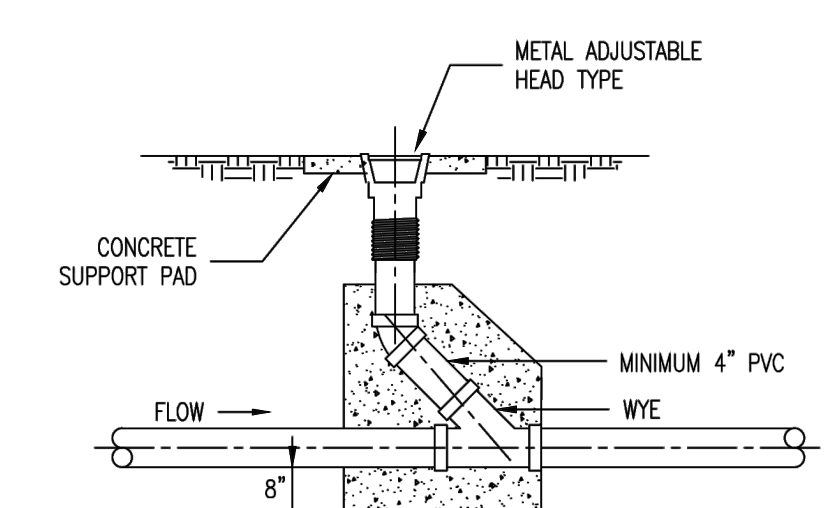



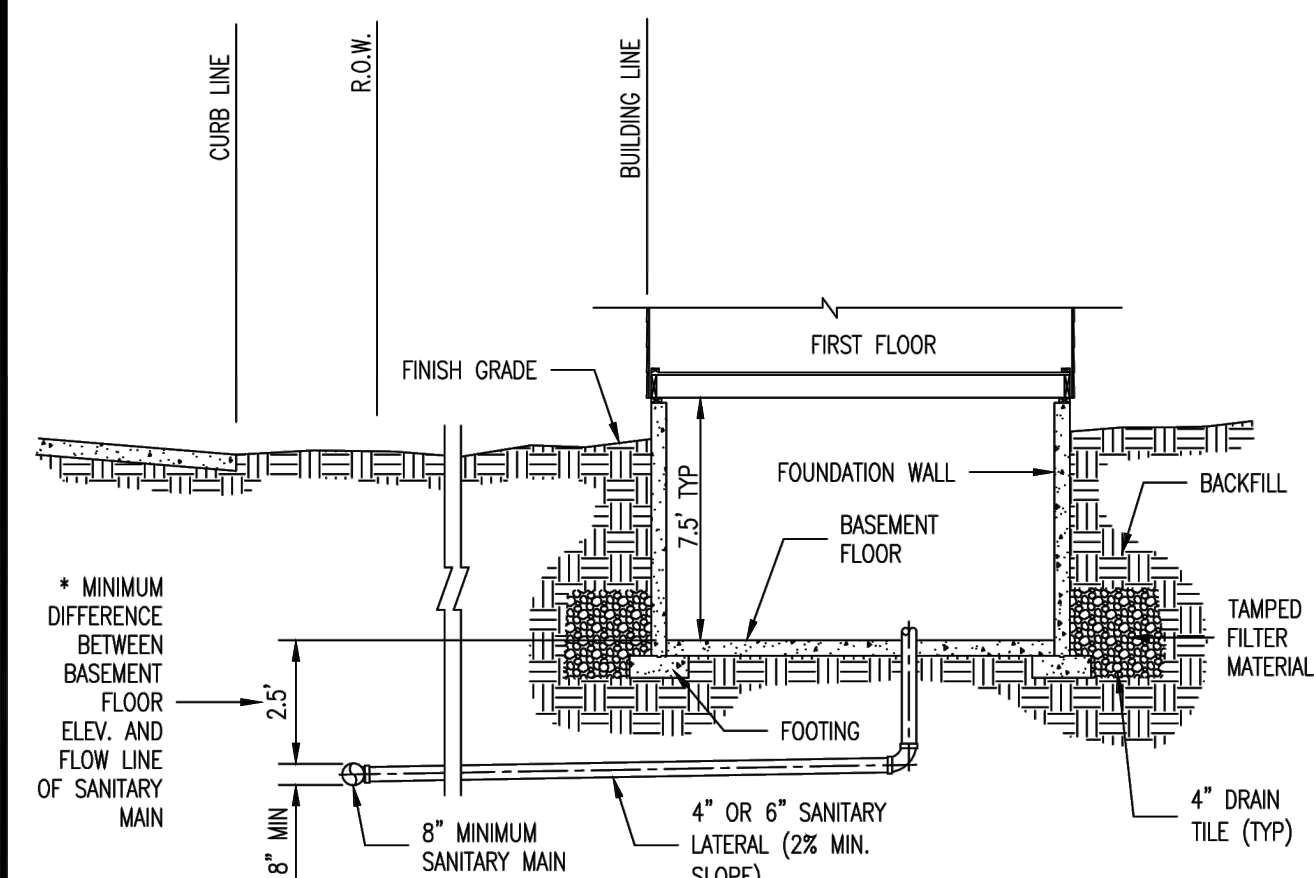
METAL FRAME AND COVER TYPE CLEANOUT




ADJUSTABLE HEAD TYPE CLEANOUT

Duckett Creek Sanitary District

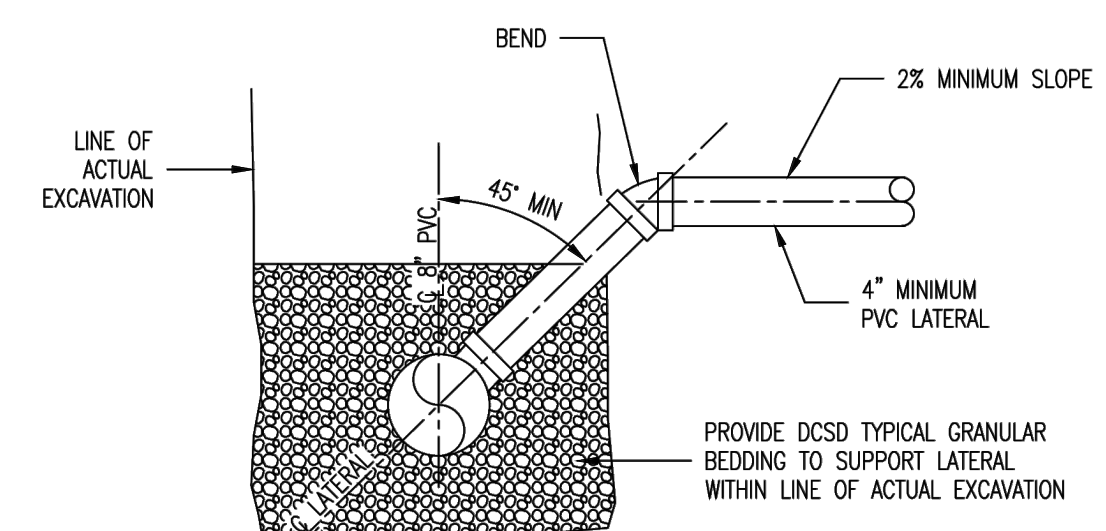
TYPICAL SEWER LATERAL CLEANOUT DETAIL	Dwn By: BSM	App By: KLA	Detail No. 25
	Chd By: MDOB	Date: DEC. 2015	




\*NOTE: DIFFERENCE IN DEPTH INCREASES WITH PIPE SIZE

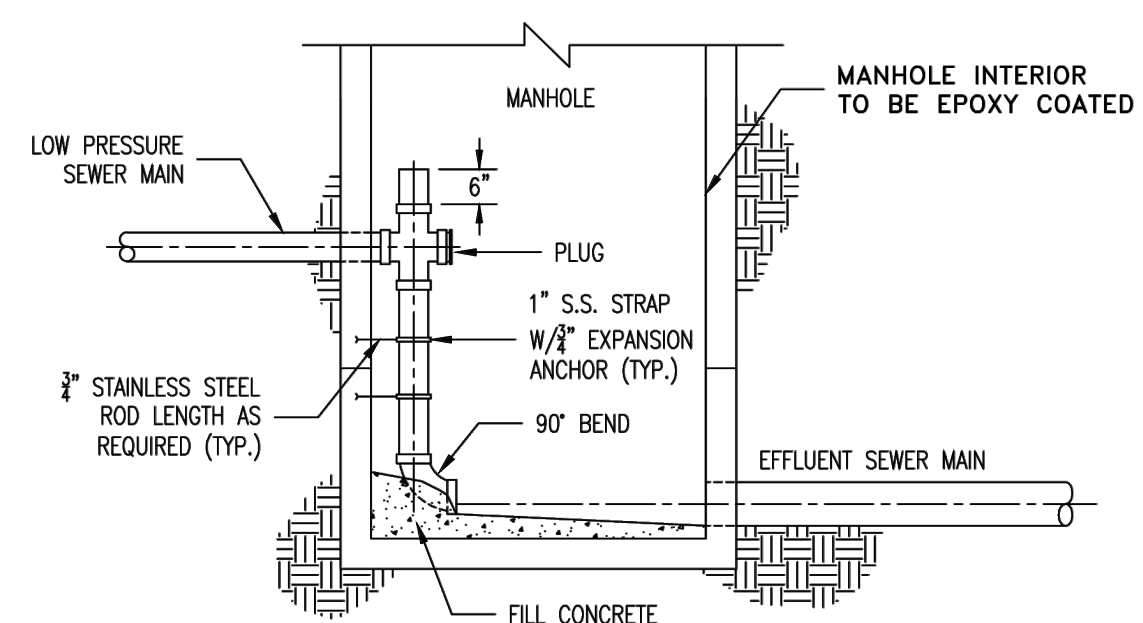
Duckett Creek Sanitary District

TYPICAL SANITARY SEWER LATERAL PROFILE	Dwn By: BSM	App By: KLA	Detail No. 26
	Chd By: MDOB	Date: DEC. 2015	




Duckett Creek Sanitary District

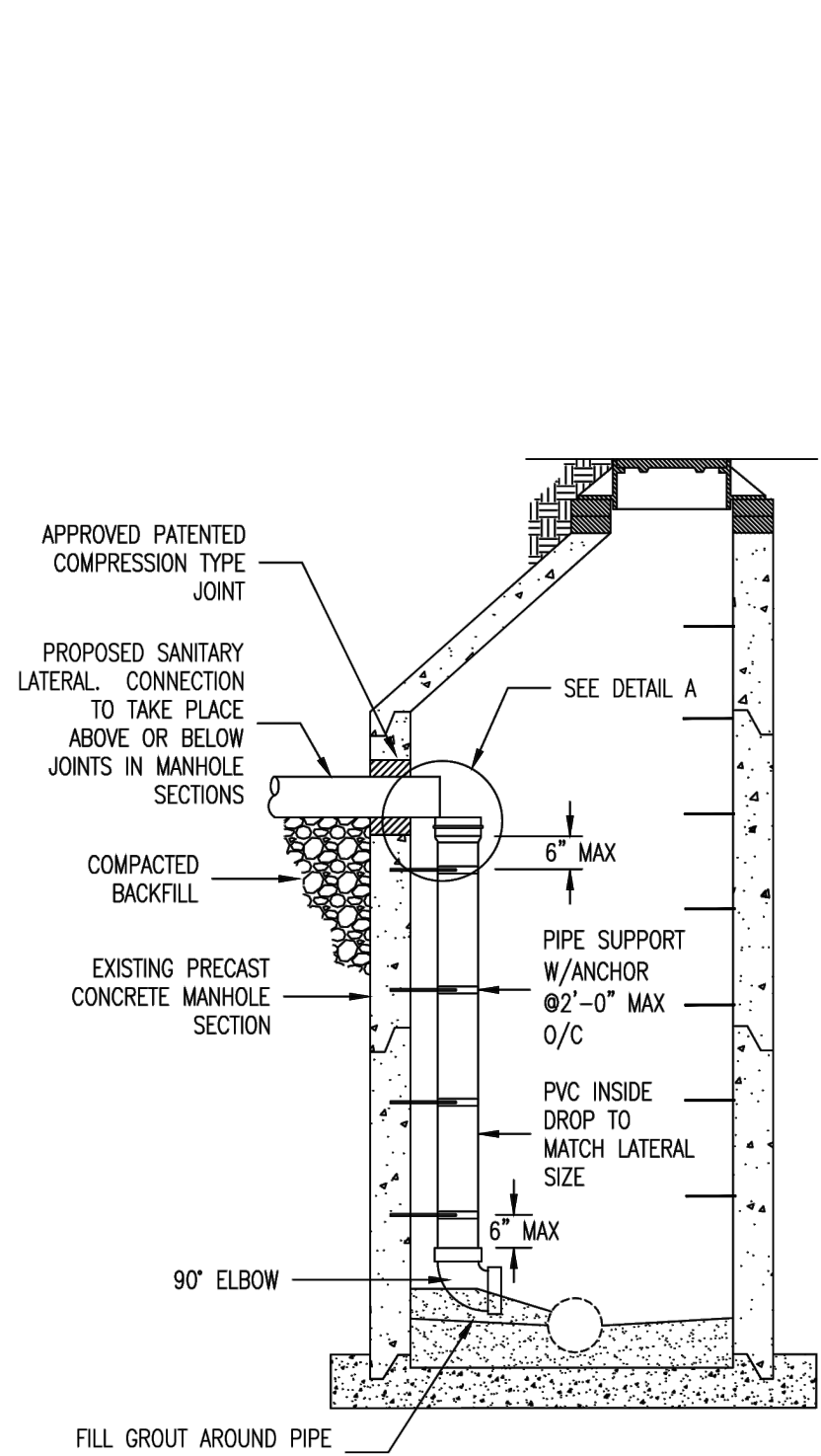
SANITARY SEWER LATERAL RISER DETAIL	Dwn By: BSM	App By: KA	Detail No. 27
	Chd By: MDOB	Date: DEC. 2015	



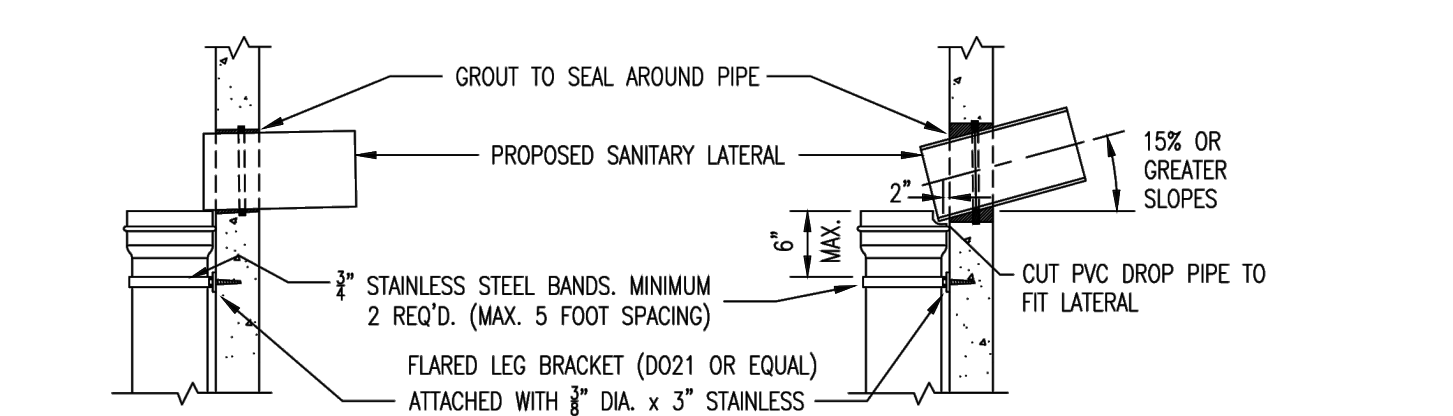
NOTE: INVERT-BOTTOM SHALL BE WORKED TO PROVIDE POSITIVE DRAINAGE THROUGH MANHOLE

Duckett Creek Sanitary District

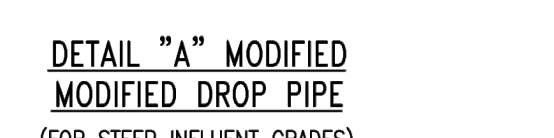
LOW PRESSURE SEWER MAIN CONNECTION AT MANHOLE	Dwn By: BSM	App By: KA	Detail No. 28
	Chd By: MDOB	Date: DEC. 2015	



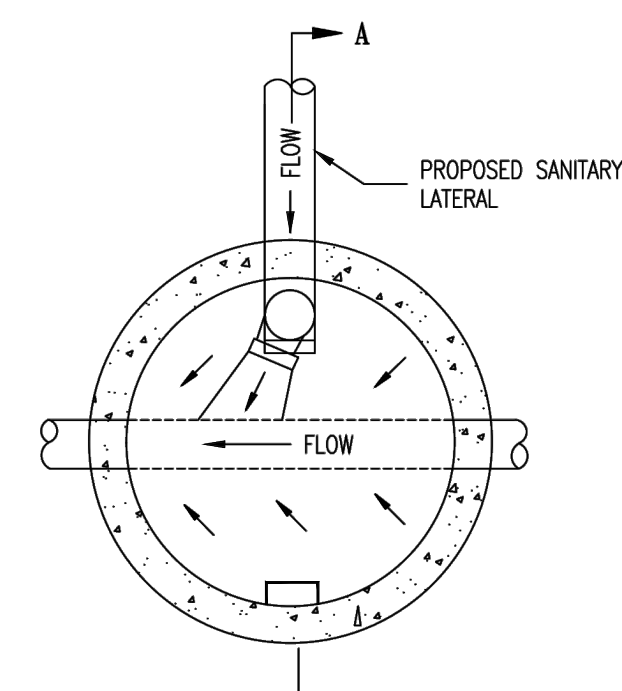
SECTION A-A



DETAIL "A" STANDARD DROP PIPE




DETAIL "A" MODIFIED DROP PIPE (FOR STEEP INFLUENT GRADES)

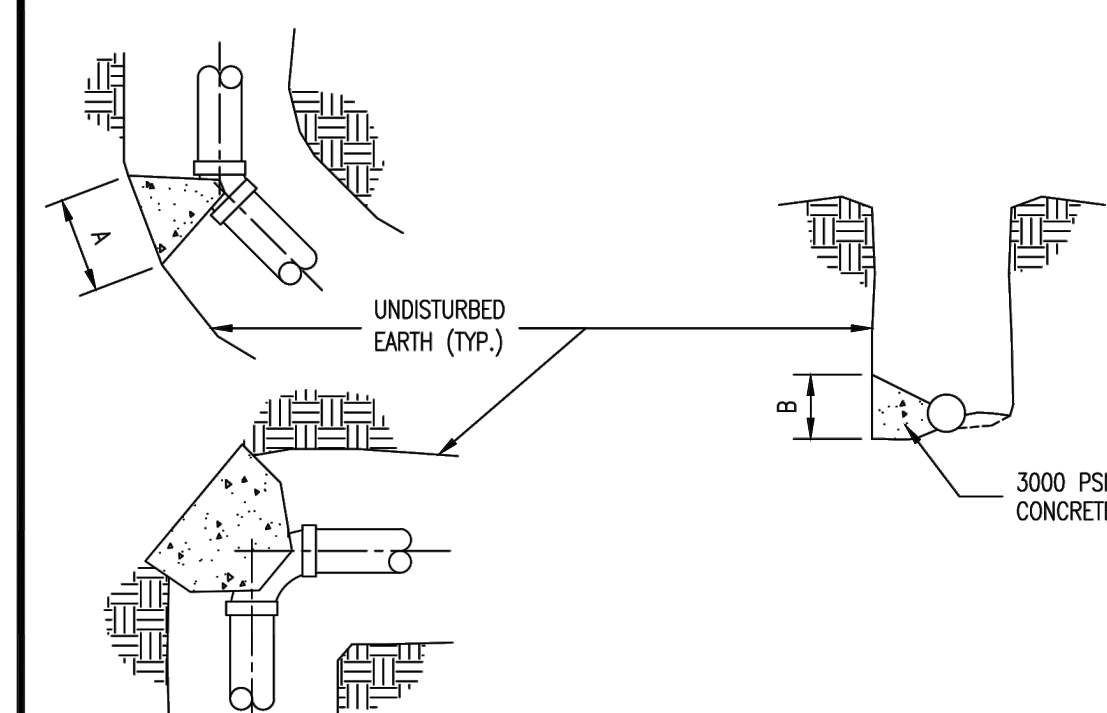


TOP VIEW


- NOTES:
- IF EXCAVATED SPACE OUTSIDE OF MANHOLE WALL EXCEEDS 1 FOOT, PROVIDE 6 INCHES OF CLASS "A" CONCRETE ENCASEMENT ON INCOMING LINE FROM WALL OF MANHOLE TO A MINIMUM OF 2 FEET INTO UNDISTURBED EARTH WITH A MINIMUM OF 4-#4 REBARS FOR LENGTH OF ENCASEMENT OR INSTALL ON LENGTH OF D.I.P. FROM MANHOLE INTO UNDISTURBED EARTH.
  - STAINLESS STEEL STRAPS SHALL BE 3"x2" STAINLESS STEEL.
  - STAINLESS STEEL STRAP CONNECTORS SHALL BE FLARED LEG BRACKET (D021 OR EQUAL) ATTACHED WITH 3/8" DIA. x 3" STAINLESS STEEL BOLT/ANCHOR OR APPROVED EQUAL.
  - ALL SEWER CONNECTIONS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR DUCKETT CREEK SANITARY DISTRICT.
  - LONG INSIDE DROPS WILL REQUIRE STAINLESS STEEL BANDS TO BE 2"-Ø" MAX BETWEEN BANDS.

Duckett Creek Sanitary District

INSIDE DROP GRAVITY LATERAL CONNECTION DETAIL	Dwn By: MSM	App By: KA	Detail No. 28A
	Chd By: MDOB	Date: JUNE 2015	




MAIN SIZE	A x B 22½"	A x B 45"	A x B 90"	A x B TEE
2"	.5' x 1'	.5' x 1'	1' x 1'	1' x 1'
4"	1' x 1'	1' x 1'	1.5' x 1'	1' x 1'
6"	1' x 1'	1.5' x 1'	2' x 1'	1.5' x 1'
8"	1' x 1'	2' x 1'	2' x 1'	2' x 1'


Duckett Creek Sanitary District

THRUST BLOCK DETAIL AND SIZE SCHEDULE	Dwn By: BSM	App By: KA	Detail No. 29
	Chd By: MDOB	Date: DEC. 2015	

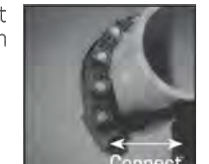
LINK-SEAL® MODULAR SEALS INSTALLATION INSTRUCTIONS



1. Center the pipe, cable or conduit in wall opening or casing. Make sure the pipe will be adequately supported on both ends. LINK-SEAL® modular seals are not intended to support the weight of the pipe.




2. Loosen rear pressure plate with nut just enough so links move freely. Connect both ends of belt around the pipe.




3. Check to be sure all bolt heads are facing the installer. Extra slack or sag is normal. Do not remove links if extra slack exists.


NOTE: On smaller diameter pipe, links may need to be stretched.




4. Slide belt assembly into annular space. For larger size belts, start inserting LINK-SEAL® modular seal assembly at the 6 o'clock position and work both sides up toward the 12 o'clock position in the annular space.




5. LS-200 through LS-315 Using a hand socket allen head or off-set wrench ONLY start at 12 o'clock. Do not tighten any bolt more than 4 turns at a time. Continue in a clockwise manner until links have been uniformly compressed. (Approx. 2 or 3 rotations)




6a. LS-325 through LS-650 Using a hand socket or off-set wrench ONLY start at 12 o'clock. Do not tighten any bolt more than 4 turns at a time. Continue in a clockwise manner until links have been uniformly compressed (Approx. 2 or 3 rotations).



6. Make 2 or 3 more passes at 4 turns per bolt. MAXIMUM tightening all bolts clockwise until all sealing elements "bulge" around all pressure plates. On type 316 stainless steel bolts, hand tighten ONLY without power tool.



7. If the seal doesn't appear to be correct using the instructions provided, call GPT at 1-800-423-2410.



Installation Notes: The LINK-SEAL® modular seal bolt heads are usually recessed below the wall opening or the edge of casing pipe and therefore a socket or offset wrench must be used.

LINK-SEAL® Modular Seal - Do's

- Make sure pipe is centered.
- Install the belt with the pressure plates evenly spaced.
- Install the exact number of links indicated in sizing charts.
- Check to make sure pipe is supported properly during backfill operations. NOTE: LINK-SEAL® modular seals are not intended to support the weight of the pipe.
- Make sure seal assembly and pipe surfaces are free from dirt.
- For tight fits, use non-polluting liquid detergent to assist installation.

LINK-SEAL® Modular Seal - Don'ts

- Don't install the belt with the pressure plates aimed in irregular directions. (Staggered)
- Don't install LINK-SEAL® modular seals where weld-beds or other irregular surfaces exist without consideration of the sealing requirements.
- Don't torque each bolt completely before moving on to the next.
- Don't use high speed power tools (4500 rpm or more).
- Do not use power tools on LINK-SEAL® modular seal 316 stainless steel bolts.
- Don't use grease installing LINK-SEAL® modular seals.

Hand Tools: Review provided chart below. (Tools not provided.) Tools can be purchased from hardware store, auto parts store, or home improvement store.

LINK-SEAL® Model	Tool Size/Type Req.	Bolt Head Type
LS-200, LS-275	4mm, Allen	
LS-300, LS-315	6mm, Allen	
LS-325, LS-340, LS-360	13mm, Hex	
LS-400, LS-410, LS-425, LS-475	17mm, Hex	
LS-500, LS-525, LS-575	19mm, Hex	
LS-615	30mm, Hex	
LS-650	19mm, Hex	

IF the seal doesn't appear to be correct using the techniques provided, Call GPT at 1-800-423-2410.

ALWAYS WEAR PPE WHEN USING LINK-SEAL® MODULAR SEALS

PROJECT TITLE

**HARVEST AT HOPEWELL**

O'Fallon, Missouri

**O'FALLON PHASE 2**

THE **STERLING** CO.

ENGINEERS & SURVEYORS

5091 New Baumgartner Road  
St. Louis, Missouri 63129  
Ph 314-487-0440 Fax 314-487-8944  
www.sterling-eng-survey.com  
Corporate Certificate of Authority #001348

Date: 02-04-2025  
Michael G. Boerding  
License No. MO E-28643  
Professional Engineer

HARVEST HOPEWELL, LLC  
5091 New Baumgartner Road  
St. Louis, Missouri 63129

DCSD SANITARY DETAILS

P+Z No. 21-004994  
City No. 21-011444  
Date: 02-04-2025  
Job No. 20-09-327

Page No.

**DTL-6**

IMP

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