

BELVEDERE PLANNING COMMISSION
REGULAR MEETING AGENDA
JANUARY 19, 2021 6:30 PM
REMOTE MEETING

COVID-19 ADVISORY NOTICE

Due to COVID concerns and consistent with State Executive Orders No. 25-20 and No. 29-20, the meeting will not be physically open to the public. Members of the Planning Commission and staff will participate in this meeting remotely. Members of the public are encouraged to participate remotely via Zoom or telephone pursuant to the information and link below. Public comment will be accepted during the meeting. The public may also submit comments in advance of the meeting by emailing the Director of Planning and Building at: iborba@cityofbelvedere.org Please write "Public Comment" in the subject line. Comments submitted one hour prior to the commencement of the meeting will be presented to the Planning Commission and included in the public record for the meeting. Those received after this time will be added to the record and shared with Planning Commission member after the meeting.

City of Belvedere is inviting you to a scheduled Zoom meeting.

Topic: Belvedere Planning Commission Meeting

Time: January 19, 2021 06:30 PM

Join Zoom Meeting

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The City encourages that comments be submitted in advance of the meeting. However, for members of the public using the Zoom video conference function, those who wish to comment on an agenda item should write "I wish to make a public comment" in the chat section of the remote meeting platform. At the appropriate time, the Meeting Host will allow oral public comment through the remote meeting platform. Any member of the public who needs special accommodations to access the public meeting should email the **Director of Planning and Building**, iborba@cityofbelvedere.org who will use her best efforts to provide assistance.

HEARING PROCEDURE:

The Planning Commission will follow the following procedure for all listed public hearing items:

- 1) The Chair will ask for presentation of the staff report;
- 2) The Commissioner will have the opportunity to question staff in order to clarify any specific points;
- 3) The applicant and project representative will be allowed to make a presentation, not to exceed 10 minutes for large, or 5 minutes for small, projects, as total for the applicant's design team;
- 4) The public hearing will be opened;
- 5) Members of the audience in favor or against the proposal will be allowed to speak, for a maximum of 3 minutes per speaker;
- 6) The applicant will be given an opportunity to respond to comments made by the audience, for a maximum of 5 minutes total for the applicant's design team;
- 7) The public hearing will be closed; and
- 8) Discussion of the proposal will return to the Commission with formal action taken to approve, conditionally approve, deny or continue review of the application.

A. CALL TO ORDER OF REGULAR MEETING

B. OPEN FORUM

This is an opportunity for any citizen to briefly address the Planning Commission on any matter that does not appear on this agenda. Upon being recognized by the Chair, please state your name, address, and limit your oral statement to no more than three minutes. Matters that appear to warrant a more-lengthy presentation or Commission consideration will be agendaized for further discussion at a later meeting.

C. REPORTS

The Reports agenda item consists of any oral reports from standing Planning Commission committees (if any), an individual member of the Planning Commission, and staff.

D. CONSENT CALENDAR

The Consent Calendar consists of items that the Planning Commission considers to be non-controversial. Unless any item is specifically removed by any member of the Planning Commission, staff, or audience, the Consent Calendar will be adopted by one motion. Items removed will be considered in the sequence as they appear below. If any member of the audience wished to have an item removed, follow the remote meeting procedures referenced above, state your name in the “chat” section of the remote meeting platform, and indicate the item. If you do not have access to the Zoom meeting platform, please email the Director of Planning and Building, Irene Borba at iborba@cityofbelvedere.org and indicate that you would like to remove a consent calendar item and identify the item. After removing the item, the City will call for comment at the appropriate time.

1. Draft **Minutes of the November 17, 2020** regular meeting of the Planning Commission.
2. Draft **Minutes of the November 10, 2020** *special* meeting of the Planning Commission.
3. Design Review and Exception to Total Floor Area applications for **118 Bayview Avenue**. The project consists of a kitchen remodel and 13 SF addition. The project requires an Exception to Total Floor Area because the house is proposed at 3,381 SF and 3,368 is existing. Applicant: John Swain; Property Owners: Sandra and Brian Saputo. (***No recusals***). *Staff recommends that the Commission adopt the Resolution(s) of approval.*

E. PUBLIC HEARINGS

4. Demolition, Design Review, Exception to Total Floor Area, Variance and Accessory Dwelling Unit applications for **30 Cliff Road**. The project proposes to demolish the existing home and construction of a new three-story home with an attached garage including a second unit. The project requires an Exception to Total Floor Area because the house is proposed at 4,533 SF and 3,819 SF is permitted. The Variance is required for retaining walls to exceed the allowable height in the setback. The project proposes a new swimming pool and landscaping throughout the property. Applicant: Debra Contreras, Regan Brice Architects; Property Owners: Ben and Devorah Jacoby. (***No recusals***) *Staff recommends that the Commission adopt the appropriate Resolution(s) of approval.*
5. Public hearing to consider recommending City Council approval of **proposed amendments to the Belvedere Municipal Code**, Chapter 16.20 Floodplain Management and **20.04 Design Review**, and Administrative Policy 14.7, Administration of Substantial Improvement Requirements for Projects within Designated Floodplains, as recommended by the Floodplain Analysis Subcommittee. (***No recusals***) *Staff recommends that the Commission recommend to City Council approval of the Amendments.*

APPEALS: The Belvedere Municipal Code provides that the applicant or any interested person may appeal the action of the Planning Commission on any application. The appeal must be in writing and submitted with a fee of \$523.00 not later than ten (10) calendar days following the date of the Planning Commission action. Appeals received by City staff via mail after the tenth day will not be accepted. Please note that if you challenge in court any of the matters described above, you may be limited to raising only those issues you or someone else raised at the public hearing described above, or in written correspondence delivered to the Planning Commission at, or prior to, the above-referenced public hearing. [Government Code Section 65009b)(2)].

NOTICE: WHERE TO VIEW AGENDA MATERIALS

Staff reports and other writings distributed to the Planning Commission are available for public inspection at the following locations:

Online at www.cityofbelvedere.org

Belvedere City Hall, 450 San Rafael Ave, Belvedere (Writings distributed to the Planning Commission after the posting date of this agenda are available for public inspection at this location only);

Belvedere-Tiburon Library, 1501 Tiburon Boulevard, Tiburon.

To request automatic mailing of agenda materials, please contact the City Clerk at (415) 435-3838.

NOTICE: AMERICANS WITH DISABILITIES ACT

The following accommodations will be provided, upon request, to persons with a disability; agendas and/or agenda packet materials in alternate formats and special assistance needed to attend or participate in this meeting. Please make your request at the Office of the Planning Department or by calling (415) 435-3838. Whenever possible, please make your request four working days in advance of the meeting.

Items will not necessarily be heard in the above order, not, because of possible changes or extenuating conditions, be hear. For additional information, please contact City Hall, 450 San Rafael Ave, Belvedere CA 94920. (415) 435-3838.

**City of Belvedere
Regular Planning Commission
Meeting**

January 19, 2021

Conflict of Interest Statement

Planning Commission Member:

If you live within 500-feet of any property involved in any matter coming before the Commission at this meeting, please immediately let staff know and be prepared to disqualify yourself from participating in any Planning Commission consideration regarding the matter(s). *After publicly announcing your disqualification, you should step down from the dais and retire to the City offices where you cannot be seen or heard from the Council Chambers. If you wish to say something as a private citizen, you may do so during the time public comments are solicited from the audience. Before leaving the Chambers, let staff know if this is your intention so they can summon you at the appropriate time to make your statement. When the matter is concluded, a staff member will let you know it's time to come back in and proceed on to the next agenda item.* Disqualification is automatic if you reside within 500 feet of the property that is the subject of the matter being considered by the Planning Commission.

118 Bayview Avenue

None

30 Cliff Road

None

BELVEDERE PLANNING COMMISSION
MINUTES
REGULAR MEETING
MEETING HELD VIA ZOOM
NOVEMBER 17, 2020 6:30 P.M.

A. CALL TO ORDER OF THE REGULAR MEETING

Chair Peter Mark called the regular meeting to order at 6:30 p.m. The meeting was held via Zoom video conference. Commissioners present via Zoom: Peter Mark, Marsha Lasky, Pat Carapiet, Nena Hart, Claire Slaymaker, Larry Stoehr and Jim Lynch. Absent: None. Staff present: Director of Planning and Building Irene Borba, Senior Planner Rebecca Markwick, City Attorney Emily Longfellow, and Planning & Building Permit Technician Nancy Miller.

B. OPEN FORUM

This is an opportunity for any citizen to briefly address the Planning Commission on any matter that does not appear on this agenda. Upon being recognized by the Chair, please state your name, address, and limit your oral statement to no more than three minutes. Matters that appear to warrant a more-lengthy presentation or Commission consideration will be agendized for further discussion at a later meeting.

No one wished to speak.

C. REPORTS

There were no Reports.

D. CONSENT CALENDAR

The Consent Calendar consists of items that the Planning Commission considers to be non-controversial. Unless any item is specifically removed by any member of the Planning Commission, staff, or audience, the Consent Calendar will be adopted by one motion. Items removed will be considered in the sequence as they appear below. If any member of the audience wishes to have an item removed, follow the remote meeting procedures referenced above, state your name in the “chat” section of the remote meeting platform, and indicate the item. If you do not have access to the Zoom meeting platform, please email the Director of Planning and Building, Irene Borba at iborba@cityofbelvedere.org and indicate that you would like to remove a consent calendar item and identify the item. After removing the item, the City will call for comment at the appropriate time.

MOTION: To approve the Consent Calendar for Items 1-4, as agendized below.

MOVED BY: Larry Stoehr, seconded by Claire Slaymaker.

VOTE: AYES: Peter Mark, Pat Carapiet, Larry Stoehr, Nena Hart, Marsha Lasky,
 Claire Slaymaker, Jim Lynch
 NOES: None
 ABSTAIN: None
 RECUSED: Marsha Lasky (Item 2), Jim Lynch (Item 4)
 ABSENT: None

1. Draft **Minutes of the October 20, 2020** regular meeting of the Planning Commission.
2. Design Review request for painting the stucco exterior of the residence a shade of white “French vanilla” located at **8 Pelican Point Road**. No other changes are proposed as part of this application request. Property Owners: Kay Fields. Applicant: Polsky-Perlstein

Architects – Tyler Shelton. (*Commissioner Lasky recused*) *Staff recommends that the Commission adopt the Resolution of approval.*

3. Planning Commission consideration of Design Review for the property located at **22 Golden Gate Avenue**. The project proposes to reroof the home in composition shingle “Moire Black.” Project Applicants and Owners: Aaron & Blye Faust. (*No recusals*) *Staff recommends that the Commission adopt the Resolution of approval.*
4. to Chapter 21.20 of the Belvedere Municipal Code. CEQA status: Categorically Exempt pursuant to Section 15301 of the CEQA Guidelines. Applicant & Property Owners: Mitul Modi and Steven Howard. (*Commissioner Lynch recused*) *Staff recommends that the Commission recommend City Council approval of the request for historic designation.*

E. PUBLIC HEARINGS

5. Planning Commission consideration of Design Review and Variance for landscape modifications to the existing front, side and rear yards for the property located at **5 North Point Circle**. The project includes new landscaping throughout the property, a new swimming pool and new retaining wall at the rear. The project includes consideration of an Initial Study/Mitigated Negative Declaration. Property Owners and Applicant: Robert and Lindsey Burmeister. (*No recusals*) *Staff recommends that the Commission adopt the appropriate Resolutions of approval.*

Senior Planner Rebecca Markwick presented the staff report. A slide show presentation accompanied her remarks.¹

Commissioners asked for clarifications on proposed lighting, a new landscaping and fence in the front area, and a play structure that is shown on the plans.

Open public hearing.

Lindsey Burmeister, property owner, stated that the play structure currently in the rear yard will be removed when the project commences.

Commissioner Stoehr asked if the owner might consider reduction and relocation in the number of pool lights.

Ms. Burmeister replied that the Code requires 4 lights in the pool and one in the hot tub. All will be downfacing and directed so as to reduce glare.

No one from the public wished to speak and no comments were submitted.

Close public hearing.

Commissioners agreed to support the project with clarifications to be provided on the lighting, the amount of fill, and landscaping changes at the front area on the final plans.

MOTION: To adopt the Resolution for Initial Study/Mitigated Negative Declaration/Mitigation Monitoring Program at **5 North Point Circle**.

MOVED BY: Nena Hart, seconded by Marsha Lasky

VOTE: AYES: Peter Mark, Pat Carapiet, Larry Stoehr, Nena Hart, Marsha Lasky, Claire Slaymaker, Jim Lynch
NOES: None

¹ The slide show presentation is archived with the record of this meeting.

ABSTAIN: None

RECUSED: None

ABSENT: None

MOTION: To adopt the Resolution granting Design Review for the project at **5 North Point Circle**.

MOVED BY: Nena Hart, seconded by Marsha Lasky

VOTE: AYES: Peter Mark, Pat Carapiet, Larry Stoehr, Nena Hart, Marsha Lasky, Claire Slaymaker, Jim Lynch

NOES: None

ABSTAIN: None

RECUSED: None

ABSENT: None

MOTION: To adopt the Resolution granting a rear yard Variance for the project at **5 North Point Circle**.

MOVED BY: Nena Hart, seconded by Marsha Lasky

VOTE: AYES: Peter Mark, Pat Carapiet, Larry Stoehr, Nena Hart, Marsha Lasky, Claire Slaymaker, Jim Lynch

NOES: None

ABSTAIN: None

RECUSED: None

ABSENT: None

6. Design Review, Variance and Revocable License applications for a residential remodel located at **26 Lagoon Road**. The project consists of a residential remodel, including raising the roof 6 inches and a new curb cut to accommodate new parking and a driveway gate. The project also includes upgrades to the existing landscaping, including new lighting. Property Owners: Paw and Csilla Andersen; Project applicant: Aleck Wilson Architects (No recusals) Staff recommends that the Commission adopt the appropriate Resolutions of approval.

Senior Planner Rebecca Markwick presented the staff report. A slide show presentation accompanied her remarks.² Late mail has been received from neighbors on both sides of the subject property which was distributed to the Commissioners today.

Open public hearing.

Paw and Csilla Andersen, property owners described their proposal which will enhance the use of the outdoor space and update the home.

John Merten, landscape architect for the project explained the scope of the project and that there had been some modifications proposed in response to neighbor and Commissioner concerns expressed during site visits.

Commissioners asked questions about proposed lighting and adding timers to exterior lighting.

² The slide show presentation is archived with the record of this meeting.

Mr. Andersen replied that they do not intend to leave lights on overnight.

Commissioners asked have the requests from the neighbors, the Rogers and the Kuhns on either side of the property, been resolved?

Mr. Andersen replied that they have discussed modifications to the front planting area and parking area that would address the concerns of the Rogers.

Mr. Merten replied that the concerns of the Kuhns are actually already addressed in the current plans.

Geri Kuhns, neighbor, stated that although this looks like a simple plan, the enlarged deck will impact their primary views and privacy. They prefer to protect views and will have to sacrifice privacy.

Close public hearing.

Commissioners agreed that the project can be supported with minor modifications to outdoor lighting and at the front parking area, to be included as conditions of approval in the Resolution.

MOTION: To Adopt the Resolution granting Design Review for the proposed renovation and remodel at **26 Lagoon Road**, as conditioned per the discussion at the meeting.

MOVED BY: Marsha Lasky, seconded by Nena Hart

VOTE: AYES: Peter Mark, Pat Carapiet, Nena Hart, Marsha Lasky, Jim Lynch,
Claire Slaymaker, Larry Stoehr
NOES: None
ABSTAIN: None
RECUSED: None
ABSENT: None

MOTION: To Adopt the Resolution granting a Variance for a front yard setback encroachment by the garage at **26 Lagoon Road.**

MOVED BY: Marsha Lasky, seconded by Nena Hart

VOTE: AYES: Peter Mark, Pat Carapiet, Nena Hart, Marsha Lasky, Jim Lynch,
Claire Slaymaker, Larry Stoehr
NOES: None
ABSTAIN: None
RECUSED: None
ABSENT: None

MOTION: To recommend a Revocable License for improvements located in the public street right-of way at **26 Lagoon Road.**

MOVED BY: Marsha Lasky, seconded by Nena Hart

VOTE: AYES: Peter Mark, Pat Carapiet, Nena Hart, Marsha Lasky, Jim Lynch,

Claire Slaymaker, Larry Stoehr
NOES: None
ABSTAIN: None
RECUSED: None
ABSENT: None

ADJOURNMENT

The meeting was adjourned at 7:45 pm.

PASSED AND APPROVED at a regular meeting of the Belvedere Planning Commission on January 19, 2021 by the following vote:

AYES:
NOES:
RECUSED:
ABSTAIN:
ABSENT:

APPROVED: _____
Peter Mark, Planning Commission Chair

ATTEST: _____
Beth Haener, City Clerk

BELVEDERE PLANNING COMMISSION**MINUTES****SPECIAL MEETING****MEETING HELD VIA ZOOM****NOVEMBER 10, 2020 1:00 P.M.****A. CALL TO ORDER OF THE SPECIAL MEETING**

Chair Peter Mark called the special meeting to order at 1:00 p.m. The meeting was held via Zoom video conference. Commissioners present via Zoom: Peter Mark, Marsha Lasky, Pat Carapiet, Nena Hart, Claire Larry Stoehr and Jim Lynch. Absent: Claire Slaymaker. Staff present: Director of Planning and Building Irene Borba, Senior Planner Rebecca Markwick, City Attorney Emily Longfellow, and Permit Technician Nancy Miller.

Presenters Present: Stefan Pellegrini and Tony Perez (OPTICOS) and David Javid (PLAN to PLACE)

B. OPEN FORUM

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No one wished to speak.

C. REPORTS

There were no Reports.

D. PRESENTATION & DISCUSSION

Planning Commission presentation and discussion regarding **Objective Design and Development Standards (ODDS)**. The City of Belvedere applied with the County of Marin and other local Marin jurisdictions for a SB 2 (Atkins) Building Jobs and Homes Act planning grant to facilitate Housing Element programs. The County and other local jurisdictions are working together to ensure that design guidelines for multifamily housing developments maintain a high quality and will be context sensitive. An effort is underway to prepare Objective Design and Development Standards (ODDS) that will result in a toolkit of standards that, when adopted, will provide a clear review and approval process. This will also ensure that design and aesthetic of developments address topics such as architectural style while accommodating current and future legislation requirements. The consultants for the project will be presenting the “draft” plan.

Director Borba introduced the presenters and described the background of the City of Belvedere’s participation in the ODDS project. The request for this evening is that the Planning Commission and public receive and discuss the update report from the consultants, and that a Subcommittee of 3 Commission members be appointed to work with staff to go through the final draft document for submittal back to the consultants later this month.

David Javid introduced the agenda, presentation and meeting format.

Stefan Pelligrini presented the report with a slide show presentation which accompanied his remarks.¹ He presented an overview of the “Atlas” and ‘Toolkit’ draft documents, in particular the pages that are applicable to Belvedere locations for by-right approvals under objective design and development standards (ODDS).

Certain specific characteristic of Belvedere sites are considered in the recommendations. Also described were some possible ways that specific applications might be able to have certain discretionary leeway and still be compliant with the limitations of State law. The consideration as to how to implement these standards is specific to each community.

Mr. Javid opened the meeting to comment and questions from the Commission.

Chair Mark asked as for clarification as to where would there be any by-right projects in Belvedere.

Director Borba replied that there are already multifamily zones such as Mallard Road, and along Tiburon Blvd. and Beach Road where this might come into consideration. There are also other areas that might be redeveloped. This process is meant as preparation for potential applications in these areas. Related to the process is the upcoming Housing Element update and new RHNA allocation numbers which is expected to be 10 times the previous allocation (currently 16 units) increasing to possibly 160 units. The City needs to be prepared to provide for more housing units. The ODDS toolkit is to help us be better prepared should a by-right project come to Belvedere.

Chair Mark stated, so the purpose of ODDS to create some protections in advance of any as yet unknown applications.

Director Borba replied that could be true.

Vice-Chair Carapiet asked if the same areas are in the Flood plain would that mean that by-right approvals cannot be made.

Mr. Pellegrini replied that the FEMA requirements would have to be met but ODDS would still be applicable. There might need to be another level of discretionary review to be certain that all regulations are met. This question may require further legal analysis.

Commissioner Lasky said it seems like the applicants might effectively treat this process as if they were picking from a catalogue of available designs. What criteria can the City still have to legally review these projects?

Chair Mark replied that in some cases there might still be some Design Review.

Mr. Pellegrini replied that with ODDS in place it could override subjective considerations for by-right projects. Limited discretionary processes may be available but only under strict limited time limits.

Vice-Chair Carapiet asked if an Overlay process is adopted for these ODDS would the underlying zoning requirements be maintained, such as height limits.

Mr. Pellegrini replied that they would, but if a by-right project is proposed then that would be processed under the ODDS Overlay. Heights in the ODDS could be specified to be the same as existing zoning but would be subject to allowed increases relative to density bonus allowances in the State law such as for providing a certain percentage of affordable units in the proposed project.

¹ The slide show presentation is archived with the record of the meeting.

Commissioner Stoehr asked how an application is determined to be a by-right project.

Mr. Pellegrini replied that SB35 addresses jurisdictions that have not met their current RHNA allocations. Jurisdictions in this situation are identified in a list maintained by HCD. A developer of affordable housing projects would take advantage of making by-right applications in such locales. An application is submitted as an SB35 proposal and would be vetted and subject to review under the applicable timelines.

Chair Mark asked if there is any way to have an Overlay Zone for ODDS relative to ADUs and JADUs.

City Attorney Emily Longfellow replied that the current Ordinance for ADUs/JADUs contains objective standards. She is not certain how that would be connected to this process. She will research the question.

Mr. Pellegrini stated that some other jurisdictions have expressed interest in the same question.

Director Borba stated that there do not appear to be any comments from the public at this time.

Close discussion.

Director Borba asked for 3 members of the Commission to work on the document with staff to submit comments by the end of the following week. A final document would be returned to the Planning Commission and on to the City Council sometime in the new year.

Chair Mark, and Vice Chair Carapiet agreed to be on the Subcommittee. Commissioner Slaymaker was also appointed in her absence, with Commissioner Hart as the backup should Commissioner Slaymaker be unavailable.

Director Borba will provide hard copies of the entire draft documents to all concerned as soon as they can be copied (they are over 350 pages in length).

Mr. Pellegrini stated that there is a current SB35 application before the City of Novato which might be useful to review.

Chair Mark asked whether Belvedere is on the State list.

Mr. Pellegrini stated that it is.

Chair Mark and the Subcommittee will meet as soon as possible to return the comments back in the next two weeks.

ADJOURNMENT

The meeting was adjourned at 2:16 pm.

PASSED AND APPROVED at a regular meeting of the Belvedere Planning Commission on January 19, 2021 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

APPROVED: _____
Peter Mark, Planning Commission Chair

ATTEST: _____
Beth Haener, City Clerk



**CITY OF BELVEDERE PLANNING COMMISSION
STAFF REPORT**

REPORT DATE: January 12, 2021 **CONSENT CALENDAR
AGENDA ITEM: 3**

MEETING DATE: January 19, 2021

TO: City of Belvedere Planning Commission

FROM: Rebecca Markwick, Senior Planner

REVIEWED BY: Irene Borba, Director of Planning and Building
Emily Longfellow, City Attorney

SUBJECT: **Design Review and Exception to Total Floor Area for an Addition at
118 Bayview Avenue.**

RECOMMENDATION

The proposed project includes Design Review and an Exception to Total Floor Area for an addition to the existing residence at **118 Bayview Avenue**. The proposed project requires an Exception to Total Floor Area as the property currently exceed the allowable floor area and with the proposed addition, the project will further exceed the requirements. The applications are included as **Attachment 3** and project plans are included as **Attachment 4**.

Staff recommends that the Planning Commission conduct the required public hearing and take the following actions:

- MOTION 1** Adopt the Resolution granting Design Review for an addition at **118 Bayview Avenue (Attachment 1)**.
- MOTION 2** Adopt a Resolution granting Exception to Total Floor Area at **118 Bayview Avenue (Attachment 2)**.

PROPERTY SUMMARY

Project Address: 118 Bayview Avenue
APN: 060-155-23
Property Owner: Sandra and Brian Saputo
Applicant: John Swain
GP Designation: Low Density Residential SFD: 1.0 to 3.0 units/net acre
Zoning: R-15 Zoning District, Belvedere Island
Existing Use: Single Family Residential & Legal Accessory Dwelling Unit

Site Characteristics: The subject property is within the R-15 Zoning District, Belvedere Island. The site is developed with an existing residence a legal accessory dwelling unit and a detached garage. The topography of the site slopes steeply from Bayview Avenue downward on the property.



ZONING PARAMETERS

ELEMENT	PRESCRIBED	EXISTING	PROPOSED
Lot Area	15,000 SF	7,574 SF	No Change
Total Floor Area	2,499 SF, 30 %	3,368 SF	3,381 SF
Lot Coverage	3,125 SF (50%)	1,594 SF, 21 %	1,607 SF, 21%
Left Side Yard Setback	10'	12'6"	No Change
Right Side Yard Setback	10'	12'6"	No Change
Rear Yard Setback	20'	32'10"	No Change
Front Yard Setback	10'	5'	No Change
Building Height Maximum	36'	36'	No Change
Parking Spaces	2	2	No Change

BACKGROUND/PROPERTY HISTORY

1988 – Planning Commission Design Review and Variance approval for a new single-family dwelling.

1990- Planning Commission approval of a 5-year extension for the home approved in 1988

1993- Staff approval to change the railing design at the car port, elimination of two small decks, and the addition of one deck.

1996- Planning Commission approval of design review and exception to total floor area to enclose the existing carport.

2007- Staff design review approval to replace and extend the existing retaining wall at the rear of the property.

PROJECT ANALYSIS/DESCRIPTION

The applicant requests Planning Commission approvals for Design Review and Exception to Total Floor Area for a 13 SF addition to the existing home. The proposal also includes an addition at the east façade of 106 SF. The proposal is to enlarge the existing kitchen by popping out a portion of the wall that is currently under an overhang. The colors and materials of the addition will match the existing home.

The project includes an Exception to Total Floor Area because the existing residence is currently over on floor area. The residence currently has 3,368 SF, the BMC allows 2,499 SF and the project is asking for 3,381 SF. All other components of the proposed project conform to the development standards in the R-15 zoning district.

DESIGN REVIEW

The Design Review findings, specified in Belvedere Municipal Code Title 20, state that all new structures and additions should be designed to avoid excessively large dwellings that are out of character with their setting or with other dwellings in the neighborhood. All buildings should be designed to relate to, and fit in, with others in the neighborhood and should not attract attention to themselves. To avoid monotony or an impression of bulk, large expanses of any one material on a single plane should be avoided. Vertical and horizontal elements should be used to add architectural variety, to break up building planes, and to avoid monotony. Landscaping will also soften and screen structures and maintain privacy.

As detailed in the draft Resolution (**Attachment 1**), staff recommends that all Design Review findings are satisfied. The proposed project is for a minor addition.

The addition is designed to be unobtrusive and will not be visible to any of the neighbors or the street. All new or modified windows and have been designed with the adjacent neighbors in mind and should not be noticeable or provide impacts to privacy for the neighbors.

The project as designed fits in and relates to the other dwellings in the neighborhood and to the project site. The proposed exterior materials will blend in with the neighborhood, as there is a mix of modern and traditional homes in the vicinity. The addition has been designed with vertical and horizontal elements to avoid monotony.

EXCEPTION TO TOTAL FLOOR AREA

The applicant requests an Exception to Total Floor Area to allow 3,381 square feet where 2,499 square feet is the maximum allowed for this size lot in this zone and 3,368 square feet exists. The total parcel is size is 7,574 square feet in area.

Pursuant to Section 19.52.120(A)(1) of the B.M.C., in order to grant an Exception to Total Floor Area, the Planning Commission must make each of the following findings:

- a. That primary views from adjacent properties, as well as from the street, are not significantly impaired by the additional square footage;
- b. That there are unusual characteristics applicable to the parcel which minimize the impact of a greater floor area;
- c. That the proposed structure(s) are appropriate in mass, bulk, and character for the parcel, the neighborhood, and the zoning district, and meet(s) all design review criteria; and

- d. That the additional square footage will not substantially reduce the privacy otherwise available to residents of adjoining properties.

Staff finds that as proposed, primary views from adjacent properties, as well as from the street, would not be significantly impaired by the proposed additional square footage. The addition at the front of the residence will not be visible from the Bayview Avenue as the home is lower than the street level and there is a garage in front of the home. The addition has been designed in such a manner as to not impede existing views of adjacent neighbors.

The unusual characteristic of the property that minimizes the impact of the proposed greater floor area is the location and siting of the existing residence on the parcel as well as the steep topography. The existing residence follows the downhill slope of the property. The addition is located behind the garage on the downslope of the property.

The impact of the additional square footage is not significant given where the additional square footage is proposed/designed.

The project is also appropriate in mass, bulk, and character for the area, and satisfies all Design Review criteria.

Staff recommends that the findings for Exception to Total Floor Area can be made, as established in the Resolution included in **Attachment 2**.

ENVIRONMENTAL DETERMINATION

The project has been reviewed under the provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines, California Code of Regulations. On *January 12, 2021* the *proposed* project was determined to be categorically exempt from CEQA pursuant to *Section 15301 Existing Facilities* because the proposed project involves no expansion of an existing use. It can be seen with certainty that there is no possibility that the activity in question may have an effect on the environment. City action is required by *March 12, 2021* or the project may be deemed approved.

CEQA provides certain exceptions where categorical exemptions may not be used. Under one such exception, a CEQA categorical exemption may not be used if the project has the potential to cause a substantial adverse effect on a CEQA Tribal Cultural Resource. Here a categorical exemption is appropriate because there is no potential that the project would cause a substantial adverse effect on any potential Tribal Cultural Resources that may, or may not, exist on the site. Here, the project has been identified as “Medium” on the Prehistoric Resource Sensitivity Map. Here the project is proposed on previously disturbed soil, meaning there is no required integrity for historical or Tribal Cultural Resource purposes, and the project involves the addition/remodel and other site improvements for an existing residence. As proposed, the proposed the project would not disturb existing soils.

CORRESPONDENCE

A copy of the public hearing notice for this item was published in *The ARK* newspaper and mailed to all property owners within 300 feet of the subject property. At the time of writing this staff has not received any correspondence.

CONCLUSION

Staff believes that the findings can be made for Design Review and the Exception to Total Floor Area for the proposed addition. Staff recommends that the required findings for the requested applications can be made as included in the attached Draft Resolutions.

RECOMMENDATION

the following actions:

MOTION 1 Adopt the Resolution granting Design Review for an addition at **118 Bayview Avenue (Attachment 1)**.

MOTION 2 Adopt a Resolution granting Exception to Total Floor Area at **118 Bayview Avenue (Attachment 2)**.

ATTACHMENTS

Attachment 1: Draft Design Review Resolution
Attachment 2: Draft Exception to Total Floor Area Resolution
Attachment 3: Applications
Attachment 4: Project plans
Attachment 5: Correspondence

CITY OF BELVEDERE

RESOLUTION NO. 2021

**A RESOLUTION OF THE CITY OF BELVEDERE GRANTING DESIGN REVIEW
APPROVAL FOR AN ADDITION
TO THE PROPERTY LOCATED AT 118 BAYVIEW AVENUE**

WHEREAS, a proper application has been submitted for Design Review pursuant to Title 20 of the Belvedere Municipal Code to an addition for the subject property located at 118 Bayview Avenue; and

WHEREAS, the project been determined to be categorically exempt from the California Environmental Quality Act (CEQA) pursuant to pursuant to *Section 15301 Class 1 Existing Facilities* because the proposed project includes the construction of an addition/remodel involving negligible or no expansion of use beyond that existing; and

WHEREAS, project is exempted from CEQA by the Common Sense Exemption CEQA Guideline section 15061(b)(3), because it can be seen with certainty that the project will not have a significant effect on the environment; the property is fully developed with an existing residence and other site improvements and the proposed modification would be constructed in a developed area of the property, where the soil and grounds are already disturbed. The project site is categorized as a site of Medium Sensitivity for Tribal Cultural Resources; and

WHEREAS, the Planning Commission held a properly noticed hearing on January 19, 2020; and

WHEREAS, the Planning Commission finds based upon the findings set forth in **Exhibit A** attached hereto and incorporated herein, that with the conditions listed below, the proposed project is in substantial conformance with the Design Review criteria specified in Section 20.04.110 to 20.04.120 of the Belvedere Municipal Code.

NOW, THEREFORE BE IT RESOLVED that the Planning Commission of the City of Belvedere does hereby grant approval of the Design Review application pursuant to Title 20 of the Belvedere Municipal Code an addition with the following conditions:

- a) The property owner shall defend and hold the City of Belvedere and its officers harmless in the event of any legal action related to or arising from the granting of this Design Review approval and/or associated project, shall cooperate with the City in the defense of any such action, and shall indemnify the City for any and all awards of damages and/or attorneys' fees and all associated costs that may result; counsel in any such legal action shall be selected by the City in its sole reasonable discretion.
- b) Plans submitted to the Building Department for permit issuance shall be consistent with the approved Planning Commission plans prepared by John Swain stamped received by the City of Belvedere on January 11, 2021.
- c) Construction shall be limited to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, except in special circumstances after obtaining written permission from the City Manager.
- d) All requirements of the City Engineer shall be met including but not limited to:
 1. An Encroachment Permit is required, prior to construction, from the contractor for temporary and permanent improvements, work activities, and staging or storage of equipment and materials within the public right of way, subject to approval of the Public Works Director.

ATTACHMENT 1

2. This project will require a video recording of the condition of the haul route prior to start of construction. The applicant will be responsible for any damage, beyond normal wear and tear, to the roadway or other improvements along the haul route caused by the removal or delivery of materials by truck. To ensure any damage is repaired to the satisfaction of the City, a deposit may be required. The deposit amount (estimated range from \$10,000 to \$30,000) will be determined by the City Engineer at the time of the Building Permit review and is dependent upon the duration of the project and total project valuation. If it is determined that project construction caused damage, the amount to repair said damage shall be withheld from the deposit amount, with the remaining amount to be returned to the property owner.
 3. The project requires a Site Plan showing the property line locations (referencing the survey source and mapping information), any existing easements, building setbacks, encroachments etc.
 4. The project will require a Construction Management Plan identifying the following:
 - estimated project duration
 - construction schedule of milestones (excavation, grading, and offhaul duration; foundation work; framing; flatwork/paving; punch list/final inspection)
 - excavation and disposal methods
 - equipment to be used
 - site access location
 - storage and staging location of materials and equipment/portable toilet/debris box and waste bins
 - truck loading area and temporary traffic control required as necessary haul routeFor construction requiring earthwork between October 15th and April 15th, an action
- e) All requirements of the Fire Marshal shall be met at time of building permit.
 - f) All Requirements of the Building Department shall be met at the time of building permit.
 - g) The general contractor shall submit a proposal to the City Manager, for review and approval, addressing the schedule for construction and parking locations for construction vehicles. Prior to the issuance of a building permit, the applicant shall update the Construction Management Plan to the satisfaction of the Building Official.
 - h) Design Review approvals expire twelve (12) months from the date of approval, unless a Building Permit has been issued or an extension has been granted.
 - i) Construction shall be completed within the Construction Time Limit established for this project.
 - j) These Conditions of Approval shall be printed on the Building Permit Construction Plan set of drawings.
 - k) In the event unanticipated archaeological or paleontological resources are uncovered during construction, all work must be halted and an evaluation must be undertaken by a qualified archaeologist or paleontologist to identify the appropriate actions that shall be undertaken.
 - l) These restrictions shall be binding upon any successor in interest of the property.

Resolution 2021
118 Bayview Avenue
January 19, 2021
Page 3

- m) Prior to the issuance of a building permit the property owner shall demonstrate compliance with State/BAAQMD air quality requirements related to the dust generated by grading and construction.

PASSED AND ADOPTED at a regular meeting of the Belvedere Planning Commission on January 19, 2021, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

RECUSED:

APPROVED: _____
Peter Mark, Planning Commission Chair

ATTEST: _____
Beth Haener, City Clerk

Exhibit "A"

DESIGN REVIEW FINDINGS

The following sections are edited versions of Sections 20.04.110 to 20.04.120 of the Belvedere Municipal Code and the Design Review Criteria. In order for a design review application to be approved, the Planning Commission must find the project to be in substantial conformance with these criteria.

Preservation of existing site conditions. To preserve the landscape in its natural state, the removal of trees, vegetation, rock, and soil should be kept to a minimum. Projects should be designed to minimize cut and fill areas, and grade changes should be minimized and kept in harmony with the general appearance of the neighboring landscape.

All of the existing landscaping will be preserved and is in keeping and harmony with the appearance of the neighborhood. There are no trees proposed to be removed with this project. There is no cut and fill with the proposed project. Therefore, the construction of the addition is in substantial conformance with this finding.

Relationship between structures and the site. There should be a balance and harmonious relationship among the structures on the site, between the structures and the site itself, and between the structures and those on adjoining properties. All new buildings or additions constructed on sloping land should be designed to relate to the natural land-forms and step with the slope in order to minimize the building mass and bulk and to integrate the structure with the site.

The proposed modifications are in keeping with the existing style, architecture and form of the residence and is balanced and harmonious with the existing structures on the site and with adjoining properties. The design elements and selection of materials will complement existing colors and materials and they will match. Additionally, the project as designed conforms to the site and integrates into the existing structure.

Minimizing bulk and mass.

A. All new structures and additions should be designed to avoid monumental or excessively large dwellings that are out of character with their setting or with other dwellings in the neighborhood. All buildings should be designed to relate to and fit in with others in the neighborhood and not designed to draw attention to themselves.

The addition has been designed in such a way that it will fit well on the site and will be compatible with the existing residence on the property and other residences in the neighborhood. The proposed modifications would not be massive or out of scale with the site or surroundings. The proposed improvements fit in with others in the neighborhood and are not designed to draw attention to it.

B. To avoid monotony or an impression of bulk, large expanses of any one material on a single plane should be avoided, and large single plane retaining walls should be avoided. Vertical and horizontal elements should be used to add architectural variety, to break up building planes, and to avoid monotony.

The project avoids monotony and the impression of bulk. The design includes a mix of vertical and horizontal elements that will add architectural variety and blend nicely with the landscaping and other properties in the neighborhood. There is no monotony or impression of bulk, or large expanse of any one material and as designed the addition and garage provide some articulation and interest to the existing unique architectural structure.

Materials and colors used. Building designs should incorporate materials and colors that minimize the structures visual impacts, that blends with the existing landforms and vegetative cover, that relate to and fit in with structures in the neighborhood, and that do not attract attention to the structures themselves. Soft and muted colors in the earthtone and woodtone ranges are preferred and generally should predominate. Trim and window colors should be compatible with and complementary to the other building colors.

Colors and materials for the addition will blend in with the existing residence as they will match the existing materials and colors therefore minimizing visual impacts and would not attract attention to the structures themselves.

Fences and screening.

A. Fences and physical screening should be located so as to be compatible with the design of the site and structures as a whole, should conceal and screen garbage areas, mechanical equipment, and structural elements from public view, should preserve privacy between adjoining dwellings, where practical, and should not significantly block views.

There are no new fences proposed with this project.

Privacy. Building placement, and window size and placement should be selected to give consideration to the privacy of adjacent buildings.

The addition is proposed on the property to avoid privacy impacts to the neighbors.

Drives, parking and circulation. Walkways, driveways, curb cuts and off-street parking should be planned and designed so as to minimize interference with smooth traffic flow, to encourage separation of pedestrian from vehicular traffic, and to be as safe and convenient as is practical. They should not be out of relationship with the design of the proposed buildings and structures on the site, and should not intrude on the privacy of, or conflict with the appearance or use of neighboring properties.

Not applicable as these are not being modified.

Exterior lighting, skylights, and reflectivity. Exterior lighting should not create glare, hazard, or annoyance to neighboring property owners or to passersby. Lighting should be shielded and directed downward, with location of lights coordinated with the approved landscape plan. Skylights should not have white or light opaque exterior lenses.

All new exterior lighting will be shielded and or directed downward as to not create a glare or annoyance to neighboring property owners.

Consideration of nonconformities. The proposed work shall be viewed in relationship to any nonconformities, as defined in Title 19, and where it is determined to be feasible and reasonable, consideration should be given to conditioning the approval upon the mitigation or elimination of such nonconformities.

The applicant requests an Exception to Total Floor Area that would allow the property to further exceed the maximum allowable floor area in the R-15 zoning district for the size lot. Because the findings for a Floor Area Exception can be made, it is not reasonable or feasible to mitigate or eliminate the proposed nonconformity.

Landscape plans -- Purpose.

A. Landscape plans should be compatible with the character of the site and surrounding developed properties. Native or natural appearing vegetation, with generally rounded, natural forms, should be placed to appear as loose, informal clusters. B. Landscape plans shall include appropriate planting to soften or screen the appearance of structures as seen from off-site locations and shall include appropriate screening for architectural elements, such as building foundations, deck supports, and retaining walls, that cannot be mitigated through architectural design. C. Landscape plans should provide privacy between properties. Choice of landscape materials should take into consideration the future impact which new planting may have in significantly obstructing views from nearby dwellings.

Landscape Plans – Materials. A. Plant materials native to northern California and Marin County, and those that are drought-tolerant are encouraged. Evergreen species are encouraged for use in screen planting situations. Because of high water usage, turf areas should be minimized and narrow turn areas, such as in parking strips, should be avoided. B. Landscape plans should include a mix of fast and slow growing plant materials. Fast growing trees that have a short life span should be used only when planted with others which reach maturity at a later age. C. Landscape plans should include water conserving irrigation systems. Plant materials should be selected so that once established, much of the major site landscaping would survive solely on rainfall. Plant materials native to northern California and Marin County, and those that are drought tolerant, are encouraged. Because of high water usage, turf areas should be minimized and narrow turf areas, such as in parking strips, should be avoided.

No new landscaping is proposed with the project.

CITY OF BELVEDERE

RESOLUTION NO. 2021

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF
BELVEDERE GRANTING AN EXCEPTION FROM SECTION 19.24.050 OF THE
BELVEDERE MUNICIPAL CODE FOR THE PROPERTY
LOCATED AT 118 BAYVIEW AVENUE**

WHEREAS, a proper application has been submitted for an Exception to Total Floor Area from the zoning provisions of the Belvedere Municipal Code to construct an addition to allow a maximum floor area of 3,381 square feet where a maximum of 2,499 square feet is permitted and where 3,368 square feet currently exists at 118 Bayview Avenue; and

WHEREAS, the project been determined to be categorically exempt from the California Environmental Quality Act (CEQA) pursuant to pursuant to *Section 15301 Existing facilities* because the proposed project includes the construction of an addition/remodel involving negligible or no expansion of use beyond that existing; and

WHEREAS, project is also exempted from CEQA by the Common Sense Exemption CEQA Guideline section 15061(b)(3), because it can be seen with certainty that the project will not have a significant effect on the environment; the property is fully developed with an existing residence and other site improvements and the proposed modification would be constructed in a developed area of the property that has previously disturbed soil and grounds. The project site is categorized as a site of Medium Sensitivity for Tribal Cultural Resources; and

WHEREAS, there is no possibility of an adverse impact to the significance of an historical resource under CEQA the property does not constitute an historical resource;

WHEREAS, the Planning Commission held duly noticed public hearing on the requested Floor Area Exception on January 21, 2021; and

WHEREAS, the Planning Commission made each and every one of the following findings of fact, as required by section 19.52.120(A)(1) of the Belvedere Municipal Code:

- a. **That primary views from adjacent properties, as well as from the street, are not significantly impaired by the additional square footage.**

Due to the design and location of the proposed addition primary views from adjacent properties and the street are not significantly impaired by the additional square footage. The addition is proposed in an area on the lot that does not have any impact to primary views from the adjacent property. The existing residence is on a downward sloping lot and there is a garage at the street level which blocks the addition on the home.

- b. **That there are unusual characteristics applicable to the parcel which minimizes the impact of a greater floor area.**

The unusual characteristic of the property that minimizes the impact of the proposed greater floor area is the location and siting of the existing residence on the parcel as well as the steep topography. The existing residence follows the downhill slope of the property. The addition is proposed on the lower portion of the lot and will not be visible.

ATTACHMENT 2

- c. **That the proposed structure(s) are appropriate in mass, bulk, and character for the parcel, the neighborhood, and the zoning district, and meet(s) all design review criteria.**

The proposed project is appropriate in mass, bulk and character for the parcel, neighborhood, and zoning district because the additional floor area is designed to be well integrated into the existing architecture and site. The materials proposed colors and materials, will match the existing wood siding. As proposed the bulk and mass of the proposed style structures integrate well into the site and neighborhood which help to reduce the mass and bulk.

- d. **That the additional square footage will not substantially reduce the privacy otherwise available to residents of adjoining properties.**

The additional square footage will not substantially reduce the privacy otherwise available to residents of adjoining properties due to the placement of the structures and design of the addition. The addition will not cause any substantial reduction in privacy from what currently exists to residents of adjoining properties.

NOW, THEREFORE, BE IT RESOLVED that based on the findings listed above and incorporated herein, the Planning Commission of the City of Belvedere does hereby grant an Exception to Total Floor Area to allow a maximum floor area of 3,381 square feet where a maximum of 2,499 square feet is permitted and where 3,368 square feet currently exists at 118 Bayview Avenue.

PASSED AND ADOPTED at a regular meeting of the Belvedere Planning Commission on January 19, 2021 by the following vote:

AYES:

NOES:

RECUSED:

ABSTAIN:

ABSENT:

APPROVED: _____

Peter Mark, Planning Commission Chair

ATTEST: _____

Beth Haener, City Clerk



APPLICATION FOR DESIGN REVIEW

CITY OF BELVEDERE • PLANNING COMMISSION
450 SAN RAFAEL AVE • BELVEDERE, CA 94920-2336
PH. 415-435-3838 • FAX 415-435-0430 • WWW.CITYOFBELVEDERE.ORG

RECEIVED
FOR STAFF USE ONLY

Date: OCT 22 2020 Rec'd. by: _____ Planning Comm. Approval
City of Belvedere Design Review Exception
Amount: \$551- Receipt No.: _____ Staff Approval
Parcel No.: _____ Zone: R15

SECTION 1 • PROJECT SUMMARY

Does this project have an active building permit? No Yes Permit No.: _____

Does this project have Planning Commission approval? No Yes

Address of Property: 118 Bay View Ave.

Record Owner of Property: Sandra and Brian Saputo

Mailing 118 Bay View Ave. Daytime Phone: (415) 444-6866

Address: Belvedere, CA 94920 Fax: _____

Email: bsaputo@mac.com

Owner's Representative: John Swain

Mailing 89 Beach Rd Daytime Phone: 415-435-0468

Address: Belvedere, CA 94920 Fax: _____

Email: jswain@swaindesign.com

Project Description: _____

Add 13 square foot addition at kitchen. Remodel kitchen.

Project Address: 118 Bay View Ave.

ZONING PARAMETERS:

	<u>Required</u>	<u>Existing</u>	<u>Proposed</u>
Lot Area	15,000	7,574	no change
Lot Coverage	2,272	1,594	1,607
Total Floor Area	2,499	3,368	3,381
Front Yard Setback	10	5 ft	no change
Left Sideyard Setback	10	12 ft 6 in	no change
Right Sideyard Setback	10	12 ft 6 in	no change
Rear Yard Setback	20	32 ft 10 in	no change
Building Height Maximum...	36	36 ft	no change
Building Height Average...	28	28	no change
Parking Spaces	2	2	no change

SECTION 2 • ENVIRONMENTAL INFORMATION REQUIRED BY CEQA

Date Filed: 15 October 2020 (To Be Completed by Applicant)

General Information

- Name and address of developer or project sponsor: Sandra and Brian Saputo
- Address of project: 118 Bay View Ave., Belvedere, CA
- Name, address, and telephone number of person to be contacted concerning this project: John Swain, 89 Beach Rd., Belvedere, CA 94920
- Indicate number of the permit application for the project to which this form pertains: n/a
- List and describe any other related permits and other public approvals required for this project, including those required by city, regional, state and federal agencies: n/a
- Existing zoning district: R15
- Proposed use of site (Project for which this form is filed): Single Family Residence
- Year built: 1993 Original architect: unknown

Project Description

- Site size. 7,574
- Square footage. 13
- Number of floors of construction. 1
- Amount of off-street parking provided. 2
- Plans attached? yes

14. Proposed scheduling. January 2021 to March 2021
15. Associated projects, such as required grading or staging. n/a
-
16. Anticipated incremental development. n/a
17. If residential, include the number of units, schedule of unit sizes, range of sale prices or rents, and type of household size expected. 1
18. If commercial, indicate the type, whether neighborhood, city or regionally oriented, square footage of sales area, and loading facilities. n/a
19. If the project involves a variance, conditional use or rezoning application, state this and indicate clearly why the application is required. n/a

Are the following items applicable to the project or its effects? Discuss below all items checked yes (attach additional sheets as necessary).

	Yes	No
20. Change in existing features of any bays, tidelands, beaches, or hills, or substantial alteration of ground contours.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21. Change in scenic views or vistas from existing residential areas or public lands or roads.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22. Change in pattern, scale or character of general area of project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23. Significant amounts of solid waste or litter.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24. Change in dust, ash, smoke, fumes or odors in vicinity.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25. Change in ocean, bay, lake, stream or ground water quality or quantity, or alteration of existing drainage patterns.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26. Substantial change in existing noise or vibration levels in the vicinity.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27. Site on filled land or on slope of 10 percent or more.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28. Use of, or disposal of potentially hazardous materials, such as toxic substances, flammables or explosives.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29. Substantial change in demand for municipal services (police, fire, water, sewage, etc.).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30. Substantially increase fossil fuel consumption (electricity, oil, natural gas, etc.).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
31. Relationship to a larger project or series of projects.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
32. Changes to a structure or landscape with architectural or historical value.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
33. Changes to a site with archeological or cultural value such as midden soil.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

34. Describe the project site as it exists before the project, including information on topography, soil stability, plants and animals, and any cultural, historical or scenic aspects. Describe any existing structures on the site, and the use of the structures. Attach photographs of the site. Snapshots or Polaroid photos will be accepted. A large wooded lot with main residence, and garage.

35. Describe the surrounding properties, including information on plants and animals and any cultural, historical or scenic aspects. Indicate the type of land use (residential, commercial, etc.), intensity of land use (one-family, apartment houses, shops, department stores, etc.), and scale of development (height, frontage, setback, rear yard, etc.). Attach photographs of the vicinity. Snapshots or Polaroid photos will be accepted. Surrounded by similar single family residential properties.

SECTION 3 • ESTIMATE OF TIME FOR CONSTRUCTION

For Design Review applications not requiring a building permit this form does not apply. Design Review approvals expire twelve (12) months from the date of approval.

This Section advises you of the Time Limit Guidelines that are applied to all Design Review applications that require a building permit as prescribed by Section 20.04.035 of the Belvedere Municipal Code. "As part of any application for Design Review, the applicant shall file a reasonable estimate of the cost of the proposed construction, and based thereon, a construction time limit shall be established for the project in accordance with Section 20.04.035(b) of the Belvedere Municipal Code. Compliance with such time limit shall become a condition of design review approval." The maximum time for completion of construction shall not exceed six months for additions and remodeling up to \$100,000 in value; 12 months for construction up to \$500,000 in value; and 18 months for construction valued at more than \$500,000. Failure to complete construction in the agreed upon time will result in fines ranging from \$400 per day to \$800 per day with a \$200,000 maximum penalty. Application for an extension of the prescribed time limit can be made providing certain conditions are met. The maximum extension is 6 months. The time for completion of the construction shall also be indicated on the building permit.

In the space provided below please indicate the estimated project valuation.

Estimated cost of construction: \$ 175,000

Based on the above estimated project valuation, check one of the following Time Limit Guidelines that shall apply to your project:

- 1. For new construction, the demonstrable value of which is estimated to be less than \$500,000.
Construction shall be completed twelve (12) months from the commencement of work following the issuance of the building permit.
- 2. For new construction, the demonstrable value of which is estimated to be more than \$500,000.
Construction shall be completed eighteen (18) months from the commencement of work following the issuance of the building permit.
- 3. For additions, alterations, modifications and repairs, the demonstrable value of which is estimated at less than \$100,000.
Construction shall be completed six (6) months from the commencement of work following the issuance of the building permit.
- 4. For additions, alterations, modifications and repairs, the demonstrable value of which is estimated at less than \$500,000.
Construction shall be completed twelve (12) months from the commencement of work following the issuance of the building permit.
- 5. For additions, alterations, modifications and repairs, the demonstrable value of which is estimated at more than \$500,000.
Construction shall be completed eighteen (18) months from the commencement of work following the issuance of the building permit.

For those projects that do not fall under any of the above Time Limit Guidelines or wish to exceed the time limit that was approved by the Planning Commission, the following outlines the "Extension of Construction Time Limit" (20.04.035D) process:

1. Within twelve months following the original approval of Design Review for the construction, and provided that no construction activity has yet commenced on the project, the applicant may apply for an extension of the established construction time limit, not to exceed an additional six months.
2. An application for an extension of the construction time limit shall be accompanied by complete working drawings for the construction, a written explanation of the reasons for the requested extension, and a fee, as established by City Council resolution.
3. Within 10 working days of receipt of a complete application for extension, said application shall be reviewed by a committee consisting of the City's Building Official, the City Planner, and the City Engineer, meeting together with the project contractor, architect, and, at the applicant's option, the applicant and/or any other representatives of the applicant. At the completion of such review, the committee shall make a recommendation to the Planning Commission whether to approve the requested extension.
4. The committee's recommendation shall be placed on the next available Planning Commission agenda and noticed as an amendment to the applicant's existing Design Review approval. Any modification by the Planning Commission of the original construction time limit shall not extend the existing expiration date of the Design Review approval.
5. Administrative extension. Within 10 working days of receipt of a complete application for extension, said application shall be reviewed by a committee consisting of the City's Building Official, the City Planner, and the City Engineer, meeting together with the project contractor, architect, and, at the applicant's option, the applicant and/or any other representatives of the applicant. The committee may recommend to the Planning Commission, and the Planning Commission may approve, an extension if it is determined that any one or more of the following factors presents an unusual obstacle to complying with the standard construction time limit:
 - a. Site topography;
 - b. Site access;
 - c. Geologic issues;
 - d. Neighborhood considerations;
 - e. Other unusual factors.At the completion of such review, the committee shall make a written recommendation to the Planning Commission whether or not to approve the requested extension and setting forth the findings it has made justifying its decision. The Committee shall have the authority to administratively approve requests for extension, subject solely to the guidelines of Paragraphs 2 and 3 above, provided however that such extensions do not result in a construction time line exceeding 18 months.

SECTION 4 • ACKNOWLEDGEMENT OF HOURLY BILLING COSTS

This Section advises you of the costs that may be involved in processing Planning-related applications and/or appeals. You are hereby requested to acknowledge this information and agree to be responsible for all expenses incurred in the processing of your application(s)/appeal(s).

As the property owner/appellant, you agree to be responsible for the payment of all costs, both direct and indirect, associated with the processing of the applications(s)/appeals(s) referenced below. Such costs may be incurred from the following source:

Hourly billing costs as of July 1, 2008, (subject to change without notice):

Planning Manager	\$ 67.07
Assistant Planner	\$ 39.29
City Attorney	\$ 185.00
Specialized Planning Consultant	Actual costs + 25% overhead

For all applications and appeals, an initial deposit is required at the time of submittal, with the amounts determined by City Council resolution. In addition to the initial deposit, the property owner/appellant may be required to make further deposits for anticipated work. Invoices are due and payable within 15 days. Application(s) /or appeal(s) will not be placed on an agenda until these deposits are received.

SECTION 5 • ACKNOWLEDGEMENT OF RESPONSIBILITY

This Section applies to all projects that receive design review. It has been found that there are often misunderstandings regarding changes to building plans that receive Design Review. This occurs when construction plans are submitted to the Building Department for permit issuance after planning approval has been achieved. Another common occurrence is a change to the project while it is underway without first obtaining an approval from the City for the deviation from the original plan.

To help your project proceed in an expeditious and harmonious manner, the City of Belvedere wishes to inform you of several basic understandings regarding your project and its approval. By you and your representative signing this document, you are acknowledging that you have read, understand, and will comply with each of the points listed.

1. Once Design Review approval has been granted, construction plans may be submitted to the City. The construction plans shall be **identical** to the plans approved for design review. (Authority: Belvedere Municipal Code Section 20.04.010). Deviations from the plans approved for Design Review cannot be approved except by an amendment to the Design Review approval. It is the applicants' responsibility to assure conformance, and the failure of staff to bring nonconformities to the applicants' attention shall not excuse the applicant from such compliance.
2. Comments from City staff regarding the project shall neither be deemed official nor relied upon unless they are in writing and signed by the City Manager or his designee.
3. Without the prior written approval of the City, construction on the project shall not deviate in any manner, including but not limited to form, size or color, from approved construction plans. If at any time during construction, and without such written approval, construction on the project is found by a member of City staff to deviate from the approved construction plans in any manner, an official STOP WORK ORDER will be issued by the City, and there shall be a total cessation of all work on the project.
4. If such a STOP WORK ORDER is issued, the City may initiate proceedings to impose administrative penalties or nuisance abatement proceedings and issue an order to show cause, which will compel the undersigned property owner to appear before the City Council and show cause why the work performed does not deviate from the approved plans and why such work should not be condemned as a public nuisance and abated. (Authority: Belvedere Municipal Code Chapters 1.14 and 8.12)

SECTION 6 • ADDITIONAL INFORMATION FOR APPLICANTS

Story Pole Requirement

Preliminary Story Poles sufficient to indicate the height and shape of the proposed structure or additions shall be placed on the site **at least twenty (20) days** prior to the first meeting date at which this application will be heard. **Final Story Poles** must be placed at the site **at least ten (10) days** prior to the first meeting date and removed no later than ten (10) days following the final city action on the project application. Story poles shall be connected at their tops with colored tape or ribbon to clearly indicate ridges, eaves, and other major elements of the structure.

Limit on the Number of Administrative and Planning Commission Design Review Approvals

Pursuant to Belvedere Municipal Code Section 20.04.020(B)(1)(a), for a site or structure with no existing active Design Review approval, during any twelve-month period, an applicant may obtain up to four administrative approvals, which may be in the form of either Staff Approval, Design Review Exception, or a combination of the two. However, there is no limit to the number of times an applicant may apply for Planning Commission Design Review. **Any such administrative or Planning Commission Design Review approval(s) shall be valid for a period of twelve (12) months from the date of approval, unless a building permit has been issued for the project within said twelve (12) month period, in which case the Design Review approval shall be valid as long as there is an active building permit for the project.**

Once a project has been approved by Planning Staff or the Planning Commission, administrative approvals to amend the existing active Design Review approval for that project shall be limited to three such approvals at any time during the lifetime of the underlying Design Review approval, plus one such approval during the process of obtaining final inspection approval of the project. **Any such administrative approval(s) granted shall NOT extend the twelve (12) month term, of the underlying Design Review approval, or the building permit construction time limit if a building permit has been issued for the project.**

**STATEMENT OF PROPERTY OWNERSHIP,
CERTIFICATION OF APPLICATION, & DESIGNATION OF REPRESENTATIVE**

All property owners must complete and sign the section below which is applicable to your property.

Street address of subject property: 118 Bay View Ave.

Assessor's Parcel No(s). of subject property: 060-155-23

> Properties Owned by a Trust, LLC, Corporation, Partnership, or Other Entity

Please provide proof of ownership and of the signer's authority to enter into contracts regarding this property. One of (or a combination of) the following documents may contain the necessary information. **For trusts:** the trust document or a certificate of trust, including any attachments thereto; property deed; certificate of title insurance. **For other entities:** articles of incorporation; partnership agreement; property deed; certificate of title insurance; written certification of facts by an attorney. Photocopies are acceptable. To ensure privacy, documentation will be shredded in a timely manner, or, upon request, returned to the applicant.

Project Address: 118 Bay View Ave.

I, Brian Saputo, state under penalty of perjury under the laws of the State of California that the above-described subject property is owned by a trust, LLC, corporation, partnership, or other entity and that my signature on this application has been authorized by all necessary action required by the LLC, corporation, partnership, or other entity.

I hereby make application for approval of the design review requested. I have read this application and hereby certify that the statements furnished above and in the attached exhibits present the data and information required for the design review and initial environmental evaluation to the best of my ability, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief

I agree to be responsible for all costs incurred in connection with the processing of my application and appeals, if any. And I agree to be bound by Section 5, "Acknowledgement of Responsibilities," above and representations one through four contained therein.

In the case of an application for revocable license, I agree that, upon approval by the City Council of the revocable license requested, I will promptly execute a license drafted by the City, have it notarized, and return it to the City so that it may be recorded.

Signed this 14 day of OCTOBER, 2020, at Belvedere, California.

Signature _____ Signature _____

Title(s) _____ Title(s) _____

Trustee(s) Partners: Limited or General Corporation Other _____

Name of trust, LLC, corporation, or other entity: _____

➤ **Properties Owned by Individuals**

I, Brian Saputo, state under penalty of perjury under the laws of the State of California that I am the record owner of the above-described subject property.

I hereby make application for approval of the design review requested. I have read this application and hereby certify that the statements furnished above and in the attached exhibits present the data and information required for the design review and initial environmental evaluation to the best of my ability, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief

I agree to be responsible for all costs incurred in connection with the processing of my application and appeals, if any. And I agree to be bound by Section 5, "Acknowledgement of Responsibilities," above and representations one through four contained therein.

In the case of an application for revocable license, I agree that, upon approval by the City Council of the revocable license requested, I will promptly execute a license drafted by the City, have it notarized, and return it to the City so that it may be recorded.

Signed this 14 day of OCTOBER, 2020 at Belvedere, California.

Signature Brian Saputo

Project Address: 118 Bay View Ave.

➤ **Designation of Owner's Representative (Optional)**

I, Brian Saputo, hereby authorize John Swain
to file on my behalf any applications, plans, papers, data, or documents necessary to obtain approvals
required to complete my project and further authorize said person to appear on my behalf before the
Planning Commission and/or City Council. This designation is valid until the project covered by the
application(s) is completed and finalized or until the designation is rescinded in writing.

Signature of Owner:  Date: 10/14/20

Signature of Representative:  Date: 27 Oct. 2020

Project Address: 118 Bay View Ave.



APPLICATION FOR EXCEPTION TO TOTAL FLOOR AREA

CITY OF BELVEDERE • PLANNING COMMISSION
450 SAN RAFAEL AVE • BELVEDERE, CA 94920-2336
PH. 415-435-3838 • FAX 415-435-0430 • WWW.CITYOFBELVEDERE.ORG

RECEIVED

FOR STAFF USE ONLY

06/27/08

Date: City of Belvedere Rec'd. by: _____ Amount: \$653- Receipt No.: _____
Assessors Parcel No: _____ Zone: R15

TO BE COMPLETED BY APPLICANT

Address of Property: 118 Bay View Ave.

Type of Property: Residential

Record Owner of Property: Sandra and Brian Saputo

Mailing 118 Bay View Ave. Daytime Phone: (415) 444-6866

Address: Belvedere, CA 94920 Fax: _____

Email: bsaputo@mac.com

Owner's Representative: John Swain

Mailing 89 Beach Rd Daytime Phone: 415-435-0468

Address: Belvedere, CA 94920 Fax: _____

Email: jswain@swaindesign.com

ORDINANCE REQUIRES: 2,499 sq. ft. YOUR APPLICATION HAS: 3,381 sq. ft.

As provided in Belvedere Municipal Code Section 19.52.120(1), I hereby apply for an exception to the floor area requirements in the Zoning Ordinance. I propose that the Planning Commission make the following findings of fact:

1. That primary views from adjacent properties, as well as from the street, are not significantly impaired by the additional square footage, because: The proposed additional 13 square feet of floor area requiring the Floor Area Exception is under the existing roof.

The proposed square footage is not visible from any adjacent properties or the public right of way or neighboring properties.

2. That there are unusual characteristics applicable to the parcel which minimize the impact of a greater floor area, because: The residence is located in the middle of the lot on a down slope. The proposed 13 square feet of floor area will be built under the existing roof and is not visible from the street or the neighboring homes

3. That the proposed structure(s) are appropriate in mass, bulk, and character for the parcel, the neighborhood, and the zoning district, and meet(s) all Design Review criteria, because: _____
The proposed 13 square feet of floor area will be built under the existing roof where there is a jog in the exterior wall. The addition straightens the existing wall and will have no visual impact on the exterior of the building.

4. That the additional square-footage will not substantially reduce the privacy otherwise available to residents of adjoining properties, because: The additional square footage is not visible to adjacent properties and adjacent properties are not visible from the additional square footage.

In addition, Section 19.52.120(2) includes guidelines that the Planning Commission must follow. I propose that the following guidelines can be met:

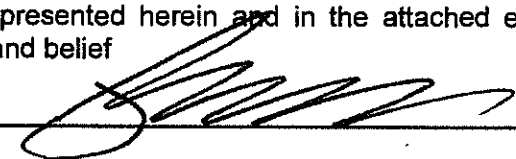
5. That the proposed new construction would not create a new or expand on existing nonconformity on the property, because: The 13 square foot addition is under the existing roof line and the project does not require additional variances.

Project Address: 118 Bay View Ave.

(For purposes of this Section, floor area in the existing structure which is in excess of the requirements of this chapter shall not be considered to be an "existing nonconformity" on the property, and the grant of a floor area exception hereunder shall not be deemed to create a "new nonconformity." Additionally, for purposes of this section, where an applicant proposes to construct new and additional parking spaces, construction of parking structure or spaces within a setback shall not be deemed to create a nonconformity.)

6. That the proposed new construction is not a continuation, expansion, or subsequent phase of a project for which one or more variances were granted, which project was completed within two years prior to the floor area exception application, because: No project has been completed within the previous two years.
-
-
-
-
-

I, the undersigned owner of the property herein described (or owner representative, as authorized by completion of a Statement of Ownership and Designation of Representative), hereby make application for approval of the exception as requested, and I hereby certify that the facts, statements and information presented herein and in the attached exhibit(s) are true and correct to the best of my knowledge and belief

Signature:  _____

Name: John C. Swain

Date: ~~28 March 2016~~ 21 OCT 2020



**CITY OF BELVEDERE PLANNING COMMISSION
STAFF REPORT**

REPORT DATE: January 12, 2021 **AGENDA ITEM: 4**
MEETING DATE: January 19, 2021
TO: City of Belvedere Planning Commission
FROM: Rebecca Markwick, Senior Planner
REVIEWED BY: Irene Borba, Director of Planning and Building
Emily Longfellow, City Attorney
SUBJECT: **Demolition, Design Review, Exception to Floor Area, Variance and Accessory Dwelling Unit requests to construct a new residence for the property located at 30 Cliff Road**

RECOMMENDATION

The applicant requests approval of Demolition, Design Review, Variance and Exception to Total Floor Area applications to build a new single-family home, attached garage and other associated site improvements. The application is included as **Attachment 5** and project plans are included as **Attachment 6**.

The applicant has also submitted an Accessory Dwelling Unit application which is a ministerial approval and included in the report for informative purposes.

Staff recommends that the Planning Commission conduct the required public hearing and take the following actions:

- MOTION 1** Adopt the Resolution granting Demolition of the existing home at **30 Cliff Road (Attachment 1)**;
- MOTION 2** Adopt the Resolution granting No Historical or Tribal Cultural Resource per CEQA at **30 Cliff Road (Attachment 2)**;
- MOTION 3** Adopt the Resolution granting Design Review for the property located at **30 Cliff Road, (Attachment 3)**;
- MOTION 4** Adopt the Resolution granting Exception to Total Floor Area approval to allow a total floor area of 4,533 SF, where 3,819 SF is permitted at **30 Cliff Road, (Attachment 4)**;
- MOTION 5** Adopt the Resolution for a Variance for a retaining wall and pool deck to exceed the allowable height in the setback for the property located at **30 Cliff Road (Attachment 10)**

PROPERTY SUMMARY

Project Address: 30 Cliff Road
APN: 060-221-43
Project Applicant: Regan Bice Architects
Property Owner: Ben and Devorah Jacoby
GP Designation: Low Density Residential SFD -1.0 to 3.0 units/net acre
Zoning: R-15 Zoning District, Belvedere Island
Existing Use: Single Family Residential

Site Characteristics: The project site is a steep, upward sloping lot within the R-15 zoning district, Belvedere Island. The project site slopes upward of Cliff Road, a private road. The property has a total lot area of 13,740 SF, and 11,573 SF excluding Cliff Road roadway easement. The site affords views of Richardson Bay, San Francisco, Bay Bridge, the Golden Gate Bridge and Mount Tamalpais.



ZONING PARAMETERS

ELEMENT	PRESCRIBED	EXISTING	PROPOSED
Lot Area	15,000 SF	13,740 Gross SF 11,573 Excluding Roadway Easement	No Change
Total Floor Area	3,819 SF, 33 %	3,310 SF, 28.6%	4,533 SF, 39.2%
Lot Coverage	3,472 SF, 30% Structures 5,786.5 SF, 50% w/Decks	2,020 SF, 24 % Structures 4,868 SF, 42.1% w/Decks	2,418 SF, 21% Structure 4,742.5, 41 % w/ Decks
Left (West) Side Yard Setback	6'4 ½"	15' ½"	11'10"
Right (East) Side Yard Setback	6'4 ½"	4'7 ½"	6'9"
Rear Yard Setback	20'	46'4"	31'3"
Front Yard Setback	10'	104'7"	87'4"
Building Height Maximum	28' or 36' if slope at footprint is over 30 percent	35'8"	36'
Parking Spaces	2	1	3

PROPERTY HISTORY

1965- Building Permit to construct the new single-family dwelling.

1977- Building Inspector approval to convert the existing garage into a bedroom and bathroom.

2013- Planning Commission Retroactive Design Review approval for construction of a new support wall for an existing walkway at the south, rear elevation of the existing lower deck.

PROJECT ANALYSIS

The applicant requests Planning Commission review and approval of the following entitlements: Demolition, Design Review, Variance and Exception to Total Floor Area. The applicant has also submitted for an 800 SF Accessory Dwelling Unit which does not take Planning Commission review and approval, but rather is reviewed at a staff level. The applicant proposes to construct a new 4,533-square-foot residence which includes an Accessory Dwelling Unit and attached garage. The project also includes site and landscaping improvements including new patio areas, an upper floor wraparound deck, swimming pool, decks, and outdoor dining area. Landscaping is proposed throughout the property.

The applications are included as **Attachment 5**. The proposed single-family dwelling exceeds the allowable floor area on the property for the R-15 zoning district; therefore, an Exception to Floor Area is required to allow construction of the new single-family dwelling with attached Accessory Dwelling Unit. The Variance is required for the retaining wall height and the swimming pool, both exceed the allowable height in the setback. Section 19.48.190 (B) states that retaining walls and decks are permitted in yards provided that they do not exceed 4 feet in height. Portions of the retaining wall are proposed 7'8" and portions of the pool deck are proposed to be 5'4" from grade which is why the Variance is required.

The project includes an Accessory Dwelling Unit (ADU). The ADU complies with the Belvedere Municipal Code, it is 800 square feet, meets the setback requirements, and is less than 16 feet in height. As a result, the ADU is not counted towards the total floor area or lot coverage of the proposed home. As noted above, the ADU is included here for informational purposes only. Given all of the requirements of the ADU Ordinance are being met the ADU will be administratively approved by staff as allowed per the code.

PROJECT DESCRIPTION

Architectural Style, Colors and Materials

The applicant proposes a new Contemporary style three story residence with an attached three car garage. The proposed colors and materials of the residence consist of dark metal cladding, wood siding, glass and stainless-steel guardrails, board form concrete and thermal brushed basalt pavers. The colors consist of grays and browns. All retaining walls will be covered in board form concrete. The house walls are proposed in ipe wood siding, with metal clad windows, doors and sun canopy which are appropriate and will complement the homes in the neighborhood.

Site and Floor Plans

The applicant proposes to construct a new three-story, 4,533 square-foot residence designed to limit grading and impacts to the surrounding vegetation by maintaining the existing retaining walls and driveway. The house is designed as two smaller masses separated by a glass core.

The floor plans include three floors, cascading down the hillside. The project was peer reviewed by Mark Sandoval (cities architectural consultant), **attachment 7** and here is an excerpt from his report:

“The main axis of the new home has been slightly rotated in alignment with the upper most northern property line. This allows the project to fit within the tight constraints of the site’s topography and to better utilize the only existing flat and level areas found on the property.

The massing of the home has been broken down into two block-like forms or wings, one setback from the other, and separated by a centrally placed glazed core which connects the two. The arrangement of the building’s forms reflects how the architect has cleverly organized and arranged the internal spaces of the home in relationship to the site’s steep and challenging topography.

The uphill or north wing of the home contains the two-car garage, laundry room, guest bath, and study. It has been placed approximately 4’-0” above the main entrance level to the home from the driveway. The study on the main floor level enjoys views of the infinity pool and Richardson Bay beyond. Off this room, a small outdoor patio is attached and leads from a set of steps to the pool terrace and infinity pool below. Placed on the upper floor level above are the gym and two separate bedrooms and bathrooms. The gym above the garage enjoys views of Richardson Bay and Mount Tamalpais; the middle bedroom has views of the upward-sloping terrain to the north; the second bedroom enjoys views of Richardson Bay and the San Francisco Bay Bridge.

Located below the north wing at the driveway level on the main floor is the primary entrance to the home. At this level, the vertical stairs, two-stop elevator, and upper floor bridge that connect each of the upper floor wings to each other are found. The ceiling of the space is shown to be 18’-6” in height and has large floor to ceiling vertical windows placed on each of the outside walls and around the main entrance door. The door itself is shown to be constructed of glass and aluminum, which results in creating a completely transparent passage connection link between the two wings of the home, in addition to providing the maximum viewing enjoyment of the impressive views of Richardson Bay and beyond.

Located across from the two-story entrance floor level is the south wing of the home. It has been positioned at a floor level approximately 2’-7” below the main entrance and on the main level contains the kitchen, dining, and living rooms along with the wraparound cantilevered outdoor balcony. From the living room, sliding glass doors provide access to the south terrace, infinity pool, and spa garden. From the spa garden, a semi-circular foot path and stairs provide access to the pool deck, the pool, and the patio off the study above. Placed below the main floor level crawl space, the applicant is proposing an accessory dwelling unit (ADU), which can only be accessed from an outdoor staircase that leads from a small outdoor landing to the south terrace above.

On the upper floor above, the master bedroom suite, and outdoor wraparound roof balcony are placed. The rooms on both the main and upper floor levels of this wing have been designed with open floor plans so as not to obstruct the important panoramic views of Richardson Bay, Marin, and San Francisco from the interior spaces of the home.

The architect has designed each building’s elevation in an imaginative, compositionally pleasing, and visually cohesive manner in an effort to make the building more transparent and less massive. In stepping back the structure to fit within the existing landform and features found on the site, in addition to utilizing large horizontal wraparound floor-to-ceiling glass windows

and doors, cantilevered walkways and balconies, and projecting shading design elements all successfully.”

Roof Plans

The proposed project is a maximum height of 36 feet and has an average height of 25’3”. The roofs are all flat and will be built-up asphalt with solar panels. The solar panels will cover the majority of the roof, allowing for necessary walkways and venting. Additionally, the roofs will have metal fascia and metal canopies to add visual interest.

Landscaping

There are 4 trees proposed to be removed, 1 stump and 5 tree clusters proposed to be removed.

- One 9-inch Oak
- Two 10-inch Oaks
- 1 six-inch Oak
- 4 Oak clusters, 1- 4 inch, 3- 5 inch, 4 -six inch, 1- 7 inch and 1- 8 inch

The remainder of the trees on the property will remain. The project proposes an extensive landscape plan for the entire property including the planting of three 24-inch box Quercus Agrifolia, and 8 five-gallon Quercus Agrifolia.

There are no new fences proposed with the project. The existing retaining walls and entrance pillars will remain and be covered in board formed concrete. One new four foot in height retaining wall is proposed at the front of the property in board from concrete to match the existing walls.

New planting areas are proposed between the front fence and the entry of the home as well as planting areas along the left side of the property.

Exterior Lights

The existing lights in the retaining wall will remain. There are 14 recessed wall lights proposed in the driveway and car turnaround, 7 recessed linear lights in the entry walk and south terrace, 4 shielded sconces on the garage, 6 path lights in the rear yard landscaping, 4 recessed ceiling lights in the entry canopy, 1 recessed light on the sconce. Cut sheets of the proposed exterior lights are included as **attachment 6** and the lighting plan is included on sheet A1.1.

ARCHITECTURAL CONSULTANT REVIEW

The proposed architectural design was reviewed by the City’s Consulting Architect, Mark Sandoval who concluded that with additional certain changes to which the applicant has agreed, the project is in substantial compliance with the Design Review requirements of Title 20. The project architect made the changes recommended by Mark Sandoval and they are reflected in the attached plans. His comments are provided in a letter dated December 21, 2020 (**Attachment 7**) and have been incorporated into the Design Review findings, where appropriate.

DEMOLITION PERMIT:

Pursuant to Belvedere Municipal Code Section 19.08.136 and Chapter 16.28, specific findings for a Demolition Permit must be made for the Planning Commission to approve the Demolition Permit for the removal of the existing residence and carport.

Staff suggests the findings for a Demolition Permit can be made. First, the project has been conditioned and designed as to avoid impacting the public health, safety, and/or welfare of the City because the project will be required to adhere to the requirements for a Demolition Permit from the Building Department, such as preparing an Erosion Control Plan, and must comply with all Regulations from the Building and Fire Code. Adequate measures will be implemented during and after grading activities to provide adequate site protection and the project will be conditioned to identify how the project complies with State air quality requirements.

Second, the proposed project will not result in the removal of a building which has been recognized as having historical or architectural significance. First, the property is listed only as having a “medium” likelihood of historic value per the City’s General Plan historic resource survey map. Second, a Historic Resource Evaluation was conducted by Preservation Architecture.

“In sum, the house at 30 Cliff Road has no identifiable historical or historic architectural significance:

- As a private, single-family residence dating to the mid-1960s, there are no potentially associated events of historic importance.*
- There are also no direct associations to persons of identifiable historic importance, as the Summers are not of any identifiable historical importance.*
- The residence is not a distinctive example of a building type or architectural period or style. Rather, it is an anomalous example of a house of its period, as it dates to 1965 yet predominately embodies characteristics of any earlier period.*
- While the original 1965 design of the subject house was authored by a designer, Jack S. Heidelberg, who in the context of Belvedere has potential historical importance, such potential importance would be specific to his own Belvedere house, dating to 1935, along with an associated group of houses, dating from the 1940s, standing on the east shore of Belvedere. In the context of which this late, whimsical 1965 design is irrelevant.*
- The subject site and house do not stand amongst a group of properties that have any potential to form a historic grouping, setting or district.*

Finally, the home is not listed as a historic resource on any federal, state or local register.

Lastly, the proposed project is consistent with the City of Belvedere Housing Element due to the fact that the project proposes to build a single-family home to replace the single family home demolished. Additionally, the project proposes an Accessory Dwelling Unit which will create an additional unit to what exists now. Staff has determined that the required findings for the Planning Commission to support the Demolition Permit can be made and a Resolution has been prepared for consideration (**Attachment 1**).

HISTORICAL/TRIBAL CULTURAL RESOURCE

Historical Resources:

CEQA provides certain exceptions where categorical exemptions may not be used. (CEQA Guideline sections 15300.2(a)-(f).) Under one such exception, a CEQA categorical exemption may not be used if the project has the potential to cause a substantial adverse effect on a CEQA Historical Resource (CEQA Guideline section 15300.2(f).) As explained below, staff suggests that 30 Cliff Road does not constitute a historical resource per CEQA, and therefore a categorical exemption is proper.

CEQA Guideline Section 15064.5(a)(3) and interpreting case law provides that the City in its discretion may determine that a property is a Historical Resource for purposes of CEQA pursuant to Section 15064.5(a)(3), regardless of whether the property is listed in, or eligible for listing in, a local register of historical resources or the California State Historical Register. As explained, staff does not find that the subject property constitutes a historical resource.

First, the property is designated as “medium” sensitivity in the 2030 Historic Resource Sensitivity Map in the 2030 General Plan, meaning that the property has a low likelihood of constituting a historical resource. “Medium” sensitivity structures are those between 45 and 100 years of age, those with an unknown construction date, and those not previously listed as a historic resource.

Second, a Historic Resource Evaluation was conducted on the home by Preservation Architecture. The report concludes that the home is not a historical resource.

Based on the above information, staff suggests the required findings per CEQA Guideline Section 15064.5(a)(3) that the property does not constitute a historical resource.

Tribal Cultural Resources:

Recently the California Legislature amended CEQA to include “Tribal Cultural Resources” as a protected resource, similar to the category of “Historical Resources”. As with a Historic Resource, now a project may not use a Categorical Exemption if the project would cause a substantial adverse change in the significance of a Tribal Cultural Resource. (*See*, Pub. Res. Code, § 21084.2; CEQA Guidelines, § 15300.2(f).) However, if there are no Tribal Cultural Resources on site, a Categorical Exemption is proper. Therefore, the City must first make a determination as to whether Tribal Cultural Resources exist on the property.

A Tribal Cultural Resource may include a variety of resources such as site features, places, cultural landscapes, and sacred places or objects with cultural value to a California Native American tribe. (Pub. Res. Code, § 21074.) A Tribal Cultural Resource is designated in one of two ways: 1) the resource is listed in a national, state, or local register of historic resources; or 2) the City in its discretion determines the site contains a resource. If there is substantial evidence in the record to support the finding, the lead agency may determine that a site contains Tribal Cultural Resources based on the following factors per Public Resources Code section 5024.1:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.
- (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history.

Here, as explained below, staff suggests that substantial evidence in the record does not support a finding that Tribal Cultural Resources exist on the property. Staff recommends that the City make the determination that no Tribal Cultural Resources exist on the property, and that therefore a Categorical Exemption from CEQA is proper.

The property is not designated as “high” prehistoric sensitivity, but rather “medium” in the Prehistoric Sensitivity Map in the 2030 General Plan.

Parcels defined as having a “medium” sensitivity are those that:

- are located adjacent to parcels defined as having a “high” sensitivity;
- parcels with the potential for submerged prehistoric resources;
- parcels within 750 feet of a spring;
- parcels having less than a 30° slope over 50% or more of the area; and,
- parcels located along the bay side of West Shore Road when the adjacent slope is less than 30°.

An archaeological investigation completed September 26, 2019 by Archaeological Resource Service and resulted in a conclusion that no archaeological resources were identified on the site.

Staff has prepared a draft resolution regarding No Historical or Tribal Cultural Resources for the Planning Commission’s consideration (**Attachment 2**).

Design Review Findings

The Design Review findings, specified in Belvedere Municipal Code Title 20, state that all new structures and additions should be designed to avoid excessively large dwellings that are out of character with their setting or with other dwellings in the neighborhood. All buildings should be designed to relate to, and fit in, with others in the neighborhood and should not attract attention to themselves. To avoid monotony or an impression of bulk, large expanses of any one material on a single plane should be avoided. Vertical and horizontal elements should be used to add architectural variety, to break up building planes, and to avoid monotony. Landscaping should also soften and screen structures and maintain privacy.

The proposed project includes the proposal of a new 4,533 square foot single family dwelling and associated site improvements. The house is designed to be unobtrusive and minimally visible from the street. The lot is steep and the house has been designed to address the site characteristics of the lot. The house is designed to step into and down the hillside. The house as designed fits in and relates to the other dwellings in the neighborhood. The proposed exterior materials will blend in with the neighborhood, as there is a mix of modern and traditional homes in the vicinity. The house has been designed with vertical and horizontal elements to avoid monotony. New and proposed landscaping at the front, side and rear property lines will help soften the appearance of the new home from the street and from adjacent parcels and from the water.

The new house and garage are consistent and compatible with the neighborhood and would be harmonious with the site and surrounding development. Staff can make the required Design Review findings as provided in the attached Resolution (**Attachment 3**).

EXCEPTION TO TOTAL FLOOR AREA

The applicant requests an Exception to Total Floor Area to allow 4,533 square feet where 3,819 square feet is the maximum allowed and 3,310 SF exists. The total gross parcel size is 13,470 SF square feet in area. The Belvedere Municipal Code The maximum permitted FAR in the R-15 Zoning District is 33% to the lot area. The proposed FAR would be 39.2% on this parcel.

The Belvedere Municipal Code (BMC) section 19.08.300 defines lot area as the total area within the lot lines of any lot, including all portions of such lot in yards or between street lines and setback lines, excluding any portion of a lot serving as a public or private street. If the roadway easement

is included in the lot size, the proposed home at 4,533 SF would be 33% and not require an Exception to Total Floor Area, however the BMC excludes the roadway easement which pushes the total floor area up to 39.2%.

The applicant requests Planning Commission approval of a 4,533-square-foot (total) residence. City staff reviewed the pattern of development within the project vicinity. Although on the higher side, there are homes within the neighborhood that have higher FAR's and the lot size is on the smaller side. **Attachment 8** is a table showing FAR's for 13 homes within a 500-foot radius of the property.

Pursuant to Section 19.52.120(A)(1) of the B.M.C., in order to grant an Exception to Total Floor Area, the Planning Commission must make each of the following findings:

- a. That primary views from adjacent properties, as well as from the street, are not significantly impaired by the additional square footage;
- b. That there are unusual characteristics applicable to the parcel which minimize the impact of a greater floor area;
- c. That the proposed structure(s) are appropriate in mass, bulk, and character for the parcel, the neighborhood, and the zoning district, and meet(s) all design review criteria; and
- d. That the additional square footage will not substantially reduce the privacy otherwise available to residents of adjoining properties.

First, staff finds that as proposed, primary views from adjacent properties, as well as from the street, would not be significantly impaired by the proposed additional square footage. As noted above, the new home has been designed to reduce the bulk and mass of the home. There are two building masses with a transparent entry. The home steps down the hillside, and the roof of the proposed house is lower than the existing turret roof.

The home has been designed so that none of the windows will impact the neighbors' privacy. The view from the street will not be blocked; given the location of the lot on the private road.

Second, the unusual characteristic of the property that minimizes the impact of the proposed greater floor area is that the roadway easement is removed from the total lot area. If the roadway easement was included in the total lot area the project would not necessitate an Exception to Total Floor Area. Additionally, the lot is very steep, and the home was designed around the existing driveway and retaining walls to prevent excessive grading and the home is stepped down the hill. The impact of the additional square footage is not significant given the unusually steep lot.

The project also proposes an 800 SF ADU which is not counted towards the total floor area per the ADU Ordinance. The ADU is proposed on the lower level that will not add to the bulk or mass of the home. The ADU is not in the purview of the planning commission and will be approved ministerially by staff as allowed per the ADU Ordinance.

Third, the project is also appropriate in mass, bulk, and character for the area, and satisfies all Design Review criteria.

Lastly, the additional square footage will not substantially reduce the privacy otherwise available to residents of adjoining properties because the project will be constructed to step down with the slope of the land.

Staff recommends that the findings for Exception to Total Floor Area can be made, as established in the Resolution included in **Attachment 4**.

VARIANCE – RETAINING WALL AND DECK HEIGHT

The applicant requests Planning Commission consideration and approval of a Variance from Section 19.48.190 of the Belvedere Municipal Code to exceed the maximum allowable height of a retaining wall and pool deck in the setback. The maximum allowable height is 4 feet in the setback. As proposed, the applicant is requesting maximum of 7’8” for the retaining wall and 5’4” for the pool deck. Staff supports granting the Variance.

First, the granting of a Variance will not constitute a grant of special privilege to allow for a retaining wall and pool deck because the project will allow the property owners to enjoy a pool and soil stability similar to those in the vicinity and the same zoning district. Second, the special circumstances applicable to the property are the steepness of the lot and the fact that the new home is designed to minimize grading and excavation by keeping the existing retaining walls. The height of the structures and the placement is dictated by the steep slope of the lot. The height of the retaining wall and the pool deck will not be visible from the street and granting a Variance is *diminimus* and would not be considered a special privilege. Finally, granting the Variance for retaining wall height will not be detrimental to the public health, safety or welfare or injurious to the property or improvements of owners of other premises, as all construction will be governed by the uniform Building Code requirements as well as regulations restricting the construction impacts. Staff can make the required findings as included in the Draft Resolution (**Attachment 10**) for the Variance.

ENVIRONMENTAL DETERMINATION

The project has been reviewed under the provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines, California Code of Regulations. On **January 12, 2021**, the proposed project was determined to be categorically exempt from CEQA pursuant to *Section 15303 Class 3(a)* because the proposed project consists of construction of one single family residence in a residential zone. City action is required by **March 12, 2021**, or the project may be deemed approved.

CEQA provides certain exceptions where categorical exemptions may not be used. Under one such exception, a CEQA categorical exemption may not be used if the project has the potential to cause a substantial adverse effect on a CEQA Tribal Cultural Resource. Here a categorical exemption is appropriate because there is no possibility that the project would cause a substantial adverse effect on any potential Tribal Cultural Resources that may, or may not, exist on the site. The subject property is categorized as a Medium Sensitivity site for Tribal Cultural Resources.

Additionally, a Cultural Resources Evaluation was completed by Archaeological Resource Service, which concluded that there is a negative result for artifacts and potentially significant cultural resources. Therefore, there is no possibility that any potential Tribal Cultural Resources that may, or may not, exist on the site would be adversely affected.

As explained above, staff finds that the property is not historic under CEQA, nor eligible for listing in the local historic register. The discussion regarding CEQA historical issues is incorporated here by reference.

CORRESPONDENCE

A copy of the public hearing notice for this item was published in *The ARK* newspaper and mailed to all property owners within 300 feet of the subject property. As of the writing of this report, Staff has received comments from three neighbors in support of the project. The addresses for the neighbors in support are: 303 Belvedere Avenue, 1 Cliff Road, and 43 and 46 Cliff (Same property owner).

CONCLUSION

Staff can make all of the required findings for the Demolition, No Historical or Tribal Cultural Resources, Design Review Permit, and Exception to Total Floor Area applications.

RECOMMENDATION

- MOTION 1** Adopt the Resolution granting Demolition of the existing single-family dwelling and garage at **30 Cliff Road (Attachment 1)**;
- MOTION 2** Adopt the Resolution granting No Historical or Tribal Cultural Resource per CEQA at **30 Cliff Road (Attachment 2)**;
- MOTION 3** Adopt the Resolution granting Design Review for a new house and associated improvements at the property located at **30 Cliff Road (Attachment 3)**;
- MOTION 4** Adopt the Resolution granting Exception to Total Floor Area approval to allow a total floor area of 4,533 SF, where 3,819 SF is permitted at **30 Cliff Road (Attachment 4)**
- MOTION 5** Adopt the Resolution for a Variance for a retaining wall and pool deck to exceed the allowable height in the setback for the property located at **30 Cliff Road (Attachment 10)**

ATTACHMENTS

- Attachment 1: Draft Demolition Resolution
Attachment 2: Draft No Historical or Tribal Cultural Resources Resolution
Attachment 3: Draft Resolution for Design Review Resolution
Attachment 4: Draft Resolution for Exception to Total Floor Area
Attachment 5: Project Applications
Attachment 6: Project Plans
Attachment 7: Report from Mark Sandoval (Consulting Architect).
Attachment 8: FAR Chart
Attachment 9: Correspondence
Attachment 10: Draft Variance Resolution and Application

**CITY OF BELVEDERE
RESOLUTION NO 2021-**

**A RESOLUTION OF
THE PLANNING COMMISSION OF THE CITY OF BELVEDERE
GRANTING A DEMOLITION PERMIT TO DEMOLISH AN EXISTING
3,310 -SQUARE-FOOT RESIDENCE LOCATED AT 30 CLIFF ROAD**

WHEREAS, a proper application has been submitted for Demolition Permit pursuant to Title 16 of the Belvedere Municipal Code to demolish an existing 3,310-square-foot single family residence, built in 1965 at 30 Cliff Road; and

WHEREAS, the demolition project has been determined to be categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15303 of the CEQA Guidelines; and

WHEREAS, at its January 19, 2021 regular meeting, the Planning Commission held a public hearing and determined that the subject property did not constitute a Historical Resource nor did the property contain or constitute Tribal Cultural Resources under CEQA, based on the findings, determinations, and information contained in the “No Historical Resource” resolution for this Project, incorporated herein by reference; and

WHEREAS, the Planning Commission held a duly noticed public hearing on the requested Demolition Permit on January 19, 2021; and

WHEREAS, the Planning Commission finds, based upon the findings set forth in Exhibit A attached hereto and incorporated herein, and with the conditions listed below, the proposed project is in substantial conformance with the findings specified in section 16.28.110 of the Belvedere Municipal Code.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Belvedere does hereby grant approval pursuant to Title 16 of the Belvedere Municipal Code to allow the demolition of an existing 3,310-square-foot single-family residence at 30 Cliff, with the following conditions:

- a) The property owners shall defend with counsel acceptable to the City and hold the City of Belvedere and its officers harmless in the event of any legal action related to, or arising from, the granting of this Demolition approval, shall cooperate with the City in the defense of any such action with counsel acceptable to the City in its discretion, and shall indemnify the City for any award of damages and/or attorneys’ fees and associated costs that may result.
- b) All requirements of the Building Official shall be met. A permit for demolition must be issued by the Building Department before the commencement of work
- c) All work shall be completed within 70 days of the commencement of demolition unless deconstruction methods are used in which case 12 weeks is permitted. “Commencement of demolition” shall mean the date of the issuance of the building permit for demolition or a start date specified in written correspondence from the property owner and approved by the Building Official prior to issuance of the permit for demolition.

ATTACHMENT 1

- d) All requirements of the City Engineer shall be met. Encroachment permits, as distinguished from a Building Permit, shall be obtained for all improvements, work activities, and staging or storage of equipment and materials within the public right-of-way prior to commencing work, subject to approval of the Public Works Manager.
- e) Obstruction or blockage, partial or complete, of any street so as to leave less than ten feet of unobstructed horizontal clearance for vehicles, shall not be permitted without first obtaining, twenty-four hours in advance, a street closure permit. Twelve feet of clearance shall be required for debris boxes or building materials. Streets shall be left clean and free of any debris at the end of each workday.
- f) Demolition shall be limited to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, except in special circumstances after obtaining written permission from the City Manager. Demolition is prohibited on City holidays except in special circumstances after obtaining written permission from the City Manager. The City Manager is urged to impose a very high-level of scrutiny in the determination of "special circumstances."
- g) The site shall be left clean and free of all debris and materials from the demolition at the completion of work.
- h) All requirements of the Tiburon Fire Protection District (TFPD) shall be met.
- i) The general contractor shall submit a proposal to the City Manager for review and approval that addresses the demolition schedule and vehicle parking locations.
- j) Prior to the issuance of a building permit for demolition, the applicant shall submit for review and approval an Erosion Control Plan incorporating, as appropriate, the MCSTOPPP Minimum Erosion/Sediment Control Measures for Small Construction Projects:

http://www.marincounty.org/depts/pw/divisions/mcstoppp/development/~-/media/Files/Departments/PW/mcstoppp/development/MECM_final_2009.pdf
- k) Prior to the issuance of a building permit for demolition, the applicant shall demonstrate compliance with State air quality requirements related to the control of dust generated by the demolition and construction and prepare a plan for the re-use and recycling of demolition materials.
- l) These restrictions shall be binding upon any successor in ownership of the property.
- m) In the event that archeological or paleontological resources are uncovered during construction, all work must be halted and an evaluation must be undertaken by a qualified archaeologist or paleontologist to identify the appropriate actions that shall be undertaken.

Resolution 2021
January 19, 2021
30 Cliff Road
Page 3

PASSED AND ADOPTED at a regular meeting of the Belvedere Planning Commission held on January 19, 2021, by the following vote:

AYES:

NOES:

ABSENT:

RECUSED:

APPROVED: _____
Peter Mark, Planning Commission Chair

ATTEST: _____
Beth Haener, City Clerk

DEMOLITION FINDINGS

Given that the existing residence and garage are proposed to be demolished, a Demolition Permit is required pursuant to Belvedere Municipal Code Section 19.08.136 and Chapter 16.28. BMC Section 19.08.136, defines Demolition as “the razing of a building, removal of a dwelling unit, or the removal of more than fifty percent of the total exterior wall and roof area from the grade up...Removing a residential second unit or converting a duplex into a single unit is considered demolition.” In approving the Demolition Permit, the Planning Commission hereby makes the following findings:

A. That the demolition, as conditioned by the Planning Commission, will not have an adverse impact upon the public health, safety and/or welfare of the City;

The proposed demolition will not have an adverse impact upon the public health, safety, and/or welfare of the City because the demolition must satisfy the requirements for a demolition permit from the Building Department and must also comply with all Building and Fire Code regulations. Further, staff finds that, with a condition of approval stating that the applicant demonstrates compliance with State air quality requirements; this demolition project would not have an adverse impact upon the public health, safety and/or welfare of the City.

B. That the demolition will not remove from the City a building of recognized historical or architectural significance, until potential preservation options can be reviewed;

Demolition will not remove a building of recognized historical or architectural significance. The existing single-family residence and garage were constructed in 1892.

During the preparation of City of Belvedere 2030 General Plan Update, a Historic Resource Sensitivity Map was created which categorized the parcels within the City based on the likelihood of containing a historically significant property. The Historic Resource Map contains three levels of historic sensitivity which consist of Low, Medium, and High. The project site is not within an area of “High” historical value; but rather is designated as having “Medium” historic potential. Additionally, A Historic Resource Evaluation was conducted by Preservation Architecture. The report concludes that “*the house at 30 Cliff Road has no identifiable historical or historic architectural significance.*” Also, the home is not listed as a historic resource on any federal, state or local register.

Moreover, in January 2021, the Planning Commission adopted a Resolution Finding no Historical Resource under CEQA.

C. That the demolition plan presented by the applicant, as approved, provides for adequate site protection during and following the demolition.

The plan presented in the application, and as conditioned, would provide adequate site protection during and following the demolition. The applicant states that an erosion control plan will be put in place. Demolition is expected to take 30 days to complete.

D.

E. That the time frame for accomplishing the demolition is reasonable.

The applicant's estimated 30-day time frame for accomplishing the demolition is reasonable.

F. That the demolition will not remove a housing unit until options for maintaining housing on the property have been thoroughly considered.

A housing unit would be removed as part of this application; however, a new housing unit would be constructed in its place. Therefore, no reduction in housing units will result from this project. Moreover, a new Accessory Dwelling Unit application has been submitted which is to be ministerially approved by staff.

G. The proposed demolition is consistent with the goals of the City of Belvedere Housing Element.

As noted above, the demolition of the existing residence will not have a substantial impact on the availability of housing units in Belvedere and is consistent with the goals of the Belvedere Housing Element as it will not remove any housing stock from the City. The project proposes a new single-family dwelling as well as a legal Accessory Dwelling Unit (to be reviewed and approved ministerially by staff). The City of Belvedere would be gaining a unit with the approval of this project.

CITY OF BELVEDERE

RESOLUTION NO 2021

**A RESOLUTION OF
THE PLANNING COMMISSION OF THE CITY OF BELVEDERE
FINDING THAT THE PROPERTY AT 30 CLIFF ROAD DOES NOT
CONSTITUTE A HISTORICAL RESOURCE UNDER CEQA**

WHEREAS, a proper application has been submitted for a Demolition Permit pursuant to Title 16 of the Belvedere Municipal Code to demolish an existing 3,310 square foot house at 30 Cliff Road; and

WHEREAS, a California Environmental Quality Act (CEQA) categorical exemption may not be used if the project has the potential to cause a significant effect on a historical resource; and

WHEREAS, on January 19, 2021 the Planning Commission held a duly noticed public hearing on the requested Demolition Permit and associated project, and heard and considered evidence on the potential historic resource value of the subject property; and

WHEREAS, the property is designated as “medium” sensitivity in the 2030 Historic Resource Sensitivity Map in the 2030 General Plan, meaning that the property has a low likelihood of constituting a historical resource; “Medium” sensitivity structures are those between 45 and 100 years of age, those with an unknown construction date, and those not previously listed as a historic resource; and

WHEREAS, a Historic Resource Evaluation was conducted by Preservation Architecture that concluded the home does not have historic integrity and therefore does not constitute a CEQA historical resource; and

WHEREAS, the Planning Commission finds, based upon the findings stated above, the Historic Resource Evaluation conducted by Preservation Architecture incorporated herein, as stated in the staff report incorporated herein, and based on substantial evidence in light of the whole record, that the subject property does not constitute a historical resource under CEQA; and

WHEREAS, because the property does not constitute a CEQA historical resource, the project does not have the potential to cause a significant effect on a historical resource, and a categorical exemption pursuant to CEQA Guideline Section 15303 is proper; and

WHEREAS, the demolition project has been determined to be categorically exempt from the provisions of CEQA pursuant to Section 15303 of the CEQA Guidelines; and

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Belvedere does hereby find, in exercising its independent discretion, based on the findings listed above and in the staff report, incorporated herein, that the property located at 30 Cliff Road does not constitute a historical resource pursuant to CEQA Guideline Section 15064.5(a)(3) as follows:

1. The subject property is not associated with events that have made a significant contribution to the broader patterns of California's history and/or cultural heritage.
2. The subject property is not associated with the lives of persons who are important to the community's historical past.
3. The subject property does not embody distinctive characteristics of a type, period, region, or method of construction, nor does it represent the work of an important creative individual, or possess high artistic values.
4. The subject property has not yielded, nor is it likely to yield, information important in prehistory or history. The property is not representative of distinctive characteristics of historical or architectural significance.

PASSED AND ADOPTED at a regular meeting of the Belvedere Planning Commission January 19, 2021, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

RECUSED:

APPROVED: _____

Peter Mark, Planning Commission Chair

ATTEST: _____

Beth Haener, City Clerk

CITY OF BELVEDERE

RESOLUTION NO. 2021-

**A RESOLUTION OF THE CITY OF BELVEDERE GRANTING DESIGN
REVIEW APPROVAL FOR A NEW HOUSE, AND
GARAGE AT 30 CLIFF ROAD**

WHEREAS, a proper application has been submitted for Design Review pursuant to Title 20 of the Belvedere Municipal Code for a new house, garage and other associated site improvements at 30 Cliff Road; and

WHEREAS, the project been determined to be categorically exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15303, New Construction; and

WHEREAS, CEQA provides certain exceptions where categorical exemptions may not be used. Under one such exception, a CEQA categorical exemption may not be used if the project has the potential to cause a substantial adverse effect on a CEQA Tribal Cultural Resource. Here a categorical exemption is appropriate because there is no potential that the project would cause a substantial adverse effect on any potential Tribal Cultural Resources that may, or may not, exist on the site. A Cultural Resources Evaluation by Archaeological Resource Service concluded that the project area does not contain traces of intact archaeological deposits. Therefore, there is no possibility that any potential Tribal Cultural Resources that may, or may not, exist on the site would be adversely affected. Further, the property is not designated as a “high” historic sensitivity, but rather “medium” in the Historic Resource Sensitivity Map in the 2030 General Plan. “Medium” sensitivity structures are those between 45 and 100 years of age, those with an unknown construction date, and those not previously listed as a historic resource. Additionally, the residence at 30 Cliff Road constructed in 1965, is not listed as a historic resource on any federal, state or local register.

Additionally, the property does not constitute a CEQA historic resource, based on the findings, determination, and information contained in the associated “No Historic Resource” resolution for this Project and its findings, incorporated herein by reference. A Historical Evaluation of the property prepared by Preservation Architecture concludes that the property does not have historical significance; and

WHEREAS, the Planning Commission held properly noticed public hearing on January 19, 2021; and

WHEREAS, the Planning Commission finds based upon the findings set forth in Exhibit A attached hereto and incorporated herein, that with the conditions listed below, the proposed project is in substantial conformance with the Design Review criteria specified in Section 20.04.005 and 20.04.110 to 20.04.120 of the Belvedere Municipal Code.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Belvedere does hereby grant approval of the Design Review application pursuant to Title 20 of the Belvedere Municipal Code to build a new house and garage with the following conditions:

1. The property owner shall defend and hold the City of Belvedere and its officers harmless in the event of any legal action related to or arising from the granting of this Design Review approval and any other City approvals associated with the project, shall cooperate with the City in the defense of any such action with counsel acceptable to the City in its discretion, and shall indemnify the City for any award of damages and/or attorneys' fees and associated costs that may result. This approval is conditioned upon the accuracy of all facts stated in the application and supporting documents.
2. Construction shall conform to the drawings prepared by Regan Bice Architects, stamped received by the City of Belvedere on January 8, 2021.
3. Construction shall be limited to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, except in special circumstances after obtaining written permission from the City Manager.
4. The landscape plan shall be reviewed by the Marin Municipal Water District (MMWD) for conformance with the District's Water Efficient Landscape Ordinance (WELO) prior to issuance of the building permit. Prior to issuance of a building permit the applicant shall demonstrate that the proposed landscape plans comply with MMWD.
5. All requirements of the Fire Marshal shall be met prior to issuance of a building permit including but not limited to:
 - Vegetation on this parcel shall comply with the requirements of the Tiburon Fire Protection District and the recommendations of Fire Safe Marin. CFC 304.1.2.
 - The structure shall have installed throughout an automatic fire sprinkler system. The system design, installation and final testing shall be approved by the District Fire Prevention Officer. CFC 903.2.
 - Approved smoke and carbon monoxide alarms shall be installed to provide protection to all sleeping areas. CFC 907.2.10.
 - The vegetation on this parcel shall comply with the requirements of TFPD. CFC 304.1.2.
 - The fire pit shall comply with TFPD Policy 423.9.
6. All requirements of Public Works shall be met prior to issuance of a building permit including but not limited to:
 - An Encroachment Permit is required, prior to construction, from the contractor for temporary and permanent improvements, work activities, and staging or storage of equipment and materials within the public right of way, subject to approval of the Public Works Manager.

- The project will be subject to the City of Belvedere Regulations for Road Closure Applicants, see the following link:
<http://www.cityofbelvedere.org/documentcenter/view/68>
- This project will require a video recording of the condition of the haul route prior to start of construction. The applicant will be responsible for any damage, beyond normal wear and tear, to the roadway or other improvements along the haul route caused by the removal or delivery of materials by truck. To ensure any damage is repaired to the satisfaction of the City, a deposit may be required. The deposit amount (estimated range from \$10,000 to \$30,000) will be determined by the City Engineer at the time of the Building Permit review and is dependent upon the duration of the project and total project valuation. If it is determined that project construction caused damage, the amount to repair said damage shall be withheld from the deposit amount, with the remaining amount to be returned to the property owner.
- A Geotechnical Investigation or geotechnical review letter is required. The geotechnical investigation/letter should address site preparation, foundation, grading and drainage recommendations. The Geotechnical Engineer of record shall also provide a letter indicating their review the proposed Grading & Drainage Plans for conformance with their recommendation prior to Building Permit issuance.
- Topographic Survey information shall be included either on the site plan or on a separate plan. The basis for determining elevations (assumed, NGVD, or NAVD) should also be clearly indicated. The surveyor's name and license number shall be included.
- The project requires a Site Plan showing the property line locations (referencing the survey source and mapping information), any existing easements, building setbacks, encroachments etc.
- The project will require a detailed Grading & Drainage Plan showing cut and fill earth volumes. Said plans shall incorporate, as appropriate, the MCSTOPPP Guidance for Applicants: Stormwater Quality Manual for Development Project in Marin County. This can be found at the following website: (https://www.marincounty.org//media/files/departments/pw/mcstoppp/guidanceforapplicantsv_2508.pdf)
- The project will include soil disturbance during construction and applicants therefore must submit an Erosion and Sediment Control Plan (ESCP) for approval by the City prior to the issuance of a Building Permit. Please also submit the Erosion and Sediment Control tracking documentation (See the following link) for the Marin County Stormwater Pollution Prevention Program (MCSTPPP) Construction Erosion and Sediment Control Plan Applicant Package, revised November 2015: (<https://www.marincounty.org//media/files/departments/pw/mcstoppp/development/mcstoppp-erosion-and-sedimentcontrol-plan-applicant-package.pdf?la=en>).
- Prior to issuance of a building permit and where required by City of Belvedere municipal code Section 8.36.090 D., permanent stormwater controls for new and redevelopment projects, the applicant shall develop, submit and implement an approved Stormwater Control Plan (SCP) that follows the appropriate template in the most recent version of the Bay Area Stormwater Management Agencies Association (BASMAA) Post Construction Manual. All water treatment or storm water control feature shall be clearly identified on the plan.

- The project will require a Utility Plan (if not shown on the Site Plan) showing the existing site utilities and their current alignment and locations, along with any proposed new locations, alignments or connections for sewer, water, irrigation, gas, electrical, telephone, cable TV, etc.
The project will require a Landscape Plan and Irrigation Plan subject to review and approval by
- Marin Municipal Water District. Please see the requirements outlined in the Marin Municipal
- Water District Landscape Plan Review Packet (link below) for project applicability.

https://www.marinwater.org/sites/default/files/2020-12/Landscape%20Plan%20Review%20Packet_0.pdf

- The project will require a Construction Management Plan identifying the following: estimated project duration construction schedule of milestones (excavation, grading, and offhaul duration foundation work; framing; flatwork/paving; punch list/final inspection) excavation and disposal methods equipment to be used site access location storage and staging location of materials and equipment/portable toilet/debris box and waste bins truck loading area and temporary traffic control required as necessary haul route. For construction requiring earthwork between October 15th and April 15th, an action plan for storm water pollution prevention and erosion and sediment control prior to an anticipated rain event.

7. All exterior lighting shall be shielded and directed downward. Prior to the issuance of a Building Permit, a final exterior lighting plan shall be submitted for the review and approval by the Planning Commission Chair and the Director of Planning and Building.

8. Prior to the issuance of a Building Permit, a final landscape plan shall be submitted for the review and approval by the Planning Commission Chair and Director of Planning & Building. Said landscaping plan shall include a tree protection plan prepared by a certified arborist. The plan shall identify measures to protect existing trees on the project site that are to be retained and shall include but not be limited to the following:

- Installation of orange mesh construction fencing or other protective barrier at the drip line of trees prior to commencement of demolition.
- Adjustments to protective barrier/fencing anticipated during the different stages of demolition and construction.
- Excavation and trenching methods used to avoid unnecessary root damage.
- Communication and coordination with the adjacent property owners regarding tree protection measures, including obtaining consent of property owner, if required, to access property and perform these measures.
- Monitoring by the arborist during work around the trees to remain Prior to the issuance of a Building Permit, a final landscape plan shall be submitted for the review and approval by the Planning Commission Chair and Director of Planning and Building.

9. Prior to the issuance of a building permit, the applicant shall submit for review & approval a Construction Management Plan to the satisfaction of the Building Official & Public Works Manager. The Construction Management Plan & Construction Parking/Staging Plan submitted pursuant to City Regulations No. 290 and shall include the following:
 - a. The delivery of materials and equipment to and from the construction site shall be limited to weekdays between 8:00 AM and 5:00 PM.
 - b. Parking of deliver trucks shall be limited by Belvedere Municipal Code Specifications and Standards for Encroachment Permits for Work in the City Right-of-Way.
 - c. Street parking for construction related vehicles shall be limited to three (3) vehicles in accordance with City requirements.
 - d. Construction vehicles shall not block Cliff Road and are subject to the requirements of the City of Belvedere Public Works Department Noticing and Road Closure Permit Process. Road closures are limited to the hours of 9:00AM to 4:30PM and three (3) business day advance notice.
 - e. Construction vehicle ingress and egress shall be per route shown on the Construction Parking & Staging Plan (Sheet A1.0).
 - f. Pre-construction and post-construction surveys of the condition of West Shore Road; road impact fee; and any other required deposits shall be completed in conformance with the City of Belvedere Building Department application requirements.
 - g. To limit construction vehicle traffic, the project proponent agrees to: (1) rent or purchase a ten (10) person van that will be used to shuttle workers and trades people to and from the property; (2) establish an off-site parking area for workers and trades people to park; and (3) hire a designated driver for the ten-person van who will be available during construction hours to shuttle persons from the off-site parking area to the property.
 - h. Code compliant handrails shall be installed at all stairways with four (4) or more risers.
 - i. Bay Conservation and Development Commission (BCDC) project approval is required prior to the issuance of the building permit.
 - j. Site, roof, retaining wall, and all other storm drainage shall comply with City of Belvedere standards and shall terminate at the street or bay in an approved dissipater. All on site dispersion methods shall be reviewed and approved by the GeoTechnical Engineer.
 - k. Existing retaining walls impacted with additional loads shall be evaluated by the structural and GeoTechnical engineers for structural stability.
 - l. A construction time limit (CTL) will be imposed on the project per BMC 20.035.04. The time limit will be assessed per the valuation of the proposed project. Per the proposed scope of work, it appears that an 18 month CTL will be assessed to this project.

- m. The submittal for the future Building Permit must detail the construction of the proposed improvements, including compliance with relevant portions of the California Residential, Green Building, and Energy Codes, along with a geotechnical investigation report and detailed full engineering design and drawings, etc.
- 10. Plans submitted to the Building Department for permit issuance shall be consistent with the approved Planning Commission plans.
- 11. Design Review approvals expire eighteen (18) months from the date of approval.
- 12. Construction shall be completed within the Construction Time Limit established for this project.
- 13. In the event unanticipated archaeological or paleontological resources are uncovered during construction, all work must be halted and an evaluation must be undertaken by a qualified archaeologist or paleontologist to identify the appropriate actions that shall be undertaken.
- 14. These Conditions of Approval shall be printed on the Building Permit Construction Plan set of drawings.
- 15. These restrictions shall be binding upon any successor in interest of the property.
- 16. Prior to the issuance of a building permit the property owner shall demonstrate compliance with State/BAAQMD air quality requirements related to the dust generated by grading and construction.
- 17. Prior to approval of the framing inspection, the applicant shall provide an elevation survey prepared by a licensed surveyor to the Building Department indicating the height of the new residence.
- 19. Prior to approval of the foundation inspection, a licensed surveyor shall stake the corners of the foundation (with offset) and shall submit a survey of the foundation stakes to include the boundaries of the property.

PASSED AND ADOPTED at a regular meeting of the Belvedere Planning Commission on January 19, 2021 by the following vote:

AYES:
NOES:
RECUSED:
ABSTAIN:
ABSENT:

APPROVED: _____

Peter Mark, Planning Commission Chair

ATTEST: _____

Beth Haener, City Clerk

EXHIBIT A

Preservation of existing site conditions. To preserve the landscape in its natural state, the removal of trees, vegetation, rock, and soil should be kept to a minimum. Projects should be designed to minimize cut and fill areas, and grade changes should be minimized and kept in harmony with the general appearance of the neighboring landscape.

The architect is proposing to place the new structure in the general location of the older home that is to be removed and to reuse the existing driveway and most of the existing site retaining walls to avoid unnecessary disturbance of the existing landscape grading and other earthwork.

The site plan shows that the downward sloping driveway retaining walls are to be repositioned and slightly expanded in width to provide better vehicular maneuverability and to construct an additional onsite parking space, along with a cantilevered turnaround backup space in front of the new home.

The existing lower semi-circular patio retaining wall occupying the project's rear yard is to remain as well, except for the wall sections that interfere with the construction of the new larger footprint of the home, the swimming pool, and the other proposed site features and amenities shown in the drawing.

Other than the thirteen existing trees of various sizes that appear to fall within the new building footprint, along with the trees impacted by the site's grading operation, almost all other large established oaks and Monterey cypress trees found at the site are to remain and will be reincorporated as part of the project's new landscape plan. All other existing site amenities and landscaping are to be replaced with new.

There are 18 trees proposed for removal, and the remainder of the trees will remain. The house was designed so that the existing as well as the proposed landscaping will help soften and screen the house. There is minimal cut and fill with the proposed project, as the project is designed to use the cut from the pool to fill in the backyard to raise the ground level one foot.

The construction of the proposed residence, the removal of the trees and associated outdoor space complement the topography of the site, there is minimal cut and fill required for the construction, and therefore creation of the residence and associated improvements are in substantial conformance with this finding.

Relationship between structures and the site. There should be a balanced and harmonious relationship among the structures on the site, between the structures and the site itself, and between the structures and those on adjoining properties. All new buildings or additions constructed on sloping land should be designed to relate to the natural land-forms and step with the slope in order to minimize the building mass and bulk and to integrate the structure with the site.

The project proposal maintains a balanced and harmonious relationship between the structure and its site and adjoining properties because the proposed new residence and garage have been designed to relate to and fit with the adjacent properties and the slope of the land. The new house is designed in a manner as to minimize the building mass and

bulk on this site as the home is proposed in the location of the existing home and the project utilizes the existing driveway and retaining walls.

Minimizing bulk and mass.

A. All new structures and additions should be designed to avoid monumental or excessively large dwellings that are out of character with their setting or with other dwellings in the neighborhood. All buildings should be designed to relate to and fit in with others in the neighborhood and not designed to draw attention to themselves.

The residence is designed to avoid appearing monumental or excessively large in size. The home is proposed in a similar footprint to what exists now, although larger, the design is in character with the neighborhood. The design of the home relates to and fits in with the others in the neighborhood as there is a mix of homes along Cliff Road and Belvedere Avenue. The residence is not out of character with the setting or the neighborhood and is designed to not draw attention to itself. There are a mix of modern and traditional homes on Cliff Road and the modern home fits in well with the neighborhood. The proposed materials and rooflines are in character with the setting, the proposed residence and garage appear in character with the mixed architectural style of the dwellings in the neighborhood.

B. To avoid monotony or an impression of bulk, large expanses of any one material on a single plane should be avoided, and large single plane retaining walls should be avoided. Vertical and horizontal elements should be used to add architectural variety, to break up building planes, and to avoid monotony.

The proposed project is designed so that it does not include large expanses of any one material, although the project has a lot of glass, there are a variety of materials that will add to architectural interest and will help break up building planes.

The house is designed with horizontal elements in different materials that add architectural variety which break up the building planes and avoids monotony.

Further, the proposed residence and garage would not increase the impression of bulk due to its location on the lot and the existing landscaping as well as the proposed new landscape plan.

Materials and colors used. Building designs should incorporate materials and colors that minimize the structures visual impacts, that blends with the existing landforms and vegetative cover, that relate to and fit in with structures in the neighborhood, and that do not attract attention to the structures themselves. Soft and muted colors in the earthtone and woodtone ranges are preferred and generally should predominate. Trim and window colors should be compatible with and complementary to the other building colors.

The building design and materials minimize visual impact, blend with the landform and neighborhood, and do not draw attention to the structure themselves. The house is proposed board-formed concrete finish on all retaining walls along with brushed basalt finish stone pavers on all pathways, patios, and terrace wall surfaces. The exterior walls of the new home are shown to be clad in resilient wood 1 x 8 IPE siding. All metals, including windows, sliding doors, sun canopy, and fascia materials, are shown to have an applied dark anodized finish. Guardrails are to have a brushed stainless-steel finish with tempered

glass infill panels. Each building material appears to be durable and appropriate and should be compatible with and complement the materials and colors of the nearby homes in the immediate vicinity.

Fences and screening.

A. Fences and physical screening should be located so as to be compatible with the design of the site and structures as a whole, should conceal and screen garbage areas, mechanical equipment, and structural elements from public view, should preserve privacy between adjoining dwellings, where practical, and should not significantly block views.

There are no new fences proposed with this project, the garbage will be kept at the top of the driveway out of view from Cliff Road.

Privacy. Building placement, and window size and placement should be selected to give consideration to the privacy of adjacent buildings.

Given the location of the proposed home on the lot, and the location of lot on Cliff Road, the windows will be not be visible to the neighbors. Window placement and privacy screening has been proposed to give consideration to privacy. All reasonable consideration has been given to preserve privacy, and there are large trees proposed to mitigate the noise and to provide privacy. The project also proposes landscaping to screen the house, and outdoor spaces in consideration of the neighbor's privacy.

Drives, parking and circulation. Walkways, driveways, curb cuts and off-street parking should be planned and designed so as to minimize interference with smooth traffic flow, to encourage separation of pedestrian from vehicular traffic, and to be as safe and convenient as is practical. They should not be out of relationship with the design of the proposed buildings and structures on the site, and should not intrude on the privacy of, or conflict with the appearance or use of neighboring properties.

The applicant is proposing to utilize and widen the existing driveway connecting the property to Cliff Road, which crosses the front of the property. Although the widening of this driveway will help in providing better vehicular maneuvering turnaround space and add one additional onsite parking space in general, any change to both the pedestrian safety and traffic flow currently experienced along this section of Cliff Road will probably be negligible.

Exterior lighting, skylights, and reflectivity. Exterior lighting should not create glare, hazard, or annoyance to neighboring property owners or to passersby. Lighting should be shielded and directed downward, with location of lights coordinated with the approved landscape plan. Skylights should not have white or light opaque exterior lenses.

The applicant proposes exterior lighting that will not create glare, hazard or annoyance to neighboring properties or to passerby's; as conditioned, all proposed light fixtures are shielded and or directed downward.

Consideration of nonconformities. The proposed work shall be viewed in relationship to any nonconformities, as defined in Title 19, and where it is determined to be feasible and reasonable, consideration should be given to conditioning the approval upon the mitigation or elimination of such nonconformities.

The proposed house will exceed the allowable floor area. The findings for Exception to Total Floor Area can be made, it is not feasible or reasonable to eliminate any nonconformities.

Landscape plans -- Purpose.

A. Landscape plans should be compatible with the character of the site and surrounding developed properties. Native or natural appearing vegetation, with generally rounded, natural forms, should be placed to appear as loose, informal clusters. B. Landscape plans shall include appropriate planting to soften or screen the appearance of structures as seen from off-site locations and shall include appropriate screening for architectural elements, such as building foundations, deck supports, and retaining walls, that cannot be mitigated through architectural design. C. Landscape plans should provide privacy between properties. Choice of landscape materials should take into consideration the future impact which new planting may have in significantly obstructing views from nearby dwellings.

The proposed project includes a combination of existing landscaping to remain and new landscaping. The majority of the healthy trees will remain. The extensive landscape plan will provide screening and softening of the proposed house and garage. The landscaping is in substantial conformance with this finding as it includes natural and native vegetation, is compatible with the character of the site and the surrounding properties, and is designed to provide screening of architectural elements.

Landscape Plans – Materials. **A. Plant materials native to northern California and Marin County, and those that are drought-tolerant are encouraged. Evergreen species are encouraged for use in screen planting situations. Because of high water usage, turf areas should be minimized and narrow turn areas, such as in parking strips, should be avoided. B. Landscape plans should include a mix of fast and slow growing plant materials. Fast growing trees that have a short life span should be used only when planted with others which reach maturity at a later age. C. Landscape plans should include water conserving irrigation systems. Plant materials should be selected so that once established, much of the major site landscaping would survive solely on rainfall.**

The proposed landscape is in substantial conformance with this finding. The project proposes many shrubs, perennials and vines that will screen the home from the neighbors above. The plants proposed are low water use and include slow and fast growing species.

CITY OF BELVEDERE

RESOLUTION NO. 2020

**A RESOLUTION OF THE CITY OF BELVEDERE GRANTING AN EXCEPTION
FROM SECTION 19.52.115 OF THE BELVEDERE MUNICIPAL CODE FOR THE
PROPERTY LOCATED AT 30 CLIFF ROAD**

WHEREAS, a proper application has been submitted for an Exception to Total Floor Area from the zoning provisions of the Belvedere Municipal Code to permit a maximum floor area of 4,533 square feet where 3,310 square feet currently exists and 3,819 square feet is permitted at 30 Cliff Road, and

WHEREAS, the project has been determined to be exempt from the California Environmental Quality Act (CEQA), pursuant to Section 15303 of the CEQA Guidelines; and

WHEREAS, the Planning Commission held a duly noticed public hearing on the requested Floor Area Exception on January 19, 2021; and

WHEREAS, the Planning Commission made each and every one of the following findings of fact, as required by section 19.52.120(A)(1) of the Belvedere Municipal Code:

- a. That primary views from adjacent properties, as well as from the street, are not significantly impaired by the additional square footage.**

Primary views from adjacent properties and the street are not significantly impaired by the additional square footage. The General Plan, p. 111, defines a Primary View as, “views of Mt. Tamalpais, San Francisco Bay and its environs, bridges, and the surrounding hills of Tiburon or Belvedere Island as seen from inside the public or common areas of the home.” The new home has been designed to reduce the bulk and mass of the home. There are two building masses with a transparent entry. The home steps down the hillside, and the roof of the proposed house is lower than the existing turret roof. The home has been designed so that none of the windows will impact the neighbors’ privacy. The view from the street will not be blocked; given the location of the lot on the private road.

The impact of the new home will be minimal from the street as well as from the adjacent properties.

The new home conforms to the allowed height requirements for the R-15 Zoning district, and the home has been designed to follow the development pattern of the surrounding neighborhood.

- b. That there are unusual characteristics applicable to the parcel which minimize the impact of a greater floor area.**

The site has unusual characteristics that minimize the impact of the additional square footage. The unusual characteristic of the property that minimizes the impact of the proposed greater floor area is that the roadway easement is removed from the total lot area. If the roadway easement were included in the total lot area the project would not necessitate an Exception to Total Floor Area. Additionally, the lot is very steep, and the home was designed around the existing driveway and retaining walls to prevent excessive grading and the home is stepped down the hill. The impact of the additional square footage is not significant given the unusually steep lot.

- c. That the proposed structure(s) are appropriate in mass, bulk, and character for the parcel, the neighborhood, and the zoning district, and meet(s) all design review criteria.**

The project meets all Design Review criteria and it fits in with the size, scale, and mix of classic and modern-style homes in the R-15 Zoning District. The new dwelling and garage fit in well to the character of the existing neighborhood. Although there are many older homes on Cliff Road, there are also newer, more modern homes as well. The project proposes an attractive dwelling that is appropriate in terms of mass, bulk and character for the neighborhood.

- d. That the additional square footage will not substantially reduce the privacy otherwise available to residents of adjoining properties.**

The additional square footage will not substantially reduce the privacy otherwise available to residents of the adjoining properties. Specifically, the proposed single-family residence is designed to incorporate the existing, established landscaping to provide privacy to the adjacent neighbors. The incorporation of new landscaping and will not result in a substantial impact of privacy that otherwise would be available for residents of the adjoining properties. Additionally, the project is designed to slope down with the land, ensuring privacy to neighbors.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Belvedere does hereby grant an Exception to Total Floor Area to allow a maximum floor area of 4,533 square feet where 3,310 square feet currently exists, and 3,819 square feet is permitted at 30 Cliff Road.

PASSED AND ADOPTED at a regular meeting of the Belvedere Planning Commission held on January 19, 2021 by the following vote:

AYES:

NOES:

ABSENT:

RECUSED:

ABSTAIN:

APPROVED: _____
Peter Mark, Planning Commission Chair

ATTEST: _____
Beth Haener, City Clerk

Project Address: 30 Cliff Road



APPLICATION FOR DEMOLITION PERMIT

CITY OF BELVEDERE • PLANNING COMMISSION
450 SAN RAFAEL AVE • BELVEDERE, CA 94920-2336
PH. 415-435-3838 • FAX 415-435-0430 • WWW.CITYOFBELVEDERE.ORG

FOR STAFF USE ONLY

Date: RECEIVED Rec'd. by: _____ Amount: \$261- Receipt No.: #844
Assessor's Parcel No: _____ Zone: _____
OCT 29 2011

TO BE COMPLETED BY APPLICANT

Address of Property: 30 Cliff Road

Type of Property: Single Family Residential, R-15 Zone

Record Owner of Property: Ben and Devorah Jacoby

Mailing 29 Via San Fernando Daytime Phone: 415.265.8365

Address: Tiburon, CA 94920 Fax: _____

Email: benjacoby@earthlink.net

Owner's Representative: Regan Bice Architects

Mailing 950 Grayson Street Daytime Phone: 510.549.1499

Address: Berkeley, CA 94710 Fax: 510.845.1901

Email: debra@reganbice.com

Square Footage of Structure to be Demolished: 3310 sqft.

1. Name of demolition contractor and state contractor license number: Hurricane Hauling, Lic# 746531

2. Location where demolition debris will be disposed of: Marin Resource Center

3. Size, location, and duration for debris boxes to be placed on City streets: _____
No boxes on city streets. All off haul by truck.

4. Route(s) to be taken by demolition trucks into and out of the City: _____
San Rafael Avenue to Golden Gate to Cliff Road

Project Address: 30 Cliff Road

5. Size/Type of trucks used to haul demolition material: 26K GVW
6. Estimate of cubic yards of demolition material to be removed: _____
C&D: 500 cubic yards, Concrete and Brick: 70 yards
7. Proposed development plan and development timetable for the site once demolition is completed:
Construction after demolition is projected to be May 2021.
8. Period of time demolition is expected to take: 2 months
9. Size and location of trees or other vegetation and location of any drainage system to be removed in conjunction with the demolition: Please see Civil and Landscape drawings.
10. Erosion, sedimentation, and /or drainage control plans for the site following demolition: _____
Containment fence with silt fence at bottom of site. Installation of jute netting and straw wattles on hillside.
Please see Civil drawings for more information.
11. Relocation provision for tenants, if any, occupying building to be demolished: None.
12. Year building to be demolished was constructed: 1965
13. Official designation of historical or architectural significance, if any: None.
14. Other: _____

Note: The demolition contractor will be required to provide the City with a certificate of worker's compensation insurance and may be required to post a bond. The contractor must also secure a City of Belvedere business license before the actual demolition permit can be issued by the Building Official.

I, the undersigned owner of the property herein described (or owner representative, as authorized by completion of a Statement of Ownership and Designation of Representative), hereby make application for the demolition permit requested, and I hereby certify that the facts, statements and information presented herein and in the attached exhibit(s) are true and correct to the best of my knowledge and belief

Signature: 

Name: Ben Jacoby

Date: 10/26/20



APPLICATION FOR DESIGN REVIEW

CITY OF BELVEDERE • PLANNING DEPARTMENT
450 SAN RAFAEL AVE • BELVEDERE, CA 94920-2336
PH. 415-435-3838 • FAX 415-435-0430 • WWW.CITYOFBELVEDERE.ORG

FOR STAFF USE ONLY

Date: _____ Rec'd. by: _____ Planning Comm. Approval
Design Review Exception
Amount: _____ Receipt No.: _____ Staff Approval
Parcel No.: _____ Zone: _____
Located in Flood Zone AE VE N/A

SECTION 1 • PROJECT SUMMARY

Does this project have an active building permit? No Yes Permit No.: _____
Is this property adjacent to a City Owned Lane? No Yes
Is there an Existing Revocable License for this property? No Yes Lic # _____
Does this project have Planning Commission approval? No Yes

Address of Property: 30 Cliff Road APN: 060-221-44

Record Owner of Property: Ben and Devorah Jacoby

Mailing 29 Via San Fernando Daytime Phone: 415.265.8365

Address: Tiburon, CA 94920 Fax: _____

Email: benjacoby@earthlink.net

Owner's Representative: Regan Bice Architects

Mailing 950 Grayson Street Daytime Phone: 510.549.1499 cell: 510.332.6199

Address: Berkeley, CA 94710 Fax: 510.845.1901

Email: debra@reganbice.com

Project Description: _____

— This application is for the demolition of an existing 1965 house and the construction of a new single family residence. —
The proposed house limits grading and impact to surrounding vegetation by maintaining the existing retaining walls
— and driveway. In an effort to break up the proposed building mass, the house is designed as smaller masses —
separated by a glass core. Similarly the height of the structure is stepped back and walkways cantilevered to reduce
— the impact of the building's height. The house design has taken into consideration comments by uphill neighbors to —
— limit the bulk and height of the new structure and use the lower minor ridge line of the existing house as a design —
parameter.

ZONING PARAMETERS:

	<u>Required</u>	<u>Existing</u>	<u>Proposed</u>
Lot Area	<u>15,000 sqft.</u>	<u>13,740.5 gross sqft. , 11,573 sqft excluding road easeent</u>	<u>No Change</u>
Lot Coverage	<u>Structure: 3472 30% Max. Gross: 5786.5 50% Max.</u>	<u>Structure: 2020 sqft., 17.5% Gross: 4868 sqft., 42.1%</u>	<u>Structure: 2418, 21% Gross: 4742.5 41%</u>
Total Floor Area	<u>3,819.09 sqft., 33% Max.</u>	<u>3310 sqft., 28.6%</u>	<u>4533 sqft., 39.2%</u>
Front Yard Setback	<u>10'-0", Min.</u>	<u>104'-7"</u>	<u>87'-4"</u>
WEST Left Sideyard Setback	<u>6'-4 1/2", Min.</u>	<u>15'-0 1/2"</u>	<u>11'-10"</u>
EAST Right Sideyard Setback.	<u>6'-4 1/2", Min.</u>	<u>4'-7 1/2"</u>	<u>6'-9"</u>
Rear Yard Setback	<u>20'-0", Min.</u>	<u>46'-4"</u>	<u>31'-3"</u>
Building Height Maximum...	<u>36'-0", with a slope > 30%</u>	<u>35'-8"</u>	<u>36'-0"</u>
Building Height Average...	<u>28'-0" Max.</u>	<u>27'-6"</u>	<u>25'-3"</u>
Parking Spaces	<u>2</u>	<u>1</u>	<u>3</u>

SECTION 2 • ENVIRONMENTAL INFORMATION REQUIRED BY CEQA

(To Be Completed by Applicant)

Date Filed: December 14, 2020

General Information

1. Name and address of developer or project sponsor: Ben and Devorah Jacoby
2. Address of project: 30 Cliff Road, Belvedere, CA
3. Name, address, and telephone number of person to be contacted concerning this project: Regan Bice Architects, Debra Contreras, cell 510.332.6199, debra@reganbice.com
4. Indicate number of the permit application for the project to which this form pertains: 3
5. List and describe any other related permits and other public approvals required for this project, including those required by city, regional, state and federal agencies: Demolition Application, Variance Application, Floor Area Exception Application
6. Existing zoning district: R-15
7. Proposed use of site (Project for which this form is filed): New single family residence
8. Year built: 1965 Original architect: Jack S. Heidelberg

Project Description

9. Site size. 11573.0 sqft.
10. Square footage. 4533 sqft.
11. Number of floors of construction. 3 floors
12. Amount of off-street parking provided. 3
13. Plans attached? Yes
14. Proposed scheduling. Construction Start May 2021, Construction Completion October 2022

15. Associated projects, such as required grading or staging. No associated projects.
16. Anticipated incremental development. None
17. If residential, include the number of units, schedule of unit sizes, range of sale prices or rents, and type of household size expected. 1 single family residence, 1 800 sqft ADU
18. If commercial, indicate the type, whether neighborhood, city or regionally oriented, square footage of sales area, and loading facilities. _____
19. If the project involves a variance, conditional use or rezoning application, state this and indicate clearly why the application is required. Variance required to allow reconstruction of existing retaining wall and new pool deck over 4'-0" in height within a setback.

Are the following items applicable to the project or its effects? Discuss below all items checked yes (attach additional sheets as necessary).

	Yes	No
20. Change in existing features of any bays, tidelands, beaches, or hills, or substantial alteration of ground contours.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21. Change in scenic views or vistas from existing residential areas or public lands or roads.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22. Change in pattern, scale or character of general area of project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23. Significant amounts of solid waste or litter.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24. Change in dust, ash, smoke, fumes or odors in vicinity.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25. Change in ocean, bay, lake, stream or ground water quality or quantity, or alteration of existing drainage patterns.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26. Substantial change in existing noise or vibration levels in the vicinity.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27. Site on filled land or on slope of 10 percent or more.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
28. Use of, or disposal of potentially hazardous materials, such as toxic substances, flammables or explosives.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29. Substantial change in demand for municipal services (police, fire, water, sewage, etc.).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30. Substantially increase fossil fuel consumption (electricity, oil, natural gas, etc.).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
31. Relationship to a larger project or series of projects.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
32. Changes to a structure or landscape with architectural or historical value.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
33. Changes to a site with archeological or cultural value such as midden soil.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

34. Describe the project site as it exists before the project, including information on topography, soil stability, plants and animals, and any cultural, historical or scenic aspects. Describe any existing structures on the site, and the use of the structures. Attach photographs of the site. Snapshots or Polaroid photos will be accepted.
- The proposed house is located on a tear-shaped and steeply down sloping lot, studded with oak and cypress trees. The design is predicated on maintaining the majority of existing retaining walls and driveway, and preserving the majority of screening vegetation. Located similar to the existing structure, the proposed house utilizes the existing car turnaround as pool terrace and garden. Please see attached photos of the site and existing house.
35. Describe the surrounding properties, including information on plants and animals and any cultural, historical or scenic aspects. Indicate the type of land use (residential, commercial, etc.), intensity of land use (one-family, apartment houses, shops, department stores, etc.), and scale of development (height, frontage, setback, rear yard, etc.). Attach photographs of the vicinity. Snapshots or Polaroid photos will be accepted.
- An image of the existing neighborhood and site context has been submitted to show scale of existing homes.
- A rendering of the proposed project is included to demonstrate the impact the proposed house will have on the neighborhood.

SECTION 3 • ESTIMATE OF TIME FOR CONSTRUCTION

For Design Review applications not requiring a building permit this section does not apply. Design Review approvals expire twelve (12) months from the date of approval unless granted a longer duration by the Planning Commission.

This Section advises you of the Time Limit Guidelines that are applied to all Design Review applications that require a building permit as prescribed by Section 20.04.035 of the Belvedere Municipal Code.

B. Construction Time Limit Required. This Chapter shall apply to any project for which a design review approval is required, any project requiring a building permit with an estimated construction value of \$50,000 or greater, and/or any landscaping project with an estimated construction value of \$50,000 or greater that is associated with a building permit. As part of any application for design review, the applicant shall file a reasonable estimate of the cost of the proposed project, and based thereon, a construction time limit shall be established for the project in accordance with the guidelines set forth in Subsection C of this Section. The maximum time for completion of project shall not exceed six months for additions and remodeling up to \$100,000 in value; 12 months for construction up to \$500,000 in value; and 18 months for construction valued at more than \$500,000. Failure to complete construction in the agreed upon time will result in fines ranging from \$600 per day to \$1200 per day with a \$300,000 maximum penalty. Application for an extension of the prescribed time limit can be made providing certain conditions are met. The maximum extension is 6 months. The time for completion of the construction shall also be indicated on the building permit.

In the space provided below please indicate the estimated project valuation.

Estimated cost of construction: \$ 3,500,000

Based on the above estimated project valuation, check one of the following Time Limit Guidelines that shall apply to your project:

- 1. For new construction, the demonstrable value of which is estimated to be less than \$500,000.
Construction shall be completed twelve (12) months from the commencement of work following the issuance of the building permit.
- 2. For new construction, the demonstrable value of which is estimated to be more than \$500,000.
Construction shall be completed eighteen (18) months from the commencement of work following the issuance of the building permit.
- 3. For additions, alterations, modifications and repairs, the demonstrable value of which is estimated at less than \$100,000.
Construction shall be completed six (6) months from the commencement of work following the issuance of the building permit.
- 4. For additions, alterations, modifications and repairs, the demonstrable value of which is estimated at less than \$500,000.
Construction shall be completed twelve (12) months from the commencement of work following the issuance of the building permit.
- 5. For additions, alterations, modifications and repairs, the demonstrable value of which is estimated at more than \$500,000.
Construction shall be completed eighteen (18) months from the commencement of work following the issuance of the building permit.

For those projects that do not fall under any of the above Time Limit Guidelines or that wish to exceed the time limit that was approved by the Planning Commission, the following is the “**Extension of Construction Time Limit**” process (BMC Section 20.04.035(D)):

D. Extension of Construction Time Limit.

1. An applicant may request a construction time limit extension at the time of the design review hearing or after the issuance of a building permit. An applicant is limited to one construction time limit extension per project.

2. The Planning Commission has the authority to grant, conditionally grant, or deny a time limit extension request made at the time of a design review hearing based on the reasonable anticipation of one or more of the factors in this Subsection. The Planning Commission’s decision may be appealed in writing to the City Council.

3. The extension committee has the authority to administratively grant, conditionally grant, or deny a time limit extension request made after the issuance of a building permit based on one or more of the factors in this Subsection. The extension committee shall consist of the City Building Official, the Director of Planning and Building, and the Public Works Manager, who shall meet with the project contractor, architect and, at the applicant’s option, a representative or the applicant. The extension committee shall review the extension request within 10 working days of receiving a complete application. Within 10 working days of receiving the decision, the applicant may appeal the extension committee’s decision to the Planning Commission and the Planning Commission’s decision to the City Council. All appeals shall be scheduled within a reasonable time of the receipt of the appeal.

4. An application for a construction time limit extension shall be accompanied by complete working drawings for the construction, a written explanation of the reasons for the requested extension, any other information requested by Planning staff, and a fee as established by City Council resolution.

5. Projects with an initial 18-month construction time limit may receive a maximum 6-month extension for a total time limit of 24 months. Projects with an initial 6 or 12-month construction time limit may receive an extension, provided that such extensions do not result in a total construction time limit exceeding 18 months.

6. Landscaping Extension. When landscaping work, which was approved as part of a larger construction project, is delayed because of inclement weather, the applicant may file with the City Manager for an extension to complete the landscaping work. The request must be filed prior to, and may not exceed 30 days beyond, the final building inspection approval, issuance of an occupancy permit, or expiration of the 90-day landscaping time limit granted per Subsection C2 above, whichever occurs later. The City Manager shall grant said extension only if, in his or her opinion, such extension is warranted because of delays caused by inclement weather.

7. Construction Time Limit Extension Factors. Requests for construction time limit extensions shall be determined based on one or more of the following factors:

- a. Site topography
- b. Site access
- c. Geological issues
- d. Neighborhood considerations
- e. Other unusual factors
- f. Extreme weather events
- g. Unanticipated discovery of archeological resources
- h. Other conditions that could not have been reasonably anticipated at the time of project application

SECTION 4 • ACKNOWLEDGEMENT OF HOURLY BILLING COSTS

This Section advises you of the costs that may be involved in processing Planning-related applications and/or appeals. You are hereby requested to acknowledge this information and agree to be responsible for all expenses incurred in the processing of your application(s)/appeal(s).

As the property owner/appellant, you agree to be responsible for the payment of all costs, both direct and indirect, associated with the processing of the applications(s)/appeals(s) referenced below. Such costs may be incurred from the following source:

Hourly billing costs as of July 1, 2018, (subject to change without notice):

Director of Planning & Building	\$ 85.00
Associate Planner	\$ 59.00
City Attorney	\$ 240.00
Specialized Planning Consultant	Actual costs + 25% overhead

For all applications and appeals, an initial deposit is required at the time of submittal, with the amounts determined by City Council resolution. In addition to the initial deposit, the property owner/appellant may be required to make further deposits for anticipated work. Invoices are due and payable within 15 days. Application(s) /or appeal(s) will not be placed on an agenda until these deposits are received.

SECTION 5 • ACKNOWLEDGEMENT OF RESPONSIBILITY

This Section applies to all projects that receive design review. To avoid misunderstandings regarding changes to building plans that have received Design Review, please read and acknowledge the below information. To help your project proceed in an expeditious and harmonious manner, the City of Belvedere wishes to inform you of several basic understandings regarding your project and its approval. By you and your representative signing this document, you are acknowledging that you have read, understand, and will comply with each of the points listed.

1. Once Design Review approval has been granted, construction plans may be submitted to the City. The construction plans shall be **identical** to the plans approved for design review. (BMC §20.04.010). Deviations from the plans approved for Design Review cannot be approved except by an amendment to the Design Review approval. It is the applicants' responsibility to assure conformance, and the failure of staff to bring nonconformities to the applicants' attention shall not excuse the applicant from such compliance.
2. Comments from City staff regarding the project shall neither be deemed official nor relied upon unless they are in writing and signed by the City Manager or his designee.
3. Without the prior written approval of the City, construction on the project shall not deviate in any manner, including but not limited to form, size or color, from approved construction plans. If at any time during construction, and without such written approval, construction on the project is found by a member of City staff to deviate from the approved construction plans in any manner, an official STOP WORK ORDER will be issued by the City, and there shall be a total cessation of all work on the project.
4. If such a STOP WORK ORDER is issued, the City may initiate proceedings to impose administrative penalties or nuisance abatement proceedings and issue an order to show cause, which will compel the undersigned property owner to appear before the City Council and show cause why the work performed does not deviate from the approved plans and why such work should not be condemned as a public nuisance and abated. (Authority: Belvedere Municipal Code Chapters 1.14 and 8.12)

SECTION 6 • ADDITIONAL INFORMATION FOR APPLICANTS

Story Pole Requirement

Preliminary Story Poles sufficient to indicate the height and shape of the proposed structure or additions shall be placed on the site **at least twenty (20) days** prior to the first meeting date at which this application will be heard. **Final Story Poles** must be placed at the site **at least ten (10) days** prior to the first meeting date and removed no later than ten (10) days following the final city action on the project application. Story poles shall be connected at their tops with colored tape or ribbon to clearly indicate ridges, eaves, and other major elements of the structure.

Limit on the Number of Administrative and Planning Commission Design Review Approvals

Pursuant to Belvedere Municipal Code Section 20.04.020(B)(1)(a), for a site or structure with no existing active Design Review approval, during any twelve-month period, an applicant may obtain up to four administrative approvals, which may be in the form of either Staff Approval, Design Review Exception, or a combination of the two. However, there is no limit to the number of times an applicant may apply for Planning Commission Design Review. **Any such administrative or Planning Commission Design Review approval(s) shall be valid for a period of twelve (12) months from the date of approval, unless a building permit has been issued for the project within said twelve (12) month period, in which case the Design Review approval shall be valid as long as there is an active building permit for the project.**

Once a project has been approved by Planning Staff or the Planning Commission, administrative approvals to amend the existing active Design Review approval for that project shall be limited to three such approvals at any time during the lifetime of the underlying Design Review approval, plus one such approval during the process of obtaining final inspection approval of the project. **Any such administrative approval(s) granted shall NOT extend the twelve (12) month term, of the underlying Design Review approval, or the building permit construction time limit if a building permit has been issued for the project.**

**STATEMENT OF PROPERTY OWNERSHIP,
CERTIFICATION OF APPLICATION, & DESIGNATION OF REPRESENTATIVE**

All property owners must complete and sign the section below which is applicable to your property.

Street address of subject property: 30 Cliff Road

Assessor's Parcel No(s). of subject property: 060-221-44

➤ **Properties Owned by a Trust, LLC, Corporation, Partnership, or Other Entity**

Please provide proof of ownership and of the signer's authority to enter into contracts regarding this property. One or more of the following documents *may* contain the necessary information.

- **For Trusts:** the **Trust Document** or a **Certificate of Trust**, including any attachments thereto; Property Deed; Certificate of Title Insurance.
- **For other entities:** **Articles of Incorporation; Partnership Agreement; Property Deed; Certificate of Title Insurance;** written **certification of facts** by an attorney.

Photocopies are acceptable. To ensure privacy, documentation will be shredded in a timely manner, or, upon request, returned to the applicant.

I, _____, state under penalty of perjury under the laws of the State of California that the above-described subject property is owned by a Trust, LLC, Corporation,

Partnership, or other entity and that my signature on this application has been authorized by all necessary action required by the LLC, Corporation, Partnership, or other entity.

I hereby make application for approval of the design review requested. I have read this application and hereby certify that the statements furnished above and in the attached exhibits present the data and information required for the design review and initial environmental evaluation to the best of my ability, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief

I agree to be responsible for all costs incurred in connection with the processing of my application and appeals, if any. And I agree to be bound by Section 5, "Acknowledgement of Responsibilities," above and representations one through four contained therein.

In the case of an application for revocable license, I agree that, upon approval by the City Council of the revocable license requested, I will promptly execute a license drafted by the City, have it notarized, and return it to the City so that it may be recorded.

I understand that the contents of this document are a Public Record. If more than one signature is required by the owner entity to make this application, please have all signers sign below.

Signed this _____ day of _____, 20____, at Belvedere, California.

Signature _____ Signature _____

Title(s) _____ Title(s) _____

Trustee(s) Partners: Limited or General Corporation Other _____

Name of trust, LLC, corporation, or other entity: _____

➤ **Properties Owned by Individuals**

I, Ben Jacoby, state under penalty of perjury under the laws of the State of California that I am the record owner of the above-described subject property.

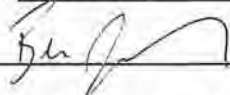
I hereby make application for approval of the design review requested. I have read this application and hereby certify that the statements furnished above and in the attached exhibits present the data and information required for the design review and initial environmental evaluation to the best of my ability, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

I agree to be responsible for all costs incurred in connection with the processing of my application and appeals, if any. And I agree to be bound by Section 5, "Acknowledgement of Responsibilities," above and representations one through four contained therein.

In the case of an application for revocable license, I agree that, upon approval by the City Council of the revocable license requested, I will promptly execute a license drafted by the City, have it notarized, and return it to the City so that it may be recorded.

I understand that the contents of this document are a Public Record.

Signed this 14th day of December, 2020, at Belvedere, California.

Signature 

➤ **Designation of Owner's Representative (Optional)**

I hereby authorize _____ to file on my behalf any applications, plans, papers, data, or documents necessary to obtain approvals required to complete my project and further authorize said person to appear on my behalf before the Planning Commission and/or City Council. This designation is valid until the project covered by the application(s) is completed and finalized or until the designation is rescinded in writing.

Signature of Owner: _____ Date: _____

Signature of Representative: _____ Date: _____



APPLICATION FOR EXCEPTION TO TOTAL FLOOR AREA

CITY OF BELVEDERE • PLANNING COMMISSION
450 SAN RAFAEL AVE • BELVEDERE, CA 94920-2336
PH. 415-435-3838 • FAX 415-435-0430 • WWW.CITYOFBELVEDERE.ORG

FOR STAFF USE ONLY

Date: _____ Rec'd. by: _____ Amount: _____ Receipt No.: _____
Assessors Parcel No: _____ Zone: _____

TO BE COMPLETED BY APPLICANT

Address of Property: 30 Cliff Road

Type of Property: Single Family Residence, R-15 zone

Record Owner of Property: Ben and Devorah Jacoby

Mailing 29 Via San Fernando Daytime Phone: 415.265.8365

Address: Tiburon, CA 94920 Fax: _____

_____ Email: benjacoby@earthlink.net

Owner's Representative: Debra Contreras, Regan Bice Architects

Mailing 950 Grayson Street Daytime Phone: office 510.549.1499 cell 510.332.6199

Address: Berkeley, CA 94710 Fax: 510 845.1901

_____ Email: debra@reganbice.com

ORDINANCE REQUIRES: 3819.09 sq. ft. YOUR APPLICATION HAS: 4533 sq. ft.

As provided in Belvedere Municipal Code Section 19.52.120(1), I hereby apply for an exception to the floor area requirements in the Zoning Ordinance. I propose that the Planning Commission make the following findings of fact:

1. That primary views from adjacent properties, as well as from the street, are not significantly impaired by the additional square footage, because: _____

- _____ The views from neighboring properties are not impacted by the additional square footage because the gross lot area is reduced by a road easement. If the lot did not have a road easement, the floor area ratio of the house _____
- _____ would have an FAR of 33%, the maximum allowable square footage in the R-15 Zone. The additional 800 sqft. _____
- _____ ADU, which is excluded from FAR calculations, is located under the main level floor, in a tall crawlspace and does _____
- _____ not impact the overall bulk of the structure.

2. That there are unusual characteristics applicable to the parcel which minimize the impact of a greater floor area, because: _____

30 Cliff Road is an irregularly shaped and sized lot for the R-15 zone. The gross lot area is smaller than the minimum 15,000 sqft at 13,740.5 sqft. It is further encumbered by a road easement that makes up 2,167.5 sqft. of available lot area. If the full gross lot area were able to be considered, the house FAR would be within the maximum FAR of 33% with an 800 sqft. ADU.

3. That the proposed structure(s) are appropriate in mass, bulk, and character for the parcel, the neighborhood, and the zoning district, and meet(s) all Design Review criteria, because: _____

The proposed design is in keeping with the intent of the R-15 zoning ordinance. The FAR for the proposed structure is lower than the 4800 sqft. maximum FAR for larger lots in the R-15 zone. It is also within the 33% maximum FAR for lots with an area below 15,000 sqft, if the lot area was not impacted by a road easement.

Aesthetically, the proposed house is designed to minimize the bulk of the structure by separating two building masses with a transparent entry. The roof steps down with the slope of the existing grade. Where possible, balconies and decks are cantilevered so that they appear to float and further minimize the bulk of the building mass.

4. That the additional square-footage will not substantially reduce the privacy otherwise available to residents of adjoining properties, because: _____

To minimize impacts to adjoining properties, the proposed structure is located in approximately the same location as the existing house and is oriented towards the view to the west and south. The roof of the proposed house is lower than the ridge line and turret of the existing house and will appear less bulky. This will open views for neighbors to the east. The additional square footage is not out of keeping with like homes in this zone.

In addition, Section 19.52.120(2) includes guidelines that the Planning Commission must follow. I propose that the following guidelines can be met:

5. That the proposed new construction would not create a new or expand on existing nonconformity on the property, because: _____


The proposed new construction would not create a nonconformity on the property because the size of the house is not out of keeping with the intent of the R-15 zoning ordinance and it has been designed with neighbor privacy and view corridors in mind.

(For purposes of this Section, floor area in the existing structure which is in excess of the requirements of this chapter shall not be considered to be an "existing nonconformity" on the property, and the grant of a floor area exception hereunder shall not be deemed to create a "new nonconformity." Additionally, for purposes of this section, where an applicant proposes to construct new and additional parking spaces, construction of parking structure or spaces within a setback shall not be deemed to create a nonconformity.)

6. That the proposed new construction is not a continuation, expansion, or subsequent phase of a project for which one or more variances were granted, which project was completed within two years prior to the floor area exception application, because: _____

This is not applicable to the request for a floor area exception.

I, the undersigned owner of the property herein described (or owner representative, as authorized by completion of a Statement of Ownership and Designation of Representative), hereby make application for approval of the exception as requested, and I hereby certify that the facts, statements and information presented herein and in the attached exhibit(s) are true and correct to the best of my knowledge and belief

Signature: 

Name: Ben Jacoby

Date: 12-10-20



APPLICATION FOR ACCESSORY DWELLING UNIT

CITY OF BELVEDERE • PLANNING DEPARTMENT
450 SAN RAFAEL AVE • BELVEDERE, CA 94920-2336
PH. 415-435-3838 • FAX 415-435-0430 • WWW.CITYOFBELVEDERE.ORG

FOR STAFF USE ONLY

Date: _____ Rec'd. by: _____ Amount: No Charge Project Number _____
Assessor's Parcel No: _____ Zone: R1- _____

SECTION 1 • PROJECT SUMMARY

Address of Property: 30 Cliff Road

Record Owner of Property: Ben and Devorah Jacoby

Mailing 20 Via San Fernando Daytime Phone: 415.265.8365

Address: Tiburon, CA 94920 Email: benjacoby@earthlink.com

Owner's Representative: Regan Bice Architects, Debra Contreras

Mailing 950 Grayson Street Daytime Phone: office cell 510.332.6199

Address: Berkeley CA 84710 Email: debra@reganbice.com

Project Description: A new 800 square foot ADU below main floor level of a proposed single family unit. The proposed ADU is within the footprint of the proposed single family residence.

Zoning Parameters:

	<u>Required</u>	<u>Existing</u>	<u>Proposed</u>
Lot Area		11,573 sqft. (area excludes roadway easement)	
Lot Coverage	5786.5 sqft., 50%	4868 sqft, 42.1%	4742.5 sqft. 41%
Total Floor Area	3472 sqft. (30%)	3310 sqft, (28.6%)	4533 sqft.(39.2%)
Floor Area of Accessory Dwelling Unit (incl. in Total Floor Area above)	800. sqft Allowable	NA	800 sqft ADU, 5,333 sqft. Total
Front Yard Setback	10'-0"	104'-7"	87'-4"
East Left Sideyard Setback	6'-4 1/2"	4'-7 1/2"	6'-9"
WestRight Sideyard Setback.	6'-4 1/2"	15'-0 1/2"	11'-10"
Rear Yard Setback	20'-0"	46'-4"	31'-3"
Building Height	36'-0", max.	35'-8"	36'-0", max.
Parking Spaces	2	1	3

October 8, 2019

30 Cliff Road, Belvedere
Historic Architectural Evaluation

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OCT 29 2020

City of Belvedere

Introduction

Based on general historical and architectural research re: original owner, design and designer, this report evaluates an existing residential property with specific regard to its historic architectural potential and for the information and use of the property owner in the course of an ongoing planning process.

Evaluation Summary

The subject house, identified as the Sabert and Martha Summers residence, was constructed in 1965 and has been in the same family up to the present. From an historical perspective, it is a quite recent and simple resource with a basic history. This evaluation record is, therefore, commensurately basic, as there is little to report except for the known origins and extant character.

In sum, the house at 30 Cliff Road has no identifiable historical or historic architectural significance:

- As a private, single-family residence dating to the mid-1960s, there are no potentially associated events of historic importance.
- There are also no direct associations to persons of identifiable historic importance, as the Summers are not of any identifiable historical importance.
- The residence is not a distinctive example of a building type or architectural period or style. Rather, it is an anomalous example of a house of its period, as it dates to 1965 yet predominately embodies characteristics of any earlier period.
- While the original 1965 design of the subject house was authored by a designer, Jack S. Heidelberg, who in the context of Belvedere has potential historical importance, such potential importance would be specific to his own Belvedere house, dating to 1935, along with an associated group of houses, dating from the 1940s, standing on the east shore of Belvedere. In the context of which this late, whimsical 1965 design is irrelevant.
- The subject site and house do not stand amongst a group of properties that have any potential to form a historic grouping, setting or district.

Summary History and Descriptions (figs.5-10)

The subject lot (assessor's parcel no.060-221-44) is on the west side of Belvedere, its house facing west to Richardson Bay (figs.1-4). Based on city permit and county assessment information, the subject single-family residence was permitted in May of 1965 and thereafter constructed for Sabert and Martha Summers, husband and wife. A partial set of cryptic drawings of the house – no title block, no date, very limited design information – held on microfiche at the City of Belvedere, identify the designer as Jack S. Heidelberg. The quality of those drawings suggests that Heidelberg was also the contractor (figs.5-6).

The subject, 1965 house is two-stories plus a partial high crawl space to the front (west) and a partial attic under a steeply pitched, side-gable roof, with a hipped roof over its rear/eastward projecting wing and a turreted roof over a cylindrical bay at its northeast corner. That bay is elevated above the second floor level, evidently in order to gain bay views, and is accessed via an appended

stair under a semi-circular pent roof. The elongated front of the house has a balcony spanning the upper story, under the front roof lip, and which wraps around both sides, the sides under sloped porch roofs. Wood balcony posts and railing assemblies respectively include carved brackets and balusters. Two other semi-cylindrical single-story appendages with sloped roofs are extant, one a projecting and enclosed bay at the center of the north side and the other the aforementioned stair volume at the cylindrical rear bay. Roofs are a dominant feature of the house and all are roofed with wood or wood-like shakes. The exterior walls are wood trimmed with an array of stucco, wood, brick and molded glass cladding materials, all rustic in character. Doors and windows are steel with, in some cases, ornamental lathed newels applied as muntins.

The site is itself shallow, steep and consequently challenging, the house shoehorned into its shallow depth. Cliff Road crosses directly below the front of the site, its driveway accessed from the north. The site is steeply sloped upwards front to back and was cut in order to create a driveway across the back, under the cylindrical bay and to a parking area atop retaining walls at the south side of the house. Originally, a garage was located in the southeast corner of the lower story, entered from the south side, yet which garage was converted to a bedroom in 1977 – one of the few identifiable alterations – and where a semi-circular patio has been added. Given the lay of the land, the house is minimally visible from the public way.

At the first floor level, below the front deck, a walk crosses the front from one side to the other, terminating at the north end on a semi-circular patio. This walkway and patio are supported by story high walls below, the patio's rounded walls also brick clad. A second permitted alteration, that walkway construction was extensively repaired and partially rebuilt in 2013 (T. Willis Design, designer).

The design of the house is a mix of romantic period styles, predominately Tudor Revival/Storybook yet with Chalet-esque aspects. Another component style, based on its bric-a-brac use of materials, is Modern-Bohemian. Altogether, it is a convoluted and whimsical design.

Associated Persons

Sabert Summers (1910-1978) was, at the time of the subject home's construction, an appliance executive in San Francisco, which other records indicate was his career path, as he was identified as a house appliance salesman in Sacramento in the 1920 U.S. census, while the 1963 San Francisco directory listed his company as the Electrical Appliance Service Co. Following his passing, Martha Summers remained on their property up to the present, the property having just been sold to its second owners.

Designer

Jack S. Heidelberg (based on part on "The Heidelberg Legacy, Belvedere, California," by John Colver, dated September, 2012)

Following success as a young insurance executive in San Francisco, Jack S. Heidelberg (1904-1986) moved to Belvedere and where, in 1935, he had a residence built for himself and his wife at 250 Beach Road. Between 1935 and 1950, Heidelberg acquired and developed several properties adjacent to his and where he designed and built several residences while also adding to his own property. The architecture of these several houses and associated buildings were explicitly romantic period designs in the Tudor tradition and Storybook style. That residential grouping is prominently located on the east side of the Belvedere peninsula, facing the Cove, so are well known properties.

Consequently, Heidelberg has name recognition and notoriety, both also a consequence of the flamboyant mid-20th century lifestyle of he and his wife Hazel, who were prominent local socialites whose activities received extensive local news coverage.

Heidelberg later developed other designs for several other Belvedere sites, though very intermittently, as his works are few. Around 1960, several of his last designs dropped the period romance in lieu of modernist design. Yet, curiously, the subject house returned, at least in part, to a Storybook style design with some contemporary forms and materials, though more rustic and funky than modern.

Evaluation

Given its type and recent origins, the subject house has not previously been evaluated for historic resource potential. The following evaluates the Summers house per the subjects and nomenclature that form the basis of the historic resource evaluation criteria for the California Register of Historical Resources (CR) followed by a summary re: the City of Belvedere.

California Register

Two of the four historic resource criteria under the CR – potentially historic events and historic persons (CR criteria 1 and 2, respectively) – are, based on the available evidence, not applicable, as a private, single-family residential property and building at 30 Cliff Road has no association to potential events of historical importance. Further, its family of origin, the Summers, are not identifiable as persons of importance to local or regional history. Consequently, no events or persons of identifiable historic importance were associated with the origins of this residence.

Likewise, CR criterion 4, which addresses historic and pre-historic information potential, is not relevant to the consideration of an architectural resource of such recent age. Additionally, per a current cultural resources evaluation, which further delineates the historic setting, that “reconnaissance found no indication of the presence of prehistoric archaeological deposits in the project area. Due to the steep terrain and history of land modification, the potential for previously undiscovered archaeological resources also appears quite low.” (Archeological Resource Service, Sept. 26, 2019, pp.16-17).

Consequently, the substance of this historic resource evaluation is focused on the design and construction of the subject residence, under CR criterion 3, which provides that a resource eligible for the CR:

Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values. (from OHP California Register of Historical Resources Evaluation Criteria @ http://ohp.parks.ca.gov/?page_id=21238).

In sum, the architecture of this house may best be described as anachronistic – i.e., out of place relative to its time. It is highly romantic and highly personal and relates to nothing in its setting or vicinity. On the one hand, it embodies romantic Tudor/Storybook style forms – steeply pitched and curvilinear roof lines, turrets, timbering and traditional wood details; and on the other semi-Bohemian characteristics, specifically an unusual mix of materials; though the former period character and characteristics dominate. While the latter Bohemian tendency may have regional parallels in the mid-1960s, if intended, the design of this house was literally a fantasy in the context of Belvedere and in the form of an upscale home for an evidently well-to-do San Francisco businessman.

Heidelberg's earlier home designs were not so out of place, his own in particular, which dates to the mid 1930s so is related to the late academic period styles, specifically the Tudor Revival. It was also created for an individual who moved to Belvedere with accumulated wealth, and as that style was often deployed to manifest such wealth (thus, the popular 1920s label, Stockbroker Tudor). While the properties surrounding the Heidelbergs may not fit directly into the period of the 1920s and 30s, they were constructed in direct relation to and within the direct context of the original Heidelberg house. Despite substantive changes, that grouping is clearly in evidence today (though those properties have not been evaluated for historical significance).

In addition to its anachronistic and whimsical character, the subject site is also precarious and the present condition of the house unstable, alarmingly so given its relatively young age.

Consequently, the house at 30 Cliff Road in Belvedere does not meet the pivotal CR criterion 3, so is not a potential historic resource under the CR. The property is evidently also not a potential contributor to any potential historical setting or grouping, as there are no historic building relationships in the immediate vicinity.

City of Belvedere Register

Per the City of Belvedere's criteria for designation to the Belvedere register and based on the above details:

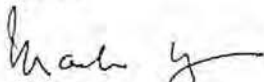
1. The subject house is not an outstanding example of a particular period, style, construction method or material.
2. It is not outstanding because of age.
3. It is not outstanding because it is the work of a significant architect or builder.
4. It is not outstanding because it is the first, last, or most significant architectural property of its type in the City.
5. It is not a unique or original design nor does it demonstrate outstanding craftsmanship.
6. It is not associated with a person, group or event significant to the City or State, or embody and express the history of the City.
7. It does not contribute to the character of the street or neighborhood area nor is it a visual landmark owing to its prominent location.

Of additional importance, designated City of Belvedere properties must, appropriately, have the property owner's agreement.

Conclusion

The single-family property and residence at 30 Cliff Road in Belvedere do not meet any State or City historic resources criteria so have no potential historic importance.

Signed:



Mark Hulbert
Preservation Architect

attached: Figs. 1-10 (pp.5-9)



Fig.1 – 30 Cliff Rd. (circled) – Location aerial (google earth, 2019 – north is up)



Fig.2 – 30 Cliff Rd. (circled) – Location aerial (google earth, 2019 – north is up)



Fig.3 – 30 Cliff Rd. – Aerial view (north at upper left - from realtor.com
 @https://www.realtor.com/realestateandhomes-detail/30-Cliff-Rd_Belvedere-Tiburon_CA_94920)

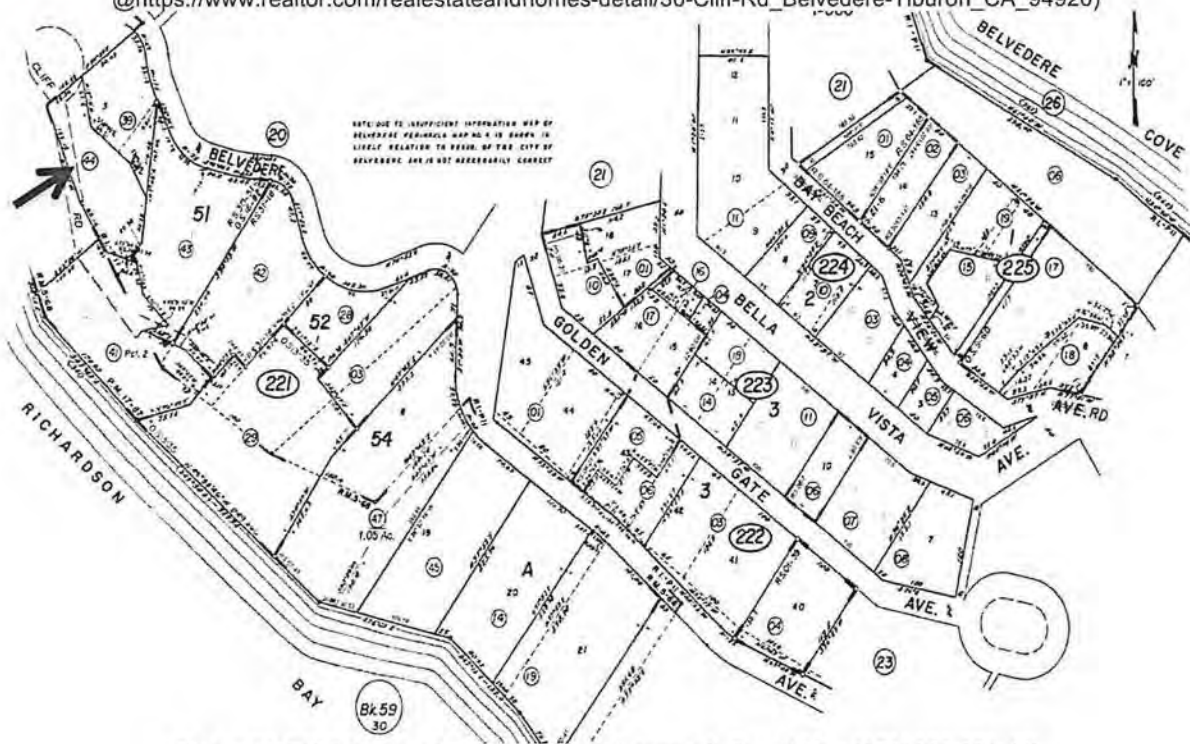
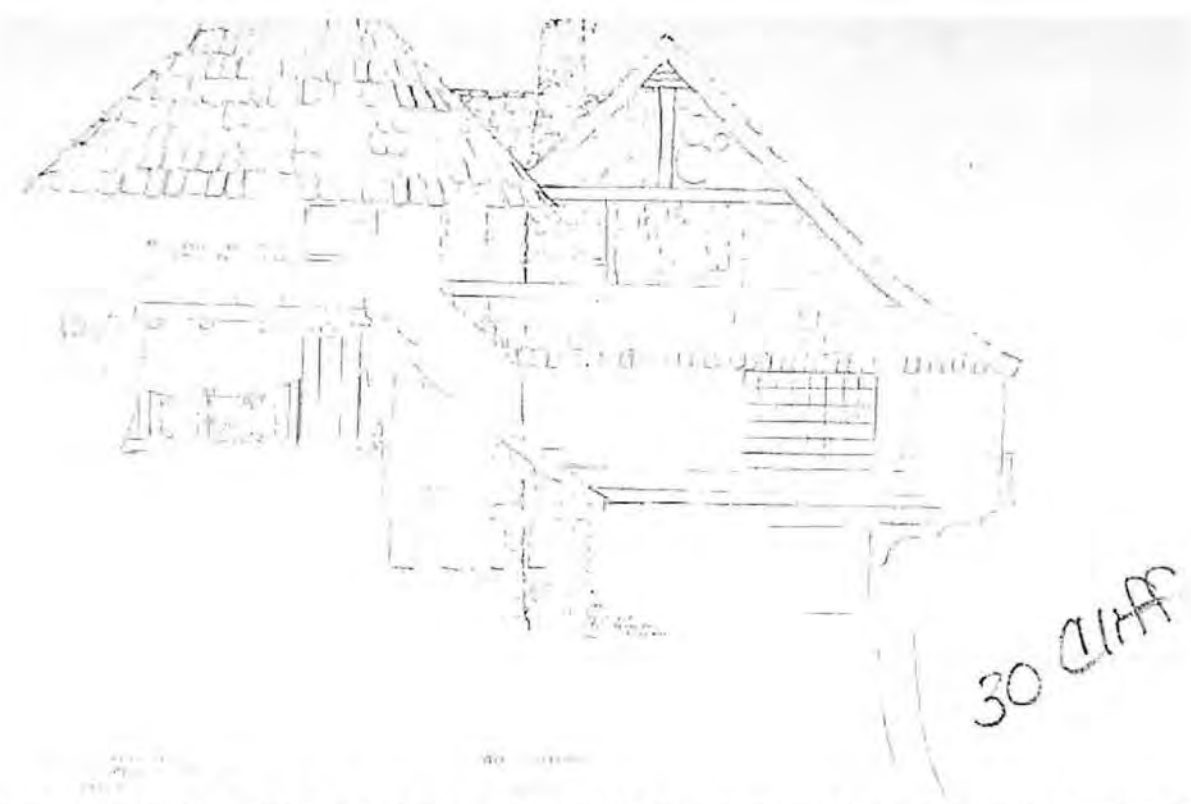
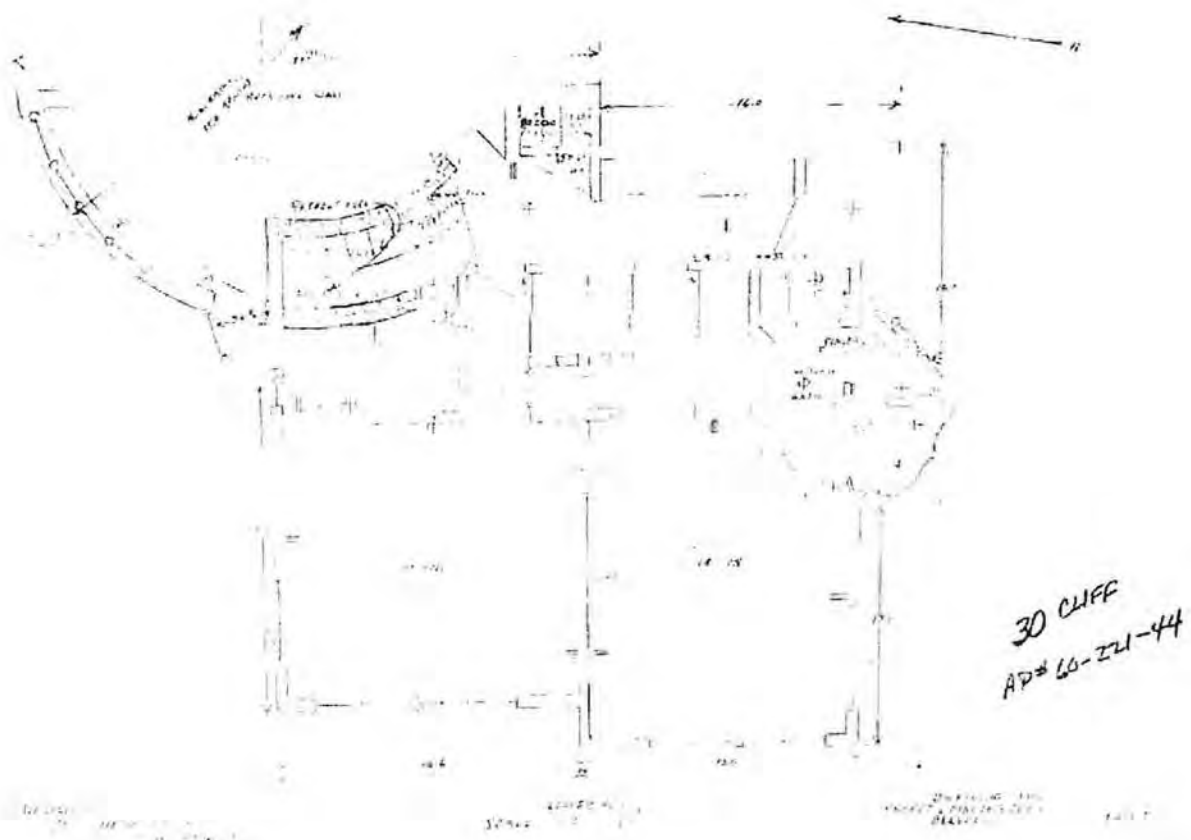


Fig.4 – 30 Cliff Rd. (arrow) – Marin County Assessor's Parcel Map (APN 060-221-44)



Figs.5-6 – 30 Cliff Rd. – 1965 plan and elevation - Dwelling for Sabert and Martha Summers, Belvedere; Designed by Jack S. Heidelberg (in lower left corner of plan)



Fig.7 – 30 Cliff Rd. – Front (west) at left, south side at right
(from realtor.com @https://www.realtor.com/realestateandhomes-detail/30-Cliff-Rd_Belvedere-Tiburon_CA_94920)



Figs.8 – 30 Cliff Rd. – North side
(from realtor.com @https://www.realtor.com/realestateandhomes-detail/30-Cliff-Rd_Belvedere-Tiburon_CA_94920)



Fig.9 – 30 Cliff Rd. – South side and rear
(from Openhomesphotogrphay.com @<https://vimeo.com>)



Fig.10 – 30 Cliff Rd. – South side
(from realtor.com @https://www.realtor.com/realestateandhomes-detail/30-Cliff-Rd_Belvedere-Tiburon_CA_94920)

APPENDIX C
Stormwater Control Plan Template
for Small Projects/Single-Family Homes

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OCT 29 2020
City of Belvedere

Introduction

The California State Water Resources Control Board reissued the Phase II NPDES Permit for Small Municipal Storm Sewer Systems (MS4s) in February 2013. As of June 30, 2015, development projects that create or replace between 2,500 square feet and 5,000 square feet of impervious surface (roofs or pavement), including single-family homes, must incorporate **one or more** measures to reduce runoff.*

This requirement is part of municipalities' comprehensive effort to reduce runoff pollution. Some municipalities may choose to implement the requirements earlier, and/ or on projects that create or replace less than 2,500 square feet of impervious surface.

It is easy to achieve compliance with the stormwater requirements for small land development projects. Compliance for each project must be carefully documented. Please complete the following form and submit it as directed by municipal staff.

In addition, staff will review your site plan to confirm that the following design strategies have been incorporated into your project:

- Limit disturbance of creeks and natural drainage features
- Minimize compaction of highly permeable soils
- Limit clearing and grading of native vegetation at the site to the minimum area needed to build the project, allow access, and provide fire protection
- Minimize impervious surfaces by concentrating development on the least-sensitive portions of the site, while leaving the remaining land in a natural undisturbed state

*The type and extent of runoff reduction measures required for any specific project will be determined by local staff consistent with a maximum extent practicable standard. Projects that create or replace 5,000 square feet or more of impervious surface, except for detached single-family homes, require a comprehensive Stormwater Control Plan for Regulated Projects.

Step-by-Step Instructions

The steps are:

1. Fill out the Project Data Form (below) and select one or more runoff reduction measures.
2. Prepare a site plan or sketch. Specify and design the runoff reduction measures you will use to meet the stated minimum requirements.

3. Complete your submittal, which will include:

- Project Data Form
- Site Plan or Sketch
- Completed checklist for each Runoff Reduction Measure selected

Step 1: Project Data Form and Runoff Reduction Measure Selection

Complete all fields.

Project Name/Number	30 Cliff Road
Application Submittal Date [to be verified by municipal staff]	10-20-2020
Project Location [Street Address if available, or intersection and/or APN]	30 Cliff Road, Belvedere APN: 060-221-44
Name of Owner or Developer	Ben & Devorah Jacoby
Project Type and Description [Examples: "Single Family Residence," "Parking Lot Addition," "Retail and Parking"]	Single Family Residence
Total Project Site Area (acres)	0.315 acres
Total New or Replaced Impervious Surface Area (square feet) [Sum of impervious area that will be constructed as part of the project]	6,882 square feet
Total Pre-Project Impervious Surface Area	7,527 square feet
Total Post-Project Impervious Surface Area	7,929 square feet
Runoff Reduction Measures Selected (Check one or more)	<input checked="" type="checkbox"/> 1. Disperse runoff to vegetated area <input type="checkbox"/> 2. Pervious pavement <input type="checkbox"/> 3. Cisterns or Rain Barrels <input type="checkbox"/> 4. Bioretention Facility or Planter Box

Step 2: Delineate impervious areas and locations of runoff reduction measures

Delineate the impervious area. On a site plan or sketch, show the impervious area – for example, a roof, or portion of a roof, or a paved area – that will drain to your runoff reduction measure. Typically, these delineations follow roof ridge lines or grade breaks. Alternatively, show the type and extent of pervious paving. An example sketch is attached.

Indicate the location and kind of runoff reduction measure you've selected. At least one option, designed to manage runoff from some amount of impervious area – or to avoid creating runoff – is required.

For each option selected, there is a brief checklist to confirm your design and your submittal meet minimum requirements.

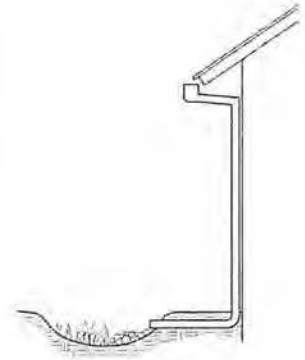
Step 3: Complete and submit your plan

Consult with municipal staff about when and how to submit your Stormwater Control Plan.

Runoff Reduction Options

Option 1: Disperse runoff from roofs or pavement to vegetated areas.

This is the simplest option. Downspouts can be directed to vegetated areas adjacent to buildings, or extended via pipes to reach vegetated areas further away. Paved areas can be designed with curb cuts, or without curbs, to direct flow into surrounding vegetation.



On the site plan, show:

- Each impervious area from which runoff will be directed, and its square footage.
- The vegetated areas that will receive runoff, and the approximate square footage of each.
- If necessary, explain in notes on the plan how runoff will be routed from impervious surfaces to vegetated areas.

Connecting a roof leader to a vegetated area. The head from the eave height makes it possible to route roof drainage some distance away from the building.

Confirm the following standard specifications are met:

- Tributary impervious square footage in no instance exceeds twice the square footage of the receiving pervious area.
- The design, including slopes and soils, reflects a reasonable expectation that an inch of rainfall will soak into the soil and produce no runoff.
- Roof areas collect runoff and route it to the receiving pervious area via gutters and downspouts.
- Paved areas are sloped so drainage is routed to the receiving pervious area.
- Runoff is dispersed across the vegetated area (for example, with a splash block) to avoid erosion and promote infiltration.
- Vegetated area has amended soils, vegetation, and irrigation as required to maintain soil stability and permeability.
- Any drain inlets within the vegetated area are at least 3 inches above surrounding grade.

Option 2: Permeable Pavement

This option can be easy to install and maintain, cost-effective, and can add aesthetic value to your project. Permeable pavements may include pervious concrete, pervious asphalt, porous pavers, crushed aggregate, open pavers with grass or plantings, open pavers with gravel, or solid pavers.



Show on your site plan:

- Location, extent and types of pervious pavements.

Confirm the following standard specifications are met:

- No erodible areas drain on to permeable pavement.
- Subgrade compaction is minimal.
- Reservoir base course is of open-graded crushed stone. Base depth is adequate to retain rainfall (3 inches is adequate) and support design loads (more depth may be required).
- No subdrain is included or, if a subdrain is included, outlet elevation is a minimum of 3 inches above bottom of base course.
- Subgrade is uniform and slopes are not so steep that subgrade is prone to erosion.
- Rigid edge is provided to retain granular pavements and unit pavers.
- Solid unit pavers, if used, are set in sand or gravel with minimum 3/8 inch gaps between the pavers. Joints are filled with an open-graded aggregate free of fines.
- Permeable concrete or porous asphalt, if used, are installed by industry-certified professionals according to the vendor's recommendations.
- Selection and location of pavements incorporates Americans with Disabilities Act requirements (if applicable), site aesthetics, and uses.

Option 3: Cisterns or Rain Barrels

Use of cisterns or rain barrels to comply with this requirement is subject to municipality approval. Planning and Building Permits may be required for larger systems.

Show on your site plan:

- Impervious areas tributary to each cistern or rain barrel.
- Location of each cistern or rain barrel.

Confirm the following standard specifications are met:

- Rain barrels are sited at grade on a sound and level surface at or near gutter downspouts.
- Gutters tributary to rain barrels are screened with a leaf guard or maximum 1/2-inch to 3/4-inch-minimum corrosion-resistant metallic hardware fabric.
- Water collected will be used for irrigation only.
- Openings are screened with a corrosion-resistant metallic fine mesh (1/16 inch or smaller) to prevent mosquito harborage.
- Large openings are secured to prevent entry by children.
- Rain barrels and gutters are to be cleaned annually.
- The local mosquito and vector control district is informed of the installation. The district will be provided additional information and/or rights of entry if they request.

Option 4: Bioretention Facility or Planter Box

An above-ground planter box may be appropriate if the development site lacks level landscaped areas for dispersion and pervious pavements are not practical. Planter boxes and bioretention facilities can treat runoff from impervious surfaces 25 times their area (sizing factor of 0.04).

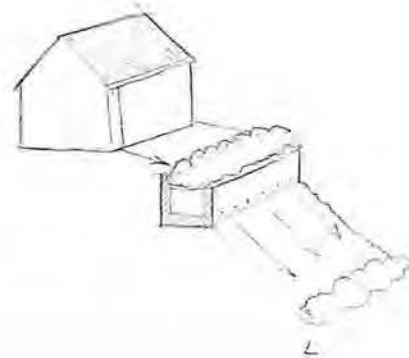
Detailed design guidance for bioretention facilities is in Chapter 4 of the *BASMAA Post-Construction Manual*.

Show on your site plan:

- Impervious areas tributary to the planter box.
- Location and footprint of planter box.

Confirm the following standard specifications are met:

- Reservoir depth is 4"-6" minimum.



Flow-through planter built into a hillside. Flows from the underdrain and overflow must be directed in accordance with local requirements.

- 18" depth soil mix with minimum long-term infiltration rate of 5"/hour. See <http://www.cccleanwater.org/c3-guidebook.html> for a list of soil mix suppliers.
- Surface area of soil mix is a minimum 0.04 times the tributary impervious area.
- "Class 2 perm" drainage layer 12" deep.
- No filter fabric.
- Perforated pipe (PVC SDR 35 or approved equivalent) underdrain with outlet located flush or nearly flush with planter bottom.
- Connection with sufficient head to storm drain or discharge point.
- Underdrain has a clean-out port consisting of a vertical, rigid, non-perforated PVC pipe, connected to the underdrain via a sweep bend, with a minimum diameter of 4" and a watertight cap.
- Overflow outlet connected to a downstream storm drain or approved discharge point.
- Planter is set level.
- Emergency spillage will be safely conveyed overland.
- Plantings are suitable to the climate, exposure, and a well-drained soil.
- Irrigation system with connection to water supply, on a separate zone.

Useful Resources

The following references may be useful for design. Designs must meet the minimum standard specifications herein.

BASMAA Post-Construction Manual.

Start At the Source: Design Guidance Manual for Stormwater Quality.
Bay Area Stormwater Management Agencies Association, 1999.

Concrete Promotion Council of Northern California

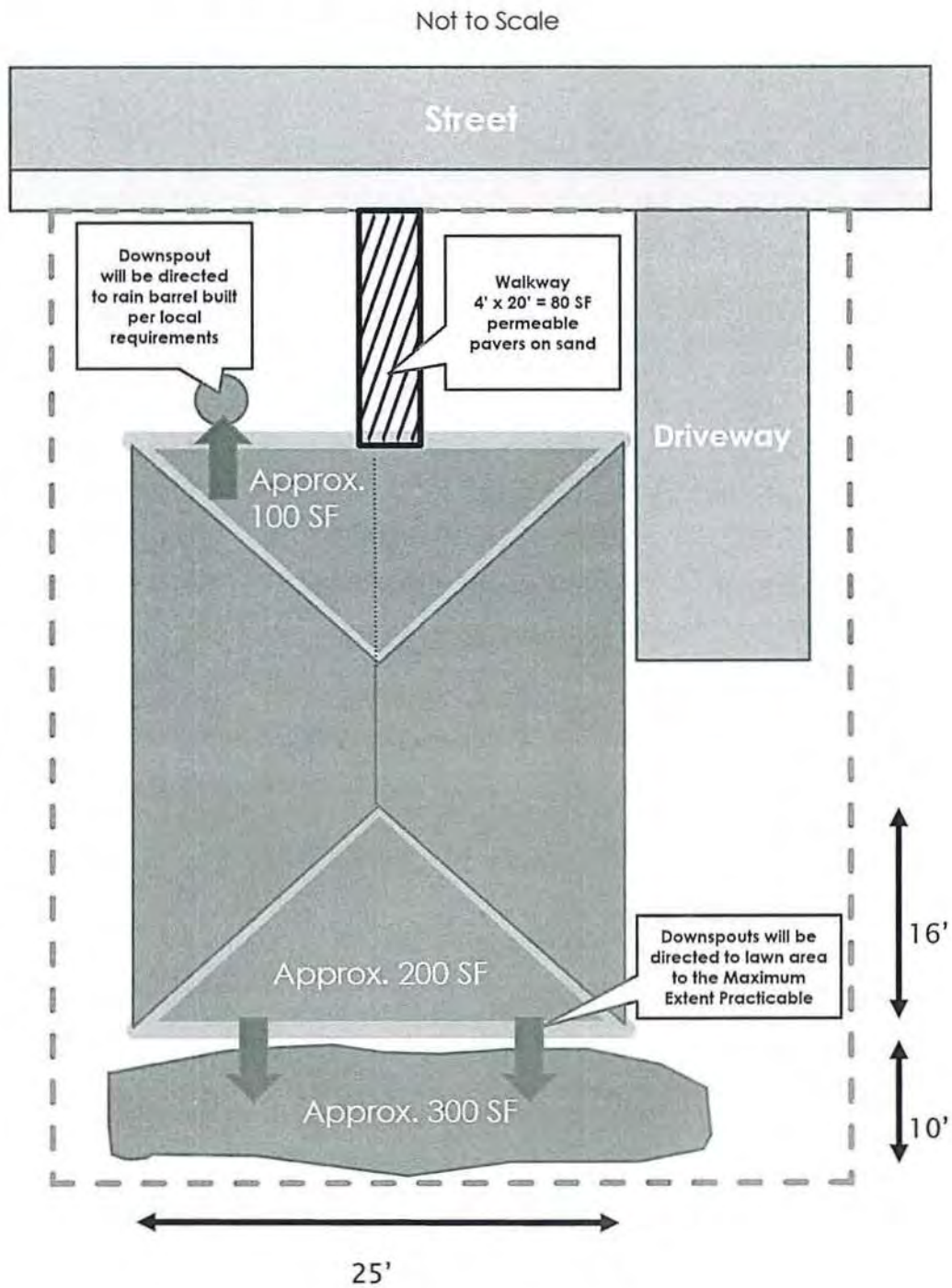
California Asphalt Pavement Association

Interlocking Concrete Pavement Institute
<http://www.icpi.org/>

Porous Pavements, by Bruce K. Ferguson. 2005. ISBN 0-8493-2670-2

Example Sketch

The example below illustrates the level of detail required. Three options are shown; one or more such measures is required.



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MEMORANDUM

DATE: 12/21/20

TO: Rebecca Markwick, Senior Planner, City of Belvedere

PROJECT NO: MSA-2012-01

FROM: Mark Sandoval, AIA

REGARDING: 30 Cliff Road - Design Review Memorandum

PROJECT DOCUMENTS



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- Architectural Drawings: Prepared by REGAN RICE ARCHITECTS, 950 Grayson Street, Berkeley, CA, dated 12/14/20 and consisting of 16 individual drawing sheets.
- Civil Drawings: Prepared by LEA AND BRAZE ENGINEERING, INC. 2495 Industrial PKWY W, Hayward, CA, dated 10/22/20 and consisting of 12 drawing sheets
- Landscape Drawings: Prepared by DAVID THORNE LANDSCAPE ARCHITECT, INC. 2215 Grand Avenue, Oakland, CA, dated 12/14/20 and consisting of 8 drawing sheets.
- Geotechnical Investigation Report: Prepared by SALEM HOWES ASSOCIATES, INC., 1202 Grand Avenue, Suite F, Novato, CA, dated 9/20/19 and consisting of 33 pages.
- Cultural Resources Valuation: Prepared by ARCHAEOLOGICAL RESOURCE SERVICE, 613 Martin Avenue, Suite 101 Rohnert Park, CA, dated 9/26/19 and consisting of 22 pages.
- Historic Architectural Evaluation: Prepared by PRESERVATION ARCHITECTURE, 446 17th Street #302, Oakland CA, dated 9/8/19 and consisting of 9 pages.
- Additional Documents and Related Application Material : Plant Palette, dated 10/23/20 and consisting of 2 pages; Topographic Survey, dated 3/5/20, prepared by Allco Engineering, P.O. Box 629, Mill Valley, CA, Lighting Specifications consisting of 10 pages; Material Board; Neighborhood Context consisting of 3 pages; Landscape Plan Review Packet, dated 6/20/16 consisting of 18 pages; Storm Control Plan Template for Small Projects/Single-Family Homes, dated 1/19 and consisting of 7 pages; Quitclaim Deed, dated 12/3/19; Grant Deed, dated 4/21/65; Response Letter to Miles Berger Comments, dated 12/14/20 and consisting of 2 pages; Letter, dated Lea and Braze Engineering, Inc. response letter dated 12/11/20 consisting of 1 page; Application For Variance, no date

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referenced and consisting of 2 pages; Application For Exception to Total Floor Area, no dated referenced and consisting of 3 pages.

PROJECT DESCRIPTION

The subject property is located on the west side of Belvedere with views of Richardson Bay and Mount Tamalpais to the northwest, the Golden Gate Bridge to the south, and the Bay Bridge along with San Francisco to the southeast. The lot is irregularly teardrop-shaped, with a very steep and challenging topography and is shown to have a net 11,573 square footage, which is significantly under the required lot area usually found within the R-15 zoning district. The applicant is proposing to replace the existing 3,310-square-foot Storybook-style two-story older home that currently occupies the property with a new 4,533-square-foot multi-story Contemporary-style home with an 800-square-foot Accessory Dwelling Unit (ADU), along with all necessary site and landscaping improvements. The existing home, although resembling a much older architectural style, was actually constructed in 1965 and, based on the historic architectural evaluation prepared by the applicant's historian consultant, has no historical significance to the city.



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The applicant is requesting that the city grant approval of the Design Review Application currently under consideration, in addition to an Exception to Total Floor Application to allow the new home to exceed the 33% or 3,819.09-square-foot maximum F.A.R and a Variance Application, to permit the new concrete retaining located within the side and rear yard setbacks to exceed the 4-foot maximum height allowed in this zoning district. They are also submitting an Accessory Dwelling Unit Application so they may construct a new 800-square-foot ADU below the main floor level within the main footprint of the new home.

The architect is proposing to place the new home in approximately the same location as the existing older home that is to be removed, allowing the project to reuse the existing driveway and most of the existing retaining walls, which in turn, reduces the earthwork and grading required, along with the disturbance of the surrounding landscape and the removal of many of the existing large oaks and cypress trees found on the property.

New Two-Story Residence With Attached Garage and Accessory Dwelling Unit (ADU)

The main axis of the new home has been slightly rotated in alignment with the upper most northern property line. This allows the project to fit within the tight constraints of the site's topography and to better utilize the only existing flat and level areas found on the property.

The massing of the home has been broken down into two block-like forms or wings, one setback from the other, and separated by a centrally placed glazed core which connects the two. The arrangement of the building's forms reflects how

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the architect has cleverly organized and arranged the internal spaces of the home in relationship to the site's steep and challenging topography.

The uphill or north wing of the home contains the two-car garage, laundry room, guest bath, and study. It has been placed approximately 4'-0" above the main entrance level to the home from the driveway. The study on the main floor level enjoys views of the infinity pool and Richardson Bay beyond. Off this room, a small outdoor patio is attached and leads from a set of steps to the pool terrace and infinity pool below. Placed on the upper floor level above are the gym and two separate bedrooms and bathrooms. The gym above the garage enjoys views of Richardson Bay and Mount Tamalpais; the middle bedroom has views of the upward-sloping terrain to the north; the second bedroom enjoys views of Richardson Bay and the San Francisco Bay Bridge.

Located below the north wing at the driveway level on the main floor is the primary entrance to the home. At this level, the vertical stairs, two-stop elevator, and upper floor bridge that connect each of the upper floor wings to each other are found. The ceiling of the space is shown to be 18'-6" in height and has large floor to ceiling vertical windows placed on each of the outside walls and around the main entrance door. The door itself is shown to be constructed of glass and aluminum, which results in creating a completely transparent passage connection link between the two wings of the home, in addition to providing the maximum viewing enjoyment of the impressive views of Richardson Bay and beyond.

Located across from the two-story entrance floor level is the south wing of the home. It has been positioned at a floor level approximately 2'-7" below the main entrance and on the main level contains the kitchen, dining, and living rooms along with the wraparound cantilevered outdoor balcony. From the living room, sliding glass doors provide access to the south terrace, infinity pool, and spa garden. From the spa garden, a semi-circular foot path and stairs provide access to the pool deck, the pool, and the patio off the study above. Placed below the main floor level crawl space, the applicant is proposing an accessory dwelling unit (ADU), which can only be accessed from an outdoor staircase that leads from a small outdoor landing to the south terrace above.

On the upper floor above, the master bedroom suite, and outdoor wraparound roof balcony are placed. The rooms on both the main and upper floor levels of this wing have been designed with open floor plans so as not to obstruct the important panoramic views of Richardson Bay, Marin, and San Francisco from the interior spaces of the home.

The architect has designed each building's elevation in an imaginative, compositionally pleasing, and visually cohesive manner in an effort to make the building more transparent and less massive. In stepping back the structure to fit within the existing land form and features found on the site, in addition to utilizing large horizontal wraparound floor-to-ceiling glass windows and doors, cantilevered walkways and balconies, and projecting shading design elements all successfully



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deemphasize the verticality of the building, creating a less bulky and imposing structure when viewed from the neighboring properties.

DESIGN ANALYSIS

20.04.110 Preservation of Existing Site Conditions.

The architect is proposing to place the new structure in the general location of the older home that is to be removed and to reuse the existing driveway and most of the existing site retaining walls to avoid unnecessary disturbance of the existing landscape grading and other earthwork. The site plan shows that the downward-sloping driveway retaining walls are to be repositioned and slightly expanded in width to provide better vehicular maneuverability and to construct an additional on-site parking space, along with a cantilevered turnaround backup space in front of the new home. The majority of the uphill retaining wall that starts from the driveway and stretches across the entire length of the property, hugging the northern lot lines above, will also remain, except for the section of the wall that borders the two neighbors located at the northeastern corner of the property. The drawings show a new concrete wall to be built replacing this wall section so that the hillside may be graded level to provide space needed for the new patio and pool terrace in addition to providing greater passage distance between the wall of the new study and the existing retaining wall along the north side of the building and to remove a small section of the existing retaining wall that currently extends into the neighbor's property to the east.

The existing lower semi-circular patio retaining wall occupying the project's rear yard is to remain as well, except for the wall sections that interfere with the construction of the new larger footprint of the home, the swimming pool, and the other proposed site features and amenities shown in the drawing.

Other than the thirteen existing trees of various sizes that appear to fall within the new building footprint, along with the trees impacted by the site's grading operation, almost all other large established oaks and Monterey cypress trees found at the site are to remain and will be reincorporated as part of the project's new landscape plan. All other existing site amenities and landscaping are to be replaced with new.

Comment:

Staff may wish to direct the applicant to retain a certified arborist for this project to examine the proposed drawings and make recommendations as to what methods may be implemented during the construction operation to avoid adverse impacts caused by the earthwork and grading needed to construct the proposed concrete driveway retaining walls in and around the existing 36-inch and 24-inch Monterey cypress trees. Although the architect is proposing to cantilever the driveway turnaround above, and has endeavored to provide a distance of separation between these retaining walls and the bases of these trees, there still could be



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some element of concern because of the depth that may be required for their foundations. The retaining wall detail diagramed on Sheet A6.0 indicates only that the foundation dimensions are to be determined, which could differ depending on the actual height of these walls. And since these large established trees, along with the other existing oaks located below the driveway and near the neighboring property lines, are critical for maintaining privacy between each of the contiguous neighbors, and to ensure that the home when completed, blends into its surrounding coastal hillside landscape, special attention should focus on ensuring that measures be taken to ensure their continued health.

20.04.120 Relationship Between Structures and the Site.

The architect has successfully maintained a balanced and harmonious relationship between the new proposed residence and its site. The incorporation of many of the site's original development features (e.g., driveway, retaining walls, original building placement, etc.) into the design of this home has significantly reduced the need to disturb the existing building site outside the new building's footprint. In addition, in breaking up the floor levels of the home into multiple levels corresponding to the site's steeply sloping topography, the building's height and mass have been significantly reduced, allowing the home to visually fit within its coastal hillside surroundings.

20.04.130 Minimizing Bulk and Mass.

The new home has been thoughtfully designed to avoid monotony and the appearance of excessive scale and bulk, allowing it to fit the character of its setting and the surrounding neighborhood. Placing the new home in generally the same location as the older home that is to be removed, arranging the floor plan into two rectangular wings with one stepped back from the other so that they better correspond to the existing topography found at the site, works extremely well to reduce the appearance of bulk as seen from the neighboring properties. Also, utilizing other design elements and features such as large ribbon horizontal windows, large wraparound floor-to-ceiling glass windows and doors, cantilevered walkways and balconies, along with projecting roof overhangs, in addition to the horizontal wood siding, will all help to deemphasize the verticality and mass of the home.

Although the project drawings show a number of large retaining walls to be used, they are existing and have mature and established trees along with other vegetation near or at the property line that are proposed to remain, which offers the needed visual screening to help obscure the vertical mass of the new home that may be viewed by neighbors to the east and west of the site.

20.04.140 Materials and Colors Used.



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The materials and colors selected for this project are well suited to both the architectural style of the home and the site and should collectively minimize the structure's visual impact and easily blend in with its surrounding coastal hillside landscape. The architect is proposing to use a board-formed concrete finish on all retaining walls along with brushed basalt finish stone pavers on all pathways, patios, and terrace wall surfaces. The exterior walls of the new home are shown to be clad in resilient wood 1 x 8 IPE siding. All metals, including windows, sliding doors, sun canopy, and fascia materials, are shown to have an applied dark anodized finish. Guardrails are to have a brushed stainless-steel finish with tempered glass infill panels. Each building material appears to be durable and appropriate and should be compatible with and complement the materials and colors of the nearby homes in the immediate vicinity.

20.04.150 Fences and Screening.

No details for fences or other site screening devices were provided at the time of this review.

Comment:

Staff may wish to ask the applicant's landscape architect to provide further details for all fences, stair railings, and guardrails. Fences should be compatible with the design of the site, the structure, and the landscaping as a whole. Special attention should be paid to garbage area screening and mechanical and pool equipment that may be viewed from the public right-of-way and neighboring properties.

Fences and other screening should preserve privacy between adjacent homes without significantly blocking important view corridors and should be designed and located so that they are architecturally compatible and aesthetically attractive with the design of the new home, and do not significantly block views from the public or neighboring properties.

20.04.160 Privacy.

Based on the proposed building's footprint, site orientation, and proposed window locations in relation to the adjoining neighbors, the design appears to be respectful of each adjoining neighbor's privacy and should have a minimum visible impact on the immediate contiguous properties.

Unfortunately, the width of Cliff Road in front of this property restricts the creation of additional off-street vehicular parking because of the steepness of the upper hillside's topography. The actual off-roadway parking available appears to be directly in front of 43 Cliff Road, the neighbor across the road to the east and below the subject property. However, since the existing driveway and stone-clad retaining walls and columns are to remain and only minimal alterations are planned to expand the driveway above to construct the new parking space above,



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the current roadway conditions should remain essentially the same as before, with little if any additional privacy intrusion that may affect this neighbor.

20.04.170 Drives, Parking, and Circulation.

The applicant is proposing to utilize and widen the existing driveway connecting the property to Cliff Road, which crosses the front of the property. Although the widening of this driveway will help in providing better vehicular maneuvering turnaround space and add one additional onsite parking space in general, any change to both the pedestrian safety and traffic flow currently experienced along this section of Cliff Road will probably be negligible.

20.04.180 Exterior Lighting, Skylights, and Reflectivity.

From the lighting specification sheets and the Landscape Lighting Plan provided, the applicant is to provide an assortment of exterior lighting for this project, with all fixtures to be LED light stand-alone path and wall-type fixtures, led strip lighting, wall sconces, or recessed down lights. Each new light fixture is to be shielded and should not create excessive glare, hazard, or annoyance to the immediate neighbors or passers-by if correctly placed in the general locations as shown.

Comment:

Staff may wish to ask the applicant's architect if the two non-shielded wall-recessed light fixtures located in the stone columns at each side of the driveway are to be replaced or reused. The Landscape Lighting Plan does not specify.

20.04.190 Consideration of Nonconformities.

The property located at 30 Cliff Road is within the R-15 zoning district, where the minimum lot size is 15,000 square feet. It is an unusually shaped and steeply sloping hillside lot and is shown to have a gross lot area of only 13,740 square feet. It also has a road easement running across the lower portion of the side that reduces the actual size of the lot to only 11,573 square feet in total area. The maximum F.A.R. is shown to be 33% or 3,819 square feet, the maximum lot coverage allowed for the structure is 30% or 3,472 square feet, and for the gross lot coverage a maximum of 50% or 5,786 square feet is allowed. The current house that occupies the site is shown to have an F.A.R. of 28.6 % or 3,310 square feet, lot coverage by the structure of 17.5% or 2,020 square feet, and gross lot coverage of 42.1% or 4,868 square feet.

The applicant is proposing the new multi-level home to have a total F.A.R. of 39% or 4,533 square feet with an 800-square-foot accessory living unit (ADU) that is to be placed within the crawl space beneath the main floor level. Although the proposed F.A.R. exceeds the maximum by 713.92 square feet (excluding the allowed additional square footage of the ADU), the actual lot coverage for the new



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structure is shown to be under the allowable by 1,054 square feet, or 21% versus 30%. The same is true with the proposed gross lot coverage, which is shown at 4,742.5 or 41%, as opposed to 5,786.5 or 50%. Given the uniqueness of this irregular teardrop shaped lot, its overall size relative to other properties within this same R-15 zoning district, and the site's challenging topography, there certainly appears room to show some favor in granting the applicant's Application for Variance in addition to their Application for Exception to Total Floor Area, especially because of its unusual nonconforming size of the lot.

20.04.200 Landscape Plans—Purpose.

The proposed landscape plans incorporate a rich combination of trees, flowering shrubs, perennials, ground-covering plants, and vines should fully complement and enhance the architectural style of the home, and are compatible with the character of the site and surrounding hillside properties. The reuse of the existing site features such as the driveway and the retaining walls not only reduces the amount of earthwork and grading required but also minimizes the disturbance of the surrounding landscape and the removal of the established oaks and cypress trees found on the property, which are critical in ensuring the privacy between properties and for the project, once completed, to fully blend in.

20.04.210 Landscape Plans—Materials.

Examination of the Plant Schedule on Sheet L-2.0 of the Landscape Drawings shows that most are drought tolerant, with some native to northern California and Marin County. The design also closely adheres to the water conservation requirements mandated by the State Water Efficient Landscape Ordinance as implemented by the Marin Municipal Water District, which should result in an attractive, well-maintained landscape even in the driest of seasons. There also seem to be just the right number and mix of both fast-and slow-growing species of shrubs, trees, and ground-covering plants, which when fully established, along with the large oak and cypress trees that the applicant wishes to retain, will make for a rich and attractive outdoor landscape, protecting privacy without obstructing the important view corridors of the nearby neighbors.

In addition, the other landscape materials that the landscape architect has selected for all paved walks, terraces, and other textured wall surfaces should work well to complement the new home without being visually inconsistent with landscape materials found in other landscapes in close proximity to the applicant's property.

RECOMMENDATIONS

Other than the concerns expressed above, it is my opinion that the proposed design for this new home located at 30 Cliff Road generally complies with the



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design requirements outlined under Title 20, Architectural & Environmental Design Review, Section 20.04.050 and 20.04.110—20.04.210 of the City of Belvedere Municipal Code.



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Correspondence

From: Nancy Cappelloni <Nancy@Cappelloni.net>
Sent: Thursday, January 7, 2021 9:53 PM
To: Ben Jacoby <benjacoby@earthlink.net>; Devorah Jacobi <desjacoby@hotmail.com>
Subject: 30 Cliff Road Project

Hi Ben and Devorah,

Sorry we will be missing the Planning Commission meeting since we are out of town, but we would like our opinion about the proposed project at 30 Cliff Road to be forwarded to both the Planning Commission and your architect:

We are in favor of your plans and have no objections to them.

We think the plans are spectacular, and you should end up with a fabulous home.

Good luck,
Nancy and Bob Cappelloni

303 Belvedere Avenue
Belvedere, CA 94920

Hello Rebecca,

Please see below our correspondence with the Koppl's regarding the Nov. 4 email from Mr. Berger. We are happy to let you know we have worked with the Koppl's to resolve any concerns they may have had previously.

Please include this in the project correspondence file.

Kind regards,

Ben Jacoby
415.789.5040

From: wildcathill@aol.com <wildcathill@aol.com>
Sent: Thursday, December 3, 2020 3:59 PM
To: benjacoby@earthlink.net
Subject: Re: Nov 4 email from Miles Berger

We confirm the conversation as referenced above.
We agree.
Regards,
Rudi

ATTACHMENT 9

-----Original Message-----

From: Ben Jacoby <benjacoby@earthlink.net>
To: wildcathill@aol.com; 'Mark Swanson' <mark@jambaconstruction.com>
Cc: 'Devorah Jacoby' <desjacoby@hotmail.com>
Sent: Thu, Dec 3, 2020 2:46 pm
Subject: RE: Nov 4 email from Miles Berger

Hello Annette, Rudi and Mark,

Thank you for our calls this Tuesday concerning the email below that Miles sent to Belvedere Planning on Nov 4. Am writing you to confirm our conversation, specifically that you did not ask Miles to send the below email to planning. Also, I understand that in any event, we have fully addressed any concerns that you previously had on our project, and that you support our application.

We would appreciate a return email from you indicating the above at your earliest convenience.

Further, we very much appreciate the collaborative efforts that you and we have taken in respect of each of our projects. We look forward to continuing to work with you on this basis, and of course we are always available to discuss any concerns you have.

All the best,

Ben Jacoby
415.789.5040

From: Miles Berger <miles@mb-aia.com>
Sent: Wednesday, November 04, 2020 3:21 PM
To: Irene Borba - Planning Director <iborba@cityofbelvedere.org>; Rebecca Markwick - Senior Planner <AssociatePlanner@cityofbelvedere.org>
Cc: Mark Swanson <mark@jambaconstruction.com>; Rudolph Koppl <wildcathill@gmail.com>; Annette Koppl <wildcathill@aol.com>
Subject: Questions Re: 30 Cliff Road Application

Dear Irene and Rebecca,

I was asked to look at the application drawings for Planning for 30 Cliff Road. This is to be built across the street from our residence at 46 Cliff Road.

In general it is a beautiful residence but I noticed some elements to their site plan that are contrary to what I believe are the planning standards for Belvedere. These are particularly critical as respects the proximity to Cliff Road right across from our entry area.

I have scanned two elements from their plans and I've marked some numbers on them to guide the discussion.

Site Plan - Sheet A:

1 - Notice that large section of Cliff Road is within their site. The owner suggested to me that this was to be included in their site area for purposes of FAR calculation. I suspect they are in no difficulty on Area but as you know this area may not be included in "buildable site area" as was the case on #46 and #43. You might ask them to be sure they have their numbers right. The area should be measured from the street edge discounting the area in the street.

2 - The same is true of the setback line. They measure it from the property line in Cliff Road rather than the street edge. We have had to measure from the street edge on both our designs, as confirmed by

you. I'm pretty sure this is correct and that would push their side yard back a few critical feet. Can you confirm for us?

3 - Note at Number 3 that a balcony and a sun screen — basically **both overhangs, are within the side yard setback**. Irene you specifically confirmed to me last week that this is not according to Belvedere Code but rather that overhangs may not intrude in setbacks. Again, is this true and are they in error here?

Elevation - Sheet B:

4. - Note on #4 on both sheets that the corner of the house is within 4' ± of Cliff Road. Cliff Road (from their own topo) is at EL. 58; and the top of the roof just 4' away is at El. 109' That means that the **structure at the corner is 51' tall just 4' from the edge of the street**. This is a problem for the owners at 46 Cliff.

5 - This shows the deck and overhang out from the wall of the structure within the side yard setback. Again, I understand this to not be within Belvedere's practice.

Our preference is to get these worked out prior to Commission. We would far prefer to go into the meeting and support the Jacobys and it is this proximity — easily solved — that is generally our only issue with the design.

Can you take a look at this for us? Call or email me — or perhaps we should meet?

Thanks,

Miles Berger

From: Steve Silberstein <stevesilberstein@hotmail.com>

Sent: Tuesday, December 22, 2020 12:03 PM

To: Ben Jacoby <benjacob@earthlink.net>; Dev Jacoby <desjacob@hotmai.com>

Subject: Plans for 30 Cliff Road, Belvedere

Ben and Dev,

Thanks for showing me the plans you have had your architect draw up for your proposed new house at 30 Cliff Road, Belvedere.

The design looks really lovely and I hope that the City approves it quickly and without any difficulties so you can get started (and finished!) with the construction as soon as possible.

Sincerely,

Your neighbor

Steve Silberstein

1 Cliff Road

Belvedere, CA 94920



1. NORTH ELEVATION

PROPOSED NEW RESIDENCE • 30 CLIFF ROAD

REGAN BICE ARCHITECTS



2. SOUTH ELEVATION

PROPOSED NEW RESIDENCE • 30 CLIFF ROAD

REGAN BICE ARCHITECTS



3. VIEW FROM DRIVEWAY

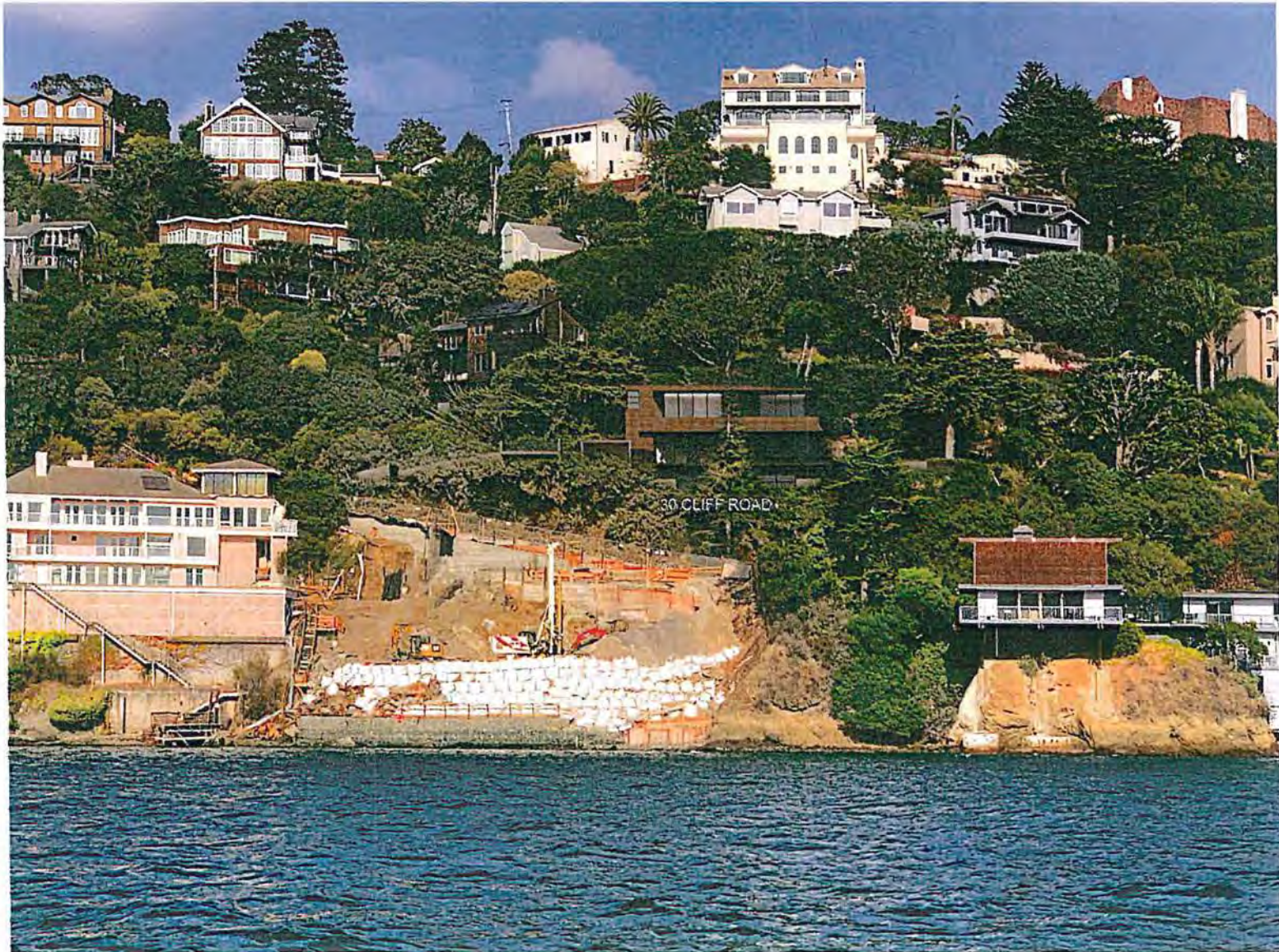
PROPOSED NEW RESIDENCE • 30 CLIFF ROAD

REGAN BICE ARCHITECTS



NEIGHBORHOOD CONTEXT • 30 CLIFF ROAD

REGAN BICE ARCHITECTS



NEIGHBORHOOD CONTEXT • PROPOSED HOUSE • 30 CLIFF ROAD

REGAN BICE ARCHITECTS



NEIGHBORHOOD CONTEXT • PROPOSED HOUSE • 30 CLIFF ROAD

REGAN BICE ARCHITECTS



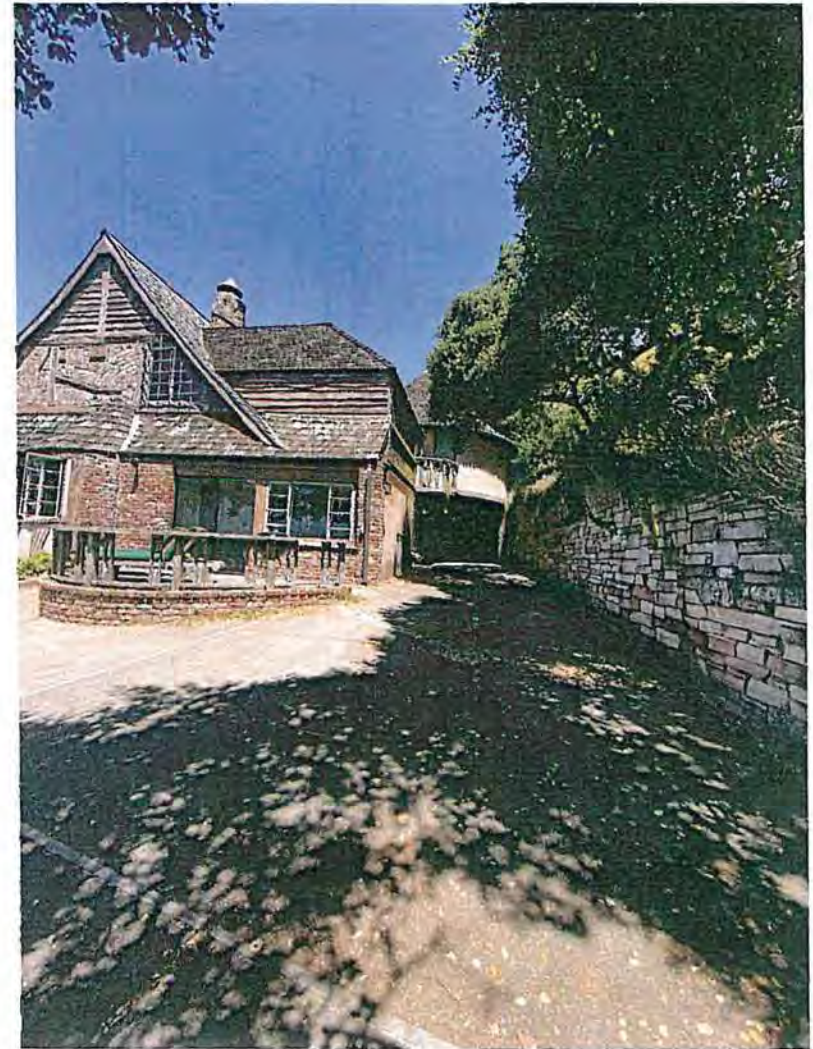
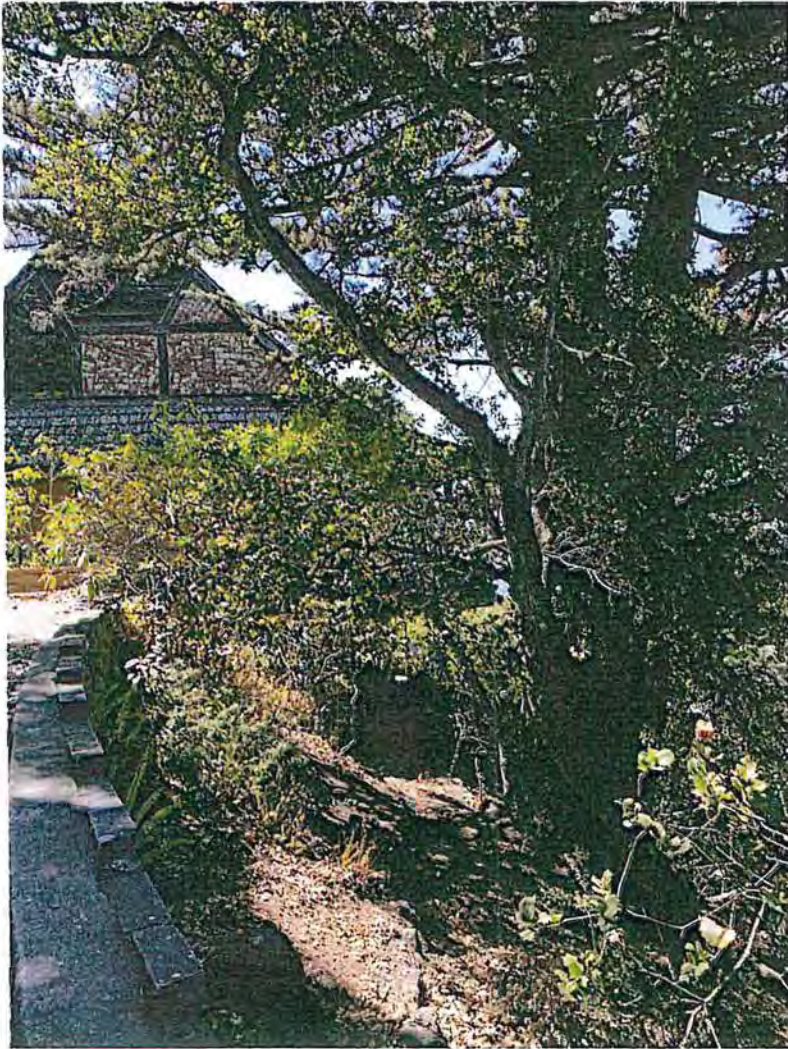
1. VIEW FROM CLIFF ROAD LOOKING UP DRIVEWAY



2. VIEW OF CLIFF ROAD AT SOUTHWEST PROPERTY LINE

PHOTOS OF EXISTING HOUSE AND SITE • 30 CLIFF ROAD

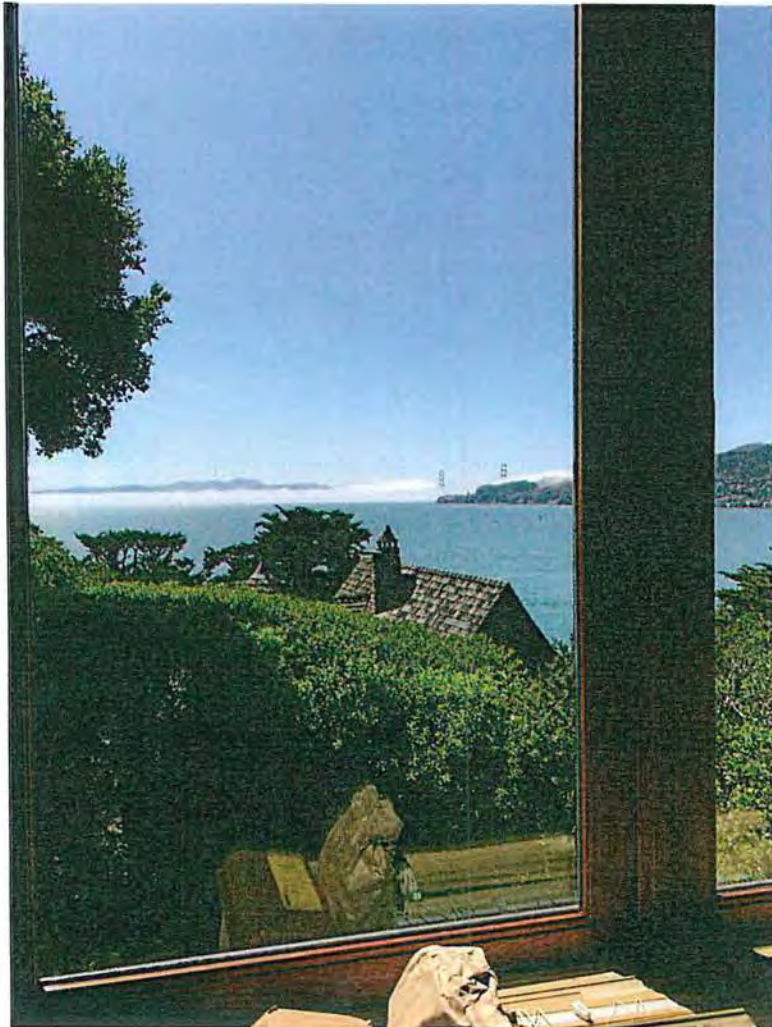
REGAN BICE ARCHITECTS



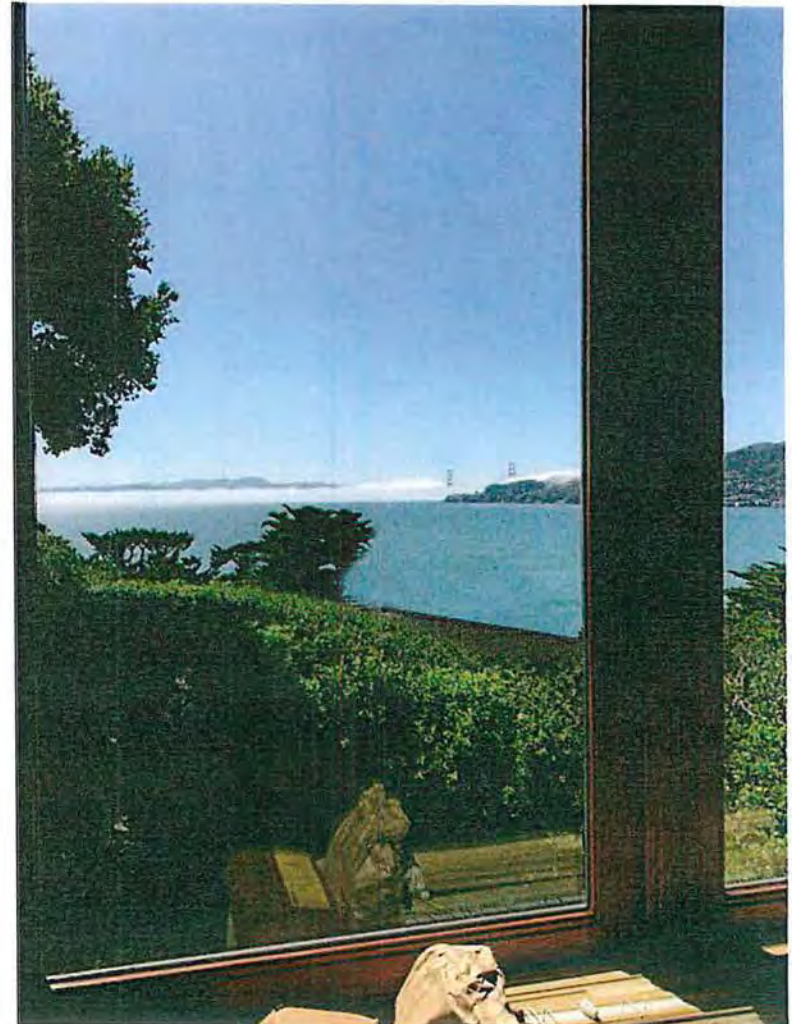
3. VIEW FROM DRIVEWAY LOOKING SOUTH TOWARDS EXISTING HOUSE 4. VIEW OF HOUSE FROM REAR PROPERTY LINE LOOKING NORTH

PHOTOS OF EXISTING HOUSE AND SITE • 30 CLIFF ROAD

REGAN BICE ARCHITECTS



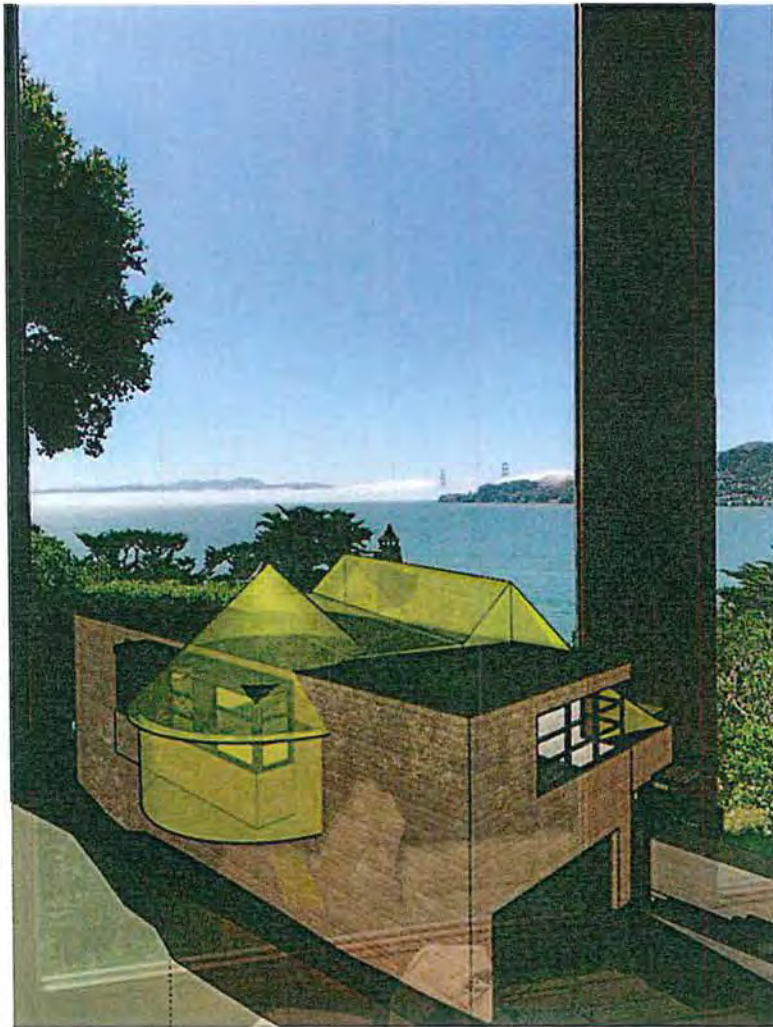
1. EXISTING VIEW FROM DINING ROOM WINDOW



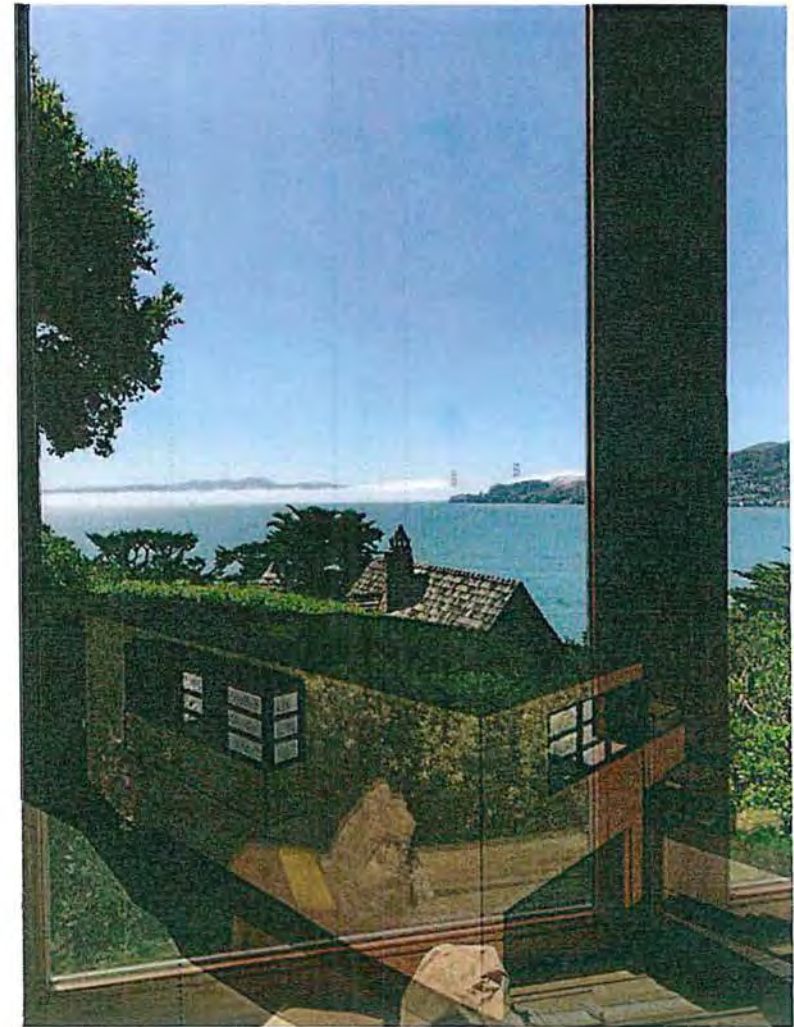
2. PROPOSED VIEW FROM DINING ROOM WINDOW

VIEW IMPACT FOR 303 BELVEDERE AVENUE • 30 CLIFF ROAD

REGAN BICE ARCHITECTS



3. SCHEMATIC MASSING COMPARISON



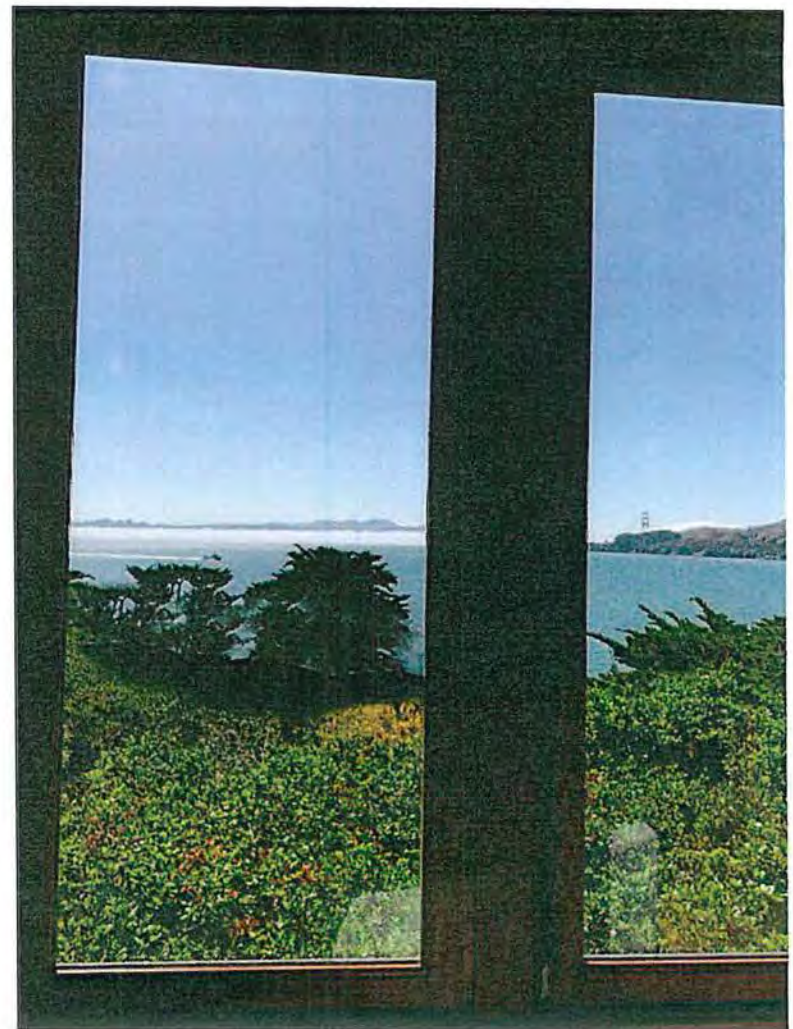
4. MASSING COMPARISON

VIEW IMPACT FOR 303 BELVEDERE AVENUE • 30 CLIFF ROAD

REGAN BICE ARCHITECTS



5. EXISTING VIEW FROM LIVING ROOM WINDOW



6. PROPOSED VIEW FROM LIVING ROOM WINDOW

VIEW IMPACT FOR 303 BELVEDERE AVENUE • 30 CLIFF ROAD

REGAN BICE ARCHITECTS

LEGEND

VL VERY LOW WATER USE L LOW WATER USE M MEDIUM WATER USE



Quercus agrifolia
Coast Live Oak



Podocarpus gracillor
Fern Podocarpus



Podocarpus 'Icee Blue'
Icee Blue Podocarpus



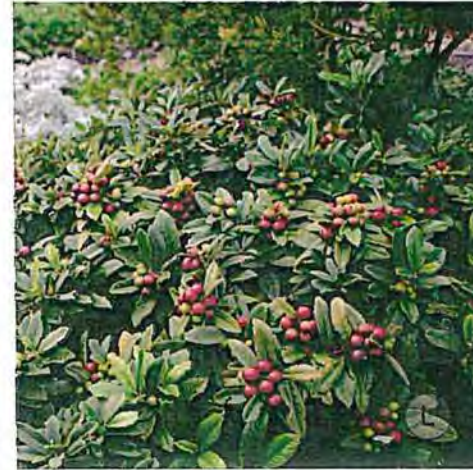
Sarcococca ruscifolia
Fragrant Sweet Box



Olea europaea 'Little Ollie'
Little Ollie Olive



Westringia fruticosa 'Low Horizon'
Low Horizon Coast Rosemary



Rhamnus californica 'Leatherleaf'
Leatherleaf Coffeeberry



Ficus pumila 'Minima'
Minima Creeping Fig

JACOBY RESIDENCE PLANT PALETTE
TREES & SHRUBS

10.23.2020

DAVID THORNE
LANDSCAPE ARCHITECT CLA 2274
3315 GRAND AVENUE
OAKLAND CALIFORNIA 94610
1.510.451.6161 WWW.THORNELA.COM

GRASSES



Miscanthus sinensis & Miscanthus sinensis 'Adagio'
Maidenhair Grass & Adagio Maidenhair Grass



Lomandra 'Platinum Beauty' & Lomandra 'Lime Tuff'
Variegated Lomandra & Lime Tuff Dwarf Mat Rush



Calamagrostis 'Karl Foerster'
Feather Reed Grass



Helictotrichon sempervirens
Blue Oat Grass

GROUNDCOVER



Helichrysum petiolare
Licorice Plant



Dymondia margaretae
Silver Carpet



Ribes viburnifolium
Evergreen Currant



Rubus calycinoides
Creeping Raspberry

JACOBY RESIDENCE PLANT PALETTE

GRASSES & GROUNDCOVERS

10.23.2020

DAVID THORNE
LANDSCAPE ARCHITECT CLA 2274
3315 GRAND AVENUE
OAKLAND CALIFORNIA 94610
1.510.451.6161 WWW.THORNELA.COM

30 CLIFF ROAD MATERIAL BOARD



DARK ANODIZED METAL

1. METAL FASCIA
2. METAL WINDOW SYSTEM
3. METAL BREAKFORM
5. SUN CANOPY



WOOD SIDING

4. 1 X 8 IPE PLANKS
5. WOOD INFILL AT SUN CANOPY



STAINLESS STEEL

6. METAL GUARDRAIL



BOARD FORMED CONCRETE

7. NEW RETAINING WALLS



STONE

- THERMAL AND BRUSHED BASALT PAVERS

Application

LED recessed wall luminaire with asymmetrical light distribution for the illumination of ground surfaces, building entrances, stairs and footpaths.

Materials

- Luminaire housing constructed of die-cast aluminum marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
- Clear safety glass
- Silicone applied robotically to casting, plasma treated for increased adhesion
- High temperature silicone gasket
- Mechanically captive stainless steel fasteners
- Stainless steel screw clamps
- Composite installation housing

NRTL listed to North American Standards, suitable for wet locations
 Protection class IP65
 Weight: 1.8 lbs

Electrical

Operating voltage	120-277VAC
Minimum start temperature	-40° C
LED module wattage	5.9W
System wattage	8.0W
Controlability	0-10V, TRIAC, and ELV dimmable
Color rendering index	Ra > 80
Luminaire lumens	342 lumens (3000K)
Lifetime at Ta=15°C	> 500,000 h (L70)
Lifetime at Ta=35°C	185,000 h (L70)

LED color temperature

- 2700K - Product number + **K27**
- 3000K - Product number + **K3**
- 3500K - Product number + **K35**
- 4000K - Product number + **K4**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors	Black (BLK)	White (WHT)	RAL:
	Bronze (BRZ)	Silver (SLV)	CUS:

Type:
 BEGA Product:
 Project:
 Modified:



Fully enclosed luminaire with installation housing ensures seamless integration and weathertight operation.



LED recessed wall luminaires - asymmetrical

	LED	A	B	C
33054	5.9W	10 1/8"	2 3/4"	5"

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

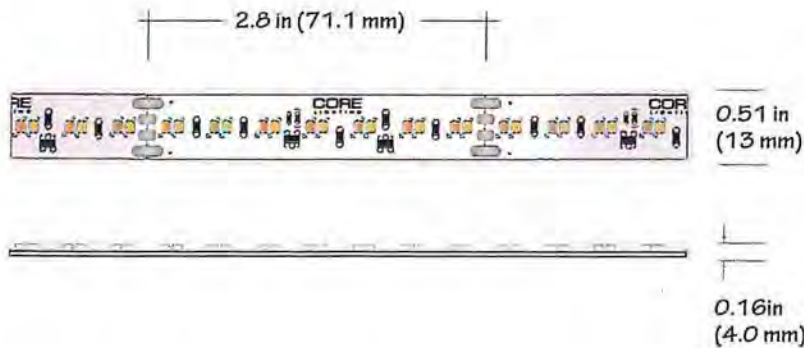
LSMW-35WD 3.6W Outdoor Auto Warm Dim LED Strip

B

CORE
LIGHTING

SPECIFICATION SHEET

JOB NAME: 30 CLIFF ROAD
 LOCATION: STEP LIGHTS
 QUOTE/REF#: _____



Auto Warm-Dim outdoor LED strip with smart chip technology using a standard wall box dimmer, this LED light source automatically shifts color temperature from 3000K down to 1800K as it is being dimmed down like traditional incandescent lighting. **LSMW-35WD** provides warm-dim technology at a fraction of the price without the need for any special control system. Its technologically advanced circuit puts the **LSMW-35WD** at the forefront of lighting innovations geared towards functionality and energy efficiency.

SPECIFICATIONS

INPUT VOLTAGE	24V DC
POWER CONSUMPTION	3.6W per foot
LUMEN OUTPUT	348 Lumens per foot (30K)
NO. OF LEDs	64 LEDs per foot
BEAM ANGLE	120°
CRI	90+
DIMMING	CL dimmers & PSDL Series
MAXIMUM RUN LENGTH	16.Feet
FIELD CUTTABLE	Every 2.8 in
IP RATING	IP65 wet location (outdoor)
LUMEN MAINTENANCE	50,000 hrs.
OPERATING TEMPERATURE	-40°F(-40°C)~+140°F(+60°C)
BINNING	1.5 Step Macadam Elipse
CERTIFICATIONS	UL listed, TITLE 24 JA8
DIMENSIONS	0.51" x 0.16 (width x height)

FEATURES

- 3.6W per Foot
- 348 Lumens (30K)
- Auto warm-dim technology
- Field cuttable
- Suitable for accent or ambient lighting
- **NO SPECIAL CONTROLLERS REQUIRED**
- Superior COLOR RENDERING INDEX (CRI)
- Architectural grade LED lighting
- Ideal for commercial and residential applications
- Works with CL dimmers and PSDL Series drivers

	COLOR TEMP	CRI	LUMEN/FT
	1800K	90	315
	2700K	90	348
	3000K	90	348



LSMW-35WD 3.6W Outdoor Auto Warm Dim LED Strip

B



STANDARD ORDERING CODE

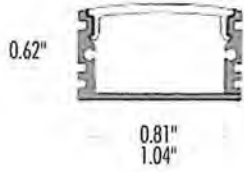
Model	Color Temp	Length	Voltage
LSMW-35WD	18K/27K - 1800K/2700K 18K/30K - 1800K/3000K	16 - 16.4 Ft. PF - Per foot	24V - 24V DC

CUSTOMIZED LENGTH ORDERING CODE

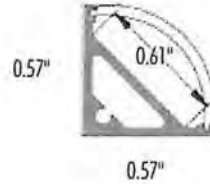
Model	Color Temp	Length	Voltage	Profile
LSMW-35WD	18K/27K - 1800K/2700K 18K/30K - 1800K/3000K	XX - Custom Length	24V - 24V DC	See p3

LSMW-35WD 3.6W Outdoor Auto Warm Dim LED Strip

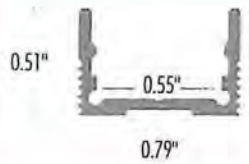
COMPATIBLE ALUMINUM PROFILES



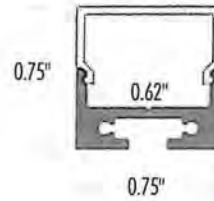
ALU-DS100 | SURFACE MOUNT
LENGTHS 39 ^{3/8}" and 78 ^{7/8}"
LENS Clear & Frosted
FINISH Anodized Aluminum



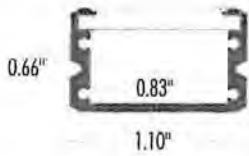
ALP-50C | SURFACE / CORNER MOUNT
LENGTHS 49.25" and 98.5"
LENS Frosted
FINISH Anodized Aluminum



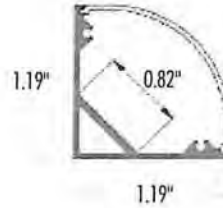
ALP-70 | SURFACE MOUNT
LENGTHS 49.25" and 98.5"
LENS Frosted
FINISH Anodized Aluminum



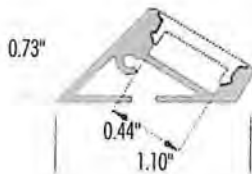
ALP-80 | SURFACE OR SUSPENSION MOUNT
LENGTHS 49.25" and 98.5"
LENS Frosted
FINISH Anodized Aluminum



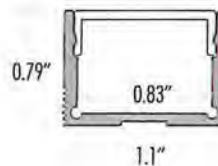
ALP-90 | SURFACE MOUNT
LENGTHS 48" and 96"
LENS Frosted
FINISH Anodized Aluminum



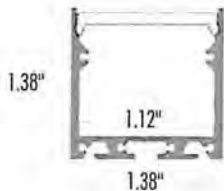
ALP-100C | SURFACE / CORNER MOUNT
LENGTHS 49.25" and 98.5"
LENS Frosted
FINISH Anodized Aluminum



ALP-110 | SURFACE MOUNT
LENGTHS 49.25" and 98.5"
LENS Frosted
FINISH Anodized Aluminum



ALP-130 | SURFACE / SUSPENSION MOUNT
LENGTHS 49.25" and 98.5"
LENS Frosted
FINISH Anodized Aluminum



ALP-140 | SURFACE / SUSPENSION MOUNT
LENGTHS 49.25" and 98.5"
LENS Frosted
FINISH Anodized Aluminum

COMPATIBLE TRANSFORMERS



PSDL 24V SERIES | TRIAC DIMMABLE

PSDL-30W-24V	CLASS 2	6.5" x 3.63" x 1.03"
PSDL-60W-24V	CLASS 2	7.4" x 3.63" x 1.03"
PSDL-96W-24V	CLASS 2	8.67" x 3.67" x 1.62"
PSDL-150W-24V	CLASS 2	8.67" x 3.67" x 1.62"
PSDL-192W-24V		10.25" x 4.06" x 1.82"
PSDL-200W-24V		10.25" x 4.06" x 1.82"
PSDL-288W-24V		10.25" x 4.06" x 1.82"
PSDL-300W-24V		10.25" x 4.06" x 1.82"



PSVT SERIES 0-10V DIMMING WITH JUNCTION BOX

PSVT-60W-24V-UNV-010	CLASS 2	7.4" x 3.72" x 1.57"
PSVT-96W-24V-UNV-010	CLASS 2	8.66" x 3.72" x 1.57"
PSVT-200W-24V-UNV-010		10.24" x 4.13" x 1.77"
PSVT-288W-24V-UNV-010	CLASS 2	11.85" x 4.25" x 1.81"
PSVT-300W-24V-UNV-010		10.94" x 4.33" x 1.77"

C

An architectural profile reminiscent of beautifully classic roof lines delivers significant light output in this modern LED wall sconce suitable for both indoor and outdoor applications. The Pitch Single's die-cast metal body houses powerful LED light sources that create visual appeal as light cascades down along a wall.

Outstanding protection against the elements:

- Powder coat finishes
- Stainless Steel mounting hardware
- Impact-resistant, UV stabilized frosted acrylic lensing

Can be mounted for up lighting or down lighting

SPECIFICATIONS

DELIVERED LUMENS	822.6
WATTS	26.2
VOLTAGE	120V, 277V
DIMMING	ELV
LIGHT DISTRIBUTION	Symmetric
MOUNTING OPTIONS	Downlight or Uplight
CCT	2700K, 3000K
CRI	80+
COLOR BINNING	3 Step
BUG RATING	B1-U0-G0
DARK SKY	Compliant (Downlight)
WET LISTED	IP65
GENERAL LISTING	ETL
CALIFORNIA TITLE 24	Can be used to comply with CEC 2019 Title 24 Part 6 for outdoor use. Registration with CEC Appliance Database not required.
START TEMP	-30°C
FIELD SERVICEABLE LED	No
CONSTRUCTION	Aluminum
HARDWARE	Stainless Steel
FINISH	Powder Coat
LED LIFETIME	L70: >60,000 Hours
WARRANTY*	5 Years
WEIGHT	1.2 lbs.



PITCH SINGLE
shown in black



PITCH SINGLE
shown in bronze



PITCH SINGLE
shown in charcoal

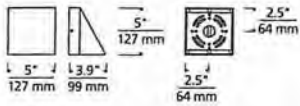


PITCH SINGLE
shown in silver

* Visit techlighting.com for specific warranty limitations and details.

ORDERING INFORMATION

PRODUCT	SIZE	FINISH	LAMP
700WSPIT	S SINGLE	B BLACK	-LED827 LED 80 CRI, 2700K 120V
		Z BRONZE	-LED827277 LED 80 CRI, 2700K 277V
		H CHARCOAL	-LED830 LED 80 CRI, 3000K 120V
		I SILVER	-LED830277 LED 80 CRI, 3000K 277V



Pitch Single

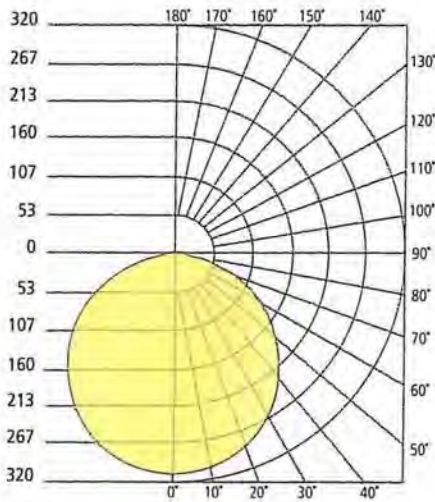


PHOTOMETRICS*

*For latest photometrics, please visit www.techlighting.com/OUTDOOR

PITCH SINGLE

- Total Lumen Output: 822.6
- Total Power: 26.2
- Luminaire Efficacy: 31.4
- Color Temp: 3000K
- CRI: 80+
- BUG Rating: B1-U0-G0



PROJECT INFO

FIXTURE TYPE & QUANTITY	JOB NAME & INFO	NOTES

TECH LIGHTING

VISUAL COMFORT & Co.

7400 Linder Avenue, Skokie, Illinois 60077

T 847.410.4400

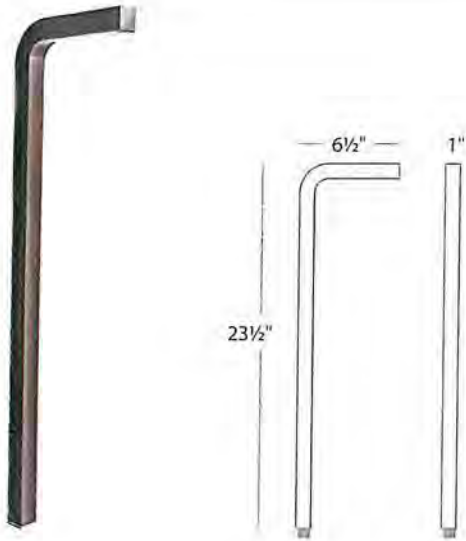
BALANCE SINGLE LED PATH LIGHT

6061



WAC

LANDSCAPE LIGHTING



Fixture Type:

Catalog Number:

Project: 30 Cliff Road

Location: Planters at South Terrace

PRODUCT DESCRIPTION

Sleek linear design blends seamlessly into pathways while providing soft, even illumination

SPECIFICATIONS

Input: 9-15VAC (Transformer is required)
Power: 6.5W / 11.5VA
Brightness: 275 lm
CRI: 90
Rated Life: 60,000 hours

FEATURES

- IP66 rated, Protected against powerful water jets
- Factory sealed water tight fixtures
- Solid diecast corrosion resistant aluminum alloy
- Recommended spacing for installation: Residential 11 to 13ft; Commercial: 7 to 9ft
- Mounting stake, 6 foot lead wire, and direct burial gel filled wire nuts are included
- Maintains constant lumen output against voltage drop
- UL & cUL 1838 Listed



ORDERING NUMBER

		Color Temp	Finish
6061	Single Balance	27 2700K Warm White	BZ Bronze on Aluminum
		30 3000K Pure White	BK Black on Aluminum

6061- 30 BZ

Example: **6061-30BZ**

wacighting.com
 Phone (800) 526.2588
 Fax (800) 526.2585

Headquarters/Eastern Distribution Center
 44 Harbor Park Drive
 Port Washington, NY 11050

Central Distribution Center
 1600 Distribution Ct
 Lithia Springs, GA 30122

Western Distribution Center
 1750 Archibald Avenue
 Ontario, CA 91760

WAC Lighting retains the right to modify the design of our products at any time as part of the company's continuous improvement program.

BALANCE SINGLE LED PATH LIGHT

6061

Surface Mount Flange/Stake



Includes three 7 inch threaded stainless steel stabilizing pins for ground mounting or surface mounts with four screws or over a junction box

5000-SCP-BZ*Bronze on Aluminum*

Additional Mounting Stake

**9000-ST9-BK***Durable PVC stake*

Guardian Mount

*Heavy duty stainless steel spike to position fixture.
Formed from a single piece of metal*

9000-SP9-BZ*Stainless Steel*

Magnetic Transformers

*Stainless Steel, 12-15V output, IP65 rated, UL 1838 listed
See transformer spec sheet for details and its accessories*

9075-TRN-SS*75W Max***9150-TRN-SS***150W Max***9300-TRN-SS***300W Max***9600-TRN-SS***600W Max*

Application

Designed for down lighting atriums, canopies, passages, and other interior and exterior locations featuring a symmetrical wide beam light distribution.

Materials

Luminaire housing constructed of die-cast marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy
 Faceplate constructed of 316 grade machined stainless steel
 Clear safety glass
 Reflector made of pure anodized aluminum
 High temperature silicone gasket
 Stainless steel screw clamps
 Galvanized steel rough in ceiling pan with through wiring box

NRTL listed to North American Standards, suitable for wet locations
 Protection class IP 65
 Weight: 1.4 lbs

Electrical

Operating voltage	120-277VAC
Minimum start temperature	-20°C
LED module wattage	12.7 W
System wattage	15.5 W
Controllability	0-10V dimming down to 0.1%
Color rendering index	Ra > 85
Luminaire lumens	1038 lumens (3000K)
Lifetime at Ta = 15°C	360,000 h (L70)
Lifetime at Ta = 35°C	270,000 h (L70)

LED color temperature

- 4000K - Product number + **K4**
- 3500K - Product number + **K35**
- 3000K - Product number + **K3**
- 2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

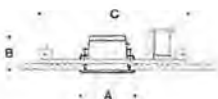
#4 brushed stainless steel.
 Custom colors are not available.
 Stainless steel requires regular cleaning and maintenance, much like household appliances to maintain its luster and prevent tarnishing or the appearance of rust like stains.

Type: E

BEGA Product: 55 826 K3

Project: 30 Cliff Road

Modified:



LED recessed ceiling downlight - wide beam

	LED	β	A	B	C
55826	12.7 W	90°	5%	3 1/4	18

 β = Beam angle

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

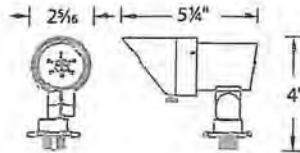
Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega-us.com
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MINI ACCENT 12V

5111

WAC

LANDSCAPE LIGHTING



Fixture Type:

F

Catalog Number:

Project:

Location:

PRODUCT DESCRIPTION

Landscape mini accent luminaire. One fixture replaces all older halogen landscape accent lights

FEATURES

- Continuously Adjustable Beam Angles. Indexed at 10°, 25°, 40°, 50°
- Continuously Adjustable brightness control. Indexed at 1W, 2W, 4W, 6W, 7W
- IP66 rated, Protected against high-pressure water jets
- Solid diecast brass or corrosion resistant aluminum
- Factory sealed water tight fixtures
- Constant output for 9V-15V input
- Can be used as an uplight or downlight
- 2700K or 3000K color temperature
- Mounting stake, detachable shroud, 6' lead wire and direct burial gel filled wire nuts included

SPECIFICATIONS

Input: 9-15VAC
Power: 1W to 7W / 2VA -10.5VA
Brightness: 45 lm to 365 lm
Beam Angle: 10° to 50°
CRI: 85
Rated Life: 70,000 hours

ORDERING NUMBER

		Color Temp	Finish
5111	Mini Accent 12V	27 2700K Warm White	BK Black on Aluminum
		30 3000K Pure White	BZ Bronze on Aluminum
			BBR Bronze on Brass

5111-30

Example: 5111-30BBR

wacighting.com
 Phone (800) 526.2588
 Fax (800) 526.2585

Headquarters/Eastern Distribution Center
 44 Harbor Park Drive
 Port Washington, NY 11050

Central Distribution Center
 1600 Distribution Ct
 Lithia Springs, GA 30122

Western Distribution Center
 1750 Archibald Avenue
 Ontario, CA 91760

WAC Lighting retains the right to modify the design of our products at any time as part of the company's continuous improvement program. JUL 18 2018











MINI ACCENT 12V

5111

WAC

LANDSCAPE LIGHTING

Accessories

Accent Snoot		5111-SNOOT-BK	Black on Aluminum	Shields lamp and reduces glare		
		5111-SNOOT-BZ	Bronze on Aluminum			
		5111-SNOOT-BBR	Bronze on Brass			
5" Long Shroud		5111-LSHR-BK	Black on Aluminum	Reduce glare. Ideal for downlighting application		
		5111-LSHR-BZ	Bronze on Aluminum			
		5111-LSHR-BBR	Bronze on Brass			
Additional Stake		9000-ST9-BZ	Bronze	Durable PVC stake		
Surface Mount Flange/Stake		5000-SCP-BZ	Bronze on Aluminum	Includes three 7 inch threaded stainless steel stabilizing pins for ground mounting or surface mounts with four screws or over a junction box		
		5000-SCP-BBR	Bronze on Brass			
		5000-SCP-BK	Black on Aluminum			
Guardian Mount		9000-SP9-BZ	Stainless Steel	Heavy duty stainless steel spike to position fixture Formed from a single piece of metal		
Gutter Mount Bracket		5000-GM-BZ 5000-GM-BK	Stainless Steel	Stainless Steel universal mounting bracket for gutter mounting fixture		
Tree Mount Junction Box		5000-TCP-BZ 5000-TCP-BK	Bronze on Aluminum Black on Aluminum	Bronze on Aluminum box with Stainless steel mounting screws. Two 1/2" NPT threaded holes		
Optics		LENS-16-AMB	Amber	Enhances saturation of florals and foliage		
		LENS-16-GRN	Green			
		LENS-16-RED	Red			
		LENS-16-BLU	Blue			
		LENS-16-FR	Frosted			
Extension Rods		LENS-16-SPR	Spread	Extends distance between Accent light and Surface Mount Canopy, Stake, or Tree Mount box		
		LENS-16-BEL	Elongating			
		5000-X04-BZ	4 in		5000-X18-BZ	18 in
		5000-X04-BK	4 in		5000-X18-BK	18 in
		5000-X08-BZ	8 in		5000-X24-BZ	24 in
		5000-X08-BK	8 in		5000-X24-BK	24 in
		5000-X12-BZ	12 in			
5000-X12-BK	12 in					
Rod L-Coupler		5000-LCO-BZ	Bronze			

Magnetic Transformers

Stainless Steel, 12-15V output, IP65 rated, UL 1838 listed
See transformer spec sheet for details and its accessories

9075-TRN-SS
75W Max

9150-TRN-SS
150W Max

9300-TRN-SS
300W Max

9600-TRN-SS
600W Max



wacighting.com
Phone (800) 526.2588
Fax (800) 526.2585

Headquarters/Eastern Distribution Center
44 Harbor Park Drive
Port Washington, NY 11050

Central Distribution Center
1600 Distribution Ct
Lithia Springs, GA 30122

Western Distribution Center
1750 Archibald Avenue
Ontario, CA 91760

WAC Lighting retains the right to modify the design of our products at any time as part of the company's continuous improvement program. JUL 18 2018

CITY OF BELVEDERE

RESOLUTION NO. 2021

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF
BELVEDERE GRANTING A RETAINING WALL AND DECK HEIGHT
VARIANCE FROM SECTION 19.48.190 OF THE BELVEDERE
MUNICIPAL CODE FOR THE PROPERTY LOCATED AT
30 CLIFF ROAD**

WHEREAS, a proper application has been submitted for a Variance from Section 19.48.190 of the Belvedere Municipal Code to allow a retaining wall and pool deck to exceed the allowable 4 feet in height at 30 Cliff Road; and

WHEREAS, the Planning Commission held duly noticed public hearings on the requested walls and deck height Variance on January 19, 2021; and

WHEREAS, the Planning Commission made the following findings of fact:

- 1. The granting of the Variance will not constitute a grant of special privilege inconsistent with the limitations upon other properties in the vicinity and zone in which such property is situated.**

The granting of the Variance will not constitute the granting of a special privilege as the Variance would allow a wall height and deck height that is common on very steeply sloping lots, enjoyed by other properties in the vicinity and zone. The height of the proposed wall is necessary to provide safety for the property, additionally the height of the proposed retaining wall will not exceed the existing retaining wall height. A portion of the proposed pool deck will exceed the allowable height which is predicated on the design of the home and the pool deck to minimize grading and excavation. The wall and deck will be a benefit to those in the neighborhood and not a special privilege to the applicant.

- 2. Because of special circumstances applicable to the property, including size, shape, topography, location, or surroundings, the strict application of the Zoning Ordinance section would deprive this property of privileges enjoyed by other properties in the vicinity and under identical zoning classification, so that a denial of the application would result in undue property loss.**

The special circumstances applicable to the property are the extreme steepness of the lot and the fact that the home has been designed to minimize grading and excavation by keeping the existing retaining walls. A portion of the existing wall will be rebuilt to accommodate the home on the lot. The portion that is proposed to be rebuilt will exceed that allowable height and a portion of the pool deck will also exceed the allowable height, however due to the steepness of the lot and the location of the existing walls the small portions of wall and pool deck will be diminimus. Additionally, due to the steepness and the location of the walls, rebuilding a portion of the wall will allow the home to be built in compliance with the 36 feet height requirement.

A strict application of the retaining wall height and deck height requirements would deprive this property and the adjacent properties of safety privileges enjoyed by other properties in the vicinity and under identical zoning classification. Therefore, a denial of this application would result in undue property loss.

3. The granting of this Variance will not be detrimental to the public health, safety or welfare, or injurious to the property or improvements of owners of other premises, or to the quiet enjoyment of their premises.

Granting of the Variance to allow additional retaining wall height and pool deck height will not be detrimental to the public health, safety or welfare, or injurious to the property or improvements of owners of other premises, or to the quiet enjoyment of their premises, because all construction associated with the Design Review Permit for which the Variance is granted will be governed by the Uniform Building Code and other regulations that restrict construction activities.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Belvedere does hereby grant a Wall Height Variance from the requirements of Title 19 of the Belvedere Municipal Code to allow a retaining wall to be constructed up to 7'8" and a pool deck up to 5'4" in height where 4' is permitted on January 19, 2021.

PASSED AND ADOPTED at a regular meeting of the Belvedere Planning Commission held on January 19, 2021 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

RECUSED:

APPROVED: _____

Peter Mark, Planning Commission Chair

ATTEST: _____

Beth Haener, City Clerk



APPLICATION FOR VARIANCE

CITY OF BELVEDERE • PLANNING COMMISSION
 450 SAN RAFAEL AVE • BELVEDERE, CA 94920-2336
 PH. 415-435-3838 • FAX 415-435-0430 • WWW.CITYOFBELVEDERE.ORG

FOR STAFF USE ONLY

Date: _____ Rec'd. by: _____ Amount: _____ Receipt No.: _____
 Assessors Parcel No: _____ Zone: _____

TO BE COMPLETED BY APPLICANT

Address of Property: 30 Cliff Road

Type of Property: Single Family Residential, R-15 Zone

Record Owner of Property: Ben and Devorah Jacoby

Mailing 29 Via San Fernando Daytime Phone: 415.265.8365

Address: Tiburon, CA 94920 Fax: _____

_____ Email: benjacoby@earthlink.com

Owner's Representative: Regan Bice Architects, Debra Contreras

Mailing 950 Grayson Street Daytime Phone: office 510.549.1499 cell 510.332.6199

Address: Berkeley, CA 94710 Fax: 510.845.1901

_____ Email: debra@reganbice.com

Description of project and variance(s) requested: _____

A new single family residence is requesting a variance to allow for new concrete retaining walls and pool retaining walls to exceed 4'-0" in height within a side and rear yard setback.

<u>ORDINANCE §</u>	<u>REQUIREMENT</u>	<u>EXISTING</u>	<u>PROPOSED</u>
<u>19.48.190.B</u>	<u>retaining height 4'-0" max. within a setback</u>	<u>existing retaining walls vary between 7'-8" to 1'-9"</u>	<u>7'-8", max.</u>
<u>19.48.190.I</u>	<u>in ground pool walls and deck, 4'-0" max. within a setback</u>		<u>5'-4", max.</u>

I hereby apply for a variance from the strict interpretation of the Belvedere Zoning Ordinance to permit the construction described on the previous page. I propose that the Planning Commission make the following findings of fact in order to grant the requested variance:

A. The granting of this variance will not constitute a grant of special privilege inconsistent with the limitations upon other properties in the vicinity and zone in which such property is situated because:

The proposed building is located on a steeply sloping lot. An existing retaining wall is currently within the side yard setback. The proposed wall is a rebuilds a portion of this existing wall so that it allows for a path of travel around the new structure. The proposed retaining wall does not exceed the existing retaining wall height. In addition, rebuilding the retaining wall allows for the house to be within the maximum allowable height of 36'. A small portion of the proposed pool exceeds the maximum height within the rear yard setback. The height of the pool deck is is predicated on minimizing grading and excavation on the site.


B. Because of special circumstances applicable to the property, including size, shape, topography, location, or surroundings, the strict application of the Zoning Ordinance section would deprive this property of privileges enjoyed by other property in the vicinity and under identical zoning classification, so that a denial of the application would result in undue property loss, as follows:

-The irregular shape and location of existing site walls limits the location of the building envelope. The proposed building location is similar to that of the existing house in order to preserve the view corridors for neighbors. By reconstructing a portion of an existing retaining wall, within in the side yard setback, the house can be located so that it does not exceed 36'-0" in maximum height. The rear yard is a sloping plane. The level pool deck is positioned to avoid an excessive amount of excavation.

C. The granting of this variance will not be detrimental to the public health, safety or welfare, or injurious to the property or improvements of owners of other premises, or to the quiet enjoyment of their premises because:

-The proposed retaining wall rebuilds an existing site wall located in the side yard setback. It does not change the existing site conditions. The proposed pool, located within the rear yard does not impact privacy or views enjoyed by abutting neighbors.

I, the undersigned owner of the property herein described (or owner representative, as authorized by completion of a Statement of Ownership and Designation of Representative), hereby make application for the variance requested, and I hereby certify that the facts, statements and information presented herein and in the attached exhibit(s) are true and correct to the best of my knowledge and belief

Signature: 

Name: Ben Jacoby

Date: 12-10-20



**CITY OF BELVEDERE PLANNING COMMISSION
STAFF REPORT**

REPORT DATE: January 12, 2021

AGENDA ITEM: 5

MEETING DATE: January 19, 2021

TO: City of Belvedere Planning Commission

FROM: Brian Van Son, Building Official

REVIEWED BY: Irene T. Borba, Director of Planning and Building
Emily Longfellow, City Attorney

SUBJECT: **Recommendation to City Council of Ordinance Amendments and Administrative Policy Manual Amendments regarding floodplain regulations for residential construction projects located within the AE and VE flood zones**

RECOMMENDATIONS

Adopt resolutions recommending City Council adoption of Ordinance Amendments and Administrative Policy Amendments regarding application of floodplain regulations.

MOTION 1 Adopt resolution recommending City Council adoption of Ordinance amendments to Design Review, Chapter 20.04, adding section 20.04.200 regarding analysis of “substantial improvement” for floodplain regulation purposes (**Attachment 1**).

MOTION 2 Adopt resolution recommending City Council approval of amendments to the Administrative Policy Manual regarding application of substantial improvement analysis for floodplain regulation purposes (**Attachment 2**).

Background

At its September meeting, the Planning Commission held a public hearing item to consider the recommendations of the Floodplain Subcommittee to amend the Municipal Code and Administrative Policy Manual. At the hearing, the Planning Commission decided that the issue would return to the Floodplain Subcommittee for further consideration. The Subcommittee has since met and its recommendations are before the Planning Commission tonight.

The Subcommittee’s most recent recommendations include: 1) an administrative policy amendment stating that there must be a minimum of 12 months of construction inactivity between projects for purposes of making a substantial improvement determination (which is the City’s current practice); 2) the substantial improvement determination can be made at any point

prior to the finalization of the building permit; and 3) use of a staff scope of work valuation worksheet to evaluate and document valuation of a proposed project.

The following is a background of the substantive issues. Floodplain regulations in the Belvedere Municipal Code (**Attachment 3**) and under FEMA require all projects that constitute a “substantial improvement” in the AE and VE flood zones be raised to one foot above base flood elevation. A “substantial improvement” is when the value of the proposed project equals or exceeds 50% of the fair market value of the structure prior to construction.

An applicant submits an estimate of construction costs and an appraisal of the structure with the Design Review application. If the Floodplain Administrator calculates that the cost of the project equals or exceeds 50% of the structure’s appraised value, then the project is a substantial improvement and must be elevated pursuant to Floodplain rules. However, because this information is submitted early in the planning stage, it is often inaccurate.

For example, while an applicant gives an estimate of project cost at the initial planning stage, a contractor is not selected until the end of the building permit process. Often, once a contractor is secured, the estimated project value is more accurate and increases. If the project estimate at the building permit stage is equal to or exceeds 50% of the structure’s value, then it would require elevation per floodplain regulations. The project would then require revision and go through the approval process again with additional time and costs to the property owner and the City. Additionally, questions have been raised regarding the accuracy of a structure’s valuation in certain instances.

Currently, there is no mechanism to cross-check the estimated project valuation or appraisal, and staff notes that in many instances, the appraisal and project valuations submitted by an applicant do not meet the 50% substantial improvement threshold.

Questions have been raised regarding the accuracy of appraisals and project cost estimates. If an applicant wishes to avoid raising the structure pursuant to Floodplain requirements, there is an incentive to overvalue the structure and undervalue the estimated cost of construction. For example, if the appraised value of the structure appears high, and/or the cost of construction appears low, the cost of construction will be less likely to meet the 50% threshold required for a substantial improvement, thereby avoiding Floodplain regulations.

Noted above, to address this concern, and to provide consistency and predictability, a Planning Commission subcommittee was formed to develop tools to use when performing a substantial improvement analysis. These tools will confirm the accuracy of both the appraised value of a structure and the estimated costs of construction – the two factors necessary for analyzing a substantial improvement. The proposed policies and ordinance amendments will also allow a more accurate determination of substantial improvement early in the planning stage, increasing predictability for applicants and the City.

The proposed ordinance and policy amendments were initially heard at the September 22, 2020 Planning Commission Meeting: The minutes may be reviewed at this link:

https://www.cityofbelvedere.org/AgendaCenter/ViewFile/Minutes/_09222020-523

At this meeting, the Planning Commission directed staff to make minor modifications to the proposed modified definition of “Demolition”, as well as, revisions to the proposed modified “Substantial Improvement” definition. Staff was also asked to investigate the necessity of revising the current Floodplain Policy and the possibility of revising the text of the preamble of the City’s Floodplain Management Ordinance. These modifications were to be presented to the Floodplain Analysis Committee at the next publically noticed Sub-Committee Meeting.

The next Floodplain Analysis Committee meeting was held on December 1, 2020. The audio recording of the meeting is found at this link:

<https://www.cityofbelvedere.org/DocumentCenter/View/7099/2020-12-01-Regular-Meeting>

Staff presented the proposed policy modifications, as requested by the Planning Commission, to the Sub-Committee. The policy and ordinance amendments were discussed, and generally approved by the Sub-Committee, with two minor modifications to be made. These modification consisted of; 1) eliminating the proposed “Substantial Improvement” definition and capturing the current City practice of requiring a one year construction hiatus between large construction projects; and, 2) additional language provided in the demolition section of the policy clarifying that a project may be deemed a demolition at any point during the construction project, prior to the finalization of the building permit, and subsequently may be deemed a substantial improvement for Floodplain purposes. The proposed Amendments reflect the subcommittee’s recommendation to the Planning Commission.

Proposed Administrative Policy Amendments

Below please find a summary of the proposed Administrative Policy Amendments. Please note that no one policy is dispositive. For example, if a project is *not* a substantial improvement under one policy that does not necessarily indicate that it is not a substantial improvement under a separate policy, analysis, or Code section. The policies are intended as tools for evaluation and guidance.

A. Demolition in Flood Zones Presumptively Constitute Substantial Improvement Subject to Floodplain Regulations

The proposed Administrative Policy provides that any project located in a designated flood zone that meets the definition of a demolition in BMC section 19.08.136 is presumptively a substantial improvement subject to Floodplain regulations unless the individual facts and circumstances of the project indicate otherwise.

A substantial improvement is a project where the cost of a project equals or exceeds 50% of the value of the structure prior to construction. In most cases, the cost of construction to replace a demolition – which is defined as including the removal of more than 50% of exterior wall and roof areas – will necessarily exceed 50% of the structure’s value, thereby qualifying as a substantial improvement. This determination may be made at any point prior to the finalization of the building permit.

Please note that the Administrative Policy gives the Floodplain Administrator discretion to determine, based on the unique facts of the particular case that a demolition does not constitute a substantial improvement.

B. Preferred Appraisal Method and Independent Third-Party Evaluations and Appraisals

The proposed policies provide tools to ensure the accuracy of an appraisal.

First, the policy provides that the applicant's submitted appraisal must be an "Actual Cash Value" appraisal in most circumstances, unless the Floodplain Administrator determines otherwise based on the unique facts of the case. The Actual Cash Value appraisal method evaluates the cost to replace a structure on the same parcel with a new structure of like-kind and quality, minus depreciation due to age and use. The Actual Cash Value method is accepted by FEMA.

Second, the policy provides that the Floodplain Administrator may require that the applicant pay for an independent third-party appraiser, to be retained by the City, to perform an independent appraisal and/or an evaluation of an appraisal submitted by the applicant. This independent third-party analysis and/or appraisal will help confirm the accuracy of any appraisal initially submitted by the applicant.

C. Standardized Per Square-Foot Multiplier

Currently, the valuation of a construction project is provided by the applicant at the time of building permit application before a contractor is selected. Often when the contractor is selected, the project costs become more accurate and increase.

The proposed policy provides for a standard per square-foot multiplier to allow the Floodplain Administrator to evaluate construction costs based on a standardized measure, and create a transparent system that allows property owners, architects, contractors, and members of the public to better understand how the City of Belvedere evaluates projects within the flood zones.

The policy provides that the Floodplain Administrator analyzes a project-based valuations provided by the Craftsman National Building Cost Manual (CNBM). This publication provides a national averages per square foot for construction within specific regions of all 50 states, as well as, local area modification factors for construction within a specific region.

For example, the most common type of home built in Belvedere's Floodplain qualifies as luxury construction (**Attachment 4**). The NBCM provides a cost per square foot of construction as \$388.89 for luxury construction in the Bay Area with a local area multiplier of 27%. For a 2,600 square foot home, staff would initially multiply the square footage of the project by the cost per square foot, \$388.89. This totals \$1,011,114.00. That total would then be adjusted with the local area modifier of 27%. This totals \$1,284,114.78. Therefore, the total cost of construction for this project would be \$1,284,114.78, or \$493.89 per square foot. This amount would be used in the substantial improvement determination, unless the Floodplain Administrator determines that another methodology is appropriate based on the unusual facts of the case.

The proposed policy provides for a standard per square-foot multiplier to allow the Floodplain Administrator to evaluate construction costs based on a standardized measure, and create a transparent system that allows property owners, architects, contractors, and members of the public to better understand how the City of Belvedere evaluates projects within the flood zones.

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Additionally, for projects consisting of remodels, staff has developed a scope of work valuation worksheet to evaluate and document the valuation of the proposed construction (**Attachment 5**). Staff would utilize a percentage of the square foot valuation provided above for areas of the proposed remodel, with a higher percentage being given to areas commonly known to have higher construction costs, such as kitchens and bathroom, as well as areas with more extensive construction.

D. Time Period of Construction Inactivity Between Projects

It is current City of Belvedere practice to require a minimum of 12 months of construction inactivity between larger construction/remodel projects, in respect to making a Substantial Improvement determination. The Planning Commission directed the subcommittee to consider including this informal policy into the City's Administrative Policy Manual. This change is included for the Commission's consideration.

The proposed amendment to this policy captures current City practice of requiring a minimum of one year of construction inactivity between projects. The one-year timeframe will begin at the finalization of the initial building permit. Any subsequent building permits will not be issued until a minimum of one year following the final approval. Should a building permit need to be issued during the time of required inactivity, the valuation of the initial building permit and any other building permit issued during that time, will be added together for the purposes of making a Substantial Improvement designation.

Additionally, during the time of construction inactivity, the site and structure must be safe and habitable, as determined by the Building and Planning Departments. The structure and/or site shall appear finished and shall not appear incomplete or unfinished in any way during the time of required inactivity between projects. A complete or finished appearance may require the

installation of site improvements, landscaping, or other features required by the Planning and Building Departments.

Proposed Ordinance Amendments

1. Design Review Finding Allowing Planning Commission Consideration of Substantial Improvement

Notwithstanding the additional tools provided to the Floodplain Administrator in the proposed Administrative Policy amendments, the subcommittee sought to ensure that the Planning Commission would have the discretion to reject a project if it determined that a project did, in fact, constitute a substantial improvement. The subcommittee recommends an additional Design Review finding as follows:

The proposed work shall be evaluated as to whether it meets the definition of “substantial improvement” as defined in Section 16.20.040 of the Municipal Code. If it is found that the proposed work constitutes a “substantial improvement” then it must satisfy all applicable floodplain requirements in the Municipal Code and pursuant to Federal Emergency Management Agency guidelines.

This additional finding would provide the Planning Commission with the discretion to independently evaluate the substantial improvement determination.

ENVIRONMENTAL REVIEW

The proposed Administrative Policies and Ordinance Amendments are exempt from the provisions of the California Environmental Quality (“CEQA”) Guideline section 15061(b)(3) as it can be seen with certainty that there is no possibility that the policies will have a significant adverse effect on the environment

CONCLUSION/RECOMMENATION

Staff recommends that the Planning Commission recommend to the City Council approval of the proposed Administrative Policy and the Ordinance Amendments developed by the subcommittee. The policies and ordinance amendments will provide valuable tools to ensure an accurate substantial improvement determination, providing for the consistent and predictable application of floodplain regulations. Staff recommends the following motions:

MOTION 1 Adopt resolution recommending City Council adoption of Ordinance amendments to Design Review, Chapter 20.04, adding section 20.04.200 regarding analysis of “substantial improvement” for floodplain regulation purposes.

MOTION 2 Adopt resolution recommending City Council approval of amendments to the Administrative Policy Manual regarding application of substantial improvement analysis for floodplain regulation purposes.

ATTACHMENTS

1. Proposed Ordinance Amendments
2. Proposed Administrative Policy Amendments
3. Copy of City of Belvedere Floodplain Ordinance (BMC Chapter 16.20)
4. Copy of Sample CNBM valuation tables
5. Construction cost per square foot evaluation worksheet

**CITY OF BELVEDERE
RESOLUTION NO. 2021-**

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF
BELVEDERE RECOMMENDING CITY COUNCIL ADOPTION OF AMENDMENT TO
DESIGN REVIEW CODE CHAPTER 20.04 TO ADD CONSIDERATION OF
FLOODPLAIN “SUBSTANTIAL IMPROVEMENT”**

WHEREAS, floodplain regulations in the Belvedere Municipal Code and under FEMA, require all projects that constitute a “substantial improvement” in the AE and VE flood zones be raised to one foot above base flood elevation; a “substantial improvement” is when the value of the proposed project equals or exceeds 50% of the fair market value of the structure prior to construction; and

WHEREAS, if an applicant wishes to avoid raising the structure pursuant to floodplain requirements, there is an incentive to overvalue the structure and undervalue the estimated cost of construction, and questions have been raised regarding the accuracy of appraisals and/or construction cost estimates submitted by some applicants; and

WHEREAS, a Planning Commission subcommittee was formed for the purpose of developing tools to assist in making predictable and accurate substantial improvement determinations; and

WHEREAS, the Planning Commission subcommittee has recommended amendments to the City’s Administrative Policy Manual that provide additional tools in making substantial improvement determinations prior to a project coming before the Planning Commission; and

WHEREAS, the Planning Commission subcommittee also recommended adoption of an amendment to the Design Review Code allowing independent consideration of substantial improvements (“Code Amendment”); and

WHEREAS, the Code Amendment is exempt from the provisions of the California Environmental Quality (“CEQA”) Guideline section 15061(b)(3) as it can be seen with certainty that there is no possibility that the policies will have a significant adverse effect on the environment; and

WHEREAS, on January 19, 2021 the Planning Commission held a duly noticed public hearing and recommended City Council adoption of the proposed Code Amendment.

NOW, THEREFORE, BE IT RESOLVED that

1. The above recitals are true and correct and incorporated as findings herein.
2. The Planning Commission of the City of Belvedere does hereby recommend that the City Council adopt the proposed Code Amendment as set forth in **Exhibit A** attached hereto.

PASSED AND ADOPTED at a regular meeting of the Belvedere Planning Commission on January 19, 2021 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

APPROVED: _____

Peter Mark, Planning Commission Chair

ATTEST: _____

Beth Haener, City Clerk

Resolution 2021 -
Substantial Improvement Ordinance Amendment Recommendation
January 19, 2021

EXHIBIT “A”

Section 20.04.200 of the Belvedere Municipal Code, Design Review, is hereby added as follows with remaining Code section to be renumbered as appropriate:

20.04.200 Substantial Improvement. The proposed work shall be evaluated as to whether it meets the definition of “substantial improvement” as defined in Section 16.20.040 of the Municipal Code. If it is found that the proposed work constitutes a “substantial improvement” then it must satisfy all applicable floodplain requirements in the Municipal Code and pursuant to Federal Emergency Management Agency guidelines.

CITY OF BELVEDERE

RESOLUTION NO. 2021-

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF
BELVEDERE RECOMMENDING CITY COUNCIL AMENDMENT TO THE
ADMINISTRATIVE POLICY MANUAL SECTION 14.7 REGARDING
ADMINISTRATION OF SUBSTANTIAL IMPROVEMENT REQUIREMENT TO
PROJECTS WITHIN DESIGNATED FLOODPLAINS**

WHEREAS, floodplain regulations in the Belvedere Municipal Code and under FEMA, require all projects that constitute a “substantial improvement” in the AE and VE flood zones be raised to one foot above base flood elevation; a “substantial improvement” is when the value of the proposed project equals or exceeds 50% of the fair market value of the structure prior to construction; and

WHEREAS, if an applicant wishes to avoid raising the structure pursuant to Floodplain requirements, there is an incentive to overvalue the structure and undervalue the estimated cost of construction, and questions have been raised regarding the accuracy of appraisals and/or construction cost estimates submitted by some applicants; and

WHEREAS, a Planning Commission subcommittee was formed for the purpose of developing tools to assist in making predictable and accurate substantial improvement determinations; and

WHEREAS, the Administrative Policy Amendments provide tools for the Floodplain Administrator to use in making accurate determinations for estimated project costs and structure appraisals, which policies include: 1) providing that a project meeting the definition of a demolition presumptively constitutes a substantial improvement; 2) providing for third-party independent appraisals and evaluations based on an Actual Cash Value methodology; 3) providing for a consistent and industry-standard per square foot multiplier; and 4) requiring a time period of inactivity between construction projects; and

WHEREAS, the Planning Commission is responsible for providing recommendations to the City Council regarding proposed Administrative Policy Amendments; and

WHEREAS, the Administrative Policy Amendments are exempt from the provisions of the California Environmental Quality (“CEQA”) Guideline section 15061(b)(3) as it can be seen with certainty that there is no possibility that the policies will have a significant adverse effect on the environment; and

WHEREAS, the Planning Commission held a duly noticed public hearing regarding the proposed amendments on January 19, 2021 and recommended City Council approval of the Administrative Policy Amendments at said meeting.

NOW THEREFORE BE IT RESOLVED that:

1. The above recitals are true and correct and incorporated as findings herein.
2. The Planning Commission recommends City Council approval of the Administrative Policy Amendments as set forth in Exhibit "A" attached hereto.

PASSED AND ADOPTED at a regular meeting of the Belvedere Planning Commission held on January 19, 2021, by the following vote:

AYES:


NOES:

ABSENT:

RECUSED:

APPROVED: _____
Peter Mark, Planning Commission Chair

ATTEST: _____
Beth Haener, City Clerk

	CITY OF BELVEDERE – ADMINISTRATIVE POLICY MANUAL POLICY 14.7 ADMINISTRATION OF SUBSTANTIAL IMPROVEMENT REQUIREMENT FOR PROJECTS WITHIN DESIGNATED FLOODPLAINS		
	Adoption Date:	?????	Adopted by:
Creation Date:		Revised by:	None
Authority:	City Council		

14.7.1 **BACKGROUND**

We intend the following Administrative Policies to help ensure the consistent and predictable application of floodplain regulations to projects within the City’s flood zones. No one policy shall be dispositive. For example, if a project is not subject to floodplain regulations under one policy or Municipal Code section, it may still be subject to such regulations pursuant to another policy or Municipal Code section.

The Federal Emergency Management Agency (“FEMA”) has designated two floodplain areas in Belvedere, which are the AE and VE Zones. Projects in these Zones are subject to the Floodplain Management Code sections in the Belvedere Municipal Code, Chapter 16.20, and applicable FEMA regulations.

Pursuant to Chapter 16.20, any construction project that constitutes a “substantial improvement” is required to be elevated a minimum of 1 foot above Base Flood Elevation (“BFE”), with minor differences between the separate zones. Municipal Code, section 16.20.040 provides that a “substantial improvement” is any project where the cost equals or exceeds 50% of the market value of the structure prior to the start of construction. Municipal Code section 16.20.035(AK) further provides that “market value” is the appraised valuation for the property minus the land value as determined by an appraiser.

To assist in establishing whether a project constitutes a substantial improvement subject to Floodplain regulations, an applicant submits with the Design Review application an estimate of construction costs and an appraisal of the structure. If the Floodplain Administrator calculates that the cost of the project equals or exceeds 50% of the structure’s appraised value, then the project is a substantial improvement and must be elevated pursuant to Floodplain rules.

However, there have been questions raised regarding the accuracy of some structure appraisals and project cost estimates. If an applicant wishes to avoid raising the structure pursuant to Floodplain requirements, there is an incentive to overvalue the structure and undervalue the estimated cost of construction. For example, if the appraised value of the structure appears high, and/or the cost of construction appears low, the cost of construction will be less likely to meet the 50% threshold

required for a substantial improvement, thereby avoiding Floodplain regulations.

The intent of the following policies is to provide tools for the Floodplain Administrator to make the “substantial improvement” determination by confirming the accuracy of both the appraised value of a structure and the estimated costs of construction. These tools will help provide consistent and predictable determinations for whether a project constitutes a substantial improvement and must be raised per Floodplain regulations.

If the Floodplain Administrator determines that a project constitutes a substantial improvement subject to floodplain regulations, then the Floodplain Administrator shall inform the Planning Commission of this determination in writing at the time the project is reviewed by the Planning Commission. This determination will advise the Planning Commission’s review of the project.

14.7.2 COMMENTS

1. Demolition In Flood Zone Presumptively Substantial Improvement Subject to Floodplain Regulations

This Administrative Policy provides that any project located in a designated flood zone that meets the definition of a demolition in BMC section 19.08.136, determined at any point prior to the finalization of the building permit, is presumptively a substantial improvement subject to Floodplain regulations, unless the individual facts and circumstances of the project indicate otherwise. BMC section 19.08.136, defines demolition as:

19.08.136 Demolition. “Demolition,” for the purposes of this Title and Title 20, means the razing of a building, removal of a dwelling unit, or the removal of more than fifty percent of the total exterior wall and roof area from the grade up, including all exterior openings. Removing a residential second unit or converting a duplex into a single unit is considered a demolition. The following activities shall not be considered to be demolitions within the meaning of this definition: a retrofit (see Section 19.08.458); maintenance, repair and/or replacement of exterior surfaces, so long as the materials are consistent with the requirements of Section 20.04.140 “Materials and colors used;” and other maintenance efforts deemed by the Building and Planning Departments to be minor in nature and scope. It is the intent of this definition to ensure that all alterations to existing structures that are part of a major project for the remodel, alteration, construction, or repair of a home or accessory structure are reviewed by the City through a Design Review process, pursuant to Title 20 of the Belvedere Municipal Code.

A substantial improvement is a project where the cost of a project equals or exceeds 50% of the value of the structure prior to construction. In most cases, the cost of construction to replace a demolition – which is defined as including the removal of more than 50% of exterior wall and roof areas – will exceed 50% of the structure’s value, thereby qualifying as a substantial improvement. However, the Administrative Policy provides that the Floodplain Administrator retains discretion to determine, based on the unique facts of the particular case, that a demolition does not constitute a substantial improvement.

2. Preferred Appraisal Method and Independent Third Party Appraisals and Evaluations

The City finds that in most circumstances, the “Actual Cash Value” appraisal method, which is accepted by FEMA, is accurate and should be used. The Actual Cash Value appraisal method evaluates the cost to replace a structure on the same parcel with a new structure of like-kind and quality, minus depreciation due to age and use.

The Administrative Policy provides that initial appraisals submitted with building permit applications shall use the Actual Cash Value approach, unless the Floodplain Administrator in his/her discretion determines otherwise, based on the particular property.

The Administrative Policy also allows the City to hire an independent licensed appraiser to evaluate the appraisal submitted by an applicant, and/or perform an independent appraisal of a structure. All costs for any such appraisal and/or analysis shall be paid by the applicant. The third-party appraiser shall use the Actual Cash Value appraisal methodology unless otherwise determined by the Floodplain Administrator based on the particular property.

3. Standardized Per Square-Foot Cost Estimate

Establishing an accurate project cost estimate is an important component in determining whether a project constitutes a substantial improvement.

An applicant submits an estimated project cost with a building permit application. In most cases an applicant’s project cost estimate is a rough estimate by the architect, designer, and/or property owner. These estimates may be inaccurate because a contractor has not been selected, final “build” drawings have not been prepared, or other reasons. If estimate project costs increase after issuance of a building permit, the project may trigger the 50% threshold for substantial improvement, compelling the City to rescind project approvals, require modification of the project, or require the home to be raised pursuant to Floodplain regulations.

To avoid this outcome, and to provide predictable and accurate project cost estimates, the Administrative Policy provides that the Floodplain Administrator may compare the applicant’s estimated project costs with an estimated project cost using a standardized cost per square foot set forth in the latest version of the Craftsman National Building Cost Manual (the “NBCM”). The NBCM provides a national and statewide average per square foot valuation for construction within specific regions of all 50 states, including the Bay Area, and considers the size and configuration of the home, as well as the type of construction.

For example, the most common type of home built in Belvedere’s Floodplain qualifies as luxury construction. The NBCM provides a cost per square foot of construction as \$388.89 for luxury construction in the Bay Area with a local area multiplier of 27%. For a 2,600 square foot home, staff would initially multiply the square footage of the project by the cost per square foot, \$388.89. This totals \$1,011,114.00. That total would then be adjusted with the local area modifier of 27%. This totals \$1,284,114.78. Therefore, the total cost of construction for this project would be

\$1,284,114.78, or \$493.89 per square foot.

Additionally, for projects consisting of remodels, staff has developed a scope of work valuation worksheet to evaluate and document the valuation of the proposed construction. Staff would utilize a percentage of the square foot valuation provided above for areas of the proposed remodel, with a higher percentage being given to areas commonly known to have higher construction costs, such as kitchens and bathroom, as well as, areas with more extensive construction.

If the NBCM project cost estimate is greater than the project cost estimate submitted by the applicant, the NBCM cost estimate shall be used in the substantial improvement analysis. The Floodplain Administrator has the discretion to use the applicant's project cost estimate if appropriate based on facts and circumstances of a particular project.

4. Time Period of Inactivity Between Construction Projects

FEMA regulations prohibit the “phasing” of construction projects. Phasing construction projects is defined as separating a large construction/remodel project into multiple smaller projects to keep the total project valuation under the Substantial Improvement threshold.

In order to address this issue this policy requires a minimum of one year of construction inactivity between projects. The one-year timeframe will begin at the finalization of the initial building permit. Any subsequent building permits will not be issued until a minimum of one year following a building permit final. Should a building permit need to be issued during the time of required inactivity, the valuation of the initial building permit and any other building permit issued during that time, will be added together for the purposes of making a Substantial Improvement designation.

Additionally, during the time of construction inactivity, the site and structure must be safe and habitable, as determined by the Building and Planning Departments. The structure and/or site shall appear finished and shall not appear incomplete or unfinished in any way during the time of required inactivity between projects. A complete or finished appearance may require the installation of site improvements, landscaping, or other features required by the Planning and Building Departments.

14.7.3 POLICY/PROCEDURE

1. A Demolition in Flood Zone Presumed Substantial Improvement for Floodplain Regulation Purposes.

If a project located in a designated floodplain constitutes a “demolition” as defined in Belvedere Municipal Code chapter 19.08, determined at any point before building permit finalization, then the project presumptively will be considered a substantial improvement pursuant to Belvedere Municipal Code chapter 16.20 and as such, must comply with all applicable Floodplain regulations. In his or her discretion, based on unusual facts or circumstances, the Floodplain Administrator may determine a demolition is not a substantial improvement and is not required to satisfy Floodplain regulations.

2. Use of Independent Licensed Appraisers and Preferred Appraisal Method

The Actual Cash Value appraisal method evaluates the cost to replace a structure on the same parcel with a new structure of like-kind and quality, minus depreciation due to age, use, and neglect. The Actual Cash Value appraisal method is accepted by FEMA.

The initial appraisal submitted with a Design Review application shall use the Actual Cash Value approach, unless otherwise agreed to by the Floodplain Administrator based on the facts and circumstances of the particular property. All submitted appraisals shall use FEMA approved appraisal methodologies. Currently, FEMA approved appraisal methodologies can be found at <https://www.fema.gov/media-library-data/20130726-1535-20490-4788/unit8.pdf>

Additionally, in its discretion, the City may hire an independent licensed appraiser to evaluate any appraisals submitted by an applicant, and/or perform an independent appraisal of a structure's fair market value. The applicant shall pay all costs of such evaluations and/or appraisals. Appraisals and appraisal evaluations shall use the Actual Cash Value appraisal methodology, unless otherwise directed by the Floodplain Administrator based on the facts and circumstances of the particular property.

3. Standardized Per Square-Foot Cost Estimate

In his or her discretion, the Floodplain Administrator may analyze the accuracy of an applicant's estimated project cost by comparison with the standardized project cost per square foot construction established in the latest version of the Craftsman National Building Cost Manual (the "NBCM"). If the NBCM project cost estimate is greater than the project cost estimate submitted by the applicant, the NBCM cost estimate shall be used in the substantial improvement analysis. Notwithstanding anything to the contrary in this section, the Floodplain Administrator may use the applicant's project cost estimate if appropriate based on the facts and circumstances of the particular project.

4. Time Period of Construction Inactivity Between Projects

Unless there is a period of at least 12 months of construction inactivity between the finalization of an initial building permit and the issuance of subsequent building permits, the value of such projects will be added together for purposes of making a Substantial Improvement determination. During this time of construction inactivity, the site and structure must be safe and habitable as determined by the Planning and Building Departments. Each project must receive final inspection approval from the City. The structure/site must appear in finished form and shall not appear incomplete in any way during the time of inactivity between projects. This may require the installation of site improvements, landscaping, or other features required by the Planning Department.

Chapter 16.20

FLOODPLAIN MANAGEMENT

Sections:

- 16.20.010 Statutory authorization.
- 16.20.020 Findings of fact.
- 16.20.030 Statement of purpose.
- 16.20.035 Methods of reducing flood losses.
- 16.20.040 Definitions.
- 16.20.100 General provisions—Lands to which this Chapter applies.
- 16.20.110 General provisions—Basis for establishing the areas of special flood hazard.
- 16.20.120 General provisions—Compliance.
- 16.20.130 General provisions—Abrogation and greater restrictions.
- 16.20.140 General provisions—Interpretation.
- 16.20.150 General provisions—Warning and disclaimer of liability.
- 16.20.200 Administration—Establishment of development permit.
- 16.20.210 Administration—Designation of the Floodplain Administrator.
- 16.20.220 Administration—Duties and responsibilities of the Floodplain Administrator.
- 16.20.230 Administration—Appeals.
- 16.20.300 Provisions for flood hazard reduction—Standards of construction.
- 16.20.310 Provisions for flood hazard reduction—Standards for utilities.
- 16.20.320 Provisions for flood hazard reduction—Standards for subdivisions.
- 16.20.330 Provisions for flood hazard reduction—Standards for manufactured homes.
- 16.20.340 Provisions for flood hazard reduction—Standards for recreational vehicles.
- 16.20.350 Provisions for flood hazard reduction—Floodways.
- 16.20.400 Variances—Nature.
- 16.20.410 Variances—Appeals board.
- 16.20.420 Variances—Conditions.
- 16.20.500 Enforcement.

16.20.010 Statutory authorization. The Legislature of the State of California has, in Government Code Sections 65302, 65560, and 65800, conferred upon local government units authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the City Council of the City of Belvedere does hereby adopt the following floodplain management regulations. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.020 Findings of fact. A. The flood hazard areas of the City of Belvedere are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

B. These flood losses are caused by uses that are inadequately elevated, floodproofed, or protected from flood damage. The cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities also contribute to the flood loss. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.030 Statement of purpose. It is the purpose of this Chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- A. Protect human life and health;
- B. Minimize expenditure of public money for costly flood control projects;
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. Minimize prolonged business interruptions;
- E. Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; and streets and bridges located in areas of special flood hazard;
- F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future blighted areas caused by flood damage;
- G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and
- H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10, § 1 (part), 1987.)

16.20.035 Methods of reducing flood losses. In order to accomplish its purposes, this Chapter includes methods and provisions to:

- A. Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
- B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Control filling, grading, dredging, and other development which may increase flood damage; and
- E. Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10, § 1 (part), 1987.)

16.20.040 Definitions. Unless specifically defined below, words or phrases used in this Chapter shall be interpreted so as to give them the meaning they have in common usage and to give this Chapter its most reasonable application.

- A. "Accessory use" means a use which is incidental and subordinate to the principal use of the parcel of land on which it is located.
- B. "Alluvial fan" means a geomorphologic feature characterized by a cone or fan-shaped deposit of boulders, gravel, and fine sediments that have been eroded from mountain slopes, transported by flood flows, and then deposited on the valley floors, and which is subject to flash flooding, high velocity flows, debris flows, erosion, sediment movement and deposition, and channel migration.
- C. "Apex" means the point of highest elevation on an alluvial fan, which on undisturbed fans is generally the point where the major stream that formed the fan emerges from the mountain front.
- D. "Appeal" means a request for a review of the Floodplain Administrator's interpretation of any provision of this Chapter.

E. "Area of shallow flooding" means a designated AO or AH Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

F. "Area of special flood hazard"—see "Special flood hazard area."

G. "Base flood" means a flood which has a 1 percent chance of being equaled or exceeded *in any given year* (also called the "100-year flood"). Base flood is the term used throughout this Chapter.

H. "Basement" means any area of the building having its floor below ground level on all sides.

I. "Building"—see "Structure."

J. "Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

K. "Encroachment" means the advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain which may impede or alter the flow capacity of a floodplain.

L. "Existing manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

M. "Expansion to an existing manufactured home park or subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

N. "Flood, flooding, or flood water" means:

1. a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters; the unusual and rapid accumulation or runoff of surface waters from any source; and/or mudslides (i.e., mudflows)—see "Mudslides;" and
2. the condition resulting from flood-related erosion—see "Flood-related erosion."

O. "Flood Boundary and Floodway Map (FBFM)" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the floodway.

P. "Flood Hazard Boundary Map" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated the areas of flood hazards.

Q. "Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

R. "Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Insurance Rate Map, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.

S. "Floodplain or flood-prone area" means any land area susceptible to being inundated by water from any source—see "Flooding."

T. "Floodplain Administrator" is the individual appointed to administer and enforce the floodplain management regulations.

U. "Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and

enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

V. "Floodplain management regulations" means this Chapter and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as grading and erosion control) and other application of police power which control development in flood-prone areas. This term describes federal, state or local regulations in any combination thereof which provide standards for preventing and reducing flood loss and damage.

W. "Floodproofing" means any combination of structural and nonstructural additions, changes, or adjustments to non-residential structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

X. "Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. Also referred to as "Regulatory Floodway."

Y. "Floodway fringe" is that area of the floodplain on either side of the "Regulatory Floodway" where encroachment may be permitted.

Z. "Fraud and victimization" as related to Sections 16.20.400 through 16.20.420 of this Chapter regarding variances, means that the variance granted must not cause fraud on or victimization of the public. In examining this requirement, the City Council will consider the fact that every newly constructed building adds to government responsibilities and remains a part of the community for 50 to 100 years. Buildings that are permitted to be constructed below the base flood elevation are subject during all those years to increased risk of damage from floods, while future owners of the property and the community as a whole are subject to all the costs, inconvenience, danger, and suffering that those increased flood damages bring. In addition, future owners may purchase the property, unaware that it is subject to potential flood damage, and can be insured only at very high flood insurance rates.

AA. "Functionally dependent use" means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes *only* docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does *not* include long-term storage or related manufacturing facilities.

AB. "Governing body" is the local governing unit, i.e. county or municipality that is empowered to adopt and implement regulations to provide for the public health, safety and general welfare of its citizenry.

AC. "Hardship" as related to Sections 16.20.400 through 16.20.420 of this Chapter regarding variances means the *exceptional* hardship that would result from a failure to grant the requested variance. The City Council requires that the variance be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors likewise cannot, as a rule, qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

AD. "Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

AE. "Historic structure" means any structure that is:

1. listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

2. certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

3. individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

4. individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states without approved programs.

AF. "Levee" means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water so as to provide protection from temporary flooding.

AG. "Levee system" means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accord with sound engineering practices.

AH. "Lowest floor" means the lowest floor of the lowest enclosed area, *including basement* (see "Basement");

1. An unfinished or flood resistant enclosure below the lowest floor that is usable solely for parking of vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor *provided it conforms to applicable non-elevation design requirements, including, but not limited to:*

a. the wet floodproofing standard in Subsection 16.20.300C3 of this Chapter;

b. the anchoring standards in Subsection 16.20.300A of this Chapter;

c. the construction materials and methods standards in Subsection 16.20.300B of this Chapter; and

d. the standards for utilities in Section 16.20.310 of this Chapter.

2. For residential structures, all subgrade enclosed areas are prohibited as they are considered to be basements (see "Basement" definition). This prohibition includes below-grade garages and storage areas.

AI. "Manufactured home" means a structure, transportable in one or more Sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does *not* include a "recreational vehicle."

AJ. "Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

AK. "Market value" means the appraised valuation for the property minus the land value as determined by an independent appraisal by a certified appraiser.

AL. "Mean sea level" means, for purposes of the National Flood Insurance Program, the North American Vertical Datum (NAVD) of 1988 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

AM. "New construction", for floodplain management purposes, means structures for which the "start of construction" commenced on or after the effective date of floodplain management regulations adopted by this community, and includes any subsequent improvements to such structures.

AN. "New manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of

concrete pads) is completed on or after the effective date of floodplain management regulations adopted by this community.

AO. "Obstruction" includes, but is not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, or due to its location, its propensity to snare or collect debris carried by the flow of water, or its likelihood of being carried downstream.

AP. "100-year flood"—see "Base flood."

AQ. "Public safety and nuisance" as related to Sections 16.20.400 through 16.20.420 of this Chapter regarding variances, means that the granting of a variance must not result in anything which is injurious to safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

AR. "Recreational vehicle" means a vehicle which is:

1. built on a single chassis;
2. 400 square feet or less when measured at the largest horizontal projection;
3. designed to be self-propelled or permanently towable by a light-duty truck; and
4. designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

AS. "Regulatory floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

AT. "Remedy a violation" means to bring the structure or other development into compliance with state or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this Chapter or otherwise deterring future similar violations, or reducing state or federal financial exposure with regard to the structure or other development.

AU. "Riverine" means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

AV. "Sheet flow area"—see "Area of shallow flooding."

AW. "Special flood hazard area (SFHA)" means:

1. an area having special flood, mudslide (i.e., mudflow), and shown on a FHBM or FIRM as Zone A, AO, A1-A30, AE, A99, AH, E, M.
2. areas subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action and shown on FHBM or FIRM as Zone V, VE, V1-30.

AX. "Start of construction" includes substantial improvement and other proposed new development and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufacture home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory

buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

AY. "Structure" means a walled and roofed building that is principally above ground; this includes a gas or liquid storage tank or a manufactured home.

AZ. "Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

BA. "Substantial improvement" means any reconstruction, rehabilitation, addition, or other proposed new development of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

1. any project for improvement of a structure to correct existing violations or state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or

2. any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure."

BB. "Variance" means a grant of relief from the requirements of this Chapter which permits construction in a manner that would otherwise be prohibited by this Chapter.

BC. "Violation" means the failure of a structure or other development to be fully compliant with this Chapter. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this Chapter is presumed to be in violation until such time as that documentation is provided.

BD. "Water surface elevation" means the height, in relation to the North American Vertical Datum (NAVD) of 1988, (or other datum, where specified) of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

BE. "Watercourse" means a lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur. (Ord. 2016-1 §§ 2, 3, 4, and 5, 2016; Ord. 2011-1 § 1 (part), 2011; Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.100 General provisions—Lands to which this Chapter applies. This Chapter shall apply to all areas of special flood hazards within the City of Belvedere. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.110 General provisions—Basis for establishing the areas of special flood hazard. The areas of special flood hazard identified by the Federal Emergency Management Agency (FEMA) in the *Flood Insurance Study (FIS)* dated March 16, 2016, and accompanying Flood Insurance Rate Maps (FIRMs) dated March 16, 2016, and all subsequent amendments and/or revisions, are hereby adopted by reference and declared to be a part of this Chapter. This FIS and attendant mapping is the minimum area of applicability of this Chapter and may be supplemented by studies for other areas which allow implementation of this Chapter and which are recommended to the City Council by the Floodplain Administrator. The study and FIRM are on file at Belvedere City Hall, 450 San Rafael Avenue, Belvedere, CA. (Ord. 2016-1 § 6, 2016; Ord. 2011-1 § 1 (part), 2011; Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.120 General provisions—Compliance. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the term of this Chapter and other applicable regulations. Violation of the requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Nothing herein shall prevent the City of Belvedere from taking such lawful action as is necessary to prevent or remedy any violation. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.130 General provisions—Abrogation and greater restrictions. This Chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Chapter and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.140 General provisions—Interpretation. In the interpretation and application of this Chapter, all provisions shall be:

- A. considered as minimum requirements;
- B. liberally construed in favor of the governing body; and
- C. deemed neither to limit nor repeal any other powers granted under state statutes. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.150 General provisions—Warning and disclaimer of liability. The degree of flood protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This Chapter shall not create liability on the part of the City of Belvedere, any officer or employee thereof, the State of California, or the Federal Insurance Administration or Federal Emergency Management Agency, for any flood damages that result from reliance on this Chapter or any administrative decision lawfully made hereunder. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.200 Administration—Establishment of development permit. A development permit shall be obtained before any construction or other development begins within any area of special flood hazard established in Section 16.20.110 of this Chapter. Application for a development permit shall be made on forms furnished by the Floodplain Administrator and may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:

- A. proposed elevation in relation to base flood, of the lowest floor (including basement) of all structures in the AE Zone—including the elevation of highest adjacent grade and the proposed elevation of lowest floor. In the VE Zone, the proposed elevation, in relation to base flood, of the bottom of the lowest structural member supporting the lowest floor; or
- B. proposed elevation in relation to mean sea level to which any nonresidential structure will be floodproofed, if required in Subsection 16.20.300C3 of this Chapter; and
- C. all appropriate certifications listed in Subsection 16.20.220D of this Chapter; and
- D. description of the extent to which any watercourse will be altered or relocated as a result of proposed development. (Ord. 2011-1 § 1 (part), 2011; Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.210 Administration—Designation of the Floodplain Administrator. The Building Official of the City of Belvedere is hereby appointed to administer, implement, and enforce this Chapter by granting or denying development permits in accord with its provisions. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.220 Administration—Duties and responsibilities of the Floodplain Administrator. The duties and responsibilities of the Floodplain Administrator shall include, but not be limited to the following:

A. Permit Review. Review all development permits to determine that:

1. permit requirements of this Chapter have been satisfied,
2. all other required state and federal permits have been obtained,
3. the site is reasonably safe from flooding, and
4. the proposed development does not adversely affect the carrying capacity of areas where base flood elevations have been determined but a floodway has not been designated. For purposes of this Chapter, "adversely affects" means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will increase the water surface elevation of the base flood more than one foot at any point.

B. Review and Use of Any Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 16.20.110 of this Chapter, the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal or state agency, or other source, in order to administer Sections 16.20.300 through 16.20.350 of this Chapter. Any such information shall be submitted to the City Council for adoption.

C. Notification of Other Agencies. In alteration or relocation of a watercourse:

1. notify adjacent communities and the California Department of Water Resources prior to alteration or relocation;
2. submit evidence of such notification to the Federal Insurance Administration, Federal Emergency Management Agency; and
3. assure that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained.

D. Documentation of Floodplain Development. Obtain and maintain for public inspection and make available as needed the following:

1. certification required by Subsection 16.20.300C1 of this Chapter (lowest floor elevations);
2. certification required by Subsection 16.20.300C2 of this Chapter (elevation or floodproofing of nonresidential structures);
3. certification required by Subsection 16.20.300C3 of this Chapter (engineered foundation openings);
4. certification of elevation required by Section 16.20.320 of this Chapter (subdivision standards); and
5. certification required by Section 16.20.350 of this Chapter (floodway encroachments).

E. Map Determinations. Make interpretations where needed as to the locations of the boundaries of the areas of special flood hazard. For example, where there appears to be a conflict between a mapped boundary and actual field conditions, grade and base flood elevation data shall be used to determine the boundaries of the Special Flood Hazard Area. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 16.20.230 of this Chapter.

F. Remedial Action. Take action to remedy violations of this Chapter as specified in Section 16.20.120 of this Chapter, or other applicable law. (Ord. 2011-1 § 1 (part), 2011; Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.230 Administration—Appeals. The City Council shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this Chapter. (Ord. 2004-1 § 3 (part), 2004.)

16.20.300 Provisions for flood hazard reduction—Standards of construction. In all areas of special flood hazards the following standards are required:

A. Anchoring.

1. All new construction and substantial improvements shall be adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

2. All manufactured homes shall meet the anchoring standards of Section 16.20.330 of this Chapter.

B. Construction materials and methods. All new construction and substantial improvement shall be constructed:

1. with materials and utility equipment resistant to flood damage;

2. using methods and practices that minimize flood damage;

3. with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding; and if

4. within Zones AE or VE, so that there are adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

C. Elevation and floodproofing. (See Section 16.20.040 of this Chapter—definitions for "basement," "lowest floor," "new construction," "substantial damage" and "substantial improvement.")

1. Residential construction, new or substantial improvement, shall have the lowest floor, including basement:

a. in an AE zone, above the highest adjacent grade to a height exceeding the depth number specified in feet on the FIRM by at least one foot, or

elevated at least three feet above the highest adjacent grade if no depth number is specified.

b. in a VE zone, the bottom of the lowest structural member supporting the lowest floor elevated at least one foot above the base flood elevation, as determined by the community.

c. in all other Zones, elevated at least one foot above the base flood elevation.

Upon the completion of the structure, the elevation of the lowest floor, including basement, in the AE Zone, or the bottom of the lowest structural member, excluding pilings and columns, supporting the lowest floor, in the case of the VE Zone, shall be certified by a registered professional engineer or land surveyor to meet the elevation requirements as contained in this Section. Such certification shall be provided to the Floodplain Administrator and recorded in the City's floodplain records.

2. Nonresidential construction, new or substantial improvement, shall either be elevated to conform to Subsection 16.20.300C1 of this Chapter, or together with attendant utility and sanitary facilities, shall:

a. be floodproofed below the elevation specified in Subsection 16.20.300C1 of this Chapter so that the structure is watertight with walls substantially impermeable to the passage of water, shall:

b. have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

c. be certified by a registered professional engineer or architect that the standards of this Subsection (16.20.300C2) are satisfied. Such certification shall be provided to the Floodplain Administrator.

3. All new construction and substantial improvement with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement must exceed the following minimum criteria:

a. be certified by a registered professional engineer or architect to comply with the requirements of FEMA technical Bulletin 1-93; or

b. have a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwater.

4. Manufactured homes shall also meet the standards in Section 16.20.330 of this Chapter.

D. V Zone setback for new construction. All new structures constructed within Zones V, V1-30, and VE shall be located on the landward side of the reach of mean high tide (also known as mean high water). (Ord. 2016-1 §§ 7 and 8, 2016; Ord. 2011-1 § 1 (part), 2011; Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.310 Provisions for flood hazard reduction—Standards for utilities. A. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate:

1. infiltration of flood waters into the systems, and
2. discharge from the systems into flood waters.

B. On-site waste disposal systems shall be located to avoid impairment to them, or contamination from them during flooding. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.320 Provisions for flood hazard reduction—Standards for subdivisions. A. All preliminary subdivision proposals shall identify the flood hazard area and the elevation of the base flood.

B. All subdivision plans will provide the elevation of proposed structure(s) and pad(s). If the site is filled above the base flood elevation, the lowest floor and pad elevations shall be certified by a registered professional engineer or surveyor and provided to the Floodplain Administrator.

C. All subdivision proposals shall be consistent with the need to minimize flood damage.

D. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

E. All subdivisions shall provide adequate drainage to reduce exposure to flood hazards. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.330 Provisions for flood hazard reduction—Standards for manufactured homes. A. All manufactured homes that are placed or substantially improved, within Zones A1-30, AH, AE and VE on the community's Flood Insurance Rate Map, on sites located:

1. outside of a manufactured home park or subdivision,
2. in a new manufactured home park or subdivision,
3. in an expansion to an existing manufactured home park or subdivision, or

4. in an existing manufactured home park or subdivision on a site upon which a manufactured home has incurred "substantial damage" as the result of a flood, shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to at least one foot above the base flood elevation and be securely fastened to an adequately anchored foundation system to resist flotation collapse and lateral movement.

B. All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1-30, AH, AE, and VE on the community's Flood Insurance Rate Map that are not subject to the provisions of Subsection 16.20.330A will be securely fastened to an adequately anchored foundation system to resist flotation collapse and lateral movement, and elevated so that either the:

1. lowest floor of the manufactured home is at least one foot above the base flood elevation, or
2. manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade. (Ord. 2011-1 § 1 (part), 2011; Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.340 Provisions for flood hazard reduction—Standards for recreational vehicles. All recreational vehicles placed on sites within Zones A1-30, AH, AE and VE on the community's Flood Insurance Rate Map will either:

A. be on the site for fewer than 180 consecutive days, and be fully licensed and ready for highway use—a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions, or

B. meet the permit requirements of Subsection 16.20.200 of this Chapter and the elevation and anchoring requirements for manufactured homes in Section 16.20.330(A) of this Chapter. (Ord. 2011-1 § 1 (part), 2011; Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.350 Provisions for flood hazard reduction—Floodways. Located within areas of special flood hazard established in Section 16.20.110 of this Chapter are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

A. Prohibit encroachments, including fill, new construction, substantial improvement, and other new development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in [the base] flood elevation during the occurrence of the base flood discharge.

B. If Subsection 16.20.350A is satisfied, all new construction, substantial improvement, and other proposed new development shall comply with all other applicable flood hazard reduction provisions of Sections 16.20.300 through 16.20.340 of this Chapter. (Ord. 2011-1 § 1 (part), 2011; Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.400 Variances—Nature. The variance criteria set forth in this Chapter are based on the general principle of zoning law that variances pertain to a piece of property and are not personal in nature. A variance may be granted for a parcel of property with physical characteristics so unusual that complying with the requirements of this Chapter would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants, or the property owners. It is the duty of the City of Belvedere to help protect

its citizens from flooding. This need is so compelling and the implications of the cost of insuring a structure built below flood level are so serious that variances from the flood elevation or from other requirements in the flood chapter are quite rare. The long term goal of preventing and reducing flood loss and damage can only be met if variances are strictly limited. Therefore, the variance guidelines provided in this Chapter are more detailed and contain multiple provisions that must be met before a variance can be properly granted. The criteria are designed to screen out those situations in which alternatives other than a variance are more appropriate. (Ord. 2004-1 § 3 (part), 2004.)

16.20.410 Variances—Appeals board. A. The City Council shall hear and decide appeals and requests for variances from the requirements of this Chapter. In passing upon requests for variances, the City Council shall consider all technical evaluations, all relevant factors, standards specified in other Sections of this Chapter, and the:

1. danger that materials may be swept onto other lands to the injury of others;
2. danger of life and property due to flooding or erosion damage;
3. susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the existing individual owner and future owners of the property;
4. importance of the services provided by the proposed facility to the community;
5. necessity to the facility of a waterfront location, where applicable;
6. availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
7. compatibility of the proposed use with existing and anticipated development;
8. relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
9. safety of access to the property in time of flood for ordinary and emergency vehicles;
10. expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and
11. costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water system, and streets and bridges.

B. Any applicant to whom a variance is granted shall be given written notice over the signature of a community official that:

1. the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage, and
2. such construction below the base flood level increases risks to life and property. It is recommended that a copy of the notice shall be recorded by the Floodplain Administrator in the Office of the Marin County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

C. The Floodplain Administrator will maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its biennial report submitted to the Federal Insurance Administration, Federal Emergency Management Agency. (Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.420 Variances—Conditions. A. Generally, variances may be issued for new construction, substantial improvement, and other proposed new development to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing that the procedures

of Sections 16.20.200 through 16.20.230 and 16.20.300 through 16.20.350 of this Chapter have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

B. Variances may be issued for the repair or rehabilitation of "historic structures" (as defined in Section 16.20.040 of this Chapter) upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as an historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

C. Variances shall not be issued within any mapped regulatory floodway if any increase in flood levels during the base flood discharge would result.

D. Variances shall only be issued upon a determination that the variance is the "minimum necessary" considering the flood hazard, to afford relief. "Minimum necessary" means to afford relief with a minimum of deviation from the requirements of this Chapter. For example, in the case of variances to an elevation requirement, this means the City Council need not grant permission for the applicant to build at grade, or even to whatever elevation the applicant proposes, but only to that elevation which the City Council believes will both provide relief and preserve the integrity of the local ordinance.

E. Variances shall only be issued upon a:

1. showing of good and sufficient cause;
2. determination that failure to grant the variance would result in

exceptional "hardship" (as defined in Section 16.20.040 of this Chapter) to the applicant; and

3. determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create a nuisance (as defined in Section 16.20.040 of this Chapter—see "public safety or nuisance"), cause fraud and/or victimization (as defined in Section 16.20.040 of this Chapter) of the public, or conflict with existing local laws or ordinances.

F. Variances may be issued for new construction, substantial improvement, and other proposed new development necessary for the conduct of a functionally dependent use provided that the provisions of Subsections 16.20.420A through E are satisfied and that the structure or other development is protected by methods that minimize flood damages during the base flood and does not result in additional threats to public safety and does not create a public nuisance.

G. Upon consideration of the factors of Section 16.20.410 of this Chapter and the purposes of this Chapter, the City Council may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Chapter. (Ord. 2011-1 § 1 (part), 2011; Ord. 2004-1 § 3 (part), 2004; Ord. 87-10 § 1 (part), 1987.)

16.20.500 Enforcement. Violation of any provision of this Chapter may be enforced by the procedures outlined in Belvedere Municipal Code Chapters 1.12 and/or 1.14. (Ord. 2004-1 § 3 (part), 2004.)

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Explanation of the Cost Tables

This manual shows construction or replacement costs for a wide variety of residential, commercial, industrial, public, agricultural and military buildings. For your convenience and to minimize the chance of an error, all the cost and reference information you need for each building type is brought together on two or three pages. After reading pages 4 to 6, you should be able to turn directly to any building type and create an error-free estimate or appraisal of the construction or replacement cost.

The costs are per square foot of floor area for the basic building and additional costs for optional or extra components that differ from building to building. Building shape, floor area, design elements, materials used, and overall quality influence the basic structure cost. These and other cost variables are isolated for the building types. Components included in the basic square foot cost are listed with each building type. Instructions for using the basic building costs are included above the cost tables. These instructions include a list of components that may have to be added to the basic cost to find the total cost for your structure.

The figures in this manual are intended to reflect the amount that would be paid by the first user of a building completed in mid 2020.

Costs in the tables include all construction costs: labor, material, equipment, plans, building permit, supervision, overhead and profit. Cost tables do not include land value, site development costs, government mandated fees (other than the building permit) or the cost of modifying unusual soil conditions or grades. Construction expense may represent as much as 60% or as little as 40% of the cost to the first building owner. Site preparation, utility lines, government fees and mandates, finance cost and marketing are not part of the construction cost and may be as much as 20% of the cost to the first building owner.

Building Quality

Structures vary widely in quality and the quality of construction is the most significant variable in the finished cost. For estimating purposes the structure should be placed in one or more quality classes. These classes are numbered from 1 which is the highest quality generally encountered. Each section of this manual has a page describing typical specifications which define the quality class.

Each number class has been assigned a word description (such as best, good, average or low) for convenience and to help avoid possible errors.

The quality specifications do not reflect some design features and construction details that can make a building both more desirable and more costly. When substantially more than basic design elements are present, and when these elements add significantly to the cost, it is appropriate to classify the quality of the building as higher than would be warranted by the materials used in construction.

Many structures do not fall into a single class and have features of two quality classes. The tables have "half classes" which apply to structures which have some features of one class and some features of a higher or lower class. Classify a building into a "half class" when the quality elements are fairly evenly divided between two classes. Generally, quality elements do not vary widely in a single building. For example, it would be unusual to find a top quality single family residence with minimum quality roof cover. The most weight should be given to quality elements that have the greatest cost. For example, the type of wall and roof framing or the quality of interior finish are more significant than the roof cover or bathroom wall finish. Careful evaluation may determine that certain structures fall into two distinct classes. In this case, the cost of each part of the building should be evaluated separately.

Building Shapes

Shape classification considers any cost differences that arise from variations in building outline. Shape classification considerations vary somewhat with different building types. Where the building shape often varies widely between buildings and shape has a significant effect on the building cost, basic building costs are given for several shapes. Use the table that most closely matches the shape of the building you are evaluating. If the shape falls near the division between two basic building cost tables, it is appropriate to average the square foot cost from those two tables.

Explanation of the Cost Tables

Area of Buildings

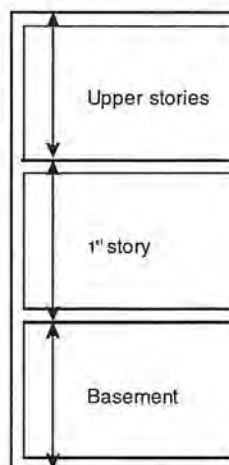
The basic building cost tables reflect the fact that larger buildings generally cost less per square foot than smaller buildings. The cost tables are based on square foot areas which include the following:

1. All floor area within and including the exterior walls of the main building.
2. Inset areas such as vestibules, entrances or porches outside of the exterior wall but under the main roof.
3. Any enclosed additions, annexes or lean-tos with a square foot cost greater than three-fourths of the square foot cost of the main building.

Select the basic building cost listed below the area which falls closest to the actual area of your building. If the area of your building falls nearly midway between two listed building areas, it is appropriate to average the square foot costs for the listed areas.

Wall Heights

Building costs are based on the wall heights given in the instructions for each building cost table. Wall height for the various floors of a building are computed as follows: The basement is measured from the bottom of floor slab to the bottom of the first floor slab or joist. The main or first floor extends from the bottom of the first floor slab or joist to the top of the roof slab or ceiling joist. Upper floors are measured from the top of the floor slab or floor joist to the top of the roof slab or ceiling joist. These measurements may be illustrated as follows:



Square foot costs of most building design types must be adjusted if the actual wall height differs from the listed wall height. Wall height adjustment tables are included for buildings requiring this adjustment. Wall height adjustment tables list square foot costs for a foot of difference in perimeter wall height of buildings of various areas. The amount applicable to the actual building area is added or deducted for each foot of difference from the basic wall height.

Buildings such as residences, medical-dental buildings, funeral homes and convalescent hospitals usually have a standard 8-foot ceiling height except in chapels or day room areas. If a significant cost difference exists due to a wall height variation, this factor should be considered in establishing the quality class.

Other Adjustments

A common wall exists when two buildings share one wall. Common wall adjustments are made by deducting the in-place cost of the exterior wall finish plus one-half of the in-place cost of the structural portion of the common wall area.

If an owner has no ownership in a wall, the in-place cost of the exterior wall finish plus the in-place cost of the structural portion of the wall should be deducted from the total building costs. Suggested common wall and no wall ownership costs are included for many of the building types.

Some square foot costs include the cost of expensive veneer finishes on the entire perimeter wall. When these buildings butt against other buildings, adjustments should be made for the lack of this finish. Where applicable, linear foot cost deductions are provided.

The square foot costs in this manual are based on composite costs of total buildings including usual work room or storage areas. They are intended to be applied on a 100% basis to the total building area even though certain areas may or may not have interior finish. Only in rare instances will it be necessary to modify the square foot cost of a portion of a building.

Multiple story buildings usually share a common roof structure and cover, a common foundation and common floor or ceiling structures. The costs of these components are included in the various floor levels as follows:

Explanation of the Cost Tables

The first or main floor includes the cost of a floor structure built at ground level, foundation costs for a one-story building, a complete ceiling and roof structure, and a roof cover. The basement includes the basement floor structure and the difference between the cost of the first floor structure built at ground level and its cost built over a basement. The second floor includes the difference between the cost of a foundation for a one-story building and the cost of a foundation for a two-story building and the cost of the second story floor structure.

Location Adjustments

The figures in this manual are intended as national averages for metropolitan areas of the United States. Use the information on page 7 to adapt the basic building costs to any area listed. Frequently building costs outside metropolitan areas are 2% to 6% lower if skilled, productive, lower cost labor is available in the area. The factors on page 7 can be applied to nearly all the square foot costs and some of the "additional" costs in this book.

Temporary working conditions in any community can affect construction and replacement costs. Construction which must be done under deadline pressure or in adverse weather conditions or after a major fire, flood, or hurricane or in a thin labor market can temporarily inflate costs 2% to 50%. Conditions such as these are usually temporary and affect only a limited area. But the higher costs are real and must be considered, no matter how limited the area and how transient the condition.

Depreciation

Depreciation is the loss in value of a structure from all causes and is caused primarily by three forms of obsolescence: (1) physical (2) functional, and (3) economic.

Physical obsolescence is the deterioration of building components such as paint, carpets or roofing. Much of this deterioration is totally curable. The physical life tables on pages 43, 235 and 269 assume normal physical obsolescence. Good judgment is required to evaluate how deferred maintenance or rehabilitation will reduce or extend the anticipated physical life of a building.

Functional obsolescence is due to some deficiency or flaw in the building. For example, too few bathrooms for the number of bedrooms or an

exceptionally high ceiling can reduce the life expectancy of a residence. Some functional obsolescence can be cured. The physical life tables do not consider functional obsolescence.

Economic obsolescence is caused by conditions that occur off site and are beyond control of the owner. Examples of economic obsolescence include a store in an area of declining economic activity or obsolescence caused by governmental regulation (such as a change in zoning). Because this kind of obsolescence is particularly difficult to measure, it is not considered in the physical life tables.

"Effective age" considers all forms of depreciation. It may be less than chronological age, if recently remodeled or improved, or more than the actual age, if deterioration is particularly bad. Though effective age is not considered in the physical life tables, it may yield a better picture of a structure's life than the actual physical age. Once the effective age is determined, considering physical, functional and economic deterioration, use the percent good tables on pages 43, 235 or 269 to determine the present value of a depreciated building. Present value is the result of multiplying the replacement cost (found by using the cost tables) by the appropriate percent good.

Limitations

This manual will be a useful reference for anyone who has to develop budget estimates or replacement costs for buildings. Anyone familiar with construction estimating understands that even very competent estimators with complete working drawings, full specifications and precise labor and material costs can disagree on the cost of a building. Frequently exhaustive estimates for even relatively simple structures can vary 10% or more. The range of competitive bids on some building projects is as much as 20%. Estimating costs is not an exact science and there's room for legitimate disagreement on what the "right" cost is. This manual can not help you do in a few minutes what skilled estimators may not be able to do in many hours. This manual will help you determine a reasonable replacement or construction cost for most buildings. It is not intended as a substitute for judgment or as a replacement for sound professional practice, but should prove a valuable aid to developing an informed opinion of value.

Area Modification Factors

Construction costs are higher in some cities than in other cities. Add or deduct the percentage shown on this page or page 8 to adapt the costs in this book to your job site. Adjust your estimated total project cost by the percentage shown for the appropriate city in this table to find your total estimated cost. Where 0% is shown it means no modification is required. Factors for Canada adjust to Canadian dollars.

These percentages were compiled by comparing the construction cost of buildings in nearly 600 communities throughout North America. Because these percentages are based on completed projects, they consider all

construction cost variables, including labor, equipment and material cost, labor productivity, climate, job conditions and markup.

Modification factors are listed alphabetically by state and city, followed by the first three digits of the postal zip code.

These percentages are composites of many costs and will not necessarily be accurate when estimating the cost of any particular part of a building. But when used to modify costs for an entire structure, they should improve the accuracy of your estimates.

Alabama Average	-4%	Salinas	939	1%	Atlanta	303	12%	Muncie	473	-8%	Camden	048	-10%	
Anniston	362	-8%	San Bernardino	923-924	2%	Augusta	308-309	-2%	South Bend	466	-2%	Culler	046	-7%
Auburn	368	-4%	San Diego	919-921	8%	Buford	305	-2%	Terre Haute	478	-3%	Dexter	049	-4%
Bellamy	369	5%	San Francisco	941	27%	Calhoun	307	-9%				Northern Area	047	-8%
Birmingham	350-352	2%	San Jose	950-951	17%	Columbus	318-319	-3%	Iowa Average		-3%	Portland	041	2%
Dothan	363	-7%	San Mateo	943-944	21%	Dublin/Fort Valley	310	-8%	Burlington	526	1%			
Evergreen	364	-10%	Santa Barbara	931	7%	Hinesville	313	-6%	Carroll	514	-11%	Maryland Average		2%
Gadsden	359	-9%	Santa Rosa	954	16%	Kings Bay	315	-10%	Cedar Falls	506	-4%	Annapolis	214	8%
Huntsville	358	-1%	Stockton	952	4%	Macon	312	-4%	Cedar Rapids	522-524	2%	Baltimore	210-212	7%
Jasper	355	-8%	Sunnyvale	940	20%	Marietta	300-302	4%	Cherokee	510	1%	Bethesda	208-209	13%
Mobile	365-366	-2%	Van Nuys	913-916	8%	Savannah	314	-4%	Council Bluffs	515	-1%	Church Hill	216	-4%
Montgomery	360-361	-2%	Whittier	906	8%	Statesboro	304	-11%	Crescent	508	1%	Cumberland	215	-8%
Scottsboro	357	-4%				Valdosta	316	-1%	Davenport	527-528	1%	Elkton	219	-5%
Selma	367	-5%	Colorado Average		1%				Des Moines	521	-8%	Frederick	217	7%
Sheffield	356	0%	Aurora	800-801	7%	Hawaii Average		20%	Dubuque	520	-4%	Laurel	206-207	8%
Tuscaloosa	354	-4%	Boulder	803-804	4%	Aliamano	968	22%	Fort Dodge	505	-3%	Salisbury	218	-6%
			Colorado Springs	808-809	0%	Ewa	967	20%	Mason City	504	-3%			
Alaska Average		23%	Denver	802	8%	Halawa Heights	967	20%	Ottumwa	525	-6%	Massachusetts Average		12%
Anchorage	995	26%	Durango	813	-1%	Hilo	967	20%	Sheldahl	512	-7%	Ayer	015-016	6%
Fairbanks	997	27%	Fort Morgan	807	-2%	Honolulu	967	20%	Shepherdsville	516	-14%	Bedford	017	15%
Juneau	998	19%	Glenwood Springs	816	4%	Kailua	968	22%	Shrewsbury	511	5%	Boston	021-022	37%
Ketchikan	999	18%	Green Junction	814-815	0%	Lualualei	967	20%	Spencer	513	-7%	Brockton	023-024	20%
King Salmon	996	23%	Greeley	806	5%	Milliani Town	967	20%	Waterloo	507	-3%	Cape Cod	026	4%
			Longmont	805	2%	Pearl City	967	20%				Chicopee	010	7%
Arizona Average		-4%	Pagosa Springs	811	-4%	Wahiawa	967	20%	Kansas Average		0%	DeDham	019	18%
Chambers	865	-8%	Pueblo	810	0%	Waihanae	967	20%	Colby	677	-8%	Fitchburg	014	11%
Douglas	855	-8%	Salida	812	-6%	Waluku (Maui)	967	20%	Concordia	669	-12%	Hingham	020	19%
Flagstaff	860	-7%						Dodge City	678	-4%	Lawrence	018	14%	
Kingman	864	-5%	Connecticut Average		8%	Illinois Average		4%	Emporia	668	8%	Nantucket	025	9%
Mesa	852	3%	Bridgeport	066	6%	Arlington Heights	600	14%	Fort Scott	667	-6%	New Bedford	027	6%
Phoenix	850	3%	Bristol	060	12%	Aurora	605	14%	Hays	676	-13%	Pittsfield	013	2%
Prescott	863	-6%	Fairfield	064	0%	Belleville	622	0%	Hutchinson	675	-6%	Springfield	012	1%
Show Low	859	-7%	Hartford	061	1%	Bloomington	617	-1%	Independence	673	29%			
Tucson	856-857	-5%	New Haven	065	2%	Carbondale	629	-4%	Kansas City	660-662	5%			
Yuma	853	2%	Norwich	063	3%	Carol Stream	601	14%	Liberal	679	14%	Michigan Average		1%
			Stamford	068-069	12%	Centralia	628	-3%	Salina	674	-7%	Battle Creek	490-491	-1%
			Waterbury	067	6%	Chicago	606-608	15%	Topeka	664-666	-1%	Detroit	481-482	7%
			West Hartford	062	5%	Decatur	623	-7%	Wichita	670-672	-4%	Flint	484-485	-4%
Arkansas Average		-7%				Indiana Average		-3%				Grand Rapids	493-495	1%
Batesville	725	-9%	Delaware Average		0%	Aurora	470	-5%	Kentucky Average		-4%	Grayling	497	-7%
Camden	717	-2%	Dover	199	1%	Belleville	474	-2%	Ashland	411-412	-4%	Jackson	492	-1%
Fayetteville	727	-4%	Newark	197	6%	Bloomington	472	-4%	Bowling Green	421	-5%	Lansing	488-489	0%
Fort Smith	729	-7%	Wilmington	196	4%	Carbondale	629	-4%	Campton	413-414	-11%	Marquette	498-499	3%
Harrison	726	-12%				Centralia	628	-3%	Covington	410	2%	Pontiac	483	12%
Hope	718	-8%	District of Columbia			Champaign	618	-2%	Elizabethtown	427	-10%	Royal Oak	480	7%
Hot Springs	719	-13%	Average		12%	Chicago	606-608	15%	Frankfort	406	7%	Saginaw	486-487	-5%
Jonesboro	724	-9%	Washington	200-205	12%	Decatur	623	-7%	Hazard	417-418	-10%	Traverse City	496	-2%
Little Rock	720-722	-3%				Galesburg	614	-4%	Hopkinsville	422	-5%			
Pine Bluff	716	-11%	Florida Average		-5%	Granite City	620	3%	Lexington	403-405	1%	Minnesota Average		-1%
Russellville	728	-4%	Altamonte Springs	327	-3%	Green River	612	5%	London	407-409	-7%	Bemidji	566	-6%
West Memphis	723	-2%	Bradenton	342	-6%	Joliet	604	13%	Louisville	400-402	2%	Brainerd	564	-3%
			Brooksville	346	-7%	Kankakee	609	-3%	Owensboro	423	-4%	Duluth	556-558	2%
California Average		9%	Daytona Beach	321	-9%	Lawrenceville	624	-6%	Paducah	420	0%	Fergus Falls	565	-10%
Alhambra	917-918	8%	Fort Lauderdale	333	2%	Oak Park	603	18%	Pikeville	415-416	-8%	Magnolia	561	-8%
Bakersfield	932-933	2%	Fort Myers	339	-6%	Peoria	615-616	6%	Somerset	425-426	-11%	Mankato	560	-4%
El Centro	922	0%	Fort Pierce	349	-10%	Peru	613	2%	White Plains	424	-4%	Minneapolis	553-555	13%
Eureka	955	7%	Gainesville	326	-9%	Quincy	602	16%	Louisiana Average		2%	Rochester	559	-1%
Fresno	936-938	-2%	Jacksonville	322	-2%	Rockford	610-611	3%	Alexandria	713-714	4%	St Cloud	563	2%
Hesperia	961	9%	Lakeland	338	-8%	Springfield	625-627	0%	Baton Rouge	707-708	10%	St Paul	550-551	12%
Inglewood	902-905	9%	Melbourne	329	-8%	Urbana	619	-4%	Houma	703	4%	Thief River Falls	567	-2%
Irvine	926-927	13%	Miami	330-332	1%			Lafayette	705	8%	Willmar	562	-6%	
Lompoc	934	3%	Naples	341	-2%	Indiana Average		-3%	Lake Charles	706	13%	Mississippi Average		-6%
Long Beach	907-908	9%	Ocala	344	-12%	Aurora	470	-5%	Mandeville	704	-3%	Clarksdale	386	-9%
Las Angeles	900-901	8%	Orlando	328	1%	Bloomington	474	-2%	Minden	710	-5%	Columbus	397	0%
Marysville	959	9%	Panama City	324	-11%	Columbus	472	-4%	Monroe	712	-8%	Greenville	387	-14%
Modesto	953	1%	Pensacola	325	-8%	Elkhart	465	-4%	New Orleans	700-701	2%	Greenwood	389	-10%
Mojave	935	5%	Saint Augustine	320	-2%	Evansville	476-477	4%	Shreveport	711	-4%	Gulfport	395	-6%
Novato	949	18%	Saint Cloud	347	-2%	Fort Wayne	467-468	-1%	Maine Average		-5%	Jackson	390-392	-3%
Oakland	945-947	24%	St Petersburg	337	-6%	Gary	463-464	8%	Auburn	042	-4%	Laurel	394	-7%
Orange	928	12%	Tallahassee	323	-6%	Indianapolis	460-462	4%	Augusta	043	-5%	McComb	396	-11%
Oxnard	930	2%	Tampa	335-336	-1%	Jasper	475	-8%	Bangor	044	-6%	Meridiano	393	3%
Pasadena	910-912	9%	West Palm Beach	334	-2%	Jeffersonville	471	-5%	Bath	045	-6%	Tupelo	388	-7%
Rancho Cordova	956-957	4%				Lafayette	479	-5%	Brunswick	039-040	-1%			
Redding	960	-3%	Georgia Average		-4%									
Richmond	948	17%	Albany	317	-6%									
Riverside	925	4%	Athens	306	-5%									
Sacramento	958	3%												

Building Cost Historical Index

Use this table to find the approximate current dollar building cost when the actual cost is known for any year since 1953. Multiply the figure listed below for the building type and year of construction by the known cost. The result is the estimated 2020 construction cost.

Year	Masonry Buildings	Concrete Buildings	Steel Buildings	Wood-Frame Buildings	Agricultural Buildings	Year of Construction
1953	14.73	15.58	15.68	13.22	12.20	1953
1954	14.45	15.02	15.68	13.22	12.20	1954
1955	13.86	14.33	14.85	12.52	11.67	1955
1956	13.15	13.70	13.67	11.99	11.18	1956
1957	12.77	13.18	13.13	11.91	10.91	1957
1958	12.41	12.69	12.49	11.88	13.01	1958
1959	12.02	12.29	12.20	11.37	10.43	1959
1960	11.74	12.06	12.00	11.20	10.22	1960
1961	11.50	12.01	11.80	11.00	10.19	1961
1962	11.25	11.66	11.51	10.87	10.04	1962
1963	11.08	11.36	11.38	10.66	9.10	1963
1964	10.75	11.22	11.22	10.30	9.56	1964
1965	10.41	10.93	10.83	10.08	9.30	1965
1966	9.94	10.62	10.42	9.64	9.04	1966
1967	9.71	10.11	9.74	9.17	8.68	1967
1968	9.31	9.55	9.30	8.67	8.30	1968
1969	8.79	9.13	8.99	8.34	7.83	1969
1970	8.44	8.73	8.53	7.73	7.44	1970
1971	7.92	7.99	7.92	6.83	6.93	1971
1972	7.36	7.40	7.41	6.85	6.45	1972
1973	6.72	7.01	6.57	6.57	6.06	1973
1974	5.98	6.43	6.17	5.91	5.62	1974
1975	5.44	5.68	5.55	5.56	5.01	1975
1976	5.10	5.41	5.27	5.35	4.75	1976
1977	4.75	5.07	5.00	4.91	4.46	1977
1978	4.42	4.75	4.61	4.57	4.04	1978
1979	4.06	4.22	4.15	4.19	3.83	1979
1980	3.68	3.84	3.68	3.75	3.46	1980
1981	3.46	3.62	3.57	3.58	3.24	1981
1982	3.35	3.46	3.27	3.47	3.12	1982
1983	3.20	3.35	3.10	3.31	2.94	1983
1984	2.99	3.15	3.05	3.05	2.86	1984
1985	2.91	2.99	2.91	2.96	2.81	1985
1986	2.83	2.97	2.92	2.92	2.75	1986
1987	2.82	2.91	2.89	2.86	2.73	1987
1988	2.76	2.80	2.83	2.83	2.68	1988
1989	2.70	2.75	2.70	2.78	2.60	1989
1990	2.54	2.64	2.56	2.58	2.48	1990
1991	2.75	2.65	2.43	2.44	2.35	1991
1992	2.46	2.57	2.40	2.43	2.33	1992
1993	2.40	2.54	2.32	2.40	2.29	1993
1994	2.34	2.41	2.23	2.31	2.13	1994
1995	2.22	2.17	2.06	2.17	2.01	1995
1996	2.14	2.13	2.01	2.12	1.97	1996
1997	2.07	2.07	1.93	2.08	1.92	1997
1998	1.97	1.97	1.85	1.99	1.90	1998
1999	1.90	1.90	1.81	1.96	1.87	1999
2000	1.85	1.85	1.74	1.89	1.81	2000
2001	1.79	1.79	1.71	1.82	1.76	2001
2002	1.74	1.74	1.66	1.80	1.72	2002
2003	1.72	1.72	1.62	1.79	1.69	2003
2004	1.65	1.65	1.58	1.74	1.64	2004
2005	1.53	1.53	1.41	1.56	1.61	2005
2006	1.44	1.44	1.31	1.40	1.44	2006
2007	1.39	1.39	1.24	1.30	1.33	2007
2008	1.31	1.31	1.18	1.24	1.26	2008
2009	1.30	1.30	1.14	1.24	1.26	2009
2010	1.27	1.27	1.07	1.23	1.25	2010
2011	1.28	1.28	1.11	1.25	1.29	2011
2012	1.27	1.27	0.99	1.21	1.26	2012
2013	1.21	1.21	1.05	1.15	1.18	2013
2014	1.20	1.20	1.04	1.13	1.17	2014
2015	1.19	1.19	1.03	1.12	1.16	2015
2016	1.17	1.17	1.13	1.13	1.13	2016
2017	1.14	1.14	1.15	1.14	1.13	2017
2018	1.08	1.08	1.00	1.04	1.06	2018
2019	1.02	1.02	1.04	0.99	1.01	2019
2020	1.00	1.00	1.00	1.00	1.00	2020

SAMPLE

Residential Structures Section

The figures in this section include all costs associated with normal construction:

Foundations as required for normal soil conditions. Excavation for foundations, piers, and other foundation components given a fairly level construction site. Floor, wall, and roof structures. Interior floor, wall, and ceiling finishes. Exterior wall finish and roof cover. Interior partitions as described in the quality class. Finish carpentry, doors, windows, trim, etc. Electric wiring and fixtures. Rough and finish plumbing as described in applicable building specifications. Built-in appliances as described in applicable building specifications. All labor

and materials including supervision. All design and engineering fees, if necessary. Permits and fees. Utility hook-ups. Contractors' contingency, overhead and profit.

The square foot costs do not include heating and cooling equipment or the items listed in the section "Additional Costs for Residential Structures" which appear on pages 27 to 31. The costs of the following should be figured separately and added to the basic structure cost: porches, basements, balconies, exterior stairways, built-in equipment beyond that listed in the quality classifications, garages and carports.

Single Family Residences

Single family residences vary widely in quality and the quality of construction is the most significant factor influencing cost. Residences are listed in six quality classes. Class 1 is the most expensive commonly encountered and Class 6 is the minimum required under most building codes. Nearly all homes built from stock plans or offered to the public by residential tract developers will fall into Class 3, 4, 5, or 6. For convenience, these classes are labeled *Best Standard*, *Good Standard*, *Average Standard* or *Minimum Standard*. Class 1 residences are labeled *Luxury*. Class 2 residences are labeled *Semi-Luxury*. Class 1 and 2 residences are designed by professional architects, usually to meet preferences of the first owner.

The shape of the outside perimeter also has a significant influence on cost. The more complex the shape, the more expensive the structure per square foot of floor. The shape classification of multiple story or split-level homes should be based on the outline formed by the outer-most exterior walls, including the garage area, regardless of the story level. Most residences that fall into Classes 3, 4, 5 or 6 have 4, 6, 8 or 10 corners, as illustrated below. Small insets that do not require a change in the roof line can be ignored when evaluating the outside perimeter.

Class 1 and 2 (*Luxury* and *Semi-Luxury*) residences have more than ten corners and are best evaluated by counting the "building masses." A building mass is a group of contiguous rooms on one or more levels with access at varying angles from a common point or

hallway. The illustration at the right below represents a residence with two building masses. Most Class 1 and Class 2 residences have from one to four building masses, ignoring any attached garage. For convenience, cost tables for Class 1 and 2 single family residences with one, two, three or four building masses have been appended to cost tables for Class 3, 4, 5 and 6 residences with 4, 6, 8 and 10 building corners.

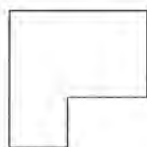
Residences on larger lots often include a separate housekeeping unit, either remote from the main structure (as illustrated below at the right) or joined to the main structure by a hallway (no common wall). Evaluate any separate housekeeping unit as a separate residence. The quality class of separate housekeeping units will usually be the same as the main residence if designed and built at the same time as the main residence.

Residences which have features of two or more quality classes can be placed between two of the six labeled classes. The tables have five half-classes (1 & 2, 2 & 3, etc.) which can be applied to residences with some characteristics of two or more quality classes. If a portion of a residence differs significantly in quality from other portions, evaluate the square footage of each portion separately.

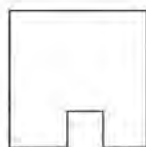
These figures can be applied to nearly all single-family residences built using conventional methods and readily available materials, including the relatively small number of highly decorative, starkly original or exceptionally well-appointed residences.



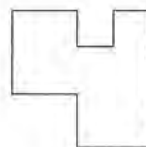
4 corners



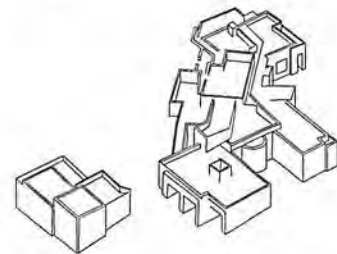
6 corners



8 corners



10 corners



2 building masses and one separate unit

Single Family Residences

Quality Classification

	Class 1 Luxury	Class 2 Semi-Luxury	Class 3 Best Std.	Class 4 Good Std.	Class 5 Average Std.	Class 6 Minimum Std.
Foundation (9% of total cost)	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.	Reinforced concrete or concrete block.	Reinforced concrete or concrete block.	Reinforced concrete.
Floor Structure (12% of total cost)	Engineered wood or steel exceeding code minimums.	Engineered wood or steel or reinforced concrete slab.	Engineered wood or steel or reinforced concrete slab.	Wood frame or slab on grade, changes in shape and elevation.	Standard wood frame or slab on grade with elevation changes.	Slab on grade. No changes in elevation.
Wall Framing and Exterior Finish (14% of total cost)	Wood or steel, very irregular walls, stone veneer, many architectural doors and windows.	Wood or steel, irregular shape, masonry veneer, better grade doors and windows.	Wood or steel, several wall offsets, wood or masonry accents, good grade doors and windows.	Wood or steel, stucco or wood siding, some trim or veneer, average doors and windows.	Wood or steel, stucco or wood siding, few offsets, commodity grade doors and windows.	Wood or steel, stucco or hardboard siding, minimum grade doors and windows.
Roof (10% of total cost)	Complex plan, tile, slate or metal, highly detailed.	Multi-level, slate, tile or flat surface, decorative details.	Multi-pitch, shake, tile or flat surface, large closed soffit.	Wood trusses, tile or good shingles, closed soffit.	Wood frame, shingle or built-up cover, open 24" soffit.	Wood frame, composition shingle cover, open soffit.
Floor Finish (5% of total cost)	Terrazzo, marble, granite, or inlaid hardwood or best carpet throughout.	Marble or granite entry, hardwood, good carpet or sheet vinyl elsewhere.	Simulated marble tile entry, good carpet, hardwood or vinyl elsewhere.	Better sheet vinyl and average carpet, some areas with masonry or tile.	Good sheet vinyl and standard carpet, small area with tile or hardwood.	Composition tile or minimum grade sheet vinyl.
Interior Wall and Ceiling Finish (8% of total cost)	Plaster or gypsum wallboard with artistic finish, many offsets and wall openings, decorative details in nearly all rooms.	Plaster on gypsum or metal lath or 2 layers of 5/8" gypsum wallboard, decorative details, many irregular wall openings.	Gypsum wallboard with putty or texture coat finish, some irregular walls, decorative details in living room, entry and kitchen.	1/2" gypsum wallboard with textured finish, several irregular walls and wall openings, some decorative details.	1/2" gypsum wallboard with textured finish, most walls are rectangular, doors and windows are the only openings.	1/2" gypsum wallboard, smooth or orange peel finish. Nearly all walls are regular, no decorative details.
Interior Detail (5% of total cost)	Exposed beams or decorative ceiling, 12' to 16' ceiling in great room, many sky windows, built-in shelving and alcoves for art.	Great room has 12' to 16' ceiling, most rooms have windows on two sides, formal dining area, several framed openings.	Cathedral ceiling at entry, one or more floor level changes, several wall openings or pass-throughs, formal dining area.	8' or 9' ceiling throughout, walk-in closet in master bedroom, separate dining area, some decorative wood trim.	8' or 9' ceiling throughout, sliding mirrored closet doors, standard grade molding and trim, breakfast bar or nook.	Drop ceiling in kitchen, other rooms have 7'6" to 8' ceiling, minimum grade molding and trim.
Bath Detail (4% of total cost)	Custom large tile showers, separate elevated spa in master bathroom.	Large tile showers at least one tub, glass block or large window in each bath.	Tub or fiberglass shower, at least one built-in bathtub, window in bathroom.	Good plastic tub and shower in at least one bathroom, one small window in each bath.	Average plastic tub and shower in at least one bathroom.	Minimum plastic tub and shower in one bathroom.
Kitchen Detail (8% of total cost)	Over 30 LF of deluxe wall and base cabinets, stone counter top, island work area, breakfast bar.	Over 25 LF of good custom base and wall cabinets, synthetic stone counter top, desk and breakfast bar.	Over 20 LF of good stock wall and base cabinets, tile or acrylic counter top, desk and breakfast bar or nook.	Over 15 LF of stock standard grade wall and base cabinets, low-cost tile or acrylic counter top, breakfast nook.	Over 10 LF of stock standard grade wall and base cabinets, low-cost acrylic or laminated plastic counter top.	Less than 10 LF of low-cost wall and base cabinets, laminated plastic counter top, space for table.
Plumbing (12% of total cost)	4 deluxe fixtures per bathroom, more bathrooms than bedrooms.	4 good fixtures per bathroom, more bathrooms than bedrooms.	3 good fixtures per bathroom, as many bathrooms as bedrooms.	3 standard fixtures per bathroom, less bathrooms than bedrooms.	3 standard fixtures per bathroom, less bathrooms than bedrooms.	3 minimum fixtures per bathroom, 2 bathrooms.
Special Features (3% of total cost)	10 luxury built-in appliances, wet bar, home theater, pantry, wine cellar.	8 good built-in appliances, wet bar, walk-in pantry, central vacuum.	6 good built-in appliances, walk-in pantry, wet bar, central vacuum.	5 standard built-in appliances, sliding glass or French doors, laundry room.	4 standard grade kitchen appliances.	4 minimum grade kitchen appliances.
Electrical System (10% of total cost)	Over 100 recessed or track lights, security system, computer network.	80 to 100 recessed lighting fixtures, security system, computer network.	Ample recessed lighting on dimmers, computer network, multiple TV outlets.	Limited recessed lighting on dimmers, multiple TV outlets.	12 lighting fixtures, switch-operated duplex plug outlets in bedrooms.	10 or less lighting fixtures, switch-operated plug outlets in most rooms.
If Exterior Walls are Masonry	Reinforced split face concrete block or brick with face brick veneer.	Reinforced block or brick with masonry veneer or stucco coat.	Textured or coated concrete block or good quality detailed brick.	Colored or coated concrete block or good quality brick.	Colored concrete block or painted common brick.	Painted concrete block or common brick.

Note: Use the percent of total cost to help identify the correct quality classification.

Single Family Residences

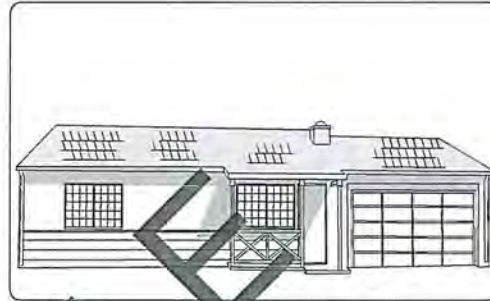
4 Corners (Classes 3, 4, 5 and 6) or One Building Mass (Classes 1 and 2 Only)

Estimating Procedure

1. Establish the structure quality class by applying the information on page 11.
2. Multiply the structure floor area (excluding the garage) by the appropriate square foot cost below.
3. Multiply the total from step 2 by the correct location factor listed on page 7 or 8.
4. Add, when appropriate, the cost of a porch, garage, heating and cooling equipment, basement, fireplace, carport, appliances and plumbing fixtures beyond that listed in the quality classification. See the cost of these items on pages 27 to 31.



Single Family Residence, Class 4



Single Family Residence, Class 6

Square Foot Area

Quality Class	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	2,000
1, Luxury	528.70	506.57	488.28	472.49	460.20	449.21	439.51	430.76	424.23	417.81	411.96	407.00	397.74
1, & 2	459.74	440.50	424.60	410.87	400.90	390.57	382.19	374.57	368.89	363.34	358.16	353.85	345.84
2, Semi-Luxury	321.30	307.87	296.75	287.15	279.69	273.09	267.14	261.83	257.83	253.81	250.36	247.37	241.66
2 & 3	235.84	226.01	217.83	210.83	205.34	200.41	196.07	192.18	189.22	186.36	183.72	181.60	177.43
3, Best Std.	205.81	197.25	190.08	183.99	178.19	174.07	171.12	167.73	165.15	162.65	160.37	158.42	154.82
3 & 4	176.01	168.54	162.50	157.32	153.21	149.50	146.31	143.34	141.20	138.93	137.13	135.44	132.41
4, Good Std.	151.65	145.19	140.03	135.52	131.00	128.86	126.02	123.50	121.57	119.77	118.11	116.57	114.06
4 & 5	136.59	130.85	126.18	122.08	118.87	115.98	113.46	111.31	109.56	107.88	106.41	105.13	102.66
5 Avg. Std.	122.93	117.85	113.55	109.95	107.12	104.52	102.24	100.14	98.62	97.12	95.77	94.65	92.47
5 & 6	106.74	102.28	98.60	95.44	92.91	90.69	88.71	86.89	85.63	84.28	83.26	82.14	80.27
6, Min. Std.	97.04	92.95	89.61	86.73	84.47	82.43	80.66	79.04	77.83	76.61	75.63	74.64	72.93

Square Foot Area

Quality Class	2,200	2,400	2,600	2,800	3,000	3,200	3,400	3,600	4,000	4,200	4,400	4,600	5,000+
1, Luxury	390.80	384.25	378.97	374.25	370.91	367.80	364.44	361.99	356.89	353.65	350.83	348.39	344.89
1, & 2	339.93	334.14	329.53	325.43	322.51	319.83	316.90	314.76	310.36	307.52	305.07	302.94	299.91
2, Semi-Luxury	237.66	233.52	230.34	227.46	225.39	223.47	221.44	219.98	216.89	214.92	213.19	211.73	209.61
2 & 3	174.36	171.44	169.09	166.99	165.42	163.99	162.59	161.47	159.23	157.79	156.51	155.42	153.87
3, Best Std.	152.17	149.57	147.49	145.73	144.41	143.19	141.86	140.88	138.92	138.93	137.82	136.85	135.50
3 & 4	130.11	127.91	126.17	124.63	123.45	122.35	121.36	120.51	118.82	117.76	116.80	115.99	114.82
4, Good Std.	112.10	110.17	108.72	107.30	106.41	105.45	104.55	103.73	102.34	101.43	100.57	99.89	98.89
4 & 5	100.94	99.31	97.79	96.68	95.76	95.02	94.05	93.50	92.22	91.38	90.68	90.03	89.14
5 Avg. Std.	90.91	89.41	88.19	86.98	86.28	85.53	84.74	84.17	83.02	81.82	81.62	81.06	80.27
5 & 6	78.92	77.61	76.51	75.54	74.93	74.18	73.51	72.98	72.07	71.33	70.86	70.32	69.68
6, Min. Std.	71.64	70.50	69.56	68.74	68.09	67.47	66.88	66.39	65.49	64.82	64.40	63.92	63.31

Note: Tract work and highly repetitive jobs may reduce the cost 8 to 12%. Add 4% to the square foot cost of floors above the second floor level. Work outside metropolitan areas may cost 2 to 6% less. When the exterior walls are masonry, add 9 to 10% for class 2 and 1 structures and 5 to 8% for class 3, 4, 5 and 6 structures. The building area includes all full story (7'6" to 9' high) areas within and including the exterior walls of all floor areas of the building, including small inset areas such as entrances outside the exterior wall but under the main roof. For areas with a ceiling height of less than 80", see the section on half-story areas on page 30.

Single Family Residences

10 Corners (Classes 3, 4, 5 and 6) or Four Building Masses (Classes 1 and 2 only)

Estimating Procedure

1. Establish the structure quality class by applying the information on page 11.
2. Multiply the structure floor area (excluding the garage) by the appropriate square foot cost below.
3. Multiply the total from step 2 by the correct location factor listed on page 7 or 8.
4. Add, when appropriate, the cost of a porch, garage, heating and cooling equipment, basement, fireplace, carport, appliances and plumbing fixtures beyond that listed in the quality classification. See the cost of these items on pages 27 to 31.



Single Family Residence, Class 2 & 3



Single Family Residence, Class 1

Square Foot Area

Quality Class	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	2,000
1, Luxury	561.30	537.83	518.39	503.09	489.61	477.23	467.95	460.03	452.32	445.95	440.35	435.24	426.11
1, & 2	488.11	467.79	450.81	437.49	424.66	412.07	406.89	400.04	393.31	388.26	382.98	378.50	370.55
2, Semi-Luxury	338.19	324.78	313.85	304.26	296.05	289.08	284.40	279.57	274.90	271.01	267.63	264.47	258.93
2 & 3	248.27	238.45	230.40	223.71	217.95	212.91	208.71	205.17	201.79	198.85	196.44	194.12	190.09
3, Best Std.	216.65	208.03	201.04	194.70	188.98	183.84	182.16	179.06	176.11	173.59	171.44	169.45	165.86
3 & 4	185.24	177.75	171.92	166.55	162.65	158.82	155.76	153.07	150.50	148.41	146.54	144.89	141.86
4, Good Std.	159.63	153.26	147.21	143.55	140.04	136.87	134.15	131.97	129.68	127.91	126.29	124.77	122.21
4 & 5	143.77	138.03	133.46	129.35	126.21	123.31	120.87	118.84	116.86	115.25	113.70	112.37	110.10
5 Avg. Std.	129.50	124.22	119.25	116.00	113.66	111.10	108.89	107.02	105.26	103.69	102.55	101.26	99.17
5 & 6	112.31	107.85	104.25	101.10	98.62	96.36	94.52	92.87	91.29	90.00	88.91	87.77	86.08
6, Min. Std.	102.17	98.03	94.88	91.93	89.65	87.59	85.85	84.45	82.97	81.78	80.82	79.83	78.21

Square Foot Area

Quality Class	2,200	2,400	2,600	2,800	3,000	3,200	3,400	3,600	4,000	4,200	4,400	4,600	5,000+
1, Luxury	419.24	417.40	407.57	402.68	399.16	395.87	392.65	390.08	385.08	381.61	378.55	375.90	372.10
1, & 2	364.59	359.07	354.46	350.12	347.21	344.24	341.49	339.19	334.95	330.98	328.36	326.09	322.86
2, Semi-Luxury	254.76	250.95	247.69	244.76	242.62	240.57	238.64	237.13	234.05	231.96	230.06	228.46	226.17
2 & 3	187.00	184.17	181.79	179.64	178.04	176.62	175.14	174.00	171.83	165.08	163.79	162.62	161.02
3, Best Std.	163.20	160.78	158.69	156.74	155.37	154.05	152.84	151.85	149.96	148.60	147.41	146.39	144.92
3 & 4	139.47	137.45	135.66	134.05	132.86	131.71	130.72	129.82	128.10	126.96	125.95	125.06	123.81
4, Good Std.	120.23	118.44	116.99	115.42	114.43	113.48	112.60	112.01	110.44	109.46	108.20	107.08	106.02
4 & 5	108.34	106.65	105.28	104.00	103.08	102.24	101.44	100.82	99.43	98.54	97.75	97.08	96.09
5 Avg. Std.	97.44	96.05	94.84	93.67	92.80	92.13	91.34	90.83	89.54	88.71	88.01	87.39	86.53
5 & 6	84.63	83.36	82.24	81.24	80.49	79.92	79.27	78.77	77.74	77.05	76.42	75.89	75.15
6, Min. Std.	76.96	75.75	74.81	73.88	73.23	72.65	72.07	71.60	70.68	70.03	69.47	68.98	68.32

Note: Tract work and highly repetitive jobs may reduce the cost 8 to 12%. Add 4% to the square foot cost of floors above the second floor level. Work outside metropolitan areas may cost 2 to 6% less. When the exterior walls are masonry, add 9 to 10% for class 2 and 1 structures and 5 to 8% for class 3, 4, 5 and 6 structures. The building area includes all full story (7'6" to 9' high) areas within and including the exterior walls of all floor areas of the building, including small inset areas such as entrances outside the exterior wall but under the main roof. For areas with a ceiling height of less than 80", see the section on half-story areas on page 30.

Manufactured Housing

Quality Classification

	Class 1 Best Quality	Class 2 Good Quality	Class 3 Average Quality	Class 4 Low Quality	Class 5 Lowest Quality
Design	Indistinguishable from site-built construction, good floor plan and sight lines, superior fit and finish	Comparable to site-built construction, good floor plan, shelves and alcoves, good fit and finish	Clearly manufactured housing but with good design and materials, adequate fit and finish	Mobile home design, utilitarian floor plan, commodity-grade materials	Poor design, often sold unfinished, common only in Sun Belt states
Roof (12% of total cost)	Complex roof line, 30-year architectural shingles, roof pitch at least 4" in 12", good overhang on all sides, R-38 insulation	Decorative roof line, gable accents, 25-year shingles, 4" in 12" pitch, 12" overhang on all sides, R-33 insulation	Gable accents, 25-year shingles, 4" in 12" pitch, 8" to 12" overhang front and back, R-21 insulation	Simple roof line, less than 4" in 12" pitch, small overhang front and back, R-19 insulation	Straight roof line, minimum pitch, little or no overhang, minimum roof cover, R-7 insulation
Exterior Walls (18% of total cost)	Good fiber-cement siding, 9' to 10' high, decorative trim, 6" exterior walls, R-19 insulation, 7/16" plywood sheathing	Painted fiber cement siding, 9' high, some trim, 6" exterior walls, R-15 insulation, 7/16" OSB sheathing	Good foam-backed vinyl siding, 8' to 9' high, 4" exterior walls, R-13 insulation, 7/16" OSB sheathing	Vinyl siding, 8' high, 4" exterior walls, R-11 insulation, 3/8" plywood sheathing	Hardboard or economy siding, 7' high, 4" exterior walls, R-7 insulation
Doors and Windows (9% of total cost)	Two 36" wide insulated steel panel exterior doors, solid core wood panel interior doors, good hardware, large insulated low-E vinyl sash windows, recessed entry	Two 36" wide insulated steel exterior doors, hollow core wood interior doors, good hardware, good insulated low-E vinyl sash windows, recessed entry	36" wide steel front door with deadbolt, hollow core wood interior doors, average hardware, insulated vinyl windows, recessed entry	36" wide steel front door, hollow core wood interior doors, economy hardware, smaller dual glazed vinyl windows, 6' sliding bedroom door	34" or 32" wide aluminum exterior doors, hollow core wood interior doors, economy hardware, aluminum windows with storm sash
Interior (5% of total cost)	Hardwood paneling or 1/2" gypsum board with good workmanship and trim throughout, coffered/vaulted/beamed ceilings, plank-type acoustical tile, mirrored walls, built-in buffet cabinets, custom drapes, skylights, window sills, good drapes with sheers throughout	Pre-finished hardwood paneling and trim or 1/2" gypsum board in all rooms, vaulted/beamed, ceiling in main rooms, good floor to ceiling drapes over sheer underlays in living room and dining room, several wall mirrors, some acoustic treatments	Pre-finished and grooved hardwood, plywood paneling or 1/2" gypsum board, exposed fasteners, coordinated drapes in all rooms except kitchen and baths, one vaulted ceiling, acoustic tile, pre-finished wood trim	Pre-finished fire rated plywood paneling or 3/8" gypsum board, some exposed fasteners, acoustical tile ceiling, economy drapes in living room, dining room, and bedrooms, vinyl on composition molding.	Stapled 3/8" vinyl-covered wallboard with battens at seams and corners, exposed fasteners or holding strips, unit may have been sold with interior finishing incomplete.
Floors (8% of total cost)	Hardwood or ceramic tile entry, 30-50 oz. carpet, good vinyl in utility and guest bath. Good vinyl or hardwood in kitchen.	26-30 oz. carpet with 1/2" pad in all rooms except guest bath and utility, vinyl in kitchen, utility and guest bath	22-26 oz. carpet with 1/2" rebound pad in all rooms except baths and kitchen, vinyl in kitchen and baths	16-22 oz. carpet with 5 lb. pad in living, dining and bedrooms, economy vinyl sheet or tile in other areas	Glued or stapled foam-backed carpet in living room and bedroom, economy vinyl elsewhere
Heating (7% of total cost)	110,000 BTU upflow air-condition-ready forced air furnace with exterior access door, metal ducting to all rooms, fireplace, dual-zone heating	80,000 to 110,000 BTU upflow or downflow air-condition-ready furnace with exterior access door, metal ducting to all rooms, fireplace	80,000 BTU upflow or downflow forced air condition-ready furnace, ducting to all rooms, simulated fireplace	Forced air furnace, fiberglass attic ducting to all rooms, under-door return vents, ready for air conditioning unit.	Forced air furnace, minimum taped fiberglass duct, registers at the room center, return vents under doors
Kitchen (23% of total cost)	18± LF of 25" wide stone or ceramic counter, 4" splash, luxury cabinets, roller drawers, dropped luminous ceiling, island work space, walk-in pantry, name-brand fixtures, cast iron sink, wet bar	16± LF of tile or Corian counter, 4" splash, quality wood cabinets, dropped luminous ceiling, island work space, walk-in pantry, good quality fixtures, stainless or integrated 8" deep sink	14± LF of Corian counter, 2" splash, average quality wood-face cabinets and hardware, built-in range and oven with hood and fan, pantry cabinet, 7" deep stainless or porcelain sink	12± LF laminate counter, smaller commodity-grade cabinets with wood raised panel doors, no lining, built-in range and oven, hood and fan, add for dishwasher if present	10± LF of 24" wide laminate counter, plastic-faced MDF cabinets, stapled and glued, economy range and oven, minimum grade sink and fixtures, add for dishwasher if present
Baths and Plumbing (14% of total cost)	2 to 2½ baths, 8 fixtures, master bath with two basins, sunken 60" tub, fiberglass shower with glass door, quality medicine cabinets, 6± feet of mirror over 8± feet of cultured marble or ceramic tile lavatory top, decorative faucets, 40-gal. water heater, separate commode closet	2 baths, vent fans, master bath will have two basins, sunken 60" tub and stall shower, quality medicine cabinets and fixtures, cultured marble vanities, good cabinets, 60" one-piece shower in guest bath, 30- to 40-gallon water heater, separate commode closet	2 baths, vent fans, fiberglass shower with glass or plastic door, fiberglass 60" tub, acrylic round toilets, 6 to 8 LF cultured marble vanity in each bath, twin basin master bath with 4± foot mirror, good cabinets, 30- to 40-gallon water heater	1¾ baths, fiberglass shower with plastic door, fiberglass one-piece 54" tub, acrylic round toilets, 4 to 5 linear foot cultured marble vanity with single basin, average quality cabinets and hardware, 30-gallon water heater	1¾ baths, fiberglass 54" one-piece tub and shower with curtain, acrylic round toilets, small 4' plastic marble vanity, minimum quality cabinets and hardware, 20-gallon electric water heater, plastic supply and drain pipe
Bedrooms (4% of total cost)	9 to 14 linear foot floor-to-ceiling sliding mirrored wardrobe doors, or large walk-in closets, phone and cable TV jacks	9 to 14 linear foot floor-to-ceiling mirrored sliding wardrobe doors in master bedroom or walk-in closets, phone and cable TV jacks	10± linear foot wardrobe, floor-to-ceiling mirrored sliding doors in master bedroom, cable TV jacks	8± linear foot wardrobe, pre-finished and grooved plywood doors, mirrored wardrobe door in master bedroom	Five to six linear foot wardrobe, plain plywood sliding doors

Manufactured Housing

A manufactured home is a structure in one or more sections intended to be delivered for erection as a unit on a construction site. No wheels, axles or towbars are included in these costs. Units can be from 8 to 36 feet wide and up to 80 feet long. Manufactured homes assembled from two or three sections are referred to as double wide or triple wide units. The cost FOB the manufacturer is usually be about 2/3

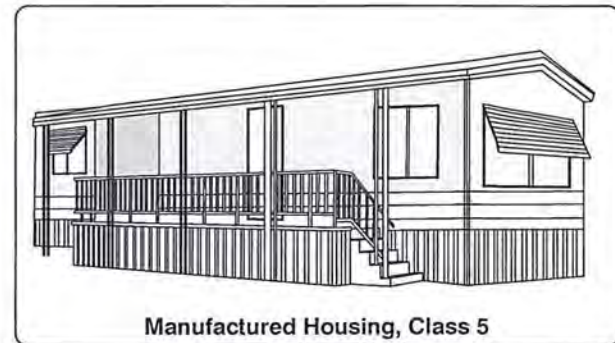
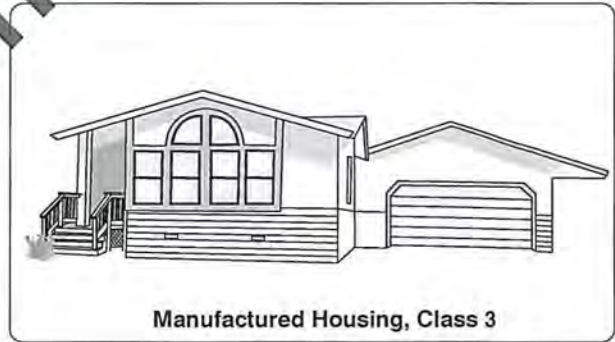
of the installed cost. These figures include all costs: typical delivery to the site, setting on piers, finishing ("button up"), connection to utility lines, permits and inspections. Tip-out, expando, or tag-a-long units have one or more telescoping or attached rooms to the side. Include this floor areas in your calculations. Do not use area modification factors for manufactured housing.

Estimating Procedure

1. Establish the structure quality class by applying the information on page 16.
2. Multiply the structure floor area (excluding any garage or storage area) by the appropriate square foot cost below.
3. Add, when appropriate, the cost of a permanent foundation, air conditioning, built-ins, porch, skirting, tie-downs, carport, garage or storage building, screen walls and roof snow load rating. See the following page.

Square Foot Area

Quality Class	500	700	900	1100	1300	1500	1700	1900	2100	2300	2500
1, Best	117.88	116.40	114.98	113.48	112.03	110.58	109.15	107.64	106.23	104.78	103.31
1, & 2	110.96	109.51	108.07	106.68	105.15	103.66	102.33	100.80	99.30	97.88	96.39
2, Good	104.00	102.57	101.14	96.89	95.54	94.16	92.66	91.29	89.81	88.45	87.05
2 & 3	97.16	95.64	94.25	88.52	87.12	85.76	84.36	83.00	81.59	80.17	78.84
3, Average	90.58	89.18	87.60	82.29	78.60	77.20	75.92	74.57	73.21	71.88	70.52
3 & 4	84.77	83.27	81.89	76.78	73.21	71.98	70.52	69.15	67.80	66.46	65.07
4, Low Average	78.92	77.51	76.02	71.20	67.80	66.48	65.07	63.72	62.42	61.05	59.70
4 & 5	74.20	72.68	71.29	66.63	63.41	62.07	60.74	59.38	58.05	56.71	55.29
5 Lowest	69.81	68.40	66.94	60.74	59.38	58.05	56.71	55.29	53.95	52.64	51.29



Manufactured Housing

Additional Costs

Permanent Foundation, in place of setting on piers

Single Story

Less than 1,000 square feet of floor area	\$8,750 to \$15,450
Over 1,000 square feet to 1,800 square feet of floor area	\$15,450 to \$28,300
Over 1,800 square feet to 2,500 square feet of floor area	\$28,300 to \$46,200

For two-story units, use the footprint of the first floor and select a figure higher in the range of costs. For difficult site conditions, such as a high water table, heavy clay soil, rock, over 3' foundation depth or a sloping site, use a figure in the higher range of costs.

Air Conditioning

Central air for use by existing furnace and ducts	
2 ton, up to 1,100 S.F.	\$3,600
2-1/2 to 3 ton, over 1,100 to 1,600 S.F.	\$4,130
4 to 5 ton, over 1,600 to 2,500 S.F.	\$4,535 to \$5,340
Cost per unit	
Thru-wall small unit 1/2 H.P., 6,000 Btu	\$1,250
Thru-wall large unit 1 H.P., 12,000 Btu	\$1,660
Evaporative cooler, roof mounted	\$1,180 to \$1,870
Wiring for air conditioning	\$227 to \$478

Built-Ins

Dishwasher (included in classes 1, 2 & 3)	\$970 - \$1,290
Garbage disposal (included in all base cost, deduct if missing)	\$200 - \$1,200
Built-in microwave oven	\$540 - \$750
Trash compactor	\$880 - \$1,110
Wet bar (walk-up - if not included in class)	\$770 - \$980
Wet bar (walk behind - if not included in class)	\$2,540 - \$2,770
Separate shower in master bath	\$880 - \$1,110
One-half bath: toilet, sink, and pullman	\$1,740 - \$1,800
Bathroom sink or laundry sink	\$370
Fireplace (permanent - includes flue)	\$3,400 - \$3,600
Fireplace (free standing - includes flue)	\$1,550 - \$2,770
Built-in buffet-hutch (included in classes 1 and 2)	\$1,170 - \$1,475
Whirlpool tub in master bath	\$1,120 - \$1,740

Porches and Decks (no roofs included)

Wood deck at home floor level with handrail, skirting, steps and outdoor carpet, per square foot of porch or deck	\$19.30 to \$27.00
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Skirting, cost per linear foot of skirt

Lightweight aluminum panels	\$6.70
Lap aluminum siding	\$11.95
Painted hardboard panels	\$15.50
Flagstone-type aluminum panels	\$12.00
Concrete composite panels	\$20.05 - \$25.00
Vinyl panels	\$13.33
Brick or stone	\$21.01

Storage Buildings, Garages, per S.F. of floor

Aluminum exterior	\$20.80
Enameled steel exterior	\$16.40
Hardboard panel exterior	\$36.45
Figure the garage cost per SF at 2/3 of the home cost per SF.	

Tie Downs

Cork screw anchor and straps, per each	\$105 - \$155
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Steps and Rails, per flight to 36" high

Fiberglass steps	\$265 - \$415
Handrail	\$60 - \$90

Carport, Porch, or Deck Roof, per S.F. covered

Aluminum supports and roof cover, free standing	\$15.05 - \$20.00
Aluminum supports and roof cover, attached to house	\$9.70 - \$14.05
Wood supports and enameled steel cover, free standing	\$17.65 - \$22.00

Screen Wall Enclosure, per linear foot of 8' wall

Wood frame with screen walls and door	\$69.00
Wood or aluminum frame with screen and glass walls, with door	\$120.00

Roof Snowload Capability

Cost per square foot of roof	
30 pound design load	\$.76 - \$1.21
40 pound design load	\$1.20 - \$2.18
50 pound design load	\$2.18 - \$2.89
60 pound design load	\$2.88 - \$3.85
80 pound design load	\$3.65 - \$5.80
100 pound design load	\$4.81 - \$6.65
175 pound design load	\$6.10 - \$7.35

Multi-Family Residences – Apartments

Quality Classification

	Class 1 Best Quality	Class 2 Good Quality	Class 3 High Average Quality	Class 4 Low Average Quality	Class 5 Minimum Quality
Foundation (9% of total cost)	Conventional crawl space built on a sloping site.	Conventional crawl space built on a sloping site.	Conventional crawl space, footing over 40" deep.	Concrete slab or crawl space with 30" footing.	Concrete slab.
Floor Structure (12% of total cost)	Engineered wood, steel or concrete exceeding code requirements, complex plan, changes in elevation.	Engineered wood or steel built to meet code requirements, changes in shape and elevation.	Standard wood frame with irregular shape and changes in elevation.	Standard wood frame or concrete slab, simple floor plan.	Simple slab on grade with no changes in elevation.
Walls and Exterior Finish (12% of total cost)	Complex wood or light steel frame, stone or masonry veneer, 10' average wall height.	Wood or light steel frame, masonry veneer at entrance, good wood or stucco siding.	Wood or light steel frame, decorative trim at entrance, plywood or stucco siding, simple framing plan.	Wood frame, some ornamental details at entrance, plywood or hardboard siding.	Wood frame, little or no ornamentation, inexpensive stucco or hardboard siding.
Roof & Cover (10% of total cost)	Complex roof plan, good insulation, tile or good shake cover.	Good insulation, good shake, tile or 5-ply built-up roof.	4-ply built-up roof, some portions heavy shake or tile.	4-ply built-up roof, some portions shake or composition shingles.	4-ply built-up roof or minimum grade composition single.
Windows and Doors (5% of total cost)	Many large, good quality vinyl or metal windows, architectural grade doors.	Large, good-quality vinyl or metal windows, commercial grade doors.	Good quality vinyl or metal windows, residential grade doors.	Standard residential-grade doors and windows.	Minimum grade doors and windows.
Interior Finish (8% of total cost)	Gypsum board with heavy texture or plaster, some paneled walls, cathedral ceiling at entry, built-in cases, several wall offsets and level changes.	Textured gypsum board, some paneled walls, decorative or stain grade trim at entrance or living room, several irregular walls and wall openings.	Textured 1/2" gypsum board, several irregular walls or wall openings, few ornamental details, standard grade trim and wall molding.	Textured 1/2" gypsum board, some wall-cover or hardboard paneling, most walls are rectangular, standard grade trim and wall molding.	1/2" gypsum board with smooth finish, no ornamental details, doors and windows are the only wall openings.
Floor Finish (5% of total cost)	Masonry or stone tile entry, good hardwood or deluxe carpet in most rooms, good sheet vinyl in other rooms.	Masonry or tile at entry, hardwood and carpet in most rooms, sheet vinyl in other rooms.	Hardwood or tile at entry, standard carpet in most rooms, sheet vinyl in kitchen and bath.	Average quality carpet or hardwood in most rooms, sheet vinyl or resilient tile in kitchen.	Minimum carpet or resilient tile throughout.
Interior Features (5% of total cost)	Breakfast bar or nook, formal dining room, one walk-in closet, linen closet, utility room or pantry.	Formal dining room, ample closet space, linen closet and utility closet, extra shelving.	Separate dining area, good closet space, linen closet and small utility closet.	Dining area is in the kitchen, small closet in each bedroom, linen closet.	Dining area is part of kitchen, minimum closet space, minimum shelving.
Bath Detail (4% of total cost)	Good tile shower, 8" simulated marble top.	Tile shower, 6" vanity cabinet and top.	Better vanity cabinet and good wall cabinet.	Good vanity cabinet, good medicine cabinet.	Vanity and one small medicine cabinet.
Kitchen (8% of total cost)	16 LF of better hardwood wall and base cabinets, synthetic stone top, 6 very good built-in appliances.	12 LF of good hardwood wall and base cabinets, tile or acrylic top, 5 good built-in appliances.	8 LF of standard hardwood wall and base cabinets, acrylic top, 4 standard grade built-in appliances.	6 LF of low-cost wall and base cabinets, laminate counter top, 4 standard grade appliances.	5 LF of low-cost wall & base cabinets, laminate counter top, low cost appliances.
Electrical (10% of total cost)	Ample recessed lighting, task lighting in kitchen and bath, security & computer, networks, good chandelier.	Recessed lighting in most rooms, good task lighting in kitchen & bath, security & computer networks.	Recessed lighting in kitchen and living room, switched receptacles in bedrooms, wired for cable TV.	Low-cost recessed lighting in kitchen and living room, switched receptacles in other rooms, cable TV.	Fluorescent ceiling fixture in kitchen, switched receptacles in other rooms.
Plumbing (12% of total cost)	Four excellent fixtures per bathroom, copper supply and drain lines.	Three good fixtures per bathroom, copper supply and drain lines.	Three standard fixtures per bathroom, copper supply and plastic drain lines.	Three low cost fixtures per bathroom, plastic supply and drain lines.	Three minimum-grade fixtures per bathroom, plastic supply & drains.
Plumbing costs assume 1 bathroom per unit. See page 30 for the costs of additional bathrooms.					
For Masonry Walls	Good textured block, tile or decorative brick.	Colored or detailed block tile or decorative brick.	Colored concrete block, tile or decorative brick.	Colored concrete block or brick.	Concrete block or common brick.
When masonry walls are used in lieu of wood or light steel frame walls, add 9% to the appropriate S.F. cost.					

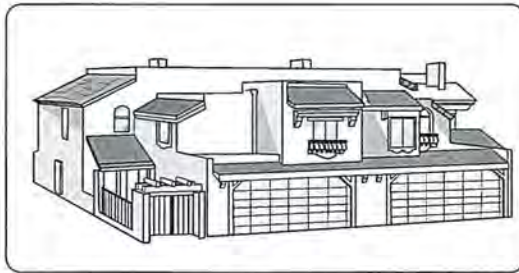
Note: Use the percent of total cost to help identify the correct quality classification. Exceptional class multi-family residences have architectural details and features uncommon in conventional apartment buildings. Many exceptional class multi-family structures are designed for sale or conversion to condominium ownership.

Multi-Family Residences – Apartments

2 or 3 Units

Estimating Procedure

1. Establish the structure quality class by applying the information on page 19.
2. Multiply the average unit area by the appropriate square foot cost below. The average unit area is found by dividing the building area on all floors by the number of units in the building. The building area should include office and utility rooms, interior hallways and interior stairways.
3. Multiply the total from step 2 by the correct location factor listed on page 7 or 8.
4. Add, when appropriate, the cost of balconies, porches, garages, heating and cooling equipment, basements, fireplaces, carports, appliances and plumbing fixtures beyond that listed in the quality classification. See the cost of these items on pages 27 to 31.
5. Costs assume one bathroom per unit. Add the cost of additional bathrooms from page 30.



Multi-Family, Class 2



Multi-Family, Class 4

Average Unit Area in Square Feet

Quality Class	400	450	500	550	600	650	700	750	800	900	1,000
Exceptional	232.68	222.48	216.93	211.01	206.23	204.79	202.22	199.26	197.53	194.14	190.96
1, Best	204.43	195.41	190.56	186.23	182.82	179.95	177.66	175.05	173.56	170.46	167.80
1, & 2	179.28	171.38	167.08	163.75	160.40	157.81	155.76	153.61	152.18	149.42	147.08
2, Good	156.87	150.02	146.21	142.95	140.36	138.04	136.33	134.40	133.17	130.78	128.74
2 & 3	143.46	137.13	133.79	130.66	128.34	126.36	124.67	122.97	121.81	119.72	117.76
3, Hi Average	131.29	125.43	122.34	119.66	117.48	115.59	114.00	112.55	111.44	109.43	107.73
3 & 4	121.21	115.85	113.02	110.38	108.41	106.77	105.38	103.86	102.94	101.07	99.48
4, Lo Average	111.98	107.00	104.32	101.93	100.14	98.53	97.20	95.88	95.05	93.38	91.82
4 & 5	103.41	98.80	96.34	94.16	92.41	90.95	89.83	88.54	87.78	86.14	84.74
5 Minimum	95.42	91.29	88.97	86.94	85.45	84.03	82.88	81.86	81.05	79.48	78.30

Average Unit Area in Square Feet

Quality Class	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	1,900	2,000	2,200
Exceptional	188.78	186.74	185.09	183.71	182.52	181.44	180.52	179.70	178.93	178.34	177.79
1, Best	165.69	164.16	162.52	161.36	160.27	159.34	158.54	157.96	157.18	156.62	156.19
1, & 2	145.35	143.87	142.55	141.45	140.66	139.75	139.01	138.47	137.85	137.48	137.01
2, Good	127.15	125.92	124.79	123.84	123.07	122.29	121.71	121.13	120.64	120.18	119.87
2 & 3	116.42	115.07	114.23	113.25	112.56	111.86	111.31	110.91	110.35	110.02	109.66
3, Hi Average	106.47	105.38	104.43	103.56	102.95	102.33	101.80	101.48	100.90	100.60	100.31
3 & 4	98.32	97.22	96.38	95.63	95.09	94.46	94.11	93.56	93.18	92.94	92.62
4, Lo Average	90.79	89.83	88.98	88.31	87.80	87.26	86.79	86.41	86.05	85.78	85.52
4 & 5	83.81	82.97	82.27	81.53	81.09	80.56	80.14	79.86	79.44	79.22	78.98
5 Minimum	77.32	76.61	75.90	75.35	74.82	74.35	74.02	73.64	73.42	73.08	72.93

Note: Work outside metropolitan areas may cost 2 to 6% less. Add 2% to the costs for second floor areas and 4% for third floor areas. Add 9% when the exterior walls are masonry.

Suburban Stores

Suburban stores are usually built as part of shopping centers. They differ from urban stores in that they are built in open areas where modern construction techniques, equipment and more economical designs can be used. They are also subject to greater variations in size and shape than are urban stores. Do not use the figures in this section for department stores, discount houses or urban stores. These building types are evaluated in other sections.

Costs identified "building shell only" do not include permanent partitions, display fronts or finish materials on the front of the building. Costs for "multi-unit buildings" include partitions, display fronts and finish materials on the front of the building. All figures include the following costs:

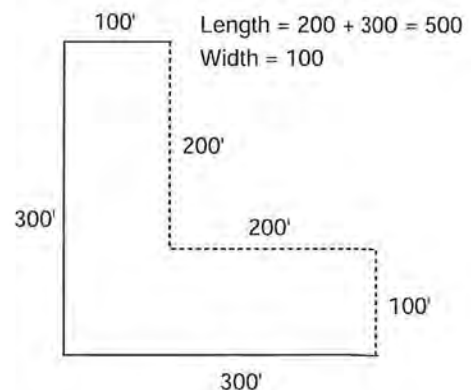
1. Foundations as required for normal soil conditions.
2. Floor, rear wall, side wall and roof structures.
3. A front wall consisting of vertical support columns or pilasters and horizontal beams spanning the area between these members, leaving an open space to receive a display front.
4. Interior floor, wall and ceiling finishes.
5. Exterior wall finish on the side and rear walls.
6. Roof cover.
7. Basic lighting and electrical systems.
8. Rough and finish plumbing.
9. A usual or normal parapet wall.
10. Design and engineering fees.
11. Permits and fees.
12. Utility hook-ups.
13. Contractor's contingency, overhead and mark-up.

The in-place costs of these extra components should be added to the basic building cost to arrive at total structure cost. See the section "Additional Costs for Commercial, Industrial and Public Structures" on page 236.

1. Heating and air conditioning systems.
2. Fire sprinklers.
3. All display front components (shell-type buildings only).
4. Finish materials on the front wall of the building (shell-type building only).
5. Canopies.
6. Interior partitions (shell-type buildings only).
7. Exterior signs.
8. Mezzanines and basements.
9. Loading docks and ramps.
10. Miscellaneous yard improvements.
11. Communications systems.

For valuation purposes suburban stores are divided into two building types: masonry or concrete frame, or wood or wood and steel frame. Each building type is divided into four shape classes:

1. Buildings in which the depth is greater than the front.
2. Buildings in which the front is between one and two times the depth.
3. Buildings in which the front is between two and four times the depth.
4. Buildings in which the front is greater than four times the depth. Angular buildings should be classed by comparing the sum of the length of all wings to the width of the wings. All areas should be included, but no area should be included as part of two different wings. Note the example at the right.



Suburban Stores – Masonry or Concrete

Quality Classification

	Class 1 Best Quality	Class 2 Good Quality	Class 3 Average Quality	Class 4 Low Quality
Foundation (15% of total cost)	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.
Floor Structure (15% of total cost)	6" reinforced concrete on 6" rock base.	6" reinforced concrete on 6" rock base.	6" reinforced concrete on 6" rock base.	4" reinforced concrete on 6" rock base.
Wall Structure (15% of total cost)	8" reinforced decorative concrete block, 6" concrete tilt-up or 8" reinforced brick.	8" reinforced decorative concrete block, 6" concrete tilt-up or 8" reinforced brick.	8" reinforced concrete block, 6" concrete tilt-up or 8" reinforced common brick.	8" reinforced concrete block or 6" concrete tilt-up.
Roof (15% of total cost)	Glu-lam or steel beams on steel intermediate columns. Panelized roof system, 1/2" plywood sheathing, 5 ply built-up roof with insulation.	Glu-lam or steel beams on steel intermediate columns. Panelized roof system, 1/2" plywood sheathing, 5 ply built-up roof with insulation.	Glu-lam beams on steel intermediate columns. Panelized roof system, 1/2" plywood sheathing, 4 ply built-up roof.	Glu-lam beams on steel intermediate columns. Panelized roof system, 1/2" plywood sheathing, 4 ply built-up roof.
Floor Finish (5% of total cost)	Terrazzo, sheet vinyl or very good carpet.	Resilient tile with 50% solid vinyl tile, terrazzo, or good carpet.	Composition tile.	Minimum grade tile.
Interior Wall Finish (5% of total cost)	Inside of exterior walls furred out with gypsum wallboard or lath and plaster cover. Exterior walls and partitions finished with vinyl wall covers and hardwood veneers.	Interior stucco on inside of exterior walls, gypsum wallboard and texture or paper on partitions, some vinyl wall covers and plywood paneling.	Interior stucco on inside of exterior walls, gypsum wallboard and texture and paint on partitions.	Paint on inside of exterior walls, gypsum wallboard with texture and paint on partitions.
Ceiling Finish (5% of total cost)	Suspended good grade acoustical tile with gypsum wallboard backing.	Suspended acoustical tile with concealed grid system.	Suspended acoustical tile with exposed grid system.	Exposed beams with ceiling tile or paint.
Lighting (5% of total cost)	Recessed fluorescent lighting in modular plastic panels.	Continuous recessed 3 tube fluorescent strips with egg crate diffusers, 8' o.c.	Continuous 3 tube fluorescent strips with egg crate diffusers, 8' o.c.	Continuous exposed 2 tube fluorescent strips, 8' o.c.
Exterior (8% of total cost)	Face brick or stone veneer.	Exposed aggregate, some stone veneer.	Paint on exposed areas, some exposed aggregate.	Paint on exposed areas.
Plumbing (12% of total cost)	6 good fixtures per 5,000 S.F. of floor area, metal toilet partitions.	6 standard fixtures per 5,000 S.F. of floor area, metal toilet partitions.	4 standard fixtures per 5,000 S.F. of floor area, metal toilet partitions.	4 standard fixtures per 5,000 S.F. of floor area wood toilet partitions.

Note: Use the percent of total cost to help identify the correct quality classification.

The costs on pages 90 to 93, and 95 to 102 include display fronts. The quality of the display front will help establish the quality class of the building as a whole. Display fronts are classified as follows:

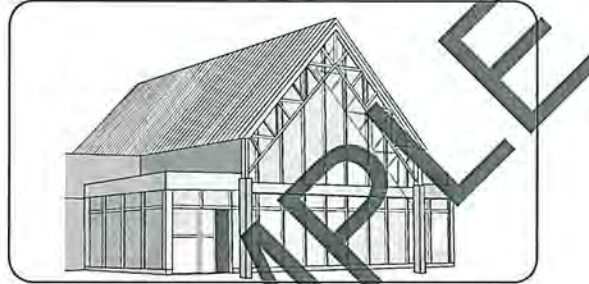
	Class 1 Best Quality	Class 2 Good Quality	Class 3 Average Quality	Class 4 Low Quality
Bulkhead (0 to 4' high)	Vitrolite, domestic marble or stainless steel.	Black flagstone, terrazzo or good ceramic tile.	Average ceramic tile, Roman brick or imitation flagstone.	Stucco, wood or common brick.
Window Frame	Bronze or stainless steel.	Heavy aluminum.	Aluminum.	Light aluminum with with stops.
Glass	1/4" float glass with mitered joints.	1/4" float glass, some mitered joints.	1/4" float glass.	Crystal or 1/4" float glass.
Sign Area (4' high)	Vitrolite, domestic marble or stainless steel.	Black flagstone, terrazzo, or good ceramic tile.	Average ceramic tile, Roman brick or imitation flagstone.	Stucco.
Pilasters	Vitrolite, domestic marble.	Black flagstone, terrazzo or good ceramic tile.	Average ceramic tile, Roman brick or imitation flagstone.	Stucco.

Suburban Stores – Masonry or Concrete

Building Shell Only

Estimating Procedure

1. Use these figures to estimate the cost of shell-type buildings without permanent partitions, display fronts or finish material on the front wall of the building.
2. Establish the structure quality class by applying the information on page 89.
3. Compute the building floor area. This should include everything within the exterior walls and all inset areas outside the main walls but under the main roof.
4. Add to or subtract from the cost below the appropriate amount from the Wall Height Adjustment Table (at the bottom of this page) if the wall height is more or less than 16 feet.
5. Multiply the adjusted square foot cost by the building area.
6. Deduct, if appropriate, for common walls, using the figures at the bottom of page 91.
7. Multiply the total cost by the location factor on page 7 or 8.
8. Add the cost of the appropriate additional components from page 236 to 248: heating and cooling equipment, fire sprinklers, display fronts, finish materials on the front wall, canopies, interior partitions, exterior signs, mezzanines and basements, loading docks and ramps, yard improvements, and communication systems.



Suburban Store, Class 2

Depth greater than length of front – Square Foot Area

Quality Class	500	1,000	2,000	2,500	3,000	4,000	5,000	7,500	10,000	12,500	15,000
1, Best	204.34	170.43	146.19	140.74	135.95	129.67	125.35	118.65	114.66	111.97	109.92
1 & 2	189.14	157.78	135.67	130.10	125.83	119.98	116.01	109.84	106.10	103.62	101.76
2, Good	177.06	147.71	126.94	121.68	117.82	112.39	108.65	102.84	99.35	97.02	95.26
2 & 3	167.65	139.87	120.26	115.27	111.60	106.40	102.88	97.38	94.12	91.87	90.21
3, Average	161.12	134.42	115.52	110.71	107.22	102.24	98.83	93.56	90.45	88.33	86.71
3 & 4	151.85	126.68	108.95	104.36	101.01	96.31	93.12	88.18	85.24	83.20	81.71
4, Low	144.65	120.59	103.67	99.37	96.22	91.72	88.65	84.00	81.13	79.25	77.81

Length of front between 1 and 2 times depth – Square Foot Area

Quality Class	500	1,000	2,000	3,000	5,000	7,500	10,000	15,000	20,000	25,000	35,000
1, Best	195.24	163.98	142.05	132.32	122.66	116.48	112.79	108.48	105.96	104.14	101.84
1 & 2	180.41	151.60	131.21	122.28	113.24	107.65	104.26	100.26	97.87	96.24	94.04
2, Good	168.90	141.89	122.91	114.48	106.03	100.76	97.55	93.87	91.65	90.05	88.09
2 & 3	159.85	134.30	116.28	108.35	100.39	95.28	92.36	88.76	86.66	85.28	83.35
3, Average	153.87	129.27	111.97	104.31	96.58	91.85	88.90	85.49	83.46	82.12	80.23
3 & 4	145.78	122.50	106.07	98.78	91.52	87.03	84.26	80.98	79.09	77.80	76.06
4, Low	137.54	115.55	100.03	93.14	86.31	82.05	79.47	76.41	74.59	73.30	71.71

Wall Height Adjustment: Costs above are based on a 16' wall height, measured from the bottom of the floor slab or floor joists to the top of the roof cover. Add or subtract the amount listed to or from the square foot cost for each foot more or less than 16 feet.

Area	500	1,000	2,000	2,500	3,000	4,000	5,000	7,500	10,000	12,500
Cost	2.16	1.97	1.85	1.64	1.45	1.29	1.20	.95	.82	.72

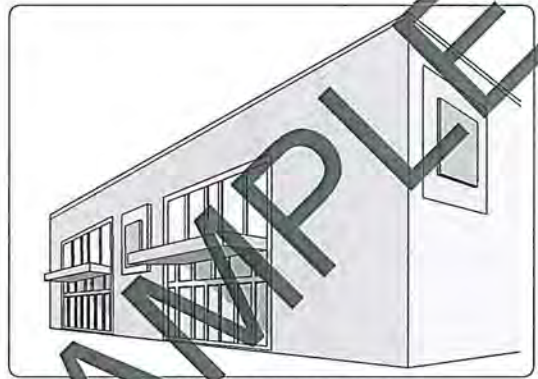
Area	15,000	20,000	25,000	30,000	35,000	50,000	70,000	75,000	100,000	150,000
Cost	.68	.67	.61	.59	.55	.49	.42	.40	.29	.27

Suburban Stores – Masonry or Concrete

Building Shell Only

Estimating Procedure

1. Use these figures to estimate the cost of shell-type buildings without permanent partitions, display fronts or finish material on the front wall of the building.
2. Establish the structure quality class by applying the information on page 89.
3. Compute the building floor area. This should include everything within the exterior walls and all inset areas outside the main walls but under the main building roof.
4. Add to or subtract from the cost below the appropriate amount from the Wall Height Adjustment Table on page 90 if the wall height is more or less than 16 feet.
5. Multiply the adjusted square foot cost by the building area.
6. Deduct, if appropriate, for common walls, using the figures at the bottom of this page.
7. Multiply the total cost by the location factor on page 7 or 8.
8. Add the cost of the appropriate additional components from page 236 to 248: heating and cooling equipment, fire sprinklers, display fronts, finish materials on the front wall, canopies, interior partitions, exterior signs, mezzanines and basements, loading docks and ramps, yard improvements, and communication systems.



Suburban Store, Class 1

Length between 2 and 4 times depth – Square Foot Area

Quality Class	1,000	2,000	3,000	5,000	7,500	10,000	15,000	20,000	30,000	50,000	70,000
1, Best	170.09	146.72	136.38	126.02	119.45	115.61	111.03	107.97	104.94	101.70	99.90
1 & 2	156.65	135.07	125.55	116.03	110.03	106.46	102.16	99.66	96.61	93.65	91.98
2, Good	145.83	125.79	116.91	108.02	102.41	99.14	95.14	92.77	89.96	87.18	85.70
2 & 3	138.14	119.15	110.72	102.34	97.05	93.87	90.11	87.91	85.27	82.58	81.13
3, Average	132.66	114.48	106.49	98.32	93.28	90.15	86.57	84.51	81.88	79.29	77.98
3 & 4	126.02	108.74	101.03	93.36	88.55	85.69	82.20	80.17	77.80	75.32	73.99
4, Low	118.98	102.66	95.36	88.15	83.58	80.87	77.66	75.75	73.38	71.15	69.96

Length greater than 4 times depth – Square Foot Area

Quality Class	2,000	3,000	5,000	10,000	15,000	20,000	30,000	50,000	75,000	100,000	150,000
1, Best	154.76	143.09	131.41	119.63	114.42	111.32	107.68	103.99	101.69	100.30	98.71
1 & 2	140.96	130.32	119.65	108.89	104.16	101.43	98.06	94.67	92.57	91.34	89.87
2, Good	131.18	121.25	111.30	101.37	96.98	94.36	91.24	88.09	86.13	84.94	83.54
2 & 3	124.15	114.75	105.38	95.93	91.78	89.30	86.34	83.43	81.53	80.39	79.14
3, Average	119.25	110.30	101.24	92.20	88.15	85.76	82.95	80.15	78.37	77.30	76.03
3 & 4	112.74	104.28	95.76	87.15	83.32	81.10	78.41	75.77	74.04	73.06	71.90
4, Low	106.73	98.72	90.59	82.51	78.87	76.78	74.24	71.71	70.11	69.19	67.98

Perimeter Wall Adjustment: A common wall exists when two buildings share one wall. Adjust for common walls by deducting \$291 per linear foot of common wall from the total structure cost. In some structures one or more walls are not owned at all. In this case, deduct \$570 per linear foot of wall not owned.

Suburban Stores – Masonry or Concrete

Multi-Unit Buildings

Estimating Procedure

1. Use these square foot costs to estimate the cost of stores designed for multiple occupancy. These costs include all components of shell buildings plus the cost of display fronts, finish materials on the front of the building and normal interior partitions.
2. Establish the structure quality class by applying the information on page 89. Evaluate the quality of the display front to help establish the correct quality class of the building as a whole. See also pages 242 to 245.
3. Compute the building floor area. This should include everything within the building exterior walls and all inset areas outside the main walls but under the main building roof.
4. Add to or subtract from the cost below the appropriate amount from the Wall Height Adjustment Table (at the bottom of this page) if the wall height is more or less than 16 feet.
5. Multiply the adjusted square foot cost by the building area.
6. Deduct, if appropriate, for common walls, using the figures at the bottom of page 93.
7. Multiply the total cost by the location factor on page 7 or 8.
8. Add the cost of the appropriate additional components from page 236 to 248; heating and cooling equipment, fire sprinklers, canopies, exterior signs, mezzanines and basements, loading docks and ramps, yard improvements, and communications systems.

Depth greater than length of front – Square Foot Area

Quality Class	500	1,000	2,000	2,500	3,000	4,000	5,000	7,500	10,000	12,500	15,000
1, Best	290.98	237.51	199.81	190.17	183.04	173.10	166.38	155.77	149.45	145.22	142.02
1 & 2	260.61	212.79	179.00	170.39	163.99	155.15	149.00	139.60	133.94	130.10	127.23
2, Good	234.23	191.15	160.83	153.07	147.10	139.87	133.88	125.41	120.33	116.88	114.28
2 & 3	221.61	175.64	147.72	140.64	135.35	129.01	122.99	115.12	110.53	107.33	105.02
3, Average	199.01	162.44	136.69	130.10	125.23	118.47	113.75	106.57	102.26	99.35	97.17
3 & 4	184.55	150.66	126.69	120.62	116.11	109.84	105.47	98.78	94.80	92.10	90.05
4, Low	170.00	138.76	116.74	111.13	107.02	101.10	97.23	91.05	87.34	84.83	83.01

Length of front between 1 and 2 times depth – Square Foot Area

Quality Class	500	1,000	2,000	3,000	5,000	7,500	10,000	15,000	20,000	25,000	35,000
1, Best	320.11	259.15	215.78	196.42	177.00	164.71	157.35	148.67	143.47	139.87	135.26
1 & 2	284.49	230.31	191.73	174.58	157.29	146.37	139.85	132.07	127.47	124.29	120.21
2, Good	252.98	204.85	170.52	155.25	139.84	130.15	124.33	117.51	113.36	110.57	106.87
2 & 3	230.87	186.94	155.62	141.69	127.65	118.78	113.52	107.23	103.45	100.93	97.50
3, Average	219.71	177.90	148.11	134.82	121.50	113.10	108.05	102.03	98.51	96.03	92.80
3 & 4	207.90	168.34	140.14	127.62	115.01	106.97	102.26	96.55	93.17	90.87	87.87
4, Low	189.67	153.60	127.86	116.42	104.88	97.62	93.29	88.09	85.02	82.92	80.17

Wall Height Adjustment: Costs above are based on a 16' wall height, measured from the bottom of the floor slab or floor joists to the top of the roof cover. Add or subtract the amount listed to or from the square foot cost for each foot more or less than 16 feet.

Square Foot Area

Class	2,000	3,000	5,000	10,000	15,000	25,000	35,000	50,000	75,000	100,000	150,000
1, Best	8.26	6.72	5.21	3.64	3.05	2.34	2.01	1.74	1.48	1.41	1.31
2, Good	6.16	5.04	3.87	2.70	2.33	1.74	1.48	1.34	1.13	1.06	.94
3, Average	4.73	3.85	2.98	2.12	1.75	1.40	1.20	1.00	.87	.84	.78
4, Low	3.72	3.02	2.34	1.62	1.41	1.07	.88	.82	.73	.64	.62

Suburban Stores – Masonry or Concrete

Multi-Unit Buildings

Estimating Procedure

1. Use these square foot costs to estimate the cost of stores designed for multiple occupancy. These costs include all components of shell buildings plus the cost of display fronts, finish materials on the front of the building and normal interior partitions.
2. Establish the structure quality class by applying the information on page 89. Evaluate the quality of the display front to help establish the correct quality class of the building as a whole. See also pages 236 to 248.
3. Compute the building floor area. This should include everything within the building exterior walls and all inset areas outside the main walls but under the main building roof.
4. Add to or subtract from the cost below the appropriate amount from the Wall Height Adjustment Table (at the bottom of page 92) if the wall height is more or less than 16 feet.
5. Multiply the adjusted square foot cost by the building area.
6. Deduct, if appropriate, for common walls, using the figures at the bottom of this page.
7. Multiply the total cost by the location factor on page 7 or 8.
8. Add the cost of the appropriate additional components from page 236 to 248: heating and cooling equipment, fire sprinklers, canopies, exterior signs, mezzanines and basements, loading docks and ramps, yard improvements, and communications systems.



Suburban Store, Class 3

Suburban Store, Class 4

Length of front between 2 and 4 times depth – Square Foot Area

Quality Class	1,000	2,000	3,000	5,000	7,500	10,000	15,000	20,000	30,000	50,000	70,000
1, Best	292.28	239.74	216.34	192.74	177.80	168.88	158.36	151.98	144.53	136.95	132.93
1 & 2	260.56	213.78	192.91	171.88	158.55	150.59	141.14	135.55	128.81	122.11	118.50
2, Good	230.85	189.34	170.84	152.19	140.39	133.35	125.01	120.04	114.10	108.11	104.93
2 & 3	209.42	171.85	155.09	138.18	127.45	121.07	113.51	108.97	103.51	98.16	95.26
3, Average	197.27	156.99	141.69	126.28	116.38	110.60	103.65	99.52	94.64	89.68	87.04
3 & 4	176.56	144.87	130.65	116.47	107.39	102.06	95.66	91.86	87.27	82.72	80.34
4, Low	161.60	132.55	119.63	106.62	98.34	93.39	87.48	84.04	79.87	75.75	73.50

Length of front greater than 4 times depth – Square Foot Area

Quality Class	2,000	3,000	5,000	10,000	15,000	20,000	30,000	50,000	75,000	100,000	150,000
1, Best	267.98	239.15	210.34	181.66	168.96	161.47	152.59	143.67	138.08	134.72	130.82
1 & 2	237.02	211.49	186.02	160.61	149.45	142.83	134.99	127.12	122.12	119.16	115.70
2, Good	209.60	187.02	164.56	142.08	132.22	126.33	119.32	112.42	107.99	105.42	102.32
2 & 3	189.86	169.44	149.08	128.69	119.78	114.44	108.10	101.78	97.85	95.50	92.68
3, Average	173.82	155.10	136.41	117.80	109.64	104.72	98.94	93.17	89.51	87.35	84.83
3 & 4	160.48	143.20	125.94	108.78	101.21	96.69	91.34	86.02	82.69	80.62	78.31
4, Low	146.43	130.64	114.94	99.25	92.36	88.24	83.32	78.50	75.47	73.59	71.49

Perimeter Wall Adjustment: A common wall exists when two buildings share one wall. Adjust for common walls by deducting \$295 per linear foot of common wall from the total structure cost. In some structures one or more walls are not owned at all. In this case, deduct \$600 per linear foot of wall not owned.

Suburban Stores – Wood or Wood and Steel Frame

Quality Classification

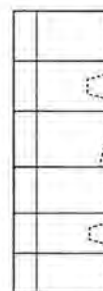
	Class 1 Best Quality	Class 2 Good Quality	Class 3 Average Quality	Class 4 Low Quality
Foundation (15% of total cost)	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.
Floor Structure (15% of total cost)	6" reinforced concrete on 6" rock base.	6" reinforced concrete on 6" rock base.	6" reinforced concrete on 6" rock base.	4" reinforced concrete on 6" rock base.
Wall Structure (15% of total cost)	2" x 6" - 16" o.c.	2" x 6" - 16" o.c.	2" x 6" - 16" o.c.	2" x 4" - 16" o.c.
Roof (15% of total cost)	Glu-lams or steel beams on steel intermediate columns. Panelized roof system, 1/2" plywood sheathing, 5 ply built-up roof with insulation.	Glu-lams or steel beams on steel intermediate columns. Panelized roof system, 1/2" plywood sheathing, 5 ply built-up roof with insulation.	Glu-lams on steel intermediate columns. Panelized roof system, 1/2" plywood sheathing, 4 ply built-up roof.	Glu-lams on steel intermediate columns. Panelized roof system, 1/2" plywood sheathing, 4 ply built-up roof.
Floor Finish (5% of total cost)	Terrazzo, sheet vinyl, or very good carpet.	Resilient tile with 50% solid vinyl tile, terrazzo, or good carpet.	Composition tile.	Minimum grade tile.
Interior Wall Finish (5% of total cost)	Gypsum wallboard or lath and plaster on exterior walls and partitions, finished with vinyl wall covers and hardwood veneers.	Gypsum wallboard, texture and paper on exterior walls and partitions, some vinyl wall cover and plywood paneling.	Gypsum wallboard, texture and paint on interior walls and partitions.	Gypsum wallboard, texture and paint on interior walls and partitions.
Ceiling Finish (5% of total cost)	Suspended good grade acoustical tile with gypsum board backing.	Suspended acoustical tile with concrete grid system.	Suspended acoustical tile with exposed grid system.	Exposed beams with ceiling tile or painted.
Lighting (5% of total cost)	Recessed fluorescent lighting in modular plastic panels.	Continuous recessed 3 tube fluorescent strips with egg crate diffusers, 8' o.c.	Continuous 3 tube fluorescent strips with egg crate diffusers, 8' o.c.	Continuous exposed 2 tube fluorescent strips, 8' o.c.
Exterior (8% of total cost)	Face brick or stone veneer.	Wood siding, some stone veneer.	Stucco on exposed areas, some brick trim.	Stucco on exposed areas.
Plumbing (12% of total cost)	6 good fixtures per 5,000 S.F. of floor area, metal toilet partitions.	6 standard fixtures per 5,000 S.F. of floor area, metal toilet partitions.	4 standard fixtures per 5,000 S.F. of floor area, metal toilet partitions.	4 standard fixtures per 5,000 S.F. of floor area wood toilet partitions.

Note: Use the percent of total cost to help identify the correct quality classification

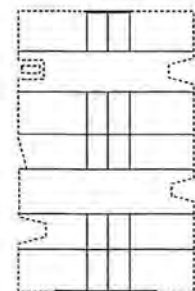
Strip and Island Suburban Stores

For estimating purposes, wood frame suburban stores should be divided into strip type units or island type units. Strip type buildings have a front wall made up of display fronts. The side and rear walls, except for delivery or walk-through doors, are made up of solid, continuous wood frame walls. If there are any display areas in the sides or rear of these buildings, the cost of the display front must be added to the building cost and the cost of the wall that it replaces must be deducted from the building costs.

Island type suburban store buildings have display fronts on the major portion of all four sides. Stores may be arranged so that one store fronts on two sides or they may be partitioned in such a way that there are two separate stores fronting on each side of the building.



Strip Type



Island Type

Suburban Stores – Wood or Wood and Steel Frame

Building Shell Only, Island Type

Estimating Procedure

1. Use these figures to estimate the cost of shell-type buildings without permanent partitions, display fronts or finish material on the front wall of the building.
2. Establish the structure quality class by applying the information on page 94.
3. Compute the building floor area. This should include everything within the exterior walls and all inset areas outside the main walls but under the main roof.
4. Add to or subtract from the square foot cost below the appropriate amount from the Wall Height Adjustment Table (at the bottom of this page) if the wall height is more or less than 16 feet.
5. Multiply the adjusted square foot cost by the building area.
6. Deduct, if appropriate, for common walls, using the figures at the bottom of this page.
7. Multiply the total cost by the location factor on page 7 or 8.
8. Add the cost of the appropriate additional components from page 236 to 248: heating and cooling equipment, fire sprinklers, display fronts, finish materials on the front wall, canopies, interior partitions, exterior signs, mezzanines and basements, loading docks and ramps, yard improvements, and communication systems.

Length less than 1-1/2 times depth – Square Foot Area

Quality Class	3,500	5,000	7,500	10,000	12,500	15,000	20,000	30,000	40,000	50,000	75,000
1, Best	116.37	114.46	112.55	111.48	110.71	110.11	109.30	108.39	107.83	107.48	106.89
1 & 2	105.44	103.68	101.96	100.99	100.25	99.77	99.09	98.18	97.69	97.33	96.84
2, Good	96.08	94.54	92.96	92.07	91.46	91.00	90.36	89.55	89.10	88.81	88.28
2 & 3	92.80	89.66	86.71	85.89	85.29	84.90	84.29	83.51	83.06	82.80	82.37
3, Average	84.77	83.43	82.02	81.23	80.68	80.23	79.68	79.02	78.64	78.33	77.87
3 & 4	77.83	76.57	75.28	74.52	74.00	73.71	73.13	72.50	72.11	71.89	71.44
4, Low	70.74	69.53	68.41	67.77	67.23	66.95	66.45	65.90	65.54	65.35	64.92

Length between 1-1/2 and 2 times depth – Square Foot Area

Quality Class	4,500	5,000	7,500	10,000	15,000	20,000	30,000	40,000	50,000	75,000	100,000
1, Best	115.81	115.17	112.95	111.75	110.33	109.53	108.51	108.03	107.66	107.07	106.78
1 & 2	104.85	104.27	102.30	101.08	99.88	99.13	98.30	97.78	97.47	96.94	96.70
2, Good	95.66	95.12	93.31	92.31	91.06	90.42	89.64	89.19	88.91	88.45	88.18
2 & 3	89.11	88.60	86.88	85.98	84.90	84.27	83.51	83.09	82.86	82.46	82.18
3, Average	84.27	83.74	82.17	81.30	80.19	79.65	78.99	78.62	78.31	77.89	77.71
3 & 4	77.33	76.85	75.44	74.58	73.66	73.11	72.52	72.11	71.89	71.55	71.27
4, Low	70.13	69.73	68.41	67.69	66.85	66.34	65.75	65.44	65.16	64.86	64.68

Wall Height Adjustment: Add or subtract the amount listed to or from the square foot costs above for each foot of wall height more or less than 16 feet.

Area	3,500	5,000	7,500	10,000	12,500	15,000	Over 20,000
Cost	.28	.26	.21	.17	.14	.13	.12

Perimeter Wall Adjustment: For common wall deduct \$64 per linear foot of common wall. For no wall ownership, deduct \$133 per linear foot of wall.

Suburban Stores – Wood or Wood and Steel Frame

Multi-Unit, Strip Type

Estimating Procedure

1. Use these figures to estimate the cost of stores designed for multiple occupancy. These costs include all components of shell buildings plus the cost of display fronts, finish materials on the front of the building and normal interior partitions.
2. Establish the structure quality class by applying the information on page 94. Evaluate the quality of the display front to help establish the correct quality class of the building as a whole. The building classes have display fronts as classified on page 89. See also pages 242 to 245.
3. Compute the building floor area. This should include everything within the exterior walls and all inset areas outside the main walls but under the main roof.
4. Add to or subtract from the square foot cost below the appropriate amount from the Wall Height Adjustment Table (at the bottom of this page) if the wall height is more or less than 16 feet.
5. Multiply the adjusted square foot cost by the building area.
6. Deduct, if appropriate, for common walls, using the figures at the bottom of this page.
7. Multiply the total cost by the location factor on page 7 or 8.
8. Add the cost of the appropriate additional components from page 236 to 248: heating and cooling equipment, fire sprinklers, canopies, exterior signs, mezzanines and basements, loading docks and ramps, yard improvements, and communication systems.

Length less than 1-1/2 times depth – Square Foot Area

Quality Class	500	1,000	2,000	2,500	3,000	4,000	5,000	7,500	10,000	12,500	15,000
1, Best	266.40	222.09	190.94	182.96	177.11	168.81	163.28	154.61	149.41	145.82	143.23
1 & 2	236.01	196.81	169.11	162.10	156.90	149.57	144.61	136.91	132.29	129.16	126.84
2, Good	208.08	173.50	149.07	142.85	138.24	131.85	127.56	120.73	116.67	113.84	111.81
2 & 3	189.43	157.92	135.76	130.08	125.97	120.04	116.09	109.88	106.18	103.71	101.78
3, Average	173.50	144.66	124.37	119.24	114.34	110.02	106.36	100.70	97.28	94.98	93.28
3 & 4	159.84	133.24	114.55	113.81	106.27	101.33	97.96	92.73	89.60	87.49	85.95
4, Low	145.25	121.12	104.06	104.06	96.53	92.03	89.02	84.27	81.43	79.54	78.04

Length between 1-1/2 and 2 times depth – Square Foot Area

Quality Class	500	1,000	2,000	3,000	5,000	7,500	10,000	15,000	20,000	25,000	35,000
1, Best	297.54	244.89	207.56	191.02	174.42	163.97	157.73	150.34	145.92	142.90	138.94
1 & 2	262.49	216.01	182.33	168.57	153.91	144.65	139.14	132.63	128.75	126.04	122.60
2, Good	230.55	189.73	160.79	148.03	135.16	127.03	122.27	116.51	113.07	110.76	107.67
2 & 3	209.29	172.20	145.99	134.35	122.71	115.33	110.93	105.73	102.57	100.52	97.74
3, Average	190.58	156.85	130.66	122.32	111.69	105.01	101.04	96.85	93.44	91.56	89.02
3 & 4	174.37	143.51	121.61	111.94	102.20	96.07	92.47	88.01	85.52	83.74	81.43
4, Low	158.43	130.33	110.42	101.66	92.81	87.24	83.93	80.01	77.68	76.04	73.94

Wall Height Adjustment: Add or subtract the amount listed to or from the square foot of floor cost for each foot of wall height more or less than 16 feet.

Square Foot Area

Quality Class	500	1,000	2,000	3,000	5,000	7,500	10,000	15,000	20,000	25,000	35,000
1, Best	18.30	12.73	8.98	7.32	5.73	4.64	4.03	3.36	2.88	2.60	2.38
2, Good	11.99	8.36	5.89	4.81	3.69	3.05	2.66	2.19	1.95	1.69	1.58
3, Average	8.79	6.12	4.32	3.54	2.78	2.25	1.98	1.59	1.41	1.29	1.18
4, Low	6.41	4.41	3.10	2.55	1.99	1.60	1.41	1.18	.96	.86	.83

Perimeter Wall Adjustment: For a common wall, deduct \$218 per linear foot. For no wall ownership, deduct \$436 per linear foot.

Suburban Stores – Wood or Wood and Steel Frame

Multi-Unit, Strip Type

Estimating Procedure

1. Use these figures to estimate the cost of stores designed for multiple occupancy. These costs include all components of shell buildings plus the cost of display fronts, finish materials on the front of the building and normal interior partitions.
2. Establish the structure quality class by applying the information on page 94. Evaluate the quality of the display front to help establish the correct quality class of the building as a whole. The building classes have display fronts as classified on page 89. See also pages 242 to 245.
3. Compute the building floor area. This should include everything within the exterior walls and all inset areas outside the main walls but under the main roof.
4. Add to or subtract from the square foot cost below the appropriate amount from the Wall Height Adjustment Table (at the bottom of this page) if the wall height is more or less than 16 feet.
5. Multiply the adjusted square foot cost by the building area.
6. Deduct, if appropriate, for common walls, using the figures at the bottom of this page.
7. Multiply the total cost by the location factor on page 7 or 8.
8. Add the cost of the appropriate additional components from page 236 to 248: heating and cooling equipment, fire sprinklers, canopies, exterior signs, mezzanines and basements, loading docks and ramps, yard improvements, and communication systems.

Length between 2 and 3 times depth – Square Foot Area

Quality Class	1,000	2,000	3,000	5,000	7,500	10,000	15,000	20,000	30,000	50,000	70,000
1, Best	282.62	234.70	213.52	192.29	178.97	170.91	161.48	155.87	149.18	142.57	139.01
1 & 2	249.06	206.84	188.19	169.50	157.70	150.71	142.92	137.41	131.53	125.65	122.48
2, Good	218.05	181.05	164.77	148.35	138.05	131.98	124.66	120.29	115.13	109.97	107.23
2 & 3	197.45	163.93	149.13	134.35	125.73	119.48	112.88	108.92	104.28	99.61	97.11
3, Average	178.97	148.61	135.17	121.74	113.17	106.99	102.29	98.69	94.48	90.25	88.00
3 & 4	163.75	135.95	123.71	111.34	103.61	99.08	93.51	90.32	86.46	82.57	80.48
4, Low	148.22	123.06	112.02	100.88	93.78	89.68	84.72	81.75	78.36	74.75	72.91

Length greater than 3 times depth – Square Foot Area

Quality Class	2,000	3,000	5,000	10,000	15,000	20,000	30,000	50,000	75,000	100,000	150,000
1, Best	257.92	232.11	216.55	181.74	170.19	163.58	155.75	148.02	143.16	140.27	136.80
1 & 2	227.12	204.41	181.82	159.31	149.82	144.01	137.18	130.35	126.08	123.50	120.48
2, Good	198.60	178.73	160.95	139.58	131.03	125.98	119.98	114.02	110.24	108.03	105.39
2 & 3	173.39	155.99	138.89	121.81	114.43	109.97	104.76	99.50	96.29	94.36	91.96
3, Average	162.49	146.22	130.73	114.16	107.16	103.07	98.15	93.28	90.18	88.37	86.22
3 & 4	149.55	134.58	119.80	105.07	98.62	94.80	90.36	85.83	83.01	81.32	79.40
4, Low	136.17	122.56	109.09	95.72	89.87	86.40	82.28	78.17	75.61	74.16	72.29

Wall Height Adjustment: Add or subtract the amount listed to or from the square foot cost above for each foot of wall height more or less than 16 feet.

Square Foot Area

Quality Class	2,000	3,000	5,000	10,000	15,000	20,000	30,000	50,000	75,000	100,000	150,000
1, Best	8.71	7.10	5.55	3.98	3.33	2.86	2.35	1.96	1.59	1.45	1.27
2, Good	5.59	4.60	3.54	2.55	2.09	1.84	1.56	1.24	1.02	.94	.77
3, Average	4.11	3.40	2.61	1.92	1.57	1.38	1.16	.87	.77	.69	.59
4, Low	3.07	2.47	1.96	1.38	1.17	1.04	.82	.68	.58	.54	.44

Perimeter Wall Adjustment: For a common wall, deduct \$218 per linear foot. For no wall ownership, deduct \$436 per linear foot.

Supermarkets – Masonry or Concrete

Quality Classification

	Class 1 Best Quality	Class 2 Good Quality	Class 3 Average Quality	Class 4 Low Quality
Foundation (15% of total cost)	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.
Floor Structure (12% of total cost)	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.
Wall Structure (15% of total cost)	6" concrete tilt-up or ornamental block or brick.	6" concrete tilt-up, colored concrete block or brick.	6" concrete tilt-up or 8" concrete block.	6" concrete tilt-up or 8" concrete block.
Roof Structure (10% of total cost)	Glu-lams or steel "I" beams on steel intermediate columns, 2" x 12" purlins 16" o.c., 1/2" plywood sheathing.	Glu-lams or steel "I" beams on steel intermediate columns, 2" x 12" purlins 16" o.c., 1/2" plywood sheathing.	Glu-lams or steel "I" beams on steel intermediate columns, 2" x 12" purlins 16" o.c., 1/2" plywood sheathing.	Glu-lams or steel "I" beams on steel intermediate columns, 3" x 12" purlins 3' o.c., 1/2" plywood sheathing.
Floor Finish (5% of total cost)	Terrazzo in sales area. Sheet vinyl or carpet in cashiers' area.	Resilient tile in sales area. Terrazzo, solid vinyl tile or carpet in cashiers' area.	Composition tile in sales area.	Minimum grade tile in sales area.
Interior Wall Finish (5% of total cost)	Inside of exterior walls furred out with gypsum wallboard and paint or interior stucco, interior stucco or gypsum wallboard and vinyl wall cover on partitions.	Paint on inside of exterior walls, gypsum wallboard and paint or vinyl wall cover on partitions.	Paint on inside of exterior walls, wallboard and paint on partitions.	Paint on inside of exterior walls, wallboard and paint on partitions.
Ceiling Finish (5% of total cost)	Suspended acoustical tile, dropped ceiling over meat and produce departments.	Suspended acoustical tile or gypsum board and acoustical texture, dropped ceiling over meat and produce departments.	Ceiling tile on roof purlins, dropped ceiling over meat department.	Open.
Front (7% of total cost)	A large amount of float glass in good aluminum frames (18'-22' high for 3/4 of width), brick or stone veneer on remainder, 1 pair of good automatic doors per 10,000 S.F. of floor area, tinted aluminum sunshade over glass area, 6' canopy across front, 10'-12' raised walk across front.	A large amount of float glass in good aluminum frames (16'-18' high for 2/3 of width), brick or stone veneer on remainder, 1 pair of good automatic doors per 10,000 S.F. of floor area, 8' canopy across front, 10' raised walk across front.	A moderate amount of float glass in average quality aluminum frames (12'-16' high for 2/3 of width), exposed aggregate on remainder, 1 pair average automatic doors per 10,000 S.F. of floor area, 6' canopy across front, 8' raised walk across front.	Stucco or exposed aggregate with a small amount of float glass in an inexpensive aluminum frame (6'-10' high for 1/2 of width), 6' canopy across front, 6' ground level walk across front.
Exterior Finish (8% of total cost)	Large ornamental rock or brick veneer.	Large ornamental rock or brick veneer.	Paint, some exposed aggregate.	Paint.
Roof Cover (5% of total cost)	5 ply built-up roofing with large rock.	5 ply built-up roofing with tar and rock.	4 ply built-up roofing.	4 ply built-up roofing.
Plumbing (8% of total cost)	2 rest rooms with 3 fixtures, floor piping and drains to refrigerated cases, 2 double sinks with drain board.	2 rest rooms with 3 fixtures each, floor piping and drains to refrigerated cases, 2 double sinks with drain board.	2 rest rooms with 2 fixtures each, floor piping and drains to refrigerated cases, 2 double sinks.	1 rest room with 2 fixtures, floor piping and drains to refrigerated cases.
Electrical (5% of total cost)	Conduit wiring, recessed 4 tube fluorescent fixtures 8' o.c., 30-40 spotlights.	Conduit wiring, 4 tube fluorescent fixtures with diffusers 8' o.c., 30-40 spotlights.	Conduit wiring, 3 tube fluorescent fixtures, 8' o.c., 5 or 10 spotlights.	Conduit wiring, double tube fluorescent fixtures, 8' o.c.

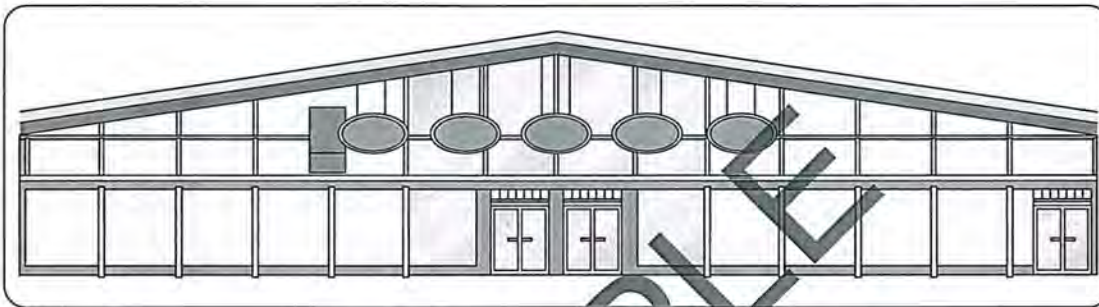
Note: Use the percent of total cost to help identify the correct quality classification.

Square foot costs include the following components: Foundations as required for normal soil conditions. Floor, wall, and roof structures. Interior floor, wall and ceiling finishes. Exterior wall finish and roof cover. Display fronts. Interior partitions. Entry and delivery doors. A canopy and walk across the front of the building as described in the applicable building specifications. Basic lighting and electrical systems. Rough and finish plumbing. All plumbing, piping and wiring necessary to operate the usual refrigerated cases and vegetable cases. Design and engineering fees. Permits and hook-up fees. Contractor's mark-up.

Supermarkets – Masonry or Concrete

Estimating Procedure

1. Establish the structure quality class by using the information on page 103.
2. Compute the building floor area. This should include everything within the building exterior walls and all insets outside the main walls but under the main building roof.
3. Add to or subtract from the square foot cost below the appropriate amount from the Wall Height Adjustment Row (at the bottom of this page) if the wall height is more or less than 20 feet.
4. Multiply the adjusted square foot cost by the building area.
5. Deduct, if appropriate, for common walls, using the figures at the bottom of this page.
6. Multiply the total cost by the location factor listed on page 7 or 8.
7. Add the cost of heating and cooling equipment, fire sprinklers, exterior signs, yard improvements, loading docks, ramps and walk-in boxes if they are an integral part of the building. See pages 236 to 248.



Supermarket, Class 2

Square Foot Area

Quality Class	5,000	7,500	10,000	12,500	15,000	20,000	25,000	30,000	35,000	40,000	50,000
Exceptional	187.61	174.46	166.59	161.40	157.80	151.60	147.71	144.88	142.68	140.89	138.14
1, Best	178.79	166.27	158.75	153.63	149.79	144.46	140.79	138.06	135.98	134.27	131.61
1 & 2	165.77	154.11	147.20	142.38	138.85	133.88	130.50	127.98	126.00	124.44	122.10
2, Good	153.48	142.73	136.28	131.91	128.60	124.07	120.88	118.55	116.74	115.29	113.06
2 & 3	143.22	133.14	127.18	123.05	119.94	115.72	112.77	110.56	108.85	107.53	105.43
3, Average	134.60	125.21	119.51	115.62	112.77	108.81	105.96	103.94	102.35	101.05	99.06
3 & 4	122.11	113.49	108.35	104.88	102.30	98.66	96.12	94.27	92.79	91.70	89.91
4, Low	109.02	101.34	96.70	93.67	91.32	88.07	85.80	84.18	82.90	81.82	80.24
Wall Height Adjustment*	2.03	1.62	1.42	1.31	1.20	1.00	.88	.80	.77	.74	.64

***Wall Height Adjustment:** Add or subtract the amount listed in this row to or from the square foot of floor cost for each foot of wall height more or less than 20 feet.

Perimeter Wall Adjustment: A common wall exists when two buildings share one wall. Adjust for common walls by deducting the linear foot costs below from the total structure cost. In some structures one or more walls are not owned at all. In this case, deduct the "No Ownership" cost per linear foot of wall not owned. For common wall, deduct \$357 per linear foot. For no wall ownership, deduct \$745 per linear foot.

Supermarkets – Wood and Steel Frame

Quality Classification

	Class 1 Best Quality	Class 2 Good Quality	Class 3 Average Quality	Class 4 Low Quality
Foundation (15% of total cost)	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.
Floor Structure (12% of total cost)	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.
Wall Structure (10% of total cost)	2" x 6" - 16" o.c.	2" x 6" - 16" o.c.	2" x 4" - 16" o.c.	2" x 4" - 16" o.c.
Roof Structure (10% of total cost)	Glu-lams or steel "I" beams on steel intermediate columns, 2" x 12" purlins 16" o.c., 1/2" plywood sheathing.	Glu-lams or steel "I" beams on steel intermediate columns, 2" x 12" purlins 16" o.c., 1/2" plywood sheathing.	Glu-lams or steel "I" beams on steel intermediate columns, 2" x 12" purlins 16" o.c., 1/2" plywood sheathing.	Glu-lams or steel "I" beams on steel intermediate columns, 3" x 12" purlins 3' o.c., 1/2" plywood sheathing.
Floor Finish (5% of total cost)	Terrazzo in sales area. Sheet vinyl or carpet in cashiers' area.	Resilient tile in sales area. Terrazzo, solid vinyl tile or carpet in cashiers' area.	Composition tile in sales area.	Minimum tile or inexpensive composition tile in sales area.
Interior Wall Finish (7% of total cost)	Gypsum wallboard and vinyl wall cover or interior stucco on inside of exterior walls and on partitions.	Gypsum wallboard, texture and paint or vinyl wall cover on inside of exterior walls, and on partitions.	Gypsum wallboard, texture and paint on inside of exterior walls, and on partitions.	Gypsum wallboard and paint on inside of exterior walls, and on partitions.
Ceiling Finish (5% of total cost)	Suspended acoustical tile, dropped ceiling over meat and produce departments.	Suspended acoustical tile or gypsum board and acoustical texture, dropped ceiling over meat and produce departments.	Ceiling tile on roof purlins, dropped ceiling over meat department.	Open.
Front (10% of total cost)	A large amount of float glass in good aluminum frames (18'-22' high for 3/4 of width), brick or stone veneer on remainder, 1 pair good automatic doors per 7,000 S.F. of floor area, 9' ground level aluminum sunshade over glass area, 9' canopy across front, 10'-12' raised walk across front.	A large amount of float glass in good aluminum frames (16'-18' high for 2/3 of width), brick or stone veneer on remainder, 1 pair good automatic doors per 10,000 S.F. of floor area, 9' canopy across front, 10' raised walk across front.	Moderate amount of float glass in average quality aluminum frames (12'-16' high for 2/3 of width), wood siding on remainder, 1 pair average automatic doors per 10,000 S.F. of floor area, 6' canopy across front, 8' raised walk across front.	Stucco with small amount of float glass in an inexpensive aluminum frame (6'-10' high for 1/2 of width), 6' canopy across front, 6' ground level walk across front.
Exterior Finish (8% of total cost)	Large ornamental rock or brick veneer.	Good wood siding, some masonry veneer.	Stucco or wood siding.	Stucco.
Roof Cover (5% of total cost)	5 ply built-up roofing with large rock.	5 ply built-up roofing with tar and rock.	4 ply built-up roofing.	4 ply built-up roofing.
Plumbing (8% of total cost)	2 rest rooms with 3 fixtures each, floor piping and drains to refrigerated cases, 2 double sinks with drain board.	2 rest rooms with 3 fixtures each, floor piping and drains to refrigerated cases, 2 double sinks with drain board.	2 rest rooms with 2 fixtures each, floor piping and drains to refrigerated cases, 2 double sinks.	1 rest room with 2 fixtures, floor piping and drains to refrigerated cases.
Electrical (5% of total cost)	Conduit wiring, recessed 4 tube fluorescent fixtures, 8' o.c., 30 to 40 spotlights.	Conduit wiring, 4 tube fluorescent fixtures with diffusers, 8' o.c., 30 to 40 spotlights.	Conduit wiring, 3 tube fluorescent fixtures, 8' o.c., 5 or 10 spotlights.	Conduit wiring, double tube fluorescent fixtures, 8' o.c.

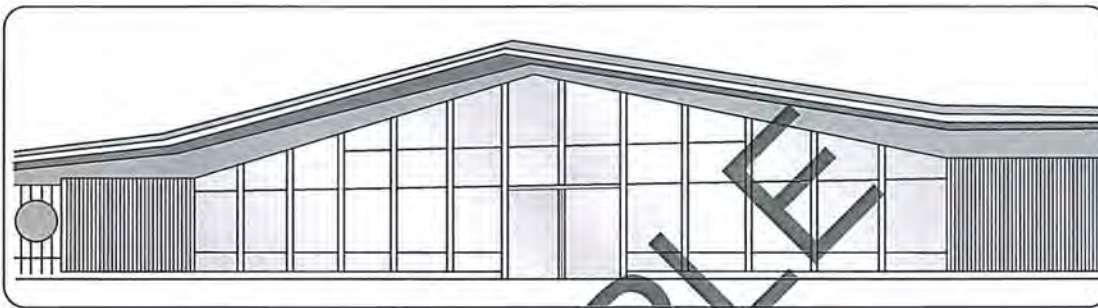
Note: Use the percent of total cost to help identify the correct quality classification.

Square foot costs include the following components: Foundations as required for normal soil conditions. Floor, wall, and roof structures. Interior floor, wall and ceiling finishes. Exterior wall finish and roof cover. Display fronts. Interior partitions. Entry and delivery doors. A canopy and walk across the front of the building as described in the applicable building specifications. Basic lighting and electrical systems. Rough and finish plumbing. All plumbing, piping and wiring necessary to operate the usual refrigerated cases and vegetable cases. Design and engineering fees. Permits and hook-up fees. Contractor's mark-up.

Supermarkets – Wood and Steel Frame

Estimating Procedure

1. Establish the structure quality class by using the information on page 105.
2. Compute the building floor area. This should include everything within the building exterior walls and all insets outside the main walls but under the main building roof.
3. Add to or subtract from the square foot cost below the appropriate amount from the Wall Height Adjustment Row (at the bottom of this page) if the wall height is more or less than 20 feet.
4. Multiply the adjusted square foot cost by the building area.
5. Deduct, if appropriate, for common walls, using the figures at the bottom of this page.
6. Multiply the total cost by the location factor listed on page 7 or 8.
7. Add the cost of heating and cooling equipment, fire sprinklers, exterior signs, yard improvements, loading docks, ramps and walk-in boxes if they are an integral part of the building. See pages 236 to 248.



Supermarket, Class 3

Square Foot Area

Quality Class	5,000	7,500	10,000	12,500	15,000	20,000	25,000	30,000	35,000	40,000	50,000
Exceptional	169.20	159.44	153.56	149.54	146.56	142.40	139.53	137.40	135.80	134.50	132.38
1, Best	161.42	152.10	146.49	142.69	139.86	135.83	133.13	131.13	129.52	128.27	126.32
1 & 2	148.30	139.80	134.57	131.71	128.48	124.81	122.32	120.48	119.01	117.81	116.05
2, Good	136.09	128.14	123.48	120.71	117.92	114.50	112.22	110.46	109.19	108.09	106.45
2 & 3	127.12	119.81	115.41	112.47	110.20	107.03	104.90	103.29	102.02	101.05	99.54
3, Average	119.72	112.83	108.85	105.76	103.68	100.75	98.68	97.20	96.05	95.05	93.63
3 & 4	109.65	103.33	99.52	96.92	94.98	92.28	90.42	89.06	87.97	87.15	85.79
4, Low	98.78	93.09	89.66	87.25	85.54	83.12	81.43	80.18	79.23	78.45	77.27
Wall Height Adjustment*	1.06	.89	.79	.71	.66	.60	.58	.57	.54	.53	.47

***Wall Height Adjustment:** Add or subtract the amount listed in this row to or from the square foot of floor cost for each foot of wall height more or less than 20 feet.

Perimeter Wall Adjustment: A common wall exists when two buildings share one wall. Adjust for common walls by deducting the linear foot costs below from the total structure cost. In some structures one or more walls are not owned at all. In this case, deduct the "No Ownership" cost per linear foot of wall not owned. For common wall, deduct \$240 per linear foot. For no wall ownership, deduct \$480 per linear foot.

Small Food Stores – Masonry Construction

Quality Classification

	Class 1 Best Quality	Class 2 Good Quality	Class 3 Average Quality	Class 4 Low Quality
Foundation (15% of total cost)	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.
Floor Structure (12% of total cost)	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.
Wall Structure (10% of total cost)	6" concrete tilt-up or ornamental block or brick.	6" concrete tilt-up, colored concrete block or brick.	6" concrete tilt-up or 8" concrete block.	6" concrete tilt-up or 8" concrete block.
Roof Structure (10% of total cost)	Glu-lams or steel "I" beams on steel intermediate columns, 2" x 12" purlins 16" o.c., 1/2" plywood sheathing.	Glu-lams or steel "I" beams, 2" x 12" purlins 16" o.c., 1/2" plywood sheathing.	Glu-lams, 3" x 12" purlins 3' o.c., 1/2" plywood sheathing.	Glu-lams, 3" x 12" purlins 3' o.c., 1/2" plywood sheathing.
Floor Finish (5% of total cost)	Resilient tile in sales area.	Composition tile in sales area.	Minimum grade tile in sales area.	Concrete.
Interior Wall Finish (7% of total cost)	Paint on inside of exterior walls, gypsum wallboard, texture and paint or vinyl wall cover on partitions.	Paint on inside of exterior walls, gypsum wallboard, texture and paint on partitions.	Paint on inside of exterior walls, gypsum wallboard and paint on partitions.	Paint on inside of exterior walls, gypsum wallboard and paint on partitions.
Ceiling Finish (5% of total cost)	Suspended acoustical tile or gypsum board and acoustical texture.	Ceiling tile on steel purlins.	Open.	Open.
Front (10% of total cost)	A large amount of float glass in good aluminum frames (10'-12' high for 2/3 of width), brick or stone veneer on remainder, 1 pair good aluminum and glass doors per 3,000 S.F. of floor area, 8' canopy across front, 10' raised walk across front.	A moderate amount of float glass in average aluminum frames (8' to 10' high for 2/3 of width), exposed aggregate on remainder, 1 pair average aluminum and glass doors per 3,000 S.F. of floor area, 6' canopy across front, 8' raised walk across front.	Painted concrete block with a small amount of float glass in an inexpensive aluminum frame (6' to 8' high for 1/2 of width), 6' canopy across front, 6' ground level walk across front.	Painted concrete block with small amount of crystal glass in wood frames, wood and glass doors, small canopy over entrance, 6' ground level walk at entrances.
Exterior Finish (8% of total cost)	Colored block.	Paint.	Paint.	Paint.
Roof Cover (5% of total cost)	5 ply built-up roofing with tar and rock.	4 ply built-up roofing.	4 ply built-up roofing.	4 ply built-up roofing.
Plumbing (8% of total cost)	2 rest rooms with 3 fixtures each, floor piping and drains to refrigerated cases.	1 rest room with 3 fixtures, floor piping and drains to refrigerated cases.	1 rest room with 2 fixtures, floor piping and drains to refrigerated cases.	1 rest room with 2 fixtures, floor piping and drains to refrigerated cases.
Electrical (5% of total cost)	Conduit wiring, 4 tube fluorescent fixtures with diffusers, 8' o.c., 5 spotlights.	Conduit wiring, 3 tube fluorescent fixtures, 8' o.c.	Conduit wiring, double tube fluorescent fixtures, 8' o.c.	Conduit wiring, incandescent fixtures, 10' o.c. or single tube fluorescent fixtures, 8' o.c.

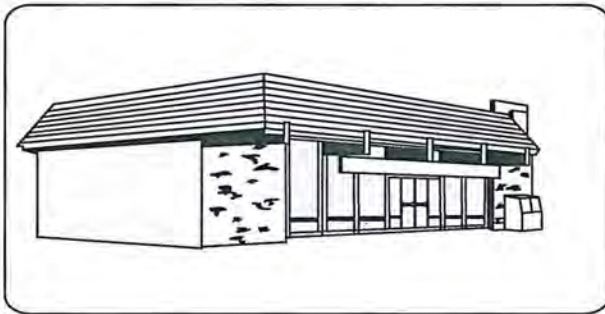
Note: Use the percent of total cost to help identify the correct quality classification.

Square foot costs include the following components: Foundations as required for normal soil conditions. Floor, wall, and roof structures. Interior floor, wall and ceiling finishes. Exterior wall finish and roof cover. Display fronts. Interior partitions. Entry and delivery doors. A canopy and walk across the front of the building as described in the applicable building specifications. Basic lighting and electrical systems. Rough and finish plumbing. All plumbing, piping and wiring necessary to operate the usual refrigerated cases and vegetable cases. Design and engineering fees. Permits and hook-up fees. Contractor's mark-up.

Small Food Stores – Masonry Construction

Estimating Procedure

1. Establish the structure quality class by using the information on page 107.
2. Compute the building floor area. This should include everything within the building exterior walls and all insets outside the main walls but under the main building roof.
3. Add to or subtract from the square foot cost below the appropriate amount from the Wall Height Adjustment Row (at the bottom of this page) if the wall height is more or less than 12 feet.
4. Multiply the adjusted square foot cost by the building area.
5. Deduct, if appropriate, for common walls, using the figures at the bottom of this page.
6. Multiply the total cost by the location factor listed on page 7 or 8.
7. Add the cost of heating and cooling equipment, fire sprinklers, exterior signs, yard improvements, loading docks, ramps and walk-in boxes if they are an integral part of the building. See pages 236 to 248.



Small Food Store, Class 1 & 2



Small Food Store, Class 2

Square Foot Area

Quality Class	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	6,000
1, Best	276.53	209.53	183.20	158.45	158.78	151.90	146.78	142.58	139.24	136.41	131.98
1 & 2	254.69	193.41	169.33	155.83	148.99	140.68	135.90	132.18	129.03	126.49	122.40
2, Good	234.81	178.82	156.00	144.40	136.30	130.51	126.13	122.64	119.75	117.42	113.68
2 & 3	221.83	170.11	149.08	137.22	129.20	123.45	119.03	115.55	112.69	110.27	106.43
3, Average	209.56	160.33	140.52	129.39	121.87	116.55	112.51	109.34	106.65	104.41	100.87
3 & 4	173.53	146.21	131.22	121.53	114.59	109.30	104.94	101.57	98.60	96.09	91.91
4, Low	161.67	135.26	121.23	112.11	105.61	100.68	96.70	93.51	90.74	88.45	84.63
Wall Height Adjustment*	6.35	4.48	3.65	3.17	2.78	2.62	2.41	2.22	2.10	2.03	1.90

***Wall Height Adjustment:** Add or subtract the amount listed in this row to or from the square foot of floor cost for each foot of wall height more or less than 12 feet.

Perimeter Wall Adjustment: For common wall, deduct \$187 per linear foot. For no wall ownership, deduct \$369 per linear foot.

Small Food Stores – Wood Frame Construction

Quality Classification

	Class 1 Best Quality	Class 2 Good Quality	Class 3 Average Quality	Class 4 Low Quality
Foundation (15% of total cost)	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.	Reinforced concrete.
Floor Structure (12% of total cost)	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.	4" reinforced concrete on 6" rock fill.
Wall Structure (10% of total cost)	2" x 6" - 16" o.c.	2" x 6" - 16" o.c.	2" x 4" - 16" o.c.	2" x 4" - 16" o.c.
Roof Structure (10% of total cost)	Glu-lams or steel "I" beams on steel intermediate columns, 2" x 12" purlins 16" o.c., 1/2" plywood sheathing.	Glu-lams or steel "I" beams on steel intermediate columns, 2" x 12" purlins 16" o.c., 1/2" plywood sheathing.	Glu-lams, or steel "I" beams, 3" x 12" purlins 3' o.c., 1/2" plywood sheathing.	Glu-lams, 3" x 12" purlins 3' o.c. 1/2" plywood sheathing.
Floor Finish (5% of total cost)	Resilient tile in sales area.	Resilient tile in sales area.	Inexpensive composition tile in sales area.	Concrete.
Interior Wall Finish (7% of total cost)	Gypsum wallboard, texture and paint or vinyl wall cover on inside of exterior walls, and on partitions.	Gypsum wallboard, texture and paint on inside of exterior walls, and on partitions.	Gypsum wallboard and paint on inside of exterior walls, and on partitions.	Gypsum wallboard and paint on inside of exterior walls and on partitions.
Ceiling Finish (5% of total cost)	Suspended acoustical tile or gypsum board and acoustical texture.	Ceiling tile on roof purlins.	Open.	Open.
Front (10% of total cost)	A large amount of float glass in good aluminum frames (10'-12' high for 2/3 of width), brick or stone veneer on remainder, 1 pair good aluminum and glass doors per 3,000 S.F. of floor area, 8' canopy across front, 10' raised walk across front.	A moderate amount of float glass in average quality aluminum frames 8' to 10' high for 2/3 of width), ornamental concrete block on remainder, 1 pair average aluminum and glass doors per 3,000 S.F. of floor area, 6' canopy across front, 8' raised walk across front.	Painted stucco with a small amount of float glass in an inexpensive aluminum frame (6' to 8' high for 1/2 of width) 6' canopy across front. 6' ground level walk across front.	Stucco with small amount of crystal glass in wood frames, wood and glass doors, small canopy over entrance, 6' ground level walk at entrances.
Exterior Finish (8% of total cost)	Stucco and paint or wood siding.	Stucco and paint.	Stucco.	Stucco.
Roof Cover (5% of total cost)	5 ply built-up roofing with tar and rock.	4 ply built-up roofing.	4 ply built-up roofing.	4 ply built-up roofing.
Plumbing (8% of total cost)	2 rest rooms with 3 fixtures each, floor piping and drains to refrigerated cases.	1 rest room with 3 fixtures, floor piping and drains to refrigerated cases.	1 rest room with 2 fixtures, floor piping and drains to refrigerated cases.	1 rest room with 2 fixtures, floor piping and drains to refrigerated cases.
Electrical (5% of total cost)	Conduit wiring, 4 tube fluorescent fixtures with diffusers, 8' o.c., 5 spotlights.	Conduit wiring, 3 tube fluorescent fixtures, 8' o.c.	Conduit wiring, double tube fluorescent fixtures, 8' o.c.	Conduit wiring, incandescent fixtures, 10' o.c. or single tube fluorescent fixtures, 8' o.c.

Note: Use the percent of total cost to help identify the correct quality classification.

Square foot costs include the following components: Foundations as required for normal soil conditions. Floor, wall, and roof structures. Interior floor, wall and ceiling finishes. Exterior wall finish and roof cover. Display fronts. Interior partitions. Entry and delivery doors. A canopy and walk across the front of the building as described in the applicable building specifications. Basic lighting and electrical systems. Rough and finish plumbing. All plumbing, piping and wiring necessary to operate the usual refrigerated cases and vegetable cases. Design and engineering fees. Permits and hook-up fees. Contractor's mark-up.

Theaters – Wood Frame

Length Less Than Twice Width

Estimating Procedure

1. Establish the structure quality class by applying the information on page 191.
2. Compute the building floor area. This should include everything within the main walls and all insets outside the main walls but under the main roof.
3. Add to or subtract from the square foot cost below the appropriate amount from the Wall Height Adjustment Table on page 195 if the wall height is more or less than 20 feet.
4. Multiply the adjusted square foot cost by the building floor area.
5. Deduct, if appropriate, for common walls, using the figures on page 195.
6. Multiply the total cost by the location factor listed on page 7 or 8.
7. Add the cost of heating and air conditioning systems, fire extinguishers, exterior signs, paving and curbing. See the section beginning on page 236.



Theater, Class 4 Front, Class 3 Rear

Square Foot Area

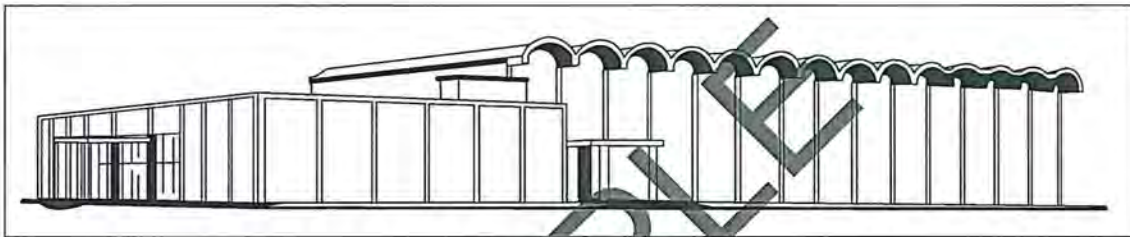
Quality Class	3,000	3,500	4,000	5,000	6,000	7,000	8,000	10,000	12,000	15,000	20,000
1, Best	138.31	133.92	130.50	125.47	122.07	119.38	117.36	114.33	112.25	109.95	107.44
1 & 2	134.00	129.73	126.38	121.59	118.21	115.62	113.63	110.72	108.67	106.45	104.02
2, Good	132.19	128.00	124.74	119.98	116.59	114.11	112.18	109.29	107.19	105.05	102.68
2 & 3	127.99	123.90	120.71	116.21	112.86	110.46	108.58	105.75	103.74	101.66	99.35
3, Average	125.35	121.43	118.31	113.80	110.57	108.24	106.39	103.66	101.68	99.65	97.41
3 & 4	121.61	117.79	114.75	110.43	107.29	105.00	103.17	100.55	98.63	96.63	94.45
4, Low	118.12	114.37	111.48	107.14	104.18	101.95	100.20	97.59	95.79	93.85	91.74

Theaters – Wood Frame

Length Between 2 and 4 Times Width

Estimating Procedure

1. Establish the structure quality class by applying the information on page 191.
2. Compute the building floor area. This should include everything within the main walls and all insets outside the main walls but under the main roof.
3. Add to or subtract from the square foot cost below the appropriate amount from the Wall Height Adjustment Table on page 195 if the wall height is more or less than 20 feet.
4. Multiply the adjusted square foot cost by the building floor area.
5. Deduct, if appropriate, for common walls, using the figures on page 195.
6. Multiply the total cost by the location factor listed on page 7 or 8.
7. Add the cost of heating and air conditioning systems, fire extinguishers, exterior signs, paving and curbing. See the section beginning on page 236.



Theater, Class 3

Square Foot Area

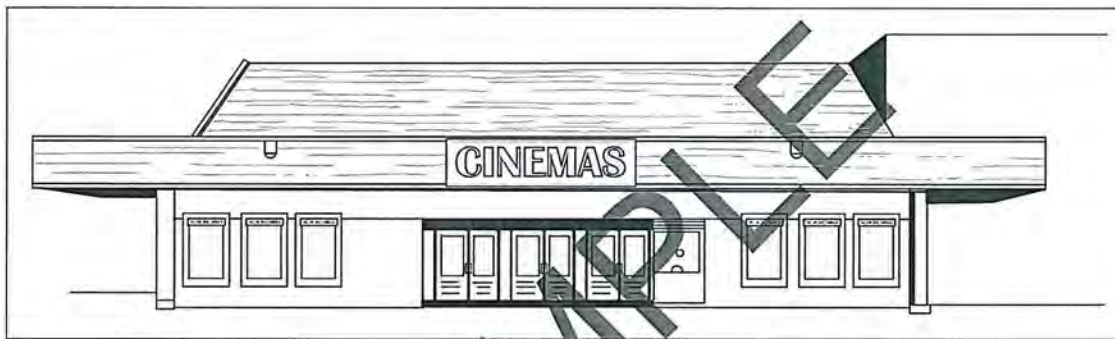
Quality Class	3,000	3,500	4,000	5,000	6,000	7,000	8,000	10,000	12,000	15,000	20,000
1, Best	147.39	142.77	139.09	133.74	130.05	127.22	125.04	121.79	119.50	117.08	114.41
1 & 2	142.67	138.11	134.61	129.52	125.87	123.15	121.02	117.87	115.67	113.32	110.73
2, Good	140.74	136.26	132.76	127.72	124.13	121.44	119.35	116.26	114.08	111.73	109.24
2 & 3	136.17	131.83	128.45	123.55	120.07	117.52	115.50	112.50	110.38	108.09	105.65
3, Average	133.59	129.34	126.07	121.24	117.82	115.30	113.33	110.43	108.30	106.07	103.69
3 & 4	129.53	125.38	121.08	117.34	114.23	111.79	109.83	107.01	105.05	102.78	100.55
4, Low	125.54	121.59	118.49	113.92	110.72	108.35	106.49	103.72	101.73	99.71	97.45

Theaters - Wood Frame

Length More Than 4 Times Width

Estimating Procedure

1. Establish the structure quality class by applying the information on page 191.
2. Compute the building floor area. This should include everything within the main walls and all insets outside the main walls but under the main roof.
3. Add to or subtract from the square foot cost below the appropriate amount from the Wall Height Adjustment Table on page 195 if the wall height is more or less than 20 feet.
4. Multiply the adjusted square foot cost by the building floor area.
5. Deduct, if appropriate, for common walls, using the figures on page 195.
6. Multiply the total cost by the location factor listed on page 7 or 8.
7. Add the cost of heating and air conditioning systems, fire extinguishers, exterior signs, paving and curbing. See the section beginning on page 236.



Square Foot Area

Quality Class	3,000	3,500	4,000	5,000	6,000	7,000	8,000	10,000	12,000	15,000	20,000
1, Best	156.79	151.76	147.93	142.28	138.28	135.28	132.91	129.57	127.11	124.54	121.64
1 & 2	151.80	147.02	143.25	137.75	133.93	131.09	128.80	125.47	123.14	120.61	117.87
2, Good	149.83	145.06	141.35	135.98	132.15	129.33	127.11	123.83	121.46	119.07	116.37
2 & 3	145.04	140.41	136.89	131.61	127.94	125.21	123.02	119.83	117.67	115.26	112.64
3, Average	142.34	137.75	134.27	129.14	125.57	122.83	120.70	117.67	115.43	113.05	110.50
3 & 4	137.91	133.53	130.13	125.16	121.64	119.07	117.00	113.92	111.83	109.51	107.07
4, Low	134.71	130.41	127.11	122.29	118.88	116.27	114.28	111.40	109.29	107.03	104.59

Service Garage – Masonry or Concrete

Quality Classification

	Class 1 Best Quality	Class 2 Good Quality	Class 3 Average Quality	Class 4 Low Quality
Foundation (25% of total cost)	Reinforced concrete or masonry.	Reinforced concrete or masonry.	Reinforced concrete or masonry.	Unreinforced concrete or masonry.
Floor Structure (15% of total cost)	6" rock fill, 4" concrete with reinforcing mesh.	6" rock fill, 4" concrete with reinforcing mesh.	4" rock fill, 4" concrete with reinforcing mesh.	Unreinforced 4" concrete.
Walls (15% of total cost)	8" reinforced concrete block, 12" common brick.	8" reinforced concrete block, 6" reinforced concrete.	8" reinforced concrete block, 6" reinforced concrete or 8" common brick.	8" unreinforced concrete block or 8" clay tile.
Roof Structure (12% of total cost)	Glu-lams or steel trusses on heavy pilasters 20' o.c. 2" x 10" purlins 16" o.c.	Glu-lams or steel trusses on pilasters 20' o.c., 2" x 10" purlins 16" o.c.	Glu-lams or wood trusses with 2" x 8" purlins 16" o.c.	Glu-lams or light wood trusses, 2" x 8" rafters 24" o.c.
Roof Cover (8% of total cost)	5 ply built-up roof on wood sheathing, with small rock.	4 ply built-up roof on wood sheathing, with small rock.	4 ply built-up roof on wood sheathing.	4 ply built-up roof on wood sheathing.
Restrooms (10% of total cost)	Two rest rooms with three average fixtures each.	Two rest rooms with two average fixtures each.	One rest room with two low cost fixtures.	One rest room with two low cost fixtures.
Lighting (10% of total cost)	One incandescent fixture per 300 square feet of floor area.	One incandescent fixture per 300 square feet of floor area.	One incandescent fixture per 300 square feet of floor area.	One incandescent fixture per 300 square feet of floor area.
Windows (5% of total cost)	3% to 5% of wall area.	3% to 5% of wall area.	3% to 5% of wall area.	3% to 5% of wall area.

Note: Use the percent of total cost to help identify the correct quality classification.

Square foot costs include the cost of the following components: Foundations as required for normal soil conditions. Floor, wall and roof structures. Exterior wall finish and roof cover. Entry doors. Basic lighting and electrical systems. Rough and finish plumbing. Permits and fees. Contractor's mark-up.

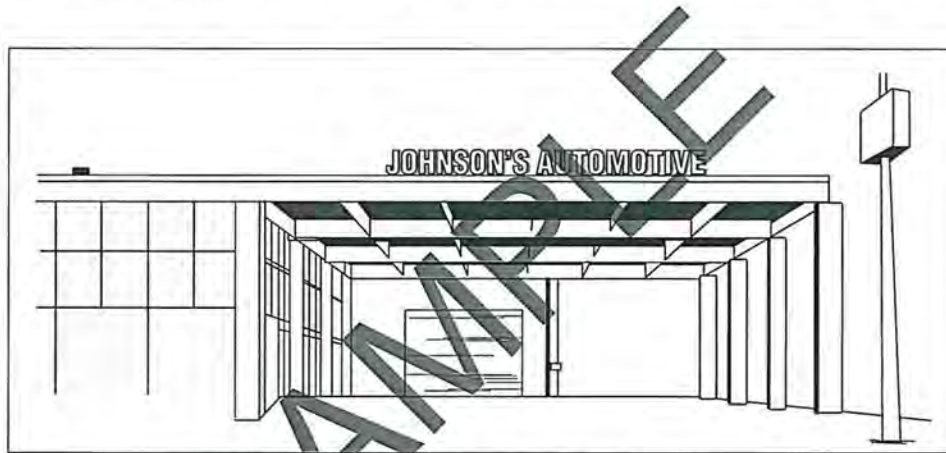
The in-place cost of these extra components should be added to the basic building cost to arrive at the total structure cost. See page 236 to 248. Heating and air conditioning systems. Fire sprinklers. Interior finish costs. Interior partitions. Drive-through doors. Canopies and walks. Exterior signs. Paving and curbing. Miscellaneous yard improvements. Hoists, gas pump and compressor costs are listed in the section "Additional Costs for Service Stations" beginning on page 204.

Service Garage – Masonry or Concrete

Length Less Than Twice Width

Estimating Procedure

1. Use these figures to estimate buildings designed primarily for motor vehicle repair. Sales area should be figured separately. Use the costs for urban stores beginning on page 75.
2. Establish the building quality class by applying the information on page 208.
3. Compute the floor area.
4. If the wall height is more or less than 18 feet, add to or subtract from the square foot costs below the appropriate amount from the Wall Height Adjustment Table on page 212.
5. Multiply the adjusted square foot cost by the floor area.
6. Deduct for common walls or no wall ownership. Use the figures on page 212.
7. Multiply the total cost by the location factor on page 7 or 8.
8. Add the cost of heating and air conditioning systems, fire sprinklers, interior finish and partitions, drive-thru doors, canopies and walks, exterior signs, paving, curbing, and yard improvements. See page 236 to 248. Add the cost of hoists, pumps and compressors beginning on page 204.



Service Garage (rear portion), Class 2

Square Foot Area

Quality Class	2,000	2,500	3,000	4,000	5,000	6,000	7,500	10,000	15,000	20,000	30,000
1, Best	77.58	70.45	65.40	58.64	54.18	51.03	47.59	43.86	39.67	37.19	34.44
1 & 2	74.47	67.68	62.75	56.28	52.00	48.94	45.71	42.19	38.07	35.73	33.02
2, Good	72.94	66.26	61.49	55.11	50.93	47.92	44.76	41.29	37.24	34.98	32.36
2 & 3	69.38	63.06	58.52	52.46	48.49	45.65	42.63	39.27	35.48	33.34	30.79
3, Average	67.41	61.21	56.79	50.92	47.04	44.29	41.36	38.09	34.43	32.33	29.90
3 & 4	63.77	57.87	53.70	48.15	44.52	41.93	39.13	36.05	32.52	30.52	28.25
4, Low	60.38	54.89	50.94	45.71	42.23	39.71	37.06	34.21	30.89	28.97	26.83

Alternate Costs for Steel Buildings

These costs are to be added to the basic building cost

Skylights, Polycarbonate, with curb

	2' x 2'	4' x 4'	4' x 8'
Single dome	\$170	\$449	\$566
Double dome	202	510	657
Triple dome	250	588	951
Double, ventilating	486	834	1,082

Partitions, Interior, 26 gauge steel, cost per square foot of partition with two sides finished

Painted drywall finish	\$4.06
Painted plywood, fire retardant	5.93

Ventilators, round type, includes screen (gravity type), cost each

Diameter	Stationary			Rotary		
	Galvanized	Colored	Aluminum	Galvanized	Colored	Aluminum
12"	\$230	\$249	\$411	\$366	\$411	\$517
16"	321	335	480	458	502	641
20"	386	410	550	559	589	730
24"	417	441	611	624	662	834

Ventilators, ridge type, includes screen and damper

Throat Size	4"	9"	12"	14"
Cost per linear foot, galvanized	\$62	\$91	\$116	\$134
Cost per linear foot, colored	64	101	125	144

Ventilator-Dampers, cost each

Diameter	12"	16"	20"	24"
Damper only	\$85	\$115	\$120	\$139
Dampers with cords and pulleys	169	212	261	301

Continuous Ridge Ventilator, includes screen and damper, cost per 10 foot unit

Size & Type	First 10'		Each Additional 10'	
	Galvanized	Color	Galvanized	Color
9" throat	\$878	\$1,004	\$828	\$931
10" throat	1,004	1,105	893	1,004
12" throat	647	1,448	1,190	1,260

Steel Sliding Windows, includes glass and screens, cost per window

3' x 2'6"	\$436
6' x 2'6"	539
6' x 3'8"	623

Aluminum Industrial Windows, includes glass and screens, cost per window

Size and Type	Project Out	Fixed
3' x 2'6"	\$424	\$310
2' x 2'8"	454	340
6' x 2'6"	628	416
6' x 3'8"	761	529

Smoke and Heat Vents, automatic control, cost per 10 foot unit

Size & Type	First 10'		Each Additional 10'	
	Galvanized	Color	Galvanized	Color
9" ridge mounted	\$3,233	\$3,417	\$2,672	\$2,744
9" slope mounted	3,335	3,580	2,744	2,876

Add for operators:

One or two 10 foot sections	Add \$107.00
Two to seven 10 foot sections	Add \$224.00

Aluminum Sliding Windows, includes glass and screens, cost per window

Width	Height				
	2'	2'6"	3'	3'6"	4'
2'	\$323	\$353	\$360	\$380	\$402
3'	353	375	379	402	416
4'	—	394	416	416	463
5'	—	417	432	530	549
6'	—	461	530	571	614

If window is fixed, deduct \$5.55 per window. For mullions add \$11.00 each.

Commercial, Industrial, and Public Structures

Typical Physical Lives in Years by Quality Class

Building Type	Masonry or Concrete						Wood or Wood and Steel Frame				
	1	2	3	4	5	6	1	2	3	4	5
Public Buildings	70	70	70	60	60	60	70	60	60	60	—
Urban Stores	70	70	70	60	60	60	70	60	60	60	—
Suburban Stores	70	60	60	60	60	—	60	50	50	45	—
Supermarkets	70	60	60	60	—	—	60	50	50	45	—
Small Food Stores	60	60	60	60	—	—	50	50	45	45	—
Discount Houses	70	60	60	60	—	—	60	50	50	45	—
Banks and Savings Offices	70	70	70	60	60	—	60	60	60	50	50
Department Stores	70	60	60	60	—	—	60	50	50	45	—
General Office Buildings	60	60	60	60	—	—	60	50	50	45	—
Medical-Dental Buildings	60	60	60	50	—	—	60	50	50	45	—
Convalescent Hospitals	60	60	60	50	—	—	55	50	50	45	—
Funeral Homes	70	70	70	60	60	—	60	60	60	50	50
Restaurants	70	60	60	60	—	—	60	50	50	45	—
Theaters	50	50	50	50	—	—	50	45	45	40	—
Service Garages	60	60	50	50	—	—	45	45	40	40	—
Auto Service Centers	50	50	45	45	—	—	—	—	—	—	—
Warehouses	55	55	50	50	—	—	—	—	—	—	—
Light Industrial Buildings	55	55	50	50	—	—	—	—	—	—	—
Factory Buildings	40	40	35	35	—	—	—	—	—	—	—

Service Stations located on main highways or in high land value areas can be expected to become obsolete in 20 years. Other service stations can be expected to become obsolete in 25 years. Reinforced Concrete Department Stores have a typical physical life of 80 years for class one structures and 70 years for lower quality class structures. Steel Buildings have a typical physical life of 50 years.

Normal Percent Good Table

Average Life in Years

Age	20 Years				25 Years				30 Years				35 Years				40 Years				45 Years				50 Years				55 Years				60 Years				70 Years			
	Age	Life Good	Life Good	Life Good	Age	Life Good	Life Good	Life Good	Age	Life Good	Life Good	Life Good	Age	Life Good	Life Good	Life Good	Age	Life Good	Life Good	Life Good	Age	Life Good	Life Good	Life Good	Age	Life Good	Life Good	Life Good	Age	Life Good	Life Good	Life Good	Age	Life Good	Life Good	Life Good				
0	20	100	25	100	30	100	35	100	40	100	45	100	50	100	55	100	60	100	70	100	80	100	90	100	100	100	100	100	100	100	100	100	100							
1	19	95	24	97	29	98	34	99	39	99	44	99	49	99	54	99	60	99	70	99	80	99	90	99	100	99	100	99	100	99	100	99	100							
2	18	90	23	93	28	96	33	97	38	97	43	97	48	97	53	97	60	97	70	97	80	97	90	97	100	97	100	97	100	97	100	97	100							
3	17	85	22	90	27	93	32	95	37	95	42	95	47	95	52	95	60	95	70	95	80	95	90	95	100	95	100	95	100	95	100	95	100							
4	16	79	21	86	26	90	31	93	36	93	41	93	46	93	51	93	60	93	70	93	80	93	90	93	100	93	100	93	100	93	100	93	100							
5	15	73	20	82	25	88	30	91	35	91	40	91	45	91	50	91	60	91	70	91	80	91	90	91	100	91	100	91	100	91	100	91	100							
6	14	67	19	78	24	85	29	89	34	89	39	89	44	89	49	89	60	89	70	89	80	89	90	89	100	89	100	89	100	89	100	89	100							
7	13	61	18	74	23	82	28	87	33	87	38	87	43	87	48	87	60	87	70	87	80	87	90	87	100	87	100	87	100	87	100	87	100							
8	12	56	17	70	22	79	27	85	32	85	37	85	42	85	47	85	60	85	70	85	80	85	90	85	100	85	100	85	100	85	100	85	100							
9	11	51	16	65	21	75	26	83	31	83	36	83	41	83	46	83	60	83	70	83	80	83	90	83	100	83	100	83	100	83	100	83	100							
10	10	49	15	60	20	72	25	80	30	80	35	80	40	80	45	80	60	80	70	80	80	80	90	80	100	80	100	80	100	80	100	80	100							
11	9	48	14	56	19	68	24	78	29	78	34	78	39	78	44	78	60	78	70	78	80	78	90	78	100	78	100	78	100	78	100	78	100							
12	9	46	13	52	18	65	23	75	28	75	33	75	38	75	43	75	60	75	70	75	80	75	90	75	100	75	100	75	100	75	100	75	100							
13	8	44	12	50	17	61	22	72	27	72	32	72	37	72	42	72	60	72	70	72	80	72	90	72	100	72	100	72	100	72	100	72	100							
14	7	43	11	48	16	58	21	69	26	69	31	69	36	69	41	69	60	69	70	69	80	69	90	69	100	69	100	69	100	69	100	69	100							
15	6	43	10	47	15	54	20	66	25	66	30	66	35	66	40	66	60	66	70	66	80	66	90	66	100	66	100	66	100	66	100	66	100							
16	6	41	9	46	14	50	19	63	24	63	29	63	34	63	39	63	60	63	70	63	80	63	90	63	100	63	100	63	100	63	100	63	100							
17	5	39	8	45	13	49	18	60	23	60	28	60	33	60	38	60	60	60	70	60	80	60	90	60	100	60	100	60	100	60	100	60	100							
18	5	38	8	44	12	48	17	57	22	57	27	57	32	57	37	57	60	57	70	57	80	57	90	57	100	57	100	57	100	57	100	57	100							
19	5	37	7	43	12	47	16	54	21	54	26	54	31	54	36	54	60	54	70	54	80	54	90	54	100	54	100	54	100	54	100	54	100							
20	4	35	7	42	11	47	15	51	20	51	25	51	30	51	35	51	60	51	70	51	80	51	90	51	100	51	100	51	100	51	100	51	100							
21	4	34	6	41	11	46	14	50	19	50	24	50	29	50	34	50	60	50	70	50	80	50	90	50	100	50	100	50	100	50	100	50	100							
22	4	33	6	40	10	45	13	49	18	49	23	49	28	49	33	49	60	49	70	49	80	49	90	49	100	49	100	49	100	49	100	49	100							
23	3	32	5	39	10	44	13	48	17	48	22	48	27	48	32	48	60	48	70	48	80	48	90	48	100	48	100	48	100	48	100	48	100							
24	3	30	5	38	9	43	12	47	16	47	21	47	26	47	31	47	60	47	70	47	80	47	90	47	100	47	100	47	100	47	100	47	100							
25	3	29	5	37	9	43	12	47	16	47	21	47	26	47	31	47	60	47	70	47	80	47	90	47	100	47	100	47	100	47	100	47	100							
26	3	28	4	36	8	42	11	46	15	46	20	46	25	46	30	46	60	46	70	46	80	46	90	46	100	46	100	46	100	46	100	46	100							
27	2	27	4	35	8	41	11	45	14	45	19	45	24	45	29	45	60	45	70	45	80	45	90	45	100	45	100	45	100	45	100	45	100							
28	2	25	4	34	7	40	10	44	13	44	18	44	23	44	28	44	60	44	70	44	80	44	90	44	100	44	100	44	100	44	100	44	100							
29	2	24	4	33	7	39	10	43	12	43	17	43	22	43	27	43	60	43	70	43	80	43	90	43	100	43	100	43	100	43	100	43	100							
30	2	22	3	32	6	38	9	43	11	43	16	43	21	43	26	43	60	43	70	43	80	43	90	43	100	43	100	43	100	43	100	43	100							
31	2	21	3	31	6	37	9	42	10	42	15	42	20	42	25	42	60	42	70	42	80	42	90	42	100	42	100	42	100	42	100	42	100							
32	1	20	3	30	5	36	8	42	9	42	14	42	19	42	24	42	60	42	70	42	80	42	90	42	100	42	100	42	100	42	100	42	100							
33	—	—	3	29	5	35	8	41	8	41	13	41	18	41	23	41	60	41	70	41	80	41	90	41	100	41	100	41	100	41	100	41	100							
34	—	—	3	28	5	35	7	40	7	40	12	40	17	40	22	40	60	40	70	40	80	40	90	40	100	40	100	40	100	40	100	40	100							
35	—	—	2	27	5	34	7	39	6	39	11	39	16	39	21	39	60	39	70	39	80	39	90	39	100	39	100	39	100	39	100	39	100							
36	—	—	2	26	4	33	6	38	5	38	10	38	15	38	20	38	60	38	70	38	80	38	90	38	100	38	100	38	100	38	100	38	100							
38	—	—	2	24	4	32	6	37	4	37	9	37	14	37	19	37	60	37	70	37	80	37	90	37	100	37	100	37	100	37	100	37	100							
40	—	—	2	22	3	30	5	36	3	36	8	36	13	36	18	36	60	36	70	36	80	36	90	36	100	36	100	36	100	36	100	36	100							
42	—	—	1	20	3	28	5	34	2	34																														

Additional Costs for Commercial, Industrial, and Public Structures

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Additional Structure Costs

Basements

Cost includes concrete floor and walls, open ceiling, minimum lighting, no plumbing, and no wall finish. Cost per square foot of floor at 12' wall height.

Area	500	1,000	1,500	2,000	3,000	4,000	5,000	7,500	10,000	15,000	20,000
Cost	58.19	52.12	45.41	41.14	40.08	34.85	33.70	32.56	28.61	27.35	25.71

Add or subtract the amount listed in the table below to or from the square foot of floor cost for each foot of wall height more or less than 12 feet.

Wall Height Adjustment Square Foot Area

Area	500	1,000	1,500	2,000	3,000	4,000	5,000	7,500	10,000	15,000	20,000
Cost	3.90	2.86	2.53	2.06	1.69	1.55	1.45	1.12	.92	.71	.67

Canopies, per S.F. of canopy area

Light frame, flat roof underside, plywood and paint or cheap stucco supported by wood or light steel posts, 4" to 6" wood fascia.	\$20.09 to \$21.62
Average frame, underside of good stucco, flat roof, cantilevered from building or supported by steel posts, 6" to 12" metal fascia.	\$22.43 to \$30.38
Same as above but with sloping shake or tile roof.	\$23.44 to \$32.70
Corrugated metal on steel frame.	\$20.29 to \$30.38

Canopy Lights, per S.F. based on one row of lights for 5' canopy

Recessed spots (1 each 6 linear feet)	\$3.24
Single tube fluorescent	5.95
Double tube fluorescent	1.24

Public Address Systems, speakers attached to building. No conduit included.

Base cost, master control	\$904 to \$1,757
Per indoor speaker	188
Per outdoor speaker	376

Sound Systems, cost per unit

Voice only, per unit	\$101 to \$171
Music (add to above), small units	101 to 131
Music (add to above), large units	131 to 394

Larger installations cost the least per unit.

Docks for unloading trucks. Cost per S.F. of dock at 4' height

L x W	10'	20'	30'	50'	100'	200'
5'	35.21	31.29	28.53	25.77	23.87	22.17
10'	31.29	27.15	23.75	21.32	19.73	19.09
15'	27.47	23.02	20.36	17.61	16.33	15.16
20'	24.60	19.73	17.07	15.80	14.74	13.89

Cost includes compacted fill, three concrete walls, concrete floor, and rock base.

Intercommunication Systems

Master control, base cost	\$1,896 to \$5,708
Cost per station	145 to 217
Nurses call system, per station	217 to 397

Security Systems

Control panel	\$155 to \$309
Each door or window secured	31 to 69
Heat detectors, each	10 to 51
Smoke detectors, each	20 to 101
Motion detectors, each	20 to 41

Loading Ramps, cost per S.F. of ramp

Size	
Under 300 S.F.	\$9.65
Over 300 S.F.	9.25

Dock Levelers and Lifts, cost each

Dock leveler, manual	\$7,802
Dock leveler, mechanical	3,798
Powered platform dock leveler	
6' x 6' recessed	3,386
6' x 8' recessed	3,829
Electro-hydraulic, pit recessed scissor lift	
5,000 lb. capacity, 6' x 8'	10,144
10,000 lb. capacity, 8' x 10'	17,934
20,000 lb. capacity, 8' x 12'	29,607

Additional Structure Costs

Doors, with hardware

Exterior, commercial, cost per door	
Glass in wood (3' x 7')	\$943 to \$1,474
1/4" plate in aluminum (3' x 7')	1,525 to 2,473
Automatic, tempered glass (3' x 7')	7,253 to 11,023
Residential type (3' x 7')	359 to 660
Interior, commercial and industrial, cost per S.F.	
Hollow core wood	\$15.25 to \$15.97
Solid wood	15.35 to 19.88
Hollow core metal	33.48 to 39.63
Fire, cost per S.F.	
Hollow metal, 1-3/4"	\$52.82 to \$69.99
Metal clad, rolling	43.23 to 70.80
Metal clad, swinging	61.81 to 88.38

Elevators, Freight, Electric, car and equipment, per shaft, car speed in feet per minute, 2 stop

Capacity	50 to 75	100 to 150	200
2,500 lbs	\$63,276	—	—
3,000	66,780	\$76,500	\$88,455
3,500	80,240	80,189	90,040
4,000	74,935	83,430	96,450
5,000	80,140	91,470	103,232
6,000	88,330	100,110	111,300
8,000	100,050	111,440	126,495
10,000	114,902	126,445	144,990

For manual doors, **add** \$5,560 for each stop. For power operated doors, **add** \$8,430 for each additional stop. **Add** \$8,430 per car for self-leveling cars. **Add** for double center opening doors, per stop \$355. **Add** for deluxe cab (raised panel, interior, drop ceiling) \$4,220.

Elevators, Freight,

Hydraulic, 100 F.P.M.

Shaft, car, machinery

2,500 lb. capacity	\$5,940
6,000 lb. capacity	10,800
Cost per stop	
Manual doors	9,500
Automatic doors	21,000

Roll-Up Metal Warehouse Door with chain operator, cost each

10' x 10'	\$2,677
12' x 12'	3,553
14' x 14'	3,900
Fusible link (add to above)	580
Motor controlled (add to above)	293

Draperies, cost per square yard of opening

	54" high	68" high	96" high
Minimum	\$22.90	\$23.00	\$25.80
Good quality	51.60	52.80	61.80
Better quality	62.90	68.80	84.50

Escalators, cost per flight up or down

Total Rise	32" W	40" W	48" W
10' to 13'	\$86,990	\$140,080	\$152,440
14'	141,113	147,290	159,650
15'	146,260	153,470	165,830
16'	151,380	163,770	165,830
17'	156,560	165,830	168,920
18'	159,650	170,980	168,920
19'	164,800	172,010	169,950
20'	170,980	177,160	175,100
21'	176,130	179,220	179,220

Add for glass side enclosure: \$15,219 - \$17,923.

Dumbwaiters, includes door, traction type

	1st Two Stops	Add'l. Stops
Hand operated, 25 fpm (no doors)		
25 lb.	\$2,420 to \$4,410	\$1,840
75 lb.	3,260 to 5,460	1,840
Electrical, with machinery above, floor loading		
100 lb., 50 fpm	\$9,100 to \$14,590	\$3,470
300 lb., 50 fpm	9,460 to 14,560	3,470
500 lb., 50 fpm	9,950 to 15,770	3,470
500 lb., 100 fpm	14,560 to 23,500	(5 stop)

Elevators, Passenger, Electric, car and machinery cost, per shaft*

Capacity	200 F.P.M., 5 Stops	350 F.P.M., 5 Stops	500 F.P.M., 5 Stops
2,000 lbs.	\$123,900	\$110,500	\$237,000
2,500 lbs.	127,300	117,800	244,900
3,000 lbs.	128,620	125,900	247,100
3,500 lbs.	129,330	132,360	248,600
4,000 lbs.	130,130	140,210	251,900
4,000 lbs (Hospital)	131,800	143,900	259,000

*Add for each additional stop: 200 or 350 F.P.M. units, \$7,180; 500 F.P.M. units, \$11,816. Deduct for multi-shaft applications, \$3,393 to \$7,180 per additional shaft. Add for rear-opening door: \$10,200 to base cost, plus \$7,360 per door.

Additional Structure Costs

Fill, compacted under raised floor, includes perimeter retaining wall but not slab, per C.F.

Up to 10,000 S.F.	\$1.06 to \$1.70
Over 10,000 to 50,000 S.F.	.90 to 1.32

Fire Extinguishers, cost each

Fire hose and cabinet	\$371 to \$733
Extinguisher cabinets	98 to 216
Extinguishers, chemical	78 to 192
Extinguishers, carbon dioxide	221 to 436

Fire Escapes

Type	Unit	Cost
Second story	Each	\$4,222 to \$5,767
Additional floors	Per story	2,485 to 3,727

Fire Sprinklers, cost per S.F. of area served

Area	Wet Pipe System	
	Normal	Special
to 2,000	\$4.53	\$5.60
2,001 to 4,000	3.15	4.53
4,001 to 10,000	2.79	3.85
Over 10,000	2.45	3.53

Area	Dry Pipe System	
	Normal	Special
to 2,000	\$4.90	\$5.94
2,001 to 4,000	3.52	4.27
4,001 to 10,000	3.02	4.20
Over 10,000	2.70	3.84

Costs include normal installation, service lines, permit and valves.

*Special hazard systems are custom engineered to meet code or insurance requirements and are usually so identified by a metal plate attached to the riser.

Overhead Suspended Heaters, per unit

25 MBTU	\$1,091 to \$1,318
50	1,270 to 1,410
75	1,410 to 1,555
100	1,609 to 1,830
150	1,968 to 2,111
200	2,272 to 2,379
250	2,510 to 2,545

Fireplace

	1 Story	2 Story
Freestanding wood burning heat circulating prefab fireplace, with interior flue, base and cap.	\$1,662	—
Zero-clearance, insulated prefab metal fireplace, brick face.	2,376	\$3,132
5' base, common brick, on interior face.	3,162	3,550
6' base, common brick, used brick, face brick or natural stone on interior face with average wood mantle.	4,930	5,284
8' base, common brick, used brick or natural stone on interior face, raised hearth.	6,8890	7,730

Electric Heating Units

Baseboard, per linear foot	\$15.75 to	\$31.50
Add for thermostat		42.00
Cable in ceiling, per S.F.	2.38 to	3.06
Wall heaters, per K.W.	52.50 to	105.00

Heating and Cooling Systems

Type and Use	Cost per S.F. of Floor Area**	
	Heating Only	Heating & Cooling
Elementary schools	\$7.43 to \$11.54	\$13.45 to \$21.04
Secondary schools	7.95 to 12.32	14.46 to 22.42
Government offices	12.87 to 19.98	23.44 to 36.28
Libraries	8.80 to 16.05	16.05 to 24.72
Fire stations	7.79 to 14.13	12.24 to 19.03
Urban stores	4.90 to 7.58	8.91 to 13.81
Suburban stores	3.92 to 6.06	7.11 to 11.06
Small food stores	4.16 to 6.47	7.58 to 11.74
Supermarkets	4.87 to 7.52	8.87 to 13.72
Discount houses	3.59 to 5.60	6.54 to 10.19
Bank and savings	6.56 to 10.18	11.89 to 18.43
Department stores	4.60 to 7.12	8.37 to 13.00
Reinforced concrete	5.79 to 8.99	10.57 to 16.36
General offices		
Forced air	5.73 to 8.90	10.44 to 16.20
Hot & chilled water	—	12.07 to 18.74
Medical-Dental		
Forced air	6.23 to 9.69	11.34 to 17.69
Hot & chilled water	—	12.78 to 19.90
Convalescent hospitals		
Forced air	5.79 to 8.99	10.57 to 16.35
Hot & chilled water	—	12.42 to 19.29
Funeral homes	8.35 to 12.90	15.16 to 23.45
Ecclesiastic buildings	6.44 to 10.01	11.71 to 18.04
Restaurants	8.59 to 13.36	15.75 to 24.31
Theaters	5.75 to 8.94	10.49 to 16.25
Industrial buildings		
Interior offices	2.82 to 3.95	5.11 to 7.95

**Use the higher figures where more heating and cooling density is required.

Additional Structure Costs

Kitchen Equipment, cost per linear foot of stainless steel fixture

Work tables	\$837 to \$1,017
Serving fixtures	347 to 1,939

Mezzanines, cost per S.F. of floor

Unfinished (min. lighting and plumbing)	2.60 to 31.10
Store mezzanines	43.10 to 54.70
Office mezzanines (without partitions)	46.60 to 60.50
Office mezzanines (with partitions)	60.50 to 95.00

Costs include floor system, floor finish, stairways, lighting, and partitions where applicable.

Seating, cost per seat space

Theater, economy	\$168
Theater, lodge	308
Pews, bench type	81
Pews, seat type	113

Partitions, cost per S.F. of surface

Gypsum on wood frame, (finished both sides) 2" x 4" wood studs, 24" on center with 1/2" gypsum board, taped, textures and painted.	\$5.82
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Plaster on wood frame (finished both sides) 2" x 4" wood studs, 24" on center with 2 coats plaster over gypsum lath, painted with primer and 1 coat enamel.	\$10.80
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Pneumatic Tube Systems

Twin tube, two station system	
2-1/4" round, 500 to 1,500 feet	\$19,988 to \$36,360
3" round, 500 to 1,500 feet	20,604 to 39,663
4" round, 500 to 1,500 feet	21,432 to 45,743
4" x 7" oval, 500 to 1,500 feet	34,098 to 56,762

Automatic System, twin tube, cost per station	
4" round, 500 to 1,500 feet	\$25,452 to \$33,795
4" x 7" oval, 500 to 1,500 feet	34,098 to 36,885

Skylights, Plastic Rectangular Domes, cost per unit

Size	Single Plastic Panel		Double Plastic Panel	
	Skylight Only	With 4" or 9" Insulated Curb	Skylight Only	With 4" or 9" Insulated Curb
16" x 16"	\$191	\$324	\$232	\$342
16" x 24"	217	367	262	359
16" x 48"	248	423	342	508
24" x 24"	248	393	367	387
24" x 32"	262	425	401	508
24" x 48"	306	473	423	576
28" x 92"	522	774	825	956
32" x 32"	262	393	367	508
32" x 48"	354	492	470	584
32" x 72"	449	697	766	884
39" x 39"	367	492	492	578
39" x 77"	548	774	956	1,026
40" x 61"	508	697	766	1,041
48" x 48"	393	576	576	710
48" x 64"	548	858	858	1,026
48" x 72"	635	987	987	1,160
48" x 92"	831	1,063	1,272	1,616
48" x 122"	1,171	1,404	1,606	1,873
58" x 58"	635	873	1,026	1,181
60" x 72"	796	1,063	1,237	1,415
60" x 92"	1,013	1,293	1,538	1,316
64" x 64"	809	1,026	1,115	1,772
77" x 77"	1,160	1,460	1,873	2,052
94" x 94"	2,062	2,408	3,378	3,745

Triple dome skylights cost about 30% more than double dome skylights.

Additional Structure Costs

Plastic Circular Dome Skylights, cost each

Size	Single Plastic Panel		Double Plastic Panel		Additives	
	4" Curb	9" Curb	4" Curb	9" Curb	Ceiling Dome	Wall Liner
30"	\$760	\$775	\$900	\$942	\$365	\$365
36"	775	811	942	1,014	465	390
48"	1,029	1,125	1,316	1,383	623	465
60"	1,304	1,359	1,749	1,772	909	479
72"	1,951	1,929	2,598	2,709	1,160	578
84"	2,675	2,854	3,745	3,946	1,661	683
96"	3,935	4,114	5,483	5,864	1,818	811

The above costs are for single skylights. For three or more, deduct 20%.

Plastic Pyramid Skylights, cost each

Size	Height	Installed Cost	
		2 or Less	3 or More
39" x 39"	34"	\$1,212	\$1,009
48" x 48"	42"	1,715	1,432
58" x 58"	49"	1,905	2,077

Plastic Ridge Type Skylights,

cost per linear foot

Width*	Single Panel	Double Panel
18"	\$285	\$425
24"	316	513
30"	394	584
36"	499	678
42"	524	818
48"	540	1,052

*Width is from ridge to curb following slope of roof.

Plastic Continuous Vaulted Skylights, cost per L.F.

Width	Single Panel	Double Panel
16"	\$126	\$185
20"	134	193
24"	157	220
30"	192	265
36"	207	279
42"	220	289
48"	265	321
54"	278	347
60"	289	369
72"	321	396
84"	383	518

Wire Glass Skylights,

Exterior Aluminum Frame, cost each

24" x 48"	\$437
24" x 72"	527
24" x 96"	703
48" x 48"	711
48" x 72"	872
48" x 96"	1,057

Ventilators, Roof, Power Type,

cost each

Throat Dia.	2 or Less	3 or More	Add for Insulated Curb
6"	\$544	\$528	\$97
8"	878	794	136
10"	1,059	981	166
12"	1,177	1,145	171
18"	1,284	1,210	184
24"	1,457	1,348	225
30"	2,508	2,282	239
36"	2,679	2,325	245
48"	5,904	5,251	302

Above costs are for a single-speed motor installation. Dampers and bird screens are included. Add: Explosive-proof units, add \$390 each. Two-speed motors, add \$679 to \$1,004 each. Plastic coating, depending on size of unit, add \$139 to \$211 each.

Ventilators, Roof, Gravity Type,

cost each

Throat Dia.	2 or Less	3 or More	Add for Insulated Curb
8"	\$237	\$223	\$115
12"	259	237	129
18"	398	389	182
24"	473	452	195

Heat and Smoke Vents, cost each

Size	Plastic Dome Lid	Aluminum Covered Lid
32" x 32"	\$1,090	\$1,236
32" x 48"	1,298	1,329
50" x 50"	1,474	1,525
50" x 62"	1,675	1,916
50" x 74"	1,535	1,999
50" x 92"	2,019	2,225
50" x 98"	2,359	2,380
62" x 104"	2,998	3,070
74" x 104"	3,358	3,689

Additional Structure Costs

Walk-In Boxes, cost per S.F. of floor area

Temperature Range	50	100	200	300	400	500	600
Over 45°	175	119	92	78	75	68	67
25.50° to 45°	195	139	109	93	83	78	75
0° to 25°	232	172	125	109	93	86	82
-25.50° to 0°	253	206	165	138	119	111	102

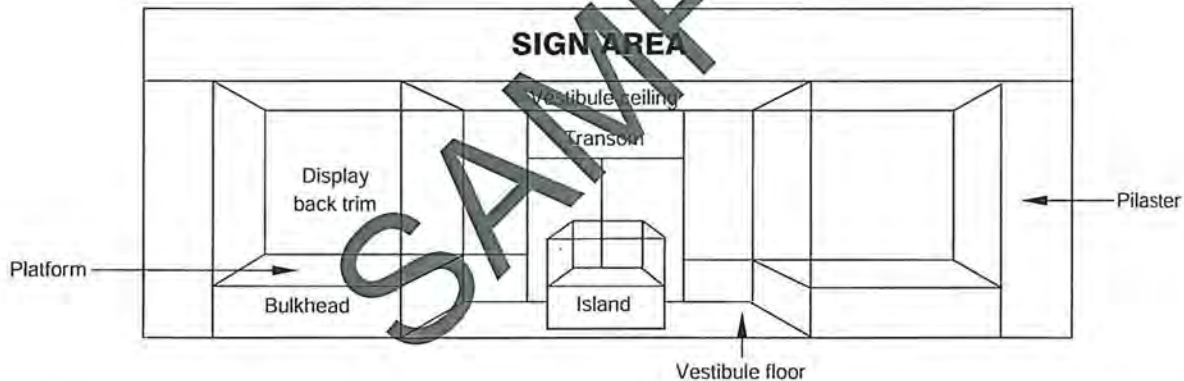
Cost Includes:

Painted wood exterior facing, insulation as required for temperature, interior plaster, one 4 x 7 door per 300 S.F. of floor area. Costs are based upon 8' exterior wall height. Costs do not include machinery and wiring. Figure refrigeration machinery at \$2,000.00 per ton capacity.

Material Handling Systems

Belt type conveyors, 24" wide.	
Horizontal sections, per linear foot	\$226
Elevating, descending sections, per flight	377
Mail conveyors, automatic, electronic.	
Horizontal, per linear foot	1,793
Vertical, per 12' floor	23,200
Mail chutes, cost per floor, 5' x 14", aluminum	1,120
Linen chutes, 18 gauge steel, 30" diameter, per 10' floor	1,560
Disinfecting and sanitizing unit, each	765

Display Fronts

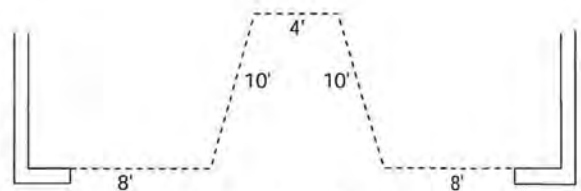


Display front costs may be estimated by calculating the in-place cost of each component or by estimating a cost per linear foot of bulkhead and multiplying by the bulkhead length. This section contains data for both methods. For most fronts, the cost per linear foot method is best suited for rapid preliminary estimates.

Bulkhead length is the distance from the inside of the pilaster and following along the bulkhead or glass to the inside of the opposite pilaster. This measurement includes the distance across entryways.

The cost per linear foot of bulkhead is estimated using the storefront specifications and costs in this section. This manual suggests linear foot costs for four quality types: low cost, average, good, and very good. Costs are related for each quality type in terms of flat or recessed type fronts.

Recessed type fronts include all components described in the specifications. Flat front costs do not include the following components: vestibule floor, vestibule and display area ceiling framing, back trim, display platform, lighting. The cost of automatic door openers is not included in front costs.

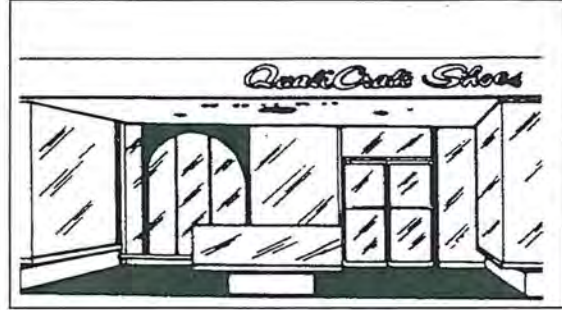


Bulkhead or storefront length $8' + 10' + 4' + 10' + 8' = 40'$

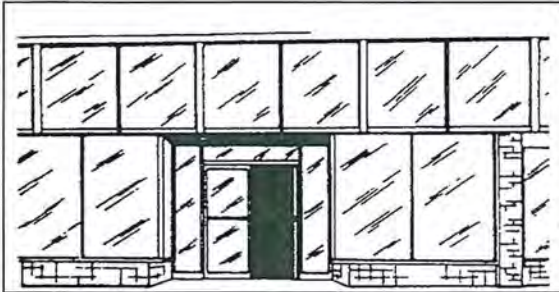
Display Fronts



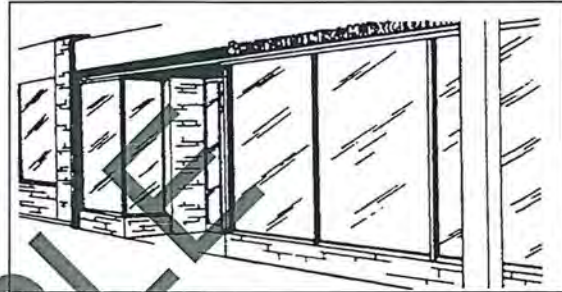
Display Front, Best



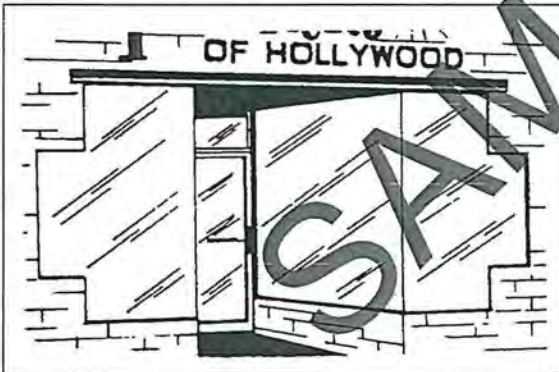
Display Front, Best



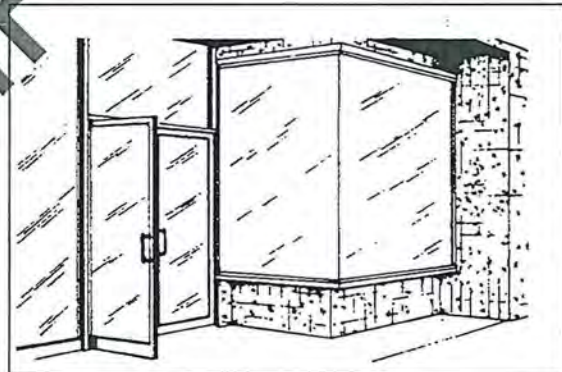
Display Front, Good



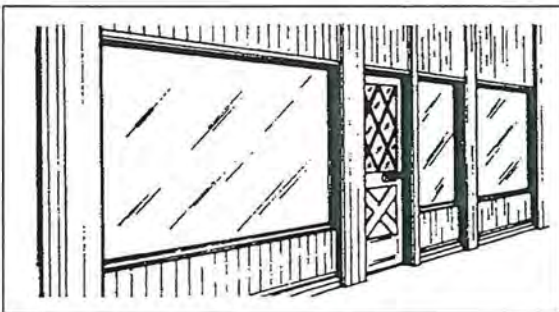
Display Front, Good



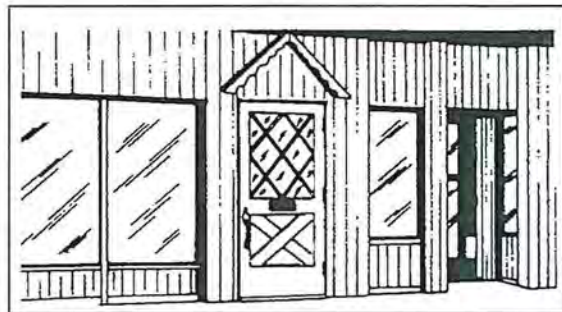
Display Front, Average



Display Front, Average



Display Front, Low Cost



Display Front, Low Cost

Display Fronts

All front costs are based upon a height of 10 feet from the floor level to the top of the display window. Variations from this standard should be adjusted by using the display window height adjustment costs shown with the front foot costs. These amounts are added or deducted for each foot of variation from the standard.

Bulkhead height variations will not require adjustment. Cost differentials, due to variations in bulkhead height, will be compensated for by equal variations in display window height if overall heights are equal.

Sign areas are based upon 4 foot heights. Cost adjustments are given for flat type and for recessed type fronts. A cost range is given for recessed type fronts because deeply recessed fronts will have lower linear foot costs for sign area components than will moderately recessed fronts because this cost is spread over a longer distance when recesses are deep.

Display island costs are estimated by applying 60 to 80 percent of the applicable linear foot cost to the island bulkhead length. Window height adjustments should be made, but sign height adjustments will not be necessary.

Components	Best	Good	Average	Low Cost
Bulkhead (0 to 4' high) (10% of total cost)	Vitrolite domestic marble or stainless steel.	Black Carrera flagstone, terrazzo or good ceramic tile.	Average ceramic tile, Roman brick or imitation flagstone.	Stucco, wood or common brick.
Window Area (30% of total cost)	Bronze or stainless steel. 1/4" float glass with mitered joints.	Heavy aluminum. 1/4" float glass, some mitered joints.	Aluminum. 1/4" float glass.	Light aluminum with wood stops. Crystal or 1/4" float glass.
Sign Area (4' high) (10% of total cost)	Vitrolite, domestic marble or stainless steel.	Black Carrera flagstone, terrazzo or good ceramic tile.	Average ceramic tile, Roman brick or imitation flagstone.	Stucco.
Pilasters (5% of total cost)	Vitrolite, domestic marble.	Black Carrera flagstone, terrazzo or good ceramic tile.	Average ceramic tile, Roman brick or imitation flagstone.	Stucco.
Vestibule Floor* (5% of total cost)	Decorative terrazzo.	Decorative terrazzo.	Plain terrazzo.	Concrete.
Vestibule and Display Area Ceilings* (10% of total cost)	Stucco or gypsum wallboard and texture.	Stucco or gypsum wallboard and texture.	Stucco or gypsum wallboard and texture.	Gypsum wallboard and texture.
Back Trim* (5% of total cost)	Hardwood veneer on average frame.	Gypsum wallboard and texture or light frame.	None.	None.
Display Platform Cover* (10% of total cost)	Excellent carpet.	Good carpet.	Average carpet.	Plywood with tile.
Lighting* (10% of total cost)	1 recessed spot per linear foot of bulkhead.	1 recessed spot per linear foot of bulkhead.	1 exposed spot per 2 linear feet of bulkhead.	1 exposed spot per 4 linear feet of bulkhead.
Doors (5% of total cost)	3/4" glass double doors.	Good aluminum and glass double door or single 3/4" glass door.	Average aluminum and glass double door.	Wood and glass.
Note: Use the percent of total cost to help identify the correct quality classification.				
Costs, Flat Fronts	\$1,142/linear foot.	\$766/linear foot.	\$492/linear foot.	\$430/linear foot.
Costs, Recessed Fronts	\$1,213/linear foot.	\$1,033/linear foot.	\$586/linear foot.	\$476/linear foot.
Display Window Adjustment per Foot of Height	\$52.30/linear foot.	\$48.60/linear foot.	\$46.20/linear foot.	\$45.20/linear foot.
Flat Front, Sign Area Adjustment per Foot of Height	\$51.90/linear foot.	\$32.70/linear foot.	\$12.99/linear foot.	\$4.32/linear foot.
Recessed Front, Sign Area Adjustment per Foot of Height	\$18.30 to \$24.35/linear foot.	\$11.20 to \$14.28/linear foot.	\$4.88 to 6.98/linear foot.	\$2.59 to \$2.87/linear foot.

*Not included in flat front costs.

Display Fronts

Lighting, cost per fixture

Open incandescent	\$60.14 to \$86.92
Recessed incandescent	86.72 to 174.93
Fluorescent exposed, 4' single	188.29 to 278.49
Fluorescent recessed, 4' single	200.59 to 356.80

Bulkhead Walls, cost per S.F. of wall

Up to 5' high, nominal 6" thick	
Concrete	\$16.48 to \$24.44
Concrete block	11.51 to 17.10
Wood frame	7.10 to 12.56

Ceiling, cost per S.F. of floor

Dropped ceiling framing	\$2.39 to \$3.35
Acoustical tile on wood strips	3.71 to 4.61
Acoustical plaster including lath	3.43 to 5.02
Gypsum board, texture and paint	2.67 to 3.94
Plaster and paint including lath	3.82 to 5.25

Entrances, cost per entrance

Aluminum and 1/4" float glass	
Single door, 3' x 7'	\$1,785 to \$2,950
Double door, 6' x 7'	3,160 to 4,360
Stainless steel and 1/4" float glass	
Single door, 3' x 7'	3,520 to 5,530
Double door, 6' x 7'	4,850 to 7,916
3/4" tempered glass	
Single door, 3' x 7'	3,690 to 5,290
Double door, 6' x 7'	6,180 to 7,200

Includes door, glass, lock handles, hinges, sill and frame.

Exterior Wall Finish, cost per S.F. of wall

Aluminum sheet baked enamel finish	\$4.85 to \$7.85
Brick veneer	
Common brick	\$9.56 to \$12.48
Roman	12.39 to 18.21
Norman	12.39 to 18.21
Glazed	15.09 to 22.68
Carrera glass	
Black	23.92 to 36.93
Red	25.70 to 39.01
Flagstone veneer	
Imitation	16.33 to 20.91
Natural	25.18 to 40.05
Marble	
Plain colors	36.97 to 48.82
With color variations	67.36 to 79.40
Stucco	3.74 to 4.88
Terrazzo	24.56 to 33.71
Tile, ceramic	15.50 to 22.68

Display Platforms,

cost per S.F. of platform area

Framing up to 5' high	\$7.43 to \$11.53
Hardwood cover	4.48 to 7.31
Plywood cover	2.99 to 4.12

Glass and Window Frames,

per S.F. of glass

Glass only installed	
1/4" float	\$9.12 to \$12.66
1/4" float, tempered	12.00 to 16.12
1/4" float, colored	9.38 to 16.12
Store front, 1/4" glass in aluminum frame	
Anodized, 8' high	30.24 to 41.37
Anodized, 6' high	36.44 to 48.41
Anodized, 3' high	44.99 to 56.85
Satin bronze, 6' high	42.32 to 55.46
Satin bronze, 3' high	51.66 to 64.68

Satellite Receiver Systems

Satellite receiver systems are common in mountain and rural areas, where TV reception is limited. They are also often installed in residential or commercial areas, for homes, motels or hotels, restaurants and businesses. Installed cost for an all-automatic, motorized system, including wiring to one interior outlet.

Exterior disk plus electronics	\$190 to \$500
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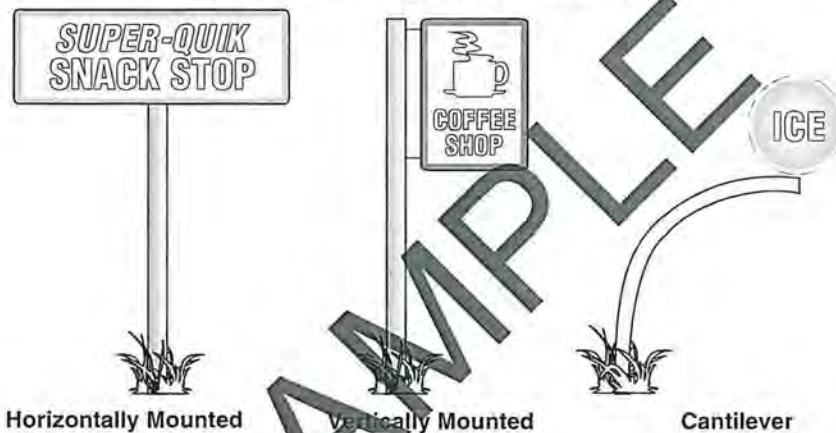
Signs

Lighted Display Signs, Cost per S.F. of sign area

Painted sheet metal with floodlights	\$93.00 to \$119.50
Porcelain enamel with floodlights	99.10 to 134.80
Plastic with interior lights	112.30 to 175.00
Simple rectangular neon with painted sheet metal faces and a moderate amount of plain letters	118.60 to 214.00
Round or irregular neon with porcelain enamel faces and more elaborate lettering	175.00 to 256.00
Channel letters - individual neon illuminated metal letters with translucent plastic faces, (per upright inch, per letter)	14.90 to 22.40

All of the above sign costs are for double-faced signs. Use 2/3 of those costs for single-faced signs. Sign costs include costs of installation and normal electrical hookup. They do not include the cost of a post. If signs are mounted on separate posts, post mounting costs must be added. These costs are for custom-built signs (one-at-a-time orders). Mass-produced signs will have lower costs.

Post Mounting Costs for Signs



Post Mounting Costs

Post Height	Pole Diameter at Base					
	4"	6"	8"	10"	12"	14"
15	\$1,343	\$1,598	\$2,353	\$3,170	\$4,934	\$4,984
20	1,592	1,899	2,719	3,288	5,870	6,602
25	1,825	2,147	2,817	3,912	6,530	7,211
30	1,988	2,554	2,922	4,270	6,899	7,983
35	—	2,778	3,288	4,764	7,805	8,524
40	—	2,949	4,015	5,038	8,118	9,563
45	—	—	4,702	5,737	8,861	9,898
50	—	—	5,038	6,541	9,431	10,846
55	—	—	—	6,900	9,893	11,809
60	—	—	—	7,301	10,619	12,350
65	—	—	—	—	12,412	13,125

If signs are mounted on separate posts, post mounting costs must be added. Post mounting costs include the installed cost of the post and foundation. On horizontally mounted signs, post height is the distance from the ground to the bottom of the sign. On vertically mounted signs, post height is the distance to the top of the post. For cantilevered posts, use one and one-half to two times the conventional post cost.

All of the above post costs are for single posts. Use 90% of the single post costs for each additional post.

Agricultural Structures Section

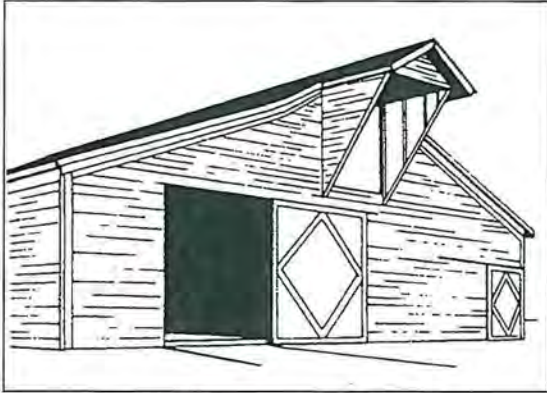
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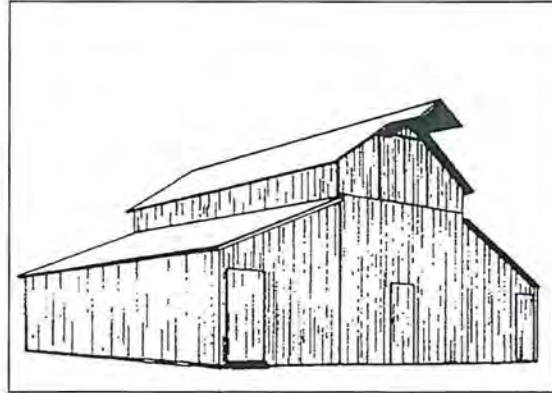
SAMPLE

General Purpose Barns

Quality Classification



General Purpose Barn, Class 1



General Purpose Barn, Class 3

Component	Class 1 Good Quality	Class 2 Average Quality	Class 3 Low Quality
Foundation (20% of total cost)	Continuous concrete.	Concrete or masonry piers.	Redwood or cedar mudsills.
Floor (5% of total cost)	Concrete.	Dirt, leveled & compacted.	Dirt, leveled & compacted.
Wall Structure (25% of total cost)	Good wood frame, 10' eave height.	Average wood frame, 10' eave height.	Light wood frame, 10' eave height.
Exterior Wall Cover (25% of total cost)	Good wood siding, painted.	Standard gauge corrugated iron, aluminum or average wood siding.	Light aluminum or low cost boards.
Roof Construction (9% of total cost)	Medium to high pitch, good wood trusses.	Medium to high pitch, average wood trusses.	Medium to high pitch, 2" x 4" rafters 24" to 36" o.c. or light wood trusses.
Roof Cover (5% of total cost)	Wood shingles.	Standard gauge corrugated iron or aluminum.	Light aluminum.
Electrical (8% of total cost)	Four outlets per 1,000 S.F.	Two outlets per 1,000 S.F.	None.
Plumbing (3% of total cost)	Two cold water outlets.	One cold water outlet.	None.

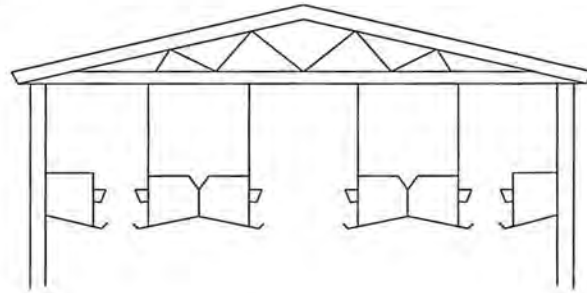
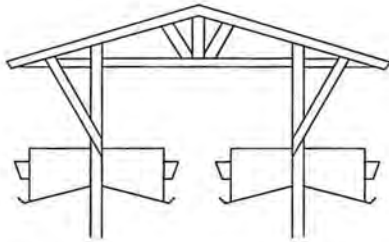
Note: Use the percent of total cost to help identify the correct quality classification.

Square Foot Area

Quality Class	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	11,000
1, Good	44.58	41.07	38.03	36.50	35.02	33.46	32.38	31.65	31.03	30.42	29.89
2, Average	33.08	29.85	27.65	26.56	25.51	24.61	23.89	23.46	23.06	22.68	22.31
3, Low	21.56	18.63	17.30	16.56	16.07	15.74	15.42	15.23	15.02	14.90	14.73

Poultry Houses

Conventional Lay Cage Type



Basic Building

Component	Good Quality	Average Quality	Low Quality
Floors (20% of total cost)	2" concrete.	Dirt with 4' concrete walkways.	Dirt, leveled and compacted.
Foundations (15% of total cost)	Thickened slab.	Concrete piers.	Wood piers.
Frame (20% of total cost)	Light steel or average wood frame.	Average wood frame.	Light wood frame.
Roof Cover (5% of total cost)	Aluminum or corrugated iron.	Light aluminum or composition.	Light aluminum or composition.
Exterior (8% of total cost)	Plywood.	Any curtains.	Wood lath.
Lighting (20% of total cost)	Good system, automatic controls.	Average system, automatic controls.	Minimum system, manual controls.
Plumbing (10% of total cost)	Good system.	Average system.	Fair system.
Insulation (2% of total cost)	Roof only.	None.	None.
Basic Building Cost Per S.F.	\$16.13 to \$19.40	\$10.70 to \$14.35	\$9.20 to \$10.75

Note: Use the percent of total cost to help identify the correct quality classification.

Equipment

Component	Best Quality	Good Quality	Average Quality	Low Quality
Cages (35% of total cost)	12" x 20" double deck.	12" x 20" single deck.	12" x 20" single deck.	12" x 12" single deck.
Water System (20% of total cost)	Automatic cup system.	Automatic cup system.	Simple "V" trough.	Simple "V" trough.
Feed System (30% of total cost)	Automatic system.	"V" trough.	"V" trough.	"V" trough.
Egg Gathering	Manual.	Manual.	Manual.	Manual.
Cooling (15% of total cost)	Pad and fan system.	Pad and fan system.	Simple fogging system.	Simple fogging system.
Cost Per S.F.	\$24.44 to \$25.73	\$14.92 to \$17.91	\$10.70 to \$13.84	\$9.09 to \$12.66

Note: Use the percent of total cost to help identify the correct quality classification.

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CITY OF BELVEDERE FLOODPLAIN CONSTRUCTION COST EVALUATION WORKSHEET

The City of Belvedere Building Dept. utilizes the latest edition of the Craftsman National Building Cost Manual (CNBM) to establish an average cost, per square foot, of construction within the City. Due to the quality of construction performed in the City of Belvedere, the price per square foot number is based on the CNBM designation of Luxury Quality Class 1. Additionally, the price per square foot is also based on the size and shape of the structure and the proposed construction.

Remodel projects are discounted on a percentage basis based on the extent of the scope of work.

CNBM Average \$/sqft: 2400 sqft home	\$388.89
Local Area Multiplier	27%
Belvedere Average \$/sqft	\$493.89

Project Address: 2309 Country Rd, Anytown, Ca

Project Description: Complete residential remodel & addition

Total Project Sq Ft: 1945 sf

<u>Types of Proposed Construction</u>	<u>Sq Ft</u>	<u>\$/sqft</u>	<u>Est. Cost</u>
New Construction:	346	\$493.89	\$170,885.94
75% Renovation:	871	\$370.42	\$322,635.82
50% Renovation:	728	\$246.95	\$179,775.96
25% Renovation:	NONE		

Total: \$673,297.72

Per the information provided, the proposed construction cost, as determined by the City of Belvedere Building Department Cost Evaluation Worksheet totals \$673,297.72

- New Construction represents new additions and/or portions of the proposed scope of work to be built from the ground up.
- 75% Renovation represents portions of the proposed scope of work containing higher than average renovation cost (kitchens/baths).
- 50% Renovation represents portions of the proposed scope of work which are simple room renovation without high cost finishes
- 25% Renovations represent portions of the proposed scope of work which can be identified as minimal cost renovation.

City of Belvedere Building Department
450 San Rafael Ave., Belvedere, Ca 94920
Brian Van Son, CBO: bvanson@cityofbelvedere.org

1/19/2021

Good morning,

I am sending you two emails from Debra, the project architect for 30 Cliff regarding the story pole for the pool. In her review yesterday, it turns out the pool deck pole measures at 5' and it is actually going to be 4'10", shorter than the pole that is on site due to a discrepancy from interpreting the grade elevation (on the plans) prior to having the point marked by the surveyor.

Additionally, it has been determined that the pool and pool deck as proposed are closer than 3' to the property line, which is not allowed under section 19.48 of the BMC. Attached is a revised plan showing the pool in conformance with 19.48. The design review resolution has a condition of approval that a final landscape plan shall be reviewed by the PC Chair and Director of Planning and Building.

Thanks,
Rebecca

Rebecca Markwick
Senior Planner
City of Belvedere
(415) 435-8931 office
(415) 404-2932 mobile
rmarkwick@cityofbelvedere.org

Hi Rebecca,

I should further clarify that when we applied for the variance, the high point of the wall was determined by interpreting the survey. After submitting the application, the surveyor marked the location of the story poles and provide grade elevations for those points. The height represented on site is true to the elevation of the pool. I am happy to amend the variance application to represent the pool retaining wall as 4'-10". This wall would exceed the allowable height of 4'-0" by 10" rather than 16".

**Please let me know if that would be helpful,
Debra**

From: debra@reganbice.com <debra@reganbice.com>
Sent: Monday, January 18, 2021 1:51 PM
To: Rebecca Markwick - Senior Planner <AssociatePlanner@cityofbelvedere.org>
Subject: 30 Cliff Road Story Poles

Hi Rebecca,

I wanted to follow up with you regarding the validity of the story pole heights. The grade at the base of the story poles were located by the surveyor, Charles Allen. The top of the poles were determined by the elevations called out on the drawings. The elevation of the pool wall in the southwest corner is 90.5', and the grade is 85.6'. The story pole should be 4'10". We measure the pole as 5'-0" tall. I believe the discrepancy comes from interpreting the grade elevation prior to having the point marked by the surveyor.

I am attaching the grade elevations for the base of the story poles for your reference.

Please let me know if you have any other questions.

Thanks,
Debra

REGAN BICE ARCHITECTS

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PHONE: (415) 888-8202 • FAX: (415) 383-8243 • EMAIL: allcoeng@comcast.net
STATE LICENSE No's: C21998 & TR287

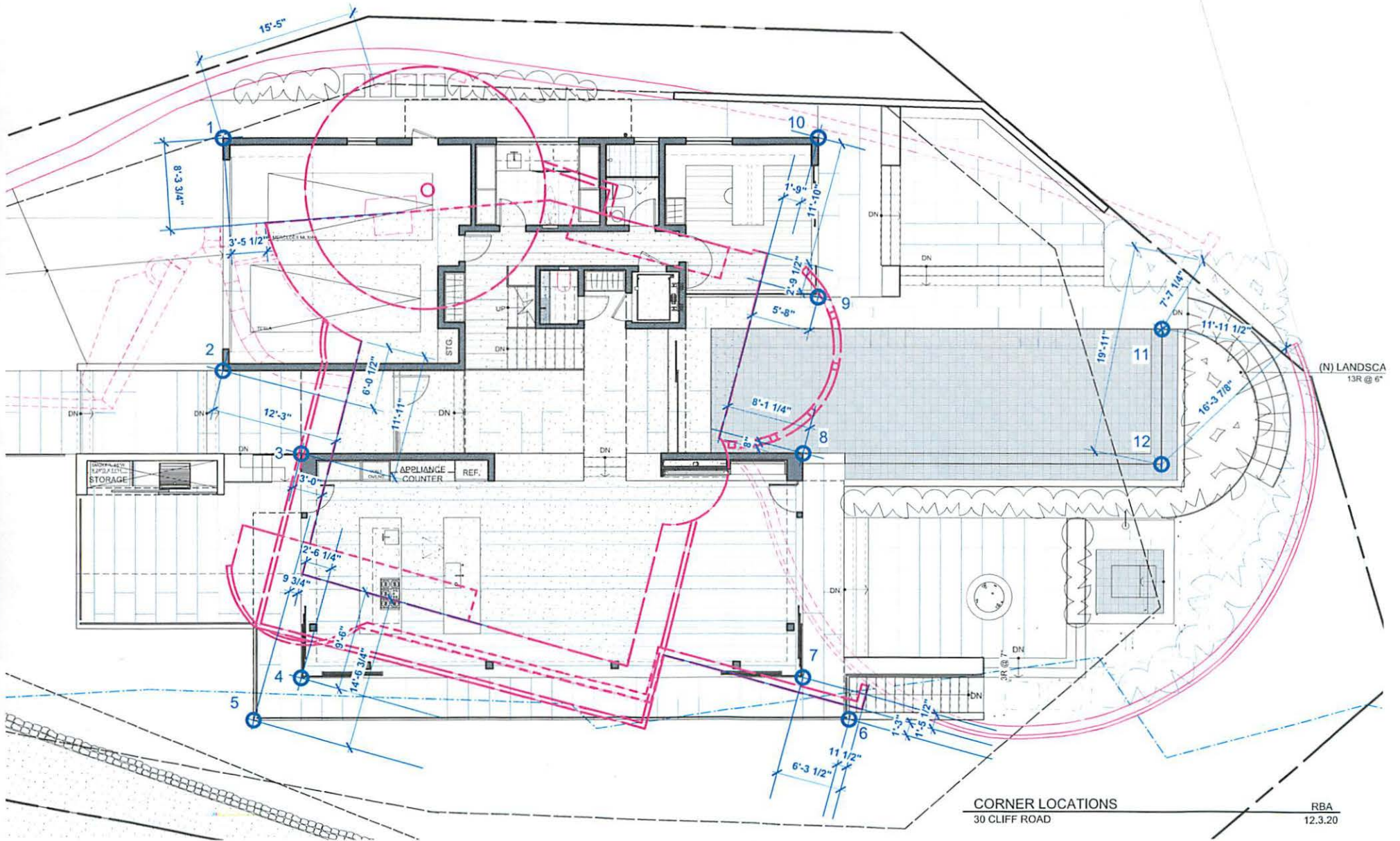
DESIGN ENGINEERS

12/22/2020

30 Cliff Road

STORY POLE NUMBERS AND ELEVATIONS

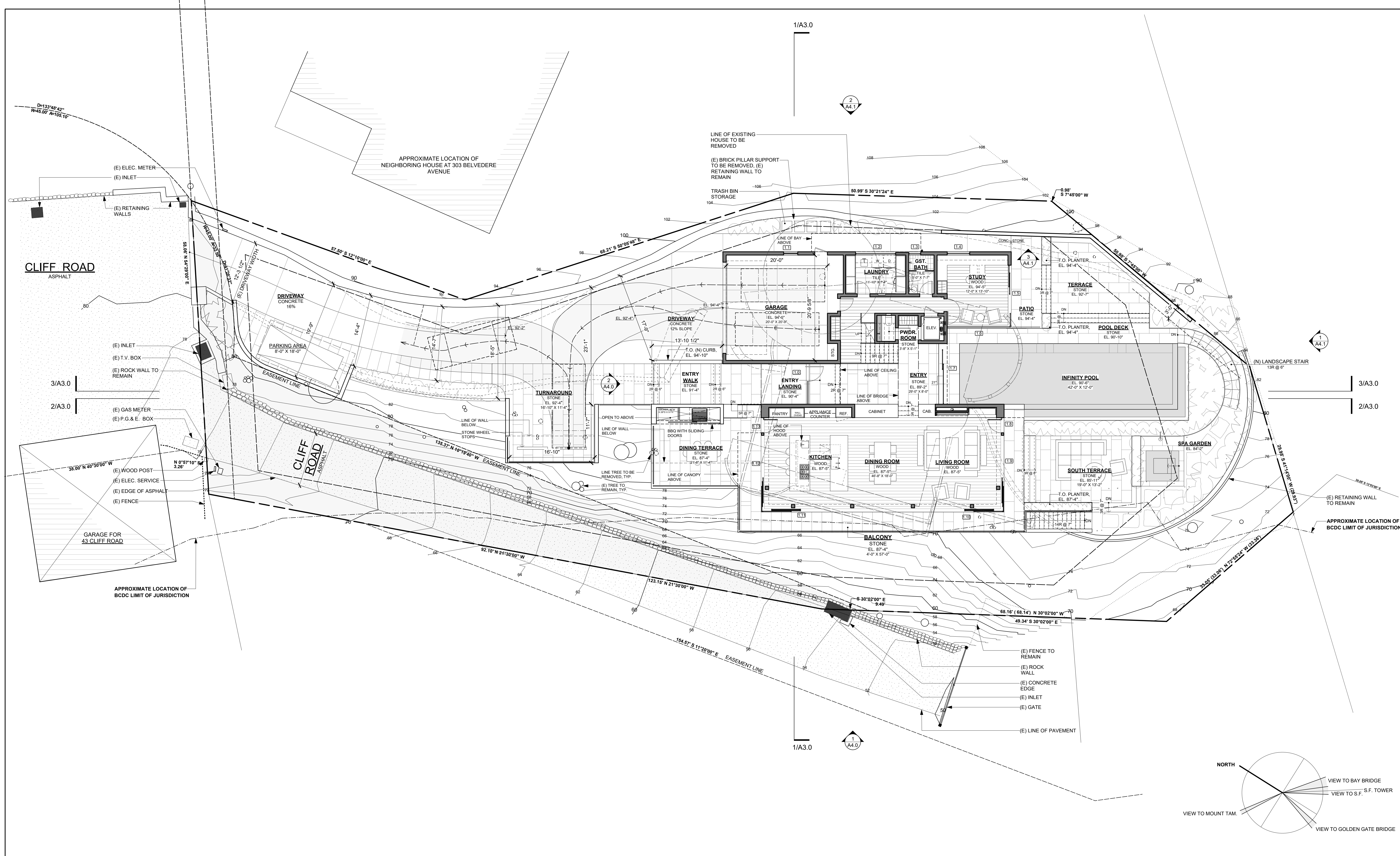
NO.	ELEVATION
SP1	94.3
SP2	89.1
SP3	90.1
SP4	71.4
SP5	68.3
SP6	76.2
SP7	80.7
SP8	90.3
SP9	92.6
SP10	91.9
SP11	87.1
SP12	85.6



(N) LANDSCAPE
13R @ 6"

CORNER LOCATIONS
30 CLIFF ROAD

RBA
12.3.20



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Berkeley, Ca 94710
Tel 510.549.1499

REGAN BICE ARCHITECTS

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MAIN LEVEL PLAN
THE JACOBY RESIDENCE
30 CLIFF ROAD
BELVEDERE, CALIFORNIA 94920

APN: 060-221-44

PRELIM. BID	<input type="checkbox"/> 10.05.20	PRINTED	01.18.21
PLANNING	<input type="checkbox"/> 10.23.20	SCALE	1/8" = 1'-0"
PLANNING	<input type="checkbox"/> 12.14.20	DRAWN	DLC
	<input type="checkbox"/>	JOB	JACOBY

A2.0

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