

CSAH 78

APPLICATION FOR PERMIT FOR INSTALLATION OF UTILITIES OR PLACING OBSTRUCTIONS ON THE COUNTY HIGHWAY SYSTEM

ALL APPLICANTS MUST BE REGISTERED PRIOR TO PERMIT APPROVAL

APPLICANT NAME

Gateway Fiber Infrastructure LLC

CONTACT PERSON

Kirk Thaelke

ADDRESS

501 Fountain Lakes Blvd, Suite 105

CITY

St. Charles

PHONE NUMBER

3144956318

EMAIL

kirk.thaelke@gatewayfiber.com

COMPANY OR INDIVIDUAL PERFORMING WORK

Telcom Construction LLC

CONTACT PERSON

Pete Trombley

EMAIL

peter.trombley@telcomconstruction.com

PHONE NUMBER

612-282-4878

PERMIT WORK TO START

11/19/2025

PERMIT WORK TO BE COMPLETED

02/28/2026

DURATION OF JOB

3-5 days

ARE YOU BEING ASKED TO RELOCATE DUE TO A COUNTY PROJECT?

No

ANOKA COUNTY PROJECT NUMBER

WORK SITE ADDRESS

Hanson Blvd - From 113th Ave going N. approx. 587'

CITY

Coon Rapids

METHOD OF INSTALLATION/CONSTRUCTION

Directional Drilling

NATURE OF WORK

Place fiber optic cable by way of directional drilling within the Anoka County ROW for Gateway Fiber along Hanson Blvd from 113th Ave going North on Hanson Blvd approx. 587'. All vaults/structures are labeled on the map sheets with exact sizes.

SURFACE TO BE DISTURBED

☒ DITCH/BLVD

BITUMINOUS

MEDIAN/ISLAND

SIDEWALK/TRAIL

AERIAL/NONE

SITE PLAN





IF THE ROADWAY IS ENCROACHED, YOU MUST ATTACH A TRAFFIC CONTROL PLAN AND/OR REFERENCE THE MOST CURRENT VERSION OF THE MN TEMPORARY TRAFFIC CONTROL FIELD MANUAL (72+ HOURS REQUIRES PLANS TO BE SIGNED BY A MINNESOTA LICENSED PE).

Layout 33 if RTL is encroached

Layout 8 if shoulder is encroached

Layout 57 if lane closure is encroached

DEPTH FROM SURFACE

60"

(60" minimum under county roads)

SIZE AND KIND OF PIPE/CABLE

1.25" Duct/Fiber Optic Cable

NUMBER OF EXCAVATIONS

4+

IS PERMANENT SIGNING AND STRIPING REQUIRED?

No

LOCATION AND SIZE OF EXCAVATIONS

ALL EXCAVATIONS ARE TO BE PROTECTED AND THEN BACKFILLED WHEN UNATTENDED AND/OR OVERNIGHT - STEEL PLATING MAY BE USED ONLY IF APPROVED PRIOR TO USE

Specific written descriptions of excavations - if shown on attached drawing, drawing shall be specific with depth and distance from centerline, curb, or other distinguishable location. Traffic control plans cannot be approved without specific excavation descriptions.

Approximately 24-36" deep within the Anoka County Utility Easement along Hanson Blvd from 113th Ave going North approx. 587', as shown on map sheets.



ANOKA COUNTY TRANSPORTATION DIVISION

1440 BUNKER LAKE BLVD NW

ANDOVER, MN 55304

PERMIT PHONE: 763-324-3176

highwaypermits@anokacountymn.gov

GENERAL INFORMATION

One permit must be approved for each county road on which work will be performed prior to any work within the right of way by any utility/contractor. Emergency conditions which threaten the safety of the public and require immediate repair are exceptions to this rule. Under those circumstances, the utility/contractor is permitted to begin and/or complete the necessary repairs. The Anoka County Transportation Division (ACTD) shall be notified of emergency repairs as soon as feasible and a written permit is to be completed within two business days of occurrence.

A license-permit bond is generally required of the contractor as part of the registration process, the amount of which will be determined by the nature of the utility work.

A sketch or drawing shall accompany each permit application which will show the location of the proposed work/utility with reference to the county highway center line and right of way line. A complete set of plans is required for all sewer/water projects.

It shall be the responsibility of the applicant to determine which of the special conditions apply to each permit.

ACTD reserves the right to revoke any utility permit and halt work, if, upon inspection of any job site, the special conditions are not met, and/or a hazard exists for the applicant or public safety is threatened. **The failure to comply with the terms and conditions of any applicable Federal, State, Regional, and local laws, rules and regulations, including any provision of Anoka County's Right-of-Way Ordinance shall be cause for immediate revocation of a permit.**

Anoka County hereby adopts and incorporates by reference the standards established by the Minnesota Pollution Control Agency's NPDES/SDS Construction Stormwater General Permit MNR100001 (CSW Permit) as amended in its entirety as now constituted and from time to time amended.

The applicant shall notify ACTD immediately upon completion of project so that the ACTD can inspect the site to determine if restoration has been satisfactorily completed.

The undersigned hereby accepts the terms and conditions of this permit and the regulations of Anoka County, and agrees to fully comply therewith to the satisfaction of the ACTD. The county of Anoka, its officials, employees, and agents, shall be held harmless, by the applicant/permittee, from any demands, claims, lawsuits, or damages relating to the work described in this permit.

APPLICANT'S SIGNATURE

Mykenzie Bessolo

32AAE68BF78B434...

DATE 9/22/2025

AUTHORIZATION OF PERMIT

In consideration of the applicant's agreement to comply in all respects with the regulations of the ACTD covering such operations, permission is hereby granted for the work to be done as described in the above application. Said work to be done in accordance with the general conditions listed above and the special conditions required as hereby stated. It is expressly understood that this permit is conditioned upon replacement or restoration of the county highway and its right of way to their original or to a satisfactory condition. It is further understood that this permit is issued subject to the approval of local city or township authorities having joint supervision over said street or highway.

APPROVED BY:

DocuSigned by:

TITLE: Engineering Technician

Susan Burgmeier

05E91FE150D4EE...

DATE 10/22/2025

NOT VALID UNLESS SIGNED BY ANOKA COUNTY

THIS PERMIT COVERS THE RIGHT OF WAY IN ANOKA COUNTY ONLY
ACTD reserves the right to make changes to these special conditions.



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SPECIAL CONDITIONS
<u>TRAFFIC CONTROL</u> 1) Detours a) Detailed detour layouts shall be submitted to the Anoka County Traffic Engineer for approval. b) No detours shall be permitted without prior approval of the Anoka County Traffic Engineer. c) A ten day notice must be given prior to the installation of any detour. d) It shall be the responsibility of the applicant to notify Anoka County Central Communications, local government bodies, and any affected bus companies ten days prior to any road closures/detours. e) Immediately upon completion of work and/or detours, all posts, barricades, and signs shall be removed from the right of way. 2) Traffic control devices a) All traffic control devices, barricades, flashers, etc., shall be furnished by the applicant and shall be in accordance with the most recent edition of the Minnesota Manual on Uniform Traffic Control Devices and temporary traffic control zone layouts – field manual of the same manual.
<u>CONSTRUCTION REQUIREMENTS</u> 1) Open cutting of bituminous or concrete surfaced roads will be allowed only at the discretion of the County Engineer. 2) Neither supplies nor excavation materials shall be placed on the bituminous or concrete surface at any time. 3) No trenches will be allowed to remain open overnight. 4) Materials removed from the trench shall be used as backfill insofar as they are suitable. All backfill material shall conform to MNDOT specifications for compaction. The use of heavy equipment on top of trench, slapping with backhoe bucket and/or back casting to achieve compaction is prohibited. Any additional material required to back fill to the original grade shall be furnished by the applicant at no expense to the ACTD. All the base and surface courses damaged during construction operations shall be restored to a condition equal to or better than before operations began. The applicant shall be responsible for and restore any settlement. 5) All culverts, ditches, shoulders, and backslopes shall be restored to their original condition unless otherwise directed by the ACTD. Shoulders which have been previously constructed or reconstructed with special materials shall be replaced in kind. Restoration of signs, guardrails, guard posts, etc., are the sole responsibility of the applicant and shall be restored to their original condition. 6) All roadway maintenance required within the limits of the utility project that is related to the applicant's activities shall be the sole responsibility of the applicant for one year after completion of the project. Upon completion of the restoration work, the applicant shall request a final inspection by the ACTD. The ACTD's approved completion date shall be the starting date of the applicant's one-year responsibility.
<u>HORIZONTAL BORING AND JACKING</u> 1) All hard surface roadways shall be jacked or bored. 2) All crossings of Anoka County maintained roadbeds, shall be made by boring inside a casing or carrier pipe, or by jacking unless otherwise directed by the Anoka County Engineer. The auger shall lead the casing or carrier pipe by at least six inches whenever possible and never lead the carrier pipe by more than one inch. 3) The use of pneumatic devices to facilitate the roadbed crossings will be allowed in most cases with prior approval. In the event approval is not granted and applicant uses a pneumatic device to cross a roadbed and encounters an obstruction and/or unstable subbase material which makes forward or reverse motion of pneumatic device impossible, said pneumatic device then becomes part of the roadway subbase and permission to excavate to retrieve device will not be granted. 4) If a pneumatic device is used for the work permitted herein, the installation must be kept to a minimum of four feet below the surface of the roadway if the pneumatic device is less than two inches in diameter, and a minimum of five feet below the surface of the roadway if the pneumatic device is two inches in diameter or larger.
<u>BITUMINOUS RESTORATION</u> 1) The locations and dimensions of all openings to be made in the bituminous surface shall be approved by the ACTD prior to any cutting or any surface opening operations. 2) All openings in bituminous surfaces shall be cut in a straight line with the sides smooth and vertical. No ragged edges will be permitted. Cutting shall be done with a concrete saw. 3) All necessary dust control operations shall be carried out by the applicant at no expense to Anoka County. 4) The minimum requirement for subgrade replacement shall be the upper twelve inches of material and shall meet MNDOT specifications for class five placed in six inch layers compacted to one hundred percent of optimum density. 5) All manhole casings, gate valves, and other utility structures shall be set one quarter inch below the top of the finished surface. 6) Bituminous tack coat materials and application thereof shall conform to MNDOT specification 2357. 7) All bituminous surfacing shall be replaced as soon as practicable after the base construction. All bituminous surfacing shall be machine laid. Any exceptions must be approved by the ACTD. Bituminous surfacing shall be replaced to original pavement depth or to a minimum of six inches of bituminous mixture (2360), whichever is greater. Bituminous mixtures must be placed in lifts not exceeding three inches in thickness for base and binder courses and not exceeding two inches for the wear course. 8) All surface restoration regardless of size shall conform to existing grades. 9) Any unnecessary or negligent damage to bituminous surface in conjunction with the installation and/or repair of a utility shall be cut out and replaced in kind as directed by the ACTD.



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<u>CONCRETE RESTORATION</u> 1) Curb and gutter, sidewalks, and driveways shall be restored in accordance with MNDOT specifications 2531 and 2521.
<u>UTILITY LINES</u> 1) There shall be only a single pole line on the county right of way on either side of the center line thereof. 2) Exact locations of longitudinal installations on county highways shall be located as directed by the ACTD.
<u>SECTION CORNER MONUMENTS</u> 1) The permit holder shall notify the Anoka County Surveyor’s Office at 763-324-3111 at least 3 business days prior to any anticipated disturbance of any section, quarter, meander, witness corner, or right of way monument. 2) Utility locations shall not interfere with the location of any section, quarter, meander, witness corner, or right of way monument. For assistance in locations, contact the Anoka County Surveyor’s Office. 3) The permit holder shall be responsible for replacement of any existing property irons disturbed during construction. 4) Any monument disturbed during the course of construction shall be reset by the Anoka County Surveyor’s Office at the expense of the permit holder.
<u>ATTACHING TO BRIDGES/STRUCTURES</u> 1) No utility is permitted to be hung from, or otherwise attached to, any bridge or structure without having detailed plans approved by the Anoka County Engineer. These plans are to show approaches to the structure, method of installation, type, and dimension of housing for the utility.
<u>ADDITIONAL PROVISIONS</u> 1) All subcontractors, installers, and crew shall possess a physical or electronic copy of all documents in relation to the approved permit prior to the commencement of work and be kept on site. This includes, but it not limited to the following: a) Approved permit b) Any/all traffic control plans and/or layouts 2) Shall notify Anoka County Permits at 763-324-3176 or highwaypermits@anokacountymn.gov a) At least 3 business days prior to the commencement of work b) With time frame of proposed of work c) Anticipated traffic control d) When work is complete - including restorations - to request a final inspection 3) No work during inclement weather or when plows are out in any capacity 4) All traffic control shall be in accordance with the most current version of the MnDOT Temporary Traffic Control Field Manual 5) For staking of right-of way or proposed infrastructure, contact Chris Osterhus at 763-324-3189 a minimum of 48 hours prior to the commencement of work.

INITIAL

Initial

MB



Sidewalks and trail closures require a temporary pedestrian access route (TPAR) and approval by the appropriate agency - city and/or Anoka County Parks.



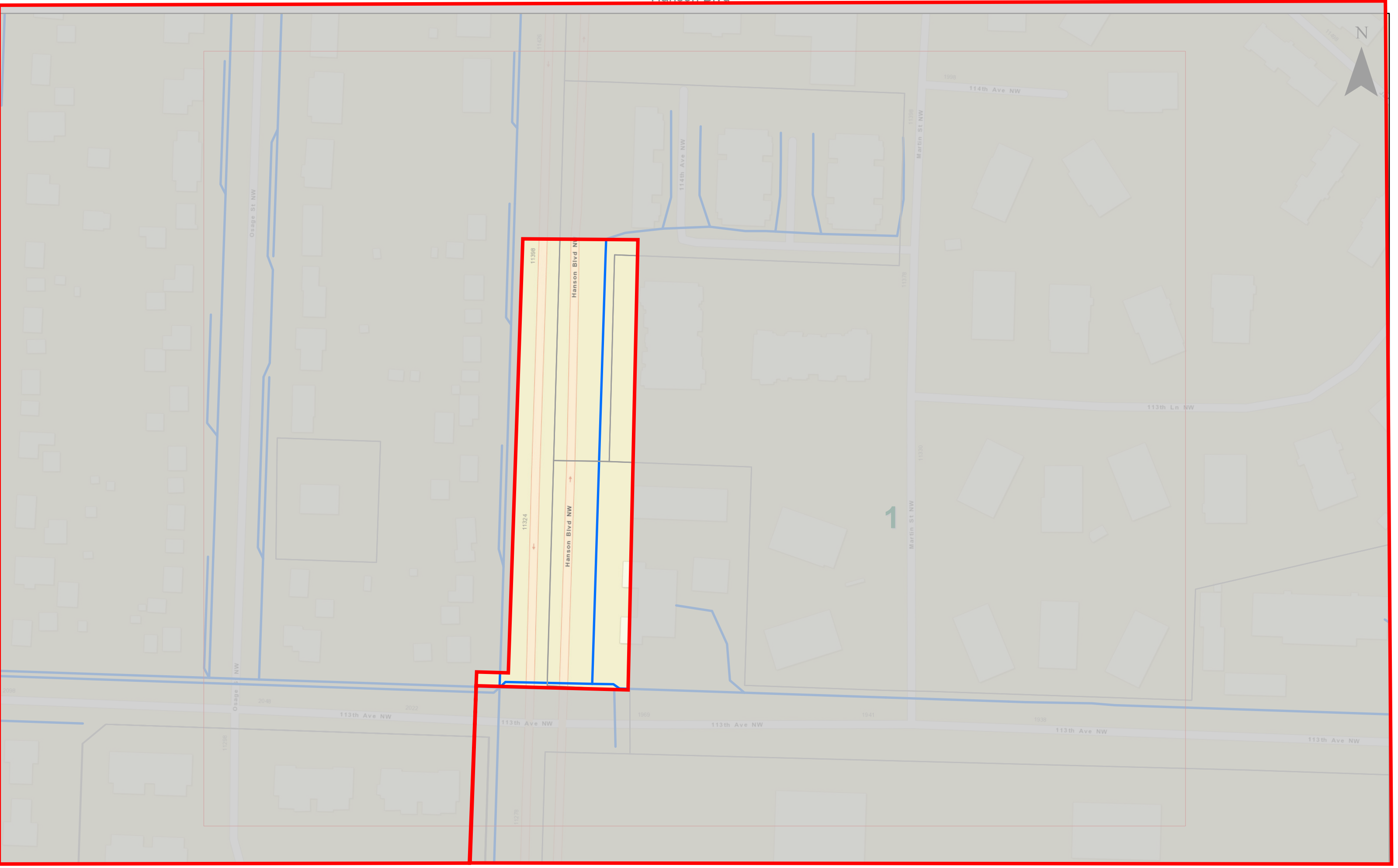
gatewayfiber

Fiberhood:Hanson Blvd



Sheet Index

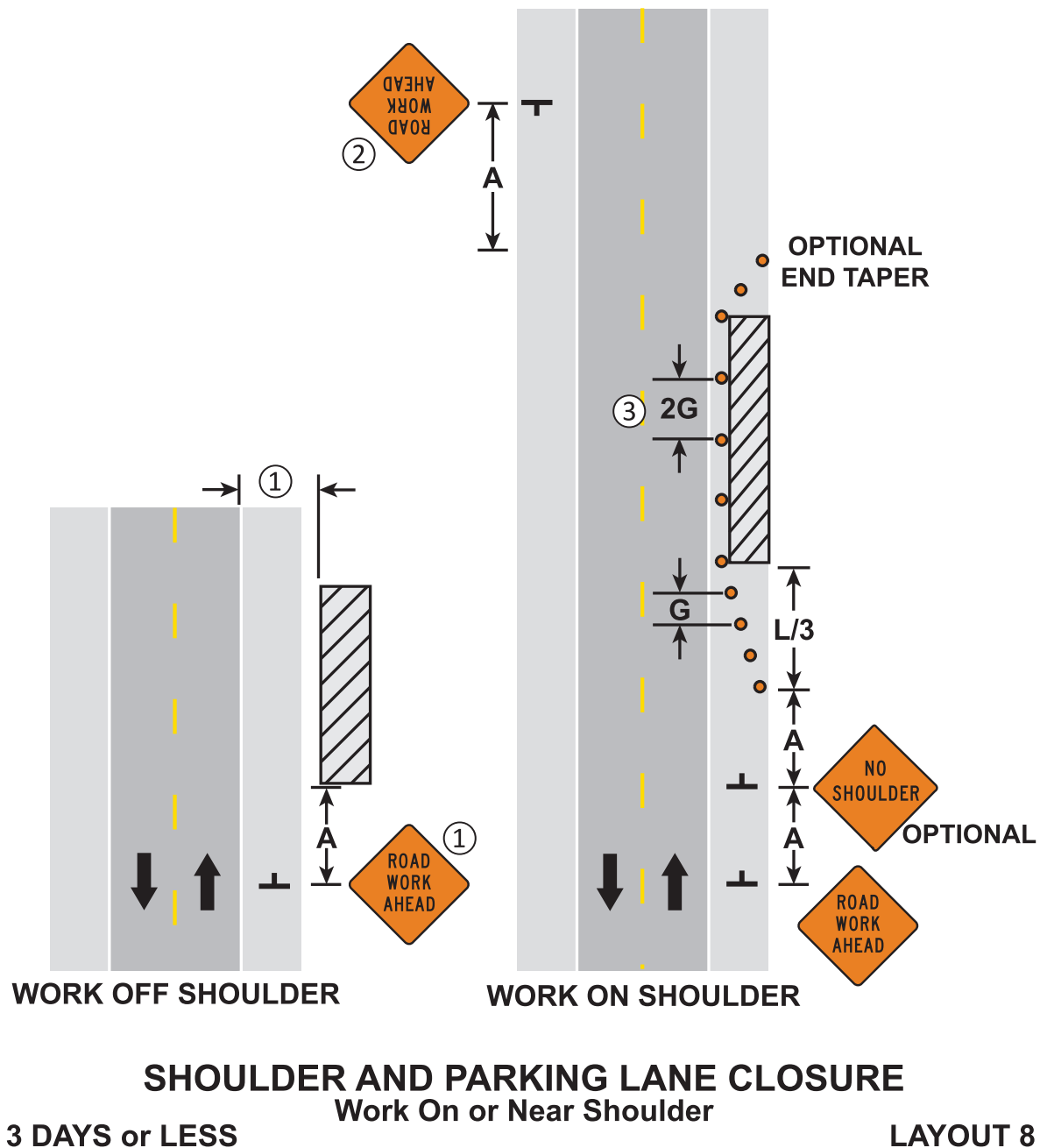
Hanson Blvd



Engineered by
UtiliSource

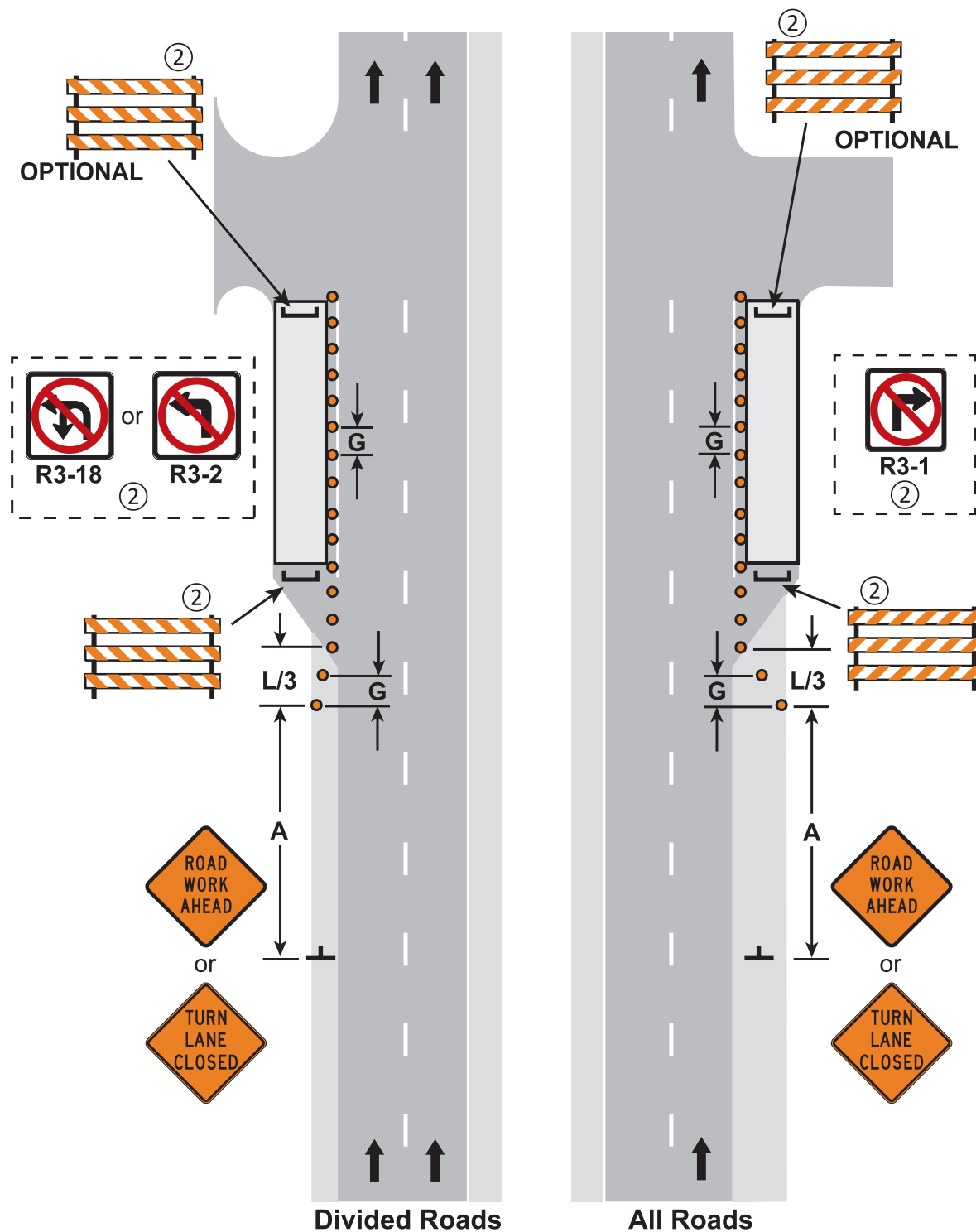
NOTES:

- ① The ROAD WORK AHEAD sign may be omitted for short term daylight operations if a vehicle is displaying and operating a 360-degree flashing beacon and:
 - a. The distance from curb face to the work space is at least 2 feet, or
 - b. The distance from the edge of the roadway to the work space is at least 15 feet.
- ② This ROAD WORK AHEAD sign shall be installed on two-lane, two-way roads if traffic control devices are installed for a work space in the opposite shoulder.
- ③ If this layout is used to close a parking lane that is normally open to vehicle travel during the time of day the closure will be in effect, the lane shall be considered a traveled lane and not a parking lane. [Layout 42](#) shall be used to provide traffic control for the lane closure.
4. If this layout is used to close a parking lane, channelizer spacing may be reduced from 2G to G in high volume areas.



NOTES:

1. Contact the appropriate road authority for signal timing modifications before beginning work at any signalized intersection.
- ② Optional R3-1, R3-2, or R3-18 signs may be placed on sign stand or top of barricades on side closest to traffic. Signs are required if turns are prohibited.



TURN LANE CLOSURES

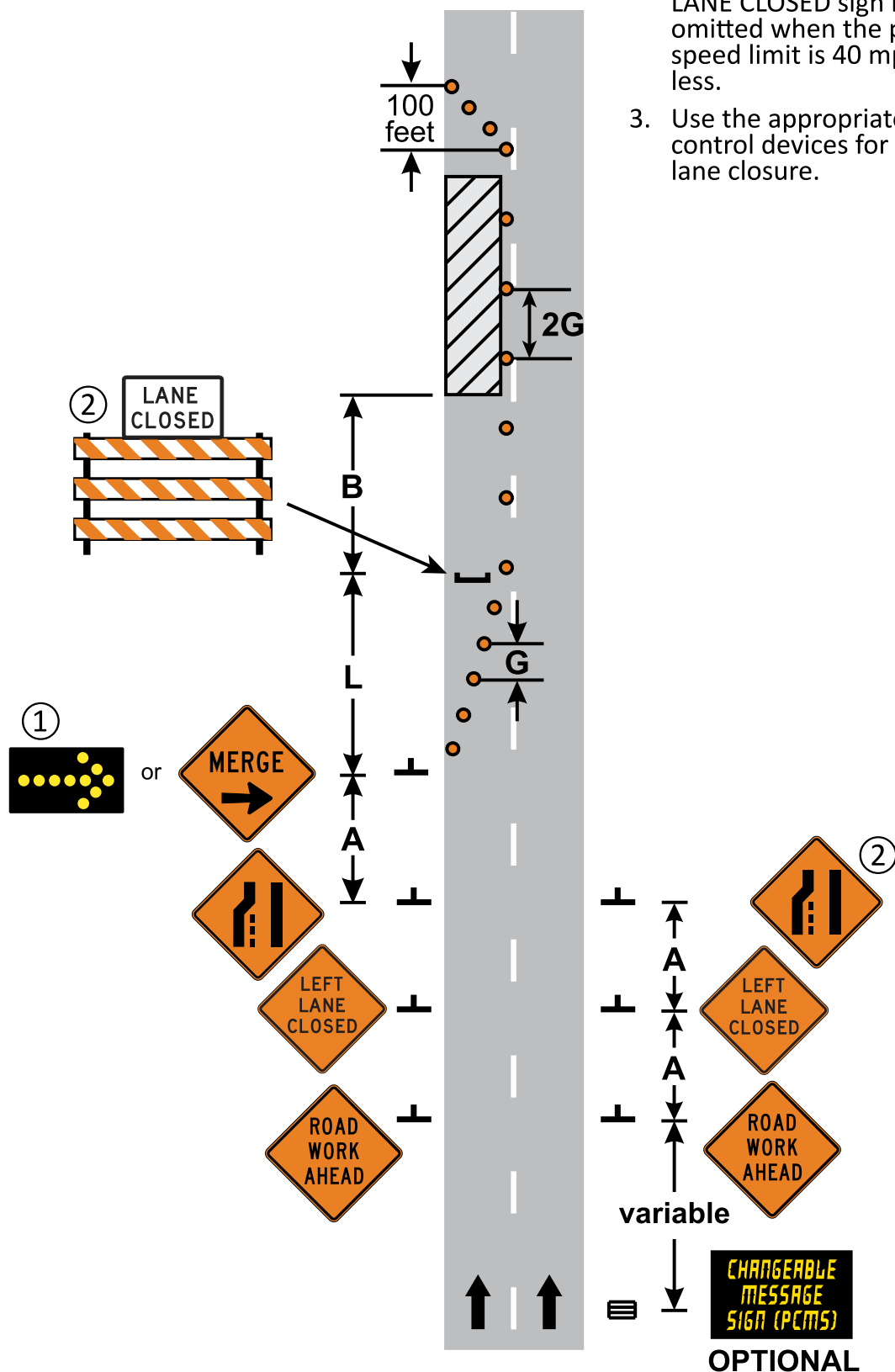
3 DAYS or LESS

6K-33

LAYOUT 33

① The Flashing Arrow Board shall be used where the posted speed limit is 45 mph or greater, and shall be placed on the shoulder. If there is no shoulder, or the shoulder is too narrow, place at the end of the taper in lieu of the Type III barricade assembly.

- ② The Lane Ends sign and/or LANE CLOSED sign may be omitted when the posted speed limit is 40 mph or less.
3. Use the appropriate traffic control devices for a right lane closure.



LANE CLOSURE MULTI-LANE DIVIDED ROAD

3 DAYS or LESS

LAYOUT 57



gatewayfiber

Specs Data Sheet Packet



Engineered by
UtiliSource

SPECIFICATIONS/DATA

30" x 48" PG Style Hand Hole Assembly 30" x 48" PD Style Hand Hole Assembly

Covers (Blank unless logo is specified)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD	ANSI TIER
W/2 Bolts	PG3048CA00	159 (72.1 kg)	8,000 / 12,000	8
Gasketed w/2 Bolts	PG3048CG00	159 (72.1 kg)	8,000 / 12,000	8
No Bolts	PG3048WA00	159 (72.1 kg)	8,000 / 12,000	8
Heavy Duty w/2 Bolts	PG3048HA00	206 (93.4 kg)	15,000 / 22,500	15
Gasketed Heavy Duty w/2 Bolts	PG3048HG00	206 (93.4 kg)	15,000 / 22,500	15
Extra Heavy Duty w/2 Bolts	PG3048HH00	220 (99.7 kg)	22,500 / 33,750	15*
2-piece w/2 Bolts	PG3048CS00	181 (82.1 kg)	8,000 / 12,000	8
Heavy Duty 2-piece w/2 Bolts	PG3048HS00	206 (93.4 kg)	15,000 / 22,500	15
2-piece Overlapping	PG3048CC00	227 (103.0 kg)	8,000 / 12,000	8
Heavy Duty 2-piece Overlapping	PG3048HC00	234 (106.1 kg)	15,000 / 22,500	15

- Covers with meter lids available upon request.
- Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.
- * Loadings for HH covers comply with all test provisions of ANSI/SCITE 77 except that the vertical design load is 22,500 lbs. with a test load of 33,750 lbs. over a 10" x 20" plate.

PG Boxes (Stackable with self-aligning, replaceable EZ-Nut) *24" & 36" deep boxes must be used as bottom of any stack

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION A	DIMENSION B	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom	PG3048BA18	185 (83.9 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048BA24	236 (107.0 kg)	24" (609 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048BA36	343 (155.6 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	15**
Open Bottom w/ Gasket	PG3048BG18	185 (83.9 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048BG24	236 (107.0 kg)	24" (609 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048BG36	343 (155.6 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	15**
Open Bottom w/ 2 Mouseholes	PG3048BB18	185 (83.9 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048BB24	236 (107.0 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048BB36 †	343 (155.6 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	15**
Solid Bottom	PG3048DA18	220 (99.8 kg)	18 1/2" (470 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048DA24	287 (130.2 kg)	24 1/2" (622 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048DA36	394 (178.7 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	15**
Solid Bottom w/ Gasket	PG3048DG18	220 (99.8 kg)	18 1/2" (470 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048DG24	287 (130.2 kg)	24 1/2" (622 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048DG36	394 (178.7 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	15**

† PG3048BB36 is not UL Listed.

** Loadings comply with ANSI/SCITE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

PD Boxes (Nestable)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION C	DIMENSION D	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom	PD3048BA24	286 (130 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PD3048BA48	614 (278.5 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	15**
Open Bottom w/ Gasket	PD3048BG24	286 (130 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PD3048BG48	614 (278.5 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	15**
Open Bottom w/ 2 Mouseholes	PD3048BB24	286 (130 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PD3048BB48	614 (278.5 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	15**

** Loadings comply with ANSI/SCITE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

Top Extension (For use on top of PG and PD boxes of any depth)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom*	PG3048EA11	100 (45.4 kg)	22,500 / 33,750	15**

* In addition, this extension can be used as a bottom extension for 18" deep PG boxes.

** Loadings comply with ANSI/SCITE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

Bottom Extensions (For use under 18" deep PG style box only, one per box)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION E	DIMENSION F	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom	PG3048EA08	102 (46.3 kg)	8 3/4" (222 mm)	1" (25 mm)	22,500 / 33,750	15*
Solid Bottom	PG3048RA08	151 (58.0 kg)	9 1/4" (235 mm)	N/A	22,500 / 33,750	15*

* Loadings comply with ANSI/SCITE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

Dimensions & weights in parentheses are metric equivalent.



Box, Polymer Concrete, 48"x48"x36" Hand Hole

By QUAZITE
Catalog # [PG4848BA36](#)

Quazite® ANSI/SCTE 77 certified enclosure boxes, feature a high quality polymer concrete construction in a multitude of sizes and depths allowing customization for any application.

Features

- Stronger and lighter weight than regular concrete
- Cost effective
- Durable and long lasting
- Fire and chemical resistant
- Standard sizes are UL certified
- ANSI/SCTE77 certified
- Multiple styles and sizes available

General

Catalog Number	PG4848BA36
EU RoHS Indicator	No
Insulated?	No
Load Rating (ANSI Tier)	T22
Material	Polymer Concrete
Type	Below Ground Boxes
UPC	662037117894

Dimensions



*Representative Image

Dimensions	48 in x 48 in x 36 in
Height	36 in
Length	48 in
Weight	629 lb
Width	48 in

Certifications And Compliance

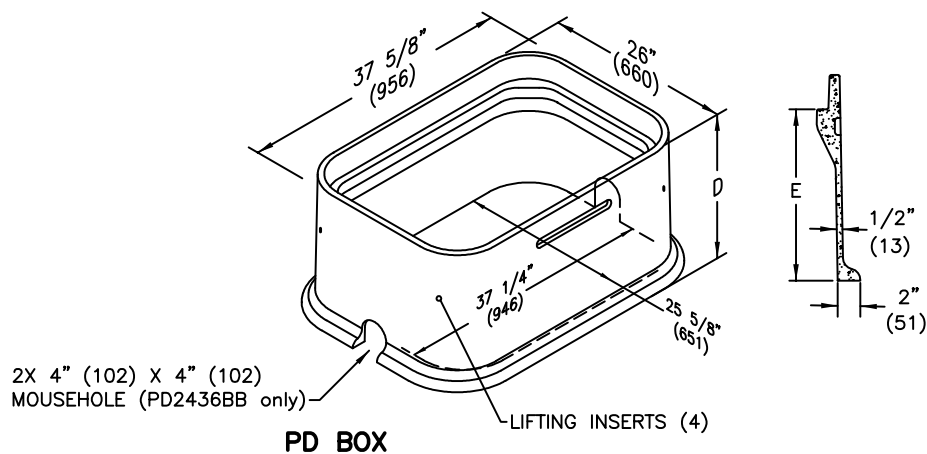
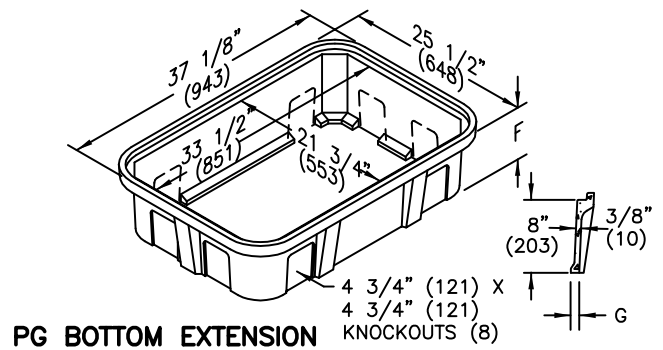
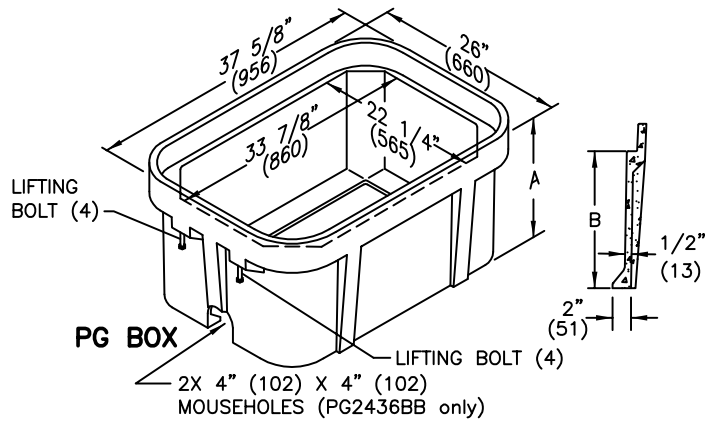
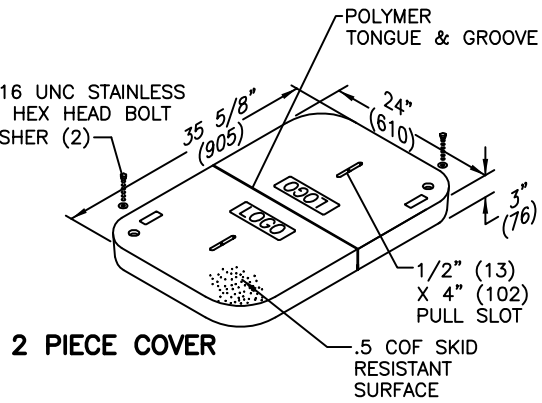
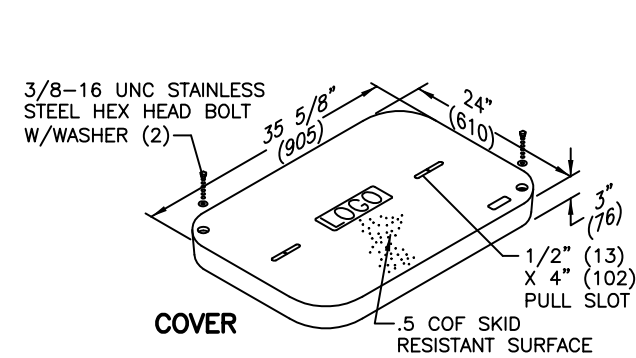
Buy America(n) Qualified	Buy American Act Compliant (All status valid till December 2024)
Buy American Compliant	Yes

Product Assets

- [Catalogs - Underground Enclosures](#)
- [Sales Drawings - Quazite Box](#)
- [Specifications - PG4848BA36](#)
- [Video - Hubbell Power Systems In Depth: ANSI vs AASHTO](#)
- [Video - PenCell® Enclosures](#)
- [Video - Hubbell Power Systems How to Install Large Enclosures](#)

Hand Hole SPECIFICATIONS/DATA

24" x 36" PG Style Hand Hole Assembly and 24" x 36" PD Style Assembly





24" x 36" PG Style Hand Hole Assembly and 24" x 36" PD Style Assembly

SPECIFICATIONS/DATA

Covers (Blank unless logo is specified)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD #	ANSI TIER*
W/2 Bolts	PG2436CA00	100 (45 kg)	8,000 / 12,000	8
Gasketed w/2 Bolts	PG2436CG00	100 (45 kg)	8,000 / 12,000	8
2-Piece w/2 Bolts	PG2436CS00	122 (55 kg)	8,000 / 12,000	8
No Bolts	PG2436WA00	100 (45 kg)	8,000 / 12,000	8
Heavy Duty w/2 Bolts	PG2436HA00	115 (52 kg)	15,000 / 22,500	15
Gasketed Heavy Duty w/2 Bolts	PG2436HG00	115 (52 kg)	15,000 / 22,500	15
Heavy Duty 2-Piece w/2 Bolts	PG2436HS00	122 (55 kg)	15,000 / 22,500	15
Heavy Duty w/2 Bolts	PG2436HH00	122 (55 kg)	22,500 / 33,750	22

- Covers with meter lids available upon request. See page 12 or page 56 for meter lid cover load rating explanation.
- Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

PG Boxes (Stackable with self-aligning, replaceable EZ Nut) **24" - 42" Deep boxes must be used as bottom of any stack.)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION A	DIMENSION B	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PG2436BA18	141 (64 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PG2436BA24	180 (81.6 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	22
	PG2436BA30	196 (88.9 kg)	30" (762 mm)	27" (686 mm)	22,500 / 33,750	22
	PG2436BA36	254 (115 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	22
	PG2436BA42	293 (133 kg)	42" (1067 mm)	39" (991 mm)	22,500 / 33,750	22
Open Bottom w/2 Mouseholes	PG2436BB18	139 (63.1 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PG2436BB24	178 (80.7 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	22
	PG2436BB30	194 (88.0 kg)	30" (762 mm)	27" (686 mm)	22,500 / 33,750	22
	PG2436BB36	252 (114 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	22
	PG2436BB42	293 (133 kg)	42" (1067 mm)	39" (991 mm)	22,500 / 33,750	22
Solid Bottom	PG2436DA18	171 (78 kg)	18 1/2" (470 mm)	15" (381 mm)	22,500 / 33,750	22
	PG2436DA24	228 (103.4 kg)	24 1/2" (622 mm)	21" (533 mm)	22,500 / 33,750	22
	PG2436DA30	238 (107.0 kg)	30 1/2" (775 mm)	27" (686 mm)	22,500 / 33,750	22
	PG2436DA36	282 (128 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	22
	PG2436DA42	321 (146 kg)	42 1/2" (1080 mm)	39" (991 mm)	22,500 / 33,750	22

PD Boxes

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION D	DIMENSION E	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PD2436BA18	159 (72 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PD2436BA26	199 (90 kg)	26" (660 mm)	23" (584 mm)	22,500 / 33,750	22
	PD2436BA48	313 (142 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	22
Open Bottom w/2 Mouseholes	PD2436BB18	157 (71 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PD2436BB26	197 (89 kg)	26" (660 mm)	23" (584 mm)	22,500 / 33,750	22
	PD2436BB48	311 (141 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	22
Open Bottom w/Gasket	PD2436BG18	159 (72 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PD2436BG26	199 (90 kg)	26" (660 mm)	23" (584 mm)	22,500 / 33,750	22
	PD2436BG48	313 (142 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	22

Extensions (For use under 18" deep box only, one per box.)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION F	DIMENSION G	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PG2436EA08	81 (37 kg)	8 3/4" (222 mm)	1" (25 mm)	22,500 / 33,750	22
Solid Bottom	PG2436RA08	95 (43.1 kg)	9 1/4" (235 mm)	N/A	22,500 / 33,750	22

Dimensions & weights in parentheses are metric equivalent.

* Loadings comply with ANSI/SCTE 77 (see page 9).

1419

CARSON® Spec Grade Hand Hole

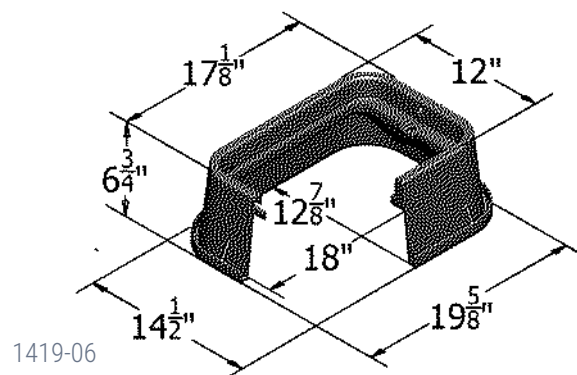
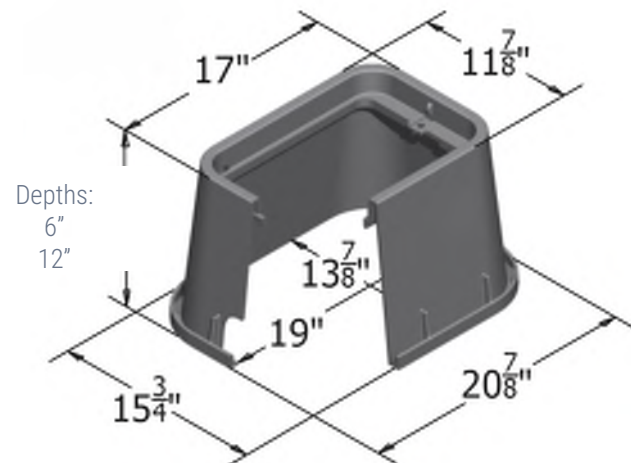
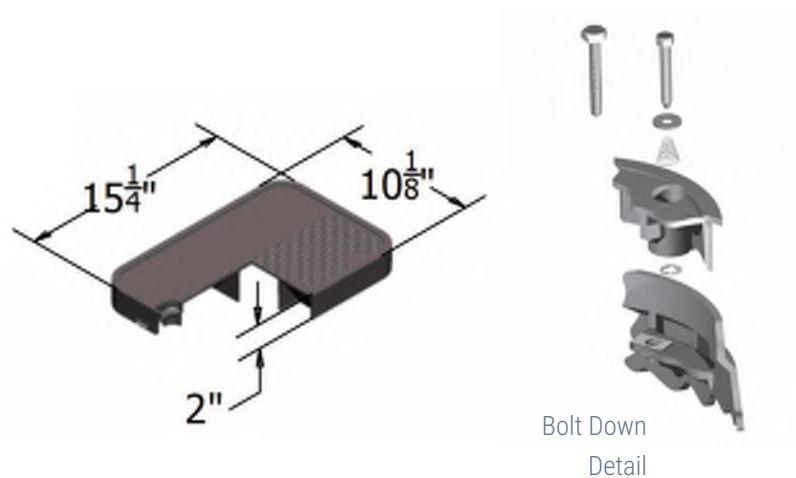
COVER

Style:	Flush
Material:	HDPE
Model:	14" x 19"
Weight:	3 lbs
Std. Fasteners:	3/8" Hex Bolt
Options:	Logos and Special Markings
Surface:	Skid Resistant & Marked*
Performance:	Pedestrian, ASTM C857, WUC 3.6

Cover comes standard with permanent markings for manufacturer and model size.

BODY

Material:	HDPE
Model:	14" x 19"
Weight:	6" Depth: 5 lbs 12" Depth: 7 lbs
Wall Type:	Flared
Mouseholes:	2
Performance:	Pedestrian, ASTM C857, WUC 3.6



LOAD RATING / NOTES



LIGHT DUTY
PEDESTRIAN / GREENBELT

For use in non-vehicular traffic situations only.
Weights and dimensions may vary slightly.
Actual load rating is determined by the box
and cover combination.

1419

CARSON® Spec Grade Hand Hole

COVER OPTIONS

HDPE, T-Cover Solid
 HDPE, T-Cover with Plastic Reader Door
 HDPE, T-Cover with Cast Iron Reader Door
 HDPE, T-Cover Hinged
 HDPE, Flush Solid
 HDPE, Flush with Plastic Reader Door
 HDPE, Flush with Cast Iron Reader Door
 HDPE, Flush Hinged

COLOR OPTIONS

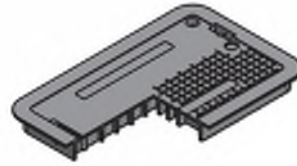
Cover: Black, Green, Gray, Tan, Purple
 Body: Black, Green, Gray, Tan, Purple
 Extension: Black, Green, Gray, Tan, Purple

FASTENER OPTIONS

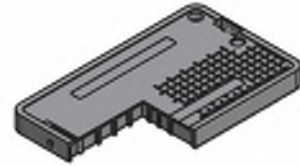
Hex Head Bolt (A)
 Penta Head Bolt (B)
 Penta Head Coil Thread Bolt (B)
 Oldcastle Vandal Resistant Bolt (C)
 Captive Bolt Retainer
 Drop-N-Lock™

ADD ON OPTIONS

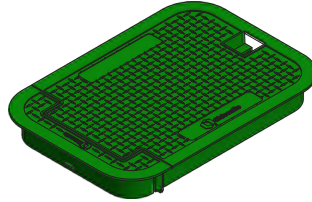
AMR Friendly Solutions
 Touch Read Hole
 EMS Marker
 Racking Provision



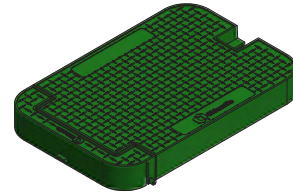
T-Cover Solid



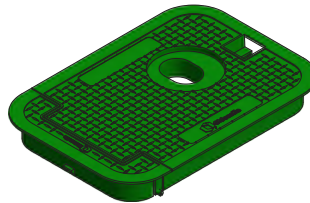
Flush Solid



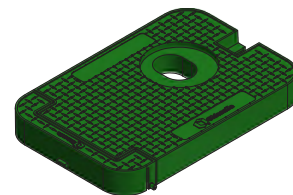
T-Cover Hinged



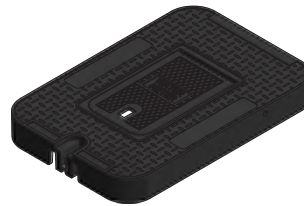
Flush Hinged



T-Cover Hinged
with AMR Recess



Flush Hinged
with AMR Recess



Reader Door Detail



Standard Thread



A



B



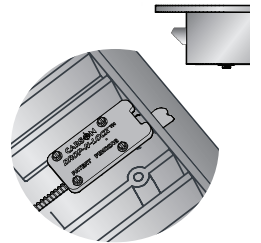
C



Coil Thread



Bolt Retainer
(for standard thread)



Drop-N-Lock
(T-Cover only)



EMS Marker

WARNING: Cancer - www.P65Warnings.ca.gov

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Revision 04/05/21
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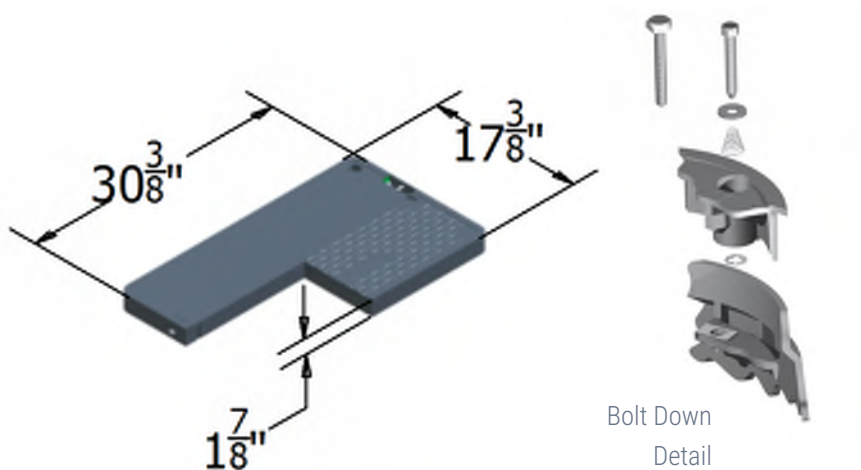
1730-24

CARSON® Spec Grade Hand Hole

COVER

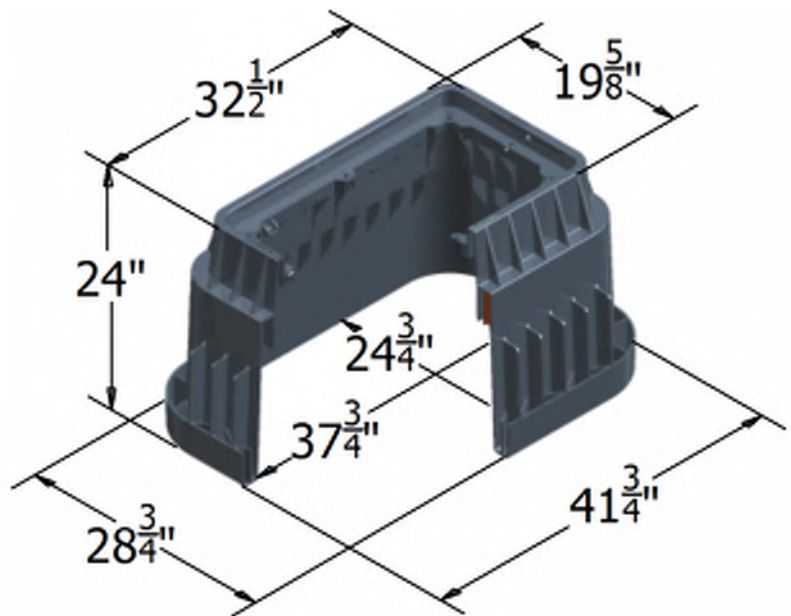
Style:	Flush
Material:	HDPE
Model:	17" x 30"
Weight:	10 lbs
Std. Fasteners:	3/8" Hex Bolt
Options:	Logos and Special Markings
Surface:	Skid Resistant & Marked
Performance:	Pedestrian, ASTM C857, WUC 3.6

Cover comes standard with permanent markings for manufacturer and model size.



BODY

Material:	HDPE
Model:	17" x 30"
Weight:	24" Depth: 52 lbs
Wall Type:	Flared
Mouseholes:	0
Performance:	Pedestrian, ASTM C857, WUC 3.6



LOAD RATING / NOTES



LIGHT DUTY
PEDESTRIAN / GREENBELT

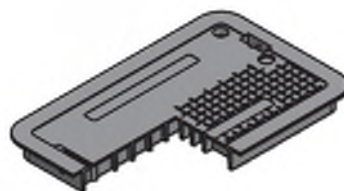
For use in non-vehicular traffic situations only.
Weights and dimensions may vary slightly.
Actual load rating is determined by the box
and cover combination.

1730-24

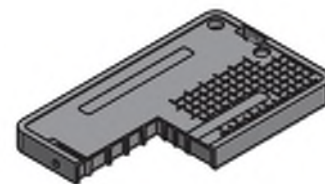
CARSON® Spec Grade Hand Hole

COVER OPTIONS

HDPE, T-Cover Solid
 HDPE, Flush Solid
 HDPE, Flush with Plastic Reader Door
 HDPE, Flush with Cast Iron Reader Door



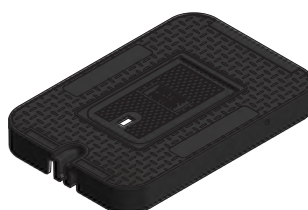
T-Cover Solid



Flush Solid

COLOR OPTIONS

Cover: Black, Green, Gray, Tan, Purple
 Body: Black, Green, Gray, Tan, Purple



Reader Door Detail

FASTENER OPTIONS

Hex Head Bolt (A)
 Penta Head Bolt (B)
 Penta Head Coil Thread Bolt (B)
 Oldcastle Vandal Resistant Bolt (C)
 Captive Bolt Retainer
 Drop-N-Lock™



Standard Thread



A



B



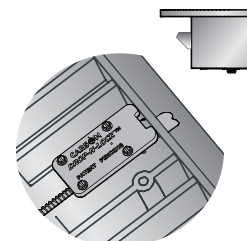
C



Coil Thread



Bolt Retainer
(for standard thread)



Drop-N-Lock
(T-Cover only)



L Bolt Detail



EMS Marker

ADD ON OPTIONS

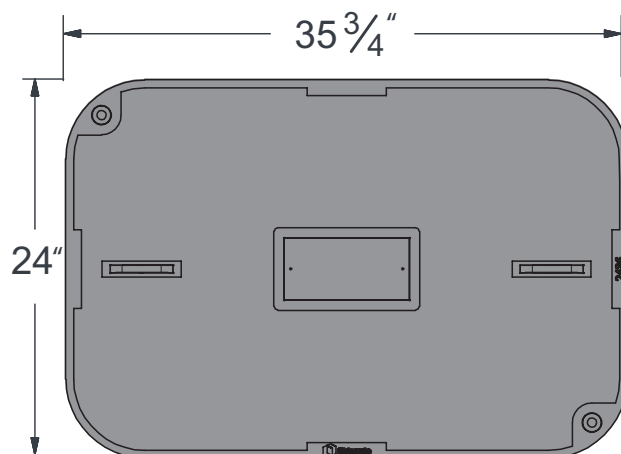
AMR Friendly Solutions
 Touch Read Hole
 EMS Marker
 Racking Provision

WARNING: Cancer - www.P65Warnings.ca.gov

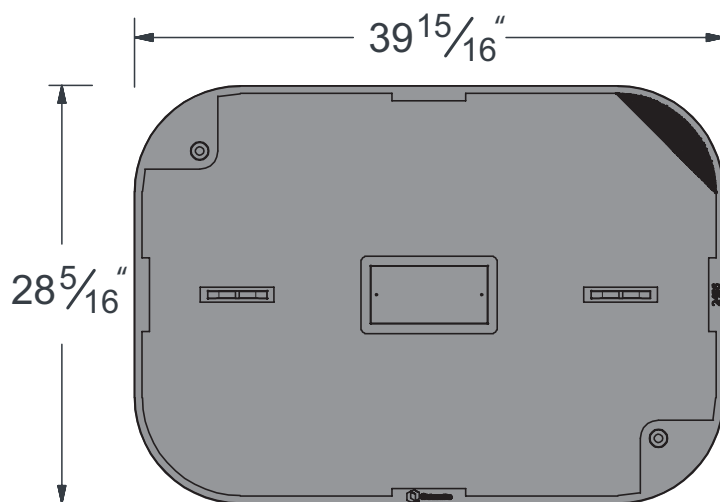
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Revision 11/30/18
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2436 Cover



Flush



T-Cover

Material & Style

Composite
 Flush Solid
 T-Cover Solid
 Non-skid texture

Hardware

1/2-6 Stainless Steel Hex
 Head Bolt, Washer and
 Push Nut

Performance & Weight

ANSI/SCTE-77, Tier 22

Flush Cover: 40 lbs
 T-Cover: 46 lbs

Options

Hex Head Coil Thread Bolt
 Penta Head Coil Thread
 Bolt
 Logos and Special
 Markings
 Marking Plate
 EMS Marker

Cover comes standard with permanent markings for manufacturer, load rating, model size and manufacturing location.

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Revision 04/2023



Heavy Duty
 ANSI/SCTE TIER 22

For use in non-vehicular traffic situations only. Weights and dimensions may vary slightly. Actual load rating is determined by the box and cover combination.

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910

CARSON® Spec Grade Flower Pot

COVER

Style:	T-Cover
Material:	HDPE
Model:	10" Dia.
Weight:	1 lbs
Std. Fasteners:	3/8" Hex Bolt
Options:	Logos and Special Markings
Surface:	Skid Resistant & Marked
Performance:	Pedestrian, ASTM C857, WUC 3.6

Cover comes standard with permanent markings for manufacturer and model size.

BODY

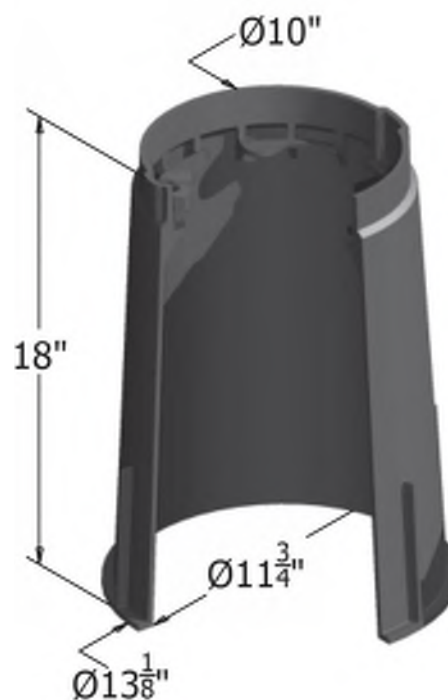
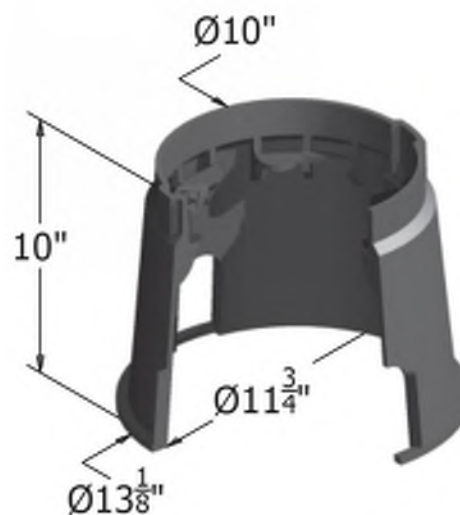
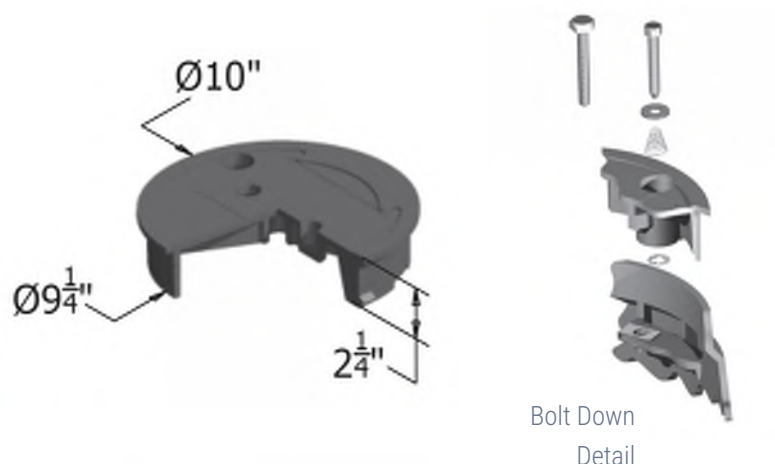
Material:	HDPE
Model:	10" Dia.
Weight:	10" Depth: 3 lbs 18" Depth: 5 lbs
Wall Type:	Flared
Mouseholes:	0 - 2
Performance:	Pedestrian, ASTM C857, WUC 3.6

LOAD RATING / NOTES



LIGHT DUTY
PEDESTRIAN / GREENBELT

For use in non-vehicular traffic situations only.
Weights and dimensions may vary slightly.
Actual load rating is determined by the box
and cover combination.



910

CARSON[®] Spec Grade Flower Pot

COVER OPTIONS

HDPE, T-Cover Solid

HDPE, Flush Solid



T-Cover Solid



Flush Solid

COLOR OPTIONS

Cover: Black, Green, Gray, Tan, Purple

Body: Black, Green, Gray, Tan, Purple

FASTENER OPTIONS

Hex Head Bolt (A)

Penta Head Bolt (B)

Penta Head Coil Thread Bolt (B)

Oldcastle Vandal Resistant Bolt (C)

Captive Bolt Retainer



Standard Thread



A



B



C



Coil Thread



Bolt Retainer
(for standard thread)

ADD ON OPTIONS

Metal Locating Plate

EMS Marker



EMS Marker

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Revision 11/30/18
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FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Application

Clearfield's FieldSmart Fiber Distribution Hub (FDH) PON Cabinet family provides an interconnect environment from the feeder network through the optical passive splitter to the distribution network. Designed for the outside plant environment, these cabinets provide a single distribution point to deploy FTTH in urban or dense neighborhoods. Providing distribution scalability from 12 to 864 ports, network architecture can be maximized for both existing subscribers as well as future growth opportunities.

Description

The FieldSmart FDH PON Cabinet line is the complete solution for managing 12 to 864 port distribution fibers for an outside plant FTTx PON application. Integrated into the cabinet design is the 12 port Clearview® Cassette, providing multiple cabinet configurations and allowing the service provider to align the investment in capital equipment to the turn-up of revenue-generating circuits.

The FieldSmart FDH PON Cabinet family incorporates a new pyramid shaped roof/solar shield and a reusable/replacable venting feature, providing additional protection for deployed fiber. Mounting options include pad, pole or vault mounted with either a 4" or 12" riser. An optional exterior ground box is also available.



Features and Benefits

Integrity

- Terminations are designed, tested and certified to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Fiber cable certified to Telcordia GR-20 and GR-409. Designed, tested and certified to Telcordia GR-3125
- Constructed with 0.090 aluminum
- Powder coated for additional protection
- 300 series stainless steel fasteners used on all cabinets
- Optional 4" and 12" risers, can be stacked to raise cabinet if required

Protection

- 12-fiber Clearview Cassette protects fiber from environmental and human factors
- Rugged cable clamps protect the OSP cable breakouts from twisting and pistoning
- Patch only buffer tubes are fully protected with ruggedized, bend-limiting tubing
- Snake skin sleeving provides additional buffer tube slack storage protection and manageability for patch and splice (Clearfield's in-cassette splicing solution) configurations
- WaveSmart Ruggedized Splitters are built with ruggedized jacketing and bend-insensitive fiber for all input and output legs
- Pyramid roof and venting provide additional protection in all environments

Access

- Clearview Cassette allows for quick visual troubleshooting without opening cassette
- Front access to pre-terminated assemblies with Clearview removable adapter plate
- Two captive fasteners for quick removal of individual cassettes for trouble shooting, splicing or replacing
- Front and rear access doors
- Bottom exit/entrance for fiber cables

Investment

- Fiber is deployed in increments of 12, providing the users the ability to scale from 12 ports to full capacity, aligning capital investment with network layout or subscriber revenue
- Express ports allow for extensions or parallel networks through the cabinet
- Patch and splice configurations eliminate costs associated with additional hand-holes and splice cases

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Technical Specifications

FieldSmart FDH	144 Port	288 Port	432 Port	576 Port	864 Port
Cabinet Dimensions <i>(Without Riser)</i>	22.29" H x 16.96" W x 18.51" D (566.16 mm x 430.78mm x 470.15mm)	35.11" H x 18.5" W x 16.98" D (891.79 mm x 469.90 mm x 431.29 mm)	37.83" H x 21.25" W x 18.44" D (960.88 mm x 539.75 mm x 468.38 mm)	35.11" H x 33.20" W x 18.47" D (891.79 mm x 891.79 mm x 469.14 mm)	37.83" H x 42.05" W x 18.47" D (960.88 mm x 1068.07 mm x 469.14 mm)
Weight <i>(Without Riser)</i>	40 lbs. (18.14 kg)	54 lbs (24.49 kg)	66 lbs (29.94 kg)	86 lbs (39.01 kg)	95 lbs (43.09 kg)
Port Density	144	288	432	576	864
Max. Feeder/Express Ports	24	48	48	96	96
Cables Entrances	6	6	6	12	12
Mounting Options <i>(Hoist kits included with each cabinet)</i>	Vault mount; pole mount; pad mount	Vault mount; pole mount; pad mount	Vault mount; pole mount; pad mount	Vault mount; pad mount	Vault mount; pad mount
Standard Riser Base	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)
Optional Riser Base	12"; 12 lbs (304.80 mm; 5.44 kg)	12"; 12 lbs (304.80 mm; 5.44 kg)	12"; 16 lbs (304.80 mm; 7.26 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)
Splitters Slots	4	9	14	18	28
Splitter Staging Capacity	72			144	
Cassette Types Supported	Clearview® Blue				
Connector Types	SC/UPC, SC/APC, LC/UPC, LC/APC				
Cable Types	Indoor/Outdoor, Outdoor, Outdoor Armored, Ribbon and Loose Tube				
Door Locks	2 per door				
Venting	Built-in Replaceable Roof Vent				
Splice Capacity	12 splices in each Clearview Cassette				
Material	0.125 (3.175 mm) aluminum with almond powder coating	0.90 (2.286 mm) aluminum with almond powder coating			

Accessories

- Risers: 4" and 12" (101.60 mm or 304.80 mm)
- Exterior Ground Box - Available with 12" Riser Only, Located in Riser
- WaveSmart Ruggedized Splitter
- Mid-Span/Feed-Through Plate Kit
- Pole Mount Kits
- GoreTex Filter Replacement - 020800



GoreTex Filter - 020800

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 144 Port

R - C R - - - - - 0 - - - - - XXXM or XXXF

1

2

3

4

5

6

7

8

9

10

1

Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)
C = No Riser With Pole Mount Kit
D = 4" (101.60 mm) Riser with Pole Mount Kit

2

Select Feeder

1 = 12
2 = 24
Z = No Feeder

3

Select Distribution Port Count

XXX = Port Count in Increments of 12
(Max. 144)
ZZZ = No Distribution

4

Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5

Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6

Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7

Select Qty. of 144 Fiber OSP Cables

0 = 0
1 = 1

8

Select Qty. of 96 Fiber OSP Cables

0 = 0
1 = 1

9

Select Qty. of 72 Fiber OSP Cables

0 = 0
1 = 1
2 = 2

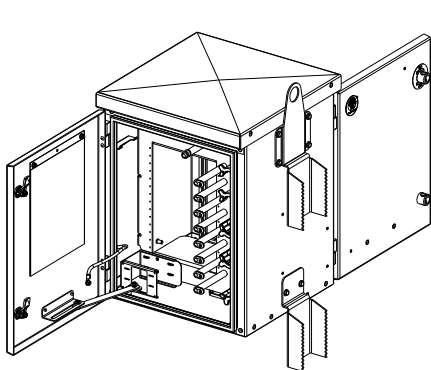
10

Select Ground Box/Extras

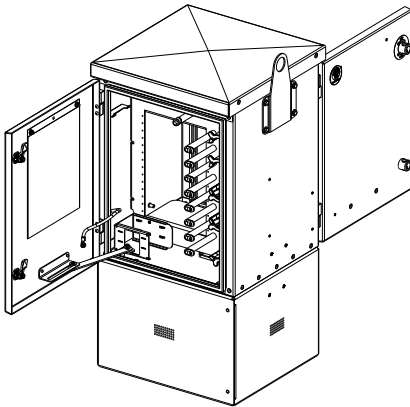
B = Clearview Blue Cassettes
M = Ground Box with 12" Riser; Clearview Blue Cassettes

XXXM or XXXF

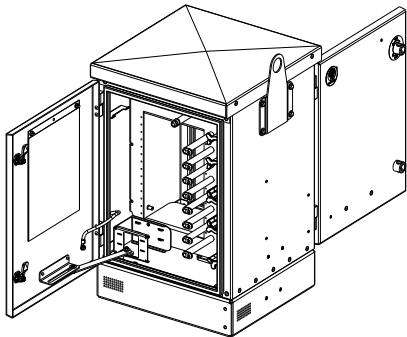
XXXM = Length in meters
XXXF = Length in feet



144 with Pole Mount Brackets



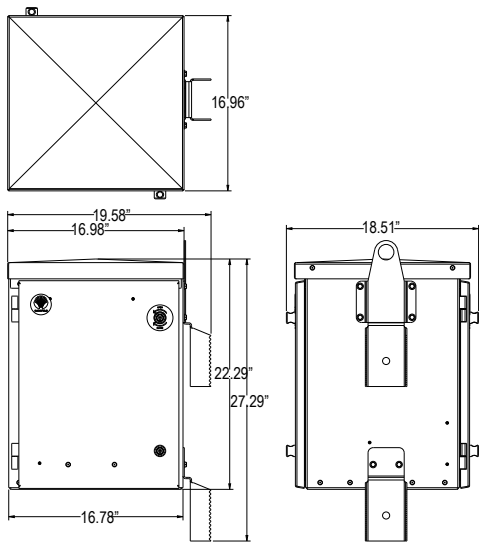
144 with 12" (304.80 mm) Riser



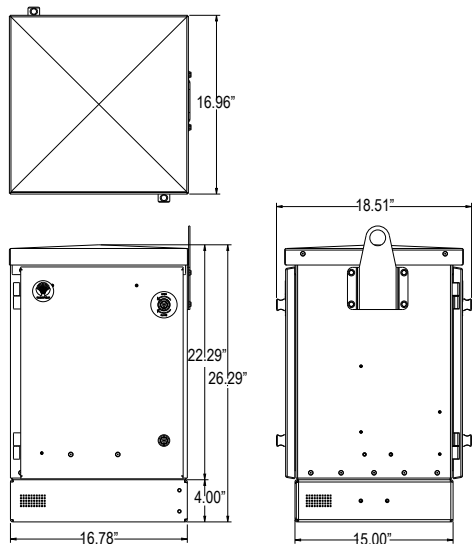
144 with 4" (101.60 mm) Riser

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



144 with Pole Mount Kit - Dimensions



144 with 4" (101.60 mm) Riser - Dimensions

Pre-Configured Part Numbers

Vault Options

Part Number	Description
V6A-CZP	Vault, below grade Pencil, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencil, 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencil, 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm), split PC lid, hex bolts, gray, with cut out for FieldSmart Cabinets, straight wall
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
FMA-H3Z-BC-SUB	Pole Mount Kit, for FieldSmart FDH cabinets, 144

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet

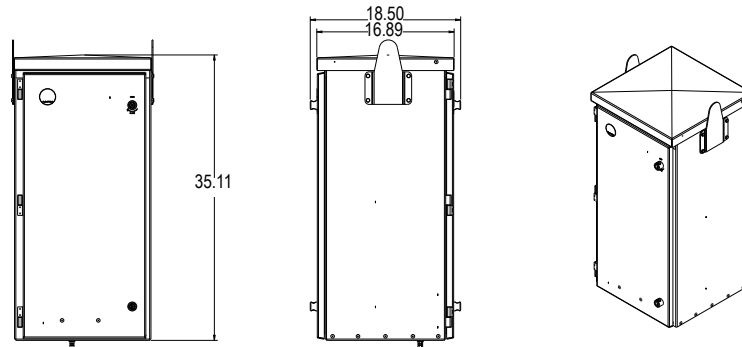


Configured Part Numbers - 288 Port

R - D											XXXX or XXXF
1	2	3	4	5	6	7	8	9	10	11	
1 Select Cabinet Riser/Mounting A = 4" (101.60 mm) B = 12" (304.80 mm) D = Pole Mount with 4" Riser	2 Select Feeder 1 = 12 2 = 24 3 = 36 4 = 48 Z = No Feeder	3 Select Distribution Port Count XXX = Port Counts in Increments of 12 (Max. 288) ZZZ = No Distribution	4 Select Connector A = SC/UPC C = SC/APC F = LC/UPC DX H = LC/APC DX	5 Select Mode / Type 1 = Singlemode – non-ribbon 2 = Singlemode – ribbon	6 Select Jacket Construction B = OSP Riser E = OSP, Non-Rated F = Patch and Splice M = OSP Armored	7 Select Qty. of 288/216 Fiber OSP Cables 0 = 0 1 = 1-288	8 Select Qty. of 144 Fiber OSP Cables 0 = 0 1 = 1 2 = 2	9 Select Qty. of 96 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3	10 Select Qty. of 72 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3 4 = 4	11 Select Ground Box/Extras B = Clearview Blue Cassettes M = Ground Box With 12" Riser Clearview Blue Cassettes	

XXXX or XXXF

XXXXM = Length in meters
 XXXF = Length in feet



Vault Options

288 Port Cabinet

Part Number	Description
V6A-CZP	Vault, below grade Pencil, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencil, 24" x 36" x 36", split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencil, 24" x 36" x 36", split PC lid, hex bolts, gray, with cut out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, green, with knock out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
FMA-H3Z-SUB	Pole Mount Kit for FieldSmart cabinet

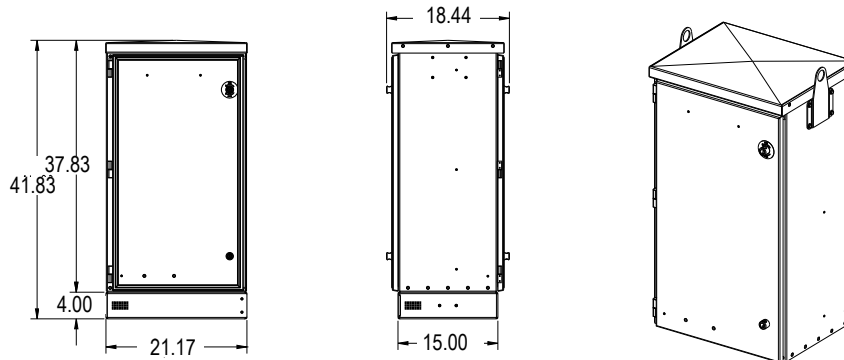
FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 432 Port

R - F											XXXM or XXXF	
1	2	3	4	5	6	7	8	9	10	11		
1 Select Cabinet Riser/Mounting A = 4" (101.60 mm) B = 12" (304.80 mm) D = Pole Mount with 4" Riser	2 Select Feeder 1 = 12 2 = 24 3 = 36 4 = 48 Z = No Feeder	3 Select Distribution Port Count XXX = Port Count in Increments of 12 (Max. 432) ZZZ = No Distribution	4 Select Connector A = SC/UPC C = SC/APC F = LC/UPC DX H = LC/APC DX	5 Select Mode / Type 1 = Singlemode – non-ribbon 2 = Singlemode – ribbon	6 Select Jacket Construction B = OSP Riser E = OSP, Non-rated F = Patch and Splice M = OSP Armored	7 Select Qty. of 288/216 Fiber OSP Cables 0 = 0 1 = 1-288 A = 1-216 B = 2-216	8 Select Qty. of 144 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3	9 Select Qty. of 96 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3 4 = 4	10 Select Qty. of 72 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3 4 = 4 5 = 5	11 Select Ground Box/Extras B = Clearview Blue Cassettes M = Ground Box With 12" Riser Clearview Blue Cassettes	XXXM or XXXF XXXM = Length in meters XXXF = Length in feet	



Vault Options

432 Port Cabinet

Part Number	Description
V6A-CZP	Vault, below grade Pencil, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencil, 24" x 36" x 36", split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencil, 24" x 36" x 36", split PC lid, hex bolts, gray, with cut out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit -ordered separately
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, green, with knock out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
FMA-H3Z-SUB	Pole Mount Kit for FieldSmart cabinet

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 576 Port

R - G - - - - - XXXM or XXXF

1 2 3 4 5 6 7 8 9 10 11

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)

2 Select Feeder

1 = 12 6 = 72
2 = 24 7 = 84
3 = 36 8 = 96
4 = 48 Z = No Feeder
5 = 60

3 Select Distribution Port Count

XXX = Port Count in Increments of 12
(Max. 576)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 288/216 Fiber OSP Cables

0 = 0 B = 2-216
1 = 1-288 E = 1-288; 1-216
2 = 2-288 F = 1-288; 2-216
A = 1-216 G = 2-288; 1-216

8 Select Qty. of 144 Fiber OSP Cables

0 = 0 3 = 3
1 = 1 4 = 4
2 = 2

9 Select Qty. of 96 Fiber OSP Cables

0 = 0 4 = 4
1 = 1 5 = 5
2 = 2 6 = 6
3 = 3

10 Select Qty. of 72 Fiber OSP Cables

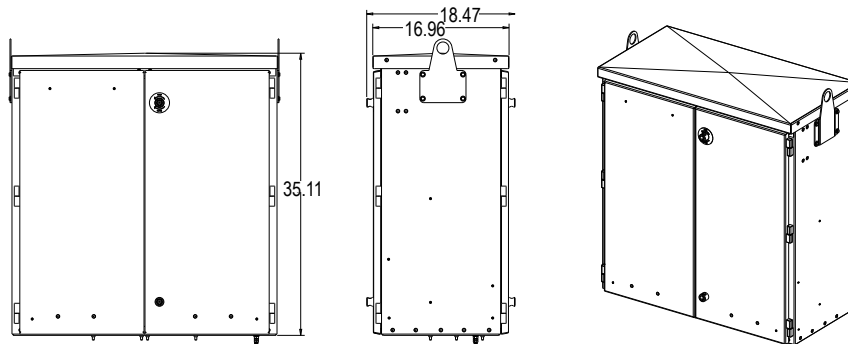
0 = 0 5 = 5
1 = 1 6 = 6
2 = 2 7 = 7
3 = 3 8 = 8
4 = 4

11 Select Ground Box/Extras

B = Clearview Blue Cassettes
M = Ground Box With 12" Riser Clearview
Blue Cassettes

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet



Vault Options

576 Port Cabinet

Part Number	Description
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, gray, with knock-out for FieldSmart Cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
V8A-CZP-F	Vault, Pencil 36" x 60" x 24" (914.40 mm x 1524.00 mm x 609.60 mm), complete split lid with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V8B-CZP-F	Vault, Pencil 36 x 60 x 36" (914.40 mm x 1524.00 mm x 914.40 mm), complete split lid, with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V9B-HZP-PC	Vault, Pencil 48 x 48 x 36" (1219.20 mm x 1219.20 mm x 914.40 mm), complete split polymer concrete lid, cut out for 864 cabinets, polymer concrete straight wall

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 864 Port

R - H - XXXM or XXXF

1234567891011

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)

2 Select Feeder

1 = 12 6 = 72
2 = 24 7 = 84
3 = 36 8 = 96
4 = 48 Z = No Feeder
5 = 60

3 Select Distribution Port Count

XXX = Port Count in Increments of 12
 (Max. 864)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 288/216 Fiber OSP Cables

0 = 0 C = 3-216
1 = 1-288 D = 4-216
2 = 2-288 E = 1-288; 1-216
3 = 3-288 F = 1-288; 2-216
A = 1-216 G = 2-288; 1-216
B = 2-216

8 Select Qty. of 144 Fiber OSP Cables

0 = 0 4 = 4
1 = 1 5 = 5
2 = 2 6 = 6
3 = 3

9 Select Qty. of 96 Fiber OSP Cables

0 = 0 5 = 5
1 = 1 6 = 6
2 = 2 7 = 7
3 = 3 8 = 8
4 = 4 9 = 9

10 Select Qty. of 72 Fiber OSP Cables

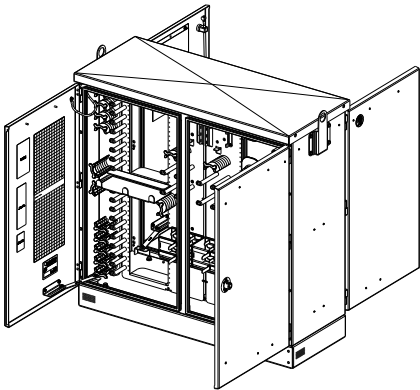
0 = 0 5 = 5
1 = 1 6 = 6
2 = 2 7 = 7
3 = 3 8 = 8
4 = 4 9 = 9

11 Select Ground Box/Extras

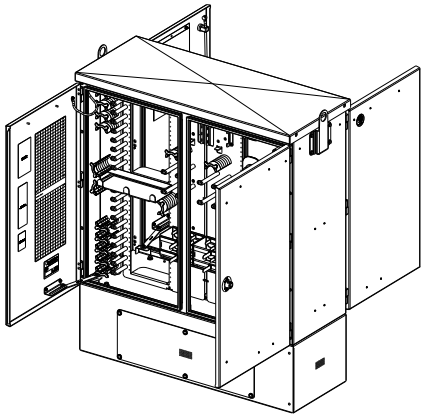
B = Clearview Blue Cassettes
M = Ground Box With 12" Riser Clearview
 Blue Cassettes

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet



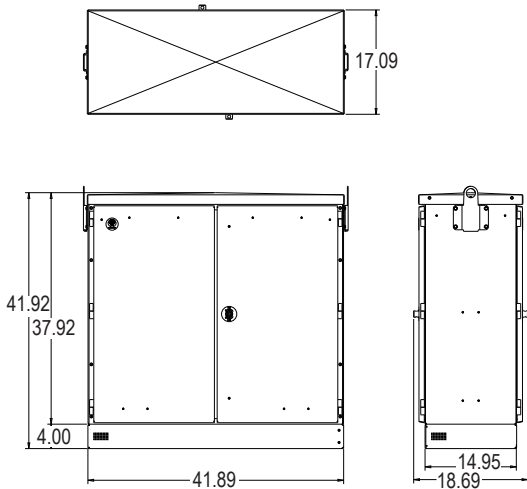
864 Interior View with 4" Riser



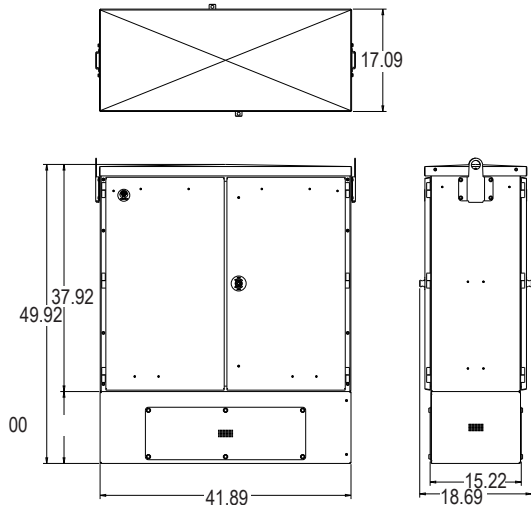
864 Interior View with 12" Riser

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



864 with 4" (101.60 mm) Riser - Dimensions



864 with 4" (101.60 mm) Riser - Dimensions

Pre-Configured Part Numbers

Vault Options

Part Number	Description
V9B-HZP-PC	Vault, Pencil 48 x 48 x 36" (1219.20 mm x 1219.20 mm x 914.40 mm), complete split polymer concrete lid, cut out for 864 cabinets, polymer concrete straight wall

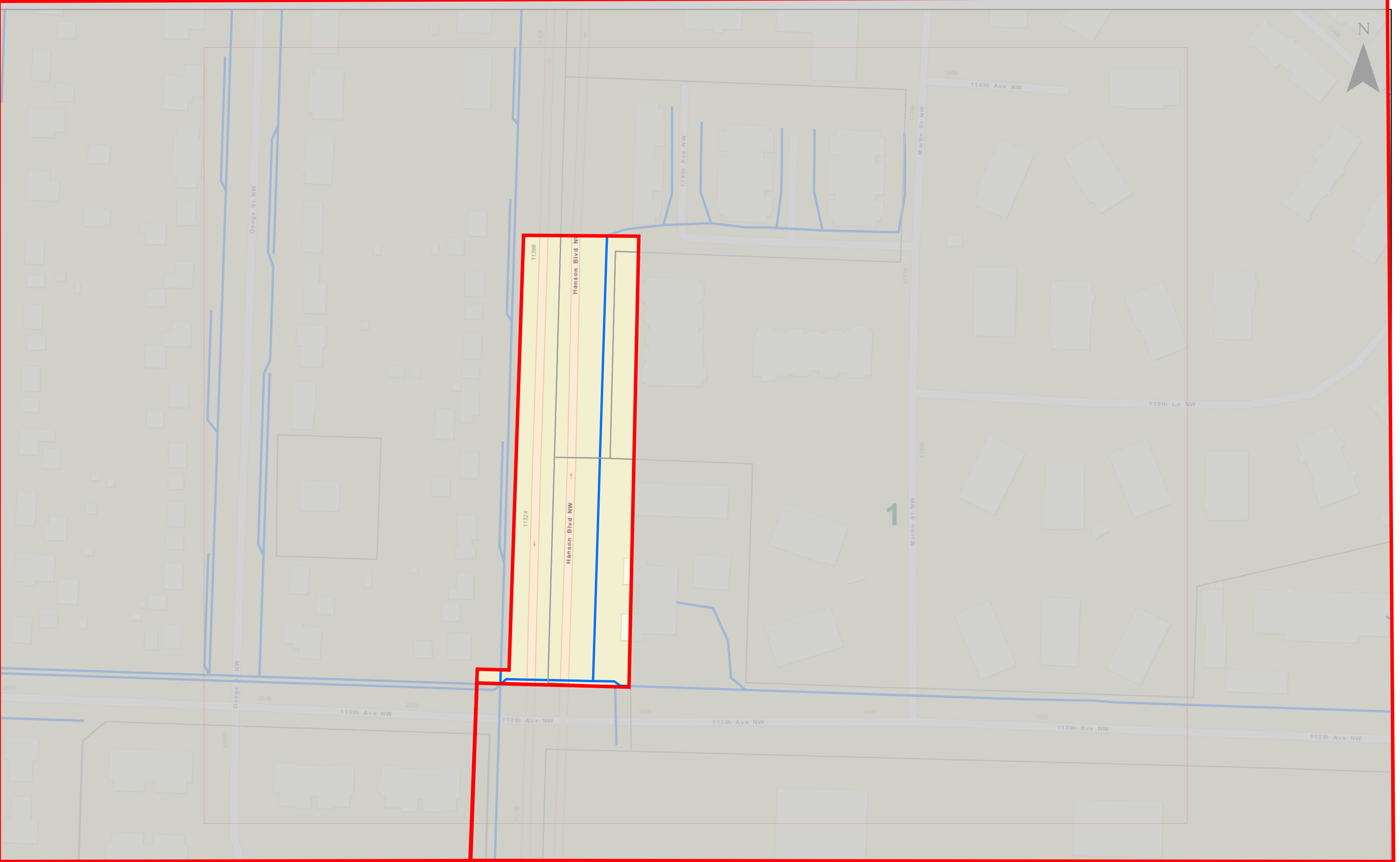


gatewayfiber

Fiberhood:Hanson Blvd



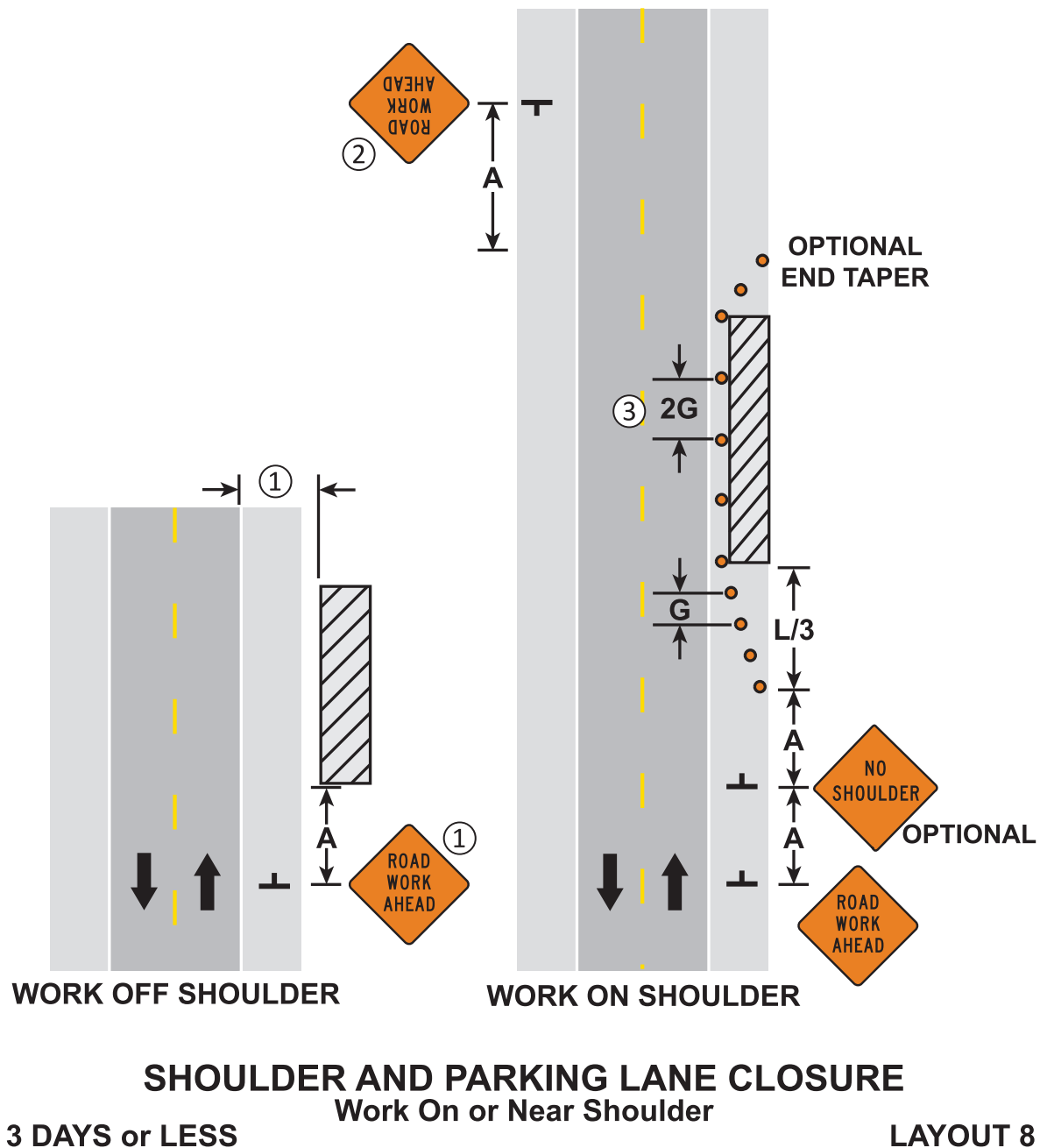
Sheet Index
Hanson Blvd





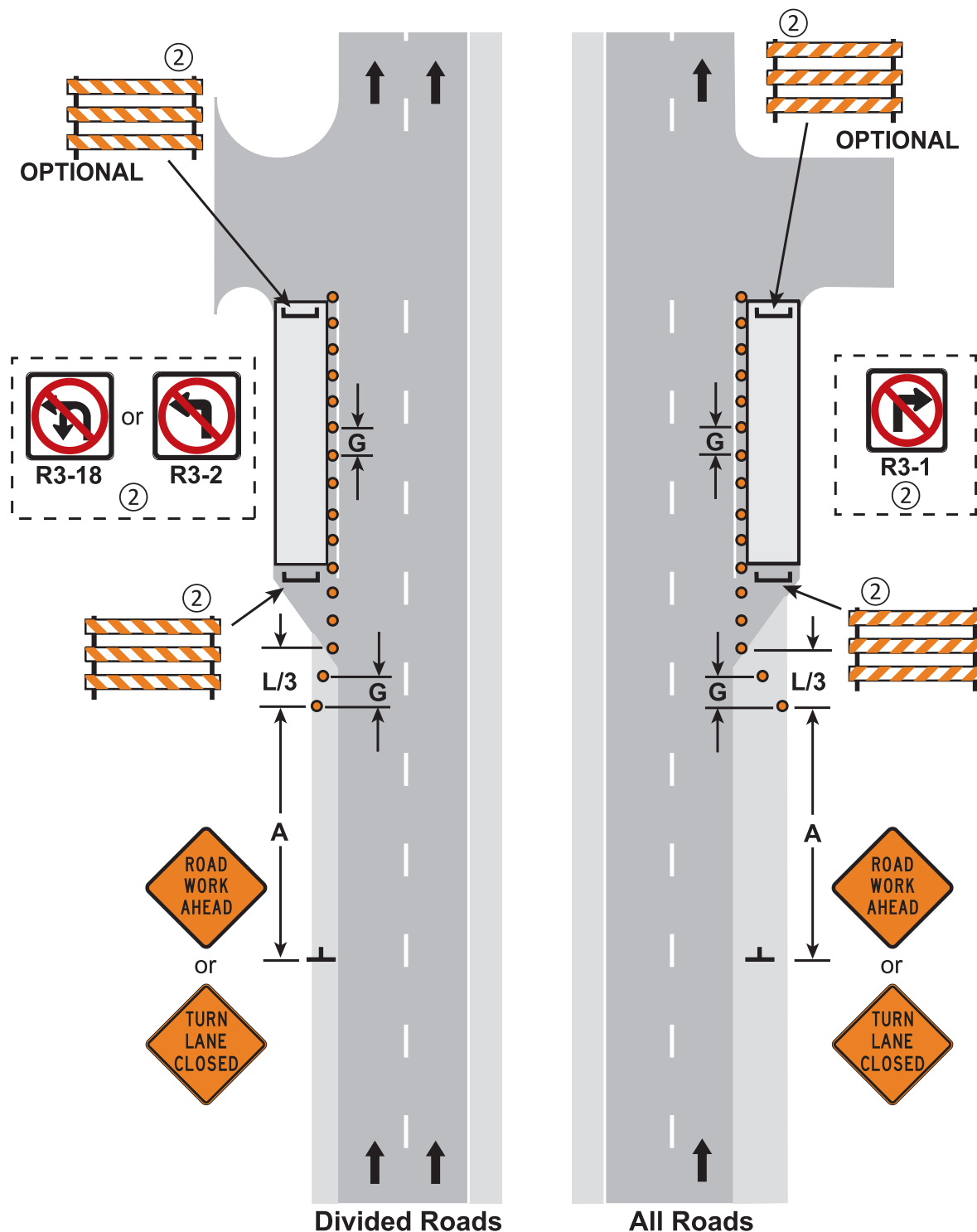
NOTES:

- ① The ROAD WORK AHEAD sign may be omitted for short term daylight operations if a vehicle is displaying and operating a 360-degree flashing beacon and:
 - a. The distance from curb face to the work space is at least 2 feet, or
 - b. The distance from the edge of the roadway to the work space is at least 15 feet.
- ② This ROAD WORK AHEAD sign shall be installed on two-lane, two-way roads if traffic control devices are installed for a work space in the opposite shoulder.
- ③ If this layout is used to close a parking lane that is normally open to vehicle travel during the time of day the closure will be in effect, the lane shall be considered a traveled lane and not a parking lane. [Layout 42](#) shall be used to provide traffic control for the lane closure.
4. If this layout is used to close a parking lane, channelizer spacing may be reduced from 2G to G in high volume areas.



NOTES:

1. Contact the appropriate road authority for signal timing modifications before beginning work at any signalized intersection.
- ② Optional R3-1, R3-2, or R3-18 signs may be placed on sign stand or top of barricades on side closest to traffic. Signs are required if turns are prohibited.



TURN LANE CLOSURES

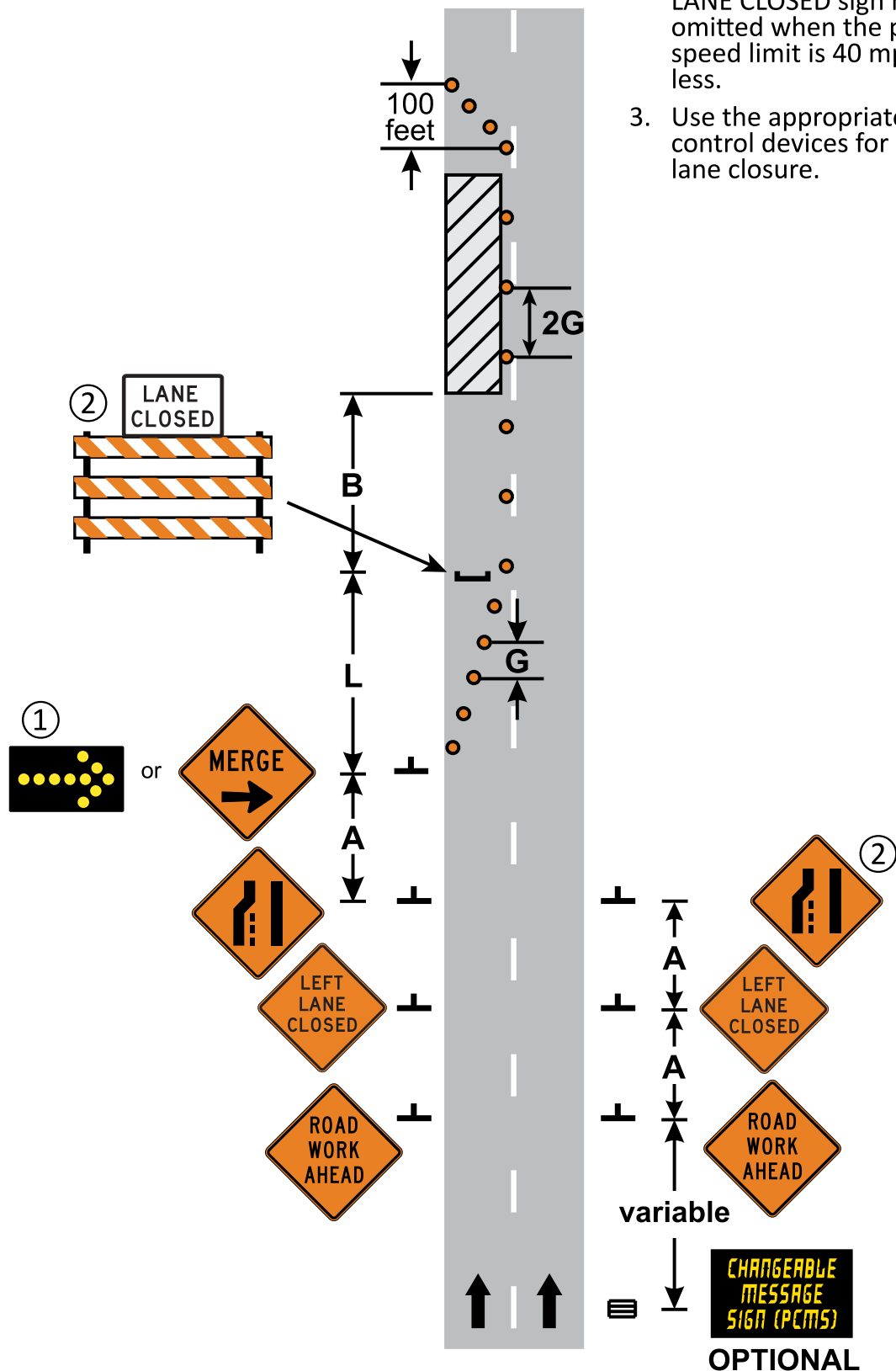
3 DAYS or LESS

6K-33

LAYOUT 33

NOTES:

- ① The Flashing Arrow Board shall be used where the posted speed limit is 45 mph or greater, and shall be placed on the shoulder. If there is no shoulder, or the shoulder is too narrow, place at the end of the taper in lieu of the Type III barricade assembly.
- ② The Lane Ends sign and/or LANE CLOSED sign may be omitted when the posted speed limit is 40 mph or less.
3. Use the appropriate traffic control devices for a right lane closure.



**LANE CLOSURE
MULTI-LANE DIVIDED ROAD**

3 DAYS or LESS

LAYOUT 57



gatewayfiber

Specs Data Sheet Packet



Engineered by
Utili**Source**

SPECIFICATIONS/DATA

30" x 48" PG Style Hand Hole Assembly 30" x 48" PD Style Hand Hole Assembly

Covers (Blank unless logo is specified)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD	ANSI TIER
W/2 Bolts	PG3048CA00	159 (72.1 kg)	8,000 / 12,000	8
Gasketed w/2 Bolts	PG3048CG00	159 (72.1 kg)	8,000 / 12,000	8
No Bolts	PG3048WA00	159 (72.1 kg)	8,000 / 12,000	8
Heavy Duty w/2 Bolts	PG3048HA00	206 (93.4 kg)	15,000 / 22,500	15
Gasketed Heavy Duty w/2 Bolts	PG3048HG00	206 (93.4 kg)	15,000 / 22,500	15
Extra Heavy Duty w/2 Bolts	PG3048HH00	220 (99.7 kg)	22,500 / 33,750	15*
2-piece w/2 Bolts	PG3048CS00	181 (82.1 kg)	8,000 / 12,000	8
Heavy Duty 2-piece w/2 Bolts	PG3048HS00	206 (93.4 kg)	15,000 / 22,500	15
2-piece Overlapping	PG3048CC00	227 (103.0 kg)	8,000 / 12,000	8
Heavy Duty 2-piece Overlapping	PG3048HC00	234 (106.1 kg)	15,000 / 22,500	15

- Covers with meter lids available upon request.
- Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.
- * Loadings for HH covers comply with all test provisions of ANSI/SCTE 77 except that the vertical design load is 22,500 lbs. with a test load of 33,750 lbs. over a 10" x 20" plate.

PG Boxes (Stackable with self-aligning, replaceable EZ-Nut) *24" & 36" deep boxes must be used as bottom of any stack

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION A	DIMENSION B	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom	PG3048BA18	185 (83.9 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048BA24	236 (107.0 kg)	24" (609 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048BA36	343 (155.6 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	15**
Open Bottom w/ Gasket	PG3048BG18	185 (83.9 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048BG24	236 (107.0 kg)	24" (609 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048BG36	343 (155.6 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	15**
Open Bottom w/ 2 Mouseholes	PG3048BB18	185 (83.9 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048BB24	236 (107.0 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048BB36 †	343 (155.6 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	15**
Solid Bottom	PG3048DA18	220 (99.8 kg)	18 1/2" (470 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048DA24	287 (130.2 kg)	24 1/2" (622 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048DA36	394 (178.7 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	15**
Solid Bottom w/ Gasket	PG3048DG18	220 (99.8 kg)	18 1/2" (470 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048DG24	287 (130.2 kg)	24 1/2" (622 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048DG36	394 (178.7 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	15**

† PG3048BB36 is not UL Listed.

** Loadings comply with ANSI/SCTE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

PD Boxes (Nestable)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION C	DIMENSION D	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom	PD3048BA24	286 (130 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PD3048BA48	614 (278.5 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	15**
Open Bottom w/ Gasket	PD3048BG24	286 (130 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PD3048BG48	614 (278.5 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	15**
Open Bottom w/ 2 Mouseholes	PD3048BB24	286 (130 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PD3048BB48	614 (278.5 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	15**

** Loadings comply with ANSI/SCTE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

Top Extension (For use on top of PG and PD boxes of any depth)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom*	PG3048EA11	100 (45.4 kg)	22,500 / 33,750	15**

* In addition, this extension can be used as a bottom extension for 18" deep PG boxes.

** Loadings comply with ANSI/SCTE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

Bottom Extensions (For use under 18" deep PG style box only, one per box)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION E	DIMENSION F	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom	PG3048EA08	102 (46.3 kg)	8 3/4" (222 mm)	1" (25 mm)	22,500 / 33,750	15*
Solid Bottom	PG3048RA08	151 (58.0 kg)	9 1/4" (235 mm)	N/A	22,500 / 33,750	15*

* Loadings comply with ANSI/SCTE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

Dimensions & weights in parentheses are metric equivalent.





Box, Polymer Concrete, 48"x48"x36" Hand Hole

By QUAZITE
Catalog # [PG4848BA36](#)

Quazite® ANSI/SCTE 77 certified enclosure boxes, feature a high quality polymer concrete construction in a multitude of sizes and depths allowing customization for any application.

Features

- Stronger and lighter weight than regular concrete
- Cost effective
- Durable and long lasting
- Fire and chemical resistant
- Standard sizes are UL certified
- ANSI/SCTE77 certified
- Multiple styles and sizes available

General

Catalog Number	PG4848BA36
EU RoHS Indicator	No
Insulated?	No
Load Rating (ANSI Tier)	T22
Material	Polymer Concrete
Type	Below Ground Boxes
UPC	662037117894

Dimensions



*Representative Image

Dimensions	48 in x 48 in x 36 in
Height	36 in
Length	48 in
Weight	629 lb
Width	48 in

Certifications And Compliance

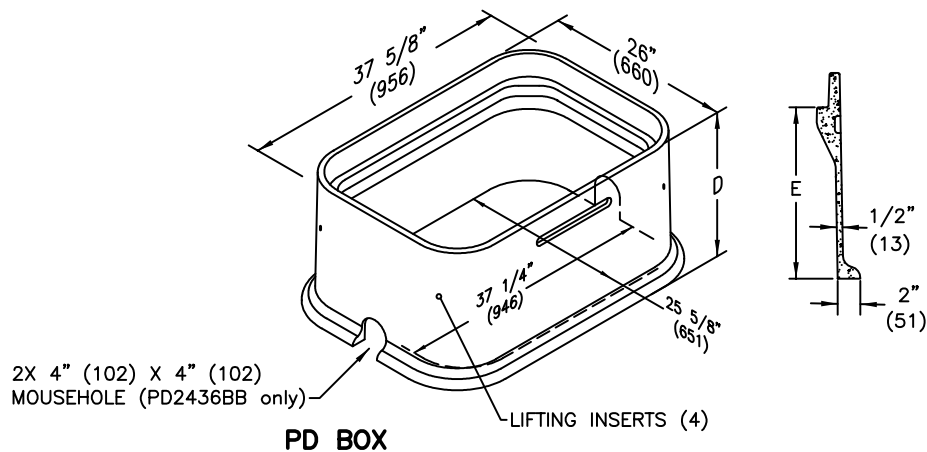
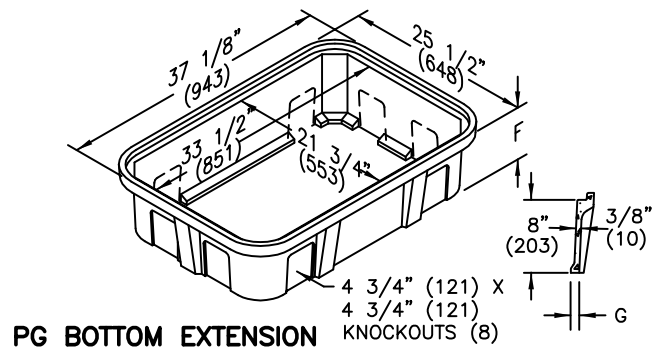
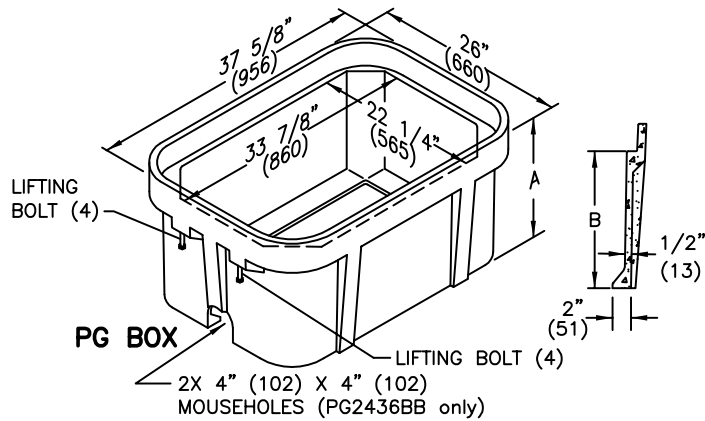
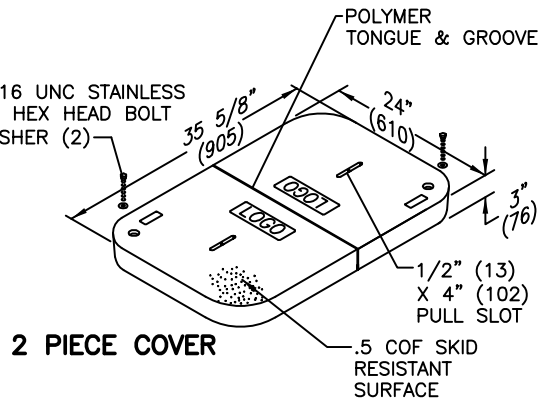
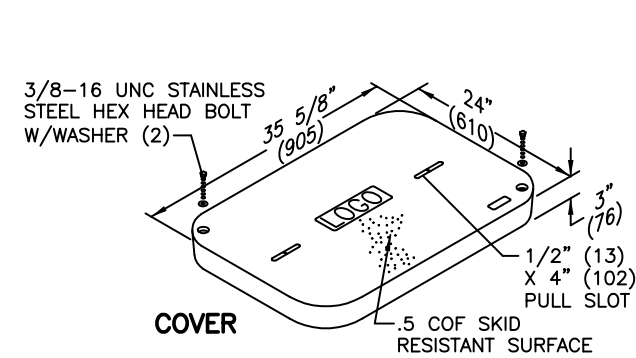
Buy America(n) Qualified	Buy American Act Compliant (All status valid till December 2024)
Buy American Compliant	Yes

Product Assets

- [Catalogs - Underground Enclosures](#)
- [Sales Drawings - Quazite Box](#)
- [Specifications - PG4848BA36](#)
- [Video - Hubbell Power Systems In Depth: ANSI vs AASHTO](#)
- [Video - PenCell® Enclosures](#)
- [Video - Hubbell Power Systems How to Install Large Enclosures](#)

Hand Hole SPECIFICATIONS/DATA

24" x 36" PG Style Hand Hole Assembly and 24" x 36" PD Style Assembly





24" x 36" PG Style Hand Hole Assembly and 24" x 36" PD Style Assembly

SPECIFICATIONS/DATA

Covers (Blank unless logo is specified)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD #	ANSI TIER*
W/2 Bolts	PG2436CA00	100 (45 kg)	8,000 / 12,000	8
Gasketed w/2 Bolts	PG2436CG00	100 (45 kg)	8,000 / 12,000	8
2-Piece w/2 Bolts	PG2436CS00	122 (55 kg)	8,000 / 12,000	8
No Bolts	PG2436WA00	100 (45 kg)	8,000 / 12,000	8
Heavy Duty w/2 Bolts	PG2436HA00	115 (52 kg)	15,000 / 22,500	15
Gasketed Heavy Duty w/2 Bolts	PG2436HG00	115 (52 kg)	15,000 / 22,500	15
Heavy Duty 2-Piece w/2 Bolts	PG2436HS00	122 (55 kg)	15,000 / 22,500	15
Heavy Duty w/2 Bolts	PG2436HH00	122 (55 kg)	22,500 / 33,750	22

- Covers with meter lids available upon request. See page 12 or page 56 for meter lid cover load rating explanation.
- Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

PG Boxes (Stackable with self-aligning, replaceable EZ Nut) **24" - 42" Deep boxes must be used as bottom of any stack.)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION A	DIMENSION B	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PG2436BA18	141 (64 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PG2436BA24	180 (81.6 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	22
	PG2436BA30	196 (88.9 kg)	30" (762 mm)	27" (686 mm)	22,500 / 33,750	22
	PG2436BA36	254 (115 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	22
	PG2436BA42	293 (133 kg)	42" (1067 mm)	39" (991 mm)	22,500 / 33,750	22
Open Bottom w/2 Mouseholes	PG2436BB18	139 (63.1 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PG2436BB24	178 (80.7 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	22
	PG2436BB30	194 (88.0 kg)	30" (762 mm)	27" (686 mm)	22,500 / 33,750	22
	PG2436BB36	252 (114 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	22
	PG2436BB42	293 (133 kg)	42" (1067 mm)	39" (991 mm)	22,500 / 33,750	22
Solid Bottom	PG2436DA18	171 (78 kg)	18 1/2" (470 mm)	15" (381 mm)	22,500 / 33,750	22
	PG2436DA24	228 (103.4 kg)	24 1/2" (622 mm)	21" (533 mm)	22,500 / 33,750	22
	PG2436DA30	238 (107.0 kg)	30 1/2" (775 mm)	27" (686 mm)	22,500 / 33,750	22
	PG2436DA36	282 (128 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	22
	PG2436DA42	321 (146 kg)	42 1/2" (1080 mm)	39" (991 mm)	22,500 / 33,750	22

PD Boxes

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION D	DIMENSION E	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PD2436BA18	159 (72 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PD2436BA26	199 (90 kg)	26" (660 mm)	23" (584 mm)	22,500 / 33,750	22
	PD2436BA48	313 (142 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	22
Open Bottom w/2 Mouseholes	PD2436BB18	157 (71 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PD2436BB26	197 (89 kg)	26" (660 mm)	23" (584 mm)	22,500 / 33,750	22
	PD2436BB48	311 (141 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	22
Open Bottom w/Gasket	PD2436BG18	159 (72 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PD2436BG26	199 (90 kg)	26" (660 mm)	23" (584 mm)	22,500 / 33,750	22
	PD2436BG48	313 (142 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	22

Extensions (For use under 18" deep box only, one per box.)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION F	DIMENSION G	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PG2436EA08	81 (37 kg)	8 3/4" (222 mm)	1" (25 mm)	22,500 / 33,750	22
Solid Bottom	PG2436RA08	95 (43.1 kg)	9 1/4" (235 mm)	N/A	22,500 / 33,750	22

Dimensions & weights in parentheses are metric equivalent.

* Loadings comply with ANSI/SCTE 77 (see page 9).

1419

CARSON® Spec Grade Hand Hole

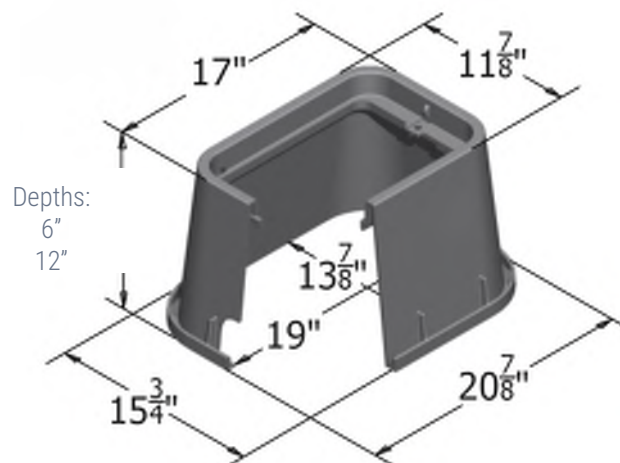
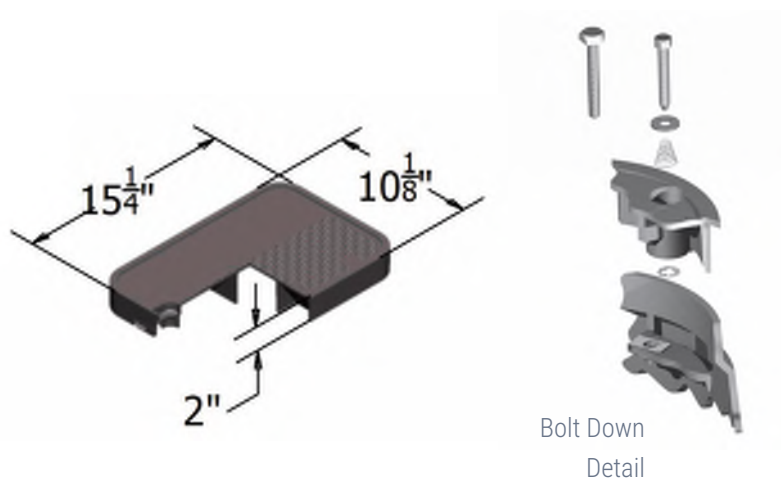
COVER

Style:	Flush
Material:	HDPE
Model:	14" x 19"
Weight:	3 lbs
Std. Fasteners:	3/8" Hex Bolt
Options:	Logos and Special Markings
Surface:	Skid Resistant & Marked*
Performance:	Pedestrian, ASTM C857, WUC 3.6

Cover comes standard with permanent markings for manufacturer and model size.

BODY

Material:	HDPE
Model:	14" x 19"
Weight:	6" Depth: 5 lbs 12" Depth: 7 lbs
Wall Type:	Flared
Mouseholes:	2
Performance:	Pedestrian, ASTM C857, WUC 3.6

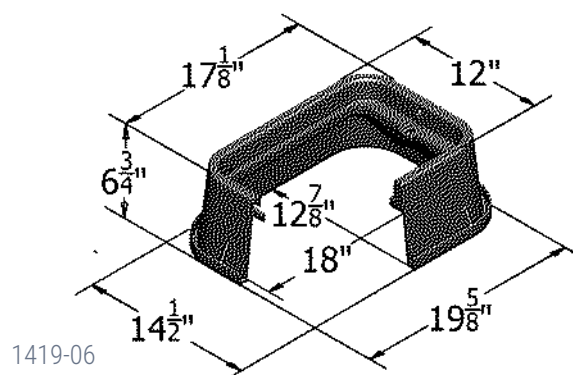


LOAD RATING / NOTES



LIGHT DUTY
PEDESTRIAN / GREENBELT

For use in non-vehicular traffic situations only.
Weights and dimensions may vary slightly.
Actual load rating is determined by the box
and cover combination.



1419

CARSON® Spec Grade Hand Hole

COVER OPTIONS

HDPE, T-Cover Solid
 HDPE, T-Cover with Plastic Reader Door
 HDPE, T-Cover with Cast Iron Reader Door
 HDPE, T-Cover Hinged
 HDPE, Flush Solid
 HDPE, Flush with Plastic Reader Door
 HDPE, Flush with Cast Iron Reader Door
 HDPE, Flush Hinged

COLOR OPTIONS

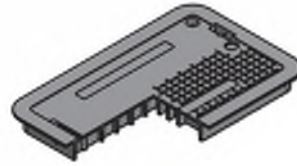
Cover: Black, Green, Gray, Tan, Purple
 Body: Black, Green, Gray, Tan, Purple
 Extension: Black, Green, Gray, Tan, Purple

FASTENER OPTIONS

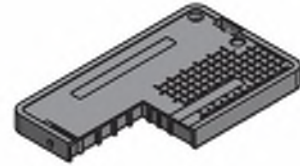
Hex Head Bolt (A)
 Penta Head Bolt (B)
 Penta Head Coil Thread Bolt (B)
 Oldcastle Vandal Resistant Bolt (C)
 Captive Bolt Retainer
 Drop-N-Lock™

ADD ON OPTIONS

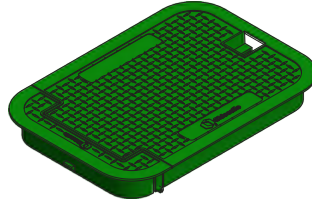
AMR Friendly Solutions
 Touch Read Hole
 EMS Marker
 Racking Provision



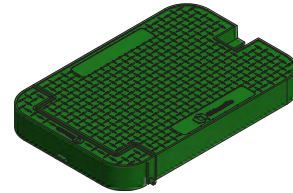
T-Cover Solid



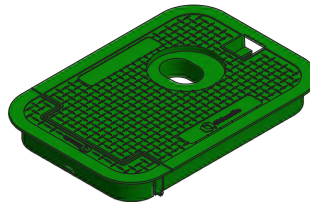
Flush Solid



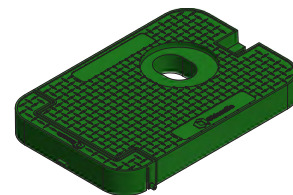
T-Cover Hinged



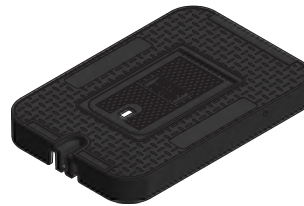
Flush Hinged



T-Cover Hinged
with AMR Recess



Flush Hinged
with AMR Recess



Reader Door Detail



Standard Thread



A



B



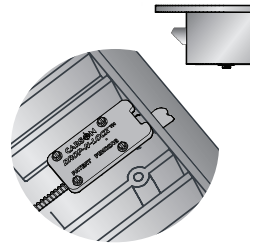
C



Coil Thread



Bolt Retainer
(for standard thread)



Drop-N-Lock
(T-Cover only)



EMS Marker

WARNING: Cancer - www.P65Warnings.ca.gov

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Revision 04/05/21
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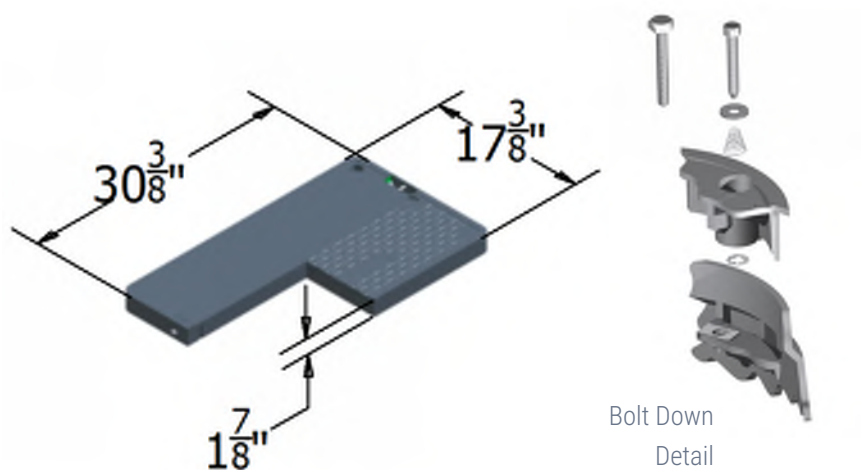
1730-24

CARSON® Spec Grade Hand Hole

COVER

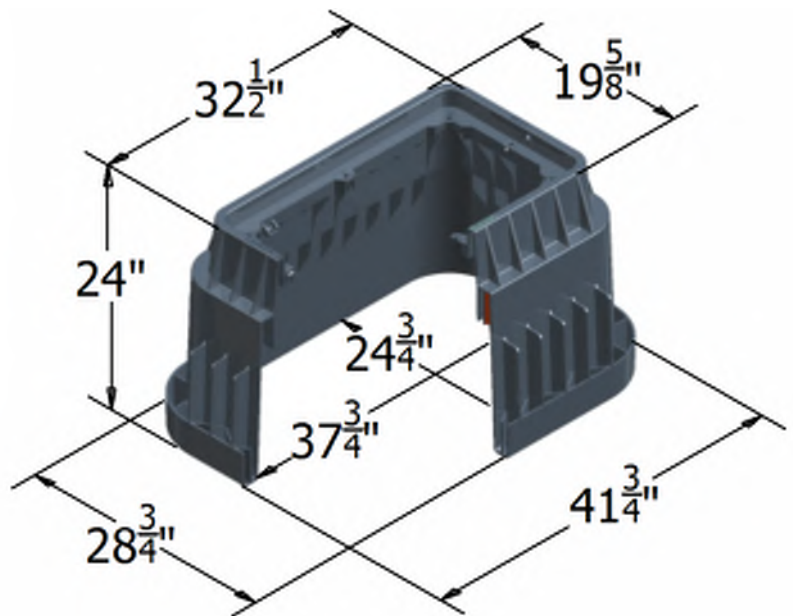
Style:	Flush
Material:	HDPE
Model:	17" x 30"
Weight:	10 lbs
Std. Fasteners:	3/8" Hex Bolt
Options:	Logos and Special Markings
Surface:	Skid Resistant & Marked
Performance:	Pedestrian, ASTM C857, WUC 3.6

Cover comes standard with permanent markings for manufacturer and model size.



BODY

Material:	HDPE
Model:	17" x 30"
Weight:	24" Depth: 52 lbs
Wall Type:	Flared
Mouseholes:	0
Performance:	Pedestrian, ASTM C857, WUC 3.6



LOAD RATING / NOTES



LIGHT DUTY
PEDESTRIAN / GREENBELT

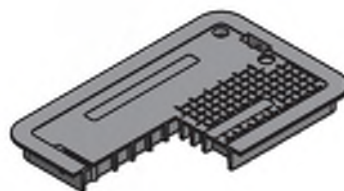
For use in non-vehicular traffic situations only.
Weights and dimensions may vary slightly.
Actual load rating is determined by the box
and cover combination.

1730-24

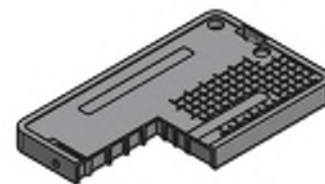
CARSON® Spec Grade Hand Hole

COVER OPTIONS

HDPE, T-Cover Solid
 HDPE, Flush Solid
 HDPE, Flush with Plastic Reader Door
 HDPE, Flush with Cast Iron Reader Door



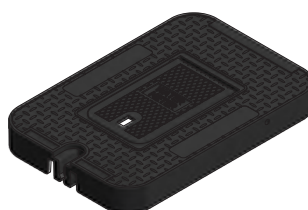
T-Cover Solid



Flush Solid

COLOR OPTIONS

Cover: Black, Green, Gray, Tan, Purple
 Body: Black, Green, Gray, Tan, Purple



Reader Door Detail

FASTENER OPTIONS

Hex Head Bolt (A)
 Penta Head Bolt (B)
 Penta Head Coil Thread Bolt (B)
 Oldcastle Vandal Resistant Bolt (C)
 Captive Bolt Retainer
 Drop-N-Lock™



Standard Thread



A



B



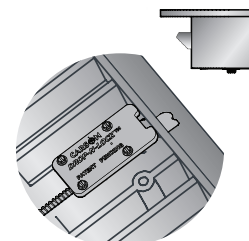
C



Coil Thread



Bolt Retainer
(for standard thread)



Drop-N-Lock
(T-Cover only)



L Bolt Detail



EMS Marker

ADD ON OPTIONS

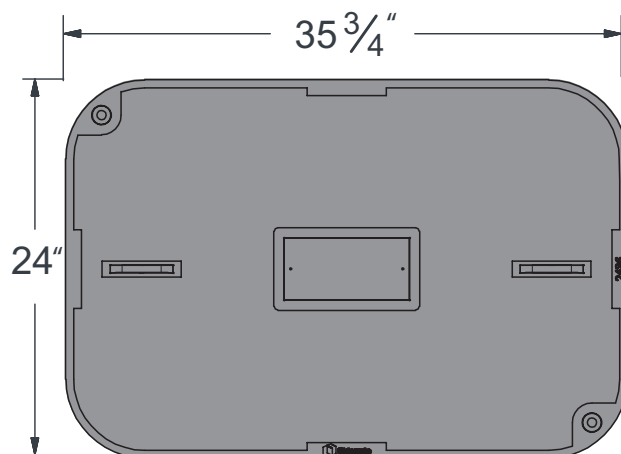
AMR Friendly Solutions
 Touch Read Hole
 EMS Marker
 Racking Provision

WARNING: Cancer - www.P65Warnings.ca.gov

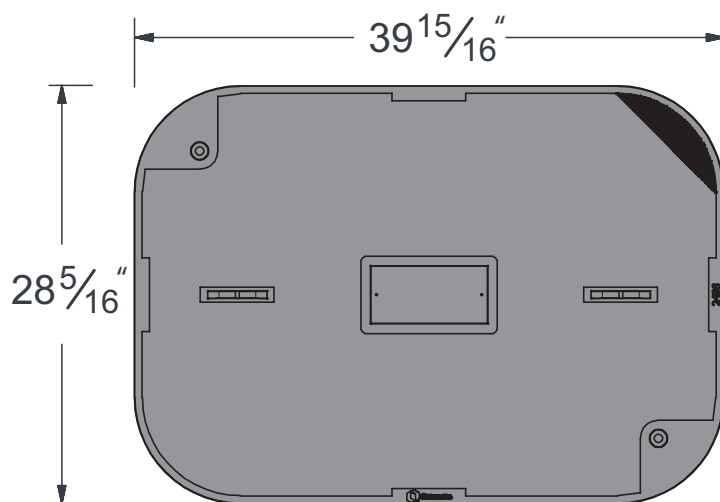
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Revision 11/30/18
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2436 Cover



Flush



T-Cover

Material & Style

Composite
 Flush Solid
 T-Cover Solid
 Non-skid texture

Hardware

1/2-6 Stainless Steel Hex
 Head Bolt, Washer and
 Push Nut

Performance & Weight

ANSI/SCTE-77, Tier 22

Flush Cover: 40 lbs
 T-Cover: 46 lbs

Options

Hex Head Coil Thread Bolt
 Penta Head Coil Thread
 Bolt
 Logos and Special
 Markings
 Marking Plate
 EMS Marker

Cover comes standard with permanent markings for manufacturer, load rating, model size and manufacturing location.

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Revision 04/2023



Heavy Duty
 ANSI/SCTE TIER 22

For use in non-vehicular traffic situations only. Weights and dimensions may vary slightly. Actual load rating is determined by the box and cover combination.

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910

CARSON® Spec Grade Flower Pot

COVER

Style:	T-Cover
Material:	HDPE
Model:	10" Dia.
Weight:	1 lbs
Std. Fasteners:	3/8" Hex Bolt
Options:	Logos and Special Markings
Surface:	Skid Resistant & Marked
Performance:	Pedestrian, ASTM C857, WUC 3.6

Cover comes standard with permanent markings for manufacturer and model size.

BODY

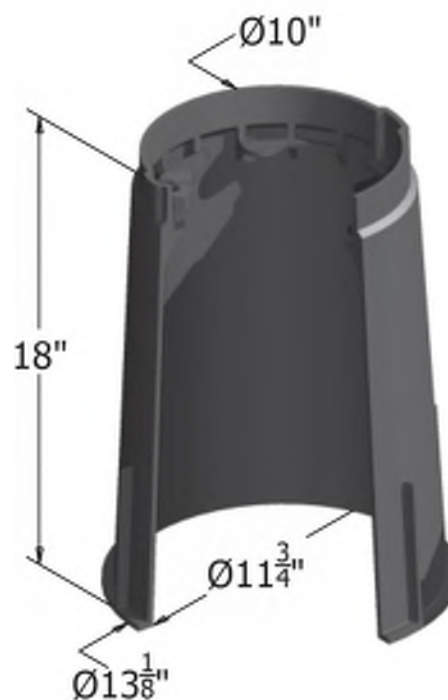
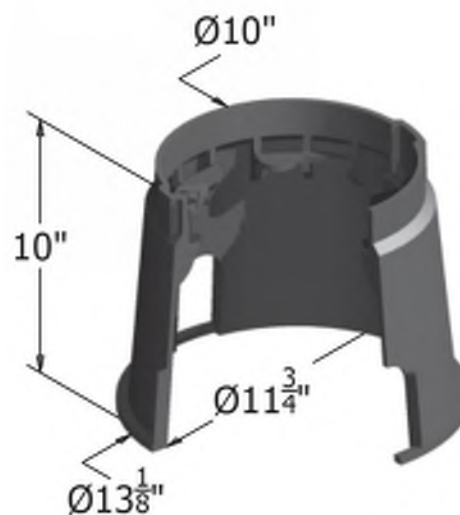
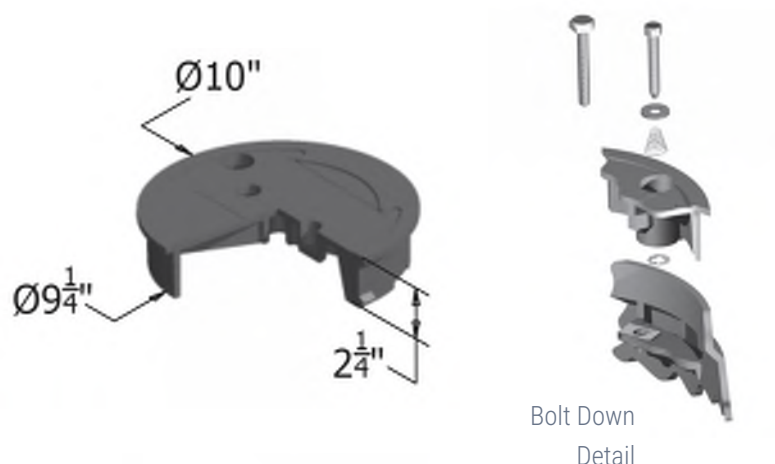
Material:	HDPE
Model:	10" Dia.
Weight:	10" Depth: 3 lbs 18" Depth: 5 lbs
Wall Type:	Flared
Mouseholes:	0 - 2
Performance:	Pedestrian, ASTM C857, WUC 3.6

LOAD RATING / NOTES



LIGHT DUTY
PEDESTRIAN / GREENBELT

For use in non-vehicular traffic situations only.
Weights and dimensions may vary slightly.
Actual load rating is determined by the box
and cover combination.



910

CARSON® *Spec Grade* Flower Pot

COVER OPTIONS

HDPE, T-Cover Solid

HDPE, Flush Solid



T-Cover Solid



Flush Solid

COLOR OPTIONS

Cover: Black, Green, Gray, Tan, Purple

Body: Black, Green, Gray, Tan, Purple

FASTENER OPTIONS

Hex Head Bolt (A)

Penta Head Bolt (B)

Penta Head Coil Thread Bolt (B)

Oldcastle Vandal Resistant Bolt (C)

Captive Bolt Retainer



Standard Thread



A



B



C



Coil Thread



Bolt Retainer
(for standard thread)

ADD ON OPTIONS

Metal Locating Plate

EMS Marker



EMS Marker

 **WARNING:** Cancer - www.P65Warnings.ca.gov

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Revision 11/30/18
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FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Application

Clearfield's FieldSmart Fiber Distribution Hub (FDH) PON Cabinet family provides an interconnect environment from the feeder network through the optical passive splitter to the distribution network. Designed for the outside plant environment, these cabinets provide a single distribution point to deploy FTTH in urban or dense neighborhoods. Providing distribution scalability from 12 to 864 ports, network architecture can be maximized for both existing subscribers as well as future growth opportunities.

Description

The FieldSmart FDH PON Cabinet line is the complete solution for managing 12 to 864 port distribution fibers for an outside plant FTTx PON application. Integrated into the cabinet design is the 12 port Clearview® Cassette, providing multiple cabinet configurations and allowing the service provider to align the investment in capital equipment to the turn-up of revenue-generating circuits.

The FieldSmart FDH PON Cabinet family incorporates a new pyramid shaped roof/solar shield and a reusable/replacable venting feature, providing additional protection for deployed fiber. Mounting options include pad, pole or vault mounted with either a 4" or 12" riser. An optional exterior ground box is also available.



Features and Benefits

Integrity

- Terminations are designed, tested and certified to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Fiber cable certified to Telcordia GR-20 and GR-409. Designed, tested and certified to Telcordia GR-3125
- Constructed with 0.090 aluminum
- Powder coated for additional protection
- 300 series stainless steel fasteners used on all cabinets
- Optional 4" and 12" risers, can be stacked to raise cabinet if required

Protection

- 12-fiber Clearview Cassette protects fiber from environmental and human factors
- Rugged cable clamps protect the OSP cable breakouts from twisting and pistoning
- Patch only buffer tubes are fully protected with ruggedized, bend-limiting tubing
- Snake skin sleeving provides additional buffer tube slack storage protection and manageability for patch and splice (Clearfield's in-cassette splicing solution) configurations
- WaveSmart Ruggedized Splitters are built with ruggedized jacketing and bend-insensitive fiber for all input and output legs
- Pyramid roof and venting provide additional protection in all environments

Access

- Clearview Cassette allows for quick visual troubleshooting without opening cassette
- Front access to pre-terminated assemblies with Clearview removable adapter plate
- Two captive fasteners for quick removal of individual cassettes for trouble shooting, splicing or replacing
- Front and rear access doors
- Bottom exit/entrance for fiber cables

Investment

- Fiber is deployed in increments of 12, providing the users the ability to scale from 12 ports to full capacity, aligning capital investment with network layout or subscriber revenue
- Express ports allow for extensions or parallel networks through the cabinet
- Patch and splice configurations eliminate costs associated with additional hand-holes and splice cases

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Technical Specifications

FieldSmart FDH	144 Port	288 Port	432 Port	576 Port	864 Port
Cabinet Dimensions <i>(Without Riser)</i>	22.29" H x 16.96" W x 18.51" D (566.16 mm x 430.78mm x 470.15mm)	35.11" H x 18.5" W x 16.98" D (891.79 mm x 469.90 mm x 431.29 mm)	37.83" H x 21.25" W x 18.44" D (960.88 mm x 539.75 mm x 468.38 mm)	35.11" H x 33.20" W x 18.47" D (891.79 mm x 891.79 mm x 469.14 mm)	37.83" H x 42.05" W x 18.47" D (960.88 mm x 1068.07 mm x 469.14 mm)
Weight <i>(Without Riser)</i>	40 lbs. (18.14 kg)	54 lbs (24.49 kg)	66 lbs (29.94 kg)	86 lbs (39.01 kg)	95 lbs (43.09 kg)
Port Density	144	288	432	576	864
Max. Feeder/Express Ports	24	48	48	96	96
Cables Entrances	6	6	6	12	12
Mounting Options <i>(Hoist kits included with each cabinet)</i>	Vault mount; pole mount; pad mount	Vault mount; pole mount; pad mount	Vault mount; pole mount; pad mount	Vault mount; pad mount	Vault mount; pad mount
Standard Riser Base	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)
Optional Riser Base	12"; 12 lbs (304.80 mm; 5.44 kg)	12"; 12 lbs (304.80 mm; 5.44 kg)	12"; 16 lbs (304.80 mm; 7.26 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)
Splitters Slots	4	9	14	18	28
Splitter Staging Capacity	72			144	
Cassette Types Supported	Clearview® Blue				
Connector Types	SC/UPC, SC/APC, LC/UPC, LC/APC				
Cable Types	Indoor/Outdoor, Outdoor, Outdoor Armored, Ribbon and Loose Tube				
Door Locks	2 per door				
Venting	Built-in Replaceable Roof Vent				
Splice Capacity	12 splices in each Clearview Cassette				
Material	0.125 (3.175 mm) aluminum with almond powder coating	0.90 (2.286 mm) aluminum with almond powder coating			

Accessories

- Risers: 4" and 12" (101.60 mm or 304.80 mm)
- Exterior Ground Box - Available with 12" Riser Only, Located in Riser
- WaveSmart Ruggedized Splitter
- Mid-Span/Feed-Through Plate Kit
- Pole Mount Kits
- GoreTex Filter Replacement - 020800



GoreTex Filter - 020800

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 144 Port

R - C R - - - - - 0 - - - - - XXXM or XXXF

1 2 3 4 5 6 7 8 9 10

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)
C = No Riser With Pole Mount Kit
D = 4" (101.60 mm) Riser with Pole Mount Kit

2 Select Feeder

1 = 12
2 = 24
Z = No Feeder

3 Select Distribution Port Count

XXX = Port Count in Increments of 12
(Max. 144)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 144 Fiber OSP Cables

0 = 0
1 = 1

8 Select Qty. of 96 Fiber OSP Cables

0 = 0
1 = 1

9 Select Qty. of 72 Fiber OSP Cables

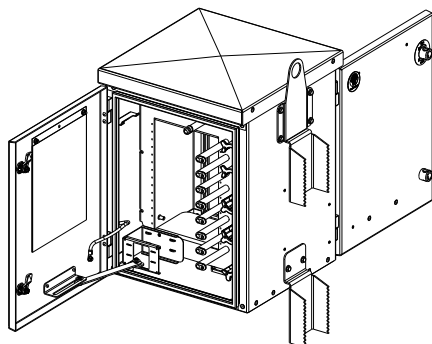
0 = 0
1 = 1
2 = 2

10 Select Ground Box/Extras

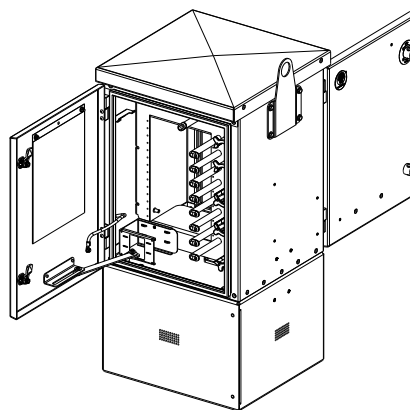
B = Clearview Blue Cassettes
M = Ground Box with 12" Riser; Clearview Blue Cassettes

XXXM or XXXF

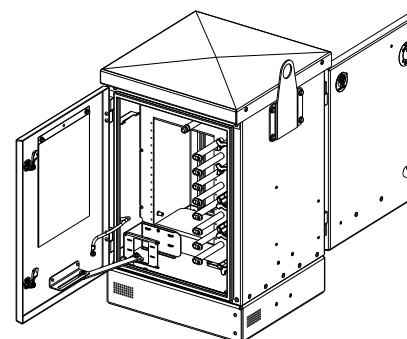
XXXM = Length in meters
XXXF = Length in feet



144 with Pole Mount Brackets



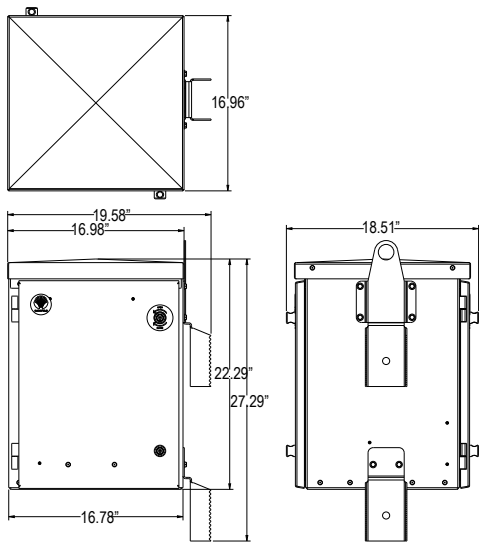
144 with 12" (304.80 mm) Riser



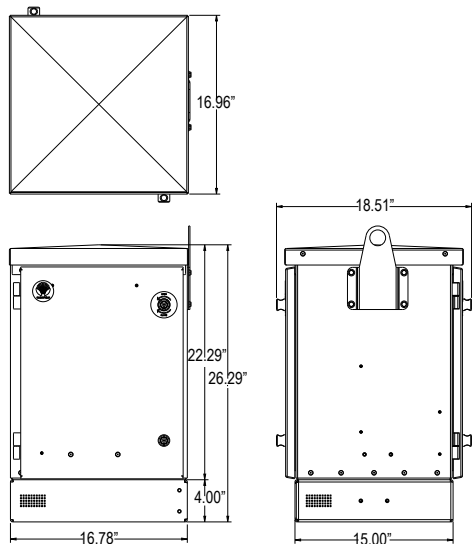
144 with 4" (101.60 mm) Riser

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



144 with Pole Mount Kit - Dimensions



144 with 4" (101.60 mm) Riser - Dimensions

Pre-Configured Part Numbers

Vault Options

Part Number	Description
V6A-CZP	Vault, below grade Pencil, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencil, 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencil, 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm), split PC lid, hex bolts, gray, with cut out for FieldSmart Cabinets, straight wall
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
FMA-H3Z-BC-SUB	Pole Mount Kit, for FieldSmart FDH cabinets, 144

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet

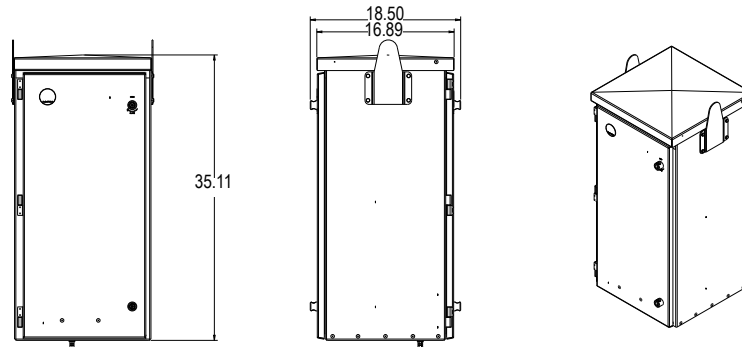


Configured Part Numbers - 288 Port

R - D - - - - - XXXM or XXXF										
1	2	3	4	5	6	7	8	9	10	11
1 Select Cabinet Riser/Mounting A = 4" (101.60 mm) B = 12" (304.80 mm) D = Pole Mount with 4" Riser	2 Select Feeder 1 = 12 2 = 24 3 = 36 4 = 48 Z = No Feeder	3 Select Distribution Port Count XXX = Port Counts in Increments of 12 (Max. 288) ZZZ = No Distribution	4 Select Connector A = SC/UPC C = SC/APC F = LC/UPC DX H = LC/APC DX	5 Select Mode / Type 1 = Singlemode – non-ribbon 2 = Singlemode – ribbon	6 Select Jacket Construction B = OSP Riser E = OSP, Non-Rated F = Patch and Splice M = OSP Armored	7 Select Qty. of 288/216 Fiber OSP Cables 0 = 0 1 = 1-288	8 Select Qty. of 144 Fiber OSP Cables 0 = 0 1 = 1 2 = 2	9 Select Qty. of 96 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3	10 Select Qty. of 72 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3 4 = 4	11 Select Ground Box/Extras B = Clearview Blue Cassettes M = Ground Box With 12" Riser Clearview Blue Cassettes

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet



Vault Options

288 Port Cabinet

Part Number	Description
V6A-CZP	Vault, below grade Pencil, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencil, 24" x 36" x 36", split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencil, 24" x 36" x 36", split PC lid, hex bolts, gray, with cut out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, green, with knock out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
FMA-H3Z-SUB	Pole Mount Kit for FieldSmart cabinet

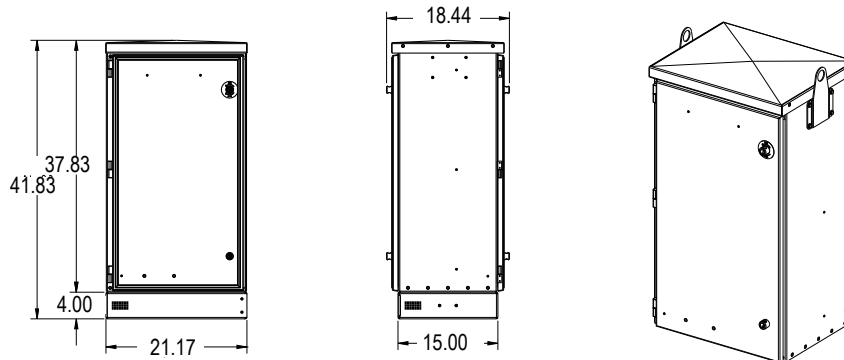
FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 432 Port

R - F											XXXM or XXXF	
1	2	3	4	5	6	7	8	9	10	11		
1 Select Cabinet Riser/Mounting A = 4" (101.60 mm) B = 12" (304.80 mm) D = Pole Mount with 4" Riser	2 Select Feeder 1 = 12 2 = 24 3 = 36 4 = 48 Z = No Feeder	3 Select Distribution Port Count XXX = Port Count in Increments of 12 (Max. 432) ZZZ = No Distribution	4 Select Connector A = SC/UPC C = SC/APC F = LC/UPC DX H = LC/APC DX	5 Select Mode / Type 1 = Singlemode – non-ribbon 2 = Singlemode – ribbon	6 Select Jacket Construction B = OSP Riser E = OSP, Non-rated F = Patch and Splice M = OSP Armored	7 Select Qty. of 288/216 Fiber OSP Cables 0 = 0 1 = 1-288 A = 1-216 B = 2-216	8 Select Qty. of 144 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3	9 Select Qty. of 96 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3 4 = 4	10 Select Qty. of 72 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3 4 = 4 5 = 5	11 Select Ground Box/Extras B = Clearview Blue Cassettes M = Ground Box With 12" Riser Clearview Blue Cassettes	XXXM or XXXF XXXM = Length in meters XXXF = Length in feet	



Vault Options

432 Port Cabinet

Part Number	Description
V6A-CZP	Vault, below grade Pencil, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencil, 24" x 36" x 36", split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencil, 24" x 36" x 36", split PC lid, hex bolts, gray, with cut out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit -ordered separately
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, green, with knock out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
FMA-H3Z-SUB	Pole Mount Kit for FieldSmart cabinet

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 576 Port

R - G - - - - - XXXM or XXXF

1 2 3 4 5 6 7 8 9 10 11

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)

2 Select Feeder

1 = 12 6 = 72
2 = 24 7 = 84
3 = 36 8 = 96
4 = 48 Z = No Feeder
5 = 60

3 Select Distribution Port Count

XXX = Port Count in Increments of 12
(Max. 576)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 288/216 Fiber OSP Cables

0 = 0 B = 2-216
1 = 1-288 E = 1-288; 1-216
2 = 2-288 F = 1-288; 2-216
A = 1-216 G = 2-288; 1-216

8 Select Qty. of 144 Fiber OSP Cables

0 = 0 3 = 3
1 = 1 4 = 4
2 = 2

9 Select Qty. of 96 Fiber OSP Cables

0 = 0 4 = 4
1 = 1 5 = 5
2 = 2 6 = 6
3 = 3

10 Select Qty. of 72 Fiber OSP Cables

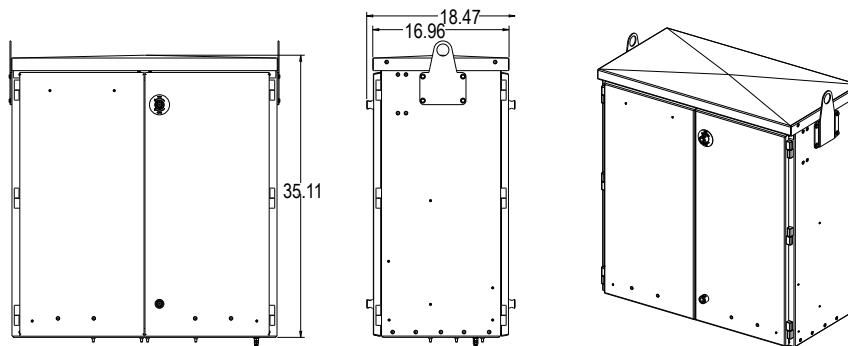
0 = 0 5 = 5
1 = 1 6 = 6
2 = 2 7 = 7
3 = 3 8 = 8
4 = 4

11 Select Ground Box/Extras

B = Clearview Blue Cassettes
M = Ground Box With 12" Riser Clearview
Blue Cassettes

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet



Vault Options

576 Port Cabinet

Part Number	Description
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, gray, with knock-out for FieldSmart Cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
V8A-CZP-F	Vault, Pencil 36" x 60" x 24" (914.40 mm x 1524.00 mm x 609.60 mm), complete split lid with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V8B-CZP-F	Vault, Pencil 36 x 60 x 36" (914.40 mm x 1524.00 mm x 914.40 mm), complete split lid, with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V9B-HZP-PC	Vault, Pencil 48 x 48 x 36" (1219.20 mm x 1219.20 mm x 914.40 mm), complete split polymer concrete lid, cut out for 864 cabinets, polymer concrete straight wall

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 864 Port

R - H - XXXM or XXXF

1234567891011

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)

2 Select Feeder

1 = 12 6 = 72
2 = 24 7 = 84
3 = 36 8 = 96
4 = 48 Z = No Feeder
5 = 60

3 Select Distribution Port Count

XXX = Port Count in Increments of 12
 (Max. 864)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 288/216 Fiber OSP Cables

0 = 0 C = 3-216
1 = 1-288 D = 4-216
2 = 2-288 E = 1-288; 1-216
3 = 3-288 F = 1-288; 2-216
A = 1-216 G = 2-288; 1-216
B = 2-216

8 Select Qty. of 144 Fiber OSP Cables

0 = 0 4 = 4
1 = 1 5 = 5
2 = 2 6 = 6
3 = 3

9 Select Qty. of 96 Fiber OSP Cables

0 = 0 5 = 5
1 = 1 6 = 6
2 = 2 7 = 7
3 = 3 8 = 8
4 = 4 9 = 9

10 Select Qty. of 72 Fiber OSP Cables

0 = 0 5 = 5
1 = 1 6 = 6
2 = 2 7 = 7
3 = 3 8 = 8
4 = 4 9 = 9

11 Select Ground Box/Extras

B = Clearview Blue Cassettes
M = Ground Box With 12" Riser Clearview
 Blue Cassettes

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet

864 Interior View with 4" Riser

864 Interior View with 12" Riser

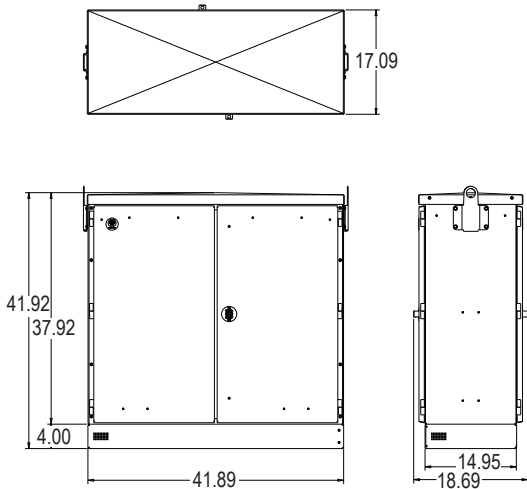
www.SeeClearfield.com

1-800-422-2537

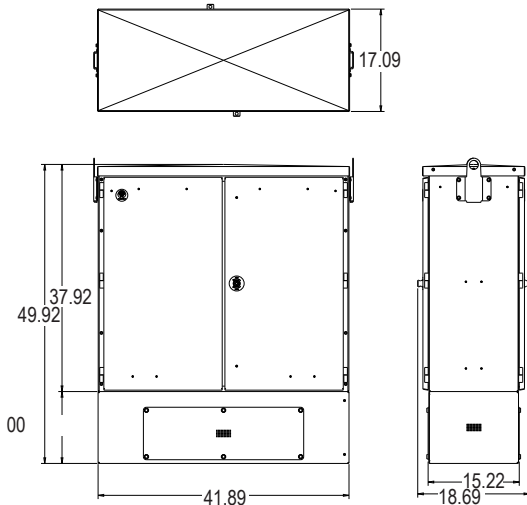
V12.22

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



864 with 4" (101.60 mm) Riser - Dimensions



864 with 4" (101.60 mm) Riser - Dimensions

Pre-Configured Part Numbers

Vault Options

Part Number	Description
V9B-HZP-PC	Vault, Pencil 48 x 48 x 36" (1219.20 mm x 1219.20 mm x 914.40 mm), complete split polymer concrete lid, cut out for 864 cabinets, polymer concrete straight wall



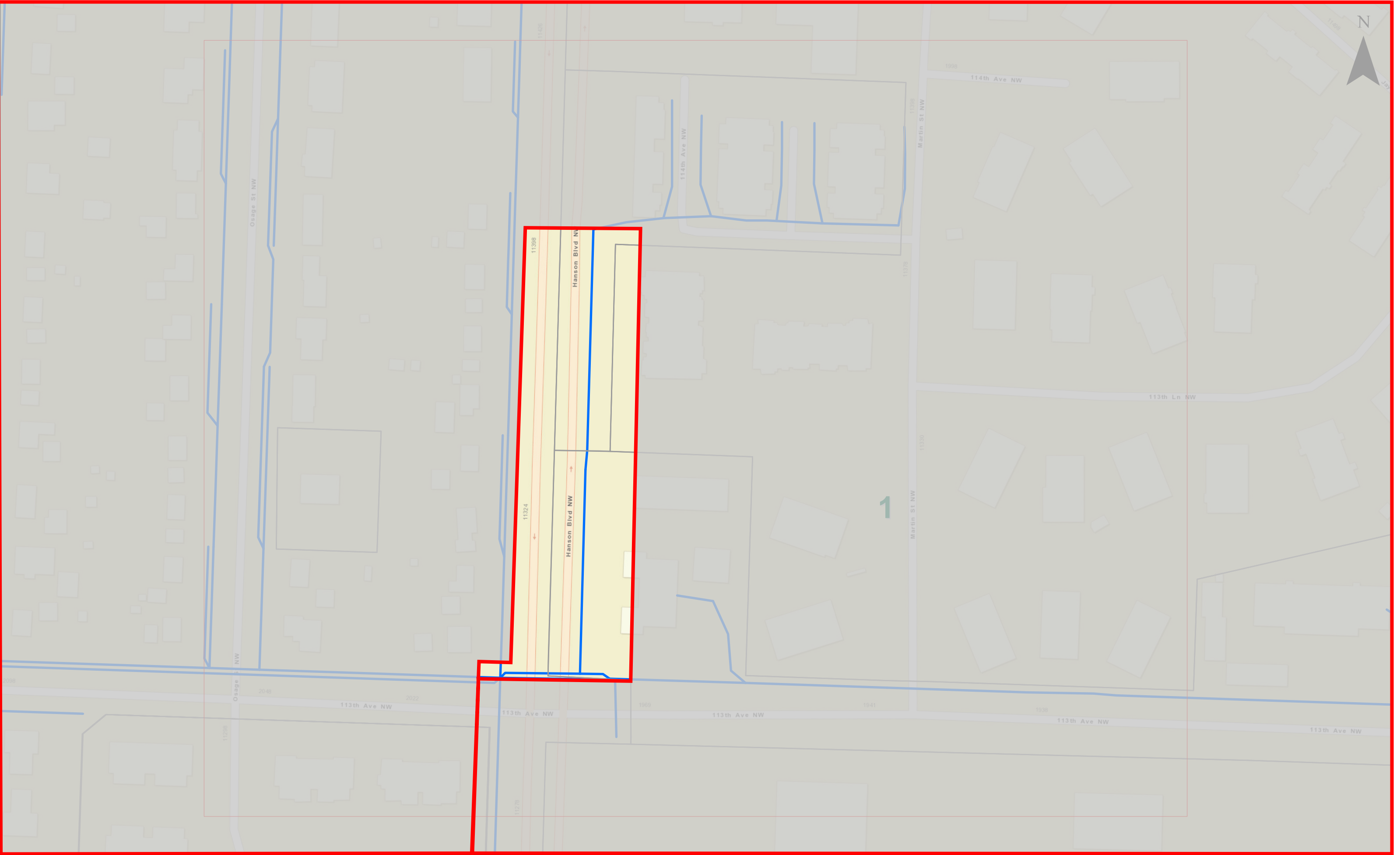
gatewayfiber

Fiberhood:Hanson Blvd

Revision 1 Permit Pack



Sheet Index
Hanson Blvd





Gateway Fiber

Sheet: 1 of 1

Anoka County, MN

Hanson Blvd

As Of: 10/9/2025

QAQC Assigned:

Legend

SplicePoint

Handhole

Structure

Virtual

Path Access

FlowerPot

HandHole (HH)

HH UHF(14x19x12)

HH UHF(24x36x24)

Path

Proposed, Reference Only Duct

Constructed, BM60(1)(1.25)

Constructed, BM60(2)(1.25)

Proposed, BM60(1)(1.25)

Anoka County, MN

Scale: 1:100

N

1

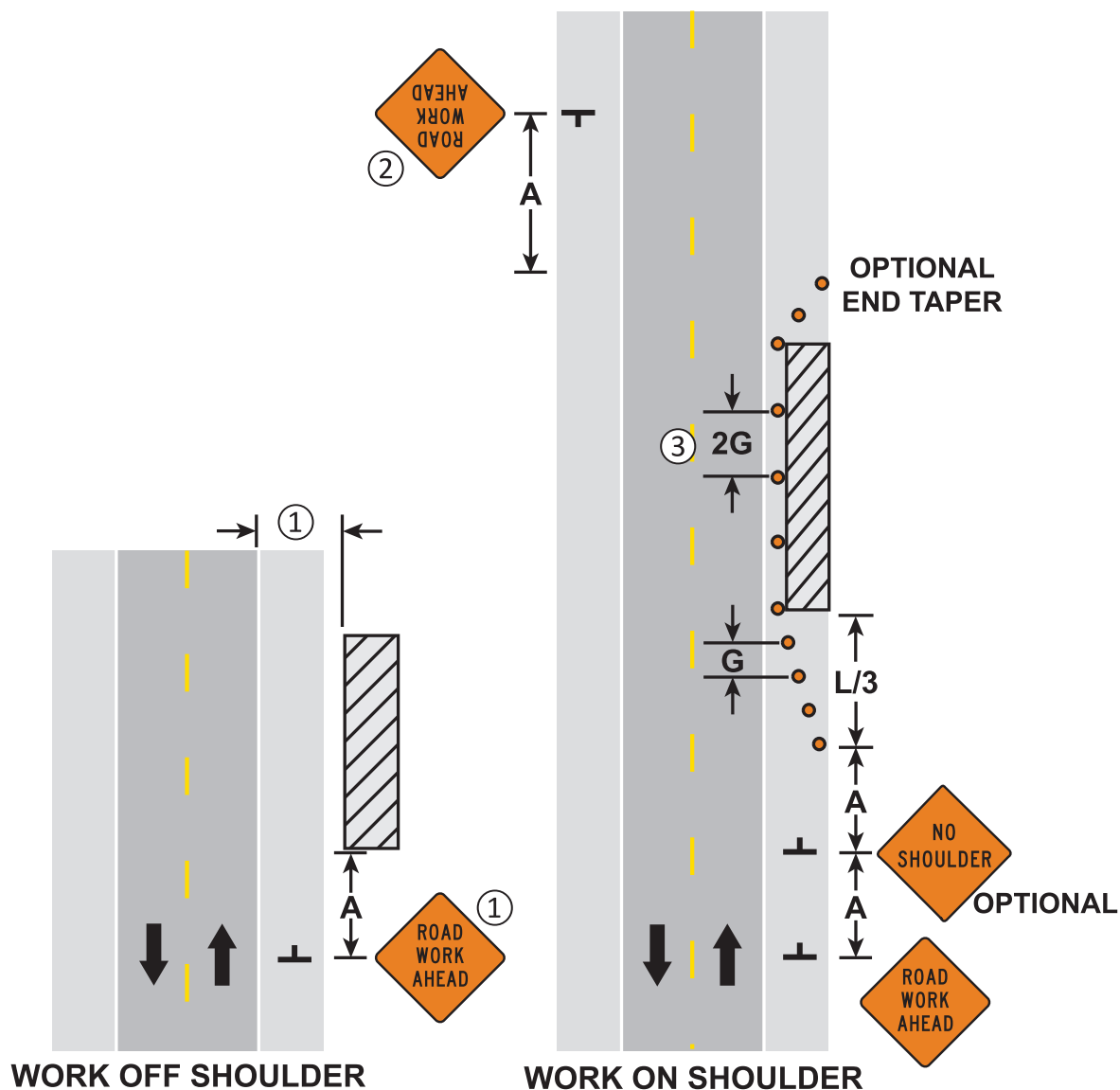
gatewayfiber

Engineered by

UtiliSource

NOTES:

- ① The ROAD WORK AHEAD sign may be omitted for short term daylight operations if a vehicle is displaying and operating a 360-degree flashing beacon and:
 - a. The distance from curb face to the work space is at least 2 feet, or
 - b. The distance from the edge of the roadway to the work space is at least 15 feet.
- ② This ROAD WORK AHEAD sign shall be installed on two-lane, two-way roads if traffic control devices are installed for a work space in the opposite shoulder.
- ③ If this layout is used to close a parking lane that is normally open to vehicle travel during the time of day the closure will be in effect, the lane shall be considered a traveled lane and not a parking lane. [Layout 42](#) shall be used to provide traffic control for the lane closure.
4. If this layout is used to close a parking lane, channelizer spacing may be reduced from 2G to G in high volume areas.



SHOULDER AND PARKING LANE CLOSURE

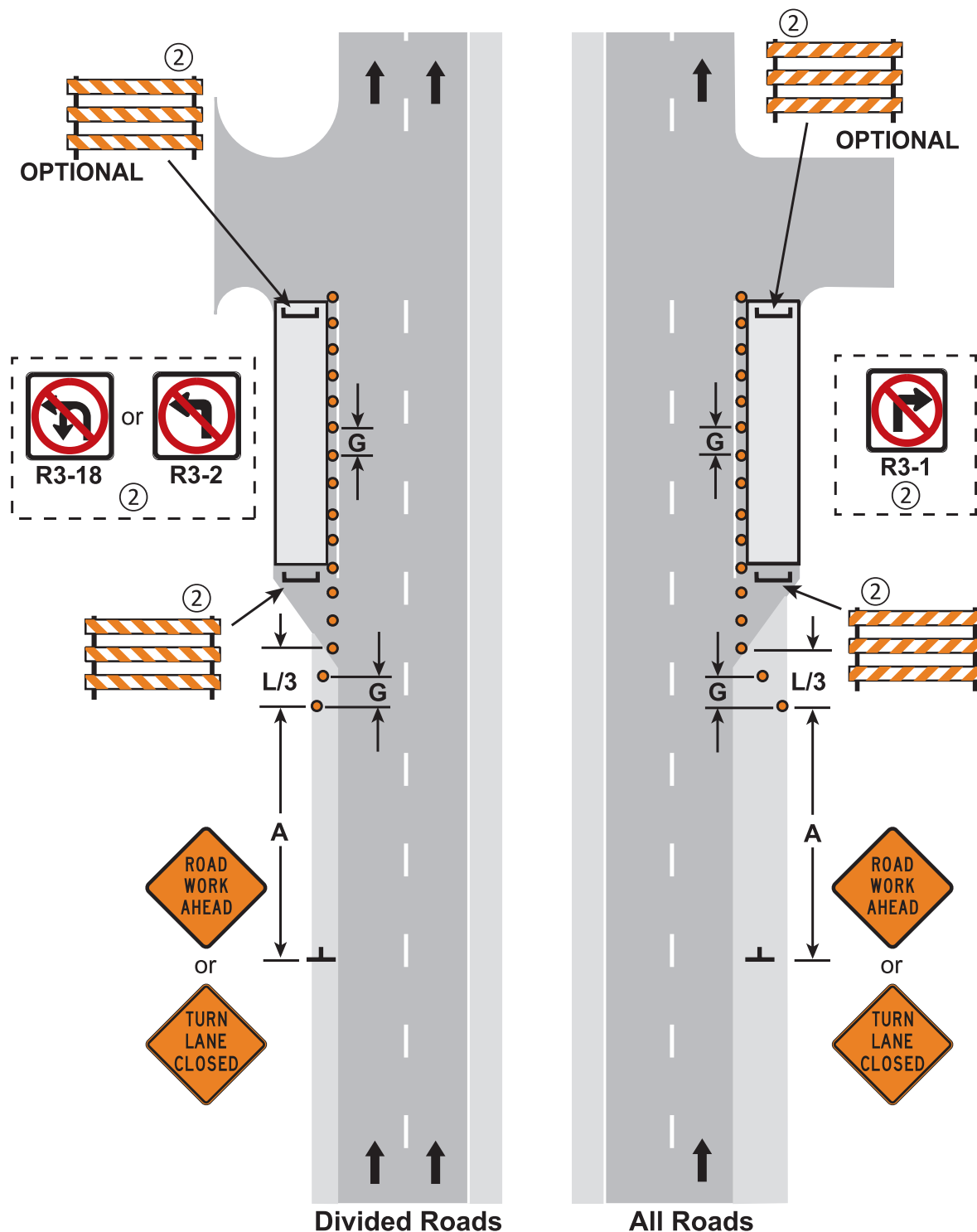
Work On or Near Shoulder

3 DAYS or LESS

LAYOUT 8

NOTES:

1. Contact the appropriate road authority for signal timing modifications before beginning work at any signalized intersection.
- ② Optional R3-1, R3-2, or R3-18 signs may be placed on sign stand or top of barricades on side closest to traffic. Signs are required if turns are prohibited.



TURN LANE CLOSURES

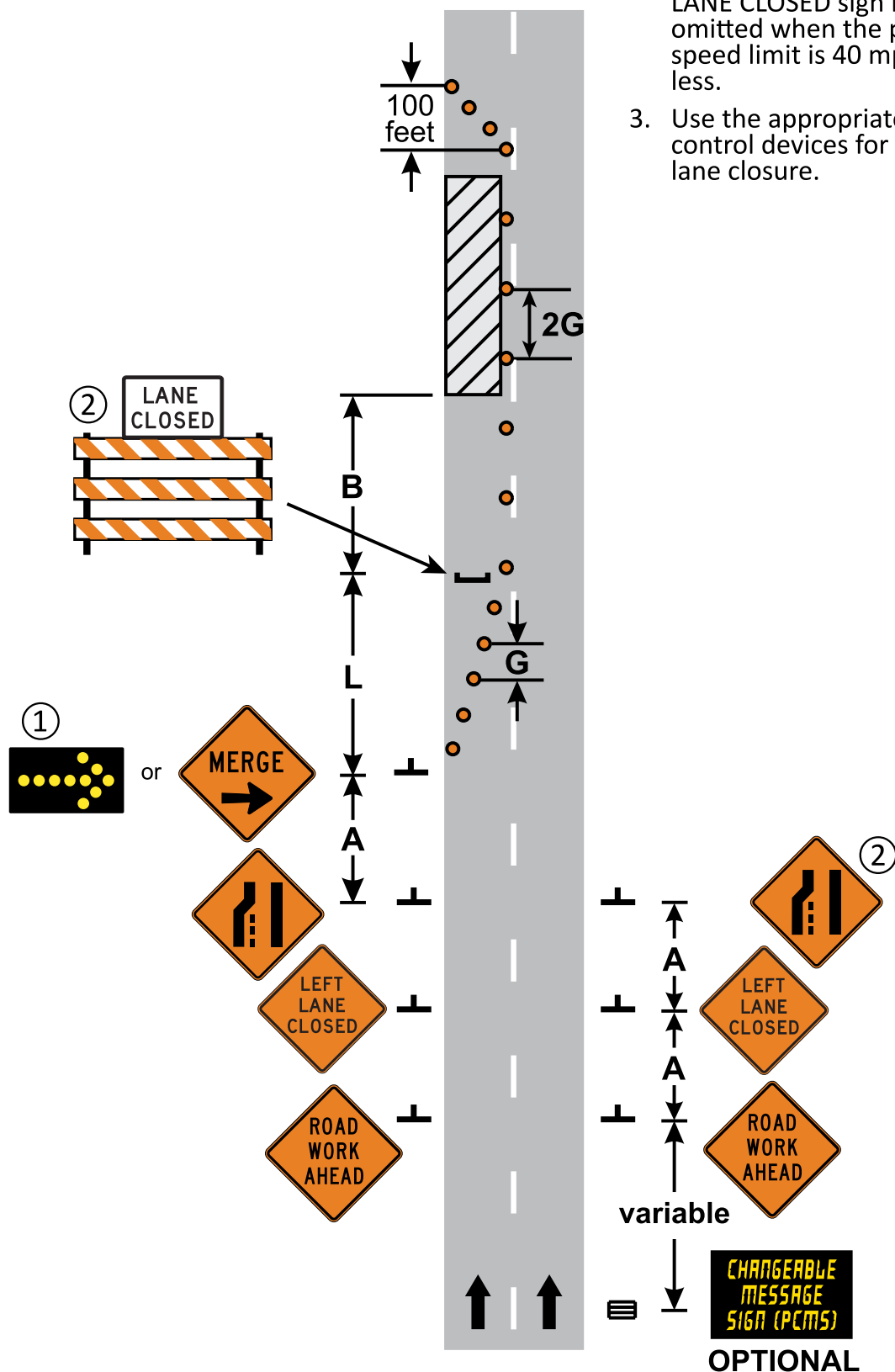
3 DAYS or LESS

6K-33

LAYOUT 33

① The Flashing Arrow Board shall be used where the posted speed limit is 45 mph or greater, and shall be placed on the shoulder. If there is no shoulder, or the shoulder is too narrow, place at the end of the taper in lieu of the Type III barricade assembly.

- ② The Lane Ends sign and/or LANE CLOSED sign may be omitted when the posted speed limit is 40 mph or less.
3. Use the appropriate traffic control devices for a right lane closure.



LANE CLOSURE MULTI-LANE DIVIDED ROAD

3 DAYS or LESS

LAYOUT 57



gatewayfiber

Specs Data Sheet Packet



Engineered by
Utili**S**ource

SPECIFICATIONS/DATA

30" x 48" PG Style Hand Hole Assembly 30" x 48" PD Style Hand Hole Assembly

Covers (Blank unless logo is specified)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD	ANSI TIER
W/2 Bolts	PG3048CA00	159 (72.1 kg)	8,000 / 12,000	8
Gasketed w/2 Bolts	PG3048CG00	159 (72.1 kg)	8,000 / 12,000	8
No Bolts	PG3048WA00	159 (72.1 kg)	8,000 / 12,000	8
Heavy Duty w/2 Bolts	PG3048HA00	206 (93.4 kg)	15,000 / 22,500	15
Gasketed Heavy Duty w/2 Bolts	PG3048HG00	206 (93.4 kg)	15,000 / 22,500	15
Extra Heavy Duty w/2 Bolts	PG3048HH00	220 (99.7 kg)	22,500 / 33,750	15*
2-piece w/2 Bolts	PG3048CS00	181 (82.1 kg)	8,000 / 12,000	8
Heavy Duty 2-piece w/2 Bolts	PG3048HS00	206 (93.4 kg)	15,000 / 22,500	15
2-piece Overlapping	PG3048CC00	227 (103.0 kg)	8,000 / 12,000	8
Heavy Duty 2-piece Overlapping	PG3048HC00	234 (106.1 kg)	15,000 / 22,500	15

- Covers with meter lids available upon request.
- Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.
- * Loadings for HH covers comply with all test provisions of ANSI/SCITE 77 except that the vertical design load is 22,500 lbs. with a test load of 33,750 lbs. over a 10" x 20" plate.

PG Boxes (Stackable with self-aligning, replaceable EZ-Nut) *24" & 36" deep boxes must be used as bottom of any stack

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION A	DIMENSION B	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom	PG3048BA18	185 (83.9 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048BA24	236 (107.0 kg)	24" (609 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048BA36	343 (155.6 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	15**
Open Bottom w/ Gasket	PG3048BG18	185 (83.9 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048BG24	236 (107.0 kg)	24" (609 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048BG36	343 (155.6 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	15**
Open Bottom w/ 2 Mouseholes	PG3048BB18	185 (83.9 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048BB24	236 (107.0 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048BB36 †	343 (155.6 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	15**
Solid Bottom	PG3048DA18	220 (99.8 kg)	18 1/2" (470 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048DA24	287 (130.2 kg)	24 1/2" (622 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048DA36	394 (178.7 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	15**
Solid Bottom w/ Gasket	PG3048DG18	220 (99.8 kg)	18 1/2" (470 mm)	15" (381 mm)	22,500 / 33,750	15**
	PG3048DG24	287 (130.2 kg)	24 1/2" (622 mm)	21" (533 mm)	22,500 / 33,750	15**
	PG3048DG36	394 (178.7 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	15**

† PG3048BB36 is not UL Listed.

** Loadings comply with ANSI/SCITE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

PD Boxes (Nestable)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION C	DIMENSION D	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom	PD3048BA24	286 (130 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PD3048BA48	614 (278.5 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	15**
Open Bottom w/ Gasket	PD3048BG24	286 (130 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PD3048BG48	614 (278.5 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	15**
Open Bottom w/ 2 Mouseholes	PD3048BB24	286 (130 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	15**
	PD3048BB48	614 (278.5 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	15**

** Loadings comply with ANSI/SCITE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

Top Extension (For use on top of PG and PD boxes of any depth)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom*	PG3048EA11	100 (45.4 kg)	22,500 / 33,750	15**

* In addition, this extension can be used as a bottom extension for 18" deep PG boxes.

** Loadings comply with ANSI/SCITE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

Bottom Extensions (For use under 18" deep PG style box only, one per box)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION E	DIMENSION F	DESIGN/TEST LOAD #	ANSI TIER
Open Bottom	PG3048EA08	102 (46.3 kg)	8 3/4" (222 mm)	1" (25 mm)	22,500 / 33,750	15*
Solid Bottom	PG3048RA08	151 (58.0 kg)	9 1/4" (235 mm)	N/A	22,500 / 33,750	15*

* Loadings comply with ANSI/SCITE 77. These boxes meet and exceed ANSI Tier 15 test provisions.

Dimensions & weights in parentheses are metric equivalent.





Box, Polymer Concrete, 48"x48"x36" Hand Hole

By QUAZITE
Catalog # [PG4848BA36](#)

Quazite® ANSI/SCTE 77 certified enclosure boxes, feature a high quality polymer concrete construction in a multitude of sizes and depths allowing customization for any application.

Features

- Stronger and lighter weight than regular concrete
- Cost effective
- Durable and long lasting
- Fire and chemical resistant
- Standard sizes are UL certified
- ANSI/SCTE77 certified
- Multiple styles and sizes available

General

Catalog Number	PG4848BA36
EU RoHS Indicator	No
Insulated?	No
Load Rating (ANSI Tier)	T22
Material	Polymer Concrete
Type	Below Ground Boxes
UPC	662037117894

Dimensions



*Representative Image

Dimensions	48 in x 48 in x 36 in
Height	36 in
Length	48 in
Weight	629 lb
Width	48 in

Certifications And Compliance

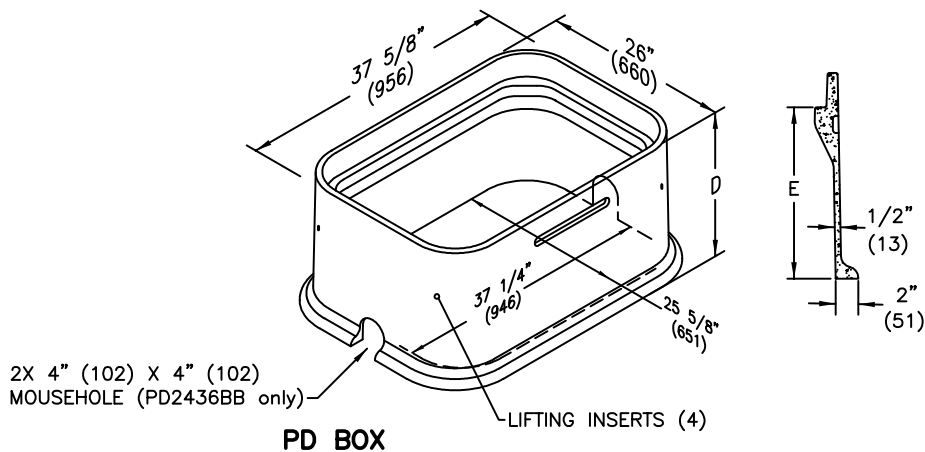
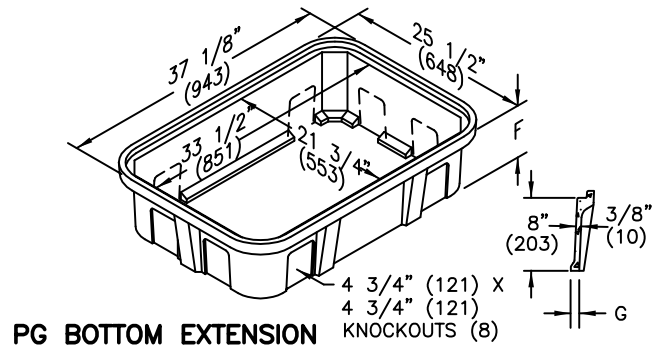
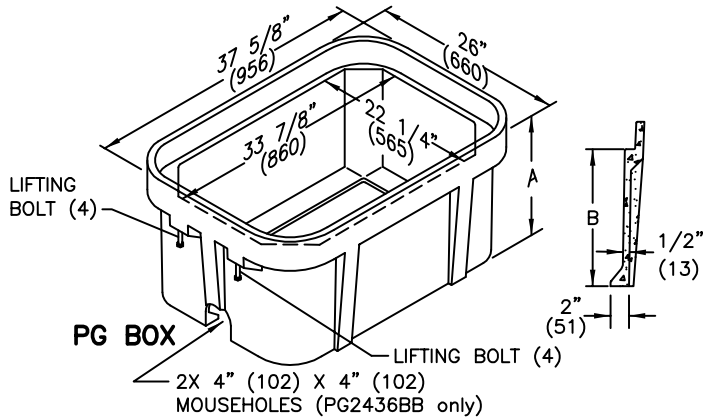
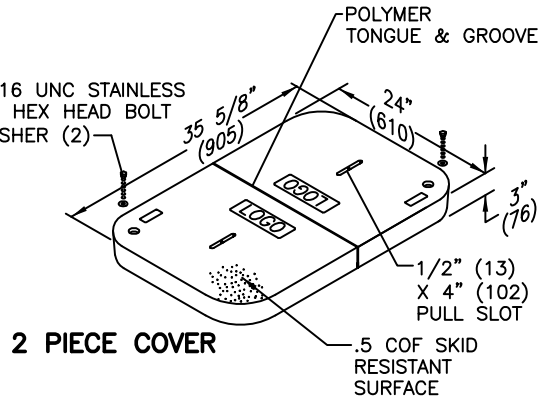
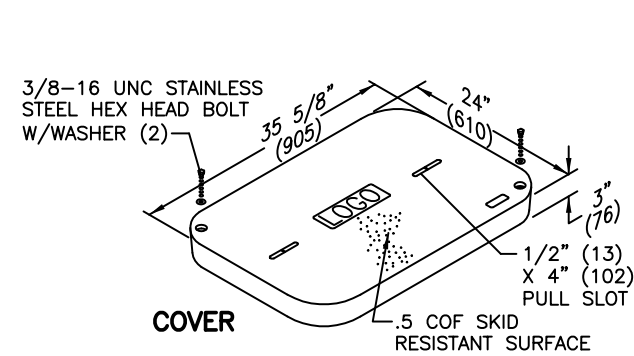
Buy America(n) Qualified	Buy American Act Compliant (All status valid till December 2024)
Buy American Compliant	Yes

Product Assets

- [Catalogs - Underground Enclosures](#)
- [Sales Drawings - Quazite Box](#)
- [Specifications - PG4848BA36](#)
- [Video - Hubbell Power Systems In Depth: ANSI vs AASHTO](#)
- [Video - PenCell® Enclosures](#)
- [Video - Hubbell Power Systems How to Install Large Enclosures](#)

Hand Hole SPECIFICATIONS/DATA

24" x 36" PG Style Hand Hole Assembly and 24" x 36" PD Style Assembly





24" x 36" PG Style Hand Hole Assembly and 24" x 36" PD Style Assembly

SPECIFICATIONS/DATA

Covers (Blank unless logo is specified)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD #	ANSI TIER*
W/2 Bolts	PG2436CA00	100 (45 kg)	8,000 / 12,000	8
Gasketed w/2 Bolts	PG2436CG00	100 (45 kg)	8,000 / 12,000	8
2-Piece w/2 Bolts	PG2436CS00	122 (55 kg)	8,000 / 12,000	8
No Bolts	PG2436WA00	100 (45 kg)	8,000 / 12,000	8
Heavy Duty w/2 Bolts	PG2436HA00	115 (52 kg)	15,000 / 22,500	15
Gasketed Heavy Duty w/2 Bolts	PG2436HG00	115 (52 kg)	15,000 / 22,500	15
Heavy Duty 2-Piece w/2 Bolts	PG2436HS00	122 (55 kg)	15,000 / 22,500	15
Heavy Duty w/2 Bolts	PG2436HH00	122 (55 kg)	22,500 / 33,750	22

- Covers with meter lids available upon request. See page 12 or page 56 for meter lid cover load rating explanation.
- Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

PG Boxes (Stackable with self-aligning, replaceable EZ Nut) **24" - 42" Deep boxes must be used as bottom of any stack.)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION A	DIMENSION B	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PG2436BA18	141 (64 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PG2436BA24	180 (81.6 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	22
	PG2436BA30	196 (88.9 kg)	30" (762 mm)	27" (686 mm)	22,500 / 33,750	22
	PG2436BA36	254 (115 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	22
	PG2436BA42	293 (133 kg)	42" (1067 mm)	39" (991 mm)	22,500 / 33,750	22
Open Bottom w/2 Mouseholes	PG2436BB18	139 (63.1 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PG2436BB24	178 (80.7 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	22
	PG2436BB30	194 (88.0 kg)	30" (762 mm)	27" (686 mm)	22,500 / 33,750	22
	PG2436BB36	252 (114 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	22
	PG2436BB42	293 (133 kg)	42" (1067 mm)	39" (991 mm)	22,500 / 33,750	22
Solid Bottom	PG2436DA18	171 (78 kg)	18 1/2" (470 mm)	15" (381 mm)	22,500 / 33,750	22
	PG2436DA24	228 (103.4 kg)	24 1/2" (622 mm)	21" (533 mm)	22,500 / 33,750	22
	PG2436DA30	238 (107.0 kg)	30 1/2" (775 mm)	27" (686 mm)	22,500 / 33,750	22
	PG2436DA36	282 (128 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	22
	PG2436DA42	321 (146 kg)	42 1/2" (1080 mm)	39" (991 mm)	22,500 / 33,750	22

PD Boxes

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION D	DIMENSION E	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PD2436BA18	159 (72 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PD2436BA26	199 (90 kg)	26" (660 mm)	23" (584 mm)	22,500 / 33,750	22
	PD2436BA48	313 (142 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	22
Open Bottom w/2 Mouseholes	PD2436BB18	157 (71 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PD2436BB26	197 (89 kg)	26" (660 mm)	23" (584 mm)	22,500 / 33,750	22
	PD2436BB48	311 (141 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	22
Open Bottom w/Gasket	PD2436BG18	159 (72 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22
	PD2436BG26	199 (90 kg)	26" (660 mm)	23" (584 mm)	22,500 / 33,750	22
	PD2436BG48	313 (142 kg)	48" (1219 mm)	45" (1143 mm)	22,500 / 33,750	22

Extensions (For use under 18" deep box only, one per box.)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION F	DIMENSION G	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PG2436EA08	81 (37 kg)	8 3/4" (222 mm)	1" (25 mm)	22,500 / 33,750	22
Solid Bottom	PG2436RA08	95 (43.1 kg)	9 1/4" (235 mm)	N/A	22,500 / 33,750	22

Dimensions & weights in parentheses are metric equivalent.

* Loadings comply with ANSI/SCTE 77 (see page 9).

1419

CARSON® Spec Grade Hand Hole

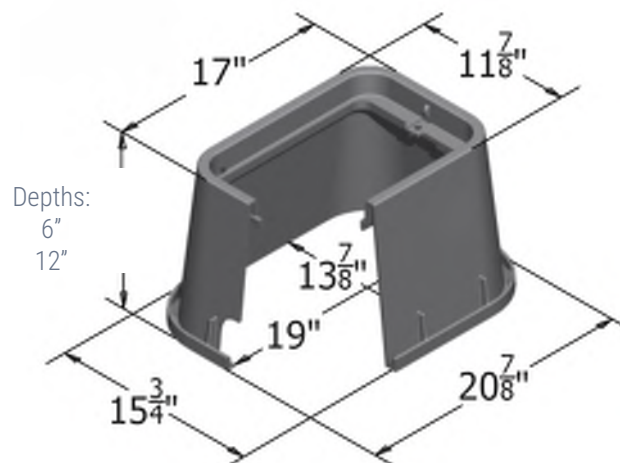
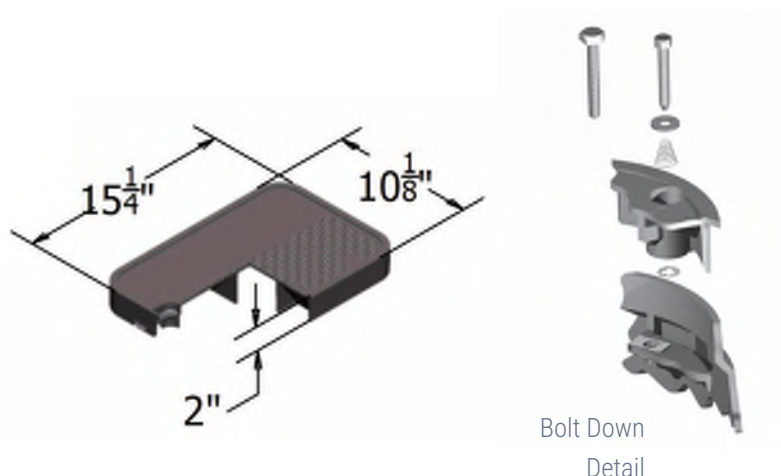
COVER

Style:	Flush
Material:	HDPE
Model:	14" x 19"
Weight:	3 lbs
Std. Fasteners:	3/8" Hex Bolt
Options:	Logos and Special Markings
Surface:	Skid Resistant & Marked*
Performance:	Pedestrian, ASTM C857, WUC 3.6

Cover comes standard with permanent markings for manufacturer and model size.

BODY

Material:	HDPE
Model:	14" x 19"
Weight:	6" Depth: 5 lbs 12" Depth: 7 lbs
Wall Type:	Flared
Mouseholes:	2
Performance:	Pedestrian, ASTM C857, WUC 3.6

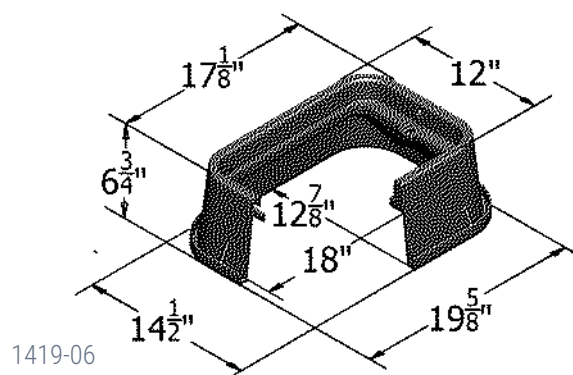


LOAD RATING / NOTES



LIGHT DUTY
PEDESTRIAN / GREENBELT

For use in non-vehicular traffic situations only.
Weights and dimensions may vary slightly.
Actual load rating is determined by the box
and cover combination.



1419-06

1419

CARSON® Spec Grade Hand Hole

COVER OPTIONS

HDPE, T-Cover Solid
 HDPE, T-Cover with Plastic Reader Door
 HDPE, T-Cover with Cast Iron Reader Door
 HDPE, T-Cover Hinged
 HDPE, Flush Solid
 HDPE, Flush with Plastic Reader Door
 HDPE, Flush with Cast Iron Reader Door
 HDPE, Flush Hinged

COLOR OPTIONS

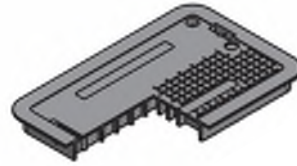
Cover: Black, Green, Gray, Tan, Purple
 Body: Black, Green, Gray, Tan, Purple
 Extension: Black, Green, Gray, Tan, Purple

FASTENER OPTIONS

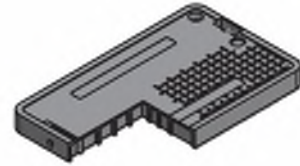
Hex Head Bolt (A)
 Penta Head Bolt (B)
 Penta Head Coil Thread Bolt (B)
 Oldcastle Vandal Resistant Bolt (C)
 Captive Bolt Retainer
 Drop-N-Lock™

ADD ON OPTIONS

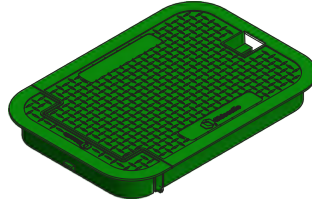
AMR Friendly Solutions
 Touch Read Hole
 EMS Marker
 Racking Provision



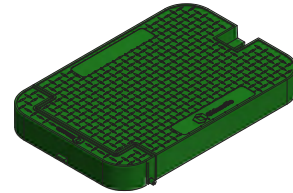
T-Cover Solid



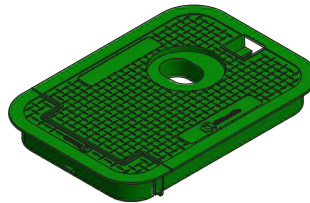
Flush Solid



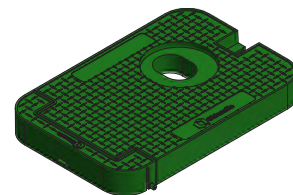
T-Cover Hinged



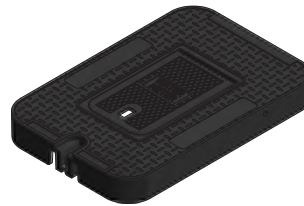
Flush Hinged



T-Cover Hinged
with AMR Recess



Flush Hinged
with AMR Recess



Reader Door Detail



Standard Thread



A



B



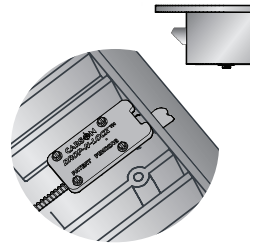
C



Coil Thread



Bolt Retainer
(for standard thread)



Drop-N-Lock
(T-Cover only)



EMS Marker

WARNING: Cancer - www.P65Warnings.ca.gov

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Revision 04/05/21
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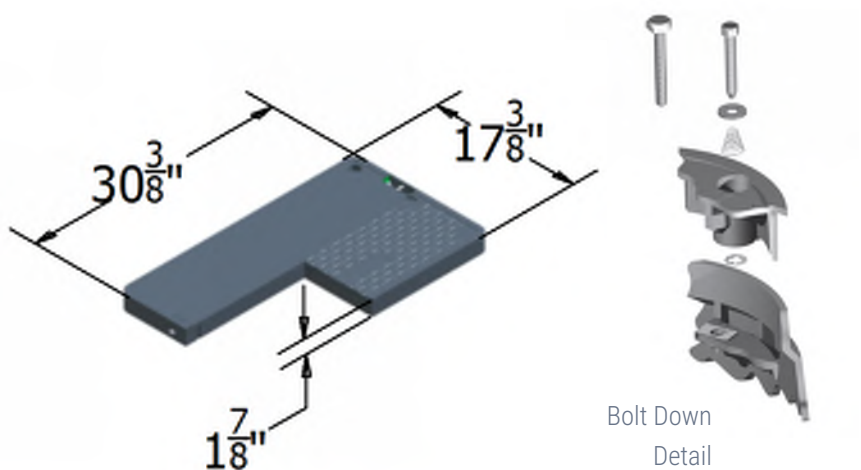
1730-24

CARSON® Spec Grade Hand Hole

COVER

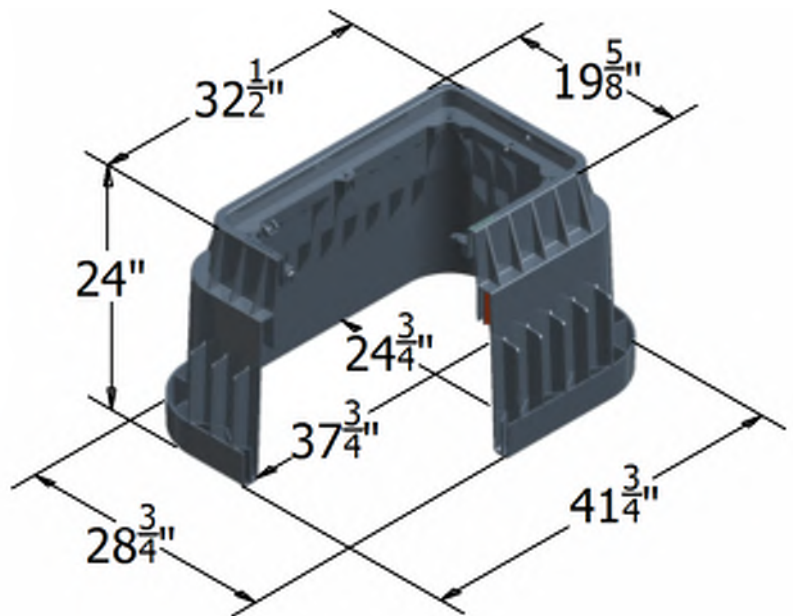
Style:	Flush
Material:	HDPE
Model:	17" x 30"
Weight:	10 lbs
Std. Fasteners:	3/8" Hex Bolt
Options:	Logos and Special Markings
Surface:	Skid Resistant & Marked
Performance:	Pedestrian, ASTM C857, WUC 3.6

Cover comes standard with permanent markings for manufacturer and model size.



BODY

Material:	HDPE
Model:	17" x 30"
Weight:	24" Depth: 52 lbs
Wall Type:	Flared
Mouseholes:	0
Performance:	Pedestrian, ASTM C857, WUC 3.6



LOAD RATING / NOTES



LIGHT DUTY
PEDESTRIAN / GREENBELT

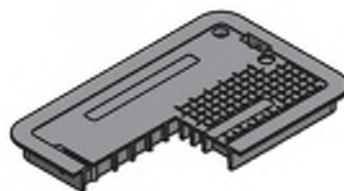
For use in non-vehicular traffic situations only.
Weights and dimensions may vary slightly.
Actual load rating is determined by the box
and cover combination.

1730-24

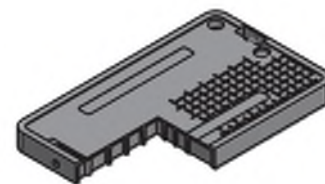
CARSON® Spec Grade Hand Hole

COVER OPTIONS

HDPE, T-Cover Solid
 HDPE, Flush Solid
 HDPE, Flush with Plastic Reader Door
 HDPE, Flush with Cast Iron Reader Door



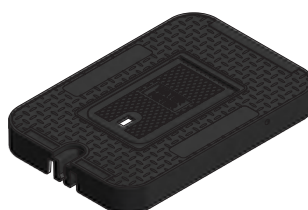
T-Cover Solid



Flush Solid

COLOR OPTIONS

Cover: Black, Green, Gray, Tan, Purple
 Body: Black, Green, Gray, Tan, Purple



Reader Door Detail

FASTENER OPTIONS

Hex Head Bolt (A)
 Penta Head Bolt (B)
 Penta Head Coil Thread Bolt (B)
 Oldcastle Vandal Resistant Bolt (C)
 Captive Bolt Retainer
 Drop-N-Lock™



Standard Thread



A



B



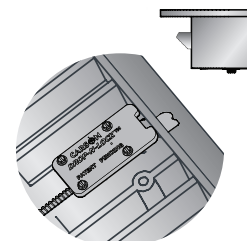
C



Coil Thread



Bolt Retainer
(for standard thread)



Drop-N-Lock
(T-Cover only)



L Bolt Detail



EMS Marker

ADD ON OPTIONS

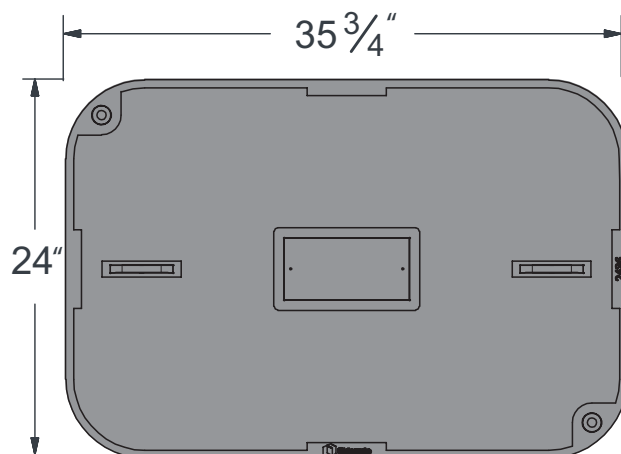
AMR Friendly Solutions
 Touch Read Hole
 EMS Marker
 Racking Provision

WARNING: Cancer - www.P65Warnings.ca.gov

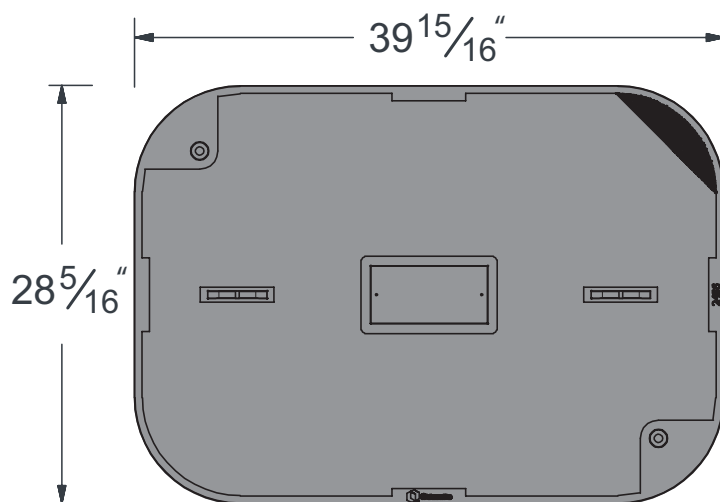
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Revision 11/30/18
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2436 Cover



Flush



T-Cover

Material & Style

Composite

Flush Solid

T-Cover Solid

Non-skid texture

Hardware

1/2-6 Stainless Steel Hex
Head Bolt, Washer and
Push Nut

Performance & Weight

ANSI/SCTE-77, Tier 22

Flush Cover: 40 lbs

T-Cover: 46 lbs

Options

Hex Head Coil Thread Bolt

Penta Head Coil Thread
BoltLogos and Special
Markings

Marking Plate

EMS Marker

Cover comes standard with permanent markings for manufacturer, load rating, model size and manufacturing location.

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Revision 04/2023



Heavy Duty
ANSI/SCTE TIER 22

For use in non-vehicular traffic situations only. Weights and dimensions may vary slightly. Actual load rating is determined by the box and cover combination.

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910

CARSON® Spec Grade Flower Pot

COVER

Style:	T-Cover
Material:	HDPE
Model:	10" Dia.
Weight:	1 lbs
Std. Fasteners:	3/8" Hex Bolt
Options:	Logos and Special Markings
Surface:	Skid Resistant & Marked
Performance:	Pedestrian, ASTM C857, WUC 3.6

Cover comes standard with permanent markings for manufacturer and model size.

BODY

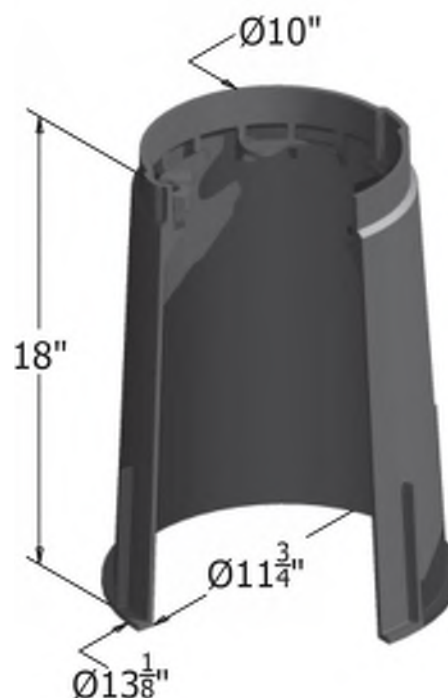
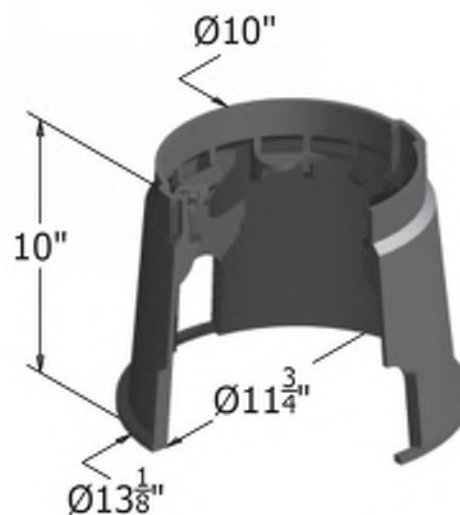
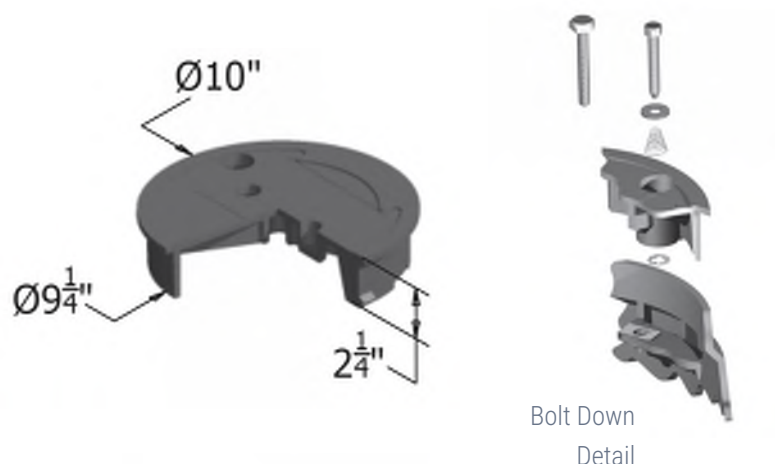
Material:	HDPE
Model:	10" Dia.
Weight:	10" Depth: 3 lbs 18" Depth: 5 lbs
Wall Type:	Flared
Mouseholes:	0 - 2
Performance:	Pedestrian, ASTM C857, WUC 3.6

LOAD RATING / NOTES



LIGHT DUTY
PEDESTRIAN / GREENBELT

For use in non-vehicular traffic situations only.
Weights and dimensions may vary slightly.
Actual load rating is determined by the box
and cover combination.



910

CARSON[®] Spec Grade Flower Pot

COVER OPTIONS

HDPE, T-Cover Solid

HDPE, Flush Solid



T-Cover Solid



Flush Solid

COLOR OPTIONS

Cover: Black, Green, Gray, Tan, Purple

Body: Black, Green, Gray, Tan, Purple

FASTENER OPTIONS

Hex Head Bolt (A)

Penta Head Bolt (B)

Penta Head Coil Thread Bolt (B)

Oldcastle Vandal Resistant Bolt (C)

Captive Bolt Retainer



Standard Thread



A



B



C



Coil Thread



Bolt Retainer
(for standard thread)

ADD ON OPTIONS

Metal Locating Plate

EMS Marker



EMS Marker

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Revision 11/30/18

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FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Application

Clearfield's FieldSmart Fiber Distribution Hub (FDH) PON Cabinet family provides an interconnect environment from the feeder network through the optical passive splitter to the distribution network. Designed for the outside plant environment, these cabinets provide a single distribution point to deploy FTTH in urban or dense neighborhoods. Providing distribution scalability from 12 to 864 ports, network architecture can be maximized for both existing subscribers as well as future growth opportunities.

Description

The FieldSmart FDH PON Cabinet line is the complete solution for managing 12 to 864 port distribution fibers for an outside plant FTTx PON application. Integrated into the cabinet design is the 12 port Clearview® Cassette, providing multiple cabinet configurations and allowing the service provider to align the investment in capital equipment to the turn-up of revenue-generating circuits.

The FieldSmart FDH PON Cabinet family incorporates a new pyramid shaped roof/solar shield and a reusable/replacable venting feature, providing additional protection for deployed fiber. Mounting options include pad, pole or vault mounted with either a 4" or 12" riser. An optional exterior ground box is also available.



Features and Benefits

Integrity

- Terminations are designed, tested and certified to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Fiber cable certified to Telcordia GR-20 and GR-409. Designed, tested and certified to Telcordia GR-3125
- Constructed with 0.090 aluminum
- Powder coated for additional protection
- 300 series stainless steel fasteners used on all cabinets
- Optional 4" and 12" risers, can be stacked to raise cabinet if required

Protection

- 12-fiber Clearview Cassette protects fiber from environmental and human factors
- Rugged cable clamps protect the OSP cable breakouts from twisting and pistoning
- Patch only buffer tubes are fully protected with ruggedized, bend-limiting tubing
- Snake skin sleeving provides additional buffer tube slack storage protection and manageability for patch and splice (Clearfield's in-cassette splicing solution) configurations
- WaveSmart Ruggedized Splitters are built with ruggedized jacketing and bend-insensitive fiber for all input and output legs
- Pyramid roof and venting provide additional protection in all environments

Access

- Clearview Cassette allows for quick visual troubleshooting without opening cassette
- Front access to pre-terminated assemblies with Clearview removable adapter plate
- Two captive fasteners for quick removal of individual cassettes for trouble shooting, splicing or replacing
- Front and rear access doors
- Bottom exit/entrance for fiber cables

Investment

- Fiber is deployed in increments of 12, providing the users the ability to scale from 12 ports to full capacity, aligning capital investment with network layout or subscriber revenue
- Express ports allow for extensions or parallel networks through the cabinet
- Patch and splice configurations eliminate costs associated with additional hand-holes and splice cases

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Technical Specifications

FieldSmart FDH	144 Port	288 Port	432 Port	576 Port	864 Port
Cabinet Dimensions <i>(Without Riser)</i>	22.29" H x 16.96" W x 18.51" D (566.16 mm x 430.78mm x 470.15mm)	35.11" H x 18.5" W x 16.98" D (891.79 mm x 469.90 mm x 431.29 mm)	37.83" H x 21.25" W x 18.44" D (960.88 mm x 539.75 mm x 468.38 mm)	35.11" H x 33.20" W x 18.47" D (891.79 mm x 891.79 mm x 469.14 mm)	37.83" H x 42.05" W x 18.47" D (960.88 mm x 1068.07 mm x 469.14 mm)
Weight <i>(Without Riser)</i>	40 lbs. (18.14 kg)	54 lbs (24.49 kg)	66 lbs (29.94 kg)	86 lbs (39.01 kg)	95 lbs (43.09 kg)
Port Density	144	288	432	576	864
Max. Feeder/Express Ports	24	48	48	96	96
Cables Entrances	6	6	6	12	12
Mounting Options <i>(Hoist kits included with each cabinet)</i>	Vault mount; pole mount; pad mount	Vault mount; pole mount; pad mount	Vault mount; pole mount; pad mount	Vault mount; pad mount	Vault mount; pad mount
Standard Riser Base	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)
Optional Riser Base	12"; 12 lbs (304.80 mm; 5.44 kg)	12"; 12 lbs (304.80 mm; 5.44 kg)	12"; 16 lbs (304.80 mm; 7.26 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)
Splitters Slots	4	9	14	18	28
Splitter Staging Capacity	72			144	
Cassette Types Supported	Clearview® Blue				
Connector Types	SC/UPC, SC/APC, LC/UPC, LC/APC				
Cable Types	Indoor/Outdoor, Outdoor, Outdoor Armored, Ribbon and Loose Tube				
Door Locks	2 per door				
Venting	Built-in Replaceable Roof Vent				
Splice Capacity	12 splices in each Clearview Cassette				
Material	0.125 (3.175 mm) aluminum with almond powder coating	0.90 (2.286 mm) aluminum with almond powder coating			

Accessories

- Risers: 4" and 12" (101.60 mm or 304.80 mm)
- Exterior Ground Box - Available with 12" Riser Only, Located in Riser
- WaveSmart Ruggedized Splitter
- Mid-Span/Feed-Through Plate Kit
- Pole Mount Kits
- GoreTex Filter Replacement - 020800



GoreTex Filter - 020800

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 144 Port

R - C R - - - - - 0 - - - - - XXXM or XXXF

1

2

3

4

5

6

7

8

9

10

1

Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)
C = No Riser With Pole Mount Kit
D = 4" (101.60 mm) Riser with Pole Mount Kit

2

Select Feeder

1 = 12
2 = 24
Z = No Feeder

3

Select Distribution Port Count

XXX = Port Count in Increments of 12
(Max. 144)
ZZZ = No Distribution

4

Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5

Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6

Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7

Select Qty. of 144 Fiber OSP Cables

0 = 0
1 = 1

8

Select Qty. of 96 Fiber OSP Cables

0 = 0
1 = 1

9

Select Qty. of 72 Fiber OSP Cables

0 = 0
1 = 1
2 = 2

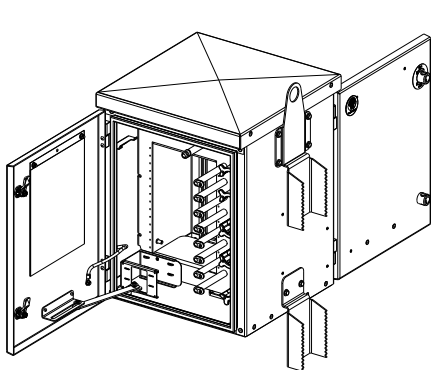
10

Select Ground Box/Extras

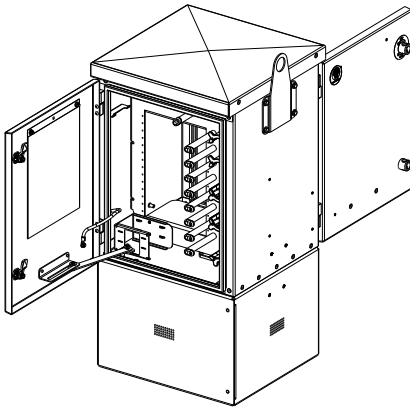
B = Clearview Blue Cassettes
M = Ground Box with 12" Riser; Clearview Blue Cassettes

XXXM or XXXF

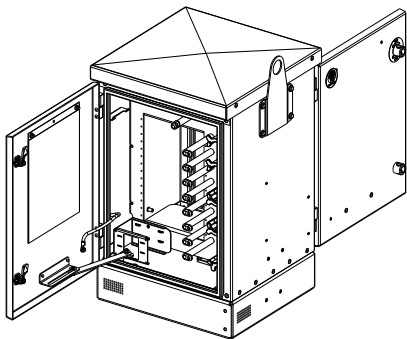
XXXM = Length in meters
XXXF = Length in feet



144 with Pole Mount Brackets



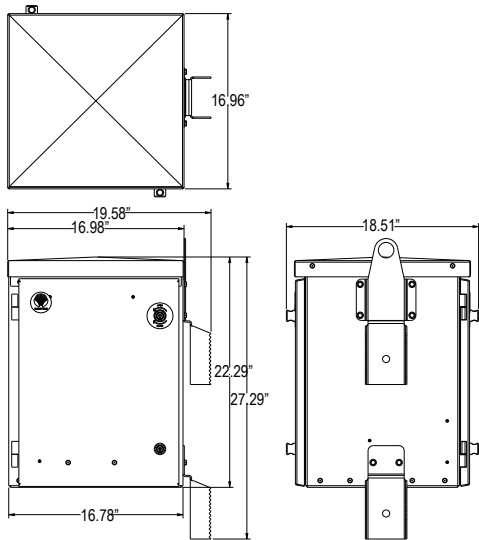
144 with 12" (304.80 mm) Riser



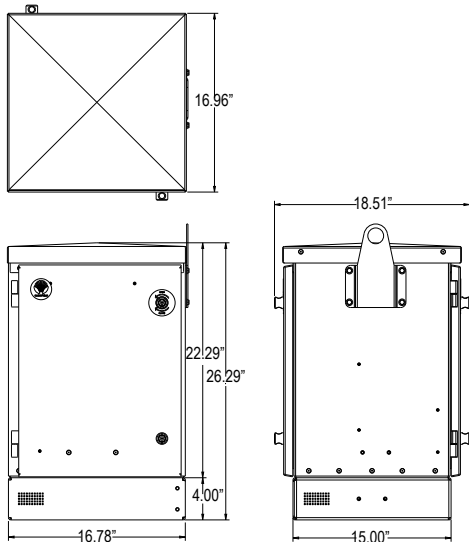
144 with 4" (101.60 mm) Riser

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



144 with Pole Mount Kit - Dimensions



144 with 4" (101.60 mm) Riser - Dimensions

Pre-Configured Part Numbers

Vault Options

Part Number	Description
V6A-CZP	Vault, below grade Pencil, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencil, 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencil, 24" W x 36" L x 36" D (609.60 mm x 914.40 mm x 914.40 mm), split PC lid, hex bolts, gray, with cut out for FieldSmart Cabinets, straight wall
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart Cabinets, straight wall, with bolt kit
FMA-H3Z-BC-SUB	Pole Mount Kit, for FieldSmart FDH cabinets, 144

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet

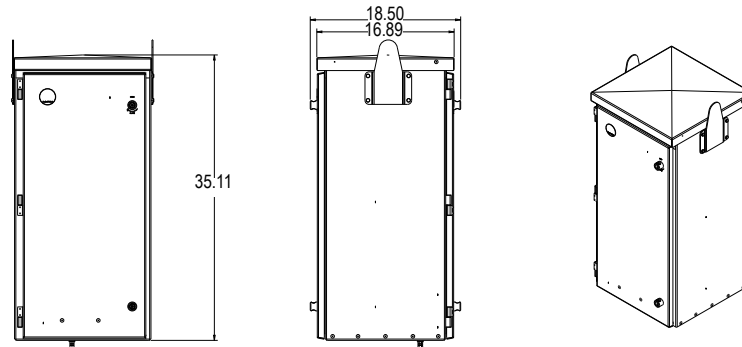


Configured Part Numbers - 288 Port

R - D											XXXX or XXXF
1	2	3	4	5	6	7	8	9	10	11	
1 Select Cabinet Riser/Mounting A = 4" (101.60 mm) B = 12" (304.80 mm) D = Pole Mount with 4" Riser	2 Select Feeder 1 = 12 2 = 24 3 = 36 4 = 48 Z = No Feeder	3 Select Distribution Port Count XXX = Port Counts in Increments of 12 (Max. 288) ZZZ = No Distribution	4 Select Connector A = SC/UPC C = SC/APC F = LC/UPC DX H = LC/APC DX	5 Select Mode / Type 1 = Singlemode – non-ribbon 2 = Singlemode – ribbon	6 Select Jacket Construction B = OSP Riser E = OSP, Non-Rated F = Patch and Splice M = OSP Armored	7 Select Qty. of 288/216 Fiber OSP Cables 0 = 0 1 = 1-288	8 Select Qty. of 144 Fiber OSP Cables 0 = 0 1 = 1 2 = 2	9 Select Qty. of 96 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3	10 Select Qty. of 72 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3 4 = 4	11 Select Ground Box/Extras B = Clearview Blue Cassettes M = Ground Box With 12" Riser Clearview Blue Cassettes	

XXXX or XXXF

XXXXM = Length in meters
 XXXF = Length in feet



Vault Options

288 Port Cabinet

Part Number	Description
V6A-CZP	Vault, below grade Pencil, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencil, 24" x 36" x 36", split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencil, 24" x 36" x 36", split PC lid, hex bolts, gray, with cut out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, green, with knock out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
FMA-H3Z-SUB	Pole Mount Kit for FieldSmart cabinet

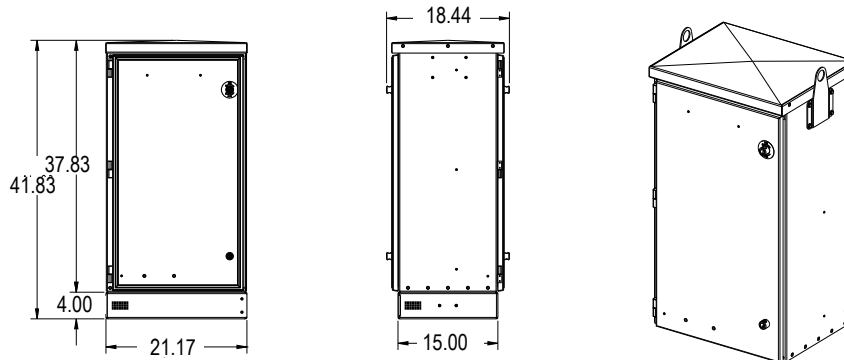
FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 432 Port

R - F											XXXM or XXXF	
1	2	3	4	5	6	7	8	9	10	11		
1 Select Cabinet Riser/Mounting A = 4" (101.60 mm) B = 12" (304.80 mm) D = Pole Mount with 4" Riser	2 Select Feeder 1 = 12 2 = 24 3 = 36 4 = 48 Z = No Feeder	3 Select Distribution Port Count XXX = Port Count in Increments of 12 (Max. 432) ZZZ = No Distribution	4 Select Connector A = SC/UPC C = SC/APC F = LC/UPC DX H = LC/APC DX	5 Select Mode / Type 1 = Singlemode – non-ribbon 2 = Singlemode – ribbon	6 Select Jacket Construction B = OSP Riser E = OSP, Non-rated F = Patch and Splice M = OSP Armored	7 Select Qty. of 288/216 Fiber OSP Cables 0 = 0 1 = 1-288 A = 1-216 B = 2-216	8 Select Qty. of 144 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3	9 Select Qty. of 96 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3 4 = 4	10 Select Qty. of 72 Fiber OSP Cables 0 = 0 1 = 1 2 = 2 3 = 3 4 = 4 5 = 5	11 Select Ground Box/Extras B = Clearview Blue Cassettes M = Ground Box With 12" Riser Clearview Blue Cassettes	XXXM or XXXF XXXM = Length in meters XXXF = Length in feet	



Vault Options

432 Port Cabinet

Part Number	Description
V6A-CZP	Vault, below grade Pencil, 24" W x 36" L x 24" D (609.60 mm x 914.40 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-CZP	Vault, below grade Pencil, 24" x 36" x 36", split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V6B-HZP	Vault, below grade Pencil, 24" x 36" x 36", split PC lid, hex bolts, gray, with cut out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit -ordered separately
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, green, with knock out for FieldSmart cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
FMA-H3Z-SUB	Pole Mount Kit for FieldSmart cabinet

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 576 Port

R - G - - - - - XXXM or XXXF

1 2 3 4 5 6 7 8 9 10 11

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)

2 Select Feeder

1 = 12 6 = 72
2 = 24 7 = 84
3 = 36 8 = 96
4 = 48 Z = No Feeder
5 = 60

3 Select Distribution Port Count

XXX = Port Count in Increments of 12
(Max. 576)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 288/216 Fiber OSP Cables

0 = 0 B = 2-216
1 = 1-288 E = 1-288; 1-216
2 = 2-288 F = 1-288; 2-216
A = 1-216 G = 2-288; 1-216

8 Select Qty. of 144 Fiber OSP Cables

0 = 0 3 = 3
1 = 1 4 = 4
2 = 2

9 Select Qty. of 96 Fiber OSP Cables

0 = 0 4 = 4
1 = 1 5 = 5
2 = 2 6 = 6
3 = 3

10 Select Qty. of 72 Fiber OSP Cables

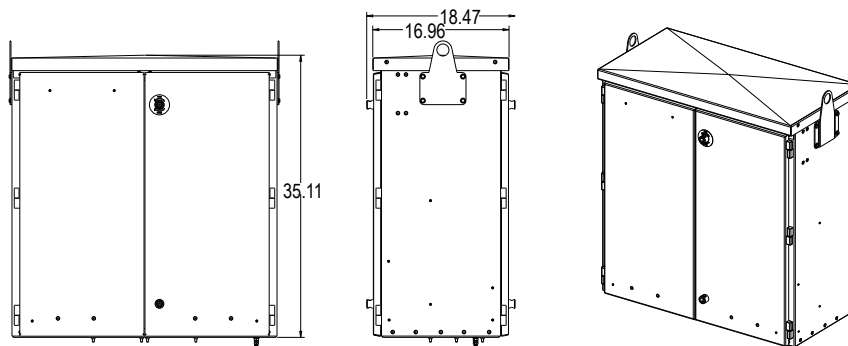
0 = 0 5 = 5
1 = 1 6 = 6
2 = 2 7 = 7
3 = 3 8 = 8
4 = 4

11 Select Ground Box/Extras

B = Clearview Blue Cassettes
M = Ground Box With 12" Riser Clearview
Blue Cassettes

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet



Vault Options

576 Port Cabinet

Part Number	Description
V7A-CZP	Vault, below grade Pencil, 30" W x 48" L x 24" D (762.00 mm x 1219.20 mm x 609.60 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-CZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split HDPE lid, hex bolts, green, with cut out for FieldSmart cabinets, straight wall, with bolt kit
V7B-HZP	Vault, below grade Pencil, 30" W x 48" L x 36" D (762.00 mm x 1219.20 mm x 914.40 mm), split PC lid, hex bolts, gray, with knock-out for FieldSmart Cabinets, straight wall, requires 020538 Bolt Kit - ordered separately
V8A-CZP-F	Vault, Pencil 36" x 60" x 24" (914.40 mm x 1524.00 mm x 609.60 mm), complete split lid with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V8B-CZP-F	Vault, Pencil 36 x 60 x 36" (914.40 mm x 1524.00 mm x 914.40 mm), complete split lid, with ½ cut out for FieldSmart cabinets - with bolt kit, flared wall
V9B-HZP-PC	Vault, Pencil 48 x 48 x 36" (1219.20 mm x 1219.20 mm x 914.40 mm), complete split polymer concrete lid, cut out for 864 cabinets, polymer concrete straight wall

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



Configured Part Numbers - 864 Port

R - H - XXXM or XXXF

1234567891011

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)

2 Select Feeder

1 = 12 6 = 72
2 = 24 7 = 84
3 = 36 8 = 96
4 = 48 Z = No Feeder
5 = 60

3 Select Distribution Port Count

XXX = Port Count in Increments of 12
(Max. 864)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 288/216 Fiber OSP Cables

0 = 0 C = 3-216
1 = 1-288 D = 4-216
2 = 2-288 E = 1-288; 1-216
3 = 3-288 F = 1-288; 2-216
A = 1-216 G = 2-288; 1-216
B = 2-216

8 Select Qty. of 144 Fiber OSP Cables

0 = 0 4 = 4
1 = 1 5 = 5
2 = 2 6 = 6
3 = 3

9 Select Qty. of 96 Fiber OSP Cables

0 = 0 5 = 5
1 = 1 6 = 6
2 = 2 7 = 7
3 = 3 8 = 8
4 = 4 9 = 9

10 Select Qty. of 72 Fiber OSP Cables

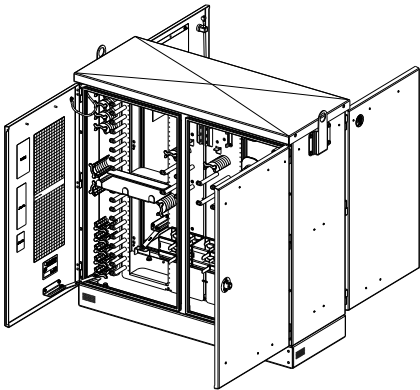
0 = 0 5 = 5
1 = 1 6 = 6
2 = 2 7 = 7
3 = 3 8 = 8
4 = 4 9 = 9

11 Select Ground Box/Extras

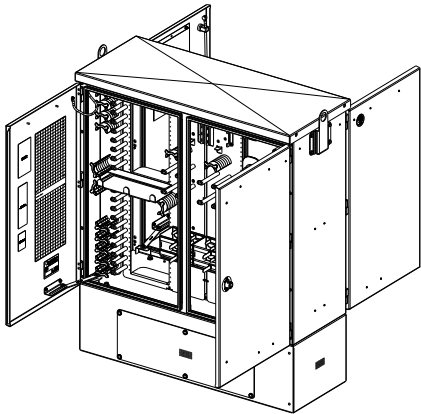
B = Clearview Blue Cassettes
M = Ground Box With 12" Riser Clearview
Blue Cassettes

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet



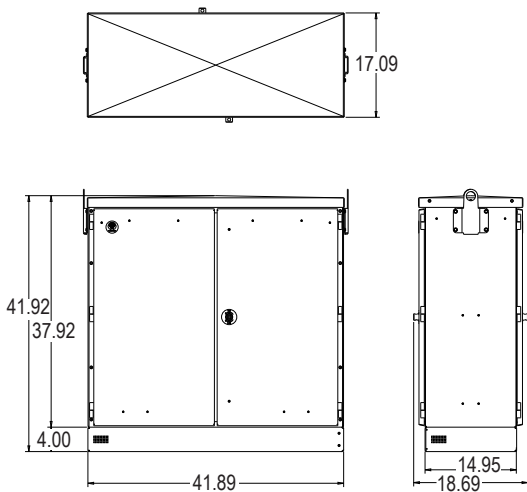
864 Interior View with 4" Riser



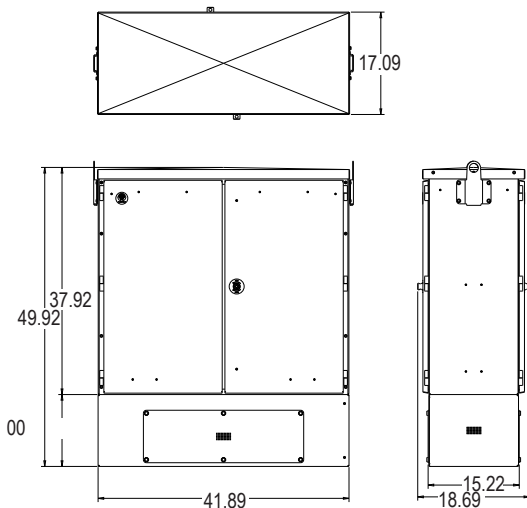
864 Interior View with 12" Riser

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



864 with 4" (101.60 mm) Riser - Dimensions



864 with 4" (101.60 mm) Riser - Dimensions

Pre-Configured Part Numbers

Vault Options

Part Number	Description
V9B-HZP-PC	Vault, Pencil 48 x 48 x 36" (1219.20 mm x 1219.20 mm x 914.40 mm), complete split polymer concrete lid, cut out for 864 cabinets, polymer concrete straight wall



Anoka County

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Jerry Auge, P.E.
Department Director, Assistant County Engineer

EXCAVATOR AND OPERATOR NOTICE

This notice is for all excavators and operators applying for permits involving excavations - your obligations to comply with Minnesota State Statutes 216D are attached to this notice.

This notice is a requirement of State Statute 216D.02; Notice to Excavators and Operators.

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216D.03 NOTIFICATION CENTER.

Subdivision 1. **Participation.** An operator shall participate in and share in the costs of one statewide notification center operated by a vendor selected under subdivision 2.

Subd. 2. **Establishment of notification center; rules.** (a) The notification center services must be provided by a nonprofit corporation approved in writing by the commissioner. The nonprofit corporation must be governed by a board of directors of up to 20 members, one of whom is the director of the Office of Pipeline Safety. The other board members must represent and be elected by operators, excavators, and other persons eligible to participate in the center. In deciding to approve a nonprofit corporation, the commissioner shall consider whether it meets the requirements of this paragraph and whether it demonstrates that it has the ability to contract for and implement the notification center service.

(b) The commissioner shall adopt rules:

(1) establishing a notification process and competitive bidding procedure for selecting a vendor to provide the notification service;

(2) governing the operating procedures and technology needed for a statewide notification center; and

(3) setting forth the method for assessing the cost of the service among operators.

(c) The commissioner shall select a vendor to provide the notification center service. The commissioner may advertise for bids as provided in section 16C.06, subdivisions 1 and 2, and base the selection of a vendor on best value as provided in section 16C.06, subdivision 6. The commissioner shall select and contract with the vendor to provide the notification center service, but all costs of the center must be paid by the operators. The commissioner may at any time appoint a task force to advise on the renewal of the contract or any other matter involving the center's operations.

(d) An operator may submit a bid and be selected to contract to provide the notification center service under paragraph (a) or (c). The commissioner shall annually review the services provided by the nonprofit corporation approved under paragraph (a) or the vendor selected under paragraph (c).

Subd. 3. **Cooperation with local government.** In establishing operating procedures and technology for the statewide notification center, the board of directors or the commissioner must work in cooperation with the League of Minnesota Cities, the Association of Minnesota Counties, and the Township Officers' Association. The purpose of this cooperation is to maximize the participation of local governmental units that issue permits for activities involving excavation to assure that excavators receive notice of and comply with the requirements of sections 216D.01 to 216D.07.

Subd. 4. **Notice to local government.** The notification center shall provide local governmental units with a master list, by county, of the operators in the county who are participants in the notification center, and the telephone number and mailing address of the notification center.

History: 1987 c 353 s 9; 1997 c 187 art 1 s 15; 1998 c 386 art 2 s 69

216D.04 EXCAVATION; LAND SURVEY.

Subdivision 1. **Notice required; contents.** (a) Except in an emergency, an excavator shall and a land surveyor may contact the notification center and provide notice at least 48 hours, excluding Saturdays, Sundays, and holidays and not more than 14 calendar days before beginning any excavation or boundary survey. An excavation or boundary survey begins, for purposes of this requirement, the first time excavation or a boundary survey occurs in an area that was not previously identified by the excavator or land surveyor in the notice.

(b) The notice may be oral or written, and must contain the following information:

- (1) the name of the individual providing the notice;
- (2) the precise location of the proposed area of excavation or survey;
- (3) the name, address, and telephone number of the individual or individual's company;
- (4) the field telephone number, if one is available;
- (5) the type and extent of the activity;
- (6) whether or not the discharge of explosives is anticipated;
- (7) the date and time when the excavation or survey is to commence; and
- (8) the estimated duration of the activity.

Subd. 1a. **Plans for excavation.** (a) Any person, prior to soliciting bids or entering into a contract for excavation, shall provide a proposed notice to the notification center to obtain from the affected operators of underground facilities the type, size, and general location of underground facilities. Affected operators shall provide the information within 15 working days. An operator who provides information to a person who is not a unit of government may indicate any portions of the information which are proprietary and may require the person to provide appropriate confidentiality protection. The information obtained from affected operators must be submitted on the final drawing used for the bid or contract and must depict the utility quality level of that information. This information must be updated not more than 90 days before completion of the final drawing used for the bid or contract.

(b) This subdivision does not apply to bids and contracts for:

- (1) routine maintenance of underground facilities or installation, maintenance, or repair of service lines;
- (2) excavation for operators of underground facilities performed on a unit of work or similar basis; or
- (3) excavation for home construction and projects by home owners.

(c) A person required by this section to show existing underground facilities on its drawings shall conduct one or more preliminary design meetings during the design phase to communicate the project design and coordinate utility relocation. Affected facility operators shall attend these meetings or make other arrangements to provide information.

(d) A person required by this section to show existing underground facilities on its drawings shall conduct one or more preconstruction meetings to communicate the project design and coordinate utility relocation. Affected facility operators and contractors shall attend these meetings or make other arrangements to provide information.

(e) This subdivision does not affect the obligation to provide a notice of excavation as required under subdivision 1.

Subd. 2. **Duties of notification center; regarding notice.** The notification center shall assign an inquiry identification number to each notice and retain a record of all notices received for at least six years. The center shall immediately transmit the information contained in a notice to every operator that has an underground facility in the area of the proposed excavation or boundary survey.

Subd. 3. **Locating underground facility; operator.** (a) Prior to the excavation start time on the notice, an operator shall locate and mark or otherwise provide the approximate horizontal location of the underground facilities of the operator and provide readily available information regarding the operator's abandoned and out-of-service underground facilities as shown on maps, drawings, diagrams, or other records used in the operator's normal course of business, without cost to the excavator. The excavator shall determine the precise location of the underground facility, without damage, before excavating within two feet of the marked location of the underground facility.

(b) Within 96 hours or the time specified in the notice, whichever is later, after receiving a notice for boundary survey from the notification center, excluding Saturdays, Sundays, and holidays, unless otherwise agreed to between the land surveyor and operator, an operator shall locate and mark or otherwise provide the approximate horizontal location of the underground facilities of the operator, without cost to the land surveyor.

(c) For the purpose of this section, the approximate horizontal location of the underground facilities is a strip of land two feet on either side of the underground facilities.

(d) Markers used to designate the approximate location of underground facilities must follow the current color code standard used by the American Public Works Association.

(e) If the operator cannot complete marking of the excavation or boundary survey area before the excavation or boundary survey start time stated in the notice, the operator shall promptly contact the excavator or land surveyor.

(f) After December 31, 1998, operators shall maintain maps, drawings, diagrams, or other records of any underground facility abandoned or out-of-service after December 31, 1998.

(g) An operator or other person providing information pursuant to this subdivision is not responsible to any person, for any costs, claims, or damages for information provided in good faith regarding abandoned, out-of-service, or private or customer-owned underground facilities.

Subd. 4. **Locating underground facility; excavator or land surveyor.** (a) The excavator or land surveyor shall determine the precise location of the underground facility, without damage, before excavating within two feet on either side of the marked location of the underground facility.

(b) If the excavator or land surveyor cancels the excavation or boundary survey, the excavator or land surveyor shall cancel the notice through the notification center.

(c) The notice is valid for 14 calendar days from the start time stated on the notice. If the activity will continue after the expiration time, then the person responsible for the activity shall serve an additional notice at least 48 hours, excluding Saturdays, Sundays, and holidays, before the expiration time of the original notice, unless the excavator makes arrangements with the operators affected to periodically verify or refresh the marks, in which case the notice is valid for six months from the start time stated on the notice.

(d) The excavator is responsible for reasonably protecting and preserving the marks until no longer required for proper and safe excavation near the underground facility. If the excavator has reason to believe the marks are obliterated, obscured, missing, or incorrect, the excavator shall notify the facility operator or notification center in order to have an operator verify or refresh the marks.

History: 1987 c 353 s 10; 1992 c 493 s 5; 1993 c 341 art 1 s 21; 1997 c 196 s 1; 1998 c 348 s 1-3; 2004 c 163 s 2-6

216D.05 PRECAUTIONS TO AVOID DAMAGE.

An excavator shall:

- (1) plan the excavation to avoid damage to and minimize interference with underground facilities in and near the construction area;
- (2) use white markings for proposed excavations except where it can be shown that it is not practical;
- (3) maintain a clearance between an underground facility and the cutting edge or point of any mechanized equipment, considering the known limit of control of the cutting edge or point to avoid damage to the facility;
- (4) provide support for underground facilities in and near the construction area, including during backfill operations, to protect the facilities; and
- (5) conduct the excavation in a careful and prudent manner.

History: 1987 c 353 s 11; 1998 c 348 s 4; 2004 c 163 s 7

216D.06 DAMAGE TO FACILITY.

Subdivision 1. **Notice; repair.** (a) If any damage occurs to an underground facility or its protective covering, the excavator shall notify the operator promptly. When the operator receives a damage notice, the operator shall promptly dispatch personnel to the damage area to investigate. If the damage results in the escape of any flammable, toxic, or corrosive gas or liquid or endangers life, health, or property, the excavator responsible shall immediately notify the operator and the 911 public safety answering point, as defined in section 403.02, subdivision 19, and take immediate action to protect the public and property. The excavator shall also attempt to minimize the hazard until arrival of the operator's personnel or until emergency responders have arrived and completed their assessment. The 911 public safety answering point shall maintain a response plan for notifications generated by this section.

(b) An excavator shall delay backfilling in the immediate area of the damaged underground facilities until the damage has been investigated by the operator, unless the operator authorizes otherwise. The repair of damage must be performed by the operator or by qualified personnel authorized by the operator.

(c) An excavator who knowingly damages an underground facility, and who does not notify the operator as soon as reasonably possible or who backfills in violation of paragraph (b), is guilty of a misdemeanor.

Subd. 2. **Cost reimbursement.** (a) If an excavator damages an underground facility, the excavator shall reimburse the operator for the cost of necessary repairs, and for a pipeline the cost of the product that was being carried in the pipeline and was lost as a direct result of the damage.

(b) Reimbursement is not required if the damage to the underground facility was caused by the sole negligence of the operator or the operator failed to comply with section 216D.04, subdivision 3.

Subd. 3. **Prima facie evidence of negligence.** It is prima facie evidence of the excavator's negligence in a civil court action if damage to the underground facilities of an operator resulted from excavation, and the excavator failed to give an excavation notice under section 216D.04 or provide support as required by section 216D.05.

History: 1987 c 353 s 12; 1999 c 43 s 1

216D.07 EFFECT ON LOCAL ORDINANCES.

(a) Sections 216D.01 to 216D.07 do not affect or impair local ordinances, charters, or other provisions of law requiring permits to be obtained before excavating.

(b) A person with a permit for excavation from the state or a public agency is subject to sections 216D.01 to 216D.07. The state or public agency that issued a permit for excavation is not liable for the actions of an excavator who fails to comply with sections 216D.01 to 216D.07.

History: *1987 c 353 s 13*

CHAPTER 7560
OFFICE OF PIPELINE SAFETY
EXCAVATION NOTICE SYSTEM

- 7560.0100 DEFINITIONS.
- 7560.0125 ABANDONED AND OUT-OF-SERVICE FACILITIES.
- 7560.0150 PUBLIC RIGHT-OF-WAY MAPPING AND INSTALLATION.
- 7560.0225 EXCAVATOR RESPONSIBILITIES REGARDING A LOCATE.
- 7560.0250 LOCATE STANDARDS.
- 7560.0300 OPERATOR PARTICIPATES AND SHARES COSTS.
- 7560.0325 EMERGENCY EXCAVATION NOTICES.
- 7560.0350 EXCAVATION NOTICE REQUESTING MEET.
- 7560.0375 LOCATING A SERVICE LATERAL.
- 7560.0400 CITATIONS.
- 7560.0500 RESPONSE OPTIONS.
- 7560.0600 DIRECTOR REVIEW.
- 7560.0700 CONSENT ORDER.
- 7560.0800 CIVIL PENALTIES.

7560.0100 DEFINITIONS.

Subpart 1. **Scope.** The terms used in this chapter have the meanings given them. Terms not defined in this part have the meanings given them in Minnesota Statutes, section 216D.01.

Subp. 1a. **Abandoned facility.** "Abandoned facility" means an underground facility that is no longer in service and is physically disconnected from a portion of the operating facility that is in use or still carries service. An abandoned facility has been deemed abandoned by the operator.

Subp. 2. **Director.** "Director" means the director of the Office of Pipeline Safety of the Minnesota Department of Public Safety.

Subp. 3. **Good cause to believe.** "Good cause to believe" means grounds put forth in good faith that are not arbitrary, irrational, unreasonable, or irrelevant and that are based on at least one of the following sources:

- A. information from a person;
- B. facts supplied by the notification center defined in Minnesota Statutes, section 216D.01, subdivision 8;
- C. facts of which the director or an agent of the director has personal knowledge; and
- D. information provided by excavators or operators.

Subp. 4. **Locate.** "Locate" means an operator's markings of an underground facility.

Subp. 5. [Renumbered as subp 8]

Subp. 5a. [Renumbered as subp 9]

Subp. 6. [Renumbered as subp 11]

7560.0125 EXCAVATION NOTICE SYSTEM

2

Subp. 7. **Meet.** When used as a noun in this chapter, "meet" refers to a meeting at the site of proposed excavation requested at the time of notice by the excavator with all affected underground facility operators to further clarify the precise geographic location of excavation, schedule locating, propose future contacts, and share other information concerning the excavation and facilities.

Subp. 8. **Office.** "Office" means the Office of Pipeline Safety of the Minnesota Department of Public Safety.

Subp. 9. **Out-of-service facility.** "Out-of-service facility" means an underground facility that is no longer maintained and is not intended for future use, but has not been deemed abandoned. An out-of-service facility may still be connected to a portion of the operating facility that is in use or still carries service.

Subp. 10. **Public right-of-way.** "Public right-of-way" means the area on, below, or above a public roadway, highway, street, cartway, bicycle lane, and sidewalk in which a government unit has an interest, including other rights-of-way dedicated for travel purposes and utility easements of government units.

Subp. 11. **Remuneration.** "Remuneration" means direct or indirect compensation or consideration paid to the person or the person's agent, employer, employee, subcontractor, or contractor. A person who excavates as part of the person's duties as an employee, employer, agent, subcontractor, or contractor is considered to be acting for remuneration.

Subp. 12. **Service lateral.** "Service lateral" means an underground facility that is used to transmit, distribute, or furnish gas, electricity, communications, or water from a common source to an end-use customer. A service lateral is also an underground facility that is used in the removal of wastewater from a customer's premises.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

History: *16 SR 135; 24 SR 448; 29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0125 ABANDONED AND OUT-OF-SERVICE FACILITIES.

Subpart 1. **Duty of operators to provide readily available information.** Operators shall provide readily available information, as shown on maps, drawings, diagrams, or other records used in the normal course of business, on the approximate location of abandoned and out-of-service facilities to an excavator by the excavation date and time noted on the excavation or location notice unless otherwise agreed between the excavator and the operator. An operator fulfills an obligation to provide information on these facilities by doing one or more of the following:

A. locating and marking the approximate location of the facility according to the current color code standard used by the American Public Works Association, as required in Minnesota Statutes, section 216D.04, subdivision 3, with an abandoned or out-of-service facility identified by an uppercase A surrounded by a circle;

B. providing informational flags at the area of proposed excavation;

C. communicating information verbally; or

D. providing copies of maps, diagrams, or records.

Subp. 2. **Duty to notify operator.** An excavator shall notify the operator:

A. before moving, removing, or otherwise altering a facility that is thought to be abandoned or out of service; or

B. if damage to the facility occurs, pursuant to Minnesota Statutes, section 216D.01, subdivision 2.

Subp. 3. **Verification of abandoned or out-of-service facility.** Upon receipt of notification by an excavator pursuant to subpart 2, an operator shall verify that an underground facility is abandoned or out of service, by either reference to installation records, testing, or other comparable standard of verification, before an excavator is allowed to move, remove, or otherwise alter an underground facility.

Subp. 4. **Liability.** An operator providing information pursuant to Minnesota Statutes, section 216D.04, subdivision 3, is not responsible to any person for any costs, claims, or damages for information provided in good faith regarding abandoned and out-of-service underground facilities.

Statutory Authority: *MS s 14.06; 216D.08; 299J.04; 299F.60*

History: *24 SR 448*

Published Electronically: *July 20, 2005*

7560.0150 PUBLIC RIGHT-OF-WAY MAPPING AND INSTALLATION.

Subpart 1. **Duty of operator to map.** After December 31, 2005, an operator shall maintain a map, a diagram, a drawing, or geospatial information regarding the location of its underground facility within a public right-of-way installed after that date.

Subp. 2. **Duty to install locating wire.** After December 31, 2005, an operator shall install a locating wire or have an equally effective means of marking the location of each nonconductive underground facility within a public right-of-way installed after that date. This requirement does not apply when making minor repairs to an existing nonconductive facility. As applied to this chapter, "minor repairs" means repairs to or partial replacement of portions of existing service laterals located within a public right-of-way for purposes of routine maintenance and upkeep.

Statutory Authority: *MS s 299J.04*

History: *29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0200 [Repealed, 24 SR 448]

Published Electronically: *July 20, 2005*

7560.0225 EXCAVATOR RESPONSIBILITIES REGARDING A LOCATE.

Subpart 1. [Repealed, 29 SR 1503]

Subp. 2. **Responsibility to protect and preserve.** The excavator is responsible for reasonably protecting and preserving a locate until no longer required for proper and safe excavation near the underground facility. If the excavator has reason to believe a locate is obliterated, obscured, missing, or incorrect, the excavator shall notify the facility operator or notification center in order to have an operator verify, refresh, or re-mark the locate.

7560.0250 EXCAVATION NOTICE SYSTEM

4

Subp. 3. **Use of locate.** A locate is valid for 14 days from the excavation commencement time stated on the excavation or location notice, unless the excavator has made previous arrangements with the operators affected to periodically verify, refresh, or re-mark the locate.

Statutory Authority: *MS s 14.06; 216D.08; 299J.04; 299F.60*

History: *24 SR 448; 29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0250 LOCATE STANDARDS.

Subpart 1. **Facility locate.** Unless otherwise agreed to between the excavator and operator, an operator shall locate an underground facility using stakes, flags, paint, or other suitable materials in varying combinations dependent upon the surface. The locate must be in sufficient detail to clearly identify the approximate route of the underground facility. The locate must also include:

- A. name, abbreviation, or logo of the operator when more than one operator listed on the notice uses the same color markings;
- B. width of the underground facility if it is greater than eight inches; and
- C. number of underground facilities if greater than one.

Subp. 2. **Operator duties in no conflict situation.** After December 31, 2005, an operator who receives notice and determines that an underground facility is not in conflict with the proposed excavation shall complete one or more of the following:

- A. mark the area "NO" followed by the operator's name, abbreviation, or logo in the color code of the underground facility not in conflict;
- B. place a clear plastic flag at the area that:
 - (1) states "N/C" or "NO CONFLICT" in lettering matching the color code of the underground facility that is not in conflict; and
 - (2) includes the operator's name, abbreviation, or logo, the date, a contact telephone number, and the ticket number; or
- C. contact the notification center through procedures required by the notification center and indicate that there are no underground facilities in conflict with the proposed excavation and that no markings or flags were left at the proposed excavation site.

Subp. 3. **Placement of flags or markings.** If using N/C (no conflict) flags or markings pursuant to subpart 2, an operator shall place the flags or markings in a location that can be readily observed by an excavator. When an area of proposed excavation is delineated by the use of white markings, an operator shall place the N/C flags or markings within, or as near as practicable to, the delineated area.

Subp. 4. **Duties of notification center.** After December 31, 2005, the notification center shall make the information received under subpart 2 available to the excavator before the start date and time on the notice. The notification center may fulfill this requirement by making the information accessible through one or more Internet addresses, by transmitting the information to a continuously working facsimile machine maintained by the excavator, or by other methodology developed by the notification center. The notification center shall make available the information received by operators pursuant to this section through

an electronic means. The notification center is not required by this subpart to contact an excavator verbally via telephone.

Statutory Authority: *MS s 299J.04*

History: *29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0300 OPERATOR PARTICIPATES AND SHARES COSTS.

An operator shall participate in and share the costs of the one call excavation notice system by:

- A. submitting the information required by the notification center to allow the center to notify the operator of excavation activity;
- B. updating the information provided to the notification center on a timely basis;
- C. installing and paying for equipment reasonably requested by the notification center to facilitate receipt of notice of excavation from the center;
- D. paying the costs charged by the notification center on a timely basis; and
- E. receiving and responding to excavation notices, including emergency notices, as required by Minnesota Statutes, chapter 216D.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.641*

History: *16 SR 135*

Published Electronically: *July 20, 2005*

7560.0325 EMERGENCY EXCAVATION NOTICES.

Subpart 1. **Duty of excavator to provide notice.** An excavator shall provide notice to the notification center before commencing an emergency excavation, unless subpart 2 applies. All emergency notices, regardless whether made prior to excavation, must be verbal or in a manner accepted by the notification center. In addition to the information required by the notification center, the notice must also contain:

- A. a description of the situation requiring the emergency excavation;
- B. the precise location of the proposed area of the emergency excavation;
- C. at least one continuously staffed telephone number where the excavator can be contacted by the operator throughout the emergency; and
- D. the excavation start date and time if the need for excavation is not immediate.

Subp. 2. **Excavating before notice.** If an emergency is such that providing notice or waiting for an operator would result in an undue risk to life, health, or significant loss of property, the excavator may excavate without providing prior notice or waiting for an operator to mark an underground facility. In this situation, the excavator shall provide notice as soon as practicable and take all reasonable precautions to avoid or minimize damage. Excavation prior to notice under this subpart does not relieve an excavator from any responsibility for damage to an underground facility pursuant to Minnesota Statutes, section 216D.06.

Subp. 3. **Emergency notice requesting immediate response.** Upon receiving an emergency excavation notice requesting an immediate response, an operator shall:

7560.0350 EXCAVATION NOTICE SYSTEM

6

A. attempt to contact the excavator within one hour at the telephone number provided in subpart 1, item C, to provide any information concerning facilities at or near the area of excavation including an anticipated response time; and

B. locate and mark the underground facility within three hours of notice unless:

- (1) otherwise agreed between the parties;
- (2) the operator notifies the excavator that not locating does not present an immediate danger to life or health, or a significant loss of property; or
- (3) there is an event or situation that cannot be reasonably anticipated or controlled by the operator.

Subp. 4. **Emergency notice requesting scheduled response.** Upon receiving an emergency excavation notice that does not require an immediate response, and before the scheduled excavation start date and time, an operator shall:

A. locate and mark the underground facility, unless otherwise agreed between the parties; or

B. notify the excavator at the telephone number provided in subpart 1, item C, that there is not an underground facility within the area of proposed excavation.

For purposes of this subpart, a requested start time of three hours or less from the time notice is provided to the center is considered an emergency notice requesting immediate response under subpart 3.

Statutory Authority: *MS s 299J.04*

History: *29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0350 EXCAVATION NOTICE REQUESTING MEET.

Subpart 1. **Excavator duties.** When requesting a meet through the notification center, an excavator must provide at least one contact name and telephone number to assist in facilitating the meet. An excavator shall contact the notification center to cancel or reschedule the meet and the notification center shall relay this information to the affected operators. When a meet is requested, an excavator's notice must include the entire geographic area of the proposed excavation and the specific location of the meet. This part does not relieve an excavator from the duty to provide a precise geographic location of the proposed area of excavation, or to use white markings except where it can be shown that to do so is not practical.

Subp. 2. **Operator duties.** When a meet is requested, an affected operator shall make a reasonable effort to attend the meet at the proposed date and time, or contact the excavator before the meet and reschedule for a mutually agreed date and time.

Subp. 3. **Excavation start date and time.** When a meet is requested, the meet date and time must be at least 48 hours after notice is provided, excluding Saturdays, Sundays, and holidays, and the excavation start date and time must be at least 24 hours after the proposed meet date and time specified on the notice, excluding Saturdays, Sundays, and holidays. This subpart does not apply if these matters are provided for in a written agreement with all affected operators.

Subp. 4. **Meet request documentation.** An excavator shall maintain written documentation of each meet with an underground facility operator or representative. This documentation must be kept for the duration of the excavation conducted under the notice. The documentation must include:

- A. the date and time of each meet;
- B. the names, company affiliations, and contact information of the attendees of each meet;
- C. a diagram, sketch, or description of the precise excavation locations, dates, and times; and
- D. the agreed schedule of any future meets or communications.

Statutory Authority: *MS s 299J.04*

History: *29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0375 LOCATING A SERVICE LATERAL.

Subpart 1. **Operator duties.** Unless otherwise agreed, an underground facility operator shall locate a service lateral before the start date and time on the notice and in accordance with items A through C:

A. An operator of a natural gas, propane, or electric facility shall locate a service lateral up to the meter or the connection to a customer's underground facility, whichever is closer to the end-use customer. If the meter or connection to the customer's underground facility is within a public right-of-way, at a minimum the operator shall locate that portion of the service lateral within the public right-of-way up to the point where the service lateral first leaves the public right-of-way.

B. An operator of a communication facility shall locate a service lateral up to the entry of the first building. If the service lateral does not enter a building, the operator shall locate up to the utilization equipment, fence, or wall that surrounds the equipment.

C. After December 31, 2005, an operator of a sewage or water facility, at a minimum, shall locate that portion of the service lateral within a public right-of-way installed after that date up to the point where the service lateral first leaves the public right-of-way. The operator shall either locate or provide information as shown on maps, drawings, diagrams, or other records, on the location of a sewer or water service lateral installed before January 1, 2006. If no information is available on a sewer or water service lateral installed before January 1, 2006, then notifying the excavator that no information exists fulfills the requirements of this section.

Subp. 2. **Exception.** An operator is not required to locate a service lateral of a customer who currently participates in the statewide notification system, provided the customer and operator mutually agree that the customer will assume locate responsibilities. The agreement must be in writing.

Statutory Authority: *MS s 299J.04*

History: *29 SR 1503*

Published Electronically: *July 20, 2005*

7560.0400 CITATIONS.

Subpart 1. **Notice of violation.** The office shall issue a notice of probable violation when the office has good cause to believe a violation of Minnesota Statutes, sections 216D.01 to 216D.09 or this chapter has occurred.

Subp. 2. **Contents of notice of violation.** A notice of violation must include:

7560.0500 EXCAVATION NOTICE SYSTEM

8

- A. a statement of the statute or rule allegedly violated by the person and a description of the evidence on which the allegation is based;
- B. notice of response options available to the person cited;
- C. notice that the person has 30 days in which to respond;
- D. notice that failure to respond within 30 days precludes administrative review under this chapter; and
- E. if a civil penalty is proposed, the amount of the proposed civil penalty and the maximum civil penalty applicable under law.

Subp. 3. **Receipt of notice.** The notice of violation is deemed received three days after mailing to the person's last known address.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

History: *16 SR 135; 24 SR 448*

Published Electronically: *July 20, 2005*

7560.0500 RESPONSE OPTIONS.

The person shall respond to the notice of violation in the following way:

- A. When the notice contains a proposed compliance order, the person shall:
 - (1) agree to the proposed compliance order;
 - (2) request the execution of a consent order;
 - (3) object to the proposed compliance order and submit written explanations, information, or other materials in answer to the allegations in the notice; or
 - (4) request the office to initiate a hearing under Minnesota Statutes, sections 14.50 to 14.69.
- B. When the notice contains a proposed civil penalty, the person shall:
 - (1) pay the penalty and close the case;
 - (2) submit an offer in compromise of the proposed civil penalty;
 - (3) submit a written explanation, information, or other material in answer to the allegations or in mitigation of the proposed civil penalty; or
 - (4) request the office to initiate a hearing under Minnesota Statutes, sections 14.50 to 14.69.
- C. Failure to respond in writing within 30 days precludes administrative review under this chapter. A final order will be issued and penalties will be forwarded for collection.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

History: *16 SR 135; 24 SR 448*

Published Electronically: *July 20, 2005*

7560.0600 DIRECTOR REVIEW.

If the person objects to the proposed civil penalty or compliance order and submits written explanations, information, or other materials in response to a notice of violation, within the time specified in part 7560.0500, the director shall review the submissions and determine whether to negotiate further, to change or withdraw the notice of violation, or to initiate a hearing under Minnesota Statutes, sections 14.50 to 14.69.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

History: *16 SR 135; 24 SR 448*

Published Electronically: *July 20, 2005*

7560.0700 CONSENT ORDER.

An executed consent order must contain:

- A. an admission by the person of the jurisdictional facts;
- B. a waiver of further procedural steps and the right to seek judicial or administrative review or otherwise challenge or contest the validity of the consent order; and
- C. an agreement that the notice of violation may be used to construe the terms of the consent order.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.641*

History: *16 SR 135*

Published Electronically: *July 20, 2005*

7560.0800 CIVIL PENALTIES.

Subpart 1. **Proceedings against excavators.** When the office has good cause to believe that an excavator is engaging or has engaged in conduct that violates Minnesota Statutes, section 216D.04, subdivision 1, 2, or 3; 216D.05, clause (1), (2), (3), or (4); or 216D.06, subdivision 1, or a rule adopted under Minnesota Statutes, section 216D.08, subdivision 4, the office, if appropriate, shall negotiate a civil penalty under Minnesota Statutes, section 216D.08, subdivision 2. A penalty imposed under Minnesota Statutes, section 216D.08, is subject to the contested case and judicial review provisions of Minnesota Statutes, chapter 14. An operator who engages or has engaged in excavation that violates Minnesota Statutes, chapter 216D, is subject to the proceedings specified in subpart 2 and is subject to the penalties specified in subpart 4, item B or C.

Subp. 2. **Proceedings against underground facility operators.** The office may negotiate a civil penalty under item A or B.

A. When the office has good cause to believe that an underground facility operator, other than an operator set forth in item B, is engaging or has engaged in conduct that violates Minnesota Statutes, sections 216D.01 to 216D.07, or a rule adopted under Minnesota Statutes, section 216D.08, subdivision 4, the office, if appropriate, shall negotiate a civil penalty under Minnesota Statutes, section 216D.08, subdivision 2. A penalty imposed under Minnesota Statutes, section 216D.08, is subject to the contested case and judicial review provisions of Minnesota Statutes, chapter 14.

7560.0800 EXCAVATION NOTICE SYSTEM

10

B. When the office has good cause to believe that an operator who engages in the transportation of gas or hazardous liquids or who owns or operates a gas or hazardous liquid pipeline facility is engaging or has engaged in conduct that violates Minnesota Statutes, sections 299F.56 to 299F.641, or a rule adopted under Minnesota Statutes, section 299F.60, subdivision 5, the office, if appropriate, shall negotiate a civil penalty under Minnesota Statutes, section 299F.60, subdivision 2. A penalty imposed under Minnesota Statutes, section 299F.60, is subject to the contested case and judicial review provisions of Minnesota Statutes, chapter 14.

Subp. 3. **Assessment considerations.** In assessing a civil penalty under this part, the office shall consider the following factors:

- A. the nature, circumstances, and gravity of the violation;
- B. the degree of the person's culpability;
- C. the person's history of previous offenses;
- D. the person's ability to pay;
- E. good faith on the part of the person in attempting to remedy the cause of the violation;
- F. the effect of the penalty on the person's ability to continue in business; and
- G. past reports of damage to an underground facility by a person.

Subp. 4. **Maximum penalties.** For the purposes of this part, penalties imposed under this part must not exceed the limits in items A to C.

A. Penalties imposed against excavators must not exceed \$1,000 for each violation per day of violation.

B. Penalties imposed against underground facility operators, other than an operator set forth in item C, must not exceed \$1,000 for each violation per day of violation.

C. Penalties imposed against an operator who engages in the transportation of gas or hazardous liquids or who owns or operates a gas or hazardous liquid pipeline facility must not exceed \$10,000 for each violation for each day that the violation persists, except that the maximum civil penalty must not exceed \$500,000 for a related series of violations.

Subp. 5. **Payment procedure.** The person shall pay a civil penalty that has been proposed, assessed, or compromised by submitting to the office a check or money order in the correct amount, payable to the commissioner of public safety.

Statutory Authority: *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

History: *16 SR 135; 24 SR 448*

Published Electronically: *July 20, 2005*

Certificate Of Completion

Envelope Id: 2C134B90-906D-4A63-8A07-0ABF09F8E11A

Status: Completed

Subject: Mykenzie Bessolo - ROW Permit Application

Source Envelope:

Document Pages: 103

Signatures: 2

Envelope Originator:

Certificate Pages: 4

Initials: 1

Highway Permits

AutoNav: Enabled

Anoka County Government Center

Envelopeld Stamping: Enabled

2100 3rd Avenue

Time Zone: (UTC-06:00) Central Time (US & Canada)

Anoka, MN 55303

highwaypermits@anokacountymn.gov

IP Address: 199.21.93.11

Record Tracking

Status: Original

Holder: Highway Permits

Location: DocuSign

9/22/2025 11:55:06 AM

highwaypermits@anokacountymn.gov

Security Appliance Status: Connected

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Storage Appliance Status: Connected

Pool: Anoka County

Location: Docusign

Signer Events

Signature

Timestamp

Mykenzie Bessolo

permits@utilisource.us

Security Level:

DocuSign.email

ID: 1

9/22/2025 11:55:08 AM

Signed by:

Mykenzie Bessolo

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Sent: 9/22/2025 11:55:08 AM

Viewed: 9/22/2025 11:55:15 AM

Signed: 9/22/2025 12:10:34 PM

Signature Adoption: Pre-selected Style

Using IP Address: 199.21.93.11

Electronic Record and Signature Disclosure:

Accepted: 2/28/2025 1:23:22 PM

ID: b52993fb-9945-48cb-95d5-ccb4c0e1eadc

Susan Burgmeier

Susan.Burgmeier@anokacountymn.gov

Associate Traffic Technician

Anoka County

Signing Group: Highway Permits

Security Level: Email, Account Authentication (Optional)

DocuSigned by:

Susan Burgmeier

C5E91FE15CD44EE...

Sent: 9/22/2025 12:10:40 PM

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Signed: 10/22/2025 8:55:07 AM

Signature Adoption: Pre-selected Style

Using IP Address: 156.98.106.245

Electronic Record and Signature Disclosure:

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In Person Signer Events

Signature

Timestamp

Editor Delivery Events

Status

Timestamp

Agent Delivery Events

Status

Timestamp

Intermediary Delivery Events

Status

Timestamp

Certified Delivery Events

Status

Timestamp

Carbon Copy Events

Status

Timestamp

Mykenzie Bessolo

permits@utilisource.us

Security Level: Email, Account Authentication (Optional)

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Carbon Copy Events	Status	Timestamp
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Witness Events	Signature	Timestamp
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Notary Events	Signature	Timestamp
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Envelope Summary Events	Status	Timestamps
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Envelope Sent	Hashed/Encrypted	9/22/2025 11:55:08 AM
Envelope Updated	Security Checked	9/22/2025 12:10:34 PM
Envelope Updated	Security Checked	10/22/2025 8:55:07 AM
Certified Delivered	Security Checked	9/22/2025 1:48:07 PM
Signing Complete	Security Checked	10/22/2025 8:55:07 AM
Completed	Security Checked	10/22/2025 8:55:16 AM

Payment Events	Status	Timestamps
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