

**Borough of Highlands  
Planning Board  
Regular Meeting  
August 13, 2009**

Mr. Stockton called the meeting to order at 7:15 P.M.

Mr. Stockton asked all to stand for the Pledge of Allegiance.

Mr. Stockton made the following statement: As per requirement of P.L. 1975, Chapter 231. Notice is hereby given that this is a Regular Meeting of the Borough of Highlands Planning Board and all requirements have been met. Notice has been transmitted to the Asbury Park Press and the Two River Times. Notice has been posted on the public bulletin board.

**ROLL CALL:**

**Present:** Mr. Manrodt, Mr. Mullen, Mr. O'Neil, Mr. Bahrs, Mayor Little, Mr. Francy, Mr. Parla, Mr. Stockton, Ms. Peterson, Mr. Roberts

**Absent:** Mr. Schoellner

**Also Present:** Carolyn Cummins, Board Secretary  
Jack Serpico, Esq., Board Attorney  
Joseph Venezia, P.E., Board Engineer  
Robert Schwankert, P.E. of Melick-Tully & Assoc.

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**PB#2006-1 Fleming, D & C  
Block 26 Lot 12 – 127 Highland Avenue  
Request for Extension of Time to Perfect Subdivision**

The Board reviewed the written request from Attorney Henry Wolff requesting an extension of time to perfect subdivision.

Mr. Serpico stated that no action was required by the board and that due to the State's Permit Extension Act this subdivision has an extension through July 1, 2010 and that he would send a letter informing the applicant of this extension.

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**PB#2009-1 Highlander Development Group, LLC  
Block 105.107 Lot 1.01  
Unfinished Public Hearing**

**Present:** Paul Drobbin, Applicants Attorney  
James Serpico, Applicants Geotechnical Engineer  
Mr. McOmber, Objectors Attorney Representing Pauline Jennings  
Certified Short Hand Reporter for Applicant

**Conflicts:** Mr. Manrodt, Mr. Bahrs and Mr. Stockton all stepped down

Mr. Serpico noted for the record that the following Board Members who missed some meetings submitted Affidavits stated that they have listened to the missed meeting tapes:

**Borough of Highlands  
Planning Board  
Regular Meeting  
August 13, 2009**

Mayor Little – for July 9, 2009 Meeting and May 14, 2009 Meeting

Ms. Peterson – for July 9, 2009 Meeting

Mr. O’Neil – for June 11, 2009 and July 9, 2009 Meeting

Mr. Mullen stated that the Chairman of the Environmental Commission is in the audience. He asked the applicants Attorney when the requested information from the Environmental Commission would be provided and when we might here some testimony from the applicants Environmental Consultant.

Mr. Drobbin stated that tonight he will be starting with their Geotechnical Expert, then a Traffic Engineer and then the Environmental Expert. He has a letter to their Environmental Expert and information will be forth coming.

Mr. Francy asked specifically for the Phase One Site Assessment Report.

Mr. Drobbin stated that he would take that under advisement.

Mr. Mullen explained the hearing process to the public.

The following documents were marked:

A-37	Test Boring location Plan (part of A-4);
A-38:	Slope Profile;
A-39:	Slope Section B-B Calibration;
A-40:	Slope Section B-B Post Calibration;
A-41:	Slope Section B-B Critical Toe;
A-42:	Slope Section B-B Post Critical Toe;
A-43:	Slope Section A-A Post Shallow Surface;
A-44:	Slope Section A-A;
A-45:	Slope Section D-D Critical Surface;
A-46:	Master Letter dated 7/30/09;
B-3:	Unknown Source Investigation Summer for Bayside Drive Seep With a cover letter dated from the NJDEP dated 1/21/09.
B-4:	T & M Associate Letter dated 8/12/09.

Robert E. Schwankert, P.E. of Melick-Tully & Associates, P.C. and Robert Keady, P.E., Board Engineer were both sworn in.

James J. Serpico, Jr. of Master Consulting was sworn in.

Jack Serpico, Board Attorney stated that he and James Serpico are not related and he has never met him.

**Borough of Highlands  
Planning Board  
Regular Meeting  
August 13, 2009**

There was no objection to accepting the qualifications for Mr. Schwankert, Board Professional.

Mr. James Serpico described his professional and educational background and stated that he is employed by Maser Consulting and his area of expertise is geotechnical engineering. He holds licenses for Professional Engineer and Planning Licenses in New Jersey and also a Certified Municipal Engineer in the State of New Jersey.

Mr. McOmber asked if he ever did a study on a 16-story building.

Mr. James Serpico explained that he has done a study of a 33-story but only ten to twelve story buildings on steep slopes.

Mr. Mullen – seeing no objections Mr. James Serpico is qualified as a Geotechnical Engineer.

James Serpico stated the following during his testimony and response to questions from the board:

1. He has been involved in three geotechnical services and studies with regard to certain Atlantic City Hotels.

Mr. McOmber stated that he minds some leading from Mr. Drobbin.

Mr. James Serpico – noted.

Mr. Drobbin continued to question James Serpico.

James Serpico continued his testimony as follows:

2. He stated that he has been involved in a full variety of geotechnical issues whether it's with or without a steep slope or a slope stability concern.

3. He has been related with this project for over twenty years. He then explained that between June 11 and June 19, 2007 they conducted initial exploration of seven test borings and they ranged in depth between 27 to 182 feet below grade. The deeper ones were closer to the steep slope areas and the shallower ones were further into the site towards Route 36. Once that data was received they looked at certain concerns that existed before and confirmed that they don't exist and it was proceeded that we were going to go forward with the project. So another subsurface exploration program was initiated, that program started June 19<sup>th</sup> through July 17<sup>th</sup>, 2008 where an additional 15 other test borings were conducted and those ranged between 52 to 152 feet below grade.

4. He stated that the test borings that were conducted at this site met the ASTM standard in the way that they were tested and sampled and that standard is D-1586 which he described.

5. He has knowledge of previous data of work that was done at that site 23 years ago.

6. He stated that the report of his study dated January 29, 2009 which was marked at Exhibit A-4 was prepared under his supervision.

**Borough of Highlands  
Planning Board  
Regular Meeting  
August 13, 2009**

7. They have performed slope stabilities for other applications that have been heard by this town such as the Gordon residence.

8. The Minard Report, you cannot talk about soils and slope stability in the Highlands without mentioning the Menard Report.

9. He has seen the Bush report prepared for this site.

10. The Minard Report of 1974 is the most recent document published by the United States Geologic Survey, for this region of the state. A lot of the report was based on review of photos and some on the ground walking. This report preceded a lot of what is now building requirements which he further explained.

11. He described definition of a slump block as being an area of land moving.

12. The Minard Report indicated that there was a possibility of a slump block E but he did not find any evidence of that. He further explained findings in the Minard Report..

13. He explained that by today's standards you probably wouldn't build the Eastpointe Condo Building the same that it's constructed now.

14. He described his subsurface findings which are contained in his report marked A-4. He described the formation layering of the type of sand found at the site.

15. They did 22 soil borings in total and he found that the land is consistent through the site. He did not find any evidence of movement.

16. He then described how he checked for slope stability

17. He did communicate with Steve Hope with regard to the NJDEP Report which was marked as B-3. He stated that he was in communication with him while doing the drilling he then gave his data to the DEP.

18. He then described the Test Boring Location Plan marked as A-37 which a similar version is in his report. He described the location water pipe location on the site.

Mr. Serpico requested that the January 21, 2009 NJDEP Report be marked for identification since it has been referred to.

Mayor Little gave some background as to how B-3 was generated. She explained that report was generated due to seepage being reported by residents along Bayside Drive. NJDEP conducted and determined the nature of the seepage and they identified the source as an old gas station site on Route 36. The nature of how it seeps has not been disclosed yet.

Mr. McOmber requested that B-3 be marked into evidence rather than marked for identification.

Mr. Drobbin objected.

Mr. Serpico – fine let's leave it as an exhibit and deal with it as we progress.

Mayor Little stated for the record that she does not see a connection today between this application and that seepage unless DEP indicates that it is in some way relevant to slope stability.

**Borough of Highlands  
Planning Board  
Regular Meeting  
August 13, 2009**

Mr. Serpico – at some point during the proceedings there will be arguments for both pro or con and then if it's entered into evidence then the board can attach to it whatever value you think it may or may not have.

James Serpico continued his testimony as follows:

19. The foundations for the buildings are at least 30 feet above the water, which he explained. He stated that they modeled the water level higher than the seep.
20. Slope stability - no negative impact on the slopes because of the way that they have positioned the buildings.
21. He described the depths of the proposed foundations. He stated that Building one would be the most critical building, Building two not impacting slope because it's so far down, Building three closer to Route 36 has no slope stability issues. He explained that load factors of a building.
22. He found that almost all of the slope areas that would most likely occur with the parameters using the we used in our analysis the slopes pretty much stayed the same or post construction they actually went up which he further explained.
24. He explained how factor safety is defined. He stated that a factor safety of less than one by definition is moving. He took a more conservative approach for their factor safety.
25. He stated that they used the Moment Method for their factor safety
26. He gave a lengthy explanation of how he calculated the safety factor. He also explained how building weight is factored into the safety factor.

Joe Venezia, Co-Board Engineer arrived to the meeting.

James Serpico continued his testimony as follows:

27. He explained how conservative his calculations are and stated that he used a heavier weight for the buildings then they actually are in his calculation.
28. He described the slope areas to be discussed in A-37.
29. There is a design waiver being requested for a building within a certain slope distance.

Mr. Mullen expressed his concern with this property is that this property line is half way down the hill and somebody else's property is at the bottom of the hill so they are going to be the recipient of any calamities during construction.

James Serpico continued his testimony as follows:

30. He described Exhibit A-38 a Slope Profile which is a natural scale of conditions. He also pointed out the water seepage point and described his methods for calculation.
31. He described Exhibit A-39 Calibration.
32. He described Exhibit A-40 Slope B-B Post Calibration.
33. He described Exhibit A-41 Slope Section B-B Critical Toe.

**Borough of Highlands  
Planning Board  
Regular Meeting  
August 13, 2009**

34. He described Exhibit A-42 Slope Section B-B Post Critical Toe and stated that you can notice that the factor safety went up, which he further explained.

35. He described Exhibit A-43

Mr. Schwankert explained that they have rerouted much of the surface runoff away from that slope and the amount would be reduced. The goal in our letter was to make sure in that swale that it is lined so the water is going around and is away from the slopes and not going back into the ground.

James Serpico continued his testimony as follows:

36. They agreed with Mr. Schwankert that they just needed to slow it.

37. He described Exhibit A-43 Slope Section A-A. This has a factor safety of 1.37. He described the bottom of the foundation of building number two.

Mr. Schwankert spoke about the loading weight. The critical slope is what is out there now and the new construction is too far back and too low in the ground to really effect that slope as reflected on A-43.

James Serpico continued as follows:

38. He stated that all of the proposed building are really not an issue to the existing slope because they have such a deep undercarriage to it.

39. He described Exhibit A-44 and explained how he calculated a factor safety of 3 as stated in his report.

40. He described Exhibit A-45 and stated that this is building three near the detention basin. He described his calculation and findings for this exhibit.

Mr. Schwankert explained that what he noticed is that as they were grading they were trying to move water away from the exposed slopes.

James Serpico continued his testimony as follows:

41. He spoke about grade of the site and swales to get the water around to the basin.

42. The design is to try to reduce any potential i.e. post development water better than it is now as listed in his report.

43. There is no negative impact directly from these buildings.

44. He worked with Dan Busch on determining the locations of the buildings to take into account his concerns.

45. Page 14 of his report talks about site preparation which he spoke about.

46. He has no problem with geotechnical guidelines for the construction phase to oversee that his concerns are addressed during the construction of the buildings.

47. Prohibited construction techniques – his report indicates that there will be no driving of piles permitted. Sheet piling is a possibility and has not been ruled out.

**Borough of Highlands  
Planning Board  
Regular Meeting  
August 13, 2009**

48. He described what Solider Pile is.
49. He spoke about foundations and stated that each building is its own separate structural system. The only common ground is there is the club house.
50. He recommends that the waiver be granted because as seen by the number that any material removal is beneficial to the overall state of stress of the slope. If you take load off the slope has a better state of stress than it had when the load was sitting on it.
51. The northern and eastern slopes there is no detriment to the public by leaving them the way they are and there is no detriment to the project other than allowing that regarding at the top.
52. No, there is no detriment to the slopes that are being disturbed because you are removing a steep slope, which he further described.
53. Page 15 of his report, Section 9.4 Wall Construction Considerations, he stated that any Structural Engineer would use these numbers in the design of the structures.
54. Page 16, Items 9.5 and 9.6 – these two are really nothing to do with slope stability. This report is more of a feasibility evaluation for the owners to do some economic evaluation, structural engineering and material to use. He stated that the materials that will be generated from the site will be reusable on the site, which he further described.
55. He described that his involvement of the July 30<sup>th</sup>, 2009 Master Consulting Engineer Letter to the Board Secretary.
56. He spoke about Exhibit A-46 and stated that there were sections that he participated in.
57. He has reviewed the report dated August 12, 2009 prepared by the Board Engineer Joseph Venezia of T & M Associates and it enclosed an August 12, 2009 letter of Melick-Tully Associates signed by Mr. Schwankert. He then stated with regard to the Melick-Tully concerns issues that fall under his expertise. Items 1, 2, 3, and the 5<sup>th</sup> items he believes are information items only. Item 4, had to do with the pavement and if the pavement is designed for the construction equipment and the answer to that is “no” but it is going to be monitored post construction. He stated that after phase one there will be residents in the building so any traffic taking material on or off the site is going to have to be off that road. It has to be and we agreed to and it’s stated on the plans that the contractor be responsible for maintaining the onsite road and any time that it gets potted it will have to be addressed. With regard to comment 6 on page 4 and he no issue with respect and he explained that ultimately the contractor will have to provide his staging plan, which he further explained.

Mr. Schwankert stated that there is a considerable amount of review comments and thought going into the Geotechnical process here. What needs to be done is that we have to make sure that continuity gets to the project, gets to the Contractor so that they understand what areas are of concern. So that when things get designed in detail that the flow of information continues.

James Serpico continued his testimony as follows:

58. They will comply with item 7 of the August 12<sup>th</sup> letter. Item 8 the details will reflect a one foot thick layer low permeable soil as agreed upon and it will reflect a revised permeability at 5 times 10 minus 6 centimeters per second. With regard to Items 9 and 10 of the August 12<sup>th</sup>

**Borough of Highlands  
Planning Board  
Regular Meeting  
August 13, 2009**

letter they have agreed to undertake three more soil borings and he then described the locations and marked it on Exhibit A-37.

The Board took a brief recess at 9:44 P.M.

Mr. O'Neil left the meeting.

Mr. Mullen called the Meeting back to order at 9:59 P.M.

Mr. Mullen announced that Mr. O'Neil has left the meeting.

**ROLL CALL:**

**Present:** Mr. Mullen, Mayor Little, Mr. Francy, Mr. Parla, Ms. Peterson, Mr. Roberts

**Absent:** Mr. Manrodt, Mr. O'Neil, Mr. Bahrs, Mr. Schoellner, Mr. Stockton

**Also Present:** Jack Serpico, Esq., Board Attorney  
Carolyn Cummins, Board Secretary  
Robert Keady, P.E., Co-Board Engineer  
Joseph Venezia, P.E., Co-Board Engineer  
Mr. Schwankert, Geotechnical Engineer for Board

James Serpico continued his testimony as follows:

- 59. With regard to Exhibit A-46 he participated in the preparation.
- 60. Exhibit B-4 the summary provision quote he does agree with it.
- 61. He believes that for both during construction and post construction there will be no detrimental impact to the existing slopes.
- 62. From a geotechnical point the project can be built without detriment without adversely impacting surrounding sites and neighborhoods and neighboring structures.

Mr. Drobbin stated that he had no further questions of Mr. Serpico at this time. He then requested that Exhibits A-4 and A-46 be moved into evidence.

Mr. McOmber requested that James Serpico provide him with the loading loads of what the buildings will weigh.

James Serpico agreed to provide him with that data.

Mr. McOmber wanted to know when the additional borings will be performed.



**Borough of Highlands  
Planning Board  
Regular Meeting  
August 13, 2009**

James Serpico stated that he would like to do that early so that he can put all of the geotechnical issues to rest before the end of testimony. He stated that he would advise Mr. McOmber with the dates for the borings so he could be present to witness the boring. He did not encounter any contamination with borings. He noticed no vapors on any of the samples. He did provide all of his data to the NJDEP. He will if board requests provide the results of the next borings that will be performed.

Mayor Little stated that the Borough is monitoring the DEP with regard to the site on Route 36 and how it will affect other properties.

Mr. Drobbin wanted to make sure that Exhibits A-35 and A-36 were marked into evidence. He also requested that Exhibits A-38 through A-42 be marked into evidence since we just heard testimony on them.

Mr. McOmber questioned Exhibit A-38 because he has questions on it.

Mr. Serpico so we can hear your questions first before we rule. As to the other exhibits there is no objections for them being marked.

Mr. McOmber began his cross examination of James Serpico.

James Serpico stated the following during his response to cross examination:

1. With regard to Exhibit A-37 he did explain that he will be doing three additional borings which he further described. He spoke about the borings that he already performed and that there were no borings done under building one which he further explained. He is very comfortable that the soil properties and soil layering as determined by the other 22 borings will be consistent,
2. He stated that he has agreed to do more soil borings under building one.
3. The building code requires that one boring be done for every 2500 square feet in plan area, which would require about 10 borings per building, which he further explained. The results are issued in a report and then submitted to the Building Sub-Code Official for his determination in issuing a building permit.
4. He spoke about Mr. Schwankerts request that there will be notes on the plans of what a contractor has to submit.
5. The steep slope in the middle of the site will be removed. He then described the proposed impacts to the steep slopes on site.
6. The design waiver is to help put the swale in to better improve drainage and to put buildings in referred to exhibit A-37 to describe.
7. He then described how the swale will be installed.
8. In a fifty or 100 year storm he does not anticipate any erosion and he thinks that questions would be better referred to Mr. Busch.
9. From a geotechnical point of view there will be no adverse impact off site with this development. So that would be true of the homes on Ralph Street. Current conditions, the slopes

**Borough of Highlands  
Planning Board  
Regular Meeting  
August 13, 2009**

are there now and the loads are what they are now. During construction there will be no adverse impact to the homes on Ralph Street because they have staging plans to protect just that aspect. He described a soldier pile wall five feet off the parameter of the proposed below grade garage for building two to hold the construction up while they building the garage. If a heavy rain comes during a construction event there could be soil erosion issues, not a slope stability issue. It would be more like silt running over and it would just have to be cleaned with shovels.

10. There is no danger of the building based on findings and data available.

11. He spoke about how the Architect provided him with various weight loads of the structures. He explained that the soil stress state is less with the proposed.

12. Exhibit B-4 he spoke about the amount of soil that will be removed from the site. It's about 134,000 net cubic yards and it would be about 12,000 truck loads. He then explained the route that the trucks will take to leave the site and that they are not using local roads.

13. It is considered that each building will be constructed on its own in staged construction. Each building could be built separately or they can be built all at once, it's just a dollar issue. However, building two has a little extra stuff to be built. The buildings would be built in number order.

15. He answered questions on building construction phases and how material would be brought to the site.

16. He is aware of the January 21, 2009 Steve Hope NJDEP report and item number four of the report does mention the subject site. It mentions two concerns with respect to possible contamination of the site. He stated that he is not an environmentalist and he only looked a portion of page five of the report with respect to water levels and CLM designation and the property level of the gas station site.

18. He stated that the Minard Report is from May of 1974. He then responded to questions of the comments in the Minard Report.

19. He objected to a question from McOmber that its possible in twenty years from now someone will testify that the proposed building would be built to different standards.

Due to the late hour Mr. McOmbers cross examination of James Serpico will continue at the next meeting.

Mr. Mullen stated that James Serpico will be back at the next meeting to continue cross examination.

Mr. Francy questioned the status of pictures of a skyline view of all three buildings from Bay Ave and Route 36 being provided.

Mr. Drobbin stated that he was unsure if that was forth coming. He will get back to the board about that issue.

Mayor Little offered a motion to carry this hearing to the September 10<sup>th</sup> meeting, seconded by Mr. Francy and approved on the following roll call vote:

**Borough of Highlands  
Planning Board  
Regular Meeting  
August 13, 2009**

**ROLL CALL:**

**AYES:** Mr. Mullen, Mayor Little, Mr. Francy, Mr. Parla, Mr. Roberts, Ms. Peterson  
**NAYES:** None  
**ABSTAIN:** None

Mr. Mullen announced that this matter has been carried to the September 10<sup>th</sup> meeting at 7:00 P.M.

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**Approval of Minutes**

Mr. Parla offered a motion to approve the July 9, 2009 Planning Board Minutes, seconded by Mr. Mullen and approved on the following roll call vote:

**ROLL CALL:**

**AYES** Mr. Mullen, Mr. Francy, Mr. Parla, Mr. Roberts  
**NAYES:** None  
**ABSTAIN:** None

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**Communications:**

Board reviewed correspondence from Monmouth County Planning Board re: Fin Lang Planning Board Application.

Brief discussion of status of zoning amendments based on recommendations from the Master Plan.

Mr. Parla offered a motion to adjourn the meeting, seconded by Mr. Francy and all were in favor.

The meeting adjourned at 10:55 P.M.

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**CAROLYN CUMMINS, BOARD SECRETARY**