



# KITIMAT RIVER HATCHERY VALVE REPLACEMENT

283 HAISLA BLVD  
KITIMAT, B.C.

## REFERENCE RECORD DRAWINGS

### DFO KITIMAT RIVER

DWG No.	DRAWING TITLE
22-35-5	UPDATED SITE PLAN

### DFO KITIMAT RIVER PROJECT, CONTRACT NO 1

DWG No.	DRAWING TITLE
22-35-2	SITE PREPARATION SITE AND ACCESS ROAD PLAN
22-35-3	SITE PREPARATION SITE AND ACCESS ROAD FILL PROFILES AND SECTION

### DFO KITIMAT RIVER PROJECT, CONTRACT NO 10

DWG No.	DRAWING TITLE
22-35-420	HATCHERY SITE PAVING PAVEMENT LAYOUT PLAN

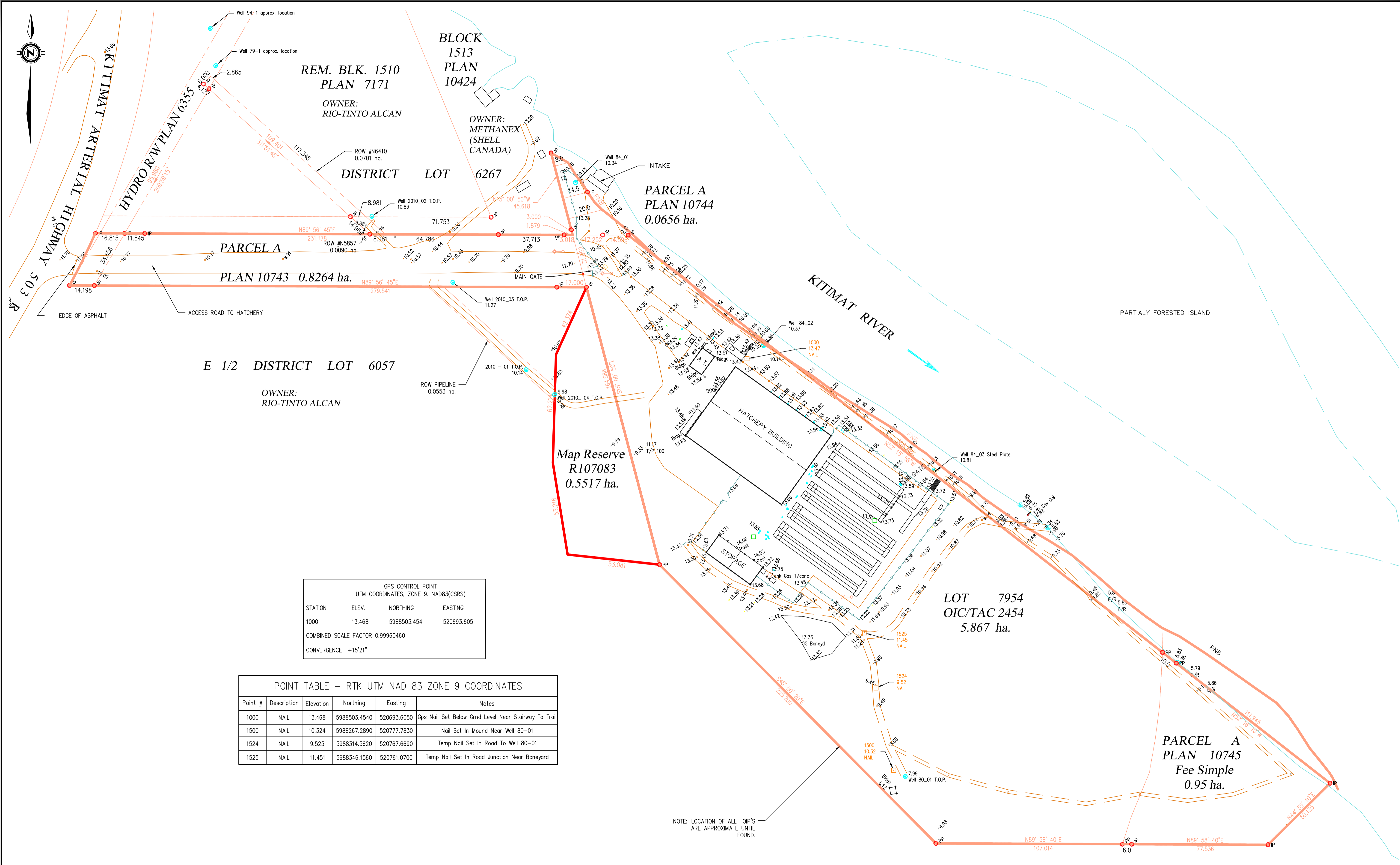
### DFO KITIMAT RIVER PROJECT, CONTRACT NO 6

DWG No.	DRAWING TITLE
22-35-272	PONDS 1, 2, 3, 4 CONCRETE OUTLINE
22-35-273	PONDS 5, 6 CONCRETE OUTLINE
22-35-274	TRANSPORTATION PIPE LOCATION & LAYOUT DETAIL
22-35-286	BURIED PIPELINES GENERAL LAYOUT
22-35-287	WATER SUPPLY PIPING PROFILES
22-35-288	PONDS 1, 2, 3, 4 WATER SUPPLY DETAIL
22-35-289	PONDS 5 & 6 WATER SUPPLY DETAILS
22-35-290	PONDS 7, 8, 9, 10 WATER SUPPLY DETAILS
22-35-291	PONDS 11, 12, 13, 14 WATER SUPPLY DETAILS
22-35-292	TRANSPORTATION CHANNEL WATER SUPPLY DETAILS
22-35-293	WATER SUPPLY PIPING MISCELLANEOUS DETAILS
22-35-294	WATER SUPPLY PIPING MISCELLANEOUS DETAILS
22-35-295	DRAINAGE PIPING PROFILES
22-35-296	DRAINAGE PIPING DETAIL PLAN & SECTIONS
22-35-297	DRAINAGE PIPING DETAIL PLAN & SECTIONS
22-35-298	CHANNEL LIGHTING, GROUNDING AND ALARM LAYOUTS
22-35-299	SECTIONS, DETAILS AND SCHEMATICS

Path: filename: U:\My Documents\My Data\2013\Fisc\Kitimat River\Site Plan.dwg

Size: ISO Expand A1 (841.00 X 594.00 MM)

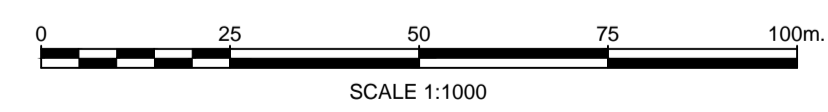
Plotted: 2/18/2011 8:08 AM Plotted by: Hill, Norman



GPS CONTROL POINT			
UTM COORDINATES, ZONE 9, NAD83(CSRS)			
STATION	ELEV.	NORTHING	EASTING
1000	13.468	5988503.454	520693.605
COMBINED SCALE FACTOR 0.99960460			
CONVERGENCE +15'21"			

POINT TABLE - RTK UTM NAD 83 ZONE 9 COORDINATES					
Point #	Description	Elevation	Northing	Easting	Notes
1000	NAIL	13.468	5988503.4540	520693.6050	Gps Nail Set Below Grnd Level Near Stairway To Trail
1500	NAIL	10.324	5988267.2890	520777.7830	Nail Set In Mound Near Well 80-01
1524	NAIL	9.525	5988314.5620	520767.6690	Temp Nail Set In Road To Well 80-01
1525	NAIL	11.451	5988346.1560	520761.0700	Temp Nail Set In Road Junction Near Boneyard

NOTE: LOCATION OF ALL OIP'S ARE APPROXIMATE UNTIL FOUND.



**FISHERIES AND OCEANS CANADA**  
REAL PROPERTY AND SAFETY AND SECURITY

**KITIMAT RIVER HATCHERY**  
**UPDATED SITE PLAN**

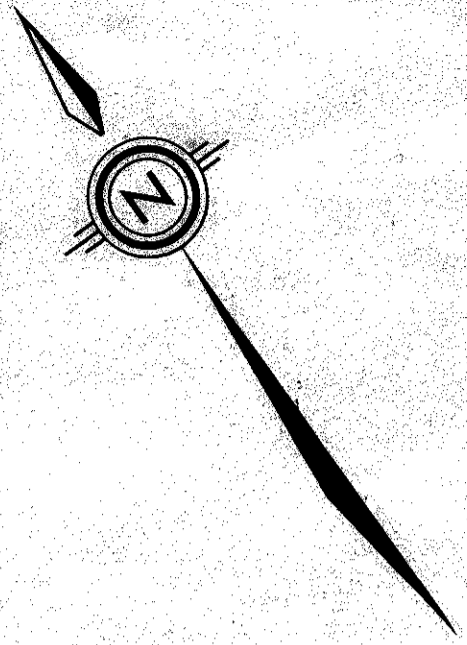
SCALE	1:1000
START DATE	02/08/2013
DRAWING NUMBER	<b>22-35-5</b>
	<b>2</b>

DWG. NO.	DRAWING REFERENCES
1. Plan 10743	REFERENCE PLAN OF PART OF DISTRICT LOT 6057, RANGE 5, COAST DISTRICT. APRIL 26, 1983. A.S. DOZZI, B.C.L.S.
2. Plan 10744	REFERENCE PLAN OF PART OF BLOCK 1510, DISTRICT LOT 6267, RANGE 5, COAST DISTRICT. APRIL 26, 1983. A.S. DOZZI
3. Plan 10745	REFERENCE PLAN OF PART OF DISTRICT LOT 6020, RANGE 5, COAST DISTRICT. APRIL 26, 1983. A.S. DOZZI
4. Plan 10921	STATUTORY RIGHT OF WAY THROUGH BLOCK 1500, DISTRICT LOTS 6050, 6053, 6054 AND 6057, PLAN 5744, THE EAST 1/2 OF DISTRICT LOT 6057, CLOSED ROAD (D.F. 19860) DISTRICT LOT 6057, PLAN 6637, BLOCK 1510, DISTRICT LOT 6267, PLAN 7171 AND BLOCK 1513, DISTRICT LOT 6267, PLAN 10424, ALL OF RANGE 5, COAST DISTRICT. EXCERPT. APRIL 27, 1983. ASD

NOTES	
1.	ALL DISTANCES ARE METRIC UNLESS OTHERWISE INDICATED.
2.	HORIZONTAL AND VERTICAL CONTROL BASED ON RTK GPS SURVEY. COORDINATES ARE UTM NAD83 ZONE 9.
3.	SURVEYED BY N. HILL ON JUNE 18TH, 2013 AND AUG. 08, 2013.
4.	TRUE GRID NORTH IS SHOWN HERE. ASTRONOMIC NORTH BEARINGS ARE SHOWN WITH LEGAL LOT LINE DISTANCES REDRAWN FROM REFERENCE PLANS.

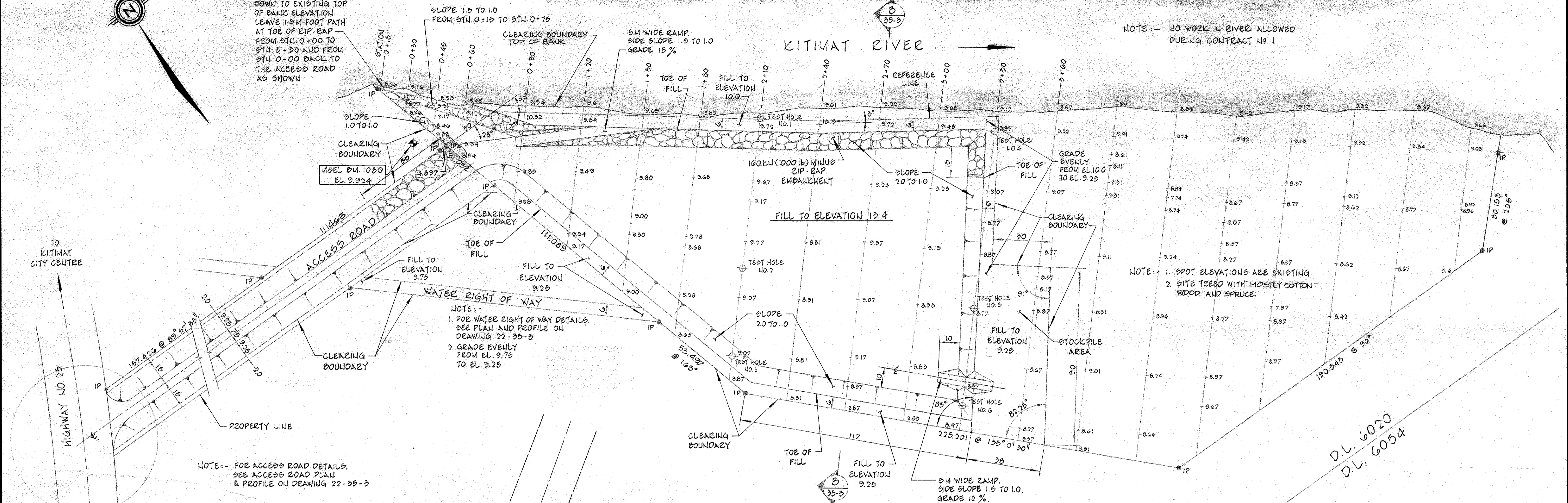
NO.	DATE	REVISIONS
1.	30/09/2013	WELL 94-1 (N USE) AND WELL 79-1 (NOT IN USE) SHOWN IN APPROXIMATE LOCATION FROM KITIMAT WELL DRILLING EXPLORATION DRILLING TENDER DOCUMENT, FEB. 2010.
2.	02/10/2013	STATUTORY ROW UPDATED, PROPERTY OWNERS LABELED.

DESIGNED	
DRAWN	
Norm Hill	
CHECKED	
RECOMMENDED	
APPROVED	



NOTE:- PLACE ZIP-RAP ON SLOPE DOWN TO EXISTING TOP OF BANK ELEVATION. LEAVE 1.5M FOOT PATH AT TOE OF ZIP-RAP FROM STN. 0+00 TO STN. 0+30 AND FROM STN. 0+00 BACK TO THE ACCESS ROAD AS SHOWN

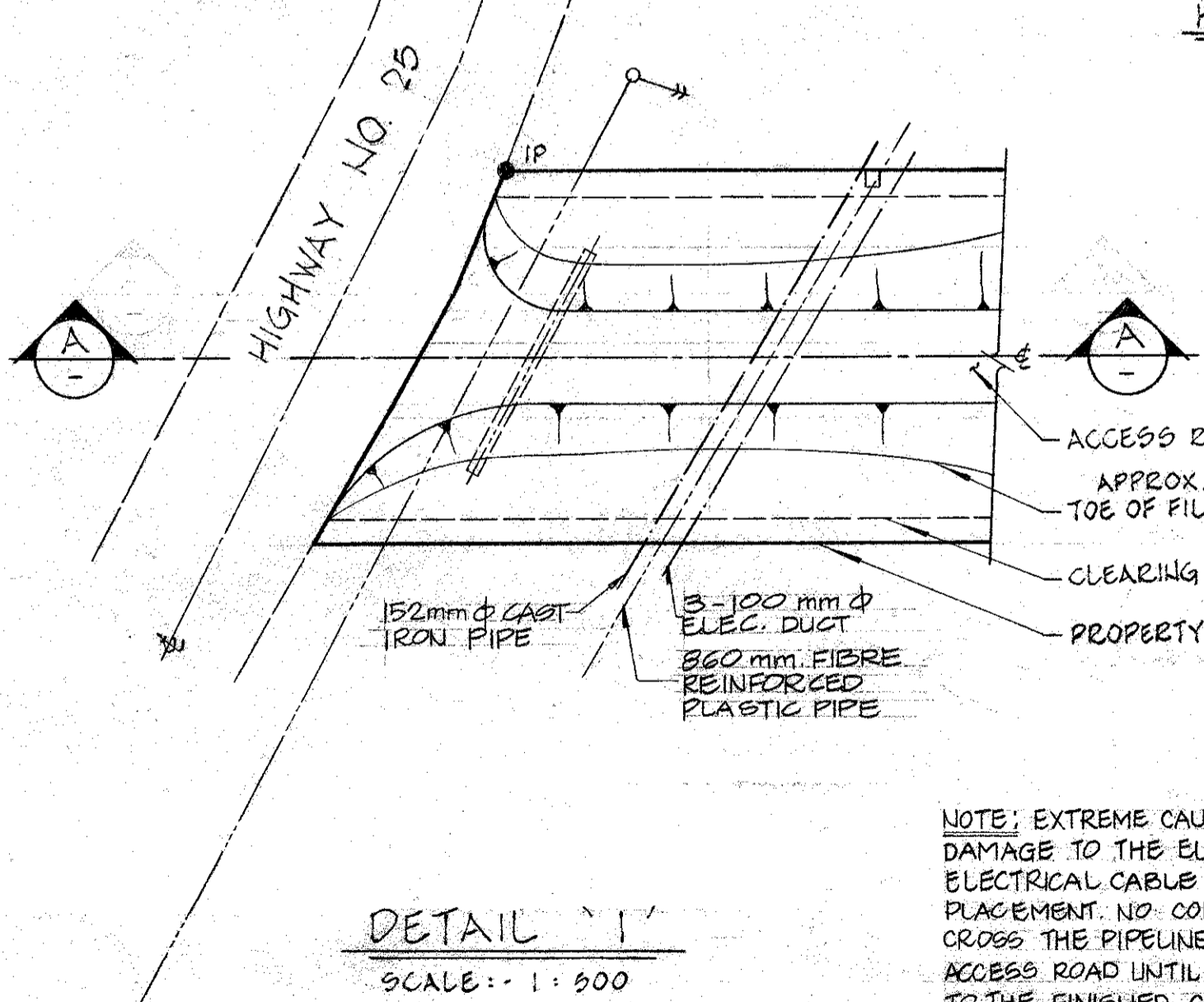
NOTE:- NO WORK IN RIVER ALLOWED DURING CONTRACT NO. 1



NOTE:-  
1. FOR WATER RIGHT OF WAY DETAILS SEE PLAN AND PROFILE ON DRAWING 22-35-3  
2. GRADE EVENLY FROM EL. 9.75 TO EL. 9.25

NOTE:-  
1. SPOT ELEVATIONS ARE EXISTING  
2. SITE TREED WITH MOSTLY COTTON WOOD AND SPRUCE.

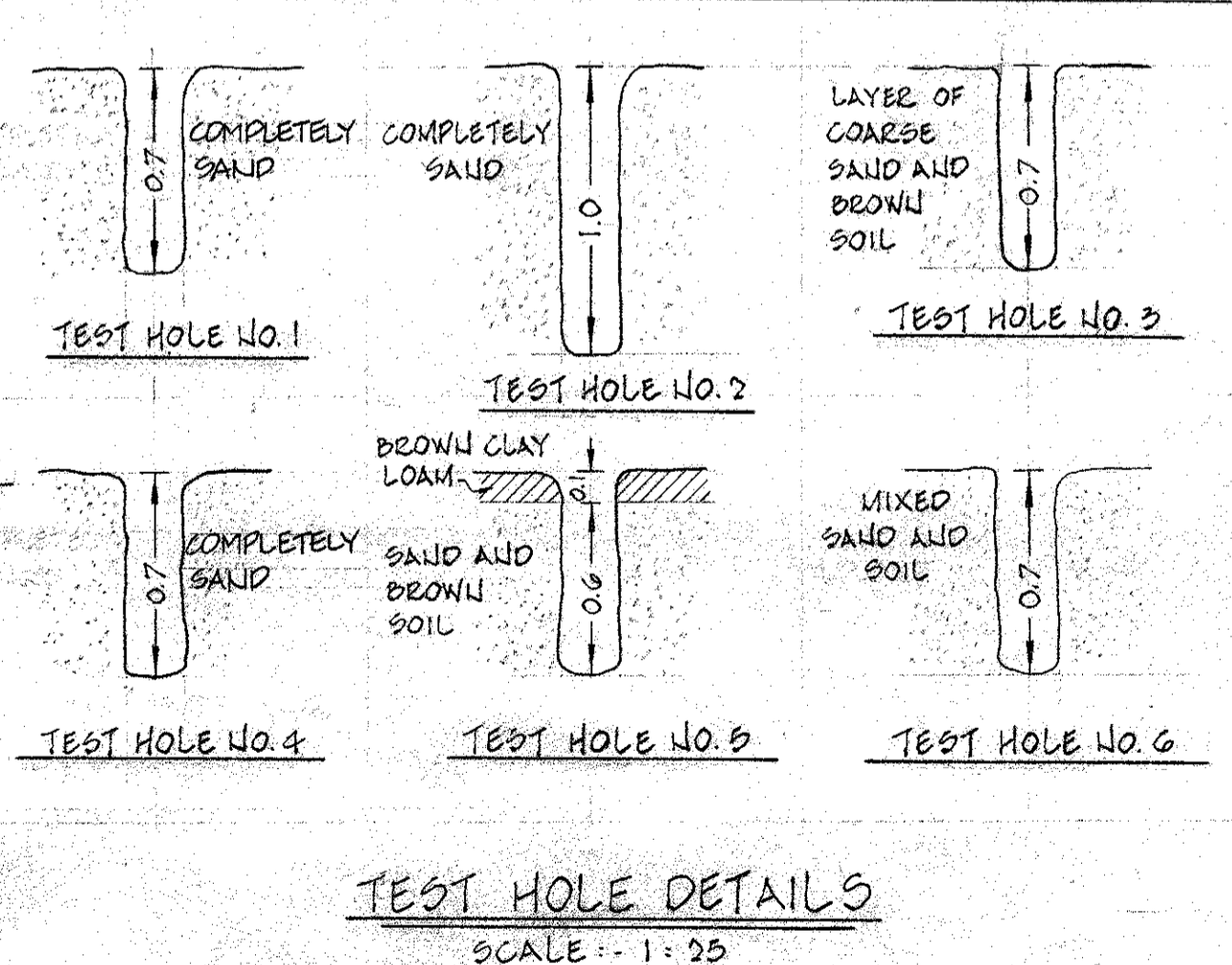
NOTE:- FOR ACCESS ROAD DETAILS, SEE ACCESS ROAD PLAN & PROFILE ON DRAWING 22-35-3



NOTE: EXTREME CAUTION MUST BE EXERCISED TO AVOID DAMAGE TO THE EUROGAN PIPELINE AND BURIED ELECTRICAL CABLES DURING HAULING AND PIPE PLACEMENT. NO CONSTRUCTION EQUIPMENT SHALL CROSS THE PIPELINE DURING CONSTRUCTION OF THE ACCESS ROAD UNTIL FILL PLACEMENT IS COMPLETE TO THE FINISHED GRADE. NO FILL SHALL BE DUMPED WITHIN 4.00M OF THE PIPELINE. FILL SHALL BE SPREAD WITH A MACHINE NO LARGER THAN A JD450 AND COMPACTED TO 95% STANDARD PROCTOR DENSITY WITH A "WALK-BEHIND" VIBRATORY ROLLER COMPACTOR. SEE SPECIFICATION SECTION 2B13(4)

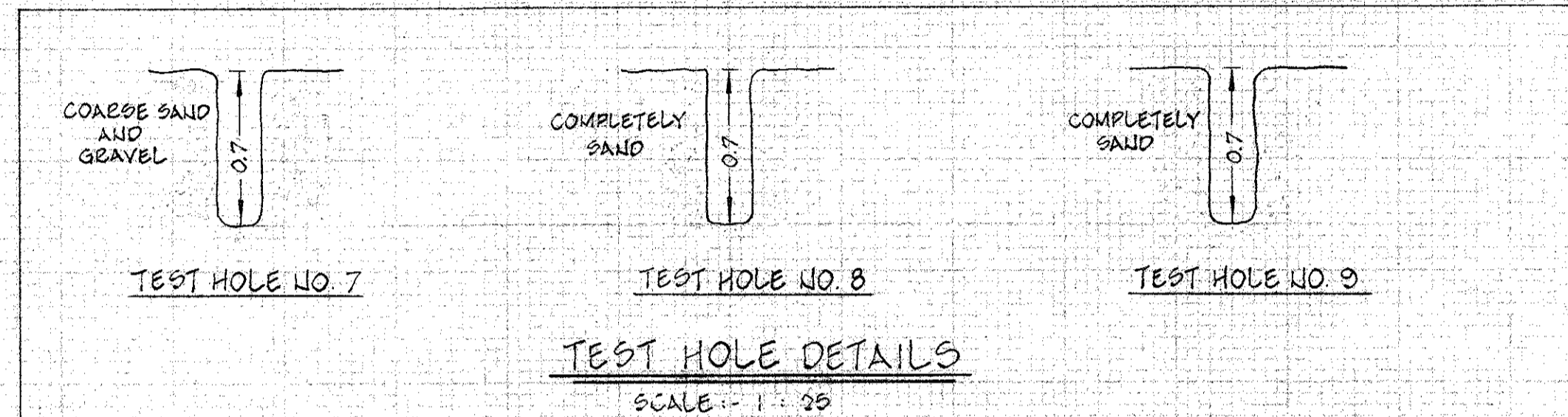
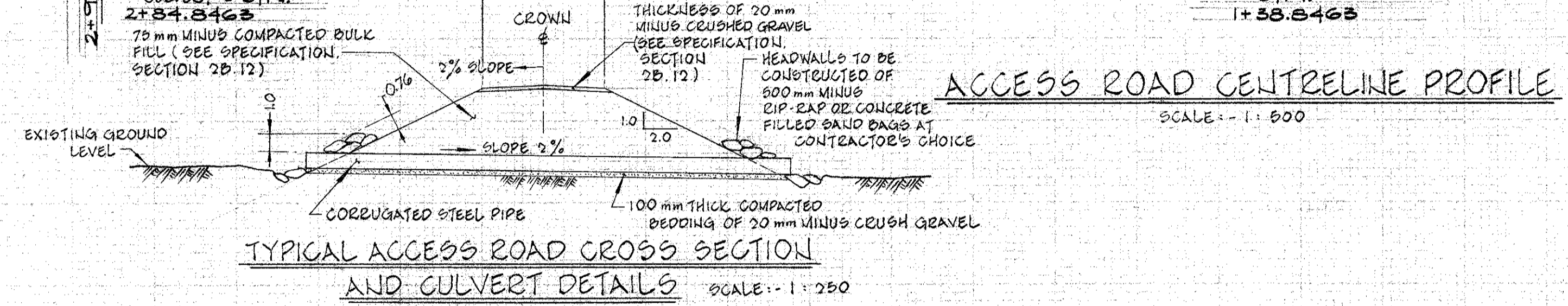
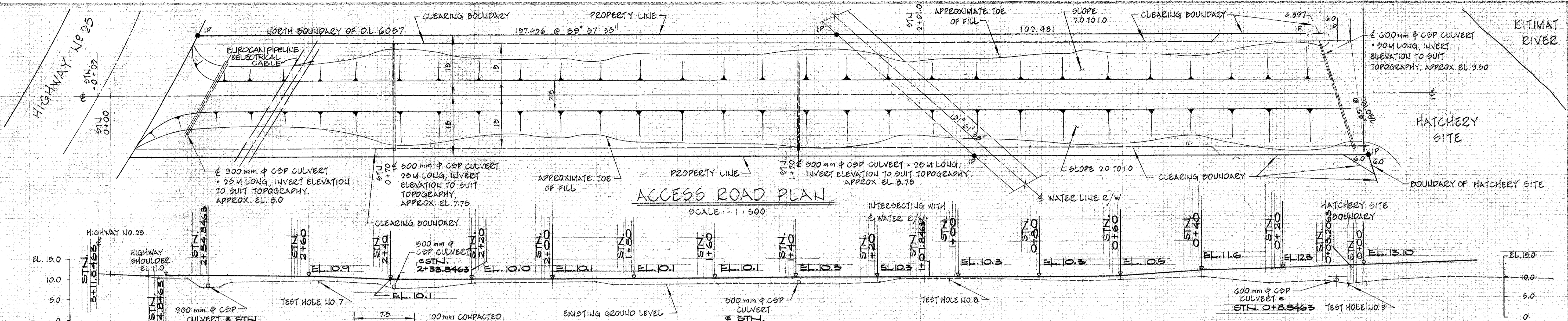
HATCHERY FILL SITE  
SCALE: 1:1000

SECTION A  
SCALE: 1:200  
HOR. & VER.



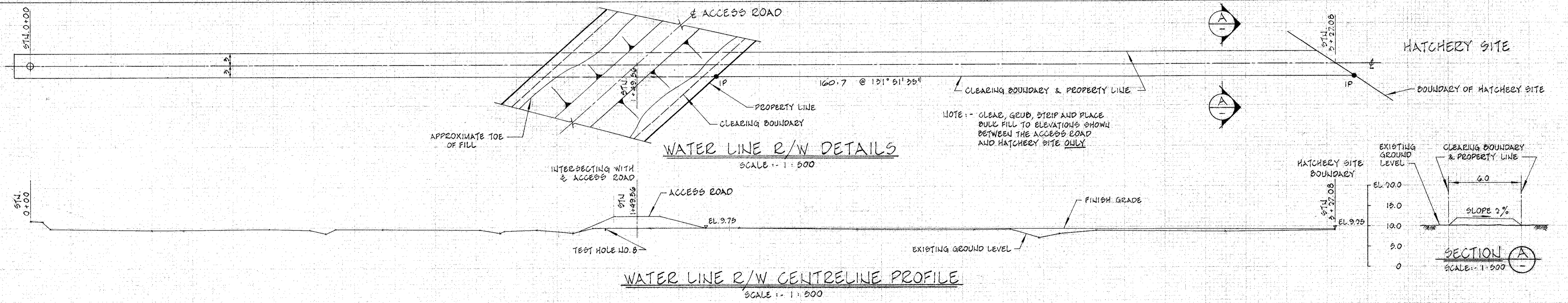
DWG. NO.	REFERENCE DRAWINGS	NOTES	NO.	DATE	REVISIONS	DESIGNED: G.M. & K.S. DRAWN: KEN SUN CHECKED: G. MORRIS RECOMMENDED: [Signature] APPROVED: [Signature]	DEPARTMENT OF FISHERIES AND OCEANS SALMONID ENHANCEMENT PROGRAM <b>KITIMAT RIVER PROJECT</b> <b>CONTRACT NO. 1</b> <b>SITE PREPARATION</b> <b>SITE AND ACCESS ROAD PLAN</b>	SCALE AS SHOWN
		1. THE CONTRACTOR IS RESPONSIBLE FOR SETTING OUT OF THE WORK FROM THE EXISTING LEGAL SURVEY PINS. SEE SPECIFICATION SECTION 1.11. 2. BULK FILL AND ROAD SURFACE COURSE GRAVEL SHALL CONFORM TO THE GRADATION CURVES SPECIFIED IN SECTION 2B.12 3. ALL FILL SHALL BE COMPACTED IN 200mm LIFTS TO 95% STANDARD PROCTOR DENSITY.						DRAWING NUMBER: 22-35-2
								REVISION

BUIL KITIMAT D-50



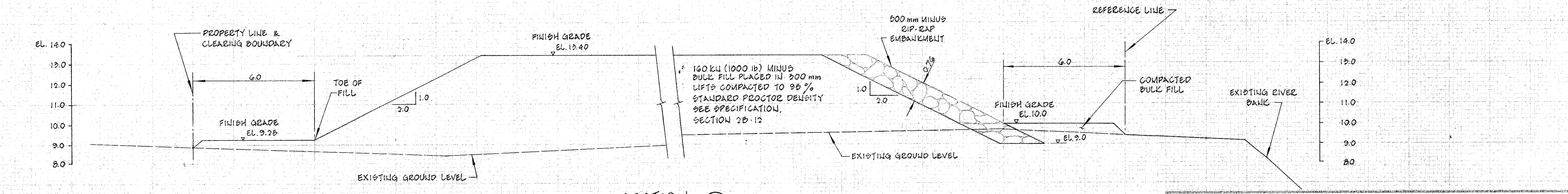
TYPICAL ACCESS ROAD CROSS SECTION AND CULVERT DETAILS SCALE: 1:250

TEST HOLE DETAILS SCALE: 1:25



WATER LINE R/W CENTRELINE PROFILE SCALE: 1:500

SECTION A SCALE: 1:500



SECTION B SCALE: 1:100

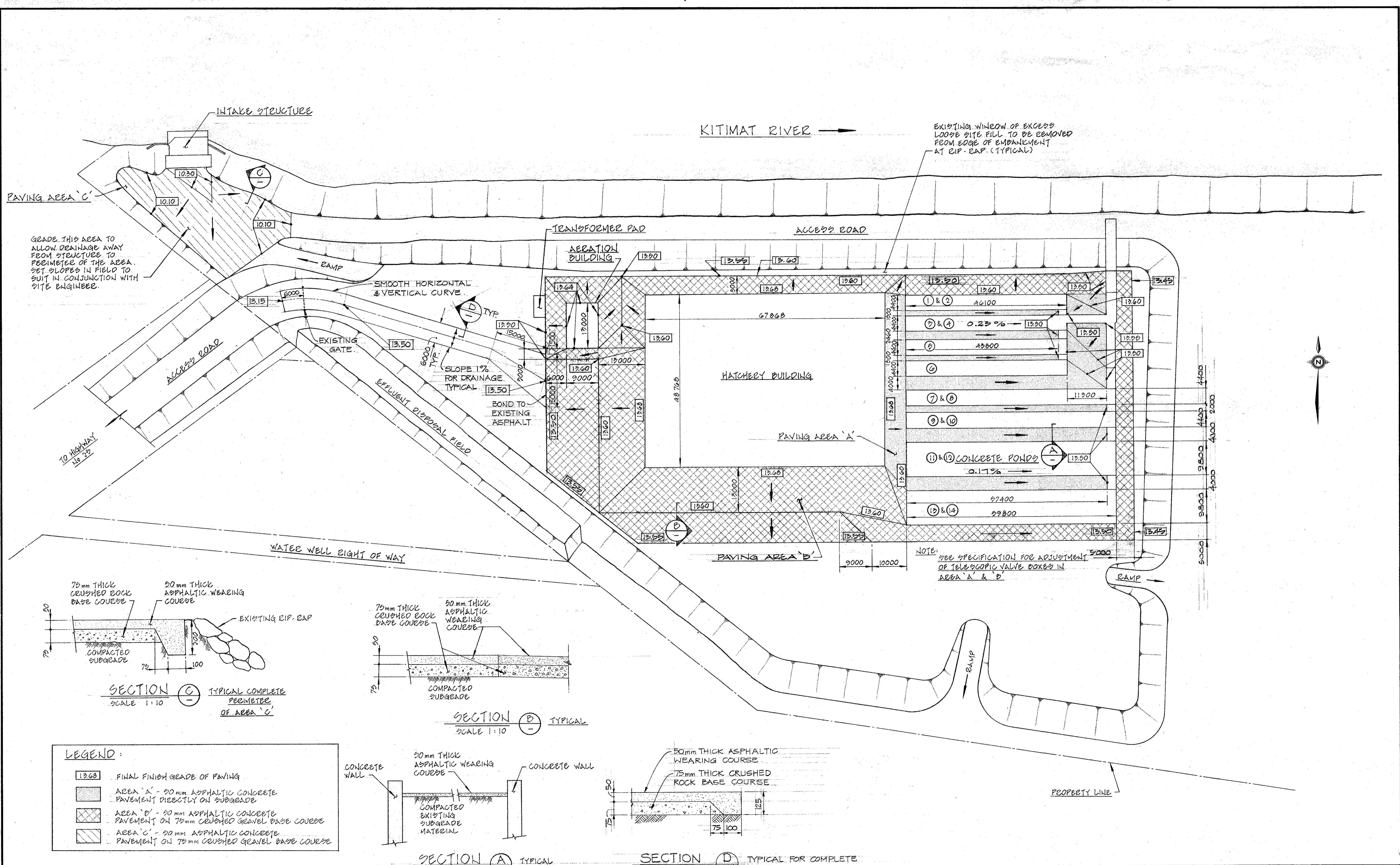
DEPARTMENT OF FISHERIES AND OCEANS  
SALMONID ENHANCEMENT PROGRAM

**KITIMAT RIVER PROJECT**  
CONTRACT NO. 1  
SITE PREPARATION  
SITE AND ACCESS ROAD  
FILL PROFILES AND SECTIONS

DESIGNED: G.M. & K.S.  
DRAWN: KEN SUN  
CHECKED: G. MORRIS  
RECOMMENDED: [Signature]  
APPROVED: [Signature]

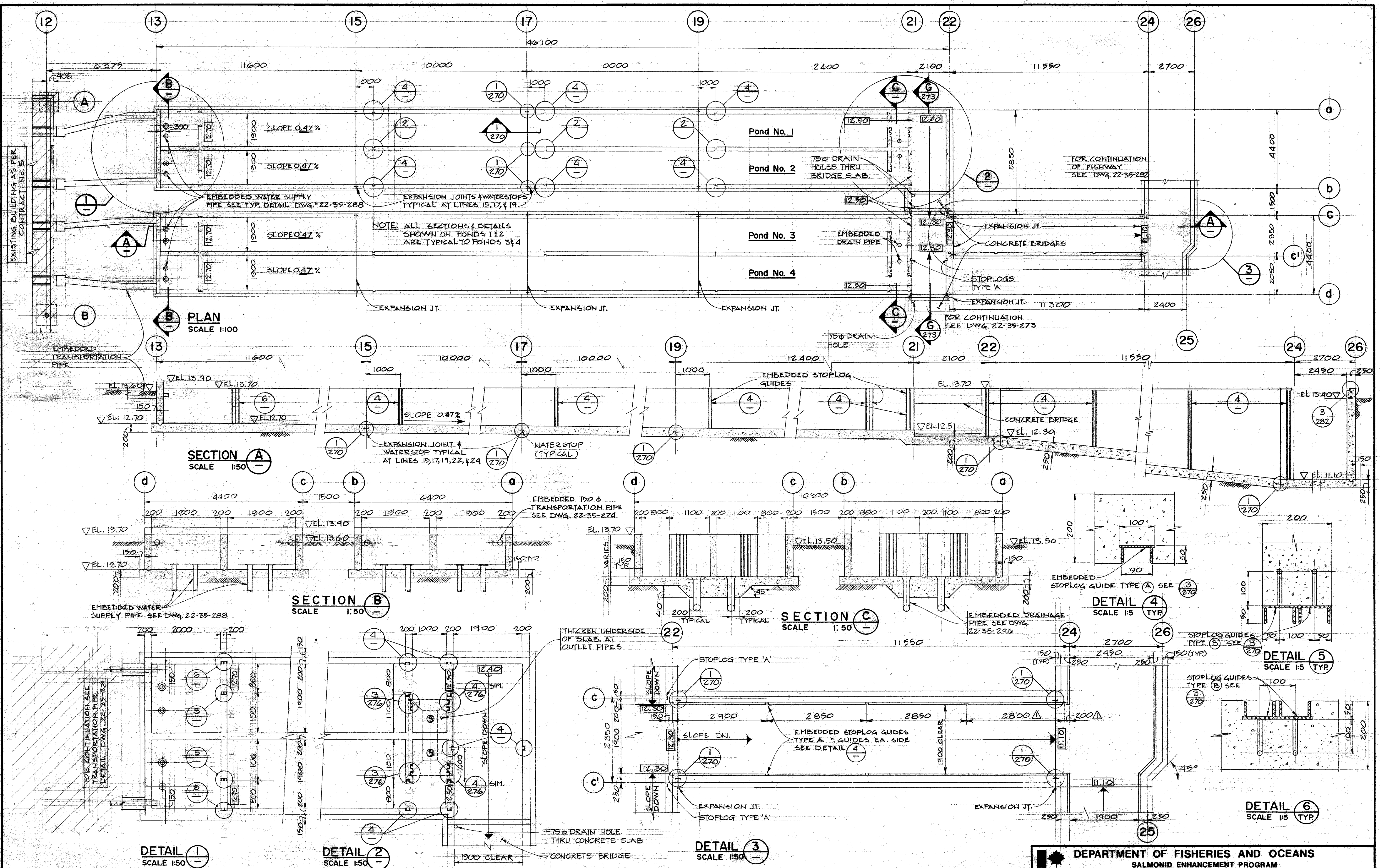
SCALE: AS SHOWN  
DATE: JULY, 1980  
DRAWING NUMBER: 22-35-3  
REVISION:

NO.	DATE	REVISIONS



<p>1. PAVING AREAS 'A', 'B' &amp; 'C' REFERENCED FOR SPECIFICATION PURPOSES (SEE SPECIFICATION DOCUMENTS).</p>		<p>DESIGNED I.R./G.M. DRAWN K.SUN CHECKED 12.6.11 RECOMMENDED [Signature] APPROVED [Signature]</p>		<p>DEPARTMENT OF FISHERIES AND OCEANS SALMONID ENHANCEMENT PROGRAM</p>	
<p>DWG. NO.</p>		<p>REFERENCE DRAWINGS</p>		<p>NO. DATE REVISIONS</p>	
<p>NOTES</p>		<p>SCALE 1:500</p>		<p>KITIMAT RIVER PROJECT CONTRACT N° 10 HATCHERY SITE PAVING PAVEMENT LAYOUT PLAN</p>	
<p>DATE</p>		<p>SEPT. 1983</p>		<p>DRAWING NUMBER 22-35-420</p>	
<p>REVISIONS</p>		<p>REVISION</p>		<p>REVISION</p>	

ECL 07841-0-02



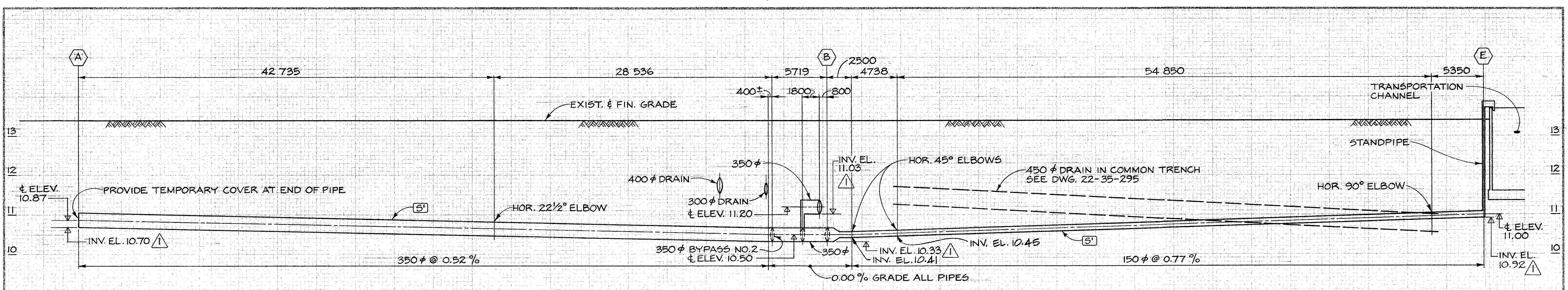
DWG. NO.	REFERENCE DRAWINGS	NOTES	NO.	DATE	REVISIONS	DESIGNED: G.A. K.S. DRAWN: D.C.S. M.M.C. CHECKED: [Signature] RECOMMENDED: [Signature] APPROVED: [Signature]	<b>DEPARTMENT OF FISHERIES AND OCEANS</b> <b>SALMONID ENHANCEMENT PROGRAM</b> <b>KITIMAT RIVER PROJECT</b> <b>CONTRACT No. 6</b> <b>PONDS 1,2,3,4</b> <b>CONCRETE OUTLINE</b>	SCALE AS NOTED DATE: MAY, 1982 DRAWING NUMBER: 22-35-272 REVISION: 1
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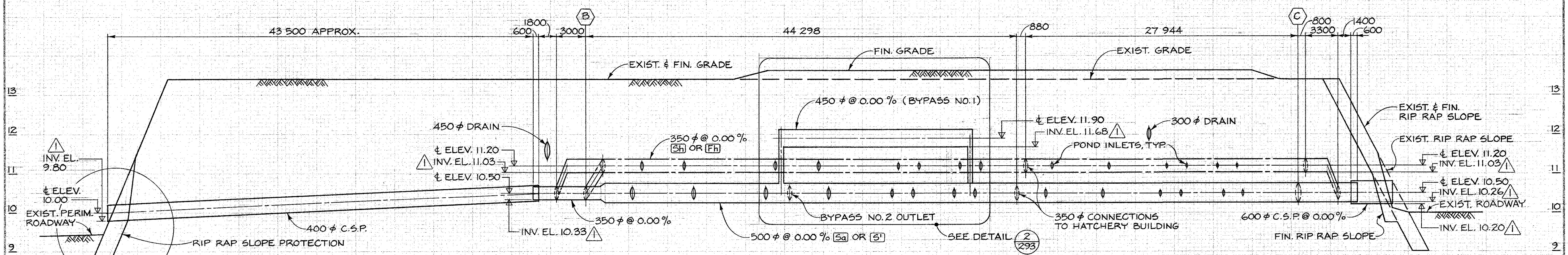




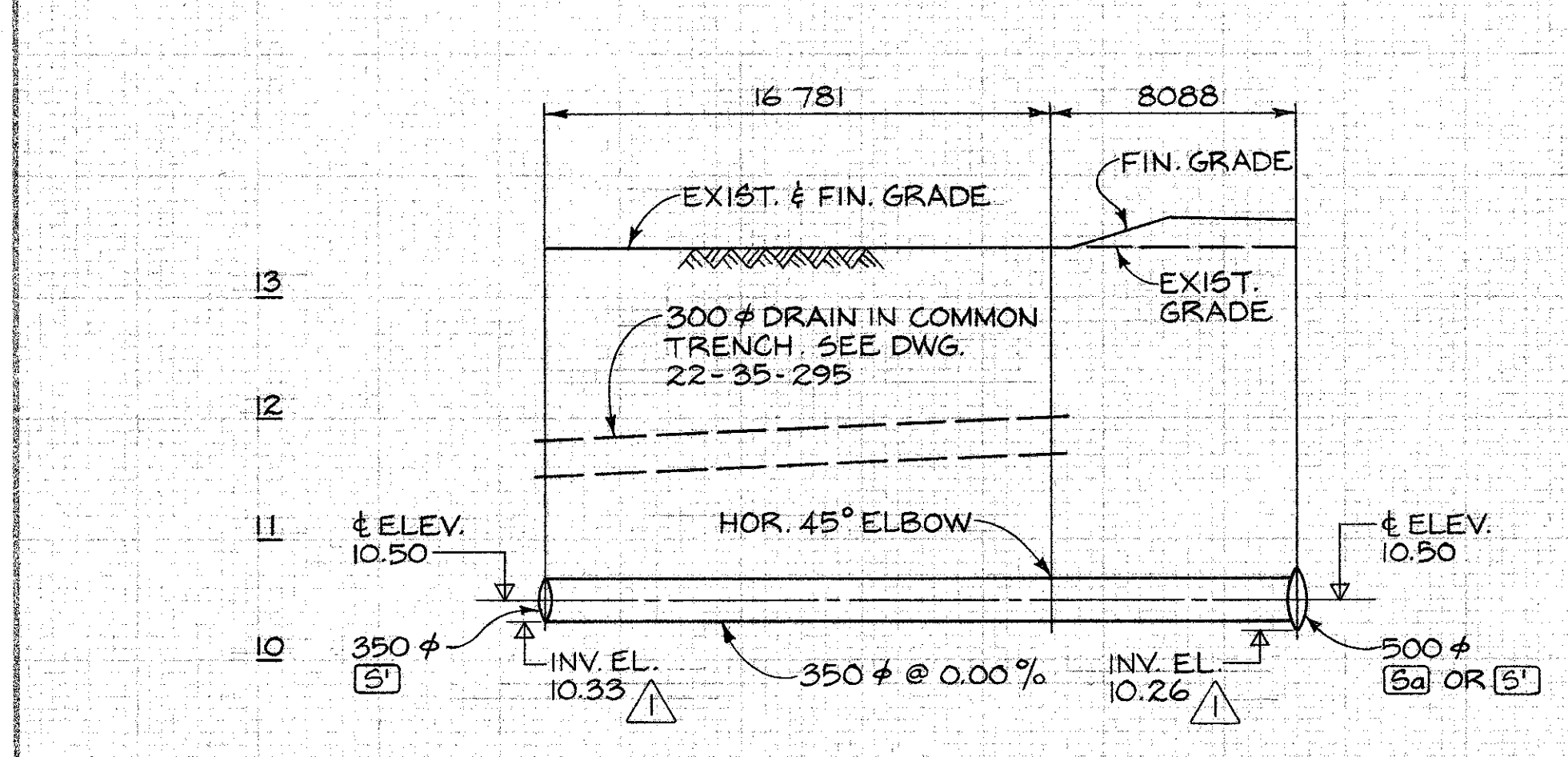




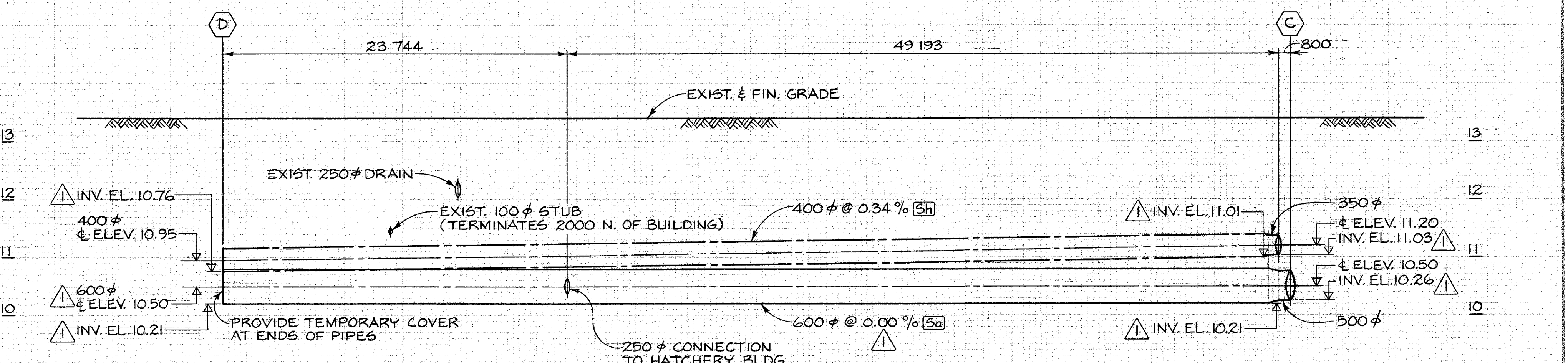
PROFILE A-B-E



PROFILE B-C



BYPASS NO 2 PROFILE



PROFILE C-D

DEPARTMENT OF FISHERIES AND OCEANS  
SALMONID ENHANCEMENT PROGRAM

**KITIMAT RIVER PROJECT**  
CONTRACT NO 6  
WATER SUPPLY PIPING  
PROFILES

SCALE  
1:200 HOR.  
1:50 VERT.

DATE  
MAY, 1982

DRAWING NUMBER  
22-35-287

REVISION  
2

DWG. NO.	REFERENCE DRAWINGS	NOTES	NO.	DATE	REVISIONS
			1	3/26/18	ADDED INVERT ELEVATIONS, GRADE CHANGE ON 600mm Sa
			2	MAR. 25	AS BUILT

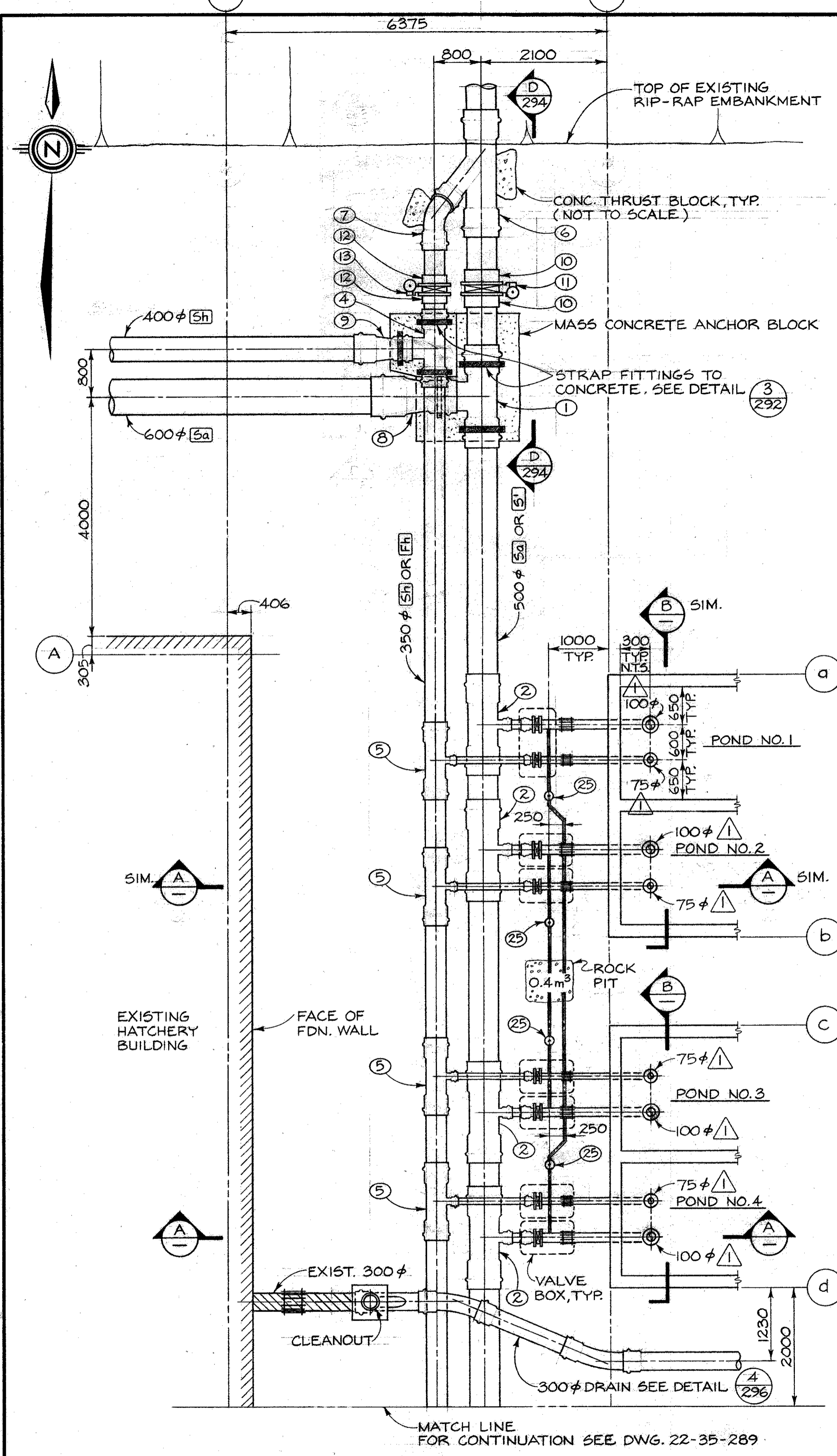
DESIGNED  
G.M. / J.C.

DRAWN  
J.C.

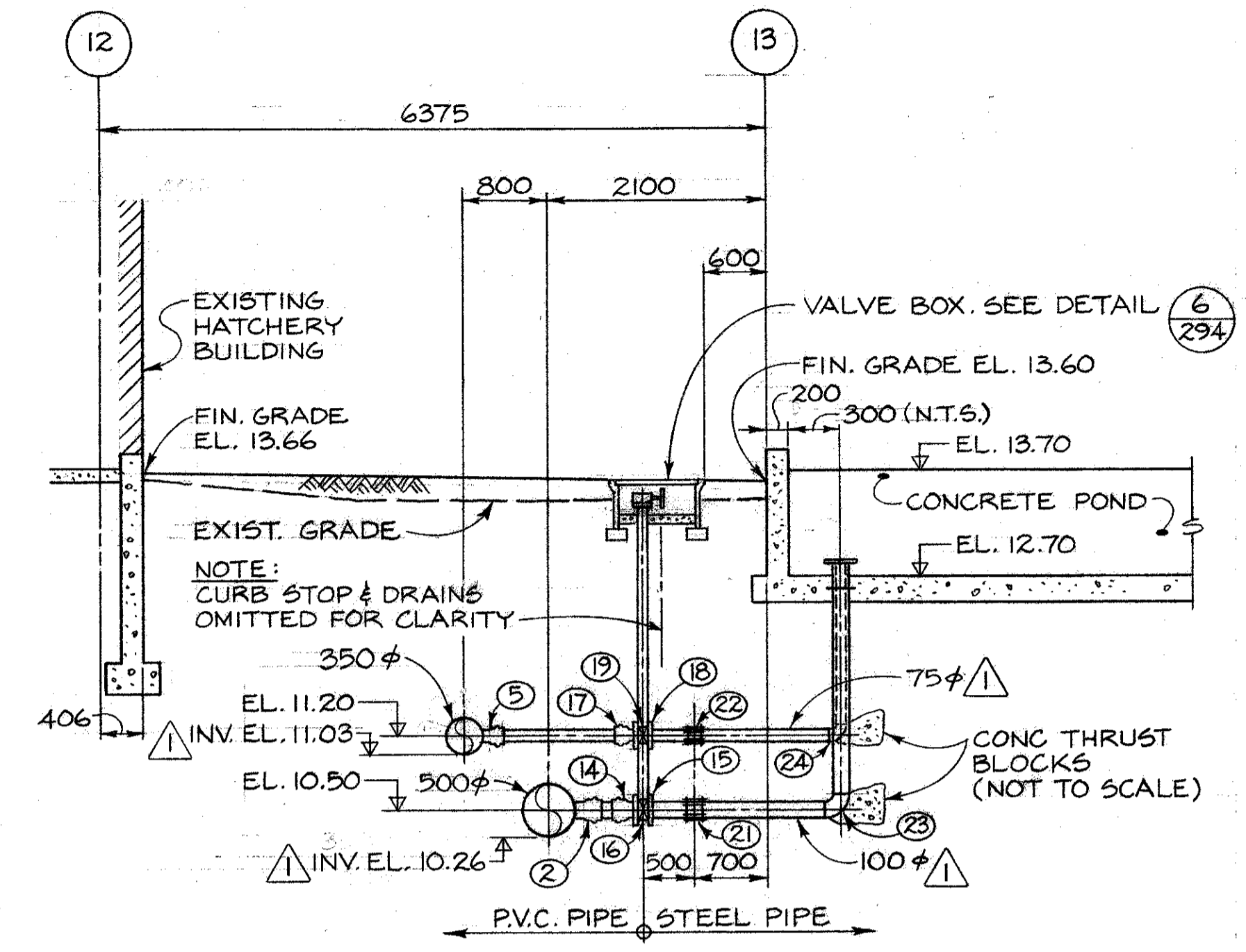
CHECKED  
Jew / i.e.

REVIEWED  
M. Morris

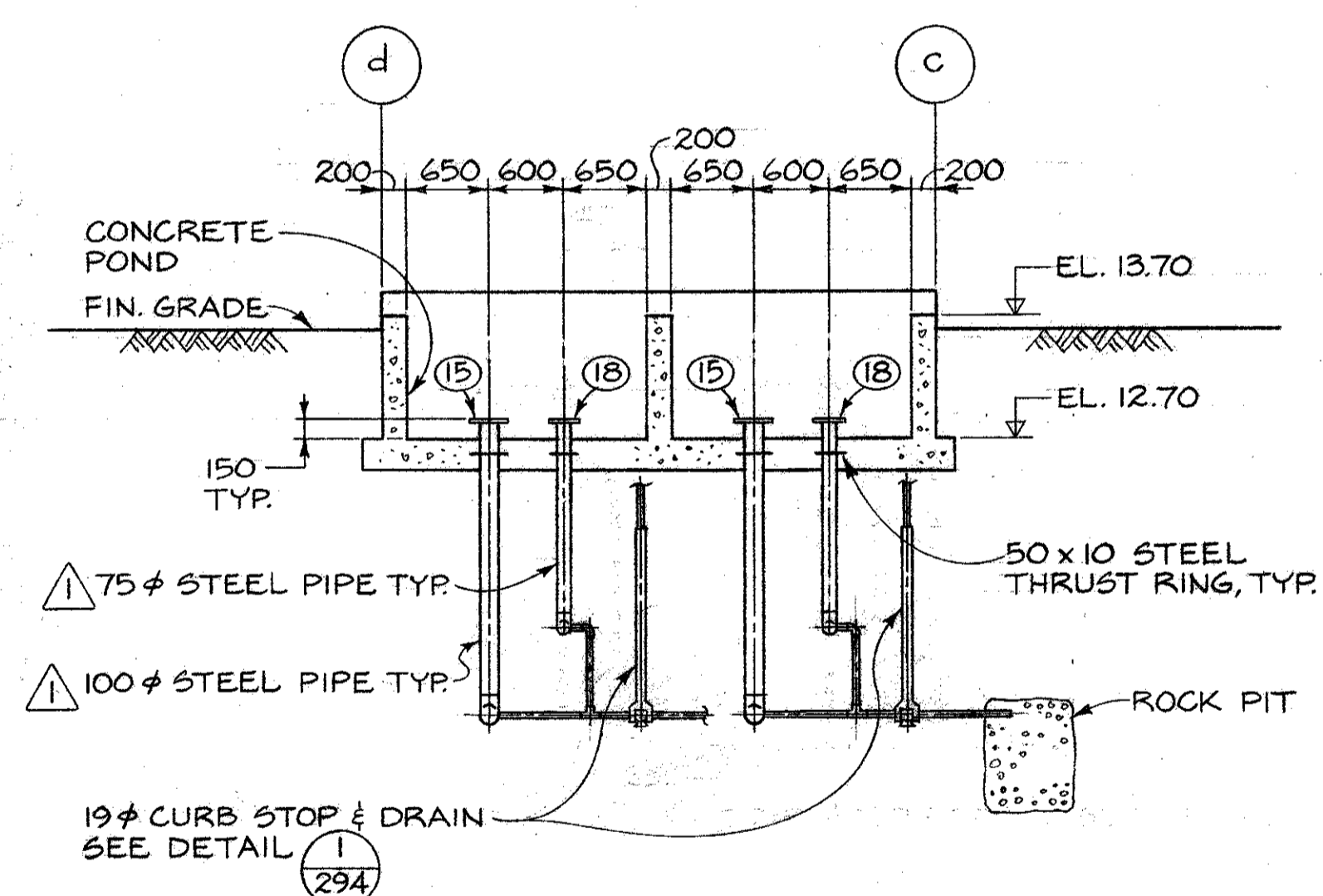
APPROVED  
J. Jewell



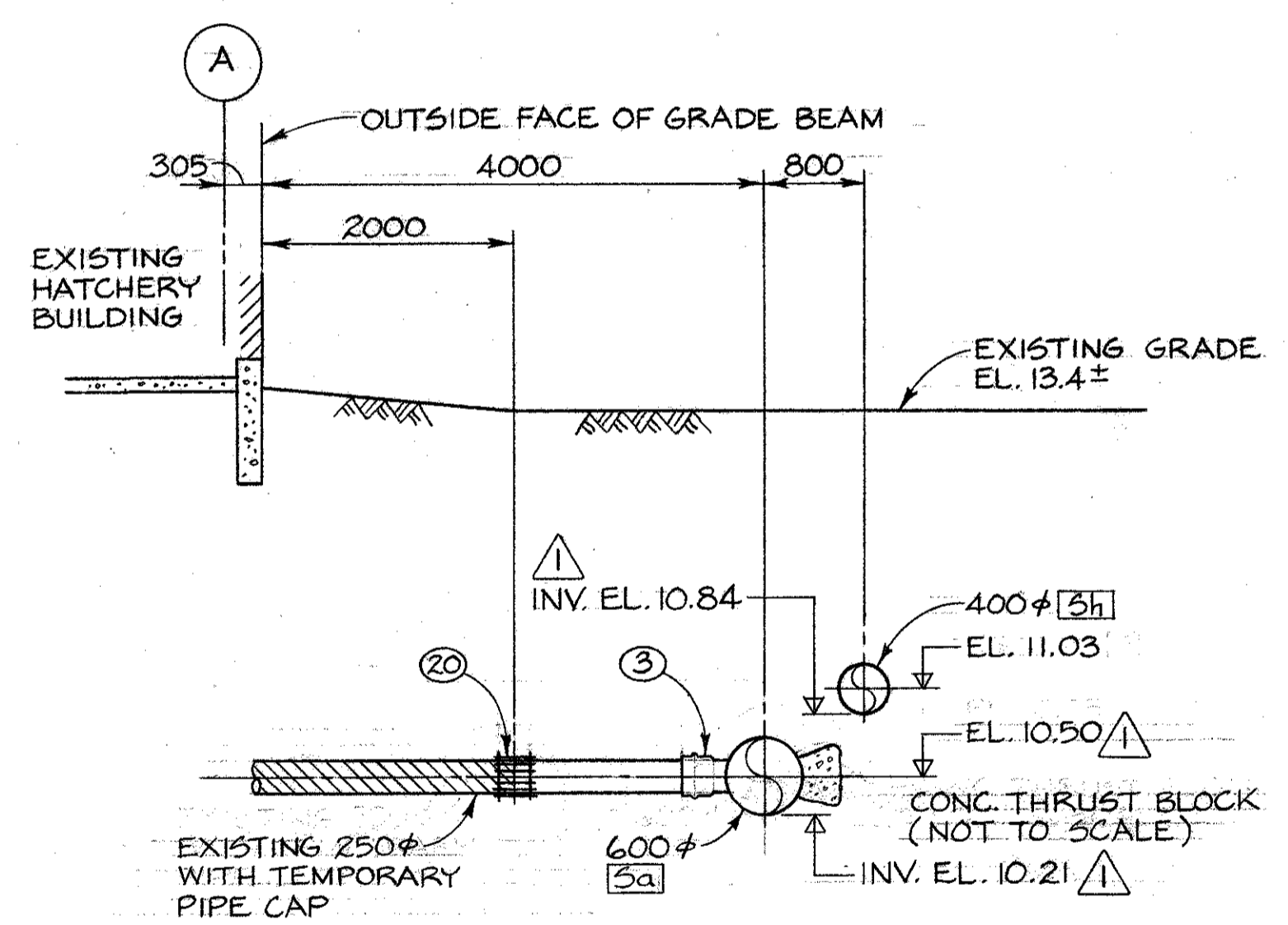
PLAN



SECTION A



SECTION B



SECTION C

KEY TO NUMBERED PARTS

NO.	SIZE	DESCRIPTION
1	500 x 500 x 500	TEE
2	500 x 500 x 100	TEE
3	600 x 600 x 250	TEE
4	350 x 350 x 350	TEE
5	350 x 350 x 75	TEE
6	500 x 500 x 350	45° LATERAL
7	350	45° ELBOW
8	600 x 500	REDUCER
9	400 x 350	REDUCER
10	500	FLANGE
11	500	BUTTERFLY VALVE C/W BURIED SERVICE GEAR OPERATOR & VALVE OPERATOR EXTENSION
12	350	VANSTONE FLANGE
13	350	BUTTERFLY VALVE C/W BURIED SERVICE GEAR OPERATOR & VALVE OPERATOR EXTENSION
14	100	BELL X FLANGE ADAPTER
15	100	WELDED STEEL FLANGE
16	100	BUTTERFLY VALVE C/W TORQUE TUBE EXTENSION & HANDWHEEL GEARED OPERATOR
17	75	BELL X FLANGE ADAPTER
18	75	WELDED STEEL FLANGE
19	75	BUTTERFLY VALVE C/W TORQUE TUBE EXTENSION & HANDWHEEL GEARED OPERATOR
20	250	MECHANICAL COUPLING
21	100	MECHANICAL COUPLING
22	75	MECHANICAL COUPLING
23	100	WELDED STEEL 90° ELBOW
24	75	WELDED STEEL 90° ELBOW
25	19	CURB STOP

DWG. NO.	REFERENCE DRAWINGS	NOTES	NO.	DATE	REVISIONS
			1	82/04/18	LATERAL PIPES AND FITTINGS TO PONDS REDUCED IN DIAMETER. ADDED INVERT ELEVATIONS. GRADE CHANGE ON 600φ 5a
			2	MAR. 85	AS BUILT

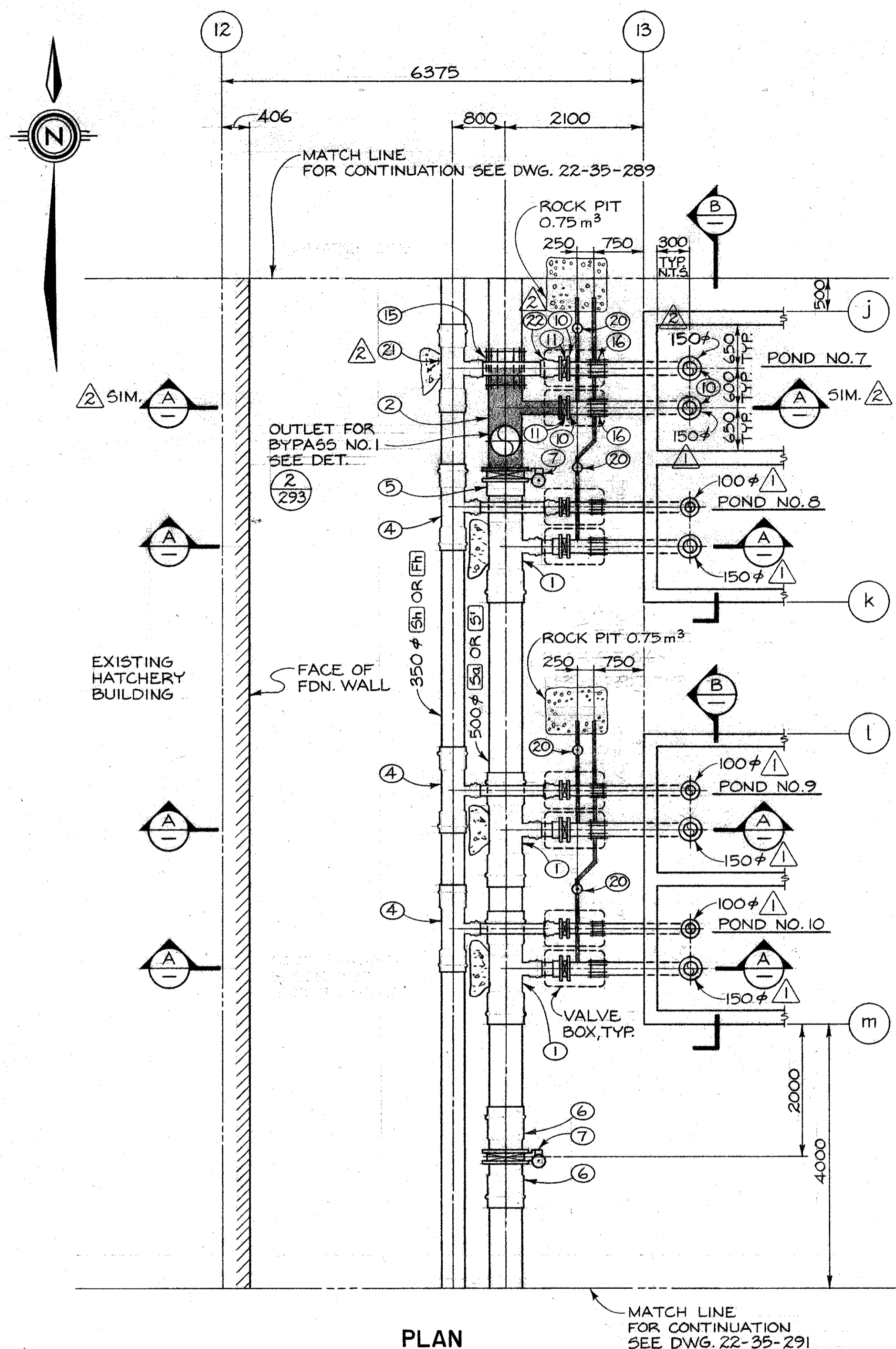
**DEPARTMENT OF FISHERIES AND OCEANS**  
SALMONID ENHANCEMENT PROGRAM

**KITIMAT RIVER PROJECT**  
CONTRACT No 6  
PONDS 1,2,3,4  
WATER SUPPLY DETAILS

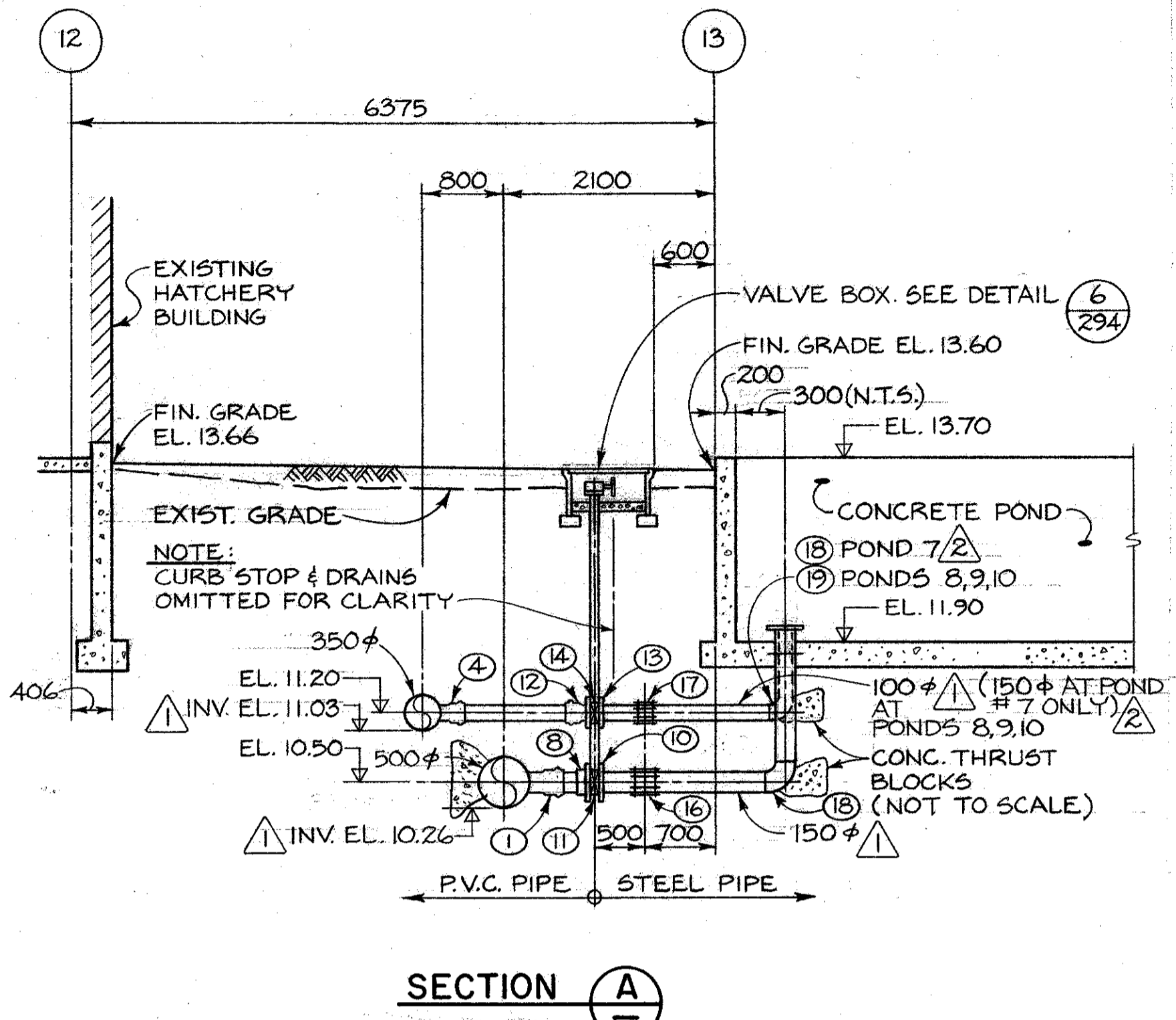
SCALE: 1:50  
DATE: MAY, 1982  
DRAWING NUMBER: 22-35-288  
REVISION: 2

DESIGNED: G.M. / J.C.  
DRAWN: J.C.  
CHECKED: J.C. / J.C.  
RECOMMENDED: J.C. / J.C.  
APPROVED: J.C. / J.C.  
BY: J.C. / J.C.

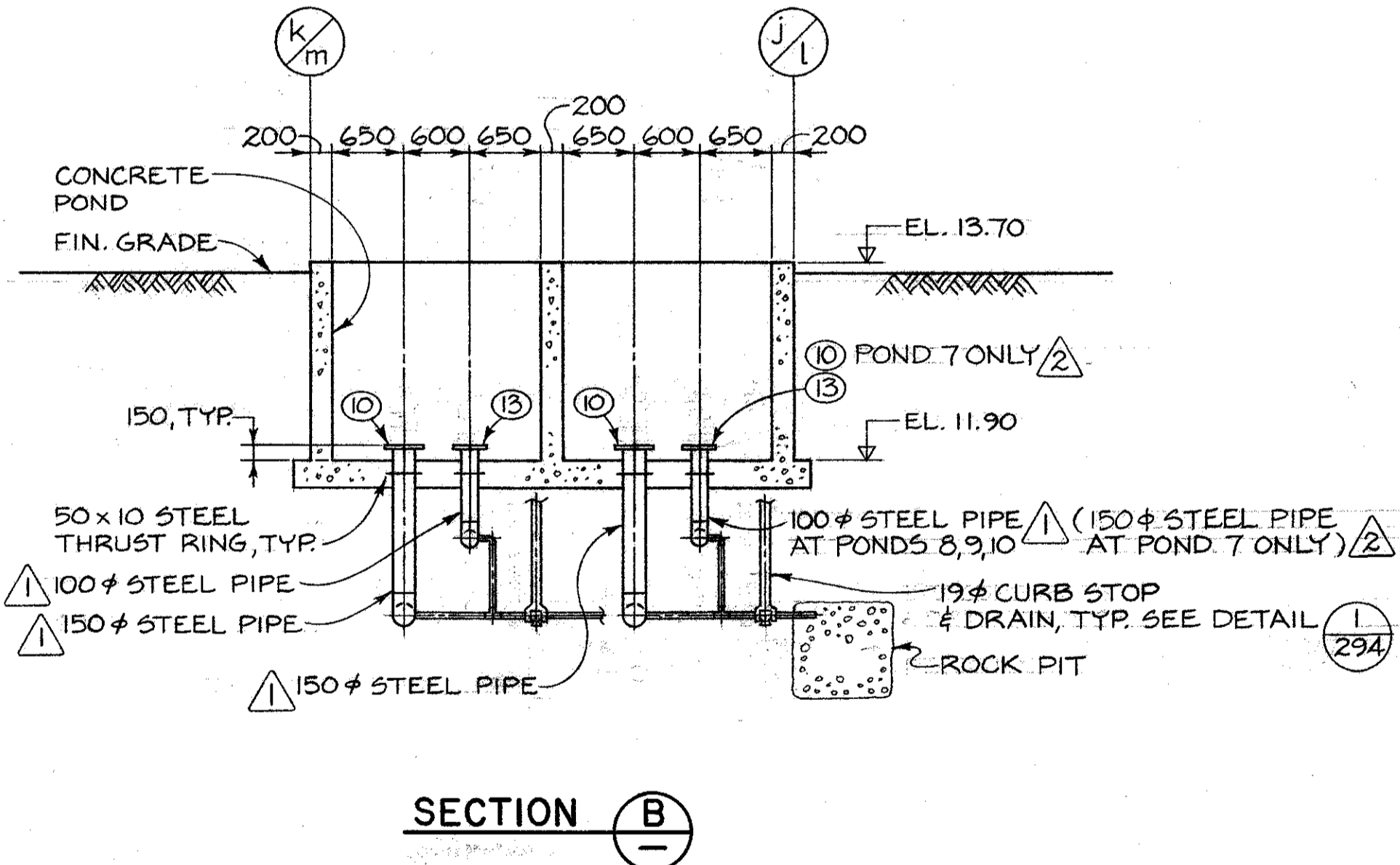




PLAN



SECTION A-A



SECTION B-B

KEY TO NUMBERED PARTS

NO.	SIZE	DESCRIPTION
1	500 x 500 x 200 150	TEE
2	500 x 500 x 450 x 200 150	STEEL SPECIAL FITTING
3	350 x 350 x 200	TEE
4	350 x 350 x 100 100	TEE
5	500	FLANGE
6	500	BELL X FLANGE ADAPTER
7	500	BUTTERFLY VALVE C/W BURIED SERVICE GEAR OPERATOR & VALVE OPERATOR EXTENSION
8	150	VANSTONE FLANGE
9	200	BELL X FLANGE ADAPTER
10	150	WELDED STEEL FLANGE
11	150	BUTTERFLY VALVE C/W TORQUE TUBE EXTENSION & HANDWHEEL GEARED OPERATOR
12	100	BELL X FLANGE ADAPTER
13	100	WELDED STEEL FLANGE
14	100	BUTTERFLY VALVE C/W TORQUE TUBE EXTENSION & HANDWHEEL GEARED OPERATOR
15	500	MECHANICAL COUPLING
16	150	MECHANICAL COUPLING
17	100	MECHANICAL COUPLING
18	150	WELDED STEEL 90° ELBOW
19	100	WELDED STEEL 90° ELBOW
20	19	CURB STOP
21	350 x 350 x 150	TEE
22	150	BELL x FLANGE ADAPTER

1. BYPASS NO. 1 OMITTED FROM PLAN FOR PURPOSES OF CLARITY. FOR BYPASS NO. 1 PIPING DETAILS SEE DETAIL # 2, DWG. 293.

NO.	DATE	REVISIONS
1	82/04/16	LATERAL PIPES AND FITTINGS TO PONDS REDUCED IN DIAMETER. FITTING #3 & 9 DELETED. ADDED INVERT ELEVATIONS.
2	82/09/10	100φ LATERAL PIPE & FITTINGS IN POND 7 ONLY INCREASED IN SIZE TO 150φ - FITTING NOS. 21 & 22 ADDED. PLAN, SECTIONS A & B REVISED.

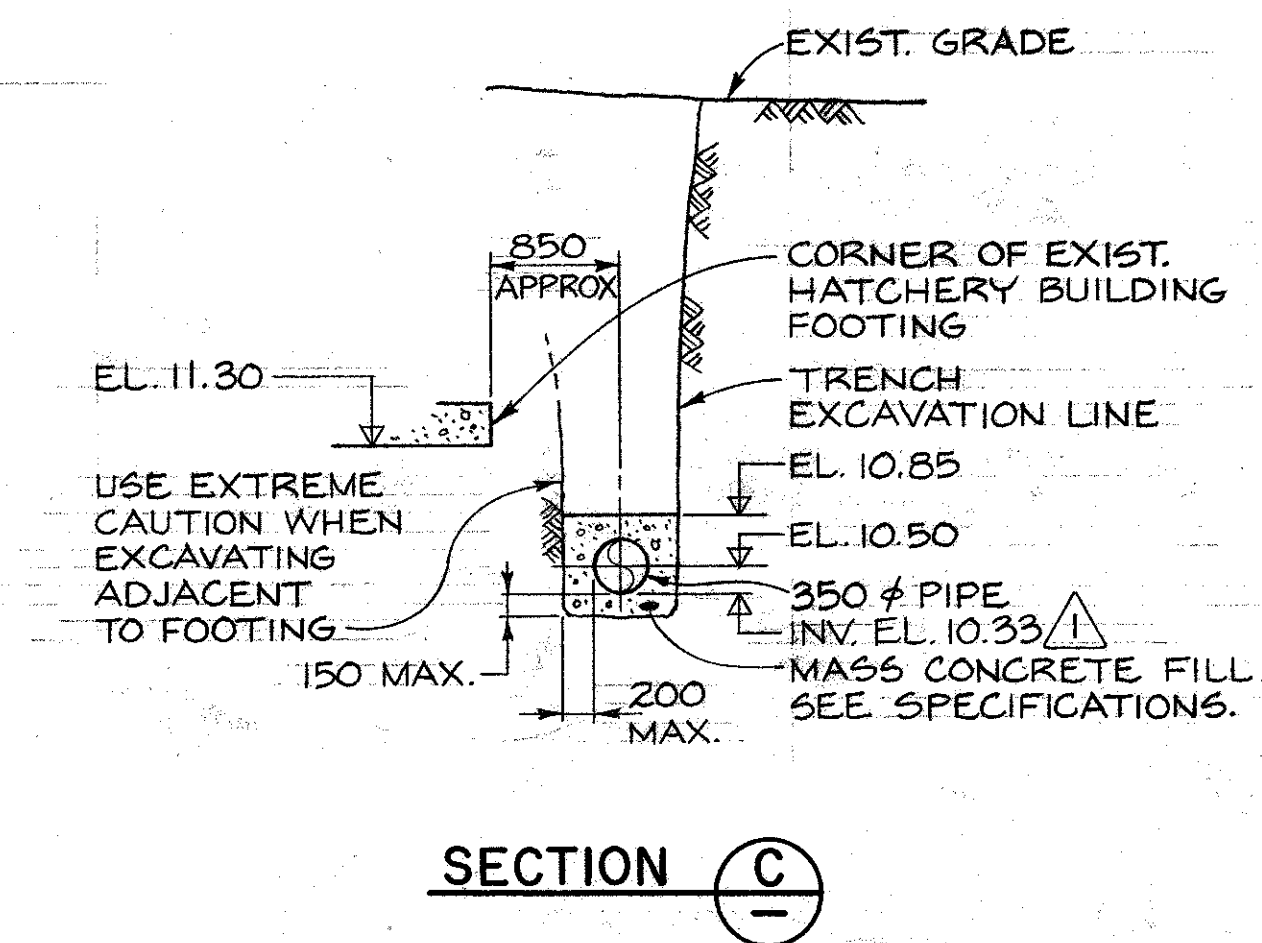
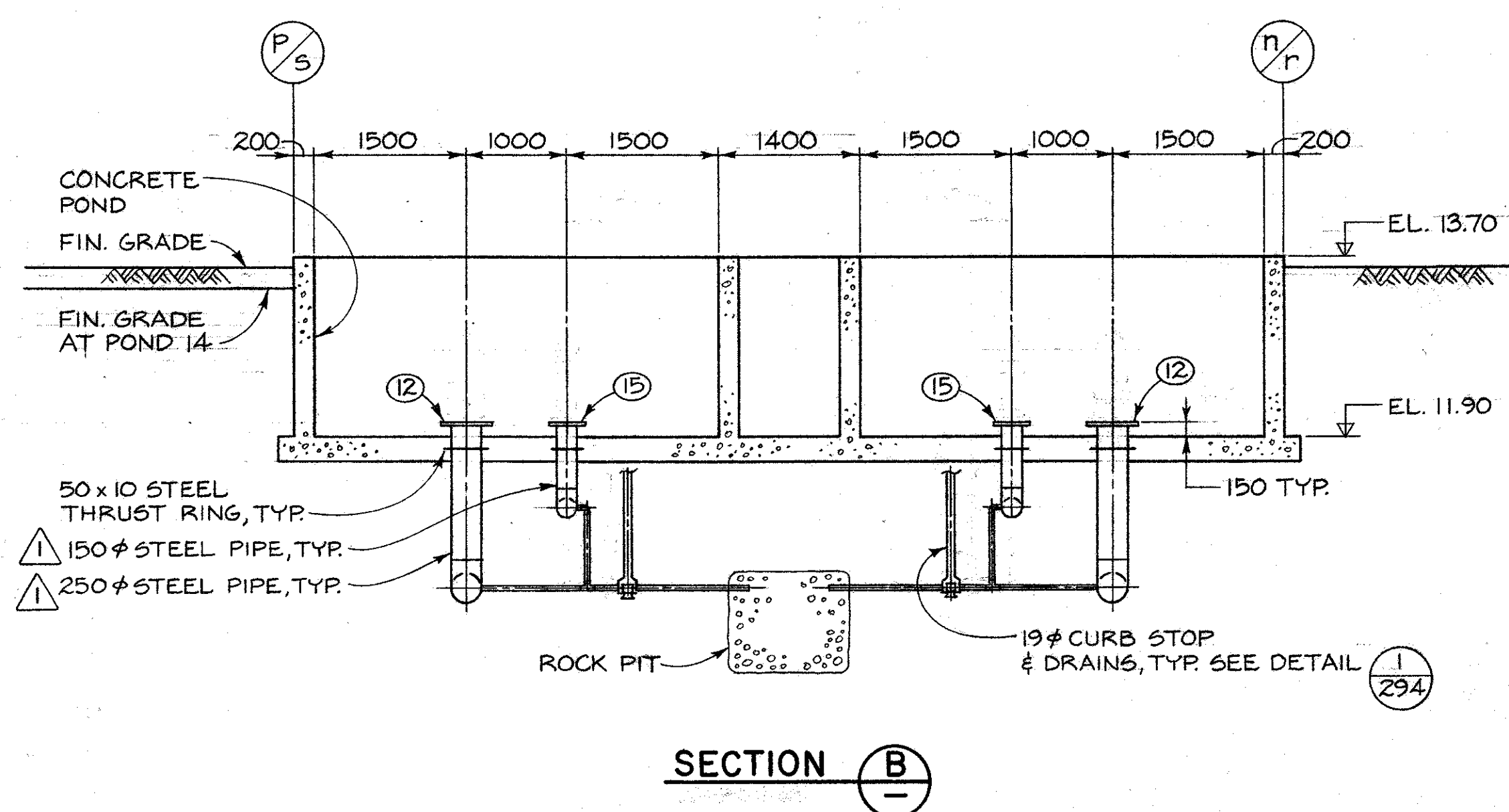
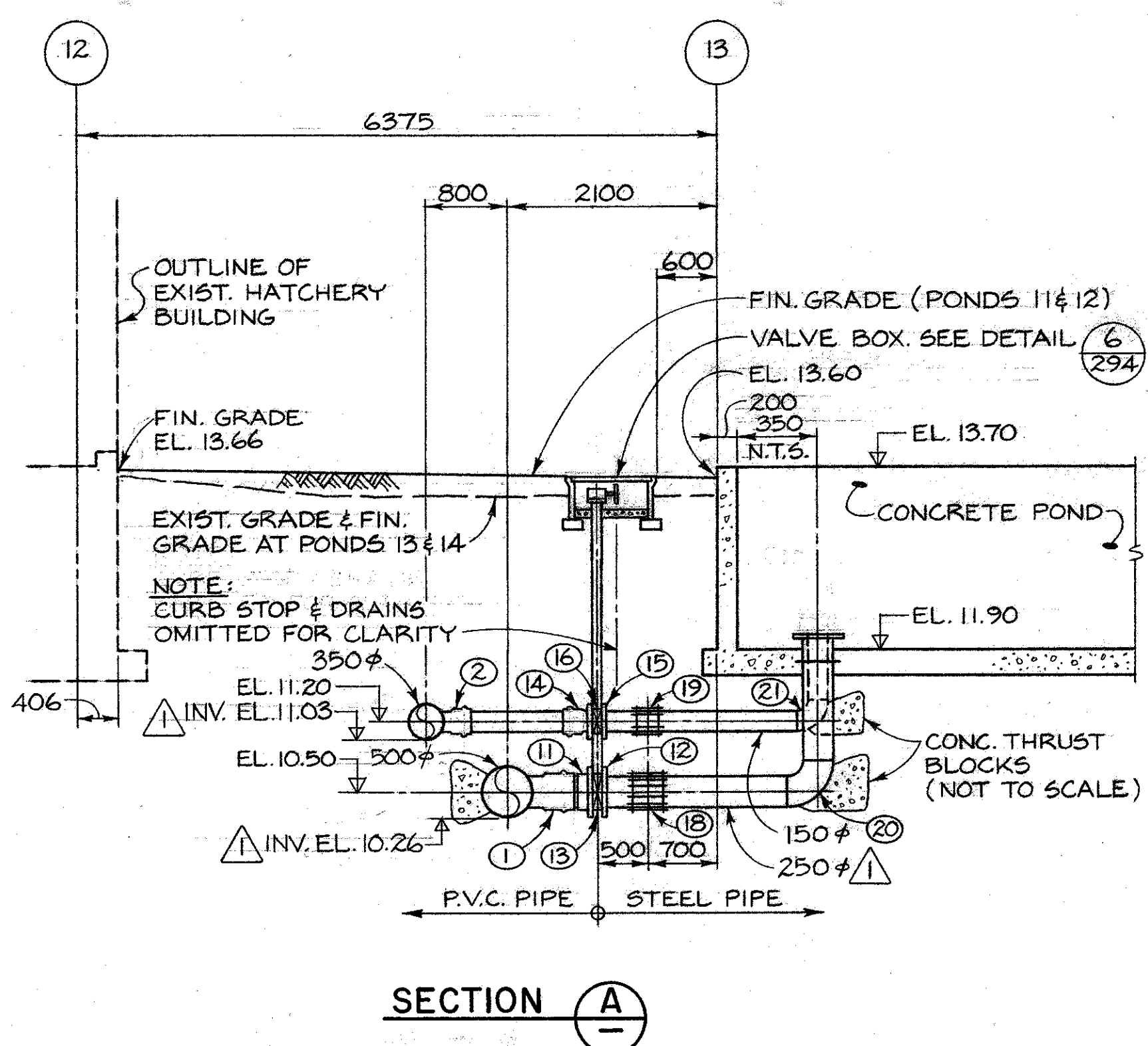
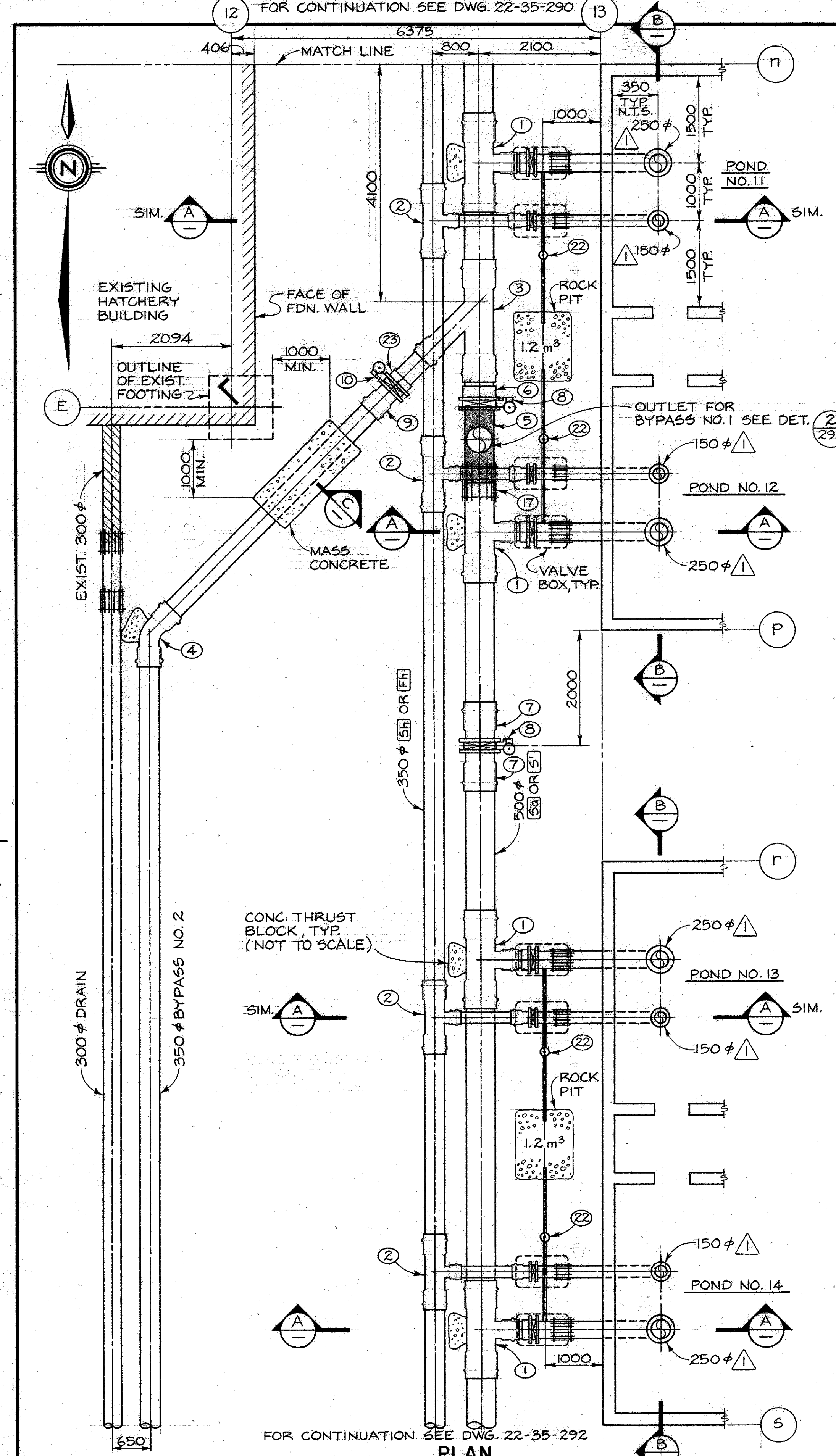
DESIGNED G.M. / J.C.  
 DRAWN J.C.  
 CHECKED JAS / 12.  
 RECOMMENDED [Signature]  
 APPROVED [Signature]

DEPARTMENT OF FISHERIES AND OCEANS  
 SALMONID ENHANCEMENT PROGRAM

KITIMAT RIVER PROJECT  
 CONTRACT N° 6  
 PONDS 7, 8, 9, 10  
 WATER SUPPLY DETAILS

SCALE	1:150
DATE	MAY, 1982
DRAWING NUMBER	22-35-290
REVISION	2

SCL 6788A1-050



KEY TO NUMBERED PARTS

NO.	SIZE	DESCRIPTION
1	500 x 500 x 250	TEE
2	350 x 350 x 150	TEE
3	500 x 500 x 350	45° LATERAL
4	350	45° ELBOW
5	500 x 500 x 450	STEEL SPECIAL FITTING
6	500	FLANGE
7	500	BELL X FLANGE ADAPTER
8	500	BUTTERFLY VALVE C/M BURIED SERVICE GEARED OPERATOR & VALVE OPERATOR EXTENSION
9	350	BELL X FLANGE ADAPTER
10	350	BUTTERFLY VALVE C/M BURIED SERVICE GEARED OPERATOR & VALVE OPERATOR EXTENSION
11	250	VANSTONE FLANGE
12	250	WELDED STEEL FLANGE
13	250	BUTTERFLY VALVE C/M TORQUE TUBE EXTENSION & HANDHEEL GEARED OPERATOR
14	150	BELL X FLANGE ADAPTER
15	150	WELDED STEEL FLANGE
16	150	BUTTERFLY VALVE C/M TORQUE TUBE EXTENSION & HANDHEEL GEARED OPERATOR
17	500	MECHANICAL COUPLING
18	250	MECHANICAL COUPLING
19	150	MECHANICAL COUPLING
20	250	WELDED STEEL 90° ELBOW
21	150	WELDED STEEL 90° ELBOW
22	19	CURB STOP
23	350	VANSTONE FLANGE

DWG. NO.	REFERENCE DRAWINGS

NOTES
1. BYPASS NO. 1 OMITTED FROM PLAN FOR PURPOSES OF CLARITY. FOR BYPASS NO. 1 PIPING DETAILS SEE DETAIL # 2, DWG. 293

NO.	DATE	REVISIONS
1	8/2/82	LATERAL PIPES AND FITTINGS TO PONDS REDUCED IN DIAMETER. ADDED INVERT ELEVATIONS.

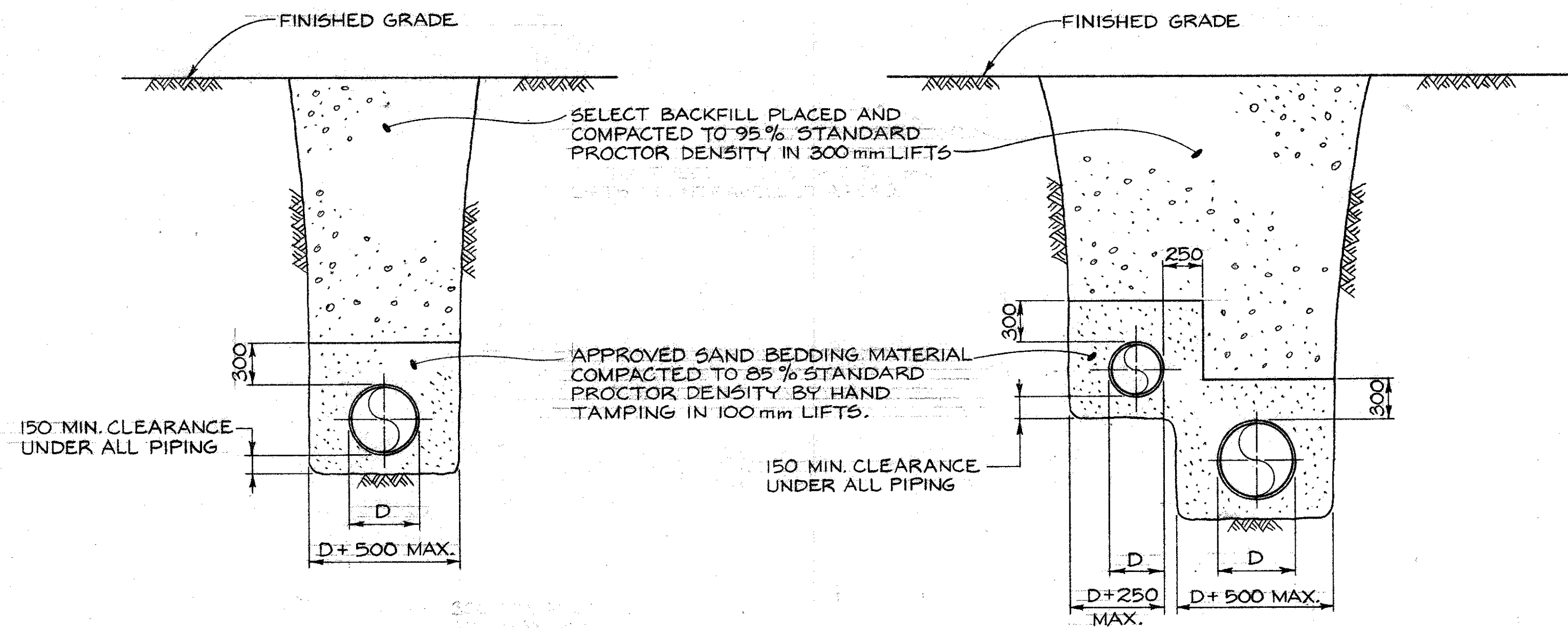
DESIGNED G.M./J.C.
DRAWN J.C.
CHECKED JCS/1/82
RECOMMENDED JCS/1/82
APPROVED [Signature]

**DEPARTMENT OF FISHERIES AND OCEANS**  
SALMONID ENHANCEMENT PROGRAM

**KITIMAT RIVER PROJECT**  
CONTRACT N° 6  
PONDS 11, 12, 13, 14  
WATER SUPPLY DETAILS

SCALE 1:50
DATE MAY, 1982
DRAWING NUMBER 22-35-291
REVISION 1

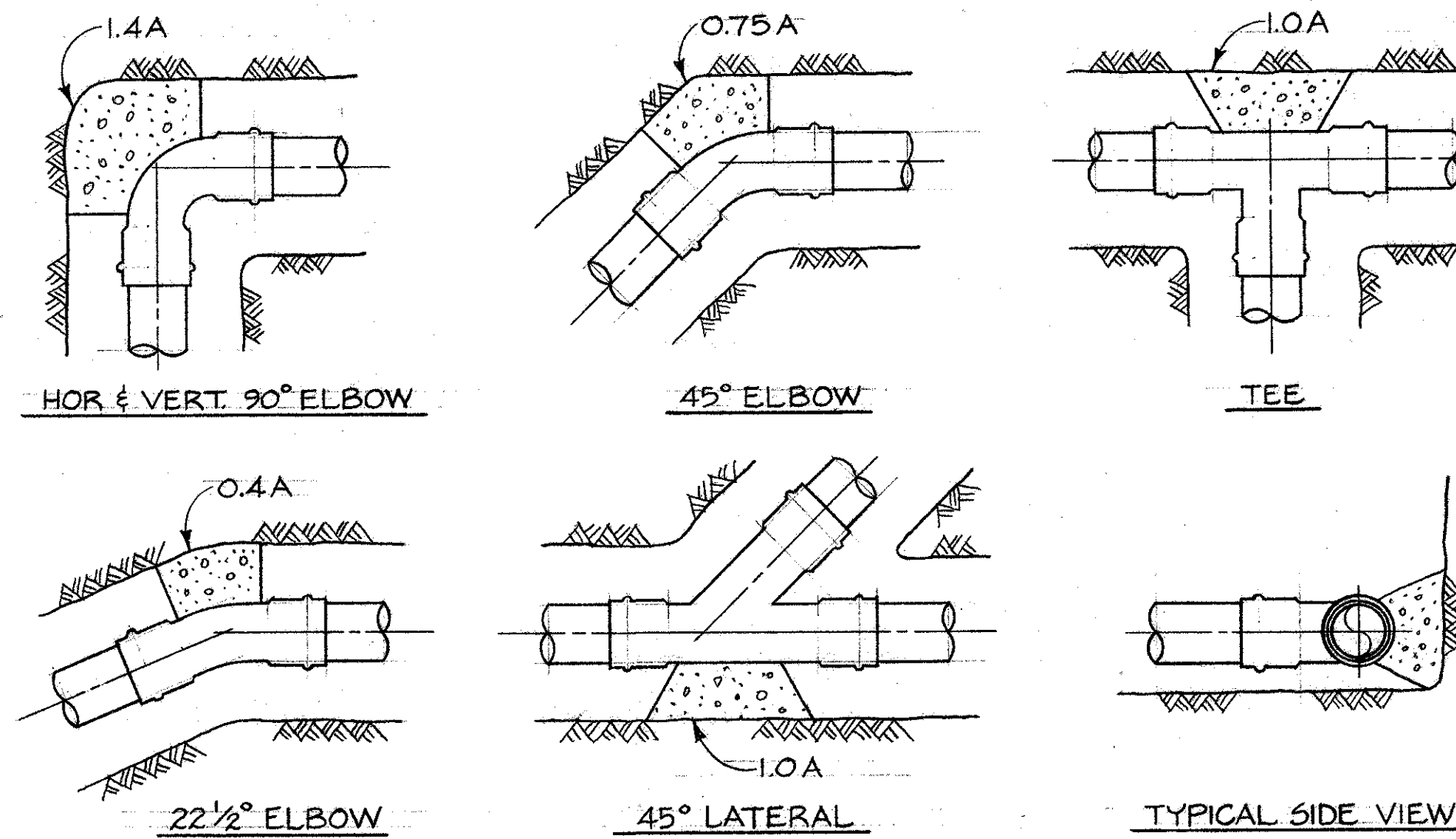




**SINGLE PIPE TRENCH**

**DOUBLE PIPE TRENCH**

**TYPICAL TRENCH SECTIONS**  
N.T.S.

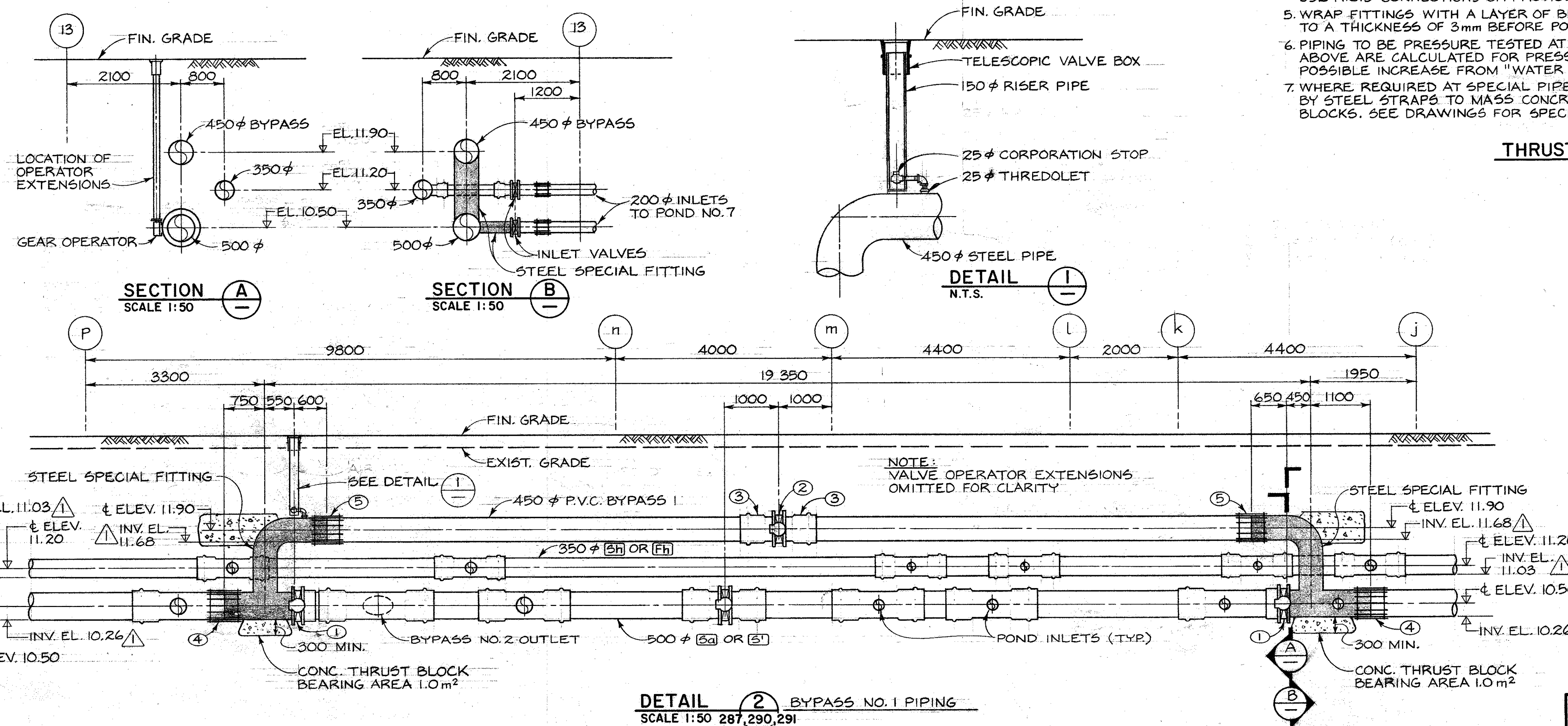


MINIMUM THRUST BLOCK BEARING AREAS "A" IN m <sup>2</sup> FOR UNRESTRAINED FITTINGS							
PIPE SIZE (mm)	100	150	200	250	300	350	500
BEARING AREA "A"	0.05	0.10	0.18	0.28	0.39	0.48	0.97
TEST PRESSURE 345 kPa (50 P.S.I.)							

**NOTES**

- ALL THRUST BLOCKS SHALL BE SIZED ACCORDING TO THE ABOVE TABLE, EXCEPT WHERE SIZES ARE INDICATED ON THE DRAWINGS.
- BLOCKING IS REQUIRED FOR ALL FITTINGS WHERE CONNECTIONS ARE NOT RIGID.
- KEEP BLOCKING CLEAR OF BELLS.
- THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED SOIL. IF THIS IS NOT POSSIBLE, USE RIGID CONNECTIONS OR PROVIDE SPECIAL DESIGNS FOR BLOCKING.
- WRAP FITTINGS WITH A LAYER OF BITUMENIZED PAPER OR POLYETHYLENE FILM TO A THICKNESS OF 3mm BEFORE POURING CONCRETE.
- PIPING TO BE PRESSURE TESTED AT 345 kPa (50 P.S.I.) HOWEVER, AREAS SHOWN ABOVE ARE CALCULATED FOR PRESSURES HIGHER THAN THIS TO ALLOW FOR POSSIBLE INCREASE FROM "WATER HAMMER."
- WHERE REQUIRED AT SPECIAL PIPE CONNECTIONS, FITTINGS SHALL BE ANCHORED BY STEEL STRAPS TO MASS CONCRETE ANCHOR BLOCKS IN LIEU OF THRUST BLOCKS. SEE DRAWINGS FOR SPECIFIC LOCATIONS AND DETAILS.

**THRUST BLOCK DETAILS**



**KEY TO NUMBERED PARTS - BYPASS NO. 1**

- 500 φ BUTTERFLY VALVE w/ BURIED SERVICE GEAR OPERATOR & VALVE OPERATOR EXTENSION
- 450 φ BUTTERFLY VALVE w/ BURIED SERVICE GEAR OPERATOR & VALVE OPERATOR EXTENSION
- 450 φ BELL x FLANGE ADAPTER
- 500 φ MECHANICAL COUPLING
- 450 φ MECHANICAL COUPLING

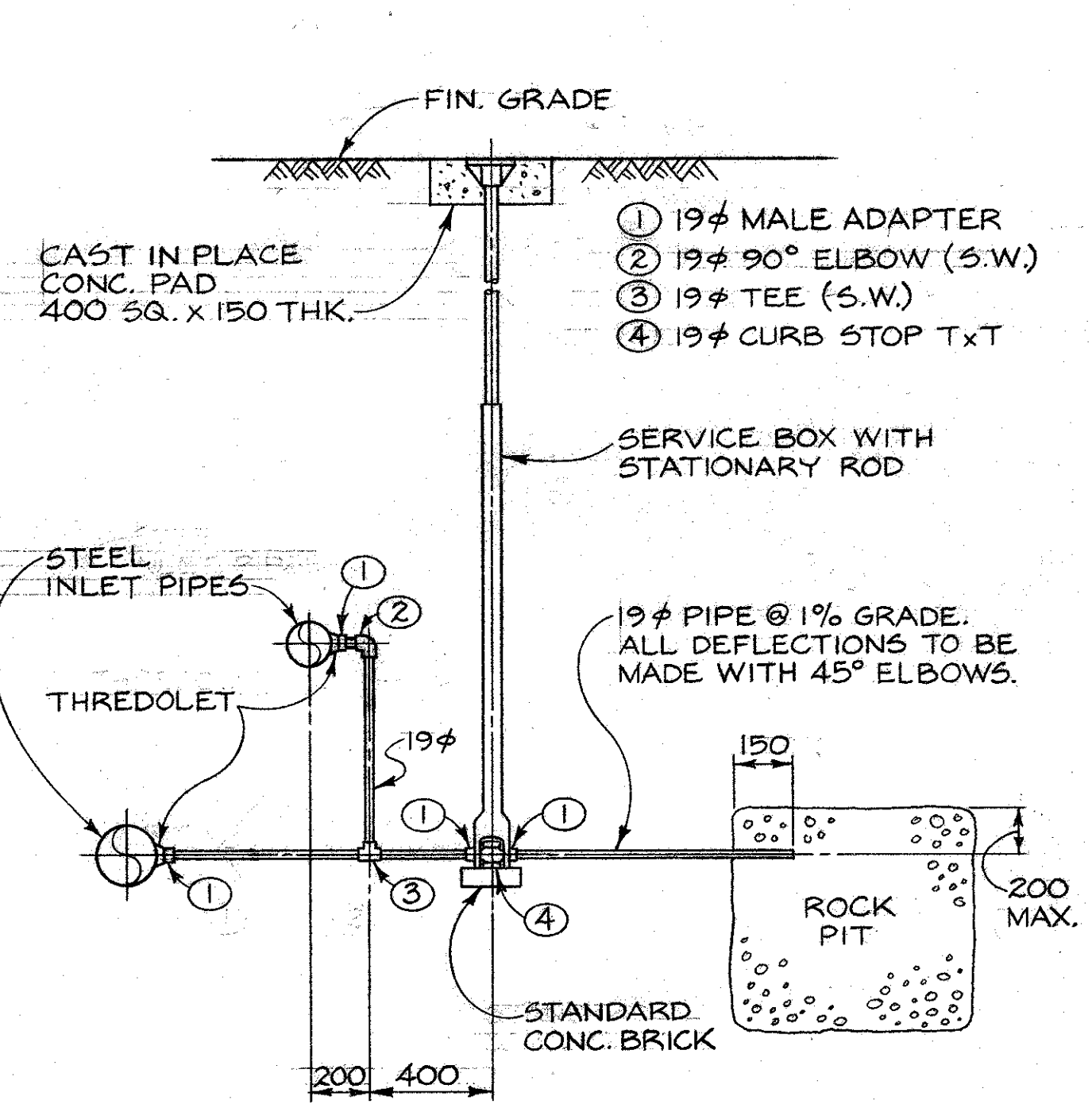
**DETAIL 2 BYPASS NO. 1 PIPING**  
SCALE 1:50 287,290,291

<b>DEPARTMENT OF FISHERIES AND OCEANS</b> SALMONID ENHANCEMENT PROGRAM		SCALE AS SHOWN
		DATE MAY, 1982
<b>KITIMAT RIVER PROJECT</b> CONTRACT No 6 WATER SUPPLY PIPING MISCELLANEOUS DETAILS		DRAWING NUMBER 22-35-293
		REVISION 2

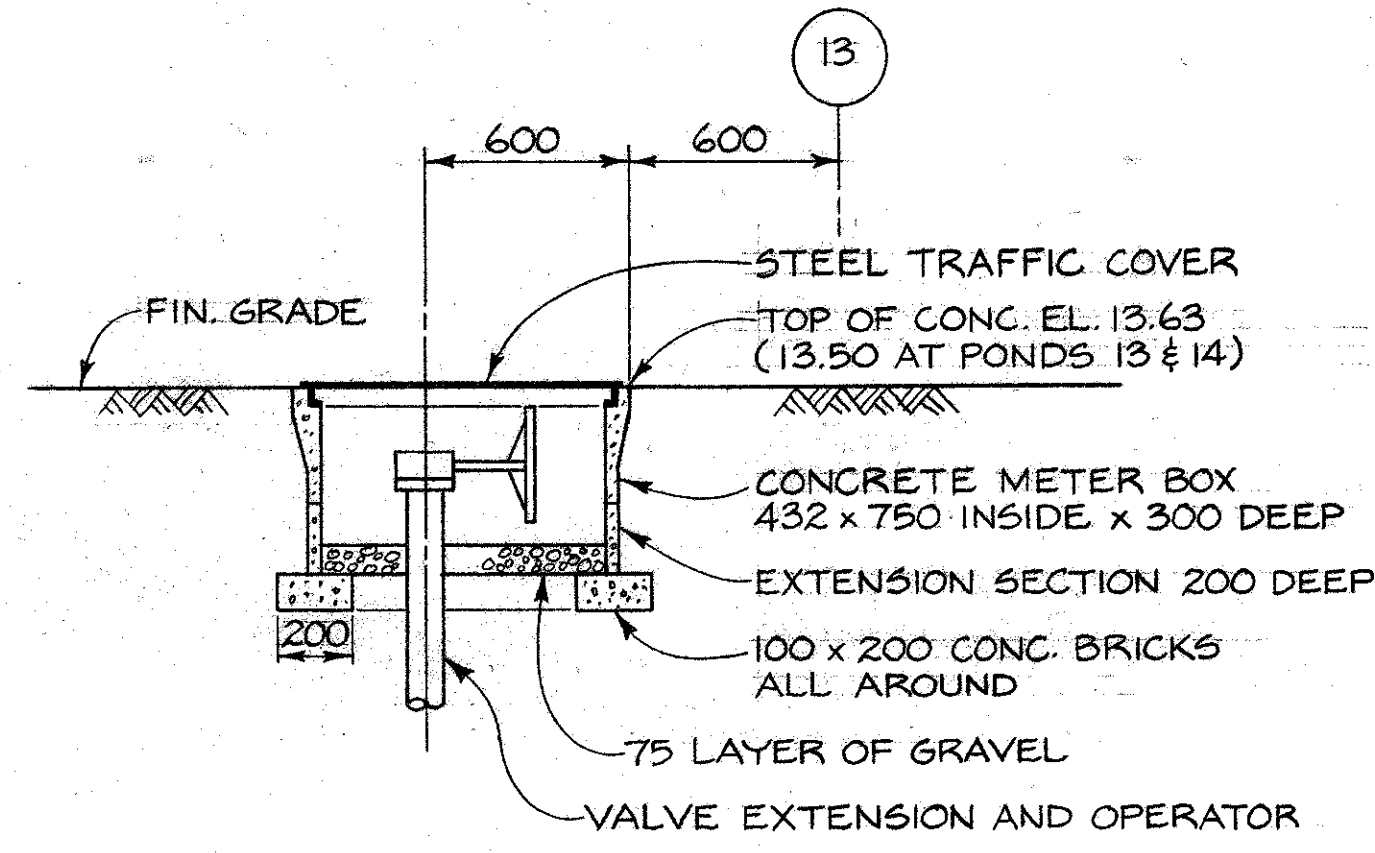
DWG. NO.	REFERENCE DRAWINGS	NOTES	NO.	DATE	REVISIONS
			1	82/06/18	INVERT ELEVATIONS ADDED.
			2	MAR. 85	AS BUILT

DESIGNED  
G.M./J.C.  
DRAWN  
J.C.  
CHECKED  
SOS/12.  
RECOMMENDED  
Chloris  
APPROVED  
[Signature]  
APPROVED  
[Signature]

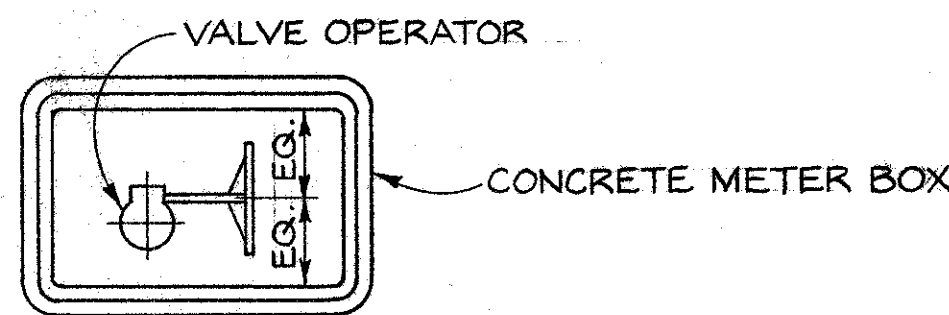




**DETAIL 1**  
N.T.S. **1** TYP. TYPICAL POND INLET DRAIN

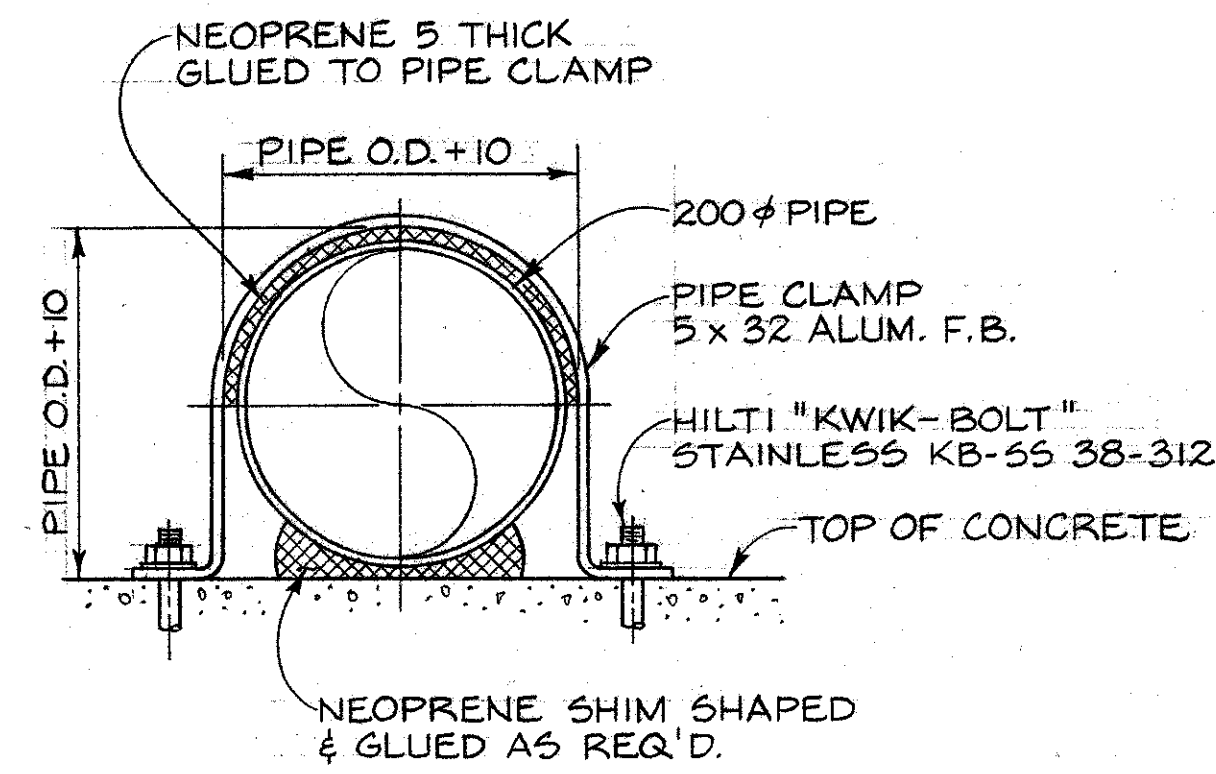


**SECTION 13**

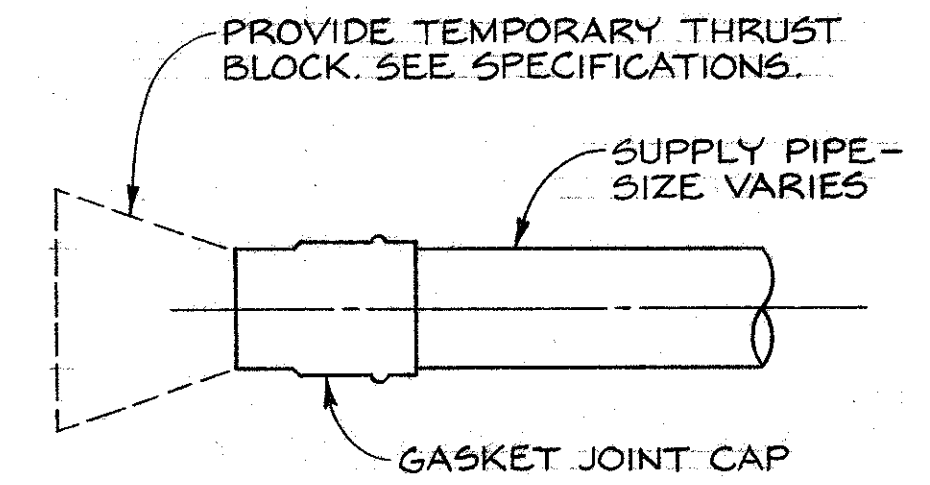


**PLAN**

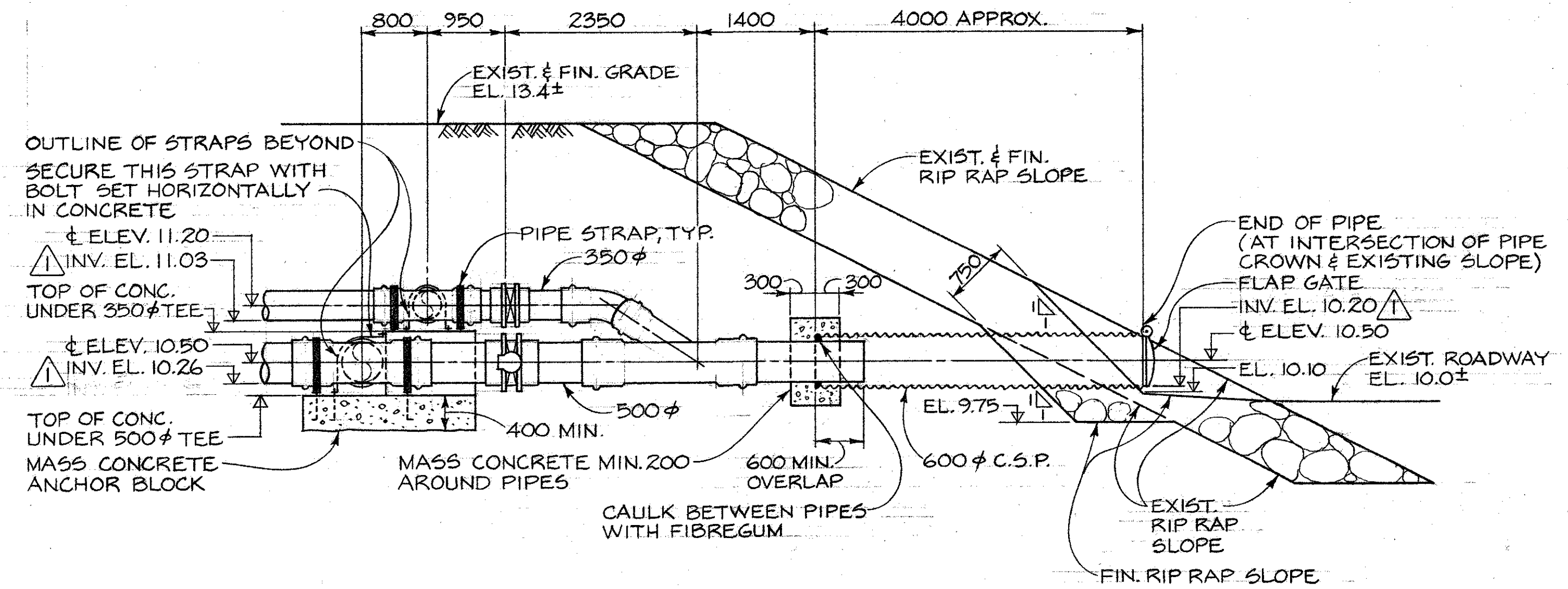
**DETAIL 6**  
N.T.S. **6** TYP. VALVE BOX FOR POND INLETS



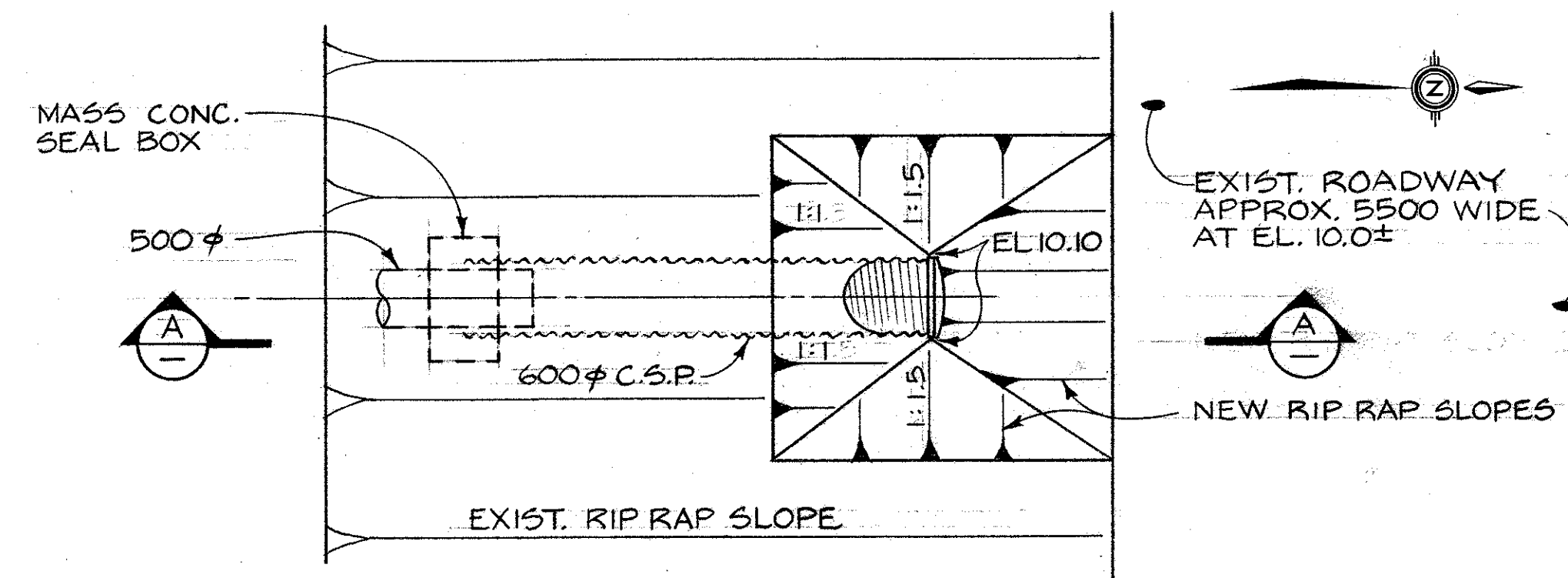
**DETAIL 5**  
N.T.S. **5** PIPE CLAMP



**DETAIL 4**  
N.T.S. **4** TEMPORARY PIPE CAP



**SECTION A-D**  
SCALE 1:50 **288**

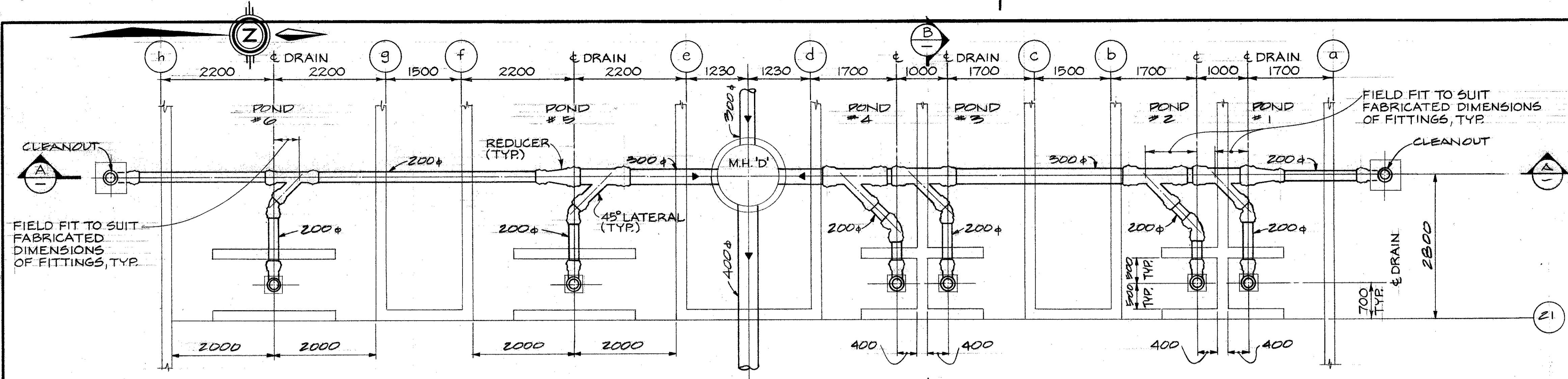


**DETAIL 7**  
SCALE 1:50 **286** PLAN

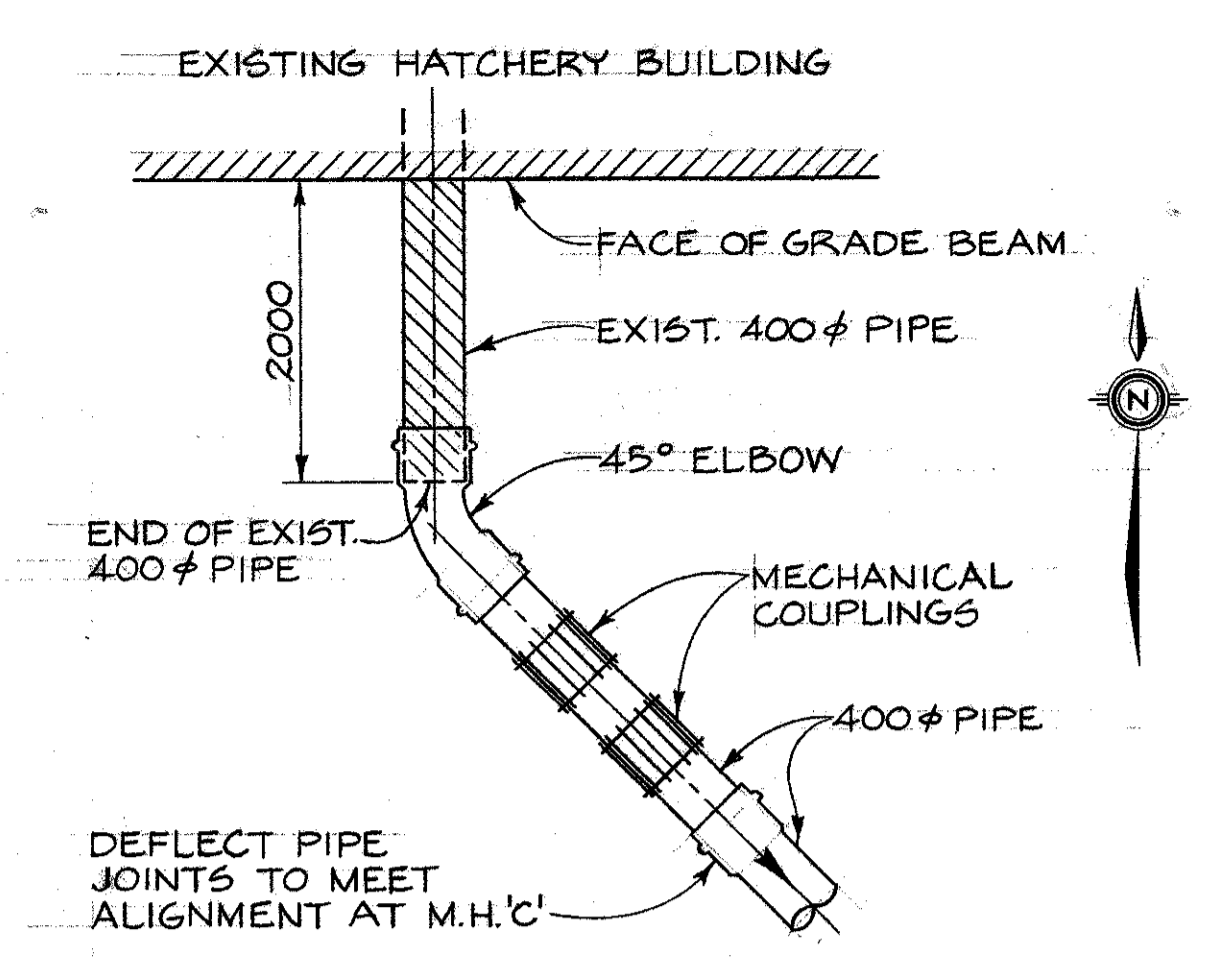
DWG. NO.	REFERENCE DRAWINGS	NOTES	NO.	DATE	REVISIONS	DESIGNED G.M. / J.C. DRAWN J.C. CHECKED Jew / ic RECOMMENDED C. Morris APPROVED 	DEPARTMENT OF FISHERIES AND OCEANS SALMONID ENHANCEMENT PROGRAM  KITIMAT RIVER PROJECT CONTRACT N° 6 WATER SUPPLY PIPING MISCELLANEOUS DETAILS	SCALE
								AS SHOWN
								DATE
								MAY, 1982
								DRAWING NUMBER
								22-35-294
								REVISION
								1

BCL 67841-D.F.G.

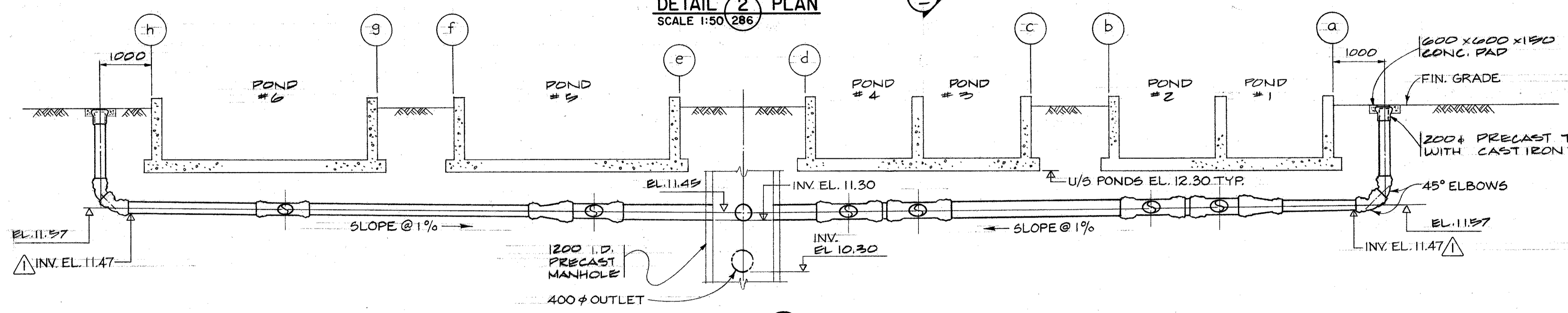




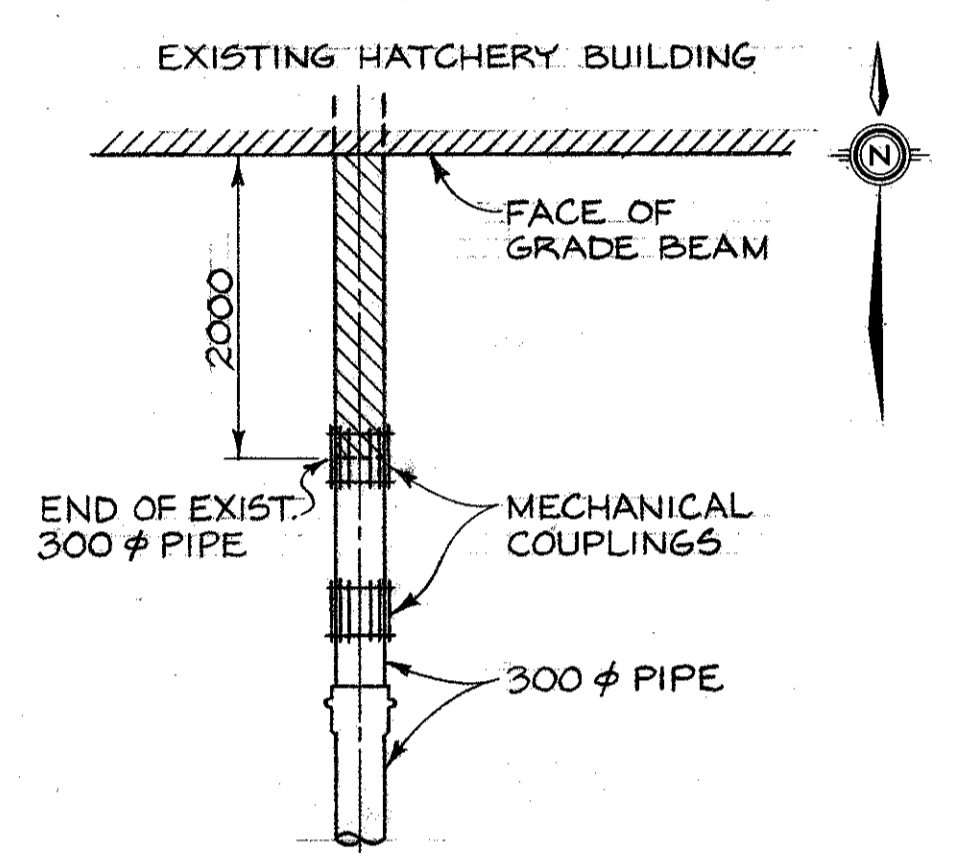
**DETAIL 2 PLAN**  
SCALE 1:50 286



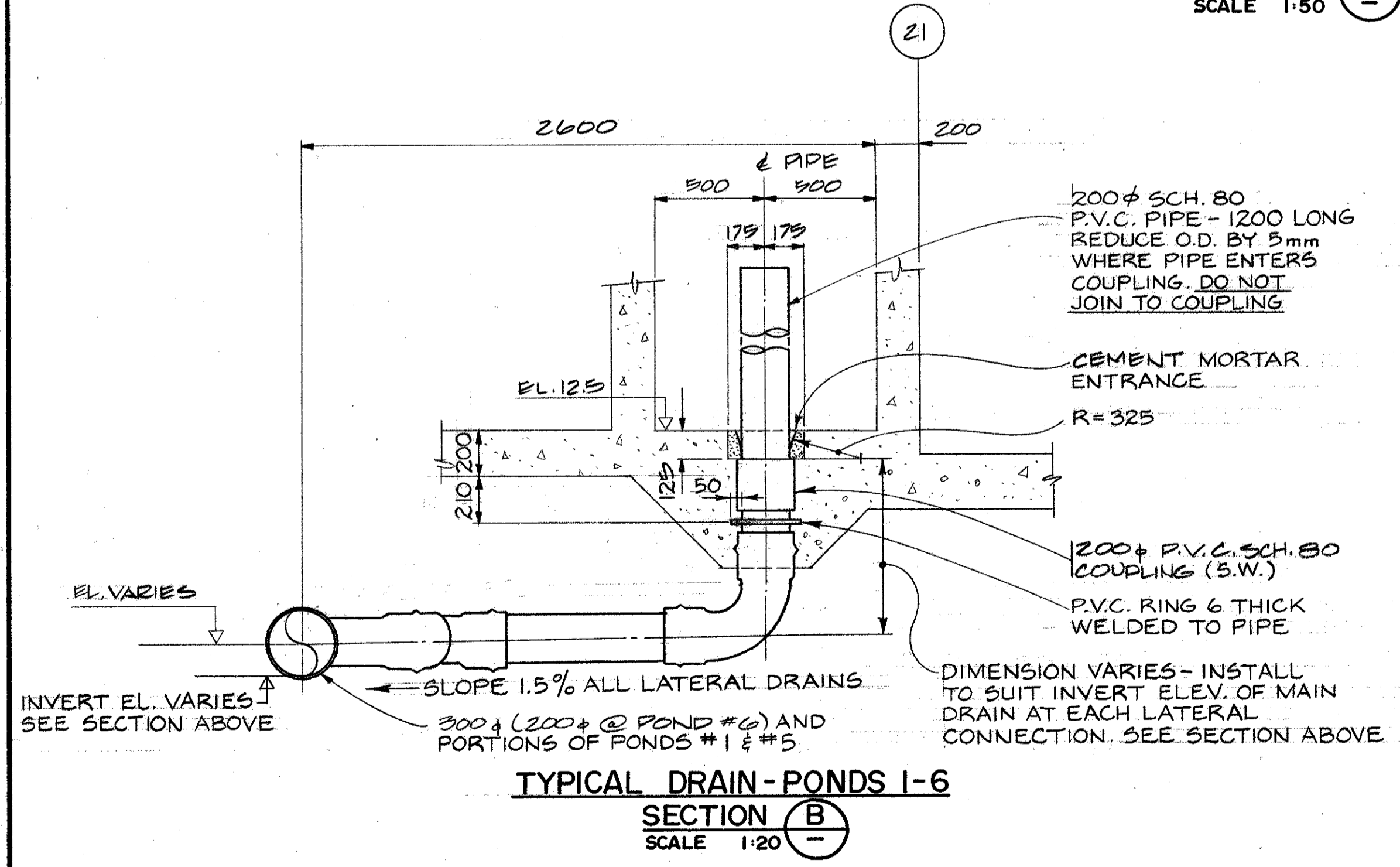
**DETAIL 5 PLAN**  
N.T.S.



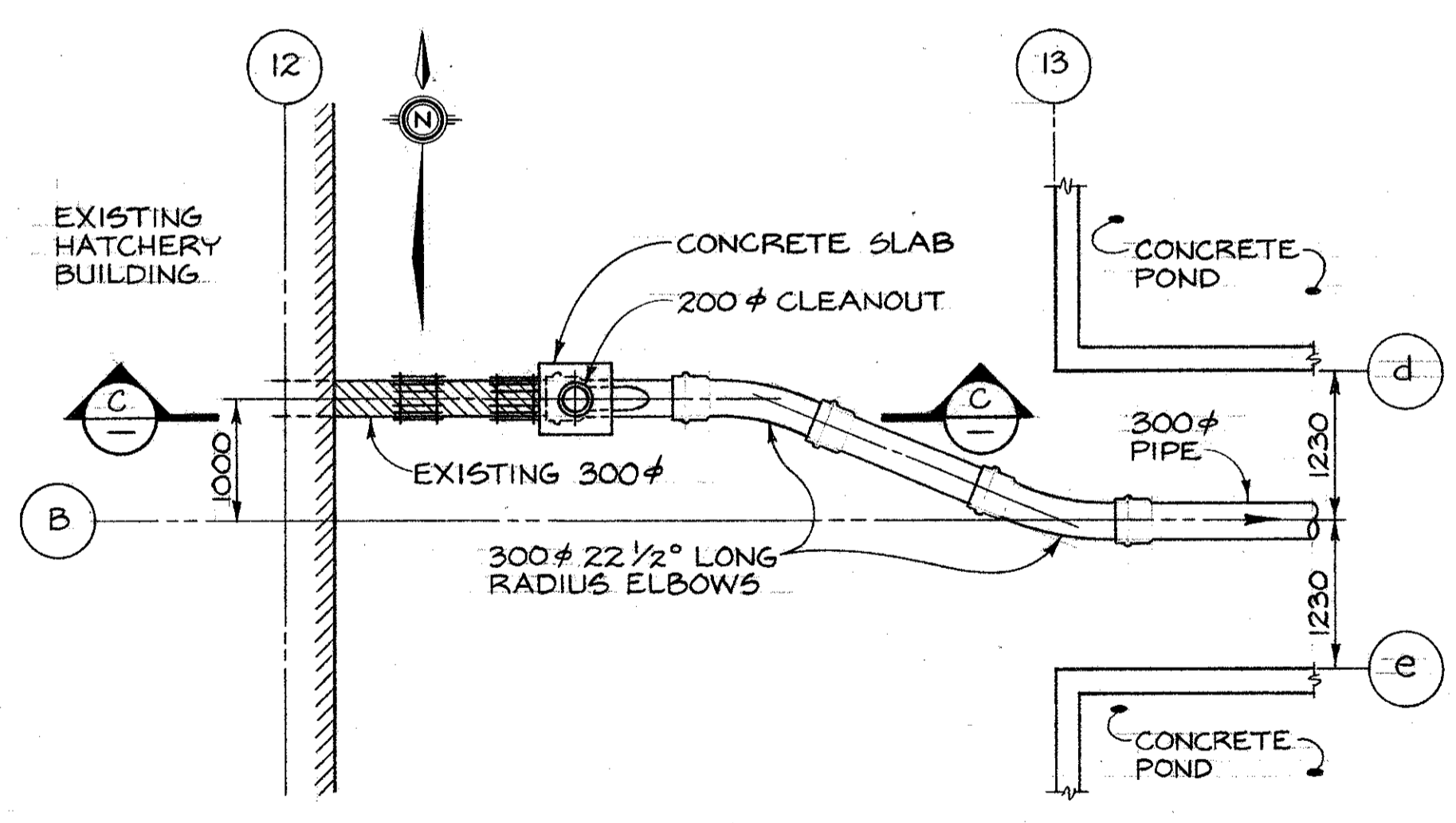
**SECTION A**  
SCALE 1:50



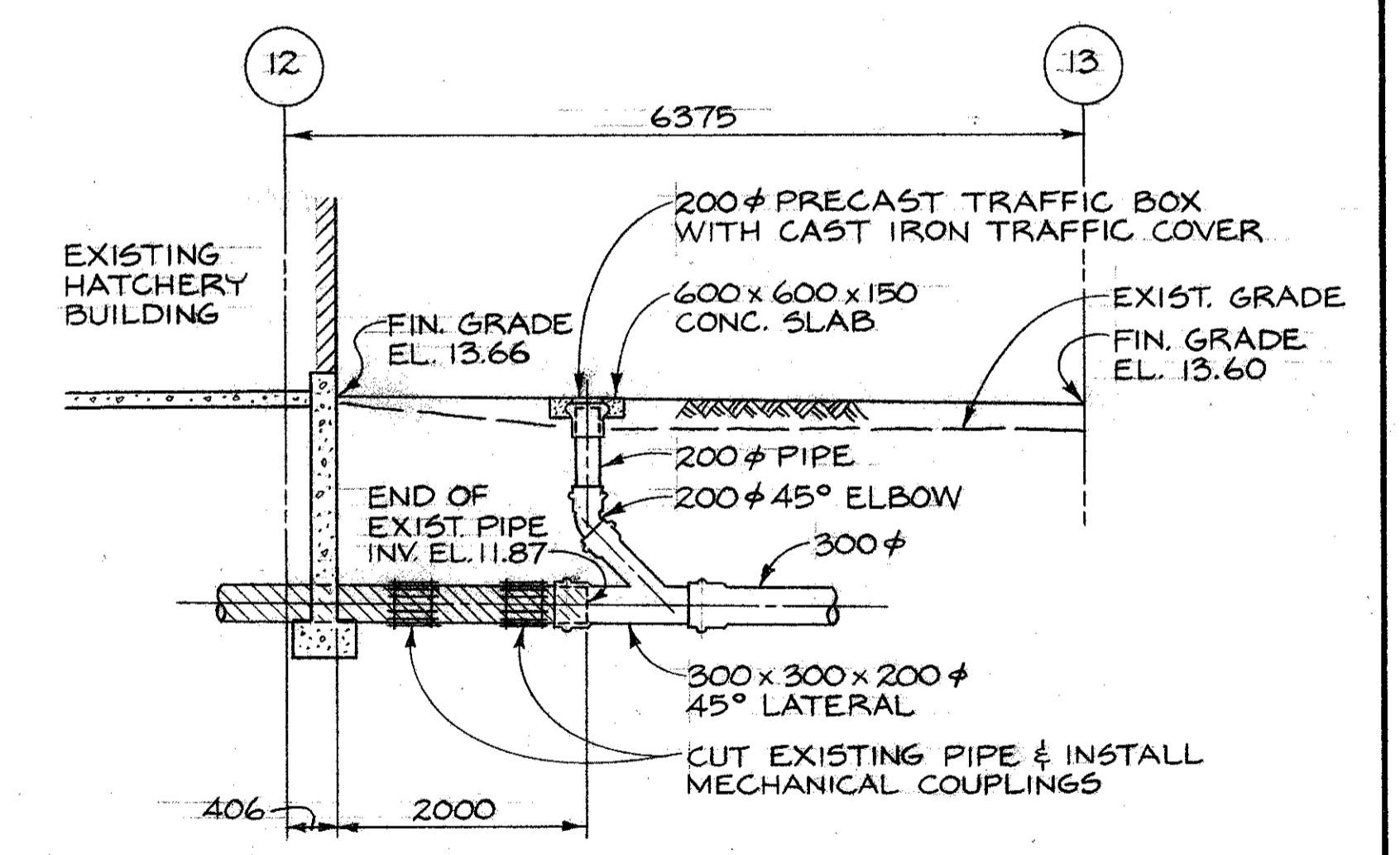
**DETAIL 6 PLAN**  
N.T.S.



**TYPICAL DRAIN - PONDS 1-6**  
**SECTION B**  
SCALE 1:20

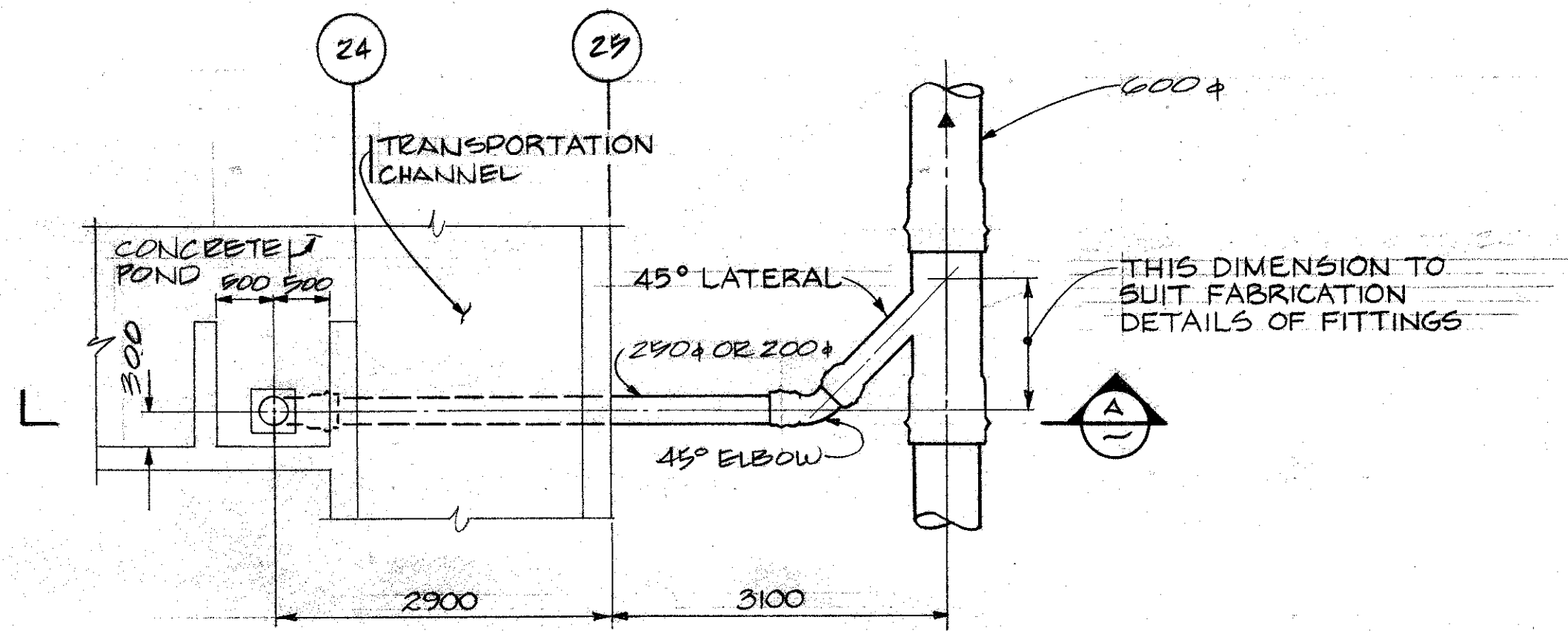
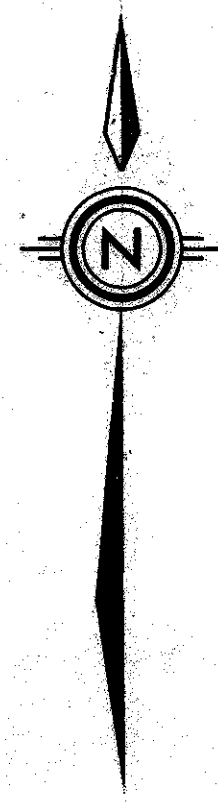


**DETAIL 4 PLAN**  
SCALE 1:50 288

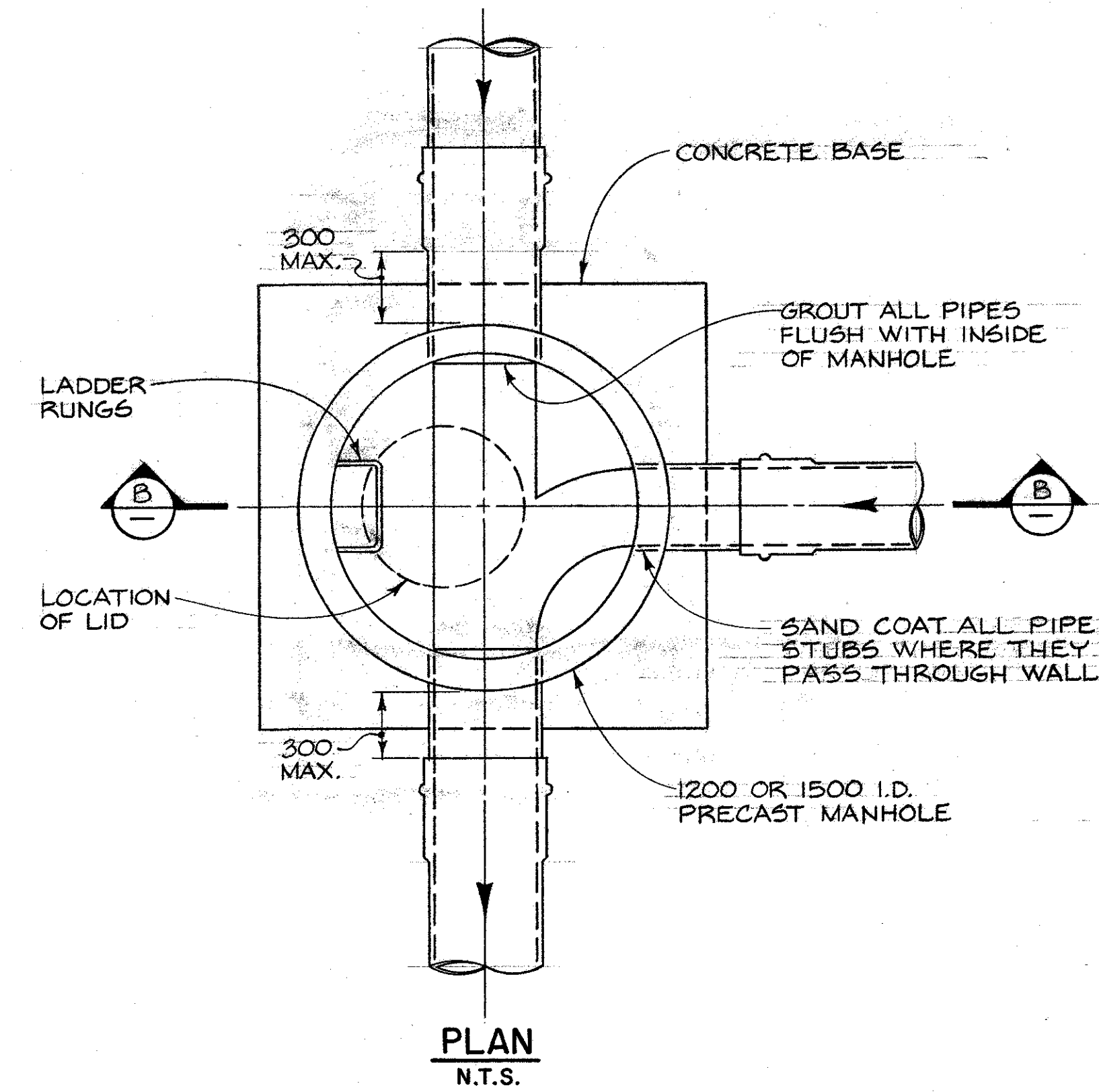


**SECTION C**  
SCALE 1:50

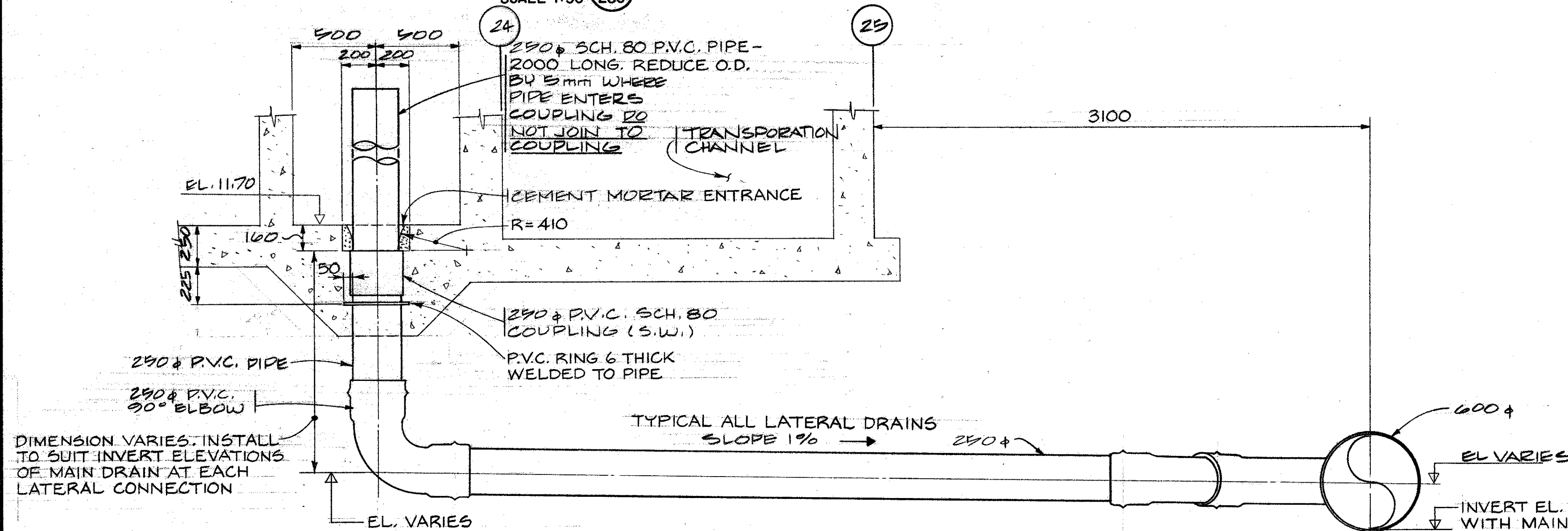
<p>DESIGNED 12. J.C. DRAWN W.K. J.C. CHECKED JWS/12 RECOMMENDED [Signature] APPROVED [Signature]</p>		<p>82/06/18 INVERT ELEVATIONS ADDED.</p>		<p>DEPARTMENT OF FISHERIES AND OCEANS SALMONID ENHANCEMENT PROGRAM</p>	
<p>DWG. NO.</p>		<p>REFERENCE DRAWINGS</p>		<p>NO. DATE REVISIONS</p>	
<p>NOTES</p>		<p>82/06/18 INVERT ELEVATIONS ADDED.</p>		<p>KITIMAT RIVER PROJECT CONTRACT N° 6 DRAINAGE PIPING DETAIL PLAN &amp; SECTIONS</p>	
<p>SCALE 1:50</p>		<p>SCALE 1:50</p>		<p>SCALE AS SHOWN DATE MAY, 1982 DRAWING NUMBER 22-35-296 REVISION 1</p>	



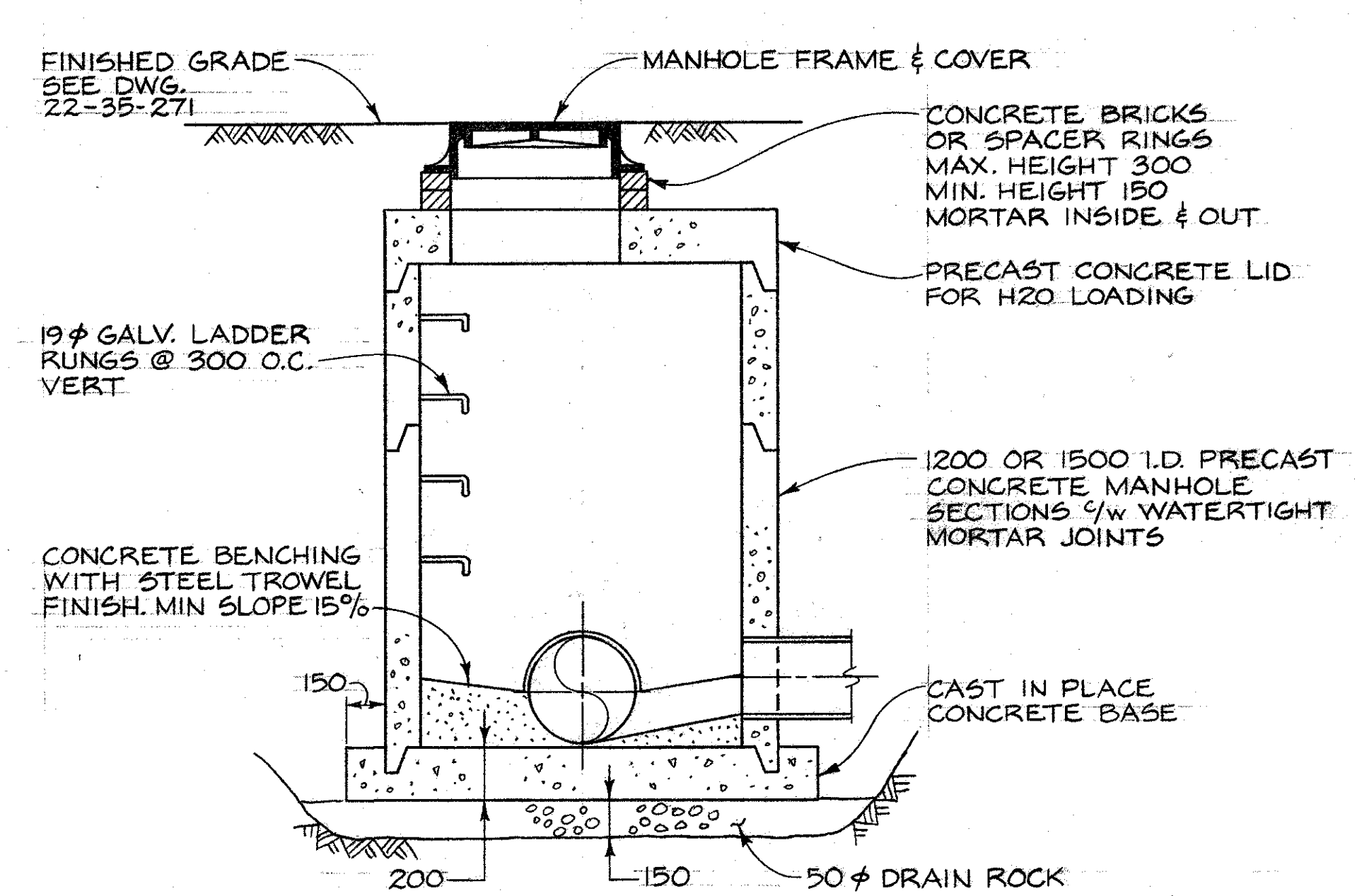
DETAIL 3 PLAN (TYPICAL)  
SCALE 1:50



PLAN  
N.T.S.

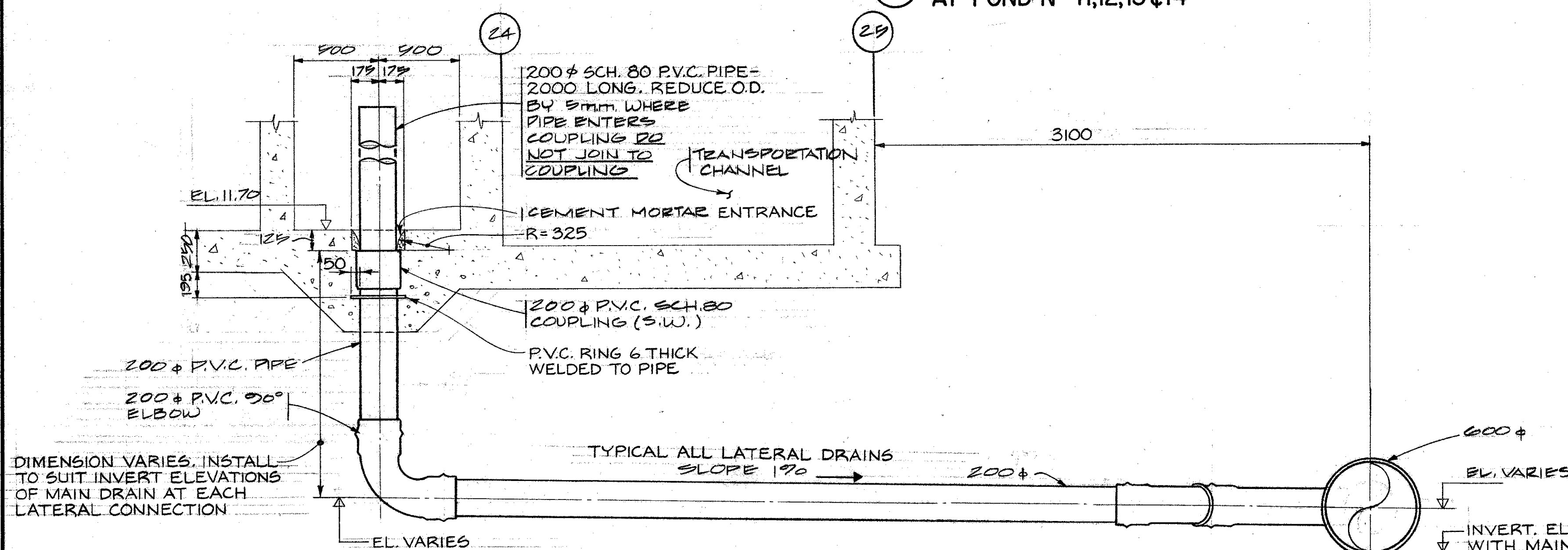


SECTION A DRAIN OUTLET  
SCALE 1:20 AT POND N° 11,12,13 & 14



SECTION B  
N.T.S.

TYPICAL MANHOLE DETAIL



SECTION A DRAIN OUTLET  
SCALE 1:20 AT POND N° 7,8,9 & 10

DEPARTMENT OF FISHERIES AND OCEANS  
SALMONID ENHANCEMENT PROGRAM

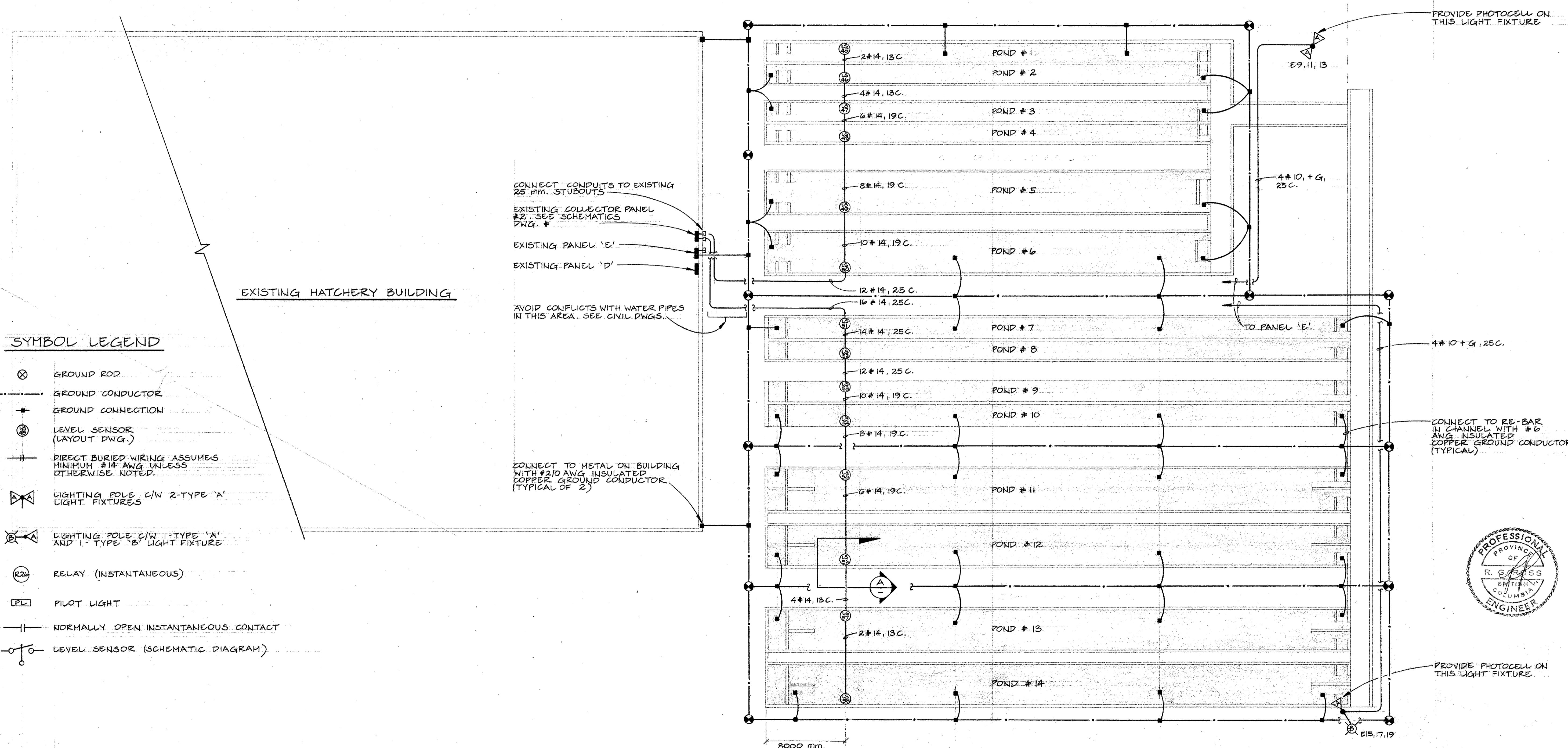
DESIGNED  
DRAWN  
CHECKED  
RECOMMENDED  
APPROVED

KITIMAT RIVER PROJECT  
CONTRACT N° 6  
DRAINAGE PIPING  
DETAIL PLAN & SECTIONS

SCALE  
AS SHOWN  
DATE  
MAY, 1982  
DRAWING NUMBER  
22-35-297  
REVISION

DWG. NO. REFERENCE DRAWINGS NOTES NO. DATE REVISIONS

KITIMAT RIVER



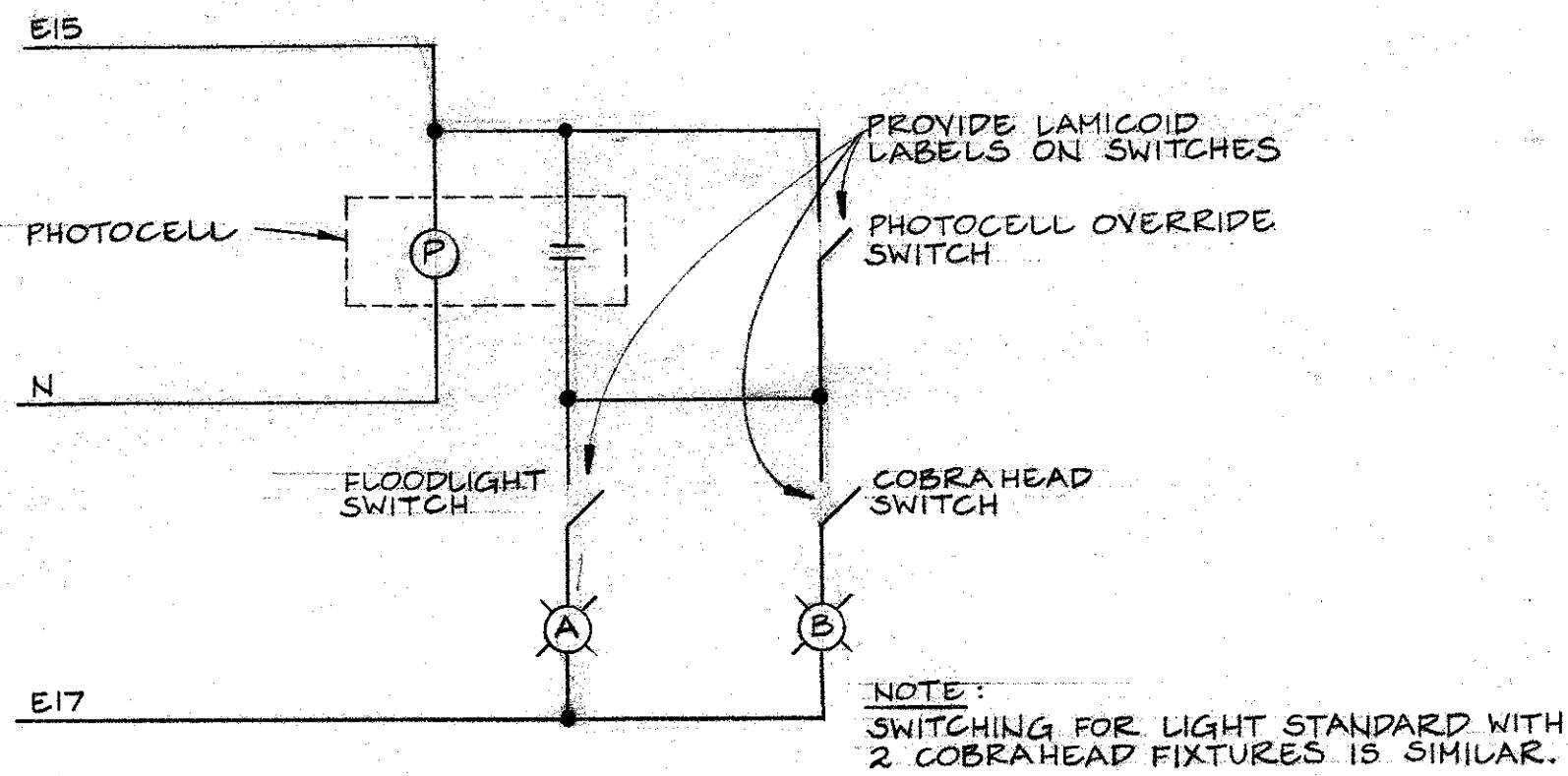
**SYMBOL LEGEND**

- ⊗ GROUND ROD
- GROUND CONDUCTOR
- GROUND CONNECTION
- ⊕ LEVEL SENSOR (LAYOUT DWG.)
- DIRECT BURIED WIRING ASSUMES MINIMUM #14 AWG UNLESS OTHERWISE NOTED.
- ⊕ LIGHTING POLE C/W 2-TYPE 'A' LIGHT FIXTURES
- ⊕ LIGHTING POLE C/W 1-TYPE 'A' AND 1-TYPE 'B' LIGHT FIXTURE
- ⊕ RELAY (INSTANTANEOUS)
- ⊕ PILOT LIGHT
- NORMALLY OPEN INSTANTANEOUS CONTACT
- ⊕ LEVEL SENSOR (SCHEMATIC DIAGRAM)

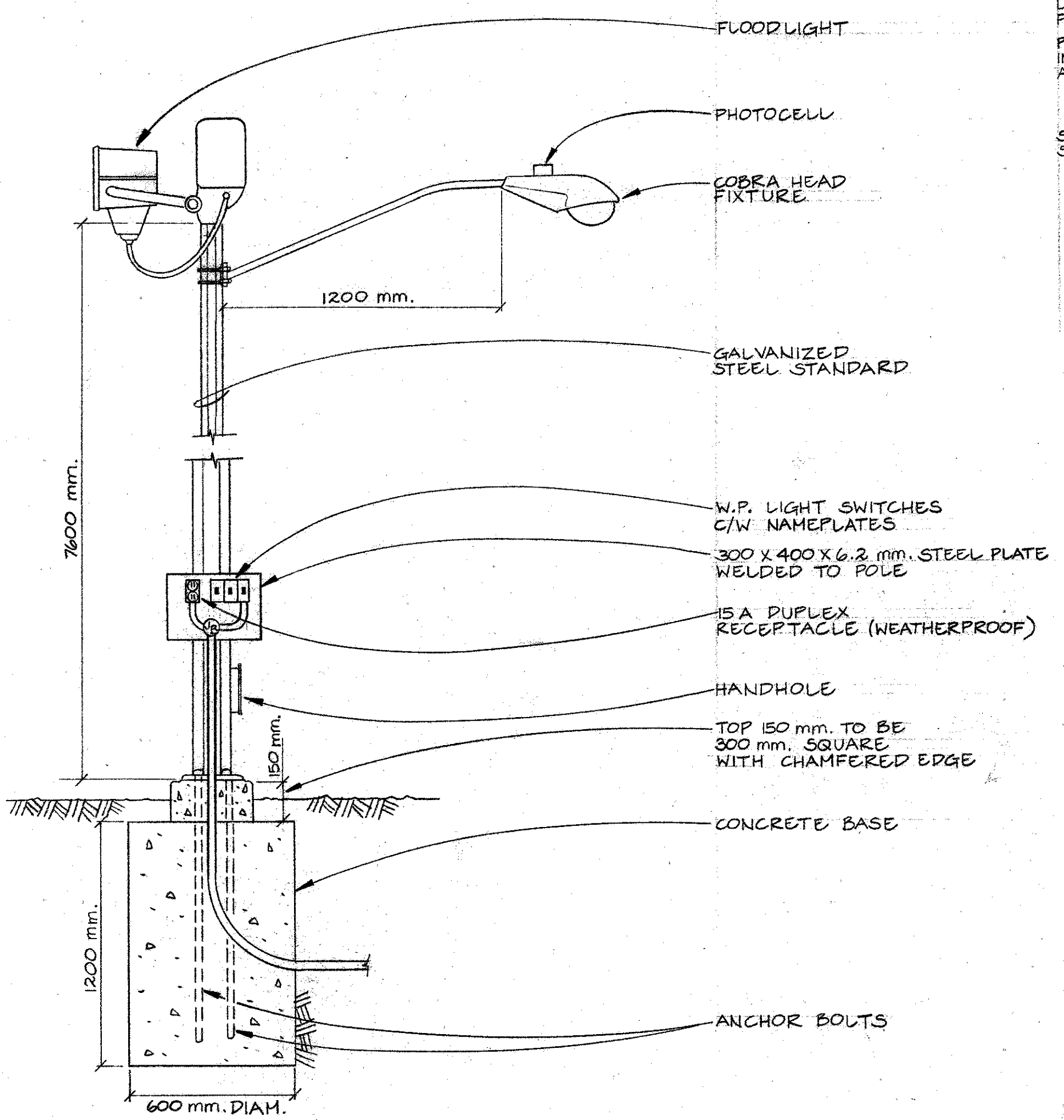


<b>DEPARTMENT OF FISHERIES AND OCEANS</b> SALMONID ENHANCEMENT PROGRAM		SCALE 1: 200
<b>KITIMAT RIVER PROJECT</b> <b>CONTRACT NO 6</b> <b>CHANNEL LIGHTING, GROUNDING</b> <b>AND ALARM LAYOUTS</b>		DATE APRIL '82
DESIGNED MJS DRAWN AJP CHECKED RGR RECOMMENDED <i>[Signature]</i> APPROVED <i>[Signature]</i> APPROVED <i>[Signature]</i>		DRAWING NUMBER 22-35-298
DWG. NO.      REFERENCE DRAWINGS      NOTES      NO.      DATE      REVISIONS		REVISION

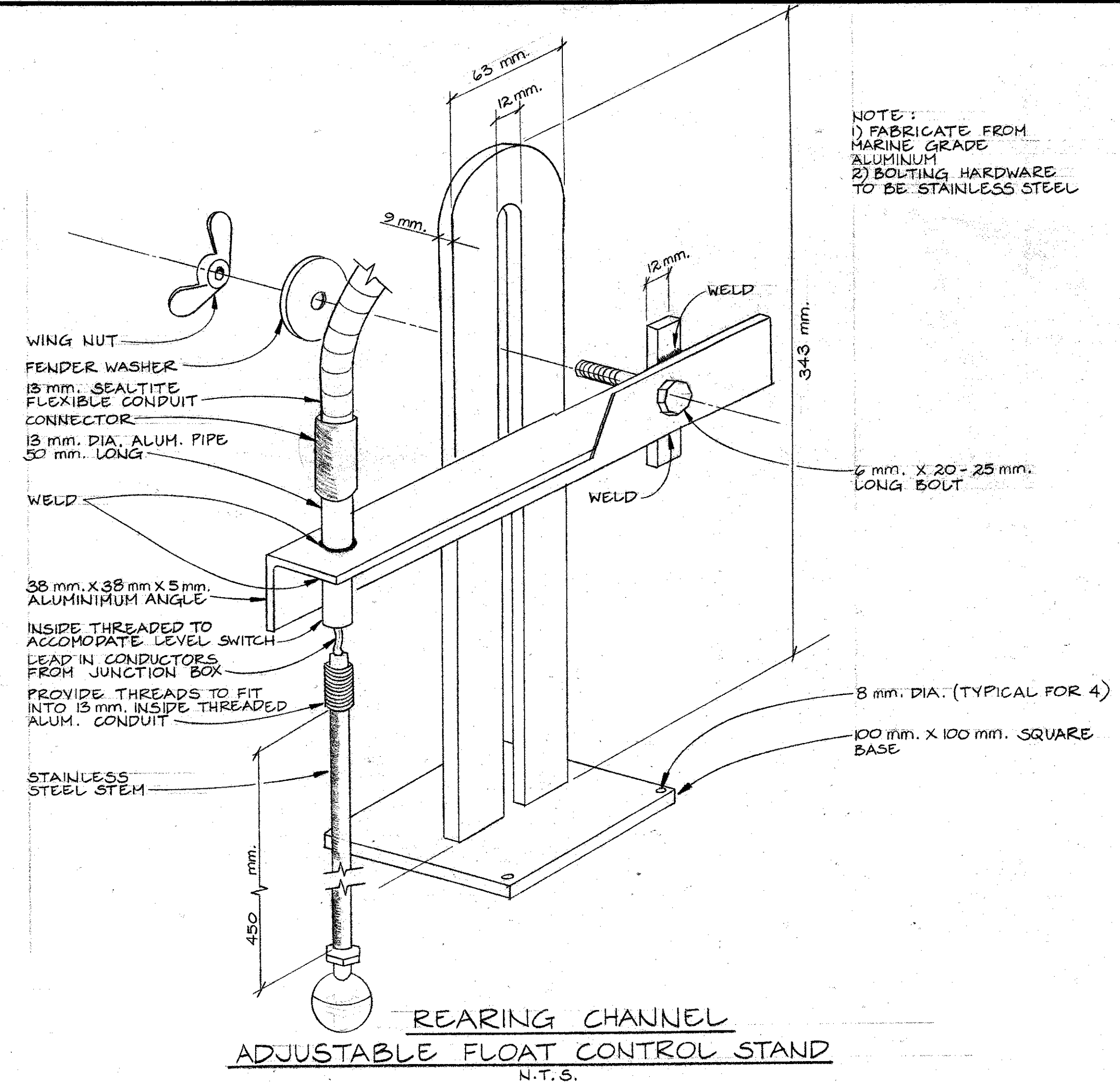
ECL/FISH/AL O.F.O.



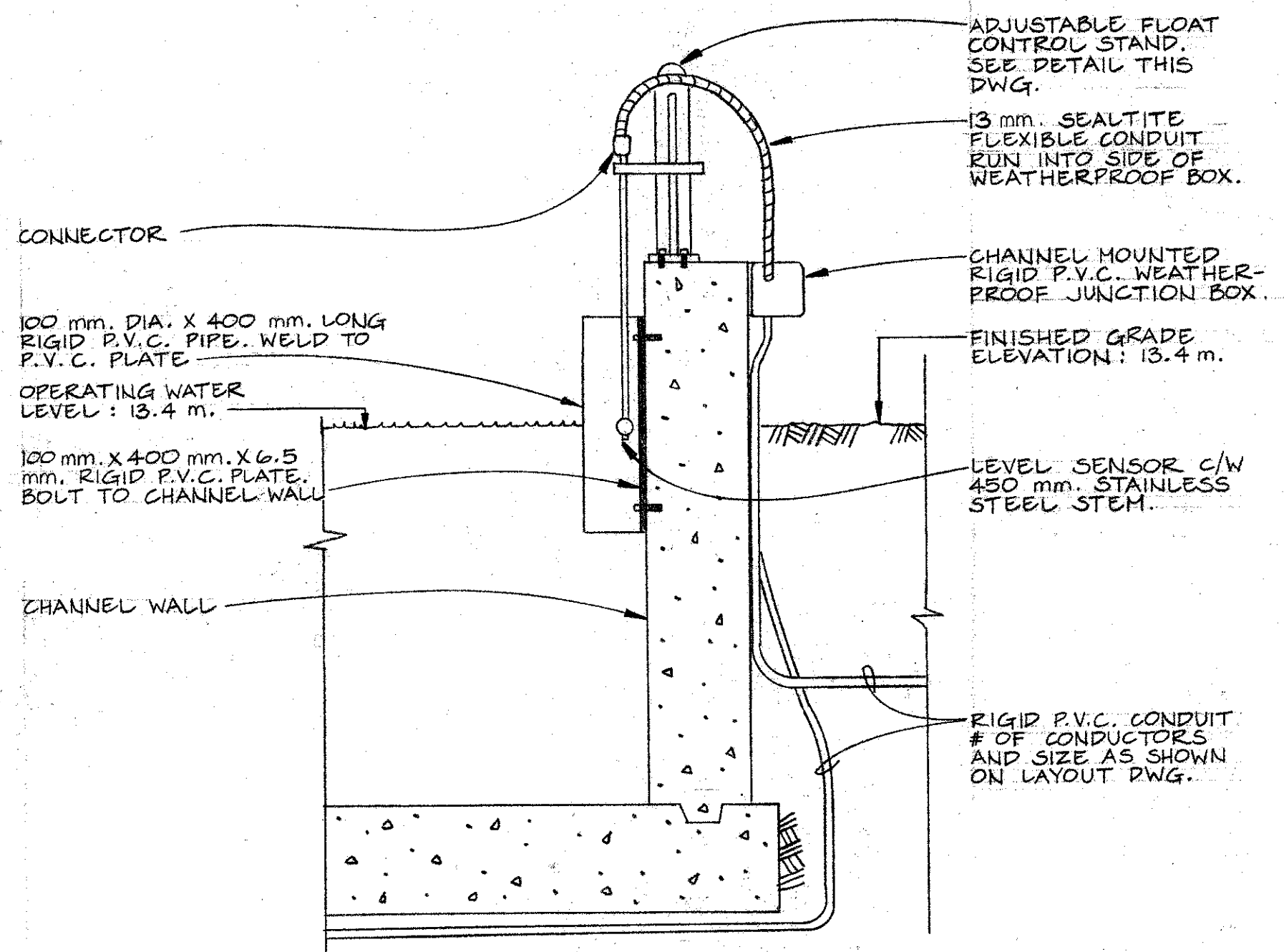
LIGHTING CONTROL SCHEMATIC  
N.T.S.



FLOODLIGHT, COBRA HEAD AND RECEPTACLE  
POLE MOUNTING DETAILS  
N.T.S.

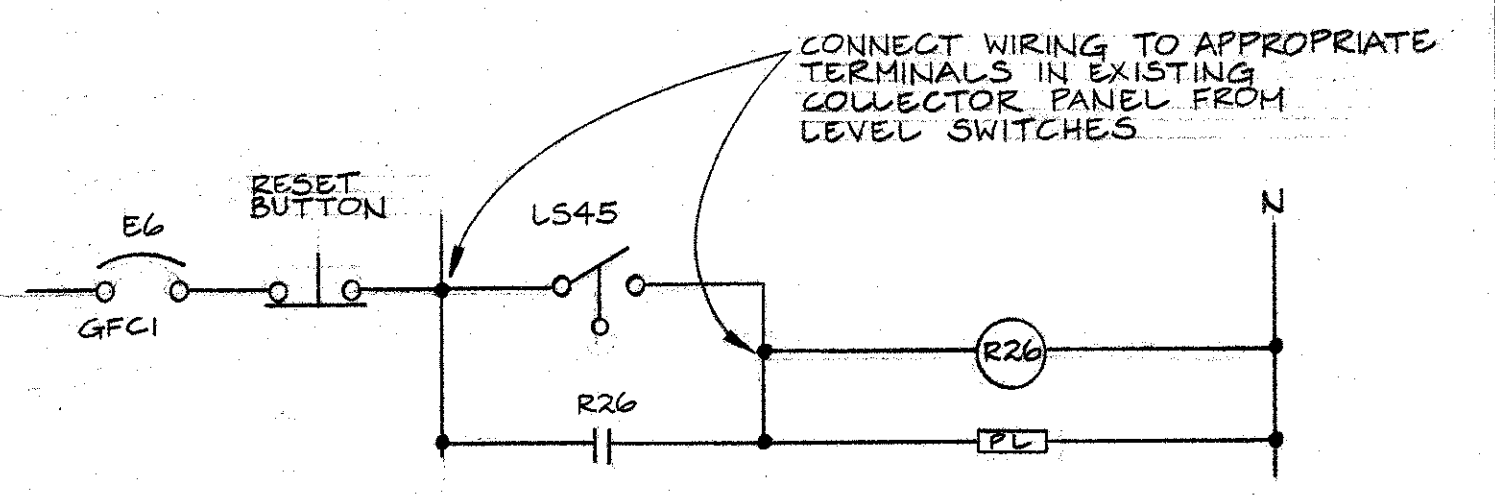
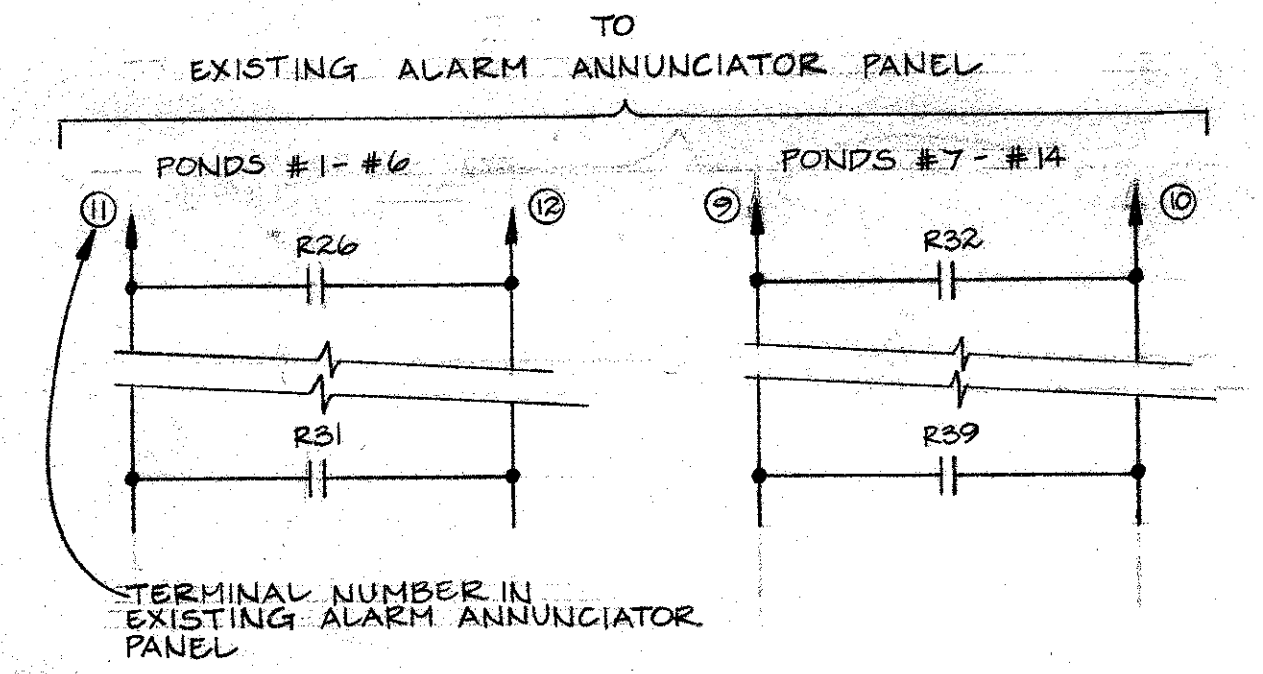


REARING CHANNEL  
ADJUSTABLE FLOAT CONTROL STAND  
N.T.S.



SECTION  
SCALE 1:10

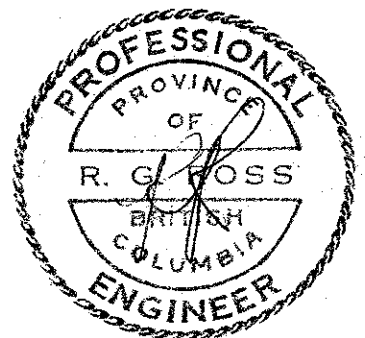
NOTE:  
1) FABRICATE FROM MARINE GRADE ALUMINUM  
2) BOLTING HARDWARE TO BE STAINLESS STEEL



NOTE:  
REMAINING LEVEL SWITCH ALARM SCHEMATICS ARE SIMILAR. R27-R39 ARE USED FOR RELAY NOS. AND LS46-LS58 ARE USED FOR LEVEL SWITCH NOS.

EXISTING COLLECTOR PANEL #2  
N.T.S.

NOTE:  
1) ALL WIRING IN COLLECTOR #2, AND TO ALARM ANNUNCIATOR PANEL HAS BEEN COMPLETED UNDER PREVIOUS CONTRACT. PROVIDE WIRING FROM LEVEL SWITCHES TO COLLECTOR PANEL. CONNECT AND TEST.



100 A. MAIN BUS		PANEL E				120/208 V 3Ø 4W 24 CIRCUIT	
EXISTING		EXISTING				EXISTING	
EXISTING CIRCUITS		15ASP	1	2	15ASP		EXISTING CIRCUITS
			3	4			
			5	6			
			7	8			
NORTH CHANNEL LIGHTS	1000	15ADP	9	10			
			11	12			
POLE MOUNTED REC.	1200	15AGFCI	13	14			
SOUTH CHANNEL LIGHTS	1000	15ADP	15	16			
			17	18			
POLE MOUNTED REC.	1200	15AGFCI	19	20			
			21	22			
			23	24			

NEW CCTS.

DEPARTMENT OF FISHERIES AND OCEANS  
SALMONID ENHANCEMENT PROGRAM

KITIMAT RIVER PROJECT  
CONTRACT NO 6  
SECTIONS, DETAILS AND SCHEMATICS

SCALE 1:200  
DATE APRIL '82  
DRAWING NUMBER 22-35-299  
REVISION

DWG. NO.	REFERENCE DRAWINGS	NOTES	NO.	DATE	REVISIONS

BCI 07841-DEO