STANDARD INSIDE DROP MANHOLE

SECTION A-A

SLOPE SHELF AS REQUIRED

3" MIN.

FLOW

KOR-N-SEAL OR APPROVED EQUAL MANHOLE ADAPTER (TYP.)

FINISHED GRADE

RELINER® OR APPROVED EQUAL INSIDE DROP BOWL SECURED WITH STAINLESS STEEL FASTENERS

EXTERNAL PIPE COUPLER

RUBBER BOOT

2" PIPE PROTRUSION

CONCRETE BACKFILL

INSTALL 45 DEG FITTING

PVC DROP PIPE OF DIAMETER APPROPRIATE TO DROP BOWL SIZE PER MANUFACTURER’S SPECIFICATIONS

RELINER® OR APPROVED EQUAL STAINLESS STEEL STRAPS SECURED TO STRUCTURE WITH STAINLESS STEEL FASTENERS, AT 4’ INTERVALS (MIN. OF 2)
NOTES:
1. THIS DESIGN TO BE USED FOR ALL DROPS 2 FEET AND LESS.

PARTIAL TOP VIEW

SECTION A-A

MINIMUM OF 12" WALL BETWEEN PIPES

3,300 PSI PCC
SLOPE SHELVES
1:12 TYP. MIN.

CLASS "B" PIPE ZONE

FORM CHANNEL WITH PCC
SMOOTH TO CONCRETE PIPE
INTERNAL FINISH.

IMPORTED SELECT (CRUSHED AGGREGATE)
BACKFILL COMPACTED TO 95% M.D.D. PER ASTM
D1557, OR C.D.F. AS REQUIRED.

30°
2' MAX.
30°
3"
3"

3"

6" MIN THICKNESS
OF 3/4"- COMPACTED
CRUSHED ROCK

KOR-N-SEAL
OR APPROVED
EQUAL (TYP.)

FLOW

SHALLOW INSIDE DROP MANHOLE
NOTES:
1. ALL MANHOLES LOCATED IN-ROAD PAVEMENT SHALL USE THE STANDARD MANHOLE COVER AS PRODUCED BY: EJIW, OR EQUAL

2. MATERIAL SHALL BE GREY IRON, ASTM A-48, CLASS 35-B. APPROXIMATE WT. = 134 lbs.
WASTEWATER TAMPERPROOF AND WATERPROOF MANHOLE COVER

PLAN

(3) CORED BOLT HOLES (SEE DETAIL)

CUSTOM LOGO

1 1/4" SHARP FACE GOTHIC

1 1/4"

15 1/8"

1"

SECTION A-A

(2) BLIND PICK NOTCHES

24 3/4" DIA

2 13/16"

13/16"

1 7/8"

BOLT HOLE

1 5/8" DIA

3/4"

1/2"

PICK NOTCH

WASTEWATER TAMPERPROOF AND WATERPROOF MANHOLE COVER

BOTTOM VIEW

KCK

JAN 2019

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Plotted 9/12/2018 12:16 PM

By: Kimberly Bogert

ANSI A (8.50 X 11.00 INCHES)
2% MINIMUM SLOPE

SERVICE CONNECTION WITH RISER

TRENCH EXCAVATION, BACKFILL, AND PIPE PAY LENGTH

45° BEND

2% MINIMUM SLOPE

RISER PAY LENGTH

45° MAX.

SERVICE CONNECTION WITHOUT RISER

TRENCH EXCAVATION, BACKFILL, AND PIPE PAY LENGTH

2% MINIMUM SLOPE

NOTES:

1. SERVICE SHALL NOT BE BACKFILLED PRIOR TO INSPECTION.
2. GREEN MAGNETIC TAPE WITH "CAUTION SEWER LINE BURIED BELOW" IN RED OR BLACK LETTERS SHALL BE LAID 1' ABOVE THE TOP OF THE SERVICE CONNECTION AND WRAPPED AROUND THE PLUG AT THE END OF THE SEWER LATERAL AND BROUGHT TO THE SURFACE WRAPPED AROUND THE 2" X 4" MARKER.

2" x 4" STAKE FROM INVERT TO 2' ABOVE EXISTING GRADE. STAKE SHALL BE CONTINUOUS AND REMAIN VERTICAL AFTER BACKFILLING. END SHALL BE PAINTED WHITE. SEE NOTE 2.

STAMP "S" 3" HIGH, 2" WIDE AND 1/2" DEEP ON TOP OF CURB AND GUTTER APPROX. 14"

8' GENERAL UTILITY EASEMENT

PROPERTY LINE

CLEANOUT COVER PER DETAIL 211

24" X 18" X 4" POURED-IN-PLACE 3000 PSI CONCRETE PAD, WHEN NOT INTEGRATED INTO CONCRETE SIDEWALK

BACK OF WALK

6' MIN. DEPTH

TRENCH EXCAVATION, BACKFILL, AND PIPE PAY LENGTH

PROPERTY LINE

WATERTIGHT PLUG

INSTALL-TWO-WAY SWEEPING CLEANOUT

WATERTIGHT PLUG

SANITARY SEWER LATERAL

24" X 18" X 4"
NOTES:
1. THE TAP SHALL NOT BE MADE EXCEPT IN THE PRESENCE OF A CITY INSPECTOR; NOR SHALL ANY CONNECTION BE MADE WITHOUT CITY APPROVAL.
2. A "SEALTITE SADDLE" OR "INSERT-A-TEE" (OR APPROVED EQUAL) TYPE CONNECTION SHALL BE USED AND SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. FUSION SADDLES WILL BE USED FOR HDPE PIPE CONNECTIONS.
3. THE HOLE MADE IN MAIN SHALL BE CORED.
4. CENTERLINE OF TAP TO BE ABOVE SPRINGLINE.
5. 4" MAXIMUM HOLE FOR 8" MAIN UNLESS OTHERWISE APPROVED BY THE ENGINEER.
1. CONNECTION PLAN FOR 4 LOT COMMON LATERAL (3 LOTS SIMILAR). CITY PRIOR TO CONSTRUCTION.

2. EASEMENTS TO BE RECORDED & A COPY THEREOF SUBMITTED TO SEWER IN PUBLIC ROAD RIGHT-OF-WAY CANNOT BE USED AS DETERMINED BY THE ENGINEER.

3. PRIVATE EASEMENT ARRANGMENT SHOWN TO BE USED ONLY WHEN LOT 1
LOT 2
LOT 3
LOT 4
PRIVATE EASEMENT, 15' MINIMUM
PRIVATE EASEMENT, 15' MINIMUM

NOTES:
1. CONNECTION PLAN FOR 4 LOT COMMON LATERAL (3 LOTS SIMILAR).
2. EASEMENTS TO BE RECORDED & A COPY THEREOF SUBMITTED TO CITY PRIOR TO CONSTRUCTION.
3. PRIVATE EASEMENT ARRANGEMENT SHOWN TO BE USED ONLY WHEN SEWER IN PUBLIC ROAD RIGHT-OF-WAY CANNOT BE USED AS DETERMINED BY THE ENGINEER.

PROPERTY LINE
PRIVATE EASEMENT, 15' MINIMUM
PROPERTY LINE
PUBLIC SANITARY SEWER MAIN LINE
PROPERTY LINE
INSTALL STD. 4' DIA. PRECAST MANHOLE IN 10' x 10' PUBLIC EASEMENT. EASEMENT TO BE APPROVED BY CITY BEFORE RECORDING.

PROPERTY LINE
6" MIN. DIA. SEWER LATERAL. SANITARY SEWER LATERAL CAN SERVE NO MORE THAN 7 LIVING UNITS.

PROPERTY LINE
CLEANOUTS PER PLUMBING CODE.

PROPERTY LINE
HOUSE LATERALS IN PRIVATE EASEMENTS PER PLUMBING CODE

RIGHT-OF-WAY

WASTEWATER CONNECTION, 3 OR 4 LOTS WITH PRIVATE EASEMENTS
ONE CIRCULAR COIL PARALLEL TO PIPE END. WELD OR LAP AND TIE END COIL.

\[ Y \text{ (MIN)} = 0.50 \, d \text{ (AVG.)} \]

NOTE: SEE STANDARD DETAIL 312 FOR VARIABLE DIMENSIONS.
## Dimensions Table

<table>
<thead>
<tr>
<th>PIPE DIAMETER</th>
<th>JOINT TYPE</th>
<th>GROOVE WIDTH (W)</th>
<th>J</th>
<th>R</th>
<th>M (DIAMETER)</th>
<th>N (DIAMETER)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MINIMUM</td>
<td>MAXIMUM</td>
<td>MINIMUM</td>
<td>MAXIMUM</td>
<td>MINIMUM</td>
</tr>
</tbody>
</table>

## Joint Clearance

<table>
<thead>
<tr>
<th>JOINT CLEARANCE</th>
<th>SLOPE DEGREES</th>
<th>RUBBER GASKET</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>MAX HEAD CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>SLOPE DEGREES</td>
<td>RUBBER GASKET</td>
<td></td>
<td></td>
<td></td>
<td>MAX HEAD CLASS</td>
</tr>
</tbody>
</table>

### Typical Joint Detail and Data Form

1. CONTRACTOR SHALL SUBMIT ALL INFORMATION REQUIRED BY THE TABLES, UNLESS DIMENSION SHOWN IN THE TABLES IS NOT APPLICABLE TO THE SPECIFIC TYPE OF PIPE JOINT FURNISHED, IN WHICH CASE IT SHALL BE LEFT BLANK.

2. ALL DIMENSIONS SHALL BE GIVEN IN INCHES, UNLESS OTHERWISE NOTED, AND ARE FOR BELL AND SPIGOT IN CONCENTRIC POSITION.

3. JOINT CLEARANCE DIMENSION K IS AT CLOSEST POINT WITHIN DISTANCE A.

### Joint Type R-1

### Joint Type R-3

### Joint Type R-4

### SPIGOT GROOVE DETAIL

### Notes:

\[ \text{GAP}_{\text{MIN}} = B - A - \frac{W}{2} - H_{\text{MIN}} \]

\[ \text{GAP}_{\text{MAX}} = B - A - \frac{W}{2} - H_{\text{MAX}} \]