EXHIBIT D

DESIGN GUIDELINE REVIEW FOR THE HIRT THERMAL OXIDIZER UNIT FOR THE LAMORINDA GAS STATION AT 1410 MORAGA ROAD

3 MAINTAIN THE TOWN'S SEMI-RURAL CHARACTER (SRC)

APPLICABLE TO ALL TYPES OF DEVELOPMENT

These guidelines are intended to help preserve the semi-rural features that make Moraga unique when considering applications for development.

SRC1 Retain, protect, and utilize existing natural features, such as trees and other vegetation, interesting ground forms, rocks, water, and significant views in the design.
Comment: There are no existing natural features on the project site. The project site is in a fully urbanized area of Town and can not be characterized as "semi-rural".

SRC2 The impact and presence of vehicles resulting from the development should be minimized through proper siting and screening in order to buffer parking areas from locations both interior and exterior to the site.
Comment: The landscaping planters at the Lamorinda Gas station are narrow due to the existing location of the gas pumps and building on this very small site. The functional requirements of a service station make it very difficult to reduce the impact and presence of vehicles without also impacting safety and sight distance lines at driveways for ingress and egress. The installation of the Hirt Thermal Oxidizer unit will not have any impact on the number of vehicles using the station. Nevertheless, all existing planting areas should be used to the maximum extent possible for screening and buffering of the paved areas.

SRC3 Circulation systems should avoid conflict between vehicular, bicycle and pedestrian traffic. Emergency and service vehicle access shall be accommodated within the circulation system.
Comment: The proposed installation of the Hirt Thermal Oxidizer unit would not block any vehicular, bicycle or pedestrian circulation on the property.

SRC7 New trees should be planted to compliment the natural pattern of tree placement.
Comment: At least one new tree is recommended in the existing planter at the northeast side of the fenced enclosure where the Hirt Thermal Oxidizer unit will be located.

5 COMPLEMENT EXISTING LANDSCAPING (L)

L1 FIRE SAFE LANDSCAPING

L1.2 Consideration should be given to avoiding flammable trees and shrubs where possible. Consult the Moraga Fire Protection District for highly flammable plant species to be avoided such as certain pine, juniper, and eucalyptus species.
Comment: The selection of the tree for the planter northeast of the fenced enclosure should be based on the recommended trees in Appendix B of the Design Guidelines..

L1.3 Landscaping should be properly irrigated to assure that plants retain their fire retardant capability, but shall not be over watered so as to create runoff from the site.

Comment: It appears that some of the existing landscaping may have been damaged by the severely cold weather or is not getting enough water. Plants that have died should be replaced.

L3 COMMERCIAL LANDSCAPING AND IRRIGATION

L3.2 Areas not covered by buildings or structures enclosed for storage or used for paved walks, alleys, or drives should be completely landscaped and irrigated.

Comment: The Hirt Thermal Oxidizer unit is a mandated public health and safety improvement; therefore, significant new landscaping to fully comply with the Town's current landscaping requirements would not be warranted by the size and scope of the project. Nevertheless, existing planting areas should be refurbished as necessary to enhance the appearance of the gas station as much as possible.

L3.3 Parking lots should be landscaped through the use of concave islands and medians swales designed to accommodate trees, shrubs, and ground cover while providing drainage and biofiltration of concentrated stormwater. Fast growing deciduous or evergreen trees should be planted at a ratio of one tree for every 4-6 parking spaces, to create maximum summer shade.

Comment: The existing landscaped islands were installed prior to the new stormwater requirements and are raised above the parking lot surface, with curbs around the planting areas.

L3.4 Landscaping should permit adequate sight distance for motorists and pedestrians entering and exiting the site and shall not interfere with parking lot and circulation effectiveness.

Comment: The existing landscaping is not being changed as part of this application, except for the recommendation to add one tree and three shrubs to the existing planter northeast of the fenced enclosure. The addition of plants to this planting island would not obstruct the sight distance for motorists any more than the existing 5-foot 6-inch high fence. The shrubs can be maintained at a 3-foot height and the tree can be trimmed to the trunk to 8-feet after sufficient growth, so that there should be no impact to the sight distance.

L3.7 Dense landscaping should be incorporated into any project to screen unattractive views and features such as storage areas, trash enclosures, parking lots, public utilities, and other elements that detract from the appearance of the surrounding area.

Comment: As stated previously, additional landscaping should be added to the existing planting island northeast of the fenced enclosure where the Hirt unit will be installed.

L3.9 Initial landscaping should be of a size and quality that a mature appearance will be attained within three years of planting. At least 25% of the proposed trees on the site are to be a minimum of 24" box size and the remaining trees a minimum of 15-gallon size.

Comment: It is recommended that the planting size of the new tree should be 15-gallon size to allow for better root development. However, to enhance the growth rate for the tree, it is recommended that soil amendments equal to three times the size of the root ball be added at the time the tree is planted.

6 ENHANCE TOWN'S SCENIC CORRIDORS (SC)

The proposed Hirt Thermal Oxidizer Unit will be located behind a fenced enclosure at the side of the Lamorinda Gas station. The station is within 500-feet of Moraga Road but only the top of the unit will be visible above the fence from the scenic corridor roadway.

SC1 A greenbelt should be established between the scenic corridor major road and a parking area or building that is located adjacent to the road. The greenbelt must be landscaped and appear to be natural (i.e. a high percentage of the ground area could be a mounded redwood bark or stone covered area as long as plants provide a reasonable amount of massing to create a screening effect). All landscaped areas shall be appropriately irrigated to maintain healthy plants while preventing runoff from over watering.

Comment: The Design Review Board approved additional landscaping for the Lamorinda Gas station in 2000. The "greenbelt" along Moraga Road is very narrow due to the functional requirements of the service station and to allow maneuvering of the gasoline tanker trucks for re-fueling the underground tanks on the property. As previously mentioned, some of the landscaping installed in 2000 appears to have died. This landscaping should be replaced.

SC4 Landscaped mounds or berms are encouraged between the scenic corridor roadway and large parking areas and may be steeper than 3:1 if appropriately landscaped and irrigated.

Comment: There is insufficient space to allow for any berms or mounds in any landscaped area adjacent to the roadways.

SC5 Commercial shopping centers shall have a twelve-foot or greater depth of greenbelt between the road and parking area or building, exclusive of the public sidewalk.

Comment: At most there would be space for a 4-foot wide planter at the back edge of the sidewalk between the driveway curb cuts in front of the pump islands.

SC6 Greenbelts should have a balance of high and low plants to give a natural look to the landscaped area. At no time will a landscaped area (other than grass) exceed 50 lineal feet along the scenic corridor road without a change in massing, character, and color.

Comment: The existing planters do not have any grass and there is a mixture of high and low plants. Due to the number of driveways and the sight distance requirements at each driveway, shrubs would have to be trimmed to 3-foot maximum height and trees should be trimmed of all low branches up to 8-feet in height.

SC8 A property owner may be required to upgrade existing conditions when major work is accomplished on a parcel that is within 500 feet of the center line of a major scenic corridor.

Comment: The proposed Hirt Thermal Oxidizer unit would not be considered "major work" in staff's opinion. Nevertheless, the existing planting island near the fenced

enclosure needs to be re-furbished and this will enhance the screening of the new installation.

SC9 In order to enhance the landscaping along designated scenic corridors, new development within 500 feet of these corridors should include trees and shrubs from the following list:

a. Tree: Raywood Ash (*Fraxinus oxycarpa*)
b. Tree: Bradford Pear (*Pyrus Calleryana*)
c. Tree: Flowering Plum (*Prunus krauter vesuvius*)
d. Tree: Coastal Redwood (*Sequoia sempervirens*)
e. Tree: Western Redbud (*Cercis occidentalis*)
f. Tree: Live Oak (*Quercus agrifolia*)
g. Shrub: Escallonia (*Escallonia compakta* and *langleyensis*)
h. Shrub: Strawberry Tree (*Arbutus unedo*)
i. Shrub: Howard McMinn Manzanita (*Arctostaphylos*)
j. Shrub: Rockrose species (*cistus*)

Comment: The above list should be considered for the trees and shrubs recommended for the existing planting island at the northeast side of the fenced enclosure. However, staff recommends that the tree should be a non-deciduous broadleaf tree. The Board may want to select a specific tree.

SC10 Roadside landscaping should be selected and maintained so that street signs and other directional signs are not blocked from view.

Comment: The existing landscaping at the intersection of Moraga Road and the north entrance drive into the Moraga Shopping Center does not block any views of street signs or the required price sign for the gas station.

SC12 The design shall be consistent with Moraga Municipal Code Section 8.132.

Comment: The following development guidelines are listed under MMC Section 8.132.050-B.

1. The design and location of each building and landscaping shall create a compatible visual relationship with surrounding development and with the natural terrain and vegetation. Road widths and road configurations should be considered as part of the design element.

   Comment: The design and location of the existing building will not be changed. The addition of the Hirt Thermal Oxidizer unit at the side of the building will be compatible with the surrounding development. No new roads are proposed with the project.

2. Buildings and landscaping shall be so located that each does not create a walled effect along the scenic corridor. Setbacks and building heights may be made more restrictive than otherwise permitted by the applicable zoning regulations. In general, the greater the mass or bulk, the greater the setback should be. The positioning of buildings shall be varied in order to create a complimentary relationship between mass and void.

   Comment: The existing building is located 50-feet from Moraga Road, but the canopy over the pumps is located only 10-feet from Moraga Road. The building is at an angle to Moraga Road and does not contribute to a "walled effect" along the scenic corridor.

3. Existing topography, vegetation and scenic features of the site shall be retained and incorporated into the proposed development wherever possible. Manmade

structures, as a visual element in the scenic corridor, should be secondary in importance to natural growth.
Comment: The existing topography of the site is very flat and will not be changed. The vegetation on the property is limited to the narrow planters along Moraga Road and along the southwest rear property line between the propane tank and the building. There are no natural scenic features of the site. The service station was originally approved prior to the incorporation of the Town and the manmade structures have been the dominant visual element on the site ever since.

4. Each structure or feature reviewable under this chapter shall be limited to scale and siting to reduce visual dominance or obstruction of existing landforms, vegetation, water bodies and adjoining structures.
Comment: The addition of the Hirt Thermal Oxidizer unit will not obstruct the view of any significant landforms or adjoining structures.

5. Each structure shall be constructed, painted and maintained and all planted material shall be planted and maintained to complement and enhance scenic views and the natural landscape.
Comment: This "development guideline" is primarily a performance standard and it is recommended to include it as a condition of approval.

6. Unnatural and conflicting aesthetic elements shall be eliminated to the extent feasible consistent with safety requirements (for example, retain street lighting, but place wiring underground). Where it is not possible to locate such a feature out of view, it must be located in an area so as to minimize visibility from a scenic corridor or screened from view by planting, fence wall or berm. Where the screen consists of a fence, wall or berm, it may not be higher than six feet. Screening shall consist of primarily natural materials rather than solid fencing. Preference shall be given vegetation in conjunction with a low earth berm.
Comment: The proposed location for the Hirt Thermal Oxidizer unit is close to the northeast side of the building where it will be mostly out of view from the scenic corridor. Only the top of the unit will be visible over the existing wood fence enclosure.

7. Lighting shall be compatible in type, style and intensity to the surrounding elements and not cause undue or aggravating disruption, glare or brightness.
Comment: No change to the existing lighting is proposed.

8. Grading or earth-moving shall be planned and executed in such manner that final contours appear consistent with a natural appearing terrain. Finished contours shall be planted with plant materials native to the area so that minimum care is required and the material is visually compatible with the existing ground cover.
Comment: No grading is proposed for this project.

9. The number of access points to and from the scenic corridor shall be minimized consistent with safety and circulation needs.
Comment: No changes in access points are proposed.

10. Parking on the scenic corridor roadways should be minimized.
Comment: No parking is proposed on the Moraga Road.

11. Each specimen tree and each grove of trees may be approved for removal only if the tree or grove of trees is unsafe or diseased or to provide the smallest cleared area necessary to locate an approved road or structure on the site under guidelines of the

tree preservation ordinance. Selective clearing of vegetation may be permitted upon review and approval by the design review board.
Comment: No trees will be removed for this project.

12. In applying these guidelines, consideration shall be given to protecting the privacy and security requirements of individual property owners who seek approval for improvements under this chapter.
Comment: Staff is not aware of the security requirements for the installation of the Hirt Thermal Oxidizer unit.

SC13 Viewsheds, including but not limited to close up and distant views, ridgelines, hillsides and mature native tree groupings should be protected along the Town's scenic corridors to retain the Town's semi-rural character.
Comment: The installation of the Hirt Thermal Oxidizer unit will not block close-up or distant views of ridgelines, hillsides or mature native tree groupings.

7 MINIMIZE THE IMPACTS OF DEVELOPMENTS (ID)

To the extent possible, development should be concentrated in areas that are least sensitive in terms of environmental and visual resources, including: a) areas of flat or gently sloping topography outside of flood plain or natural drainage areas; b) the Moraga Center and Rheem park area; c) Infill parcels in areas of existing developments.
Comment: The project site is located within the Moraga Center area.

ID1-7 APPLICABLE TO ALL DEVELOPMENT

ID3 Wind barriers, shade, sound absorption, dust abatement, glare reduction, and proper drainage should be provided on site.
Comment: The installation of the Hirt Thermal Oxidizer unit is not anticipated to have any significant impacts with regard to wind, shade, sound absorption, dust abatement, glare reduction or drainage issues.

ID6 The level of lighting should not exceed the needs for security and safety or detract from the aesthetics of the development.
a. Outdoor lighting should be related to the design of the structure.
b. Outdoor light fixtures should be designed and mounted so that the source of light has minimal impact off site.
c. Outdoor lighting should be directed inward toward the property and may require additional screening to avoid spillage onto adjacent residential properties.
Comment: No change to the existing lighting is proposed with this application.

ID7 Design shall be consistent with the Moraga Municipal Code section 13.04.090, which includes the "Best Management Practices and Standards" for reducing adverse impacts to water quality.
Comment: There would be no overall change to the impervious surface area for the Lamorinda Gas because the new Hirt Thermal Oxidizer unit would be installed over an existing paved area. No changes are proposed to the existing drainage system so compliance with MMC Section 13.04.090 would not be an issue.

ID9 PAVING

ID9.1 Impervious surfaces shall be minimized through site design and building methods. Directly connected impervious surfaces shall be minimized to avoid excessive concentrated stormwater runoff. Any runoff from impervious surfaces shall be directed to pervious areas or landscaped depressions.
Comment: No new impervious surfaces are proposed with the project.

ID9.2 Impervious paving may be reduced by using permeable materials for pedestrian walkways, parking facilities, and areas with light traffic. Examples include:

a. Unit pavers-on-sand: turf block, brick, natural stone, or concrete unit pavers
b. Poured pervious surfaces: pervious concrete or pervious asphalt
c. Granular materials: crushed shells, gravel, aggregate base, cobbles, or wood mulch.

Comment: No permeable paving materials are proposed for the project.

ID12 STORMWATER GUIDELINES

ID12.2 Regulations set forth by the San Francisco Bay Regional Water Quality Control Board (RWQCB) shall apply to all new or redeveloped residential and commercial projects:

a. If the project creates or replaces more than 10,000 square feet of impervious surface;
b. Relative to the 10,000 square foot threshold, if 50% or more of the existing impervious surface is replaced then 100% of the site must comply with Provision C.3 of the Town's Stormwater Permit; or
c. Relative to the 10,000 square foot threshold, if less than 50% of the existing impervious surface is replaced, then Provision C.3 of the Town's Stormwater Permit only applies to said portion.

Comment: The project does not call for the replacement of any paving areas or other existing impervious surfaces.

ID12.3 For developments whose site constraints prohibit the use of landscape infiltration, manufactured treatment systems can be inserted into the conventional storm drain system. A detailed Operation and Maintenance Plan must be submitted with the design application (see www.cccleanwater.org/construction for the *C.3 Stormwater Guidebook*). Options include:

a. Catch basin or inlet inserts
b. Separators (oil-grit or oil-water)
c. Media filters (sand, gravel, peat, compost, activated carbon, fabric, or resin)
d. Various filtration treatment devices

Comment: The project is not required to comply with the C.3 provisions.

10 PROMOTE COMMERCIAL CENTERS AS COMMUNITY PLACES (CC)

CC1 COMMERCIAL SITE PLANNING

CC1.1 A harmonious design relationship should be achieved between existing and proposed adjoining developments by avoiding both excessive variety and monotonous repetition.
Comment: The proposed Hirt Thermal Oxidizer Unit enclosure is a required engineering component for operation of the service station and is not an architectural

feature intended to enhance the design of the existing building. However, as previously recommended, additional landscaping should be added to the existing planting island at the northeast side of the fenced enclosure where the Hirt unit will be installed.

CC1.2 Storage yards, parking areas, service areas, and other ground-level paved areas should be screened from off-site views by perimeter and tree canopy planting.
Comment: The additional planting recommended in the existing planting island will enhance the screening of the fenced enclosure around the Hirt unit.

CC1.3 Permanent trash enclosures should be located and designed to be in architectural harmony with the principal structures on the site. Exterior trash and storage areas, service yards, loading docks, and ramps should be screened from the view of all nearby streets and adjacent structures. Infiltration shall be avoided for all outdoor work or storage areas, such as loading docks, fueling areas, and garbage receptacles. All runoff from these areas shall be directed to the storm drain system and the operations from these areas shall be conducted to prevent stormwater from becoming contaminated. If stormwater contamination cannot be prevented from the operations in these areas, they shall be connected to the sanitary sewer and effective engineering controls shall be used to ensure that no stormwater is discharged to the sanitary sewer system (e.g. roof over the process area, engineered diversion valve between the sanitary sewer system and storm drain system). The connection to the sanitary sewer system from these areas shall have the necessary pretreatment equipment to meet Central Contra Costa Sanitary District's standards (e.g. grease or oil/sand interceptor). Outdoor work areas shall have a perimeter berm to prevent stormwater inflows. Outdoor garbage receptacles (trash cans and dumpsters) shall be housed under a roof or other covered structure.
Comment: If the fenced enclosure at the northwest side of the building was originally intended as a trash enclosure for the service station, then it may need to be enlarged to accommodate both the trash cans or dumpsters and the Hirt Thermal Oxidizer unit.

CC2 COMMERCIAL BUILDING DESIGN

CC2.1 Mechanical and electrical equipment, including rooftop units, should be designed as an integral part of the building or site design and be properly screened.
Comment: According to the specifications on the plans, the Hirt Thermal Oxidizer unit has to be mounted with 2-feet of clearance around it. The 5-foot 6-inch high fence will screen about 90% of the Hirt unit from view.

CC2.2 Exterior wall venting should be avoided.
Comment: The Hirt Thermal Oxidizer unit has a vent pipe at the top.

CC2.3 Roof penetrations should be minimized by grouping plumbing vents and ducts together and providing adequate screening from off site.
Comment: There would be no new roof penetrations in order to install the Hirt Thermal Oxidizer unit.

CC2.4 Roof leader drains shall be routed through a biofilter, sand filter, or plant box.
Comment: The building is an existing facility and no new roof drains are proposed.

CC2.5 Accessory equipment capable of generating noise and vibrations should be properly insulated and the noise and vibrations shall not be apparent from adjacent properties or the public right of way.

Comment: The new Hirt Thermal Oxidizer unit does not include any motors or compressors that would generate any noise levels in excess of fifty-five (55) dba during daytime hours, or fifty (50) dba during nighttime hours in accordance with finding number 5 under MMC Section 8.44.020-B.

CC2.6 Large building masses should be avoided. Building setbacks may be varied to accommodate pedestrian-oriented facilities such as benches, café tables, and bike racks. Parking lot locations at the side or rear are encouraged. Entrances should be located close to the sidewalk to create a more pedestrian-oriented development.

Comment: The location of the existing building will not be changed. The addition of the Hirt Thermal Oxidizer unit will not add any significant mass to the building.

CC2.7 Architectural style should reflect and enhance the character of surrounding neighborhoods.

Comment: The architectural style of the existing building will not be changed.