




PULL BOX

REQUIREMENTS FOR INSTALLATION

1. Adhere to OSHA Standard - 29 CFR 1926.1200-1213. For assistance in compliance, OSHA publishes a compliance guide, see OSHA 38-09 2015 (or latest revision).
2. Duct size to be 4 inch or 6 inch as specified. See SR-215 for trenching and duct installation.
3. Duct shall be of a type specified by SR-205.
4. Excavation for the pull box shall be such that the top of the manhole will be at final grade plus or minus 1/4 inch.
5. Prior to setting, the customer shall provide a minimum of 3 inches of bedding material as specified in SR-207 as a base for the pull box. This bedding material should be compacted and graded level at the proper elevation. All backfill shall be placed progressively in 6 inch lifts and compacted to a minimum of 95 percent of Standard Proctor Density (ASTM D698). Service Provider reserves the right to require density (compaction) testing to verify conformance. If required, density (compaction) testing shall consist of one test at every two feet of vertical height of pull box backfill, alternating sides with successive two foot increments.
6. Pull box shall be located so that the duct will enter the pull box without any deflections.
7. Refer to Construction Drawing for duct size and duct placement. Where duct size, is other than 6 inches, endbell adapters will be provided by the pull box manufacturer to accommodate the duct size being installed.
8. Manhole is to be concreted to neck of pull box.
9. Manhole lid and ring to be furnished and installed by the customer.
10. Precast manhole grade rings require a sealer to be placed at each interface.
11. Ladder to be provided by the pull box manufacturer and installed by the customer.
12. Outside duct plugs to be provided in each endbell entrance into pull box.
13. Seal the manhole lid with manhole sealing compound after the last inspection has been approved. Service Provider locks the manhole lid.

REQUIREMENTS FOR SUPPLIER

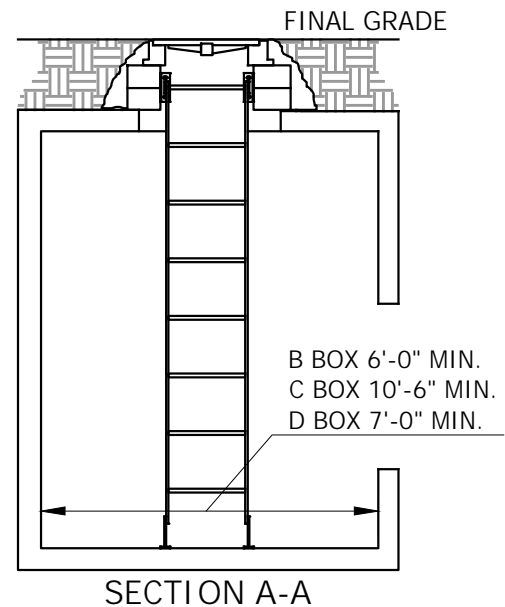
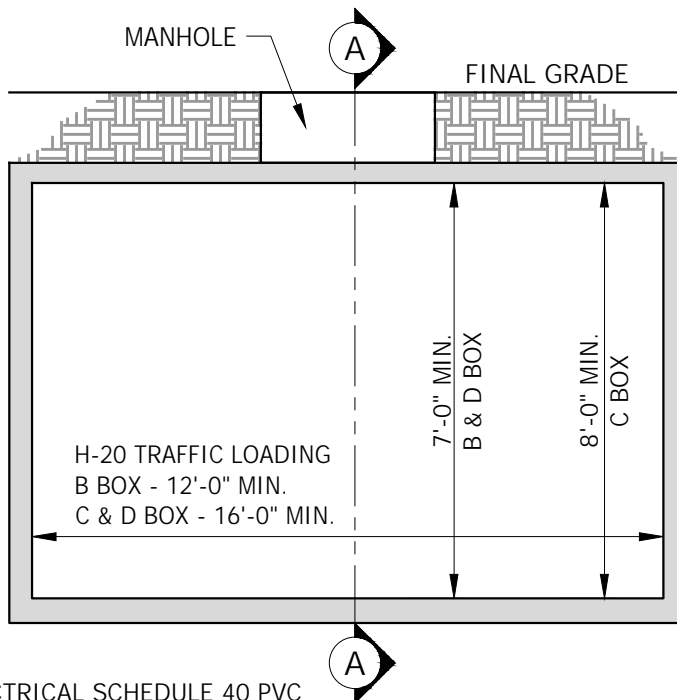
14. Duct endbells are to be cast in place, flush with interior wall of pull box. All endbells are to be a standard 6 inch size and are to be placed as depicted for pull box B, C and D.
15. Duct identification letters to be embossed in concrete above each endbell on inside and outside walls of pull box B, C and D boxes (see expanded views).
16. All reinforcement steel shall be deformed billet steel conforming to ASTM A615, Grade 60.
17. Manhole lid standard marking to be "Electric", per lid detail on page 3.
18. The pull box manufacturer's name is to be embossed onto the inside top of the pull box.
19. Ground wire to be attached to rebar cage by thermal weld or by a bronze bolted parallel connector designed for bonding use. Example: Burndy Connector Cat. No. KVSU28.
20. All pulling irons to be rated for 20,000 lbs. minimum.
21. Supply 1-5 pound bag of manhole seal. Approved manufacturers are, Calpico - JM-5, Dottie - LHD5, or Ideal Industries, Inc. - 31-605.

 Tucson Electric Power	 SANTA CRUZ COUNTY	INITIATED BY	SC	REVISION NO.	20	SR-225  Pg. 1 of 12
		ESR COMM.	7-78	ESR COMM.	10-23	
				EFFECTIVE DATE	10-23	

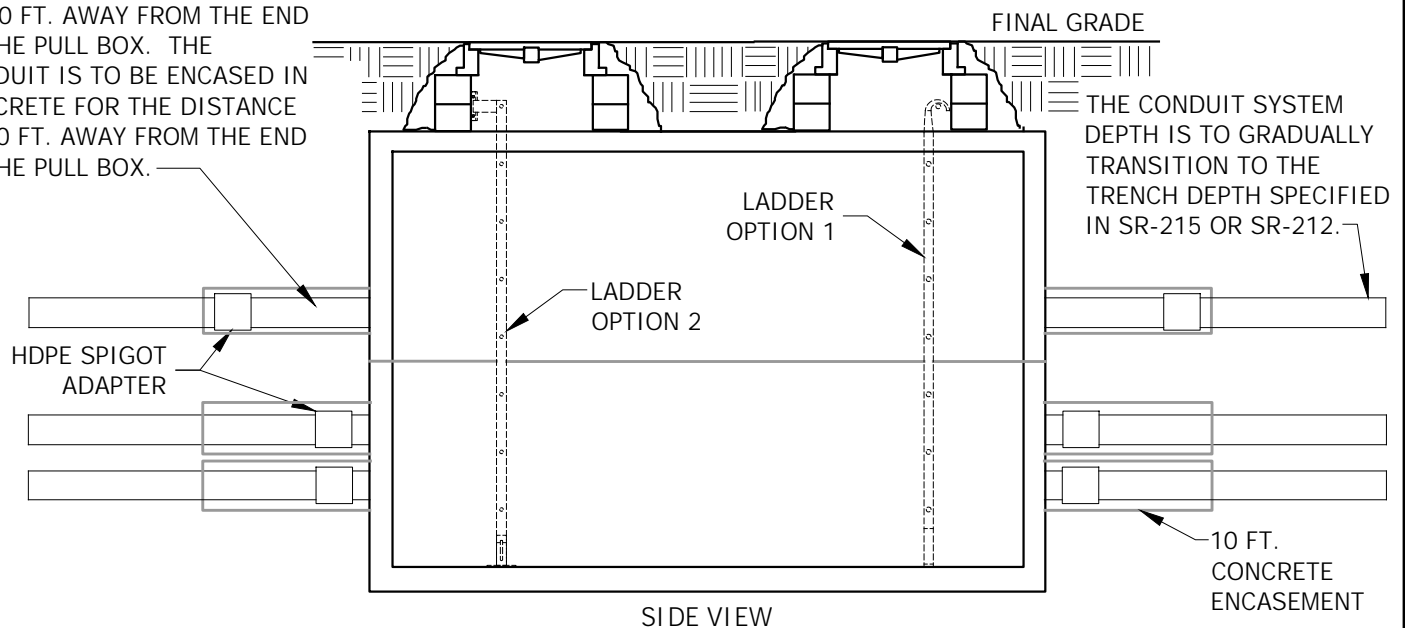
Inside Dimensions W x L x H
 PULL BOX: B - 6'-0" x 12'-0" x 7'-0"
 C - 10'-6" x 16'-0" x 8'-0"
 D - 7'-0" x 16'-0" x 7'-0"

PULL BOX

DETAIL & CROSS SECTION






ELECTRICAL SCHEDULE 40 PVC SHALL BE INSTALLED FROM THE PULL BOX (STRAIGHT), UP TO 10 FT. AWAY FROM THE END OF THE PULL BOX. THE CONDUIT IS TO BE ENCASED IN CONCRETE FOR THE DISTANCE OF 10 FT. AWAY FROM THE END OF THE PULL BOX.



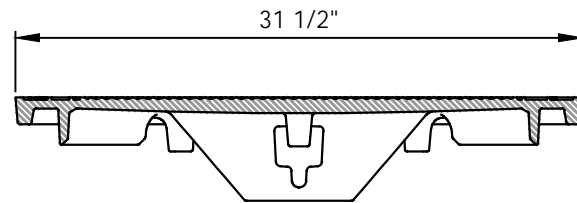
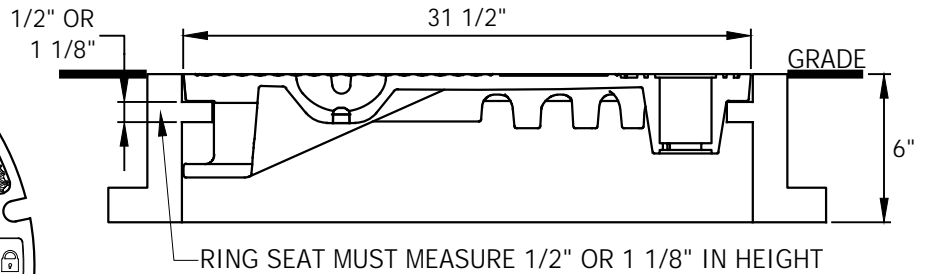
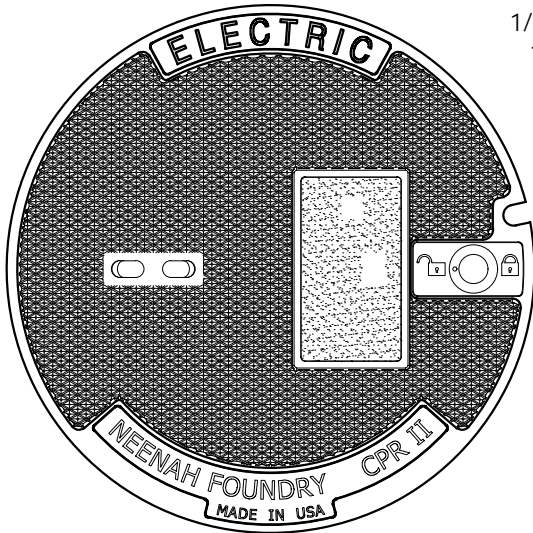
NOTES:

1. SEE SERVICE PROVIDER CONSTRUCTION DRAWINGS FOR DUCT ENTRANCE LOCATIONS.
2. SERVICE PROVIDER RESERVES THE RIGHT TO REQUEST SPECIAL ENDBELL PLACEMENT BY THE MEANS OF CORE DRILLING EXISTING OR NEW PULL BOXES.
3. AN ACCESS APPOINTMENT MAY BE REQUIRED, SEE THE CONSTRUCTION DRAWINGS FOR DUCT ENTRANCE LOCATIONS.
4. APPROVED SUPPLIERS ARE RESPONSIBLE FOR MEETING SERVICE PROVIDER PULL BOX SPECIFICATIONS.

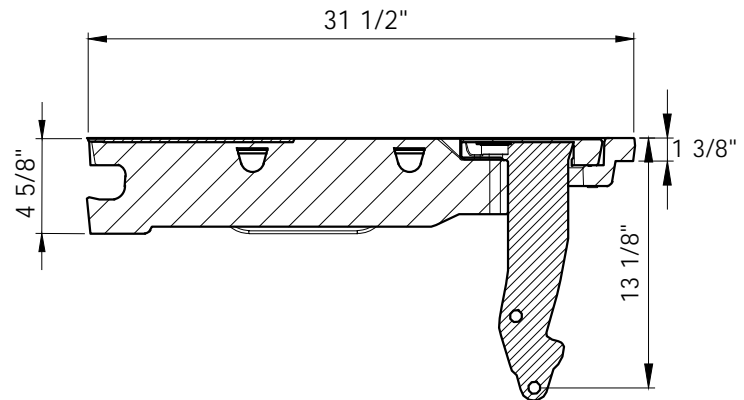
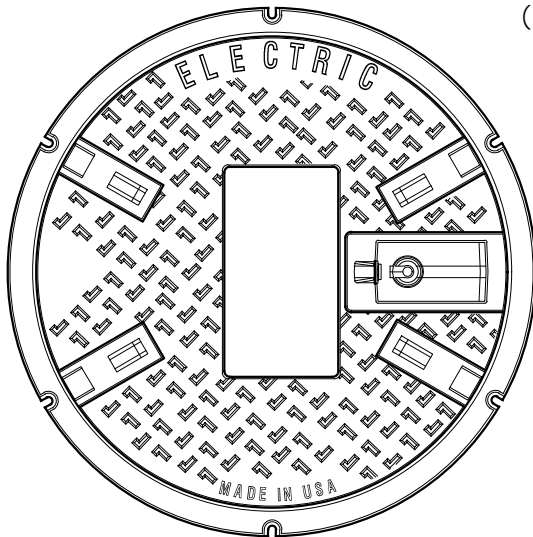
 Tucson Electric Power	 SANTA CRUZ COUNTY	INITIATED BY	SC	REVISION NO.	18	SR-225  Pg. 2 of 12
		ESR COMM.	7-78	ESR COMM.	10-23	
				EFFECTIVE DATE	10-23	

PULL BOX MANHOLE COVER DETAILS

NEENAH FOUNDRY: PART NO. 0150-5032, 196LBS.
(EFFECTIVE: MARCH 2019)



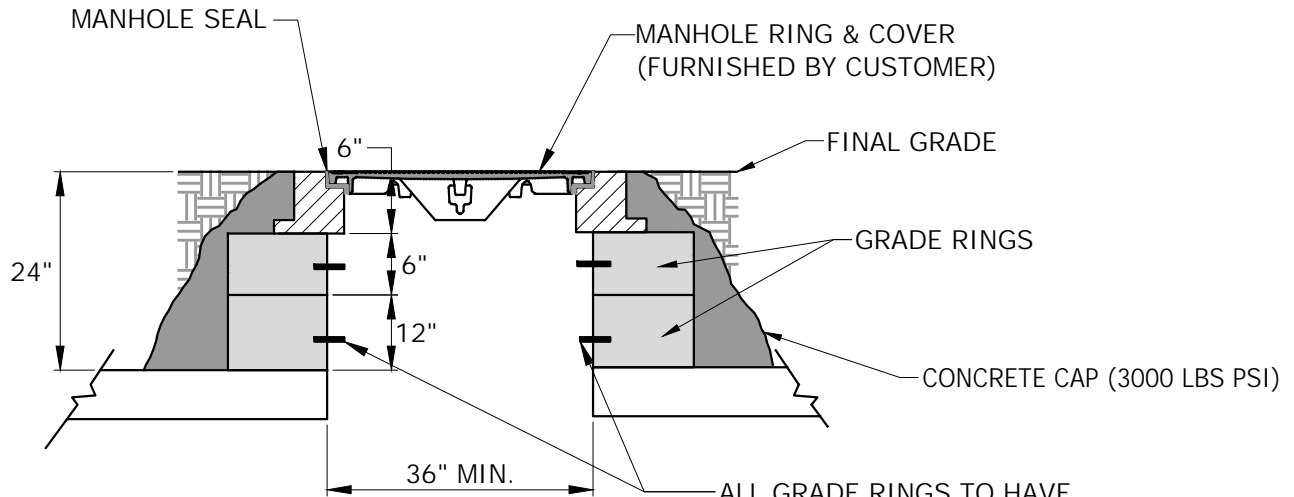
EAST JORDAN FOUNDRY: PART NO. 00342521A01, 190LBS.
(EFFECTIVE: OCTOBER 2023)



NOTES:

1. FURNISHED BY THE CUSTOMER AND INSTALLED IN THE UNLOCKED POSITION
2. MATERIAL: CAST DUCTILE IRON, ASTM A-536, 55+ KSI YIELD
3. FINISH: NO PAINT UNLESS SPECIFIED ON PURCHASE ORDER
4. SUPPLIED WITH MCGARD LOCKING BOLT (SPECIFIED BY TEP) AND PLASTIC CAP.
5. TEP STORES NO. 7-48-2050

PULL BOX MANHOLE GRADE RING DETAIL



MANHOLE RING:

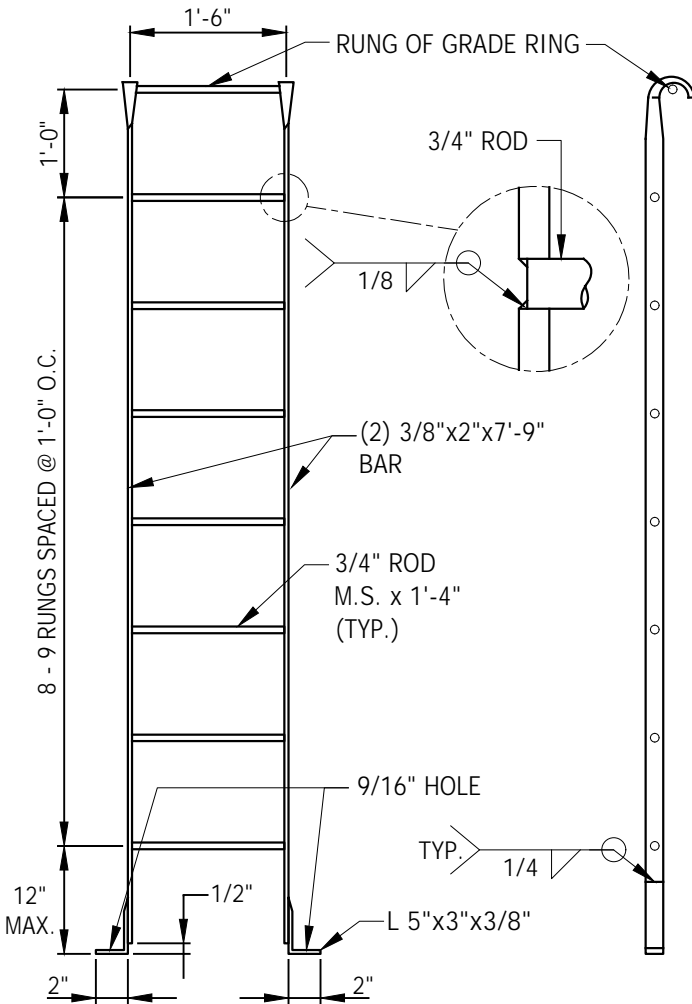
FURNISHED BY THE CUSTOMER.
CAST IRON; H-20 TRAFFIC LOADING.
RING TO CONTAIN LIFTING EYES.
RING SEAT MUST MEASURE
EITHER 0.5" OR 1.125" IN HEIGHT.

NOTES:

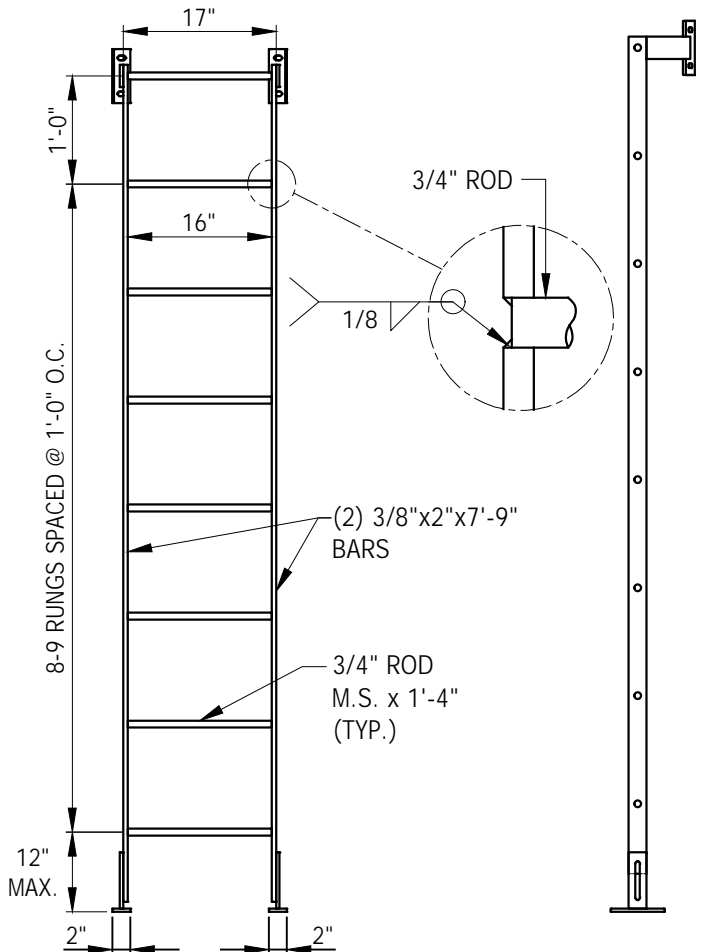
1. ALL GRADE RINGS TO BE 36 INCH MINIMUM DIAMETER, WITH LADDER RUNG IN EACH.
2. INFRA-RISER RUBBER COMPOSITE ADJUSTMENT RINGS ARE APPROVED FOR THE USE ON EXISTING INSTALLATIONS. THESE RINGS COME IN SIZES 1/2, 1, 2 & 3 INCH HEIGHTS FOR THE THREE SIZES OF COVERS LISTED IN EM-L59 PAGE 4 OF 4.

SUPPLIERS: BORDER STATES (LEAD TIME IS 2-6 WEEKS)
JENSEN PRECAST (IN STOCK)

LADDER DETAILS



LADDER DETAIL 1



LADDER DETAIL 2

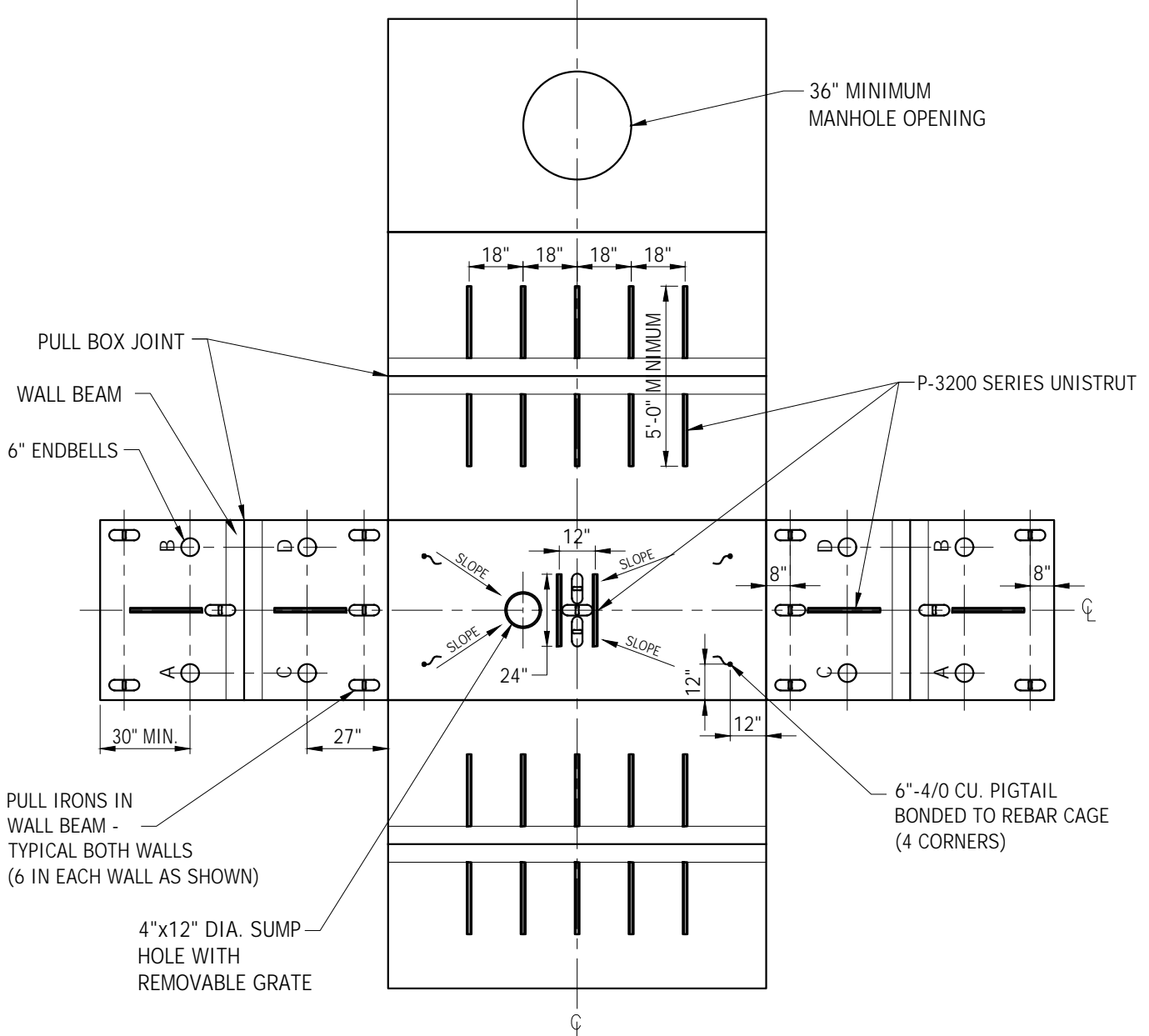
NOTES:

1. CUSTOMER TO FURNISH LADDERS IN PULL BOXES: B, C & D PULL BOX, (2) LADDERS PER PULL BOX.
2. LADDERS CONSTRUCTED AND INSTALLED PER ANSI A14.3 LATEST EDITION, FOR FIXED LADDER SAFETY REQUIREMENTS. A 24 INCH MINIMUM CLEAR ACCESS WITH LADDER IN PLACE MUST BE MAINTAINED.
3. FOR JENSEN PULL BOX B, C & D LADDER(S) SHALL BE HUNG FROM THE FIRST GRADE RING ABOVE THE PULL BOX FACING THE PORTS OF THE INTERIOR WALLS, THEN SECURELY FASTENED TO CONCRETE INSERTS CAST INTO THE FLOOR, REFER TO LADDER DETAIL 1.
4. FINISH: GALVANIZED

PULL BOX

EXPANDED VIEW PULL BOX A
(5'-0" x 10'-0" x 7'-0")

NO LONGER APPROVED
FOR MAINTENANCE ONLY



Tucson Electric Power



INITIATED BY

SC

REVISION NO.

17

ESR COMM.

7-78

ESR COMM.

10-23

EFFECTIVE DATE

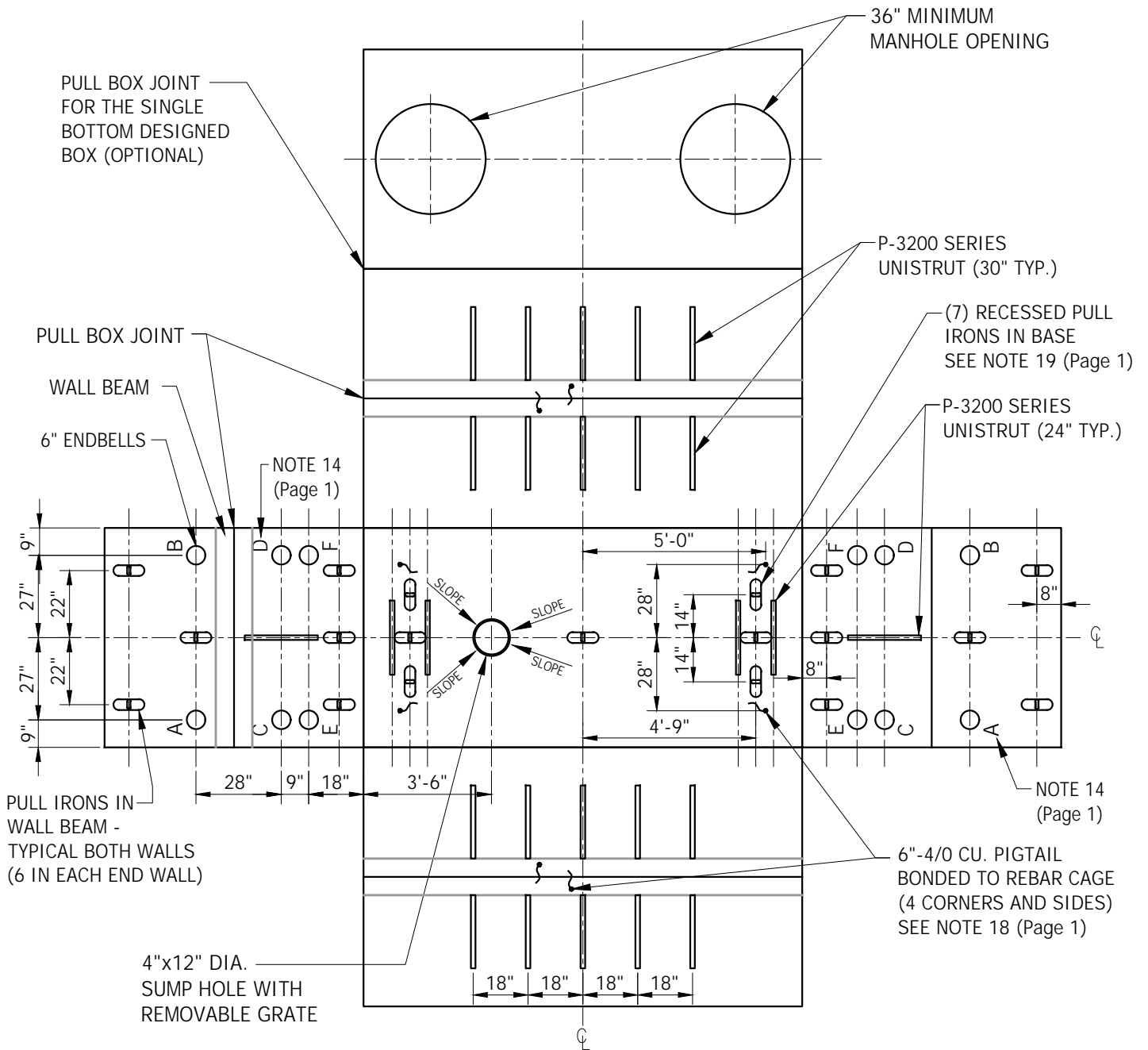
10-23

SR-225



Pg. 6 of 12

PULL BOX
EXPANDED VIEW PULL BOX B
 (Inside Dimensions: 6'-0" x 12'-0" x 7'-0")



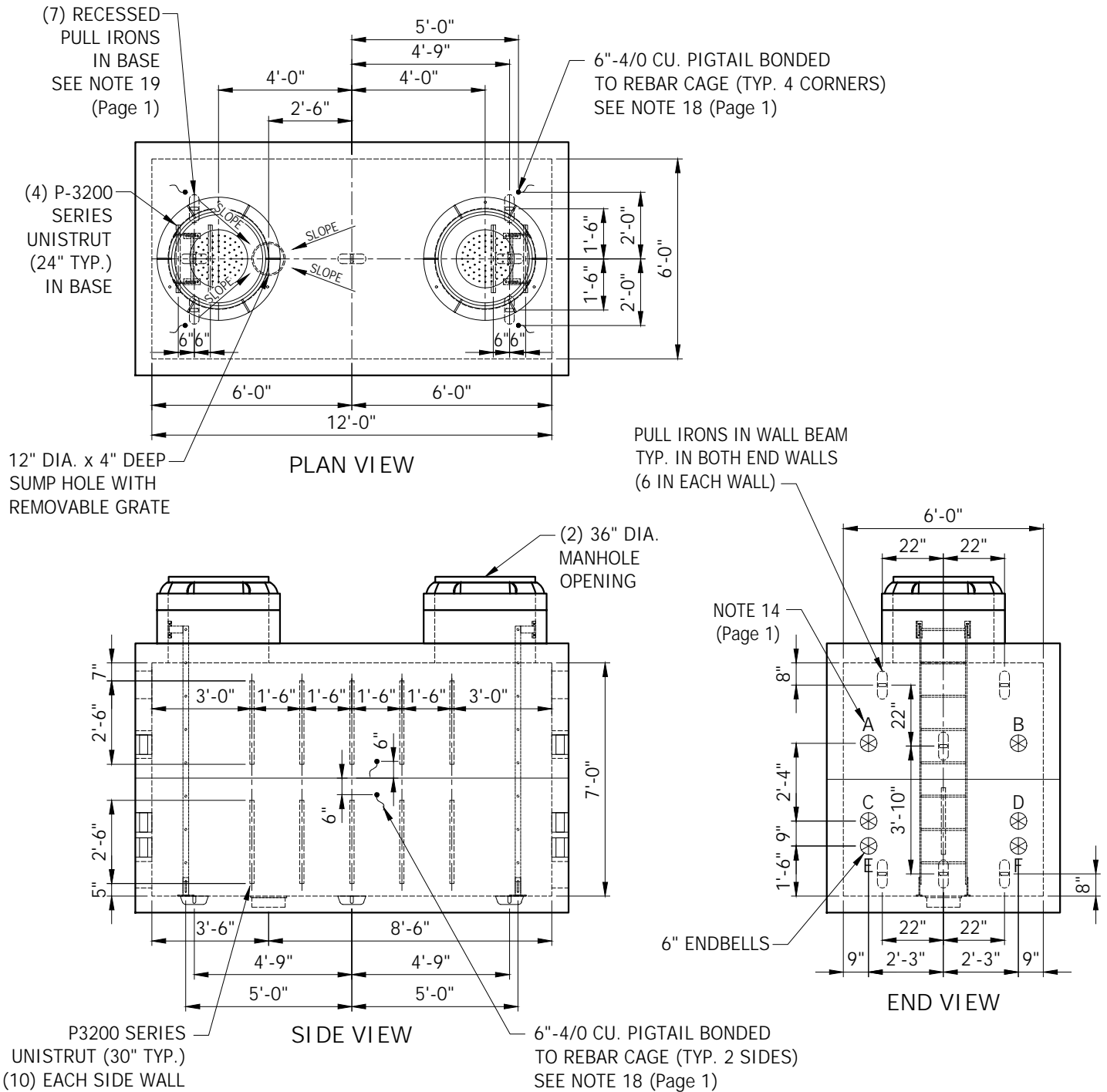
NOTES:

1. SEE ADDITIONAL REQUIREMENTS ON PAGE 1.
2. SEE TEP CONSTRUCTION DRAWINGS FOR DUCT ENTRANCE LOCATIONS.
3. APPROVED SUPPLIERS:

OLDCASTLE PRECAST
 JENSEN PRECAST

PULL BOX

PLAN, SIDE & END VIEW, PULL BOX B (Inside Dimensions: 6'-0" x 12'-0" x 7'-0")

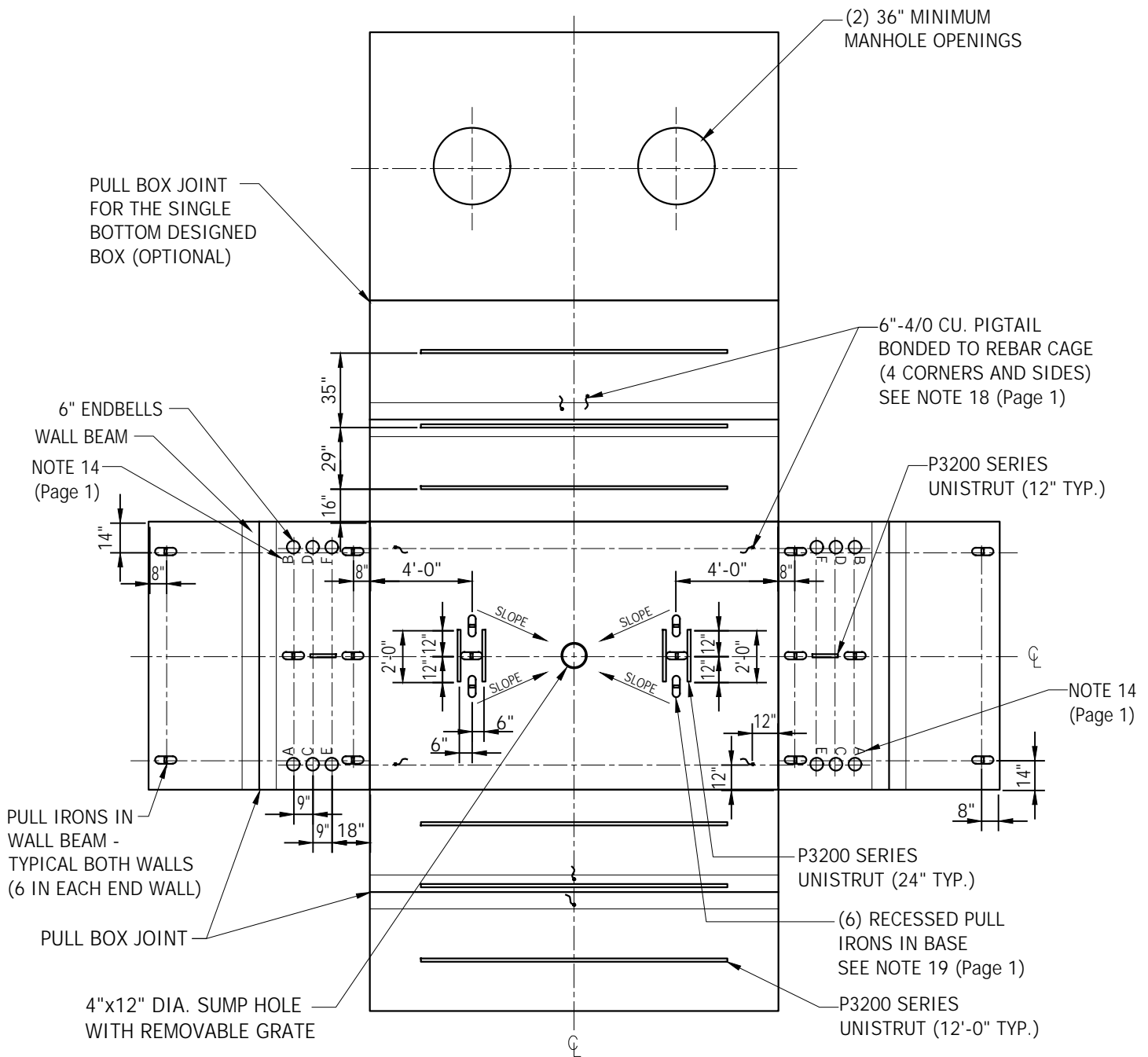


NOTES:

1. SEE ADDITIONAL REQUIREMENTS ON PAGE 1.
2. SEE TEP CONSTRUCTION DRAWINGS FOR DUCT ENTRANCE LOCATIONS.
3. APPROVED SUPPLIERS:

OLDCASTLE PRECAST
JENSEN PRECAST

PULL BOX
EXPANDED VIEW PULL BOX C
 (Inside Dimensions: 10'-6" x 16'-0" x 8'-0")

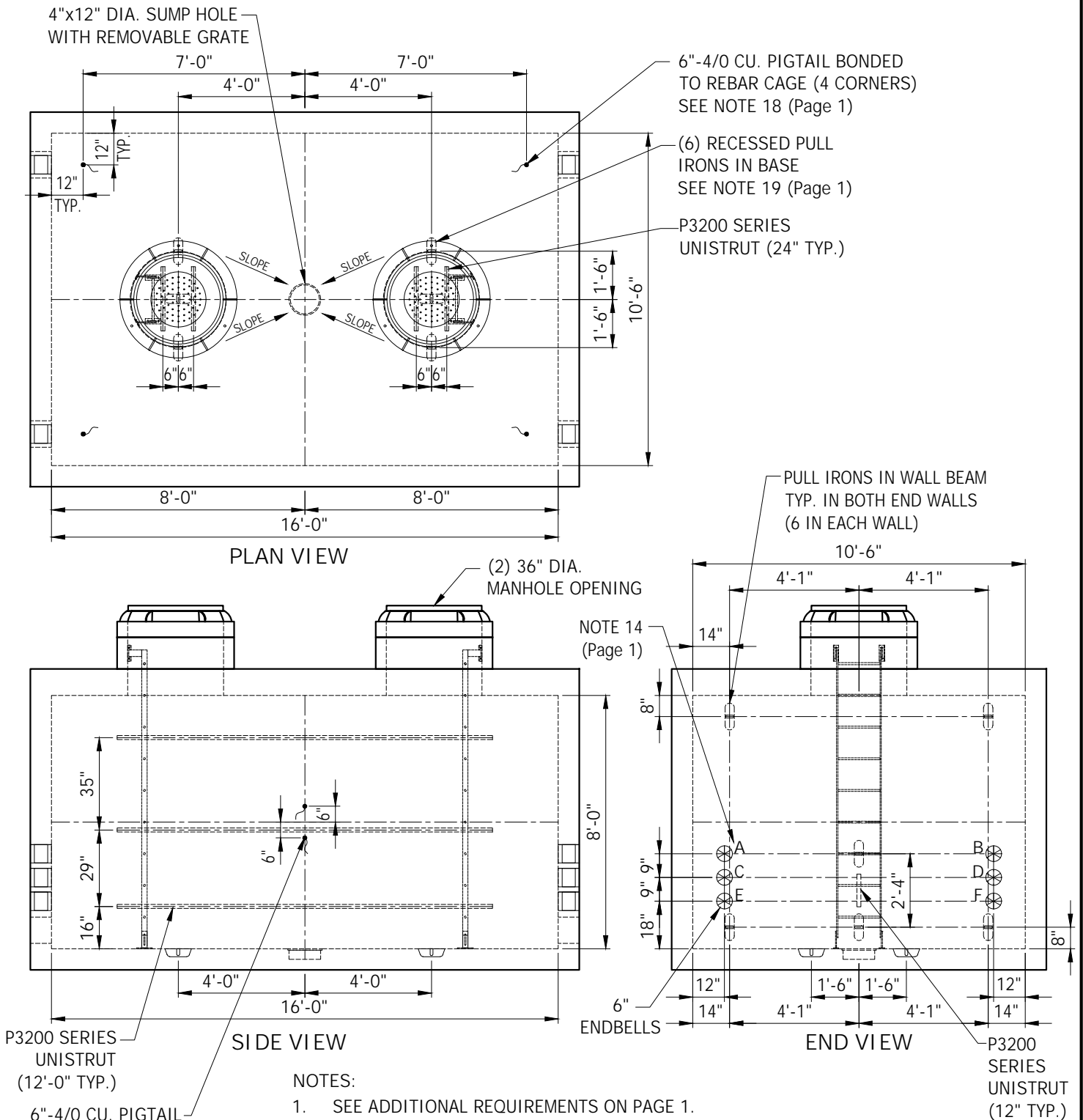


NOTES:

1. SEE ADDITIONAL REQUIREMENTS ON PAGE 1.
2. SEE TEP CONSTRUCTION DRAWINGS FOR DUCT ENTRANCE LOCATIONS.
3. APPROVED SUPPLIERS:
 OLDCASTLE PRECAST
 JENSEN PRECAST

PULL BOX

PLAN, SIDE & END VIEW, PULL BOX C (Inside Dimensions: 10'-6" x 16'-0" x 8'-0")

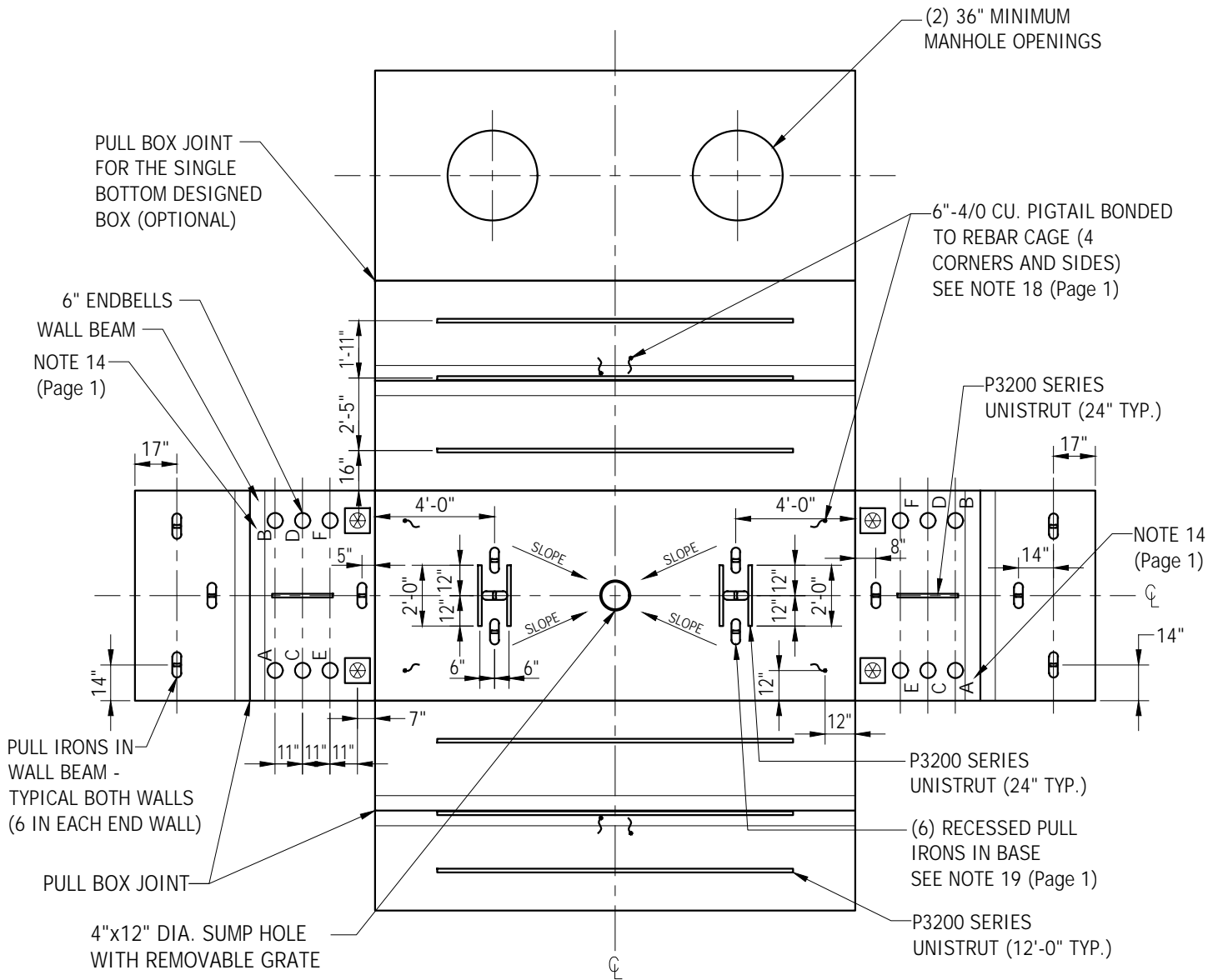


NOTES:

1. SEE ADDITIONAL REQUIREMENTS ON PAGE 1.
2. SEE TEP CONSTRUCTION DRAWINGS FOR DUCT ENTRANCE LOCATIONS.
3. APPROVED SUPPLIERS:

OLDCASTLE PRECAST
JENSEN PRECAST

PULL BOX
EXPANDED VIEW, PULL BOX D
(Inside Dimensions: 7'-0" x 16'-0" x 7'-0")

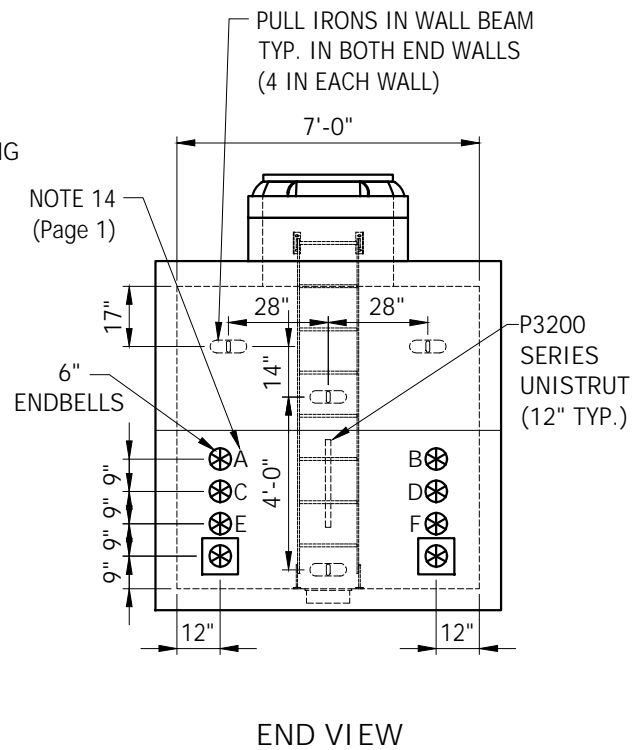
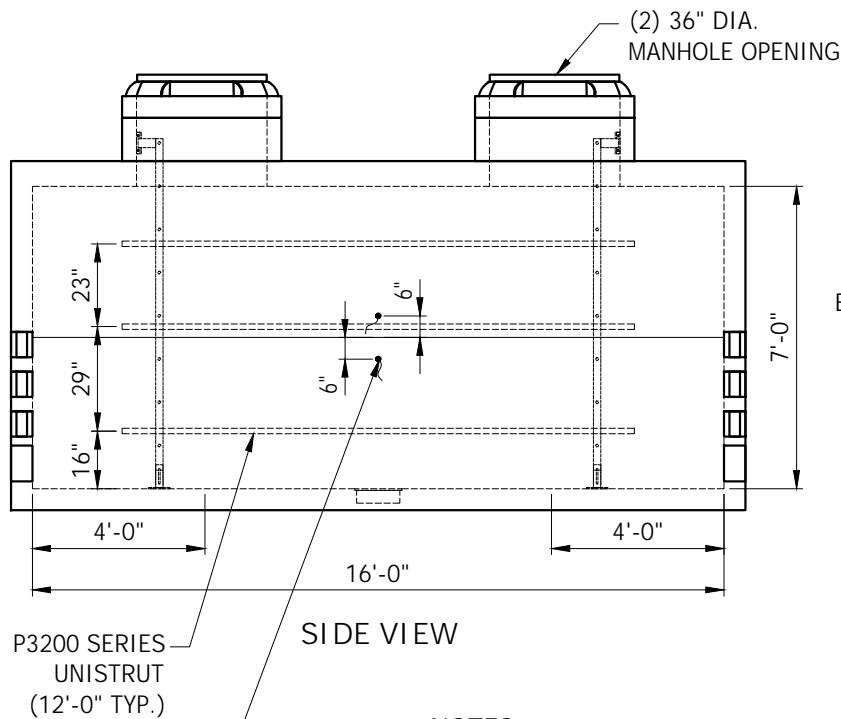
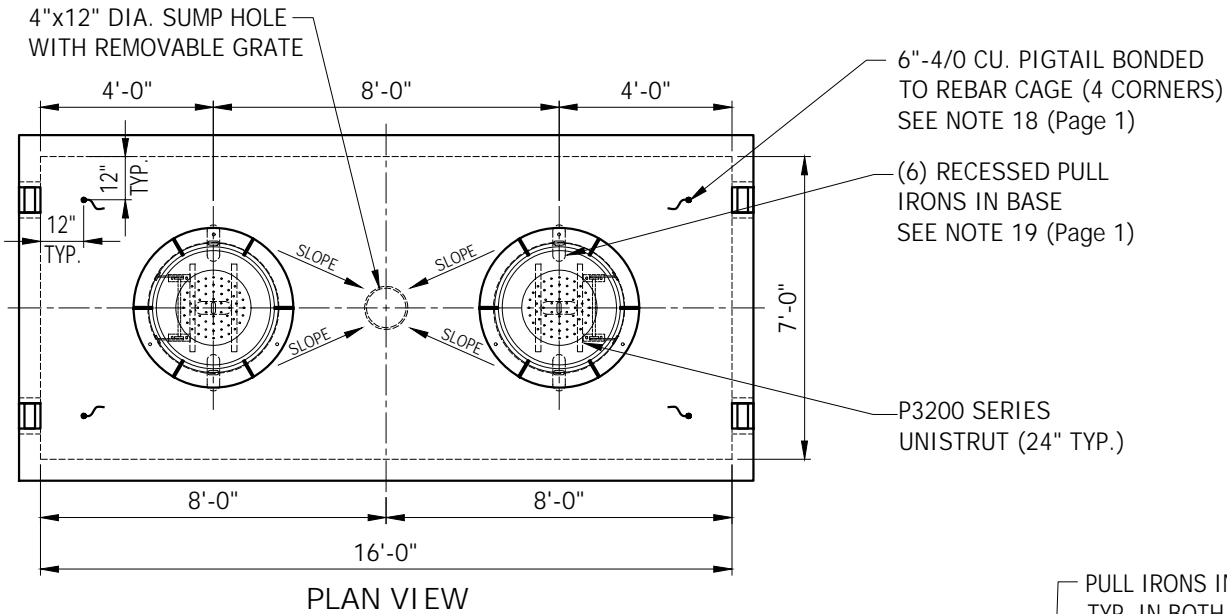


NOTES:

1. SEE ADDITIONAL REQUIREMENTS ON PAGE 1.
2. SEE TEP CONSTRUCTION DRAWINGS FOR DUCT ENTRANCE LOCATIONS.
3. APPROVED SUPPLIERS:
OLDCASTLE PRECAST
JENSEN PRECAST

PULL BOX

PLAN, SIDE & END VIEW, PULL BOX D (Inside Dimensions: 7'-0" x 16'-0" x 7'-0")



NOTES:

1. SEE ADDITIONAL REQUIREMENTS ON PAGE 1.
2. SEE TEP CONSTRUCTION DRAWINGS FOR DUCT ENTRANCE LOCATIONS.
3. APPROVED SUPPLIERS:

OLDCASTLE PRECAST
JENSEN PRECAST