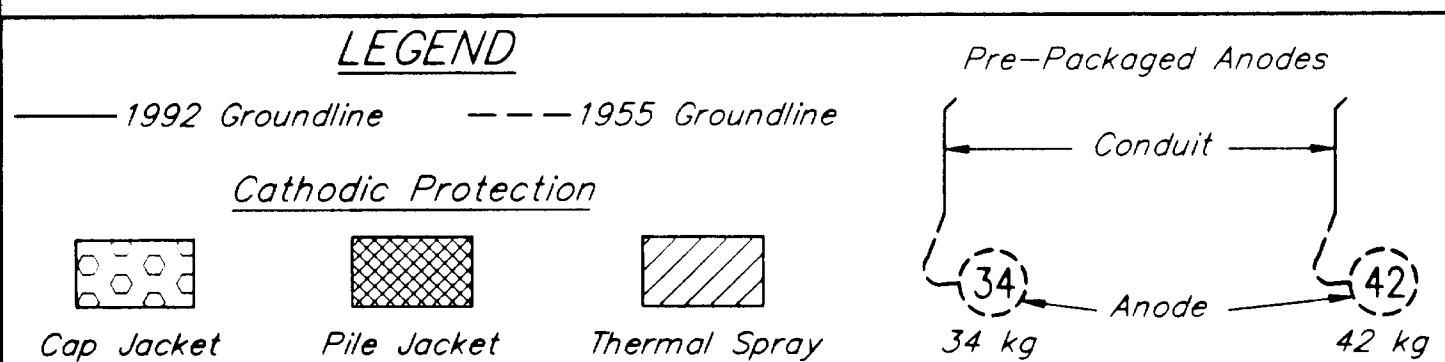
DRAWN OR REVISED BY: T.C. NORTON



1 BENT 60
CP-3.18 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

- Concrete Repair:
- ▨ - Repairs on North Face
 - ▩ - Repairs on South Face
 - ▧ - Both North & South Face
 - ▦ - Repairs on bottom of Cap
 - ⊞ - Additional Submerged Anodes
 - ⊕ - System Negative
 - ⊖ - Positive Anode
 - ▣ - Asbestos Location in Expansion Joint side of Bent



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 61
CP-3.18 SCALE: N.T.S.

Note: Asbestos is present in Expansion Joint side of Bent

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

RECORD OF REVISIONS		
DATE	BY	COMMENT

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 60-61

ALASKA

DESIGNED BY:
K.M. HOWELL
CHECKED BY:
D.R. HELGESON
APPROVED BY:
J.S. TINNEA

DESIGNER:

EXPIRES:
DEC. 31, 1999

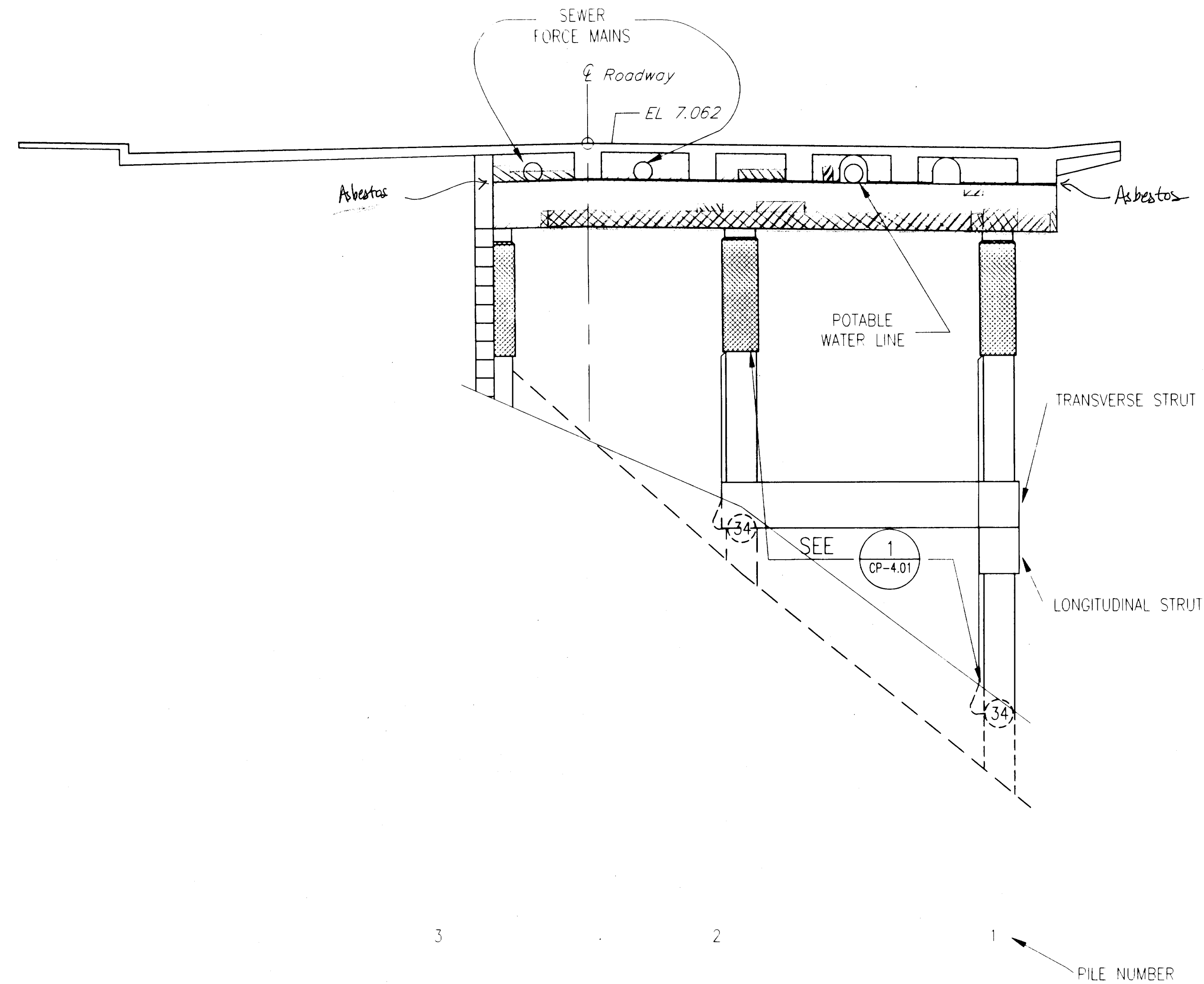
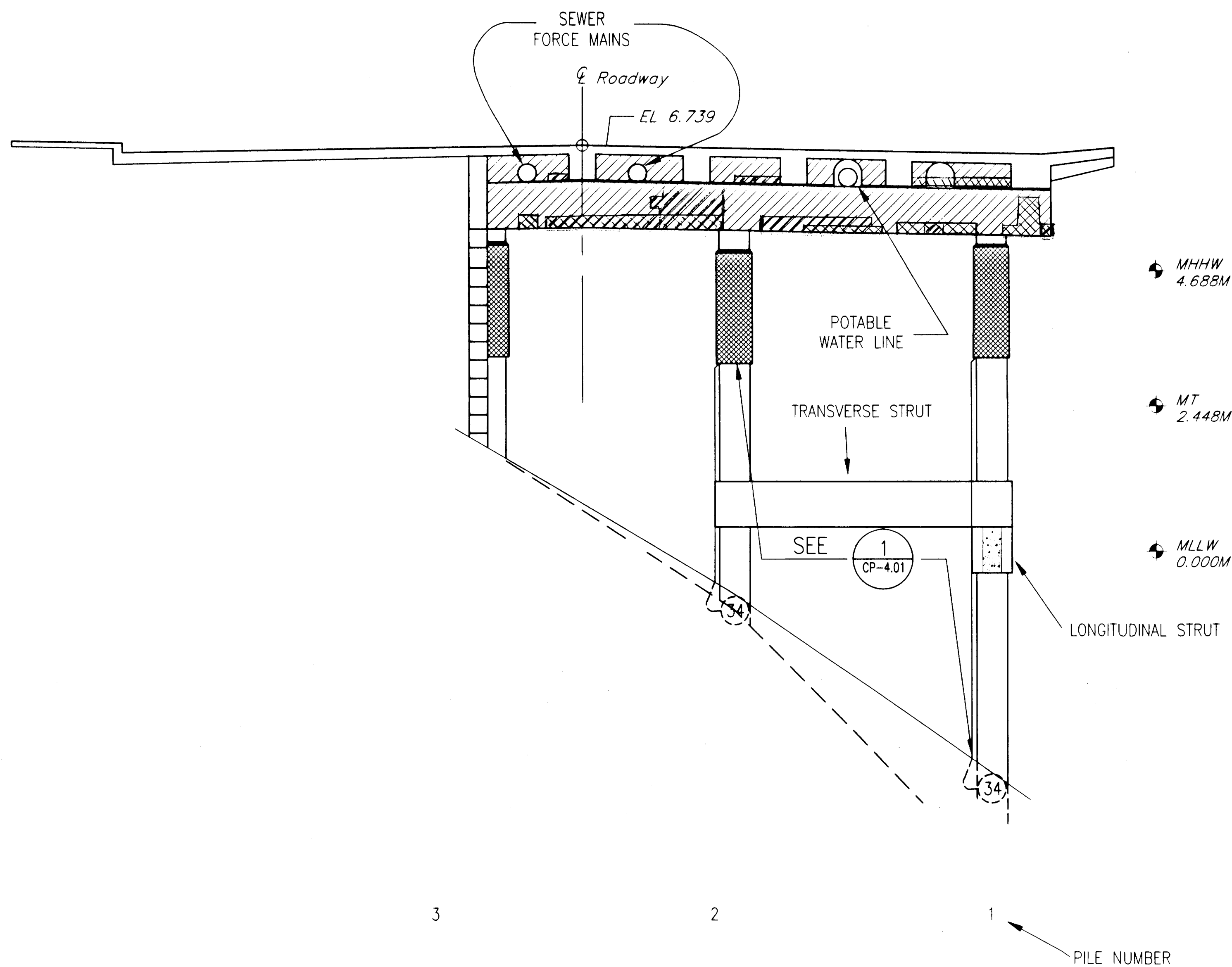


CP-3.18

PATH: P:\KTN\71111\DR\CP3-18.DWG
PLOT:
PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
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976 - 20TH AVENUE SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:
SEPTEMBER 15, 1999
SHEET 52 OF 104
BRIDGE NO. 797



1 BENT 62
CP-3.19 SCALE: N.T.S.

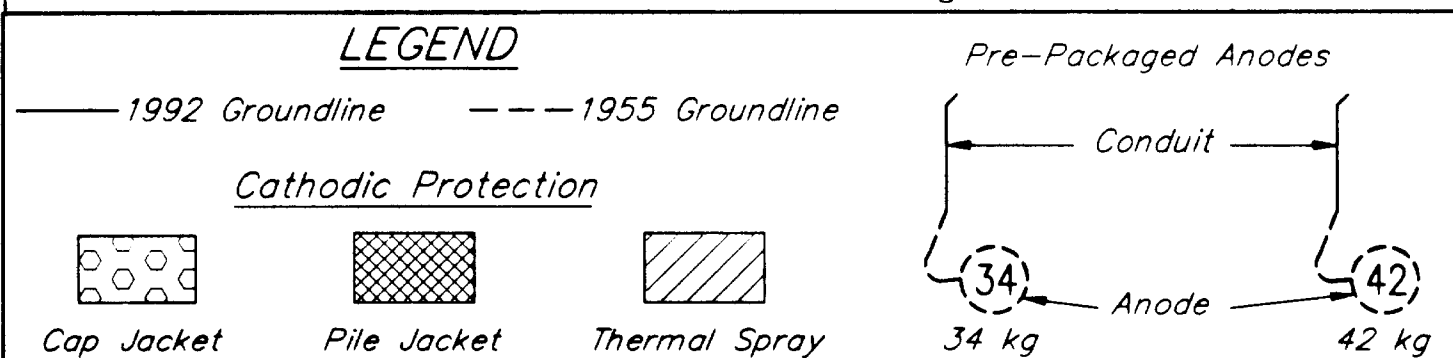
2 BENT 63
CP-3.19 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

Concrete Repair:

- Repairs on North Face
- Repairs on South Face
- Repairs on North + South Face
- Repairs on Bottom Cap

- Asbestos Location in Expansion Joint side of Bent
- Additional Submerged Anodes
- System Negative
- Positive Anode

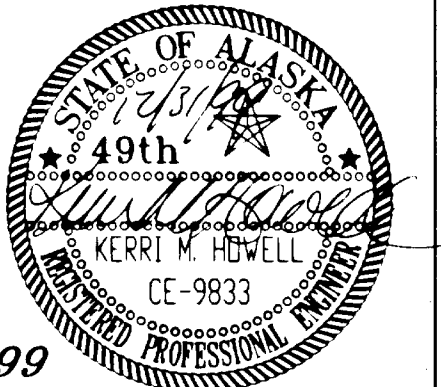


NOTES

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- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER:  CP-3.19

EXPIRES: DEC. 31, 1999

PATH: P:\KTN\71111\DR\CP3-19.DWG
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PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
DRAWN OR REVISED BY: T.C. NORTON

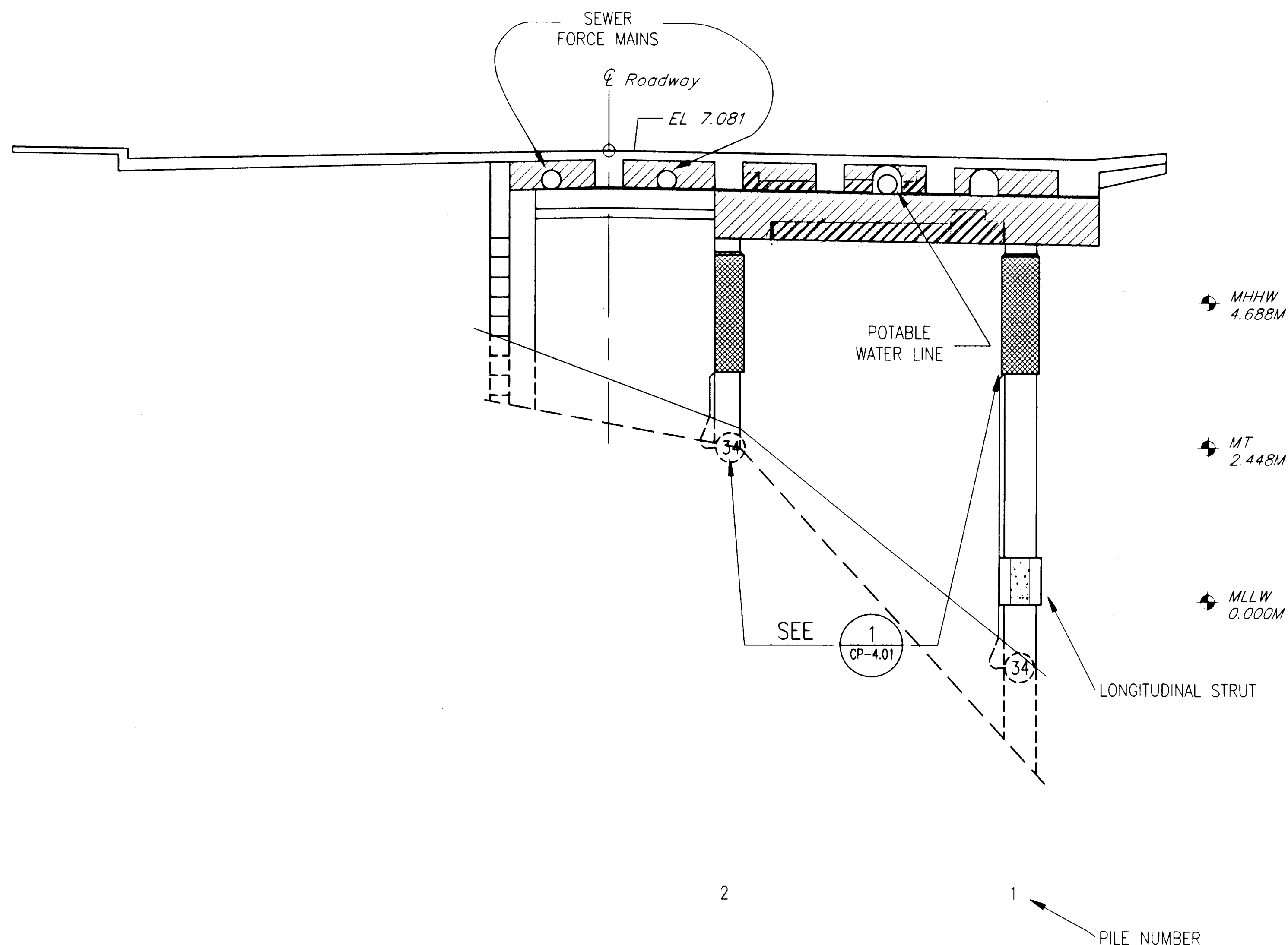
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN
KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 62-63

ALASKA
DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
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tinnea@compuserve.com

DATE: SEPTEMBER 15, 1999
SHEET 53 OF 104
BRIDGE NO. 797

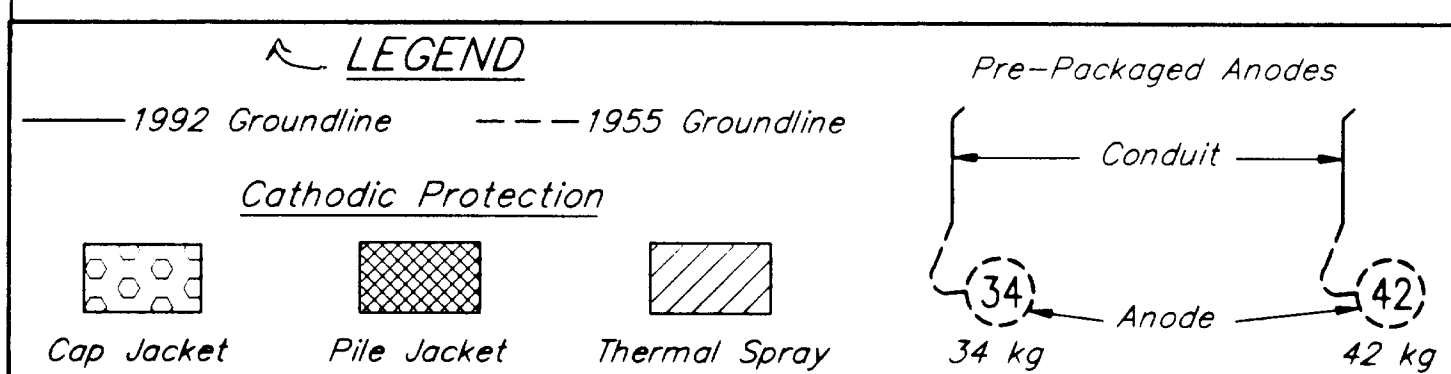


1 BENT 64
CP-3.20

SCALE: Concrete Repair
 - Repair on North Face
 - Repair on South Face
 - Repair on both North & South Face
 - Repair on bottom of Cap
 - System Negative - Positive Anode
 - Additional Submerged Anodes
 N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



NOTES

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- REFER TO DETAILS FOR DIMENSIONS.
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DESIGNER:



CP-3.20

EXPIRES: DEC. 31, 1999

PATH: P:\KTN\71111\DR\CP3-20.DWG

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PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

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STATE OF ALASKA
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AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENT 64

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

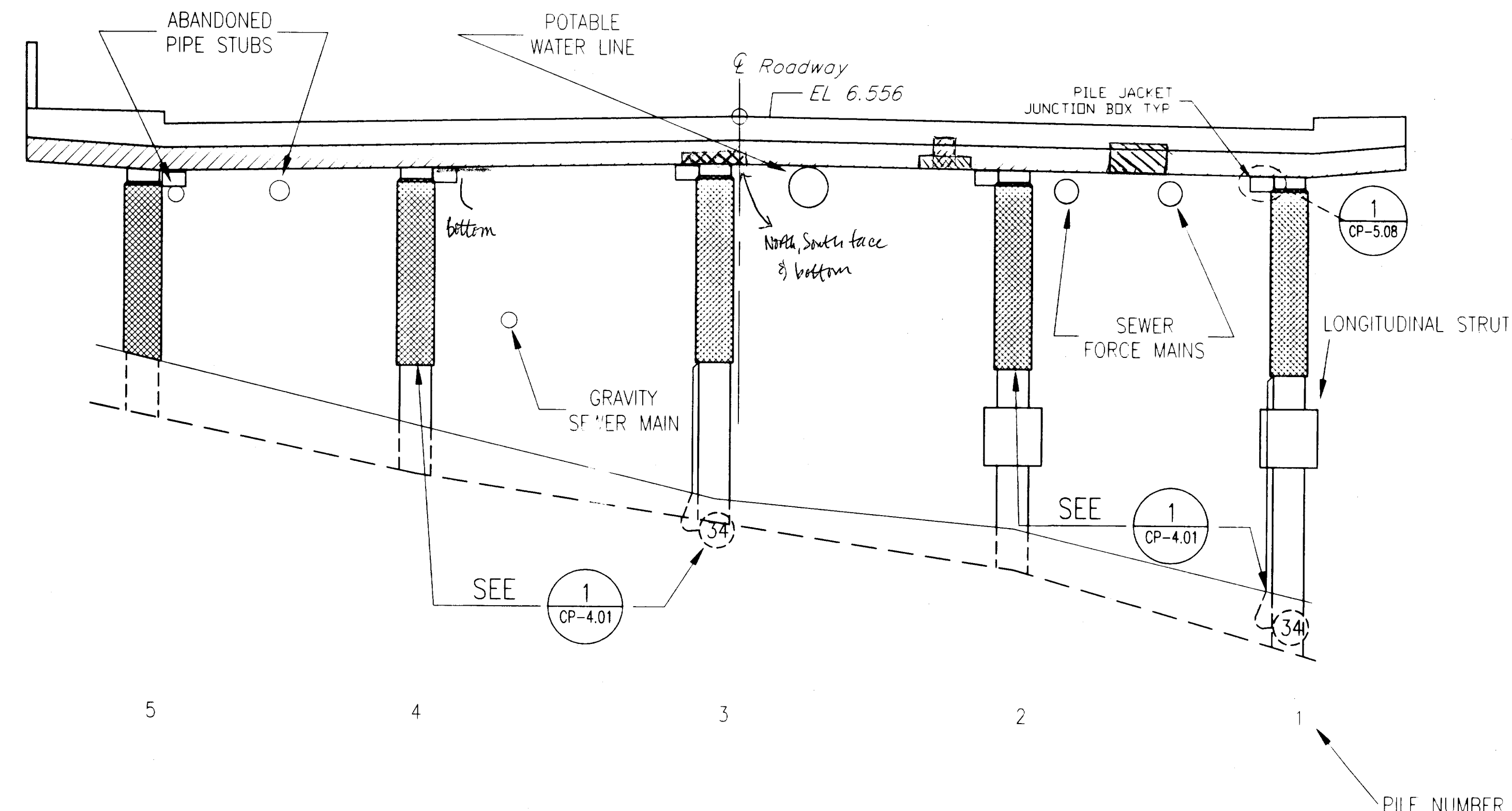
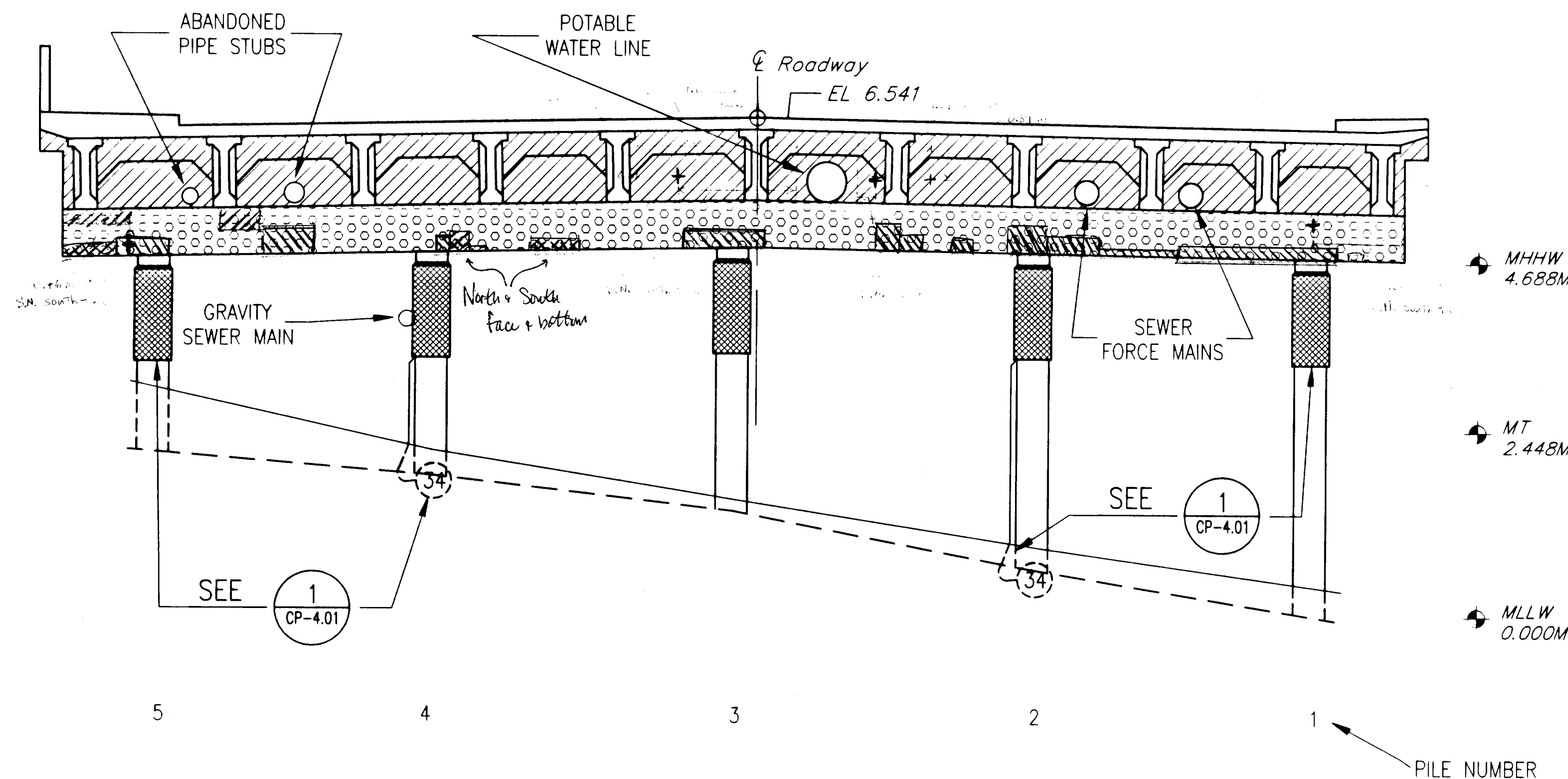
INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 54 OF 104

BRIDGE NO. 76



1 BENT 37
CP-3.21 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

NOTE:		N.T.S.
Concrete Repair on North Face Concrete Repair on South Face Concrete Repair on North and South Face Repair on bottom of Cap. SN= System Negative: $\ominus$ PA= Positive Anode: $\oplus$		
LEGEND 1992 Groundline --- 1955 Groundline Cathodic Protection Cap Jacket Pile Jacket Thermal Spray Pre-Packaged Anodes Conduit Anode 34 kg 42 kg		

NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
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- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 36
CP-3.21 SCALE: N.T.S.

BOTH BENTS MAY BE FILLED

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES:
DEC. 31, 1999



CP-3.21

PATH: P:\KTN\71111\DR\CP3-21.DWG
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PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 37-36

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

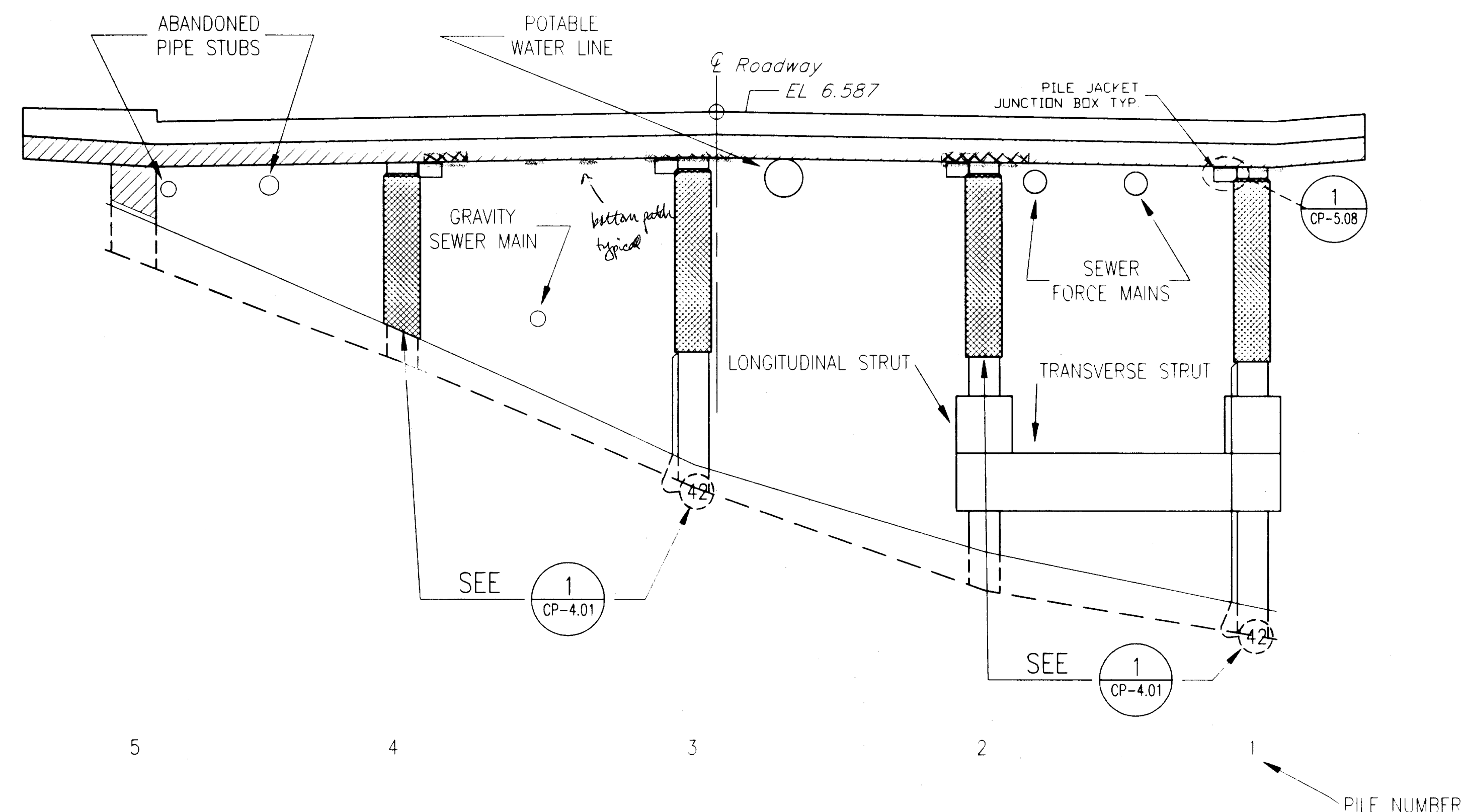
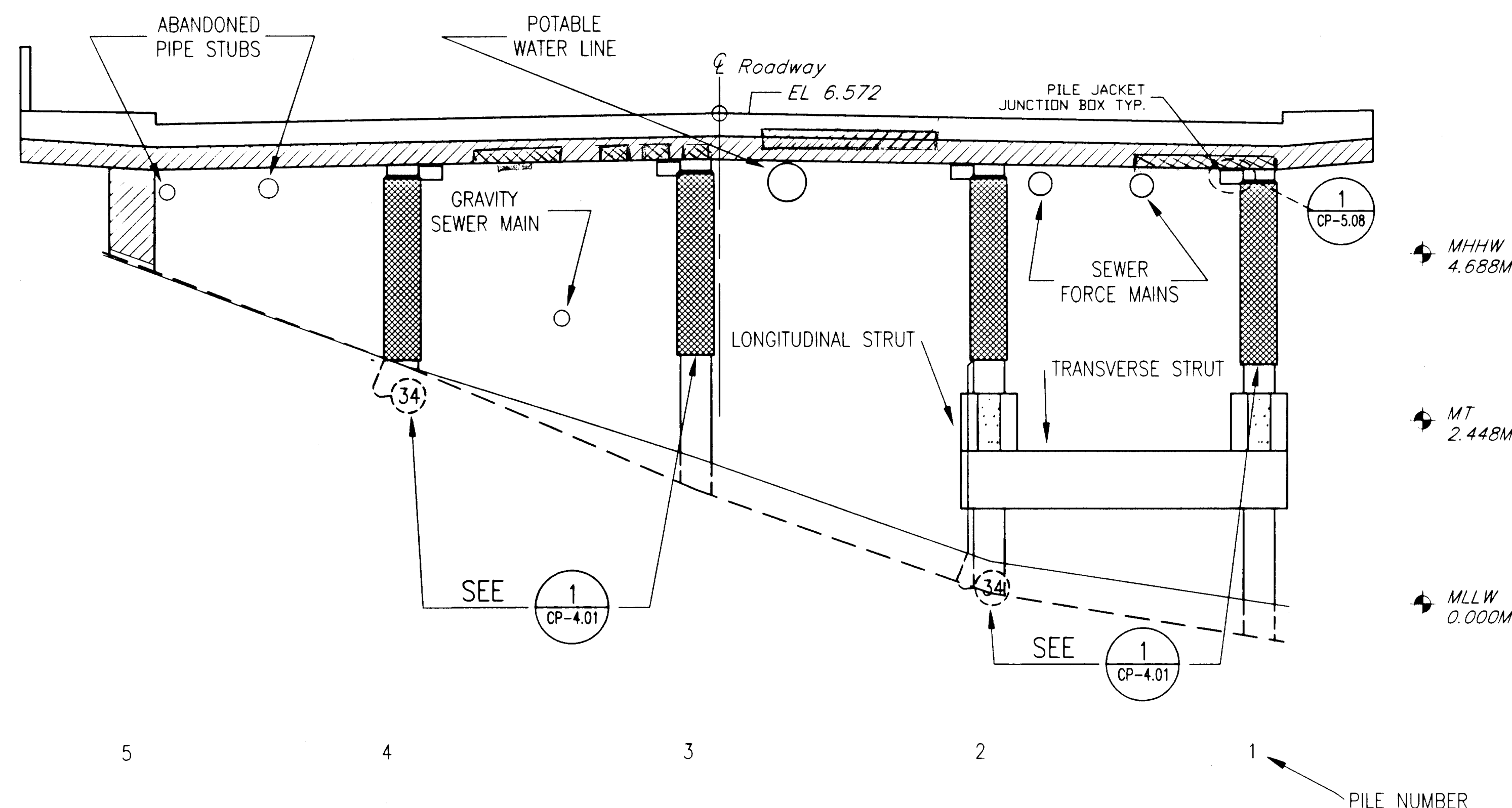
J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:
SEPTEMBER 15, 1999

SHEET 55 OF 109

BRIDGE NO. 997



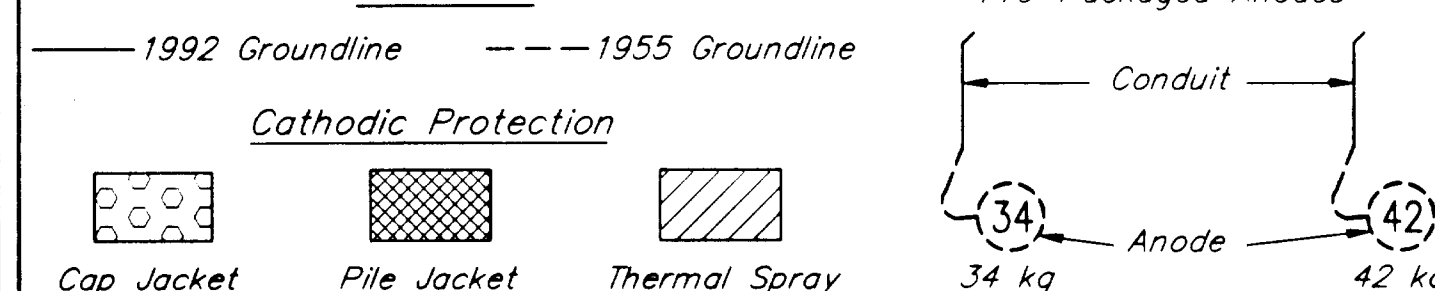
1 BENT 35
CP-3.22 SCALE: N.T.S.

2 BENT 34
CP-3.22 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

- ~~THIS BENT MAY BE FILLED~~
- ☒ Concrete Repair on North Face
 - ☒ Concrete Repair on South Face
 - ☒ Concrete Repair on North + South Face
 - ☒ Concrete Repair on bottom of cap
 - ☒ Positive Anode
 - ☒ System Negative

LEGEND



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

RECORD OF REVISIONS		
DATE	BY	COMMENT

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

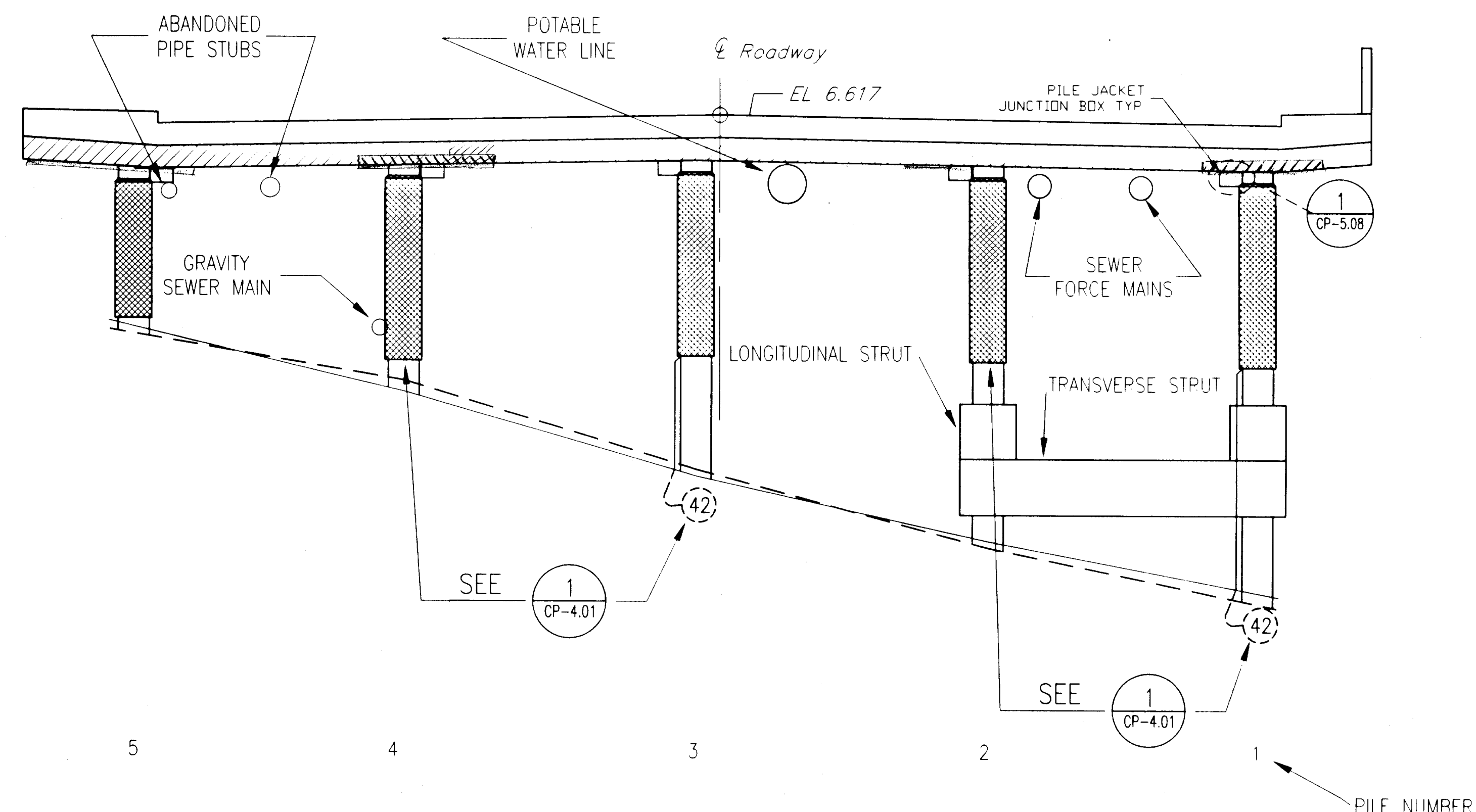
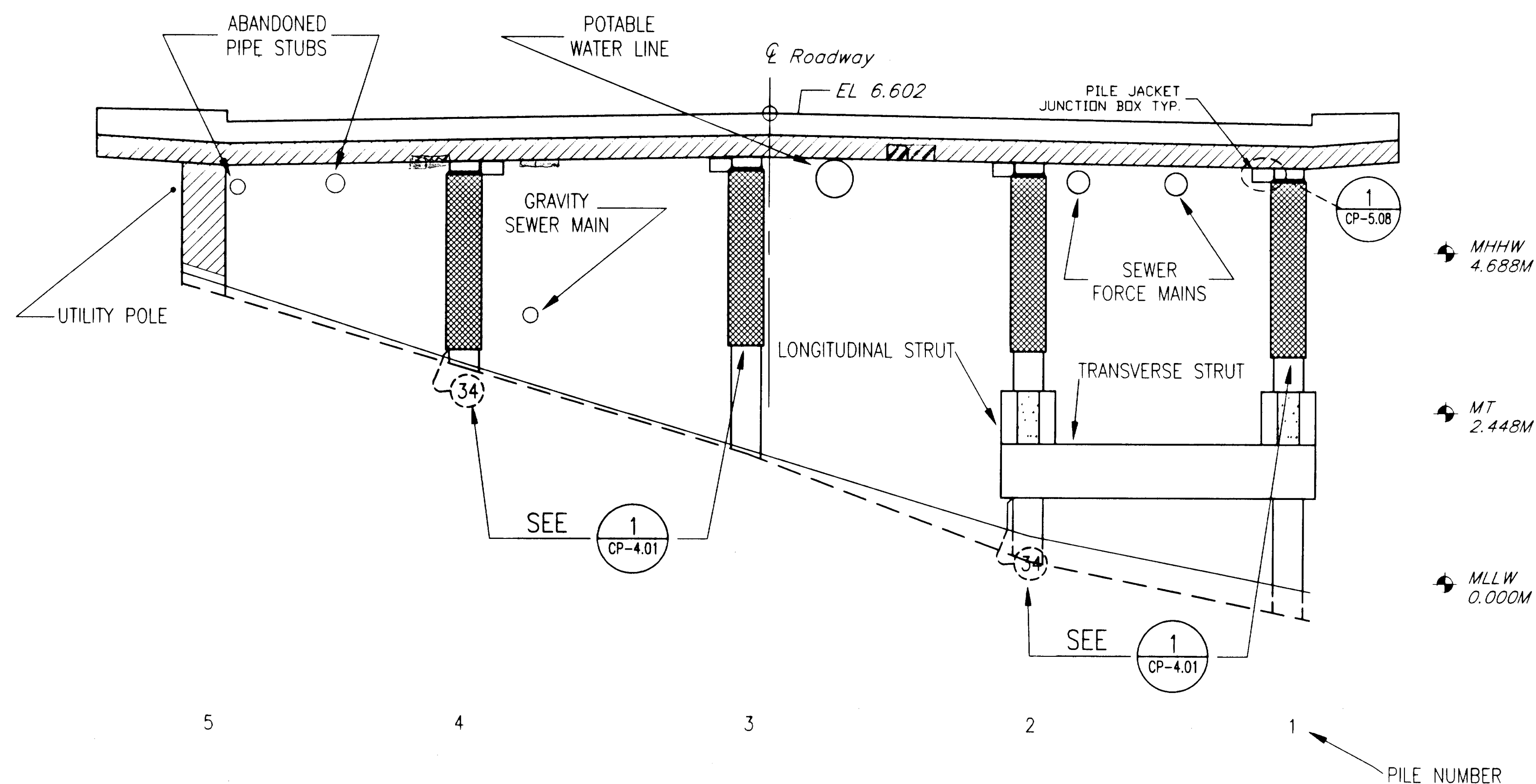
KETCHIKAN
KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 35-34

ALASKA
DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

DESIGNER: CP-3.22
EXPIRES: DEC. 31, 1999

DATE: SEPTEMBER 15, 1999
SHEET 56 OF 104
BRIDGE NO. 997

PATH: P:\KTN\71111\DR\CP3-22.DWG
PLOT:
PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
DRAWN OR REVISED BY: T.C. NORTON



1 BENT 33
CP-3.23 SCALE:

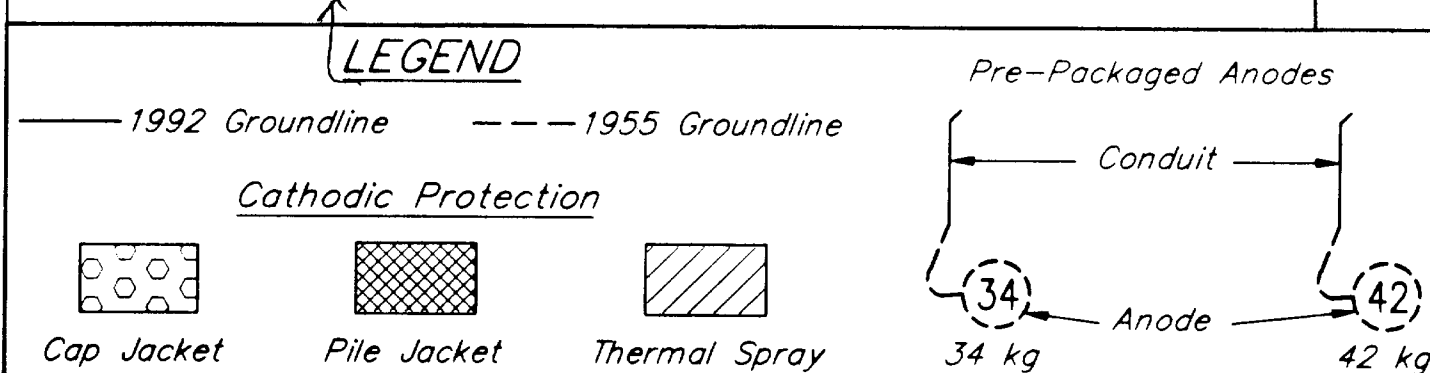
- ☒ Concrete Repair North Face
- ☒ Concrete Repair South Face
- ☒ Concrete Repair North & South Face
- ☒ Concrete Repair on Bottom Surface
- ☒ System Negative
- ☒ Positive Anode

N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS

DATE	BY	COMMENT



2 BENT 32
CP-3.23 SCALE:

N.T.S.

NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:



CP-3.23

EXPIRES:

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 33-32

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

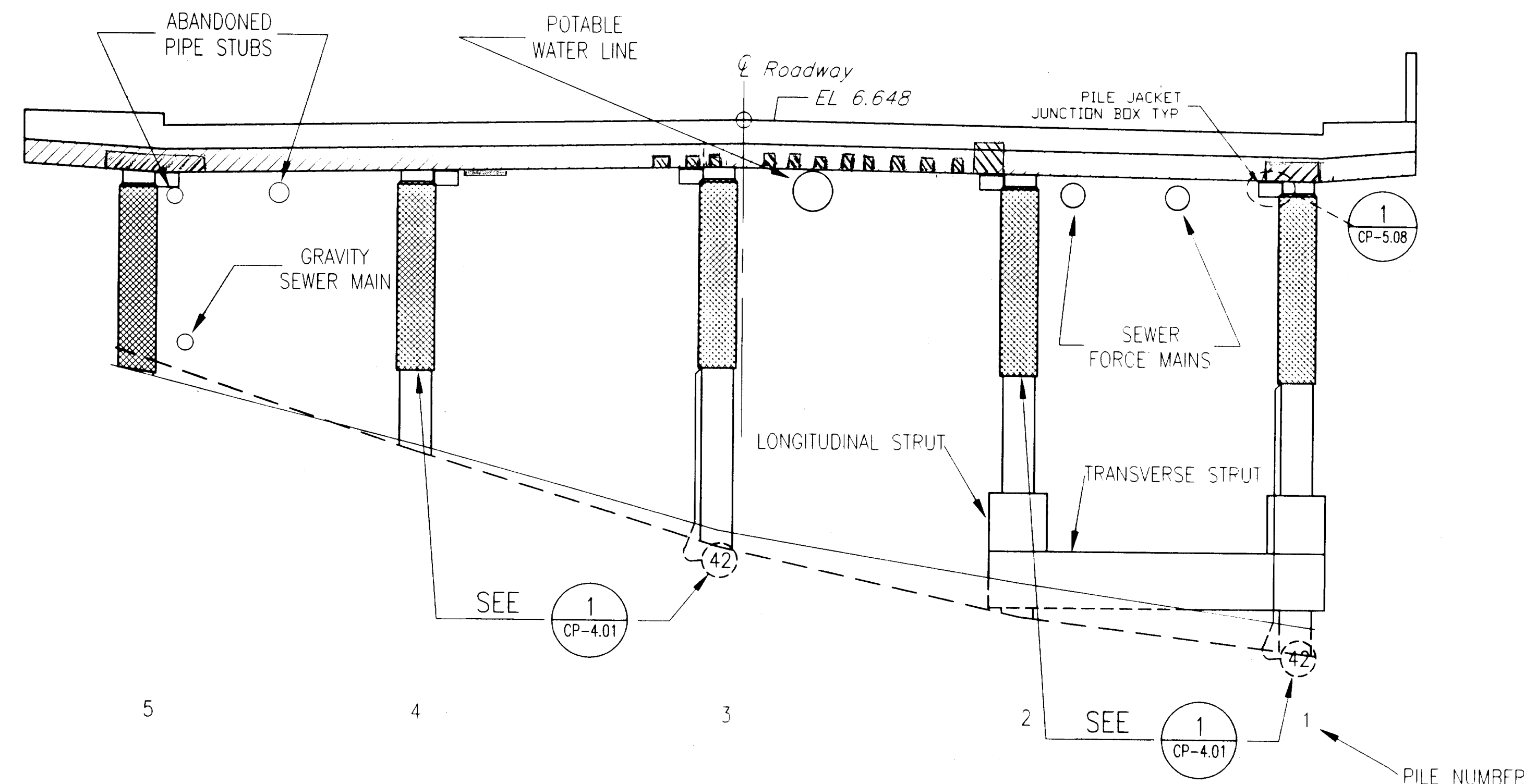
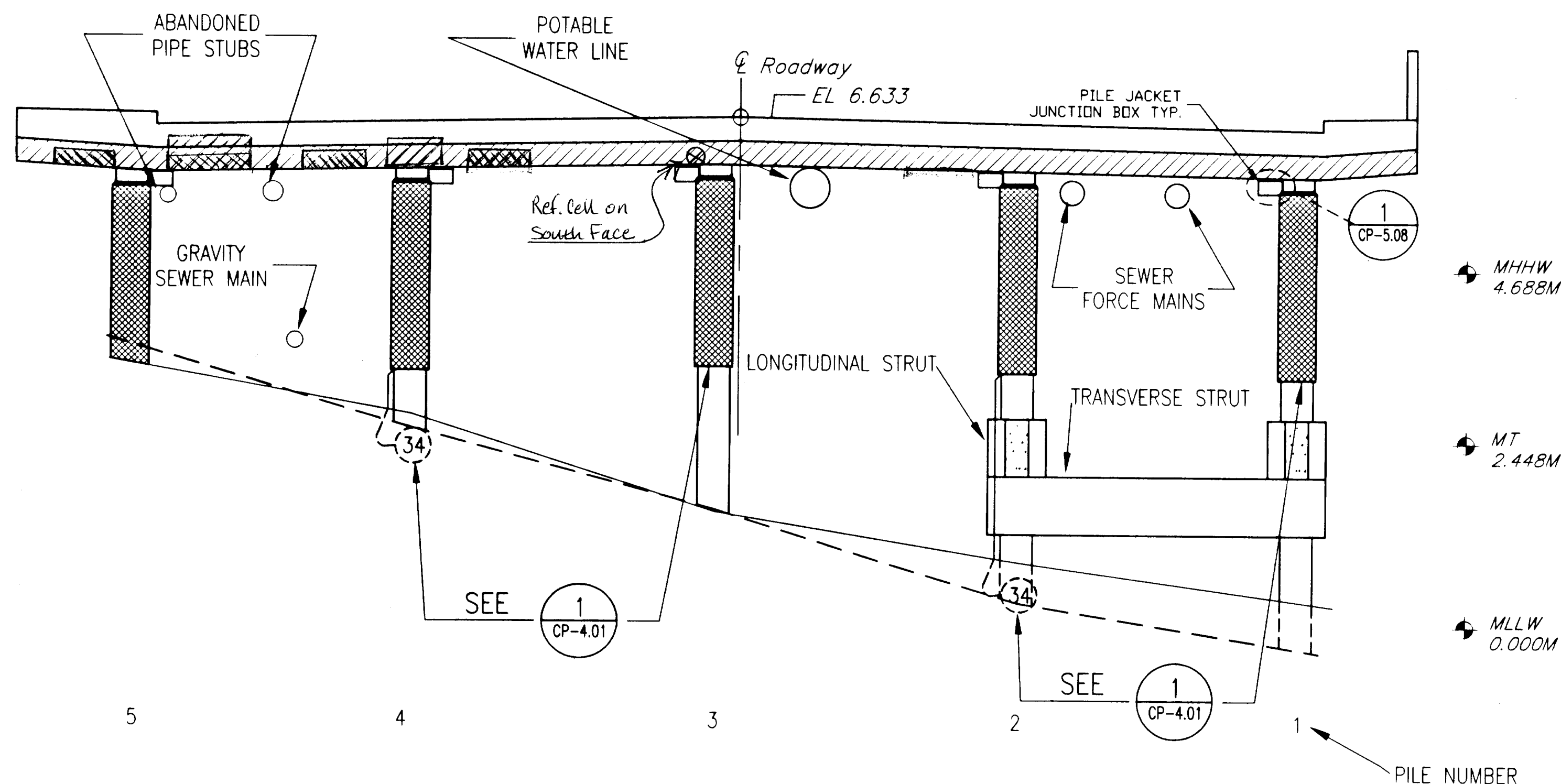
INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 57 OF 104

BRIDGE NO. 997



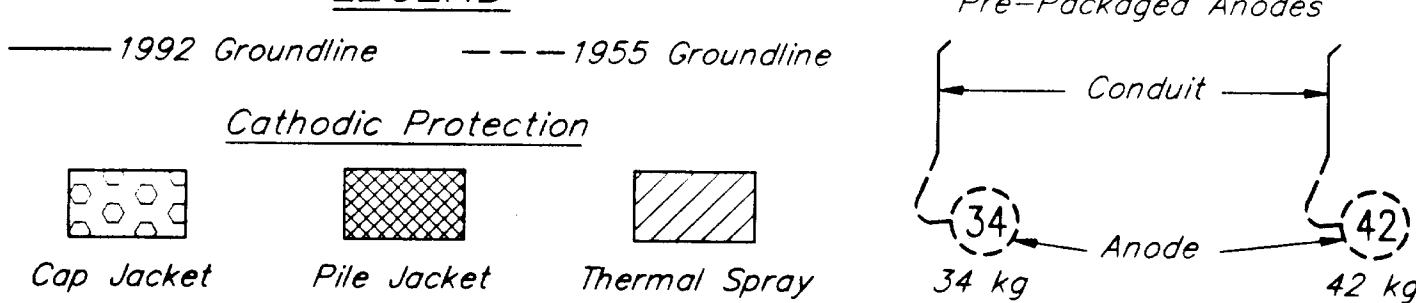
1 BENT 31
CP-3.24 SCALE:

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

- Concrete Repair North Face
- Concrete Repair South Face
- Concrete Repair North + South Face
- Concrete Repair on Bottom Surface
- Reference Electrode + System Negative
- Junction Box / Test Station + Positive Anode

N.T.S

LEGEND



NOTES

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- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 30
CP-3.24 SCALE:

N.T.S

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 31-30

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

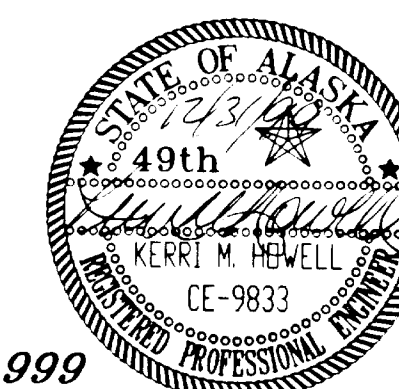
APPROVED BY:

J.S. TINNEA

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-3.24

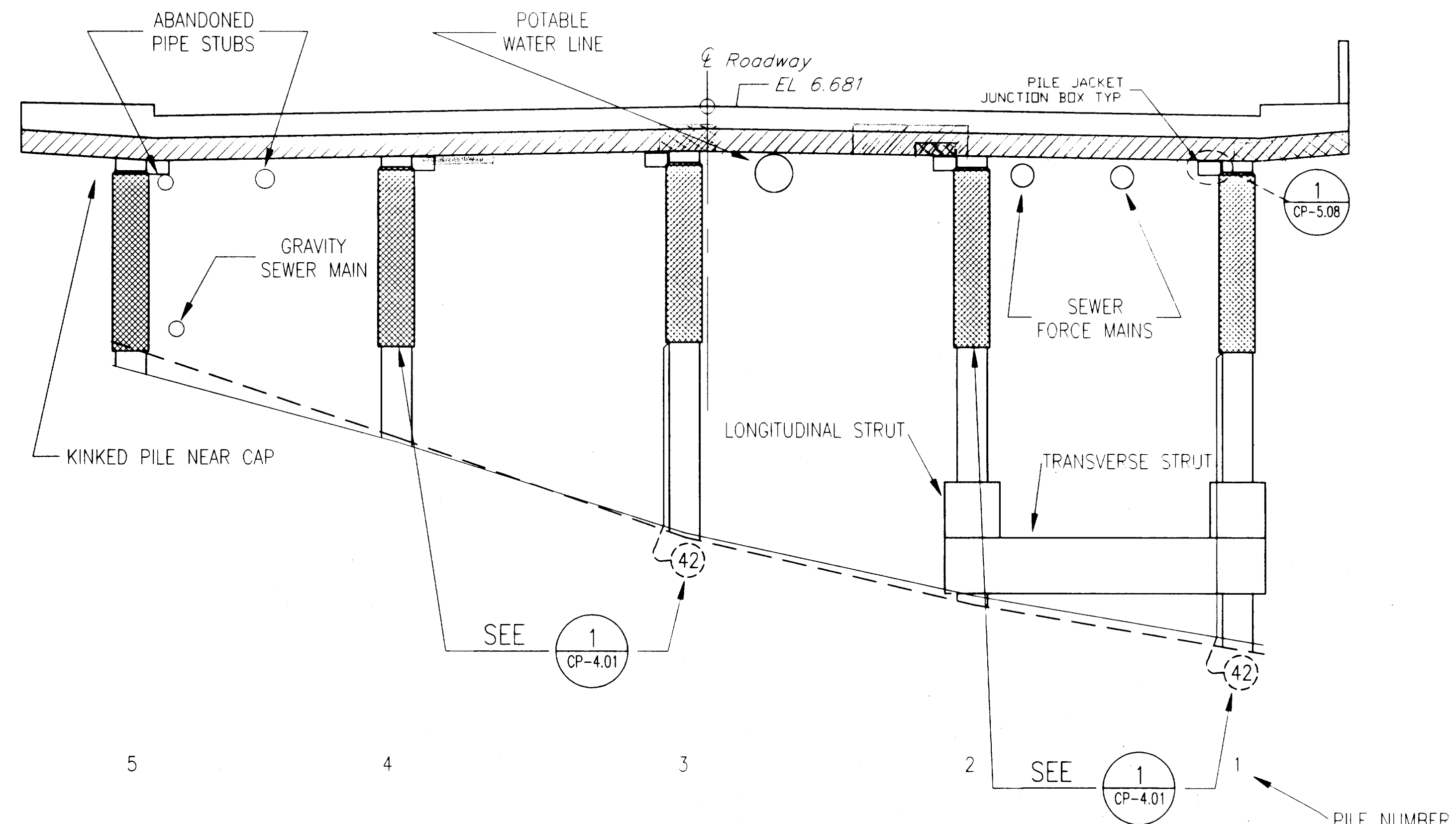
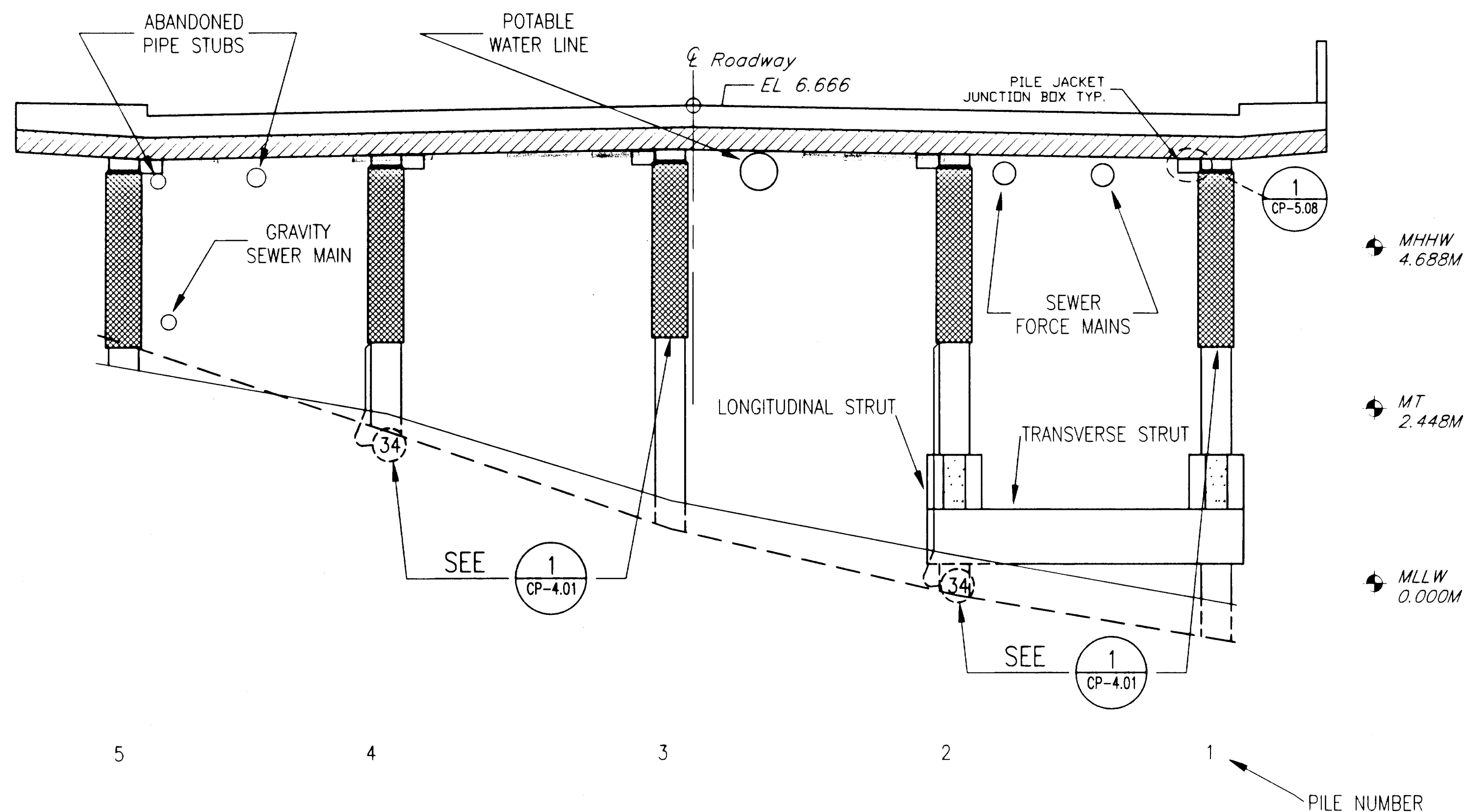
DATE:

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tinnea@compuserve.com

SHEET 58 OF 104

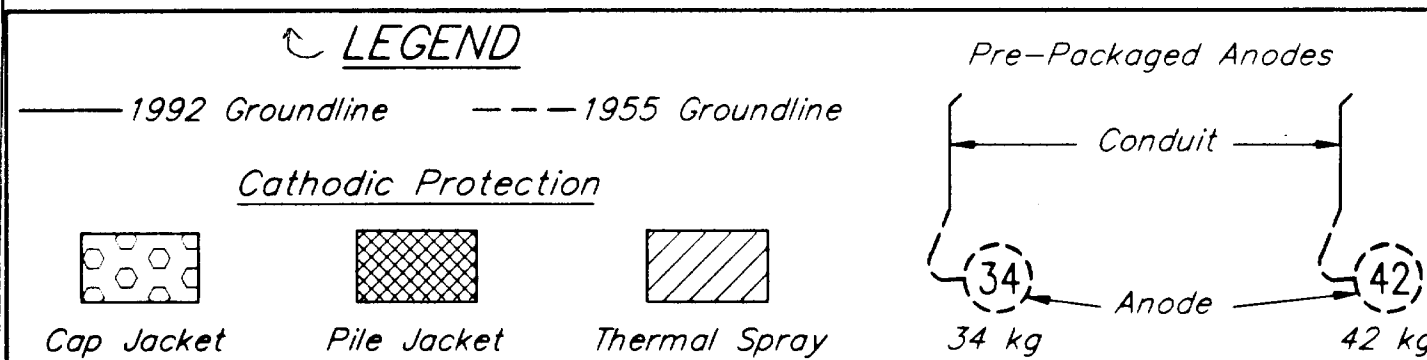
BRIDGE NO. 997



1 BENT 29
CP-3.25 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

- Concrete Repair:
- ☒ Repair on North Face
 - ☒ Repair on South Face
 - ☒ Both North + South Face
 - ☒ Bottom of Cap
 - ☒ System Negative
 - ☒ Positive Anode



NOTES

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- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 28
CP-3.25 SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

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DEPARTMENT OF TRANSPORTATION
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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN
KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 29-28

ALASKA
DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

DESIGNER:

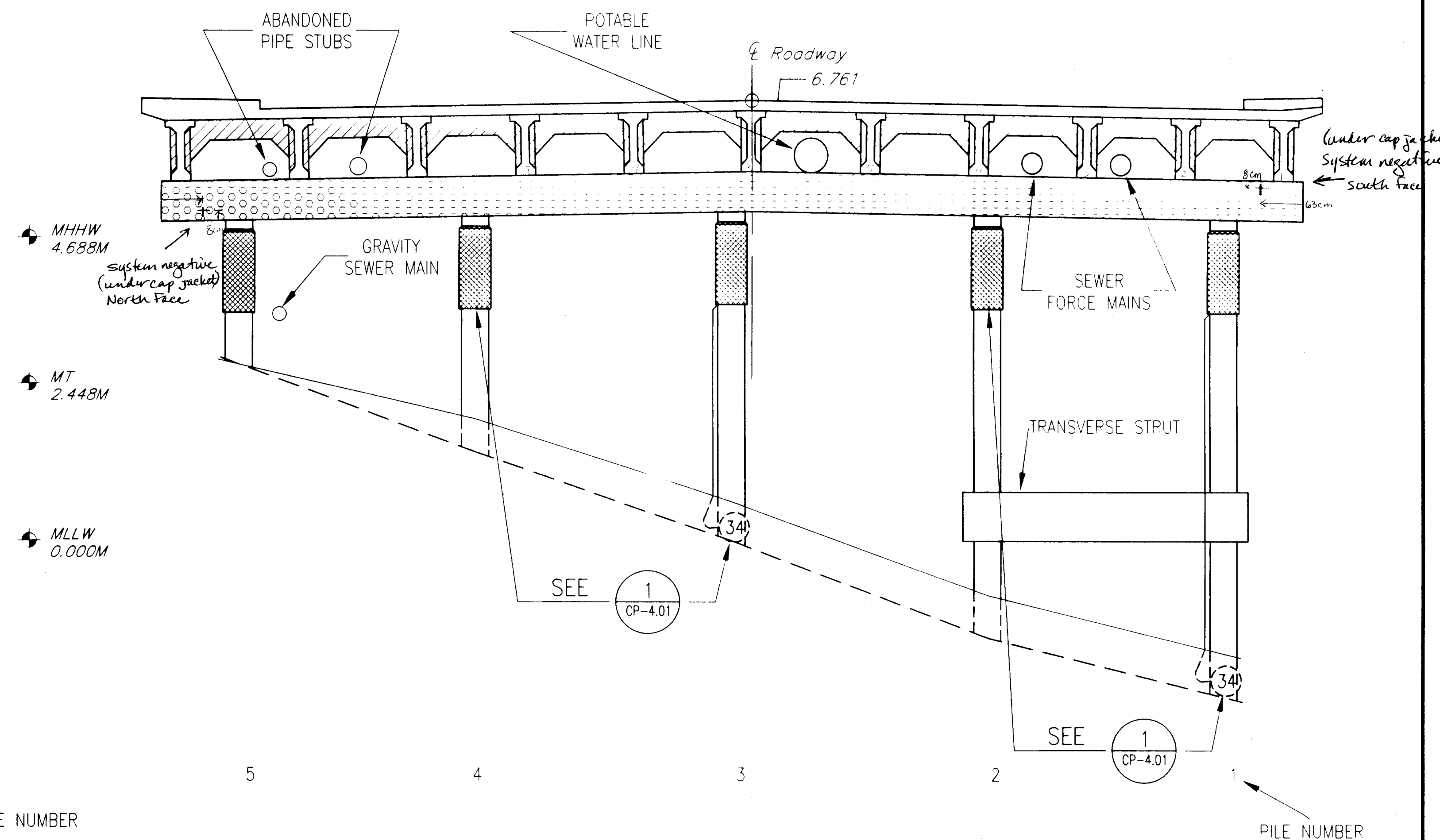
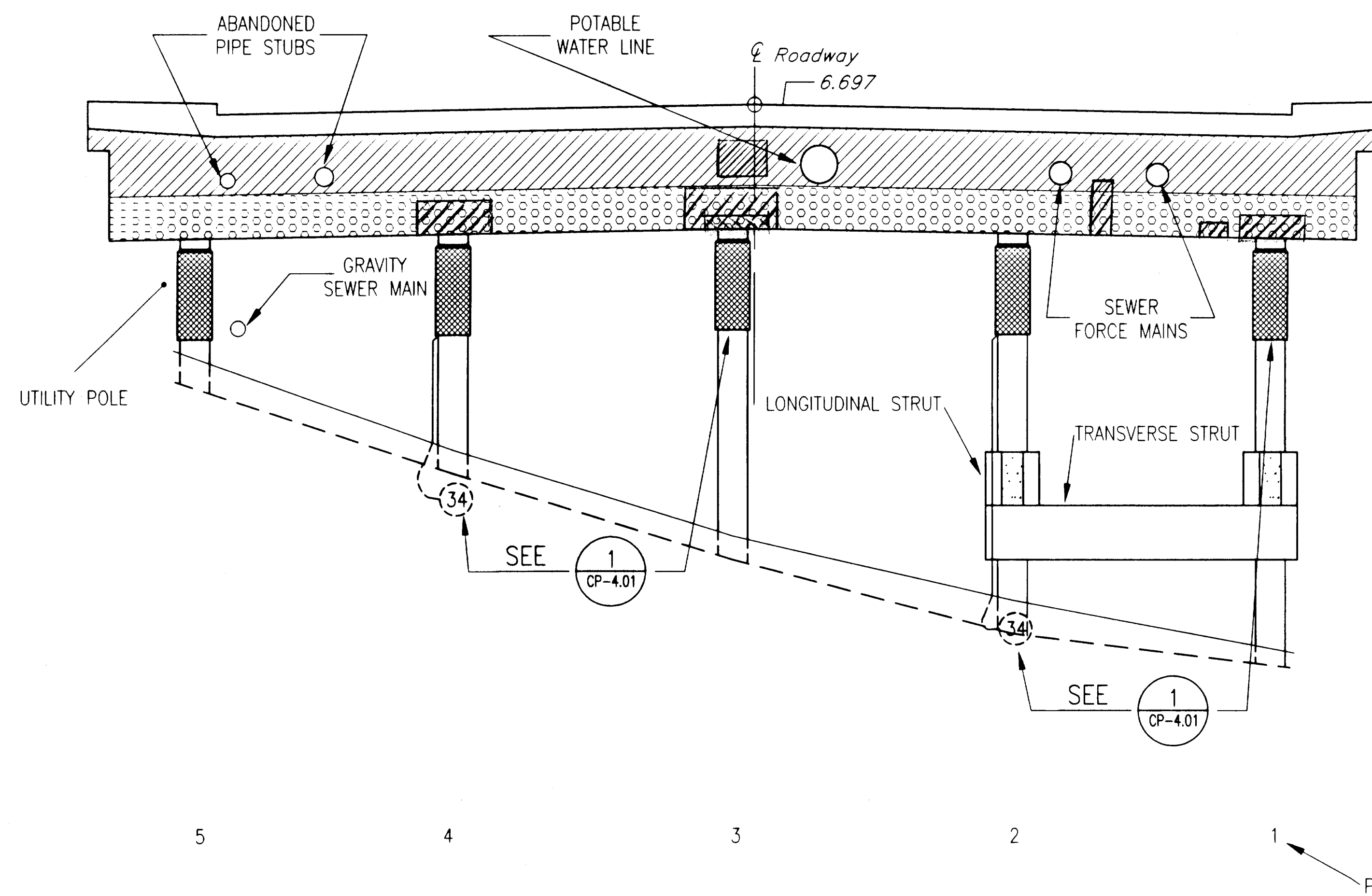
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CP-3.25

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tinnea@compuserve.com

DATE:
SEPTEMBER 15, 1999
SHEET 59 OF 104
BRIDGE NO. 997



1 BENT 27
CP-3.26

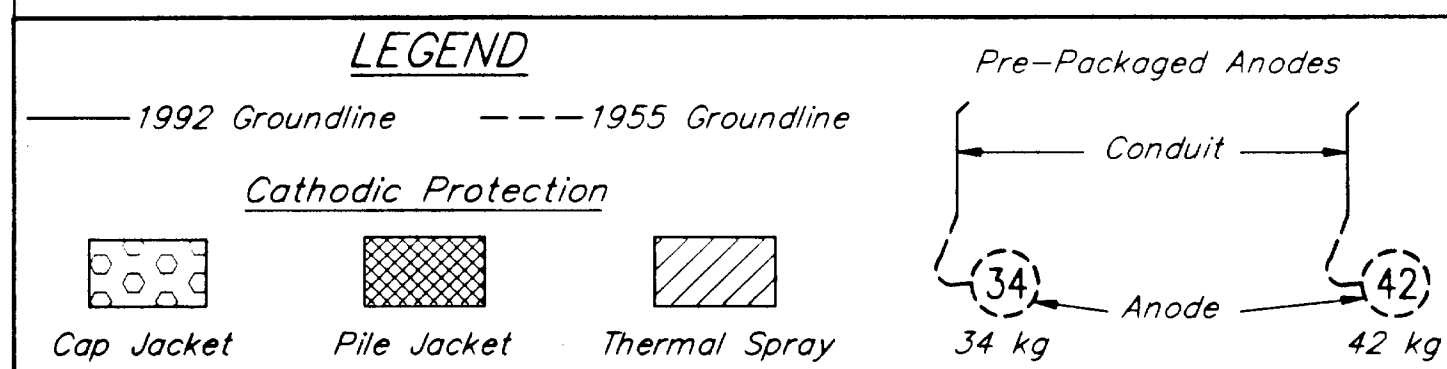
SCALE:

- Concrete Repair on North Face
- Concrete Repair on South Face
- Repair on both North & South Face
- Repair on bottom of cap
- Positive Anode
- System Negative

N.T.S

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



2 BENT 26
CP-3.26

SCALE:

N.T.S

NOTES

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DESIGNER:

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CP-3.26

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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 27-26

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

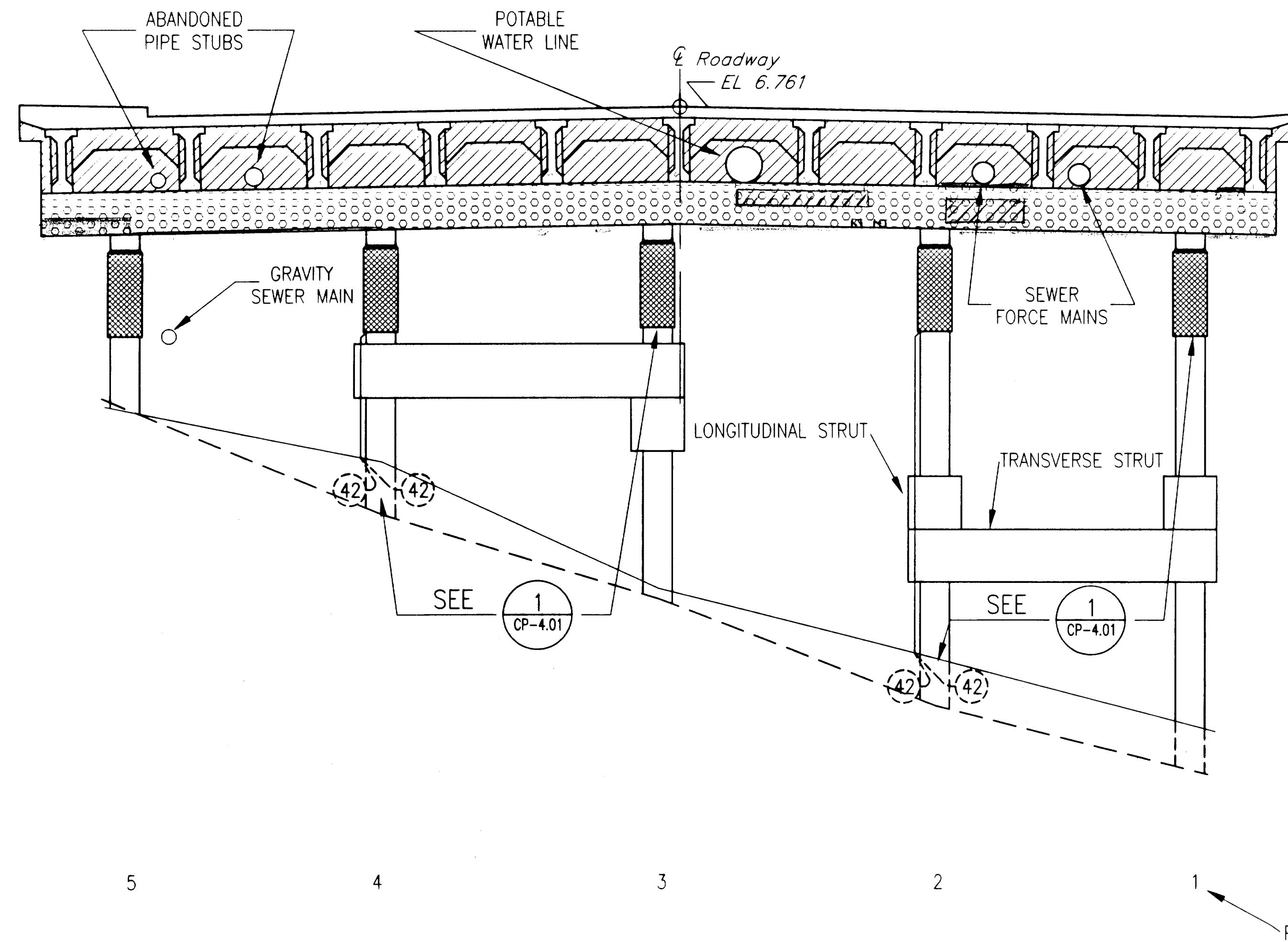
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PHONE: (206) 328-7872 FAX (206) 328-7916
tinneo@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 60 OF 104

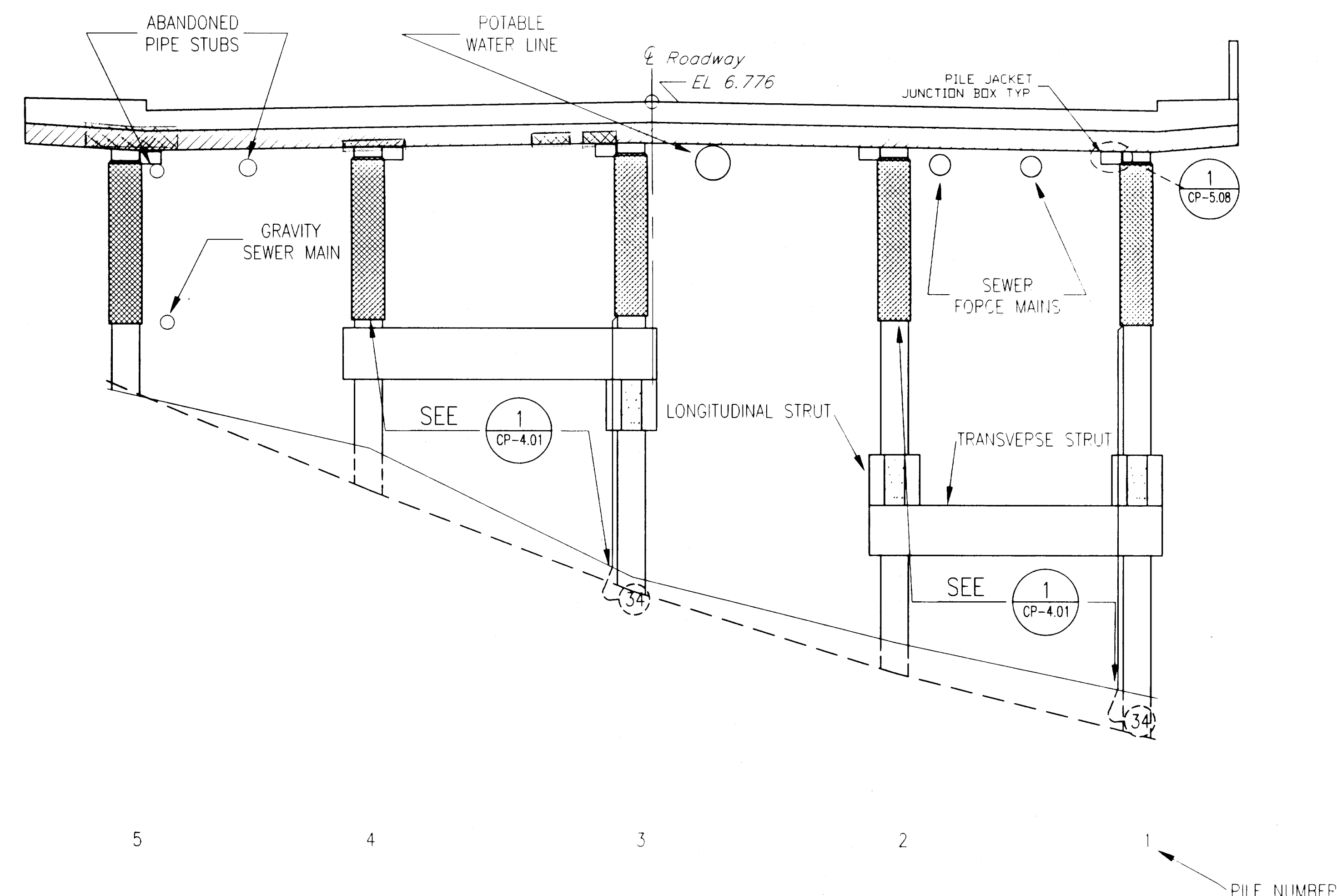
BRIDGE NO. 997



MHHW
4.688M

MT
2.448M

MLLW
0.000M



1 BENT 25
CP-3.27 SCALE:

- ☒ Concrete Repair on North Face
- ☒ Concrete Repair on South Face
- ☒ Repair both North & South Face
- ☒ Repair on bottom of Cap
- ☒ - System Negative
- ☒ Positive Anode

N.T.S

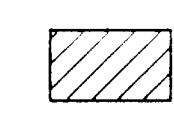
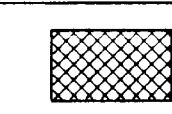
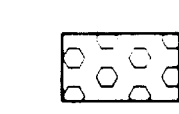
DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

LEGEND

— 1992 Groundline --- 1955 Groundline

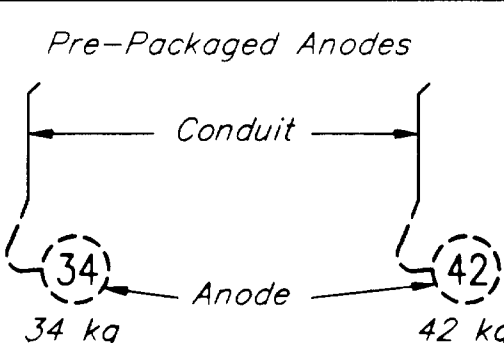
Cathodic Protection



Cap Jacket

Pile Jacket

Thermal Spray



NOTES

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2 BENT 24
CP-3.27 SCALE:

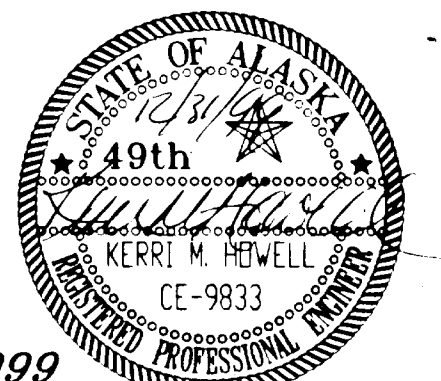
N.T.S

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
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ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES:

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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 25-24

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

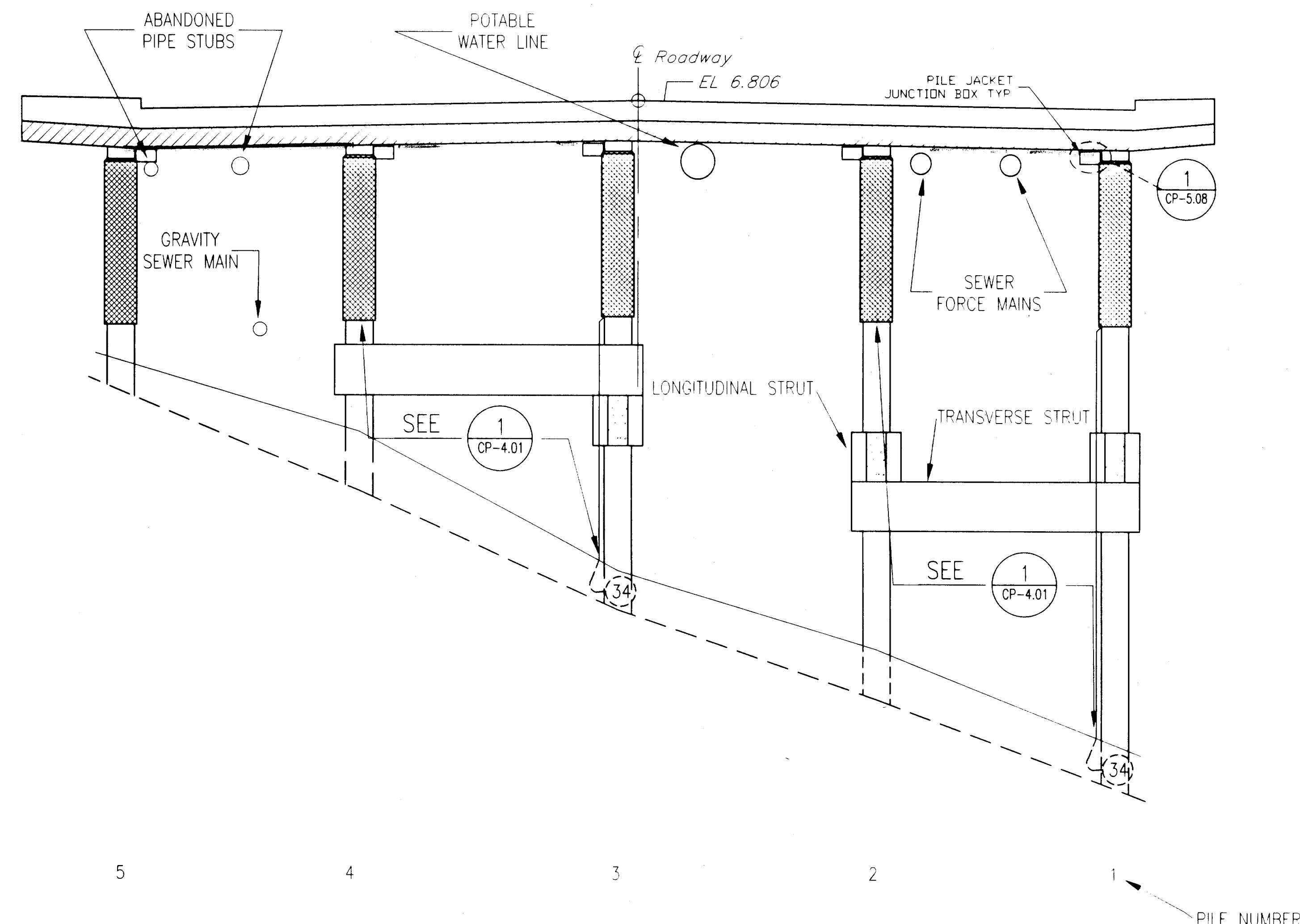
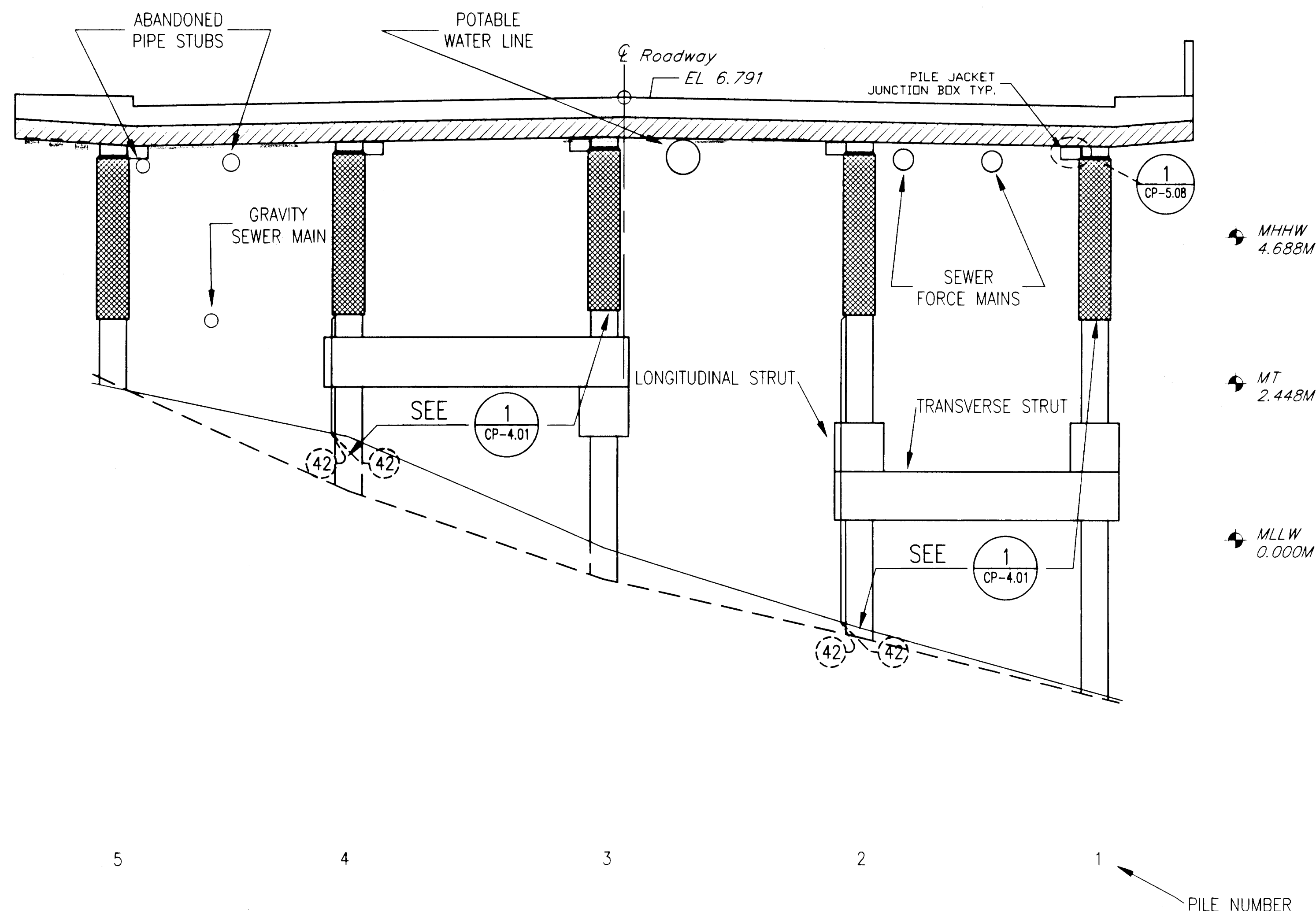
INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 6/ OF 104

BRIDGE NO. 997



1 BENT 23

CP-3.28

SCALE: N.T.S.

Concrete Repairs:

- ☒ On North Face
- ☒ South Face
- ☒ Both North & South Face
- ☒ On bottom of CAP
- ☒ System Negative
- ☒ Positive Anode

2 BENT 22

CP-3.28

SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

LEGEND

— 1992 Groundline --- 1955 Groundline

Cathodic Protection

Cap Jacket Pile Jacket Thermal Spray

Pre-Packaged Anodes

Conduit

Anode 34 kg Anode 42 kg

NOTES

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DESIGNER:

EXPIRES: DEC. 31, 1999

CP-3.28

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

KETCHIKAN
KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 23-22

ALASKA

DESIGNED BY: K.M. HOWELL

CHECKED BY: D.R. HELGESON

APPROVED BY: J.S. TINNEA

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976 - 20TH AVENUE SEATTLE, WA 98122

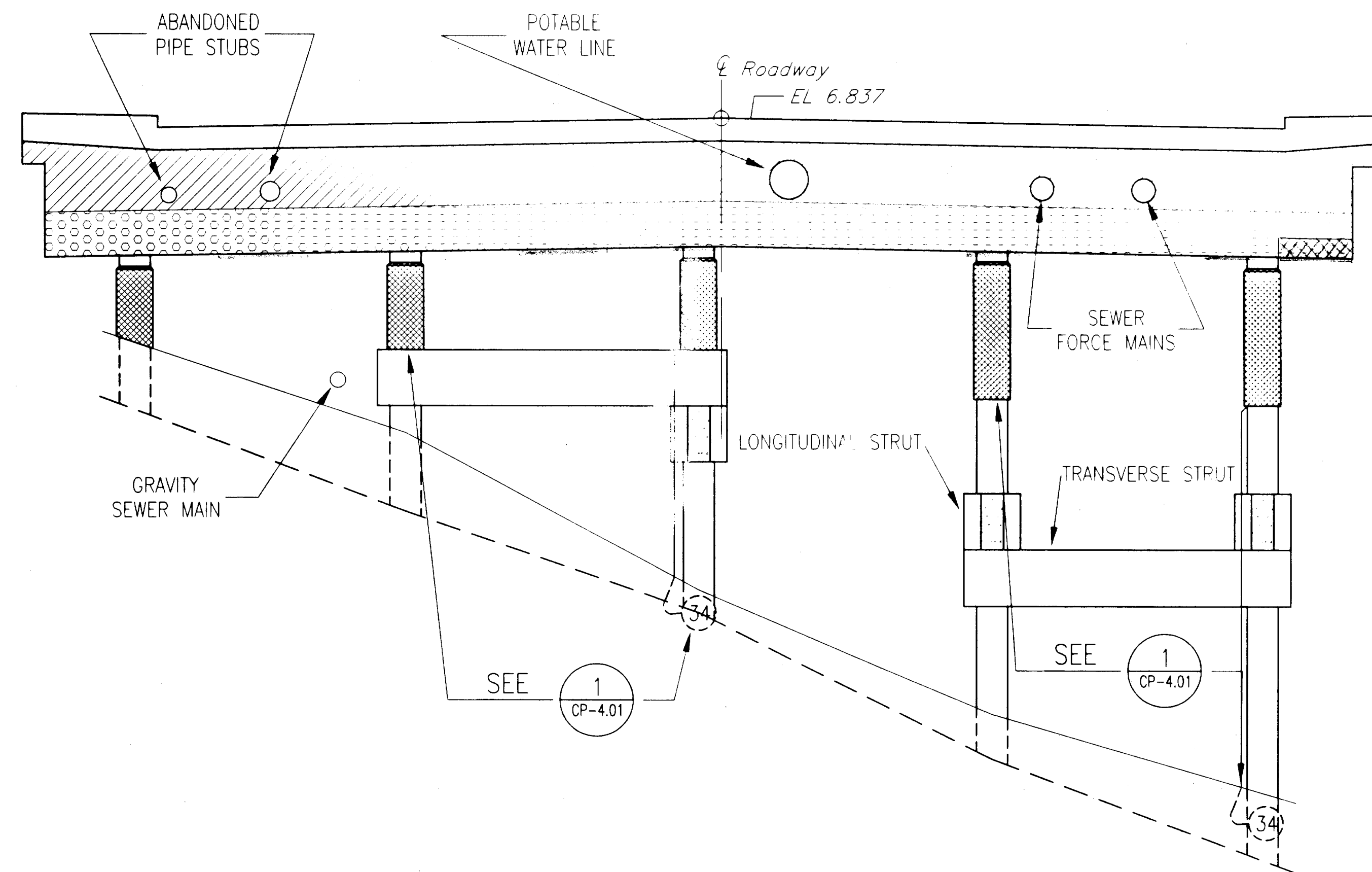
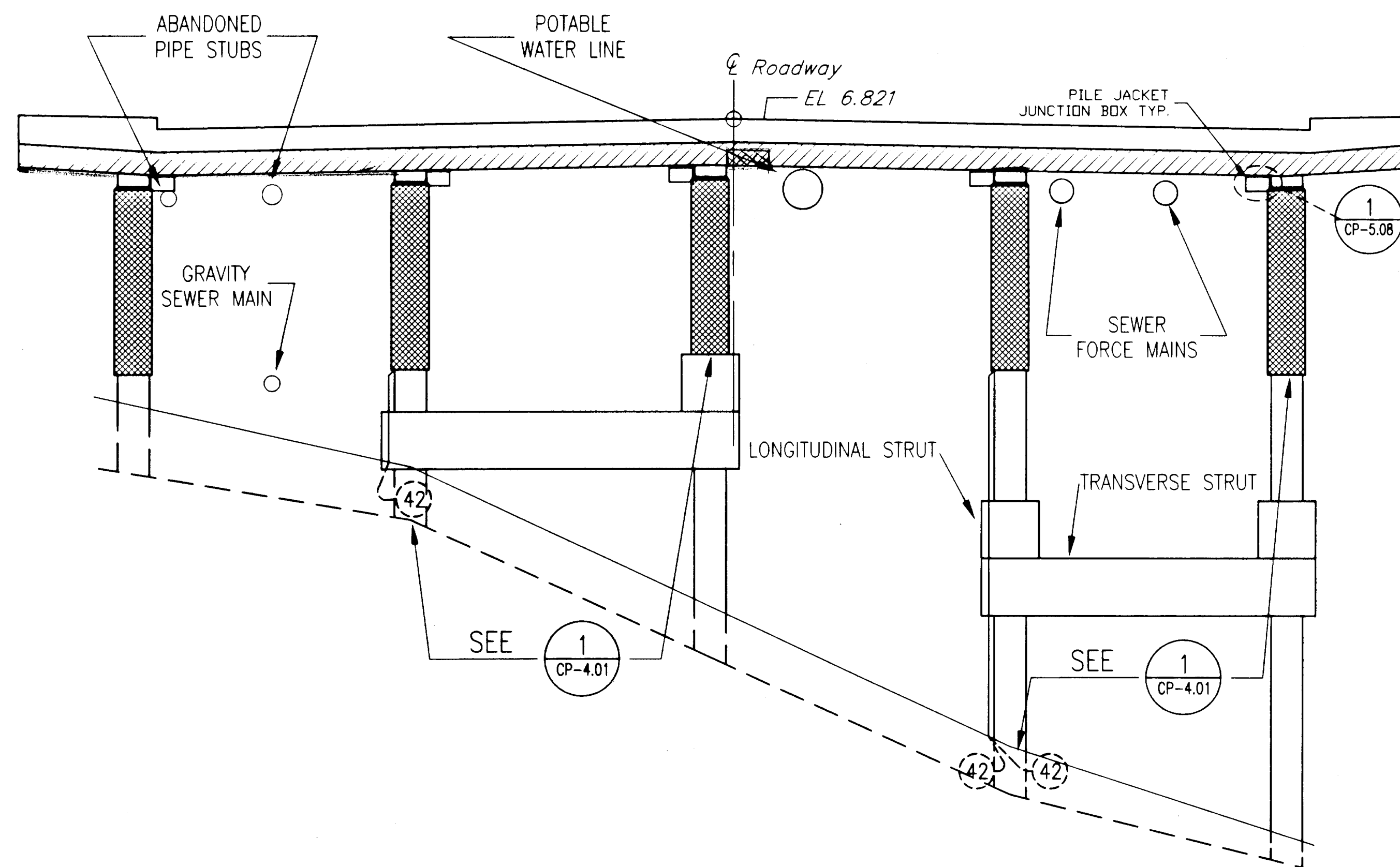
PHONE: (206) 328-7872 FAX (206) 328-7916

tinnea@compuserve.com

DATE: SEPTEMBER 15, 1999

SHEET 62 OF 104

BRIDGE NO. 997

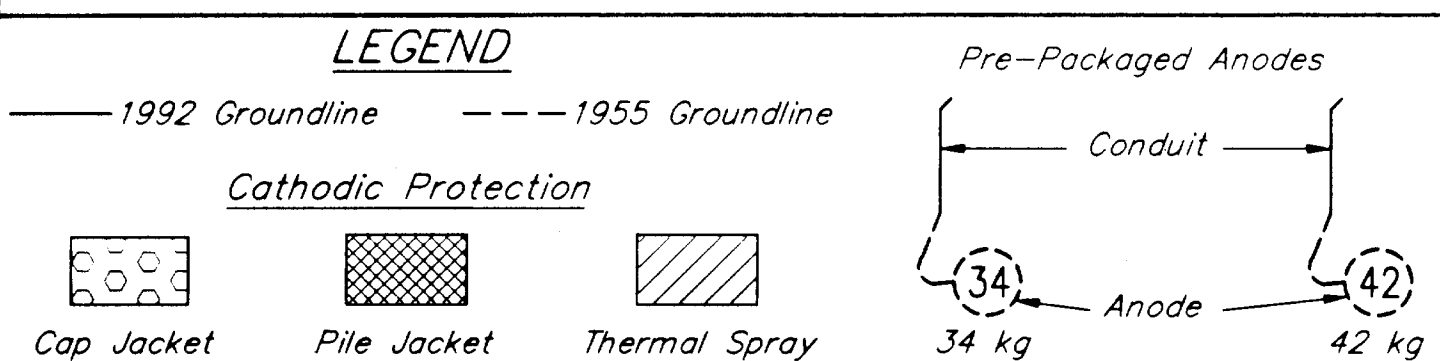


1 BENT 21
CP-3.29 SCALE: N.T.S.

2 BENT 20
CP-3.29 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

- Concrete Repair:**
- ☒ North Face
 - ☒ South Face
 - ☒ North + South Face
 - ☒ On bottom of Cap
 - ☒ System Negative
 - ☒ Positive Anode



NOTES

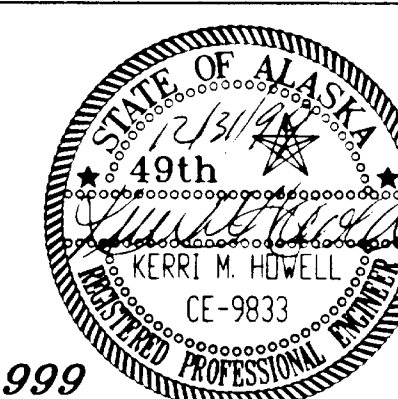
- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
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ORDERING OR FABRICATING ANY MATERIAL.

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PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

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KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 21-20

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

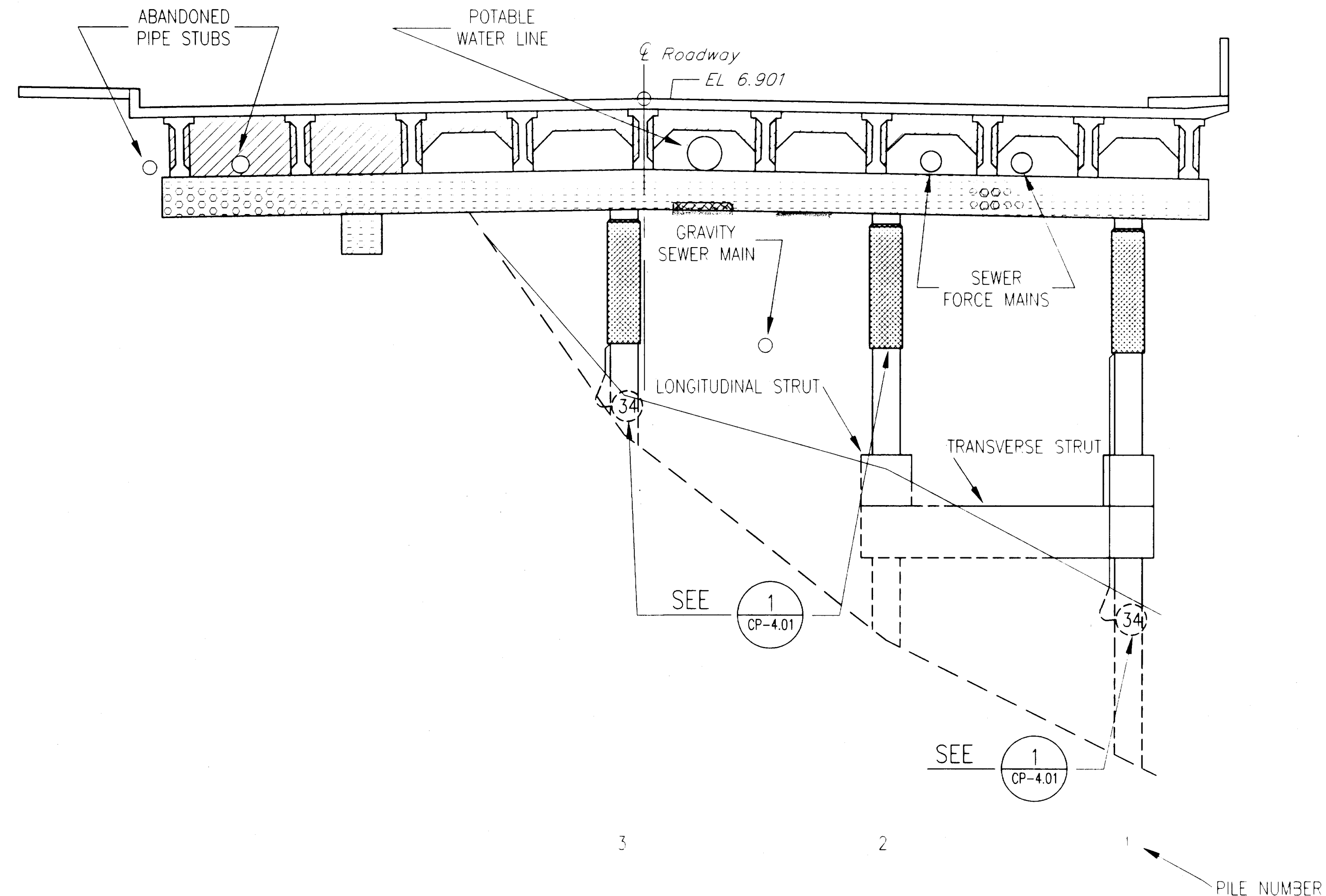
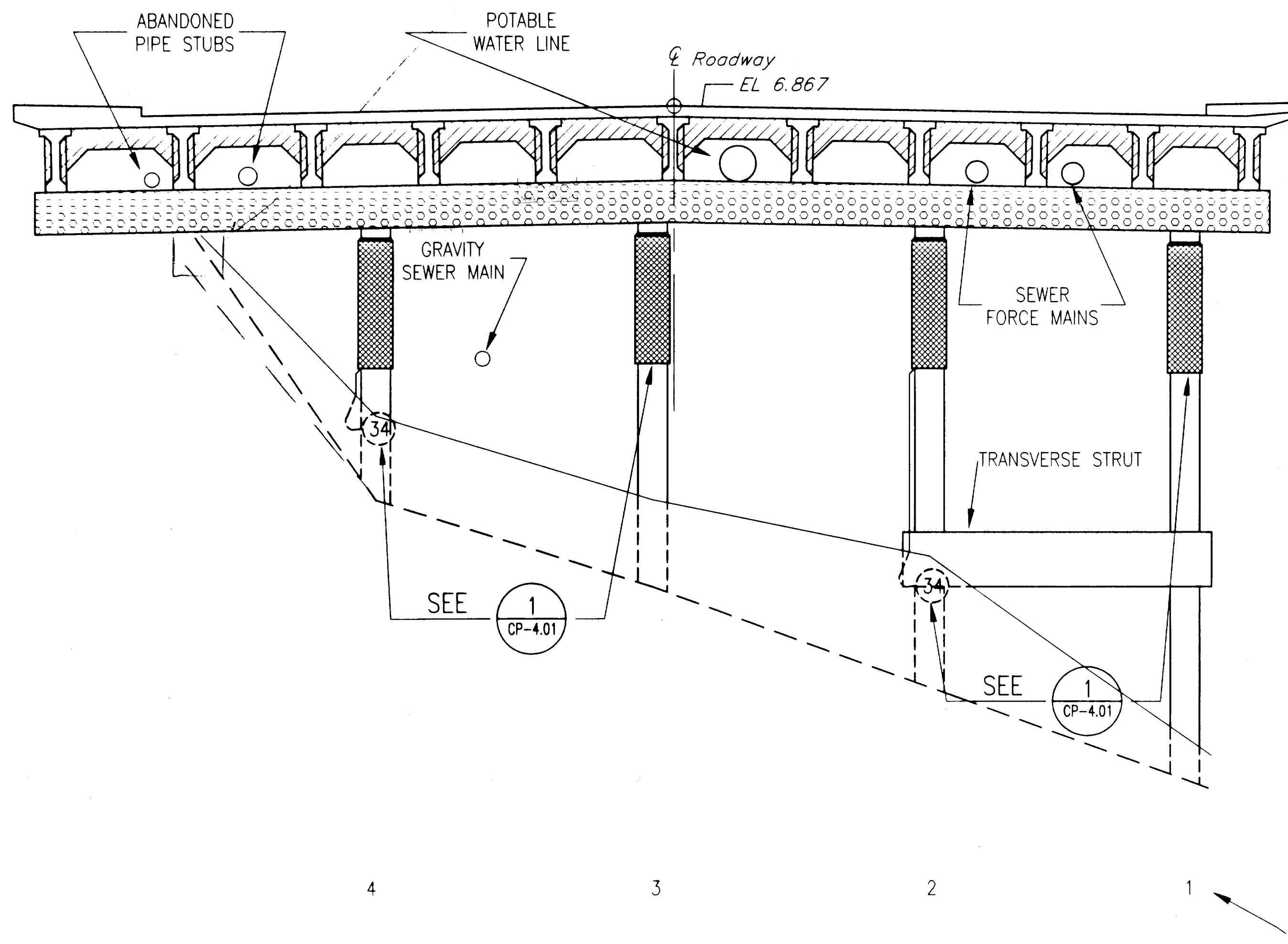
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tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 63 OF 104

BRIDGE NO. 997



1 BENT 19
CP-3.30 SCALE: N.T.S.

2 BENT 18
CP-3.30 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

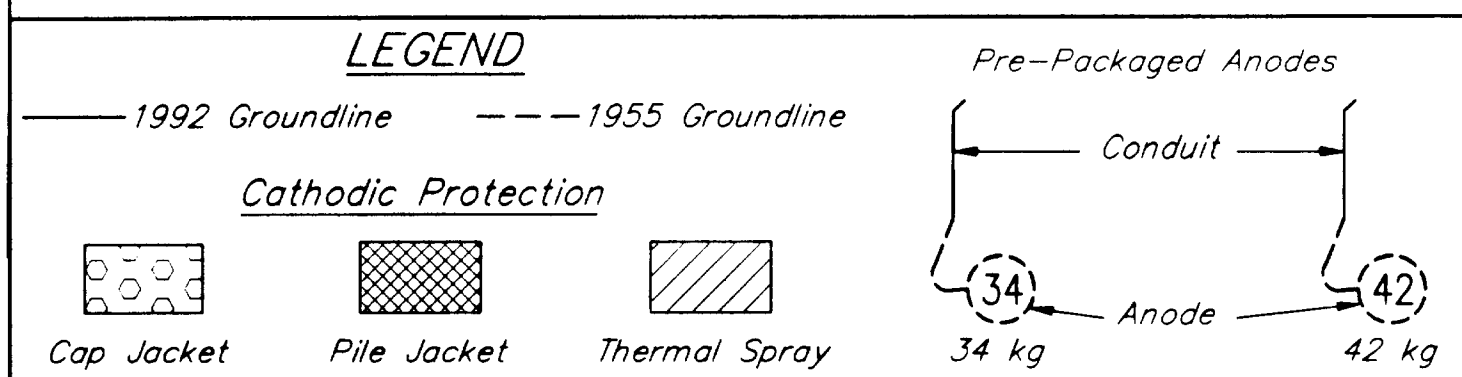
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KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 19-18

ALASKA

DESIGNED BY: K.M. HOWELL

CHECKED BY: D.R. HELGESON

APPROVED BY: J.S. TINNEA

DESIGNER:

EXPIRES: DEC. 31, 1999

DATE: SEPTEMBER 15, 1999

SHEET 64 OF 104

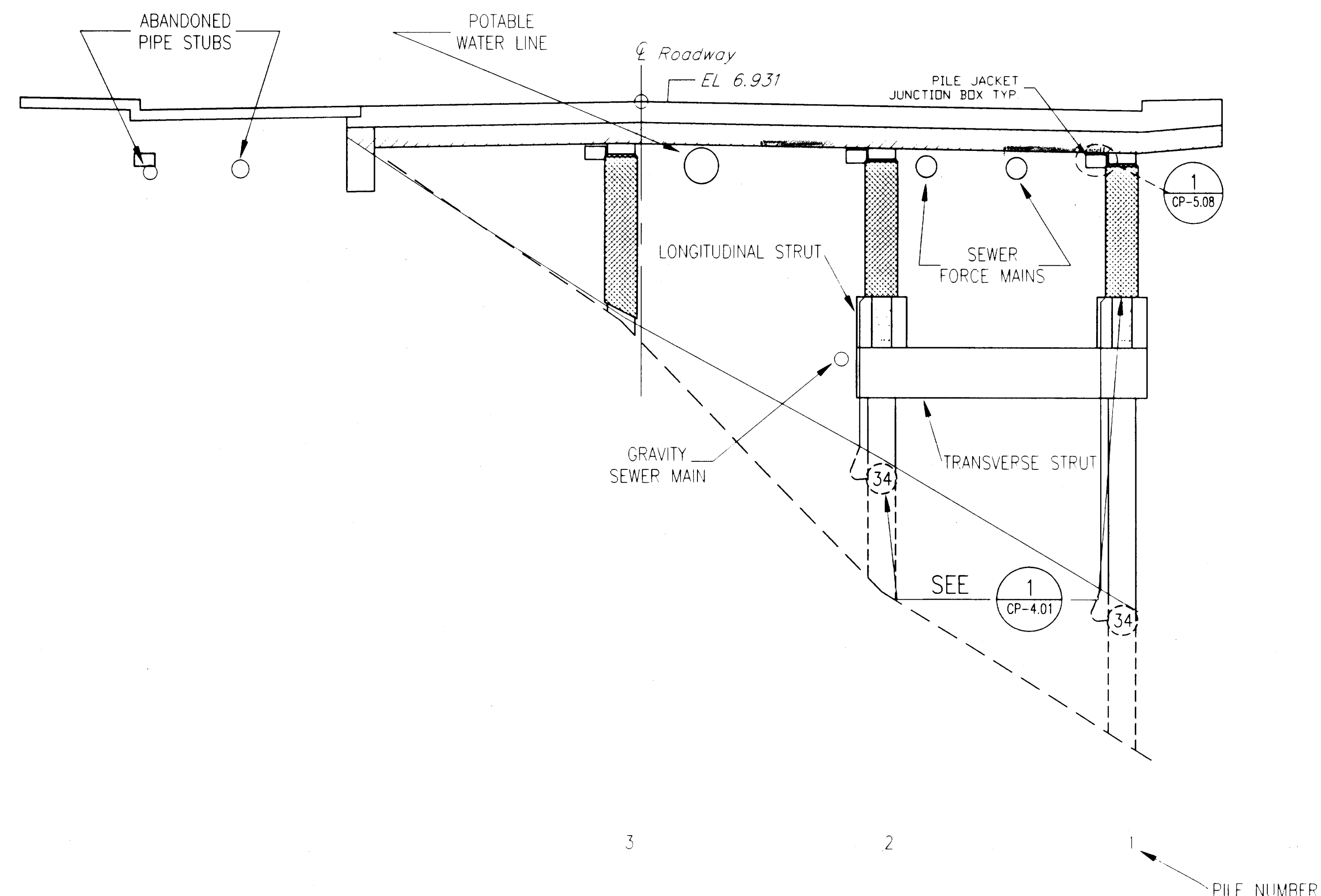
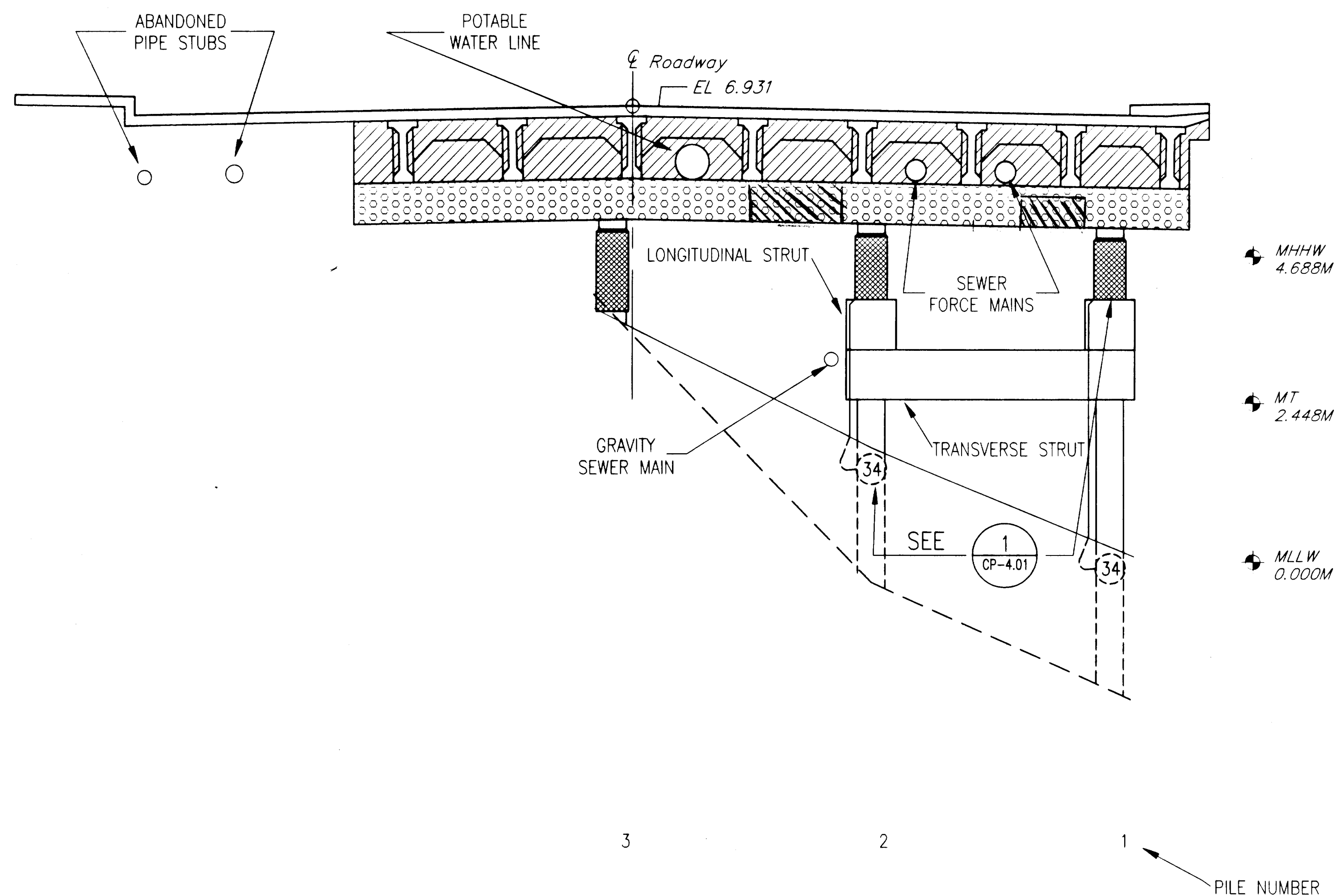
BRIDGE NO. 997

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tinnea@compuserve.com

NOTES

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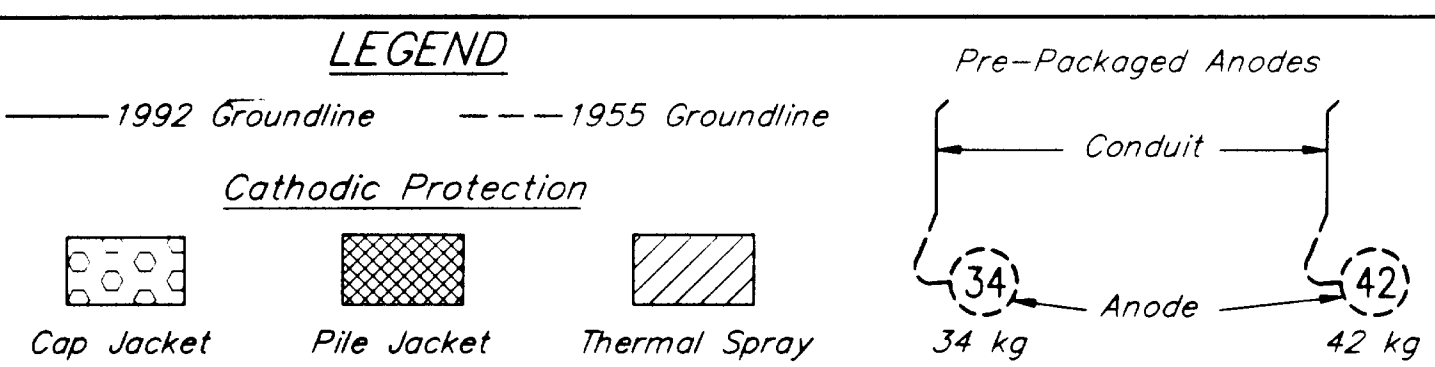


1 BENT 17
CP-3.31 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

- Concrete Repairs
- North Face
 - South Face
 - Both North & South Face
 - Bottom of Cap
- System Negative
- Positive Anode



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
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- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

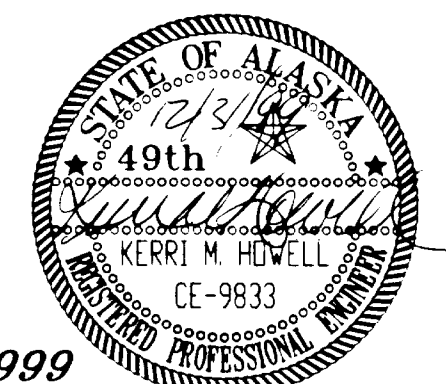
2 BENT 16
CP-3.31 SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-3.31

PATH: P:\KTN\71111\DR\CP3-31.DWG

PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 17-16

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

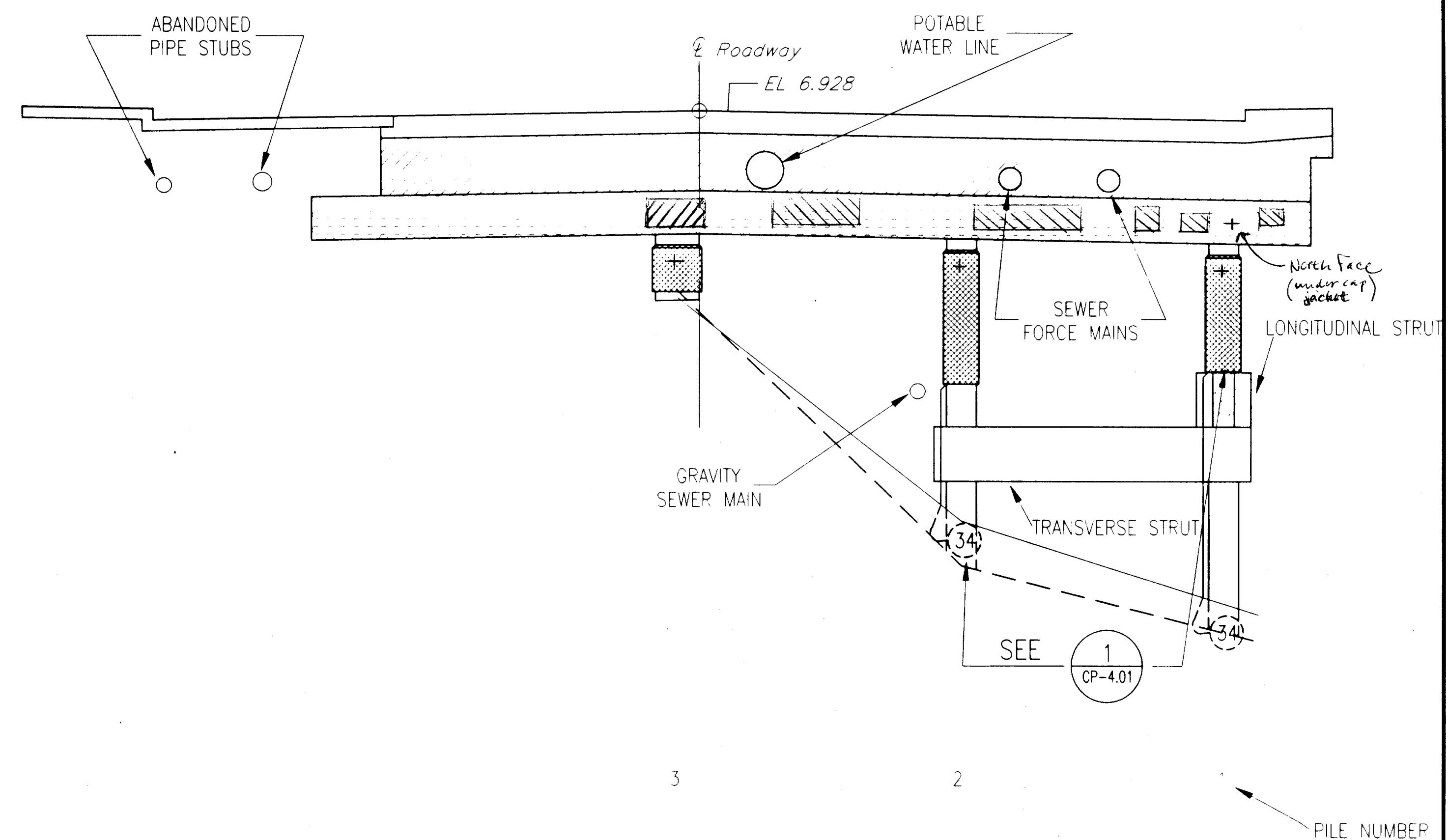
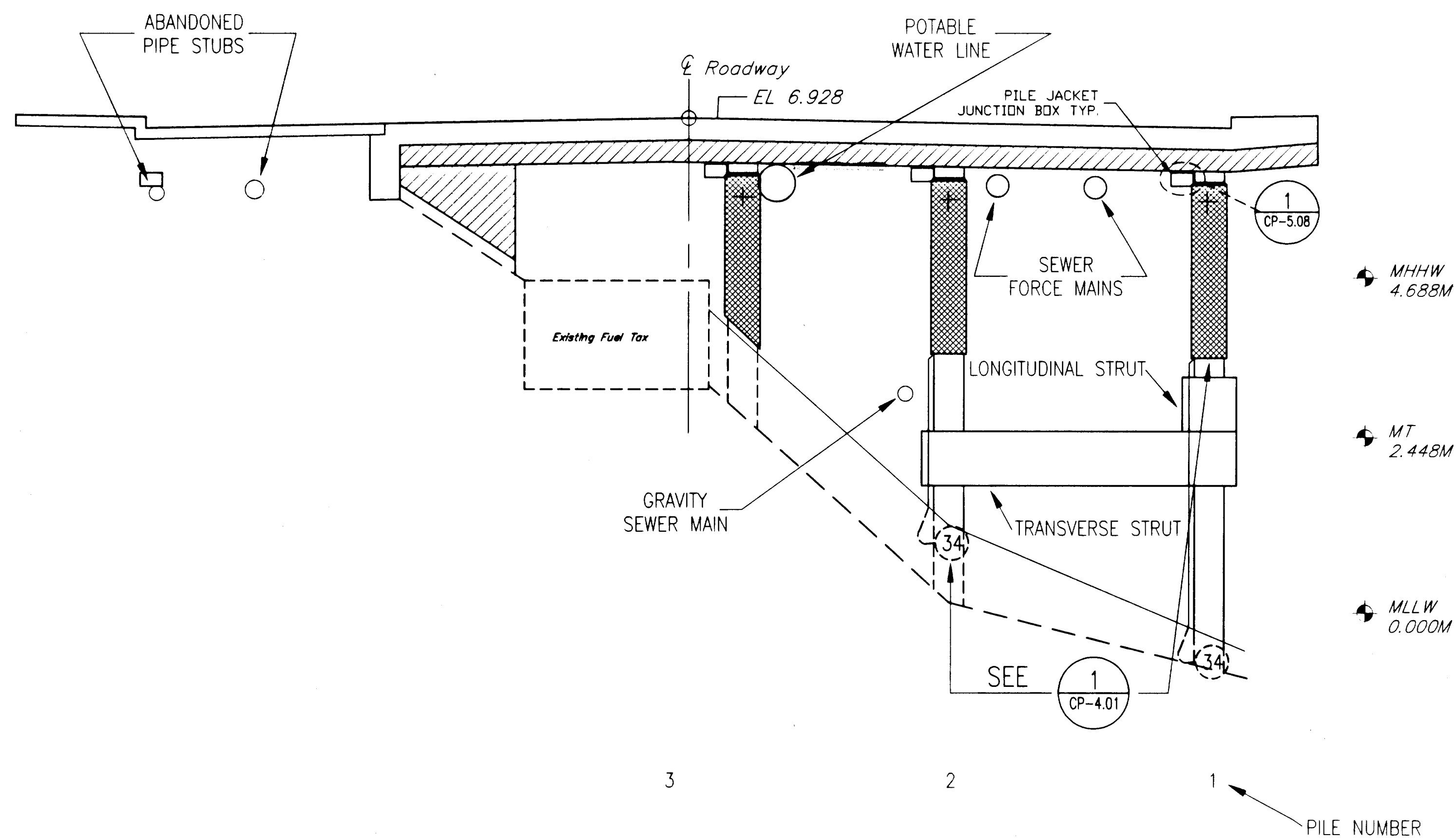
INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 65 OF 104

BRIDGE NO. 997

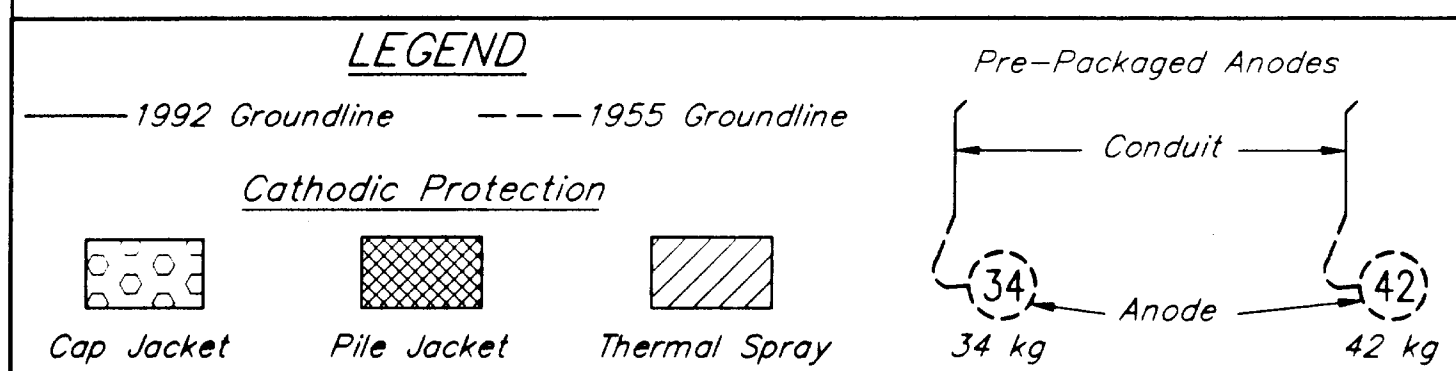


1 BENT 15
CP-3.32 SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

Concrete Repair:
 [Hatched] North Face
 [Hatched] South Face
 [Hatched] North + South Face
 [Hatched] Bottom of Cap
 + System Negative
 + Positive Anode

RECORD OF REVISIONS		
DATE	BY	COMMENT



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 14
CP-3.32 SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:



CP-3.32

EXPIRES:
DEC. 31, 1999

PATH: P:\KTN\71111\DR\CP3-32.DWG

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PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 15-14

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

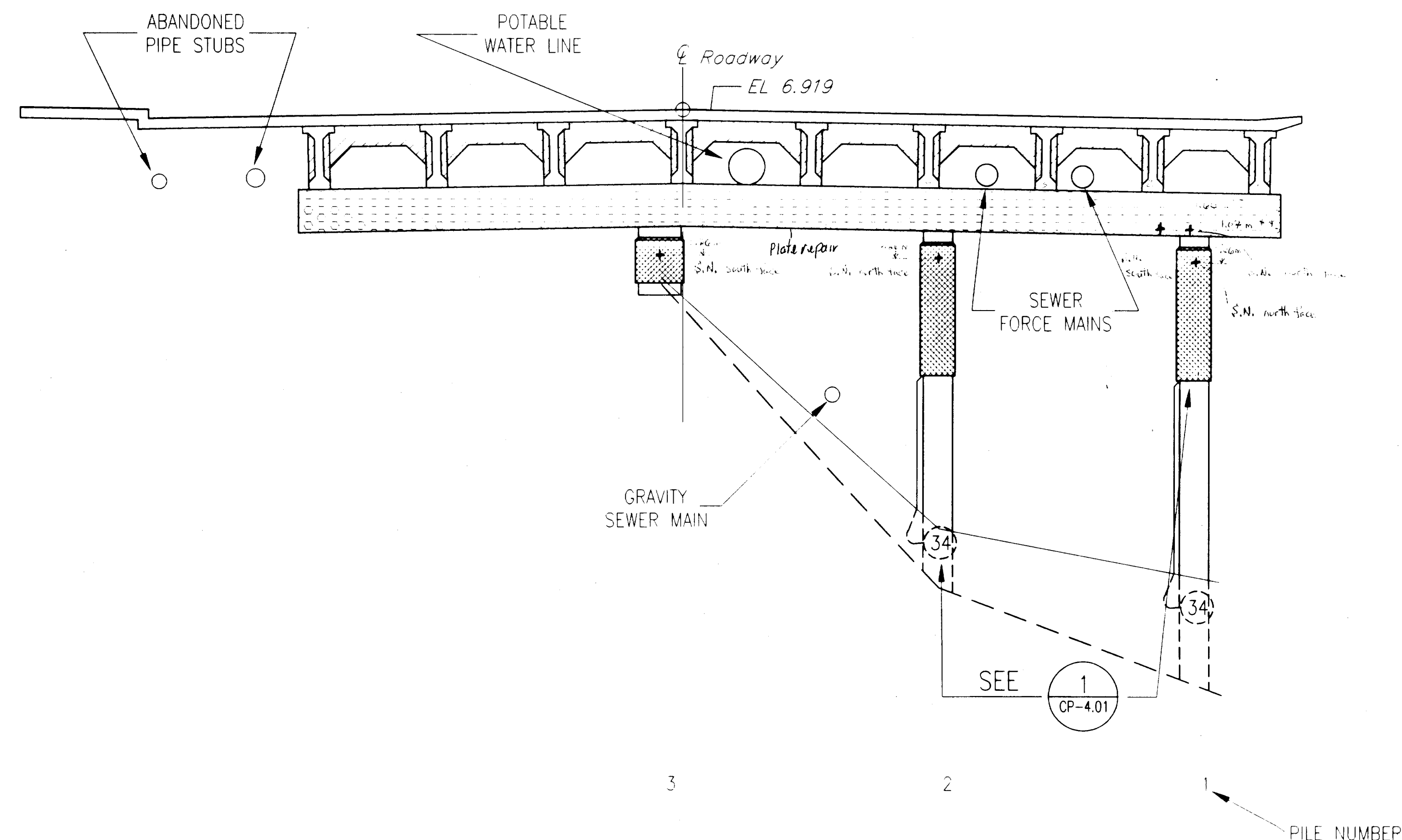
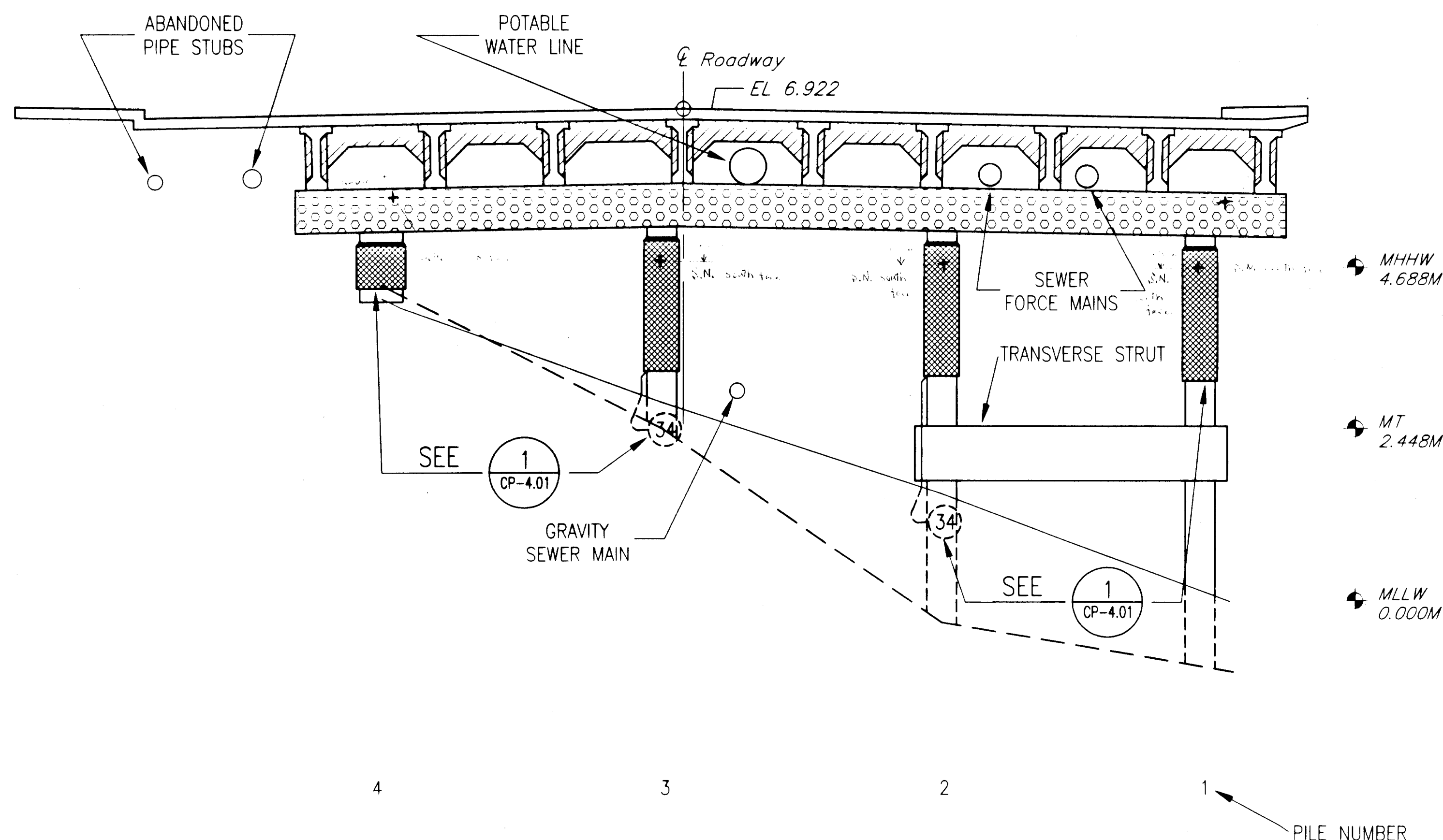
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tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 66 OF 104

BRIDGE NO. 997

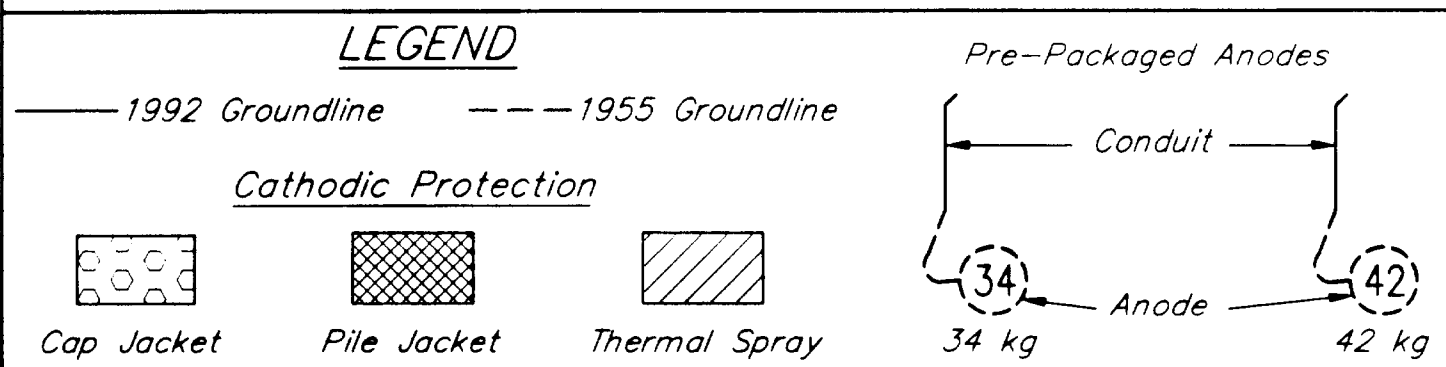


1 BENT 13
CP-3.33

SCALE: ☒ System Negative (S.N.) N.T.S.
☒ Positive Anode (PA)

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



NOTES

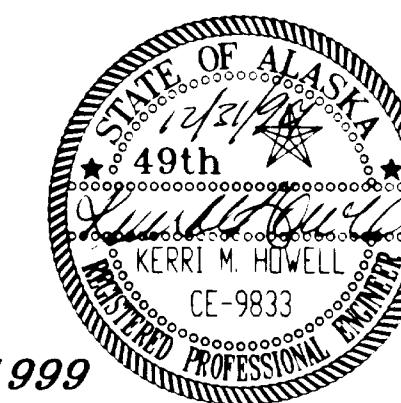
- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
- REFER TO DETAILS FOR DIMENSIONS.
- FOR UNDERSIDE OF DECK REFER TO THERMAL SPRAY DETAIL 1/CP-5.03.

2 BENT 12
CP-3.33

SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE
BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL
VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:



CP-3.33

EXPIRES:

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PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

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AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENTS 13-12

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

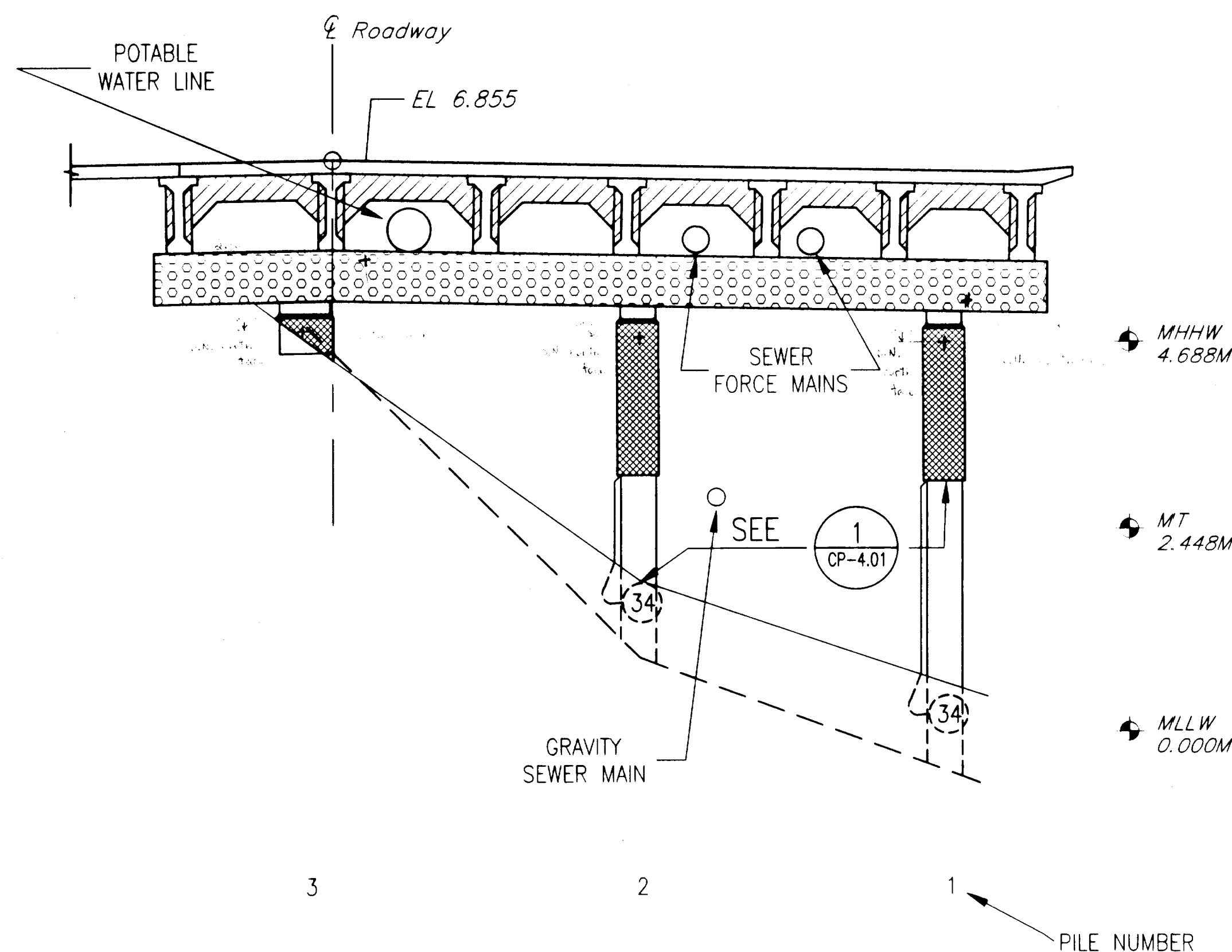
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tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

SHEET 67 OF 104

BRIDGE NO. 997



1. Negative values shown in 1/3 in.

* Attached to upper section note.

** Attached to lower section note.

1 BENT 11

CP-3.34

SCALE:

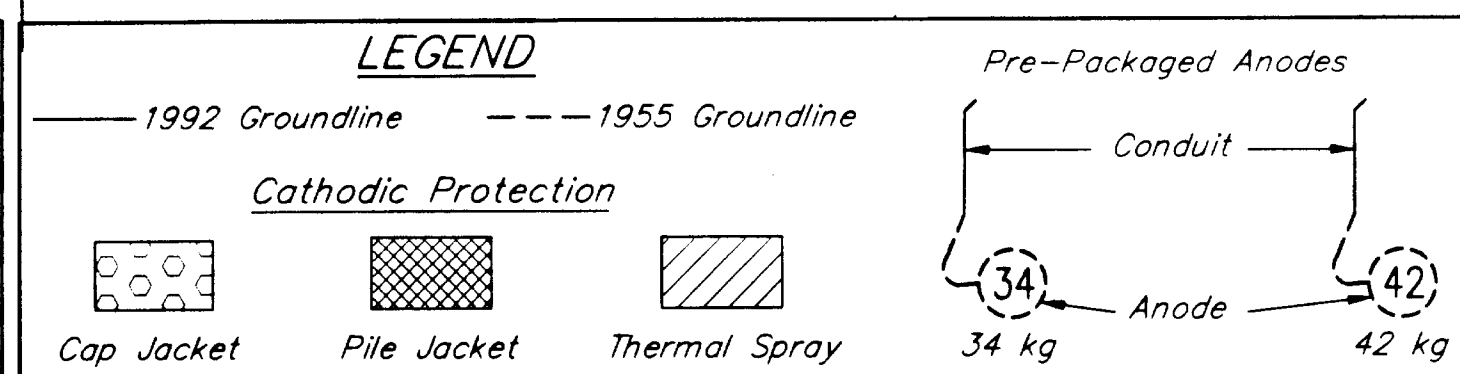
⊕ - SN = System Negative

⊕ - PA = Positive Anode

N.T.S

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



NOTES

- CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
- IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
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DESIGNER:

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KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ELEVATION VIEW- BENT 11

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

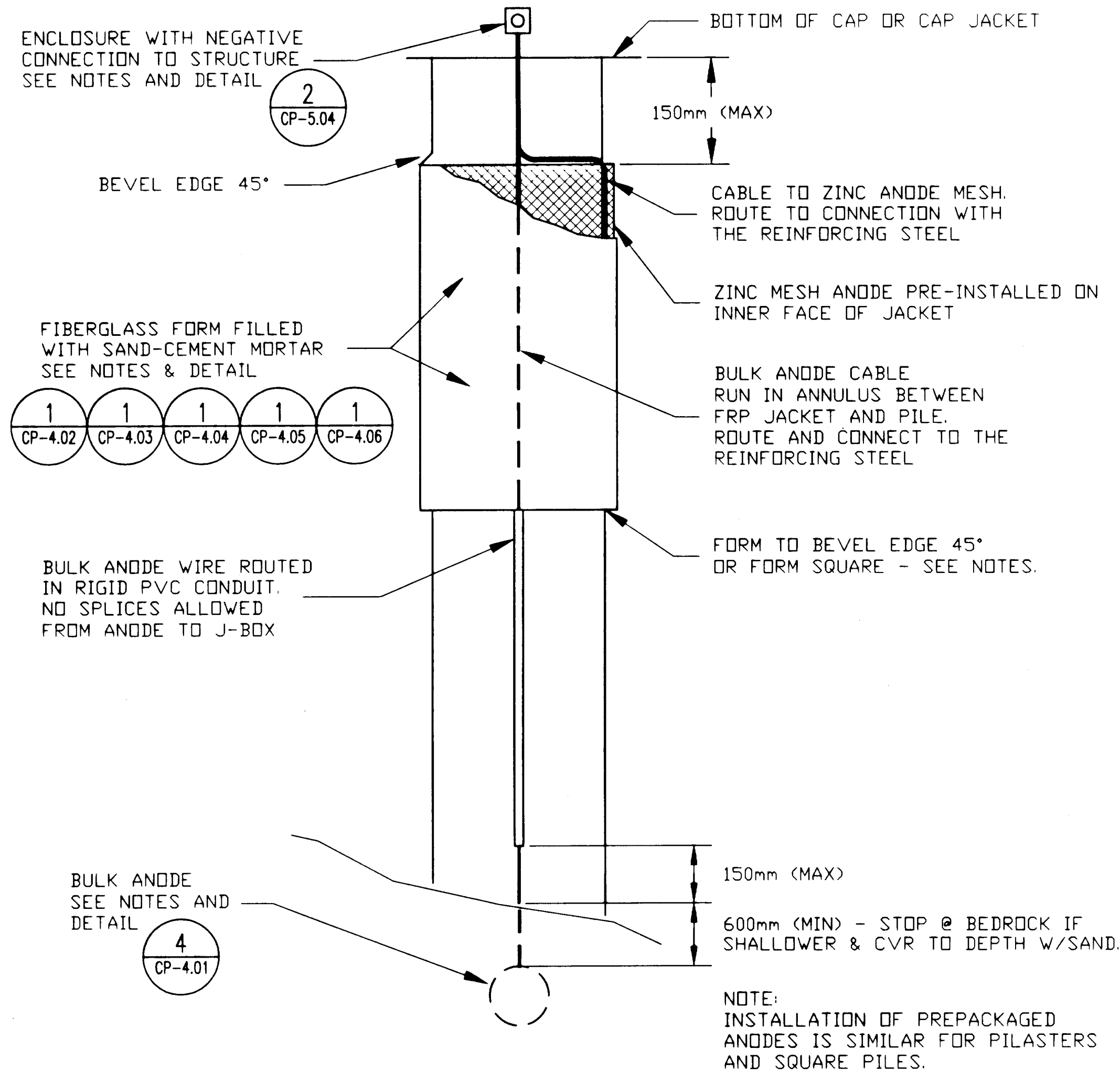
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DATE:

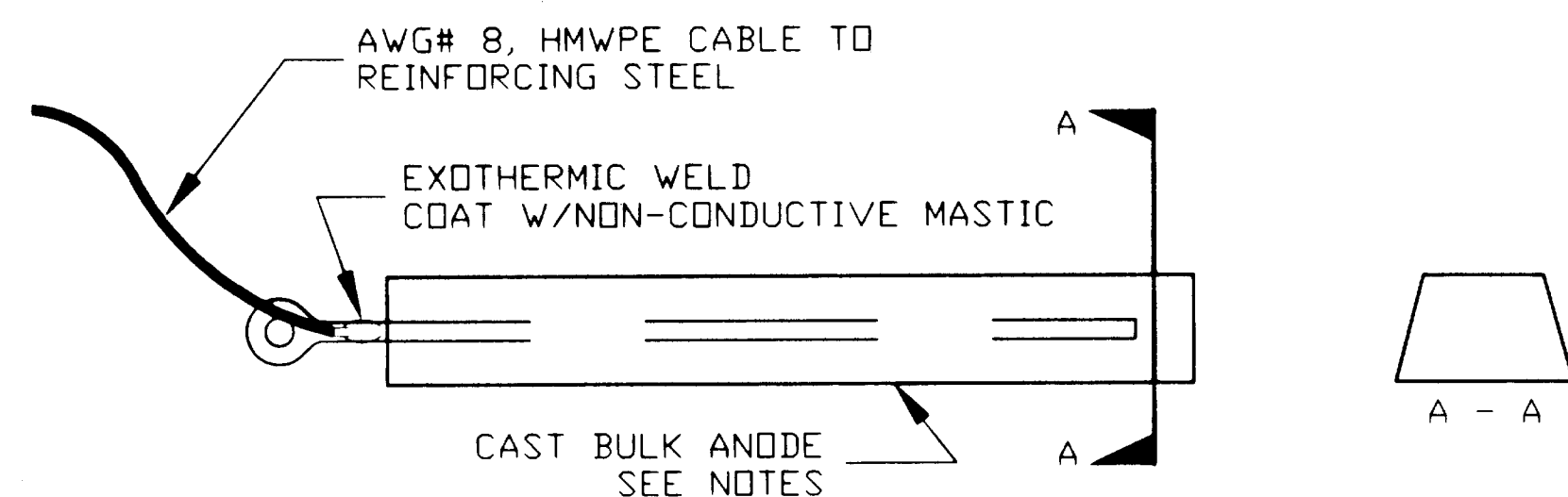
SEPTEMBER 15, 1999

SHEET 68 OF 104

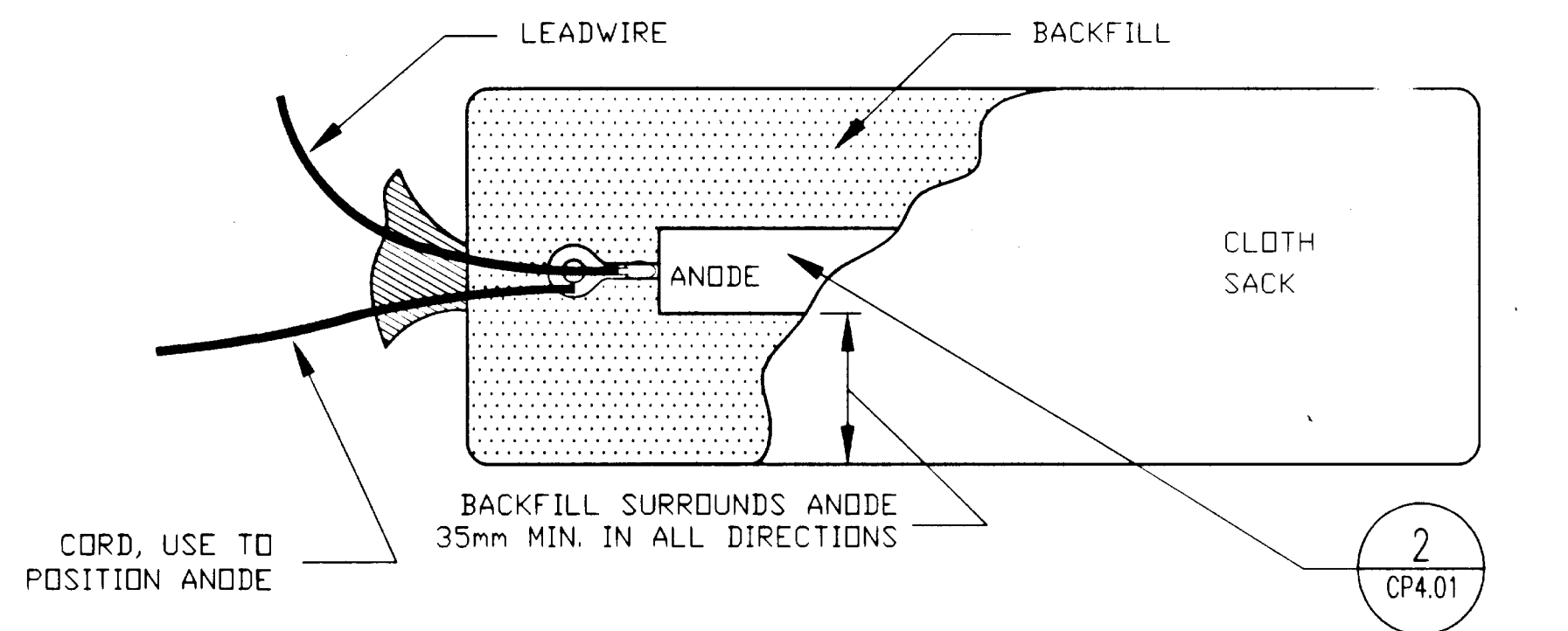
BRIDGE NO. 997



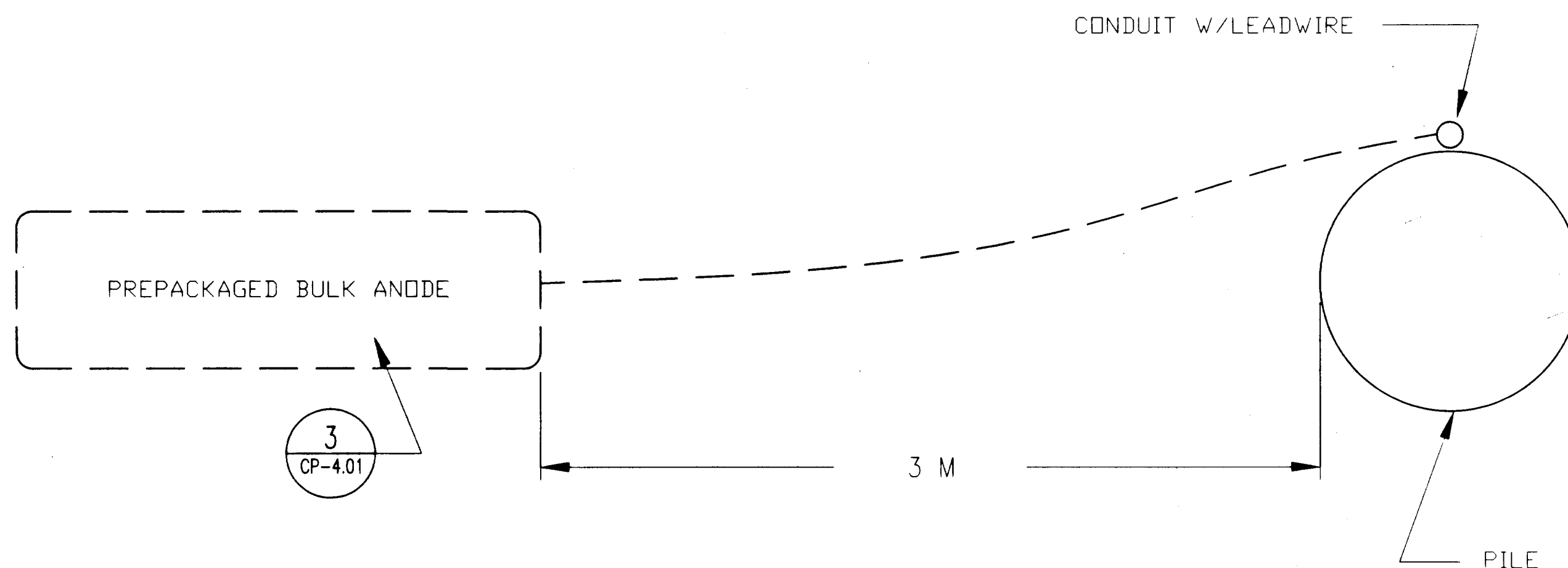
1 JACKET ANODE ELEVATION
CP-4.01 SCALE: N.T.S.



2 JACKET BULK ANODE
CP-4.01 SCALE: N.T.S.



3 BULK ANODE PREPACKAGING
CP-4.01 SCALE: N.T.S.



4 BULK ANODE PLAN VIEW
CP-4.01 SCALE: N.T.S.

NOTES

- THE CONTRACTOR SHALL OBTAIN APPROVAL OF THE ENGINEER FOR THEIR MIX DESIGN AND PLACEMENT PLAN A MINIMUM OF 10 WORKING DAYS PRIOR TO CONCRETING.
- THE JACKETS AS INSTALLED SHALL CONFORM THE THE PILE THEY SURROUND. THE CONTRACTOR SHALL USE STRONGBACKS AND WALES TO PREVENT THE FIBERGLASS JACKETS FROM BOWING OR DISTORTING DURING CONCRETING OPERATIONS. ANY JOINTS BETWEEN THE FIBERGLASS JACKET AND CONTRACTOR SUPPLIED FORMWORK SHALL NOT LEAK OR BURST DURING CONCRETING OPERATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING FORMWORK AT THE BOTTOM OF THE FIBERGLASS JACKET.
- THE SEAMS OF THE FIBERGLASS JACKET SHALL NOT LEAK OR BURST DURING CONCRETING OPERATIONS.
- IT IS CRITICAL THAT THE MORTAR BE FULLY CONSOLIDATED AND ENCASE THE EXPANDED ZINC MESH.
- ALL VIBRATING MUST BE PERFORMED BY WORKERS EXPERIENCED IN THE PLACEMENT OF ARCHITECTURAL CONCRETE.
- USE HAND TOOLS TO BEVEL TOP EDGE OF MORTAR. FORMWORK USED AT THE BOTTOM MAY PRODUCE EITHER A SQAUE OR 45° BEVEL EDGE THAT MIRRORS THE TOP EDGE SHOW IN DETAIL 1/CP4.01. THE BOTTOM MORTAR EDGE SHALL BE SQUARE AND FREE FROM BUG HOLES, HONEYCOMBING OR OTHER PLACEMENT DEFECTS.
- THE JACKET ANODE SHALL BE OF A TYPE WITH A MINIMUM OF 5-YEARS DOCUMENTED SUCCESSFUL PERFORMANCE, SUCH AS AN ALLTRISTA LIFEJACKET OR ENGINEER APPROVED EQUAL.
- WHERE POSSIBLE, RUN THE BULK ANODE CABLE AND CONDUIT ON THE LEEWARD (SHORE) SIDE OF THE PILES.
- SECURE THE CONDUIT TO CIP PILES OR PILASTERS WITH HOT DIP GALVANIZED STEEL CONDUIT CLAMPS AND GALVANIZED STEEL ANCHORS (1.5M O.C.). NEATLY COAT EXPOSED STEEL WITH A POLYURETHANE COATING SUITABLE FOR SALTWATER IMMERSION SERVICE.
- SECURE THE CONDUIT TO PRESTRESSED PILES WITH LOCKING NYLON TIES (MIN 25mm WIDTH). USE COLLARS OR HUBS GLUED TO CONDUIT TO SECURE TIES AGAINST VERTICAL SLIPPAGE. SET TIES 1.5M O.C.
- DO NOT HANDLE OR SUSPEND THE ANODES BY THEIR LEADWIRES. ANY ANODES MOVED OR SUSPENDED BY THEIR LEADWIRES WILL MARKED BY THE ENGINEER AND WILL NOT BE INSTALLED AS PART OF THIS WORK. THE CONTRACTOR SHALL REPLACE SUCH MISHANDLED ANODES AT NO COST TO THE OWNER.
- THE PREPACKAGED BULK ANODE SHALL BE INSTALLED, ALL REBAR CONNECTIONS, REFERENCE ELECTRODE (IF PRESENT), CABLES AND CONDUIT FOR EACH JACKET SHALL BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE ENGINEER PRIOR TO FILLING THE ANNULUS BETWEEN THE JACKET AND THE PILE WITH CONCRETE.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-4.01

PATH: P:\KTN\71111\DR\CP4-01.DWG

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PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
PILE JACKET INSTALLATION

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

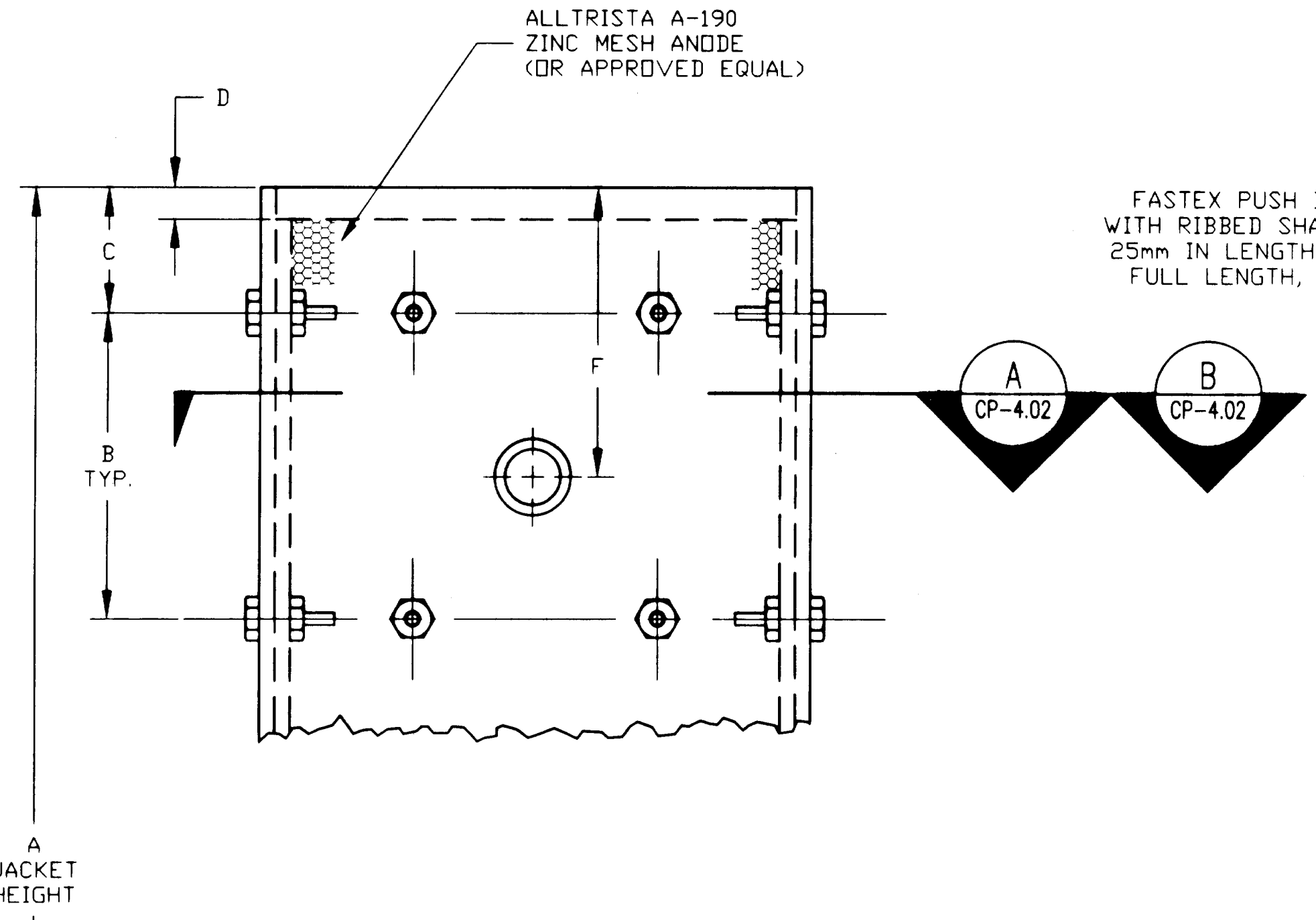
INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE, SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

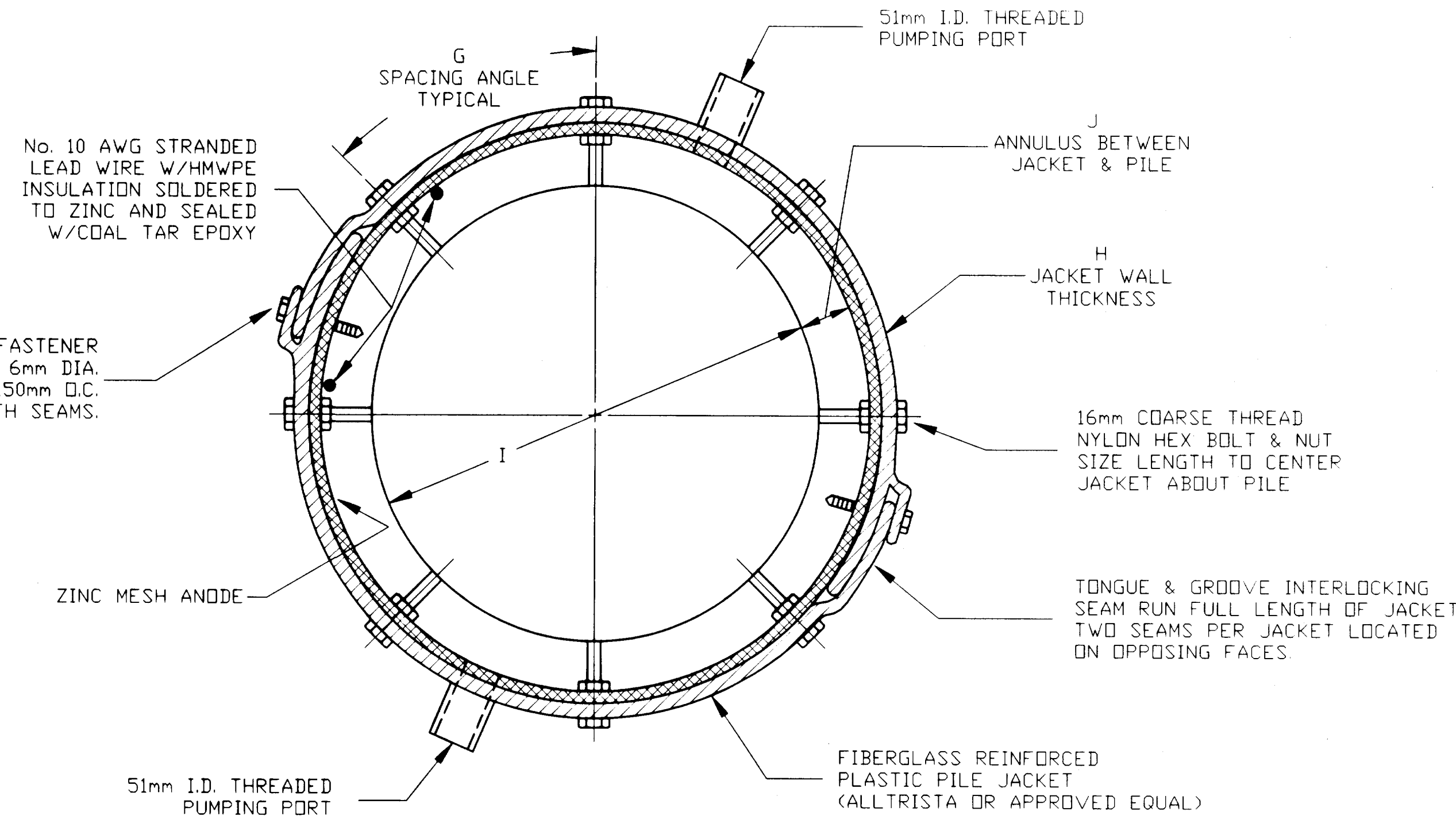
SHEET 69 OF 104

BRIDGE NO. 797 997

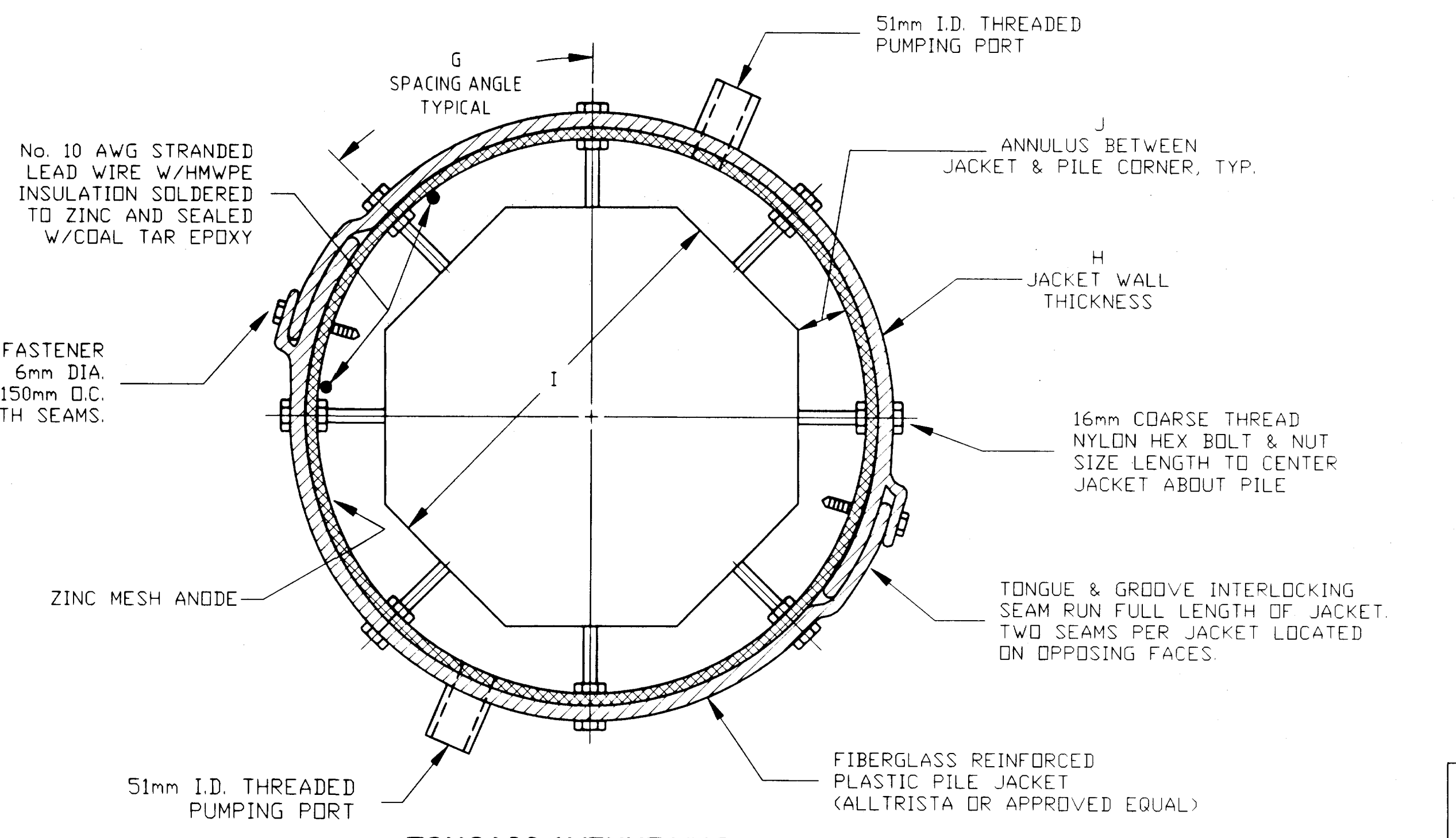


1 PILE JACKET ELEVATION
CP-4.02 SCALE: N.T.S.

DIMENSIONS										BENT NO.	VIADUCT
A	B	C	D	E	F	G	H	I	J		
1800mm	400mm	100mm	50mm	255mm	510mm	45°	5mm	508mm	50mm	ALL BENTS	WATER ST.
1200mm	400mm	200mm	50mm	255mm	355mm	45°	5mm	419mm	50mm	17, 20, 25 - 27 & 37	TONGASS AVE.
1800mm	400mm	100mm	50mm	255mm	510mm	45°	5mm	419mm	50mm	11 - 14, 18 - 20 & 32	TONGASS AVE.
2400mm	400mm	200mm	50mm	255mm	660mm	45°	5mm	419mm	50mm	15, 16, 21 - 24, 28 - 36	TONGASS AVE.



A WATER STREET VIADUCT ROUND PILE JACKET
CP-4.02 SCALE: VIEW ROTATED CLOCKWISE 22.5 DEG. N.T.S.



B TONGASS AVENUE VIADUCT PRE-CAST PILE JACKET
CP-4.02 SCALE: VIEW ROTATED CLOCKWISE 22.5 DEG. N.T.S.

NOTES

- SEE SHEET CP-4.01 FOR GENERAL LAYOUT AND BULK ANODE PLACEMENT.
- EACH PILE JACKET CONSISTS OF A RIGHT AND LEFT HALF.
- ASSEMBLE JACKETS SO THAT LEAD WIRES ARE ON THE SAME SIDE OF THE PILE.
- INSIDE JACKET SURFACE MUST BE ROUGHENED ACCORDING TO SPECIAL PROVISIONS.
- ONE OF THE PILES ON TONGASS AVENUE BENT 28 IS MARKEDLY KINKED IN THE VICINITY OF THE PILE CAP. AT THAT LOCATION ADJUST JACKET CONFIGURATION TO FIT. SEE ELEVATION CP-3.25 AND SPECIAL PROVISIONS 684.
- IT IS COMMON THAT THE TOPS OF TONGASS AVENUE PILES HAVE CAST-IN-PLACE EXTENSIONS. THESE EXTENSIONS MAY REQUIRE MINOR ADJUSTMENTS IN JACKET CONFIGURATIONS. SEE SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
- THE PUMPING PORT LOCATIONS ARE OPTIONAL. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL OF ALL GROUT PLACEMENT PROCEDURES, INCLUDING PORTS OR AIR VENTS LOCATIONS IF USED.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

**DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS**

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER:  **CP-4.02**

EXPIRES: DEC. 31, 1999

DIMENSIONS																			
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	BENT NO.	VIADUCT
1800mm	400mm	100mm	50mm	255mm	510mm	150mm	305mm	100mm	212mm	305mm	50mm	203mm	610mm	406mm	50mm	6 4mm	50mm	47, 50-55 & 60	WATEP STREET
600mm	400mm	100mm	50mm	255mm	N/A	150mm	305mm	100mm	212mm	305mm	50mm	203mm	610mm	406mm	50mm	6 4mm	50mm	48, 58 & 59	WATEP STREET

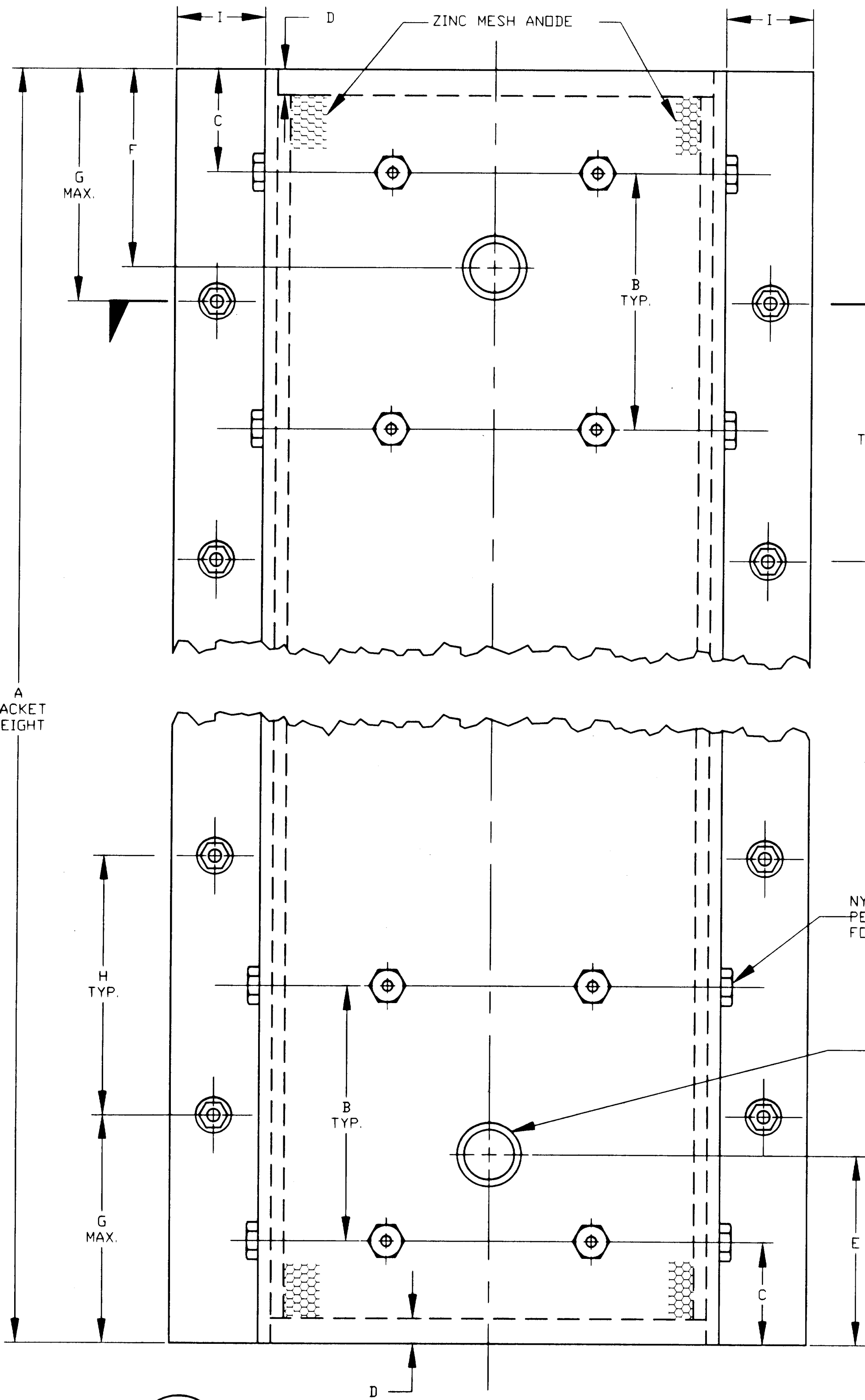
NOTES

- SEE SHEET CP-4.01 FOR GENERAL LAYOUT AND BULK ANODE PLACEMENT.
- INSIDE JACKET SURFACE MUST BE ROUGHENED ACCORDING TO SPECIAL PROVISIONS.
- THREADED ROD MUST BE INSTALLED AND EPOXY FULLY CURED BEFORE PLACING AND SECURING JACKET.
- THE CONTRACTOR SHALL FOLLOW THE EPOXY RESIN MANUFACTURER'S DIRECTIONS AND THE SPECIAL PROVISIONS ON SURFACE PREPARATION AND THE STORAGE, SAFE AND PROPER USE, MIXING AND APPLICATION OF THE EPOXY RESIN. STRICTLY FOLLOW ANY TEMPERATURE OR MOISTURE RESTRICTIONS, REQUIREMENTS OR LIMITATIONS.
- DRILL HOLE FOR THREADED ROD ALONG HORIZONTAL CENTERLINE OF INTERSECTING CONCRETE LOGS.
- THREADED ROD MUST BE INSTALLED IN A CLEAN AND DRY HOLE.
- TO INSTALL THREADED ROD: a) DRILL HOLE; b) CLEAN HOLE W/NYLON BRUSH--DO NOT USE METAL BRUSH; c) BLOWOUT HOLE WITH DRY COMPRESSED AIR; d) STARTING AT THE DEEPEST END, FILL HOLE APPROX. TO APPROXIMATELY 1/2 DEPTH W/EPOXY; e) INSERT ROD TO DEPTH WITH TWISTING MOTION; CAREFULLY REMOVE EXCESS AND KEEP NON-EMBEDDED THREADS CLEAN.
- THE THREADED ROD MUST BE INSTALLED IMMEDIATELY AFTER HOLE SURFACE PREPARATION OF THE HOLE MUST BE RE-CLEANED (DRIED IF NECESSARY).
- THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
- THE PUMPING PORT LOCATIONS ARE OPTIONAL. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL OF ALL GROUT PLACEMENT PROCEDURES, INCLUDING PORTS OR AIR VENTS LOCATIONS IF USED.

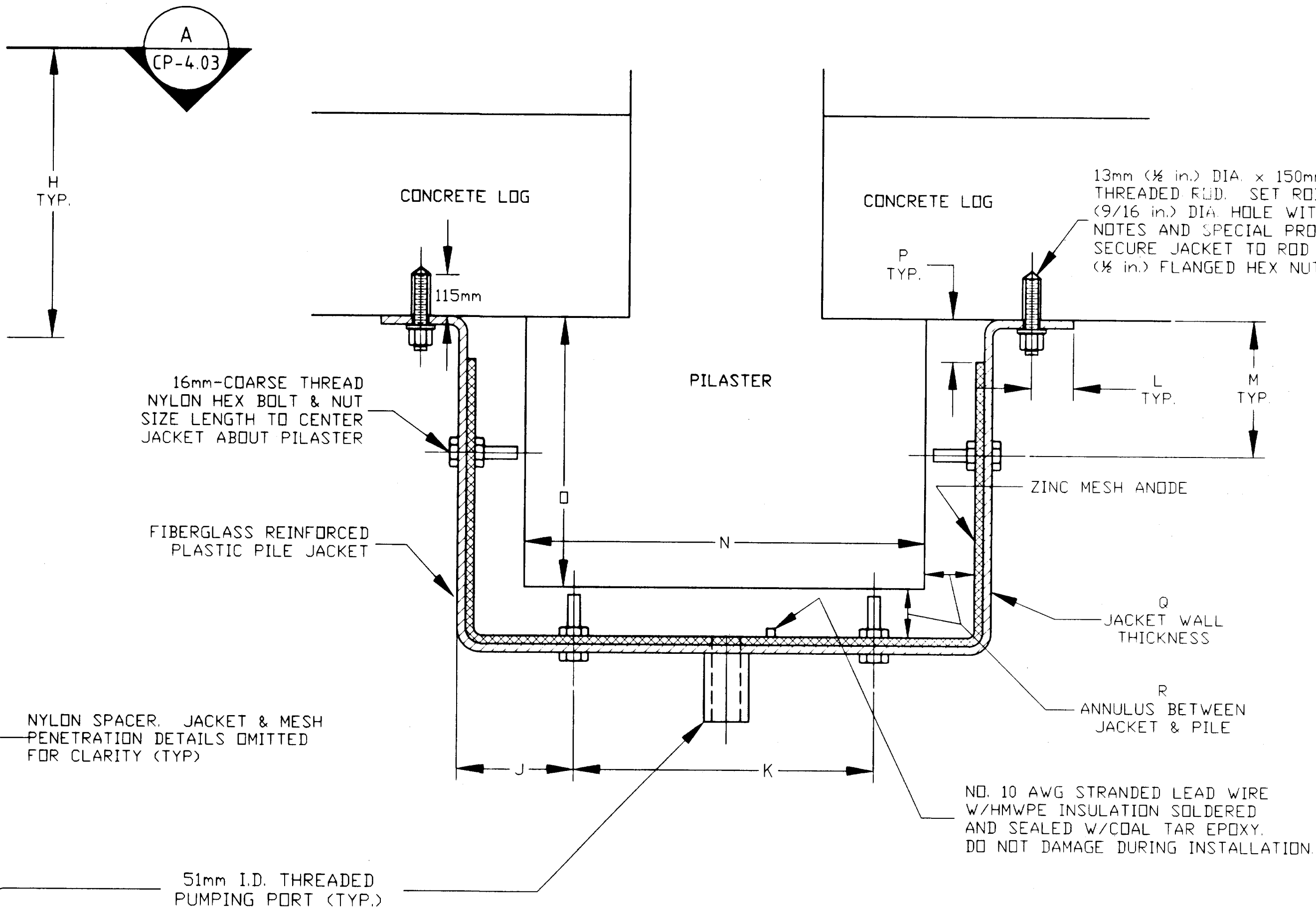
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DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



1 PILASTER JACKET ELEVATION
CP-4.03 SCALE: N.T.S.



A PILASTER JACKET SECTION
CP-4.03 SCALE: N.T.S.

DESIGNER:



CP-4.03

EXPIRES:

DEC. 31, 1999

DATE:

SEPTEMBER 15, 1999

SHEET 71 OF 104

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PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

DRAWN OR REVISED BY: T.C. NORTON

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KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT

ALASKA

PILASTER JACKET & SECTION

DESIGNED BY:

K.M. HOWELL

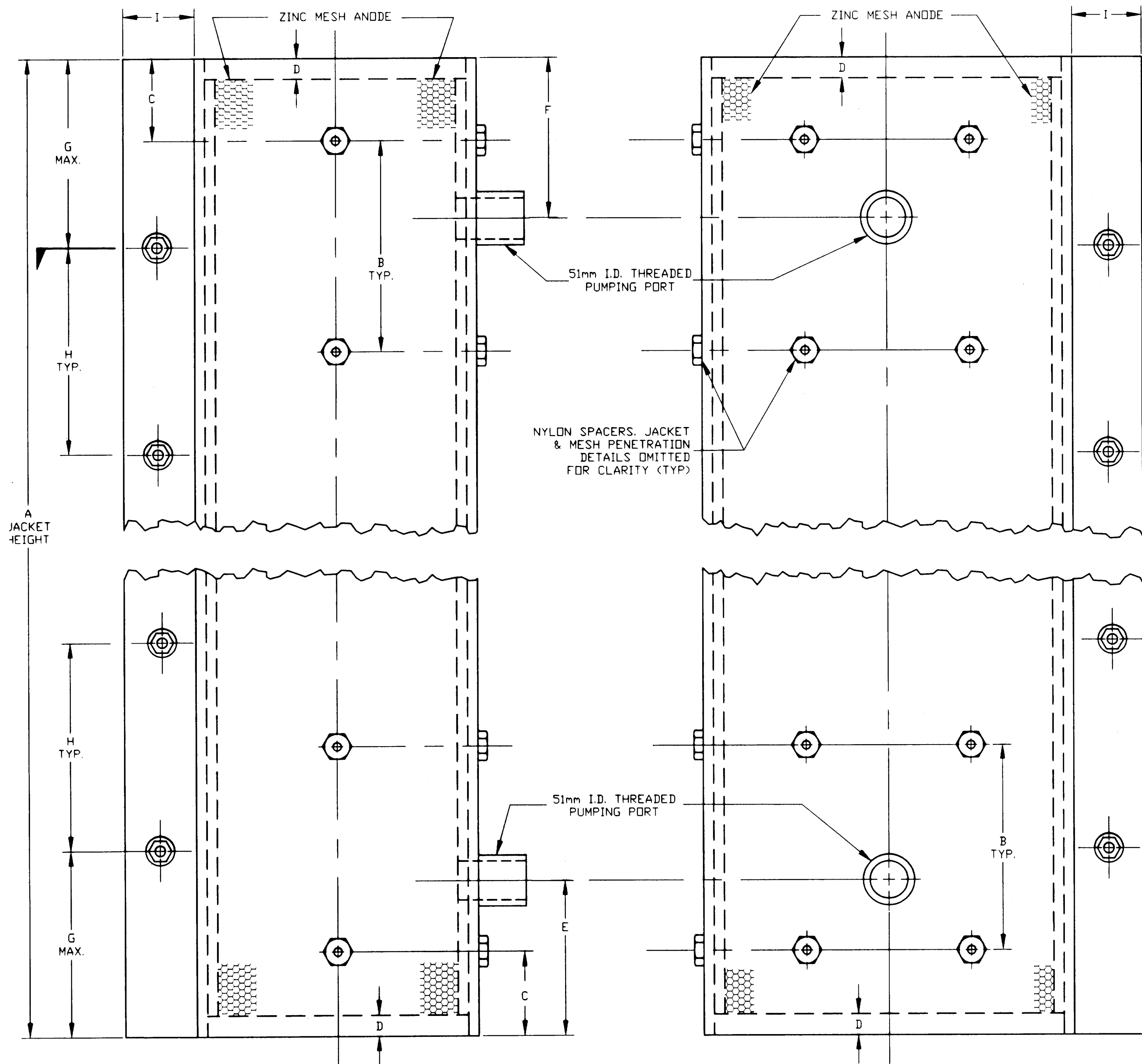
CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
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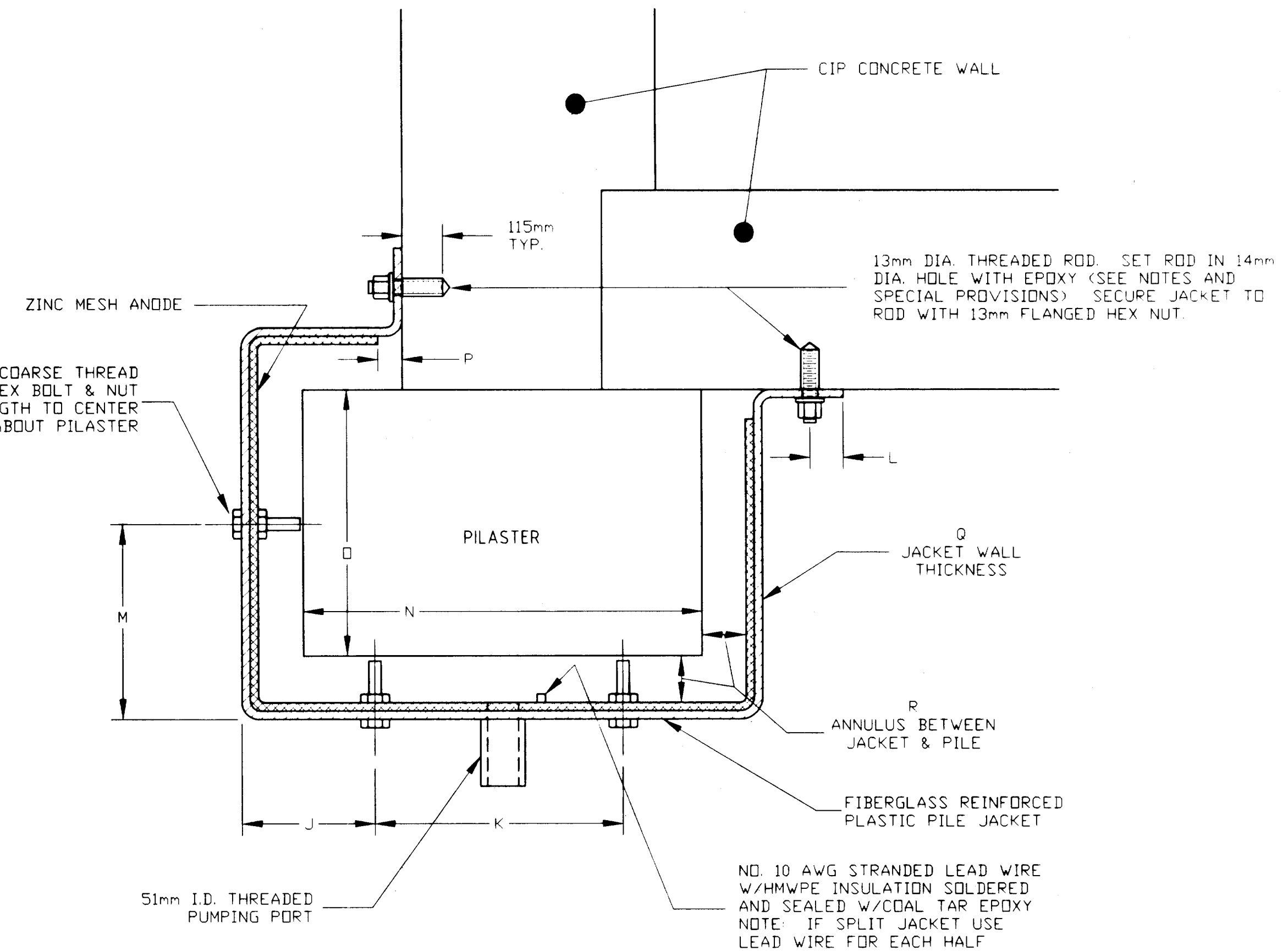


DIMENSIONS																			
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	BENT NO.	VIADUCT
1800mm	400mm	100mm	50mm	255mm	510mm	150mm	305mm	100mm	212mm	305mm	50mm	263mm	610mm	406mm	50mm	64mm	50mm	BENT 46	WATER STREET

A
CP-4.04

1
CP-4.04

2
CP-4.04



A CORNER JACKET SECTION
SCALE: N.T.S.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

NOTES

- SEE SHEET CP-4.01 FOR GENERAL LAYOUT AND BULK ANODE PLACEMENT.
- INSIDE JACKET SURFACE MUST BE ROUGHENED ACCORDING TO SPECIAL PROVISIONS.
- THREADED ROD MUST BE INSTALLED AND EPOXY FULLY CURED BEFORE PLACING AND SECURING JACKET.
- THE CONTRACTORS SHALL FOLLOW THE EPOXY RESIN MANUFACTURER'S DIRECTIONS AND THE SPECIAL PROVISIONS ON SURFACE PREPARATION AND THE STORAGE, SAFE AND PROPER USE, MIXING AND APPLICATION OF THE EPOXY RESIN. STRICTLY FOLLOW ANY TEMPERATURE OR MOISTURE REQUIREMENTS OR LIMITATIONS.
- DRILL HOLE FOR THREADED ROD ALONG HORIZONTAL CENTERLINE OF INTERSECTING CONCRETE LOGS.
- THREADED ROD MUST BE INSTALLED IN A CLEAN AND DRY HOLE.
- TO INSTALL THREADED ROD: a) DRILL HOLE; b) CLEAN HOLE W/NYLON BRUSH--DO NOT USE METAL BRUSH; c) BLOWOUT HOLE WITH DRY COMPRESSED AIR; d) STARTING AT THE DEEPEST END, FILL HOLE APPROX. TO APPROXIMATELY 1/2 DEPTH WITH EPOXY e) INSERT ROD TO DEPTH WITH TWISTING MOTION; CAREFULLY REMOVE EXCESS AND KEEP NON-EMBEDDED THREADS CLEAN.
- THE THREADED ROD MUST BE INSTALLED IMMEDIATELY AFTER HOLE SURFACE PREPARATION OR THE HOLE MUST BE RE-CLEANED (DRIED IF NECESSARY).
- THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
- THE PUMPING PORT LOCATIONS ARE OPTIONAL. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL OF ALL GROUT PLACEMENT PROCEDURES, INCLUDING PORTS OR AIR VENTS LOCATIONS IF USED.

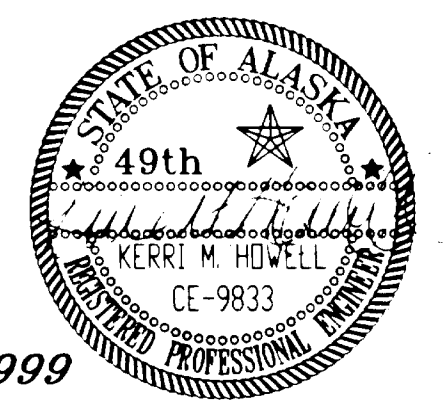
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PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT
CORNER PILASTER JACKET & SECTION

DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

DESIGNER:
EXPIRES: DEC. 31, 1999



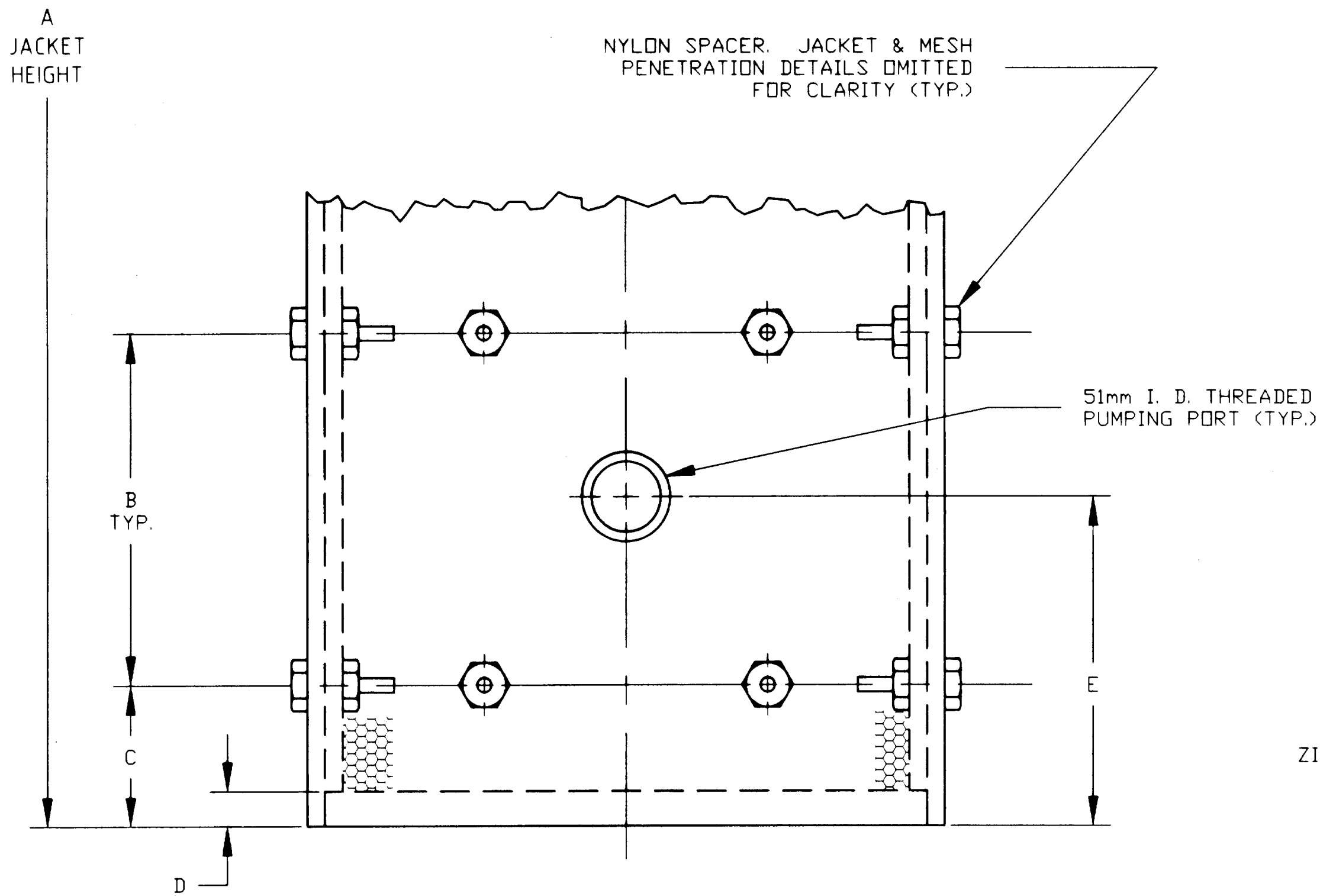
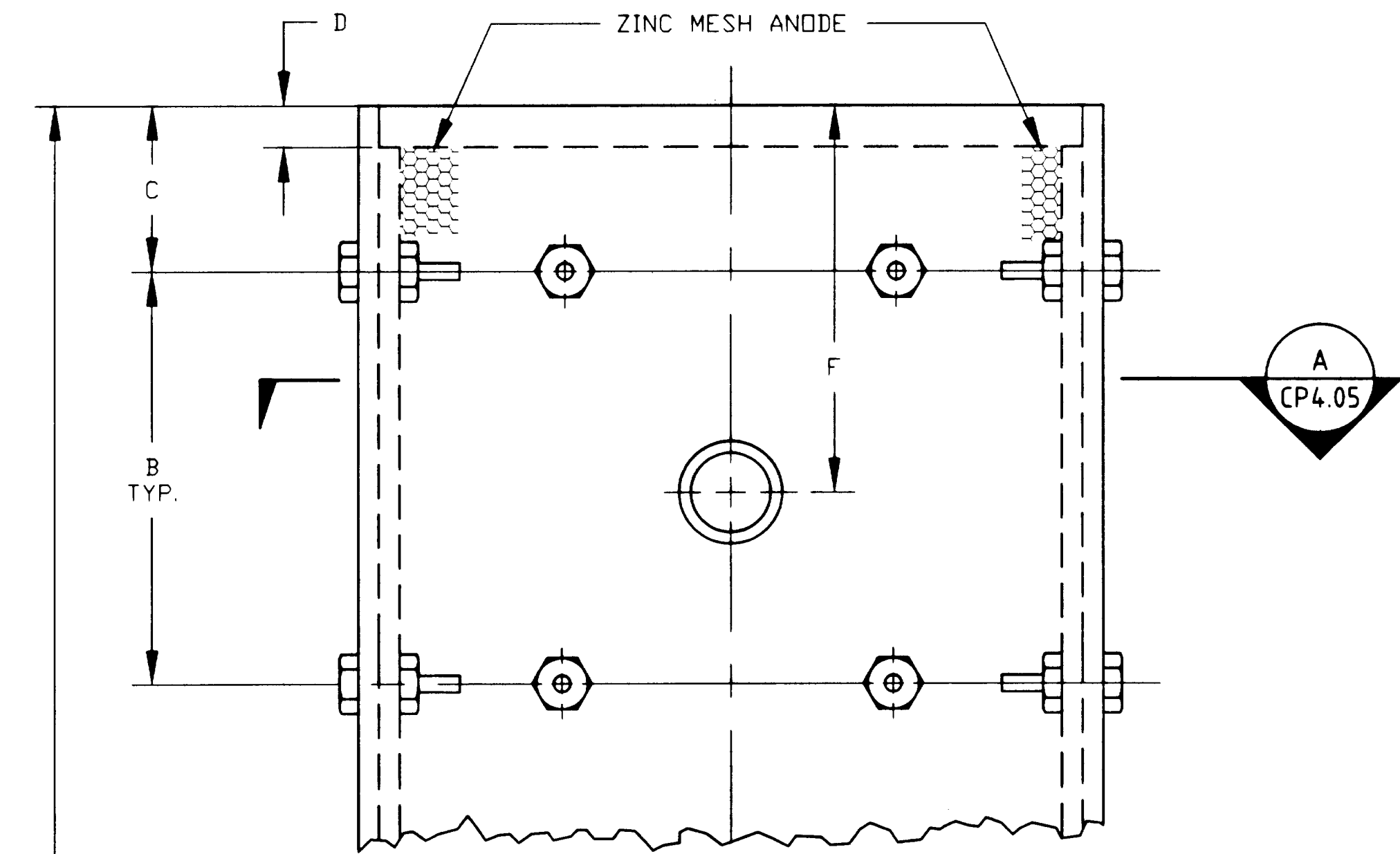
CP-4.04

DATE: SEPTEMBER 15, 1999
SHEET 72 OF 104
BRIDGE NO. 797

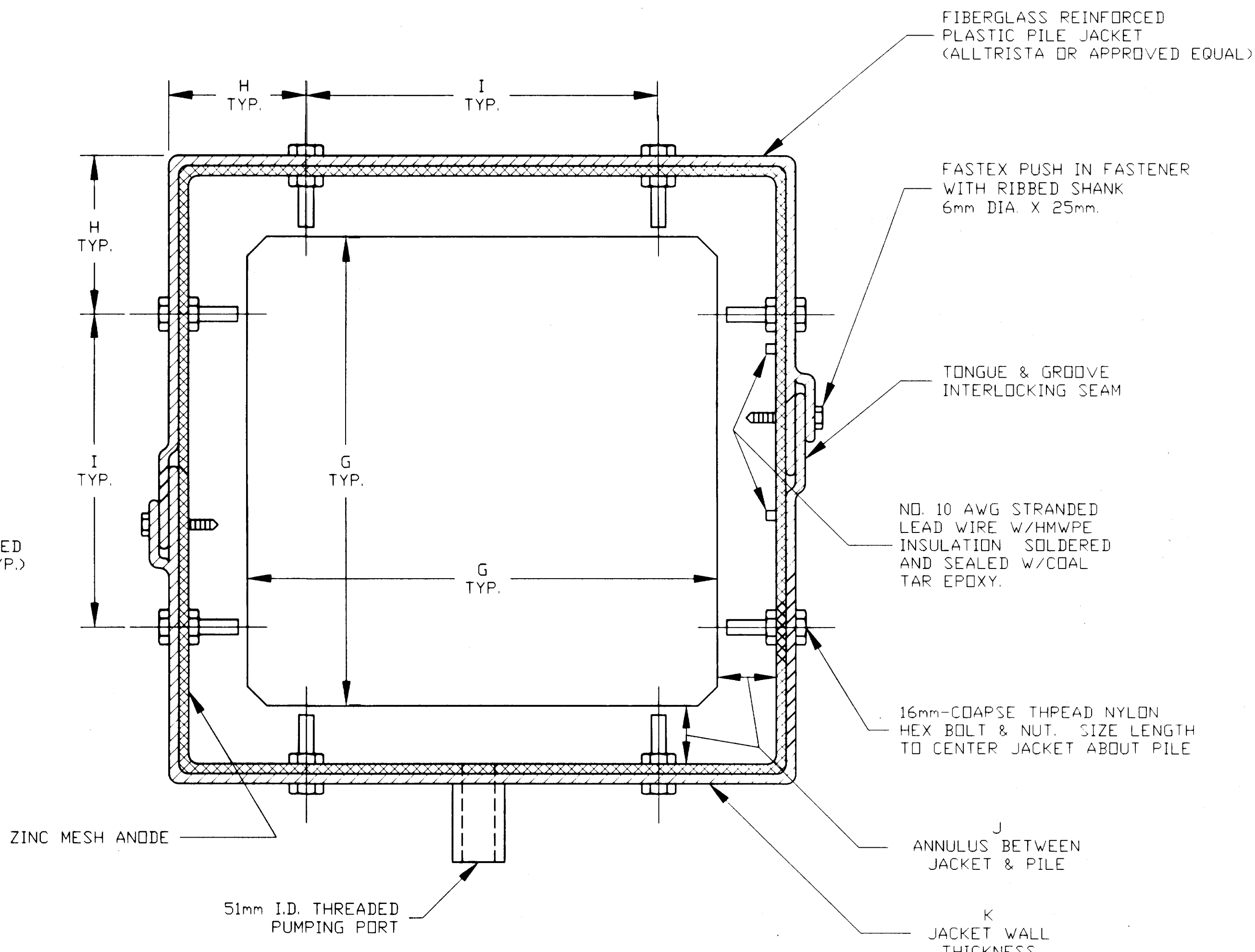
NOTES

1. SEE SHEET CP-4.01 FOR GENERAL LAYOUT AND BULK ANODE PLACEMENT.
2. EACH PILE JACKET CONSISTS OF A RIGHT AND LEFT HALF.
3. ASSEMBLE JACKETS SO THAT LEAD WIPES ARE ON THE SAME SIDE OF THE PILE.
4. INSIDE JACKET SURFACE MUST BE ROUGHENED ACCORDING TO THE SPECIFICATIONS.
5. THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
6. THE PUMPING PORT LOCATIONS ARE OPTIONAL. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL OF ALL GROUT PLACEMENT PROCEDURES, INCLUDING PORTS OR AIR VENTS LOCATIONS IF USED.

DIMENSIONS												
A	B	C	D	E	F	G	H	I	J	K	BENT NO.	VIADUCT
600mm	400mm	100mm	50mm	255mm	NA	610mm	212mm	305mm	50mm	5mm	11, 12, 13 & 14	TONGASS AVE



1 SQUARE PILE JACKET ELEVATION
CP-4.05 SCALE: N.T.S.



A SQUARE PILE JACKET SECTION
CP-4.05 SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

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DATE	BY	COMMENT

DESIGNER:

EXPIRES: DEC. 31, 1999



CP-4.05

PATH: P:\KTN\71111\DR\CP4-05.DWG
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

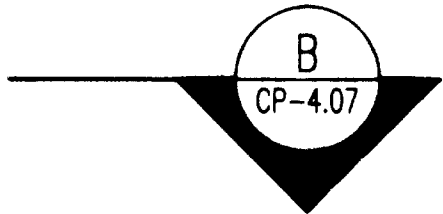
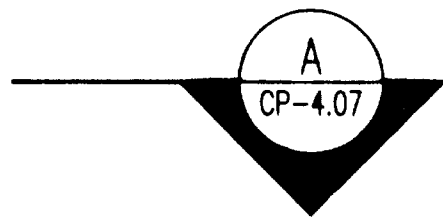
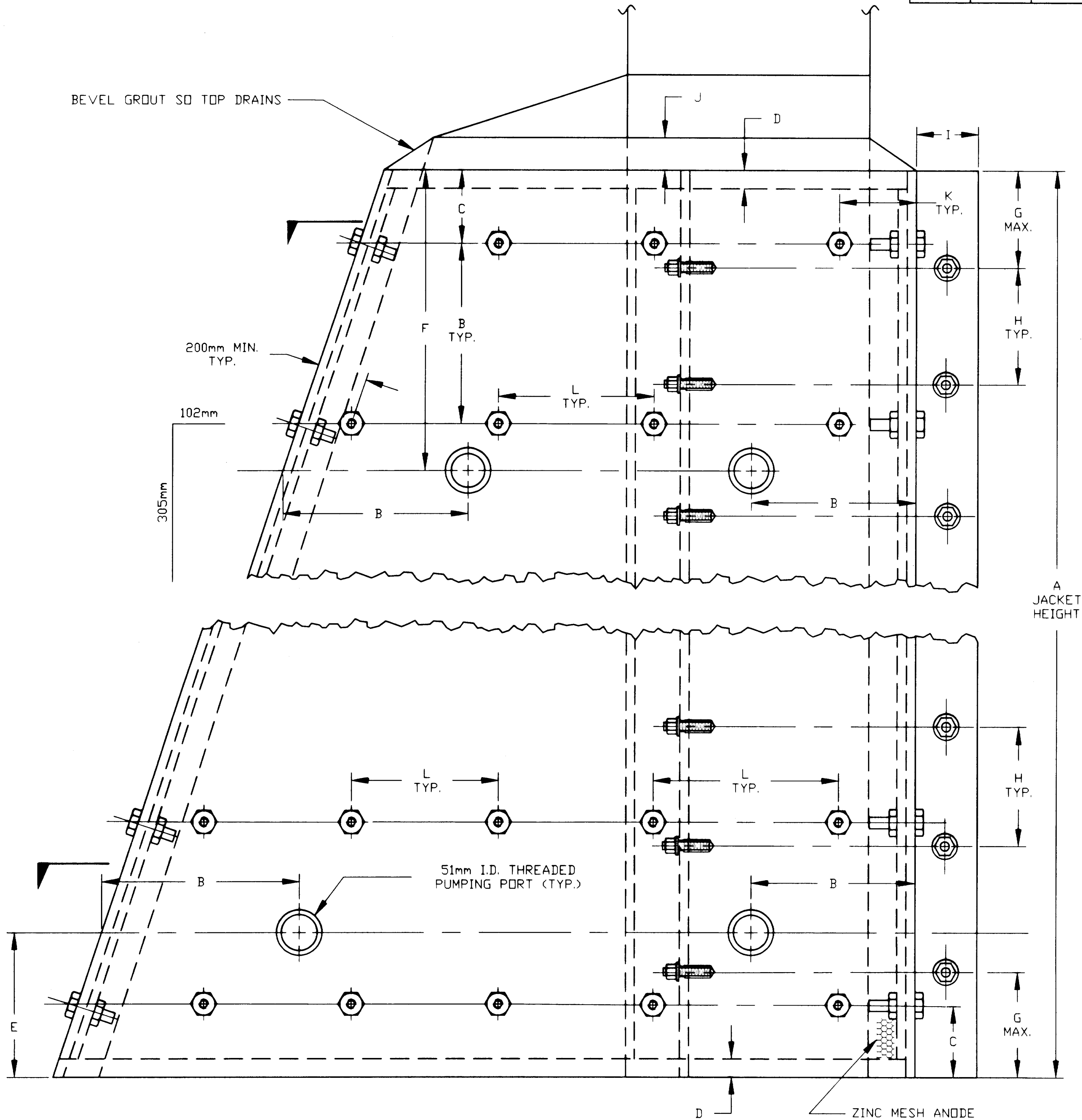
KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT
SQUARE PILE JACKET & SECTION

DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinneo@compuserve.com

DATE: SEPTEMBER 15, 1999
SHEET 73 OF 104
BRIDGE NO. 797

DIMENSIONS																		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	BENT NO.	VIADUCT
1800mm	400mm	100mm	50mm	255mm	510mm	150mm	305mm	100mm	50mm	212mm	305mm	610mm	406mm	64mm	203mm	50mm	BENT 49 (56 SIMILAR)	WATER STREET
1800mm	400mm	100mm	50mm	255mm	510mm	150mm	305mm	100mm	50mm	212mm	305mm	610mm	406mm	64mm	203mm	50mm	BENT 64	WATER STREET



NOTES

- SEE SHEET CP-4.01 FOR GENERAL LAYOUT AND BULK ANODE PLACEMENT.
- SEE SHEET 4.07 FOR ADDITIONAL DIMENSIONS J-L AND DIMENSIONS M-Q.
- THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
- THE PUMPING PORT LOCATIONS ARE OPTIONAL. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL OF ALL GROUT PLACEMENT PROCEDURES, INCLUDING PORTS OR AIR VENTS LOCATIONS IF USED.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

1 BUTTRESS JACKET ELEVATION
CP-4.06 SCALE: N.T.S.

PATH: P: \KTN\71111\DR\CP4-06.DWG
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PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111 ALASKA
WATER STREET VIADUCT
BUTTRESS JACKET ELEVATION

DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

DESIGNER:



CP-4.06

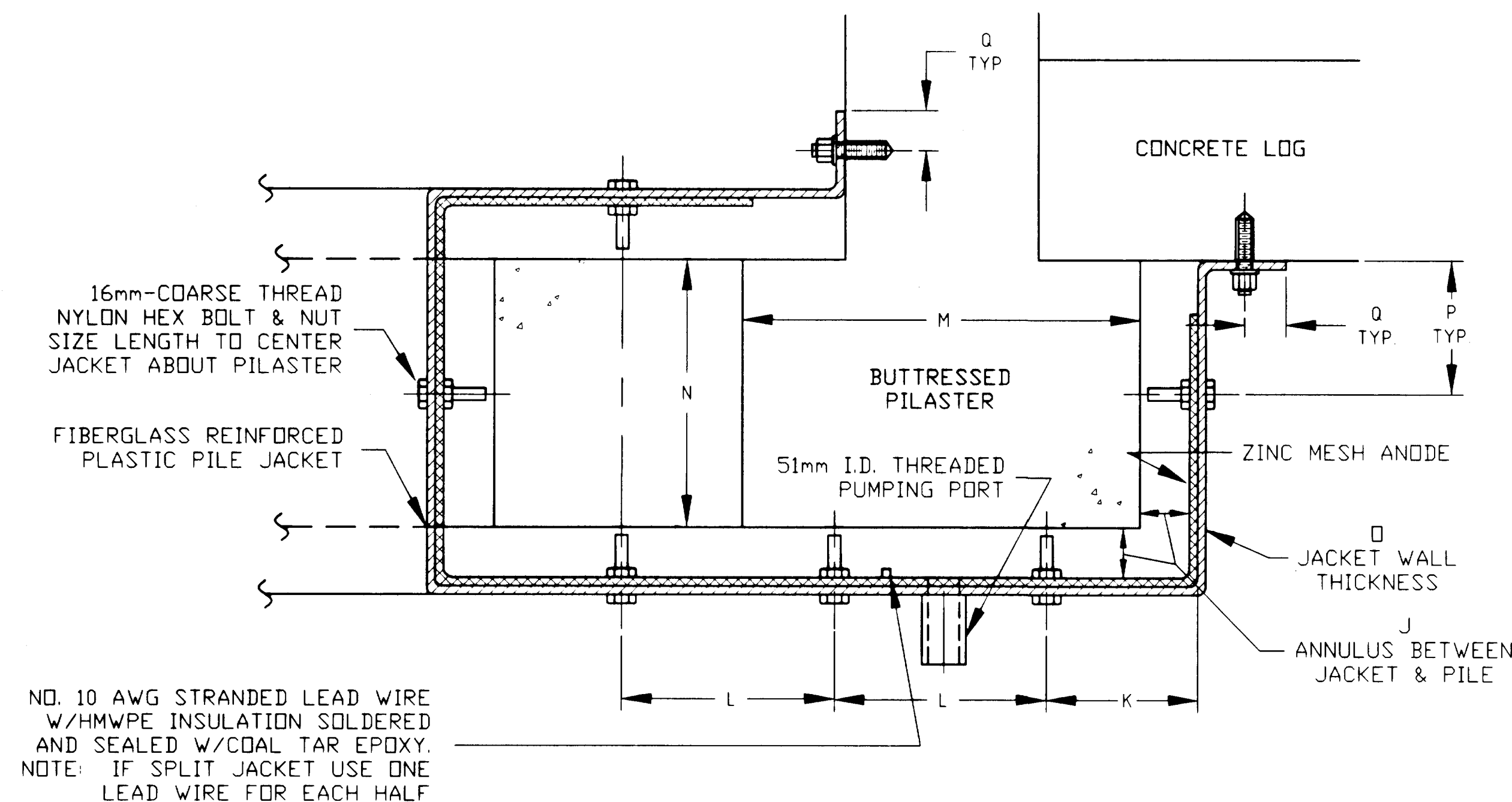
EXPIRES: DEC. 31, 1999

DATE: SEPTEMBER 15, 1999
SHEET 74 OF 104
BRIDGE NO. 797

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

NOTES

1. SEE SHEET CP-4.01 FOR GENERAL LAYOUT AND BULK ANODE PLACEMENT.
2. FOR LETTER VALUES SEE CHART ON CP-4.06.
3. SECTION-A NOT PRESENT ON BENT 64.
4. THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
5. THE PUMPING PORT LOCATIONS ARE OPTIONAL. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL OF ALL GROUT PLACEMENT PROCEDURES, INCLUDING PORTS OR AIR VENTS LOCATIONS IF USED.

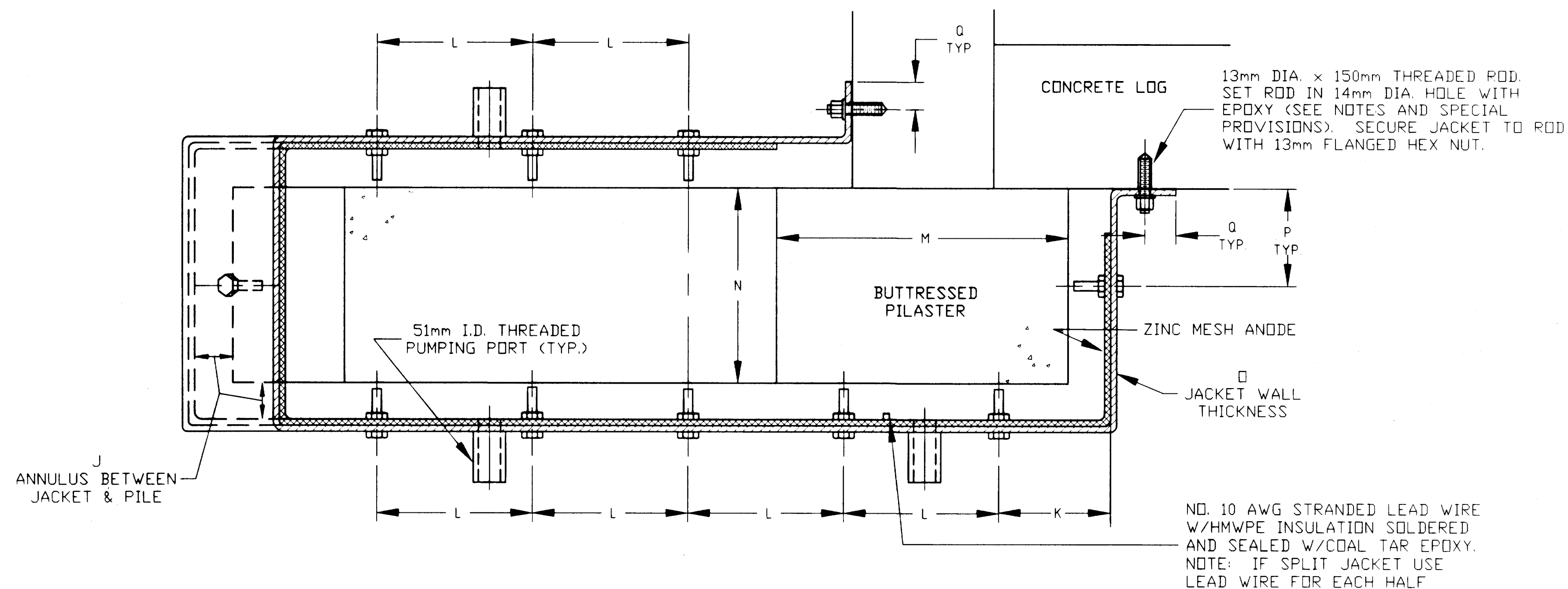


A BUTTRESS JACKET SECTION

CP-4.07

SCALE:

N.T.S



B BUTTRESS JACKET SECTION

CP-4.07

SCALE:

N.T.S

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS

DATE	BY	COMMENT

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CP-4.07

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
WATER STREET VIADUCT

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7916
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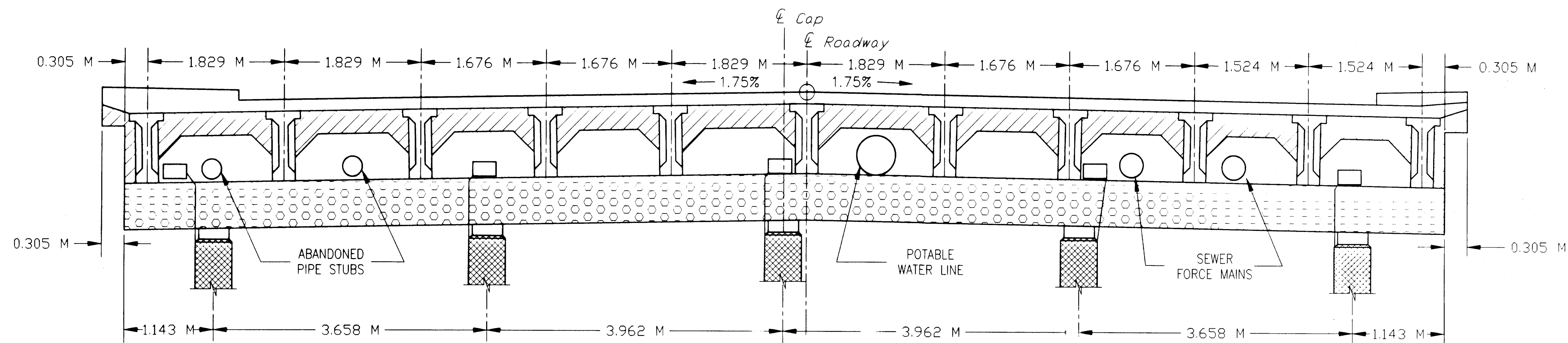
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SEPTEMBER 15, 1999

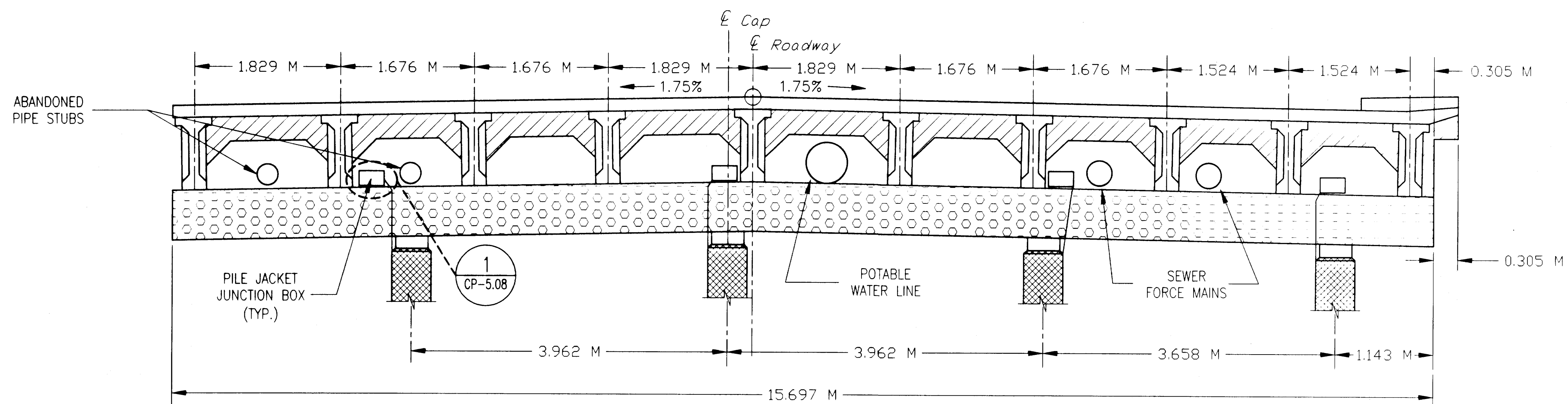
SHEET 75 OF 104

BRIDGE NO. 797

BUTTRESS JACKET SECTIONS



1 CAP TYPE C1
CP-4.08 SCALE: N.T.S.



2 CAP TYPE C2
CP-4.08 SCALE: N.T.S.

LEGEND		
Cathodic Protection		
Cap Jacket	Pile Jacket	Thermal Spray

NOTES

1. SECTIONS ON CAPS TYPE 1 & 2 SIMILAR TO C3, SEE DRAWING CP4.09
2. FOR ELEVATION DETAILS SEE SHEET 4.09
3. CAN USE JUNCTION BOX FOR PILE CAP AS WELL.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER:

EXPIRES:

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CP-4.08

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE VIADUCT

ALASKA

TONGASS PILE CAP 1 & 2 JACKETS

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinneo@compuserve.com

DATE:

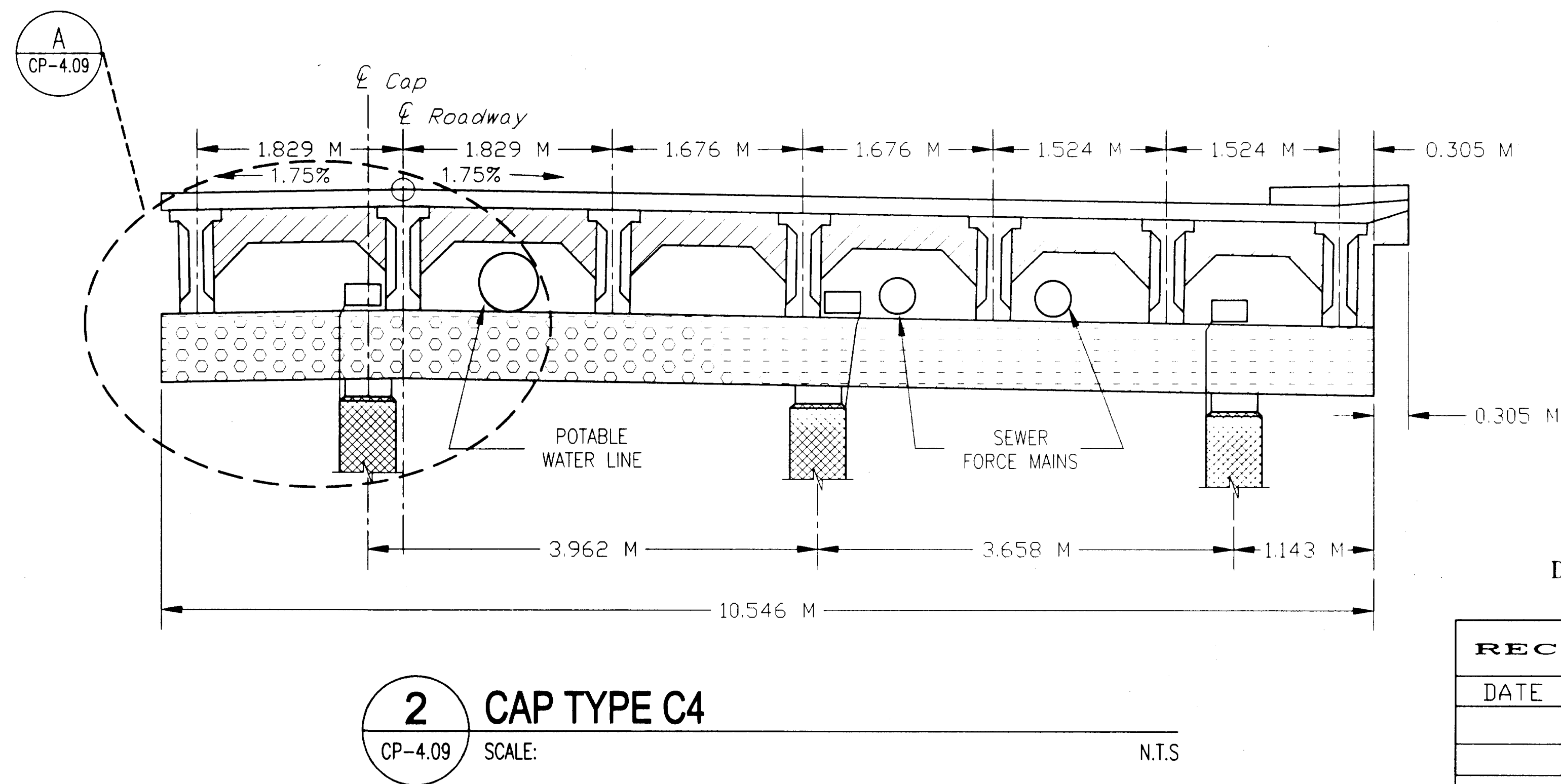
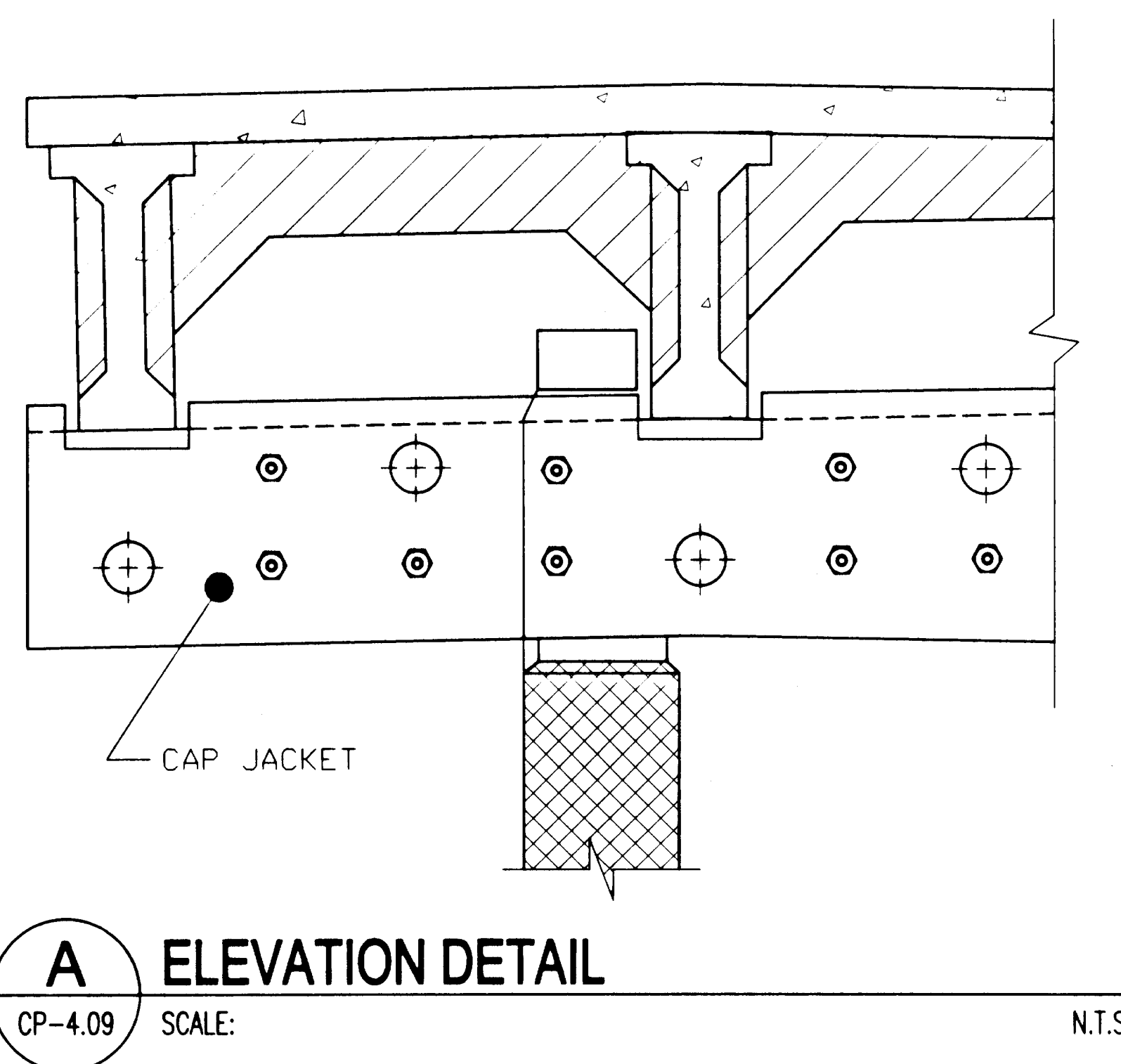
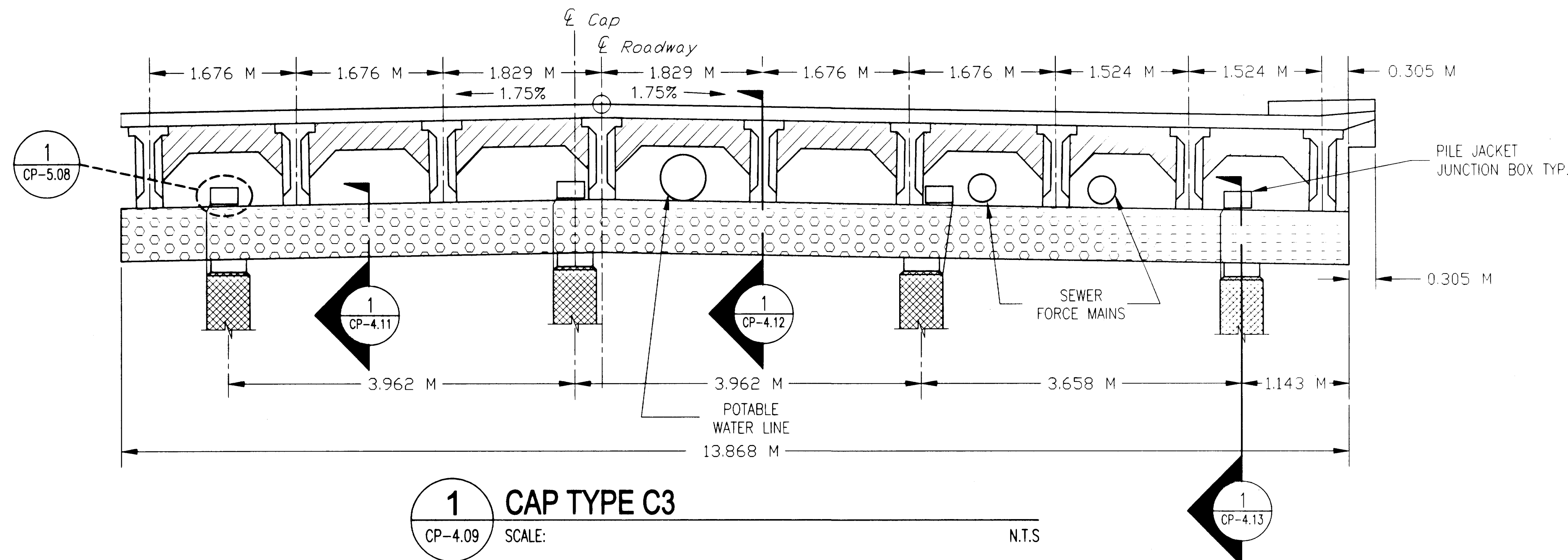
SEPTEMBER 15, 1999

SHEET 76 OF 104

BRIDGE NO. 997

NOTES

1. CAN USE JUNCTION BOX FOR PILE CAP AS WELL.



DO NOT SCALE FROM THESE PLANS USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

LEGEND		
Cathodic Protection		
Cap Jacket	Pile Jacket	Thermal Spray

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-4.09

PATH: P:\KTN\71111\DR\CP4-09.DWG

PLOT:

PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE VIADUCT

ALASKA

TONGASS PILE CAP 3 & 4 JACKETS

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:

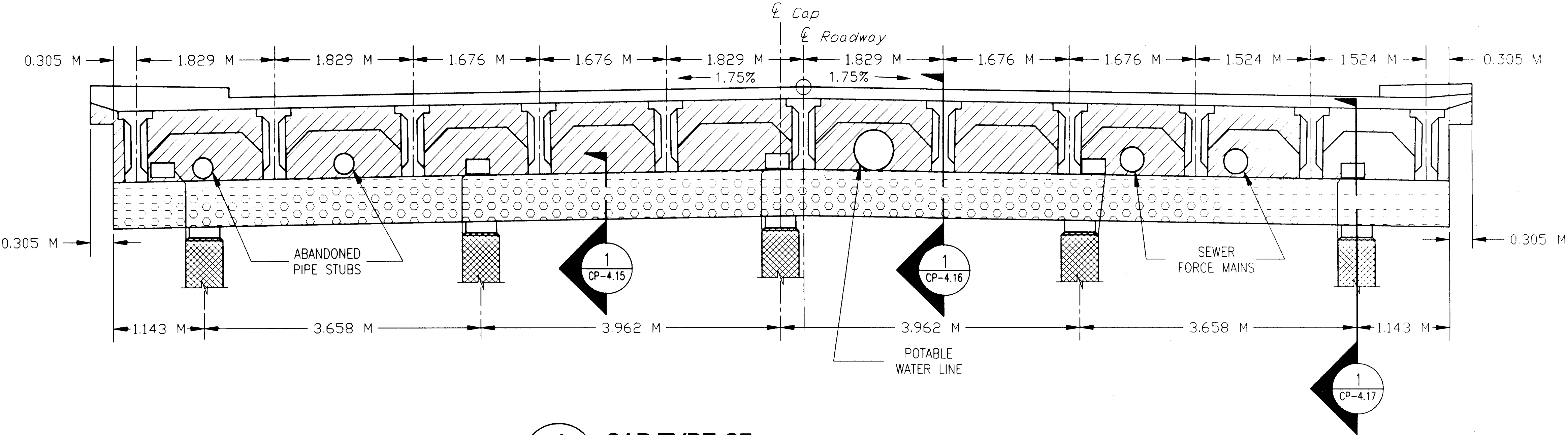
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SHEET 77 OF 104

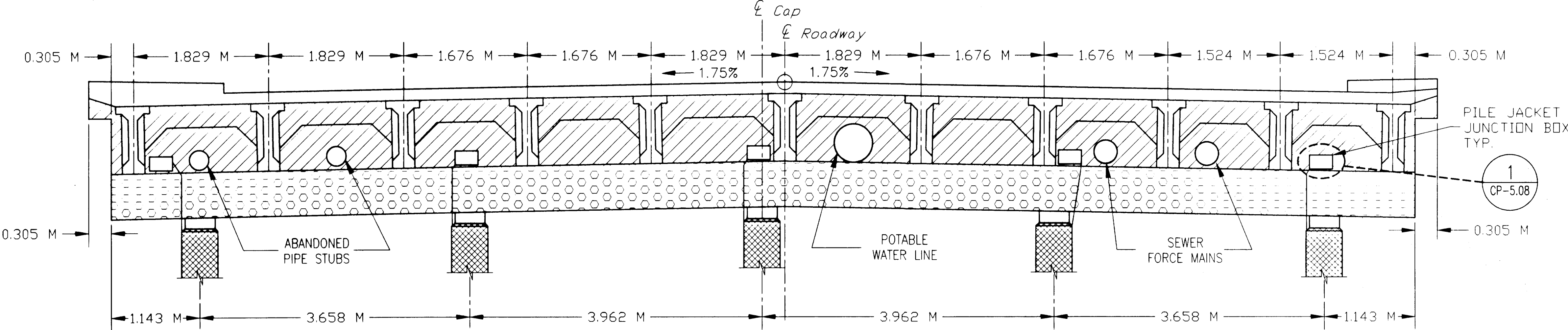
BRIDGE NO. 997

NOTES

1. SECTIONS ON CAPS TYPE 5 & 9 SIMILAR TO C7
2. FOR ELEVATION DETAILS SEE SHEET 4.09
3. CAN USE JUNCTION BOX FOR PILE CAP AS WELL.



1 CAP TYPE C7
CP-4.10 SCALE: N.T.S.



2 CAP TYPE C5 & C9
CP-4.10 SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

LEGEND

Cathodic Protection

Cap Jacket Pile Jacket Thermal Spray

DESIGNER:

EXPIRES: DEC. 31, 1999

CP-4.10

DATE: SEPTEMBER 15, 1999

SHEET 78 OF 104

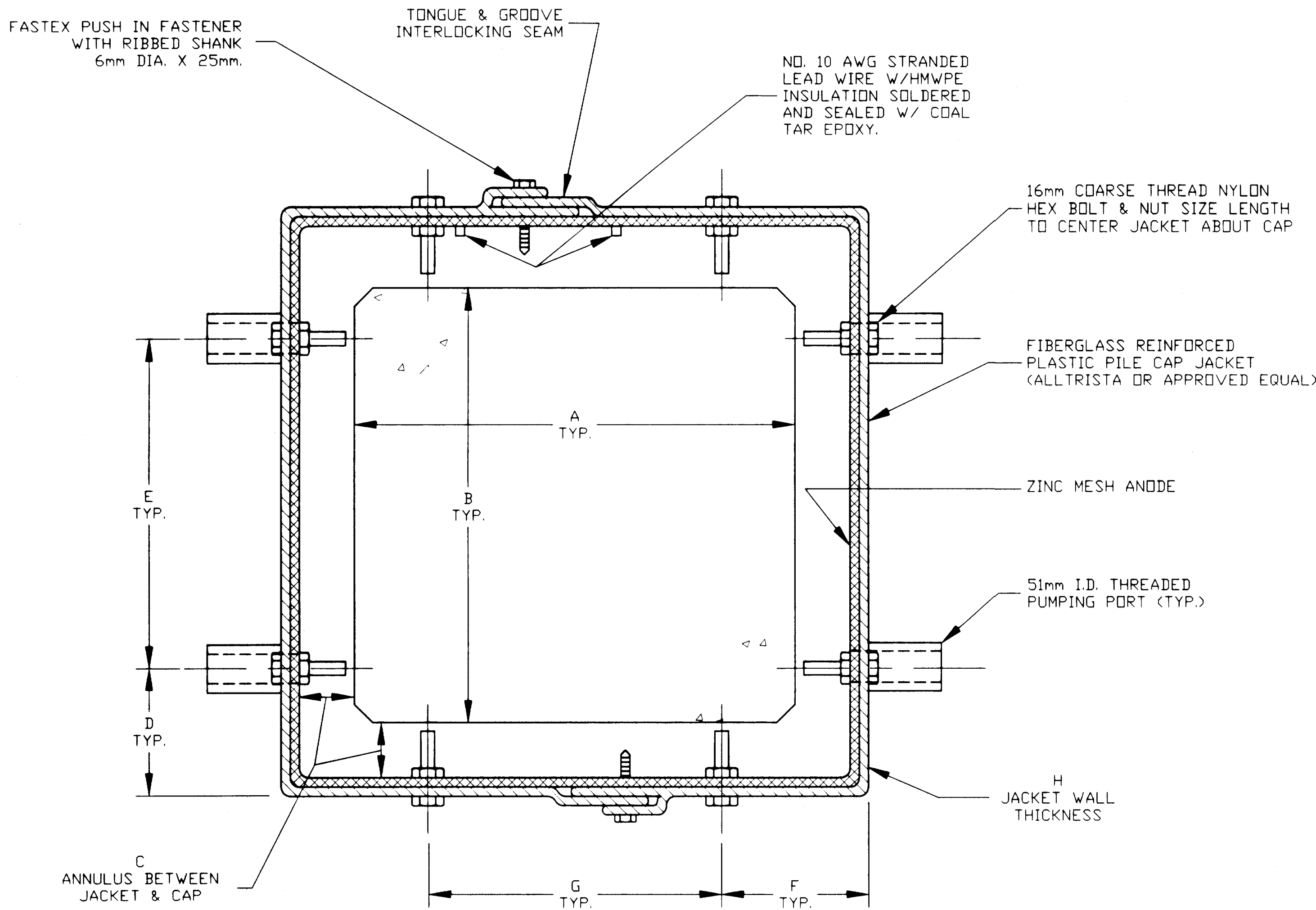
BRIDGE NO. 997

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinneo@compuserve.com

DIMENSIONS									
A	B	C	D	E	F	G	H	CAP	VIADUCT
813mm	686mm	50mm	202mm	402mm	233mm	467mm	6.4mm	INTERMEDIATE	TONGASS AVE.

NOTES

- INSIDE JACKET SURFACE MUST BE ROUGHENED ACCORDING TO SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
- THE PUMPING PORT LOCATIONS ARE OPTIONAL. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL OF ALL GROUT PLACEMENT PROCEDURES, INCLUDING PORTS OR AIR VENTS LOCATIONS IF USED.



INTERMEDIATE GIRDER CAP TYPICAL SECTION

1

CP-4.11

SCALE:

N.T.S

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE
PLANS USE DIMENSIONS

RECORD OF REVISIONS		
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DESIGNER:



CP-4.11

EXPIRES:

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE VIADUCTS

INTERMEDIATE GIRDER SECTION

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

DATE:

SEPTEMBER 15, 1999

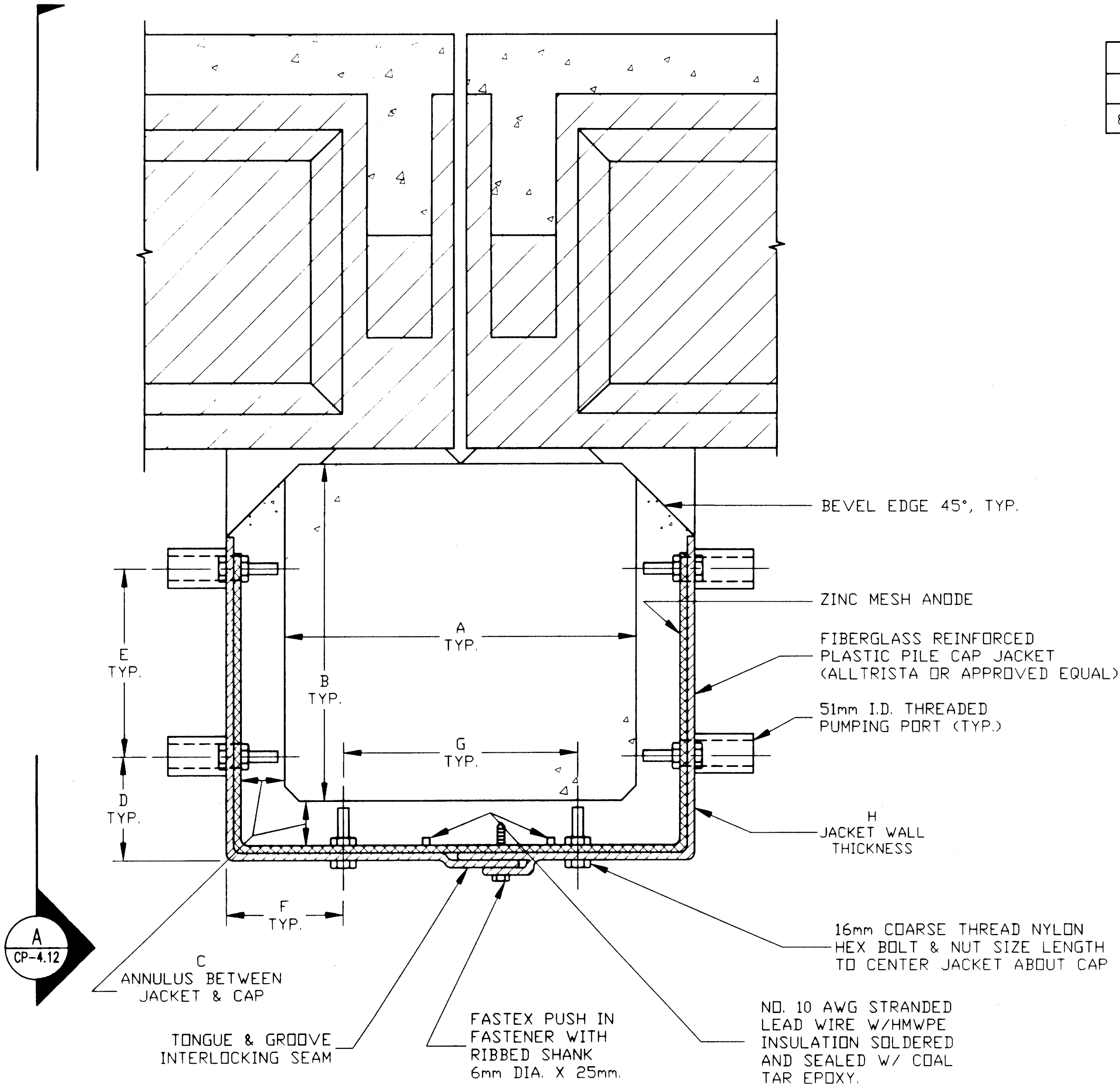
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BRIDGE NO. 997

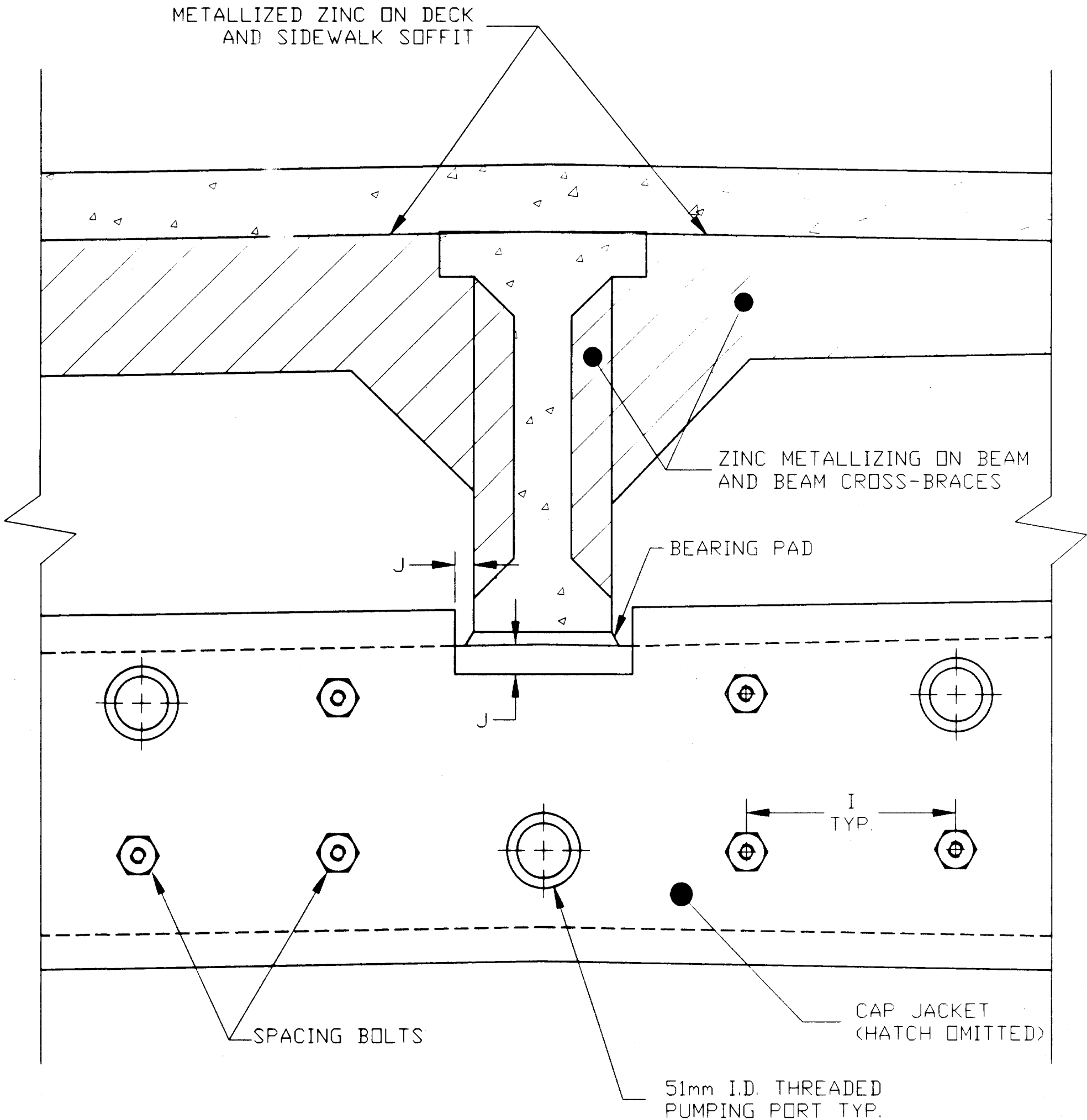
NOTES

1. INSIDE JACKET SURFACE MUST BE ROUGHENED ACCORDING TO SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
3. THE PUMPING PORT LOCATIONS ARE OPTIONAL. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL OF ALL GROUT PLACEMENT PROCEDURES, INCLUDING PORTS OR AIR VENTS LOCATIONS IF USED.

DIMENSIONS											
A	B	C	D	E	F	G	H	I	J	CAP	VIADUCT
813mm	686mm	50mm	202mm	402mm	233mm	467mm	6.4mm	457mm	50mm	INTERMEDIATE	TONGASS AVE



1 CAP JACKET SECTION
CP-4.12 SCALE: N.T.S.



A INTERMEDIATE GIRDER CAP ELEVATION DETAIL
CP-4.12 SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

LEGEND

Cathodic Protection

Cap Jacket

Pile Jacket

Thermal Spray

1. INSIDE JACKET SURFACE MUST BE ROUGHENED ACCORDING TO SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
3. THE PUMPING PORT LOCATIONS ARE OPTIONAL. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL OF ALL GROUT PLACEMENT PROCEDURES, INCLUDING PORTS OR AIR VENTS LOCATIONS IF USED.
4. PILE JACKET OMITTED FOR CLARITY.

FASTEX PUSH IN FASTENER WITH RIBBED SHANK 6mm DIA. X 25mm.

TONGUE & GROOVE INTERLOCKING SEAM

NO. 10 AWG STRANDED LEAD WIRE W/HMWPE INSULATION SOLDERED AND SEALED W/ COAL TAR EPOXY.

16mm-COARSE THREAD NYLON HEX BOLT & NUT SIZE LENGTH TO CENTER JACKET ABOUT CAP

FIBERGLASS REINFORCED PLASTIC PILE CAP JACKET (ALLTRISTA OR APPROVED EQUAL)

ZINC MESH ANODE

51mm I.D. THREADED PUMPING PORT (TYP.)

PILE

JACKET WALL THICKNESS

H

C ANNULUS BETWEEN JACKET & CAP

D TYP.

E TYP.

G

A

B

F TYP.

I DIAMETER

A CP-4.13

A CP-4.13 ROUND PILE SECTION SCALE:

DO NOT SCALE FROM THESE
PLANS USE DIMENSIONS

LEGEND

Cathodic Protection

 <i>Cap Jacket</i>	 <i>Pile Jacket</i>	 <i>Thermal Spray</i>
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999

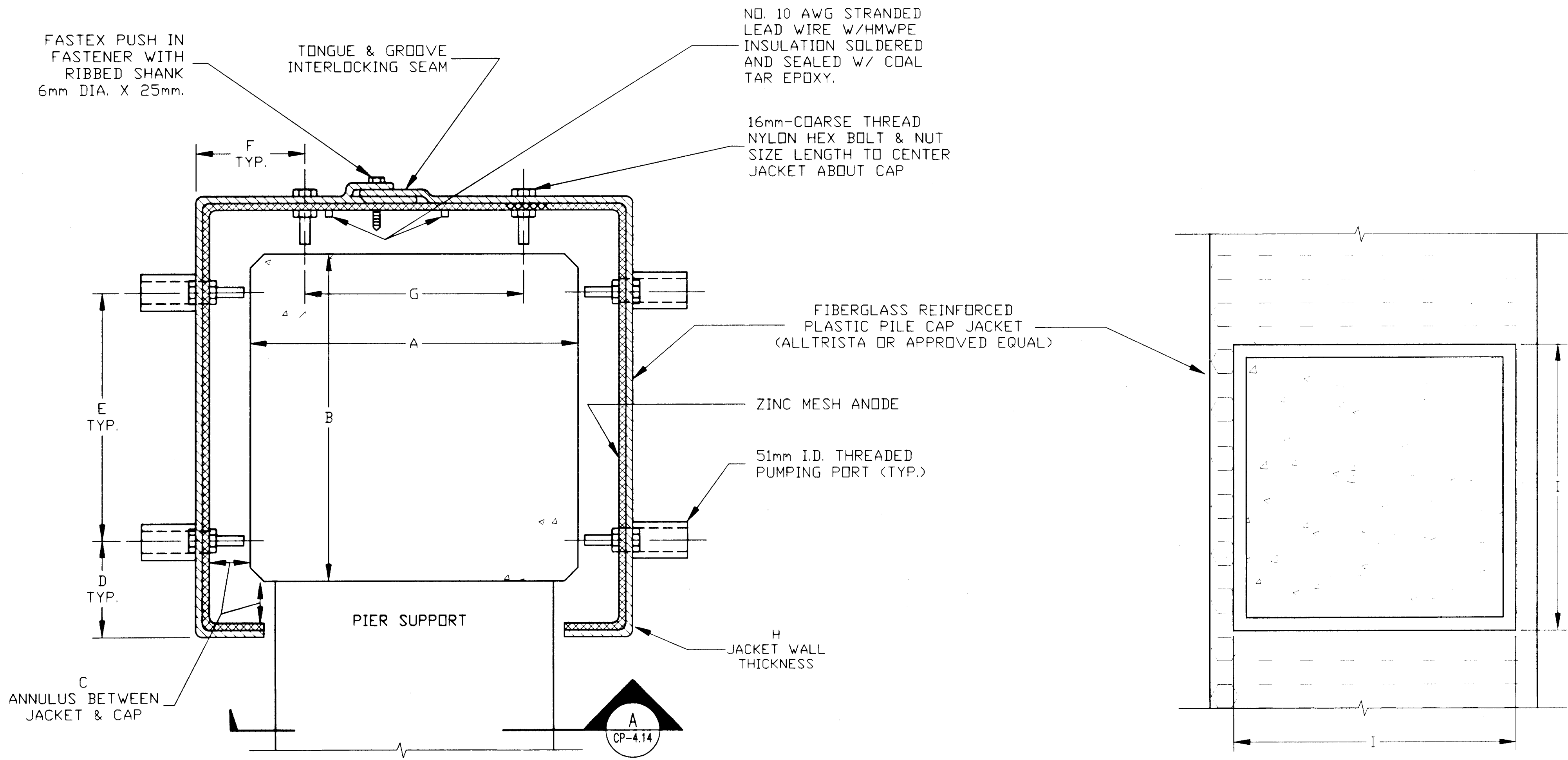
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PATH: P:\KTN\71111\DR\CP4-13.DWG	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES SOUTHEAST REGION DESIGN & CONSTRUCTION	KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION FED. NO. BR-0902 (26) PROJECT NO. 71111 TONGASS AVENUE VIADUCT INTERMEDIATE GIRDER SECTION & PILE	ALASKA	DESIGNED BY:	INVESTIGATING THE INFRASTRUCTURE 976 - 20TH AVENUE SEATTLE, WA 98122 PHONE: (206) 328-7872 FAX (206) 328-7916 tinnea@compuserve.com	DATE:
PLOT:				K.M. HOWELL		SEPTEMBER 15, 1998
PLOT DATE:				D.R. HELGESON		SHEET 81 OF 109
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE) DRAWN OR REVISED BY: T.C. NORTON				J.S. TINNEA		BRIDGE NO. 997

NOTES

1. INSIDE JACKET SURFACE MUST BE ROUGHENED ACCORDING TO SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
3. THE PUMPING PORT LOCATIONS ARE OPTIONAL. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL OF ALL GROUT PLACEMENT PROCEDURES, INCLUDING PORTS OR AIR VENTS LOCATIONS IF USED.
4. PILE JACKET, WHERE PRESENT, OMITTED FOR CLARITY.

DIMENSIONS										
A	B	C	D	E	F	G	H	I	CAP	VIADUCT
813mm	686mm	50mm	202mm	402mm	233mm	467mm	64mm	660mm	INTERMEDIATE	TONGASS AVE



1 CAP JACKET SECTION
CP-4.14 SCALE: N.T.S.

A PIER SUPPORT SECTION
CP-4.14 SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

LEGEND

Cathodic Protection

Cap Jacket Pile Jacket Thermal Spray

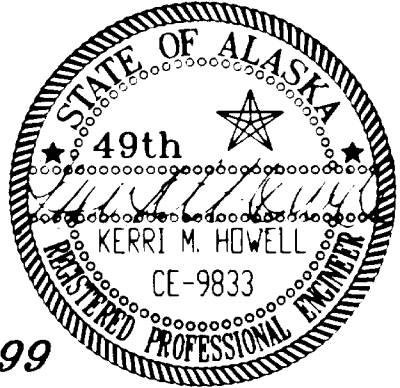
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PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE VIADUCT
INTERMEDIATE GIRDER SECTION & PIER

DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

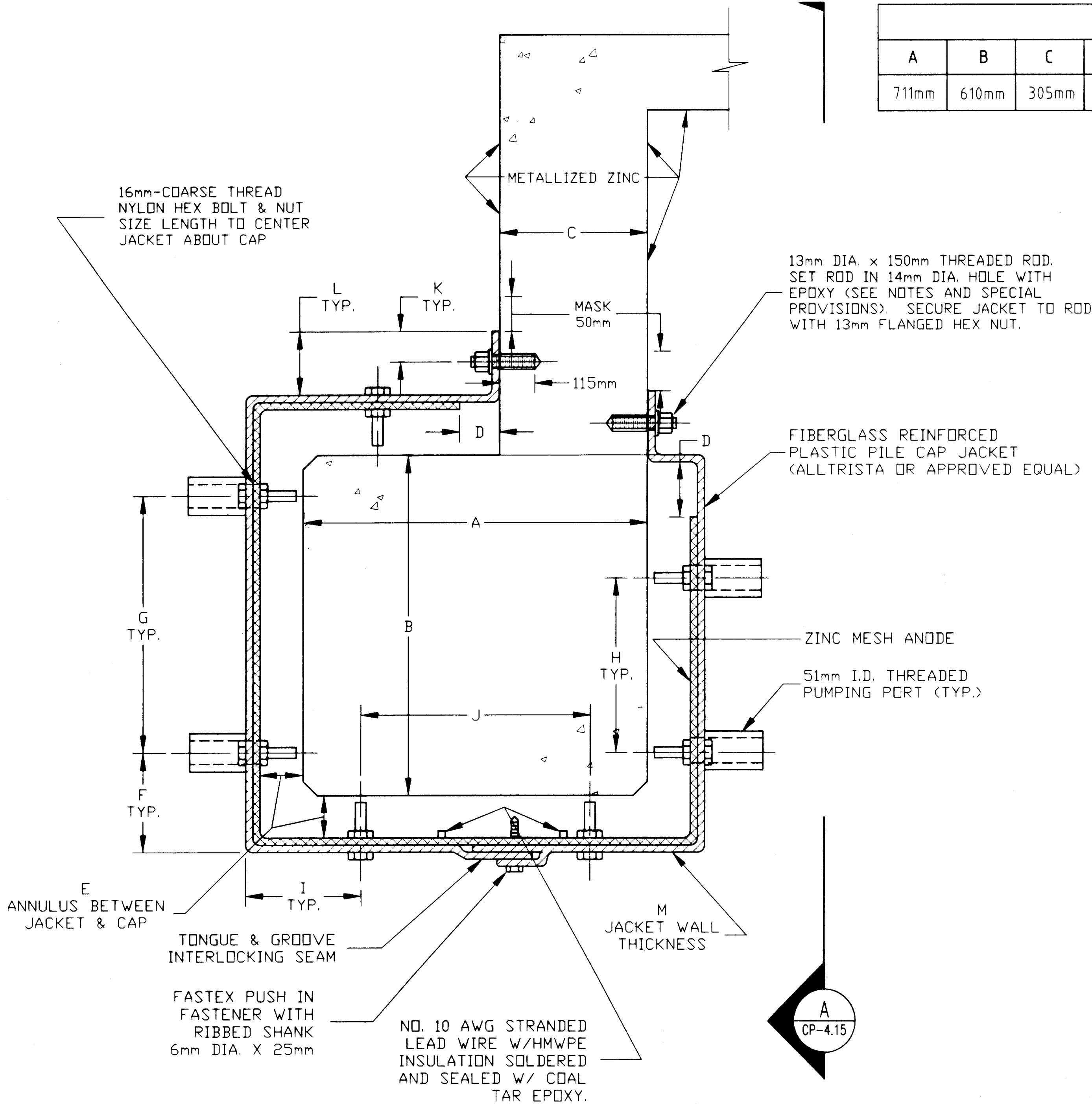
DESIGNER:
EXPIRES: DEC. 31, 1999



CP-4.14

DATE: SEPTEMBER 15, 1999
SHEET 82 OF 104
BRIDGE NO. 997

DIMENSIONS																CAP	VIADUCT
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O		TRANSITION	TONGASS AVENUE
711mm	610mm	305mm	50mm	50mm	183mm	365mm	305mm	208mm	415mm	50mm	100mm	64mm	457mm	305mm			



1 **TRANSITION CAP JACKET SECTION**
 CP-4.15 SCALE: N.T.S.

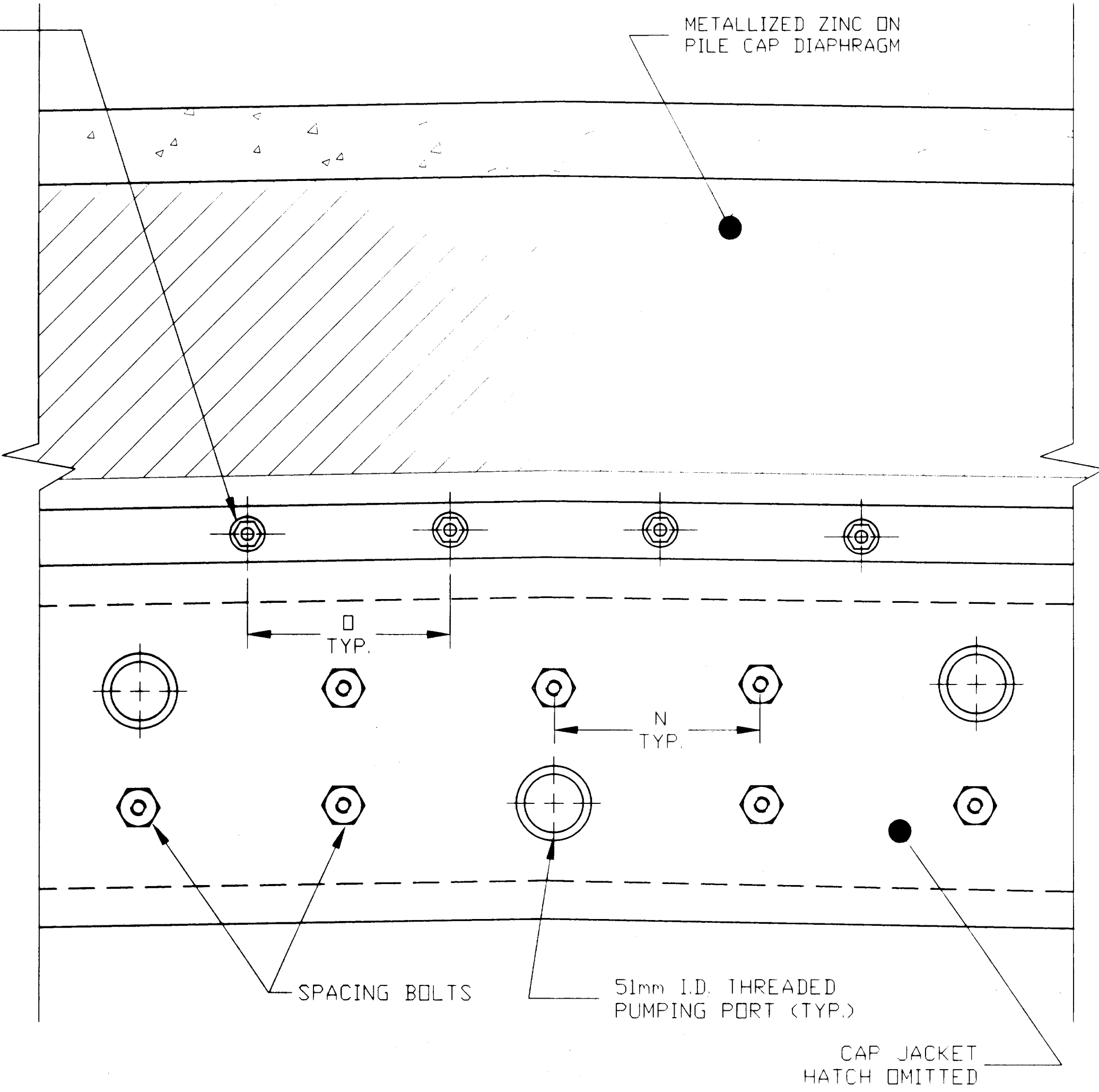
LEGEND

Cathodic Protection

Cap Jacket

Pile Jacket

Thermal Spray



A **CAP JACKET ELEVATION DETAIL**
 CP-4.15 SCALE: N.T.S.

NOTES

- INSIDE JACKET SURFACE MUST BE ROUGHENED ACCORDING TO SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
- THE PUMPING PORT LOCATIONS ARE OPTIONAL. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL OF ALL GROUT PLACEMENT PROCEDURES, INCLUDING PORTS OR AIR VENTS LOCATIONS IF USED.
- THREADED ROD MUST BE INSTALLED AND EPOXY FULLY CURED BEFORE PLACING AND SECURING JACKET.
- THE CONTRACTOR SHALL FOLLOW THE EPOXY RESIN MANUFACTURER'S DIRECTIONS AND THE SPECIAL PROVISIONS ON SURFACE PREPARATION AND THE STORAGE, SAFE AND PROPER USE, MIXING AND APPLICATION OF THE EPOXY RESIN. STRICTLY FOLLOW ANY TEMPERATURE OR MOISTURE RESTRICTIONS, REQUIREMENTS OR LIMITATIONS.
- DRILL HOLE FOR THREADED ROD ALONG HORIZONTAL CENTERLINE OF INTERSECTING CONCRETE LOGS.
- THREADED ROD MUST BE INSTALLED IN A CLEAN AND DRY HOLE.
- TO INSTALL THREADED ROD: a) DRILL HOLE; b) CLEAN HOLE W/NYLON BRUSH--DO NOT USE METAL BRUSH; c) BLOWOUT HOLE WITH DRY COMPRESSED AIR; d) STARTING AT THE DEEPEST END, FILL HOLE APPROX. TO APPROXIMATELY 1/2 DEPTH W/EPOXY; e) INSERT ROD TO DEPTH WITH TWISTING MOTION; CAREFULLY REMOVE EXCESS AND KEEP NON-EMBEDDED THREADS CLEAN.
- THE THREADED ROD MUST BE INSTALLED IMMEDIATELY AFTER HOLE SURFACE PREPARATION OF THE HOLE MUST BE PE-CLEANED (DRIED IF NECESSARY).

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER:



CP-4.15

EXPIRES:

DEC. 31, 1999

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 PLOT DATE:
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 DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
 FED. NO. BR-0902 (26) PROJECT NO. 71111
 TONGASS AVENUE VIADUCT
 TRANSITION CAP SECTION

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

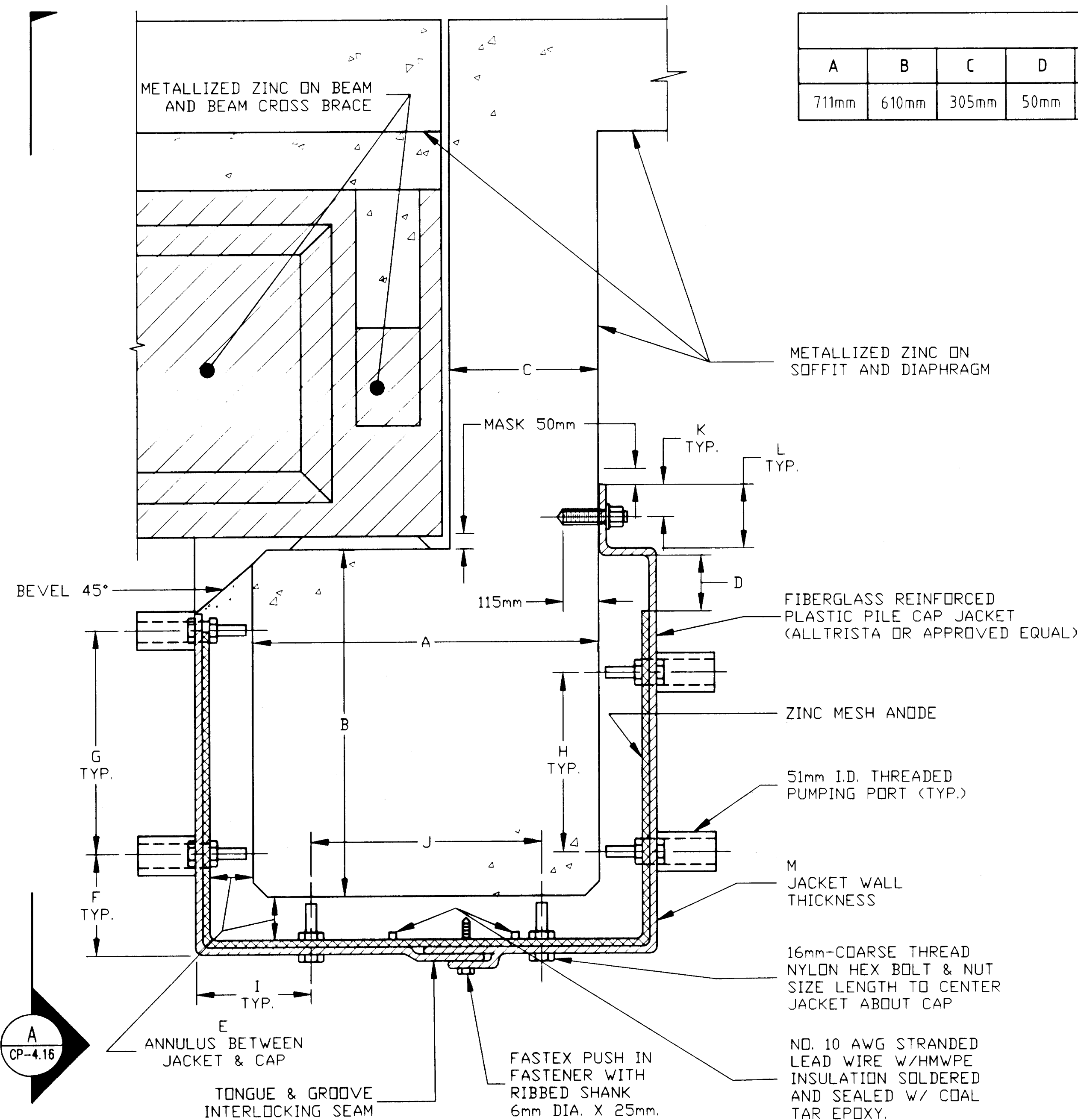
INVESTIGATING THE INFRASTRUCTURE
 976 - 20TH AVENUE SEATTLE, WA 98122
 PHONE (206) 328-7872 FAX (206) 328-7916
 tinnea@compuserve.com

DATE:

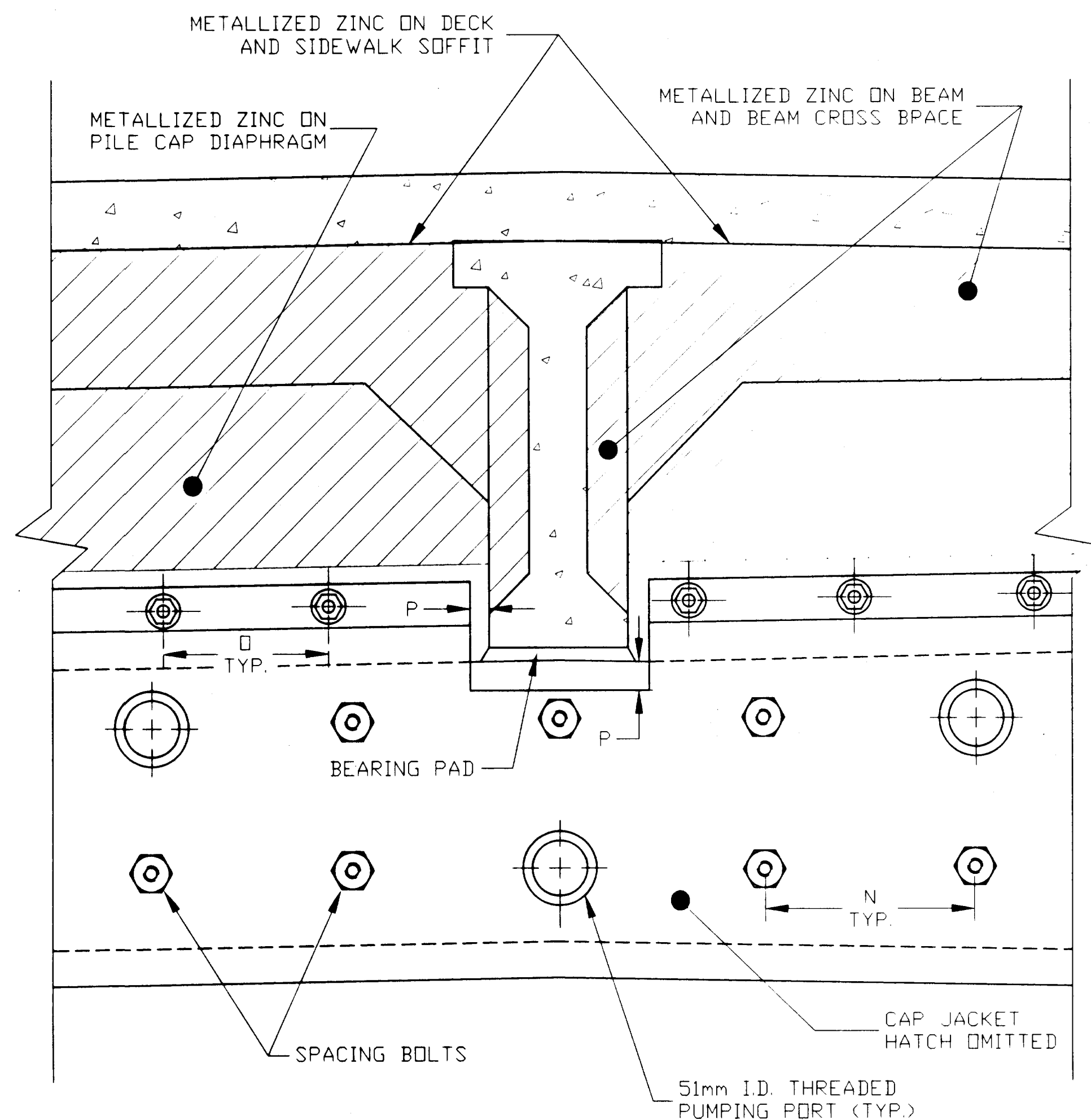
SEPTEMBER 15, 1999

SHEET 83 OF 104

BRIDGE NO. 997



DIMENSIONS																	
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	CAP	VIADUCT
711mm	610mm	305mm	50mm	50mm	183mm	364mm	305mm	208mm	415mm	50mm	100mm	64mm	457mm	305mm	50mm	TRANSITION	TONGASS AVENUE



NOTES

- INSIDE JACKET SURFACE MUST BE POUGHENED ACCORDING TO SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL ENSURE THAT THE ENTIRE ANNULUS BETWEEN THE FIBERGLASS JACKET AND STRUCTURE ARE COMPLETELY FILLED WITH GROUT.
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ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

1 TRANSITION CAP JACKET SECTION

CP-4.16

SCALE:

N.T.S

A CAP JACKET ELEVATION DETAIL

CP-4.16

SCALE:

N.T.S

LEGEND

Cathodic Protection



PATH: P:\KTN\71111\DR\CP4-16.DWG

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PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE VIADUCT

ALASKA

TRANSITION CAP SECTION & BEAM

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

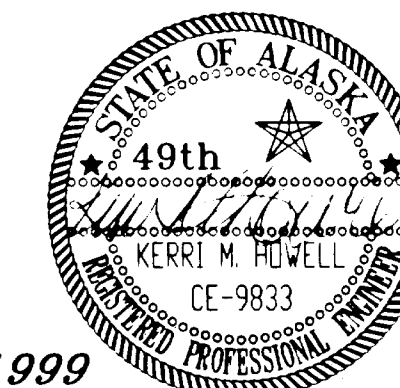
APPROVED BY:

J.S. TINNEA

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-4.16

DATE:

SEPTEMBER 15, 1999

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

SHEET 84 OF 104

BRIDGE NO. 997

DIMENSIONS														
A	B	C	D	E	F	G	H	I	J	K	L	M	CAP	VIADUCT
711mm	610mm	305mm	50mm	50mm	183mm	364mm	305mm	208mm	508mm	50mm	100mm	64mm	TRANSITION	TONGASS AVENUE

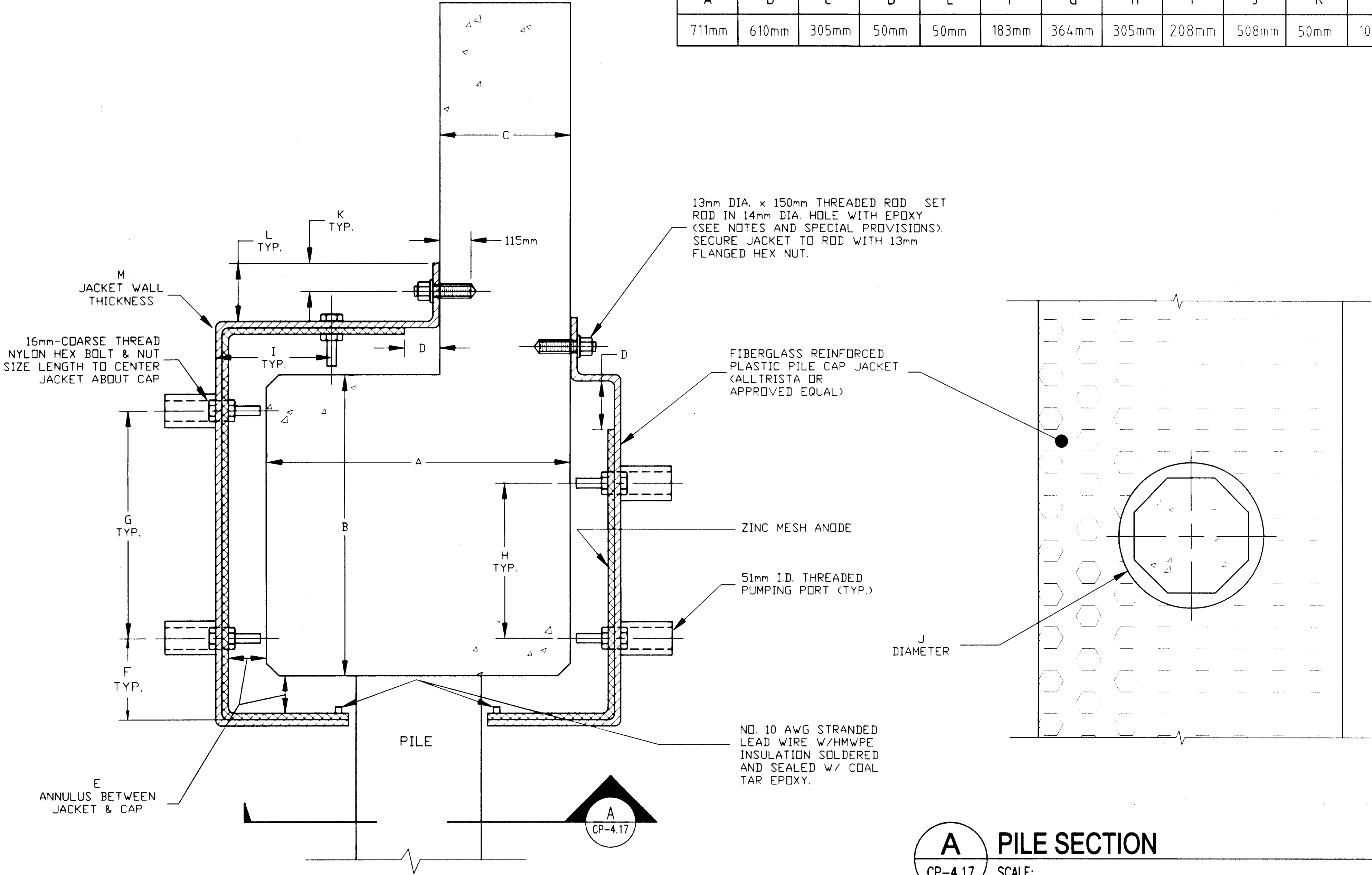
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- THE THREADED ROD MUST BE INSTALLED IMMEDIATELY AFTER HOLE SURFACE PREPARATION OF THE HOLE MUST BE RE-CLEANED (DRIED IF NECESSARY).
- PILE JACKET OMITTED FOR CLARITY

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



1 TRANSITION CAP JACKET SECTION
CP-4.17 SCALE: N.T.S.

A PILE SECTION
CP-4.17 SCALE: N.T.S.

LEGEND	
	Cap Jacket
	Pile Jacket
	Thermal Spray

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DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN	KETCHIKAN VIADUCTS REHABILITATION FED. NO. BR-0902 (26) PROJECT NO. 71111 TONGASS AVENUE VIADUCT	ALASKA
TRANSITION CAP SECTION & PILE		

DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

DESIGNER:
EXPIRES: DEC. 31, 1999
INVESTIGATING THE INFRASTRUCTURE 976 - 20TH AVENUE SEATTLE, WA 98122 PHONE: (206) 328-7872 FAX (206) 328-7916 tinnea@compuserve.com

DATE: SEPTEMBER 15, 1999
SHEET 05 OF 104
BRIDGE NO. 997

CP-4.17

DIMENSIONS															
A	B	C	D	E	F	G	H	I	J	K	L	M	CAP	VIADUCT	
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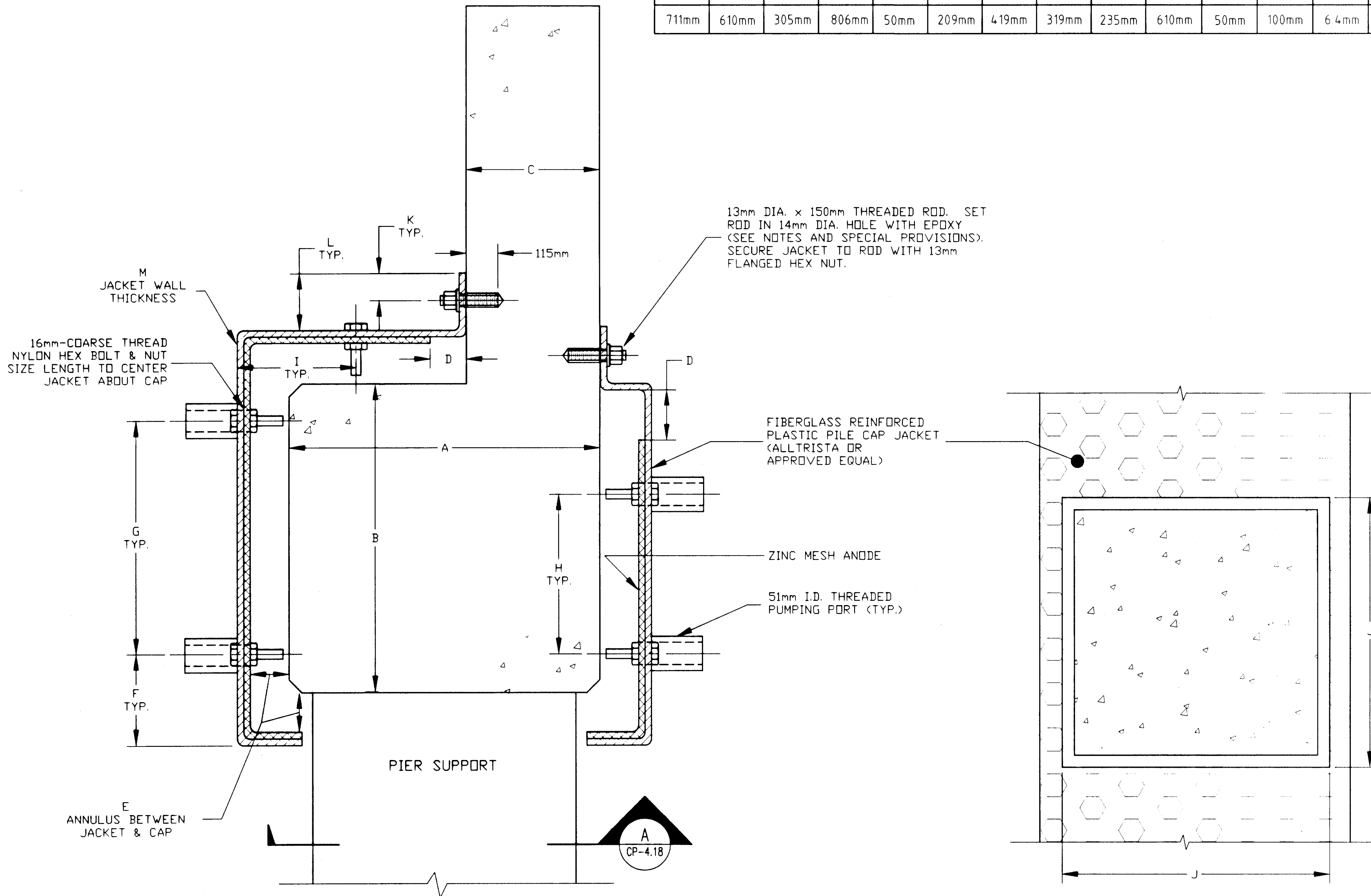
NOTES

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9. THE THREADED ROD MUST BE INSTALLED IMMEDIATELY AFTER HOLE SURFACE PREPARATION OR THE HOLE MUST BE RE-CLEANED (DRIED IF NECESSARY).
10. PILE JACKET, WHERE PRESENT, OMITTED FOR CLARITY.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE
PLANS USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT



1 TRANSITION CAP JACKET SECTION
CP-4.18 SCALE: N.T.S.

A PIER SUPPORT SECTION
CP-4.18 SCALE: N.T.S.

LEGEND		
Cathodic Protection		
Cap Jacket	Pile Jacket	Thermal Spray

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

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE VIADUCT
TRANSITION CAP SECTION & PIER

ALASKA
DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-4.18

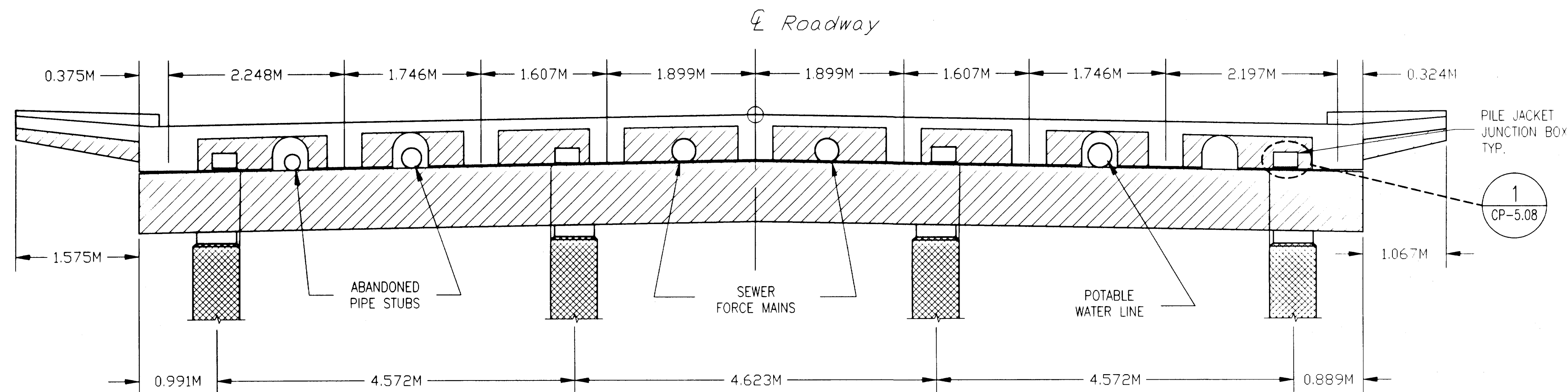
INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7916
tinneo@compuserve.com

DATE: SEPTEMBER 15, 1999
SHEET 86 OF 104
BRIDGE NO. 997

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PLOT DATE:
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
DRAWN OR REVISED BY: T.C. NORTON

NOTES

1. CONFIGURATION OF UTILITIES VARIES. CONTRACTOR MUST VERIFY LAYOUT IN THE FIELD.
2. ROADWAY NARROWS IN SOME LOCATIONS. SEE WATER ST. ELEVATIONS AND ORIGINAL AS-BUILTS.
3. USE STANDOFFS FOR JUNCTION BOXES ON DIAPHRAGM WALL.
4. CAN USE JUNCTION BOXES FOR PILE CAP AS WELL.
5. CONTRACTOR WILL BE REQUIRED TO MODIFY GENERAL JACKET CONFIGURATION TO FIT AROUND EXISTING UTILITY HARDWARE.
6. IN SOME LOCATIONS EXISTING UTILITIES AND SERVICE LINES MAY BE CONGESTED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING PROPERTY WHILE COMPLETING THE REQUIREMENTS OF THIS WORK.
7. THERMAL SPRAYED ZINC APPLIED TO ALL DECK AND SIDEWALK PANEL SOFFIT AND BEAMS.



1 TYPICAL ROADWAY SECTION
CP-4.19 SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND DIMENSIONS ARE BASED ON "AS-BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

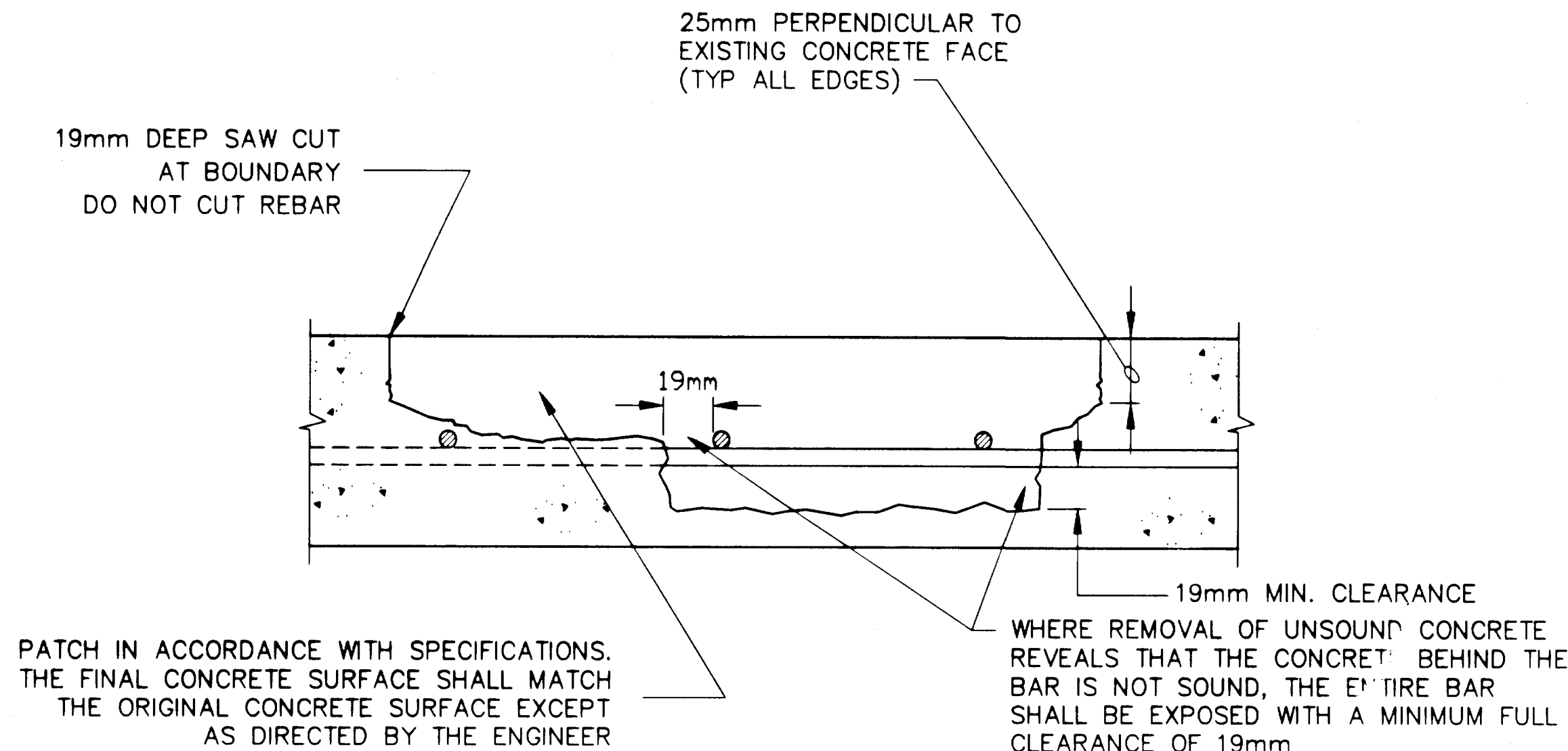
DO NOT SCALE FROM THESE PLANS USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

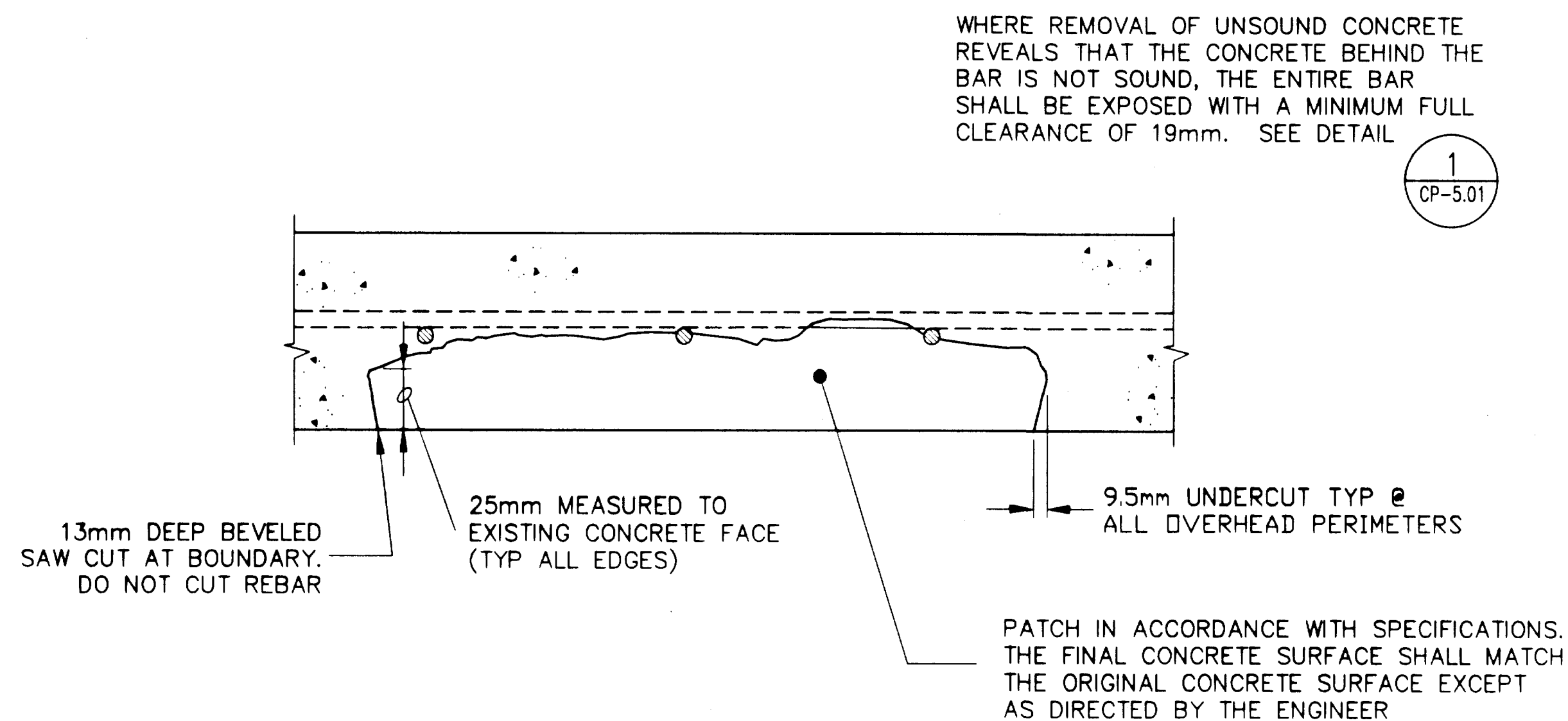
LEGEND		
Cathodic Protection		
Cap Jacket	Pile Jacket	Thermal Spray

DESIGNER:		CP-4.19
EXPIRES: DEC. 31, 1999		

PATH: P:\KTN\71111\DR\CP4-19.DWG	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES SOUTHEAST REGION DESIGN & CONSTRUCTION	KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION FED. NO. BR-0902 (26) PROJECT NO. 71111 WATER STREET VIADUCT WATER ST. AS-BUILT ROADWAY SECTION	ALASKA	DESIGNED BY:	INVESTIGATING THE INFRASTRUCTURE 976 - 20TH AVENUE SEATTLE, WA 98122 PHONE: (206) 328-7872 FAX (206) 328-7916 tinnea@compuserve.com	DATE:
PLOT:				K.M. HOWELL		SEPTEMBER 15, 1999
PLOT DATE:				CHECKED BY:		SHEET 87 OF 104
PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)				D.R. HELGESON		BRIDGE NO. 797
DRAWN OR REVISED BY: T.C. NORTON				APPROVED BY:	J.S. TINNEA	



1 HORIZONTAL PATCH
CP-5.01 SCALE: N.T.S



2 OVERHEAD PATCH
CP-5.01 SCALE: N.T.S

NOTES

1. REMOVE ALL UNSOUND CONCRETE IN ACCORDANCE WITH THE SPECIFICATIONS
2. PRIOR TO RESTORING CONCRETE COVER, CLEAN EXCAVATED CONCRETE SURFACE AND EXPOSED REINFORCEMENT IN ACCORDANCE WITH THE SPECIAL PROVISIONS. IN ADDITION TO BEING CLEAN, ALL SURFACES IN CONTACT WITH THE PATCH MUST BE SSD PRIOR TO PLACING PATCH MATERIAL. THIS WILL REQUIRE PRE-WETTING THE CONCRETE FOR A MINIMUM OF 24-HOURS.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER:

EXPIRES:
DEC. 31, 1999



CP-5.01

PATH: P:\KTN\71111\DR\CP5-01.DWG

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PLOT DATE:

PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)

DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
HORIZONTAL CONCRETE REPAIR

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE: (206) 328-7872 FAX (206) 328-7916
tinneo@compuserve.com

DATE:

SEPTEMBER 15, 1999

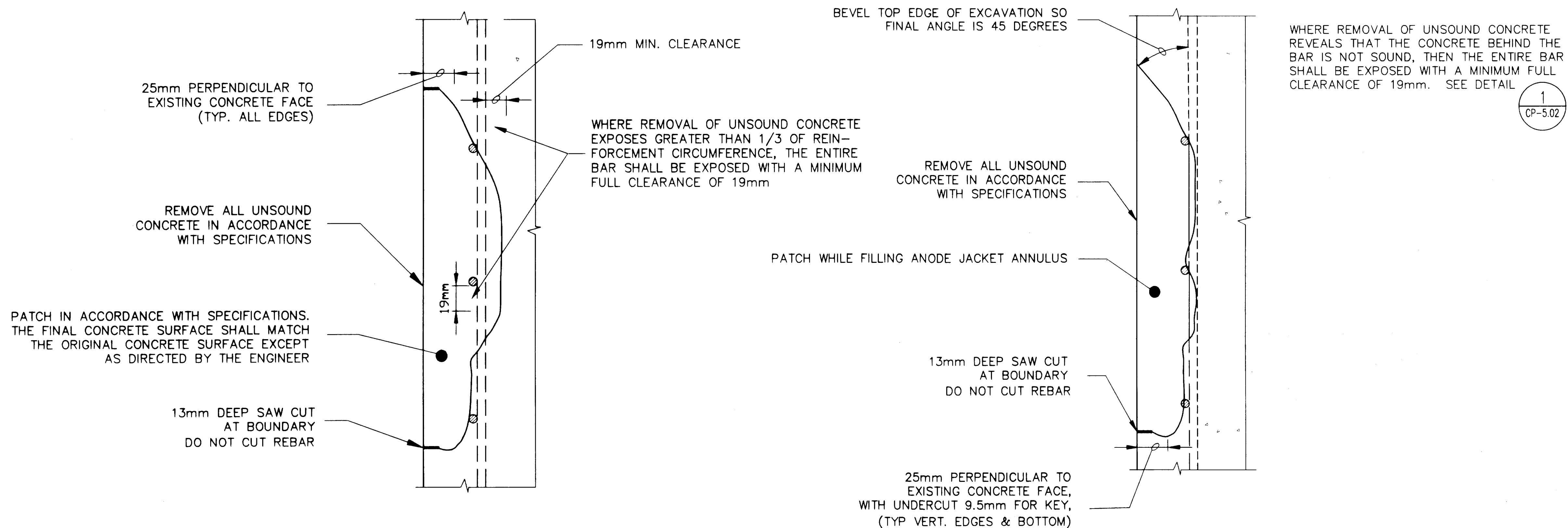
SHEET 88 OF 104

BRIDGE NO. 797 997

NOTES

1. REMOVE ALL UNSOUND CONCRETE IN ACCORDANCE WITH THE SPECIFICATIONS

2. PRIOR TO RESTORING CONCRETE COVER, CLEAN EXCAVATED CONCRETE SURFACE AND EXPOSED REINFORCEMENT IN ACCORDANCE WITH THE SPECIAL PROVISIONS. IN ADDITION TO BEING CLEAN, ALL SURFACES IN CONTACT WITH THE PATCH MUST BE SSD PRIOR TO PLACING PATCH MATERIAL. THIS WILL REQUIRE PRE-WETTING THE CONCRETE FOR A MINIMUM OF 24-HOURS.



1 VERTICAL PATCH
CP-5.02 SCALE: N.T.S.

2 EXCAVATION WITHIN ANODE JACKET
CP-5.02 SCALE: N.T.S.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER:



CP-5.02

EXPIRES:

DEC. 31, 1999

PATH: P:\KTN\71111\DR\CP5-02.DWG
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PLOT SCALE: PLOT SCALE = 1:1 (PAPER SPACE)
DRAWN OR REVISED BY: T.C. NORTON

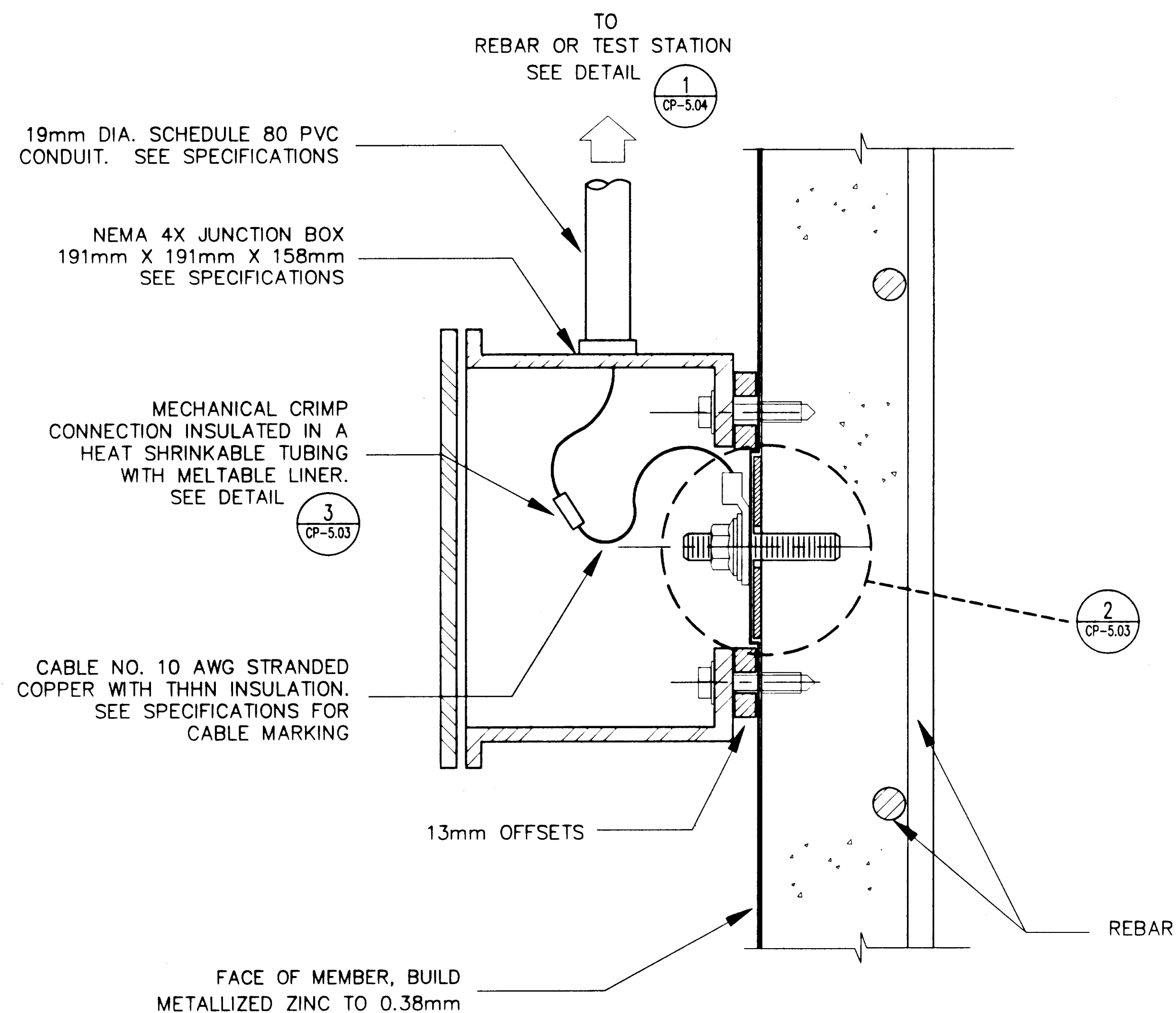
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
ALASKA
VERTICAL CONCRETE REPAIR

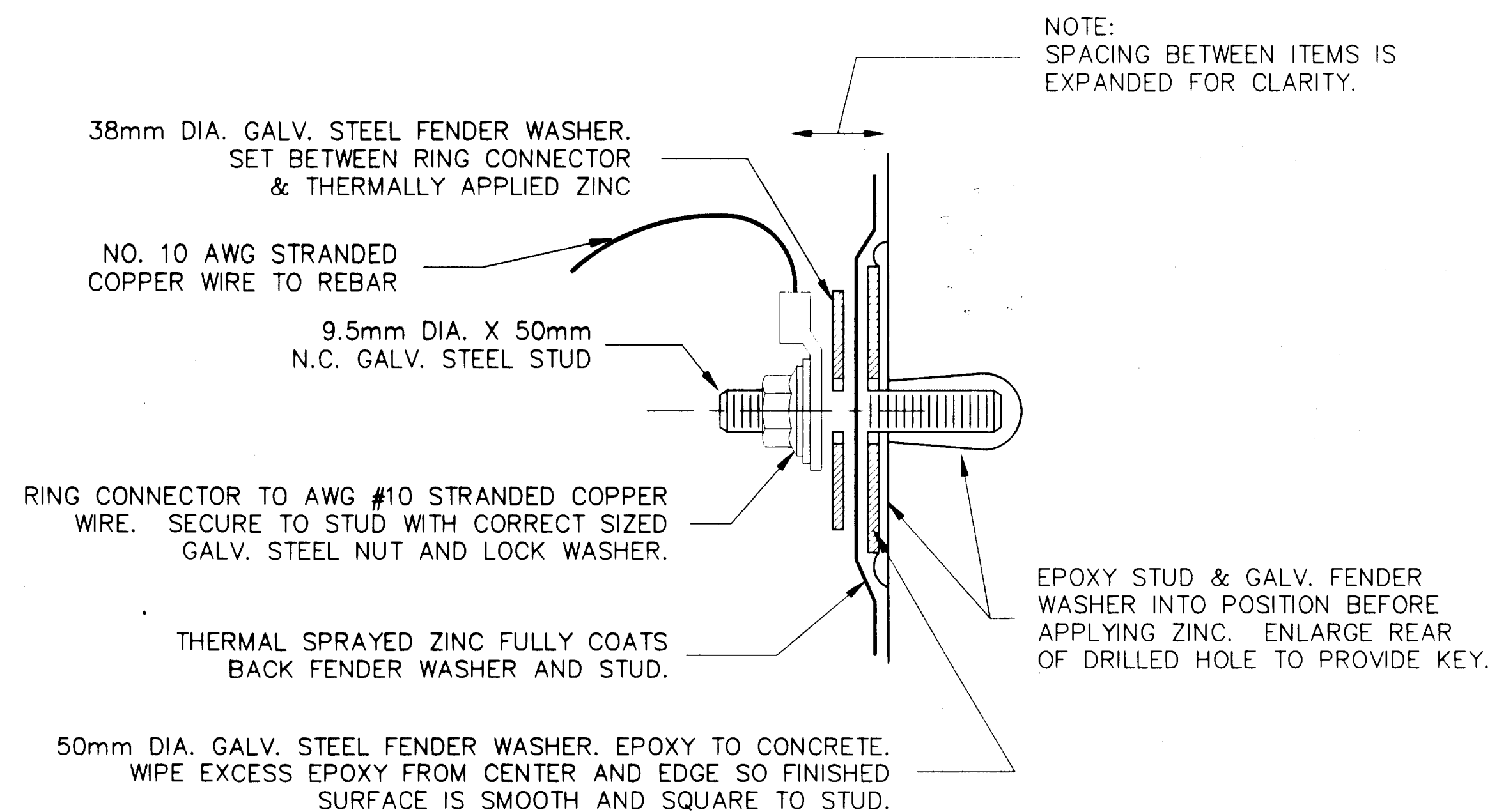
DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE, SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7916
tinnea@compuserve.com

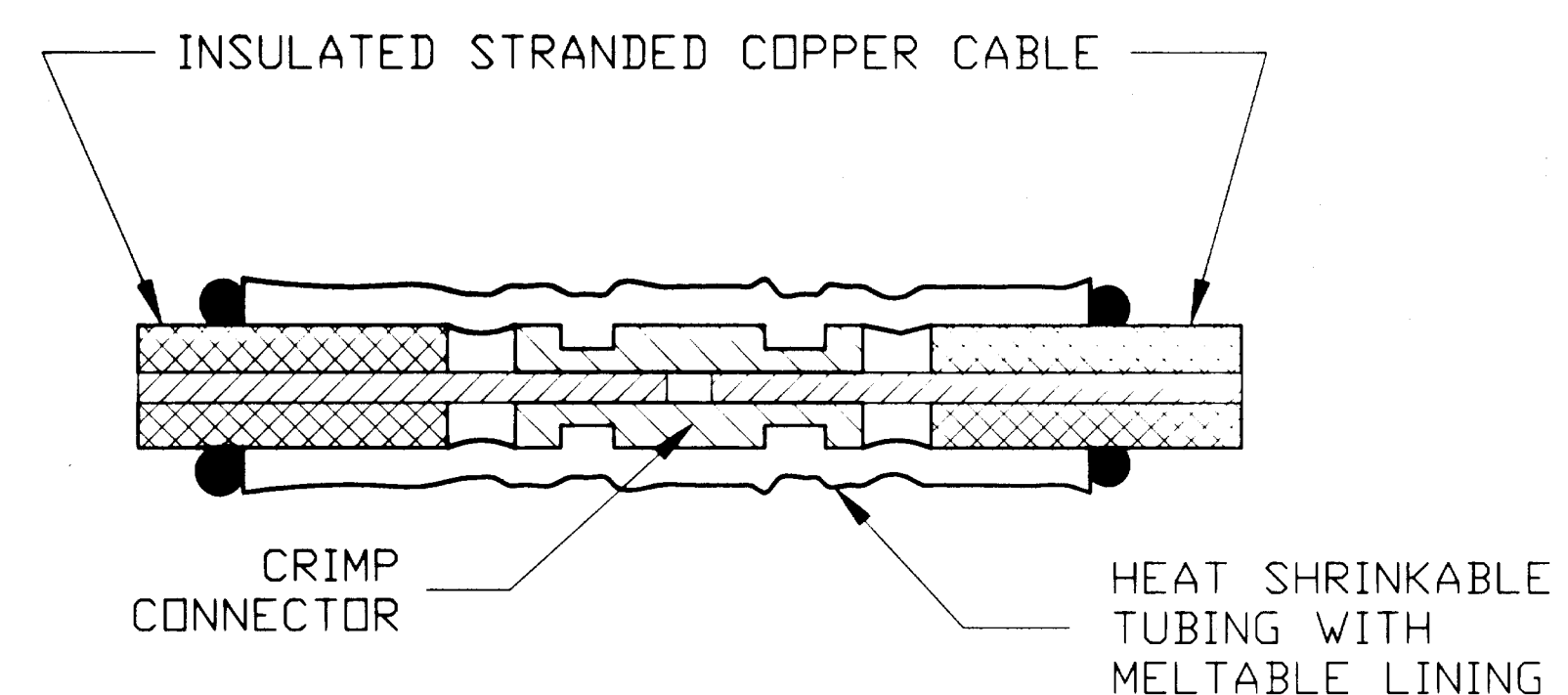
DATE: SEPTEMBER 15, 1999
SHEET 89 OF 104
BRIDGE NO. 797 997



1 SPRAYED ZINC ANODE CONNECTION
CP-5.03 SCALE: N.T.S.



2 ANODE CONNECTION DETAIL
CP-5.03 SCALE: N.T.S.



3 BUTT SPLICE
CP-5.03 SCALE: N.T.S.

NOTES

- PROTECT EXISTING UTILITIES AND PROPERTY FROM ANY CONSTRUCTION RELATED DAMAGE.
- SECURE PERMISSION OF UTILITY OWNER, OR OWNER OF OTHER PROPERTY, PRIOR TO MOVING OR TEMPORARILY RELOCATING ANY PROPERTY FOR THE CONVENIENCE OF CONSTRUCTION ACTIVITIES.
- CONDUIT SHALL BE UL 651 SCHEDULE 80 RIGID PVC. SIZE AND SUPPORT CONDUIT PER NEC FOR NONMETALLIC CONDUIT. MINIMUM DIAMETER IS 19mm.
- USE ENGINEER APPROVED NONMETALLIC CONDUIT CLAMPS AND/OR STRUTS. ATTACH WITH ICBO APPROVED GALVANIZED STEEL ANCHOR BOLT/NON-METALLIC ANCHOR SLEEVE FASTENERS. COAT EXPOSED PORTIONS OF ANCHORS WITH ENGINEER APPROVED MARINE GRADE POLYURETHANE COATING.
- SIZE JUNCTION BOXES AND ENCLOSURES BASED ON NUMBER AND SIZE OF CONDUCTORS AND CONDUIT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING NEAT, STRAIGHT AND LEVEL CONDUIT RUNS. USE 13mm PVC CONDUIT STAND OFFS OR NONMETALLIC STRUTS AS REQUIRED TO MAINTAIN LEVEL RUNS.
- ENCLOSURES AND JUNCTION BOXES SHALL BE NEMA 4X RATED COMPRESSION MOLDED, FIBERGLASS REINFORCED POLYESTER WITH FLAT TOPS SECURED BY STAINLESS STEEL SCREWS ENCAPSULATED WITH FIBERGLASS REINFORCED PLASTIC.
- DO NOT MAKE ATTACHMENTS TO PRESTRESSED CONCRETE USING DRILLED ANCHORS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- WHERE ENCLOSURES OR JUNCTION BOXES ARE MOUNTED ON METALLIZED SURFACES, USE OFFSETS THAT PROVIDE A MINIMUM OF 13mm CLEARANCE BETWEEN THE METALLIZED CONCRETE SURFACE AND THE BACK OF THE ENCLOSURE.
- SEE SPECIFICATIONS FOR MARKING AND CABLE INSULATION COLORS.
- LEAVE FREE CABLE IN ALL BOXES TO ALLOW FOR RE-CONNECTION, SEE SPECIFICATIONS.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

DESIGNER:

EXPIRES:

DEC. 31, 1999



CP-5.03

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DRAWN OR REVISED BY: T.C. NORTON

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

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
THERMAL SPRAY ANODE CONNECTION

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE

976 - 20TH AVENUE SEATTLE, WA 98122

PHONE: (206) 328-7872 FAX (206) 328-7916

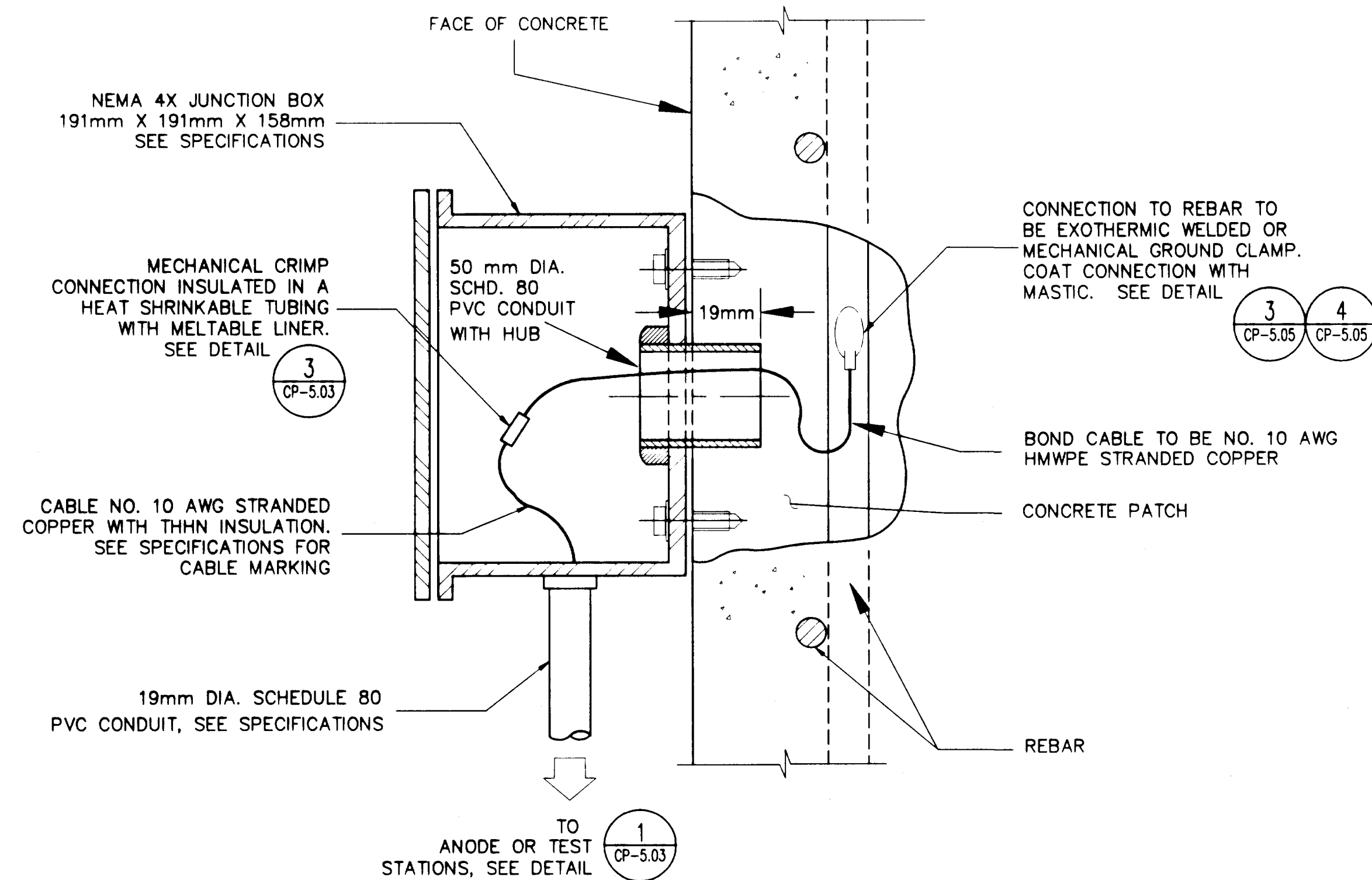
tinne@compuserve.com

DATE:

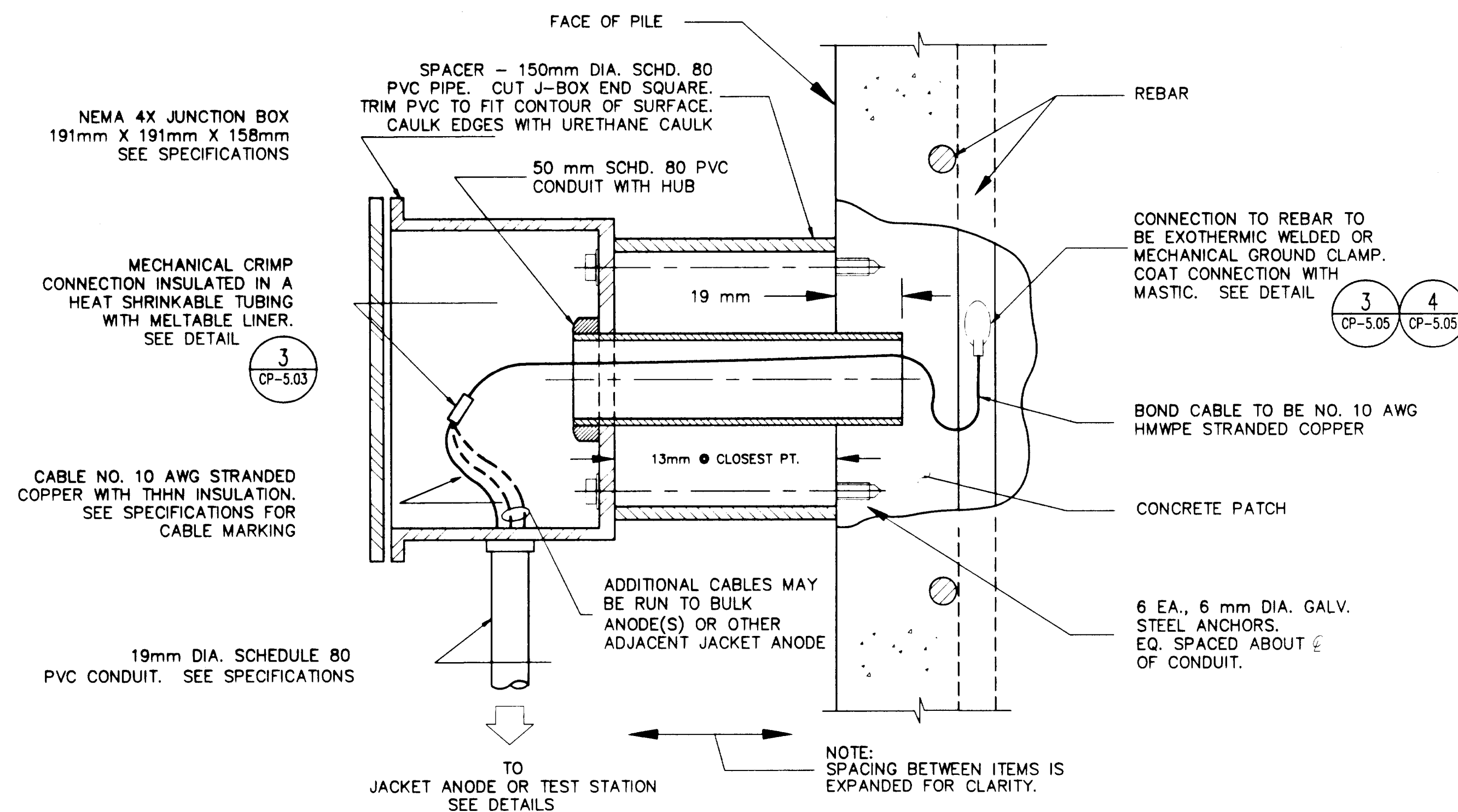
SEPTEMBER 15, 1999

SHEET 90 OF 104

BRIDGE NO. 797 997



1 SPRAYED ZINC REBAR CONNECTION
 CP-5.04 SCALE: N.T.S.



2 JACKET ANODE REBAR CONNECTION
 CP-5.04 SCALE: N.T.S.

NOTES

1. PROTECT EXISTING UTILITIES AND PROPERTY FROM ANY CONSTRUCTION RELATED DAMAGE.
2. SECURE PERMISSION OF UTILITY OWNER, OR OWNER OF OTHER PROPERTY, PRIOR TO MOVING OR TEMPORARILY RELOCATING ANY PROPERTY FOR THE CONVENIENCE OF CONSTRUCTION ACTIVITIES.
3. CONDUIT SHALL BE UL 651 SCHEDULE 80 RIGID PVC. SIZE AND SUPPORT CONDUIT PER NEC FOR NONMETALLIC CONDUIT. MINIMUM DIAMETER IS 19mm.
4. USE ENGINEER APPROVED NONMETALLIC CONDUIT CLAMPS AND/OR STRUTS. ATTACH WITH ICBO APPROVED GALVANIZED STEEL ANCHOR BOLT/NON-METALLIC ANCHOR SLEEVE FASTENERS. COAT EXPOSED PORTIONS OF ANCHORS WITH ENGINEER APPROVED MARINE GRADE POLYURETHANE COATING.
5. SIZE JUNCTION BOXES AND ENCLOSURES BASED ON NUMBER AND SIZE OF CONDUCTORS AND CONDUIT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING NEAT, STRAIGHT AND LEVEL CONDUIT RUNS. USE 13mm PVC CONDUIT STAND OFFS OR NONMETALLIC STRUTS AS REQUIRED TO MAINTAIN LEVEL RUNS.
7. ENCLOSURES AND JUNCTION BOXES SHALL BE NEMA 4X RATED COMPRESSION MOLDED, FIBERGLASS REINFORCED POLYESTER WITH FLAT TOPS SECURED BY STAINLESS STEEL SCREWS ENCAPSULATED WITH FIBERGLASS REINFORCED PLASTIC.
8. DO NOT MAKE ATTACHMENTS TO PRESTRESSED CONCRETE USING DRILLED ANCHORS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
9. WHERE ENCLOSURES OR JUNCTION BOXES ARE MOUNTED ON METALLIZED SURFACES, USE OFFSETS THAT PROVIDE A MINIMUM OF 13mm CLEARANCE BETWEEN THE METALLIZED CONCRETE SURFACE AND THE BACK OF THE ENCLOSURE.
10. SEE SPECIFICATIONS FOR MARKING AND CABLE INSULATION COLORS.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DO NOT SCALE FROM THESE PLANS
 USE DIMENSIONS

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STATE OF ALASKA
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 AND PUBLIC FACILITIES
 SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
 FED. NO. BR-0902 (26) PROJECT NO. 71111
 TONGASS AVENUE & WATER STREET VIADUCTS
REBAR CONNECTIONS

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

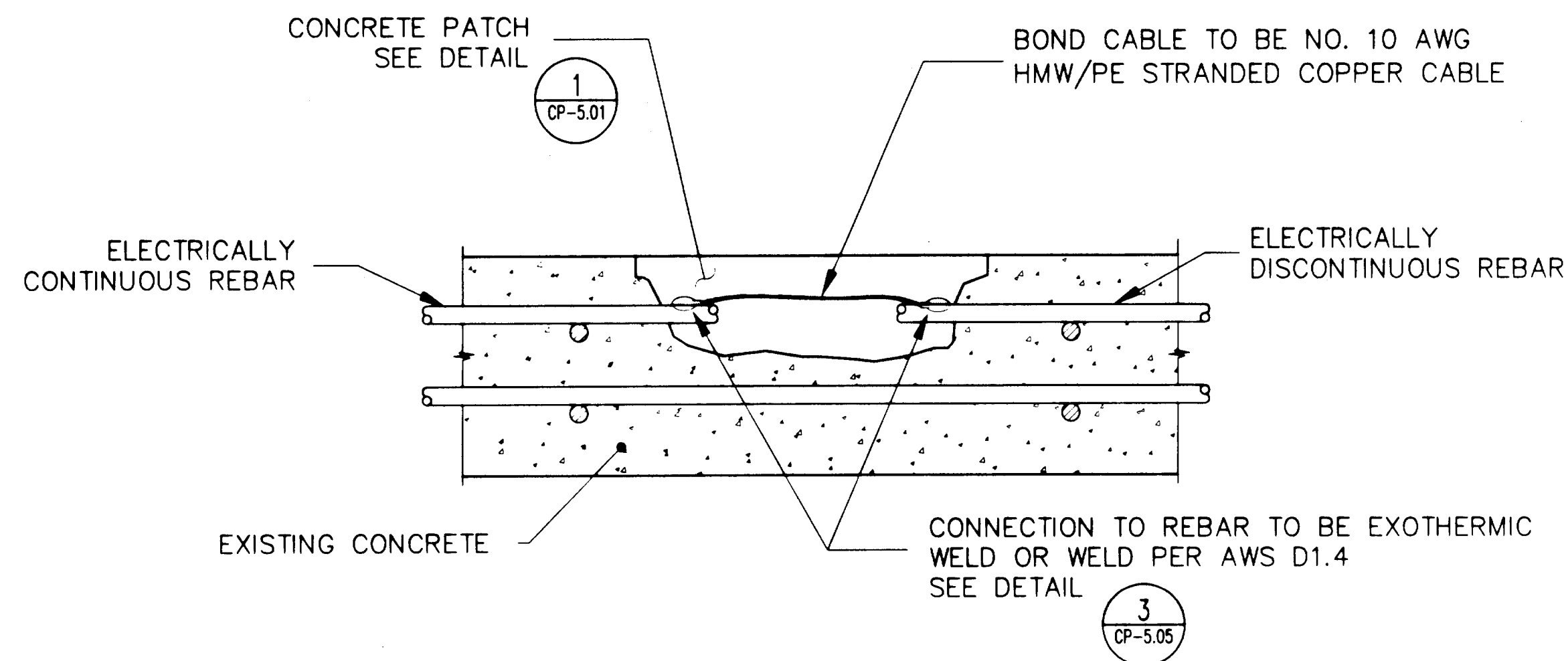
INVESTIGATING THE INFRASTRUCTURE
 976 - 20TH AVENUE SEATTLE, WA 98122
 PHONE: (206) 328-7872 FAX (206) 328-7916
 tinnea@compuserve.com

DATE:

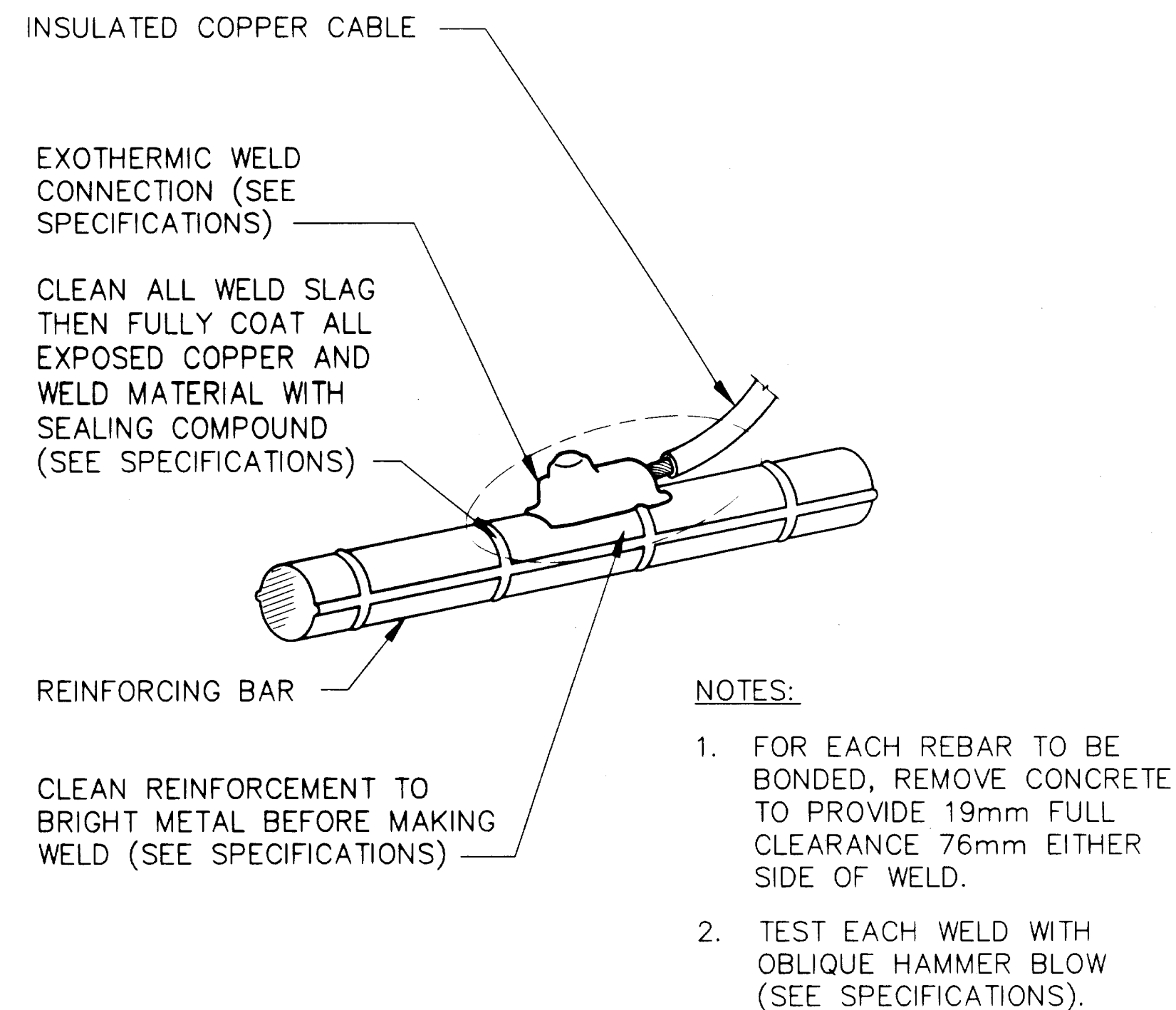
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SHEET 9/ OF 104

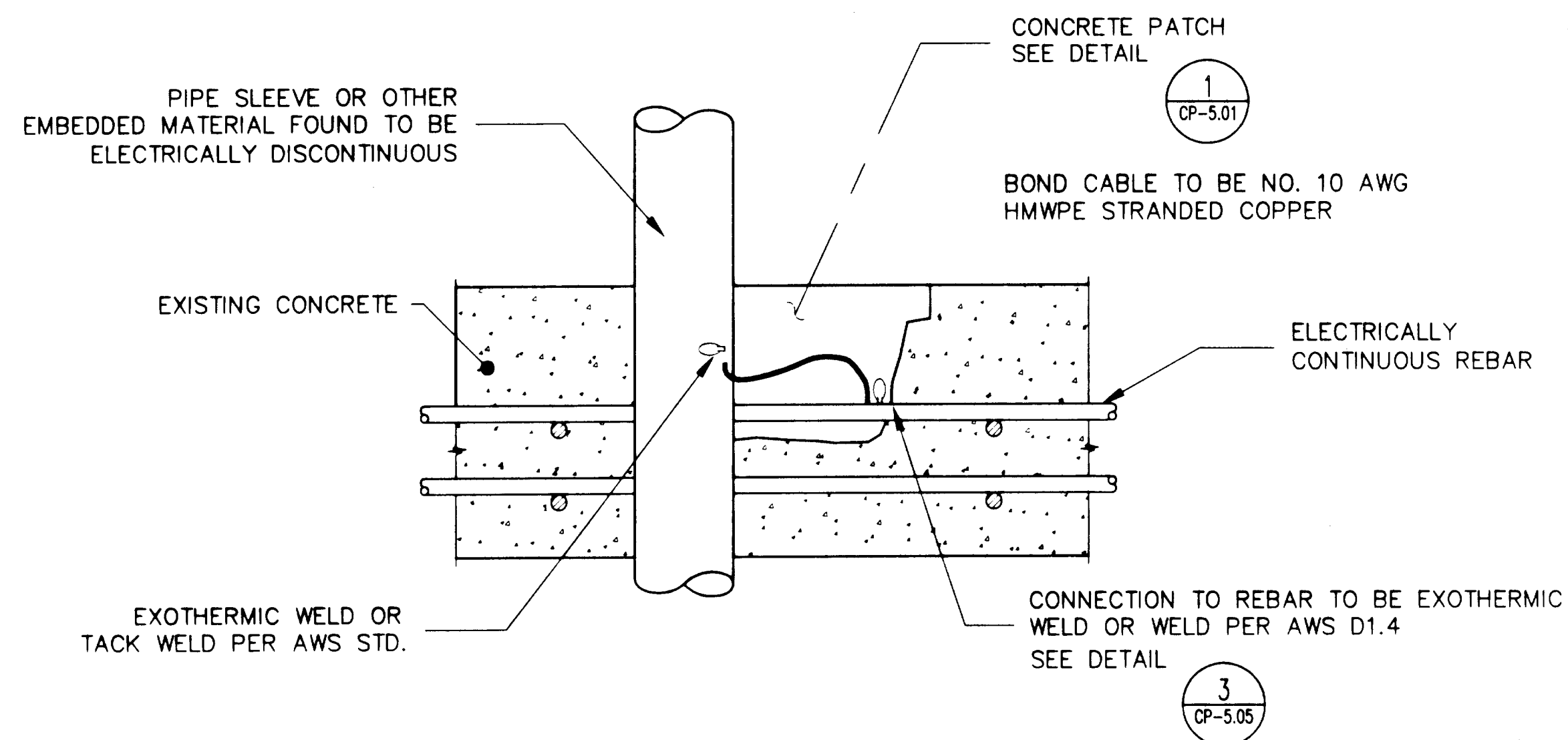
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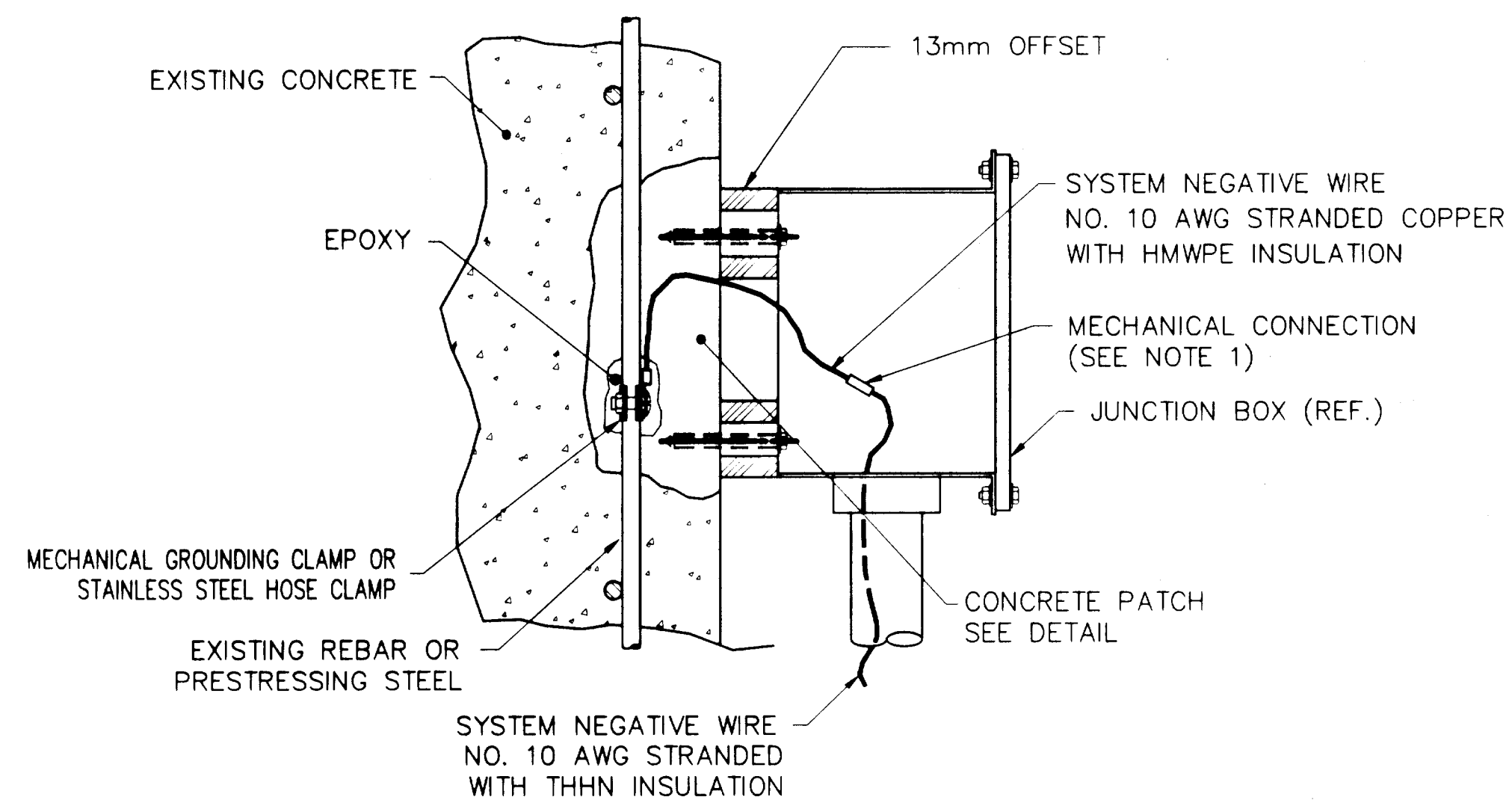
1 DISCONTINUOUS REBAR BOND
CP-5.05 SCALE: N.T.S.



3 EXOTHERMIC WELD
CP-5.05 SCALE: N.T.S.



2 METAL EMBEDMENT BOND
CP-5.05 SCALE: N.T.S.



4 MECHANICAL CONNECTION
CP-5.05 SCALE: N.T.S.

NOTES

1. BONDS TO PRESTRESSING STEEL MUST BE MECHANICAL. DO NOT USE WELDING OR EXOTHERMIC WELDING TO MAKE ELECTRICAL CONNECTIONS TO PRESTRESSING STEEL.
2. CONTRACTOR SHALL REVIEW AS-BUILT RECORDS OF PRESTRESSED GIRDERS AND BEAMS AND PROVIDE THE ENGINEER SHOP DRAWINGS AND PROCEDURES THAT CLEARLY STATE HOW THE TENDONS WILL BE EXPOSED, ELECTRICAL CONNECTIONS MADE AND THE EXCAVATIONS PATCHED.
3. WHEN WELDING TO REINFORCEMENT, AWS D1.4 MUST BE FOLLOWED, SEE SPECIFICATIONS.

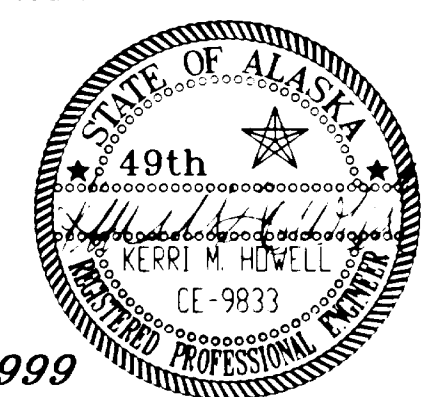
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USE DIMENSIONS

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STATE OF ALASKA
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AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN

KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
REBAR BONDING DETAILS

ALASKA

DESIGNED BY:

K.M. HOWELL

CHECKED BY:

D.R. HELGESON

APPROVED BY:

J.S. TINNEA

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE SEATTLE, WA 98122
PHONE (206) 328-7872 FAX (206) 328-7915
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DATE:

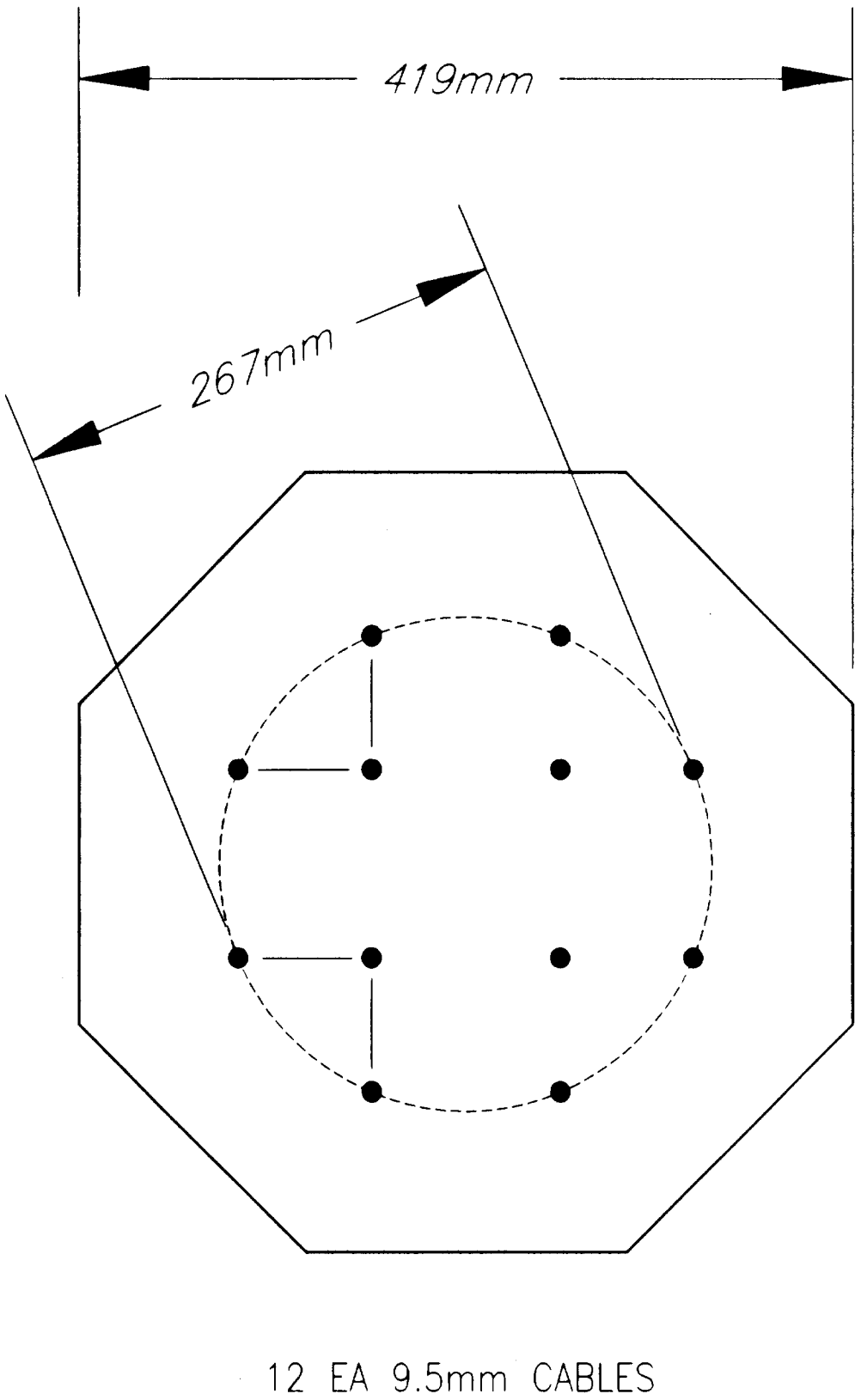
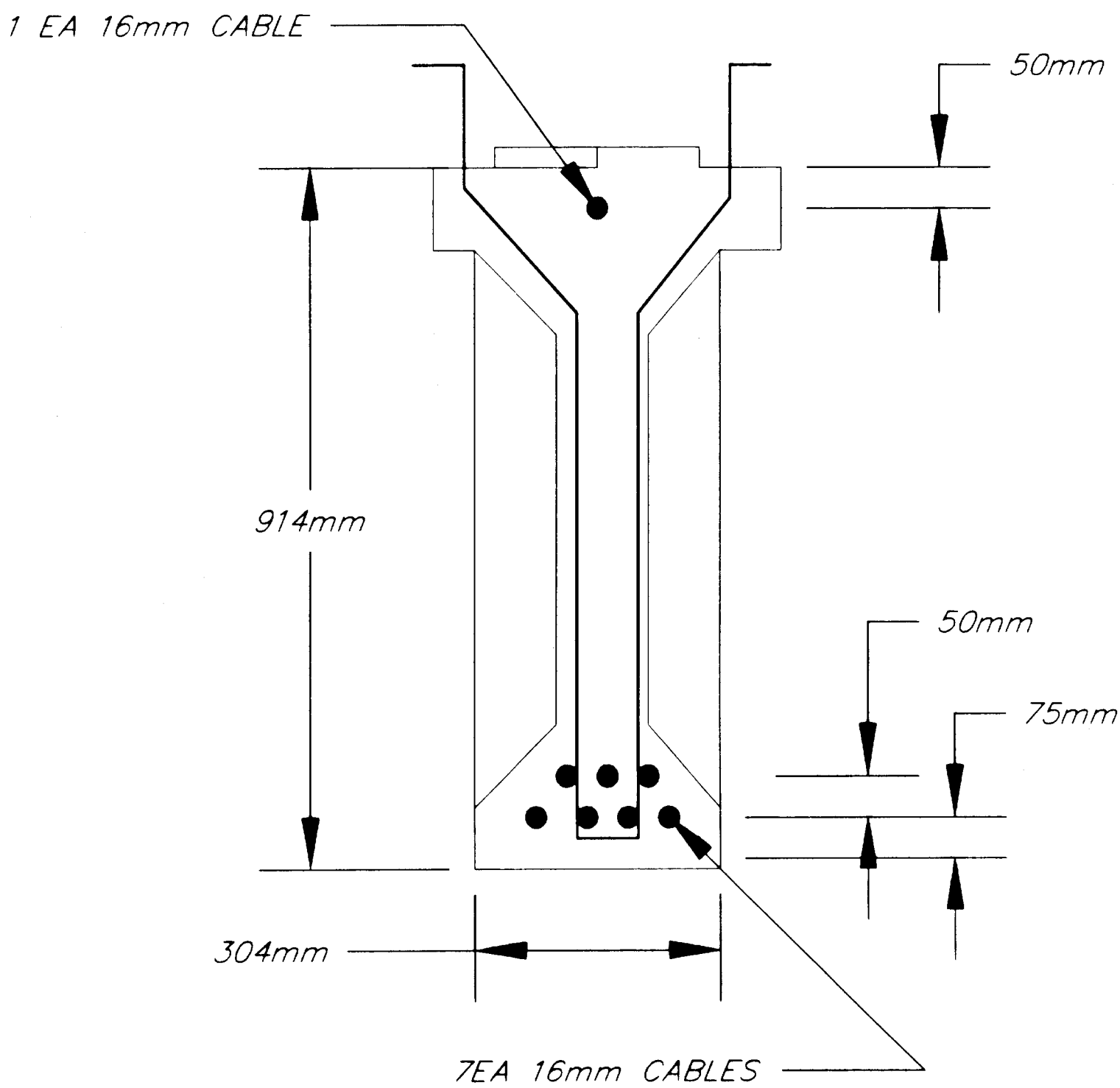
SEPTEMBER 15, 1999

SHEET 12 OF 104

BRIDGE NO. 797 997

NOTES

1. BONDS TO PRESTRESSING STEEL MUST BE MECHANICAL. DO NOT USE WELDING OR EXOTHERMIC WELDING TO MAKE ELECTRICAL CONNECTIONS TO PRESTRESSING STEEL.
2. THESE WIRE LAYOUTS ARE DEVELOPED FROM AS-BUILT DRAWINGS. THE CONTRACTOR MUST CONFIRM LAYOUT IN FIELD BEFORE EXCAVATING AND MAKING ELECTRICAL CONNECTIONS.



ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

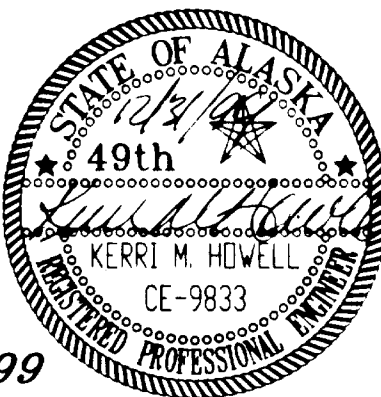
DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

1 GIRDER PRESTRESS WIRE
CP-5.06 SCALE: N.T.S

2 PILE PRESTRESS WIRE
CP-5.06 SCALE: N.T.S

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DATE	BY	COMMENT

DESIGNER:



CP-5.06

EXPIRES: DEC. 31, 1999

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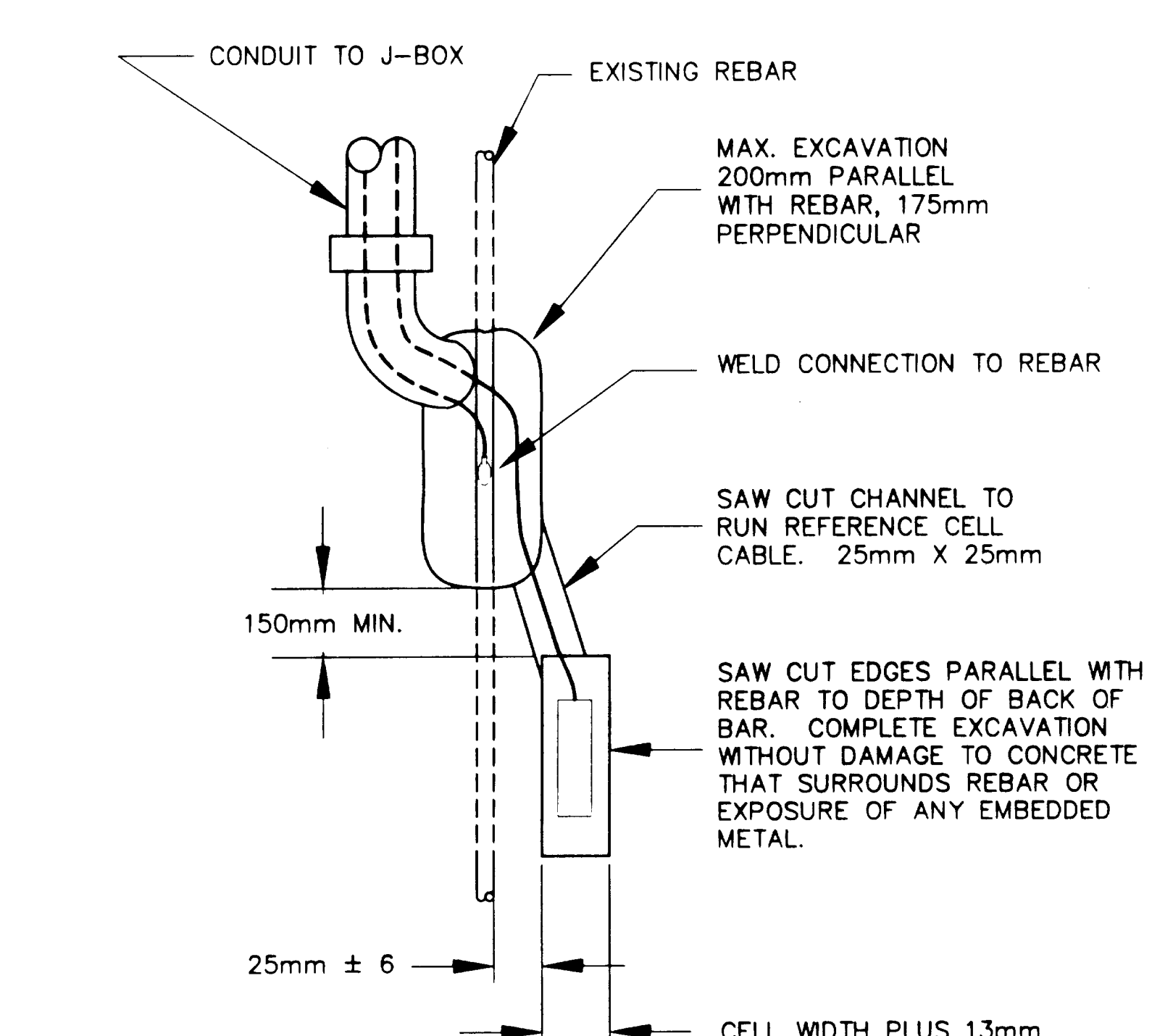
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION ALASKA
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
PRE-STRESSED WIRE

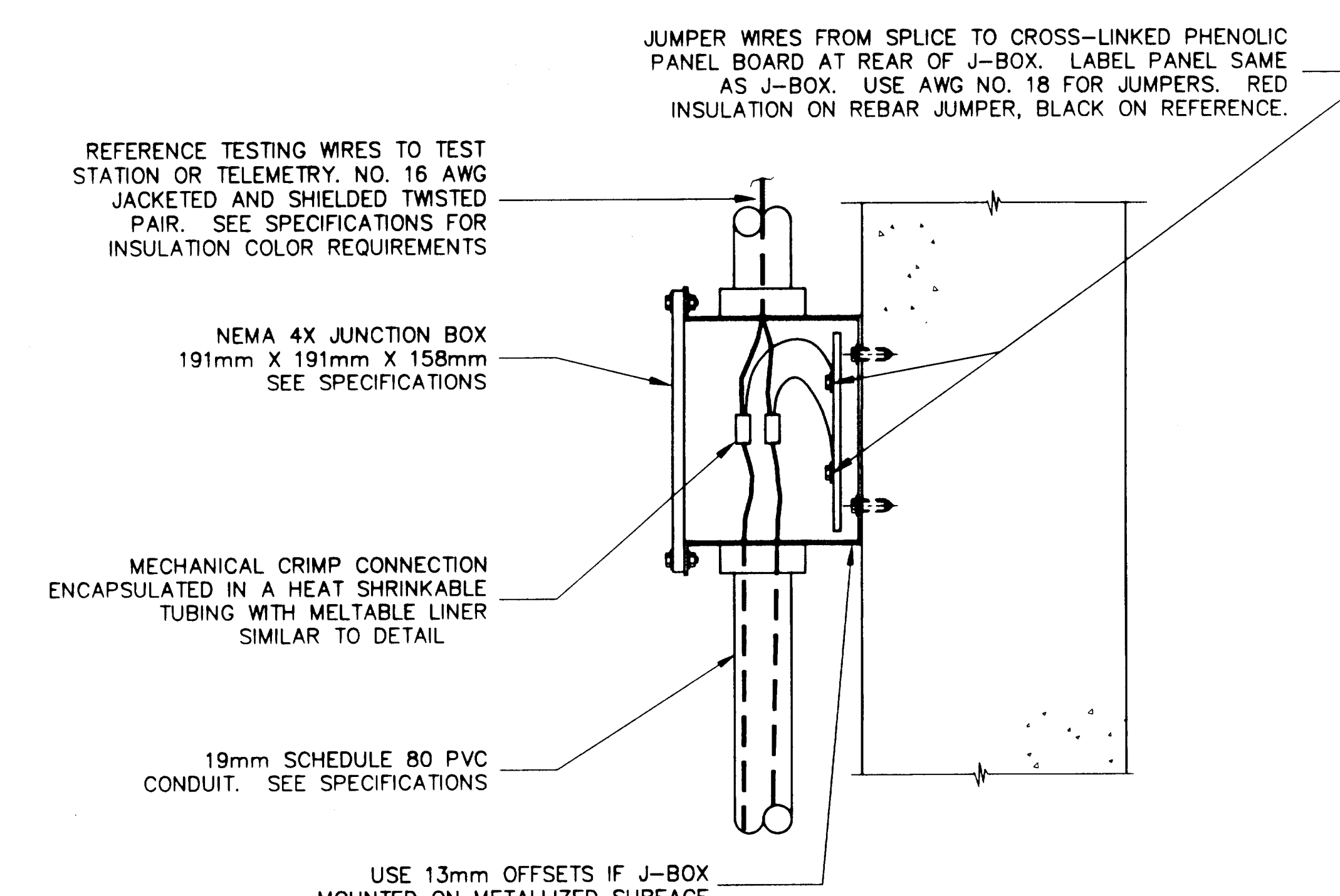
DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

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976 - 20TH AVENUE SEATTLE, WA 98122
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tinneo@compuserve.com

DATE: SEPTEMBER 15, 1999
SHEET 93 OF 104
BRIDGE NO. 797 997



1 REFERENCE CELL EXCAVATIONS
 CP-5.07 SCALE: N.T.S.

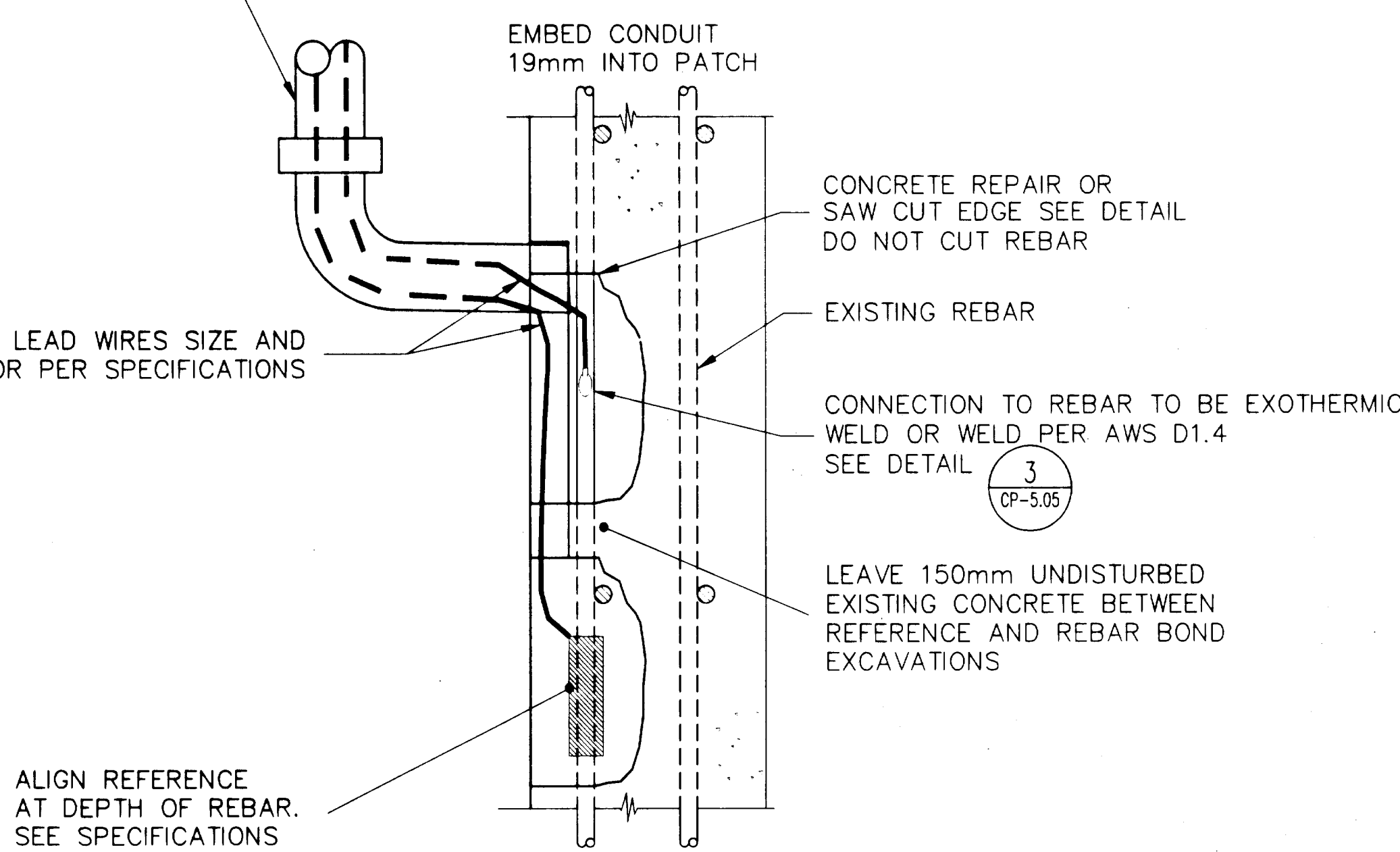
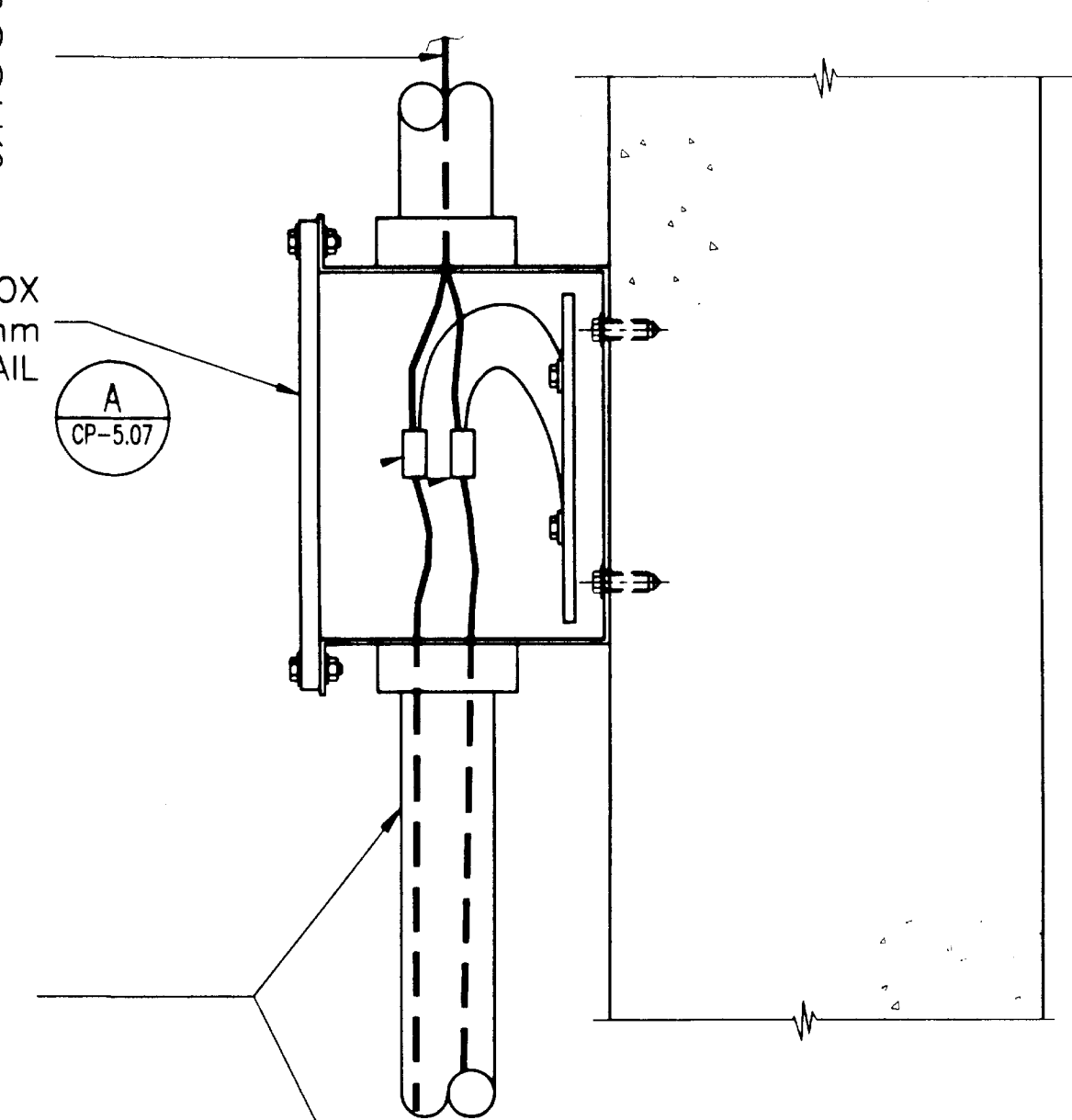


A REF. JUNCTION BOX DETAIL
 CP-5.07 SCALE: N.T.S.

REFERENCE TESTING WIRES TO TEST STATION OR TELEMETRY, NO. 16 AWG JACKETED AND SHIELDED TWISTED PAIR. RED INSULATION TO REBAR AND BLACK TO REF. SEE SPECIFICATIONS

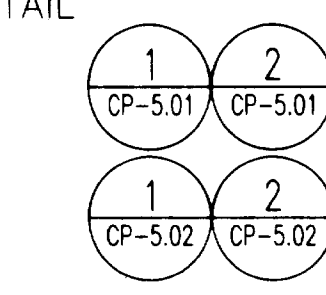
NEMA 4X JUNCTION BOX 191mm X 191mm X 158mm SEE SPECIFICATIONS & DETAIL

19mm SCHEDULE 80 PVC CONDUIT. SEE SPECIFICATIONS



2 REFERENCE CELL SECTION
 CP-5.07 SCALE: N.T.S.

NOTE: REFERENCE ELECTRODES MAY BE INSTALLED OVERHEAD, HORIZONTALLY, VERTICALLY OR WITHIN A JACKET. PATCHES SHALL CONFORM TO REQUIREMENTS FOR SPECIFIC LOCATION. SEE APPROPRIATE DETAIL



NOTES

1. PROTECT EXISTING UTILITIES AND PROPERTY FROM ANY CONSTRUCTION RELATED DAMAGE.
2. SECURE PERMISSION OF UTILITY OWNER, OF OWNER OF OTHER PROPERTY, PRIOR TO MOVING OR TEMPORARILY RELOCATING ANY PROPERTY FOR THE CONVENIENCE OF CONSTRUCTION ACTIVITIES.
3. CONDUIT SHALL BE UL 651 SCHEDULE 80 RIGID PVC. SIZE AND SUPPORT CONDUIT PER NEC FOR NONMETALLIC CONDUIT. MINIMUM DIAMETER IS 19mm.
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8. DO NOT MAKE ATTACHMENTS TO PRESTRESSED CONCRETE USING DRILLED ANCHORS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
9. WHERE ENCLOSURES OR JUNCTION BOXES ARE MOUNTED ON METALLIZED SURFACES, USE OFFSETS THAT PROVIDE A MINIMUM OF 13mm CLEARANCE BETWEEN THE METALLIZED CONCRETE SURFACE AND THE BACK OF THE ENCLOSURE.
10. SEE SPECIFICATIONS FOR MARKING AND CABLE INSULATION COLORS.
11. LEAVE FREE CABLE IN ALL BOXES TO ALLOW FOR RECONNECTION, SEE SPECIFICATIONS.

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

DO NOT SCALE FROM THESE PLANS
 USE DIMENSIONS

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DATE	BY	COMMENT

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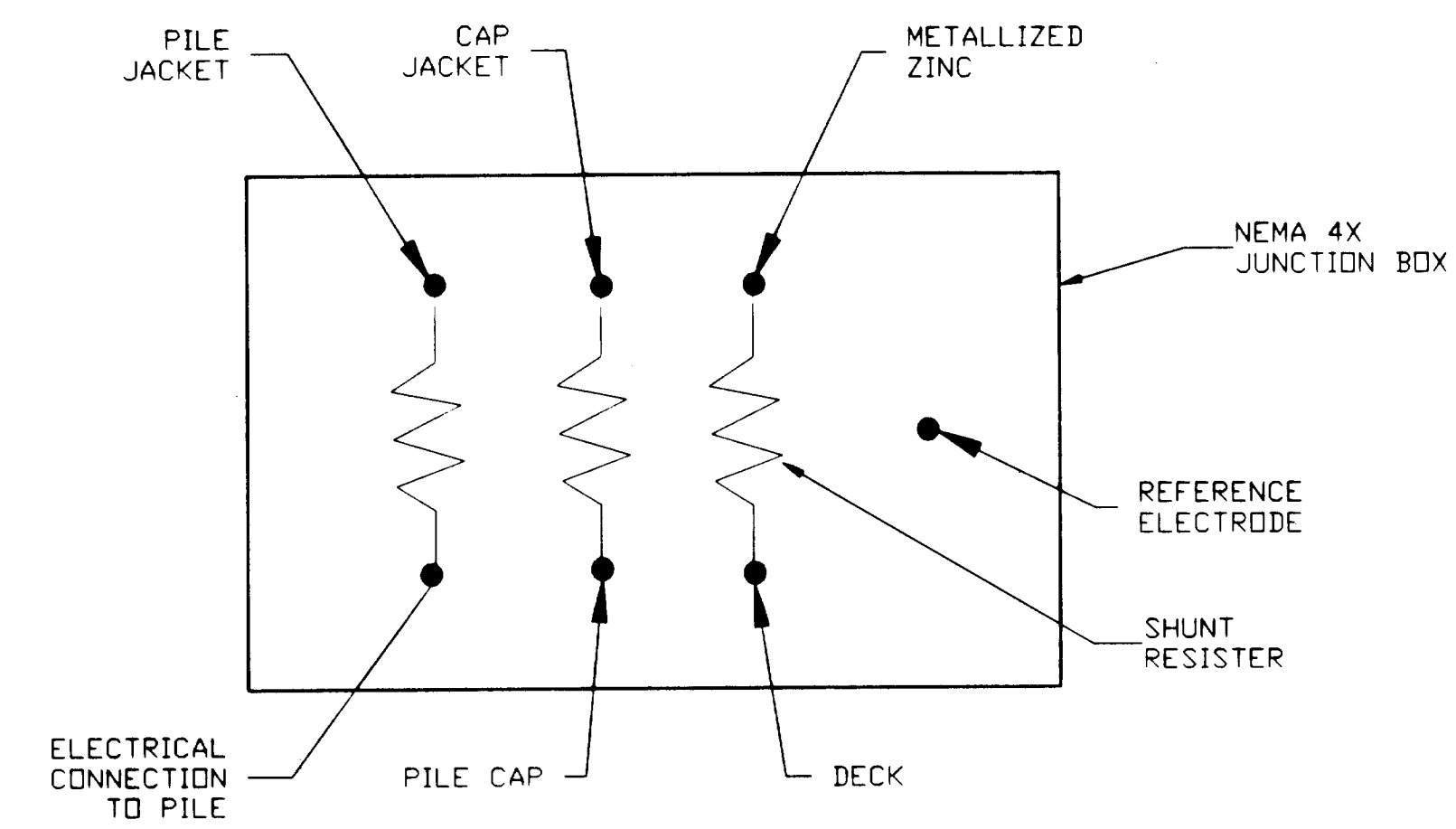
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DATE: SEPTEMBER 15, 1999

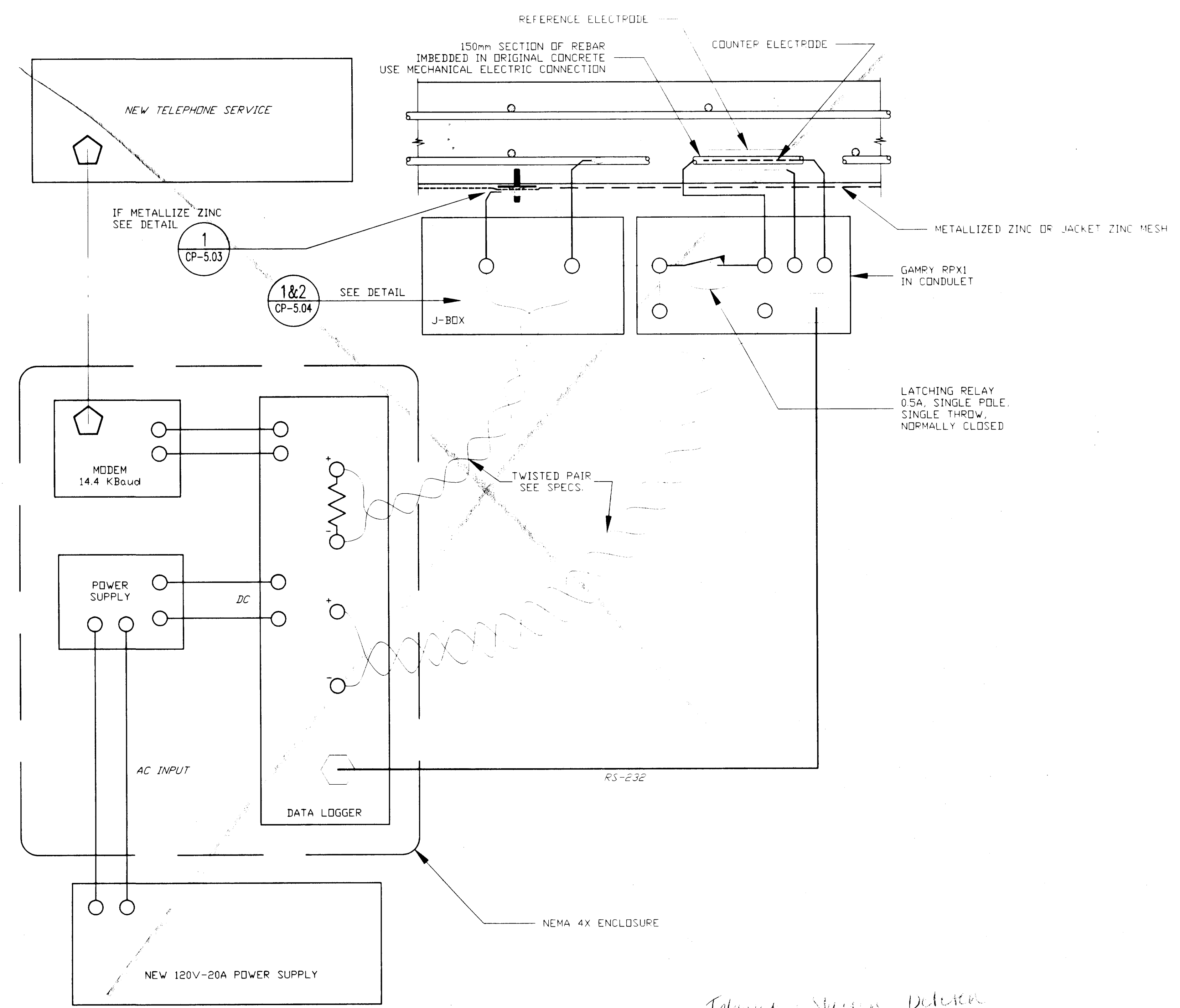
SHEET 99 OF 104

BRIDGE NO. 797 997

- FOR SPRAYED ANODE CONNECTION SEE 1
CP-5.03
- FOR SPRAYED REBAR CONNECTION SEE 1
CP-5.04
- FOR JACKET ANODE REBAR CONNECTION SEE 2
CP-5.04
- FOR REFERENCE ELECTRODE CONNECTION SEE 2
CP-5.07
- FOR JACKET ANODE CONNECTIONS, SEE APPROPRIATE 4.XX DRAWING



1 TEST STATION
CP-5.08 SCALE: N.T.S



2 TELEMETRY SCHEMATIC
CP-5.08 SCALE: N.T.S

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

ELEVATIONS, BENCHMARKS AND STRUCTURE DIMENSIONS ARE BASED
ON "AS BUILT" PLANS. CONTRACTOR SHALL VERIFY ALL CONTROLLING
FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTES

- TEST STATION DETAILS WILL VARY ACCORDING TO LOCATION. SEE SPECIFICATIONS
- EXACT LOCATION OF TEST STATIONS AND REFERENCE ELECTRODES WILL BE DETERMINED BY THE ENGINEER. SELECTION WILL BE BASED UPON THE ENGINEER'S REVIEW OF CONSECUTION FINDINGS AND THE CONTRACTOR'S REINFORCEMENT CORROSION POTENTIAL SURVEY.
- TWO TELEMETRY STATIONS WILL BE INSTALLED DURING THIS WORK. CONTRACTOR SHALL PROVIDE ALL NECESSARY SERVICE HOOKUPS, CABLES, CONDUIT AND CONNECTIONS. SEE SPECIFICATIONS
- GAMRY RPX1 CORROSION RATE TRANSMITTER WILL BE PROVIDED BY OTHERS. THE DEVICE IS CONTAINED IN A 225mm DIAMETER RIGID METAL CONDUIT BODY. THE CONTRACTOR SHALL PROVIDE ALL OTHER REQUIRED MATERIALS AND INSTALLATION.
- EXACT CONFIGURATION OF TELEMETRY STATIONS WILL BE FINALIZED WHEN LOCATIONS ARE SET. CONTRACTION SHOULD ASSUME THAT AT EACH OF THE TWO LOCATIONS THEY WILL INSTALL A LOGIC BEACH HL-200 HYPERLOGGER DATA LOGGER WITH THE FOLLOWING OPTIONS:
A. ONE EACH HLIM-1 & RLIM-2 INTERFACES
B. ONE EACH MM14.4 14.4 KBAUD MODEM
C. ONE EACH I/O STD WIRE PLATE W/FTG-1 SEALS.
D. ONE EACH DSC-1, 10 DESICCANT PACKS

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AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

KETCHIKAN KETCHIKAN VIADUCTS REHABILITATION
FED. NO. BR-0902 (26) PROJECT NO. 71111
TONGASS AVENUE & WATER STREET VIADUCTS
TEST STATIONS

DESIGNED BY: K.M. HOWELL
CHECKED BY: D.R. HELGESON
APPROVED BY: J.S. TINNEA

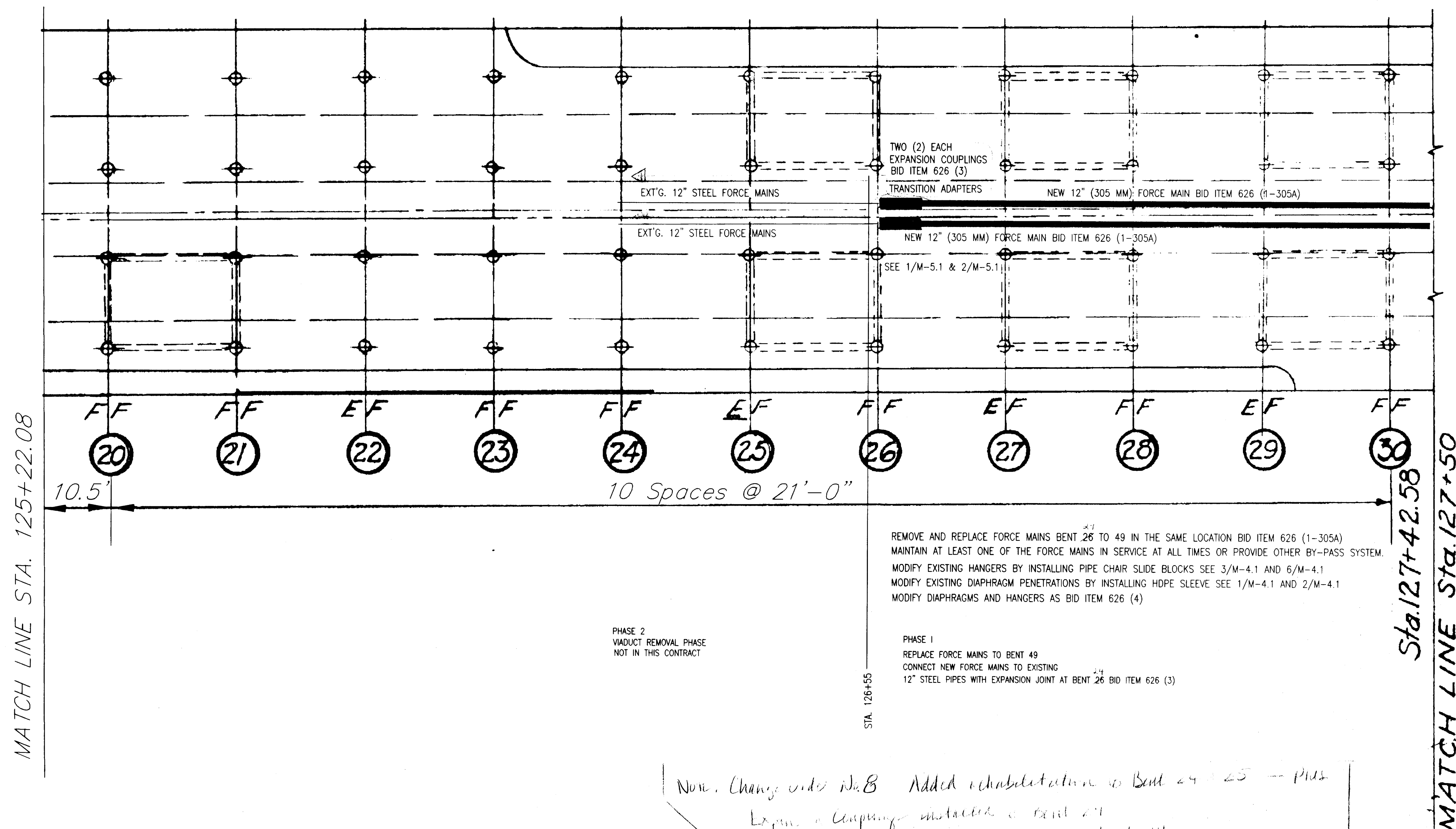
DESIGNER:

EXPIRES: DEC. 31, 1999

INVESTIGATING THE INFRASTRUCTURE
976 - 20TH AVENUE, SEATTLE, WA 98122
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tinnea@compuserve.com

CP-5.08

DATE: SEPTEMBER 15, 1999
SHEET 95 OF 104
BRIDGE NO. 797 997



Non. Change order No. 8 Added rehabilitation to Bent 24 & 25 -- Plus
Expansion Couplings installed at Bent 24
added new Force Main pipe began at Bent 24

WATER ST. FORCE MAIN PLAN BENT 20-30

NO SCALE

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

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MONREAN ENGINEERING & ASSOCIATES, INC.
P. O. BOX 9343
KETCHIKAN, ALASKA 99901
PHONE 907-247-5920 FAX 907-247-5918

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PLOT SCALE: PLOT SCALE = PLOTSCALE
DRAWN OR REVISED BY: F.D.M.

CITY OF KETCHIKAN
DEPARTMENT OF PUBIC WORKS

JUNEAU

KETCHIKAN VIADUCTS CORROSION CONTROL
WATER STREET VIADUCT

FED. NO. BR-0902 (26) PROJECT NO. 71111

FORCE MAIN REPLACEMENT

WATER ST. BENTS 20-30

ALASKA

DESIGNED BY: F.D.M.

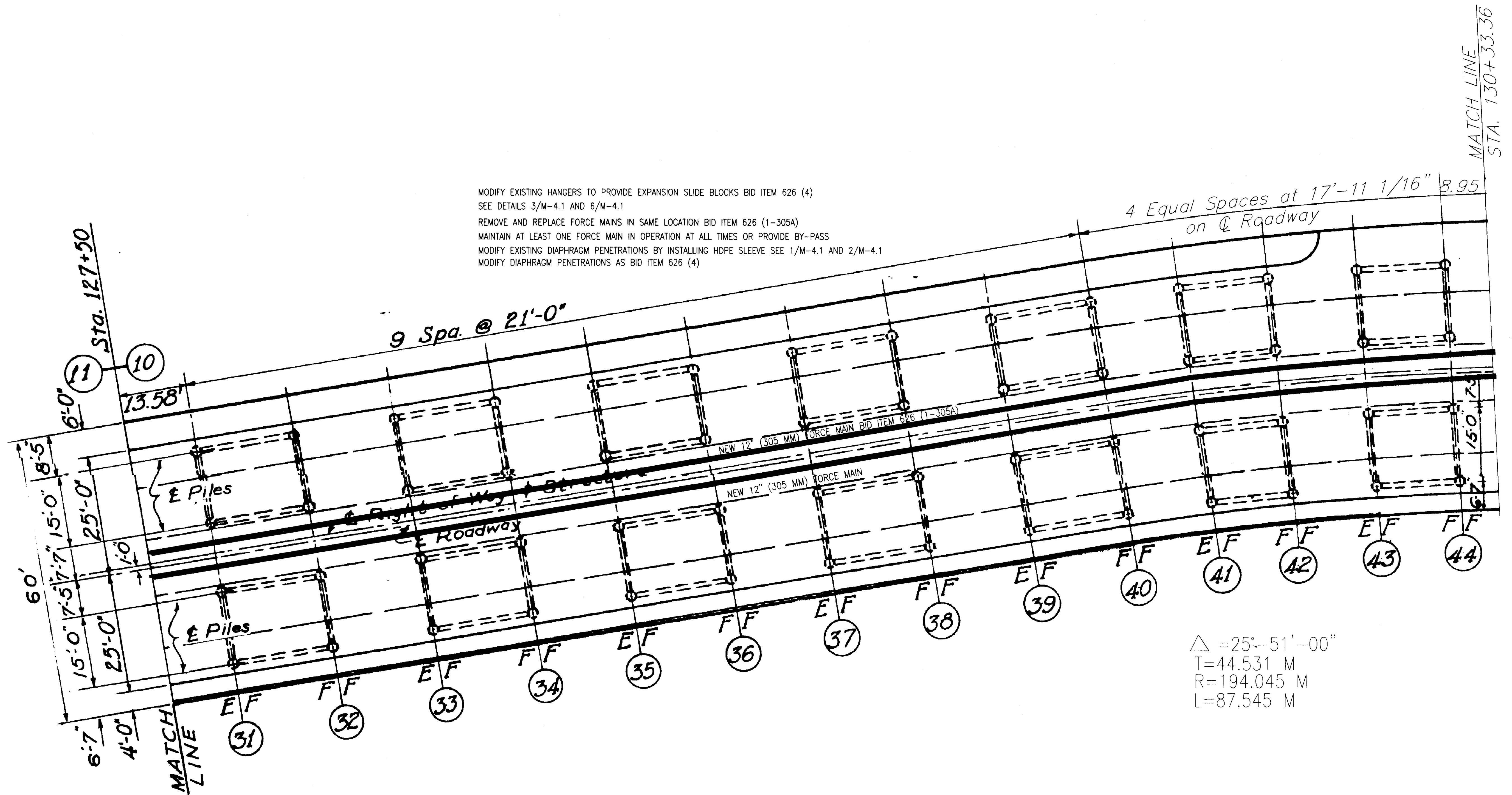
CHECKED BY:

APPROVED BY:

DATE:
JUNE 1, 1999

SHEET 96 OF 104

BRIDGE NO. 797



DO NOT SCALE FROM THESE PLANS
 USE DIMENSIONS

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DATE	BY	COMMENT

WATER ST. FORCE MAIN PLAN BENT 31-44

NO SCALE



MONREAN ENGINEERING & ASSOCIATES INC.
 P. O. BOX 9343
 KETCHIKAN, ALASKA 99901
 PHONE 907-247-5620 FAX 907-247-5918

M-2.3

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CITY OF KETCHIKAN
 DEPARTMENT OF PUBLIC WORKS

JUNEAU

KETCHIKAN VIADUCTS CORROSION CONTROL
 WATER STREET VIADUCT
 FED. NO. BR-0902 (26) PROJECT NO. 71111
 FORCE MAIN REPLACEMENT
 WATER ST. BENTS 31-44

ALASKA

DESIGNED BY: F.D.M.

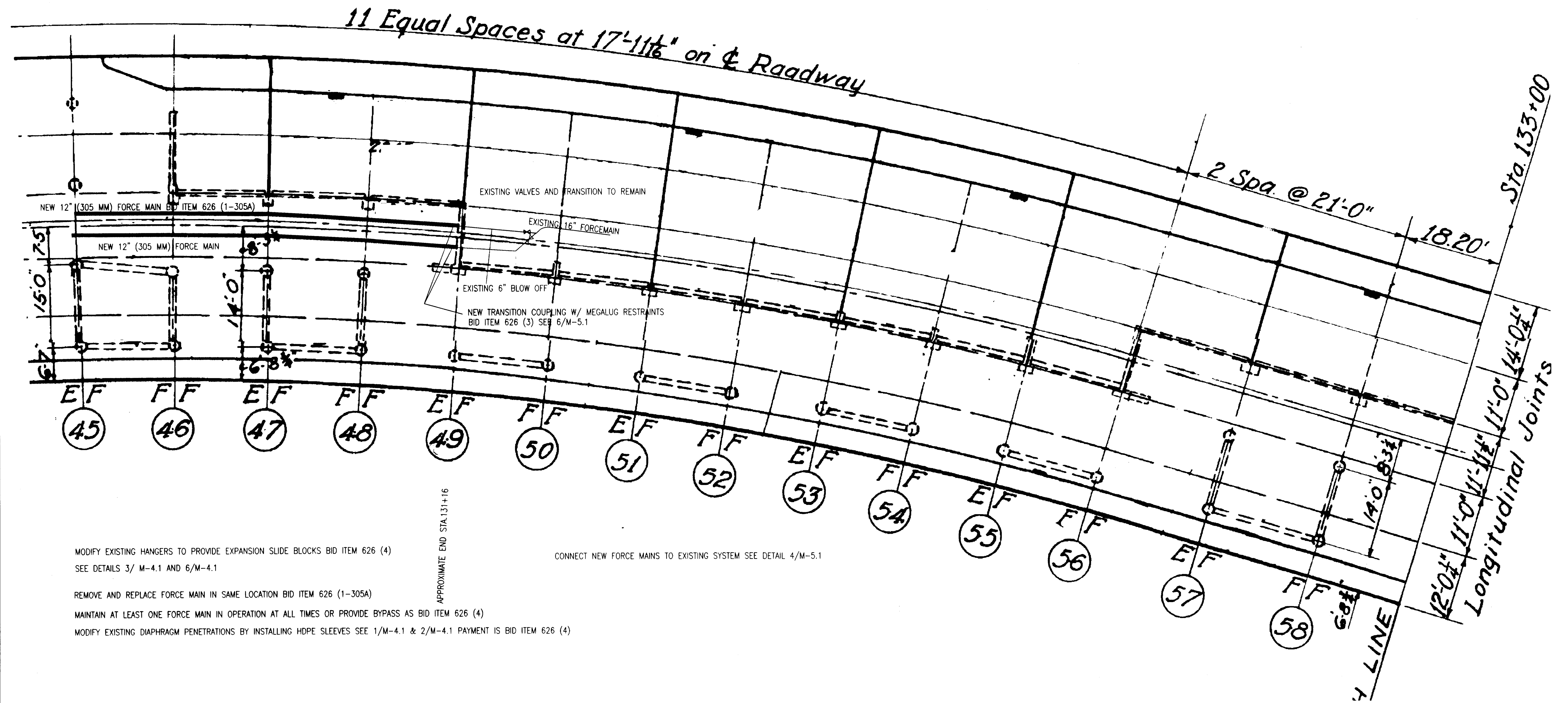
CHECKED BY:

APPROVED BY:

DATE: JUNE 1, 1999

SHEET 97 OF 104

BRIDGE NO. 797



MODIFY EXISTING HANGERS TO PROVIDE EXPANSION SLIDE BLOCKS BID ITEM 626 (4)
SEE DETAILS 3/M-4.1 AND 6/M-4.1

REMOVE AND REPLACE FORCE MAIN IN SAME LOCATION BID ITEM 626 (1-305A)

MAINTAIN AT LEAST ONE FORCE MAIN IN OPERATION AT ALL TIMES OR PROVIDE BYPASS AS BID ITEM 626 (4)

MODIFY EXISTING DIAPHRAGM PENETRATIONS BY INSTALLING HDPE SLEEVES SEE 1/M-4.1 & 2/M-4.1 PAYMENT IS BID ITEM 626 (4)

WATER ST. FORCE MAIN PLAN BENT 45-58

NO SCALE

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

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DATE	BY	COMMENT



MONREAN ENGINEERING & ASSOCIATES, INC.
P. O. BOX 9343
KETCHIKAN, ALASKA 99901
PHONE 907-247-5920 FAX 907-247-5918

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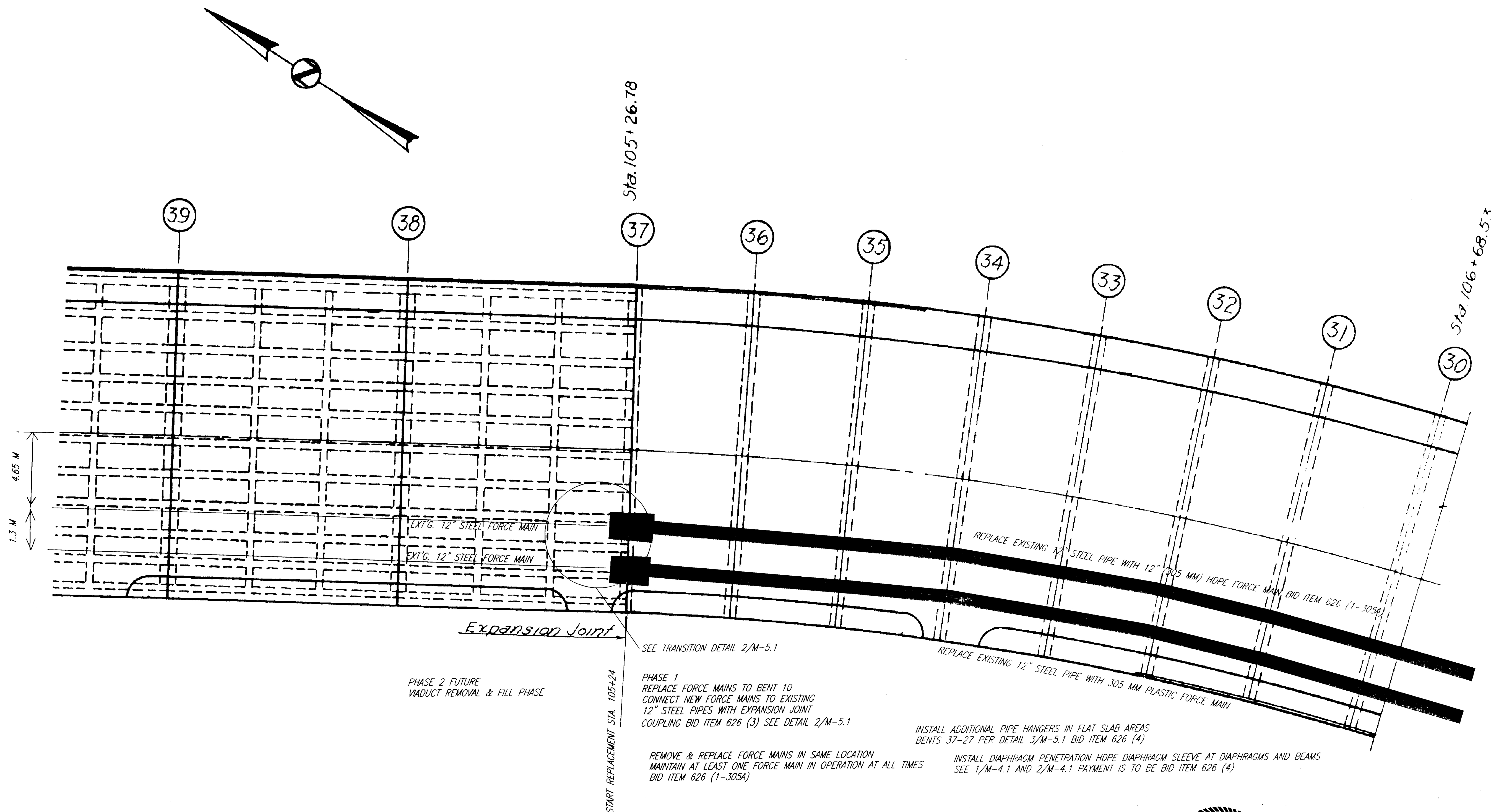
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CITY OF KETCHIKAN
DEPARTMENT OF PUBLIC WORKS

JUNEAU ALASKA
KETCHIKAN VIADUCTS CORROSION CONTROL
WATER STREET VIADUCT
FED. NO. BR-0902 (26) PROJECT NO. 71111
FORCE MAIN REPLACEMENT
WATER_ST._BENTS_45-58

DESIGNED BY: F.D.M.
CHECKED BY:
APPROVED BY:

DATE: JUNE 1, 1999
SHEET 98 OF 109
BRIDGE NO. 79



RECORD OF REVISIONS		
DATE	BY	COMMENT

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

TONGASS AVE. BENTS 39-30
NO SCALE



MONREAN ENGINEERING & ASSOCIATES, INC.
P. O. BOX 9343
KETCHIKAN, ALASKA 99901
907-247-5920 907-247-5918 FAX
E-MAIL fmonrean@ktn.net

M-2

PATH:	PATH
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PLOT SCALE:	PLOT SCALE = PLOTSCALE
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CITY OF KETCHIKAN
DEPARTMENT OF PUBLIC WORKS

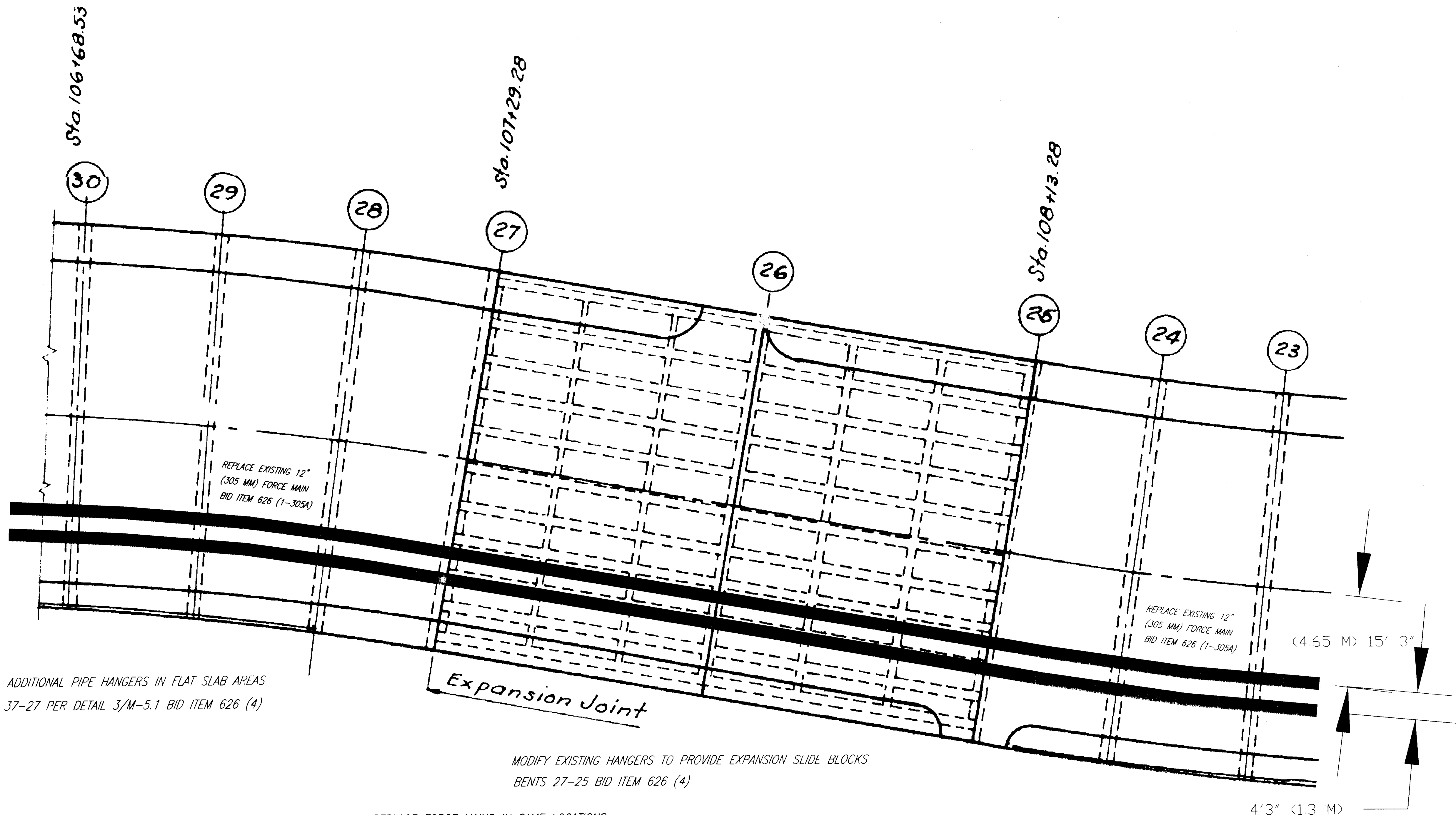
JUNEAU

KETCHIKAN VIADUCTS CORROSION CONTROL
VIADUCT
FED. NO. BR-0902 (26) PROJECT NO. 71111
FORCE MAIN REPLACEMENT
TONGASS-BENTS.39-30

ALASKA

DESIGNED BY:	DESIGNBY
CHECKED BY:	CHECKBY
APPROVED BY:	APPNAME

DATE:	JUNE1,1999
SHEET	99 OF 100
BRIDGE NO.	



INSTALL ADDITIONAL PIPE HANGERS IN FLAT SLAB AREAS
BENTS 37-27 PER DETAIL 3/M-5.1 BID ITEM 626 (4)

MODIFY EXISTING HANGERS TO PROVIDE EXPANSION SLIDE BLOCKS
BENTS 27-25 BID ITEM 626 (4)

REMOVE AND REPLACE FORCE MAINS IN SAME LOCATIONS
MAINTAIN AT LEAST ONE FORCE MAIN IN OPERATION AT ALL TIMES
PROVIDE HDPE DIAPHRAGM SLEEVES WHERE PIPE CONTACTS CONCRETE SEE 1/M-4.1 7 2/M-4.1 BID ITEM 626 (4)

INSTALL ADDITIONAL PIPE HANGERS IN FLAT SLAB AREAS
BENTS 25-20 PER DETAIL 3/M-5.1 BID ITEM 626 (4)

DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

TONGASS AVE. FORCE MAIN BENTS 30-23

NO SCALE

RECORD OF REVISIONS		
DATE	BY	COMMENT



MONREAN ENGINEERING & ASSOCIATES INC.
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KETCHIKAN, ALASKA 99901
PHONE 907-247-5920 FAX 907-247-5918

M-2.10

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CITY OF KETCHIKAN
DEPARTMENT OF PUBLIC WORKS

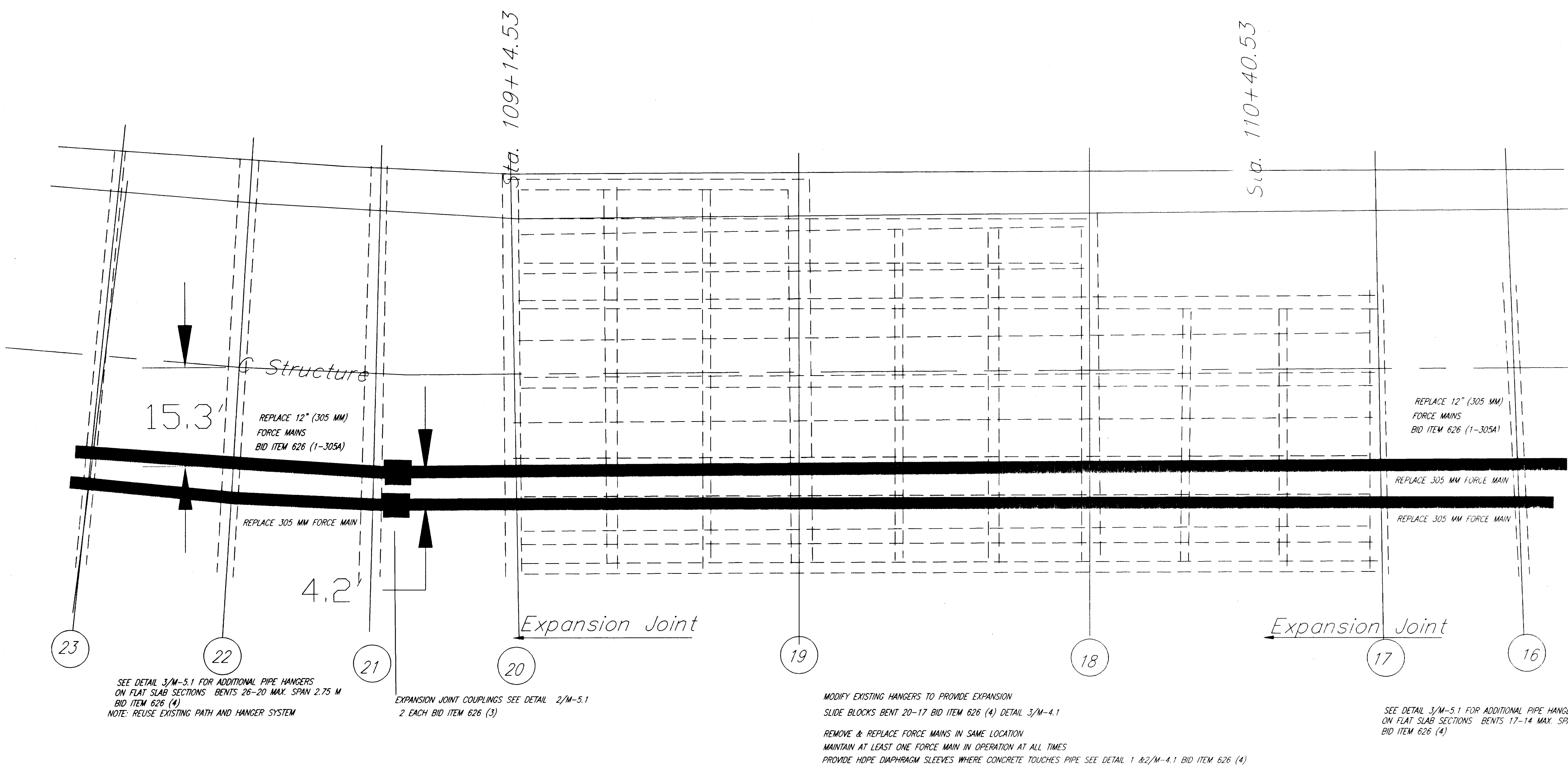
JUNEAU

KETCHIKAN VIADUCTS CORROSION CONTROL
VIADUCT
FED. NO. BR-0902 (26) PROJECT NO. 71111
FORCE MAIN REPLACEMENT
TONGASS-BENTS.30-23

ALASKA

DESIGNED BY:
F.D.M.
CHECKED BY:
APPROVED BY:

DATE:
JULY-1999
SHEET 100 OF 104
BRIDGE NO. 797



DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

TONGASS AVE. BENTS 23-16
NO SCALE

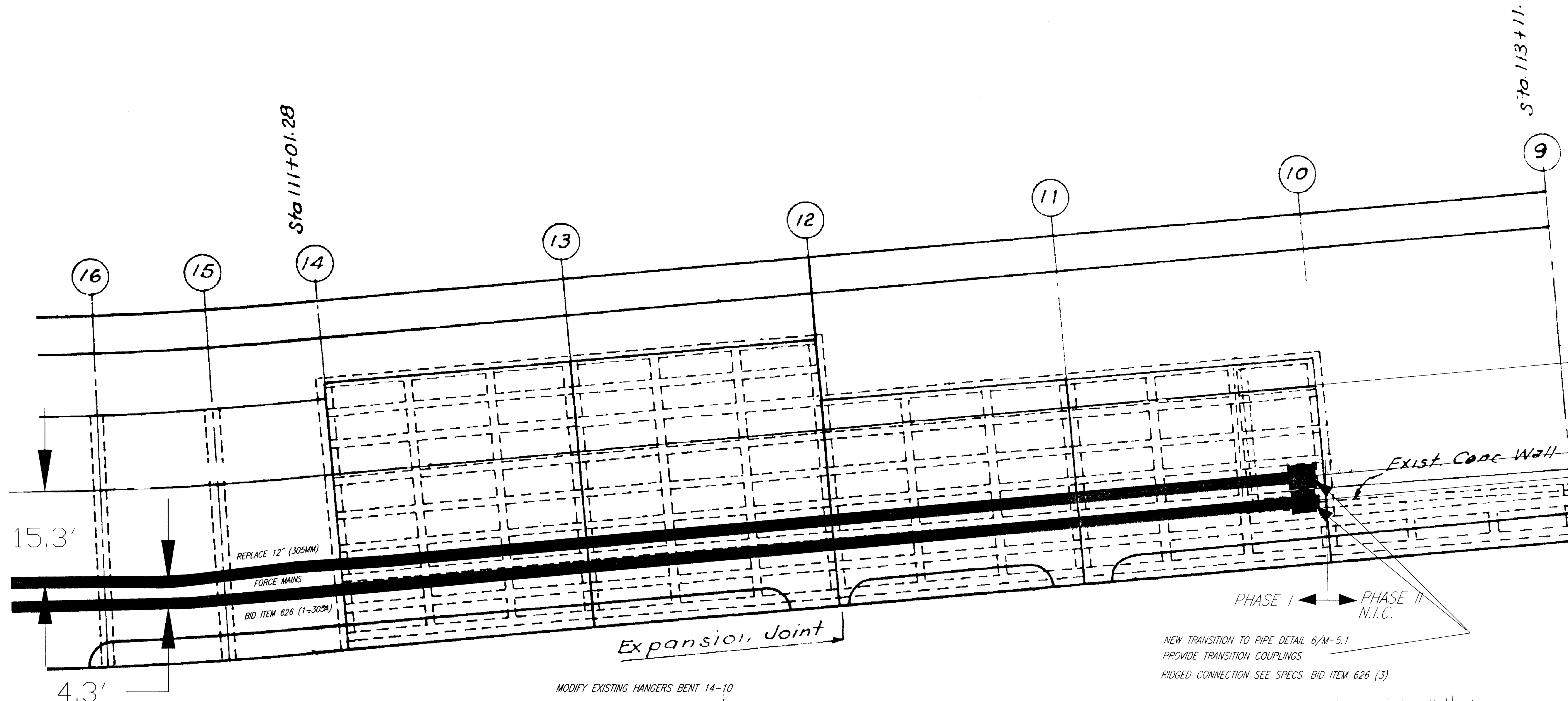


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M-2.11

PATH: PATH	JUNEAU	KETCHIKAN VIADUCTS CORROSION CONTROL VIADUCT	ALASKA	DESIGNED BY: F.D.M.	DATE: JULY-27,99
PLOT: PLOT		FED. NO. BR-0902 (26) PROJECT NO. 71111		CHECKED BY:	SHEET 101 OF 104
PLOT DATE: PLOTDATE		FORCE MAIN REPLACEMENT		APPROVED BY:	BRIDGE NO. 797
PLOT SCALE: PLOT SCALE = PLOTSCALE					
DRAWN OR REVISED BY: DRAWNBY					

CITY OF KETCHIKAN
DEPARTMENT OF PUBLIC WORKS



DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

TONGASS AVE. BENTS 16-9

SCALE NONE

PATH:	PATH
PLOT:	PLOT
PLOT DATE:	PLOTDATE
PLOT SCALE:	PLOT SCALE = PLOTSCALE
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CITY OF KETCHIKAN
DEPARTMENT OF PUBLIC WORKS

JUNEAU

KETCHIKAN VIADUCTS CORROSION CONTROL
VIADUCT

FED. NO. BR-0902 (26) PROJECT NO. 71111
FORCE MAIN REPLACEMENT

TONGASS-BENTS.16-9

ALASKA

DESIGNED BY:	F.D.M.
CHECKED BY:	
APPROVED BY:	

DATE:	JULY1999
SHEET	102 OF 104
BRIDGE NO.	797



MONREAN ENGINEERING & ASSOCIATES, INC.
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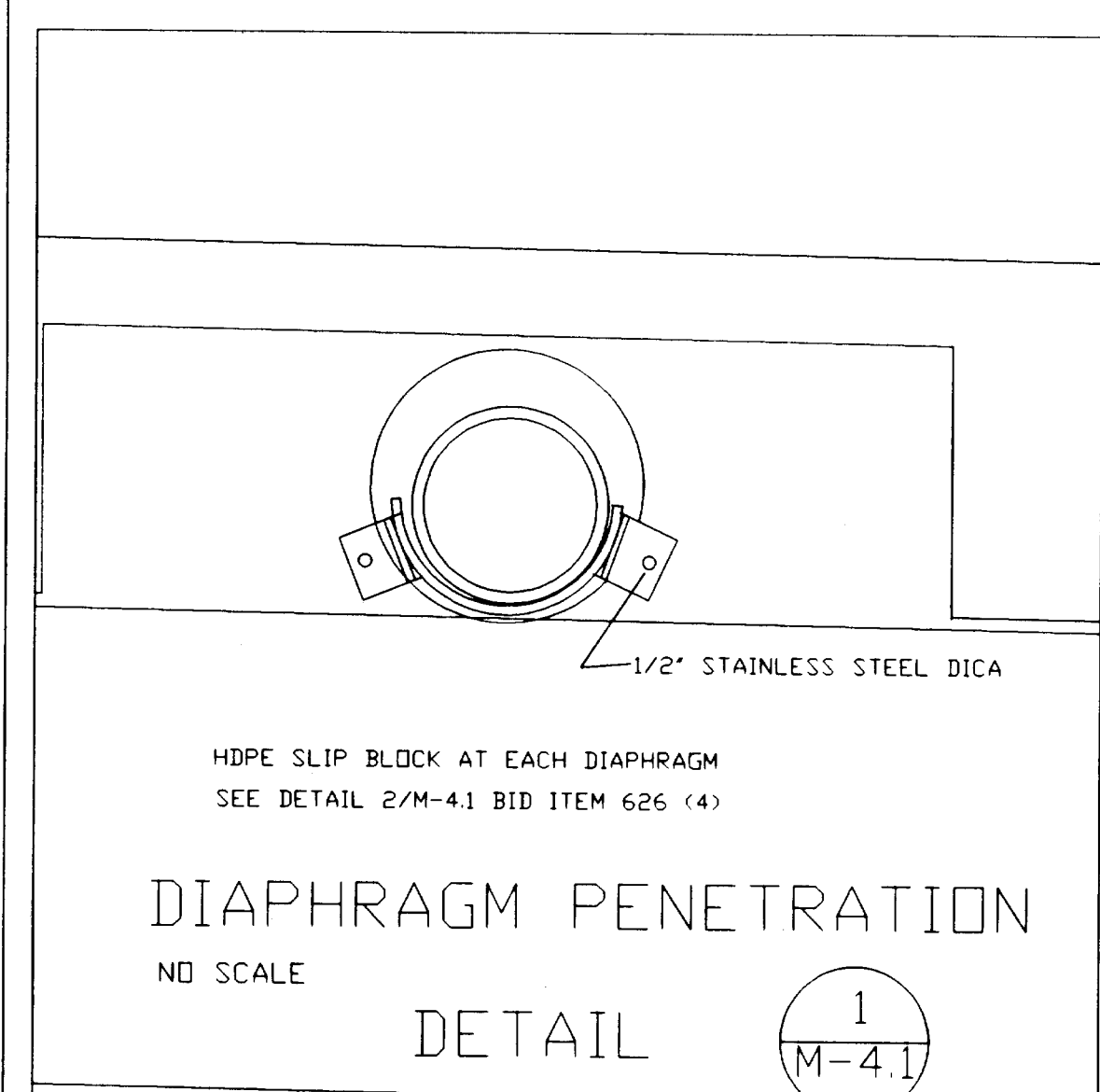
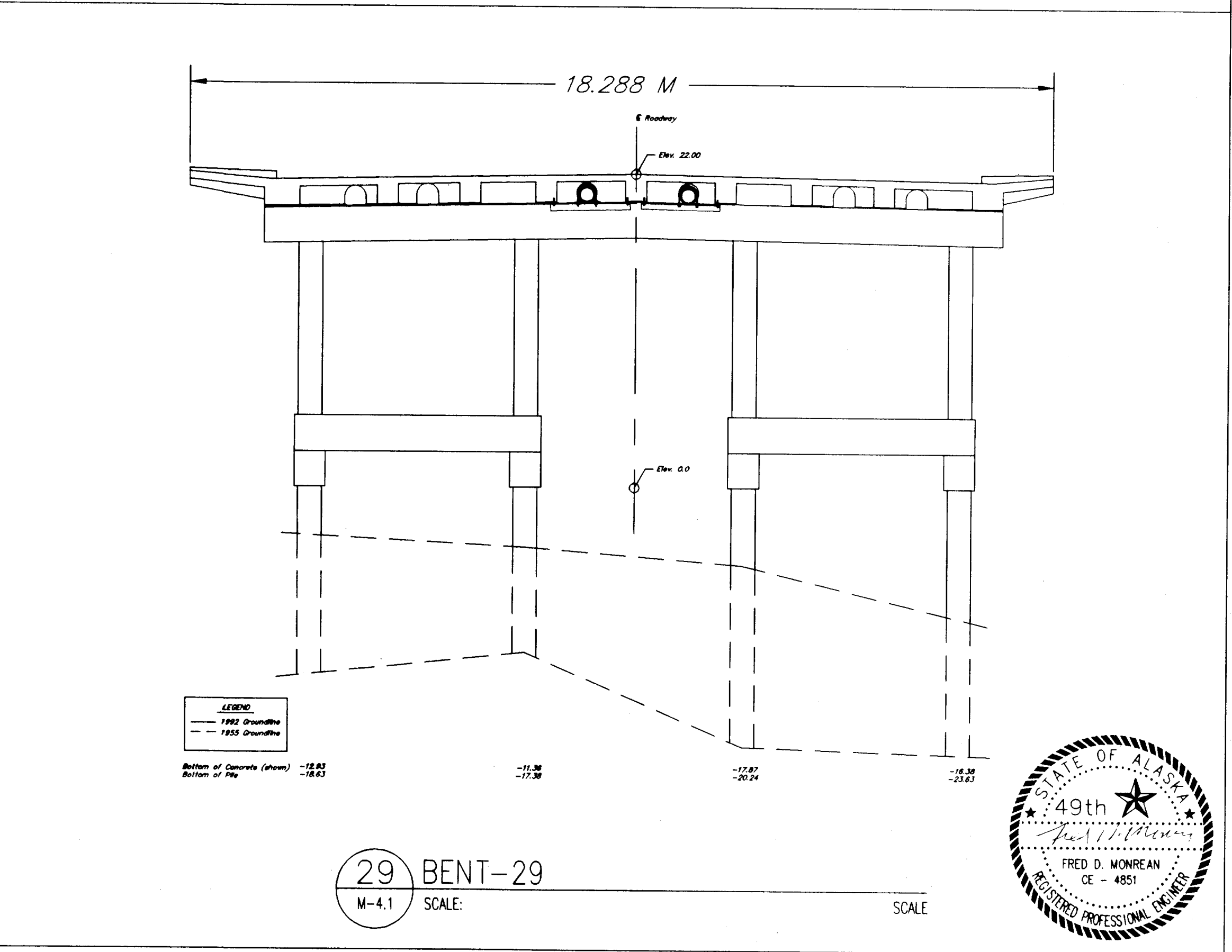
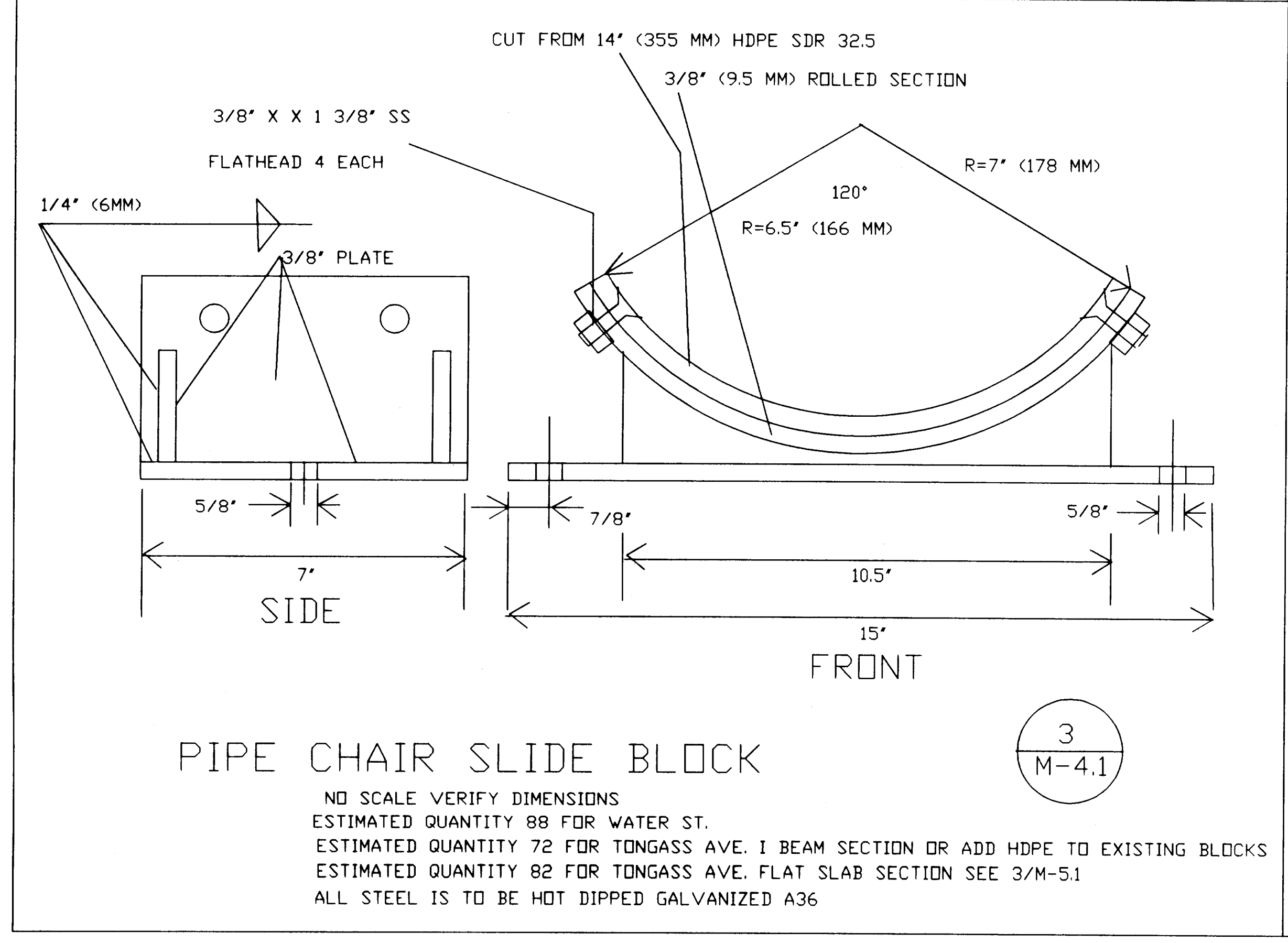
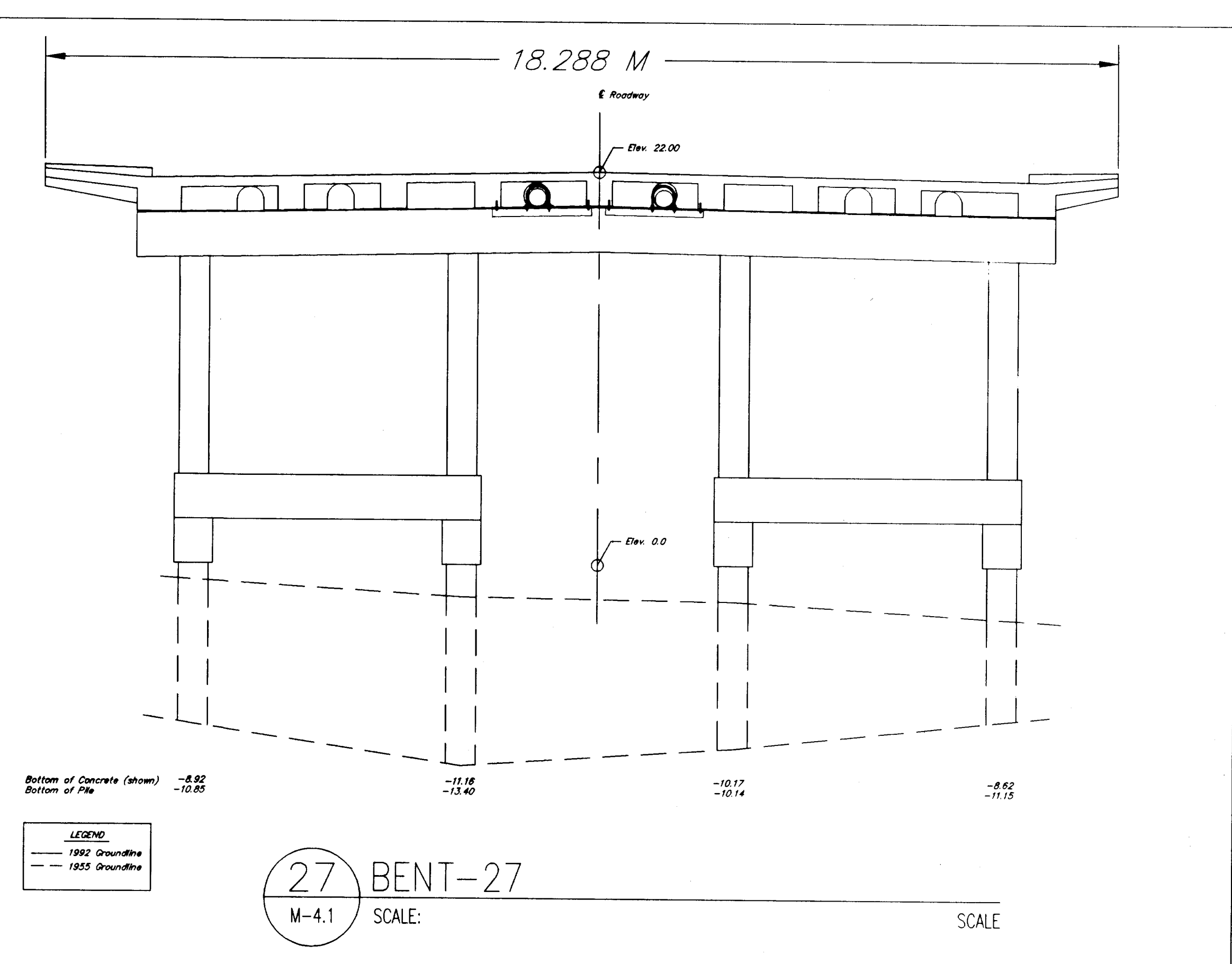
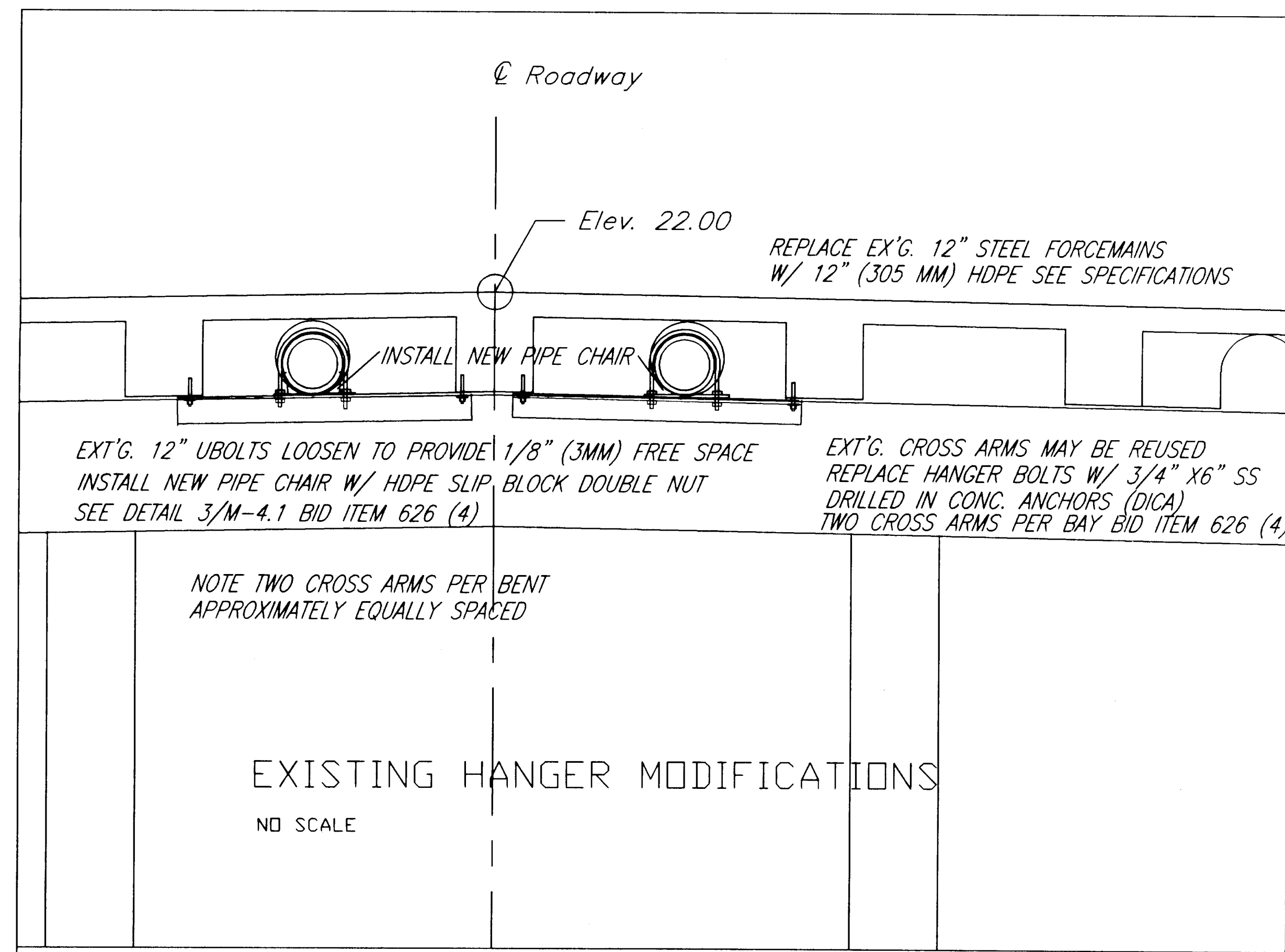
M-2.12

** NOTE: Change order #11
Force Main Connection Relocated
See Project Manual for details (new
pipe extended beyond exist. concrete wall)

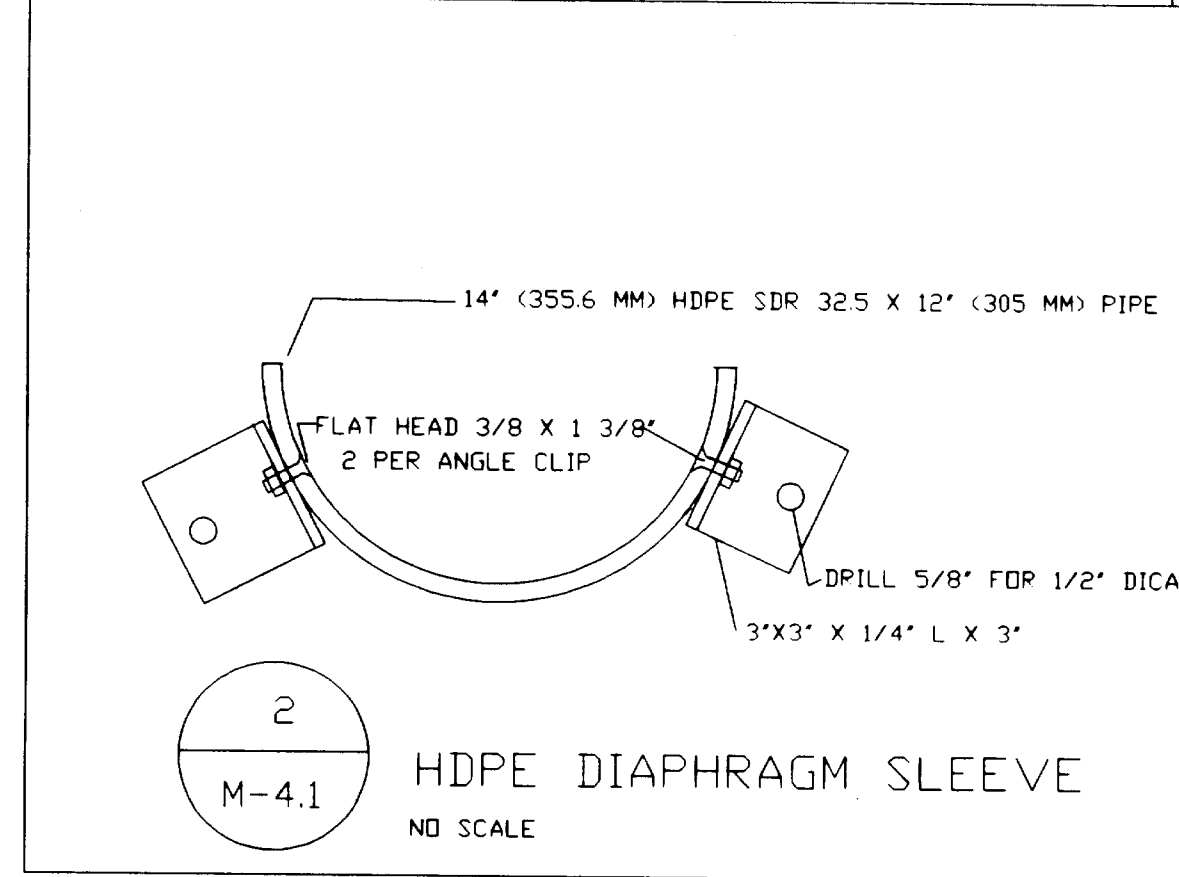
NEW TRANSITION TO PIPE DETAIL 6/M-5.1
PROVIDE TRANSITION COUPLINGS
RIDGED CONNECTION SEE SPECS. BID ITEM 626 (3)

MODIFY EXISTING HANGERS BENT 14-10
PROVIDE EXPANSION SLIDE BLOCKS
BID ITEM 626 (4) SEE DETAIL 3/M-4.1
PROVIDE HDPE DIAPHRAGM SLEEVES WHERE CONCRETE TOUCHES PIPE
BID ITEM 626 (4) SEE DETAIL 1&2/M-4.1

REMOVE AND REPLACE FORCE MAINS IN SAME LOCATIONS
MAINTAIN AT LEAST ONE FORCE MAIN IN OPERATION AT ALL TIMES



EST. 48 REQ'D. ON WATER ST.
EST. 56 REQ'D. ON TONGASS AVE.



DO NOT SCALE FROM THESE PLANS
USE DIMENSIONS

RECORD OF REVISIONS		
DATE	BY	COMMENT

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907-247-5920 907-247-5918 FAX
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M-4.1

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CITY OF KETCHIKAN
DEPARTMENT OF PUBLIC WORKS

JUNEAU KETCHIKAN VIADUCTS CORROSION CONTROL
WATER STREET VIADUCT
FED. NO. BR-0902 (26) PROJECT NO. 71111
SECTIONS AND DETAILS

DESIGNED BY: FDM
CHECKED BY:
APPROVED BY:

DATE: JUNE 1, 1999
SHEET 103 OF 104
BRIDGE NO. 797

RECORD OF REVISIONS		
DATE	BY	COMMENT

KUH-147