

**Loudoun County Public Schools
HS-7 Dulles South and Elementary School
ZMAP 2010-0001, SPEX 2010-0003
Response to Referral Comments
June 8, 2010**

Zoning Administration
Comments dated March 29, 2010



1. CRITICAL ISSUES

None

II. CONFORMANCE WITH AIOD REGULATIONS (§4-1400):

Comment 1: A disclosure statement must be placed on all plats, site plans, deeds, etc. clearly identifying that the parcels are located in the Ldn 60 – 1 mile buffer Airport Impact Overlay District. (§4-1405)

Response: Acknowledged

Comment 2: Revise General Note 3 and 4 on sheet 1 of the Plat to further identify the AIOD as “within 1-mile of the Ldn 60”.

Response: General Notes 3 and 4 have been revised as recommended.

III. CONFORMANCE WITH FOD DISTRICT REGULATIONS (§4-1500):

Comment 3: Revise General Note 3 on sheet 1 of the Plat to further identify the FOD as “major”.

Response: General Note 3 has been revised as recommended.

IV. CONFORMANCE WITH TRANSITION DISTRICT REGULATIONS (§. 5-700)

Comment 4: Remove Minimum Lot Width and Gross Density on sheet 3 as it does not apply to this site.

Response: The minimum lot width and gross density on Sheet 3 have been removed as recommended.

Comment 5: Because the PD-GI lot requirements are not relevant to this proposal, remove reference to it on sheet 3

Response. The PD-GI lot requirements have been removed as recommended.

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V. CONFORMANCE WITH SCENIC CREEK VALLEY BUFFER (§5-1000)

Comment 6: Show and label the Scenic Creek Valley Buffer (SCVB) on sheet 3 as measured along the slope of the ground from the channel scar line. There appears to be sufficient area for the full 150' buffer, however, if the applicant seeks to reduce the setback a letter must be submitted to the Zoning Administrator demonstrating that one of the 2 criteria in 5-1200(D) can be met.

Response: The SCVB has been added and labeled on Sheet 3.

Comment 7: Construction of parking lots or other impermeable surfaces are prohibited within the SCVB. There is a note regarding the basketball court. Describe the "50' GI buffer" shown on sheet 3. There is a note regarding an encroachment and the 50'buffer. Explain the encroachment mentioned. If the "encroachment" is in the SCVB and is limited to grading, then there is no encroachment of impermeable surfaces and the note should be removed. See also comment 10 below.

Response: The 50 foot GI buffer is a 50 foot buffer as recommended by the Comprehensive Plan for green infrastructure elements. The encroachment is an encroachment into the recommended policy area and the note has been added to identify the minor encroachment into the policy area for comprehensive plan consistency analysis. There is no encroachment of impermeable surfaces into the SCVB.

VI. CONFORMANCE WITH BUFFERING AND SCREENING REGULATIONS (§5-1400)

Comment 8: Sheet 3 states that the enhanced buffer will be along the side and rear buffer yard. Label the rear (or western boundary) as enhanced.

Response: The enhanced buffer at the elementary school has been clarified. The side yard and a portion of the rear yard buffer will be enhanced. The areas are designated, length specified and the "portion" of the rear yard noted.

VII. CONFORMANCE WITH STEEP SLOPE REGULATIONS (§5-1508)

Comment 9: Any development or grading in the steep slope areas must be permitted as in 5-1508(D). A locational clearance may be required.

Response: Acknowledged.

VIII. CONFORMANCE WITH SPECIAL EXCEPTION REGULATIONS (§6-1300)

Comment 10: The SOJ references that the proposed elementary school could be used to satisfy the need for a school projected in the FY11-16 budget. Be advised that the period of validity for a special exception is 5 years from the date of approval. If the elementary school does not obtain a building permit and diligently pursue construction and/or an occupancy permit is not obtained and the use commenced, there is potential that the SPEX for the elementary school may expire. Pursuant to Section 6-1313(A), the period of validity may be extended as part of the special exception approval. If the applicant wishes to extend the period beyond the 5 years, they should amend the SOJ and request and alternate period of validity. If not approved as part of this application, the period of validity may be extended post approval, but must be done in writing 30 days before the expiration. Staff recommends that any extension requested be included in the conditions of approval.

Response: Because the construction of the school is tied to funding and that is unknown at this time, LCPS will amend the Statement of Justification to request an extended period of time beyond the 5 years for the special exception validity.

IX. OTHER

Comment 11: Revise the number of existing lots on sheet 3 as there are 10 lots that will comprise the 97 acres after lot consolidation.

Response: The number of existing lots on Sheet 3 has been amended to 10.

Comment 12: Add to the Total Site Area tabulation, under Zoning Requirements on sheet 3 that the acreage is based on Loudoun County Assessment Records after the lots are consolidated.

Response: The recommended notation has been added as recommended.

Comment 13: Revise the maximum floor area of the high school as it is 292,000 sf and 10,000 sf is accessory structures.

Response: The maximum square footage of the high school has been amended as recommended.

Comment 14: The Tree Save Narrative states that 80% of the canopy is being saved; however, there is no amount of canopy provided, therefore, there is no way to measure 80% of the existing canopy. State an amount of canopy existing in order to be able to measure the savings.

Response: The amount of tree canopy has been added to the Narrative.

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Comment 15: Revise the first and second paragraphs of the Tree Save Narrative to state that trees may be removed “upon consultation with the County’s Urban Forester”.

Response: The recommended language has been added to the Narrative.

Parks and Recreation

Comments dated April 26, 2010

Comment 1: PRCS supports the additional playing fields at the proposed elementary school that could be utilized by community sports leagues, allocated through PRCS. Staff recommends LCPS and PRCS staff work together on the design and implementation of these fields in terms of size and grading

Response: The size of the proposed playing field at the elementary school is 360’ x 225’ with 30’ end overruns and 20’ side overruns, consistent with Parks and Recreation field standards. With regard to grading, the field is crowned.

Comment 2: Staff recommends LCPS staff consider the location and size of any future amenities such as a jogging track that is often developed after the school opens and funded by the PTA. Such a feature could have an impact on the proposed fields

Response: This is a good observation. However, for this particular site, there is not sufficient room to add a jogging track around the elementary school play field.

Comment 3: The Applicant will need to verify if the alignment for Road B (which will need to be built to a public road standard) meets Substantial Conformance and CDP-Minor Change requirements per Sections 6-1209 (E) and 6-1511(A) (2) of the Revised 1993 Zoning Ordinance for the proffered C.D. Smith Property park site. Furthermore, the proffered acreage for the park site is 14.57 acres, and it appears that the proposed public road will adversely affect that proffered acreage.

Response: Prior to filing the SPEX application, LCPS coordinated with Parks and Recreation on the proposed change and submitted a request to the Zoning Staff asking if the proposed change to the circulation elements within the proffered park site would be in substantial conformance with the approved C.D. Smith Concept Plan. In a letter dated February 5, 2010, the Zoning Staff determined that the modification is in substantial conformance with the approved Concept Plan. The acreage shown on the Concept Plan, Sheet 7 is listed as “Approx. Acreage 14.57 acres”. A calculation of the private road that would have been constructed indicates the road would have utilized .51 acres of the park area. The construction of a public street differs in that the area used for the road must be dedicated but the differential is minimal. Proposed Roadway B would provide .57 acres of right-of-way dedication with the resulting

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park acreage at 14 acres, after the dedication. The difference between the private street area and the public street area is .06 acres. A copy of the 2/5/10 zoning letter is attached for easy reference. As you know, LCPS is also seeking road abandonment for a portion of Goshen Road. The exhibit filed with the abandonment shows that the area that would come back to the C.D. Smith property on the west side of Relocated Route 659 (the proffered park) is 0.19853 acres. The park site acreage will be in substantial conformance with the approximate acreage shown on the proffered concept development plan.

Comment 4: In October 2009, the Applicant provided PRCS with two Concept Plan Alternatives for review. Staff reviewed those revised Concept Plat Alternatives for the Community Park, and provided verbal comments which have not been addressed to date. Staff noted the addition of restrooms and a U8 Micro Soccer Field, and that the entrance drive (shown as a road serving the proposed elementary school, called as Road B on Special Exception / Rezoning Plat) and the parking lot, have been realigned. Of the two alternatives provided, Staff prefers Plan Alternative 2, which has the majority of park uses (including the U8 Micro Soccer Field, the parking lot and the restrooms) on the same side of the school entrance road.

While PRCS appreciates these potential amenity upgrades, the Applicant will need to provide verification on whether the additional proposed amenities meet Substantial Conformance and CDP-Minor Change requirements per Sections 6-1209 (E) and 6-1511(A) (2) of the Revised 1993 Zoning Ordinance. Should these changes meet ordinance requirements, Staff requests that these amenities be provided in accordance with the January 2009 Loudoun County Parks, Recreation and Community Services Design and Construction Standards, and that the Applicant provide a Condition of Approval for these improvements.

Response: On May 24th, LCPS and Parks and Recreation staff met to review the Parks and Recreation referral and to ensure that all of Parks and Recreation staff comments have been addressed. Parks and Recreation staff confirmed their preference for the Alternative 2 layout, which was reviewed as a part of the February 5, 2010 Zoning letter. This letter includes a review of the alternative park layouts (Alternative 1 and Alternative 2) noting that PRCS had expressed that alternatives to the park were acceptable with the understanding that the size of the park is not reduced and that the parking area for the future County Park site is secured. The 2/5/10 Zoning letter recognized that the specific (proffered) uses and general layout remain the same. In other words, the proffered amenities could still be provided with the proposed change and additional amenities could be incorporated. The modification to the layout was deemed to be in substantial conformance. A copy of the February 5, 2010 Zoning letter is attached. Because the alignment of the public road is slightly different parking may be provided both to the north and south of the road. LCPS will either construct the parking areas when Road B is constructed or provide a cash contribution toward the future construction.

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Comment 5: As stated above, Staff reviewed and commented on the first submission of STPL 2008-0047 for C.D. Smith Park on January 6, 2009. The application has since gone inactive in County review due to the current economic situation. The conceptual proposals provided in October appear to be based on the park being constructed and conveyed to the County. Should the park not be constructed and/or conveyed prior to the Applicant's need to construct either of the proposed schools, the Applicant will need to coordinate with the Owner/Developer (Two Greens/Kirkvest) to obtain the proper permission to construct the road and amenities, and to calculate the proper value of those amenities provided, versus what the Owner/Developer is required to provide per proffer requirements.

Response: At the 5/24/10 meeting the timing of the school construction versus the potential timing of the CD Smith development was reviewed along with the C.D. Smith proffer for the park site. The proffer (ZMAP 2002-0003) provides for the park to be constructed and conveyed no later than the issuance of the 300th residential zoning permit (Proffer V. A. B. 3.). The C.D. Smith rezoning is approved for 455 residential units. There is no provision in the proffers that would provide for reimbursement if LCPS were to construct the park in advance of the proffer requirement. Due to current economic conditions, it is unlikely the park would be constructed by the C.D. Smith development prior to the construction of the proposed high school, opening Fall 2012. Based on this information, it was agreed that LCPS would inquire as to whether the owners of the C.D. Smith property would be willing to dedicate the park early and construct the park improvements at a later time when development moves forward. If the park were to be dedicated early, it could be used as a passive park. In this event, LCPS would construct the parking at the park site in conjunction with the construction of Roadway B. If the park is not dedicated in advance, then LCPS would provide a cash contribution for the parking (including gates for closure). LCPS Staff contacted the owner to inquire about early dedication. The owner indicated a review would be made and a response provided in the timeframe of this SPEX application review. LCPS will also provide a "sleeve" under Relocated Route 659 for the future extension of sewer from the C.D. Smith development to the park site and bring public water to the park site, including a stub for future park use (along Roadway B).

Comment 6: The abandonment proposal for Goshen Road is discussed on Page 10 of the Applicant's Statement of Justification. PRCS has reviewed the separate abandonment application and provided referral comments in a memo dated April 6, 2010. In that memo, Staff noted that the proposed abandonment will impact two proffered PRCS park sites. On Sheet 2 of the Abandonment Exhibit Plat, MCPI # 248-17-6333 (Parcel C, Stratshire Crossing, Phase 1) is to be dedicated to Loudoun County per amended Proffer IV.B.3 of ZMAP 2003-0012. The active recreation construction and parcel conveyance shall be completed prior to the issuance of the 100th residential zoning permit for the Property. Winchester Homes is currently coordinating with PRCS Staff to commence site construction and parcel conveyance this summer (2010). PRCS requests more clarification on whether the proposed abandonment is scheduled to be completed prior to the park conveyance to the County and whether the current street dedication and prescriptive right-of-way area will be conveyed to the County to be included within the park site as well.

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Furthermore, on Sheets 3, 4 and 5 of the Abandonment Exhibit Plat, MCPI # 248-29-4046, 248-30-5519, 248-39-4888 (Two Greens/Kirkvest LLC, C.D. Smith Property) is to be dedicated to Loudoun County per Proffer V.B.3 of ZMAP 2002-0003. PRCS requests addition clarification on whether the current prescriptive right-of-way area will be included in the future conveyance from Two Greens/Kirkvest LLC to the County as part of the park site.

Response: The proposed abandonment of Goshen Road requires that Relocated Route 659 be constructed and accepted into the state system for maintenance. It is probable that the Stratshire Crossing Park will be dedicated prior to the conclusion of the abandonment process. Upon the abandonment of Goshen Road there would be .12174 acres that would revert to the land that is to be proffered to the County.

As noted above in the response to Comment 3, the abandonment of Goshen Road would result in .19853 acres reverting to the C.D. Smith parcel located on the west side of Relocated Route 659, the proffered park site. It would be logical for that land area to convey with the park.

Comment 7: On Sheets 3 and 5 of the Special Exception / Rezoning Plat, please delineate the proffered amenities to be located within the C.D. Smith park site per ZMAP 2002-0003 and STPL 2008-0047.

Response: Based upon the 5/24 meeting, the Alternative 2 park layout amenities have been added to the Plat.

Comment 8: On Sheet 5 of the Special Exception / Rezoning Plat (Pedestrian Circulation Map), Staff requests that the Applicant revise the “Off-site Extension (By Others)” of the “Proposed 10’ Multi-Use Trail” in the southeast corner of the property adjacent to the Elementary School, to be provided by the Applicant, to either connect to the future trail along the west side of Relocated Route 659, or to connect to the proffered park site at Stratshire Crossing via the future abandoned Goshen Road.

Response: There will be a 10’ multi-use trail on the east of Relocated Route 659 that will provide connection between the Stratshire Crossing park site and the C.D. Smith proffered park site. It is unknown when and whether a trail will be constructed along the west side of Relocated Route 659 as it is unknown when the second two lanes of Route 659 Relocated will be constructed. With the abandonment of Goshen Road the prescriptive right of way will revert to the respective properties. LCPS will not control the abandoned road/right-of-way.

Comment 9: On Sheet 5 of the Special Exception / Rezoning Plat (Pedestrian Circulation Map), Staff requests that the Applicant revise the proposed “Sidewalk” along Road B to provide a “Proposed 10’ Multi-Use Trail” to service the proffered park site and provide consistent connectivity with the rest of proposed adjacent trail system.

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Response: As requested, the pedestrian circulation has been revised to provide a 10' multi-use trail on the north side of Road B. Based on the 5/24/10 meeting LCPS understands that Parks and Recreation does not wish to have a sidewalk along the south side of Road B nor a sidewalk along the western frontage of the park property. Instead Parks and Recreation has asked that a connection be provided from the high school parking lot to the future trail that is to be constructed around the park pond. Please reference the SPEX Plat for the proposed connection.

Environmental Review Team

Comments dated April 20, 2010

Issues Regarding Tree Cover:

Comment 1: Staff reviewed the Forest Management Plan & Cover Type Map, prepared by Zimar & Associates, Inc., dated February 15, 2005. Cover Type I, consisting of upland hardwoods, located in the southern portion of the property, is the most desirable tree cover for preservation on the subject property. The hardwood tree stand corresponds to the proposed elementary school site. Staff recommends exploring all opportunities to preserve portions of the tree stand within the development layout, including perimeter buffers and a pocket tree save area separating the elementary school site from the high school baseball and softball fields (adjacent to the phase line). Attachment A provides an example pocket tree save area.

Response: LCPS will utilize existing trees to the extent possible within the perimeter buffers, however, the site is tight and it may not be possible. Similarly, the provision of a pocket tree save area in the proposed location will be extremely difficult. There will be grading on both sides of this small area and as a practical matter it does not work well. LCPS would rather provide trees in locations where they will have adequate room.

Comment 2: During the site visit, it was noted that larger trees within the above-referenced hardwood stand were tagged with an identification number. However, no individual tree information was provided with the Forest Management Plan & Cover Type Map report. For Cover Type 1, please identify all potential specimen trees with a diameter at breast height (DBH) of 30 inches or more on Sheet 3. Please also provide a corresponding table identifying scientific and common names, DBH, and condition rating.

Response: Subsequent to the pre-application meeting with County Staff, LCPS requested further analysis of the hardwood area in the vicinity of the elementary school site. A copy of that analysis, dated 12/15/09, is included in this resubmission.

Comment 3: Assuming the elementary school layout will not be adjusted to preserve the majority of Cover Type 1, staff recommends that the applicant recapture the loss tree canopy by committing to reforestation efforts on the subject property. Staff has identified the following two reforestation opportunities, in order of preference (see Attachment B and

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Photographs 1 and 2): 1) open floodplain immediately adjacent to the South Fork of Broad Run; and 2) open areas within the 50-foot GI Buffer, adjacent to the intermittent stream in the western portion of the property. As stated on Page 5-32 of the RGP, “riparian forests along streams provide the greatest single protection of water quality by filtering pollutants from stormwater runoff, decreasing stream bank erosion, and maintaining the physical, chemical, and biological condition of the stream environment”.

Staff recommends that the reforestation commitment specify the following: 1) the applicant shall work with the County Urban Forester on the development of the reforestation plan; 2) the reforestation plan shall be submitted to the County Urban Forester for review and approval prior to the approval of the first site plan; 3) plant material shall consist of 3-gallon containerized native trees, unless County staff determines smaller material (live stakes, bare root seedlings, etc.) is appropriate; 4) the reforestation shall be implemented prior to issuance of the first certificate of occupancy; 5) the applicant shall ensure a minimum of 80 percent of the initial planting is determined to be established after two growing seasons; 6) an annual inspection shall be conducted by the applicant and the County Urban Forester to verify establishment; and 7) if the 80 percent establishment isn’t achieved after the second growing season, a onetime planting to bring the project to full stocking shall be conducted by the applicant.

Response: In order to provide an elementary school at this location it will be necessary to remove the existing trees. LCPS appreciates the staff recognizing the critical need for school sites and suggesting alternatives for providing forest cover. LCPS will work with the County Urban Forester to develop a reforestation plan for the recommended areas and, depending on cost and budgeted funds, will reforest either of the areas as recommended.

Comment 4: To complement the protection of the eastern stream provided by the wetland preservation easement, which is mostly on the eastern side of the stream, staff recommends providing a tree save area that corresponds to the 50-foot GI Buffer on the western side of the stream. [RGP Forests, Trees, and Vegetation Policy 1 and River and Stream Corridor Policy 7]

Response: A tree save corresponding to the 50 foot GI Buffer on the western side of the stream has been incorporated into the SPEX as recommended.

Issues Regarding Water Quality

Comment 5: For the proposed bus parking area, ERT recommends installation of an oil-water separator to treat all runoff, above and beyond other best management practice (BMP) measures required. These areas are consistent with “fleet storage areas,” a hotspot use identified in FSM Section 5.320.E.1d.

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Response: An oil-water separator for the bus parking area has been incorporated as recommended. Please reference Note 25 on Sheet 1 of the SPEX plat.

Comment 6: To provide enhanced water quality protection, staff recommends that any proposed stormwater management (SWM)/BMP extended detention ponds (dry ponds) be designed as enhanced extended detention ponds (dry ponds with shallow marsh plantings). [Revised 1993 LCZO Section 6-1310(H) and RGP Surface Water Policy 5]

Response: The proposed plan has incorporated an enhanced extended detention pond as recommended. The pond is located west of the stadium.

Comment 7: Note 20 on Sheet 1 states that bioretention is proposed within the site to encourage infiltration and groundwater recharge. Please identify potential bioretention locations on Sheet 3. Staff recommends directing stormwater runoff to bioretention facilities corresponding with moderately well to well drained soils located on the property. [RGP Surface Water Policy 2]

Response: Sheet 3 of the SPEX plat has noted a bioretention facility south of the proposed high school building, to the east of the parking lot (at the southeast corner of the site) as recommended.

Comment 8: Please identify the shaded polygon depicted on Sheet 3, northwest of the high school stadium.

Response: The shaded polygon was an existing farm pond that will be removed. The shaded polygon has been removed from Sheet 3 to avoid confusion.

Comment 9: The regional SWM/BMP facility is located on-line with a jurisdictional stream, which is problematic. On-line SWM/BMP facilities are typically not permitted by the U.S. Army Corps of Engineers and Virginia Department of Environmental Quality. Staff recommends relocating the facility. [RGP River and Stream Corridor Resources Policies 11 and 23]

Response: The regional SWM/BMP facility cited was approved as a part of the Stone Ridge zoning approvals and permits have been approved by the U.S. Army Corps of Engineers and Department of Environmental Quality (DEQ).

Issues Regarding Steep Slopes

Comment 10: The steep slopes designation differs slightly from the Loudoun Geographic Information Systems (LOGIS) steep slopes layer. For clarity, please specify the basis for the steep slope designations on the plan set. [Revised 1993 LCZO Section 5-1508 and 6-407]

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Response: The steep slope information was derived from an aerial survey flown on April 6, 2004 by Air Survey with a contour interval of 2'. A note has been added to Sheet 2 (Reference Note 6).

Issues Regarding Green Building Practices

Comment 11: Staff appreciates the inclusion of sustainable design elements described in the statement of justification, consistent with Public Facilities text and General Public Facilities Policy 3 on page 3-6 of the RGP, which state that it is important that the location and design of public facilities set the highest possible standards and a positive example. With the second submittal, staff requests a benchmark analysis for Leadership in Energy and Environmental Design (LEED) for Schools, version 3 to indicate desired design outcomes for site sustainability, water efficiency, energy and atmosphere, indoor air quality, efficient materials and resources use, and innovative design. Providing the analysis will help assess where public facility design ranks vis-à-vis the LEED “silver” goal that is recommended in the December 2007 Metropolitan Washington Council of Governments green building report that was endorsed by the Board of Supervisors on April 15, 2008.

Response: LCPS will provide a comparison to the LEED requirements as soon as the design reaches a level of completion that allows for a complete description of the sustainable goals.

Comment 12: ERT commends Loudoun County Public Schools for earning Energy Star “Partner of the Year” for 2009 and deeply respects the effective public outreach that school staff is performing on energy conservation.

Response: Thank you

Dept. of Fire & Rescue Comments dated April 23, 2010

The Department of Fire and Rescue provided response times for the proposed schools. No Response necessary.

General Services Comments dated March 22, 2010

Comment: DGS has reviewed the above referenced proposal and because the stormwater management concept is incomplete we reserve our comments until it is completed.

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Response: DGS will have the opportunity to review the stormwater management plans as a part of the engineered site plan.

Health Department
Comments dated March 23, 2010

Comment 1: Ensure all the proposed lots and structures are properly served by public water and public sewer

Response: Acknowledged.

Comment 2: Ensure all existing wells and drainfields are shown on future plats.

Response: Acknowledged.

Comment 3: All existing wells and drainfields are properly abandoned (Health Department permit required) prior to grading, submission of record plat or razing the structure, whichever is first.

Response: LCPS will work with the Health Department to properly abandon wells and drainfields. LCPS would like to work with the Health Department to maintain one to two wells on the property for construction and irrigation purposes.

Loudoun Water
Comments dated April 27, 2010

Comment 1: Show conceptual layout of proposed water and sanitary sewer facilities.

Response: An additional sheet has been added to the SPEX plat to show the conceptual layout of the proposed water and sanitary sewer facilities. Please reference Sheet 6 of the SPEX plat.

Comment 2: Show location of existing water and sanitary sewer facilities.

Response: Please reference Sheet 6 of the SPEX plat.

Comment 3: Note on the plat that a 24" water main shall be constructed along Relocated Route 659 between Braddock Road (Route 620) and Tall Cedars Parkway. Show location of 24" water main on plat. Water service to this site is dependent upon extension of the Route 659 water main.

Response: Please reference Sheet 6 of the SPEX plat.

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Comment 4: Extend water and sanitary sewer lines and associated easements to adjacent properties as required.

Response: Sheet 6 of the SPEX plat depicts the proposed water and sewer lines. Please advise if there are extensions needed beyond what has been provided.

Comment 5: Should off-site easement be required to extend public water and/or sanitary sewer to this site, the applicant shall be responsible for acquiring such easements and dedicating them to Loudoun Water at no cost to Loudoun Water.

Response: Acknowledged.

Community Planning

Comments dated April 20, 2010

River & Stream Corridor Resources:

Comment 1: For the perennial stream near the intersection of Road "A" and Route 659 Relocated, staff recommends that the applicant use a stream crossing that protects the integrity of the streambed.

Response: Stone Ridge (Van Metre Companines) will be constructing the portion of Road A between Relocated Route 659 and the first residential street in Landbay 1 to the north of the school site.

Forest Resources

Comment 2: The preservation of existing vegetation in the proposed Tree Save Areas and the Green Infrastructure Area is consistent with the rural character envisioned in the Plan for developments in the Transition Policy Area. Staff recommends that the Tree Save Area be augmented with other forested areas, including the area east of the high school and the associated Physical Education Field, and the side and rear elementary school buffers.

Response: The SPEX Plat has been revised to incorporate a tree save within the 50 foot green infrastructure buffer to the east of the high school and the physical education field. While LCPS will endeavor to utilize existing trees as a part of the elementary school side and rear buffers the site is tight and it may not be possible. However, the side and rear buffers at the elementary school will be enhanced to incorporate additional evergreen tree plantings.

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Comment 3: Staff recommends that the applicant consider the replacement of the impacted forest resources within other portions of the Special Exception area, including the floodplain, other cleared areas within the Green Infrastructure Area, the proposed 50-foot Green Infrastructure Buffer, and buffer yards using indigenous plants. The applicant should coordinate with the County Urban Forester regarding these measures.

Response: LCPS will work with the County Urban Forester to develop a reforestation plan for other portions of the site. Please reference ERT Comment Response #3.

Comment 4: Staff further recommends a commitment to a long-term maintenance plan and forestry best management practices, including the removal of invasive species.

Response: On Sheet 3 of the SPEX under the Tree Save Narrative, there is a commitment to a long-term maintenance plan and forestry best management practices. Specifically:

After construction has been completed by the applicant, forest management techniques, performed by or recommended by a professional forester or certified arborist, that are necessary to protect or enhance the viability of the canopy may be undertaken. Such management techniques may include, without limitation, pruning and the removal of vines, invasive species, trees uprooted or damaged by extreme weather conditions, and trees or limbs that are diseased, insect-infested, dead or are considered a hazard to life or property. The site plan for each phase of the property containing a tree save area shall contain a note stating that the removal of trees within a tree save area is prohibited except in accordance with the provisions outlined in this note.

Comment 5: Staff recommends that the applicant specify the tree protection measures to be taken during construction to protect the surrounding vegetation from any direct physical damage or from indirect impacts, including soil compaction.

Response: A note has been added to the SPEX plat which outlines the tree protection measures to be undertaken during construction. Specifically:

Tree Conservation Areas shall be protected during construction by fencing, a minimum of four feet in height, placed at the limits of clearing and grading or at the drip line of the Tree Conservation Area, whichever is greater. Such fencing shall be installed prior to any land disturbing activity being conducted on any adjacent area, and shall be clearly visible to all construction personnel. The fencing shall be maintained throughout construction. A temporary sign stating "Tree Conservation Area-Do Not Disturb" [written in both English and Spanish] shall be posted so as to be clearly visible to on-site construction personnel.

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Historic and Archaeological Resources

Comment 6: Reference is made to the Staff Evaluation of historic and archaeological resources, attached to the Community Planning Referral. The evaluation dated April 19, 2010, concurs with the recommendations contained in the consolidated Phase I Archaeological Report prepared by Thunderbird Archeology dated December 2009. No mitigation of resources is warranted.

Response: No response necessary.

Building Scale And Form

Comment 7: Because the school buildings are longer than 150' in length, they do not meet County policies regarding the length of non-residential uses within the Transition Area. However, staff notes that the applicant has broken up several large building segments into smaller segments through the use of fenestration and setbacks. Staff recommends that views of the largest continuous surfaces be filtered through the use of nearby plantings.

Response: A type 2 buffer will be provided along Road A that will serve to complement the building. Along the eastern boundary of the site is the adjacent (off-site) wooded wetlands area and the on-site 50 foot green infrastructure/tree save buffer. To the west of the bus parking area, trees will be added for an internal filter to the building. Finally to the south of the parking lot, between the park and the school a landscape berm will be incorporated into the site layout.

Comment 8: Staff recommends that plantings be placed throughout the site, particularly shade trees and large shrubs, to help screen and soften views of buildings from roads, enhance the visual quality of the project, provide students, employees, and users of the facilities with open space, mitigate environmental impacts, allow the incorporation of indigenous vegetation into the project, and provide wildlife habitat.

Response: The site will be landscaped in accord with the County's landscape/buffering requirements including at the boundaries of the site and within the parking lots. In addition, certain locations will be enhanced such as the recommended landscaped berm south of the parking lot, the additional trees to the west of the bus parking lot, and the side and rear buffers of the elementary school as depicted on the SPEX Plat. In addition, an enhanced landscape plan will be prepared for the area to the north of the bus loop along Road A. Please Reference SPEX Plat, Sheet 3 notes.

Comment 9: Staff recommends that the applicant commit to the use of the depicted architectural treatments to ensure compatibility with the surrounding uses.

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Response: The High School building design shall avoid the use of continuous plane building surfaces and wherever practicable break up large building segments into smaller segments through the use of fenestration and setbacks. Building design will incorporate features to provide an aesthetic appearance including windows similar to residential construction and accent materials to provide interest in color and texture.

Parking

Comment 10: Staff recommends that parking surfaces be interspersed with tree plantings and other on-site landscape materials to prevent the creation of large continuous paved surfaces. Staff also recommends that the applicant pay special attention to views of parking areas from the adjacent uses and consider depressing the parking areas and/or screening them with berms to reduce their visual impact. The applicant should consider the use of a short berm to block the view of the southern high school parking lot from the adjacent proposed parkland.

Response: The parking areas will be interspersed with landscaping to prevent the creation of large paved surfaces. To the east of the high school is an off-site wetlands preservation area. LCPS has committed to saving the existing trees within a 50 foot green infrastructure buffer to the west of the wetlands preservation area. This combination will screen the school and parking areas from Relocated Route 659. To the north, along Road A, a type 2 front buffer will be provided and an enhanced landscape planting will be provided along Road A to the north of the bus loop. As noted above, the recommended landscape berm will be incorporated south of the high school parking lot.

Buffering

Comment 11: Staff recommends that the applicant commit to a landscape plan with special attention to the project's visual impact. Staff recommends that the plants frame front views of the schools, filter views of utility and parking areas, and be repeated throughout the school campus. The applicant should commit to the landscaping and buffering, a long-term maintenance plan, and the use of indigenous species for most or all of the plantings. Staff also recommends that the applicant consult with the County Arborist for plants indigenous to the area for use in the planting enhancement areas. Plantings should not be limited to external buffers, but should flow smoothly from external buffers into adjacent internal planting spaces.

Response: Please refer to Comment Responses #2, 3, 4, 7, 8 and 10 above and ERT Comment Responses #3 and 4. LCPS will work with the County Forester to utilize indigenous species for most or all of the plantings.

Stormwater Management

Comment 12: Staff recommends water treatment measures that mimic the pre-development conditions of the site, mitigate impacts to the watershed, and treat the stormwater runoff as an amenity, visible to students, employees, and visitors. The applicant should consider various site measures, such as permeable pavers, porous concrete, cisterns, planted swales, curb cuts, rain gardens, and bioretention filters adjacent to impervious areas, to promote infiltration on-site, minimize peak storm flows, and help filter non-point source pollutants. Pipe installation should be minimized. Staff recommends that stormwater management techniques provide efficient pollutant removal, that existing drainage patterns and hydrology to wetlands be maintained, and that low impact development (LID) techniques such as bioretention and sheet flow to vegetated buffer areas be implemented.

Response: Stormwater management for the site will be provided in accordance with the Virginia Stormwater Management Handbook as required by state permitting requirements. It is anticipated that these facilities will provide pollutant removal efficiencies of 50% or more, which exceeds minimum standards. Drainage patterns will be honored to the extent permitted by grading constraints associated athletic field and school construction. LID measures anticipated include bioretention and vegetative swales. Facilities anticipated for the site are as follows: A) A retention basin (wet pond) is planned to be constructed offsite as a regional facility in conjunction with the Stone Ridge development. This offsite facility allows the school project to avoid disturbance within the wetland conservation area to the east of the school site and has the opportunity to serve as an amenity to the community. B) A bioretention filter is planned to be located at the southeast corner of the site. This facility will, along with a vegetative swale along the southeast boundary, permit runoff to flow through vegetated areas prior to being treated by the facility. This facility will permit storm sewer piping to be reduced and provides an opportunity to serve as an amenity to the students, staff, and visitors. It also will allow adequate recharge of wetlands within the wetland preservation area to the east of the site. C) A vegetative marsh enhanced SWM facility (enhanced extended detention) is planned to treat runoff from the stadium complex and elementary school at the west side of the site. This facility will be located 'offline' preserving existing wetlands, and will provide pollutant removal efficiency in excess of what would normally be required.

Efficiency

Comment 13: Staff recommends that the applicant specify and commit to the sustainable design measures to be incorporated into the project site and building.

Response: LCPS is committed to the incorporation of sustainable design measures for both the site and building. LCPS will provide a comparison to the LEED requirements to the County as soon as the design reaches a level of completion that allows for a complete description of the sustainable goals.

Bicycle & Pedestrian Accommodations

Comment 14: In addition to the facilities depicted on the Pedestrian Circulation Map, staff recommends that the applicant commit to the following facilities:

- A sidewalk on the east side of the internal loop road to the south and east of the proposed high school;
- A sidewalk on the south side of Road “B” along with two additional crosswalks at the Route 659 Relocated/Road “B” intersection and one additional crosswalk at the north-south internal road/Road “B” intersection; and
- An additional sidewalk on the east side of the north-south internal road opposite the high school softball field.

Response: The following responses are offered regarding the pedestrian circulation plan:

- Placing a sidewalk on the east side of the internal loop road to the south and east of the proposed high school would require clearing closer to the wetlands area and the recommended tree save area located within the 50 foot green infrastructure buffer. The sidewalk along the west side of the internal loop road will provide adequate pedestrian access for the proposed facilities.
- On 5/24 LCPS met with Parks and Recreation staff who asked that the sidewalk that had been proposed on the north side of Road B be changed to a multi-use trail. Further, Parks and Recreation staff advised that they did not want a sidewalk on the south side of Road B nor on the west side of the park. An alternative pedestrian connection was requested to connect the high school parking lot to the future trail that is to be constructed around the pond located on the park site. These changes have been incorporated into the SPEX Plat.

Comment 15: Staff recommends that all bicycle and pedestrian facilities be constructed in accordance with County policies, AASHTO, and ADA.

Response: Bicycle and pedestrian facilities will be constructed in accordance with county policies, AASHTO and ADA.

Lighting & Signage

Comment 16: Staff recommends that the applicant commit to lighting that is downward directed, is fully shielded, provides a glare-free environment, is confined to the site, and has illumination levels that are no greater than necessary for a light’s intended purpose. All lighting should be designed to preclude light trespass onto adjoining properties, glare to passersby, skyglow, and deterioration of the nighttime environment.

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Response: Lighting shall be cut-off and fully shielded and directed downwards and into the interior of the Property and away from surrounding public roads and properties. Lighting shall meet the performance standards of Section 5-1504 of the Zoning Ordinance.

Comment 17: Staff also encourages the applicant to provide signage that will alert people to the presence of significant environmental features, such as the Tree Save Area, wetlands, and floodplain. The signs should also include interpretive information regarding the natural significance of the area, particularly along pedestrian pathways.

Response: Signage will be incorporated into the site to identify significant environmental features including Tree Save Areas, wetlands and the floodplain. Interpretive information regarding the natural significance of the area will be included in the signage.

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JUN - 9 2010

LOUDOUN COUNTY

**HS-7 Dulles South High School and
Elementary School, Goshen Road Assemblage
BCG Job #: 5185-01-002**

TREE COVER EVALUATION – SOUTHERN PORTION OF SITE

Inventory Location

Inventory was conducted on the southern portion of the Goshen Assemblage site, to include entire Frances L Hall parcel (MCPI # 249-38-2718) and the majority of the Doris Mae Larsen parcel (MCPI # 248-37-9637), located on the west side of Goshen Road (Route 616) between John Mosby Highway (Route 50) and Braddock Road (Route 620).

Inventory Area

15 acres (+/-)

Topography

Level to gently sloping

Inventory Procedure

A one hundred percent (100%) inventory was taken of all deciduous trees that measured a minimum of twenty-two inches (22") in diameter and conifers that measured a minimum of fourteen inches (14") in diameter at 4.5 feet above ground level. Each tree was tagged with a specific number and the diameter, species, and crown width of each specimen was recorded. Any unique descriptive features were also noted, as appropriate. The inventory was completed on December 14, 2009.

Insect/Disease

Little to no insect or disease damage found within the inventory area. Where damage was detected, it was on over mature declining specimens.

Understory Description

Sparsely stocked with Hickory (*Carya* sp.), Eastern Red Cedar (*Juniperus virginiana*), mixed Oak (*Quercus* sp.), Black Gum (*Nyssa sylvatica*) and Black Cherry (*Prunus serotina*). The understory consists of mostly stems ranging in diameter from approximately two inches (2") to ten inches (10").

Stand Description

This stand is an over mature stand consisting primarily of Oak (*Quercus* sp.) and Virginia Pine (*Pinus virginiana*). Of the specimens measured in this study, the stand is comprised with approximately seventy five percent (75%) Oak species (*Quercus* sp.), twenty three percent (23%) Virginia Pine (*Pinus virginiana*) and two percent (2%) Hickory (*Carya* sp.). The majority of the species ranging in diameter from twelve inches (12") to twenty inches (20") consist mainly of Oak (*Quercus* sp.) with a few scattered Hickory (*Carya* sp.) and Virginia Pine (*Pinus*

virginiana). The canopy is closed, and is receding due to the age and decline of the canopy species. No heritage or monarch trees were found within the surveyed area. The specimen trees, with a diameter of thirty inches (30") or greater, were found to be in various stages of decline.

Stand Evaluation

Overall, the stand was found to be generally healthy and free of insect damage. The majority of the larger trees, twenty six inches (26") and greater, are in various stages of decline, whereas the smaller trees seem to be healthy and somewhat vigorous. The under story is sparsely stocked with little to no underbrush, this is likely a result of the combination of the closed canopy and damage from over browsing.

Narrative Prepared by: Brian Gainer, ISA Certified Arborist MA-4808A

Tree #	Common Name Identification	Scientific Name Identification	DBH - Inches	Dripline - Diameter in Feet	Area of Root System	Comments
701	Black Oak	Quercus velutina	24	36	2290	Double @ 3' (18" broken off-dead)
702	Virginia Pine	Pinus virginiana	16	22	855	
703	Virginia Pine	Pinus virginiana	14	18	572	One sided crown
704	Virginia Pine	Pinus virginiana	14	18	572	
705	Pin Oak	Quercus palustris	22	26	1194	
706	Virginia Pine	Pinus virginiana	20	30	1590	
707	Black Oak	Quercus velutina	30	30	1590	Receding crown, Open areas of decay
708	Virginia Pine	Pinus virginiana	18	20	707	Insect damage, Fence line
709	Virginia Pine	Pinus virginiana	18	20	707	Insect damage
710	White Oak	Quercus alba	32	38	2551	Receding crown
711	Virginia Pine	Pinus virginiana	18	24	1018	
712	Black Oak	Quercus velutina	22	28	1385	Receding crown
713	Black Oak	Quercus velutina	24	30	1590	
714	Black Oak	Quercus velutina	24	32	1809	
715	Black Oak	Quercus velutina	28	40	2827	Receding crown, Open areas of decay
716	Virginia Pine	Pinus virginiana	20	22	855	
717	Virginia Pine	Pinus virginiana	18	20	707	
718	Virginia Pine	Pinus virginiana	16	20	707	
719	Virginia Pine	Pinus virginiana	16	18	572	Open areas of decay
720	White Oak	Quercus alba	24	36	2290	Receding crown, Open areas of decay
721	White Oak	Quercus alba	38	42	3117	Receding crown, Open areas of decay, Insect damage
722	Virginia Pine	Pinus virginiana	14	18	572	
723	Virginia Pine	Pinus virginiana	16	22	855	
724	Virginia Pine	Pinus virginiana	20	24	1018	
725	Virginia Pine	Pinus virginiana	22	28	1385	
726	White Oak	Quercus alba	28	42	3117	Receding crown
727	Black Oak	Quercus velutina	28	32	1809	Receding crown, Open areas of decay
728	Black Oak	Quercus velutina	28	36	2290	
729	Black Oak	Quercus velutina	36	48	4071	Receding crown, Open areas of decay
730	Black Oak	Quercus velutina	28	38	2551	
731	Black Oak	Quercus velutina	30	38	2551	Receding crown, Stress cracks
732	White Oak	Quercus alba	32	50	4417	
733	White Oak	Quercus alba	24	34	2043	
734	Black Oak	Quercus velutina	28	34	2043	Receding crown
735	White Oak	Quercus alba	24	30	1590	
736	Black Oak	Quercus velutina	26	32	1809	
737	Black Oak	Quercus velutina	26	30	1590	Open areas of decay
738	White Oak	Quercus alba	26	34	2043	Receding crown, Open areas of decay

739	Black Oak	Quercus velutina	22	28	1385	
740	Virginia Pine	Pinus virginiana	14	24	1018	
741	Virginia Pine	Pinus virginiana	18	28	1385	
742	Virginia Pine	Pinus virginiana	14	20	707	Fenciline
743	Virginia Pine	Pinus virginiana	16	22	855	
744	White Oak	Quercus alba	28	44	3421	
745	White Oak	Quercus alba	22	32	1809	
746	White Oak	Quercus alba	26	32	1809	
747	White Oak	Quercus alba	26	30	1590	
748	White Oak	Quercus alba	22	30	1590	
749	Virginia Pine	Pinus virginiana	16	22	855	
750	Virginia Pine	Pinus virginiana	16	22	855	
751	Black Oak	Quercus velutina	26	32	1809	
752	Virginia Pine	Pinus virginiana	14	22	855	
753	White Oak	Quercus alba	38	34	2043	Forks @ 5', Receding crown, Open areas of decay, Insect damage
754	Black Oak	Quercus velutina	24	30	1590	
755	White Oak	Quercus alba	24	28	1385	Fork @ 6', Receding crown, Open areas of decay, Insect damage
756	White Oak	Quercus alba	24	34	2043	
757	Black Oak	Quercus velutina	40	42	3117	Forks @ 8', Receding crown
758	Hickory	Carya species	22	30	1590	
759	White Oak	Quercus alba	26	34	2043	
760	White Oak	Quercus alba	34	40	2827	Forks @ 5', Receding crown
761	White Oak	Quercus alba	22	32	1809	Receding crown
762	White Oak	Quercus alba	24	34	2043	Double @ 2' (12")
763	White Oak	Quercus alba	22	28	1385	Receding crown
764	Black Oak	Quercus velutina	36	36	2290	Forks @ 5'
765	Black Oak	Quercus velutina	26	36	2290	
766	Black Oak	Quercus velutina	26	30	1590	
767	White Oak	Quercus alba	26	30	1590	Open areas of decay
768	White Oak	Quercus alba	22	34	2043	Open areas of decay, Hollow
769	White Oak	Quercus alba	22	30	1590	Open areas of decay
770	Virginia Pine	Pinus virginiana	16	24	1018	
771	Virginia Pine	Pinus virginiana	14	18	572	
772	Virginia Pine	Pinus virginiana	14	20	707	
773	White Oak	Quercus alba	30	50	4417	Receding crown
774	White Oak	Quercus alba	26	36	2290	
775	Black Oak	Quercus velutina	28	32	1809	Receding crown
776	White Oak	Quercus alba	38	46	3739	Receding crown
777	Black Oak	Quercus velutina	22	28	1385	Receding crown
778	White Oak	Quercus alba	30	36	2290	Receding crown, Open areas of decay
779	White Oak	Quercus alba	28	34	2043	Receding crown, Open areas of decay
780	White Oak	Quercus alba	40	48	4071	Forks @ 5', Receding crown, Open areas of decay

781	White Oak	Quercus alba	28	40	2827	Poor form, Stress crack
782	White Oak	Quercus alba	22	32	1809	
783	White Oak	Quercus alba	34	34	2043	Forks @ 5'
784	White Oak	Quercus alba	24	32	1809	
785	White Oak	Quercus alba	22	34	2043	
786	White Oak	Quercus alba	24	34	2043	Receding crown, Open areas of decay
787	White Oak	Quercus alba	22	30	1590	
788	White Oak	Quercus alba	26	30	1590	Forks @ 7'
789	Black Oak	Quercus velutina	28	38	2551	
790	Black Oak	Quercus velutina	24	34	2043	
791	White Oak	Quercus alba	32	32	1809	Forks @ 7'
792	Black Oak	Quercus velutina	24	36	2290	Open areas of decay
793	Black Oak	Quercus velutina	32	38	2551	Fenceline
794	Black Oak	Quercus velutina	24	38	2551	
795	White Oak	Quercus alba	30	50	4417	
796	White Oak	Quercus alba	26	36	2290	Double @ 4' (dead), Open areas of decay
797	White Oak	Quercus alba	28	32	1809	Forks @ 5'
798	White Oak	Quercus alba	32	40	2827	Forks @ 7'
799	White Oak	Quercus alba	22	34	2043	
800	White Oak	Quercus alba	26	32	1809	
801	White Oak	Quercus alba	32	30	1590	Open areas of decay
802	Black Oak	Quercus velutina	22	28	1385	Receding crown, Open areas of decay
803	Black Oak	Quercus velutina	22	28	1385	
804	White Oak	Quercus alba	22	32	1809	Fenceline
805	White Oak	Quercus alba	22	30	1590	Open areas of decay
806	White Oak	Quercus alba	24	32	1809	
807	White Oak	Quercus alba	22	28	1385	
808	White Oak	Quercus alba	28	28	1385	Forks @ 7'
809	Black Oak	Quercus velutina	22	36	2290	
810	Black Oak	Quercus velutina	22	34	2043	
811	Black Oak	Quercus velutina	22	24	1018	Double @ ground level (20")
812	Black Oak	Quercus velutina	28	36	2290	
813	Black Oak	Quercus velutina	30	42	3117	
814	White Oak	Quercus alba	28	38	2551	
815	White Oak	Quercus alba	24	32	1809	
816	Black Oak	Quercus velutina	22	28	1385	
817	White Oak	Quercus alba	22	32	1809	
818	Black Oak	Quercus velutina	24	32	1809	Receding crown, Open areas of decay
819	White Oak	Quercus alba	30	28	1385	Receding crown, Open areas of decay
820	White Oak	Quercus alba	24	34	2043	Double @ ground level (20"), Forks @ 6'
821	Black Oak	Quercus velutina	42	46	3739	Receding crown, Open areas of decay
822	White Oak	Quercus alba	26	38	2551	Forks @ 7'

823	Hickory	Carya species	22	28	1385	Forks @ 7', Insect damage
824	Black Oak	Quercus velutina	28	30	1590	Receding crown, Open areas of decay
825	Black Oak	Quercus velutina	22	30	1590	
826	White Oak	Quercus alba	22	32	1809	Double @ ground level (10')
827	Black Oak	Quercus velutina	24	30	1590	Receding crown, Open areas of decay
828	White Oak	Quercus alba	22	30	1590	Triple @ Ground level (8", 20"), Receding crown, Insect damage
829	Hickory	Carya species	24	32	1809	
830	Black Oak	Quercus velutina	22	30	1590	Receding crown
831	White Oak	Quercus alba	28	46	3739	Receding crown, Open areas of decay, Insect damage
832	Virginia Pine	Pinus virginiana	16	24	1018	Open areas of decay
833	Virginia Pine	Pinus virginiana	14	26	1194	
834	Virginia Pine	Pinus virginiana	14	22	855	
835	Virginia Pine	Pinus virginiana	16	24	1018	
836	Hickory	Carya species	22	26	1194	
837	Black Oak	Quercus velutina	32	32	1809	Receding crown
838	Virginia Pine	Pinus virginiana	18	24	1018	Open areas of decay
839	White Oak	Quercus alba	28	34	2043	
840	Black Oak	Quercus velutina	30	48	4071	
841	White Oak	Quercus alba	28	42	3117	
842	Virginia Pine	Pinus virginiana	14	18	572	
843	Virginia Pine	Pinus virginiana	14	20	707	
844	Virginia Pine	Pinus virginiana	16	20	707	



 12-15-09

Evaluated by: Brian Gainer ISA Certified Arborist MA-4808A



MEMORANDUM

TO: John Bassett
Marchant Schneider

CC: Sam Adamo
Sara Howard-O'Brien

FROM: Christopher M. Tacinelli
Tushar A. Awar

VDOT
Loudoun County OTS

Loudoun County Public Schools
Loudoun County Public Schools



DATE: June 9, 2010

SUBJECT: Response to Comments for Loudoun County Public Schools
HS-7 Dulles South High School and Elementary School, Goshen Road Assemblage
(1st Submission) Loudoun County Plan Number ZMAP 2010-0001 and SPEX 2010-0003

This document addresses the comments received from VDOT for the traffic impact analysis prepared for Loudoun County Public Schools HS-7 Dulles South High School and Elementary School, Goshen Road Assemblage (1st Submission), Loudoun County Plan Number ZMAP 2010-0001 and SPEX 2010-0003 in Loudoun County, Virginia. Each comment is presented in *italics* with the response in **bold** immediately following.

COMMENTS:

1) *Please provide Level of Service (LOS) by lane group in both tables and figures.*

Comment acknowledged. The revised report dated June 9, 2010 provides Level of Service (LOS) by lane group in both tables and figures.

2) *Page 63, Figure 27; site generated traffic volume (in and out of the site) does not match with the trip generated (e.g. AM traffic out of the site is $128+30+37+0+17 = 212$, but trip generated is only 158) Even though the number used is more than trips generated but please verify and justify. Also, provide an example how the Figures 28-31 (page 64-67) were generated. The example should involve data as well as referenced table/figure #s.*

There were two separate trip generation scenarios analyzed under future conditions (2015) with the proposed elementary school and high school in place. One scenario

- 3) *Background developments; Background developments used in the report (page 21, page 43 etc) does not match as provided in the scoping documents. Also, background development # 13 on page # 21 does not match on page 22 (Figure 7) and an additional background development # 14 is shown on page 22 (Figure 7).*

After the scoping meeting was held, the exact locations and designations (names) of these developments were verified. In this process, the background development locations and names for a couple of developments were changed with the most updated information.

Background development #13 on page #21 was shown as background development #14 on page 22 (Figure 7). This was a typographical error and has been corrected in the revised traffic study.

Per Loudoun County staff's request, after the scoping meeting, an additional background development, Arcola Center, was added to the analysis. Traffic generated by the additional background development (Arcola Center) shown in Figure 7 was considered as part of the background traffic for the future without development conditions (2015) only. Two separate maps showing locations of the approved developments for both 2012 (Figure 7) and 2015 (Figure 21) are included in the revised traffic study.

- 4) *Page 23, Figure 8, intersection # 1; Westbound through AM peak volume is shown as 451 and 384 used in synchro analysis. Also, page 35, Figure 14, intersection # 7; Eastbound AM peak through volume is shown as 19 and used 19 in synchro. Should it not be 9? Please verify and correct accordingly.*

The westbound AM peak through volume at intersection #1 should be 384 trips and not 451. The previously submitted Synchro files and capacity analysis are correct. The typographical error in Figure 8 has been corrected in the revised traffic study.

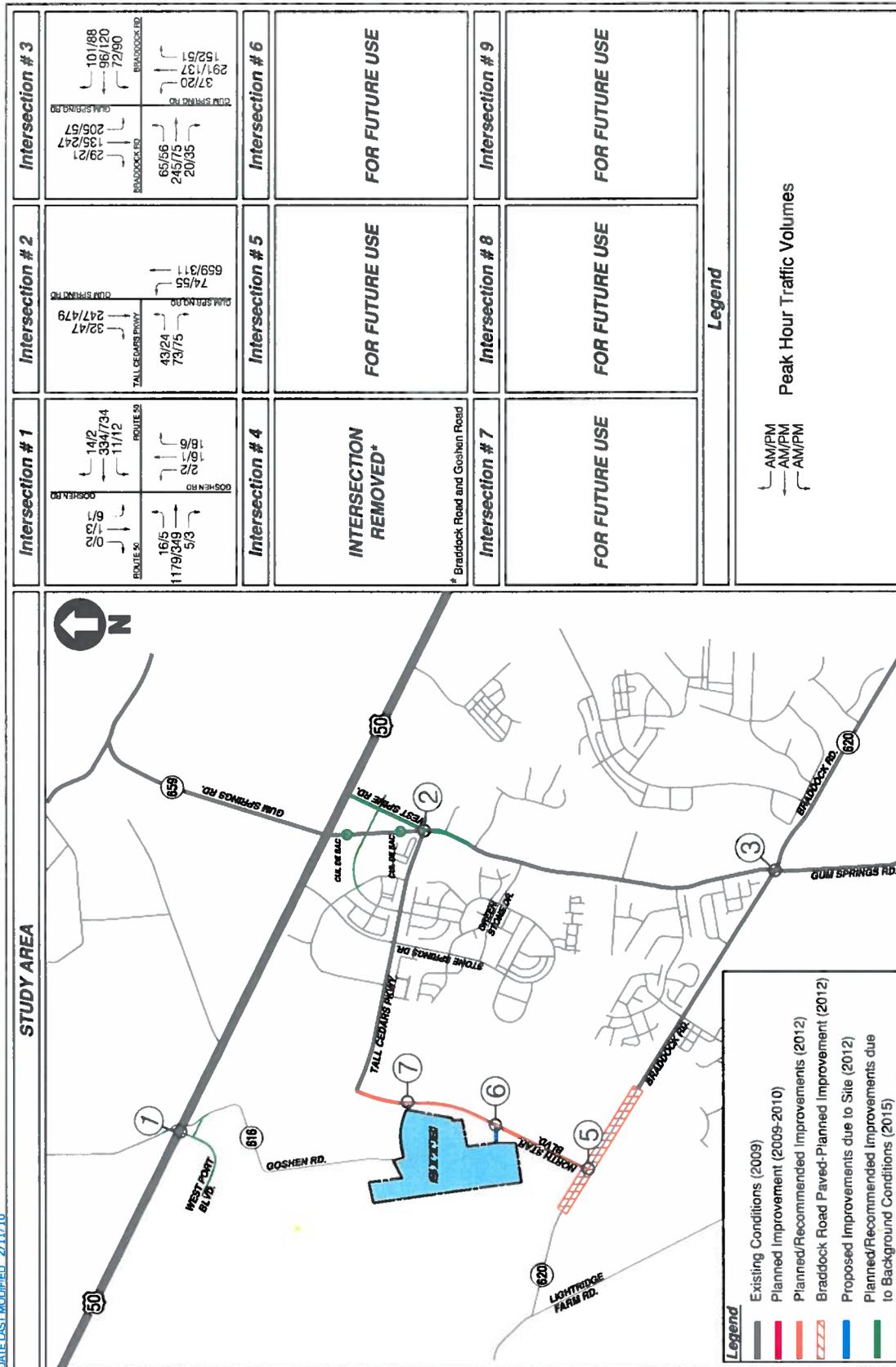
The eastbound AM peak right turn volume at intersection #7 (Figure 14) should be 19 and not 9. The eastbound AM peak right turn volume at intersection #7 (Figure 12, page 33) should be 19 and not 9. This was a typographical error and has been corrected in the revised traffic study.

Comment acknowledged. LCPS is willing to provide for future signal warrant analysis and fund future signals if warranted. This should be addressed as a part of the Special Exception.

11) This study has assumed 8% heavy truck on US 50 where VDOT's license plate survey (conducted in June 2008) showed 13% heavy truck for the same location on US 50. Please make the adjustment and re-evaluate the impact.

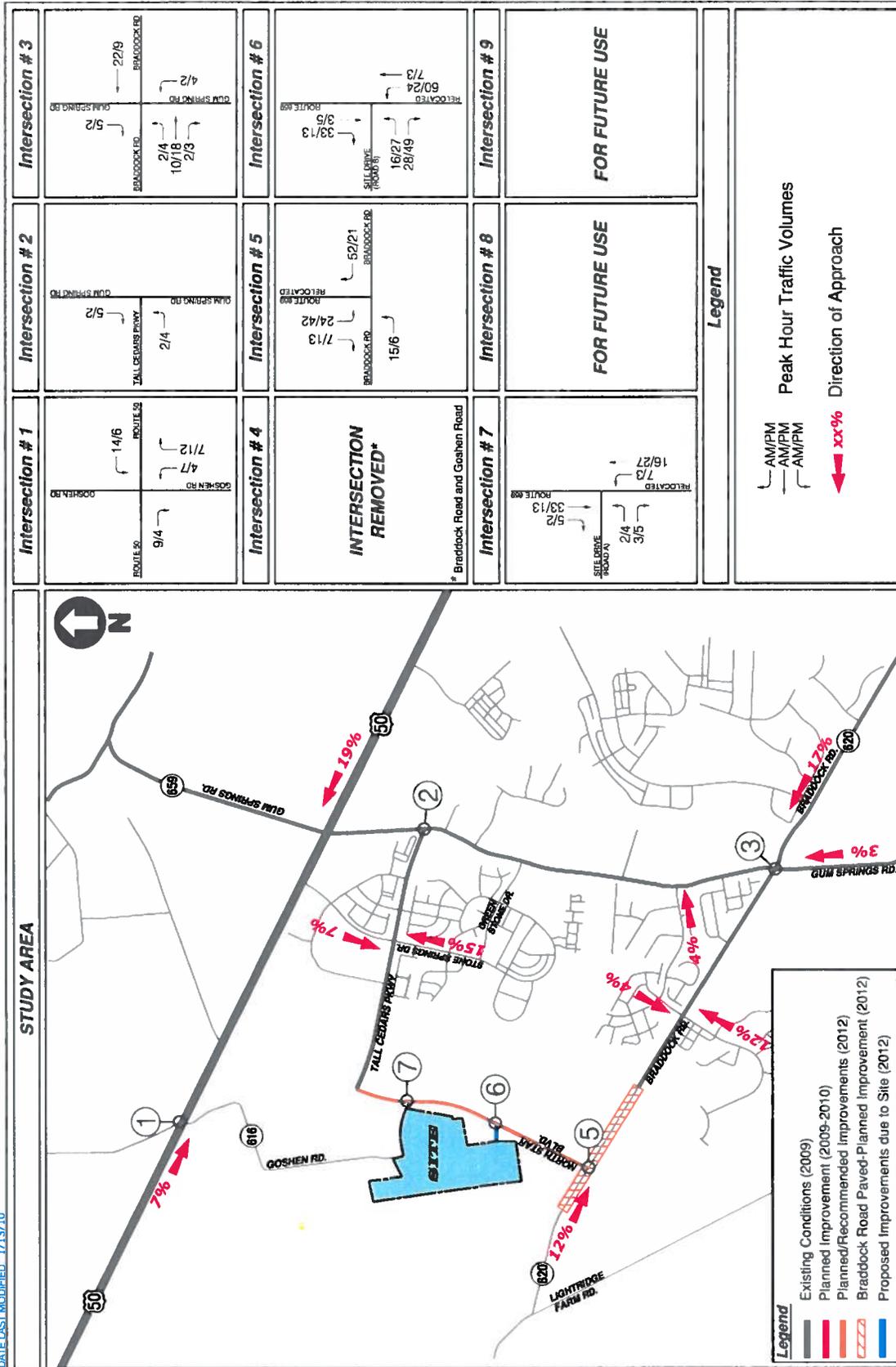
Comment acknowledged. The Synchro files were updated to reflect this change. The results are included in the revised report.

Appendix A: Figures



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Figure 2
Existing Traffic Volumes + Inherent Growth (2015)
Elementary School Peak Hour (7:00 AM to 8:00 AM and 2:15 PM to 3:15 PM)



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Figure 4
Site Generated Traffic Volumes and Direction of Approach (2015)-High School Elementary School Peak Hour (7:00 AM to 8:00 AM and 2:15 PM to 3:15 PM)
Alternative 1: Mixed Feed

Weekly Average	Daily Average	Time	Potomac Falls HS	Freedom HS	Loudoun County HS
1	4	12:00 AM	0	0	13
0	0	12:15 AM	0	0	0
0	0	12:30 AM	0	0	0
0	0	12:45 AM	0	0	0
1	0	01:00 AM	0	0	0
0	1	01:15 AM	0	3	0
0	0	01:30 AM	0	0	0
0	0	01:45 AM	0	0	0
0	0	02:00 AM	0	0	0
0	0	02:15 AM	0	0	0
0	0	02:30 AM	0	0	1
0	0	02:45 AM	0	0	0
0	0	03:00 AM	0	0	0
0	0	03:15 AM	0	0	0
0	0	03:30 AM	0	0	0
0	0	03:45 AM	0	0	0
0	0	04:00 AM	1	0	0
0	0	04:15 AM	1	0	0
1	2	04:30 AM	2	2	1
1	1	04:45 AM	3	1	0
2	1	05:00 AM	1	1	1
1	0	05:15 AM	0	0	0
2	2	05:30 AM	1	4	0
4	3	05:45 AM	6	2	0
5	3	06:00 AM	5	3	0
10	10	06:15 AM	5	14	12
10	13	06:30 AM	17	15	7
22	21	06:45 AM	22	29	13
28	38	07:00 AM	39	41	33
35	60	07:15 AM	35	51	94
41	63	07:30 AM	36	69	84
66	88	07:45 AM	91	90	84
101	140	08:00 AM	156	142	123
128	168	08:15 AM	181	183	141
220	276	08:30 AM	272	281	274
295	363	08:45 AM	367	325	397
64	77	09:00 AM	66	76	90
21	20	09:15 AM	19	13	28
16	17	09:30 AM	15	18	19
17	20	09:45 AM	26	16	17
13	13	10:00 AM	10	11	17
16	15	10:15 AM	16	13	17
23	25	10:30 AM	23	18	33
18	21	10:45 AM	15	16	31
18	23	11:00 AM	25	25	20
15	20	11:15 AM	10	16	33
17	20	11:30 AM	18	21	20
17	24	11:45 AM	19	17	35

Note: The Elementary School Peak Hours are from 7:00AM to 8:00 AM and are highlighted in yellow
The High School Peak Hours are from 8:00AM to 9:00 AM and are highlighted in green

Average Trips Generated by High School from 8:00AM to 9:00 AM = 745
Average Trips Generated by High School from 7:00AM to 8:00 AM = 171

Percentage of High School Traffic During Elementary School Peak Hours (AM) = 23%



LANDTRACK INFORMATION SHEET

This sheet is a summary of information relating to a submission made in accordance with the requirements of the Traffic Impact Analysis Regulations (24 VAC 30-155).

Submission Details

Project Name	Lo.Co. School Board: HS7/ES	Locality's Project ID	ZMAP 2010-0001
VDOT District	Northern Virginia	Jurisdiction	Loudoun County
Locality Contact	Wini Polis	TIA Preparer	Gorove/Slade Associates, Inc

Location

Route Number	Street Name	Principal Rte	ADT
620	Braddock Road	<input checked="" type="checkbox"/>	2800
659	Gum Springs Road	<input checked="" type="checkbox"/>	5800
		<input type="checkbox"/>	

Site Details

Submission Type	Zoning TIA Review	Chapter 527 Submission	YES
Facility Type	-- Select --	Acreage	97
Residential Units		Commercial SqFt	
VPH (net)	756	VPD (net)	3913
Principal Parcel ID	247-28-4151	Doubles Road VPD	NO
Other Parcel ID(s)	247-17-3577		
	247-17-8636	248-47-8669	248-37-9637
	248-47-9789	248-47-8234	248-38-2718
		248-37-9082	248-48-6530

Payment

Fee Waived	YES	Reason for Waiver	2nd Submission
Payment Included	NO	Payment Type	-- Select --
Check #		Check Holder	
Payment Amount		Received From	

Tracking

Date Received by Locality	Locality's Requested Due Date
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Comments

Facility Type: High School with approximately 1,800 students, and Elementary School with approximately 875 students

Fee Waived as this is a County School project.
Along with the ZMAP, a SPEX is also being proposed: SPEX 2010-0003

