

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
649	(107)I-2	LIVINGSTON	7	1

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

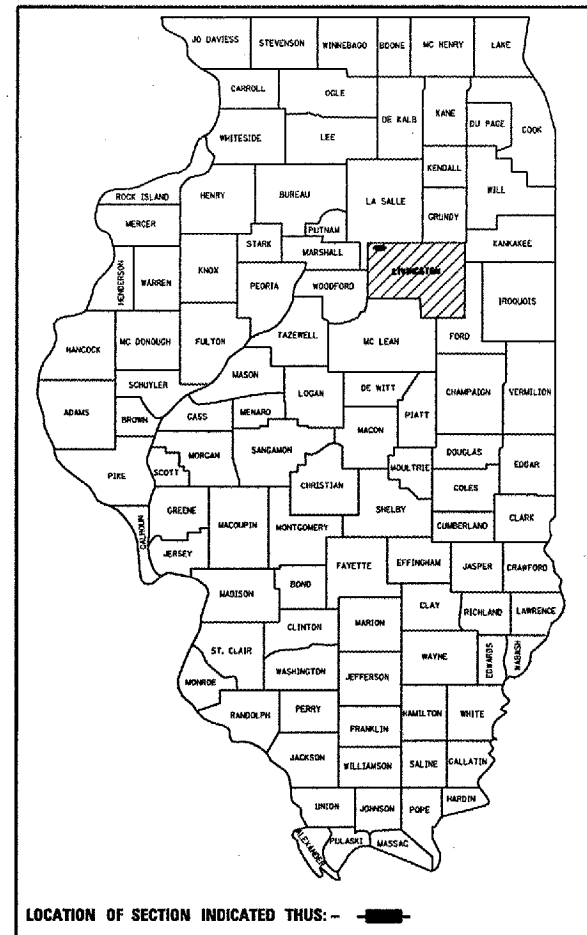
FAP ROUTE 649 (IL ROUTE 17)  
SECTION (107)I-2  
LIVINGSTON COUNTY

C-93-098-05  
PUMP STATION REPAIR

INDEX OF SHEETS

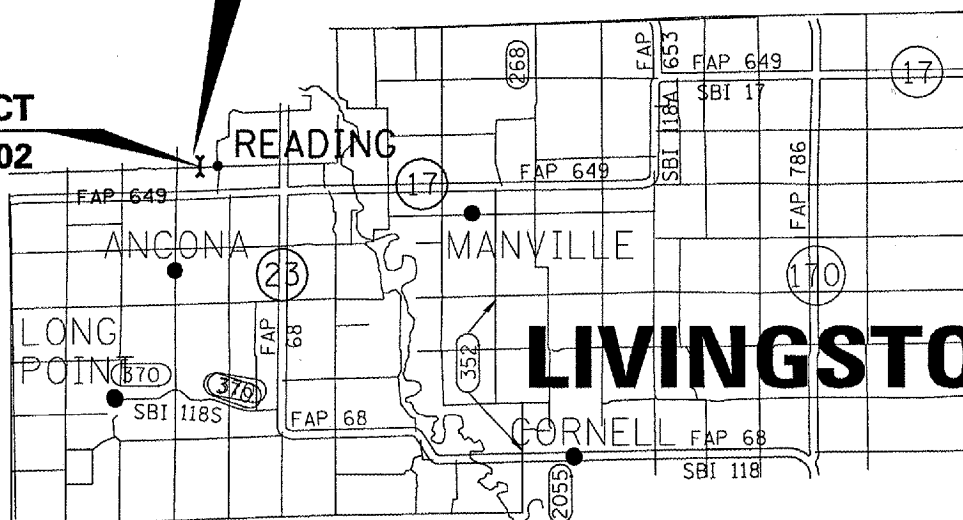
1. COVER SHEET
2. GENERAL NOTES
3. SUMMARY OF QUANTITIES
4. GENERAL SITE PLAN
5. PUMP HOUSE DETAILS
6. PUMP HOUSE DETAILS
7. PUMPING EQUIPMENT COMPLETE

D-93-002-06



**PROJECT LOCATION  
READING PUMP STATION**

**R.R. VIADUCT  
S.N. 053-9902**



**LOCATION MAP  
NOT TO SCALE**

MICROFILMED \_\_\_\_\_  
REEL NUMBER \_\_\_\_\_  
AWARDED \_\_\_\_\_  
RESIDENT ENGINEER \_\_\_\_\_  
AS BUILT CHANGES WERE MADE  
ON THE FOLLOWING SHEETS \_\_\_\_\_

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123

DISTRICT NO. 3 1-815-434-6131

PROJECT ENGINEER: TOM HUFNAGEL 1-815-434-8418  
UNIT CHIEF: RON WOODSHANK 1-815-434-8419  
TOWNSHIP: READING

**CONTRACT NO. 66593**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED 8/31 2005  
*August Abant*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 14, 2005  
*Mike Hene*  
ENGINEER OF DESIGN AND ENVIRONMENT

October 14, 2005  
*Eric E. Harm*  
DEPUTY DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

DATE: JULY 29, 2005  
FILE: c:/projects/cmain06/cm319/details.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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GENERAL NOTES

THE CONTRACTOR SHALL VERIFY "ALL" DIMENSIONS IN THE FIELD PRIOR TO ORDERING OF MATERIALS AND BEGINNING CONSTRUCTION.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PRESENCE OF DEPARTMENT-OWNED UNDERGROUND ELECTRICAL CABLE WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR SHALL REQUEST THE ILLINOIS DEPARTMENT OF TRANSPORTATION IN OTTAWA (815-434-8417) TO LOCATE THE UNDERGROUND FACILITIES, PROVIDING A MINIMUM OF 72 HOURS NOTICE. THE DEPARTMENT IS NOT A MEMBER OF THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (JULIE) SYSTEM.

ALL DAMAGE TO DEPARTMENT OWNED UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRIC CABLE SHALL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.

THE COST OF MAKING ANY CONNECTIONS TO AN EXISTING DRAINAGE STRUCTURE OR PIPE SHALL BE INCLUDED IN THE COST OF THE NEW PUMPING SYSTEM.

DATE: 8/30/2005

PREPARED BY: *James A. Husker*  
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: *Herbert K. Gynn*  
DISTRICT CONSTRUCTION ENGINEER

*Steven B. Andrews*  
ACTING DISTRICT STUDIES & PLANS ENGINEER

*Kenneth P. Lopez*  
DISTRICT MATERIALS ENGINEER

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.  
HORIZ.  
DATE 08/11/2005

DRAWN BY RLW  
CHECKED BY

DATE: JULY 29, 2005  
FILE: c:/projects/cm319/details.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
649	(107)I-2	LIVINGSTON	7	3

# SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE: Y007

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
67100100	MOBILIZATION	L SUM	1
XX003032	GATE VALVE 12"	EACH	2
XX003951	PUMP SYSTEM COMPLETE	L SUM	1
X0301578	REMOVE EXISTING EQUIPMENT	L SUM	1
X0320599	PUMP STATION TELECOMMUNICATIONS PATHWAY	L SUM	1
X0323449	REMOVE EXISTING WATER VALVE	EACH	2
X0335700	PUMP STATION GENERAL WORK	L SUM	1
X0387200	ELECTRICAL WORK	L SUM	1

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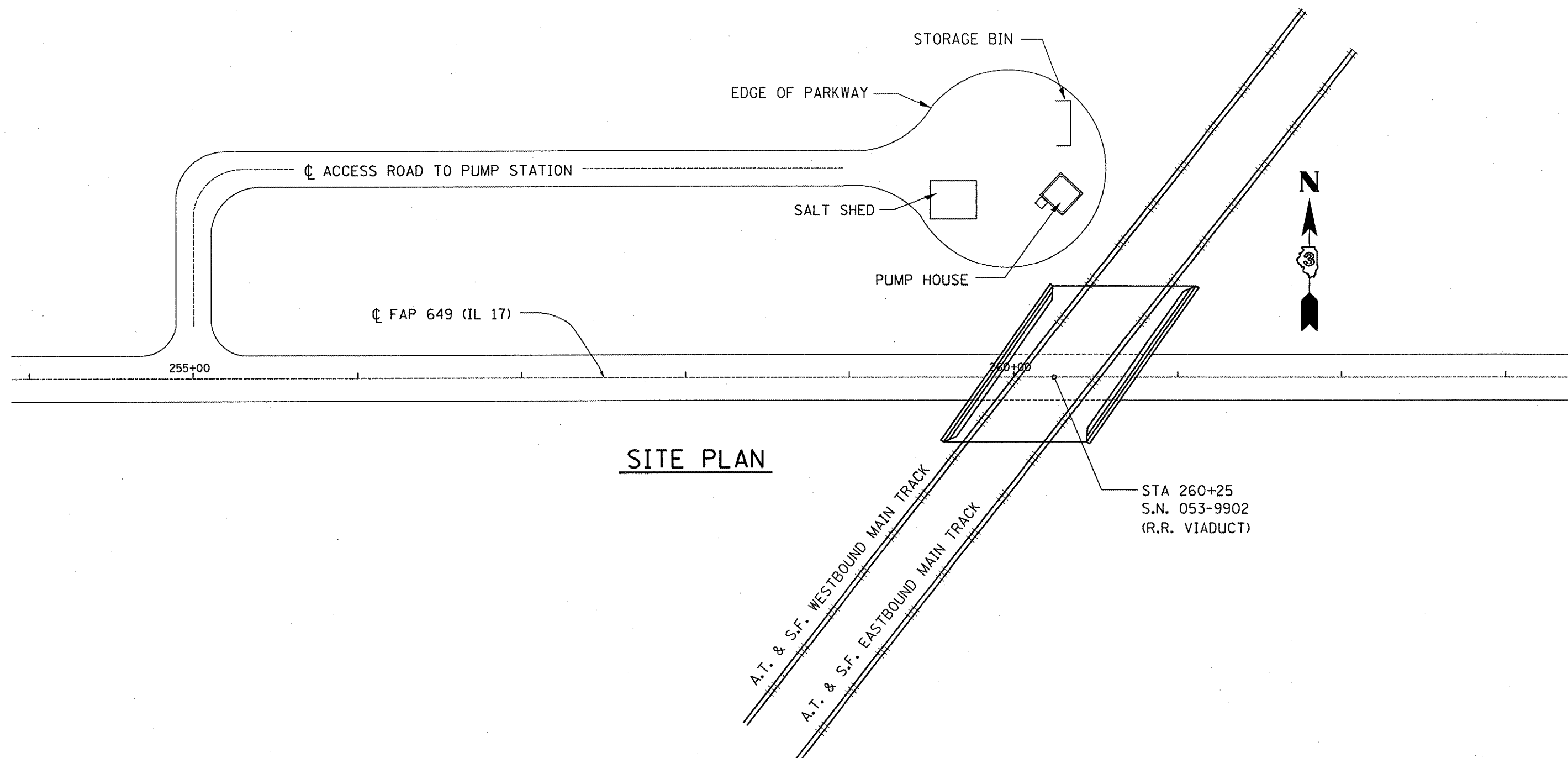
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUMMARY OF QUANTITIES**  
 READING PUMPING STATION  
 FAP 649  
 SECTION (107)I-2  
 LIVINGSTON COUNTY

SCALE: VERT.  
 DATE: 08/12/2005

DRAWN BY: RW  
 CHECKED BY:

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
649	(107)I-2	LIVINGSTON	7	4



SITE PLAN

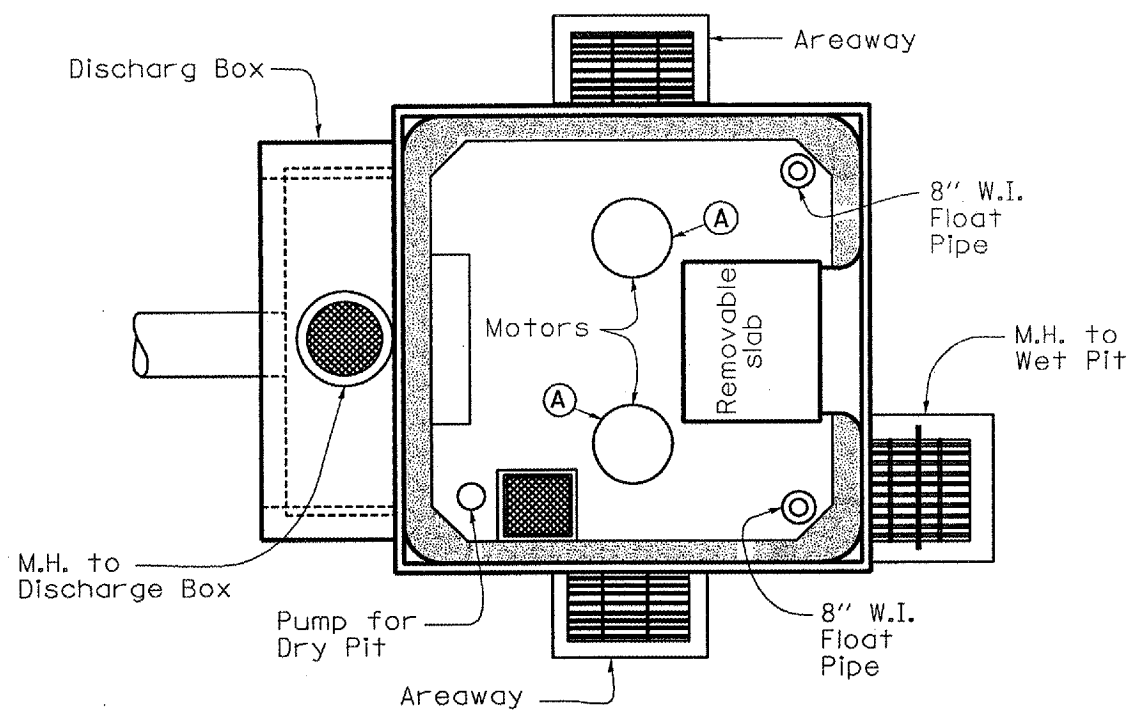
STA 260+25  
S.N. 053-9902  
(R.R. VIADUCT)

DATE: JULY 29, 2005  
FILE: c:/projects/cmain06/cm319/details.dgn

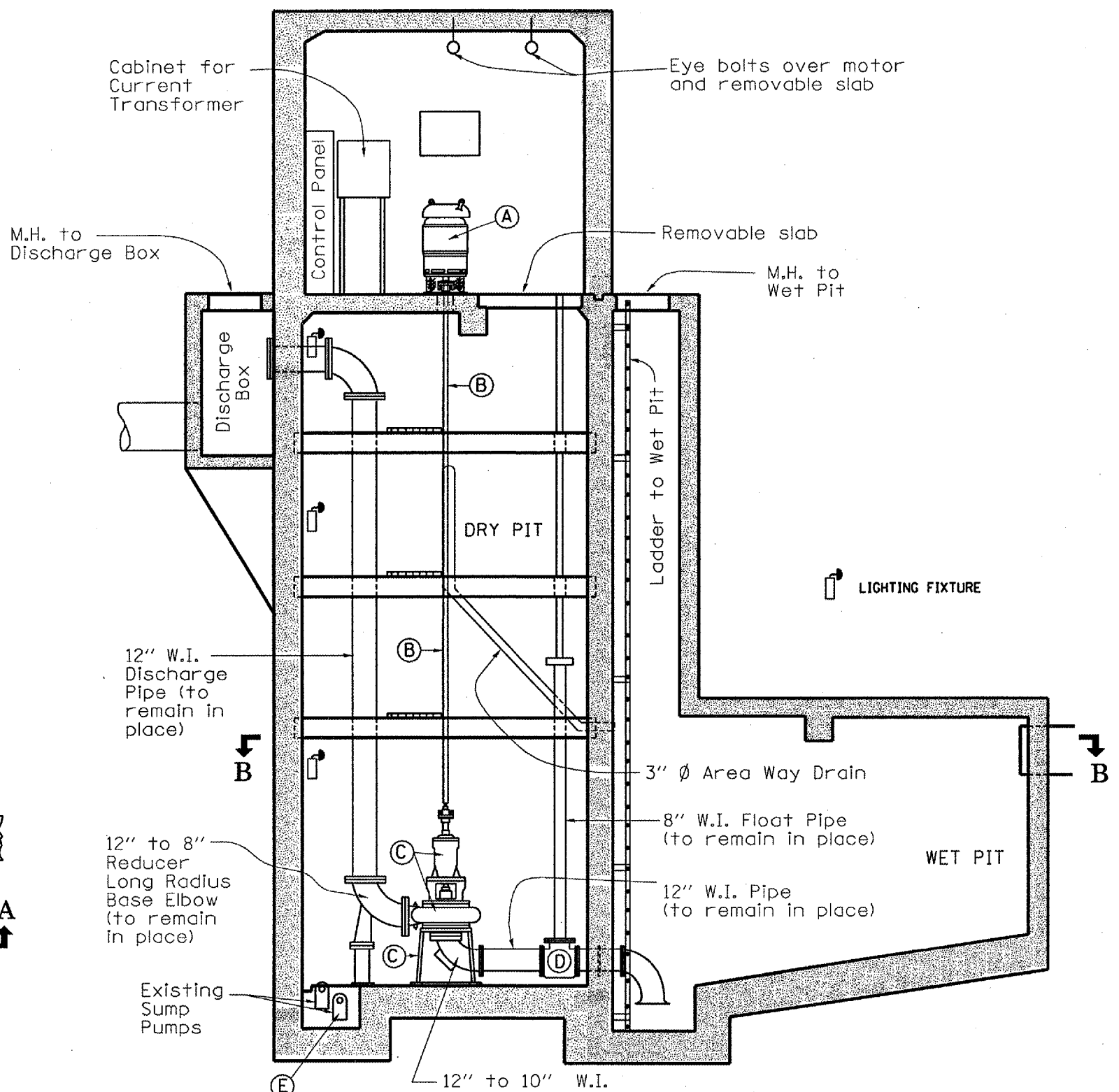
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**GENERAL SITE PLAN**  
READING PUMPING STATION  
FAP 649  
SECTION (107)I-2  
LIVINGSTON COUNTY  
SCALE: VERT.  
HORIZ.  
DATE: 08/12/2005  
DRAWN BY: RW  
CHECKED BY:

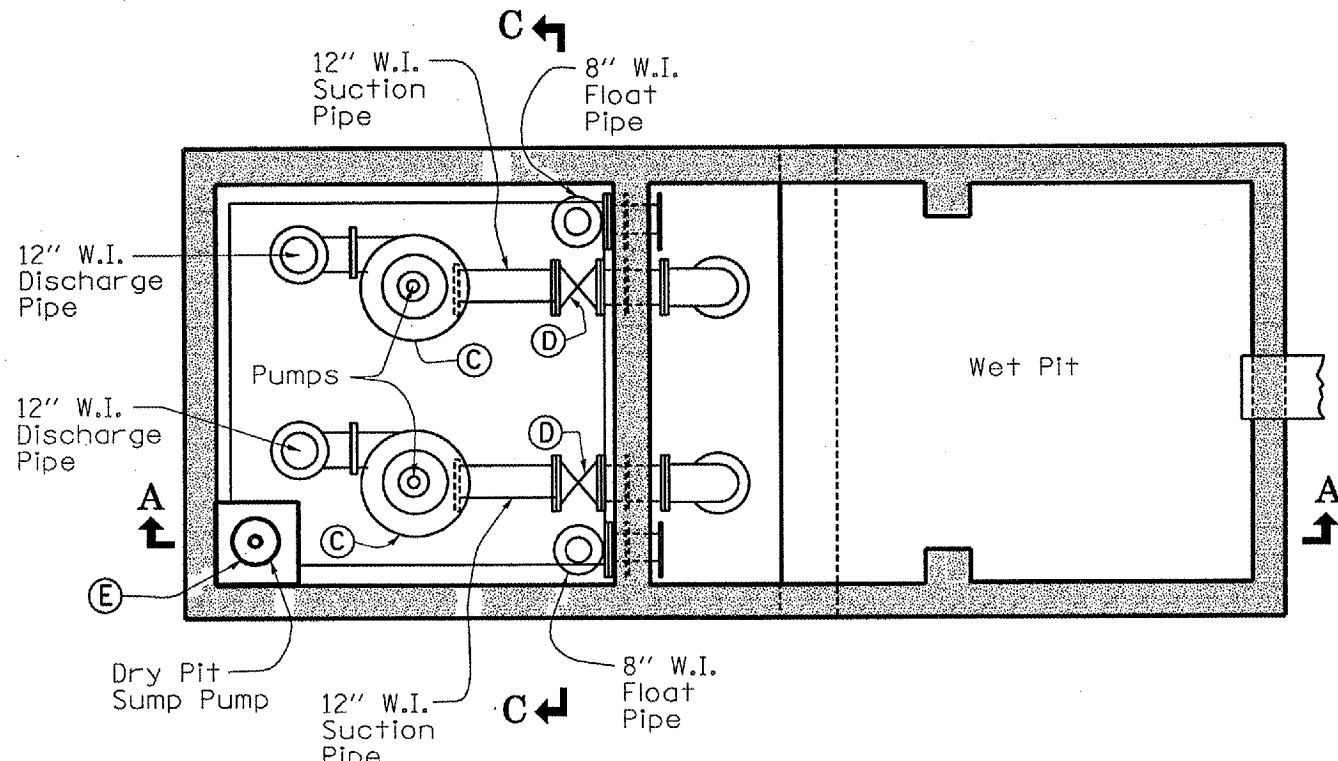
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
649	(107)I-2	LIVINGSTON	7	5



**PLAN**



**SECTION A-A**



**SECTION B-B**

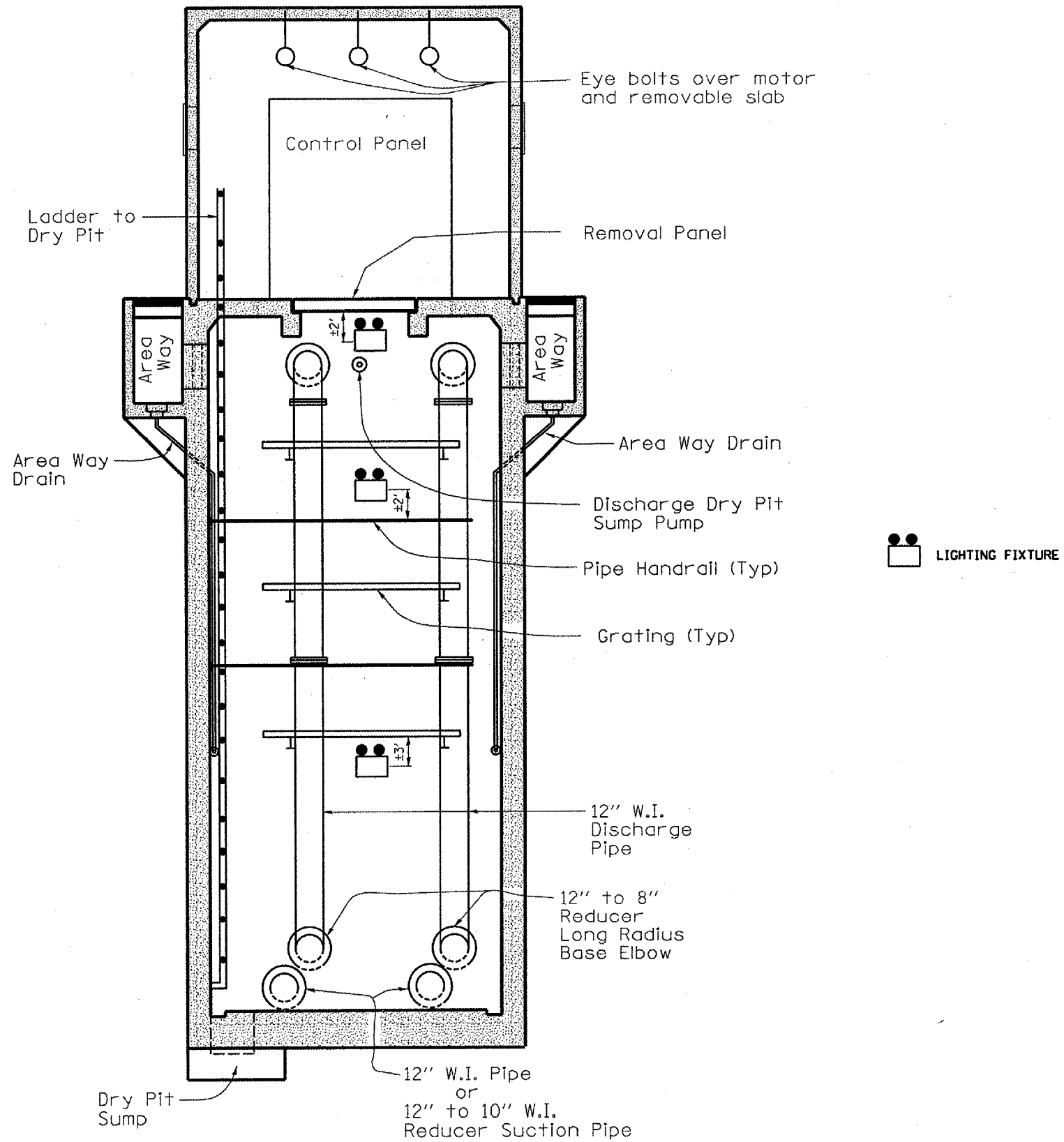
- (A) Remove and replace existing motor
- (B) Remove and replace shaft and bearing assemblies.
- (C) Remove and replace pump, bracket and accessories.
- (D) Remove and replace 12" gate valve.
- (E) Remove sump pump and associated piping.

REVISIONS	
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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PUMP HOUSE DETAILS**  
 READING PUMPING STATION  
 FAP 649  
 SECTION (107)I-2  
 LIVINGSTON COUNTY  
 SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE: 08/12/2005  
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649	(107)I-2	LIVINGSTON	7	6



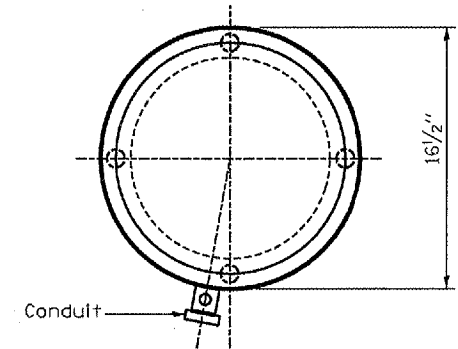
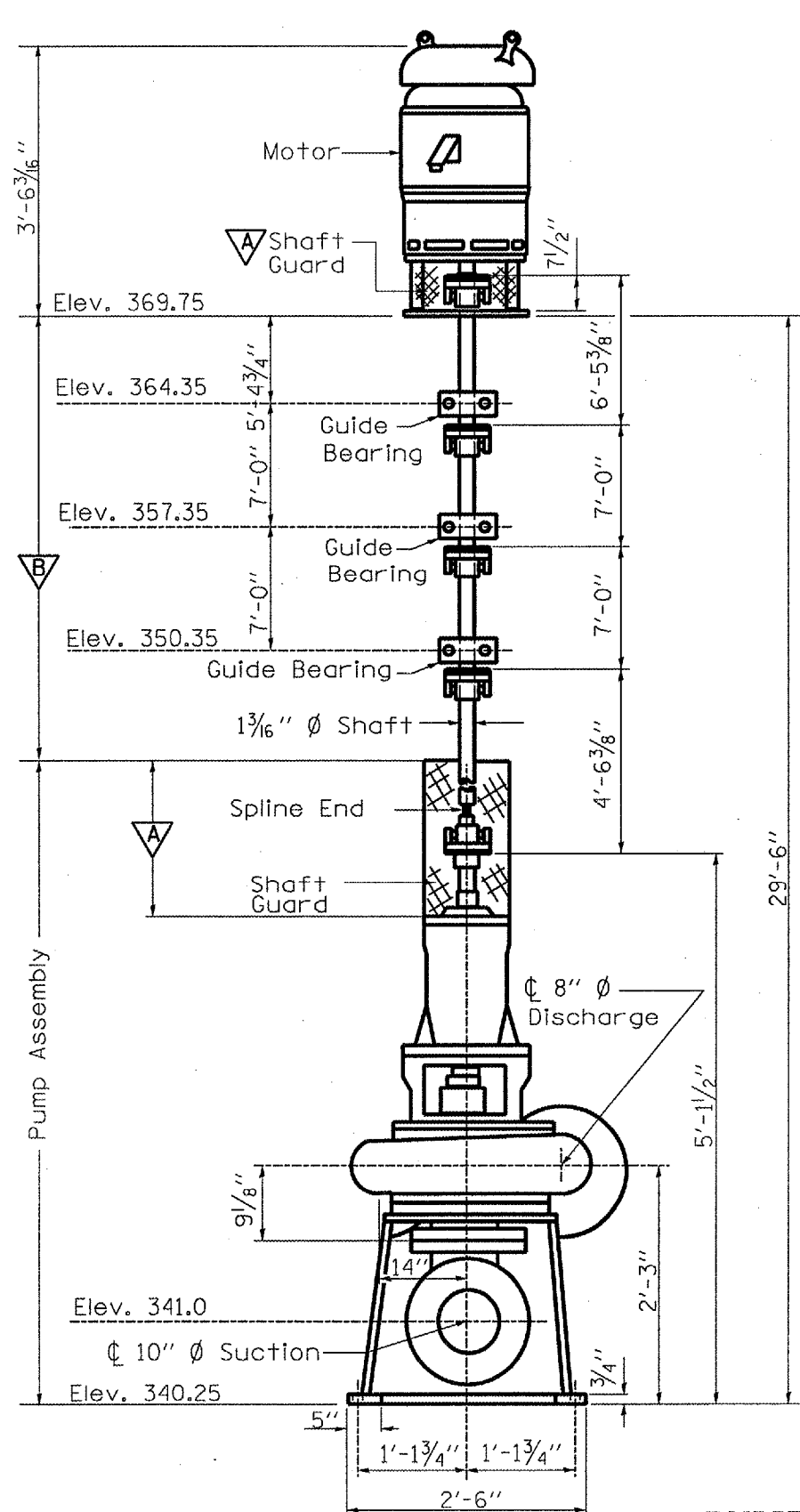
**SECTION C-C**

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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PUMP HOUSE DETAILS**  
 READING PUMPING STATION  
 FAP 649  
 SECTION (107)I-2  
 LIVINGSTON COUNTY  
 SCALE: VERT.  
 HORIZ.  
 DATE: 08/12/2005  
 DRAWN BY: RW  
 CHECKED BY:

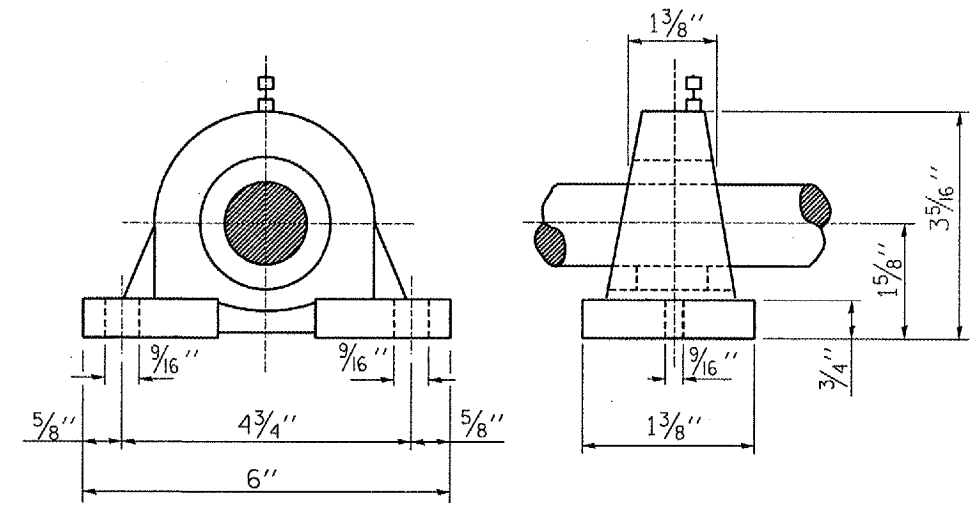
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**TOP VIEW OF MOTOR BASE**

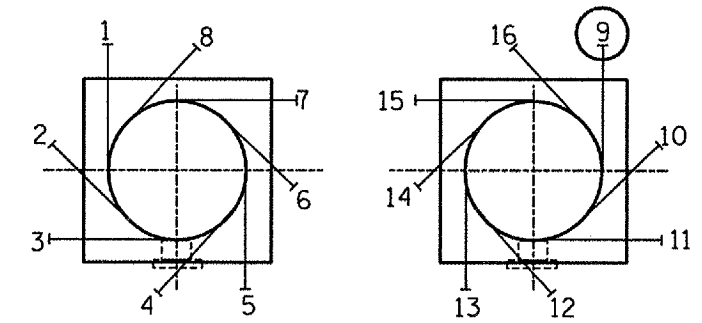
▲ Area protected by shaft guard supplied by manufacturer of motor or pump.

▼ Area protected by shaft guard supplied by Contractor.



**GUIDE BEARING DETAILS**

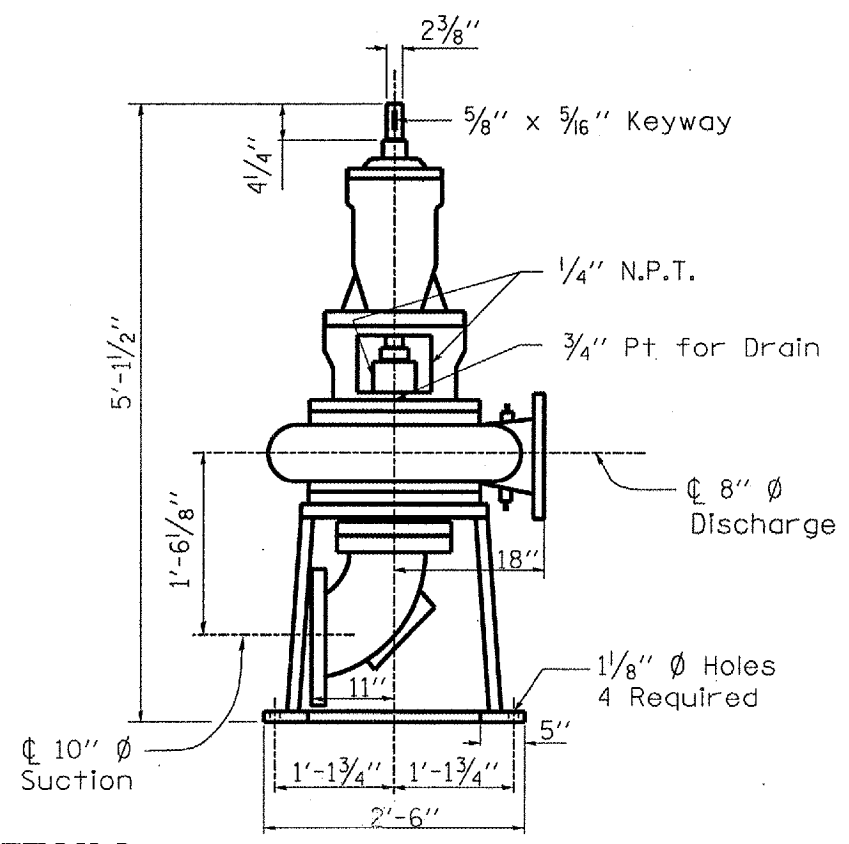
SHAFT DIA. 1 3/16"  
SHAFT SERIES V37



Drawings illustrates the discharge positions available for C.W. and C.C.W. Rotation when viewed from the driver end of pump. Positions 1 and 9 are considered Standard. Position circled is position of existing pumps.

FLANGE DIMENSIONS					
	NOM. SIZE	FLG. O.D.	NO. OF BOLTS	BOLT DIA.	B.C. DIA.
DISCHARGE	8"	13 1/2"	8"	3/4"	11 3/4"
SUCTION	10"	16"	12"	7/8"	14 1/4"

All flanges shall be 125 lb. ANSI



**PUMP DETAILS**

NOTE: This Pump uses a 16" Ø Impeller

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**PUMPING EQUIPMENT COMPLETE**  
READING PUMPING STATION  
FAP 649  
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LIVINGSTON COUNTY  
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