



Knelsen | PRECAST

—
YOUR CONSTRUCTION
SOLUTIONS SUPPLIER

STANDARD PRECAST PRODUCT GUIDE / 2019 / PRAIRIE REGION

PRECAST CONSTRUCTION MATERIALS

STANDARD & CUSTOM SOLUTIONS FOR ALL YOUR
CONSTRUCTION NEEDS



—
BARRIERS
PARKING CURBS
STACKING BLOCKS
GUARD POSTS
BOLLARDS
PEDESTALS

—
LIGHT POLE BASES
DUCT BANKS & SLEEPERS
PIPE PROTECTION SLABS
SUMP TANKS & CISTERNS
PITS & CHAMBERS
SPLASH PADS

—
PRECAST STEPS
TREE PLANTERS
BOAT RAMP SLABS
CUSTOM ARCHITECTURAL
CUSTOM STRUCTURAL

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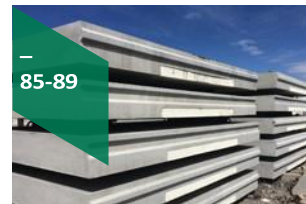
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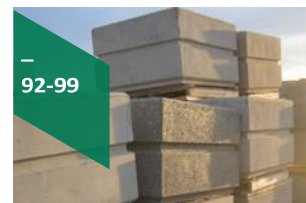
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Knelsen | PRECAST

CONTACT INFORMATION

Central Sales Desk
403-279-8161

Tender Email Address
Precast.Tenders@Knelsen.com

PRAIRIE REGION PRECAST PLANTS

CALGARY
8916 - 48th Street SE
Calgary, Alberta T2C 2P9C

EDMONTON
11211 Winterburn Road NW
Edmonton, Alberta T5S 2B2

KNELSEN PRECAST BUSINESS UNITS

SP STANDARD PRECAST

UNDERGROUND ELECTRICAL & COMMUNICATION UTILITY

- Manholes / Vaults, Pull Boxes/Pits
- Risers & Adapter Rings
- Cabinet & Switching Cubicle Bases
- Transformer Bases
- Light Pole, Traffic & Signal Bases
- Pedestals, Bollards & Guard Posts
- Duct Banks & Trenches
- Cable Trays & Sleepers (Conduit)
- Solar Panel Bases

MECHANICAL MATERIALS

- Sump Tanks & Sump Pump Pits
- Manholes / Vaults & Chambers
- Pipe Trays & Sleepers (Pipe)

RAIL & LRT MATERIALS

- Crossing Planks
- Signal & Communication Bases
- Manhole / Vaults & Pull Boxes
- Duck Banks & Trenches

CONSTRUCTION MATERIALS

- Jersey Barriers & TL3 Barriers
- Low Profile Barriers & Stack Blocks
- Pedestals, Bollards & Guard Posts
- Parking Curbs & Splash Pads

NATURAL RESOURCES / ENERGY & INFRASTRUCTURE

- Compressor Pads
- Pipeline Protection Slabs
- Pipeline Weights & Pipe Anchors
- Pipe Racks & Trenches
- Sleepers (Pipe & Conduit)
- Utility Markers

RESIDENTIAL BUILDINGS

- Custom Steps & Decks
- Stairwells & Window Wells
- Standard Steps
- Garage Beams
- Concrete & Steel Brackets

LANDSCAPE & PARK MATERIALS

- Benches, Tables & Tree Planters
- Splash Pads & Boat Ramps

CUSTOM SOLUTIONS

- Architectural & Structural
- Stair Pads & Ladder Pads
- Foundation Blocks
- Headwalls

EP ENGINEERED PRECAST

PRECAST CONCRETE BUILDINGS AND VENUES

- Architectural Precast Elements
- Insulated and Solid Wall Panels
- Solid Precast Slabs
- Stadium/Arena – Pre-stressed Bleachers

BRIDGE MATERIAL

- BEBO Concrete Arches
- Box Culverts
- Box Girders
- Pedestrian Bridges
- Precast Deck Panels
- Bridge Piers and Abutment Caps
- Pipe Line Crossing Structures
- Railway Structural Elements

NATURAL RESOURCES / ENERGY & INFRASTRUCTURE

- Trenches & Sumps
- Containment Walls
- Dike Walls
- Secondary Containment Structures
- Pile Caps and Pipe Racks
- Compressor Slabs
- Retaining Walls
- Blast Resistant Structures

CUSTOM SOLUTIONS

- Architectural & Structural

LOCATIONS

CALGARY

EDMONTON



KNELSEN PRECAST CUSTOM SOLUTIONS

All Knelsen plants within the Prairie region operate full carpentry and welding shops to support customization of existing products and small scale custom applications. All work is done in accordance to **CPCI standards and specifications**. The department includes journeymen trade staff, modern carpentry and welding equipment, as well as extensive form design experience - if it can be drawn, Knelsen can create the form.

KNELSEN QUALITY CONTROL

Quality control plays an important role at all Knelsen precast concrete operations and is supported by both external (CPCI) and internal standards, which have contributed to key tender awards requiring high levels of quality control management.

KNELSEN PLANT CPCI CERTIFICATION

CALGARY

since August 12, 2010

Associations

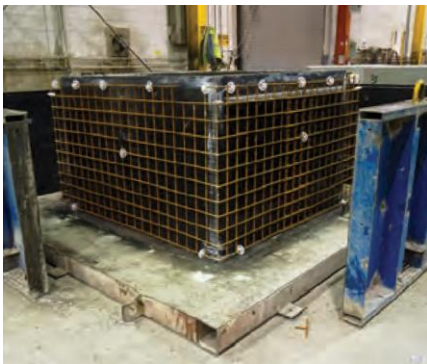


CANADIAN PRECAST/PRESTRESSED CONCRETE INSTITUTE (CPCI)

The **CPCI certification program** is the only program in Canada designed to qualify manufacturers who fabricate architectural, structural and specialty precast concrete products to meet the requirements of both **CSA Standard A23.4-09, including Annexes A and B**, together with (United States – Precast/Prestressed Concrete Institute) **PCI MNL-116 and 117** and **CPCI certification** requirements. Manufacturers are evaluated on their quality system, documentation, production procedures, engineering, personnel, equipment, and finished products. Plants are audited twice annually, on the more stringent requirements of either program, on a clause-by-clause basis. All CPCI audits are two days, regardless of the size of the plant and regardless of the type of product. The other certification program's enhancements only consider some prestressed bridge and commercial products as "advanced" to warrant two annual two-day audits. CPCI considers all product categories and precast facilities unique to warrant two-day audits for all.

KNELSEN PRECAST ENGINEERING

The Knelsen Precast Engineering Department provides engineering support for the designed use and handling considerations of all precast concrete. In addition to this role, the Engineering Department provides assessment and design of plant hardware, including spreader beams, X-braces, etc. The Engineering Department also provides a similar role for the field erection crews. The designs produced may be for any stage of a job (estimation, preliminary project work, post install review, repair, etc). accelerated installation schedules.



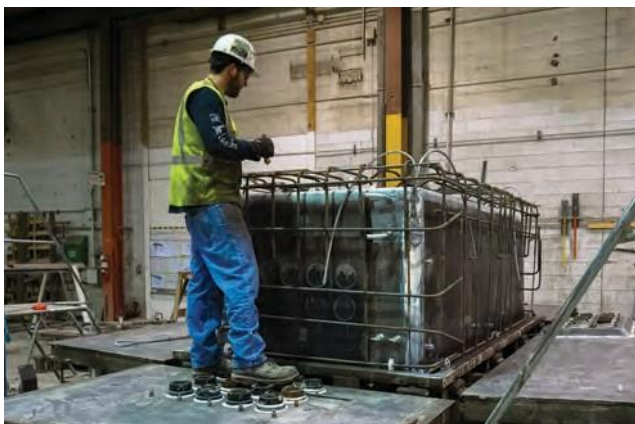
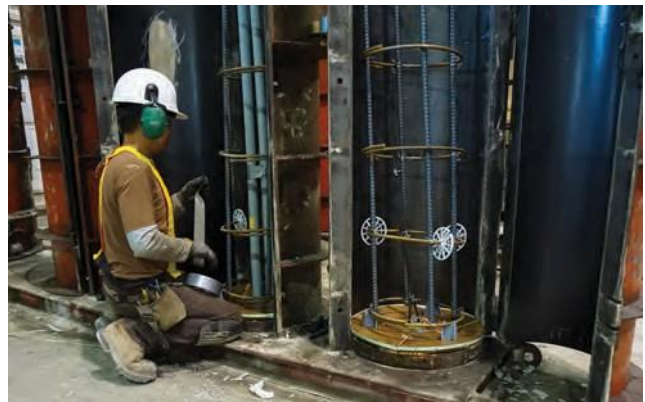
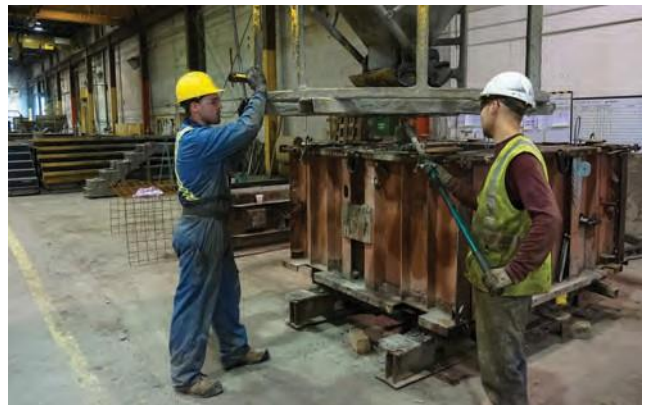
As it applies to STANDARD PRODUCTS, the Engineering Department will provide support in the determination of:

- Modifying products
- Creating new products
- Assessing changes in the use of a product
- Assessing structural integrity
- Advising on repair procedures
- Providing designs for plant equipment
- Providing installation instructions



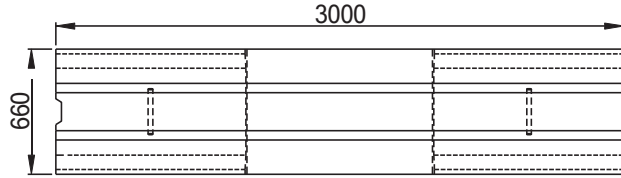
In terms of SPECIFIC SUPPORTIVE functions, Knelsen Engineers may provide the following:

- Assist with coordinating drawing changes
- Assess design requirements and change reinforcing to suite changes in use or design requirements, or to alter product dimensions to fit these needs
- Review field issues
- Review forces applied by the precast (soil bearing pressure for transformer bases)
- Help identify ways of addressing clients' issues
- Design lift-hooks and lifting mechanics
- Design prestressing equipment, if needed
- Design engineered lifting hardware
- Check the capacity of existing designs for new or alternative loading situations

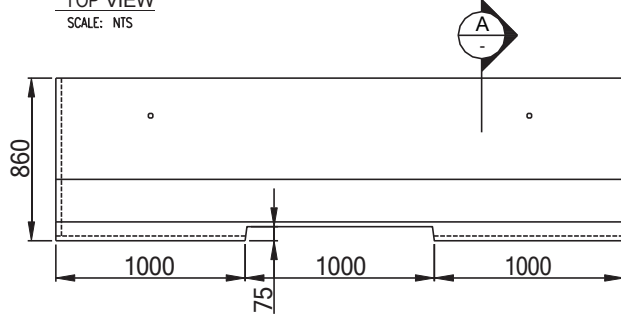


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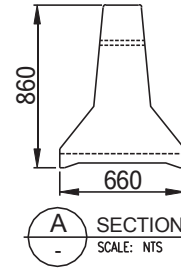
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



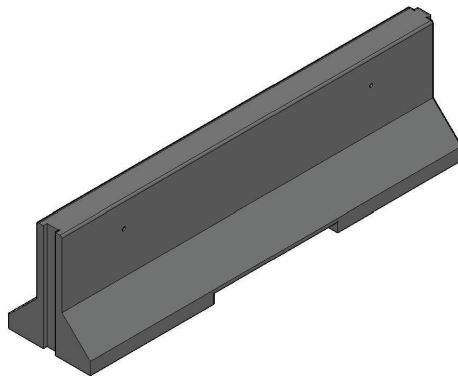
TOP VIEW
SCALE: NTS



ELEVATION
SCALE: NTS



SECTION A
SCALE: NTS



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,044 kg (4,497 lbs)

Product Detail

Outside Dimension	3000 x 660 x 860
Connection Type	Keyway
Max. Length	3048mm or 10'
Lift Holes	(2)-25mm Dia

Optional (Extra)

Fence Attachment	Insert PVC
Fence Attachment	Insert Corrugated Duct
Fence Attachment	Metal Plate

Revision Date April. 01 2019



10' NEW JERSEY BARRIER (TYPE 1)

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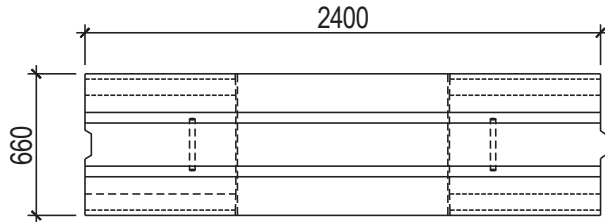
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. 7-0070-1

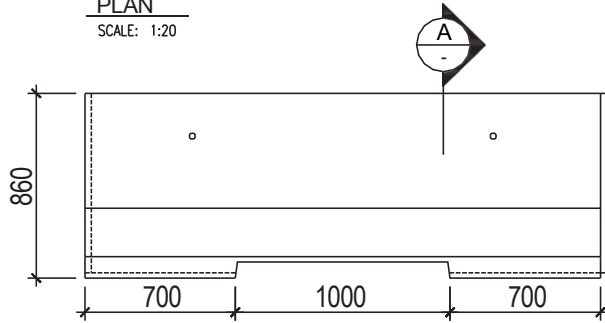
SAP No. 405107

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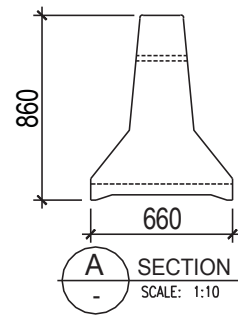
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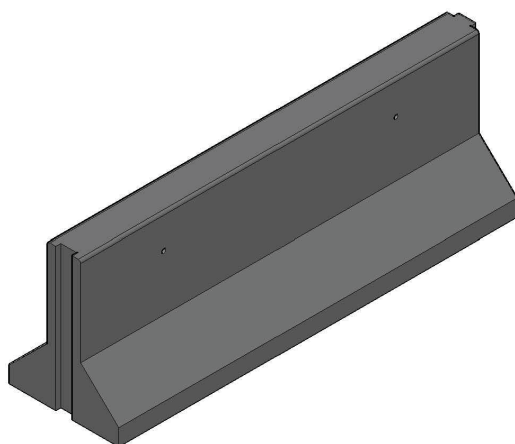
PLAN
SCALE: 1:20



ELEVATION
SCALE: 1:20



SECTION A-A
SCALE: 1:10



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,014 kg (2,230 lbs)

Product Detail

Outside Dimension	2400 x 660 x 860
Connection Type	Keyway
Max. Length	2400mm or 8'
Lift Mechanism	2 x 25mm Dia

Optional (Extra)

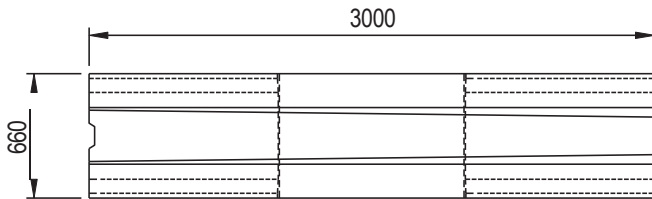
Fence Attachment	Insert PVC
Fence Attachment	Insert Corrugated Duct
Fence Attachment	Metal Plate

Revision Date **April. 01 2019**

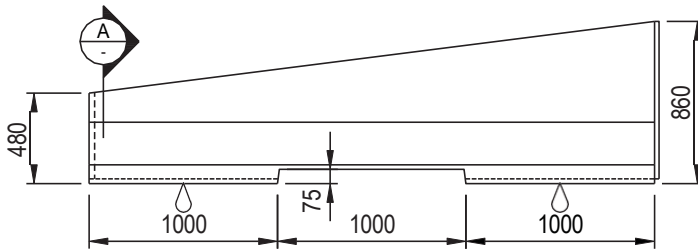
	<p>8' NEW JERSEY BARRIER (TYPE 1)</p> <p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p>	<p>Dwg. No. -</p> <p>SAP No. 412175</p>
	<p>Tel: (403) 279-8161</p> <p>Fax: (403) 279-6027</p>	

Notes

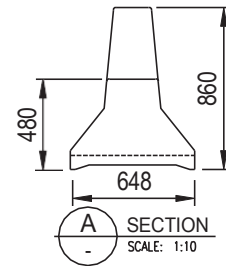
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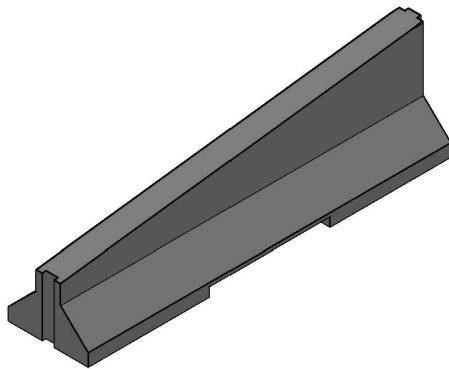
PLAN
SCALE: 1:20



ELEVATION
SCALE: 1:20



SECTION A
SCALE: 1:10



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,715 kg (3,781 lbs)

Product Detail

Outside Dimension	3000 x 660 x 860-480
Connection Type	Keyway
Max. Length	3048mm or 10'
Lift Mechanism	Aircraft Cable

Optional (Extra)

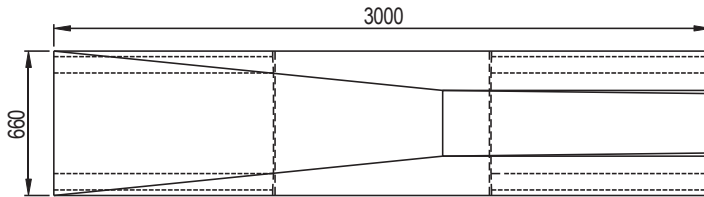
Fence Attachment	Insert PVC
Fence Attachment	Insert Corrugated Duct
Fence Attachment	Metal Plate

Revision Date **April. 01 2019**

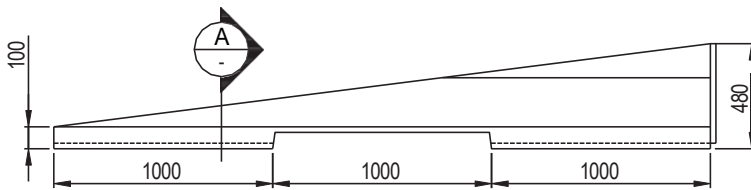
	<p>NJ BARRIER TRANSITION (TYPE 1)</p> <p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p>	<p>Dwg. No. SP35031</p> <p>SAP No. 406194</p>
	<p>Tel: (403) 279-8161</p> <p>Fax: (403) 279-6027</p>	

Notes

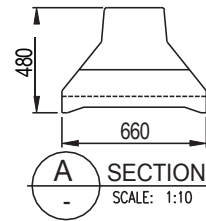
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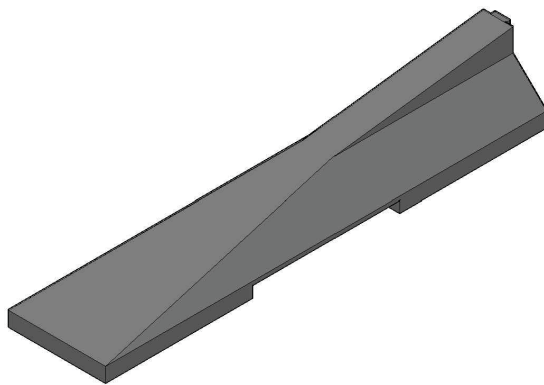
PLAN
SCALE: 1:20



ELEVATION
SCALE: 1:20



SECTION A
SCALE: 1:10



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,014 kg (2,230 lbs)

Product Detail

Outside Dimension	3000 x 660 x 860
Connection Type	Keyway
Max. Length	3048mm or 10'
Lift Mechanism	Aircraft Cable

Optional (Extra)

Fence Attachment	Insert PVC
Fence Attachment	Insert Corrugated Duct
Fence Attachment	Metal Plate

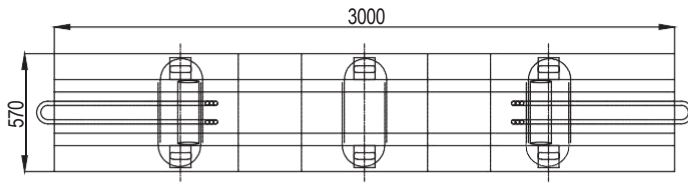
Revision Date **April. 01 2019**

	<p>NJ BARRIER TRASITION TYPE TWO</p>	<p>Dwg. No. SP3503</p>
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com</p>	<p>SAP No. 405108</p>

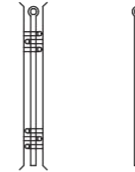
Tel: (403) 279-8161
Fax: (403) 279-6027

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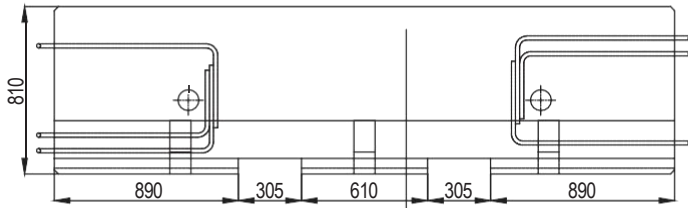
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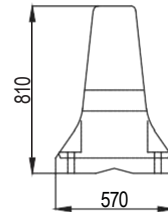
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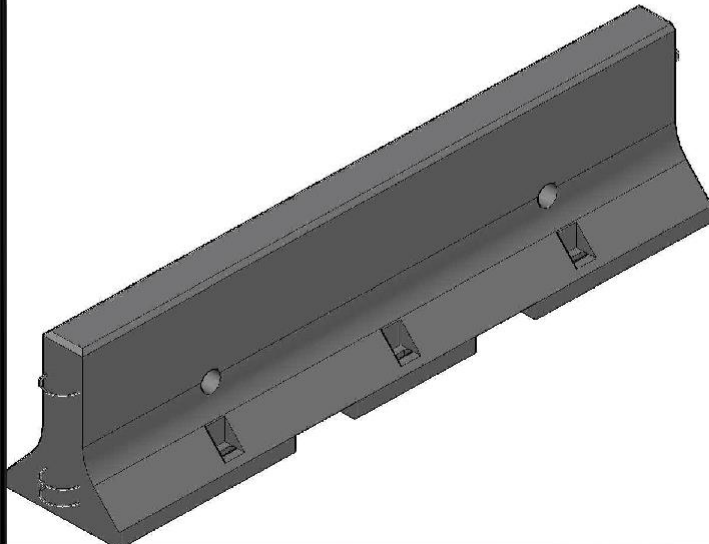
BARRIER CONNECTION
SCALE: -



ELEVATION
SCALE: 1:15



A SECTION
SCALE: 1:15



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,905 kg (4,190 lbs)

Product Detail

Outside Dimension	3000 x 570 x 810
Connection Type	Loop & Pin
Pinn Item Number	411744
Lift Hole	(2) - 102mm Dia

Revision Date April. 01 2019



TL3 BARRIER (TYPE F)

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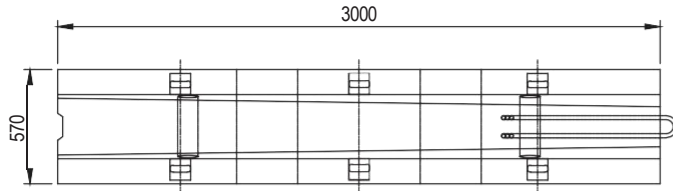
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No.
7-0073-04

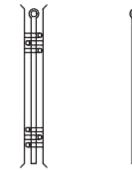
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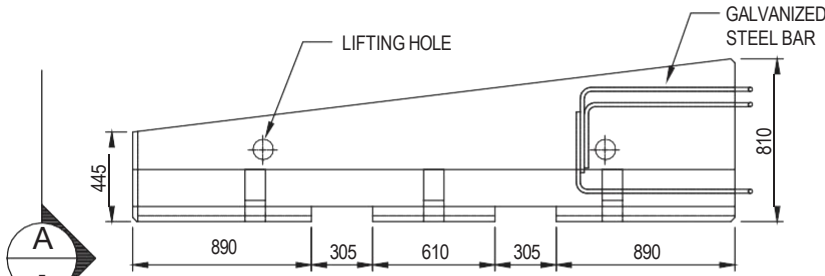
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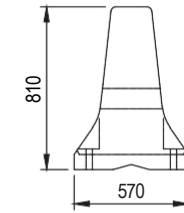
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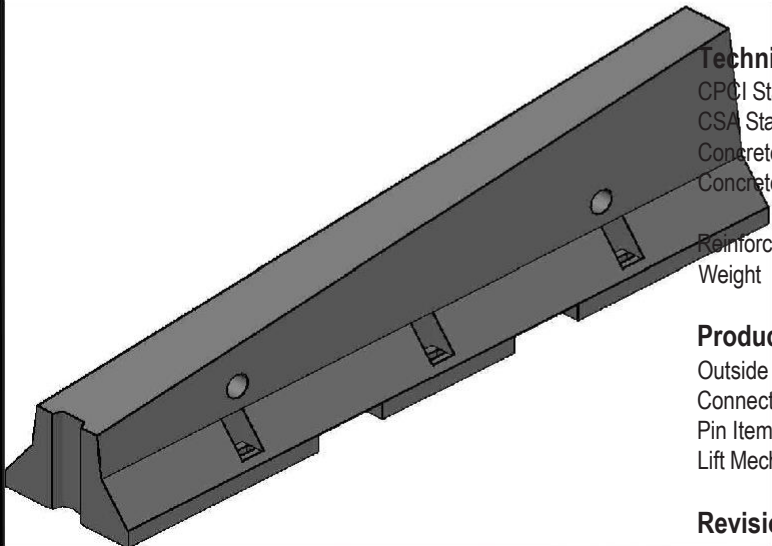
BARRIER CONNECTION
SCALE: -



ELEVATION
SCALE: 1:15



SECTION A
SCALE: 1:15



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	1,590 kg (3,505 lbs)

Product Detail

Outside Dimension	3000 x 570 x 810-445
Connection Type	Loop & Pin & Keyway
Pin Item Number	411744
Lift Mechanism	(2) - 102mm Dia

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TL3 BARRIER (TYPE F) FEMALE TRANSITION 1 OF 2

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Dwg. No. **7-0073-5**

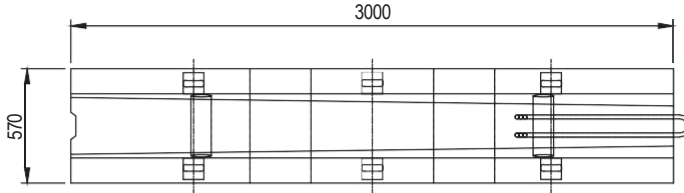
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01

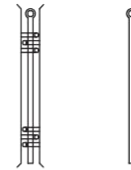
BARRIERS (Standard)

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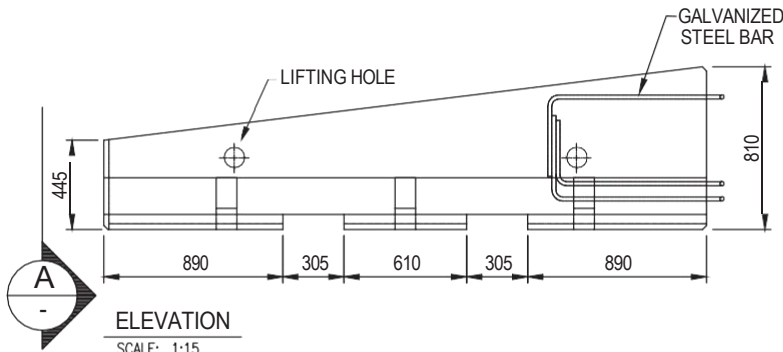
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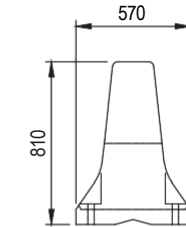
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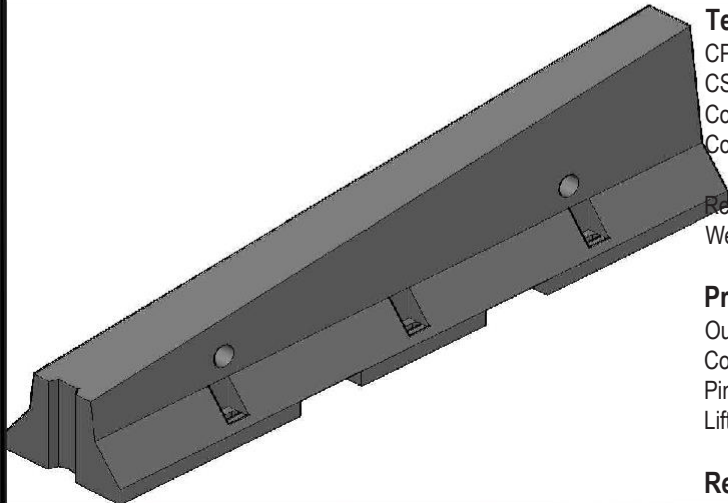
BARRIER CONNECTION
SCALE: -



ELEVATION
SCALE: 1:15



SECTION A
SCALE: 1:15



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	1,590 kg (3,505 lbs)

Product Detail

Outside Dimension	3000 x 570 x 810-445
Connection Type	Loop & Pin & Keyway
Pin Item Number	411744
Lift Mechanism	(2) - 102mm Dia

Revision Date

April. 01 2019



TL3 BARRIER (TYPE F) - MALE TRANSITION 1 OF 2

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Dwg. No.

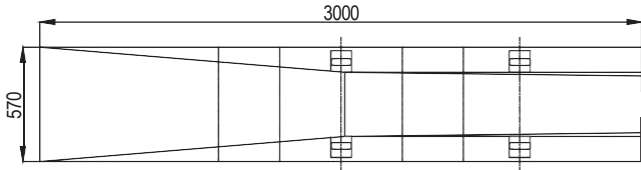
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SAP No.

405112-2

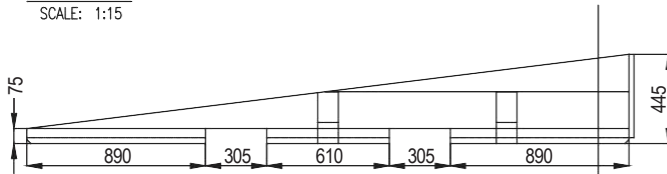
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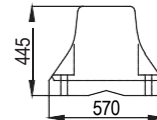
PLAN

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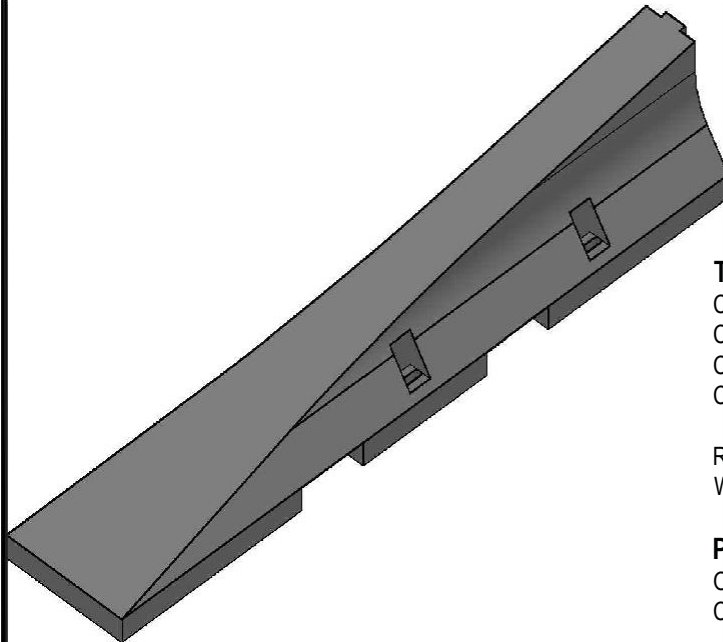


ELEVATION

SCALE: 1:15



SECTION
SCALE: 1:15



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	770 kg (1,678 lbs)

Product Detail

Outside Dimension	3000 x 570 x 445-75
Connection Type	Keyway

Revision Date **April. 01 2019**



TL3 BARRIER (TYPE F) TRANSITION 2 OF 2

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Dwg. No. **7-0073-6**

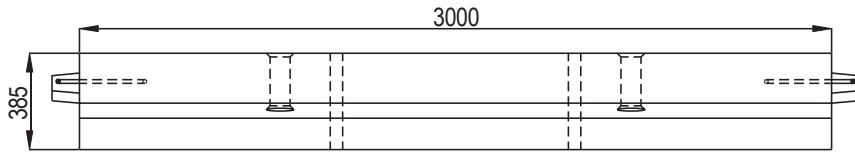
SAP No. **405112-2**

01

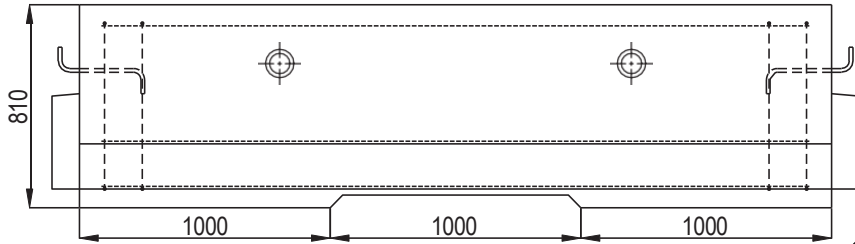
BARRIERS (Standard)

Notes

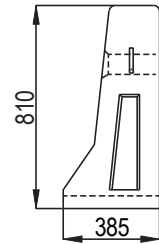
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



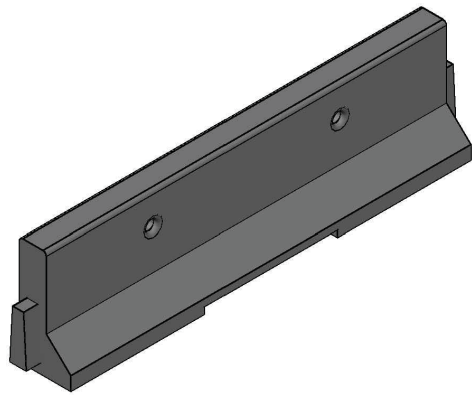
PLAN
SCALE: 1:15



ELEVATION
SCALE: 1:15



A END VIEW
SCALE: 1:15



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,530 kg (3,365 lbs)

Product Detail

Outside Dimension	3000 x 385 x 810
Connection Type	Steel Bar
Lift Holes	(2) - 80mm Dia

Optional (Extra)

Fence Attachment	Insert PVC
Fence Attachment	Insert Corrugated Duct
Fence Attachment	Metal Plate

Revision Date **April. 01 2019**



HALF 'F' BARRIER - MALE

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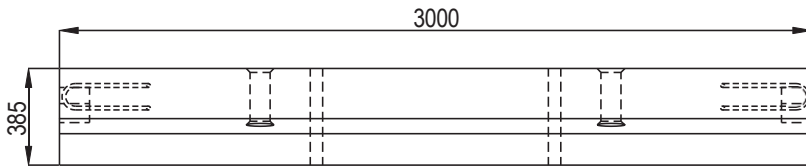
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **7-0072-1**

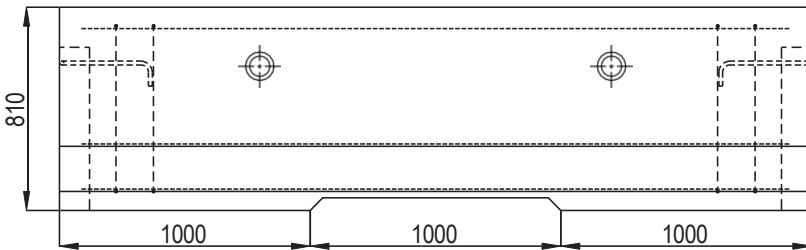
SAP No. **409597**

Notes

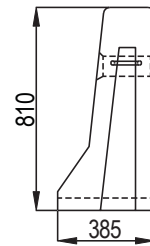
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



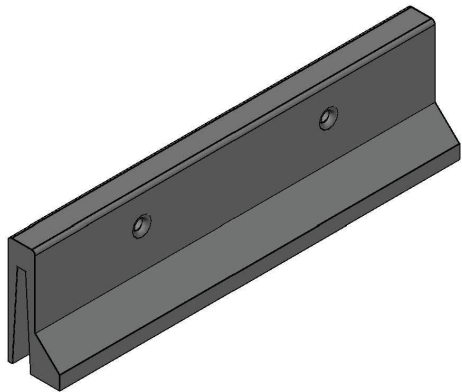
PLAN
SCALE: 1:15



ELEVATION
SCALE: 1:15



A END VIEW
SCALE: 1:15



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,468 kg (3,230 lbs)

Product Detail

Outside Dimension	3000 x 385 x 810
Connection Type	Steel Bar
Lift Holes	(2) - 80mm Dia

Optional (Extra)

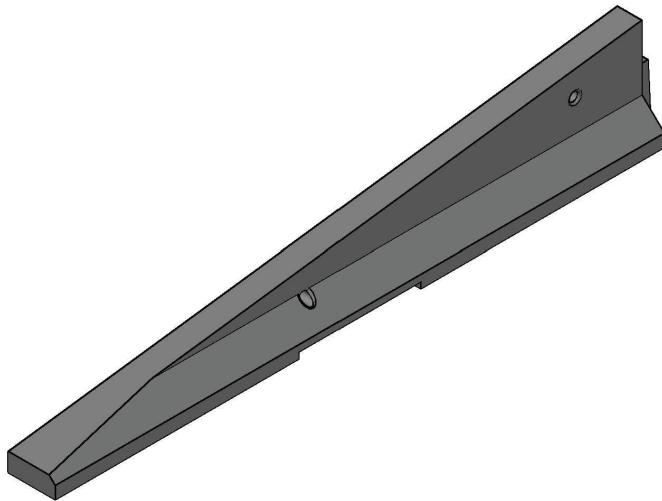
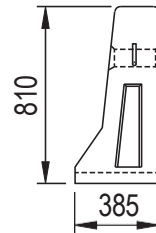
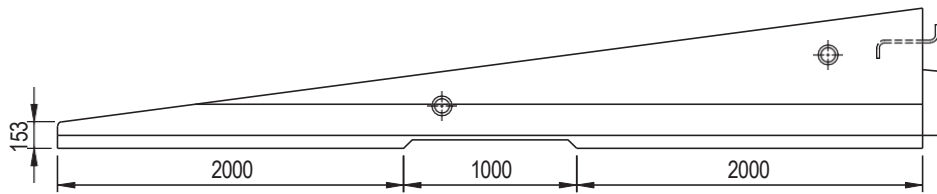
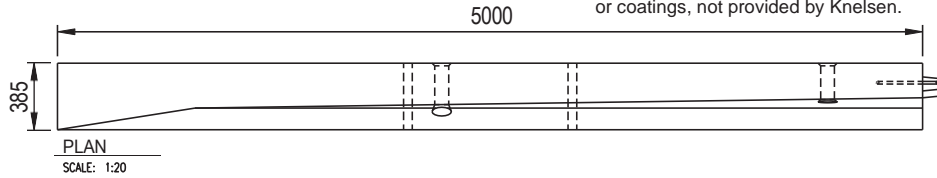
Fence Attachment	Insert PVC
Fence Attachment	Insert Corrugated Duct
Fence Attachment	Metal Plate

Revision Date **April. 01 2019**

	<h2>HALF 'F' BARRIER - FEMALE</h2>	Dwg. No. <h3>7-0072-2</h3>
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,070 kg (4,555 lbs)

Product Detail

Outside Dimension	5000 x 385 x 810-150
Connection Type	Steel Bar
Lift Hole	(2) - 80mm Dia

Optional (Extra)

Fence Attachment	Insert PVC
Fence Attachment	Insert Corrugated Duct
Fence Attachment	Metal Plate

Revision Date **April. 01 2019**



HALF 'F' BARRIER - MALE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

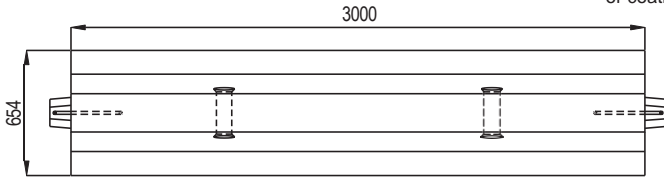
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **7-0072-3**

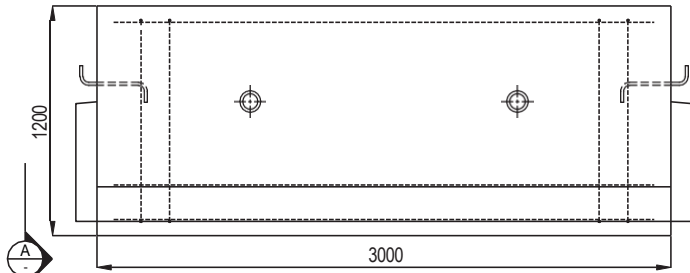
SAP No. **405109**

Notes

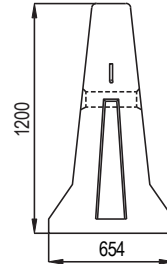
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



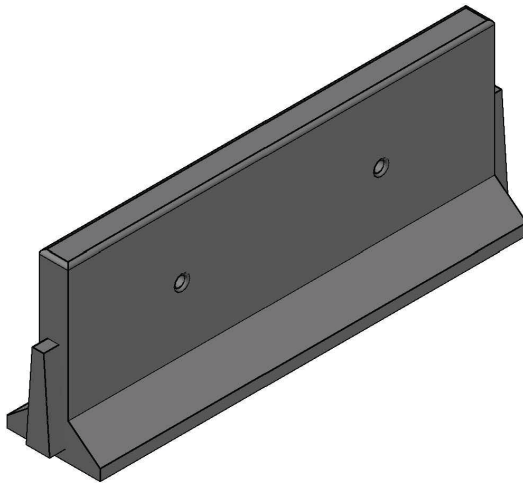
PLAN
SCALE: 1:15



ELEVATION
SCALE: 1:15



END VIEW
SCALE: 1:15



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	3,025 kg (6,669 lbs)

Product Detail

Outside Dimension	3000 x 654 x 1200
Lift Holes	(2) - 80mm Dia.

Revision Date **April. 01 2019**



FULL 'F' BARRIER - MALE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

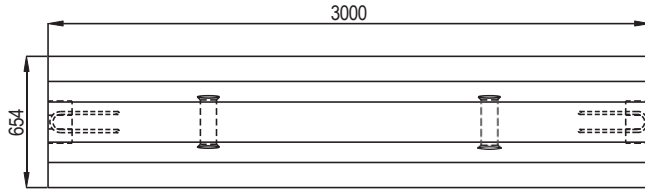
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **7-0074-1**

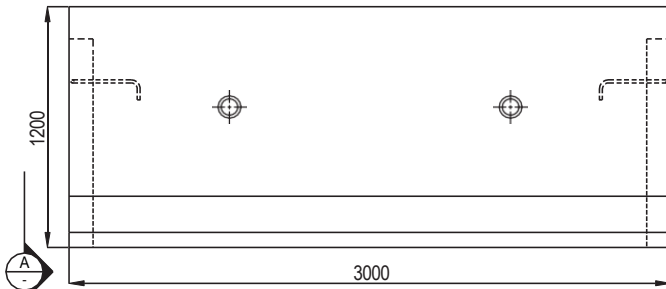
SAP No. **409647**

Notes

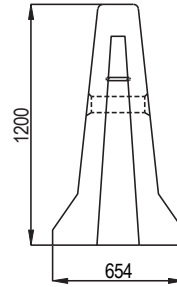
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



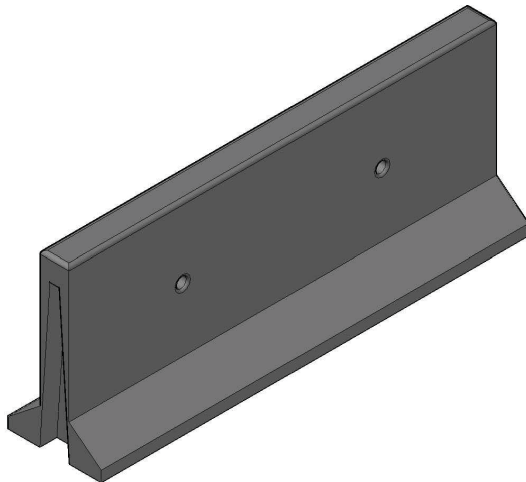
PLAN
SCALE: 1:15



ELEVATION
SCALE: 1:15



END VIEW
SCALE: 1:15



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	3,025 kg (6,669 lbs)

Product Detail

Outside Dimension	1346 x 2030 x 1065
Lift Hole	(2) - 80mm Dia

Revision Date April. 01 2019



FULL 'F' BARRIER - FEMALE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

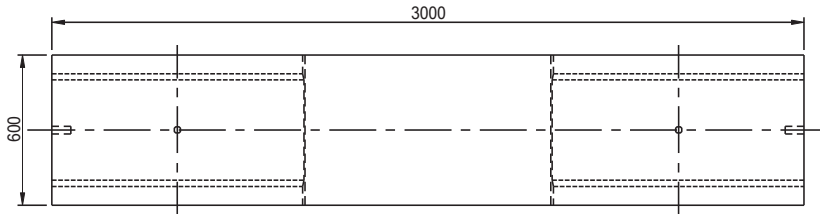
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **7-0074-2**

SAP No. **409648**

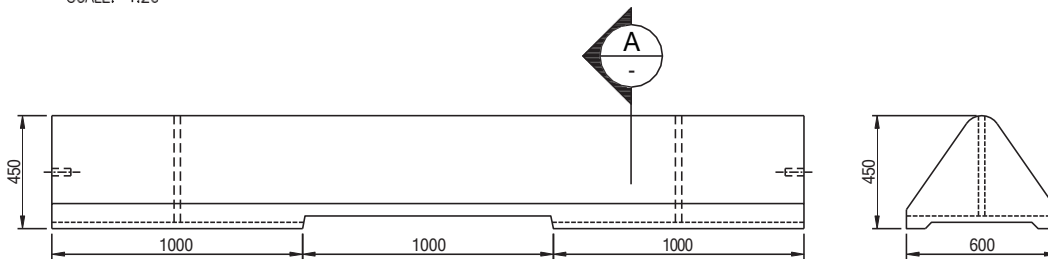
Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



PLAN

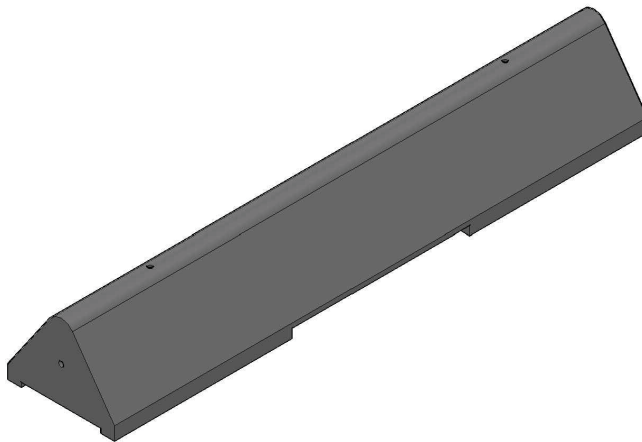
SCALE: 1:20



ELEVATION

SCALE: 1:20

A SECTION
SCALE: 1:10



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,106 kg (2,434 lbs)

Product Detail

Outside Dimension	3000 x 600 x 450
Lift Hole	(2) - 30mm Dia

Revision Date **April. 01 2019**



LOW PROFILE BARRIER (TYPE 4)

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Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No.
7-0076-1

SAP No.
406200

PLAN
SCALE: 1:15

1 ELEVATION
SCALE: 1:15

A SECTION
SCALE: 1:15

Notes
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	765 kg (1,683 lbs)

Product Detail

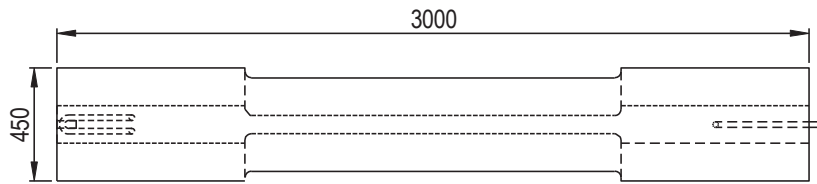
Outside Dimension	2000 x 600 x 450 - 76
Lift Mechanism	(2) - 30mm Dia.

Revision Date **April. 01 2019**

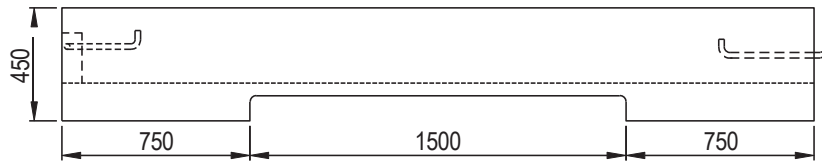
	LOW PROFILE BARRIER TRANSITION (TYPE 4)	Dwg. No. 7-0076-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 406201
	Tel: (403) 279-8161 Fax: (403) 279-6027	

Notes

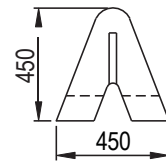
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



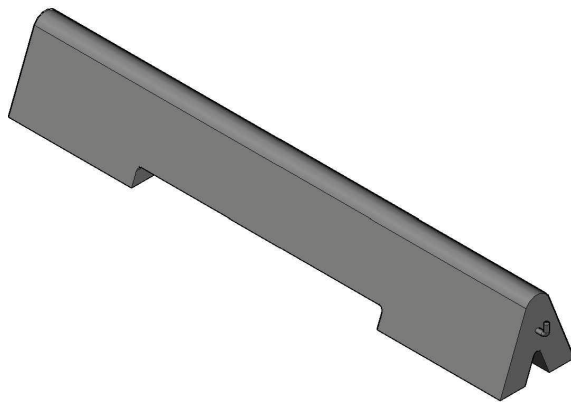
PLAN
SCALE: 1:15



ELEVATION
SCALE: 1:15



END VIEW
SCALE: 1:10



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	675 kg (1,488 lbs)

Product Detail

Outside Dimension 3000 x 450 x 450

Revision Date April. 01 2019



MINI BARRIER

KNELSEN PRECAST Western Canada (Calgary, Edmonton) Tel: (403) 279-8161

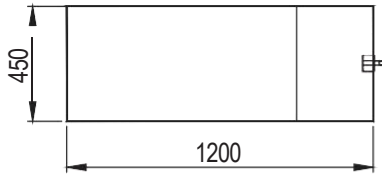
Fax: (403) 279-6027

Dwg. No. **SP35410**

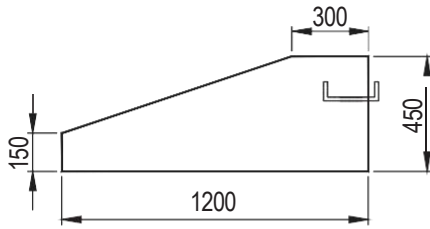
SAP No. **406202**

Notes

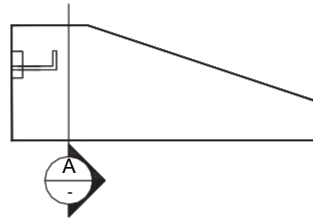
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



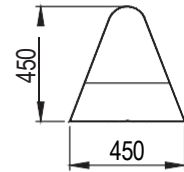
PLAN
SCALE: 1:15



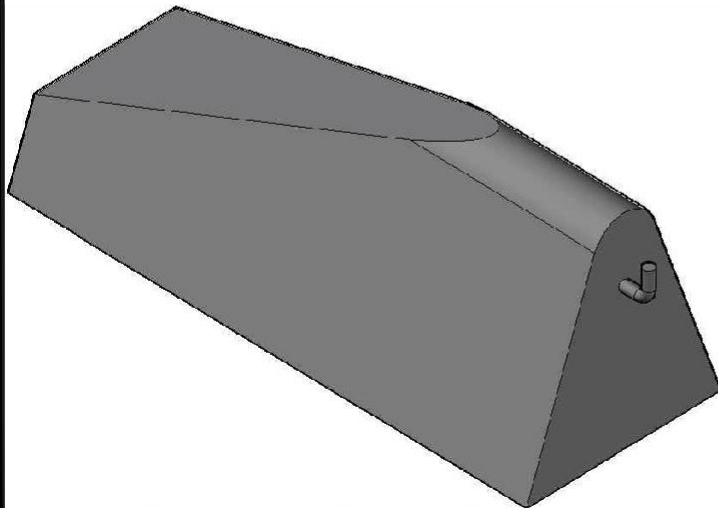
ELEVATION
SCALE: 1:15



ELEVATION
SCALE: 1:15



END VIEW
SCALE: 1:10



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
Reinforcement	S2 Exposure
Weight	Grade 400
	300 kg (660 lbs)

Product Detail

Outside Dimension 1200 x 450 x 450-150

Revision Date April. 01 2019



MINI BARRIER TRANSITION

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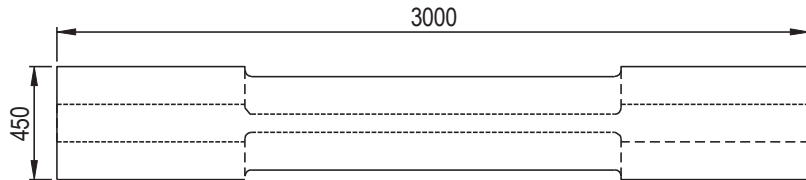
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **SP35411**

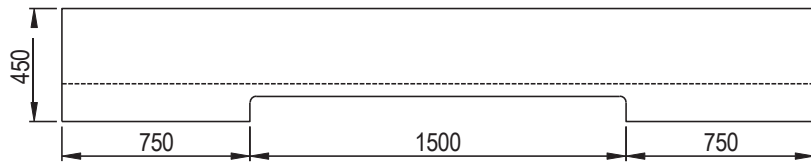
SAP No. **406203**

Notes

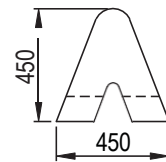
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



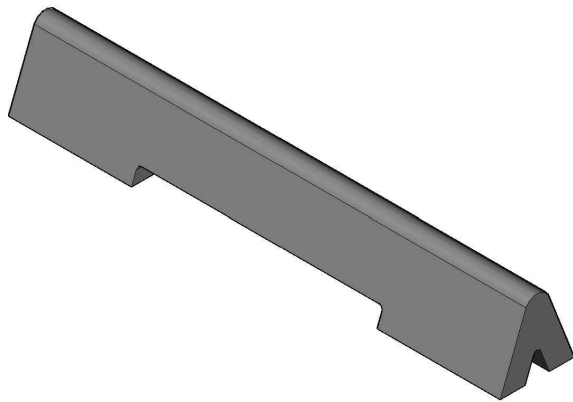
PLAN
SCALE: 1:15



ELEVATION
SCALE: 1:15



A END VIEW
SCALE: 1:10



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	675 kg (1,488 lbs)

Product Detail

Outside Dimension 3000 x 450 x 450

Revision Date April. 01 2019

	<p>MINI BARRIER</p>	Dwg. No.	-
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com</p>	<p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	SAP No.

PLAN
SCALE: 1:15

ELEVATION
SCALE: 1:15

ELEVATION
SCALE: 1:15

END VIEW
SCALE: 1:10

Notes
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	300 kg (660 lbs)

Product Detail

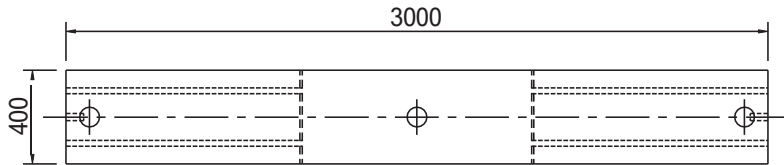
Outside Dimension	1200 x 450 x 450-150
-------------------	----------------------

Revision Date **April. 01 2019**

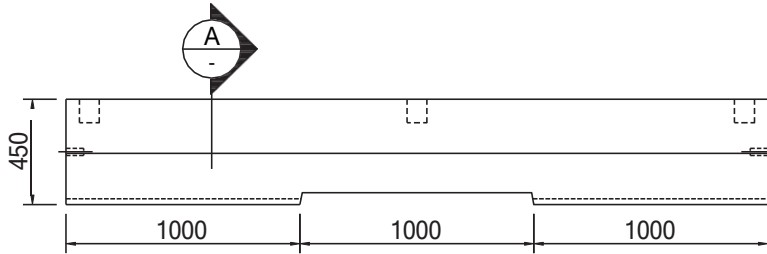
	MINI BARRIER TRANSITION	Dwg. No.	-
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 413250

Notes

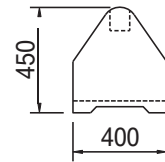
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



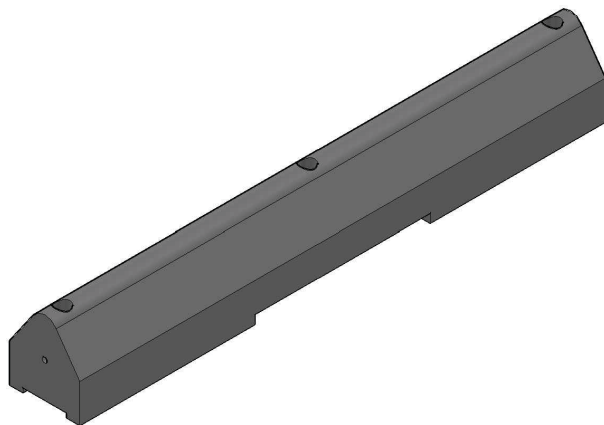
PLAN
SCALE: 1:20



ELEVATION
SCALE: 1:20



A SECTION
SCALE: 1:10



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	765 kg (1,683 lbs)

Product Detail

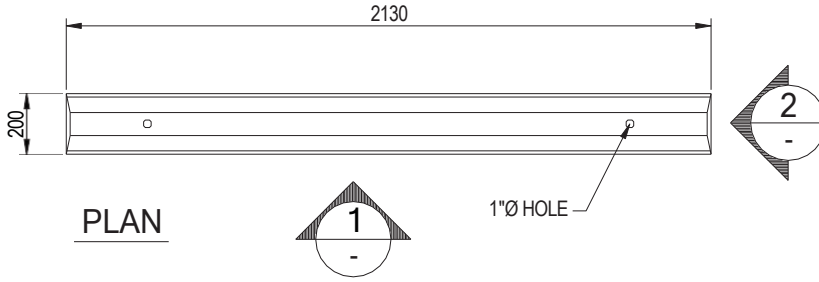
Dimension	3000 x 400 x 450
Lift Holes	(2) - 30mm Dia

Revision Date **April. 01 2019**

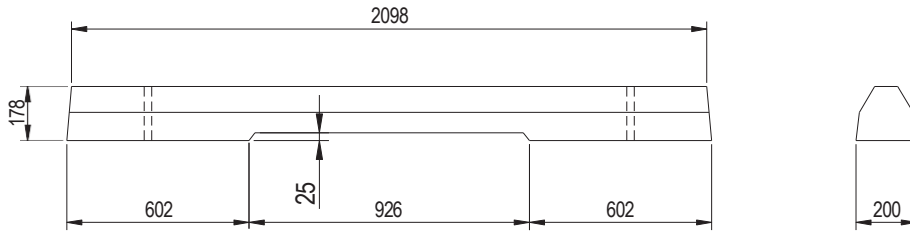
	<h2>TYPE 4 MEDIAN BARRIER</h2>	Dwg. No.	-
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	SAP No.	409569

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

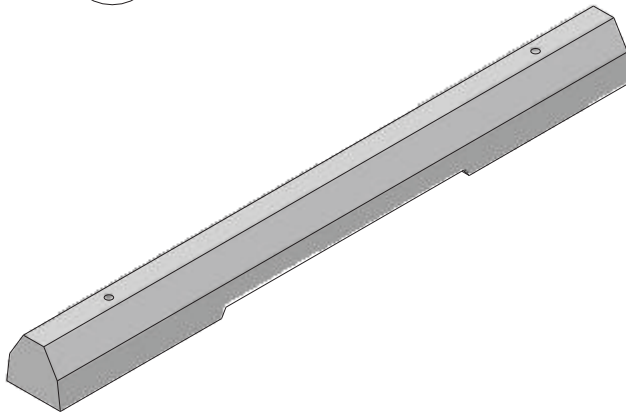


PLAN



1 ELEVATION

2 ELEVATION



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	145 kg (319 lbs)

Product Detail

Dimension	200 x 2130 x 178
Anchor Type	Rebar Pin

Revision Date **April. 01 2019**



HIGH PROFILE PARKING CURB

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

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Tel: (403) 279-8161
Fax: (403) 279-6027

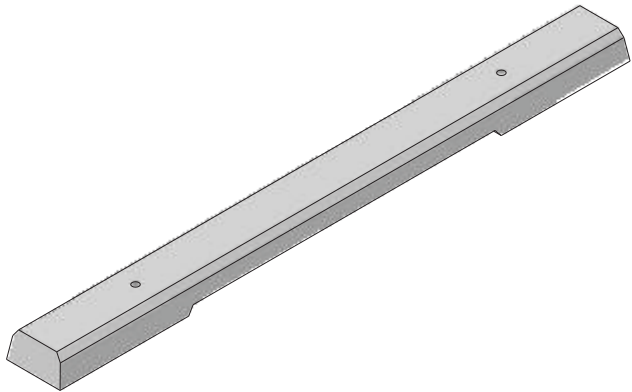
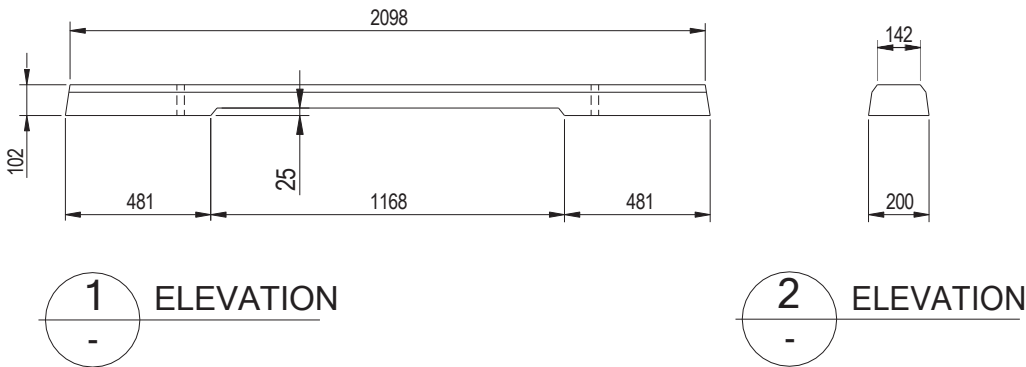
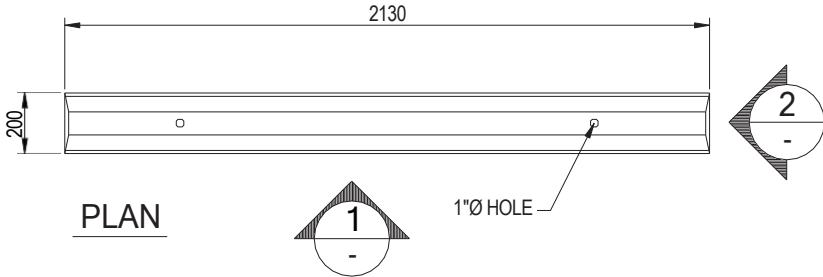
Dwg. No.

-

SAP No.

406191

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant S2 Exposure
 Reinforcement Grade 400
 Weight 105 kg (231 lbs)

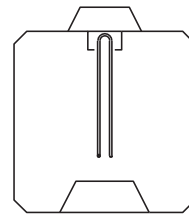
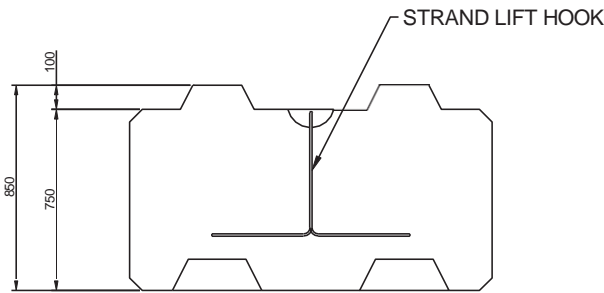
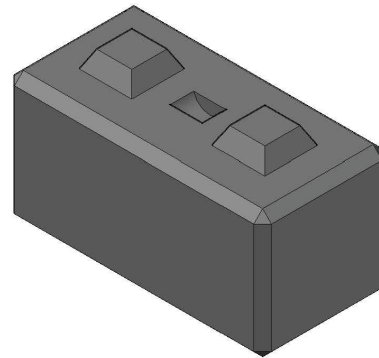
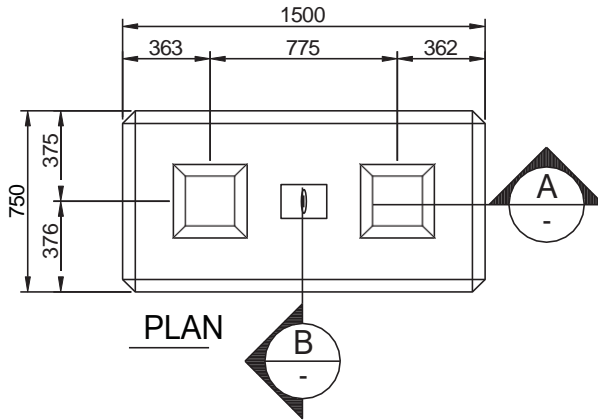
Product Detail
 Dimension 200 x 2130 x 102
 Anchor Type Rebar Pin

Revision Date April. 01 2019

	LOW PROFILE PARKING CURB KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	Dwg. No. -
	www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 406192

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



A SECTION

B SECTION

Class A

Block is manufactured using a full consist concrete mix meeting a minimum 35 MPa. Allowable Vertical Load: 165 Tons (based on equal bearing on the two nubs or sides).

Class B

Block is manufactured using residual concrete from various mixes within the plant, which can contribute to visible changes in appearance or layering look. The load capacity of these blocks are generally close to the Class A block, however there is no guarantee of the MPa or Breakage.

Technical Detail

CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1970 kg (4343 lbs)
Load Rating	Pedestrian

Product Detail

Dimension	1500 x 750 x 750
Lift Mechanism	Strand

Revision Date April. 01 2019



METRIC STACKING BLOCK (FULL)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

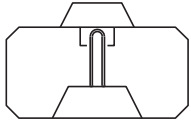
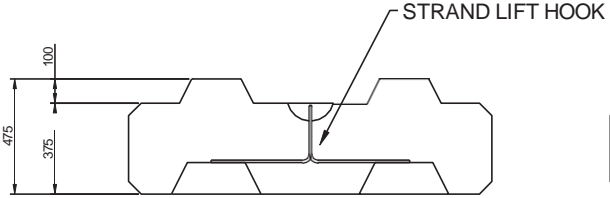
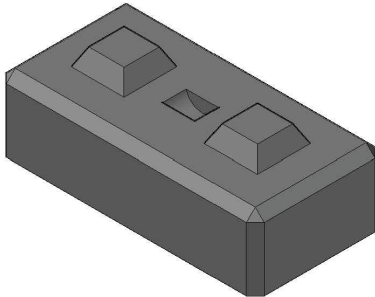
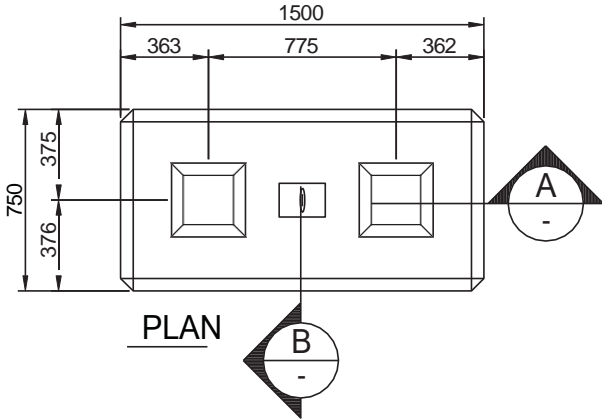
www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. 9-0025-1

SAP No. 405962

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



A SECTION

B SECTION

Class A
 Block is manufactured using a full consist concrete mix meeting a minimum 35 MPa.
 Allowable Vertical Load: 165 Tons (based on equal bearing on the two nubs or sides).

Class B
 Block is manufactured using residual concrete from various mixes within the plant, which can contribute to visible changes in appearance or layering look.
 The load capacity of these blocks are generally close to the Class A block, however there is no guarantee of the MPa or Breakage.

Technical Detail

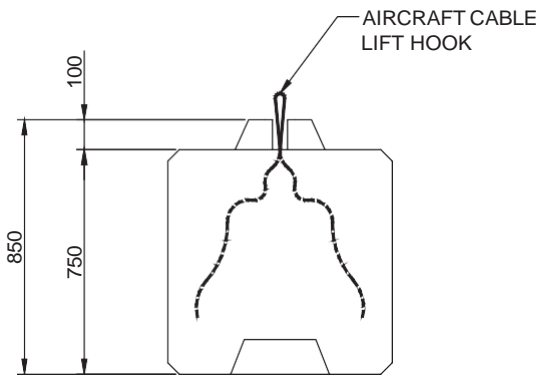
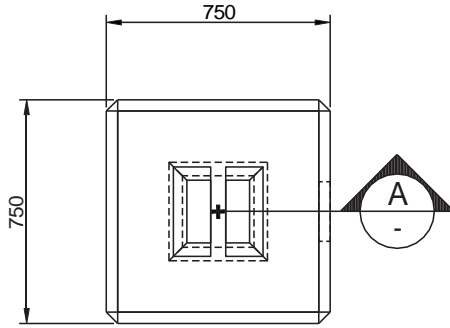
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1970 kg (4343 lbs)
Load Rating	Pedestrian

Product Detail

Dimension	1500 x 750 x 750
Lift Mechanism	Strand

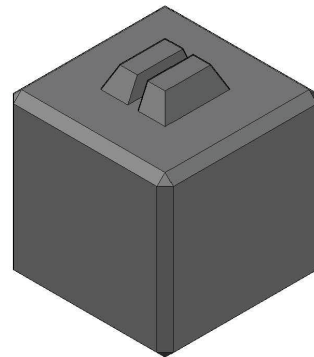
Revision Date **April. 01 2019**

	<h2>METRIC STACKING BLOCK (HALF)</h2>	Dwg. No. 9-0025-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405962
Tel: (403) 279-8161 Fax: (403) 279-6027		



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Class A

Block is manufactured using a full consist concrete mix meeting a minimum 35 MPa. Allowable Vertical Load: 165 Tons (based on equal bearing on the two nubs or sides).

Class B

Block is manufactured using residual concrete from various mixes within the plant, which can contribute to visible changes in appearance or layering look. The load capacity of these blocks are generally close to the Class A block, however there is no guarantee of the MPa or Breakage.

Technical Detail

CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1008 kg (2222 lbs)
Load Rating	Pedestrian

Product Detail

Dimension	750 x 750 x 750
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**



METRIC STACKING BLOCK (SQUARE)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **9-0025-2**

SAP No. **405963**

TOP VIEW

1 ELEVATION 2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight 311 kg (685 lbs)

Product Detail
 Overall Dimension 410 x 410 x 2020
 Base Dimension 410 x 410 x 700
 Pipe Dimension 102Ø x 1320
 Pipe Finish Galvanized
 Pipe Fill Concrete
 Lift Mechanism Aircraft Cable

Revision Date April. 01 2019

	410 x 410 Guard Post	Dwg. No. 9-0081-1
	KNELESEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

1 ELEVATION

2 ELEVATION

3 PROTECTIVE SLEEVE

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

YELLOW SLEEVE PVC WITH TWO RED REFLECTIVE STRIPES PART No. 112134

Technical Detail
 CPCI Standard: Group S
 CSA Standard: A23.3-14, A23.4-09
 Concrete Strength: 35 MPa @ 28 Days
 Concrete Type: Sulphate Resistant S2 Exposure
 Reinforcement: Grade 400
 Weight: 311 kg (685 lbs)

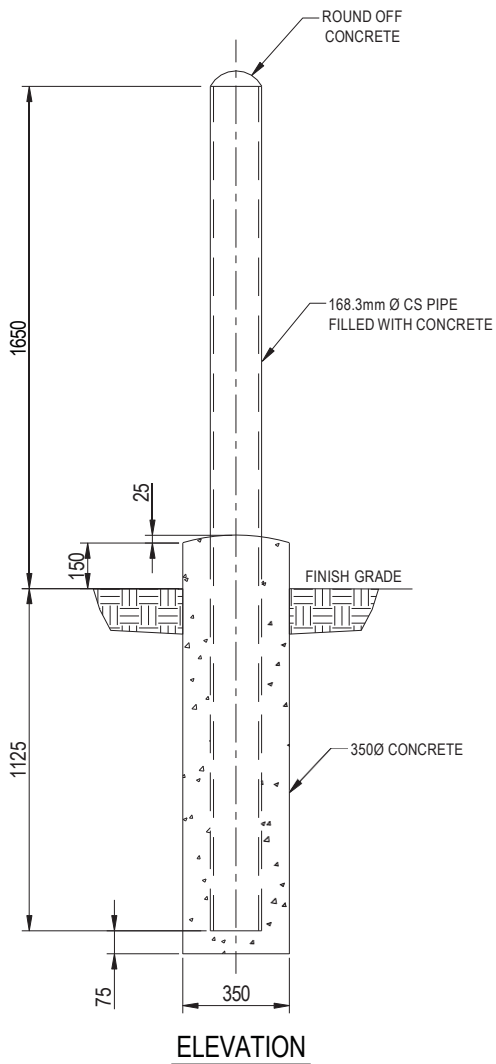
Product Detail
 Overall Dimension: 410 x 410 x 2020
 Base Dimension: 410 x 410 x 700
 Pipe Dimension: 102Ø x 1320
 Pipe Finish: Galvanized
 Pipe Fill: Concrete
 Pipe Sleeve: Yellow PVC w/Red stripes
 Lift Mechanism: Aircraft Cable

Revision Date **April. 01 2019**

	410 x 410 Guard Post	Dwg. No. 9-0081-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 412114 Tel: (403) 279-8161 Fax: (403) 279-6027

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	460 kg (1,012 lbs.)

Product Detail

Overall Dimension	350 x 2850
Base Dimension	350 x 1375
Pipe Standard Dia.	168mm x 2400mm
Pipe Finish	Steel Pipe Galvanized
Pipe Fill	Concrete
Lift Mechanism	Aircraft Cable

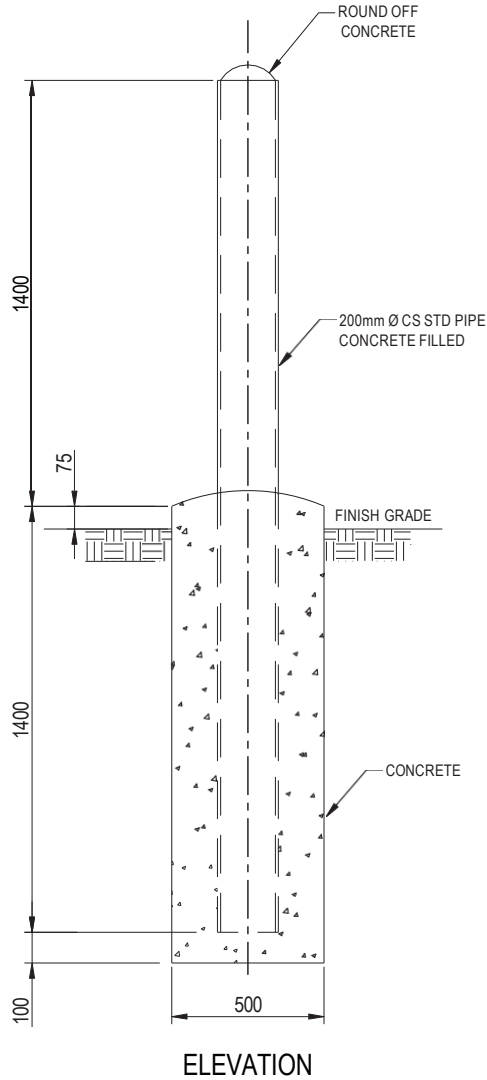
Optional (Extra)

Pipe Finish	Safety Yellow
Pipe Finish	Flourescent Orange

Revision Date **April. 01 2019**

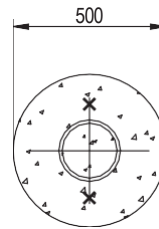
	<h2>350mm Guard Post</h2>	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 500000

Tel: (403) 279-8161
Fax: (403) 279-6027



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



TOP VIEW

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement Weight	Grade 400

Product Detail

Overall Dimension	500 x 2900
Base Dimension	500 x 1525
Pipe Standard Dia.	200mm x 2700mm
Pipe Finish	Steel Pipe Galvanized
Pipe Fill	Concrete
Lift Mechanism	Aircraft Cable

Optional (Extra)

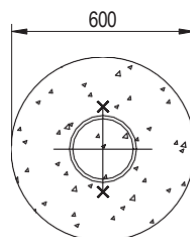
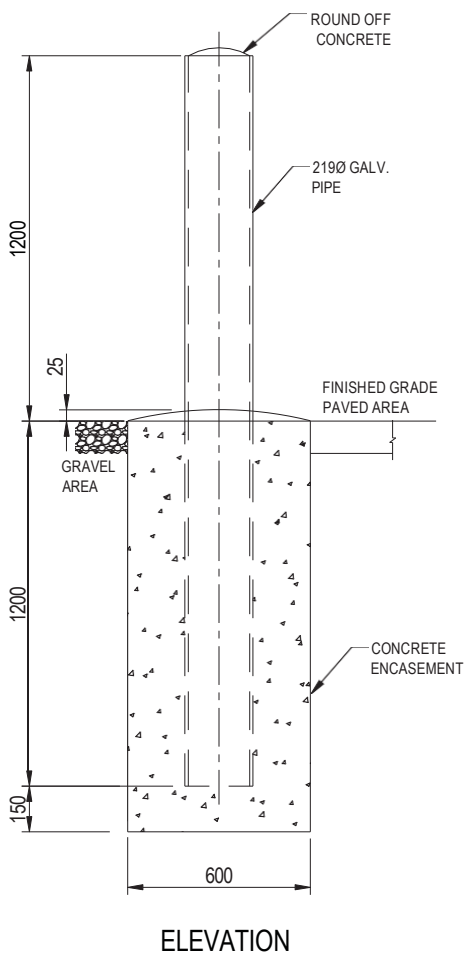
Pipe Finish	Safety Yellow
Pipe Finish	Flourescent Orange

Revision Date **April. 01 2019**

	<h3>500mm Guard Post</h3>	Dwg. No. -
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Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



TOP VIEW

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	1,082 kg (2,380 lbs.)

Product Detail

Overall Dimension	600 x 2550
Base Dimension	600 x 1375
Pipe Standard Dia.	219mm x 2400mm
Pipe Alternative Dia.	168mm x 2400mm
Pipe Finish	Steel Pipe Galvanized
Pipe Fill	Concrete
Lift Mechanism	Aircraft Cable

Optional (Extra)

Pipe Finish	Safety Yellow
Pipe Finish	Flourescent Orange

Revision Date **April. 01 2019**

	<h2>600mm Guard Post</h2>	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. <h1>500000</h1>

Tel: (403) 279-8161
 Fax: (403) 279-6027

ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

TOP VIEW

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,205 kg (2,650 lbs.)

Product Detail

Overall Dimension	610 x 2700
Base Dimension	610 x 1550
Pipe Standard Dia.	200mm x 2600mm
Pipe Finish	Steel Pipe Galvanized
Pipe Fill	Concrete
Lift Mechanism	Aircraft Cable

Optional (Extra)

Pipe Finish	Safety Yellow
Pipe Finish	Flourescent Orange

Revision Date **April. 01 2019**

610mm Guard Post

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 Fax: (403) 279-6027

Dwg. No. -

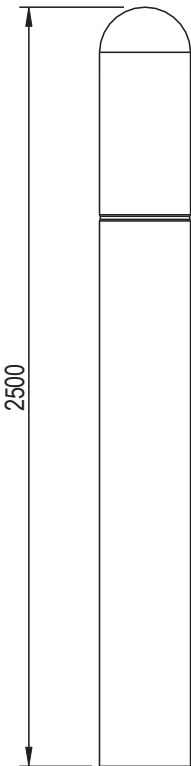
SAP No. **500000**

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



PLAN



ELEVATION



Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	423 kg (930 lbs.)

Product Detail

Dimension	300mm x 2500mm
Reveal: Upper Band	20mm

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Revision Date **April. 01 2019**

	<p>300mm Bollard</p>	<p>Dwg. No. -</p>
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>SAP No.</p> <p>500000</p>

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	340 kg (750 lbs)

Product Detail

Dimension	300mm Ø x 2100mm
Reveal: Upper Band	80mm
Reveal: Lower Band	20mm

Product Finish

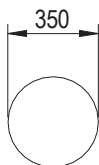
Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Revision Date **April. 01 2019**

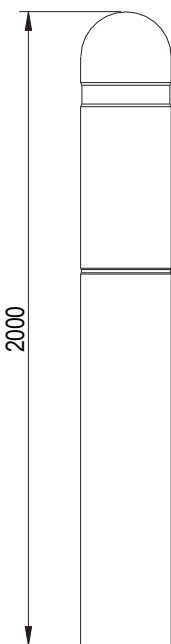
	350mm Bollard (Car Receptacle)	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No.
www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	406243	

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



PLAN



ELEVATION



Technical Detail

CPCI Standard	Group S
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	340 kg (750 lbs)

Product Detail

Dimension	350mm Ø x 2000mm
Reveal: Upper Band	80mm
Reveal: Lower Band	20mm

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Revision Date **April. 01 2019**



350mm Bollard

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **SP97000**

SAP No. **406243**

ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

**OPTIONAL HEAD DETAIL
RAIL ONE SIDE**

**OPTIONAL HEAD DETAIL
RAIL BOTH SIDES**

Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	402 kg (886 lbs.)

Product Details

Dimensions	400mm x 1500mm
Reval: Upper Band	150mm
Access Hole	52mm PVC
Rail Openings*	60mm

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

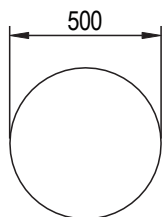
Revision Date **April. 01 2019**

***NOTE**
Customer to Supply Railing Material

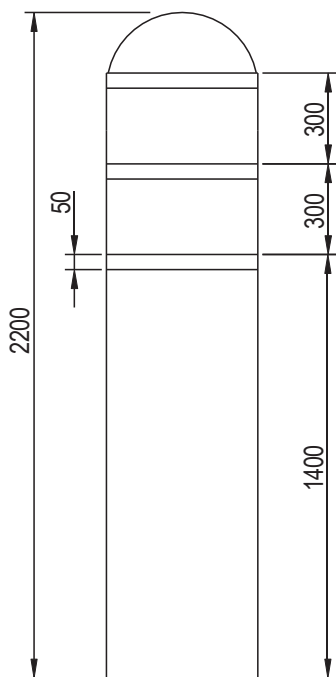
	400mm Bollard	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 500000

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



PLAN



ELEVATION



Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	922 kg (2,029 lbs.)

Product Detail

Dimension	500mm x 2200mm
Reveal: Upper Band	50mm
Reveal: Lower band	50mm
Reveal: Middle band	50mm

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Revision Date **April. 01 2019**



500mm Bollard

Dwg. No. -

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

SAP No. **500000**

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TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standards Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 Reinforcement S2 Exposure
 Lift Mechanism Grade 400
 Aircraft Cable

Product Options
 Anchor Bolt Customer Supplied
 Conduit Customer Supplied

Product Finish
 Smooth Standard
 Sand Blasted Extra
 Exposed Aggregate Extra

Available Sizes **Weight**
 350mm x 1500mm
 350mm x 2000mm

Revision Date **April. 01 2019**

	350mm PEDESTAL BASE	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No.
www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027	500000

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Lift Mechanism	Aircraft Cable

Product Options

Anchor Bolt	Customer Supplied
Conduit	Customer Supplied

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Available Sizes

400mm x 1200mm
400mm x 1500mm

Weight

Revision Date **April. 01 2019**

	400mm PEDESTAL BASE	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No.
www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027	500000

TOP VIEW

ANCHOR BOLT SUPPLIED BY OTHERS

155

457

175

1

2

PVC PIPE SUPPLIED BY OTHERS

VARIES 1200-2000mm

VARIES φ OF

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Lift Mechanism	Aircraft Cable

Product Options

Anchor Bolt	Customer Supplied
Conduit	Customer Supplied

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Available Sizes

457mm x 1200mm
 457mm x 1500mm
 457mm x 1700mm
 457mm x 2000mm

Weight

Revision Date **April. 01 2019**

457mm PEDESTAL BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

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Tel: (403) 279-8161
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Dwg. No. -

SAP No. **500000**

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight 880 kg (1,940 lbs)

Product Detail
 Outside Dimension 508 Ø x 1865
 Access Hole 102 mm or 4"
 PVC Pipe 100 Dia.
 Lift Mechanism Aircraft Cable

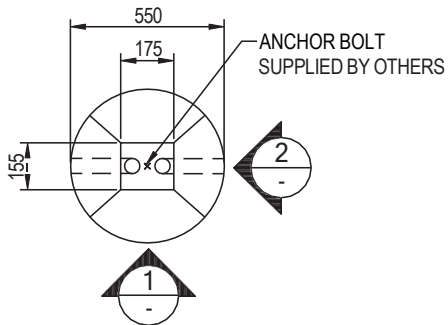
Revision Date **April. 01 2019**

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

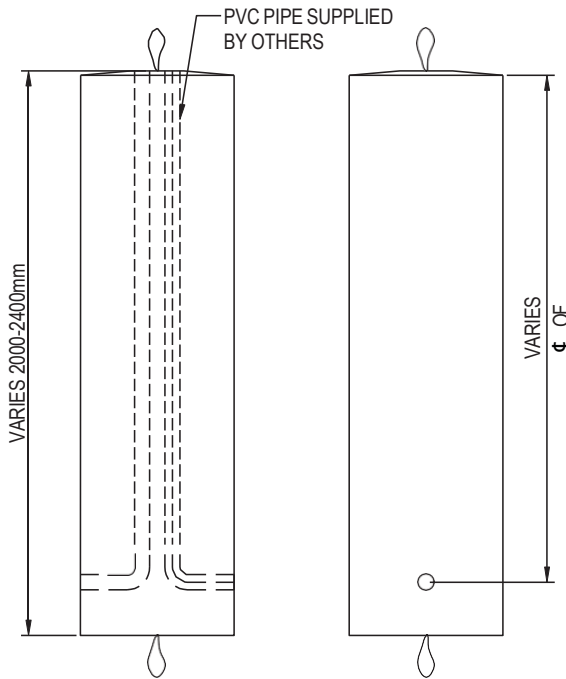
	508mm PEDESTAL BASE	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 413104

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



TOP VIEW



1 ELEVATION

2 ELEVATION

Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Lift Mechanism	Aircraft Cable

Product Options

Anchor Bolt	Customer Supplied
Conduit	Customer Supplied

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Available Sizes

- 550mm x 2000mm
- 550mm x 2400mm

Weight

Revision Date April. 01 2019



550mm PEDESTAL BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No.

-

SAP No.

500000

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	731 kg (1608 lbs)

Product Detail

Outside Dimension	508Ø x 1500
Bolt Circle Dia.	280 mm or 11"
Access Hole	102 mm or 4"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Mechanism	n/a

Revision Date **April. 01 2019**

	Foundation S/L Base	Dwg. No. 8-0061-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 409956 Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	927 kg (2,040 lbs)

Product Detail

Outside Dimension	508 Ø x 1900
Bolt Circle Dia.	280 mm or 11"
Access Hole	102 mm or 4"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

NOTE: NOT FOR RESALE, SEE 412306

	<h3>Street Light Pole Base (Type 'B1')</h3>	Dwg. No. 8-0077-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405118 Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	927 kg (2,040 lbs)

Product Detail

Outside Dimension	508 Ø x 1900
Bolt Circle Dia.	280 mm or 11"
Access Hole	102 mm or 4"
Anchor Bolt	25.4mm (1" Dia.)
Lift Mechanism	Aircraft Cable

Optional Sizes

508mm x 1500mm	731kg (1608 lbs.)
508mm x 1900mm	930kg (2045 lbs.)
508mm x 2400mm	1170kg (2575 lbs.)
508mm x 2800mm	1362kg (2994 lbs.)

Weight

Revision Date **April. 01 2019**

	Street Light Pole Base (Type 'AB1')	Dwg. No. 8-0077-1
	<small>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</small> www.knelsen.com	<small>SAP No.</small> 412306
	<small>Tel: (403) 279-8161</small> <small>Fax: (403) 279-6027</small>	

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1371 kg (3,016 lbs)

Product Detail

Outside Dimension	550 Ø x 2400
Bolt Circl Dia.	330 mm or 13"
Access Hole	102 mm or 4"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

NOTE: NOT FOR RESALE, SEE 412305

	Street Light Pole Base (Type 'C')	Dwg. No. 8-0075-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405117
	Tel: (403) 279-8161 Fax: (403) 279-6027	

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1371 kg (3,016 lbs)

Product Detail

Outside Dimension	550 Ø x 2400
Bolt Circle Dia.	330 mm or 13"
Access Hole	102 mm or 4"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

1 ELEVATION **2** ELEVATION



Street Light Pole Base (Type 'AC')

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

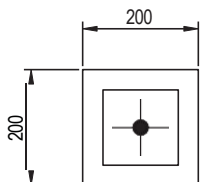
Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **8-0075-1**

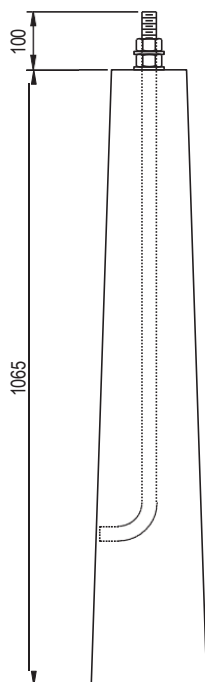
SAP No. **412305**

Notes

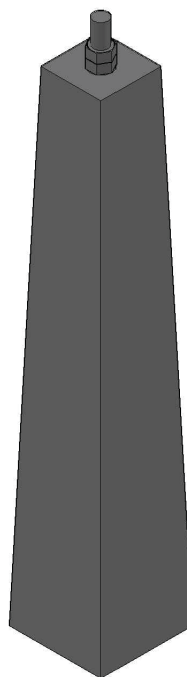
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



TOP VIEW



ELEVATION



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	76 kg (168 lbs)

Product Detail

Outside Dimension	200 x 200 x 1065
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**



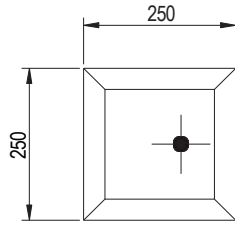
TYPE 2 SIGNAL BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

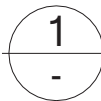
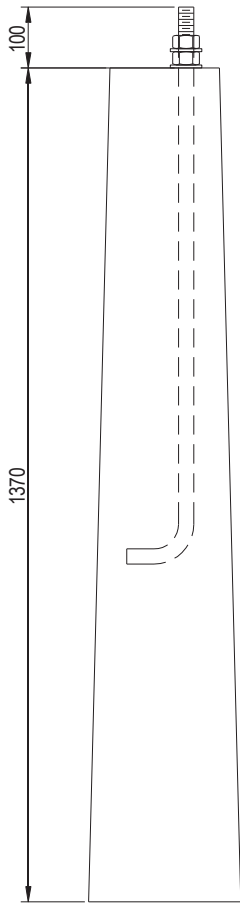
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **886-01**

SAP No. **405113**



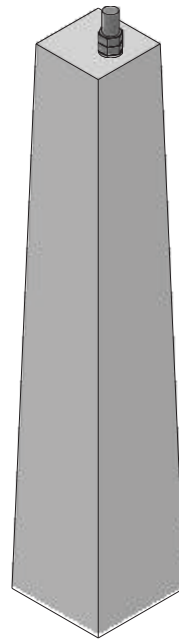
TOP VIEW



ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	170 kg (375 lbs)

Product Detail

Outside Dimension	250 x 250 x 1370
Anchor Bolt	25.4mm or 1" Dia.
Lift Mechanism	n/a

Revision Date April. 01 2019



Signal Base Type '1'

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www.knelsen.com

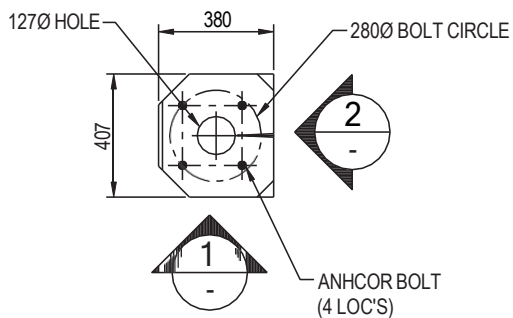
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **8-0065-1**

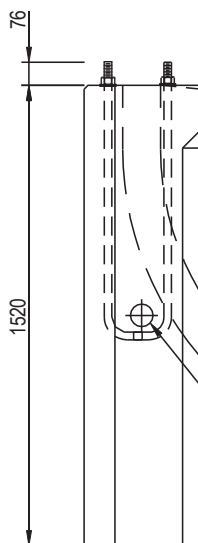
SAP No. **400418**

Notes

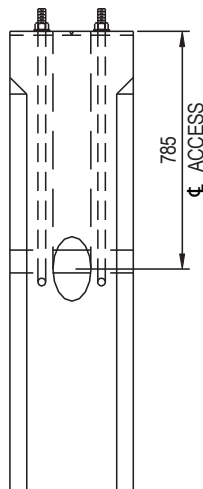
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



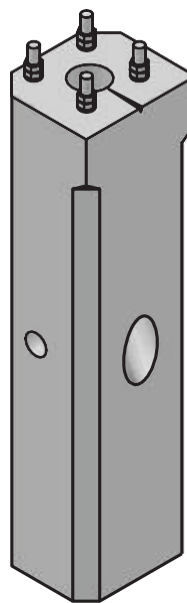
TOP VIEW



1 ELEVATION



2 ELEVATION



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	518 kg (1,140 lbs)

Product Detail

Outside Dimension	407 x 380 x 1520
Bolt Circle Dia.	280 mm or 11"
Access Hole	127 mm or 5"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**



Street Light Pole Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **8-0082-1**


SAP No. **405124**

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight 795 kg (1,753 lbs)

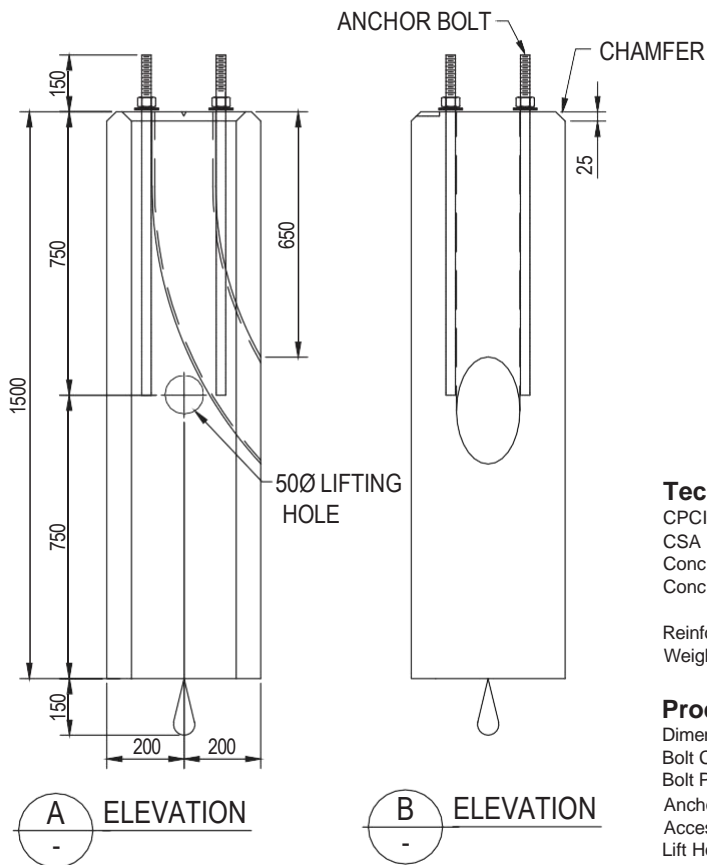
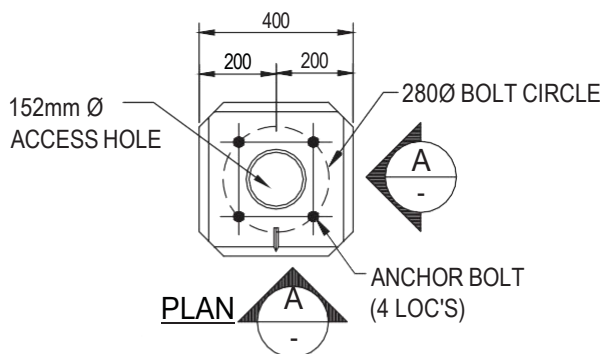
Product Detail
 Outside Dimension 380 x 407 x 2150
 Bolt Circle Dia. 280 mm or 11"
 Access Hole 127 mm or 5"
 Anchor Bolt 25.4 mm or 1" Dia.
 Lift Hole 50 mm

Revision Date April. 01 2019

	Street Light Pole Base KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Dwg. No. 8-0082-1
	Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 412112

Notes

Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	877 kg (1,930 lbs.)

Product Details

Dimensions	400 x 400 x 1500
Bolt Circle Diameter	280mm (11")
Bolt Projection	150mm (5.90")
Anchor Bolt	25.4 mm or (1")
Access Hole	1 x 150 mm or (6")
Lift Hole	50mm (2")

Revision Date **April. 01 2019**



Traffic Pole Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

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Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No.

-

SAP No.

413308

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	877 kg (1,930 lbs)

Product Detail

Outside Dimension	407 x 407 x 2200
Bolt Circle Dia.	330 mm or 13"
Access Hole	127 mm or 5"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

	Street Light Pole Base	Dwg. No. 8-0083-3
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405125
	Tel: (403) 279-8161 Fax: (403) 279-6027	

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	877 kg (1,930 lbs)

Product Detail

Outside Dimension	407 x 407 x 2200
Bolt Circle Dia.	330 mm or 13"
Access Hole	127 mm or 5"
Anchor Bolt	25.4 mm or 1" Dia.
Anchor Bolt	High strength
Lift Hole	50 mm

Revision Date **April. 01 2019**

Street Light Pole Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

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Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **8-0083-4**

SAP No. **405126**

TOP VIEW

102Ø HOLE

407

254Ø BOLT CIRCLE

407

ANCHOR BOLT (4 LOC'S)

85

2200

LIFT HOLE

650

4" Ø ACCESS HOLE

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	877 kg (1,930 lbs)

Product Detail

Outside Dimension	407 x 407 x 2200
Bolt Circle Dia.	245 mm or 10"
Access Hole	102 mm or 4"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

	Street Light Pole Base	Dwg. No. 8-0083-5
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405127 Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

102Ø HOLE

407

280Ø BOLT CIRCLE

ANCHOR BOLT (4 LOC'S)

2

1

85

2200

LIFT HOLE

650

4" Ø ACCESS HOLE

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	877 kg (1,930 lbs)

Product Detail

Outside Dimension	407 x 407 x 2200
Bolt Circle Dia.	280 mm or 11"
Access Hole	102 mm or 4"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

	<h3>Street Light Pole Base</h3>	Dwg. No. 8-0083-6
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405128
	Tel: (403) 279-8161 Fax: (403) 279-6027	

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,300 kg (2,860 lbs)

Product Detail

Outside Dimension	500 x 552 x 2000
Bolt Circle Dia.	413 mm or 16.25"
Access Hole	152 mm or 6"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

	Street Light Pole Base	Dwg. No. 8-0080-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No. 405122
www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027	

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,300 kg (2,860 lbs)

Product Detail

Outside Dimension	500 x 552 x 2000
Bolt Circle Dia.	413 mm or 16.25"
Access Hole	152 mm or 6"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **Jan. 01 2018**

	Street Light Pole Base	Dwg. No. 8-0080-2
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405123 Tel: (403) 279-8161 Fax: (403) 279-6027

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant S2 Exposure
 Reinforcement Grade 400
 Weight 1,325 kg (2,915 lbs)

Product Detail
 Outside Dimension 540 x 540 x 1950
 Bolt Circle Dia. 254 mm or 10"
 Access Hole 50 mm or 2"
 Anchor Bolt 25.4 mm or 1" Dia.
 Lift Hole 50 mm

Revision Date April. 01 2019

Top View: 540 x 540 mm square base with a 254Ø BOLT CIRCLE and 4 ANCHOR BOLTS (4 LOC'S).

Elevation 1: Shows a height of 1950 mm and a lift hole at the bottom. A 1063 mm section is labeled as 5000 CONDUIT.

Elevation 2: Shows the side profile of the base.

3D View: Shows the hexagonal top surface with four anchor bolts.



Traffic Signal Base

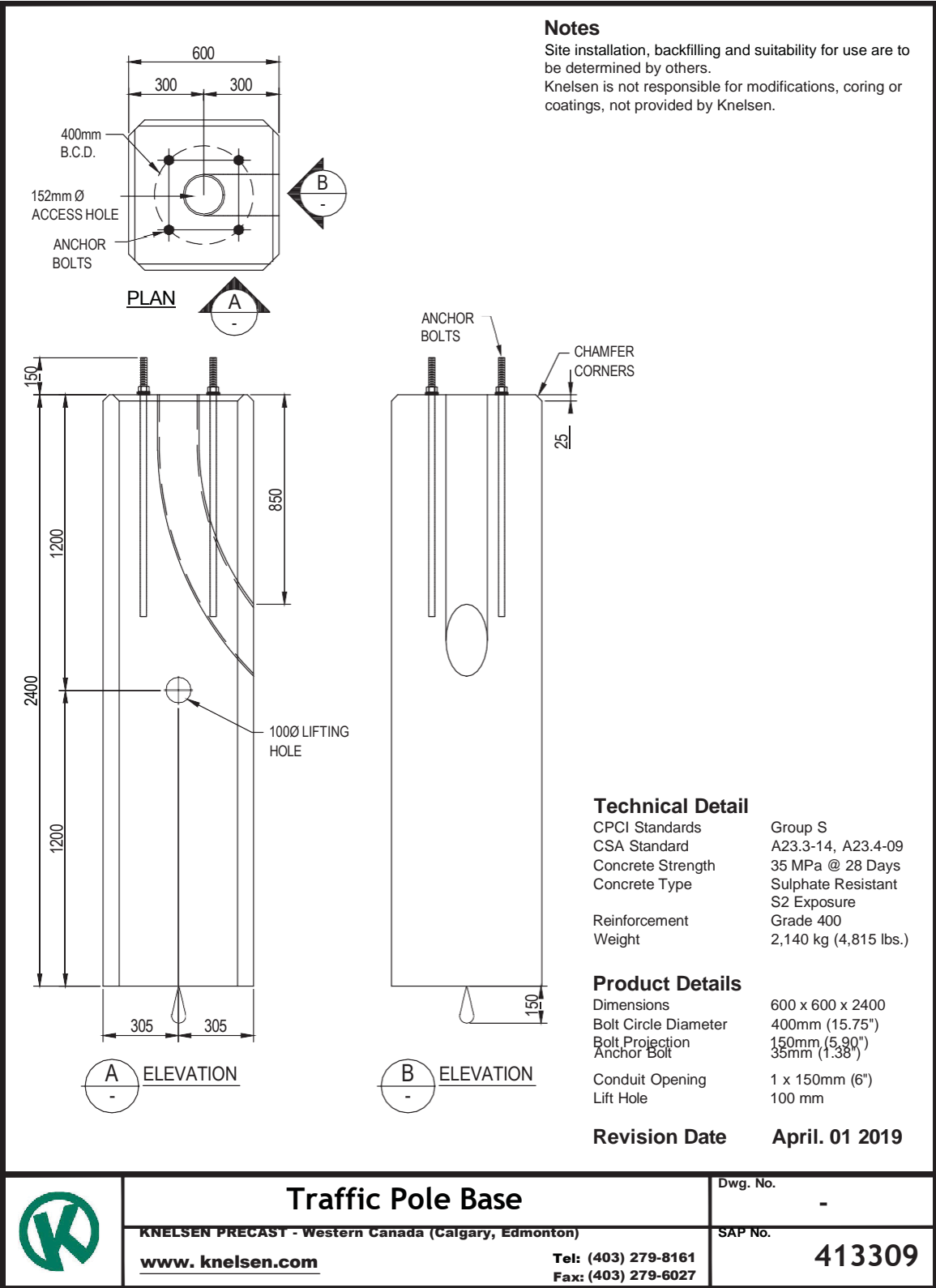
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www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **8-0078-1**

SAP No. **405120**



TOP VIEW

102Ø HOLE

600

330Ø BOLT CIRCLE

ANCHOR BOLT (4 LOC'S)

1

2

ELEVATION 1

60

3000

1100

ACCESS HOLE

LIFT HOLE

ELEVATION 2

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,600 kg (5,735 lbs)

Product Detail

Outside Dimension	600 x 600 x 3000
Bolt Circle Dia.	330 mm or 13"
Access Hole	102 mm or 4"
Anchor Bolt	1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

Road Way Light Pole Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

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Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. -

SAP No. **413407**

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,045 kg (4,500 lbs)

Product Detail

Outside Dimension	600 x 600 x 3000
Bolt Circle Dia.	330 mm or 13"
Access Hole	102 mm or 4"
Anchor Bolt	1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

Road Way Light Pole Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. -

SAP No. **411035**

TOP VIEW

ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,016 kg (2,235 lbs)

Product Detail

Outside Dimension	610 x 610 x 990
Bolt Circle Dia.	424 mm or 16.5"
Access Hole	145mm or 5" Dia.
Anchor Bolt	25.4 mm or 1" Dia.
Lift Mechanism	N/A

Revision Date **April. 01 2019**

Signal Base Type '3'

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

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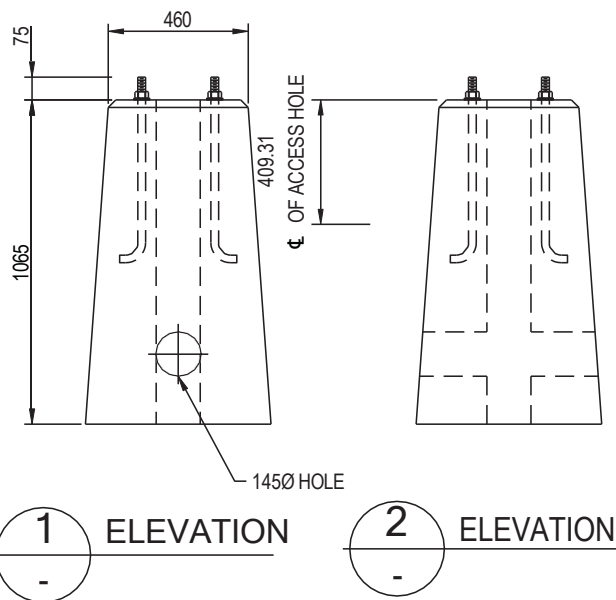
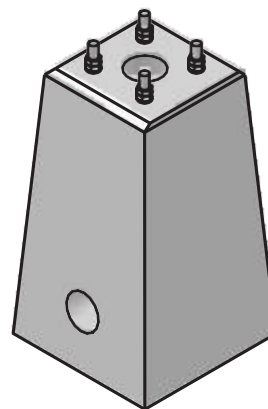
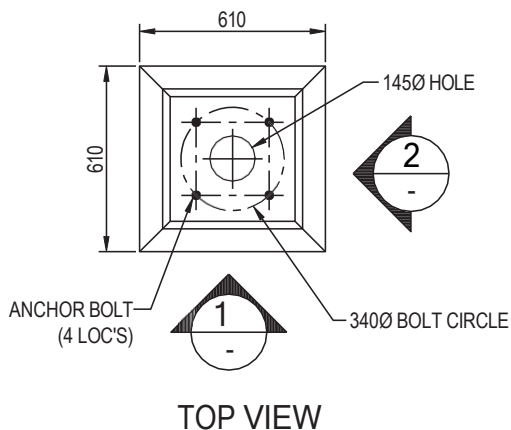
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Dwg. No. **8-0067-2**

SAP No. **400421**

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	745 kg (1,640 lbs)

Product Detail

Outside Dimension	610 x 610 x 1065
Bolt Circle Dia.	340 mm or 13.5"
Access Hole	127 mm or 5"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Mechanism	N/A

Revision Date **April. 01 2019**

	<p>Signal Base (Type '3')</p> <p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>Dwg. No. 8-0067-1</p> <p>SAP No. 405114</p>
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TOP VIEW

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,927 kg (4,240 lbs)

Product Detail

Outside Dimension	610 x 610 x 2200
Bolt Circle Dia.	330 mm or 13"
Access Hole	102 mm or 4"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	40 mm

Revision Date **April. 01 2019**

	Light Pole Base	Dwg. No. 8-0051-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 405115

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant S2 Exposure
 Reinforcement Grade 400
 Weight 2,141 kg (4,710 lbs)

Product Detail
 Outside Dimension 610 x 610 x 2440
 Bolt Circle Dia. 395 mm or 15.5"
 Access Hole 102 mm or 4"
 Anchor Bolt 25.4 mm or 1" Dia.
 Lift Hole 40 mm

Revision Date April. 01 2019

	<h3>Light Pole Base</h3>	Dwg. No.	8-0051-2
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com		SAP No.

Tel: (403) 279-8161
 Fax: (403) 279-6027

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
Reinforcement	S2 Exposure
Weight	Grade 400
	2,050 kg (4,510 lbs)

Product Detail

Outside Dimension	660 x 660 x 1980
Bolt Circle Dia.	457 mm or 18"
Access Hole	50 mm or 2"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	100 mm

Revision Date **April. 01 2019**

1 ELEVATION **2** ELEVATION

	Street Light Pole Base	Dwg. No. 8-0084-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405129
	Tel: (403) 279-8161 Fax: (403) 279-6027	

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,932 kg (6,450 lbs)

Product Detail

Outside Dimension	660 x 660 x 2850
Bolt Circle Dia.	382 mm or 15"
Access Hole	102 mm or 4" & 50 mm or 2"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

Traffic Signal Base (Type 'S')

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **8-0079-1**

SAP No. **405121**

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

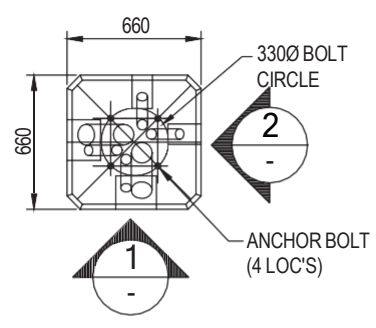
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	3,077 kg (6,770 lbs)

Product Detail

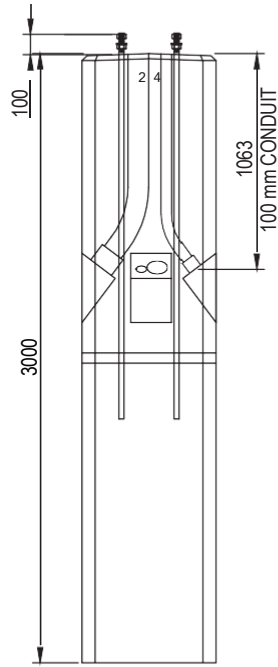
Outside Dimension	660 x 660 x 3000
Bolt Circle Dia.	382 mm or 15"
Access Hole	102 mm or 4" & 50 mm or 2"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

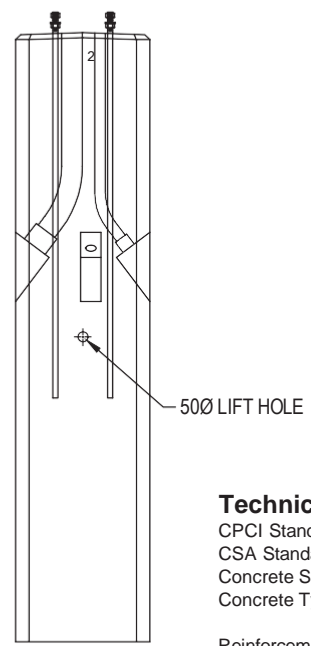
	Traffic Signal Base (Type 'S')	Dwg. No. 8-0079-2
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 400428 Tel: (403) 279-8161 Fax: (403) 279-6027



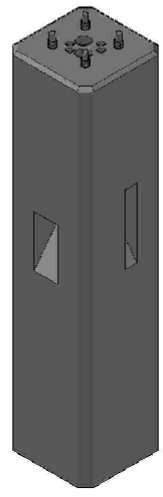
TOP VIEW



1 ELEVATION



2 ELEVATION



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

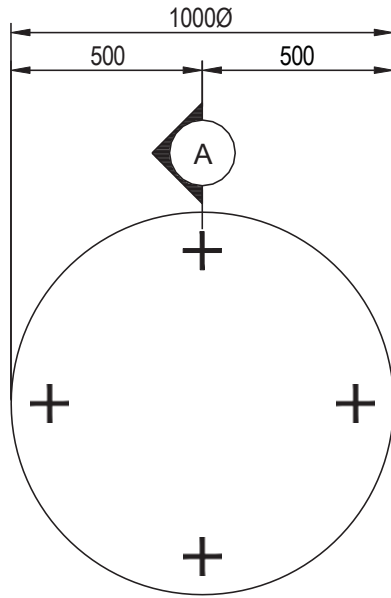
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	3,077 kg (6,770 lbs)

Product Detail

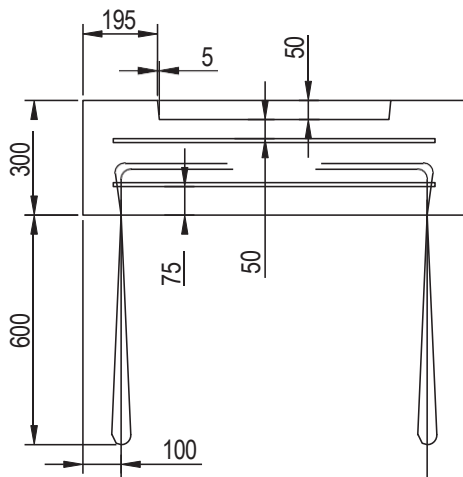
Outside Dimension	660 x 660 x 3000
Bolt Circle Dia.	330 mm or 13"
Access Hole	102 mm or 4" & 50 mm or 2"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date April. 01 2019

	<h2>Traffic Signal Base (Type 'S')</h2>	Dwg. No. <h3>8-0079-3</h3>
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PLAN



SECTION

Notes

Site installation, backfilling and suitability for use are to be determined by others.
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Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	536 kg (1,180 lbs.)

Product Details

Dimensions	300mm x 1000mm
Lift Mechanism	1/2 " Aircraft Cable

Product Finish

Smooth	Standard
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Revision Date **April. 01 2019**



Base Plate (Wood Pole)

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Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **934-01**

SAP No. **410916**

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1170 kg (2575 lbs)

Product Detail

Outside Dimension	508 Ø x 2400
Bolt Circle Dia.	228 mm or 9"
Conduit Opening	51 mm or 2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

Light Pole Base (Type 'B1')

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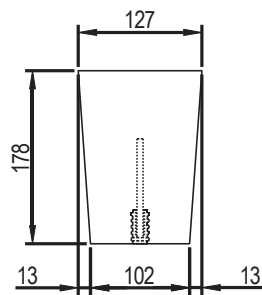
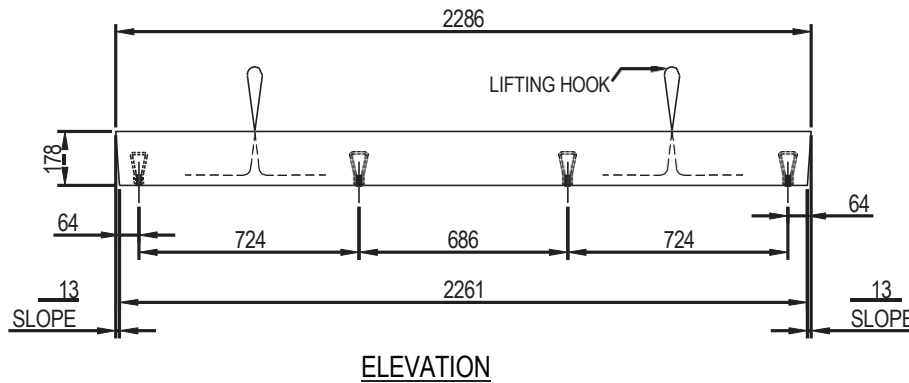
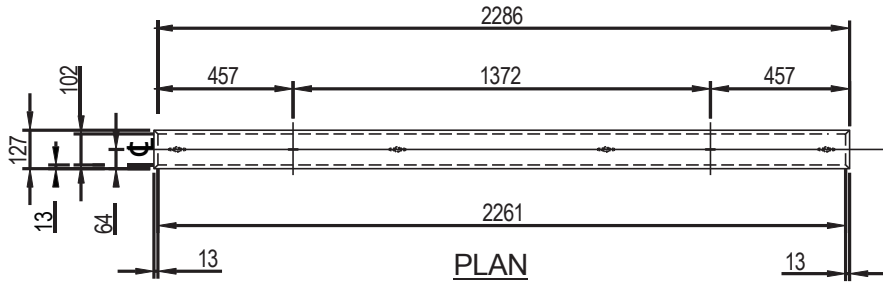
Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **8-0077-4**

SAP No. **410878**

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400

Product Detail

Insert	LF: 1/2"
Lift Mechanism	Aircraft Cable

Available Sizes

127 x 1143 x 179	55 kg (124 lbs.)
127 x 2286 x 179	110 kg (248 lbs.)
Custom Lengths Available Upon Request	

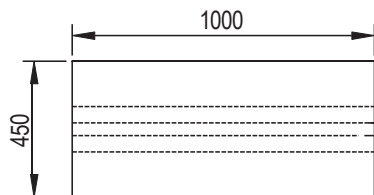
Weight

Revision Date **April. 01 2019**

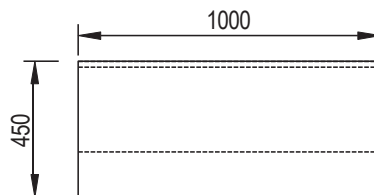
	<h2>Sleeper (Pipe & Conduit)</h2>	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 409650

Notes

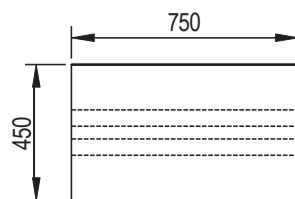
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



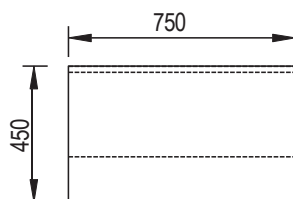
TOP VIEW



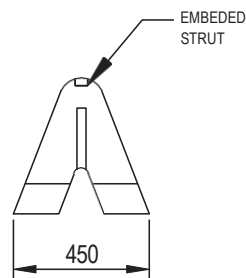
ELEVATION



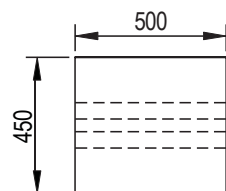
TOP VIEW



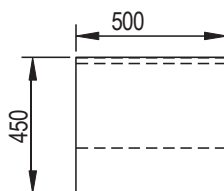
ELEVATION



SIDE VIEW
(TYP.)



TOP VIEW



ELEVATION

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400

Product Detail

Strut	1 5/8 x 7/8" Galvanized
Lift Mechanism	Rope or Aircraft Cable

Available Sizes Weight

450 x 450 x 1000
 450 x 450 x 750
 450 x 450 x 500
 Custom Lengths Available Upon Request

Revision Date **April. 01 2019**



Sleeper (Pipe & Conduit)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

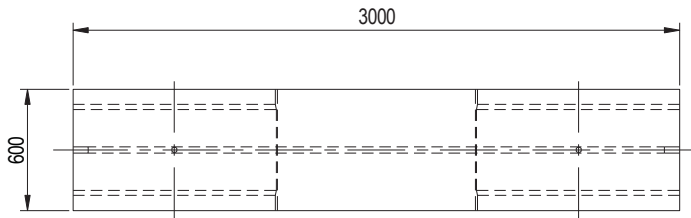
Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **SP35410**

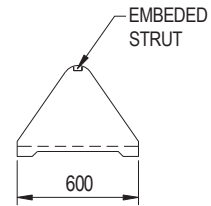
SAP No. **500000**

Notes

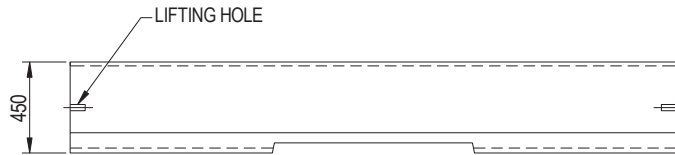
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



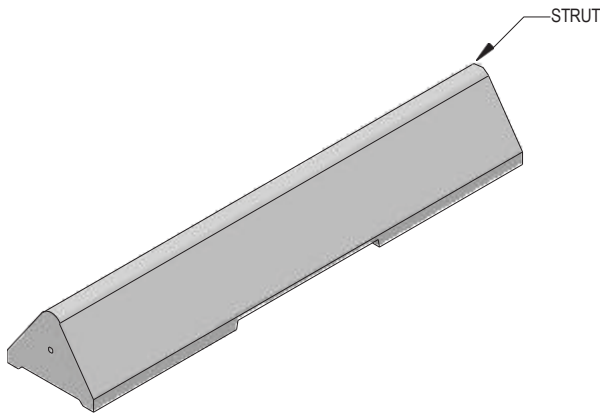
TOP VIEW



SIDE VIEW



ELEVATION



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,106 kg (2,434 lbs)

Product Detail

Strut	1 5/8 x 7/8" Galvanized
Dimension	3000 x 600 x 450
Lifting Holes	(2) - 30mm Dia.

Revision Date **April. 01 2019**



Sleeper (Pipe & Conduit)

Dwg. No. -

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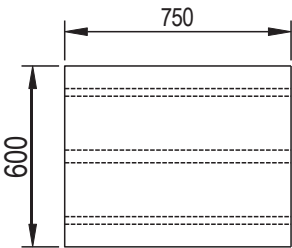
Fax: (403) 279-6027

SAP No.

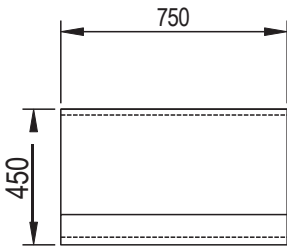
409200

Notes

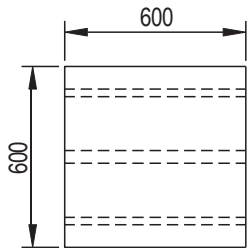
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



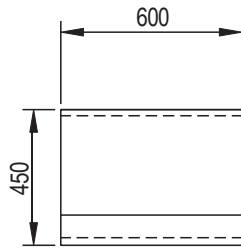
TOP VIEW



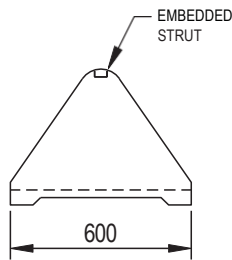
ELEVATION



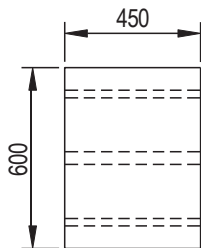
TOP VIEW



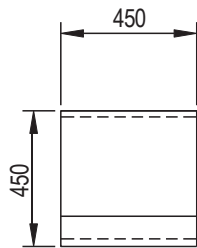
ELEVATION



SIDE VIEW
(TYP.)



TOP VIEW



ELEVATION

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400

Product Detail

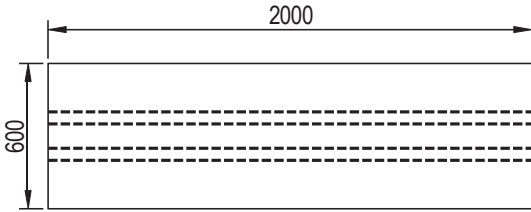
Strut	1 5/8 x 7/8" Galvanized
Lift Mechanism	Rope or Aircraft Cable

Available Sizes Weight

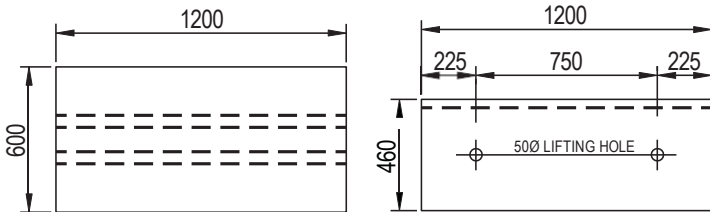
450 x 600 x 750
 450 x 600 x 600
 450 x 600 x 450
 Custom Lengths Available Upon Request

Revision Date April. 01 2019

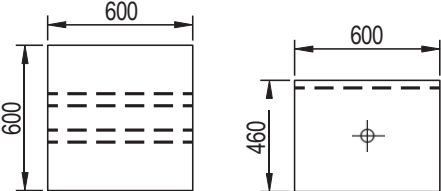
	<p>Sleeper (Pipe & Conduit)</p>	<p>Dwg. No. 7-0076-1</p>
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>SAP No. 500000</p>



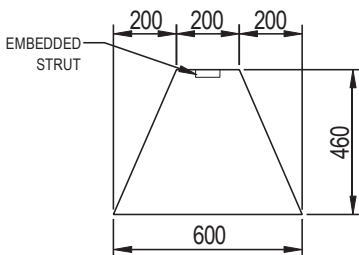
TOP VIEW



TOP VIEW



TOP VIEW



SIDE VIEW
(TYP.)

Notes
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

ELEVATION

ELEVATION

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400


Product Detail

Strut	2" Galvanized
Lift Mechanism	Rope or Aircraft Cable

Available Sizes **Weight**

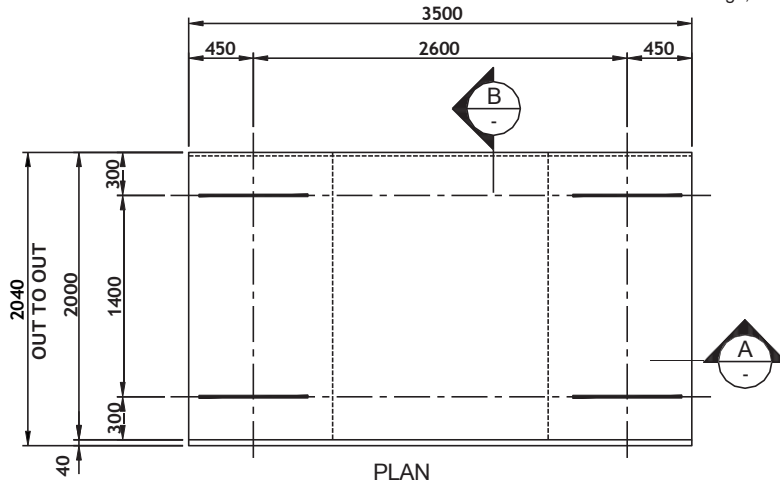
460 x 600 x 600
460 x 600 x 1200
460 x 600 x 2000
460 x 600 x 2400
*Custom Lengths Available Upon Request

Revision Date **April. 01 2019**

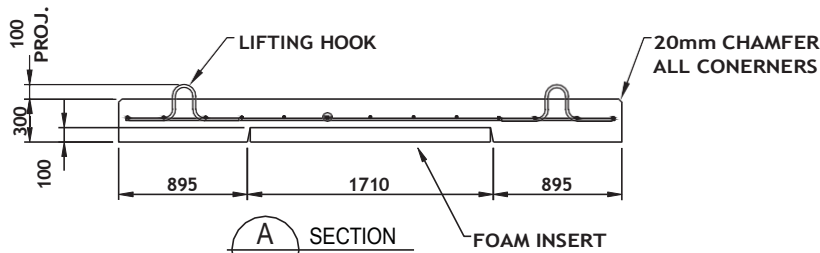
	Sleeper (Pipe & Conduit)	Dwg. No. 928-01
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 500000

Notes

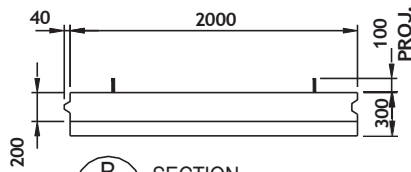
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



PLAN
SCALE:



A SECTION
SCALE:



B SECTION
SCALE:

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	4,225 kg (9,295 lbs)
Load Rating	Traffic: CS-750

Product Detail

Outside Dimension	2000 x 3500 x 300
Foam Insert	1670 x 2000 x 100
Connection Type	Keyway
Lift Mechanism	A2002 (20M)

Revision Date **April. 01 2019**



PIPELINE PROTECTION SLAB (ALBERTA TRANS)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

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Dwg. No. -

SAP No. **410032**

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

PLAN
SCALE: N.T.S.

SECTION A
SCALE: N.T.S.

SECTION B
SCALE: N.T.S.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
Reinforcement	S2 Exposure
Load Rating	Grade 400
	CL-800

Product Detail

Minimum Cover	200mm
Min. Pipe Cover	150mm
Max Pipe Cover	300mm

Revision Date **April. 01 2019**

	PIPELINE PROTECTION SLAB (ATCO 1-L TYPE 1)	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Item No. 500000

Tel: (403) 279-8161 Fax: (403) 279-6027

PLAN
SCALE: -

SECTION A
SCALE: -

SECTION B
SCALE: -

Notes
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	4,318 kg (9,500 lbs)
Load Rating	

Optional

Load Rating	Traffic: CL-625 or CL-800
-------------	---------------------------

Product Detail

Outside Dimension	2000 x 3000 x 350
Foam Inserts	1500 x 2000 x 100
Connection Type	Keyway
Lift Mechanism	Burke Cable Lift Hooks

Revision Date **April. 01 2019**

	PIPELINE PROTECTION SLAB (SYNCRUDE)	-
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 411372

Tel: (403) 279-8161
Fax: (403) 279-6027

PLAN
SCALE: -

SECTION A
SCALE: -

SECTION B
SCALE: -

Notes
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight 6,864 kg (15,100 lbs)
Load Rating

Optional
 Load Rating Traffic: CL-625 or CL-800

Product Detail
 Outside Dimension 2000 x 4000 x 400
 Foam Inserts 1700 x 2000 x 100
 Connection Type Keyway
 Lift Mechanism Burke Cable Lift Hooks

Revision Date **April, 01 2019**
 Dwg. No. -

	<p>PIPELINE PROTECTION SLAB (SYNCRUDE)</p>	<p>-</p>
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com</p>	<p>SAP No. 411043</p>

PLAN
SCALE: N.T.S.

SECTION A
SCALE: N.T.S.

SECTION B
SCALE: N.T.S.

Notes
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

<p>CPCI Standard CSA Standard Concrete Strength Concrete Type</p>	<p>Group S A23.3-14, A23.4-09 35 MPa @ 28 Days Sulphate Resistant S2 Exposure Grade 400</p>
Reinforcement	
Load Rating	

Product Detail	
<p>Minimum Cover Min. Pipe Cover Max Pipe Cover Concrete Colour</p>	<p>450mm 300mm 500mm Yellow</p>

PART NUMBER	PIPE DIAMETER	SLAB WIDTH mm	WEIGHT (KG)	WEIGHT (LBS)
PS2500-01T-R01	NPS 24 (610) OR FSS	2500	900	1985
PS2900-01T-R01	NPS 30 (762)	2900	1050	2315
PS3300-01T-R01	NPS 36 (914)	3300	1190	2625
PS3600-01T-R01	NPS 42 (1067)	3600	1300	2870
PS4000-01T-R01	NPS 48 (1219)	4000	1440	3175

Revision Date

April. 01 2019

	<p>PIPELINE PROTECTION SLAB (TRANSCANADA)</p>	<p>Dwg. No. -</p>
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com</p>	<p>SAP No. Various</p>

Tel: (403) 279-8161
Fax: (403) 279-6027

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,424 kg (3,140 lbs)
Load Rating	Traffic: CL-625

Working Capacities

Chamber	250 Liter (55 Gallon)
Effluent Chamber	250 Liter (55 Gallon)
Siphon Volume	N/A

Product Detail

Outside Dimension	1548 x 834 x 1166
Compartment Dimension	630 x 630 x 966
Max Water Level	782mm
Mechanical Openings	Multiple

Steel Cover

Dimension	1548 x 834 x 1166
Perforation	20mm (3/4")

Revision Date **April. 01 2019**

SUMP TANK (2 COMPARTMENT)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **TA1001**

SAP No. **406331**

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	581 kg (1,280 lbs)
Load Rating	Traffic: CL-625

Working Capacities

Chamber	250 Liter (55 Gallon)
---------	-----------------------

Product Detail

Outside Dimension	750 x 770 x 1140
Compartment Dimension	546 x 566 x 940
Max Water Level	790mm
Mechanical Openings	Multiple

Steel Cover

Dimension	675 x 675 x 10
Perforation	20mm (3/4")

Revision Date **April. 01 2019**

SUMP TANK (1 COMPARTMENT)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

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Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **TA1010**

SAP No. **406334**

3M BOAT RAMP SLAB

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	386 kg (850 lbs)

Product Detail

Outside Dimension	3050 x 350 x 162
Connection	Chain
Hardware	Customer Supplied

Product Finish

Standard	Grooved
Optional	Broom

Revision Date **April. 01 2019**

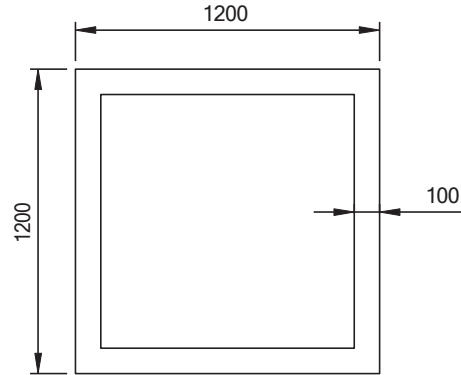
9-0029-1

SAP No. **405131**

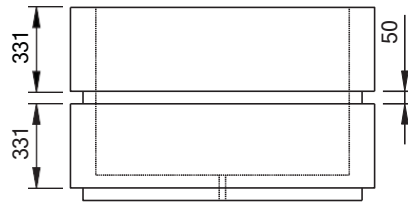
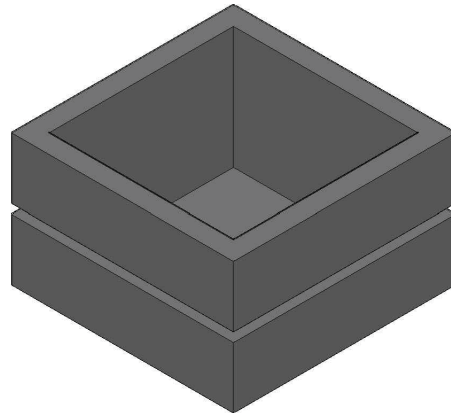
Dwg. No.

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



PLAN



SIDE VIEW

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,059 kg (2,330 lbs)

Product Detail

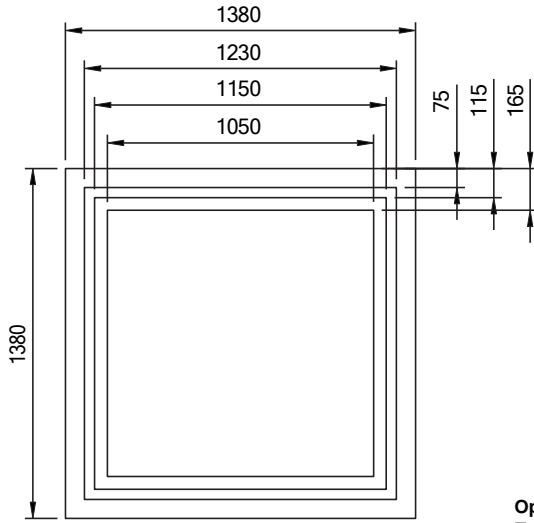
Outside Dimension	1200 x 1200 x 762
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Product Finish

Smooth	Standard
Sandblasted	Extra
Exposed Aggregate	Extra

Revision Date April. 01 2019

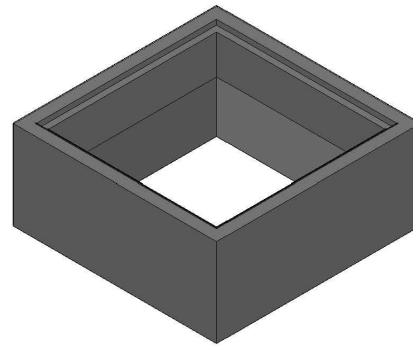
	<p>TREE PLANTER (CLOSED BOTTOM)</p>	<p>Dwg. No. SP40210</p>
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com</p>	<p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>



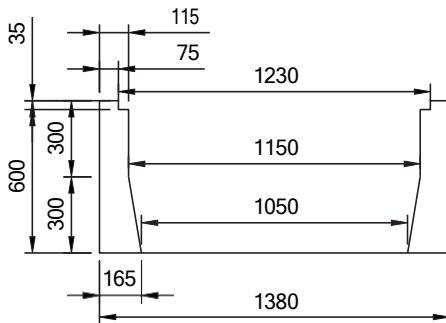
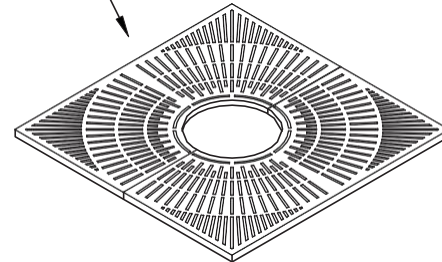
PLAN

Notes

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Optional Item
Tree Grate 406215



SIDE VIEW

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
Reinforcement	S2 Exposure
Weight	Grade 400
	875 kg (1,925 lbs)

Product Detail

Outside Dimension	1380 x 1380 x 600
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Product Finish

Smooth	Standard
Sandblasted	Extra
Exposed Aggregate	Extra

Optional Extra

Tree Grate	406215
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Revision Date April. 01 2019



TREE PLANTER (OPEN BOTTOM)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

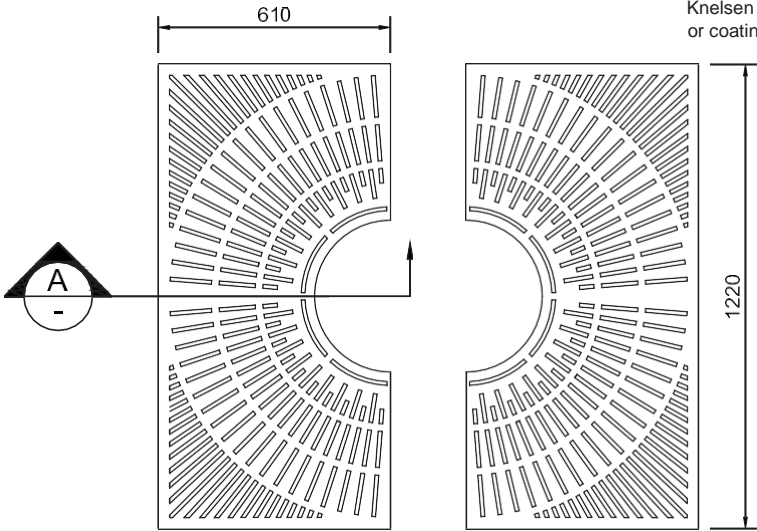
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No.
SP40200

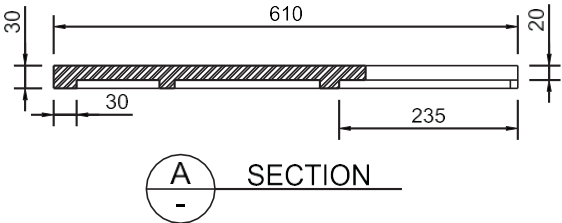
SAP No.
406214

Notes

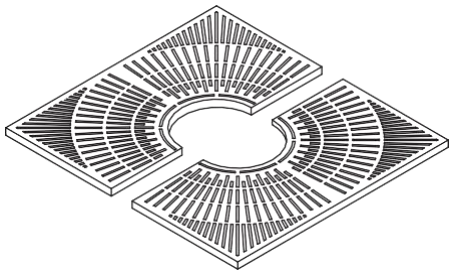
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



PLAN



SECTION



Technical Detail

Weight (Kit) 90 kg (203 lbs)
 Load Rating Traffic: CL-625

Product Detail

Design 2 - Piece
 Total Dimension 1220 x 1220 x 30
 Material Cast Iron

Product Finish

Bare Standard
 Black Paint Extra
 Galvanized Extra

Optional (Extra)

Grate Frame 1237 x 1237 x 38
 Tree Guard 280mm x 1200mm

Revision Date April. 01 2019

	<p>CAST IRON TREE GRATE</p> <p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p>	<p>Dwg. No. TF-48C</p>
	<p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>SAP No. 406215</p>

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

SAP NO.	DRAWING NO.	LENGTH	WIDTH	HEIGHT	WEIGHT KG	WEIGHT LBS
406217	SP50603	600mm	300mm	76mm	36	79
406219	SP50903	900mm	300mm	76mm	43	95
406220	SP51203	1200mm	300mm	76mm	51	112
409446*	INTERLOCKING	815mm	300mm	76mm	40	89

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400

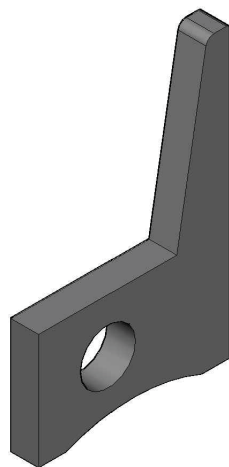
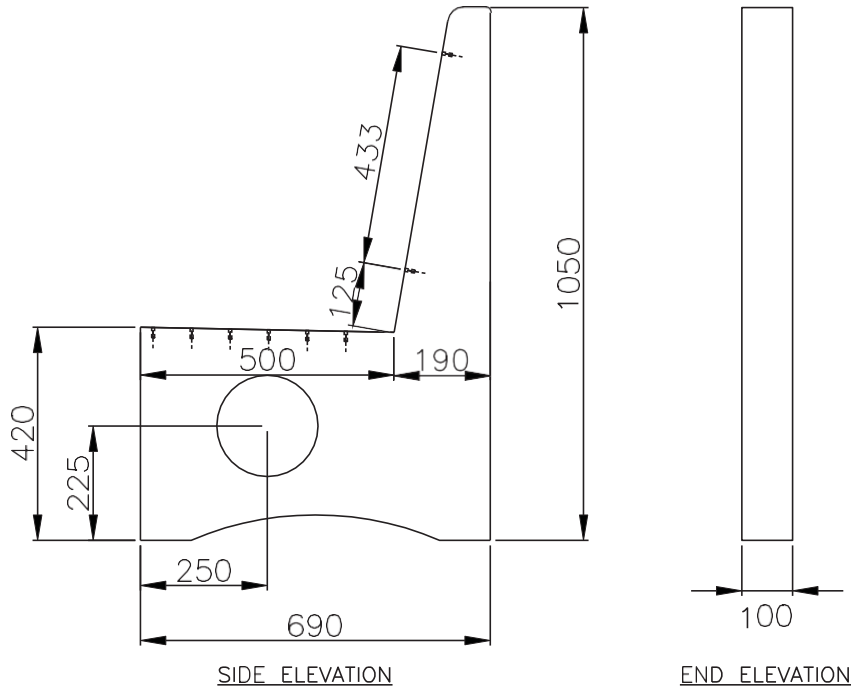
Product Detail
 Interlocking connection is Shiplap

Revision Date **April. 01 2019**

	SPLASH PAD	Dwg. No.	-
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. <div style="font-size: 1.5em; font-weight: bold;">Various</div>

Notes

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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	79 kg (174 lbs)

Product Otions

Dimension	1050 x 690 x 100
Inserts	3/8" x 2 3/4"

Product Finish

Smooth	Standard
Sandblasted	Extra
Exposed Aggregate	Extra

Revision Date April. 01 2019



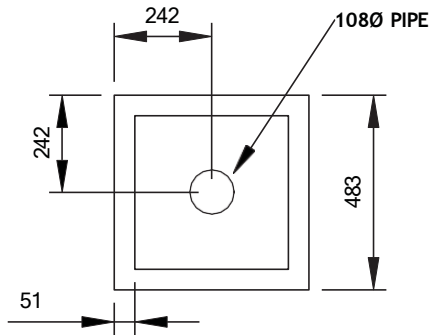
BENCH LEG

Dwg. No **SP71510**

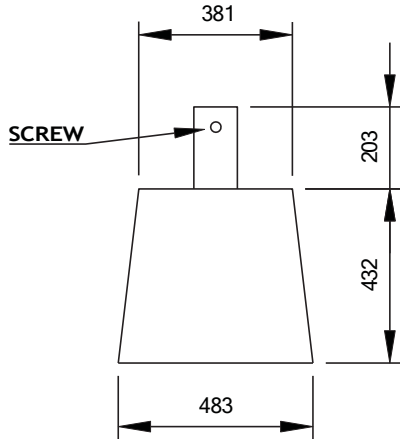
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

SAP No. **406235**



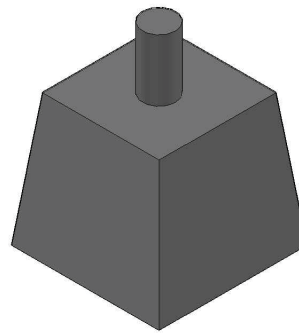
PLAN



SIDE VIEW

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	195 kg (429 lbs)

Product Detail

Dimension	483 x 483 x 432
Sleeves Diameter	2 1/2"

Product Finish

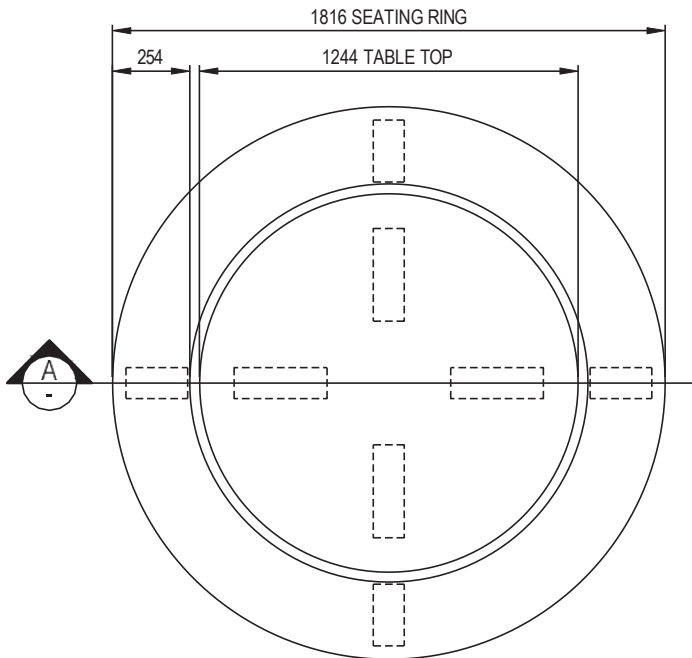
Smooth	Standard
Sandblasted	Extra
Exposed Aggregate	Extra

Revision Date April. 01 2019

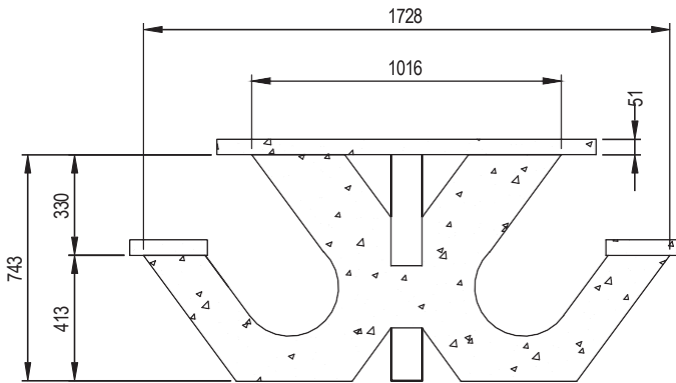
	<p>FLAG POLE BASE</p>	<p>Dwg. No. SP90200</p>
	<p>www.knelsen.com Western Canada (Calgary, Edmonton) Tel: (403) 279-8161</p> <p>Fax: (403) 279-6027</p>	<p>SAP No. 406241</p>

Notes

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PLAN



SECTION A

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	600 kg (1,112 lbs)

Product Detail

Table Top	1244mm
Seating Ring	1816mm
Table Height	743mm
Seating Height	413mm

Product Finish

Smooth	Standard
Sandblasted	Extra
Exposed Aggregate	Extra

Revision Date **April. 01 2019**



Picnic Table (Round)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No.
SP-71500

SAP No.
409889



PRECAST 3x4 DUCT BANK

PRECAST DUCT BANKS

Duct banks are an integral part of the underground utility market, providing owners protection from future excavation, drilling, traffic loads while giving the ability to replace, upgrade or repair existing infrastructure without excavating. Precast duct banks produced by Armtec provide benefits that exceed that of traditional construction materials. In addition, using a specialized proprietary technique we ensure pieces fit together onsite for a no hassle install.



BENEFITS OF PRECAST DUCT BANKS vs TRADITIONAL MATERIALS

COST SAVINGS

- Heating & hoarding costs eliminated
- Accelerated project schedule due to pre-fabrication
- No wasted raw materials, as product is custom built for size
- Product can be stored on-site, or delivered and installed just in time allowing installation as schedules permit
- Backfill can occur immediately after installation

QUALITY ASSURANCE:

- Material is unaffected by cave-ins
- Engineered to ensure a perfect fit
- Produced in a quality controlled & certified environment

SAFETY:

- Reduced on-site labour for install
- Reduced exposure to workers time spent in open trench



DUCT BANK PRODUCT SPECIFICATIONS:

Configuration	PVC size	Weight kg	Weight lbs
1x4	4"	720	1584
1x4	5"	720	1584
1x4	6"	720	1584
3x3	4"	1368	3009
3x3	5"	1368	3009
3x3	6"	1368	3009
3x4	4"	2112	4646
3x4	5"	2112	4646
3x4	6"	2112	4646
4x4	4"	3432	7550
4x4	5"	3432	7550
4x4	6"	3432	7550



KNELSEN | PRECAST

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Knelsen is a leading provider of infrastructure solutions that deliver social, environmental and economic benefits for an ever-changing world.

403.279.8161 | KNELSEN.COM

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Drawings and product details are for information and/or illustrative purposes only, and may vary. Please contact your local Knelsen representative for the most current product information.

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UNDERGROUND & UTILITIES / PRECAST CONSTRUCTION MATERIALS 2019
PROD-C09-G08-P06-PG-2019-06-E