GENERAL NOTES

CONCRETE: 4000 PSI TYPE II CEMENT
WALL REINFORCING: ASTM C-478
BOTTOM REINFORCING: #10 1/2" O.C.E.W. (*)
CUT OUT EXISTING SEWER MAIN
INSTALL BASE SECTIONS WITH RUBBER BOOTS TO MATCH PIPE INVERT
INSTALL NEW PIPE AND CONNECT TO THE EXISTING SEWER MAIN WITH A MISSION ADJUSTABLE REPAIR COUPLING (ARC) OR APPROVED EQUAL
REMOVE PLUG AFTER INSTALLATION IS COMPLETE
* GRADE 40 OR EQUIVALENT WELDED WIRE MESH
** VARIABLE GRADE ADJUSTMENT BY PRECAST GRADE RINGS

MINIMUM 12" OF NO. 57 GRANITE

BRUNSWICK-GLYNN COUNTY
JOINT WATER & SEWER COMMISSION
1703 Gloucester Street Phone: (912) 261-7110
Brunswick, Georgia 31520 Fax: (912) 261-7178
Website: www.bgjwsc.org

CUT - IN MANHOLE BASE

JWSC STANDARD DETAIL 3-1A

Date: AUGUST 2015
GENERAL NOTES

CONCRETE: 4000 PSI TYPE II CEMENT
WALL REINFORCING: ASTM C-478
BOTTOM REINFORCING: #4@12" O.C.E.W. (*)
* GRADE 40 OR EQUIVALENT WELDED WIRE MESH
** VARIABLE GRADE ADJUSTMENT BY PRECAST GRADE RINGS
*** INCREASE TO 32" ON TRUNK LINES WHERE SEWER IS 18" IN DIAMETER OR GREATER.
**** 0.8 X PIPE O.D.

RUBBER BOOT WITH CLAMPS - FILL VOID AREAS WITH NON-SHRINK GROUT

PIPE SIZE | MANHOLE DIAMETER
---|---
6" THRU 15" | 4'-0"
18" THRU 30" | 5'-0"
36" THRU 48" | 6'-0"
> 48" | 8'-0"

TOP OF PAVEMENT
24" MIN

TOP OF LANDSCAPING
3" MIN

12" TIP

16" WIDE EXTERIOR JOINT TAPE
PLASTIC JOINT SEALERS (TWO PER JOINT)

STANDARD MANHOLE SECTION

NOT TO SCALE

BRUNSWICK-GLYNN COUNTY
JOINT WATER & SEWER COMMISSION
700 Gloucester Street, Suite 300
Brunswick, Georgia 31520
Phone: (912) 261-7110
Fax: (912) 261-7178
Website: www.bgiwsc.org

STANDARD MANHOLE SECTION

JWSC STANDARD DETAIL 3-2A

Date: AUGUST 2011
NOTE:
THE ANGLE BETWEEN ALL INFLUENT FLOW CHANNELS AND EFFLUENT PIPE SHALL BE BETWEEN 90° AND 180° UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE JWSC

LEVELING COURSE #57 STONE
MINIMUM THICKNESS = 12"

<table>
<thead>
<tr>
<th>PIPE SIZE</th>
<th>MANHOLE DIAMETER</th>
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<tr>
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<td>&gt; 48”</td>
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RUBBER BOOT W/SS CLAMPS FILL INTERIOR VOID AREAS WITH NON-SHRINK GROUT (TYP)

CUT OFF PIPE AT WALL

FLOW

FORM SMOOTH RADIUS FOR EVEN FLOW

PRECAST REINFORCED CONCRETE MANHOLE

NOT TO SCALE

STANDARD MANHOLE PLAN

JWSC STANDARD DETAIL 3-2B

Date: AUGUST 2011
GENERAL NOTES

CONCRETE USED FOR INVERTS MUST NOT EXCEED 3 PARTS SAND TO 1 PART PORTLAND CEMENT.
(MORTAR IS NOT ALLOWED)

PRECAST INVERTS ARE ACCEPTABLE

ENSURE A 0.2 FOOT DROP ACROSS INVERT

INVERTS FOR MANHOLES RECEIVING FORCETAMINS SHALL BE SIMILARLY CONSTRUCTED.

MAXIMUM GROUT SPACING BETWEEN BRICK SHALL BE 8"
CONCRETE: 4000 PSI TYPE II CEMENT

GROUT FILL/FORMED EDGES

MANHOLE WALL PLAN

FINISH GRADE

VARIABLE GRADE ADJUSTMENT BY PRECAST GRADE RINGS

NON SHRINK GROUT FILL/FORMED EDGES

CONCRETE: 4000 PSI TYPE II CEMENT

FLEXIBLE JOINT SEALANT ROPE—MIN. CROSS SECTION OF 2"

NO INVERT MANHOLE

MINIMUM 12" OF NO. 57 GRANITE

GENERAL NOTES:

CONTRACTOR TO MEASURE O.D. OF EXISTING BRICK MANHOLE AND INSTALL THE NEXT NOMINAL SIZE CONE SECTION.

FOOTER MUST SET A MIN. 72 HOURS BEFORE THE PRECAST SECTION IS INSTALLED.

INSTALL FLEXIBLE BUTYL RUBBER SEALANT BETWEEN THE FOOTER AND PRECAST CONE.

FOR CORROSION PROTECTION, STRUCTURE IS TO BE LINED WITH JWSC APPROVED COATING.
GENERAL NOTES
CONCRETE: 4000 PSI TYPE II CEMENT
WALL REINFORCING: ASTM C-478
BOTTOM REINFORCING: #4@12" O.C.E.W. (*)
* GRADE 40 OR EQUIVALENT WELDED WIRE MESH
** VARIABLE GRADE ADJUSTMENT BY GRADE RINGS OR BRICK AS REQUIRED

CONFlict MANHOLE

10 LF - 12" DUCTILE IRON CASING PIPE
24" RCP
8" DR18 C900 CARRIER PIPE
LOW PROFILE CASING SPACER AT EACH END OF CASING PIPE
Casing End Seals (See JWSC Detail 2-10A)
SEAL WALL PENETRATIONS WITH LINK-SEAL MODULAR SEALS

NOT TO SCALE
NOTE:
THE ANGLE BETWEEN ALL INFLOW
CHANNELS AND EFFLUENT PIPE SHALL BE
BETWEEN 90° AND 180° UNLESS PRIOR
APPROVAL HAS BEEN OBTAINED FROM
THE JWSC

LEVELING COURSE #57 STONE
MINIMUM THICKNESS - 12"

RUBBER BOOT W/SS CLAMPS
FILL INTERIOR VOID AREAS
WITH NON-SHRINK GROUT (TYP)

ANCHOR CONCRETE TO
WETWELL WITH #4 STIRRUPS
@ 24" O.C. AS SHOWN

PRECAST REINFORCED
CONCRETE MANHOLE

FORM SMOOTH RADIUS
FOR EVEN FLOW

OUTSIDE DROP MANHOLE BASE PLAN
OUTSIDE DROP MANHOLE WALL PLAN

NOT TO SCALE

OUTSIDE DROP MANHOLE PLAN

JWSC STANDARD DETAIL 3-3B

Date: AUGUST 2011
1. Core drill existing SSMH.
2. Install rubber boot with stainless steel straps.
3. Fill void areas with non-shrink grout.

Stainless Steel Bands with a min. 1/2 inch thickness with 316 Stainless Steel Anchor Bolts on 2ft Centers.
NOTE:
The angle between all influent flow channels and effluent pipe shall be between 90° and 180° unless prior approval has been obtained from the JWSC.
GENERAL NOTES:

1. THE MINIMUM SIZE FOR HOUSE SERVICE LATERALS SHALL BE 4”. WHERE DOUBLE SERVICES ARE INSTALLED, A 6” LATERAL SHALL BE USED FROM THE MAIN TO THE PROPERTY LINE.

2. THE MAXIMUM LENGTH OF A SERVICE LATERAL SHALL NOT EXCEED 60’ AS MEASURED FROM THE SEWER MAIN (OR MANHOLE) TO THE PROPERTY LINE.

3. THE SEWER SERVICE LATERAL SHALL BE CONSTRUCTED AT A DEPTH TO ALLOW A GRAVITY CONNECTION BY THE CUSTOMER WHERE POSSIBLE. SEWER SERVICE DEPTHS GREATER THAN 60” REQUIRE APPROVAL OF THE JWSC PLANNING AND CONSTRUCTION DIVISION.

4. ALL SERVICES SHALL BE RUN PERPENDICULAR TO THE RIGHT OF WAY LINE.

5. SERVICE CONNECTIONS ARE NOT PERMITTED ON SEWER MAINS OR TRUNK LINES LARGER THAN 15–INCHES IN DIAMETER.


7. CLEANOUT SHALL BE INSTALLED AT RIGHT OF WAY LINE UPON CONNECTION OF THE CUSTOMER TO PUBLIC SEWER. SEE CLEANOUT DETAIL FOR ADDITIONAL INFORMATION.
GENERAL NOTES:

1. The minimum size for house service laterals shall be 4". Where double services are installed, a 6" lateral shall be used from the main to the property line.

2. The maximum length of a service lateral shall not exceed 60' as measured from the sewer main (or manhole) to the property line.

3. The sewer service lateral shall be constructed at a depth to allow a gravity connection by the customer where possible. Sewer service depths greater than 60' require approval of the JWSC Planning and Construction Division.

4. All services shall be run perpendicular to the right of way line.

5. Service connections are not permitted on sewer mains or trunk lines larger than 15-inches in diameter.

6. All gravity mains and sewer service laterals (including the tee-wye fitting) with a depth of cut greater than 12 feet shall be PVC SDR-26.

7. 6" cleanout to be installed by the utility contractor or approved as part of the site work.

8. Cleanout shall be installed at right of way line upon connection of the customer to public sewer. See cleanout detail for additional information.
GENERAL NOTES:

1. MINIMUM BURY AT THE R/W IS 3' 0". INSTALL DR18 C900 WHERE MINIMUM BURY DEPTH IS NOT ACHIEVABLE DIRECTED BY THE JWSC. PIPE TO BE GREEN IN COLOR.
2. MINIMUM SERVICE FOR COMMERCIAL SITES IS 6" OR AS DIRECTED BY THE JWSC.
3. WHERE C900 IS REQUIRED, ALL FITTINGS SHALL BE C907 DR18 FITTINGS.
4. THE SEWER SERVICE LATERAL SHALL BE CONSTRUCTED AT A DEPTH TO ALLOW A GRAVITY CONNECTION BY THE CUSTOMER WHERE POSSIBLE. SEWER SERVICE DEPTHS GREATER THAN 60" REQUIRE APPROVAL OF THE JWSC PLANNING AND CONSTRUCTION DIVISION.

NOT TO SCALE
GENERAL NOTES:

1. ALL RESIDENTIAL SERVICE LINES SHALL BE SDR 26 PVC UNLESS OTHERWISE INSTRUCTED BY THE JWSC.
2. WHEN INSTALLING A SANITARY SEWER SERVICE LINE IN AN EXISTING NEIGHBORHOOD – AND CROSSING OVER A WATER MAIN – MAINTAIN A MINIMUM 18" PIPE-TO-PIPE SEPARATION.
3. CONNECTIONS TO EXISTING SEWER MAINS SHALL BE WATER TIGHT. SADDLES ARE REQUIRED TO BE EPOXY BONDED AND DOUBLE STRAPPED.
4. NO SERVICE LINES SHALL BE PERMITTED TO BE TIED INTO MANHOLES.
5. NO TIE-INS WILL BE ALLOWED UNTIL APPROPRIATE FEES ARE PAID TO JWSC.
6. ALL SANITARY SEWER LINES SHALL HAVE CLEAN-OUTS AT THE R/W LINE.
7. THE SLOPE SHALL BE UNIFORM AND IN NO CASE BE LESS THAN THE FOLLOWING FOR SEWER SERVICES:
   - LINE SIZE: 4" 6" 8" 10" 12" 14" 16" 18"
   - MIN. GRADE 2.0% OR 1/2" PER FOOT
8. DESIGN OF DEEP SEWER (>9FT) CONNECTIONS SHALL BE APPROVED BY THE JWSC.
9. SADDLE MUST BE P.V.C. O.D. SPECIFIC AND HAVE EPOXY SEAL AROUND TAP. WYE FITTING SHALL HAVE POLLY TAPE AROUND STAINLESS STEEL STRAPS.
10. A HOLE SAW SHALL BE USED TO MAKE TAPS ON EXISTING SEWER MAINS; THE COUPON FROM THE TAP MUST BE AVAILABLE TO THE JWSC INSPECTOR.
11. NEW TAPS ON LINED SEWER MAINS – THE OUTER MATERIAL MUST BE COMPLETELY REMOVED AND SADDLE SHALL BE APPLIED DIRECTLY TO THE SEWER LINING.
12. 90° FITTINGS ARE PROHIBITED.
13. SERVICE LINE TAPS INTO HIGH FLOW TRANSMISSION MAINS SHALL BE MADE VERTICALLY. DETERMINATION TO BE MADE BY THE JWSC.
14. BEDDING FOR SANITARY SEWER SERVICE LINES SHALL BE NO. 57 STONE AND SHALL BE INSTALLED, IN ALL CASES, 6 INCHES BELOW THE SUB-GRADE OF THE PIPE TO OVER THE TOP OF THE PIPE IN THE AREA WHERE THE PIPE IS DISTURBED, SEE JWSC TYPICAL DETAILS 3-10A AND 3-11A.
15. WHERE C900 IS REQUIRED, ALL FITTINGS SHALL BE C907 DR18 FITTINGS.

Brunswick-Glynn County Joint Water & Sewer Commission

1703 Gloucester Street
Brunswick, Georgia 31520
Phone: (912) 261-7110
Fax: (912) 261-7178
Website: www.bgiwsc.org

Service Tap Connection

JWSC Standard Detail 3-8A

Date: July 2018

NOT TO SCALE
GENERAL NOTES:

1. BOX SHALL BE STAR PIPE PRODUCTS VB562S OR APPROVED EQUAL.
2. THE SEWER SERVICE LATERAL SHALL BE CONSTRUCTED AT A DEPTH TO ALLOW A GRAVITY CONNECTION BY THE CUSTOMER WHERE POSSIBLE. SEWER SERVICE DEPTHS GREATER THAN 60" REQUIRE APPROVAL OF THE JWSC PLANNING AND CONSTRUCTION DIVISION.
GENERAL NOTES:

1. BOX SHALL BE STAR PIPE PRODUCTS VB562S OR APPROVED EQUAL.
2. IN LIEU OF A POURED IN PLACE CONCRETE PAD, A PRECAST CONCRETE COLLAR MAY BE INSTALLED.
3. THE OWNER/DEVELOPER IS RESPONSIBLE FOR THE INSTALLATION OF A LOWER CLEANOUT AT THE R/W IF NOT ALREADY EXISTING.

NOT TO SCALE

SEWER SERVICE - ABANDONMENT

JWSC STANDARD DETAIL 3-9A

DATE: DECEMBER 2018
### PIPE BEDDING MATERIALS

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<thead>
<tr>
<th>CLASS</th>
<th>TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>MANUFACTURED ANGULAR, GRANULAR MATERIAL, ( \frac{3}{4} )&quot; TO 1 1/2&quot; SIZE, INCLUDING MATERIALS HAVING REGIONAL SIGNIFICANCE SUCH AS CRUSHED STONE OR ROCK.</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>GW</td>
<td>WELL-GRADUATED GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES, 50% OR MORE OF COARSE FRACTION RETAINED ON NO. 4 SIEVE. MORE THAN 95% RETAINED ON NO. 200 SIEVE. CLEAN.</td>
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<td>GP</td>
<td>POORLY GRADUATED GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES, 50% OR MORE OF COARSE FRACTION RETAINED ON NO. 4 SIEVE. MORE THAN 95% RETAINED ON NO. 200 SIEVE. CLEAN.</td>
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<td>ML</td>
<td>INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS. LIQUID LIMIT 50% OR LESS, 50% OR MORE PASSES NO. 200 SIEVE.</td>
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<td>CL</td>
<td>INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS. LIQUID LIMIT 50% OR LESS, 50% OR MORE PASSES NO. 200 SIEVE.</td>
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<td>CH</td>
<td>INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS. LIQUID LIMIT GREATER THAN 50%, 50% OR MORE PASSES NO. 200 SIEVE.</td>
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**RIGID PIPE IN NON-TRAFFIC AREAS**

* Class I materials shall be used to provide an unyielding foundation where the natural trench foundation is weak.

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**TRENCH DETAIL - RIGID PIPE**

JWSC STANDARD DETAIL 3-10A

Brunswick-Glynn County Joint Water & Sewer Commission

700 Gloucester Street, Suite 300  Phone: (912) 261-7110
Brunswick, Georgia 31520  Fax: (912) 261-7178
Website: www.bgjwsc.org

Date: OCTOBER 2011
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RIGID PIPE IN TRAFFIC AREAS

NOT TO SCALE

JWSC STANDARD DETAIL 3-10B

Date: OCTOBER 2011
PIPE BEDDING MATERIALS

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FLEXIBLE PIPE IN NON-TRAFFIC AREAS

* CLASS I MATERIALS SHALL BE USED TO PROVIDE AN UNyieldING FOUNDATION WHERE THE NATURAL TRENCH FOUNDATION IS WEAK.

NOT TO SCALE

Brunswick-Glynn County
Joint Water & Sewer Commission
700 Gloucester Street, Suite 300
Brunswick, Georgia 31520
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Website: www.hgwsc.org

TRENCH DETAIL - FLEXIBLE PIPE

JWSC STANDARD DETAIL 3-11A

Date: OCTOBER 2011
### PIPE BEDDING MATERIALS

<table>
<thead>
<tr>
<th>CLASS</th>
<th>TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>GW</td>
<td>WELL-GRADED GRAVELS AND GRAVEL—SAND MIXTURES, LITTLE OR NO FINE. 50% OR MORE OF COARSE FRACTION RETAINED ON NO. 4 SIEVE, MORE THAN 95% RETAINED ON NO. 200 SIEVE. CLEAN.</td>
</tr>
<tr>
<td>II</td>
<td>GP</td>
<td>POORLY GRADED GRAVELS AND GRAVEL—SAND MIXTURES, LITTLE OR NO FINE. 50% OR MORE OF COARSE FRACTION RETAINED ON NO. 4 SIEVE, MORE THAN 95% RETAINED ON NO. 200 SIEVE. CLEAN.</td>
</tr>
<tr>
<td>III</td>
<td>SW</td>
<td>WELL-GRAD ED SANDS AND GRAVELY SANDS, LITTLE OR NO FINE. MORE THAN 50% OF COARSE FRACTION PASSES NO. 4 SIEVE. MORE THAN 95% RETAINED ON NO. 200 SIEVE. CLEAN.</td>
</tr>
<tr>
<td></td>
<td>SP</td>
<td>POORLY GRADED SANDS AND GRAVELY SANDS, LITTLE OR NO FINE. MORE THAN 50% OF COARSE FRACTION PASSES NO. 4 SIEVE. MORE THAN 95% RETAINED ON NO. 200 SIEVE. CLEAN.</td>
</tr>
<tr>
<td>IV</td>
<td>GM</td>
<td>SILTY GRAVELS, GRAVEL—SAND—SILT MIXTURES, 50% OR MORE OF COARSE FRACTION RETAINED ON NO. 4 SIEVE, MORE THAN 50% RETAINED ON NO. 200 SIEVE.</td>
</tr>
<tr>
<td></td>
<td>GC</td>
<td>CLAYEY GRAVELS, GRAVEL—SAND—CLAY MIXTURES, 50% OR MORE OF COARSE FRACTION RETAINED ON NO. 4 SIEVE, MORE THAN 50% RETAINED ON NO. 200 SIEVE.</td>
</tr>
<tr>
<td></td>
<td>SM</td>
<td>SILTY SANDS, SAND—SILT MIXTURES, MORE THAN 50% OF COARSE FRACTION PASSES NO. 4 SIEVE. MORE THAN 50% RETAINED ON NO. 200 SIEVE.</td>
</tr>
<tr>
<td></td>
<td>SC</td>
<td>CLAYEY SANDS, SAND—CLAY MIXTURES, MORE THAN 50% OF COARSE FRACTION PASSES NO. 4 SIEVE. MORE THAN 50% RETAINED ON NO. 200 SIEVE.</td>
</tr>
<tr>
<td></td>
<td>ML</td>
<td>INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS. LIQUID LIMIT 50% OR LESS, 50% OR MORE PASS NO. 200 SIEVE.</td>
</tr>
<tr>
<td></td>
<td>CL</td>
<td>INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS. LIQUID LIMIT 50% OR LESS, 50% OR MORE PASS NO. 200 SIEVE.</td>
</tr>
<tr>
<td></td>
<td>MH</td>
<td>INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDS OR SILTS. ELASTIC SILTS. LIQUID LIMIT GREATER THAN 50% 50% OR MORE PASS NO. 200 SIEVE.</td>
</tr>
<tr>
<td></td>
<td>CH</td>
<td>INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS. LIQUID LIMIT GREATER THAN 50%, 50% OR MORE PASS NO. 200 SIEVE.</td>
</tr>
</tbody>
</table>

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**NOT TO SCALE**

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**FLEXIBLE PIPE IN TRAFFIC AREAS**

TRENCH DETAIL - FLEXIBLE PIPE

JWSC STANDARD DETAIL 3-11B

Date: FEBRUARY 2012
NOTE:

1. CONTRACTOR TO CUT AND REMOVE A MIN 5.0' SECTION OF THE EXISTING VCP. THE CONTRACTOR MEASURES AND MARKS WHERE THE PIPE NEEDS TO BE CUT. THE CONTRACTOR WILL UTILIZE A RECIPROCATING SAW, HACK SAW, SNAP CUTTER OR ANGLE GRINDER TO ACCOMPLISH THE CUT.

2. CONTRACTOR TO COORDINATE PLUGGING OF ACTIVE SEWER MAINS WITH THE UTILITY INSPECTOR AND SYSTEM PUMPING AND MAINTENANCE. IN SOME CASES A BY-PASS MAY BE REQUIRED.

3. WASTEWATER DISCHARGING INTO THE TRENCH WILL BE COLLECTED BY A VAC-CON STYLE TRUCK AND DISCHARGED AT A JWSC WASTEWATER POLLUTION CONTROL PLANT.

NOT TO SCALE