

NOTE:
TRENCH DEPTH
BETWEEN 1.0m AND 1.5m

APEGM
Certificate of Authorization
Stantec Consulting Ltd.
No. 1301

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

WARNING
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2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
SEE PROVINCIAL REGULATION 140/92 FOR DETAILS

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LOCATION APPROVED UNDERGROUND STRUCTURES	
SUPV. U/G STRUCTURES COMMITTEE	DATE
NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.	

B.M. ELEV.				
B	AS BUILT DRAWING	15.04.08	J.C.	
A	ISSUED FOR CLIENT REVIEW	13.11.15	J.C.	
NO.	REVISIONS	DATE	BY	

Stantec
905 Waverley Street, Winnipeg, Manitoba
Tel 204-489-5900 Fax 204-453-9012

DESIGNED BY	S.T.	CHECKED BY	J.C.
DRAWN BY	B.W.	APPROVED BY	J.C.
HOR. SCALE:	N.T.S.	RELEASED FOR CONSTRUCTION:	
VERTICAL:		DATE	2013.11.05

ENGINEER'S SEAL

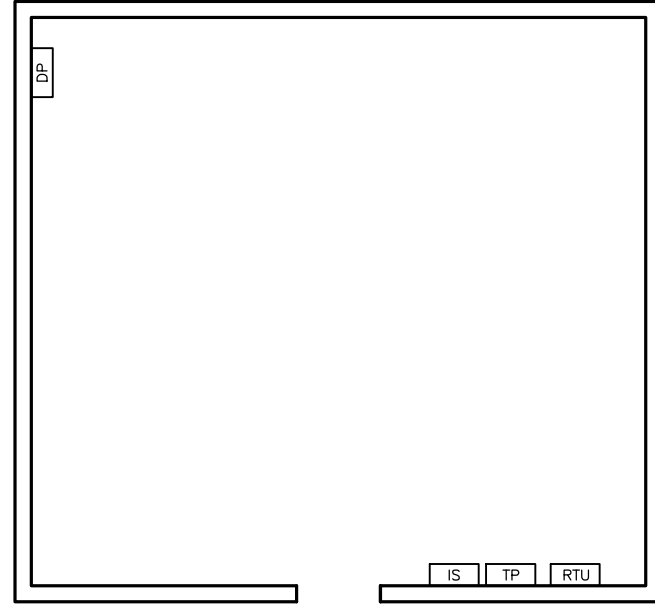
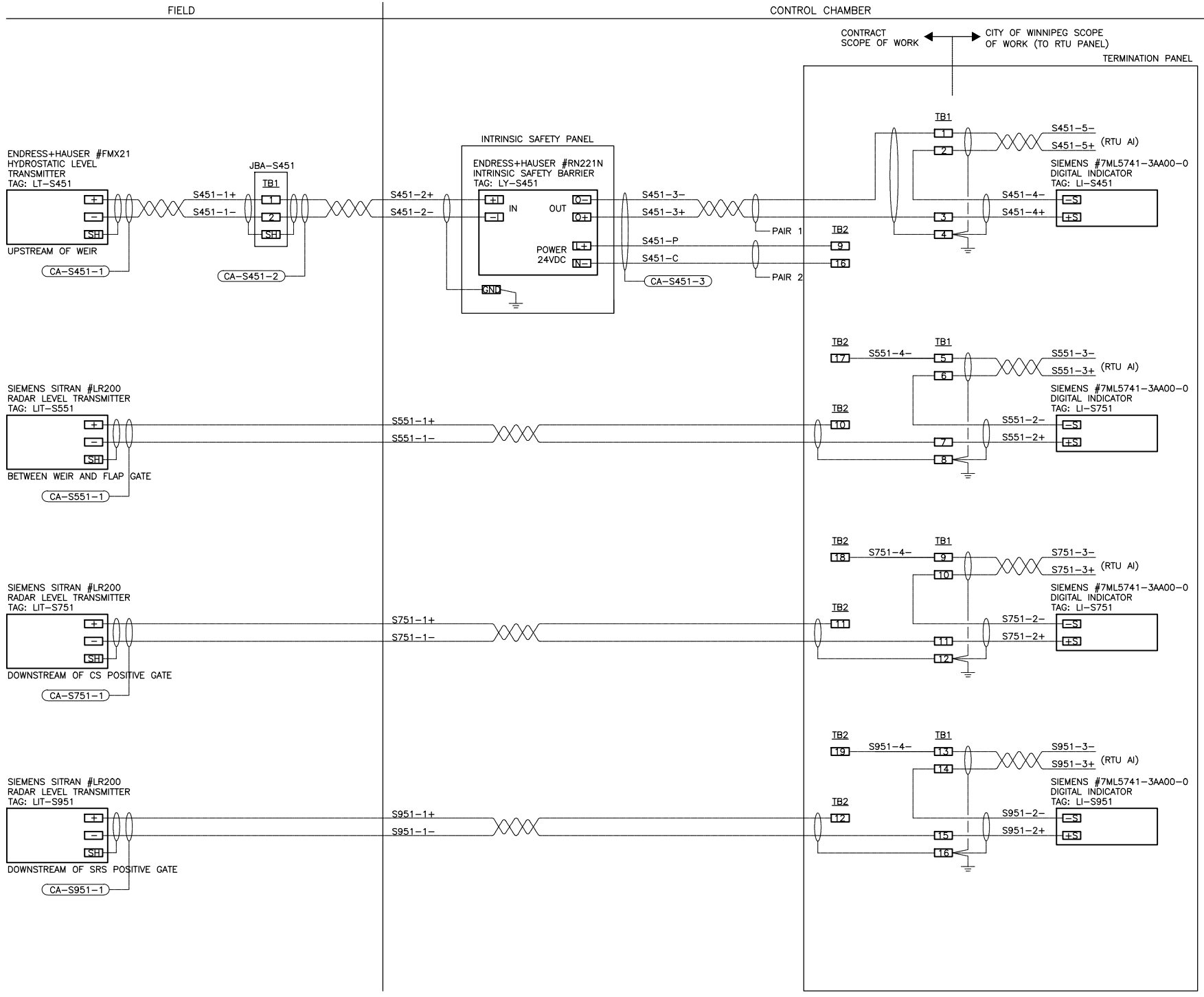
CONSULTANT DRAWING NO.
E-3600

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

CSO OUTFALL MONITORING
ROLAND
ELECTRICAL SITE PLAN
CABLE TRENCHING

SHEET	OF
1	1
CAD FILE DRAWING NUMBER 14720e-3600-rol.dwg	
CITY DRAWING NUMBER I-0179-A-A0201-001-00	

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 2015/09/10 10:51 AM By: Bekker, Kyle



ELECTRICAL ROOM FLOOR PLAN

- LEGEND**
- RTU - NEW RTU PANEL
 - TP - NEW TERMINATION PANEL
 - IS - NEW INTRINSIC SAFETY PANELS
 - DP - EXISTING DISTRIBUTION PANEL 120VAC

- NOTES**
- 1) INSTALL TWO FULL SHEETS OF PLYWOOD AND MOUNT ON BACKBOARD RTU PANEL, TP PANEL AND INTRINSIC SAFETY PANELS. ALLOW SPACE FOR FUTURE FLOW METER TRANSMITTER.
 - 2) GROUND INSTRUMENTATION CABLE SHIELDS ONLY AT TERMINATION PANEL.

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B	AS BUILT DRAWING	15.04.07	J.C.
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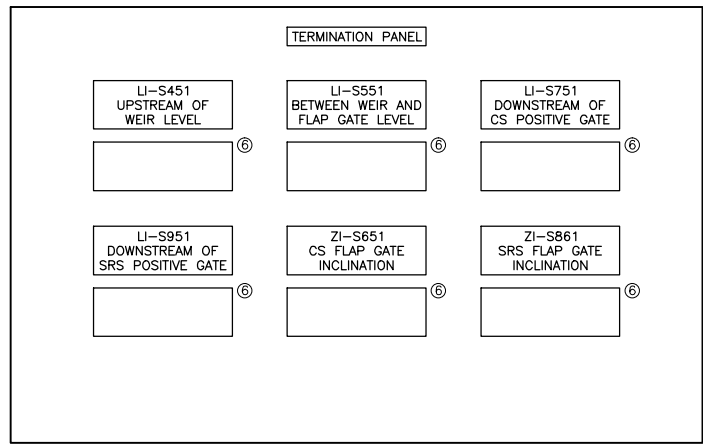
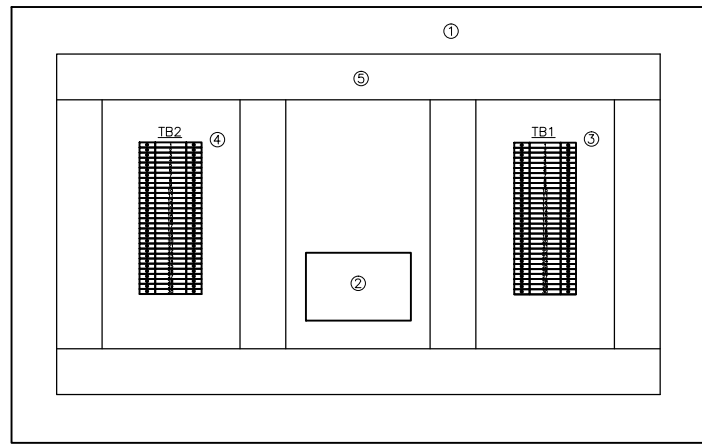
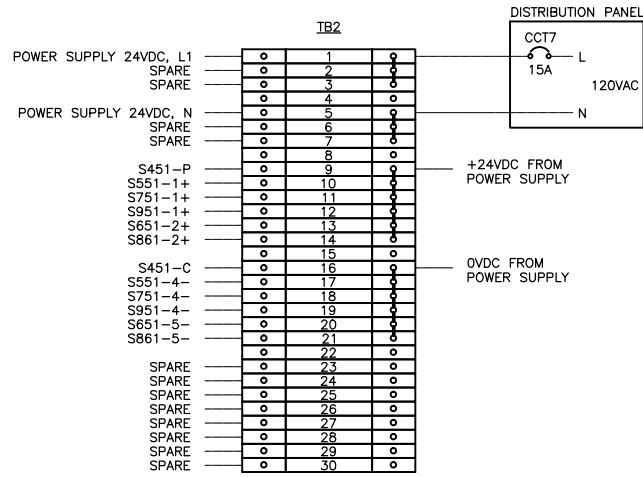
CONSULTANT DRAWING NO.
E-3603


THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

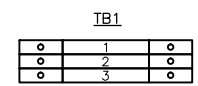
CSO OUTFALL MONITORING
 ROLAND
ELECTRICAL ROOM LAYOUT
LOOP WIRING DIAGRAMS

SHEET	OF
1	2
CAD FILE DRAWING NUMBER 14720e-3603-rol.dwg	
CITY DRAWING NUMBER I-0179-A-A0204-001-00	

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 2015/09/10 10:51 AM By: Bekker, Kyle



- NOTES**
- 1) TERMINAL BLOCKS WEIDMULLER #WDU4
 - 2) FUSED TERMINAL BLOCKS WEIDMULLER #WSI6:
 - TERMINAL BLOCK 1, C/W FUSE 1A
 - TERMINAL BLOCK 2, C/W FUSE 1A
 - TERMINAL BLOCK 3, C/W FUSE 1A
 - TERMINAL BLOCK 4, C/W FUSE 1A
 - TERMINAL BLOCK 5, C/W FUSE 500mA
 - TERMINAL BLOCK 6, C/W FUSE 500mA
 - TERMINAL BLOCK 7, C/W FUSE 500mA
 - TERMINAL BLOCK 8, C/W FUSE 500mA
 - TERMINAL BLOCK 9, C/W FUSE 500mA
 - TERMINAL BLOCK 10, C/W FUSE 500mA
 - TERMINAL BLOCK 11, C/W FUSE 500mA
 - TERMINAL BLOCK 12, C/W FUSE 500mA
 - TERMINAL BLOCK 13, C/W FUSE 500mA
 - TERMINAL BLOCK 14, C/W FUSE 500mA
 - 3) JUMPERS: 1-3; 5-7; 9-14; 16-21

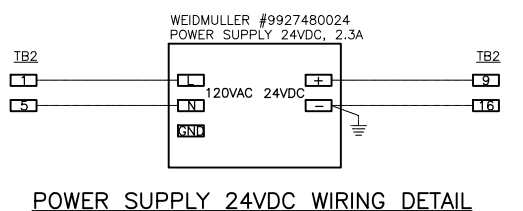


- 1) FUSED TERMINAL BLOCKS WEIDMULLER #WSI6, C/W 500mA FUSE
- 2) FEED-THROUGH TERMINAL BLOCKS WEIDMULLER #WDU4
- 3) FEED-THROUGH TERMINAL BLOCKS WEIDMULLER #WDU4
- 4) REPEAT FOR ALL AIS AND AOS.

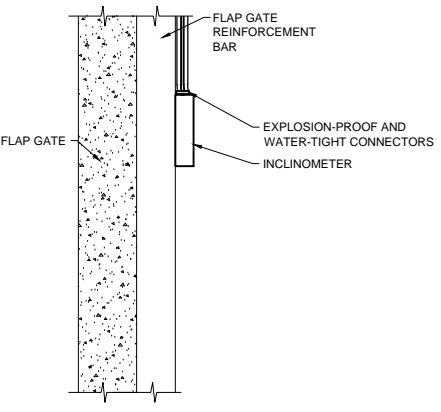
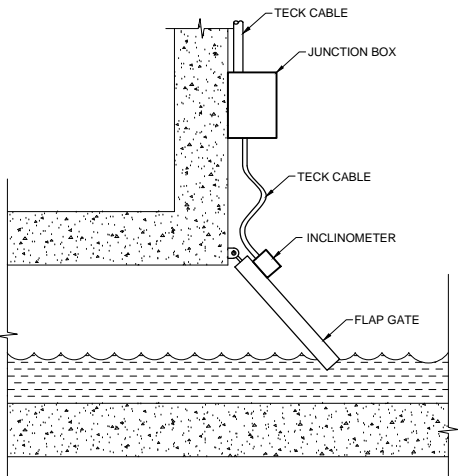
TB2 STRIP DETAIL

TB1 STRIP DETAIL

TERMINATION PANEL DETAIL



- LEGEND**
- 1) HOFFMAN #CSD20248 TYPE 12 ENCLOSURE C/W PANEL #CP2420
 - 2) WEIDMULLER #9927480024 POWER SUPPLY 24VDC, 2.3A
 - 3) TB1 TERMINAL BLOCKS STRIP. SEE DETAIL.
 - 4) TB2 TERMINAL BLOCKS STRIP. SEE DETAIL.
 - 5) PANDUIT #E1X2LG6 WIRE DUCT C/W COVER #C1LG6
 - 6) SIEMENS #7ML5741 DIGITAL INDICATOR



- GENERAL NOTES**
- 1) CABLE SHALL BE SECURED ON THE FLAP GATE CHAMBER WALL AND FLAP GATE
 - 2) EXTRA CABLE SHALL BE PROVIDED TO RELIEVE CABLE STRESS AT THE JUNCTION OF THE FLAP GATE AND THE CHAMBER WALL
 - 3) INSTRUMENT AND JUNCTION BOX MOUNTING BRACKET NEED TO BE ADJUSTED ACCORDING TO FLAP GATE DESIGN
 - 4) EXPLOSION-PROOF CONNECTOR SHALL BE SEALED WITH EPOXY TO PREVENT GAS MIGRATION

RST INSTRUMENTS INCLINOMETER INSTALLATION DETAIL

No.	INSTRUMENT TAG	DESCRIPTION	MANUFACTURER	MODEL	PLC I/O TYPE	POWER SUPPLY	LOCATION
1	LT-S451	HYDROSTATIC LEVEL TRANSMITTER	ENDRESS+HAUSER	FMX21	1X AI	24VDC	UPSTREAM OF WEIR
2	LIT-S551	RADAR LEVEL TRANSMITTER	SIEMENS	SITRAN LR200	1X AI	24VDC	BETWEEN WEIR AND FLAP GATE
3	LIT-S751	RADAR LEVEL TRANSMITTER	SIEMENS	SITRAN LR200	1X AI	24VDC	DOWNSTREAM OF CS POSITIVE GATE
4	LIT-S951	RADAR LEVEL TRANSMITTER	SIEMENS	SITRAN LR200	1X AI	24VDC	DOWNSTREAM OF SRS POSITIVE GATE
5	ZT-S651	INCLINATION TRANSMITTER	RST INSTRUMENTS	ICEX360A	1X AI	24VDC	CS FLAP GATE
6	ZT-S861	INCLINATION TRANSMITTER	RST INSTRUMENTS	ICEX360A	1X AI	24VDC	SRS FLAP GATE

INSTRUMENT LIST

No.	CABLE TAG	FROM	TO	DESCRIPTION	MANUFACTURER	CATALOG No.	NOTE
1	CA-S451-1	LT-S451	JBA-S451	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
2	CA-S451-2	JBA-S451	LY-S451	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
3	CA-S451-3	LY-S451	TERMINATION PANEL	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
4	CA-S551-1	LIT-S551	TERMINATION PANEL	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
5	CA-S751-1	LIT-S751	TERMINATION PANEL	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
6	CA-S951-1	LIT-S951	TERMINATION PANEL	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
7	CA-S651-1	ZT-S651	JBA-S651	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
8	CA-S651-2	JBA-S651	TERMINATION PANEL	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
9	CA-S861-1	ZT-S861	JBA-S861	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
10	CA-S861-2	JBA-S861	TERMINATION PANEL	#16 AWG, 2-PAIR, TWISTED, SHIELDED	TEXCAN	C3-9326-1602-19	4-20mA
11	C-TP1	DISTRIBUTION PANEL	TERMINATION PANEL	#12 AWG, 2C, TECK 90	TEXCAN	05002-01-010	POWER 120VAC

CABLE LIST

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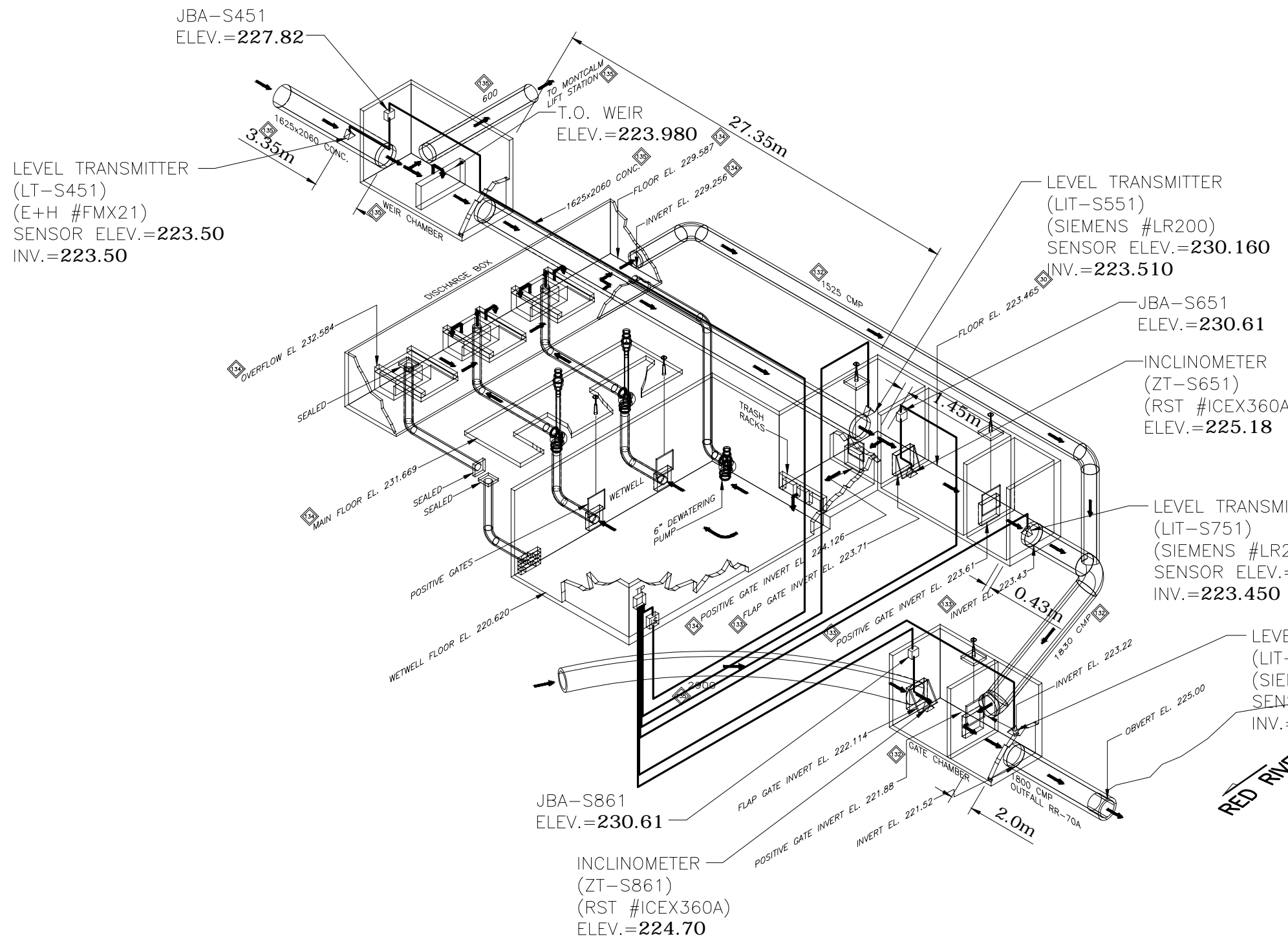
CONSULTANT DRAWING NO.
E-3602

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

CSO OUTFALL MONITORING
ROLAND
TERMINATION PANEL LAYOUT
INSTRUMENT LIST, CABLE LIST

SHEET	OF
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CAD FILE DRAWING NUMBER 14720e-3602-rol.dwg	
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 2015/08/18 10:30 AM By: Bekker, Kyle



LEGEND	
RTU	REMOTE TERMINAL UNIT PANEL
DP	POWER DISTRIBUTION PANEL
TP	TERMINATION PANEL
IS	INTRINSIC SAFETY BARRIER PANEL
JB	JUNCTION BOX
—	INSTRUMENTATION CABLE
FT	FLOW METER TRANSMITTER
⊖	FLOW METER SENSOR
∇	LEVEL TRANSMITTER, INCLINOMETER

BOLD ELEVATIONS FROM STANTEC
Benchmark Elevation = 231.429
 Centre-Punch w/Cross Hairs on Concrete on Top of Positive Gate Chamber (South West of FPS) - 2.10m South of the South Face of FPS & 2.30m West of the West Wall of the FPS

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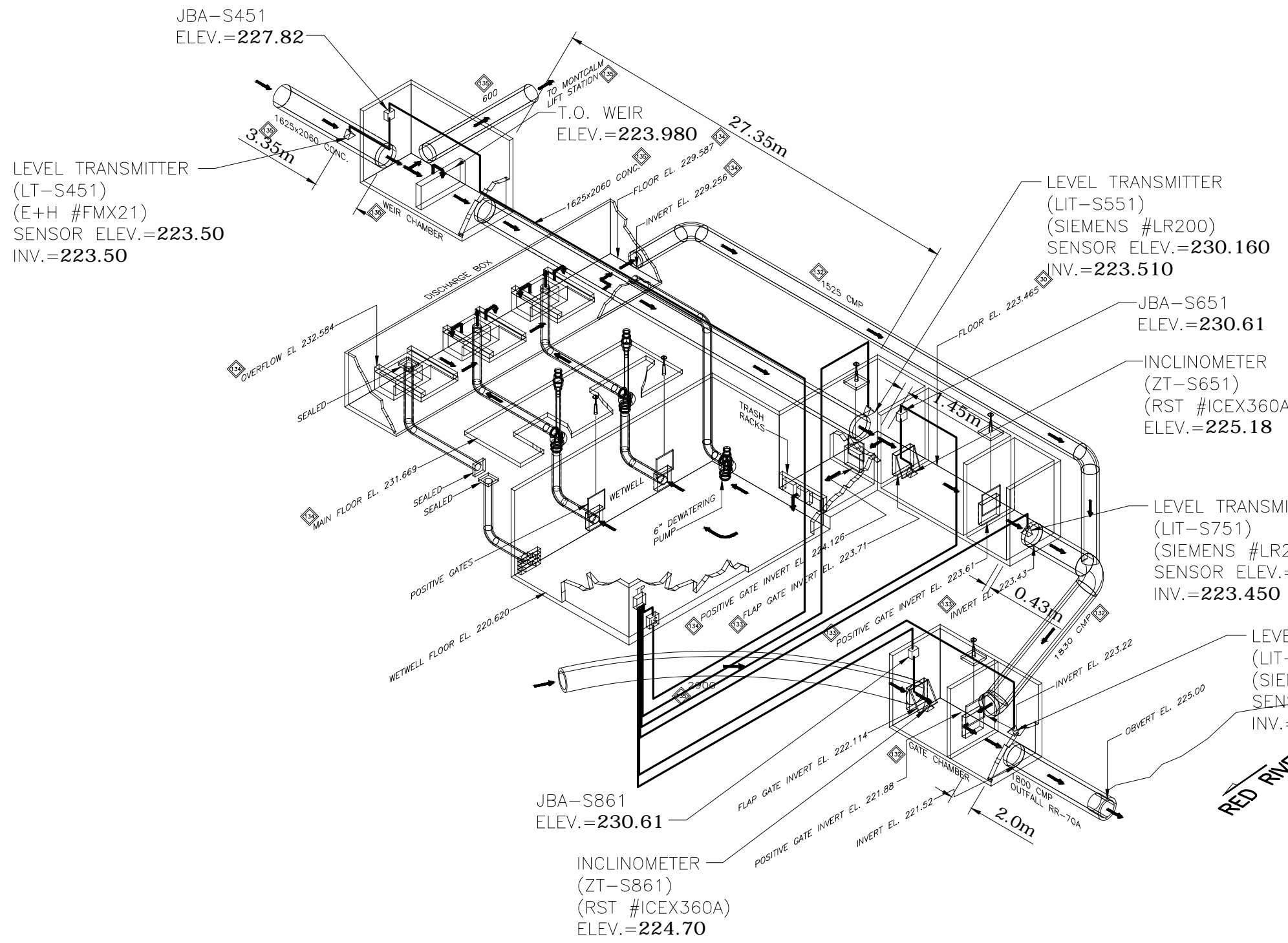
ENGINEER'S SEAL
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THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

CSO OUTFALL MONITORING
ROLAND
3D ISOMETRIC PLAN

SHEET	OF
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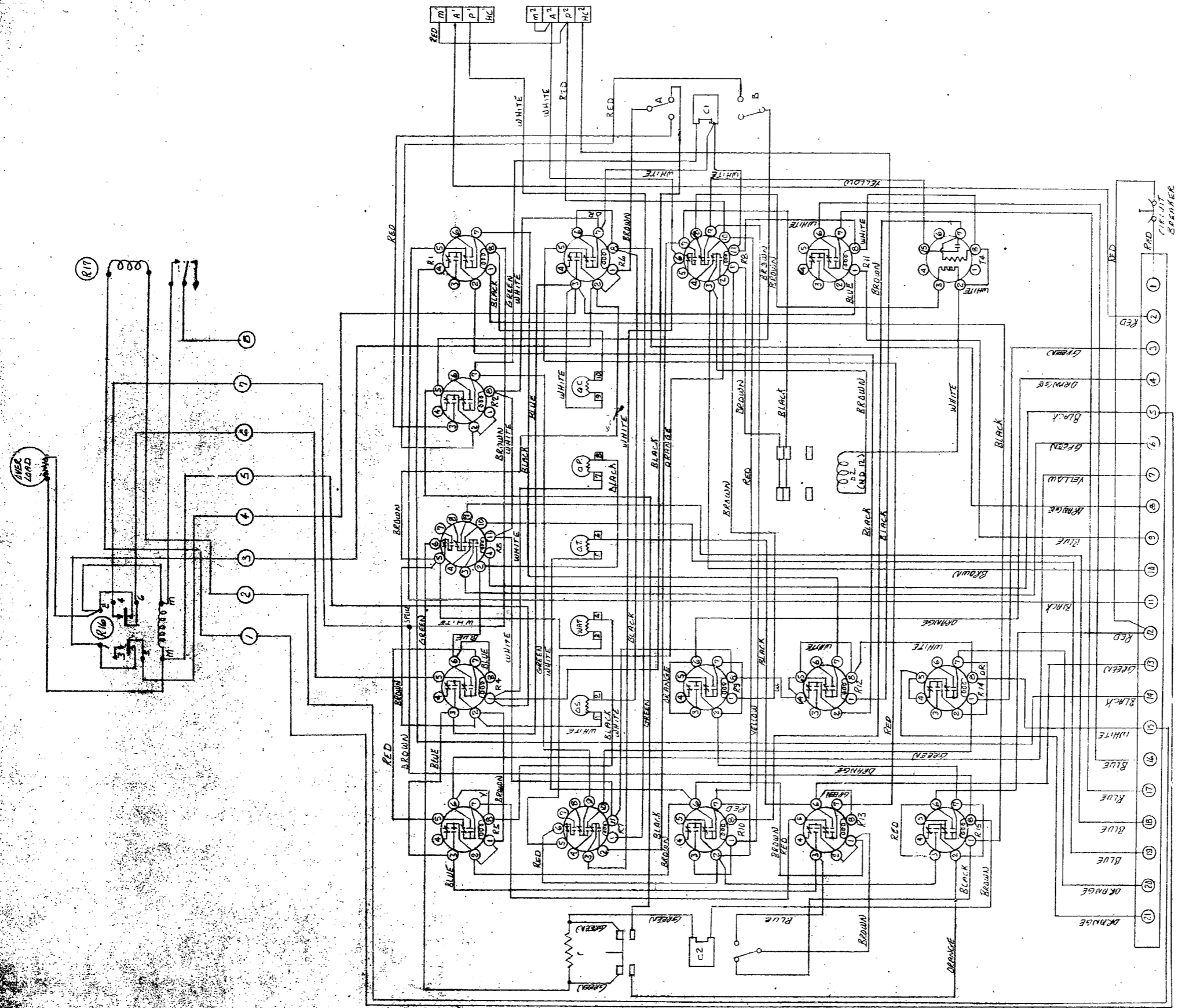

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I-0179-A-A0202-001-00	

REF. or DRAWING NO. **ME-174**

CONTRACT "A" PUMPING STA.
DETAILS D-3392 INTERNAL WIRING OF CONTROL + OVERLOAD SHUTDOWN

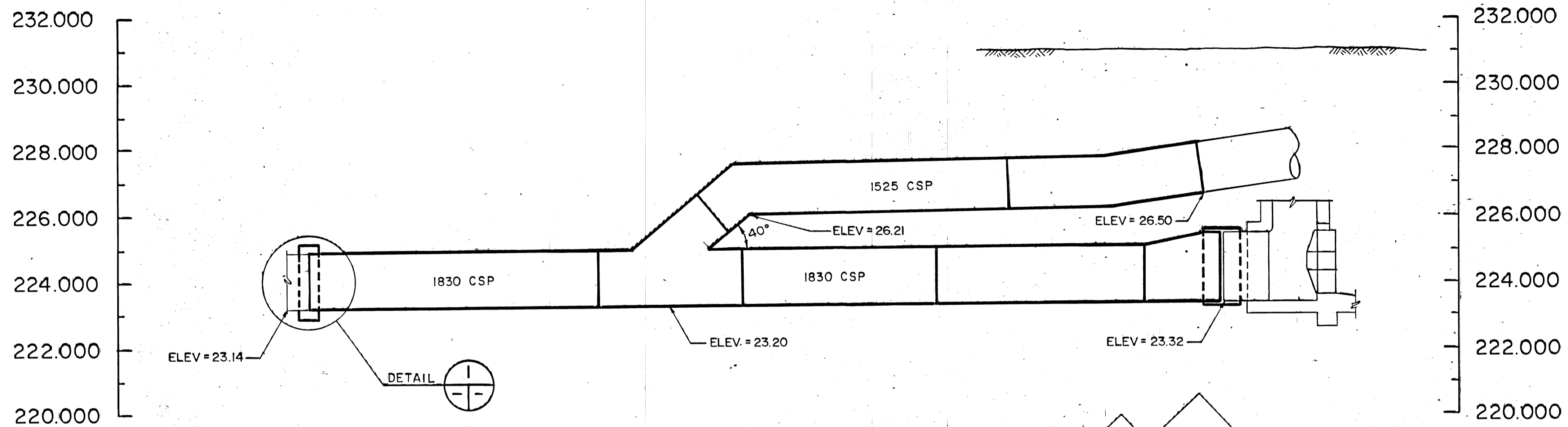


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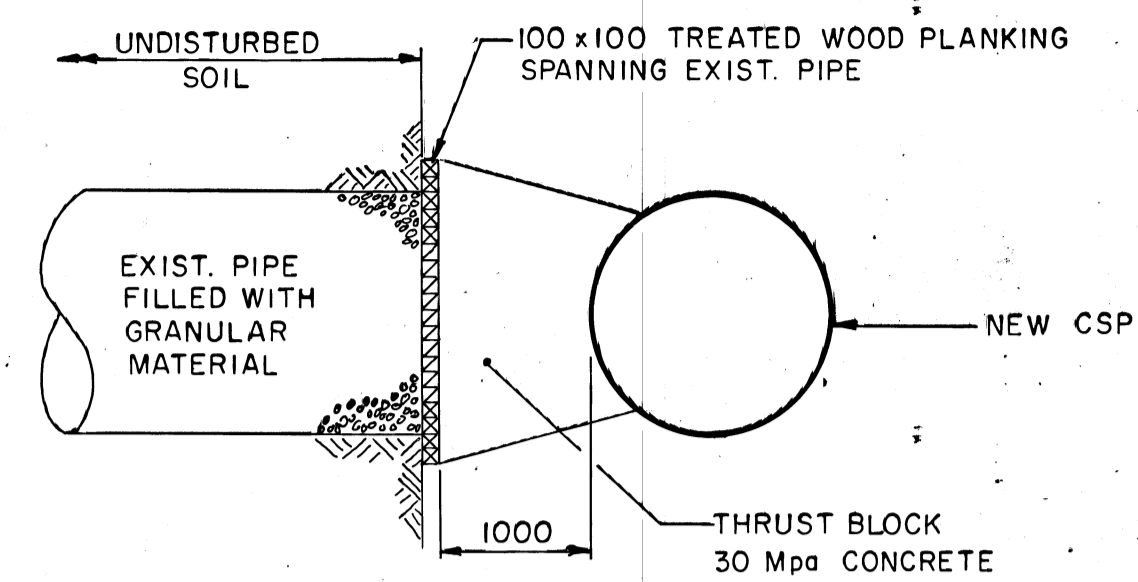
REFER SCHEMATIC D3386

ATLAS *POWEL* **CO. LTD.**
60 NORTHLINE RD. TORONTO 16, ONT.
INTERNAL WIRING OF MODEL 371A1M CONTROL
PLUS OVERLOAD SHUT DOWN

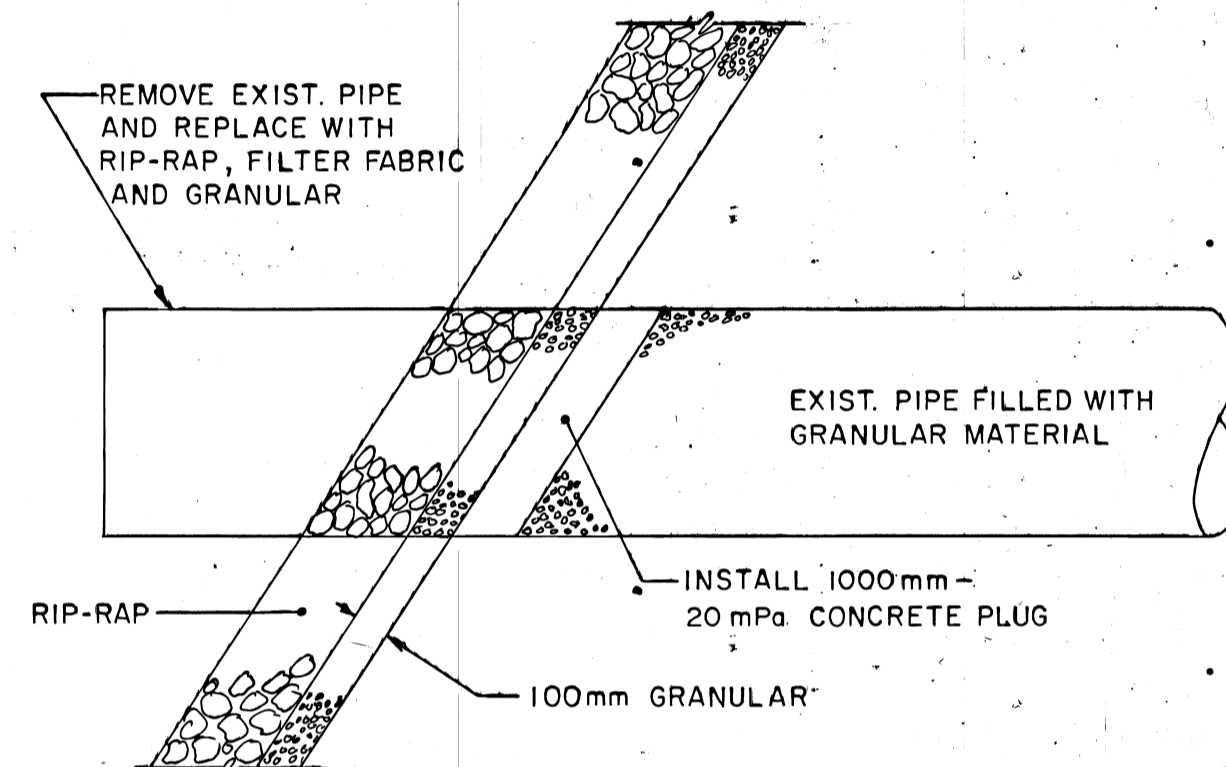
DRAWING NO. **D-3392**
SHEETS SHEET NO. **W 31958**
DATE **June 16/63**



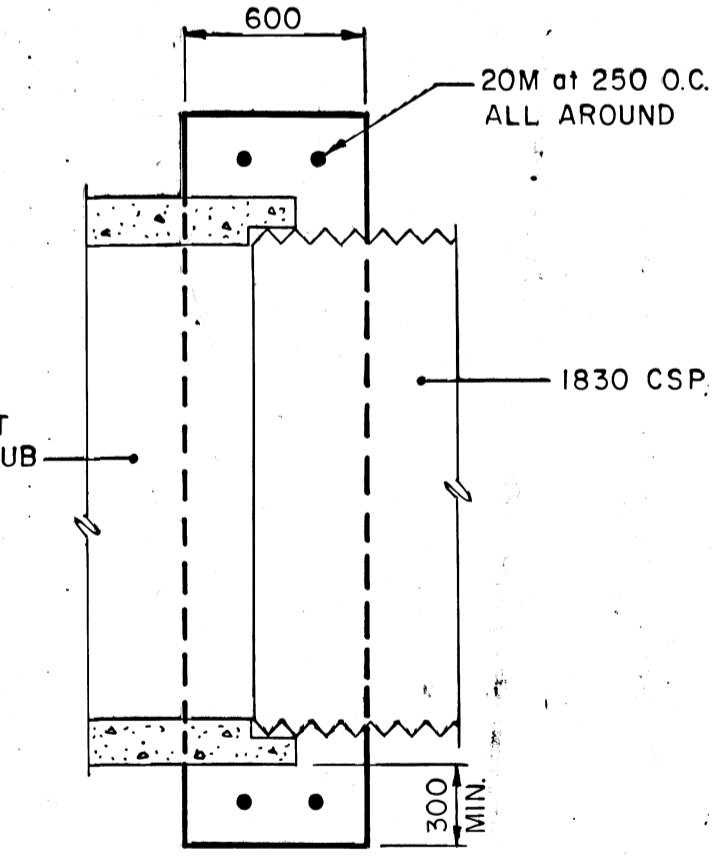
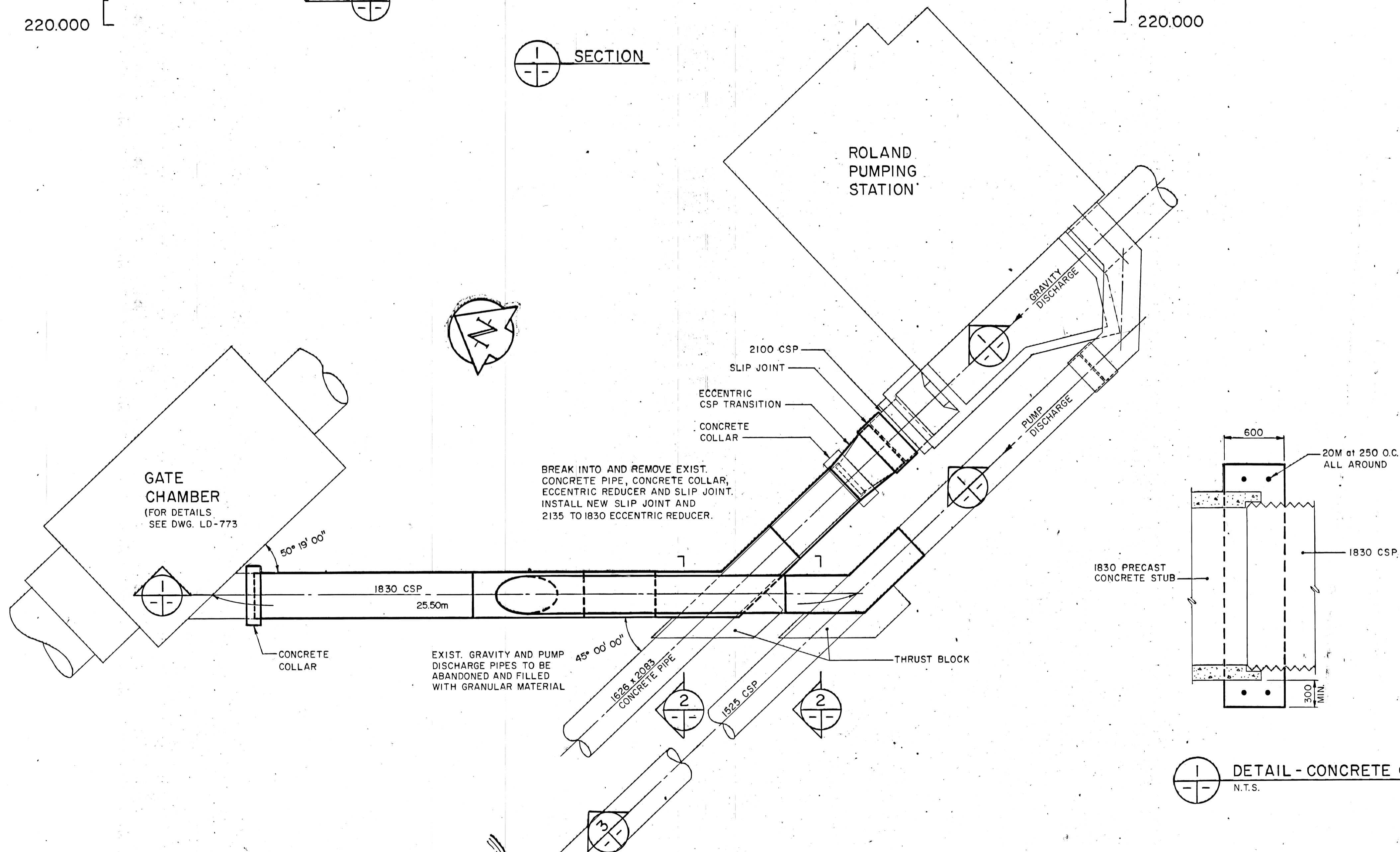
SECTION 1



SECTION 2 - THRUST BLOCK N.T.S.



SECTION 3 - OUTFALL PLUG N.T.S.



DETAIL 1 - CONCRETE COLLAR N.T.S.

- NOTES:
- CORRUGATED STEEL PIPE (CSP) TO BE 3.5mm THICK (10 GAUGE) NON GALVANIZED, CONFORMING TO CAN3-G401-M81 WITH 68mm x 13mm CORRUGATIONS.
 - SURFACE OF CSP TO BE PREPARED USING A DRY ABRASIVE BLAST TO A COMMERCIAL FINISH IN ACCORDANCE WITH SSPC-SP 6-63 TO A DEGREE OF CLEANLINESS IN ACCORDANCE WITH NACE #3 TO OBTAIN A 2 TO 3 mil BLAST PROFILE. SURFACE OIL OR GREASE TO BE REMOVED WITH CARBOLINE THINNER #2 OR TOLUOL.
 - CSP TO BE COATED WITH COAL TAR EPOXY CARBOMASTIC #14 BY CARBOLINE 8-10 MILS THICK.
 - DAMAGE TO EPOXY COATING IN FIELD TO BE REPAIRED BY SANDING THE DAMAGED AREAS, FEATHERING THE EDGES, CLEANING THE SURFACE WITH CARBOLINE #2 THINNER OR XYLOL AND APPLYING EPOXY WITH A MEDIUM BRISTLE BRUSH. DRYING TIME WILL BE AS PER THE MANUFACTURER'S SPECIFICATION.
 - CSP TO BE JOINED USING HUGGER-BAND COUPLERS WITH NEOPRENE O-RING GASKETS.
 - CLASS II BACKFILL TO BE USED ON ALL CSP.

LD - 0778

REF. or DRAWING No.

DETAILS

REVISED AS CONSTRUCTED

(APPLIES TO THE STORM RELIEF SEWER AND RELATED CONNECTIONS ONLY)

DATE AUGUST 1987 BY K.S.

CHECKED BY J.N.

MICROFILMED

THE WORK OF THIS CONTRACT WAS CONSTRUCTED IN ACCORDANCE WITH THE NOVEMBER 1986 STANDARD CONSTRUCTION SPECIFICATIONS BY BORLAND CONSTRUCTION LIMITED DURING THE MONTHS OF MARCH 1986 TO AUGUST 1987.

WARDROP ENG. F.B. 1361, 1377, 1402, 1408, 1414, 1415, 1440

LOCATION APPROVED UNDERGROUND STRUCTURES	B.M. CITY OF WINNIPEG 28-017 ELEV. 230.814		
SUPV. U/G STRUCTURES COMMITTEE	DATE		
NOTE:	LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.		
NO	REVISIONS	DATE	BY
1	REVISED AS CONSTRUCTED	87-11-23	J.N.
0	ISSUED FOR TENDER	85-10-11	J.N.
0	ISSUED FOR APPROVAL	85-9-16	J.N.

WARDROP ENGINEERING CONSULTANTS

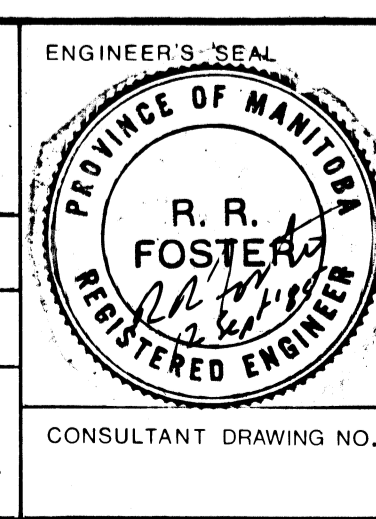
DESIGNED BY G.S. CHECKED BY W.R.D.

DRAWN BY S.P.B. APPROVED BY R.R.F.

HOR. SCALE: 1:100

VERTICAL: DATE 85-08

RELEASED FOR CONSTRUCTION DATE 85-10-09



THE CITY OF WINNIPEG WORKS AND OPERATIONS DIVISION

WATERWORKS, WASTE AND DISPOSAL DEPARTMENT

MUNROE, ROLAND & HART SEWER RELIEF PROJECT - CONTRACT 6

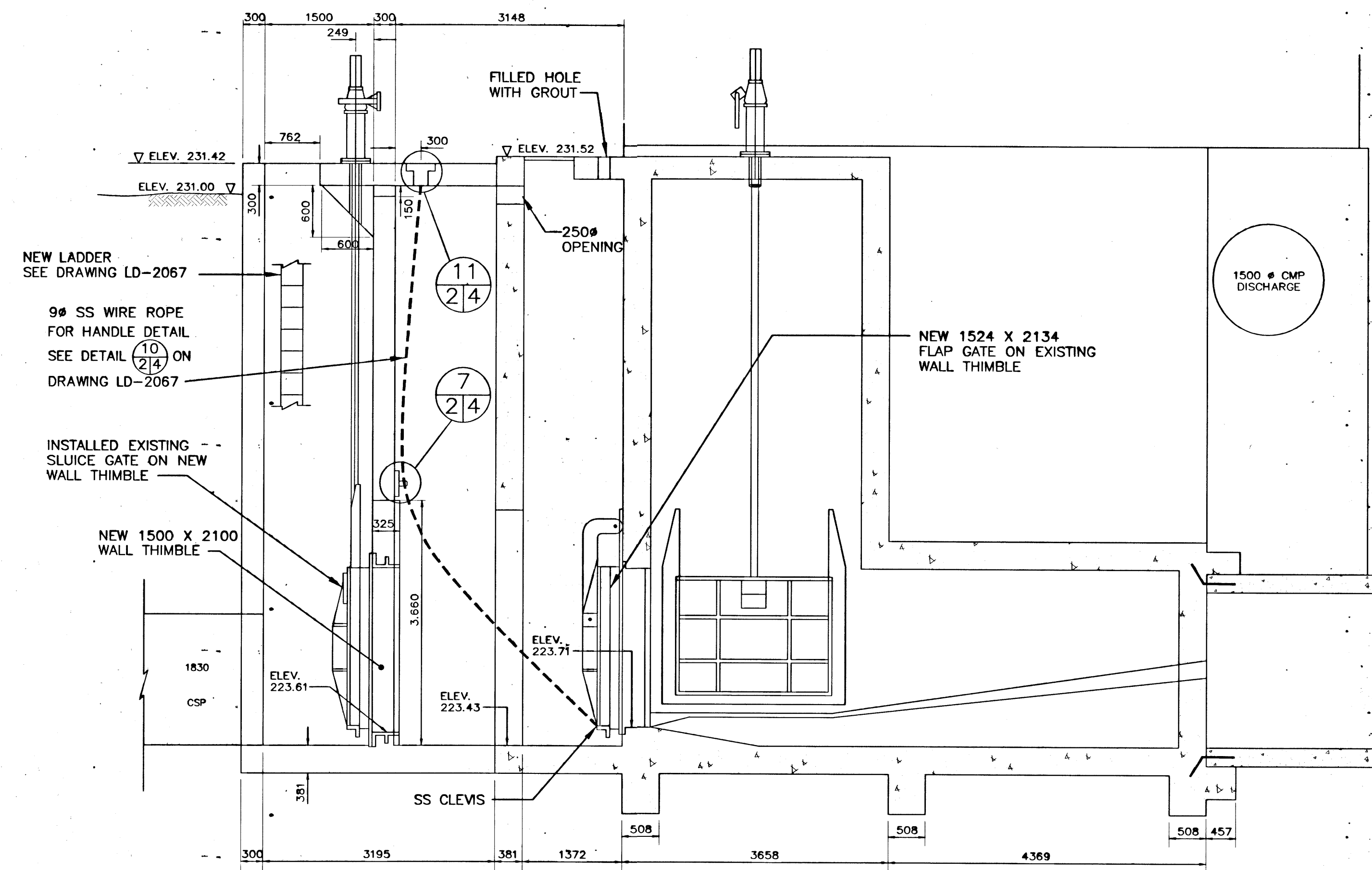
PUMPING STATION TO GATE CHAMBER

CONNECTING PIPING AND DETAILS

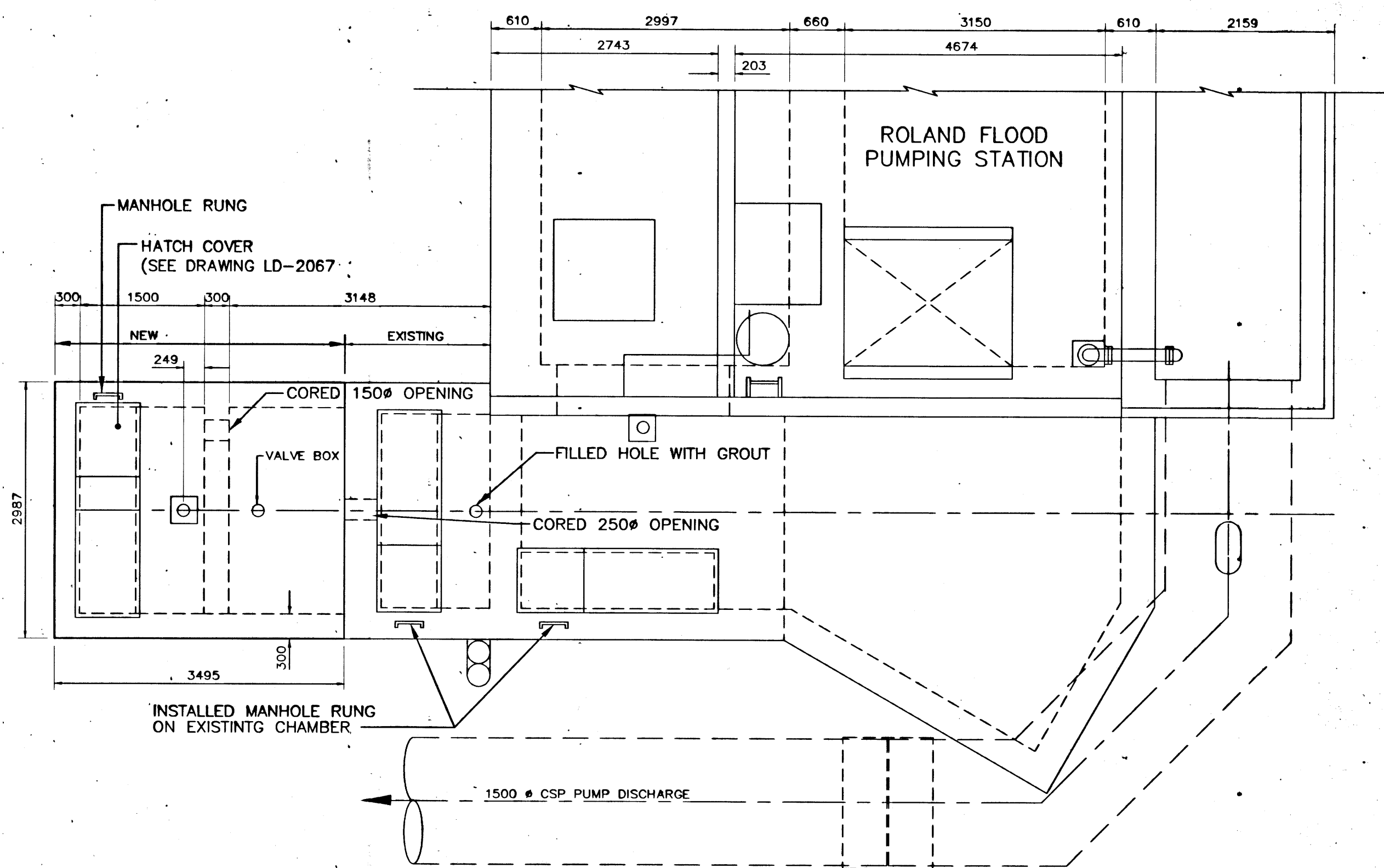
CITY DRAWING NUMBER LD-778

SHEET 19 OF 20

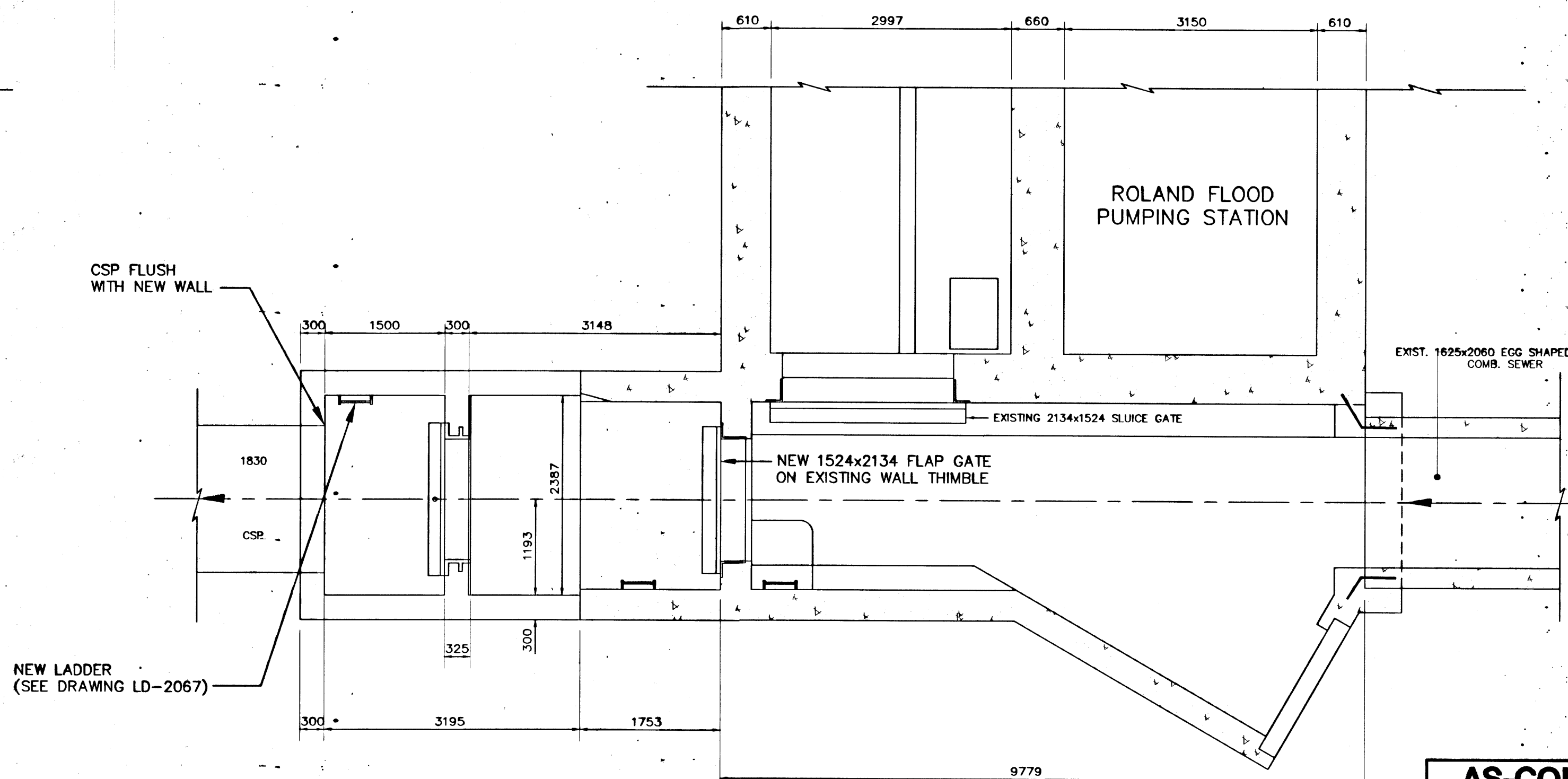
D4-918



SECTION THRU Q OF SEWER
SCALE: 1:50



FLOOR PLAN AT ELEV. 231.52
SCALE: 1:50



FLOOR PLAN METRIC
SCALE: 1:50
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

AS-CONSTRUCTED
Robert J. Dalton
CONTRACT ADMINISTRATION DRAFTING & GRAPHIC SERVICES
WATER AND WASTE DEPARTMENT

B.M. ELEV.	FIELD BOOK #
POSTED TO LIBS	
3 REVISED TO AS-CONSTRUCTED	01.11.07 MZ
2 REVISED TO AS-BUILT	01.06.13 WKT
1 REVISIONS	99.10.01 MZ
NO. REVISIONS	DATE BY

CITY OF WINNIPEG
WATER AND WASTE
ENGINEERING DIVISION

DESIGNED BY JE CHECKED BY JE
DRAWN BY TM APPROVED BY
HOR. SCALE AS-NOTED RELEASED FOR CONSTRUCTION
VERTICAL

DATE SEPTEMBER 23, 1999

ENGINEER'S SEAL
PROFESSIONAL ENGINEER
WATERS
No. 2760
REGISTERED ENGINEER

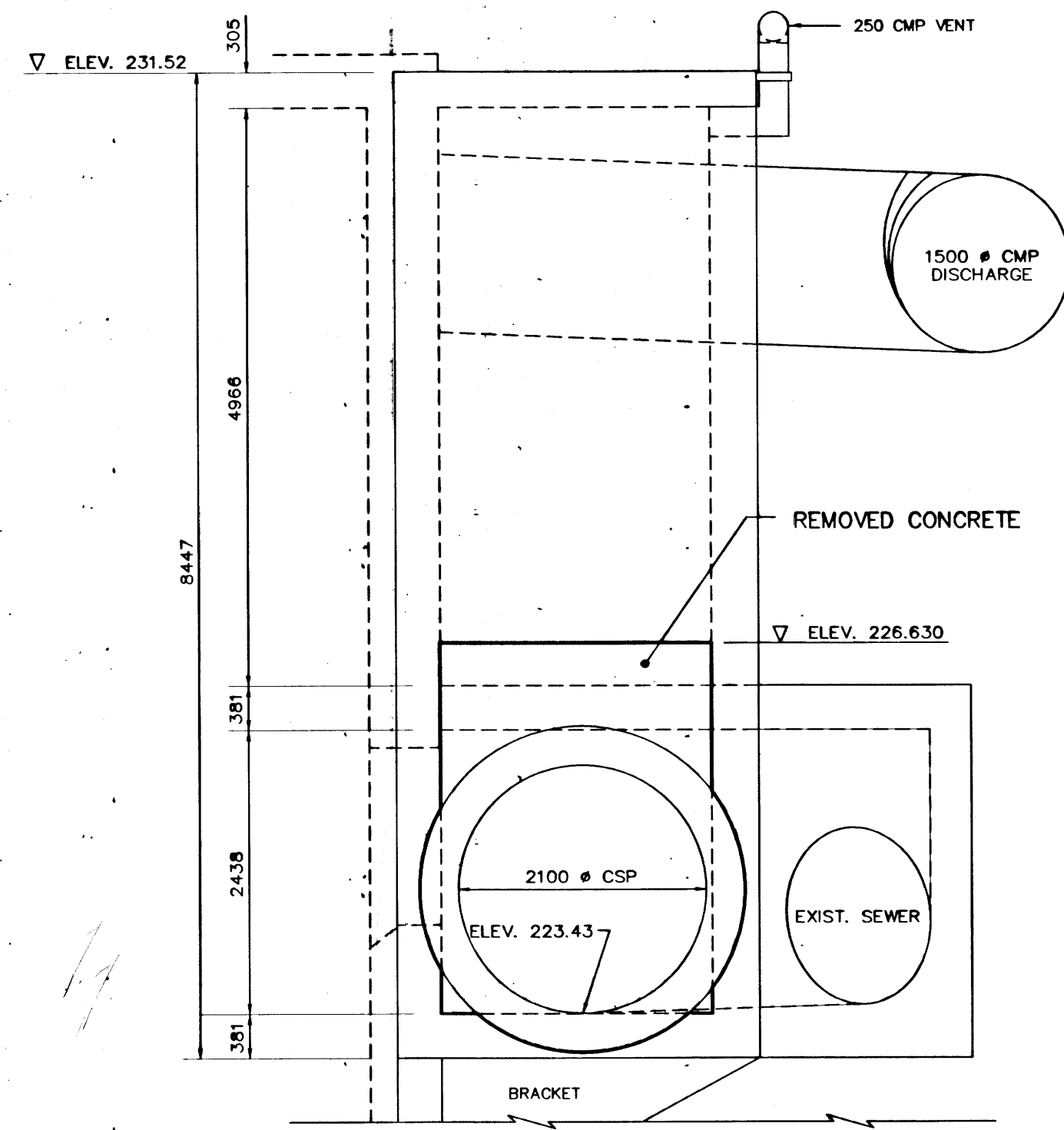
FILENAME: LD-1769.DWG
PLOT DATE: 2001 06 13

THE CITY OF WINNIPEG
WORKS AND OPERATIONS DIVISION
WATER AND WASTE DEPARTMENT

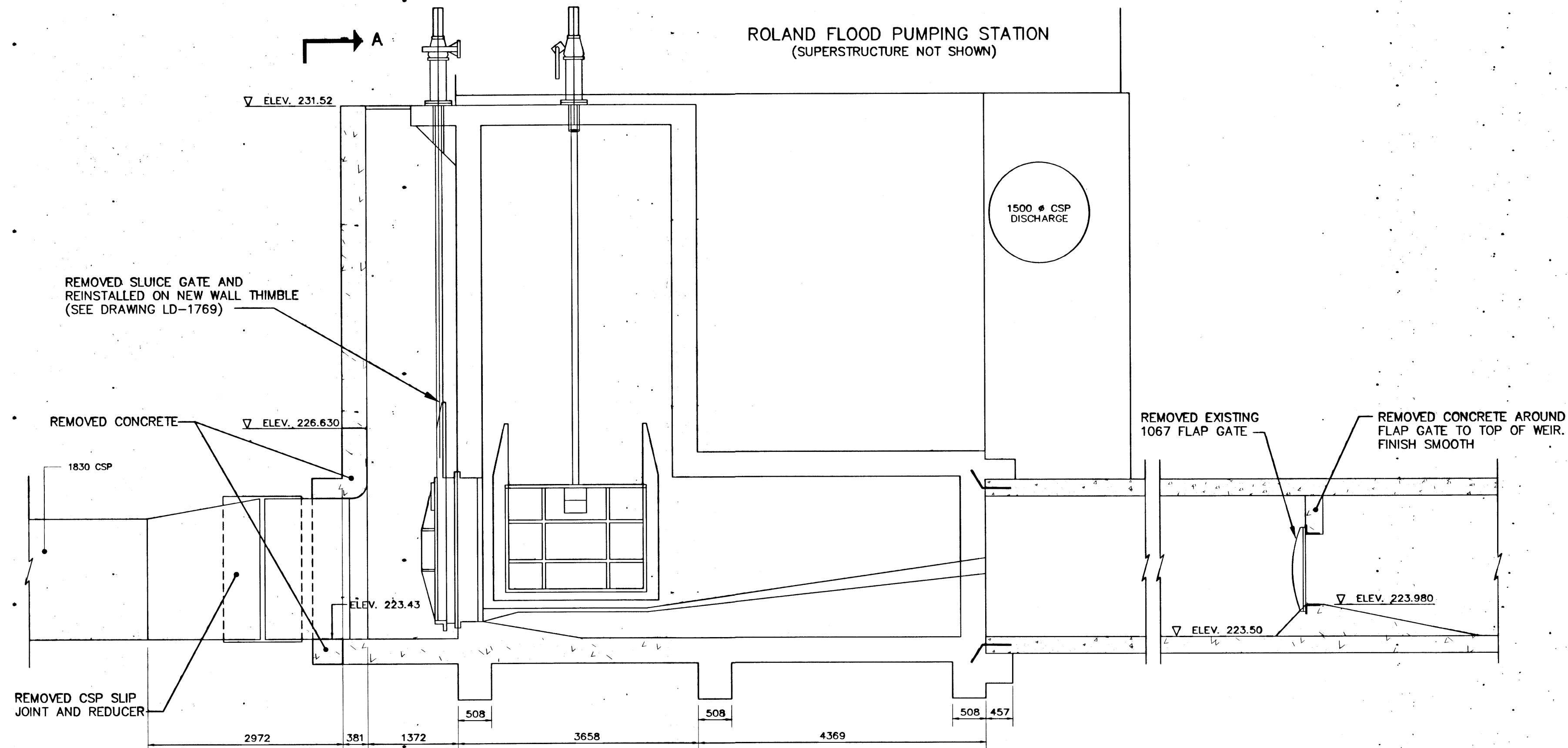
ROLAND FLOOD PUMPING STATION
GATE RELOCATION

PLAN AND DETAILS

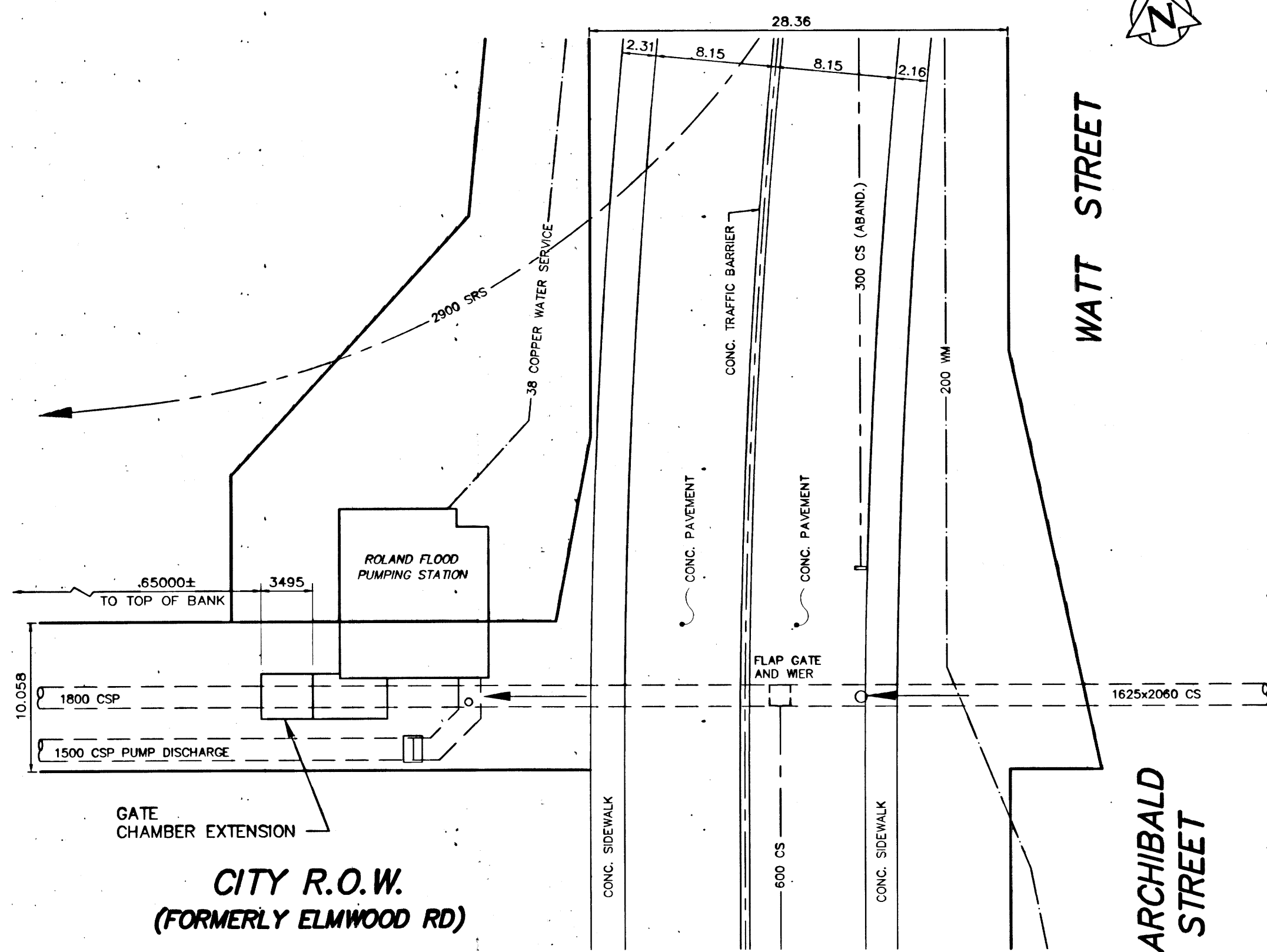
SHEET 2 OF 4
CITY DRAWING NUMBER
LD-1769



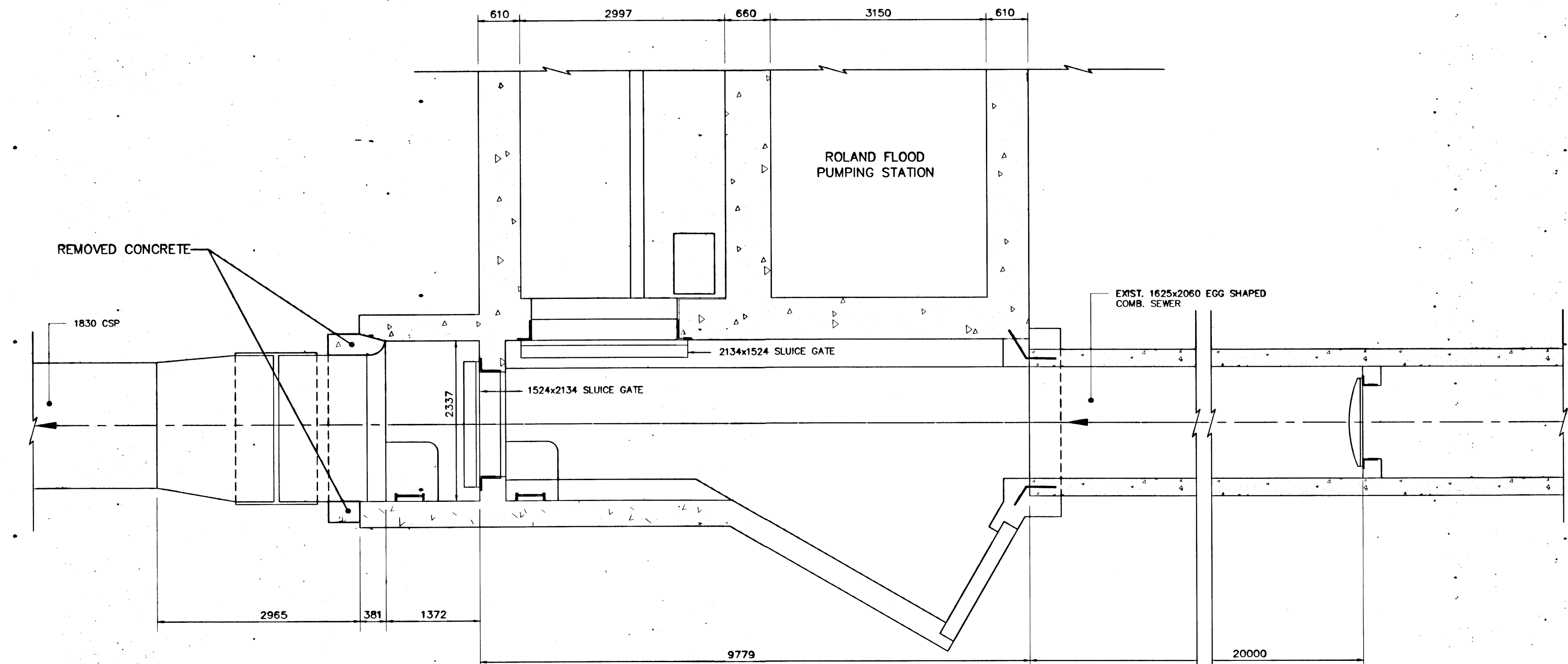
SECTION A-A
SCALE: 1:50



SECTION THRU Q OF SEWER
SCALE: 1:50



SITE PLAN
SCALE: 1:300



PLAN VIEW
SCALE: 1:50

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

AS-CONSTRUCTED
Edna K. Valton 02.01.23
CONTRACT ADMINISTRATION DRAFTING & GRAPHIC SERVICES DATE
WATER AND WASTE DEPARTMENT

B.M. ELEV.			
POSTED TO LBIS			
3	REVISED TO AS-CONSTRUCTED	01.11.07	MZ
2	REVISED TO AS-BUILT	01.06.12	WKT
1	REVISIONS	98.10.01	MZ
NO.	REVISIONS	DATE	BY

**CITY OF WINNIPEG
WATER AND WASTE
ENGINEERING DIVISION**

DESIGNED BY	JE	CHECKED BY	JE
DRAWN BY	TM	APPROVED BY	
HOR. SCALE	AS NOTED	RELEASED FOR CONSTRUCTION	
VERTICAL			
DATE	SEPTEMBER 23, 1999	DATE	

ENGINEER'S SEAL
PROFESSIONAL ENGINEER
Edna K. Valton
WATERS
No. 2719
REGISTERED ENGINEER

FILENAME: LD-1768.DWG
PLOT DATE: 2001 06 13

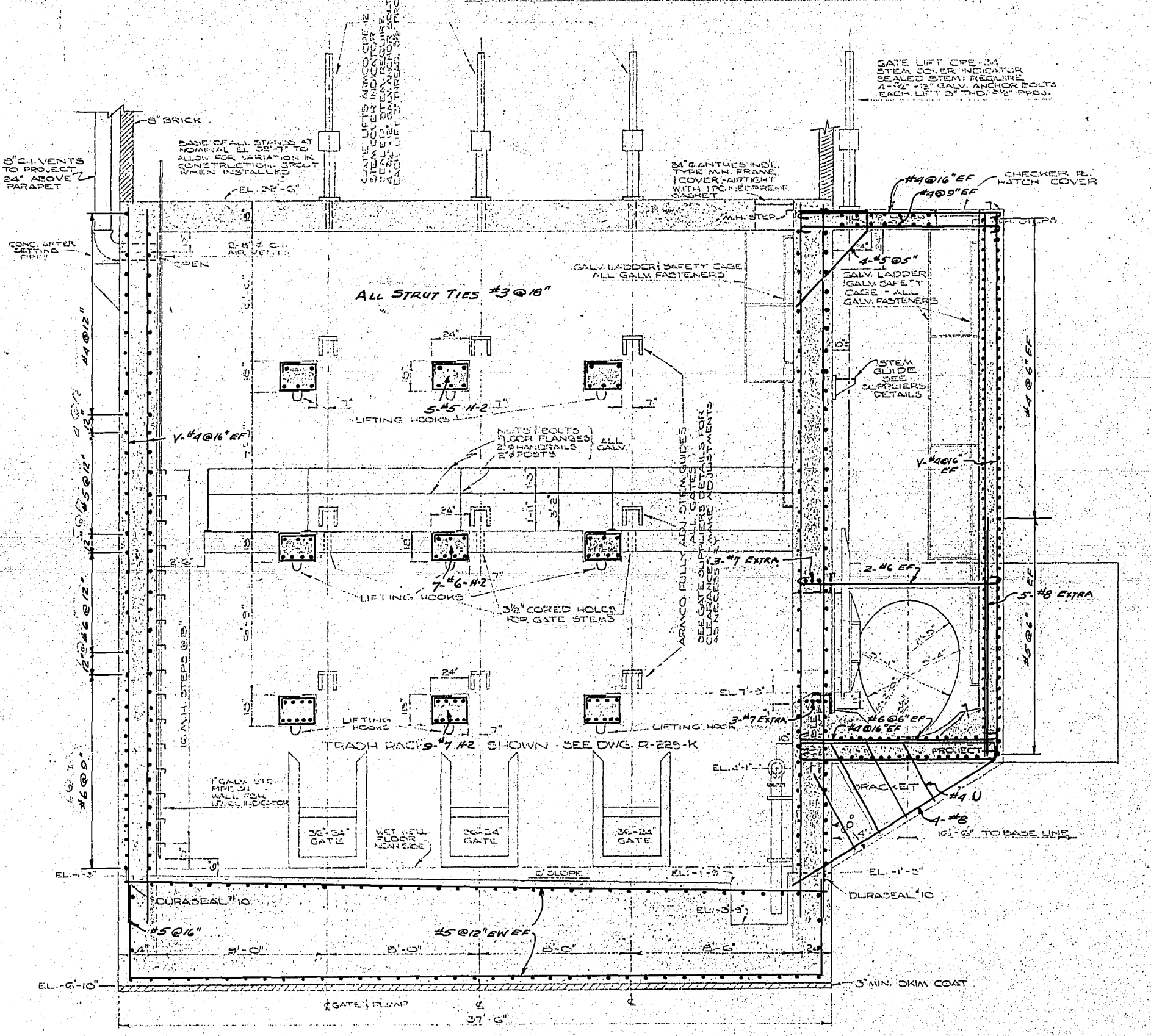
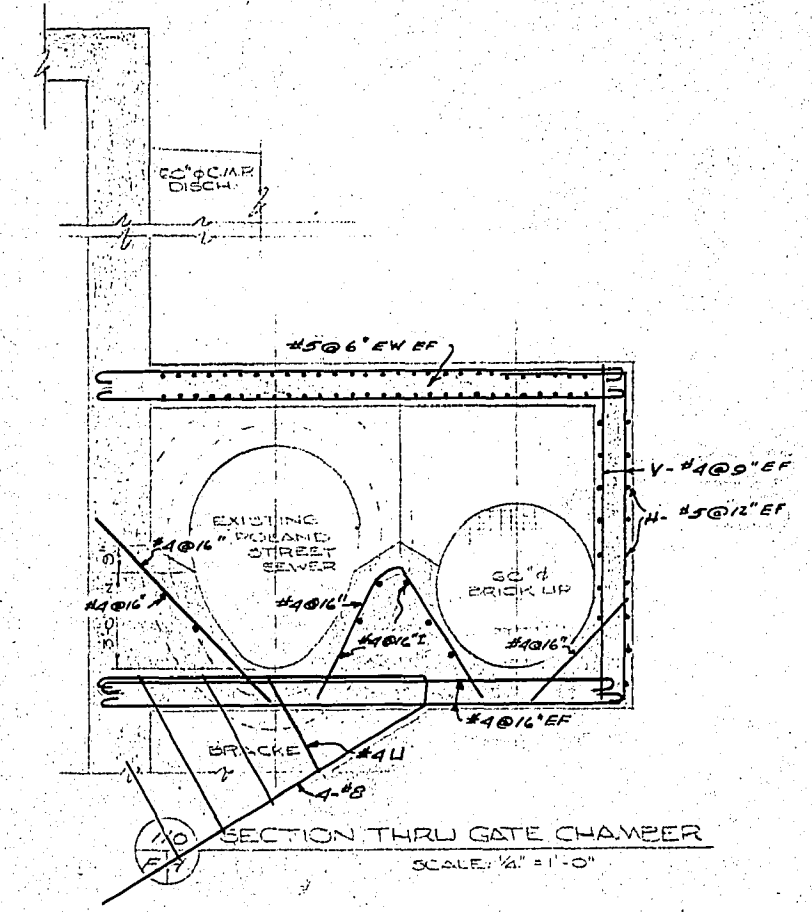
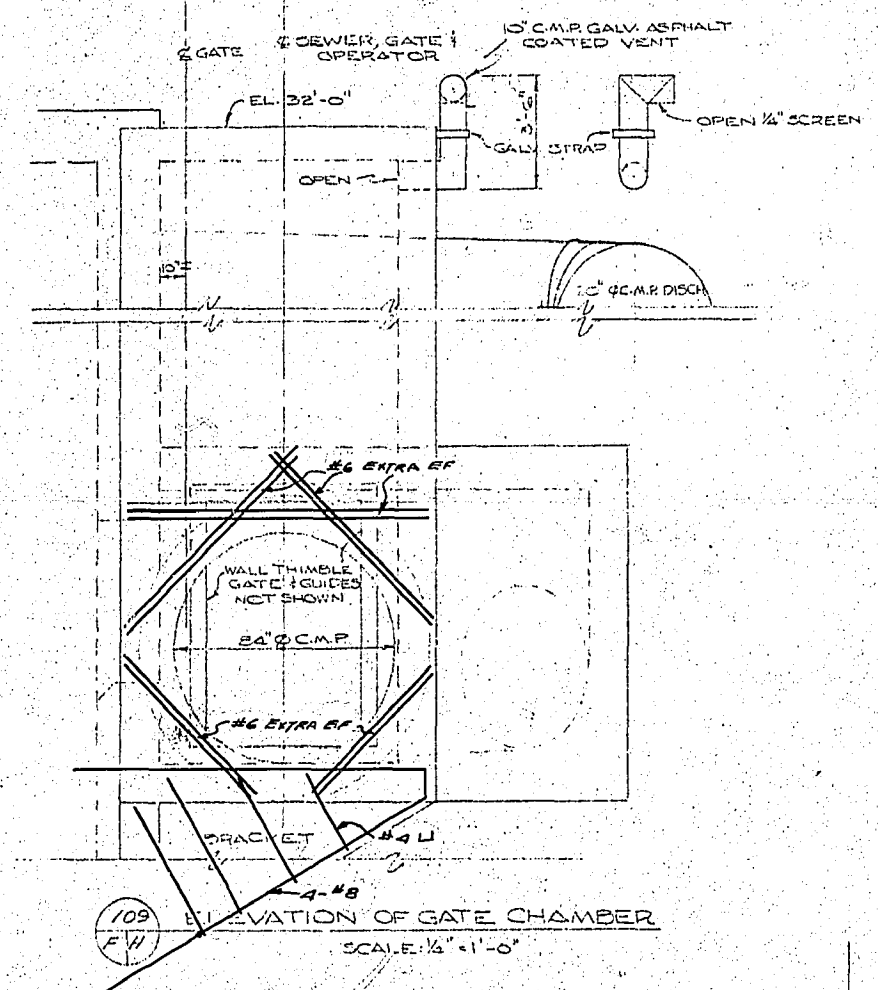
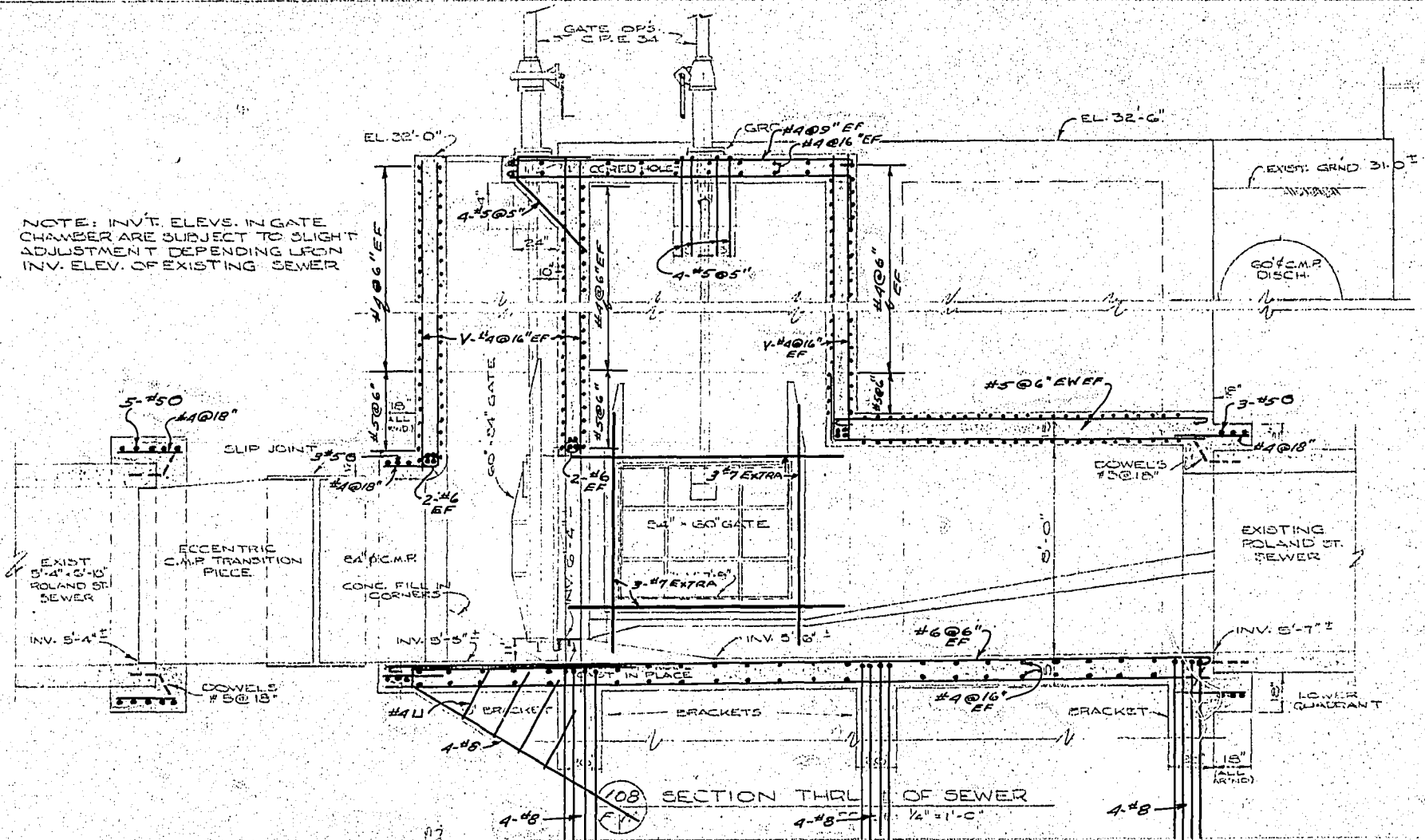
THE CITY OF WINNIPEG
WORKS AND OPERATIONS DIVISION
WATER AND WASTE DEPARTMENT

**ROLAND FLOOD PUMPING STATION
GATE RELOCATION**

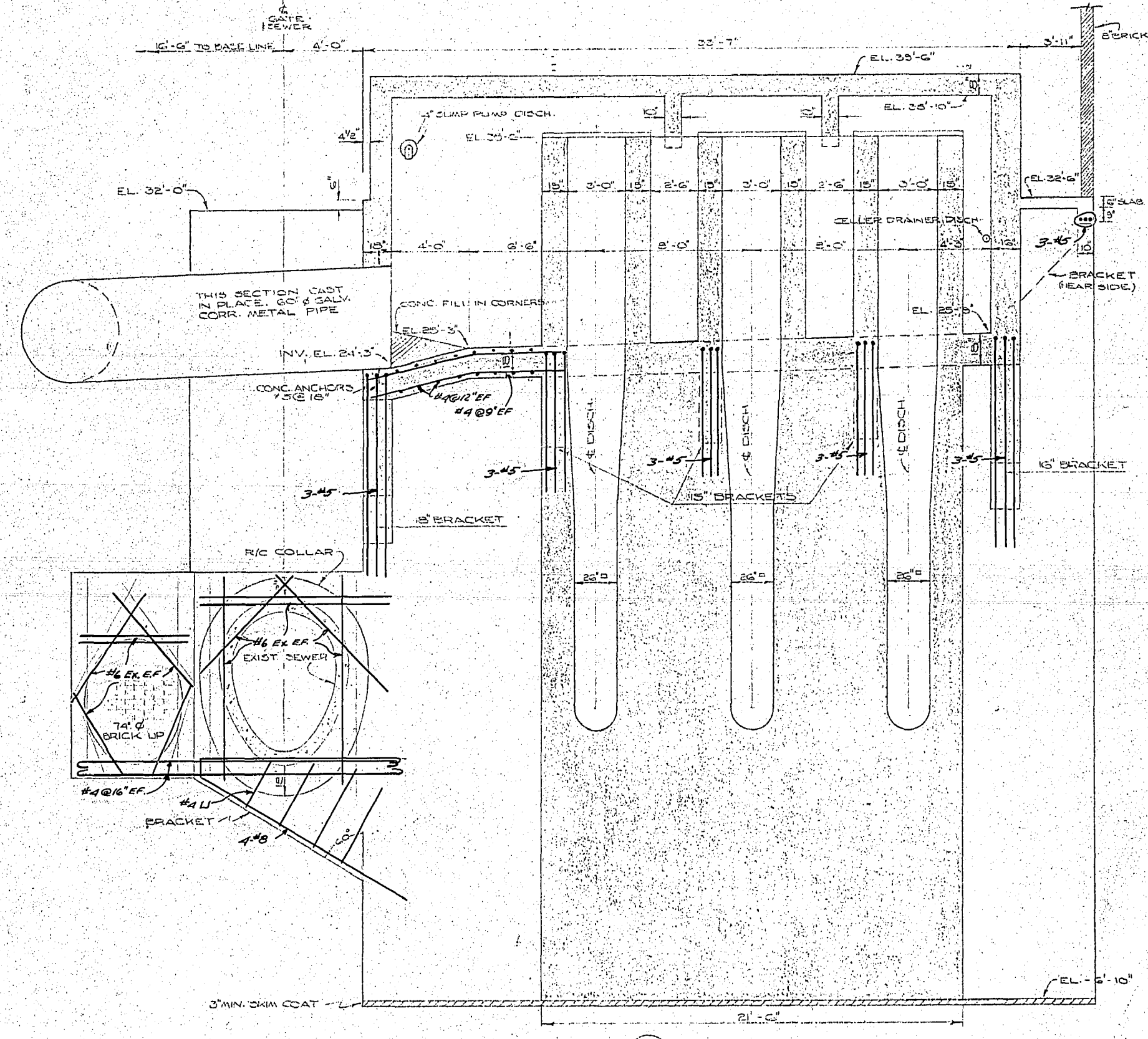
**SITE PLAN AND
DEMOLITION DRAWING**

SHEET 1 OF 4
CITY DRAWING NUMBER
LD-1768

NOTE: INV. T. ELEV. IN GATE CHAMBER ARE SUBJECT TO SLIGHT ADJUSTMENT DEPENDING UPON INV. ELEV. OF EXISTING SEWER



NOTE:
 CLEARANCES
 BASE 3"
 EXTERIOR SLABS 2"
 ALL WALLS 2"
 BEAMS 2"
 STAFFON FLOOR 2"
 SPACE 25" DIMS.
 SLAY STEEL AND ORN'GS



113 SECTION THRU WET WELL
 SCALE: 1/2" = 1'-0"

107 SECTION THRU DISCH. FLUMES
 SCALE: 1/2" = 1'-0"



DETAIL NUMBER
 107
 DETAIL DWG

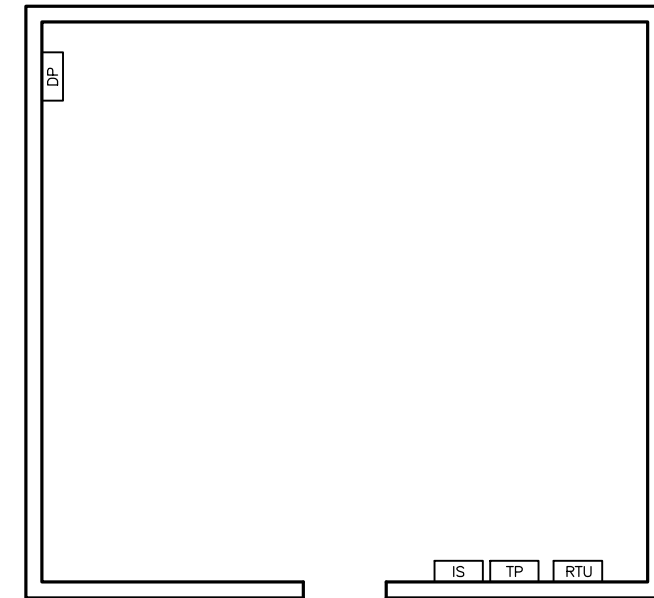
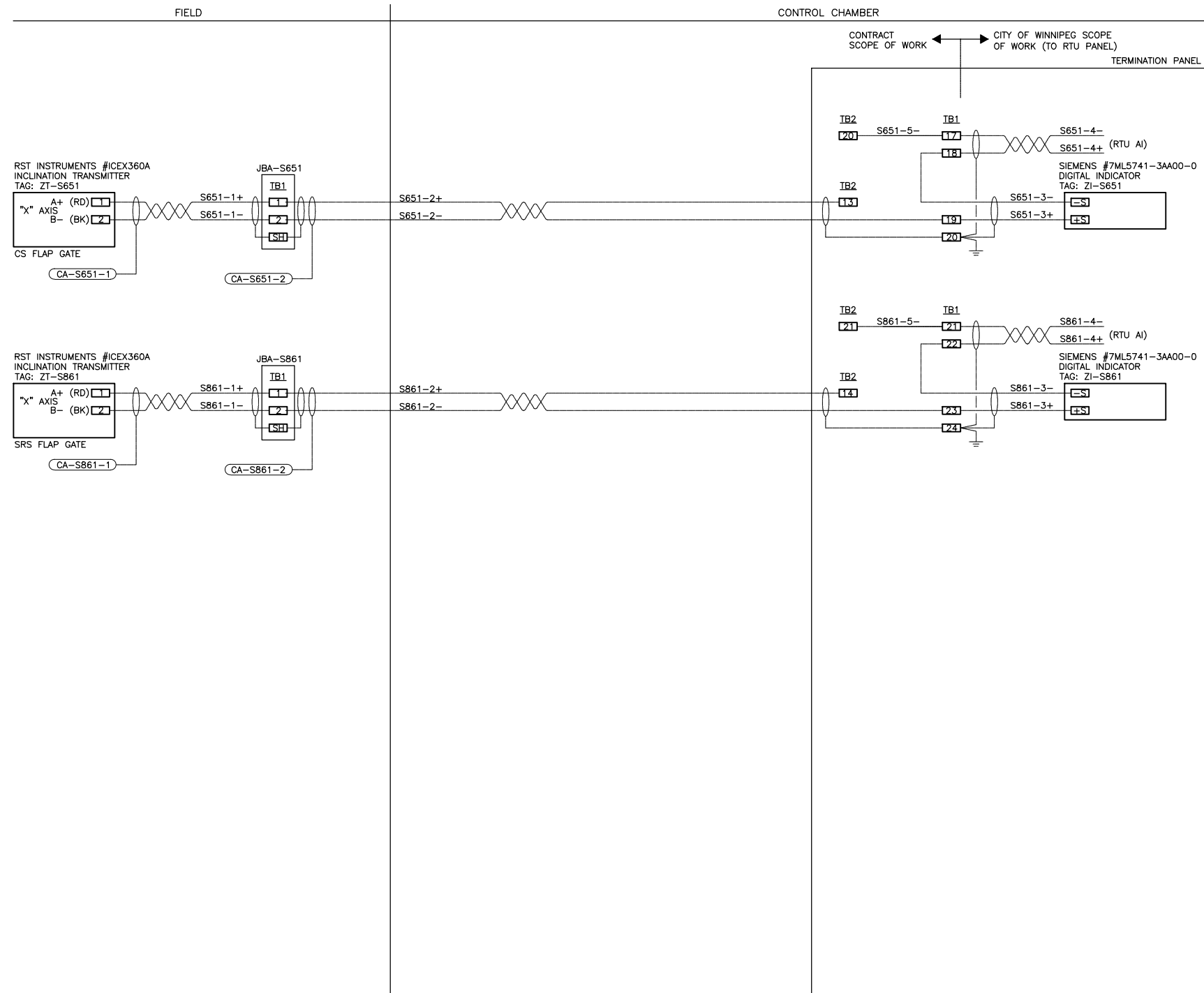
ROLAND STREET FLOOD PUMPING STATION
 SUBSTRUCTURE SECTIONAL ELEVATIONS
REINFORCING STEEL (3)

CITY OF WINNIPEG
 ENGINEERING DEPARTMENT
 W. D. HURST, CITY ENGINEER
 J. B. STRIOA, DEPUTY CITY ENGINEER

RCG. FEB 21/62
 DRAWN BY: [Signature] DATE: 2/15/61
 TRACED BY: [Signature]
 CHECKED BY: [Signature]
 APPROVED BY: [Signature]

SCALE AS NOTED
 DRAWING NO. R 229-0

\\CD1045-F01\workgroup_2\1112\active\11214720\0300_drawing\0302_sheet_files\08_electrical\Roland\14720e-3603-rol.dwg
 2015/09/10 10:51 AM By: Bekker, Kyle



ELECTRICAL ROOM FLOOR PLAN

LEGEND

- RTU - NEW RTU PANEL
- TP - NEW TERMINATION PANEL
- IS - NEW INTRINSIC SAFETY PANELS
- DP - EXISTING DISTRIBUTION PANEL 120VAC

NOTES

- 1) INSTALL TWO FULL SHEETS OF PLYWOOD AND MOUNT ON BACKBOARD RTU PANEL, TP PANEL AND INTRINSIC SAFETY PANELS. ALLOW SPACE FOR FUTURE FLOW METER TRANSMITTER.
- 2) GROUND INSTRUMENTATION CABLE SHIELDS ONLY AT TERMINATION PANEL.

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:
 1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
 2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
 SEE PROVINCIAL REGULATION 140/92 FOR DETAILS

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES


APEGM
 Certificate of Authorization
 Stantec Consulting Ltd.
 No. 1301

LOCATION APPROVED UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE DATE

NOTE:
 LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

NO.	REVISIONS	DATE	BY
B	AS BUILT DRAWING	15.04.07	J.C.
A	ISSUED FOR CLIENT REVIEW	13.10.29	J.C.


Stantec
 905 Waverley Street, Winnipeg, Manitoba
 Tel 204-489-5900 Fax 204-453-9012

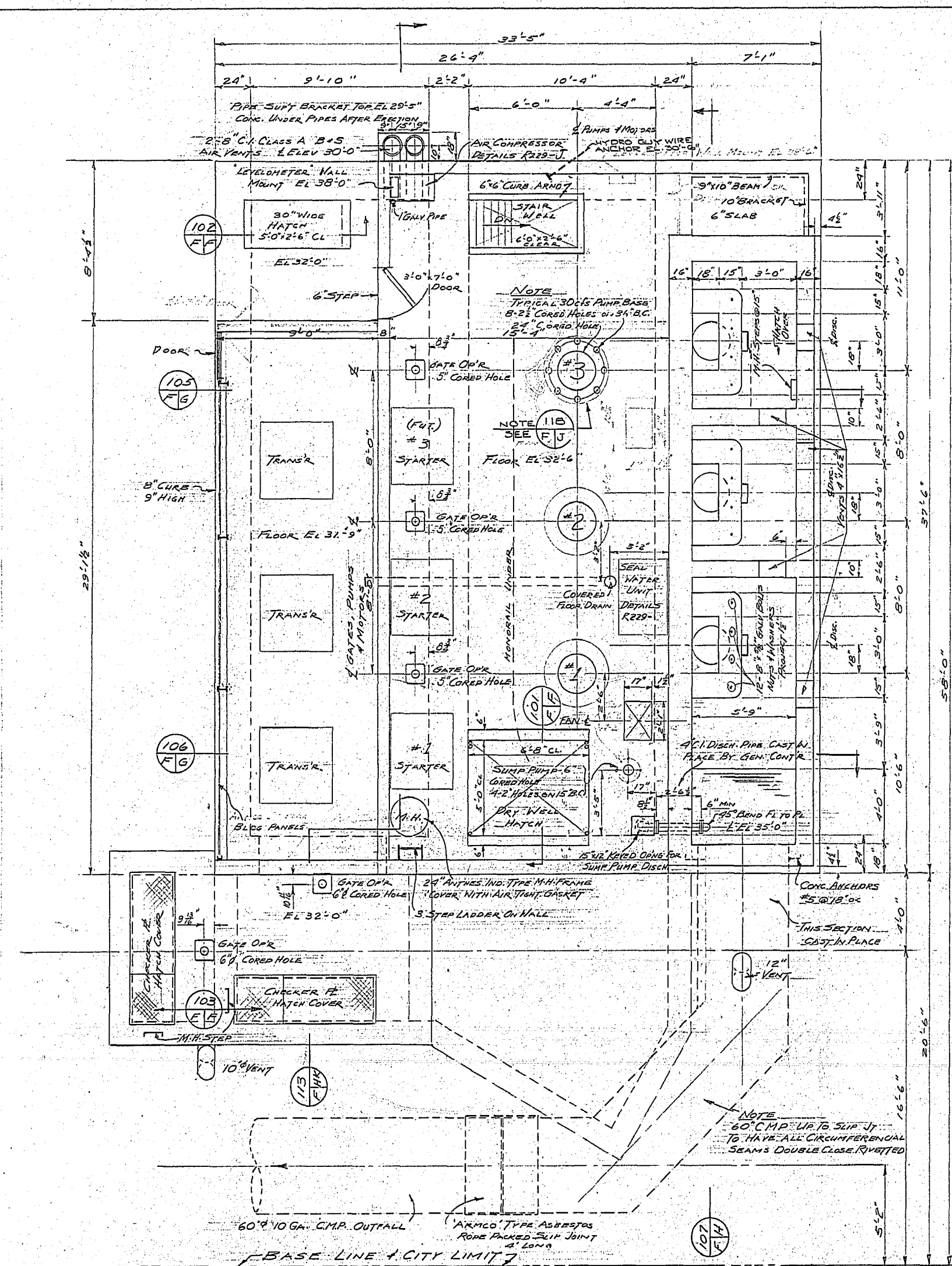
DESIGNED BY	S.T.	CHECKED BY	B.J.
DRAWN BY	S.T.	APPROVED BY	B.J.
HOR. SCALE:	N.T.S.	RELEASED FOR CONSTRUCTION:	
VERTICAL:		DATE	2013.10.15

ENGINEER'S SEAL

CONSULTANT DRAWING NO.
E-3603

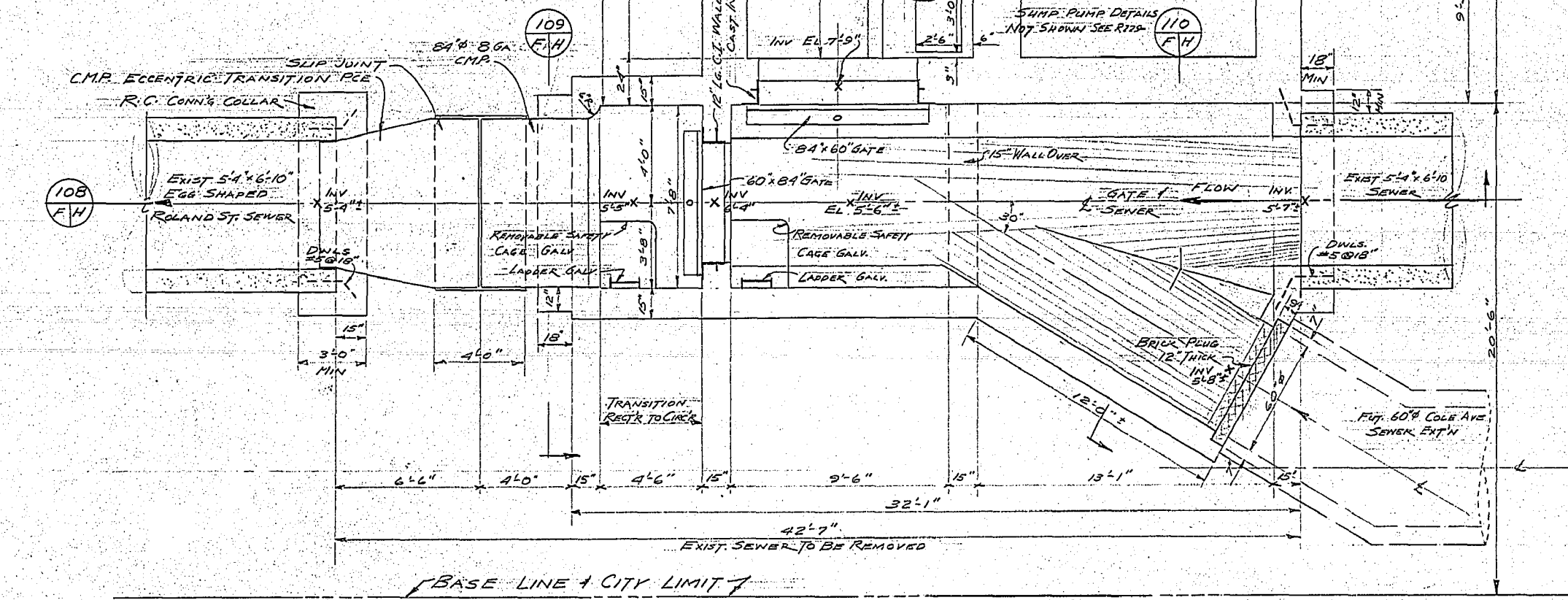

THE CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT

CSO OUTFALL MONITORING		SHEET	OF
ROLAND		2	2
ELECTRICAL ROOM LAYOUT		CAD FILE DRAWING NUMBER	
LOOP WIRING DIAGRAMS		14720e-3603-rol.dwg	
		CITY DRAWING NUMBER	
		I-0179-A-A0204-001-00	

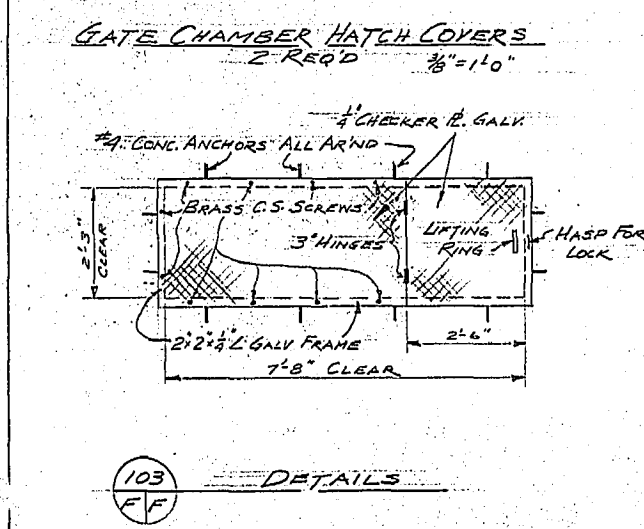
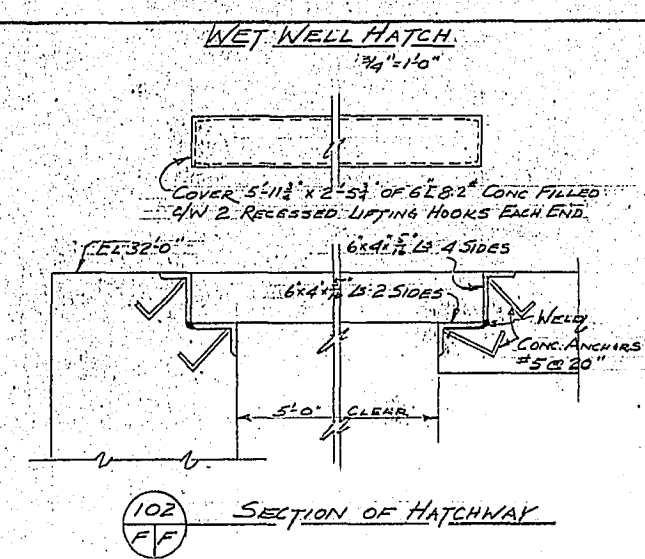
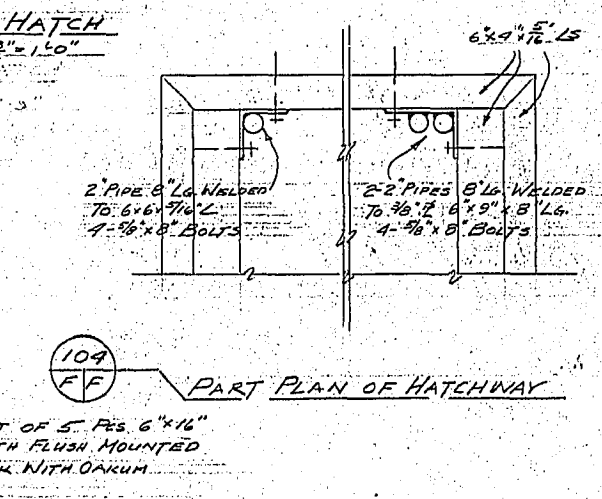
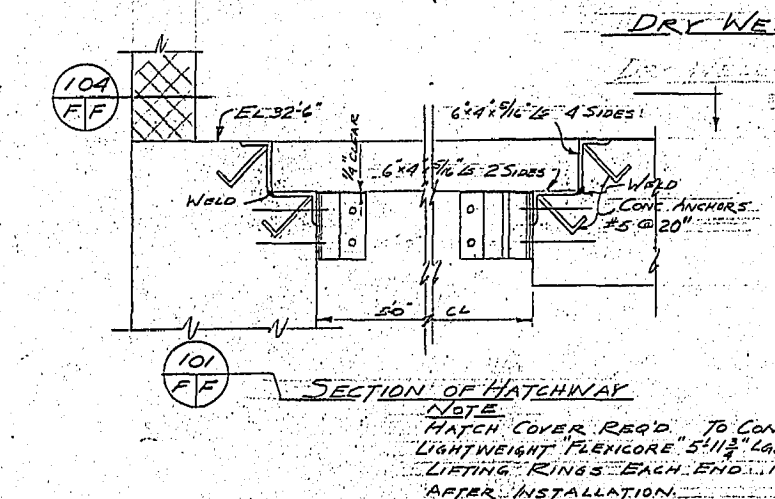


III FLOOR PLAN EL. 37'-0"
14'-11 1/2" x 37'-6"

NOTE
INV. ELEV. IN GATE CHAMBER SUBJECT TO ADJUSTMENT
DEPENDING UPON INV. ELEV. OF EXIST. SEWER.
ELEV. FOR MAIN STATION MUST BE ADHERED TO.



II FLOOR PLAN EL. 9'-0"
32'-1\"/>



NOTE: SUBSTRUCTURE TO BE DESIGNED FOR FULL HYDROSTATIC HEAD

REVISED AS CONSTRUCTED
BY E.K. DATE 4-17-67
CHECKED BY E.S. DATE 1/14/67

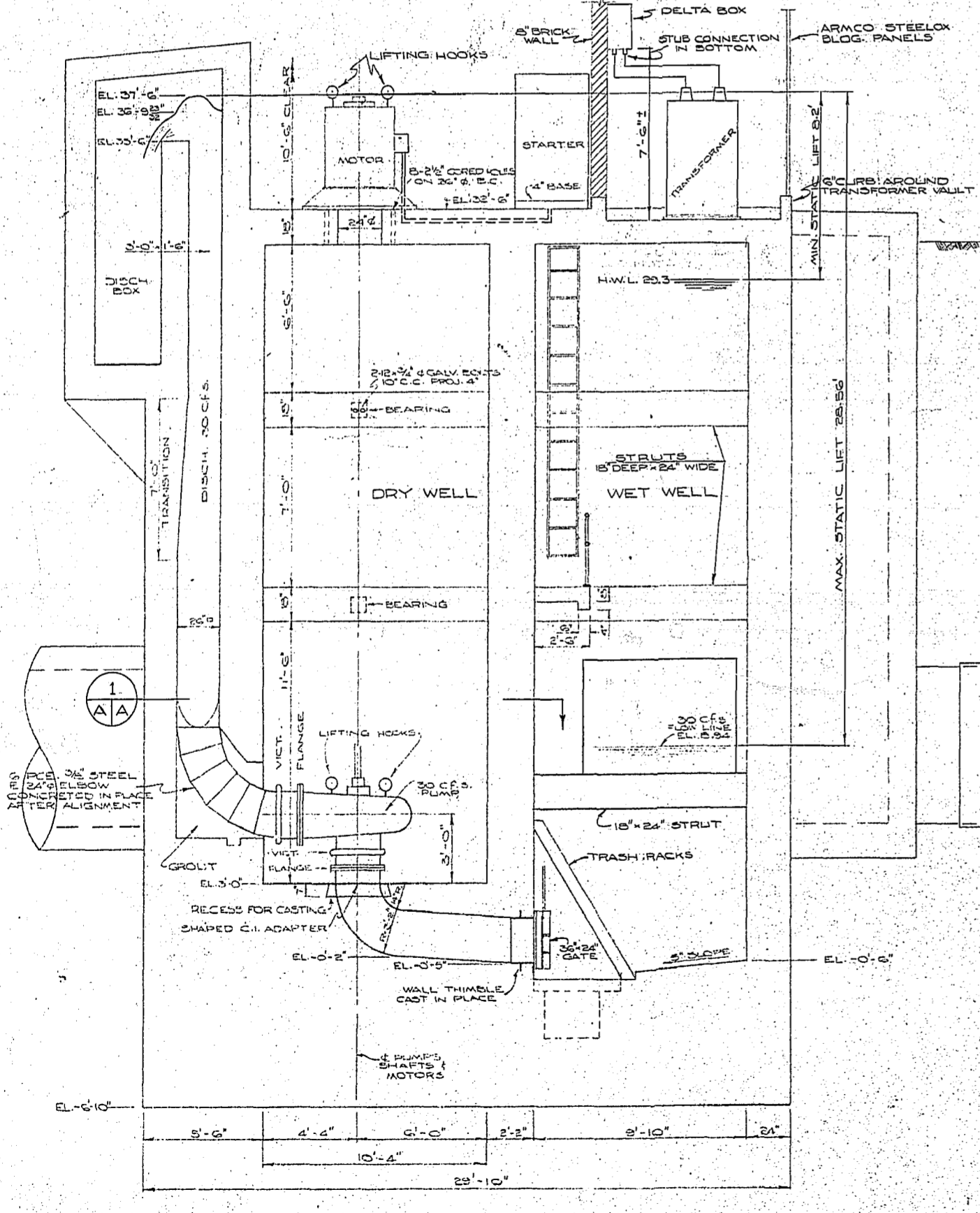
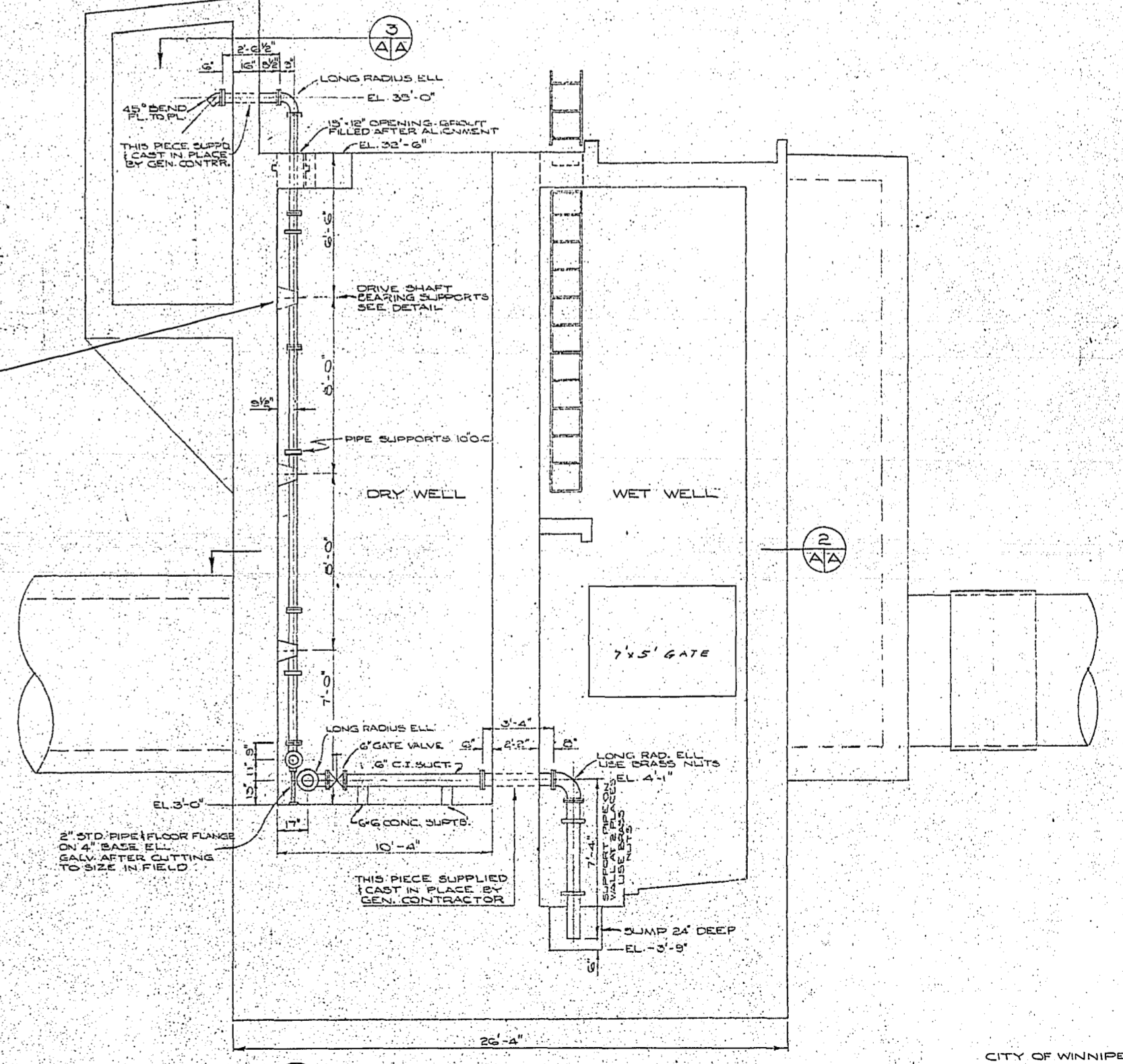
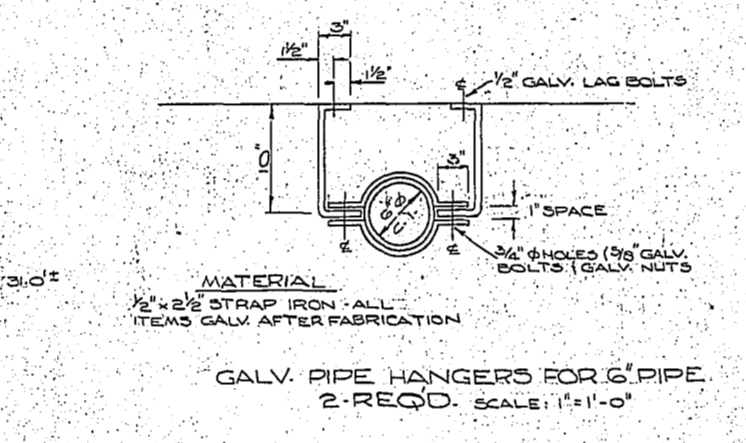
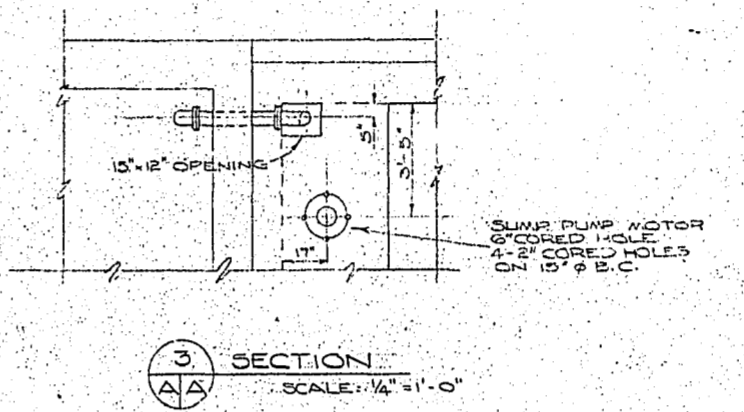
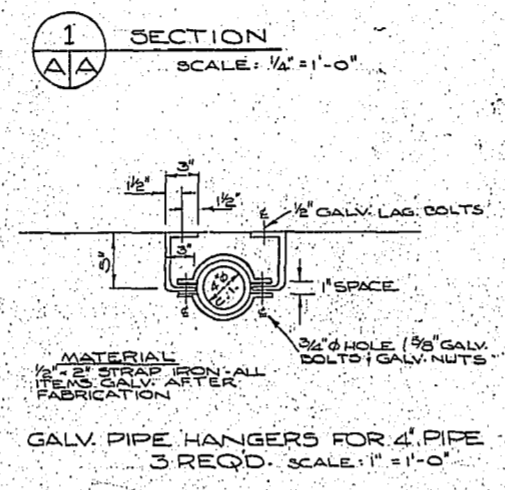
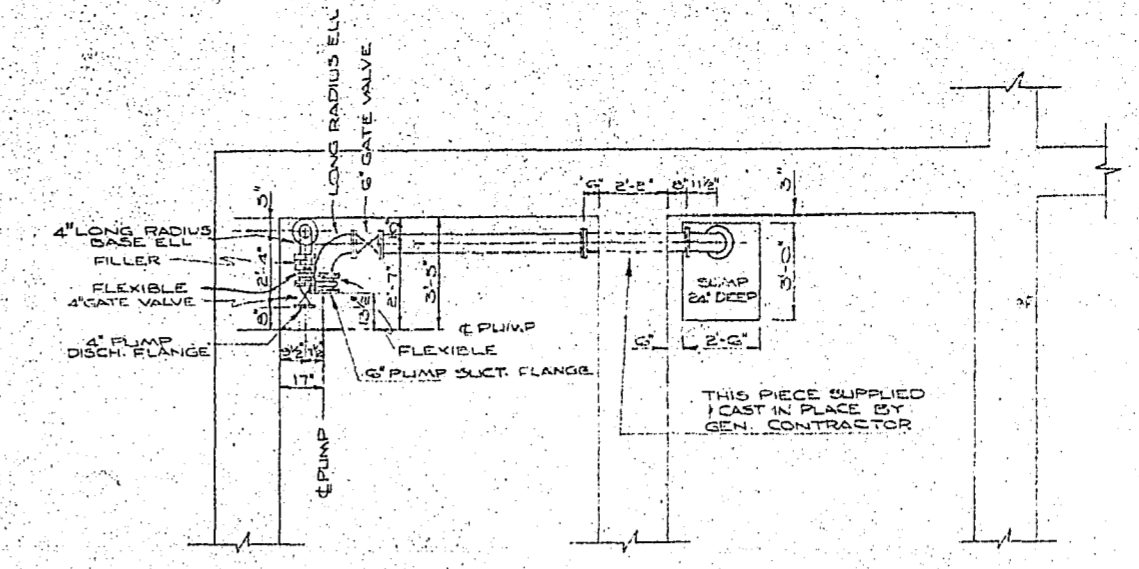
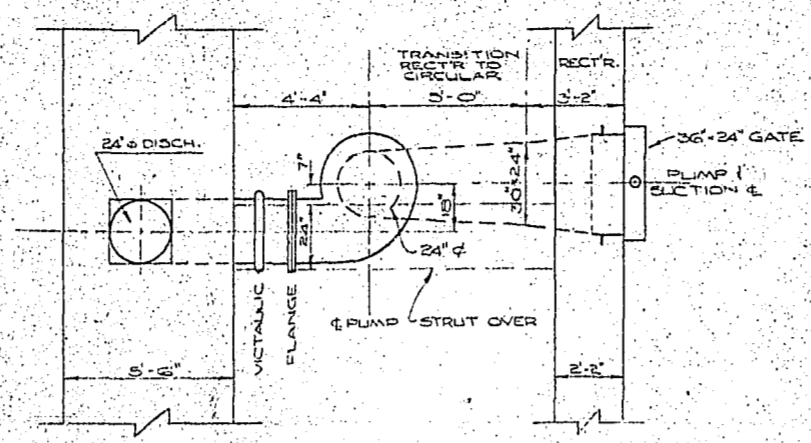
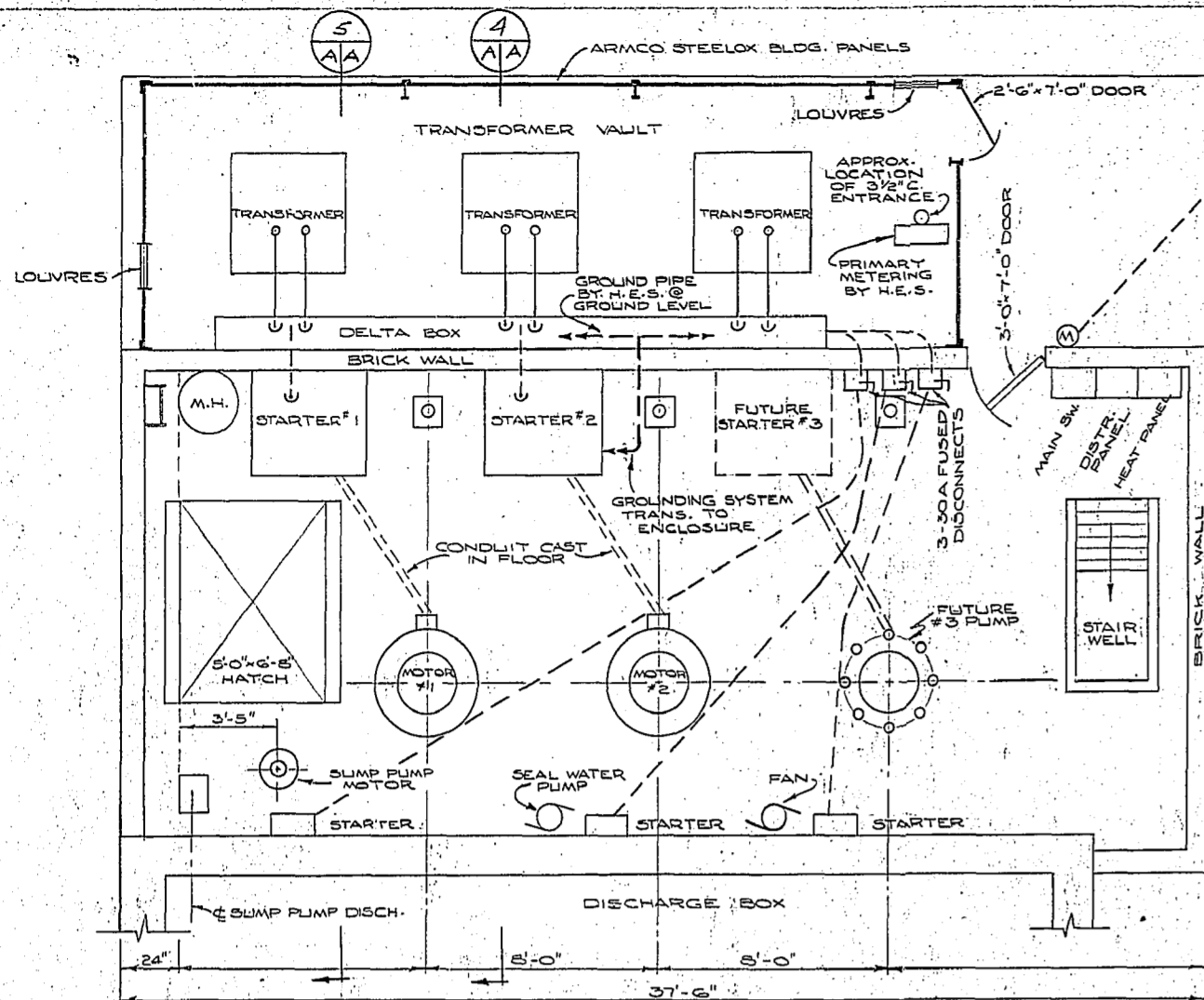
ROLAND STREET FLOOD PUMPING STATION
FLOOR PLAN AND DETAILS

CITY OF WINNIPEG
ENGINEERING DEPARTMENT
W. B. HURST, CITY ENGINEER
J. B. STRAWSKI, CHIEF CITY ENGINEER

PROVINCE OF MANITOBA
REGISTERED ENGINEER
G. BRAITH

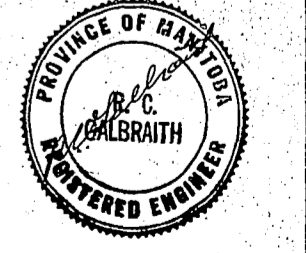
DETAIL NUMBER: _____
LOC. DETAIL DWG. _____

DRAWN BY: _____
CHECKED BY: _____
APPROVED BY: _____



ELECTRIC POWER - 3Ø 550 VOLTS

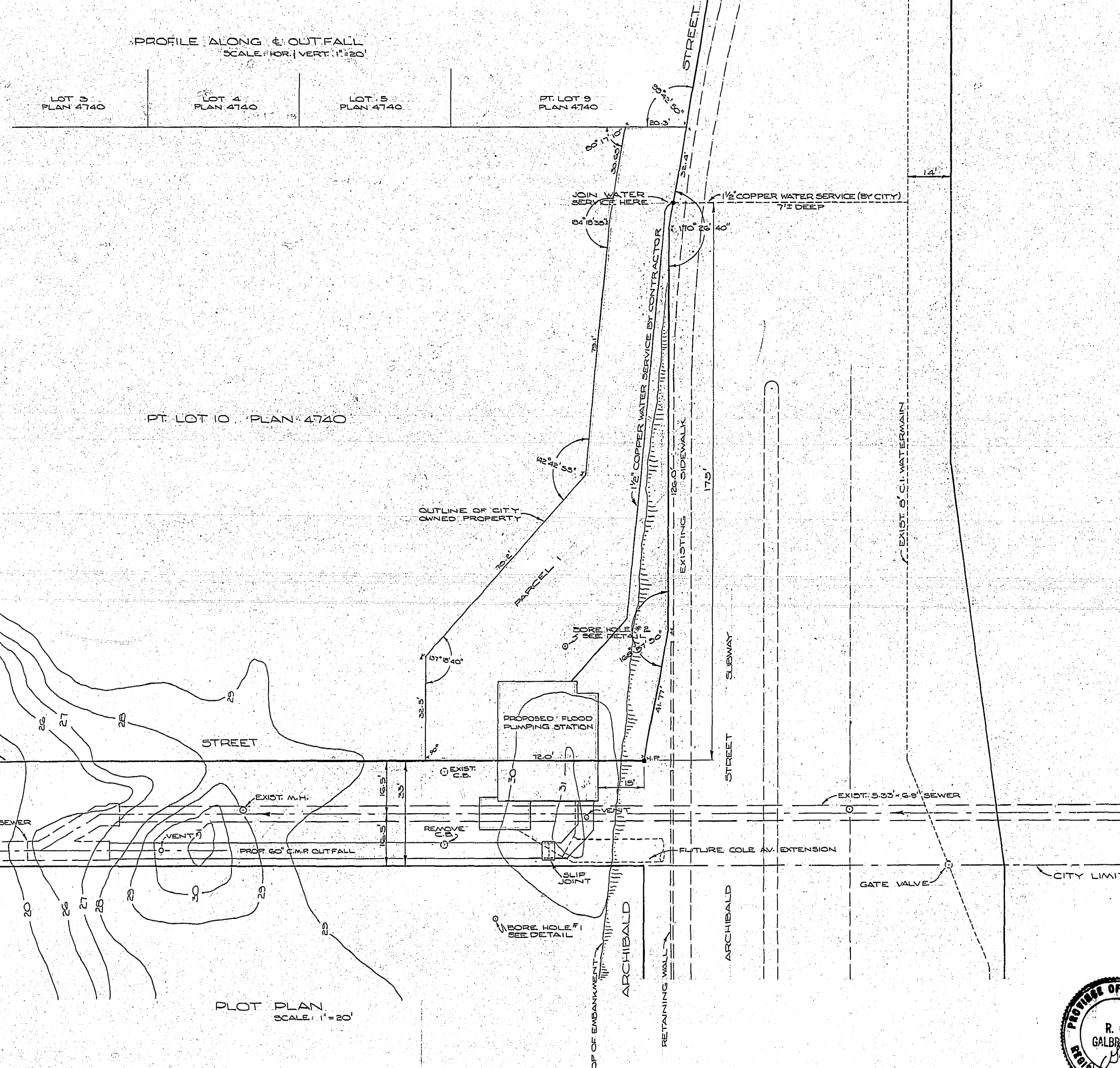
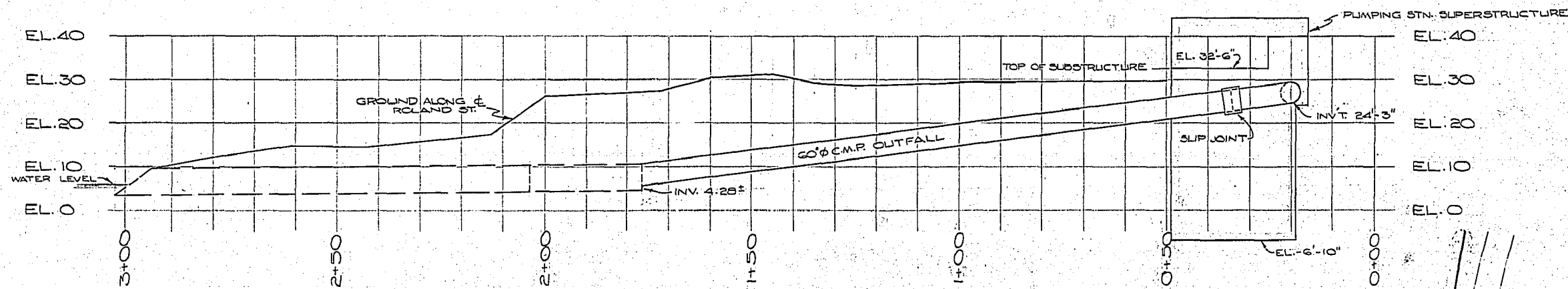
- NOTES:
- (1) CONTRACTOR INSTALLING DELTA BOX & CONNECTIONS FOR TRANSFORMERS, MOTORS, & STARTERS SHALL SUPPLY & INSTALL THE 3-30A FUSED DISCONNECTS AS A PART OF THIS CONTRACT.
 - (2) NO OVERHEAD DISCONNECTS TO MOTORS SHALL BE USED. MOTORS SHALL HAVE POTHEADS TO SUIT CONDUIT.
 - (3) SEAL PUMP & VENT FAN WITH STARTERS & CONDUITS FROM DISCONNECTS BY GENERAL CONTRACTOR.
 - (4) 110/220 SERVICE DISTRIB. BD. & HEAT PANEL BY GEN. CONTR.
 - (5) GROUNDING SYSTEM FOR MOTORS AND STARTERS TO BE INCLUDED.
 - (6) HI-TENSION TRANSFORMERS BY WINNIPEG H.E.S.



CITY OF WINNIPEG DAT/LM 00-727.51 (REV.)
ROLAND STREET FLOOD PUMPING STATION
PUMPLAYOUT DETAILS

CITY OF WINNIPEG ENGINEERING DEPARTMENT W. D. HURST, CITY ENGINEER J. B. STROWSKI, DEPUTY CITY ENGINEER	DRAWN BY: D.S. DATE: 7/1/61	SCALE: AS NOTED
	CHECKED BY: J.S. DATE: 7/1/61	DRAWING NO. R229-A
APPROVED BY: [Signature]		

SECTIONAL ELEVATION SHOWING LARGE PUMP LAYOUT
SCALE: 1/4" = 1'-0"



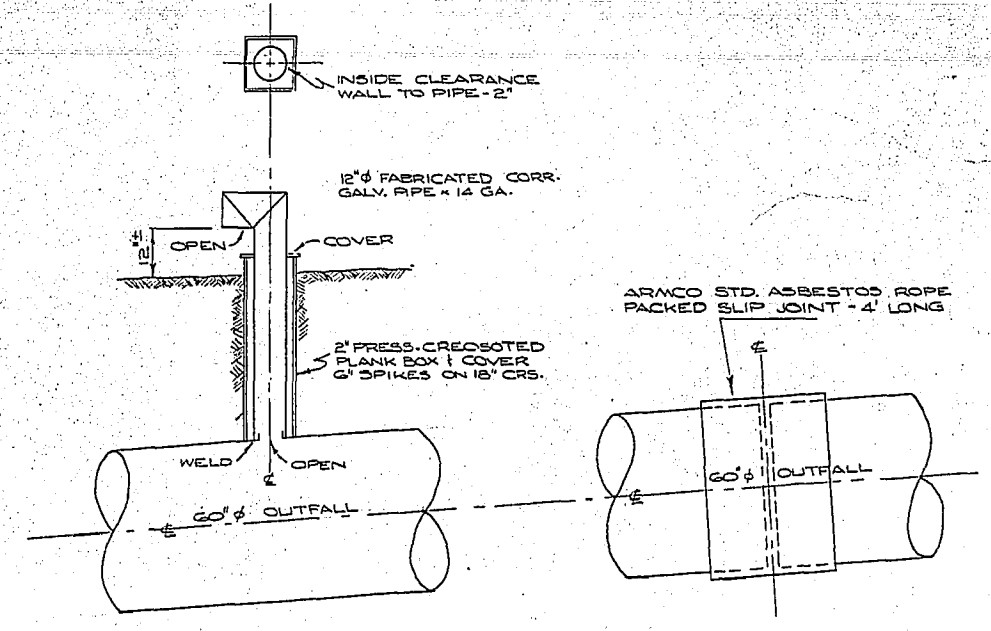
DEPTH ELEV.	SOIL DESCRIPTION
0	BLACK ORGANIC SILTY CLAY
25.3	MOIST SLIGHTLY PLASTIC TO NON PLASTIC TAN, SILTY CLAY
27	STIFF TO MEDIUM STIFF HIGHLY PLASTIC CHOCOLATE BROWN, VARVED CLAY WITH NUMEROUS FISSURES
49	MEDIUM STIFF TO STIFF-MEDIUM PLASTIC TO HIGHLY PLASTIC GREY SILTY CLAY
57.5	WATER TABLE - 1:25 P.M. NOV. 12, 1961
65.5	VERY DENSE LIGHT BROWN, GLACIAL TILL CONTAINING LARGE LIMESTONE Boulders BOTTOM OF BORING - ALGER REFUSAL

DETAIL OF BORE HOLE #2 (VERT. SCALE 1"=15'-0")

DEPTH ELEV.	SOIL DESCRIPTION
0	BLACK ORGANIC SILTY CLAY
25.4	MOIST SLIGHTLY PLASTIC TO NON PLASTIC TAN, SANDY SILT
27	STIFF TO MEDIUM STIFF HIGHLY PLASTIC CHOCOLATE BROWN, VARVED CLAY WITH NUMEROUS FISSURES
43	MEDIUM STIFF TO STIFF-MEDIUM PLASTIC TO HIGHLY PLASTIC GREY SILTY CLAY
49	WATER TABLE 11:00 A.M. NOV. 16, 1961
51	VERY DENSE LIGHT BROWN, GLACIAL TILL CONTAINING LARGE LIMESTONE Boulders BOTTOM OF BORING - ALGER REFUSAL

DETAIL OF BORE HOLE #1 (VERT. SCALE 1"=15'-0")

NOTE: THE INFORMATION CONTAINED HEREIN WITH THESE BORINGS IS PROVIDED FOR THE INFORMATION OF THE CONTRACTOR ONLY. IT IS NOT GUARANTEED IN ANY WAY BY THE CITY, AND THE CITY WILL ACCEPT NO RESPONSIBILITY FOR ANY INACCURACIES.



2' VENT FOR OUTFALL SCALE: 1"=4'-0" (2 REQUIRED)

OUTFALL SLIP JOINT SCALE: 1"=4'-0" (1 REQUIRED)

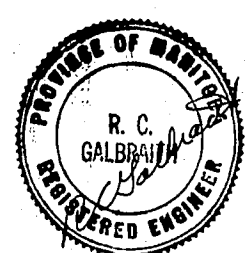
CITY OF WINNIPEG DATUM 0.00 = 727.57 (GEOD.)

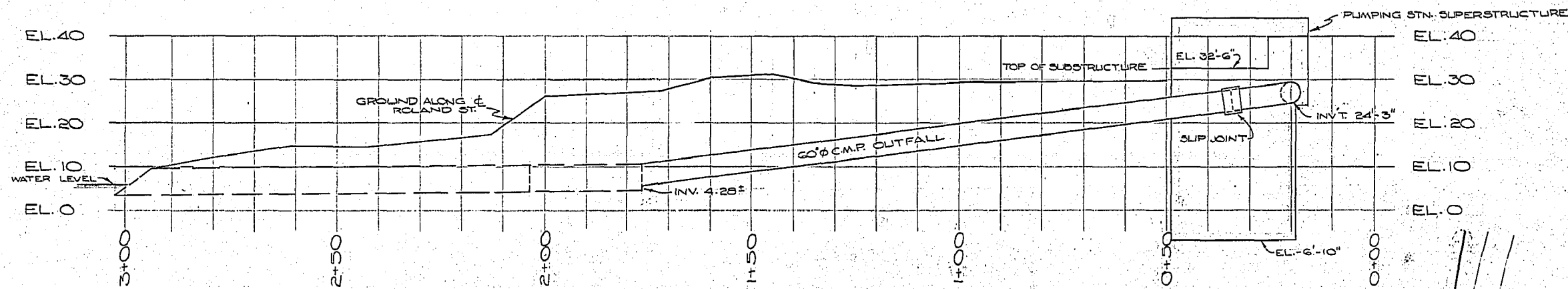
ROLAND STREET FLOOD PUMPING STATION OUTFALL & SITE PLAN

CITY OF WINNIPEG
ENGINEERING DEPARTMENT
W. D. HURST, CITY ENGINEER
J. B. STRIOWSKI, DEPUTY CITY ENGINEER

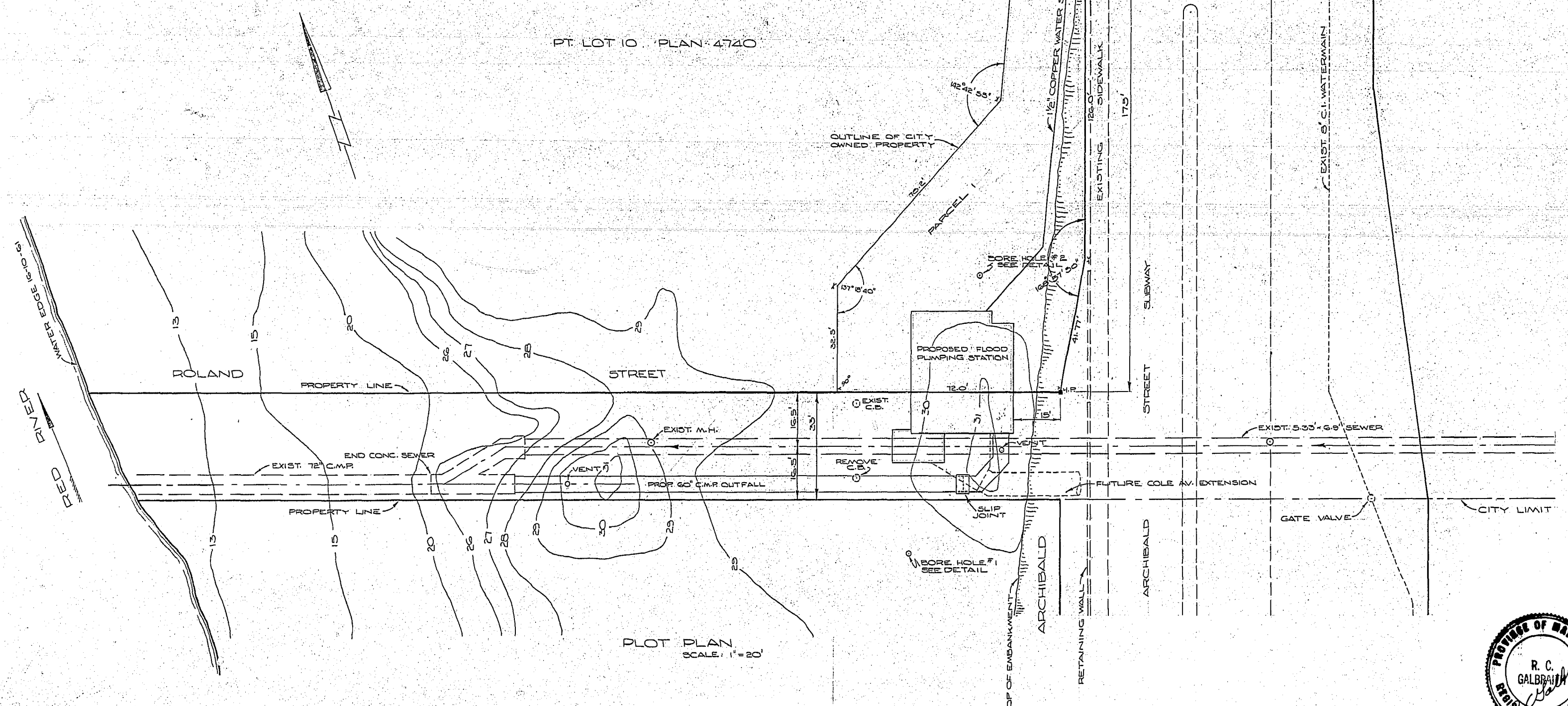
DRAWN BY: P.G. DATE: 3-10-61
TRACED BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]

SCALE AS NOTED
DRAWING NO. R-229-B

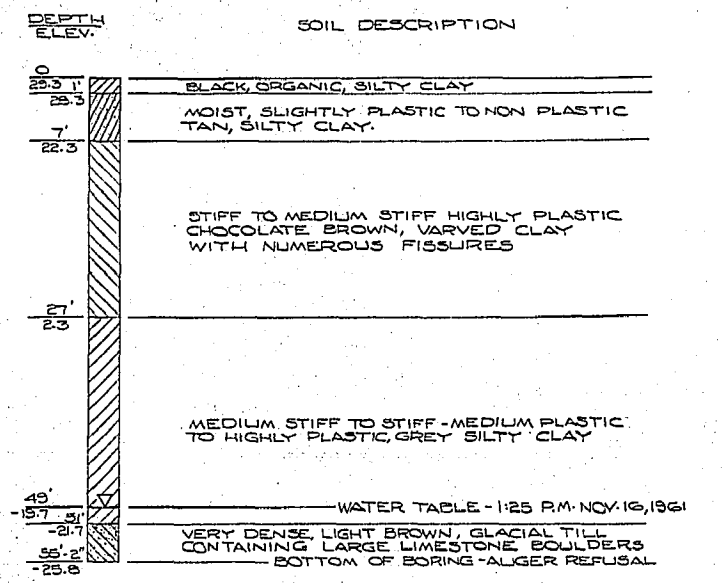




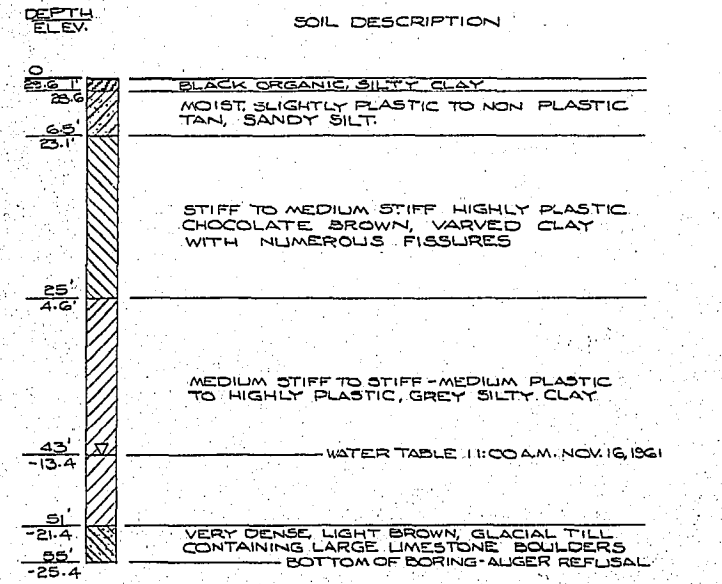
PROFILE ALONG 6" OUTFALL
SCALE: HOR. 1"=20'



PLOT PLAN
SCALE: 1"=20'

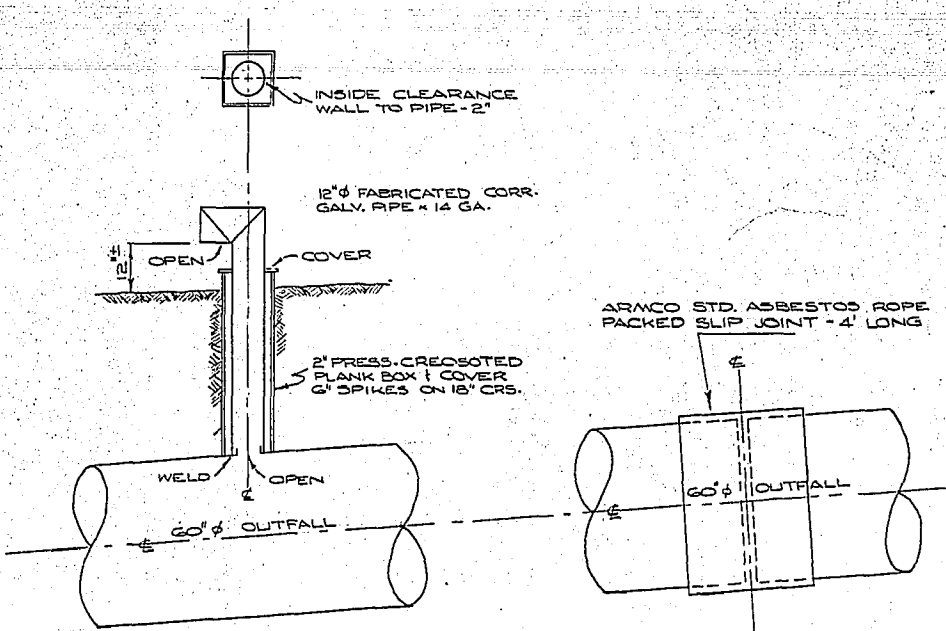


DETAIL OF BORE HOLE #2 (VERT. SCALE 1"=15'-0")



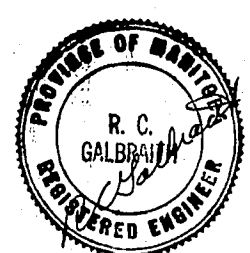
DETAIL OF BORE HOLE #1 (VERT. SCALE 1"=15'-0")

NOTE: THE INFORMATION CONTAINED HEREIN WITH THESE BORINGS IS PROVIDED FOR THE INFORMATION OF THE CONTRACTOR ONLY. IT IS NOT GUARANTEED IN ANY WAY BY THE CITY, AND THE CITY WILL ACCEPT NO RESPONSIBILITY FOR ANY INACCURACIES.



2' VENT FOR OUTFALL SCALE: 1"=4'-0" (2 REQUIRED)
OUTFALL SLIP JOINT SCALE: 1"=4'-0" (1 REQUIRED)

CITY OF WINNIPEG DATUM 0.00 = 727.57 (GEOD.)

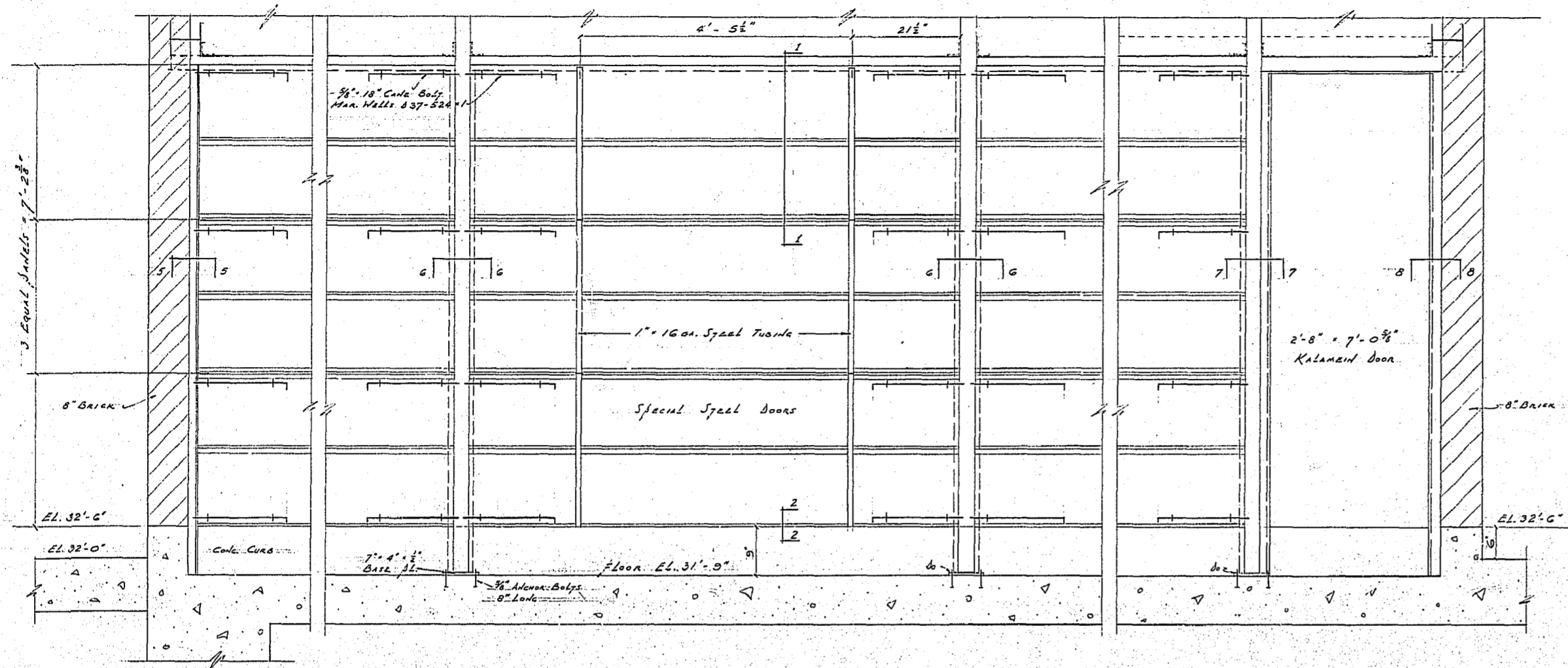


ROLAND STREET FLOOD PUMPING STATION
OUTFALL & SITE PLAN

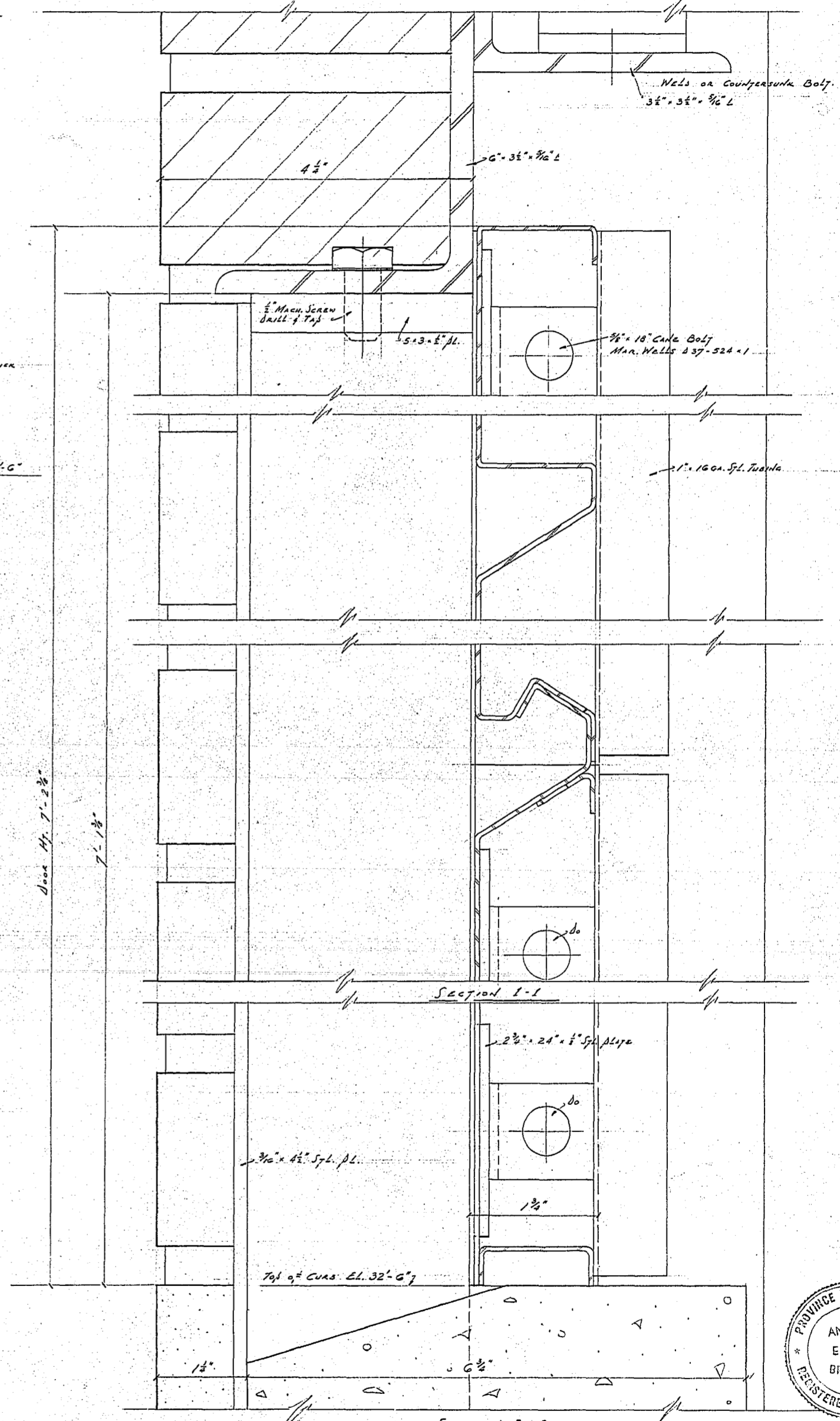
CITY OF WINNIPEG
ENGINEERING DEPARTMENT
W. D. HURST, CITY ENGINEER
J. B. STRIOWSKI, DEPUTY CITY ENGINEER

DRAWN BY: P.G. DATE: 3-10-61
TRACED BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]

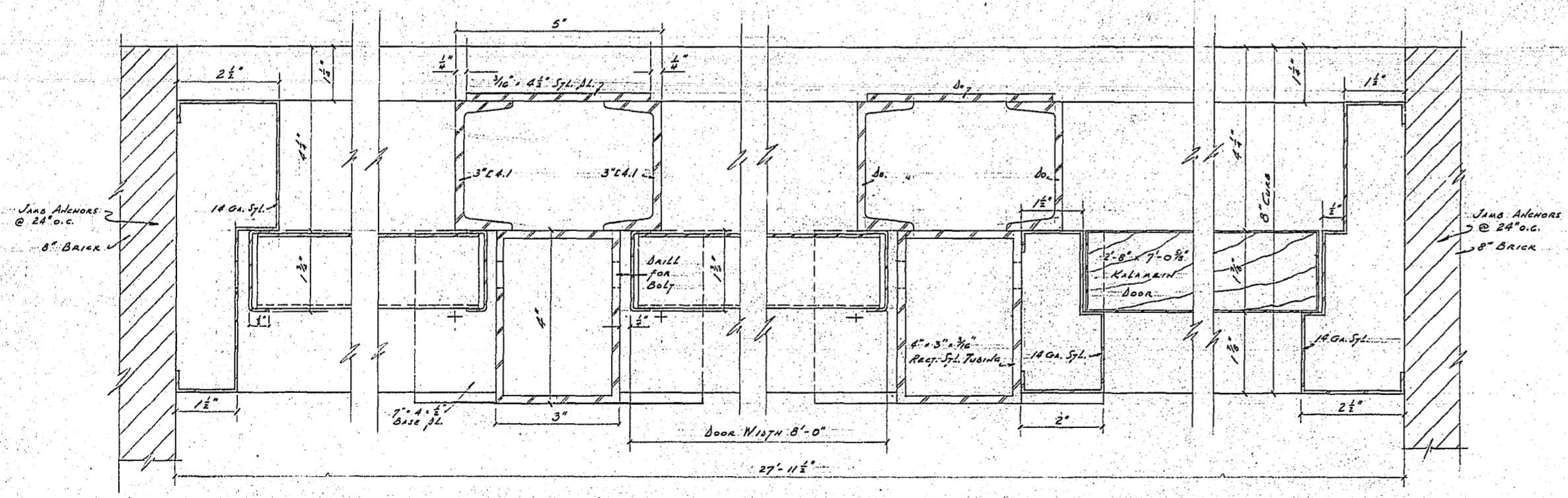
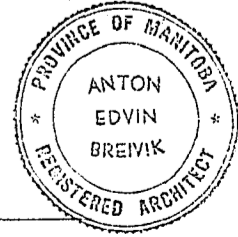
SCALE AS NOTED
DRAWING NO. R-229-B



Interior Elevation - Wall, Transformer Room
Scale: 3/4" = 1'-0"



Section 2-2
Scale - Full Size



Section 5-5 Section 6-6 Section 7-7 Section 8-8

Scale - Half Full

Note: 3 Doors Req'd. Width 8'-0"
Majority 16 Ga. Steel

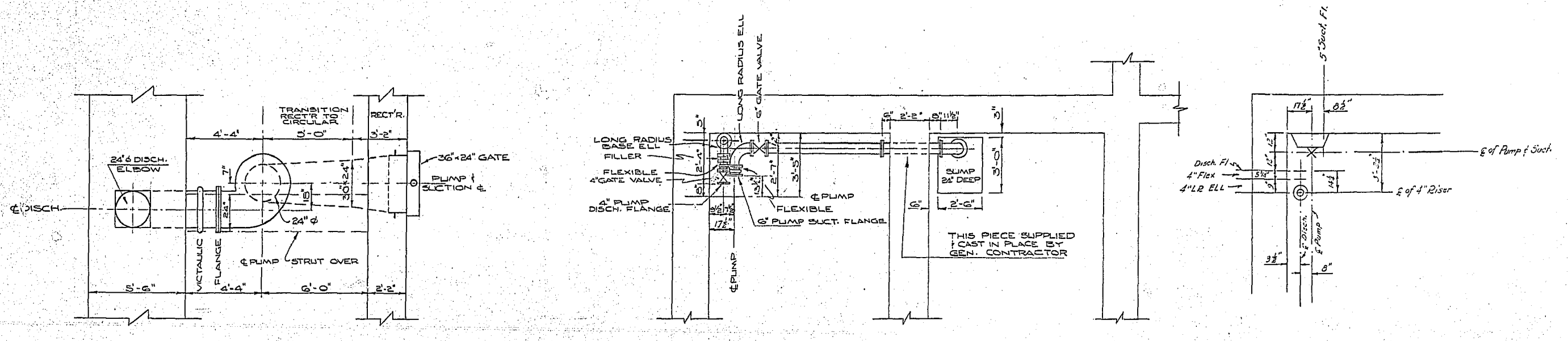
SUPERSTRUCTURE
Transformer Room - Special Steel Door Details

Rollins Street floor pumping Station

CITY OF WINNIPEG
ENGINEERING DEPARTMENT
W. D. HURST, CITY ENGINEER
J. B. STRIOWSKI, DEPUTY CITY ENGINEER

DRAWN BY I.C. DATE Jul. 16th 1962
TRACED BY J.B.W. 7/17/62
CHECKED BY J.B.W. 7/17/62
APPROVED BY J.B.W. 7/17/62

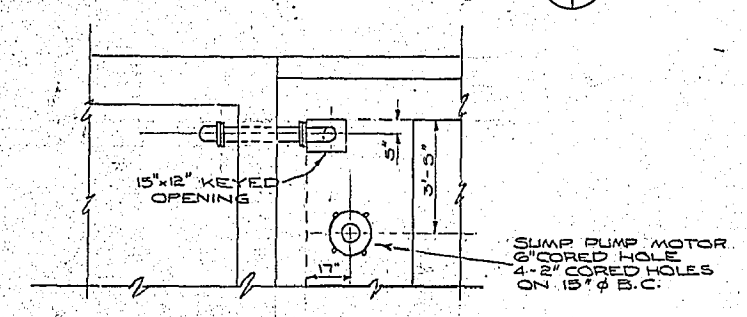
SCALE
As Noted
DRAWING NO.
R 229 - E



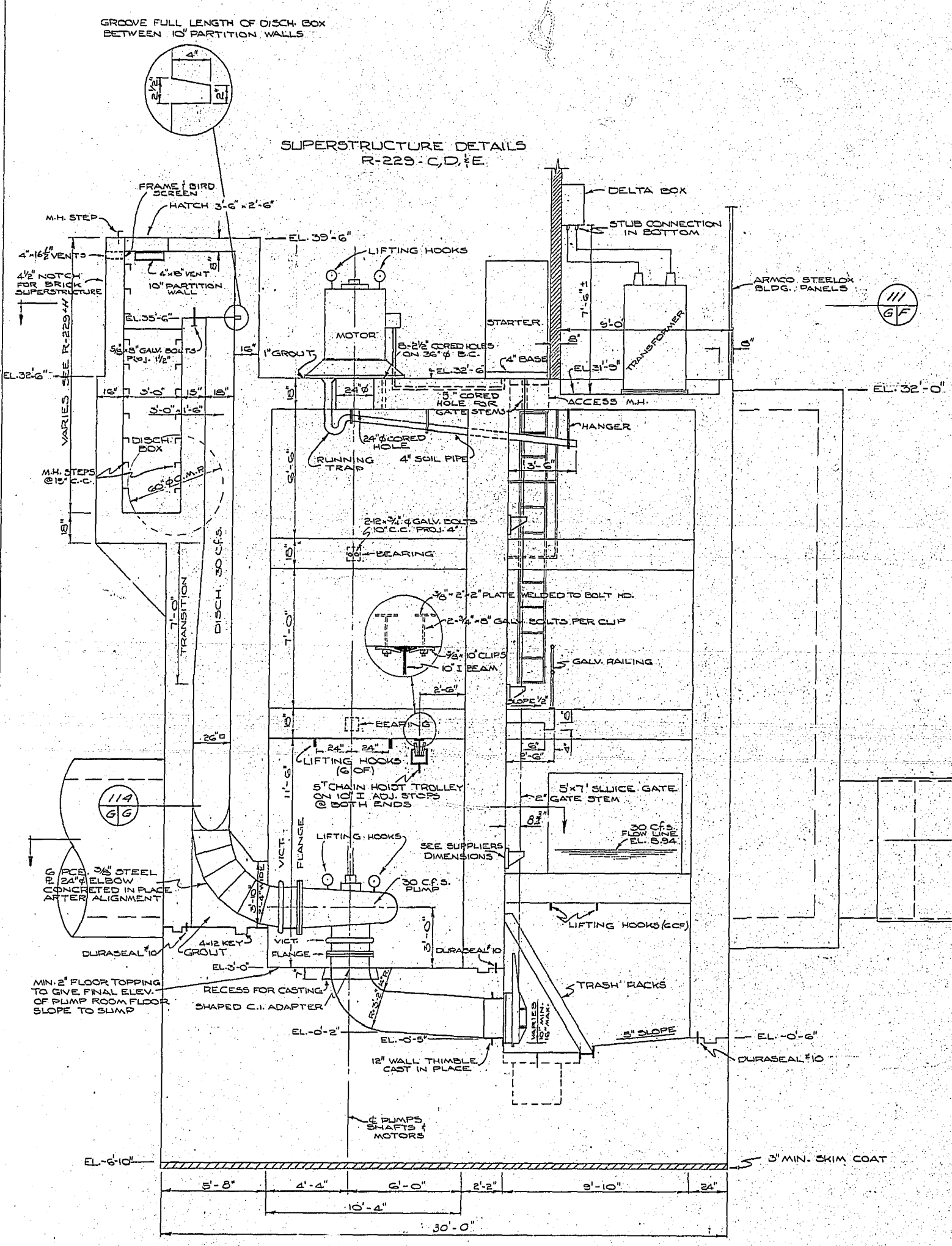
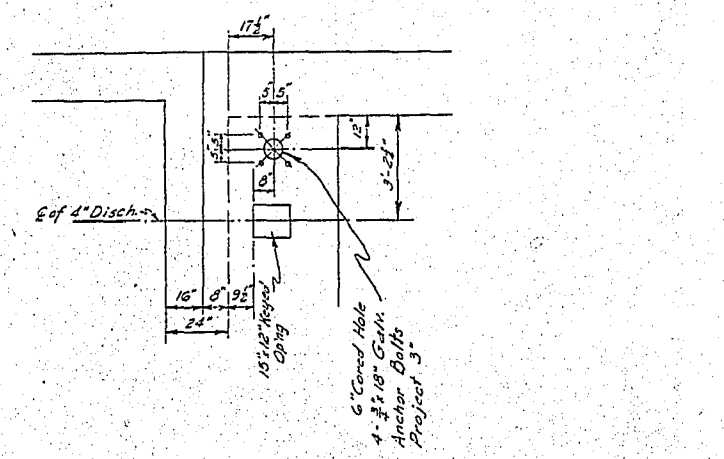
NOTE: INTAKE FLUMES TO BE CONSTRUCTED AND POSITIONED TO 1/4" TOLERANCE

114 SECTION SCALE: 1/4" = 1'-0"

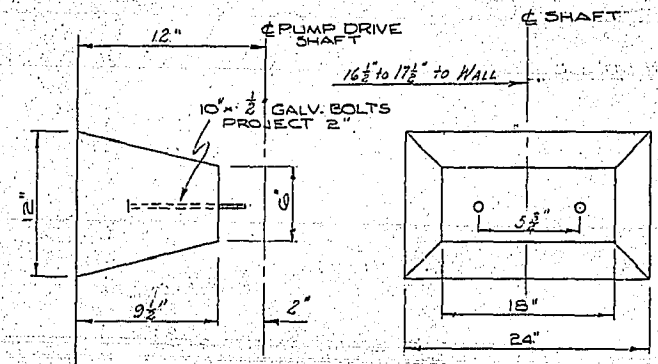
115 SECTION SCALE: 1/4" = 1'-0"



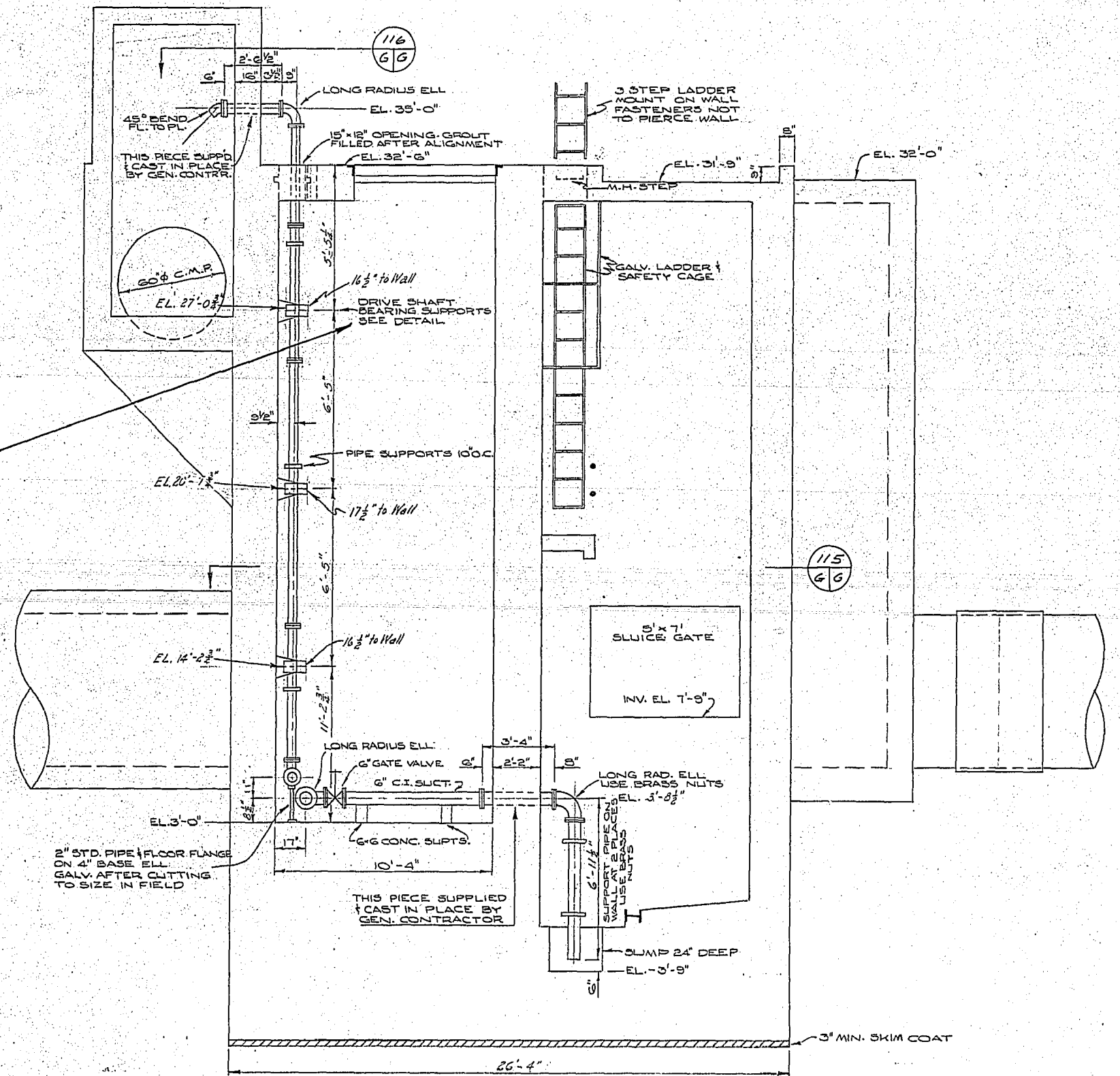
116 SECTION SCALE: 1/4" = 1'-0"



105 SECTIONAL ELEVATION SCALE: 1/4" = 1'-0"



DETAILS OF DRIVE SHAFT BEARING SUPPORTS NOT TO SCALE



106 SECTIONAL ELEVATION SHOWING SUMP PUMP PIPING LAYOUT SCALE: 1/4" = 1'-0"



REVISED AS CONSTRUCTED
 BY: E.K. DATE: 2-17-67
 CHECKED: J.B.S. DATE: 7/6/67

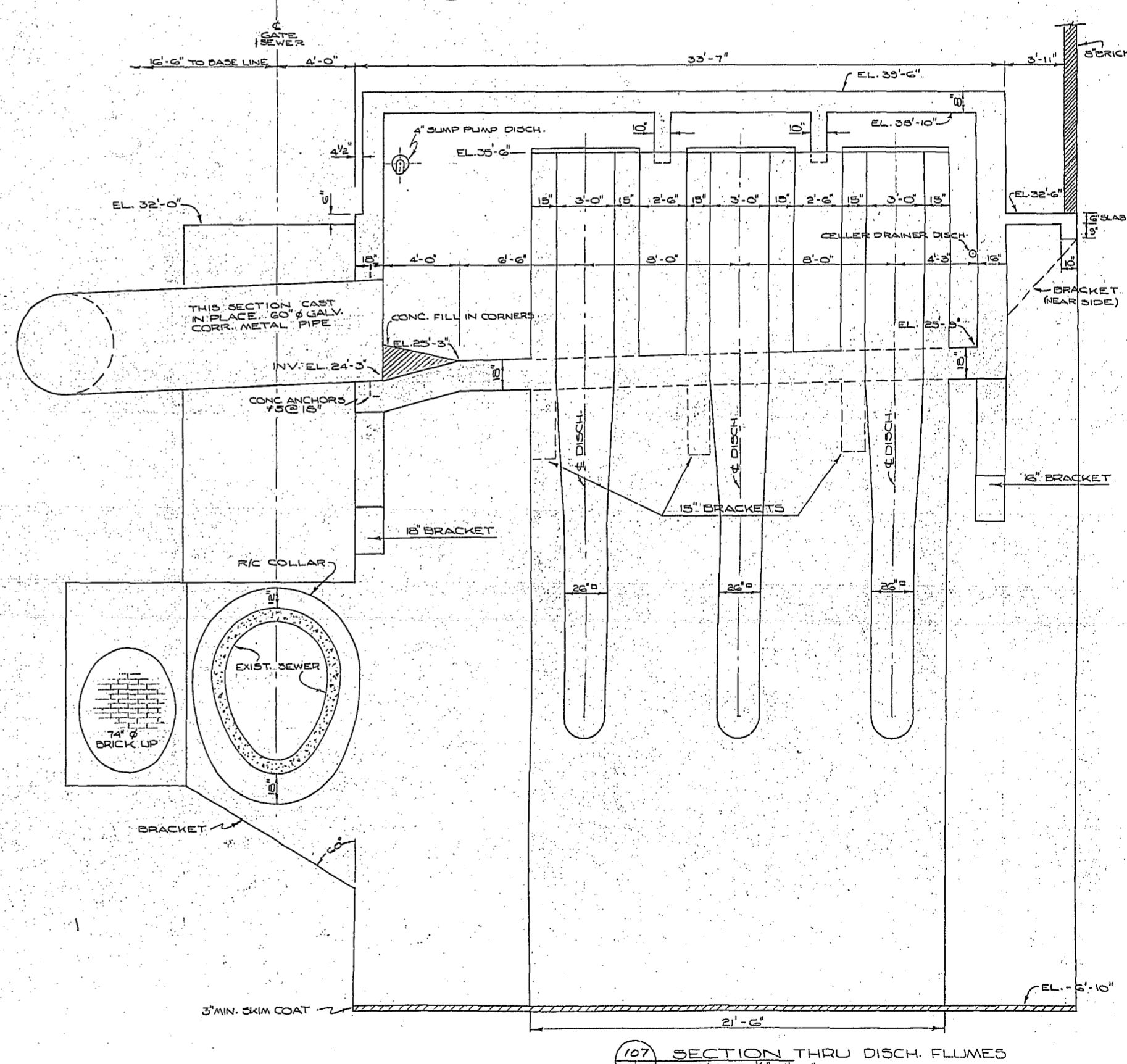
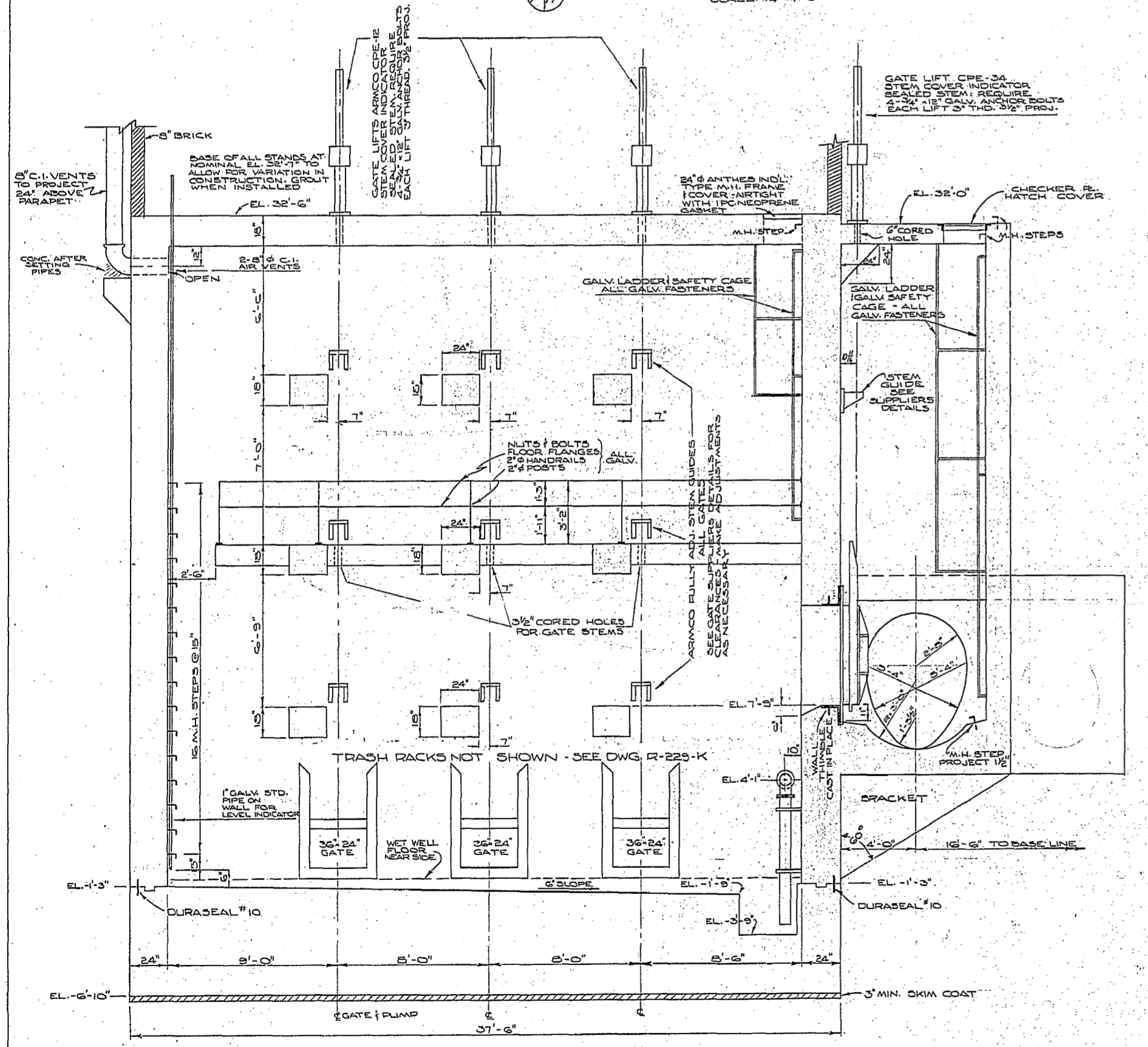
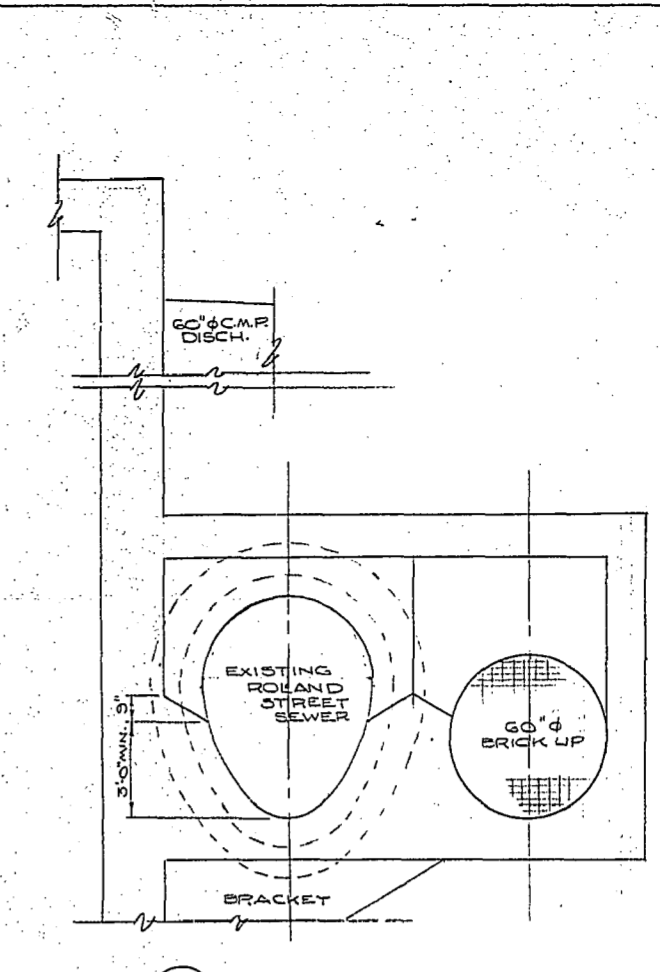
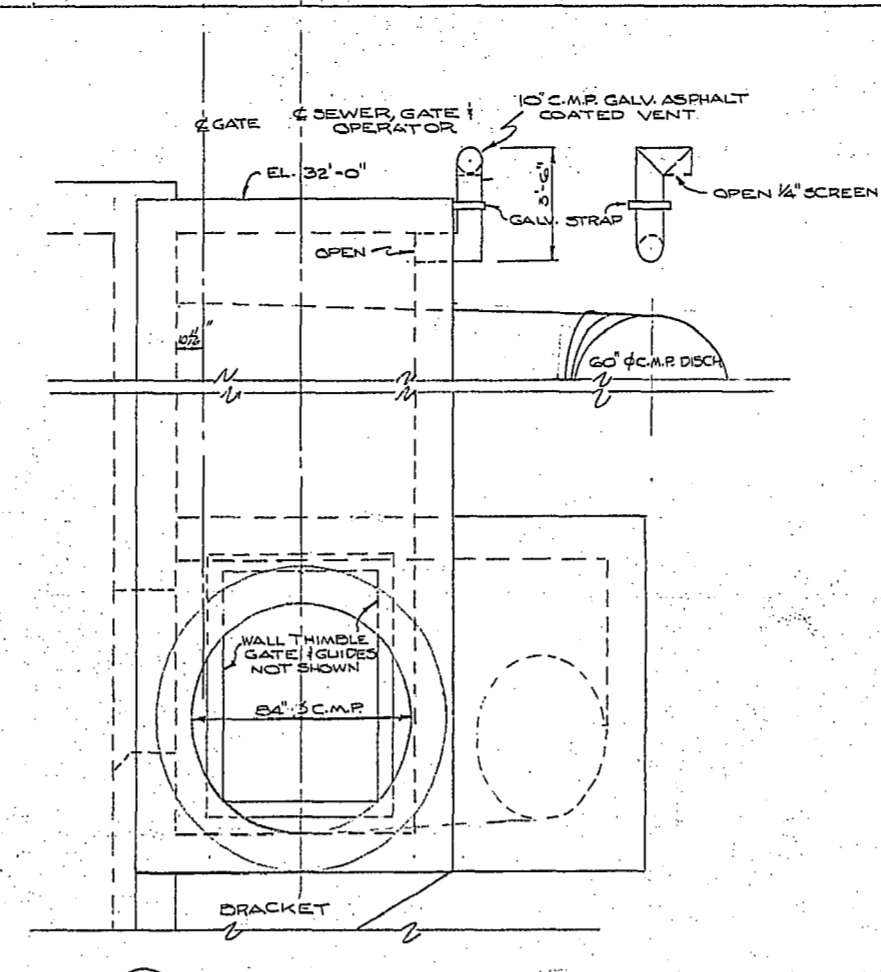
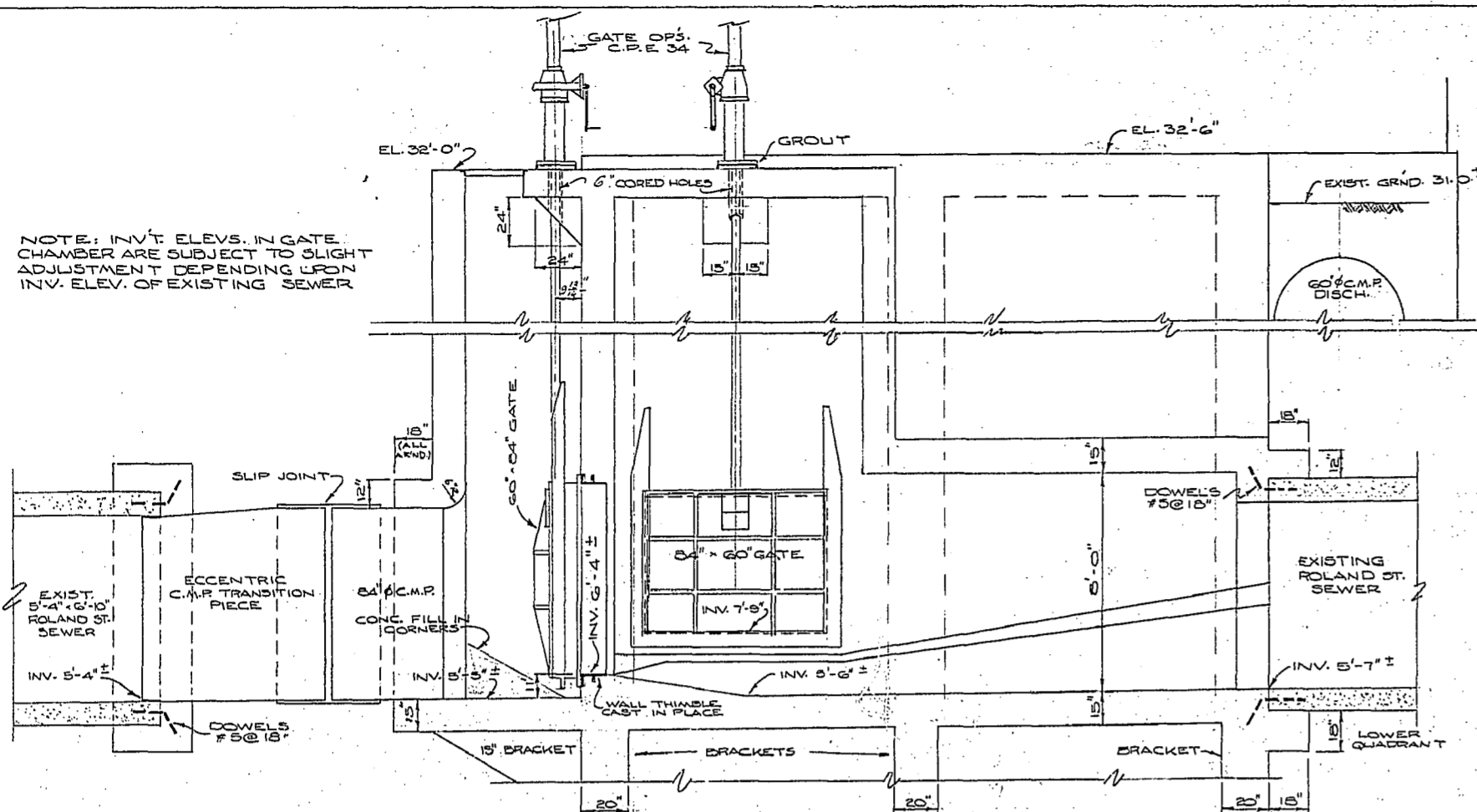
ROLAND STREET FLOOD PUMPING STATION
 SUBSTRUCTURE SECTIONS

CITY OF WINNIPEG
 ENGINEERING DEPARTMENT
 W. D. HURST, CITY ENGINEER
 J. B. STRIOWSKI, DEPUTY CITY ENGINEER

DRAWN BY: D.C. DATE: 2/12/61
 TRACED BY: J.C.B.
 CHECKED BY: J.B.S.
 APPROVED BY: J.B.S.

SCALE: AS NOTED
 DRAWING NO.: R225-G

NOTE: INV. ELEV. IN GATE CHAMBER ARE SUBJECT TO SLIGHT ADJUSTMENT DEPENDING UPON INV. ELEV. OF EXISTING SEWER



REVISED AS CONSTRUCTED
BY: *EG* DATE: 2-17-67
CHECKED: *EG* DATE: 10/1/67

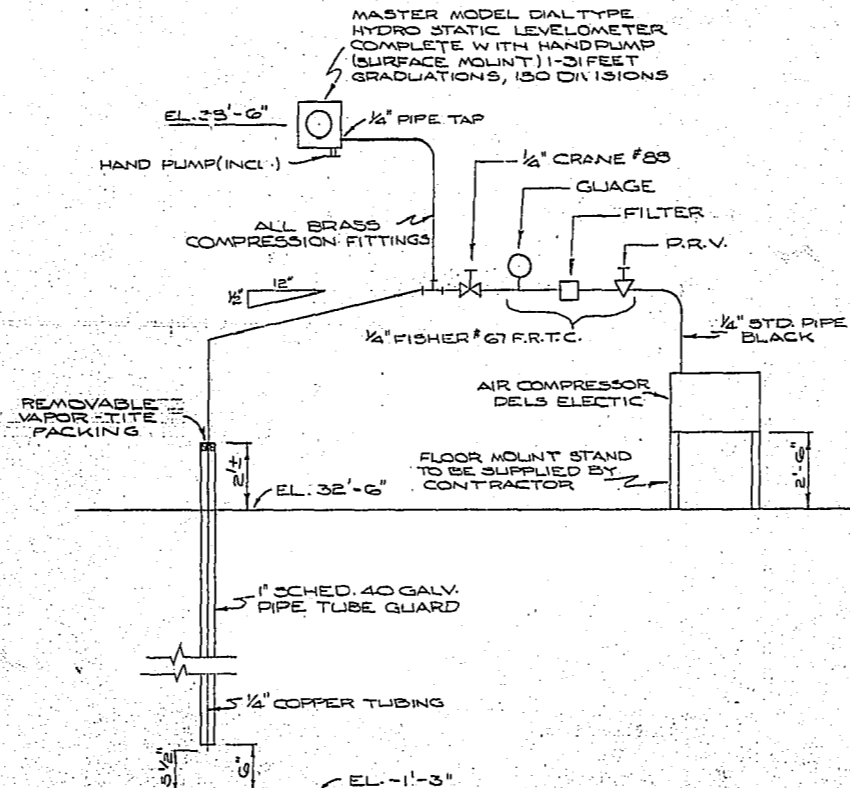
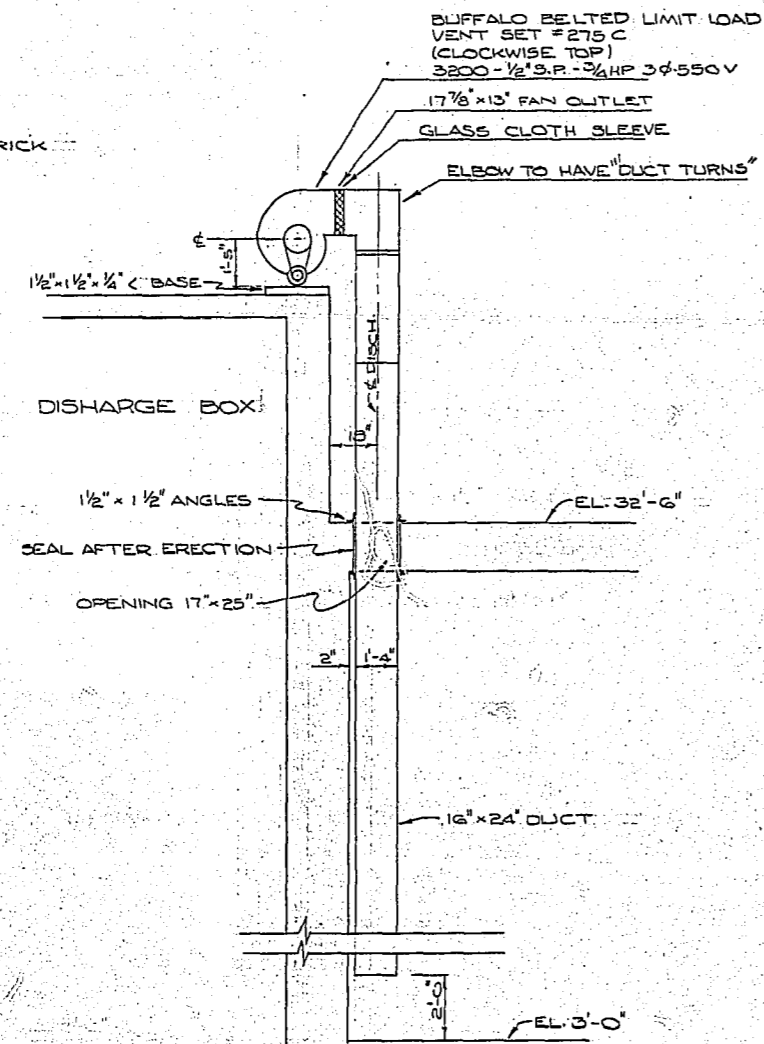
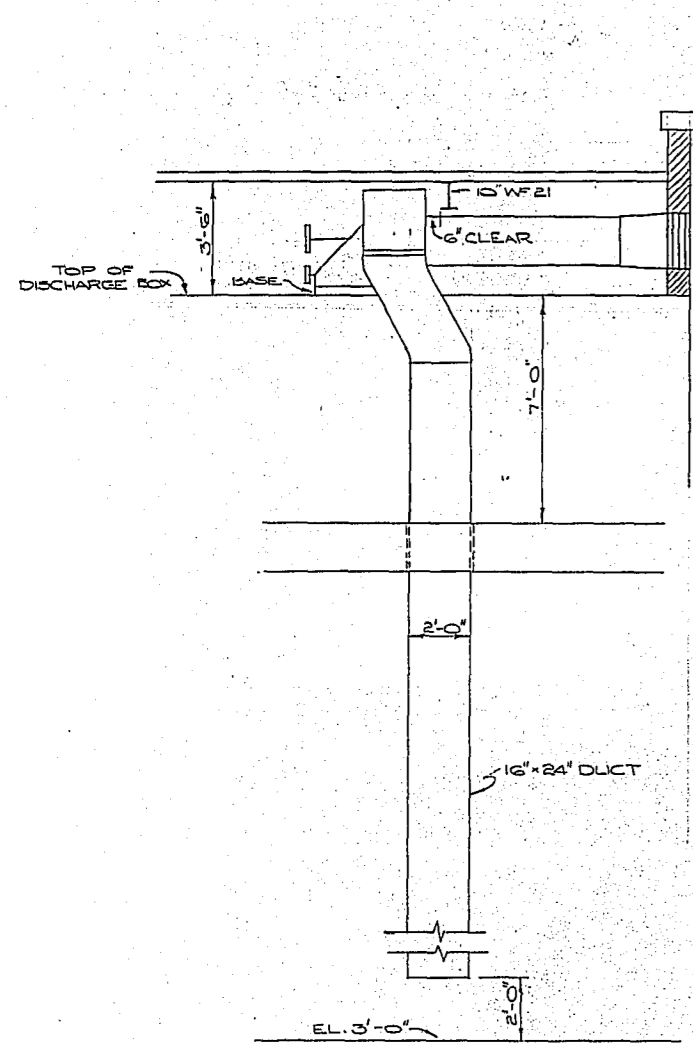
DETAIL NUMBER
LOC'D/DETAIL
DWG. DWG.

ROLAND STREET FLOOD PUMPING STATION
SUBSTRUCTURE SECTIONAL ELEVATIONS

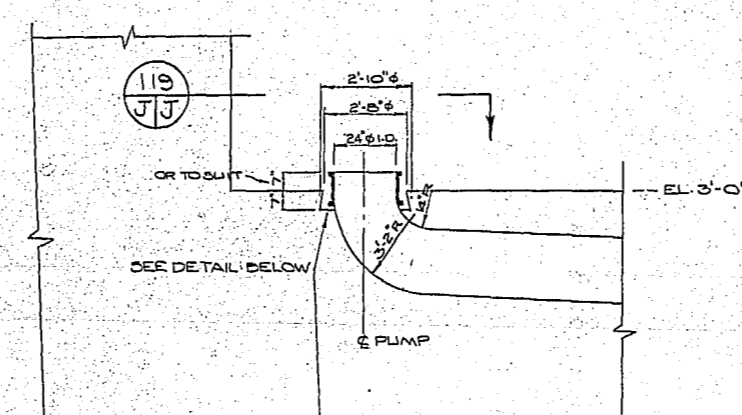
CITY OF WINNIPEG
ENGINEERING DEPARTMENT
W. D. HURST, CITY ENGINEER
J. B. STROWSKI, DEPUTY CITY ENGINEER

DRAWN BY: *D.S.* DATE: 2012/1/1
CHECKED BY: *[Signature]*
APPROVED BY: *[Signature]*

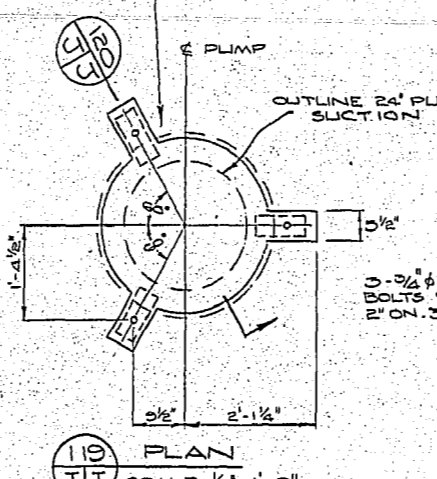
SCALE AS NOTED
DRAWING NO. R 229-H



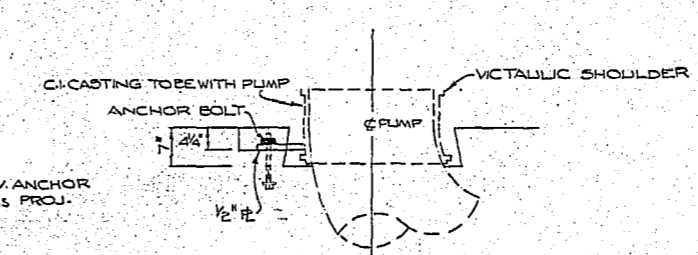
WET WELL LEVEL INDICATOR NOT TO SCALE.



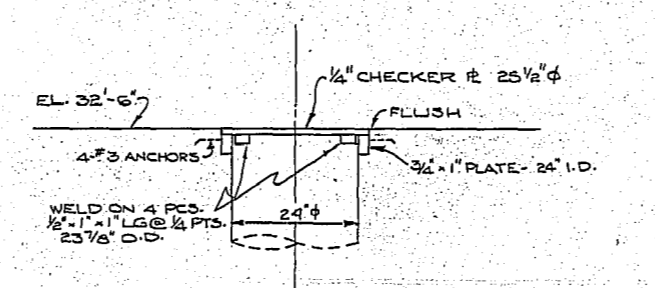
TYPICAL PUMP SECTION SCALE: 1/2" = 1'-0"



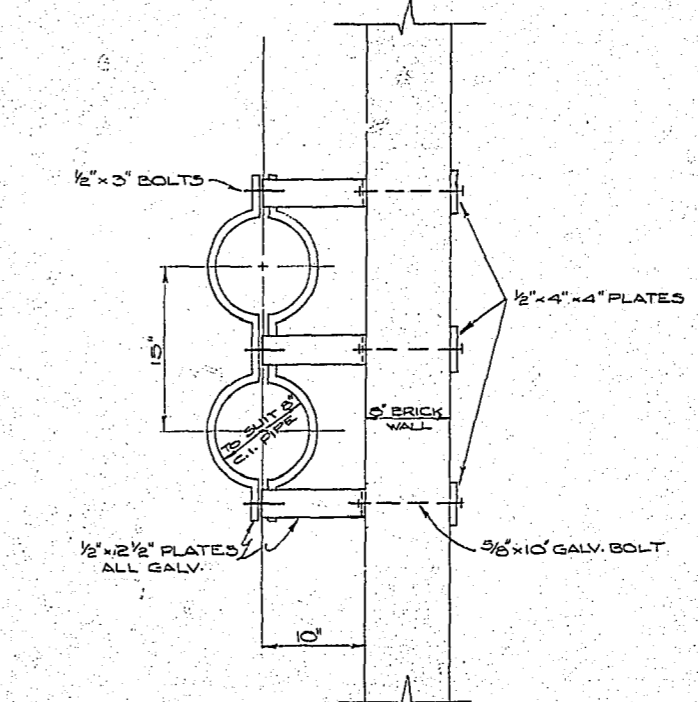
PLAN SCALE: 1/2" = 1'-0"



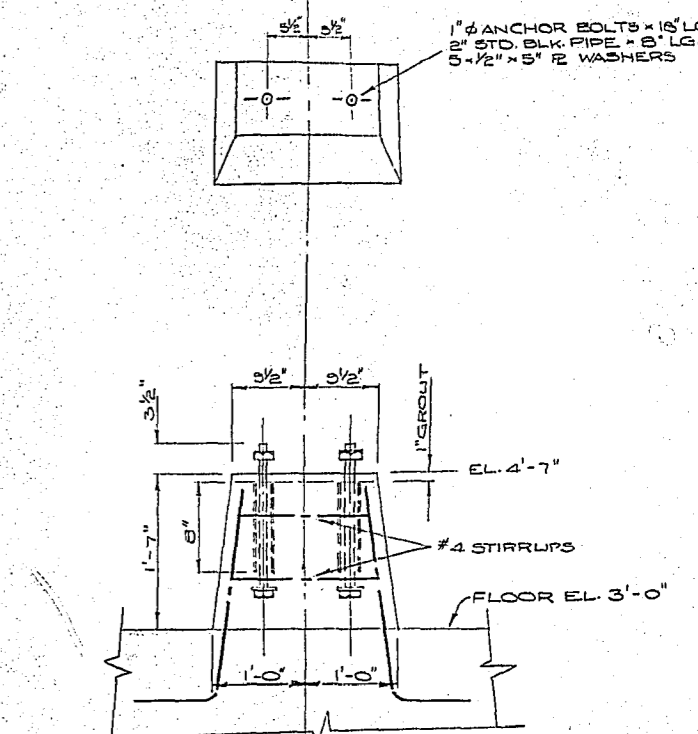
SECTION SCALE: 1/2" = 1'-0"



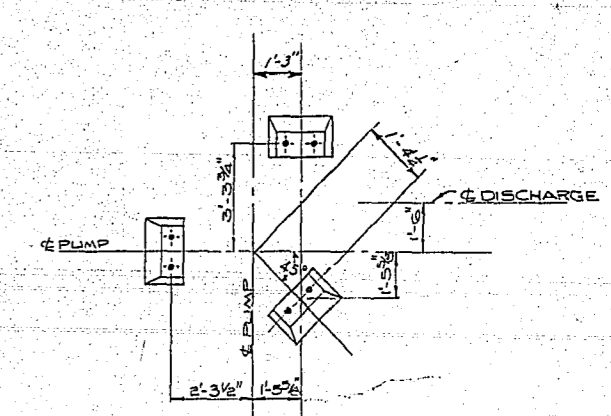
DETAIL OF COVERS FOR FUTURE NO. 3 INSTALLATION SCALE: 1/2" = 1'-0"



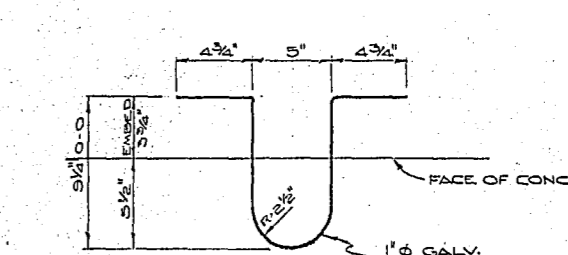
8" PIPE SUPPORTS 2 REQD. ALL GALV. SCALE: 1" = 1'-0"



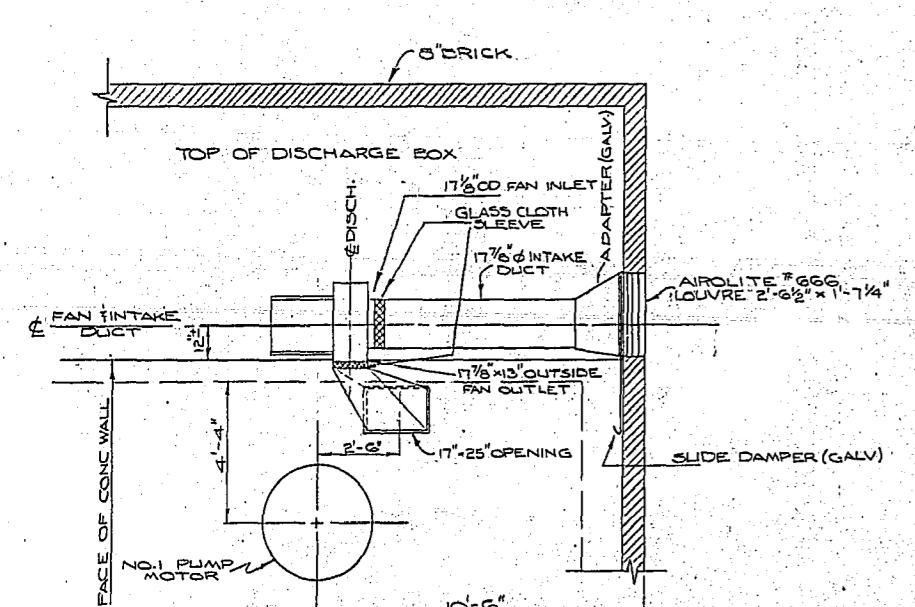
TYPICAL PUMP PIER SCALE: 3/4" = 1'-0"



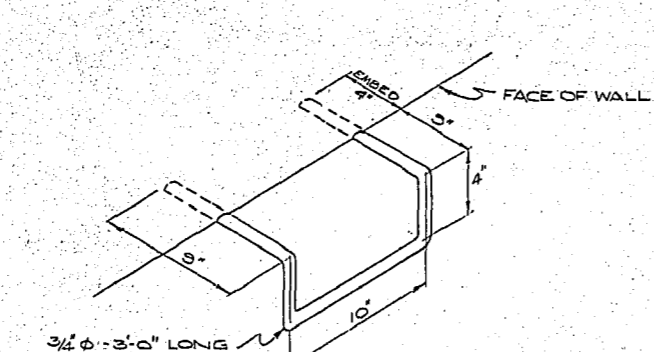
TYPICAL PUMP PIER LAYOUT SCALE: 1/4" = 1'-0" (SUBJECT TO CHANGE AFTER CONTRACT IS LET)



LIFTING HOOK ALL GALV. SCALE: 1/2" = 1'-0"

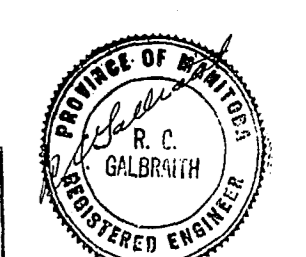


VENTILATING SYSTEM 1 REQD. SCALE: 1/4" = 1'-0"



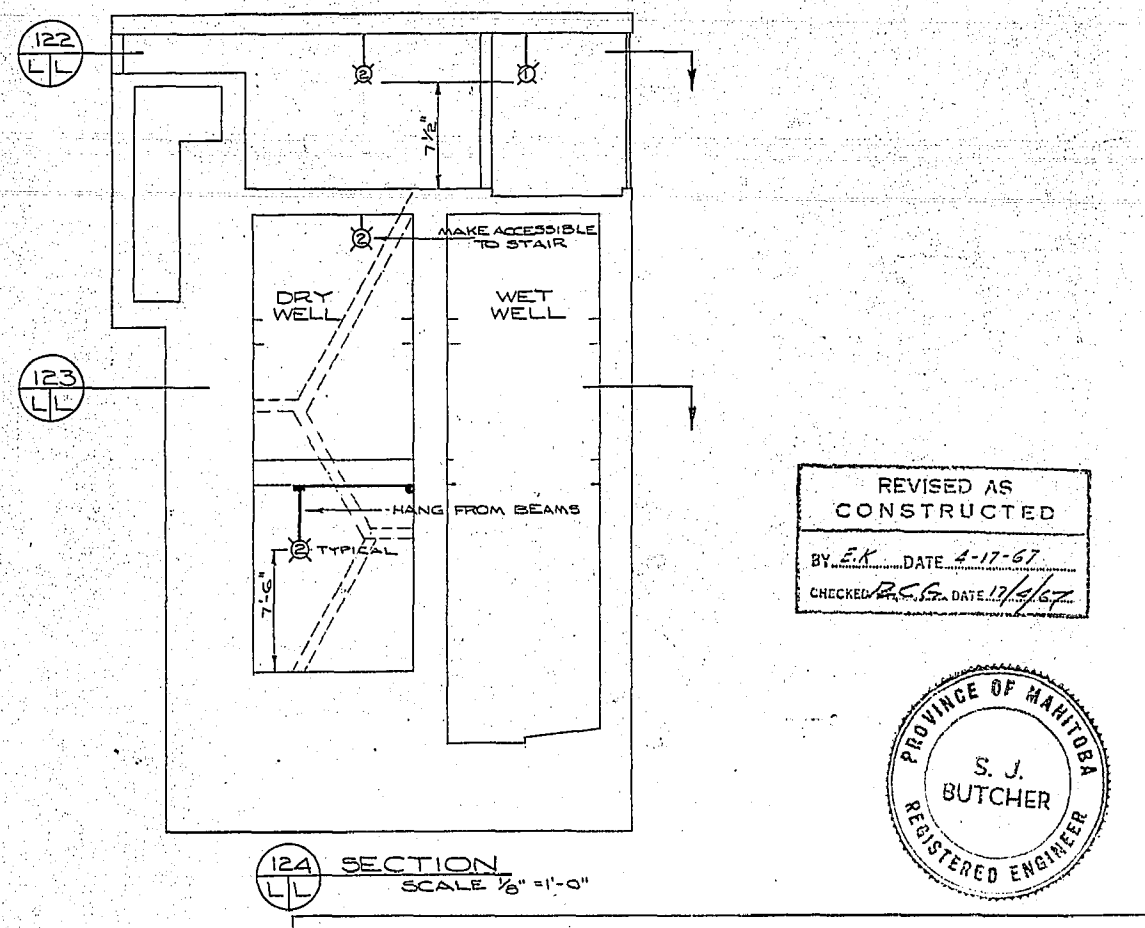
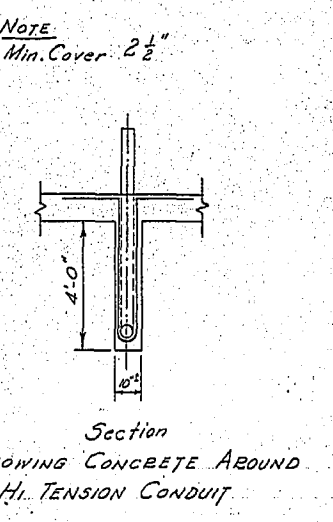
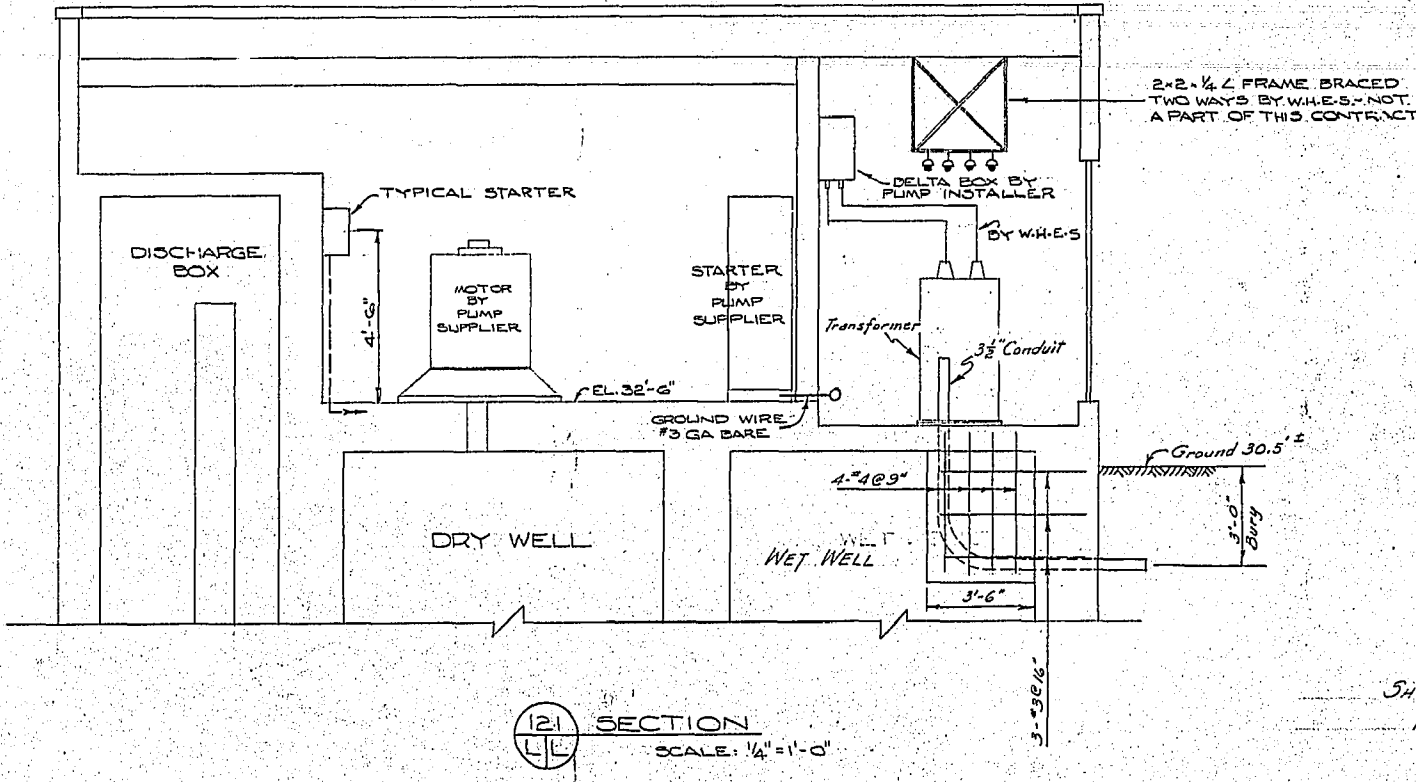
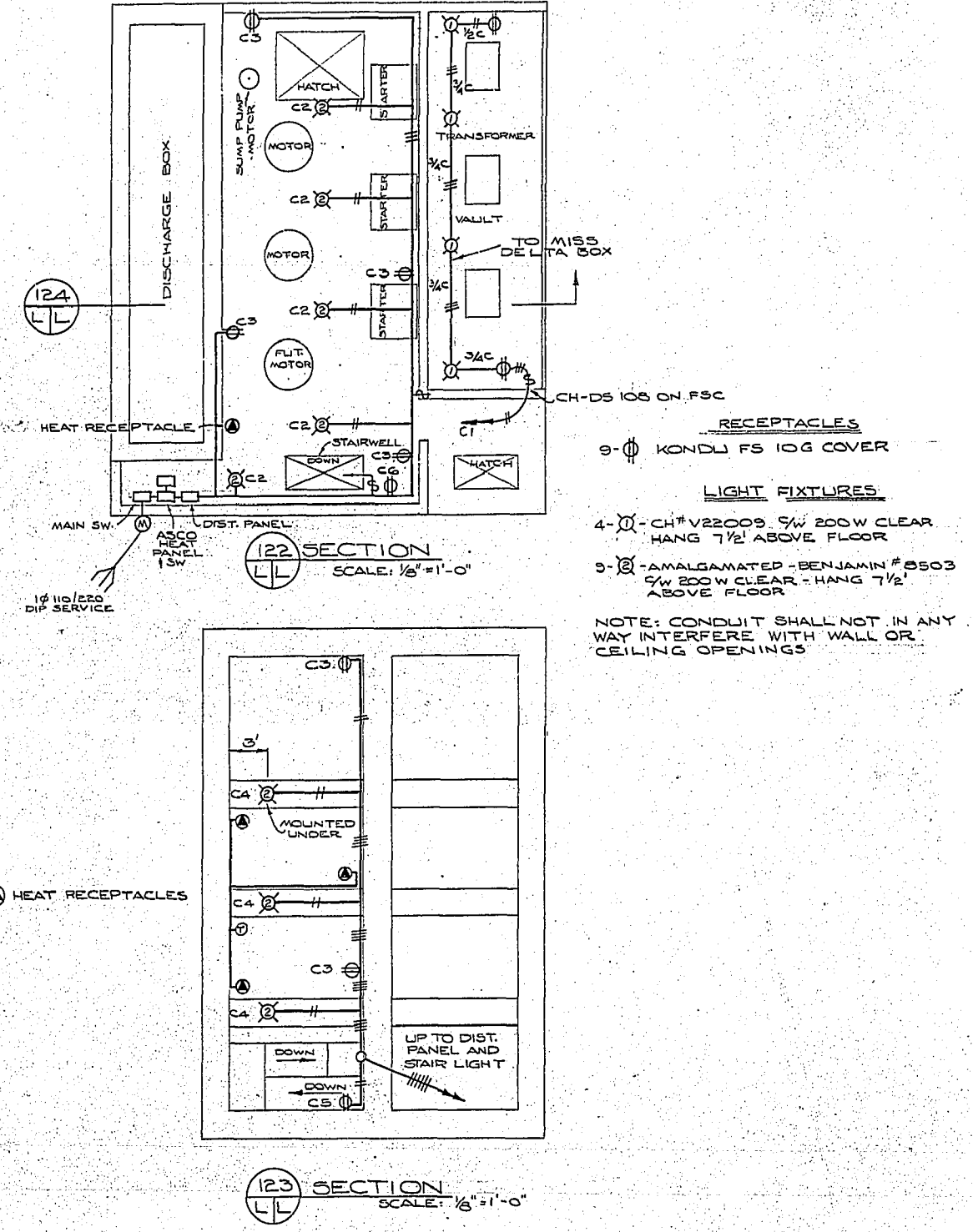
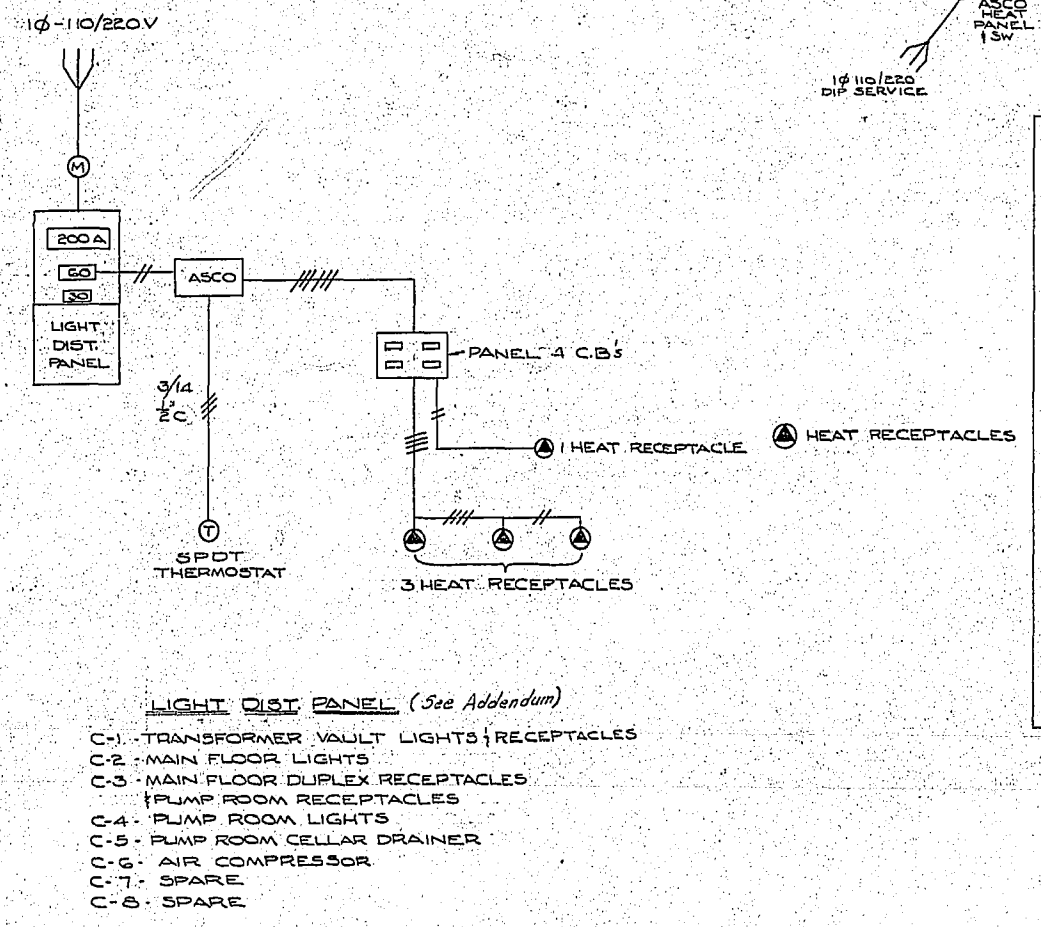
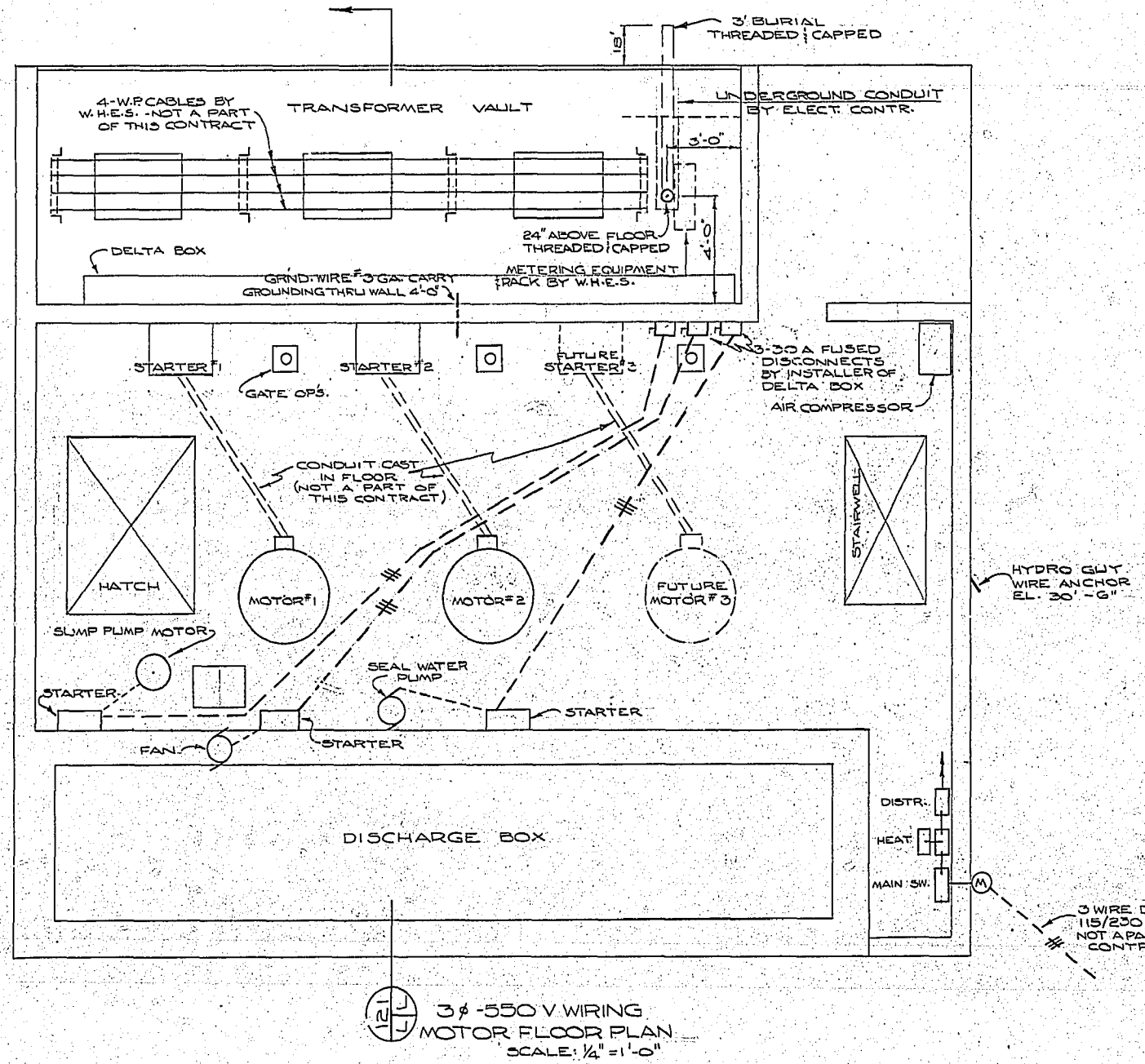
MANHOLE STEP SCALE: 1/2" = 1'-0"

REVISED AS CONSTRUCTED
BY: E.A. DATE: 4-17-67
CHECKED: R.C. DATE: 1/17/67



ROLAND STREET FLOOD PUMPING STATION
MISCELLANEOUS DETAILS (1)
CITY OF WINNIPEG
ENGINEERING DEPARTMENT
W. O. HURST, CITY ENGINEER
J. B. STRIOWSKI, DEPUTY CITY ENGINEER
DRAWN BY: D.C. DATE: 2-11-61
CHECKED BY: [Signature] DATE: [Date]
APPROVED BY: [Signature]
SCALE: AS NOTED
DRAWING NO. R229-J

APPENDUM
 ①-B-16- Shall Read 30A - 2 Pole
 ②-In Section 122 LL on Drawing R229 L Delete Word 30A From 30A Heat Receptacle
 ③-On Same Section as ② Delete Switch Handle From Main Switch & Repeat on Motor Floor Plan
 ④-Clarifying Light Distribution Panel
 (a) Ground Wire Not Shown in Circuiting
 (b) 200A Main Disconnect Shall be a C.B.
 (c) Heat Receptacles Shall Have Two Circuits For Section 123 LL & 1 Circuit For Section 122 LL With Panel Containing One Blank C.B Section & 3-30A - 2P C.B's
 (d) Thermostat Shall be Supplied by Electrical Contractor



ROLAND STREET FLOOD PUMPING STATION ELECTRICAL

CITY OF WINNIPEG
 ENGINEERING DEPARTMENT
 W. D. HURST, CITY ENGINEER

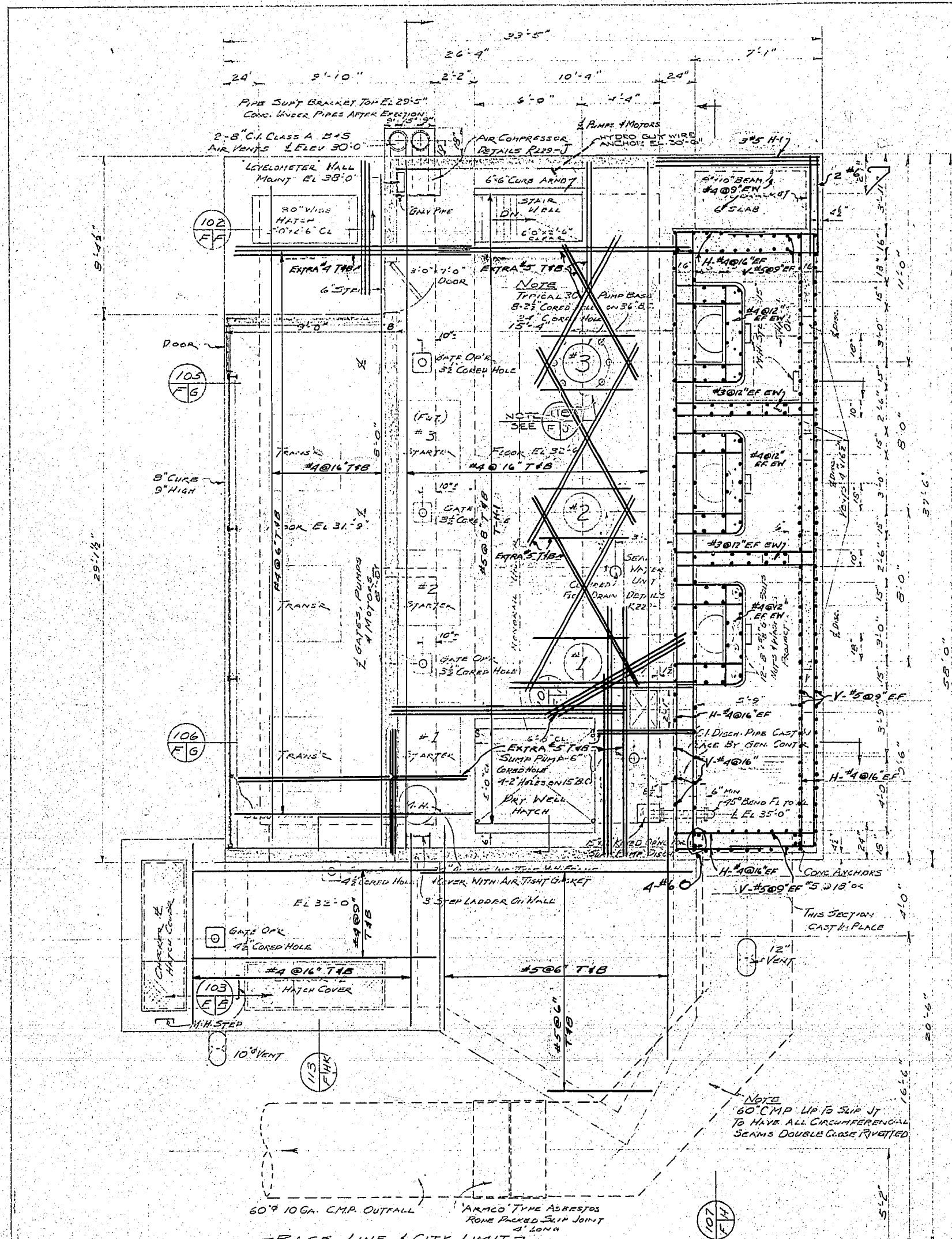
REVISAS AS CONSTRUCTED
 BY E.K. DATE 4-17-67
 CHECKED P.S.G. DATE 12/4/67

PROVINCE OF MANITOBA
 S. J. BUTCHER
 REGISTERED ENGINEER

DETAIL NUMBER: _____
 LOCATION: _____
 DRAWING NO: R229-L

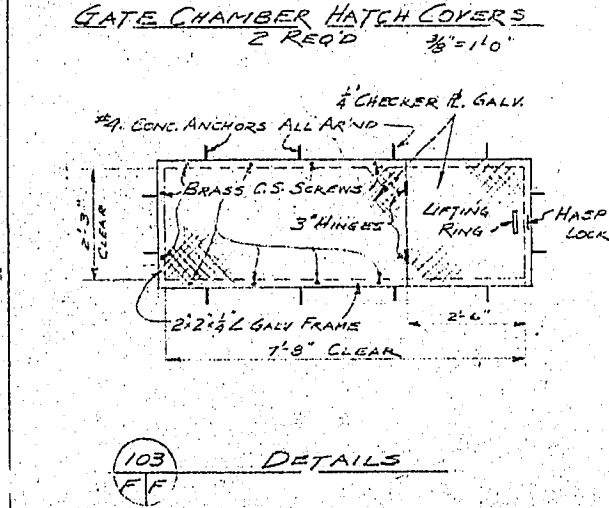
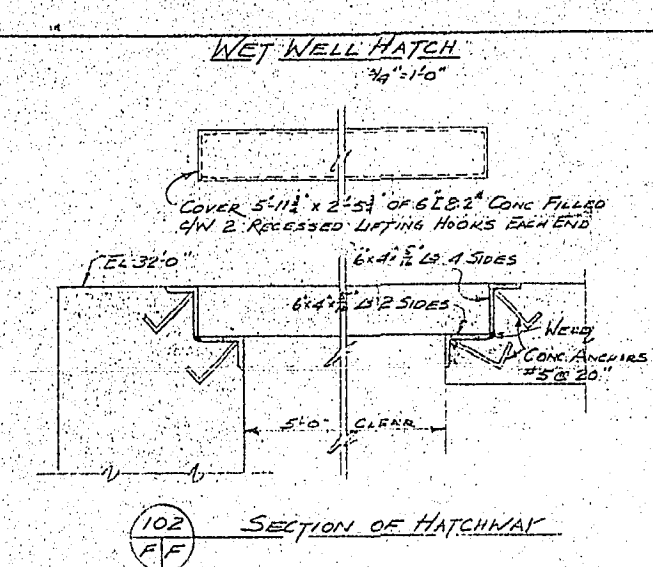
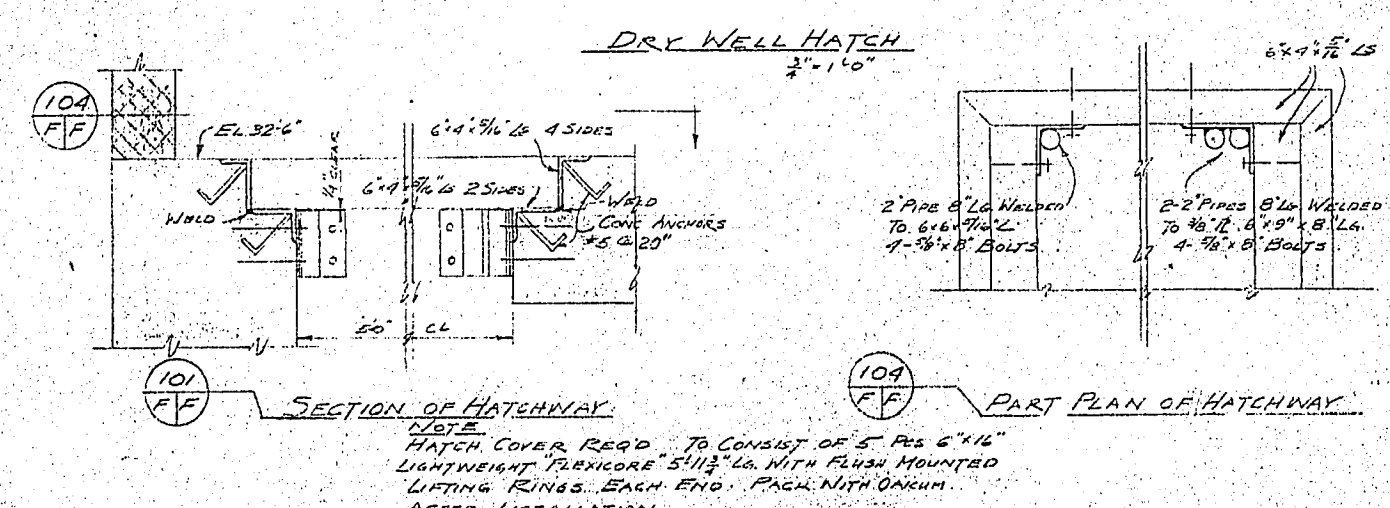
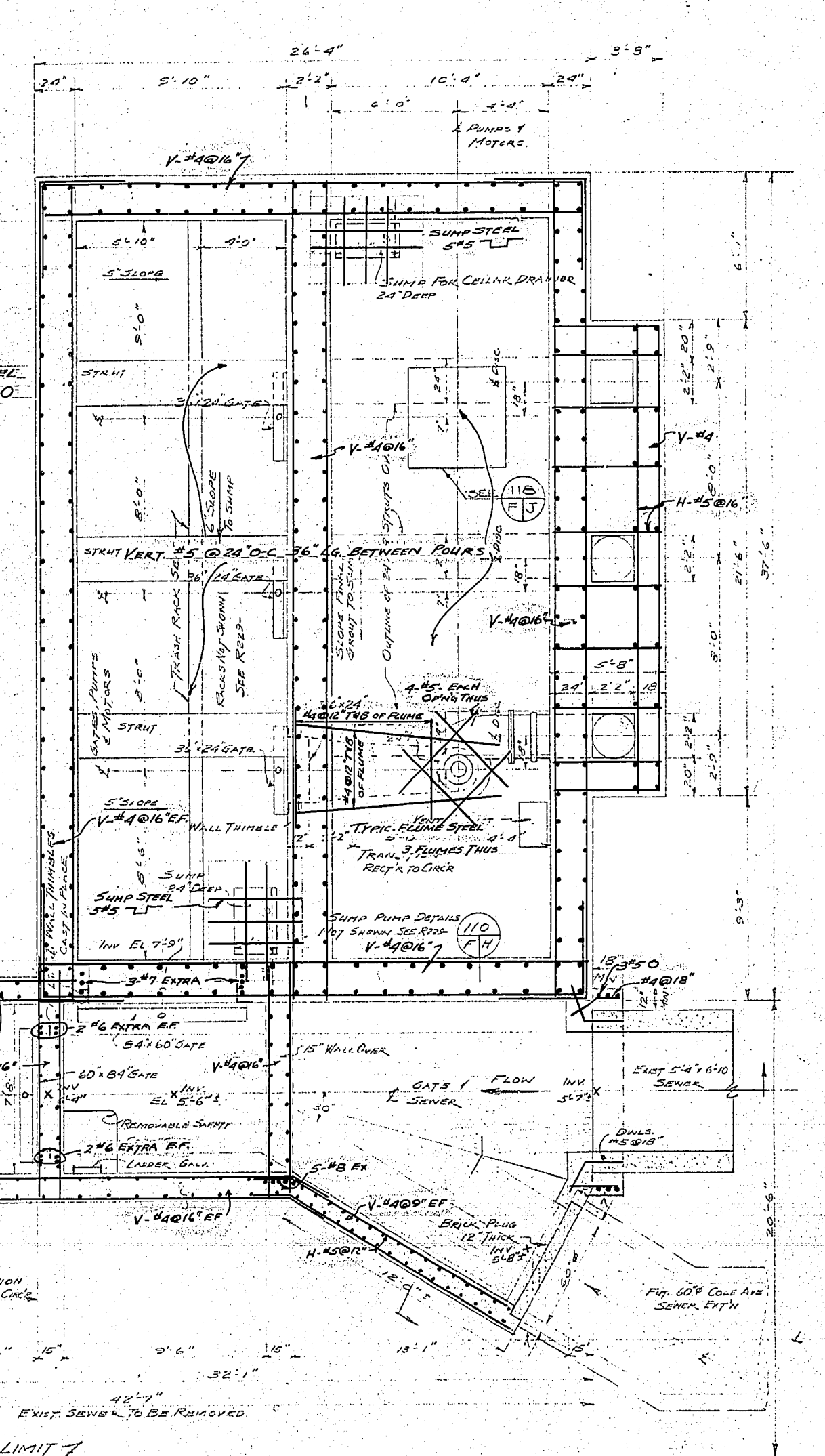
DRAWN BY: D.G. DATE: 3/1/62
 CHECKED BY: P.S.G. DATE: 12/4/67
 APPROVED BY: _____

SCALE: AS NOTED



NOTE: INV. ELEV. IN GATE CHAMBER SUBJECT TO ADJUSTMENT DEPENDING UPON INV. ELEV. OF EXIST. SEWER. ELEV. FOR MAIN STATION MUST BE ADHERED TO.

NOTE: CLEARANCES
BASE 1'-3"
EXTERIOR SLAB 2"
ALL WALLS 2"
BEAMS 12"
FLOOR 12"
SPICE 25' DIAM.
SPRAY STEEL ARND OPENING



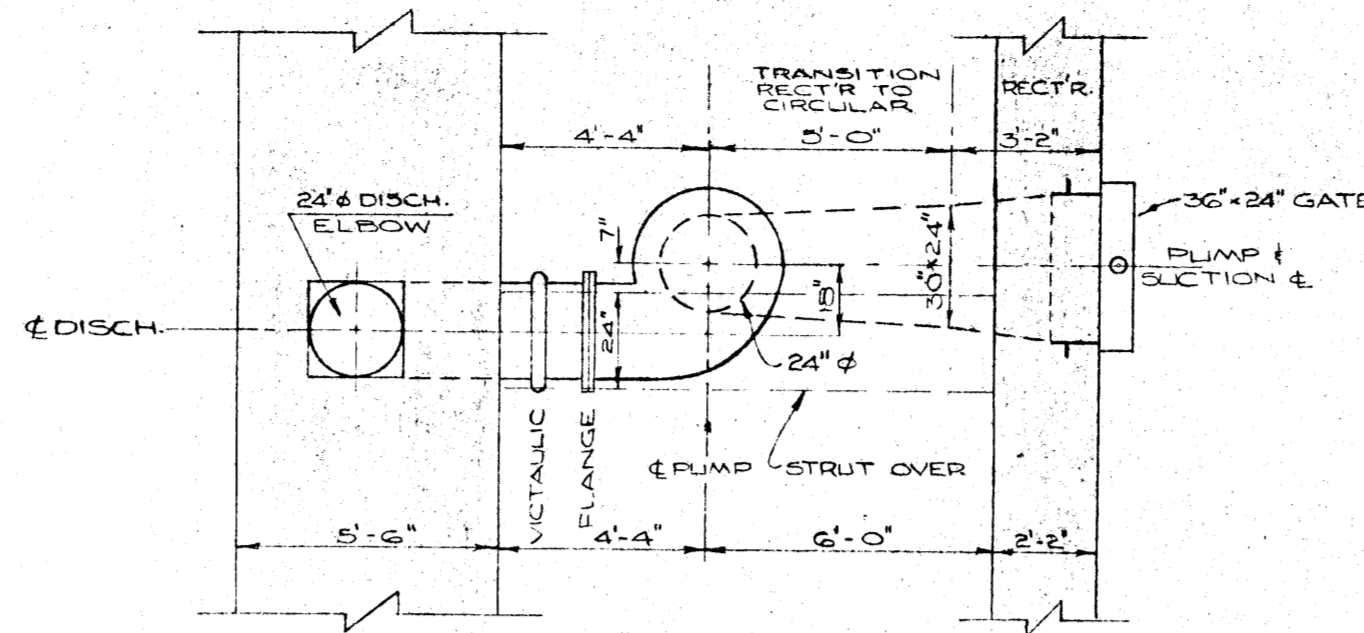
ROLAND STREET FLOOD PUMPING STATION
FLOOR PLAN AND DETAILS
REINFORCING STEEL (I)

CITY OF WINNIPEG
ENGINEERING DEPARTMENT
W. B. HUNTER, CITY ENGINEER

PROVINCE OF MANITOBA
REGISTERED ENGINEER
GALBRAITH

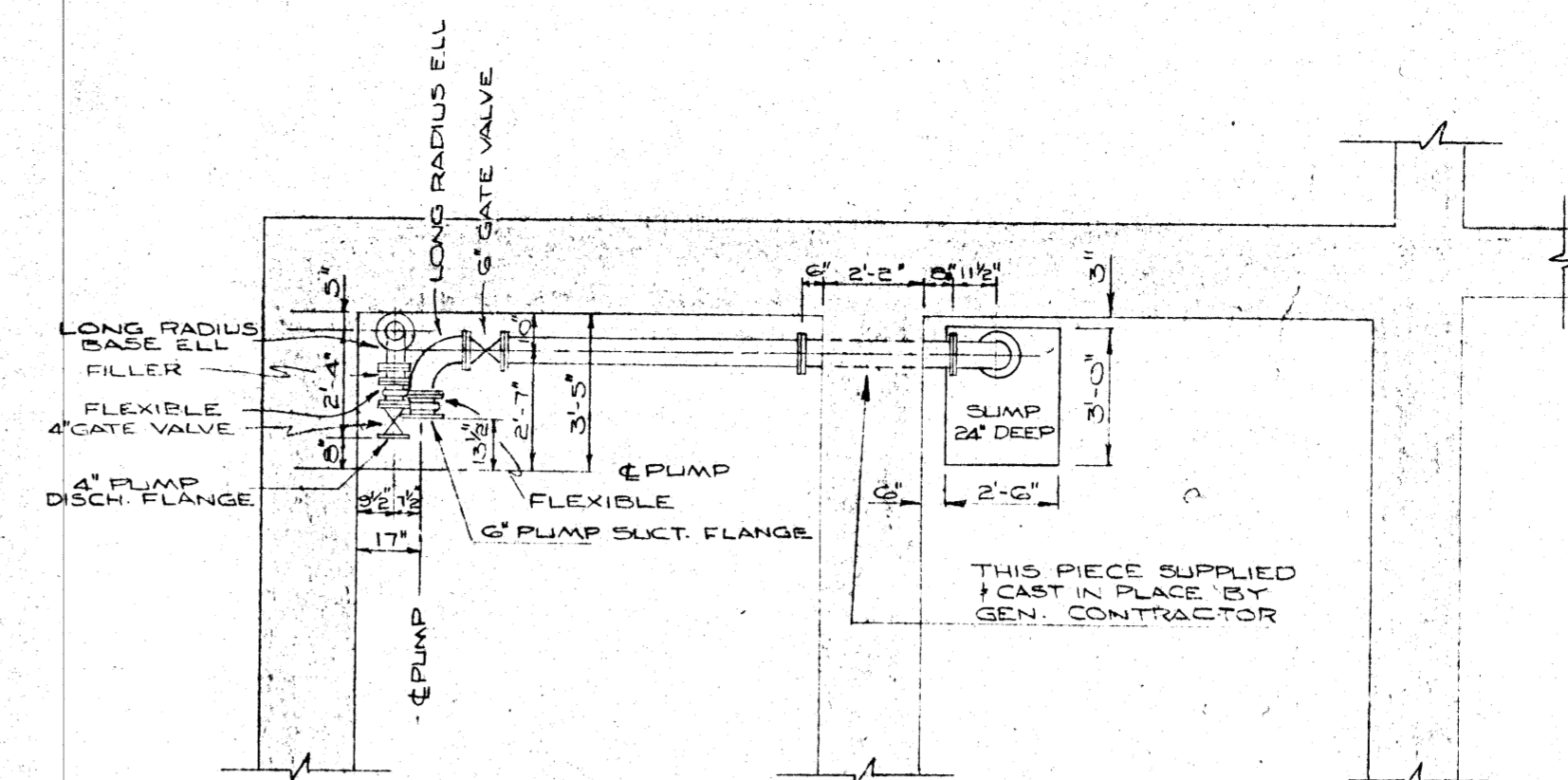
DETAIL NUMBER: R-229-N-10
LOFT/DRAWING: [blank]

DATE: [blank]

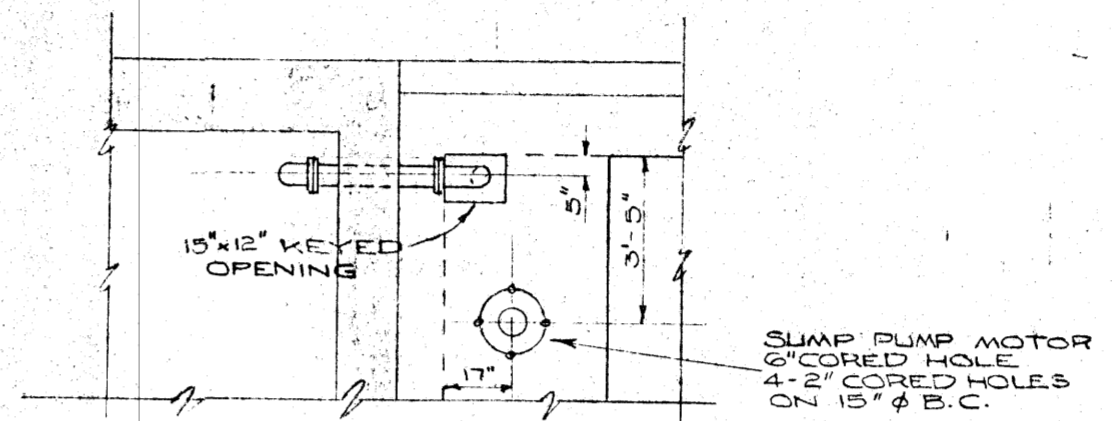


NOTE: INTAKE FLUMES TO BE CONSTRUCTED AND POSITIONED TO 1/4" TOLERANCE.

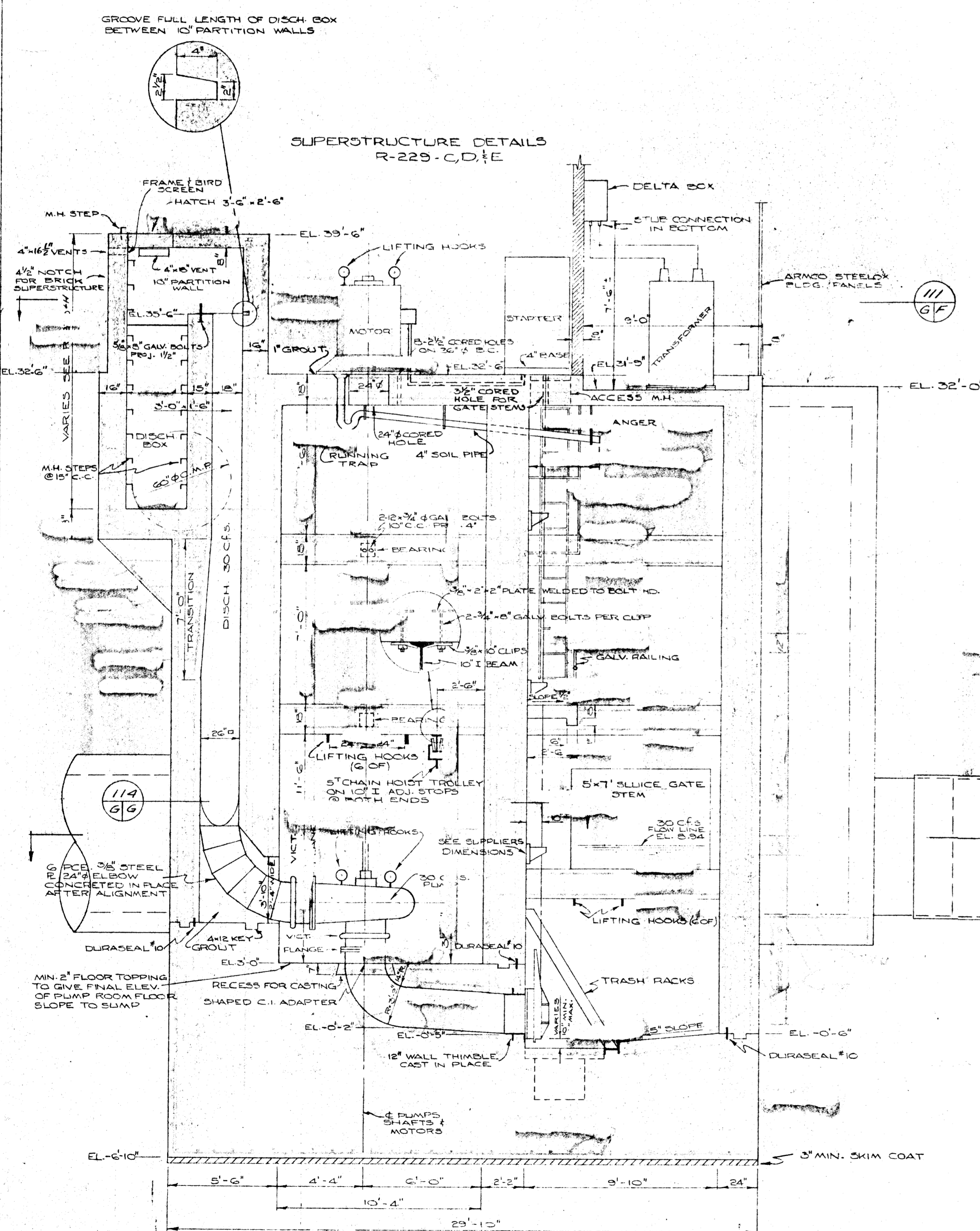
114 SECTION
SCALE: 1/4" = 1'-0"



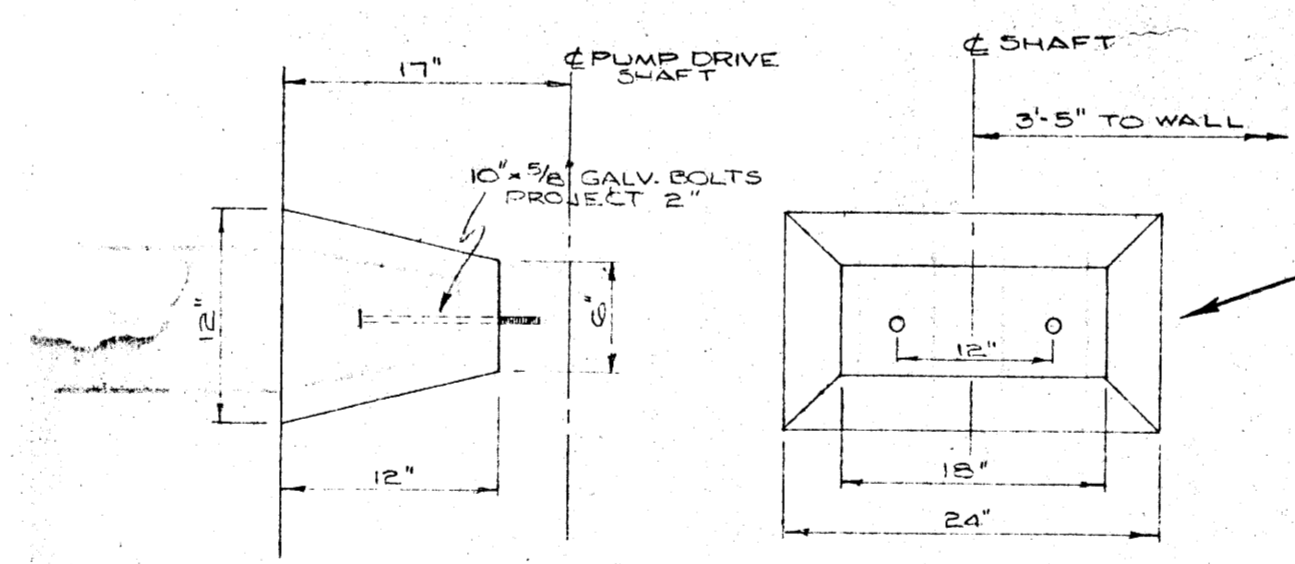
115 SECTION
SCALE: 1/4" = 1'-0"



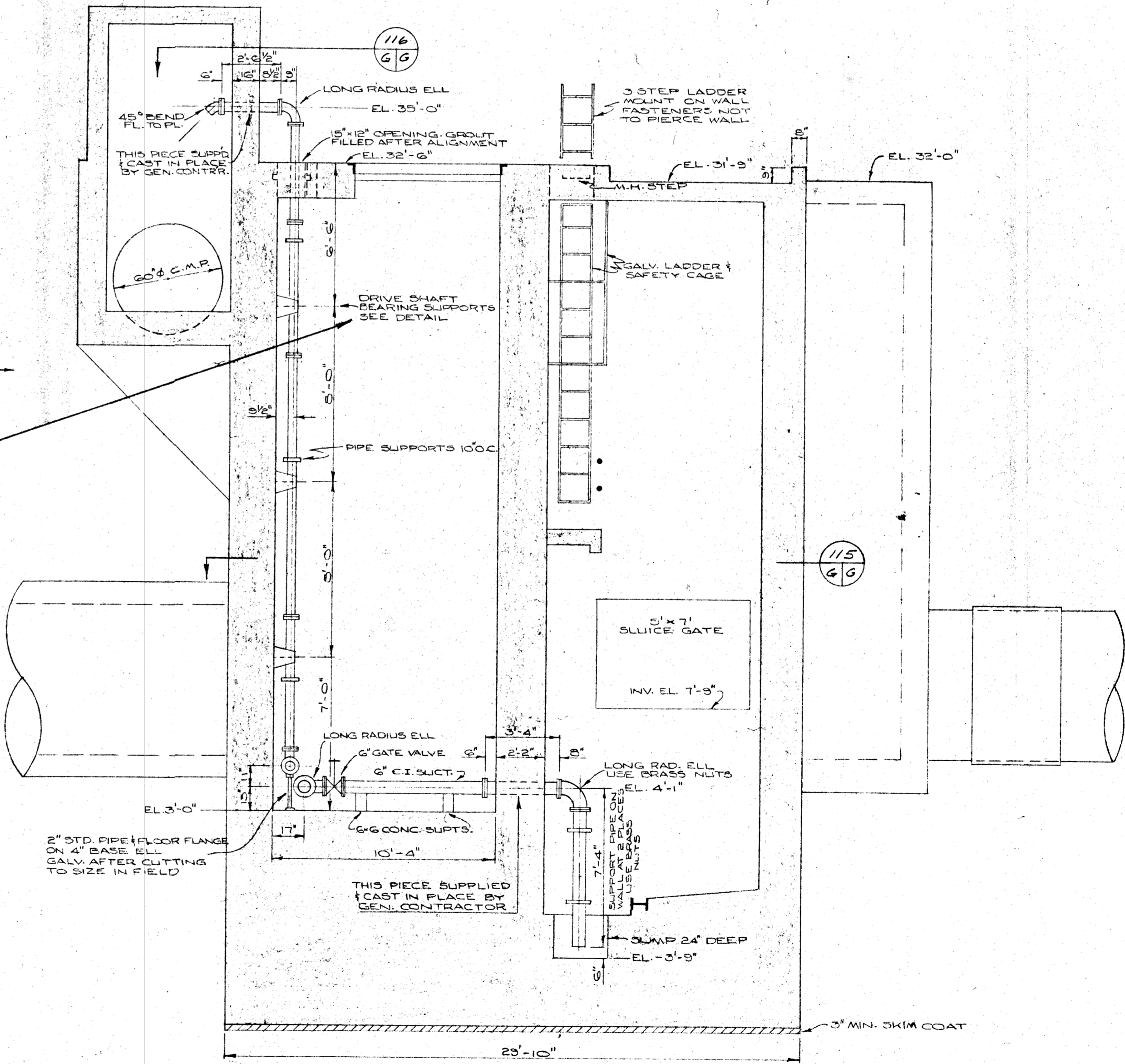
116 SECTION
SCALE: 1/4" = 1'-0"



105 SECTIONAL ELEVATION
SCALE: 1/4" = 1'-0"



112 DETAILS OF DRIVE SHAFT BEARING SUPPORTS
NOT TO SCALE



106 SECTIONAL ELEVATION SHOWING SUMP PUMP PIPING LAYOUT
SCALE: 1/4" = 1'-0"

NOTE: BOLT HOLES TO STRADDLE C

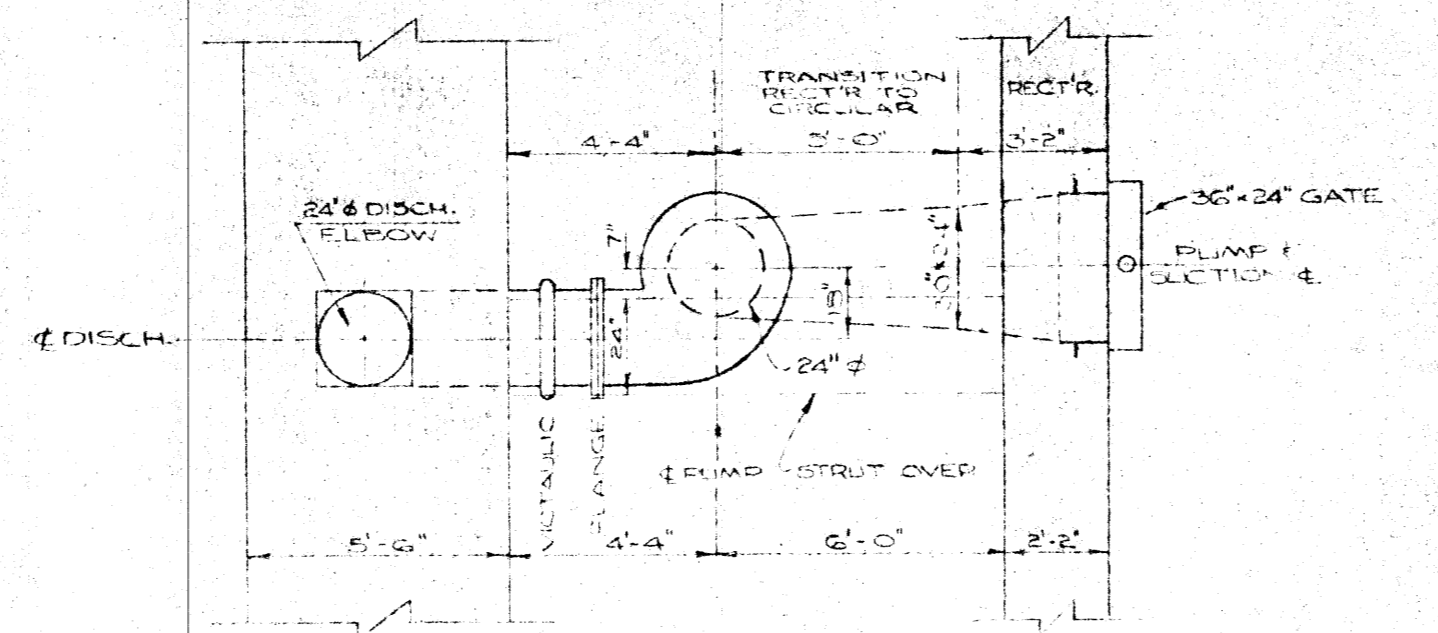


ROLAND STREET FLOOD PUMPING STATION
SUBSTRUCTURE SECTIONS

CITY OF WINNIPEG
ENGINEERING DEPARTMENT
W. D. HURST, CITY ENGINEER
J. R. STRIOWSKI, DEPUTY CITY ENGINEER

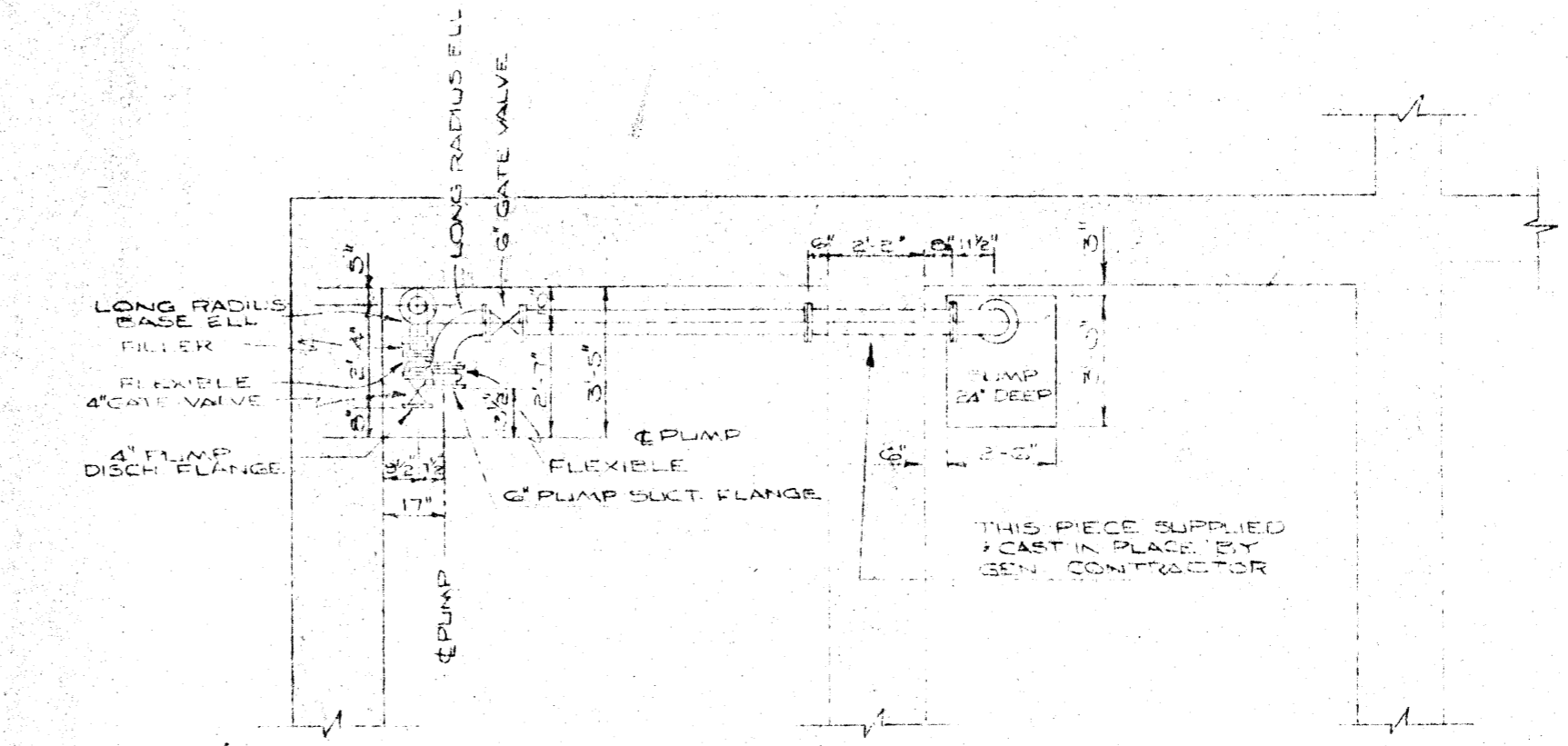
DRAWN BY: D.S. DATE: 2/11/61
TRACED BY: J.S.S.
CHECKED BY: [Signature]
APPROVED BY: [Signature]

K-5501

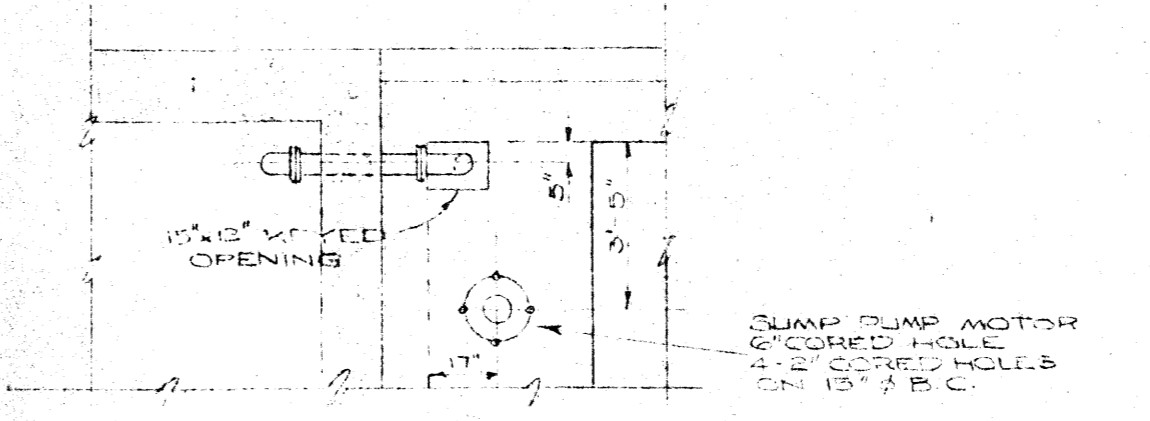


NOTE: IN TAKE FLUMES TO BE CONSTRUCTED AND POSITIONED TO 1/2" TOLERANCE.

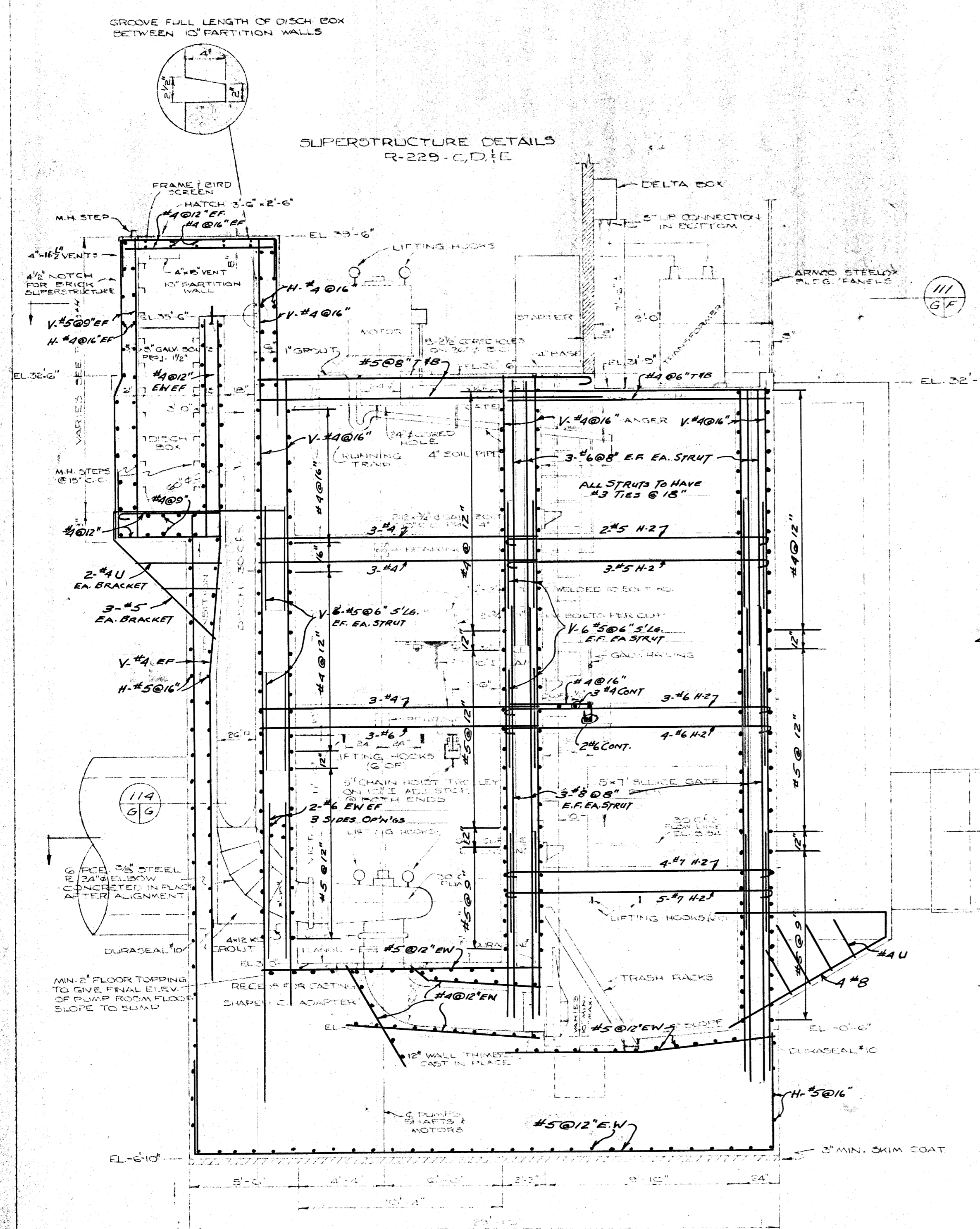
114 SECTION
SCALE 1/4" = 1'-0"



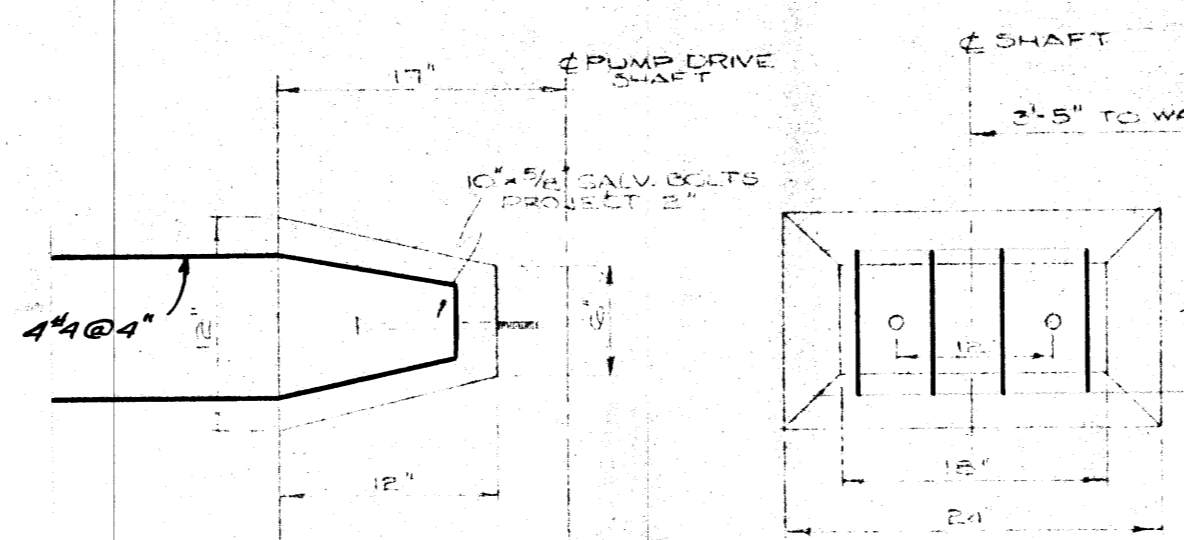
115 SECTION
SCALE 1/4" = 1'-0"



116 SECTION
SCALE 1/4" = 1'-0"

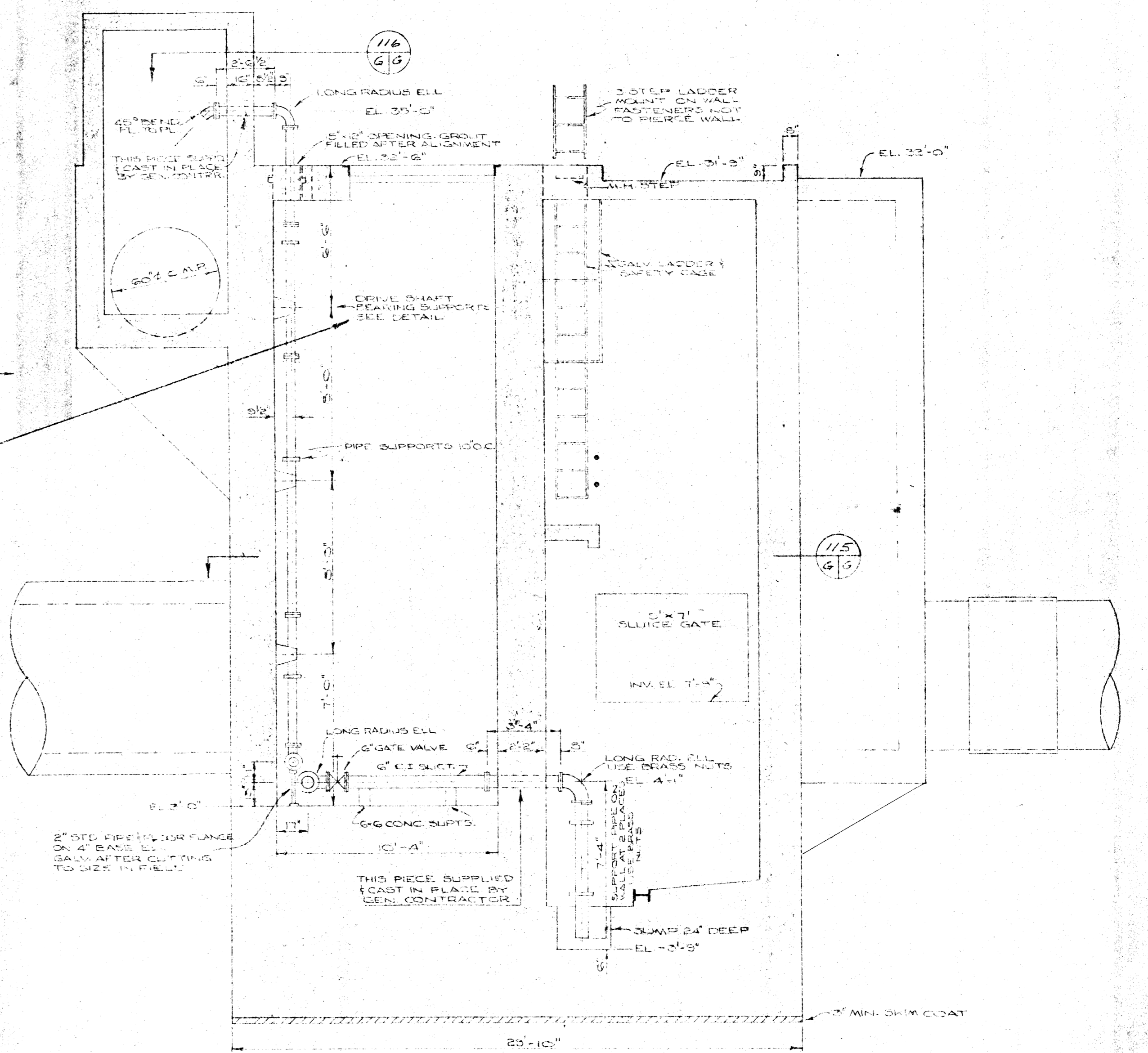


103 SECTIONAL ELEVATION
SCALE: 1/4" = 1'-0"



112 DETAILS OF DRIVE SHAFT BEARING SUPPORTS NOT TO SCALE

NOTE
CLEARANCES
BASE 3"
EXTERIOR SLABS 2"
ALL WALLS 2"
BEAMS 2"
STATION FLOOR 1 1/2"
SPLICER 25 DIAM.
SPRAY STEEL AND OPEN'GS



106 SECTIONAL ELEVATION SHOWING PUMP AND PIPING LAYOUT
SCALE 1/4" = 1'-0"



ROUND STREET FLOOD PUMPING STATION
SUPERSTRUCTURE SECTIONS
REINFORCING STEEL (2)

CITY OF WINNIPEG
ENGINEERING DEPARTMENT
W. D. HURST, CITY ENGINEER
J. B. STRIOWSKI, DEPUTY CITY ENGINEER

DATE: FEB 20/61
DRAWN BY: RCG
CHECKED BY: W.D.H.
DESIGNED BY: W.D.H.

SCALE: AS SHOWN
FILE # FP10266