



**CITY OF LEMON GROVE  
PLANNING COMMISSION REGULAR MEETING AGENDA**

Monday, February 28, 2022 at 6:00 p.m.

**Lemon Grove Community Center  
3146 School Lane, Lemon Grove, CA**

**For everyone's protection, all attendees must maintain a safe social distance and face coverings will be required to attend the meeting**

**Planning Commission**

Robert Bailey, Chair  
Stephen Browne, Vice Chair  
Seth Smith, Commissioner  
Miranda Evans, Commissioner  
Emily Jacobs, Commissioner

A complete agenda packet is available for review on the [City's website](#)

**Call to Order**

**Pledge of Allegiance**

**Changes to the Agenda**

**Public Comment**

*Digitally submitted public comments received by the Planning Commission Clerk at [amalone@lemongrove.ca.gov](mailto:amalone@lemongrove.ca.gov) will not be read out-loud during the meeting. However, they will be provided to the Planning Commission and remain part of the meeting's records. Per the Lemon Grove Municipal Code Section 2.14.150, live comments are allotted a maximum of three (3) minutes.*

**Consent Calendar**

**1. Approval of Planning Commission Meeting Minutes**

Reference: Audrey Malone, Planning Commission Clerk  
Recommendation: Approve the Planning Commission Meeting Minutes of October 25, 2021.

**Public Hearing(s)** *(Note to Speakers: The Chair will ask each speaker to remain at the podium until the Commissioners have had the opportunity to ask questions about his or her testimony. APPEALS TO THE CITY COUNCIL MAY BE FILED ON FORMS AVAILABLE IN THE OFFICE OF THE COMMUNITY DEVELOPMENT DEPARTMENT. APPEALS OF DECISIONS MUST BE FILED WITHIN TEN (10) DAYS.)*

**2. Minor Use Permit No. MUP-210-0002 Car Wash Appeal**

Reference: Bill Chopyk, Interim Community Development Manager  
Recommendation: Adopt a resolution denying an appeal of the Community Development Manager (CDM) Decision to deny Minor Use Permit MUP-210-0002 to construct and operate a car wash at 7431 Broadway in the General Commercial (GC) zone.

**Report(s) to Commission**

**3. Tentative Map No. TM0-000-0064 & PDP-170-0003 Time Extensions**

Reference: Bill Chopyk, Interim Community Development Manager

Recommendation: Adopt a resolution approving a time extension of approved Tentative Map No. TM0-000-0064 and Planned Development Permit No. PDP-170-0003 to construct six (6) condominium units located at 8200 Hilltop Drive in the Residential Medium High (RMH) zone, extending the expiration date from January 21, 2022 to January 21, 2023.

**Business from the Community Development Manager**

**Business from the Planning Commission Attorney**

**Planning Commission Oral Reports on Meeting Attended at the Expense of the City**

**Adjournment:**

AFFIDAVIT OF NOTIFICATION AND POSTING

STATE OF CALIFORNIA    )  
COUNTY OF SAN DIEGO   ) SS  
CITY OF LEMON GROVE    )

I, Audrey Malone Planning Commission Clerk for the City of Lemon Grove, hereby declare under penalty of perjury that a copy of the above Agenda of the Regular Meeting of the Planning Commission of the City of Lemon Grove, California, was delivered and/or notice by email not less than 72 hours before the hour of 6:00 pm on February 24, 2022 to the members of the governing agency, and caused the agenda to be posted on the City's website at [www.lemongrove.ca.gov](http://www.lemongrove.ca.gov) and at Lemon Grove City Hall, 3232 Main Street Lemon Grove, CA 91945.

/s/ Audrey Malone  
Planning Commission Clerk

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# CITY OF LEMON GROVE

## PLANNING COMMISSION STAFF REPORT

**Item No.** 1.  
**Meeting Date:** February 28, 2022  
**Submitted to:** Planning Commissioners  
**Department:** City Manager's Office  
**Staff Contact:** Audrey Malone, Planning Commission Clerk;  
[amalone@lemongrove.ca.gov](mailto:amalone@lemongrove.ca.gov)

**Item Title:** **Approval of Planning Commission Meeting Minutes**

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**Recommended Action:** Approve Planning Commission Meeting Minutes, meeting of October 25, 2021.

**Environmental Review:**

- Not subject to review                       Negative Declaration  
 Categorical Exemption, Section |                      |  Mitigated Negative Declaration

**Fiscal Impact:** None.

**Public Notification:** None.

**MINUTES OF THE VIRTUAL REGULAR MEETING  
OF THE LEMON GROVE PLANNING COMMISSION  
Monday, October 25, 2021 at 6 PM**

The Virtual Regular Meeting of the Planning Commission of the City of Lemon Grove, California, took place virtually pursuant to California Governor Executive Orders N-25-20, N-29-20 and N-35-20, and in the interest of public health and safety. City Council and other public meetings will be held virtual through Zoom audio only to prevent and mitigate the spread and effects of COVID.

**Call To Order:**

Chair Robert "Bob" Bailey called the Virtual Regular Meeting to order at 6:04 p.m.

**Present:**

Chair Bailey, Vice Chair Browne, Commissioner Evans, Commissioner Smith and Commissioner Jacobs.

**Pledge of Allegiance:**

Pledge of Allegiance to the Flag was led by Chair Bailey.

**Staff Members Present:**

Lydia Romero, City Manager, Noah Alvey, Community Development Manager, Elizabeth Mitchell, Planning Commission Attorney, Lieutenant Patrick McEvoy, and Audrey Malone, Deputy City Clerk.

**Changes to the Agenda:** Noah Alvey, Community Development Manager request to hear Item 3 after Item 1 in the interest of the public.

**Public Comment:**

Email Submitted: None.

Live: Liana LeBaron

**Approval of Meeting Minutes:**

**1. November 23, 2020 and July 26, 2021**

**Action:** Motion by Commissioner Smith seconded by Vice Chair Browne, to approve the Meeting Minutes, meeting of November 23, 2020 and July 26, 2021 with the correction of updating the action for Item 2 on the November 23, 2020 minutes and replacing Liana Lebaron as a Commissioner with Emily Jacobs on the July 26, 2021 minutes.

**The motion passed by the following vote:**

**Ayes:** Bailey, Browne, Evans, Smith, Jacobs.

**Noes:** None.

**Absent:** None.

**Abstain:** Jacobs (for November 23, 2020 minutes only).

**Public Hearing:**

**3. Conditional Use Permit No. CUP-200-0002 – A request to add off-sale liquor sales (Type 21 license) at an existing convenience market located in the Transit Mixed Use (3) zone of the Downtown Village Specific Plan and addressed as 7785 Broadway, Lemon Grove**

Chair Bailey introduces staff to present.

Noah Alvey, Community Development Manger presents staff report.

Commission asked questions of staff.

**Public Hearing is opens at 6:25 p.m.**

Chair Bailey introduces Krista Garritano, applicant’s representative to present.

Commission asked questions of the applicant’s representative.

**Public Comment:**

**Email Submitted:** None.

**Live:** Erik Jones, Alvey Perry, Galaxy A01, Janice Hana, Tory Jones, Lyn Tooby, Alicia Hermitz, Dave Sullivan, David Shorey, Toge M., Peter Hermitz, Kris Reader, Krista Garitano.

Noah Alvey, Community Development Manager makes final comments.

Commissioners asked questions of staff.

Lieutenant Patrick McEvoy with the San Diego County Sheriff’s Department presents crime report.

**Action:** Motion by Commissioner Evans and second by Commissioner Smith to close the Public Hearing.

**The motion passed by the following vote:**

**Ayes:** Bailey, Browne, Evans, Smith, Jacobs.

**Noes:** None.

**Absent:** None.

**Public Hearing closed at 7:46pm.**

Commissioners deliberate.

**Action:** Motion by Commissioner Evans and second by Chair Bailey to conduct a public hearing and adopt the resolution denying Conditional Use Permit No. CUP-200-0002.

**The motion passed by the following vote:**

**Ayes:** Bailey, Evans, Smith, Jacobs.

**Noes:** Browne.

**Absent:** None.

**Reports to Commission:**

**2. General Plan Housing Element Implementation**

Noah Alvey, Community Development Manger presents staff report requesting feedback from the Planning Commission concerning future updates to the Accessory Dwelling Unit and Density Bonus Ordinances.

Commissioners have questions/comments for staff and provide feedback.

**Business from the Development Manager:** None.

**Planning Commission Oral Comments and Reports on Meeting Attended at the Expense of the City:** *(Government Code Section 53232.3 (d) states that members of a Legislative Body shall provide brief reports on meetings attended at the expense of the local agency at the next regular meeting of the Legislative body.)* None.

**Adjournment:**

There being no further business to come before the Planning Commission, Chair Bailey adjourns meeting at 8:41pm.

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Audrey Malone  
Planning Commission Clerk



# CITY OF LEMON GROVE

## PLANNING COMMISSION STAFF REPORT

**Item No.**                    **2.**  
**Meeting Date:**        February 28, 2022  
**Submitted to:**        Planning Commissioners  
**Department:**        Community Development Department  
**Staff Contact:**        Bill Chopyk, Interim Community Development Manager;  
                                 [bchopyk@lemongrove.ca.gov](mailto:bchopyk@lemongrove.ca.gov)  
**Item Title:**            **Minor Use Permit No. MUP-210-0002 Car Wash Appeal**

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**Recommended Action:** Adopt a resolution (**Attachment A**) entitled “A Resolution of the Planning Commission of the City of Lemon Grove Denying an Appeal of the Community Development Manager’s (CDM) Decision to Deny Minor Use Permit MUP-210-0002 to construct and operate a car wash at 7431 Broadway in the General Commercial (GC) zone”.

**Summary:** On December 21, 2021, a Notice of Decision was published that the CDM intends to deny MUP-210-0002. On January 3, 2022, an appeal of the CDM Decision was filed by the applicants, Neil Capin, Jr. and Jack Campagna. Decisions of the CDM on use permit applications may be appealed under Section 17.28.020(I) of the Lemon Grove Municipal Code (LGMC). Under the powers and duties of the Planning Commission (LGMC 2.36.070), it shall be the initial appeal body for specified appealable staff decisions, including permit denials.

**Required Findings:** The following findings must be made to approve (or deny) a Minor Use Permit (LGMC 17.28.052):

1. The *use* is compatible with the neighborhood or the community;
2. The *use* is not detrimental to the health, safety, convenience or general welfare of persons residing or working in the vicinity;
3. The *use* complies with performance standards according to Section [17.24.080](#);
4. The *use* is consistent with the applicable provisions of the particular zoning district and with the policies and standards of the *general plan*.

The performance standards of Section [17.24.080](#) include the following:

1. Noise. All noises shall be limited so that they do not exceed the ambient noise level by more than five dBA or exceed seventy dBA during daytime operations. All noises shall comply with the Noise Abatement and Control Ordinance, LGMC Chapter [9.24](#).
2. Glare. Bright or flashing lights or reflections shall not be visible off the premises and shall be shielded and positioned to contain light to the site. All lighted signs shall be subject to citywide sign regulations, LGMC Chapter [18.12](#).
3. Traffic Circulation. New development must demonstrate that it will not substantially increase traffic.
4. Vibrations. No detectable vibrations shall be permitted off the development site.
5. Fire, Explosion, and Hazardous Materials. Burning waste materials in open fires is prohibited. Operations that involve storage, use, or transport of flammable or explosive materials or gases, or other hazardous materials shall be provided with adequate safety devices against the hazard of fire and explosion, and adequate firefighting and spill containment equipment and supplies standard in industry, as approved by the Fire Department. Such operations must be conducted in a manner which meets with the approval of the Fire Chief and complies with LGMC Chapter [18.44](#) (Water Efficient Landscape Ordinance) and the regulations of any other government agency with jurisdiction.
6. Airborne Emissions. No use shall exceed the maximum permissible emissions standards established by the San Diego County Air Pollution Control District.
7. Liquid and Solid Wastes. No discharge shall be permitted of any materials of such nature as can contaminate any water supply, interfere with bacterial processes in sewage treatment, or otherwise cause the emission of dangerous or offensive elements into any public sewer, private sewage disposal system, stream, or ground.
8. Electrical Disturbance. No activities shall be permitted that emit electrical disturbance affecting the operation at any point of any equipment other than that of the creator of such disturbance, according to the standards of the Federal Communications Commission, as amended.
9. Radioactivity. No activities shall be permitted which utilize fissionable or radioactive material if their use results at any time in the release or emission of any fissionable or radioactive material into the atmosphere, the ground, or sewage systems, according to the standards of the Federal Nuclear Regulatory Commission, as amended.

**Discussion:** The property at 7431 Broadway was previously used for retail commercial, including, among other things, taco shops, barber shop and a smoke shop. Beginning 2017, the former property owners allowed two illegal marijuana dispensaries to be established on the property. After several years of code enforcement action to vacate the dispensaries, the City went to court to have the property owner cease the illegal dispensary operations; at that time the former property owner abandoned the property. The property is currently vacant, fenced and in disrepair. The new owner of the property applied for a

Minor Use Permit (MUP) to demolish the existing buildings and construct a new drive-through car wash.

After thorough review of MUP-210-0002, the CDM intended to deny the MUP. However, the applicant appealed the CDM's decision. Staff made the following findings to deny the MUP-210-0002:

1. **The use is incompatible with the neighborhood.** The land uses surrounding the subject site include residential structures that are accessed from Pacific Ave. and immediately south of the subject site. The closest residential structure is approximately 15 feet from the southerly property line of the proposed car wash site. The proximity of the drive-through to nearby residential structures and the potential for cars to create disturbing, excessive or offensive noise, car exhaust from idling engines, and stacking of vehicles causing congestion will result in the use being incompatible with the surrounding neighborhood and the community.
2. **The use is detrimental to the health, safety, convenience or general welfare of persons residing or working in the vicinity.** The proposed car wash will be detrimental to the general welfare of persons residing in nearby residential structures because their close proximity to the car wash and potential noise impacts from cars accessing the site and creating disturbing, excessive or offensive noise, car exhaust from idling engines and stacking of vehicles, causing discomfort or annoyance in accordance with LGMC Section 9.24.160.
3. **The use does not comply with performance standards according to Section 17.24.080.** The applicant submitted a noise study (Eilar Associates, Inc., April 28, 2021) confirming the proposed use complies or will be made to comply with applicable performance standards; however, cars utilizing the car wash may generate noise that exceeds the ambient noise level by more than five decibels or exceed 70 decibels during daytime operations. The applicant submitted an updated noise study by Eilar Associates, Inc. dated January 14, 2022 (Attachment B) that includes an analysis of noise generated from stacked idling vehicles. Although the noise study concludes that noise impacts from the proposed on-site equipment and idling vehicles are not expected to exceed City of Lemon Grove property line noise limits at surrounding property lines, staff remains concerned about noise exceeding 50 dB on adjacent residences from the car wash equipment, and stacked cars revving their engines and playing loud music (not addressed in the 1/14/22 Eilar noise study). The car wash is expected to generate 150-200 vehicle trips per day, which would not significantly impact the traffic level of service on Broadway. However, turning movements are limited by one-way in and one-way out due to the raised median on Broadway, and a tight right-hand turn to enter the vehicle stacking area.





**RESOLUTION NO. 2022- \_\_\_\_\_**

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF LEMON GROVE DENYING AN APPEAL OF THE COMMUNITY DEVELOPMENT MANAGER'S (CDM) DECISION TO DENY MINOR USE PERMIT MUP-210-0002 TO CONSTRUCT AND OPERATE A CAR WASH AT 7431 BROADWAY IN THE GENERAL COMMERCIAL (GC) ZONE**

**WHEREAS**, the applicant, Neil Capin, Jr. and Jack Campagna, filed an application for a Minor Use Permit (MUP-210-0001) on February 10, 2021, a request to construct and operate a car wash at 7431 Broadway, Lemon Grove, California; and

**WHEREAS**, the subject property is located in the General Commercial (GC) zoning district and has a General Plan Land Use designation of Retail Commercial; and

**WHEREAS**, the GC zone allows for "Vehicle Service/Maintenance" which includes car washing services with an approval of a Minor Use Permit; and

**WHEREAS**, City staff recommended that the applicant conduct a community meeting with surrounding property owners and residents due to the close proximity of the proposed use and nearby residential structures in order to obtain feedback regarding the proposed use and to address potential issues of incompatibility, including without limitation, increased noise, fumes, traffic circulation, and stacking congestion; and

**WHEREAS**, on November 9, 2021, the applicant's representative confirmed that the applicant decided not to convene a community meeting prior to a decision by the CDM; and

**WHEREAS**, a Notice of Decision of the Community Development Manager of the City of Lemon Grove Denying Minor Use Permit MUP-210-0002 to construct and operate a car wash at 7431 Broadway, Lemon Grove, California was published on December 21, 2021; and

**WHEREAS**, the Applicant filed an appeal of the CDM's decision on January 3, 2022. Staff decisions on use permit applications may be appealed under Section 17.28.020(I) of the Lemon Grove Municipal Code (LGMC); and

**WHEREAS**, under the powers and duties of the planning commission (LGMC 2.36.070), the planning commission shall be the initial appeal body for all appealable staff decisions; and

**NOW, THEREFORE, BE IT RESOLVED** that the Planning Commission of the City of Lemon Grove, California hereby denies the Applicant's appeal of the CDM's decision to Deny Minor Use Permit MUP-210-0002 to construct and operate a car wash at 7431 Broadway. This denial is based on the following findings:

1. The use is incompatible with the neighborhood or the community. The land uses surrounding the subject site include residential structures that are accessed from Pacific Ave. and immediately south of the subject site. The closest residential structure is approximately 15 feet from the southerly property line of the proposed car wash site. The proximity of the drive-through to nearby residential structures and the potential for cars to create disturbing, excessive or offensive noise, car exhaust from idling engines, and stacking of vehicles causing congestion will result in the use being incompatible with the surrounding neighborhood and the community.

2. The use is detrimental to the health, safety, convenience or general welfare of persons residing or working in the vicinity. The proposed car wash will be detrimental to the general welfare of persons residing in nearby residential structures because their close proximity to the car wash and potential noise impacts from cars accessing the site and creating disturbing, excessive or offensive noise, car exhaust from idling engines and stacking of vehicles, causing discomfort or annoyance which would be a violation of Lemon Grove Municipal Code Section 9.24.160.

3. The use does not comply with performance standards according to Section 17.24.080. Noise levels would exceed 50 dB on adjacent residences from the car wash equipment, and stacked cars revving their engines and playing loud music. Turning movements are limited by one-way in and one-way out due to the raised median on Broadway, and a tight right-hand turn to enter the vehicle stacking area.

4. The use is inconsistent with applicable provisions of the particular zoning district and with policies and standards of the general plan. Policy 5.5 of the General Plan states: “Promote development that enhances and is compatible with the surrounding environs.” The proposed use will generate disturbing, excessive or offensive noise from cars, fumes from idling engines, and congestion which will result in the use being incompatible with the surrounding residential environs.

5. Denial of a Minor Use Permit is not a “project” pursuant to California Public Resources Code § 21065 or the California Environmental Quality Act Guidelines (Section 15378) and there is no possibility that the denial will have a significant impact on the physical environment, making this action exempt from environmental review requirements.

***PASSED AND ADOPTED*** on February 28, 2022, the Planning Commission of the City of Lemon Grove, California, adopted Resolution No. 2022- \_\_\_\_\_, passed by the following vote:

***AYES:***

***NOES:***

***ABSENT:***

***ABSTAIN:***

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***Robert “Bob” Bailey, Chair***

***Attest:***

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***Audrey Malone, Planning Commission Clerk***

***Approved as to Form:***

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***Elizabeth Mitchell, Planning Commission Attorney***



**Eilar Associates, Inc.**  
*Acoustical and Environmental Consulting Services*

## Acoustical Analysis Report for Lemon Grove Wash N Go

**Prepared for:**

Wash N Go  
Attention: Neil Capin  
1835 Palm Avenue  
San Diego, California 92154  
Phone: 520-245-1575

**Prepared by:**

Eilar Associates, Inc.  
210 South Juniper Street, Suite 100  
Escondido, California 92025  
Phone: 760-738-5570  
[info@eilarassociates.com](mailto:info@eilarassociates.com)

**Job # S201209.3**

**January 14, 2022**

# Table of Contents

	<u>Page</u>
<b>1.0 Executive Summary</b>	1
<b>2.0 Introduction</b>	1
2.1 Project Description	
2.2 Project Location	
2.3 Applicable Noise Regulations	
<b>3.0 Environmental Setting</b>	2
3.1 Existing Noise Environment	
3.2 Future Noise Environment	
<b>4.0 Methodology and Equipment</b>	4
4.1 Methodology	
4.2 Measurement Equipment	
<b>5.0 Noise and Vibration Impacts</b>	5
5.1 Permanent Operational Noise Impacts	
5.2 Mechanical Equipment Vibration Impacts	
5.3 Temporary Construction Impacts	
<b>6.0 Conclusion</b>	7
<b>7.0 Certification</b>	8
<b>8.0 References</b>	8

## Figures

1. Vicinity Map
2. Assessor's Parcel Map
3. Satellite Aerial Photograph Showing Noise Measurement Location
4. Topographic Map
5. Satellite Aerial Photograph Showing Site Plan, Equipment Noise Contours, & Receiver Locations

## Appendices

- A. Project Plans
- B. Pertinent Sections of the City of Lemon Grove Municipal Code
- C. Manufacturer Data Sheets
- D. CadnaA Analysis Data and Results
- E. Construction Noise Calculations

## 1.0 Executive Summary

The proposed project, Lemon Grove Wash N Go, consists of the construction of a new car wash facility. The project site is located at 7431 Broadway in the City of Lemon Grove, California.

The purpose of this report is to assess noise impacts from proposed operations at the facility and to determine if mitigation is necessary and feasible to reduce project-related noise impacts to meet applicable noise limits. Noise limits specified within the City of Lemon Grove Municipal Code must be met at neighboring property lines.

Noise impacts from the proposed on-site equipment are not expected to exceed City of Lemon Grove property line noise limits at surrounding property lines, as designed. Calculations show that, with the proposed sound wall in place, constructed to the minimum standards and configuration detailed herein, equipment noise levels are expected to meet applicable noise limits at all surrounding property lines.

Noise from temporary construction activities will not exceed the applicable construction noise limits in Section 9.24.120 of the City of Lemon Grove Municipal Code at any surrounding residential property line. Construction is prohibited between the hours of 7 p.m. and 7 a.m. and on Sundays or legal holidays. Standard construction noise control methods including adhering to permissible hours of operation, maintaining equipment in proper operating condition, and placing staging areas at furthest locations from off-site, sensitive receptors, will be sufficient for reducing noise impacts to surrounding sensitive receptors.

## 2.0 Introduction

This acoustical analysis report is submitted to satisfy the noise requirements of the City of Lemon Grove. Its purpose is to assess noise impacts from on-site project-related mechanical noise sources, and to determine if mitigation is necessary to reduce the noise impacts to be compliant with applicable noise limits. Temporary construction noise impacts were also evaluated.

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting, abbreviated "dBA," to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol "LEQ." Unless a different time period is specified, "LEQ" implies a period of one hour. Some of the data may also be presented as octave-band-filtered and/or A-octave-band-filtered data, which are a series of sound spectra centered about each stated frequency, with half of the bandwidth above and half of the bandwidth below each stated frequency. This data is typically used for machinery noise analysis and barrier calculations.

Sound pressure is the actual noise experienced by a human or registered by a sound level instrument. When sound pressure is used to describe a noise source, the distance from the noise source must be specified in order to provide complete information. Sound power, on the other hand, is a specialized analytical metric used to provide information without the distance requirement and may be used to calculate the sound pressure at any desired distance.

### 2.1 Project Description

The proposed project, Lemon Grove Wash N Go, consists of the demolition of on-site structures and the construction of a new car wash facility. The project will incorporate an automatic car wash tunnel. The proposed hours of operation are 7 a.m. to 9 p.m. daily.

The proposed car wash equipment is the primary focus of this analysis, as it is expected to generate the most noise on site. Noise impacts from cars idling outside the entrance of the tunnel have also been evaluated. A central vacuum system is also proposed, however, as motors will be fully enclosed, noise from the vacuums is expected to be insignificant and has therefore not been included in this analysis. For additional project details and equipment positioning, please refer to the project plans, provided in Appendix A.

## **2.2 Project Location**

The subject property is located at 7431 Broadway in the City of Lemon Grove, California. The Assessor's Parcel Number is 480-084-31-00. The site is currently occupied by commercial structures to be demolished. For a graphical representation of the site, please refer to the Vicinity Map, Assessor's Parcel Map, Satellite Aerial Photograph, and Topographic Map, provided as Figures 1 through 4, respectively.

## **2.3 Applicable Noise Regulations**

The noise regulations applicable to this project are contained within the City of Lemon Grove Municipal Code. The current and proposed zoning of the subject property is GC (General Commercial). Properties to the north (across Broadway), east, and west are also zoned GC. Although properties to the south appear to be primarily multifamily residential land uses, the zoning of these properties is also GC.

Noise impacts at neighboring properties must meet the noise regulations contained within the City of Lemon Grove Municipal Code, which specifies average hourly noise limits based on the zoning of the properties in question. Properties with commercial zoning have daytime noise limits of 60 dBA between the hours of 7 a.m. and 7 p.m., evening noise limits of 55 dBA between the hours of 7 p.m. and 10 p.m., and nighttime noise limits of 50 dBA between the hours of 10 p.m. and 7 a.m. As the proposed project is anticipated to operate during the daytime and evening hours, the most restrictive noise limit that would apply at neighboring properties would be an hourly average noise level of 55 dBA. It should also be noted that the noise limits for multifamily residential zones are also 60 dBA and 55 dBA for daytime and evening hours, respectively.

In addition, Section 9.24.120 of the City of Lemon Grove Municipal Code states that construction activity is prohibited between the hours of 7 p.m. and 7 a.m. and on Sundays or legal holidays. During permissible hours of operation, noise levels from construction activity must be limited to an eight-hour average of no greater than 75 dBA at any property line zoned for residential use.

For pertinent sections of the City of Lemon Grove Municipal Code, please refer to Appendix B.

## **3.0 Environmental Setting**

### **3.1 Existing Noise Environment**

An on-site inspection was conducted on the afternoon of Tuesday, December 29, 2020. The weather conditions were as follows: partly cloudy skies, winds at 2-3 mph, high humidity, and temperatures in the mid-50s. An ambient noise measurement was taken approximately 50 feet south of the Broadway centerline. The microphone position was approximately five feet above the existing grade. Noise sources present during this measurement included noise from traffic on Broadway, and minor impacts from the trolley and nearby backup alarms. After a continuous 10-minute sound level measurement, no changes in the  $L_{EQ}$  were observable and results were recorded. The measured noise level is shown in Table 1, and a graphical representation of the noise measurement location is shown in Figure 3.



Table 1. On-Site Noise Measurement Conditions and Results	
Date	Tuesday, December 29, 2020
Time	9:47 a.m. – 9:57 a.m.
Conditions	Partly cloudy skies, wind at 2-3 mph, temperature in the mid-50s with high humidity
Measured Noise Level	65.0 dBA L <sub>EQ</sub>

### 3.2 Future Noise Environment

The future noise environment in the vicinity of the project site will be primarily a result of the same noise sources, as well as the noise generated by the proposed equipment on site, which includes car wash tunnel equipment. Noise impacts from cars idling outside the tunnel entrance have also been evaluated. A central vacuum system is also proposed, however, as motors will be fully enclosed, noise from the vacuums is expected to be insignificant and has therefore not been included in this analysis.

The primary source of noise in the car wash tunnel is the dryers. Exact dryer units have not been decided at this time. The proposed units to be installed in the tunnel is anticipated to be similar to the 90 HP Advantage Drying System manufactured by Aerodry. Manufacturer noise data shows that this configuration produces a noise level of 84 dBA at a distance of 3.3 feet (1 meter) from the tunnel exit. Noise levels at the tunnel entrance were determined through CadnaA noise modeling of the tunnel shape and entrance opening size using a typical car wash equipment configuration. Further explanation may be provided upon request. Noise levels of the proposed equipment are shown in Table 2. Please refer to Appendices A and C for more details.

Table 2. Sound Pressure Level of Proposed Equipment at 1 meter									
Source	Sound Pressure Level at Octave Band Frequency (dB)								Total Sound Pressure (dBA) at 3.3 feet
	63	125	250	500	1000	2000	4000	8000	
90 HP Advantage Drying System	85	81	77	86	74	73	69	64	84

Noise levels from an idling minivan were measured by Eilar Associates and are shown in Table 3. This measurement is considered representative of the average vehicle to be queued at the entrance, with some vehicles being louder and others quieter.

Table 3. Sound Pressure Level of Idling Vehicle at 11 feet									
Source	Sound Pressure Level at Octave Band Frequency (dB)								Total Sound Pressure (dBA) at 11 feet
	63	125	250	500	1000	2000	4000	8000	
Minivan	59	55	50	47	47	44	41	39	52

No detailed construction information was available at the time of this analysis, however, based on professional experience, it is assumed that on-site construction activities will take place as a single phase consisting of the

following stages: demolition and grading, foundation, building construction, and paving. Demolition and site preparation/grading are typically the activities that generate the highest noise levels, and therefore, these activities are the focus of this brief analysis. Please refer to Table 4 for anticipated on-site construction equipment during the worst-case stage of construction with noise levels and duty cycles for each piece of equipment. Construction equipment noise levels were provided by the UK Department for Environment, Food and Rural Affairs (DEFRA), and duty cycle information was taken from the Federal Highway Administration (FHWA) (see references). Although FHWA offers noise levels of construction equipment, professional experience and observations of construction activity by Eilar Associates, Inc. suggest that the noise levels given by DEFRA are more representative of equipment noise levels that would be generated at smaller scale construction sites such as the proposed project.

Table 4. Typical Construction Equipment Noise Levels		
Noise Source	Duty Cycle (%)	Calculated Noise Level (L <sub>MAX</sub> ) at 50 feet (dBA)
Backhoe	40%	64
Front Loader	40%	76
Dump Truck	40%	75
Excavator	40%	75

## 4.0 Methodology and Equipment

### 4.1 Methodology

#### 4.1.1 Cadna Noise Modeling Software

Modeling of the outdoor noise environment is accomplished using CadnaA Version 2020, which is a model-based computer program developed by DataKustik for predicting noise impacts in a wide variety of conditions. CadnaA (Computer Aided Noise Abatement) assists in the calculation, presentation, assessment, and alleviation of noise exposure. It allows for the input of project information such as noise source data, barriers, structures, and topography to create a detailed model and uses the most up-to-date calculation standards to predict outdoor noise impacts. Noise standards used by CadnaA that are particularly relevant to this analysis include ISO 9613 (Attenuation of sound during propagation outdoors). CadnaA provides results that are in line with basic acoustical calculations for distance attenuation and barrier insertion loss.

#### 4.1.2 Formulas and Calculations

##### *Decibel Addition*

To determine the combined logarithmic noise level of two known noise source levels, the values are converted to the base values, added together, and then converted back to the final logarithmic value, using the following formula:

$$L_c = 10 \log(10^{L_1/10} + 10^{L_2/10} + 10^{L_N/10})$$

where  $L_C$  = the combined noise level (dB), and  
 $L_N$  = the individual noise sources (dB).

#### *Attenuation Due to Distance*

Attenuation due to distance is calculated by the equation:

$$SPL_2 = SPL_1 - 20 \log\left(\frac{D_2}{D_1}\right)$$

where  $SPL_1$  = Known sound pressure level at known distance,  
 $SPL_2$  = Calculated sound pressure level at distance,  
 $D_1$  = Distance from source to location of known sound pressure level, and  
 $D_2$  = Distance from source to location of calculated sound pressure level.

This is identical to the more commonly used reference of 6 dB reduction for every doubling of distance. This equation does not take into account reduction in noise due to atmospheric absorption.

## **4.2 Measurement Equipment**

Some or all of the following equipment was used at the site to measure existing noise levels:

- Larson Davis Model LxT Type 1 Sound Level Meter, Serial # 4084
- Larson Davis Model CAL200 Type 1 Calibrator, Serial # 16454

The sound level meter was field calibrated immediately prior to the noise measurement and checked afterward to ensure accuracy. All sound level measurements conducted and presented in this report, in accordance with the regulations, were made with a sound level meter that conforms to the American National Standards Institute specifications for sound level meters (ANSI S1.4). All instruments are maintained with National Bureau of Standards traceable calibration, per the manufacturers' standards.

## **5.0 Noise and Vibration Impacts**

### **5.1 Permanent Operational Noise Impacts**

Noise levels of the proposed on-site mechanical equipment and vehicle idling were calculated using Cadna at surrounding properties. These receivers represent the nearest affected noise-sensitive locations, and therefore, any other potential receivers would be exposed to lower noise levels as they will receive additional attenuation due to distance and shielding from intervening structures. Operational noise levels were calculated considering shielding provided by the proposed buildings and sound barrier walls on site. Ground level receivers (R1, R2, R4, R5, and R6) were calculated at a height of five feet above grade. To estimate the noise levels at second-floor facades of residential buildings to the southeast, receiver R3 was calculated at a height of 15 feet above grade. Please refer to Figure 5 for a graphical representation of evaluated receiver locations.

In addition, appropriate duty cycles were applied to the equipment operating on site. According to project proponents, the car wash tunnel has a two-car maximum capacity. It can be expected that, for a car wash of this type, the dryers would be in use for a maximum of 67% of the time when at full capacity. This duty cycle assumes two cars within the tunnel, 20 second drying time, and a total car wash time of one minute. Vehicular noise was modeled as three vehicles idling with a 100% duty cycle.

Project plans show a sound wall along the south and east property lines, at a height of twelve feet above grade. The barrier extends 40 feet along the south property line and 90 feet along the east property line. This barrier has been incorporated into the acoustical model. Results of the analysis are shown in Table 5 below. Receiver locations and equipment noise contours are shown in Figure 5. Additional information is shown in Appendix D.

<b>Table 5. Calculated Noise Levels of Proposed Operations</b>			
<b>Receiver</b>	<b>Receiver Location</b>	<b>Noise Limit (dBA)</b>	<b>Equipment Noise Level (dBA)</b>
R1	East Property Line	55	38.7
R2	Southeast Property Line	55	48.7
R3	Southeast 2nd Story Facade	55	49.5
R4	South Property Line	55	39.9
R5	Southwest Property Line	55	53.5
R6	West Property Line	55	45.8

As shown above, with the barrier at a height of twelve feet above grade, with the configuration described herein and shown in Figure 5, equipment noise levels are expected to meet applicable noise limits of the City of Lemon Grove at all surrounding property lines. In order to be effective, the barrier must be constructed to the standards listed below.

According to project proponents, the sound wall is to be constructed of steel columns and horizontal steel members with a stucco finish on the subject property side of the barrier. The proposed assembly is sufficient for attenuating noise. Special care should be taken to ensure any seams or cracks are filled.

The car wash itself is proposed to be constructed primarily of stucco and a base of veneer stone over a metal frame. The proposed exterior wall assembly is sufficient for attenuating noise. Additionally, any windows proposed in the wall of the car wash tunnel should be appropriately sealed with acoustical sealant.

## **5.2 Mechanical Equipment Vibration Impacts**

The proposed project is not expected to include any significant vibration inducing equipment. As these types of equipment will not be present, excessive levels of groundborne vibration are not expected to be received by any persons.

## **5.3 Temporary Construction Impacts**

According to Section 9.24.120 of the City of Lemon Grove Municipal Code, construction activity is prohibited between the hours of 7 p.m. and 7 a.m. and on Sundays or legal holidays. During permissible hours of operation, noise levels from construction activity must be limited to an eight-hour average of no greater than 75 dBA at any residential property line.

Estimated construction noise impacts have been calculated assuming the typical pieces of equipment shown in Table 4 would be operating on site during the demolition and site preparation/grading process. Noise levels were calculated using the methodology and formulas detailed in Section 4.1.2 at the nearest residential receivers (located to the south of the project site). In order to assess average noise levels during construction activity,

noise levels have been calculated considering the center of construction activity located at the center of the parcel, at approximately 67 feet from the nearest residential property line to the south. Based on the typical noise levels and duty cycles of construction equipment, when construction is operating in this location, average noise levels over the course of a typical eight-hour workday at the nearest residential property line will be approximately 74 dBA, which is below the 75 dBA noise limit set by the City of Lemon Grove. Any other surrounding noise-sensitive receivers are located at a greater distance from proposed construction activity, and therefore will be exposed to lesser noise impacts due to additional distance attenuation and shielding provided by intervening structures.

Despite the fact that noise impacts will remain in compliance with the construction noise limit found in Section 9.24.120 of the City of Lemon Grove Municipal Code, the following “good practice” measures should still be practiced as a courtesy to residential neighbors.

1. Staging areas should be placed as far as possible from residential receivers. Ideally, staging areas would be located on the north side of the site.
2. Place stationary equipment in locations that will have a lesser noise impact on nearby sensitive receivers.
3. Turn off equipment when not in use.
4. Limit the use of enunciators or public address systems, except for emergency notifications.
5. Equipment used in construction should be maintained in proper operating condition, and all loads should be properly secured, to prevent rattling and banging.
6. Schedule work to avoid simultaneous construction activities that both generate high noise levels.
7. Use equipment with effective mufflers.
8. Minimize the use of backup alarms.

With operating hours limited to those permitted by Section 9.24.120 of the City of Lemon Grove Municipal Code and adherence to the general good practice construction noise control techniques, temporary construction noise impacts will be less than significant at surrounding properties. No specific mitigation is required for reducing construction noise impacts to off-site, sensitive receptors.

## 6.0 Conclusion

Noise impacts from the proposed on-site operations are not expected to exceed City of Lemon Grove property line noise limits at surrounding property lines, as designed. Calculations show that, with the proposed sound wall in place, constructed to the minimum standards and configuration detailed herein, equipment noise levels are expected to meet applicable noise limits at all surrounding property lines.

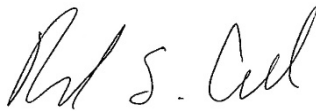
Noise from temporary construction activities will not exceed the applicable construction noise limits of Section 9.24.120 of the City of Lemon Grove Municipal Code at any surrounding residential property line. Construction is prohibited between the hours of 7 p.m. and 7 a.m. and on Sundays or legal holidays. Standard construction noise control methods including adhering to permissible hours of operation, maintaining equipment in proper operating condition, and placing staging areas at furthest locations from off-site, sensitive receptors, will be sufficient for reducing noise impacts to surrounding sensitive receptors.

This analysis is based upon current anticipated equipment noise levels for the Aerodry 90 HP system, which is proposed for use at this project site. Substitution of equipment with higher noise emission levels may invalidate the recommendations of this study. These conclusions and recommendations are based on the best and most current project-related information available at the time this study was prepared.

## **7.0 Certification**

All recommendations for noise control are based on the best information available at the time our consulting services are provided. However, as there are many factors involved in sound transmission, and Eilar Associates has no control over the construction, workmanship, or materials, Eilar Associates is specifically not liable for final results of any recommendations or implementation of the recommendations.

This report is based on the related project information received and measured noise levels and represents a true and factual analysis of the acoustical impact issues associated with the Lemon Grove Wash N Go project, located at 7431 Broadway in the City of Lemon Grove, California. This report was prepared by Rachael Cowell and Amy Hool.



Rachael S. Cowell, INCE  
Acoustical Consultant



Amy Hool, INCE  
President/CEO

## **8.0 References**

City of Lemon Grove Municipal Code, Chapter 9.24: Noise Abatement and Control.

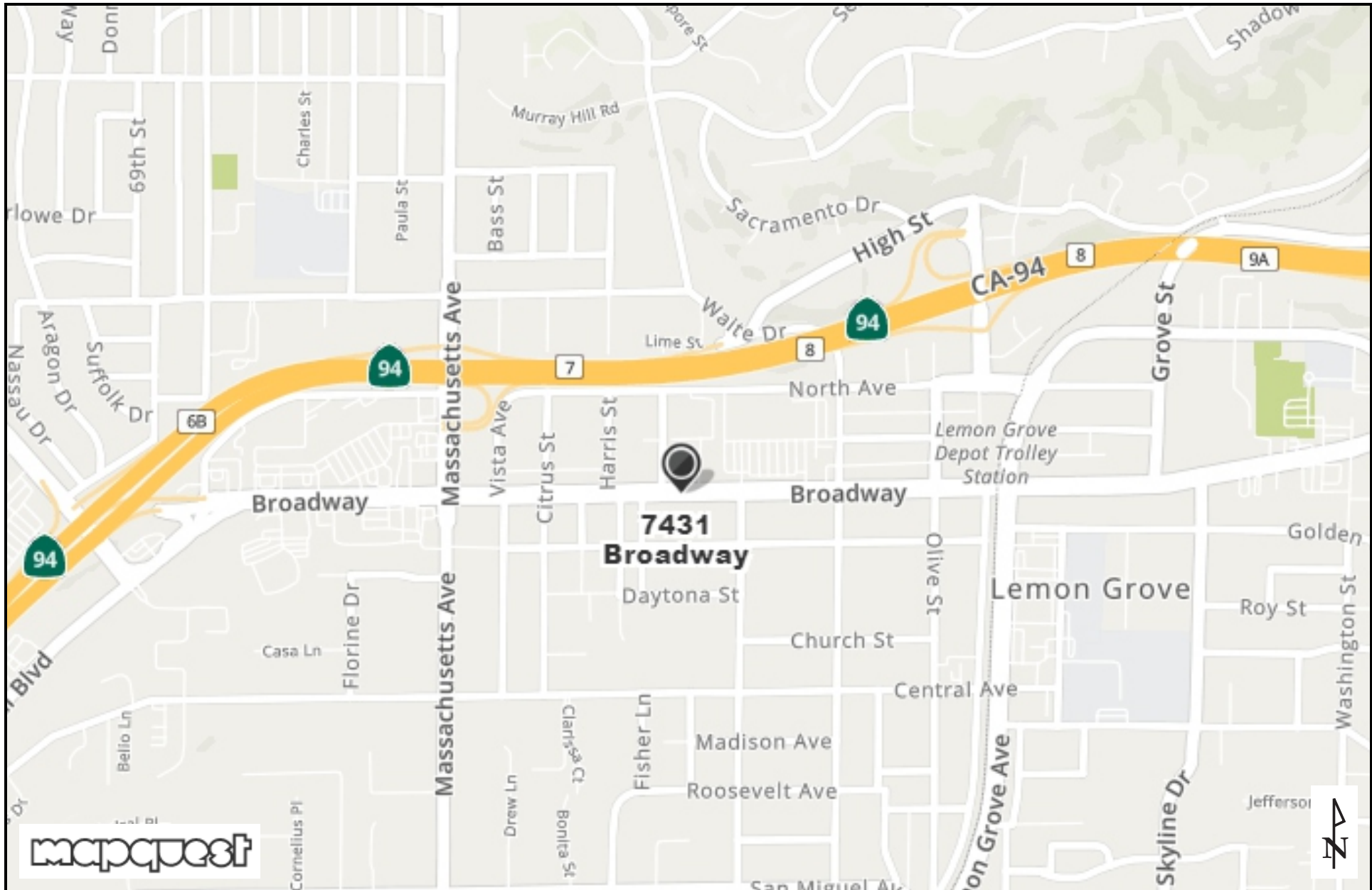
UK Department for Environment, Food, and Rural Affairs (DEFRA) Construction Noise Database.

DataKustik, CadnaA (Computer Aided Noise Abatement), Version 2021.

U.S. Department of Transportation Federal Highway Administration, Construction Noise Handbook, Construction Equipment Noise Levels and Ranges.



## Figures



**Eilar Associates, Inc.**  
 210 South Juniper Street, Suite 100  
 Escondido, California 92025  
 760-738-5570

**Vicinity Map**  
**Job #S201209**

**Figure 1**



San Diego County  
Assessor's  
Parcel Number:

480-084-31-00

Broadway

Project Location



4800843100

West St

Pacific Ave



Eilar Associates, Inc.  
210 South Juniper Street, Suite 100  
Escondido, California 92025  
760-738-5570

Assessor's Parcel Map  
Job # S201209

Figure 2



Google earth



**Eilar Associates, Inc.**  
210 South Juniper Street, Suite 100  
Escondido, California 92025  
760-738-5570

**Satellite Aerial Photograph Showing Noise Measurement Location**  
**Job # S201209**

**Figure 3**

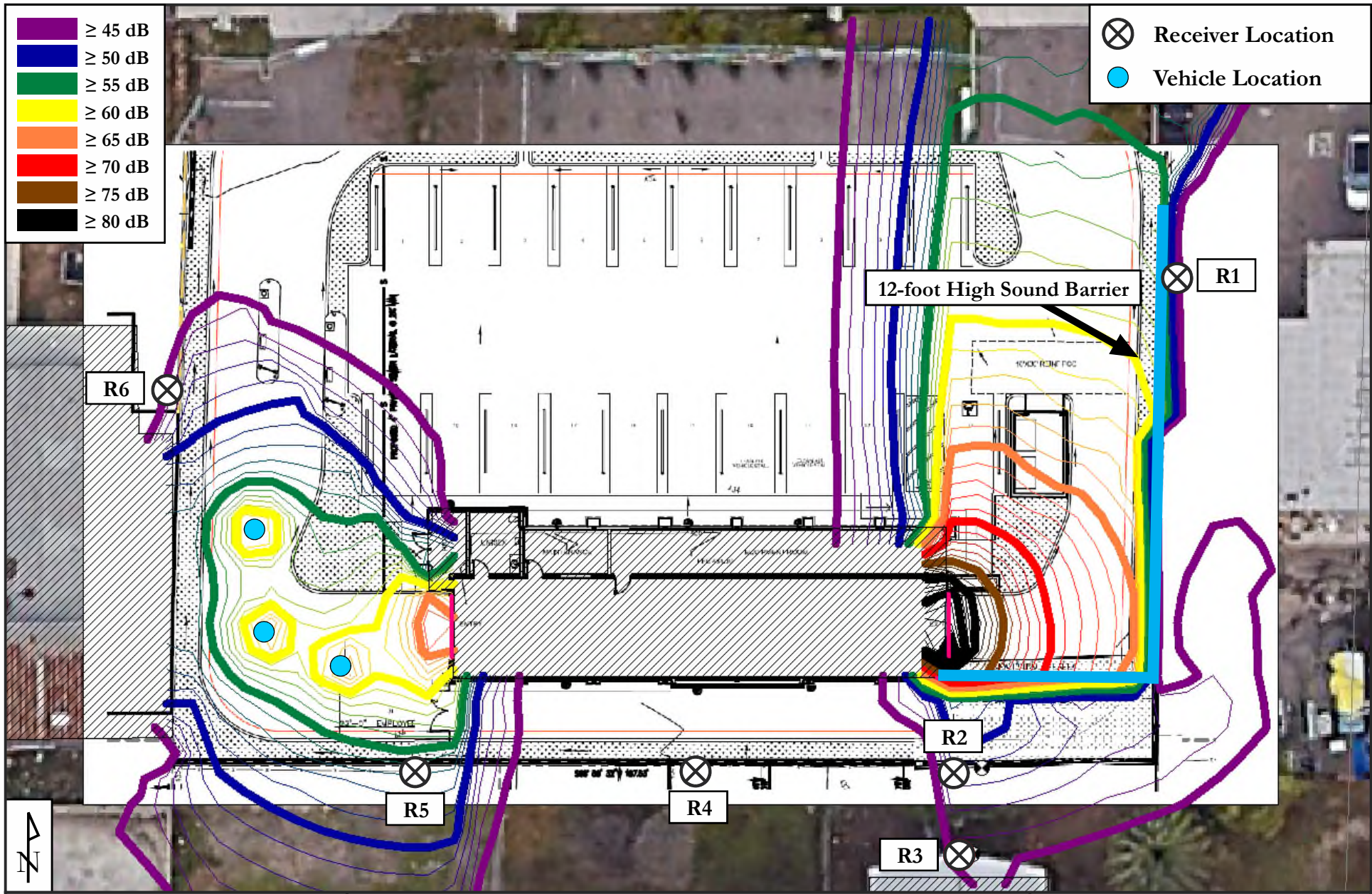


**Eilar Associates, Inc.**  
 210 South Juniper Street, Suite 100  
 Escondido, California 92025  
 760-738-5570

Topographic Map  
 Job # S201209

Figure 4





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 760-738-5570

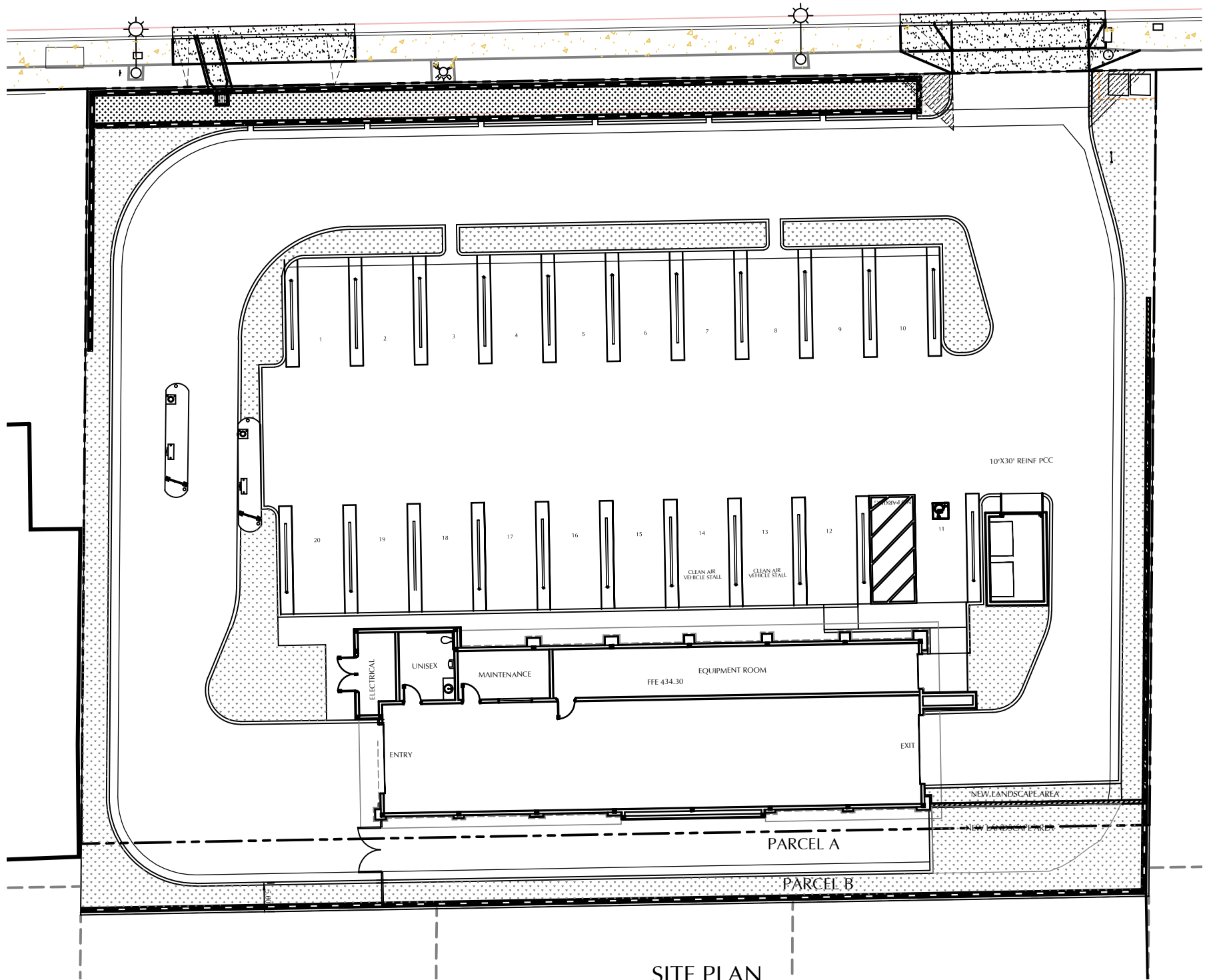
Satellite Aerial Photograph Showing Site Plan, Equipment Noise Contours, & Receiver Locations  
 Job # S201209.3

Figure 5



# Appendix A

## Project Plans



**SITE PLAN**

SCALE: 1" = 10'-0"



## **Appendix B**

Pertinent Sections of the City of Lemon Grove Municipal Code



measured distances and orientation of sources, microphone and reflecting surfaces shall be noted and recorded. In no case shall a noise measurement be taken within five feet of the noise source.

D. For inside measurements, the microphone shall be at least three feet distant from any wall, ceiling or partition, and the average measurement of at least three microphone positions throughout the room shall be determined. (Ord. 190 (part), 1991; prior code § 36.403)

**9.24.080 Fixed and nonstationary sources.**

A. Unless a variance has been applied for and granted pursuant to this chapter, it is unlawful for any person to operate, or cause to be operated, any single or combination of fixed source or nonstationary source type of equipment or machinery, except construction equipment used in connection with construction operations, that individually or collectively constitutes an identifiable sound source, in such a manner as to cause the average sound level at any point on or beyond the boundaries of the property on which the sound is produced to exceed by five decibels the noise level limits set forth in subsection B of this section, plus allowances for time duration in subsection C of this section.

B. Zone Ambient Noise Level Limits. “Noise level limit” or “sound level limit” referred to in this section means that noise level limit as determined from the table below:

<b>Zone</b>	<b>Time</b>	<b>Avg. Sound Level</b>
RL, RL/M, RM	7 AM to 7 PM	50
	7 PM to 10 PM	45
	10 PM to 7 AM	40
RM/H, RP	7 AM to 7 PM	60
	7 PM to 10 PM	55
	10 PM to 7 AM	50
All Commercial Zones	7 AM to 7 PM	60
	7 PM to 10 PM	55
	10 PM to 7 AM	55
LI	Anytime	70

The sound level limit at a location on a boundary between two zoning districts shall be the arithmetic mean of the respective limits for the two districts. Fixed location public utility distribution or transmission facilities located on adjacent to a property line shall be subject to noise level limits of this section, measured at or beyond six feet from the boundary of the easement upon which the equipment is located.

C. Time Duration Correction Table. The time duration allowances set forth in the table below shall apply to those noise level limits set forth in subsection B of this section.



**Allowances for Sound Levels Lasting Less Than an Hour**

<b>Duration</b>	<b>Allowable Decibels</b>
Up to 30 minutes per hour (50%)	+3
Up to 15 minutes per hour (25%)	+6
Up to 10 minutes per hour (16%)	+8
Up to 5 minutes per hour (8%)	+11
Up to 2 minutes per hour (3%)	+15

D. Permissible construction noise level limits shall be governed by Section 9.24.120. (Ord. 190 (part), 1991; prior code § 36.404)

**9.24.090 Motor vehicles.**

---

A. Repairs of Motor Vehicles. It is unlawful for any person within the city to repair, rebuild, or test any motor vehicle in such a manner as to cause disturbing, excessive, or offensive noises as defined in Section 9.24.020(F).

B. On-highway. Violations for exceeding applicable noise level limits as to persons operating motor vehicles on a public street or highway in the city shall be prosecuted under applicable California Vehicle Code provisions and under Federal Regulation adopted pursuant to 42 U.S.C. 4905 (a) (1) (A), (B), and (C) (ii), (iii) for which enforcement responsibility is delegated to local governmental agencies.

C. Off-highway. Except as otherwise provided for in this chapter, it is unlawful to operate any motor vehicle of any type on any site other than on a public street or highway as defined in the California Vehicle Code in a manner so as to cause noise in excess of:

1. Those noise levels permitted for on-highway motor vehicles as specified in the table “35 miles per hour or less speed limits” contained in Section 23130 of the California Vehicle Code and as corrected for distances set forth below:

**Corrections**

<b>Distance (Feet)</b>	<b>Correction (Decibels)</b>
25	-6
28	-5
32	-4
35	-3
40	-2
45	-1
50 (Preferred Distance)	0
56	+1
63	+2
70	+3
80	+4

90

+5

100

+6

A measured noise level thus calibrated to the lane-to-microphone distance of fifty feet shall be deemed in violation of this section if it exceeds the applicable noise-level limit specified by this section.

2. Or in excess of those sound levels permitted in Section 9.24.080.

D. Emergency Vehicles. Nothing in this section shall apply to authorized emergency vehicles when being used in emergency situations.

E. Urban Transit Buses. Buses as defined in the California Vehicle Code shall at all times comply with the requirements of this section. (Prior code § 36.405)

**9.24.100 Powered model vehicles.**

---

It is unlawful for any person to operate any powered model vehicle except between the hours of seven a.m. and nine p.m. and then only in such a manner so as not to emit noise in excess of those levels set forth in Section 9.24.080; however, if powered model vehicles are operated in public parks at a point more than one hundred feet from the property line, the noise level shall be determined at a distance of one hundred feet from the noise source instead of at the property line, and noises from powered model vehicles, measured at that distance in excess of the noise limits specified in Section 9.24.080, are prohibited. (Prior code § 36.406)

**9.24.110 Refuse vehicles.**

---

No person shall operate, or permit to be operated, a refuse compacting, processing, or collection vehicle within the city which, when compacting, creates a sound level in excess of eighty decibels when measured at a distance of fifty feet from any point of the compacting vehicle, unless a variance has been applied for and granted pursuant to this chapter. (Prior code § 36.407)

**9.24.120 Construction equipment.**

---

A. Except for emergency work, it is unlawful for any person, including the city, to operate any single or combination of powered construction equipment at any construction site, except as outlined below:

1. It is unlawful for any person, including the city, to operate any single or combination of powered construction equipment at any construction site on Sundays on any day celebrating official state holidays. Notwithstanding the above, a person may operate powered construction equipment on the above-specified days between the hours of ten a.m. and five p.m. in compliance with subdivision 2 of this subsection at his residence or for the purpose of constructing a residence for himself, provided such operation of powered construction is not carried on for profit or livelihood. In addition, it is unlawful for any person to operate any single or combination of powered construction equipment at any construction site on Mondays through Saturdays except between the hours of seven a.m. and seven p.m.

2. No such equipment, or combination of equipment, regardless of age or date of acquisition, shall be operated so as to cause noise at a level in excess of seventy-five decibels for more than eight hours during any twenty-four hour period when measured at or within the property lines of any property which is developed and used either in part or in whole for residential purposes. These sound levels shall be corrected for time duration in accordance with the following table:

**Total Duration**

**Decibel Level Allowance**

**Total Decibel Level**

**in 24 Hours**

Up to 15 minutes	+15	90
Up to 30 minutes	+12	87
Up to 1 hour	+9	84
Up to 2 hours	+6	81
Up to 4 hours	+3	78
Up to 8 hours	0	75

B. In the event that lower noise limit standards are established for construction equipment pursuant to state or federal law, said lower limits shall be used as a basis for revising and amending the noise level limits specified in subsection A(2) of this section. (Ord. 190 (part), 1991)

**9.24.130 Containers and construction material.**

---

It is unlawful for any person to handle or transport, or cause to be handled or transported, in any public place, any container or any construction material in such a way as to create a disturbing, excessive, or offensive noise as defined under Section 9.24.020(F). (Prior code § 36.411)

**9.24.140 Signal device for food trucks.**

---

No person shall operate, or cause to have operated or used, any sound signal device, other than sound-amplification equipment, attached to a motor vehicle wagon or manually propelled cart from which food or any other items are sold which emits a sound signal more frequently than once every ten minutes in any one street block and with a duration of more than ten seconds for any single emission. The sound level of this sound signal shall not exceed ninety decibels at fifty feet. (Prior code § 36.412)

**9.24.150 Multiple-family dwelling units.**

---

Notwithstanding any other provisions of this chapter, it is unlawful for any person to create, maintain, or cause to be maintained, any sound within the interior of any multiple-family dwelling unit which causes the average sound level of forty-five decibels to be exceeded in any other dwelling unit for a cumulative period of five minutes in any one hour, or fifty decibels for a cumulative period of one minute in any one hour, or fifty-five decibels at no time between the hours of ten p.m. of one day and seven a.m. of the following day. The monitoring procedures outlined under Section 9.24.070 shall be followed in enforcing this section. (Prior code § 36.413)

**Article III. General Noise Regulations**

---

**9.24.160 Disturbing, excessive or offensive noises—Prohibited—Characteristics and conditions.**

---

A. In the absence of objective measurement by use of a sound level, meter, additionally it is unlawful for any person to make, continue, or cause to be made or continued, within the limits of the city any disturbing, excessive or offensive noise which causes discomfort or annoyance to reasonable persons of normal sensitivity residing in the area.

B. The characteristics and conditions which should be considered in determining whether a violation of the provisions of this section and Section 9.24.170 exists, include, but are not limited to, the following:

1. The level of the noise;



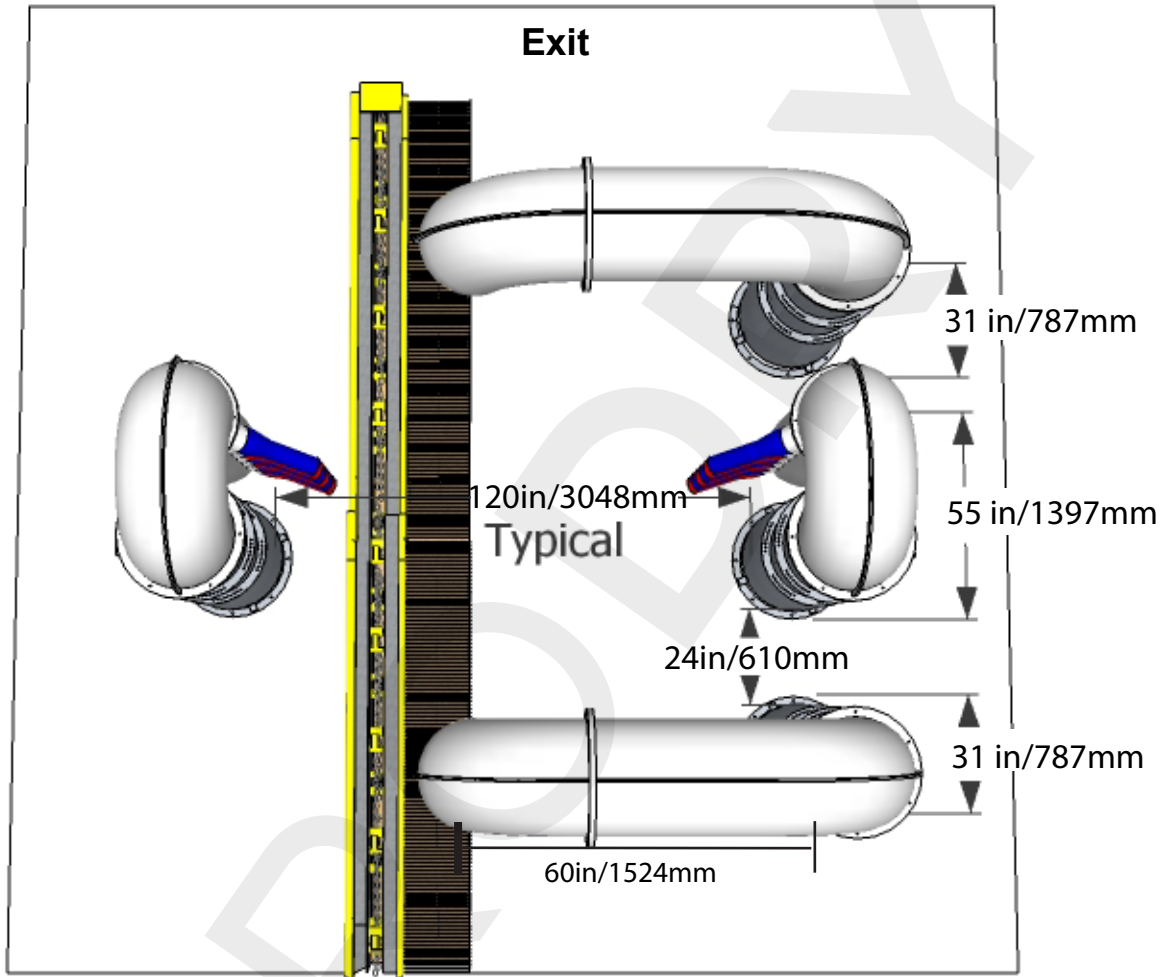
## Appendix C

### Manufacturer Data Sheets

# Installation Footprint

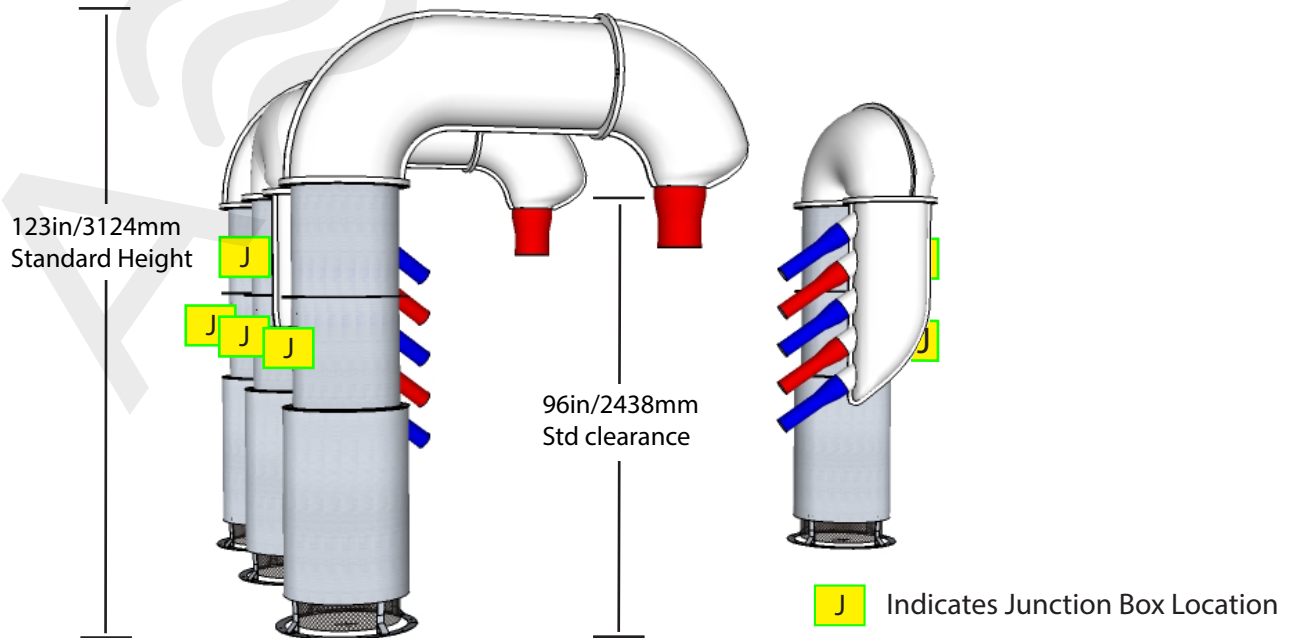
## Advantage Drying System - 90+ HP <sup>w/Dual Motor Sides</sup>

Recommend < 13 ft / 3886mm



System consists of 2 single motor top ducts and 1 set of dual motor side columns.

*It has been noted the width of certain newer model trucks and SUVs has become greater. Depending on your wash clientele, it may be necessary to increase the distance between side columns.*



August 11, 2016

Ms. Cheryl Dobie  
Aerodry Systems, LLC  
P.O. Box 907  
Broomfield, Colorado 80038

**Re: Aerodry – Spectral Sound Measurements (DLAA #16-131) Summary Report**

Dear Cheryl,

The following is a summary of the blower sound level measurements taken at the site on August 4, 2016. Attached is Table 1 which is a summary of the 1/3 octave band sound measurements taken at the site.

We measured a variety of configurations with various model numbers that correspond to different groupings of dryers. The system sizes ranging from 45 HP to 120 HP consisted of configurations utilizing 1 and 2 overhead towers and 1 set of 6-outlet side columns..

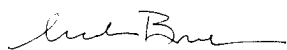
Measurements were taken in ANSI-standard 1/3-octave bands between 25 Hertz (Hz) and 20,000 Hz. The blowers were located as shown in Figure 1. Sound measurements were taken outside the building at four distances: 1m, 20', 50', and 90' from the exterior edge of the building at centerline of the opening as shown in Figure 1.

Table 1 (enclosed) summarizes the measurements taken at the four measurement locations under six different operating conditions as described below Table 1.

Measurements were taken with a Larson Davis Model 831 Type 1 sound level meter and a PCB Piezotronics Model 377B02 condensing microphone. Immediately prior to measuring, the sound level meter's calibration was checked and recorded. Calibration was again verified at the conclusion of the measurements. All of our equipment has been calibrated within the recommended time period set by the manufacturer. Documentation verifying measurement calibration compliance is available upon request,

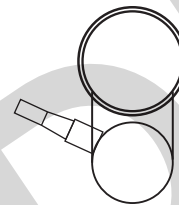
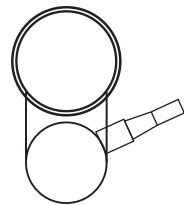
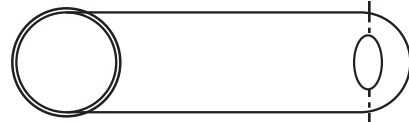
If you have any questions, please call me.

Sincerely,



Mick Barnhardt  
Senior Consultant

Encl: Figure 1; Table 1



INTERIOR

1 m

A

EXTERIOR

Measurement Positions

B

20'

C

50'

D

90'

## Dryer Configuration

Aerodry

scale: 1/4" = 1' - 0"

Figure

1



D. L. ADAMS  
ASSOCIATES

acoustics | performing arts | technology

1536 Ogden Street Denver, Colorado 80218  
303/455-1900 FAX 303/455-9187

8-11-16

Project No.  
16-161

Drawn by  
MBB

TABLE 1: Sound Measurement Summary (in dB)

Location	Condition	1/3 Octave Band Frequency																dBA														
		25.0	31.5	40.0	50.0	63.0	80.0	100	125	160	200	250	315	400	500	630	800		1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
A	Condition 1	75	75	76	79	79	78	73	72	76	73	67	75	83	81	66	65	66	65	66	65	65	62	60	59	57	56	55	52	47	39	82
	Condition 2	63	67	69	70	74	67	66	61	64	62	60	64	76	71	55	56	54	56	54	51	51	50	48	46	45	42	36	29	74		
	Condition 3	60	61	60	64	68	65	62	61	59	57	54	59	68	64	50	50	48	50	49	44	43	40	37	34	30	24	16	67			
	Condition 4	57	55	57	61	62	63	64	56	53	52	49	55	64	58	45	46	45	45	45	44	40	39	37	34	30	27	22	16	10	62	
B	Condition 1	69	73	74	76	79	80	80	74	74	77	73	68	73	81	74	66	69	67	67	66	66	63	62	61	59	58	56	53	49	81	
	Condition 2	65	65	68	70	74	70	66	64	65	63	58	66	73	71	60	57	57	57	56	57	53	52	51	49	47	46	43	38	30	73	
	Condition 3	60	60	62	64	69	66	61	61	59	58	53	60	67	65	59	52	51	50	50	47	45	44	41	39	36	32	26	17	67		
	Condition 4	61	57	59	64	64	64	62	59	58	54	49	55	62	59	46	48	47	47	46	46	41	41	39	36	32	29	23	16	9	62	
C	Condition 1	76	76	77	78	80	82	74	76	78	73	71	75	84	80	68	67	69	68	69	67	68	64	63	60	59	57	54	51	44	83	
	Condition 2	65	67	68	70	74	73	66	64	66	63	59	67	77	72	59	58	57	56	56	54	53	52	49	47	46	42	37	29	75		
	Condition 3	61	62	63	64	69	68	61	60	61	59	55	62	70	65	51	52	51	50	50	47	46	45	42	39	36	32	26	17	68		
	Condition 4	59	58	58	60	63	65	58	55	53	51	56	65	60	45	47	46	46	47	45	45	43	41	39	35	32	28	23	16	9	63	
D	Condition 1	74	75	76	80	81	80	75	76	78	75	69	72	80	84	73	67	71	69	68	68	65	64	62	61	59	57	55	50	42	84	
	Condition 2	65	65	68	72	75	73	68	66	66	65	59	63	72	74	63	59	58	59	59	58	56	54	53	51	49	48	45	39	31	74	
	Condition 3	61	62	62	66	70	67	63	61	61	60	55	59	65	67	58	52	51	53	52	51	49	47	46	43	41	38	34	28	19	68	
	Condition 4	58	57	59	63	64	64	60	58	56	55	52	54	60	62	58	49	47	48	49	48	46	44	42	41	37	34	30	25	18	11	63
E	Condition 1	77	77	79	80	84	84	77	79	81	76	73	74	81	83	73	69	73	71	72	71	71	67	66	63	62	60	58	54	46	85	
	Condition 2	68	69	71	72	77	75	69	67	68	65	61	67	75	75	64	61	60	60	61	61	60	57	56	56	53	51	50	47	42	34	76
	Condition 3	63	63	63	66	72	70	63	62	63	61	57	61	67	68	60	54	54	54	54	54	53	50	49	48	45	42	40	36	30	21	69
	Condition 4	59	59	60	62	64	66	61	61	58	56	51	56	62	63	54	49	49	49	50	49	48	45	44	42	38	35	32	26	19	11	64
F	Condition 1	76	76	78	79	82	82	75	77	79	74	72	76	83	81	75	68	70	69	69	68	69	65	64	63	61	59	58	55	51	43	84
	Condition 2	66	68	69	71	76	74	67	65	67	64	60	68	76	72	63	59	57	58	59	58	58	55	54	53	50	49	47	44	39	31	75
	Condition 3	62	62	62	64	71	69	62	60	61	59	56	61	68	64	55	53	52	52	51	51	48	47	46	42	40	36	32	27	18	68	
	Condition 4	58	58	58	62	63	65	60	59	58	55	51	55	63	60	50	48	46	47	48	47	46	44	41	40	36	32	29	24	17	10	63

Location A: 1 meter from exterior door opening  
 Location B: 20 feet from exterior door opening  
 Location C: 50 feet from exterior door opening  
 Location D: 90 feet from exterior door opening

Condition 1: Model A45  
 Condition 2: Model A60  
 Condition 3: Model A60+  
 Condition 4: Model A90  
 Condition 5: Model A120  
 Condition 6: Model A75

Results are exclusive to the Advantage Drying System manufactured by Aerodry Systems, LLC. Use and interpretation for other equipment models or brands is expressly prohibited. Aerodry Systems, LLC is an independent, certified WBE.





## Appendix D

CadnaA Analysis Data and Results

## S201209.3 - Lemon Grove Wash N Go - With Barriers

### Eilar Associates, Inc.

210 South Juniper Street, Suite 100

Escondido, California 92025-4230

Phone: (760) 738-5570

Date: 14 Jan 2022

### Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	1000.00
Min. Length of Section (#(Unit,LEN))	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	0
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rcvr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	
	Excl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.30
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (Schall 03 (1990))	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

**Receivers**

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height (ft)	Coordinates			
			Day (dBA)	Evening (dBA)	Night (dBA)	Day (dBA)	Evening (dBA)	Night (dBA)	Type	Auto	Noise Type		X (ft)	Y (ft)	Z (ft)	
East Commercial		R1	38.7	38.7	12.0	60.0	55.0	52.5				4.99	r	546.85	480.61	443.36
Southeast (MFR)		R2	48.7	48.7	30.9	60.0	55.0	52.5				4.99	r	510.82	387.29	442.55
Southeast (MFR)		R3	49.5	49.5	32.7	60.0	55.0	52.5				14.99	r	509.04	370.71	452.47
South (MFR)		R4	39.9	39.9	37.6	60.0	55.0	52.5				4.99	r	456.25	386.47	440.24
Southwest (MFR)		R5	53.5	53.5	46.9	60.0	55.0	52.5				4.99	r	402.34	386.67	438.69
West Commercial		R6	45.8	45.8	42.5	60.0	55.0	52.5				4.99	r	355.81	459.55	434.63

**Point Sources**

Name	M. ID	Result. PWL			Lw / Li		Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Height	Coordinates		
		Day (dBA)	Evening (dBA)	Night (dBA)	Type	Value	norm.	Day dB(A)	Evening dB(A)	Night dB(A)	R		Area (ft²)	Day (min)	Special (min)					Night (min)	X (ft)	Y (ft)
Car Idle 1		71.6	71.6	71.6	Lw	Idle		0.0	0.0	0.0					0.0		(none)	3.00	r	388.68	406.93	436.99
Car Idle 2		71.6	71.6	71.6	Lw	Idle		0.0	0.0	0.0					0.0		(none)	3.00	r	373.97	413.07	436.69
Car Idle 3		71.6	71.6	71.6	Lw	Idle		0.0	0.0	0.0					0.0		(none)	3.00	r	372.14	432.56	436.52

**Vertical Area Sources**

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li		Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.
			Day (dBA)	Evening (dBA)	Night (dBA)	Day (dBA)	Evening (dBA)	Night (dBA)	Type	Value norm.	Day dB(A)	Evening dB(A)	Night dB(A)	R	Area (ft²)		Day (min)	Special (min)	Night (min)			
	+		93.8	93.8	93.8	83.3	83.3	83.3	Lw	C3		0.0	0.0	0.0			40.00	40.00	0.00	3.0		(none)
	+		79.7	79.7	79.7	69.2	69.2	69.2	Lw	C4		0.0	0.0	0.0			40.00	40.00	0.00	3.0		(none)

**Geometry - Vertical Area Sources**

Name	Height		Coordinates			
	Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)	Ground (ft)
	10.01	r	504.52	408.49	444.91	434.90
			504.35	420.49	444.89	434.88
	10.01	r	409.52	408.24	444.01	434.01
			409.35	420.25	445.39	435.38

**Barriers**

Name	M.	ID	Absorption		Z-Ext. (ft)	Cantilever		Height	
			left	right		horz. (ft)	vert. (ft)	Begin (ft)	End (ft)
South Barrier Wall									
East Barrier Wall	+							12.01	r

**Geometry - Barriers**

Name	M.	ID	Absorption		Z-Ext. (ft)	Cantilever		Height		Coordinates			
			left	right		horz. (ft)	vert. (ft)	Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)	Ground (ft)
South Barrier Wall										502.21	404.44	446.90	434.89
										544.27	404.29	446.90	434.89
East Barrier Wall	+							12.01	r	544.00	404.10	447.20	435.20
										545.78	494.30	448.69	436.68

**Buildings**

Name	M.	ID	RB	Residents	Absorption	Height Begin (ft)
						20.01 r
			x	0		
			x	0		
Car Wash			x	0		449.44 a

**Geometry - Buildings**

Name	M.	ID	RB	Residents	Absorption	Height Begin (ft)	Coordinates			
							x (ft)	y (ft)	z (ft)	Ground (ft)
						20.01 r	489.23	366.37	457.02	437.01
							523.41	366.37	457.02	437.01
							523.14	313.32	457.02	437.01
							490.05	314.14	457.02	437.01
			x	0			307.25	471.82	433.07	426.51
							349.19	471.82	433.07	426.51
							349.74	451.06	433.07	426.51
							356.09	451.06	433.07	426.51
							356.14	392.97	433.07	426.51
							309.90	392.54	433.07	426.51
Car Wash			x	0		449.44 a	504.01	433.19	449.44	434.64
							503.85	404.43	449.44	434.90
							409.79	404.23	449.44	434.01
							409.82	421.18	449.44	435.47
							405.17	421.08	449.44	433.99
							404.79	436.76	449.44	433.99
							423.37	437.17	449.44	433.88
							423.14	432.91	449.44	433.96

**Terrain Contours**

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)
425				425.00		329.82	505.92	425.00
						331.72	511.19	425.00
						338.66	514.12	425.00
						342.08	511.89	425.00
						343.06	525.35	425.00
428				427.99		334.38	482.44	427.99
						337.36	490.96	427.99
						347.40	493.61	427.99
						355.48	504.81	427.99
						352.98	484.21	427.99
						340.88	483.84	427.99
428				427.99		360.59	511.66	427.99
						379.35	516.83	427.99
						404.64	527.84	427.99
						412.61	531.04	427.99
						415.81	535.60	427.99
430				429.99		363.09	501.46	429.99
						401.06	516.55	429.99
						407.14	510.36	429.99
						434.81	516.87	429.99
						449.89	523.60	429.99
431				431.00		361.08	489.56	431.00
						385.28	486.55	431.00
						418.09	501.73	431.00
						441.33	506.65	431.00
						462.80	513.07	431.00
						479.34	525.10	431.00
432				431.99		381.49	482.50	431.99
						395.06	482.28	431.99
						412.74	490.20	431.99
						434.99	490.53	431.99
						485.55	506.26	431.99
						504.42	519.95	431.99
						510.01	519.52	431.99
						517.08	529.51	431.99
						530.17	538.90	431.99
433				433.01		394.60	477.73	433.01
						399.25	480.32	433.01
						422.90	479.78	433.01
						436.43	470.21	433.01
						446.41	474.17	433.01
						449.42	481.83	433.01
						484.83	487.43	433.01
						505.48	491.26	433.01
						523.52	500.70	433.01



S201209.3 - Lemon Grove Wash N Go - With Barriers

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)
						523.38	505.07	433.01
						534.73	512.45	433.01
434				433.99		387.78	400.12	433.99
						395.10	396.24	433.99
						401.74	392.36	433.99
						401.82	389.01	433.99
						396.05	386.68	433.99
						388.47	389.44	433.99
						388.13	399.25	433.99
434				433.99		416.39	374.37	433.99
						422.25	382.07	433.99
						418.99	387.28	433.99
						411.07	387.39	433.99
						410.75	392.49	433.99
						404.02	393.46	433.99
						402.72	400.52	433.99
						398.59	398.13	433.99
						394.90	400.30	433.99
						400.44	413.11	433.99
						406.51	412.78	433.99
						405.54	418.97	433.99
						399.68	420.38	433.99
						399.24	426.78	433.99
						394.69	427.21	433.99
						393.38	416.80	433.99
						393.93	407.57	433.99
						395.66	404.42	433.99
						393.17	403.56	433.99
						383.51	405.84	433.99
434				433.99		404.21	455.96	433.99
						404.04	435.98	433.99
						408.35	431.67	433.99
						422.63	431.97	433.99
						424.14	429.23	433.99
						428.92	430.53	433.99
						447.52	429.51	433.99
						449.43	431.70	433.99
						459.76	433.07	433.99
						462.08	436.95	433.99
						466.82	433.94	433.99
						466.60	472.89	433.99
						468.99	477.12	433.99
						472.03	465.73	433.99
						503.50	467.25	433.99
435				435.01		573.21	525.00	435.01
						560.98	521.39	435.01
						552.80	526.38	435.01

S201209.3 - Lemon Grove Wash N Go - With Barriers

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)
						544.36	526.29	435.01
435				435.01		452.14	373.75	435.01
						451.43	385.31	435.01
						453.76	390.30	435.01
						447.31	394.59	435.01
436				435.99		549.96	511.27	435.99
						556.59	518.20	435.99
						562.10	515.96	435.99
						574.85	520.78	435.99
435				435.99		454.37	423.59	435.99
						459.91	427.48	435.99
						429.90	427.14	435.99
						412.61	426.73	435.99
						410.83	420.10	435.99
436				435.99		472.15	373.58	435.99
						471.81	379.87	435.99
						468.88	386.58	435.99
						471.64	390.37	435.99
						474.74	390.81	435.99
						480.77	395.11	435.99
437				437.01		548.41	497.85	437.01
						556.50	506.57	437.01
						561.93	510.36	437.01
						573.64	513.98	437.01
437				437.01		487.48	373.32	437.01
						482.23	384.00	437.01
						485.16	384.35	437.01
						505.31	395.50	437.01
						521.40	395.80	437.01
						528.05	393.73	437.01
						537.83	407.70	437.01
438				437.99		548.67	466.28	437.99
						550.66	480.49	437.99
						561.69	499.52	437.99
						572.71	507.53	437.99
438				437.99		531.34	374.48	437.99
						532.29	381.45	437.99
						526.00	387.40	437.99
						532.38	387.14	437.99
						536.94	389.12	437.99
						538.23	396.53	437.99
						543.57	402.04	437.99
439				439.01		551.41	373.79	439.01
						543.57	381.11	439.01
						543.14	385.16	439.01
						551.93	385.33	439.01
						555.89	406.86	439.01

S201209.3 - Lemon Grove Wash N Go - With Barriers

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)
						557.44	432.18	439.01
						564.85	453.20	439.01
				416.67	442.91	85.94	595.37	416.67
						864.65	610.99	442.91
				442.91	449.48	818.64	584.95	442.91
						806.49	229.02	449.48
				449.48	433.07	776.10	233.36	449.48
						144.98	222.07	433.07
				433.07	416.67	151.05	241.17	433.07
						143.24	566.72	416.67
						178.12	386.89	419.95
						241.93	387.32	419.95
						237.15	365.19	419.95
						253.21	359.54	419.95
						249.74	343.05	423.23
						216.75	340.44	419.95
						215.01	318.31	423.23
						172.04	325.25	419.95
						174.65	377.77	416.67
						242.36	324.38	426.51
						284.03	326.55	433.07
						284.03	254.50	429.79
						235.85	253.20	426.51
						238.89	320.91	426.51
						294.45	375.60	426.51
						348.27	376.04	429.79
						346.10	255.37	429.79
						294.01	256.24	429.79
						294.88	373.00	426.51
						363.03	388.63	433.07
						409.47	383.85	433.07
						411.21	251.46	433.07
						358.25	254.93	433.07
						361.29	383.85	433.07
				435.01		425.10	368.66	435.01
						475.45	368.22	435.01
						475.02	256.24	435.01
						424.23	258.84	435.01
						424.67	361.71	435.01
				437.01		488.47	367.36	437.01
						534.48	366.92	437.01
						534.48	254.93	437.01
						485.00	258.41	437.01
						487.61	363.88	437.01
						554.89	372.13	436.35
						594.38	373.87	436.35
						594.38	267.52	436.35

S201209.3 - Lemon Grove Wash N Go - With Barriers

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)
						547.51	267.52	439.63
						550.11	368.66	436.35
						617.84	377.32	439.63
						649.56	377.86	439.63
						654.48	270.68	439.63
						615.10	276.69	439.63
						611.82	370.21	439.63
						671.43	376.77	439.63
						724.48	375.68	439.63
						721.75	258.64	442.91
						668.70	260.28	439.63
						674.17	360.91	439.63
						741.43	378.41	439.63
						786.28	378.96	439.63
						782.45	266.85	442.91
						743.62	263.57	442.91
						743.08	374.04	439.63
				442.91		12.15	815.00	442.91
						970.57	815.00	442.91
						965.06	7.45	442.91
						5.92	22.61	442.91
						10.05	805.35	442.91
434				433.99		532.57	447.56	433.99
						539.28	443.77	433.99
						542.21	451.18	433.99
						542.56	475.29	433.99
Parking Lot						526.42	403.81	434.28
						526.64	417.81	434.19
						537.49	430.73	434.09
						537.16	440.06	433.99
						499.19	387.76	437.30
						521.33	389.71	437.80
FS East						506.19	417.88	434.91
						506.32	402.84	434.91
						407.74	401.61	433.99
						407.60	418.57	433.99
						504.68	419.25	434.91
Retaining wall elevation						408.63	394.70	434.55
						527.13	396.21	434.74
						527.40	396.22	434.38
						538.47	410.00	434.38
						538.36	413.47	434.38
						543.36	413.15	434.38
						543.38	421.45	434.38
						543.38	421.86	434.38
						543.48	439.04	434.35
						543.55	439.45	434.09

S201209.3 - Lemon Grove Wash N Go - With Barriers

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)
						544.00	484.33	434.74
						543.96	484.53	433.79
						544.22	504.00	433.86
						544.22	504.04	433.43
						544.44	522.97	433.43
Retaining Wall Off-site Elevation						408.90	394.29	435.43
						527.41	395.80	437.27
						527.68	395.81	436.91
						538.75	409.59	436.91
						538.64	413.06	437.27
						543.63	412.74	439.37
						543.65	421.04	439.37
						543.65	421.45	439.37
						543.76	438.63	438.68
						543.83	439.04	438.68
						544.27	483.92	438.68
						544.24	484.12	436.55
						544.49	503.59	436.45
						544.49	503.63	436.45
						544.71	522.56	435.43
						355.24	454.86	429.20
						355.89	481.70	429.07
						341.77	475.53	428.90
						362.57	400.54	433.50
						359.47	406.95	433.50
						359.25	424.31	433.23
						359.47	465.01	433.30
						550.33	409.56	438.91
						550.26	437.14	438.71

**Sound Level Spectra**

Name	ID	Type	1/3 Oktave Spectrum (dB)											Source
			Weight.	63	125	250	500	1000	2000	4000	8000	A	lin	
Aerodry	C3	Lw (c)	A	62.8	69.0	76.2	85.7	86.1	89.3	87.9	79.4	93.8	95.8	Mfr/Cadna Cal
Aerodry Entrance	C4	Lw (c)	A	48.7	54.9	62.1	71.6	72.0	75.2	73.8	65.3	79.7	81.7	Mfr/Cadna Cal
Mini Van Idle	Idle	Lw (c)		77.2	74.6	70.2	67.1	66.2	64.0	61.1	58.5	71.6	81.6	Measured



## Appendix E

### Construction Noise Calculations

---

## Noise Attenuation by Distance Calculation

Job: Wash N Go Lemon Gr  
Job #: S201209  
Date: 12/29/2020  
Source: backhoe  
Receiver: Worst-Case

### Noise Source

Noise Level (dBA) 64 at 50 feet

### Distances

Source Elevation 5 feet at 5 feet above grade  
Receiver Elevation: 5 feet at 5 feet above grade  
Source to Receiver Distance: 67 feet

### Path Calculation

Source to Receiver Direct Path Distance: 67 feet

### Sound Pressure Level

61.5 at 67 feet  
Hours of Use: 8  
Duty Cycle (%): 40  
Level During 8 Hour day: 57.5

### Summation

Number of Sources: 4  
Level during 8 hour day: 73.7



---

## Noise Attenuation by Distance Calculation

Job: Wash N Go Lemon Grove  
Job #: S201209  
Date: 12/29/2020  
Source: front loader  
Receiver: Worst-Case

<b>Noise Source</b>
Noise Level (dBA) <u>76</u> at <u>50</u> feet

<b>Distances</b>
Source Elevation <u>5</u> feet at <u>5</u> feet above grade
Receiver Elevation: <u>5</u> feet at <u>5</u> feet above grade
Source to Receiver Distance: <u>67</u> feet

<b>Path Calculation</b>
Source to Receiver Direct Path Distance: <u>67</u> feet

<b>Sound Pressure Level</b>	<u>73.5</u>	at	<u>67</u>	feet
Hours of Use:	<u>8</u>			
Duty Cycle (%):	<u>40</u>			
Level During 8 Hour day:	<u>69.5</u>			

---

## Noise Attenuation by Distance Calculation

Job: Wash N Go Lemon Grove  
Job #: S201209  
Date: 12/29/2020  
Source: dump truck  
Receiver: Worst-Case

<b>Noise Source</b>
Noise Level (dBA) <u>75</u> at <u>50</u> feet

<b>Distances</b>
Source Elevation <u>5</u> feet at <u>5</u> feet above grade
Receiver Elevation: <u>5</u> feet at <u>5</u> feet above grade
Source to Receiver Distance: <u>67</u> feet

<b>Path Calculation</b>
Source to Receiver Direct Path Distance: <u>67</u> feet

<b>Sound Pressure Level</b>	<u>72.5</u>	at	<u>67</u>	feet
Hours of Use:	<u>8</u>			
Duty Cycle (%):	<u>40</u>			
Level During 8 Hour day:	<u>68.5</u>			

---

## Noise Attenuation by Distance Calculation

Job: Wash N Go Lemon Grove  
Job #: S201209  
Date: 12/29/2020  
Source: excavator  
Receiver: Worst-Case

<b>Noise Source</b>
Noise Level (dBA) <u>75</u> at <u>50</u> feet

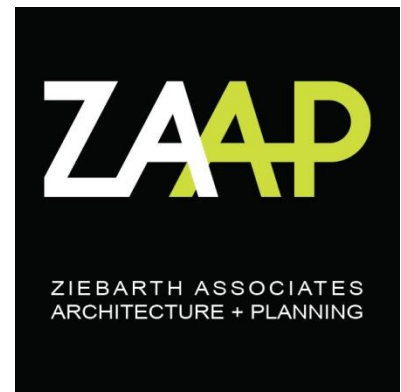
<b>Distances</b>
Source Elevation <u>5</u> feet at <u>5</u> feet above grade
Receiver Elevation: <u>5</u> feet at <u>5</u> feet above grade
Source to Receiver Distance: <u>67</u> feet

<b>Path Calculation</b>
Source to Receiver Direct Path Distance: <u>67</u> feet

<b>Sound Pressure Level</b>	<u>72.5</u>	at	<u>67</u>	feet
Hours of Use:	<u>8</u>			
Duty Cycle (%):	<u>40</u>			
Level During 8 Hour day:	<u>68.5</u>			

January 25, 2022

Bill Chopyk  
Interim Community Development Manager  
City of Lemon Grove  
(619) 825-3812



Re: Notice of Decision MUP-210-0002 Appeal

Dear Mr. Chopyk:

The appeal of the Community Manager's Decision is based on the responses below. The Eiler Report has been updated to include analysis of the noise from the cars idling which concluded no significant impact. Attached are letters of support from neighbors and community members.

**Notice of Determination:**

*B) The Community Development Manager's decision is based on the following required findings and determinations:*

*1. The use is compatible with the neighborhood or the community. The land uses surrounding the subject site include residential structures that are accessed from Pacific Ave. and immediately south of the subject site. The closest residential structure is approximately 15 feet from the southerly property line of the proposed car wash site. The proximity of the drive-through to nearby residential structures and the potential for cars to create disturbing, excessive or offensive noise, car exhaust from idling engines, and stacking of vehicles causing congestion will result in the use being incompatible with the surrounding neighborhood and the community.*

Response:

- a. Currently, there is a car wash at Massachusetts and Broadway, and at Pacific & Olive directly next to residential? Further there are automotive body & repairs and tire stores with ratchet guns adjacent to residential along Broadway. A precedence exist that the proposed use has been allowed in this area.
- b. Second a noise study has been prepared that concludes that noise is not a significant impact.
- c. Car exhaust from vehicles idling is the same for the other similar businesses in the area.
- d. The Project proposes more queuing than either of the two existing car washes in the area.

*2. The use is not detrimental to the health, safety, convenience or general welfare of persons residing or working in the vicinity. The proposed car wash will be detrimental to the general welfare of persons residing in nearby residential structures because their close proximity to the car wash and potential noise impacts from cars accessing the site and creating disturbing, excessive or offensive noise, car exhaust from idling engines and stacking of vehicles, causing discomfort or annoyance in accordance with Lemon Grove Municipal Code Section 9.24.160.*

Response:

- a. Currently, there is a car wash at Massachusetts and Broadway, and at Pacific & Olive directly next to residential? Further there are automotive body & repairs and tire stores with ratchet guns adjacent to residential along Broadway. A precedence exist that the proposed use has been allowed in this area and is not detrimental to the neighborhood.
- b. Second a noise study has been prepared that concludes that noise is not a significant impact.
- c. Car exhaust from vehicles idling is the same for the other similar businesses in the area.
- d. The Project proposes more queuing than either of the two existing car washes in the area.
- e. Attached are support letters from members of the neighborhood who feel that the Project is not detrimental to the neighborhood.

*3. The use complies with performance standards according to Section 17.24.080. The applicant submitted a noise study (Eilar Associates, Inc. April 28, 2021) confirming the proposed use complies or will be made to comply with applicable performance standards; however, cars utilizing the car wash may generate noise that exceeds the ambient noise level by more than five decibels or exceed 70 decibels during daytime operations.*

Response:

The existing ambient noise level today from the roadway and trolley results in 65dBA. (Eiler Table 1) The operational noise from the car wash with the sound wall mitigation will not exceed the 55 dBA range at any of the receiver locations. (Eiler Table 5) Noise from the cars idling is estimated at 52 dBA at 11 feet. (Eiler Table 3). We question what data indicates that cars utilizing the car wash may generate noise that exceeds the ambient noise level by more than five decibels or exceed 70 decibels during daytime operations. The Eiler Report concludes: Noise impacts from the proposed on-site equipment are not expected to exceed City of Lemon Grove property line noise limits at surrounding property lines, as designed.

*4. The use is consistent with applicable provisions of the particular zoning district and with policies and standards of the general plan. Policy 5.5 of the General Plan states. "Promote development that enhances and is compatible with the surrounding environs." The proposed use will generate disturbing, excessive or offensive noise from cars, fumes from idling engines, and congestion which will result in the use being incompatible with the surrounding residential environs.*

Response:

The existing use is allowed by the existing zoning. As explained in the previous responses, Neither the data nor the feedback from the neighbors and community support the conclusion.

In summary, the Applicant believes that they have adequately addressed the issues raised, that they are consistent with similar uses nearby, that they are not detrimental to the neighborhood, and that they have support from the surrounding neighborhood. For those reasons, the Applicant request that the Notice of Decision 21-12 MUP-210-0002 dated December 21, 2021, be reversed. I will be glad to discuss any of these points with you. Please contact me with any issues.

Respectfully,



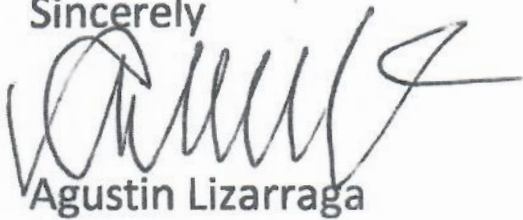
John C. Ziebath

06/08/21

To Whom It May Concern:

I am in support of the express car wash proposed for 7431 Broadway in Lemon Grove. My property is located on the southern property line of this property at 7436 Pacific Ave.

Sincerely



Agustin Lizarraga

619-708-3318

06/08/21

To Whom It May Concern:

I am in support of the express car wash proposed for 7431 Broadway in Lemon Grove. My property is located on the southern property line of this property at 7456 Pacific Ave.

Sincerely

Mark O'connor  
619-203-5507

06/08/21

To Whom It May Concern:

I am in support of the express car wash proposed for 7431 Broadway in Lemon Grove. My property is located on the southern property line of this property at 7448 Pacific Ave.

Sincerely

Ralph Chudy  
619-916-8474





I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



First Kenny Last Chen

Address 7696 Broadway

City Lemon Grove Zip Code 91945

Phone 619-777-6725

Email Kenny@onyxmoto.com



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



First Lemon Grove Glass Last \_\_\_\_\_  
Address 7457 BROADWAY  
City LEMON GROVE Zip Code 91945  
Phone 619-466-3215  
Email fin@lemongroveglass.com



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_

No more

Low Income Housing



First Lisa Last Myers

Address 7504 Pacific Ave

City L.A. Zip Code 90245

Phone \_\_\_\_\_

Email \_\_\_\_\_



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PROPOSED PLANT PALETTE**

**PROPOSED PLANT PALETTE**

- GENERAL LANDSCAPE**
- PERIMETER PLANTING**
- INTERIOR PLANTING**
- SCREENING PLANTING**
- SHRUBS**
- TREES**

Technical details and scale bar are located at the bottom of the plan.

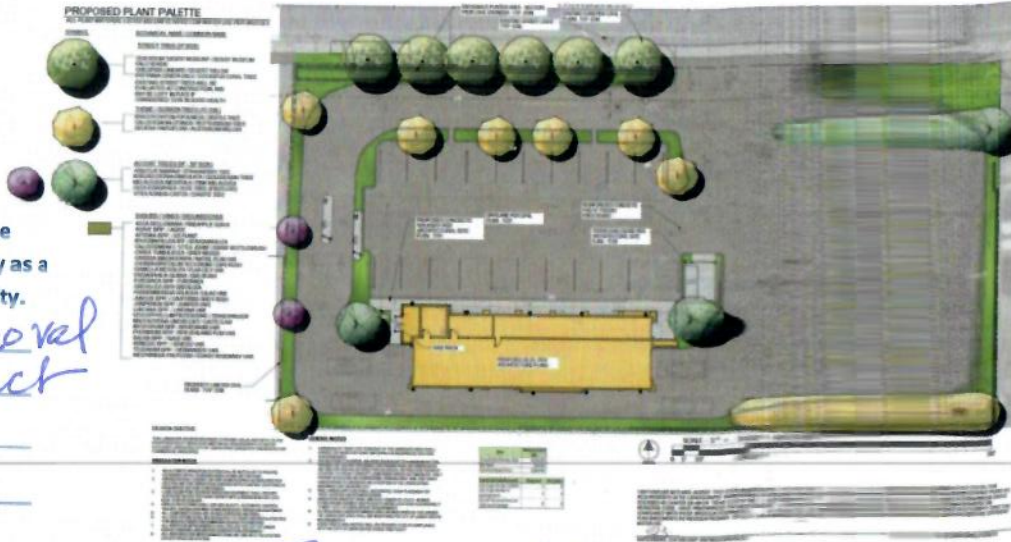
First Virginia Last Nava  
Address 7423 Pacific Ave  
City Lemon Grove, CA Zip Code 91945  
Phone \_\_\_\_\_  
Email \_\_\_\_\_





I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support the approval of this project



First Maureen Last Brungardt  
Address 7466 Pacific Ave.  
City Lemon Grove Zip Code 91945  
Phone (619) 933-1023  
Email Mosbizmail@gmail.com



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_



First Arhan Last Williams  
Address 1426 Pacific Ave  
City Lemon Grove Zip Code 91945  
Phone 619 381 3955  
Email Arhan4@aol.com



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



First Charlie Smith Last Smith  
Address 7474 Pacific Ave  
City Cum gratia Zip Code 97045  
Phone 419-9050501  
Email \_\_\_\_\_



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



First Ari Last Hernandez

Address 7456 Pacific Ave

City Lemon grove Zip Code 91945

Phone (619) 315-4259

Email Hernandezari@gmail.com





I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



First Raquel Last Redd  
Address 7424 Pacific Ave Apt 2  
City Lemongrove Zip Code 91945  
Phone 619-340-9208  
Email raquelredd22@gmail.com





I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



First CAROL Last BESSOM  
Address 7415 PACIFIC AVE  
City LEMON GROVE Zip Code 91945  
Phone \_\_\_\_\_  
Email nana4838@live.com



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support  
Wash N Go



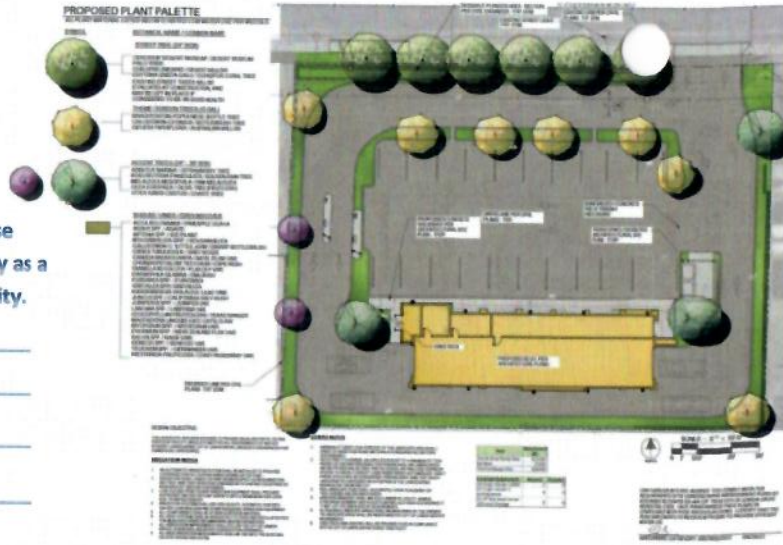
First Barbara Last Baudin  
Address 3344 HARRIS ST.  
City Damon Grove Zip Code 91945  
Phone 619 307 9415  
Email babspflorals@yahoo.com





I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

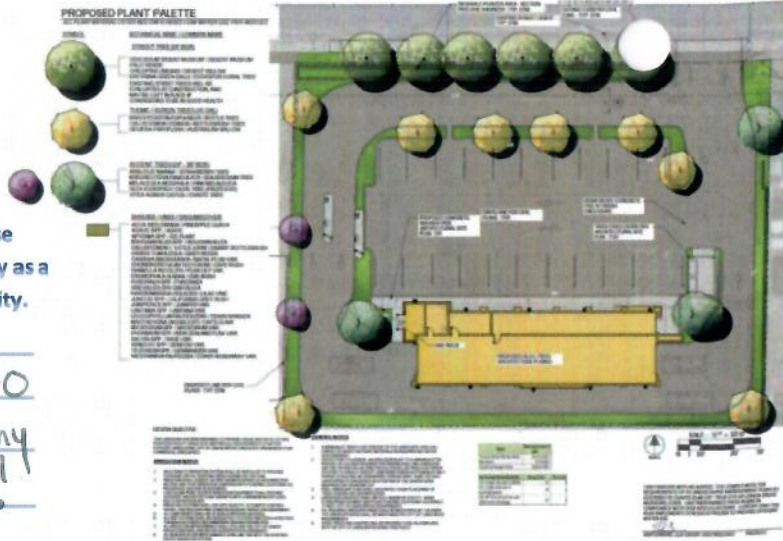


First Christina Vargas Last \_\_\_\_\_  
Address 7379 Broadway #119  
City Livermore Ca Zip Code 94545  
Phone \_\_\_\_\_  
Email christina.vargas619@gmail.com



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support WASH N GO  
it would love to  
see this company  
in lemon Grove!



First Mamie Stovall Last Stovall  
Address 7377 Broadway #115  
City Lemon Grove CA Zip Code 91945  
Phone 619760-3449  
Email moniaque5421@yahoo.com



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support Wash N Go

First Teresa Last Rosiek Proffit  
Address 2260 Ravenwood  
City Lemon Grove Zip Code 91945  
Phone 619-991-1004  
Email teresa.rosiak2018@gmail.com



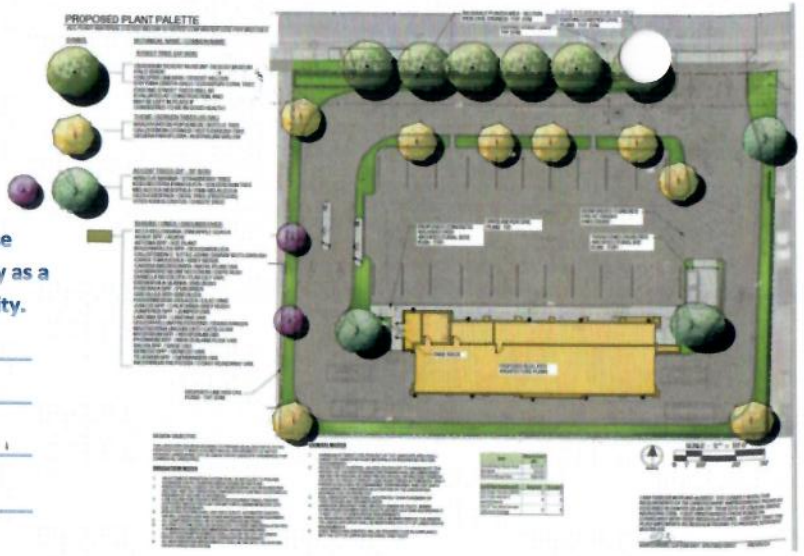
I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support Carwash

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First Sharon Last Jones

Address Business Center

City Crofton Zip Code 91945

Phone and resident of HO

Email \_\_\_\_\_





I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support Wash and Go



First JOHN W. WARD Last \_\_\_\_\_

Address 6794 CENTRAL AVE NW

City Lemhi Grove Zip Code 91945

Phone \_\_\_\_\_

Email \_\_\_\_\_



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
The Wash-N-Go  
carwash  
\_\_\_\_\_



First Stephanie Klein Last Klein  
Address 7594 Central Ave  
City Lemon Grove Zip Code 91945  
Phone (760) 703-2025  
Email JSKleinproperties@gmail.com



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support the project and any new business. Let the market dictate. Not the politicians



First Chris Last Williams  
Address 8260 Broadway  
City Lemon Grove Zip Code 91945  
Phone (619) 466 1384  
Email lees autoandco@gmail.com



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support the  
WASH N GO  
CARWASH



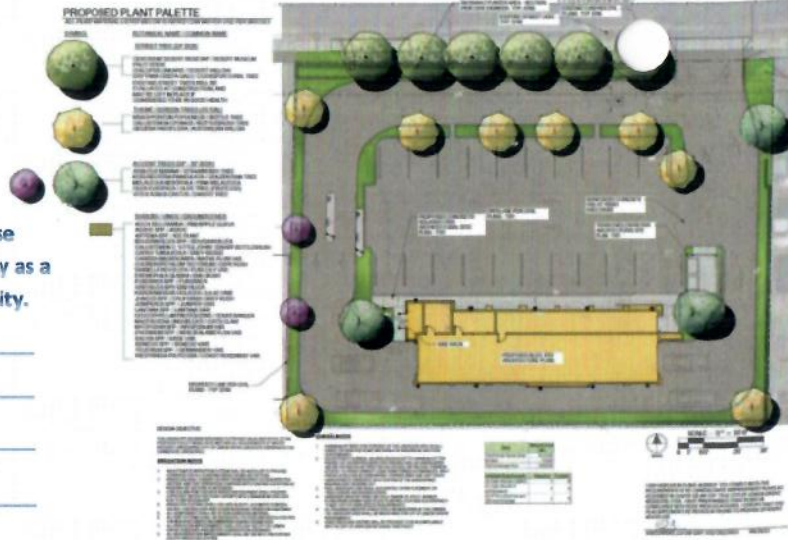
First JESSICA Last Heredia  
Address 3344 Harris St.  
City Lemon Grove Zip Code 91945  
Phone 619 971-4247  
Email huesuteitis@gmail





I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support yes

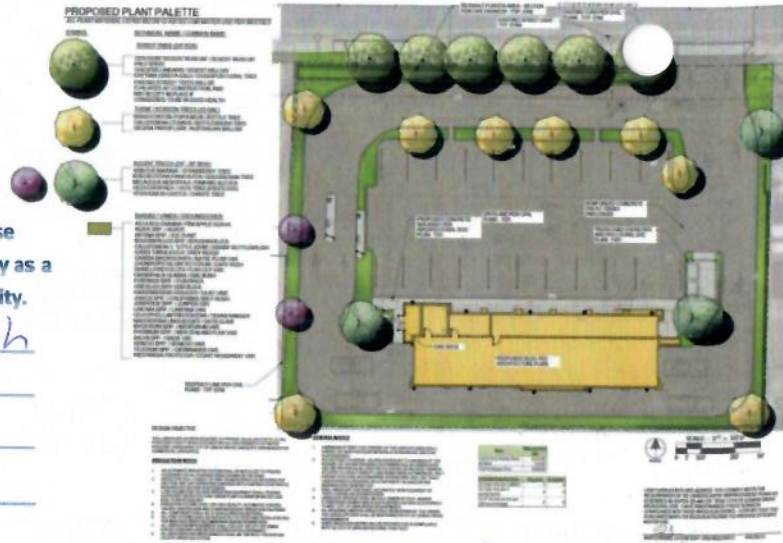


First Dolores Last Hale  
Address 3331 Alford St.  
City Wilmington Zip Code 91945  
Phone \_\_\_\_\_  
Email \_\_\_\_\_



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support the carwash



First Jill Last Mitschke  
Address 2838 Cypress Ave  
City Lemon Grove Zip Code Ca  
Phone 619 278-9785  
Email jill.mitschke@gmail.com

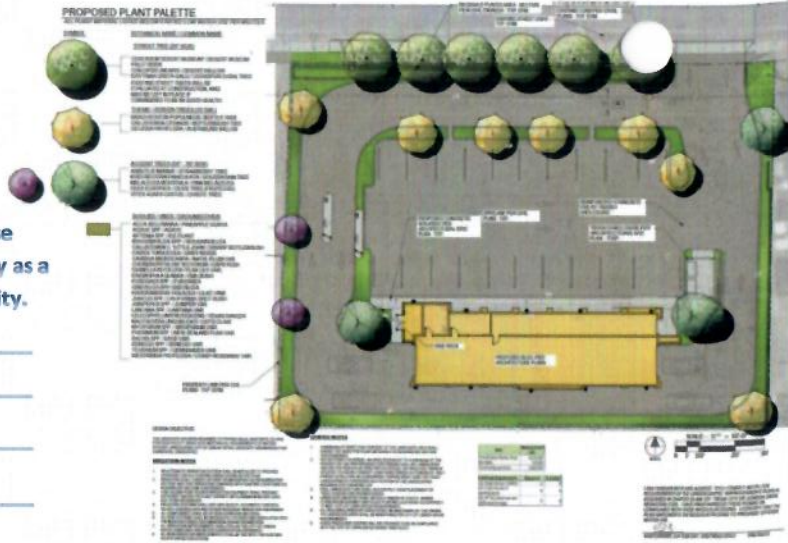


I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_

WASH-N-GO

CARWASH



First JOSHUA Last (KLEIN

Address 7544 CENTRAL AVE

City LEMON GROVE Zip Code 91945

Phone (619) 884-7579

Email LEMONGROVEVETERANSGROUP@GMAIL.COM



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



First DAVID Last ELKLER  
Address 8452 MT VERNON ST  
City L.G. Zip Code 91945  
Phone 619 540 3690  
Email \_\_\_\_\_





I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



First Emily Last Alley  
Address 3226 Harris St.  
City Lemon Grove CA Zip Code 91945  
Phone \_\_\_\_\_  
Email EmilyAlley1992@gmail.com



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support this upcoming project.  
D.E.



First Daniel Last Earl  
Address 8012 Palm Street  
City Lemoore, California Zip Code 91945  
Phone 573 286 1289  
Email 74.earl@gmail.com



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support the Wash n Go



First Kathleen Last McLean  
Address 8780 Broadway  
City Lenexa, Kansas Zip Code 66155  
Phone 619 384 3111  
Email Kathleen@xmgmedia.com







I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PROPOSED PLANT PALETTE**

**LEGEND**

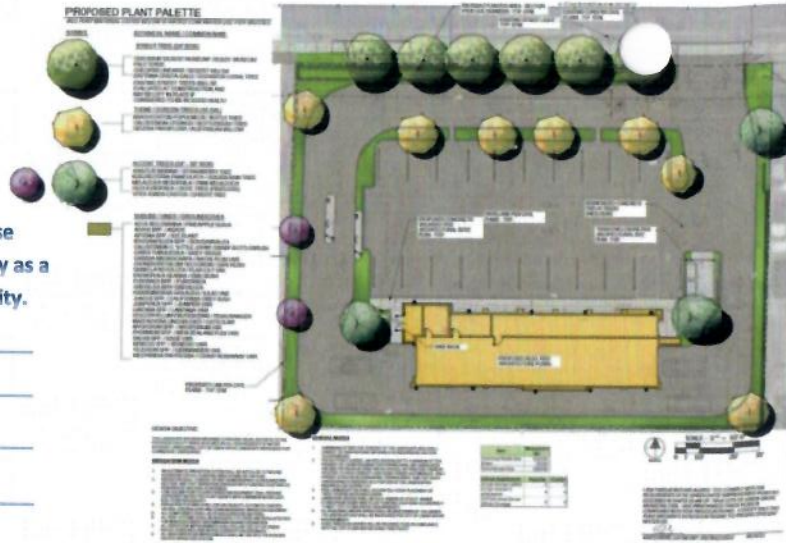
**SCALE**

First MICK EAVE Last EAVES  
Address 2404 DAYTONA ST  
City LEMON GROVE Zip Code 91945  
Phone \_\_\_\_\_  
Email \_\_\_\_\_



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



First Butch Last \_\_\_\_\_  
Address 3316 Harris St # 3  
City Windsor Grou Zip Code 91945  
Phone \_\_\_\_\_  
Email \_\_\_\_\_



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



First MIKE MAZZA Last \_\_\_\_\_  
Address 8452 MT VERNON DR  
City LIG Zip Code 91945  
Phone 619 454 4079  
Email \_\_\_\_\_



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support WASH AND GO

**PROPOSED PLANT PALETTE**

**PLANT SPECIES LIST:**

- 1x [Species]
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- 95x [Species]
- 96x [Species]
- 97x [Species]
- 98x [Species]
- 99x [Species]
- 100x [Species]

First DAVID MOSQUEDA Last →

Address 7407 DAYTONA ST.

City LEMON GROVE Zip Code 91945

Phone \_\_\_\_\_

Email \_\_\_\_\_





I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support Carwash



First Rebecca Last Arreola

Address 3277 Harris St.

City Lemon Grove Zip Code 91945

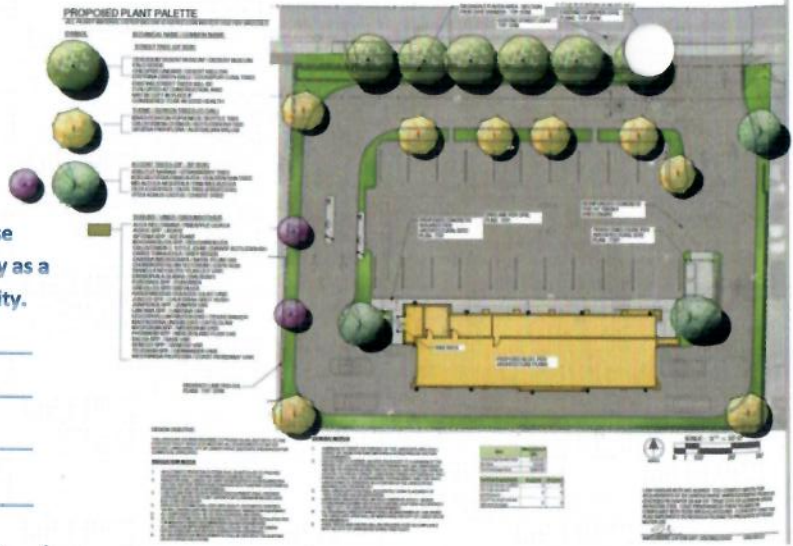
Phone \_\_\_\_\_

Email \_\_\_\_\_



I support 7431 Broadway. Please approve Wash N Go 7431 Broadway as a new infill project in our community.

I support \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



First Nicolette Palermo Last \_\_\_\_\_  
Address 3253 Harris St.  
City Lemon Grove Zip Code 91945  
Phone \_\_\_\_\_  
Email \_\_\_\_\_

# WASH N' GO

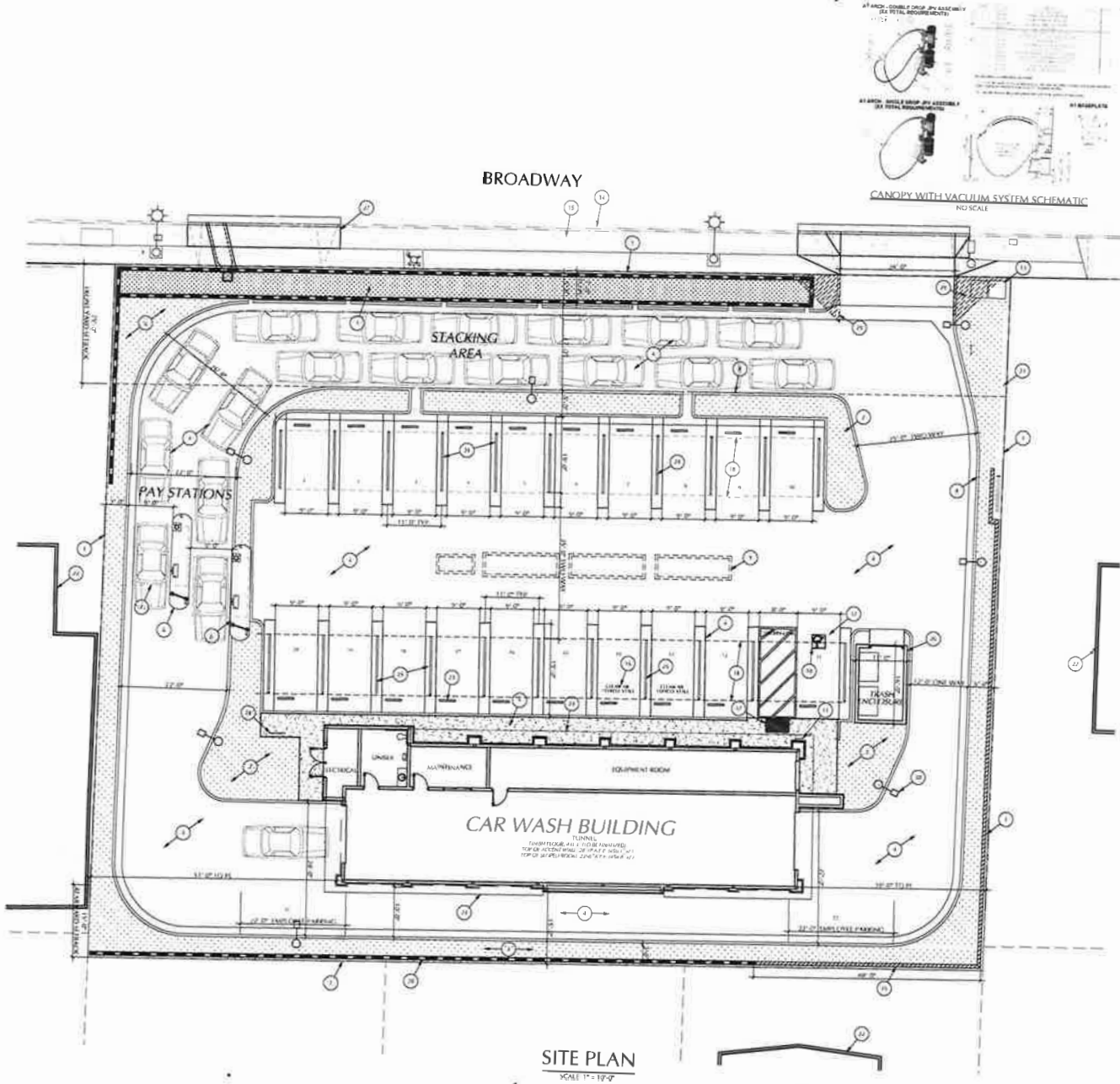
## LEMON GROVE

### 7431

BROADWAY  
LEMON GROVE, CA 91945

**CIPPARONE**  
GENE CIPPARONE - ARCHITECT, INC.  
ARCHITECTURE • PLANNING • INTERIOR DESIGN

10 BOX 602 POWAY, CALIFORNIA 92074  
VOICE: 856.354.0071 EMAIL: GENE@CIPPARONE.COM



**SITE PLAN**  
SCALE 1" = 10'-0"

PROJECT INFORMATION	
<b>Scope of Work:</b>	
Demolition of existing structures and construction of new automated car wash facility with vacuums under canopies at most parking stalls.	
<b>Owner:</b>	
Guy Smiley LLC	
<b>Assessor Parcel No.:</b>	
483-084-51-00	
<b>Zoning or Overlay Zone:</b>	
CC (Resale/Commercial)	
<b>Occupancy Classification:</b>	
B	
<b>Building Code:</b>	
2019 CBC	
<b>Construction Type:</b>	
Type V-B02019 CBC1 Non-sprinklered	
<b>Project Size Data:</b>	
Lot Area: 27,194 to 624 ACRES	
Lot Coverage: 3,037 SF Footprint	
11%	
<b>Number of Stories:</b>	
1 Story	
<b>Height of Structure:</b>	
28'-0" Accent wall	
23'-8" Ridge of North Roof	
<b>Landscaping:</b>	
Requirement: 10% of Property = 2,719 sf	
Provided: 4,389 sf = 16% of Property	
<b>Parking Requirements:</b>	
Business/Retail: 1/900 sf: 3,032 sf/500 sf = 6 spaces	
Parking Provided: 22 spaces	

SITE KEY SYMBOLS	
(1)	PROPERTY LINE
(2)	LANDSCAPED AREA
(3)	BREAKWALL - LANDSCAPE AREA
(4)	CONCRETE PAVING
(5)	CONCRETE SIDEWALK
(6)	RAISED CONCRETE ISLAND - PAY STATION
(7)	CLOTH CANOPY AT PAY STATION
(8)	NEW CURB/CUTTER ON SITE
(9)	UNDERGROUND CONCRETE CLARIFIER BRASS
(10)	PAINTED H.C. INSIGNIA
(11)	H.C. PARKING SIGN
(12)	VAN ACCESSIBLE PARKING SPACE
(13)	TRANSFORMER LOCATION (EXISTING)
(14)	EXISTING CURB/CUTTER ON STREET
(15)	EXISTING CONCRETE SIDEWALK ON STREET
(16)	CLEAN AIR/VAN POOL PARKING
(17)	STEEL PLATE/TRUNCATED DUMPS
(18)	INDICATES LINE OF CLOTH CANOPIES AT VACUUM STATIONS
(19)	ACOUSTIC SOUND WALL
(20)	NEW CMU WALL AT PL - RESIDENTIAL
(21)	EXISTING CMU WALL TO REMAIN
(22)	EXISTING STRUCTURE ON ADJACENT PROPERTY
(23)	WHEEL STOP AS REQUIRED
(24)	LINE OF ROOF OVERHANG ABOVE
(25)	METAL PIPE STANDARD FOR CANOPY/VACUUMS
(26)	CMU TRASH ENCLOSURE W/ ROOF
(27)	EXISTING CURB/CUT REPAIRED - NEW SIDEWALK
(28)	BIRK RACK EQUAL TO LINE 3 LOCK WAVE STYLE RACK FOR 3 BIKES GALVANIZED FINISH
(29)	VISIBILITY TRIANGLES AT EN FIVE/ACCESS DRIVE
(30)	LED LIGHT FIXTURES ON PEARL STANDS - PHOTOMETRIC ANALYSIS - FINAL LOCATIONS - CANOPY SUPPORTS HAVE LIGHTS AT MIDPOINT

Revisions		
No.	Date	Issue and Revision
02-05-21	02-05-21/04-27-21	SUBMITTAL TO CITY - A10/P. 2
04-27-21	04-27-21	SUBMITTAL TO CITY - A10/P. 2

Project Name:	LEMON GROVE WASH N' GO
Project Number:	010021
Date:	02-05-21/04-27-21
CAD File:	DWG/02/04/LEMON GR
Description:	SITE PLAN

All drawings and written material appearing hereon are the property of the architect and shall remain confidential and may not be copied, used or distributed without the express consent of GENE CIPPARONE ARCHITECT, INC.

**WASH N' GO**  
**LEMON GROVE**  
**7431**  
 BROADWAY  
 LEMON GROVE, CA 91945

**CIPPARONE**  
 GENE CIPPARONE - ARCHITECT, INC.  
 ARCHITECTURE • PLANNING • INTERIOR DESIGN  
 PO BOX 602 POWAY, CALIFORNIA 92074  
 VOICE: 856.354.0071 EMAIL: GENE@CIPPARONE.COM

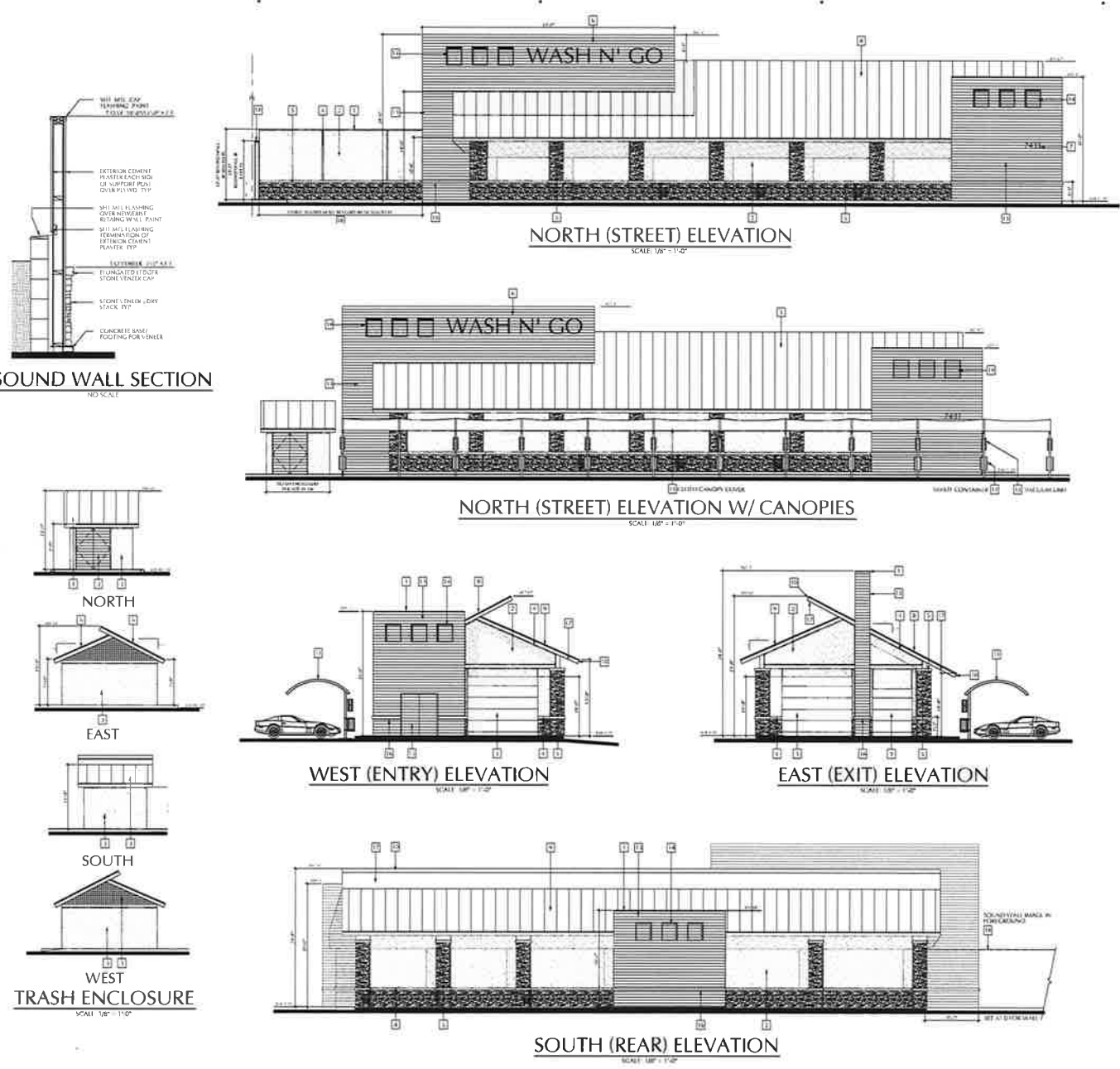
ELEVATION LEGEND	
1	SHEET METAL CAP FLASHING, ALL EXPOSED SHEET FLASHINGS, CAPS, JOINTS PAINTED TO MATCH ADJACENT MATERIAL COLOR
2	FIELD STUCCO WITH STEEL TROWEL FINISH
3	ROLL UP DOOR PAINT
4	VERTICAL/HORIZONTAL FRY EXPANSION REGLET CLEAR ALUMINUM FINISH
5	STONE VENEER SIDING WITH LEEDERS & CAPS AS SHOWN
6	SIGNAGE LOCATION
7	1/2" TALL METAL NUMBERS SET ON PINS 1/2" BE OFFSET FROM METAL PANELS, COLOR TO BE CLEAR ALUMINUM
8	STANDING SEAM METAL ROOF SYSTEM OVER PLYWOOD SHEATHING, REDDGRANGE FINISH
9	STANDING SEAM METAL ROOF SYSTEM OVER PLYWOOD SHEATHING, MIXED FINISH
10	SHEET METAL FASCIA AT METAL ROOF COLOR TO MATCH METAL ROOF
11	METAL CANOPY SUPPORTS ON VACUUM SYSTEM WITH LIGHT, TRASH CONTAINER ATTACHED TO POST
12	HORIZONTAL FRY EXPANSION REGLET CLEAR ALUMINUM FINISH
13	CEMENTITIOUS PLANKS WITH WOOD GRAIN STAINED WITH SEMI-GLOSS FINISH
14	ARCHITECTURAL ACCENT RECESSED AREAS, CEMENTITIOUS PLANKS WITH WOOD GRAIN STAINED WITH SEMI-GLOSS FINISH
15	ARCHITECTURAL ACCENT DOOR FINISH: CEMENTITIOUS PLANKS WITH WOOD GRAIN STAINED WITH SEMI-GLOSS FINISH
16	ARCHITECTURAL ACCENT EXTENDED CAP PIECE TO ALIGN WITH STONE VENEER, CEMENTITIOUS PLANKS WITH WOOD GRAIN STAINED WITH SEMI-GLOSS FINISH
17	SHEET METAL SHEET COVER TO MATCH ROOFING MATERIAL, BUT JOINTS, COLOR TO MATCH ROOF.
18	SOUND WALL IS AS REQUIRED PER ACOUSTIC REPORT FINISH WALLS TO MATCH BUILDING ON SUBJECTS THAT FACE TOWARD SITE. STUCCO ON BACK SURFACES.
19	EXISTING GRADIENT ON ADJACENT PROPERTY PER CURRENT SURVEY
20	2" x 2" RIGID WIRE MESH ON METAL FRAME TO FIT OPENING, GALVANIZED FINISH.

MATERIAL SPECIFICATION (OR EQUAL)	
<b>DOORS:</b>	
SWING DOOR:	HEAVY METAL WITH WELDED FRAME CLAD WITH CEMENTITIOUS BOARDS MATCH ADJACENT FINISH
ROLL UP DOOR:	PE-ARTING DOOR - MODEL 211 ELECTRIC OPERATOR COLOR: MATCH STUCCO COLOR
<b>WALLS:</b>	
EXTERIOR CEMENT PLASTER:	SMOOTH 5/8" THICK FINISH - NO FINISHERS OR CAPS. PROVIDE FRY (FRY EXPANSION REGLET) FOR PORTLAND CEMENT PLASTER/STUCCO MANUFACTURER'S LAYOUT AND STANDING SPECIFICATION FOR INSTALLATION. COLOR: MATCH BEYER/BERGUES TOASTY GREY 1120-2
FRY REGLET:	DOLBE-1100 NATURAL ALUMINUM FINISH NO DECORATION
CEMENTITIOUS PLANKS:	CAROLINA COLORATIONS, FOREST SERIES, BARRINGARD HORIZONTAL LAYOUT AND MATCHING JOINTS AND CORNERS FINISHED, SMOOTH REVEAL PER MANUFACTURER'S LAYOUT
STONE VENEER:	MOUNTAIN EDGE, YUKON ELKWOOD STONE, DRY STACK (LEDGER AND CAPS TO MATCH)
FLASHINGS:	SHEET METAL, ALL EXPOSED FLASHINGS TO BE PRIMER PAINTED TO MATCH ADJACENT COLOR, TYPICAL
ROOFING:	
METAL:	STANDING SEAM: PAC-CLAD 50 MP-CLAD STEEL PANELS NORTH FACING ROOF: CLEAR ALUMINUM SOUTH FACING ROOF: MIXED FINISH CLEAR: IMPACT GRAN MIXED: FINISH TYPICAL FASCIA: RIM 1/2" BE FROM WAVE MANUF WITH WAVE COLOR FINISH METAL ROOFING ABOVE: MIXED FINISH TYPICAL
METAL JOISTS:	FLAT STEEL PANELS 1" x 6" x 12" COLOR: MATCH ROOFING ABOVE (MIXED FINISH TYPICAL)
MISCELLANEOUS:	WIRE MESH: 2" x 2" RIGID WIRE MESH ON METAL FRAME TO FIT OPENING, GALVANIZED FINISH
ADDRESS NUMBERS:	INSTALL 1/2" HIGH ADDRESS ALUMINUM, CAPITAL FONT, SET ON PINS WITH NUMBERS SET OFF WALL BY 1/4" INCH NUMBERS TO MEET CITY REGULATIONS

Issues and Revisions		
No.	Date	Issues and Revisions
02	05 21	SUBMITTAL TO CITY - MUP 1
04	27 21	SUBMITTAL TO CITY - MUP 2
10	31 21	SUBMITTAL TO CITY - MUP 3

Project Number	LEMON GROVE WASH N' GO
Project Number	01660
Date	02/05/21/04/22/21
CAD File	U:\GEN\DWG\NLE\LEMON GR
Drawing Name	EXTERIOR ELEVATIONS

All drawings and written material are the property of Gene Cipparone Architect, Inc. and shall remain the property of Gene Cipparone Architect, Inc. All drawings and written material are the property of Gene Cipparone Architect, Inc. and shall remain the property of Gene Cipparone Architect, Inc.





### PROPOSED PLANT PALETTE

ALL PLANT MATERIAL LISTED BELOW IS RATED LOW WATER USE PER WUCOLS

- | SYMBOL   | BOTANICAL NAME / COMMON NAME  |
|--|---|
| <b>STREET TREE (24" BOX)</b>   |   |
|                                     | CERCIDUM 'DESERT MUSEUM' / DESERT MUSEUM PALO VERDE<br>CHILOPSIS LINEARIS / DESERT WILLOW<br>ERYTHRINA CRISTATA/GALLI / COCKSPUR CORAL TREE   |
| EXISTING STREET TREES WILL BE EVALUATED AT CONSTRUCTION, AND MAY BE LEFT IN PLACE IF CONSIDERED TO BE IN GOOD HEALTH |   |
| <b>THEME / SCREEN TREES (15 GAL)</b>   |   |
|                                     | BRACHYCHTON POPULINEUS / BOTTLE TREE<br>CALLISTEMON CITRINUS / BOTTLEBRUSH TREE<br>GELERA PARVIFLORA / AUSTRALIAN WILLOW  |
| <b>ACCENT TREES (24" - 36" BOX)</b>  |   |
|                                     | ARBUTUS 'MARINA' / STRAWBERRY TREE<br>KOELREUTERIA PANICULATA / GOLDEN RAIN TREE<br>MELALEUCA NESOPHILA / PINK MELALEUCA<br>OLEA EUROPAEA / OLIVE TREE (FRUITLESS)<br>VITEX AGNUS-CASTUS / CHASTE TREE  |
| <b>SHRUBS / VINES / GROUNDCOVER</b>  |   |
|                                     | ACCA SELLOWIANA / PINEAPPLE GUAVA<br>AGAVE SPP. / AGAVE<br>APTENIA SPP. / ICE PLANT<br>BOUGAINVILLEA SPP. / BOUGAINVILLEA<br>CALLISTEMON C. 'LITTLE JOHN' / DWARF BOTTLEBRUSH<br>CAREX TUBILICOLA / GREY SEDGE<br>CARISSA MACROCARPA / NATAL PLUM VAR.<br>CHONDRPETALUM TECTORUM / CAPE RUSH<br>DIANELLA REVOLUTA / FLAX LILY VAR.<br>EREMOPHILA GLABRA / EMU BUSH<br>FURCRAEA SPP. / FURCRAEA<br>GREVILLEA SPP. / GREVILLEA<br>HARDENBERGIA VIOLACEA / LILAC VINE<br>JUNCUS SPP. / CALIFORNIA GREY RUSH<br>JUNIPERUS SPP. / JUNIPER VAR.<br>LANTANA SPP. / LANTANA VAR.<br>LEUCOPHYLLUM FRUTESCENS / TEXAS RANGER<br>MACFADYENA UNGUIS-CATI / CAT'S CLAW<br>MYOPORUM SPP. / MYOPORUM VAR.<br>PHORMIUM SPP. / NEW ZEALAND FLAX VAR.<br>SALVIA SPP. / SAGE VAR.<br>SENECIO SPP. / SENECIO VAR.<br>TELCRIUM SPP. / GERMANDER VAR.<br>WESTRINGIA FRUTICOSA / COAST ROSEMARY VAR. |



**DESIGN OBJECTIVE:**

THIS LANDSCAPE HAS BEEN DESIGNED TO PROVIDE VISUAL AESTHETIC TO THE PROPOSED FACILITY WHILE MEETING ALL REQUIREMENTS OF WATER EFFICIENT LANDSCAPING CITY OF LEMON GROVE LANDSCAPE ORDINANCES FOR COMMERCIAL LANDSCAPES.

**IRRIGATION NOTES**

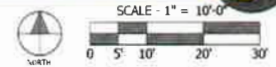
1. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED TO PROVIDE COVERAGE FOR ALL PLANTING AREAS SHOWN ON THE PLAN.
2. IRRIGATION SHALL CONSIST OF Drip OR MICROSPRAY AS REQUIRED PER SECTION 18.44 AND THAT IRRIGATION CONSIDERED WITH PLANTING LOCATIONS AS REQUIRED BY SECTION 18.44 (2)(B)(V).
3. LOW VOLUME POINT SOURCE IRRIGATION EQUIPMENT SHALL PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH A MINIMUM WATER LOSS DUE TO WATER RUNOFF.
4. IRRIGATION SYSTEMS SHALL USE HIGH QUALITY, AUTOMATIC CONTROL VALVES, CONTROLLERS AND OTHER NECESSARY IRRIGATION EQUIPMENT.
5. ALL COMPONENTS SHALL BE OF NON-CORRODING MATERIAL.
6. ALL DRIP SYSTEMS SHALL BE ADEQUATELY FILTERED AND REGULATED PER THE MANUFACTURER'S RECOMMENDED DESIGN PARAMETERS.
7. ALL IRRIGATION APPROVEMENTS SHALL FOLLOW THE CITY OF LEMON GROVE GUIDELINES AND WATER CONSERVATION ORDINANCES.
8. ALL NEW IRRIGATION IMPROVEMENTS SHALL BE TIED INTO THE EXISTING ON-SITE IRRIGATION SYSTEM.

**GENERAL NOTES**

1. A MINIMUM OF TWENTY-FIVE PERCENT OF THE LANDSCAPE AREA SHALL CONSIST OF VEGETATED PLANT MATERIALS AS REQUIRED BY SECTION 18.44 (2)(B)(X)(C).
2. PER SECTION 18.24 (2)(B)(V), AN AREA EQUIVALENT TO A MINIMUM OF TEN PERCENT OF THE AREA PROVIDED FOR PARKING SHALL BE LANDSCAPED AND ONE FIFTEEN GALLON TREE PER SIX SPACES OR FRACTION THEREOF, SITUATED TO VISUALLY OBTAIN LOADS SHALL BE PROVIDED AT MOBILES ONLY PARKING STALLS WILL BE CONSIDERED "PARKING AREA" AND THAT SUCH LANDSCAPING IS CONSIDERED AS A PORTION OF THE LANDSCAPING REQUIRED FOR THE ENTIRE LOT.
3. FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS AND GROUNDCOVERS.
4. LANDSCAPE ARCHITECT SHALL BE FULLY AWARE OF UTILITY, SEWER, E-PIPE DRAW EASEMENT AND PLACE PLANTING LOCATIONS ACCORDINGLY TO MEET CITY OF LEMON GROVE REQUIREMENTS.
5. ALL REQUIRED LANDSCAPE AREAS SHALL BE MAINTAINED BY THE OWNER OF THE LANDSCAPE AREAS SHALL BE MAINTAINED PER CITY OF LEMON GROVE REQUIREMENTS.
6. SHADE TREES AND CANOPIES SHALL BE PROVIDED TO BE IN COMPLIANCE WITH THE CITY OF LEMON GROVE SHADE TREE POLICY.

Item	Description	Qty
Tree & Shrub Planter Area		5,141.00
See Detail		723.00
Total Landscape Area		5,864.00

Landscaping Requirements	Required	Provided
(1) 15 gal. tree per 1,000sq ft	5	4
(2) 10 gal. tree per 5 parking spaces	4	4
(3) 24" box sized tree per 500 Street Frontage	6	4



I AM FAMILIAR WITH AND AGREE TO COMPLY WITH THE REQUIREMENTS OF THE LANDSCAPE IMPROVEMENT PLANS AS DESCRIBED IN CHAPTER 18.44 OF THE CITY OF LEMON GROVE MUNICIPAL CODE. I HAVE PREPARED THESE PLANS IN COMPLIANCE WITH THOSE REGULATIONS. I CERTIFY THAT THE PLAN IMPLEMENTS THE REGULATIONS TO PROVIDE EFFICIENT WATER USE.

KIM LONGIRO, LA 5508 EXP. 09/30/2022 04/26/21

**WFL**  
WETLAND DESIGN GROUP, INC.  
10000 W. CENTRAL EXPRESSWAY, SUITE 200  
P.O. BOX 10000, WESTLAND, MI 48090  
TEL: 313.487.1416  
WWW.WETLANDDESIGN.COM  
270 JIMMY SWIFT STREET, WASHINGTON, CA 95714

WASH N GO - LEMON GROVE  
CITY OF LEMON GROVE, CA  
7431 BROADWAY  
LANDSCAPE CONCEPT PLAN  
OVERALL LANDSCAPE CONCEPT PLAN

REVISIONS	DATE



DATE: 04/26/2021  
SCALE: SEE SHEET  
JOB #: 20-0804  
DRAWN: KTL  
SHEET: LC-01  
1 OF 2



# CITY OF LEMON GROVE

## PLANNING COMMISSION STAFF REPORT

**Item No.** 3.  
**Meeting Date:** February 28, 2022  
**Submitted to:** Planning Commissioners  
**Department:** Community Development Department  
**Staff Contact:** Bill Chopyk, Interim Community Development Manager;  
[bchopyk@lemongrove.ca.gov](mailto:bchopyk@lemongrove.ca.gov)  
**Item Title:** Tentative Map No. TMO-000-0064 & PDP-170-0003 Time Extensions

---

**Recommended Action:** Adopt a resolution (**Attachment A**) entitled, “A Resolution of the Planning Commission of the City of Lemon Grove, California, Approving a Time Extension of Approved Tentative Map No. TMO-000-0064 and Planned Development Permit No. PDP-170-0003” to construct six (6) condominium units located at 8200 Hilltop Drive in the Residential Medium High (RMH) zone,” extending the expiration date from January 21, 2022 to January 21, 2023.

**Summary:** On November 25, 2019, the Planning Commission approved Resolution No. 2019-06 & Resolution No. 2019-07 and on January 21, 2020, the City Council approved Resolution No. 2020-3702 & Resolution No. 2020-3703 to construct six (6) condominium units on 0.25 acre parcel at 8200 Hilltop Drive.

**Discussion:** At this time, the applicant has in process Building Permit No. B20-000-(640-645), Grading Plans (GRD-020-0006), Stormwater/BMPs Design Plans, Landscape Plans (LP2-100-0009) and Fire Department reviews. However, the design plans have not been approved nor permits issued and the applicant was not able to satisfy all resolution conditions required to commence operations before the January 21, 2022 expiration date. A one-year time extension will allow the applicant to obtain a building permit, complete plan approvals, obtain other required permits, satisfy remaining conditions of approval, and complete construction.

Government Code section 66452.6(a)(1) provides that tentative map shall expire 24 months after its approval or conditional approval, or after any additional period of time as may be prescribed by local ordinance, not to exceed an additional 24 months. Lemon Grove Municipal Code section 16.12.070(B) provides that prior to its expiration, an

applicant may file with the planning commission a written application for an extension, and the planning commission may, at any time, within ninety days of the expiration of the time limit, grant an extension not exceeding the time limits for such extensions specified by Section 66425.6 of the Subdivision Map Act. According, this Tentative Map (TM) expires January 21, 2022 (or such longer period as may be approved by the Planning Commission of the City of Lemon grove prior to said expiration date not to exceed 24 months) unless all requirements of this Tentative Map have been met prior to said expiration date.

The applicant has applied and is in various stages of City approvals and continues to demonstrate progress toward compliance with the TM, but was unable to satisfy all resolution requirements by January 21, 2022. A time extension request, dated September 13, 2021, was submitted prior to the expiration deadline to allow the applicant to complete all resolution requirements. There have been no changes to zoning regulations in the vicinity of the proposed use that would result in issues of incompatibility with surrounding uses. As such, staff recommends the Planning Commission grant a one-year extension to the January 21, 2023, expiration date in Section 2, Condition E, pursuant to the authority to authorize a longer term reserved to the City Council in the precedent condition.

**Environmental Review:**

- Not subject to review
- Negative Declaration
- Categorical Exemption, Section 15301
- Mitigated Negative Declaration

**Fiscal Impact: None**

**Public Notification:** The Notice of Public Hearing for this item was published in the February 18, 2022 edition of the East County Californian and mailed to all property owners within 500 feet of the subject property. The City of Lemon Grove received no comments in response to the Notice of Public Hearing and Environmental Analysis at the time this staff report was prepared. At the time of the public hearing, Staff will provide the Planning Commission with any comments received after the date this Staff report is prepared.

**Staff Recommendation:** Adopt a resolution (**Attachment A**) entitled, “A Resolution of the Planning Commission of the City of Lemon Grove, California, Approving a Time Extensions of Approved Tentative Map No. TMO-000-0064 and Planned Development Permit No. PDP-170-003 to construct six (6) condominium units located at 8200 Hilltop Drive in the Residential Medium High (RMH) zone,” extending the expiration date from January 21, 2022 to January 21, 2023. This time extension will be conditioned that an additional one year time extension (January 21, 2024) may be granted by the Community Development Director, subject to making findings that there has been no changes to

zoning regulations in the vicinity of the proposed use, existing conditions and/or circumstances which informed City Council approval have not changed and the original conditions still apply. Unless all requirements of the Tentative Map and Planned Development Permit have been met prior to said expiration date.

**Attachments:**

**Attachment A** – Draft Resolution

**Attachment B** – Tentative Map No. TMO-000-0064



**RESOLUTION NO. 2022- \_\_\_\_\_**

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF LEMON GROVE, CALIFORNIA, APPROVING A TIME EXTENSION OF TENTATIVE MAP NO. TMO-000-0064 AND PLANNED DEVELOPMENT PERMIT NO. PDP-170-0003**

**WHEREAS**, on November 25, 2019 the Planning Commission approved Tentative Map No. TMO-000-0064 and Planned Development Permit No. PDP-170003 located at 8200 Hilltop Drive; and

**WHEREAS**, the City found TMO-000-0064 and PDP-170-0003 to be categorically exempt from environmental review requirements of the California Environmental Quality Act Guidelines (Section 15301, Existing Facilities); and

**WHEREAS**, Building Permit B20-000-(640-645) was submitted on November 9, 2020 for construction of the six (6) condominium units; and

**WHEREAS**, the applicant is progressing toward satisfaction of all applicable requirements of Tentative Map No. TMO-000-0064 and Planned Development Permit No. PDP-170-0003 as outlined in City Council approval Resolutions No. 2020-3702 and No. 2020-3703; and

**WHEREAS**, the project has not been modified since the original City Council approval; and

**WHEREAS**, the existing conditions and/or circumstances which informed City Council approval have not changed; and

**WHEREAS**, Resolutions No. 2020-3702 and No. 2020-3703 requires the satisfaction of all requirements enumerated therein by January 21, 2022, or such longer period as may be approved; and

**WHEREAS**, Government Code section 66425.6(a)(1) and Lemon Grove Municipal Code section 16.12.070(B) allow for the expiration of tentative maps to be extended under certain conditions; and

**WHEREAS**, a time extension request, dated September 13, 2021, was submitted by the applicant to allow it to complete all resolution requirements.

**NOW, THEREFORE, BE IT RESOLVED** that the Planning Commission of the City of Lemon Grove, California hereby:

1. Approves a one-year extension of the expiration dates stated in Section 2, Condition E in Resolutions No. 2020-3702 and No. 2020-3703 from January 21, 2022 to January 21, 2023, subject to all other remaining requirements and conditions enumerated in Resolutions No. 2020-3702 and No. 2020-3703; and
2. Authorizes the Community Development Manager, subject to his/her making affirmative findings that there have been no changes to zoning regulations in the vicinity of the proposed use impacting the development, existing conditions and/or circumstances that informed City Council approval have not changed and the original conditions still apply, to grant an additional one (1) year time extension (until January 21, 2024), unless all requirements of the Tentative Map and Planned Development Permit have been met prior to the January 21, 2023 expiration date.

***PASSED AND ADOPTED*** on February 28, 2022, the Planning Commission of the City of Lemon Grove, California, adopted Resolution No. 2022- \_\_\_\_\_, passed by the following vote:

***AYES:***

***NOES:***

***ABSENT:***

***ABSTAIN:***

---

***Robert “Bob” Bailey, Chair***

***Attest:***

---

***Audrey Malone, Planning Commission Clerk***

***Approved as to Form:***

---

***Elizabeth Mitchell, Planning Commission Attorney***

# Attachment B

Tentative Map No. TMO-000-0064

[\\snafile01\SharedData\clgprograms2\PROJECTS\Hilltop\Hilltop\\_o \(6-Unit Town Home\)\PDP17-0003 & TMO-0064 - 6 Townhouses \(7,438 sq. ft.\)](\\snafile01\SharedData\clgprograms2\PROJECTS\Hilltop\Hilltop_o (6-Unit Town Home)\PDP17-0003 & TMO-0064 - 6 Townhouses (7,438 sq. ft.))



# B & S TOWNHOUSES

## 8200 HILLTOP DRIVE, LEMON GROVE CALIFORNIA 91945

THIS PROJECT SHALL COMPLY WITH THE 2016 CALIFORNIA BUILDING CODE, WHICH ADOPTS THE 2015 INTERNATIONAL BUILDING CODE, 2015 UMC, 2015 UPS, AND THE 2014 NEC. THE 2013 CALIFORNIA GREEN BUILDING CODE AND THE 2013 CALIFORNIA FIRE CODE.

### ABBREVIATIONS

&	And	H.B.	Hose Bibb
L	Angle	H.C.	Hollow Core
@	At	HDWD.	Hardwood
<	Centerline	HDWR.	Hardware
~	Channel	H.M.	Hollow Metal
Ø	Diameter or Round	HORIZ.	Horizontal
⊥	Perpendicular	HR.	Hour
>	Plate	HGT.	Height
#	Pound or Number	I.D.	inside Diameter(Dim.)
(E)	Existing	INSUL.	Insulation
ACC.	Accessible	INT.	Interior
ACOUST.	Acoustical	JT.	Joint
AC.T.	Acous. Tile	LAM.	Laminate
A.D.	Area Drain	LAV.	Lavatory
ADJ.	Adjustable	LT.	Light
A.F.F.	Above Fin. Flr.	NAX.	Maximum
AL.	Aluminum	MECH.	Mechanical
ANOD.	Anodized	MEMB.	Membrane
APPROX.	Approximate	MET.	Metal
ASPH.	Asphalt	MFR.	Manufacturer
BD.	Board	MIN.	Minimum
BITUM.	Bituminous	MIR.	Mirror
BLDG.	Building	MISC.	Miscellaneous
BLK.	Block	M.O.	Masonry Opening
BLKG.	Blocking	MTD.	Mounted
BM.	Beam	MUL.	Mullion
BOT.	Bottom	N.	North
CAB.	Cabinet	N.I.C.	Not in Contract
CPT.	Carpet	No. or #	Number
C.B.	Catch Basin	N.M.	Nominal
CEM.	Cement	N.T.S.	Not To Scale
CER.	Ceramic	O.A.	Overall
C.I.	Cast Iron	O.A.S.	Or Acceptable Substitute
CLG.	Ceiling	O.C.	On Center
CLKG.	Caulking	O.D.	Outside Diameter(Dim.)
CL.	Clear	O.H.	Over Head
CNTR.	Counter	OPNG.	Opening
COL.	Column	OPP.	Opposite
CONC.	Concrete	P.C.	Pre-Cast
C.M.U.	Conc. Masonry Unit	P.L.	Property Line
C.R.	Cold Rolled	P.LAM.	Plastic Laminate
CONN.	Connection	PLAS.	Plaster
CONSTR.	Construction	PLYWD.	Plywood
CONT.	Continuous	PLUMB.	Plumbing
C.O.	Conduit Only	PR.	Pair
C.J.	Control Joint	PT.	Point
CORR.	Corridor	PTN.	Partition
CTR.	Center	Q.T.	Quarry Tile
CTSK.	Countersink	R.	Riser
DBL.	Double	RAD.	Radius
DET.	Detail	R.D.	Roof Drain
D.F.	Douglas Fir	REF.	Reference
DI.A.	Diameter	REFL.	Reflected
DIM.	Dimension	REFR.	Refrigerator
DN.	Down	REINF.	Reinforced
D.O.	Door Opening	REQ.	Required
DR.	Drawer	RESIL.	Resilient
D.S.	Downspout	RM.	Room
DWG.	Drawing	R.O.	Rough Opening
E.	East	RWD.	Redwood
E.J.	Expansion Joint	S.	South
EL.	Elevation	S.C.	Solid Core
ELEC.	Electrical	S.D.	Storm Drain
E.M.T.	Electrical Metal Tubing	SECT.	Section
EMER.	Emergency	S.E.L.	Select
ENCL.	Enclosure	SHR.	Shower
E.P.	Electrical Panelboard	SH.	Sheet
EQ.	Equal	S2S	Surface Two Sides
EQT.	Equipment	S3S	Surface Three Sides
EXIST.	Existing	S4S	Surface Four Sides
E.W.W.M.	Electrically Welded	SIM.	Similar
EXPO.	Exposed	S.J.	Score Joint
EXP.	Expansion	SPEC.	Specification
EXT.	Exterior	SQ.	Square
F.A.	Fire Alarm	SST.	Stainless Steel
F.B.	Flat Bar	STD.	Standard
F.D.	Floor Drain	STR.	Structural
FDN.	Foundation	STR.L.	Structural
F.E.	Fire Extinguisher	SUSP.	Suspended
F.E.C.	Fire Extinguisher Cab.	SYM.	Symmetrical
F.H.C.	Fire Hose Cabinet	T.C.	Top of
F.H.	Flat Head	T.C.	Top of Curb
F.F.E.	Finish Floor El.	T.C.C.	Top of Concrete
F.L.	Flow Line	T.O.P.	Top of Poroset
FIN.	Finish	T.O.S.	Top of Sheathing
FLR.	Floor	T.O.W.	Top of Wall
FLASH.	Flashing	T.B.	Towel Bar
FLUOR.	Fluorescent	TEL.	Telephone
F.O.C.	Face of Concrete	TER.	Terrazzo
F.O.F.	Face of Finish	TEMP.	Tempered
F.O.M.	Face of Masonry	T&G.	Tongue and Groove
F.O.S.	Face of Studs	THK.	Thick
F.O.	Face of	T.S.	Tubular Steel
F.S.	Full Size	T.V.	Television
FT.	Foot or Feet	TYP.	Typical
FTG.	Footing	UNF.	Unfinished
FUR.	Furring	U.O.N.	Unless Otherwise Noted
FUT.	Future	V.C.T.	Vinyl Composition Tile
G.A.	Gauge	VERT.	Vertical
GALV.	Galvanized	VEST.	Vestibule
G.L.B.	Glued Laminated Beam	W.	West
G.B.	Grab Bar	W/	With
G.I.	Galvanized Iron	W.C.	Water Closet
GL.	Glass	WD.	Wood
GND.	Ground	W/O.	Without
GR.	Grade	WR.	Water Resistant
GYP.	Gypsum	WP.	Waterproof
		WSC.	Wainscot
		WT.	Weight

### ELECTRICAL

- ELECTRICAL CONTRACTOR SHALL SUPPLY NEW SERVICE PANEL IF REQUIRED. LOCATION AS INDICATED ON PLANS.
- USE ROMEX WIRING INLESS CONDUIT IS REQUESTED BY OWNER.
- ALL SWITCHES, OUTLETS AND TRIM SHALL BE "DECORA". COLOR AS SELECTED BY OWNER.
- PREWIRE CABLE TV, SPEAKERS, ALARM SYSTEM AND TELEPHONE WHERE APPLICABLE.
- ELECTRICAL PERMIT SHALL BE OBTAINED BY THE ELECTRICAL CONTRACTOR. SINGLE LINE DRAWINGS, LOAD SCHEDULES AND PANEL DRAWINGS SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR AS REQUIRED TO OBTAIN SAID PERMIT.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF HIS DEBRIS.

### HVAC

- HEATING CONTRACTOR SHALL PROVIDE A FORCED-AIR FURNACE ADEQUATE FOR THE RESIDENCE. FURNACE MUST BE ADAPTABLE FOR FUTURE A.C.
- HVAC CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY DUCTS, REGISTERS, VENTS AND THERMOSTATS.
- HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF HIS DEBRIS.
- SEE ENERGY CALCULATIONS FOR MECHANICAL EQUIPMENT.

### LATH AND PLASTER

- PROVIDE 1/2" PLASTER WITH THREE COAT APPLICATION (EXTERIOR).
- THE STUCCO CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF HIS DEBRIS.
- PROVIDE A CORROSION RESISTANT WEEP SCREED WHICH WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING BELOW THE STUCCO AT FOUNDATION PLATE LINE.

### SHEET METAL

- THE SHEET METAL CONTRACTOR SHALL BE RESPONSIBLE FOR, BUT SHALL NOT BE LIMITED TO, THE FABRICATION AND INSTALLATION OF THE FOLLOWING:
  - ALL FLASHING WHERE REQUIRED FOR A WATERTIGHT JOBS.
  - ALL NECESSARY KITCHEN DUCTS.
  - ALL DUCTS FROM INTERIOR BATHROOM FANS.
  - ALL SCUPPERS FROM BALCONIES.
  - ALL CUTTERS AND DOWNSPOUTS.
  - ALL COPING AND GRAVEL GUARDS.
- FLASHING AT BALCONY TO WALL INTERSECTIONS SHALL BE 4" MIN. UP ON WALL AND 4" MINIMUM ON FLOOR UNLESS OTHERWISE NOTED.
- BALCONY SCUPPERS SHALL BE 2" x 3" UNLESS OTHERWISE NOTED.
- DOWNSPOUTS SHALL BE 3" x 4" UNLESS OTHERWISE NOTED.
- THE KITCHEN VENT SHALL BE A MINIMUM OF 48 SQUARE INCHES MINIMUM TO ROOF OR OUTSIDE WALL OR AS REQUIRED BY SPECIAL EQUIPMENT.
- FLASH ALL VERTICAL ROOF TO WALL INTERSECTIONS.  
OTHERWISE NOTED. SISALKRAFT FLASHING IS ACCEPTABLE AT ALL EXTERIOR OPENINGS.
- ALL FLASHING AT SLATE ROOFING SHALL BE 16 OZ. COPPER.

### ENERGY CONSERVATION

- COMPLIANCE WITH THE DOCUMENTATION REQUIREMENTS OF THE 2013 ENERGY EFFICIENCY STANDARDS IS NECESSARY FOR THIS PROJECT. REGISTERED, SIGNED, AND DATED COPIES OF THE APPROPRIATE CFIR, CF2R, AND CF3R FORMS SHALL BE MADE AVAILABLE AT NECESSARY INTERVALS FOR BUILDING INSPECTOR REVIEW. FINAL COMPLETED FORMS WILL BE AVAILABLE FOR THE BUILDING OWNER.

### SYMBOLS

	EARTH		FINISHED WOOD
	ROCK FILL		WOOD FRAMING (Continuous Member)
	SAND, MORTAR OR PLASTER		WOOD FRAMING (Interrupted Member)
	CONCRETE		PLYWOOD
	CONCRETE BLOCK		GLASS
	BRICK MASONRY		GYPSUM BOARD
	INSULATION		INSULATION

DETAIL	
	DETAIL NUMBER
	SHEET WHERE FOUND
SECTION	
	DETAIL NUMBER
	SHEET WHERE FOUND
ELEVATION(S)	
	ELEVATION No. - UNFOLD CLOCKWISE
	SHEET WHERE FOUND
	NO ARROW - NO ELEVATION

### GENERAL NOTES (CONT.)

- ALL SUB-CONTRACTORS SHALL HAVE WORKMAN'S COMPENSATION INSURANCE WHICH IS CURRENT AND IN FORCE FOR THE LENGTH OF THIS PROJECT. SUBMIT CERTIFICATE OF INSURANCE TO OWNER.
- CONTRACTOR SHALL ARRANGE WITH REPRESENTATIVES OF WATER, POWER, GAS AND TELEPHONE COMPANIES FOR TEMPORARY FACILITIES.
- TEMPORARY TOILET FACILITIES SHALL BE INSTALLED ON JOB AS REQUIRED.
- ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITIONS OF THE APPLICABLE CODES.
- DRYWALL IN BATHS AND OTHER WET ROOMS SHALL BE MOISTURE RESISTANT. (GREEN BOARD OR EQUAL)
- INSPECTION IS REQUIRED FOR ALL INTERIOR AND EXTERIOR IN-PLACE LATH AND/OR WALLBOARD BEFORE ANY PLASTERING IS APPLIED OR ANY JOINTS OR FASTENERS HAVE BEEN TAPED AND FINISHED.
- WATER HEATERS OVER 4'-0" IN HEIGHT SHALL BE ANCHORED TO PREVENT DISPLACEMENT IN EARTHQUAKE OR USE RIGID PIPING.
- THE CONTRACTOR SHALL VERIFY THAT ALL MECHANICAL ROOMS, SPACES FOR HOT WATER HEATERS ETC. ARE ADEQUATE IN SIZE PRIOR TO FRAMING FOR THE EQUIPMENT TO BE SELECTED.
- ALL WEATHER-EXPOSED JOINTS SHALL BE SET IN MASTIC.
- ALL INTERIOR GYPSUM BOARD FINISHES SHALL BE TAPED, BEDDED AND READY TO PAINT OVER FIRST CLASS SMOOTH FINISH. USE 5/8" TYPE "X" GYP. BOARD THROUGH OUT UNLESS OTHERWISE NOTED.
- CAULK CONTINUOUS BETWEEN ALL PLASTER STOPS.
- INSTALL ALL CLOSING TO PROVIDE WATERTIGHT PROTECTION. FLASH DECK/ROOF INTERSECTION WITH ALL VERTICAL SURFACES.
- WALL FINISH AT SHOWERS OR TUBS WITH SHOWERS, SHALL BE CEMENT PLASTER, TILE OR APPROVED EQUAL TO 70" ABOVE FLOORS. MATERIALS OTHER THAN STRUCTURAL ELEMENTS SHALL BE MOISTURE RESISTANT.
- OPENINGS INTO ATTICS, UNDER FLOOR AREAS AND OTHER ENCLOSED AREAS SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH EXCEPT FOR OPENINGS WITH SASH AND DOORS.
- PIPES, DUCTS AND OTHER NON-STRUCTURAL CONSTRUCTION SHALL NOT INTERFERE WITH ACCESSIBILITY TO OR WITHIN UNDER FLOOR AREAS.
- CHIMNEYS SHALL HAVE APPROVED SPARK ARRESTORS.
- APPROVAL OF GOVERNMENTAL AGENCY INSPECTOR DOES NOT CONSTITUTE AUTHORITY TO DEVIATE FROM THE PLANS. VERIFY ALL PROPOSED CHANGES WITH ARCHITECT PRIOR TO PROCEEDING.
- ACCESS PANELS FOR BATH TUBS SHALL BE 12" x 12" MINIMUM.
- THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY POSSIBLE AREAS FOR POTENTIAL WATER LEAKS DURING THE COURSE OF CONSTRUCTION.
- DRAFT STOPPING SHALL BE PROVIDED WITHIN ALL CONCEALED FLOOR - CEILING ASSEMBLIES FORMED OF COMBUSTIBLE CONSTRUCTION.
- DRAFT STOPPING SHALL BE PROVIDED WITHIN ATTICS, MANSARDS, OVERHANGS AND SIMILAR CONCEALED SPACE FORMED OF COMBUSTIBLE CONSTRUCTION.
- PROVIDE ATTIC VENTILATION OF 1/150TH OF THE AREA OF VENTILATED SPACE. (APPROXIMATELY 10 SQUARE INCHES FOR EACH 10 SQUARE FEET IS REQUIRED)

### FIRE DEPARTMENT NOTES

- A RESIDENTIAL FIRE SPRINKLER SYSTEM WILL BE REQUIRED WHICH WILL NECESSITATE A 1/2" WATER METER AND 1" LATERAL PLANS SHALL BE SUBMITTED TO THE FIRE PREVENTION BUREAU FOR APPROVAL PRIOR TO INSTALLATION.
- ADDRESS NUMBERS ARE TO BE LOCATED AT THE BEGINNING OF THE DRIVEWAY AS WELL AS ON THE RESIDENCE. THE NUMBER SHALL BE AT LEAST 4" IN HEIGHT AND EASILY SEEN.
- ALL CHIMNEYS SHALL BE EQUIPPED WITH SPARK ARRESTORS.
- ALL EXTERIOR ATTACHED OVERHEAD COVERS FOUR- FEET OR GREATER IN DEPTH, SHALL BE EQUIPPED WITH AN APPROVED EXTERIOR FIRE SPRINKLER HEAD (T.EFLOX OR WAX COATED)
- DOORS HEADING FROM ATTACHED GARAGES INTO THE STRUCTURE SHALL MEET THE REQUIREMENTS FOR A 20-MINUTE FIRE DOOR ASSEMBLY AND SELF-LATCHING.
- SMOKE ALARMS SHALL BE TESTED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. SMOKE ALARMS THAT NO LONGER FUNCTION SHALL BE REPLACED. SMOKE ALARMS INSTALLED IN ONE-AND-TWO-FAMILY DWELLINGS SHALL BE REPLACED AFTER 10 YEARS FROM THE DATE OF MANUFACTURE MADE ON THE UNIT, OR IF THE DATE OF MANUFACTURE CANNOT BE DETERMINED.
- CARBON MONOXIDE ALARMS SHALL BE INSTALLED IN HALLWAYS ADJOINING BEDROOMS. THE CARBON MONOXIDE DETECTORS SHALL BE HARD-WIRED, WITH A BATTERY BACKUP, AND SHALL BE WIRED IN SUCH A MANNER THAT IF ONE DETECTOR ACTIVATES, ALL DETECTORS ACTIVATE. (COMBINATION SMOKE/CO ALARMS MAY BE USED)

### PLUMBING

- ALL SUPPLY SHALL BE COPPER.
- ALL WASTE UNDER FLOOR AND VENTS SHALL BE PVC.
- ALL WASTE FROM SECOND FLOOR SHALL BE CAST IRON.
- PROVIDE ANGLE STOPS OR CUT-OFFS FOR ALL FIXTURES.
- ALL FIXTURES AND FITTINGS SHALL BE SELECTED BY OWNER.
- THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING HIS OWN DEBRIS.
- THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED PERMITS FOR HIS WORK.

### GYPSUM WALL BOARD

- PROVIDE 5/8" TYPE "X" GYPSUM BOARD UNLESS OTHERWISE NOTED.
- ALL INTERIOR DOORS, WINDOWS, JAMBS AND EXTERIOR CORNERS SHALL HAVE METAL EDGE TRIM.
- GYPSUM WALL INSTALLATION SHALL CONFORM TO THE "AMERICAN STANDARD SPECIFICATION FOR THE APPLICATION OF GYPSUM WALL BOARD."

### GENERAL NOTES

- ALL DRAWINGS IN THIS SET ARE COMPLIMENTARY AND WHAT IS REQUIRED OR SPECIFIED BY ONE SHALL BE BINDING AS IF REQUIRED OR SPECIFIED BY ALL.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES OR ERRORS BEFORE PROCEEDING W/ THE WORK.
- COORDINATE STRUCTURAL DETAILS AND DIMENSIONS WITH RELATED REQUIREMENTS ON OTHER DRAWINGS.
- DETAILS NOTED AS "TYPICAL" OR "TYP" APPLY IN ALL CASES TO SIMILAR OR IDENTICAL CONDITIONS WHETHER OR NOT SPECIFICALLY REFERENCED.
- THESE DRAWINGS DO NOT CONTAIN NECESSARY COMPONENTS OF CONSTRUCTION SAFETY. AT ALL TIMES, MAINTAIN THE STABILITY AND INTEGRITY OF THE EXISTING CONSTRUCTION. PROVIDE SHORING AS REQUIRED TO ACCOMPLISH THIS.  
  - SHORING, IF REQUIRED, SHALL BE DESIGNED AND DETAILED BY A CURRENTLY REGISTERED CALIFORNIA CIVIL ENGINEER.
  - SUBMIT TWO COPIES OF STAMPED AND SIGNED DRAWINGS AND SUBSTANTIATING CALCULATIONS TO THE OWNER'S REPRESENTATIVE AS A MATTER OF RECORD ONLY.
- THE OWNER SHALL SELECT AND PAY FOR THE SERVICES OF A TESTING AGENCY AND REGISTERED DEPUTY INSPECTOR TO PERFORM THE TEST AND INSPECTIONS. COSTS ASSOCIATED WITH NON-CONFORMING TESTS OR INSPECTIONS OR PERFORMED FOR THE CONTRACTOR'S CONVENIENCE, SHALL BE PAID BY THE OWNER AND BACKCHARGED TO THE CONTRACTOR.
- EARTHWORK
  - FOOTINGS SHALL BE FOUNDED ON AT LEAST 18 INCHES OF NEW OR EXISTING, PROPERLY COMPACTED DOCUMENTED FILL MATERIAL. REMOVE UNDOCUMENTED FILL MATERIAL AND DOCUMENTED FILL MATERIAL OF INSUFFICIENT DEPTH AND REPLACE WITH PROPERLY COMPACTED FILL MATERIAL FOR THE EXTENT OF THE BUILDING PAD.
  - THE PREPARED BUILDING PAD SHALL EXTEND BEYOND THE OUTER EDGE OF THE PERIMETER FOOTINGS A DISTANCE EQUAL TO THE DEPTH OF THE FILL.
  - FOOTINGS SHALL BE ESTABLISHED AT LEAST 24 INCHES BELOW LOWEST ADJACENT GRADE OR FINISH FLOOR.
  - DESIGN SOIL BEARING = 1500 + 350 PSF (AT 24 INCHES BELOW GRADE).
  - FILL MATERIAL SHALL BE FREE-DRAINING GRANULAR, NON-EXPANSIVE SOIL COMPACT TO AT LEAST 90% RELATIVE COMPACTION. PLACE IN LIFTS NOT EXCEEDING 8".
  - THE CONTRACTOR SHALL KEEP THE JOB SITE FREE FROM ACCUMULATION OF WASTE MATERIALS AND DEBRIS CAUSED BY HIS OPERATION AT ALL TIMES. UPON COMPLETION OF THE WORK, HE SHALL CLEAN ALL GLASS SURFACES AND LEAVE THE SITE BROOM-CLEAN.
  - ADJACENT SURFACES OR FEATURES DISPLACED OR DISTURBED IN PERFORMING THE ALTERATIONS SHALL BE NEATLY REPLACED, PATCHED AND FINISHED IN KIND. JOININGS OF NEW AND OLD WORK SHALL EITHER BE MADE AS INCONSPICUOUS AS POSSIBLE OR THE NEW WORK SHALL BE EXTENDED TO A NATURAL BREAK OF THE PLANE SURFACE. UPON COMPLETION, THERE SHALL BE NO DISCREPANCY BETWEEN THE OLD AND NEW WORK.
  - THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ALL DAMAGE TO PERSONS, STRUCTURE OR PROPERTY AND SHALL REPAIR ANY DAMAGE CAUSED BY OR DUE TO HIS OPERATIONS.
  - ALL MATERIALS AND WORK SHALL CONFORM TO ALL GOVERNING AGENCIES AND TO THE REQUIREMENTS OF THE FOLLOWING: 2013 CALIFORNIA RESIDENTIAL CODE, 2013 CALIF. BUILDING CODE, 2013 CALIFORNIA PLUMBING CODE, 2013 CALIF. ELECTRICAL CODE 2013 CALIFORNIA MECHANICAL CODE, 2013 CALIFORNIA GREEN CODE AND 2013 CALIFORNIA FIRE CODE AND CALIFORNIA CODE OF REGULATIONS TITLE 24 FOR ACCESSIBILITY, ENERGY CONSERVATION AND APPLICABLE STATE FIRE MARSHAL SECTIONS.
  - PROVIDE PEDESTRIAN PROTECTION AS REQUIRED BY CHAPTER 33, U.B.C. 1997 EDITION. CONSTRUCTION WORK SHALL PROCEED IN SUCH A MANNER AS TO MINIMIZE THE SPREAD OF DUST AND FLYING PARTICLES AND TO PROVIDE SAFE WORKING CONDITIONS FOR PERSONNEL.
  - SPECIFIC DETAILS & NOTES SHALL TAKE PRECEDENCE OVER GENERAL NOTES & DETAILS.
  - CONTRACTOR SHALL PROVIDE RECORD DRAWINGS TO THE OWNER FOR HIS USE.
  - PROVIDE ALL ACCESS PANELS AS REQUIRED. LOCATION AND TYPE SHALL BE APPROVED BY OWNER PRIOR TO OBTAINING AND INSTALLING.
  - SEPARATE ALL ALUMINUM FROM DIS-SIMILAR METALS W/ BITUMINOUS TAPE OR PAINT.
  - IF CONFLICT IS FOUND BETWEEN DRAWINGS AND SPECIFICATIONS, CONSULT OWNER FOR CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK.
  - DIMENSIONS:
    - EXTERIOR DIMENSIONS ARE GIVEN TO THE FACE OF STUDS, MASONRY OR THE C.L. OF COLUMN, UNLESS SPECIFICALLY NOTED OTHERWISE.
    - FIGURE DIMENSIONS ON DRAWINGS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
    - INTERIOR DIMENSIONS ARE GIVEN TO THE FACE OF WD. STUDS, OR CENTER OF COLUMN, UNLESS NOTED OTHERWISE.
  - PROVIDE COAXIAL CABLE TO ALL TELEVISION LOCATIONS.
  - ALL FERROUS METALS EXPOSED TO THE WEATHER SHALL BE GALVANIZED.
  - ALL CONTRACTORS SHALL HAVE A VALID, CURRENT STATE OF CALIFORNIA CONTRACTOR'S LICENSE.

### FIRE NOTE:

AN AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED THROUGHOUT ALL BUILDINGS WITH A GROUP R FIRE AREA SECTION 9032.8

### SHEET INDEX

ARCHITECTURAL	
A-1	TITLE SHEET & GENERAL NOTES
A-2	SITE PLAN
A-3	FLOOR PLANS, UNITS A, B, & C
A-4	FLOOR PLANS, UNITS D, E, & F
A-5	BUILDING ELEVATIONS
A-6	BUILDING SECTIONS & ROOF PLAN
GRADING	
G-1	TENTATIVE PARCEL MAP
G-2	CONCEPTUAL GRADING PLAN
G-3	HILLTOP SECTIONS
G-4	BMP SHEET
LANDSCAPING	
L-1	TITLE SHEET & GENERAL NOTES
L-2	CONSTRUCTION PLAN
L-3	STAKING PLAN
L-4	IRRIGATION PLAN
L-5	PLANTING PLAN
L-6	DETAILS
L-7	DETAILS
L-8	DETAILS
L-9	DETAILS
L-10	SPECIFICATIONS
L-11	SPECIFICATIONS

### SCOPE OF WORK

Proposed design & construction of 6 new Town Houses, approximately 1200 S.F. per unit, (total 7438 S.F.) on 10890 S.F. Lot, including Retaining Walls, Excavation of a Basement Garage for units A, B, & C.

### PROJECT TEAM

Architect: Arthman & Associates  
1155 Camino Del Mar, Suite 443  
Del Mar, California 92014  
(858) 518-9995  
www.arthmanassociates.com/nickarthman@aol.com  
Structural Engineer: Juan Gabriel Noe  
875 Bowerspit Way  
Chula Vista, California 91914  
(619) 201-4652  
Civil Engineer: Antiqua Design Studio  
5346 Belair Drive  
San Diego, California 92124  
(858)541-1076  
ARC Engineering  
10948 Elderwood Lane,  
San Diego California 92131  
(858) 722-7785

### LEGAL DESCRIPTION

Parcel: Rancho Mission of San Diego 000686 Lot 27 (EX ST) PAR PER ROS 11880 IN. City/Muni/Twp: LEMON GROVE APN: 499-181-02-00

### OWNERS

Mr. Behzad Hafezi  
12765 Amarath St. San Diego, California 92129

### GENERAL REQUIREMENTS

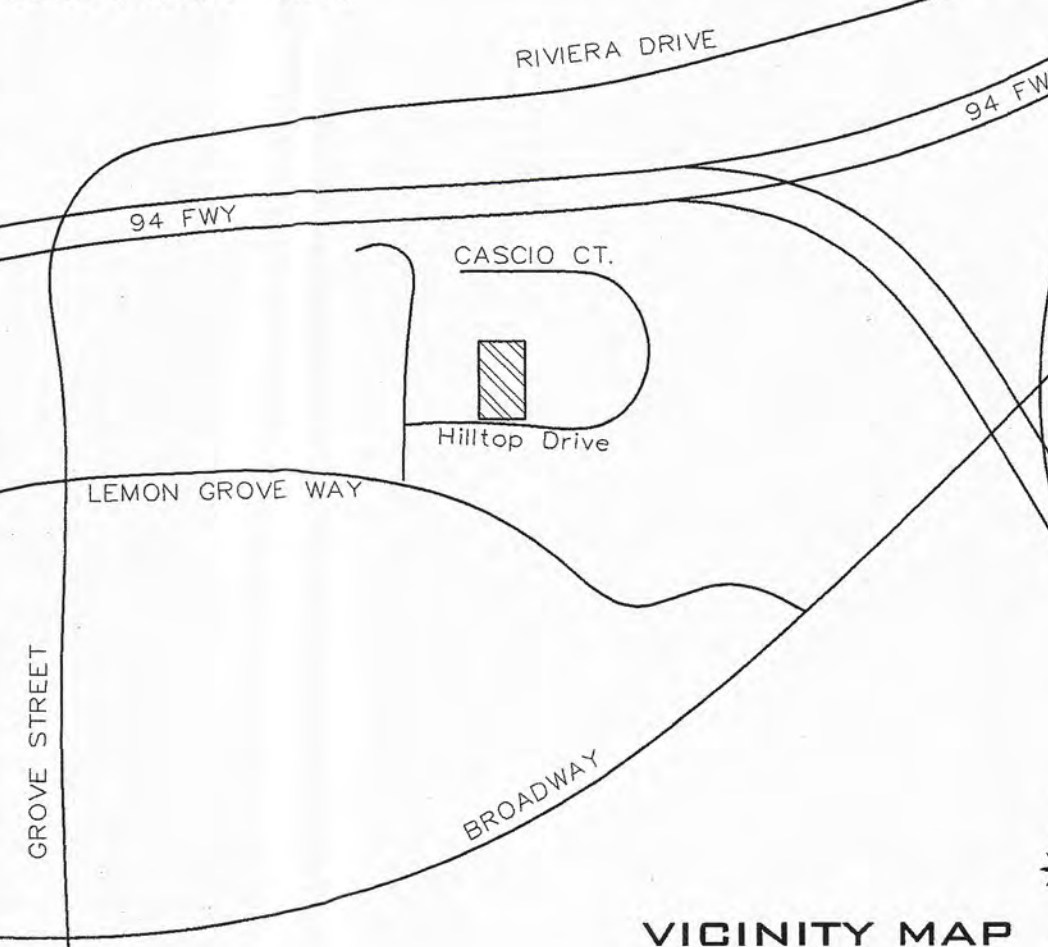
Lot Size:  
Gross: 13,085 s.f.  
Net: 10,375 s.f.  
RMH: 29 Dwellings/Acre  
43,560 / 29 = 1,502 Per Unit  
Allowable: 10,375 / 1,502 = 6.90 units  
Provided: 6 units  
Off Street Parking:  
Required: 12 + 2 (1 guest parking per 4 units) = 14  
Provided: 12 + 6 = 18

Living area square footage:  
Unit A = 1350 square foot  
Unit B = 1205 square foot  
Unit C = 1255 square foot  
Unit D = 1510 square foot  
Unit E = 1300 square foot  
Unit F = 1405 square foot  
Total square foot: 8025 square foot

### BUILDING DATA

Base Zone: RMH  
Construction Type: V-N  
A.P.N.: 499-181-02-00

8200 HILLTOP DRIVE  
LEMON GROVE, CA 91945



BUILDING

**ARTHMAN**  
ARCHITECTURE, ENGINEERING, CONSTRUCTION  
(858) 518-9995  
1155 CAMINO DEL MAR, SUITE 443  
DEL MAR, CALIFORNIA 92014  
WWW.ARTHMANASSOCIATES.COM

DO NOT SCALE DRAWINGS UNLESS OTHERWISE NOTED.  
ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.  
CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES OR ERRORS BEFORE PROCEEDING WITH THE WORK.  
COORDINATE STRUCTURAL DETAILS AND DIMENSIONS WITH RELATED REQUIREMENTS ON OTHER DRAWINGS.  
DETAILS NOTED AS "TYPICAL" OR "TYP" APPLY IN ALL CASES TO SIMILAR OR IDENTICAL CONDITIONS WHETHER OR NOT SPECIFICALLY REFERENCED.  
THESE DRAWINGS DO NOT CONTAIN NECESSARY COMPONENTS OF CONSTRUCTION SAFETY. AT ALL TIMES, MAINTAIN THE STABILITY AND INTEGRITY OF THE EXISTING CONSTRUCTION. PROVIDE SHORING AS REQUIRED TO ACCOMPLISH THIS.

ISSUED FOR REVIEW  
ISSUED FOR PLAN CHECK  
ISSUED FOR PLANNING DEPT. APPROVAL  
CONSULTING ENGINEER

LEMON GROVE TOWNHOUSES PROJECT  
**LEMON GROVE HILLTOP T.H.**  
8200 HILLTOP DRIVE  
LEMON GROVE, CALIFORNIA 91945

DATE: 21 JAN. 2019  
JOB NUMBER: N. ARTHMAN  
PROJECT FILE: 2017-BEHZAD  
JOB NO. FILE:  
SCALE:  
LATEST REVISION:

A-1  
1 of 21



**EQUIVALENT BENEFITS**  
MUNICIPAL CODE SECTION 17.28.03(D)  
**PLANNED DEVELOPMENT PERMITS**

(THE TOWNHOUSE CONCEPT)  
THE SAFETY AND SECURITY OF THE TENANTS WAS THE UTMOST CONCERN IN THE DEVELOPMENT OF THIS PROJECT. IN ORDER TO ACHIEVE THIS OBJECTIVE, THE DEVELOPMENT PROVIDED EACH UNIT WITH PRIVATE PARKING GARAGES, FOR TWO CARS PER UNIT. CONSEQUENTLY, THE AREA TAKEN BY THE EXTRA DRIVEWAYS FOR THE PRIVATE GARAGES HAS DEPLETED THE OPEN SPACE AREA REQUIREMENTS (8,000 S.F.).

**PROPOSED DEVIATIONS PER SECTION 17.28.030**

**1. THE OPEN SPACE REQUIREMENT:**

THE DEVELOPMENT EXCEEDS THE USEABLE OPEN SPACE AREA

REQUIRED USEABLE OPEN SPACE:

- A. REQUIRED PRIVATE AREA: 500 S.F. PER UNITS = 3000 S.F.
- B. REQUIRED COMMON AREA: 50 PERCENT OF TOTAL REQUIRED SPACE = 7127 S.F.

PROVIDED OVERALL COMMON & PRIVATE DAYLIGHTING:

- A. BALCONIES = 375 S.F.
- B. ROOFTOP GARDEN = 3630 S.F. TOTAL: 4005 S.F.

**2. PROPOSED SETBACKS REQUIREMENTS:**

- A. ENCROACHMENT OF THE BALCONIES FOR UNITS A, B, & C. (5'-0")
- B. ENCROACHMENT OF THE SECOND FLOORS INTO THE SOUTH & EAST SETBACKS, (2'-0")

**3. PARKING (SECTION 17.24.010):**

REQUIRED: 2 SPACES / UNIT (ONE OF WHICH SHALL BE COVERED)  
GUESTS: 1 SPACE / 4 UNITS  
TOTAL: 14 SPACES  
(12 SPACES PER UNITS & 2 SPACES FOR THE GUESTS)

PROVIDED: 18 SPACES  
(12 SPACES PER UNITS & 6 SPACES FOR THE GUESTS)

**PROVIDED EQUIVALENT PER SECTION 17.28.030**

1. & 2. THE DEVELOPMENT PROVIDES 375 S.F. PRIVET BALCONIES AND 3,630 S.F. ROOFTOP MULTIPURPOSE SPACE WHICH OFFSETS AND EXCEEDS THE COMMON OPEN SPACE REQUIREMENT AND CAN BE UTILIZED FOR ENTERTAINMENT AREA & TENANTS GATHERING PLACE, ORGANIC VEGETABLE GARDEN, PORTABLE POOL AREA FOR CHILDREN, PLAYGROUND AREA.....

**ADDITIONAL BENEFITS SUSTAINABLE DESIGN**

1. DAYLIGHTING:

THE DEVELOPMENT PROPOSES LIGHT SHELVES ON SOUTH FACING DOORS & WINDOWS OF THE UNITS A, B, & C TO ALLOW DAYLIGHT TO PENETRATE DEEPER TO THE UNITS TO MINIMIZE THE USAGE OF THE ELECTRICITY. THE DEVELOPMENT ALSO PROPOSES SKYLIGHT & CLEARSTORIES FOR THE UNITS C & E TO MAXIMIZE THEIR AMOUNT OF DAYLIGHTING.

2. ENERGY:

BY MEANS OF THERMOSIPHONING, THE DEVELOPMENT PROPOSES THE STAIRCASE TOWER FOR EACH UNIT IN ORDER TO REGULATE INTERIOR TEMPERATURE BY 10 TO 15 DEGREES.

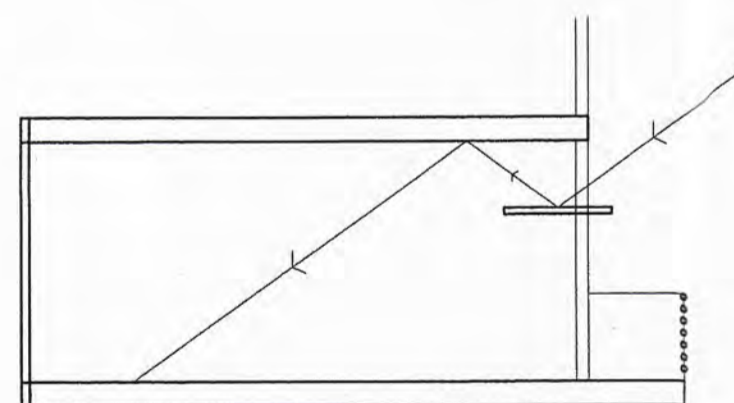
3. WATER PRESERVATION:

THE DEVELOPMENT PROPOSES A GUTTERING SYSTEM TO HARVEST RAINWATER AND REUSE IT FOR IRRIGATION PURPOSES.

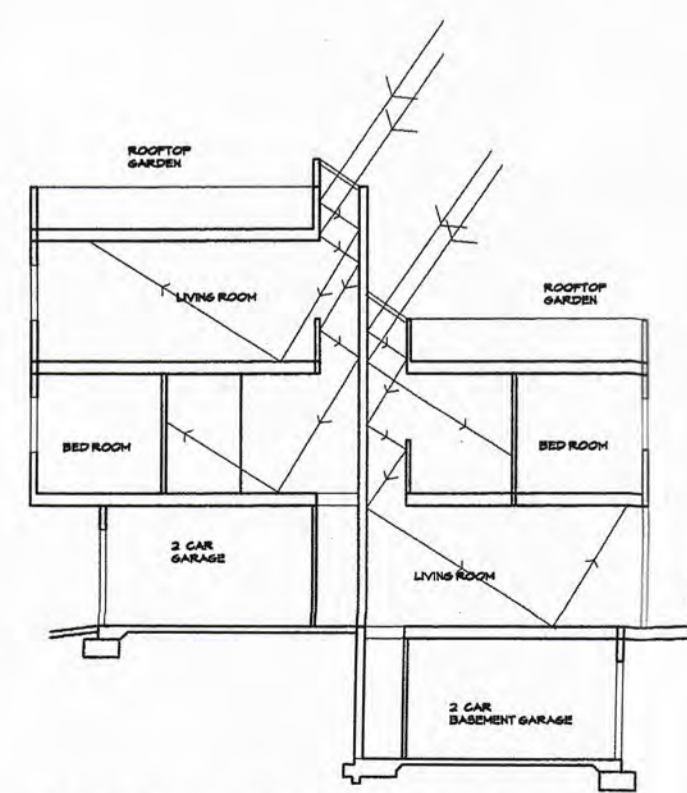
4. ADA:

THE DEVELOPMENT PROPOSES ACCESSIBILITY FOR THE ELDERLY TENANTS FROM EACH PRIVET GARAGE TO THE SECOND FLOOR BY MEANS OF STAIR LIFTS.

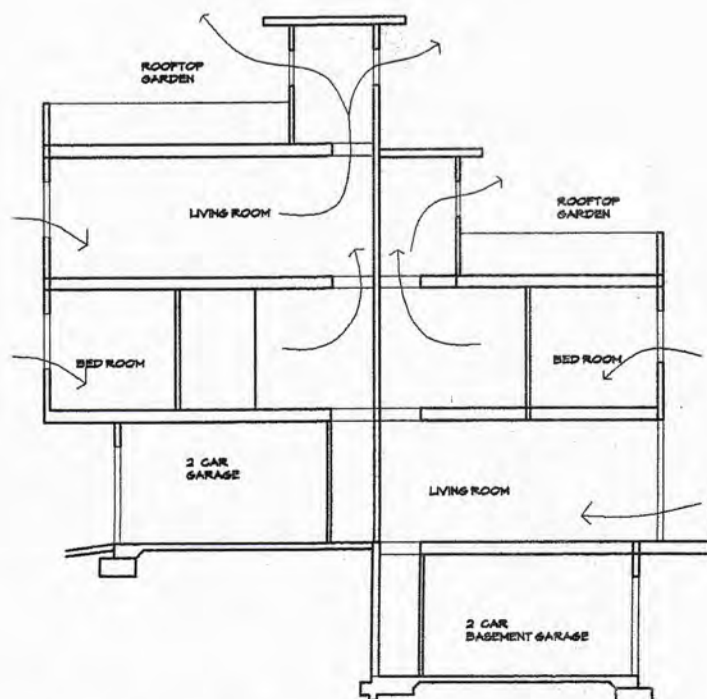
NOTE:  
ALL OVERHEAD UTILITY LINES WILL BE PLACED UNDERGROUND



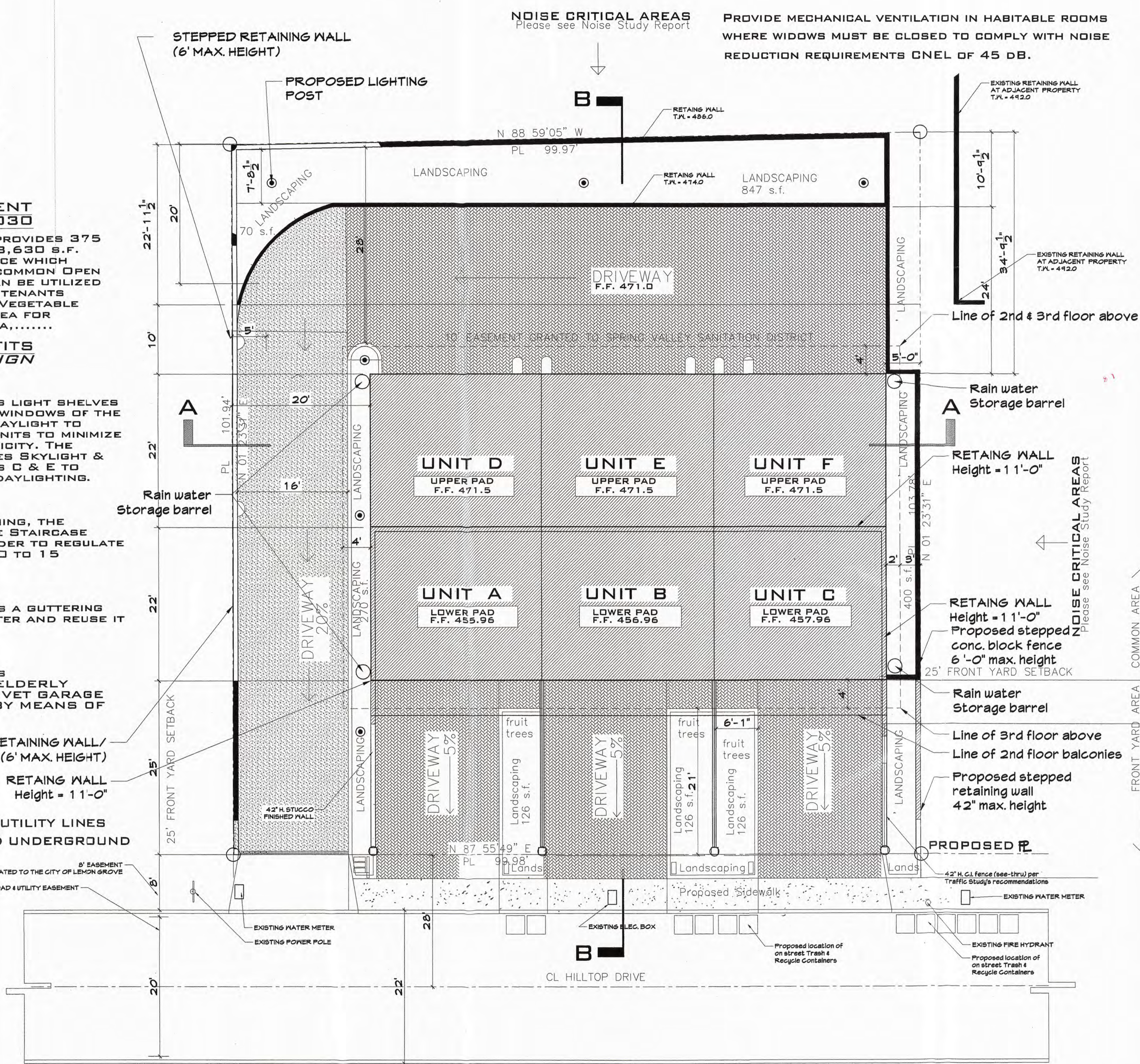
LIGHT SHELVES



SKYLIGHTS/CLEARSTORY



THERMOSIPHONING



PROPOSED IMPERVIOUS SURFACES 3,300 S.F.	PROPOSED PEDESTRIAN LIGHTING LAMP
PROPOSED PERVIOUS SURFACE (PAVING DRIVEWAY) 3,418 S.F.	PROPOSED LIGHTING POST FOR DRIVEWAY
PROPOSED IMPERVIOUS SURFACE (CONC. DRIVEWAY) 1,617 S.F.	PROPOSED MAILBOXES
PROPOSED PERVIOUS SURFACE (LANDSCAPING) 1,948 S.F.	

**SITE PLAN**  
SCALE: 1"=8'



**ARTHMAN**  
 ARCHITECTURE, ENGINEERING, CONSTRUCTION  
 (858) 518-9995  
 1155 CAMINO DEL MAR, SUITE 433  
 DEL MAR, CALIFORNIA 92014  
 WWW.ARTHMANASSOCIATES.COM

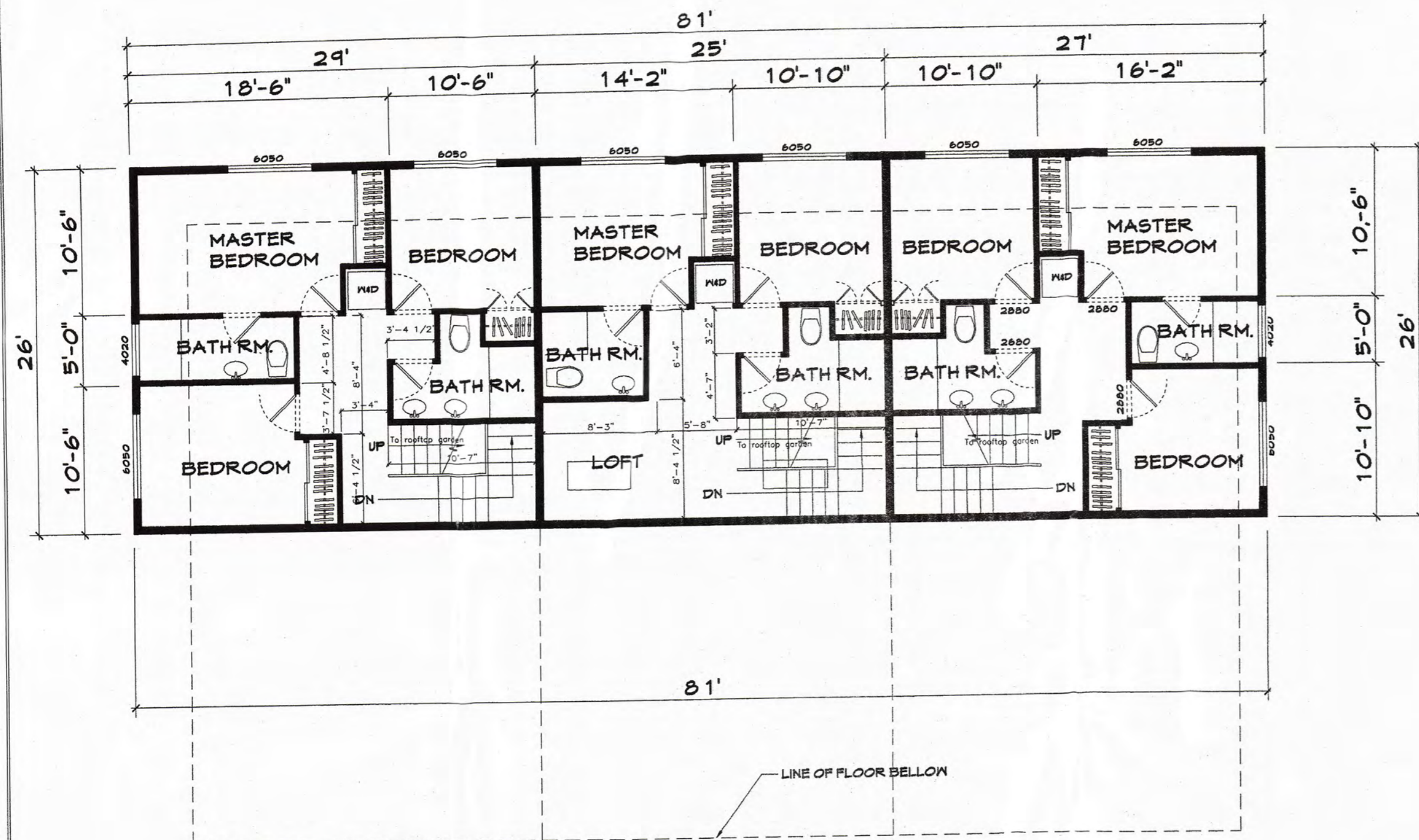
**RESIDENTIAL TOWNHOUSES PROJECT**  
**B & S TOWNHOUSES**  
 8200 HILLTOP DRIVE  
 LEMON GROVE, CALIFORNIA 92104

DATE: 21 JAN. 2019  
 CAD OPERATOR: N. ARTHMAN  
 PROJECT NO: 2016-8200  
 CAD DATE: 1/21/19  
 SCALE:  
 LATEST REVISION:  
 schematic  
 A-2  
 2 OF 21

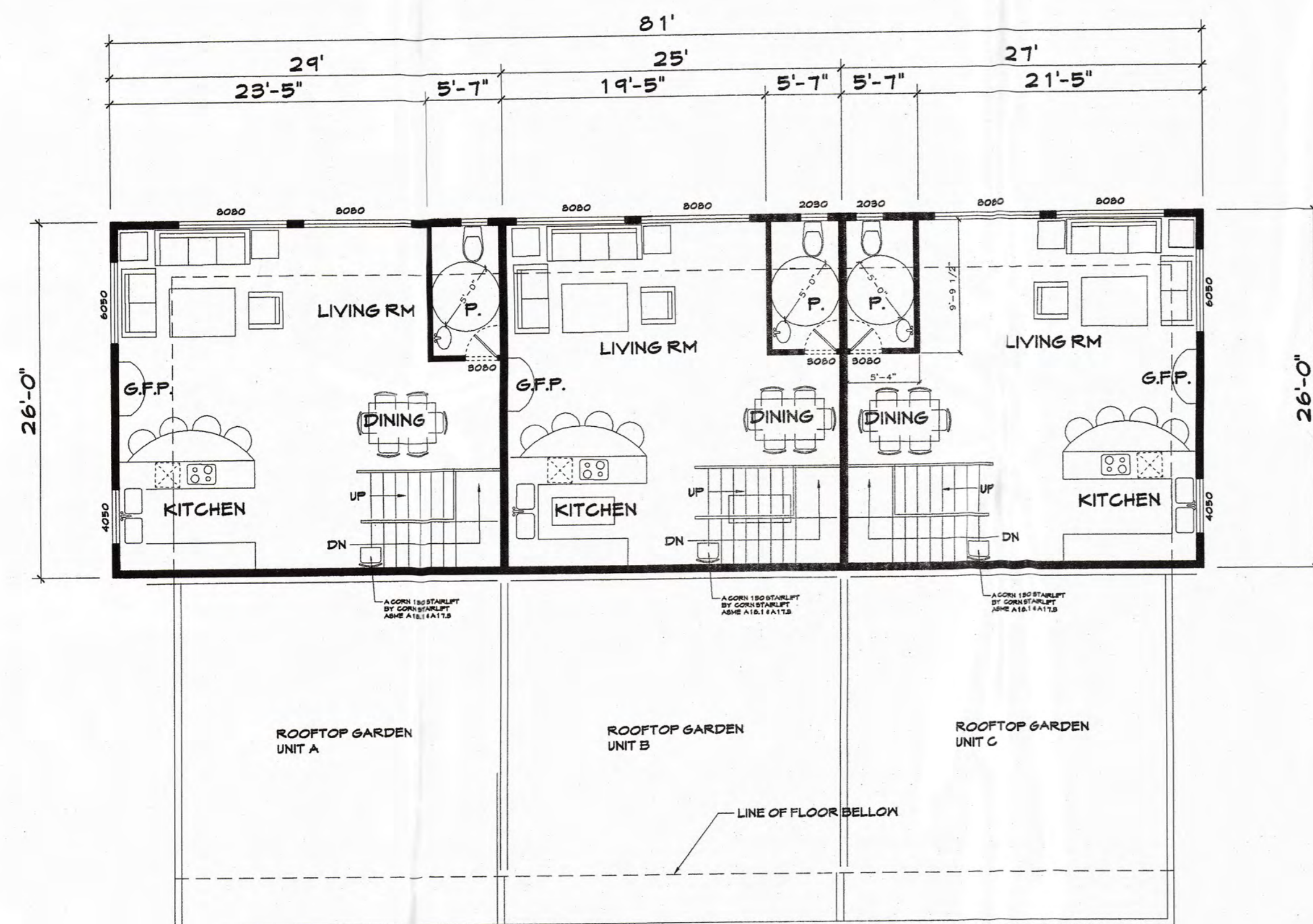






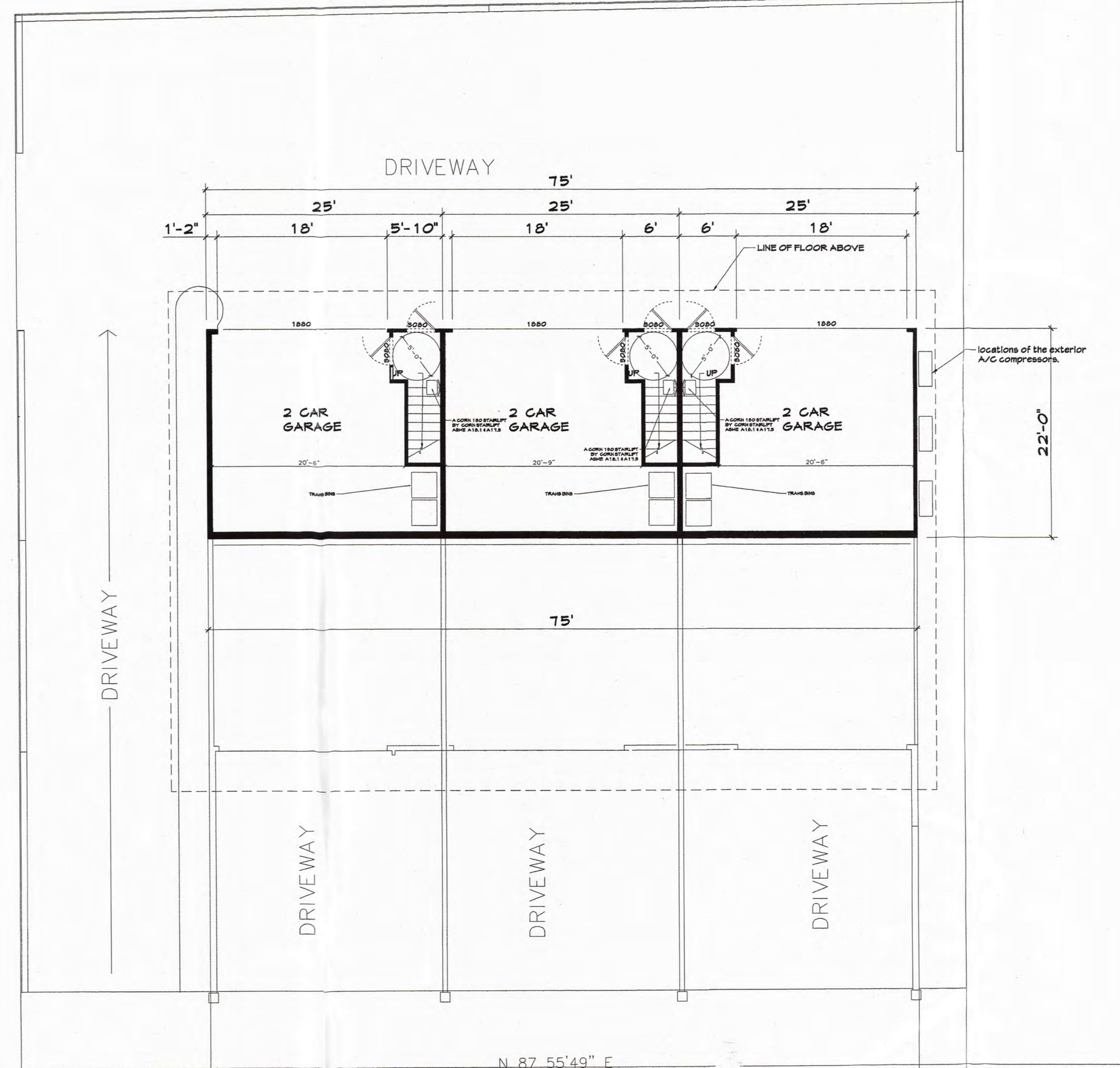


UNITS D, E, & F  
THIRD LEVEL FLOOR PLAN  
SCALE: 1"=3/8"



UNITS D, E, & F  
SECOND LEVEL FLOOR PLAN  
SCALE: 1"=3/8"

<b>3 Bedrooms</b> 1510 s.f.	<b>2 Bedrooms +loft</b> 1300 s.f.	<b>3 Bedrooms</b> 1405 s.f.
<b>2.5 Baths</b>	<b>2.5 Baths</b>	<b>2.5 Baths</b>



UNITS D, E, & F  
GROUND LEVEL FLOOR PLAN  
SCALE: 1"=3/8"

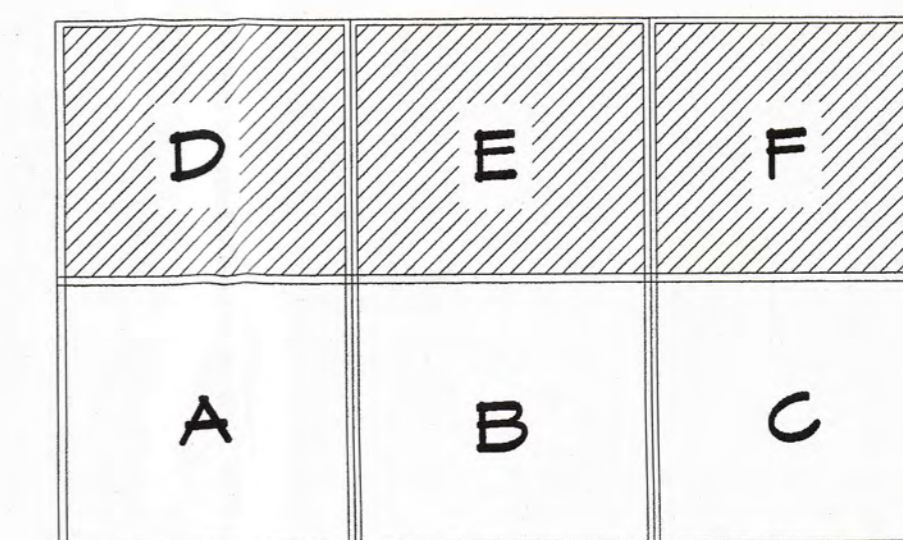
**WALLS & FLOORS FIRE SEPARATION NOTE:**

Walls and Floors separating dwelling units in the same building in Group R-1 hotels, shall be fire partitions or horizontal assemblies as required by Section 708 and 711. Sections 420.2 and 420.3.

a) Such fire partitions and floors shall have a fire-resistance rating of not less than 1-hour (except in buildings of Type IIB, IIIB, and VB construction with automatic sprinkler systems (complying with Section 903.3.1.1), where the fire-resistance rating may be reduced to 1/2-hour). Section 708.3.

b) Such fire partitions shall extend to the underside of the floor/roof sheathing above.

i) In lieu of extending the wall to the floor/roof sheathing above, they may terminate at the fire-resistance-rated roof/ceiling assembly above. In this case, the space between the ceiling and the deck above shall be fire-blocked or draftstopped in accordance with Sections 718.2 and 718.3 at the partition line. Section 708.4.



BUILDING  
 RESIDENTIAL TOWNHOUSES  
 PROJECT  
 B & S TOWNHOUSES  
 8200 HILLTOP DRIVE  
 LEMON GROVE, CALIFORNIA 92104

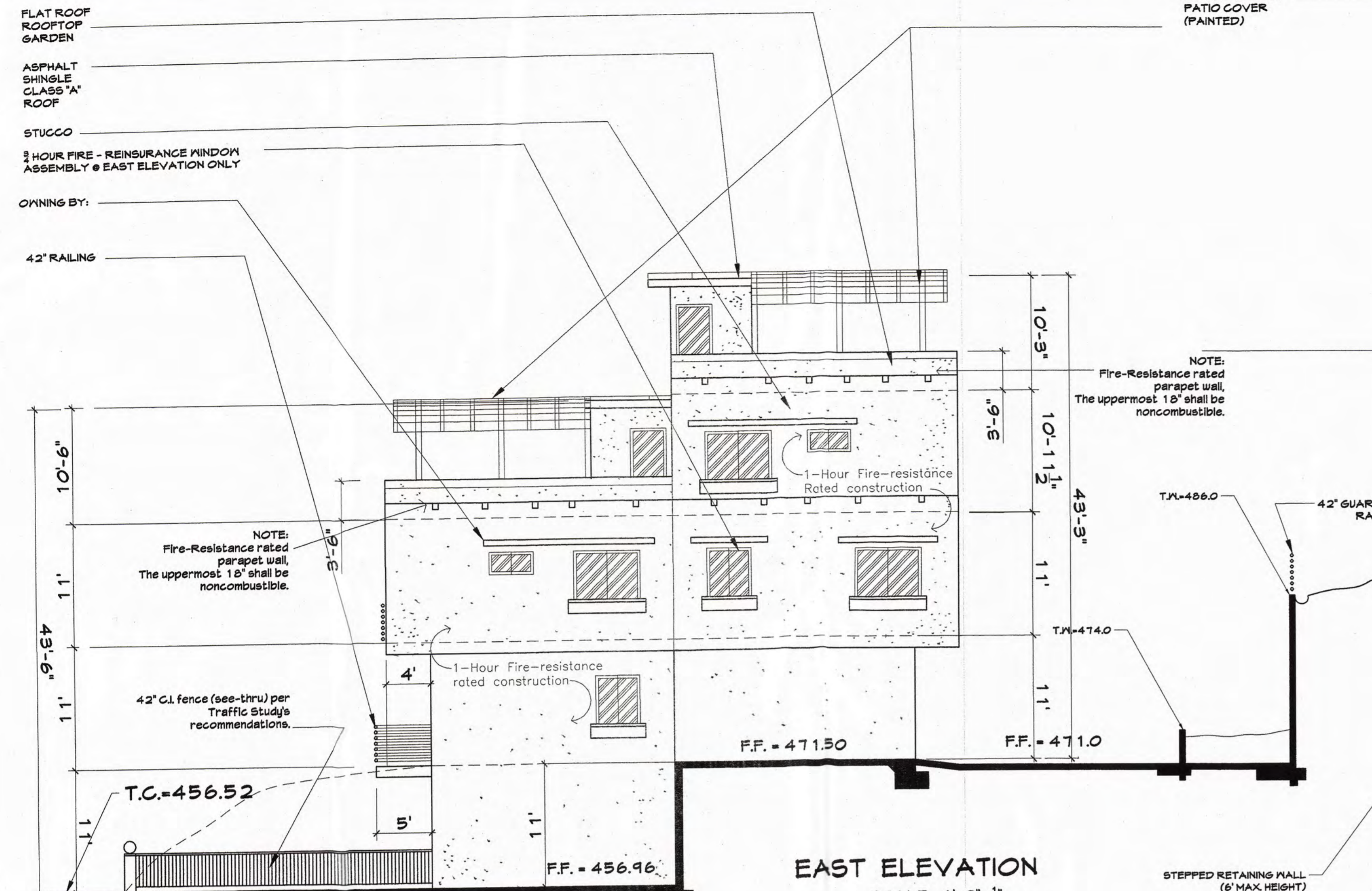
CONSULTING ENGINEER

ARTHMAN  
 ARCHITECTURE, ENGINEERING, CONSTRUCTION  
 (858) 518-9995  
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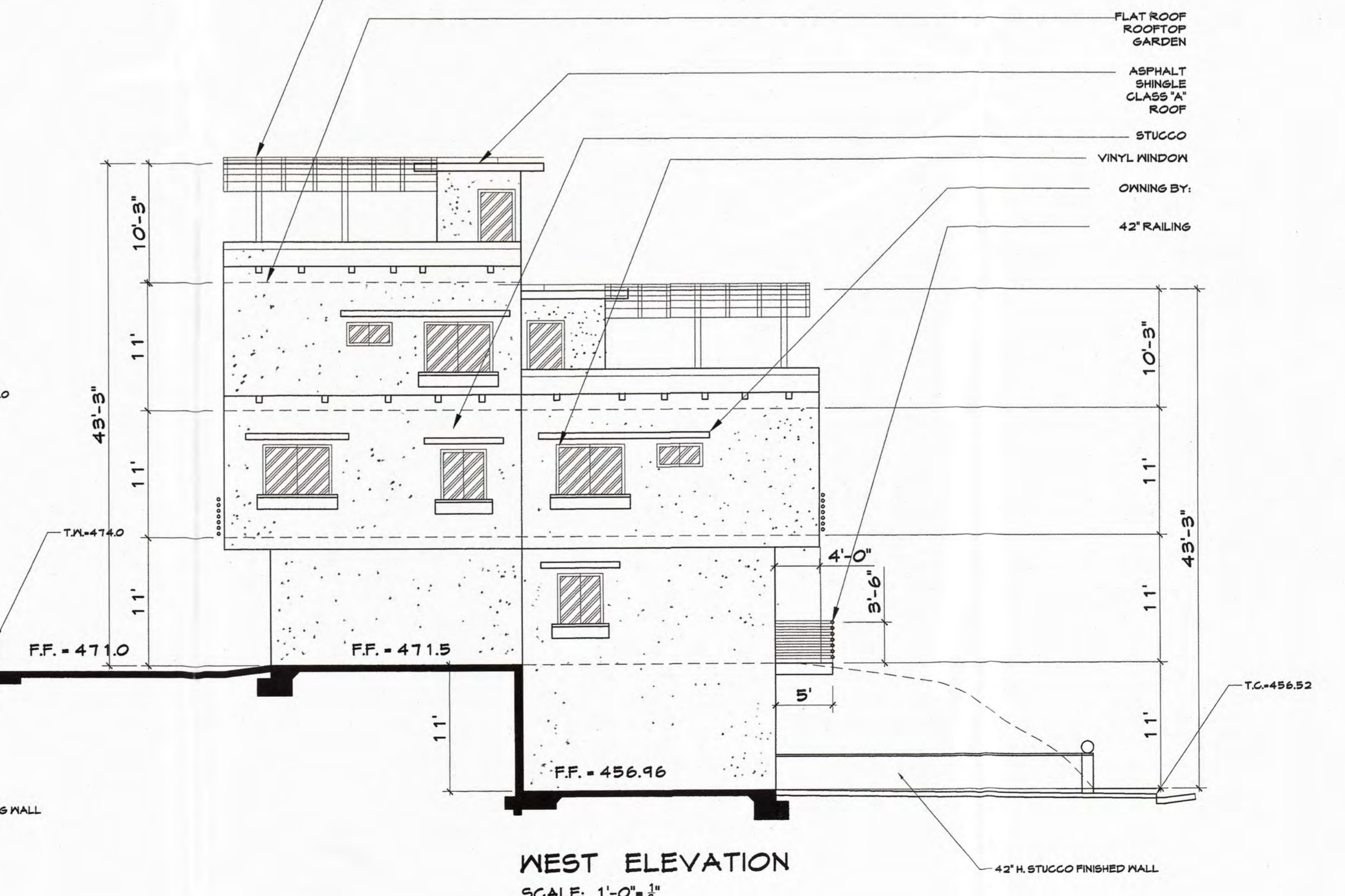
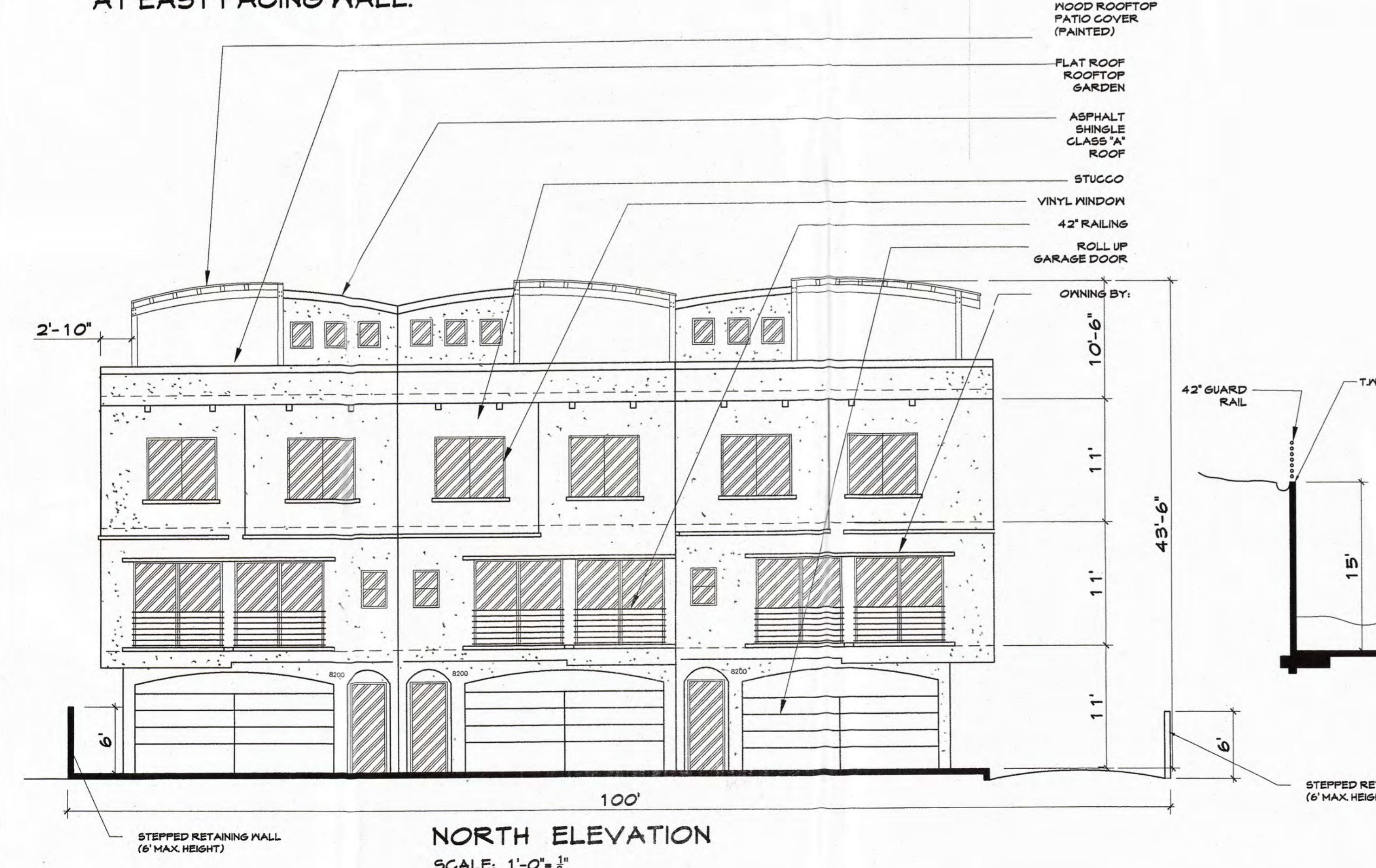
DATE: 21 JAN. 2019  
 CAD OPERATOR: N. ARTHMAN  
 PROJECT NO.: 2016-8200  
 CAD DWG FILE:  
 SCALE:  
 LATEST REVISION:

schematic  
 A-4  
 4 of 21





**EAST WALL:**  
 EXPOSED FIRE RATED SURFACE = 1616 S.F.  
 ALLOWABLE OPENING PER TABLE 705.8, 15% = 242.40 S.F.  
 PROVIDED OPENINGS = 142 S.F.  
 $142 < 242.40$   
 $\frac{3}{4}$  HOUR FIRE-RESISTANCE-RATED FOR ALL OPENINGS  
 AT EAST FACING WALL.



BUILDING  
 SITE PLAN  
 RESIDENTIAL TOWNHOUSES  
 PROJECT  
 B & S TOWN HOUSES  
 8200 HILLTOP DRIVE  
 LEMON GROVE, CALIFORNIA 92104

CONSULTING ENGINEER

**ARTHMAN**  
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 1155 CAMINO DEL MAR, SUITE 433  
 DEL MAR, CALIFORNIA 92014  
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DATE: 21 JAN. 2019  
 C/O OPERATOR: N. ARTHMAN  
 PROJECT FILE: 2016-8200  
 C/O DWG FILE:  
 SCALE:  
 LATEST REVISION:

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 A-5  
 5 of 21

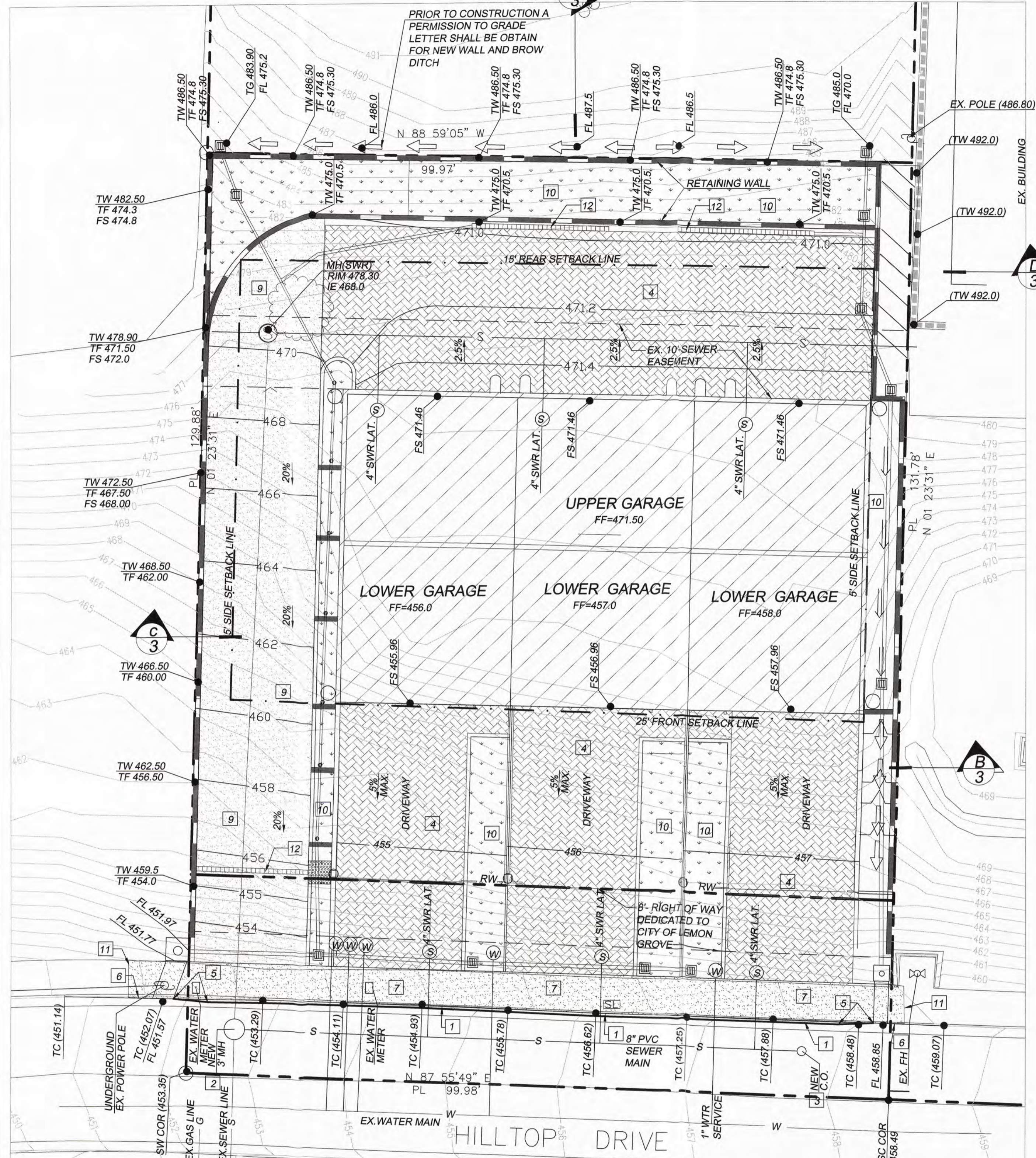






# CITY OF LEMON GROVE TENTATIVE MAP NO. TMO-0064

## B&S TOWNHOUSES 6 UNITS



### DENSITY:

TOTAL SITE ACREAGE = 0.27 ACRES GROSS  
 MAXIMUM NUMBER OF DWELLING UNITS ALLOWED PER ZONE: 6 UNITS  
 MAXIMUM NUMBER OF DWELLING UNITS ON SITE: 6 UNITS  
 GENERAL PLAN DESIGNATION OF LOW/MEDIUM (NUMBER OF UNIT ALLOWED = NET AREA X 29 / ACRES)

LOT SIZE:  
 GROSS: 13,085 S.F.  
 NET: 10,283 S.F.  
 RMH: 29 DWELLINGS/ACARE  
 43,560 / 29 = 1,502 PER UNIT  
 ALLOWABLE: 10,283 / 1,502 = 6.90 UNITS PROVIDED: 6 UNITS

OFF STREET PARKING:  
 REQUIRED: 12 + 2 (1 GUEST PARTING PER 4 UNITS) = 14  
 PROVIDED: 12 + 6 = 18

### EQUIVALENT BENEFITS

**Municipal Code Section 17.28.03(0) Planned Development Permits**

(THE TOWNHOUSE CONCEPT)  
 THE SAFETY AND SECURITY OF THE TENANTS WAS THE UTMOST CONCERN IN THE DEVELOPMENT OF THIS PROJECT. IN ORDER TO ACHIEVE THIS OBJECTIVE, THE DEVELOPMENT PROVIDED EACH UNIT WITH PRIVATE PARKING GARAGES, FOR TWO CARS PER UNIT. CONSEQUENTLY, THE AREA TAKEN BY THE EXTRA DRIVEWAYS FOR THE PRIVATE GARAGES HAS DEPLETED THE OPEN SPACE AREA REQUIREMENTS (3,000 S.F.).

### PROVIDED EQUIVALENT PER SECTION 17.23.030

1. & 2. THE DEVELOPMENT PROVIDES 375 S.F. PRIVATE BALCONIES AND 3,630 S.F. ROOFTOP MULTIPURPOSE SPACE WHICH OFFSETS AND EXCEEDS THE COMMON OPEN SPACE REQUIREMENT AND CAN BE UTILIZED FOR ENTERTAINMENT AREA & TENANTS GATHERING PLACE, ORGANIC VEGETABLE GARDEN, PORTABLE POOL AREA FOR CHILDREN, PLAYGROUND AREA,.....

### ADDITIONAL BENEFITS SUSTAINABLE DESIGN

- DAYLIGHTING:** THE DEVELOPMENT PROPOSES LIGHT SHELVES ON SOUTH FACING DOORS & WINDOWS OF THE UNITS A, B, & C TO ALLOW DAYLIGHT TO PENETRATE DEEPER TO THE UNITS TO MINIMIZE THE USAGE OF THE ELECTRICITY. THE DEVELOPMENT ALSO PROPOSES SKYLIGHT & CLEARSTORIES FOR THE UNITS C & E TO MAXIMIZE THEIR AMOUNT OF DAYLIGHTING.
- ENERGY:** BY MEANS OF THERMOSIPHONING, THE DEVELOPMENT PROPOSES THE STAIRCASE TOWER FOR EACH UNIT IN ORDER TO REGULATE INTERIOR TEMPERATURE BY 10 TO 15 DEGREES.
- WATER PRESERVATION:** THE DEVELOPMENT PROPOSES A GUTTERING SYSTEM TO HARVEST RAINWATER AND REUSE IT FOR IRRIGATION PURPOSES.
- ADA:** THE DEVELOPMENT PROPOSES ACCESSIBILITY FOR THE ELDERLY TENANTS FROM EACH PRIVATE GARAGE TO THE SECOND FLOOR BY MEANS OF STAIR LIFTS.

### CA COORDINATE SYSTEM:

### BENCHMARK

THIS TOPOGRAPHIC SURVEY WAS PERFORMED BY SPIRO LAND SURVEYING, INC. ON JULY 9, 2019. HORIZONTAL CONTROL WAS PER RECORD MONUMENTS ON ROS 11880. VERTICAL DATUM WAS ESTABLISHED PER SAN DIEGO COUNTY BENCHMARK SD 0001 ELEVATION 417.077 NGVD 28 DATUM

### SHEET SUMMARY

- SHEET 1 TENTATIVE MAP AND GRADING PLAN
- SHEET 2 GRADING PLAN
- SHEET 3 CROSS SECTIONS
- SHEET 4 BMP SHEET

### SOLAR ACCESS NOTE

THIS IS TO AFFIRM THAT THE DESIGN OF THIS SUBDIVISION PROVIDES, TO THE EXTENT FEASIBLE, FOR FUTURE PASSIVE OR NATURAL HEATING AND COOLING OPPORTUNITIES IN ACCORDANCE WITH THE PROVISION OF SECTION 66473.1 OF THE STATE SUBDIVISION MAP ACT.

### LEGAL DESCRIPTION:

PARCEL: RANCHO MISSION OF SAN DIEGO TRACT 000686 LOT 27 (EX ST) PAR PER ROS 11880 IN: CITY/MUNI/TWP: LEMON GROVE APN: 499-181-02-00

### ASSESSOR'S PARCEL NO.

APN 499-181-02

### GENERAL NOTES

- TOTAL NUMBER OF UNITS IS = 6
- TOTAL AREA WITHIN TENTATIVE PARCEL MAP IS 0.27 ACRES GROSS.
- EXISTING ZONING IS (BASE ZONE RMH)
- ALL NEW UTILITIES WILL BE LOCATED UNDERGROUND
- CONTOUR INTERVAL: 1 FEET
- ALL PROPOSED SLOPES ARE 2:1 UNLESS NOTED OTHERWISE.
- GRADING SHOWN HEREON IS PRELIMINARY AND IS SUBJECT TO MODIFICATION IN FINAL DESIGN.
- LOT DIMENSIONS AND SETBACK DIMENSIONS SHOWN HEREON ARE PRELIMINARY AND ARE SUBJECT TO MODIFICATION IN FINAL DESIGN.
- STATUS OF LEGAL ACCESS: HILLTOP DRIVE
- SOURCE OF TOPOGRAPHY: THIS TOPOGRAPHIC SURVEY WAS PERFORMED BY SPIRO LAND SURVEYING, INC. ON JULY 9, 2019. HORIZONTAL CONTROL WAS PER RECORD MONUMENTS ON ROS 11880. VERTICAL DATUM WAS ESTABLISHED PER SAN DIEGO COUNTY BENCHMARK SD 0001 ELEVATION 417.077 NGVD 28 DATUM
- ALL PLANT MATERIALS SHALL BE IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM AND SHALL BE DROUGHT TOLERANT.
- INTERM GROUND COVER OR THE APPROPRIATE BMP'S SHALL BE USED AND SHOWN ON THE FINAL GRADING PLAN.
- SUBDIVIDER INTENDS ON PARKING LAND IMPACT FEES IN ORDER TO COMPLY WITH PARK LAND DEDICATION ORDINANCE.

### LEGEND:

- SUBDIVISION BOUNDARY
- RIGHT-OF-WAY
- LOT LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- FINISH GRADE ELEVATION
- PROPOSED PAD ELEVATION
- EXISTING WATERLINE
- PROPOSED WATERLINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING SEWER MAIN
- EXISTING SEWER MANHOLE
- PROPOSED STORM DRAIN PIPE (P.V.T.)
- PROPOSED CATCH BASIN (P.V.T.)
- EXISTING TREE
- PROPOSED SLOPE
- CUT/FILL LINE
- BROW DITCH (TYPE "B")
- EARTH SWALE
- SPLASH PAD RIP RAP
- 6" TRENCH DRAIN
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT

### PUBLIC UTILITIES DISTRICTS

- GAS AND ELECTRIC: SAN DIEGO GAS & ELECTRIC
- TELEPHONE: PACIFIC TELEPHONE COMPANY
- CABLE TELEVISION: COX CABLE TELEVISION.
- SEWER: CITY OF LEMON GROVE
- DRAINAGE SYSTEM: AS REQUIRED BY CITY ENGINEER
- FIRE: CITY OF LEMON GROVE
- SCHOOL DISTRICT: GROSSMONT UNION HIGH SCHOOL DISTRICT
- SOURCE OF DOMESTIC POTABLE WATER SUPPLY: HELIX WATER DISTRICT.
- WASTE DISPOSAL (SOLID): EDCO DISPOSAL CORPORATION.
- LIGHTING DISTRICT: CITY OF LEMON GROVE.

### SITE DESIGN DATA

EXISTING NUMBER OF UNITS = 0  
 PROPOSED NUMBER OF UNITS = 6  
 TOTAL NUMBER OF UNITS = 6

UNIT SQ FOOT (GROSS)	
UNIT A	1,250 SQFT
UNIT B	1,205 SQFT
UNIT C	1,250 SQFT
UNIT D	1,250 SQFT
UNIT E	1,205 SQFT
UNIT F	1,250 SQFT
<b>TOTAL</b>	<b>7,438 SQFT</b>

AREAS	
LOT AREA =	0.27 ACRES GROSS
EASEMENT AREA =	3,800 SQFT

### PROPOSED STREET DEDICATION:

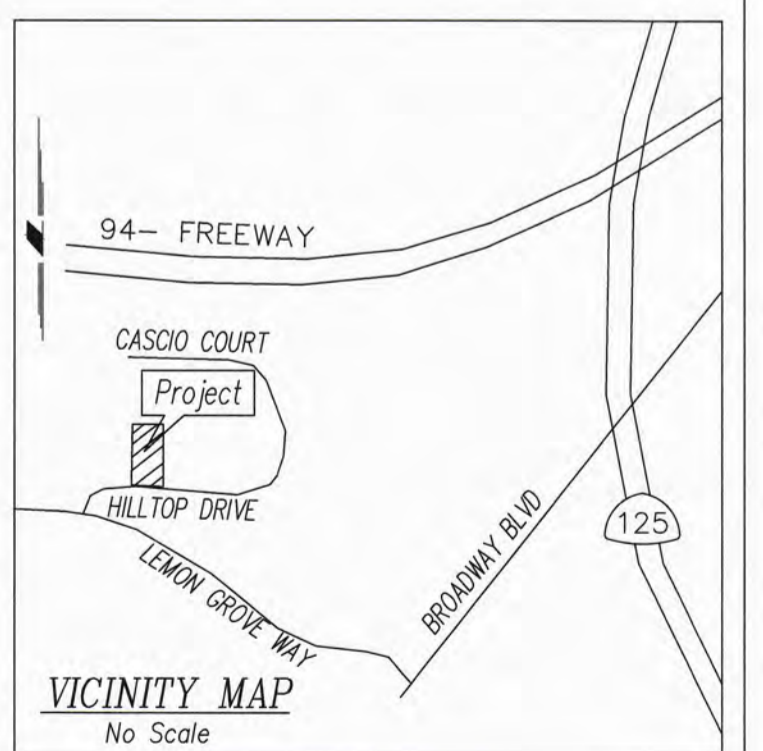
8" WIDE STREET IMPROVEMENT DEDICATION PER DOC:

Prepared By: ARC CONSTRUCTION & ENGINEERING INC.  
 Name: 10948 ELDERWOOD LANE  
 Address: SAN DIEGO, CA 92131  
 Phone #: (858) 722-7785  
 E-MAIL: SERG.SALINAS@ATT.NET

Project Address: 8200 HILLTOP DRIVE  
 LEMON GROVE, CA 92104

Project Name: HILLTOP PARCEL TENTATIVE MAP

Sheet Title: HILLTOP PARCEL TENTATIVE MAP



Revision 3: \_\_\_\_\_  
 Revision 2: \_\_\_\_\_  
 Revision 1: 4/26/18  
 Original Date: 6/3/16  
 Sheet 1 of 4  
 P.T.S. NO. \_\_\_\_\_

### FIRE DEPT. NOTES

- PROVIDE BUILDING ADDRESS NUMBERS, VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. (UFC 901.4.4)

### DRAINAGE NOTES

- ALL DRAINAGE FACILITIES WITHIN THIS DEVELOPMENT AND OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE PRIVATE.

### MAPPING AND MONUMENTATION NOTE:

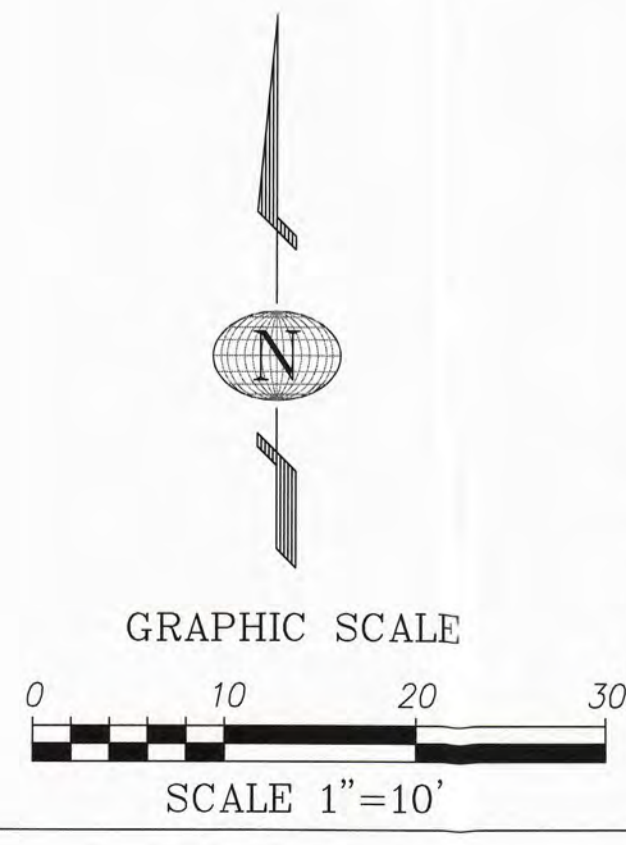
ALL PROPERTY CORNERS WILL BE SET BASE ON THE FINAL PARCEL MAP THAT WILL BE FILED UPON APPROVAL OF THE TENTATIVE PARCEL MAP. A DETAILED PROCEDURE OF SURVEY WILL BE SHOWN ON ALL FINAL MAPS.

### DEVELOPMENT SUMMARY

- SUMMARY OF REQUEST:  
 A TENTATIVE PARCEL MAP, FOR 6 SINGLE-FAMILY DWELLING UNITS.
- STREET ADDRESS:  
 8200 HILLTOP DRIVE LEMON GROVE, CA 91945
- SITE AREA:  
 TOTAL SITE AREA (GROSS): 0.27 ACRES
- ZONING: BASE ZONE RMH  
 RMH: 29 DWELLINGS/ACARE
- COVERAGE DATA:  
 GROSS FLOOR AREA (GFA): 10,283
- DENSITY:  
 MAXIMUM DWELLING UNITS ALLOWED PER ZONE: 6  
 NUMBER OF PROPOSED DWELLING UNITS ON SITE: 6
- YARD/SETBACK:  
 FRONT YARD: 25'  
 SIDE YARD: 5'  
 REAR YARD: 15'

### CONSTRUCTION NOTES:

- 6" ROLLED CURB PER SDRSD G-4A
- 4 FEET MANHOLE PER SDRSD SM-01
- SEWER CLEAN OUT PER SDRSD SC-01
- PERVIOUS PAVERS SEE LANDSCAPE PLANS SHEET L-6 DETAIL 4
- 5 FEET MIN. CURB AND GUTTER TO ROLLED CURB TRANSITION PER SDRSD G-04B
- CURB AND GUTTER PER SDRSD G-2
- SIDEWALK PER SDRSD G-7
- CURB OUTLET PER SDRSD D-25
- 5.5 INCH CONCRETE DRIVEWAY
- LANDSCAPE AREA
- SAW CUT TO THE NEAREST JOINT
- 6" TRENCH DRAIN



### LAND DIVISION STATEMENT OWNER'S CERTIFICATE

I HEREBY CERTIFY THAT I AM THE RECORD OWNER OF THE PROPERTY SHOWN ON THIS TENTATIVE PARCEL MAP AND THAT SAID MAP SHOWS MY ENTIRE CONTIGUOUS OWNERSHIP.

LEGAL DESCRIPTION: APN 499-181-02 BLOCK/LOT 27, TRACT NO. 000686 000686 LOT 27(EXST) PAR PER ROS 11880 IN

OWNER/SUBDIVIDER: BEHZAD HAFEI 12765 AMARANTH STREET SAN DIEGO, CA 92129 (619)861-4954

BEHZAD HAFEI

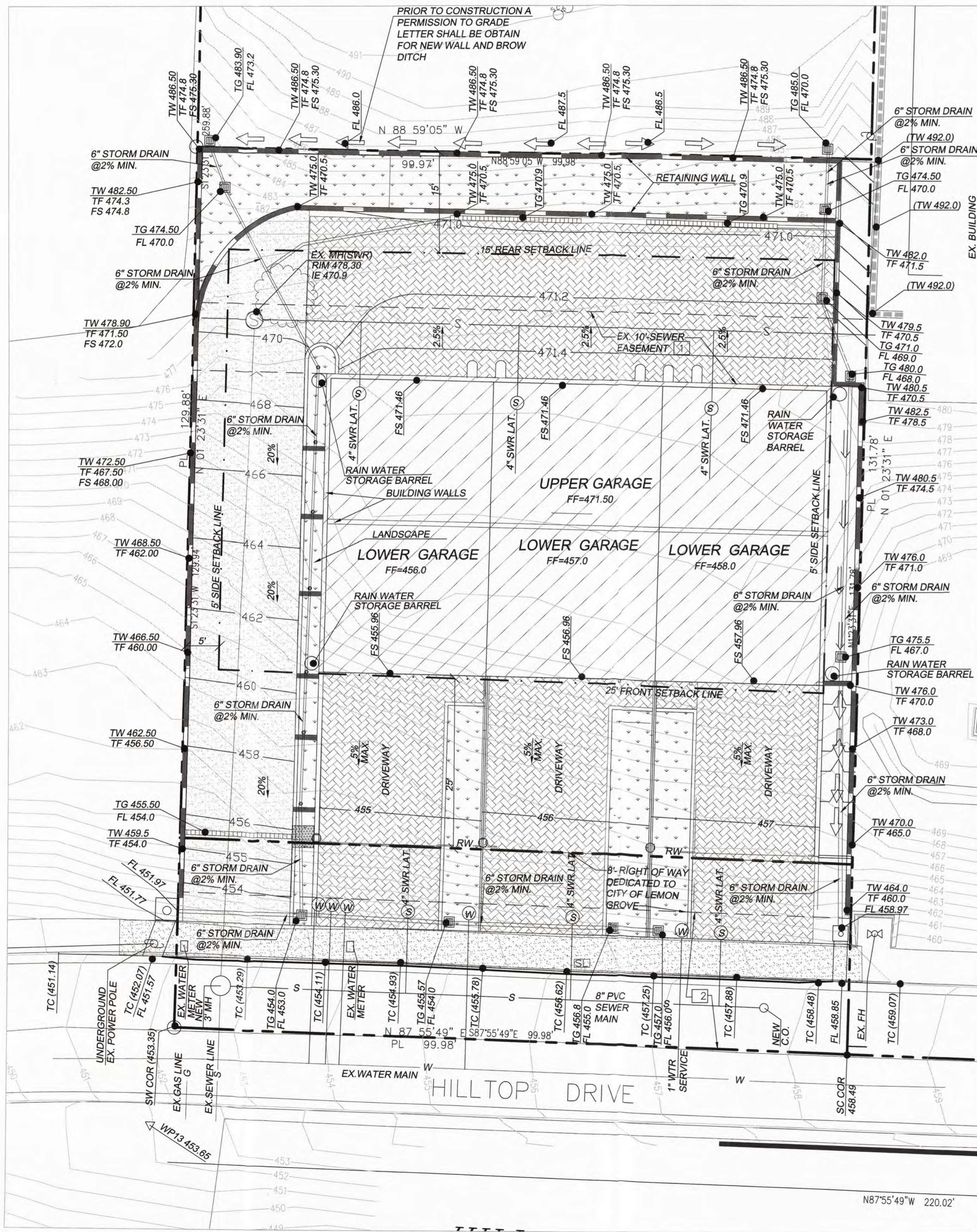


### ARC CONSTRUCTION ENGINEERING INC.

CIVIL ENGINEERING • LAND PLANNING • SURVEYING  
 10948 ELDERWOOD LANE, San Diego, California, 92131 • 858-722-7785  
 SERGIO SALINAS RCE NO. 81026



# CONCEPTUAL GRADING PLAN FOR: 8200 HILLTOP DRIVE LEMON GROVE, CALIFORNIA



## ABBREVIATIONS:

- APN ASSESSOR'S PARCEL NUMBER
- AC ASPHALT CONCRETE
- AP ANGLE POINT
- B- BEGINNING OF .....
- BLD BUILDING
- BOT BOTTOM OF .....
- CL CENTERLINE
- CLF CHAINLINK FENCE
- CON CONCRETE (PCC)
- E- END OF .....
- EFW FACE OF WALL LOCATED ON THE EAST SIDE
- FF FINISHED FLOOR
- FH FIRE HYDRANT
- GM GAS METER
- NFW FACE OF WALL LOCATED ON THE NORTH SIDE
- NEFW FACE OF WALL LOCATED ON THE NORTH & EAST SIDES
- OH OVERHANG (ROOF)
- POL POINT ON THE LINE
- PP POWER POLE
- RCP REINFORCED CONCRETE PIPE
- ROS RECORD OF SURVEY
- ROW RIGHT-OF-WAY
- S SEWER LINE
- SEFW FACE OF WALL LOCATED ON THE SOUTH & EAST SIDES
- SMH SEWER MANHOLE
- T- TOP OF...
- WD WOOD
- WDFNC WOOD FENCE
- WMB FACE OF WALL LOCATED ON THE WEST SIDE
- MW WATER METER BOX
- W WATER LINE
- TW TOP OF WALL
- TC TOP OF CURB

## EASEMENTS

1. AN EASEMENT FOR THE PURPOSE SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT FROM NOT SET OUT, AS GRANTOR, TO SPRING VALLEY SANITATION DISTRICT AS GRANTEE, FOR THE PURPOSE OF PIPE OR PIPELINES, MANHOLES AND ALL STRUCTURES INCIDENTAL THERETO, RECORDED SEPTEMBER 23, 1957 IN BOOK 6758, PAGE 569 OF OFFICIAL RECORDS, AFFECTS A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
2. THE SOUTH ONE-HALF OF THAT PORTION OF LOT 27 OF SUBDIVISION NO. 2, OF LOT 12 OF RANCHO EX-MISSION, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 686, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, OCTOBER 5, 1891, DESCRIBED AS GRANT DEED.

## LEGAL DESCRIPTION:

APN 499-181-02  
BLOCK/LOT 27, TRACT NO. 000686  
000686 LOT 27(EXST) PAR PER ROS 11880 IN

## ASSESSOR'S PARCEL NO.

APN 499-181-02

## UTILITY NOTES

ALL OVERHEAD UTILITIES SHALL BE PLACED UNDERGROUND

## LEGEND:

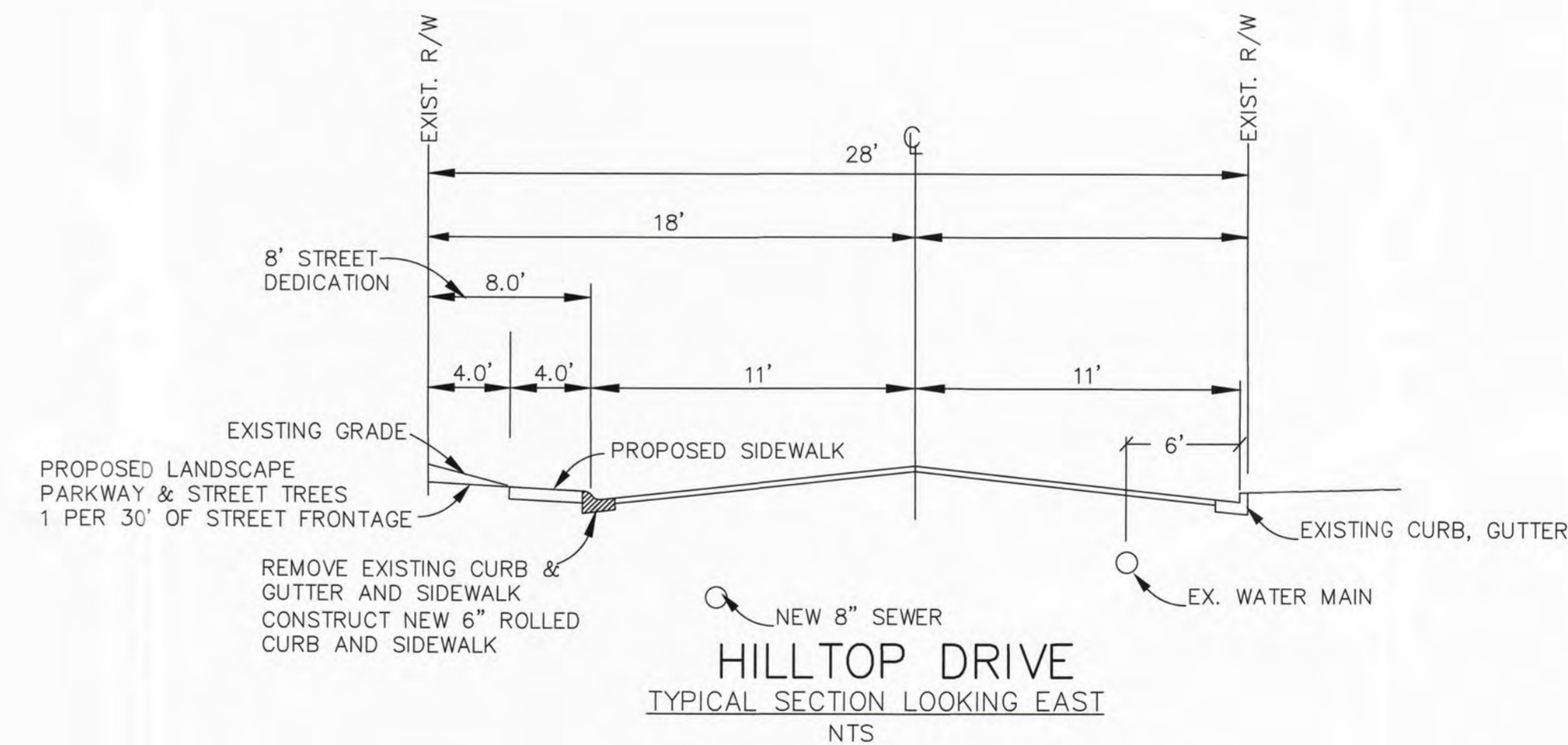
- SUBDIVISION BOUNDARY
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- PROPOSED WATERLINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING SEWER MAIN
- EXISTING SEWER MANHOLE
- PROPOSED STORM DRAIN PIPE (PVT.)
- PROPOSED CATCH BASIN (PVT.)
- EXISTING TREE
- PROPOSED SLOPE
- CUT/FILL LINE
- BROW DITCH (TYPE "B")
- EARTH SWALE
- SPLASH PAD RIP RAP
- 6" TRENCH DRAIN
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT

## GRADING

1. TOTAL AMOUNT OF SITE TO BE GRADED: 0.27AC.
2. PERCENT OF TOTAL SITE GRADED: 99%
3. AMOUNT OF SITE WITH 25 PERCENT SLOPES OR GREATER: 0.11 AC. OR 4,874 SQFT
4. PERCENT OF THE EXIST. SLOPES STEEPER THAN 5% PROPOSED TO BE GRADED: 99%
5. PERCENT OF TOTAL SITE WITH 25 PERCENT SLOPES OR GREATER: 42%
6. AMOUNT OF CUT: 2,500 CUBIC YARDS.
7. AMOUNT OF FILL: 160 CUBIC YARDS.
8. MAXIMUM HEIGHT OF FILL SLOPE(S): 5 FEET 2:1 SLOPE RATIO.
9. MAXIMUM HEIGHT OF CUT SLOPE(S): 15 FEET 2:1 SLOPE RATIO.
10. AMOUNT OF EXPORT SOIL: 2,300 CUBIC YARDS.
11. RETAINING/CRIB WALLS: HOW MANY: 4  
MAXIMUM LENGTH: 362  
MAXIMUM HEIGHT: 12 FEET

## APPLICANT

APPLICANT:  
BEHZAD HAFEI  
12765 AMARANTH STREET  
SAN DIEGO, CA 92129  
(619)861-4954



## LAND DIVISION STATEMENT OWNER'S CERTIFICATE

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BLOCK/LOT 27, TRACT NO. 000686  
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OWNER/SUBDIVIDER: BEHZAD HAFEI  
12765 AMARANTH STREET  
SAN DIEGO, CA 92129  
(619)861-4954

BEHZAD HAFEI

Prepared By:  
Name: ARC CONSTRUCTION & ENGINEERING INC.

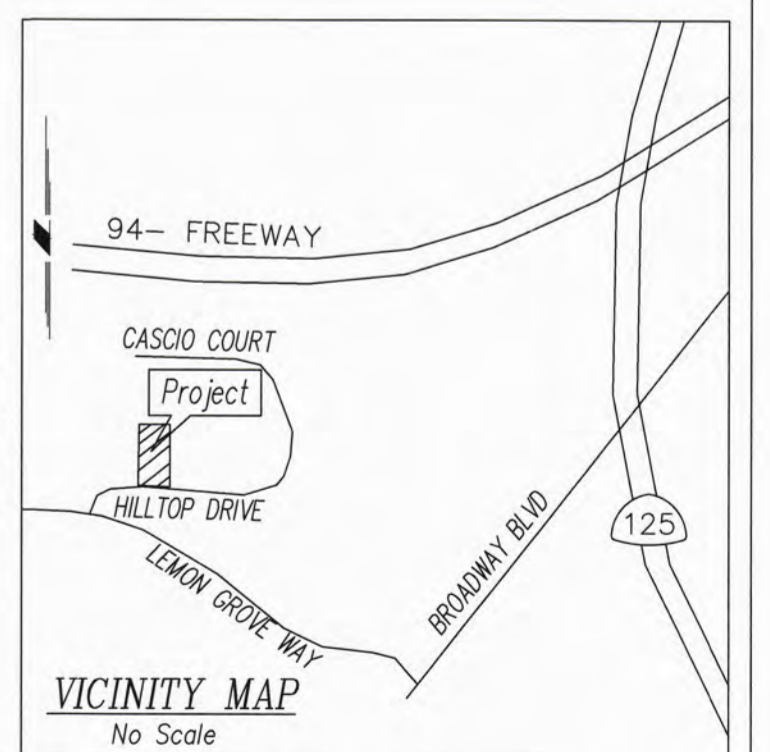
Address: 10948 ELDERWOOD LANE  
SAN DIEGO, CA 92131

Phone #: (858) 722-7785  
E-MAIL: SERGIO.SALINAS@ATT.NET

Project Address:  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

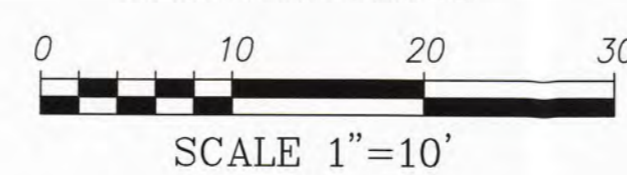
Project Name:  
HILLTOP PARCEL TENTATIVE  
MAP

Sheet Title:  
CONCEPTUAL GRADING PLANS



- Revision 3: \_\_\_\_\_
- Revision 2: \_\_\_\_\_
- Revision 1: 4/26/18
- Original Date: 6/3/16
- Sheet 2 of 4
- PTS NO. \_\_\_\_\_

## GRAPHIC SCALE



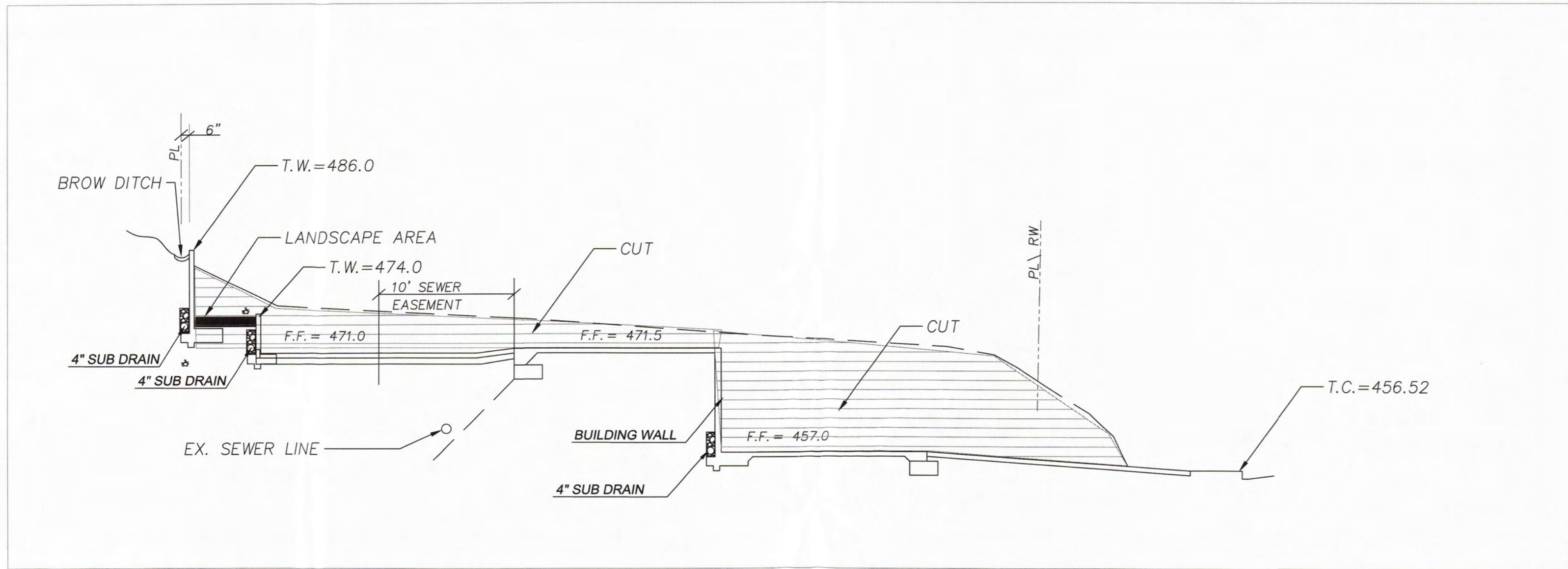
## ARC CONSTRUCTION ENGINEERING INC.

CIVIL ENGINEERING • LAND PLANNING • SURVEYING  
10948 ELDERWOOD LANE, San Diego, California, 92131 • 858-722-7785

SERGIO SALINAS RCE NO. 81026

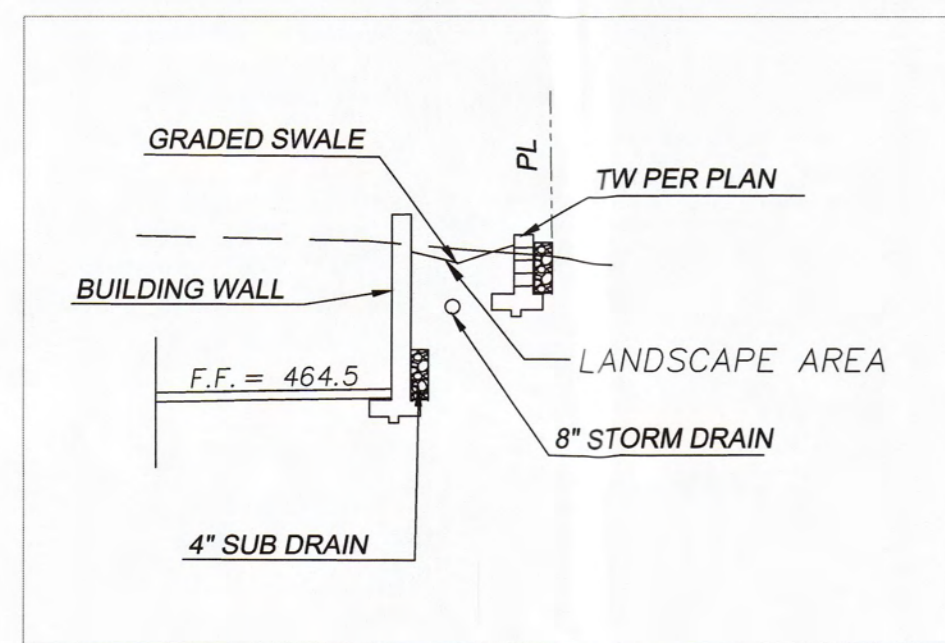


# CITY OF LEMON GROVE HILLTOP SECTION



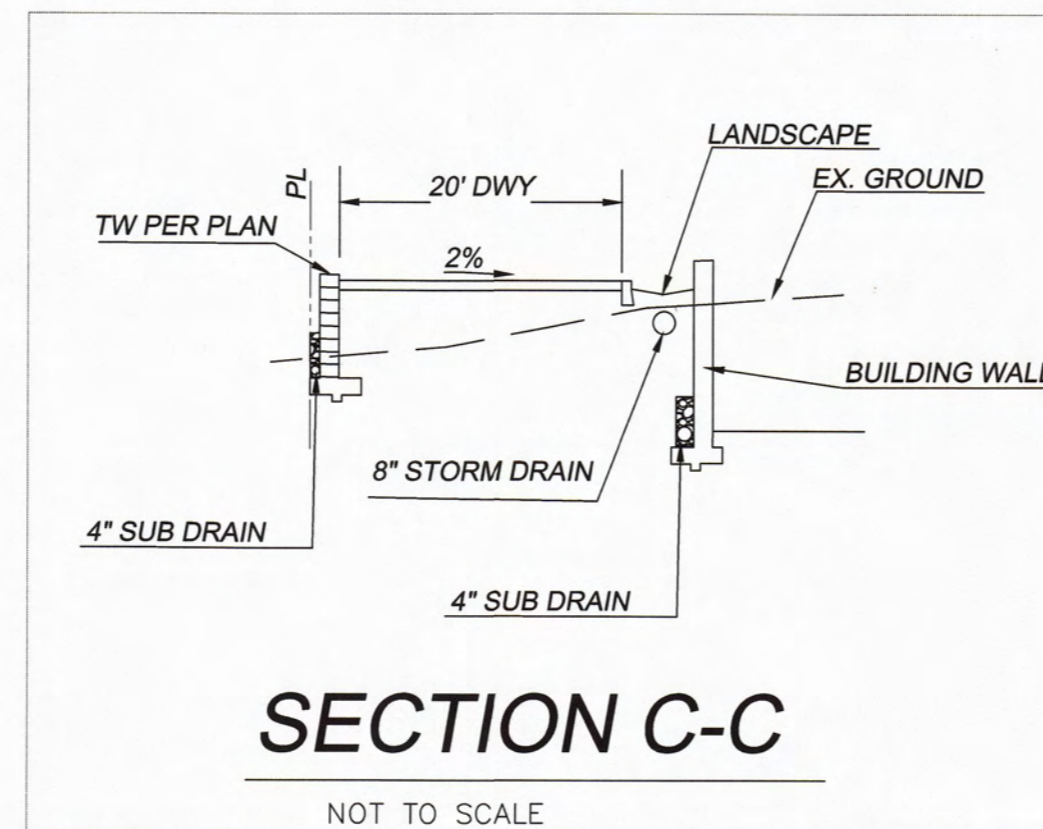
**SECTION A-A**

NOT TO SCALE



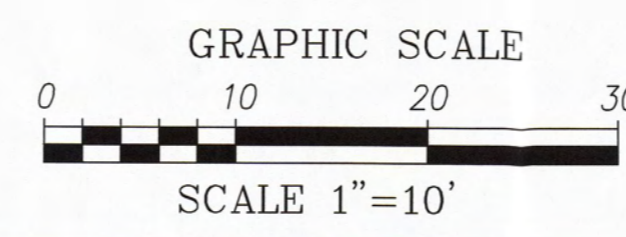
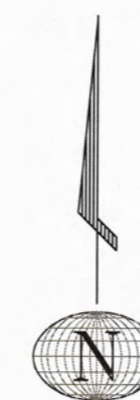
**SECTION B-B**

NOT TO SCALE



**SECTION C-C**

NOT TO SCALE



**LAND DIVISION STATEMENT  
OWNER'S CERTIFICATE**

I HEREBY CERTIFY THAT I AM THE RECORD OWNER OF THE PROPERTY SHOWN ON THIS TENTATIVE PARCEL MAP AND THAT SAID MAP SHOWS MY ENTIRE CONTIGUOUS OWNERSHIP.

LEGAL DESCRIPTION: APN 499-181-02  
BLOCK/LOT 27, TRACT NO. 000686  
000686 LOT 27(EXST) PAR PER ROS 11880 IN

OWNER/SUBDIVIDER: BEHZAD HAFEI  
12765 AMARANTH STREET  
SAN DIEGO, CA 92129  
(619)861-4954

BEHZAD HAFEI



**ARC CONSTRUCTION ENGINEERING INC.**

CIVIL ENGINEERING • LAND PLANNING • SURVEYING  
10948 ELDERWOOD LANE, San Diego, California, 92131 • 858-722-7765

SERGIO SALINAS

RCE NO. 81026

Prepared By: \_\_\_\_\_  
Name: ARC CONSTRUCTION & ENGINEERING INC.  
Address: 10948 ELDERWOOD LANE  
SAN DIEGO, CA 92131  
Phone #: (858) 722-7765  
E-MAIL: SERG.SALINAS@ATT.NET

Project Address: \_\_\_\_\_  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

Project Name: \_\_\_\_\_  
HILLTOP PARCEL TENTATIVE  
MAP

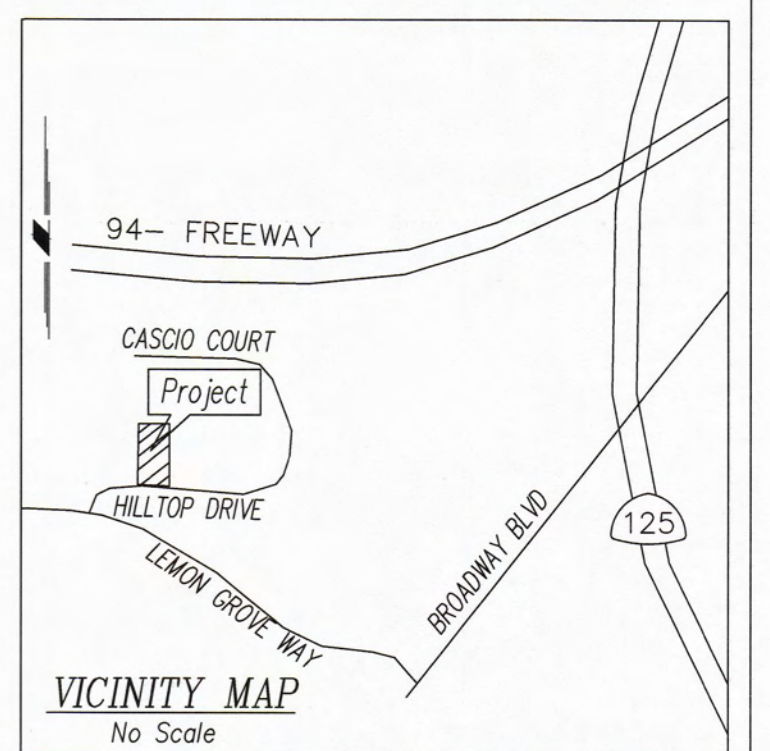
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SECTION SHEET

**BENCHMARK**

BENCHMARK ALTRANS MONUMENT SD94  
KP11.85R. BRASS PLUG ELEVATION 491.92'

**APPLICANT**

APPLICANT:  
BEHZAD HAFEI  
12765 AMARANTH STREET  
SAN DIEGO, CA 92129  
(619)861-4954



Revision 3: \_\_\_\_\_  
Revision 2: \_\_\_\_\_  
Revision 1: \_\_\_\_\_

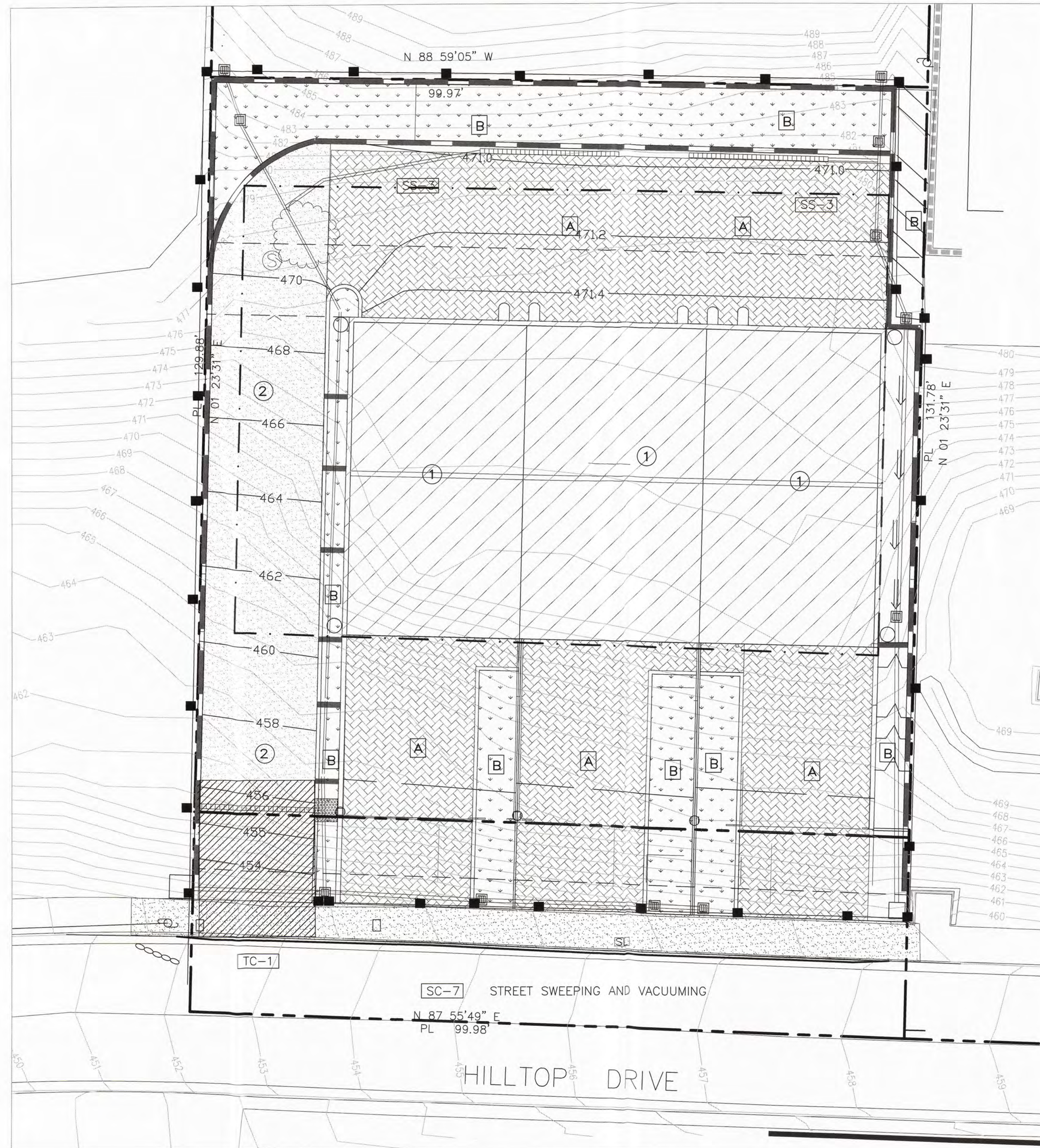
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Sheet 3 of 4

PTS NO. \_\_\_\_\_



# CITY OF LEMON GROVE HILLTOP



**CONSTRUCTION STORMWATER BMP NOTES AND STANDARD PROJECT STORMWATER BMP NOTES**

THE FOLLOWING CONSTRUCTION BMP NOTES SHALL BE ADDED TO THE SITE PLAN:

**CONSTRUCTION STORMWATER BMP NOTES**

- ALL APPLICABLE CONSTRUCTION BMPs AND NON-STORMWATER DISCHARGE BMPs SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY OF LEMON GROVE MINIMUM BMP REQUIREMENTS INCLUDED IN THE CITY OF LEMON GROVE MUNICIPAL CODE AND THE CITY OF LEMON GROVE JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM (JRMP). ALL STORMWATER BMPs SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT.
- EROSION CONTROL BMPs SHALL BE IMPLEMENTED FOR ALL PORTIONS OF THE PROJECT AREA IN WHICH NO WORK HAS BEEN DONE OR IS PLANNED TO BE DONE OVER A PERIOD OF 14 OR MORE DAYS. ALL ON-SITE DRAINAGE PATHWAYS THAT CONVEY CONCENTRATED FLOWS SHALL BE PAVED, PROTECTED BY LAYING AGGREGATE OVER EXPOSED SOIL, FULLY COVERED BY ESTABLISHED VEGETATION, OR OTHERWISE STABILIZED TO PREVENT EROSION.
- RUN-ON FROM AREAS OUTSIDE THE PROJECT AREA SHALL BE DIVERTED AROUND WORK AREAS TO THE EXTENT FEASIBLE. RUN-ON THAT CANNOT BE DIVERTED SHALL BE MANAGED USING APPROPRIATE EROSION AND SEDIMENT CONTROL BMPs IN ACCORDANCE WITH APPLICABLE CASQA FACT SHEETS.
- SEDIMENT CONTROL BMPs SHALL BE IMPLEMENTED, INCLUDING PROVIDING FIBER ROLLS, GRAVEL BAGS, OR OTHER EQUALLY EFFECTIVE BMPs AROUND THE PERIMETER OF THE PROJECT TO PREVENT TRANSPORT OF SOIL AND SEDIMENT OFF-SITE. ANY SEDIMENT TRACKED ONTO OFFSITE PAVED AREAS SHALL BE REMOVED VIA SWEEPING AT LEAST DAILY. ALL BMPs SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPLICABLE CASQA FACT SHEETS.
- TRASH AND OTHER CONSTRUCTION WASTES SHALL BE PLACED IN A DESIGNATED AREA AT LEAST DAILY AND SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE REQUIREMENTS.
- MATERIALS SHALL BE STORED TO AVOID BEING TRANSPORTED IN STORM WATER RUNOFF AND NON-STORM WATER DISCHARGES. CONCRETE WASHOUT SHALL BE DIRECTED TO A WASHOUT AREA DESIGNED IN ACCORDANCE WITH CASQA STANDARDS. CONCRETE SHALL NOT BE WASHED OUT TO THE GROUND.
- STOCKPILES AND OTHER SOURCES OF POLLUTANTS SHALL BE COVERED WHEN THE CHANCE OF RAIN WITHIN THE NEXT 48 HOURS IS AT LEAST 50%.

**PERMANENT (POST-CONSTRUCTION) STORMWATER BMP NOTES**

- LANDSCAPED AREAS SHALL BE DESIGNED IN ACCORDANCE WITH LEMON GROVE MUNICIPAL CODE CHAPTER 18.44 (WATER EFFICIENT LANDSCAPE REGULATIONS).
- ROOF DRAINAGE SHALL BE DIRECTED TO LANDSCAPED AREAS OR RAIN BARRELS (APPLIES TO NEW ROOFS ONLY).
- DRIVEWAY AND WALKWAYS SHALL BE DESIGNED TO DRAIN TO ADJACENT LANDSCAPED OR NATURAL AREAS OR CONSTRUCTED USING PERMEABLE MATERIALS (APPLIES ONLY TO DRIVEWAYS AND WALKWAYS CREATED OR REPLACED AS PART OF THE PROPOSED PROJECT).
- STREETS, SIDEWALKS, AND PARKING LOT AISLES SHALL BE CONSTRUCTED TO THE MINIMUM WIDTH NECESSARY, PROVIDED PUBLIC SAFETY IS NOT COMPROMISED.
- EXISTING TREES AND NATURAL AREAS, INCLUDING BUT NOT LIMITED TO NATURAL WATER BODIES AND NATURAL STORAGE RESERVOIRS OR DRAINAGE CORRIDORS (E.G., TOPOGRAPHIC DEPRESSIONS, NATURAL SWALES, AND AREAS OF NATURALLY PERMEABLE SOILS), SHALL BE CONSERVED AND PROTECTED TO THE EXTENT FEASIBLE.
- THE IMPERVIOUS FOOTPRINT, INCLUDING ROOFED AREAS AND PAVED AREAS, OF THE PROJECT SHALL BE MINIMIZED TO THE EXTENT APPLICABLE AND FEASIBLE.
- DUMPSTERS, OTHER TRASH RECEPTACLES, AND WASTE COOKING OIL CONTAINERS SHALL BE STORED INSIDE BUILDINGS OR IN FOUR-SIDED ENCLOSURES WITH A STRUCTURAL OVERHEAD CANOPY DESIGNED TO PREVENT PRECIPITATION FROM CONTACTING MATERIALS STORED IN THE ENCLOSURE.
- ON-SITE STORM DRAINS SHALL BE STENCILED OR OTHERWISE PERMANENTLY LABELED WITH "NO DUMPING, DRAINS TO OCEAN" OR OTHER EQUIVALENT LANGUAGE APPROVED BY THE CITY.
- OUTDOOR MATERIAL STORAGE AREAS AND OUTDOOR WORK AREAS SHALL BE PROTECTED FROM RAINFALL, RUNON, AND WIND DISPERSAL.
- PLANNING INSPECTION REQUIRED PRIOR TO FINAL.

## STORMWATER MANAGEMENT NOTES

THE FOLLOWING STORMWATER QUALITY PROTECTION MEASURES ARE REQUIRED BY LEMON GROVE MUNICIPAL CODE CHAPTER 8.48 AND THE CITY'S JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM.

- ALL APPLICABLE CONSTRUCTION BMPs AND NON-STORMWATER DISCHARGE BMPs SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY OF LEMON GROVE MINIMUM BMP REQUIREMENTS INCLUDED IN THE CITY OF LEMON GROVE MUNICIPAL CODE AND THE CITY OF LEMON GROVE JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM (JRMP). ALL STORMWATER BMPs SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT.
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- TRASH AND OTHER CONSTRUCTION WASTES SHALL BE PLACED IN A DESIGNATED AREA AT LEAST DAILY AND SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE REQUIREMENTS.
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## BMP LEGEND

- DIRECTION OF LOT DRAINAGE** → →
- MATERIALS & WASTE MANAGEMENT CONTROL BMPs**
- WM-1 MATERIAL DELIVERY & STORAGE
  - WM-4 SPILL PREVENTION AND CONTROL
  - WM-8 CONCRETE WASTE MANAGEMENT
  - WM-9 SOLID WASTE MANAGEMENT
  - WM-9 SANITARY WASTE MANAGEMENT
  - WM-6 HAZARDOUS WASTE MANAGEMENT
- TEMPORARY RUNOFF CONTROL BMPs**
- SS-3 BONDED OR STABILIZED FIBER MATRIX (WINTER)
  - SS-4 HYDROSEEDING (SUMMER)
  - SS-6/SS-8 STRAW OR WOOD MULCH
  - SS-10 ENERGY DISSIPATOR
  - SC-1 SILT FENCE
  - SC-5 FIBER ROLLS
  - SC-6/SC-8 GRAVEL OR SAND BAGS
  - SC-7 STREET SWEEPING AND VACUUMING
  - TC-1 STABILIZED CONSTRUCTION ENTRANCE
- PERMANENT BMPs**
- PROTECTION OF CHANNEL BANKS / MANUFACTURED SLOPES AND FLAT PAD AREA COVERAGE
  - IMPLEMENTATION OF EFFICIENT IRRIGATION SYSTEMS
  - STORM DRAIN STENCILING AND POSTING OF SIGNAGE
  - PROPER DESIGN OF TRASH STORAGE AREAS
  - PROPER DESIGN OF OUTDOOR MATERIAL STORAGE AREAS
  - OUTLET PROTECTION

CONSTRUCTED IMPERVIOUS SURFACE AREA TABLE

SITE ID	IMPERVIOUS ITEM	NEW OR REPLACED AREAS
①	BUILDING	3,300
②	DRIVEWAY/RW	1617
	<b>TOTAL</b>	<b>4,917 SQFT</b>

CONSTRUCTED PERVIOUS SURFACE AREA TABLE

SITE ID	PERVIOUS ITEM	NEW OR REPLACED AREAS
A	PAVERS	3,418
B	LANDSCAPE	1,948
	<b>TOTAL</b>	<b>5,366</b>

PROPOSED LAND DISTURBANCE :10,283

### LAND DIVISION STATEMENT OWNER'S CERTIFICATE

I HEREBY CERTIFY THAT I AM THE RECORD OWNER OF THE PROPERTY SHOWN ON THIS TENTATIVE PARCEL MAP AND THAT SAID MAP SHOWS MY ENTIRE CONTIGUOUS OWNERSHIP.

LEGAL DESCRIPTION: APN 499-181-02  
BLOCK/LOT 27, TRCAT NO. 000686  
000686 LOT 27(EXST) PAR PER ROS 11880 IN

OWNER/SUBDIVIDER: BEHZAD HAFEI  
12765 AMARANTH STREET  
SAN DIEGO, CA 92129  
(619)861-4954

BEHZAD HAFEI

Prepared By:  
Name: ARC CONSTRUCTION & ENGINEERING INC.  
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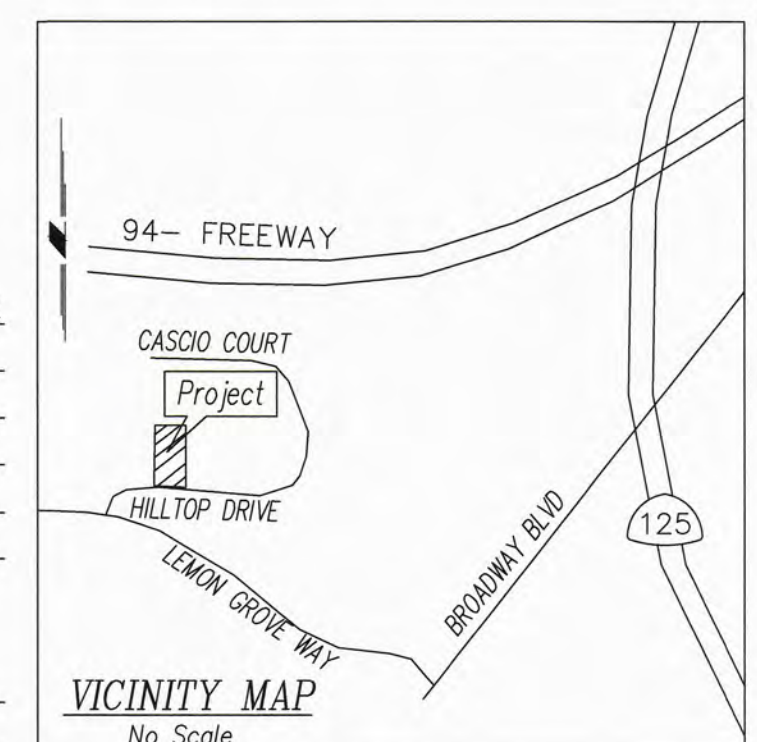
Project Address:  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

Project Name:  
HILLTOP PARCEL TENTATIVE  
MAP

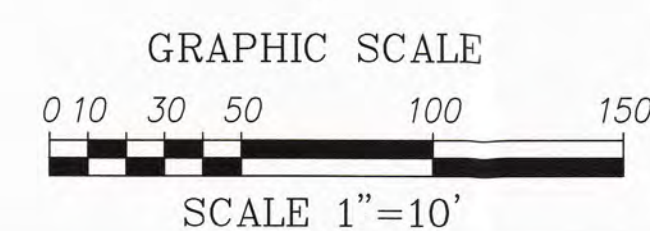
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### APPLICANT

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Revision 3: \_\_\_\_\_  
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Sheet 4 of 4  
PTS NO. \_\_\_\_\_



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SERGIO SALINAS RCE NO. 81026



**GENERAL NOTES**

PEDESTRIAN LIGHTING IS ADDRESSED IN THE ARCHITECTURAL PLANS RATHER THAN BEING INCLUDED IN THESE PLANS. LIKEWISE GRADING AND DRAINAGE HAVE BEEN ADDRESSED IN THE ENGINEERING GRADING AND DRAINAGE PLANS.

INSTALLATIONS SHALL BE PER SAN DIEGO REGIONAL STANDARD DRAWINGS.

A PRE-INSPECTION PRIOR TO INSTALLATION IS REQUIRED TO INSPECT: 1) THE IRRIGATION, ROOT BARRIER, GROUND COVER, AND PLANTING EXCAVATIONS, 2) THE COMPOST AND SOIL MATERIALS PRIOR TO BLENDING AND 3) THE IRRIGATION, ROOT BARRIER, GROUND COVER, AND PLANTING MATERIALS. CONTACT THE PROJECT PLANNER FOR AN INSPECTION.

A FINAL INSPECTION IS REQUIRED AFTER INSTALLATION TO INSPECT: 1) IRRIGATION LOCATIONS, TYPES, AND FLOWS, 2) PLANTING LOCATIONS, TYPES AND SIZES, 3) GROUND COVER DEPTH, AND 4) ROOT BARRIER AND TREE STAKING, INSTALLATIONS. CONTACT THE PROJECT PLANNER FOR AN INSPECTION.

NEW IMPERVIOUS SURFACES, ROOFS AND DOWN SPOUTS SHALL DIRECT STORM WATER DRAINAGE TO LANDSCAPE AREAS AND BIOSWALES.

ALL WIRING AND PIPING UNDER A PAVED AREA THAT A VEHICLE MAY USE, SUCH AS A PARKING AREA, DRIVEWAY OR ROADWAY, SHALL BE INSTALLED IN A PVC CONDUIT.

EXCEPT FOR PLANTING STRIPS IN LOWER (FRONTAGE) DRIVEWAYS, ALL PLANTING AREA SHALL BE BOUNDED BY A CURB HAVING A MINIMUM HEIGHT OF SIX INCHES. CURB CUTS SHALL BE INSTALLED PER PLAN TO DIRECT RUNOFF TO PLANTING AREAS AND BIOSWALES.

**GENERAL CONDITIONS**

**DEFINITIONS**

**OWNER**

OWNER OR LESSEE OF PROJECT SITE WHO IS CONTRACTING FOR SERVICES. THE OWNER MAY APPOINT A REPRESENTATIVE TO ADVISE THE OWNER. WHEREVER IN THESE SPECIFICATIONS THE OWNER IS REFERRED TO, IT SHALL BE DEEMED TO BE FOLLOWED BY THE WORDS "OR OWNER'S REPRESENTATIVE". THE OWNER SHALL FORWARD OR REFER ALL INFORMATION REGARDING PLANS AND SPECIFICATIONS TO LANDSCAPE ARCHITECT.

**LANDSCAPE ARCHITECT**

PREPARER OF LANDSCAPE ARCHITECTURAL PLANS AND SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY BE THE OWNER'S REPRESENTATIVE IF THE OWNER CONTRACTS WITH LANDSCAPE ARCHITECT FOR SUCH SERVICES.

**CONTRACTOR**

THE LEGAL ENTITY HAVING A CONTRACT WITH THE OWNER TO PERFORM THE WORK. IN THESE PLANS, CONTRACTOR MEANS LANDSCAPE CONTRACTOR. IF THERE IS A GENERAL CONTRACTOR, IT WILL BE SPECIFICALLY REFERRED TO AS "GENERAL CONTRACTOR". THIS ONLY OCCURS WHEN THERE IS A GENERAL CONTRACTOR, AND THE LANDSCAPE CONTRACTOR IS NOT THE PRIMARY CONTRACTOR.

**SCOPE OF WORK**

THE WORK SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO INSTALL ALL WORK AS INDICATED IN THESE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL VERIFY ANY ADDITIONS OR DELETIONS IN OWNER'S INVITATION TO BID.

**GOVERNING AGENCY REQUIREMENTS**

WHEN THESE SPECIFICATIONS AND PLANS CALL FOR MATERIALS OF A HIGHER STANDARD THAN THOSE REQUIRED TO CONFORM WITH MINIMUM LOCAL AND STATE CODES, THE SPECIFICATIONS AND DRAWINGS SHALL PREVAIL.

INSTALLATIONS SHALL BE PER SAN DIEGO REGIONAL STANDARD DRAWINGS.

BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AT ALL TIMES.

EACH PERSON ISSUED A LANDSCAPE APPROVAL SHALL SUBMIT A SIGNED CERTIFICATE OF COMPLETION, UNDER PENALTY OF PERJURY, ON A FORM PROVIDED BY THE CITY.

**PLANS**

THESE PLANS ARE BASED ON IMPROVEMENT, GRADING, AND/OR ARCHITECTURAL PLANS PREPARED BY: ARC CONSTRUCTION ENGINEERING, INC.

OWNER APPROVED IMPROVEMENT, GRADING AND/OR ARCHITECTURAL PLANS AND SURVEYS TAKE PRECEDENCE OVER THESE PLANS.

CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF PLANS (JOB SET) ON SITE UNTIL CONTRACT INSTALLATION IS COMPLETE.

**SCOPE OF LANDSCAPE ARCHITECT'S PLANS**

ANTIGUA DESIGN STUDIO, AS PROJECT LANDSCAPE ARCHITECT, HAS PREPARED THESE PLAN AND SPECIFICATIONS. PROJECT SERVICES NOT PROVIDED, BUT WHICH MAY APPEAR AS REFERENCES ON THESE PLANS, MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- SURVEYS
- EASEMENTS OF ANY KIND
- SUBJACENT AND LATERAL SUPPORT
- SITE PLANNING
- ENVIRONMENTAL FEATURES
- SITE DRAINAGE
- SUBTERRANEAN WATER
- FLOODPLAINS
- HISTORICAL FEATURES
- SOIL ENGINEERING OR GEOLOGY
- SEISMIC RELATED ENGINEERING OR DESIGN
- PREPARATION OF THE SITE FOR CONSTRUCTION
- WATER UTILITIES
- ELECTRICAL UTILITIES
- MECHANICAL UTILITIES
- BUILDINGS
- STRUCTURAL AND FOUNDATION SYSTEMS
- ROOFING
- WATERPROOFING SYSTEMS
- NOISE ABATEMENT SYSTEMS
- FIRE PREVENTION SYSTEMS
- ALARM SYSTEMS
- SECURITY SYSTEMS
- COVENANTS, CONDITIONS, AND RESTRICTIONS (CC&R'S)
- ASSOCIATION RULES OR REGULATIONS
- THE WORK OF OTHER LANDSCAPE ARCHITECTS, ARCHITECTS OR ENGINEERS BEFORE OR AFTER THE WORK OF THIS LANDSCAPE ARCHITECT

THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR ANY WORK WHICH IS NOT EXPLICITLY DETAILED IN THIS AGREEMENT, AND IS NOT RESPONSIBLE FOR ANY WORK OF ANY OTHER COMPANY, PARTNERSHIP OR INDIVIDUAL WHO PROVIDES SERVICES ON THIS PROJECT.

**CHANGES**

IDEAS, CONCEPTS AND SPECIFIC TECHNIQUES USED IN THESE PLANS ARE THE PROPERTY OF THE LANDSCAPE ARCHITECT. CHANGES WITHOUT WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT RELIEVE THE LANDSCAPE ARCHITECT OF ALL RESPONSIBILITY FOR THE INTENDED AESTHETIC QUALITY AND LIABILITY FOR THE STRUCTURAL INTEGRITY AND FUNCTION OF THE LANDSCAPE.

THE OWNER RESERVES THE RIGHT TO SUBSTITUTE, ADD OR DELETE ANY MATERIAL OR LABOR AS THE WORK PROGRESSES. ADJUSTMENTS SHALL BE MADE TO THE CONTRACT PRICE AT UNIT PRICES ESTABLISHED WITH THE OWNER PRIOR TO BEGINNING WORK.

**EXISTING SITE CONDITIONS**

CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES WITHIN THE PLANS PRIOR TO BEGINNING WORK.

CONTRACTOR SHALL SUPPLEMENT THESE PLANS WITH APPLICABLE ENGINEERING AND/OR ARCHITECTURAL PLANS PRIOR TO COMMENCEMENT OF WORK.

AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION OF ANY KIND (DITCHES FOR UTILITY OR DRAINAGE, PLANTING HOLES, POOL EXCAVATION, ETC.), THE CONTRACTOR SHALL CALL DIG ALERT (1-800-442-4133) FOR UTILITY MARKING.

PRIOR TO COMMENCEMENT OF WORK, ALL SERVICES AND UTILITIES SHALL BE LOCATED BY CONTRACTOR. THE EXISTING UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS, AND THOSE SHOWN ON THESE PLANS, ARE INDICATED IN THEIR APPROXIMATE LOCATION. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ALL EXISTING UTILITIES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER OF THE UTILITIES AND VERIFY THE DEPTH AND LOCATION PRIOR TO EXCAVATION OR PRIOR TO STARTING WORK. IF IT IS DETERMINED THAT A POSSIBLE CONFLICT EXISTS, THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING WITH THE OWNER, THE RELOCATION OF ANY UTILITIES AND/OR ANY MODIFICATION OF THE PLANS.

THE CONTRACTOR IS TO PROTECT AT ALL TIMES ALL EXISTING UTILITIES, STRUCTURES, PLANT MATERIAL AND OTHER FEATURES INTENDED TO REMAIN ON AND ADJACENT TO THE JOB SITE. SHOULD DAMAGE BE INCURRED WITH IS CAUSED BY CONTRACTOR'S OPERATIONS OR NEGLIGENCE, THE CONTRACTOR SHALL REPAIR THE DAMAGE TO ITS ORIGINAL CONDITION AT HIS OWN EXPENSE.

**EQUIPMENT & MATERIALS**

EXCEPT AS NOTED ABOVE, ALL MATERIALS AND EQUIPMENT SPECIFIED SHALL BE NEW, WITHOUT DEFECTS, AND SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS SHOWN IN THESE PLANS.

SUBSTITUTED EQUIPMENT INSTALLED WITHOUT THE PRIOR APPROVAL OF THE OWNER MAY BE REJECTED, AND THE CONTRACTOR REQUIRED TO REMOVE SUCH MATERIALS FROM THE SITE AT HIS OWN EXPENSE. THE OWNER SHALL DETERMINE THE EQUALITY OF PROPOSED SUBSTITUTE MATERIALS.

**SITE CONDITIONS**

DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN THE SITE IN AN ORDERLY AND SAFE CONDITION.

CONTRACTOR SHALL NOT PREPARE OR MIX CEMENT, MORTAR, GROUT, STUCCO OR OTHER CAUSTIC MATERIALS WHERE SPILLS, SPLASHES OR DRIPS CAN CONTAMINATE SOIL OF PLANTING AREAS. LIKEWISE, TOOLS AND EQUIPMENT SHALL NOT BE RINSED OR WASHED WHERE RUNOFF WILL CONTAMINATE SOIL OF PLANTING AREA. ANY HARDENED DEBRIS OF CEMENT, MORTAR, GROUT, STUCCO OR OTHER CAUSTIC MATERIALS SHALL BE REMOVED FROM THE SOIL PRIOR TO AMENDING SOIL FOR PLANTING.

ALL AREAS SHALL BE LEFT CLEAN FREE OF DEBRIS, AND WASHED DOWN UPON COMPLETION OF WORK.

CITY SIDEWALKS SHALL BE CLEAN AND FREE OF DEBRIS AT THE END OF EACH WORK DAY.

**NOTIFICATION**

THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO BEGINNING WORK, AND SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THE OWNER, LANDSCAPE ARCHITECT, OTHER CONSTRUCTION TRADES, AND GOVERNING AGENCIES.

THE CONTRACTOR SHALL REQUEST CONSTRUCTION OBSERVATIONS BY THE OWNER NO LESS THAN FORTY-EIGHT HOURS IN ADVANCE.

CONTRACTOR SHALL BE CHARGED BY THE OWNER FOR THE OWNER'S REPRESENTATIVE'S TIME AT OWNER'S REPRESENTATIVE'S CONTRACT RATE WHEN CONSTRUCTION OBSERVATIONS ARE CALLED FOR AND WORK IS NOT READY FOR OBSERVATION, OR THE APPOINTMENT IS NOT KEPT.

**CONSTRUCTION OBSERVATION AND MEETINGS**

CONTRACTOR SHALL REQUEST CONSTRUCTION OBSERVATION BY OWNER AT THE FOLLOWING CHECK POINTS:

- COMPLETION OF CONCRETE FORMS, PRIOR TO POURING CONCRETE DURING STAMPED CONCRETE INSTALLATION FIRST POUR
- POSITIVE DRAINAGE WATER TEST
- DURING PLACEMENT OF BOULDERS
- IRRIGATION LINE PRESSURE TESTING
- IRRIGATION COVERAGE TEST
- DELIVERY OF PLANTS, PRIOR TO PLANTING
- PLACEMENT OF TREE'S PRIOR TO EXCAVATING PLANTING HOLES
- COMPLETION OF WORK (PRE-MAINTENANCE)
- COMPLETION OF PRE-MAINTENANCE PUNCHLIST OF ITEMS
- THREE DAYS PRIOR TO COMPLETION OF MAINTENANCE PERIOD (POST-MAINTENANCE)
- COMPLETION OF POST-MAINTENANCE PUNCHLIST OF ITEMS (COMPLETION)

THE LANDSCAPE ARCHITECT OR OWNER MAY OBSERVE ANY WORK AT ANY TIME DURING THE CONTRACT INSTALLATION TIME WITHOUT NOTICE TO CONTRACTOR.

CONTRACTOR SHALL REQUEST CONSTRUCTION OBSERVATION BY OWNER AT ANY TIME AN INCONSISTENCY DEVELOPS BETWEEN THE PLANS AND SITE CONDITIONS, PROJECTED SCHEDULES MUST BE CHANGED, AN UNSAFE CONDITION DEVELOPS, A FIELD CHANGE FROM THE PLANS APPEARS NECESSARY, A CONFLICT WITH ADJACENT OWNERS OR OPERATORS DEVELOPS, OR ANY CONDITIONS WHICH MAY RESULT IN A CHANGE OF PROJECT SCOPE OR PROJECTED COMPLETION DATES.

**SUBMITTALS**

THE FOLLOWING SUBMITTALS TO THE OWNER ARE REQUIRED TO BE MADE BY THE CONTRACTOR, UNLESS SPECIFICALLY STATED OTHERWISE, SUBMITTALS SHALL BE MADE IN COPIES OF THREE (3), AND ONE (1) COPY SHALL BE RETURNED TO THE CONTRACTOR. MATERIALS SHALL NOT BE FURNISHED OR FABRICATED, NOR ANY WORK DONE FOR WHICH SUBMITTALS ARE REQUIRED, BEFORE APPROVAL OF THE OWNER IS SECURED IN WRITING.

**UNIT PRICES**

CONTRACTOR (SUCCESSFUL BIDDER) SHALL SUBMIT TO THE OWNER FOR APPROVAL, PRIOR TO AWARDED OF THE CONTRACT, AN ITEMIZED UNIT PRICE LIST ENCOMPASSING ALL WORK WITHIN THE CONTRACT. THESE UNIT PRICES SHALL BE USED TO CALCULATE CHANGES TO THE LUMP SUM CONTRACT PRICE CAUSED ONLY BY OWNER-APPROVED CHANGES IN THE PLANS.

**PERMITS**

THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS AND ORDER NECESSARY WORK DONE, AND SUBMIT INVOICES FOR DIRECT REIMBURSEMENT OF RELATED FEES AND TAXES REQUIRED BY GOVERNING AGENCIES, UNLESS OTHERWISE INSTRUCTED BY THE OWNER.

**SOILS TEST**

CONTRACTOR SHALL SUBMIT A SOILS ANALYSIS REPORT INCLUDING FOR EACH PLANTING LOCATION WITH RECOMMENDATIONS FROM A LICENSED LABORATORY TO THE OWNER PRIOR TO BEGINNING WORK. SAMPLE: MINIMUM (3) LOCATIONS WITH AT LEAST (1) IN A REAR YARD CUT AREA.

**MATERIALS & EQUIPMENT**

THE CONTRACTOR SHALL SUBMIT TO THE OWNER A LIST OF ANY ITEMS HE WISHES TO SUBSTITUTE AS "EQUAL" WITH ACCOMPANYING CATALOG DATA. ALL SUBSTITUTIONS MUST BE SUBMITTED WITHIN 20 DAYS AFTER CONTRACTOR IS AWARDED THE CONTRACT.

CONTRACTOR MUST SUBMIT IN WRITING WITHIN 10 DAYS AFTER CONTRACT AWARD, EVIDENCE OF PURCHASE (OR DEPOSIT), OR PROOF OF AVAILABILITY OF ALL MATERIALS NECESSARY TO INSTALL ALL WORK INDICATED ON THESE DOCUMENTS.

CONTRACTOR SHALL SUBMIT SAMPLES IN THE FORM OF ACTUAL MATERIALS, OR PHOTOGRAPHS AND ADDRESS OF SAME MATERIAL INSTALLATION, FOR THE FOLLOWING CONTRACT ITEMS:

- PERMEABLE PAVING STONES, INCLUDING FULL RANGE OF COLORS TO BE SELECTED FROM MANUFACTURER'S AVAILABLE PAVING STONES
- DECORATIVE ALUMINUM PRIMER AND ENAMEL COATINGS
- METAL PRIMER AND ENAMEL COATINGS
- PVC PIPE TAPPING SADDLES, INCLUDING TAPPING METHODS & PROCEDURES
- CONTRACTOR SHALL SUBMIT REPRESENTATIVE PHOTOS OF ALL 24 INCH BOX AND LARGER PLANTS TO OWNER FOR APPROVAL PRIOR TO PLANTING. SUBMIT ONE PHOTO PER SPECIES PER SIZE.
- SAMPLE OF ORGANIC MULCH

**RECORD PLANS**

CONTRACTOR SHALL PROVIDE THE OWNER WITH RECORD PLANS, IN THE FORM OF REDLINE CORRECTED BLUEPRINTS. SUBMIT ONE COPY PER PLAN PER SHEET. THE FOLLOWING SHALL BE DIMENSIONED FROM TWO PERMANENT POINTS OF REFERENCE, I.E. BUILDING CORNERS, SIDEWALKS, ETC.

- DRAINAGE SYSTEM
  - DRAIN INLETS
  - CATCH BASINS
  - SUBSURFACE DRAIN LINES
  - OUTLETS
- IRRIGATION SYSTEM
  - POINTS OF CONNECTION
  - BALL VALVES AND CONTROL VALVES
  - PRESSURE LINE LOCATION
  - CONTROLLERS, INCLUDING LOCATION OF POWER SOURCE
  - ROUTING OF ALL DIRECT BURIAL CONTROL WIRES, INCLUDING PULL BOX LOCATION
  - QUICK COUPLERS

**ACCESSORIES**

THE CONTRACTOR SHALL FURNISH THE OWNER WITH THE FOLLOWING UPON COMPLETION OF THE WORK:

- ALL EQUIPMENT GUARANTEED AND OPERATION MANUALS
- IRRIGATION EQUIPMENT
- TWO KEYS FOR EACH CONTROLLER ENCLOSURE
- TWO QUICK COUPLER VALVE KEYS WITH HOSE SWIVEL

**CERTIFICATE OF COMPLETION**

EACH PERSON ISSUED A LANDSCAPE APPROVAL SHALL SUBMIT A SIGNED CERTIFICATE OF COMPLETION ON A FORM PROVIDED BY THE CITY.

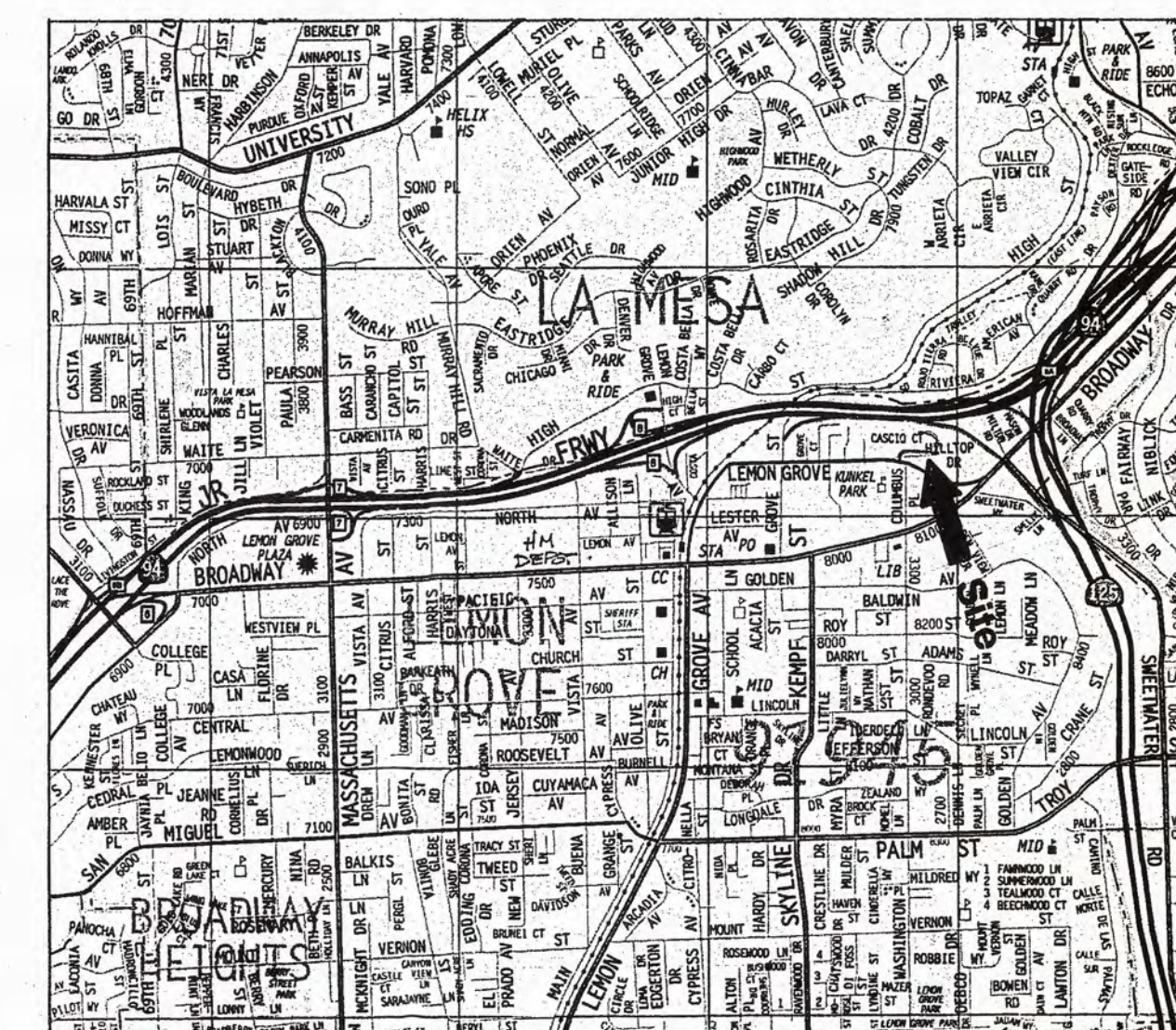
**MAINTENANCE**

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE OF PROJECT.

MAINTENANCE PERIOD SHALL BE FOR 60 CALENDAR DAYS, COMMENCING FROM THE TIME THE ENTIRE INSTALLATION IS COMPLETE, AS DETERMINED BY THE OWNER.

PLANT MAINTENANCE SHALL CONSIST OF APPLYING WATER, WEEDING, CARING FOR PLANTS, PLANT REPLACEMENT, FERTILIZING, EDGING AND MOWING OF LAWNS, SWEEPING, AND ALL OTHER OPERATIONS NECESSARY TO MAINTAIN ALL PLANTINGS IN A HEALTHY GROWING CONDITION.

IRRIGATION MAINTENANCE SHALL CONSIST OF REPLACING ANY MALFUNCTIONING IRRIGATION EQUIPMENT IN A TIMELY WAY SO AS TO PREVENT SITE DAMAGE OR FAILURE OF PLANTINGS.



LOCATION MAP  
THOMAS BROS. COORDINATES 1270 H-5



REVISIONS  
12/13/2021  
EBC

TITLE SHEET

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

858-541-1076  
546 Hilltop Drive  
San Diego, California 92124  
antigua design studio

DATE 4-1-17  
SCALE  
PROJ #17-01  
SHEET  
L-1

PROJECT INFORMATION			
ADDRESS:	8200 HILLTOP DRIVE	LEMON GROVE, CA 91945	
OWNER:	HILLTOP VIEW INVESTMENTS, INC.		
APN:	499-181-02		
ZONE:	RMH		
PROJECT DESCRIPTION			
THE PROJECT CONSISTS OF ONE STRUCTURE OF 6 CONDOMINIUMS. LANDSCAPE INCLUDES PERMEABLE PAVING WHERE PERMISSIBLE AND NON-PERMEABLE PAVING WILL DIRECT RUNOFF TO LANDSCAPE AREAS. BIOSWALES WILL FILTER AND ABSORB STORM RUNOFF. FOR WATER CONSERVATION PLANT MATERIAL HAS LOW WATER REQUIREMENTS PER WUCOLS. SOIL SHALL BE MULCHED AND AUTOMATICALLY IRRIGATED WITH LOW PRECIPITATION HEADS AND SUBSURFACE DRIP LINES FOR EFFICIENT WATER MANAGEMENT			
SCOPE OF PROJECT	10,283 SQ. FT.	100%	
BUILDING AREA	3,300 SF		
PAVED AREA	5,035 SF		
TOTAL LANDSCAPED AREA	1,948 SQ. FT.	18.9%	
TOTAL AREA IN TURF	0 SQ. FT.		
SHEET INDEX			
TITLE SHEET	L-1		
CONSTRUCTION PLAN	L-2		
STAKING PLAN	L-3		
IRRIGATION PLAN	L-4		
PLANTING PLAN	L-5		
DETAILS	L-6		
SPECIFICATIONS	L-10		





REVISIONS
7-17-17 PL. ADD CURE & SEATING
6-12-17 PL. ADD ADD LOTS FINISHES
7-16-17 CONCRETE FIN 7-25-17 CURB FIN

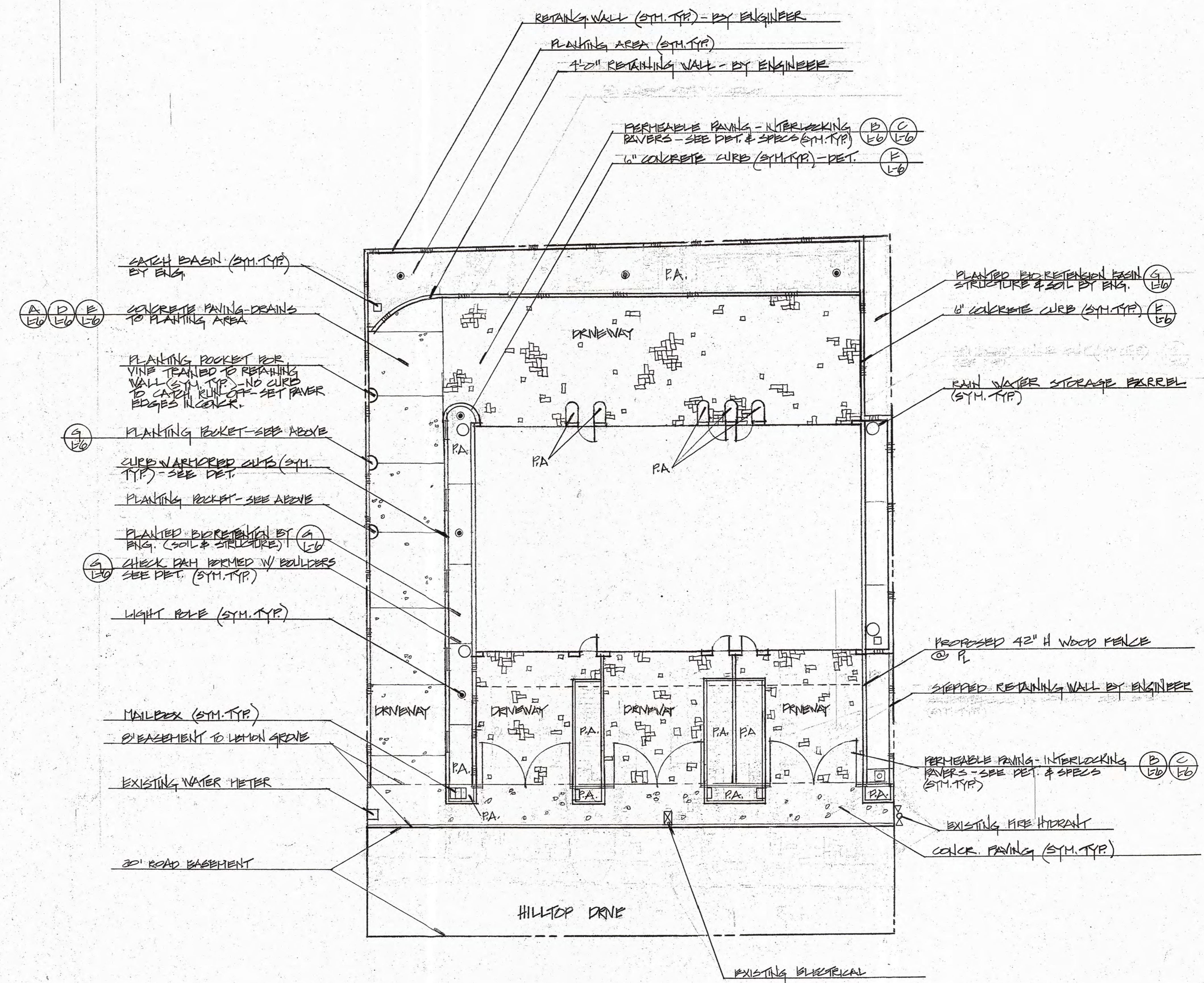
CONSTRUCTION PLAN

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

858-541-1076  
5346 Indiana Drive  
San Diego, California 92124  
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DATE 4-1-17  
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PROJ #17-01  
SHEET

L-2



- (A) (D) (E)  
(L6) (L6) (L6) CATCH BASIN (SYM. TYP) BY ENG.
- (A) (D) (E)  
(L6) (L6) (L6) CONCRETE PAVING - DRAINS TO PLANTING AREA
- (S)  
(L6) PLANTING ROCKET FOR VINE TRAINED TO RETAINING WALL (SYM. TYP) - NO CURB TO CATCH RUN OFF - SET PAVEMENT EDGES IN CENTER.
- (S)  
(L6) PLANTING ROCKET - SEE ABOVE
- (S)  
(L6) CURB W/ ARMORED CUTS (SYM. TYP) - SEE DET.
- PLANTING ROCKET - SEE ABOVE
- (S)  
(L6) PLANTED BIORETENTION BY ENG. (SOIL & STRUCTURE)
- (S)  
(L6) CHECK DAM FORMED W/ BOULDERS SEE DET. (SYM. TYP)
- LIGHT POLE (SYM. TYP)
- MAILBOX (SYM. TYP)
- EASEMENT TO LEMON GROVE
- EXISTING WATER METER
- 30' ROAD BASEMENT

- (B) (C)  
(L6) (L6) PERMEABLE PAVING - INTERLOCKING PAVERS - SEE DET. & SPECS (SYM. TYP)
- (E)  
(L6) 6" CONCRETE CURB (SYM. TYP) - DET.
- (S)  
(L6) PLANTED BIORETENTION BASIN (STRUCTURE & SOIL BY ENG.)
- (E)  
(L6) 6" CONCRETE CURB (SYM. TYP)
- RAIN WATER STORAGE BARREL (SYM. TYP)
- PROPOSED 42" H WOOD FENCE @ PL
- STEPPED RETAINING WALL BY ENGINEER
- (B) (C)  
(L6) (L6) PERMEABLE PAVING - INTERLOCKING PAVERS - SEE DET. & SPECS (SYM. TYP)
- EXISTING FIRE HYDRANT
- CONCR. PAVING (SYM. TYP)

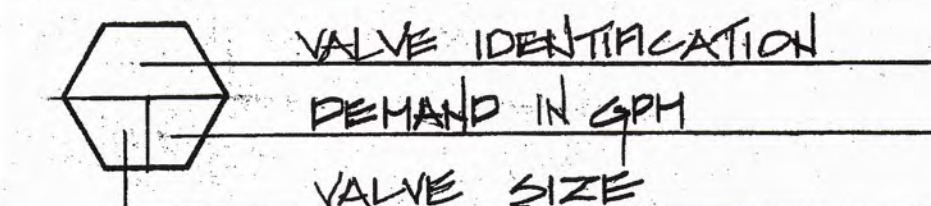




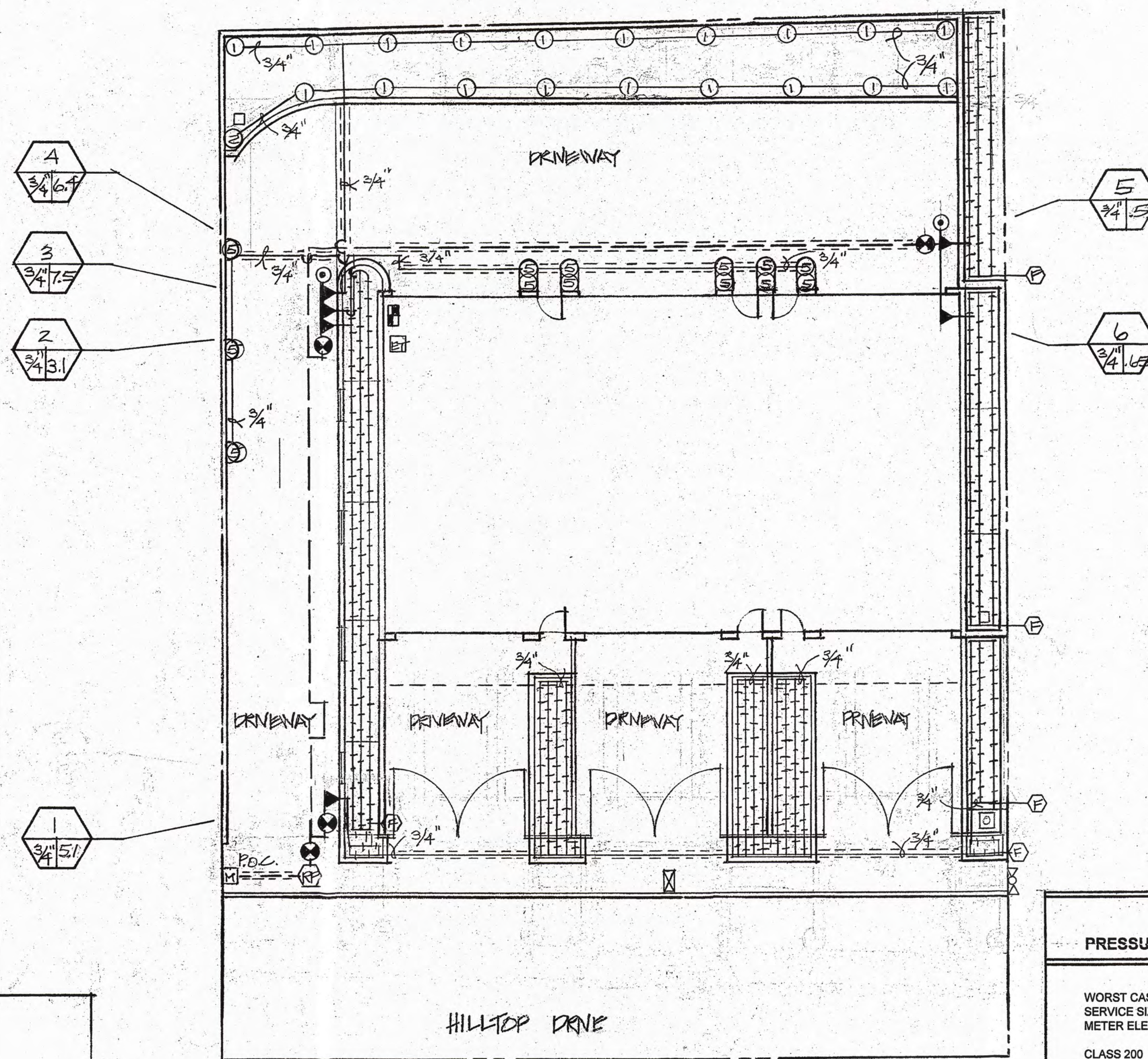


**IRRIGATION LEGEND**

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.	PSI	RADIUS	GPM	IPH	DETAIL
1	Rotor - quarter circle plus	Hunter Industries	MP1000-90	40	8'-14"	0.16-0.32		
2	Rotor - corner adjustable arc	Hunter Industries	MP2000-45-105	40	15'	0.34		
3	Rotor - Left corner strip	Hunter Industries	MPLCS515	40	5' x 15'	0.22		
4	Right corner strip	Hunter Industries	MPRCS515	40	5' x 15'	0.22		
5	Bubbler - trickle (no adjustment)	Rainbird	1402FC	30	n/a	0.5		H-L7
⊙	MPR Lawn Pop-up Body	Hunter	PROS-04-PRS40					F-L7
⊙	MPR Shrub Pop-up Body	Hunter	PROS-06-PRS40					F-L7
○	Riser w/ Shrub Adapter	Rainbird	PA-8S					G-L7
○	Riser w/ MPR Shrub Adapter	Hunter	PRS40					G-L7
⊕	Backflow Assembly - Reduced Pressure	Febco	825YA 3/4"					C-L9
⊕	Ball Valve (plastic w/ union)	King Bros.	BTU-0750					C-L7
⊕	Check Valve (anti-drain valve)	Hunter	HCV (included w/ MPR body)					H-L6
⊕	Controller (weather based)	Hunter	PCC-900					D-L8
⊕	ET Sensor	Hunter	ET System					
⊕	Flush Valve (manual)	Netafim	TLSOV					
⊕	Flow Sensor	Cal Sense	FM Series					
P.O.C.	Point of Connection							
⊙	Quick Coupler Valve	Rainbird	44LRC 1"					A-L8
⊕	Remote Control Valve (4.4 gpm max)	Netafim	LVCZ-S80-10075-LF					E-L7
⊕	Remote Control Valve (17.6 gpm max)	Netafim	LVCZ-S80-10075-HFHP					D-L7
⊕	Valve Box (plastic)	Buckner	VBX 6 (rmd), 1218 (rect)					B-L7
⊕	Water Meter							
—	Class 200 Lateral Line							1-L6
—	Schedule 40 Pressure Line							1-L6
—	Schedule 40 Sleeve (under paving)							A-L7
—	Techline CV Dripperline	Netafim	TLDL9-1201-03					2 times pipe diameter



**REVISIONS**  
 Δ PL, SEATING, GATE 9-1-17



**WATER BUDGET LANDSCAPE WORKSHEET**

**WATER CALCULATIONS**

**MAXIMUM APPLIED WATER ALLOWANCE**

THE PROJECT'S MAXIMUM APPLIED WATER ALLOWANCE SHALL BE CALCULATED USING THIS EQUATION:

MAWA = (ET<sub>o</sub>) (0.62) [(ETAF X LA) + ((1-ETAF) X SLA)]

WHERE:

MAWA = MAXIMUM APPLIED WATER ALLOWANCE (GALLONS PER YEAR)

ET<sub>o</sub> = REFERENCE SAN DIEGO COUNTY EVAPOTRANSPIRATION MAP (INCHES PER YEAR)

0.55 = RESIDENTIAL EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF)

0.45 = NON-RESIDENTIAL EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF)

LA = LANDSCAPED AREA INCLUDING SPECIAL LANDSCAPE AREA (SQUARE FEET)

0.45 = RESIDENTIAL ADDITIONAL ETAF FOR SLA AND RECLAIMED WATER

0.55 = NON-RESIDENTIAL ADDITIONAL ETAF FOR SLA AND RECLAIMED WATER

0.62 = CONVERSION FACTOR (TO GALLONS PER SQUARE FOOT)

SLA = PORTION OF THE LANDSCAPED AREA IDENTIFIED AS SPECIAL LANDSCAPE AREA (SQUARE FEET)

0.3 = ADDITIONAL ET ADJUSTMENT FACTOR FOR SPECIAL LANDSCAPE AREA (1.0-0.7=0.3)

SHOW VALUES:

ET<sub>o</sub> = 49.7 IN/YR

LA = 1948.0 SQ FT (TOTAL FROM COLUMN E OF HYDROZONE INFO TABLE)

SLA = 0.0 SQ FT

SHOW CALCULATIONS:

49.7 X .62 X [(.55 X 1948) + ((1-.55) X 0)]

49.7 X .62 X [(1.071) + (0)]

49.7 X .62 X 1.242 = 33,002

MAXIMUM APPLIED WATER ALLOWANCE (MAWA): 33,002 GALLONS/YEAR

**ESTIMATED TOTAL WATER USE (ETWU)**

THE PROJECT'S ESTIMATED TOTAL WATER USE IS CALCULATED USING THE FOLLOWING FORMULA:

ETWU = [(ET<sub>o</sub>) (0.62)] [(PF/IE X HA/IE) + SLA]

WHERE:

ETWU = ESTIMATED TOTAL WATER USE PER YEAR (GALLONS)

ET<sub>o</sub> = REFERENCE EVAPOTRANSPIRATION (INCHES)

SHOW VALUE: ET<sub>o</sub> = 49.7 IN/YR

SHOW CALCULATIONS:

49.7 X .62 X [(499.0) + 0]

49.7 X .62 X 499.0 = 15,376

\*SEE COLUMN I

ESTIMATED TOTAL WATER USE = 15,376 GALLONS PER YEAR

**HYDROZONE INFORMATION TABLE**

IRRIGATION POINT OF CONNECTION (P.O.C.) # 1

A	B	C	D	E	F	G	H	I	J
Controller	Hydrozone	Valve	Plant	Hydrozone	Irrigation	IE	PF x HA	PF x HA	% of Total
		Circuit #	Factor - PF	Area - HA	Method	/ IE	/ IE		Landscaped
1	1	1	0.20	369	D	0.81	73.8	91	18.94%
	2	2	0.20	276	D	0.81	55.2	68	14.17%
	3	3	0.20	61	S	0.75	12.2	16	3.13%
	4	4	0.20	868	S	0.75	173.6	231	44.56%
	5	5	0.20	162	D	0.81	32.4	40	8.32%
	6	6	0.20	212	D	0.81	42.4	52	10.88%
<b>TOTALS</b>				<b>1948</b>				<b>499</b>	<b>100%</b>

SLA = Special Landscaped Area

Hydrozone Category	PF - Plant Factor	Irrigation Method Code	IE - Irrigation Efficiency
High Water Use, Pool	0.7-1.0	S = Spray	0.75
Moderate Water Use	0.4-0.6	D = Drip	0.81
Low Water Use	0.1-0.3		
Very Low Water Use	0.0-0.1		
Special Landsc. Area	1.0		

Artificial turf & temporary Irrigation is considered low water use

**PRESSURE LOSS CALCULATIONS**

WORST CASE VALVE NO.	SERVICE SIZE	METER ELEVATION	GPM	LOSS/1'	DIST.	PSI LOSS
4	3/4"	458.6				
CLASS 200	3/4"		10	0.0429	110	4.72
	1"		16	0.0310	0	0.00
	1 1/4"		26	0.0244	0	0.00
SCHEDULE 40	3/4"		8	0.0512	75	3.84
	1"		12	0.0335	0	0.00
	1 1/4"		22	0.0271	0	0.00
FITTINGS (10% OF ALL PIPE)						0.86
VALVE ELEVATION CHANGE	SIZE 3/4"			0.433	14.4	6.24
SUBTOTAL						19.45
BACKFLOW PREVENTER METER	SIZE 3/4"					12.00
OPERATING PSI						30.00
TOTAL PSI REQUIRED BY SYSTEM						61.45
STATIC PRESSURE AVAILABLE AT METER						70.00

IRRIGATION PLAN

B & S TOWN HOUSES  
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 antilyra design studio

DATE 9-1-17  
 SCALE 1"=10'-0"  
 PROJ #17201  
 SHEET

L-4



# PLANT LIST

Code	Botanical Name	Common Name	Quantity	Size	Remarks	WUCOL
<b>Trees</b>						
ER	Eriobotrya japonica	Loquat	3	24" Box	Multi-trunk	V
FI	Ficus carica 'Black Mission'	Black Mission Edible Fig	2	15 Gallon		L
OE	Olea europaea 'Swan Hill'	Swan Hill Fruitless Olive	2	24" Box		H
PU	Punica granatum 'Wonderful'	Pomegranate Wonderful	2	15 Gallon		H
<b>Shrubs</b>						
CC	Carpenteria calif. 'Elizabeth'	Elizabeth Bush Anemone	15	5 Gallon		V
RH	Rhamnus californica 'Eve Case'	Eve Case Compact Coffeeberry	18	5 Gallon		V
RV	Ribes viburnifolium	Evergreen Currant	22	1 Gallon		V
RC	Rosa californica	California Wild Rose	25	1 Gallon		V
<b>Ground covers</b>						
CO	Cotoneaster dammeri 'Lowfast'	Lowfast Bearberry	6	1 Gallon		V
DY	Dymondia margaretae	Dymondia	3	Flat	Plant @ 9" Diag. O.C.	V
<b>Vines</b>						
FR	Ficus repens	Creeping Fig	3	5 Gal Staked	Train to Wall	H
<b>Perennials</b>						
AF	Anigozanthos flavidus 'Big Red'	Kangaroo Paws Big Red	5	5 Gallon		V
MI	Mimulus aurantiacus	Sticky Monkey Flower	17	1 Gallon		V
<b>Grasses</b>						
JU	Juncus patens	California Gray Rush	45	1 Gallon		H
NT	Nassella tenuissima	Mexican Feather Grass	48	1 Gallon		V



**REVISIONS**  
 7-1-17 A R  
 6-12-19 A P A  
 AEDLES, HAUERON  
 7-12-19 WUCOL &  
 ROSTO WILITES  
 7-25-19 A CUBES  
 TO PLAN

**LANDSCAPE & IRRIGATION**

Development Services Department  
 3232 Main Street, Lemon Grove, CA 91945  
 Phone 619-825-3805  
 www.lemongrove.ca.gov

INFORMATION BULLETIN

**18**

June 2016

The following regulations apply to all new and renovated landscape areas which require submittal of a building, planning, or landscape permit application and appropriate fees, however, new plantings and additions to existing irrigation systems are considered to be maintenance with no permit requirements provided the existing landscape and irrigation system is not substantially renovated. Please reference Sections 17.24.050 and 18.08.130 and Chapter 18.44 of the Municipal Code for further clarification and exceptions associated with the requirements herein.

Applications shall include a landscape documentation package that contains the following elements:

1. Planting and irrigation plans that describe the landscaping (size, type, water use classification [WUCOLS], and location) and irrigation (type and location) for the project. The plans shall include the following notes and schematics:
  - a. Installations shall be per San Diego Regional Standard Drawings (appropriate drawings shall be added to plans).
  - b. A pre-inspection prior to installation is required to inspect: 1) the irrigation, root barrier, ground cover, and planting excavations, 2) the compost and soil materials prior to blending, and 3) the irrigation, root barrier, ground cover, and planting materials. Contact the project planner for an inspection.
  - c. A final inspection is required after installation to inspect: 1) irrigation locations, types and flows, 2) planting locations, types and sizes, 3) ground cover depth, and 4) root barrier and tree staking installations. Contact the project planner for an inspection.
  - d. Holes for plantings shall be excavated slightly shallower and a minimum of two times the width of the root ball or container. The root ball shall be set so that the top of the root ball will sit slightly higher than the final grade.
  - e. Compost shall be uniformly blended with excavated soil at a ratio of one part compost (one-third) per two parts soil (two-thirds). The compost-soil blend shall be backfilled around the root ball within the planting hole.
  - f. Turf and shallow planting areas shall include compost at a minimum depth of one inch and the area shall be tilled to a minimum five inches in depth.
  - g. Plantings shall be thoroughly watered during and after plantings.
  - h. Nonvegetated natural ground cover shall be a minimum of three inches deep and shall be one inch below surrounding paved surfaces.
  - i. New impervious surfaces shall direct storm water drainage to landscape areas.
  - j. Storm water shall not be diverted to flow onto adjacent property, nonirrigated areas, structures, walkways, roadways, or other paved areas, whether due to runoff, low head drainage, overspray, or other similar condition unless approved by the Engineering Division.
  - k. Water use shall conform to the Maximum Applied Water Allowance (MAWA).
  - l. Best Management Practices shall be implemented at all times.
  - m. Each person issued a landscape approval shall submit a signed certificate of completion, under penalty of perjury, on a form provided by the city.
2. Minimum plantings per landscape area are required as follows:
  - a. An area shall be devoted to landscaping which amounts to a minimum of fifteen percent of total lot area in residential developments, and ten percent of the total lot area in nonresidential developments.
  - b. Landscape areas may consist of very low and low water use plant materials per WUCOLS.
  - c. Landscape areas consisting of moderate and high water use plant materials per WUCOLS shall not exceed a ratio of 1 part planting area (one-third) per 2 parts of no water use natural nonvegetated ground cover (two-thirds). Alternative landscapes not in compliance with this regulation are allowed provided they comply fully with the State MWELD.
  - d. A minimum of 25 percent of the landscape area shall consist of vegetated plant materials.
  - e. A minimum of one 15 gallon tree shall be provided per 1,000 sq. ft. of landscape area (existing trees included).
  - f. A minimum of 100 sq. ft. of edible planting area or one 15 gallon fruit or nut tree shall be planted for each dwelling unit, but for no more than five dwelling units on a single lot.

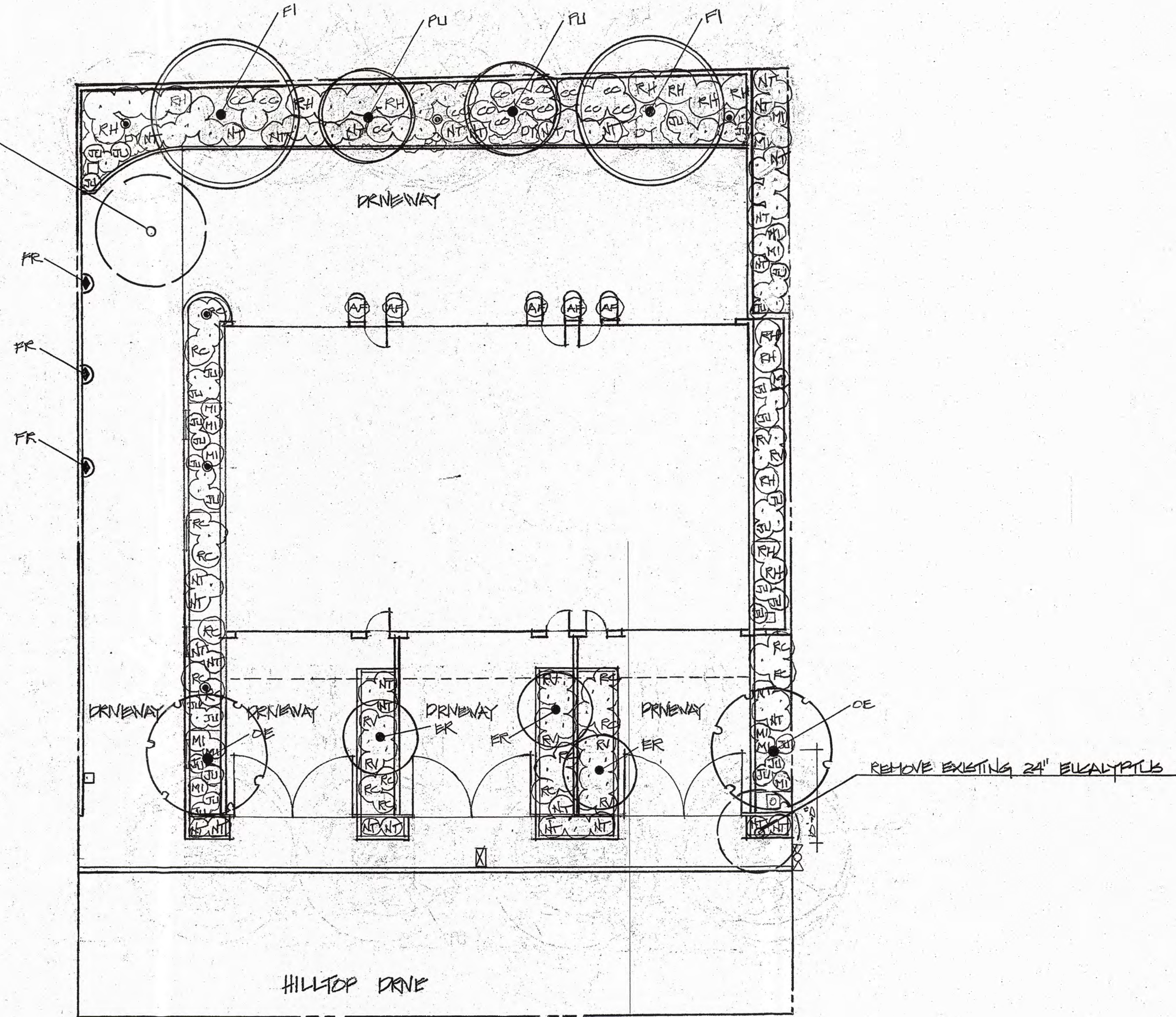
g. For all off-street parking areas of five or more spaces, an area equivalent to a minimum of ten percent of the area provided for parking shall be landscaped. Such landscaping shall be considered as a portion of the landscaping required for the entire lot. As part of this landscaping, one tree for every six parking spaces, or fraction thereof, shall be provided and located so as to visually disrupt long rows of parked automobiles. These trees shall be at least fifteen gallons in size, may be clustered and shall be provided with a means of irrigation and properly maintained.

3. Slopes greater than twenty-five percent shall be irrigated with an irrigation system with a precipitation rate of 0.75 inches per hour or less to prevent runoff and erosion. An applicant may employ an alternative design if the plan demonstrates that no runoff or erosion will occur.
4. All wiring and piping under a paved area that a vehicle may use, such as a parking area, driveway or roadway, shall be installed inside a PVC conduit.
5. Irrigation piping and irrigation devices within twenty-four inches of a vehicle or pedestrian use area and that deliver water, such as sprinkler heads, shall be installed below grade. The director may allow on-grade piping where landform constraints make below grade piping infeasible.
6. Low volume or subsurface irrigation shall be used to irrigate any vegetation within twenty-four inches of an impermeable surface unless the adjacent impermeable surfaces are designed and constructed to cause water to drain entirely into a landscaped area.
7. A manual shutoff valve shall be installed as close as possible to the water supply. Additional manual shutoff valves shall be installed between each zone of the irrigation system and the water supply.
8. New irrigation systems shall include an automatic irrigation controller and consist of drip or microspray systems.
9. High-efficiency, matched-precipitation rate sprinkler nozzles shall be required at all homes (residential landscapes), common areas, parks, and commercial/industrial landscapes.
10. Dedicated meters for outdoor water use shall be required as follows:
  - a. In single-family residences with one or more acre(s) of irrigated landscape,
  - b. In all parks and common areas,
  - c. In commercial, industrial, government, and multi-family sites with 5,000 square feet or more of irrigated landscape;
11. Enroll all new irrigation meters (except those at single-family residences) in the Helix Water Budget Program and provide documentation of irrigated landscape area at the time of meter purchase.
12. Pervious and porous surfaces that minimize runoff shall be encouraged.
13. New roofs shall be encouraged to direct storm water to landscape areas or to water capture and reuse containers.
14. Except in RL and RL/M districts, all planting areas shall be bounded by a curb having a minimum height of six inches.
15. If grading is proposed, the following shall be included:
  - a. A grading plan that complies with Sections 18.08.130 and 18.08.070.
  - b. All slopes shall include an irrigation system which shall be used by the permittee to promote the growth of plants to protect the slopes against erosion. The plan shall show the finished configuration and elevations of each landscaped area including the height of graded slopes, the drainage pattern, pad elevations, finish grade and any stormwater retention improvements.
  - c. The landscape documentation package shall be prepared by a licensed landscape architect.
  - d. Provide a soil management report that provides the analysis of the soil within each landscaped area of the project and makes recommendations regarding soil additives.

**After approval of a landscape and irrigation plan, the owner is required to:**

1. Maintain and operate the landscaping and irrigation system on the property.
2. Replace broken or malfunctioning irrigation system components with components of the same materials and specifications, their equivalent or better.
3. Ensure that when vegetation is replaced, replacement plantings are consistent with regulations in this Chapter.

Please coordinate with the Planning Division regarding questions.



PLANTING PLAN

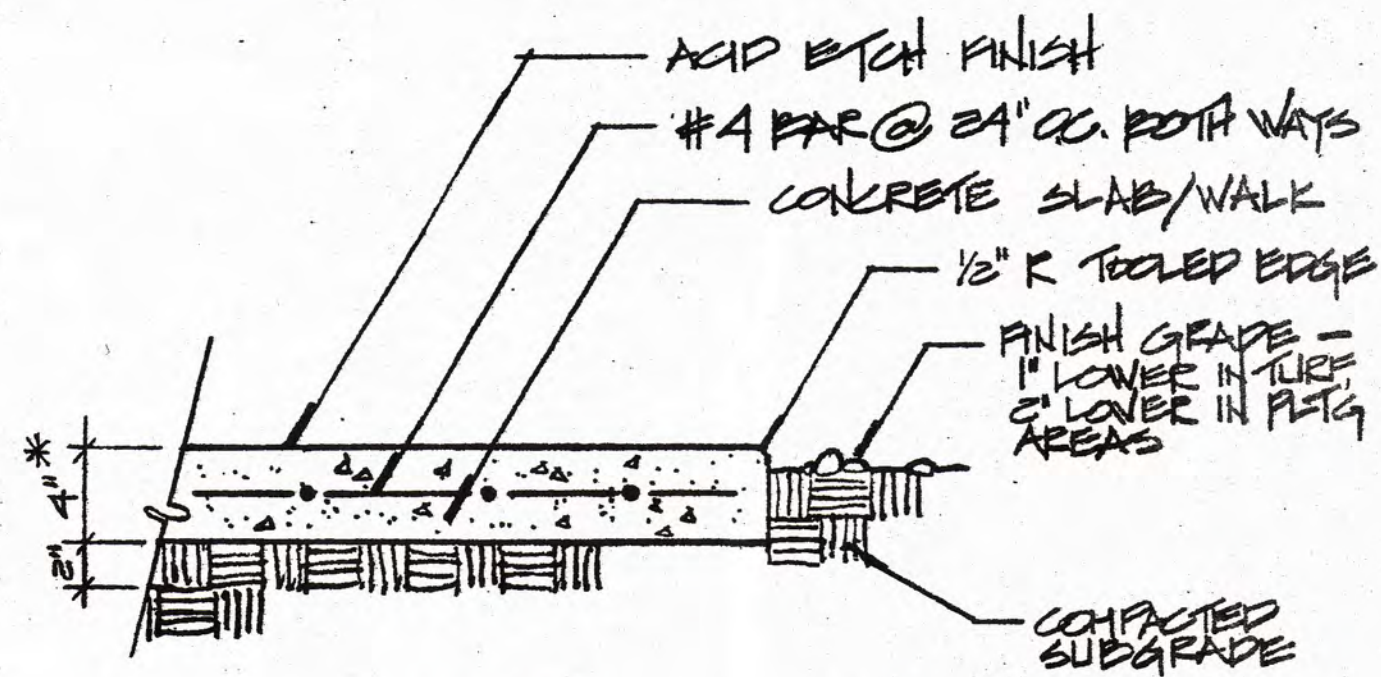
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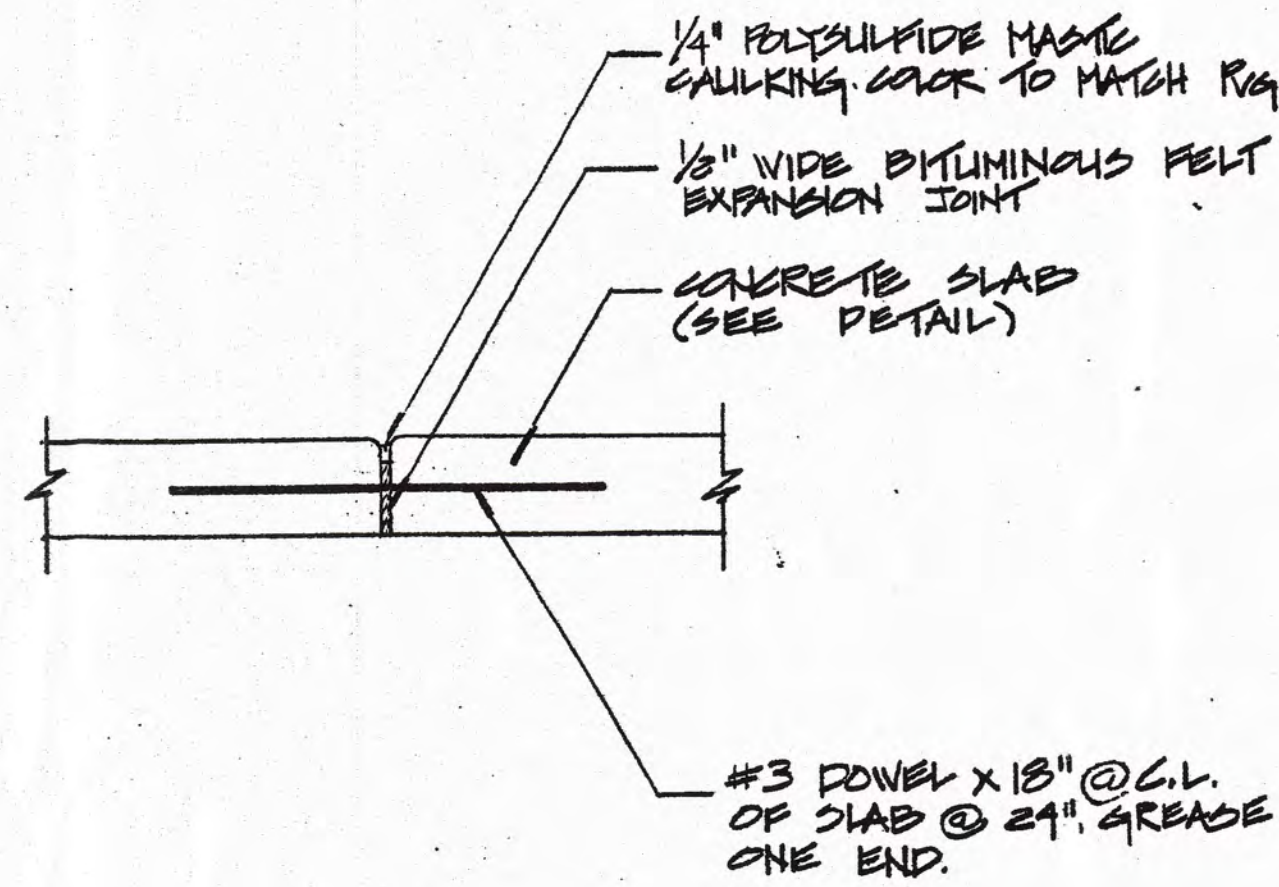
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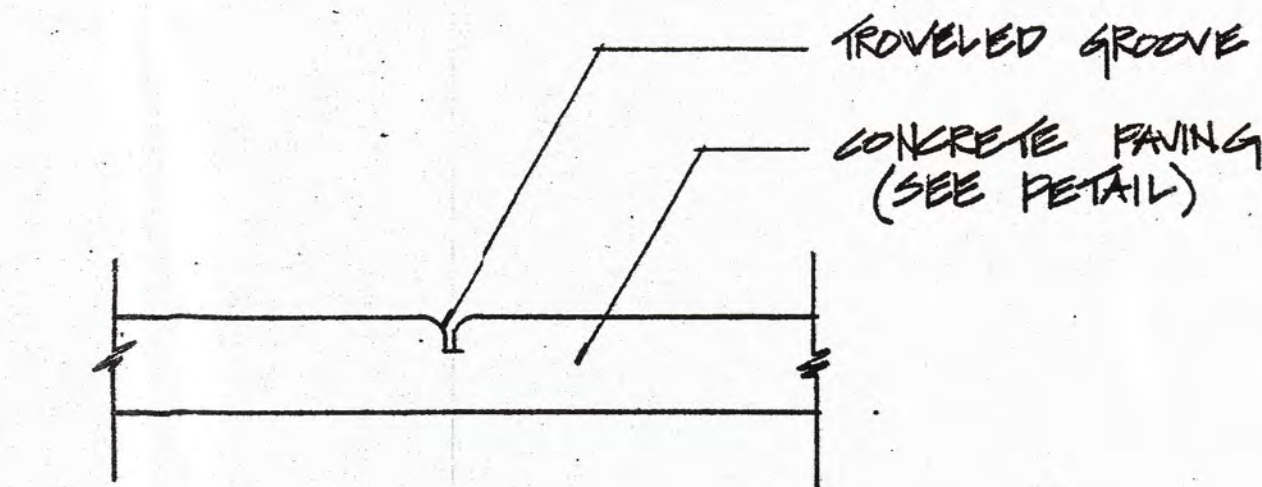




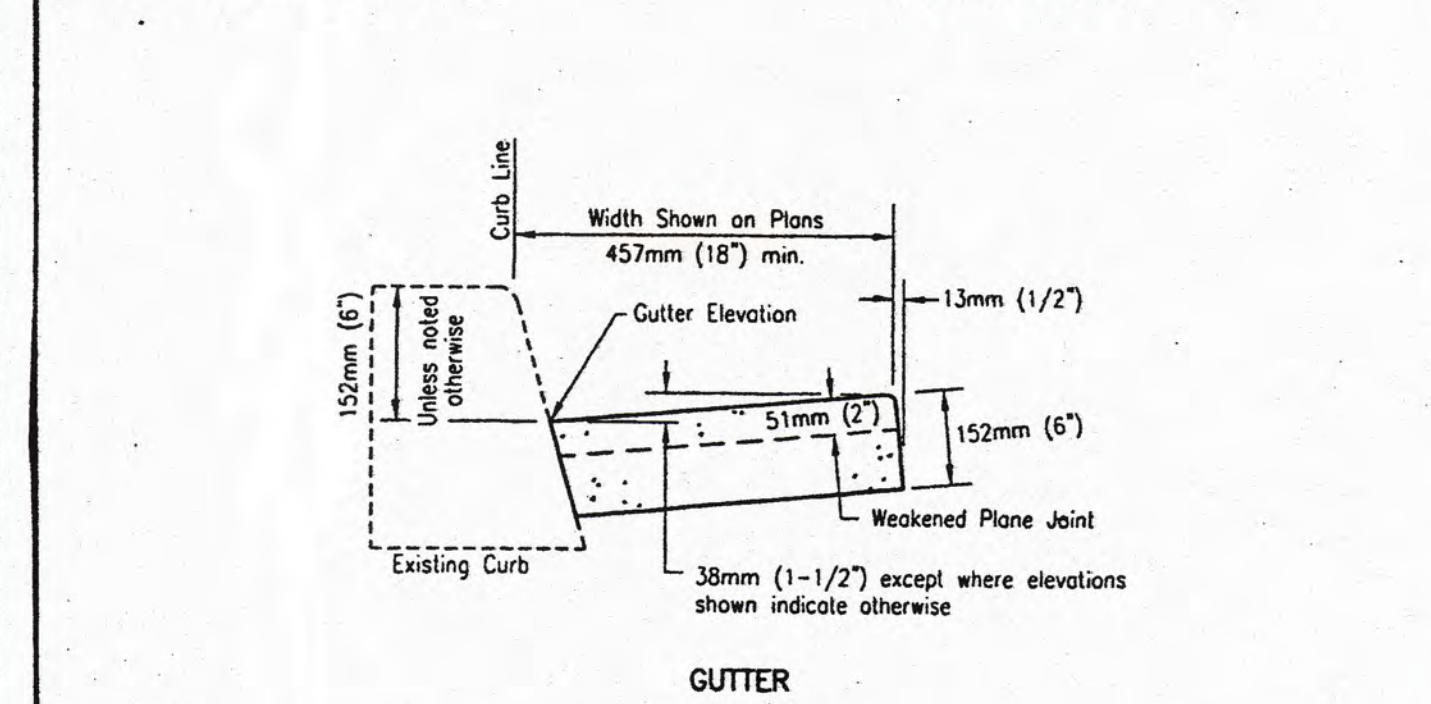
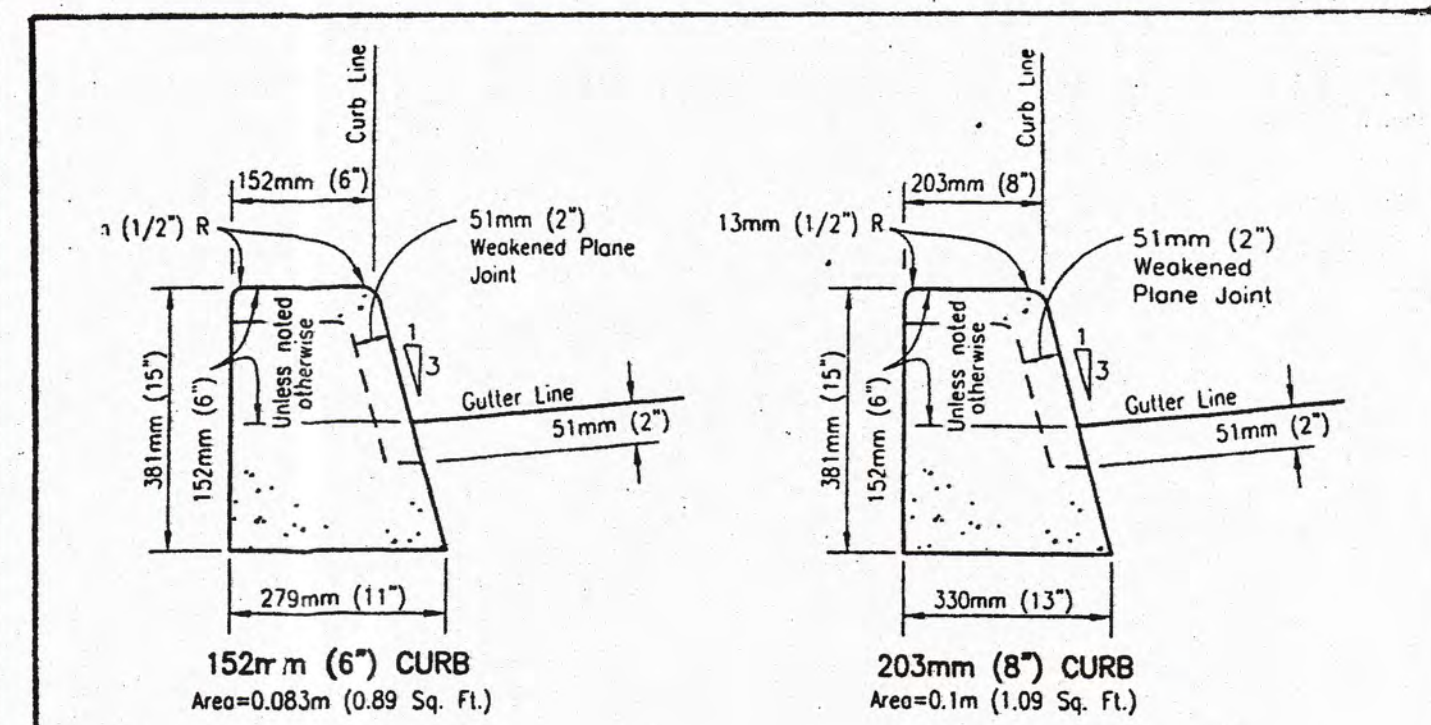
**A CONCRETE SLAB/WALK**  
NO SCALE  
6-08



**D EXPANSION JOINT**  
SCALE 1/2" = 1'-0"



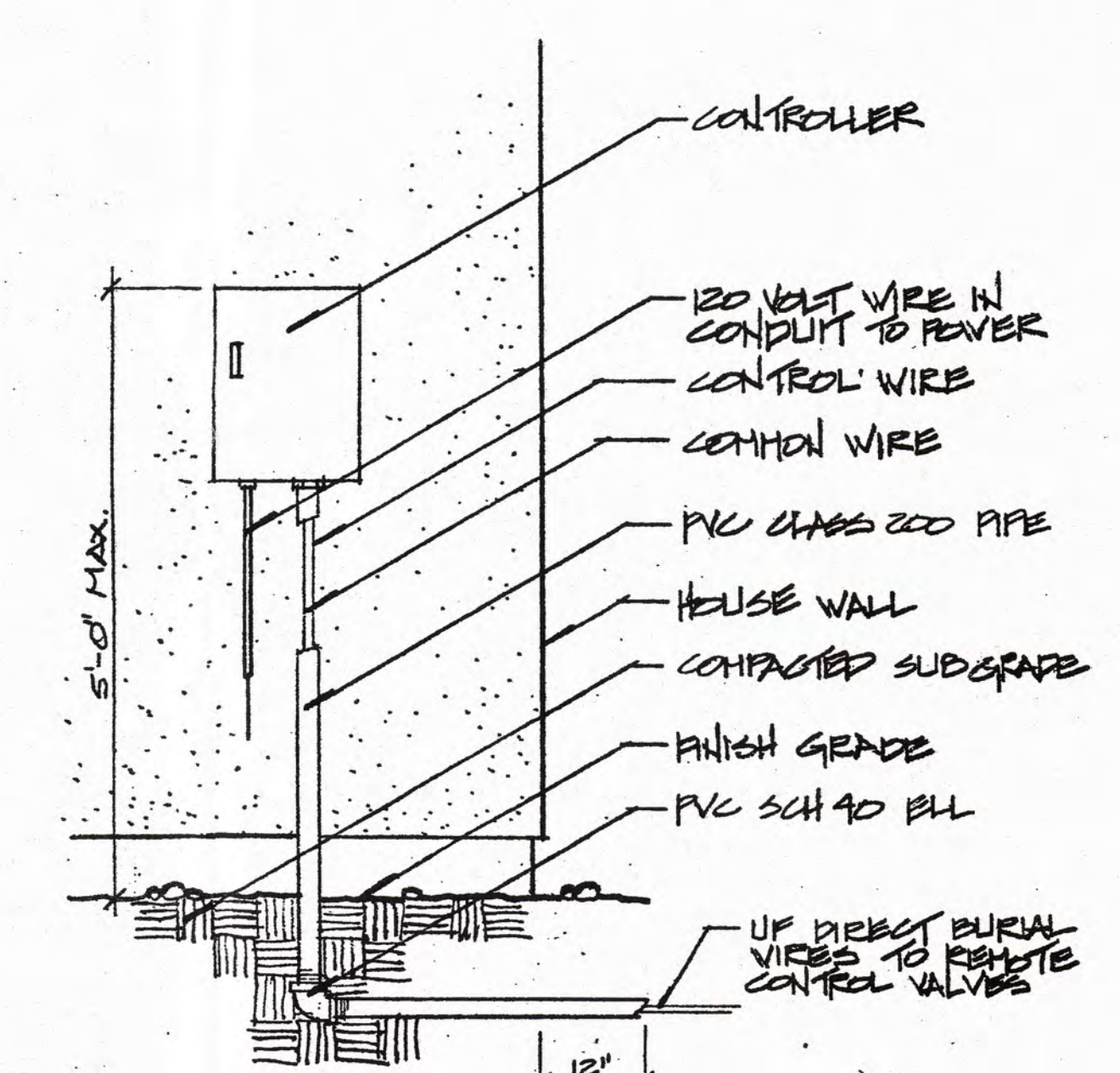
**E CONTROL JOINT**  
1-03



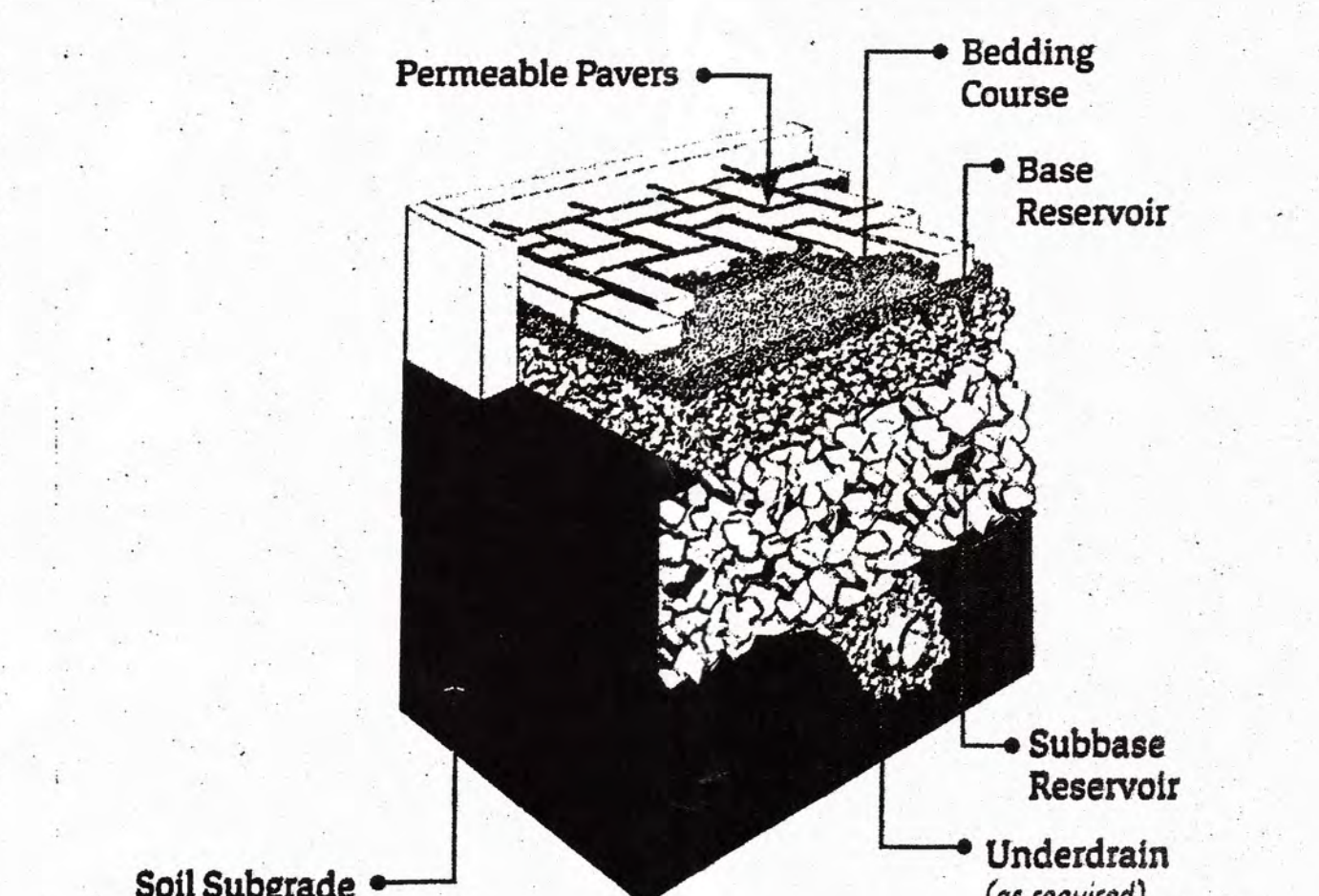
NOTES:  
1. Concrete shall be 308kg/M<sup>3</sup>-C-17-MPa (520-C-2500).  
2. See Standard Drawings G-9 and G-10 for joint details.  
3. Slope top of curb 6.35mm (1/4") per foot toward street.

Revision	By	Approved	Date
ORIGINAL	Kerchival		2/75
1	T. Stanton		03/03
2	T. Stanton		04/06

**F 6" CURB**  
NO SCALE

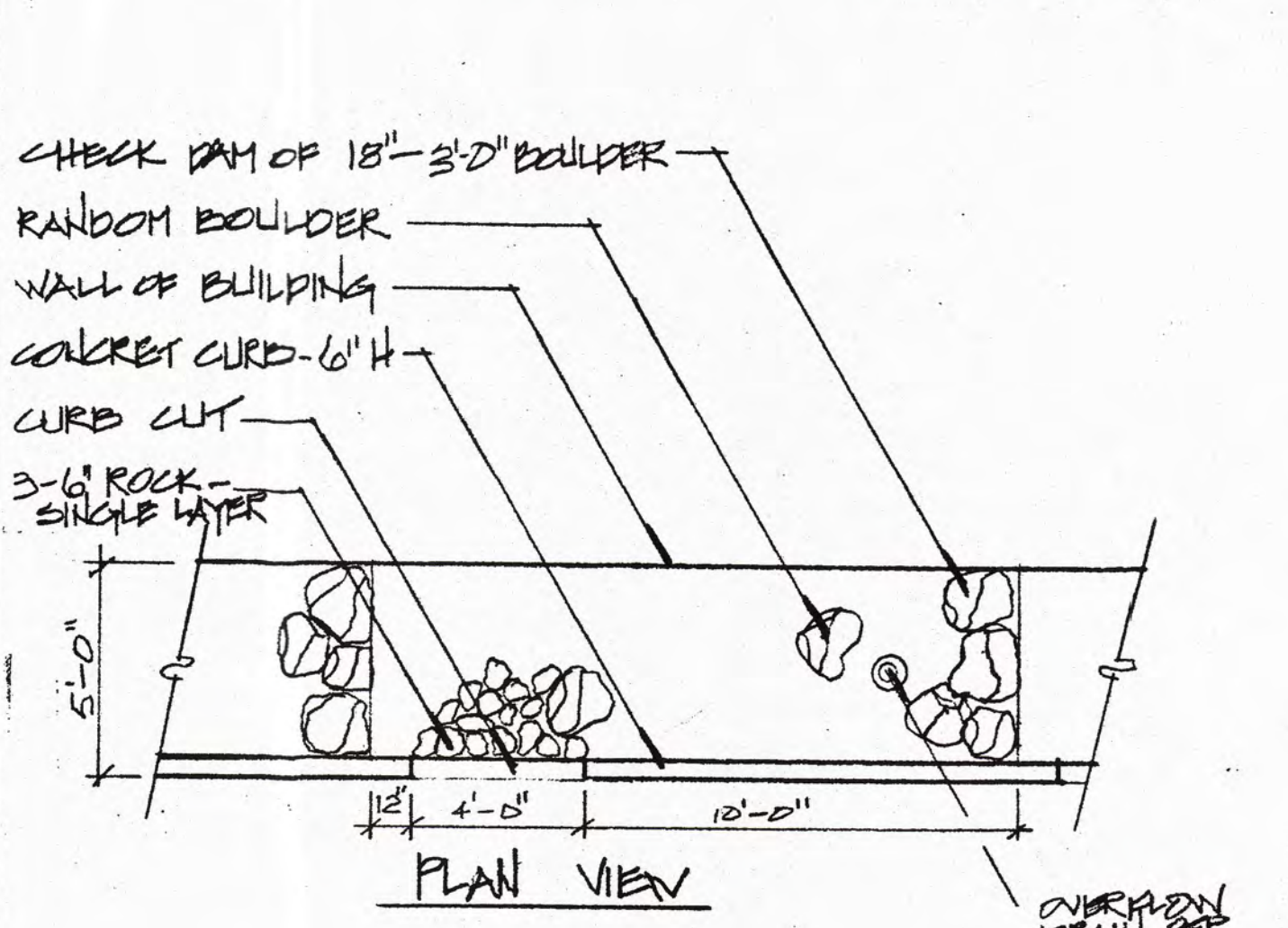
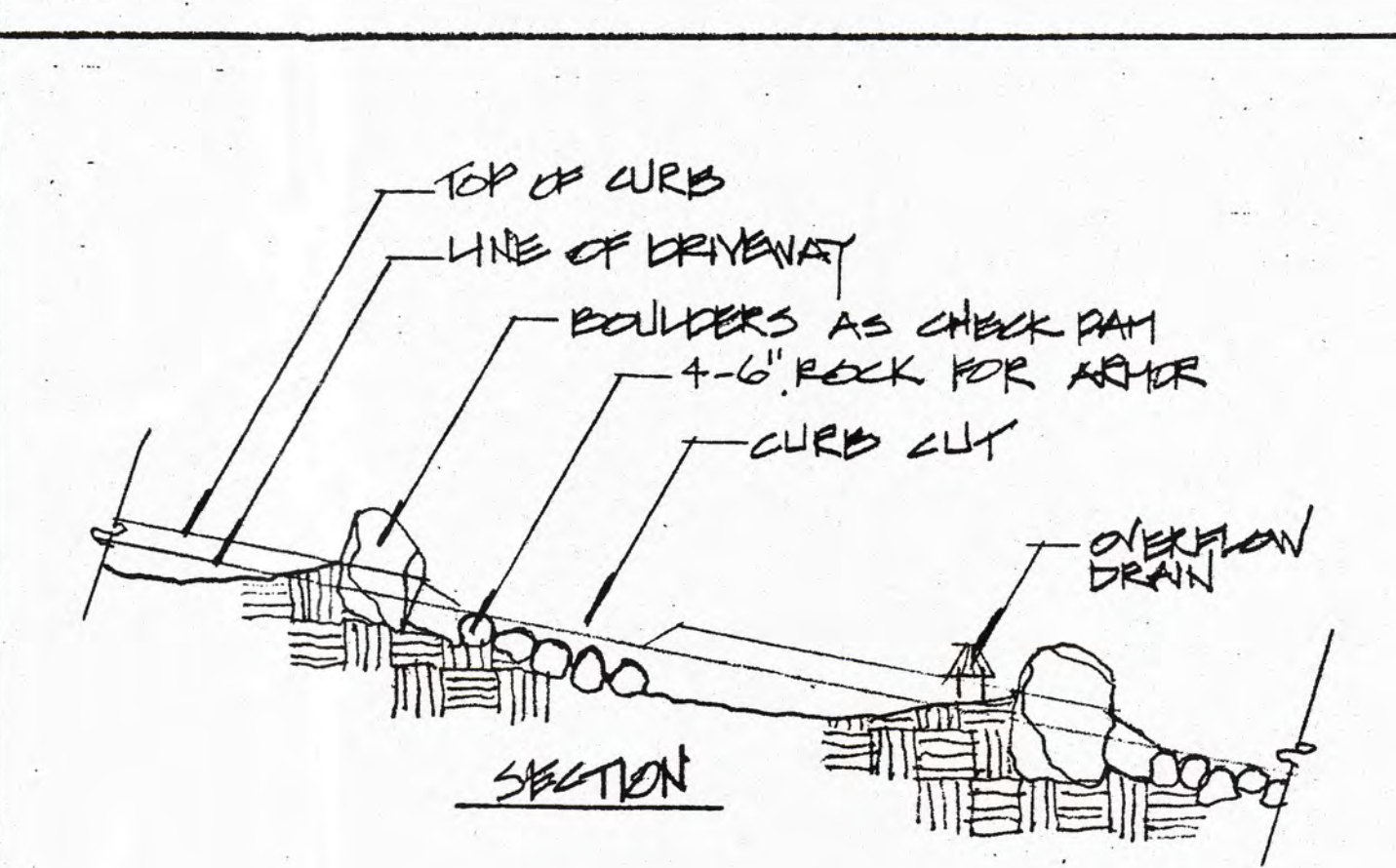


**H CONTROLLER - EXTERIOR MOUNT**  
NO SCALE  
3-08

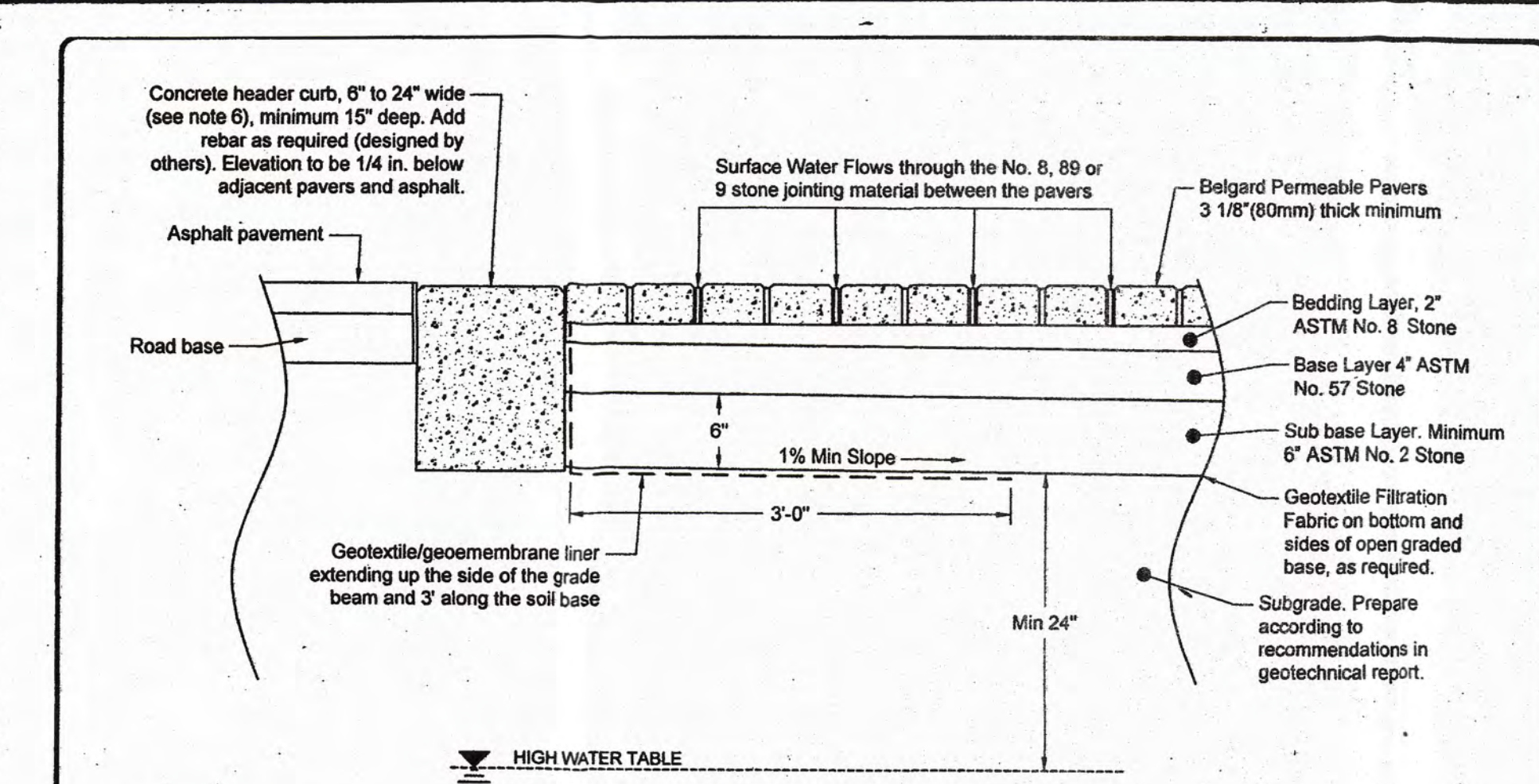


NOTE:  
DEPTH OF BASE & SUBBASE MATERIALS TO BE DETERMINED BY ENGINEER BASED ON SITE SPECIFIC SOIL CONDITIONS.

**B PERMEABLE PAVERS**  
NO SCALE

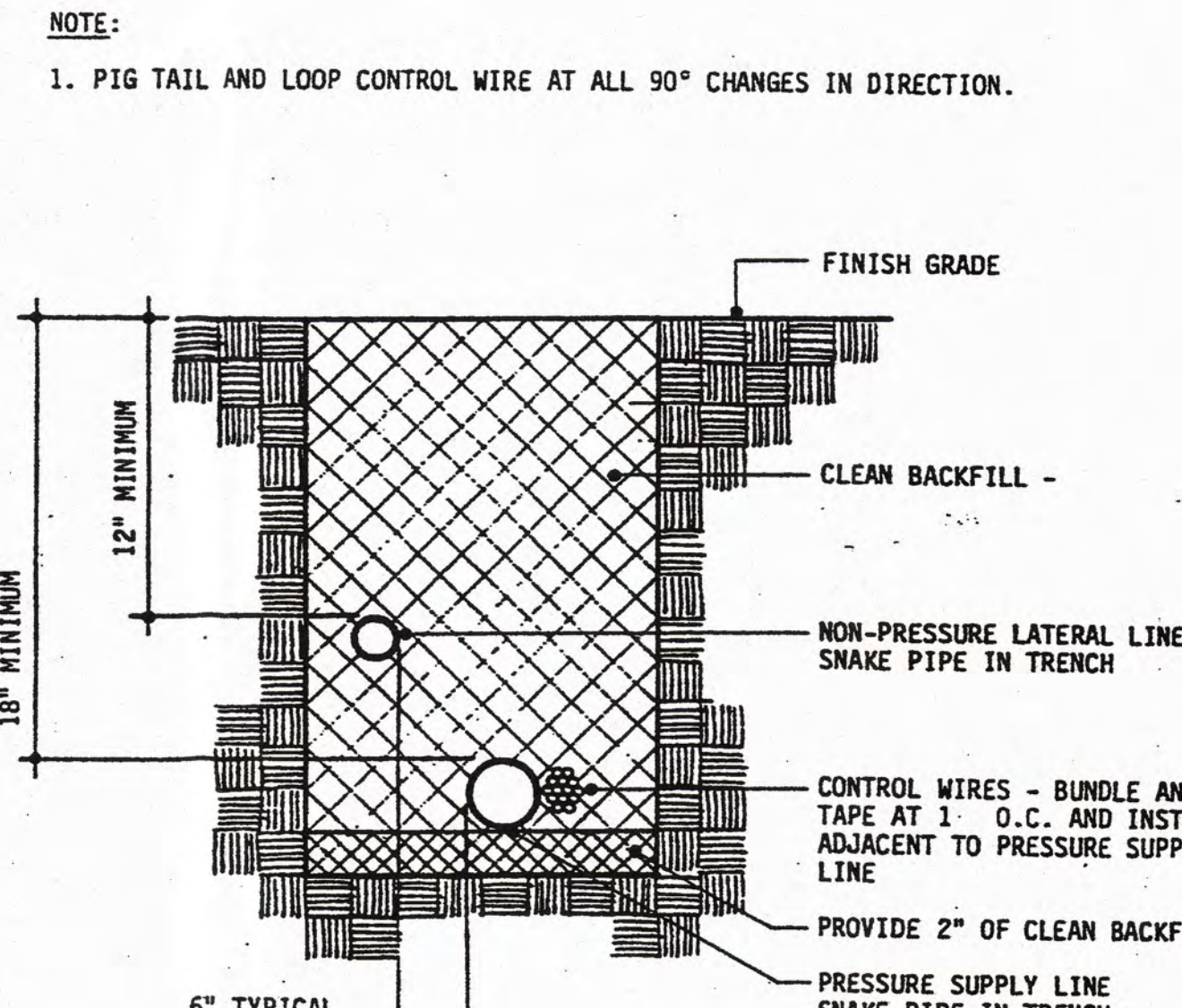


**G BIOSVALE**  
NO SCALE



Design Notes:  
1. Cross section as shown is suitable for pedestrian or commercial plaza use only. Depth of base subject to site specific hydraulic and structural requirements. Contact Oldcastle Architectural for design assistance.  
2. Paver dimensions subject to aspect and plan ratio requirements based on traffic loading, including any maintenance and/or emergency vehicles.  
3. Geotechnical engineer needs to balance structural stability and soil infiltration when recommending subgrade conditions.  
4. Elevation of horizontal discharge pipe(s) subject to storage reservoir requirements. Ensure proper cover over the horizontal pipes.  
5. Where the filtration geotextile is used, verify with the manufacturer that the material is not subject to clogging and meets requirements of AASHTO M-288.  
6. When traffic flow is perpendicular to the direction of the header, the width of the header curb should be sufficient to ensure that a bouncing caused by differential settlement will land on the header and not skip over it.

**C PERMEABLE PAVERS**



**I TYPICAL TRENCHING**

REVISIONS

DETAILS

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

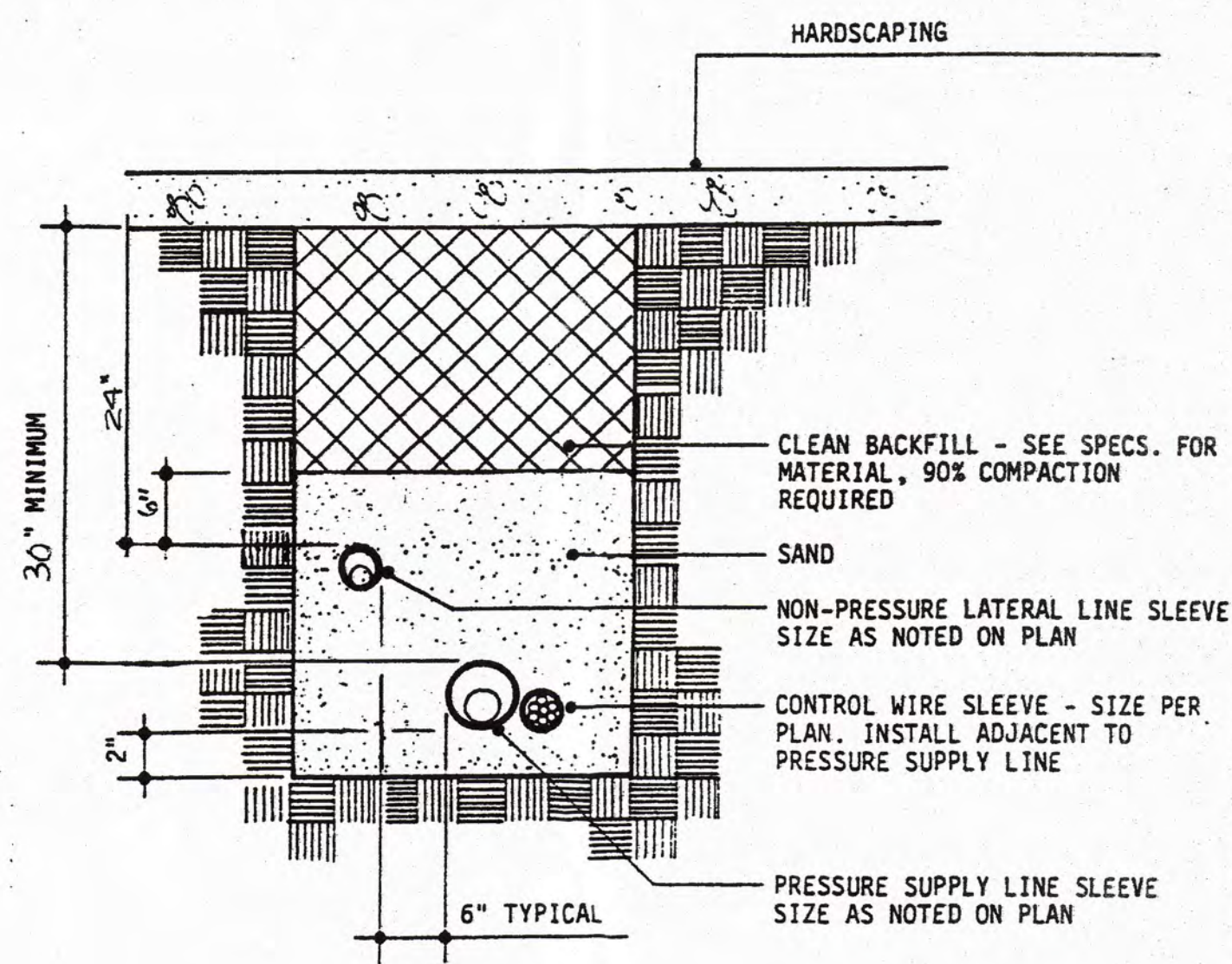
858-541-1076  
5346 Balduino Drive  
San Diego, California 92124  
antiqua design studio

DATE 4-1-17  
SCALE  
PROJECT # 17-01  
SHEET  
L-6

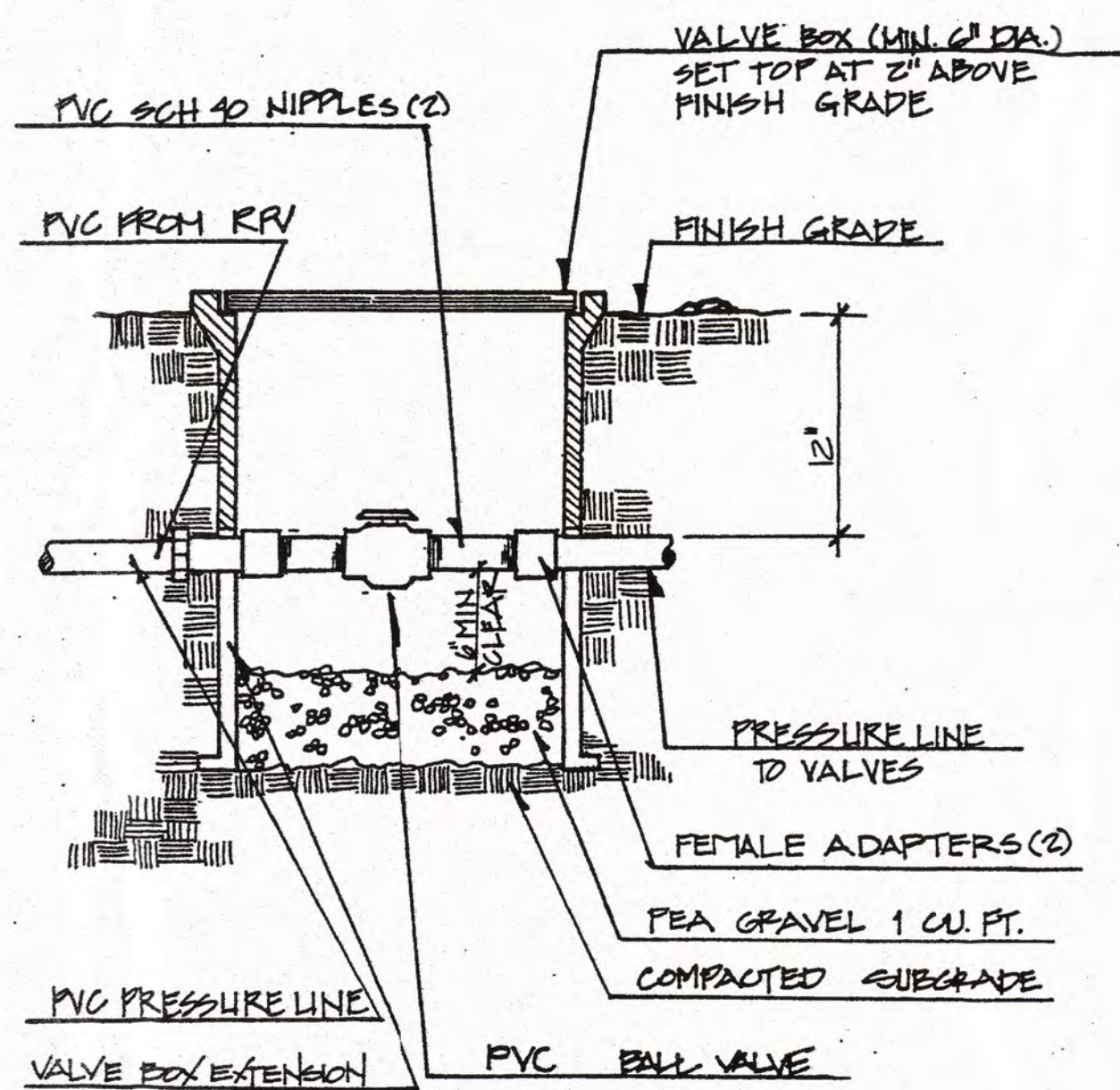




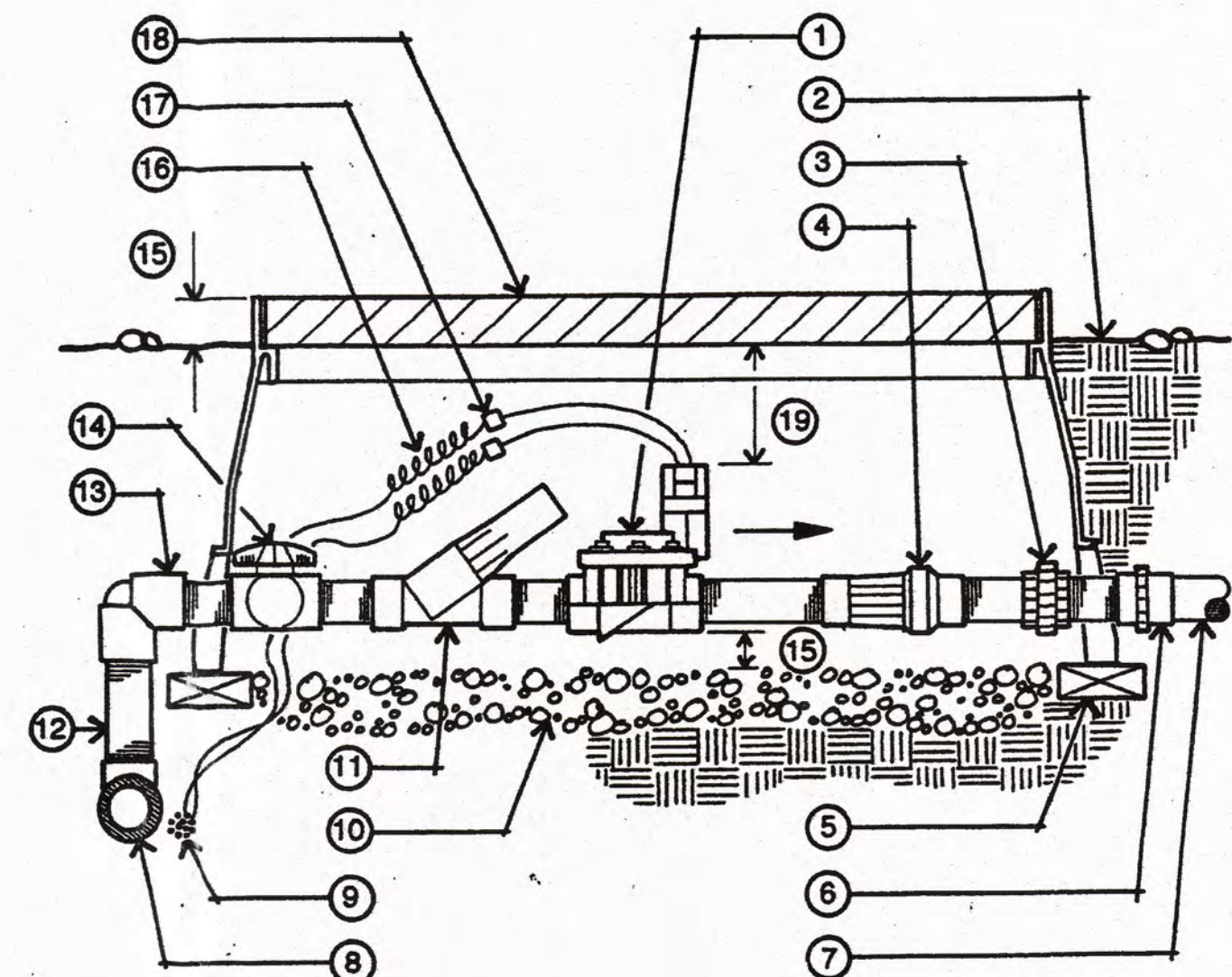
- NOTE:**
1. ALL SLEEVES TO BE SCH 40 PVC.
  2. EXTEND ALL SLEEVES 12" BEYOND EDGE OF HARDSCAPING AT BOTH ENDS.
  3. INSTALL SLEEVES UNDER HARDSCAPING AREAS AS INDICATED ON IRRIGATION PLANS.



**A** TYPICAL SLEEVING

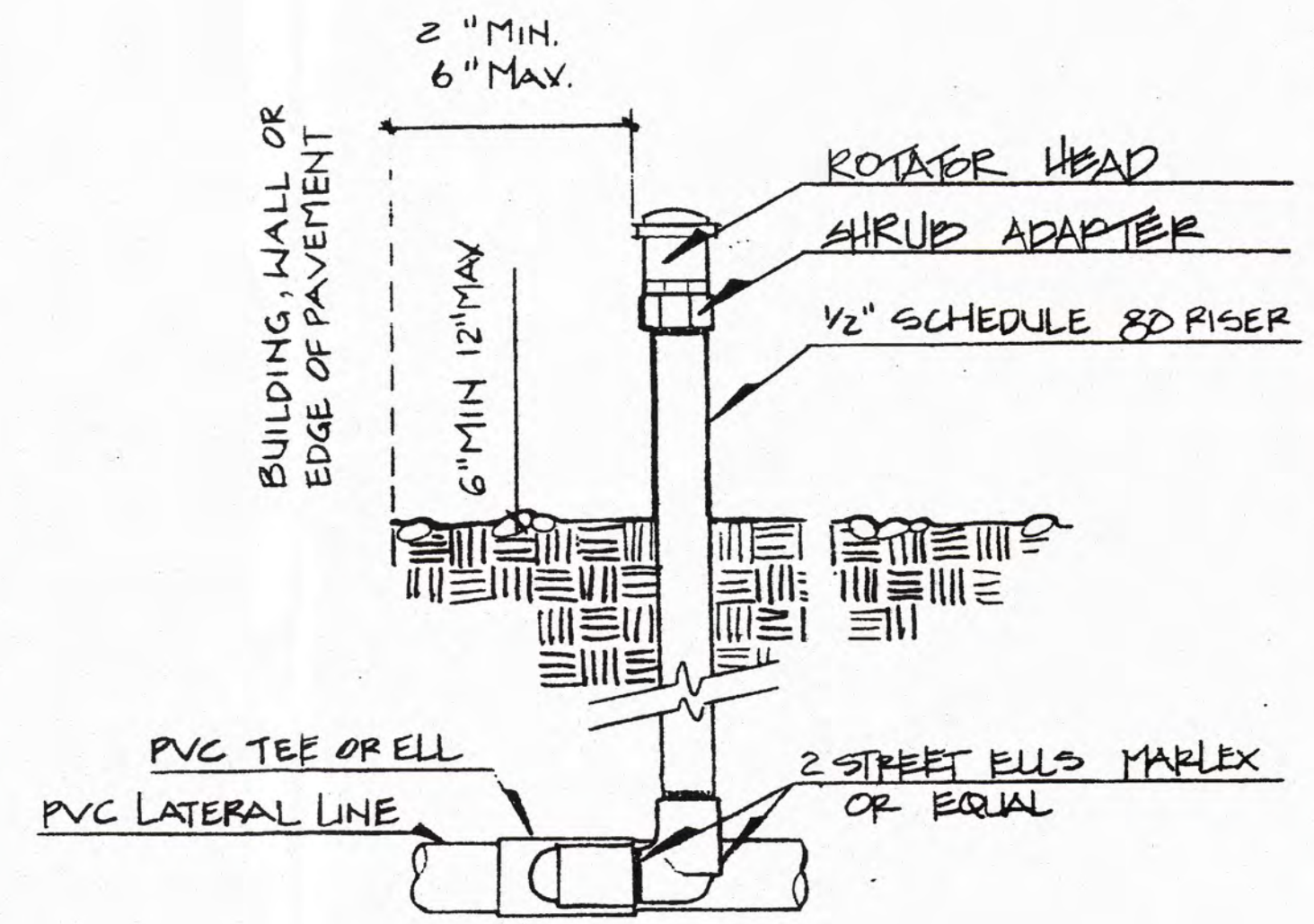


**C** BALL VALVE (PVC)  
NO SCALE

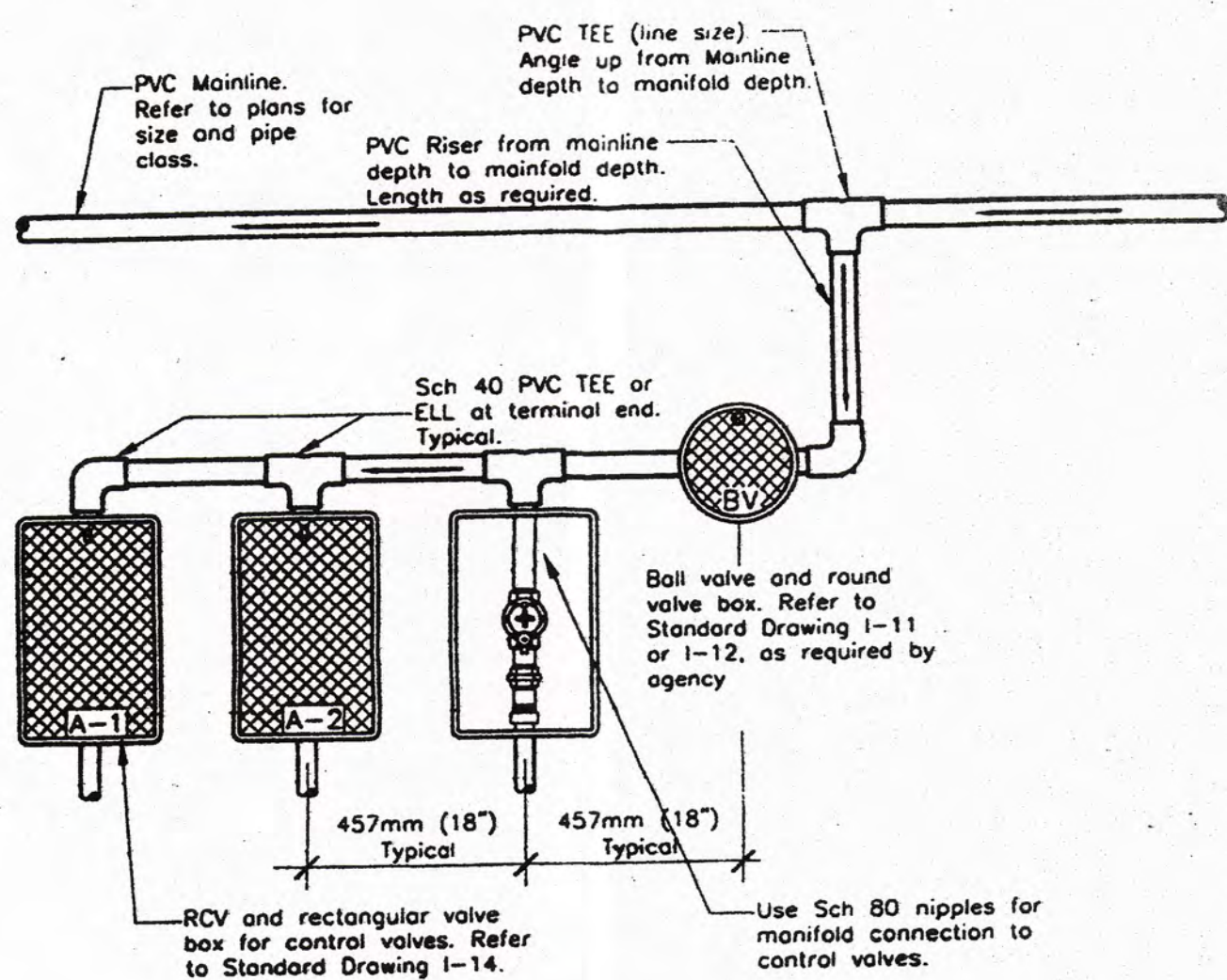


- |  |   |
|--|---|
| 1- ELECTRIC REMOTE CONTROL VALVE                           | 10- 3/4-INCH CRUSHED ROCK               |
| 2- FINISH GRADE  | 11- FILTER (MAY BE SEPARATE-SEE LEGEND) |
| 3- SCH. 80 PVC UNION                                       | 12- PVC NIPPLES (TYP.)                  |
| 4- PRESSURE REGULATOR (PRE-SET)                            | 13- PVC 90° ELL                         |
| 5- BRICK OR CONC. SUPPORTS UNDER ENTIRE BOX (TYP.)         | 14- PVC BALL VALVE                      |
| 6- SCH. 40 PVC FEMALE ADAPTER                              | 15- 2 INCHES                            |
| 7- TO EMITTERS-ANGLE PIPE TO SPECIFIED DEPTH WITH 45° ELLS | 16- WIRE EXPANSION COILS                |
| 8- PVC PRESSURE MAINLINE AND FITTING                       | 17- WIRE CONNECTORS                     |
| 9- DIRECT BURIAL CONTROL WIRES                             | 18- JUMBO VALVE BOX WITH LOCKING LID    |
|  | 19- 6 INCHES                            |
- NOTES:**
1. ALL UNIONS, NIPPLES, AND ELLS SHALL BE SCHEDULE 80 PVC.
  2. CLOSE NIPPLES SHALL NOT BE USED.
  3. DISTANCE BETWEEN RCV AND PRESSURE REGULATOR SHALL BE 10 PIPE DIAMETERS (MIN.).

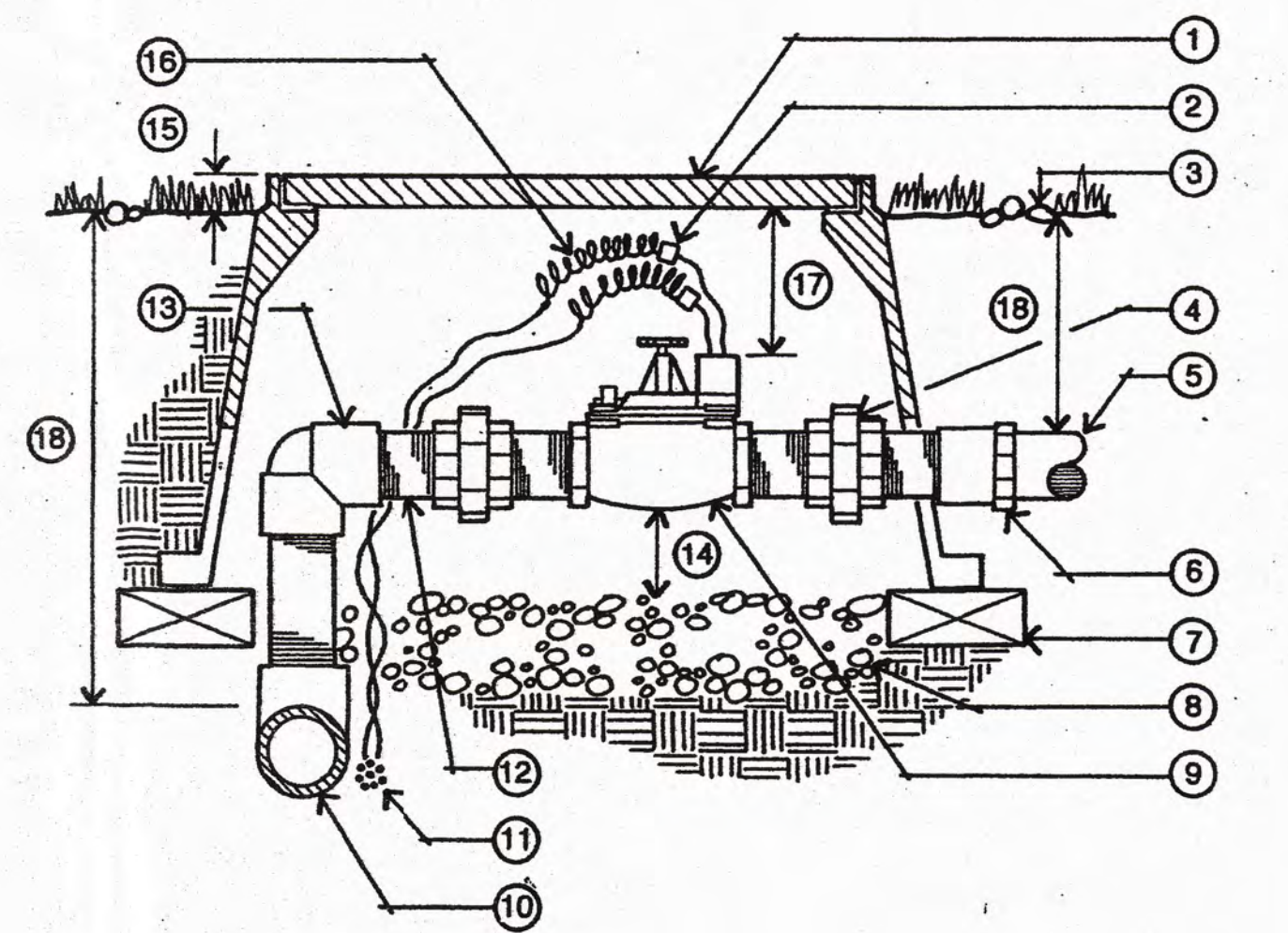
**E** REMOTE CONTROL VALVE ASSEMBLY (LOW FLOW) NO SCALE 11-05



**G** IRRIGATION HEAD  
NO SCALE

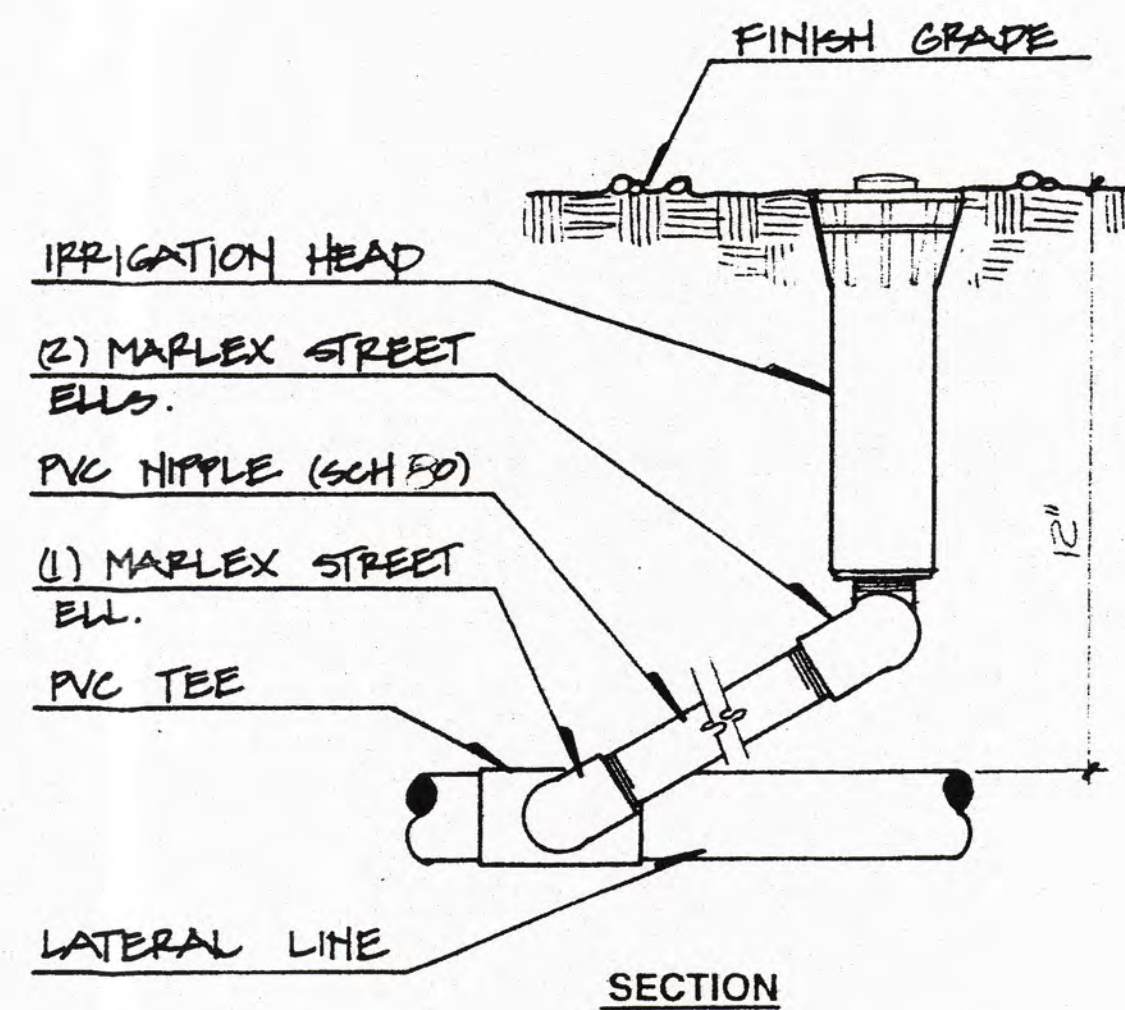


**B** VALVE MANIFOLD  
NO SCALE



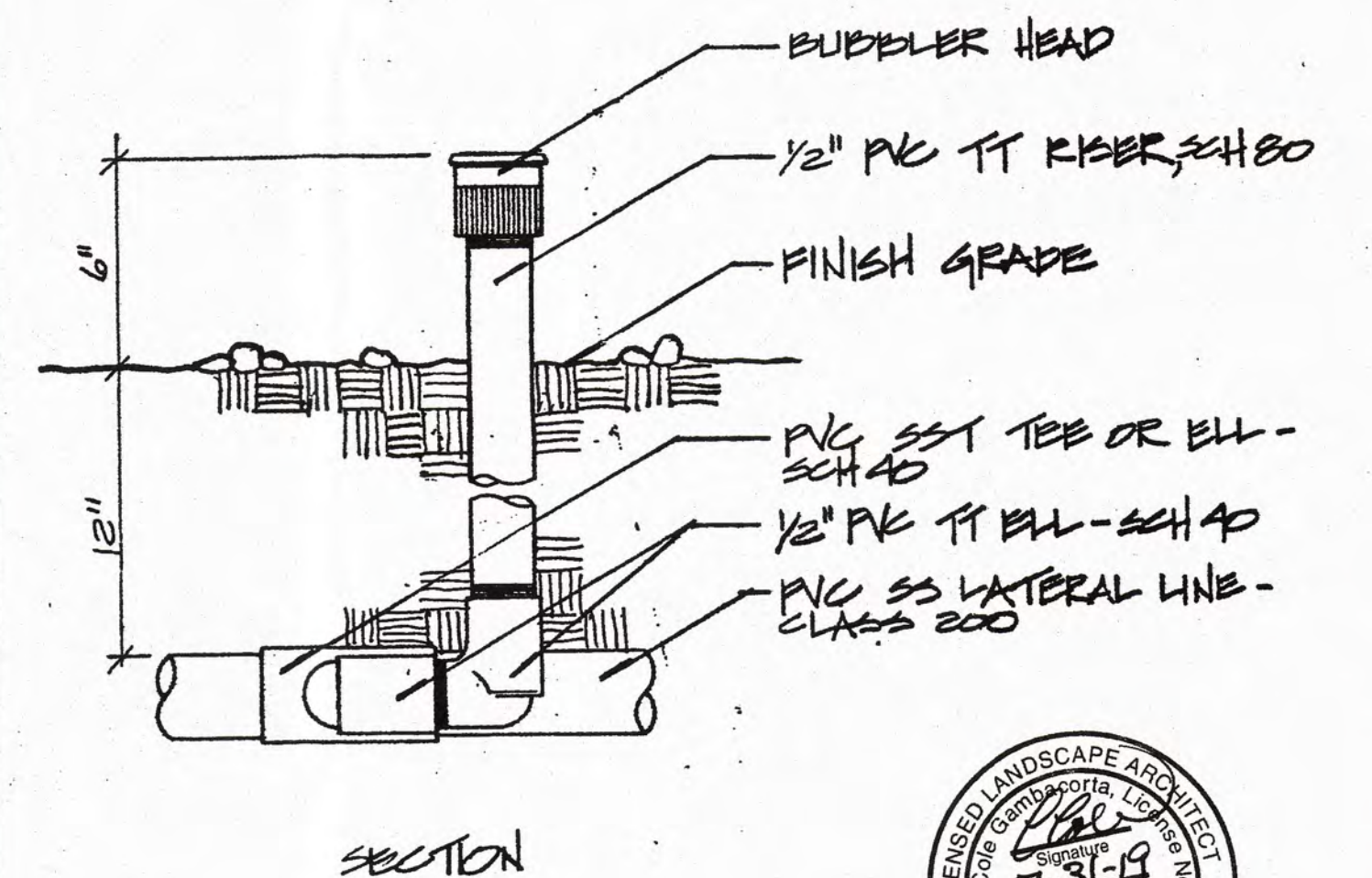
- |  |  |
|--|--|
| 1- VALVE BOX WITH LOCKING LID                                | 10- PVC PRESSURE MAIN LINE AND FITTING           |
| 2- WIRE CONNECTORS (TYP.)                                    | 11- DIRECT BURIAL CONTROL WIRES                  |
| 3- FINISH GRADE  | 12- PVC NIPPLES (TYP.)                           |
| 4- PVC UNION-EACH SIDE                                       | 13- PVC 90° ELL                                  |
| 5- TO SPRINKLERS-ANGLE PIPE TO SPECIFIED DEPTH WITH 45° ELLS | 14- 2 INCHES                                     |
| 6- SCH. 40 PVC FEMALE ADAPTER                                | 15- 1 INCH IN LAWN AREAS; 2 INCHES IN SHRUB AREA |
| 7- BRICK OR CONC. SUPPORTS UNDER ENTIRE BOX (TYP.)           | 16- WIRE EXPANSION LOOPS                         |
| 8- 3/4-INCH CRUSHED ROCK (1 CU. FT.)                         | 17- 6 INCHES                                     |
| 9- ELECTRIC REMOTE CONTROL VALVE                             | 18- DEPTH AS REQUIRED (SEE SPEC.)                |
- NOTES:**
1. ALL UNIONS, NIPPLES, & ELLS SHALL BE SCHEDULE 80 PVC.
  2. CLOSE NIPPLES SHALL NOT BE USED.

**D** REMOTE CONTROL VALVE  
NO SCALE 2-04



- NOTES:**
1. IRRIGATION HEADS SHALL BE LOCATED 6" MINIMUM FROM ALL PAVING, WALLS, BUILDINGS ETC. UNLESS OTHERWISE NOTED OR SHOWN ON PLANS.

**F** IRRIGATION HEAD  
NO SCALE POP-UP



**H** IRRIGATION HEAD - BUBBLER  
NO SCALE 5-05

REVISIONS

DETAILS

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

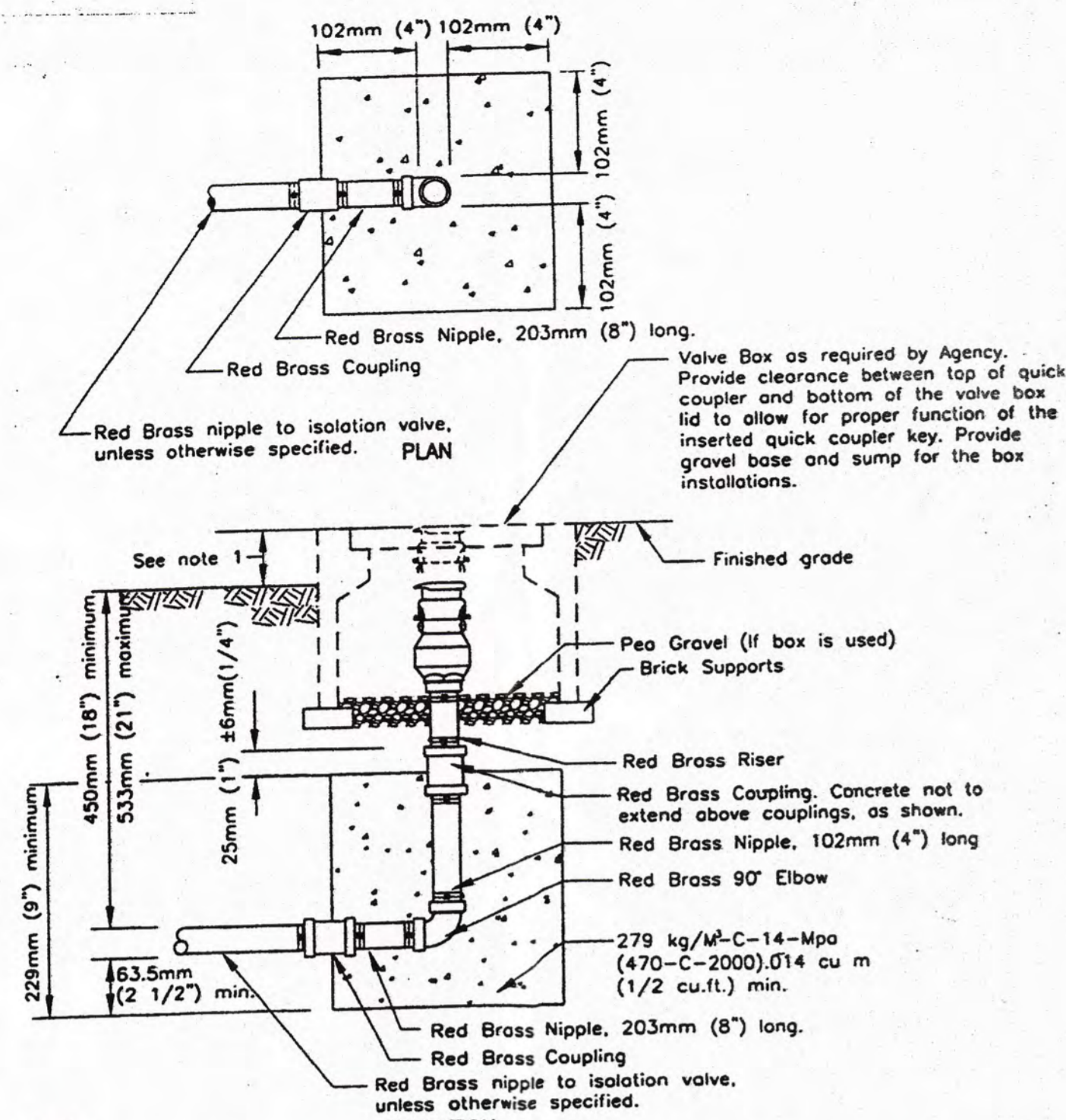
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DATE 4-1-17  
SCALE  
PRJ #17-01  
SHEET

L-7





**NOTES**

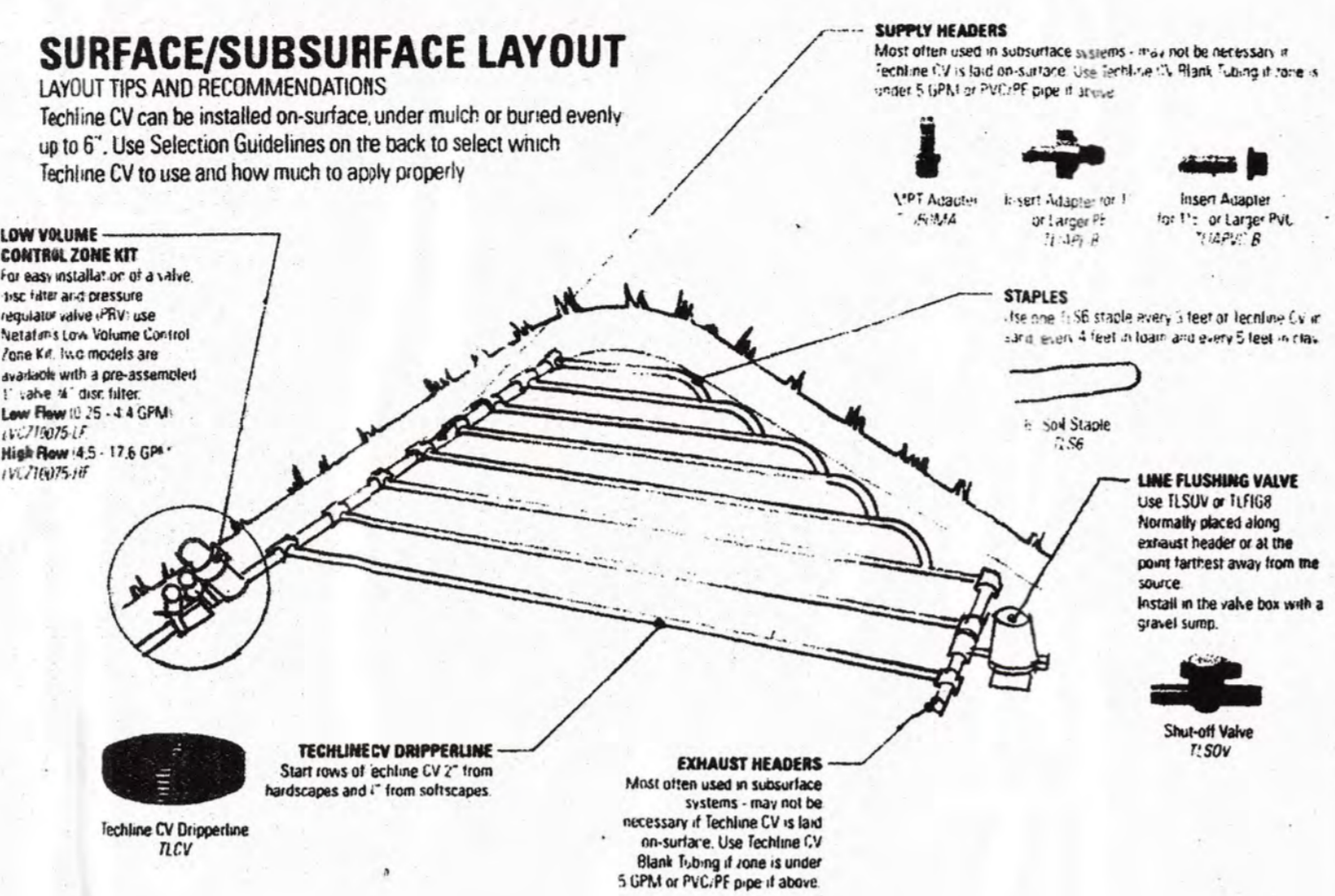
1. Quick coupling valves or boxes shall be set flush in lawn and 51-76mm (2-3") above finish grade in shrub/groundcover areas, per mulch depth.
2. Dimensions of concrete anchors are minimum.
3. Close nipples shall not be used.
4. Provide appropriate key and swivel adapter as specified on plans.

**LEGEND ON PLANS**

OCV

Revision	By	Approved	Date
ORIGINAL	T. Stanton	Kerschbaum	12/75
ADD METRIC	T. Stanton		03/03
UPDATE	M. Caro		05/04

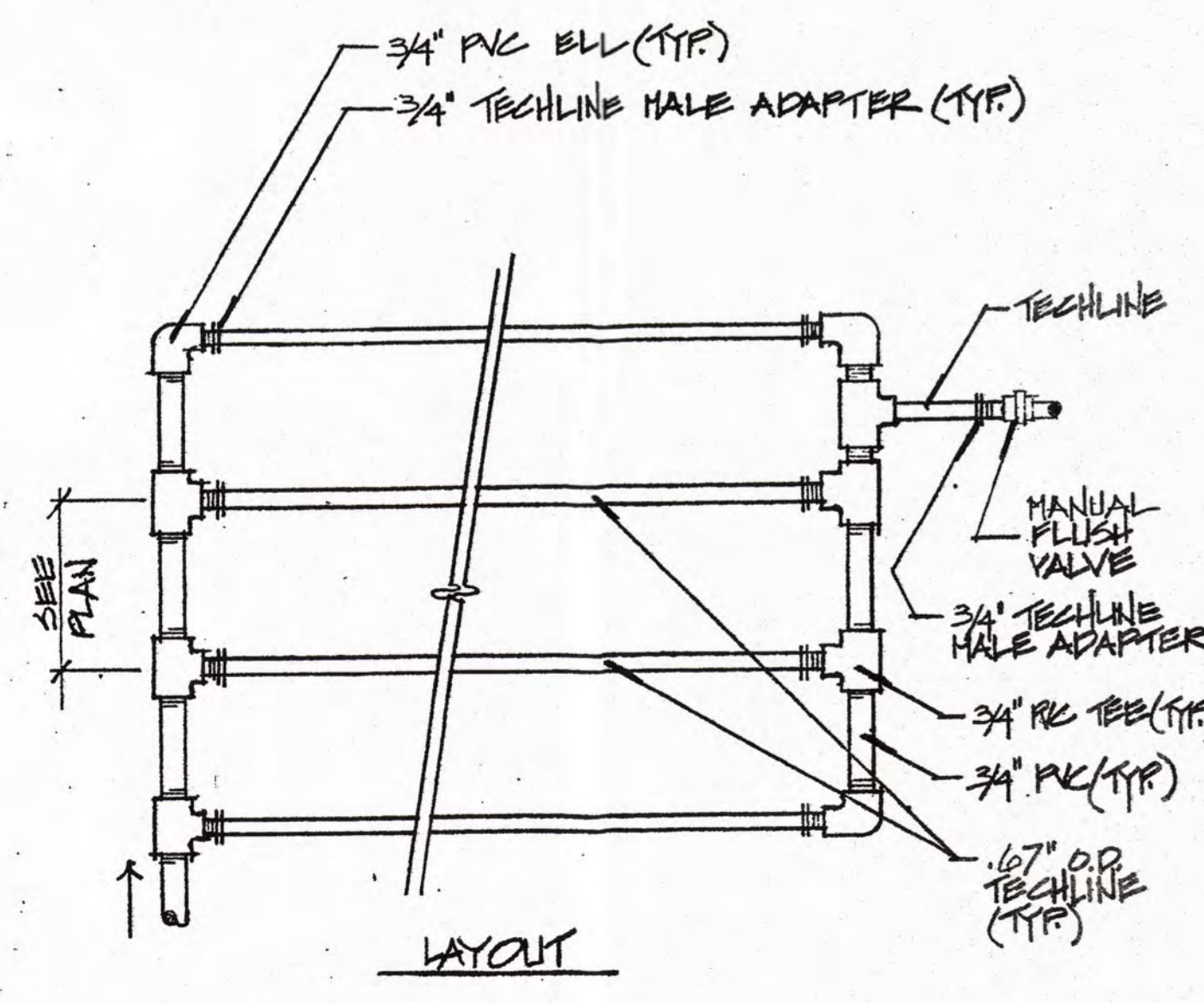
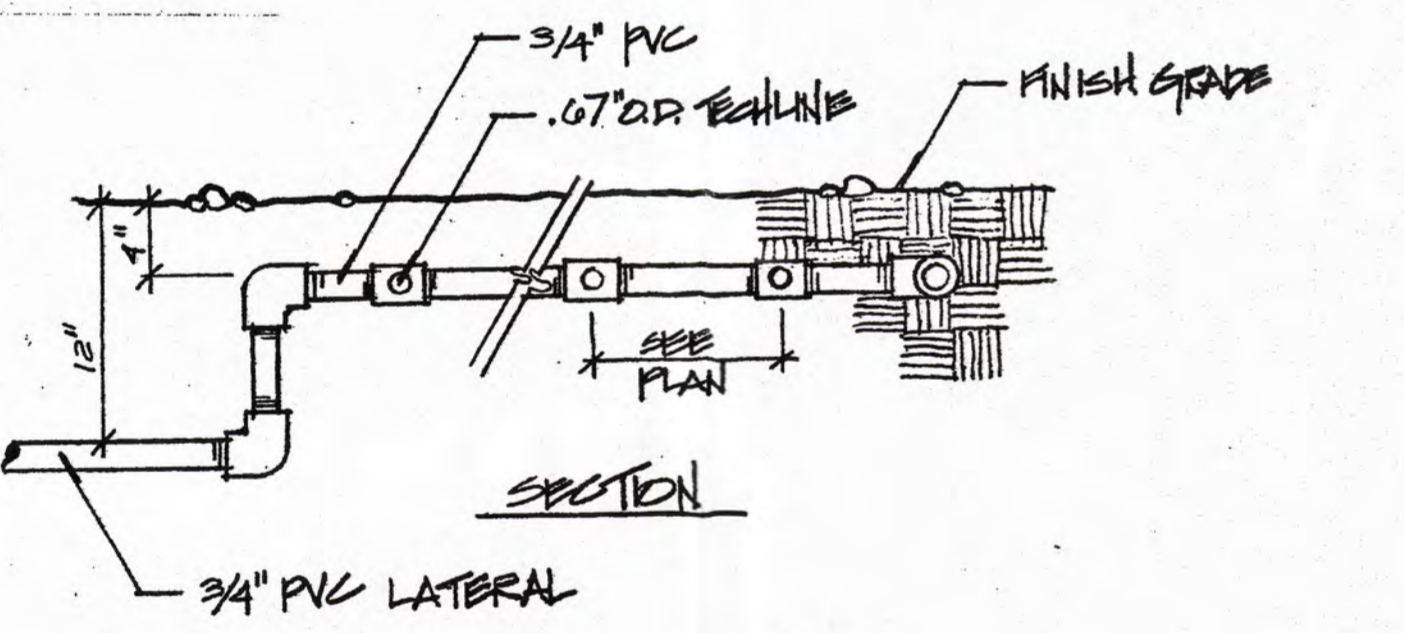
**A QUICK COUPLING VALVE**  
SDRSD 1-15 NO SCALE



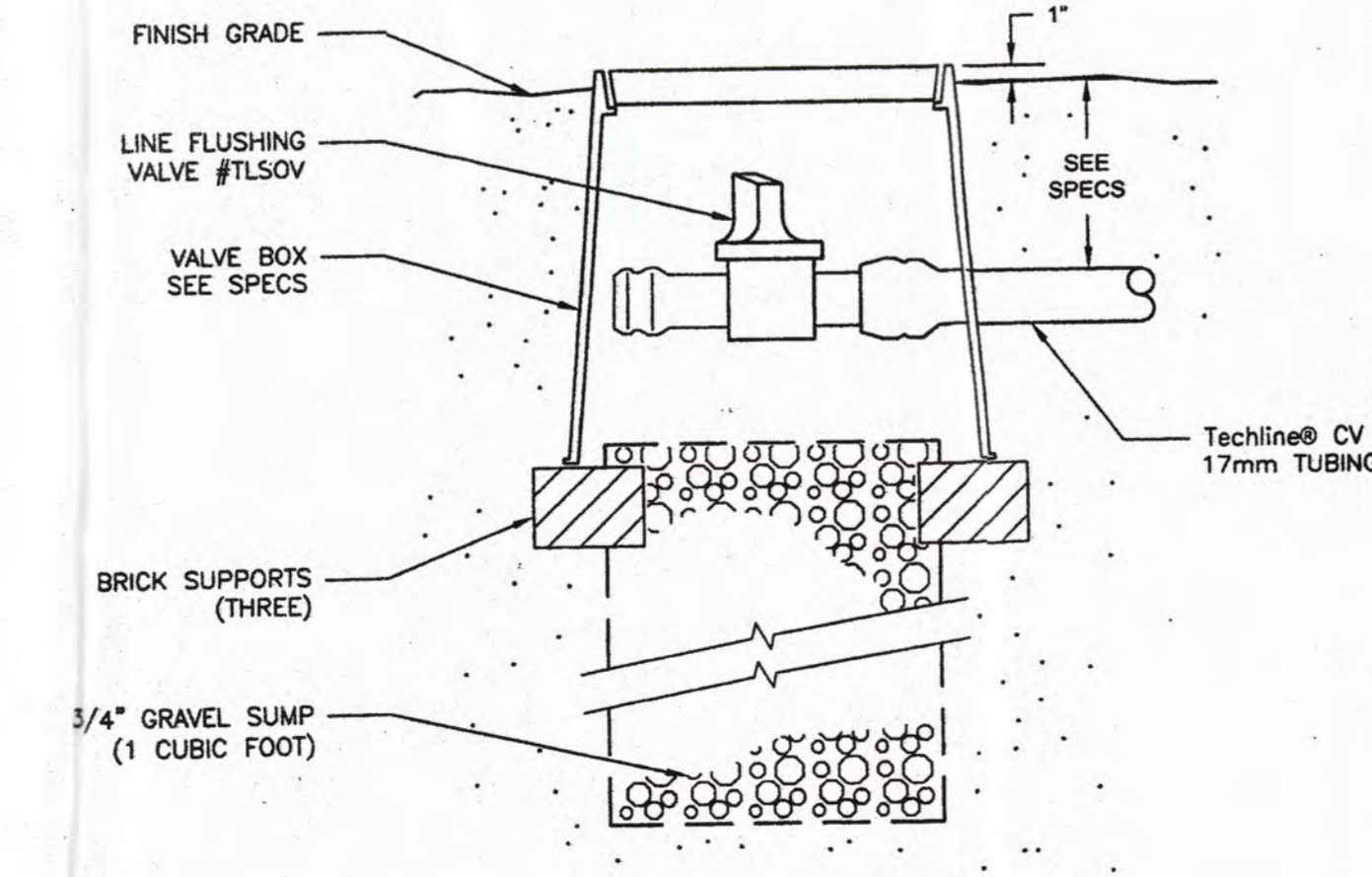
**TECHLINE CV DRIPFLUSHING**  
Start lines of applying CV 2" from handscapes and 7" from soffits.

**EXHAUST HEADERS**  
Most often used in subsurface systems, may not be necessary if Techline CV is laid on surface. Use Techline CV Blank Flange if rate is under 5 GPM or PEX/PP pipe if above.

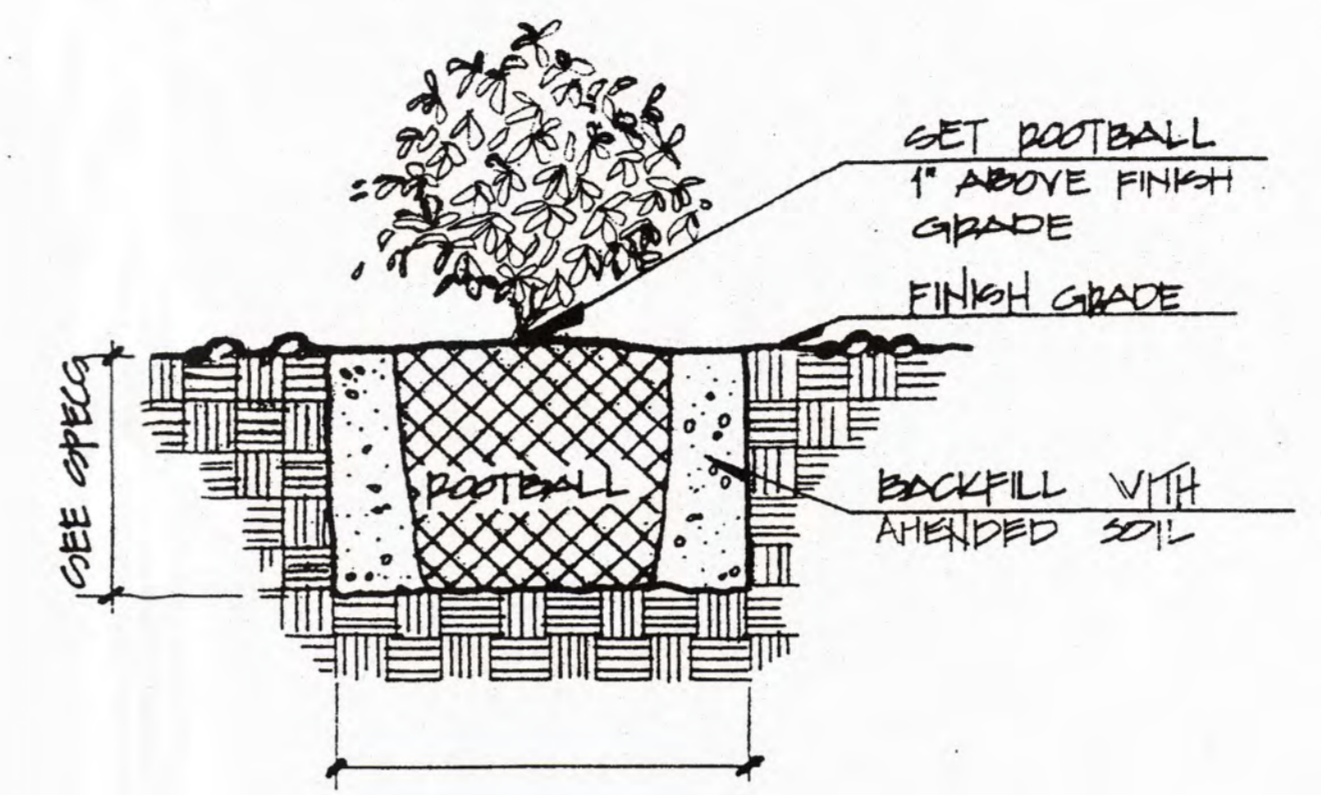
**C SUBSURFACE DRIP SYSTEM - CURVES**  
NO SCALE



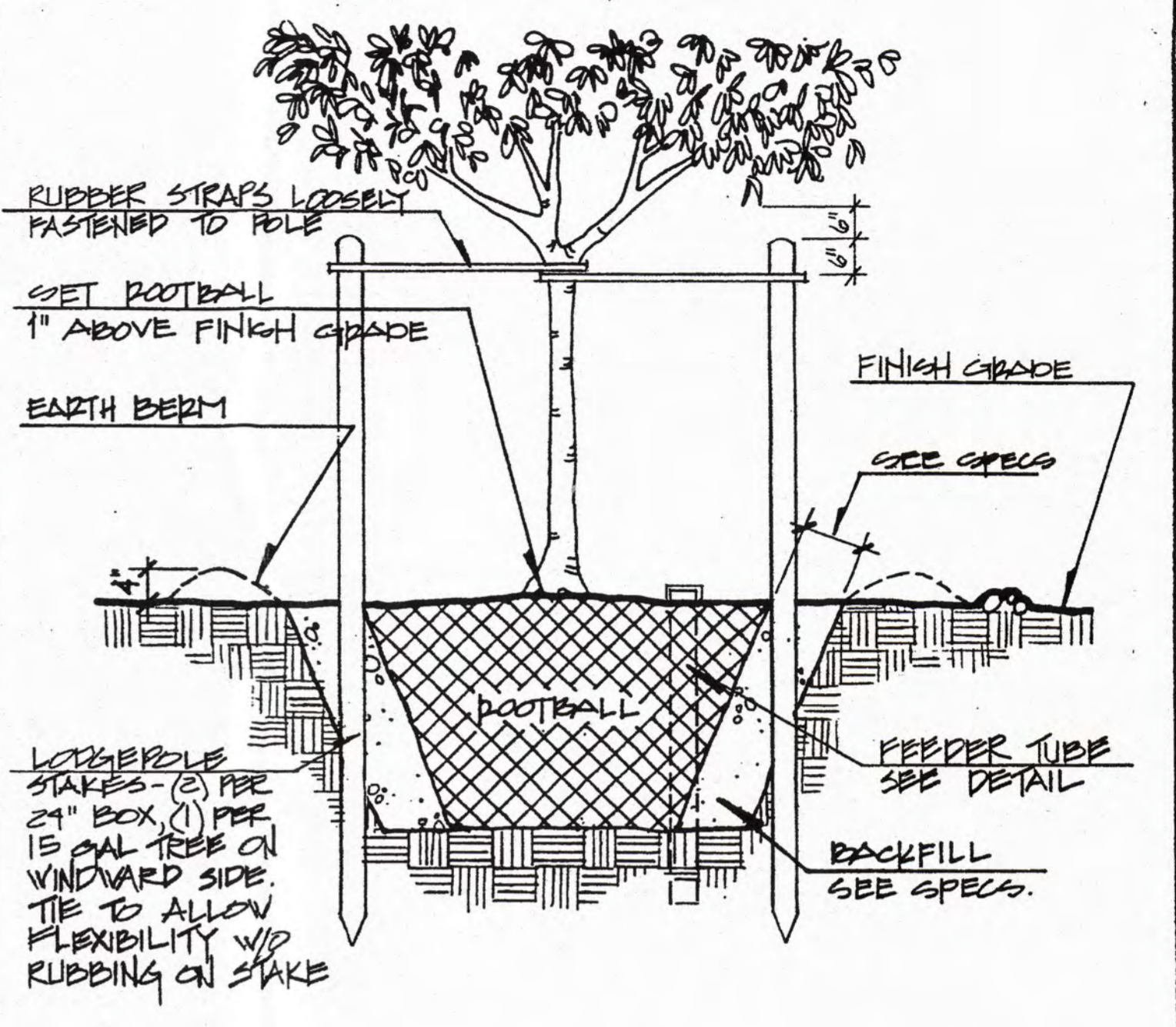
**B TECHLINE SUBSURFACE DRIP SYSTEM - CV**  
NO SCALE



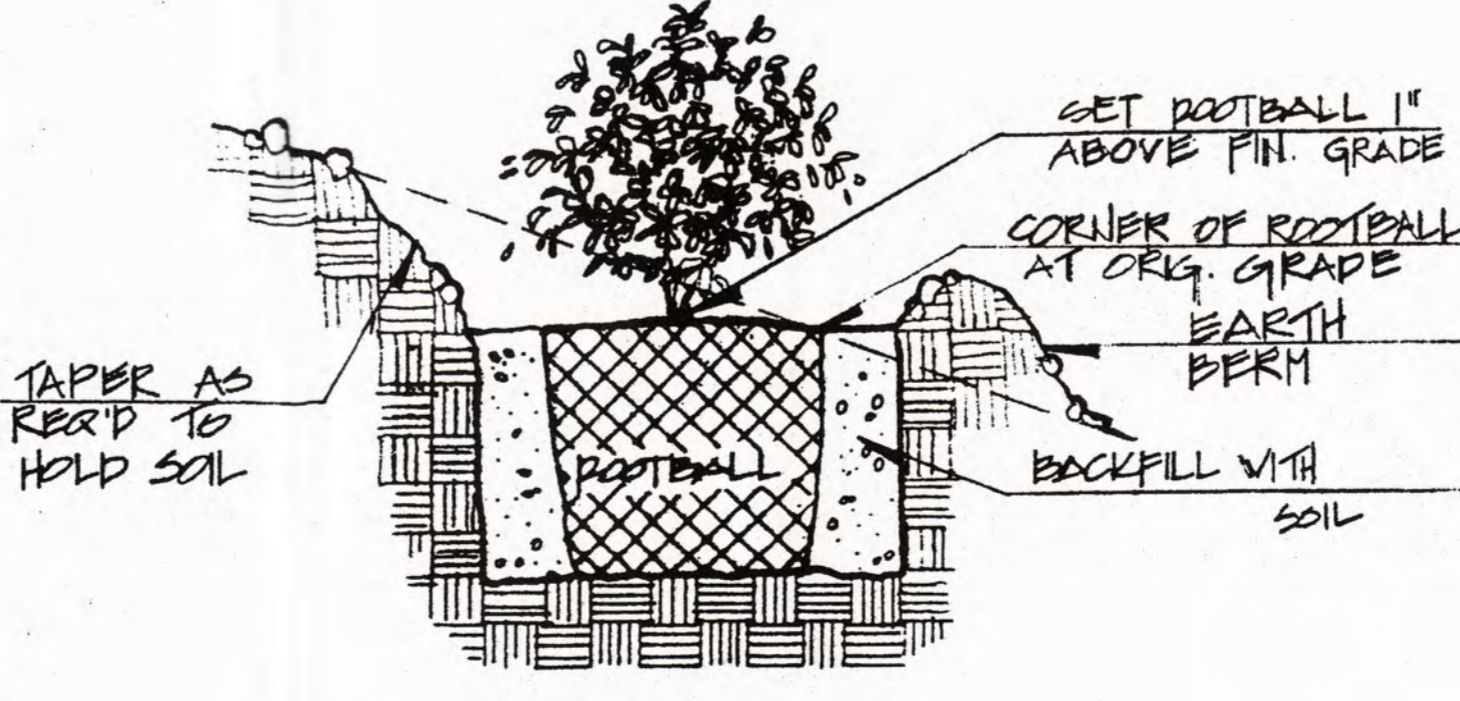
**D MANUAL LINE FLUSHING VALVE TLSOV PLUMBED TO TUBING**  
NOT TO SCALE



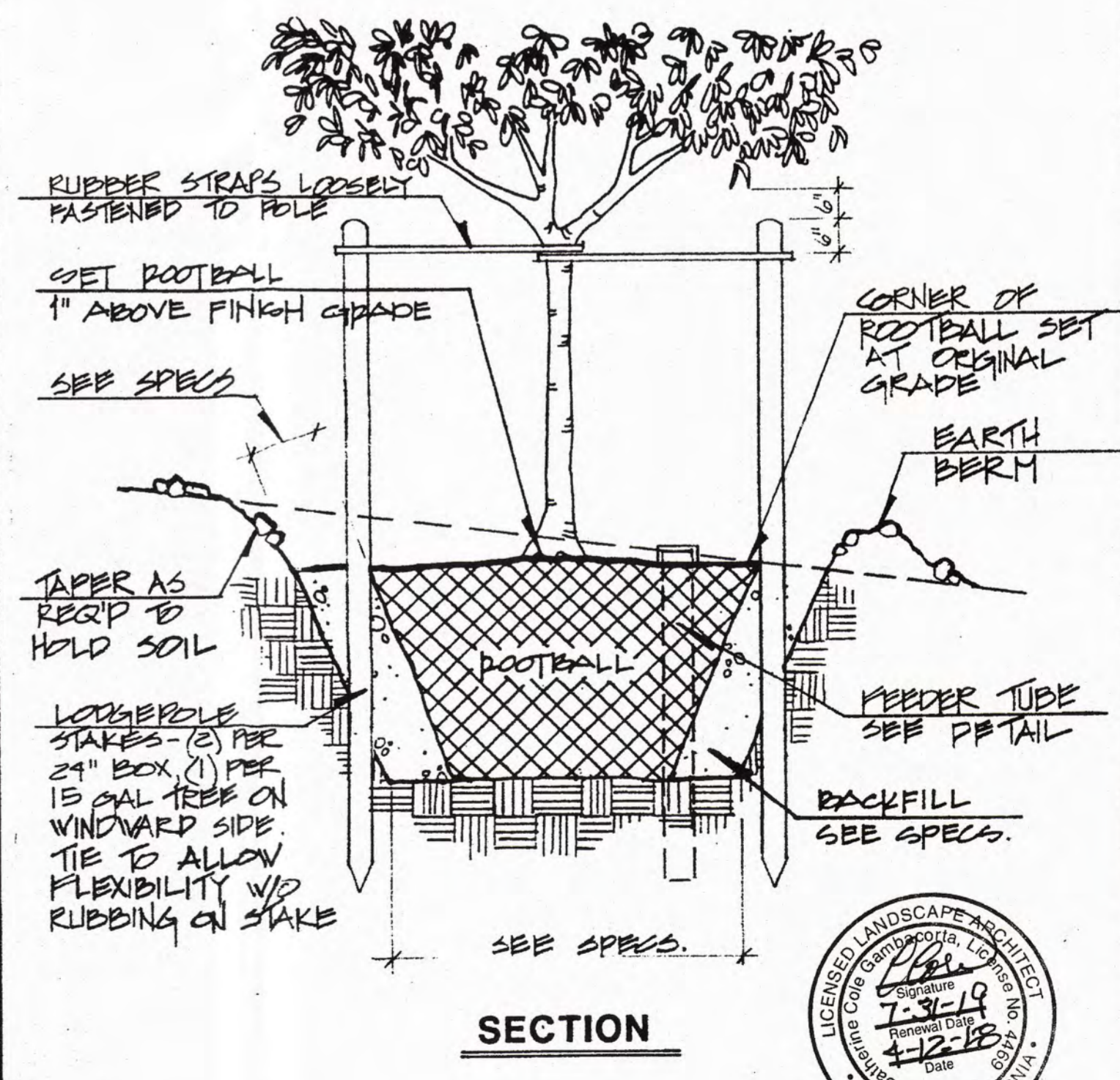
**E PLANTING SHRUB OR VINE**  
NO SCALE



**G PLANTING TREE**  
NO SCALE



**F PLANTING SHRUB ON SLOPE**  
NO SCALE



**H PLANTING TREE ON SLOPE**  
NO SCALE

REVISIONS

DETAILS

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

858-541-1076  
5346 Indiano Drive  
San Diego, California 92124  
design studio

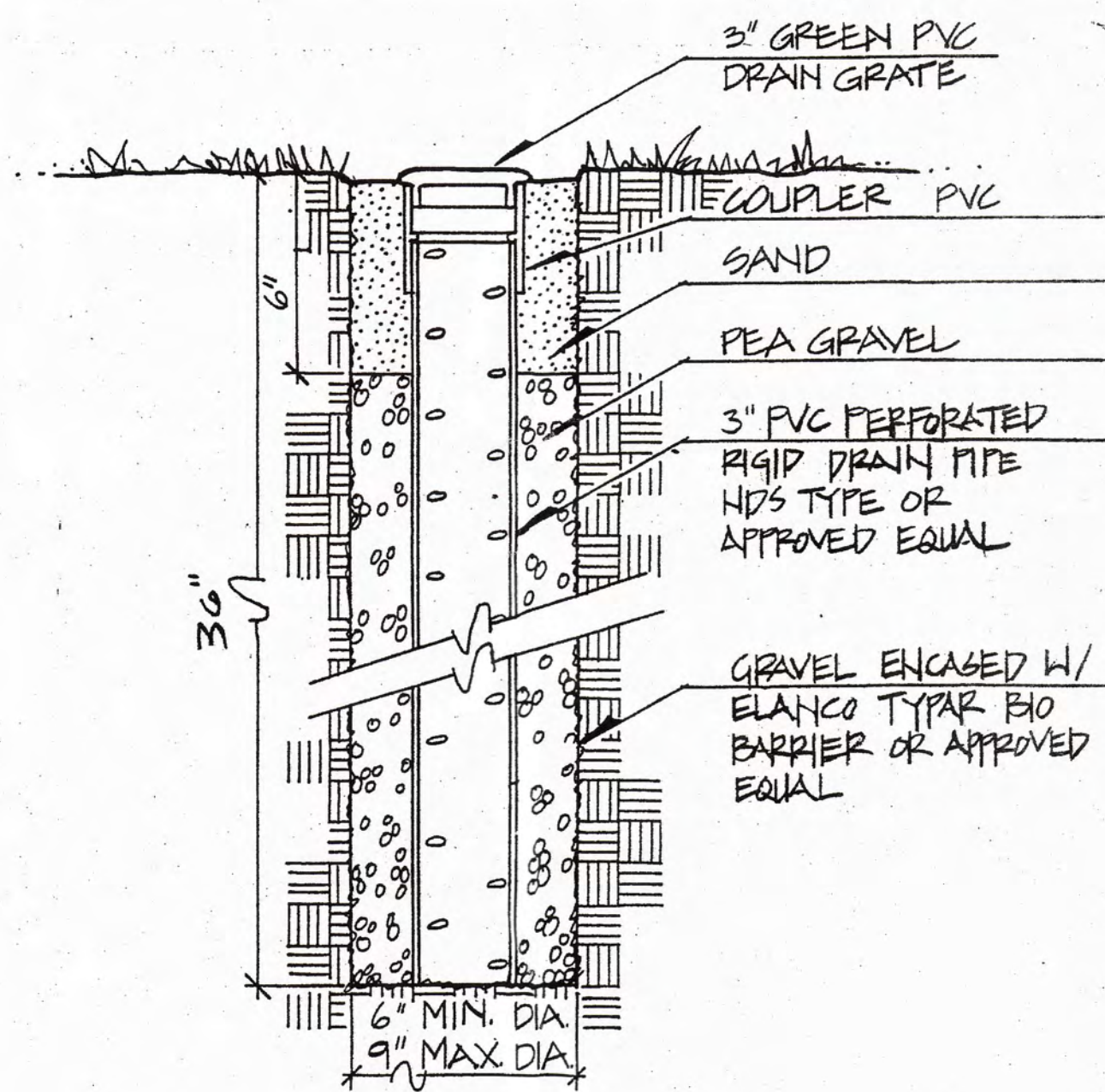


DATE 4-17  
SCALE  
PROJ #17-01  
SHEET

L-8



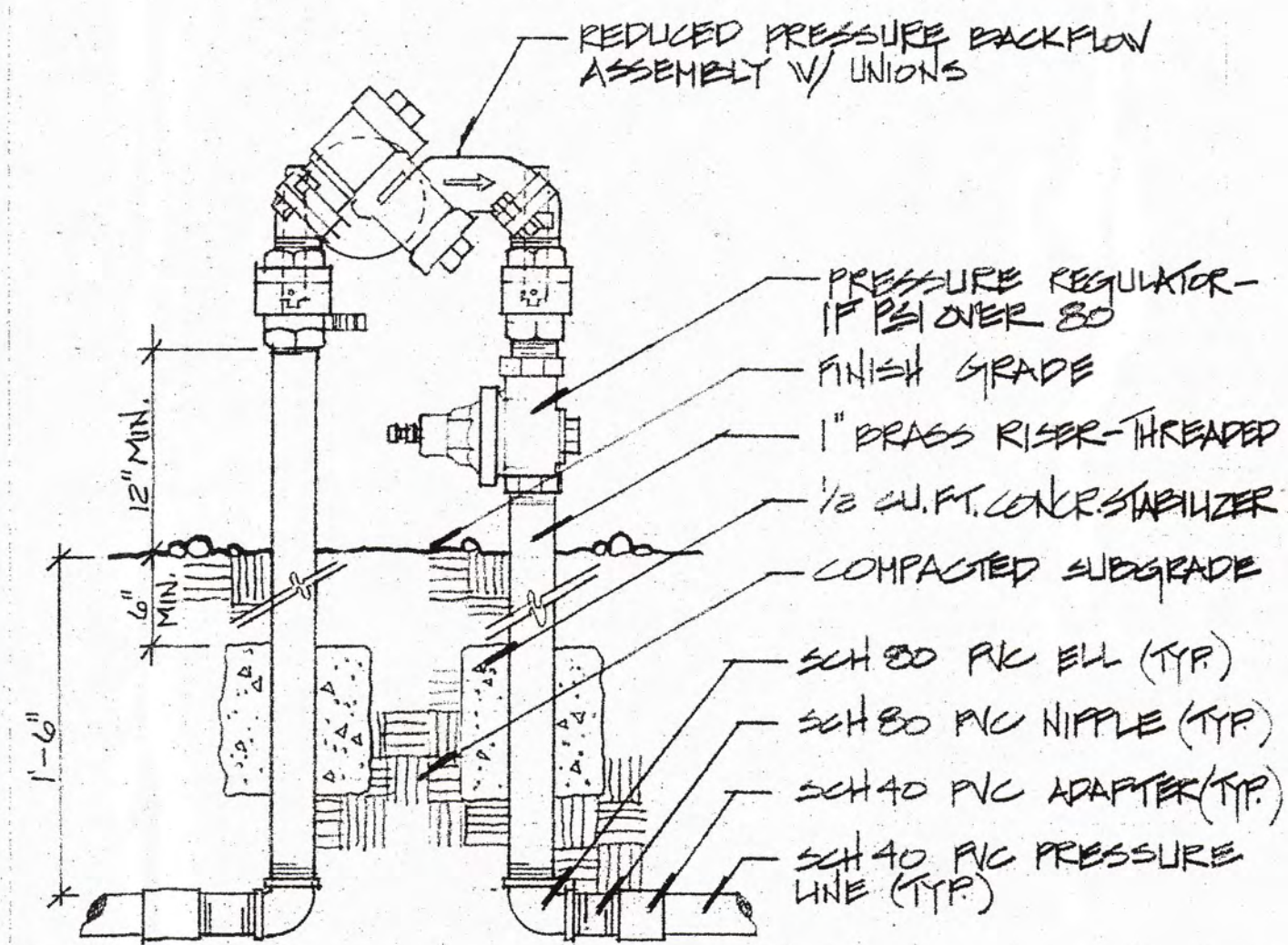




SECTION

**A FEEDER TUBE**

NO SCALE



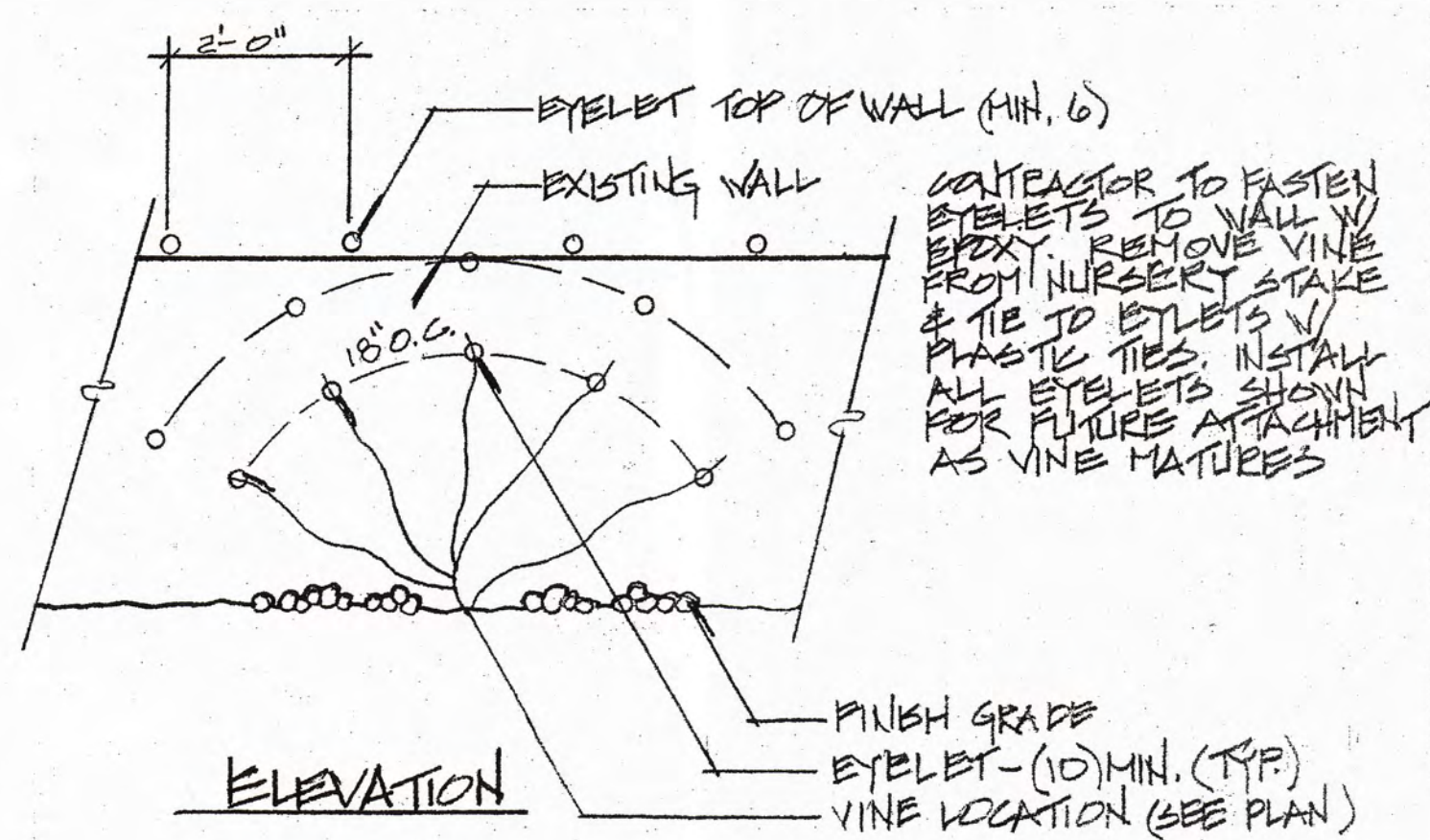
SECTION

**C BACKFLOW PREVENTER - REDUCED PRESSURE**

NO SCALE

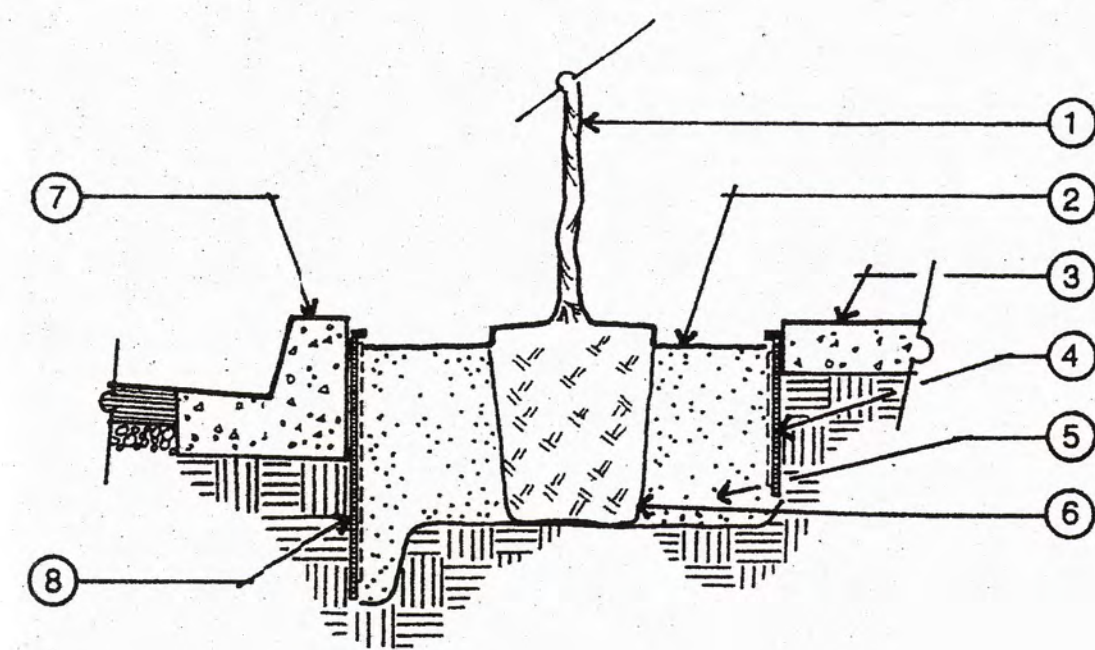
NOTES:

- 3/4" TEFLON TAPE TO BE USED ON ALL THREADED CONNECTIONS.
- GLOBE NIPPLES SHALL NOT BE USED.
- INSTALL PER CITY OF PUNAY STD DRAWING #AV-26



**B VINE ATTACHMENT**

NO SCALE



SECTION

**D ROOT BARRIER**

NO SCALE

10-04

REVISIONS

7-12-19 FOOT PRINT

DETAILS

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

858-541-1076  
5346 Palmdale Drive  
San Diego, California 92124  
antigua design studio

DATE 4-1-17

SCALE

PROJ #17-01

SHEET

L9



# CONSTRUCTION SPECIFICATIONS

## PLANS

ALL CONSTRUCTION ITEMS SHALL BE LOCATED AS DIMENSIONED ON THE PLANS UNLESS OTHERWISE INDICATED IN NOTES, DETAILS, LEGENDS AND SPECIFICATIONS.

THESE PLANS ARE PREPARED FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND RESOLVE ANY DISCREPANCIES WITH THE OWNER PRIOR TO COMMENCEMENT OF WORK.

## CONCRETE WORK

### MATERIALS

CEMENT SHALL BE PORTLAND CEMENT 520-A-2500 CONFORMING TO THE LATEST "GREEN BOOK" ASTM STANDARD SPECIFICATION FOR PORTLAND CEMENT, C-150 TYPE II LOW ALKALINE. ONE BRAND ONLY SHALL BE USED.

AGGREGATE SHALL COMPLY WITH "GREEN BOOK" ASTM C-33, EXCEPT AS NOTED ON THE PLANS.

WATER SHALL BE FRESH, CLEAN, FREE FROM OIL, ACID, ALKALI, SALTS, AND ORGANIC MATTER.

ALL TRANSIT MIXED CONCRETE SHALL BE DELIVERED IN ACCORDANCE WITH ASTM C-94.

CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 2500 PSI AT THE END OF TWENTY EIGHT DAYS.

### INSTALLATION

ALL CONCRETE SHALL BE DENSE, FREE FROM HONEYCOMBING OR OTHER DEFECTS, AND SHALL CONFORM TO THE SHAPES, DIMENSIONS AND FINISH GRADE ELEVATIONS AS INDICATED ON THE PLANS.

ALL EXPOSED SURFACES SHALL BE FREE FROM JOINT AND POUR LINES AND SHALL HAVE A UNIFORM TEXTURE. ALL CONCRETE SHALL CONFORM TO THE TEXTURES AND FINISHES AS CALLED FOR IN THE PLANS.

EXPANSION JOINTS SHALL BE A MINIMUM OF ONE HALF INCH THICK AND SHALL BE PLACED THE FULL DEPTH OF THE CONCRETE. EXPANSION JOINT MATERIAL SHALL BE CELOTEX FLEX CELL OR APPROVED EQUAL.

WHEN CURING COMPOUNDS ARE USED, ADJACENT SURFACES SHALL BE PROTECTED BY CONTRACTOR FROM OVERSPRAY.

ALL WALKS SHALL DRAIN AT A MINIMUM OF 1% CROSSFALL, OR AS NOTED ON THE PLANS.

## MASONRY WORK

### BLOCK

ALL MASONRY COURSES FOR RETAINING WALLS SHALL BE SET LEVEL. CONTRACTOR SHALL RESOLVE ALL DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.

ALL STUCCO FINISHES SHALL MATCH BUILDING ARCHITECTURE UNLESS OTHERWISE NOTED ON PLANS.

### MORTAR JOINTS

ALL MORTAR JOINTS SHALL BE PORTLAND CEMENT-LIME MORTAR TYPE "S" AND CONFORM TO THE LATEST ASTM STANDARDS.

CONTRACTOR SHALL USE MATERIALS AND MIX BY PROPORTIONS IN ACCORDANCE WITH BIA M1-72.

ALL VISIBLE JOINTS SHALL NOT EXCEED 1/8".

## PERMEABLE CONCRETE PAVING UNITS

### MATERIALS

THE PRODUCT SHALL BE BELGARD BERGERAC STONE PAVERS, MANUFACTURED BY OLDCASTLE ARCHITECTURAL, INC., MEETING ASTM C936 REQUIREMENTS, OR AS DIRECTED BY OWNER. COLOR AND FINISH TO BE SELECTED BY OWNERS. CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING MANUFACTURER'S SPECIFICATIONS FOR MATERIALS AND INSTALLATION PROCEDURES, SHOULD OWNER SELECT ANOTHER PRODUCT.

BEDDING, BASE AND SUBBASE MATERIAL AND DEPTH SHALL BE DETERMINED BY MANUFACTURER'S ENGINEERS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING SOIL TESTS TO DETERMINE SOIL TYPE. FOR CONVENIENCE OF CONTRACTOR NORMAL CONDITIONS PROVIDED FOR ESTIMATING PURPOSES, BUT SHOULD NOT BE USED AS INSTRUCTIONS.

SAND SETTING BED AND JOINT SAND SHALL BE COARSE, CLEAN SAND MEETING ASTM C33 STANDARDS. MASONRY SAND, STONE DUST OR SCREENINGS ARE NOT PERMITTED.

### INSTALLATION

CONTRACTOR TO EXCAVATE TO THE DEPTH REQUIRED FOR APPLICATION AND TO A WIDTH BEYOND PAVING LIMITS EQUAL TO THE DEPTH OF THE BASE MATERIAL. COMPACT SOIL TO 98% PROCTOR DENSITY PER ASTM D698.

LAY HORTICULTURAL FILTER CLOTH, WOVEN OR UNWOVEN, ON HORIZONTAL AND VERTICAL SURFACES, OVERLAPPING EDGES BY 12 INCHES. A GEOTEXTILE SHOULD BE USED IN ADDITION IF SUBGRADE IS CLAY OR IS POORLY DRAINED AND APT TO STAY WET FOR EXTENDED PERIODS. SPREAD REQUIRED DEPTH OF BASE MATERIAL AND RE-COMPACT.

UNLESS INSTRUCTED OTHERWISE, THE EDGE COURSE OF PAVERS SHALL BE SET IN TROWELED CONCRETE AS AN EDGE RESTRAINT. HOUSE FOOTINGS AND PROPERLY CONSTRUCTED RETAINING WALLS OR CURBS WILL SUFFICE FOR AN EDGE RESTRAINT.

A TWO INCH LAYER OF LOOSE SCREEDED SAND SHALL BE SPREAD OVER THE BASE LAYER WITHIN THE EDGE RESTRAINT, SLOPING THE SURFACE TOWARDS DRAINS. THE SAND BASE IS NOT TO BE COMPACTED PRIOR TO INSTALLATION OF PAVERS. PAVERS SHALL BE LAID IN AN ASHLAR PATTERN AS DETERMINED BY THE MANUFACTURER. CUT PAVERS WITH A SPLITTER OR MASONRY SAW TO FIT ALONG THE EDGE OF PAVEMENT. COMPACT PAVERS INTO SAND BED WITH A PLATE COMPACTOR.

SPREAD SAND OVER PAVERS AND ALLOW TO DRY. SWEEP SAND OVER THE PAVERS AND USE A PLATE COMPACTOR TO COMPLETELY FILL JOINTS. IT MAY BE NECESSARY TO RE-SAND THE PAVING IN TWO TO THREE WEEKS.

## ORNAMENTAL IRON FENCES

ORNAMENTAL IRON FENCE, POSTS, HARDWARE AND ACCESSORIES SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN COMPLIANCE WITH ASTM SPECIFICATIONS A-123-85 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS" AND ASTM A-163-82 "ZINC COATINGS (HOT-DIP) ON IRON AND STEEL HARDWARE" AS APPLICABLE.

ALL GALVANIZING SLAG SHALL BE REMOVED FROM METAL SURFACES, PRIOR TO APPLICATION OF PRIMER. ALL METAL SURFACES SHALL BE CLEANED WITH ANCHERMETAL-PREP 79 OR EQUAL BY FULL IMMERSION, FOLLOWED BY IMMERSION IN ANCHERMETAL-PREP 80-3 COATING CHEMICAL OR EQUAL, IN STRICT ACCORDANCE WITH FACTORY PROCEDURES AND INSTRUCTION.

PRIMER SHALL BE HI-BUILD, HI-SOLID EPOXY POLYMAID COLOR-MEDIUM GREY APPLIED TO A MINIMUM OF 2.5 MILS DRY FILM THICKNESS AS REQUIRED BY THE PAINT MANUFACTURER.

FINISH COAT SHALL BE HI-BUILD, HI-SOLID ALPHAEATIC POLYURETHANE WITH A MINIMUM THICKNESS OF 2 MILS DRY FILM THICKNESS AS RECOMMENDED BY THE PAINT MANUFACTURER. COLOR AS INDICATED ON PLANS.

## GUARANTEE

ALL CONSTRUCTION WORK SHALL BE GUARANTEED AGAINST ALL DEFECTS OF WORKMANSHIP AND MATERIALS, INCLUDING SETTLING OR GRADED AREAS, FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE (COMPLETION) BY OWNER.

## DRAINAGE NOTES

GRADING AND DRAINAGE PLANS, INCLUDING BIOSWALE CONSTRUCTION AND ASSOCIATED SOIL MIX, HAVE BEEN PREPARED BY A LICENSED ENGINEER AND ARE NOT INCLUDED IN THE LANDSCAPE PLANS. THE NOTES BELOW ARE PUT FORTH IN THE LANDSCAPE PLAN FOR CONVENIENCE OF THE CITY AND THE CONTRACTOR ONLY, AND DO NOT REPRESENT FULL GRADING AND DRAINAGE SPECIFICATIONS. REFER TO ENGINEERS PLANS FOR COMPLETE SPECIFICATIONS.

PROPOSED SITE IMPROVEMENTS INCLUDE PERMEABLE PAVING AND BIOSWALES. NEW IMPERVIOUS SURFACES SHALL DIRECT STORM WATER DRAINAGE TO LANDSCAPE AREAS. DOWN SPOUTS SHALL BE PROVIDED WITH ARMORED EXITS THAT PREVENT EROSION AND DIRECT STORM WATER TO BIOSWALES AND LANDSCAPE AREAS.

CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ALL DISCREPANCIES BETWEEN CONDITIONS FOUND ON SITE AND THOSE REPRESENTED ON THE PLAN. LANDSCAPE ARCHITECT SHALL APPROVE ALL CHANGES TO THE PLAN PRIOR TO INSTALLATION.

CONTRACTOR SHALL RECEIVE SITE AT GRADE.

## FINISH GRADING/SURFACE DRAINAGE

LANDSCAPE GRADING AND DRAINAGE SHALL CONFORM TO CITY OF LEMON GROVE GRADING ORDINANCE, STANDARD URBAN STORMWATER MITIGATION PLAN (SUSMP) ORDINANCE, AND OTHER APPLICABLE CODES AND ORDINANCES.

CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH GRADES BEING SMOOTH AND ROCK, CLOD AND ROOT FREE, WITHOUT LOW SPOTS OR GRADING IRREGULARITIES. CONTRACTOR SHALL UNIFORMLY SMOOTH AND ROUND OFF ALL TOPS AND TOES OF SLOPES.

CONTRACTOR SHALL PERFORM WATER TEST FOR POSITIVE DRAINAGE IN THE PRESENCE OF OWNER OR LANDSCAPE ARCHITECT.

FINISH GRADE AT BUILDING EDGE SHALL BE 6 INCHES BELOW FINISH FLOOR ELEVATION. THE FINISH GRADE SHALL BE TWO INCHES BELOW ADJACENT FINISH PAVING SURFACES IN SHRUB BEDS AND ONE INCH BELOW ADJACENT FINISH PAVING SURFACES IN TURF AREAS. SOIL BACKFILL BEHIND RETAINING WALLS SHALL BE 4 INCHES LOWER THAN TOP OF WALL.

## DRAINAGE SYSTEM

STORM WATER SHALL NOT BE DIVERTED TO FLOW ONTO ADJACENT PROPERTY, NON-IRRIGATES AREAS, STRUCTURES, WALKWAYS, ROADWAYS, OR OTHER PAVED AREAS, WHETHER DUE TO RUNOFF, LOW HEAD DRAINAGE OVERSPRAY OR OTHER SIMILAR CONDITIONS UNLESS APPROVED BY THE ENGINEERING DIVISION.

CONTRACTOR SHALL PROVIDE CLEAN-OUTS AS REQUIRED FOR EFFICIENT CLEARING OF ALL DRAIN PIPES.

## IRRIGATION SPECIFICATIONS

### PLANS

THE PLANS ARE DIAGRAMMATIC. ALL IRRIGATION EQUIPMENT SHALL BE LOCATED IN PLANTING AREAS AND NOT IN PAVED AREAS, UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE PLANS AND APPROVED BY THE CITY. REFER TO NOTES, DETAILS, AND LEGENDS TO VERIFY LOCATION OF IRRIGATION EQUIPMENT.

ALL IRRIGATION LINES AND AFFURTENANCES ARE TO BE INSTALLED INSIDE THE PROPERTY LINE AND OUTSIDE OF PUBLIC RIGHT OF WAY. AT NO TIME WILL AN IRRIGATION LINE CROSS A PUBLIC STREET, UNLESS SPECIFICALLY INDICATED OTHERWISE.

APPLICABLE LAWS, ORDINANCES AND REGULATIONS GOVERNING IRRIGATION WORK ARE INCORPORATED INTO THESE REQUIREMENTS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. REQUIREMENT OF THIS SECTION SHALL NOT BE CONSTRUED TO CONFLICT WITH APPLICABLE LAWS, ORDINANCES AND REGULATIONS. HOWEVER, IF ABOVE REQUIREMENTS DESCRIBE MATERIALS, WORKMANSHIP AND CONSTRUCTION OF BETTER QUALITY, HIGHER STANDARD AND LARGER SIZE THAN IS REQUIRED BY ORDINANCES AND REGULATIONS, PROVISIONS OF THESE SPECIFICATIONS SHALL TAKE PRECEDENCE.

### SITE CONDITIONS

CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING PLANTING AND IRRIGATION PLAN LAYOUT AGAINST ACTUAL GRADED FIELD CONDITIONS PRIOR TO COMMENCEMENT OF WORK. ANY DEVIATIONS IN ACTUAL FIELD CONDITIONS FROM THOSE SHOWN ON THE IRRIGATION PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF REPLACING AND/OR MODIFYING ANY IRRIGATION EQUIPMENT INSTALLED WHERE FIELD CONDITIONS DIFFER FROM THOSE SHOWN ON PLANTING AND/OR IRRIGATION PLANS WHEN SAID INSTALLATION HAS NOT BEEN APPROVED IN ADVANCE BY OWNER OR LANDSCAPE ARCHITECT.

### PLUMBING PERMIT

A SEPARATE PLUMBING PERMIT AND INSPECTION WILL BE REQUIRED FROM THE BUILDING INSPECTION DEPARTMENT FOR THE INSTALLATION OF THE IRRIGATION SYSTEM SHOWN ON THESE DRAWINGS.

### MATERIALS

#### PVC PIPE

PRESSURE LINE PIPE SHALL BE SCHEDULE 40 PVC TYPE 1120-1220. PRESSURE LINE FITTINGS SHALL BE TYPE I-I, SCHEDULE 40, NSF APPROVED.

LATERAL NON-PRESSURE PIPE SHALL BE PVC SCHEDULE 40 TYPE 1120-1220. LATERAL LINE FITTINGS SHALL BE TYPE I-I, SCHEDULE 40, NSF APPROVED.

PIPE SHALL BE MARKED AT INTERVALS NOT TO EXCEED FIVE FEET WITH THE FOLLOWING INFORMATION: MANUFACTURER'S NAME, PIPE SIZE, PVC TYPE AND GRADE, AND PRESSURE RATING IN PSI.

ALL THREADED FITTINGS SHALL BE TYPE I-I, SCHEDULE 80, NSF APPROVED.

THREADED PVC NIPPLES SHALL BE GREY OR BLACK IN COLOR.

TEFLON TAPE, 3/4" WIDE, MINIMUM TWO LAYERS, SHALL BE USED ON ALL THREADED CONNECTIONS.

#### SOLVENT CEMENT

SOLVENT CEMENT AND PRIMER FOR PVC PIPE SHALL BE AS RECOMMENDED BY PIPE MANUFACTURER AND NSF APPROVED. CEMENT USED ON PRESSURE MAIN LINE PIPE AND FITTINGS SHALL HAVE MEDIUM SET TIME AND CURE TIME OF 24 HOURS MINIMUM.

## SUBSURFACE DRIP LINE

SUBSURFACE DRIP LINE SHALL BE TECHLINE SELF-CLEANING, PRESSURE COMPENSATING EMITTER LINE MANUFACTURED BY NETAFIM WITH .67" OUTSIDE DIAMETER AND .57" INTERIOR DIAMETER. SPACING OF FACTORY INSTALLED EMITTERS SHALL BE 12 INCHES APART. DRIPLINE OUTPUT SHALL BE .9 GPH EXCEPT AS NOTED BELOW IN NARROW BEDS.

ALL ADAPTERS AND BARBED CONNECTORS SHALL BE TECHLINE PARTS MANUFACTURED BY NETAFIM. ALL SUPPLY AND EXHAUST HEADERS AND FITTINGS SHALL BE 1/2 INCH PVC.

### CONTROL WIRE

ALL DIRECT BURIAL CONTROL WIRE SHALL BE AWG-U.F. #14-600 VOLT U.L. APPROVED. COMMON WIRE SHALL BE WHITE. A DIFFERENT COLOR SHALL BE PROVIDED FOR EACH VALVE STATION INCLUDING EXTRA WIRE. COMMON (NEUTRAL) WIRES SHALL BE WHITE. CONTROL WIRES SHALL BE COLORS OTHER THAN WHITE AND RED. CONTRACTOR SHALL INSTALL WIRES IN ACCORDANCE WITH THE VALVE MANUFACTURER'S SPECIFICATIONS.

WIRE CONNECTIONS SHALL BE MADE WITH EPOXY FILLED, WATERPROOF SPLICE KITS, SUCH AS PEN-TITE OR APPROVED EQUAL.

### VALVES

MANIFOLD BALL VALVES SHALL BE THE SAME SIZE AS LARGEST CONTROL VALVE IN THE MANIFOLD.

REMOTE CONTROL VALVES SHALL BE ENERGY AND FLOW EFFICIENT, GLOBE OR ANGLE TYPE, WITH BODIES CONSTRUCTED OF BRASS OR HEAVY-DUTY PLASTIC. CONTROL VALVES SHALL BE OF SLOW-CLOSING DESIGN, AND AUTOMATICALLY CLOSE IF POWER IS INTERRUPTED AND VALVES MALFUNCTION.

### VALVE BOXES

FOR MANUAL VALVES: VALVE BOXES SHALL BE TWO PIECE-SLIP ADJUSTMENT TYPE PLASTIC, COMPLETE WITH COVERS. SHAFTS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 5/8" AND SHALL BE PROVIDED WITH SUITABLE BELLS OR BASES.

FOR REMOTE CONTROL VALVES: VALVE BOXES SHALL BE ONE PIECE PLASTIC WITH PLASTIC COVER MARKED "IRRIGATION".

### BACKFLOW PREVENTION DEVICE

BACKFLOW PREVENTION DEVICES SHALL BE LOCATED AS INDICATED ON THE IRRIGATION PLAN. INSTALLATION SHALL CONFORM TO LOCAL GOVERNING CODES AND REGULATIONS AND MANUFACTURER'S SPECIFICATIONS.

### INSTALLATION

CONTRACTOR SHALL NOT WILLFULLY INSTALL IRRIGATION SYSTEM AS SHOWN ON DRAWINGS IF OBSTRUCTIONS, GRADE DIFFERENCES AND DISCREPANCIES IN AREA DIMENSIONS EXIST IN THE FIELD, WHICH MAY NOT HAVE BEEN KNOWN DURING IRRIGATION SYSTEM DESIGN. NOTIFY LANDSCAPE ARCHITECT AND, IF PROPERTY IS LOCATED IN POWAY, THE CITY AS SOON AS OBSTRUCTIONS AND DIFFERENCES ARE DISCOVERED. IF NOTIFICATION IS NOT PERFORMED, THEN CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR FIELD CHANGES.

IRRIGATION SYSTEM SHALL MEET PERFORMANCE STANDARDS WITH RESPECT TO WATER APPLICATION AND CONSERVATION NOTED BELOW:

IRRIGATION WATER SHALL BE APPLIED AT RATES THAT WHEN MATCHED TO THE SLOPE GRADIENT SUCH THAT SOIL PERCOLATION RATES ARE NOT EXCEEDED. IF VARYING SOIL TYPES ARE PRESENT ON SITE, THEN IRRIGATION SYSTEM DESIGN SHALL BE COMPATIBLE WITH SOIL HAVING LOWEST PERCOLATION RATE.

SLOPES WITH A GRADIENT OF 3:1 OR STEEPER AND GREATER THAN 6 FEET IN HEIGHT THAT ARE IRRIGATED WITH AN OVERHEAD SPRAY SYSTEM MUST HAVE A PRECIPITATION RATE NO GREATER THAN 0.75 INCHES PER HOUR.

AUTOMATIC SYSTEMS SHALL BE UTILIZED AND PROGRAMMED TO PREVENT PONDING AND RUNOFF OF IRRIGATION WATER. IF RUNOFF OCCURS BEFORE LANDSCAPE WATER REQUIREMENTS ARE MET, THEN AUTOMATIC CONTROLLERS SHALL BE REPROGRAMMED WITH SHORTER AND MORE FREQUENT WATERING CYCLES.

IRRIGATION SYSTEMS SHALL DISTRIBUTE WATER UNIFORMLY THROUGHOUT LANDSCAPED AREAS, WITH NO EXCESSIVELY WET OR DRY AREAS.

### POINT OF CONNECTION

PLAN INDICATES POINT OF CONNECTION ON EXISTING MAIN PRESSURE LINE BETWEEN METER AND HOUSE OR BUILDING. CONTRACTOR SHALL VERIFY SIZE OF METER, LOCATION OF MAIN LINE AND THAT MAINLINE PIPE IS SCHEDULE 40 AND THE SAME DIAMETER OR LARGER THAN THE LARGEST NEW LATERAL PIPE TO BE INSTALLED. CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT IF METER OR MAINLINE SIZE DOES NOT MEET REQUIREMENTS OF PLAN.

### BACKFLOW PREVENTION DEVICE

CONCRETE PADS SHALL BE INSTALLED BELOW BACKFLOW PREVENTERS. BOTTOM OF BACKFLOW PREVENTER SHALL BE 12 INCHES MINIMUM AND 18 INCHES MAXIMUM ABOVE FINISHED SURFACE OF CONCRETE PAD.

BACKFLOW DEVICES SHALL MEET REQUIREMENT OF STATE OF CALIFORNIA ADMINISTRATIVE CODE, TITLE 17, CALIFORNIA DEPARTMENT OF HEALTH SERVICES "GUIDANCE MANUAL FOR CROSS CONNECTION CONTROL PROGRAMS," LATEST EDITION (PUBLIC WATER SUPPLY BRANCH); AND SAN DIEGO REGIONAL STANDARD DRAWINGS, INCLUDING CITY OF POWAY SUPPLEMENTAL AMENDMENTS (LATEST EDITION).

IF WATER PRESSURE IS INCREASED TO ABOVE CURRENT WATER PRESSURE OF 70 PSI, CONTRACTOR SHALL PROVIDE BACKFLOW PREVENTER WITH STRAINERS AND PRESSURE REGULATION VALVES TO PROTECT DEVICES FROM WATER SUPPLY SYSTEM PRESSURE SURGES AND HIGH SYSTEM PRESSURE.

### CONTROLLER

CONTRACTOR SHALL VERIFY LOCATION FOR THE INSTALLATION OF NEW AUTOMATIC CONTROLLER WITH OWNER.

### TRENCHING

CONTRACTOR SHALL AVOID CUTTING ROOTS OVER TWO INCHES IN DIAMETER. WHEN SUCH ROOTS ARE ENCOUNTERED, CONTRACTOR SHALL HAND TRENCH AROUND ROOTS TO PIPE GRADE. MINIMUM WIDTH OF TRENCH SHALL BE AT LEAST FOUR INCHES.

TRENCHES SHALL BE DUG WITH STRAIGHT RUNS. BOTTOMS OF TRENCHES SHALL EVENLY SUPPORT PIPES. TRENCHING SHALL FOLLOW LAYOUT INDICATED ON PLANS, UNLESS OBSTRUCTIONS OCCUR IN THE FIELD.

CONTRACTOR SHALL PROVIDE MINIMUM COVER OF 30 INCHES MINIMUM OVER PRESSURE LINES UNDER VEHICULAR PAVING AND 24 INCHES MINIMUM OVER NON-PRESSURE LINES UNDER VEHICULAR PAVING. WITHIN THE LANDSCAPE PROVIDE 18 INCHES FOR PRESSURE SUPPLY LINES AND 12 INCHES FOR ALL LATERAL NON-PRESSURE LINES. PROVIDE MINIMUM COVER OF 18 INCHES FOR DIRECT BURIAL CONTROL WIRING AND 24 INCHES FOR ELECTRICAL CABLE IN CONDUIT.

FOR SUBSURFACE DRIP LINES, CONTRACTOR SHALL PROVIDE PARALLEL TRENCHES FOR EMITTER TUBING AND PVC END CONNECTIONS WITH 4 INCHES COVER. SPACING BETWEEN LINES SHALL BE AS INDICATED ON PLAN.

ALL IRRIGATION PRESSURE LINES SHALL HAVE A MINIMUM FOUR INCH CLEARANCE WHEN CROSSING OTHER PRESSURE LINES, ANY LATERAL LINES, AND LINES OF OTHER TRADES. PARALLEL LINES SHALL NOT BE INSTALLED DIRECTLY OVER ONE ANOTHER, EXCEPT WHEN INDICATED.

### SLEEVES

INSTALL SCHEDULE 40 PVC SLEEVES TWO TIMES THE DIAMETER OF THE PIPE (2 INCHES MINIMUM DIAMETER) IT IS RECEIVING WHERE IRRIGATION LINES (MAIN AND LATERALS) ARE LOCATED UNDER PAVING OR CROSS THROUGH ANY HARDSCAPE MATERIALS. SLEEVES SHALL EXTEND 12" BEYOND EACH SIDE OF PAVEMENT. SLEEVING SHALL BE MARKED WITH A PAINTED SPONT ON THE BACK FACE OF THE CURB OR HARDSCAPE.

### VALVES

PROVIDE ISOLATION BALL VALVES AT POINTS-OF-CONNECTION AND AT BRANCHES AND "TEES" IN MAIN LINES. AN ISOLATION VALVE SHALL BE INSTALLED UPSTREAM FROM SLOPES.

### REMOTE CONTROL VALVES

REMOTE CONTROL VALVES MANIFOLDS SHALL BE CONNECTED OFF OF A SINGLE TEE ON THE MAINLINE EXCEPT AT THE END OF THE MAINLINE. VALVES SHALL BE SET A MINIMUM OF SIX INCHES (6") APART TO ALLOW SERVICING.

INSTALL VALVES BELOW GRADE IN RECTANGULAR VALVE BOXES WITH LOCKING LIDS. VALVE BOXES SHALL BE MANUFACTURED OF HEAVY-DUTY PLASTIC. INSTALL ONLY ONE VALVE IN EACH VALVE BOX.

CLEARANCE BETWEEN TOP OF VALVE FLOW CONTROL HANDLES AND VALVE BOX LIDS AND BETWEEN BOTTOM OF VALVES AND GRAVEL SUMPS SHALL BE TWO INCHES MINIMUM AND SIX INCHES MAXIMUM.

CLEARANCE BETWEEN TOP OF PIPING AND BOTTOM OF VALVE BOXES AND VALVE BOX "KNOCK-OUTS" SHALL BE TWO INCHES MINIMUM AND FOUR INCHES MAXIMUM.

VALVES SHALL NOT BE INSTALLED CLOSER THAN 12 INCHES FROM PAVING AND STRUCTURES.

### QUICK COUPLING VALVES

VALVES LOCATED IN MANIFOLDS WITH REMOTE CONTROL VALVES SHALL BE PLACED AT END OF MANIFOLDS.

VALVES SHALL BE INSTALLED WITH CONCRETE THRUST BLOCKS (ONE CUBIC FOOT MINIMUM).

### CHECK VALVES AND ANTI-DRAIN VALVES

IF LOW HEAD DRAINAGE OCCURS, CONTRACTOR SHALL INSTALL ANTI-DRAIN VALVES ON SPRAY HEADS.

CHECK VALVES SHALL BE INSTALLED ON LATERALS LOCATED ABOVE THE ELEVATION OF REMOTE CONTROL VALVES TO PREVENT DRAINAGE OF WATER FROM IRRIGATION SPRINKLERS DUE TO CHANGES IN ELEVATION.

### PIPE

PVC PIPE SHALL BE INSTALLED IN A SERPENTINE MANNER (SNAKED) TO ALLOW FOR EXPANSION AND CONTRACTION IN THE TRENCH BEFORE BACKFILLING.

PIPE SHALL BE INSTALLED IN TRENCHES WITH MARKINGS AT TOP OF PIPE AND CLEARLY VISIBLE FOR INSPECTION.

TEFLON TAPE, 3/4" WIDE, MINIMUM TWO LAYERS, SHALL BE USED ON ALL PRESSURE LINE THREADED CONNECTIONS (BRASS AND PVC).

CONTRACTOR SHALL CUT PLASTIC PIPE AND TUBING CLEANLY WITH PIPE CUTTERS OR SHEARS. DO NOT CUT PIPE WITH SAWS.

PRIOR TO INSTALLATION OF SPRINKLER HEADS AND HOSE BIBBS, THOROUGHLY FLUSH PIPING SYSTEM UNDER A FULL HEAD OF WATER. MAINTAIN FLUSHING UNTIL ALL PIPES ARE CLEAR OF ALL FOREIGN MATTER. AFTER FLUSHING, IMMEDIATELY CAP ALL RISERS.

### IRRIGATION HEADS

ALL IRRIGATION HEADS ARE TO BE LOCATED A MINIMUM OF SIX INCHES (6") AWAY FROM ANY HARDSCAPE, WALLS, OR STRUCTURE.

IRRIGATION HEADS WITHIN 24 INCHES ADJACENT TO VEHICLE OR PEDESTRIAN USE AREAS SHALL BE INSTALLED WITH POPUP SPRINKLERS.

IRRIGATION HEADS SHALL BE INSTALLED WITH DOUBLE SWING JOINTS OR MULTIPLE THREADED ELLS BETWEEN HEADS AND LATERAL PIPING.

NOZZLE RADIUS, NOZZLE ARC AND SCREEN SIZE ARE PROVIDED FOR CONTRACTOR'S CONVENIENCE ONLY. CONTRACTOR SHALL ADJUST THESE AS NECESSARY TO ACHIEVE 100% COVERAGE AND MINIMAL OVERSPRAY.

### SUBSURFACE DRIPLINES

EACH VALVE CIRCUIT SHALL BE A CLOSED SYSTEM OF PARALLEL ROWS OF DRIP LINES CONNECTED WITH SCHEDULE 40 PVC SUPPLY AND EXHAUST LINES. SINGLE DEAD END LINES ARE NOT PERMITTED. DISTANCE BETWEEN LINES SHALL BE AS SHOWN ON PLAN.

CONTRACTOR SHALL ENSURE THAT AN EMITTER IS WITHIN 3 INCHES OF ALL JUNCTIONS, CONNECTIONS AND SPLICES OF DRIP LINES OR THAT THE GREATEST DISTANCE BETWEEN ANY TWO EMITTERS IS THAT OF THE FACTORY INSTALLED EMITTERS IN THE IN THE DRIP LINE TUBING.

OVERSIZED PLANTS MAY BE PLANTED PRIOR TO INSTALLATION OF DRIPLINE PROVIDED ROOT ZONE IS KEPT MOIST. ALTERNATIVELY, DRIPLINE MAY BE CUT AND TAPED SHUT PRIOR TO PLANTING AND SPLICED AFTER INSTALLING OVERSIZED MATERIAL.

DRIPLINE SHALL BE STABILIZED WITH 6 INCH SOIL STAPLES EVERY 3 FEET IN SANDY SOIL, 4 FEET IN LOAM AND 5 FEET IN CLAY SOIL.

CONTRACTOR SHALL INSTALL A MANUAL FLUSH VALVE NEAR THE END OF EACH CIRCUIT UNLESS INDICATED OTHERWISE ON THE PLAN.

PRIOR TO COVERING TRENCHES SYSTEM SHALL BE TESTED FOR LEAKS.

### PLANTING GUIDELINES FOR SUBSURFACE DRIPLINES

PRE-IRRIGATE TO ENSURE THAT THE SOIL IS HYDRATED TO FIELD CAPACITY BEFORE PLANTING OR HYDROSEEDING BEGINS.

OVER-IRRIGATE DURING ESTABLISHMENT PERIOD TO MAINTAIN UNIFORM SOIL MOISTURE NECESSARY FOR DEVELOPMENT OF ROOTS FROM SMALLER SIZED CONTAINERS.

### WIRE

WIRE RUNS ARE TO BE CONTINUOUS FROM CONTROLLER TO VALVE WITH SPLICES AT VALVES ONLY. APPROVED WIRE SPLICES SHALL BE MADE IN PULL BOXES ONLY.

CONTRACTOR SHALL INSTALL NEW WIRE FROM CONTROLLER TO VALVES. EXISTING CONTROL WIRE SHALL BE TESTED FOR CONTINUITY AND REPLACED IF DEFECTIVE.

REVISIONS

SPECIFICATIONS

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

858-541-1076  
5346 Delandia Drive  
San Diego, California 92124  
design studio

antigua

DATE 4-1-17

SCALE

PROJECT # 17-01

SHEET

L-10





CONTRACTOR SHALL INSTALL 2 SPARE CONTROL WIRES MINIMUM BUNDLED TOGETHER WITH THE PILOT WIRES FOR EACH MAIN LINE RUN. WIRE SHALL BE #14 AWG AND RED IN COLOR. ALL SPARE WIRES SHALL PASS FROM END OF MAINLINE TRENCH THROUGH ALL VALVE BOX LOCATIONS SERVICED BY THE CONTROLLER AND SHALL TERMINATE WITHIN THE CONTROLLER ENCLOSURE.

CONTROL WIRES SHALL BE BUNDLED WITH ELECTRICAL TAPE AT MAXIMUM TEN FOOT INTERVALS. WIRING SHALL OCCUPY THE SAME TRENCH AND SHALL BE TAPED WITH DUCT TAPE AT TWENTY FOOT INTERVALS TO THE BOTTOM OF PRESSURE SUPPLY LINES WHENEVER POSSIBLE.

ALL WIRES SHALL BE INSTALLED WITH TWELVE INCHES OF EXCESS WIRE COILED AT NINETY DEGREE CHANGES IN DIRECTION. A MINIMUM OF 24" OF EXCESS WIRE SHALL BE COILED AT EACH VALVE.

#### BACKFILL

TRENCHES SHALL NOT BE BACKFILLED UNTIL AFTER REQUIRED TESTS AND INSPECTIONS ARE PERFORMED.

BACKFILL SHALL BE FREE FROM DEBRIS, EARTH CLODS OR STONES OVER 1/2 INCH IN SIZE OR ORGANIC MATERIAL THAT MAY DAMAGE PIPES OR EQUIPMENT. CONTRACTOR SHALL COMPACT BACKFILL TO A DRY DENSITY EQUAL TO ADJACENT UNDISTURBED SOIL IN PLANTING AREAS AND TO NINETY-FIVE PERCENT RELATIVE COMPACTION UNDER PAVED AREAS. FINISH GRADE OF BACKFILLED TRENCH SHALL CONFORM TO ADJACENT GRADES WITHOUT DIPS, SUNKEN AREAS, HUMPS, AND OTHER SURFACE IRREGULARITIES.

CONTRACTOR SHALL PROVIDE THREE INCHES MINIMUM CLEAN BACKFILL UNDER IRRIGATION LINES.

IF BACKFILL SETTLEMENT OCCURS AND ADJUSTMENTS IN GRADES, IRRIGATION EQUIPMENT, PLANTING, OR OTHER IMPROVEMENTS ARE NECESSARY, THE CONTRACTOR SHALL MAKE REQUIRED REPAIRS AT NO COST TO THE OWNER.

#### TRENCHING AND BACKFILL UNDER PAVING

INSTALLATION OF IRRIGATION PIPE UNDER EXISTING WALKS (SIX FEET AND LESS IN WIDTH) MAY BE ACCOMPLISHED BY JACKING OR BORING. IF CUTTING OR BREAKING OF SIDEWALKS IS REQUIRED, PRIOR APPROVAL SHALL BE OBTAINED FROM THE CITY REPRESENTATIVE.

PROVIDE MINIMUM COVER OF 24 INCHES BETWEEN TOP OF PIPE AND BOTTOM OF PAVING FOR PRESSURE AND NON-PRESSURE PIPE INSTALLED UNDER PAVING.

SCHEDULE 40 PVC SLEEVES SHALL BE INSTALLED FOR IRRIGATION PIPING UNDER PAVED AREAS. IRRIGATION PIPE SLEEVES UNDER PAVING SHALL BE MARKED WITH METALLIC LOCATING TAPE. MARKING TAPE SHALL BE INSTALLED 12 ABOVE AND ALONG ENTIRE LENGTH OF SLEEVES.

TRENCHES LOCATED BELOW ASPHALTIC CONCRETE AND PCC PAVING SHALL BE BACKFILLED WITH SAND (SIX INCHES BELOW AND ABOVE PIPE). COMPACT BACKFILL IN LIFTS TO 95% RELATIVE DENSITY WITH MANUAL OR MECHANICAL TAMPING DEVICES. TRENCHES SHALL BE FLUSH WITH ADJOINING SUBGRADE. CONTRACTOR SHALL SET IN PLACE, CAP, AND PRESSURE TEST IRRIGATION PIPING UNDER PAVING PRIOR TO START OF PAVING WORK.

#### MANUFACTURER'S DIRECTIONS

REFER TO MANUFACTURERS' INSTRUCTIONS AND DETAILED DRAWINGS FOR WORK NOT SHOWN IN CONSTRUCTION DOCUMENTS.

#### TESTING

##### PRESSURE TEST

CONTRACTOR SHALL TEST ALL PRESSURE LINES IN OPEN TRENCHES UNDER HYDROSTATIC PRESSURE OF ONE HUNDRED TWENTY-FIVE POUNDS PER SQUARE INCH PRIOR TO BACKFILLING TRENCHES. PRESSURE SHALL BE SUSTAINED FOR 4 HOURS MINIMUM. CONTRACTOR SHALL SUSTAIN DESIGN OPERATING PRESSURE IN LATERAL LINES FOR NOT LESS THAN ONE HOUR.

IF LEAKS DEVELOP, CONTRACTOR SHALL REPAIR LEAKING PORTIONS AND REPEAT TEST UNTIL ENTIRE SYSTEM IS PROVEN WATER TIGHT.

TEST SHALL BE OBSERVED AND APPROVED BY OWNER.

##### COVERAGE TEST AND ADJUSTMENT

WHEN SYSTEM IS COMPLETE, THE CONTRACTOR SHALL PERFORM A COVERAGE TEST IN THE PRESENCE OF THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTION OF INADEQUATE COVERAGE.

CONTRACTOR SHALL ADJUST ALL IRRIGATION HEADS TO MINIMIZE OVERTHROW ONTO WALKS, WINDOWS, BUILDINGS, PARKING AREAS OR ROADWAYS.

#### MISCELLANEOUS

CONTRACTOR SHALL INSTALL ONE VALVE PER VALVE BOX ONLY, EXCEPT THAT VALVE BOXES 10" X 16" IN SIZE OR LARGER MAY ACCOMMODATE TWO VALVES.

ALL QUICK-COUPPLERS SHALL HAVE YELLOW RING CAPS OR BE PAINTED WITH YELLOW ENAMEL, EXCEPT WHEN DIRECTED, AND THEN ONLY ON NON-PUBLIC PROJECTS.

CONTRACTOR SHALL PROVIDE OWNER AT TURN-OVER CONTROLLER KEYS AND MANUALS AND SIX ADDITIONAL NOZZLES OF EACH TYPE SPECIFIED.

#### MAINTENANCE

WATER USE SHALL CONFORM TO THE MAXIMUM APPLIED WATER ALLOWANCE (MAWA) ESTABLISHED BY THE STATE MWEL (ORD 438 S 1, 2016; ORD. 387 S 3, 2010).

SYSTEM SHALL BE MAINTAINED IN GOOD CONDITION. DEFECTIVE, BROKEN OR MISSING COMPONENTS SHALL BE REPLACED PROMPTLY AND SYSTEM SHALL NOT BE USED UNTIL REPAIRS HAVE BEEN COMPLETED. REPLACEMENT PARTS SHALL BE THOSE SPECIFIED IN THESE PLANS.

IRRIGATION SYSTEM SHALL BE MAINTAINED IN A MANNER THAT WILL PREVENT OVERSPRAY ONTO HARDSCAPE AND BUILDINGS, PUDDLING OF WATER, EROSION AND WATER WASTE. MAINTENANCE CONTRACTOR SHALL UTILIZE A SOIL PROBE TO CHECK SOIL MOISTURE BEFORE AND AFTER IRRIGATION, AND TO IDENTIFY AREAS OF SATURATED SOIL. SOIL ADJACENT TO BUILDINGS SHALL BE KEPT DAMP AND NOT SATURATED.

IRRIGATION SCHEDULING SHALL ENSURE ESTABLISHMENT OF HEALTHY ROOT SYSTEMS WITHOUT OVER WATERING.

IRRIGATION SCHEDULING SHALL BE GRADUALLY REDUCED AFTER PLANTS ARE ESTABLISHED TO THE LEAST AMOUNT OF WATER NECESSARY TO MAINTAIN HEALTHY, THRIVING PLANT MATERIAL.

CONTRACTOR SHALL ADJUST CONTROLLER TIMING AND HEAD COVERAGE ON A REGULAR BASIS FOR SEASONAL CHANGES.

CONTRACTOR SHALL PERIODICALLY CHECK FOR BLOCKAGE BY PLANTS AND ELIMINATE ANY BLOCKAGE IMMEDIATELY. ALL PRUNED DEBRIS SHALL BE REMOVED FROM SITE THE SAME DAY.

OVERHEAD IRRIGATION SHALL BE SCHEDULED BETWEEN 8:00 PM AND 10:00 AM UNLESS WEATHER CONDITIONS PREVENT.

#### GUARANTEE

THE WORK INCLUDED IN THESE PLANS SHALL BE GUARANTEED AGAINST ALL DEFECTS IN WORKMANSHIP AND MATERIALS FOR THE DURATION OF THE MAINTENANCE PERIOD, EXCEPT TRENCH BACKFILL WHICH WILL BE GUARANTEED FOR ONE FULL YEAR AGAINST SETTLING.

## PLANTING SPECIFICATIONS

#### PLANS

THE PLANS ARE DIAGRAMMATIC. ALL PLANT MATERIAL LOCATIONS SHOWN ARE APPROXIMATE.

QUANTITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND ARE ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. PLANT SYMBOLS AND/OR "ON CENTER" SPACING TAKE PRECEDENCE OVER PLANT QUANTITIES SPECIFIED. CONTRACTOR SHALL INFORM OWNER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN QUANTITIES AND SYMBOLS SHOWN.

BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AT ALL TIMES (ORD. 438 S 1, 2016; ORD. 387 S 3, 2010).

#### CLEARING AND GRUBBING

IN ALL PLANTED AREAS, CONTRACTOR SHALL REMOVE DEBRIS, ROOTS, CLODS AND ROCKS OVER ONE INCH IN DIAMETER FOR A MINIMUM DEPTH OF TWO INCHES. FINISH PLANTING SURFACE SHALL BE SMOOTH, EVEN AND CONFORMING TO REQUIRED FINISH GRADE AFTER FULL SETTLEMENT HAS OCCURRED.

CONTRACTOR SHALL DIG OUT WEEDS, INCLUDING BERMUDA GRASS, BY THEIR ROOTS FROM ALL PLANTING AREAS. WHEN NECESSARY TO DISCOURAGE REGROWTH, THE CONTRACTOR MAY APPLY A SUITABLE HERBICIDE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

CONTRACTOR SHALL REMOVE ALL GRUBBED MATERIAL FROM THE SITE AT ONCE.

#### HERBICIDES/PESTICIDES

CONTRACTOR SHALL MAINTAIN THE SITE FREE OF DISEASE, DAMAGING INSECTS, RODENTS AND SNAILS, DAMAGING FUNGI AND ALL WEEDS.

CONTRACTOR SHALL OBTAIN APPROVAL BY THE OWNER PRIOR TO APPLICATION OF ANY HERBICIDE, INSECTICIDE, FUNGICIDE OR OTHER CHEMICALS, EXCEPT FERTILIZERS, TO BE USED ON SITE. CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE OF CALIFORNIA AND COUNTY OF SAN DIEGO REGULATIONS FOR THE SAFE APPLICATION AND MANAGEMENT OF ANY CHEMICALS AND SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS. ALL WORKERS APPLYING SUCH CHEMICALS SHALL BE LICENSED IF REQUIRED BY LAW.

#### DELIVERY AND STORAGE

CONTRACTOR SHALL DELIVER SOIL AMENDMENTS TO THE SITE IN THE ORIGINAL UNOPENED CONTAINERS BEARING THE MANUFACTURER'S GUARANTEED CHEMICAL ANALYSIS, NAME, TRADE NAME OR TRADEMARK, AND STATEMENT INDICATED CONFORMANCE TO STATE AND FEDERAL LAW. IN LIEU OF CONTAINERS, SOIL AMENDMENTS MAY BE FURNISHED IN BULK, AND A CERTIFICATE INDICATING THE ABOVE INFORMATION SHALL ACCOMPANY EACH DELIVERY.

CONTRACTOR SHALL ARRANGE FOR OWNER TO CERTIFY ALL UNOPENED FERTILIZER PACKAGES ON SITE. FERTILIZER PACKAGES SHALL NOT BE REMOVED FROM SITE UNTIL AFTER INCORPORATION INTO SOIL AS PER SPECIFICATIONS, AND ONLY WHEN DIRECTED BY OWNER.

CONTRACTOR SHALL STORE AND PROTECT PLANTS NOT INSTALLED ON THE DELIVERY DAY AT THE SITE.

#### TOPSOIL

IF SPECIFIED, TOPSOIL SHALL BE CLASS A' TOPSOIL IN ACCORDANCE WITH SECTION TEN, PUBLIC WORKS LANDSCAPE IMPROVEMENT PROJECTS.

TOPSOIL SHALL BE FREE OF UNDESIRABLE INSECTS, PLANT PATHOGENS, WEED AND GRASS SEEDS, SUBSOIL, REFUSE, LITTER AND DEBRIS, LARGE CLAY LUMPS, STONES LARGER THAN ONE INCH IN SIZE, BRUSH AND HEAVY ROOTS AND OTHER DELETERIOUS SUBSTANCES.

TOPSOIL SHALL BE FREE OF INSOLUBLE CARBONATES AND HAVE THE FOLLOWING CHEMICAL ANALYSIS:

PH: MINIMUM OF 6.0 AND MAXIMUM OF 7.5 (ACID-ALKALINE REACTION)  
ECE: ZERO TO THREE MAXIMUM (ELECTRICAL CONDUCTIVITY)  
SAR: ZERO TO SIX MAXIMUM (SODIUM ABSORPTION RATIO)

TOPSOIL ANALYSIS SHALL BE SUBJECT TO REVIEW BY CITY OF POWAY BEFORE START OF CONSTRUCTION.

TOPSOIL, IF SPECIFIED, FOR PLANTING AREAS SHALL CONFORM TO ALL THE SPECIFICATIONS FOR TOPSOIL LISTED UNDER GRADING SPECIFICATIONS. TOPSOIL SHALL BE PLACED TO A TOTAL DEPTH OF 6 INCHES. PLACE IN TWO APPLICATIONS.

#### SOIL TESTING

OWNER SHALL PROVIDE TO CONTRACTOR A SOIL ANALYSIS REPORT WHICH RECOMMENDS ADJUSTED SOIL AMENDMENTS, QUANTITIES AND THE METHOD OF APPLICATION PRIOR TO BEGINNING WORK.

A SOIL MANAGEMENT REPORT PREPARED BY A QUALIFIED AGRONOMIC SOILS TESTING LABORATORY SHALL BE SUBMITTED TO THE CITY OF LEMON GROVE PRIOR TO START OF CONSTRUCTION. REPORTS SHALL CONTAIN CHEMICAL ANALYSIS FROM ALL PLANTING AREAS WITH WRITTEN RECOMMENDATIONS FOR SOIL AMENDMENTS. CONTRACTOR SHALL COMPLY WITH RECOMMENDATIONS IN REPORT. TEXTURAL ANALYSIS MAY ALSO BE REQUIRED TO DETERMINE SUITABLE TREATMENT OF TRAIL SURFACES, IF APPLICABLE, SELECTION OF PLANT MATERIALS AND APPROPRIATE IRRIGATION SYSTEMS AND MANAGEMENT.

SOIL ANALYSIS SHALL MEASURE THE FOLLOWING CHEMICAL PROPERTIES:

- FERTILITY: NITROGEN, PHOSPHORUS, POTASSIUM (N-P-K) AND SECONDARY NUTRIENTS (CALCIUM, IRON, SULFUR),
- MICRONUTRIENTS,
- SALINITY AS MEASURED BY ELECTRICAL CONDUCTIVITY (ECE IN MMHOS/CM @ 25 DEGREES C),
- PH (ACID-ALKALINE REACTION),
- SODIUM ABSORPTION RATIO - SAR (ALKALI/SODIC SOIL),
- SPECIFIC TOXICITIES: ELEMENTS THAT MAY RESTRICT PLANT GROWTH SUCH AS BORON, CHLORINE, AND SODIUM.

SOIL TESTS SHALL INCLUDE 24-HOUR PERCOLATION TEST TO DETERMINE SOIL DRAINAGE CHARACTERISTICS. SOIL SAMPLES FOR TESTING SHOULD BE TAKEN AFTER ROUGH SITE GRADING IS COMPLETE AND BEFORE START OF PLANTING. SAMPLING SHALL BE IN ACCORDANCE WITH SOIL TESTING LABORATORY REQUIREMENTS.

PERCOLATION TESTS SHALL BE PERFORMED TO DETERMINE SOIL DRAINAGE CHARACTERISTICS. A ONE CUBIC FOOT HOLE SHALL BE FILLED AT THE BOTTOM OF A TREE PIT WITH WATER. REFILL AFTER WATER DRAINS COMPLETELY FROM HOLE. IF ANY STANDING WATER REMAINS IN THE HOLE 24 HOURS AFTER REFILLING,

CONTRACTOR SHALL SUBMIT PROCEDURES TO CORRECT POOR DRAINAGE. PERCOLATION TEST RESULTS SHALL BE SUBMITTED TO CITY OF POWAY REPRESENTATIVE PRIOR TO INSTALLATION OF PLANTS.

#### SOIL AMENDMENTS

COMPOSTED ORGANIC SOIL AMENDMENTS SHALL BE STABLE, COMPLETELY DECOMPOSED ORGANIC MATTER CONTAINING NO TOXINS AND HARMFUL ORGANISMS THAT WOULD INHIBIT PLANT GROWTH.

COMPOST SHALL BE FROM SELECTED WOOD FIBERS (REDWOOD, CEDAR, FIR, PINE) AND GREEN WASTE. COMPOST SHALL BE LEACHED, NITROGEN STABILIZED WITH RESIDUAL NITROGEN CONTENT OF 0.5% - 1.0% AND TREATED WITH IRON AND WETTING AGENT.

SUBJECT TO SOIL ANALYSIS RECOMMENDATIONS, PACKAGED AND BULK SOIL AMENDMENTS SHALL BE APPLIED AT THE RATE SHOWN PER THOUSAND SQUARE FEET:

ORGANIC MATERIAL	COMPOST	6 CU. YDS.
AGRICULTURAL GYPSUM	BEN FRANKLIN OR EQUAL	80 LBS
SOIL SULFUR	IRON SUPPLEMENT	25 LBS
WETTING AGENT	IRONITE OR EQUAL	5 LBS
	SOIL-AIRE OR EQUAL	3 LBS

#### FERTILIZER

PRE- AND POST-PLANTING FERTILIZER (N-P-K) SHALL BE COMMERCIAL GRADE, PELLETED OR GRANULAR MATERIAL HAVING CHEMICAL ANALYSIS AS SPECIFIED IN SOIL REPORT RECOMMENDATIONS.

FERTILIZER PLANTING TABLETS SHALL BE TIGHTLY COMPRESSED COMMERCIAL GRADE PLANTING TABLETS WITH 12-8-8 OR 20-10-5 FORMULATION.

#### TREE, SHRUB, AND GROUND COVER AREAS

ALL PLANTS SHALL RECEIVE AGRIFORM (OR EQUAL) PLANT TABLETS (20-10-5) PLACED BY CONTRACTOR BELOW GRADE (THREE INCHES FOR CONTAINER STOCK; ONE INCH FOR FLATS OF GROUND COVER) AT THE FOLLOWING RATES:

- 5 GRAM TABLET PER PLANT FROM FLATS AND 4 INCH POTS
- 21 GRAM TABLETS PER ONE GALLON PLANT
- 21 GRAM TABLETS PER FIVE GALLON PLANT
- 21 GRAM TABLETS PER FIFTEEN GALLON PLANT
- 21 GRAM TABLET PER EACH LINEAR 4 INCHES BOXED MATERIAL

#### SOIL PREPARATION

IN ALL PLANTED AREAS, EXCEPT ON SLOPES 3:1 OR STEEPER, CONTRACTOR SHALL ROTOTILL OR THOROUGHLY INCORPORATE SOIL AMENDMENTS, CONDITIONERS AND FERTILIZER INTO SOIL TO A DEPTH OF EIGHT INCHES MINIMUM. SOIL IN PLANTING AREAS SHALL BE SCARIFIED (LOOSENE) TO A MINIMUM DEPTH OF 12 INCHES.

TURF AND SHALLOW PLANTING AREAS SHALL INCLUDE COMPOST AT A MINIMUM DEPTH OF ONE INCH AND THE AREA SHALL BE TILLED TO A MINIMUM FIVE INCHES IN DEPTH.

BACKFILL FOR ALL CONTAINER STOCK ONE GALLON OR LARGER SHALL BE ONE PART COMPOST, CONDITIONERS AND FERTILIZER BY VOLUME, THOROUGHLY MIXED WITH TWO PARTS EXCAVATED NATIVE SOIL. THE COMPOST-SOIL BLEND SHALL BE BACKFILLED AND FIRMED AROUND THE ROOT BALL WITHIN THE PLANTING HOLE.

ALL PAVING SHALL BE SWEEPED OF ALL SOIL AMENDMENTS AND FERTILIZER PRIOR TO ANY IRRIGATION TO PREVENT STAINING OF HARDSCAPE.

#### PLANT MATERIAL

SUBSTITUTION OF PLANT MATERIAL WILL NOT BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE OWNER. SUBSTITUTIONS MUST BE REQUESTED AT LEAST THIRTY DAYS IN ADVANCE OF SCHEDULED PLANTING TIME IF PLANT SPECIES ARE UNAVAILABLE. IF SOURCES ARE UNKNOWN TO CONTRACTOR, CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR INFORMATION.

PLANTS SHALL BE SOUND, HEALTHY AND VIGOROUS WITH NORMALLY DEVELOPED BRANCH AND ROOT SYSTEMS, FREE FROM PLANT DISEASE, INSECT PESTS, SUNSCALD, BARK ABRASIONS, AND OTHER DISFIGUREMENT.

PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS OTHERWISE INDICATED. PLANT MATERIAL SHALL BE IN ACCORDANCE WITH STATE OF CALIFORNIA 'GRADING CODE OF NURSERY STOCK', NO. 1 GRADE.

CONTAINER GROWN PLANTS SHALL HAVE SUFFICIENT ROOT GROWTH TO HOLD THE EARTH INTACT WHEN REMOVED FROM CONTAINERS, BUT SHALL NOT BE ROOT BOUND AND ARE FREE OF GIRDLING ROOTS. IN TREE BOX CONTAINERS, SOIL SURFACE SHALL NOT BE GREATER THAN SIX INCHES BELOW THE TOP OF THE BOX.

TREES SHALL HAVE STRAIGHT TRUNKS UNLESS OTHERWISE SPECIFIED. TERMINAL LEADERS SHALL BE UNCUED AND UNDAAGED. TREES WITH PRUNED OR DAMAGED LEADERS SHALL BE REJECTED AND REMOVED FROM THE JOB SITE. ALL TREES SHALL BE OF ADEQUATE CALIPER TO STAND WITHOUT SUPPORT, STURDY AND WELL HARDENED OFF.

GROUND COVER PLANTS SHALL BE WELL-ROOTED CUTTINGS GROWN IN SOIL FILLED FLATS, AND SHALL REMAIN IN THOSE FLATS UNTIL PLANTED WITH MINIMUM DISTURBANCE FURING PLANTING. IF UNROOTED TIP CUTTINGS ARE SPECIFIED, THEY SHALL BE AT LEAST EIGHT INCHES LONG AND PLANTED AT LEAST TWO NODES BELOW GRADE.

PLANT SPECIES AND VARIETY SHALL BE IDENTIFIED WITH LEGIBLE, WEATHERPROOF LABELS AND WEATHER-RESISTANT INK WITH A MINIMUM OF ONE LABEL SECURELY ATTACHED PER TEN PLANTS IN A LOT, OR CONTRACTOR SHALL PROVIDE WRITTEN CERTIFICATION FROM NURSERY (ITEMIZED BY QUANTITY, SPECIES AND VARIETY). CONTRACTOR SHALL BE DEEMED TO BE NOT READY FOR CONSTRUCTION OBSERVATION IF LABELS ARE NOT PRESENT.

THE OWNER RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL FOUND TO BE DEFECTIVE. DEFECTIVE MATERIAL SHALL BE REMOVED FROM SITE AT THE CONTRACTOR'S EXPENSE. DO NOT PRUNE, TRIM, OR TOP TREES AND OTHER PLANT MATERIAL PRIOR TO DELIVERY.

PRIOR TO PLANTING, CONTRACTOR SHALL CAREFULLY HANDLE AND STORE PLANTS TO PROTECT THEM FROM SUNBURN, DRYING OUT, WINDBURN AND OTHER INJURY.

CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PLANT MATERIAL, NEW OR EXISTING, DUE TO NEGLIGENCE OR IRRIGATION SYSTEM FAILURE DURING CONSTRUCTION AND THE SPECIFIED MAINTENANCE PERIOD.

#### PLANT INSTALLATION

##### PLANTING HOLES

PLANTING HOLES FOR CONTAINER STOCK SHALL BE EXCAVATED BY THE CONTRACTOR TO TWO TIMES THE WIDTH AND ONE INCH LESS THAN THE DEPTH OF THE CORRESPONDING ROOTBALL. BOXED MATERIAL PLANTING HOLES SHALL BE MINIMUM SIX INCHES CLEAR OF ALL SIDES, EXCLUDING BOTTOM, OF THE ROOTBALL. SIDES OF PLANTING HOLE SIDES AND BOTTOM SHALL BE SCARIFIED. HOLES SHALL BE WIDE ENOUGH TO PERMIT HANDLING AND PLANTING WITHOUT INJURY AND BREAKAGE TO PLANT ROOTS AND ROOT BALLS.

EXCESS SOIL GENERATED FROM PLANTING HOLES MAY BE LEGALLY DISPOSED OF OFFSITE.

##### PLANT PLACEMENT

NO MORE PLANTS SHALL BE DISTRIBUTED IN PLANTING AREAS THAN CAN BE PLANTED AND WATERED IN ONE DAY. PLANTS SHALL BE REMOVED FROM CONTAINERS SO THAT ROOT BALLS ARE NOT BROKEN. THEY SHALL BE PLANTED AND WATERED IMMEDIATELY AFTER REMOVAL FROM CONTAINERS. PLANTS SHALL NOT BE REMOVED FROM CONTAINERS PRIOR TO PLACING IN PLANTING HOLES.

ROOT BALLS SHALL BE INSPECTED BY CONTRACTOR DURING PLANTING. CIRCLING ROOTS SHALL BE SEPARATED FROM THE ROOT BALLS AND SPREAD OUT IN PLANTING HOLES.

CONTRACTOR SHALL INSTALL ALL SHRUB AND HERBACEOUS CONTAINER STOCK AT THE SPECIFIED SPACING AS GRAPHICALLY INDICATED ON THE PLANS. MINIMUM DISTANCE FROM ANY TOP OR TOE OF SLOPE OR PLANTING AREA EDGE SHALL BE ONE HALF OF THE SPECIFIED SPACING.

CONTRACTOR SHALL INSTALL GROUND COVER PLANTS ON TRIANGULAR SPACING AS NOTED ON PLANS. MAXIMUM DISTANCE FROM ANY PLANTING AREA EDGE IS ONE-HALF THE SPECIFIED SPACING.

ALL PLANT MATERIAL SHALL BE PLANTED SO AS NOT TO IMPAIR PROPER APPLICATION OF WATER FROM THE IRRIGATION SYSTEM.

WHEN PLANT HOLES ARE HALF FILLED WITH BACKFILL, CONTRACTOR SHALL FILL HOLES WITH WATER TO THOROUGHLY SATURATE ROOT BALLS AND ADJACENT SOIL.

CONTRACTOR SHALL CONSTRUCT AN EARTH BERM AROUND EACH CONTAINER GROWN PLANT WHOSE DIAMETER IS THE SAME SIZE AS THE ROOT BALL AND IS OF SUFFICIENT SIZE TO SATURATE ROOT BALLS. WATERING BASINS SHALL BE CONSTRUCTED OF AMENDED BACKFILL MATERIALS.

AFTER PLANTING EACH PLANT AND ITS BACKFILL SHALL BE WATERED. WATER IS TO BE APPLIED IN MODERATE STREAMS, WITHOUT DISTURBING BACKFILL, UNTIL SOIL AROUND ROOTS AND BACKFILL IS COMPLETELY SATURATED.

#### ROOT BARRIERS AND TRUNK GUARDS

CONTRACTOR SHALL INSTALL "DEEP ROOT" 2 FOOT DEEP LINEAR ROOT BARRIER, OR EQUAL, ADJACENT AND PARALLEL TO EDGE OF SIDEWALKS, DRIVEWAYS AND STREETS, PARKING LOTS OR OTHER HARDSCAPE ADJACENT TO TREES WITHIN SIX FEET OF HARDSCAPE TO PREVENT DAMAGE FROM TREE ROOTS. BARRIER SHALL BE A MINIMUM TWENTY FEET MINIMUM IN LENGTH AND SHALL BE CENTERED ON TREE TRUNK. ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CIRCULAR ROOT BARRIERS ARE NOT PERMITTED.

#### STAKING AND GUYING

##### STAKING

UNLESS OTHERWISE NOTED ON THE PLANS, CONTRACTOR SHALL REMOVE ALL TRAINING STAKES AND TIES FROM ALL CONTAINER STOCK. TREES SHALL BE STAKED WITH TEN FOOT LONG MINIMUM, TWO INCH DIAMETER STRAIGHT GRAINED TREATED LODGEPOLE STAKES AS FOLLOWS:

SINGLE STAKE	5 GALLON TREE
DOUBLE STAKE	15 GAL AND 24" BOX

SUPPORT STAKES SHALL BE PLACED OUTSIDE THE ROOT BALL. SECURE TREES TO STAKES WITH ONE INCH DIA. AND FLEXIBLE RUBBER OR VINYL STRAPS SO THAT TREES ARE ALLOWED ADEQUATE MOVEMENT TO ENSURE PROPER DEVELOPMENT. TWO TIES SHALL BE USED WITH SINGLE STAKES AND FOUR TIES WITH DOUBLE STAKES. TREE TIES SHALL BE APPROVED BY THE CITY.

TREE STAKES SHALL NOT RUB AGAINST TRUNKS OR BRANCHES. TRIM TOPS OS STAKES TO SIX INCHES BELOW LOWEST CANOPY BRANCHES.

IN WINDY LOCATIONS, SECURE TREES AT BOTH THE BASE OF THE CANOPY AND IN THE CANOPY. STAKES SHALL BE PLACED UP-WIND AND DOWN-WIND OF TRUNK.

##### VINES AND ESPALIERS

CONTRACTOR SHALL REMOVE NURSERY STAKES AND TIES AFTER PLANTING. CONTRACTOR SHALL 'FAN OUT' ALL VINES AND ESPALIERS IN A SYMMETRICAL RADIATING PATTERN AND SECURE TO ADJACENT FENCE, WALL, OR COLUMN SURFACE WITH NON-METALLIC TIES. SEE DETAILS.

##### PRUNING

PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE INJURED TWIGS AND BRANCHES. PRUNING FOR FORM SHALL BEGIN THE YEAR AFTER INSTALLATION.

TREE PRUNING SHALL BE LIMITED TO REMOVAL OF INJURED BRANCHES, RUBBING OR CROSSING BRANCHES. LEADERS SHALL REMAIN INTACT. NO HEADING BACK IS PERMITTED. BRANCHES ON TRUNK BELOW CANOPY SHALL REMAIN THE FIRST YEAR TO STRENGTHEN TRUNK. FURTHER PRUNING FOR FORM SHALL BEGIN THE YEAR AFTER INSTALLATION.

##### MULCH

MULCH MAY CONSIST OF COMPOSTED ORGANIC MATERIAL (REFER TO SOIL AMENDMENTS ABOVE), 1/2"-1 1/2" SIZED SHREDDED BARK MULCH OF REDWOOD, CEDAR, OR FIR, OR CLEAN, CHIPPED AND SHREDDED PLANT TRIMMINGS FREE OF DEBRIS AND FOUL ODOR. PRIOR TO DELIVERY TO SITE, CONTRACTOR SHALL SUBMIT SAMPLES TO CITY'S REPRESENTATIVE FOR APPROVAL.

CONTRACTOR SHALL SPREAD A THREE INCH LAYER OF FINELY SHREDDED FIR OR REDWOOD BARK OVER THE SOIL SURFACE OF ALL PLANTED AREAS, INCLUDING AREAS OF GROUND COVER. CARE SHALL BE TAKEN TO PREVENT MOUNDING BARK AGAINST TRUNKS AND STEMS. CARE SHALL BE TAKEN TO BRUSH AWAY MULCH IN CONTACT WITH TREE TRUNKS AND SHRUB STEMS.

#### MAINTENANCE AND PLANT ESTABLISHMENT

PLANTING AREAS SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE SPECIFIED PLANT ESTABLISHMENT PERIOD.

MAINTENANCE SHALL INCLUDE WATERING, MOWING, FERTILIZING, PRUNING, WEEDING, AND REPLACEMENT OF DEAD, DYING AND INJURED PLANT MATERIAL.

DURING THE PLANT ESTABLISHMENT PERIOD OF 90 DAYS, PROVIDE SUFFICIENT IRRIGATION TO KEEP ROOT ZONES MOIST FOR OPTIMUM PLANT GROWTH. BERMS AROUND SHRUBS AND TREES ON SLOPES SHALL BE MAINTAINED. MAINTENANCE SHALL INCLUDE PERIODIC INSPECTION TO ELIMINATE SILTATION AROUND PLAN ROOT CROWNS.

TIES SHOULD BE LOOSENEED AS TREE TRUNK GROWS IN DIAMETER. STAKES AND TIES ARE TO BE REMOVED WITHIN TWO YEARS OF PLANTING.

OWNER AGREES THAT WHEN VEGETATION IS REPLACES, REPLACEMENT PLANTINGS ARE CONSISTENT WITH CITY REGULATIONS IN CHAPTER 18.44 WATER EFFICIENT LANDSCAPE REGULATIONS.

#### GUARANTEE

ALL PLANT MATERIALS SHALL BE GUARANTEED BY THE CONTRACTOR FOR THE FOLLOWING LENGTHS OF TIME UPON COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD:

ALL SHRUBS, GROUND COVER, VINES, ESPALIERS, LAWN AND TREES UNDER 24 INCH BOX SIZE FOR THREE MONTHS BEYOND THE MAINTENANCE PERIOD.

ALL 24 INCH BOX TREES AND LARGER FOR 1 YEAR BEYOND THE MAINTENANCE PERIOD.



REVISIONS

SPECIFICATIONS

B & S TOWN HOUSES  
8200 HILLTOP DRIVE  
LEMON GROVE, CA 92104

858-441-1076  
5346 Colorado Drive  
San Diego, California 92124  
design studio

DATE 4-1-17

SCALE

PROJ #17-01

SHEET

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