

Stark County Metropolitan Sewer District

Hills and Dales Sanitary Sewer Petition Neighborhood Meeting

May 16, 2023, at 6:30 pm
Jackson High School Auditorium



Successful partnerships start with **Fluid thinking**[®]

Jones & Henry Engineers, Ltd. 3103 Executive Parkway, Suite 300, Toledo, OH 43606



Format of Meeting

- Please sign in and silence your cell phones. We will take questions at the end of the presentation. At that time, please state your name and address for the record. (The meeting is being recorded.)
- We are here in response to your stage 1 petition.
- This meeting will present information to help you make an informed decision on sanitary sewers.
- There will be a joint presentation from J&H and SCMSD followed by questions.





Introductions & Recognitions

Metropolitan Sewer District:

- James Troike, PE – Sanitary Engineer
- Wayne Carkido – Public Engineering Manager
- Jeff Lonzrick, PE – Project Manager
- Luke Dostal, PE – Project Engineer

Jones & Henry:

- Pete Latta, CSI
- Gregg Simon, PE
- Kyle Brueggemeier





Petition Process

- Stage 1 (Complete)
 - Petition initiated.
 - Residents are asked to vote for or against the continuation of the petition. Over 70% in favor required to proceed.
- Stage 2 (where we are currently)
 - Engineering report regarding sewer service.
 - Public information meeting.
 - Residents will be asked to vote. Over 50% in favor required to proceed.
 - Response cards will be sent by mail. No response is considered a “NO” vote.





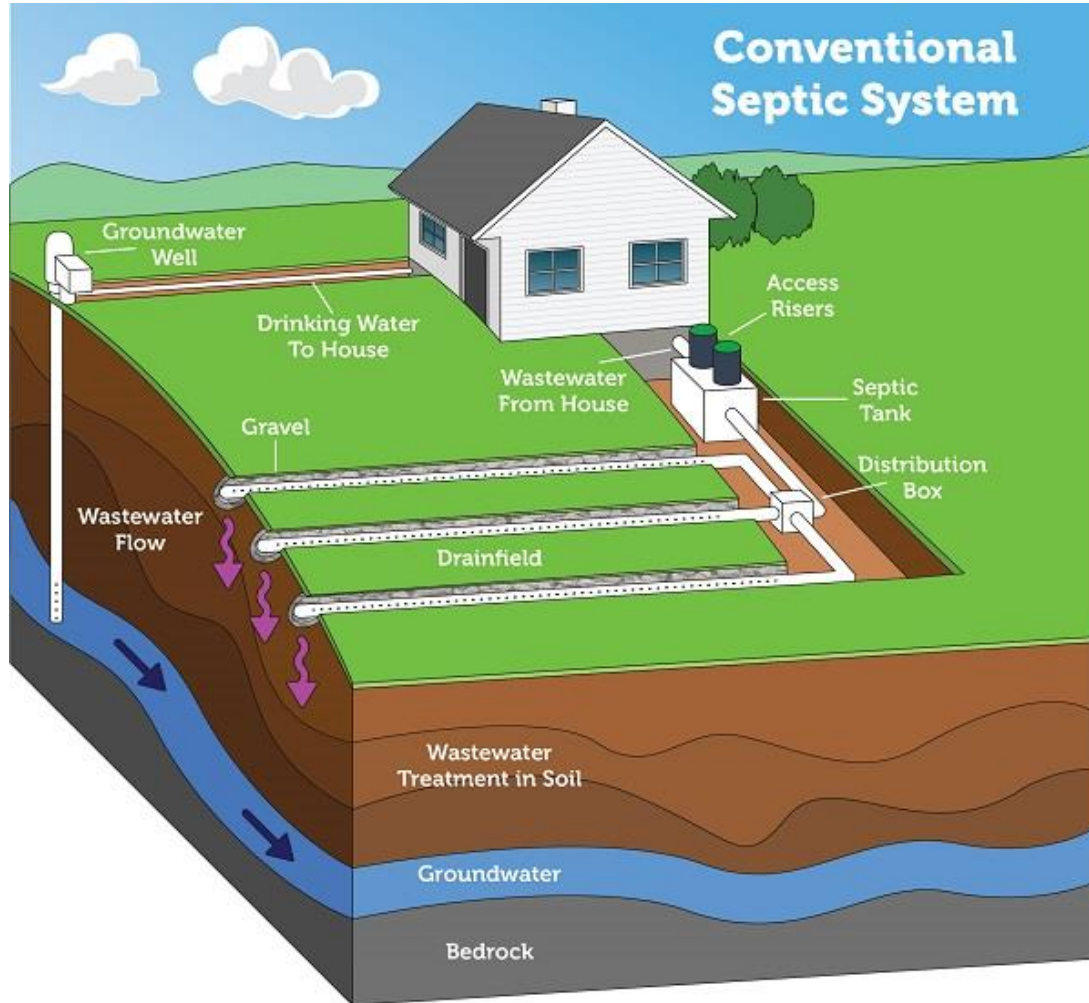
Petition Process

- Stage 3
 - Board approval of project.
 - Development of detailed plans, specifications, and tentative assessments.
 - Bidding and construction.





Existing Septic Systems



Please note: Septic systems vary. Diagram is not to scale.

- Typical Life Expectancy of Septic Systems: 20-25 years





Existing Septic Systems

- Stark County Health Department Assessment – 2016

	Septic System Age by Permit	Septic System Age for Unknowns by House Age	Homes on Sanitary Sewer
	62 Homes	47 Homes	2 Homes
Average Age	30	65	
Median Age	33	61	

- 79% of systems exceeded normal life expectancy





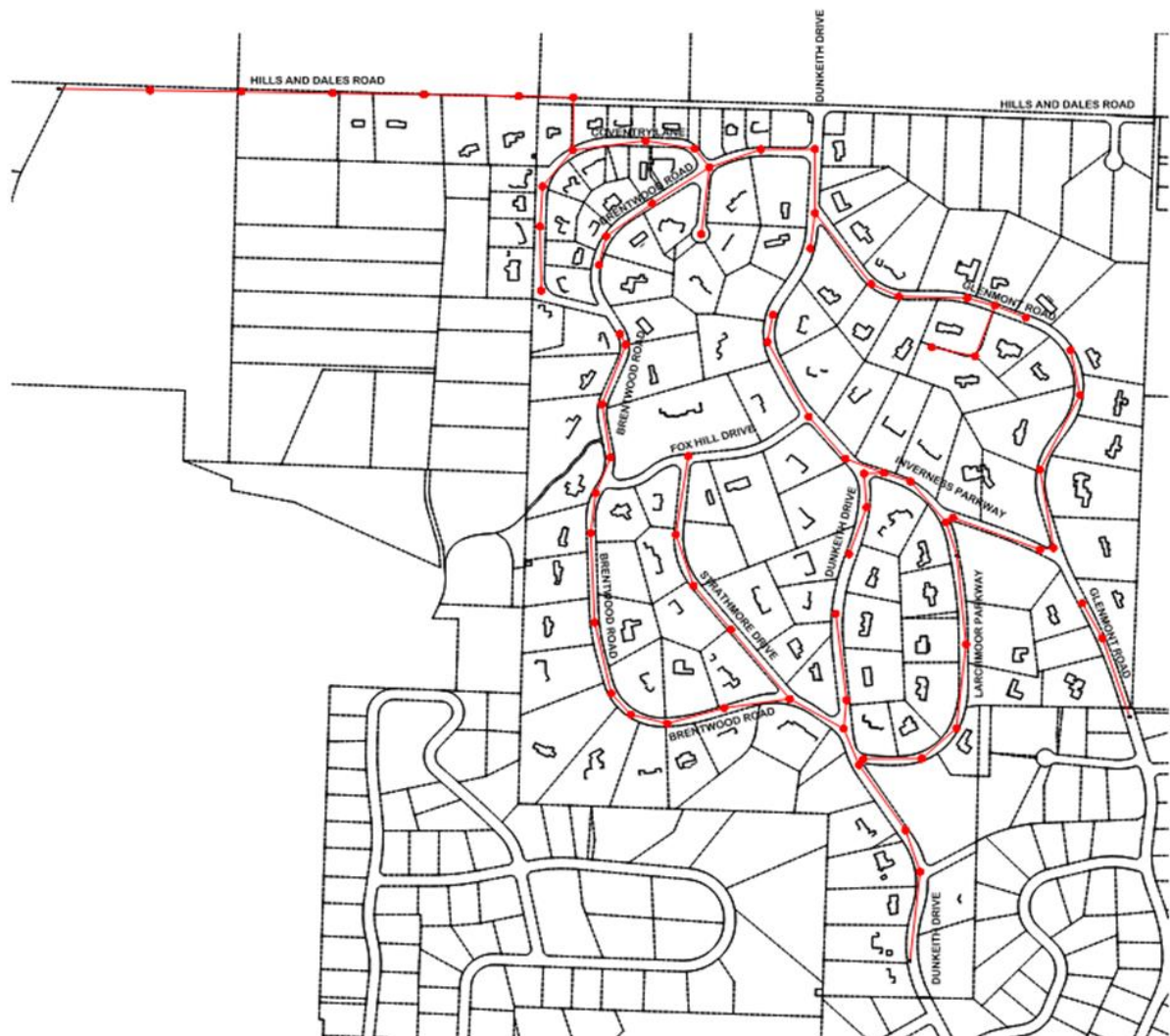
Alternatives Considered

- Alternative A – Gravity Sewer
- Alternative B – Low Pressure Sewer
- Alternative C – Vacuum Sewer
- Alternative D – Hybrid Gravity Sewer & Low Pressure Sewer





Alternate A – Gravity Sewer



- Trench Construction
- Sewers under roadway
- Sewer depth between 3 and 30 feet





Alternate A – Gravity Sewer

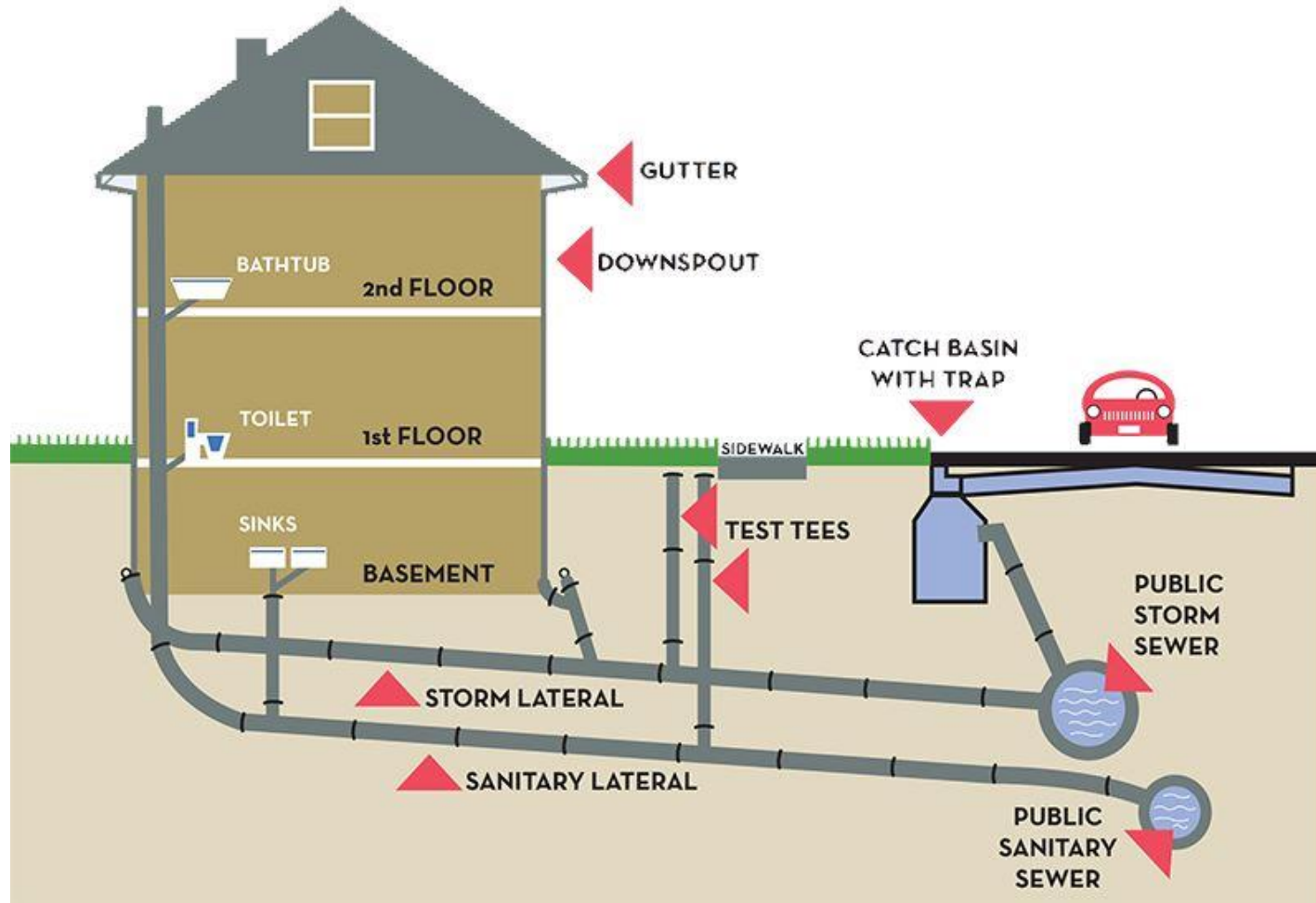


Image from Shaker Heights, Ohio, shakeronline.com





Alternate A – Gravity Sewer

8-inch sewer main in roadway



6-inch lateral from house to main





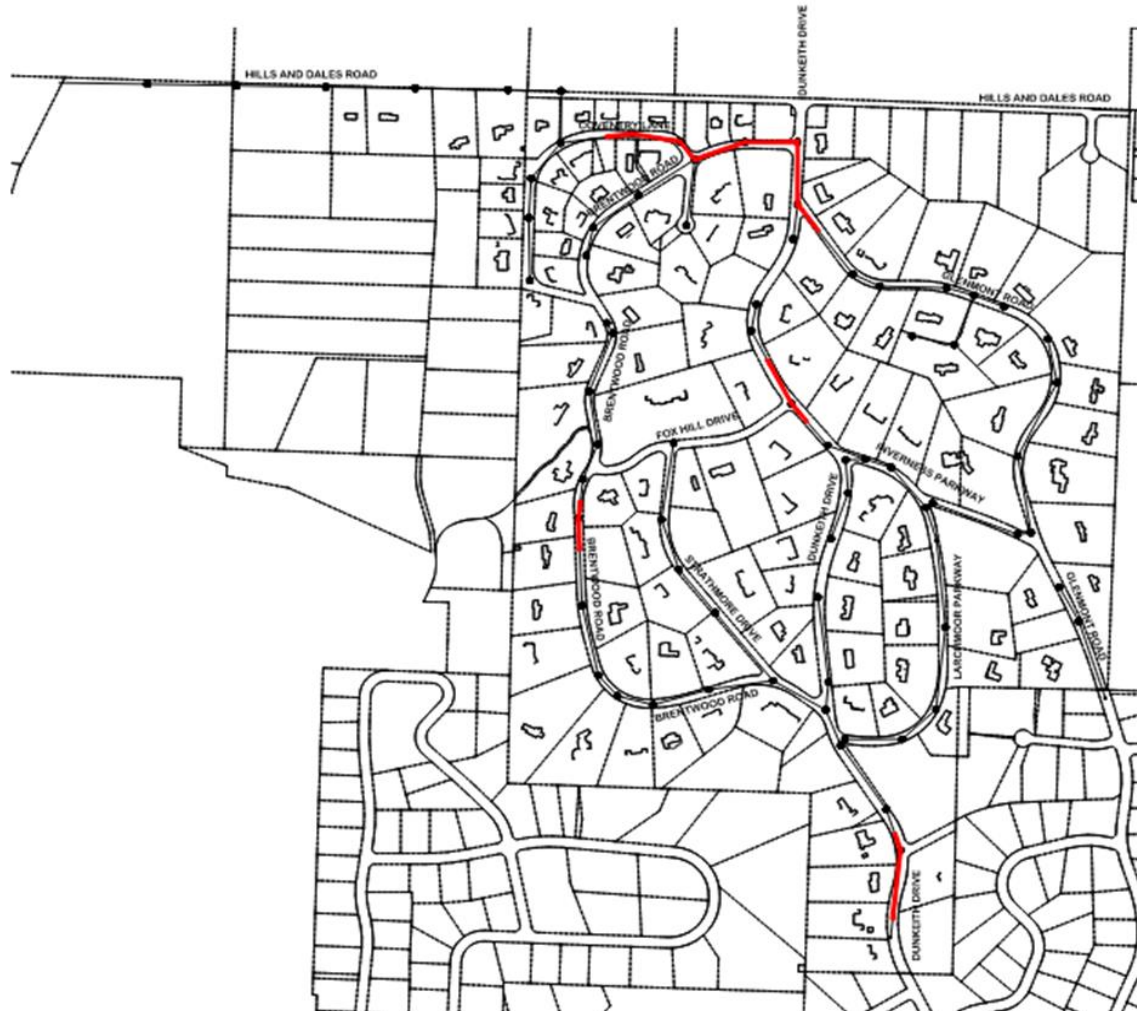
Alternate A – Gravity Sewer

- Lowest Annual Operation Cost
- Consistent with existing SCMSD System; Preferred method of sewerage communities
- Sewers deeper than 20 feet
 - Increased construction costs
 - Increased surface impacts
- Unknown soil conditions below 6.5 feet
- Highest Project and Life Cycle Costs
- Easement required





Alternate A – Gravity Sewer

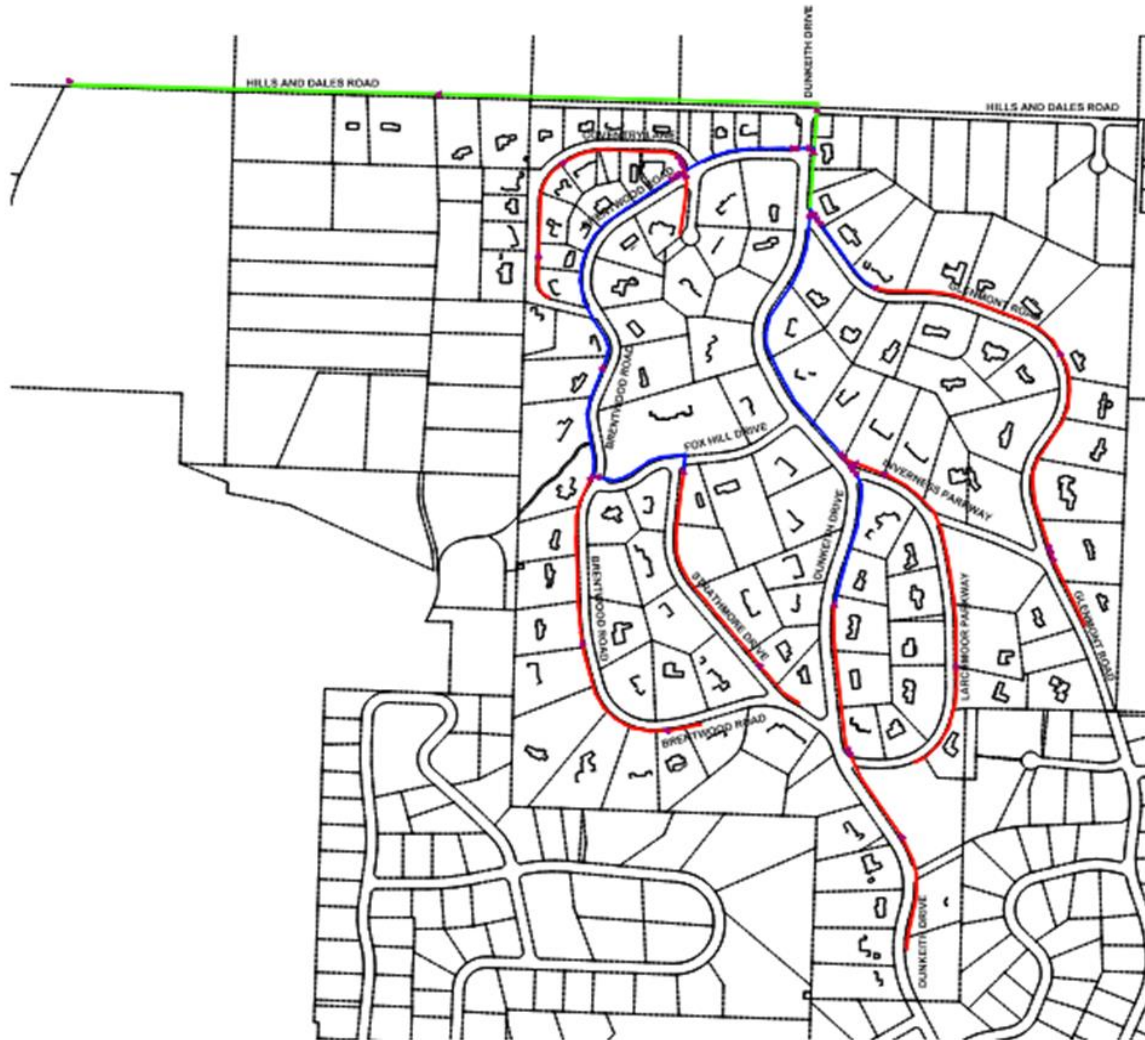


- Approximately 13% of sewers greater than 20 feet deep
- Some parts as deep as 30 feet





Alternate B – Low Pressure Sewer

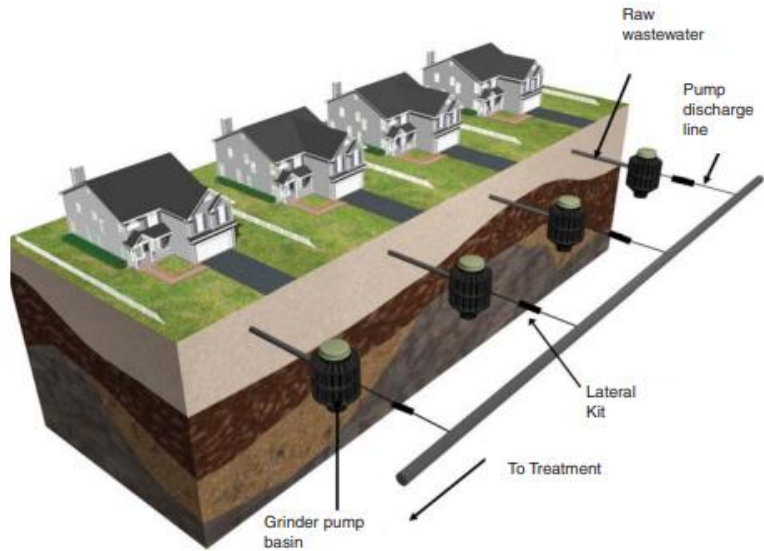


- Trenchless Construction
 - Directional Drilling
- Sewers not under roadway
- Sewer depth approximately 5 feet





Alternate B – Low Pressure Sewer



Left Image from Environment One Corporation, eone.com. Right Image from Carolina Lift Stations, clsholdings.us



Alternate B – Low Pressure Sewer

- Lowest Project and Life Cycle Costs
- Fastest Construction Time – 9-15 months
- Minor disruptions to roadway and private property

- Highest Annual Operation Cost





Alternate B – Low Pressure Sewer





Alternate C – Vacuum Sewer



- Trench Construction
- Sewers under roadway
- Sewer depth approximately 5 feet





Alternate C – Vacuum Sewer

- Vacuum sewers not able to serve all homes in petitioned area
- Gravity sewers will serve remainder of homes
 - Homes along Hills and Dales Road, West of Village limits





Alternate C – Vacuum Sewer

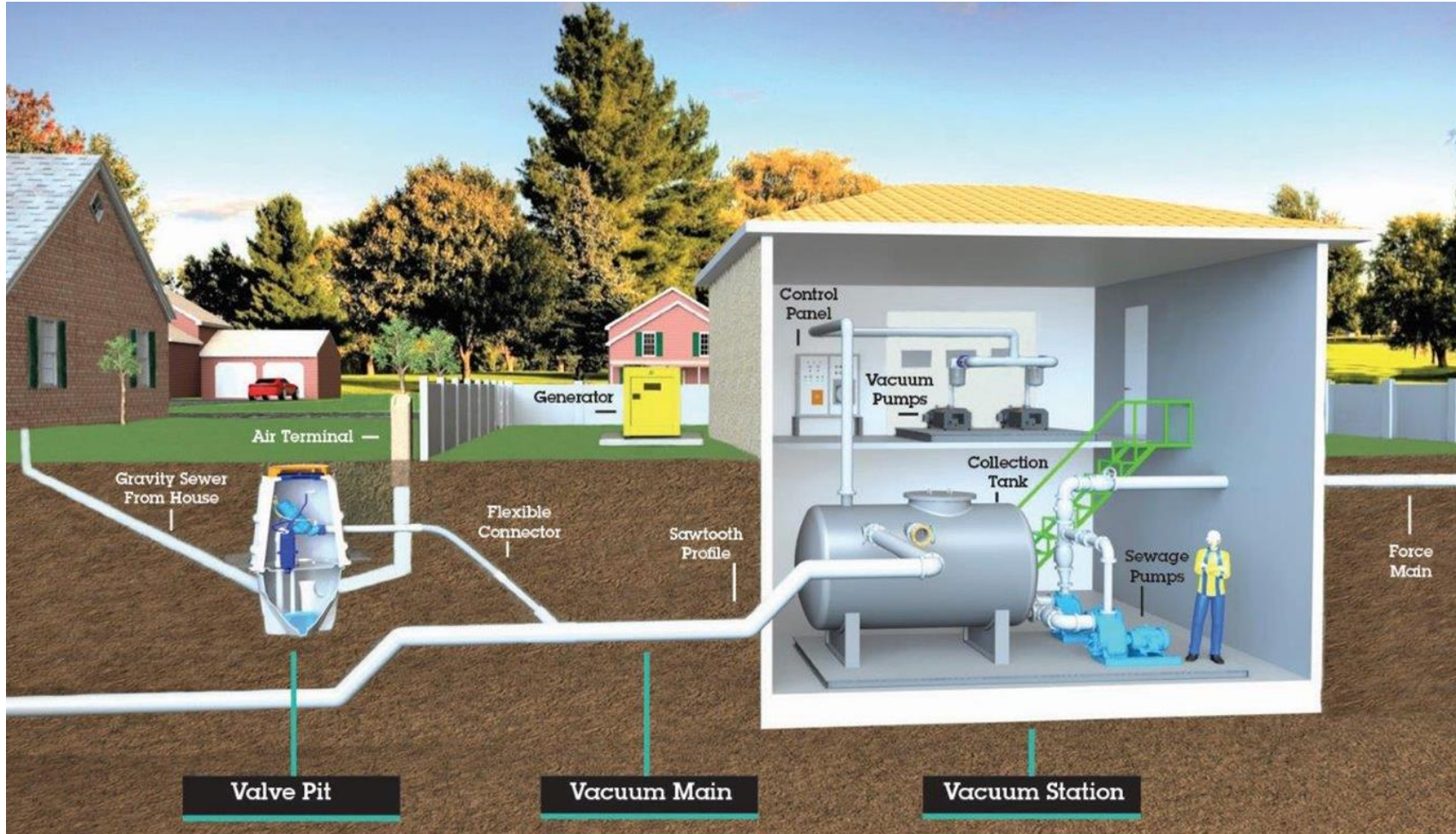
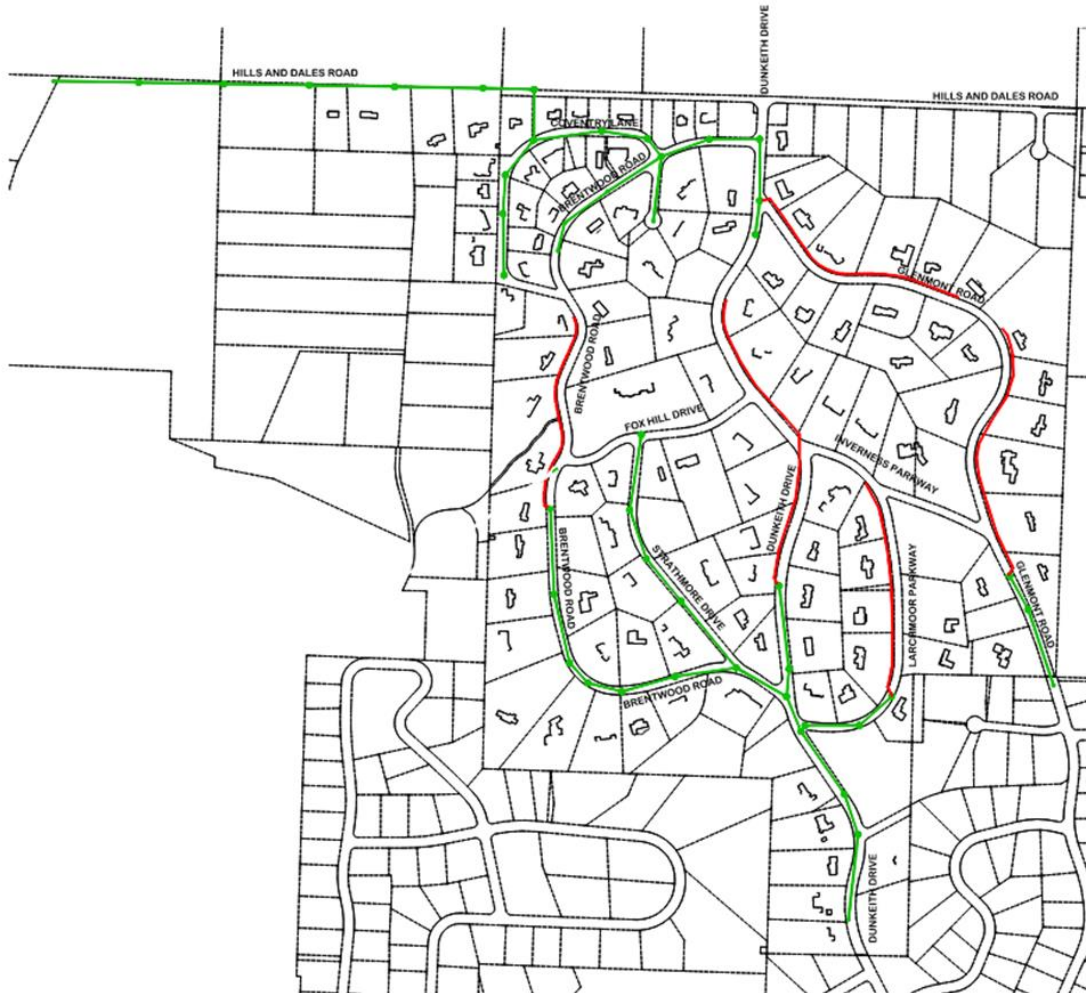


Image from Airvac – Brand of Aqseptence Group, Inc.



Alternate D – Hybrid Gravity-Low Pressure Sewer



- Trench Construction for gravity, Trenchless Construction for low pressure
- Gravity sewers under roadway, low pressure sewers not under roadway
- Gravity sewer no deeper than 20 feet, low pressure sewer approximately 5 feet deep



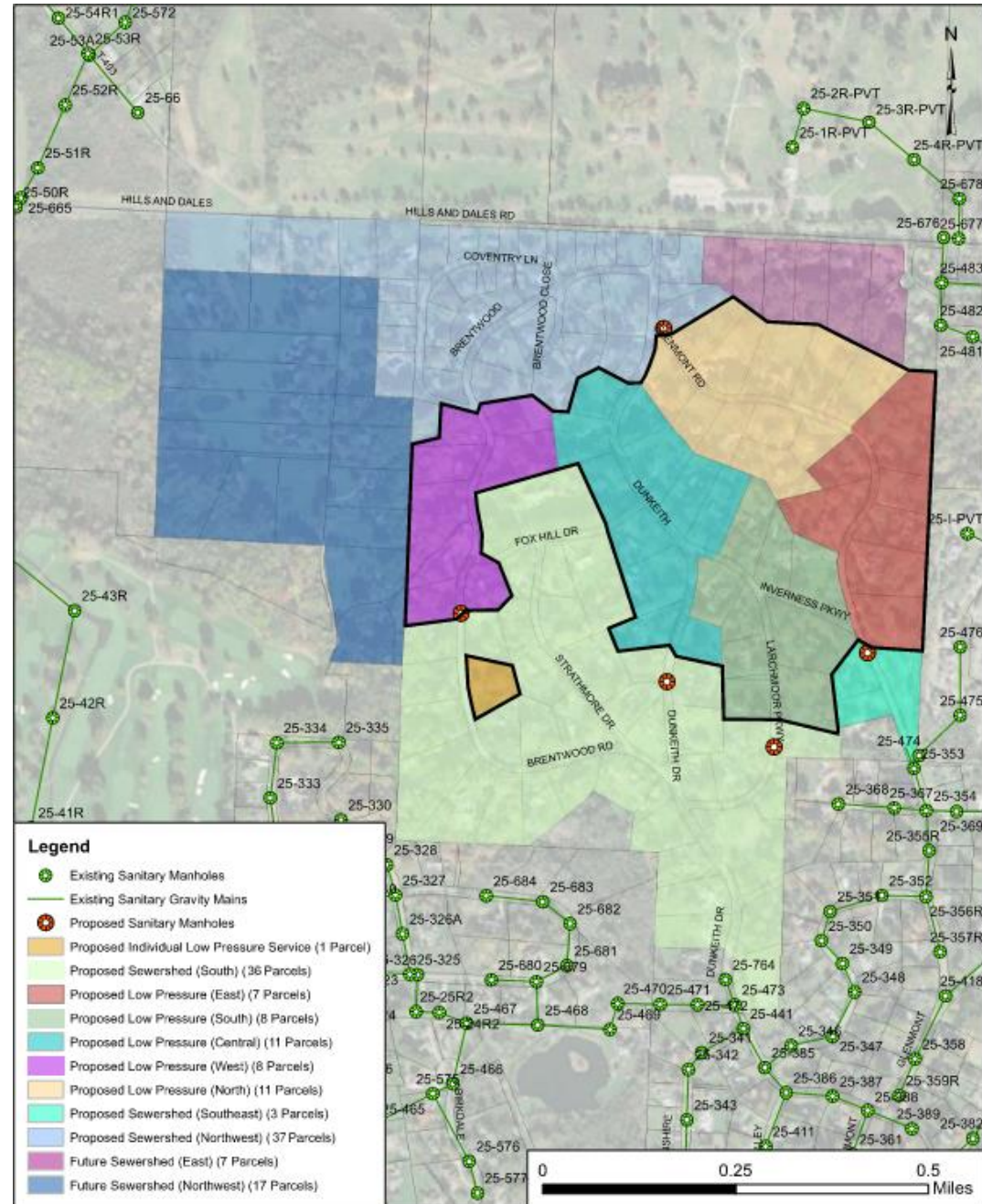


Alternate D – Hybrid Gravity-Low Pressure Sewer

- Different service methods for homes.
 - 76 Gravity, 46 Low Pressure.



Alternate D – Hybrid Gravity-Low Pressure Sewer





Recommended Alternative

	Alternative A - Gravity Sewer	Alternative B – Low-Pressure Sewer	Alternative C - Vacuum Sewer	Alternative D – Hybrid Gravity/Pressure Sewer
Project Cost	\$7,472,000	\$3,429,000	\$5,864,000	\$5,807,000
Annual Operation and Maintenance Cost	\$6,200	\$41,000	\$36,000	\$19,000
Life-Cycle Costs	\$8,970,000	\$4,772,000	\$7,529,000	\$7,167,000

Costs based on June 2022 pricing





Recommended Alternatives

- Based on life cycle cost analysis in the study, the recommended alternative is Alternative B – Low Pressure Sewers.
- Alternative B has the lowest project cost, and the lowest life-cycle cost.
- Alternative B also has the lowest impact to roads and private property, as well as the fastest construction time.
- The other valid alternative is Alternative D – Hybrid Gravity Sewer & Low Pressure System. While more costly up front than Alternative B, 76 of the 122 services would not have a grinder pump and long term electrical and maintenance costs.
- Following this meeting, a decision will be made by the County on which option petitioners will vote on.





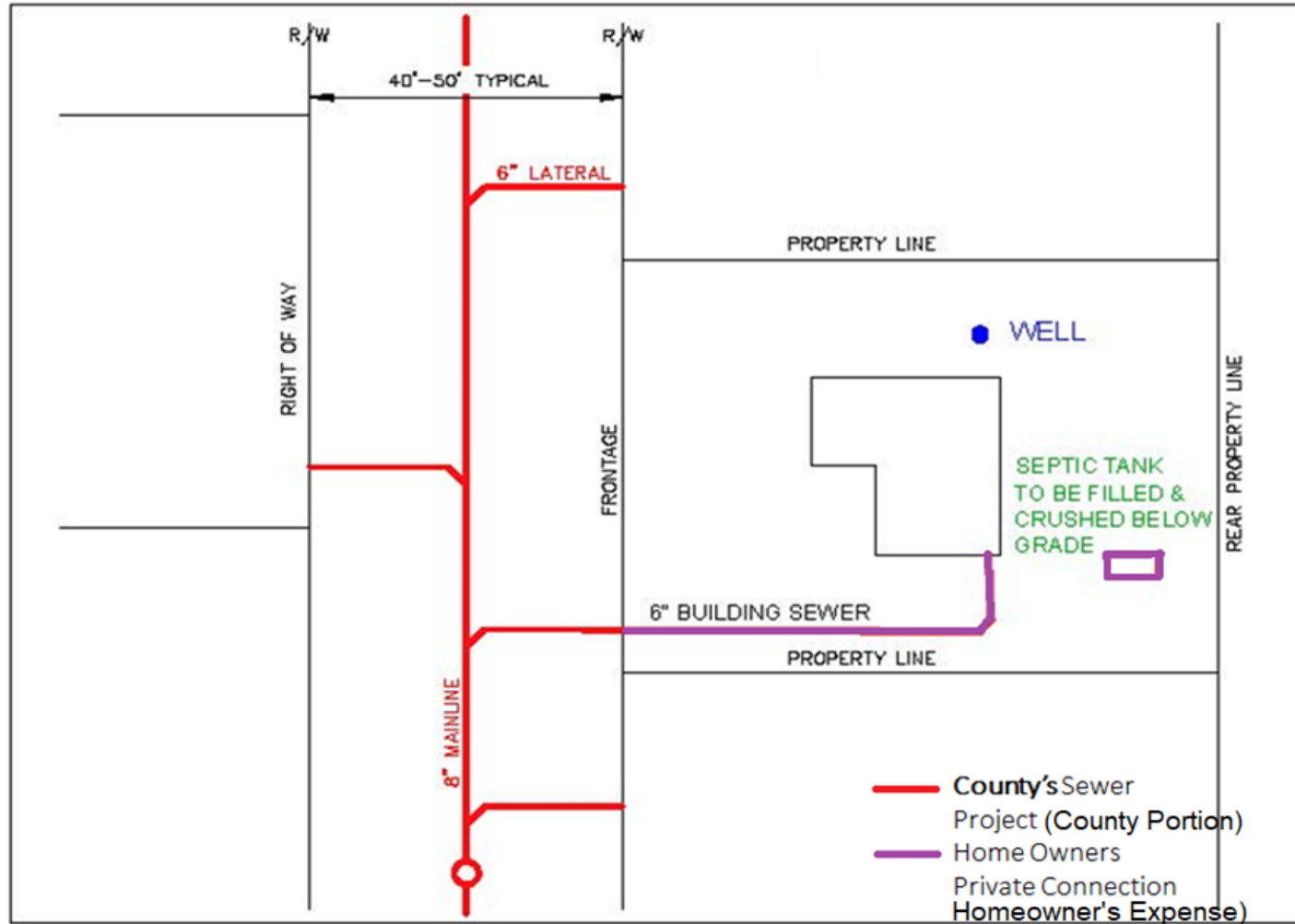
Property Owner Costs

- One-Time Costs
 - Private installation of gravity sewer connection (Alternative D Gravity Sewers)
 - Assessment
 - Connection and Permit Charges
 - Septic System Abandonment (In Alternative D, gravity services will need plumbing elevations confirmed for basement service.)
- Recurring Costs
 - User Charge
 - Electricity (for Alternative B and 46 homes in Alternative D).
 - County Maintenance Fee for Grinder Pump Installations.





Gravity Service Connection & Septic Abandonment (Alternative D Gravity Portions)



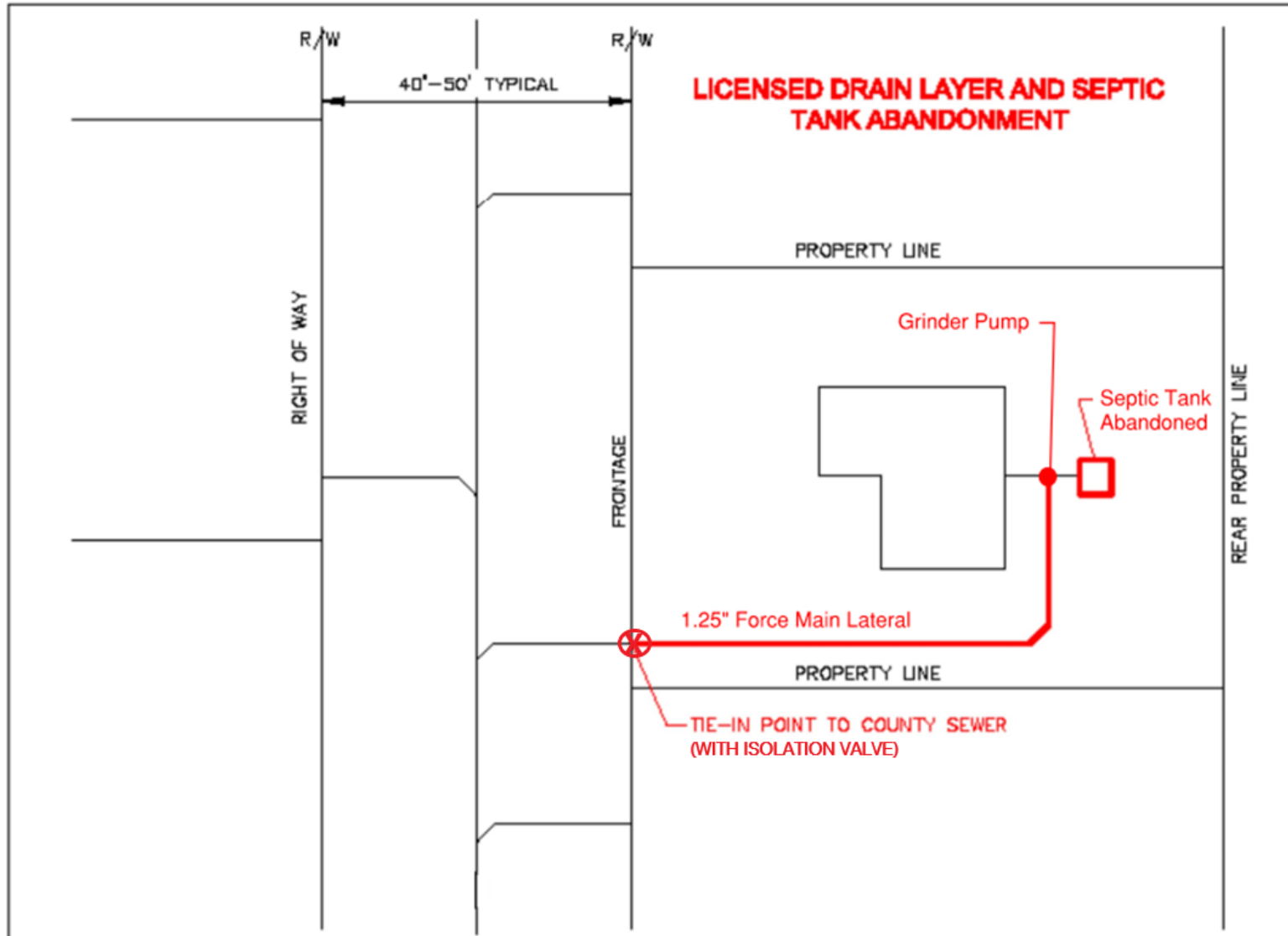
Gravity Service Connection & Septic Abandonment

- Home owner installs service lateral using licensed drain layer.
- Lateral inspection by county inspector.
- Septic abandonment (pump, crush, & fill).
- Inspection of home plumbing by registered sanitarian (required).





Pump Installation, Service Connection & Septic Abandonment





Pump Installation, Service Connection & Septic Abandonment

- Pump station and service lateral installed with county construction.
- Septic abandonment provided under county construction contract.
- Lateral inspection by county inspector.
- Inspection of home plumbing by registered sanitarian (required).
- Temporary work rights needed to install the pump and service connection.





Assessment

- Alternative B – Low Pressure Sewer Project cost estimate \$3,429,000.
- Alternative D – Hybrid Gravity Sewer & Low Pressure Sewer cost estimate \$5,807,000
- Property owners' liability (assessments of 127 parcels) in both alternatives is currently \$1,866,110. Will vary based on ENR construction cost index.





Assessments

- Uses ENR cost of constructing an 8” sewer across property frontage.
- Frontage for irregular lots is based on an average of lot dimensions. Typically front and rear property lengths.
- ENR costs increase annually with the construction market.
- ENR costs used are the cost at the time of the assessment hearing or just before construction.
- Final assessments are set at the time of the public hearing.





Assessment

Example (for a lot with single family home and 200' frontage):

- Assessment (both alternatives) is currently: \$16,122.40
- **As an example:** Payment option of \$16,122.40 @ 4% for 20 years, principal and interest totals \$23,493.66.
- Payment on property taxes is \$587.34 per half in this example.
- Interest rate is set based on the loan secured by the County.





Assessment

- Vacant lots that are unbuildable under current zoning will not be assessed.
- Vacant lots that are buildable will be assessed at 75%. No connection fees are due until the lot is built on. In addition, there will be a local charge added at the time of house construction.
- Unbuildable vacant lots that become buildable due to being combined with another lot, will be assessed in the future.



Connection and Permit Charges

Pays down debt for existing infrastructure the new sewers connect to.
(Treatment plants, trunk sewers, sewer repairs, etc.)

**STARK COUNTY METROPOLITAN SEWER DISTRICT
SANITARY ENGINEERING DEPARTMENT**

Permit for Sewer Connection Permit No. 46043

I understand that the connection charge shown below was calculated based on information furnished to your office by me. Further, I understand that if, subsequent to the issuance of a permit and/or connection completion and approval, the use of the serviced premises changes, additional applicable connection charges will be levied in accordance with the regulations of the Stark County Metropolitan Sewer District.

The undersigned hereby applies to construct a sewer connection from the premises described to the sewer and branch mentioned, and agrees that the construction and use of such sewer shall be strictly in accordance with the rules and regulations of the County Sanitary Engineering Department. I/we agree that I/we will be responsible for any damage or claims of any nature arising out of the construction of said connection, or the excavation therefore, and will warrant and defend the County of Stark, its Officers and Agents, against all such damages or claims, that I/we furnish and maintain proper barricades and flags for the protection of the public and that I/we will immediately refill and resurface all excavations and all settlements, and will pay to the County, the cost of any clearing up, removal of dirt or rubbish, refilling or resurfacing ordered or done by the County, over or around the excavation for this connection, within one year of acceptance of this work.

I/we specifically agree that no roof or footer drains, surface water or other prohibited waste shall be discharged into this connection. **The application and permit expire one year from the date of issuance. A fee of \$ 50.00 and the difference between area charges from the time of issuance to the time of re-issuance will be due in order to renew the application and permit.**

Address: 5704 GREAT COURT NW
 Lot: 105
 Parcel: 16-21367
 Subdivision: CARRINGTON #2
 Township: SE 17 JACKSON

Area charge: \$1,800.00
 Local charge: 0.00 (if app.)
 Permit fee: \$ 50.00
 Connection charge: \$1,850.00 (Total)
 Installation: Cash Y 10/13/2009

Usage: SINGLE FAMILY RES 1 HOUSE/S
 Date of issuance: 10/13/2009
 (Expires in 365 days)
 Owner of property described:
IMAGE HOMES,
1070 WAYNESBURG RD
CARROLLTON, OH 44615

By: Licensed Drain Layer MALVITE EXCAVATING, INC.
 Issued by: SKP
 County Sanitary Engineer: MICHAEL C. ARMSTRONG

Sewer District: 16
 Property is located on the N side(direction)
 of EDMUND St.
 between AT GREAT COURT St.
 and _____ St.

Main sewer is in EDMUND
 Y, branch is 16 feet
 (direction) NE
 of MH No. 1107
 at GREAT COURT

LATERAL SEWER:
 House conn. is 75.00 feet long and
 end of branch is 16 feet
 (direction) NE
 of MH No. 1107
 and is approx. 10.0 feet deep.
 service sewer: 6 inch 2000 pipe
 Sewer Book No. 5 Page 289
 Wye Book No. 10 Page 260

Notes: FLOWLINE 1.50FT ABOVE DOWNSTREAM MH#1107 FLOWLINE
 Permission is hereby granted for the sewer connection, above described, to be constructed under the conditions stated. Fee of \$50.00 received. This sewer discharges into the sewers of the City of MANSFIELD

DISTRIBUTION OF COPIES: Green (County) Pink (City) Yellow (Contractor) White (Inspection Dept.)





Connection and Permit Charges

- Current connection charge for one single family equivalent (SFE) is \$2,000. Permit charge is \$100.
- Option 1: Five year payback plan for connection & permit charges with 15% simple interest yields \$2,415.00. Paid over 60 monthly payments of \$40.25 in your sewer bill.
- In the given 200' lot example, with connection & assessment costs (\$40.25/month and \$98.23/month) a total monthly cost would be **\$138.48**.





Connection and Permit Charges

- Option 2: 20 year payback plan for connection and permit charge at prime rate plus ½%.
- 240 monthly payments of \$17.57 (example @ 8% APR).
- Total 20 year cost of \$4,215.66.
- Connection and permit financing is billed monthly. In the given 200' lot example, with connection & assessment costs (\$17.57/month and \$98.23/month) a total monthly cost would be **\$115.80**.



User Charges

Current monthly single family user fee: \$26.50.

Grinder pump maintenance fee is \$2.00/month.

Stark County Sanitary Engineering Dept.
Sewer Division
1701 Mahoning Rd. NE
Canton, OH 44705
(330) 451-2305
www.se.starkcountyohio.gov

SERVICE ADDRESS		ACCOUNT NUMBER
225 IRONWOOD ST SW		13-00264-00-7
SERVICE ENDING DATE	LAST PAYMENT DATE	LAST PAYMENT AMOUNT
02/29/2016	01/20/2016	49.00

*****SCH 5-DIGIT 44701 9588 1 AV 0.391
225 IRONWOOD ST SW
CANTON OH 44706-5055

10% penalty will be added if the total payment is not received by 03/21/2016		
PREVIOUS BALANCE	.00	
SEWER SERVICE	53.00	
SURCHARGE	.00	
CREDIT ADJUSTMENTS	.00	
DEBIT ADJUSTMENTS	.00	
AMOUNT DUE BY DUE DATE	DUE DATE	AMOUNT DUE AFTER DUE DATE
53.00	03/21/2016	58.30

****Most home owners insurance does not cover basement flooding. Check with your insurance carrier for specific coverage. ****

Problems? CALL US FIRST
If a problem occurs, **CALL US FIRST!** Call 330-451-2320 day or night. Dispatch is available 24 hours a day 365 days a year.

If the above is not available, call 330-456-1813. Uniontown area, call 1-800-398-2075.

Contact Information
Office hours are Monday through Friday from 8:00 am to 4:30 pm.

Customer doors lock at 4:25 pm.
Please call us with questions at 330-451-2305
Uniontown area only use: 330-494-5726
E-Mail us at: san_billing@starkcountyohio.gov
A 24-Hour depository is available at our offices at 1701 Mahoning Road NE, Canton, Ohio

Rate Increase
On January 1, 2016 sewer rates increased from \$24.50 per month to \$26.50 per month (from \$49.00 per invoice to \$53.00 per invoice) for a single family home. A complete listing of rates for other applications is available on our website.

Automatic Payment Plan
An automatic payment plan from your bank checking or savings account is available. To sign up for this plan, check the box below. Complete and return the requested information on the back of the invoice.

Credit Card Payments Accepted
Credit card payments can be made in our office or by using the Paying Online option on our website. Payments cannot be made over the phone. Please note that there is a 2.75% fee charged by the credit card company for this service.

Go to www.starkcountyohio.gov/sanitary-engineers to access **Updated Rules & Regulations**, view **Sewer Rate Increase Detail** or to make a **Credit Card Payment**.

MAKE ALL CHECKS PAYABLE TO: STARK COUNTY SEWER
DETACH AND RETURN THIS SECTION WITH PAYMENT

Stark County Sanitary Engineering Dept.
Sewer Division
1701 Mahoning Rd. NE
Canton, OH 44705
(330) 451-2305
www.se.starkcountyohio.gov

SERVICE ADDRESS		ACCOUNT NUMBER
225 IRONWOOD ST SW		13-00264-00-7
SERVICE ENDING DATE	LAST PAYMENT DATE	LAST PAYMENT AMOUNT
02/29/2016	01/20/2016	49.00
AMOUNT DUE BY DUE DATE	DUE DATE	AMOUNT DUE AFTER DUE DATE
53.00	03/21/2016	58.30

Please mark with an "X" if there are any changes to your information and fill out the changes on the reverse side.

Please mark with an "X" if you wish to sign up for AutoPay. Please complete sign up form on the reverse side.

13002640070000530000005830070

Stark County Sanitary Engineering Dept.
Sewer Division
P.O. Box 9972
Canton OH 44711-0972

PAYMENT COUPON





Electrical Costs

- Grinder Pump Stations must have electrical service.
- Estimated electric usage of \$20-\$30 annually.





Grants

- Any grants received are applied to the residents' assessments.
- Unlikely here due to nature of project and lack of any EPA or health department environmental findings.





Tentative Project Schedule & Steps

- Design: 6-9 months from start.

Note: *The county's current schedule does not allow for design completion for the next 3 to 4 years.*

- Public hearing prior to construction (required for assessments).
- Construction duration: Varies depending on Alternative, up to 18 months.





Voting Cards

VILLAGE OF HILLS & DALES AREA

I AM RESPONDING AS A PROPERTY OWNER IN THE ABOVE MENTIONED AREA REGARDING A PROPOSED SANITARY SEWER IMPROVEMENT PROJECT. I UNDERSTAND THAT THIS RESPONSE IS ONLY FOR THE PURPOSE OF DECIDING WHETHER OR NOT TO PROCEED WITH THE DESIGN PHASE OF A PROPOSED SEWER PROJECT. A PUBLIC HEARING WILL TAKE PLACE AT A LATER DATE IF THE COUNTY PROCEEDS WITH THE DESIGN. IT IS ALSO UNDERSTOOD THAT I WILL NOT INCUR ANY FINANCIAL LIABILITY FOR THE PROJECT UNLESS IT IS APPROVED FOR CONSTRUCTION AFTER THE PUBLIC HEARING.

NAME: _____

ADDRESS: _____

_____ I AM IN FAVOR OF PROCEEDING WITH DESIGN.

_____ I AM NOT IN FAVOR OF PROCEEDING WITH DESIGN.





Stark County Sanitary Engineering Department

Luke Dostal, PE – Project Engineer

1701 Mahoning Road NE

PO Box 9972

Canton, Ohio 44711

Phone: 330-451-2303

Email: dldostal@starkcountyohio.gov

www.starkcountyohio.gov/sanitary-engineers



Questions?



thank
you



Successful partnerships start with **Fluid thinking**[®]

Jones & Henry Engineers, Ltd. 3103 Executive Parkway, Suite 300, Toledo, OH 43606