

CONKLIN ASSOCIATES
CONSULTING ENGINEERS AND LAND SURVEYORS
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Minutes of February 7, 2017 Meeting
Hopper Ridge Retaining Wall Replacement & Reconstruction (R&R)

- 1) Location; Ridgewood Village Hall, Engineering Department Conference Room.
- 2) Attendees; Mr. Chris Rutishauser, PE, Village Engineer
Mr. Peter Affuso, Assistant Village Engineer
Mr. Joel Schumer, Hopper Ridge Homeowners Association (HRHOA)
Mr. Tom Buda, HRHOA
Mr. Tibor Latincsics, PE, Conklin Associates
- 3) Meeting requested by HRHOA. See Conklin correspondence of 1/27/2017.
- 4) Scope of project was reviewed in the "Big Picture". It is a "Need-Not a Want"
- 5) Preliminary plan by Conklin supplemented by photographs was reviewed.
- 6) Original tie wall construction was reviewed as well as the changes from the original design to the actual construction.
- 7) Three walls, of which two are tiered.
- 8) Pond aerators are operated in the summer time and are positive for water quality.
- 9) The challenges associated with the RR were reviewed;
 - A) Difficult access.
 - B) Adjacent to ponds and Ho-Ho-Kus Brook tributary.
 - C) Riparian Zone vegetation.
 - D) Inplace replacement would require excavation into the bank.
 - E) Sanitary sewer line to rear of both walls.
 - F) Significant expense.
- 10) Practical replacement options are either interlocking geogrid modular block concrete block such as a Keystone Block or equal and/or Big Block gravity walls such as Recon Block.
- 11) Chris R voiced an opinion that "Constructability" plays a huge role in this challenge, significantly complicated by the sanitary sewer line between the two Walls and the townhome buildings. No one wants the wall R&R to morph into a sewer reconstruction project. Tibor seconded this opinion.

12) Tibor provided an opinion that leaving major portions of the existing crib wall in place with the construction of a geogrid reinforced wall in front of the existing wall, requiring the new wall to be at least 8' in front of the existing walls would be a practical solution.

13) Discussion shifted from construction challenges to regulatory challenges.

- A) Original Site Plan Approval requirements and restrictions.
- B) Zoning Considerations.
- C) NJDEP Flood hazard Area & Riparian Zone requirements.
- D) Stormwater Management requirements that run with the ponds.
- E) Ridgewood Zoning Requirements for wall heights, steep slopes and Riparian Zones.
- F) Soil Movement, be it on-site or import/export in excess of 2000 CY would require a Major Soil Movement Application.
- G) If applicable, which Board would have jurisdiction, the Planning Board by virtue of the original 1980's Site Plan Approval or the Zoning Board in anticipation of the anticipated wall height variances.

14) Chris R. recommended a similar meeting with Ms. Paola Perez followed by Zoning Permit Application. Tibor recommended that it would be beneficial for Mr. Thomas Yotka, the Construction Code Official to be in attendance at that meeting as well.

15) Compliance with NJDEP Regulations shall be important. HRHOA needs to balance the constructability with Ridgewood & NJDEP Standards.

16) Tibor advised that relocating the walls closer to the ponds, while protecting the sewer line, improving constructability and potentially significant savings would trigger the necessity for a "Hardship Exception" with the NJDEP LURP. The application fee for a Hardship Exception is \$ 4000.00. A NJDEP LURP FHA application would need to address the following;

- A) Maintaining the existing surface area of the pond.
- B) Identifying, maintaining and ideally improving the stormwater management benefits of the ponds.
- C) Riparian Zone considerations.

- 17) Chris R. cautioned that the height of retaining walls is always a concern in Ridgewood. The Zoning Code limits individual wall heights to 6' and tiered walls to a maximum of 12'. In this case it appears that the asbuilt wall has a maximum height of approximately 12.6'. A single wall is more cost effective than a tiered wall. It is a benefit that the walls are well within the interior of the site and not visible to neighboring properties. Tibor further commented that current retaining wall systems are significantly more aesthetic than a 1980's tie crib wall.
- 18) The HORHA as a corporation would need to be represented before either the Planning Board or Zoning Board by an Attorney, ideally and by necessity a Land Use Attorney. Both Chris R and Tibor recommended David Rutherford, Esq, of 141 Dayton Street, Suite 203, Ridgewood, 201-652-8500.
- 19) Both Tibor & Chris R. recommended televising the sanitary sewer line prior to any construction. The sooner, the better. A discussion as to assistance the Village can provide ensued.
- 20) A discussion as to the discharge of the Cedar Street & Gilbert Street storm sewer system into the upper pond via the sediment trap structure and maintenance of same ensued.
- 21) Chris R. commented that once the R&R plan is prepared and it meets Ridgewood's expectations, a letter of support can be provided to the NJDEP.

Minutes compiled by Tibor Latincsics, PE