

OHIO  
**HUDSON**

ENGINEERING • 1140 Terex Road • Hudson, Ohio 44236 • (330) 342-1770

**Memorandum**

**DATE:** November 25, 2019

**TO:** Robert Warner, P.S.  
Environmental Design Group  
[REDACTED]

**FROM:** Nate Wonsick, P.E. – Asst. City Engineer

**C:** Jane Howington – City Manager  
Thomas Sheridan – Asst. City Manager – Professional Services  
Bradley Kosco, P.E., P.S. – City Engineer  
Greg Hannan – Community Development Director

**RE:** **Downtown Phase 2A – City of Hudson Earthwork Calculations & Options**

Dear Mr. Warner:

The City of Hudson engineering staff completed an evaluation of the earthwork on the fill material as depicted in the GPD report (2018) for the proposed Downtown Phase 2A development based on the survey and CAD surface data provided by EDG, Inc. and soil borings provided by GPD for your information as you finalize your design. As part of our evaluation, we created a surface in AutoCAD based on the soil boring data to represent the bottom of the fill material present at the site. The attached calculation summary (See attached) and cost data represent the results of these surface comparisons and calculations. The costs were based on several contractors and consultants in NE Ohio. The CAD file we modified has also been attached for your use (i.e. CAD Format, electronic file emailed).

These options are provided to you as your team evaluates the soils on the site and this information could possibly reduce the cost to your developer. Please feel free to consult with a geotechnical engineer and the other utility companies involved in this project design as you complete your design of the development.

I hope you find the information helpful, and if you have any questions do not hesitate to contact me.

Respectfully,

Nate Wonsick

*Attachments: Fill Material Calculation & Options Summary, CAD file*

[REDACTED]

## Downtown Phase 2a Fill Material Calculation & Options Summary

### Option #1 (most conservative estimate)

Mass removal of material (fill) and Mass Import of Material

Estimated Earthwork Volumes\*:

1. Mass Excavation of fill material (per soil boring depths): 40,000 CY x \$9/CY = \$360,000
2. Mass Import material to proposed finish grades: 20,000 CY x \$9/CY = \$180,000
3. Excavation of Basements and haul off material: 20,000 CY (included with typical home basement excavations)

Total Option #1. estimated cost to replace fill material = \$540,000

### Option #2 (less conservative estimate)

Mass removal of material (fill) and selective import of material so that basement re-excavation is minimized.

Estimated Earthwork Volumes\*:

1. Mass Excavation of fill material (per soil boring depths): 40,000 CY x \$9/CY = \$360,000
2. Partial Import material (NOT to finish grade, basement areas partially backfilled): 10,000 CY x \$9/CY = \$90,000
3. Partial Excavation of Basements and re-use material on-site: 10,000 CY (included with typical home basement excavations)

Total Option #2 estimated cost to replace fill material = \$450,000

### Option #3a (less conservative estimate)

Selective removal of material (fill) and selective import of material so that overall earthwork is minimized (Cement Stabilize Roads).

1. Excavation of Basements and haul off material: 20,000 CY (included with typical home basement excavations)
2. Partial Excavation of additional fill material beneath basement excavation areas where the existing fill exceeds 8' depth (per soil boring depths): 3,000 CY x \$10/CY = \$30,000
3. Cement Stabilization of Roads and driveways:
  - a. The cost/SY for recent private development is \$9/SY. We have used \$10/SY for this cost estimate. Based upon areas below, the cost for cement stabilizing DTP2A pavement areas is:

Public roads: 40,920 S.F. = 4,600 SY x \$10/SY = \$46,000

Private roads: 23,141 S.F. = 2,600 SY x \$10/SY = \$26,000

Private drives: 14,885 S.F. = 1,650 SY x \$10/SY = \$16,500

Total Option #3a estimated cost to replace fill material = \$118,500

**Option #3b (least conservative estimate)**

**Selective removal of material (fill) and selective import of material so that overall earthwork is minimized (Undercut Roads)**

Estimated Earthwork Volumes\*:

1. Excavation of Basements and haul off material: 20,000 CY (included with typical home basement excavations)
2. Partial Excavation of additional fill material beneath basement excavation areas where the existing fill exceeds 8' depth (per soil boring depths):  $3,000 \text{ CY} \times \$10/\text{CY} = \$30,000$
3. Roadway undercut sub base volumes:
  - a. Public roads:  $40,920 \text{ S.F. at } 1.5' = 2,273 \text{ C.Y.} \times \$10/\text{CY} = \$22,730$
  - b. Private roads:  $23,141 \text{ S.F. at } 1.5' = 1,286 \text{ C.Y.} \times \$10/\text{CY} = \$12,860$
  - c. Private drives:  $14,885 \text{ S.F. at } 1' = 551 \text{ C.Y.} \times \$10/\text{CY} = \$5,510$

Total Option #3b estimated cost to replace fill material = **\$71,100**

As you can see there are multiple options to mass removal of all soils to be considered by your design team. This is a summary of options and should not be misconstrued as a geotechnical report. The City would advise the development team to seek their own advice from a geotechnical engineer for more options.

*\* Notes:*

- 1. Earthwork calculations are based on survey and CAD surface data provided by EDG, Inc. and soil borings provided by GPD. Additional CAD surfaces were created from soil boring data and should be considered approximate.*
- 2. The excavated materials would be hauled to the former YDC site 2 miles away if formally approved by the City & within areas designated by the City. The YDC site could also be used for borrow.*

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**Memorandum**

**DATE:** December 9, 2019

**TO:** Greg Hannan – Community Development Director

**FROM:** Nate Wonsick, P.E. – Asst. City Engineer

**C:** Thomas Sheridan, P.E., P.S., CFM – Asst. City Manager – Professional Services  
Bradley Kosco, P.E., P.S. – City Engineer

**RE:** **Downtown Phase 2A – Cost Estimate of Clean Fill from the YDC site**

Dear Greg:

Based on conversations City staff recently had with developers that have worked in the City of Hudson, the current rate for clean fill (material only) is approximately \$10 per cubic yard. Based on the most conservative calculations I had previously prepared in a memo to Bob Warner at EDG on November 25, 2019, 20,000 cubic yards of clean fill may be required for the Downtown Phase 2A project from the YDC property. This clean fill would have an estimated value of \$200,000.00 for the material only.

If you have any questions do not hesitate to contact me.

Respectfully,

Nate Wonsick

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# HUDSON

ADMINISTRATION • 1140 Terex Road • Hudson, Ohio 44236 • (330) 342-1700

November 20, 2019

Paul Testa  
Joel Testa  
Testa Companies

Dear Paul and Joel:

Thanks again for your time today. I appreciate the ability to rearrange schedules so we could meet in person. I wanted to review what I took away from our discussion; if you see that I have missed something or misinterpreted something, please let me know.

First and foremost, it appears you both have a desire to move forward with the Hudson Phase 2 project provided soils, financing and phasing issues can be resolved.

Regarding the soils:

- We discussed having all our soils people together to understand the discrepancies in analysis.
- Possible testing of material at the YDC site.
- Possible joint earth moving efforts (City at YDC but not aware the City equipment would be suitable).

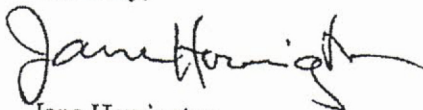
Regarding financing:

- Review of sale values for both north and south areas with possibility of shifting some value from north to south.
- Review carrying cost and how this can be managed or recovered.
- Sales tax exemption with the DFA.
- TIF coverage.

Regarding phasing issues:

- Discussed the possibility of constructing the commercial building at the end of Clinton Street at the same time as the housing construction.

Sincerely,



Jane Howington  
City Manager, City of Hudson

Acknowledged by:

  
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Paul Testa, CEO, Testa Companies