



Agenda
Planning Commission Meeting
7:00 P.M. on Tuesday, February 9, 2010
Hoyer Hall, 6125 Clayton Road, Clayton

CALL TO ORDER, ROLL CALL, PLEDGE TO THE FLAG

Administrative

- 1A. Review of agenda items.
- 1B. Commissioner Richardson to report at the City Council meeting on February 16, 2010.

Public Comment

Approval of Minutes

- 2. Approval of minutes from the meeting of January 26, 2010.

Public Hearings

- 3. **SPR 11-07, Extension of Site Plan Review Permit, Ramon Velasquez, 1816 Ohlone Heights, APN 118-392-001.** A request to extend for an additional six (6) months (from March 17, 2010 to September 17, 2010) and amend a Site Plan Review Permit to modify an existing retaining wall, screen fence atop the retaining wall, and landscape and related improvements in the exterior side yard of the subject property. The proposed amendments include adding a lower retaining wall and setting back by three (3) feet the existing six (6) foot high solid board fence atop the existing retaining wall, instead of replacing the solid board fence with a five (5) foot high open type, wrought-iron fence which would be set back three (3) feet from the back of the existing retaining wall.

Proposed Action: Approve with five (5) foot high open type fence.

Old Business

- 4. Discussion regarding Draft Water Efficient Landscape Ordinance.

New Business

- 5. None.

Communications

- 6A. Staff.

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6B. Commission.

Review regarding Planning Commission Meeting Procedures and Protocol.

Adjournment

7. The next regular meeting of the Planning Commission is scheduled for **Tuesday, February 23, 2010.**

Most Planning Commission decisions are appealable to the City Council within ten (10) calendar days of the decision. Please contact Community Development Department staff for further information immediately following the decision. If the decision is appealed, the City Council will hold a public hearing and make a final decision. If you challenge a final decision of the City in court, you may be limited to raising only those issues you or someone else raised at the public hearing(s), either in oral testimony at the hearing(s) or in written correspondence delivered to the Community Development Department at or prior to the public hearing(s). Further, any court challenge must be made within 90 days of the final decision on the noticed matter. If you have a physical impairment that requires special accommodations to participate, please contact the Community Development Department at least 72 hours in advance of the meeting at 925-673-7340. An affirmative vote of the Planning Commission is required for approval. A tie vote (e.g., 2-2) is considered a denial. Therefore, applicants may wish to request a continuance to a later Commission meeting if only four Planning Commissioners are present. Any writing or documents provided to the majority of the Planning Commission after distribution of the agenda packet regarding any item on this agenda will be made available for public inspection in the Community Development Department located at 6000 Heritage Trail during normal business hours.

Minutes
City of Clayton Planning Commission Meeting
Tuesday, January 26, 2010

Call to Order

Chair Bob Armstrong called the meeting to order at 7:00 p.m. at Hoyer Hall, 6125 Clayton Road, Clayton.

Present: Chair Bob Armstrong, Vice Chair Sandra Johnson, Commissioner Tuija Catalano, Commissioner Ted Meriam, Commissioner Dan Richardson

Absent: None

Staff: Community Development Director David Woltering
Assistant Planner Milan Sikela, Jr.

Administrative

1A. Review of agenda items.

1B. Vice Chair Johnson to report at the City Council meeting on February 2, 2010.

Public Comment

None.

Approval of Minutes

2. Approval of minutes from the meeting of January 12, 2010.

Chair Armstrong moved and Commissioner Richardson seconded the motion to approve the minutes from the meeting of January 12, 2010, as amended. The motion passed 5-0.

Public Hearings

3. **SPR 07-08, Extension of a Site Plan Review Permit, Clayton Station Shopping Center, LLC**, Clayton Station Shopping Center. A request for a one-year extension of a previously-approved Site Plan Review Permit (previously approved on January 13, 2009) to allow various minor modifications to the architecture, exterior colors, and awnings within Clayton Station. *Continued from the meeting of January 12, 2010.*

The continued public hearing was re-opened. Director Woltering presented the staff report.

Commission comments and questions included:

- Commissioner Catalano asked if proposed Condition 6 has been discussed with the applicant. Director Woltering answered yes, but one area of concern the applicant had was with the required deposit.
- Chair Armstrong asked if the deposit was kept forever. Director Woltering answered that, as written, the deposit would be kept as long as Clayton Station is in operation.
- Chair Armstrong asked if the applicant could ever get their deposit monies back. Director Woltering answered that, as long as Clayton Station exists, there will be a need to retain the deposit for assurance of maintenance.

- Commissioner Richardson indicated that cash performance bonds are not unusual, but typically you have an assigned future date when project performance can be reviewed.
- Commissioner Richardson asked if the deposit account would be interest bearing. Director Woltering answered yes.

The public testimony period was opened.

The applicant indicated the following:

- Director Woltering makes a good point that we could have done a better job at maintaining Clayton Station.
- We will agree to pay the cash bond, but, at a more personal level, we feel we should not have to pay it.
- We want to operate a first-class operation both in the front and in the back of Clayton Station.

There being no further public comment, the public testimony period was closed. Commission comments and questions included:

- Commissioner Richardson indicated that the applicant did an excellent job at cleaning up the areas along Mount Diablo Creek behind the Clayton Station Shopping Center. He added that an organization such as "Friends of the Creek" should be established to assist in clean up of the larger Mount Diablo Creek corridor. In addition, a bond performance review should be established.
- Chair Armstrong indicated a time frame should be established on the cash bond and maybe reviewed annually.
- Commissioner Catalano indicated that she was impressed by the clean-up and that the milestone maintenance review should occur in two years. If staff feels that a serious enough violation of the maintenance agreement has occurred, the item can be brought before the Commission.
- Commissioner Meriam indicated that the rear of Clayton Station is just as important as the front. He also asked whether we wanted shrubs in addition to grasses cut to a maximum of six inches in height. Director Woltering answered yes, to provide a visual safety corridor approximately ten feet out on both sides of the path.
- Chair Catalano indicated that the last paragraph should include the word "implemented".
- Commissioner Richardson suggested that the bond deposit should be reviewed by staff annually.

Commissioner Catalano moved and Vice Chair Johnson seconded a motion to approve a one-year extension of a previously-approved Site Plan Review Permit (previously approved on January 13, 2009) to allow various minor modifications to the architecture, exterior colors, and awnings within Clayton Station, subject to the original Notice of Decision (NOD) findings, conditions, and advisory notes, except that Condition 6 be replaced with the new Condition 6, prepared by staff, and amended to allow annual review by staff of the need to continue to require the interest bearing deposit of \$2,500. The motion passed 5-0.

Old Business

4. None.

New Business

5. None.

Communications

6A. Staff.

Director Woltering gave updates regarding the Landscape Water Conservation Ordinance, the City's draft housing element, and the parking waiver deadline.

6B. Commission.

Commissioner Richardson discussed a need to review Planning Commission meeting procedures and protocol. Director Woltering indicated he would place an item on the next Planning Commission agenda for review and discussion of this matter.

Adjournment

7. The meeting was adjourned at 8:05 p.m.

Submitted by
David Woltering, AICP
Community Development Director

Approved by
Bob Armstrong
Chair

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PLANNING COMMISSION STAFF REPORT

Meeting Date: February 9, 2010 *JD*
From: David Woltering, AICP, Community Development Director
Subject: Request for an Extension of Time and to Amend a Site Plan Review Permit Approval - 1816 Ohlone Heights (SPR 11-07)

REQUEST

A request to extend for an additional six months (from March 17, 2010 to September 17, 2010) and amend a Site Plan Review Permit to modify an existing retaining wall, screen fence atop the retaining wall, and landscape and related improvements in the exterior side yard of the subject property. The proposed amendments include adding a lower retaining wall and setting back by three feet the existing six foot high solid board fence atop the existing retaining wall, instead of replacing the solid board fence with a five foot high open type, wrought-iron fence which would be set back three feet from the back of the existing retaining wall.

PROJECT INFORMATION

Applicant/Owner/Location: Applicant:
Thomas A. Castle, S.E.
Ficcadenti Waggoner & Castle
Consulting Structural Engineers
3100 Oak Road, Suite 390
Walnut Creek, CA 94597

Owner:
Ramon Velasquez
1816 Ohlone Heights
Clayton, CA 94517
APN 118-392-001 (See **Exhibit A** for Location Map)

General Plan Designation: Medium Density - Single Family Residential (3.1 to 5.0 units per acre).

Zoning: Planned Development.

Environmental Review: Categorically exempt per Section 15303(e), Class 3 of the State CEQA Guidelines.

Public Notice: On January 28, 2010, a public hearing notice was posted on the notice boards, mailed to property owners within 300 feet of the site, and faxed to the newspapers.

Agency Referrals: No comments were provided by the City Engineer, City Stormwater Manager, or Contra Costa County Building Inspection Department.

Authority: Condition No. 6 of the original Notice of Decision (NOD) (See **Exhibit B**) issued on September 17, 2008 for this Site Plan Review (SPR) Permit approval indicates this approval is for a period of 12 months but may be extended by the Planning Commission. The extension that may be granted by the Planning Commission could be for a maximum period of 12 months pursuant to Section 17.64.010-030 of the Clayton Municipal Code. At its meeting of August 25, 2009, the Planning Commission extended this SPR Permit for a six month period, ending March 17, 2010.

BACKGROUND

At its August 25, 2009 meeting, the Clayton Planning Commission considered property owner Ramon Velasquez's request for a one year extension of a previously approved SPR Permit. After deliberating the matter, the Commission extended the SPR Permit for six months, until March 17, 2010, asking Mr. Velasquez to return during that period to clarify his proposal to possibly modify and implement the SPR Permit.

This SPR Permit was originally approved on September 17, 2008 by the Planning Commission. This approval was granted for a 12-month period, to expire on September 17, 2009, if not acted upon. This action and the related conditions of approval in the NOD provide the roadmap to remedy the outstanding code violations associated with the existing retaining wall and the fence above the wall in the side yard area of the subject property. The City of Clayton had issued a citation regarding these non-permitted/non-compliant improvements on October 17, 2006.

The citation indicated that the wall in combination with the fence above exceeded the maximum allowed height of six feet (seven feet with an administrative use permit) for such a structure. The fence was located directly behind and above the wall, and, therefore, the combined height of the structures is considered when applying the City's pertinent code provisions. If the fence would be offset by a minimum of three feet, then the two structures would be considered independently. Portions of the existing fence and wall in combination range up to approximately 13 feet. The citation also indicated that the retaining wall was built without a Site Plan Review Permit (additionally, the retaining wall lacks a Building Permit because a Site Plan Review Permit is required as a prerequisite to obtaining a Building Permit).

DISCUSSION

Mr. Velasquez purchased the property in June of 2009, more than eight months after the approval of the SPR Permit in September of 2008. He did not have the benefit of the full term of the SPR Permit approval to satisfy the conditions of the NOD and, thereby, correct the violations.

Additionally, upon reviewing the conditions of approval, Mr. Velasquez, found there were certain aspects he would request to modify. Mr. Velasquez preferred to relocate the existing six foot high solid board fence atop the retaining wall back three feet, rather than replace and relocate that fence with a lower (i.e., five foot high) open type of fence. Mr. Velasquez prefers the solid board fence because it provides more privacy and security for his family members that include small children. Mr. Velasquez also wanted to introduce some plant materials that would provide fall color. And, he realized that he would need to propose a solution to ensure the existing retaining wall would be structurally sound and safe. Based on the analysis of his structural engineer, Mr. Velasquez is proposing a second, lower, structurally engineered retaining wall to stabilize the site.

Attached is a January 11, 2010 letter (See **Exhibit E**) from Structural Engineer Thomas Castle in which Mr. Castle describes the modifications that Mr. Velasquez is currently proposing to the previously approved Site Plan Review Permit. Staff comments regarding these proposed modifications follows below:

Condition No. 1 Regarding the Wall

In the written materials that Mr. Castle provided he indicates that three options were considered for addressing the need to ensure the structural stability of the existing retaining wall: remove and reconstruct, reinforce with a tie-back system, and add a secondary lower tiered wall. As described in the submitted materials, adding a secondary, lower tiered wall was determined to be the preferred and recommended option. This option would avoid potentially destabilizing the yard area adjacent to the existing swimming pool, lessen loads and generally provide support for the existing wall, and provide an aesthetic break up of the existing wall. This option would effectively reduce the high point of the existing wall to four feet from seven, thereby, eliminating the need for Condition No. 1 in the NOD. This condition requires the applicant to apply for and obtain an Administrative Use Permit to be allowed to exceed six feet and up to seven feet in height for a fence. Staff supports adding the lower tiered wall as the recommended option.

Condition No. 2. Regarding the Fence

The submitted materials propose setting back the existing six foot high solid board fence atop the wall instead of replacing that fence with an open type fence similarly set back three feet. Plants are proposed in front of the solid board fence to provide 75% coverage in three to four years, and 90% coverage in five years. The property owner wants to retain the solid board fence to better assure the privacy of his family which includes small children. Staff believes that the solid board fence, retaining walls, sidewalk, and street, all in close proximity comprise together a large amount of hard surface and that retaining the original Condition No. 2 that requires an open type fence continues to be advisable. The open type fence can be heavily planted and for an interim period to allow establishment of the plants a professional quality green mesh material could be placed on the fence to provide a greater sense of privacy.

Condition No. 3 Regarding the Landscape Plan

The submitted materials propose modifications to the approved planting materials. A more notable proposed modification is to replace using Camphor trees with either Crape Myrtle or Chinese Pistasche trees. Staff suggests that the Chinese Pistasche be selected over both the Camphor and

Crape Myrtle as having the overall preferred growing characteristics in terms of structure, height, drought tolerance, and root characteristics. And, after reviewing the suggested plant materials, staff recommends with respect to Condition No. 3 that the plant list be expanded to include those proposed by the applicant, except that the Crape Myrtle tree not be added and the Camphor tree removed.

RECOMMENDATION

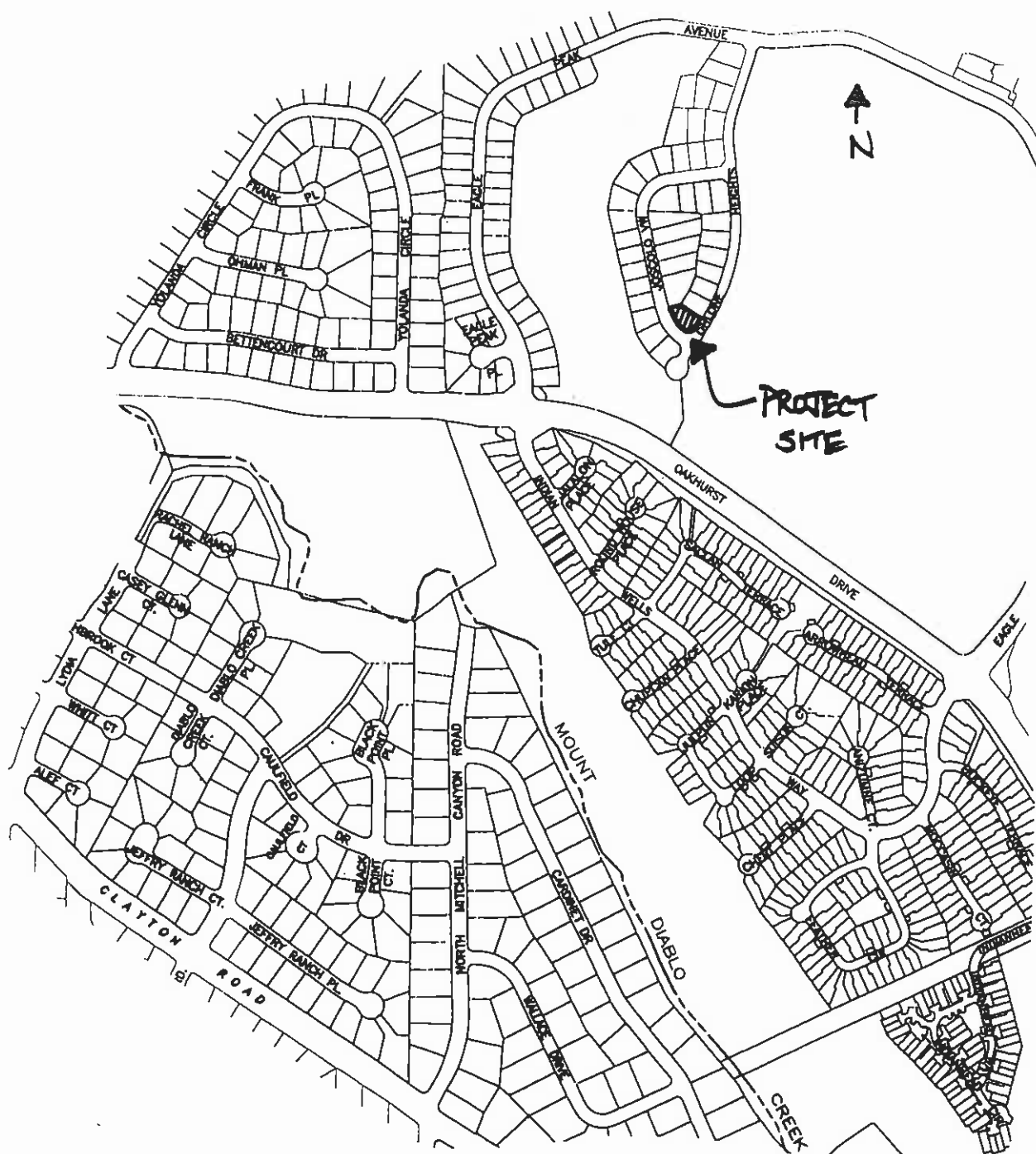
Staff recommends the Planning Commission approve a six month extension for Mr. Velasquez to September 17, 2010, based on the NOD for SPR 11-07 to modify an existing retaining wall, screen fence atop the retaining wall, and landscape and related improvements in the exterior side yard of the subject property. This recommendation is subject to the following amendments and finding:

1. The findings and conditions of the previously approved Site Plan Review Permit NOD are still pertinent and applicable, and will be in full force and effect, except as amended below:
 - a. Condition No. 1 is removed, given the lower, tiered wall effectively reduces the highest point of the existing retaining wall from seven feet to four feet, eliminating the need to obtain an Administrative Use Permit.
 - b. Condition No. 3 is modified to expand the proposed plant list as proposed by the applicant in the Preliminary Landscape Plan, dated 12-4-09, except that Crape Myrtle will not be added and the referenced Camphor tree in Condition No. 3 will be removed.
2. The new owner, Mr. Velasquez, of the property at 1816 Ohlone Heights did not have the benefit of the full initial time frame of the Site Plan Review Permit approval to remedy the code violations that exist on this property.

EXHIBITS

- A Location Map
- B September 17, 2008 Notice of Decision (NOD) for Site Plan Review Permit Approval (SPR 11-07)
- C August 25, 2009 Staff Report regarding the original request for extension
- D August 25, 2009 Planning Commission meeting minutes excerpt
- E January 11, 2010 letters from Ficcadenti Waggoner & Castle Structural Engineers and Plans

SPR\2007\11-07.sr3



Location Map
1816 Ohlone Heights
APN 118-392-001



6000 Heritage Trail • Clayton, California 94517
925-673-7300 • Fax 925-672-4917

PLANNING COMMISSION NOTICE OF DECISION

DATE: September 17, 2008

TO: Ruth Reed
1816 Ohlone Heights
Clayton, CA 94517

75-5919 Walua Road
Kailua-Kona, Hawaii 86740

76-836 Kalana Io Place
Kailua, Konahi, Hawaii 86740

RE: Site Plan Review Permit (SPR 11-07)

Following a public hearing, the Clayton Planning Commission approved the following project on September 9, 2008. The project was approved based on the findings and conditions listed below.

Project Description

Approval of a Site Plan Review Permit to allow an existing retaining wall, screen fence atop the retaining wall, and landscaping and related improvements in the exterior side yard of the property located at 1816 Ohlone Heights (APN 118-392-001).

Findings

Based upon the evidence set forth in the staff reports, which includes relevant information from the project file, as well as testimony at the public hearing, the Planning Commission finds the Site Plan Review permit for the addition, as conditioned:

1. Is consistent with the *General Plan* designation and policies.
2. Meets the standards and requirements of the *Zoning Ordinance*.
3. Complies with the Oakhurst Country Club conditions of approval.
- 4.. Preserves general safety of the community regarding seismic, landslide, flooding, fire, and traffic hazards.
5. Maintains solar rights of adjacent properties.
6. Reasonably maintains the privacy of adjacent property owners and/or occupants.

7. Reasonably maintains the existing views of adjacent property owners and/or occupants.
8. Is complementary, although not identical with adjacent existing structures in terms of materials, colors, size, and bulk.
9. Is compatible with the neighborhood and surrounding land uses.

Conditions of Approval

These conditions of approval apply to the Proposed Schematic Landscape Plan and Proposed Landscape: Cross Section A-A', submitted by the applicant, date stamped August 22, 2008.

1. The applicant shall obtain an Administrative Use Permit from the City to allow the existing retaining wall height which exceeds at certain locations six (6) feet but is less than a maximum of seven (7) feet in height. The height of the existing retaining wall shall not be increased pursuant to obtaining the Administrative Use Permit.
2. The new wrought iron fence shall match the gauge and quality of wrought iron fences used throughout Oakhurst, not exceed five feet in height, and be set back a minimum of three feet from the rear edge of the retaining wall, to the satisfaction of the Community Development Director.
3. Prior to building permit issuance for the retaining wall, Final Landscape and Irrigation Plans shall be submitted to the City for review and approval by the Community Development Director, City Engineer, and Maintenance Supervisor. The Final Landscape and Irrigation Plans shall include, but not be limited to, the following:
 - a. Camphor trees shall be 24-inch by 24-inch box in size.
 - b. Boston Ivy or Creeping Fig shall be 1-gallon in size and planted 10 inches on center
 - c. Hopseed shall be 5-gallon in size and planted 5 feet on center.
 - d. The Final Landscape Plan shall include notes and details pertaining to soil amendments, planting specifications, tree staking, erosion control measures, attachment of vines to fencing/wall, etc.
 - e. The Final Irrigation Plan shall avoid spray in favor of drip and bubble-type irrigation features. All equipment shall be identified as to type, size, and manufacturer.
4. Prior to building permit issuance for the retaining wall, the applicant shall enter into a landscape and maintenance agreement with the City for the purpose of specifying and assuring the enforcement of acceptable performance standards for any landscaping and irrigation installed as part of the project. The landscape and maintenance agreement shall be recorded and run with the land. Any associated recording costs shall be incurred by the applicant. This condition shall be performed to the satisfaction of the Community Development Director and the City Attorney.
5. The applicant agrees to indemnify, protect, defend, and hold harmless the City and its elected and appointed officials, officers, employees, and agents from and against any and all liabilities, claims, actions, causes, proceedings, suits, damages, judgements, liens, levies, costs, and expenses of whatever nature, including attorney's fees and disbursements arising out of or in any way relating to the issuance of this entitlement, any actions taken by the City relating to this entitlement, or the environmental review conducted under the California Environmental Quality Act for this entitlement and related actions.
6. This Site Plan Review Permit shall be used, exercised, or established within twelve months after the granting of the Permit, or a time extension must be obtained from the Planning Commission, otherwise the Permit shall be void (CMC §17.64.010-030).

Advisory Notes

Advisory notes are provided to inform the applicant of: (a) Clayton Municipal Code requirements; or (b) requirements imposed by other agencies. The advisory notes state requirements that may be in addition to the conditions of approval.

1. If additional work at the project site is necessary, the applicant shall prepare an erosion and stormwater control plan for review and approval by the City Engineer prior to obtaining a building permit.
2. If additional work at the project site is necessary, the applicant shall obtain City approval of a construction and demolition recycling plan prior to obtaining a building permit.
3. The applicant shall comply with all applicable state, county, and city codes, regulations, and adopted standards.
4. All grading, construction, and other work shall occur only between 7:00 a.m. and 5:00 p.m. Monday through Friday. Any such work beyond these hours and days is strictly prohibited unless previously authorized in writing by the City Engineer (CMC §15.01.010) located at 1005 Oak Street, 925-672-9700.
5. The applicant shall obtain the necessary building permits from the Contra Costa County Building Inspection Department.
6. If the project site is located within an area subject to covenants, conditions, and restrictions (CC&R's) administered by a homeowners association, additional requirements and/or approvals may be required by the homeowners association. Before proceeding with the project, it is advisable to check with the homeowners association to ensure any applicable requirements are met.


David Woltering, AICP
Community Development Director

9-17-08
Date

INSTRUCTIONS TO APPLICANT: Please sign and return one copy of this Notice of Decision to the Community Development Department, 6000 Heritage Trail, Clayton, CA, 94517; and retain the other copy for your files. If you have any questions, please call 925-673-7340.

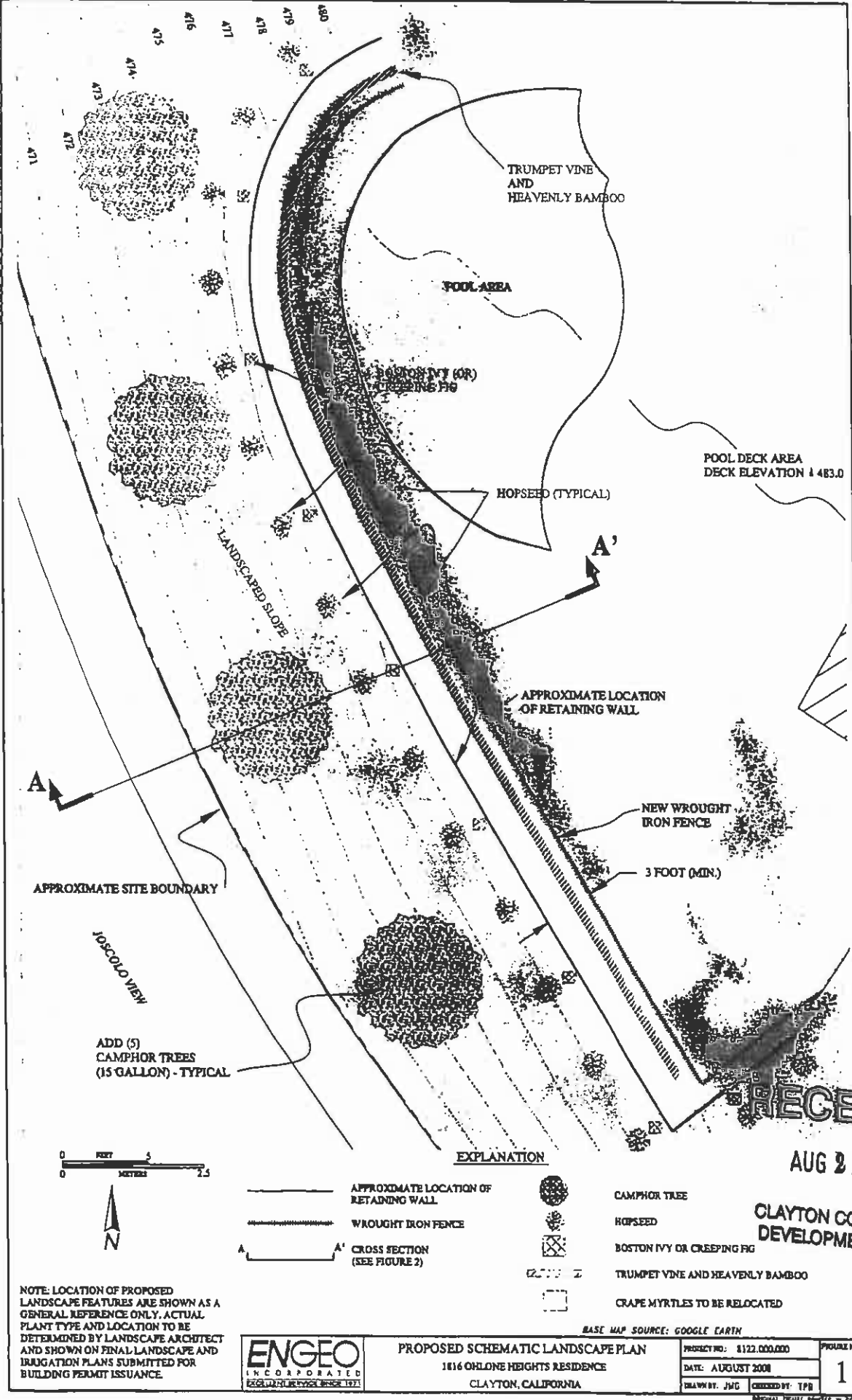
I (We) agree to comply with the above conditions.

_____, this ____ day of _____, 20 ____
Applicant's Signature

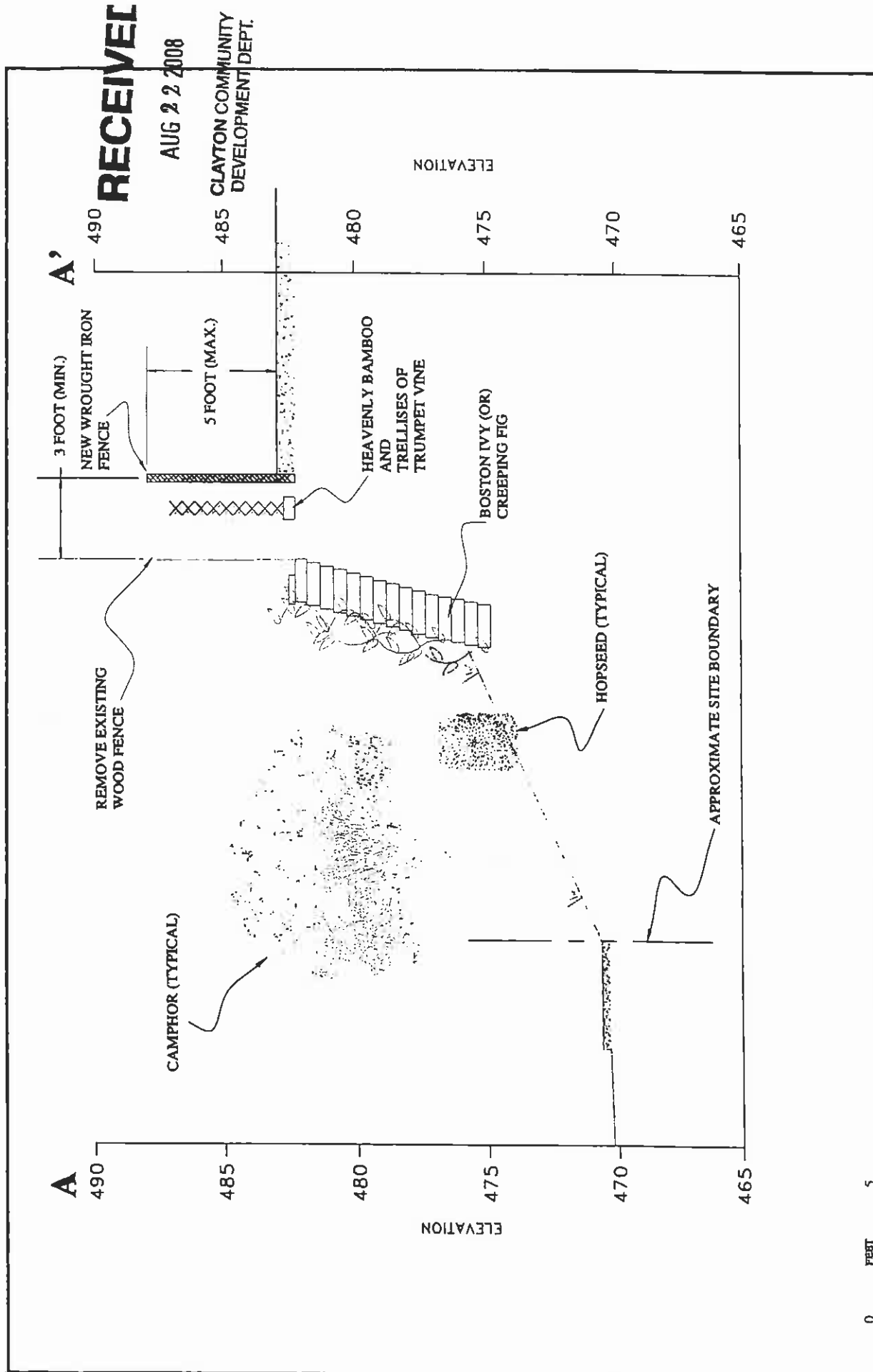
All actions of the Planning Commission are subject to appeal to the City Council as provided in Chapter 17.68 of the Clayton Municipal Code. Any appeal must be made in writing to the City Clerk within 10 days from the date of this Notice of Decision and must be accompanied by an appeal fee. An appeal form is available at the Community Development Department.

cc: Contra Costa County Building Inspection Department

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	PROPOSED LANDSCAPE: CROSS SECTION A-A'			PROJECT NO.: 8122.000.000	FIGURE NO.
	1816 OHLONE HEIGHTS RESIDENCE			DATE: AUGUST 2008	2
	CLAYTON, CALIFORNIA			DRAWN BY: JMG	CHECKED BY: TPB

PLANNING COMMISSION STAFF REPORT

Meeting Date: August 25, 2009

From: David Woltering, AICP, Community Development Director

Subject: Request for Extension of Time for Site Plan Review Permit Approval - 1816 Ohlone Heights (SPR 11-07)

REQUEST

A request for extension of time for a Site Plan Review Permit approval to modify an existing retaining wall, screen fence atop the retaining wall, and landscape and related improvements in the exterior side yard of property at 1816 Ohlone Heights.

PROJECT INFORMATION

Applicant/Location: Ramon Velasquez
1816 Ohlone Heights
Clayton, CA 94517
APN 118-392-001 (See **Exhibit A** for Location Map)

General Plan Designation: Medium Density - Single Family Residential (3.1 to 5.0 units per acre). This proposal complies with the *General Plan* designation.

Zoning: Planned Development.

Environmental Review: Categorically exempt per Section 15303(e), Class 3 of the State CEQA Guidelines.

Public Notice: On August 12, 2009, a public hearing notice was posted on the notice boards, mailed to property owners within 300 feet of the site, and faxed to the newspapers.

Agency Referrals: No comments were provided by the City Engineer, City Stormwater Manager, or Contra Costa County Building Inspection Department.

Authority: Condition No. 6 of the Notice of Decision (NOD) issued on September 17, 2008 for this Site Plan Review Permit approval indicates this approval is for a period of 12 months but may be extended by the Planning Commission. The extension that may be granted by the Planning Commission could be for a maximum period of 12 months pursuant to Section 17.64.010-030 of the Clayton Municipal Code.

BACKGROUND

On September 9, 2008, the Clayton Planning Commission considered and approved a Site Plan Review Permit to modify an existing retaining wall, screen fence atop the retaining wall, and landscape and related improvements in the exterior side yard of the property at 1816 Ohlone Heights. The attached Notice of Decision (NOD) (see **Exhibit B**) was issued on September 17, 2008 for this action of the Planning Commission. This approval was granted for a 12-month period, to expire on September 17, 2009, if not acted upon. This action and the related conditions of approval in the NOD provide the roadmap to remedy the outstanding code violations associated with the existing retaining wall and the fence above the wall. The City of Clayton had issued a citation regarding these improvements on October 17, 2006. The citation indicated that the wall in combination with the fence above exceeded the maximum allowed height of six feet (seven feet with an administrative use permit) for such a structure. The fence was located directly behind and above the wall, and, therefore, the combined height of the structures is considered when applying the City's pertinent code provisions. If the fence would be offset by a minimum of three feet, then the two structures would be considered independently. Portions of the existing fence and wall in combination range up to approximately 13 feet. The citation also indicated that the retaining wall was built without a Site Plan Review Permit (additionally, the retaining wall lacks a Building Permit because a Site Plan Review Permit is required as a prerequisite to obtaining a Building Permit).

The NOD issued on September 17, 2008 requires the property owner to apply for a Building Permit to ensure the retaining wall is safe and constructed in accordance with applicable Uniform Building Code requirements, and to replace the existing solid board fence above the wall with an open-type of fence that would be set back a minimum of three feet from the rear edge of the wall. This fence is not to exceed five feet in height. The conditions of approval also require that certain plant materials be installed or replaced to soften the appearance of the retaining wall and fence.

Subsequent to the Site Plan Review Permit approval that was granted in September of 2008 by the Planning Commission, the owner of the property at 1816 Ohlone Heights sold the property and had not during the intervening period satisfied the conditions of approval. A new owner took possession of this property on May 29, 2009, and moved into the property during the following week. This new owner is Mr. Ramon Velasquez. The City Attorney had the Planning Commission's September 2008 NOD recorded against the title of the subject property prior to the sale of the property.

Staff contacted Mr. Velasquez after he had moved into the property and scheduled a meeting with him to familiarize him and his wife with the conditions of approval in the NOD and the process for complying with those conditions or seeking a modification to that approval. Staff has had telephone conversations and meetings with Mr. Velasquez during July and August of this year. At our last meeting on August 10th, Mr. Velasquez had a structural engineer accompany him to formally discuss the conditions of approval of the NOD and approaches to remedy the code violations. The other attendees at the meeting were Community Development Director David Woltering and Contra Costa Building Department representatives Phil Ludolph and Harry Attri. Mr. Velasquez indicated that he was aware that there was a concern regarding the existing retaining wall that needed to be addressed when he purchased the property, but he was unaware of the extent of the concern or the financial ramifications of addressing the matter. The structural engineer representing Mr. Velasquez suggested, based upon his brief visual inspection of the property, that it is unlikely that the existing

retaining wall would be in compliance with current Uniform Building Code requirements. He offered to review the NOD conditions of approval and the existing improvements and report back to Mr. Velasquez the options he could consider for responding to the NOD.

DISCUSSION

Mr. Velasquez has not had the benefit of the full term of the Site Plan Review Permit approval to satisfy the conditions of the NOD and, thereby, correct the violations. He and his family moved into this property in June of this year. And, only very recently has the new owner contracted with a structural engineer to evaluate how to proceed with addressing this matter. Based on the recent feedback received from this engineer, it is likely that the correction work required for the retaining wall will be involved and likely require a modification to the Site Plan Review Permit. The process to correct the violations and address the NOD will involve the following: determining a feasible approach to correcting the violations; preparing needed plans to depict the solution; applying for and receiving Site Plan Review Permit approval as needed; submitting construction documents for plan check and approval; completing the work; and, finally, receiving final inspection approval. Given the scope of work yet to be accomplished and the fact that there is a new owner, staff supports the request of extension of time to address the NOD and correct the code violations on the property.

RECOMMENDATION

Staff recommends the Planning Commission approve the request of Mr. Velasquez to extend for 12 months to September 17, 2010 the Notice of Decision (NOD) for Site Plan Review Permit SPR 11-07 to modify an existing retaining wall, screen fence atop the retaining wall, and landscape and related improvements in the exterior side yard of the subject property. This recommendation and related action are based upon the following:

1. The findings and conditions of the previously approved Site Plan Review Permit are still pertinent and applicable, and will be in full force and effect; and,
2. The new owner of the property at 1816 Ohlone Heights did not have the benefit of the full initial time frame of the Site Plan Review Permit approval to remedy the code violations that exist on this property.

EXHIBITS

- A Location Map
- B Letter from Mr. Velasquez requesting the Extension of Time
- C September 17, 2008 Notice of Decision (NOD) for Site Plan Review Permit Approval (SPR 11-07)
- D Proposed Schematic Landscape Plan and Proposed Landscape: Cross Section A-A', both submitted by the applicant, date stamped August 22, 2008

SPR\2007\11-07.sr2

**Minutes
City of Clayton Planning Commission Meeting
Tuesday, August 25, 2009
Excerpt**

Call to Order

Chair Catalano called the meeting to order at 7:00 p.m. at Hoyer Hall, 6125 Clayton Road, Clayton.

Present: Chair Tuija Catalano, Commissioner Bob Armstrong, Commissioner Sandra Johnson, Commissioner Ted Meriam, Commissioner Dan Richardson

Absent: None

Staff: Community Development Director David Woltering
Assistant Planner Milan Sikela, Jr.

Administrative

1A. Selection of Chair and Vice Chair.

Chair Catalano moved and Commissioner Johnson seconded a motion to elect Commissioner Armstrong as Chair. The motion passed 5-0.

Commissioner Catalano moved and Chair Armstrong seconded a motion to elect Commissioner Johnson as Vice Chair. The motion passed 5-0.

1B. Review of agenda items.

By consensus, the Commission placed Item 3B before Item 3A.

1C. Commissioner Catalano to report at the City Council meeting on September 1, 2009.

Approval of Minutes

2. Approval of minutes from the meeting of July 14, 2009.

Commissioner Richardson moved and Commissioner Catalano seconded a motion to approve the minutes from the meeting of July 14, 2009, as amended. The motion passed 5-0.

3B. **SPR 11-07, Extension of Site Plan Review Permit, Ramon Velasquez, 1816 Ohlone Heights, APN 118-392-001.** A request for a twelve-month extension for a previously-approved Site Plan Review Permit (previously approved on September 17, 2008) for an existing retaining wall, screen fence atop the retaining wall, and landscape and related improvements in the exterior side yard of the subject property.

Director Woltering presented the staff report.

Planning Commission comments and questions included:

- Was the Planning Commission Notice of Decision recorded with Contra Costa County in October 2008? Director Woltering responded "Yes."

- Would the Planning Commission Notice of Decision have been disclosed as part of the home sale? Director Woltering responded "Yes."
- Would the applicant have needed to obtain a building permit within a year from the original approval date of September 9, 2008? Director Woltering responded "Yes."
- Did the prior property owner complete any of the Conditions of Approval? Director Woltering responded "No."
- Is twelve months the maximum amount of extension time the Planning Commission can approve? Director Woltering responded "Yes."
- Will the retaining wall and fence require significant changes? Director Woltering responded that both the retaining wall and fence would need to be modified to comply with the Conditions of Approval. The fence needs to be changed to be five feet in height, moved three feet away from the back of the retaining wall, and a wrought iron design style. The retaining wall must be screened by landscaping and be properly permitted by the Contra Costa County Building Inspection Department.
- What will happen to the fines and penalties accrued by the prior property owner? Director Woltering indicated that the previously-estimated \$305,000 amount of fines and penalties accumulated by the previous property owner would not carry over to the new owner.
- Would staff support approving a modification to this Site Plan Review Permit? Director Woltering indicated that, at this time, the Commission would only be considering an extension of the original Site Plan Review Permit. However, the project may need to come back to the Commission if further modifications are proposed.
- If the current property owner did not comply within a reasonable amount of time, could fines and penalties begin to accumulate again? Director Woltering responded "Yes."
- If the proposed changes to the project are significant, would the current property owner need to come back before the Commission? Director Woltering responded that, if the changes are significant, the current property owner would have to apply for a new Site Plan Review Permit for consideration by the Commission.

The public testimony period was opened.

The applicant, Ramon Velasquez, submitted a letter from his neighbors, Peter and Debbie Hellmann, in favor of the project and indicated the following:

- When we first bought the residence, we were aware of issues with the retaining wall, but did not know the full extent of the problems.
- We knew the Notice of Decision was recorded against the property, but we did not read all of the detail.
- The main priority for us is public safety.
- We have hired a structural engineer to satisfy all Clayton Municipal Code requirements and Oakhurst Conditions, Covenants, and Restrictions.
- We received a letter in support of the appearance of the project in its current form.

Commission comments and questions included:

- We have sympathy for the current property owner and the problems inherited by purchasing the subject property.
- Did your realtor disclose the Notice of Decision to you or discuss any of the parameters of the non-compliance issues? Mr. Velasquez responded that, yes, the realtor mentioned that we would inherit the issues and problems related to the project.

- Why are you requesting a twelve month extension? Mr. Velasquez indicated that it would take approximately one year to complete the required modifications to the project.

Dan Foley, 131 Joscolo View, indicated the following:

- We have been living at 131 Joscolo View for two years.
- The retaining wall and fence are not an eyesore.
- We have no problems with the project being left the way it currently is.
- Many of our neighbors have discussed the issue and they have no problem with the project being left the way it currently is.
- If safety issues are present, they must be addressed.

There being no further comments, the public testimony period was closed. Commission comments and questions included:

- I sympathize with the applicant, but the wall is not currently permitted.
- I am concerned that, if the wall fails, the swimming pool will collapse because the installation of the retaining wall has changed the condition of the slope below the pool.
- Time is of the essence.
- The Commission concurred that a six-month extension is appropriate.
- Is the wall structurally sound? Director Woltering indicated that staff did not know.
- A twelve-month extension may push construction past the winter of 2010/2011 and it may be Spring of 2011 before construction commences on the project. That would be too long to wait for construction to start.

Commissioner Catalano moved and Vice Chair Johnson seconded a motion to approve a six-month extension for Site Plan Review SPR 11-07. The motion passed 5-0.

P\ng Comm\2009\Minutes\0825-excerpt2



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January 11, 2010

City of Clayton
Clayton Planning Commission
6000 Heritage Trail
Clayton, California 94517

RECEIVED

JAN 14 2010

**CLAYTON COMMUNITY
DEVELOPMENT DEPT.**

Re: 1816 Ohlone Heights
Clayton, CA 94517
Site Plan Review Permit (SPR 11-07)

The following letter outlines a proposed clarification and modification to the Conditions of Approval of the Site Plan Review Permit for the modification to an existing retaining wall, screen fence atop the retaining wall, and landscaping and related improvements in the exterior side yard of the property located at 1816 Ohlone Heights (APN 118-392-001).

On August 28, 2009 the Planning Commission issued a Notice of Decision regarding the above matter. That notice reiterated previous findings and granted an extension of time. Within the Notice of Decision were Six Conditions of Approval. We request the review of three of those conditions where clarification of our proposed solution is sought and where modifications that are consistent with the desired goals are presented. The modifications desired are listed below with the same numbering sequence contained in the Notice of Decision. We believe these clarifications and modifications are consistent with the desire to maintain an acceptable visual appearance of the slope, provide for public safety, and not be unduly burdensome.

1. The existing retaining wall was constructed without the benefit of a building permit and was therefore not inspected at the time of installation. Based upon review of that wall and the conditions at the site we have concluded that the existing wall does not meet the structural provisions of the 2007 California Building Code. Due to the impracticality of removing the wall, which would entail the removal of the adjacent permitted pool and large amounts of earthwork, we have developed a plan to reduce the effective height of retained soil for the wall. To lessen the loads on the wall we propose to add a second lower tiered retaining wall between the wall in question and the southern property line. This second wall will allow the low side grade at the wall in question to be raised such

that only 4 feet of the existing wall will be exposed. In simple terms the single 7 foot retaining wall will be changed to a tiered solution of a 4 foot wall and an offset 3 foot wall. This solution provides the necessary structural stability of the slope retaining structures and provides the desired visual breakup of the slope. We have attached preliminary designs for the new retaining wall solution for review by The Commission.

2. We further propose that in addition to reducing the exposed retaining heights that the wood fence at the top of the slope be set back three feet further from the back of the existing retaining. This three foot dimension is in accordance with the Conditions of Approval. We are requesting that a wood fence be allowed in place of the noted iron fence in the Conditions of Approval. This is for reasons of uniformity with the other conditions around the site and for privacy. The three foot setback will allow planting in front of the fence and provide a further visual break up of the slope and fence surface. It is anticipated that the planting will cover 75% of the wall surface within 3 to 4 years and up to 90% in 5 years. The planting in front of the fence would be a Star Jasmine that would be self supporting so as to not damage the wood fence and require little water due to its proximity to the retaining structures and the desire to minimize water behind the wall for structural reasons. The wood fence matches the wood fences contained on most property divisions in this development. Planting material in front of the fence and retaining walls will provide a green screen effect.
3. Prior to building permit issuance for the retaining wall, Final Landscape and Irrigation Plans will be submitted to the City for Review and approval by the Community Development Director, City Engineer, and Maintenance Supervisor. After consultation with a Landscape Architect the species of plants is requested to be modified from the Conditions of Approval. The purpose of the modification is to provide for a planting that is evergreen, has a history of healthy growth in the area, and root structure that will not be detrimental to the retaining structures contemplated. The plants specified will also provide color in the fall for interest. A preliminary Landscape plan is being submitted with this letter that outlines the proposed landscaping and planting materials in general terms. We are requesting that the Conditions of Approval allow for this modification.

Conditions 4, 5 and 6 do not require clarification and are acceptable.

The review of these items and the Commission's continued patience in this matter is appreciated and we look forward to completing the permit process once this review is complete and complying with the time extension granted.

FICCADENTI & WAGGONER, INC.

A handwritten signature in cursive script that reads "Thomas A. Castle".

Thomas A. Castle, S.E.
Principal

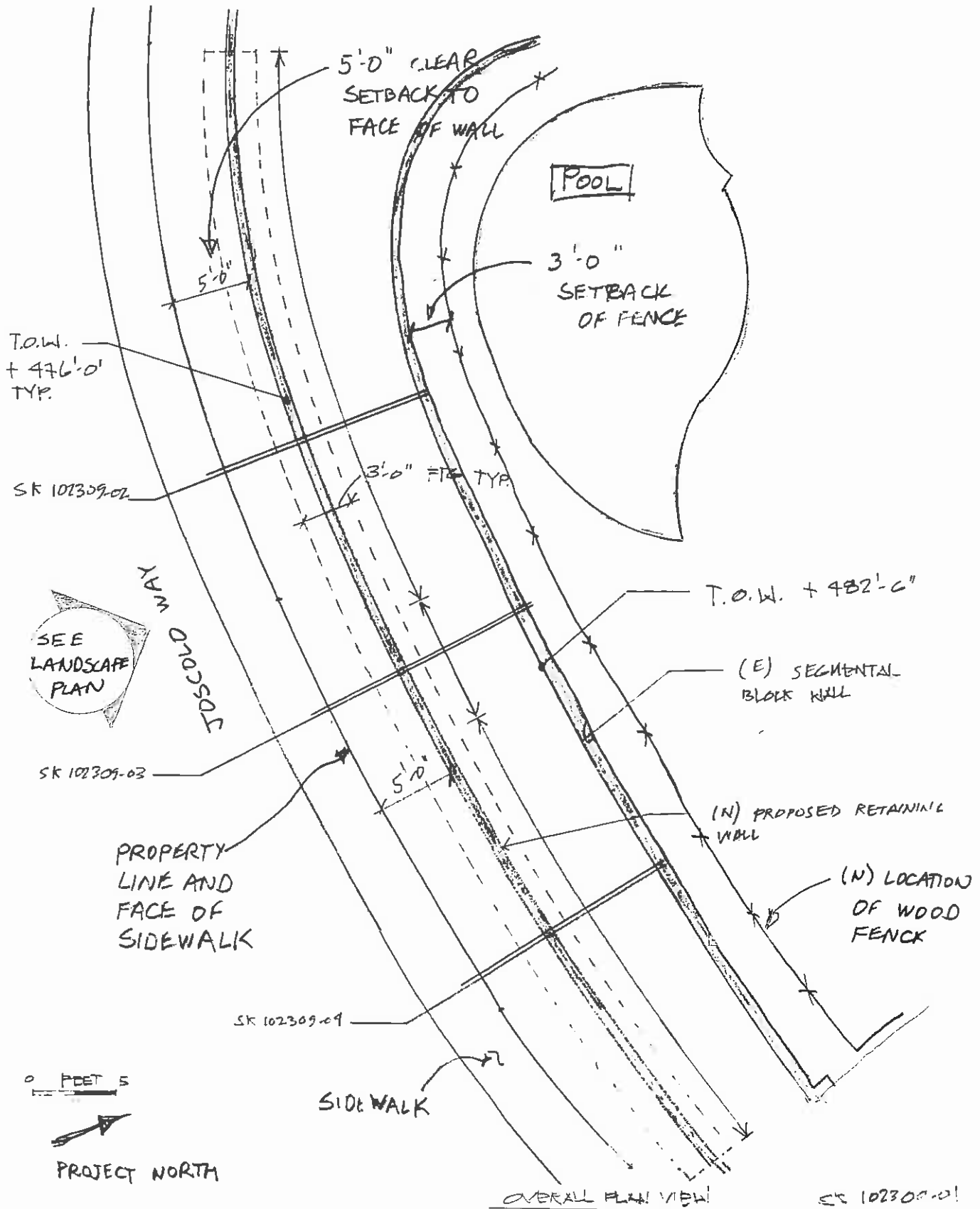


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1814 OHLONE
PROJECT HEIGHTS
DATE 1/10/10
DESIGNER EMR
PAGE 1 OF 4



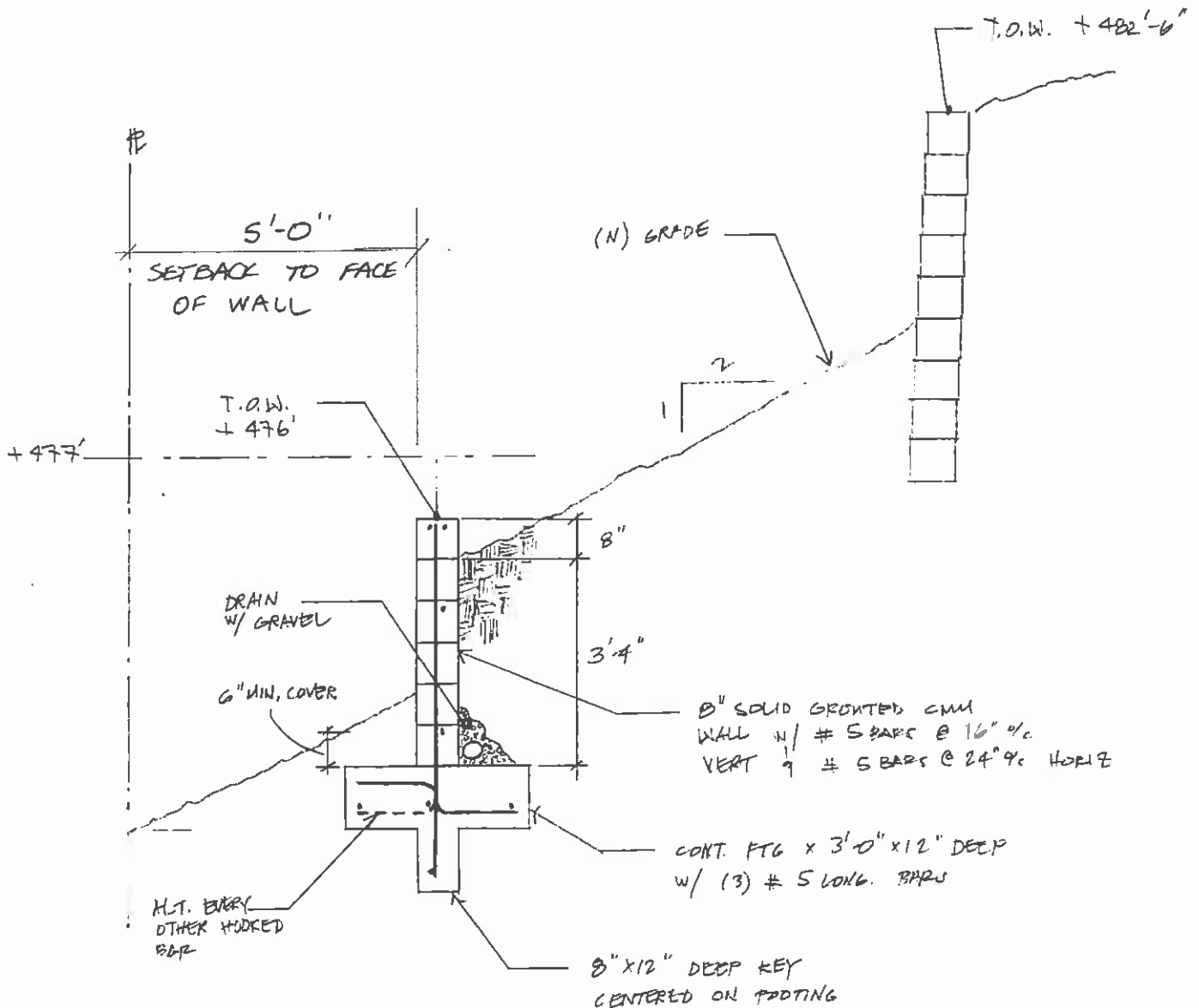


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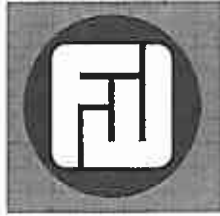
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PROJECT 1816 OHLONE HEIGHTS
DATE 1/10/10
DESIGNER EMR
PAGE 3 OF 4



SK 102309-03

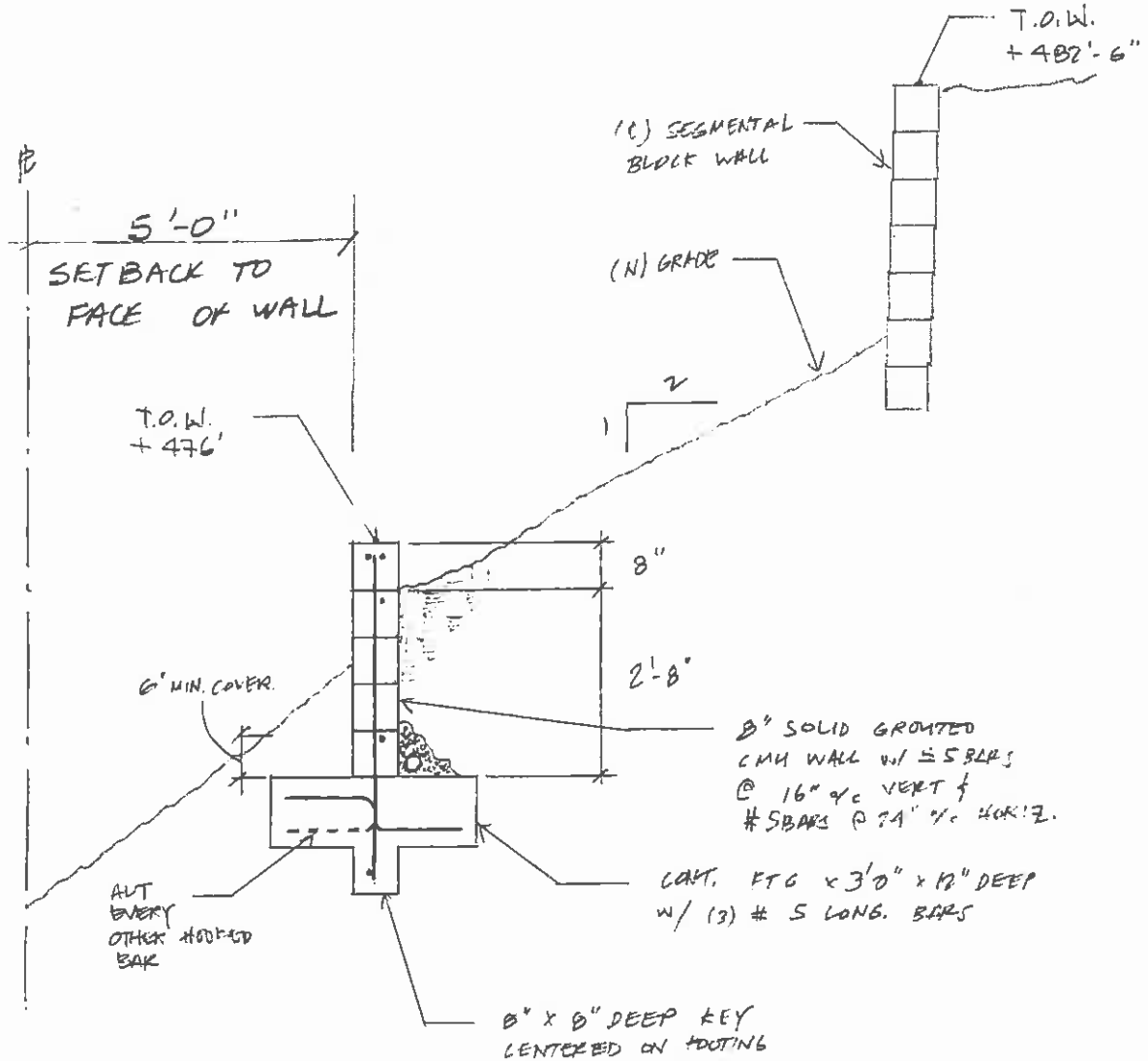


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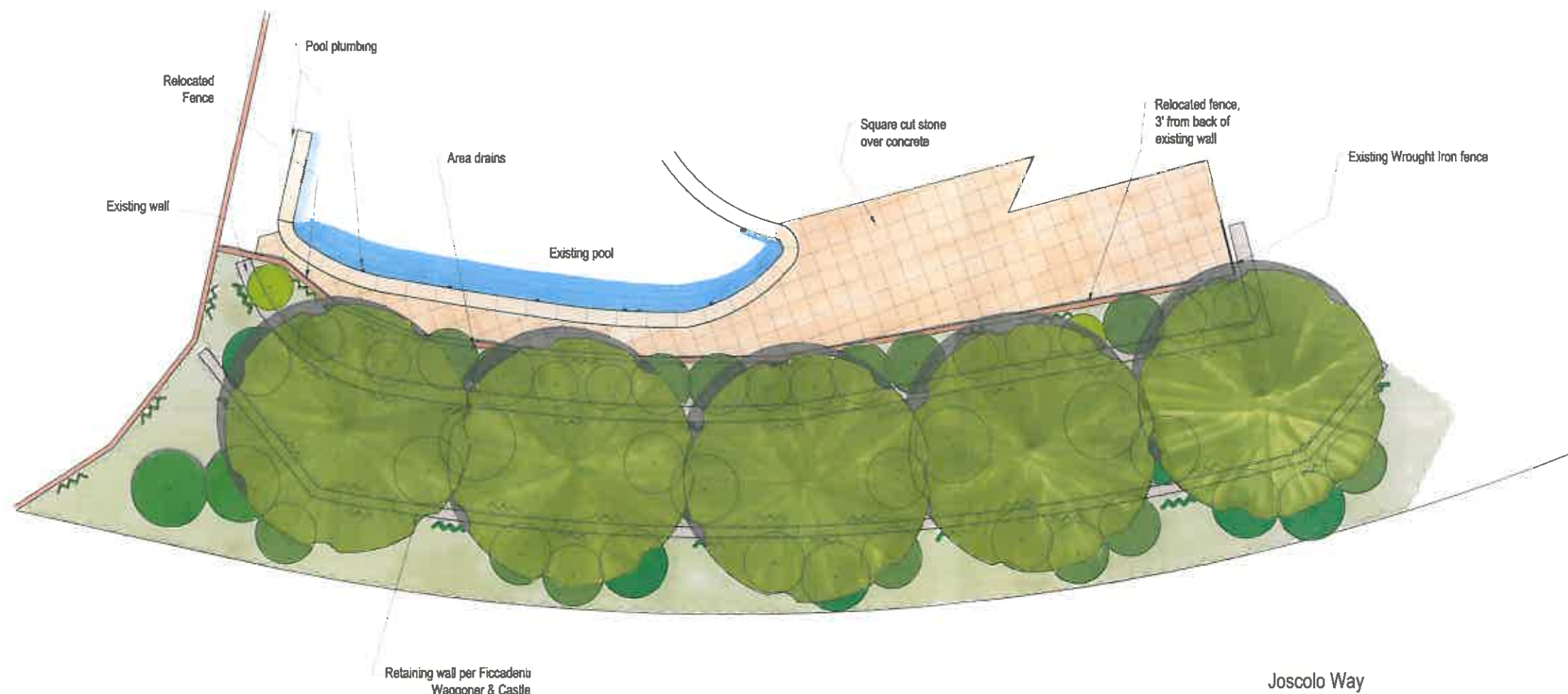
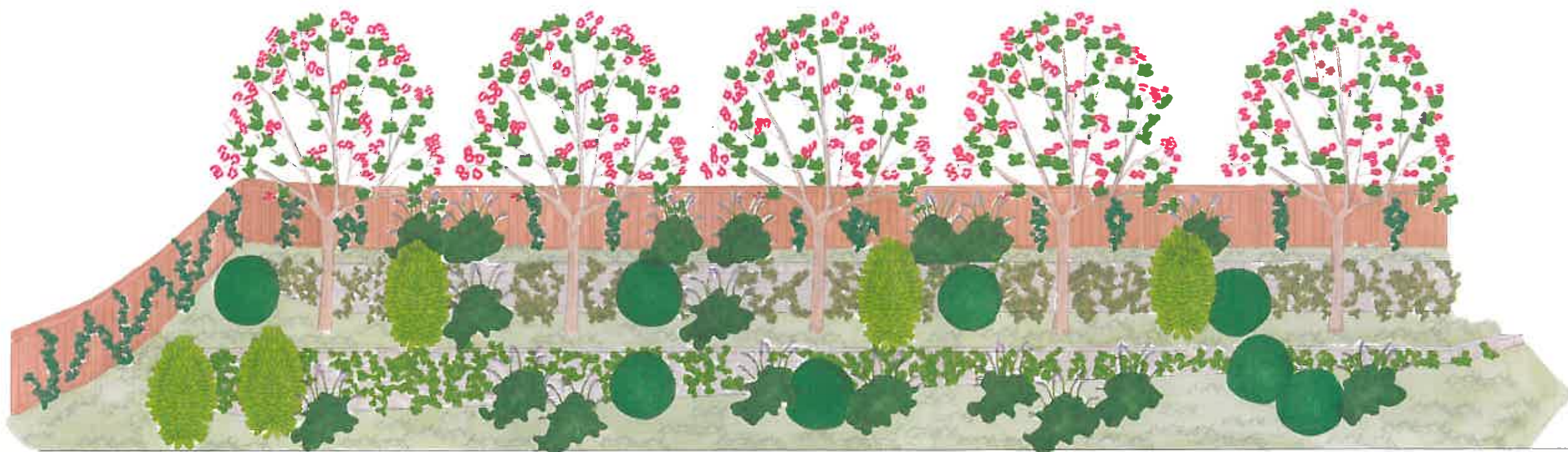
Tel: (925) 280-0098
Fax: (925) 280-0096

PROJECT 1216 OHLONE
WEIGHTS
DATE 1/10/10
DESIGNER EMS
PAGE 4 of 4



3'-4" RETAINING WALL

SK 107309-04



Suggested Plant List	
Botanical Name	Common Name
Trees and Vines	
Lagerstroemia hybrid, Sld.	Crape Myrtle Tree
Patada chinensis	Chinese Pistache Tree
Diospyros buxifolia	Red Trumpet Vine
Ficus pumila, Sld.	Creeping Fig
Hardenbergia violacea, Sld.	Lilac Vine
Parthenocissus tricuspidata, Sld.	Boston Ivy
Shrubs	
Abelia grandiflora 'Ed Geacher'	Glossy Abelia
Cistus ladanifer	Crimson Spot Rockrose
Leptospermum scoparium 'Ruby Glow'	New Zealand Tea Tree
Taenidia fruticosa	Bush Germander
Trachelospermum jasminoides	Star Jasmine
Ground Cover	
Arctostaphylos 'Emerald Carpet' 60" on center	Emerald Carpet Manzanita
Ruscus 'Huntington Carpet' 60" on center	Trailing Rosemary

Note:
Location of all site information shown including property lines, existing structures, grading, planting, topography changes, etc. is approximate. Contractor shall be responsible for verifying existing conditions in the field.

Stubblefield Landscape Inc.
110 Second Ave. So. Unit B-17
937-9920 Ca. Lic #344303

The Velazquez Residence
1816 Ohlone Heights
Clayton, CA

Preliminary
Landscape Plan

Date: 12-4-09 Drawn by: DLK
Scale: 1/8" = 1' Revisions:

Sheet
1
or
1



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January 11, 2010

Ramon Velasquez
1816 Ohlone Heights
Clayton, California 94517

Re: 1816 Ohlone Heights
Clayton, CA 94517
Retaining Wall Investigation

Dear Mr. Velasquez,

At your request we have investigated the segmental retaining wall constructed at the above residence. The wall is reported to have been constructed in 2007 along with the adjacent swimming pool. The retaining wall is located at the west side of the yard at the subject residence. It retains soil that surrounds the pool shell. The exposed face of the wall varies in height with a maximum of 7 feet. The length of the wall is approximately 60 feet and follows the eastern property line with a 12 foot setback. Plans are not available for the construction of the wall. It has been reported to us that the wall was constructed without the benefit of a permit.

The wall is constructed of stacked concrete blocks with gravel fill. A small excavation behind the wall revealed that geogrid reinforcing is present that ties the wall back into the retained soil. The extent of the geogrid and vertical spacing is unknown. A drain cleanout was observed at the top of the wall and drain outlets are visible at the bottom of the wall. The drain was tested by running water into the cleanout and it ran out the outlets freely. The outlets appear to be actively draining the back of the wall. It was also observed that clean gravel was used for the backfill of the wall in the areas observed. No settlement of the wall was observed, although this type of wall would not readily exhibit such movement should it be present. Some movement in the pool deck immediately behind the wall has exhibited itself. This movement would be consistent with the small amount of settlement associated with a backfilled retaining wall.

A geotechnical report was not prepared for the subject wall. California Building Code minimum values for soils parameters were used for evaluation of the existing wall and any new wall proposals.

We performed structural calculations on the existing wall and have determined that it is not in compliance with the 2007 California Building Code (CBC) structural requirements. We

investigated numerous ways to remedy the situation and bring the slope retaining structures into compliance with the CBC. The options and conclusions are listed below:

- 1) Remove existing wall and replace with code compliant wall at the same location. This option would involve significant earthwork and likely involve the demolition of the pool structure. Upon removal of the wall the pool would be in the zone of influence and could be damaged. The replacement of the wall would also involve a significant footing that would extend below the pool. The replaced wall would also not solve the concern of a higher than allowed retaining wall from a planning perspective. This option was not chosen.
- 2) Reinforcing the existing wall with a tie-back system. This would allow the existing wall to remain and be reinforced in place. This solution has limited viability due to the pool closely behind the wall. Any tie-back anchors installed might damage the pool shell. The wall itself might also require a concrete shell to span from anchor to anchor. This solution would also not solve the concern of a higher than allowed retaining wall from a planning perspective. This option was not chosen.
- 3) Add a secondary lower tiered retaining wall down slope. The lower wall will allow the slope to be regraded thus partially burying the existing wall so as to relieve its load and decrease its visual appearance. The lower wall can be installed with minimal earthwork and, in combination with the existing wall, will provide a system that is code compliant. It also allows the pool shell to remain in place. This solution appears to be the best alternative. We have provided preliminary sketches for this solution.

It is suggested that the secondary wall solution be presented to the planning department for preliminary approval prior to submission for plan check and ultimately permitting and construction. Should this solution not be acceptable, then one of the other solutions may be required and the earthwork and costs will be significantly higher and planning variances may also be required.

Our service has been performed, within the limits prescribed by you our client, in a manner consistent with that level of care and skill ordinarily exercised by other professional consultants under similar circumstances.

Should you have any questions regarding this letter report please do not hesitate to contact me. Thank you.

FICCADENTI & WAGGONER, INC.

A handwritten signature in cursive script that reads "Thomas A. Castle".

Thomas A. Castle, S.E.
Principal

Memorandum

To: Chair Armstrong and Planning Commissioners

From: David Woltering, Community Development Director 

Date: February 9, 2010

Subject: Agenda Item 4. Old Business – Draft Water Efficient Landscape Ordinance: Water Conservation in Landscaping Act of 2006 (Assembly Bill 1881, Laird) (ZOA 05-09)

At your November 10, and November 24, 2009 regular Planning Commission meetings there were discussions about the State mandate to implement landscape water conservation measures. A model ordinance prepared by the State Department of Water Resources (DWR) for this purpose was reviewed and determined to be quite complex and onerous. As mentioned at those meetings, staff will be working with a regional group to draft an alternative ordinance to the one prepared by DWR. I have attached background information as well as the administrative draft alternative ordinance I received this week from the working group. I would appreciate your comments on this administrative draft.

Exhibits:

- A Administrative Draft Water Efficient Landscape Ordinance, January 29, 2010
- B November 10, 2009 Memorandum to the Clayton Planning Commission

Administrative Draft Water Efficient Landscape Ordinance January 29, 2010

I. Title

This ORDINANCE shall be known as the [*insert name of Entity*] Water Efficient Landscape Ordinance.

II. Applicability

A. After [insert date of approval] the provisions of this Ordinance shall apply to all of the following landscape projects:

- i. All new construction and rehabilitated landscapes with irrigated landscape areas equal to or greater than 2,500 square feet requiring building or landscape permit, plan check or design review.
- ii. New and rehabilitated cemeteries requiring building or landscape permit, plan check or design review shall only be subject to the provisions of Section VI, A, ii "Landscape Water Efficient Check List, Plant Material", Section VIII Landscape Audit report, Section X "Landscape and Irrigation Maintenance Schedule and Section XII and;"
- iii. Existing landscapes, including existing cemeteries, shall only be subject to the provisions for existing landscapes provided for in Section XII "Provisions for Existing Landscapes."

B. The provisions of this Ordinance shall not apply to:

- i. Landscapes, or portions of landscapes, that are only irrigated for an establishment period;
- ii. Registered local, state or federal historical sites where landscaping establishes an historical landscape style, as determine by a public board or commission responsible for architectural review or historic preservation;
- iii. Community gardens or plant collections, as part of botanical gardens and arboretums open to the public.

III. Water Efficient Landscape Ordinance Requirements

- A. All owners of new construction and rehabilitated landscapes of applicable sizes shall: (1) complete the Landscape Project Application (Section V) and (2) comply with the Landscape and Irrigation Maintenance Schedule (Section X) requirements of this Ordinance.
- B. All owners of existing landscapes, even if installed before enactment of this Ordinance, shall: (1) comply with local agency programs that may be instituted relating to irrigation audits, surveys and water use analysis, and (2) shall maintain landscape irrigation facilities to prevent water waste and runoff.

IV. Compliance with Ordinance.

- A. The local agency shall:
 - i. Provide the project applicant with a copy of the Water Efficient Landscape Ordinance and Landscape Project Application requirements;
 - ii. Review the Landscape Project Application submitted by the project applicant;
 - iii. Approve or deny the project applicant's Landscape Project Application submittal;
 - iv. Issue or approve a permit, plan check or design review for projects that comply with the approved Landscape Project;
 - v. Submit a copy of the completed Landscape Project Checklist to the Contra Costa Water District (CCWD).
- B. The project applicant shall:
 - i. Prior to construction, submit all portions of the Landscape Project Application.

V. Components of the Landscape Project Application (LPA)

The Landscape Project Application shall include the following elements:

- A. Project Information Sheet (Attachment 1);
- B. Landscape Water Efficiency Checklist (Section VI); and
- C. Landscape Plans (Section VII).

VI. Landscape Water Efficient Checklist

The proposed landscape design shall include the following:

A. Plant Material

- i. No turf or other high water use plants shall be used in the design unless they are designated as a "Special Landscape Area". High water use plants are those designated as "high water use" per Water Use Classifications of Landscape Species (WUCOLS) report which is available at <http://www.water.ca.gov/wateruseefficiency/publications/> A Guide to Estimating...Part 2.

or

- ii. Develop a site-specific water budget where the Estimated Total Water Use (ETWU) of the landscape area does not exceed the Maximum Applied Water Allowance) MAWA. (attachment A)
 - a. Turf shall not be planted on slopes greater than 15%.
 - b. The use of invasive and/or noxious plant species is strongly discouraged.

B. Mulch

A minimum two-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas. The use of mulches that will stay in place during rain events such as shredded bark and rock is recommended in Bioretention Facilities.

C. Irrigation System

An irrigation system shall be designed and installed to meet all the requirements listed in this section and the manufacturers' recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance.

- i. Dedicated landscape water meters shall be required for landscaped areas greater than 2,500 square feet or per retail water supplier regulations.
- ii. Automatic irrigation controller(s) utilizing either evapotranspiration or soil moisture sensor data for irrigation scheduling shall be required on all irrigation systems.
- iii. Irrigation systems shall be designed, maintained, and managed to meet or exceed an average landscape irrigation efficiency of 71%.
- iv. The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions.

- v. Each irrigation valve's sprinkler heads or other emission devices shall have matched precipitation rates with a maximum precipitation rate of 1.2 inches per hour.
- vi. The irrigation system shall be designed so that the dynamic pressure at sprinkler heads or other emission devices is within manufacture's recommended operating range.
- vii. An irrigation system with an application rate of 0.75"/hr. or less is required on all areas with slopes of 25% or greater.
- viii. Planting areas less than 8'-0" wide shall be irrigated with drip or other low volume irrigation.
- ix. Manual shut-off valve shall be installed at each point of connection.
- x. Controller sheet including; irrigation schedule or settings appropriate to the irrigation controller(s), system static pressure and flow rates, precipitation rates and operating pressure per valve. One laminated copy, per controller, to the installer to be left in the controller(s).
- xi. Check valves shall be installed, where needed, to prevent low head drainage

D. Hydrozone

- i. Each valve shall irrigate a hydrozone with similar slope, sun exposure, soil conditions, and plant materials with the same water needs per WUCOLS classifications.
- ii. A hydrozone table shall be created for all irrigation stations (attachment C)

E. Water Features

- i. Re-circulating water systems will be used for water features.
- ii. If the total surface area of fountains and/or ponds exceeds 100 square feet a site-specific water budget will be calculated and the ETWU of the landscape area shall not exceed the MAWA. (attachment A)
- iii. Pool and spa covers are required.

F. Soil Amendments

Soil amendments, such as compost, shall be incorporated according to the soil conditions at the project site or per a soils report and based on what is appropriate for the selected plants.

VII. Landscape Plans

- A. The components of the Landscape and Irrigation Design Plan shall be prepared as follows:
 - i. The landscape design portion shall be prepared by, and bear the signature of any person authorized to design a landscape; and
 - ii. The irrigation design portion shall be prepared by, and bear the signature of any person authorized to design an irrigation system.
- B. The landscape design portion of the Landscape and Irrigation Design Plan, at a minimum, shall:
 - i. Delineate and label each hydrozone;
 - ii. Identify each hydrozone as very low, low, moderate, or high water per WUCOLS;
 - iii. Identify Special Landscape Areas;
 - iv. Identify type of mulch and application depth;
 - v. Identify type and surface area of water features;
 - vi. Identify hardscapes (pervious and non-pervious); and
 - vii. Contain the following statement: "I have complied with the criteria of the Water Efficient Landscape Ordinance and applied them for the efficient use of water in the landscape design plan."
- C. The irrigation design portion of the Landscape Plans, at a minimum, shall contain:
 - i. Location and size of separate water meters for landscape;
 - ii. Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices;
 - iii. Static water pressure at the point of connection to the public water supply;
 - iv. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;
 - v. Irrigation schedule/settings appropriate to the irrigation controller(s) designated on the plan;
 - vi. The following statement: "I have complied with the criteria of the Water Efficient Landscape Ordinance and applied them accordingly for the efficient use of water in the irrigation design plan."

D. Grading

If the Landscape Project will be graded, then the grading shall be designed to minimize soil erosion, runoff, and water waste. All grading should be conducted to:

- i. Comply with Storm Water Quality requirements (C.3) if applicable;
- ii. Maintain all irrigation and normal rainfall within property lines and avoid drainage on to non-permeable hardscapes;
- iii. Avoid disruption of natural drainage patterns and undisturbed soil; and
- iv. Avoid soil compaction in landscape areas.

VIII. Landscape Audit Report

- A. Applicant shall conduct a Landscape Water Audit upon completion of the landscaping. The Landscape Audit shall be performed by a certified landscape water auditor.
- B. The Landscape Auditor shall inform the applicant of all non-compliance issues with the Ordinance. This shall include but not limited to all items listed on the Auditor certification sheet.
- C. All non compliance issues shall be repaired and the site re-audited for compliance with the criteria of the Ordinance.

IX. Certifications

- A. The landscape designer shall complete the Landscape Design Checklist and Certification (Attachment C) certifying the landscape has been designed to comply with the criteria of the Ordinance.
- B. The irrigation designer shall complete the Irrigation Design Checklist and Certification (Attachment D) certifying the irrigation system has been designed to comply with the criteria of the Ordinance.
- C. The landscape contractor/ installer shall complete the Landscape and Irrigation Installation Checklist and Certification (Attachment E) the landscape and irrigation system has been installed as specified in the Landscape and Irrigation Design Plans and complies with the criteria of the Ordinance.
- D. The Landscape Auditor shall complete the Landscape Audit Certification and Checklist (Attachment F) certifying the landscape and irrigation system has been installed as specified in the Landscape Plans and complies with the criteria of the Ordinance.

X. Landscape and Irrigation Maintenance Schedule

Landscape shall be maintained to ensure water use efficiency. A yearly maintenance schedule shall be submitted with the Certification of Completion.

- A. A yearly maintenance schedule shall include, but not be limited to, routine inspection; adjustment and repair of the irrigation system and its components; aerating turf areas; replenishing mulch; seasonal pruning; weeding in all landscape areas, and removing obstructions to emission devices.
- B. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents.
- C. A Project applicant is encouraged to implement sustainable or environmentally-friendly practices for overall landscape maintenance.

XI. Stormwater Management

Implementing stormwater best management practices into the landscape and grading design plans to minimize runoff and to increase on-site retention and infiltration is encouraged. Comply with Storm Water Quality requirements (C.3) if applicable.

XII. Provisions for Existing Landscapes

This section shall apply to all existing landscapes that were installed before [*Ordinance adoption date*] and are over one acre in size.

- A. Irrigation Survey and Irrigation Water Use Analysis.
 - i. Owners shall ensure the efficient use of landscape water. CCWD provides services such as irrigation surveys and landscape water use analysis to assist owners in the efficient use of landscape water.
- B. Water Waste Prevention.

[*Agency*] shall prevent water waste resulting from inefficient landscape irrigation by prohibiting runoff from leaving the target landscape due to low head drainage, overspray, or other similar conditions where water flows onto adjacent property, walks, roadways, parking lots, or structures.

XIII. Public Education

- A. CCWD shall provide information to all building department applicants regarding the design, installation, management, and maintenance of water efficient landscapes.
- B. All model homes that are landscaped shall use signs and written information to demonstrate the principles of water efficient landscapes that are described in this Ordinance.

XIV. Severability

If any section, subsection, provision or part of this Ordinance, or its application to any person or circumstance, is held to be unconstitutional or otherwise invalid, the remainder of this Ordinance, and the application of such provision to other person or

circumstances, shall not be affected thereby and shall remain in full force and effect and, to that end, the provisions of this Ordinance are severable.

XV. Effective Date

This Ordinance shall become effective on _____, 2010. *[For Cities/Counties, 30 days after enactment]*

INTRODUCED at a regular meeting of the [City Council/Board of Directors/Board of Supervisors] held on _____, 2010.

PASSED AND ADOPTED at a regular meeting of the [City Council/Board of Directors/Board of Supervisors] of the [City of _____/District/County of _____] held on _____, 2010, by the following vote:

AYES:

NOES:

ABSENT:

[MAYOR/PRESIDENT OF THE BOARD]

ATTEST:

[CITY CLERK/BOARD SECRETARY]

Draft - For Discussion Purposes Only

Attachment A

Project information sheet to be inserted

Attachment B

Site Specific Water Budget

$$MAWA = (ET_o) (0.62) [(0.7 \times LA) + (0.3 \times SLA)]$$

Where:

MAWA = Maximum Applied Water Allowance (gallons per year)

ET_o = Reference Evapotranspiration (inches per year)

0.62 = Conversion Factor (to gallons)

0.7 = ET Adjustment Factor (ETAF)

LA = Landscape Area including SLA (square feet)

0.3 = Additional Water Allowance for SLA

SLA = Special Landscape Area (square feet)

$$ETWU = (ET_o)(0.62)\left(\frac{PF \times HA}{IE} + SLA\right)$$

Where:

ETWU = Estimated Total Water Use per year (gallons)

ET_o = Reference Evapotranspiration (inches)

PF = Plant Factor from WUCOLS (see Section 491)

HA = Hydrozone Area [high, medium, and low water use areas] (square feet)

SLA = Special Landscape Area (square feet)

0.62 = Conversion Factor

IE = Irrigation Efficiency (minimum 0.70)

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Attachment C

Hydrozone work sheet to be inserted here

Attachment D

Water Budget Work Sheet (example)

Appendix A

Maximum Applied Water Allowance

The following calculations will help you determine your site specific water budget and establish a planting mix that will allow you to meet your water budget. Your Estimated Total Water Use must be less than your Maximum Applied Water Allowance

1) Minimum Applied Water Allowance (MAWA)

$$MAWA = (ET_o) (0.62) [(0.6 \times LA) + (0.4 \times SLA)]$$

Where:

ET_o = Annual Net Reference Evapotranspiration (inches)

0.6 = ET Adjustment Factor

LA = Landscaped Area (square feet)

0.62 = Conversion factor (to gallons per square foot)

SLA = Portion of the landscape area identified as Special Landscape Area (square feet)

0.4 = the additional ET adjustment factor for Special Landscape Area (1.0 - 0.6 = 0.4)

A) Net Evapotranspiration Calculation

Annual ET_o

Annual Rainfall

x

25

=

Effective Rainfall

Net Evapotranspiration Calculation = Annual ET_o - Effective Rainfall =

B) Adjusted Landscape Area Calculation

Landscaped Area x 0.6 Adjustment Factor

Special Landscaped Area x 0.4 Adjustment Factor

Sum of Adjusted Landscape Area =

MAWA = x 0.62 x =

2) Estimated Total Water Use (ETWU)

A) Net Evapotranspiration Calculation

Net Evapotranspiration Calculation = Annual ET_o - Effective Rainfall =

B) Adjusted Landscape Area Calculation

Low water use plant soft x 0.3

Moderate water use plant soft x 0.6

High water use plant soft x 1.0

Sum of Adjusted Landscape Area =

ETWU = x 0.62 x =

Irrigation Efficiency Factor		
Percent of total landscape irrigated with Drip		
0-25%		0.71
26-50%		0.75
51-75%		0.80
76-100%		0.85

Attachment E

Landscape Water Efficient Checklist and Certification

Landscape Designer

- ☐ Landscape was designed with no turf or other high water use plants per Water Use Classification of Landscape Species (WUCOLS)
or
- ☐ Water Budget was developed for site where the ETWU of the landscape does not exceed the MAWA.
- ☐ No turf on slopes greater than 17% (1/6)
- ☐ Landscape includes 'Special Landscape Areas'
☐ Area in square feet _____
- ☐ Minimum of 2 inches of mulch specified for all exposed soil surfaces in planting areas.
- ☐ All water features have re-circulating water systems.
☐ Area in Square feet _____
- ☐ Water budget was developed for site with more than 100 square feet of surface area.
- ☐ Covers are specified for pools and spas.

The landscape has been designed to comply with the criteria of the Water Efficient Landscape Ordinance.

Print Name

Date

Signature

License/certificate (if applicable)

_____ Address

Telephone

e-mail

Attachment F

Landscape Water Efficient Checklist and Certification

Irrigation Designer

- ☐ Automatic irrigation controller(s) installed utilizing:
 - ☐ Smart or Central Control technology
 - ☐ Soil moisture sensors
 - ☐ Evapotranspiration data and hydrozone information
- ☐ Irrigation schedule/programming data included in irrigation plans.
- ☐ System was designed to:
 - ☐ Prevent run-off
 - ☐ Low head drainage
 - ☐ Overspray
- ☐ Low application rate (.75"/hr.) was used on all slopes of 25% or greater.
- ☐ Average irrigation efficiency for the site is 71% or greater.
- ☐ Each irrigation valve irrigates a hydrozone with similar slope, sun exposure, soil conditions and plant water needs per Water Use Classification of Landscape Species (WUCOLS) classifications.
- ☐ Sprinkler heads and other emission devices were selected based on what is appropriate for the plant type within each hydrozone.

The irrigation system has been designed to comply with the criteria of the Water Efficient Landscape Ordinance.

Print Name

Date

Signature

Certificate (if applicable)

Address

Telephone

e-mail

Draft - For Discussion Purposes Only

Attachment G

Landscape Water Efficient Checklist and Certification

Landscape Contractor or Self Installer

☐ (check list to be inserted)

The landscape and irrigation system have been installed as specified in the landscape and Irrigation Design Plans and complies with the criteria of the Ordinance.

Print Name

Date

Signature

License (if applicable)

Address

Telephone

e-mail

Draft - For Discussion Purposes Only

Attachment H

Landscape Water Efficient Checklist and Certification

Auditor

 (check list to be inserted)

I have audited the project and found that the landscape and irrigation system have been installed as specified in the landscape plans and complies with the criteria of the Ordinance.

Print Name

Date

Signature

Certificate

Address

Telephone

e-mail

Attachment I

Definitions for Water Efficient Landscape Ordinance

- A. "applied water" means the portion of water supplied by the irrigation system to the landscape.
- B. "automatic irrigation controller" means an automatic timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.
- C. "backflow prevention device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.
- D. "certified irrigation designer" means a person certified to design irrigation systems by an accredited academic institution a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer program.
- E. "certified landscape irrigation auditor" means a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.
- F. "certified professional" means a certified irrigation designer, a certified landscape irrigation auditor, a licensed landscape architect or a licensed landscape contractor, or any other person authorized to design a landscape.
- G. "conversion factor (0.62)" means the number that converts acre-inches per acre per year to gallons per square foot per year
- H. "drip irrigation" means any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.
- I. "ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.
- J. "effective precipitation" or "usable rainfall" (Eppt) means the portion of total precipitation which becomes available for plant growth.
- K. "establishment period" means the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth.
- L. "Estimated Total Water Use" (ETWU) means the total water used for the landscape as described in Section VIII "Water Budget Calculations."

- M. "ET adjustment factor" (ETAF) means a factor of 0.7, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. ETAF for a Special Landscape Area shall not exceed 1.0. ETAF for existing non-rehabilitated landscapes is 0.8.
- N. "evapotranspiration rate" means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.
- O. "flow rate" means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.
- P. "hardscapes" means any durable material (pervious and non-pervious).
- Q. "hydrozone" means a portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.
- R. "invasive plant species" means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. "Noxious weeds" means any weed designated by the Weed Control Regulations in the Weed Control Act and identified on a Regional District noxious weed control list. Lists of invasive plants are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.
- S. "irrigation audit" means an in-depth evaluation of the performance of an irrigation system. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule.
- T. "irrigation efficiency" (IE) means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum average irrigation efficiency for purposes of this Ordinance is 70%. Greater irrigation efficiency can be expected from well-designed and maintained systems.
- U. "irrigation survey" means an evaluation of an irrigation system that is less detailed than an irrigation audit. An irrigation survey includes, but is not limited to: inspection, system test, and written recommendations to improve performance of the irrigation system.
- V. "irrigation water use analysis" means an analysis of water use data based on meter readings and billing data.
- W. "landscape architect" means a person who holds a license to practice landscape architecture in California as further defined by the California Business and Professions Code, Section 5615.
- X. "landscape area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance

calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

- Y. "landscape contractor" means a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.
- Z. "landscape project" means the total area comprising the landscape area, as defined in this Ordinance.
- AA. "lateral line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.
- BB. "local agency" means a city or county, including a charter city or charter county, or water district that is responsible for adopting and implementing this Ordinance. The local agency is also responsible for the enforcement of this Ordinance, including but not limited to, in the case of a city or county, approval of a permit and plan check or design review of a project; and in the case of a district, approval of a new or expanded water service application.
- CC. "local water purveyor" means any entity, including a public agency, city, county, district or private water company that provides retail water service.
- DD. "low volume irrigation" means the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers.
- EE. "Maximum Applied Water Allowance" (MAWA) means the upper limit of annual applied water for the established landscaped area as specified in Section VIII "Water Budget Calculations."
- FF. "mined-land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.
- GG. "mulch" means any organic material such as leaves, bark, straw, compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.
- HH. "new construction" means the construction of a new building or structure containing a landscape or other new land improvement, such as a park, playground, or greenbelt without an associated building.
- II. "operating pressure" means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.
- JJ. "overhead sprinkler irrigation systems" means systems that deliver water through the air (e.g., spray heads and rotors).

- KK. "overspray" means the irrigation water which is delivered beyond the target area.
- LL. "permit" means an authorizing document issued by local agencies for new construction or rehabilitated landscapes.
- MM. "pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.
- NN. "plant factor" or "plant water use factor" is a factor , when multiplied by ETo, estimates the amount of water needed by plants.
- OO. "precipitation rate" means the rate of application of water measured in inches per hour.
- PP. "project applicant" means the individual or entity submitting a Project Landscape Application required under Section VI, to request a permit, plan check, or design review from the local agency or requesting new or expanded water service from the water district. A project applicant may be the property owner or his or her designee.
- QQ. "rain sensor" or "rain sensing shutoff device" means a component which automatically suspends an irrigation event when it rains.
- RR. "recreational area" means areas dedicated to active play such as parks, sports fields, and golf courses where turf provides a playing surface.
- SS. "reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants.
- TT. "rehabilitated landscape" means any re-landscaping project that requires a permit, plan check, design review, or requires a new or expanded water service application.
- UU. "runoff" means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area.
- VV. "soil moisture sensing device" or "soil moisture sensor" means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.
- WW. "Special Landscape Area" (SLA) means an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.
- XX. "sprinkler head" means a device which delivers water through a nozzle.
- YY. "station" means an area served by one valve or by a set of valves that operate simultaneously.
- ZZ. "turf" means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass are warm-season grasses.

- AAA. "valve" means a device used to control the flow of water in the irrigation system.
- BBB. "water feature" means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied).
- CCC. "WUCOLS" means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation, 2000.

Memorandum

To: Chair Armstrong and Planning Commissioners

From: David Woltering, Community Development Director

Date: November 10, 2009

Subject: Study Session - Implementation of the Water Conservation in Landscaping Act of 2006 (Assembly Bill 1881, Laird) (ZOA 05-09)

The purpose of this study session agenda item is to initiate the process of preparing and then sending forward to the City Council an ordinance amendment to implement the Water Conservation in Landscaping Act of 2006 (Assembly Bill 1881, Laird). Staff members from the Contra Costa Water District and various local cities, including Clayton, and the County will be meeting in the near future to work toward a common ordinance to implement this provision of State law.

Presently, the City of Clayton has "Water Conserving Landscape Guidelines" contained in Chapter 17.80 of the Clayton Municipal Code (see Attachment 1). The Department of Water Resources (DWR) sent out a model ordinance (see Attachment 2) for local jurisdictions to consider when drafting implementing ordinances. Local agencies are to adopt their implementing ordinances by January 1, 2010. In the circumstance that local agencies do not adopt their own ordinances, the DWR Model Water Efficient Landscape Ordinance becomes the default ordinance.

At the study session on this matter, staff will provide an overview of the City's current water conservation guidelines and the provisions of the DWR model ordinance. Commissioners are requested to provide feedback that can be used when staff meets with other local representatives on this matter and for preparing a draft implementing ordinance to bring back for formal consideration and processing.

Attachments:

1. City of Clayton Municipal Code Chapter 17.80 Water Conserving Landscape Guidelines
2. Model Water Efficient Landscape Ordinance from the State Department of Water Resources

CHAPTER 17.80

WATER CONSERVING LANDSCAPE GUIDELINES

Sections:

17.80.010	Purpose
17.80.020	Applicability
17.80.030	Definitions
17.80.040	Landscape Plans
17.80.050	Review Fee
17.80.060	Plant Selection
17.80.070	Turf Selection and Limitations
17.80.080	Mulching
17.90.090	Irrigation
17.80.100	Administration

17.80.010 Purpose. The purpose of these Water Conserving Landscape Guidelines (hereafter, "Landscape Guidelines") is to promote efficient water use through proper landscape design and management.

17.80.020 Applicability.

A. Notwithstanding the exceptions listed in C. below, the Landscape Guidelines are applicable to the following:

1. All new and rehabilitated landscaping for public and private development projects including but not limited to commercial, office and recreational projects;
2. Developer installed landscaping for single-family and multi-family homes and model homes; and
3. If a residential development has a common area or areas, the landscaping of these areas are subject to these Landscape Guidelines.

B. In residential development projects subject to Planned Unit Development review and Tentative Map review (major subdivisions only) the following shall apply:

1. The owner/developer shall provide each buyer with sample landscape plans that have been reviewed and approved by the City in conformance with this Ordinance; and
2. The owner/developer shall distribute to each buyer outdoor water conservation information which is subject to City approval.

C. The Landscape Guidelines shall not apply to:

1. Homeowner provided landscaping in single-family and multi-family projects;
2. Any projects with a landscaped area less than 500 square feet.

17.80.030 Definitions.

- A. Drought tolerant - Those plants, identified as drought tolerant within the:
1. Oakhurst Landscape Matrix;
 2. "Water Conserving Plants and Landscapes for the Bay Area" published by the East Bay Municipal Utility District; or
 3. Other acceptable documentation (e.g. Sunset Western Garden Book).
- B. Landscape Area - net useable land less the square footage devoted to the building pad, driveways, parking areas and trash enclosures.
- C. Turf - land that is covered by lawn or grass

17.80.040 Landscape Plans. Landscape plans shall be submitted for City review and shall be certified as being in compliance with this Ordinance by a licensed landscape contractor, architect or other landscape professional whose qualifications have been accepted by the City of Clayton. Landscape plans shall:

- A. Show the total landscape area and indicate square footage;
- B. Identify by type and size all plant materials;
- C. Show the area and percentage of drought tolerant planting and the area and percentage of non-drought tolerant planting;
- D. Estimate the length of the plant establishment period;
- E. Develop a monthly irrigation schedule for the plant establishment period and a monthly irrigation schedule after the plants are established.
- F. Show the name, address, telephone number and license number (if applicable) of the preparer of the plans;
- G. Include the precipitation rate(s) for each valve circuit;
- H. Estimate the annual water use in gallons; and
- I. A soil test shall be done (with a copy of the test report being submitted) and the soil labs recommendations shall be incorporated into the plans.

17.80.050 Review Fee. At the time of filing the landscape plans and other required data for review by the City, applicants shall pay to the City a landscape plan review fee in such amount as may be fixed from time to time by resolution of the City Council.

17.80.060 Plan Selection. At least 90% of the plants selected in non-turf areas shall be well-suited to the climate of the region and require minimal water once established. Up to 10% of the plants may be of a non-drought tolerant variety as long as they are grouped together and irrigated separately from drought tolerant plans.

17.80.070 Turf Selection and Limitations.

A. The combined turf and/or water area (i.e., pools, ponds and fountains) shall be limited to 25% of landscaped area (30% if the water areas are covered). The turf limitation is excluded for public parks, golf courses, cemeteries, school recreation areas, homeowner recreation areas and similar group recreation areas.

B. No turf shall be allowed:

1. In median strips
2. In areas less than eight (8) feet wide.

17.80.080 Mulching. A minimum of 2 inches of mulch shall be added in non-turf areas to the soil surface after planting. Non-porous material shall not be placed under the mulch. Any material placed under the mulch shall be identified in the landscape plan.

17.80.090 Irrigation.

A. Sprinklers and sprays shall not be used in areas less than eight (8) feet wide. Drip and bubbler shall be used that do not exceed 1.0 gallons per minute per device.

B. Sprinkler heads with a precipitation rate of .85" per hour or less shall be used on slopes exceeding 15% to minimize runoff, or exceeding 10% within 10 feet of hardscape.

C. Valves and circuits shall be separated based on water use.

D. Drip or bubbler irrigation systems are required for trees that cannot be sustained by ground or rain water.

E. Sprinkler heads must have matched precipitation rates within each control valve circuit.

F. Serviceable check valves are required where elevation differential may cause low head drainage.

G. Sprinkler head spacing shall be designed for head-to-head coverage. The system should be designed for minimum runoff and overspray onto non-irrigated areas.

H. All irrigation systems shall be equipped with a controller capable of dual or

multiple programming. Controllers must have multiple cycle start capacity and a flexible calendar program.

17.80.100 Administration

A. The Landscape Guidelines shall be administered and enforced by the Planning Director or designee. Landscape plans shall be reviewed for conformance with these Landscape Guidelines by the Planning Director or designee and a determination shall be rendered within 30 days of the plans being accepted as complete.

B. The determination of the Planning Director is appealable to the Planning Commission within 10 days after it has been rendered. Any appeal shall be made by filing a written notice of appeal with the Planning Director specifying the grounds for the appeal along with an appeal fee in such amount as may be fixed from time to time by resolution of the City Council. Determinations of the Planning Commission are appealable to the City Council in accordance with Section 17.68.030 of the Clayton Municipal Code.

C. The Landscape Guidelines shall be enforced in accordance with Chapter 17.72 of the Clayton Municipal Code. (Ord. 289, 1991).



The Updated Model Water Efficient Landscape Ordinance

CALIFORNIA DEPARTMENT OF WATER RESOURCES

Landscapes are essential to the quality of life in California. They provide areas for recreation, enhance the environment, clean the air and water, prevent erosion, offer fire protection and replace ecosystems lost to development.

California's economic prosperity and environmental quality are dependant on an adequate supply of water for beneficial uses. In California, about half of the urban water used is for landscape irrigation. Ensuring **efficient landscapes** in new developments and reducing water waste in existing landscapes are the most cost-effective ways to stretch our limited water supplies and ensure that we continue to have sufficient water for California to prosper.

The Water Conservation in Landscaping Act of 2006 (Assembly Bill 1881, Laird) requires cities, counties, and charter cities and charter counties, to adopt landscape water conservation ordinances by January 1, 2010. Pursuant to this law, the Department of Water Resources (DWR) has prepared a Model Water Efficient Landscape Ordinance (Model Ordinance) for use by local agencies. The Model Ordinance was approved by the Office of Administrative Law on September 10, 2009. The Model Ordinance became effective on September 11, 2009.

All local agencies must adopt a water efficient landscape ordinance by **January 1, 2010**. The local agencies may adopt the state Model Ordinance or craft an ordinance to fit local conditions. In addition, several local agencies may collaborate and craft a region-wide ordinance. In any case, the adopted ordinance must be as effective as the Model Ordinance in regard to water conservation.

For more information, please visit our web site at:
<http://www.water.ca.gov/wateruseefficiency/landscapeordinance/>

DWR/October 2009

Important points to consider...



Water purveyors have an important role.

The enabling statute was directed to local agencies that make land use decisions and approve land development. Active participation by water purveyors can make the implementation, enforcement and follow-up actions of an ordinance more effective.

Most new and rehabilitated landscapes are subject to a water efficient landscape ordinance. Public landscapes and private development projects including developer installed single family and multi-family residential landscapes with at least 2500 sq. ft. of landscape area are subject to the Model Ordinance.

Homeowner provided landscaping at single family and multi-family homes are subject to the Model Ordinance if the landscape area is at least 5000 sq. ft.

Existing landscapes are also subject to the Model Ordinance.

Water waste is common in landscapes that are poorly designed or not well maintained. Water waste (from runoff, overspray, low head drainage, leaks and excessive amounts of applied irrigation water in landscapes is prohibited by Section 2, Article X of the California Constitution.

Any landscape installed prior to January 1, 2010, that is at least one acre in size may be subject to Irrigation audits, irrigation surveys or water use analysis programs for evaluating irrigation system performance and adherence to the Maximum Applied Water Allowance as defined in the 1992 Model Ordinance with an Evapotranspiration Adjustment Factor (ETAF) of 0.8. Local agencies and water purveyors (designated by the local agency) may institute these or other programs to increase efficiency in existing landscapes.

All new landscapes will be assigned a water budget.

The water budget approach is a provision in the statute that ensures a landscape is allowed sufficient water. There are two water budgets in the Model Ordinance; the Maximum Applied Water Allowance (MAWA) and the Estimated Total Water Use (ETWU).

The MAWA, is the water budget used for compliance and is an annual water allowance based on landscape area, local evapotranspiration and ETAF of 0.7. The ETWU is an annual water use estimation for design purposes and is based on the water needs of the plants actually chosen for a given landscape. The ETWU may not exceed the MAWA.

Water efficient landscapes offer multiple benefits.

Water efficient landscapes will stretch our limited water supplies. Other benefits include reduced irrigation runoff, reduced pollution of waterways, less property damage, less green waste, increased drought resistance and a smaller carbon footprint.

The Department of Water Resources will offer technical assistance.

The Department plans to offer a series of workshops, publications and other assistance for successful adoption and implementation of the Model Ordinance or local water efficient landscape ordinances. Information regarding these resources may be found on the DWR website: <http://www.water.ca.gov/wateruseefficiency/landscapeordinance/>. Questions on the Model Ordinance may be sent by e-mail to DWR staff at: roweb@water.ca.gov.

**Model Water Efficient Landscape Ordinance
September 10, 2009**

California Code of Regulations
Title 23. Waters
Division 2. Department of Water Resources
Chapter 2.7. Model Water Efficient Landscape Ordinance

§ 490. Purpose.

(a) The State Legislature has found:

- (1) that the waters of the state are of limited supply and are subject to ever increasing demands;
- (2) that the continuation of California's economic prosperity is dependent on the availability of adequate supplies of water for future uses;
- (3) that it is the policy of the State to promote the conservation and efficient use of water and to prevent the waste of this valuable resource;
- (4) that landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development; and
- (5) that landscape design, installation, maintenance and management can and should be water efficient; and
- (6) that Section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served and the right does not and shall not extend to waste or unreasonable method of use.

(b) Consistent with these legislative findings, the purpose of this model ordinance is to:

- (1) promote the values and benefits of landscapes while recognizing the need to invest water and other resources as efficiently as possible;
- (2) establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects;
- (3) establish provisions for water management practices and water waste prevention for existing landscapes;
- (4) use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount;
- (5) promote the benefits of consistent landscape ordinances with neighboring local and regional agencies;
- (6) encourage local agencies and water purveyors to use economic incentives that promote the efficient use of water, such as implementing a tiered-rate structure; and
- (7) encourage local agencies to designate the necessary authority that implements and enforces the provisions of the Model Water Efficient Landscape Ordinance or its local landscape ordinance.

Note: Authority cited: Section 65593, Government Code. Reference: Sections 65591, 65593, 65596, Government Code.

§ 490.1 Applicability

(a) After January 1, 2010, this ordinance shall apply to all of the following landscape projects:

- (1) new construction and rehabilitated landscapes for public agency projects and private development projects with a landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review;
- (2) new construction and rehabilitated landscapes which are developer-installed in single-family and multi-family projects with a landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check, or design review;

- (3) new construction landscapes which are homeowner-provided and/or homeowner-hired in single-family and multi-family residential projects with a total project landscape area equal to or greater than 5,000 square feet requiring a building or landscape permit, plan check or design review;
 - (4) existing landscapes limited to Sections 493, 493.1 and 493.2; and
 - (5) cemeteries. Recognizing the special landscape management needs of cemeteries, new and rehabilitated cemeteries are limited to Sections 492.4, 492.11 and 492.12; and existing cemeteries are limited to Sections 493, 493.1 and 493.2.
- (b) This ordinance does not apply to:
- (1) registered local, state or federal historical sites;
 - (2) ecological restoration projects that do not require a permanent irrigation system;
 - (3) mined-land reclamation projects that do not require a permanent irrigation system; or
 - (4) plant collections, as part of botanical gardens and arboreturns open to the public.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 491. Definitions.

The terms used in this ordinance have the meaning set forth below:

- (a) "applied water" means the portion of water supplied by the irrigation system to the landscape.
- (b) "automatic irrigation controller" means an automatic timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.
- (c) "backflow prevention device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.
- "Certificate of Completion" means the document required under Section 492.9.
- "certified irrigation designer" means a person certified to design irrigation systems by an accredited academic institution a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer program.
- (f) "certified landscape irrigation auditor" means a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.
- (g) "check valve" or "anti-drain valve" means a valve located under a sprinkler head, or other location in the irrigation system, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.
- (h) "common interest developments" means community apartment projects, condominium projects, planned developments, and stock cooperatives per Civil Code Section 1351.
- (i) "conversion factor (0.62)" means the number that converts acre-inches per acre per year to gallons per square foot per year
- (j) "drip irrigation" means any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.
- (k) "ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.
- (l) "effective precipitation" or "usable rainfall" (Eppt) means the portion of total precipitation which becomes available for plant growth.
- "emitter" means a drip irrigation emission device that delivers water slowly from the system to the soil.
- (n) "established landscape" means the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

- (o) "establishment period of the plants" means the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth.
- (p) "Estimated Total Water Use" (ETWU) means the total water used for the landscape as described in Section 492.4.
- (q) "ET adjustment factor" (ETAF) means a factor of 0.7, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.
A combined plant mix with a site-wide average of 0.5 is the basis of the plant factor portion of this calculation. For purposes of the ETAF, the average irrigation efficiency is 0.71. Therefore, the ET Adjustment Factor is $(0.7) = (0.5/0.71)$. ETAF for a Special Landscape Area shall not exceed 1.0. ETAF for existing non-rehabilitated landscapes is 0.8.
- (r) "evapotranspiration rate" means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.
- (s) "flow rate" means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.
- (t) "hardscapes" means any durable material (pervious and non-pervious).
- (u) "homeowner-provided landscaping" means any landscaping either installed by a private individual for a single family residence or installed by a licensed contractor hired by a homeowner. A homeowner, for purposes of this ordinance, is a person who occupies the dwelling he or she owns. This excludes speculative homes, which are not owner-occupied dwellings.
- (v) "hydrozone" means a portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.
- (w) "infiltration rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).
- (x) "invasive plant species" means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. Invasive species may be regulated by county agricultural agencies as noxious species. "Noxious weeds" means any weed designated by the Weed Control Regulations in the Weed Control Act and identified on a Regional District noxious weed control list. Lists of invasive plants are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.
- (y) "irrigation audit" means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule.
- (z) "irrigation efficiency" (IE) means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum average irrigation efficiency for purposes of this ordinance is 0.71. Greater irrigation efficiency can be expected from well designed and maintained systems.
- (aa) "irrigation survey" means an evaluation of an irrigation system that is less detailed than an irrigation audit. An irrigation survey includes, but is not limited to: inspection, system test, and written recommendations to improve performance of the irrigation system.
- (bb) "irrigation water use analysis" means an analysis of water use data based on meter readings and billing data.
- (cc) "landscape architect" means a person who holds a license to practice landscape architecture in the state of California Business and Professions Code, Section 5615.
- (dd) "landscape area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or

- one walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).
- (ee) "landscape contractor" means a person licensed by the state of California to construct, maintain, repair, install, or subcontract the development of landscape systems.
- (ff) "Landscape Documentation Package" means the documents required under Section 492.3.
- (gg) "landscape project" means total area of landscape in a project as defined in "landscape area" for the purposes of this ordinance, meeting requirements under Section 490.1.
- (hh) "lateral line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.
- (ii) "local agency" means a city or county, including a charter city or charter county, that is responsible for adopting and implementing the ordinance. The local agency is also responsible for the enforcement of this ordinance, including but not limited to, approval of a permit and plan check or design review of a project.
- (jj) "local water purveyor" means any entity, including a public agency, city, county, or private water company that provides retail water service.
- (kk) "low volume irrigation" means the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.
- (ll) "main line" means the pressurized pipeline that delivers water from the water source to the valve or outlet.
- (mm) "Maximum Applied Water Allowance" (MAWA) means the upper limit of annual applied water for the established landscaped area as specified in Section 492.4. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscape area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with recycled water are subject to the MAWA with an ETAF not to exceed 1.0.
- (nn) "microclimate" means the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.
- (oo) "mined-land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.
- (pp) "mulch" means any organic material such as leaves, bark, straw, compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.
- (qq) "new construction" means, for the purposes of this ordinance, a new building with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building.
- (rr) "operating pressure" means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.
- (ss) "overhead sprinkler irrigation systems" means systems that deliver water through the air (e.g., spray heads and rotors).
- (tt) "overspray" means the irrigation water which is delivered beyond the target area.
- (uu) "permit" means an authorizing document issued by local agencies for new construction or rehabilitated landscapes.
- "pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.
- (ww) "plant factor" or "plant water use factor" is a factor, when multiplied by ETo, estimates the amount of water needed by plants. For purposes of this ordinance, the plant factor range for low water

use plants is 0 to 0.3, the plant factor range for moderate water use plants is 0.4 to 0.6, and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors cited in this ordinance are derived from the Department of Water Resources 2000 publication "Water Use Classification of Landscape Species".

(xx) "precipitation rate" means the rate of application of water measured in inches per hour.

(yy) "project applicant" means the individual or entity submitting a Landscape Documentation Package required under Section 492.3, to request a permit, plan check, or design review from the local agency. A project applicant may be the property owner or his or her designee.

(zz) "rain sensor" or "rain sensing shutoff device" means a component which automatically suspends an irrigation event when it rains.

(aaa) "record drawing" or "as-builts" means a set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

(bbb) "recreational area" means areas dedicated to active play such as parks, sports fields, and golf courses where turf provides a playing surface.

(ccc) "recycled water", "reclaimed water", or "treated sewage effluent water" means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.

(ddd) "reference evapotranspiration" or "ET_o" means a standard measurement of environmental parameters which affect the water use of plants. ET_o is expressed in inches per day, month, or year as represented in Section 495.1, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.

(eee) "rehabilitated landscape" means any re-landscaping project that requires a permit, plan check, or design review, meets the requirements of Section 490.1, and the modified landscape area is equal to or greater than 2,500 square feet, is 50% of the total landscape area, and the modifications are completed within one year.

(fff) "runoff" means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

(ggg) "soil moisture sensing device" or "soil moisture sensor" means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.

(hhh) "soil texture" means the classification of soil based on its percentage of sand, silt, and clay.

(iii) "Special Landscape Area" (SLA) means an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.

(jjj) "sprinkler head" means a device which delivers water through a nozzle.

(kkk) "static water pressure" means the pipeline or municipal water supply pressure when water is not flowing.

(lll) "station" means an area served by one valve or by a set of valves that operate simultaneously.

(mmm) "swing joint" means an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.

(nnn) "turf" means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are warm-season grasses.

(ooo) "valve" means a device used to control the flow of water in the irrigation system.

(ppp) "water conserving plant species" means a plant species identified as having a low plant factor.

(qqq) "water feature" means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and

imming pools (where water is artificially supplied). The surface area of water features is included in the high water use hydrozone of the landscape area. Constructed wetlands used for on-site wastewater treatment or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not water features and, therefore, are not subject to the water budget calculation.

(rrr) "watering window" means the time of day irrigation is allowed.

(sss) "WUCOLS" means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation, 2000.

Note: Authority Cited: Section 65595, Government Code. Reference: Sections 65592, 65596, Government Code.

§ 492. Provisions for New Construction or Rehabilitated Landscapes.

(a) A local agency may designate another agency, such as a water purveyor, to implement some or all of the requirements contained in this ordinance. Local agencies may collaborate with water purveyors to define each entity's specific responsibilities relating to this ordinance.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.1 Compliance with Landscape Documentation Package.

Prior to construction, the local agency shall:

(1) provide the project applicant with the ordinance and procedures for permits, plan checks, or design reviews;

(2) review the Landscape Documentation Package submitted by the project applicant;

(3) approve or deny the Landscape Documentation Package;

(4) issue a permit or approve the plan check or design review for the project applicant; and

(5) upon approval of the Landscape Documentation Package, submit a copy of the Water Efficient Landscape Worksheet to the local water purveyor.

(b) Prior to construction, the project applicant shall:

(1) submit a Landscape Documentation Package to the local agency.

(c) Upon approval of the Landscape Documentation Package by the local agency, the project applicant shall:

(1) receive a permit or approval of the plan check or design review and record the date of the permit in the Certificate of Completion;

(2) submit a copy of the approved Landscape Documentation Package along with the record drawings, and any other information to the property owner or his/her designee; and

(3) submit a copy of the Water Efficient Landscape Worksheet to the local water purveyor.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.2 Penalties.

(a) A local agency may establish and administer penalties to the project applicant for non-compliance with the ordinance to the extent permitted by law.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.3 Elements of the Landscape Documentation Package.

(a) The Landscape Documentation Package shall include the following six (6) elements:

- (1) project information;
 - (A) date
 - (B) project applicant
 - (C) project address (if available, parcel and/or lot number(s))
 - (D) total landscape area (square feet)
 - (E) project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed)
 - (F) water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well
 - (G) checklist of all documents in Landscape Documentation Package
 - (H) project contacts to include contact information for the project applicant and property owner
 - (I) applicant signature and date with statement, "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package".
- (2) Water Efficient Landscape Worksheet;
 - (A) hydrozone information table
 - (B) water budget calculations
 - 1. Maximum Applied Water Allowance (MAWA)
 - 2. Estimated Total Water Use (ETWU)
- (3) soil management report;
- (4) landscape design plan;
- (5) irrigation design plan; and
- (6) grading design plan.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.4 Water Efficient Landscape Worksheet.

(a) A project applicant shall complete the Water Efficient Landscape Worksheet which contains two sections (see sample worksheet in Appendix B):

- (1) a hydrozone information table (see Appendix B, Section A) for the landscape project; and
- (2) a water budget calculation (see Appendix B, Section B) for the landscape project. For the calculation of the Maximum Applied Water Allowance and Estimated Total Water Use, a project applicant shall use the ETo values from the Reference Evapotranspiration Table in Appendix A. For geographic areas not covered in Appendix A, use data from other cities located nearby in the same reference evapotranspiration zone, as found in the CIMIS Reference Evapotranspiration Zones Map, Department of Water Resources, 1999.

(b) Water budget calculations shall adhere to the following requirements:

- (1) The plant factor used shall be from WUCOLS. The plant factor ranges from 0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.
- (2) All water features shall be included in the high water use hydrozone and temporarily irrigated areas shall be included in the low water use hydrozone.
- (3) All Special Landscape Areas shall be identified and their water use calculated as described below.
- (4) ETAF for Special Landscape Areas shall not exceed 1.0.

(c) Maximum Applied Water Allowance

The Maximum Applied Water Allowance shall be calculated using the equation:

$$\text{MAWA} = (\text{ETo}) (0.62) [(0.7 \times \text{LA}) + (0.3 \times \text{SLA})]$$

The example calculations below are hypothetical to demonstrate proper use of the equations and do not present an existing and/or planned landscape project. The ETo values used in these calculations are from the Reference Evapotranspiration Table in Appendix A, for planning purposes only. For actual irrigation scheduling, automatic irrigation controllers are required and shall use current reference evapotranspiration data, such as from the California Irrigation Management Information System (CIMIS), other equivalent data, or soil moisture sensor data.

(1) Example MAWA calculation: a hypothetical landscape project in Fresno, CA with an irrigated landscape area of 50,000 square feet without any Special Landscape Area (SLA = 0, no edible plants, recreational areas, or use of recycled water). To calculate MAWA, the annual reference evapotranspiration value for Fresno is 51.1 inches as listed in the Reference Evapotranspiration Table in Appendix A.

$$\text{MAWA} = (\text{ETo}) (0.62) [(0.7 \times \text{LA}) + (0.3 \times \text{SLA})]$$

MAWA = Maximum Applied Water Allowance (gallons per year)

ETo = Reference Evapotranspiration (inches per year)

0.62 = Conversion Factor (to gallons)

0.7 = ET Adjustment Factor (ETAF)

LA = Landscape Area including SLA (square feet)

0.3 = Additional Water Allowance for SLA

SLA = Special Landscape Area (square feet)

$$\text{MAWA} = (51.1 \text{ inches}) (0.62) [(0.7 \times 50,000 \text{ square feet}) + (0.3 \times 0)]$$

$$= 1,108,870 \text{ gallons per year}$$

To convert from gallons per year to hundred-cubic-feet per year:

$$= 1,108,870 / 748 = 1,482 \text{ hundred-cubic-feet per year}$$

(100 cubic feet = 748 gallons)

(2) In this next hypothetical example, the landscape project in Fresno, CA has the same ETo value of 51.1 inches and a total landscape area of 50,000 square feet. Within the 50,000 square foot project, there is now a 2,000 square foot area planted with edible plants. This 2,000 square foot area is considered to be a Special Landscape Area.

$$\text{MAWA} = (\text{ETo}) (0.62) [(0.7 \times \text{LA}) + (0.3 \times \text{SLA})]$$

$$\text{MAWA} = (51.1 \text{ inches}) (0.62) [(0.7 \times 50,000 \text{ square feet}) + (0.3 \times 2,000 \text{ square feet})]$$

$$= 31.68 \times [35,000 + 600] \text{ gallons per year}$$

$$= 31.68 \times 35,600 \text{ gallons per year}$$

$$= 1,127,808 \text{ gallons per year or } 1,508 \text{ hundred-cubic-feet per year}$$

(d) Estimated Total Water Use.

The Estimated Total Water Use shall be calculated using the equation below. The sum of the Estimated Total Water Use calculated for all hydrozones shall not exceed MAWA.

$$\text{ETWU} = (\text{ETo}) (0.62) \left(\frac{\text{PF} \times \text{HA}}{\text{IE}} + \text{SLA} \right)$$

Where:

ETWU = Estimated Total Water Use per year (gallons)

ETo = Reference Evapotranspiration (inches)

PF = Plant Factor from WUCOLS (see Section 491)

HA = Hydrozone Area [high, medium, and low water use areas] (square feet)

SLA = Special Landscape Area (square feet)

0.62 = Conversion Factor

IE = Irrigation Efficiency (minimum 0.71)

(1) Example ETWU calculation: landscape area is 50,000 square feet; plant water use type, plant factor, and hydrozone area are shown in the table below. The ETo value is 51.1 inches per year. There are no Special Landscape Areas (recreational area, area permanently and solely dedicated to edible plants, and area irrigated with recycled water) in this example.

Hydrozone	Plant Water Use Type(s)	Plant Factor (PF)*	Hydrozone Area (HA) (square feet)	PF x HA (square feet)
1	High	0.8	7,000	5,600
2	High	0.7	10,000	7,000
3	Medium	0.5	16,000	8,000
4	Low	0.3	7,000	2,100
5	Low	0.2	10,000	2,000
			Sum	24,700

*Plant Factor from WUCOLS

$$ETWU = (51.1)(0.62) \left(\frac{24,700}{0.71} + 0 \right)$$

= 1,102,116 gallons per year

Compare ETWU with MAWA: For this example MAWA = (51.1) (0.62) [(0.7 x 50,000) + (0.3 x 0)] = 1,108,870 gallons per year. The ETWU (1,102,116 gallons per year) is less than MAWA (1,108,870 gallons per year). In this example, the water budget complies with the MAWA.

(2) Example ETWU calculation: total landscape area is 50,000 square feet, 2,000 square feet of which is planted with edible plants. The edible plant area is considered a Special Landscape Area (SLA). The reference evapotranspiration value is 51.1 inches per year. The plant type, plant factor, and hydrozone area are shown in the table below.

Hydrozone	Plant Water Use Type(s)	Plant Factor (PF)*	Hydrozone Area (HA) (square feet)	PF x HA (square feet)
1	High	0.8	7,000	5,600
2	High	0.7	9,000	6,300
3	Medium	0.5	15,000	7,500
4	Low	0.3	7,000	2,100
5	Low	0.2	10,000	2,000
			Sum	23,500
6	SLA	1.0	2,000	2,000

*Plant Factor from WUCOLS

$$ETWU = (51.1)(0.62) \left(\frac{23,500}{0.71} + 2,000 \right)$$

= (31.68) (33,099 + 2,000)

= 1,111,936 gallons per year

Compare ETWU with MAWA. For this example:

$$\begin{aligned} \text{MAWA} &= (51.1) (0.62) [(0.7 \times 50,000) + (0.3 \times 2,000)] \\ &= 31.68 \times [35,000 + 600] \\ &= 31.68 \times 35,600 \\ &= 1,127,808 \text{ gallons per year} \end{aligned}$$

The ETWU (1,111,936 gallons per year) is less than MAWA (1,127,808 gallons per year). For this example, the water budget complies with the MAWA.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.5 Soil Management Report.

(a) In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the project applicant, or his/her designee, as follows:

(1) Submit soil samples to a laboratory for analysis and recommendations.

(A) Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.

(B) The soil analysis may include:

1. soil texture;
2. infiltration rate determined by laboratory test or soil texture infiltration rate table;
3. pH;
4. total soluble salts;
- sodium;
- percent organic matter; and
7. recommendations.

(2) The project applicant, or his/her designee, shall comply with one of the following:

(A) If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the Landscape Documentation Package; or

(B) If significant mass grading is planned, the soil analysis report shall be submitted to the local agency as part of the Certificate of Completion.

(3) The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.

(4) The project applicant, or his/her designee, shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with Certificate of Completion.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.6 Landscape Design Plan.

(a) For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project. A landscape design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation Package.

(1) Plant Material

(A) Any plant may be selected for the landscape, providing the Estimated Total Water Use in the landscape area does not exceed the Maximum Applied Water Allowance. To encourage the efficient use of water, the following is highly recommended:

1. protection and preservation of native species and natural vegetation;
2. selection of water-conserving plant and turf species;

3. selection of plants based on disease and pest resistance;
4. selection of trees based on applicable local tree ordinances or tree shading guidelines; and
5. selection of plants from local and regional landscape program plant lists.

(B) Each hydrozone shall have plant materials with similar water use, with the exception of hydrozones with plants of mixed water use, as specified in Section 492.7(a)(2)(D).

(C) Plants shall be selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site. To encourage the efficient use of water, the following is highly recommended:

1. use the Sunset Western Climate Zone System which takes into account temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate;
2. recognize the horticultural attributes of plants (i.e., mature plant size, invasive surface roots) to minimize damage to property or infrastructure [e.g., buildings, sidewalks, power lines]; and
3. consider the solar orientation for plant placement to maximize summer shade and winter solar gain.

(D) Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape and where 25% means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).

(E) A landscape design plan for projects in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per Public Resources Code Section 4291(a) and (b). Avoid fire-prone plant materials and highly flammable mulches.

(F) The use of invasive and/or noxious plant species is strongly discouraged.

(G) The architectural guidelines of a common interest development, which include community apartment projects, condominiums, planned developments, and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group.

(2) Water Features

(A) Recirculating water systems shall be used for water features.

(B) Where available, recycled water shall be used as a source for decorative water features.

(C) Surface area of a water feature shall be included in the high water use hydrozone area of the water budget calculation.

(D) Pool and spa covers are highly recommended.

(3) Mulch and Amendments

(A) A minimum two inch (2") layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.

(B) Stabilizing mulching products shall be used on slopes.

(C) The mulching portion of the seed/mulch slurry in hydro-seeded applications shall meet the mulching requirement.

(D) Soil amendments shall be incorporated according to recommendations of the soil report and what is appropriate for the plants selected (see Section 492.5).

(b) The landscape design plan, at a minimum, shall:

- (1) delineate and label each hydrozone by number, letter, or other method;
- (2) identify each hydrozone as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the landscape shall be included in the low water use hydrozone for the water budget calculation;
- (3) identify recreational areas;
- (4) identify areas permanently and solely dedicated to edible plants;
- (5) identify areas irrigated with recycled water;
- (6) identify type of mulch and application depth;
- (7) identify soil amendments, type, and quantity;
- (8) identify type and surface area of water features;
- (9) identify hardscapes (pervious and non-pervious);

- (10) identify location and installation details of any applicable stormwater best management practices that encourage on-site retention and infiltration of stormwater. Stormwater best management practices are encouraged in the landscape design plan and examples include, but are not limited to:
 - (A) infiltration beds, swales, and basins that allow water to collect and soak into the ground;
 - (B) constructed wetlands and retention ponds that retain water, handle excess flow, and filter pollutants; and
 - (C) pervious or porous surfaces (e.g., permeable pavers or blocks, pervious or porous concrete, etc.) that minimize runoff.
- (11) identify any applicable rain harvesting or catchment technologies (e.g., rain gardens, cisterns, etc.);
- (12) contain the following statement: "I have complied with the criteria of the ordinance and applied them for the efficient use of water in the landscape design plan"; and
- (13) bear the signature of a licensed landscape architect, licensed landscape contractor, or any other person authorized to design a landscape. (See Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agriculture Code.)

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code and Section 1351, Civil Code.

§ 492.7 Irrigation Design Plan.

- (a) For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturers' recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation Package.
 - (1) System
 - (A) Dedicated landscape water meters are highly recommended on landscape areas smaller than 5,000 square feet to facilitate water management.
 - (B) Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data shall be required for irrigation scheduling in all irrigation systems.
 - (C) The irrigation system shall be designed to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.
 - 1. If the static pressure is above or below the required dynamic pressure of the irrigation system, pressure-regulating devices such as inline pressure regulators, booster pumps, or other devices shall be installed to meet the required dynamic pressure of the irrigation system.
 - 2. Static water pressure, dynamic or operating pressure, and flow reading of the water supply shall be measured at the point of connection. These pressure and flow measurements shall be conducted at the design stage. If the measurements are not available at the design stage, the measurements shall be conducted at installation.
 - (D) Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climatic conditions. Irrigation should be avoided during windy or freezing weather or during rain.
 - (E) Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be required, as close as possible to the point of connection of the water supply, to minimize water loss in case of an emergency (such as a main line break) or routine repair.

- (F) Backflow prevention devices shall be required to protect the water supply from contamination by the irrigation system. A project applicant shall refer to the applicable local agency code (i.e., public health) for additional backflow prevention requirements.
- (G) High flow sensors that detect and report high flow conditions created by system damage or malfunction are recommended.
- (H) The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.
- (I) Relevant information from the soil management plan, such as soil type and infiltration rate, shall be utilized when designing irrigation systems.
- (J) The design of the irrigation system shall conform to the hydrozones of the landscape design plan.
- (K) The irrigation system must be designed and installed to meet, at a minimum, the irrigation efficiency criteria as described in Section 492.4 regarding the Maximum Applied Water Allowance.
- (L) It is highly recommended that the project applicant or local agency inquire with the local water purveyor about peak water operating demands (on the water supply system) or water restrictions that may impact the effectiveness of the irrigation system.
- (M) In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.
- (N) Sprinkler heads and other emission devices shall have matched precipitation rates, unless otherwise directed by the manufacturer's recommendations.
- (O) Head to head coverage is recommended. However, sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations.
- (P) Swing joints or other riser-protection components are required on all risers subject to damage that are adjacent to high traffic areas.
- (Q) Check valves or anti-drain valves are required for all irrigation systems.
- (R) Narrow or irregularly shaped areas, including turf, less than eight (8) feet in width in any direction shall be irrigated with subsurface irrigation or low volume irrigation system.
- (S) Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel, or other porous material. These restrictions may be modified if:
 1. the landscape area is adjacent to permeable surfacing and no runoff occurs; or
 2. the adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping; or
 3. the irrigation designer specifies an alternative design or technology, as part of the Landscape Documentation Package and clearly demonstrates strict adherence to irrigation system design criteria in Section 492.7 (a)(1)(H). Prevention of overspray and runoff must be confirmed during the irrigation audit.
- (T) Slopes greater than 25% shall not be irrigated with an irrigation system with a precipitation rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff and erosion must be confirmed during the irrigation audit.

(2) Hydrozone

- (A) Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.
- (B) Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.
- (C) Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf.
- (D) Individual hydrozones that mix plants of moderate and low water use, or moderate and high water use, may be allowed if:

1. plant factor calculation is based on the proportions of the respective plant water uses and their plant factor; or
 2. the plant factor of the higher water using plant is used for calculations.
- (E) Individual hydrozones that mix high and low water use plants shall not be permitted.
- (F) On the landscape design plan and irrigation design plan, hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, designate the areas irrigated by each valve, and assign a number to each valve. Use this valve number in the Hydrozone Information Table (see Appendix B Section A). This table can also assist with the irrigation audit and programming the controller.
- (b) The irrigation design plan, at a minimum, shall contain:
- (1) location and size of separate water meters for landscape;
 - (2) location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices;
 - (3) static water pressure at the point of connection to the public water supply;
 - (4) flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;
 - (5) recycled water irrigation systems as specified in Section 492.14;
 - (6) the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan"; and
 - (7) the signature of a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other person authorized to design an irrigation system. (See Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code.)

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.8 Grading Design Plan.

- (a) For the efficient use of water, grading of a project site shall be designed to minimize soil erosion, runoff, and water waste. A grading plan shall be submitted as part of the Landscape Documentation Package. A comprehensive grading plan prepared by a civil engineer for other local agency permits satisfies this requirement.
- (1) The project applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the landscape area including:
- (A) height of graded slopes;
 - (B) drainage patterns;
 - (C) pad elevations;
 - (D) finish grade; and
 - (E) stormwater retention improvements, if applicable.
- (2) To prevent excessive erosion and runoff, it is highly recommended that project applicants:
- (A) grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes;
 - (B) avoid disruption of natural drainage patterns and undisturbed soil; and
 - (C) avoid soil compaction in landscape areas.
- (3) The grading design plan shall contain the following statement: "I have complied with the criteria of ordinance and applied them accordingly for the efficient use of water in the grading design plan" and shall bear the signature of a licensed professional as authorized by law.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.9 Certificate of Completion.

(a) The Certificate of Completion (see Appendix C for a sample certificate) shall include the following six (6) elements:

(1) project information sheet that contains:

(A) date;

(B) project name;

(C) project applicant name, telephone, and mailing address;

(D) project address and location; and

(E) property owner name, telephone, and mailing address;

(2) certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved Landscape Documentation Package;

(A) where there have been significant changes made in the field during construction, these "as-built" or record drawings shall be included with the certification;

(3) irrigation scheduling parameters used to set the controller (see Section 492.10);

(4) landscape and irrigation maintenance schedule (see Section 492.11);

(5) irrigation audit report (see Section 492.12); and

(6) soil analysis report, if not submitted with Landscape Documentation Package, and documentation verifying implementation of soil report recommendations (see Section 492.5).

(b) The project applicant shall:

(1) submit the signed Certificate of Completion to the local agency for review;

(2) ensure that copies of the approved Certificate of Completion are submitted to the local water purveyor and property owner or his or her designee.

(c) The local agency shall:

(1) receive the signed Certificate of Completion from the project applicant;

(2) approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the local agency shall provide information to the project applicant regarding reapplication, appeal, or other assistance.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.10 Irrigation Scheduling.

(a) For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

(1) Irrigation scheduling shall be regulated by automatic irrigation controllers.

(2) Overhead irrigation shall be scheduled between 8:00 p.m. and 10:00 a.m. unless weather conditions prevent it. If allowable hours of irrigation differ from the local water purveyor, the stricter of the two shall apply. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

(3) For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, flow rate, and current reference evapotranspiration, so that applied water meets the Estimated Total Water Use. Total annual applied water shall be less than or equal to Maximum Applied Water Allowance (MAWA). Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data.

(4) Parameters used to set the automatic controller shall be developed and submitted for each of the following:

(A) the plant establishment period;

- (3) the established landscape; and
- (4) temporarily irrigated areas.
- (5) Each irrigation schedule shall consider for each station all of the following that apply:
 - (A) irrigation interval (days between irrigation);
 - (B) irrigation run times (hours or minutes per irrigation event to avoid runoff);
 - (C) number of cycle starts required for each irrigation event to avoid runoff;
 - (D) amount of applied water scheduled to be applied on a monthly basis;
 - (E) application rate setting;
 - (F) root depth setting;
 - (G) plant type setting;
 - (H) soil type;
 - (I) slope factor setting;
 - (J) shade factor setting; and
 - (K) irrigation uniformity or efficiency setting.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.11 Landscape and Irrigation Maintenance Schedule.

- (a) Landscapes shall be maintained to ensure water use efficiency. A regular maintenance schedule shall be submitted with the Certificate of Completion.
- (b) A regular maintenance schedule shall include, but not be limited to, routine inspection; adjustment and repair of the irrigation system and its components; aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning; weeding in all landscape areas, and removing any obstruction to emission devices. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.
- (c) Repair of all irrigation equipment shall be done with the originally installed components or their equivalents.
- (d) A project applicant is encouraged to implement sustainable or environmentally-friendly practices for overall landscape maintenance.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.12 Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.

- (a) All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.
- (b) For new construction and rehabilitated landscape projects installed after January 1, 2010, as described in Section 490.1:
 - (1) the project applicant shall submit an irrigation audit report with the Certificate of Completion to the local agency that may include, but is not limited to: inspection, system tune-up, system test with distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule;
 - (2) the local agency shall administer programs that may include, but not be limited to, irrigation water use analysis, irrigation audits, and irrigation surveys for compliance with the Maximum Applied Water Allowance.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.13 Irrigation Efficiency.

(a) For the purpose of determining Maximum Applied Water Allowance, average irrigation efficiency is assumed to be 0.71. Irrigation systems shall be designed, maintained, and managed to meet or exceed an average landscape irrigation efficiency of 0.71.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.14 Recycled Water.

- (a) The installation of recycled water irrigation systems shall allow for the current and future use of recycled water, unless a written exemption has been granted as described in Section 492.14(b).
- (b) Irrigation systems and decorative water features shall use recycled water unless a written exemption has been granted by the local water purveyor stating that recycled water meeting all public health codes and standards is not available and will not be available for the foreseeable future.
- (c) All recycled water irrigation systems shall be designed and operated in accordance with all applicable local and State laws.
- (d) Landscapes using recycled water are considered Special Landscape Areas. The ET Adjustment Factor for Special Landscape Areas shall not exceed 1.0.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.15 Stormwater Management.

- (a) Stormwater management practices minimize runoff and increase infiltration which recharges groundwater and improves water quality. Implementing stormwater best management practices into the landscape and grading design plans to minimize runoff and to increase on-site retention and infiltration are encouraged.
- (b) Project applicants shall refer to the local agency or Regional Water Quality Control Board for information on any applicable stormwater ordinances and stormwater management plans.
- (c) Rain gardens, cisterns, and other landscapes features and practices that increase rainwater capture and create opportunities for infiltration and/or onsite storage are recommended.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.16 Public Education.

- (a) Publications. Education is a critical component to promote the efficient use of water in landscapes. The use of appropriate principles of design, installation, management and maintenance that save water is encouraged in the community.
 - (1) A local agency shall provide information to owners of new, single-family residential homes regarding the design, installation, management, and maintenance of water efficient landscapes.
- (b) Model Homes. All model homes that are landscaped shall use signs and written information to demonstrate the principles of water efficient landscapes described in this ordinance.
 - (1) Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as hydrozones, irrigation equipment, and others that contribute to the overall water efficient theme.
 - (2) Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

492.17 Environmental Review.

(a) The local agency must comply with the California Environmental Quality Act (CEQA), as appropriate.

Note: Authority cited: Section 21082, Public Resources Code. Reference: Sections 21080, 21082, Public Resources Code.

§ 493. Provisions for Existing Landscapes.

(a) A local agency may designate another agency, such as a water purveyor, to implement some or all of the requirements contained in this ordinance. Local agencies may collaborate with water purveyors to define each entity's specific responsibilities relating to this ordinance.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 493.1 Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.

(a) This section, 493.1, shall apply to all existing landscapes that were installed before January 1, 2010 and are over one acre in size.

(1) For all landscapes in 493.1(a) that have a water meter, the local agency shall administer programs that may include, but not be limited to, irrigation water use analyses, irrigation surveys, and irrigation audits to evaluate water use and provide recommendations as necessary to reduce landscape water use to a level that does not exceed the Maximum Applied Water Allowance for existing landscapes. The Maximum Applied Water Allowance for existing landscapes shall be calculated as: $MAWA = (0.8)(ET_o)(LA)(0.62)$.

(2) For all landscapes in 493.1(a), that do not have a meter, the local agency shall administer programs that may include, but not be limited to, irrigation surveys and irrigation audits to evaluate water use and provide recommendations as necessary in order to prevent water waste.

(b) All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 493.2 Water Waste Prevention.

(a) Local agencies shall prevent water waste resulting from inefficient landscape irrigation by prohibiting runoff from leaving the target landscape due to low head drainage, overspray, or other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways, parking lots, or structures. Penalties for violation of these prohibitions shall be established locally.

(b) Restrictions regarding overspray and runoff may be modified if:

(1) the landscape area is adjacent to permeable surfacing and no runoff occurs; or

(2) the adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping.

Note: Authority cited: Section 65594, Government Code. Reference: Section 65596, Government Code.

§ 494. Effective Precipitation.

(a) A local agency may consider Effective Precipitation (25% of annual precipitation) in tracking water use and may use the following equation to calculate Maximum Applied Water Allowance:

$$AWA = (ET_o - Eppt)(0.62)[(0.7 \times LA) + (0.3 \times SLA)].$$

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

Appendices.

Appendix A. Reference Evapotranspiration (ET_o) Table.

Appendix A - Reference Evapotranspiration (ET_o) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ET _o
ALAMEDA													
Fremont	1.5	1.9	3.4	4.7	5.4	6.3	6.7	6.0	4.5	3.4	1.8	1.5	47.0
Livermore	1.2	1.5	2.9	4.4	5.9	6.6	7.4	6.4	5.3	3.2	1.5	0.9	47.2
Oakland	1.5	1.5	2.8	3.9	5.1	5.3	6.0	5.5	4.8	3.1	1.4	0.9	41.8
Oakland Foothills	1.1	1.4	2.7	3.7	5.1	6.4	5.8	4.9	3.6	2.6	1.4	1.0	39.6
Pleasanton	0.8	1.5	2.9	4.4	5.6	6.7	7.4	6.4	4.7	3.3	1.5	1.0	46.2
Union City	1.4	1.8	3.1	4.2	5.4	5.9	6.4	5.7	4.4	3.1	1.5	1.2	44.2
ALPINE													
Markleeville	0.7	0.9	2.0	3.5	5.0	6.1	7.3	6.4	4.4	2.6	1.2	0.5	40.6
AMADOR													
Jackson	1.2	1.5	2.8	4.4	6.0	7.2	7.9	7.2	5.3	3.2	1.4	0.9	48.9
Shanandoah Valley	1.0	1.7	2.9	4.4	5.6	6.8	7.9	7.1	5.2	3.6	1.7	1.0	48.8
BUTTE													
Chico	1.2	1.8	2.9	4.7	6.1	7.4	8.5	7.3	5.4	3.7	1.7	1.0	51.7
Durham	1.1	1.8	3.2	5.0	6.5	7.4	7.8	6.9	5.3	3.6	1.7	1.0	51.1
Gridley	1.2	1.8	3.0	4.7	6.1	7.7	8.5	7.1	5.4	3.7	1.7	1.0	51.9
Oroville	1.2	1.7	2.8	4.7	6.1	7.6	8.5	7.3	5.3	3.7	1.7	1.0	51.5
CALAVERAS													
San Andreas	1.2	1.5	2.8	4.4	6.0	7.3	7.9	7.0	5.3	3.2	1.4	0.7	48.8
COLUSA													
Colusa	1.0	1.7	3.4	5.0	6.4	7.6	8.3	7.2	5.4	3.8	1.8	1.1	52.8
Williams	1.2	1.7	2.9	4.5	6.1	7.2	8.5	7.3	5.3	3.4	1.6	1.0	50.8
CONTRA COSTA													
Benicia	1.3	1.4	2.7	3.8	4.9	5.0	6.4	5.5	4.4	2.9	1.2	0.7	40.3
Brentwood	1.0	1.5	2.9	4.5	6.1	7.1	7.9	6.7	5.2	3.2	1.4	0.7	48.3
Concord	1.1	1.4	2.4	4.0	5.5	5.9	7.0	6.0	4.8	3.2	1.3	0.7	43.4
Courtland	0.9	1.5	2.9	4.4	6.1	6.9	7.9	6.7	5.3	3.2	1.4	0.7	48.0
Martinez	1.2	1.4	2.4	3.9	5.3	5.6	6.7	5.6	4.7	3.1	1.2	0.7	41.8
Moraga	1.2	1.5	3.4	4.2	5.5	6.1	6.7	5.9	4.6	3.2	1.6	1.0	44.9
Pittsburg	1.0	1.5	2.8	4.1	5.6	6.4	7.4	6.4	5.0	3.2	1.3	0.7	45.4
Walnut Creek	0.8	1.5	2.9	4.4	5.6	6.7	7.4	6.4	4.7	3.3	1.5	1.0	46.2
DEL NORTE													
Crescent City	0.5	0.9	2.0	3.0	3.7	3.5	4.3	3.7	3.0	2.0	0.9	0.5	27.7
EL DORADO													
Camino	0.9	1.7	2.5	3.9	5.9	7.2	7.8	6.8	5.1	3.1	1.5	0.9	47.3
FRESNO													
Clovis	1.0	1.5	3.2	4.8	6.4	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.4
Coalinga	1.2	1.7	3.1	4.6	6.2	7.2	8.5	7.3	5.3	3.4	1.6	0.7	50.9
Firebaugh	1.0	1.8	3.7	5.7	7.3	8.1	8.2	7.2	5.5	3.9	2.0	1.1	55.4
Five Points	1.3	2.0	4.0	6.1	7.7	8.5	8.7	8.0	6.2	4.5	2.4	1.2	60.4
Fresno	0.9	1.7	3.3	4.8	6.7	7.8	8.4	7.1	5.2	3.2	1.4	0.6	51.1
Fresno State	0.9	1.6	3.2	5.2	7.0	8.0	8.7	7.6	5.4	3.6	1.7	0.9	53.7
Friant	1.2	1.5	3.1	4.7	6.4	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.3
Kerman	0.9	1.5	3.2	4.8	6.6	7.7	8.4	7.2	5.3	3.4	1.4	0.7	51.2
Kingsburg	1.0	1.5	3.4	4.8	6.6	7.7	8.4	7.2	5.3	3.4	1.4	0.7	51.6
Mendota	1.5	2.5	4.6	6.2	7.9	8.6	8.8	7.5	5.9	4.5	2.4	1.5	61.7
Orange Cove	1.2	1.9	3.5	4.7	7.4	8.5	8.9	7.9	5.9	3.7	1.8	1.2	56.7
Parlier	1.1	2.0	4.0	5.6	7.8	8.5	8.3	7.3	5.6	3.9	1.8	1.2	57.2
Reedley	1.0	1.9	3.6	5.2	6.8	7.6	8.1	7.0	5.1	3.4	1.7	0.9	52.0
Westlands	1.1	1.5	3.2	4.7	6.4	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.3
	0.9	1.7	3.8	6.3	8.0	8.6	8.6	7.8	5.9	4.3	2.1	1.1	58.8

Appendix A - Reference Evapotranspiration (ET_o) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ET _o
GLENN													
Orland	1.1	1.8	3.4	5.0	6.4	7.5	7.9	6.7	5.3	3.9	1.8	1.4	52.1
Willows	1.2	1.7	2.9	4.7	6.1	7.2	8.5	7.3	5.3	3.6	1.7	1.0	51.3
HUMBOLDT													
Eureka	0.5	1.1	2.0	3.0	3.7	3.7	3.7	3.7	3.0	2.0	0.9	0.5	27.5
Ferndale	0.5	1.1	2.0	3.0	3.7	3.7	3.7	3.7	3.0	2.0	0.9	0.5	27.5
Garberville	0.6	1.2	2.2	3.1	4.5	5.0	5.5	4.9	3.8	2.4	1.0	0.7	34.9
Hoopla	0.5	1.1	2.1	3.0	4.4	5.4	6.1	5.1	3.8	2.4	0.9	0.7	35.6
IMPERIAL													
Brawley	2.8	3.8	5.9	8.0	10.4	11.5	11.7	10.0	8.4	6.2	3.5	2.1	84.2
Calipatria/Mulberry	2.4	3.2	5.1	6.8	8.6	9.2	9.2	8.6	7.0	5.2	3.1	2.3	70.7
El Centro	2.7	3.5	5.6	7.9	10.1	11.1	11.6	9.5	8.3	6.1	3.3	2.0	81.7
Holtville	2.8	3.8	5.9	7.9	10.4	11.6	12.0	10.0	8.6	6.2	3.5	2.1	84.7
Meloland	2.5	3.2	5.5	7.5	8.9	9.2	9.0	8.5	6.8	5.3	3.1	2.2	71.6
Palo Verde II	2.5	3.3	5.7	6.9	8.5	8.9	8.6	7.9	6.2	4.5	2.9	2.3	68.2
Seeley	2.7	3.5	5.9	7.7	9.7	10.1	9.3	8.3	6.9	5.5	3.4	2.2	75.4
Westmoreland	2.4	3.3	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.4
Yuma	2.5	3.4	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.6
INYO													
Bishop	1.7	2.7	4.8	6.7	8.2	10.9	7.4	9.6	7.4	4.8	2.5	1.6	68.3
Death Valley Jct	2.2	3.3	5.4	7.7	9.8	11.1	11.4	10.1	8.3	5.4	2.9	1.7	79.1
Independence	1.7	2.7	3.4	6.6	8.5	9.5	9.8	8.5	7.1	3.9	2.0	1.5	65.2
Lower Haiwee Res.	1.8	2.7	4.4	7.1	8.5	9.5	9.8	8.5	7.1	4.2	2.6	1.5	67.6
Oasis	2.7	2.8	5.9	8.0	10.4	11.7	11.6	10.0	8.4	6.2	3.4	2.1	83.1
KERN													
Arvin	1.2	1.8	3.5	4.7	6.6	7.4	8.1	7.3	5.3	3.4	1.7	1.0	51.9
Bakersfield	1.0	1.8	3.5	4.7	6.6	7.7	8.5	7.3	5.3	3.5	1.6	0.9	52.4
Bakersfield/Bonanza	1.2	2.2	3.7	5.7	7.4	8.2	8.7	7.8	5.7	4.0	2.1	1.2	57.9
Bakersfield/Greenlee	1.2	2.2	3.7	5.7	7.4	8.2	8.7	7.8	5.7	4.0	2.1	1.2	57.9
Belridge	1.4	2.2	4.1	5.5	7.7	8.5	8.6	7.8	6.0	3.8	2.0	1.5	59.2
Blackwells Corner	1.4	2.1	3.8	5.4	7.0	7.8	8.5	7.7	5.8	3.9	1.9	1.2	56.6
Buttonwillow	1.0	1.8	3.2	4.7	6.6	7.7	8.5	7.3	5.4	3.4	1.5	0.9	52.0
China Lake	2.1	3.2	5.3	7.7	9.2	10.0	11.0	9.8	7.3	4.9	2.7	1.7	74.8
Delano	0.9	1.8	3.4	4.7	6.6	7.7	8.5	7.3	5.4	3.4	1.4	0.7	52.0
Famoso	1.3	1.9	3.5	4.8	6.7	7.6	8.0	7.3	5.5	3.5	1.7	1.3	53.1
Grapevine	1.3	1.8	3.1	4.4	5.6	6.8	7.6	6.8	5.9	3.4	1.9	1.0	49.5
Inyokern	2.0	3.1	4.9	7.3	8.5	9.7	11.0	9.4	7.1	5.1	2.6	1.7	72.4
Isabella Dam	1.2	1.4	2.8	4.4	5.8	7.3	7.9	7.0	5.0	3.2	1.7	0.9	48.4
Lamont	1.3	2.4	4.4	4.6	6.5	7.0	8.8	7.6	5.7	3.7	1.6	0.8	54.4
Lost Hills	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
McFarland/Kern	1.2	2.1	3.7	5.6	7.3	8.0	8.3	7.4	5.6	4.1	2.0	1.2	56.5
Shafter	1.0	1.7	3.4	5.0	6.6	7.7	8.3	7.3	5.4	3.4	1.5	0.9	52.1
Taft	1.3	1.8	3.1	4.3	6.2	7.3	8.5	7.3	5.4	3.4	1.7	1.0	51.2
Tehachapi	1.4	1.8	3.2	5.0	6.1	7.7	7.9	7.3	5.9	3.4	2.1	1.2	52.9
KINGS													
Caruthers	1.6	2.5	4.0	5.7	7.8	8.7	9.3	8.4	6.3	4.4	2.4	1.6	62.7
Corcoran	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
Hanford	0.9	1.5	3.4	5.0	6.6	7.7	8.3	7.2	5.4	3.4	1.4	0.7	51.5
Kettleman	1.1	2.0	4.0	6.0	7.5	8.5	9.1	8.2	6.1	4.5	2.2	1.1	60.2
Lemoore	0.9	1.5	3.4	5.0	6.6	7.7	8.3	7.3	5.4	3.4	1.4	0.7	51.7
Stratford	0.9	1.9	3.9	6.1	7.8	8.6	8.8	7.7	5.9	4.1	2.1	1.0	58.7

Appendix A - Reference Evapotranspiration (ET_o) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ET _o
LAKE													
Lakeport	1.1	1.3	2.6	3.5	5.1	6.0	7.3	6.1	4.7	2.9	1.2	0.9	42.8
Lower Lake	1.2	1.4	2.7	4.5	5.3	6.3	7.4	6.4	5.0	3.1	1.3	0.9	45.4
LASSEN													
Buntingville	1.0	1.7	3.5	4.9	6.2	7.3	8.4	7.5	5.4	3.4	1.5	0.9	51.8
Ravendale	0.6	1.1	2.3	4.1	5.6	6.7	7.9	7.3	4.7	2.8	1.2	0.5	44.9
Susanville	0.7	1.0	2.2	4.1	5.6	6.5	7.8	7.0	4.6	2.8	1.2	0.5	44.0
LOS ANGELES													
Burbank	2.1	2.8	3.7	4.7	5.1	6.0	6.6	6.7	5.4	4.0	2.6	2.0	51.7
Claremont	2.0	2.3	3.4	4.6	5.0	6.0	7.0	7.0	5.3	4.0	2.7	2.1	51.3
El Dorado	1.7	2.2	3.6	4.8	5.1	5.7	5.9	5.9	4.4	3.2	2.2	1.7	46.3
Glendale	2.0	2.2	3.3	3.8	4.7	4.8	5.7	5.6	4.3	3.3	2.2	1.8	43.7
Glendora	2.0	2.5	3.6	4.9	5.4	6.1	7.3	6.8	5.7	4.2	2.6	2.0	53.1
Gorman	1.6	2.2	3.4	4.6	5.5	7.4	7.7	7.1	5.9	3.6	2.4	1.1	52.4
Hollywood Hills	2.1	2.2	3.8	5.4	6.0	6.5	6.7	6.4	5.2	3.7	2.8	2.1	52.8
Lancaster	2.1	3.0	4.6	5.9	8.5	9.7	11.0	9.8	7.3	4.6	2.8	1.7	71.1
Long Beach	1.8	2.1	3.3	3.9	4.5	4.3	5.3	4.7	3.7	2.8	1.8	1.5	39.7
Los Angeles	2.2	2.7	3.7	4.7	5.5	5.8	6.2	5.9	5.0	3.9	2.6	1.9	50.1
Monrovia	2.2	2.3	3.8	4.3	5.5	5.9	6.9	6.4	5.1	3.2	2.5	2.0	50.2
Palmdale	2.0	2.6	4.6	6.2	7.3	8.9	9.8	9.0	6.5	4.7	2.7	2.1	66.2
Pasadena	2.1	2.7	3.7	4.7	5.1	6.0	7.1	6.7	5.6	4.2	2.6	2.0	52.3
Pearblossom	1.7	2.4	3.7	4.7	7.3	7.7	9.9	7.9	6.4	4.0	2.6	1.6	59.9
Comona	1.7	2.0	3.4	4.5	5.0	5.8	6.5	6.4	4.7	3.5	2.3	1.7	47.5
Redondo Beach	2.2	2.4	3.3	3.8	4.5	4.7	5.4	4.8	4.4	2.8	2.4	2.0	42.6
San Fernando	2.0	2.7	3.5	4.6	5.5	5.9	7.3	6.7	5.3	3.9	2.6	2.0	52.0
Santa Clarita	2.8	2.8	4.1	5.6	6.0	6.8	7.6	7.8	5.8	5.2	3.7	3.2	61.5
Santa Monica	1.8	2.1	3.3	4.5	4.7	5.0	5.4	5.4	3.9	3.4	2.4	2.2	44.2
MADERA													
Chowchilla	1.0	1.4	3.2	4.7	6.6	7.8	8.5	7.3	5.3	3.4	1.4	0.7	51.4
Madera	0.9	1.4	3.2	4.8	6.6	7.8	8.5	7.3	5.3	3.4	1.4	0.7	51.5
Raymond	1.2	1.5	3.0	4.6	6.1	7.6	8.4	7.3	5.2	3.4	1.4	0.7	50.5
MARIN													
Black Point	1.1	1.7	3.0	4.2	5.2	6.2	6.6	5.8	4.3	2.8	1.3	0.9	43.0
Novato	1.3	1.5	2.4	3.5	4.4	6.0	5.9	5.4	4.4	2.8	1.4	0.7	39.8
Point San Pedro	1.1	1.7	3.0	4.2	5.2	6.2	6.6	5.8	4.3	2.8	1.3	0.9	43.0
San Rafael	1.2	1.3	2.4	3.3	4.0	4.8	4.8	4.9	4.3	2.7	1.3	0.7	35.8
MARIPOSA													
Coulterville	1.1	1.5	2.8	4.4	5.9	7.3	8.1	7.0	5.3	3.4	1.4	0.7	48.8
Mariposa	1.1	1.5	2.8	4.4	5.9	7.4	8.2	7.1	5.0	3.4	1.4	0.7	49.0
Yosemite Village	0.7	1.0	2.3	3.7	5.1	6.5	7.1	6.1	4.4	2.9	1.1	0.6	41.4
MENDOCINO													
Fort Bragg	0.9	1.3	2.2	3.0	3.7	3.5	3.7	3.7	3.0	2.3	1.2	0.7	29.0
Hopland	1.1	1.3	2.6	3.4	5.0	5.9	6.5	5.7	4.5	2.8	1.3	0.7	40.9
Point Arena	1.0	1.3	2.3	3.0	3.7	3.9	3.7	3.7	3.0	2.3	1.2	0.7	29.6
Sanel Valley	1.0	1.6	3.0	4.6	6.0	7.0	8.0	7.0	5.2	3.4	1.4	0.9	49.1
Ukiah	1.0	1.3	2.6	3.3	5.0	5.8	6.7	5.9	4.5	2.8	1.3	0.7	40.9
MERCED													
Westerson	0.9	1.7	3.4	5.5	7.3	8.2	8.6	7.4	5.5	3.8	1.8	0.9	55.1
Los Banos	1.0	1.5	3.2	4.7	6.1	7.4	8.2	7.0	5.3	3.4	1.4	0.7	50.0
Merced	1.0	1.5	3.2	4.7	6.6	7.9	8.5	7.2	5.3	3.4	1.4	0.7	51.5

Appendix A - Reference Evapotranspiration (ET_o) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ET _o
MODOC													
Modoc/Alturas	0.9	1.4	2.8	3.7	5.1	6.2	7.5	6.6	4.6	2.8	1.2	0.7	43.2
MONO													
Bridgeport	0.7	0.9	2.2	3.8	5.5	6.6	7.4	6.7	4.7	2.7	1.2	0.5	43.0
MONTEREY													
Arroyo Seco	1.5	2.0	3.7	5.4	6.3	7.3	7.2	6.7	5.0	3.9	2.0	1.6	52.6
Castroville	1.4	1.7	3.0	4.2	4.6	4.8	4.0	3.8	3.0	2.6	1.6	1.4	36.2
Gonzales	1.3	1.7	3.4	4.7	5.4	6.3	6.3	5.9	4.4	3.4	1.9	1.3	45.7
Greenfield	1.8	2.2	3.4	4.8	5.6	6.3	6.5	6.2	4.8	3.7	2.4	1.8	49.5
King City	1.7	2.0	3.4	4.4	4.4	5.6	6.1	6.7	6.5	5.2	2.2	1.3	49.6
King City-Oasis Rd.	1.4	1.9	3.6	5.3	6.5	7.3	7.4	6.8	5.1	4.0	2.0	1.5	52.7
Long Valley	1.5	1.9	3.2	4.1	5.8	6.5	7.3	6.7	5.3	3.6	2.0	1.2	49.1
Monterey	1.7	1.8	2.7	3.5	4.0	4.1	4.3	4.2	3.5	2.8	1.9	1.5	36.0
Pajaro	1.8	2.2	3.7	4.8	5.3	5.7	5.6	5.3	4.3	3.4	2.4	1.8	46.1
Salinas	1.6	1.9	2.7	3.8	4.8	4.7	5.0	4.5	4.0	2.9	1.9	1.3	39.1
Salinas North	1.2	1.5	2.9	4.1	4.6	5.2	4.5	4.3	3.2	2.8	1.5	1.2	36.9
San Ardo	1.0	1.7	3.1	4.5	5.9	7.2	8.1	7.1	5.1	3.1	1.5	1.0	49.0
San Juan	1.8	2.1	3.4	4.6	5.3	5.7	5.5	4.9	3.8	3.2	2.2	1.9	44.2
Soledad	1.7	2.0	3.4	4.4	5.5	5.4	6.5	6.2	5.2	3.7	2.2	1.5	47.7
NAPA													
Angwin	1.8	1.9	3.2	4.7	5.8	7.3	8.1	7.1	5.5	4.5	2.9	2.1	54.9
Carneros	0.8	1.5	3.1	4.6	5.5	6.6	6.9	6.2	4.7	3.5	1.4	1.0	45.8
Oakville	1.0	1.5	2.9	4.7	5.8	6.9	7.2	6.4	4.9	3.5	1.6	1.2	47.7
St Helena	1.2	1.5	2.8	3.9	5.1	6.1	7.0	6.2	4.8	3.1	1.4	0.9	44.1
Yountville	1.3	1.7	2.8	3.9	5.1	6.0	7.1	6.1	4.8	3.1	1.5	0.9	44.3
NEVADA													
Grass Valley	1.1	1.5	2.6	4.0	5.7	7.1	7.9	7.1	5.3	3.2	1.5	0.9	48.0
Nevada City	1.1	1.5	2.6	3.9	5.8	6.9	7.9	7.0	5.3	3.2	1.4	0.9	47.4
ORANGE													
Irvine	2.2	2.5	3.7	4.7	5.2	5.9	6.3	6.2	4.6	3.7	2.6	2.3	49.6
Laguna Beach	2.2	2.7	3.4	3.8	4.6	4.6	4.9	4.9	4.4	3.4	2.4	2.0	43.2
Santa Ana	2.2	2.7	3.7	4.5	4.6	5.4	6.2	6.1	4.7	3.7	2.5	2.0	48.2
PLACER													
Auburn	1.2	1.7	2.8	4.4	6.1	7.4	8.3	7.3	5.4	3.4	1.6	1.0	50.6
Blue Canyon	0.7	1.1	2.1	3.4	4.8	6.0	7.2	6.1	4.6	2.9	0.9	0.6	40.5
Colfax	1.1	1.5	2.6	4.0	5.8	7.1	7.9	7.0	5.3	3.2	1.4	0.9	47.9
Roseville	1.1	1.7	3.1	4.7	6.2	7.7	8.5	7.3	5.6	3.7	1.7	1.0	52.2
Soda Springs	0.7	0.7	1.8	3.0	4.3	5.3	6.2	5.5	4.1	2.5	0.7	0.7	35.4
Tahoe City	0.7	0.7	1.7	3.0	4.3	5.4	6.1	5.6	4.1	2.4	0.8	0.6	35.5
Truckee	0.7	0.7	1.7	3.2	4.4	5.4	6.4	5.7	4.1	2.4	0.8	0.6	36.2
PLUMAS													
Portola	0.7	0.9	1.9	3.5	4.9	5.9	7.3	5.9	4.3	2.7	0.9	0.5	39.4
Quincy	0.7	0.9	2.2	3.5	4.9	5.9	7.3	5.9	4.4	2.8	1.2	0.5	40.2
RIVERSIDE													
Beaumont	2.0	2.3	3.4	4.4	6.1	7.1	7.6	7.9	6.0	3.9	2.6	1.7	55.0
Blythe	2.4	3.3	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.4
Cathedral City	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
Coachella	2.9	4.4	6.2	8.4	10.5	11.9	12.3	10.1	8.9	6.2	3.8	2.4	88.1
Desert Center	2.9	4.1	6.4	8.5	11.0	12.1	12.2	11.1	9.0	6.4	3.9	2.6	90.0
Elsinore	2.1	2.8	3.9	4.4	5.9	7.1	7.6	7.0	5.8	3.9	2.6	1.9	55.0
Indio	3.1	3.6	6.5	8.3	10.5	11.0	10.8	9.7	8.3	5.9	3.7	2.7	83.9

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
RIVERSIDE													
La Quinta	2.4	2.8	5.2	6.5	8.3	8.7	8.5	7.9	6.5	4.5	2.7	2.2	66.2
Mecca	2.6	3.3	5.7	7.2	8.6	9.0	8.8	8.2	6.8	5.0	3.2	2.4	70.8
Oasis	2.9	3.3	5.3	6.1	8.5	8.9	8.7	7.9	6.9	4.8	2.9	2.3	68.4
Palm Deser	2.5	3.4	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.6
Palm Springs	2.0	2.9	4.9	7.2	8.3	8.5	11.6	8.3	7.2	5.9	2.7	1.7	71.1
Rancho California	1.8	2.2	3.4	4.8	5.6	6.3	6.5	6.2	4.8	3.7	2.4	1.8	49.5
Rancho Mirage	2.4	3.3	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.4
Ripley	2.7	3.3	5.6	7.2	8.7	8.7	8.4	7.6	6.2	4.6	2.8	2.2	67.8
Salton Sea North	2.5	3.3	5.5	7.2	8.8	9.3	9.2	8.5	6.8	5.2	3.1	2.3	71.7
Temecula East II	2.3	2.4	4.1	4.9	6.4	7.0	7.8	7.4	5.7	4.1	2.6	2.2	56.7
Thermal	2.4	3.3	5.5	7.6	9.1	9.6	9.3	8.6	7.1	5.2	3.1	2.1	72.8
Riverside UC	2.5	2.9	4.2	5.3	5.9	6.6	7.2	6.9	5.4	4.1	2.9	2.6	56.4
Winchester	2.3	2.4	4.1	4.9	6.4	6.9	7.7	7.5	6.0	3.9	2.6	2.1	56.8
SACRAMENTO													
Fair Oaks	1.0	1.6	3.4	4.1	6.5	7.5	8.1	7.1	5.2	3.4	1.5	1.0	50.5
Sacramento	1.0	1.8	3.2	4.7	6.4	7.7	8.4	7.2	5.4	3.7	1.7	0.9	51.9
Twitchell Island	1.2	1.8	3.9	5.3	7.4	8.8	9.1	7.8	5.9	3.8	1.7	1.2	57.9
SAN BENITO													
Hollister	1.5	1.8	3.1	4.3	5.5	5.7	6.4	5.9	5.0	3.5	1.7	1.1	45.1
San Benito	1.2	1.6	3.1	4.6	5.6	6.4	6.9	6.5	4.8	3.7	1.7	1.2	47.2
San Juan Valley	1.4	1.8	3.4	4.5	6.0	6.7	7.1	6.4	5.0	3.5	1.8	1.4	49.1
SAN BERNARDINO													
Baker	2.7	3.9	6.1	8.3	10.4	11.8	12.2	11.0	8.9	6.1	3.3	2.1	86.6
Barstow NE	2.2	2.9	5.3	6.9	9.0	10.1	9.9	8.9	6.8	4.8	2.7	2.1	71.7
Big Bear Lake	1.8	2.6	4.6	6.0	7.0	7.6	8.1	7.4	5.4	4.1	2.4	1.8	58.6
Chino	2.1	2.9	3.9	4.5	5.7	6.5	7.3	7.1	5.9	4.2	2.6	2.0	54.6
Crestline	1.5	1.9	3.3	4.4	5.5	6.6	7.8	7.1	5.4	3.5	2.2	1.6	50.8
Lake Arrowhead	1.8	2.6	4.6	6.0	7.0	7.6	8.1	7.4	5.4	4.1	2.4	1.8	58.6
Lucerne Valley	2.2	2.9	5.1	6.5	9.1	11.0	11.4	9.9	7.4	5.0	3.0	1.8	75.3
Needles	3.2	4.2	6.6	8.9	11.0	12.4	12.8	11.0	8.9	6.6	4.0	2.7	92.1
Newberry Springs	2.1	2.9	5.3	8.4	9.8	10.9	11.1	9.9	7.6	5.2	3.1	2.0	78.2
San Bernardino	2.0	2.7	3.8	4.6	5.7	6.9	7.9	7.4	5.9	4.2	2.6	2.0	55.6
Twentynine Palms	2.6	3.6	5.9	7.9	10.1	11.2	11.2	10.3	8.6	5.9	3.4	2.2	82.9
Victorville	2.0	2.6	4.6	6.2	7.3	8.9	9.8	9.0	6.5	4.7	2.7	2.1	66.2
SAN DIEGO													
Chula Vista	2.2	2.7	3.4	3.8	4.9	4.7	5.5	4.9	4.5	3.4	2.4	2.0	44.2
Escondido SPV	2.4	2.6	3.9	4.7	5.9	6.5	7.1	6.7	5.3	3.9	2.8	2.3	54.2
Miramar	2.3	2.5	3.7	4.1	5.1	5.4	6.1	5.8	4.5	3.3	2.4	2.1	47.1
Oceanside	2.2	2.7	3.4	3.7	4.9	4.6	4.6	5.1	4.1	3.3	2.4	2.0	42.9
Otay Lake	2.3	2.7	3.9	4.6	5.6	5.9	6.2	6.1	4.8	3.7	2.6	2.2	50.4
Pine Valley	1.5	2.4	3.8	5.1	6.0	7.0	7.8	7.3	6.0	4.0	2.2	1.7	54.8
Ramona	2.1	2.1	3.4	4.6	5.2	6.3	6.7	6.8	5.3	4.1	2.8	2.1	51.6
San Diego	2.1	2.4	3.4	4.6	5.1	5.3	5.7	5.6	4.3	3.6	2.4	2.0	46.5
Santee	2.1	2.7	3.7	4.5	5.5	6.1	6.6	6.2	5.4	3.8	2.6	2.0	51.1
Torrey Pines	2.2	2.3	3.4	3.9	4.0	4.1	4.6	4.7	3.8	2.8	2.0	2.0	39.8
Warner Springs	1.6	2.7	3.7	4.7	5.7	7.6	8.3	7.7	6.3	4.0	2.5	1.3	56.0
SAN FRANCISCO													
San Francisco	1.5	1.3	2.4	3.0	3.7	4.6	4.9	4.8	4.1	2.8	1.3	0.7	35.1
SAN JOAQUIN													
Farmington	1.5	1.5	2.9	4.7	6.2	7.6	8.1	6.8	5.3	3.3	1.4	0.7	50.0

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
SAN JOAQUIN													
Lodi West	1.0	1.6	3.3	4.3	6.3	6.9	7.3	6.4	4.5	3.0	1.4	0.8	46.7
Manteca	0.9	1.7	3.4	5.0	6.5	7.5	8.0	7.1	5.2	3.3	1.6	0.9	51.2
Stockton	0.8	1.5	2.9	4.7	6.2	7.4	8.1	6.8	5.3	3.2	1.4	0.6	49.1
Tracy	1.0	1.5	2.9	4.5	6.1	7.3	7.9	6.7	5.3	3.2	1.3	0.7	48.5
SAN LUIS OBISPO													
Arroyo Grande	2.0	2.2	3.2	3.8	4.3	4.7	4.3	4.6	3.8	3.2	2.4	1.7	40.0
Atascadero	1.2	1.5	2.8	3.9	4.5	6.0	6.7	6.2	5.0	3.2	1.7	1.0	43.7
Morro Bay	2.0	2.2	3.1	3.5	4.3	4.5	4.6	4.6	3.8	3.5	2.1	1.7	39.9
Nipomo	2.2	2.5	3.8	5.1	5.7	6.2	6.4	6.1	4.9	4.1	2.9	2.3	52.1
Paso Robles	1.6	2.0	3.2	4.3	5.5	6.3	7.3	6.7	5.1	3.7	2.1	1.4	49.0
San Luis Obispo	2.0	2.2	3.2	4.1	4.9	5.3	4.6	5.5	4.4	3.5	2.4	1.7	43.8
San Miguel	1.6	2.0	3.2	4.3	5.0	6.4	7.4	6.8	5.1	3.7	2.1	1.4	49.0
San Simeon	2.0	2.0	2.9	3.5	4.2	4.4	4.6	4.3	3.5	3.1	2.0	1.7	38.1
SAN MATEO													
Hal Moon Bay	1.5	1.7	2.4	3.0	3.9	4.3	4.3	4.2	3.5	2.8	1.3	1.0	33.7
Redwood City	1.5	1.8	2.9	3.8	5.2	5.3	6.2	5.6	4.8	3.1	1.7	1.0	42.8
Woodside	1.8	2.2	3.4	4.8	5.6	6.3	6.5	6.2	4.8	3.7	2.4	1.8	49.5
SANTA BARBARA													
Betteravia	2.1	2.6	4.0	5.2	6.0	5.9	5.8	5.4	4.1	3.3	2.7	2.1	49.1
Carpenteria	2.0	2.4	3.2	3.9	4.8	5.2	5.5	5.7	4.5	3.4	2.4	2.0	44.9
Cuyama	2.1	2.4	3.8	5.4	6.9	7.9	8.5	7.7	5.9	4.5	2.6	2.0	59.7
Goleta	2.1	2.5	3.9	5.1	5.7	5.7	5.4	5.4	4.2	3.2	2.8	2.2	48.1
Goleta Foothills	2.3	2.6	3.7	5.4	5.3	5.6	5.5	5.7	4.5	3.9	2.8	2.3	49.6
Guadalupe	2.0	2.2	3.2	3.7	4.9	4.6	4.5	4.6	4.1	3.3	2.4	1.7	41.1
Lompoc	2.0	2.2	3.2	3.7	4.8	4.6	4.9	4.8	3.9	3.2	2.4	1.7	41.1
Los Alamos	1.8	2.0	3.2	4.1	4.9	5.3	5.7	5.5	4.4	3.7	2.4	1.6	44.6
Santa Barbara	2.0	2.5	3.2	3.8	4.6	5.1	5.5	4.5	3.4	2.4	1.8	1.8	40.6
Santa Maria	1.8	2.3	3.7	5.1	5.7	5.8	5.6	5.3	4.2	3.5	2.4	1.9	47.4
Santa Ynez	1.7	2.2	3.5	5.0	5.8	6.2	6.4	6.0	4.5	3.6	2.2	1.7	48.7
Sisquoc	2.1	2.5	3.8	4.1	6.1	6.3	6.4	5.8	4.7	3.4	2.3	1.8	49.2
Solvang	2.0	2.0	3.3	4.3	5.0	5.6	6.1	5.6	4.4	3.7	2.2	1.6	45.6
SANTA CLARA													
Gilroy	1.3	1.8	3.1	4.1	5.3	5.6	6.1	5.5	4.7	3.4	1.7	1.1	43.6
Los Gatos	1.5	1.8	2.8	3.9	5.0	5.6	6.2	5.5	4.7	3.2	1.7	1.1	42.9
Morgan Hill	1.5	1.8	3.4	4.2	6.3	7.0	7.1	6.0	5.1	3.7	1.9	1.4	49.5
Palo Alto	1.5	1.8	2.8	3.8	5.2	5.3	6.2	5.6	5.0	3.2	1.7	1.0	43.0
San Jose	1.5	1.8	3.1	4.1	5.5	5.8	6.5	5.9	5.2	3.3	1.8	1.0	45.3
SANTA CRUZ													
De Laveaga	1.4	1.9	3.3	4.7	4.9	5.3	5.0	4.8	3.6	3.0	1.6	1.3	40.8
Green Valley Rd	1.2	1.8	3.2	4.5	4.6	5.4	5.2	5.0	3.7	3.1	1.6	1.3	40.6
Santa Cruz	1.5	1.8	2.6	3.5	4.3	4.4	4.8	4.4	3.8	2.8	1.7	1.2	36.6
Watsonville	1.5	1.8	2.7	3.7	4.6	4.5	4.9	4.2	4.0	2.9	1.8	1.2	37.7
Webb	1.8	2.2	3.7	4.8	5.3	5.7	5.6	5.3	4.3	3.4	2.4	1.8	46.2
SHASTA													
Burney	0.7	1.0	2.1	3.5	4.9	5.9	7.4	6.4	4.4	2.9	0.9	0.6	40.9
Fall River Mills	0.6	1.0	2.1	3.7	5.0	6.1	7.8	6.7	4.6	2.8	0.9	0.5	41.8
Glenburn	0.6	1.0	2.1	3.7	5.0	6.3	7.8	6.7	4.7	2.8	0.9	0.6	42.1
McArthur	0.7	1.4	2.9	4.2	5.6	6.9	8.2	7.2	5.0	3.0	1.1	0.6	46.8
Redding	1.2	1.4	2.6	4.1	5.6	7.1	8.5	7.3	5.3	3.2	1.4	0.9	48.8

Appendix A - Reference Evapotranspiration (ET_o) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ET _o
SIERRA													
Downieville	0.7	1.0	2.3	3.5	5.0	6.0	7.4	6.2	4.7	2.8	0.9	0.6	41.3
Sierraville	0.7	1.1	2.2	3.2	4.5	5.9	7.3	6.4	4.3	2.6	0.9	0.5	39.6
SISKIYOU													
Happy Camp	0.5	0.9	2.0	3.0	4.3	5.2	6.1	5.3	4.1	2.4	0.9	0.5	35.1
MacDoel	1.0	1.7	3.1	4.5	5.9	7.2	8.1	7.1	5.1	3.1	1.5	1.0	49.0
Mt Shasta	0.5	0.9	2.0	3.0	4.5	5.3	6.7	5.7	4.0	2.2	0.7	0.5	36.0
Tule lake FS	0.7	1.3	2.7	4.0	5.4	6.3	7.1	6.4	4.7	2.8	1.0	0.6	42.9
Weed	0.5	0.9	2.0	2.5	4.5	5.3	6.7	5.5	3.7	2.0	0.9	0.5	34.9
Yreka	0.6	0.9	2.1	3.0	4.9	5.8	7.3	6.5	4.3	2.5	0.9	0.5	39.2
SOLANO													
Dixon	0.7	1.4	3.2	5.2	6.3	7.6	8.2	7.2	5.5	4.3	1.6	1.1	52.1
Fairfield	1.1	1.7	2.8	4.0	5.5	6.1	7.8	6.0	4.8	3.1	1.4	0.9	45.2
Hastings Tract	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
Putah Creek	1.0	1.6	3.2	4.9	6.1	7.3	7.9	7.0	5.3	3.8	1.8	1.2	51.0
Rio Vista	0.9	1.7	2.8	4.4	5.9	6.7	7.9	6.5	5.1	3.2	1.3	0.7	47.0
Suisun Valley	0.6	1.3	3.0	4.7	5.8	7.0	7.7	6.8	5.3	3.8	1.4	0.9	48.3
Winters	0.9	1.7	3.3	5.0	6.4	7.5	7.9	7.0	5.2	3.5	1.6	1.0	51.0
SONOMA													
Bennett Valley	1.1	1.7	3.2	4.1	5.5	6.5	6.6	5.7	4.5	3.1	1.5	0.9	44.4
Cloverdale	1.1	1.4	2.6	3.4	5.0	5.9	6.2	5.6	4.5	2.8	1.4	0.7	40.7
Fort Ross	1.2	1.4	2.2	3.0	3.7	4.5	4.2	4.3	3.4	2.4	1.2	0.5	31.9
Gealdsburg	1.2	1.5	2.4	3.5	5.0	5.9	6.1	5.6	4.5	2.8	1.4	0.7	40.8
Lincoln	1.2	1.7	2.8	4.7	6.1	7.4	8.4	7.3	5.4	3.7	1.9	1.2	51.9
Petaluma	1.2	1.5	2.8	3.7	4.6	5.6	4.6	5.7	4.5	2.9	1.4	0.9	39.6
Santa Rosa	1.2	1.7	2.8	3.7	5.0	6.0	6.1	5.9	4.5	2.9	1.5	0.7	42.0
Valley of the Moon	1.0	1.6	3.0	4.5	5.6	6.6	7.1	6.3	4.7	3.3	1.5	1.0	46.1
Windsor	0.9	1.6	3.0	4.5	5.5	6.5	6.5	5.9	4.4	3.2	1.4	1.0	44.2
STANISLAUS													
Denair	1.0	1.9	3.6	4.7	7.0	7.9	8.0	6.1	5.3	3.4	1.5	1.0	51.4
La Grange	1.2	1.5	3.1	4.7	6.2	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.2
Modesto	0.9	1.4	3.2	4.7	6.4	7.7	8.1	6.8	5.0	3.4	1.4	0.7	49.7
Newman	1.0	1.5	3.2	4.6	6.2	7.4	8.1	6.7	5.0	3.4	1.4	0.7	49.3
Oakdale	1.2	1.5	3.2	4.7	6.2	7.7	8.1	7.1	5.1	3.4	1.4	0.7	50.3
Patterson	1.3	2.1	4.2	5.4	7.9	8.6	8.2	6.6	5.8	4.0	1.9	1.3	57.3
Turlock	0.9	1.5	3.2	4.7	6.5	7.7	8.2	7.0	5.1	3.4	1.4	0.7	50.2
SUTTER													
Nicolaus	0.9	1.6	3.2	4.9	6.3	7.5	8.0	6.9	5.2	3.4	1.5	0.9	50.2
Yuba City	1.3	2.1	2.8	4.4	5.7	7.2	7.1	6.1	4.7	3.2	1.2	0.9	46.7
TEHAMA													
Corning	1.2	1.8	2.9	4.5	6.1	7.3	8.1	7.2	5.3	3.7	1.7	1.1	50.7
Gerber	1.0	1.8	3.5	5.0	6.6	7.9	8.7	7.4	5.8	4.1	1.8	1.1	54.7
Gerber Dryland	0.9	1.6	3.2	4.7	6.7	8.4	9.0	7.9	6.0	4.2	2.0	1.0	55.5
Red Bluff	1.2	1.8	2.9	4.4	5.9	7.4	8.5	7.3	5.4	3.5	1.7	1.0	51.1
TRINITY													
Hay Fork	0.5	1.1	2.3	3.5	4.9	5.9	7.0	6.0	4.5	2.8	0.9	0.7	40.1
Weaverville	0.6	1.1	2.2	3.3	4.9	5.9	7.3	6.0	4.4	2.7	0.9	0.7	40.0
UTAH													
Alpaugh	0.9	1.7	3.4	4.8	6.6	7.7	8.2	7.3	5.4	3.4	1.4	0.7	51.6
Badger	1.0	1.3	2.7	4.1	6.0	7.3	7.7	7.0	4.8	3.3	1.4	0.7	47.3
Delano	1.1	1.9	4.0	4.9	7.2	7.9	8.1	7.3	5.4	3.2	1.5	1.2	53.6

Appendix A - Reference Evapotranspiration (ET_o) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ET _o
TULARE													
Dinuba	1.1	1.5	3.2	4.7	6.2	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.2
Lindcove	0.9	1.6	3.0	4.8	6.5	7.6	8.1	7.2	5.2	3.4	1.6	0.9	50.6
Porterville	1.2	1.8	3.4	4.7	6.6	7.7	8.5	7.3	5.3	3.4	1.4	0.7	52.1
Visalia	0.9	1.7	3.3	5.1	6.8	7.7	7.9	6.9	4.9	3.2	1.5	0.8	50.7
TUOLUMNE													
Groveland	1.1	1.5	2.8	4.1	5.7	7.2	7.9	6.6	5.1	3.3	1.4	0.7	47.5
Sonora	1.1	1.5	2.8	4.1	5.8	7.2	7.9	6.7	5.1	3.2	1.4	0.7	47.6
VENTURA													
Camarillo	2.2	2.5	3.7	4.3	5.0	5.2	5.9	5.4	4.2	3.0	2.5	2.1	46.1
Oxnard	2.2	2.5	3.2	3.7	4.4	4.6	5.4	4.8	4.0	3.3	2.4	2.0	42.3
Piru	2.8	2.8	4.1	5.6	6.0	6.8	7.6	7.8	5.8	5.2	3.7	3.2	61.5
Port Hueneme	2.0	2.3	3.3	4.6	4.9	4.9	4.9	5.0	3.7	3.2	2.5	2.2	43.5
Thousand Oaks	2.2	2.6	3.4	4.5	5.4	5.9	6.7	6.4	5.4	3.9	2.6	2.0	51.0
Ventura	2.2	2.6	3.2	3.8	4.6	4.7	5.5	4.9	4.1	3.4	2.5	2.0	43.5
YOLO													
Bryte	0.9	1.7	3.3	5.0	6.4	7.5	7.9	7.0	5.2	3.5	1.6	1.0	51.0
Davis	1.0	1.9	3.3	5.0	6.4	7.6	8.2	7.1	5.4	4.0	1.8	1.0	52.5
Esparto	1.0	1.7	3.4	5.5	6.9	8.1	8.5	7.5	5.8	4.2	2.0	1.2	55.8
Winters	1.7	1.7	2.9	4.4	5.8	7.1	7.9	6.7	5.3	3.3	1.6	1.0	49.4
Woodland	1.0	1.8	3.2	4.7	6.1	7.7	8.2	7.2	5.4	3.7	1.7	1.0	51.6
Zamora	1.1	1.9	3.5	5.2	6.4	7.4	7.8	7.0	5.5	4.0	1.9	1.2	52.8
YUBA													
Browns Valley	1.0	1.7	3.1	4.7	6.1	7.5	8.5	7.6	5.7	4.1	2.0	1.1	52.9
Brownsville	1.1	1.4	2.6	4.0	5.7	6.8	7.9	6.8	5.3	3.4	1.5	0.9	47.4

* The values in this table were derived from:

- 1) California Irrigation Management Information System (CIMIS);
- 2) Reference EvapoTranspiration Zones Map, UC Dept. of Land, Air & Water Resources and California Dept of Water Resources 1999; and
- 3) Reference Evapotranspiration for California, University of California, Department of Agriculture and Natural Resources (1987) Bulletin 1922, 4) Determining Daily Reference Evapotranspiration, Cooperative Extension UC Division of Agriculture and Natural Resources (1987), Publication Leaflet 21426

Appendix B – Sample Water Efficient Landscape Worksheet.

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package.
Please complete all sections (A and B) of the worksheet.

SECTION A. HYDROZONE INFORMATION TABLE

Please complete the hydrozone table(s) for each hydrozone. Use as many tables as necessary to provide the square footage of landscape area per hydrozone.

Hydrozone*	Zone or Valve	Irrigation Method**	Area (Sq. Ft.)	% of Landscape Area
Total				100%

* Hydrozone
HW = High Water Use Plants
MW = Moderate Water Use Plants
LW = Low Water Use Plants

**Irrigation Method
MS = Micro-spray
S = Spray
R = Rotor
B = Bubbler
D = Drip
O = Other

SECTION B. WATER BUDGET CALCULATIONS

Section B1. Maximum Applied Water Allowance (MAWA)

The project's Maximum Applied Water Allowance shall be calculated using this equation:

$$\text{MAWA} = (\text{ETo}) (0.62) [(0.7 \times \text{LA}) + (0.3 \times \text{SLA})]$$

where:

MAWA = Maximum Applied Water Allowance (gallons per year)

ETo = Reference Evapotranspiration from Appendix A (inches per year)

0.7 = ET Adjustment Factor (ETAF)

LA = Landscaped Area includes Special Landscape Area (square feet)

0.62 = Conversion factor (to gallons per square foot)

SLA = Portion of the landscape area identified as Special Landscape Area (square feet)

0.3 = the additional ET Adjustment Factor for Special Landscape Area ($1.0 - 0.7 = 0.3$)

Maximum Applied Water Allowance = _____ gallons per year

Show calculations.

Effective Precipitation (Eppt)

If considering Effective Precipitation, use 25% of annual precipitation. Use the following equation to calculate Maximum Applied Water Allowance:

$$\text{MAWA} = (\text{ETo} - \text{Eppt}) (0.62) [(0.7 \times \text{LA}) + (0.3 \times \text{SLA})]$$

Maximum Applied Water Allowance = _____ gallons per year

Show calculations.

Section B2. Estimated Total Water Use (ETWU)

The project's Estimated Total Water Use is calculated using the following formula:

$$ETWU = (ETo)(0.62) \left(\frac{PF \times HA}{IE} + SLA \right)$$

where:

- ETWU = Estimated total water use per year (gallons per year)
- ETo = Reference Evapotranspiration (inches per year)
- PF = Plant Factor from WUCOLS (see Definitions)
- HA = Hydrozone Area [high, medium, and low water use areas] (square feet)
- SLA = Special Landscape Area (square feet)
- 0.62 = Conversion Factor (to gallons per square foot)
- IE = Irrigation Efficiency (minimum 0.71)

Hydrozone Table for Calculating ETWU

Please complete the hydrozone table(s). Use as many tables as necessary.

Hydrozone	Plant Water Use Type(s)	Plant Factor (PF)	Area (HA) (square feet)	PF x HA (square feet)
			Sum	
	SLA			

Estimated Total Water Use = _____ gallons

Show calculations.

Appendix C – Sample Certificate of Completion.

CERTIFICATE OF COMPLETION

This certificate is filled out by the project applicant upon completion of the landscape project.

PART 1. PROJECT INFORMATION SHEET

Date		
Project Name		
Name of Project Applicant	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Project Address and Location:

Street Address		Parcel, tract or lot number, if available.
City		Latitude/Longitude (optional)
State	Zip Code	

Property Owner or his/her designee:

Name	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Property Owner

"I/we certify that I/we have received copies of all the documents within the Landscape Documentation Package and the Certificate of Completion and that it is our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule."

Property Owner Signature

Date

Please answer the questions below:

1. Date the Landscape Documentation Package was submitted to the local agency _____
2. Date the Landscape Documentation Package was approved by the local agency _____
3. Date that a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the local water purveyor _____

PART 2. CERTIFICATION OF INSTALLATION ACCORDING TO THE LANDSCAPE DOCUMENTATION PACKAGE

"I/we certify that based upon periodic site observations, the work has been substantially completed in accordance with the ordinance and that the landscape planting and irrigation installation conform with the criteria and specifications of the approved Landscape Documentation Package."

Signature*		Date	
Name (print)		Telephone No.	
		Fax No.	
Title		Email Address	
License No. or Certification No.			
Company		Street Address	
City	State	Zip Code	

*Signer of the landscape design plan, signer of the irrigation plan, or a licensed landscape contractor.

PART 3. IRRIGATION SCHEDULING

Attach parameters for setting the irrigation schedule on controller per ordinance Section 492.10.

PART 4. SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE

Attach schedule of Landscape and Irrigation Maintenance per ordinance Section 492.11.

PART 5. LANDSCAPE IRRIGATION AUDIT REPORT

Attach Landscape Irrigation Audit Report per ordinance Section 492.12.

PART 6. SOIL MANAGEMENT REPORT

Attach soil analysis report, if not previously submitted with the Landscape Documentation Package per ordinance Section 492.5.

Attach documentation verifying implementation of recommendations from soil analysis report per ordinance Section 492.5.

Memorandum

To: Chair Armstrong and Planning Commissioners

From: David Woltering, Community Development Director 

Date: February 9, 2010

Subject: Agenda Item 6B. Review regarding Planning Commission Meeting Procedures and Protocol

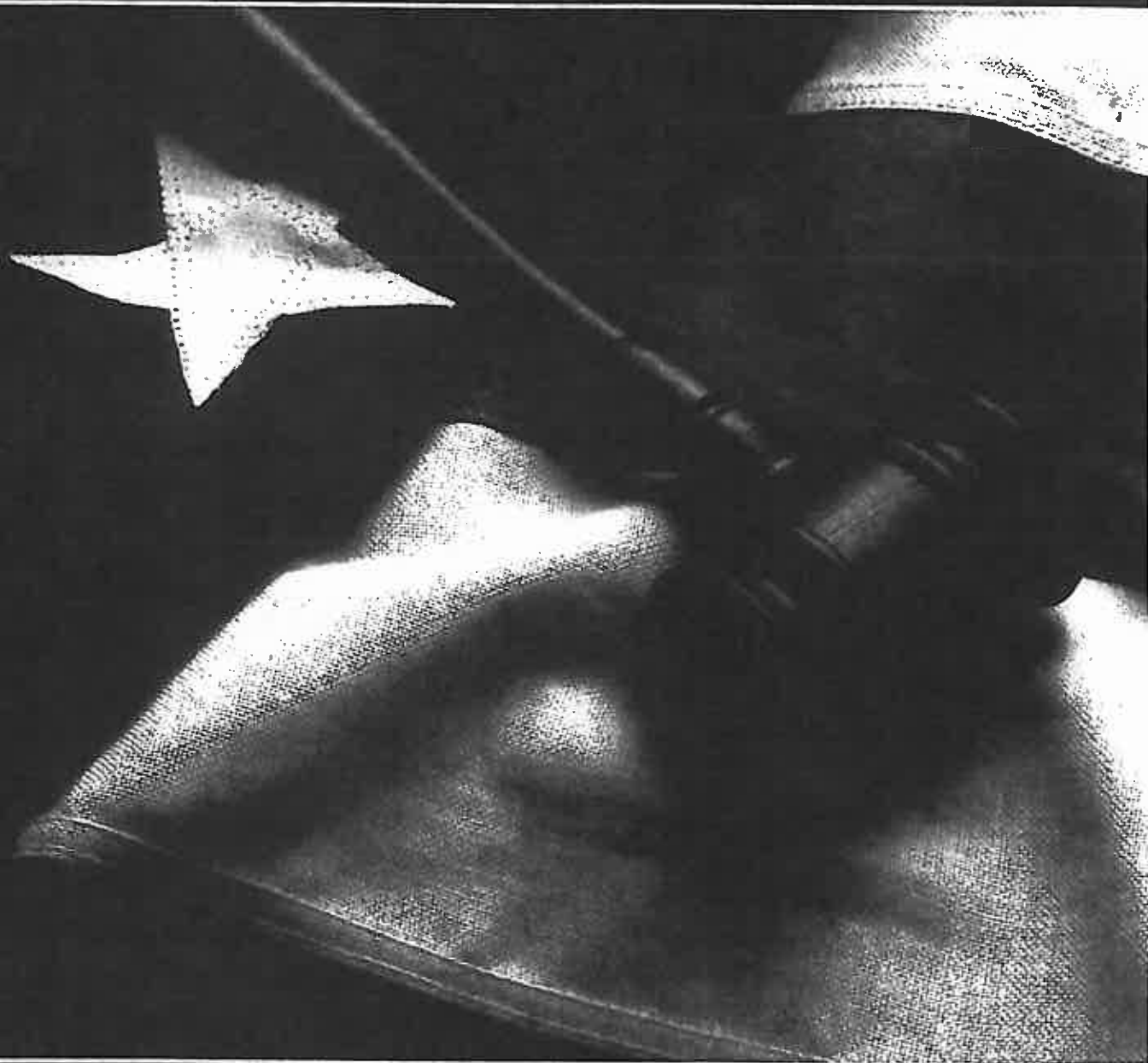
At the January 26, 2010 Planning Commission meeting, various commissioners indicated an interest in reviewing standard procedures and protocol for conducting our meetings. Attached are useful guides that we will review as part of this Agenda Item.

Exhibits:

- A Rosenberg's Rules of Order: Simple Parliamentary Procedures for the 21st Century
- B Successful Meetings
- C Parliamentary

comdev/memorandum/planning commission meeting procedures and protocol

Rosenberg's Rules of Order:
Simple Parliamentary
Procedures for the 21st Century



Rosenberg's Rules of Order: Simple Parliamentary Procedures for the 21st Century

by Dave Rosenberg

The rules of procedure at meetings should be simple enough for most people to understand. Unfortunately, that hasn't always been the case. Virtually all clubs, associations, boards, councils and bodies follow a set of rules, *Robert's Rules of Order*, which are embodied in a small but complex book. Virtually no one I know has actually read this book cover to cover.

Worse yet, the book was written for another time and purpose. If you are running the British Parliament, *Robert's Rules of Order* is a dandy and quite useful handbook. On the other hand, if you're running a meeting of a five-member body with a few members of the public in attendance, a simplified version of the rules of parliamentary procedure is in order. Hence, the birth of "Rosenberg's Rules of Order."

This publication covers the rules of parliamentary procedure based on my 20 years of experience chairing meetings in state and local government. These rules have been simplified and slimmed down for 21st century meetings, yet they retain the basic tenets of order to which we are accustomed.

"Rosenberg's Rules of Order" are supported by the following four principles:

1. **Rules should establish order.** The first purpose of the rules of parliamentary procedure is to establish a

framework for the orderly conduct of meetings.

2. **Rules should be clear.** Simple rules lead to wider understanding and participation. Complex rules create two classes: those who understand and participate and those who do not fully understand and do not fully participate.
3. **Rules should be user-friendly.** That is, the rules must be simple enough that citizens feel they have been able to participate in the process.
4. **Rules should enforce the will of the majority while protecting the rights of the minority.** The ultimate purpose of the rules of procedure is to encourage discussion and to facilitate decision-making by the body. In a democracy, the majority rules. The rules must enable the majority to express itself and fashion a result, while permitting the minority to also express itself (but not dominate) and fully participate in the process.

The Chairperson Should Take a Back Seat During Discussions

While all members of the governing body should know and understand the rules of parliamentary procedure, it is the chairperson (chair) who is charged with applying the rules of conduct. The chair should be well versed in those

rules, because the chair, for all intents and purposes, makes the final ruling on the rules. In fact, all decisions by the chair are final unless overruled by the governing body itself.

Because the chair conducts the meeting, it is common courtesy for the chair to take a less active role than other members of the body in debates and discussions. This does *not* mean that the chair should not participate in the debate or discussion. On the contrary, as a member of the body, the chair has full rights to participate in debates, discussions and decision-making. The chair should, however, strive to be the last to speak at the discussion and debate stage, and should not make or second a motion unless he or she is convinced that no other member of the body will do so.

The Basic Format for an Agenda Item Discussion

Formal meetings normally have a written, published agenda; informal meetings may have only an oral or understood agenda. In either case, the meeting is governed by the agenda and the agenda constitutes the body's agreed-upon road map for the meeting. And each agenda item can be handled by the chair in the following basic format.

First, the chair should clearly announce the agenda item number and should clearly state what the subject is. The chair should then announce the format that will be followed.

Second, following that agenda format, the chair should invite the appropriate people to report on the item, including any recommendation they might have. The appropriate person may be the chair, a member of the governing body,

There are exceptions to the general rule of free and open debate on motions. The exceptions all apply when there is a desire to move on.

a staff person, or a committee chair charged with providing information about the agenda item.

Third, the chair should ask members of the body if they have any technical questions for clarification. At this point, members of the governing body may ask clarifying questions to the people who reported on the item, and they should be given time to respond.

Fourth, the chair should invite public comments or, if appropriate at a formal meeting, open the meeting to public input. If numerous members of the public indicate a desire to speak to the subject, the chair may limit the time of each public speaker. At the conclusion of the public comments, the chair should announce that public input has concluded (or that the public hearing, as the case may be, is closed).

Fifth, the chair should invite a motion from the governing body members. The chair should announce the name of the member who makes the motion.

Sixth, the chair should determine if any member of the body wishes to second the motion. The chair should announce the name of the member who seconds the motion. It is normally good practice for a motion to require a second before proceeding with it, to ensure that it is not just one member of the body who is interested in a particular approach. However, a second is not an absolute requirement, and the chair can proceed with consideration and a vote on the motion even when there is no second. This is a matter left to the discretion of the chair.

Seventh, if the motion is made and seconded, the chair should make sure everyone understands the motion. This is done in one of three ways:

1. The chair can ask the maker of the motion to repeat it;
2. The chair can repeat the motion; or
3. The chair can ask the secretary or the clerk of the body to repeat the motion.

Eighth, the chair should now invite discussion of the motion by the members of the governing body. If there is no desired discussion or the discussion has ended, the chair should announce that the body will vote on the motion. If there has been no discussion or a very brief discussion, the vote should proceed immediately, and there is no need to repeat the motion. If there has been substantial discussion, it is normally best to make sure everyone understands the motion by repeating it.

Debate on policy is healthy; debate on personalities is not. The chair has the right to cut off discussion that is too personal, too loud or too crude.

Ninth, the chair takes a vote. Simply asking for the "ayes" and then the "nays" is normally sufficient. If members of the body do not vote, then they "abstain." Unless the rules of the body provide otherwise or unless a super-majority is required (as delineated later in these rules), a simple majority determines whether the motion passes or is defeated.

Tenth, the chair should announce the result of the vote and should announce what action (if any) the body has taken. In announcing the result, the chair should indicate the names of the members, if any, who voted in the minority on the motion. This announcement might take the following form: "The motion passes by a vote of 3-2, with Smith and Jones dissenting. We have passed the motion requiring 10 days' notice for all future meetings of this governing body."

Motions in General

Motions are the vehicles for decision-making. It is usually best to have a motion before the governing body prior to discussing an agenda item, to help everyone focus on the motion before them.

Motions are made in a simple two-step process. First, the chair recognizes the member. Second, the member makes a motion by preceding the member's desired approach with the words: "I move ..." A typical motion might be: "I move that we give 10 days' notice in the future for all our meetings."

The chair usually initiates the motion by:

1. Inviting the members to make a motion: "A motion at this time would be in order."

2. Suggesting a motion to the members: "A motion would be in order that we give 10-days' notice in the future for all our meetings."
3. Making the motion.

As noted, the chair has every right as a member of the body to make a motion, but normally should do so only if he or she wishes a motion to be made but no other member seems willing to do so.

The Three Basic Motions

Three motions are the most common:

1. **The basic motion.** The basic motion is the one that puts forward a decision for consideration. A basic motion might be: "I move that we create a five-member committee to plan and put on our annual fundraiser."
2. **The motion to amend.** If a member wants to change a basic motion that is under discussion, he or she would move to amend it. A motion to amend might be: "I move that we amend the motion to have a 10-member committee." A motion to amend takes the basic motion that is before the body and seeks to change it in some way.

3. **The substitute motion.** If a member wants to completely do away with the basic motion under discussion and put a new motion before the governing body, he or she would "move a substitute motion." A substitute motion might be: "I move a substitute motion that we cancel the annual fundraiser this year."

Motions to amend and substitute motions are often confused. But they are quite different, and so is their effect, if passed.

A motion to amend seeks to retain the basic motion on the floor, but to modify it in some way.

A substitute motion seeks to throw out the basic motion on the floor and substitute a new and different motion for it.

The decision as to whether a motion is really a motion to amend or a substitute motion is left to the chair. So that if a member makes what that member calls a motion to amend, but the chair determines it is really a substitute motion, the chair's designation governs.

When Multiple Motions Are Before The Governing Body

Up to three motions may be on the floor simultaneously. The chair may reject a fourth motion until the three that are on the floor have been resolved.

When two or three motions are on the floor (after motions and seconds) at the same time, the *first* vote should be on the *last* motion made. So, for example, assume the first motion is a basic "motion to have a five-member committee to plan and put on our annual fundraiser." During the discussion of this motion, a member might make a second motion to "amend the main motion to have a 10-member committee, not a five-member committee, to plan and put on our annual fundraiser." And perhaps, during that discussion, a member makes yet a third motion as a "substitute motion that we not have an annual fundraiser this year." The proper procedure would be as follows.

First, the chair would deal with the *third* (the last) motion on the floor, the substitute motion. After discussion and debate, a vote would be taken first on the third motion. If the substitute motion *passes*, it would be a substitute for the basic motion and would eliminate it. The first motion would be moot, as would the second motion (which sought to amend the first motion), and the action on the agenda item would be complete. No vote would be taken on the first or second motions. On the other hand, if the substitute motion (the third motion) *failed*, the chair would proceed to consideration of the second (now the last) motion on the floor, the motion to amend.

If the substitute motion failed, the chair would then deal with the second (now the last) motion on the floor, the motion to amend. The discussion and debate would focus strictly on the amendment (should the committee be five or 10 members). If the motion to amend *passed*, the chair would now move to consider the main motion (the first motion) as *amended*. If the motion to amend failed, the chair would now move to consider the main motion (the first motion) in its original format, not amended.

The challenge for anyone chairing a public meeting is to accommodate public input in a timely and time-sensitive way, while maintaining steady progress through the agenda items.

Third, the chair would now deal with the first motion that was placed on the floor. The original motion would either be in its original format (five-member committee) or, if amended, would be in its amended format (10-member committee). And the question on the floor for discussion and decision would be whether a committee should plan and put on the annual fundraiser.

To Debate or Not to Debate

The basic rule of motions is that they are subject to discussion and debate. Accordingly, basic motions, motions to amend, and substitute motions are all eligible, each in their turn, for full discussion before and by the body. The debate can continue as long as members of the body wish to discuss an item, subject to the decision of the chair that it is time to move on and take action.

There are exceptions to the general rule of free and open debate on motions. The exceptions all apply when there is a desire of the body to move on. The following motions are *not* debatable (that is, when the following motions are made and seconded, the chair must immediately call for a vote of the body without debate on the motion):

A motion to adjourn. This motion, if passed, requires the body to immediately adjourn to its next regularly scheduled meeting. This motion requires a simple majority vote.

A motion to recess. This motion, if passed, requires the body to immediately take a recess. Normally, the chair determines the length of the recess, which may range from a few minutes to an hour. It requires a simple majority vote.

A motion to fix the time to adjourn.

This motion, if passed, requires the body to adjourn the meeting at the specific time set in the motion. For example, the motion might be: "I move we adjourn this meeting at midnight." It requires a simple majority vote.

A motion to table. This motion, if passed, requires discussion of the agenda item to be halted and the agenda item to

be placed on "hold." The motion may contain a specific time in which the item can come back to the body: "I move we table this item until our regular meeting in October." Or the motion may contain no specific time for the return of the item, in which case a motion to take the item off the table and bring it back to the body will have to be taken at a future meeting. A motion to table an item (or to bring it back to the body) requires a simple majority vote.

A motion to limit debate. The most common form of this motion is to say: "I move the previous question" or "I move the question" or "I call for the question." When a member of the body makes such a motion, the member is really saying: "I've had enough debate. Let's get on with the vote." When such a motion is made, the chair should ask for a second to the motion, stop debate, and vote on the motion to limit debate. The motion to limit debate requires a two-thirds vote of the body. Note that a motion to limit debate could include a time limit. For example: "I move we limit debate on this agenda item to 15 minutes." Even in this format, the

the motion fails. If one member is absent and the vote is 3-3, the motion still fails.

All motions require a simple majority, but there are a few exceptions. The exceptions occur when the body is taking an action that effectively cuts off the ability of a minority of the body to take an action or discuss an item. These extraordinary motions require a two-thirds majority (a super-majority) to pass:

Motion to limit debate. Whether a member says, "I move the previous question," "I move the question," "I call for the question" or "I move to limit debate," it all amounts to an attempt to cut off the ability of the minority to discuss an item, and it requires a two-thirds vote to pass.

Motion to close nominations. When choosing officers of the body, such as the chair, nominations are in order either from a nominating committee or from the floor of the body. A motion to close nominations effectively cuts off the right of the minority to nominate officers, and it requires a two-thirds vote to pass.

pend the rules for a particular purpose. For example, the body (a private club) might have a rule prohibiting the attendance at meetings by non-club members. A motion to suspend the rules would be in order to allow a non-club member to attend a meeting of the club on a particular date or on a particular agenda item.

The Motion to Reconsider

There is a special and unique motion that requires a bit of explanation all by itself: the motion to reconsider. A tenet of parliamentary procedure is finality. After vigorous discussion, debate and a vote, there must be some closure to the issue. And so, after a vote is taken, the matter is deemed closed, subject only to reopening if a proper motion to reconsider is made.

A motion to reconsider requires a majority vote to pass, but there are two special rules that apply only to the motion to reconsider.

First is the matter of timing. A motion to reconsider must be made at the meeting where the item was first voted upon or at the very next meeting of the body. A motion to reconsider made at a later time is untimely. (The body, however, can always vote to suspend the rules and, by a two-thirds majority, allow a motion to reconsider to be made at another time.)

Second, a motion to reconsider may be made only by certain members of the body. Accordingly, a motion to reconsider may be made only by a member who voted *in the majority* on the original motion. If such a member has a change of heart, he or she may make the motion to reconsider (any other member of the body may second the motion). If a member who voted *in the minority* seeks to make the motion to reconsider, it must be ruled out of order. The purpose of this rule is finality. If a member of the minority could make a motion to reconsider, then the item could be brought back to the body again and again, which would defeat the purpose of finality.

If you are running the British Parliament, *Robert's Rules of Order* is a dandy and quite useful handbook.

motion to limit debate requires a two-thirds vote of the body. A similar motion is a *motion to object to consideration of an item*. This motion is not debatable, and if passed, precludes the body from even considering an item on the agenda. It also requires a two-thirds vote.

Majority and Super-Majority Votes

In a democracy, decisions are made with a simple majority vote. A tie vote means the motion fails. So in a seven-member body, a vote of 4-3 passes the motion. A vote of 3-3 with one abstention means

Motion to object to the consideration of a question. Normally, such a motion is unnecessary, because the objectionable item can be tabled or defeated straight up. However, when members of a body do not even want an item on the agenda to be considered, then such a motion is in order. It is not debatable, and it requires a two-thirds vote to pass.

Motion to suspend the rules. This motion is debatable, but requires a two-thirds vote to pass. If the body has its own rules of order, conduct or procedure, this motion allows the body to sus-

If the motion to reconsider passes, then the original matter is back before the body, and a new original motion is in order. The matter may be discussed and debated as if it were on the floor for the first time.

Courtesy and Decorum

The rules of order are meant to create an atmosphere where the members of the body and the members of the public can attend to business efficiently, fairly and with full participation. And at the same time, it is up to the chair and the members of the body to maintain common courtesy and decorum. Unless the setting is very informal, it is always best for only one person at a time to have the floor, and it is always best for every

It is usually best to have a motion before the governing body prior to discussing an agenda item, to help everyone focus.

lege relate to anything that would interfere with the normal comfort of the meeting. For example, the room may be too hot or too cold, or a blowing fan might interfere with a person's ability to hear.

Order. The proper interruption would be: "Point of order." Again, the chair would ask the interrupter to "state your point." Appropriate points of order

Withdraw a motion. During debate and discussion of a motion, the maker of the motion on the floor, at any time, may interrupt a speaker to withdraw his or her motion from the floor. The motion is immediately deemed withdrawn, although the chair may ask the person who seconded the motion if he or she wishes to make the motion, and any other member may make the motion if properly recognized.

Special Notes About Public Input

The rules outlined here help make meetings very public-friendly. But in addition, and particularly for the chair, it is wise to remember three special rules that apply to each agenda item:

Rule One: Tell the public what the body will be doing.

Rule Two: Keep the public informed while the body is doing it.

Rule Three: When the body has acted, tell the public what the body did.

Public input is essential to a healthy democracy, and community participation in public meetings is an important element of that input. The challenge for anyone chairing a public meeting is to accommodate public input in a timely and time-sensitive way, while maintaining steady progress through the agenda items. The rules presented here for conducting a meeting are offered as tools for effective leadership and as a means of developing sound public policy. ■

Motions to amend and substitute motions are often confused. But they are quite different, and so is their effect, if passed.

speaker to be first recognized by the chair before proceeding to speak.

The chair should always ensure that debate and discussion of an agenda item focus on the item and the policy in question, not on the personalities of the members of the body. Debate on policy is healthy; debate on personalities is not. The chair has the right to cut off discussion that is too personal, too loud or too crude.

Debate and discussion should be focused, but free and open. In the interest of time, the chair may, however, limit the time allotted to speakers, including members of the body. Can a member of the body interrupt the speaker? The general rule is no. There are, however, exceptions. A speaker may be interrupted for the following reasons:

Privilege. The proper interruption would be: "Point of privilege." The chair would then ask the interrupter to "state your point." Appropriate points of privi-

relate to anything that would not be considered appropriate conduct of the meeting; for example, if the chair moved on to a vote on a motion that permits debate without allowing that discussion or debate.

Appeal. If the chair makes a ruling that a member of the body disagrees with, that member may appeal the ruling of the chair. If the motion is seconded and after debate, if it passes by a simple majority vote, then the ruling of the chair is deemed reversed.

Call for orders of the day. This is simply another way of saying, "Let's return to the agenda." If a member believes that the body has drifted from the agreed-upon agenda, such a call may be made. It does not require a vote, and when the chair discovers that the agenda has not been followed, the chair simply reminds the body to return to the agenda item properly before them. If the chair fails to do so, the chair's determination may be appealed.

Related Reading from CAI:

Be A Volunteer!

\$1.25 single copy price; bulk prices available

The Phone Rings on Both Sides of the Bed: A Guide for the Spouses and Families of Community Association Offices

\$4.00 single copy price; bulk prices available

Community Association Leadership: A Guide for Volunteers

\$4.00 single copy price; bulk prices available

So Now You're On The Board-Cassette Package

\$13.00 each

The Homeowner and the Community Association

\$1.25 single copy price; bulk prices available

The Homebuyer and the Community Association

\$1.25 single copy price; bulk prices available

A Guide to Insurance for Condominium Unit Owners

\$2.00 single copy price; bulk prices available

For information on these and other CAI publications, contact CAI Publications, 1423 Powhatan St., #7, Alexandria, Virginia 22314 (703) 548-8600.

How to have SUCCESSFUL MEETINGS



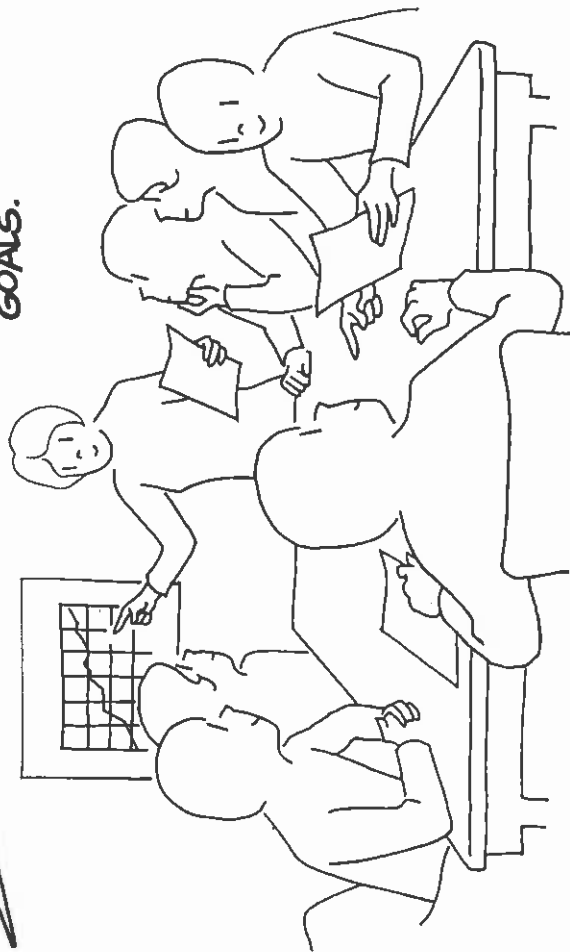
CAI community
associations
institute

**EXHIBIT
B**

For information about other publications and services available from CAI, write to CAI, Inc., Powhatan, Bl. #7, Alexandria, Virginia 22314 (703) 548-8600.

What makes a meeting **SUCCESSFUL**?

It takes a team of people who **ACTIVELY EXCHANGE IDEAS** to **ACCOMPLISH GOALS**.



To help ensure success, group members should:

UNDERSTAND THE MEETING'S PURPOSE

A lot can be accomplished when people have a clear sense of direction. Some of the common goals of meetings are to:

- EXCHANGE information
- SOLVE problems
- MAKE decisions
- SHARE concerns
- EXPLAIN issues.

POOL THEIR KNOWLEDGE

Meetings bring together people with different ideas and experiences. Members have an opportunity and a responsibility to:

- EXPRESS thoughts
- REACT to others' ideas
- COMBINE their skills to reach solutions.

Why is my **PARTICIPATION** **IMPORTANT**?

Because your **IDEAS, COMMENTS** and **SUGGESTIONS** can benefit:

YOUR ORGANIZATION

Active and positive participation helps to:

- ACHIEVE the goals of the meeting
- PROMOTE the group's objectives
- IMPROVE teamwork and morale.

All in favor...

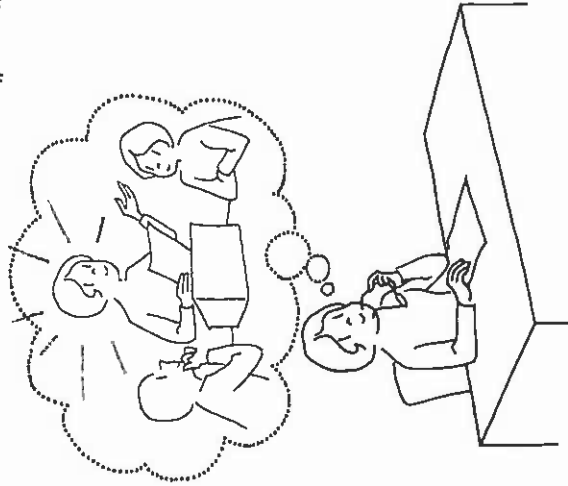


YOU

Your involvement can help you polish your skills in:

- COMMUNICATION, because meetings allow you to gain experience in expressing yourself.
- LEADERSHIP, since you can learn a great deal by observing and following the examples of successful group leaders.

Learn how you can become a more effective participant



BE PREPARED

You can help the meeting run smoothly if you DO YOUR HOMEWORK!

KNOW

THE PURPOSE

of the meeting so you can determine how you can contribute to the meeting's success.

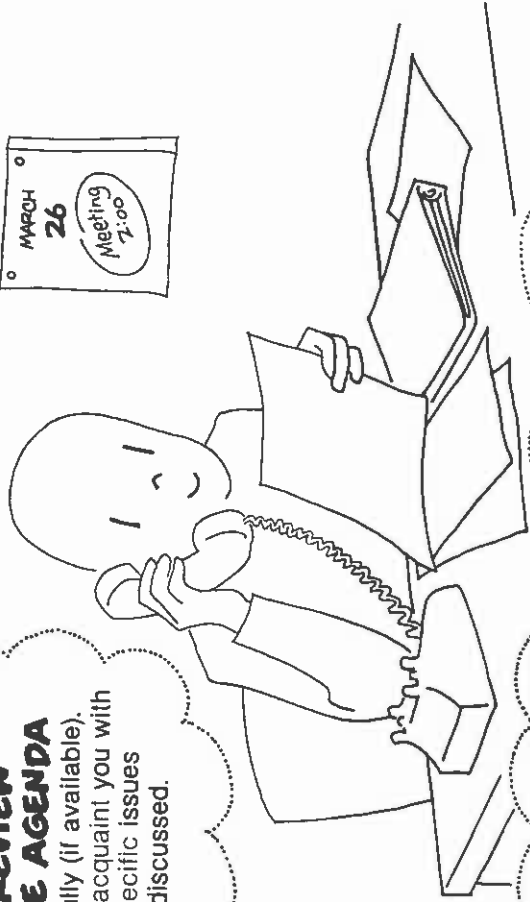
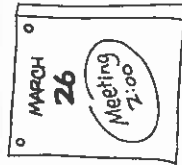
RESEARCH

any available background information before the meeting so you can be a more knowledgeable, valuable meeting member.

REVIEW

THE AGENDA

carefully (if available). It will acquaint you with the specific issues to be discussed.



ASK QUESTIONS

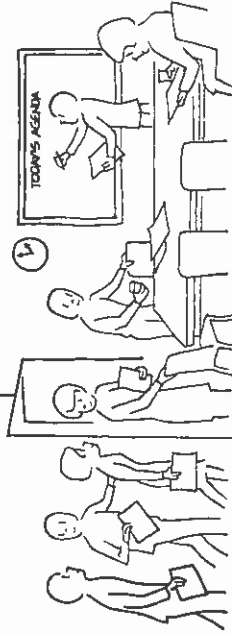
before the meeting about anything you don't understand. Questions show your concern for the meeting's success.

UNDERSTAND

why you've been invited. You're more likely to participate actively if you know what's expected of you.

PRACTICE GOOD MEETING MANNERS

Proper etiquette can help ensure that goals are met according to schedule.

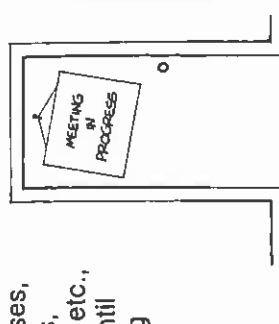


ARRIVE ON TIME

Latecomers may delay the meeting, create confusion or break the flow of progress.

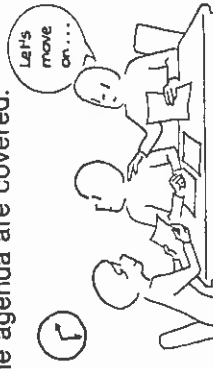
AVOID UNNECESSARY INTERRUPTIONS

In most cases, phone calls, messages, etc., can wait until the meeting is over.



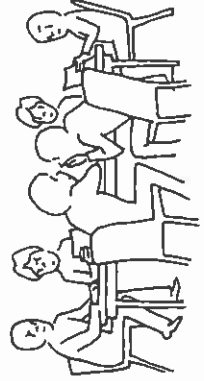
OBSERVE SPECIFIED TIME LIMITS

This will allow others a chance to speak and helps ensure that all issues on the agenda are covered.



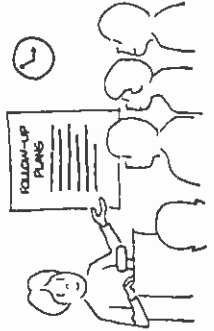
REFRAIN FROM DISTRACTIONS

This includes whispering to your neighbor, doodling, shuffling papers, etc.



STAY UNTIL THE END

Important follow-up plans are often made during the final minutes of a meeting.

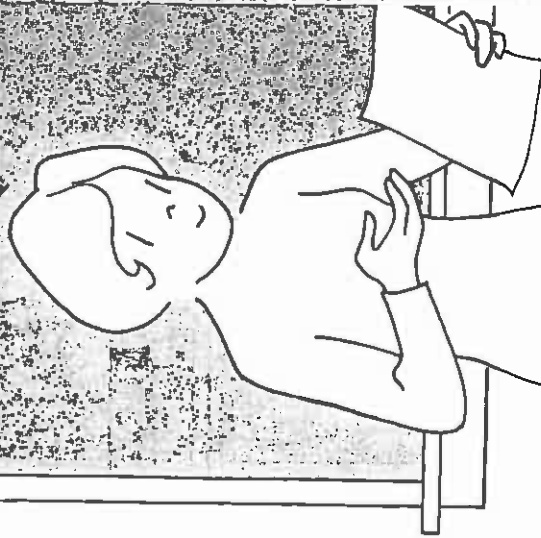


YOUR PARTICIPATION DOES MAKE A DIFFERENCE

As part of a team working to reach carefully planned goals, it's up to you to:

SUPPORT THE GROUP'S EFFORTS

Commitment to the goals of the group is the most important ingredient for a successful meeting. Combining forces with others by focusing your talents and energy on the issues at hand.



GET INVOLVED IN DISCUSSIONS

You really can influence the direction the meeting will take.

- Speak when you have something worthwhile to say (but keep your remarks to the point and as brief as possible).
- Encourage others to stick to the issues.

BE CREATIVE

Group members usually welcome innovative ideas that are supported by sound reasoning. To help promote an imaginative plan, try to think of answers to possible criticisms before you present your ideas.

EXPRESS YOUR FEELINGS

Differences of opinion expose people to other points of view. Let others know how you feel about their ideas. But be careful that your remarks do not become a personal attack.

SHARE

YOUR THOUGHTS

Holding back when you have an idea robs the group of your knowledge. It also prevents you from further developing your idea. Have confidence in yourself, and speak up!

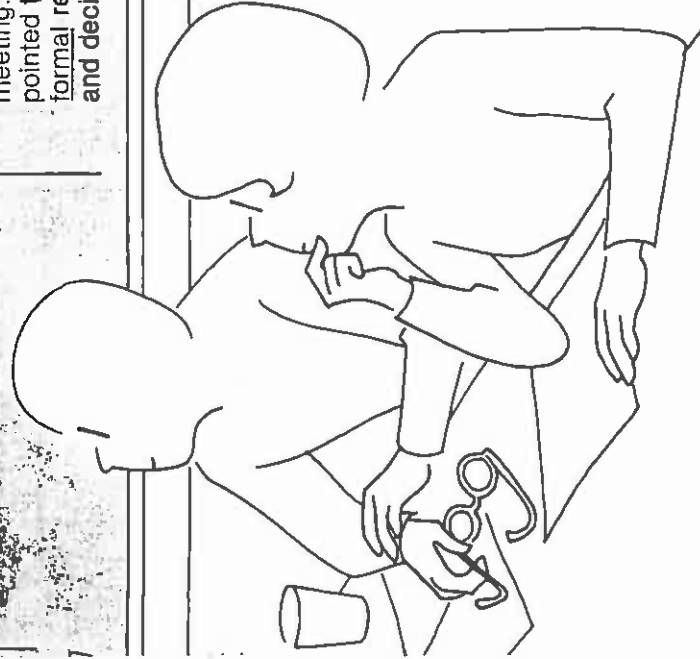
TAKE NOTES

Brief, accurate notes can be helpful during and after a meeting. Someone may be appointed to keep the minutes, a formal record of discussion and decisions.

TAKE A POSITIVE APPROACH

Keep an open mind. When a group member shares an idea, look for the value in that idea.

Above all, be enthusiastic. Enthusiasm can be contagious!



GOOD COMMUNICATION IS A SKILL WORTH BUILDING

Ideas can be shared more effectively if you keep these basics in mind.

WHEN OTHERS SPEAK

LISTEN CAREFULLY

Each speaker deserves your full attention. But being attentive isn't just a matter of politeness. Careful listening prevents you from missing valuable information and allows you to take accurate notes.

BE COURTEOUS

Treat all members in the same way you'd like them to treat you. Don't interrupt speakers. Never distract others with inappropriate remarks or actions.

RESPECT OPINIONS

Everyone has the right to express an opinion. Avoid making hasty judgments of others' ideas. Allow others to express their ideas completely before you offer comments.

CONSIDER SUGGESTIONS

Don't become defensive when others express ideas that conflict with yours. Instead, use their suggestions to refine and develop your own ideas.

WHEN YOU SPEAK

EXPRESS YOURSELF CLEARLY

Good pronunciation (saying sounds correctly) and enunciation (saying sounds distinctly) will be appreciated by your listeners. Proper volume and tone also enhance delivery. Be sure that you face the group (don't speak when drawing on board, etc.).

SUMMARIZE AS NEEDED

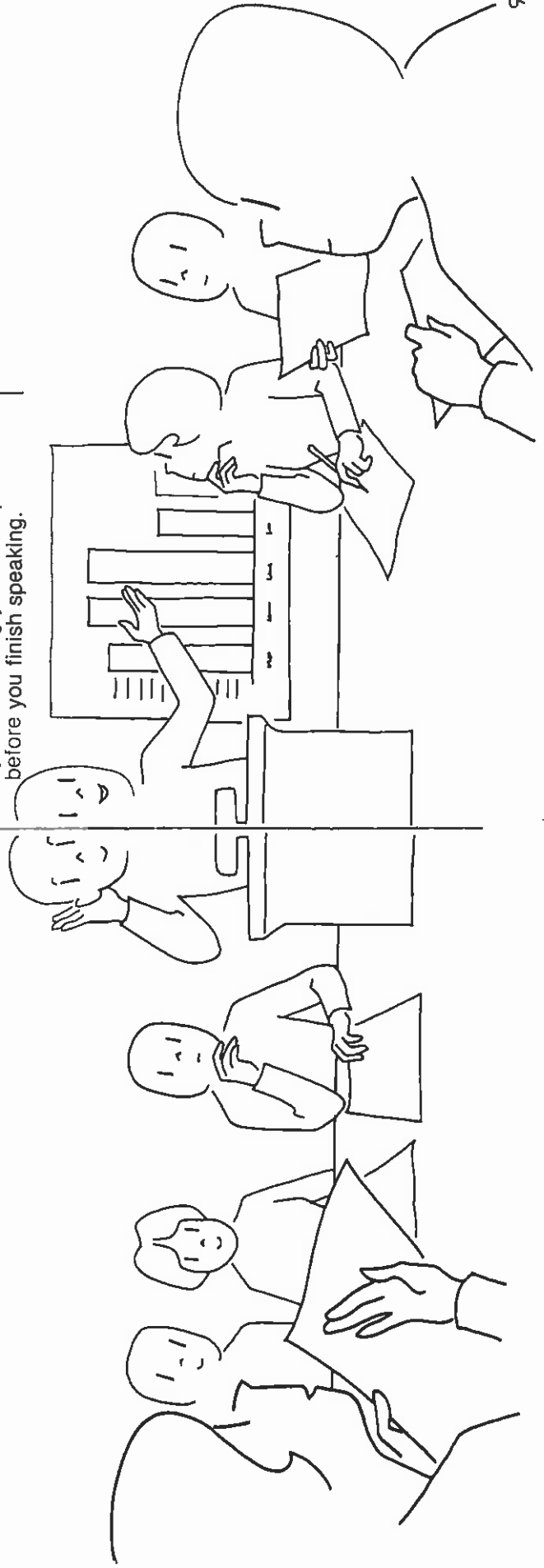
Sometimes your remarks may be long and complex because of the topic of discussion. In such cases, you can help your listeners by summarizing your main points before you finish speaking.

INCLUDE EVERYONE

Make all group members feel that you're speaking to each of them. Never direct your comments only to the person beside or opposite you.

OFFER SUGGESTIONS

Most people welcome good advice. Don't hesitate to make suggestions, but offer them at an appropriate time and in a positive manner.



PRESENTATION

share your knowledge to the group.

DELIVERY

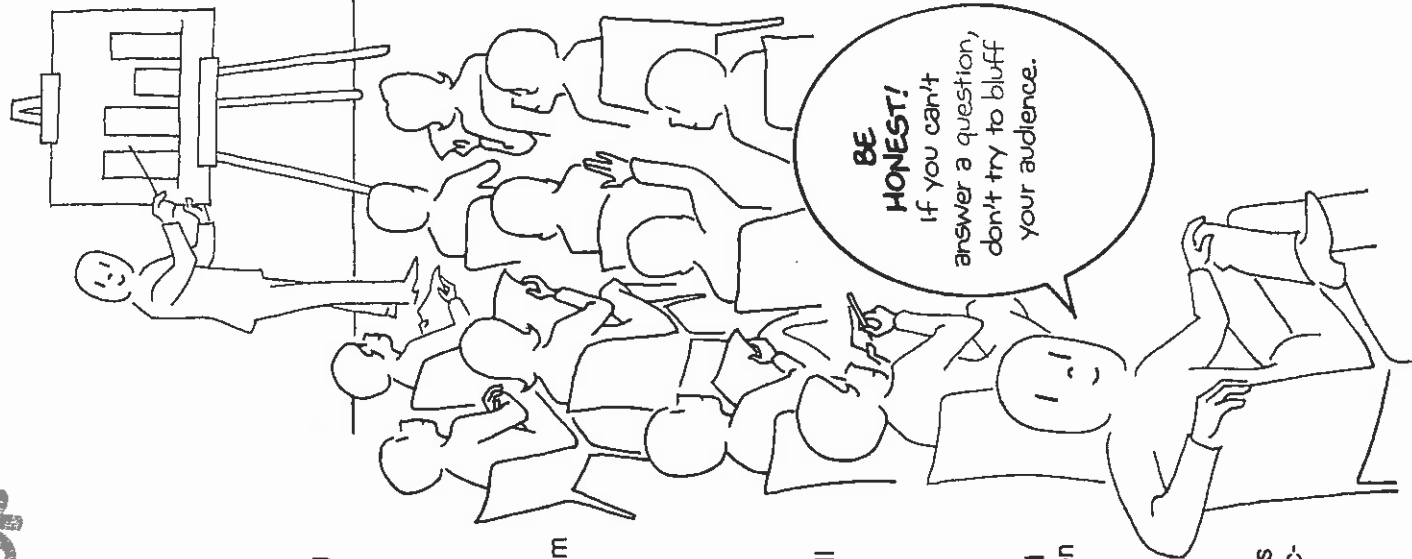
SPEAK NATURALLY
from your notes. Avoid reading or memorizing your speech.

GAUGE YOUR VOLUME
— a speech that can't be heard loses the audience's interest. If people in the back of the room must strain to hear you, speak louder.

ESTABLISH EYE CONTACT
to help your audience feel involved in what you're saying. Staring at the floor or back wall detracts from your speech.

USE VISUAL AIDS
if appropriate, and make sure everyone can see them. Avoid displaying too much information at one time.

BE AWARE OF NERVOUS HABITS
that can be distracting, such as repetition of certain words, pacing, and long pauses.



MAKING AN EFFECTIVE

This is your special chance to on a subject of importance

PREPARATION

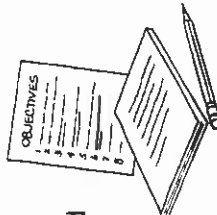
YOUR AUDIENCE

must be considered when you prepare your speech. What they need to know, how much they already know, etc. are important factors.



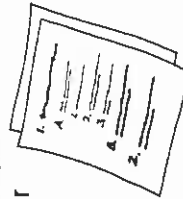
YOUR OBJECTIVES

establish what information you'd like to convey and how you'd like to convey it.



ORGANIZATION

is essential to clear understanding of any subject. An outline of key topics may be helpful.



OPENING REMARKS

set the tone and state the purpose of all that follows. Capture the attention of your audience with an interesting beginning.



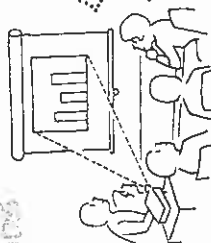
TIME LIMITS

must be considered when preparing a presentation. Reserve time for questions.



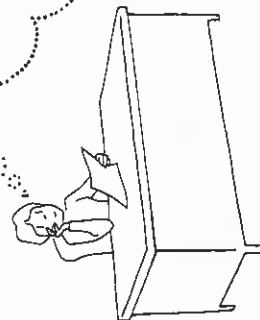
VISUAL AIDS

such as flip-charts, slides and videotapes help reinforce remarks and add interest to presentations.



REHEARSING

your speech helps build confidence and ensure success. Practice alone or in front of others, or tape-record your presentation.



BRINGING THE MEETING TO

People appreciate meetings that end on time, but no meeting should adjourn without:

TYING UP ANY LOOSE ENDS

Sometimes it's impossible to cover every item on the agenda. However, avoid hasty decisions that may be regretted later. Instead, table unresolved issues until the next meeting.

AGENDA

- ~~Topic 1~~
- ~~Topic 2~~
- ~~Topic 3~~
- ~~Topic 4~~
- ~~Topic 5~~
- ~~Topic 6~~
- ~~Topic 7~~

TABLED

FOLLOW-UP ASSIGNMENTS

To help guarantee that action is taken on decisions, it's important to know:

- WHO is responsible for carrying out the decision
- WHAT is to be done
- HOW action is to be carried out
- WHEN the work should be completed.

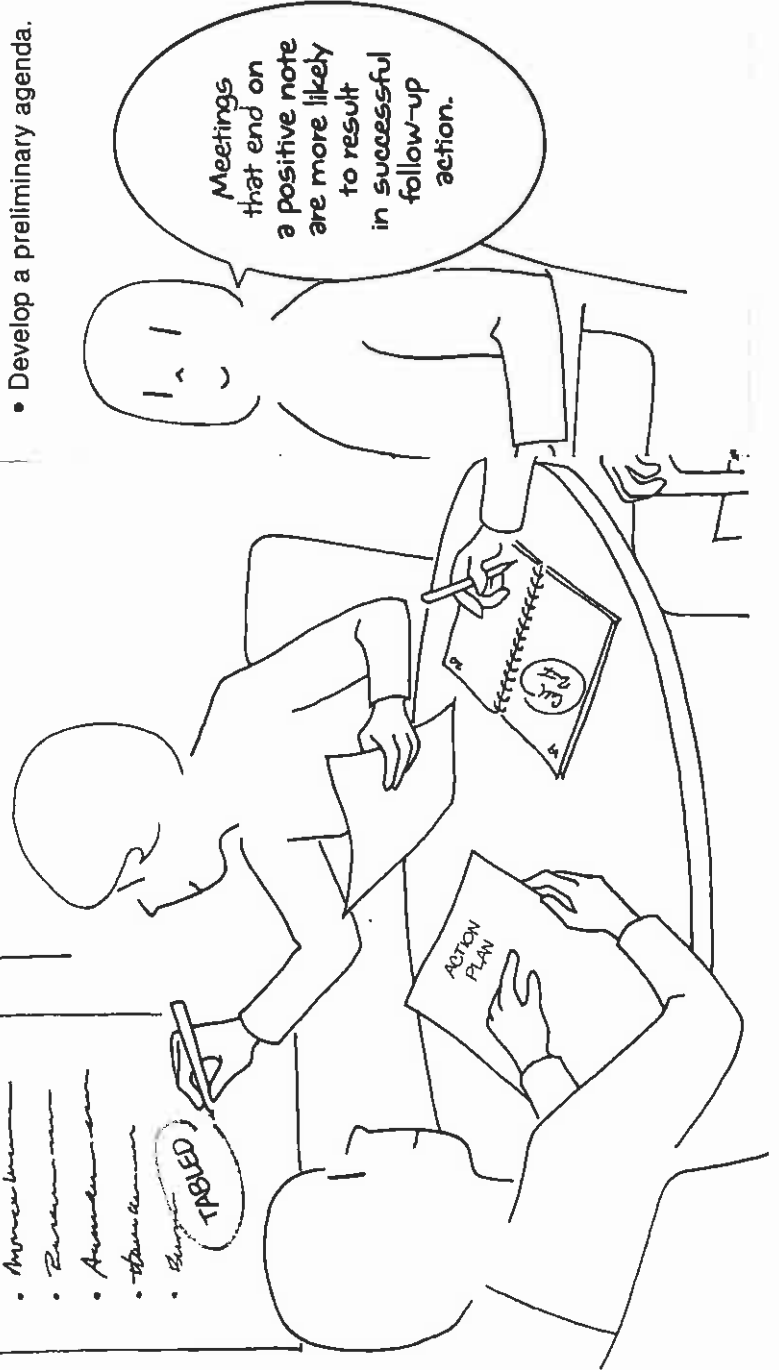
A SUMMARY OF DECISIONS

To help refresh the memories of group members, a quick recap of decisions made and actions to be taken can be helpful. This review can also help prevent confusion later.

PLANNING THE NEXT MEETING

To get a head start on the next meeting, plan now.

- Set the date.
- Select the place.
- Develop a preliminary agenda.



AFTER THE MEETING ENDS,

plans must be put into action.

REVIEW MINUTES

or memos of the meeting, if they're available.

COMPLETE ANY ASSIGNMENT

you've been given. Unless you take your responsibility seriously, the time everyone has invested may be wasted.

ASK QUESTIONS

about anything in the memos or minutes that confuses you. Seek help if you don't understand your assignment.

NOW IS THE TIME to put ideas to work!

Some questions
and answers about

PARLIAMENTARY PROCEDURE

When is
it used
?

Parliamentary procedure
can be adapted to meet
the needs of any group or
organization. However,
it's most useful when a
large group meets or
when formal debate is
required.

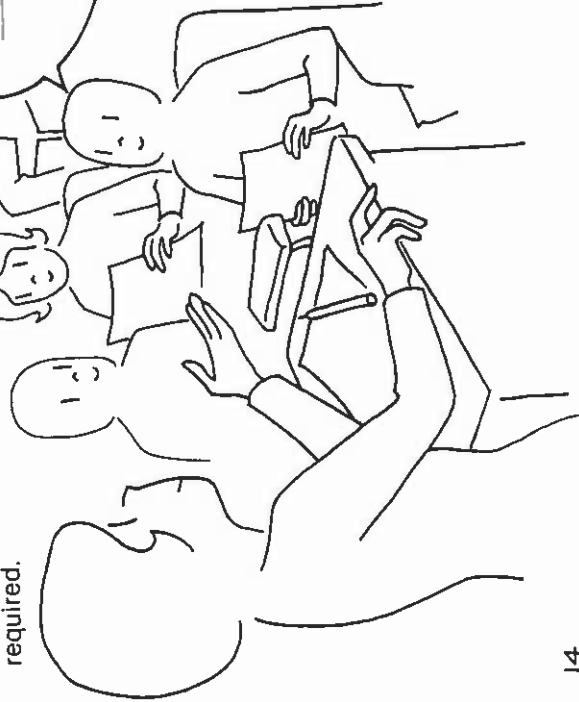


What is
parliamentary
procedure
?

It's a set of rules governing
conduct at meetings. The
rules protect everyone's
right to be heard and allow
decisions to be made with-
out confusion.

What is
Robert's Rules
of Order
?

It's the basic
handbook of
parliamentary
procedure used
by clubs, organ-
izations and
other groups.



Meetings can be the

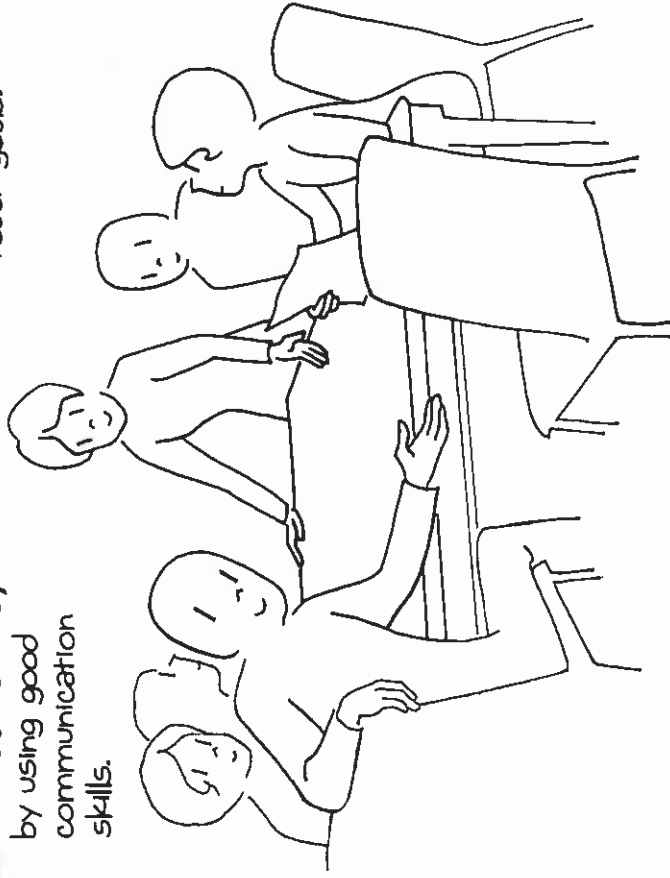
FOUNDATION FOR SUCCESS

-- for you and your organization!

☒ **BE PREPARED**
to do your part.

☒ **BE EFFECTIVE,**
by using good
communication
skills.

☒ **BE SUPPORTIVE**
of your group's
efforts to
reach goals.



**BECOME THE KIND OF
MEETING MEMBER OTHERS
CAN COUNT ON!**

Related Reading from CAI:

Be A Volunteer!

\$1.25 single copy price; bulk prices available

The Phone Rings on Both Sides of the Bed: A Guide for the Spouses and Families of Community Association Offices

\$4.00 single copy price; bulk prices available

Community Association Leadership: A Guide for Volunteers

\$4.00 single copy price; bulk prices available

So Now You're On The Board-Cassette Package

\$13.00 each

The Homeowner and the Community Association

\$1.25 single copy price; bulk prices available

The Homebuyer and the Community Association

\$1.25 single copy price; bulk prices available

A Guide to Insurance for Condominium Unit Owners

\$2.00 single copy price; bulk prices available

For information on these and other CAI publications,
contact CAI Publications, 1423 Powhatan St., #7,
Alexandria, Virginia 22314 (703) 548-8600.

The a-b-c's of

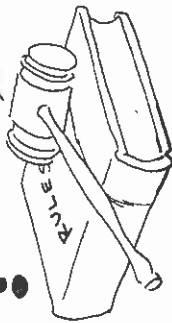
PARLIAMENTARY PROCEDURE

EXHIBIT

CAI community
associations
institute

WHAT IS

PARLIAMENTARY PROCEDURE ?



It's a

SET OF RULES
for conduct at
meetings.

It allows **EVERYONE**
to be heard and to
make decisions...
without confusion!

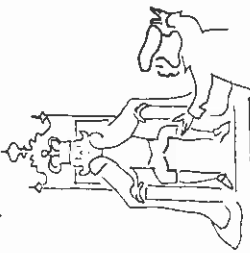
WHY is
parliamentary
procedure
IMPORTANT ?

Because--
it's a time-tested
method of conducting
business at meetings
and public gatherings.

Parliamentary procedure has a LONG HISTORY

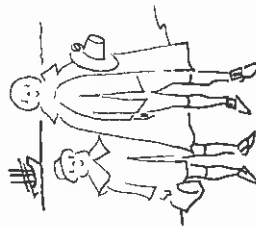
IT ORIGINATED

in the early English
Parliaments (discussions
of public affairs).



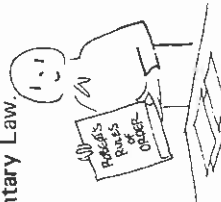
IT CAME TO AMERICA

with the first settlers.



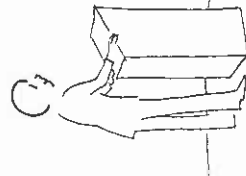
IT BECAME UNIFORM

in 1876, when Henry
M. Robert published
his manual on Parlia-
mentary Law.



Today...

ROBERT'S RULES OF ORDER
NEWLY REVISED is the basic handbook
of operation for most clubs, organizations
and other groups.



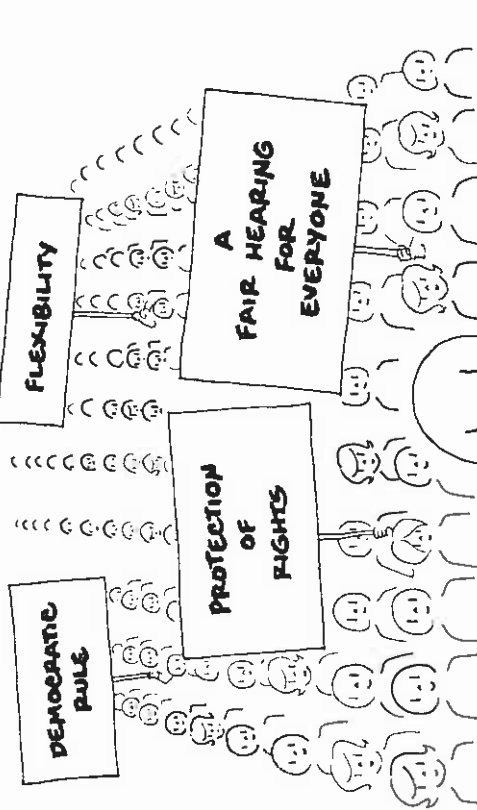
PARLIAMENTARY PROCEDURE MEANS:

**DEMOCRATIC
RULE**

**PROTECTION
OF
RIGHTS**

FLEXIBILITY

**A
FAIR
HEARING
FOR
EVERYONE**



...it can be
adapted to fit
the needs of any
organization.

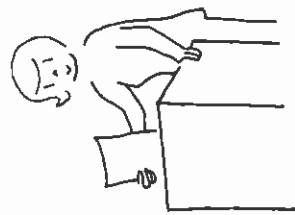
So it's important
that everyone
know these

BASIC RULES!

Organizations using parliamentary procedure usually follow a fixed

AGENDA.

Here's a typical example



I. CALL TO ORDER

The chairperson says, "The meeting will please come to order."

II. ROLL CALL

Members say "present" as their names are called.

III. MINUTES

The secretary reads a record of the last meeting.

IV. OFFICERS' REPORTS

Often limited to a report from treasurer, but others may report at this time.

V. COMMITTEE REPORTS

First come reports from "standing," or permanent committees; then from "ad hoc," or special committees.

VI. SPECIAL ORDERS

Important business previously designated for consideration at this meeting.

VII. UNFINISHED BUSINESS

Business left over from previous meetings.

VIII. NEW BUSINESS

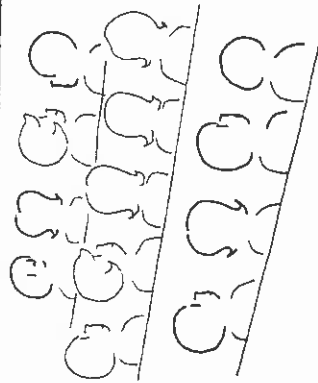
Introduction of new topics.

IX. ANNOUNCEMENTS

Informing the assembly of other subjects and events.

X. ADJOURNMENT

The meeting ends by a vote, or by general consent (or by chair's decision if time of adjournment was pre-arranged by vote).



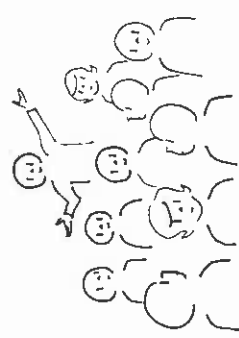
QUORUM...

The number of members that must be present for business to be conducted legally. The actual number is usually stated in the bylaws.

BUT...

HOW DO MEMBERS GET THEIR SAY

?



THEY MAKE MOTIONS!

A motion is a proposal that the assembly TAKE A STAND OR TAKE ACTION on some issue.

Members can:

PRESENT motions

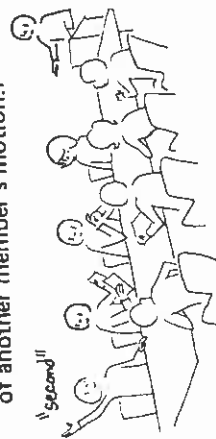
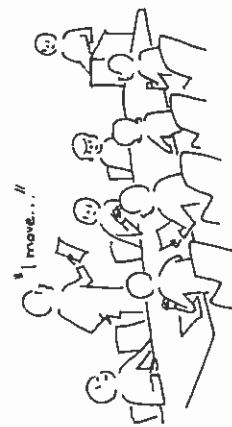
(make a proposal)

"I move..."

SECOND motions

(express support for discussion of another member's motion.)

"Second!"



DEBATE motions

(give opinions on the motion)

"I think..."

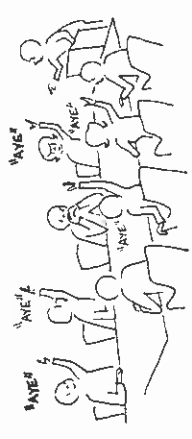
VOTE on motions

(make a decision)

"Aye!"

"Nay!"

"Second!"



There are

4 GENERAL

TYPES OF MOTIONS

① MAIN motions

introduce subjects to the assembly for its consideration. They cannot be made when another motion is before the assembly. They yield to privileged, subsidiary and incidental motions.

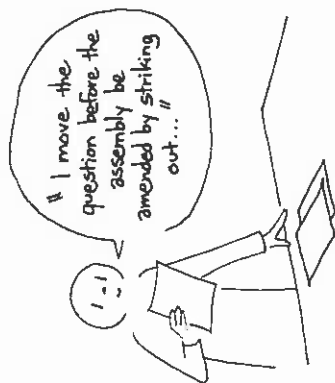
FOR EXAMPLE--



② SUBSIDIARY motions

change or affect how the main motion is handled (voted on before the main motion).

FOR EXAMPLE--



③ PRIVILEGED motions

are most urgent... about special or important matters not related to pending business.

FOR EXAMPLE--



④ INCIDENTAL motions

are questions of procedure that arise out of other motions... must be considered before the other motion.

FOR EXAMPLE--



IS IT IN ORDER?

Your motion must relate to the business at hand, and be presented at the right time. It must not be obstructive, frivolous or against the bylaws.

MAY I INTERRUPT THE SPEAKER?

Some motions are so important that the speaker may be interrupted to make them. The original speaker regains the floor after the interruption has been attended to.

DO I NEED A SECOND?

Usually, yes. A second indicates that another member would like to consider your motion. It prevents spending time on a question which interests only one person.

IS IT DEBATABLE?

Parliamentary procedure guards the right to free and full debate on most motions. Some privileged and incidental motions are not debatable.

relating to MOTIONS

CAN IT BE AMENDED?

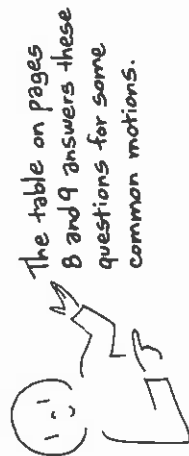
Some motions can be altered by striking out, inserting, or both at once. Amendments must relate to subject as presented in the main motion.

WHAT VOTE IS NEEDED?

Most require only a majority vote but motions concerning the rights of the assembly or its members need a 2/3 vote to be adopted.

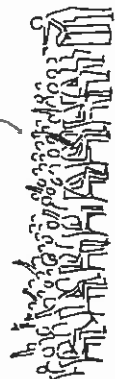
CAN IT BE RECONSIDERED?

Some motions can be debated and revoted to give members a chance to change their minds. The move to reconsider must come from the winning side.



PARLIAMENTARY PROCEDURE

...at a glance



Here are some motions you might make, how to make them, and what to expect of the rules.

TO DO THIS:	YOU SAY THIS:	MAY YOU INTERRUPT THE SPEAKER?	DO YOU NEED A SECOND?	IS IT DEBATABLE?	CAN IT BE AMENDED?	WHAT VOTE IS NEEDED?	CAN IT BE RECONSIDERED?
ADJOURN MEETING	"I move that we adjourn"	NO	YES	NO	NO	MAJORITY	NO
CALL AN INTERMISSION	"I move that we recess for..."	NO	YES	NO	YES	MAJORITY	NO
COMPLAIN ABOUT HEAT, NOISE, ETC.	"I rise to a question of privilege"	YES	NO	NO	NO	NO VOTE	NO (usually)
TEMPORARILY SUSPEND CONSIDERATION OF AN ISSUE	"I move to table the motion"	NO	YES	NO	NO	MAJORITY	NO
END DEBATE AND AMENDMENTS	"I move the previous question"	NO	YES	NO	NO	2/3	NO ①
POSTPONE DISCUSSION FOR A CERTAIN TIME	"I move to postpone the discussion until..."	NO	YES	YES	YES	MAJORITY	YES
GIVE CLOSER STUDY OF SOMETHING	"I move to refer the matter to committee"	NO	YES	YES	YES	MAJORITY	YES ②
AMEND A MOTION	"I move to amend the motion by..."	NO	YES	YES ③	YES	MAJORITY	YES
INTRODUCE BUSINESS	"I move that..."	NO	YES	YES	YES	MAJORITY	YES

THE MOTIONS LISTED ABOVE ARE IN ORDER OF PRECEDENCE... BELOW THERE IS NO ORDER...

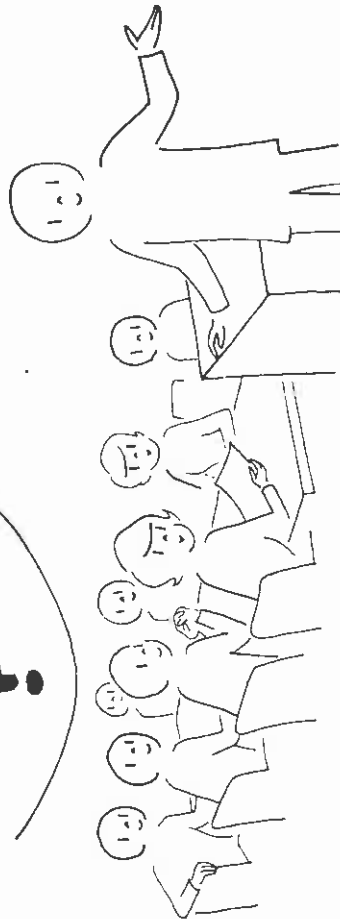
PROTEST BREACH OF RULES OR CONDUCT	"I rise to a point of order."	YES	NO	NO	NO	NO VOTE ④	NO
VOTE ON A RULING OF THE CHAIR	"I appeal from the chair's decision"	YES	YES	YES	NO	MAJORITY ⑤	YES
SUSPEND RULES TEMPORARILY	"I move to suspend the rules so that..."	NO	YES	NO	NO	2/3	NO
AVOID CONSIDERING AN IMPROPER MATTER	"I object to consideration of this motion"	YES	NO	NO	NO	2/3 ⑥	NO ⑦
VERIFY A VOICE VOTE BY HAVING MEMBERS STAND	"I call for a division" or "Division!"	YES	NO	NO	NO	NO VOTE	NO
REQUEST INFORMATION	"Point of information"	YES	NO	NO	NO	NO VOTE	NO
TAKE UP A MATTER PREVIOUSLY TABLED	"I move to take from the table..."	NO	YES	NO	NO	MAJORITY	NO
RECONSIDER A HASTY ACTION	"I move to reconsider the vote on..."	YES	YES	NO ⑧	NO	MAJORITY	NO

NOTES:

- ① Unless vote on question is not yet taken.
- ② Unless the committee has already taken up the subject.
- ③ Only if the motion to be amended is debatable.
- ④ Except in doubtful cases.
- ⑤ A majority vote in negative needed to reverse ruling of chair.
- ⑥ A 2/3 vote in negative needed to prevent reconsideration of main motion.
- ⑦ Only if the main question or motion was not, in fact, considered.
- ⑧ Only if motion to be reconsidered is debatable.

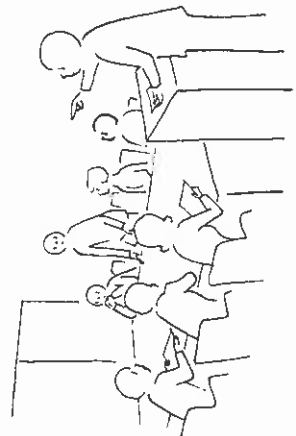
How do I present my motion ?

Here's what to do
when it's your turn
to speak...



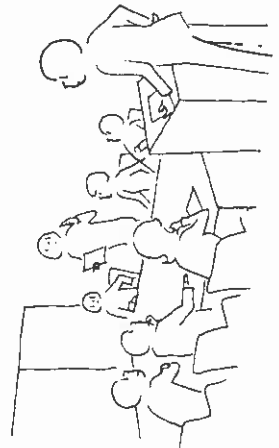
1 OBTAIN THE FLOOR

- Wait until the last speaker is finished.
- Rise and address the chair. Say, "Mr. (or Madam) Chairperson" or "Mr. (or Madam) President."
- Give your name. The chair will recognize you by repeating it.



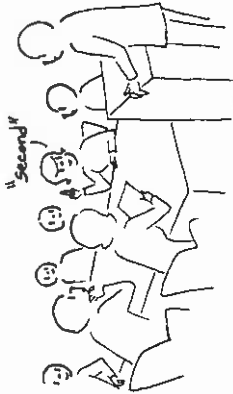
2 MAKE YOUR MOTION

- Speak clearly and concisely.
- State your motion affirmatively. Say, "I move that we..." instead of "I move that we do not..."
- Avoid personalities and stay on the subject.



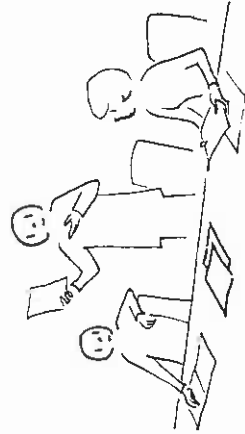
3 WAIT FOR A SECOND

- Another member will say, "I second the motion."
- Or the chair will call for a second.
- If there is no second, your motion will not be considered.



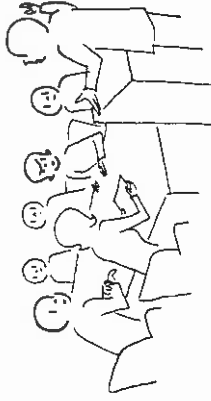
5 EXPAND ON YOUR MOTION

- Mover is allowed to speak first.
- Direct all comments to the chairman.
- Keep to the time limit for speaking.
- You may speak again after all other speakers are finished.
- You may speak a third time by a motion to suspend the rules with a 2/3 vote.



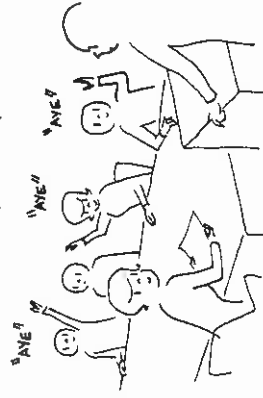
4 CHAIR STATES YOUR MOTION

The chairperson must say, "It is moved and seconded that we... After this happens, debate or voting can occur. Your motion is now 'assembly property' and you can't change it without consent of the members."



6 PUTTING THE QUESTION

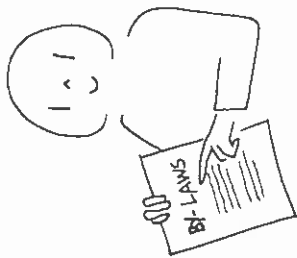
- The chairperson asks, "Are you ready for the question?"
- If there is no more discussion, a vote is taken. The chairperson announces the results.
- Or motion for previous question may be adopted.



The method of

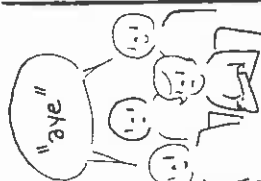
VOTE ON A MOTION

depends on the situation and on the laws of your organization.



BY VOICE

The chairperson asks those in favor to say "aye" and those opposed to say "no." (For majority votes only.) Member may move for exact count.



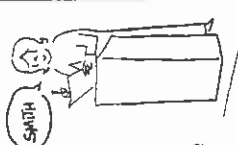
BY SHOW OF HANDS

Members raise their hands as sight verification of or alternative to a voice vote. It does not require a count. Member may move for exact count.



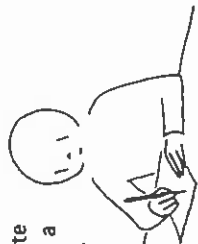
BY ROLL CALL

If a record of each person's vote is needed, each member answers "yes," "no" or "present" (indicating the choice not to vote) as his or her name is called.



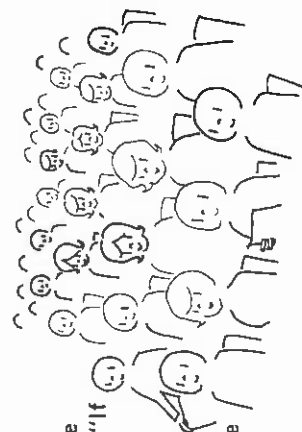
BY BALLOT

Members write their vote on a slip of paper. Done when secrecy is desired.

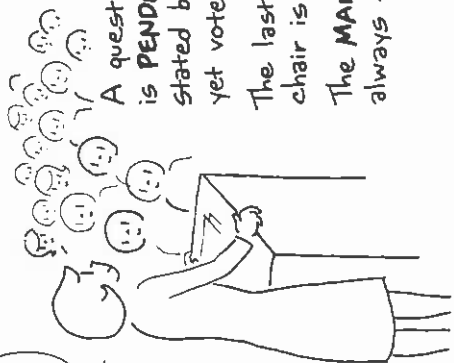
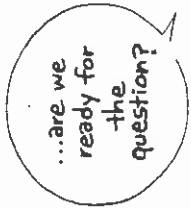


BY GENERAL CONSENT

When a motion isn't likely to be opposed, the chairperson says, "If there is no objection..." Members show agreement by their silence. If someone says, "I object," the matter must be put to a vote.



...more about VOTING

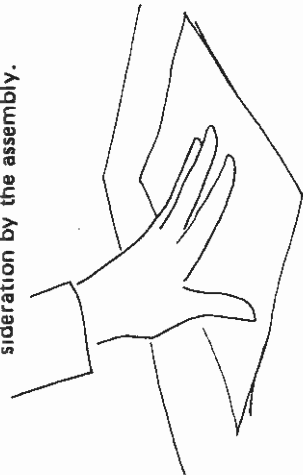


A question (motion) is **PENDING** when it has been stated by the chair but not yet voted on. The last motion stated by the chair is the first pending. The **MAIN MOTION** is always the last voted on.

A motion to TABLE

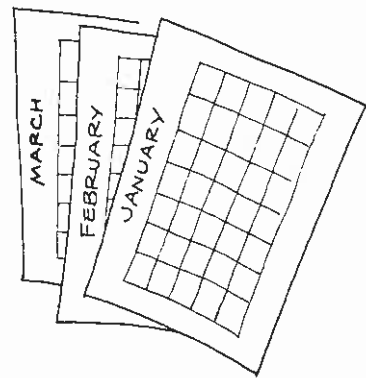
(lay on the table)

This motion is used to lay something aside temporarily to take care of a more urgent matter. There is always the option to "take from the table" any motion for reconsideration by the assembly.



A motion to POSTPONE INDEFINITELY

This is parliamentary strategy -- allows members to dispose of a motion without making a decision for or against. It is useful in case of badly chosen main motion for which either "yes" or "no" vote would have undesirable consequences.



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Soo--

PARLIAMENTARY PROCEDURE
is the **BEST WAY** to
GET THINGS DONE
at meetings

BUT-- it only works if you
use it right !

- ✓ **MAKE MOTIONS** that are in order
- ✓ **OBTAIN THE FLOOR** properly
- ✓ **SPEAK** clearly and concisely
- ✓ **OBEY** the rules of debate

... and most of all,
BE COURTEOUS

