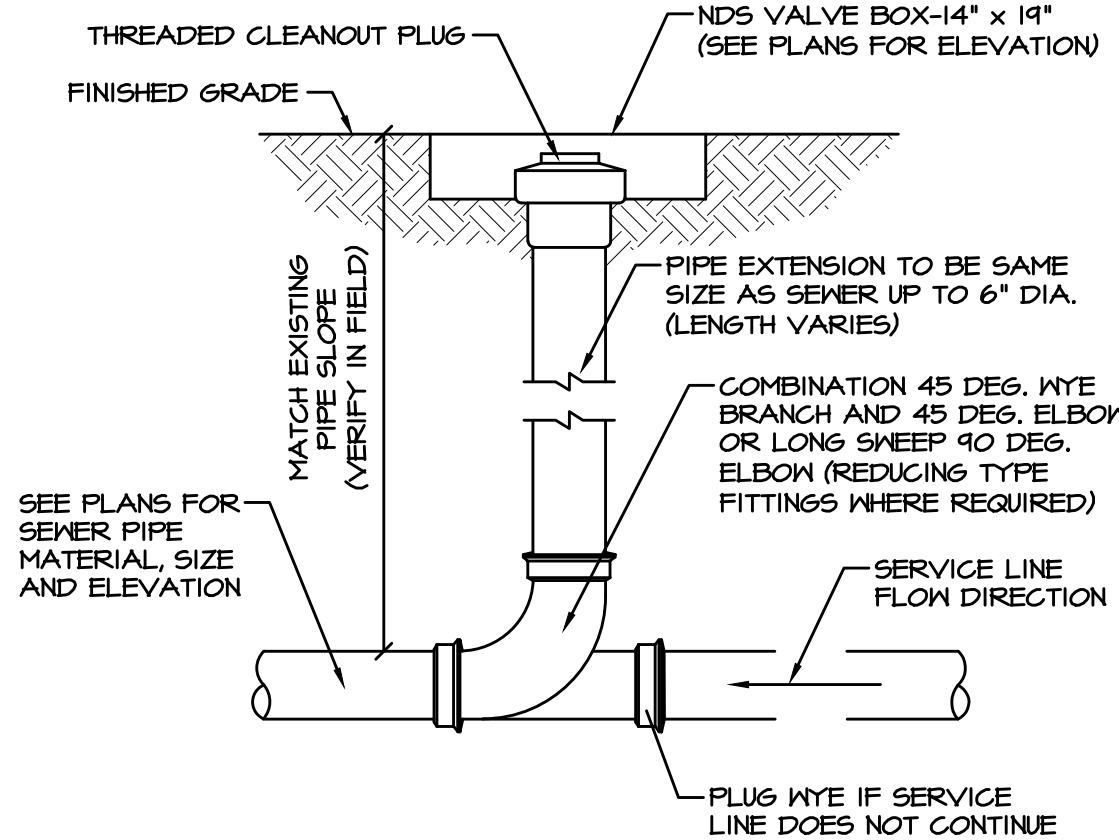
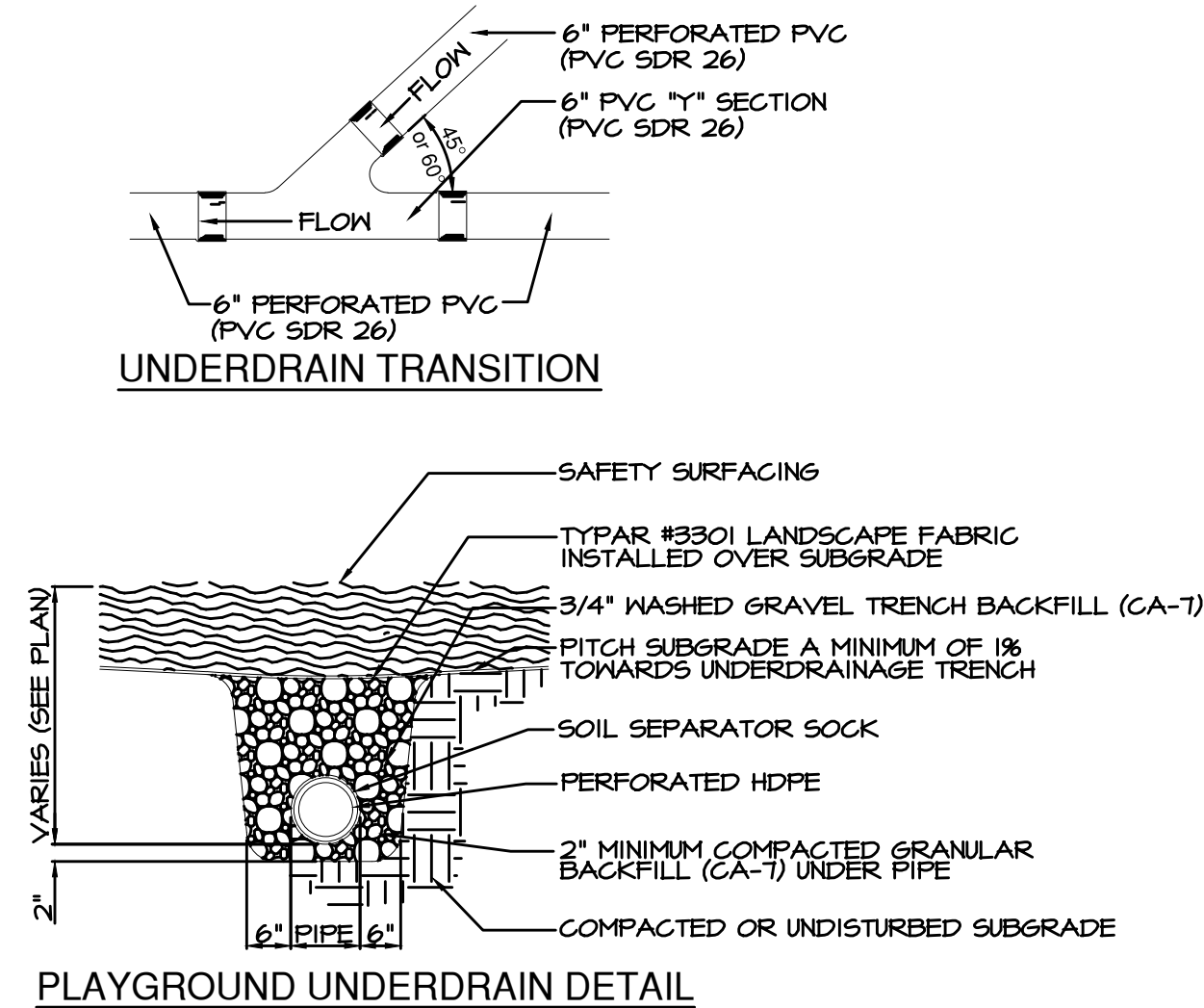


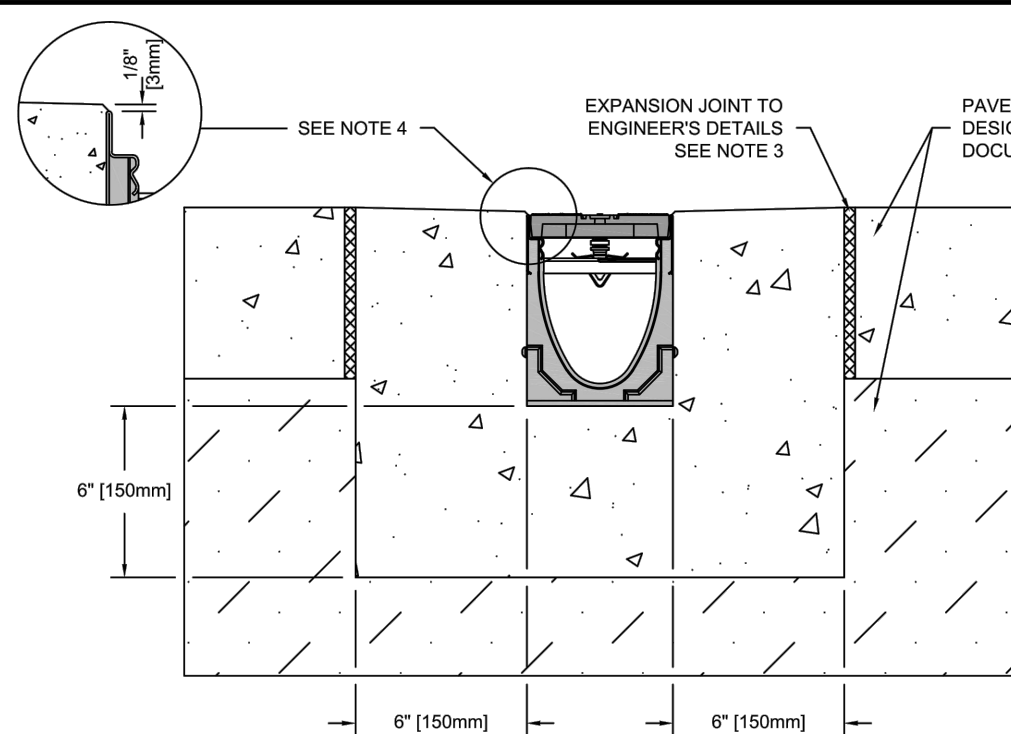
DETAIL - PLAYGROUND CLEAN OUT (WITHIN PLAYGROUND)
NOT TO SCALE



DETAIL - CLEAN OUT (OUTSIDE PLAYGROUND)
NOT TO SCALE

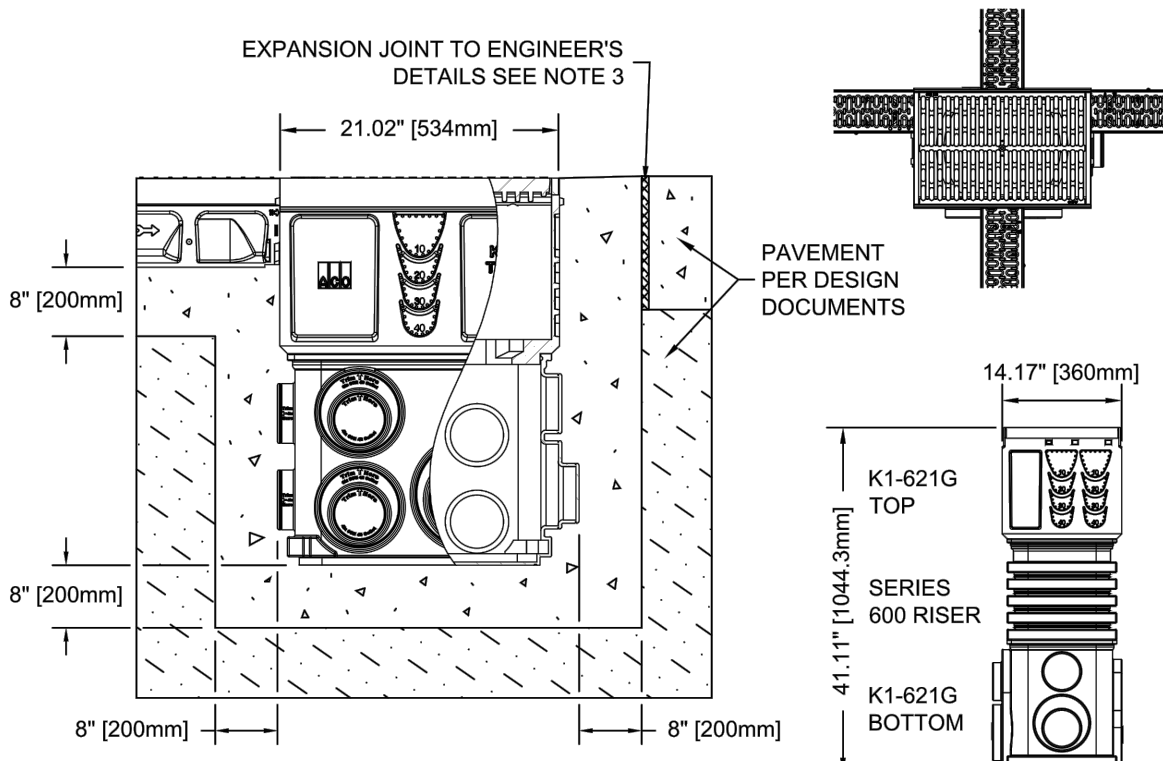


DETAIL - 6" PERFORATED PVC UNDERDRAINAGE SYSTEM
NOT TO SCALE



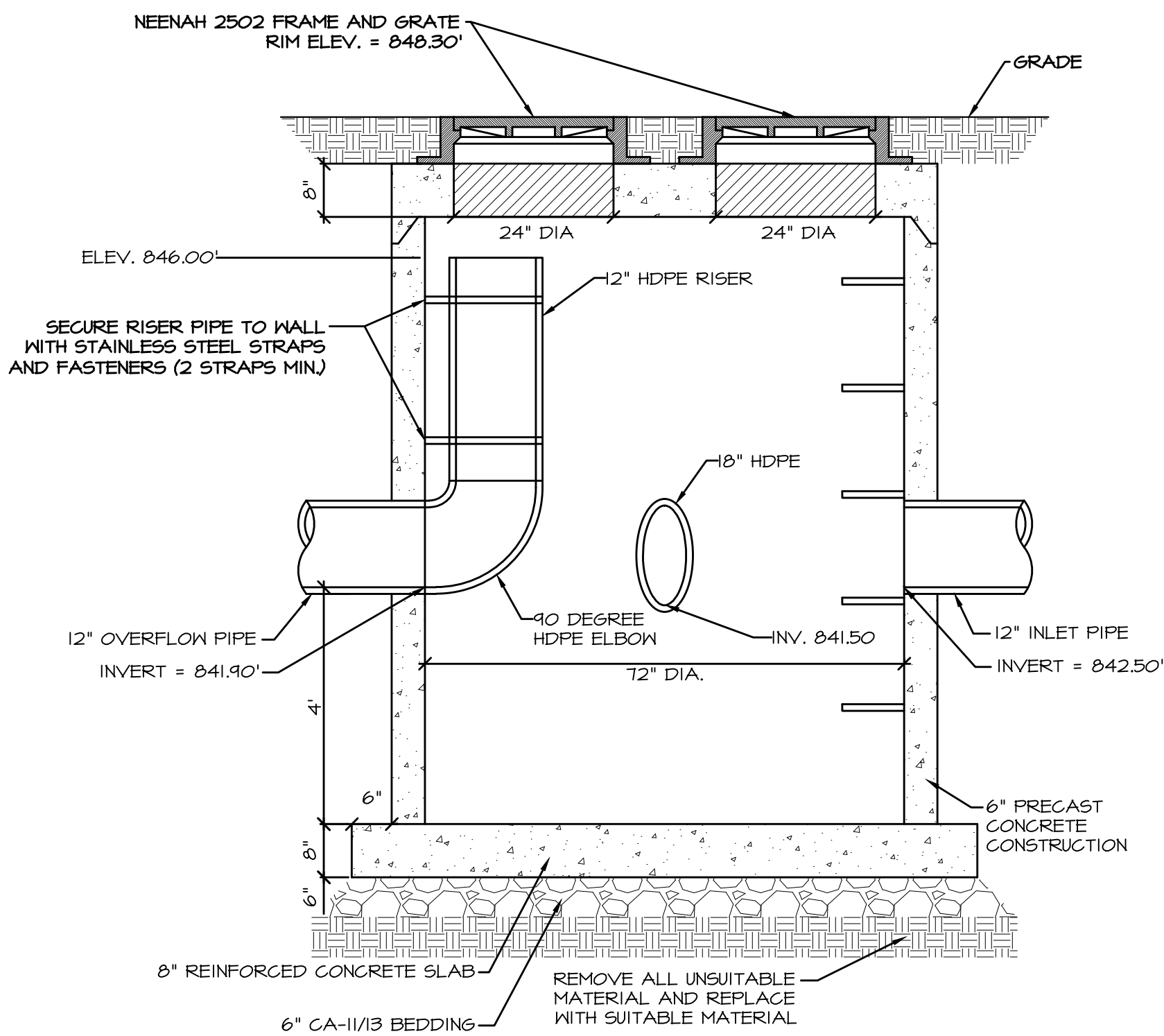
- NOTES:**
1. IT IS NECESSARY TO ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. ENGINEERING ADVICE MAY BE REQUIRED.
 2. MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
 3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND. ENGINEERING ADVICE MAY BE REQUIRED.
 4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" (3mm) ABOVE THE TOP OF THE CHANNEL EDGE.
 5. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS. ENGINEERING ADVICE MAY BE REQUIRED TO DETERMINE PROPER LOAD CLASS.
 6. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

K100 - KLASSIKDRAIN - LOAD CLASS: C
Exposed Concrete Pavement
INSTALLATION DRAWING - ACO DRAIN



- NOTES:**
1. IT IS NECESSARY TO ENSURE THE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR THE EXISTING GROUND CONDITIONS. ENGINEERING ADVICE MAY BE REQUIRED.
 2. A MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. THE CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
 3. EXPANSION AND CRACK CONTROL JOINTS ARE RECOMMENDED TO PROTECT THE CATCH BASIN AND THE CONCRETE SURROUND. ENGINEERING ADVICE MAY BE REQUIRED.
 4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" ABOVE THE TOP OF THE CATCH BASIN EDGE.
 5. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.
 6. CONCRETE BASE THICKNESS SHOULD MATCH THE SLAB THICKNESS.
 7. REBAR OR STEEL MESH REINFORCEMENT MAY BE REQUIRED. ENGINEERING ADVICE MAY BE REQUIRED.

K1621G-E-ECIP
K1-621G CATCH BASIN - LOAD CLASS: E
Exposed Concrete Pavement
INSTALLATION DRAWING - ACO DRAIN



DETAIL - 72" CATCH BASIN WITH OVERFLOW PIPE (STRUCTURE #44)
NOT TO SCALE

SPECIFICATION CLAUSE
K100 KLASSIKDRAIN - LOAD CLASS C

GENERAL
THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE K100 CHANNEL SYSTEM WITH GALVANIZED STEEL EDGE RAILS AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC.

MATERIALS
CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN GALVANIZED STEEL EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:
COMPRESSIVE STRENGTH: 14,000 PSI
FLEXURAL STRENGTH: 4,000 PSI
TENSILE STRENGTH: 1,500 PSI
WATER ABSORPTION: 0.07%
FROST PROOF: YES
DILUTE ACID AND ALKALI RESISTANT: YES
B117 SALT SPRAY TEST COMPLIANT: YES

THE SYSTEM SHALL BE 4" (100mm) NOMINAL INTERNAL WIDTH WITH A 5.1" (130mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO POLYMER PRODUCTS, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO POLYMER PRODUCTS, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. GRATES SHALL BE SECURED USING 'QUICKLOK' BOLTS/LESS LOCKING SYSTEM. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

ACO Polymer Products, Inc.
825 W. Beechcroft St.
Casa Grande, AZ 85122
Tel: 520-421-9888
Fax: 520-421-9889

P.O. Box 245
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Tel: 440-285-7000
Fax: 440-285-6817

4211 Pleasant Rd.
Fort Mill, SC 29708
Tel: 803-543-4764
Fax: 803-802-1063

SPECIFICATION CLAUSE
K1-621G CATCH BASIN - LOAD CLASS E

GENERAL
THE CATCH BASIN SHALL BE ACO DRAIN K1-621G SERIES MADE FROM POLYMER CONCRETE WITH A CAST-IN GALVANIZED STEEL RAIL AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC.

MATERIALS
POLYMER CONCRETE SHALL HAVE MATERIAL PROPERTIES OF:
COMPRESSIVE STRENGTH: 14,000 PSI
FLEXURAL STRENGTH: 4,000 PSI
TENSILE STRENGTH: 1,500 PSI
WATER ABSORPTION: 0.07%
FROST PROOF: YES
DILUTE ACID AND ALKALI RESISTANT: YES
B117 SALT SPRAY TEST COMPLIANT: YES

THE K1-621G SERIES CATCH BASIN COMPRISING OF TOP SECTION, QUICKLOK GRATE, OPTIONAL RISER, SHORT BASE AND TRASH BUCKET SHALL ACCEPT 4" ACO DRAIN TRENCH DRAIN MODEL K100 IN SIDES AS SHOWN.

THE CATCH BASIN SHALL BE 21.02" (534mm) IN LENGTH AND 14.17" (360mm) IN WIDTH. K1-621G CATCH BASIN DEPTH IS 29.11" (739mm).

THE COMPLETE CATCH BASIN AND TRENCH DRAINAGE SYSTEM SHALL BE BY ACO POLYMER PRODUCTS, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO POLYMER PRODUCTS, INC.

K1-621G SERIES CATCH BASIN SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE SHALL BE HELD IN PLACE WITH THE QUICKLOK SYSTEM CATCH BASIN, TRENCH CHANNEL AND GRATE SHALL BE INDEPENDENTLY CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS.

THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

K1621G-E-ECIP
K1-621G CATCH BASIN - LOAD CLASS: E
Exposed Concrete Pavement
INSTALLATION DRAWING - ACO DRAIN

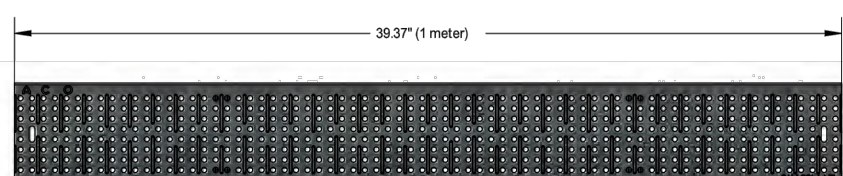
ACO Polymer Products, Inc.
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8470 Pinecone Dr.
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ACO DRAIN
Type 451D/453D Perforated stainless steel grate (ADA)

Plan view

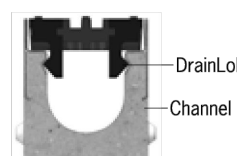


Side elevation



Description	Part No.	Length inches (mm)	Width inches (mm)	Weight lbs.
DrainLok grates				
Type 451D Perforated stainless steel grate	12664	39.37 (1000)	4.84 (123)	6.3
Type 453D Perforated stainless steel grate	12665	19.69 (500)	4.84 (123)	3.2

'DrainLok' locking mechanism



ACO DrainLok™ is a patented, boltless locking system that removes the need for bolts and bars and improves the hydraulic capacity of the channel. The DrainLok™ mechanism simply clips into the channel edge rail for rapid installation. ACO DrainLok™ grates are fitted with an anti-slip mechanism that restricts unwanted grate movement when installed, improving durability and longevity of the system.

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www.ACODrain.us

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April 2018

ACO DRAIN
Type 451D/453D Perforated stainless steel grate (ADA)

Product Features

- Certified to EN 1433 Load Class A - 3,500 lbs - 70 psi
- Uses 'DrainLok' boltless locking system
- Suitable for use with K100, KS100, and H100K-8 channels
- Manufactured from 16 gauge, grade 304 stainless steel
- Patented reinforcement underneath designed to prevent bowing and collapse
- Complies with ADA - American Disabilities Act of 1990 Section 4.5.4
- Complies with ASME: A112.6.3 - 2001: Section 7.12
Heel Resistant Strainers and Grates
- Bicycle Tire Penetration Resistant to AS3996-2006



Specifications

General
The surface drainage system shall be ACO Drain K100, KS100, and H100K-8 channels*, complete with ACO Type 451D/453D Perforated stainless steel grate with 'DrainLok' locking as manufactured by ACO, Inc. or similar approved.

Materials
The covers shall be manufactured from stainless steel and have **minimum** properties as follows:

- **Independently certified to meet Load Class A to EN 1433 - 3,500 lbs - 70 psi**
- **16 gauge, grade 304 stainless steel**
- **Intake area of 14.1 sq. in. (91.0 cm²) per half meter of grate**

The overall width of 4.84" (123mm) and overall length of 39.37" (1000mm) (Type 451D) and 19.69" (500mm) (Type 453D). Perforations measure 0.25" (6.35mm) in diameter.

Installation
The trench drain system and grates shall be installed in accordance with the manufacturer's installation instructions and recommendations.

*delete as appropriate

April 2018

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WT GROUP
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C-6.7
SITE UTILITY DETAILS