

County of Loudoun
Department of Planning
MEMORANDUM

DATE: March 23, 2009

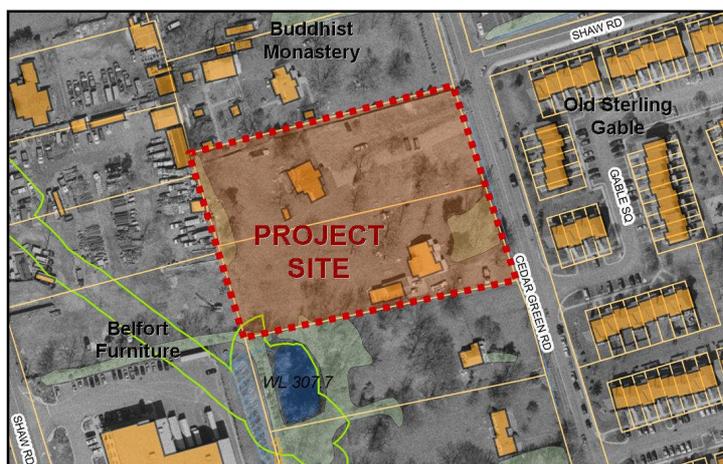
TO: Sophia Fisher, Project Manager
Land Use Review

FROM: Joe Gorney, AICP, Senior Planner
Community Planning

SUBJECT: ZMAP 2008-0023, Cedar Green Church

BACKGROUND

Iglesia Galilea de las Asambleas de Dios proposes a Zoning Map Amendment to convert two lots from the Single Family Residential Zoning District (R-4) to the Planned Development-Industrial Park (PD-IP) Zoning District. Each lot currently contains a single-family dwelling. The applicant wishes to develop the properties as a single parcel of approximately 2.9 acres for a 12,000-square foot church use with a maximum of 420 seats. The applicant expects to demolish the dwelling on the existing northern lot and to retain the dwelling on the southern lot as an accessory/rectory use.



Vicinity Map

The site is generally southeast of the intersection of Route 28 and Church Road (Route 625) and more specifically southwest of the intersection of Shaw Road and Cedar Green Road. The property lies within the Airport Impact Overlay District (AI) LDN 60 1-mile buffer. The property also lies within the Route 28 Highway Improvement Transportation District (Route 28 Tax District). County Geographic Information Systems (GIS) records indicate a limited area of wetlands in the

southwest corner of the site, scattered forest resources, and hydric soils. There are no known archaeological or historic resources on-site.



**Existing Conditions – Southern Lot
(View to northwest, March 10, 2009)**



**Existing Conditions – Northern Lot
(View to west, March 10, 2009)**

The lot is surrounded by commercial and light industrial uses zoned PD-IP to the west (Belfort Furniture warehouse/showroom, outdoor storage), civic uses to the north zoned R-4 (Buddhist monastery), a single-family attached development zoned R-16 (Townhouse/Multi-Family) to the east (Old Sterling Gable), and vacant parcels zoned R-4 to the south. The site contains isolated forest resources and hydric soils.

COMPLIANCE WITH THE COMPREHENSIVE PLAN

The subject property is governed under the policies of the Revised General Plan. The property is located within the Sterling Community of the Suburban Policy Area, and is designated as a Business area (Revised General Plan, Chapter 7, Planned Land Use Map). The policies of the Bicycle and Pedestrian Mobility Master Plan (Bike/Ped Plan) and the Countywide Transportation Plan (CTP) also apply.

Specifically, the Business and Light-Industrial policies of Chapters 6 and 11 of the Revised General Plan apply to the proposed development including streetscape, building placement and design, landscaping and buffering, parking, stormwater management, lighting, and open space.

The environmental features on the subject site were assessed applying the Green Infrastructure policies of Chapter 5 of the Revised General Plan, including policies pertaining to plant and wildlife habitats, surface and groundwater resources, river and stream corridor resources, forest, trees, and vegetation, and the built environment.

Bicycle and pedestrian accommodations were assessed using the Land Development, Transportation Project Development, Walkways and Sidewalks, and Baseline Connecting Roadways policies and guidance of Chapters 4 and 5 of the Bike/Ped Plan.

ANALYSIS LAND USE

The County encourages a mix of uses in most of its office and light-industrial

developments. In addition to offices, Business land uses generally may feature housing and/or commercial/retail uses, and all of the uses have a component of public/civic uses and parks and open space (Revised General Plan, Chapter 6, Business, text).

The proposed church is a civic use. Civic uses are defined as public or quasi-public institutional uses in residential or business areas that primarily serve the immediate community and that, due to their small size, design and limited ancillary activities (traffic, parking, noise, or similar activity) are compatible with the surrounding residential or business uses. Such uses may typically include small churches, fire and rescue facilities, schools, day care centers, group homes, community centers, post offices, and community club houses (Revised General Plan, Glossary).

The land use mix, measured as a percentage of the land area, in Light-Industrial communities will generally comply with the following ratios:

Land Use Category	Minimum Required	Maximum Permitted
High Density Residential	0%	25%
Commercial Retail and Services	0%	10%
Regional Office	0%	40%
Overall Business Uses (Commercial Retail & Services and Regional Office combined)	0%	40%
Light Industrial/Flex	45%	85%
Public & Civic	5%	No maximum
Public Parks & Open Space	10%	No maximum

(Revised General Plan, Chapter 6, Light-Industrial Use Policies, Light-Industrial Use Policy 5)

For properties less than 50 acres outside of Keynote Employment designations, such as the proposed site, the Revised General Plan recognizes that a mix of uses may not be achievable due to the small size of the parcel. In those cases, the applicant may vary from the land use mix by showing that an alternative is more appropriate for the specific site. This can be accomplished by providing the County with a survey of land uses within a 1,500-foot radius of the site (Revised General Plan, Land Use Pattern and Design Policies, Land Use Pattern and Design Policy 8).

No maximum is listed for public and civic uses in Light-Industrial communities. The applicant proposes to develop the site with 100 percent civic uses and has provided an inventory of the adjacent properties.

Staff finds that the proposed civic use is in conformance with the land use policies of the Plan. Staff supports siting the church in the proposed location provided that the applicant addresses issues discussed below.

SITE DESIGN

In evaluating Business land use proposals, the following will be considered:

- Steps taken to mitigate the impact of parking, signs, and other associated activities on the surrounding community; and,
- The relationship of the proposed use to the to the community design policies of the Plan (*Revised General Plan, Chapter 6, General Business Land Use Policies, General Business Land Use Policy 3*).

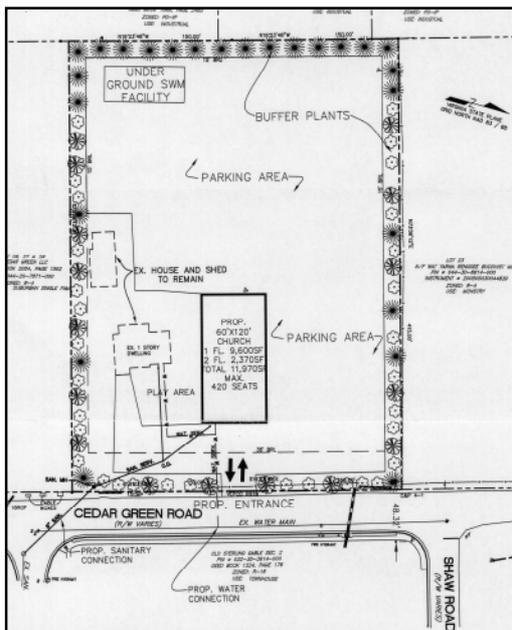
Site design issues include streetscape, building placement and design, landscaping and buffering, parking, stormwater management, bicycle and pedestrian accommodations, and lighting.

Streetscape

Collector and local access streets are to be considered the main “public rooms” of a community and should be designed to accommodate a number of specific, interactive functions, such as: (i) pedestrian and vehicular movement and the daytime parking of cars, (ii) foreground and entryway into buildings and, to a lesser extent, (iii) interactive social space.

To frame the street and to create a better sense of visual enclosure for motorists and pedestrians, front yards should be minimized and the buildings moved closer to the street. Spatial definition should be reinforced with the regular planting of street trees chosen to develop an overhead leaf canopy (*Revised General Plan, Chapter 11, Light Industrial and Regional Office Design Guidelines, Streetscape Guideline 7b*).

The proposed concept plan centers the church on the street frontage. The church is set back approximately 62 feet from the front property line. A vehicle entrance is placed directly in front of the church.



Concept Plan Excerpt
(January 2, 2009)

Staff recommends that the applicant provide further details regarding vehicle circulation with clearly defined entrance lanes, curbs, sidewalks, and drop-off points, as applicable, so that the streetscape can be evaluated. The applicant should consider relocating the entrance driveway further to the north, to enhance the views of the church from the street and the surrounding community. Street trees should be placed to create an overhead leaf canopy for Cedar Green Road. The applicant should also consider gateways, walls, enhanced plantings, or other design elements along the Cedar Green Road frontage.

Building Placement and Design

Light Industrial areas will emulate the key traditional design concepts of the Revised General Plan by addressing the design and function of exterior spaces, pedestrian access from adjoining residential areas, architectural cohesiveness, and environmental conservation (Revised General Plan, Chapter 11, *Light Industrial and Regional Office Design Guidelines*, Streetscape Guideline 7a).

The Revised General Plan also states that designers should seek to reduce the potential impact of building size, exterior cladding of the building, signs, and other features that may create visual impacts on the surrounding community (Revised General Plan, Chapter 6, *General Business Land Use Policies*, General Business Land Use Policy 5).

Although proposed as a civic use, opportunities exist to incorporate open space elements into the concept plan. The Revised General Plan states that Business and Industrial land use areas will provide open space of the following types: open space in its “natural” state, such as forests, wetlands, or meadows; trails and trail connections; water features, or amenities (Revised General Plan, Chapter 6, *Open Space Policies*, Open Space Policy 2).

The concept plan depicts a building outline of 60 feet x 120 feet, but no details were provided regarding building design. With the exception of a planted buffer, the concept plan does not depict any defined open spaces.

Staff recommends the application be revised to include details regarding building placement and design so that the application can be evaluated against County policies. The following building placement and design issues should be considered to ensure compatibility with the surrounding community:

- ***Rooflines, materials, window arrangement, sign locations, and architectural details;***
- ***Building recesses, off-sets, angular forms, or other features;***
- ***Distinctive roof forms; and,***
- ***Weather protection over doors and main walkways.***

The applicant should provide illustratives of the intended architectural features and describe the materials to be used.

Staff also recommends that the applicant incorporate usable outdoor spaces and amenities for church members and employees, such as pavilions, shaded benches, and picnic tables. The placement of the open spaces should consider the issues listed below, along with views from inside the buildings.

The applicant should also describe how parking, sidewalks, crosswalks, amenities, and landscape materials will be integrated with the building placement and design.

Landscaping and Buffering

Business land uses will include landscape screening from surrounding neighborhoods for various functions, including on-site parking, storage, and loading areas (Revised General Plan, Chapter 6, General Business Land Use Policies, General Business Land Use Policy 5). Landscape designs will incorporate adequate landscaping and berms (Revised General Plan, Chapter 6, Suburban Parking Policies, Suburban Parking Policy 10).

Staff notes that the Revised General Plan encourages the incorporation of indigenous vegetation into the landscape (Revised General Plan, Chapter 5, Plant and Wildlife Habitats Policies, Plant and Wildlife Habitats Policy 7).

Overall, landscaped edges screen and soften views of the business from roads, enhance the visual quality of the project, provide employees and patrons with open space, mitigate environmental effects, allow the incorporation of indigenous vegetation into the project, and provide habitat for wildlife.

While buffer plantings are depicted within setback areas, no landscaping is depicted within the parking areas or other internal portions of the site. A general depiction of trees, shrubs, grasses, perennials, depressed parking areas, and/or berms throughout the site would help determine whether the landscaping and buffering is adequate to ensure compatibility with the surrounding uses and to assess the visual impact of the project.

Given the proximity of residential uses, additional details are needed to determine whether the proposed use is compatible with the surrounding residences. Staff recommends that the applicant commit to a landscape plan with special attention to the project's visual impact. Elevations and plantings should be planned so that parking is screened and views of the use are filtered from the residences. Staff also recommends that the depicted plantings be augmented around the building with special consideration to the building frontage along the entrance driveway to frame the church. The applicant should commit to the landscaping and buffering, a long-term maintenance plan, and the use of native species for most or all of the plantings.

Parking

The County discourages developments from providing additional impervious surfaces that exceeds the parking requirements of the Zoning Ordinance (Revised General Plan, Chapter 6, Suburban Parking Policies, Suburban Parking Policy 1). Additionally, the County will continue to allow shared/reduced parking based upon the joint-use, time-of-day, or time-of-week needs of different users (Revised General Plan, Chapter 6, Suburban Parking Policies, Suburban Parking Policy 6). The County also encourages the use of pervious parking surfaces where existing soil types and current technology will allow (Revised General Plan, Chapter 6, Suburban Parking Policies, Suburban Parking Policy 8). Where appropriate, parking lots will be placed to the rear of buildings

(Revised General Plan, Chapter 6, Suburban Parking Policies, Suburban Parking Policy 9). Parking should not be located at the front of buildings (Revised General Plan, Chapter 11, Light Industrial and Regional Office Design Guidelines, Streetscape Guideline 7b).

The proposed concept plan depicts the general location of parking to the side and rear of the church. No details have been provided regarding the extent of the parking or the number of spaces.

Staff recommends that the concept plan provide information regarding the location of parking, travel lanes, drop-off points, and the number of parking spaces. All parking should be placed behind buildings, where appropriate.

Stormwater Management

The Revised General Plan calls for the protection of surface water resources from contamination and pollution and preventing the degradation of water quality in the watersheds. The project's proposed impervious surfaces, including parking lots and rooftops, are anticipated sources of runoff and pollutants, such as litter, road salts, oil, grease, and heavy metals, which impact water quality (Revised General Plan, Chapter 5, Surface and Groundwater Resources, text). The proposed grass and landscape areas can also be expected to have substances, such as fertilizers, pesticides, and herbicides, applied to them each year. Increased storm runoff volumes and velocities are also expected, which could scour adjacent drainageways, impact wetland resources, and impact adjacent properties.

Design guidelines will be established to facilitate environmentally sound stormwater runoff (Revised General Plan, Chapter 6, Suburban Parking Policies, Suburban Parking Policy 10).

To protect water resources and the integrity of neighboring properties, the Revised General Plan calls for low impact development (LID) techniques, which integrate hydrologically functional designs with methods for preventing pollution (Revised General Plan, Chapter 5, Surface Water Policies, Surface Water Policy 2). LID approaches seek to control runoff discharge, volume, frequency, and quality in order to mimic predevelopment runoff conditions through a variety of small-scale site design techniques. LID techniques can help reduce sedimentation and erosion, trap and remove pollutants such as nitrogen, phosphorus, metals, and organic compounds, protect wildlife habitat, store flood waters, and maintain the overall water quality of nearby streams. These facilities should be located as close as possible to impervious areas and utilize the landscape and soils to naturally move, store, and filter run-off. The associated flow reductions and water quality improvements can then benefit the receiving streams. LID techniques include:

- Permeable paving;
- Porous concrete;
- Native landscaping enhanced through the routing of runoff through these areas;
- Rain gardens;

- Native-vegetated drainage swales for the movement and temporary storage of runoff;
- Vegetated filter strips that slow runoff speed, trap sediment and pollutants, and provide additional water absorption;
- The collection and use of rooftop runoff for irrigation; and,
- Green roofs.

The applicant has designated an area in the southwest corner of the site as an underground stormwater management facility but has not provided any further details regarding water quality and quantity controls. Staff notes that a curb and gutter system has been installed on the east side of Cedar Green Road.

Staff recommends that the applicant consider employing LID facilities on-site. 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. 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.

Bicycle & Pedestrian Accommodations

All land development applications are to provide bicycle, pedestrian, and transit access linkages to the County Bicycle and Pedestrian Network (*Bike/Ped Plan, Chapter 4, Land Development Policies, Land Development Policy 5*). Bicycle facilities will also be designed in accordance with nationally accepted guidelines established by organizations such as American Association of State Highway and Transportation Officials (AASHTO) and the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and the Loudoun County Bicycle and Pedestrian Facility Design Toolkit (*Bike/Ped Plan, Chapter 4, Transportation Project Development Policies, Transportation Project Development Policy 2*).

Cedar Green Road is designated as a Baseline Connecting Roadway for the Bicycle and Pedestrian Mobility Master Plan (*Bike/Ped Plan, East Loudoun County Map*). Such roadways were selected to provide comprehensive connectivity throughout the County and its most populated areas (*Bike/Ped Plan, Chapter 5, Baseline Connecting Roadways, text*). The Bike/Ped Plan also stresses the importance of bicycle and pedestrian mobility both within a site and between adjacent sites. Developments should enhance bicycle and pedestrian mobility throughout the County (*Bike/Ped Plan, Chapter 4, Land Development Policies, Policies 3, 5, 6, & 7*). In and around business uses, pedestrian and vehicular circulation systems will form a safe and convenient network (Revised General Plan, Chapter 6, General Business Land Use Policies, General Business Land Use Policy 5). The CTP also states that all development proposal site plans will show safe, direct, and barrier-free pedestrian and bicycle circulation systems (*CTP, Chapter 2, Pedestrian and Bicycle Facilities Policies, Pedestrian and Bicycle Facilities Policy 5*).

Roads in the Suburban Policy Area will have sidewalks on both sides, with widths from 5 to 6 feet. Sidewalks along collector roadways will have a minimum width of 6 feet. Vegetated buffers shall also be provided between roads and sidewalks. Six-foot wide sidewalks will feature 4-foot wide vegetated buffers (*Bike/Ped Plan, Chapter 4, Walkway and Sidewalk Policies, Walkway and Sidewalk Policy 2*).



East Side of Cedar Green Road (view to north)
(March 10, 2009)

The applicant has not proposed a sidewalk or curb and gutter construction along the west side of Cedar Green Road. Nor has the applicant proposed crosswalks across Cedar Green Road to the residential uses on the east side of the road. A sidewalk is already constructed on the east side of Cedar Green Road.

Staff recommends that the applicant commit to the installation of a 5-foot sidewalk and curb and gutter construction on the west side of Cedar Green Road to match the facilities on the east side of the road. Safe crossing facilities should also be provided across the church driveway and to the residential area on the east side of Cedar Green Road. All pedestrian facilities, including those within the site, should be depicted on the proposed concept plan. Staff also recommends that all bicycle and pedestrian facilities be constructed in accordance with County policies, AASHTO, ADAAG, and the County Bicycle and Pedestrian Facility Design Toolkit.

Lighting

County policies call for appropriate lighting to achieve the following:

- Promote the use of lighting for convenience and safety without the nuisance associated with light pollution;
- Promote a glare-free environment through proper lighting performance standards to improve visibility and enhance public safety;
- Promote appropriate lighting standards to conserve energy; and,
- Develop appropriate lighting standards to prohibit unnecessary and intrusive light trespass that detracts from the beauty and view of the night sky (*Revised General Plan, Chapter 5, Lighting and Night Sky Policies, Lighting and Night Sky Policy 1*).

The applicant has not provided any information regarding lighting.

Staff recommends that the applicant commit to lighting that is fully shielded, provides a glare-free environment, is confined to the site, and is turned off after business hours, unless required for security purposes, and that illumination levels will be no greater than necessary for a light's intended purpose. All lighting should be mounted as low as practicable and designed to preclude light trespass onto adjoining properties, glare to passersby, skyglow, and deterioration of the nighttime environment.

GREEN INFRASTRUCTURE

County Geographic Information Systems (GIS) records indicate a limited area of wetlands in the southwest corner of the site, scattered forest resources, and hydric soils. The proposed plan would impact forest resources. There are no known archaeological or historic resources on-site.

Wetlands

The County supports the federal goal of no net loss to wetlands (*Revised General Plan, Chapter 5, River and Stream Corridor Resources Policies, River and Stream Corridor Resources Policy 23*). In the event of an impact, compensatory mitigation (restoration, creation, enhancement, and preservation) could replace the loss of wetland functions in the watershed to meet the County's goal of no net loss to the existing acreage and functions of wetlands.

The County predictive wetlands model shows a limited wetlands area in the southwest corner of the site. The proposed plat depicts an underground stormwater management facility and buffer plantings in the vicinity of the predicted wetlands. However, no wetlands are depicted on the existing conditions plat.

Staff recommends that the applicant verify whether wetlands exist on-site. Should any wetlands exist on-site, staff recommends that the applicant avoid these areas. For any impacts to on-site resources, staff recommends mitigation on-site, or within the same watershed, or within Loudoun County.

Forest Resources

County policies encourage the preservation of existing vegetation and wildlife habitat on developing properties (*Revised General Plan, Chapter 5, Forests, Trees, and Vegetation Policies, Forest, Trees, and Vegetation Policy 10*).

The existing conditions plat depicts scattered forest resources throughout the site. The applicant has provided common names and a diameter at breast height for the largest trees. The plat does not contain species names or condition ratings for the trees. The proposed concept plan does not depict any existing trees.

Staff recommends that the applicant evaluate the species and condition of the on-site forest resources and provide this information to County staff so that opportunities to preserve viable resources and incorporate them into the development may be evaluated.

Efficiency

In implementing its program for achieving and sustaining a Built Environment of high quality, the County will emphasize its role as leader and facilitator, and as a source of information on environmental design options and procedures (*Revised General Plan, Chapter 5, Built Environment Policies, Built Environment Policy 2*).

Staff recommends that the applicant consider sustainable design measures that could be incorporated into the project site and building.

RECOMMENDATIONS

Staff finds that the proposed civic use is in conformance with the land use policies of the Plan. Staff supports siting the church in the proposed location provided that the applicant addresses issues raised above.

Staff is available to meet with the applicant to discuss these issues.

cc: Julie Pastor, AICP, Planning Director
Cindy Keegan, AICP, Program Manager, Community Planning (via email)