

SEE NUD SEWER  
DETAIL #1 FOR  
MANHOLE TOP  
SECTION.

RELINER<sup>®</sup> INSIDE  
DROP BOWL  
AND FORCE  
LINE HOOD

INCOMING PIPE TO BE  
FLUSH WITH MANHOLE WALL.

INSIDE DROP PIPING  
TO MATCH THE  
DIAMETER OF THE  
INCOMING SEWER MAIN.

FLOW

CORE DRILL OPENING,  
KOR-N-SEAL PIPE-TO  
MANHOLE CONNECTOR BY  
NPC, INC.

PRECAST CONCRETE  
MANHOLE, STEPS AND  
LADDER PER THE  
STANDARD SEWER  
DETAIL #6.

SDR 35  
PVC PIPE

STAINLESS-STEEL STRAP  
BOLTED WITH  
STAINLESS-STEEL LAG  
BOLTS TO MANHOLE. 2  
SETS MINIMUM, 6'-0"  
MAXIMUM SPACING.

FRP OR PP  
MH BASE LINER

UNDISTURBED EARTH (TYP.)

SDR 35 PEXGSK 90° BEND, TURN  
DOWNSTREAM. SEE NOTE 2.

FLOW

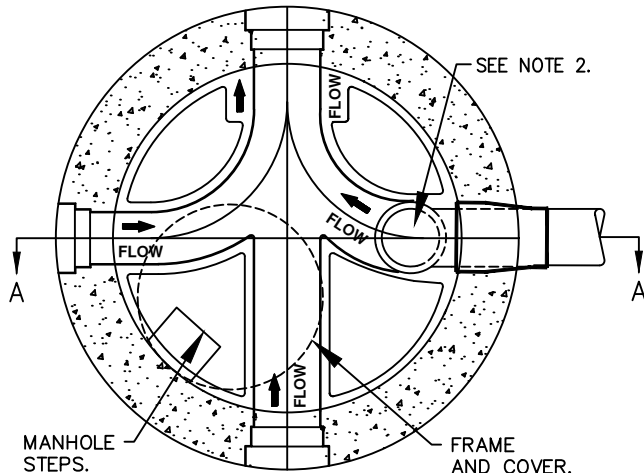
PEA GRAVEL BEDDING PER THE  
SPECIFICATIONS.

FOUNDATION GRAVEL PER THE  
SPECIFICATIONS, IF REQUIRED.

## SECTION A-A

### NOTES:

1. THE MANHOLE BASE LINER SHALL BE A FIBERGLASS REINFORCED PLASTIC (FRP) OR POLYPROPYLENE (PP) BASE LINER SYSTEM PER THE ENGINEERING SPECIFICATIONS.
2. BASE LINER CHANNEL RECEIVING THE INSIDE DROP FLOW SHALL BE SIZED ONE PIPE SIZE LARGER THAN THE INCOMING PIPE TO ACCOMMODATE THE 90° BEND. BEND TO REST FLUSH IN THE CHANNEL.
3. EXISTING MANHOLES SHALL HAVE THE BEND SET ON TOP OF THE EXISTING BENCH, ORIENTED TOWARDS THE DOWNSTREAM OUTLET, AND GROUTED IN-PLACE. ADDITIONAL PVC PIPE MAY BE REQUIRED TO DIRECT FLOW TO THE DOWNSTREAM OUTLET.
4. IF PP BASE LINER IS UTILIZED, A MINIMUM SLOPE OF 0.06' IS ACCEPTABLE ACROSS THE INVERT CHANNEL. THE FRP BASE LINER SHALL REQUIRE THE DISTRICT STANDARD MINIMUM SLOPE OF 0.1' ACROSS THE INVERT CHANNEL.
5. MARKER POSTS MAY BE REQUIRED IN EASEMENTS.
6. ALL PICK HOLES SHALL BE GROUTED ON THE INSIDE AND OUTSIDE OF MANHOLE.
7. MANHOLE LID SHALL BE ORIENTED PER THE DISTRICT'S DIRECTION.



## PLAN

# INSIDE DROP MANHOLE W/ BASE LINER

NOT TO SCALE

### DETAIL APPROVALS

EDITOR *TMC*

MANAGER *SJD*

## NORTHSHORE UTILITY DISTRICT

### 2022 STANDARD SEWER DETAILS

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LAST UPDATED  
APRIL 2021