*13A

Control No 2015-___

RECORDING REQUESTED BY AND
WHEN RECORDED, MAIL TO:

City of Milpitas
455 East Calaveras Blvd
Milpitas CA 95035
Attn: Land Development Engineer

(SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE)

APN

AGREEMENT AFFECTING REAL PROPERTY RELATED TO COVENANT AND RESTRICTION OF ON-SITE PRIVATE UTILITIES

This Agreement Affecting Real Property ("Agreement") is entered into and effective _____ by and between Cobblestone Neighborhood Association ("Developer") and the City of Milpitas, a municipal corporation of the State of California ("City").

RECITALS:

A. The City Council adopted Resolution No. 8253 on May 7th, 2013 with Conditions and Approval for the subject development to have on-site private utilities and the Developer is required to ensure that the private utilities shall be operated in a manner to the City's satisfaction for the purposes of compliance with local codes, regional and state requirements.

B. This Agreement is intended to satisfy the aforementioned requirement.

NOW, THEREFORE, in consideration of the recitals and mutual obligations expressed herein, the Parties (City and Developer) agree as follows:

STATEMENT OF AGREEMENT

1. Developer, the owner of the property located at 345 Los Coches Street (the "Project"), agrees to provide on-site private utilities consistent with the requirements of the City, regional and State or other applicable law.

2. The Developer has obtained the approval of the City Council on May 7, 2013 (Resolution 8253) for the Project. The recordation of this Agreement is required for the release of the final map recordation for this development and/or permit issuance for the construction of the Project.

3. The Developer agrees to covenant its property for the terms as stated below. Recordation of this Agreement for covenant and restriction shall be binding.

4. The provisions and conditions of this Agreement shall run with the land for the Project and be enforceable against successors in interest and assigns of the Developer. The requirements of this Agreement shall run with the land and pass with each and every portion of the Project and shall apply to, inure to the benefit of, and bind the respective successor's interest thereof, for the benefit of the developed lots in the Project.

5. The on-site private utilities are not public dedications. It is the Developer's intention that the private utilities are not to be dedicated to the public, nor any portion of the private utilities to be owned, operated, or maintained by the City.

6. This Agreement shall be valid in perpetuity and can only be terminated if replacement utilities system has/have been approved by the City Engineer and written notice of termination of this Agreement has been provided by the City.

7. This Agreement shall be kept in the files of the Milpitas City Engineer and shall be recorded on the titles of the lots in the Project.

8. Although the Developer is obligated to provide the private utilities as provided under this Agreement, in no circumstance shall the City be obligated by this Agreement to remedy such breach. The Parties acknowledge that the City may invoke any remedy provided for in the Milpitas Municipal Code to enforce any code violation against the Developer outside of this Agreement. The Developer acknowledges that the City is a signatory to this Agreement for the sole purpose of ensuring that the private utilities are, at all times in compliance with applicable City, State and federal guidelines, policies, regulations and law.

9. The Parties understand and agree that if for any reason the private utilities installed do/does not meet the requirements as shown on the City of Milpitas Development Guidelines, such installation shall not be in compliance with the City of Milpitas Development Guidelines. By signing this Agreement, the Developer agrees to waive any right to contest enforcement of the City's Milpitas Development Guidelines should this circumstance arise.

10. Title to and the right to use the private utilities and appurtenances upon which such facilities are located will be subservient to the title of the habitable lots in the Project which the private system(s) serves.

11. The Project or portion thereof on which the private utilities and appurtenances are located will not be made subject to any other covenant or contract for use which interferes with the uses of the private utilities provided for herein, without prior written consent of the City; provided, however, that the declaration of covenants, conditions and restrictions that will be recorded against the Project (on a phased basis) may include covenants that are

consistent with this Agreement and impose obligations on the homeowners association formed to manage the Project in satisfaction of this Agreement.

12. This Agreement shall be governed under the laws of California.

13. Neither this Agreement nor any acts of a party hereto shall be deemed or construed by the parties hereto, or any of them, or by any third person, to create the relationship of principal and agent, or of partnership, or of joint venture, or of any association between or among the parties to this Agreement.

14. The Developer shall defend, hold harmless and indemnify City and its officials, employees, agents, and representatives, from and against any and all claims, suits, demands, liability, loss, costs, damages, and other expenses (including reasonable attorneys' fees and court costs at trial and on appeal) in connection with the loss of life, personal injury and/or damage to property, if arising from or out of any occurrence in or upon the properties mentioned herein and related to the private utilities required herein, other than resulting from the negligence or misconduct of the parties indemnified or third parties not within the reasonable control of Developer.

15. The Developer warrants that it has had full notice and opportunity to examine the drawings, plans and design of the private utilities designed by consultants hired by the Developer before accepting responsibility.

16. The Declarations of Covenants, Conditions, and Restrictions for the Project shall make a reference to this Agreement and shall obligate the homeowners association to comply with the requirements of this Agreement when the ownership of the property that contains the private utility system is transferred to said homeowners association. Notwithstanding anything in this Agreement to the contrary, upon such transfer of property to such homeowners association formed to manage the Project, all rights, title, interest and obligations of the Developer under this Agreement shall be deemed transferred, conveyed and assigned to the homeowners association and shall be deemed assumed by the homeowners association, and the Developer shall be deemed fully released from the same as of the effective of such transfer or assignment.

17. The private utilities for this Development include these systems: water, sanitary sewer, storm drain, street, street lighting, recycled water irrigation system, etc. They are shown in more detail on the approved plans: B-SI13-0015.

18. Work on the private utilities shall be performed by appropriate California licensed contractor.

19. Underground work shall comply with Cal OSHA as it relates to safety of confined space, trenching/shoring and other matters.

20. The private water system is subject to these additional terms and conditions:

A. The Developer shall ensure that a state licensed contractor (C34 or C36) shall perform all necessary work (installation, repair, maintenance and operation) on the private water system in accordance with the appropriate American Water Works Association Standards (such as C600 (ductile iron pipe installation), C605 (polyvinyl chloride pipe installation), C651 (disinfection) and M44 (valves)) similar to a state water operator.

B. The Developer shall not resell the water to its developed lots, only allocate costs accordingly.

C. The Developer acknowledges that the proposed private on-site water system has master meter(s) that the City reads and bills. The Developer accepts and shall pay based on the billing under this condition. There is no adjustment to the bills and the Developer waives any right to contest the bill(s) based on usage type.

D. The Developer also acknowledges that any downstream meters (sub-meters) of the City master meter(s) are not recognized by the City and therefore, no billing by the City shall occur.

E. The property or portion thereof on which the water system and appurtenances are located will not be made subject to any other covenant or contract for use which interferes with the water system uses provided for herein, without prior written consent of the City.

21 The Developer is responsible to designate a Recycled Water Site Supervisor. The duties of the Recycled Water Site Supervisor include but are not limited to meeting all State, South Bay Water Recycling, and City requirements, attending periodic training as necessary, repairing leaks and broken appurtenances, managing the irrigation system to avoid overspray onto hardscape and ponding, submitting required inspection reports, performing periodic cross-connection tests, and re-permitting the site when modifications are performed.

22 The Developer is aware of the sewer backflow devices that may be installed and shall inform all affected parties of the locations. The Developer is responsible to perform routine maintenance of all installed sewer backflow devices to prevent sanitary sewer overflows. In the event a sanitary sewer overflow occurs, the Developer shall take the necessary action to remediate the overflow and properly clean the area.

23 The Developer is responsible for the routine maintenance of the on-site storm drain system and shall prevent discharge of pollutants to the City's storm drain system. The Developer shall comply with all State and City inspection and reporting requirements. The Developer is responsible for costs of periodic City inspections.

24 The installation of utility lines in close proximity to the building is acknowledged by the Developer and this information (record drawings) shall be forwarded to the homeowners association (Sheet 2 of the plans).

25 The storm drain system including pumps, if applicable, with the drainage areas are acknowledged by the Developer and this information (record drawings) shall be forwarded to the homeowners association (Sheet 9 of the plans)

26. Developer shall comply with all applicable local, state and federal guidelines, policies, regulations and law.

IN WITNESS WHEREOF, this Agreement is executed and made effective as of the date first above set forth.

Dated:_____

Cobblestone Neighborhood Association

By: _____

Notary Acknowledgement of Developer is required.

CITY OF MILPITAS, A MUNICIPAL CORPORATION:

Dated: _____

_____,

City Manager

Approved as to form:

_____,

City Attorney

Approved by:

_____

Steven Machida, City Engineer

Placeholder for
ALL PURPOSE ACKNOWLEDGMENT
Use current format
Include for each primary signer

*13B

Control No. 2015-0__
Recording Requested by
and when Recorded, return to:

CITY OF MILPITAS
455 E. CALAVERAS BOULEVARD
MILPITAS, CA 95035-5479

Attn: City Clerk

(SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE)

Document Transfer Tax is $ __0__
( ) Computed on full value of property conveyed
( ) Computed on full value less value of liens and encumbrances remaining
City transfer tax is $ ``
APN:

O&M PJ No. _____

STORMWATER MANAGEMENT FACILITIES
OPERATION AND MAINTENANCE AGREEMENT
FOR COBBLESTONE, Tract 10221

This Stormwater Management Facilities Operation and Maintenance Agreement ("AGREEMENT") is made and entered into this ____th day of _____, 2015 ("Effective Date"), by and between Cobblestone Neighborhood Association ("Property Owner") and the City of Milpitas, a municipal corporation of the State of California ("City").

RECITALS

This AGREEMENT is made and entered into with reference to the following facts:

WHEREAS, the Property Owner is the owner of real property more particularly depicted and described on the attached as **Exhibit A** ("Property") and fully incorporated herein by reference; and

WHEREAS, on May 7th, 2013, the Milpitas City Council adopted Resolution No. 8253 approving the construction of 28 residential units and associated improvements on an 2.7 acre site at 345 Los Coches Street in Milpitas and more commonly known as Cobblestone, Project No. PJ2792, (the "Project") on the Property; and

WHEREAS, the City's Stormwater and Urban Runoff Pollution Control Ordinance as codified in Milpitas Municipal Code Chapter 16 ("Ordinance"), Section XI-16-7 and the conditions of approval for the Project require proper installation, operation and maintenance of Permanent Stormwater Pollution Prevention Measures (BMPs) on the Property as part of the Project; and

WHEREAS, the City has approved the Stormwater Control Operation and Maintenance Plan for the Project attached hereto as **Exhibit B** and fully incorporated herein by reference requiring the Property Owner to properly construct, operate and maintain the BMPs at its sole cost and expense; and

WHEREAS, the Stormwater Control Operation and Maintenance Plan attached hereto as **Exhibit B** may be subsequently modified from time to time with City's written approval and such changes shall be fully incorporated as part of this AGREEMENT by this reference; and

WHEREAS, the Stormwater Control Operation and Maintenance Plan includes provisions for the BMP Operation and Maintenance and an annual inspection checklist for the BMPs constructed on the Property, and

WHEREAS, this AGREEMENT memorializes the Property Owner's maintenance, operations, and inspection obligations under the City's Ordinance and the approved Stormwater Control Operation and Maintenance Plan.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

SECTION 1

Responsibility for Operation and Maintenance: The Property Owner, at its sole cost and expense, shall make available copies of the approved Stormwater Control Operation and Maintenance Plan (hereinafter the "Plan" which is attached to this AGREEMENT as **Exhibit B**) at the site with the facility or property manager and, at its sole cost and expense, shall maintain the BMPs in good working condition acceptable to the City for the life of the Project, and in compliance with the Ordinance and the approved Plan, and as required by the State Municipal Regional Permit (MRP).

SECTION 2

Inspection by Property Owner: The Property Owner, at its sole cost and expense, shall conduct annual inspections of all permanent installed BMPs per the Plan. The annual inspection report shall include completion of the checklist described in the Plan. The BMPs must be inspected by a qualified independent inspector who is acceptable to the City. The Property Owner shall submit the Inspection Report on these BMPs to the City Engineer no later than July 15th of each year. The Annual Inspection Report submitted shall be accompanied by a nonrefundable processing fee per the City's standard fee schedule.

SECTION 3

Facility Inspection by the City: The Property Owner grants permission to the City, its authorized agents and employees, to enter the Property, and to inspect the BMPs whenever the City deems necessary to enforce provisions of the City's Stormwater and Urban Runoff Pollution Control Ordinance, this AGREEMENT, or any other local or state requirements. The City may enter the Property at any reasonable time to inspect the premises and BMP operation and maintenance, to inspect and copy records related to storm water compliance, and to collect samples and take measurements. Whenever possible, the City will provide at least twenty-four (24) hours' notice prior to entry. The Property Owner shall create a Private Job Account with the City and deposit Four Thousand Dollars ($4,000.00) for inspection by City Staff pursuant to this Section 3. The deposit of Four Thousand Dollars ($4,000.00) shall be made simultaneously with the execution of this AGREEMENT

and shall be replenished to the initial balance when drawdown reaches Two Thousand Dollars ($2,000.00).

SECTION 4

Failure to Perform Required Facility Repairs or Maintenance by the Property Owner: If the Property Owner or its successors fail to operate and maintain the BMPs in good working order and in accordance with the approved Plan and the City's Ordinance, the City, with prior notice, may enter the Property to return the BMPs to good working order. The City is under no obligation to maintain or repair the BMPs, and this AGREEMENT may not be construed to impose any such obligation on the City. If the City, under this Section 4 takes any action to return the BMPs to good working order, the Property Owner shall reimburse the City for all the costs and expenses incurred by the City. The City will provide the Property Owner with an itemized invoice of the City's costs and expenses and the Property Owner shall make full payments to the City within thirty (30) days of the date of the invoice. If the Property Owners fails to pay the invoice within thirty (30) days, the City may secure a lien against the real property of the Property Owner in the amount of such costs and expenses. This Section 4 does not prohibit the City from pursuing other legal recourse against the Property Owner.

SECTION 5

Successors and Assigns: This AGREEMENT applies to the Property Owner and its successors. This AGREEMENT runs with the land and imposes a continuing obligation on anyone who owns the Property. Upon transfer of the Property, the Property Owner shall provide the new owner with the current Plan and a copy of this AGREEMENT. .

SECTION 6

Indemnity: The Property Owner indemnifies and holds harmless the City and its authorized agents and employees for any and all damages, accidents, casualties, occurrences or claims against the City which may in anyway arise or relate to the construction, operation, presence, existence or maintenance of the BMPs, or from any personal injury or property damage that may arise or relate from the City entering the Property under Section 4. If a claim is asserted against the City, its authorized agents or employees, the City shall promptly notify the Property Owner and the Property Owner shall defend the claim and any resulting litigation at its sole cost and expense. If any judgment is entered against the City, or its authorized agents or employees, the Property Owner must pay all costs and expenses to satisfy the judgment.

SECTION 7

Severability: Invalidation of any one of the provisions of this AGREEMENT shall in no way effect any other provisions and all other provisions shall remain in full force and effect.

SECTION 8

Non-Discrimination: The Property Owner shall not discriminate, in any way, against any person on the basis of race, sex, color, age, religion, sexual orientation, actual or perceived gender identity, disability, ethnicity, or national origin, in connection with or related to the performance of this AGREEMENT.

SECTION 9

Governing Law: City and Property Owner agree that the law governing this AGREEMENT shall be that of the State of California.

SECTION 10

Compliance with Laws: The Property Owner shall comply with all applicable laws, ordinances, codes and regulations of the federal, state and local governments.

SECTION 11 BOOKS AND RECORDS.

A. The Property Owner shall maintain any and all ledgers, books of account, invoices, vouchers, cancelled checks, and other records or documents evidencing or relating to charges for services, or expenditures and disbursements or in anyway relating to the performance of this AGREEMENT for a minimum period of three (3) years, or for any longer period required by law.

B. Any records or documents required to be maintained pursuant to this AGREEMENT shall be made available for inspection or audit at no cost to City, at any time during regular business hours, upon written request by the City Attorney, City Manager, or a designated representative of any of these officers. Copies of such documents shall be provided to City for inspection at City Hall when it is practical to do so. Otherwise, unless an alternative is mutually agreed upon, the records shall be available at the Property Owner's or the Association's address indicated for receipt of notices in this AGREEMENT.

SECTION 12

Notices: All notices and other communications required or permitted to be given under this AGREEMENT shall be in writing and shall be personally served or mailed, postage prepaid and return receipt requested, addressed to the respective parties as follows:

To CITY:
City of Milpitas (Utility Engineering)
Attn: Utility Engineer
455 East Calaveras Blvd.
Milpitas, CA 95035

To PROPERTY OWNER:
Cobblestone Neighborhood Association
Attn: Bradley Huff, Community Manager
4305 Hacienda Drive, Suite 140
Pleasanton, CA 94588

Notice shall be deemed effective on the date personally delivered or, if mailed, three (3) days after deposit in the mail.

SECTION 13

Venue: In the event that suit shall be brought by either party to this contract, the parties agree that venue shall be exclusively vested in the state courts of the County of Santa Clara, or if federal jurisdiction is appropriate, exclusively in the United States District Court, Northern District of California, San Jose, California.

SECTION 14

Interpretation, Prior Agreements: This AGREEMENT, including all Exhibits attached hereto, represents the entire understanding of the parties as to those matters contained herein. In the event that the terms specified in any of the Exhibits attached hereto conflict with any of the terms specified in the body of this AGREEMENT, the terms specified in the body of this AGREEMENT shall control. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This AGREEMENT may be modified only by a written amendment duly executed by the parties to this AGREEMENT.

Cobblestone Neighborhood Association

BY: _____

Name: Bradley Huff, Community Manager
Cobblestone Neighborhood Association
4305 Hacienda Drive, Suite 140
Pleasanton, CA 94588

CITY OF MILPITAS, A MUNICIPAL CORPORATION:

By: _____
City Engineer's recommendation for approval

By: _____
City Attorney as to form

By: _____
City Manager

STATE OF CALIFORNIA)
) ss.
COUNTY OF CONTRA COSTA)

On _____, 201__, before me, _____, Notary Public, personally appeared Bradley Huff, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____

STATE OF CALIFORNIA)
) ss.
COUNTY OF SANTA CLARA)

On _____, 201__, before me, _____, Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____

STATE OF CALIFORNIA)
) ss.
COUNTY OF SANTA CLARA)

On _____, 201__, before me, _____, Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____

EXHIBIT A
Legal description and Plat Map

REAL PROPERTY SITUATED IN THE CITY OF MILPITAS, COUNTY OF SANTA CLARA, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

"Tract No. 10221" filed for record on April 2, 2014, in Book 870 of Maps, at Pages 45 through 49, inclusive, in the Official Records of Santa Clara County, California

TRACT NO. 10221

COBBLESTONE

CONSISTING OF FIVE (5) SHEETS

BEING ALL OF PARCEL 1 AND 2, AS SHOWN ON THAT CERTAIN PARCEL MAP FILED FOR RECORD IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SANTA CLARA, STATE OF CALIFORNIA ON APRIL 03, 1980, IN BOOK 461 OF MAPS PAGES 36 AND 37, AND AS SHOWN ON THE CERTIFICATE OF CORRECTIONS RECORDED MARCH 04, 1982 IN BOOK 9635, AT PAGE 506 OF OFFICIAL RECORDS.

DATE: MARCH 2014

Civil Engineering Associates

Civil Engineers • Planners • Surveyors
224 Airport Parkway, Suite 525
San Jose, CA 95110

OWNER'S STATEMENT

WE HEREBY STATE THAT WE ARE THE OWNERS OF OR HAVE SOME RIGHT, TITLE OR INTEREST IN AND TO THE REAL PROPERTY INCLUDED WITHIN THE SUBDIVISION SHOWN HEREON; THAT WE ARE THE ONLY PERSONS WHOSE CONSENT IS NECESSARY TO PASS A CLEAR TITLE TO SAID REAL PROPERTY; THAT WE HEREBY CONSENT TO THE MAKING AND RECORDING OF THIS SUBDIVISION MAP AS SHOWN WITHIN THE DISTINCTIVE BOUNDARY LINE.

WE HEREBY OFFER FOR DEDICATION TO CITY OF MILPITAS FOR PUBLIC USE FOR OPERATION, ALTERATION, RELOCATION, MAINTENANCE, REPAIR AND REPLACEMENT OF ALL PUBLIC SERVICE FACILITIES AND THEIR APPURTENANCES, OVER, UNDER, ALONG AND ACROSS THE FOLLOWING:

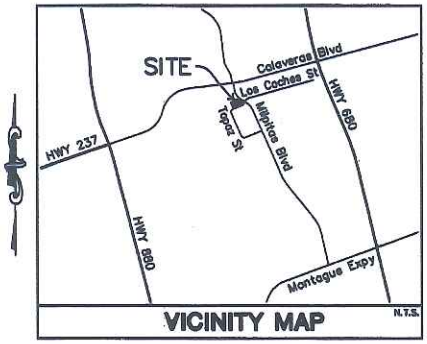
1. LOT K FOR STREET AND PUBLIC UTILITY PURPOSES.
2. EASEMENT 'A' FOR PUBLIC SERVICE AND UTILITY PURPOSES (P.S.U.E.).
3. EASEMENT 'B' FOR PUBLIC SERVICE, UTILITY AND SIDEWALK PURPOSES (P.S.U.S.E.).
4. EASEMENT 'C' FOR EMERGENCY VEHICLE ACCESS PURPOSES (E.A.E.).
5. EASEMENT 'D' FOR PUBLIC ACCESS PURPOSES (P.A.E.).

THE ABOVE MENTIONED EASEMENTS (P.S.U.E., P.S.U.S.E., E.A.E. AND P.A.E.) SHALL REMAIN OPEN AND FREE FROM BUILDINGS AND STRUCTURES OF ANY KIND EXCEPT PUBLIC SERVICE AND PUBLIC UTILITY STRUCTURES AND THEIR APPURTENANCES, IRRIGATION SYSTEMS AND THEIR APPURTENANCES AND LAWFUL FENCES. UNOBSTRUCTED CONTINUOUS ACCESS SHALL BE MAINTAINED AT ALL TIMES.

WE ALSO HEREBY RETAIN FOR THE PRIVATE USE OF THE LOT OWNERS WITHIN THIS SUBDIVISION, THEIR LICENSES, VISITORS AND TENANTS WITH MAINTENANCE THEREOF BY THEIR HOMEOWNERS ASSOCIATION THE FOLLOWING:

1. LOT A FOR PRIVATE STREET PURPOSES.
2. LOTS B THROUGH H AND J FOR PRIVATE OPEN SPACES PURPOSES (O.S.).
3. EASEMENT 'E' – "PRIVATE SIDE YARD EASEMENT" (P.S.Y.E.) FOR THE EXCLUSIVE USE OF THE LOTS AS NOTED ON SHEETS 4 AND 5, AS SHOWN ON THIS MAP AND AS SPECIFIED IN THE COVENANTS, CONDITIONS AND RESTRICTIONS FOR TRACT 10221. ALL PRIVATE SIDE YARD EASEMENTS SHOWN HEREIN ARE CONTROLLED BY THE DIMENSIONS AS SHOWN. IN CASES OF MINOR DISCREPANCIES THE EASEMENT IS FURTHER CONTROLLED BY THE LOCATION OF THE ORIGINALLY CONSTRUCTED APPROVED STRUCTURE (HOUSE), ITS APPURTENANCES AND FENCES.

THE DESIGNATED PRIVATE STREETS ON THIS MAP ARE NOT PART OF THE CITY OF MILPITAS STREET SYSTEM AND ARE NOT ACCEPTED FOR PUBLIC MAINTENANCE.



VICINITY MAP N.T.S.

OWNER

TRI POINTE HOMES, INC., A DELAWARE CORPORATION

BY: [signature]

NAME: William C. Sadler

TITLE: Vice President

TRUSTEE

FIRST AMERICAN TITLE INSURANCE COMPANY, A CALIFORNIA CORPORATION

BY: [signature]

NAME: NANCY TARR

TITLE: VICE PRESIDENT

OWNER'S ACKNOWLEDGMENT

STATE OF CALIFORNIA
COUNTY OF Contra Costa }

ON March 18, 2014 BEFORE ME, Tiffany Grubbs A

NOTARY PUBLIC, PERSONALLY APPEARED William C. Sadler WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN HIS AUTHORIZED CAPACITY AND BY HIS SIGNATURE ON THE INSTRUMENT THE PERSON, OR THE ENTITY UPON BEHALF OF WHICH THE PERSON ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND:

SIGNATURE: [signature]

NAME, NOTARY PUBLIC Tiffany Grubbs
IN AND FOR SAID COUNTY AND STATE.

PRINCIPAL COUNTY OF BUSINESS: Contra Costa

COMMISSION # OF NOTARY: 2040069

COMMISSION EXPIRES: Sep. 1, 2017

TRUSTEE'S ACKNOWLEDGMENT

STATE OF CALIFORNIA
COUNTY OF Santa Clara }

ON March 19, 2014 BEFORE ME, Lynn McFarland A

NOTARY PUBLIC, PERSONALLY APPEARED Nancy Tarr WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN HIS AUTHORIZED CAPACITY AND BY HIS SIGNATURE ON THE INSTRUMENT THE PERSON, OR THE ENTITY UPON BEHALF OF WHICH THE PERSON ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND:

SIGNATURE: [signature]

NAME, NOTARY PUBLIC Lynn McFarland
IN AND FOR SAID COUNTY AND STATE.

PRINCIPAL COUNTY OF BUSINESS: Santa Clara

COMMISSION # OF NOTARY: 1921022

COMMISSION EXPIRES: 1-8-15

CIVIL ENGINEER'S STATEMENT

THIS MAP WAS PREPARED BY ME OR UNDER MY DIRECTION AND IS BASED UPON A FIELD SURVEY IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AT THE REQUEST OF TRIPOINTE HOMES ON JUNE 12, 2013. I HEREBY STATE THAT THIS FINAL MAP COMPLIES WITH FINAL MAP PROCEDURES OF THE CITY OF MILPITAS AND THAT THIS FINAL MAP CONFORMS TO THE APPROVED TENTATIVE MAP AND CONDITIONS OF APPROVAL THEREOF WHICH WERE REQUIRED TO BE FULFILLED PRIOR TO THE FILING OF THE FINAL MAP, AND IT IS TECHNICALLY CORRECT. I HEREBY STATE THAT THE MONUMENTS WILL OCCUPY THE POSITIONS INDICATED BY MARCH 2016, AND ARE OF THE CHARACTER INDICATED, AND ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACTED.

BY: Peter B. McMorrow
PETER B. McMORROW
RCE NO. 31954 EXP. 12-31-14

DATE: 3-17-2014

REGISTERED PROFESSIONAL ENGINEER PETER B. McMORROW No. 31954 Exp. 12-31-14 CIVIL STATE OF CALIFORNIA

RECORDER'S STATEMENT

FILE NO. _____ FEE $_____ PAID. ACCEPTED FOR RECORD AND FILED

IN BOOK _____ OF MAPS AT PAGES _____ SANTA CLARA COUNTY RECORDS,

THIS _____ DAY OF _____, 20__, AT _____ M. AT THE REQUEST OF CIVIL ENGINEERING ASSOCIATES.

REGINA ALCOMENDRAS, COUNTY RECORDER
SANTA CLARA COUNTY, CALIFORNIA

BY: _____
DEPUTY

TRACT NO. 10221

COBBLESTONE

CONSISTING OF FIVE (5) SHEETS

BEING ALL OF PARCEL 1 AND 2, AS SHOWN ON THAT CERTAIN PARCEL MAP FILED FOR RECORD IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SANTA CLARA, STATE OF CALIFORNIA ON APRIL 03, 1980, IN BOOK 461 OF MAPS PAGES 36 AND 37, AND AS SHOWN ON THE CERTIFICATE OF CORRECTIONS RECORDED MARCH 04, 1982 IN BOOK G635, AT PAGE 506 OF OFFICIAL RECORDS.

DATE: MARCH 2014

Civil Engineering Associates
Civil Engineers • Planners • Surveyors
224 Airport Parkway, Suite 525
San Jose, CA 95110

CITY ENGINEER'S CERTIFICATE

I HEREBY STATE THAT I HAVE EXAMINED THE HEREIN MAP; THAT THE SUBDIVISION AS SHOWN THERIN IS SUBSTANTIALLY THE SAME AS IT APPEARED ON THE TENTATIVE MAP AND ANY APPROVED ALTERATIONS THEREOF; THAT THIS SUBDIVISION COMPLIES WITH PROVISIONS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCES, APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP.

BY: _____ DATE: 3/18/14

JEFF MONEDA, P.E.
CITY ENGINEER, CITY OF MILPITAS
RCE NO. 60944 EXP. 12-31-14

CITY SURVEYOR'S STATEMENT

I HEREBY STATE THAT I HAVE EXAMINED THE HEREIN MAP AND THAT I AM SATISFIED THAT SAID MAP IS TECHNICALLY CORRECT.

BY: _____ DATE: 3/21/14

ROBERT GULETZ, P.E., HARRIS & ASSOCIATES
ACTING CITY SURVEYOR, CITY OF MILPITAS
RCE NO. 24184 EXP. 12-31-15

REGISTERED PROFESSIONAL ENGINEER ROBERT B. GULETZ 24184 EXP. 12-31-15 CIVIL STATE OF CALIFORNIA

ABANDONMENT STATEMENT

PURSUANT TO SECTION 66434(g) OF THE SUBDIVISION MAP ACT, THE FILING OF THIS MAP SHALL CONSTITUTE ABANDONMENT OF THE FOLLOWING:

EXISTING EASEMENT FOR PUBLIC SERVICE FACILITIES, INCLUDING SIDEWALKS, POLES, WIRES, CONDUITS, STORM SEWERS, SANITARY SEWERS, WATER MAINS, PUBLIC UTILITIES AND APPURTENANCES AND INCIDENTAL PURPOSES, RECORDED APRIL 28, 1978 AS BOOK D631, PAGE 603 OF OFFICIAL RECORDS.

EXISTING EASEMENT FOR PUBLIC SERVICE, UTILITY, PLANTING AND INCIDENTAL PURPOSES AS SHOWN ON THAT CERTAIN PARCEL MAP FILED FOR RECORD IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SANTA CLARA, STATE OF CALIFORNIA ON APRIL 03, 1980, IN BOOK 461 OF MAPS PAGES 36 AND 37, AND AS SHOWN ON THE CERTIFICATE OF CORRECTIONS RECORDED MARCH 04, 1982 IN BOOK G635, AT PAGE 506 OF OFFICIAL RECORDS.

ALL OTHER PUBLIC STREETS AND EASEMENTS NOT SPECIFICALLY LISTED HEREON FOR ABANDONMENT ARE RETAINED FOR PUBLIC USE.

CITY CLERK'S CERTIFICATE

I, MARY LAVELLE, CITY CLERK OF THE CITY OF MILPITAS, CALIFORNIA, HEREBY CERTIFY THAT SAID CITY COUNCIL, AS GOVERNING BODY OF SAID CITY AT A REGULAR MEETING HELD ON March 18, 2014, HAS TAKEN THE FOLLOWING ACTIONS:

1. APPROVED THIS TRACT MAP NO. 10221.
2. FOR ASSESSMENT DISTRICTS CREATED BY THIS GOVERNING BODY, THE COUNCIL HAS DETERMINED THAT PROVISION HAS BEEN MADE FOR SEGREGATION OF THE RESPONSIBILITY OF EACH OF THE PROPOSED NEW PARCELS FOR A PORTION OF THE ASSESSMENT PAYMENT OBLIGATION IN THE MANNER PROVIDED IN THE STATUTE PURSUANT TO WHICH THE ASSESSMENTS WERE LEVIED OR TO WHICH THE BONDS WERE ISSUED: LOCAL IMPROVEMENT DISTRICT NO. 7.
3. ACCEPTED, SUBJECT TO IMPROVEMENT, ON BEHALF OF THE PUBLIC THOSE PARCELS OF LAND OFFERED FOR DEDICATION FOR PUBLIC USE IN CONFORMITY WITH THE TERMS OF OFFER OF DEDICATION TO WIT:

1. LOT K FOR STREET AND PUBLIC UTILITY PURPOSES.
2. EASEMENT 'A' FOR PUBLIC SERVICE AND UTILITY PURPOSES (P.S.U.E.).
3. EASEMENT 'B' FOR PUBLIC SERVICE, UTILITY AND SIDEWALK PURPOSES (P.S.U.S.E.).
4. EASEMENT 'C' FOR EMERGENCY VEHICLE ACCESS PURPOSES (E.A.E.).
5. EASEMENT 'D' FOR PUBLIC ACCESS PURPOSES (P.A.E.).

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THE DESIGNATED PRIVATE STREETS ON THIS MAP ARE NOT PART OF THE CITY OF MILPITAS STREET SYSTEM AND ARE NOT ACCEPTED FOR PUBLIC MAINTENANCE.

BY: Mary Lavelle DATE: 3/31/2014

MARY LAVELLE
CITY CLERK, CITY OF MILPITAS

TRACT NO. 10221

COBBLESTONE

CONSISTING OF FIVE (5) SHEETS

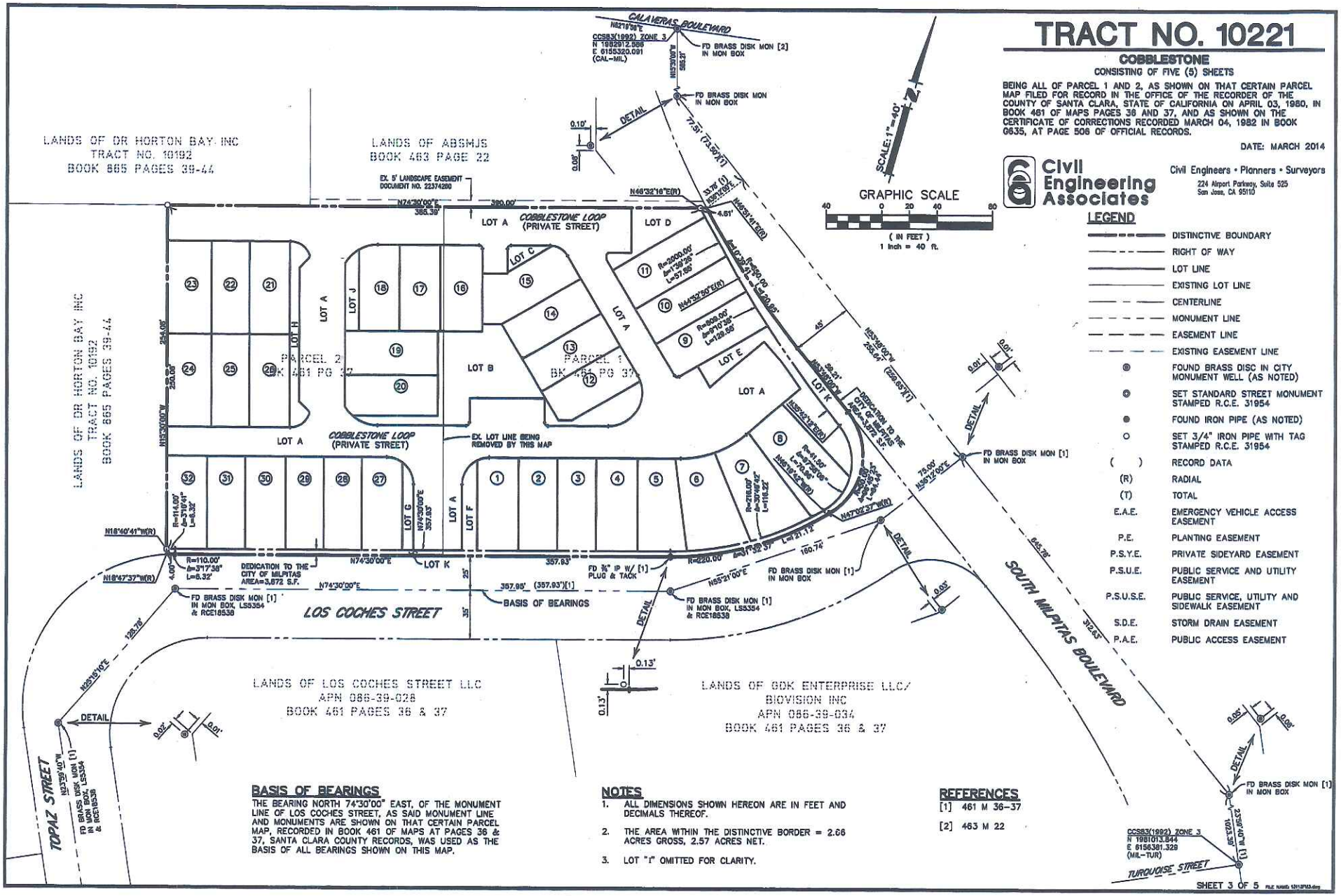
BEING ALL OF PARCEL 1 AND 2, AS SHOWN ON THAT CERTAIN PARCEL MAP FILED FOR RECORD IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SANTA CLARA, STATE OF CALIFORNIA ON APRIL 03, 1980, IN BOOK 461 OF MAPS PAGES 36 AND 37, AND AS SHOWN ON THE CERTIFICATE OF CORRECTIONS RECORDED MARCH 04, 1982 IN BOOK 0635, AT PAGE 506 OF OFFICIAL RECORDS.

DATE: MARCH 2014

Civil Engineering Associates

Civil Engineers • Planners • Surveyors

224 Airport Parkway, Suite 525
San Jose, CA 95110



LEGEND

- DISTINCTIVE BOUNDARY
- RIGHT OF WAY
- LOT LINE
- EXISTING LOT LINE
- CENTERLINE
- MONUMENT LINE
- EASEMENT LINE
- EXISTING EASEMENT LINE
- FOUND BRASS DISC IN CITY MONUMENT WELL (AS NOTED)
- SET STANDARD STREET MONUMENT STAMPED R.C.E. 31954
- FOUND IRON PIPE (AS NOTED)
- SET 3/4" IRON PIPE WITH TAG STAMPED R.C.E. 31954
- ( ) RECORD DATA
- (R) RADIAL
- (T) TOTAL
- E.A.E. EMERGENCY VEHICLE ACCESS EASEMENT
- P.E. PLANTING EASEMENT
- P.S.Y.E. PRIVATE SIDEYARD EASEMENT
- P.S.U.E. PUBLIC SERVICE AND UTILITY EASEMENT
- P.S.U.S.E. PUBLIC SERVICE, UTILITY AND SIDEWALK EASEMENT
- S.D.E. STORM DRAIN EASEMENT
- P.A.E. PUBLIC ACCESS EASEMENT

BASIS OF BEARINGS

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2. THE AREA WITHIN THE DISTINCTIVE BORDER = 2.66 ACRES GROSS, 2.57 ACRES NET.
3. LOT "I" OMITTED FOR CLARITY.

REFERENCES

[1] 461 M 36-37

[2] 463 M 22

TRACT NO. 10221

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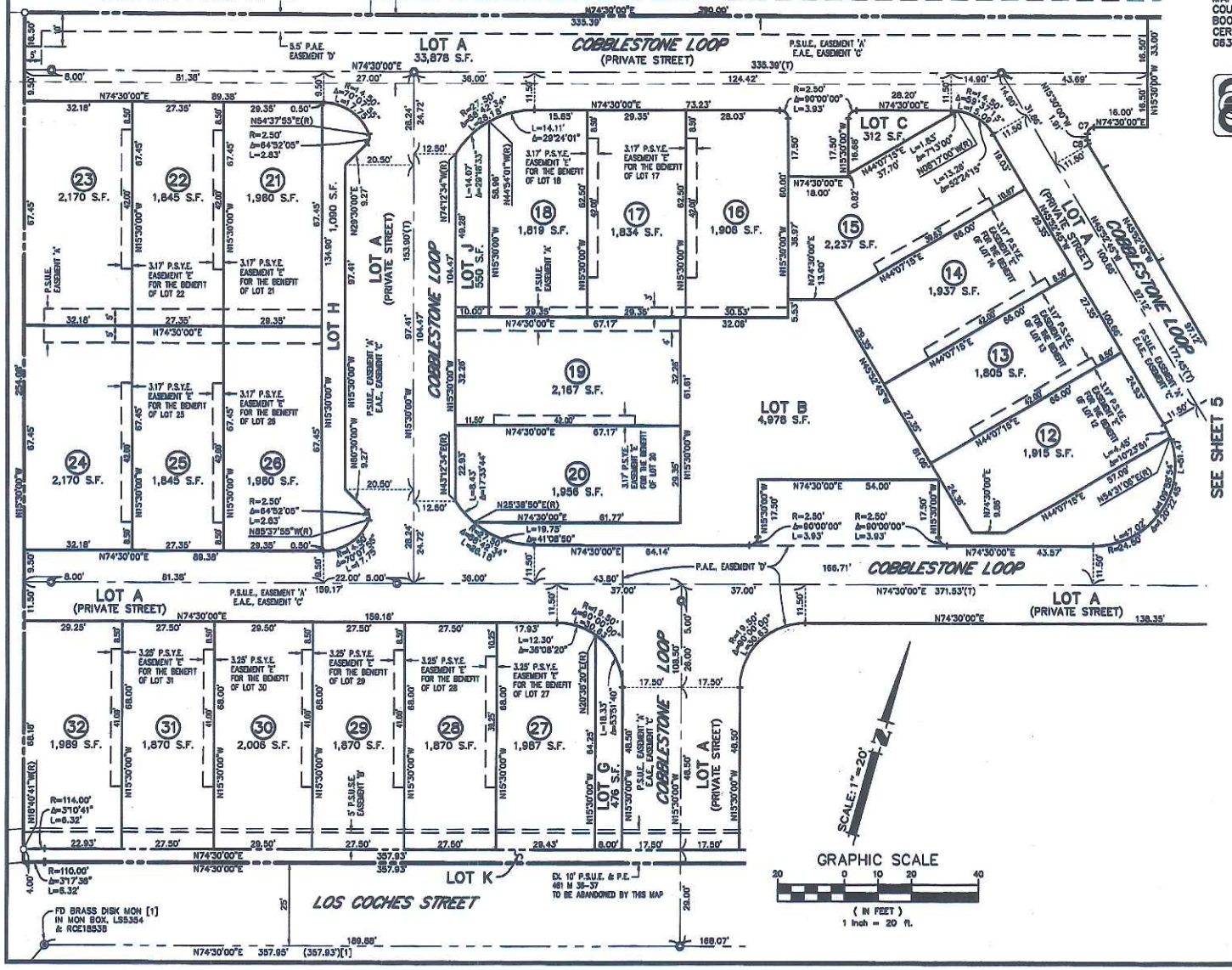

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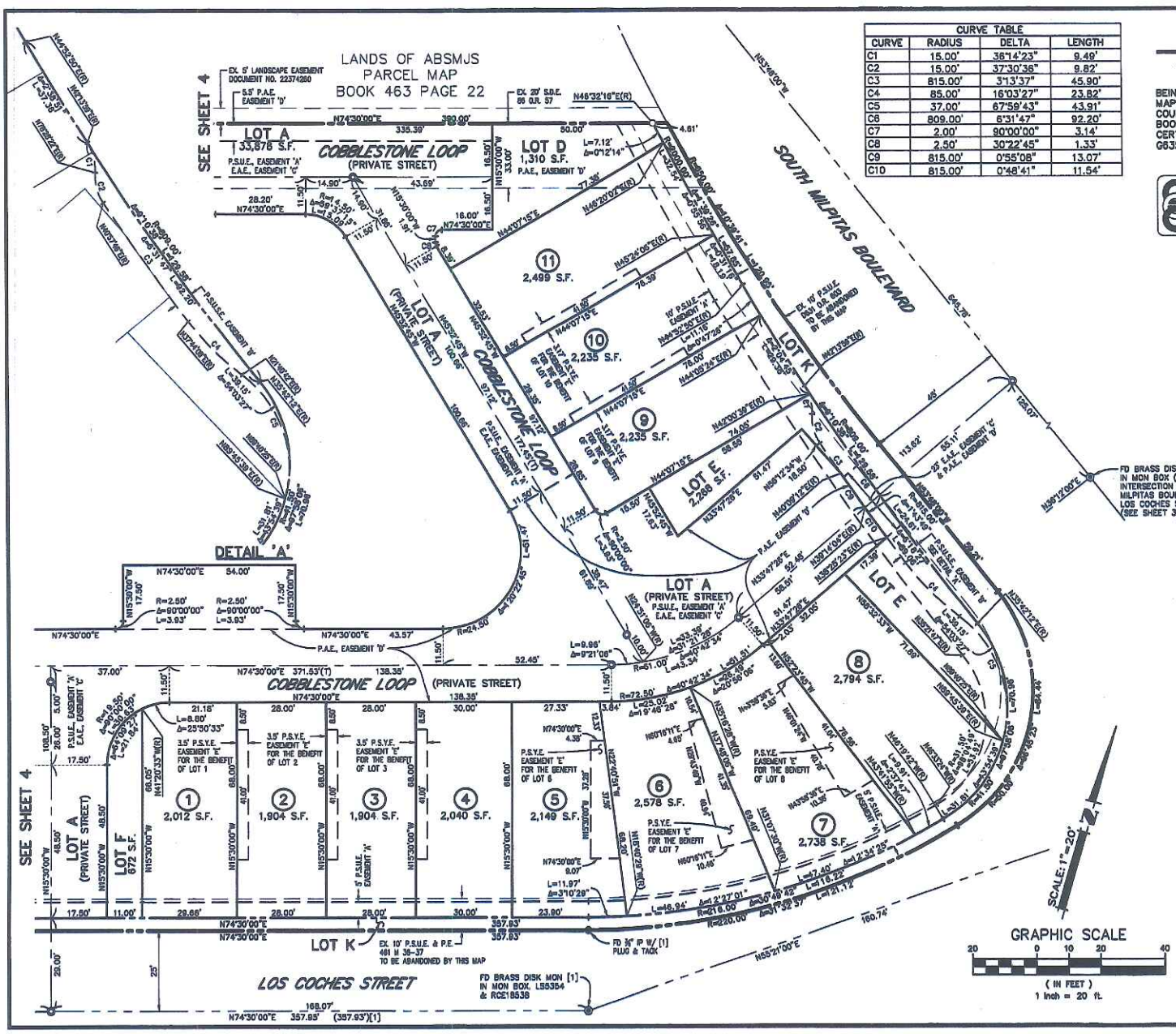
DATE: MARCH 2014

Civil Engineering Associates

Civil Engineers • Planners • Surveyors

224 Airport Parkway, Suite 525
San Jose, CA 95110

CURVE TABLE			
CURVE	RADIUS	DELTA	LENGTH
C1	15.00'	36°14'23"	9.49'
C2	15.00'	37°30'36"	9.82'
C3	815.00'	3°13'37"	45.90'
C4	85.00'	16°03'27"	23.82'
C5	37.00'	67°59'43"	43.91'
C6	809.00'	6°31'47"	92.20'
C7	2.00'	90°00'00"	3.14'
C8	2.50'	30°22'45"	1.33'
C9	815.00'	0°55'08"	13.07'
C10	815.00'	0°48'41"	11.54'



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REFERENCES

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[2] 463 M 22

EXHIBIT B
Stormwater Control Operation and Maintenance Plan

Storm Water Control Plan Report

COBBLESTONE

TRACT 10221
375 LOS COCHES STREET
MILPITAS, CA

CEA Project No. 13-113

Prepared For:

Tri-Pointe Homes
2010 Crow Canyon Place, Suite 380
San Ramon, CA 94583
(925) 804-2230

Prepared By:
Andrew Turner
Civil Engineering Associates, Inc.
224 Airport Parkway, Suite 525
San Jose, CA 95110
(408) 453-1066

REGISTERED PROFESSIONAL ENGINEER
ANDREW TURNER
No. 72831
Exp. 6-30-16
CIVIL
STATE OF CALIFORNIA

December 3, 2014

COBBLESTONE
TRACT 10221
Milpitas, CA

STORM WATER CONTROL PLAN REPORT
MARCH 2014

TABLE OF CONTENTS PAGE

1. **Project Description** 3
   - Site information
   - Project information
   - Pervious/Impervious Site Coverage
2. **Vicinity Map** 5
3. **HMP Applicability** 6
4. **BMP Selection** 6
   - BMP Description
   - Pollutants of Concern
   - BMP Sizing Criteria
   - Source Control Measures
5. **Infiltration** 8
6. **Stormwater Operation & Maintenance** 8
7. **Project Certifications** 10
8. **Summary** 10

REFERENCES

Provision C.3 of the San Francisco Bay Area Municipal Regional Stormwater Permit (MRP), Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) C.3 Stormwater Handbook and the California Stormwater Quality Association Stormwater Best Management Practice Handbook.

APPENDICES:

A. C3 Data Form
B. Infiltration/Harvesting Infeasibility Worksheet
C. Special Projects Worksheet (if applicable)
D. Soil Properties
F. BMP Sizing Calculations
G. Site Plan
H. Details for Treatment Measures
I. Operations and Maintenance Plan Exhibits
J. 3rd Party Certification
K. Hydromodification (HMP) Applicability Map

1. PROJECT DESCRIPTION

- Site Information – **TRACT 10221 - COBBLESTONE**

Developer: **TRI POINTE HOMES**
2010 Crow Canyon Place – Suite 380
San Ramon, CA 94583 / (925) 804-2230
Bill Sadler – Vice President

Project Address: 375 Los Coches Street
Milpitas, California
A.P.N. 086-39-001 & 002
Latitude / Longitude: 37° 25' 48" N, 121° 53' 56" W

- Project Information

This project consists of approximately 2.66 Gross Acres. It will be dedicating approximately 0.09 Acres, resulting is a Net project site area of approximately 2.57 Acres. Located at the western corner of South Milpitas Boulevard and Los Coches Street, the project consists of 28 proposed single family detached residential units and 4 detached combined Live/Work units. The project's entitlement was approved by the Milpitas City Council on November 15, 2013.

The surfaces of the onsite project area of 2.57 Acres will consist of new buildings, AC paved private streets, concrete walkways, decorative crosswalks, residential courtyards and landscaping.

Pervious/Impervious Site Coverage (See Site Coverage table below):

Existing Gross Project Area Conditions:

- 36.48% Impervious surfaces (commercial building, AC pavement and sidewalks) consisting of 42,189 SF
- 63.52% pervious surfaces (open space and landscaping) consisting of 73,465 SF

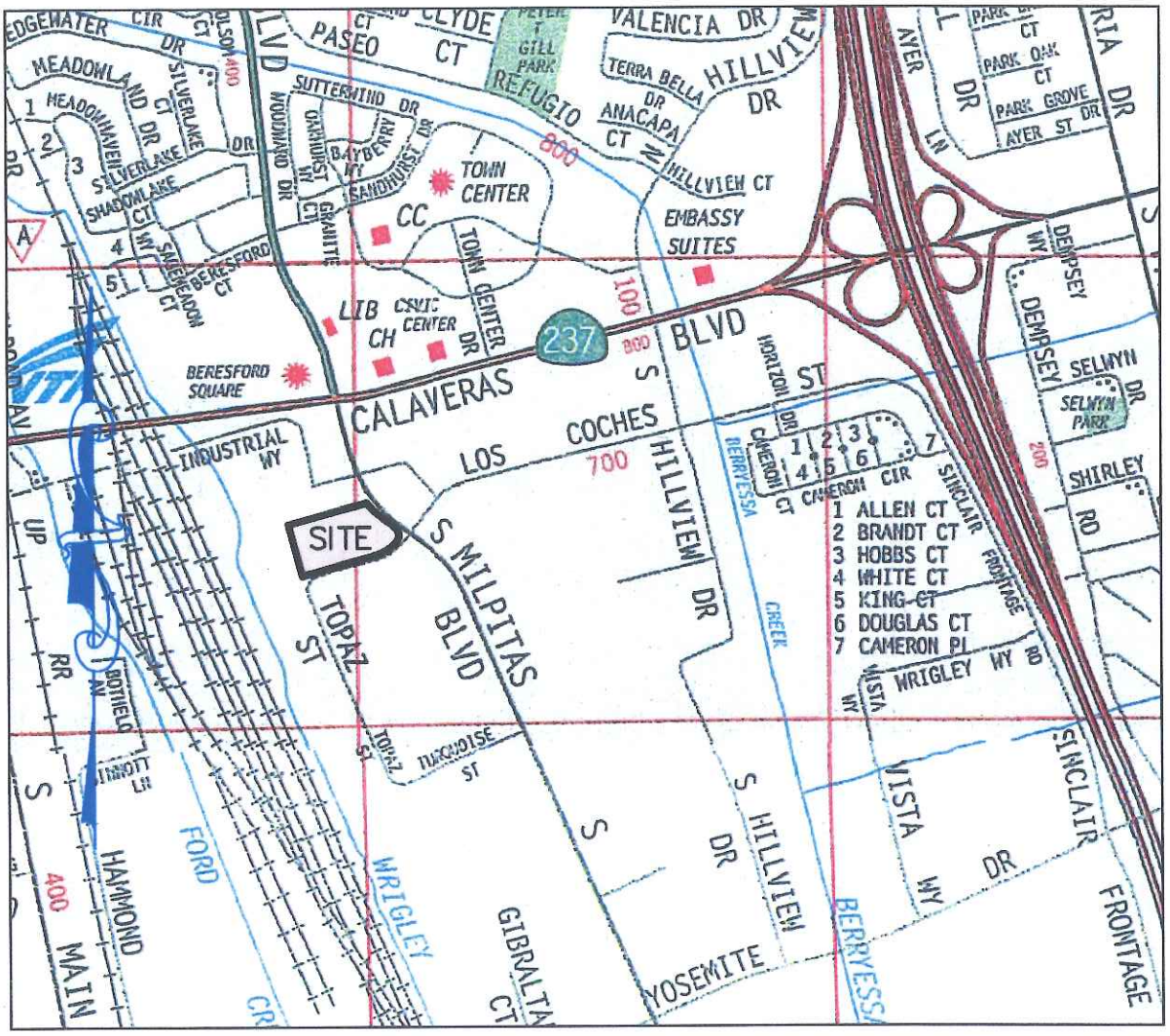
Proposed Net Project Area Conditions:

- 72.96% Impervious surfaces (new residential buildings, private courtyards, AC pavement and concrete walkways) consisting of 81,559 SF
- 27.04% pervious surfaces (landscaping) consisting of 30,223 SF

Table 1. Proposed Site Surface Coverage Areas

Proposed Site Coverage		
Area	**Square Feet**	**Site Coverage**
IMPERVIOUS SURFACES		
Residential Building	38,751	0.89 Ac
Asphalt Streets/ Parking	31,618	0.72 Ac
Walkways	9,163	0.21 Ac
Driveways	2,027	0.05 Ac
TOTAL IMPERVIOUS SURFACES	**81,559**	**1.87 Ac**
PERVIOUS SURFACES		
Permeable Play Surfaces	1,130	0.03 Ac
Onsite Landscaping/Open Space	26,823	0.62 Ac
Treatment Basins	2,270	0.05 Ac
TOTAL PERVIOUS SURFACES	**30,223**	**0.70 Ac**

2. VICINITY MAP



375 Los Coches Street
Milpitas, California

3. HYDROMODIFICATION MANAGEMENT PLAN (HMP) APPLICABILITY

Based on the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) Hydromodification Management Applicability map, the project site is located within the zone for "Catchments and Subwatersheds greater than or equal to 65% Imperviousness" (See Appendix K). Therefore, this project does not require a Hydromodification Management Plan.

4. BMP SELECTION

- BMP Description

The project will provide a combination of BMPs in order to control and improve the water quality of the runoff coming from the site. These BMPs are incorporated into this project at all phases including the project design, constructed improvements (Primary Treatment Control Measures) and as part of the future maintenance.

Design BMPs

Efficient Landscaping and Irrigation – The project will be incorporating plantings from the approved list in Appendix D of the Santa Clara County C.3 guidelines and will include reduced flow irrigation systems.

Treatment Control Measure BMPs

In accordance with the requirements of the MRP, this project was evaluated for the feasibility of Harvesting and Reusing the storm runoff to serve the project's water demands and it was determined to be infeasible (See Appendix B). The current design implements biotreatment for 68.9% of the project site. The remaining 31.1% of the site will be self-retaining. Runoff throughout the site is collected from various hardscape surfaces including roofs and walkways and directed into collection systems which feed the biotreatment facilities. (See the Storm Water Control Plan Sheets – Appendix L).

Maintenance BMPs

The proposed scheduled maintenance of the Treatment Control Measures for this project will reduce the possibility of pollutants getting into the storm collection system from potential erosion and landscape debris build-up. Strict control over excessive use of pesticides and fertilizers will be implemented as well. The required Inspection and Maintenance of the Treatment Control Measures is detailed in Section 6 of this report.

➢ Pollutants of Concern

Pollutants that may be present as a result of the development of this project include sediments, metals, nutrients, bacteria, oil, grease, pet waste, pesticides, fertilizers and other organic compounds. All hardscape areas will have runoff directed to the treatment facilities described above before entering into the storm collection system.

➢ BMP Sizing Criteria

In accordance with the requirements established in the Santa Clara Valley Urban Runoff Pollution Prevention Program C.3 Guidelines, the LID Treatment Control Measures have been designed and sized utilizing the Combined Flow and Volume method as outlined in Appendix B of the C.3 Stormwater Handbook. See Appendix F for the Treatment Measure sizing calculations.

➢ Source Control Measures

The following source control measures will be implemented within the project site to limit the generation, discharge and runoff of pollutants into the storm collection system.

- All storm inlets will be marked with the words "NO DUMPING – FLOWS TO THE BAY".
- All roof drains will be directed to discharge onto splashblocks and away from the building foundation to an unpaved area whenever practicable.
- Sidewalks and Private Streets shall be swept regularly to minimize the accumulation of litter and debris.
- Beneficial landscaping that minimizes irrigation, runoff, pesticides and fertilizers and promotes treatment will be implemented into the project landscape design.

5. INFILTRATION

As identified in the Geotechnical Investigation for 375 Los Coches Street by Berlogar, Stevens & Associates dated May 29, 2013 - Job No. 3390.100, the existing soils conditions are primarily clay and will not provide optimum conditions for infiltration and directing runoff back into the ground soils. Additionally, the project design calls for a liner in the biotreatment basin to provide added protection for the surrounding building foundations.

6. OPERATION AND MAINTENANCE

Routine inspection and maintenance of the proposed Biotreatment facilities and other BMPs will be required in order to keep them functional. The level of effort to accomplish this will be consistent with the normal level of maintenance for the landscaping within the project.

The Project Developer (Tri Pointe Homes) will be the initial responsible party to maintain all of the BMPs for this project. Once all of the homes are sold, then the project's Home Owner's Association (HOA) will assume responsibility for future maintenance. This will be established in the Maintenance Agreement with the City of Milpitas.

➢ Required Inspection & Maintenance

Consistent with Section 8.2.1 of the Santa Clara C.3 Stormwater Handbook, the minimum Inspection & Maintenance requirements for these facilities will need to be as follows:

Biotreatment Facilities:

- Monthly inspection is required at the Bioretention facility surface areas, inlets and outlets for obstructions and trash. Clean and remove any obstructions as needed.
- After rain events, inspect these facilities for ponding. If the basins aren't draining in 2-3 days, the surface soils will need to be replaced and replanted accordingly.
  Note: Standing water must be eliminated in order to avoid Vector issues. Contact the Santa Clara County Vector Control District at (408) 918-4770 or (800) 675-1155 for questions.
- Inspect the health of basin vegetation bi-annually.
  - Remove and replace vegetation as needed.
  - Keep basin facilities trimmed/pruned as needed.
  - Treat diseased plants with low-toxic methods.
  - Avoid the use of pesticides.
  - Maintain irrigation systems as needed.

Self-Retaining Areas:

- Inspection of pervious surfaces for standing water is required every 3-6 months. The underdrains for these surfaces should be inspected at least once a year.
- Routine maintenance including removal of all weeds and other potentially clogging type debris from these pervious surfaces shall be performed on a consistent monthly maintenance cycle.
- Repair any damaged or deformed surfaces as needed.

➢ Inspection & Maintenance Records

Project Owner is to maintain annual records of all routine inspections and maintenance activities for a minimum of 3 years or as specified in the Maintenance agreement with the City of Milpitas. The treatment facilities for this project can be subject to separate inspection and verification by the City of Milpitas.

Inspection & Maintenance records shall include the following minimum information:

- Dates of routine inspections and any resulting maintenance activities
- A log of all pesticides used in treating the basins
- Contact information for the responsible party performing the basin maintenance
- Log of employee training for inspection & maintenance
- A copy of the Stormwater Management Plans

Please submit the Operation and Maintenance Inspection Reports, Maintenance Plan, and Inspection and Maintenance checklist for each BMP to the following address:

City of Milpitas,
455 E. Calaveras Blvd
Milpitas, CA 95035
Attn: Utility Engineer

7. Third Party Certification

The Storm Water Management Plan for this project was reviewed by Mr. Ed Boscocci of BKF Engineers and found to be in conformance with both Milpitas Stormwater standards and the requirements of Provision C.3 of the MRP.

Refer to Appendix J for the certification letter from BKF and Appendix L for signed/approved copies of the Storm Water Control Plans.

8. SUMMARY

In order to successfully implement permanent storm water BMP efforts to mitigate the impacts of urban runoff due to the development of this proposed project, we have demonstrated the following:

- Identification of potential pollutants of concern typical for this type of development in the City of Milpitas
- The proposed land-use for the site provides a treatment scenario that will treat storm drain runoff with the use of biotreatment basins and self – retaining areas.
- The project proposes to treat 68.9% of the site via LID based biotreatment. The remainder of the project site will be self-retaining in compliance with the requirements of the MRP.

APPENDIX A

C3 Data Form

Storm Water Control Plan

COBBLESTONE / TRACT 10221

MILPITAS, CA

(CEA Project No. 13-113)

City of Milpitas – Stormwater Requirements C.3 Data Form

Santa Clara Valley Urban Run-Off Pollution Prevention Program

Which Projects Must Comply with Stormwater Requirements?

All projects that create and/or replace **10,000 sq. ft.** or more of impervious surface on the project site must fill out this worksheet and submit it with the development project application.

All restaurants, auto service facilities, retail gasoline outlets, and uncovered parking lot projects (stand-alone or part of another development project, including the top uncovered portion of parking structures) that create and/or replace **5,000 sq. ft.** or more of impervious surface on the project site must also fill out this worksheet.

Interior remodeling projects, routine maintenance or repair projects such as re-roofing and re-paving, and single family homes that are not part of a larger plan of development are **NOT** required to complete this worksheet.

What is an Impervious Surface?

An impervious surface is a surface covering or pavement that prevents the land's natural ability to absorb and infiltrate rainfall/stormwater. Impervious surfaces include, but are not limited to rooftops, walkways, paved patios, driveways, parking lots, storage areas, impervious concrete and asphalt, and any other continuous watertight pavement or covering. Pervious pavement, underlain with pervious soil or pervious storage material (e.g., drain rock), that infiltrates rainfall at a rate equal to or greater than surrounding unpaved areas OR that stores and infiltrates the water quality design volume specified in Provision C.3.d of the Municipal Regional Stormwater Permit (MRP) is not considered an impervious surface.

For More Information

For more information regarding selection of Best Management Practices for stormwater pollution prevention or stormwater treatment in Santa Clara County: http://www.scvurppp-w2k.com/c3_handbook_2012.shtml

1. Project Information

Project Name: TRACT 10221 **APN #** 086-39-001 & 002

Project Address: NW/C MILPITAS BLVD. & LOS COCHES STREET

Cross Streets: _____

Applicant/Developer Name: TRI POINTE HOMES

Project Phase(s): _____ of _____ **Engineer:** CIVIL ENGINEERING ASSOCIATES, INC.

Project Type (Check all that apply): ☒ New Development ☐ Redevelopment

☐ Residential ☐ Commercial ☐ Industrial ☐ Mixed Use ☐ Public ☐ Institutional

☐ Restaurant ☐ Uncovered Parking ☐ Retail Gas Outlet ☐ Auto Service (SIC code)_____ (5013-5014, 5541, 7532-7534, 7536-7539)

☐ Other _____

Project Description: 32 SFD UNITS WITH 4 LIVE/WORK UNITS INCLUDED.

Project Watershed/Receiving Water (creek, river, or bay): BERRYESSA CREEK

2. Project Size

a. Total Site Area: _____ acre	b. Total Site Area Disturbed: _____ acre (including clearing, grading, or excavating)			
	Existing Area (ft^2)	Proposed Area (ft^2)		Total Post-Project Area (ft^2)
		Replaced	New	
Impervious Area				
Roof	19,200	19,200	19,551	38,751
Parking				
Sidewalks and Streets	21,950	21,950	20,858	42,808
c. Total Impervious Area				
d. Total new and replaced impervious area		81,559		
Pervious Area				
Landscaping	70,632	26,823		26,823
Pervious Paving			1,130	1,130
Other (e.g. Green Roof)			2,270	2,270
e. Total Pervious Area				30,223
f. Percent Replacement of Impervious Area in Redevelopment Projects (Replaced Total Impervious Area ÷ Existing Total Impervious Area) x 100% = 100 %				

3. State Construction General Permit Applicability:

a. Is #2.b. equal to one acre or more?

☒ Yes, applicant must obtain coverage under the State Construction General Permit (i.e., file a Notice of Intent and prepare a Stormwater Pollution Prevention Plan) (see www.swrcb.ca.gov/water_issues/programs/stormwater/construction.shtml for details).

☐ No, applicant does not need coverage under the State Construction General Permit.

4. MRP Provision C.3 Applicability:

a. Is #2.d. equal to **10,000** sq. ft. or more, or **5,000** sq. ft. or more for restaurants, auto service facilities, retail gas outlets, and uncovered parking?

☒ Yes, C.3. source control, site design, and treatment requirements apply.

☐ No, C.3. source control and site design requirements may apply – check with local agency

b. Is #2.f. equal to 50% or more?

☒ Yes, C.3. requirements (site design, source control, as appropriate, and stormwater treatment) apply to entire site.

☐ No, C.3. requirements only apply to impervious area created and/or replaced.

5. Hydromodification Management (HM) Applicability:

a. Does project create and/or replace one acre or more of impervious surface AND is the total post-project impervious area greater than the pre-project (existing) impervious area?

☒ Yes (continue) ☐ No – exempt from HM, go to page 3

b. Is the project located in an area of HM applicability (green area) on the HM Applicability Map? (www.scvurppp-w2k.com/hmp_maps.htm)

☐ Yes, project must implement HM requirements

☒ No, project is exempt from HM requirements

6. Selection of Specific Stormwater Control Measures:

Site Design Measures

- ☐ Minimize land disturbed
- ☒ Minimize impervious surfaces
- ☐ Minimum-impact street or parking lot design
- ☐ Cluster structures/ pavement
- ☒ Disconnected downspouts
- ☒ Pervious ~~pavement~~ PLANT AREA
- ☐ Green roof
- ☐ Microdetention in landscape
- ☐ Other self-treating area
- ☒ Self-retaining area
- ☐ Rainwater harvesting and use (e.g., rain barrel, cistern connected to roof drains) [1]
- ☐ Preserved open space: _____ ac. or sq. ft .(circle one)
- ☐ Protected riparian and wetland areas/buffers (Setback from top of bank: _____ft.)
- ☐ Other _____

Source Control Measures

- ☐ Alternative building materials
- ☐ Wash area/racks, drain to sanitary sewer[2]
- ☐ Covered dumpster area, drain to sanitary sewer[2]
- ☐ Sanitary sewer connection or accessible cleanout for swimming pool/spa/fountain[2]
- ☒ Beneficial landscaping (minimize irrigation, runoff, pesticides and fertilizers; promotes treatment)
- ☐ Outdoor material storage protection
- ☐ Covers, drains for loading docks, maintenance bays, fueling areas
- ☒ Maintenance (pavement sweeping, catch basin cleaning, good housekeeping)
- ☒ Storm drain labeling
- ☐ Other _____

Treatment Systems

- ☐ None (all impervious surface drains to self-retaining areas)

LID Treatment

- ☐ Rainwater harvest and use (e.g., cistern or rain barrel sized for C.3.d treatment)
- ☐ Infiltration basin
- ☐ Infiltration trench
- ☐ Exfiltration trench
- ☐ Underground detention and infiltration system (e.g. pervious pavement drain rock, large diameter conduit)

Biotreatment [3]

- ☒ Bioretention area
- ☐ Flow-through planter
- ☐ Tree box with bioretention soils
- ☐ Other _____

Other Treatment Methods

- ☐ Proprietary tree box filter[4]
- ☐ Media filter (sand, compost, or proprietary media)[4]
- ☐ Vegetated filter strip[5]
- ☐ Dry detention basin[5]
- ☐ Other _____

N/A **Flow Duration Controls for Hydromodification Management (HM)**

☐ Detention basin ☐ Underground tank or vault ☐ Bioretention with outlet control ☐ Other _____

[1] Optional site design measure; does not have to be sized to comply with Provision C.3.d treatment requirements.
[2] Subject to sanitary sewer authority requirements.
[3] Biotreatment measures are allowed only with completed feasibility analysis showing that infiltration and rainwater harvest and use are infeasible.
[4] These treatment measures are only allowed if the project qualifies as a "Special Project".
[5] These treatment measures are only allowed as part of a multi-step treatment process.

7. Treatment System Sizing for Projects with Treatment Requirements

Indicate the hydraulic sizing criteria used and provide the calculated design flow or volume:

Treatment System Component	Hydraulic Sizing Criteria Used[3]	Design Flow or Volume (cfs or cu.ft.)
SEE ATTACHED CALCULATIONS		
	COMBINED FLOW & VOLUME	

[3]Key: 1a: Volume – WEF Method
1b: Volume – CASQA BMP Handbook Method
2a: Flow – Factored Flood Flow Method
2b: Flow – CASQA BMP Handbook Method
2c: Flow – Uniform Intensity Method
3: Combination Flow and Volume Design Basis

8. Alternative Certification: Was the treatment system sizing and design reviewed by a qualified third-party professional that is not a member of the project team or agency staff?

☒ Yes ☐ No Name of Reviewer: ED BOSCACCI / BKF ENGINEERS

9. Operation & Maintenance Information

A. Property Owner's Name: TRI POINTE HOMES

B. Responsible Party for Stormwater Treatment/Hydromodification Control O&M:

a. Name: TRACT 10221 HOMEOWNERS ASSOCIATION

b. Address: 2010 CROW CANYON PLACE, SUITE 420

c. Phone/E-mail: SAN RAMON, CA 94583
ATTN: BILL SADLER BILL.SADLER@TRIPOINTEHOMES.COM

This section to be completed by City of Milpitas staff.

O&M Responsibility Mechanism

Indicate how responsibility for O&M is assured. Check all that apply:

☐ O&M Agreement

☐ Other mechanism that assigns responsibility (describe below):

_____

_____

Reviewed:

Planning Department	**Public Works Department**
Planning Division: _____	Land Development: _____
Other (Specify): _____	Other (Specify): _____

APPENDIX B

Infiltration/Harvesting Infeasibility Worksheet

Storm Water Control Plan

COBBLESTONE / TRACT 10221

MILPITAS, CA

(CEA Project No. 13-113)

Infiltration/Harvesting and Use Feasibility Screening Worksheet

Apply these screening criteria for ***C.3 Regulated Projects**** *required to implement Provision C.3 stormwater treatment requirements. See the Glossary (Attachment 1) for definitions of terms marked with an asterisk (*). Contact municipal staff to determine whether the project meets* ***Special Project**** *criteria. If the project meets Special Project criteria, it may receive LID treatment reduction credits.*

1. Applicant Info

Site Address: NW/C MILPITAS BLVD. & LOS COCHES ST., CA APN: 086-39-001 & 002

Applicant Name: TRI POINTE HOMES Phone No.: 925-804-2220

Mailing Address: 2010 CROW CANYON PLACE, SUITE 470
SAN RAMON, CA 94583

2. Feasibility Screening for Infiltration

Do site soils either (a) have a saturated hydraulic conductivity* (Ksat) that will NOT allow infiltration of 80% of the annual runoff (that is, the Ksat is LESS than 1.6 inches/hour), or, if the Ksat rate is not available, (b) consist of Type C or D soils?[1]

☒ Yes (continue)

☐ No – complete the Infiltration Feasibility Worksheet. If infiltration of the C.3.d amount of runoff is found to be feasible, there is no need to complete the rest of this screening worksheet.

3. Recycled Water Use

Check the box if the project is installing and using a recycled water plumbing system for non-potable water use.

☐ The project is installing a recycled water plumbing system, and installation of a second non-potable water system for harvested rainwater is impractical, and considered infeasible due to cost considerations. Skip to Section 6.

4. Calculate the Potential Rainwater Capture Area* for Screening of Harvesting and Use

Complete this section for the entire project area. If rainwater harvesting and use is infeasible for the entire site, and the project includes one or more buildings that each have an individual roof area of 10,000 sq. ft. or more, then complete Sections 4 and 5 of this form for each of these buildings.

4.1 Table 1 for (check one): ☒ The whole project ☐ Area of 1 building roof (10,000 sq.ft. min.)

Table 1: Calculation of the Potential Rainwater Capture Area*

The Potential Rainwater Capture Area may consist of either the entire project area or one building with a roof area of 10,000 sq. ft. or more.

	1	2	3	4
	Pre-Project Impervious surface[2] (sq.ft.), if applicable	Proposed Impervious Surface[2] (IS), in sq. ft.		Post-project landscaping (sq.ft.), if applicable
		Replaced[3] IS	Created[4] IS	
a. Enter the totals for the area to be evaluated:	41,150	41,150	40,409	30,223
b. Sum of replaced and created impervious surface:	N/A	81,559		N/A
c. Area of existing impervious surface that will NOT be replaced by the project.	/	N/A		N/A

[1] Base this response on the site-specific soil report, if available. If this is not available, consult soil hydraulic conductivity maps in Attachment 3.
[2], Enter the total of all impervious surfaces, including the building footprint, driveway(s), patio(s), impervious deck(s), unroofed porch(es), uncovered parking lot (including top deck of parking structure), impervious trails, miscellaneous paving or structures, and off-lot impervious surface (new, contiguous impervious surface created from road projects, including sidewalks and/or bike lanes built as part of new street). Impervious surfaces do NOT include vegetated roofs or pervious pavement that stores and infiltrates rainfall at a rate equal to immediately surrounding, unpaved landscaped areas, or that stores and infiltrates the **C.3.d amount of runoff***.
[3] "Replaced" means that the project will install impervious surface where existing impervious surface is removed.
[4] "Created" means the project will install new impervious surface where there is currently no impervious surface.
* For definitions, see Glossary (Attachment 1).

4.2 Answer this question ONLY if you are completing this section for the entire project area. If existing impervious surface will be replaced by the project, does the area to be replaced equal 50% or more of the existing area of impervious surface? *(Refer to Table 1, Row "a". Is the area in Column 2 > 50% of Column 1?)*

☒ Yes, C.3. stormwater treatment requirements apply to areas of impervious surface that will remain in place as well as the area created and/or replaced. This is known as the 50% rule.

☐ No, C.3. requirements apply only to the impervious area created and/or replaced.

4.3 Enter the square footage of the **Potential Rainwater Capture Area***. If you are evaluating only the roof area of a building, or you answered "no" to Question 4.2, this amount is from Row "b" in Table 1. If you answered "yes" to Question 4.2, this amount is the sum of Rows "b" and "c" in Table 1.:

81,559 square feet.

4.4 Convert the measurement of the **Potential Rainwater Capture Area*** from square feet to acres (divide the amount in Item 4.3 by 43,560):

1.87 acres.

5. Feasibility Screening for Rainwater Harvesting and Use

5.1 Use of harvested rainwater for landscape irrigation:

Is the onsite landscaping LESS than 2.5 times the size of the **Potential Rainwater Capture Area*** (Item 4.3)? (Note that the landscape area(s) would have to be contiguous and within the same Drainage Management Area to use harvested rainwater for irrigation via gravity flow.)

☒ Yes (continue) ☐ No – Direct runoff from impervious areas to **self-retaining areas*** OR refer to Table 11 and the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for irrigation.

5.2 Use of harvested rainwater for toilet flushing or non-potable industrial use:

a. Residential Projects: Proposed number of dwelling units: 32

Calculate the dwelling units per impervious acre by dividing the number of dwelling units by the acres of the **Potential Rainwater Capture Area*** in Item 4.4. Enter the result here:

17.1

Is the number of dwelling units per impervious acre LESS than 100 (assuming 2.7 occupants/unit)?

☒ Yes (continue) ☐ No – complete the Harvest/Use Feasibility Worksheet.

N/A b. Commercial/Industrial Projects: Proposed interior floor area: _____ (sq. ft.)

Calculate the proposed interior floor area (sq.ft.) per acre of impervious surface by *dividing the interior floor area (sq.ft.) by the acres of the **Potential Rainwater Capture Area*** in Item 4.4. Enter the result here:*

_____

Is the square footage of the interior floor space per impervious acre LESS than 70,000 sq. ft.?

☐ Yes (continue) ☐ No – complete the Harvest/Use Feasibility Worksheet

N/A c. School Projects: Proposed interior floor area: _____ (sq. ft.)

Calculate the proposed interior floor area per acre of impervious surface by *dividing the interior floor area (sq.ft.) by the acres of the **Potential Rainwater Capture Area*** in Item 4.4 . Enter the result here:*

_____.

Is the square footage of the interior floor space per impervious acre LESS than 21,000 sq. ft.?

☐ Yes (continue) ☐ No – complete the Harvest/Use Feasibility Worksheet

* For definitions, see Glossary (Attachment 1).

d. Mixed Commercial and Residential Use Projects

- Evaluate the residential toilet flushing demand based on the dwelling units per impervious acre for the residential portion of the project, following the instructions in Item 5.2.a, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to residential use.
- Evaluate the commercial toilet flushing demand per impervious acre for the commercial portion of the project, following the instructions in Item 5.2.a, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to commercial use.

NA

e. Industrial Projects: Estimated non-potable water demand (gal/day): _____

Is the non-potable demand LESS than 2,400 gal/day per acre of the Potential Rainwater Capture Area?

☐ Yes (continue) ☐ No – refer to the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for industrial use.

6. Use of Biotreatment

If only the "Yes" boxes were checked for all questions in Sections 2 and 5, or the project will have a recycled water system for non-potable use (Section 3), then the applicant may use appropriately designed bioretention facilities for compliance with C.3 treatment requirements. The applicant is encouraged to maximize infiltration of stormwater if site conditions allow.

7. Results of Screening Analysis

Based on this screening analysis, the following steps will be taken for the project (check all that apply):

- ☒ Implement biotreatment measures (such as an appropriately designed bioretention area).
- ☐ Conduct further analysis of infiltration feasibility by completing the Infiltration Feasibility Worksheet.
- ☐ Conduct further analysis of rainwater harvesting and use (check one):
  - ☐ Complete the Rainwater Harvesting and Use Feasibility Worksheet for:
    - ☐ The entire project
    - ☐ Individual building(s), if applicable, describe:_____
  - ☐ Evaluate the feasibility of harvesting and using the C.3.d amount of runoff for irrigation, based on Table 11 and the curves in Appendix F of the LID Feasibility Report
  - ☐ Evaluate the feasibility of harvesting and using the C.3.d amount of runoff for non-potable industrial use, based on the curves in Appendix F of the LID Feasibility Report.

* For definitions, see Glossary (Attachment 1).

APPENDIX C

Special Projects Worksheet (if applicable)

Storm Water Control Plan

COBBLESTONE / TRACT 10221

MILPITAS, CA

(CEA Project No. 13-113)

APPENDIX D

Soil Properties

Storm Water Control Plan

COBBLESTONE / TRACT 10221

MILPITAS, CA

(CEA Project No. 13-113)

DESIGN LEVEL GEOTECHNICAL INVESTIGATION
MILPITAS RESIDENTIAL, LOTS 1 AND 2
345 AND 375 LOS COCHES STREET
MILPITAS, CALIFORNIA

FOR
TRI POINTE HOMES
May 29, 2013

Job No. 3390.100

BERLOGAR STEVENS & ASSOCIATES

Via E-mail and Mail

May 29, 2013
Job No. 3390.100

BERLOGAR
STEVENS &
ASSOCIATES

Mr. Bob Donnelly
Tri Pointe Homes
2010 Crow Canyon Place, Suite 420
San Ramon, California 94583

Subject: Design Level Geotechnical Investigation
Milpitas Residential, Lots 1 and 2
345 and 375 Los Coches Street
Milpitas, California

Dear Mr. Donnelly:

INTRODUCTION

This report presents the results of our geotechnical investigation for the Milpitas residential project at 345 and 375 Los Coches Street in Milpitas, California as shown on Plate 1, Vicinity Map. The site is bounded by South Milpitas Boulevard to the east, commercial buildings to the north and west and Los Coches Street to the south. The approximately 2½-acre site is comprised of two parcels. Lot 1 is undeveloped and covered in weeds, and Lot 2 contains an approximately 20,000 sf commercial building. The existing commercial building will be demolished, and the site will be developed into a residential development.

PURPOSE AND SCOPE OF SERVICES

The purpose of this investigation was to evaluate the proposed development with respect to site soil and groundwater conditions, and to provide geotechnical recommendations for the design and construction of the proposed residences. The scope of our services included a review of available geotechnical and geologic reference material, field exploration, laboratory testing, engineering analyses based on field and laboratory data, and preparation of this report.

FIELD EXPLORATION AND LABORATORY TESTING

Our field exploration was performed on May 14 and 15, 2013. Three borings (B1 through B3) were drilled with a truck mounted, hollow stem auger equipped drill rig at the approximate locations shown on Plate 2, Site Plan on May 14, 2013. The three borings were drilled to approximately 25 feet below the existing ground surface. Our field engineer logged the borings and collected soil samples for geotechnical laboratory testing. The boring logs and key to boring log symbols are contained Appendix A.

Our field investigation on May 15 consisted of performing two cone penetration tests (CPT1 and CPT2) at the approximate locations shown on Plate 2, Site Plan. The CPT's measured tip resistance, sleeve friction and pore water pressure to a depth of approximately 50 feet below the existing ground surface. The CPT logs are contained in Appendix B.

The borings and CPT holes were backfilled with neat cement grout per Santa Clara Valley Water District guidelines. Soil samples from the borings were transported to our laboratory for testing. Laboratory testing including Atterberg Limits, sieve analyses, moisture/density, hydrometer tests, unconfined compressive strength and single point consolidation/swell were performed on selected samples. Atterberg Limits testing on five surficial (less than 10 feet below existing ground surface) soil samples resulted in Plasticity Index (PI) ranging from 34 to 52 and a Liquid Limit (LL) ranging from 54 to 75. This indicates the on-site soils are very highly to extremely expansive. The results of the laboratory tests are contained in Appendix C.

An unconfined compressive strength of 2,671 psf was obtained for a soil sample at a depth of 6-1/2 feet in B2. Single point consolidation tests were performed on two relatively undisturbed samples collected at approximate depths of 3½ and 5½ feet below the existing ground surface. The samples were seated, loaded to their approximate in-situ overburden stress, then inundated with water. The change in height of the sample was recorded throughout the test. Results of the single point consolidation tests are tabulated below and are shown on the boring logs. The samples swelled with a light load indicating that the soils are highly expansive and will shrink and swell upon drying and wetting.

Boring	Sample Depth (ft)	Soil Type	Load (psf)	Swell Upon Inundation (percent)
B-1	5½	Silty Clay	675	3.3
B-3	3½	Silty Clay	425	0.6

A near surface soil sample at a depth of 1½ feet from boring B3 was transported to CERCO Analytical, a state certified analytical laboratory for corrosion testing. The results of the testing and a brief corrosivity analysis is contained in Appendix D.

SITE CONDITIONS

SURFACE CONDITIONS

The approximately 2½-acre site is comprised of two parcels. Lot 1 is undeveloped and covered in weeds, and Lot 2 contains an approximately 20,000 sf commercial building with paved parking areas. Some medium size trees are located on Lot 2 and along the perimeter of Lot 1. The site is relatively flat at an elevation of roughly 21 feet MSL.

SUBSURFACE CONDITIONS

The upper 20 of soil at the site consists predominantly of clay and silty clay that is dry to moist grading to wet, stiff to very stiff and dark and light gray-brown. An approximately 10-foot thick zone of sandy silt, clayey silt, silty sand and sand is located between 20 and 30 feet deep. According to the CPTs, the soils transition back to silty clay and clay at about 30 feet in depth extending to the maximum explored depth of 50 feet. A more detailed description of the subsurface conditions is contained in the Boring Logs in Appendix A.

GROUNDWATER

Groundwater was encountered in the borings at depths between 13 and 16 feet. Numerous factors contribute to groundwater level fluctuations including precipitation, irrigation, and well pumping. A detailed evaluation of these and other factors which may be responsible for groundwater fluctuations was beyond the scope of this study.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

We conclude that, from a geotechnical engineering standpoint, the proposed residential development can generally be constructed as planned, provided that the conclusions and recommendations contained in this report are incorporated into the design and construction of the project. The predominant geotechnical considerations for this project are liquefaction induced settlement of deeper soils and extremely expansive surficial soils. It is our opinion that both of these conditions can be mitigated by pre-expanding the soil beneath building pads by adding water and utilizing post tension slab foundations for the structures.

SITE PREPARATION AND GRADING

Our general site preparation and grading recommendations are as follows:

1. The areas to be graded should be cleared of debris, surface vegetation, pre-existing abandoned utilities or buried structures. The existing building and parking lot should be demolished. Holes remaining from demolition should be backfilled in accordance with our recommendations below.

2. Trees designated for removal should include the entire root ball and roots larger than 2 inches in diameter. Holes resulting from tree removal should be cleared of loose soils and roots, and properly backfilled in accordance with our recommendations below.

3. Existing ground in fill areas should be scarified at least 12 inches, moisture conditioned and compacted between 85 to 90 percent relative compaction at a moisture content at least 5 percent over optimum moisture content.

4. If zones of soft or saturated soils are encountered during excavation and compaction, deeper excavations may be required to expose firm soils. This should be determined in the field by the soils engineer.

5. The upper 3 feet of soil should be reworked beneath buildings by overexcavating 2 feet and scarifying the overexcavated bottom 1 foot. The soil should be moisture conditioned and compacted between 84 to 88 percent relative compaction at a moisture content at least 7 percent over optimum moisture content.

6. Relative compaction refers to the in-place dry density of the soil expressed as a percentage of the maximum dry density determined by ASTM D1557 compaction test procedure. Optimum moisture is the water content (percentage by dry weight) corresponding to the maximum dry density.

7. The on-site soil is generally suitable for engineered fill, provided it is free of debris, significant vegetation and other deleterious matter.

8. Fill and backfill should be placed in thin lifts (normally 6 to 8 inches in loose lift thickness depending on the compaction equipment), properly moisture conditioned, and compacted as specified above.

9. Observations and soil density tests should be carried out during grading and backfill operations to assist the contractor in obtaining the required degree of compaction and proper moisture content. Where the compaction is outside the range required, additional compaction effort and adjustment of moisture content should be made until the specified compaction and moisture conditioning is achieved.

10. The soils engineer should be notified at least 48 hours prior to any grading and backfill operations. The procedure and methods of grading may then be discussed between the contractor and the soils engineer.

LIQUEFACTION EVALUATION

Liquefaction is the sudden transformation of loose, cohesionless soil below the groundwater table into a viscous fluid during strong ground shaking from an earthquake. The Recommended Procedures for Implementation of DMG Special Publication 117 – Guidelines for Analyzing and Mitigating Liquefaction in California (DMG SP-117) indicates that a depth of 50 feet has been used as the depth of analysis for evaluating liquefaction.

A quantitative evaluation of liquefaction hazard was performed for the project site based on the method developed by Idriss and Boulanger (2008) for cone penetration tests (CPTs) and the CLiq liquefaction analysis software. The groundwater table was conservatively estimated to be 5 feet below the existing ground surface based on the California Geological Survey Seismic Hazard Zone Report for the Milpitas Quadrangle. Probabilistic seismic parameters were obtained from the USGS Interactive Deaggregation website (Moment magnitude of 6.60 and a peak ground acceleration of 0.64g).

The Idriss and Boulanger method corrects the raw CPT data recorded during testing for overburden, fines content and other factors to determine a cyclic resistance ratio (CRR) for each depth. Ground motion parameters are then adjusted to a common value magnitude to determine the cyclic stress ratio (CSR) for each soil layer. The estimated liquefaction induced settlement for each set of data can then be calculated.

Based on our calculations, we estimate that approximately 3 inches of total and 1½ inches of differential liquefaction induced settlement is possible, primarily from the silty sand from approximately 20 to 30 feet below the existing ground surface. It is our opinion that differential settlement across the site and potential for ground surface manifestation (including sand boils and ground cracking) will be marginal due to the approximately 20 foot thick non-liquefiable layer overlying the liquefiable soil. We anticipate that the recommended post tension slab foundations will further reduce the potential effects of liquefaction induced settlement on the proposed structures.

SEISMIC DESIGN PARAMETERS

The subject site is located at approximately 37.4301 degrees north latitude and 121.8992 degrees west longitude. The peak ground acceleration (PGA) with a 10% chance of exceedance in 50 years (475 year return period) is 0.64g according to the United States Geologic Survey (USGS) Deaggregation website with an assumed shear wave velocity of 270 m/s. According to the USGS Earthquake Ground Motion Parameters program, Version 5.1.0 dated February 10, 2011, the following 2010 California Building Code seismic design criteria should be incorporated into the structural design of the proposed residence.

Mapped Spectral Acceleration for Short Periods, S_s	1.52 g
Mapped Spectral Acceleration for 1-Second Period, S_1	0.60 g
Site Class	D
Site Coefficient F_a (for Site Class D)	1.0
Site Coefficient F_v (for Site Class D)	1.5
Acceleration Parameter S_{MS} (adjusted for Site Class D)	1.52 g
Acceleration Parameter, S_{M1} (adjusted for Site Class D)	0.90 g
Acceleration Parameter, S_{DS}(adjusted for Site Class D)	1.01 g
Acceleration Parameter, S_{D1} (adjusted for Site Class D)	0.60 g

FOUNDATIONS

POST TENSION SLAB FOUNDATIONS

The design parameters provided in this report is based on the third edition of PTI design manual. The center and edge lift differential swell values were adjusted higher to stiffen the PT slab. The stiffer PT slab needed due to the extremely high expansion potential of the near surface soils and the potential for up to 1½ inches of liquefaction induced differential settlement (estimated to be within a 100 foot span). We recommend that the following criteria be incorporated in the design of the post tension slab foundations.

Allowable Bearing Capacity (may be increased by 1/3 for seismic and wind load to be used at the discretion of the structural engineer)	1,500 psf
Passive Equivalent Fluid Pressure (neglect the upper foot if the ground surface is not confined by slabs or pavement)	300 pcf
Base Friction Coefficient	0.3
Edge Moisture Variation Distance Center Lift Edge Lift	 7.5 feet 4.0 feet
Differential Swell Center Lift Edge Lift	 1.88 inches 2.72 inches

The building pad should be prepared in accordance with the recommendations contained in the grading section above. Just before construction of the PT slab foundation, the upper 12 inches of the subgrade soils should be pre-soaked to at least 7 percent above optimum moisture content. The pre-soaked pad should not be allowed to dry out to less than the recommended moisture content

before the concrete is placed. Subgrade moisture should be checked by a BSA representative prior to concrete placement.

Where moisture vapor through the slabs would be objectionable, the use of a vapor retarder and capillary moisture break should be considered. The slab designer should determine the thickness of the slab and rock cushion layers.

UTILITY TRENCH EXCAVATION AND BACKFILL

Excavations should conform to applicable State and Federal safety requirements. Where trench excavations are more than 5 feet deep, they should be sloped no steeper than 1H:1V and/or shored. Flatter trench slopes may be required if seepage is encountered during construction or if exposed soil conditions differ from those encountered in the test pits. If the trench side slopes cannot be excavated due to site constraints, shoring should be provided to ensure trench stability and safety. We will provide soil parameters for shoring design upon request.

Materials quality, placement procedures and compaction operations for utility bedding and shading materials should meet local agency and/or other applicable agency requirements. Utility trench backfill above the shading materials may consist of native soils that have been processed to remove rubble, rock fragments over 4 inches in largest dimension, rubbish, vegetation and other undesirable substances. Backfill materials should be placed in level lifts about 8 to 12 inches in loose thickness, moisture conditioned and mechanically compacted between 84 and 88 percent relative compaction. No jetting is permissible on this project.

EXTERIOR CONCRETE FLATWORK AND DRIVEWAYS

The upper foot of subgrade beneath concrete flatwork and driveways should be presoaked to at least 7 percent over optimum moisture content prior to concrete placement. Presoaking is intended to pre-expand the soil, which would likely occur once landscape irrigation commences. We suggest that abutting sidewalks, patios, door stoops and driveways be tied together with dowels to reduce potential tripping hazards. We also suggest that the designer consider the use of reinforcing steel to reduce potential tripping hazards. Additionally, it should be noted that placement of an aggregate base layer beneath flatwork could act as a subsurface water reservoir, thus saturating the subgrade soil further. It may be prudent to thicken flatwork due to the expansive soils. We can discuss this further with the flatwork designer if needed once plans are more complete.

STRUCTURAL PAVEMENT SECTIONS

We are providing structural pavement sections based on an assumed R-Value of 5 for the subgrade soil, the Caltrans Design Method for Flexible Pavement, and traffic indices (TI), which are indications of load frequency and intensity.

Traffic Index	Asphalt Concrete (in)	Class 2 Aggregate Base (in)	Total Section Thickness (in)
4.5	3.0	8	11.0
5	3.0	10	13.0
5.5	3.0	12	15.0
6	3.0	14	17.0
6.5	4.0	14	18.0
7	4.0	16	20.0

SUBGRADE AND AGGREGATE BASE

Prior to subgrade preparation, utility trench backfill should be properly placed and compacted. Subgrade soils for asphalt concrete pavement should be rolled to at least 95 percent relative compaction to provide a smooth, unyielding surface. Subgrade soils should be maintained in a moist and compacted condition until covered with the complete pavement section.

Class 2 aggregate base should conform to the requirements in Section 26, Caltrans "Standard Specifications". The aggregate base should be placed in thin lifts in a manner to prevent segregation, uniformly moisture conditioned, and compacted to at least 95 percent relative compaction to provide a smooth, unyielding surface.

A pavement edge drain should be constructed under the curb and gutter as shown on Plate 3, Pavement Edge Drain. This drain will drain water that may collect and saturate the AB, which could cause premature pavement failure. The locations of pavement edge drains should be determined after a review of the final civil and landscape plans.

ADDITIONAL SOIL ENGINEERING SERVICES

Prior to construction, our firm should be provided the opportunity to review the plans and specifications to determine if the recommendations of this report have been implemented in those documents. We would appreciate the opportunity to meet with the contractors prior to the start of site grading, underground utility installation and pavement construction to discuss the procedures and methods of construction. This can facilitate the performance of the construction operation and minimize possible misunderstanding and construction delays.

To a degree, the performance of the proposed project is dependent on the procedures and quality of the construction. Therefore, we should provide observations of the contractor's procedures and the exposed soil conditions, and field and laboratory testing during site preparation and grading, placement and compaction of fill, underground utility installation, and foundation and pavement construction. These observations will allow us to check the contractor's work for conformance with the intent of our recommendations and to observe any unanticipated soil conditions that could require modification of our recommendations.

LIMITATIONS

The conclusions and recommendations of this report are based upon the information provided to us regarding the proposed project, subsurface conditions encountered at the field exploration locations, the results of the laboratory testing, and professional judgment. This study has been conducted in accordance with current professional geotechnical engineering standards; no other warranty is expressed or implied.

Site conditions described in this report are characteristic of those existing at the time of our field exploration in May 2013, and are not necessarily representative of such conditions at other locations or times. The locations of the field explorations were estimated by pacing from the existing surface features and should be considered approximate only.

In the event that changes in nature, design and location of the proposed project are planned, or if it is found during construction that subsurface conditions differ from those described on the boring logs, then the conclusions and recommendations in this report shall be considered invalid, unless the changes are reviewed, and the conclusions and recommendations are modified or approved in writing.

We trust that this report provides the information that you require at this time. If you have any questions, please contact the undersigned at (925) 484-0220. We appreciate the opportunity to provide professional services to Tri Pointe Homes.

Respectfully submitted,

BERLOGAR STEVENS & ASSOCIATES

Wilson Wong
Project Engineer
C78589

REGISTERED PROFESSIONAL ENGINEER
WILSON W. WONG
No.78589
CIVIL
STATE OF CALIFORNIA

William R. Stevens
Principal Engineer

WW/WRS:jmo

Attachments:

Plate 1 – Vicinity Map
Plate 2 – Site Plan
Plate 3 – Pavement Edge Drain
Appendix A – Boring Logs and Key to Boring Log Symbols
Appendix B – CPT Graphs
Appendix C – Laboratory Test Results
Appendix D – Cerco Analytical Test Results

Copies: Addressee (6)

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APPENDIX F

BMP Sizing Calculations

Storm Water Control Plan

COBBLESTONE / TRACT 10221

MILPITAS, CA

(CEA Project No. 13-113)

STORMWATER TREATMENT SIZING & STORAGE CALCULATION SUMMARY TABLE

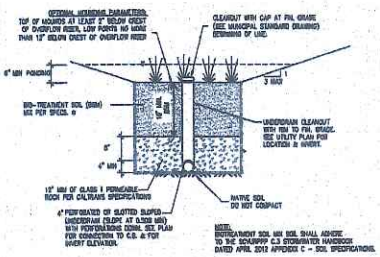
STORMWATER TREATMENT WATERSHED DESIGNATION	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
IMPERVIOUS SURFACES - Roof, Pavement, walkways & driveways (SF)	6396	4069	8539	3170	7751	5705	4984	3846	3282	12209	5351	3168	3490	1878	3833	5002
PERVIOUS SURFACES - Landscaping & Pervious Pavements	1337	2289	2044	2069	1366	1148	4001	1415	1620	2889	1460	372	3825	1222	1779	1390
TOTAL DRAINAGE AREA (SF)	7733	6358	10582	5239	9117	6853	8985	5261	4852	15098	6811	3540	7255	3100	5612	6392
VOLUME BASED SIZING - BMP HANDBOOK APPROACH																
TOTAL DRAINAGE AREA (AC)	0.18	0.15	0.24	0.12	0.21	0.16	0.21	0.12	0.09	0.35	0.16	0.08	0.17	0.07	0.13	0.15
% IMPERVIOUS	82.71%	64.00%	80.68%	60.51%	85.02%	83.25%	55.47%	73.10%	67.84%	80.89%	78.56%	89.49%	47.28%	60.58%	68.30%	78.25%
MEAN ANNUAL PRECIPITATION (INCHES PER YEAR)	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50
LOCAL RAIN GAUGE - SAN JOSE (INCHES PER YEAR)	13.90	13.90	13.90	13.90	13.90	13.90	13.90	13.90	13.90	13.90	13.90	13.90	13.90	13.90	13.90	13.90
CORRECTION FACTOR	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
MODIFIED SOIL TYPE - NRCS	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
AVERAGE SLOPE OF SITE	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
UNIT STORAGE VOLUME - 80% CAPTURE RATE (IN)	0.5		0.49		0.48	0.49		0.48		0.5	0.49	0.53			0.48	0.49
BMP DESIGN VOLUME (CF)	359	N/A	482	0	407	312	0	235	0	701	310	174	0	0	240	291
TREATMENT TYPE	Bio-Treatment	Self-Retaining	Bio-Treatment	Self-Retaining	Bio-Treatment	Bio-Treatment	Self-Retaining	Bio-Treatment	Self-Retaining	Bio-Treatment	Bio-Treatment	Bio-Treatment	Self-Retaining	Self-Retaining	Bio-Treatment	Bio-Treatment
Self-Retaining Hardscape/Landscape Ratio (2:1 Max.)	N/A	1.78:1	N/A	1.33:1	N/A	N/A	3.25:1	N/A	1.38:1	N/A	N/A	N/A	0.90:1	1.54:1	N/A	N/A
FLOW BASED SIZING - UNIFORM INTENSITY APPROACH																
A - TOTAL DRAINAGE AREA (AC)	0.18	N/A	0.24	N/A	0.21	0.16	N/A	0.12	N/A	0.35	0.16	0.08	N/A	N/A	0.13	0.15
C - RUNOFF COEFFICIENT	0.79	N/A	0.77	N/A	0.80	0.79	N/A	0.73	N/A	0.78	0.76	0.83	N/A	N/A	0.69	0.76
I - UNIFORM INTENSITY (0.2"/HR.)	0.2	N/A	0.2	N/A	0.2	0.2	N/A	0.2	N/A	0.2	0.2	0.2	N/A	N/A	0.2	0.2
Q - DESIGN FLOW (CFS)	0.0280	N/A	0.0376	N/A	0.0336	0.0249	N/A	0.0175	N/A	0.0538	0.0238	0.0135	N/A	N/A	0.0179	0.0223
COMBINED VOLUME & FLOW APPROACH																
WATER QUALITY DESIGN VOLUME (CF)	359	N/A	482	N/A	407	312	N/A	235	N/A	701	310	174	N/A	N/A	240	291
RAINFALL INTENSITY - UNIFORM INTENSITY APPROACH (0.2"/HR.)	0.2	N/A	0.2	N/A	0.2	0.2	N/A	0.2	N/A	0.2	0.2	0.2	N/A	N/A	0.2	0.2
DURATION OF RAIN EVENT = UNIT STORAGE VOLUME x CORRECTION FACTOR / RAINFALL INTENSITY (HRS.)	2.79	N/A	2.73	N/A	2.68	2.73	N/A	2.68	N/A	2.79	2.73	2.96	N/A	N/A	2.56	2.73
PRELIMINARY TREATMENT AREA SIZING = 4% OF STORMWATER TREATMENT WATERSHED (SF)	309	N/A	423	N/A	365	274	N/A	210	N/A	604	272	142	N/A	N/A	224	256
REDUCED TREATMENT AREA (SF) REQUIRED	220	N/A	295	N/A	253	195	N/A	153	N/A	490	196	115	N/A	N/A	181	197
TREATMENT AREA (SF) PROVIDED	220	N/A	295	N/A	253	195	N/A	153	N/A	465	196	115	N/A	N/A	181	197
VOLUME OF WATER FILTERED THROUGH TREATMENT SOIL = REDUCED TREATMENT AREA * 5"/HR. * DURATION OF RAIN EVENT * 1'/12" (CF)	256	N/A	336	N/A	282	222	N/A	171	N/A	523	223	142	N/A	N/A	193	224
REQUIRED STORAGE VOLUME (= BMP DESIGN VOLUME - FILTERED TREATMENT VOLUME / REDUCED TREATMENT AREA (INCHES IN STORAGE DEPTH)	5.7	N/A	5.9	N/A	5.9	5.5	N/A	5.0	N/A	4.8	5.3	3.4	N/A	N/A	3.1	4.1
BMP MEETS / EXCEEDS REQUIRED TREATMENT SIZING	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

CALCULATIONS PROVIDED IN THE TABLE ARE BASED ON THE COMBINED FLOW AND VOLUME BASED METHOD AS OUTLINED ON THE SCVURPPP C.3 STORMWATER HANDBOOK DATED APRIL 2012.

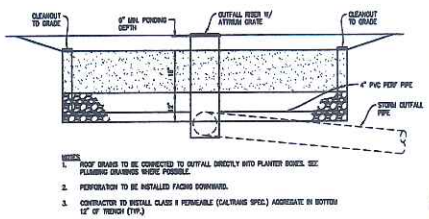
STORMWATER TREATMENT SURFACES SUMMARY TABLE

WATERSHED ID	IMPERVIOUS SURFACES					PERVIOUS SURFACES				WATERSHED AREA (SF)	TREATMENT METHOD
	BUILDING	WALKWAY	DRIVEWAY	STREETS	TOTAL IMPERVIOUS	LANDSCAPING	PERVIOUS SURFACE	TREATMENT BASIN	TOTAL PERVIOUS		
A	1943	672	171	3710	6396	1117	0	220	1337	7733	BIOTREATMENT BASIN NO. 1
B	3658	491	0	0	4069	2289	0	0	2289	6358	SELF-RETAINING
C	4201	320	399	3618	8538	1749	0	295	2044	10582	BIOTREATMENT BASIN NO.2
D	2897	473	0	0	3170	2069	0	0	2069	5239	SELF-RETAINING
E	3269	892	169	3421	7751	1119	0	293	1366	9117	BIOTREATMENT BASIN NO.3
F	2248	184	305	2968	5705	953	0	195	1148	6853	BIOTREATMENT BASIN NO.4
G	3314	1670	0	0	4984	2871	1130	0	4001	8985	SELF-RETAINING
H	927	402	0	2517	3846	1262	0	153	1415	5261	BIOTREATMENT BASIN NO.5
I	1980	252	0	0	2232	1620	0	0	1620	3852	SELF-RETAINING
J	5025	691	362	6128	12206	2421	0	465	2886	15092	BIOTREATMENT BASIN NO.6
K	2375	108	280	2608	5351	1264	0	196	1460	6811	BIOTREATMENT BASIN NO.7
L	666	274	128	2099	3168	257	0	115	372	3540	BIOTREATMENT BASIN NO.8
M	2082	1348	0	0	3430	3825	0	0	3825	7255	SELF-RETAINING
N	1358	520	0	0	1878	1222	0	0	1222	3100	SELF-RETAINING
O	1388	544	57	1844	3833	1598	0	181	1779	5612	BIOTREATMENT BASIN NO.9
P	1740	382	175	2705	5002	1193	0	197	1390	6392	BIOTREATMENT BASIN NO.10
SUBTOTAL AREA (SF)	38751	9163	2037	31618	81559	26829	1130	2270	30229	111782	

* PERVIOUS SURFACES INCLUDE THE PERVIOUS PLAYGROUND SURFACE WHICH IS SELF-TREATING. NO CREDIT IS TAKEN FOR ANY CAPTURED RUN-OF



TYPICAL LINED BIORETENTION AREA



TYPICAL SECTION @ BIORETENTION BASIN

SCALE: 1"=2'

JOB COPY
JUN 27 2014
CITY OF MILPITAS
BUILDING DIVISION

REGISTERED PROFESSIONAL ENGINEER
JASON GRAGE
No. 69877
CIVIL
STATE OF CALIFORNIA

NO.	DATE	REVISIONS	BY
1			
2			
3			
4			
5			

Civil Engineering Associates
Civil Engineers • Planners • Surveyors
224 Airport Parkway
Suite 525
San Jose, CA 95110
T: (408) 453-1036

PREPARED FOR:
TRI Pointe Homes
2010A Crow Canyon Place, Suite 180
San Ramon, CA 94583

PRIVATE IMPROVEMENT PLANS
TRACT NO. 10221
STORMWATER MANAGEMENT NOTES
MILPITAS CALIFORNIA

DATE	APR. 11, 14
SCALE	–
DESIGNED	JG
DRAWN	CH
JOB NO.	13-113
SHEET	19
OF	25 SHEETS

APPENDIX G

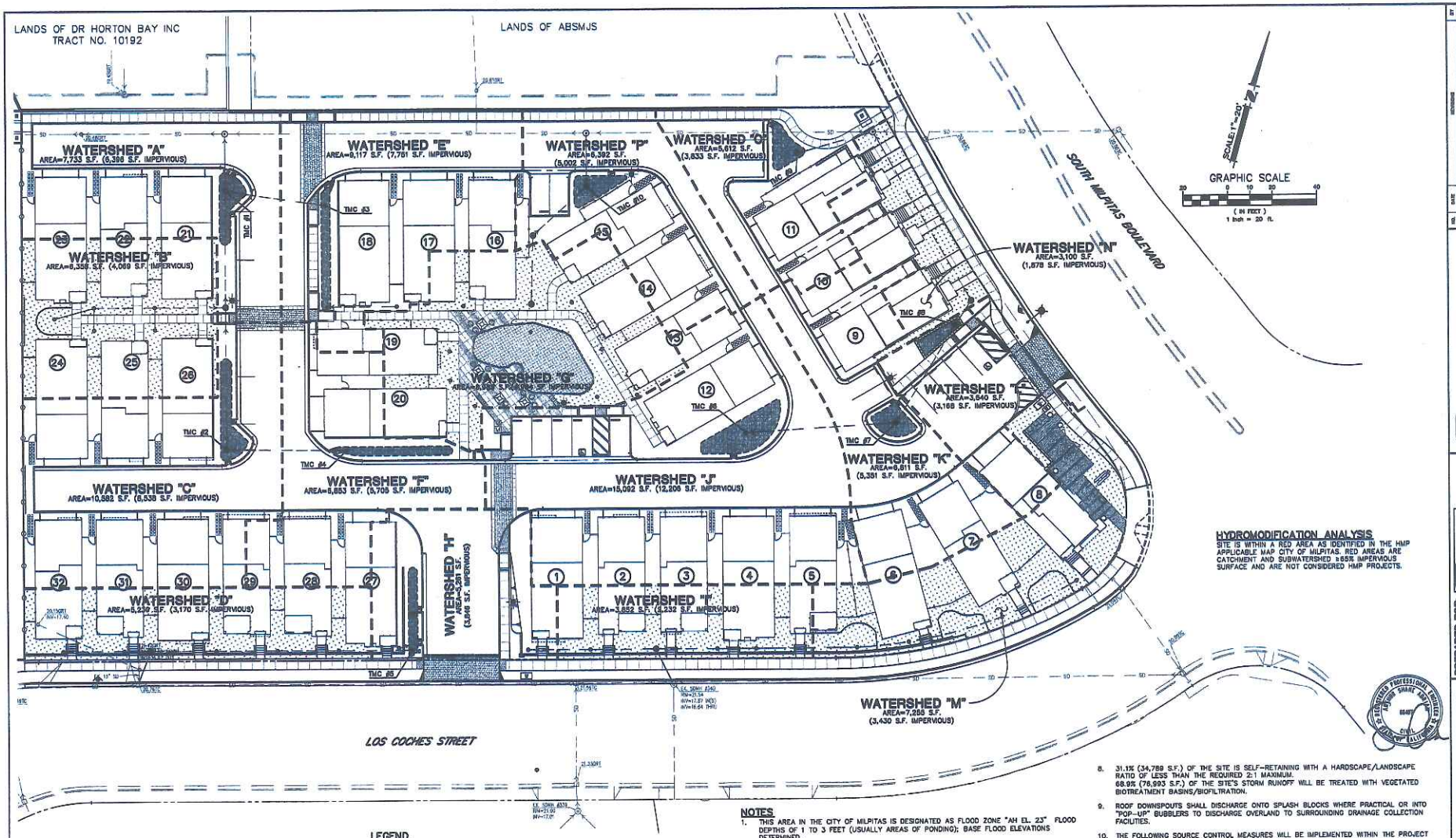
Site Plan

Storm Water Control Plan

COBBLESTONE / TRACT 10221

MILPITAS, CA

(CEA Project No. 13-113)



HYDROMODIFICATION ANALYSIS
SITE IS WITHIN A RED AREA AS IDENTIFIED IN THE HMP APPLICABLE MAP CITY OF MILPITAS. RED AREAS ARE CATCHMENT AND SUBWATERSHED ≥65% IMPERVIOUS SURFACE AND ARE NOT CONSIDERED HMP PROJECTS.

LOS COCHES – TRACT 10221

Proposed Site Coverage

Area	Square Feet	Site Coverage
Residential Buildings	38,781	0.89 Ac
Asphalt Streets/ Parking	31,618	0.72 Ac
Walkways	9,163	0.21 Ac
Driveways	2,027	0.05 Ac
Permeable Play Surfaces	1,130	0.03 Ac
Onsite Landscaping/Open Space	29,823	0.62 Ac
Treatment Basins	2,270	0.05 Ac
Net Project Area - Total	**111,782**	**2.57 Ac**
Street Dedication		
Los Coches Street and South Milpitas Blvd.	3,872	0.09 Ac
Gross Site Area - Total	**115,654**	**2.66 Ac**

LEGEND

- PROJECT BOUNDARY
- WATERSHED BOUNDARY
- (5) UNIT NUMBER
- TCM — TREATMENT CONTROL MEASURE – SEE TCM SIZING CALCULATIONS TABLE ON SHEET 19
- IMPERVIOUS DECORATIVE EMBOSSED ASPHALT SURFACE
- PERVIOUS PLAYGROUND SURFACE
- SELF-RETAINING LANDSCAPE AREAS (WATERSHEDS B, D, G, I, M & N) SEE TYPICAL SELF-RETAINING DETAIL ON SHEET 20 FOR REFERENCE
- BIO-TREATMENT BASIN – SEE SHEET 19 TABLE FOR BASIN SIZING CALCULATIONS SEE INDIVIDUAL BASIN DETAILS ON SHEET 20 FOR REFERENCE

NOTES

1. THIS AREA IN THE CITY OF MILPITAS IS DESIGNATED AS FLOOD ZONE "AH EL. 23" FLOOD DEPTHS OF 1 TO 3 FEET (USUALLY AREAS OF PONDING); BASE FLOOD ELEVATIONS DETERMINED.
2. TOTAL PROJECT SITE = 115,654 S.F. / 2.66 ACRES – GROSS/PRE-DEDICATION
   111,782 S.F. / 2.57 ACRES – NET/POST-DEDICATION
3. AREA OF SITE BEING DISTURBED/DEVELOPED = ENTIRE PROJECT SITE
4. EXISTING SITE COVERAGE OF GROSS SITE AREA
   PERVIOUS = 73,485 S.F. / 1.69 ACRES (63.5%)
   IMPERVIOUS = 42,169 S.F. / 0.97 ACRES (36.5%)
5. PROPOSED SITE COVERAGE
   NET PROJECT AREA:
   PERVIOUS = 30,223 S.F. / 0.70 ACRES
   IMPERVIOUS = 81,559 S.F. / 1.87 ACRES
   OFFSITE DEDICATION:
   RIGHT OF WAY = 3,872 S.F. / 0.09 ACRESS
6. THERE IS A 35.2% PERCENT INCREASE OF IMPERVIOUS SURFACE FOR THE SITE.
7. RECEIVING SYSTEM FOR THE STORM WATER: CITY OF MILPITAS PUBLIC STORM SEWER AND ULTIMATELY INTO BERRYESSA CREEK.
8. 31.1% (34,789 S.F.) OF THE SITE IS SELF-RETAINING WITH A HARDSCAPE/LANDSCAPE RATIO OF LESS THAN THE REQUIRED 2:1 MAXIMUM.
   68.9% (76,993 S.F.) OF THE SITE'S STORM RUNOFF WILL BE TREATED WITH VEGETATED BIOTREATMENT BASINS/BIOFILTRATION.
9. ROOF DOWNSPOUTS SHALL DISCHARGE ONTO SPLASH BLOCKS WHERE PRACTICAL OR INTO "POP-UP" BUBBLERS TO DISCHARGE OVERLAND TO SURROUNDING DRAINAGE COLLECTION FACILITIES.
10. THE FOLLOWING SOURCE CONTROL MEASURES WILL BE IMPLEMENTED WITHIN THE PROJECT SITE TO LIMIT THE GENERATION, DISCHARGE AND RUNOFF OF POLLUTANTS INTO THE STORM COLLECTION SYSTEM.
    - ALL STORM INLETS WILL BE MARKED WITH THE WORDS "NO DUMPING – FLOWS TO THE BAY".
    - ALL ROOF DRAINS WILL BE DIRECTED TO DISCHARGE ONTO SPLASHBLOCKS AND AWAY FROM THE BUILDING FOUNDATION TO AN UNPAVED AREA WHEREVER PRACTICABLE.
    - SIDEWALKS AND PARKING LOTS SHALL BE SWEPT REGULARLY TO MINIMIZE THE ACCUMULATION OF LITTER AND DEBRIS.
    - BENEFICIAL LANDASCAPING THAT MINIMIZES IRRIGATION, RUNOFF, PESTICIDES & FERTILIZERS AND PROMOTES TREATMENT WILL BE IMPLEMENTED INTO THE PROJECT LANDSCAPE DESIGN
11. ALL PROPOSED STORMWATER TREATMENT FACILITIES WILL BE MAINTAINED BY THE HOME OWNERS ASSOCIATION OF TRACT NO 10221.
12. THE OVERALL STORM CONVEYANCE SYSTEM WAS CALCULATED ASSUMING THE 10-YEAR STORM EVENT.

JOB COPY
CITY OF MILPITAS
BUILDING DIVISION

NO.	REVISIONS	DATE	BY

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Civil Engineers • Planners • Surveyors
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Suite 620
San Jose, CA 95110
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F: (408) 453-1666

PREPARED FOR:
TRI Pointe HOMES
2010 Crow Canyon Place, Suite 300
San Ramon, CA 94583

PRIVATE IMPROVEMENT PLANS
TRACT NO. 10221
STORMWATER MANAGEMENT PLAN

MILPITAS CALIFORNIA

DATE	APR. 11, 14
SCALE	1"=20'
DESIGNED	JG
DRAWN	CH
JOB NO.	13-113

SHEET 18 OF 25 SHEETS

APPENDIX H

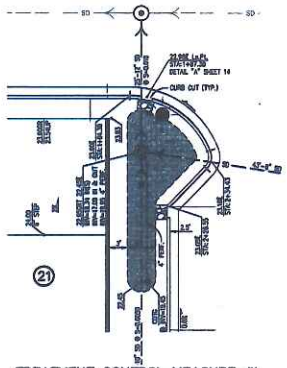
Treatment Measure Details

Storm Water Control Plan

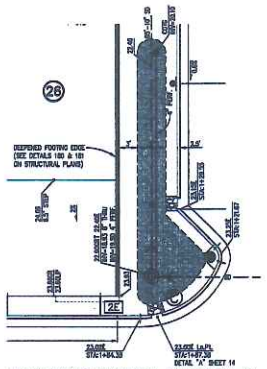
COBBLESTONE / TRACT 10221

MILPITAS, CA

(CEA Project No. 13-113)



TREATMENT CONTROL MEASURE #1
SCALE: 1"=10'



TREATMENT CONTROL MEASURE #2
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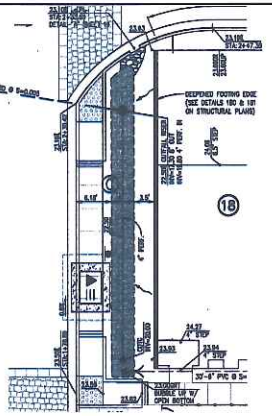

TREATMENT CONTROL MEASURE #3
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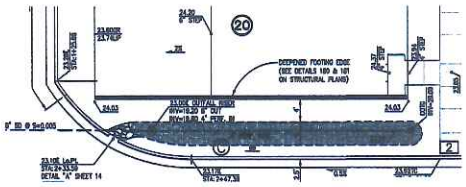
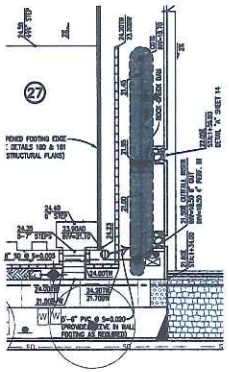
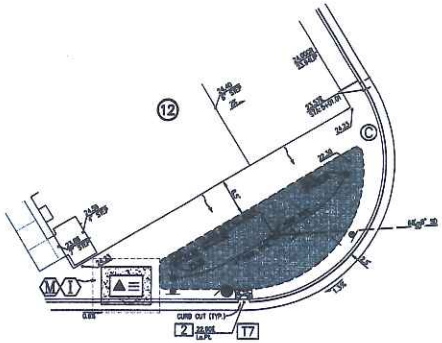


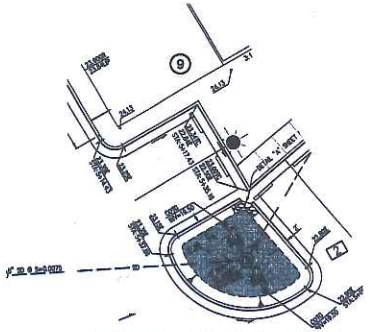
TREATMENT CONTROL MEASURE #4
SCALE: 1"=10'



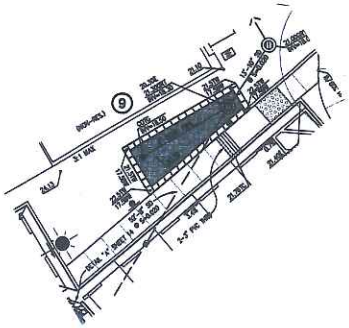
TREATMENT CONTROL MEASURE #5
SCALE: 1"=10'



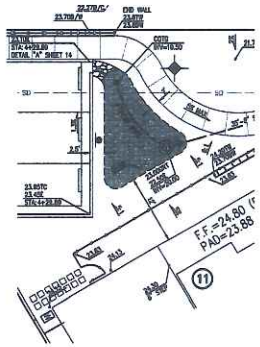
TREATMENT CONTROL MEASURE #6
SCALE: 1"=10'



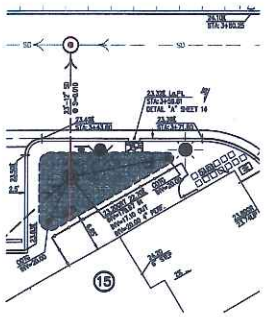
TREATMENT CONTROL MEASURE #7
SCALE: 1"=10'



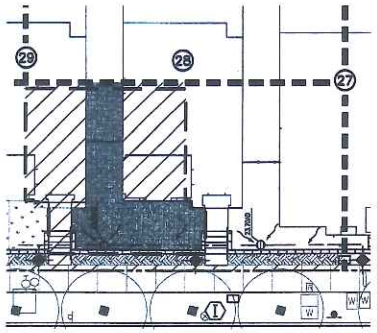
TREATMENT CONTROL MEASURE #8
SCALE: 1"=10'



TREATMENT CONTROL MEASURE #9
SCALE: 1"=10'



TREATMENT CONTROL MEASURE #10
SCALE: 1"=10'



TYPICAL SELF-RETAINING SUBWATERSHED
SCALE: 1"=10'

LEGEND

- BOUNDARY OF WATERSHED "D"
- *SUB WATERSHED BOUNDARY – PORTION OF WATERSHED "D" 852 S.F.
- SELF-RETAINING LANDSCAPING 336 S.F.
- HARDSCAPE SURFACES (ROOF & WALKS) 516 S.F.

IMPERVIOUS/PERVIOUS RATIO PROVIDED: 1.54:1 (2:1 MAX. PER SANTA CLARA C3 GUIDELINES)

STORM SYMBOLS LEGEND

- 6" PVC AREA DRAIN W/ FLAT GRATE
- 8" PVC OUTFALL RISER W/ ATRIUM STYLE GRATE
- 12" PVC OUTFALL RISER W/ ATRIUM STYLE GRATE AND PVC INLET. (BY HARDCO OR APPROVED EQUAL).
- BIOTREATMENT BASIN SEE DETAIL ON SHEET 19
- STORM LINE
- 4" PVC PERFORATED PIPE

JOB COPY
JUN 3 7 2015
CITY OF MILPITAS
BUILDING DIVISION

Civil Engineering Associates
Civil Engineers • Planners • Surveyors
224 Airport Parkway
Suite 325
San Jose, CA 95110
T: (408) 573-0555

PREPARED FOR:
TRI Pointe HOMES
2019 Crow Canyon Place, Suite 310
San Ramon, CA 94583

PRIVATE IMPROVEMENT PLANS
TRACT NO. 10221
STORMWATER TREATMENT AREAS
MILPITAS CALIFORNIA

DATE	APR. 11, 14
SCALE	1"=10'
DESIGNED	JG
DRAWN	CH
JOB NO.	13-113

SHEET 20 OF 25 SHEETS

APPENDIX I

Operations and Maintenance Plan Forms

Hydromodification Storm Water Control Plan

COBBLESTONE / TRACT 10221

MILPITAS, CA

(CEA Project No. 13-113)

Stormwater Treatment Measure Operation and Maintenance Inspection Report to the City of Milpitas, California

This report and attached Inspection and Maintenance Checklists document the inspection and maintenance conducted for the identified stormwater treatment measure(s) subject to the Maintenance Agreement between the City and the property owner during the annual reporting period indicated below.

I. Property Information:

Property Address or APN: 375 Los Coches Street, Milpitas

Property Owner: TriPointe Homes

II. Contact Information:

Name of person to contact regarding this report: _____

Phone number of contact person: _____ Email: _____

Address to which correspondence regarding this report should be directed:

_____

_____

III. Reporting Period:

This report, with the attached completed inspection checklists, documents the inspections and maintenance of the identified treatment measures during the time period from _____ _____ to _____.

IV. Stormwater Treatment Measure Information:

The following stormwater treatment measures (identified treatment measures) are located on the property identified above and are subject to the Maintenance Agreement:

Identifying Number of Treatment Measure	Type of Treatment Measure	Location of Treatment Measure on the Property

V. Summary of Inspections and Maintenance:

Summarize the following information using the attached Inspection and Maintenance Checklists:

Identifying Number of Treatment Measure	Date of Inspection	Operation and Maintenance Activities Performed and Date(s) Conducted	Additional Comments

VI. Sediment Removal:

Total amount of accumulated sediment removed from the stormwater treatment measure(s) during the reporting period:_____cubic yards.

How was sediment disposed?

- ☐ landfill
- ☐ other location on-site as described in and allowed by the maintenance plan
- ☐ other, explain _____

VII. Inspector Information:

The inspections documented in the attached Inspection and Maintenance Checklists were conducted by the following inspector(s):

Inspector Name and Title	Inspector's Employer and Address

VIII. Certification:

I hereby certify, under penalty of perjury, that the information presented in this report and attachments is true and complete:

_____ _____

Signature of Property Owner or Other Responsible Party Date

_____

Type or Print Name

_____

Company Name

_____

Address

Phone number:_____Email:_____

Bioretention Area Maintenance Plan for Cobblestone – Tract 10221

December 3, 2014

Project Address and Cross Streets: Los Coches Street and South Milpitas Boulevard

Assessor's Parcel No.: 086-39-001 and -002

Property Owner: Tripointe Homes Phone No:_____

Designated Contact:_____ Phone No:_____

Mailing Address:_____

The property contains 10 bioretention area(s), located per the Stormwater Management Plan approved with the Private Improvement Plans for Tract 10221 and included with this Stormwater Water Management Plan Report

I. Routine Maintenance Activities

The principal maintenance objective is to prevent sediment buildup and clogging, which reduces pollutant removal efficiency and may lead to bioretention area failure. Routine maintenance activities, and the frequency at which they will be conducted, are shown in Table 1.

Table 1
Routine Maintenance Activities for Bioretention Areas

No.	Maintenance Task	Frequency of Task
1	Remove obstructions, debris and trash from bioretention area and dispose of properly.	Monthly, or as needed after storm events
2	Inspect bioretention area for ponded water. If ponded water does not drain within 2-3 days, till and replace the surface soil and replant.	Monthly, or as needed after storm events
3	Inspect inlets for channels, soil exposure or other evidence of erosion. Clear obstructions and remove sediment.	Monthly, or as needed after storm events
4	Remove and replace all dead and diseased vegetation.	Twice a year
5	Maintain vegetation and the irrigation system. Prune and weed to keep bioretention area neat and orderly in appearance. Remove and or replace any dead plants.	Twice a year
6	Check that mulch is at appropriate depth (2 inches per soil specifications) and replenish as necessary before wet season begins.	Monthly
7	Inspect the energy dissipation at the inlet to ensure it is functioning adequately, and that there is no scour of the surface mulch.	Annually, before the wet season begins
8	Inspect bioretention area using the attached inspection checklist.	Monthly, or after large storm events, and after removal of accumulated debris or material

II. Use of Pesticides

The use of pesticides and quick release fertilizers shall be minimized, and the principles of integrated pest management (IPM) followed:

1. Employ non-chemical controls (biological, physical and cultural controls) before using chemicals to treat a pest problem.
2. Prune plants properly and at the appropriate time of year.
3. Provide adequate irrigation for landscape plants. Do not over water.
4. Limit fertilizer use unless soil testing indicates a deficiency. Slow-release or organic fertilizer is preferable. Check with municipality for specific requirements.
5. Pest control should avoid harming non-target organisms, or negatively affecting air and water quality and public health. Apply chemical controls only when monitoring indicates that preventative and non-chemical methods are not keeping pests below acceptable levels. When pesticides are required, apply the least toxic and the least persistent pesticide that will provide adequate pest control. Do not apply pesticides on a prescheduled basis.
6. Sweep up spilled fertilizer and pesticides. Do not wash away or bury such spills.
7. Do not over apply pesticide. Spray only where the infestation exists. Follow the manufacturer's instructions for mixing and applying materials.
8. Only licensed, trained pesticide applicators shall apply pesticides.
9. Apply pesticides at the appropriate time to maximize their effectiveness and minimize the likelihood of discharging pesticides into runoff. With the exception of pre-emergent pesticides, avoid application if rain is expected.
10. Unwanted/unused pesticides shall be disposed as hazardous waste.

III. Vector Control

Standing water shall not remain in the treatment measures for more than five days, to prevent mosquito generation. Should any mosquito issues arise, contact the Santa Clara Valley Vector Control District (District). Mosquito larvicides shall be applied only when absolutely necessary, as indicated by the District, and then only by a licensed professional or contractor. Contact information for the District is provided below.

Santa Clara Valley Vector Control District
1580 Berger Dr.
San Jose, California 95112
Phone: (408) 918-4770 / (800) 675-1155 - Fax: (408) 298-6356
www.sccgov.org/portal /site/vector

IV. Inspections

The attached Bioretention Area Inspection and Maintenance Checklist shall be used to conduct inspections monthly (or as needed), identify needed maintenance, and record maintenance that is conducted.

Bioretention Area
Inspection and Maintenance Checklist

Property Address: 375 Los Coches, Milpitas

Property Owner: Tripointe Homes

Treatment Measure ID: _____ Date of Inspection: _____ Type of Inspection (Circle): Monthly Pre-Wet Season After heavy runoff End of Wet Season

Other: _____

Inspector(s): _____

Defect	Conditions When Maintenance Is Needed	Maintenance Needed? (Y/N)	Comments (Desaibe maintenance completed and if needed maintenance was not conducted. note when it will be	Results Expected When Maintenance Is Performed
1. Standing Water	Water stands in the bioretention area between storms and does not drain within 2-3 days after rainfall.			There should be no areas of standing water once storm event has ceased. Any of the following may apply: sediment or trash blockages removed, improved grade from head to foot of bioretention area, or added underdrains.
2. Trash and Debris Accumulation	Trash and debris accumulated in the bioretention area.			Trash and debris removed from bioretention area and disposed of properly.
3. Sediment	Evidence of sedimentation in bioretention area.			Material removed so that there is no clogging or blockage. Material is disposed of property.
4. Erosion	Channels have fonned around inlets, there are areas of bare soil, and/or other evidence of erosion.			Obstructions and sediment removed so that water flows freely and disperses over a wide area. Obstructions and sediment are disposed of property.
5. Vegetation	Vegetation is dead, diseased and/or overgrown.			Vegetation is healthy and attractive in appearance.
6. Mulch	Mulch is missing or patchy in appearance. Areas of bare earth are exposed, or mulch layer is less than 2 inches in depth.			All bare earth is covered, except mulch is kept 6 inches away from trunks of trees and shrubs. Mulch is even in appearance, at a depth of 2 inches.
7. Miscellaneous	Any condition not covered above that needs attention in order for the bioretention area to function as designed.			Meets the design specifications.

Santa Clara Valley Urban Runoff Pollution Prevention Program

Standard Stormwater Treatment BMP Inspection Data Collection Form

Date: _____ Time: _____ File Number: _____
Municipality_____ Agency or Department: _____
Inspectors _____

I. REASON FOR INSPECTION

☐ Initial ☐ Follow-up ☐ Other _____
☐ Routine ☐ Response to Complaint Inspection Frequency: _____

II. PROJECT INFORMATION

1. ID # or Assessor Parcel Number: _____ 2. Date of Installation _____
3. Project Type: ☐Residential ☐Commercial ☐Industrial ☐Multi-use ☐Road ☐Institutional ☐Other
4. Facility Name: _____
   Site Address: _____
   Contact Name: _____ Phone: _____
5. If the property owner is different than the contact name, fill out information below:
   Owner Name: _____ Title: _____
   Owner's Address: _____ Phone: _____
6. If the BMP operator is different than the contact name, fill out information below:
   Name: _____ Title: _____
   Address: _____ Phone: _____
7. Maintenance Documentation: ☐Reviewed ☐Not Reviewed ☐Not Available ☐Other: _____
8. Party responsible for O&M Documentation: ☐Property owner ☐BMP Operator ☐Contractor ☐Other: _____

III. BMP TYPE AND INSPECTION RESULTS (Use Codes from "Potential Inspection Results with Definitions" sheet)

1. **Biofiltration**
☐ Vegetated Swale _____
☐ Vegetated Buffer Strip _____
☐ Bioretention _____
☐ Roof Gardens _____
☐ Planter Boxes _____

Detention
☐ Extended Detention Basin _____
☐ Wet Pond _____
☐ Wetland _____

Structural
☐ Drain Insert _____
☐ Porous Pavement _____
☐ Media Filter _____
☐ Hydrodynamic Separator _____
☐ Vortex Separator _____
☐ Water Quality Inlet _____
☐ Underground Detention Systems _____
☐ Wet Vault _____

Infiltration
☐ Infiltration Basin _____
☐ Infiltration Trench _____
☐ Exfiltration Trench _____
☐ Retention/Irrigation _____

Other (describe): _____
☐ _____

2. Is maintenance needed at this time? ☐Yes ☐No 3. ***Mosquitoes or Mosquito Larvae Present?** ☐Yes ☐No
4. Comments/Notes: _____

IV. FOLLOW-UP AND ENFORCEMENT ACTIONS (Add additional information on back)

1. Describe corrective actions needed: _____
2. Describe materials distributed (brochures, BMPs, etc.): _____
3. Describe Enforcement Action:
   ☐ None ☐ Verbal Notice ☐ Warning Notice
   ☐ Administrative Action ☐ Administrative Action with Penalty/Fine ☐ Civil Action
   ☐ Criminal Action ☐ Referral for Enforcement _____
4. Follow-up required? ☐Yes ☐No ☐Comments _____
5. Priority for reinspection: ☐High ☐Medium ☐Low
6. Return inspection needed? ☐Yes ☐No ☐Comments _____
7. Required Compliance Date: _____ Date Corrected: _____

Facility Representative: _____ **Inspector:** _____

Background Data for BMP Type

The *Standard Stormwater Treatment BMP Inspection Data Collection Form* (Inspection Form) lists twenty stormwater treatment BMP types (see Section III). Inspectors, data entry staff and others who use the Inspection Form can refer to the California Stormwater Quality Association (CASQA) and SCVURPPP Fact Sheets for background information. The CASQA Fact Sheets are numbered (see below) and are located in the CASQA *Stormwater BMP Handbook for New Development and Redevelopment,* as well as SCVURPPP's *C3. Stormwater Handbook.* The SCVURPPP Fact Sheets are also located in the *C3. Stormwater Handbook.* Both Handbooks are available online.

<u>CASQA Reference Number</u>
Bioretention TC-32
Drain Insert MP-52
Extended Detention Basin TC-22
Infiltration Basin TC-11
Infiltration Trench TC-10
Media Filter TC-40 and MP-40
Retention/Irrigation TC-12
Vegetated Buffer Strip TC-31
Vegetated Swale TC-30
Vortex Separator MP-51
Water Quality Inlet TC-50
Wet Pond TC-20
Wetland MP-20
Wet Vault MP-50

<u>SCVURPPP Fact Sheets</u> (no identification numbers)
Exfiltration Trench
Hydrodynamic Separator
Planter Boxes
Porous Pavement
Roof Gardens
Underground Detention Systems

Potential Inspection Results with Definitions

If mosquitoes or mosquito larvae are observed within a BMP, report condition to: Santa Clara County Vector Control District, 976 Lenzen Ave., San Jose, CA 95126; phone: 408-918-4470; ask for a vector control technician; website: www.sccvector.org

ID	Inspection Results	Definitions
I. All BMP Types		
1	No Visible/Apparent Problems	No visible or apparent problems with BMP function. BMP appears to be well-maintained
2	Significant Engineering/Design Flaws	BMP observed to have significant engineering/design flaws which lessen its effectiveness as a stormwater treatment measure.
3	Unauthorized Modifications	Any modification that lessens the effectiveness of the BMP; any modification not authorized by the City, designated agency or other regulatory agency.
4	BMP Destroyed or Eliminated	BMP destroyed, removed or eliminated from property.
5	Trash/Debris Accumulation or Dumping	Trash & debris accumulates within and/or on BMP; trash & debris interferes with proper BMP function; visual evidence of trash/debris dumping.
6	Evidence of Contaminants & Pollution	Evidence or presence of oil, gasoline, contaminants or other pollutants.
7	BMP Access Obstructed	Access to BMP obstructed or limited.
8	Obnoxious Odors	Unpleasant odors within/from the BMP.
9	Fencing - Missing or Broken Bars	Any defect in or damage to the fence or gate that permits easy entry to a facility.
10	BMP Cannot Be Located	BMP cannot be located for inspection.
II. Biofiltration (Bioretention, Vegetated Buffer Strip, Vegetated Swale, Roof Gardens, Planter Boxes)		
A. General		
11	Uneven or Clogged Flow Spreader	Flow spreader uneven or clogged so that flows are not uniformly distributed across the BMP.
12	Leaking or Malfunctioning Irrigation System	Irrigation system leaking or malfunctioning.
B. Sediment and Erosion Problems		
13	Sediment Accumulation	Sediment depth exceeds 2 inches on more than 10% of the vegetated treatment area; or sediment interferes with BMP performance.
14	Erosion/Scouring	Eroded or scoured areas due to flow channelization, higher flows, wind or water.
C. Vegetation Maintenance Issues		
15	Poor Vegetation Coverage	Planted vegetation is sparse or bare or eroded patches occur in more than 10 % of the BMP. Growth of planted vegetation is poor because sunlight does not reach swale.
16	Invasive/Nuisance Vegetation or Weeds	Planted vegetation is excessively tall; nuisance weeds, invasive or noxious vegetation are overgrown; vegetation reduces free movement of water through BMP.
17	Tree/Brush Growth	Growth does not allow maintenance access or interferes with maintenance activity.
D. Drainage Problems		
18	Standing Water/Excessive Ponding/Soggy Soil	Water is observed within the BMP (between storms) and appears not to drain freely or soil is excessively soggy. Excessive ponding of water within vegetated swale or other BMP.
19	Mosquito Habitat	Suitable habitat exists for mosquito production (e.g., standing water for more than 72 hours in areas accessible to mosquitoes).
20	Clogged or Obstructed Inlets/Outlets	Inlet/outlet clogged or obstructed with sediment and/or debris.
21	Constant Baseflow/Damage	Small quantities of water flow through the vegetated swale, even when it has been dry for weeks, and an eroded, muddy channel has formed in the swale bottom; constant baseflow from irrigation runoff..
III. Detention and Infiltration (Extended Detention Basin, Wet Pond, Wetland, Exfiltration Trench, Infiltration Basin, Infiltration Trench, Retention/Irrigation)		
A. Vegetation Maintenance Issues		
22	Invasive/Nuisance Vegetation or Weeds	Invasive, nuisance vegetation or weeds are present.
23	Tree/Brush Growth & Hazard Trees	Growth does not allow maintenance access or interferes with maintenance activity; dead, diseased or dying trees; tree growth on berms or emergency spillway >4 feet in height or covering more than 10 % of spillway.
B. Sediment and Erosion Problems		
24	Sediment Accumulation	Detention BMPs- sediment on pool bottom preventing water flow in/out of the facility. Infiltration BMPs -Sediment in storage areas, rock filters, and pre-settling ponds and vaults preventing infiltration.
25	Erosion	Eroded damage over two inches deep; potential for continued erosion; any erosion on a compacted berm embankment; soil from adjacent areas washes into/on BMP; continued erosion is prevalent.
C. Animal Pests		
26	Rodent Holes	If facility acts as a dam or berm, any evidence of rodent holes, or any evidence of water piping through dam or berm via rodent holes.
27	Insects (Wasps, Hornets, Bees)	Insects (wasps, hornets, bees) interfere with maintenance activities. Excessive or nuisance levels.
D. Drainage Problems		
28	Standing Water/Excessive Ponding/Soggy Soil	Water is observed within the BMP (between storms) and appears not to drain freely or soil is excessively soggy. Excessive ponding of water within vegetated swale or other BMP.
29	Mosquito Habitat	Suitable habitat exists for mosquito production (e.g., standing water for more than 72 hours in areas accessible to mosquitoes).
30	Empty Cell	First cell of wet pond does not hold water.
31	Unlevel Berm Surface	Unlevel internal berm dividing wet pond cells

Potential Inspection Results with Definitions

ID	Inspection Results	Definitions
III. Detention and Infiltration (Extended Detention Basin, Wet Pond, Wetland, Exfiltration Trench, Infiltration Basin, Infiltration Trench, Retention/Irrigation) continued		
	E. Unique to Certain BMPs	
32	Uneven or Clogged Flow Spreader	Flow spreader uneven or clogged so that flows are not uniformly distributed across the BMP.
33	Oil Sheen on Water (Wet ponds)	Prevalent and visible oil sheen.
34	Damaged/Missing Bars (Debris Barriers)	Bars are missing, loose, bent out of shape, or deteriorating due to excessive rust.
35	Leaking or Malfunctioning Irrigation System	Irrigation system leaking or malfunctioning.
36	Embankment Settlement Lower Than Design Elevation	Embankment settlement four inches lower than the design elevation.
IV. Structural, Non-landscaped Based (Drain Insert, Hydrodynamic Separator, Media Filter, Porous Pavement, Vortex Separator, Wet Vault, Water Quality Inlet, Underground Detention Systems)		
	A. General	
37	Mosquito Habitat	Suitable habitat exists for mosquito production (e.g., standing water for more than 72 hours in areas accessible to mosquitoes).
38	Access Cover Damaged/Difficult to Remove/Not in Place	Cover cannot be opened, corrosion/deformation of cover; maintenance person cannot remove cover using normal lifting pressure; cover is missing or only partially in place.
39	Deteriorating Paint or Protective Coating	Part or parts that have a rusting or scaling condition and have affected structural adequacy.
40	Locking Mechanism Not Working	Mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread (may not apply to self-locking lids).
	B. Ineffective Filter Material, Liners and/or Membranes	
41	Sediment Accumulation	Sediment depth exceeds acceptable levels (varies between BMPs)
42	Ineffective Media Insert/Filter Media	Media inset/filter media ineffective in doing intended function and needs to be replaced; filter is beyond the typical average life of product.
43	Rock Lining Out of Place/Missing (Sand Filters)	Soil beneath the rock lining is visible.
44	Visible Liner with Holes or Damaged	Liner is visible and has more than three 1/4-inch holes in it or is damaged.
45	Compromised Membrane or Roof Structure	Membrane or roof structure is compromised by either roots and/or water discharge.
46	Short Circuiting	Flows do not properly enter filter cartridges (media filters); seepage/flows occur along the vault walls and corners (sand filters); Sand eroding near inflow area (sand filters); flows become concentrated over one section of the sand filter rather than disperse (sand filters).
	C. Pipe or Pipe Joint Problems	
47	Damaged Pipes	Any part of the piping that is crushed, deformed, damaged, in need of repair or any other failure to the piping; protective coating is damaged.
48	Missing Debris Barrier/Not Attached to Pipe	Entire barrier is missing or is not attached to pipe.
49	Sediment in Drain Pipes/Cleanouts	Drain pipes and/or cleanouts are full of sediment and/or debris.
50	Joints Between Tanks/Pipe Section	Any openings or voids allowing material to be transported into facility.
51	Tank Pipe Bent Out of Shape	Any part of tank/pipe is bent out of shape more than 10 % of its design shape.
	D. Underground Vaults/Containers, Chambers, Tanks Issues	
52	Sediment Accumulation	Sediment depth exceeds acceptable levels (varies between BMPs), 20 % of the diameter of the pipe/design depth or interferes with proper BMP function.
53	Vault Structure Damage	Vault structures which are observed to have cracks in walls, bottom damage to frame and/or top slab.
54	Damaged Baffles and/or Weir	Baffles which are corroded, cracked, warped and/or showing signs of failure as determined by maintenance person. Weir is observed to be damaged by maintenance person.
55	Access Ladder Damage	Ladder is corroded or deteriorated, not functioning properly, not securely attached to structural wall, missing rungs, has cracks and/or is misaligned.
56	Oil Accumulation (Water Quality Inlet, Vortex Separator)	Oil accumulations that exceed 1-inch at the surface of the water.
57	Blocked, Damaged or Plugged Air Vents	One-half of the cross section of a vent is blocked at any point or the vent is damaged.
	E. Unique to Certain BMPs	
58	Damaged Coalescing Plates (Water Quality Inlet)	Plate media broken, deformed, cracked and/or showing signs of failure.
59	Clogged Porous Pavement	By visual inspection, little or no water flows through pavement during heavy rain storms, usually causing ponding; clogging due to debris, organic matter and sediment.
60	Damaged Internal Walls (Sand Filter Media)	Internal walls are corroded, cracked, warped and/or showing signs of failure as determined by maintenance person.
61	Prolonged Flows (Sand Filter Media)	Sand is saturated for prolonged periods of time (several weeks) and does not dry out between storms due to continuous base flow or prolonged flows from detention facilities.
V. Other		
62	Other	Inspection results which are not defined by one of the listed fields.

APPENDIX J

3rd Party Certification

Storm Water Control Plan

COBBLESTONE / TRACT 10221

MILPITAS, CA

(CEA Project No. 13-113)

BKF
ENGINEERS / SURVEYORS / PLANNERS

December 27, 2013
BKF No. 20120245-11

Mr. Andrew Turner
Civil Engineering Associates, Inc.
224 Airport Parkway, Suite 525
San Jose, CA 95110

Subject: Los Coches
Third-Party Review of
Stormwater Treatment Measures

Dear Mr. Turner,

BKF has conducted a review of the Los Coches stormwater treatment measures as presented on the updated Submittal Improvement Plans by Civil Engineering Associates, Inc. dated December 24, 2013. Treatment measures are further documented on the City of Milpitas - Stormwater Requirements C.3 Data Form and the Feasibility/Infeasibility forms dated December 24, 2013. BKF reviewed and commented on previous drawings and associated calculations. BKF has reviewed this plan set and forms for conformance with prior submittals. The plans provide stormwater treatment in conformance with State of California, Municipal Regional Stormwater Peter Permit, Section C.3 requirements.

The site has a combined area of 2.57 acres on two parcels. The site is within an area that is not subject to Hydromodification Measures.

Treatment Measures

A site feasibility / infeasibility form was completed for the site. Based on the analyses, rainfall harvesting is not feasible for the site. BKF reviewed the analyses and agrees with the conclusion.

The site has Hydrologic Soil Group type D soils. Stormwater infiltration is not required. However, there are limited site areas where percolation is feasible and will be used.

Treatment by self-retention and subsequent percolation is provided within six drainage management areas. Sheets 18 and 19 document treatment areas and associated drainage areas. Within these six areas, runoff is directed to landscape areas. The catch basin inlets within the self-retaining landscape areas are raised at least 3-inches above the local landscape grades, causing runoff to percolate. The runoff capture rate in these areas is less than 0.6 inches. A maximum landscape area to impervious area ratio of 1:2 is used. Landscape areas will act as treatment areas as well as having sufficient storage to allow percolation of the design rainfall based on a Hydrologic soil group type "D" soil using a rate of 0.05 inches per hour, or 1.2 inches

BKF
ENGINEERS / SURVEYORS / PLANNERS

per day. The basins can hold a runoff for a two day event and percolate runoff. A total of 0.8 acres will be treated using the self-retaining landscape percolation areas.

A total of 1.8 acres will be treated using biotreatment facilities. The biotreatment areas are sized using the combined flow volume approach. The storage depth is between 5 and 7 inches.

Facilities sizes are calculated using stormwater storage in conformance with Santa Clara Urban Runoff Pollution Prevention Program guidelines. BKF has reviewed the drainage areas for each DMA and checked the total storage area within each DMA.

Summary

The review is based on the Improvement Plans dated December 24, 2013 and the City of Milpitas - Stormwater Requirements C.3 Data Form and the Feasibility/Infeasibility forms dated December 24, 2013. BKF has reviewed the plans that affect the Stormwater Management Plan (e.g. grading, utility, and landscape plans). These plans were reviewed and no conflicts are noted at this level of plan preparation that would impact the performance of the proposed BMPs. BKF checked that the invert elevation of storm drains can drain the base of biotreatment areas and that there is at least six inches clear between the storm drain and sewer.

Very truly yours,
BKF ENGINEERS

Edward Boscacci

Edward Boscacci, Jr.
PE CA 34369

APPENDIX K

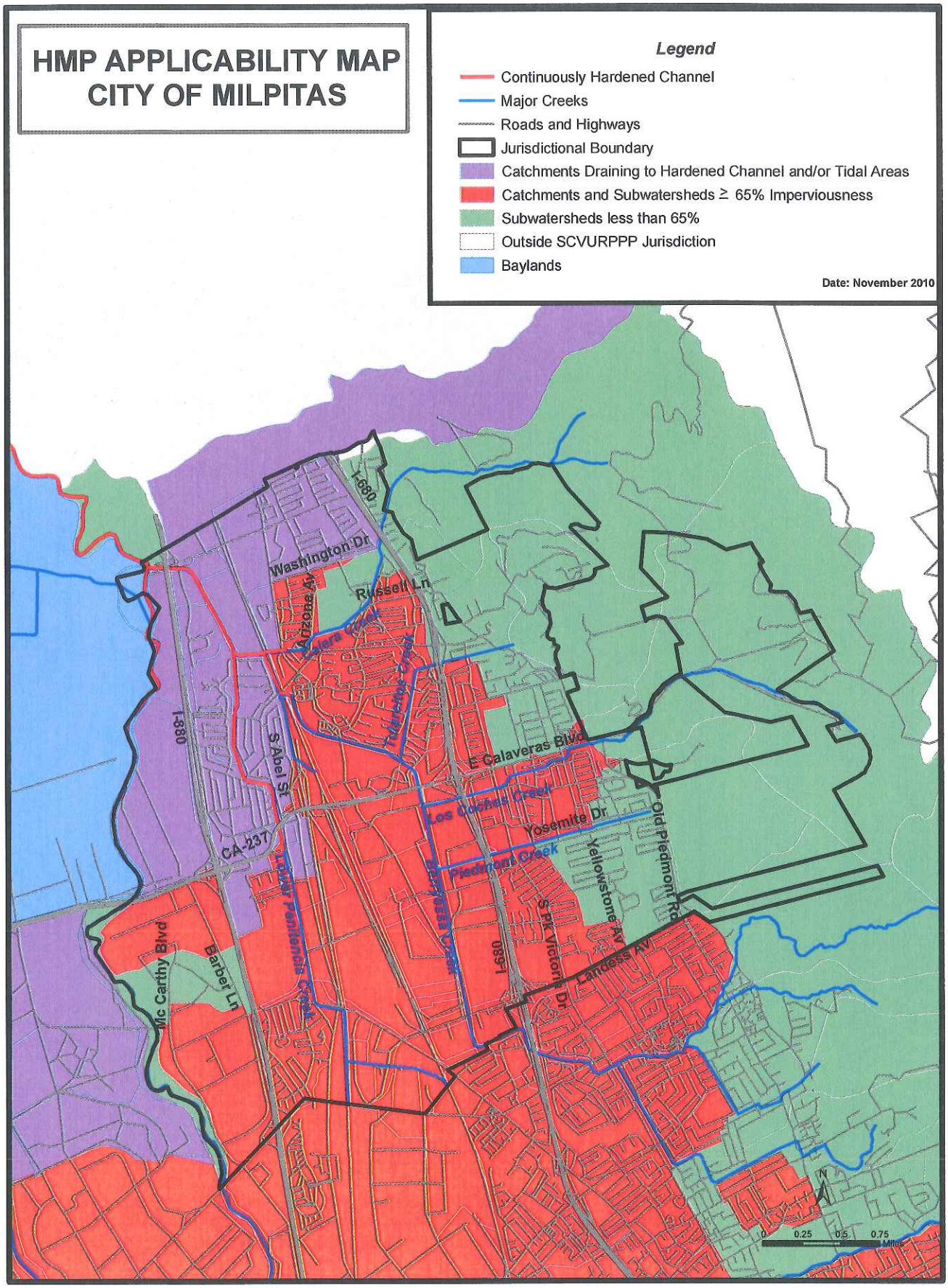
Hydromodification (HMP) Applicability Plan

Storm Water Control Plan

COBBLESTONE / TRACT 10221

MILPITAS, CA

(CEA Project No. 13-113)


HMP APPLICABILITY MAP
CITY OF MILPITAS
Legend
Continuously Hardened Channel
Major Creeks
Roads and Highways
Jurisdictional Boundary
Catchments Draining to Hardened Channel and/or Tidal Areas
Catchments and Subwatersheds ≥ 65% Imperviousness
Subwatersheds less than 65%
Outside SCVURPPP Jurisdiction
Baylands
Date: November 2010
I-680
Washington Dr
Russell Ln
Arizona Av
Sierra Creek
Tularcitos Creek
I-880
S Abel St
E Calaveras Blvd
Los Coches Creek
Yosemite Dr
Old Piedmont Rd
CA-237
Piedmont Creek
Yellowstone Av
Berryessa Creek
Lower Penitencia Creek
S Pk Victoria Dr
Landess Av
Mc Carthy Blvd
Barber Ln
N
0
0.25
0.5
0.75
Miles