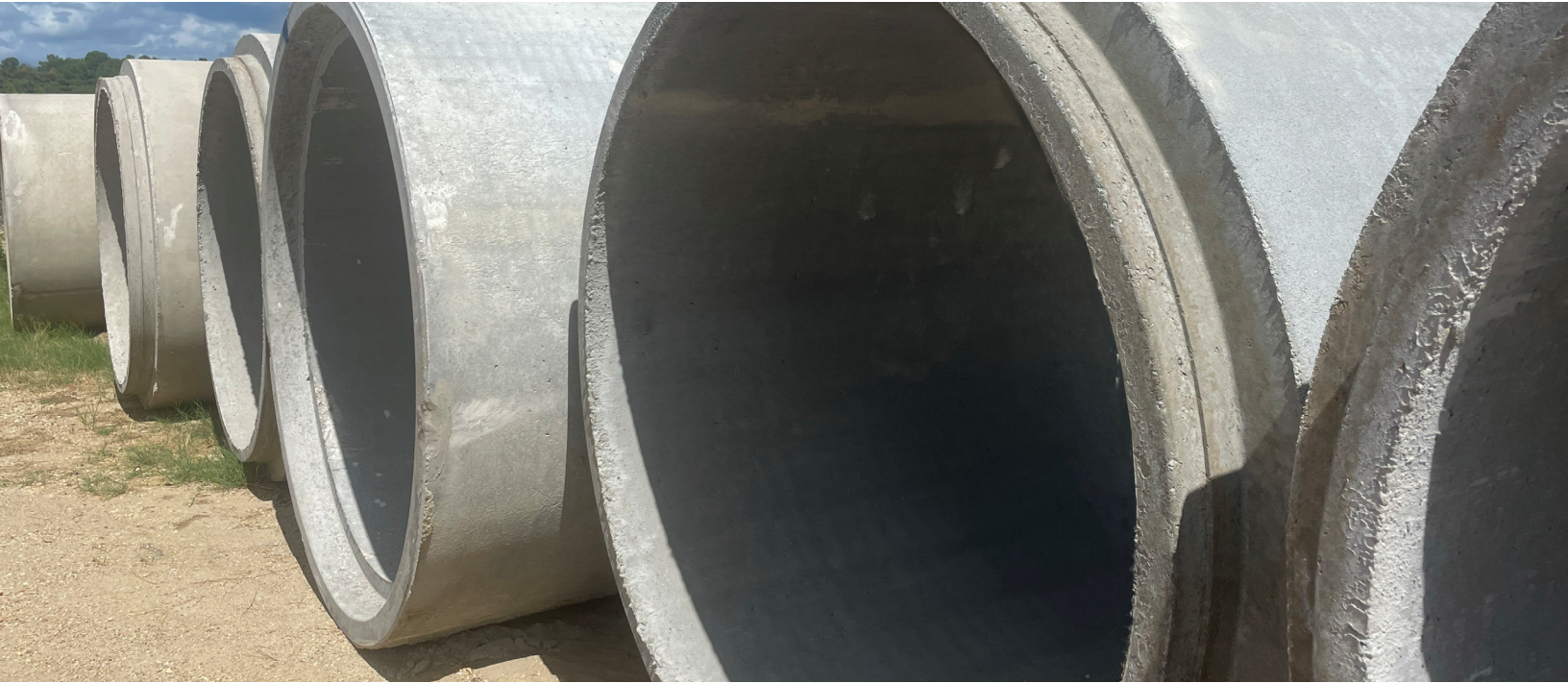




CONCRETE SOLUTIONS. **CONCRETE RESULTS.**

REINFORCED CONCRETE PIPE | RCP



REINFORCED CONCRETE PIPE (RCP)

Round reinforced concrete pipe manufactured by Premier Concrete Products offers an impressive record of strength and performance, making it an economical and reliable choice for storm water systems.

Reinforced concrete pipe is the preferred choice for storm water systems across the country. With a proven history of reliability, it's clear why municipalities and contractors rely on concrete pipe to build resilient infrastructure.

RCP is designed and manufactured to withstand a complete range of underground environments and runoff profiles. Concrete pipe serves as both a conduit and a structure, a characteristic that sets it apart from flexible materials.

RCP offers many benefits for flood-resilient infrastructure. Manufactured in larger diameters than other materials, RCP offers greater flow capacity to reduce flooding and prevent erosion. In the event of a flood, the weight of concrete pipe helps it resist floatation, unlike lighter pipe materials.

Unlike other products used for pipeline infrastructure, concrete pipes are inherently fire-resistant, which protects evacuation routes from collapse, flooding, and erosion. Safety-conscious engineers specify concrete pipe to reduce the risk of vital pipeline infrastructure melting and collapsing, compromising evacuation routes, and releasing harmful chemicals into the environment in the event of a wildfire.

RCP maintains structural integrity over a service life of 100 years plus, requiring minimal repairs. Its long service life limits the need for infrastructure replacement, and it integrates well with system expansions or alterations, even years after installation.

Premier Concrete Products' concrete pipe is made with local and domestic materials. Aggregates are sourced from local, sustainably managed quarries.

Changes in mix design, type of aggregates and cementitious materials, and manufacturing and curing processes can be specified to meet any load requirement. Our experienced engineering team will partner with you to be sure your product meets project needs.

Compressive strengths range between 4,000 to 8,000 PSI. Steel reinforcement adds to inherent strength professionals rely in every phase of construction, utilizing the highest quality products.

Our team delivers satisfactory results with extensive quality assurance testing before, during, and after casting.

Sustainable

Concrete pipe is the most durable and sustainable material for infrastructure and major construction.

- Maintains structural integrity and reduces the cost of repairs and replacement.
- Integrates well with future expansions or alterations.

Dependable

Technological advances in research and development of concrete mixes, pipe design and manufacturing processes allow for product to withstand a complete range of underground environments and effluent profiles.

There is a better understanding about concrete pipe products by professionals involved in planning, design, construction and installation.

Durable

Concrete pipe is designed to perform as expected for the life of the project.

Its functional life is at least 100 years plus.

Concrete will not burn, rust, tear, buckle, deflect, and is immune to the attack of most elements, whether buried or exposed.

Strength

Precast concrete pipe is the strongest pipe available; it can be designed and tested to meet any load requirement.

Compressive strengths for concrete pipe typically range from 4000 to 8000 psi depending on aggregates, cementitious materials used, the manufacturing and curing process, and mix design.

Concrete pipe strength is standardized by ASTM C76.

Concrete pipe's wire reinforcement adds significantly to its inherent strength.

Value

Concrete pipe maintains its value because of its rigidity and lack of maintenance or replacement once installed.

Design, installation and inspection costs for concrete pipe are lower than comparable costs for alternative products.

Recommended for installation:

1. In conditions of low, moderate, or severe cover and live load conditions.
2. Where structural failure might endanger life or property.
3. Where internal hydrostatic pressures may be expected.

Sizes

Reinforced concrete pipe is available in diameters of 12 - 144 inches.

Applications

- Culverts
- Outfalls
- Utility tunnels
- Storm drains
- Low pressure sewer force mains
- Treatment plant piping
- Low pressure water supply systems
- Impound overflow conduits
- Irrigation distribution systems
- Groundwater recharge systems
- Cattle pass tunneling

Joints

Concrete joint with rubber gasket.

Tongue and groove for packing with mastic joint compound, preformed mastic or butyl gaskets.

Other specialty joints may be available.

Linings / Coatings

A variety of linings and coatings is available where project conditions dictate use.

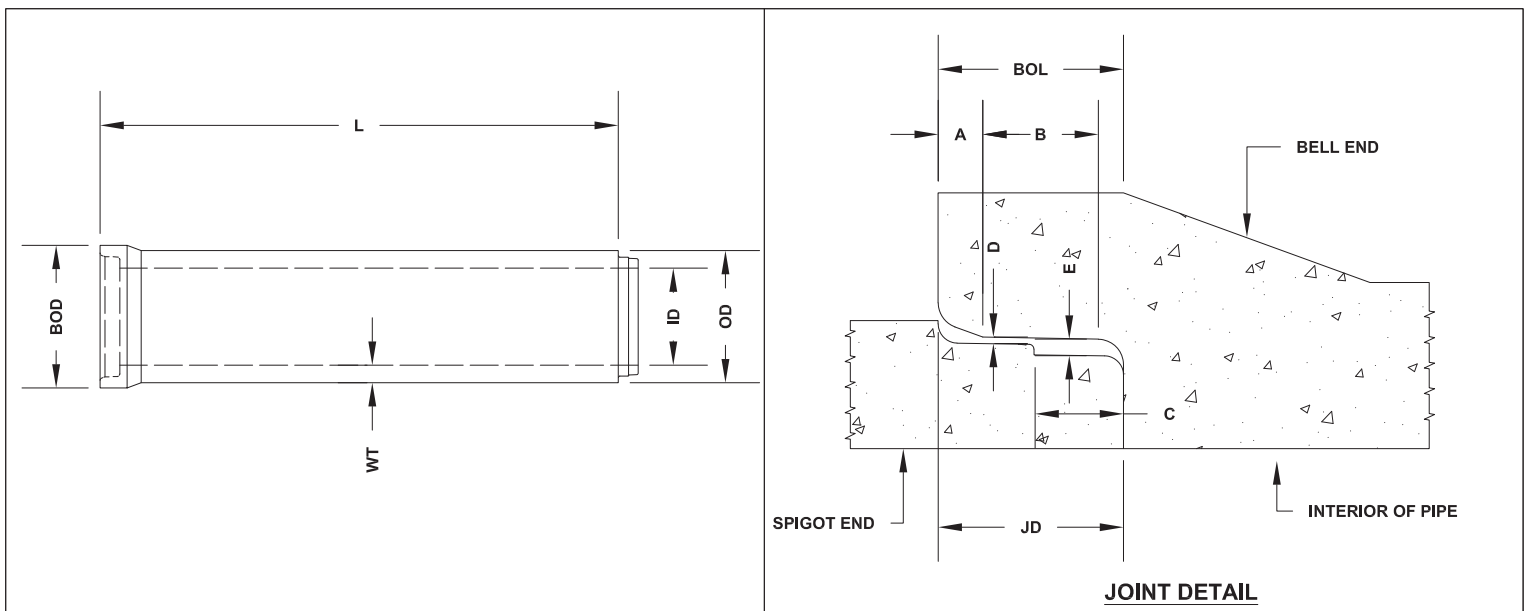


Applicable Specifications

- ASTM C76 / AASHTO M170 - Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- ASTM C443 / AASHTO M198 - Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets
- ASTM C361 - Reinforced Concrete Low Head Pressure Pipe
- ASTM C655 - Reinforced Concrete D-Load Culvert, Storm Drain and Sewer Pipe
- ASTM C990 - Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants Structures
- ASTM C1619 - Standard Specification for Elastomeric Seals for Joining Concrete
- State / Local Department of Transportation requirements.

SMALL REINFORCED CONCRETE PIPE | RCP

ID	OD	Bell Outside Dia (BOD)	Wall Thickness (WT)	Length (L)	Bell Outside Length (BOL)	Joint Depth (JD)	Weight
inch	inch	inch	inch	inch	inch	inch	lbs
12	16	19.13	2	96	6.5	3.5	795
15	19.5	23.13	2.25	96	6.5	3.5	1,107
18	23	26.63	2.5	96	6.5	3.5	1,448
24	30	32.63	3	96	7	3.5	2,216
30	37	39.5	3.5	96	7	3.5	3,180
36	44	45.63	4	96	7	3.5	4,267
42	51	52	4.5	96	7	4	5,523



NOTES:

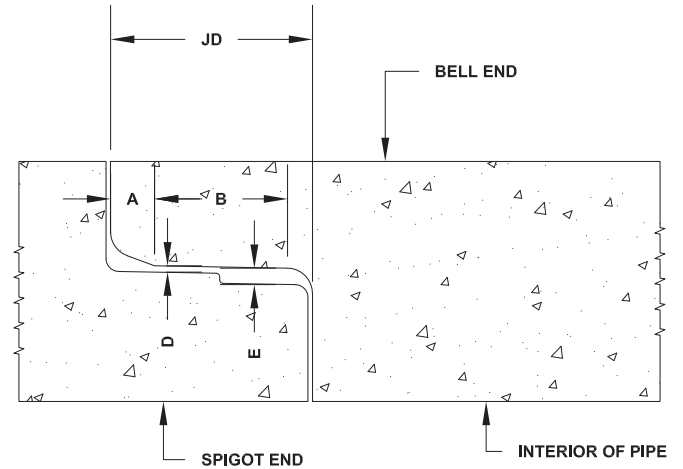
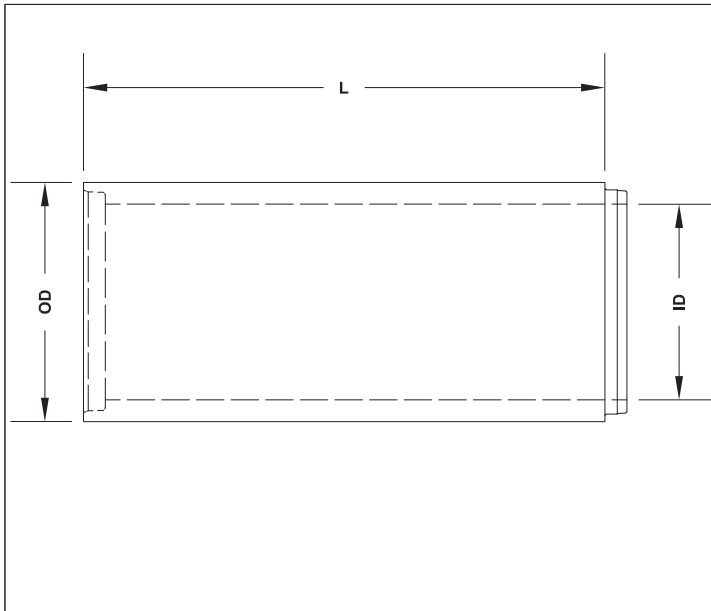
1. All dimensions subject to allowable specification tolerances and parameters.
2. All products meet or exceed applicable AASHTO, ASTM, and standard local requirements.
3. Steel welded wire mesh conforms to ASTM A1064, reinforcing meets/or exceeds ASTM-C76.
4. Pipe manufactured per ASTM C76 Class III, IV, and V, ASTM C655, C1837, and AASHTO M170
5. Joints and gaskets shall conform to ASTM C443 and C990.

ASTM C76-22A



LARGE REINFORCED CONCRETE PIPE | RCP

ID	OD	Wall Thickness (WT)	Length (L)	Joint Depth (JD)	Weight
inch	inch	inch	inch	inch	lbs
48	58	5	96	4.25	6,930
54	65	5.5	96	4.25	8,560
60	72	6	96	4.75	10,360
72	86	7	96	5	14,470
84	100	8	96	5	19,257
96	114	9	96	5	24,733
108	128	10	96	5	30,890
120	140	10	96	5.5	34,024
144	168	12	96	5.5	49,013



JOINT DETAIL

NOTES:

1. All dimensions subject to allowable specification tolerances and parameters.
2. All products meet or exceed applicable AASHTO, ASTM, and standard local requirements.
3. Steel welded wire mesh conforms to ASTM A1064, reinforcing meets/or exceeds ASTM-C76.
4. Pipe manufactured per ASTM C76 Class III, IV, and V, ASTM C655, C1837, and AASHTO M170
5. Joints and gaskets shall conform to ASTM C443 and C990.

ASTM C76-22A



PREMIER
CONCRETE PRODUCTS

REINFORCED CONCRETE ARCH PIPE | RCAP



REINFORCED CONCRETE ARCH PIPE (RCAP)

Reinforced concrete arch pipe is a versatile solution for situations where overhead space limitations or depth constraints require an alternative to traditional round concrete pipes. Its durability and strength make it a reliable choice for various infrastructure projects.

It is produced with tongue and groove joints for sealing, using various materials like mastic joint compound, preformed flexible bitumen, butyl rubber gaskets, mortar, or external joint wraps.

Advantages

- Economical vs. cast-in-place.
- Natural stream bottoms are desired.
- Environmentally sensitive lands must be spanned.
- The span is larger than can be accommodated with a standard box culvert.

Sustainable

Concrete pipe is the most durable and sustainable material for infrastructure and major construction.

- Maintains structural integrity and reduces the cost of repairs and replacement.
- Integrates well with future expansions or alterations.

Dependable

Technological advances in research and development of concrete mixes, pipe design and manufacturing processes allow for product to withstand a complete range of underground environments and effluent profiles.

There is a better understanding about concrete pipe products by professionals involved in planning, design, construction and installation.

Durable

Concrete pipe is designed to perform as expected for the life of the project.

Its functional life is at least 100 years plus.

Concrete will not burn, rust, tear, buckle, deflect, and is immune to the attack of most elements, whether buried or exposed.

Strength

Precast concrete pipe is the strongest pipe available; it can be designed and tested to meet any load requirement.

Compressive strengths for concrete pipe typically range from 4000 to 8000 psi depending on aggregates, cementitious materials used, the manufacturing and curing process, and mix design.

Concrete pipe strength is standardized by ASTM C76.

Concrete pipe's wire reinforcement adds significantly to its inherent strength.

Value

Concrete pipe maintains its value because of its rigidity and lack of maintenance or replacement once installed.

Design, installation and inspection costs for concrete pipe are lower than comparable costs for alternative products

Recommended for installation:

1. In conditions of low, moderate, or severe cover and live load conditions
2. Where structural failure might endanger life or property.
3. Where internal hydrostatic pressures may be expected.

Sizes

Upon request.

Applications

- Culverts
- Outfalls
- Utility tunnels
- Storm drains
- Low pressure sewer force mains
- Treatment plant piping
- Low pressure water supply systems
- Impound overflow conduits
- Irrigation distribution systems
- Groundwater recharge systems
- Cattle pass tunneling



Joints

Concrete joint with rubber gasket.

Tongue and groove for packing with mastic joint compound, pre-formed mastic or butyl gaskets.

Other specialty joints may be available.

Linings / Coatings

A variety of linings and coatings is available where project conditions dictate use.

Applicable Specifications

- ASTM C76 / AASHTO M170 - Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- ASTM C443 / AASHTO M198 - Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets
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- ASTM C990 - Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants Structures
- ASTM C1619 - Standard Specification for Elastomeric Seals for Joining Concrete
- State / Local Department of Transportation requirements.

REINFORCED CONCRETE BOX CULVERT | RCBC

PROVEN SUSTAINABILITY

Concrete Pipe Maintains Structural Integrity Over a Service Life of 100 Years Plus.

Evolution of Concrete Use

1793



JOHN SMEATON

Discovered a more efficient way to produce hydraulic lime for cement by using clay containing limestone.

1824



JOSEPH ASPDIN

Portland Cement Inventor

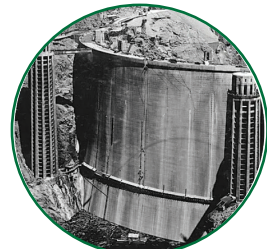
1902



FIRST APARTMENT BUILT

First apartment building using steel-reinforced concrete.
Built in Paris, France.

1936



HOOVER DAM

The number of large-scale concrete projects increased including the Grand Coulee Dam.

PRECAST BOX CULVERTS

Precast box sections are recommended for installations where circular or elliptical concrete pipe cannot provide adequate flow capacity, and as a superior substitute for cast-in-place box culverts, long span metal arches, short bridges, and multi-barrel circular culverts or drains.

Sizes

Precast box sections are normally available in spans of 3 feet through 14 feet, with a variety of rises.

Please contact our Sales / Engineering team for additional sizes and options.

Applications

- Highway culverts
- Railroad culverts
- Highway bridges
- Short span highway bridges
- Storm drains
- Livestock, pedestrian or golf cart undercrossing
- Utility tunnels
- Underground stormwater retention structures
- Groundwater recharge systems
- Replacement of existing open channels or ditches
- Jacked or tunneled installations

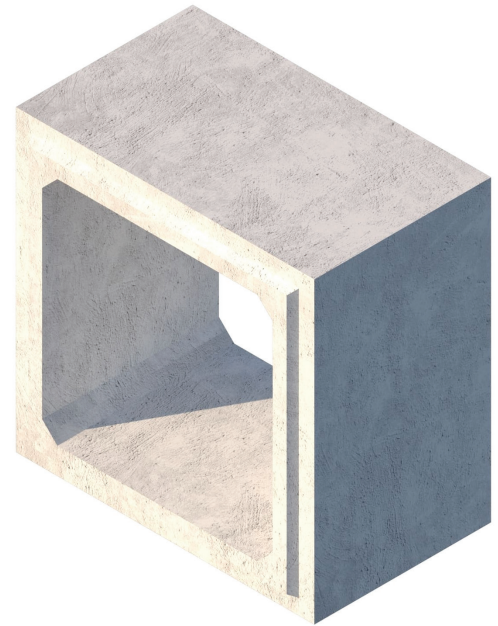
Joints

Precast box sections are produced with tongue and groove joints and a glued-on neoprene gasket.

Joints may also be packed with mastic joint compound, preformed mastic or butyl gaskets, mortar, or other approved sealant.

Linings / Coatings

A variety of linings and coatings is available where project conditions dictate their use.



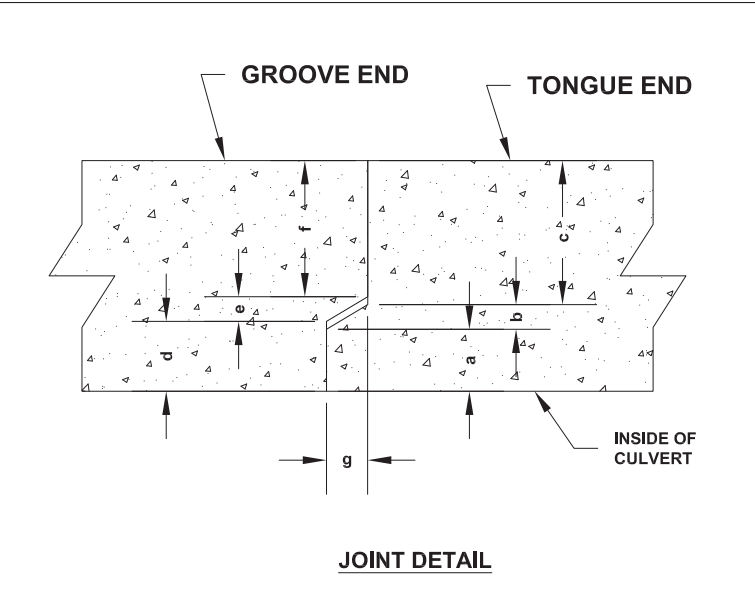
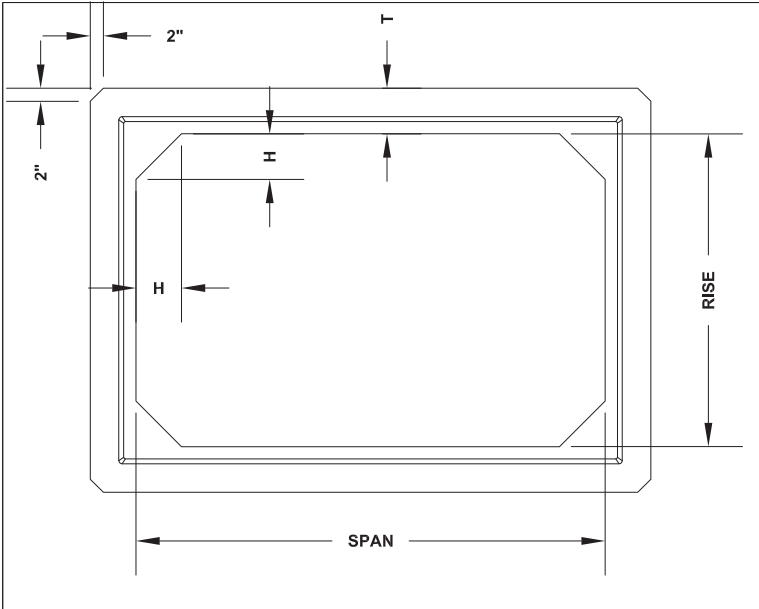
Applicable Specifications:

ASTM C1433 - Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers

ASTM C1577 - Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers according to AASHTO LRFO.

SMALL REINFORCED CONCRETE BOX CULVERT | RCBC

Rise feet	Span feet	Wall Thickness (T*) inch	Haunch (H) inch	Length (L) feet	Weight lbs
3	3	4	7	8	6,091
4	3	5	7	8	8,595
4	4	5	7	8	9,596
5	3	6	7	8	11,567
5	4	6	7	8	12,768
5	5	6	7	8	13,970
6	3	7	7	8	15,006
6	4	7	7	8	16,408
6	5	7	7	8	17,810
6	6	7	7	8	19,212
7	3	8	8	8	19,158
7	4	8	8	8	20,760
7	5	8	8	8	22,362
7	6	8	8	8	23,964
7	7	8	8	8	25,566
8	3	8	8	8	20,760
8	4	8	8	8	22,362
8	5	8	8	8	23,964
8	6	8	8	8	25,566
8	7	8	8	8	27,168
8	8	8	8	8	28,770



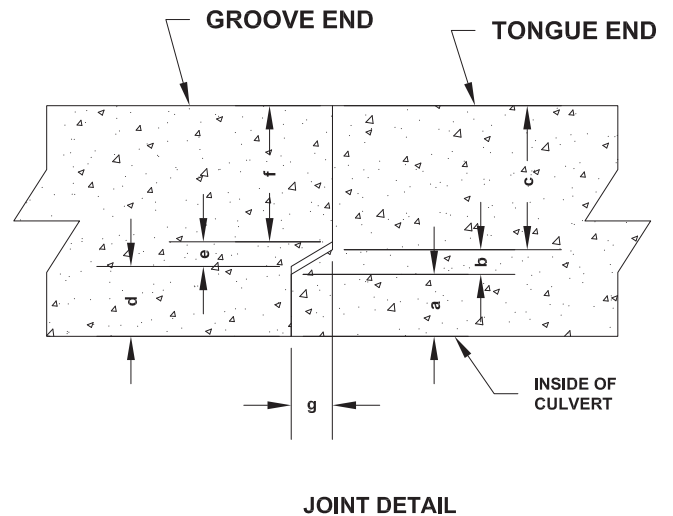
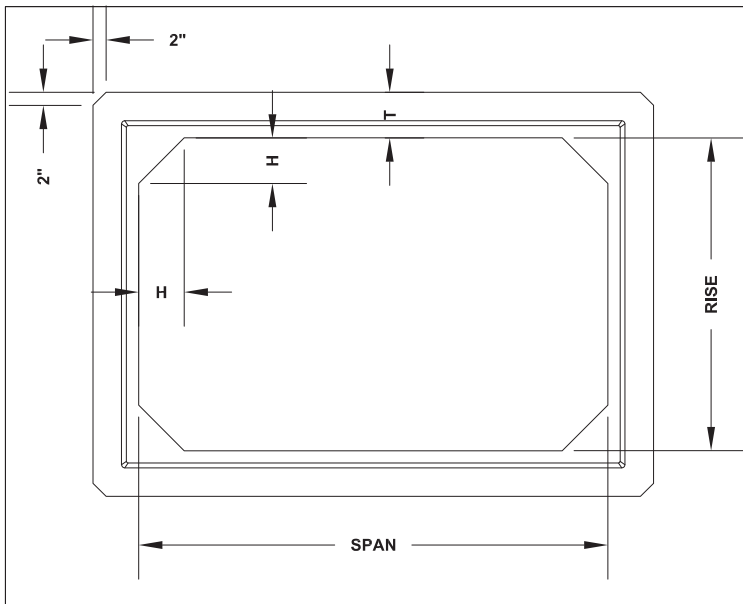
PREMIER
CONCRETE PRODUCTS

NOTES:

1. All dimensions subject to allowable specification tolerances and parameters.
2. All products meet or exceed applicable AASHTO, ASTM, and standard local requirements.
3. Steel welded wire mesh conforms to ASTM A1064.
4. Culverts manufactured in accordance with ASTM C789, C1433, C1577, and AASHTO M259.
5. Gasket materials shall conform to ASTM C990.

LARGE REINFORCED CONCRETE BOX CULVERT | RCBC

Rise feet	Span feet	Wall Thickness (T*) inch	Haunch (H) inch	Length (L) feet	Weight lbs
10	4	10	12	8	26,169
10	5	10	12	8	28,095
10	6	10	12	8	37,717
10	7	10	12	8	39,720
10	8	10	12	8	41,722
10	10	10	12	8	45,728
12	4	12	12	8	45,599
12	5	12	12	8	48,002
12	6	12	12	8	50,405
12	7	12	12	8	52,809
12	8	12	12	8	55,212
12	10	12	12	8	60,019
12	12	12	12	8	64,826
14	5	14	12	8	62,160
14	6	14	12	8	64,964
14	7	14	12	8	67,768
14	8	14	12	8	70,572
14	10	14	12	8	76,181
14	12	14	12	8	81,789
14	14	14	12	8	87,397



PREMIER
CONCRETE PRODUCTS

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CONCRETE SOLUTIONS.
CONCRETE RESULTS.

PREMIER
CONCRETE PRODUCTS



WWW.PREMIER-CONCRETE.COM

800 575 7293

38200 LA Hwy. 16 Denham Springs, LA 70706



Customer should verify with the product manufacturer that customer has the most current **Premier Concrete®** specifications for the product ordered or purchased. The **Premier Concrete®** system can be used in the application described in our literature and on our website, provided proper installation and engineering principles are followed. Professional engineering should be consulted before installation of **Premier Concrete®** units to assure appropriate design and use. ALL EXPRESSED OR IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED.