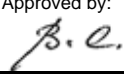


Handholes and Pull Boxes

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		<div style="font-weight: bold; font-size: 36px;">UGS</div>

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HP 200 Handhole Requirements

Scope HP 200.1 Handhole Requirements

The following tabulation shows the size and type of various handholes, manufacturers' names, an arbitrarily assigned item number, and SAP numbers. This item number will be the identification used when listed on the "List of Materials" on the working drawing.

Table HP 200-1: Concrete — Unit (Box and Cover) — Parkway

Item Number	Nominal Size (Inside)	Manufacturers' Numbers				SAP Number
		BES Products	Brooks Products ^{a/}	Christy Concrete Products ^{b/}	J&R Concrete Products	
HH-2 ^{b/c/}	10.5" x 17" x 24"	—	36PBB-36MBBE-36PBCC238	N09B-N09X12-N09T72	E3 1/2 PB, E3 1/2--PB-EXT, E3 1/2-C-ED	10117724
HH-6	17" x 30" x 24"	—	66MBB-66MBBE-66PBCC238	N36B-N36X12-N36T72	E6B-PB, E6B-(12")EXT, E6B-C-ED	10117326
HH-1 ^{c/ d/}	10.5" x 17" x 12"	C9E	36PBB-36PBCC238	N09B-N09T72	E3 1/2-PB, E3 1/2-C-ED	10117723
HH-3	13" x 24" x 12"	C30	38MBB-38PBCC238	N30B-N30T72	E5-2-PB, E5-2-C-ED	10117319
HH-4	13" x 24" x 24"	—	38MBB-38MBBE-38PBCC238	N30B-N30X12-N30T72	—	10117315
HH-5 ^{c/}	17" x 30" x 12"	C36	66MBB-66PBCC238	N36B-N36T72	E6B-PB, E6B-C-ED	10117322

^{a/} Brooks Products (formerly Carson-Brooks)

^{b/} Old Castle Enclosure Solutions is the parent company of Christy Concrete Products.

^{c/} Limited to streetlight use.

^{d/} Not approved for use on new construction.

Table HP 200-2: Plastic (HDPE) — Unit (Box and Cover) — Parkway

Item Number	Nominal Size (Inside)	Manufacturers' Numbers		SAP Number
		New Basis ^{a/}	Carson Industries ^{b/}	
HH-7 ^{c/ d/}	10.5" x 17" x 12"	SEA-141912-C012	141912-4HYE60AU0	10117728
HH-8	13" x 24" x 15"	SEA-132415-C012	132415-3BYE60GU0	10117725
HH-9	17" x 30" x 15"	SEA-173015-C020	173015-3BYE60GU0	10117726

^{a/} New Basis (formerly Associated Plastics)

^{b/} Old Castle Enclosure Solutions is the parent company of Carson Industries (formerly Carson-Brooks)

^{c/} Limited to Streetlight Use

^{d/} Not approved for use on new construction

= For Reference Only

Table HP 200-3: FRP and RPM — Unit (Box and Cover) — Parkway

Fiberglass Reinforced Plastic (FRP), Polymer Concrete (RPM)					
Item Number	Nominal Size (Inside)	Manufacturers' Numbers			SAP Number
		Armorcast Products	CDR Systems ^{a/}	Quazite Corp. ^{b/}	
HH-12 ^{c/}	17" x 30" x 30"	A6001640AX30	A10173030A0C4	PD1730Z500C4	10117431
HH-10 ^{c/}	13" x 24" x 18"	A600-1946A	PA10-1324-18	PG1324-Z549	10117408
HH-11 ^{c/}	17" x 30" x 18"	A600-1640A	PA10-1730-18	PG1730-Z567	10117412

^{a/} Hubbell Power Systems is the parent company of CDR Systems.

^{b/} Hubbell Power Systems is the parent company of Quazite Corp. (formerly Power and Communication Systems Company — P&C)

^{c/} Not approved for use on new construction.

Table HP 200-4: FRP and RPM — Unit (Box and Cover) — Light Traffic

Fiberglass Reinforced Plastic (FRP), Polymer Concrete (RPM)				
Item Number	Nominal Size (Inside)	Manufacturers' Numbers		SAP Number
		Armorcast Products	CDR Systems ^{a/}	
HH-14	17" x 30" x 18"	A6001640TA-ED	A12173018A0C4	10117375
HH-13 ^{b/}	13" x 24" x 18"	A600-1946TA-ED	PA12-1324-18	10117298
HH-15 ^{c/}	17" x 30" x 30"	—	PA12-1730-30	10117333

^{a/} Hubbell Power Systems is the parent company of CDR Systems.

^{b/} Not approved for use on new construction.

Note(s):

1. See [HP 205](#) for typical installation.
2. Handholes installed in sidewalks shall be concrete (see [Table HP 200-1 \[Sheet 1\]](#)) or polymer concrete (see [Table HP 200-3 \[Sheet 2\]](#)). Handholes are for non-traffic loading only. See [Note 4](#) for handholes for vehicle loads.
3. Slight variations may occur between manufacturers' products.
4. Handholes should not be placed in areas where deliberate vehicle loads are planned. Such locations as driveways and parking lots should not have handholes. When this is unavoidable use only the products listed in [Table HP 200-4 \(Sheet 2\)](#).
5. When ordering new units, be sure to verify that the required Penta-head locking bolts and Edison logo on the cover are included with the order.

= For Reference Only

HP 200

Handhole Requirements

Approved by:



Sheet 2 of 4

What's Changed? Parent company notes added. Sections made "For Reference Only."

Effective Date:

UGS

10-24-2014

Scope HP 200.2 Handhole Requirements — Replacement Boxes

Table HP 200–5: Concrete (Box Only) — Parkway

Item Number	Nominal Size (Inside)	Manufacturers' Numbers			SAP Number
		Brooks Products ^{a/}	Christy Concrete Products	J&R Concrete Products	
HB-1 ^{b/}	10.5" x 17" x 12"	36PBB	N09B	E3 1/2-PB	10117462
HB-2 ^{c/}	10.5" x 17" x 24"	36PBB-36MBBE	N09B-N09X12	E3 1/2-PB, E3 1/2-PB-EXT	10117463
HB-3 ^{c/}	13" x 24" x 12"	38MBB	N30B	E5-2-PB	10117465
HB-4	13" x 24" x 24"	38MBB-38MBBE	N30B-N30X12	–	10117484
HB-5 ^{c/}	17" x 30" x 12"	66MBB	N36B	E6-B-PB	10117470
HB-6 ^{c/}	17" x 30" x 24"	66MBB-66MBBE	N36B-N36X12	E6-B-PB, E6-B-(12")EXT	10117472

^{a/} Brooks Products (formerly Carson-Brooks Inc.)

^{b/} Not approved for use on new construction.

Table HP 200–6: Plastic HDPE (Box Only) — Parkway

Item Number	Nominal Size (Inside)	Manufacturers' Numbers		SAP Number
		New Basis ^{a/}	Carson Industries ^{b/}	
HB-9	17" x 30" x 15"	SEB173015CH0	173015-*HY***OU0	10117471
HB-7 ^{c/}	10.5" x 17" x 12"	SEB141912CH0	141912-*HY***OU0	10117464
HB-8	13" x 24" x 15"	SEB132415CH0	132415-*HY***OU0	10117466

^{a/} New Basis (formerly Associated Plastics)

^{b/} Old Castle Enclosure Solutions is the parent company of Carson Industries (formerly Carson-Brooks Inc.)

^{c/} Not approved for use on new construction.

Table HP 200–7: FRP and RPM (Box Only) — Parkway

Fiberglass Reinforced Plastic (FRP), Polymer Concrete (RPM)					
Item Number	Nominal Size (Inside)	Manufacturers' Numbers			SAP Number
		Armorcast Products	CDR Systems ^{a/}	Quazite Corp. ^{b/}	
HB-11	17" x 30" x 18"	A6001640X18-ED	B10173018A	PG1730B529	10117413
HB-10 ^{c/}	13" x 24" x 18"	A600-1946X18-ED	PB10-1324-18	PG1324-B514	10117467
HB-12 ^{c/}	17" x 30" x 30"	A600-1640X30-ED	PB10-1730-30	PG1730-B502	10117473

^{a/} Hubbell Power Systems is the parent company of CDR Systems.

^{b/} Hubbell Power Systems is the parent company of Quazite Corp. (formerly Power and Communication Systems Company — P&C)

^{c/} Not approved for use on new construction.

= For Reference Only

Table HP 200–8: FRP and RPM (Box Only) — Light Traffic

Fiberglass Reinforced Plastic (FRP), Polymer Concrete (RPM)				
Item Number	Nominal Size (Inside)	Manufacturers' Numbers		SAP Number
		Armorcast Products	CDR Systems ^{a/}	
HB-13 ^{b/}	13" x 24" x 18"	A600-1946TX18-ED	PB12-1324-18	10117474
HB-14 ^{b/}	17" x 30" x 18"	A600-1640TX18-ED	PB12-1730-18	10117475
HB-15 ^{b/}	17" x 30" x 30"	–	PB12-1730-30	10117476

^{a/} Hubbell Power Systems is the parent company of CDR Systems.

^{b/} Not approved for use on new construction.

HP 200

Handhole Requirements

Approved by:

B. C.

Sheet 4 of 4

What's Changed? Parent company notes added. Sections made "For Reference Only."

Effective Date:

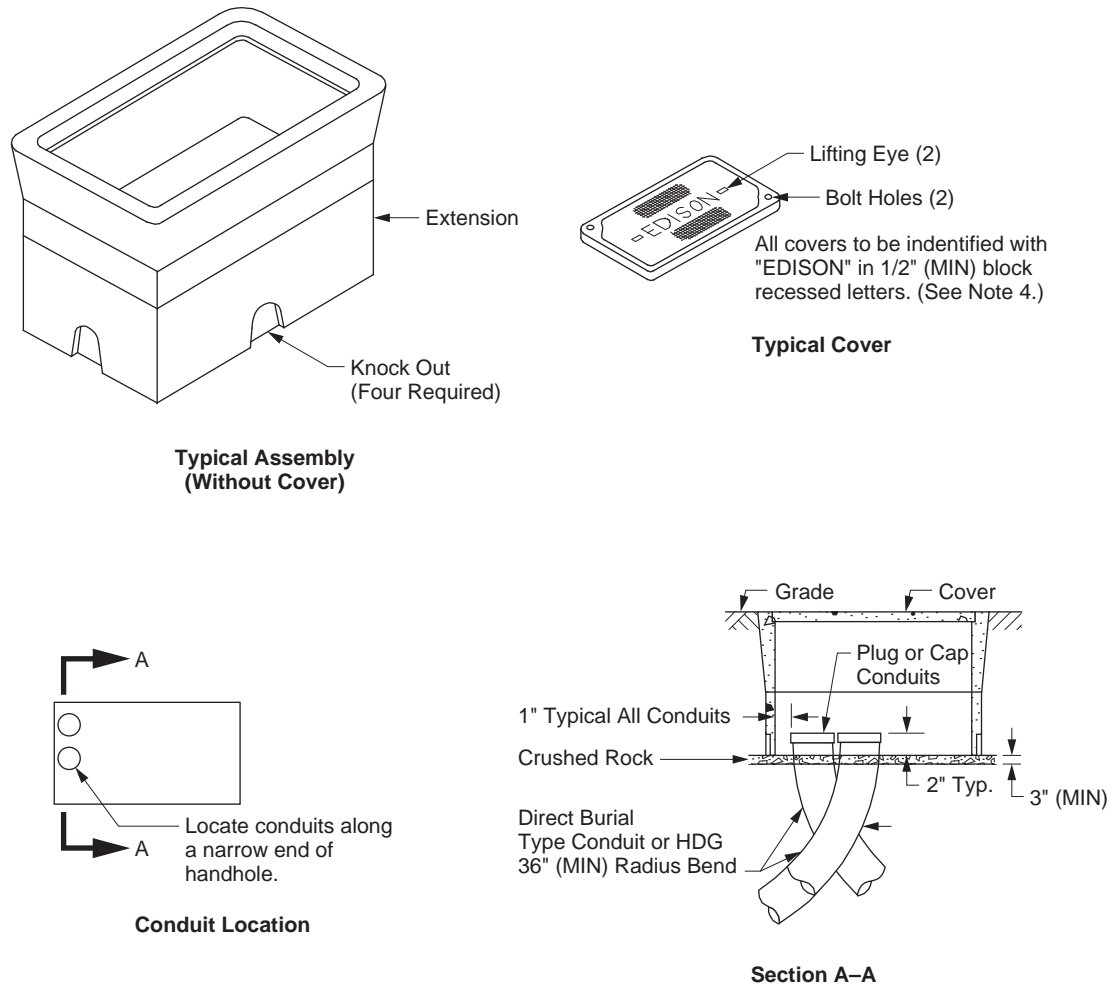
10-24-2014

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HP 205 Typical Handhole Installation

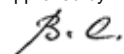
Scope HP 205.1 Typical Handhole Installation

Figure HP 205-1: Typical Handhole Installation



Note(s):

1. See [HP 200](#) for dimensions of various size handholes available.
2. Radius angle may be reduced to less than 90° providing the projected center line of the conduit clears handhole opening.
3. Two hold down devices to be supplied with each handhole.
4. Cover shall be identified with "EDISON" in minimum 2-inch letters or labels permanently secured to the lid.
5. For maintenance on 10-1/2" x 17" concrete handholes use swingbolt with SAP 10204721.

Approved by: 	Typical Handhole Installation	HP 205
Effective Date: 01-29-2016	What's Changed? Note 5 was added.	Sheet 1 of 1 UGS

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HP 210 Pull Box Requirements

Scope HP 210.1 Pull Box Requirements

1.0 General

Pull boxes which have acceptable precast or nonconcrete counterparts are shown on the working drawings (List of Materials) by item number. The type of pull boxes approved for each item number are listed below. Other pull boxes are listed by drawing number. Unless specified on the working drawing, any of the structures covered by a particular item number are acceptable.

All pull boxes shall be furnished with 1/2" x 2-1/2" S.S. pentahead bolts for cover securing. RPM cover bolts shall be furnished with captive steel washers (see [FC 618](#)).

Depths of pull boxes listed are minimum. Greater depths may be necessary where required conduit cover dictates (see work drawing).

2.0 Poured-in-Field Pull Boxes

Each pull box shall include accessories and facilities in conformance with the requirements set forth in the drawings, specifications, schedules, and tabulations referred to below:

1. Concrete and reinforcement [GI 020](#)
2. Opening cover as shown on [HP 230](#) or as modified on the working drawing.
3. Conduit entrance [CD 132](#)
4. Inserts [AC 720](#), [AC 723](#), and [AC 729](#)
5. Sump [AC 710](#)
6. Ground wire/ground rod (if required) [AC 700](#)

3.0 Precast and Nonconcrete Pull Boxes

Each pull box shall include accessories and facilities as required in field constructed pull boxes. (Some variations have been allowed these manufacturers. See [HP 215](#), [HP 220](#), and [HP 225](#).)

Intercept boxes are available as shown. They are normally supplied with a bottom. Specify if a bottom is not desired.

RPM pull box covers shall be utilized for parkway installations (see [FC 618](#)). For light-traffic applications, see [FC 601](#), [FC 606](#), and [FC 612](#).

All pull boxes shall be placed on a 6" crushed rock base. Mastic sealant shall be used on joints in precast and nonconcrete boxes.

Approved by:	Pull Box Requirements	HP 210
Effective Date:	What's Changed?	Sheet 1 of 3
10-24-2014		UGS

Table HP 210–1: Pull Box Requirements — Unit (Box and Cover)

Manufacturers and Model Numbers								
Item Number	Nominal Size ^{a/}	Type	Field Construction Drawings	Jensen Precast ^{b/}		Utility Vault Company ^{c/}		Quazite Corporation ^{d/}
				Standard Type	Intercept Type	Standard Type	Intercept Type	Standard Type ^{e/}
PB-1	2' x 3' x 3'	(P)	HP 215 W/Cover FC 618 RPM	K2436- DP36-11P	K2436- DI36-11P	ED 23-36 RPM	ED 23-36 IPB RPM	PG2436Z591C4
PB-3	2'-6" x 4' x 3'-6"	(P)	HP 220 W/Cover FC 618 RPM	K3048- DP42-11P	K3048- DI42-11P	ED 264-42 RPM	ED 264-42 IPB RPM	PG3048Z707C4
PB-4	2'-6" x 4' x 3'-6"	(LT)	HP 220 W/Cover FC 606 Steel	K3048- DP42-11T	K3048- DI42-11T	ED 264-42 Traffic	ED 264-42 IPB Traffic	–
PB-5	3' x 5' x 4'	(P)	HP 225 W/Cover FC 618 RPM	K3660- DP50-11P	K3660- DI50-11P	ED 35-48 RPM	ED 35-48 IPB RPM	PG3660Z527C4
PB-6	3' x 5' x 4'	(LT)	HP 225 W/Cover FC 612 Steel	K3660- DP50-11T	K3660- DI50-11T	ED 35-48 Traffic	ED 35-48 IPB Traffic	–
PB-2	2' x 3' x 3'	(LT)	HP 215 W/Cover FC 601 Steel	K2436- DP36-11T	K2436- DI36-11T	ED 23-36 Traffic	ED 23-36 IPB Traffic	–

^{a/} All Depths MINIMUM. (P) Parkway, (LT) Light-Traffic, (FT) Full-Traffic

^{b/} Jensen Precast (formerly Brooks Products Inc.)

^{c/} Old Castle Precast is the parent company of Utility Vault Company.

^{d/} Hubbell Power Systems is the parent company of Quazite Corporation (formerly Power and Communications Systems Company — P&C)

^{e/} Quazite Corporation boxes and covers are reinforced plastic mortar (RPM)

= For Reference Only

HP 210

Pull Box Requirements

Approved by:

B. C.

Sheet 2 of 3

What's Changed? Table HP 210–1 section made For Reference Only. Table HP 210–1 part numbers updated. Also added Parent company notes.

Effective Date:

10-24-2014

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Table HP 210–2: Pull Box SAP Numbers

Nominal Size	Style	Type	SAP Number (Unit-Box and Cover)
2' x 3' x 3'	Standard	(P)	10117479
2' x 3' x 3'	Intercept	(P)	10117480
2' x 3' x 3'	Intercept	(LT)	10117489
2'-6" x 4' x 3'-6"	Standard	(P)	10117481
2'-6" x 4' x 3'-6"	Intercept	(P)	10117482
2'-6" x 4' x 3'-6"	Standard	(LT)	10117490
2'-6" x 4' x 3'-6"	Intercept	(LT)	10117491
2'-6" x 4' x 3'-6"	Standard	(FT)	10117494
2'-6" x 4' x 3'-6"	Intercept	(FT)	10117495
3' x 5' x 4'	Standard	(P)	10117483
3' x 5' x 4'	Intercept	(P)	10117487
3' x 5' x 4'	Standard	(LT)	10117492
3' x 5' x 4'	Intercept	(LT)	10117493
2' x 3' x 3' ^{a/}	Standard	(LT)	10117488

^{a/} Not approved for use on new construction.

Table HP 210–3: Pull Box Grade Rings

Item Number	Type of Box	Extension Height	Manufacturers' Numbers			SAP Number
			Jensen Precast ^{a/}	Utility Vault Co. ^{b/}	Quazite Corp. ^{c/}	
PX-3	2' x 3'	6 inch	PB2436-R6	ED-23-06-GR	–	10117507
PX-4	2' x 3'	12 inch	PB2436-R12	ED-23-12-GR	–	10117508
PX-5	2'-6" x 4'	6 inch	PB3048-R6	ED-264-06-GR	–	10117509
PX-6	2'-6" x 4'	12 inch	PB3048-R12	ED-264-12-GR	–	10117510
PX-7	3' x 5'	6 inch	PB3660-R6	ED-35-06-GR	–	10117511
PX-8	3' x 5'	12 inch	PB3660-R12	ED-35-12-GR	–	10117512
PX-1 ^{d/}	2' x 3'	4 inch	–	–	PG2436-ED04	10117505
PX-2 ^{d/}	3' x 5'	2.5 inch	–	–	PG3660-ED03	10117506

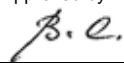
^{a/} Jensen Precast (formerly Brooks Products Inc.)

^{b/} Old Castle Precast is the parent company of Utility Vault Company.

^{c/} Hubbell Power Systems is the parent company of Quazite Corp. (formerly Power and Communication Systems Company — P&C)

^{d/} Not approved for use on new construction.

Approved by:



Pull Box Requirements

HP 210

Sheet 3 of 3

Effective Date:
10-24-2014

What's Changed? Table HP 210–2 and Table HP 210–3 sections made For Reference Only. Also added Parent company notes.

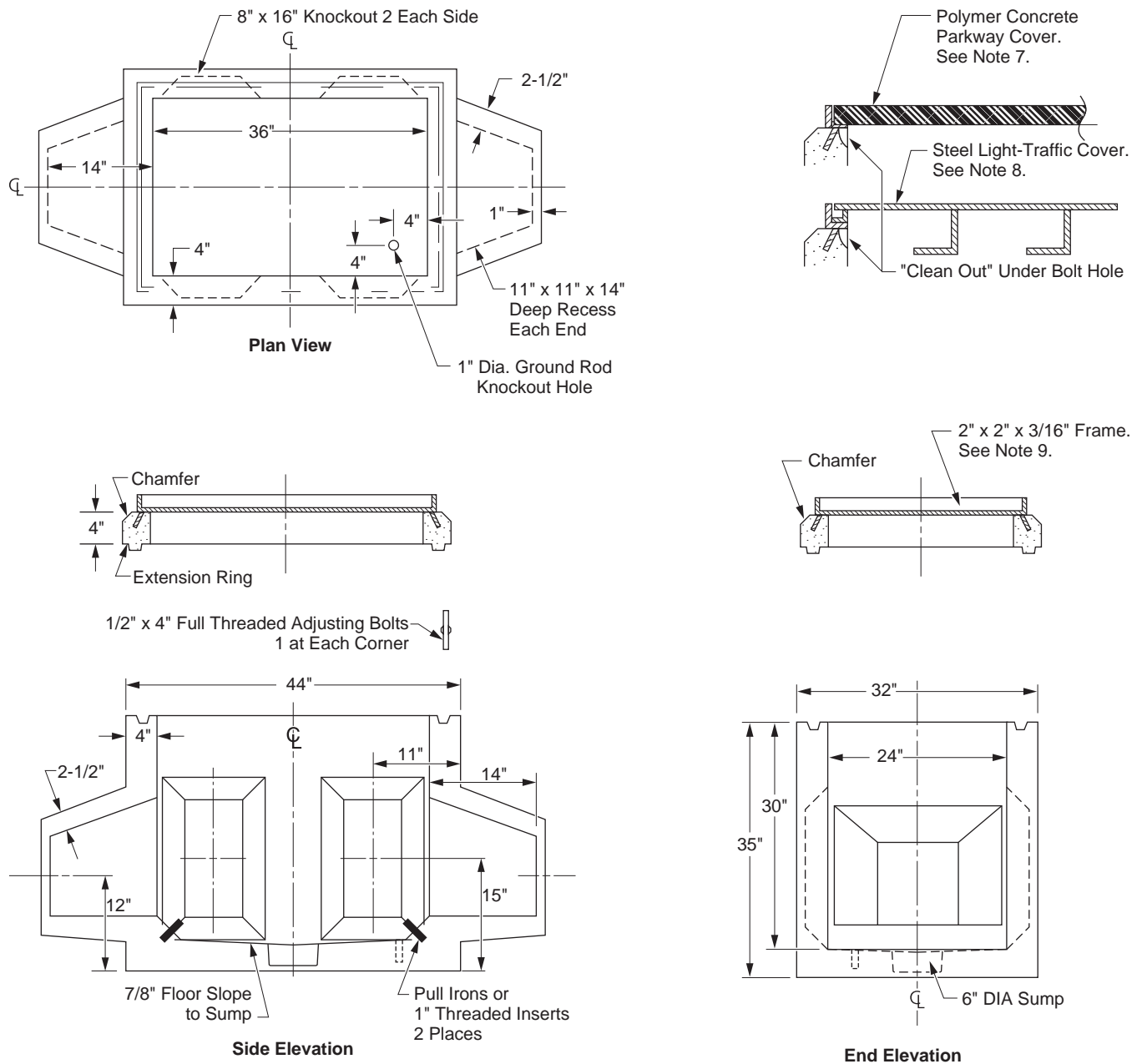
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HP 215 Pull Box 2' x 3' Precast Concrete

Scope HP 215.1 Pull Box 2' x 3' Precast Concrete

Figure HP 215-1: Pull Box 2' x 3' Precast Concrete



Note(s):

1. Reinforcement:
H20-S bridge loading.
2. Concrete:
Concrete shall be Class "A" with 28-day compressive strength of 3,000 psi (minimum). Slight taper (3/4" in depth of pull box) and 1" chamfer on all inside corners permitted for ease of forming.

Approved by:

PhH

Pull Box 2' x 3' Precast Concrete

HP 215

Sheet 1 of 2

Effective Date:

01-26-2007

What's Changed?

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- 3. Installation:
Pull box shall be placed on 6" (minimum) compacted rock or sand base to ensure uniform distribution of soil pressure in floor. Minimum excavation for pull box shall be 36" x 72" x depth to suit job.
- 4. Covers:
See [FC 601](#) and [FC 618](#) for pull box covers.
- 5. Grade Rings:
Installing contractor shall provide grade rings (6" minimum) as necessary in order to maintain cover over conduits per SCE specifications or permit agency specifications, whichever is greater.
- 6. Pull Irons and Eyes:
See [AC 729](#) for pull irons and [AC 720](#) for pull eyes.
- 7. See [FC 618](#).
- 8. See [FC 601](#).
- 9. See [FC 603](#).

HP 215

Pull Box 2' x 3' Precast Concrete

Approved by:

Sheet 2 of 2

What's Changed?

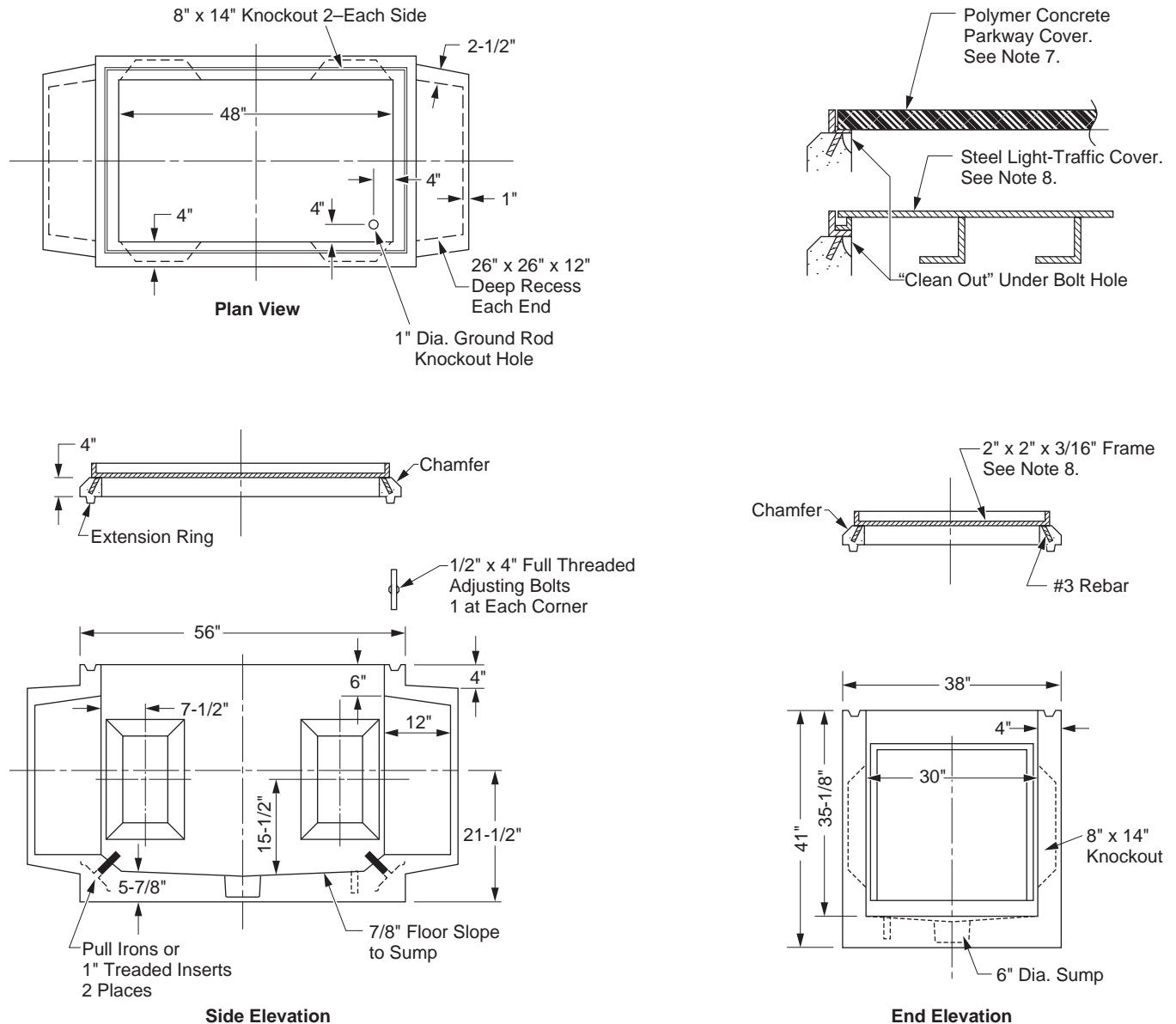
Effective Date:

UGS

01-26-2007

HP 220 Pull Box 2-1/2' x 4' Precast Concrete
Scope HP 220.1 Pull Box 2-1/2' x 4' Precast Concrete

Figure HP 220-1: Pull Box 2-1/2' x 4' Precast Concrete



Note(s):

1. Reinforcement:
H20-S bridge loading.
2. Concrete:
Concrete shall be Class "A" with 28-day compressive strength of 3,000 psi (minimum). Slight taper (3/4" in depth of pull box) and 1" chamfer on all inside corners permitted for ease of forming.
3. Installation:
Pull box shall be placed on 6" (minimum) compacted rock or sand base to insure uniform distribution of soil pressure in floor. Minimum excavation for pull box shall be 46" x 83" x depth to suit job

Approved by:

PhH

Pull Box 2-1/2' x 4' Precast Concrete

HP 220

Sheet 1 of 2


Effective Date:

01-26-2007

What's Changed?

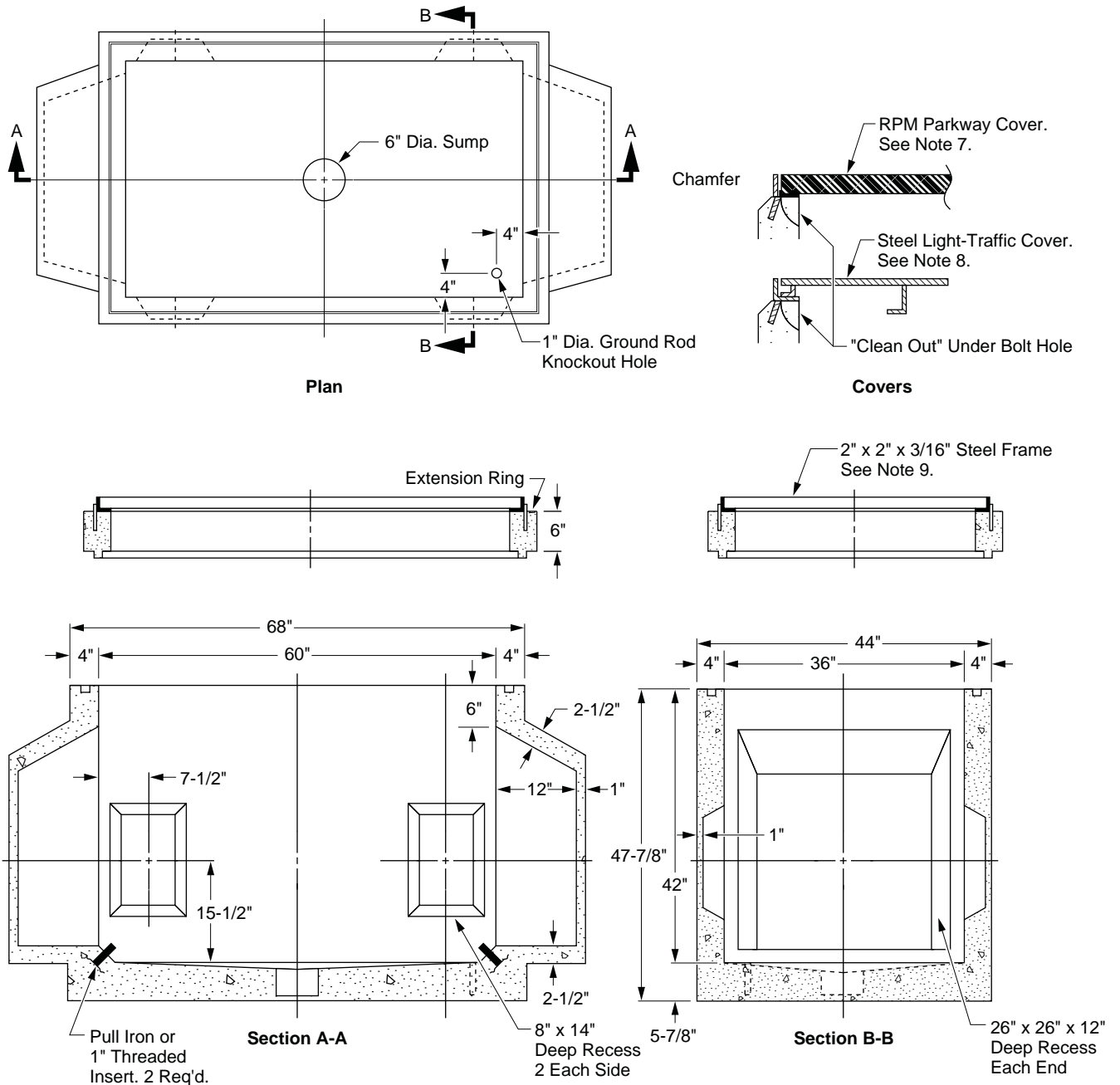
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4. Covers:
See [FC 606](#) and [FC 618](#) for pull box covers.
5. Grade Rings:
Installing contractor shall provide grade rings (6" minimum) as necessary in order to maintain cover over conduits per SCE specifications or permit agency specifications, whichever is greater.
6. Pull Irons and Eyes:
See [AC 729](#) for pull irons and [AC 720](#) for pull eyes.
7. See [FC 618](#).
8. See [FC 606](#).

HP 220	Pull Box 2-1/2' x 4' Precast Concrete	Approved by: 
Sheet 2 of 2	What's Changed?	Effective Date:
UGS		01-26-2007

HP 225 Pull Box 3' x 5' Precast Concrete
Scope HP 225.1 Pull Box 3' x 5' Precast Concrete

Figure HP 225-1: Pull Box 3' x 5' Precast Concrete



Note(s):
1. Reinforcement:
H20-S bridge loading.

Approved by:

PhH

Pull Box 3' x 5' Precast Concrete

HP 225


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Effective Date:
01-26-2007

What's Changed?

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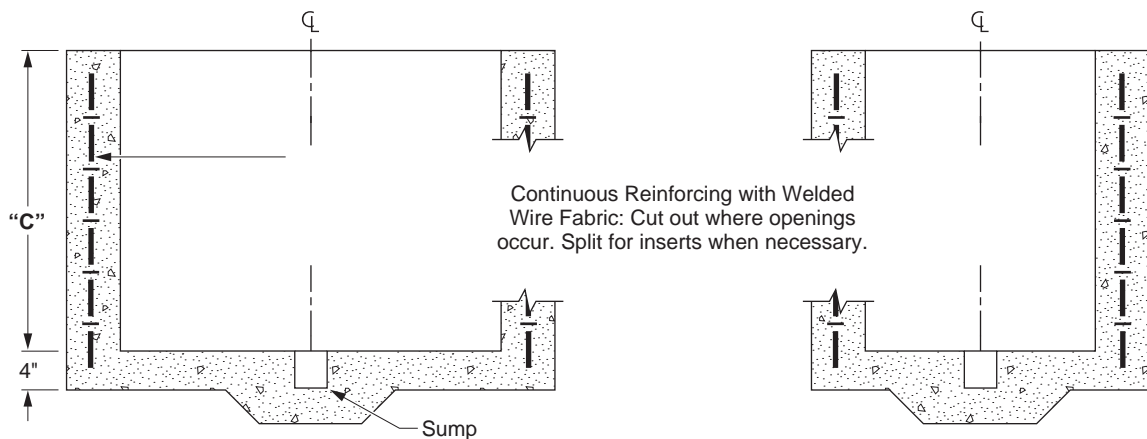
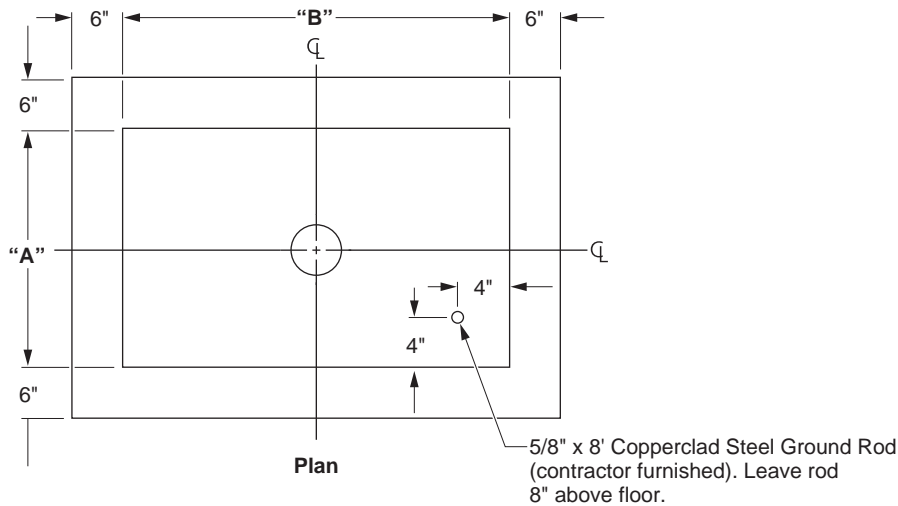
2. **Concrete:**
Concrete shall be Class "A" with 28-day compressive strength of 3,000 psi (minimum). Slight taper (3/4" in depth of pull box) and 1" chamfer on all inside corners permitted for ease of forming.
3. **Installation:**
Pull box shall be placed on 6" (minimum) compacted rock or sand base to ensure uniform distribution of soil pressure in floor. Minimum excavation for pull box shall be 52" x 97" x depth to suit job.
4. **Covers:**
See [FC 612](#) and [FC 618](#) for pull box covers.
5. **Grade Rings:**
Installing contractor shall provide grade rings (6" minimum) as necessary in order to maintain cover over conduits per SCE specifications or permit agency specifications, whichever is greater.
6. **Pull Irons and Eyes:**
See [AC 729](#) or pull irons and [AC 720](#) for pull eyes.
7. See [FC 618](#).
8. See [FC 612](#).
9. See [FC 614](#).

HP 225	Pull Box 3' x 5' Precast Concrete	Approved by: 
Sheet 2 of 2	What's Changed?	Effective Date:
UGS		01-26-2007

HP 230 Poured Concrete Pull Boxes — Construction Details

Scope HP 230.1 Poured Concrete Pull Boxes — Construction Details

Figure HP 230-1: Poured Concrete Pull Boxes — Construction Details — Plan



Note(s):

1. See [HP 210](#) for pull box requirements.
2. See [Figure HP 230-2 \(Sheet 2\)](#) for installation of cover designated on working drawing.
3. Reinforcing: to be welded, wire fabric - 12 ga. -2" square mesh 3/8 lb. per square foot.
4. Inserts: 2 required each box for cable pulling. See [AC 723](#). 4-6 required each box for cover hold down. See cover details.
5. Concrete: Per [GI 020](#).

Table HP 230-1: Center Line Sections

Inside Dimensions			Concrete	Excavation	Reinforcing	
"A"	"B"	"C"	Cubic Yards	Cubic Yards	Parkway	Traffic
24"	36"	36" MIN	0.81	1.48	None	29.3 sq ft
		48" MAX	1.04	1.92	None	38.0 sq ft
30"	48"	36" MIN	1.05	2.16	None	43.5 sq ft
		48" MAX	1.33	2.81	None	57.0 sq ft

Approved by:

PhH

Poured Concrete Pull Boxes — Construction Details

HP 230

Sheet 1 of 2

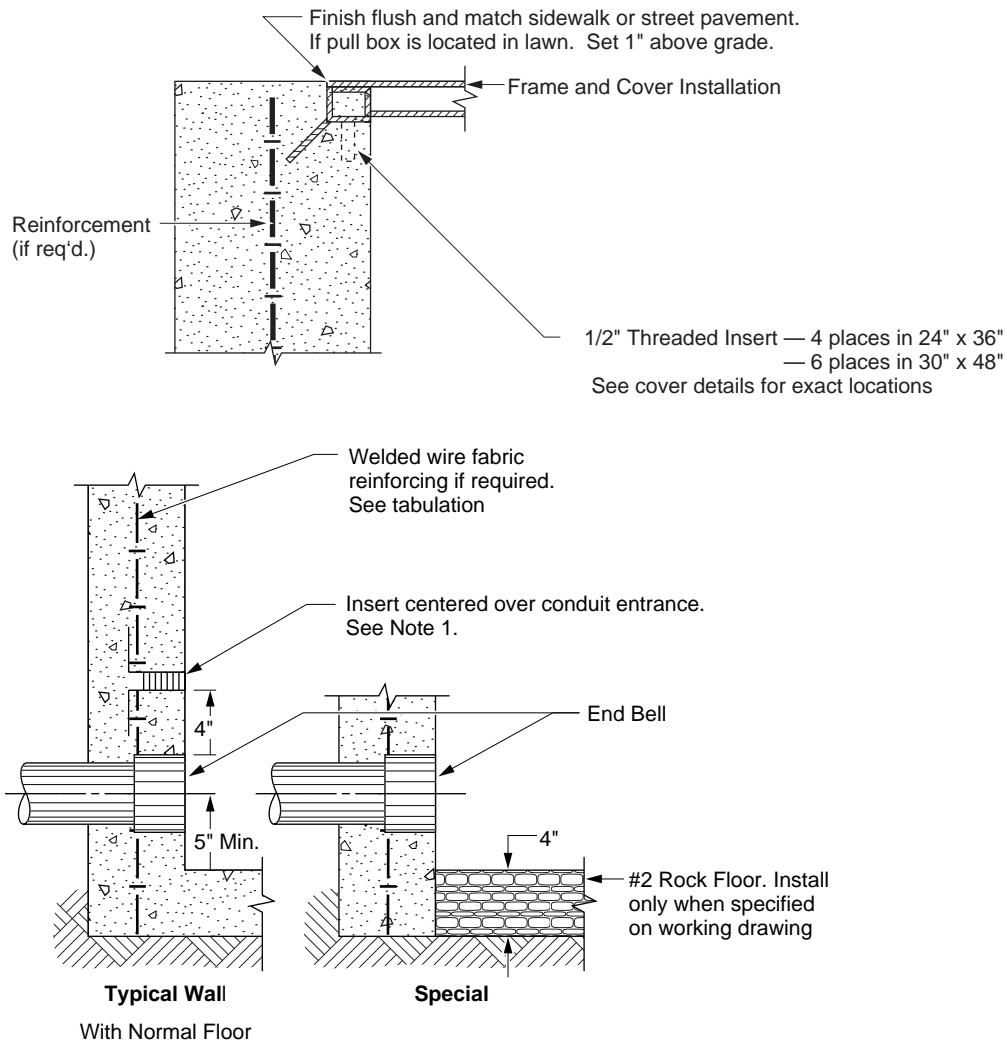
Effective Date:

01-26-2007

What's Changed?

UGS

Figure HP 230-2: Poured Concrete Pull Boxes — Construction Details — Typical and Special Wall



Note(s):

1. See AC 720.

See:

FC 601, FC 618, FC 603, FC 606, FC 618, and FC 608.

HP 230

Poured Concrete Pull Boxes — Construction Details

Approved by:

PHH

Sheet 2 of 2

What's Changed?

Effective Date:

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01-26-2007