



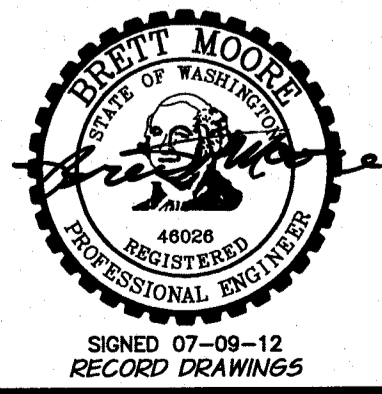
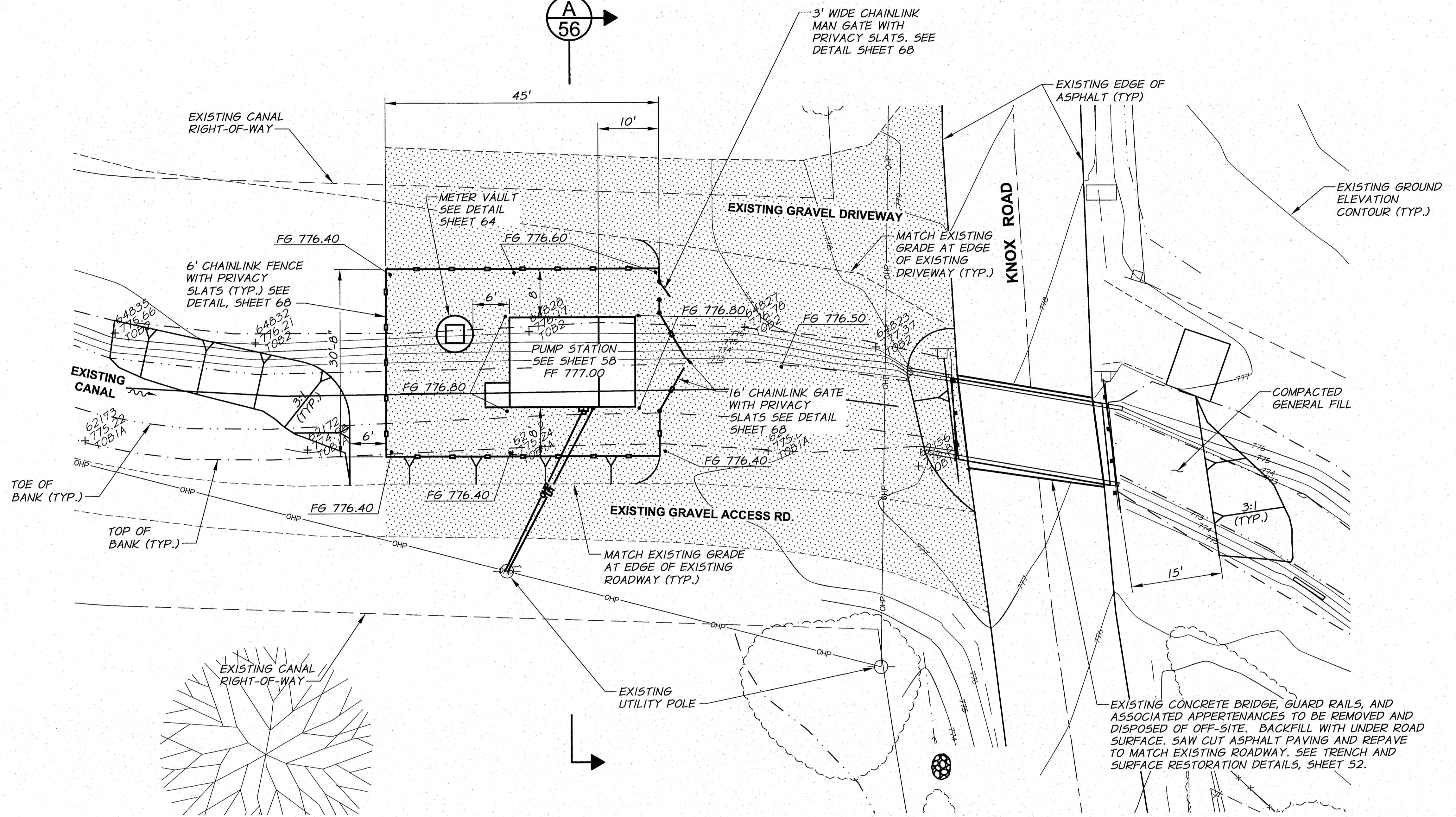
A  
56

**LEGEND**

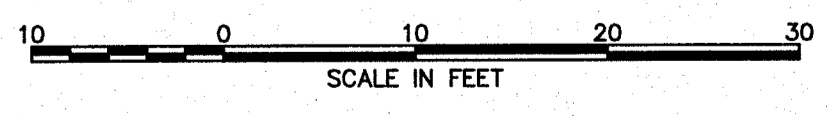
PLACE 6" OF COMPACTED BASE ROCK OVER COMPACTED NATIVE AND EMBANKMENT MATERIAL IN THIS AREA

**NOTES**

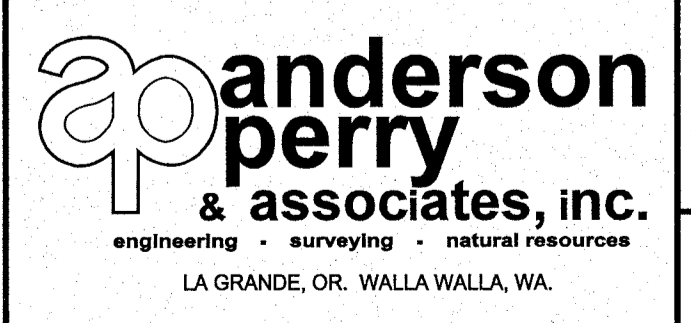
1. PIPING NOT SHOWN FOR CLARITY. SEE SHEET 55 FOR PIPING PLAN.
2. SITE SHALL BE CLEARED AND GRUBBED PRIOR TO CONSTRUCTION. MATERIAL REMOVED TO BE DISPOSED OF OFF SITE.
3. IMPORT GENERAL FILL AS REQUIRED TO ACHIEVE FINISH GRADES AS SHOWN.
4. FENCE CORNERS, BUILDING CORNERS, VAULT LOCATION, AND PIPE FITTING LOCATIONS WILL BE STAKED BY THE ENGINEER.
5. HYDROSEED DISTURBED AREAS WITHOUT BASE ROCK WITH APPROVED GRASS SEED MIX.
6. GRADING OUTSIDE OF FENCE AS REQUIRED BY THE ENGINEER.
7. ALL WORK THIS SHEET INCLUDED IN PAY ITEM "KNOX ROAD BOOSTER PUMP STATION".



REVISION		BY	DATE	HORIZ. SCALE 1"=10'	VERT. SCALE
DESIGNED BY R. HARRIS		XREFS: TB-BID.dwg		JOB NUMBER 1199-336	DATE 2011
DRAWN BY D. CHRISTMAN				ACAD FILE: KnoxPumpSta.dwg	
REVIEWED BY B. MOORE				COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.	



**RECORD DRAWINGS**  
 These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



**BENTON IRRIGATION DISTRICT**  
 IRRIGATION SYSTEM IMPROVEMENTS  
 PHASE 2C  
 KNOX ROAD BOOSTER PUMP STATION  
 SITE PLAN

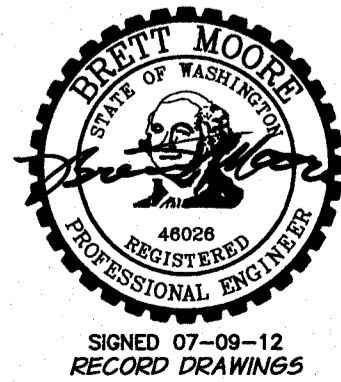
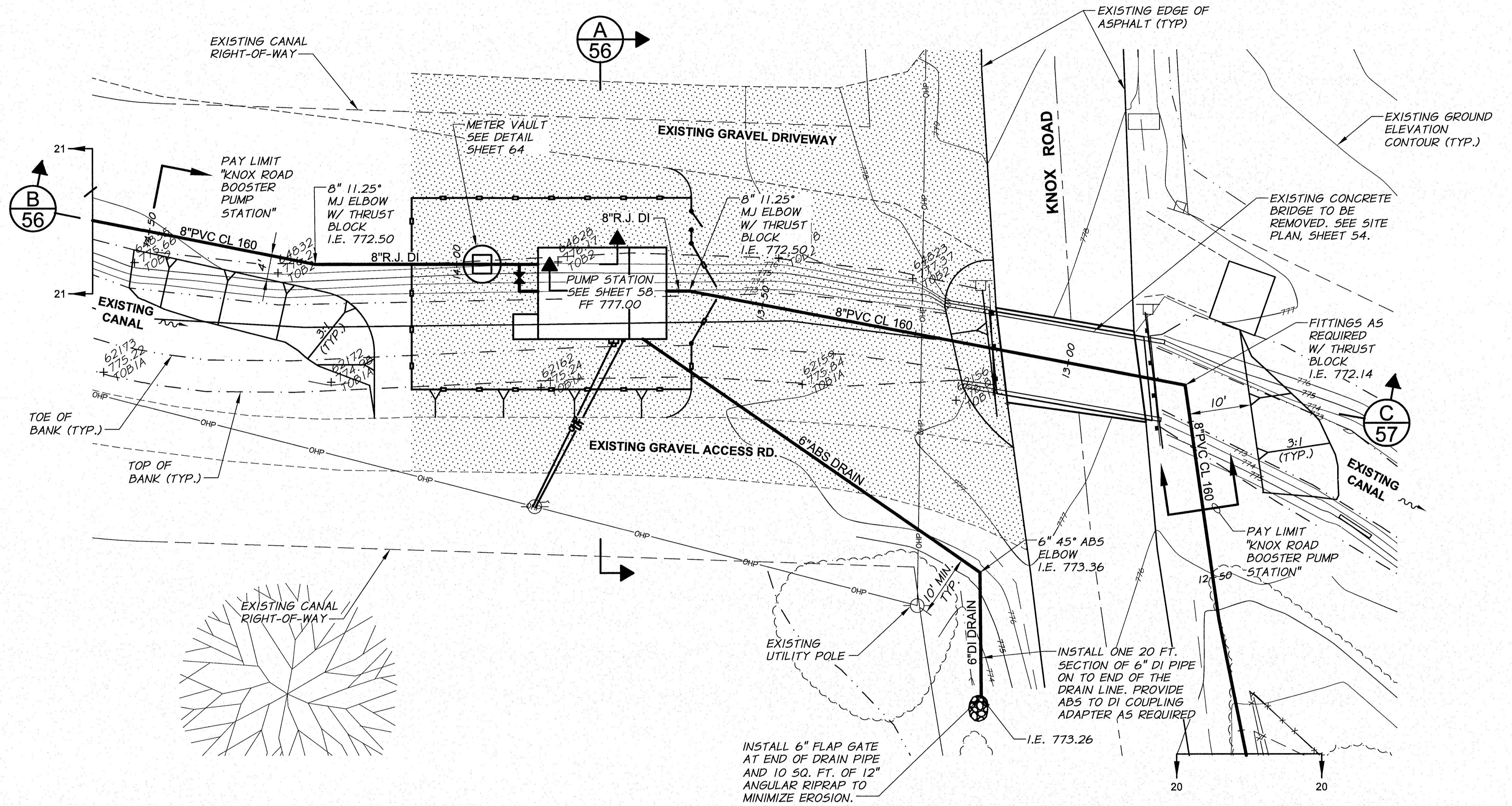
SHEET  
**54**

ARCHIVED



**NOTES**

1. PIPE FITTING LOCATIONS WILL BE STAKED BY THE ENGINEER.
2. HYDROSEED DISTURBED AREAS WITHOUT BASE ROCK WITH APPROVED GRASS SEED MIX.
3. SEE SITE PLAN, SHEET 54, FOR ADDITIONAL INFORMATION.
4. SEE PUMP STATION MECHANICAL SHEETS 60-62, FOR PIPING ELEVATIONS AND DETAILS NOT SHOWN.
5. SEE TRENCH DETAILS, SHEET 52, FOR REQUIRED SURFACE RESTORATION.

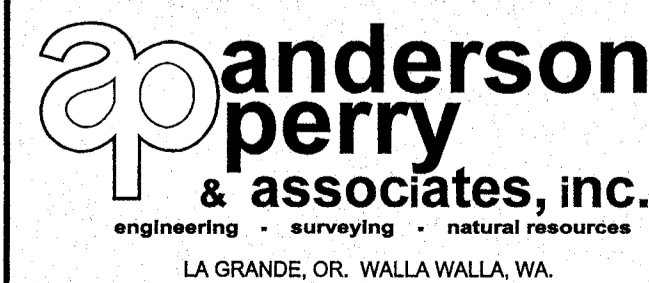


SIGNED 07-09-12  
RECORD DRAWINGS

REVISION		BY	DATE	HORZ. SCALE 1"=10'		VERT. SCALE	
DESIGNED BY R. HARRIS		XREFs: TB-BID.dwg		JOB NUMBER 1199-336		DATE 2011	
DRAWN BY D. CHRISTMAN		ACAD FILE: KnoxPumpSta.dwg		COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.			
REVIEWED BY B. MOORE							

**RECORD DRAWINGS**

These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



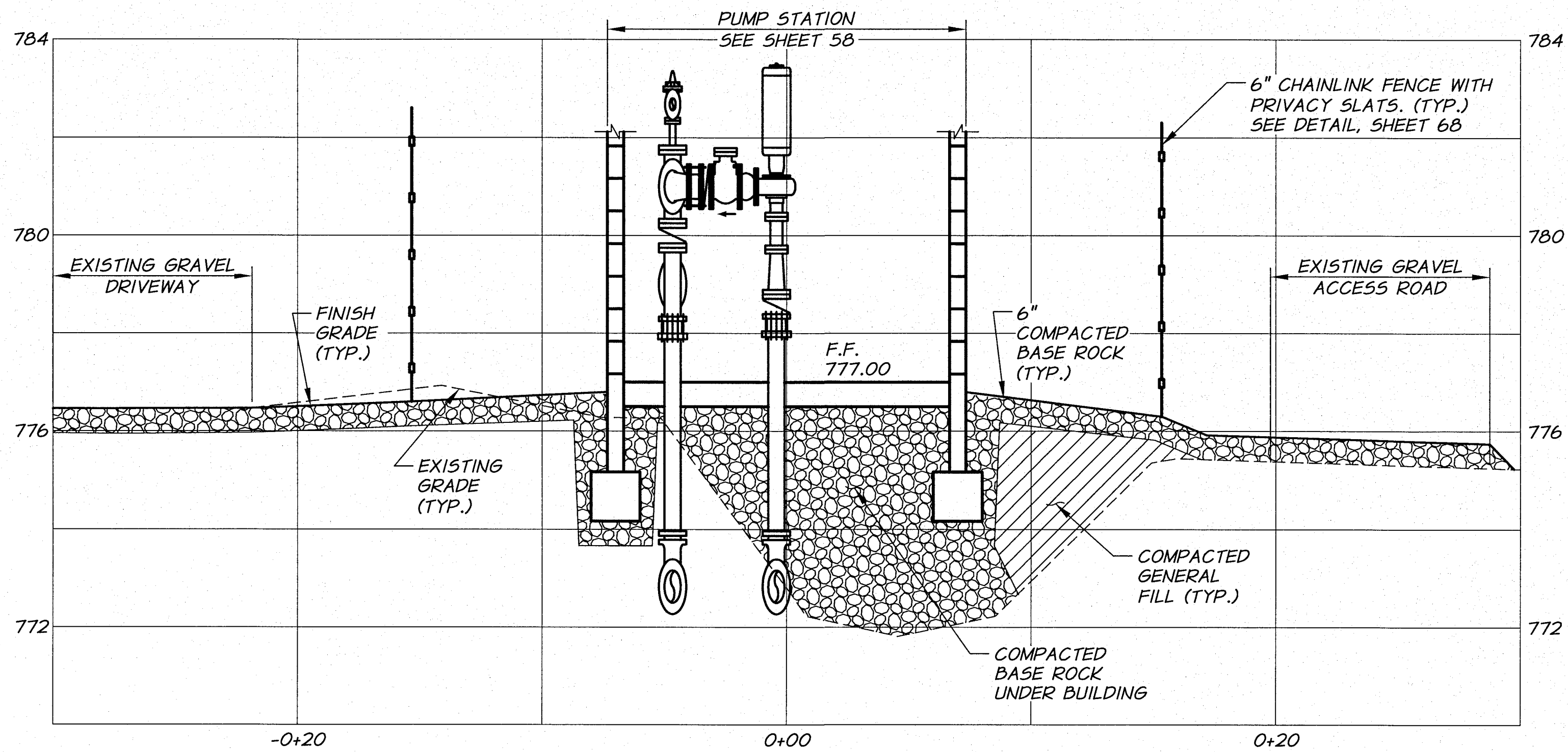
**BENTON IRRIGATION DISTRICT  
IRRIGATION SYSTEM IMPROVEMENTS  
PHASE 2C**

**KNOX ROAD BOOSTER PUMP STATION  
SITE PIPING PLAN**

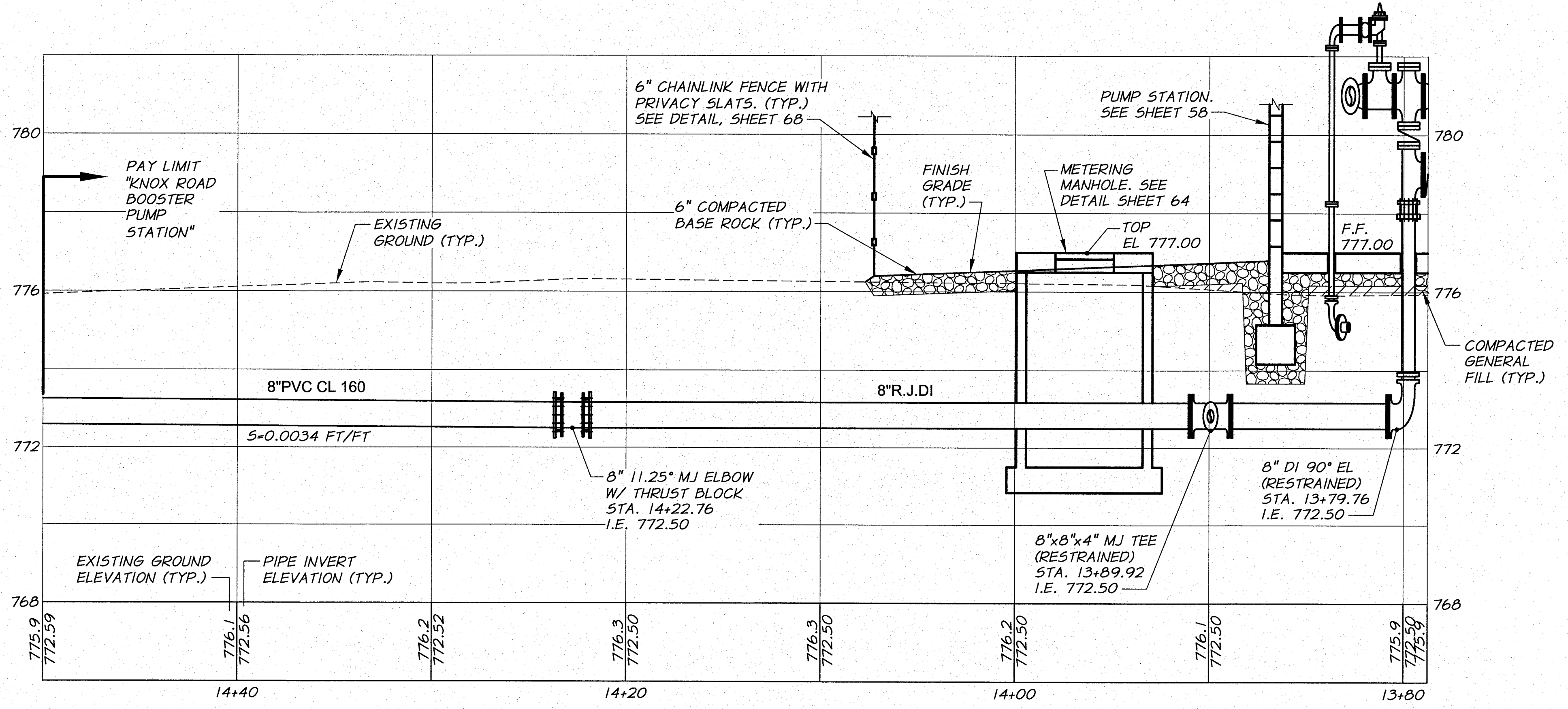
SHEET

**55**

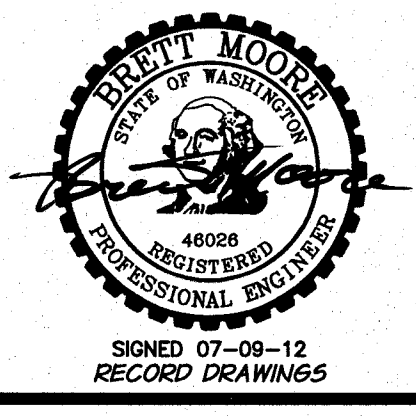
ARCHIVED



**SECTION A**  
 1/4"=1'-0" HORZ.  
 1/2"=1'-0" VERT.

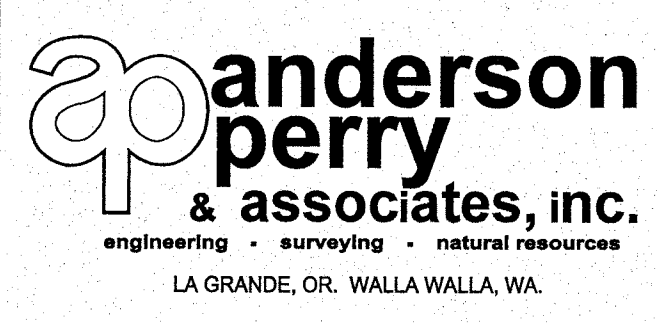


**SECTION B**  
 DISCHARGE PIPING PROFILE  
 1/4"=1'-0" HORZ.  
 1/2"=1'-0" VERT.

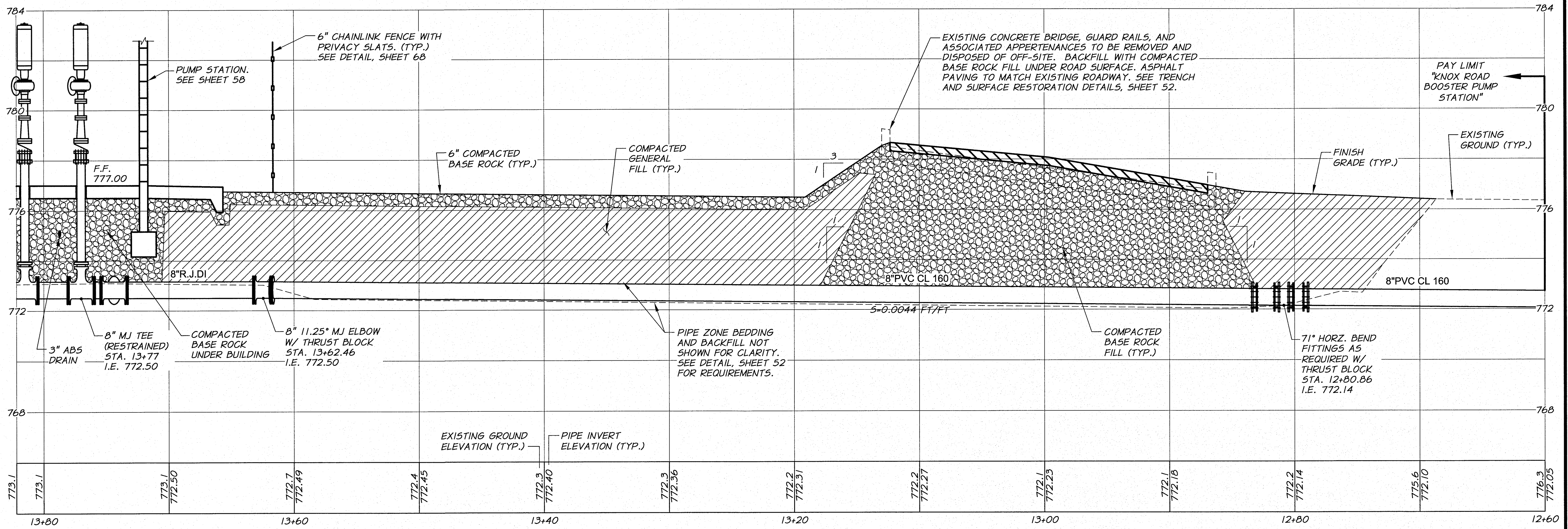


DESIGNED BY <b>R. HARRIS</b>	DATE	HORIZ. SCALE 1/4"=1'-0"	VERT. SCALE 1/2"=1'-0"
DRAWN BY <b>D. CHRISTMAN</b>	DATE 2011	JOB NUMBER 1199-336	ACAD FILE KnoxPumpSta.dwg
REVIEWED BY <b>B. MOORE</b>	XREFS: TB-BID.dwg		
COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.			

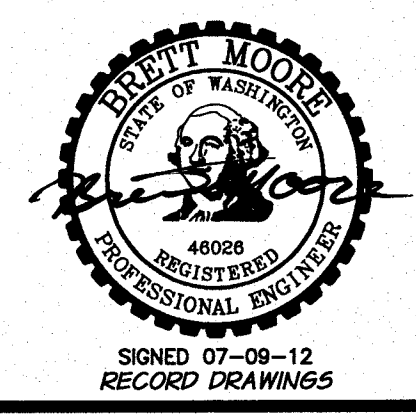
**RECORD DRAWINGS**  
 These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



**BENTON IRRIGATION DISTRICT**  
 IRRIGATION SYSTEM IMPROVEMENTS  
 PHASE 2C  
 KNOX ROAD BOOSTER PUMP STATION  
 PIPING SECTIONS I

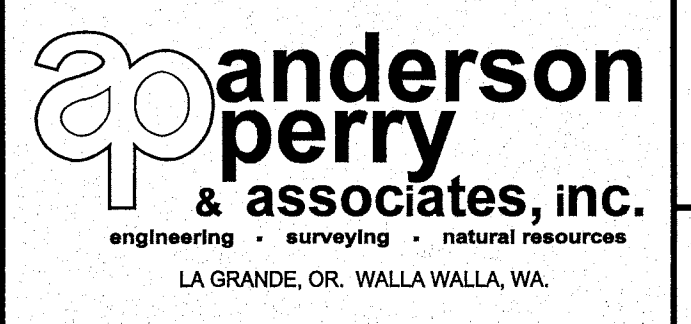


**SECTION C**  
**SUCTION PIPING PROFILE**  
 1/4" = 1'-0" HORZ.  
 1/2" = 1'-0" VERT.

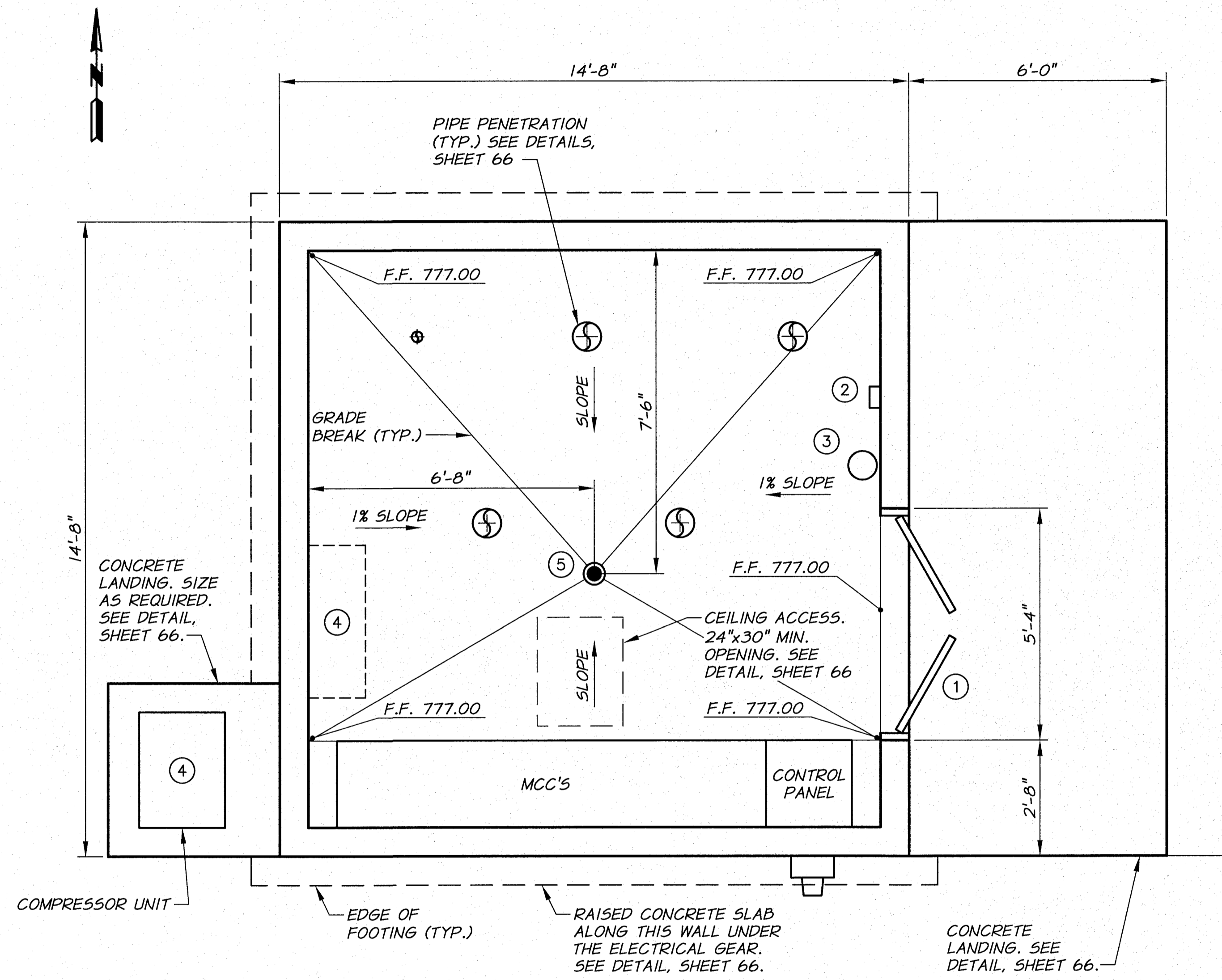


DESIGNED BY	R. HARRIS	XREFS:	TB-BID.dwg
DRAWN BY	D. CHRISTMAN	ACAD FILE:	KnoxPumpSta.dwg
REVIEWED BY	D. MOORE	COPYRIGHT	2011 BY ANDERSON-PERRY & ASSOC., INC.

**RECORD DRAWINGS**  
 These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



**BENTON IRRIGATION DISTRICT**  
 IRRIGATION SYSTEM IMPROVEMENTS  
 PHASE 2C  
 KNOX ROAD BOOSTER PUMP STATION  
 PIPING SECTIONS II



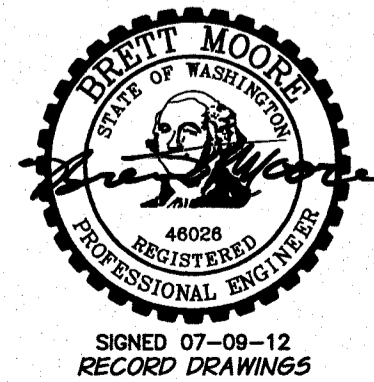
**FLOOR PLAN**  
1/2"=1'-0"

**EQUIPMENT SCHEDULE**

- ① 5'-0" X 6'-8" HOLLOW CORE DOUBLE EXTERIOR INSULATED STEEL DOOR WITH 5" WIDE X 1'-8" HIGH WINDOW IN EACH DOOR. SEE TECHNICAL SPECIFICATIONS "BUILDINGS AND STRUCTURES".
- ② THERMOSTAT, HEATING/COOLING CONTROL
- ③ 10 LB. TYPE ABC FIRE EXTINGUISHER. WALL MOUNT 4'-0" ABOVE FINISH FLOOR.
- ④ SPLIT SYSTEM AIR CONDITIONER WITH WALL MOUNTED INSIDE UNIT. SEE TECHNICAL SPECIFICATIONS.
- ⑤ FLOOR DRAIN. SEE DETAIL, SHEET 67.

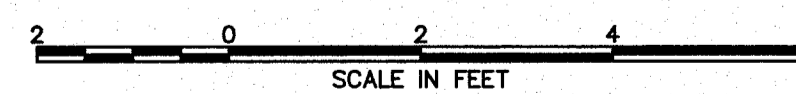
**NOTES**

- 1. SEE TECHNICAL SPECIFICATIONS, AND TYPICAL DETAILS FOR BUILDING CONSTRUCTION REQUIREMENTS.
- 2. SEE SHEET 60 FOR MECHANICAL DETAILS NOT SHOWN.
- 3. ORIENT ROOF LINE EAST-WEST.
- 4. CEILING HEIGHT = 9'-9" (FINISHED FLOOR TO CEILING).
- 5. BLOCK WALLS SHALL BE GROUTED SOLID.
- 6. SEE ELECTRICAL DRAWINGS FOR ACTUAL EQUIPMENT LOCATION AND REQUIREMENTS.
- 7. PAINT BUILDING PER REQUIREMENTS OF TECHNICAL SPECIFICATIONS "PAINTING".
- 8. ASSEMBLE MECHANICAL PIPE AND FITTINGS PRIOR TO PLACING FLOOR SLAB.



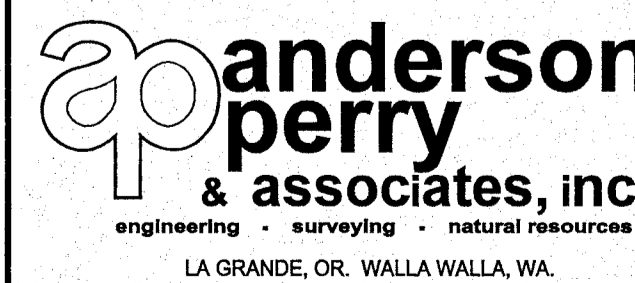
SIGNED 07-29-12  
RECORD DRAWINGS

REVISION	BY	DATE	HORIZ. SCALE	VERT. SCALE
DESIGNED BY	R. HARRIS		1/2"=1'-0"	
DRAWN BY	D. CHRISTMAN		JOB NUMBER	1199-336
REVIEWED BY	D. MOORE		ACAD FILE:	KnoxPumpSta.dwg
COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.				



**RECORD DRAWINGS**

These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.

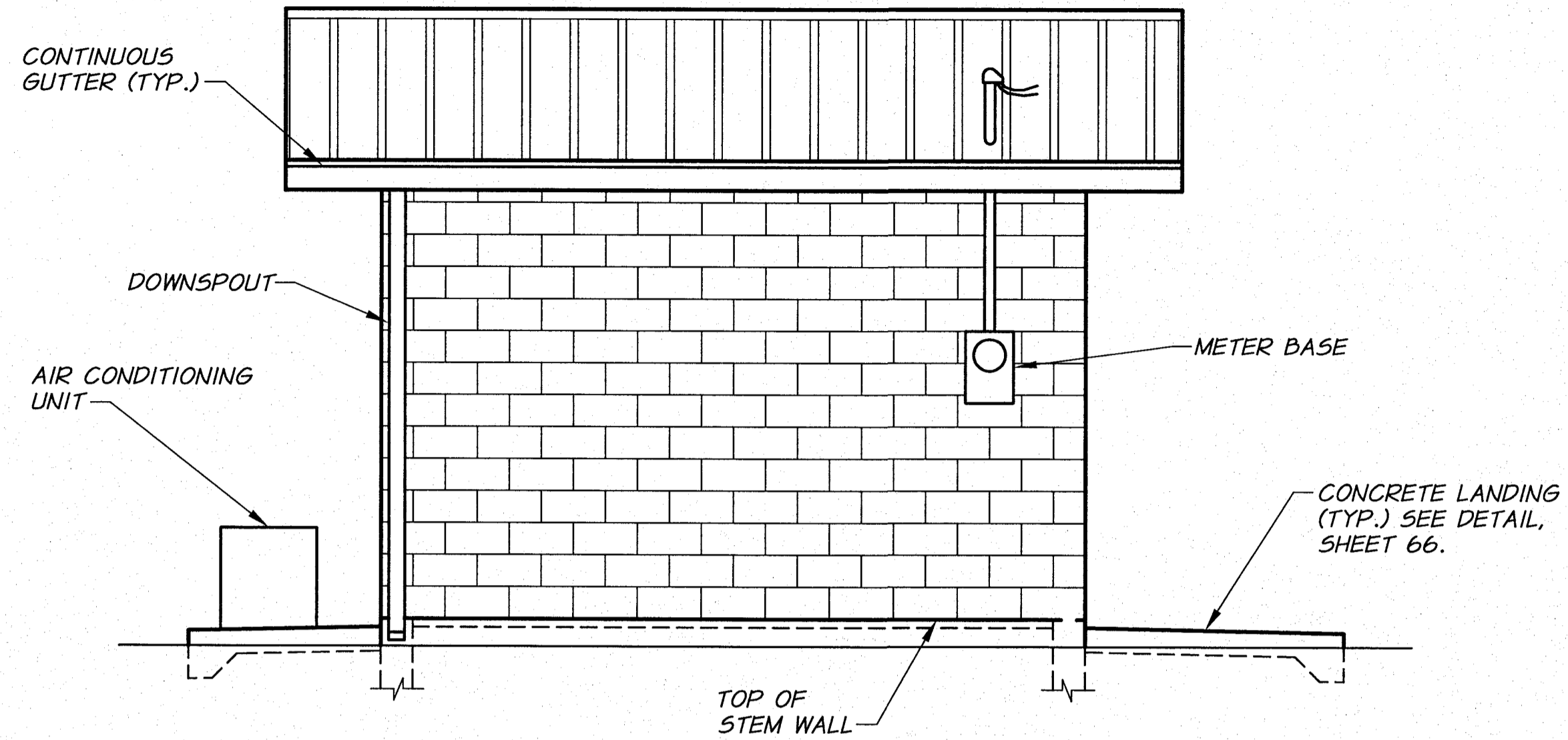


**BENTON IRRIGATION DISTRICT**  
IRRIGATION SYSTEM IMPROVEMENTS  
PHASE 2C

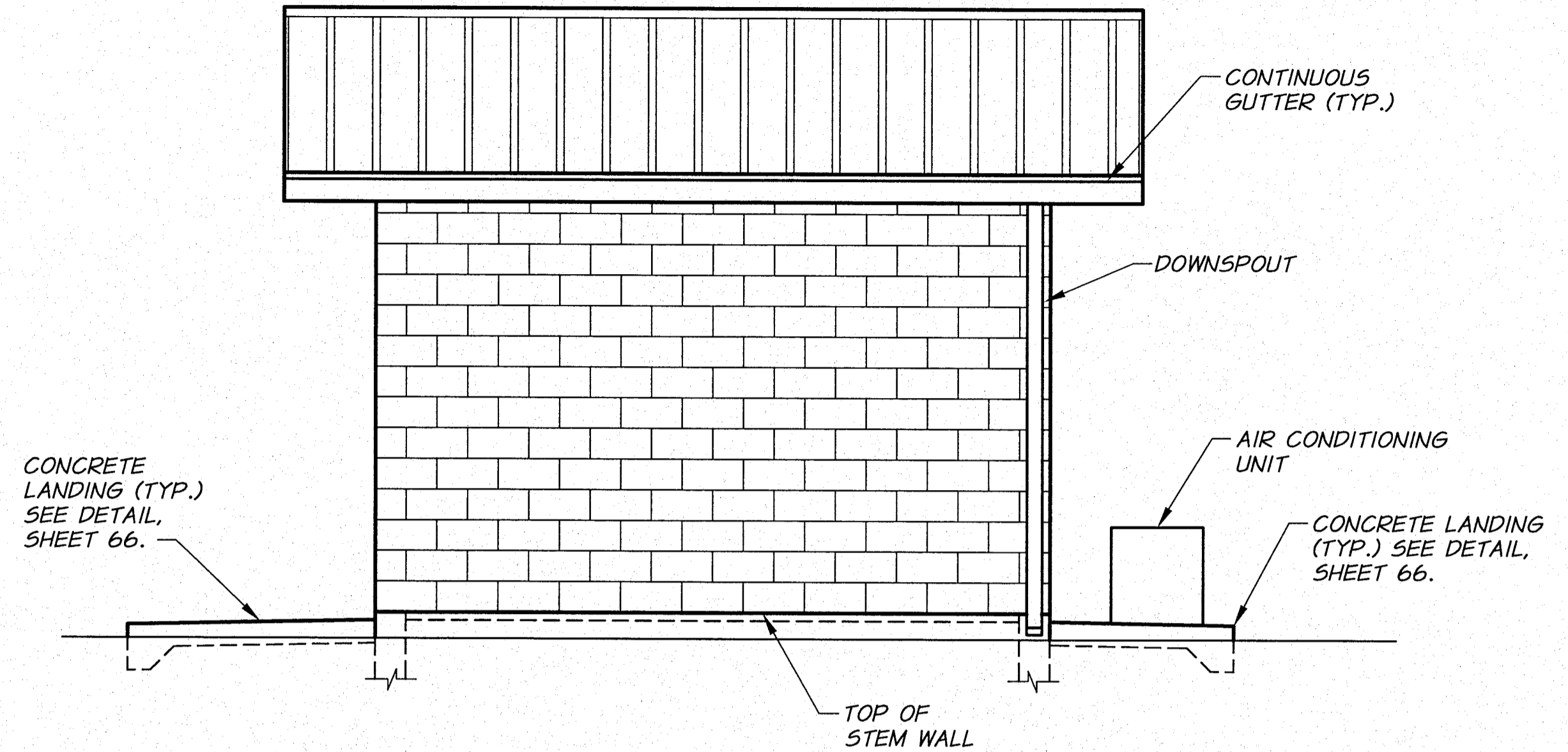
**KNOX ROAD BOOSTER PUMP STATION**  
FLOOR PLAN

SHEET

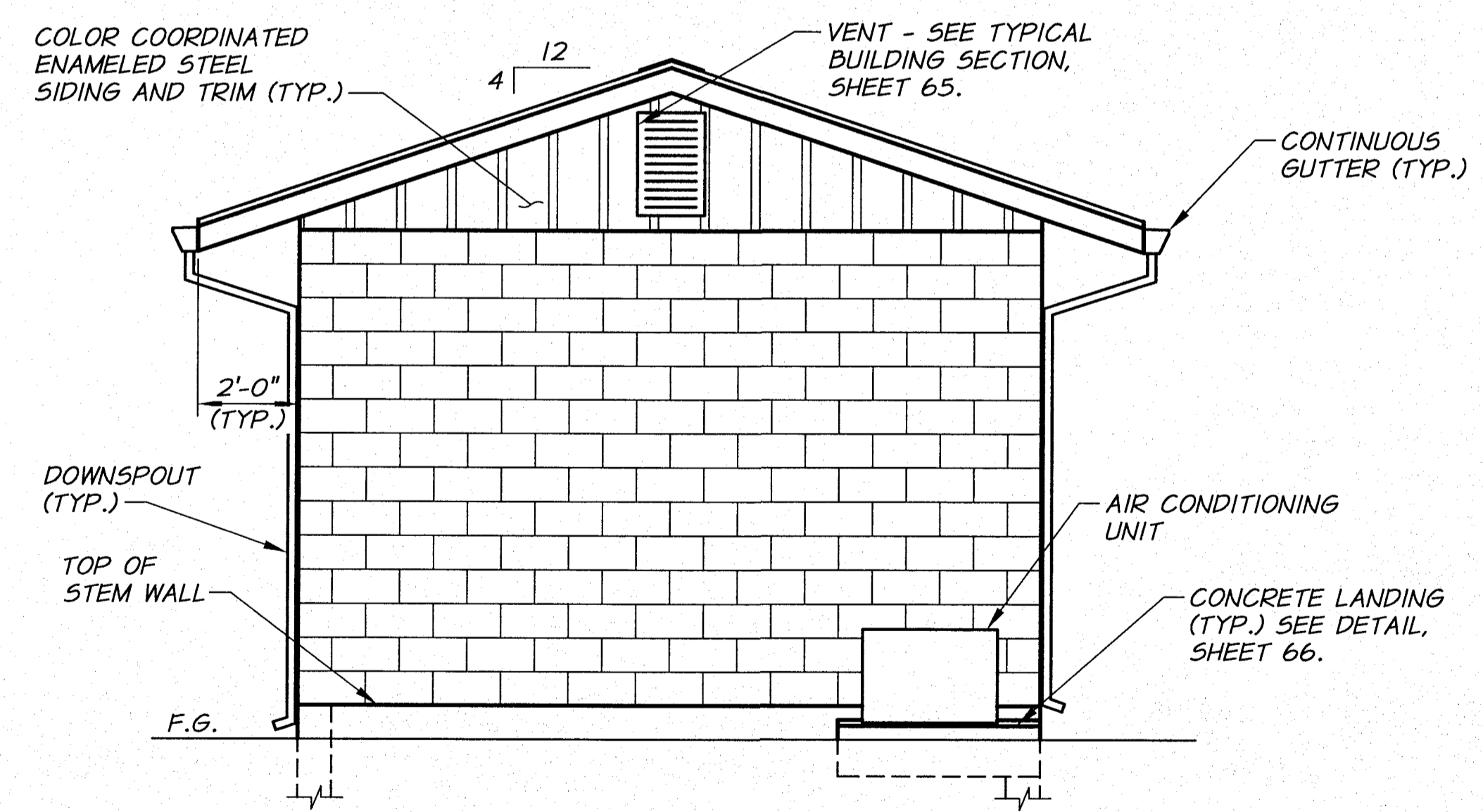
**58**



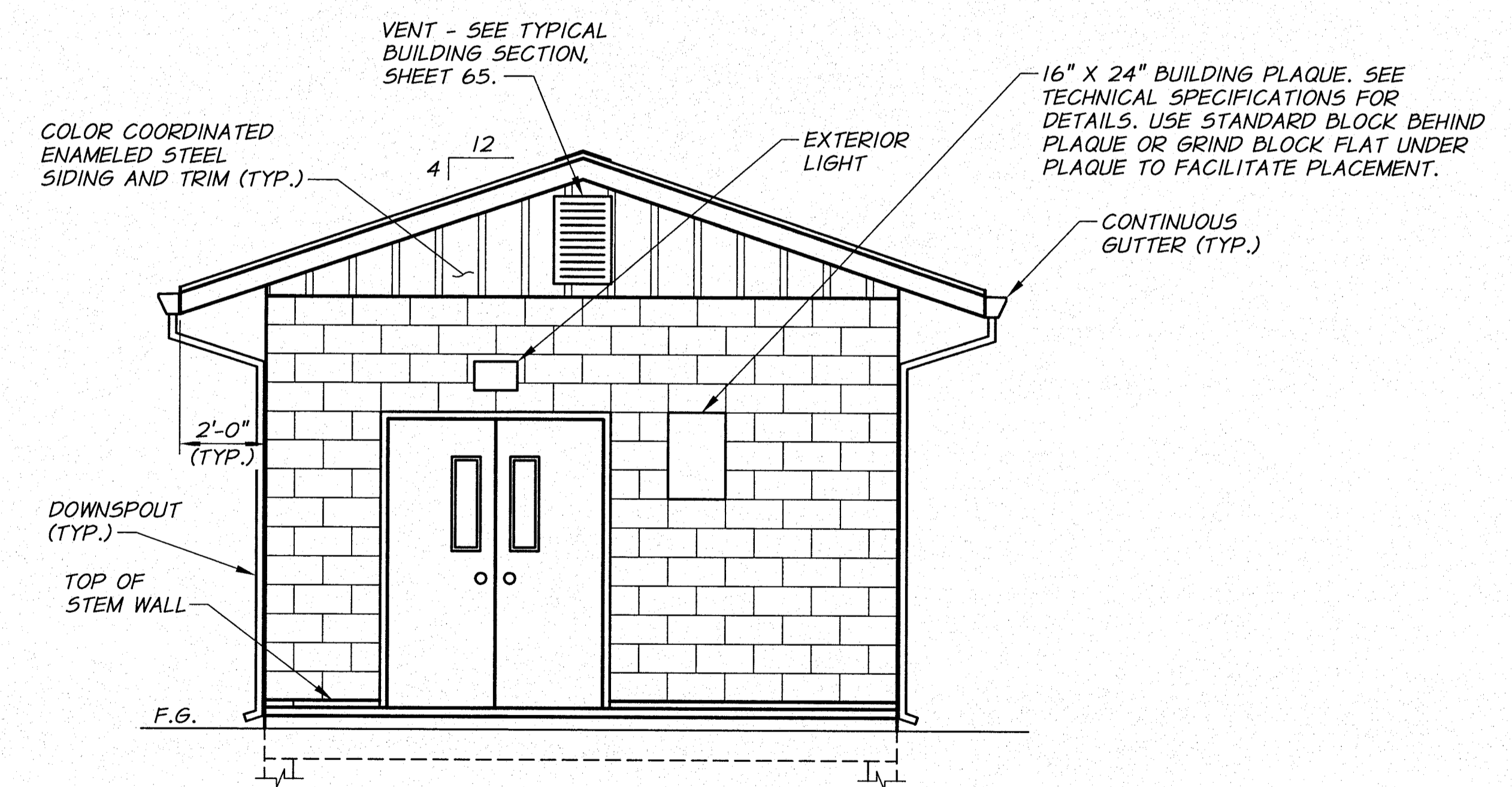
**SOUTH ELEVATION**  
3/8"=1'-0"



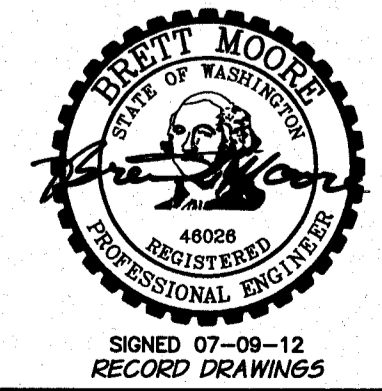
**NORTH ELEVATION**  
3/8"=1'-0"



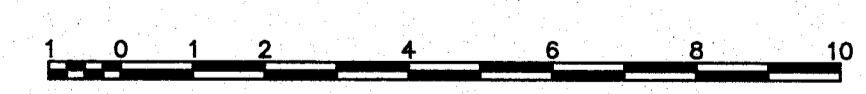
**WEST ELEVATION**  
3/8"=1'-0"



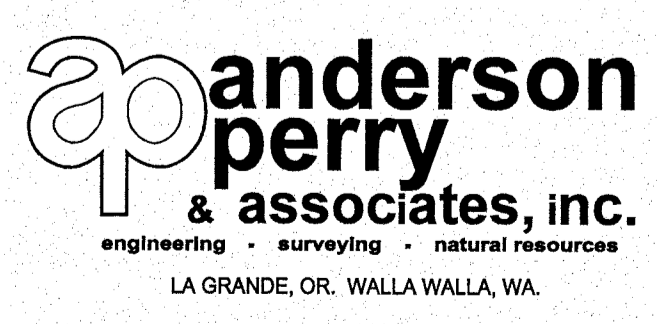
**EAST ELEVATION**  
3/8"=1'-0"



REVISION		BY	DATE	HORIZ. SCALE 3/8"=1'-0"	VERT. SCALE
DESIGNED BY	R. HARRIS			JOB NUMBER 1199-336	DATE 2011
DRAWN BY	D. CHRISTMAN			ACAD FILE: KnoxPumpSta.dwg	
REVIEWED BY	B. MOORE			COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.	



**RECORD DRAWINGS**  
These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.

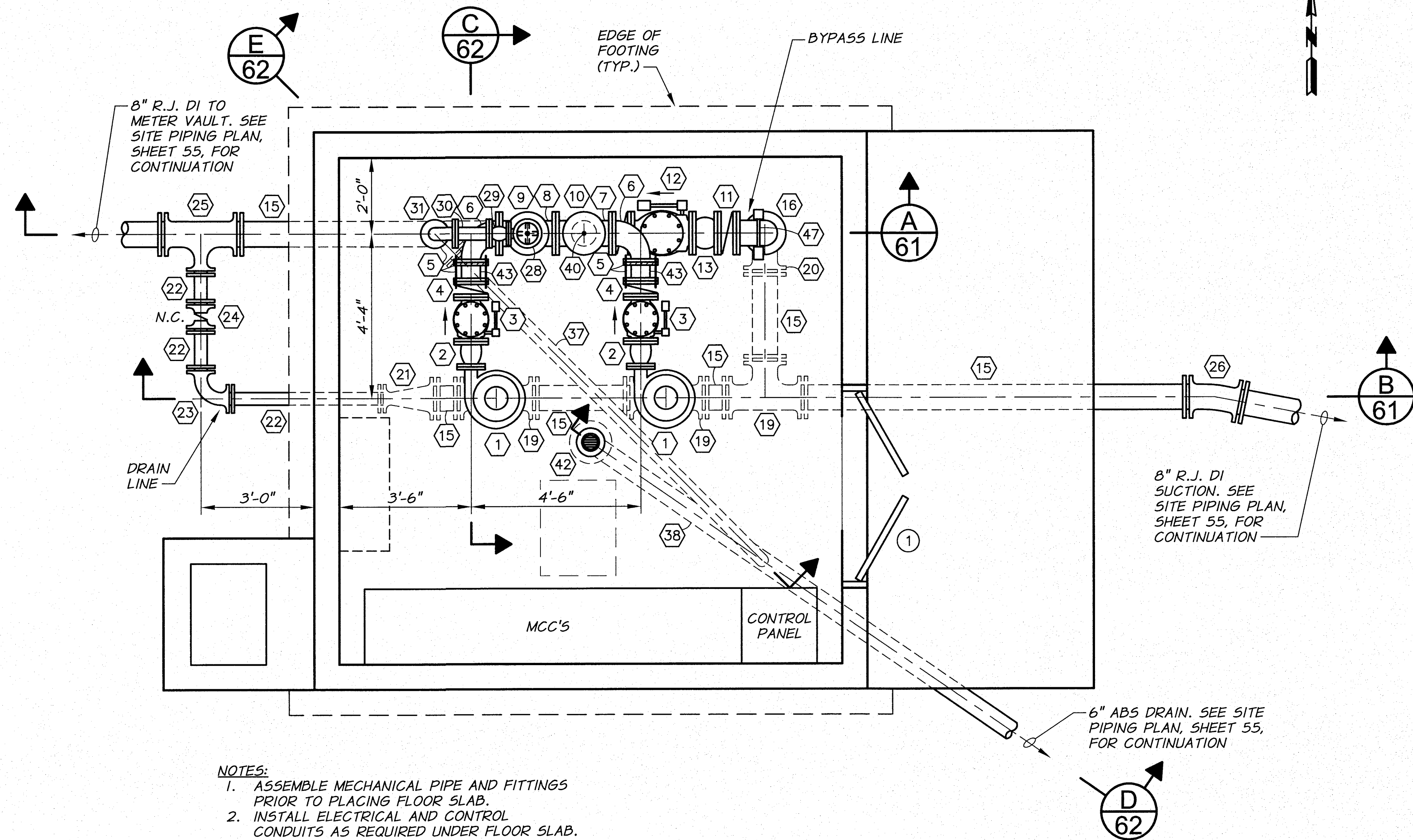


**BENTON IRRIGATION DISTRICT**  
IRRIGATION SYSTEM IMPROVEMENTS  
PHASE 2C  
**KNOX ROAD BOOSTER PUMP STATION ELEVATIONS**

SHEET  
**59**

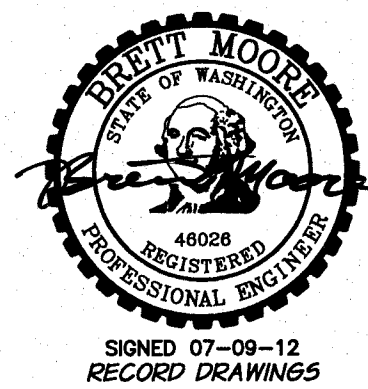
**PIPE AND FITTING SCHEDULE**

- ① CENTRIFUGAL, CLOSE COUPLED, END SUCTION, VERTICAL MOUNT PUMP ASSEMBLY. SEE TECHNICAL SPECIFICATIONS.
- ② 6"x\_\_\_\_" FLG FLEXIBLE CONNECTOR WITH RESTRAINT. SIZE TO MATCH PUMP DISCHARGE FLANGE.
- ③ 6" FLG SWING CHECK VALVE
- ④ 6" FLG BUTTERFLY VALVE WITH HANDWHEEL OPERATOR AND POSITION INDICATOR. SEE TECHNICAL SPECIFICATIONS.
- ⑤ 6" UNI- FLANGE WITH TIE ROD RESTRAINT. PROVIDE A MINIMUM OF 2 TIE RODS, PLACED 180 DEG. APART, SPANNING PIPE SPOOL AS SHOWN.
- ⑥ 8"x6" FLG 90° REDUCING ELBOW
- ⑦ 8" FLG CROSS
- ⑧ 8" FLG TEE
- ⑨ 8" BLIND FLANGE TAPPED FOR 3" IPT
- ⑩ 8" BLIND FLANGE TAPPED FOR 1" IPT
- ⑪ 8" FLG BUTTERFLY VALVE WITH HANDWHEEL OPERATOR AND POSITION INDICATOR. SEE TECHNICAL SPECIFICATIONS.
- ⑫ 8" FLG SWING CHECK VALVE
- ⑬ 8" FLG FLEXIBLE CONNECTOR X 8" LONG, WITH RESTRAINT
- ⑭ 8" RESTRAINED FLG COUPLING ADAPTER
- ⑮ 8" DI SPOOL, LENGTH AS REQUIRED
- ⑯ 8" FLG 90° ELBOW
- ⑰ 8"x6" FLG REDUCER - VERIFY PUMP SUCTION SIZE
- ⑱ 6" FLG SPOOL X 8" LONG - VERIFY PUMP SUCTION SIZE
- ⑲ 8" MJ TEE WITH RESTRAINED JOINTS AND 4 SQ. FT. THRUST BLOCK
- ⑳ 8" MJ 90° ELBOW WITH RESTRAINED JOINTS AND 6 SQ. FT. THRUST BLOCK
- ㉑ 8"x4" MJ REDUCER WITH RESTRAINED JOINTS
- ㉒ 4" DI SPOOL, LENGTH AS REQUIRED
- ㉓ 4" MJ 90° ELBOW WITH RESTRAINED JOINTS
- ㉔ 4" MJ GATE VALVE WITH RESTRAINED JOINTS AND VALVE BOX. SEE VALVE BOX DETAILS, SHEET 51
- ㉕ 8"x8"x4" MJ TEE WITH RESTRAINED JOINTS
- ㉖ 8" MJ 11.25° ELBOW WITH RESTRAINED JOINTS
- ㉗ 3" GIP NIPPLE X 6" LONG WITH 3" IPT X 3" FLANGE ADAPTER
- ㉘ 3" FLG ANGLE PRESSURE RELIEF VALVE. CLA-VAL MODEL 50-01 OR APPROVED EQUAL.
- ㉙ 3"x4" FLG FLEXIBLE REDUCING CONNECTOR X 6" LONG, WITH RESTRAINT
- ㉚ 4" FLG SPOOL X 12" LONG
- ㉛ 4" FLG 90° ELBOW
- ㉜ 4" FLGxPE DI SPOOL, LENGTH AS REQUIRED
- ㉝ 4" UNI-FLANGE
- ㉞ 4" DI SPOOL, LENGTH AS REQUIRED
- ㉟ 4" MJ 90° ELBOW
- ㊱ 4" DIXABS COUPLING ADAPTER AS REQUIRED
- ㊲ 4" ABS PIPE AND FITTINGS AS REQUIRED
- ㊳ 6" ABS PIPE AND FITTINGS AS REQUIRED
- ㊴ PIPE PENETRATION. SEE DETAILS, SHEET 66.
- ㊵ 1" COMBINATION AIR VALVE, APCO 143C OR APPROVED EQUAL, PRESSURE GAUGE AND TRANSDUCER. SEE DETAIL SHEET 67.
- ㊶ PIPE SUPPORT. SEE DETAILS, SHEET 49.
- ㊷ 6" FLOOR DRAIN. SEE DETAIL SHEET 67.
- ㊸ 6" FLGxPE SPOOL, LENGTH AS REQUIRED
- ㊹ 8" FLG TEE WITH BOSS AND HOLE BORED AND TAPPED FOR 1/2" IPT
- ㊺ PRESSURE TRANSDUCER. FITTINGS AS REQUIRED, SEE TECHNICAL SPECIFICATIONS.
- ㊻ 6" ABS TEE WITH PIPE AND FITTINGS AS REQUIRED.
- ㊼ PRESSURE TRANSDUCER AND GAUGE. FITTINGS AS REQUIRED, SEE TECHNICAL SPECIFICATIONS.



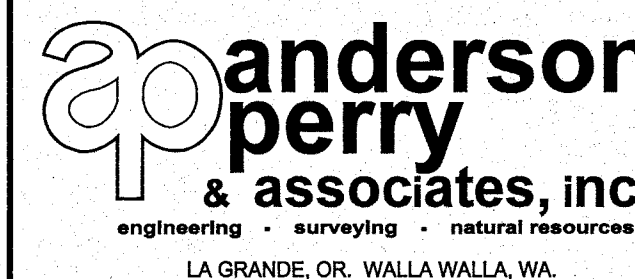
**NOTES:**  
 1. ASSEMBLE MECHANICAL PIPE AND FITTINGS PRIOR TO PLACING FLOOR SLAB.  
 2. INSTALL ELECTRICAL AND CONTROL CONDUITS AS REQUIRED UNDER FLOOR SLAB.

**MECHANICAL PLAN**  
 1/2"=1'-0"

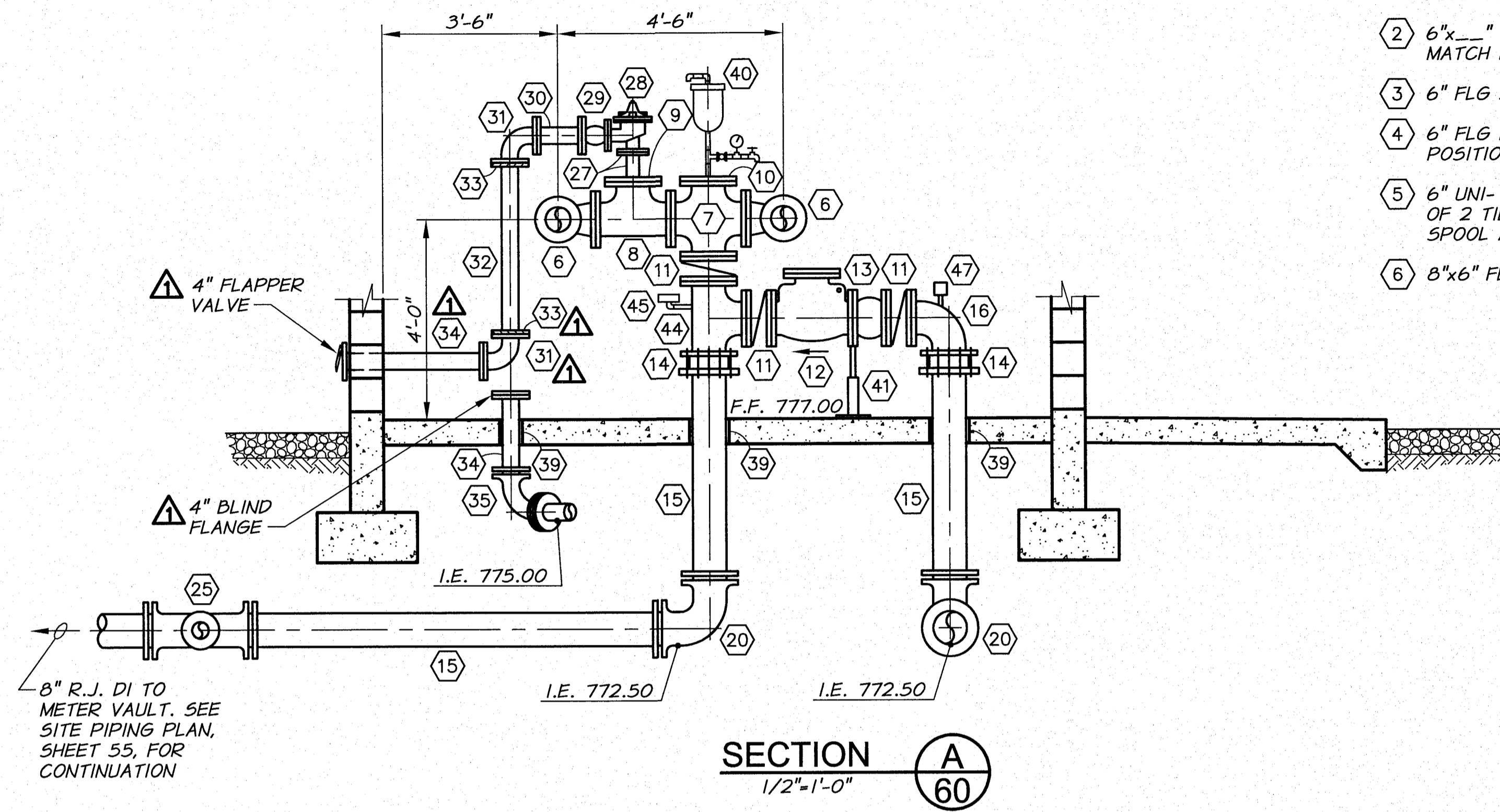


REVISION	BY	DATE	HORIZ. SCALE 1/2"=1'-0"	VERT. SCALE
DESIGNED BY R. HARRIS			JOB NUMBER 1199-336	DATE 2011
DRAWN BY D. CHRISTMAN			ACAD FILE: KnoxPumpSta.dwg	
REVIEWED BY B. MOORE			COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.	

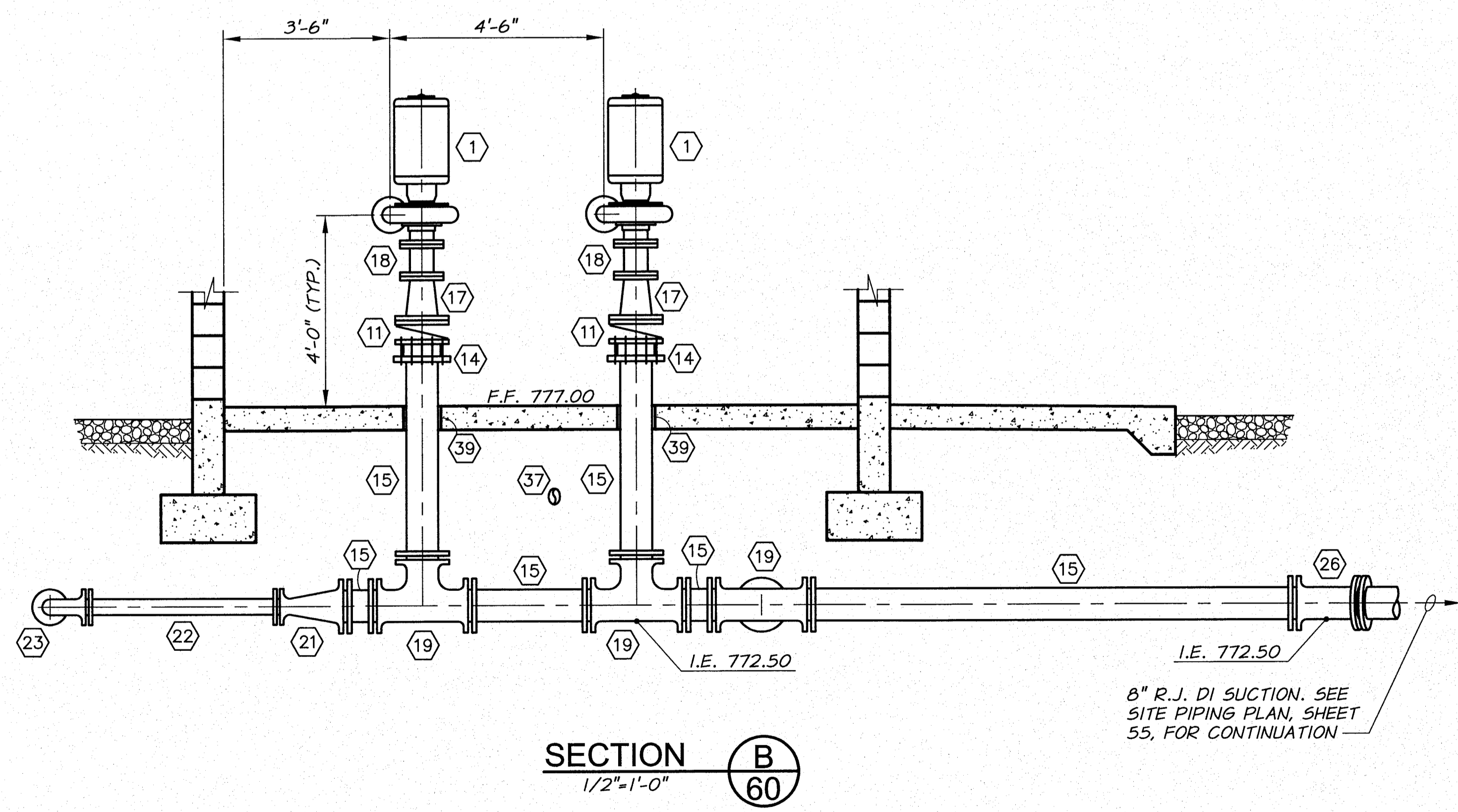
**RECORD DRAWINGS**  
 These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



**BENTON IRRIGATION DISTRICT**  
 IRRIGATION SYSTEM IMPROVEMENTS  
 PHASE 2C  
**KNOX ROAD BOOSTER PUMP STATION**  
 MECHANICAL PLAN



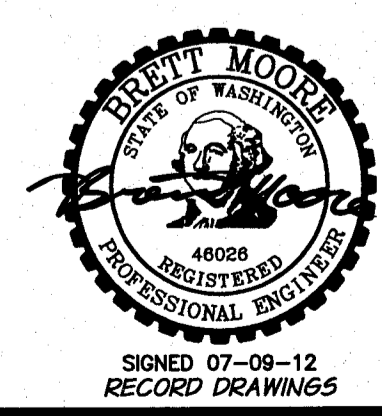
SECTION A  
1/2"=1'-0"



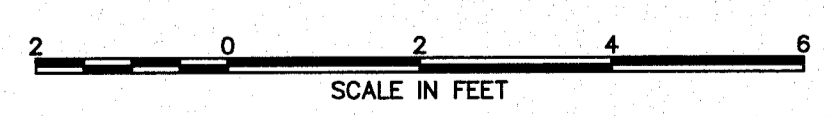
SECTION B  
1/2"=1'-0"

PIPE AND FITTING SCHEDULE

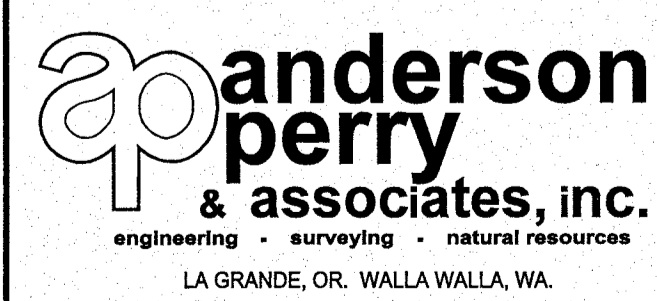
- ① CENTRIFUGAL, CLOSE COUPLED, END SUCTION, VERTICAL MOUNT PUMP ASSEMBLY. SEE TECHNICAL SPECIFICATIONS.
- ② 6"x\_\_\_" FLG FLEXIBLE CONNECTOR WITH RESTRAINT. SIZE TO MATCH PUMP DISCHARGE FLANGE.
- ③ 6" FLG SWING CHECK VALVE
- ④ 6" FLG BUTTERFLY VALVE WITH HANDWHEEL OPERATOR AND POSITION INDICATOR. SEE TECHNICAL SPECIFICATIONS.
- ⑤ 6" UNI- FLANGE WITH TIE ROD RESTRAINT. PROVIDE A MINIMUM OF 2 TIE RODS, PLACED 180 DEG. APART, SPANNING PIPE SPOOL AS SHOWN.
- ⑥ 8"x6" FLG 90° REDUCING ELBOW
- ⑦ 8" FLG CROSS
- ⑧ 8" FLG TEE
- ⑨ 8" BLIND FLANGE TAPPED FOR 3" IPT
- ⑩ 8" BLIND FLANGE TAPPED FOR 1" IPT
- ⑪ 8" FLG BUTTERFLY VALVE WITH HANDWHEEL OPERATOR AND POSITION INDICATOR. SEE TECHNICAL SPECIFICATIONS.
- ⑫ 8" FLG SWING CHECK VALVE
- ⑬ 8" FLG FLEXIBLE CONNECTOR X 8" LONG, WITH RESTRAINT
- ⑭ 8" RESTRAINED FLG COUPLING ADAPTER
- ⑮ 8" DI SPOOL, LENGTH AS REQUIRED
- ⑯ 8" FLG 90° ELBOW
- ⑰ 8"x6" FLG REDUCER - VERIFY PUMP SUCTION SIZE
- ⑱ 6" FLG SPOOL X 8" LONG - VERIFY PUMP SUCTION SIZE
- ⑲ 8" MJ TEE WITH RESTRAINED JOINTS AND 4 SQ. FT. THRUST BLOCK
- ⑳ 8" MJ 90° ELBOW WITH RESTRAINED JOINTS AND 6 SQ. FT. THRUST BLOCK
- ㉑ 8"x4" MJ REDUCER WITH RESTRAINED JOINTS
- ㉒ 4" DI SPOOL, LENGTH AS REQUIRED
- ㉓ 4" MJ 90° ELBOW WITH RESTRAINED JOINTS
- ㉔ 4" MJ GATE VALVE WITH RESTRAINED JOINTS AND VALVE BOX. SEE VALVE BOX DETAILS, SHEET 51
- ㉕ 8"x8"x4" MJ TEE WITH RESTRAINED JOINTS
- ㉖ 8" MJ 11.25° ELBOW WITH RESTRAINED JOINTS
- ㉗ 3" GIP NIPPLE X 6" LONG WITH 3" IPT X 3" FLANGE ADAPTER
- ㉘ 3" FLG ANGLE PRESSURE RELIEF VALVE. CLA-VAL MODEL 50-01 OR APPROVED EQUAL.
- ㉙ 3"x4" FLG FLEXIBLE REDUCING CONNECTOR X 6" LONG, WITH RESTRAINT
- ㉚ 4" FLG SPOOL X 12" LONG
- ㉛ 4" FLG 90° ELBOW
- ㉜ 4" FLGxPE DI SPOOL, LENGTH AS REQUIRED
- ㉝ 4" UNI-FLANGE
- ㉞ 4" DI SPOOL, LENGTH AS REQUIRED
- ㉟ 4" MJ 90° ELBOW
- ㊱ 4" DIXABS COUPLING ADAPTER AS REQUIRED
- ㊲ 4" ABS PIPE AND FITTINGS AS REQUIRED
- ㊳ 6" ABS PIPE AND FITTINGS AS REQUIRED
- ㊴ PIPE PENETRATION. SEE DETAILS, SHEET 66.
- ㊵ 1" COMBINATION AIR VALVE, APCO 143C OR APPROVED EQUAL, PRESSURE GAUGE AND TRANSDUCER. SEE DETAIL SHEET 67.
- ㊶ PIPE SUPPORT. SEE DETAILS, SHEET 49.
- ㊷ 6" FLOOR DRAIN. SEE DETAIL SHEET 67.
- ㊸ 6" FLGxPE SPOOL, LENGTH AS REQUIRED
- ㊹ 8" FLG TEE WITH BOSS AND HOLE BORED AND TAPPED FOR 1/2" IPT
- ㊺ PRESSURE TRANSDUCER. FITTINGS AS REQUIRED, SEE TECHNICAL SPECIFICATIONS.
- ㊻ 6" ABS TEE WITH PIPE AND FITTINGS AS REQUIRED.
- ㊼ PRESSURE TRANSDUCER AND GAUGE. FITTINGS AS REQUIRED, SEE TECHNICAL SPECIFICATIONS.



RECORD DRAWINGS		BY	B.M.	DATE	5/12
DESIGNED BY	R. HARRIS	XREFS:	TB-BID.dwg		
DRAWN BY	D. CHRISTMAN	JOB NUMBER	1199-336		
REVIEWED BY	B. MOORE	ACAD FILE:	KnoxPumpSta.dwg		
COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.					



**RECORD DRAWINGS**  
These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



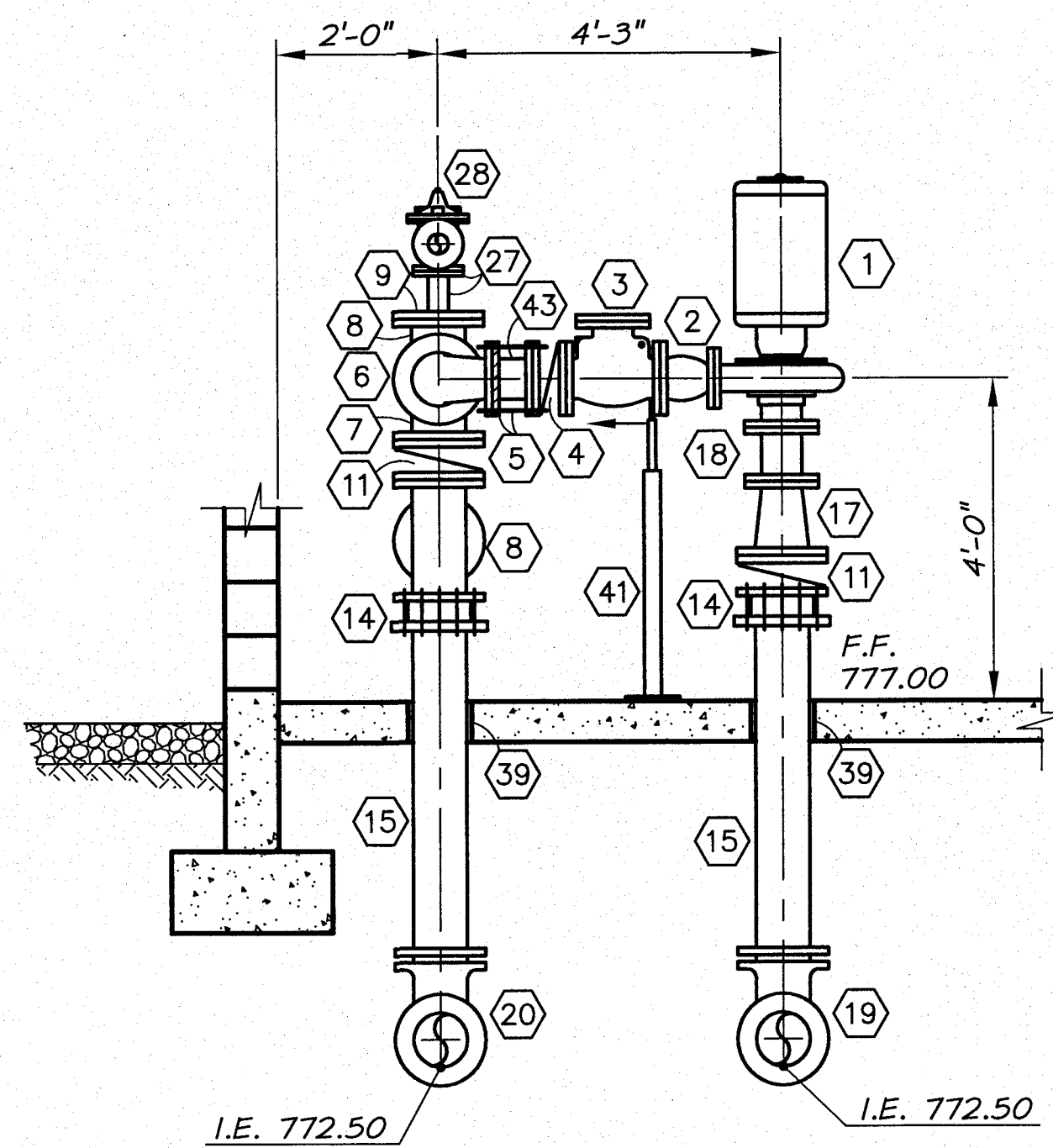
**BENTON IRRIGATION DISTRICT**  
IRRIGATION SYSTEM IMPROVEMENTS  
PHASE 2C  
**KNOX ROAD BOOSTER PUMP STATION**  
MECHANICAL SECTIONS I

SHEET  
**61**

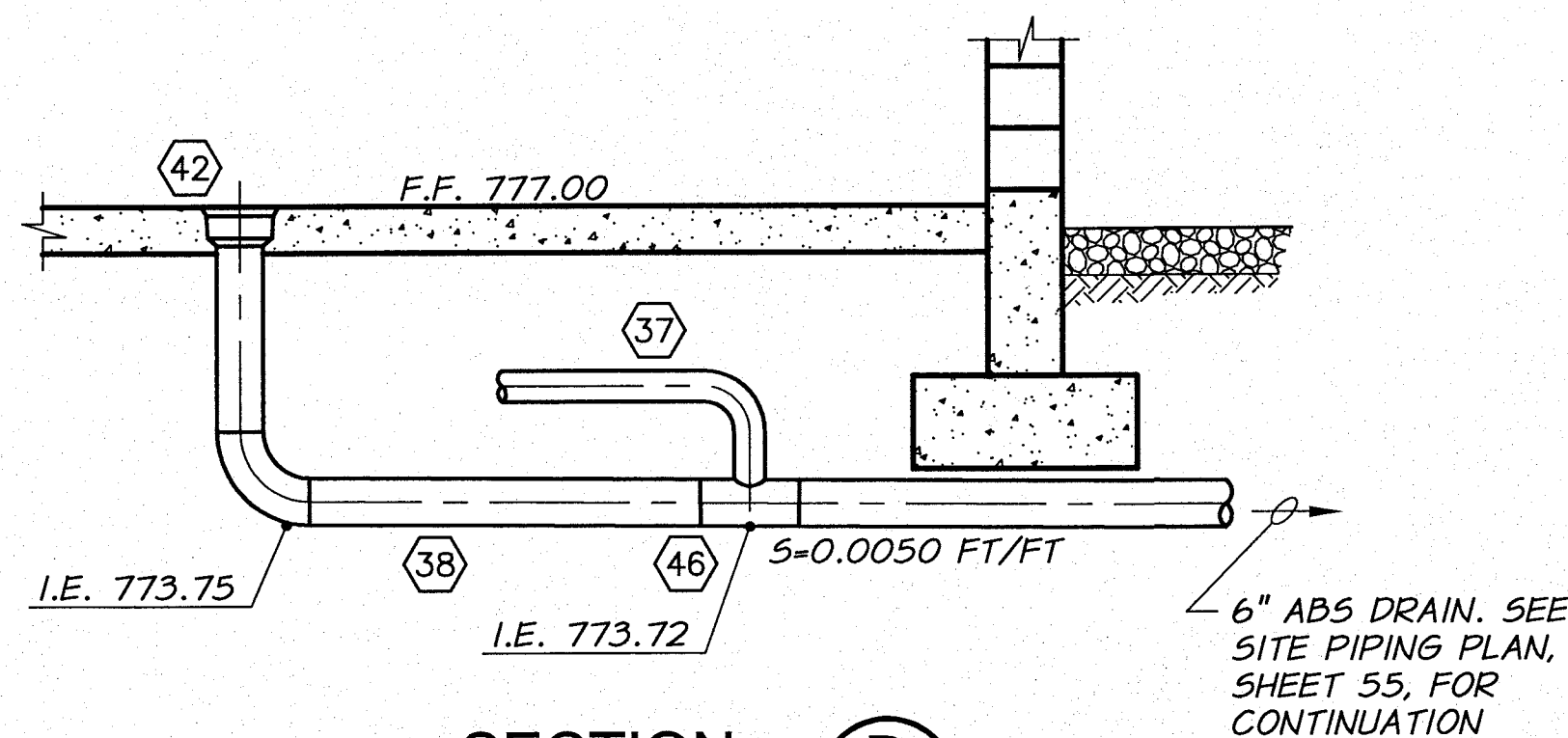
ARCHIVED

**PIPE AND FITTING SCHEDULE**

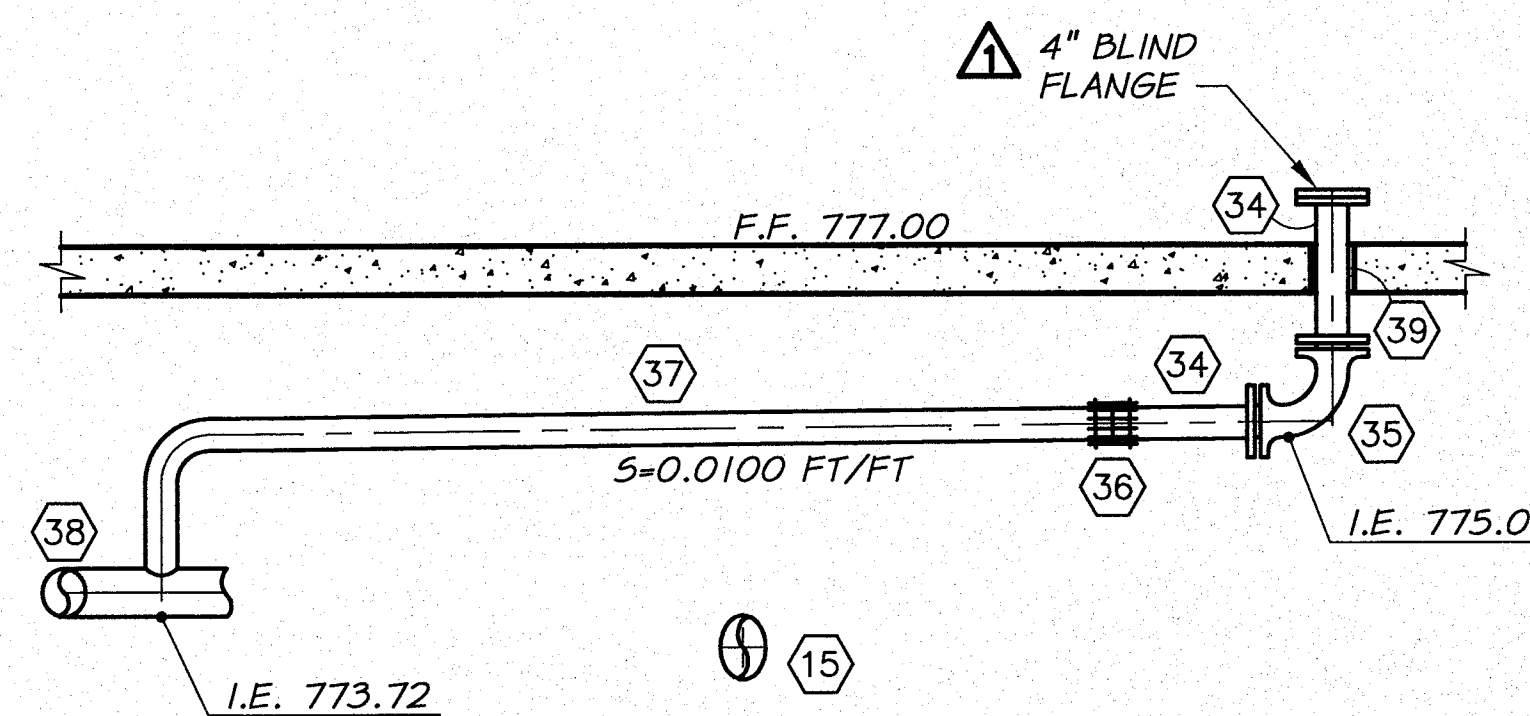
- ① CENTRIFUGAL, CLOSE COUPLED, END SUCTION, VERTICAL MOUNT PUMP ASSEMBLY. SEE TECHNICAL SPECIFICATIONS.
- ② 6"x\_\_\_" FLG FLEXIBLE CONNECTOR WITH RESTRAINT. SIZE TO MATCH PUMP DISCHARGE FLANGE.
- ③ 6" FLG SWING CHECK VALVE
- ④ 6" FLG BUTTERFLY VALVE WITH HANDWHEEL OPERATOR AND POSITION INDICATOR. SEE TECHNICAL SPECIFICATIONS.
- ⑤ 6" UNI- FLANGE WITH TIE ROD RESTRAINT. PROVIDE A MINIMUM OF 2 TIE RODS, PLACED 180 DEG. APART, SPANNING PIPE SPOOL AS SHOWN.
- ⑥ 8"x6" FLG 90° REDUCING ELBOW
- ⑦ 8" FLG CROSS
- ⑧ 8" FLG TEE
- ⑨ 8" BLIND FLANGE TAPPED FOR 3" IPT
- ⑩ 8" BLIND FLANGE TAPPED FOR 1" IPT
- ⑪ 8" FLG BUTTERFLY VALVE WITH HANDWHEEL OPERATOR AND POSITION INDICATOR. SEE TECHNICAL SPECIFICATIONS.
- ⑫ 8" FLG SWING CHECK VALVE
- ⑬ 8" FLG FLEXIBLE CONNECTOR X 8" LONG, WITH RESTRAINT
- ⑭ 8" RESTRAINED FLG COUPLING ADAPTER
- ⑮ 8" DI SPOOL, LENGTH AS REQUIRED
- ⑯ 8" FLG 90° ELBOW
- ⑰ 8"x6" FLG REDUCER - VERIFY PUMP SUCTION SIZE
- ⑱ 6" FLG SPOOL X 8" LONG - VERIFY PUMP SUCTION SIZE
- ⑲ 8" MJ TEE WITH RESTRAINED JOINTS AND 4 SQ. FT. THRUST BLOCK
- ⑳ 8" MJ 90° ELBOW WITH RESTRAINED JOINTS AND 6 SQ. FT. THRUST BLOCK
- ㉑ 8"x4" MJ REDUCER WITH RESTRAINED JOINTS
- ㉒ 4" DI SPOOL, LENGTH AS REQUIRED
- ㉓ 4" MJ 90° ELBOW WITH RESTRAINED JOINTS
- ㉔ 4" MJ GATE VALVE WITH RESTRAINED JOINTS AND VALVE BOX. SEE VALVE BOX DETAILS, SHEET 51
- ㉕ 8"x8"x4" MJ TEE WITH RESTRAINED JOINTS
- ㉖ 8" MJ 11.25° ELBOW WITH RESTRAINED JOINTS
- ㉗ 3" GIP NIPPLE X 6" LONG WITH 3" IPT X 3" FLANGE ADAPTER
- ㉘ 3" FLG ANGLE PRESSURE RELIEF VALVE. CLA-VAL MODEL 50-01 OR APPROVED EQUAL.
- ㉙ 3"x4" FLG FLEXIBLE REDUCING CONNECTOR X 6" LONG, WITH RESTRAINT
- ㉚ 4" FLG SPOOL X 12" LONG
- ㉛ 4" FLG 90° ELBOW
- ㉜ 4" FLGxPE DI SPOOL, LENGTH AS REQUIRED
- ㉝ 4" UNI-FLANGE
- ㉞ 4" DI SPOOL, LENGTH AS REQUIRED
- ㉟ 4" MJ 90° ELBOW
- ㊱ 4" DIXABS COUPLING ADAPTER AS REQUIRED
- ㊲ 4" ABS PIPE AND FITTINGS AS REQUIRED
- ㊳ 6" ABS PIPE AND FITTINGS AS REQUIRED
- ㊴ PIPE PENETRATION. SEE DETAILS, SHEET 66.
- ㊵ 1" COMBINATION AIR VALVE, APCO 143C OR APPROVED EQUAL, PRESSURE GAUGE AND TRANSDUCER. SEE DETAIL SHEET 67.
- ㊶ PIPE SUPPORT. SEE DETAILS, SHEET 49.
- ㊷ 6" FLOOR DRAIN. SEE DETAIL SHEET 67.
- ㊸ 6" FLGxPE SPOOL, LENGTH AS REQUIRED
- ㊹ 8" FLG TEE WITH BOSS AND HOLE BORED AND TAPPED FOR 1/2" IPT
- ㊺ PRESSURE TRANSDUCER. FITTINGS AS REQUIRED, SEE TECHNICAL SPECIFICATIONS.
- ㊻ 6" ABS TEE WITH PIPE AND FITTINGS AS REQUIRED.
- ㊼ PRESSURE TRANSDUCER AND GAUGE. FITTINGS AS REQUIRED, SEE TECHNICAL SPECIFICATIONS.



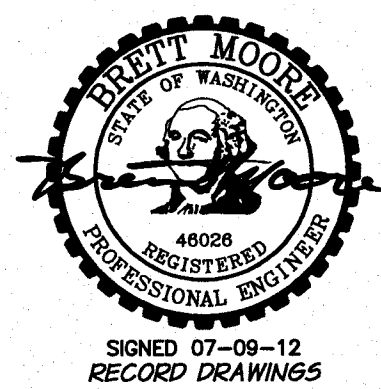
**SECTION C**  
1/2"=1'-0" 60



**SECTION D**  
1/2"=1'-0" 60



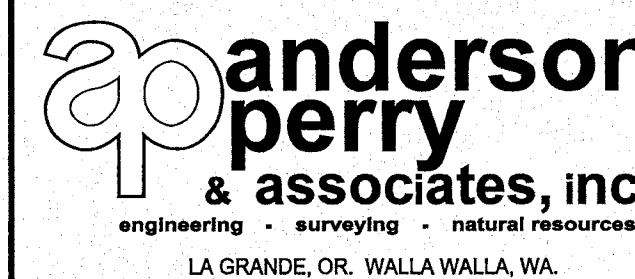
**SECTION E**  
1/2"=1'-0" 60



REVISION		BY	DATE	HORIZ. SCALE	1/2"=1'-0"	VERT. SCALE
RECORD DRAWINGS		B.M.	5/12	SCALE IN FEET		
DESIGNED BY	R. HARRIS	XREFS:	TB-BID.dwg	JOB NUMBER	1199-336	DATE
DRAWN BY	D. CHRISTMAN	ACAD FILE:	KnoxPumpSta.dwg	COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.		
REVIEWED BY	B. MOORE					

**RECORD DRAWINGS**

These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.

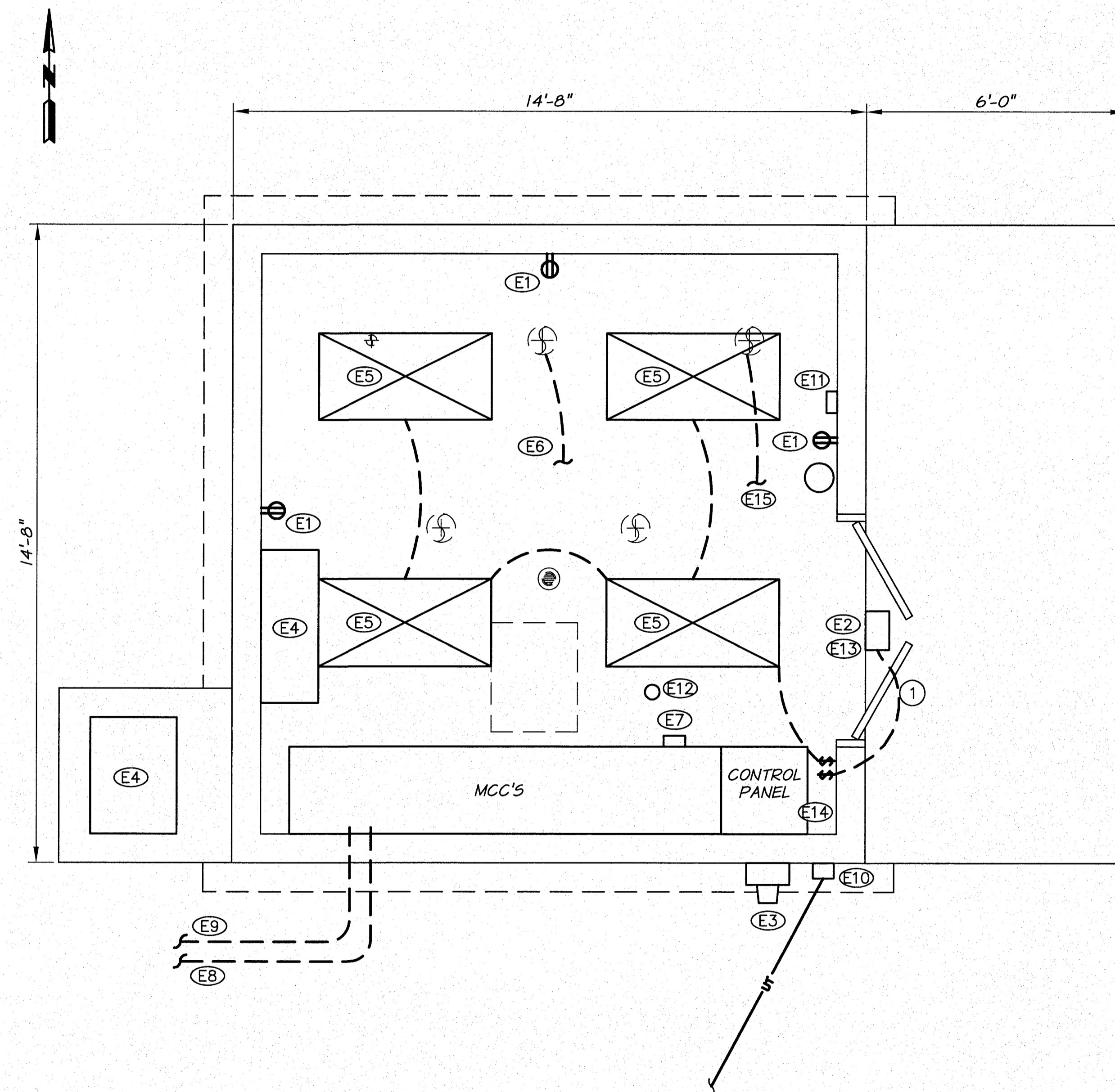


**BENTON IRRIGATION DISTRICT**  
IRRIGATION SYSTEM IMPROVEMENTS  
PHASE 2C

**KNOX ROAD BOOSTER PUMP STATION**  
MECHANICAL SECTIONS II

SHEET

**62**



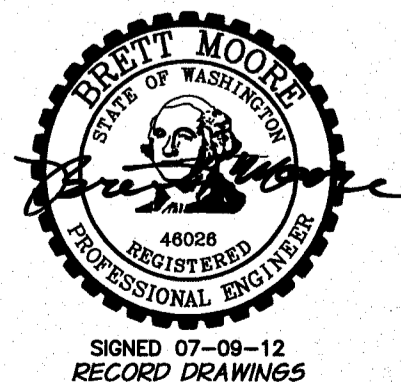
**ELECTRICAL SCHEMATIC**  
1/2"=1'-0"

**EQUIPMENT SCHEDULE**

- (E1) WALL MOUNTED DUPLEX RECEPTICAL, GFI PROTECTED AS REQUIRED BY NEC. MUST BE MOUNTED 18" ABOVE FINISH FLOOR.
- (E2) WALL MOUNTED HIGH PRESSURE SODIUM LIGHT FIXTURE, 100W, 120V. PROVIDE PHOTOELECTRIC CELL SWITCH, MOTION DETECTOR, AND MANUAL OVERRIDE ON/OFF SWITCH.
- (E3) METER AND METER BASE AS REQUIRED BY PACIFIC POWER AND LIGHT.
- (E4) HEATER AND AIR CONDITIONER SPLIT UNIT WITH WALL MOUNTED INSIDE UNIT. SEE TECHNICAL SPECIFICATIONS.
- (E5) ENERGY EFFICIENT FLOURESCENT WRAP-AROUND LIGHT FIXTURE. FOUR 48" TUBES, 40W, 120V, RAPID START COOL WHITE LAMPS.
- (E6) PRESSURE TRANSDUCER SIGNAL CABLE TO MCC.
- (E7) MOISTURE SENSOR MOUNTED ON THE CONCRETE CURB AT THE BASE OF THE MCC NEXT TO THE WALL. SEE TECHNICAL SPECIFICATIONS.
- (E8) SIGNAL CABLE FROM FLOWMETER VAULT TO MCC.
- (E9) POWER SUPPLY FROM MCC TO FLOWMETER VAULT.
- (E10) UNDERGROUND TELEPHONE SERVICE AS REQUIRED.
- (E11) THERMOSTAT, HEATING/COOLING CONTROL
- (E12) SMOKE DETECTOR
- (E13) INTRUSION ALARM
- (E14) DIGITAL TEMPERATURE SENSOR TIED TO CONTROL PANEL AND DIALER
- (E15) SUCTION LINE PRESSURE TRANSDUCER SIGNAL CABLE TO PLC

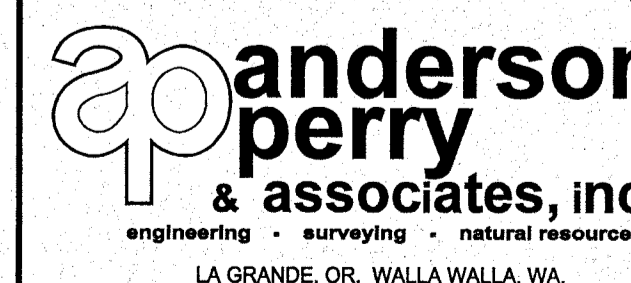
**NOTE**

1. ALL POWER SUPPLY CABLES AND SIGNAL CABLES TO BE ROUTED IN 1" MIN. ELECTRICAL CONDUIT WITH LONG RADIUS BENDS. ROUTE AS REQUIRED UNDER FLOOR SLAB.
2. PROVIDE GROUND GRID AS REQUIRED.

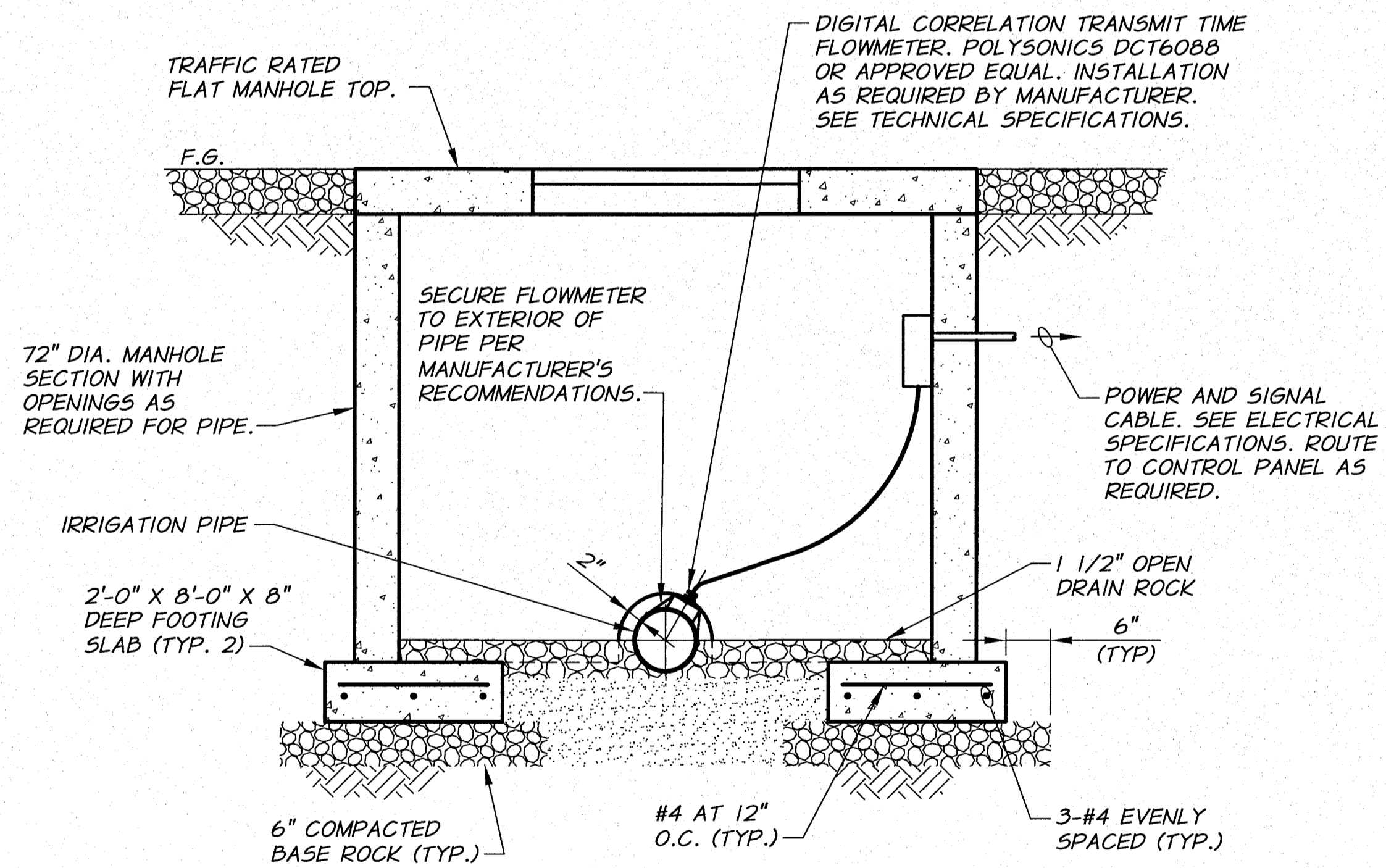
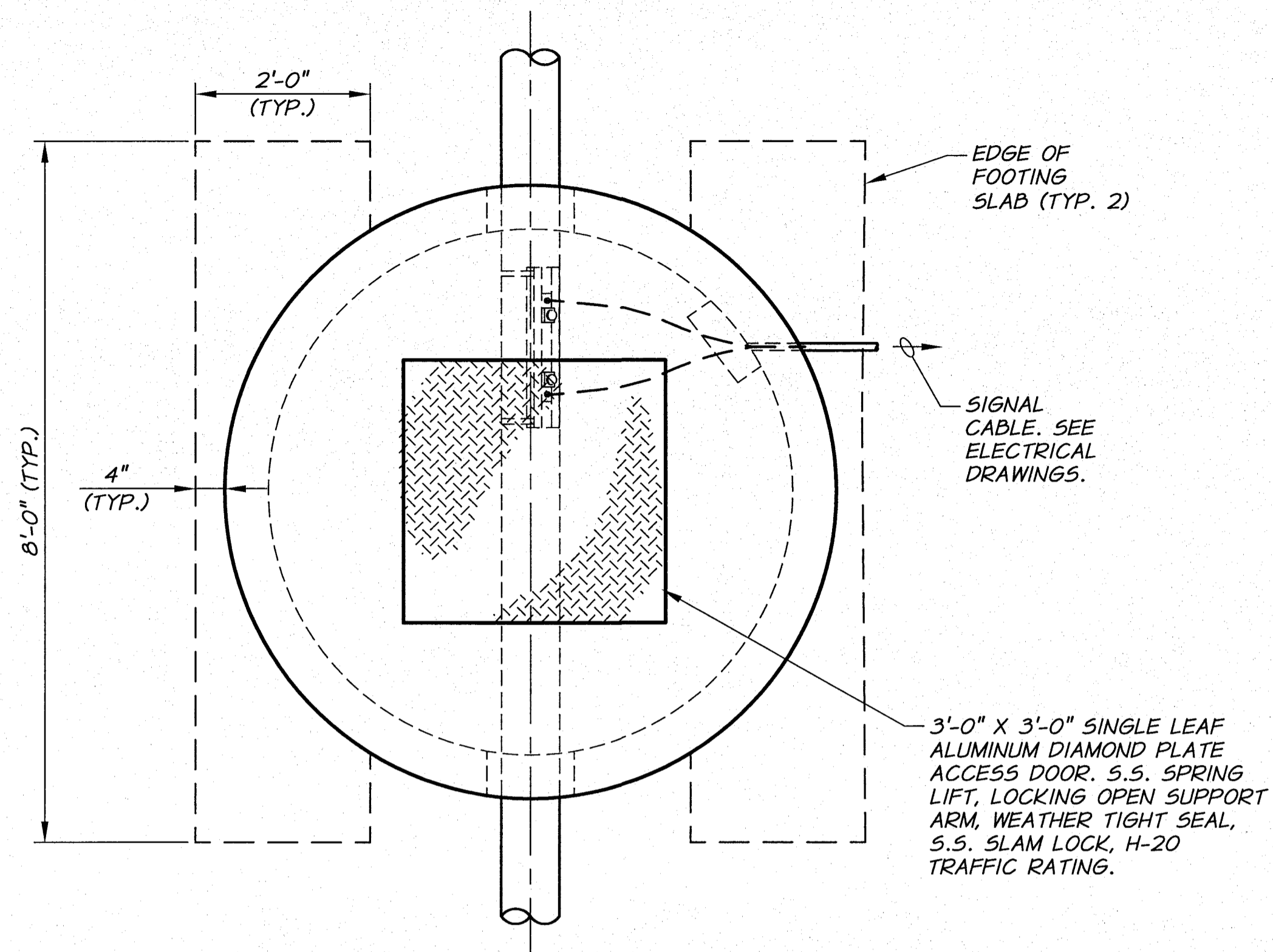


REVISION		BY	DATE	HORIZ. SCALE 1/2"=1'-0"		VERT. SCALE
DESIGNED BY R. HARRIS		XREFS: TB-BID.dwg		JOB NUMBER 1199-336		DATE 2011
DRAWN BY D. CHRISTMAN		ACAD FILE: KnoxPumpSta.dwg		COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.		
REVIEWED BY B. MOORE						

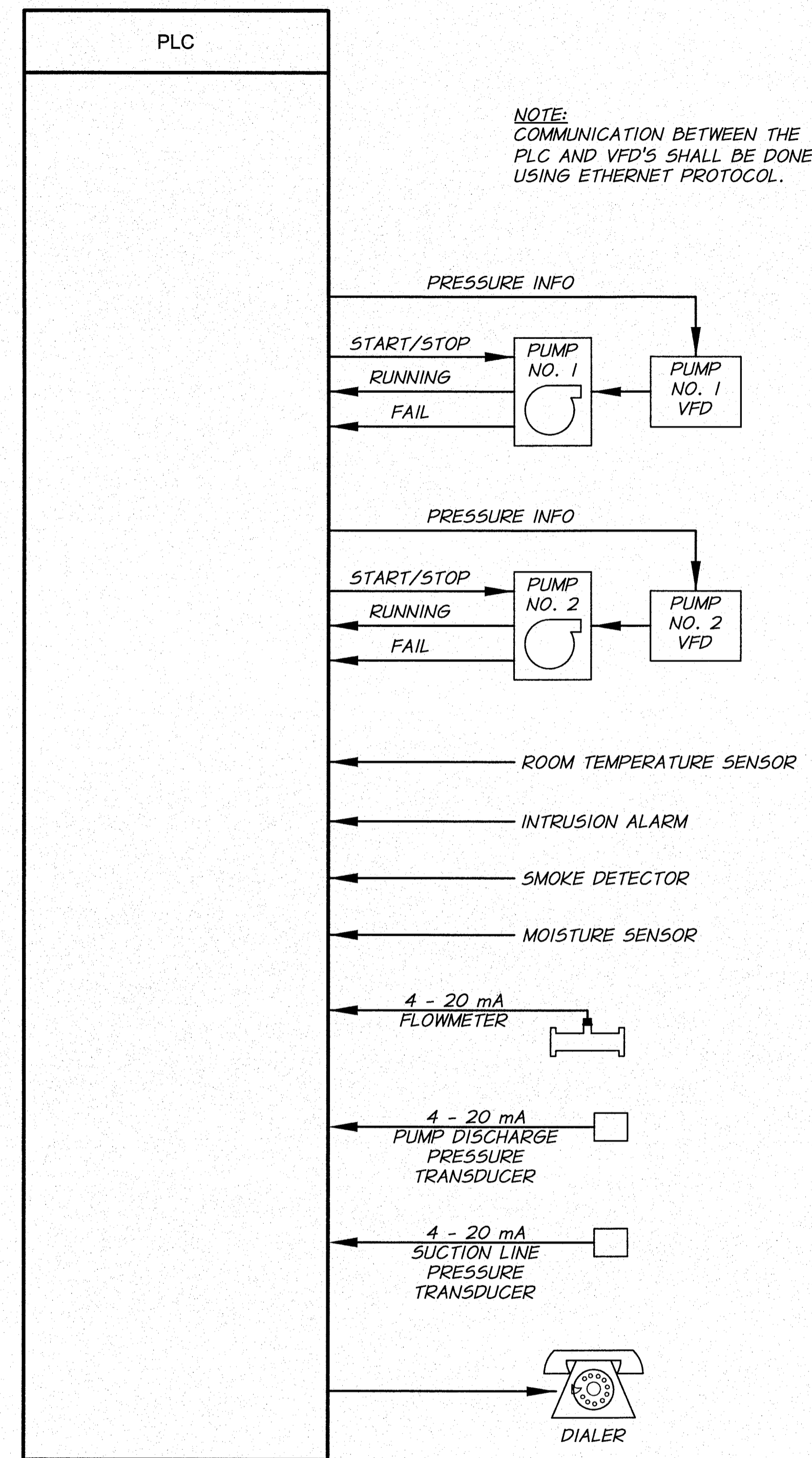
**RECORD DRAWINGS**  
These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



**BENTON IRRIGATION DISTRICT**  
IRRIGATION SYSTEM IMPROVEMENTS  
PHASE 2C  
**KNOX ROAD BOOSTER PUMP STATION**  
ELECTRICAL SCHEMATIC



**METERING MANHOLE DETAIL**  
3/4"=1'-0"



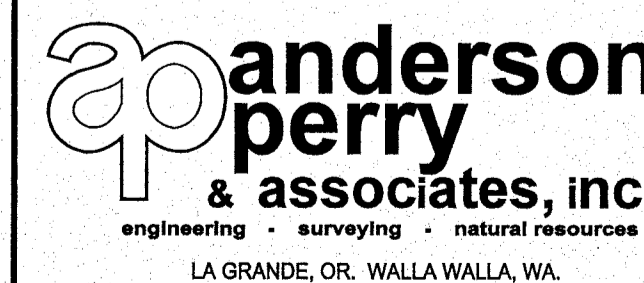
NOTE:  
COMMUNICATION BETWEEN THE  
PLC AND VFD'S SHALL BE DONE  
USING ETHERNET PROTOCOL.

**CONTROL SCHEMATIC**  
N.T.S.



REVISION	BY	DATE	HORIZ. SCALE	AS NOTED	VERT. SCALE	
DESIGNED BY	R. HARRIS		JOB NUMBER	1199-336	DATE	2011
DRAWN BY	D. CHRISTMAN		ACAD FILE:	Knox-PumpSta-Vault.dwg		
REVIEWED BY	D. MOORE		COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.			

**RECORD DRAWINGS**  
These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



**BENTON IRRIGATION DISTRICT**  
IRRIGATION SYSTEM IMPROVEMENTS  
PHASE 2C  
**KNOX ROAD BOOSTER PUMP STATION**  
VAULT AND CONTROL SCHEMATIC DETAILS

SHEET

64

ARCHIVED

**NOTE:**

2"x8" TOP PLATES TO BE FULL LENGTH WITH NO SPLICES ON WALL WITH DOOR OPENING

SOLID 2X BLOCKING BETWEEN EACH TRUSS WITH SIMPSON A35 CLIP.

5/8" CDX PLYWOOD SHEATHING WITH 15 LB. UNDERLAYMENT. NAIL WITH 10d NAILS AT 6" O.C. ALONG SUPPORTED EDGES AND 12" O.C. IN FIELD.

PRE-ENGINEERED TRUSSES AT 24" O.C. DESIGNED FOR DEAD LOAD PLUS 25 PSF SNOW LOAD

ENAMELED AND GALVANIZED, MIN. 24 GAUGE STANDING SEAM STEEL ROOFING WITH CANT STRIP AND MATCHING RIDGE CAP (COLOR TO BE SELECTED BY OWNER).

18" X 24" MINIMUM, INDUSTRIAL GRADE INSECT SCREENED AND LOUVERED VENT, EACH GABLE

ALL TRIM SHALL BE COVERED WITH COLOR COORDINATED STEEL SIDING AS APPROVED BY OWNER

ENAMELED AND GALVANIZED, MIN. 26 GAUGE STEEL SIDING. PROVIDE 5/8" CDX PLYWOOD SHEATHING WITH 15 LB. UNDERLAYMENT. TRIM AS REQ'D. OVERLAP BLOCK 2" MIN. (COLOR TO BE SELECTED BY OWNER)

NOTE: PROVIDE HORIZONTAL "K" WEBBING EVERY FOURTH COURSE (TYP.)

BOND BEAM EVERY 4'-0" O.C. (TYP.)  
2-#5 BARS AND GROUTED CELLS

EXTERIOR GRADE AT BUILDING VARIES. SEE SITE PLAN.

PROVIDE PRECAST CONCRETE SPLASH GUARD AT EVERY DOWNSPOUT.

SLOPE AWAY FROM BUILDING

(2) 2" X 8" PRESSURE TREATED TOP PLATE WITH 5/8" X 12" J ANCHOR BOLTS AT 3'-0" O.C. (TYP.) IN BOND BEAM

DOUBLE 2" X 6" FASCIA AS REQ'D

GUTTER AND DOWNSPOUT

VENTED ALUMINUM OR VENTED COATED STEEL SOFFIT. COLOR AS SELECTED BY OWNER.

TRIM FLUSH WITH TOP OF BLOCK (TYP. ALL SIDES)

CAULK TOP EDGE OF BLOCK WITH CLEAR SILICONE

8" X 8" X 16" SPLIT FACE INTEGRALLY COLORED C.M.U. COLOR TO BE SELECTED BY OWNER

5/8" TYPE "X" WATER RESISTANT GYPSUM WALL BOARD ON CEILING. PROVIDE BLOCKING AND NAILERS AT ALL END AND SIDE JOINTS AND AT 16" O.C. FINISH JOINTS SMOOTH AND TEXTURE

VERTICAL REINFORCEMENT:  
#4 BARS AT 32" O.C. OR  
#5 BARS AT 48" O.C. (TYP.)  
GROUT CELLS FULL HEIGHT

F.F. 777.00  
SLOPE TO DRAIN.  
SEE FLOOR PLAN

2" RIGID INSULATION AROUND FOOTING WALLS

ALTERNATE TAILS. MATCH LOCATION OF VERTICAL WALL REBAR.

2" X 8" PRESSURE TREATED TOP PLATE

DOUBLE 2" X 6" FASCIA

2 - SIMPSONS A35 CLIPS WITH 12-8d X 1 1/2" NAILS (TYP.)

2" X 6" OVERHANG BRACING (TYP.)

PRE-ENGINEERED TRUSSES AT 24" O.C.

2" X 4" STUDS AT 24" O.C.

NOTE: BRACING FOR PRE-ENGINEERED TRUSSES NOT SHOWN FOR CLARITY

DO NOT JOINT PLYWOOD SHEATHING ON FIRST TRUSS MEMBER. TYPICAL BOTH ENDS OF BUILDING

2" X 6" AND BRACE. SEE DETAIL, SHEET 66.

MODIFIED TRUSS EACH END TO ACCOMMODATE OVERHANG BRACING

CMU BUILDING WALL

2" X 8" PRESSURE TREATED TOP PLATE

**ROOF FRAMING OVERHANG DETAIL**

N.T.S.

**TYPICAL BUILDING SECTION**

N.T.S.

**BUILDING DESIGN CRITERIA**

- ROOF DEAD LOAD - 20 PSF
- SNOW LOAD - 20 PSF
- WIND SPEED 85 MPH (EXPOSURE 'C')
- SEISMIC CATEGORY C
- ALLOWABLE SOIL BEARING - 2000 PSF

**TYPICAL DOOR HARDWARE**

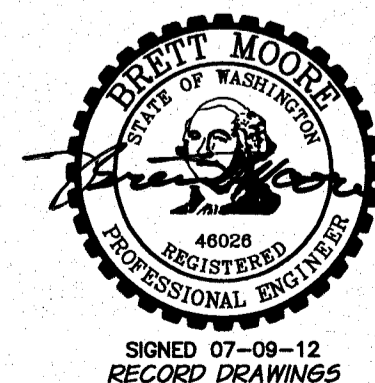
SEE DRAWINGS AND TECHNICAL SPECIFICATIONS FOR DOOR REQUIREMENTS

**HARDWARE - DOUBLE DOORS (EXTERIOR)**

3 EACH	FULL MORTISE S.S. HINGES	FBB 199	SATIN S.S.	STANLEY
1 EACH	HANDSET PAIR	34H7E4A	SATIN CHROME	YALE
1 EACH	FLUSH BOLT	456	SATIN CHROME	IVES
1 EACH	STOP	446	SATIN S.S.	IVES
1 EACH	THRESHOLD	171A	ALUM	PEMCO
1 SET	WEATHERSTRIP	303AV	ALUM	PEMCO
1 EACH	DOOR BOTTOM	3452AV	ALUM	PEMCO
1 EACH	ASTRAGAL	BY H.M. SUPPLIER	ALUM	PEMCO
1 EACH	CLOSURE	LCN 4040 WITH HOLD OPEN	ALUM	

**NOTES:**

1. DOOR FRAME MUST BE ON SITE PRIOR TO CONSTRUCTION OF BLOCK MASONRY.
2. ALL DOORS TO BE KEYPED TO MATCH MASTER.

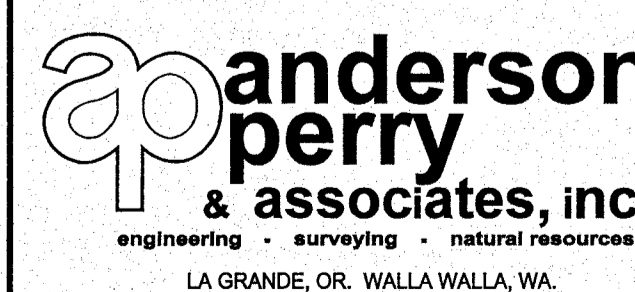


SIGNED 07-09-12  
RECORD DRAWINGS

DESIGNED BY	R. HARRIS	XREFS: TB-BID.dwg	BY	DATE	HORIZ. SCALE	NONE	VERT. SCALE
DRAWN BY	D. CHRISTMAN				JOB NUMBER	1199-336	DATE
REVIEWED BY	B. MOORE				ACAD FILE	Knox-PumpSta-Dets.dwg	
					COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.		

**RECORD DRAWINGS**

These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



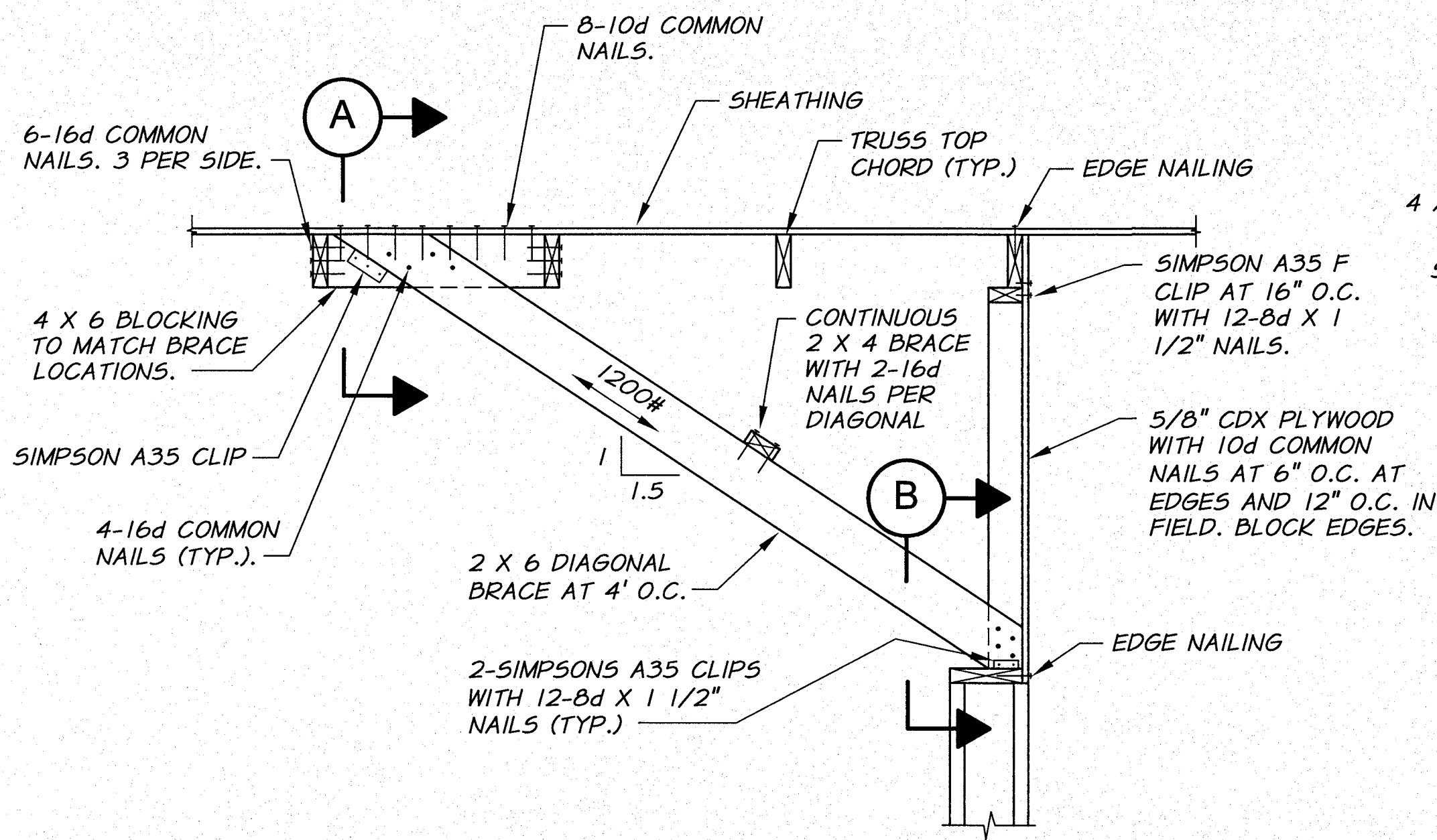
**BENTON IRRIGATION DISTRICT  
IRRIGATION SYSTEM IMPROVEMENTS  
PHASE 2C**

**KNOX ROAD BOOSTER PUMP STATION  
STRUCTURAL DETAILS I**

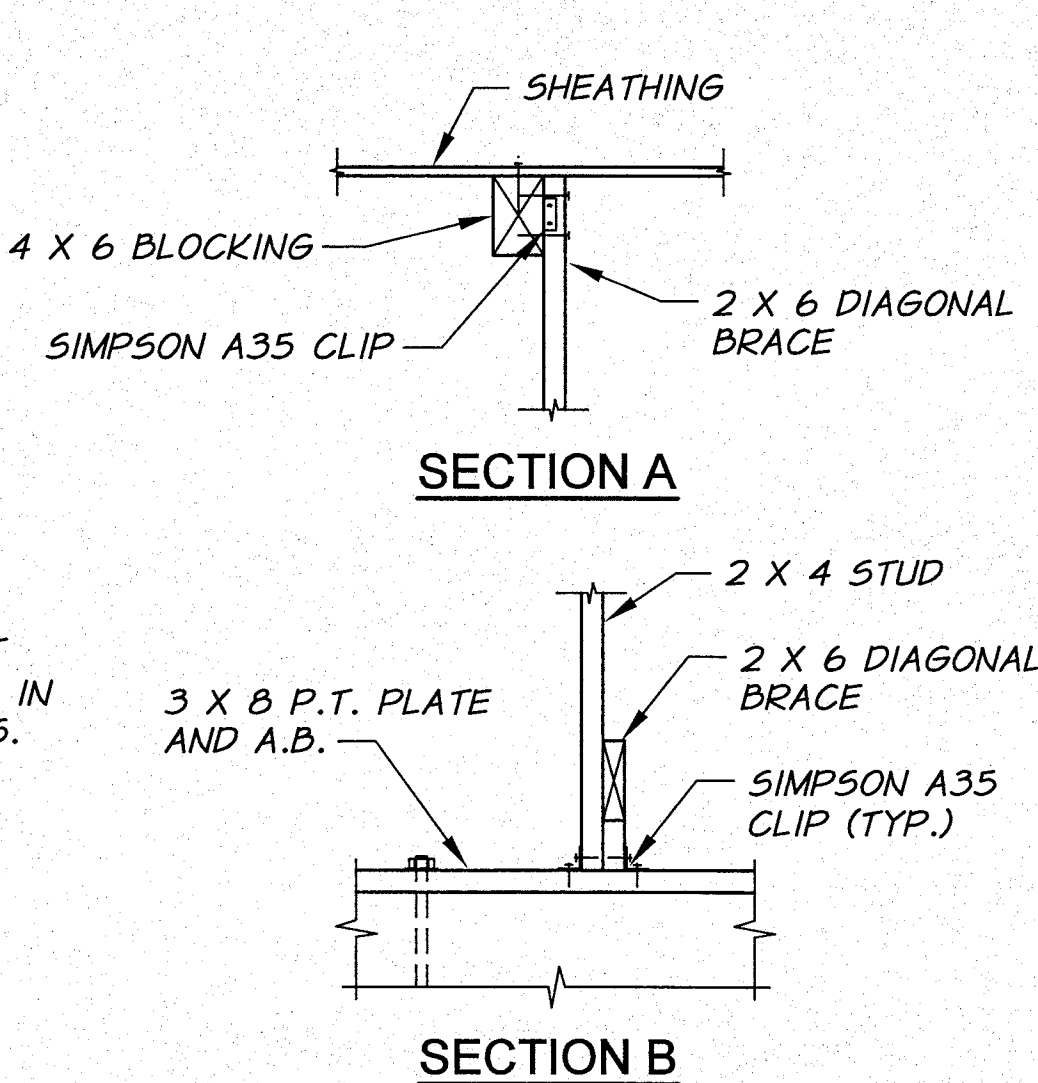
SHEET

65

ARCHIVED

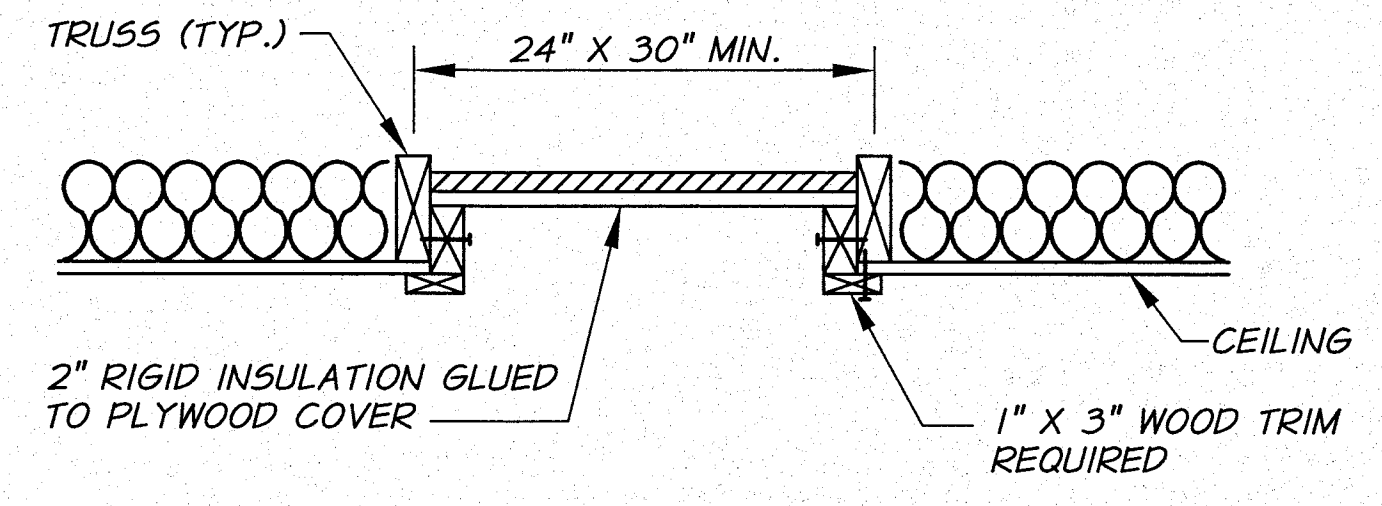


**TYPICAL END DETAIL**  
N.T.S.

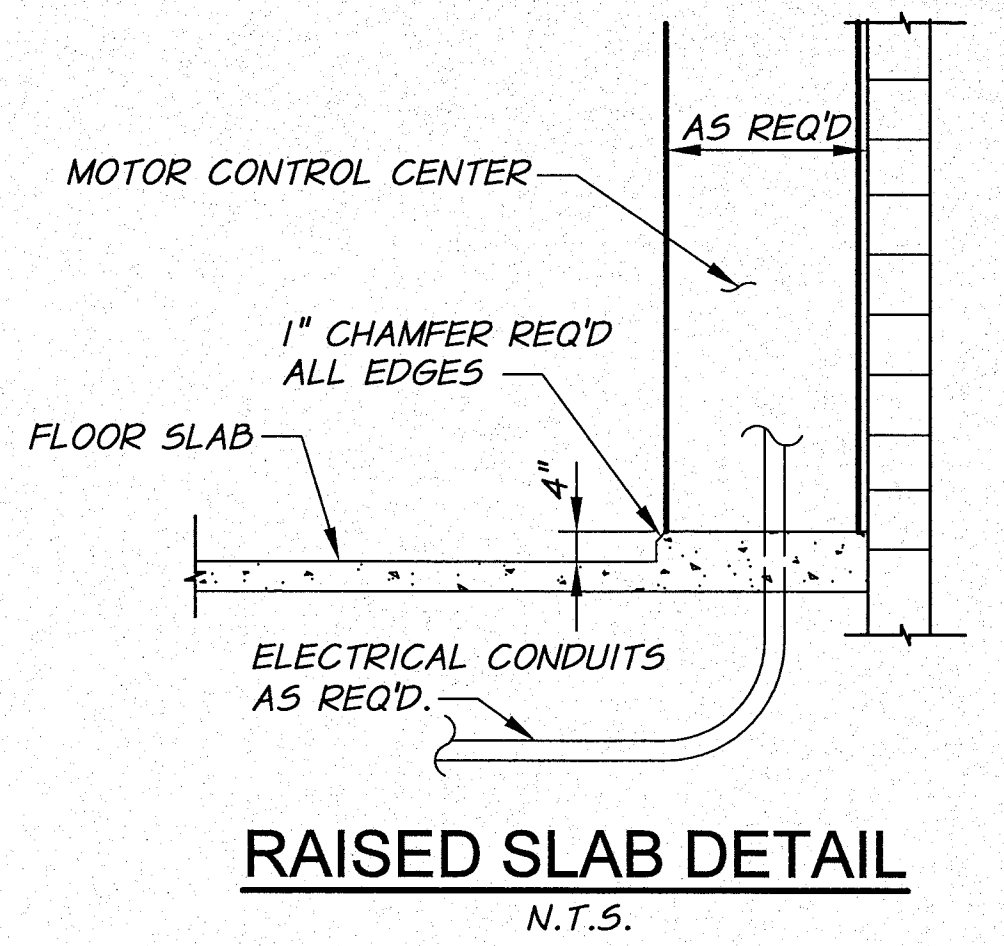


**SECTION A**

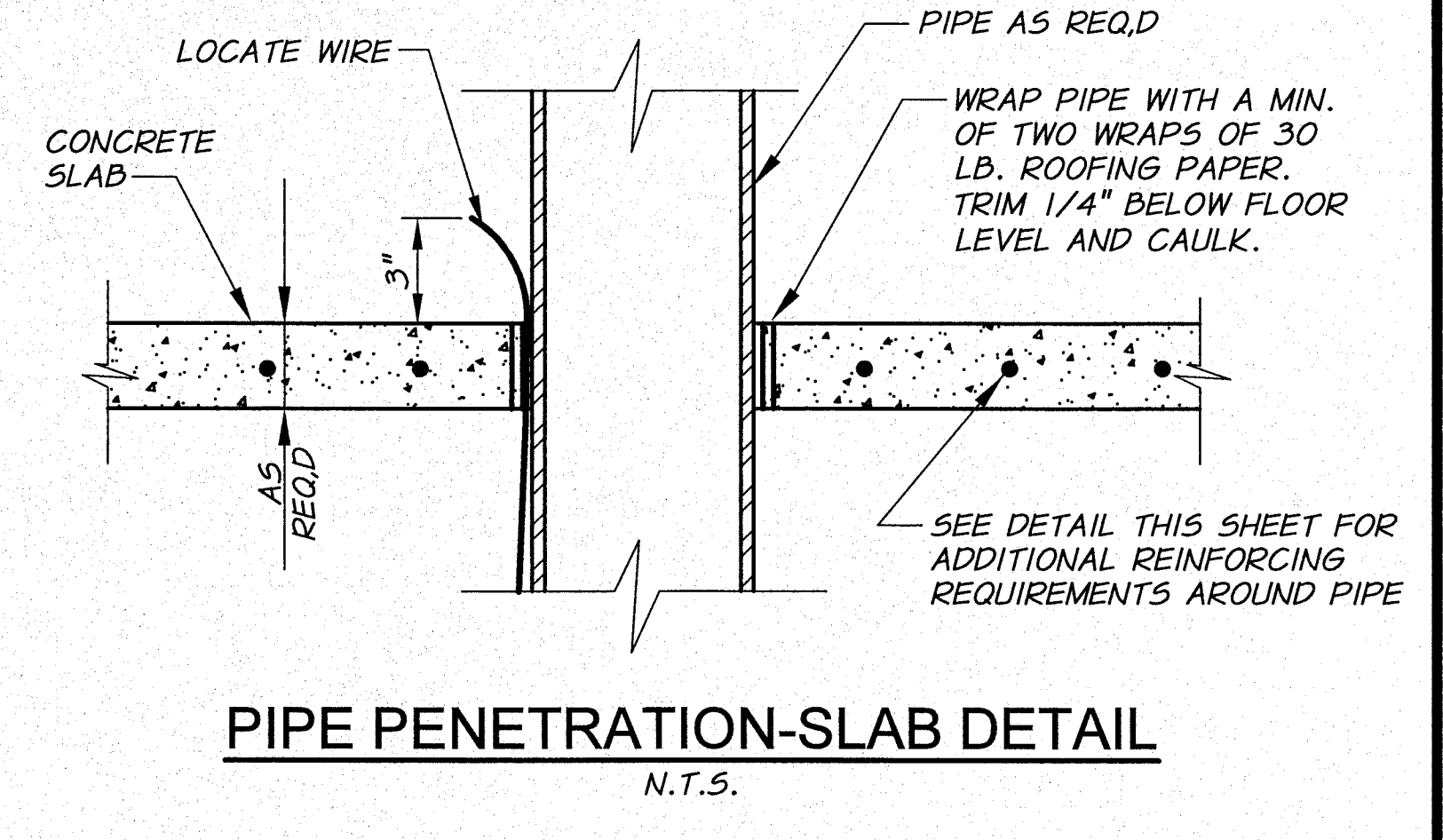
**SECTION B**



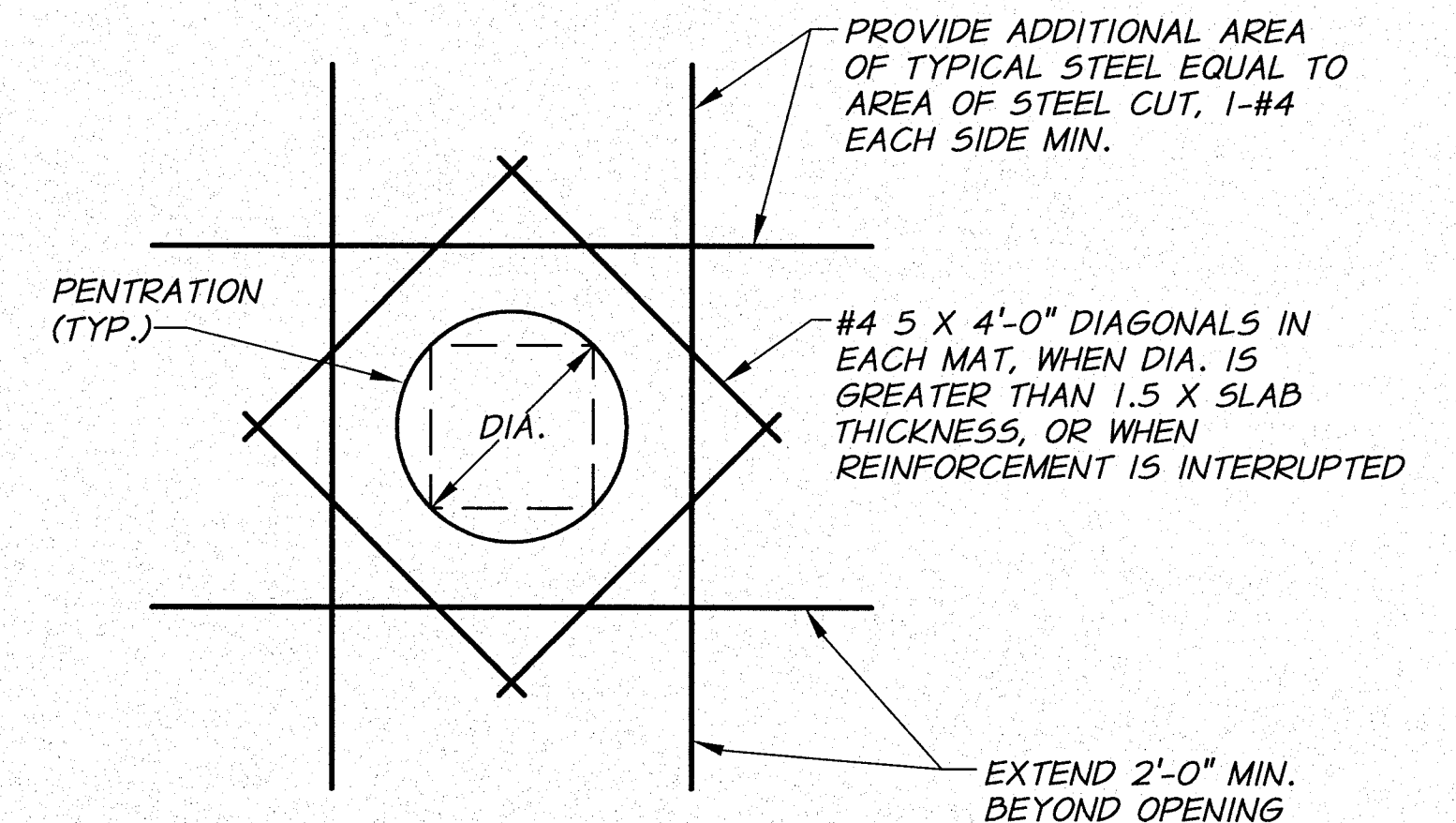
**CEILING ACCESS DETAIL**  
N.T.S.



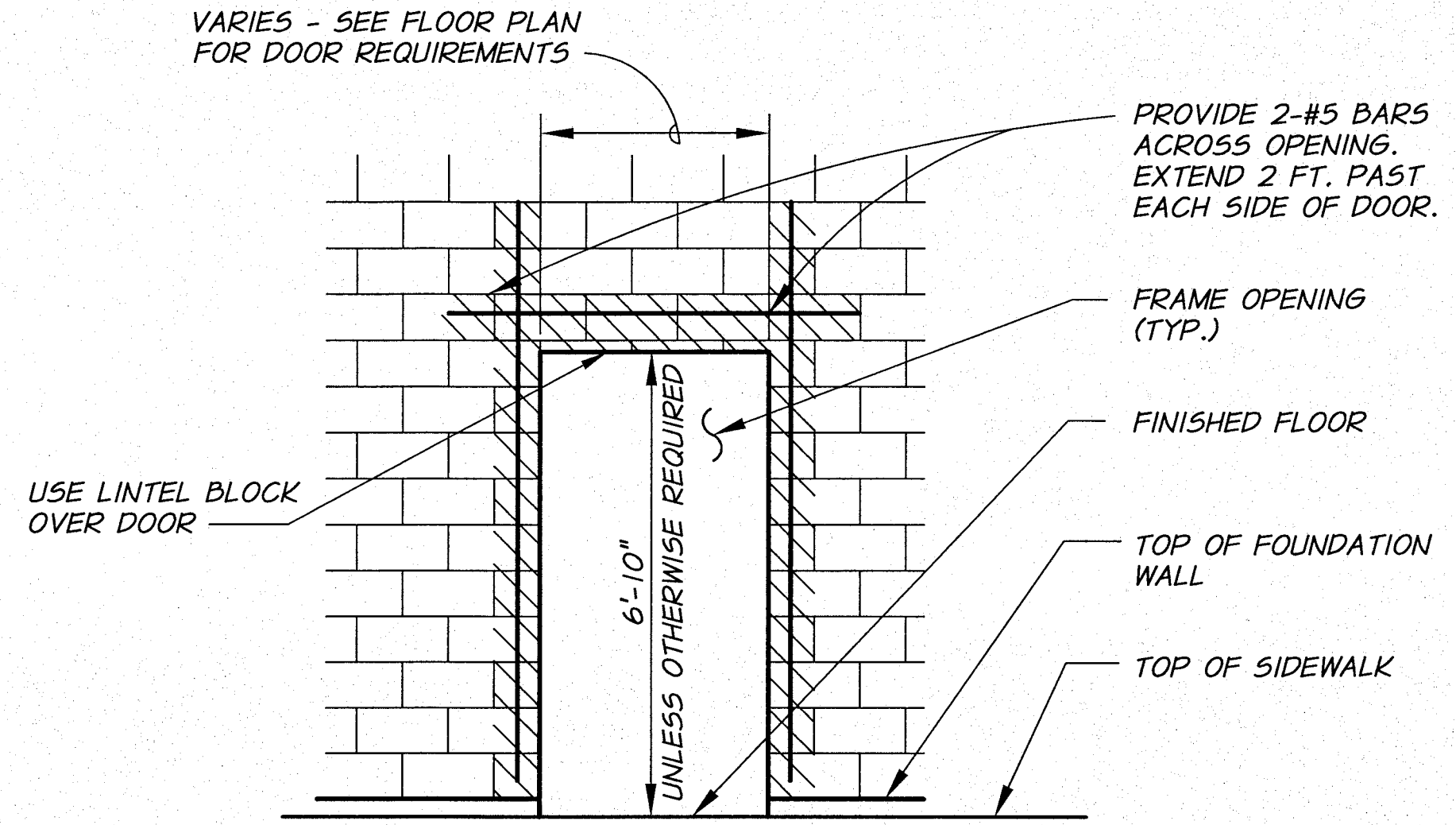
**RAISED SLAB DETAIL**  
N.T.S.



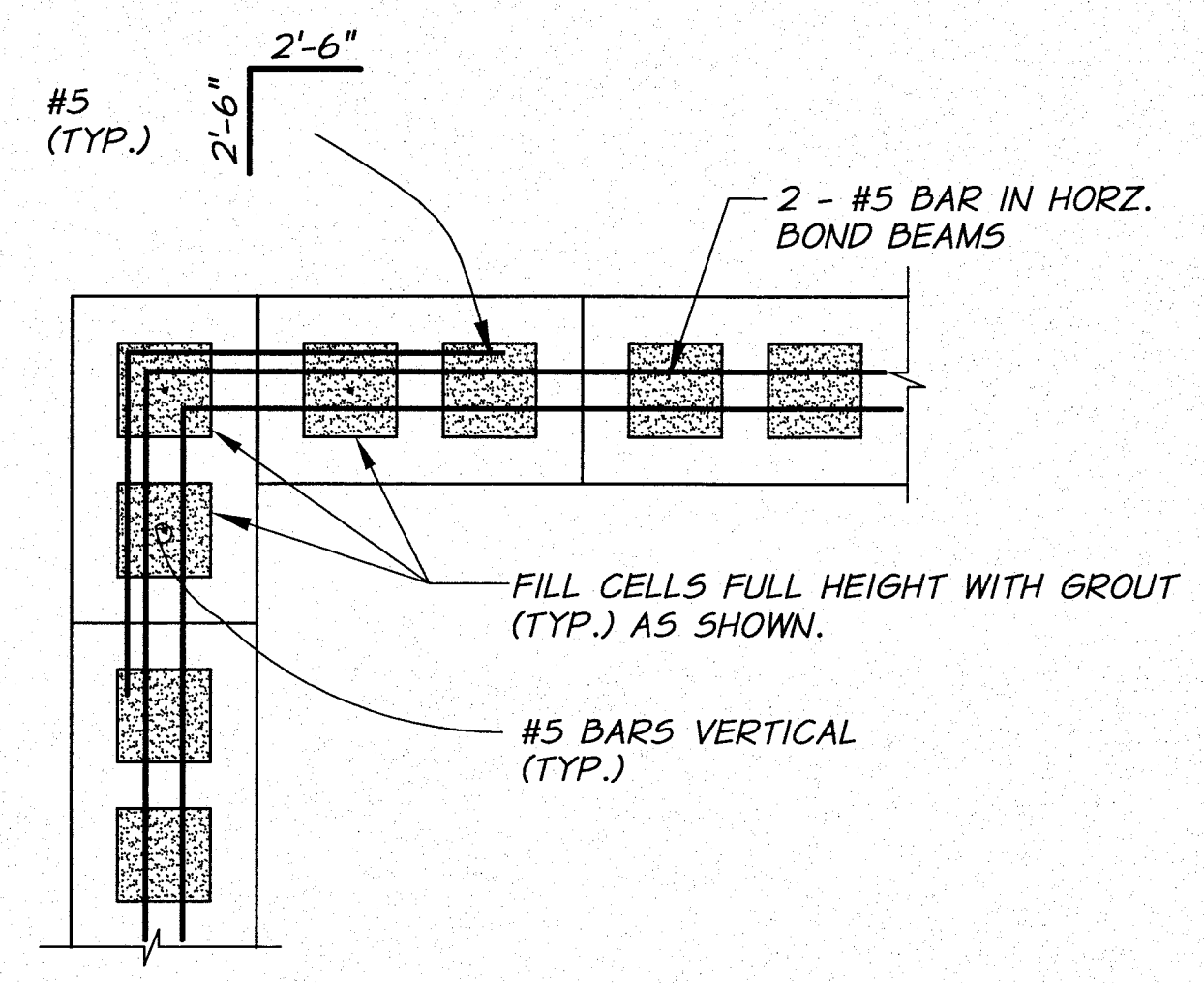
**PIPE PENETRATION-SLAB DETAIL**  
N.T.S.



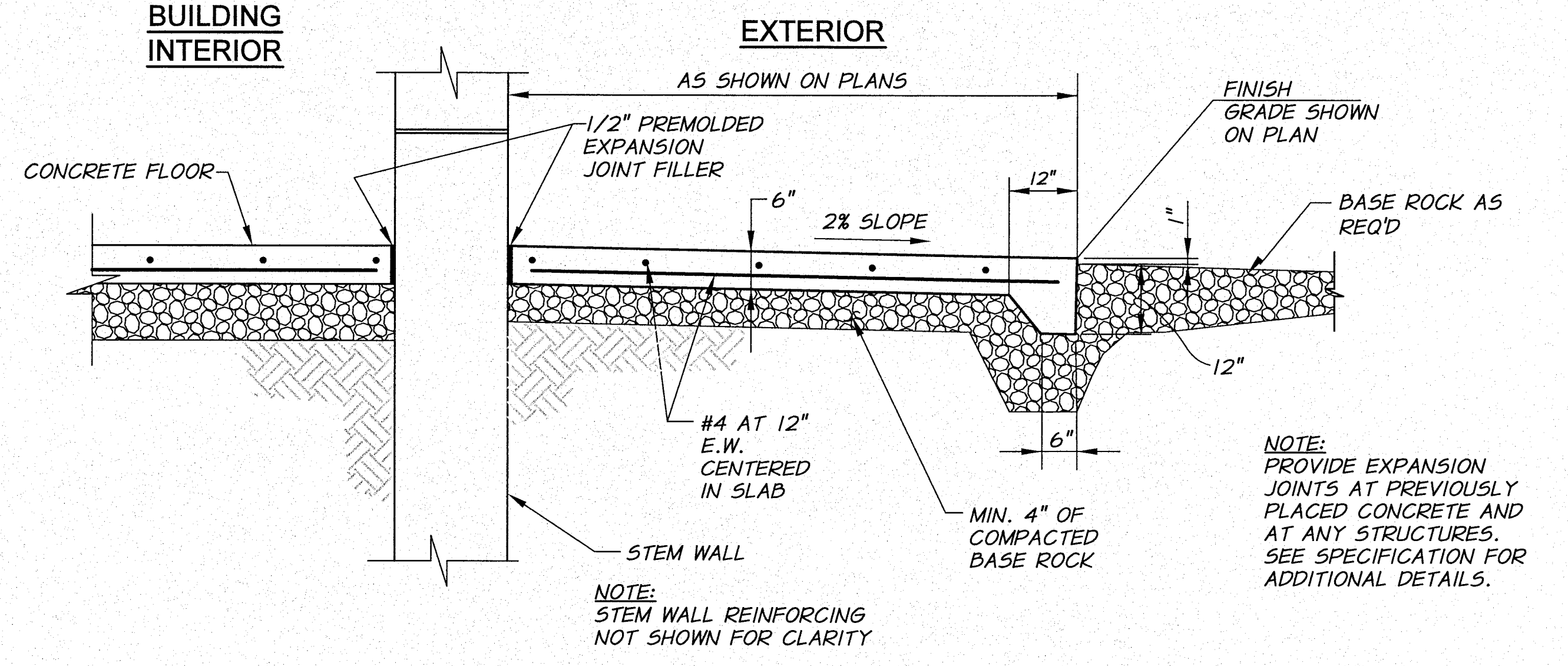
**TYPICAL OPENING IN CONCRETE SLABS**  
N.T.S.



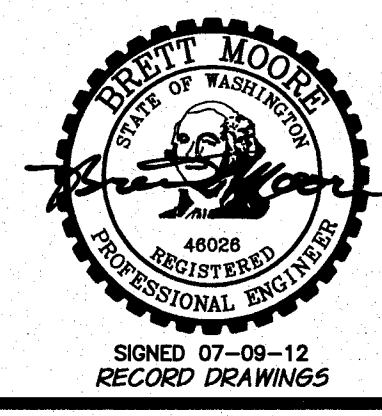
**TYPICAL DOOR OPENING**  
N.T.S.



**TYPICAL BOND BEAM AT CORNER DETAIL**  
N.T.S.

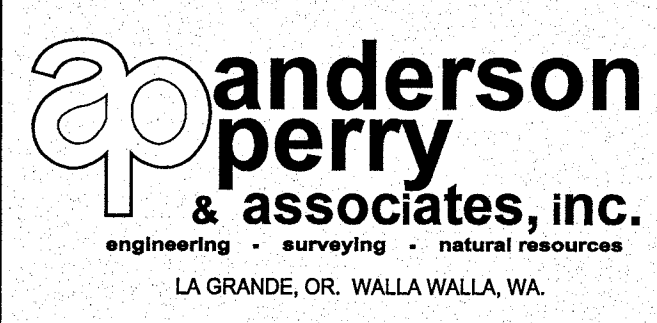


**CONCRETE SIDEWALK/LANDING DETAIL**  
N.T.S.

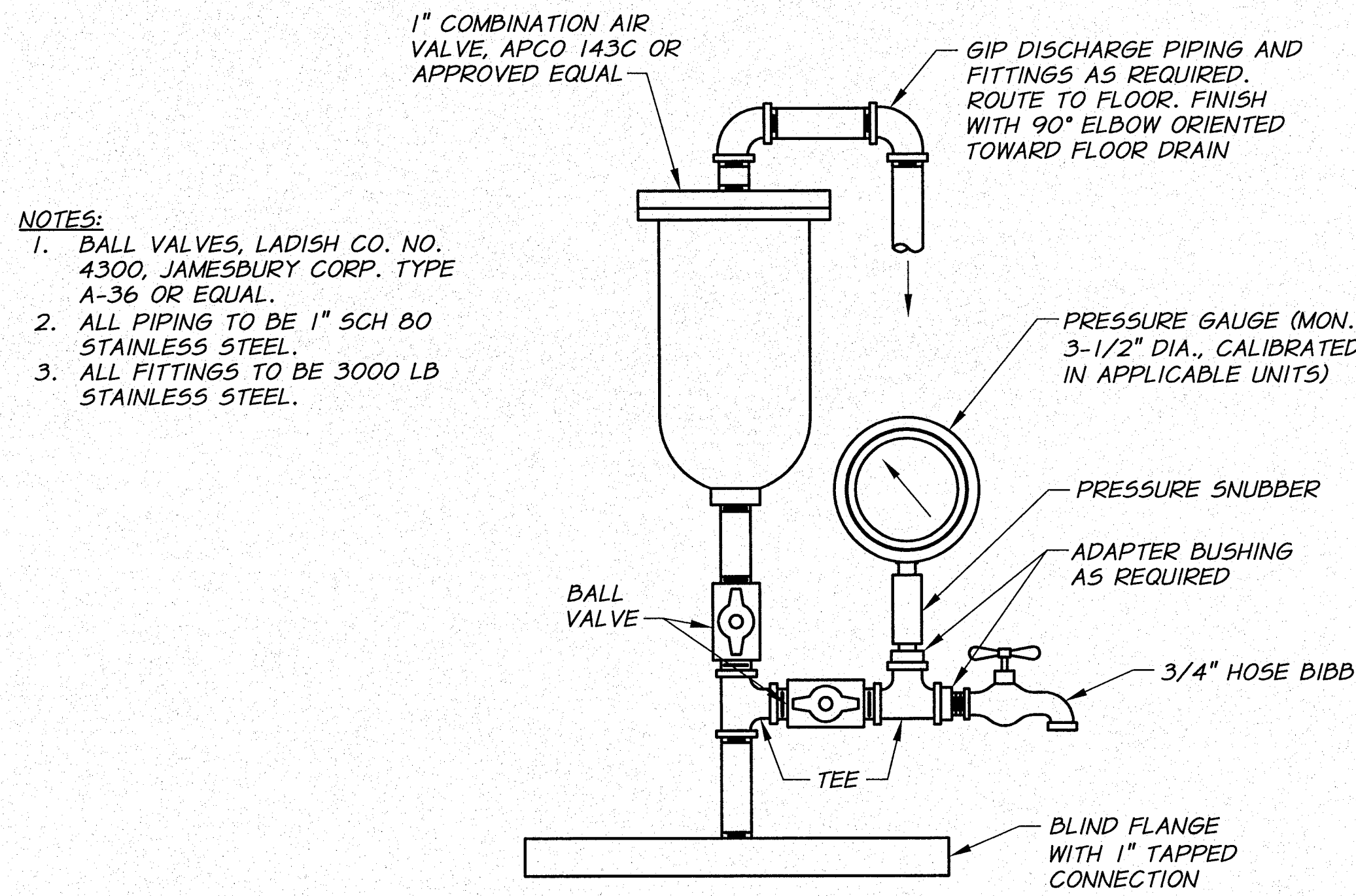


DESIGNED BY	R. HARRIS	XREFS:	TB-BID.dwg
DRAWN BY	D. CHRISTMAN	ACAD FILE:	Knox-PumpSta-Dets.dwg
REVIEWED BY	B. MOORE	COPYRIGHT	2011 BY ANDERSON-PERRY & ASSOC., INC.

**RECORD DRAWINGS**  
These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



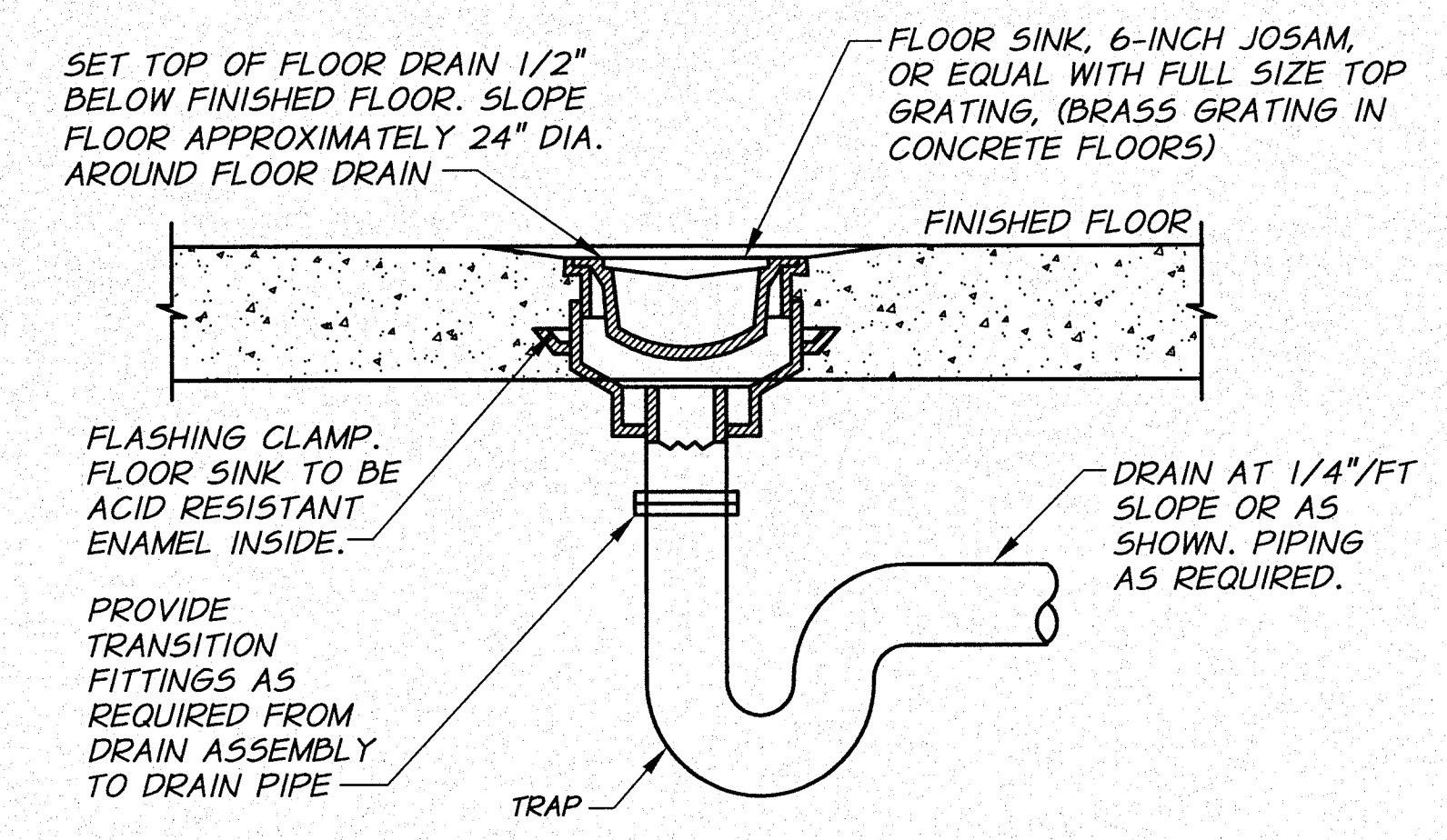
**BENTON IRRIGATION DISTRICT**  
IRRIGATION SYSTEM IMPROVEMENTS  
PHASE 2C  
**KNOX ROAD BOOSTER PUMP STATION**  
STRUCTURAL DETAILS II



- NOTES:
1. BALL VALVES, LADISH CO. NO. 4300, JAMESBURY CORP. TYPE A-36 OR EQUAL.
  2. ALL PIPING TO BE 1" SCH 80 STAINLESS STEEL.
  3. ALL FITTINGS TO BE 3000 LB STAINLESS STEEL.

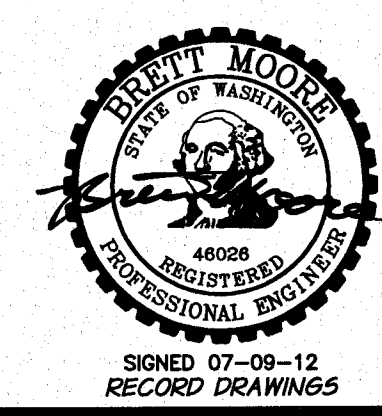
**AIR VALVE/PRESSURE MONITOR DETAIL**

N.T.S.



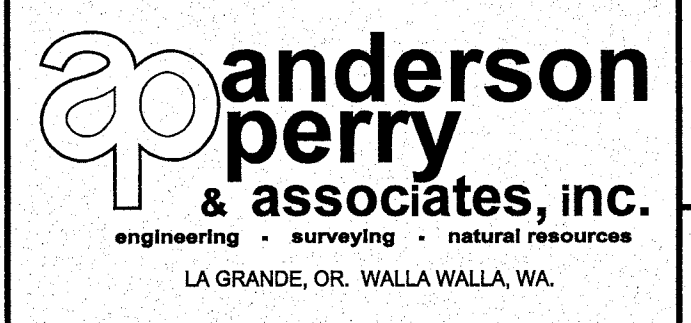
**FLOOR DRAIN**

N.T.S.



REVISION	BY	DATE	HORIZ. SCALE	NONE	VERT. SCALE
DESIGNED BY	R. HARRIS	XREFS: TB-BID.dwg	JOB NUMBER	1199-336	DATE
DRAWN BY	D. CHRISTMAN		ACAD FILE	Knox-PumpSta-Dets.dwg	
REVIEWED BY	B. MOORE		COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.		

**RECORD DRAWINGS**  
 These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



**BENTON IRRIGATION DISTRICT**  
 IRRIGATION SYSTEM IMPROVEMENTS  
 PHASE 2C

**KNOX ROAD BOOSTER PUMP STATION**  
 MISCELLANEOUS DETAILS

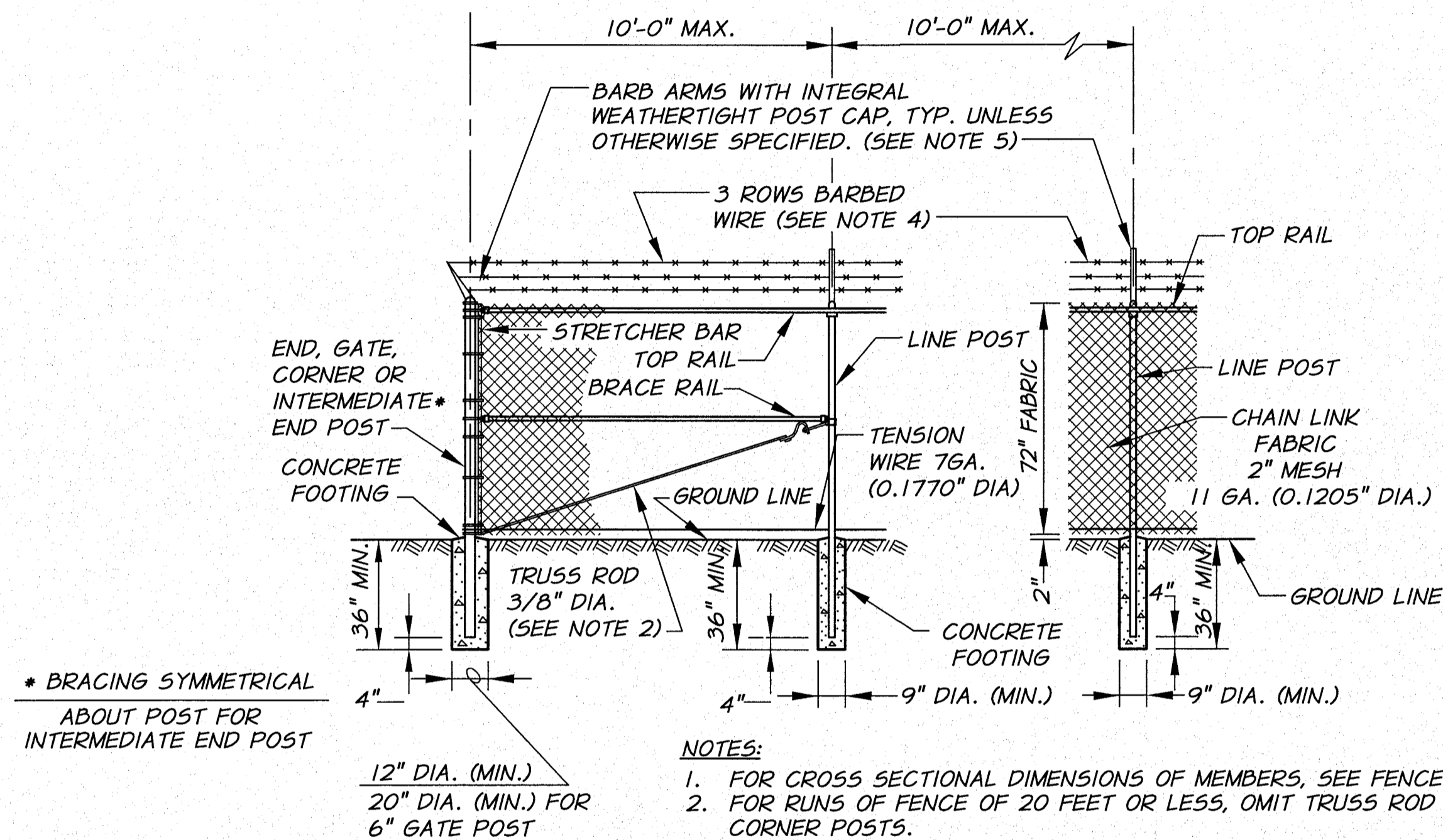
TABLE

MATERIAL	MEMBER										MATERIAL		
	BRACE AND TOP RAILS		LINE POSTS				END, CORNER & INTERMEDIATE END POST		GATE OPENING IN FEET			GATE POSTS	
	NOM. DIA. (INCHES)	WT./FT. LBS.	NOM. DIA. (INCHES)	WT./FT. LBS.	H-SECTION SIZE (INCHES)	WT./FT. LBS.	NOM. DIA. (INCHES)	WT./FT. LBS.	SINGLE GATE	DOUBLE GATE		NOM. DIA. (INCHES)	WT./FT. LBS.
GALVANIZED OR ALUMINUM COATED STL.	1 1/4	2.27	2	3.65	2 1/4 X 2	4.10	2 1/2	5.79	UP THRU 6 7 THRU 13 14 THRU 18	UP THRU 12 13 THRU 26 27 THRU 36	2 1/2 3 1/2 6	5.79	GALVANIZED OR ALUMINUM COATED STL.
ALUMINUM ALLOY	1 1/4		2				2 1/2		UP THRU 6 7 THRU 13 14 THRU 18	UP THRU 12 13 THRU 26 27 THRU 36	2 1/2 3 1/2 6		ALUMINUM ALLOY

NOTE:  
GATE POSTS ON EACH SIDE OF A GATE OPENING TO BE THE SAME SIZE.  
AT A DOUBLE GATE INSTALLATION WITH UNEQUAL WIDTH GATES, SIZE OF BOTH POSTS TO BE AS INDICATED FOR A SINGLE GATE INSTALLATION OF THE WIDER GATE WIDTH.  
ALL PIPE SHALL BE SCHEDULE 40

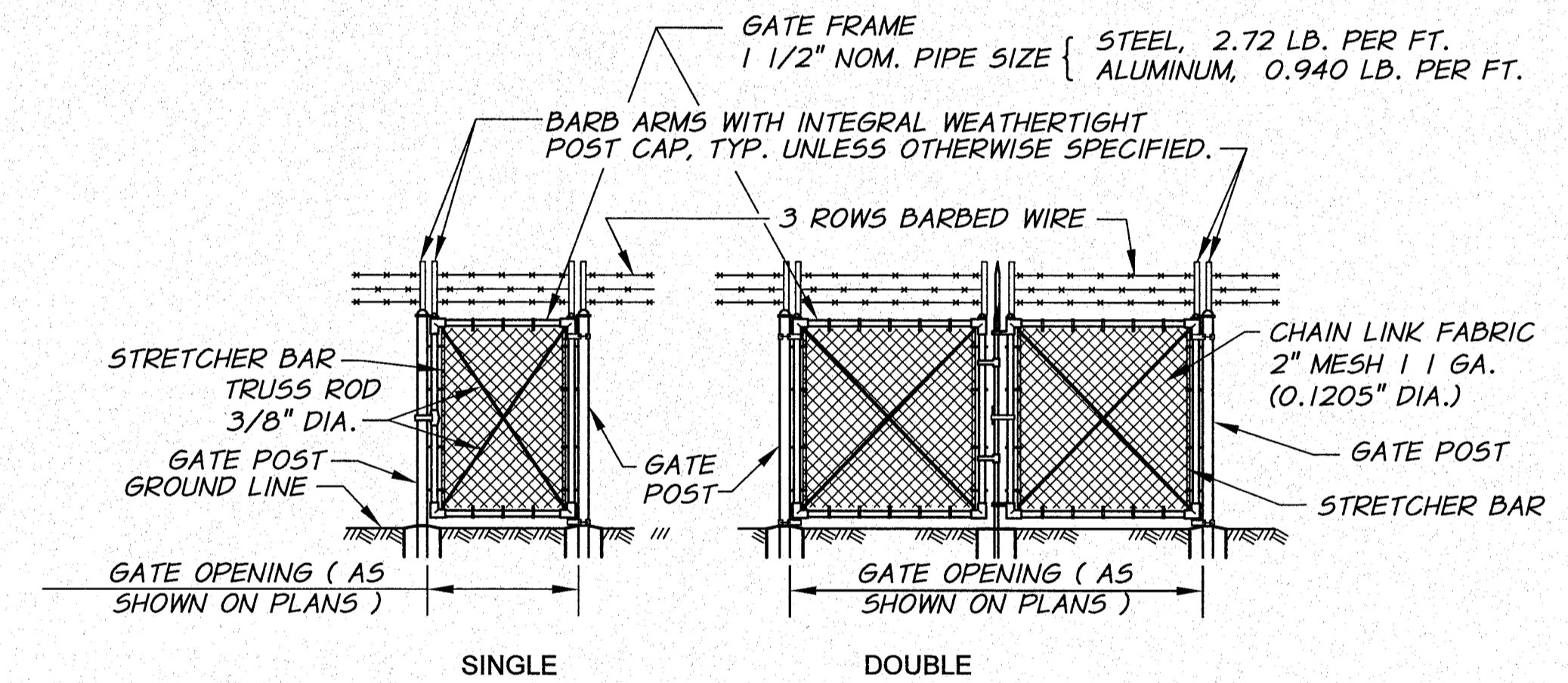
FENCE MEMBER TABLE

N.T.S.



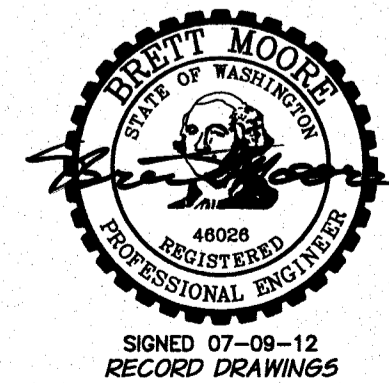
- NOTES:
- FOR CROSS SECTIONAL DIMENSIONS OF MEMBERS, SEE FENCE MEMBER TABLE.
  - FOR RUNS OF FENCE OF 20 FEET OR LESS, OMIT TRUSS ROD AT END AND CORNER POSTS.
  - CHAIN LINK FENCE FABRIC TO BE 6'-0" HIGH.
  - THREE STRANDS OF BARBED WIRE SHALL RUN THE ENTIRE LENGTH OF FENCE ABOVE THE FABRIC, WITH THE TOP OUTSIDE WIRE APPROXIMATELY 12" HORIZONTALLY FROM THE FENCE LINE AND THE OTHER WIRES SPACED UNIFORMLY.
  - THE WIRE SHALL BE SUPPORTED ON THE LINE POST BY MEANS OF HEAVY GALVANIZED MALLEABLE IRON CAPS WITH PRESSED STEEL EXTENSION ARMS AT AN ANGLE OF 45°.
  - PROVIDE 4 "DANGER KEEP OUT" SIGNS MOUNTED PERMANENTLY TO EXTERIOR OF FENCE AS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE U.V. AND WEATHER PROOF, 10" X 14" IN SIZE, AND WRITTEN IN BOTH ENGLISH AND SPANISH.

FENCE DETAIL  
WITH BARBED WIRE  
N.T.S.



SWING GATE DETAIL  
WITH BARBED WIRE  
N.T.S.

NOTE:  
PRIVACY SLATS TO BE INSTALLED ON ALL FENCE SECTIONS AND GATES.  
COLOR TO BE APPROVED BY OWNER.

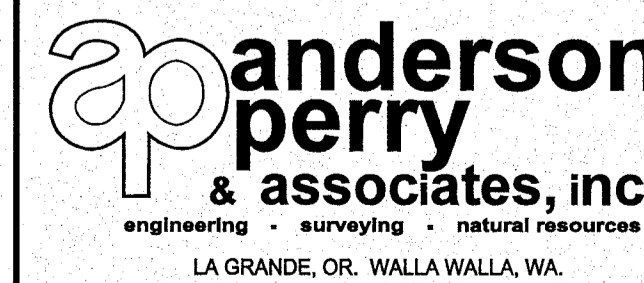


SIGNED 07-09-12  
RECORD DRAWINGS

REVISION	BY	DATE	HORIZ. SCALE	NONE	VERT. SCALE
DESIGNED BY	R. HARRIS	XREFS: TB-BID.dwg	JOB NUMBER	1199-336	DATE
DRAWN BY	D. CHRISTMAN		ACAD FILE	Knox-PumpSta-Fence.dwg	
REVIEWED BY	B. MOORE		COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.		

RECORD DRAWINGS

These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. They may contain some discrepancies and omissions, and do not necessarily represent "exact" field conditions. The Owner and the Engineer accept no responsibility for their accuracy.



BENTON IRRIGATION DISTRICT  
IRRIGATION SYSTEM IMPROVEMENTS  
PHASE 2C

KNOX ROAD BOOSTER PUMP STATION  
FENCE DETAILS

SHEET

68