Architectural Review Board
Staff Report (ID # 6732)

Report Type: Public Hearing **Meeting Date:** 4/21/2016

Summary Title: 4175 Manuela Avenue - Congregation Kol Emeth

Title: 4175 Manuela Avenue [15PLN-00129]: Request by Kevin Davies, on Behalf of Congregation Kol Emeth, for Architectural Review to Demolish an Existing One Story Synagogue Facility Totaling Approximately 11,691 Square Feet and Construction of a New Synagogue Facility with Approximately 23,555 sf. In Addition, but not Specifically Subject to the Architectural Review Board's Review, are Requests for a Variance to Exceed the Maximum Allowable Floor Area by Approximately 4943 Square Feet for a Portion of the Building with a Vaulted Ceiling Over 17 Feet in Height. This Request is not for Actual Floor Area, but Volume Space that by Code is Counted Toward the Floor Area Maximum and Relates More Toward Building Mass as Opposed to the Intensity of the Proposed Use. A Variance is Also Requested to Allow the Access Ramp to the Subterranean Garage, as well as the Below Grade Garage Itself, to Encroach into the Special Setback. Religious Facilities in the Residential Districts are also Subject to a Conditional Use Permit. The Variance and Conditional Use Permit is not the Subject of the Hearing, but the Public may Comment on These Application Requests. Environmental Assessment: This Project is Exempt from Environmental Review Pursuant to a CEQA Guidelines Sections 15061, 15302 and 15303. Zoning District: Single Family Residential District (R-1(20,000)).

From: Hillary Gitelman

Lead Department: Planning and Community Environment

RECOMMENDATION

Staff recommends the Architectural Review Board (ARB) recommend the Director of Planning and Community Environment approve the proposed project, based on the findings for Architectural Review (Attachment B) and subject to the conditions of approval (Attachment C).

EXECUTIVE SUMMARY

City of Palo Alto
Planning & Community Environment
250 Hamilton Avenue
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(650) 329-3221

In January, the ARB held its first formal hearing on this project. At which time, the Board expressed several concerns regarding pedestrian access, circulation, visual impacts, and building materials and maintenance, as further described below. The applicant has submitted revised plans in response to ARB comments that include further clarification of the design. The applicant has provided a summary outlining the revisions made to the January plan set for this hearing (Attachment D).

BACKGROUND

This project was the subject of a formal ARB hearing on January 21, 2016. A video recording of the meeting is available online: **http://midpenmedia.org/architectural-review-board-36/**. The January 21st ARB staff report included site and context information, background regarding the preliminary review of the project, and the project description that addressed site and building design, parking and circulation, trees and landscaping, building façade and treatment, and lighting. The report included discussion regarding Comprehensive Plan conformance, zoning compliance, and evaluated the project against Performance Criteria of PAMC Section 18.23. The report also discussed other entitlements requested by the project including a Conditional Use Permit and Variance to exceed the maximum allowable gross floor area and to locate a structure (garage ramp) in the 30 foot special setback along Manuela Avenue. (**https://www.cityofpaloalto.org/civicax/filebank/documents/50636**)

The ARB conducted a public hearing and continued the review of this item to April 7, 2016. The Board members discussed the project design and massing, circulation, parking, landscaping, the design of the ramp to the basement parking garage, the design of the wood lattice on building facades, and the terms of the Conditional Use Permit and the request for Variance.

The ARB members supported the building design overall, however, they expressed the following concerns:

1. The impact of weathering and functionality of the wood lattice design defining the building facades along Manuela Avenue frontage and north side of the main sanctuary building.
2. The treatment and visual impact from the street of the ramp and associated structure to the below grade parking garage.
3. Pedestrian access and circulation to the site. With respect to this item the ARB members expressed particular concern regarding the following:
    a. Potential for vehicular/pedestrian conflicts at the two entrance/exit points: the ramp to the below grade parking garage and surface entry to the site
    b. Safety of pedestrians entering the site from either end of the property.
    c. The configuration of paving in front of the 'Garden Entrance' along the main axis of the facility ending 10 feet from Manuela Avenue and encouraging pedestrians to walk through landscaping to reach the entrance to the main building.
4. The pedestrian connection between the surface and below grade parking garage.

5. Presentation/renderings that could use the opportunity to highlight features of the building like the drop off point to the main building.

One board member expressed the need for a sidewalk along Manuela Avenue for safety. Another ARB member shared staff's concern regarding the narrow distance (3'6") between the surface vehicular driveway and the northeastern corner of the administration building. Concern regarding the sufficiency of bicycle parking was also expressed while acknowledging that the bicycle parking provided meets Code. One ARB member expressed opposition to the variance for exceeding the maximum allowable gross floor area as unjustified.

The ARB directed the applicant to address these concerns, clarify the appearance of the ramp access to the below grade parking garage, the treatment and design of the wood lattice on the façade along the Manuela Avenue frontage, and the connection to the below grade parking garage from the surface. The ARB also asked the applicant to explore the possibility of providing additional bicycle spaces that could accommodate tandem/tag along bicycles on site.

PROJECT DESCRIPTION

In response to the January 21, 2016 ARB comments, the applicant submitted several revised plans in March. The current submittal is similar to the previous plan set with the exception of a design modification including the elimination of the 'apron' in front of the 'Garden Entry' from Manuela Avenue. Additionally the plans include:

- Sheet A4.1, which clarifies the site circulation pattern for vehicles, bicycles and pedestrians.
- Sheet A16.1, which includes additional construction details of the wood lattice feature of the project design, the proposed species of wood for the lattice slats, texture and stains to be used and a suggested maintenance program.
- Additional renderings on Sheet A17, which portray various features of the project, which include 1). the ramp to the parking garage, 2). view of the stairway to the surface from the below grade parking garage, and 3). view of the drop off area to the main building, 4). view of the 'Garden Entry' from Manuela Avenue, and 5) view looking south west at the wood lattice on the building façade and landscaped area along the Manuela Avenue frontage.

DISCUSSION

Comprehensive Plan Conformance and Zoning Compliance

The revised plans (Attachment G) would not change the use program, total gross floor area, building setbacks, lot coverage, building height and materials palette from the plans presented to the ARB in January. The proposed project remains in conformance with the applicable policies found in the Comprehensive Plan as outlined in the Comprehensive Plan Conformance Table included as Attachment E. The Zoning Compliance Table is included as Attachment F.

The project includes requests for a Variance to exceed the maximum allowable floor area by approximately 4,943 square feet for a portion of the building which is vaulted over 17 feet in height. This request is not for actual floor area, but space that by Code is counted toward the floor area maximum and could increase the visual building mass as opposed to the intensity of the proposed use. A Variance is also requested to allow the ramp and associated structure including retaining walls to the below grade parking garage to encroach into the 30 foot special setback along Manuela Avenue. The Variance for encroachment into the special setback is for the encroachment of the access ramp to the subterranean garage and the below grade garage itself. Attachment H includes the findings for an approval of these Variances.

Pedestrian Access and Circulation

As shown on Sheet A4.1, pedestrian access to the site is similar to the proposal reviewed in January. The main access is planned through pathways in the landscaped area at the front of the property that lead to the 'Garden Entrance' of the main building. This pathway continues from the 'Garden Entrance' to the service entry at the southwestern corner of the property and in the opposite direction continues to a crosswalk from the surface parking area for a continuous pedestrian walkway in front of the building. The current submittal includes a revision to the configuration of paving in front of the 'Garden Entry'. The 'apron' in front of the entry that could potentially have served as a drop off point and pedestrian circulation over landscaping due to minimal separation between the street and the paving has been eliminated. In the current design the 'Garden Entrance' paving is setback to be flush with the pedestrian walkway leading to it.

Access for pedestrians from the below grade garage to the surface remains through a staircase and an elevator located near the entry to the main building. Based on the 'Garage Stair View' rendering on Sheet A17, this stairwell would also bring light and serve as a focal point visually connecting the surface to the parking garage underneath. Another staircase from the garage is located along the northern wall of the administrative building.

The project does not propose any major changes to site planning that would eliminate the need for pedestrians to cross two vehicular entry and exit points to the site. However, the project proposes pre-assignment of surface parking spaces during peak use periods to minimize the potential for users entering and exiting the site twice in the same trip, which has been made a condition of approval. This would also serve to minimize vehicular traffic entering the site through the surface entry during peak use periods and potentially minimize vehicular and pedestrian conflicts at this entry.

The potential extension of the sidewalk to Foothill Expressway from the site would also facilitate safer pedestrian access. A condition of approval addresses the extension of this sidewalk. As bus service does not currently serve the project on weekends, when the synagogue is most heavily used, this condition will not be a requirement of the project, but Public Works may elect to partner with the applicant on a coordinated project.

Wood Lattice

Wood lattice across the western façade of the building along Manuela Avenue and northern façade of the main sanctuary building is a characteristic feature of the project design. This features is also used in the treatment of the safety guard walls of the ramp to the below grade parking. The lattice members are proposed to be 3 inch by 5 inches timber shorts, 29 inches long, spaced and rotated on a gradient array. Clear space between the slats ranges from a min of 3 inches to 7 inches.

Sheet A16.1 notes the wood species to be utilized for the slats of the lattice along with the proposed texture and stains and suggests a maintenance program that include the following: annual inspection to evaluate the weathering of the finish, structural decay, and possible damage due to insects, and cleaning and recoating of the wood finish every 3 to 5 years. A mock-up of the lattice will be provided at the hearing.

Staff has included a condition of approval requiring the above stated maintenance measures for areas where the wood lattice is used and welcomes ARB input for further developing conditions of approval for the lattice design and maintenance, if the ARB deems necessary.

Parking Garage Access

Sheet A17 includes views of the ramp access to the parking garage and connection between the below grade parking garage and surface through the stairway that leads from the garage to the surface near the entry to the main sanctuary building.

The view of the ramp shows safety guard walls (approximately 4 feet high) that incorporate the wood lattice treatment also applied to the buildings. The guard walls appear visible from the street, although subject to maintenance of the wood lattice, adverse visual impacts to users of the street are not anticipated.

PUBLIC OUTREACH

Staff received correspondence from the public on the project prior to the January 21, 2016 ARB hearing, which included a letter of support; other commenters raised concern about traffic, parking and the variance to exceed the floor area for the raised height. Staff has not received additional comments since the last public hearing on January 21, 2016.

ENVIRONMENTAL ASSESSMENT

Pursuant to the requirements of the California Environmental Quality Act (CEQA), the project is eligible to be categorically exempt from CEQA per Guidelines Sections 15302 (Replacement or Reconstruction), 15303 (New Construction or Convertion of Small Structures) and 15061). This project is largely a replacement of the existing synagogue with the addition of less than 10,000 net new usable square feet. While the project includes additional square feet to account for the vaulted ceiling, this square footage does not increase the overall use, intensity or capacity of the building.

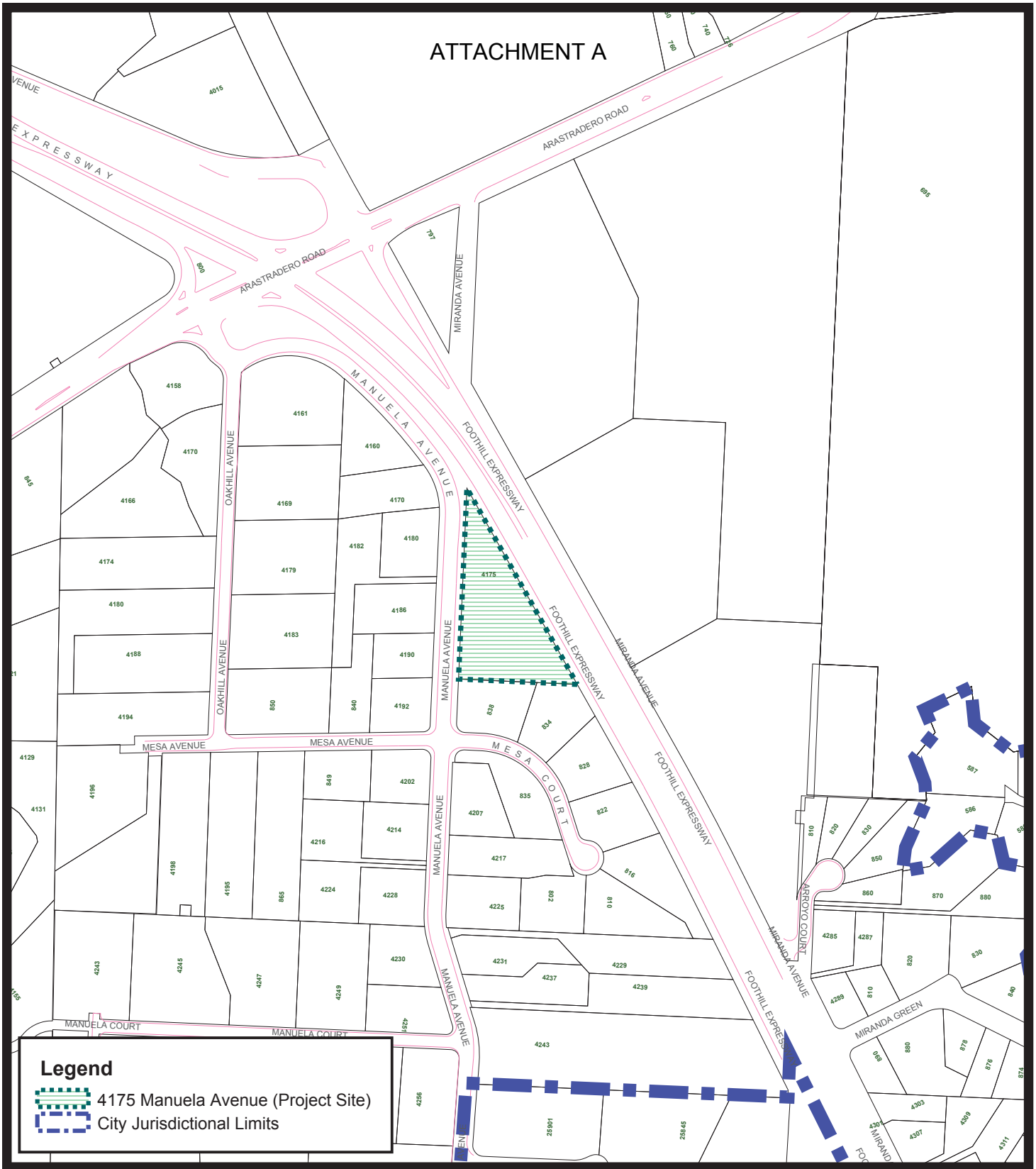
COURTESY COPIES

Kevin Davies
Mindy Romanowski

Attachments:

- Attachment A: Location Map (PDF)
- Attachment B: Draft ARB Findings (DOCX)
- Attachment C: Draft Project Conditions (DOCX)
- Attachment D: Applicant's ARB Summary (PDF)
- Attachment E: Comprehensive Plan Conformance (DOCX)
- Attachment F: Zoning Comparison Table (DOCX)
- Attachment G: Variance Findings (DOCX)
- Attachment H: Project Plans (DOCX)

ATTACHMENT A



The City of Palo Alto

Site Location Map
4175 Manuela Avenue

This map is a product of the City of Palo Alto GIS

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ATTACHMENT B
DRAFT ARB FINDINGS FOR APPROVAL
4175 Manuela Avenue/ File No. 15PLN-00129

The design and architecture of the proposed improvements, as conditioned, complies with the Findings for Architectural Review as required in Chapter 18.76 of the PAMC.

Comprehensive Plan and Purpose of ARB:
Finding #1: The design is consistent and compatible with applicable elements of the Palo Alto Comprehensive Plan.
Finding #16: The design is consistent and compatible with the purpose of architectural review, which is to:

- Promote orderly and harmonious development in the city;
- Enhance the desirability of residence or investment in the city;
- Encourage the attainment of the most desirable use of land and improvements;
- Enhance the desirability of living conditions upon the immediate site or in adjacent areas; and
- Promote visual environments which are of high aesthetic quality and variety and which, at the same time, are considerate of each other.

The project is consistent with Findings #1 and #16 because:

The Comprehensive Plan (Plan) land use designation for the project site is Single Family Residential. Churches are conditional uses in this designation which provide for uses and accessory uses that are necessary or desirable for the development of the community or region but cannot readily be classified as permitted uses in individual districts by reason of uniqueness of size, scope, or possible effect on public facilities or surrounding uses. The Plan encourages all developments to maintain and strengthen neighborhood character by ensuring new structures are compatible with the neighborhood. (Policy L-5, L-12), promote creative design that is compatible with the surroundings and revitalizes/enhances streets and sense of community (Policy L-48, L-49).

The project supports these policies. The vicinity of the project include a mix of one to two story house of varying styles. The project is compatible with the surrounding development. It has a horizontal profile along its frontage on Manuela Avenue, which is a residential street with the mass and height of the raised central core stepped back that will not overwhelm the scale of surrounding one to two story structures. It incorporates perimeter landscaping and retains majority of the existing oaks, redwoods and olives on the site's perimeter in keeping with the vegetated character of the neighborhood. The two proposed buildings on the site are arranged in an L-shaped configuration with on-site vehicular circulation and parking shielded in a below

grade parking garage and behind the buildings adjacent to Foothill Expressway and away from the Manuela Avenue and residential sites in the vicinity.

Compatibility and Character:
Finding #2: The design is compatible with the immediate environment of the site.
Finding #4: In areas considered by the board as having a unified design character or historical character, the design is compatible with such character.
Finding #5: The design promotes harmonious transitions in scale and character in areas between different designated land uses.
Finding #6: The design is compatible with approved improvements both on and off the site.

The project is consistent with Findings #2, #4, #5, and #6 because:

The project proposes two buildings. The main building on the site includes a raised core that reaches 21 feet in height but is stepped back behind single story structure and is less than the maximum height of 30 feet permitted in the applicable Single Family Residential (R-1) zoning district. The immediate environment of the site includes one to two story residences and the project would be similar in height to the adjacent buildings in the area. Proposed articulation of the façade that has a horizontal, one story profile along Manuela Avenue would be compatible with the surrounding structures and lend visual interest. The project proposes an 11'7" landscape buffer to the adjacent residential property and would provide appropriate transition to the neighboring residential use.

The project includes a below grade parking garage that is setback from the property line along Manuela Avenue to allow for landscaping that would soften the appearance of the building from the street. The site is subject to a special 30 foot setback requirement along Manuela Avenue. The ramp and associates structure is located in the special setback at the northern extremity of the site away from the residential areas to the south of the site while allowing for the retention of oak trees along the site's northeastern boundary in the Foothill Expressway right of way.

Functionality and Open Space:
Finding #3: The design is appropriate to the function of the project.
Finding #7: The planning and siting of the building on the site creates an internal sense of order and provides a desirable environment for occupants, visitors and the general community.
Finding #8: The amount and arrangement of open space are appropriate to the design and the function of the structures.

The project is consistent with Finding #3, #7, and #8, because:

The proposed project is institutional in nature inclusive of two buildings with a basement parking garage that allows for perimeter landscaping and walkways in front of the buildings with sitting areas. The proposed building relate to each other in an L-shaped configuration such that vehicular circulation on the site occurs away from residential areas. The siting of the

buildings creates an internal sense of order, and the walkways and landscaping provide a desirable environment for the community and the occupants and are appropriate to the function and the design of the structures.

Circulation and Traffic:
Finding #9: Sufficient ancillary functions are provided to support the main functions of the project and the same are compatible with the project's design concept.
Finding #10: Access to the property and circulation thereon are safe and convenient for pedestrians, cyclists and vehicles.

The project is consistent with Finding #9 and #10 because:

The project includes proper screening for its ancillary functions, such as trash area. Most of the utilities are situated underground or in a location screened from street view with landscaping.

The project includes a one-level underground parking facility that provides parking for 109 cars and includes a secure area for long term bicycle parking. Surface parking for 12 cars is located along the rear property line. The project also includes a total of 20 bicycle parking space with 16 short term bicycle racks distributed to the north side of the administration building and near the drop off area to the main entrance of the sanctuary building. Additionally, four (4) long term bicycle lockers that are located in the parking garage next to the elevator. a The project has requested an adjustment by the Director for the required parking based on the facility's program and subject to a Transportation Demand Management Program. As conditioned, the project is anticipated to provide adequate on-site parking for the proposed use.

The project includes two access points 1) ramp to the below grade parking and a surface entry that leads to the drop off area in front of the main building of the facility. The project proposes a separate pedestrian entrance that leads through a walkway to the entrance of the main building and pedestrian walkways are provided in front of buildings for internal pedestrian circulation. Access from the below grade parking is through a staircase and an elevator located near the entry to the main building. Cyclists will share the vehicular surface access to the site. As conditioned, the project would provide safe and convenient access to the property.

Landscaping and Plant Materials:
Finding #11: Natural features are appropriately preserved and integrated with the project.
Finding #12: The materials, textures and colors and details of construction and plant material are an appropriate expression to the design and function and compatible with the adjacent and neighboring structures, landscape elements and functions.
Finding #13: The landscape design concept for the site, as shown by the relationship of plant masses, open space, scale, plant forms and foliage textures and colors create a desirable and functional environment on the site and the landscape concept depicts an appropriate unit with the various buildings on the site.

Finding #14: Plant material is suitable and adaptable to the site, capable of being properly maintained on the site, and is of a variety that would tend to be drought-resistant and to reduce consumption of water in its installation and maintenance.

The project is consistent with Finding #11, #12, #13, #14 because:

Existing trees along the perimeter are proposed to be retained although with some impacts anticipated from the excavation and grading for the below grade parking garage. The City arborist has approved a tree protection report that outlines measures to minimize impacts and will continue to work with the project arborist. New trees, including cherry and a few coast live oaks are proposed along Manuela Avenue, in the right of way. New redwood plantings are proposed along the southern property boundary to provide a buffer for the adjacent neighbor. Eastern redbud plantings are proposed in the triangular area at the apex of the site next to Foothill Expressway, which would accommodate a sanctuary garden separated from Foothill Expressway by an existing 6 foot high wall.

The proposed plant materials are suitable and adaptable in creating a desirable environment for the proposed use. Paving is proposed to integrate the flow of space in pedestrian walkways, to differentiate vehicular circulation area and to enhance the design.

Sustainability:

Finding #15: The design is energy efficient and incorporates renewable energy design elements including, but not limited to:

a. Careful building orientation to optimize daylight to interiors
b. High performance, low-emissivity glazing
c. Cool roof and roof insulation beyond Code minimum
d. Solar ready roof
e. Use of energy efficient LED lighting
f. Low-flow plumbing and shower fixtures
g. Below grade parking to allow for increased landscape and stormwater treatment areas

The project is consistent with Finding #15 because:

The project would comply with the City's green building ordinance. The building would incorporate recycled building materials, solar ready roof, and energy efficient LED lighting. The project includes below grade parking and proposes to provide onsite storm water management measures through landscaping.

ATTACHMENT C
DRAFT PROJECT CONDITIONS
4175 Manuela Avenue/ File No. 15PLN-00129

Planning Division

1. The plans submitted for Building Permit shall be in substantial conformance with plans received and date stamped March 24, 2016, except as modified to incorporate these conditions of approval.

2. The ARB approval letter including all Department conditions of approval for the project shall be printed on the plans submitted for building permit.

3. Any exterior changes to the building such as size, location, materials or signage are subject to ARB review and approval prior to occupancy/installation.

4. Second Floor Equivalency and FAR Variance: The vaulted space within the sanctuary shall remain one story and shall not be converted to standard FAR by virtue of adding a mezzanine level.

5. Noise. All noise producing equipment shall not exceed the allowances specified in Section 9.10 Noise of the Palo Alto Municipal Code, including the following:

    A. Construction hours shall be limited to 8:00am to 6:00pm Monday through Friday and 9:00am to 6:00pm on Saturdays. No construction is allowed on Sundays or Holidays as specified in Title 9 of the Municipal Code.

    B. No individual piece of equipment shall produce a noise level exceeding one hundred ten (110) dBA at a distance of twenty-five feet.

    C. The noise level at any point outside of the property plane of the project shall not exceed ninety (90) dBA.

    D. Rules and regulation pertaining to all construction activities and limitations identified in this permit, along with the name and telephone number of a developer appointed disturbance coordinator, shall be posted in a prominent location at the entrance to the job site.

6. The applicant shall work with the Public Works Department to create a logistics plan to ensure conformance with City Ordinances and manage construction activities prior to building permit issuance.

7. The project shall be subject to the mandatory Green Building Ordinance.

8. The following "Basic Construction Measures" shall be incorporated for the duration of the project construction to minimize dust related construction impacts:

    A. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

    B. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

    C. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

    D. All vehicle speeds on unpaved roads shall be limited to 15 mph.

    E. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

    F. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

    G. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.

    H. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

9. Tree #42. The necessary permits shall be obtained from the County of Santa Clara for pruning or removal of the Coast Live Oak in the Foothill Expressway right of way proposed for pruning/removal on the plan and arborist report.

10. A Final TDM program shall be reviewed and approved prior to the issuance of any building permits to the satisfaction of the Director of Planning and Community Environment. Annual reports shall be submitted to the Director of Planning and additional measures may be required of the applicant/property owner to ensure the performance measures are maintained..

11. Maintain the "green screen" and the landscaping in the interior side setback as shown on the plans.

12. Install and maintain a system of shades and/or obscured glazing to avoid light spill from the clear story windows onto the adjacent residential property to the south, to the satisfaction of the Director of Planning.

13. Implement a pre-assignment system for surface parking spaces during peak use periods to reduce vehicular circulation.

14. Building spaces allocated for peak simultaneous use shall not be used concurrently with the spaces allocated for off peak use as shown in Sheet A18 of the approved plan set.

15. Maximum attendance at the facility shall not exceed 484 persons during regular usage of the facility and all parking for the subject use shall be on site.

16. The number of special/large events shall not exceed eight events in a year. Two weeks prior to a special/large event the applicant/organizer shall send out notification to all residents within 600 feet of the subject property, and the Director of Planning and Community Environment, unless such special/large event is sudden (i.e. a funeral), in which case such notice shall be sent as soon as practical. The notice shall give residents a full schedule of the events and a contact number for the property owner/event organizer in case they have any concerns.

17. Special event parking: Additional special event parking shall be provided at an off-site location during all event hours. Additional details, which may include shuttle service, shall be reviewed and approved by the Director of Planning along with the TDM plan, prior to issuance of any building permits. Monitoring reports shall be submitted to the Director of Planning on an Annual basis, noting the effectiveness of the proposed measures, and suggestions for modifications if necessary to enhance parking and/or trip reductions.

18. Prior to demolition, a survey of the existing buildings shall be conducted for suspected lead-containing materials (LCM), including lead-based paint/coating, and asbestos containing materials (ACMs). Any demolition activities likely to disturb LCMs or ACMs shall be carried out by a contractor trained and qualified to conduct lead- or asbestos-related construction work. If found, LCMs and ACMs shall be disposed of properly.

19. Institute a maintenance program including the following maintenance measures for the 'wood lattice' treatment:
    i). Annual inspection to evaluate the weathering of the finish, structural decay, and possible damage due to insects.
    ii). Cleaning and recoating of the wood finish every 3 to 5 years.

20. The distance between the surface vehicular driveway and the northeast corner of the office/administration building shall comply with the accessibility requirements of the Building Code.

21. Prior to building permit issuance, the applicant shall pay all Development Impact Fees. The applicable impact fees would be calculated based upon the fee structure in place at the time of the building permit issuance. The estimated amount is $ 88,453.06.

22. The building permit plans shall show the ramp to the below grade parking garage to the Transportation Department specifications.

23. There shall be no mezzanine or additional story constructed during the life of the project in the main sanctuary building including the multipurpose hall and the main sanctuary.

24. Indemnify and Hold Harmless. To the extent permitted by law, the Applicant shall indemnify and hold harmless the City, its City Council, its officers, employees and agents (the "indemnified parties") from and against any claim, action, or proceeding brought by a third party against the indemnified parties and the applicant to attack, set aside or void, any permit or approval authorized hereby for the Project, including (without limitation) reimbursing the City for its actual attorneys' fees and costs incurred in defense of the litigation. The City may, in its sole discretion, elect to defend any such action with attorneys of its own choice.

25. 90-day Protest Period. California Government Code Section 66020 provides that a project applicant who desires to protest the fees, dedications, reservations, or other exactions imposed on a development project must initiate the protest at the time the development project is approved or conditionally approved or within ninety (90) days after the date that fees, dedications, reservations or exactions are imposed on the Project. Additionally, procedural requirements for protesting these development fees, dedications, reservations and exactions are set forth in Government Code Section 66020. IF YOU FAIL TO INITIATE A PROTEST WITHIN THE 90-DAY PERIOD OR FOLLOW THE PROTEST PROCEDURES DESCRIBED IN GOVERNMENT CODE SECTION 66020, YOU WILL BE BARRED FROM CHALLENGING THE VALIDITY OR REASONABLENESS OF THE FEES, DEDICATIONS, RESERVATIONS, AND EXACTIONS.

Public Works Engineering

26. OFFSITE IMPROVEMENTS: As part of this project, the applicant will be required to repave (2-inch grind and pave) along the full width of Manuela Avenue along the applicant's property frontage to the same or similar condition as existed prior to the commencement of construction unless, subject to the reasonable discretion of the Public Works Director, such repair is deemed unnecessary, and install all new sidewalk, curb, gutter, and driveway approaches in the public right-of-way along the property frontage per Public Works' latest standards and/or as instructed by the Public Works Inspector. The plans must show the extent of the replacement work and note that any work in the right-of-way must be done per Public Works' standards by a licensed contractor who must first obtain a Permit for Construction in the Public Right-of-Way ("Street Work Permit") from Public Works at the Development Center.

27. SIDEWALK EXTENSION: Prior to building permit submittal, the applicant shall meet with Public Works Engineering, Transportation, and Urban Forestry staff to discuss the practicality of a sidewalk or pathway extension to Foothill Expressway and funding mechanism.

28. STREET TREES: The applicant may be required to replace existing and/or add new street trees in the public right-of-way along the property's frontage(s). Call the Public Works' Urban Forestry at 650-496-5953 to arrange a site visit so he can determine what street tree work, if any, will be required for this project. The site plan submitted with the building permit plan set must show the street tree work that the arborist has determined, including the tree species, size, location, staking and irrigation requirements, or include a note that Public Works' Urban Forester has determined no street tree work is required. The plan must note that in order to do street tree work, the applicant must first obtain a Permit for Street Tree Work in the Public Right-of-Way from Public Works' arborist (650-496-5953).

29. BASEMENT/SUBTERRANEAN PARKING GARAGE DRAINAGE: Due to high groundwater throughout much of the City and Public Works prohibiting the pumping and discharging of groundwater, perforated pipe drainage systems at the exterior of the basement walls or under the slab are not allowed for this site. A drainage system is, however, required for all exterior basement-level spaces, such as lightwells, patios or stairwells. This system consists of a sump, a sump pump, a backflow preventer, and a closed pipe from the pump to a dissipation device onsite at least 10 feet from the property line, such as a bubbler box in a landscaped area, so that water can percolate into the soil and/or sheet flow across the site. The device must not allow stagnant water that could become mosquito habitat. Additionally, the plans must show that exterior basement-level spaces are at least 7-3/4" below any adjacent windowsills or doorsills to minimize the potential for flooding the basement. Public Works recommends a waterproofing consultant be retained to design and inspect the vapor barrier and waterproofing systems for the basement.

30. BASEMENT/SUBTERRANEAN PARKING GARAGE SHORING: Shoring for the basement excavation, including tiebacks, must not extend onto adjacent private property or into the

City right-of-way without having first obtained written permission from the private property owners and/or an encroachment permit from Public Works.

31. DEWATERING: Basement excavations may require dewatering during construction. Public Works only allows groundwater drawdown well dewatering. Open pit groundwater dewatering is disallowed. Dewatering is only allowed from April through October due to inadequate capacity in our storm drain system. The geotechnical report for this site must list the highest anticipated groundwater level. We recommend a piezometer to be installed in the soil boring. The contractor must determine the depth to groundwater immediately prior to excavation by using the piezometer or by drilling an exploratory hole if the deepest excavation will be within 3 feet of the highest anticipated groundwater level. If groundwater is found within 2 feet of the deepest excavation, a drawdown well dewatering system must be used, or alternatively, the contractor can excavate for the basement and hope not to hit groundwater, but if he does, he must immediately stop all work and install a drawdown well system before he continues to excavate. Public Works may require the water to be tested for contaminants prior to initial discharge and at intervals during dewatering. If testing is required, the contractor must retain an independent testing firm to test the discharge water for the contaminants Public Works specifies and submit the results to Public Works.

    Public Works reviews and approves dewatering plans as part of a Street Work Permit. The applicant must include the dewatering plan in the building permit plan set in order to obtain approval of the plan during the building permit review, but the contractor will still be required to obtain a street work permit prior to dewatering. Alternatively, the applicant must include the above dewatering requirements in a note on the site plan. Public Works has a sample dewatering plan sheet and dewatering guidelines available at the Development Center and on our website.

32. WATER FILLING STATION: Due to the California drought, applicant shall install a water station for the non-potable reuse of the dewatering water. This water station shall be constructed within private property, next to the right-of-way, (typically, behind the sidewalk). The station shall be accessible 24 hours a day for the filling of water carrying vehicles (i.e. street sweepers, etc.). The water station may also be used for onsite dust control. Before a discharge permit can be issued, the water supply station shall be installed, ready for operational and inspected by Public Works. The groundwater will also need to be tested for contaminants and chemical properties for the non-potable use. The discharge permit cannot be issued until the test results are received. Additional information regarding the station will be made available on the City's website under Public Works.

33. GRADING & DRAINAGE PLAN: The plan set must include a grading & drainage plan prepared by a licensed professional that includes existing and proposed spot elevations and drainage flow arrows to demonstrate proper drainage of the site. Adjacent grades must slope away from the structure a minimum of 2%. Downspouts and splashblocks should be shown on this plan, as well as any site drainage features such as swales. Grading will not be allowed that increases drainage onto, or blocks existing drainage from, neighboring properties. Public

Works generally does not allow rainwater to be collected and discharged into the street gutter, but encourages the developer to keep rainwater onsite as much as feasible by directing runoff to landscaped and other pervious areas of the site.

34. WINTERIZATION PLAN: Winterization Plan shall be submitted to Public Works Engineering as required, to address all work areas that have not been stabilized prior to onset of the wet season (10/1 – 4/15).

35. GRADING & EXCAVATION PERMIT: An application for a grading & excavation permit must be submitted to Public Works for the construction of the basement when applying for a building permit. The application and guidelines are available at the Development Center and on our website.

36. STORM DRAIN INLETS: The applicant is required to paint the "No Dumping/Flows to Barron Creek" logo in blue color on a white background, adjacent to all on-site storm drain inlets. Stencils of the logo are available from the Public Works Environmental Compliance Division, which may be contacted at (650) 329-2598. A deposit may be required to secure the return of the stencil. For off-site storm drain inlets, the applicant shall install medallions which can be obtained from the Public Works Inspector. Include the instructions to paint the logos and/or install medallions on the Grading & Drainage Plan. Include maintenance of these logos in the Hazardous Materials Management Plan, if such a plan is part of this project.

37. OIL/WATER SEPARATOR: Parking garage floor drains on interior levels shall be connected to an oil/water separator prior to discharging to the sanitary sewer system.

38. GREASE INTERCEPTOR: If a commercial kitchen is proposed requiring the installation of a grease interceptor, the grease separator shall be installed and located within private property. In no case shall the City of Palo Alto allow the right-of-way (ROW) to be used to satisfy this requirement.

39. STORAGE: No storage of construction materials is permitted in the street or on the sidewalk without prior approval of Public Works Engineering.

40. STORM WATER POLLUTION PREVENTION: The City's full-sized "Pollution Prevention - It's Part of the Plan" sheet must be included in the plan set. Copies are available from Public Works at the Development Center or on our website.

41. SWPPP: If the proposed development will disturb more than one acre of land, the applicant will be required to comply with the State of California's General Permit for Storm Water Discharges Associated with Construction Activity. This entails filing a Notice of Intent to Comply (NOI), paying a filing fee, and preparing and implementing a site specific storm water pollution prevention plan (SWPPP) that addresses both construction-stage and post-construction BMP's for storm water quality protection. The applicant is required to submit two copies of the NOI and the draft SWPPP to the Public Works Department for review and

approval prior to issuance of the building permit. Also, include the City's standard "Pollution Prevention - It's Part of the Plan" sheet in the building permit plan set. Copies are available from Public Works at the Development Center.

42. STREET TREES: Show all existing street trees in the public right-of-way. Any removal, relocation or planting of street trees; or excavation, trenching or pavement within 10 feet of street trees must be approved by Public Works' arborist (phone: 650-496-5953). This approval shall appear on the plans. Show construction protection of the trees per City requirements.

43. WORK IN THE RIGHT-OF-WAY: The plans must clearly indicate any work that is proposed in the public right-of-way, such as sidewalk replacement, driveway approach, or utility laterals. The plans must include notes that the work must be done per City standards and that the contractor performing this work must first obtain a Street Work Permit from Public Works at the Development Center. If a new driveway is in a different location than the existing driveway, then the sidewalk associated with the new driveway must be replaced with a thickened (6" thick instead of the standard 4" thick) section. Additionally, curb cuts and driveway approaches for abandoned driveways must be replaced with new curb, gutter and planter strip.

44. IMPERVIOUS SURFACE AREA: The project will be creating or replacing 500 square feet or more of impervious surface. Accordingly, the applicant shall provide calculations of the existing and proposed impervious surface areas with the building permit application. The Impervious Area Worksheet for Land Developments form and instructions are available at the Development Center or on our website.

45. STORM WATER TREATMENT: This project shall comply with the storm water regulations contained in provision C.3 of the NPDES municipal storm water discharge permit issued by the San Francisco Bay Regional Water Quality Control Board (and incorporated into Palo Alto Municipal Code Chapter 16.11). These regulations apply to land development projects that create or replace 10,000 square feet or more of impervious surface. In order to address the potential permanent impacts of the project on storm water quality, the applicant shall incorporate into the project a set of permanent site design measures, source controls, and treatment controls that serve to protect storm water quality, subject to the approval of the Public Works Department. The applicant shall identify, size, design and incorporate permanent storm water pollution prevention measures (preferably landscape-based treatment controls such as bioswales, filter strips, and permeable pavement rather than mechanical devices that require long-term maintenance) to treat the runoff from a "water quality storm" specified in PAMC Chapter 16.11 prior to discharge to the municipal storm drain system. Effective February 10, 2011, regulated projects, must contract with a qualified third-party reviewer during the building permit review process to certify that the proposed permanent storm water pollution prevention measures comply with the requirements of Palo Alto Municipal Code Chapter 16.11. The certification form, 2 copies of approved storm water treatment plan, and a description of Maintenance Task and Schedule must be received by the

City from the third-party reviewer prior to approval of the building permit by the Public Works department. Within 45 days of the installation of the required storm water treatment measures and prior to the issuance of an occupancy permit for the building, third-party reviewer shall also submit to the City a certification for approval that the project's permanent measures were constructed and installed in accordance to the approved permit drawings.

46. STORMWATER MAINTENANCE AGREEMENT: The applicant shall designate a party to maintain the control measures for the life of the improvements and must enter into a maintenance agreement with the City to guarantee the ongoing maintenance of the permanent C.3 storm water discharge compliance measures. The maintenance agreement shall be executed prior to the first building occupancy sign-off. The City will inspect the treatment measures yearly and charge an inspection fee. There is currently a $350 C.3 plan check fee that will be collected upon submittal for a grading or building permit.

47. COUNTY/STATE RIGHT-OF-WAY: The proposed work is in close proximity to State of California or County of Santa Clara right-of-way. If any work is proposed within that right-of-way, a permit must be obtained from the applicable agency. Evidence of permit approval shall be submitted to the Planning and Public Works Departments.

48. DURING CONSTRUCTION: The developer shall require its contractor to incorporate best management practices (BMP's) for stormwater pollution prevention in all construction operations, in conformance with the Storm Water Pollution Prevention Plan prepared for the project. It is unlawful to discharge any construction debris (soil, asphalt, sawcut slurry, paint, chemicals, etc.) or other waste materials into gutters or storm drains. (PAMC Chapter 16.09).

49. LOGISTICS PLAN: The contractor must submit a logistics plan to the Public Works Department prior to commencing any work including demolition and/or site grading that addresses all impacts to the City's right-of-way, including, but not limited to: pedestrian control, traffic control, truck routes, material deliveries, contractor's parking, concrete pours, crane lifts, work hours, noise control, dust control, storm water pollution prevention, contractor's contact, noticing of affected businesses or neighborhood(s), and schedule of work. The plan will be attached to a street work permit.

Public Works, Environmental Services Division

50. PAMC 16.09.170, 16.09.040 Discharge of Groundwater. Prior approval shall be obtained from the city engineer or designee to discharge water pumped from construction sites to the storm drain. The city engineer or designee may require gravity settling and filtration upon a determination that either or both would improve the water quality of the discharge. Contaminated ground water or water that exceeds state or federal requirements for discharge to navigable waters may not be discharged to the storm drain. Such water may be discharged to the sewer, provided that the discharge limits contained in Palo Alto Municipal Code (16.09.040(m)) are not exceeded and the approval of the superintendent is obtained

prior to discharge. The City shall be compensated for any costs it incurs in authorizing such discharge, at the rate set forth in the Municipal Fee Schedule.

51. PAMC 16.09.055 Unpolluted Water. Unpolluted water shall not be discharged through direct or indirect connection to the sanitary sewer system.

52. PAMC 16.09.175 (b) General prohibitions and practices. Exterior (outdoor) drains may be connected to the sanitary sewer system only if the area in which the drain is located is covered or protected from rainwater run-on by berms and/or grading, and appropriate wastewater treatment approved by the Superintendent is provided. For additional information regarding loading docks, see section 16.09.175(k)

53. PAMC 16.09.180(b)(9) Covered Parking. Drain plumbing for parking garage floor drains must be connected to an oil/water separator with a minimum capacity of 100 gallons, and to the sanitary sewer system.

54. PAMC 16.09.180(b)(10) Dumpsters for New and Remodeled Facilities. New buildings and residential developments providing centralized solid waste collection, except for single-family and duplex residences, shall provide a covered area for a dumpster. The area shall be adequately sized for all waste streams and designed with grading or a berm system to prevent water runon and runoff from the area.

55. PAMC 16.09.180(b)(14) Architectural Copper. On and after January 1, 2003, copper metal roofing, copper metal gutters, copper metal down spouts, and copper granule containing asphalt shingles shall not be permitted for use on any residential, commercial or industrial building for which a building permit is required. Copper flashing for use under tiles or slates and small copper ornaments are exempt from this prohibition. Replacement roofing, gutters and downspouts on historic structures are exempt, provided that the roofing material used shall be prepatinated at the factory. For the purposes of this exemption, the definition of "historic" shall be limited to structures designated as Category 1 or Category 2 buildings in the current edition of the Palo Alto Historical and Architectural Resources Report and Inventory.

56. PAMC 16.09.180(b)(5) Condensate from HVAC. Condensate lines shall not be connected or allowed to drain to the storm drain system.

57. PAMC 16.09.205 Cooling Towers. No person shall discharge or add to the sanitary sewer system or storm drain system, or add to a cooling system, pool, spa, fountain, boiler or heat exchanger, any substance that contains any of the following:
    (1) Copper in excess of 2.0 mg/liter;
    (2) Any tri-butyl tin compound in excess of 0.10 mg/liter;
    (3) Chromium in excess of 2.0 mg/liter.
    (4) Zinc in excess of 2.0 mg/liter; or
    (5) Molybdenum in excess of 2.0 mg/liter.

The above limits shall apply to any of the above-listed substances prior to dilution with the cooling system, pool, spa or fountain water.
A flow meter shall be installed to measure the volume of blowdown water from the new cooling tower. Cooling systems discharging greater than 2,000 gallons per day are required to meet a copper discharge limit of 0.25 milligrams per liter.

58. PAMC 16.09.180(b)(b) Copper Piping. Copper, copper alloys, lead and lead alloys, including brass, shall not be used in sewer lines, connectors, or seals coming in contact with sewage except for domestic waste sink traps and short lengths of associated connecting pipes where alternate materials are not practical. The plans must specify that copper piping will not be used for wastewater plumbing.

59. PAMC 16.09.180(12) Mercury Switches. Mercury switches shall not be installed in sewer or storm drain sumps.

60. PAMC 16.09.205(a) Cooling Systems, Pools, Spas, Fountains, Boilers and Heat Exchangers. It shall be unlawful to discharge water from cooling systems, pools, spas, fountains boilers and heat exchangers to the storm drain system.

61. PAMC 16.09.165(h) Storm Drain Labeling. Storm drain inlets shall be clearly marked with the words "No dumping - Flows to Bay," or equivalent.

62. PAMC 16.09 Designated Food Service Establishment (FSE) Project:

    A. Grease Control Device (GCD) Requirements, PAMC Section 16.09.075 & cited Bldg/Plumbing Codes
        1. The plans shall specify the manufacturer details and installation details of all proposed GCDs. (CBC 1009.2)
        2. GCD(s) shall be sized in accordance with the 2007 California Plumbing Code.
        3. GCD(s) shall be installed with a minimum capacity of 500 gallons.
        4. GCD sizing calculations shall be included on the plans. See a sizing calculation example below.
        5. The size of all GCDs installed shall be equal to or larger than what is specified on the plans.
        6. GCDs larger than 50 gallons (100 pounds) shall not be installed in food preparation and storage areas. Santa Clara County Department of Environmental Health prefers GCDs to be installed outside. GCDs shall be installed such that all access points or manholes are readily accessible for inspection, cleaning and removal of all contents. GCDs located outdoors shall be installed in such a manner so as to exclude the entrance of surface and stormwater. (CPC 1009.5)
        7. All large, in-ground interceptors shall have a minimum of three manholes to allow visibility of each inlet piping, baffle (divider) wall, baffle piping and outlet piping.

The plans shall clearly indicate the number of proposed manholes on the GCD. The Environmental Compliance Division of Public Works Department may authorize variances which allow GCDs with less than three manholes due to manufacture available options or adequate visibility.

8. Sample boxes shall be installed downstream of all GCDs.
9. All GCDs shall be fitted with relief vent(s). (CPC 1002.2 & 1004)
10. GCD(s) installed in vehicle traffic areas shall be rated and indicated on plans.

B. Drainage Fixture Requirements, PAMC Section 16.09.075 & cited Bldg/Plumbing Codes

11. To ensure all FSE drainage fixtures are connected to the correct drain lines, each drainage fixture shall be clearly labeled on the plans. A list of all fixtures and their discharge connection, i.e. sanitary sewer or grease waste line, shall be included on the plans.
12. A list indicating all connections to each proposed GCD shall be included on the plans. This can be incorporated into the sizing calculation.
13. All grease generating drainage fixtures shall connect to a GCD. These include but are not limited to:
    i. Pre-rinse (scullery) sinks
    ii. Three compartment sinks (pot sinks)
    iii. Drainage fixtures in dishwashing room except for dishwashers shall connect to a GCD
    iv. Examples: trough drains (small drains prior to entering a dishwasher), small drains on busing counters adjacent to pre-rinse sinks or silverware soaking sinks
    v. Floor drains in dishwashing area and kitchens
    vi. Prep sinks
    vii. Mop (janitor) sinks
    viii. Outside areas designated for equipment washing shall be covered and any drains contained therein shall connect to a GCD.
    ix. Drains in trash/recycling enclosures
    x. Wok stoves, rotisserie ovens/broilers or other grease generating cooking equipment with drip lines
    xi. Kettles and tilt/braising pans and associated floor drains/sinks
14. The connection of any high temperature discharge lines and non-grease generating drainage fixtures to a GCD is prohibited. The following shall not be connected to a GCD:
    i. Dishwashers
    ii. Steamers
    iii. Pasta cookers
    iv. Hot lines from buffet counters and kitchens
    v. Hand sinks
    vi. Ice machine drip lines

vii. Soda machine drip lines
viii. Drainage lines in bar areas

15. No garbage disposers (grinders) shall be installed in a FSE. (PAMC 16.09.075(d)).
16. Plumbing lines shall not be installed above any cooking, food preparation and storage areas.
17. Each drainage fixture discharging into a GCD shall be individually trapped and vented. (CPC 1014.5)

C. Covered Dumpsters, Recycling and Tallow Bin Areas PAMC, 16.09.075(q)(2)

18. Newly constructed and remodeled FSEs shall include a covered area for all dumpsters, bins, carts or container used for the collection of trash, recycling, food scraps and waste cooking fats, oils and grease (FOG) or tallow.
19. The area shall be designed and shown on plans to prevent water run-on to the area and runoff from the area.
20. Drains that are installed within the enclosure for recycle and waste bins, dumpsters and tallow bins serving FSEs are optional. Any such drain installed shall be connected to a GCD.
21. If tallow is to be stored outside then an adequately sized, segregated space for a tallow bin shall be included in the covered area.
22. These requirements shall apply to remodeled or converted facilities to the extent that the portion of the facility being remodeled is related to the subject of the requirement.

D. Large Item Cleaning Sink, PAMC 16.09.075(m)(2)(B)

23. FSEs shall have a sink or other area drain which is connected to a GCD and large enough for cleaning the largest kitchen.

E. GCD sizing criteria and an example of a GCD sizing calculation (2007 CPC)

Sizing Criteria: Drain Fixtures	**DFUs**	**GCD Sizing: Total DFUs**	**GCD Volume (gallons)**
Pre-rinse sink	4	8	500
3 compartment sink	3	21	750
2 compartment sink	3	35	1,000
Prep Sink	3	90	1,250
Mop/Janitorial sink	3	172	1,500
Flood drain	2	216	2,000
Floor sink	2		

Example GCD Sizing Calculation

Quantity	Drainage Fixture and Item Number	DFUs	Total
1	Pre-rinse sink, Item 1	4	4
1	3 compartment sink, item 2	3	3

2	Prep sink, Item 3 and Floor sink, Item 4	3	6
1	Mop sink, Item 5	3	3
1	Floor Trough, Item 6 & tilt skillet, Item 7	2	2
1	Floor trough, Item 6 & steam kettle, Item 8	2	2
1	Floor sink, Item 4 & wok stove, Item 9	2	2
4	Floor drains	2	8
	1,000 gallon GCD minimum sized	Total:	30

Note:

• All resubmitted plans to Building Department which include FSE projects shall be resubmitted to Water Quality.

• It is frequently to the FSE's advantage to install the next size larger GCD to allow for more efficient grease discharge prevention and may allow for longer times between cleaning. There are many manufacturers of GCDs which are available in different shapes, sizes and materials (plastic, reinforced fiberglass, reinforced concrete and metal)

• The requirements will assist FSEs with FOG discharge prevention to the sanitary sewer and storm drain pollution prevention. The FSE at all times shall comply with the Sewer Use Ordinance of the Palo Alto Municipal Code. The ordinances include requirements for GCDs, GCD maintenance, drainage fixtures, record keeping and construction projects.

Fire Department

63. Fire sprinklers to be designed per NFPA 13. Fire sprinklers and fire alarm systems required in accordance with NFPA 13, NFPA 24, NFPA 72 and State and local standards. Sprinkler, fire alarm and underground fire supply installations require separate submittal to the Fire Prevention Bureau.

64. Sprinkler main drain must be coordinated with plumbing design so that 200 gpm can be flowed for annual main drain testing for 90 seconds without overflowing the collection sump, and the Utilities Department approved ejector pumps will be the maximum flow rate to sanitary sewer.

65. Applicant shall work with Utilities Department to provide acceptable backflow prevention configuration.

66. Garage level must be served by an elevator capable of accommodating a 24 x 84 inch gurney without lifting or manipulating the gurney.

67. All welding or other hot work during construction shall be under a permit obtained from the Palo Alto Fire Department with proper notification and documentation of procedures followed and work conducted.

68. Low-E glass and underground parking areas can interfere with portable radios used by emergency responders. Please provide an RF Engineering analysis to determine if additional devices or equipment will be needed to maintain operability of emergency responder portable radios throughout 97% of the building in accordance with the Fire Code Section 510 as adopted by the City of Palo Alto. A written report to the Fire Marshal shall be provided prior to final inspection.

Utilities – Electrical Engineering

69. The transformer location is now located on the right hand side of the property (looking at the property from Manuela Avenue). The applicant shall grant easement for the transformer location as well as the necessary conduit route.

70. The existing transformer feeding this property and the neighbors is a 120/240V transformer. At the time of the ARB review, there is no indication of what voltage level this property will be at. Should the requested voltage being different than the 120/240V, the applicant shall be responsible for the following additional steps:
    A. If the new voltage is at 120/208V:
        i. If the existing 120/240V transformer (sitting in front of the Garden entrance, currently feeding 4175 and the neighbors) is to be removed (aesthetic reason?), applicant shall install new secondary vault (30”x48”) and 2-4” conduits connecting this vault to the new transformer to feed the existing customers on the new voltage level.
    B. To ensure that the existing customers’ equipment is good for the new voltage, the applicant shall perform an electric appliances survey for the affected neighbors. For every issues found by this survey, the applicant shall perform necessary steps to mitigate the problem.

<u>GENERAL</u>

71. The applicant shall comply with all the Electric Utility Engineering Department service requirements noted during plan review.

72. The applicant shall be responsible for identification and location of all utilities, both public and private, within the work area. Prior to any excavation work at the site, the applicant shall contact Underground Service Alert (USA) at 1-800-227-2600, at least 48 hours prior to beginning work.

73. The applicant shall submit a request to disconnect all existing utility services and/or meters including a signed affidavit of vacancy, on the form provided by the Building Inspection Division. Utilities will be disconnected or removed within 10 working days after receipt of request. The demolition permit will be issued after all utility services and/or meters have been disconnected and removed.

THE FOLLOWING SHALL BE INCORPORATED IN SUBMITTALS FOR ELECTRIC SERVICE

74. A completed Electric Load Sheet and a full set of plans must be included with all applications involving electrical work. The load sheet must be included with the preliminary submittal.

75. Industrial and large commercial customers must allow sufficient lead-time for Electric Utility Engineering and Operations (typically 8-12 weeks after advance engineering fees have been paid) to design and construct the electric service requested.

76. Only one electric service lateral is permitted per parcel. Utilities Rule & Regulation #18.
77. If this project requires padmount transformers, the location of the transformers shall be shown on the site plan and approved by the Utilities Department and the Architectural Review Board. Utilities Rule & Regulations #3 & #16 (see detail comments below).

78. The developer/owner shall provide space for installing padmount equipment (i.e. transformers, switches, and interrupters) and associated substructure as required by the City.

79. The customer shall install all electrical substructures (conduits, boxes and pads) required from the service point to the customer's switchgear. The design and installation shall be according to the City standards and shown on plans. Utilities Rule & Regulations #16 & #18.

80. Location of the electric panel/switchboard shall be shown on the site plan approved by the Architectural Review Board and Utilities Department.

81. All utility meters, lines, transformers, backflow preventers, and any other required equipment shall be shown on the landscape and irrigation plans and shall show that no conflict will occur between the utilities and landscape materials. In addition, all aboveground equipment shall be screened in a manner that is consistent with the building design and setback requirements.

82. For services larger than 1600 amps, the customer will be required to provide a transition cabinet as the interconnection point between the utility's padmount transformer and the customer's main switchgear. The cabinet design drawings must be submitted to the Electric Utility Engineering Department for review and approval.

83. For underground services, no more than four (4) 750 MCM conductors per phase can be connected to the transformer secondary terminals; otherwise, bus duct must be used for connections to padmount transformers. If customer installs a bus duct directly between the

transformer secondary terminals and the main switchgear, the installation of a transition cabinet will not be required.

84. The customer is responsible for sizing the service conductors and other required equipment according to the National Electric Code requirements and the City standards. Utilities Rule & Regulation #18.

85. If the customer's total load exceeds 2500 kVA, service shall be provided at the primary voltage of 12,470 volts and the customer shall provide the high voltage switchgear and transformers.

86. For primary services, the standard service protection is a padmount fault interrupter owned and maintained by the City, installed at the customer's expense. The customer must provide and install the pad and associated substructure required for the fault interrupter.

87. Any additional facilities and services requested by the Applicant that are beyond what the utility deems standard facilities will be subject to Special Facilities charges. The Special Facilities charges include the cost of installing the additional facilities as well as the cost of ownership. Utilities Rule & Regulation #20.

88. Projects that require the extension of high voltage primary distribution lines or reinforcement of offsite electric facilities will be at the customer's expense and must be coordinated with the Electric Utility.

DURING CONSTRUCTION

89. Contractors and developers shall obtain permit from the Department of Public Works before digging in the street right-of-way. This includes sidewalks, driveways and planter strips.

90. At least 48 hours prior to starting any excavation, the customer must call Underground Service Alert (USA) at 1-800-227-2600 to have existing underground utilities located and marked. The areas to be check by USA shall be delineated with white paint. All USA markings shall be removed by the customer or contractor when construction is complete.

91. The customer is responsible for installing all on-site substructures (conduits, boxes and pads) required for the electric service. No more than 270 degrees of bends are allowed in a secondary conduit run. All conduits must be sized according to National Electric Code requirements and no 1/2 – inch size conduits are permitted. All off-site substructure work will be constructed by the City at the customer's expense. Where mutually agreed upon by the City and the Applicant, all or part of the off-site substructure work may be constructed by the Applicant.

92. All primary electric conduits shall be concrete encased with the top of the encasement at the depth of 30 inches. No more than 180 degrees of bends are allowed in a primary conduit run. Conduit runs over 500 feet in length require additional pull boxes.

93. All new underground conduits and substructures shall be installed per City standards and shall be inspected by the Electrical Underground Inspector before backfilling.

94. The customer is responsible for installing all underground electric service conductors, bus duct, transition cabinets, and other required equipment. The installation shall meet the National Electric Code and the City Standards.

95. 7. Meter and switchboard requirements shall be in accordance with Electric Utility Service Equipment Requirements Committee (EUSERC) drawings accepted by Utility and CPA standards for meter installations.

96. Shop/factory drawings for switchboards (400A and greater) and associated hardware must be submitted for review and approval prior to installing the switchgear to:
    Gopal Jagannath, P.E.
    Supervising Electric Project Engineer
    Utilities Engineering (Electrical)
    1007 Elwell Court
    Palo Alto, CA 94303

97. Catalog cut sheets may not be substituted for factory drawing submittal.

98. All new underground electric services shall be inspected and approved by both the Building Inspection Division and the Electrical Underground Inspector before energizing.

AFTER CONSTRUCTION & PRIOR TO FINALIZATION

99. The customer shall provide as-built drawings showing the location of all switchboards, conduits (number and size), conductors (number and size), splice boxes, vaults and switch/transformer pads.

PRIOR TO ISSUANCE OF BUILDING OCCUPANCY PERMIT

100. The applicant shall secure a Public Utilities Easement for facilities installed on private property for City use.

101. All required inspections have been completed and approved by both the Building Inspection Division and the Electrical Underground Inspector.

102. All fees must be paid.

103. All Special Facilities contracts or other agreements need to be signed by the City and applicant.

Utilities - Water-Gas-Wastewater Engineering

PRIOR TO ISSUANCE OF DEMOLITION PERMIT

104. Prior to demolition, the applicant shall submit the existing water/wastewater fixture unit loads (and building as-built plans to verify the existing loads) to determine the capacity fee credit for the existing load. If the applicant does not submit loads and plans they may not receive credit for the existing water/wastewater fixtures.

105. The applicant shall submit a request to disconnect all utility services and/or meters including a signed affidavit of vacancy. Utilities will be disconnected or removed within 10 working days after receipt of request. The demolition permit will be issued by the building inspection division after all utility services and/or meters have been disconnected and removed.

FOR BUILDING PERMIT

106. The applicant shall submit a completed water-gas-wastewater service connection application - load sheet for City of Palo Alto Utilities. The applicant must provide all the information requested for utility service demands (water in fixture units/g.p.m., gas in b.t.u.p.h, and sewer in fixture units/g.p.d.). The applicant shall provide the existing (prior) loads, the new loads, and the combined/total loads (the new loads plus any existing loads to remain).

107. **Due to high demands outside City's control, a three to six month wait time for water and gas meters are expected. The applicant is strongly encouraged to provide the application load sheet demands as early in the design process as possible to the WGW utilities engineering department. Once payment is made, anticipate service installations completed within said time frame (3 – 6 months).**

108. The applicant shall submit improvement plans for utility construction. The plans must show the size and location of all underground utilities within the development and the public right of way including meters, backflow preventers, fire service requirements, sewer mains, sewer cleanouts, sewer lift stations and any other required utilities.

109. The applicant must show on the site plan the existence of any auxiliary water supply, (i.e. water well, gray water, recycled water, rain catchment, water storage tank, etc).

110. The applicant shall be responsible for installing and upgrading the existing utility mains and/or services as necessary to handle anticipated peak loads. This responsibility includes all costs

associated with the design and construction for the installation/upgrade of the utility mains and/or services.

111. An approved reduced pressure principle assembly (RPPA backflow preventer device) is required for all existing and new water connections from Palo Alto Utilities to comply with requirements of California administrative code, title 17, sections 7583 through 7605 inclusive. The RPPA shall be installed on the owner's property and directly behind the water meter within 5 feet of the property line. RPPA's for domestic service shall be lead free. **Show the location of the RPPA on the plans**.

112. An approved reduced pressure detector assembly is required for the existing or new water connection for the fire system to comply with requirements of California administrative code, title 17, sections 7583 through 7605 inclusive (a double detector assembly may be allowed for existing fire sprinkler systems upon the CPAU's approval). Reduced pressure detector assemblies shall be installed on the owner's property adjacent to the property line, within 5' of the property line. Show the location of the reduced pressure detector assembly on the plans.

113. All backflow preventer devices shall be approved by the WGW engineering division. Inspection by the utilities cross connection inspector is required for the supply pipe between the meter and the assembly.

114. Existing wastewater laterals that are not plastic (ABS, PVC, or PE) shall be replaced at the applicant's expense.

115. Existing water services that are not a currently standard material shall be replaced at the applicant's expense.

116. The applicant shall pay the capacity fees and connection fees associated with new utility service/s or added demand on existing services. The approved relocation of services, meters, hydrants, or other facilities will be performed at the cost of the person/entity requesting the relocation.

117. Each unit or place of business shall have its own water and gas meter shown on the plans. Each parcel shall have its own water service, gas service and sewer lateral connection shown on the plans.

118. All gas meter shall be installed above ground unless with proper justification that it must be installed underground and approved by WGW utilities engineering department.

119. **The gas main on Manuela Ave. is only 1.5" (smaller than typical gas main in the city's gas system). A UG electrical primary on Manuela Ave. may cause conflicts with water, gas, and wastewater utility.**

120. **The applicant shall submit improvement plans for utility construction. The plans must show the size and location of all underground utilities within the development and the public right of way including meters, backflow preventers, fire service requirements, sewer mains, sewer cleanouts, sewer lift stations and any other required utilities. Plans for new wastewater laterals and mains need to include new wastewater pipe profiles showing existing potentially conflicting utilities especially storm drain pipes, electric and communication duct banks. Existing duct banks need to be daylighted by potholing to the bottom of the ductbank to verify cross section prior to plan approval and starting lateral installation. Plans for new storm drain mains and laterals need to include profiles showing existing potential conflicts with sewer, water and gas.**

121. A separate water meter and backflow preventer is required to irrigate the approved landscape for landscaping areas in excess of 1,000 SF (including tree canopies). Show the location of the irrigation meter on the plans. This meter shall be designated as an irrigation account an no other water service will be billed on the account. The irrigation and landscape plans submitted with the application for a grading or building permit shall conform to the City of Palo Alto water efficiency standards.

122. The applicant shall secure a public utilities easement for facilities installed in private property. The applicant's engineer shall obtain, prepare, record with the county of Santa Clara, and provide the utilities engineering section with copies of the public utilities easement across the adjacent parcels as is necessary to serve the development.

123. All existing water and wastewater services that will not be reused shall be abandoned at the main per WGW utilities procedures.

124. Utility vaults, transformers, utility cabinets, concrete bases, or other structures cannot be placed over existing water, gas or wastewater mains/services. Maintain 1' horizontal clear separation from the vault/cabinet/concrete base to existing utilities as found in the field. If there is a conflict with existing utilities, Cabinets/vaults/bases shall be relocated from the plan location as needed to meet field conditions. Trees may not be planted within 10 feet of existing water, gas or wastewater mains/services or meters. New water, gas or wastewater services/meters may not be installed within 10' or existing trees. Maintain 10' between new trees and new water, gas and wastewater services/mains/meters. Unless no other options exists, WGW utilities are not to be installed on property driveway

125. To install new gas service by directional boring, the applicant is required to have a sewer cleanout at the front of the building. This cleanout is required so the sewer lateral can be videoed for verification of no damage after the gas service is installed by directional boring.

126. All utility installations shall be in accordance with the City of Palo Alto utility standards for water, gas & wastewater.

127. The owner/applicant shall hire a licensed and experienced underground utility contractor to install water or sewer utilities in compliances with the WGW utilities current standards when WGW Ops cannot perform due to lack of available resources. All work performed are subject to submittal review/approval and City's inspection.

128. Any work required to be done outside of regular work hours due to traffic, existing conditions or applicants requirements shall be charged at 1.5 times the stated fee.

Public Works-Urban Forestry

PRIOR TO DEMOLITION, BUILDING OR GRADING PERMIT ISSUANCE

129. Provide a Tree Disposition Sheet.

130. Inventory numbers shall be included on all relevant site development sheets, numbered consistently for reference.

131. Provide a utility plan, coordinated with the Landscape Architect and Project Arborist.
    A. Place transformer in a location that allows adequate planting space for screening on N/S sides.
    B. Allow adequate planting space for screening of all water/fire backflow devices.
    C. Stipulate appropriate evergreen species for these functions.
    D. Utilities shall remain a safe distance from any tree to be preserved; and 10' from any new tree.

132. All plans need to be matching, civil, landscape, schematic podium, etc.

133. Clearly show what species, size trees and locations are proposed in the right-of-way.

134. BUILDING PERMIT SUBMITTAL- PROJECT ARBORIST CERTIFICATION LETTER. Prior to submittal for staff review, attach a Project Arborist Certification Letter that he/she has; (a) reviewed the entire building permit plan set submittal and, (b)* verified all his/her updated TPR mitigation measures and changes are incorporated in the plan set, (c) affirm that ongoing Contractor/Project Arborist site monitoring inspections and reporting have been arranged with the contractor or owner (see Sheet T-1) and, (d) understands that design revisions (site or plan changes) within a TPZ will be routed to Project Arborist/Contractor for review prior to approval from City.

    * (b above) other information. The Building Permit submittal set shall be accompanied by the project site arborist's certification letter that the plans have incorporated said design changes and are consistent with City Tree Technical Manual Standards, Regulations and information:

i. Provide a project arborist's Updated Tree Protection Report (TPR) with building permit level mitigation measures, (e.g., resolve grading proximity issues with Public trees; exact TPZ scaled in feet). Provide plan revision directions to minimize root cutting conflicts that are obvious in the civil, basement, sidewalk improvement sheets. See TPR below.

ii. Palo Alto Tree Technical Manual Construction Standards, Section 2.00 and PAMC 8.10.080.

135. PLAN SET REQUIREMENTS. The final Plans submitted for building permit shall include the following information and notes on relevant plan sheets:

A. SHEET T-1, BUILDING PERMIT. The building permit plan set will include the City's full-sized, Sheet T-1 (Tree Protection-it's Part of the Plan!), available on the Development Center website at http://www.cityofpaloalto.org/civicax/filebank/documents/31783. The Applicant shall complete and sign the Tree Disclosure Statement and recognize the Project Arborist Tree Activity Inspection Schedule. Monthly reporting to Urban Forestry/Contractor is mandatory. (Insp. #1: applies to all projects; with tree preservation report: Insp. #1-7 applies)

<u>The Tree Preservation Report (TPR)</u>. All sheets of the Applicant's construction level TPR approved by the City for full implementation by Contractor, Walter Levison, Consulting Arborist, February 18, 2015) shall be printed on numbered Sheet T-1 (T-2, T-3, etc) and added to the sheet index.

A. Plans to show protective tree fencing. The Plan Set (esp. site, demolition, grading & drainage, foundation, irrigation, tree disposition, utility sheets, etc.) must delineate/show the correct configuration of Type I, Type II or Type III fencing around each Regulated Tree, using a bold dashed line enclosing the Tree Protection Zone (Standard Dwg. #605, Sheet T-1; City Tree Technical Manual, Section 6.35-Site Plans); or by using the Project Arborist's unique diagram for each Tree Protection Zone enclosure.

136. SITE PLAN REQUIREMENTS: In addition to showing TPZ fencing, add the following Notes on the specified Plan Sheets.

A. Note #1. Apply to the site plan stating, "All tree protection and inspection schedule measures, design recommendations, watering and construction scheduling shall be implemented in full by owner and contractor, as stated on Sheet T-1, in the Tree Protection Report and the approved plans".

B. Note #2. All civil plans, grading plans, irrigation plans, site plans and utility plans and relevant sheets shall add a note applying to the trees to be protected, including neighboring trees stating: "Regulated Tree--before working in this area contact the Project Site Arborist at 650-321-0202";

C. Note #3. Utility (sanitary sewer/gas/water/backflow/electric/storm drain) plan sheets shall include the following note: "Utility trenching shall not occur within the TPZ of the protected tree. Contractor shall be responsible for ensuring that no trenching occurs within the TPZ of the protected tree by contractors, City crews or final landscape workers. See sheet T-1 for instructions."

D. Note #4. "Basement or foundation plan. Soils Report and Excavation for basement construction within the TPZ of a protected tree shall specify a vertical cut (stitch piers may be necessary) in order to avoid over-excavating into the tree root zone. Any variance from this procedure requires Urban Forestry approval, please call (650) 496-5953."

E. Note #5. "Pruning Restrictions. No pruning or clearance cutting of branches is permitted on City trees. Contractor shall obtain a Public Tree Permit from Urban Forestry (650-496-5953) for any work on Public Trees"

137. TREE REMOVAL—PROTECTED & RIGHT-OF-WAY TREES. Existing trees (Publicly-owned or Protected) to be removed, including Monterey Pine #28, as shown accurately located on all site plans, require approval by the Urban Forestry Tree Care Permit prior to issuance of any building, demolition or grading permit. Must also be referenced in the required Street Work Permit from Public Works Engineering.

A. Add plan note for each tree to be removed, "Tree Removal. Contractor shall obtain a completed Urban Forestry Tree Care Permit # _____ (contractor to complete) separate from the Building or Street Work Permit. Permit notice hanger and conditions apply. Contact (650-496-5953)."

B. Copy the approval. The completed Tree Care Permit shall be printed on Sheet T-2, or specific approval communication from staff clearly copied directly on the relevant plan sheet. The same Form is used for public or private Protected tree removal requests available from the Urban Forestry webpage: http://www.cityofpaloalto.org/gov/depts/pwd/trees/default.asp

138. NEW RIGHT-OF-WAY TREES--PLAN REQUIREMENTS. New trees shall be shown on all relevant plans: site, utility, irrigation, landscape, etc. in a location 10' clear radius from any (new or existing) underground utility or curb cut (see Note #4 above).

A. Add note on the Planting Plan that states, "Tree Planting. Prior to in-ground installation, Urban Forestry inspection/approval required for tree stock, planting conditions and irrigation adequacy. Contact (650-496-5953)."

B. Landscape Plans shall state the Urban Forestry approved species, size and include relevant Standard Planting Dwg. #603, #603a or #604 (reference which), and shall note the tree pit dug at least twice the diameter of the root ball.

C. Landscape plan shall include planting preparation details for trees specifying digging the soil to at least 30-inches deep, backfilled with a quality topsoil and dressing with 2-inches of wood or bark mulch on top of the root ball keeping clear of the trunk by 1-inch.

D. Add note on the Planting & Irrigation Plan that states, “Irrigation and tree planting in the right-of-way requires a street work permit per CPA Public Works standards.”

E. Automatic irrigation shall be provided for each tree. Standard Dwg. #513 shall be included on the irrigation plans and show two bubbler heads mounted on flexible tubing placed at the edge of the root ball. Bubblers mounted inside an aeration tube are prohibited. The tree irrigation system shall be connected to a separate valve from other shrubbery and ground cover, pursuant to the City's Landscape Water Efficiency Standards.

139. NEW TREES—SOIL VOLUME. Unless otherwise approved, four new right-of-way trees each new tree shall be provided with 800 cubic feet of rootable soil area, utilizing Standard Dwg. #604/513. Rootable soil shall mean compaction less than 90% over the area, not including sidewalk base areas except when mitigated. Sidewalk or asphalt base underlayment [in lieu of compacted base rock] shall use an Alternative Base Material method such as structural grid (Silva Cell). Design and manufacturer details shall be added to relevant civil and landscape sheets. Each parking lot tree in small islands and all public trees along Park Ave, Page Mill and Sheridan shall be provided adequate rootable soil commensurate to mature tree size. Note: this expectation requires coordination with the engineer, arborist and landscape architect.

A. Minimum soil volume for tree size growth performance (in cubic feet): Large: 1,200 cu.ft. Medium: 800 cu.ft. Small: 400 cu.ft.

B. Landscape Plan. When qualifying for parking area shade ordinance compliance (PAMC 18.40.130) trees shall be labeled (as S, M or L).

C. Engineered Soil Mix (ESM). When approved, Engineered Soil Mix base material shall be utilized in specified areas, such as a sidewalk base or channeling to a landscape area, to achieve expected shade tree rooting potential and maximum service life of the sidewalk, curb, parking surfaces and compacted areas. Plans and Civil Drawings shall use CPA Public Works Engineering ESM Specifications, Section 30 and Standard Dwg. #603a. Designated areas will be identified by cross-hatch or other symbol, and specify a minimum of 24" depth. The technology may be counted toward any credits awarded for LEED or Sustainable Sites certification ratings.

140. LANDSCAPE PLANS

A. Include all changes recommended from civil engineer, architect and staff, including planting specifications if called for by the project arborist.

B. Provide a detailed landscape and irrigation plan encompassing on-and off-site plantable areas out to the curb as approved by the Architectural Review Board. A Landscape Water Use statement, water use calculations and a statement of design intent shall be submitted

for the project. A licensed landscape architect and qualified irrigation consultant will prepare these plans, to include:

i. All existing trees identified both to be retained and removed including street trees.
ii. Complete plant list indicating tree and plant species, quantity, size, and locations.
iii. Irrigation schedule and plan.
iv. Fence locations.
v. Lighting plan with photometric data.
vi. Landscape Plan shall ensure the backflow device is adequately obscured with the appropriate screening to minimize visibility (planted shrubbery is preferred, painted dark green, decorative boulder covering acceptable; wire cages are discouraged).
vii. All new trees planted within the public right-of-way shall be installed per Public Works (PW) Standard Planting Diagram #603 or 604 (include on plans), and shall have a tree pit dug at least twice the diameter of the root ball.
viii. Landscape plan shall include planting preparation details for trees specifying digging the soil to at least 30-inches deep, backfilled with a quality topsoil and dressing with 2-inches of wood or bark mulch on top of the root ball keeping clear of the trunk by 1-inch.
ix. Automatic irrigation shall be provided to all trees. For trees, Standard Dwg. #513 shall be included on the irrigation plans and show two bubbler heads mounted on flexible tubing placed at the edge of the root ball. Bubblers shall not be mounted inside an aeration tube. The tree irrigation system shall be connected to a separate valve from other shrubbery and ground cover, pursuant to the City's Landscape Water Efficiency Standards. Irrigation in the right-of-way requires a street work permit per CPA Public Works standards.

C. Add Planting notes to include the following mandatory criteria:
    i. Prior to any planting, all plantable areas shall be tilled to 12" depth, and all construction rubble and stones over 1" or larger shall be removed from the site.
    ii. A turf-free zone around trees 36" diameter (18" radius) required for best tree performance.

D. Add note: "*Mandatory Landscape Architect (LA) Inspections and Verification to the City. The LA shall verify the performance measurements are achieved with a letter of verification to City Planning staff, in addition to owner's representative for the following:*
    i. All the above landscape plan and tree requirements are in the Building Permit set of plans.
    ii. Percolation & drainage checks have been performed and are acceptable.
    iii. Fine grading inspection of all plantable areas has been personally inspected for tilling depth, rubble removal, soil test amendments are mixed and irrigation trenching will not cut through any tree roots.

iv. Tree and Shrub Planting Specifications, including delivered stock, meets Standards in the CPA Tree Technical Manual, Section 3.30-3.50. Girdling roots and previously topped trees are subject to rejection.

DURING CONSTRUCTION

141. TREE PROTECTION VERIFICATION. Prior to any site work a written verification from the contractor that the required protective fencing is in place shall be submitted to the Urban Forestry Section (derek.sproat@cityofpaloalto.org). The fencing shall contain required warning sign and remain in place until final inspection of the project.

142. EXCAVATION RESTRICTIONS APPLY (TTM, Sec. 2.20 C & D). Any approved grading, digging or trenching beneath a tree canopy shall be performed using 'air-spade' method as a preference, with manual hand shovel as a backup. For utility trenching, including sewer line, roots exposed with diameter of 1.5 inches and greater shall remain intact and not be damaged. If directional boring method is used to tunnel beneath roots, then Table 2-1, Trenching and Tunneling Distance, shall be printed on the final plans to be implemented by Contractor.

143. PLAN CHANGES. Revisions and/or changes to plans before or during construction shall be reviewed and responded to by the (a) project site arborist, Walter Levison, walterslevisonjr@yahoo.com , or (b) landscape architect with written letter of acceptance before submitting the revision to the Building Department for review by Planning, PW or Urban Forestry.

144. CONDITIONS. All Planning Department conditions of approval for the project shall be printed on the plans submitted for building permit.

145. TREE PROTECTION COMPLIANCE. The owner and contractor shall implement all protection and inspection schedule measures, design recommendations and construction scheduling as stated in the TPR & Sheet T-1, and is subject to code compliance action pursuant to PAMC 8.10.080. The required protective fencing shall remain in place until final landscaping and inspection of the project. Project arborist approval must be obtained and documented in the monthly activity report sent to the City. The mandatory Contractor and Arborist Monthly Tree Activity Report shall be sent monthly to the City (pwps@cityofpaloalto.org) beginning with the initial verification approval, using the template in the Tree Technical Manual, Addendum 11.

146. TREE DAMAGE. Tree Damage, Injury Mitigation and Inspections apply to Contractor. Reporting, injury mitigation measures and arborist inspection schedule (1-5) apply pursuant to TTM, Section 2.20-2.30. Contractor shall be responsible for the repair or replacement of any publicly owned or protected trees that are damaged during the course of construction, pursuant to Title 8 of the Palo Alto Municipal Code, and city Tree Technical Manual, Section 2.25.

147. GENERAL. The following general tree preservation measures apply to all trees to be retained: No storage of material, topsoil, vehicles or equipment shall be permitted within the tree enclosure area. The ground under and around the tree canopy area shall not be altered. Trees to be retained shall be irrigated, aerated and maintained as necessary to ensure survival.

PRIOR TO OCCUPANCY

148. URBAN FORESTRY DIGITAL FILE & INSPECTION. The applicant or architect shall provide a digital file of the landscape plan, including new off-site trees in the publicly owned right-of-way. A USB Flash Drive, with CAD or other files that show species, size and exact scaled location of each tree on public property, shall be delivered to Urban Forestry at a tree and landscape inspection scheduled by Urban Forestry (650-496-5953).

149. LANDSCAPE CERTIFICATION LETTER. The Planning Department shall be in receipt of a verification letter that the Landscape Architect has inspected all trees, shrubs, planting and irrigation and that they are installed and functioning as specified in the approved plans.

150. PROJECT ARBORIST CERTIFICATION LETTER. Prior to written request for temporary or final occupancy, the contractor shall provide to the Planning Department and property owner a final inspection letter by the Project Arborist. The inspection shall evaluate the success or needs of Regulated tree protection, including new landscape trees, as indicated on the approved plans. The written acceptance of successful tree preservation shall include a photograph record and/or recommendations for the health, welfare, mitigation remedies for injuries (if any). The final report may be used to navigate any outstanding issues, concerns or security guarantee return process, when applicable.

151. PLANNING INSPECTION. Prior to final sign off, contractor or owner shall contact the city planner (650-329-2441) to inspect and verify Special Conditions relating to the conditions for structures, fixtures, colors and site plan accessories.

POST CONSTRUCTION

152. MAINTENANCE. All landscape and trees shall be maintained, watered, fertilized, and pruned according to Best Management Practices-Pruning (ANSI A300-2008 or current version) and the City Tree Technical Manual, Section 5.00. Any vegetation that dies shall be replaced or failed automatic irrigation repaired by the current property owner within 30 days of discovery.

Transportation

153. With regard to the parking garage ramp, the plans shall show the first 5 feet behind the sidewalk at the same slope as the sidewalk, then at least 10 feet of a maximum of 11%. At the bottom of the ramp, the plans shall show 10 feet at a maximum of 11%. The center of the

ramp between can be a maximum of 22%. Because the steepest part of the ramp is on the inside of the turn, the plans shall include the dimension at the inside of the turns at a minimum.

Green Building

154. Energy Efficiency: If the project includes new construction, then the project triggers the Local Energy Efficiency Reach Code. For all new non-residential construction, the performance approach specified within the 2013 California Energy Code shall be used to demonstrate that the TDV Energy of the proposed building is at least 15% less than the TDV Energy of the Standard Design. (Ord. 5324 § 1 (part), 2015).

155. CALGreen Checklist: If the project is a new nonresidential construction project greater than 1,000 square feet, then the must comply with California Green Building Standards Code Mandatory plus Tier 2 requirements, as applicable to the scope of work. PAMC 16.14.080 (Ord. 5324 § 1 (part), 2015). The project applicant shall indicate the requirements on the Permit Plans. The submittal requirements are outlined here: www.cityofpaloalto.org/gov/depts/ds/green_building/default.asp.

156. Commissioning: If the project is a new building over 10,000 square feet, then the project must meet the commissioning requirements outlined in the California Building Code section 5.410.2 for Planning Approval. The project team shall re-submit the Owner's Project Requirements (OPR) in accordance with section 5.410.2.1 with an updated Basis of Design (BOD) in accordance with 5.410.2.2 that reflects the design elements finalized between Planning Approval and Permit Submittal. The project shall also submit a Commissioning Plan in accordance with 5.410.2.3.

157. Energy Benchmarking: If the project is a nonresidential projects exceeding $100,000 valuation, then the project must acquire an Energy STAR Portfolio Manager Rating and submit the rating to the City of Palo Alto once the project has been occupied after 12 months. PAMC 16.14.380 (Ord. 5324 § 1 (part), 2015). The Energy Star Project Profile shall be submitted to the Building Department prior to permit issuance. Submittal info can be found at: https://www.cityofpaloalto.org/gov/depts/utl/business/benchmarking_your_building.asp.

158. Recycled Water Infrastructure for Landscape: If the project is outside the boundaries of the recycled water project area and is greater than 1,000 square feet, then the project must install recycled water infrastructure for irrigation systems. PAMC 16.14.230 (Ord. 5324 § 1 (part), 2015). The project applicant shall indicate the requirements on the Permit Plans.

159. Recycled Water Infrastructure for Landscape: If the project is either a new construction or a rehabilitated landscape and is greater than 1,000 square feet, then the project must install a dedicated irrigation meter related to the recycled water infrastructure. PAMC 16.14.230 (Ord. 5324 § 1 (part), 2015). The project applicant shall indicate the requirements on the Permit Plans.

160. Landscape Efficiency: If the project is a non-residential new construction project with a landscape of any size included in the project scope, then the project must comply with Potable water reduction Tier 2 in accordance with the Emergency Drought Regulations. Documentation is required to demonstrate that the Estimated Total Water Use (ETWU) falls within a Maximum Applied Water Allowance (MAWA).
    - For projects submitting for permit between June 1st, 2015 and December 1st, 2015, the project shall use an ET adjustment factor (ETAF) of 0.55 for landscaped areas. Special Landscape Areas (SLA) will be given an allowance of 0.45. The resulting ETAF for SLA shall be 1.0. (PAMC 16.14 (Ord. 5324 § 1 (part), 2015) and the Emergency Drought Regulations link below:
      http://www.documents.dgs.ca.gov/bsc/2015TriCycle/BSC-Meetings/Emergency-Regs/HCDEF-01-15-ET-Pt11.pdf
    - For projects submitting for permit after December 1st, 2015, the project shall follow the updated regulations found on the Department of Water Resources website: http://www.water.ca.gov/wateruseefficiency/landscapeordinance/

161. Landscape: If the project is either a nonresidential or multi-family residential, tenant improvement/renovation construction projects with a landscape area greater than 1,000 square feet, then the project must comply with Potable water reduction Tier 1. Documentation is required to demonstrate that the Estimated Total Water Use (ETWU) falls within a Maximum Applied Water Allowance (MAWA) using the appropriate evapotranspiration adjustment factor (ETAF) designated by the prescribed potable water reduction tier. PAMC 16.14.340 (Ord. 5324 § 1 (part), 2015). The project applicant shall indicate the requirements on the Permit Plans.
    - The submittal requirements are outlined on the Utilities Landscape Efficiency site: http://www.cityofpaloalto.org/gov/depts/utl/residents/resrebate/landscape.asp.

162. Construction & Demolition: If the project is a nonresidential new construction or renovation project and has a value exceeding $25,000, then the project must meet the Enhanced Construction Waste Reduction Tier 2. PAMC 16.14.240 (Ord. 5324 § 1 (part), 2015). The project shall use the Green Halo System to document the requirements.

163. Energy Benchmarking: If the project is a nonresidential projects exceeding $100,000 valuation, then the project must acquire an Energy STAR Portfolio Manager Rating and submit the rating to the City of Palo Alto once the project has been occupied after 12 months. PAMC 16.14.250 (Ord. 5324 § 1 (part), 2015). Submittal info can be found at: https://www.cityofpaloalto.org/gov/depts/utl/business/benchmarking_your_building.asp.

Building

164. A demolition permit shall be required for the removal of the existing building on site.

165. Demolition of entire structures shall include the termination of utilities in an approved manner, in approved locations on the site.

166. Security gates proposed in the underground garage shall not impede emergency egress and shall be installed with panic hardware and open in the direction of emergency egress.

167. Separate submittals and permits are required for the following systems and components if utilized: EVSE, P.V., and Solar Hot Water systems.

168. Structures located on the same parcel shall be designed either with an assumed property line between them and include a design for the fire resistive ratings of exterior walls and opening protection based on the distances to these assumed property lines, or plans shall include calculations for the allowable area allowed for the combined structures.

169. Glazing installed on roofs as structural roof coverings shall be designed for all loads in combination (i.e., impact loads, horizontal and vertical loads, etc.), and shall be tempered safety glazing.

170. The kitchen shall be designed and constructed as a commercial kitchen (i.e., commercial equipment, Type 1 hood, Ansul fire suppression system, etc.).

171. Egress to the public way shall be provided at or near the Southwest corner of the property without requiring pedestrians to walk through landscaping or similar softscape areas.

HAWLEY PETERSON SNYDER
Architecture • Interiors • Planning

Date: March 1, 2016

Address: City of Palo Alto Planning Department
250 Hamilton Ave.
Palo Alto, CA 94303

Attn: Ranu Aggarwal

Re: 4175 Manuela Ave. - Kol Emeth
January 21, 2016 ARB Summary

Dear Ms. Aggarwal:

As per your suggestion during our conversation on February 25, 2016, the Kol Emeth design team and representatives reviewed the video of the January 21, 2016 ARB hearing; and, we consolidated our notes to use as the basis for revisions to the drawings associated with our ARB application. Below, please find a summary of the areas requiring additional information regarding our design, as requested by the Board members.

1. Circulation (refer to new drawing A4.1)
    a. General circulation of vehicles to/from the property
    b. On-site drop-off sequence
    c. Pedestrian and bicycle circulation
    d. Building Signage/ wayfinding (refer to updated sheet A6 and A17)

2. Additional Renderings (refer to sheet A17)
    a. Garage Entry Ramp
    b. Drop Off
    c. Wood Lattice at main circulation

3. Wood Lattice (refer to new sheet A16.1)
    a. Wood Species and maintenance measures
    b. Detailed assembly
    c. Note: A mock-up is in production and will be available for the April 7thARB hearing

4. Parking Garage (refer to sheets A6, A8 and A12)
    a. Ventilation of parking garage (located in the SE corner of the building)
    b. Garage access / visibility – refer to updated rendering on A17

5. Misc. Issues to be discussed / resolved at the next hearing, but, not requiring drawing revisions
    a. Additional bicycle parking needed – current design exceeds code min.
    b. Number of special events at the Synagogue and future growth of the Congregation
    c. Variance requests

HAWLEY PETERSON SNYDER
Architecture • Interiors • Planning

Since we are targeting the April 7th hearing for our next appearance before the ARB, you mentioned that you need to complete your updated Staff Report by March 7th. We are hopeful that this letter summary and the accompanying drawings will satisfy your current needs to prepare that report. Please do not hesitate to contact me should you need any additional information.

Sincerely,
HAWLEY PETERSON SNYDER
Architecture · Interiors · Planning

Kevin W. Davies, AIA
Project Director

444 Castro Street, Suite 1000 Mountain View, CA 94041 T: 650 968 2944 F: 650 968 1357 www.hpsarch.com

COMPREHENSIVE PLAN CONFORMANCE TABLE

4175 Manuela Avenue 15PLN-00129

Policy L-5: Maintain the scale and character of the City. Avoid land uses that are overwhelming and unacceptable due to their size and scale.	The project is located in the Single Family Residential designation. The vicinity of the project include a mix of one to two story house of varying styles. The project is compatible with the surrounding development in that it has a horizontal profile along Manuela Avenue with the mass and height of the raised core stepped back that will not overwhelm the scale of surrounding one to two story structures
Policy L-12: Preserve the character residential neighborhoods by encouraging new or remodeled structures to be compatible with the neighborhood and adjacent structures.	The project is compatible with the character of the residential neighborhood in that it incorporates perimeter landscaping and retains existing oaks, redwoods and olives on the site's perimeter in keeping with the vegetated character of the neighborhood.
Policy L-48: Promote high quality, creative design and site planning that is compatible with surrounding development and public spaces.	The two proposed buildings on the site are arranged in an L-shaped configuration with on-site vehicular circulation and parking shielded in a below grade parking garage and behind the buildings adjacent to Foothill Expressway and away from the Manuela Avenue and residential sites in the vicinity.
Policy L-49: Design buildings to revitalize streets and public spaces and to enhance a sense of community and personal safety. Provide an ordered variety of entries, porches, windows, bays and balconies along public way where it is consistent with neighborhood character, avoid blank or solid walls at street level, and include human scale details and massing.	The project is consistent with this policy in the human scale detailing of the façade along Manuela Avenue consisting of a lattice that runs along the length of the building. ARB is encouraged to provide feedback on the design of the lattice in furtherance of its purpose.
Policy L-75: Minimize the negative physical impacts of parking lots. Locate parking behind buildings or underground wherever possible.	The project minimizes the amount of land devoted to surface parking in the site by developing a below grade parking facility. It minimizes the visibility of parking from the street by locating parking behind the building and in the below grade parking garage.
Policy T-19: Improve and add attractive, secure bicycle parking at both public and private facilities, including multi-modal transit stations, on transit vehicles, in City parks, in private developments, and at other community destinations	The project will include ample bicycle parking for the users in visible and accessible location.

ATTACHMENT F
ZONING COMPARISON TABLE
4175 Manuela Avenue, 14PLN-00129

Table 1: COMPARISON WITH CHAPTER 18.12 (R-1 DISTRICT)			
Regulation	**Required**	**Existing**	**Proposed**
Minimum/Maximum Site Area, Width and Depth	20,000-39,999 sf area, 60 foot width, 100 foot depth	59,677 sf (1.37 acres)	59,677 sf (1.37 acres)
Minimum/Contextual Front Yard	20 feet or the average setback (18.12.040(e))	30 feet	30 feet with 13 feet for basement parking
Rear Yard	20 feet	12 feet	20 feet with 6 feet encroachment in one location permitted per Section 18.12.050.
Interior Side Yard	8 feet	135 feet	11 feet 7 inches
Street Side Yard	16 feet	N/A	N/A
Special Setback	30 feet – (Chapter 20.08 & zoning maps)	30 feet	30 feet for Building, access ramp to below grade parking garage and the garage itself encroach into the special setback – Variance required
Max. Building Height	30 feet or 33 feet for a roof pitch of 12;12 or greater [(3)]	26 feet 6 inches	21 feet 6 inches
Side Yard Daylight Plane	10 feet at interior side lot line then 45 degree angle [(6)]	Conforms	Conforms
Rear Yard Daylight Plane	16 feet at rear setback line then 60 degree angle [(6)]	N/A	N/A
Max. Site Coverage	35% with an additional 5% for covered patio/ overhangs (20,839 sf + 5%)	19.50% (11,691 sf)	34.41% (20,540 sf)
Max. Total Floor Area Ratio	45% for first 5,000 sf lot size and 30% for lot size in excess of 5,000 sf = 18,612.3 sf for this site	19.59% (11,691 sf)	39.47% (23,555 sf) Variance required.
Max. House Size	6,000 sf	N/A	N/A
Residential Density	One unit, except as provided in 18.12.070	N/A	N/A

(3) R-1 Floodzone Heights: Provided, in a special flood hazard area as defined in Chapter 16.52, the maximum heights are increased by one-half of the increase in elevation required to reach base flood elevation, up to a maximum building height of 33 feet.
(6) R-1 Floodzone Daylight Plane: Provided, if the site is in a special flood hazard area and is entitled to an increase in the maximum height, the heights for the daylight planes shall be adjusted by the same amount.

Table 2: CONFORMANCE WITH SECTION 18.12.060 and CHAPTER 18.52 (Off-Street Parking) for Religious Institutions			
Type	**Required**	**Existing**	**Proposed**
Vehicle Parking	1 space for each 4 seats or 4-person capacity, based on maximum use of all facilities at the same time, or as adjusted by the Director as part of a CUP	97 spaces	121 spaces (109 in the below grade garage, 12 in the surface parking) (See Plan Set Sheet A18)
Bicycle Parking	1 space per 40 seats or 40 person capacity, based on maximum use of all facilities at the same time (20% long term, 80% short term or as adjusted as part of a CUP)	10 spaces	20 spaces (16 short term and 4 long term) (See Plan Set Sheet A18)

ATTACHMENT G
VARIANCE FINDINGS

Congregation Kol Emeth Project
4175 Manuela Avenue/ File No. 15PLN-00129

Introduction

The project involves the demolition of an existing synagogue facility and the construction of a new facility with a below grade parking garage on a 1.37 acre, irregular triangular lot, located between Foothill Expressway to the northeast, Manuela Avenue to the west with residences in the vicinity generally to the south of the site and across the street. The site and the facility belong to the Congregation Kol Emeth.

The Variance application is to: 1). locate the ramp and associated structure including retaining walls to the below grade parking garage, serving the facility, in the 30 foot special set back along Manuela Avenue frontage of the triangular site. Manuela Avenue has greater required setback (30 feet) than the typical 20 foot required front setback for the R-1 Zone. The requested Variance is for relief from this "special" setback. 2). to exceed the allowable floor area (18,612.3 sq. ft.) for a 1.37 acres triangular site by 4,942.7 sq. ft. on account of the 21 foot height of the main sanctuary and the multipurpose hall space included in the main building of the synagogue facility that includes this building and an administrative building. Spaces over 17 feet height in the Single Family Residential District (R-1) are counted twice in the floor area as second floor equivalency, in which the site is located.

Variance Findings

The Director's Tentative Decision to approve the Variance is based upon the four findings indicated under PAMC Section 18.76.030(c) listed below, subject to the project Conditions of Approval.

(1) **Because of special circumstances applicable to the subject property, including (but not limited to) size, shape, topography, location, or surroundings, the strict application of the requirements and regulations prescribed in this title substantially deprives such property of privileges enjoyed by other property in the vicinity and in the same zoning district as the subject property.**

The existing parcel has unique conditions that impact development when the strict application of the municipal code requirements is applied. The site has an irregular triangular shape oriented along Manuela Avenue with its apex to the north close to the intersection of Foothills Expressway and Arastradero Road and with its base to the southern side of the site. There is very limited area in the northern portion of the site to place buildings. There are protected oak trees in the Foothill Expressway along the site's northeastern boundary.

The project proposes a below grade parking garage to keep cars hidden from the residential neighborhood. Access to the site being from Manuela Avenue, an access ramp to the below grade parking garage from this street is a necessity. The ramp is strategically located at the northern extremity of the site to minimize disruption to the residential neighborhood from car traffic coming to the site, and it will maintain site lines for safety. Furthermore the location of the ramp and associated retaining walls in the special setback serve to maintain distance of the structure from majority of the oak trees in the Foothill Expressway right of way to minimize impact to these trees. Additionally, the proposed religious use has established design objectives to

locate its worship space in an easterly orientation. To accommodate this design objective, the building is sited toward the southern, or widest portion of the lot, further limiting the location to the subterranean garage access ramp. The irregularly shaped site has also necessitated encroachment of the retaining walls of the below grade parking structure in the special set back, in order to achieve standard parking configuration for requisite parking for the project.

With respect to exceeding the floor area allowance, religious facilities frequently have tall vaulted spaces to achieve certain design and worship-related objectives. The city has a requirement that counts additional air space above 17 feet toward the building's floor area calculation. This requirement is intended to limit the size, scale and mass of a building. Based on the overall size of the parcel, the limited encroachment above the 17 foot standard (21 feet proposed), its proximity to the freeway and building massing that steps back the higher central core behind one story spaces, it is not anticipated that the design will adversely impact the neighbor with as it relates to mass or scale. Due to the specific religious use of the site and that no additional intensity of land use or actual floor area is being added to the building, this request does not appear to represent a grant of special privilege.

(2) **The granting of the application shall not affect substantial compliance with the regulations or constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and in the same zoning district as the subject property, and**

Other than that requested exceptions, the project complies with all other City regulations. The granting of the exception is not considered a special privilege as described above.

(3) **The granting of the application is consistent with the Palo Alto Comprehensive Plan and the purposes of this title (Zoning), and**

The project is consistent with Policy L-5, L-12, L-48, and L-49 of the Palo Alto Comprehensive Plan, which pertain to the quality of design of buildings to maintaining the scale and character of the City, be compatible with the neighborhood and surrounding.: The granting of the application is also compatible with Policy L-75: Minimize the negative physical impacts of parking lots. Locate parking behind buildings or underground wherever possible.

The proposed project use does not conflict with the purposes of the Zoning Ordinance in that it promotes the policies of the General Plan and, as conditioned, does not conflict with the promotion and protection of public health, safety, peace, morals and convenience.

(4) **The granting of the application will not be detrimental or injurious to property or improvements in the vicinity, will not be detrimental to the public health, safety, general welfare, or convenience.**

The project, as conditioned, would be compatible with the surrounding neighborhood and compliant with all the City's regulations (Planning, Building, Fire, etc.) and, therefore, will not be detrimental to public health, safety, and welfare or convenience. The project has a horizontal profile along Manuela Avenue and includes perimeter landscaping to blend in with the character of the neighborhood. The project provides an 11'7" interior side setback from the adjacent neighbor's property to the south, which is more than the required minimum setback of 8 feet. New redwood plantings are also proposed along the southern property boundary to provide buffer from adjacent neighbor.