CITY OF CUPERTINO

SERVICE CENTER- PARKING LOT MODIFICATION

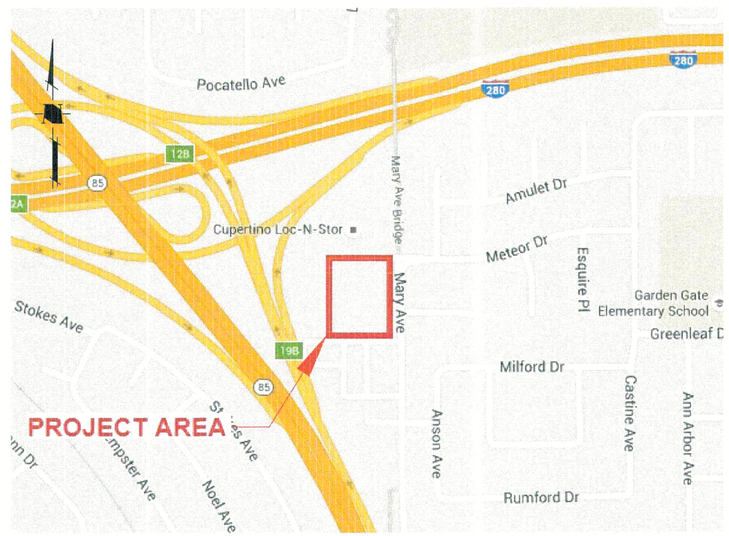
10555 MARY AVENUE

PROJECT # 2016-09

CITY OF CUPERTINO GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE PROJECT PLANS, STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (2010 EDITION), AND STANDARD PLANS (2010 EDITION), AND THE CITY OF CUPERTINO STANDARD DETAILS. THE CONTRACTOR SHALL PERFORM THE WORK AS SHOWN ON THE DRAWINGS, AND TO THE SATISFACTION OF THE CITY ENGINEER.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE APPROVED PLANS OR THE LATEST REVISED PLANS ARE FURNISHED TO ITS SUBCONTRACTORS, AND TO ENSURE THE LATEST APPROVED PLANS ARE ONSITE AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL NOTIFY THE CITY OF CUPERTINO PUBLIC WORKS INSPECTOR TWO (2) WORKING DAYS PRIOR TO REQUIRING AN INSPECTION. CALL (408) 777-3104 TO SCHEDULE PUBLIC WORKS INSPECTIONS.
4. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND FACILITIES IN THE AREA OF WORK. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT 811 TWO (2) WORKING DAYS IN ADVANCE OF ANY WORK FOR LOCATION OF THE UNDERGROUND FACILITIES.
5. STORM DRAIN LINES MODIFIED AS PART OF THE WORK ON THESE PLANS SHALL BE CLEARED OF ALL DEBRIS AND OBSTRUCTIONS PRIOR TO FINAL ACCEPTANCE.
6. ALL TRENCH BACKFILL, FILL AREAS, AND BASE MATERIAL SHALL ATTAIN A MINIMUM 95% RELATIVE COMPACTION. IMPORTED BORROW MATERIALS MAY INCLUDE AVAILABLE ON SITE ITEMS INCLUDING:
   - BROKEN CONCRETE
   - ASPHALT CONCRETE

   ALL FILL AREAS SHALL COMPLY WITH CALTRANS 2010 CHAPTER 19 - EARTHWORK INCLUDING, BUT NOT LIMITED TO, SECTION 19 - 7 BORROW MATERIAL.
7. PLACEMENT AND REMOVAL OF PAINT STRIPING SHALL BE IN ACCORDANCE WITH CALTRANS 2010 STANDARD SPECIFICATIONS SECTION 84-3 - TRAFFIC STRIPES AND PAVEMENT MARKINGS AND SECTION 15-2.02C - REMOVE TRAFFIC STRIPE AND PAVEMENT MARKINGS, RESPECTIVELY.
8. CURB RAMP SHALL BE CALTRANS CASE A PER CALTRANS 2010 STANDARD PLAN A88A DATED MAY 20, 2011.
9. ALL NEW PAVEMENT SHALL CONSIST OF 3" HOT MIX ASPHALT ON 8" CLASS 2 AGGREGATE BASE.
10. EXISTING PAVEMENT TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AS REQUIRED BY THE CITY ENGINEER.
11. CONCRETE FOR USE IN ALL CONCRETE STRUCTURES SHALL CONFORM TO CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 90. DROP INLETS, SIDEWALKS, CURBS AND GUTTERS SHALL CONTAIN 590 LBS. OF CEMENT PER CUBIC YARD AND SHALL ATTAIN A MINIMUM STRENGTH OF 3,000 PSI IN 28 DAYS.
12. DROP INLETS SHALL BE CONSTRUCTED CONFORMING TO CITY STANDARD DETAILS UNLESS OTHERWISE NOTED ON THE PLANS. "NO DUMPING FLOWS TO THE BAY." PLAQUE SHALL BE INSTALLED ON THE PAVEMENT ADJACENT TO ALL INLETS.
13. ONE POUND OF DISPERSING BLACK SHALL BE MIXED WITH EACH CUBIC YARD OF CONCRETE AT THE BATCH PLANT.
14. CONSTRUCTION SURVEY STAKES OR MARKS (CONTROL STAKES) TO ESTABLISH LINES AND GRADES SHALL BE SET BY THE CONTRACTOR'S SURVEYOR OR ENGINEER.
15. NOTIFY THE CITY INSPECTOR TWO (2) WORKING DAYS IN ADVANCE OF REQUIRING SERVICES FOR CHECKING FIELD STAKING. THREE (3) COPIES OF THE CUT SHEETS SHALL BE FURNISHED TO THE CITY INSPECTOR.
16. CONTRACTOR SHALL SHATTER AND ABANDON CONCRETE SLAB IN A MANNER SUCH THAT REMAINING CONCRETE PIECES ARE NOT AFFIXED BY EXISTING WELDED WIRE FABRIC REINFORCING, ARE NO GREATER THAN 2 FEET IN ANY DIMENSION AND PREVENT THE ENTRAPMENT OF WATER AND OTHER LIQUIDS.
17. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE COMPLIANCE WITH AMERICAN'S WITH DISABILITIES ACT (ADA) FOR ALL AFFECTED PAVEMENT AND SIDEWALK FEATURES.



VICINITY MAP

NOT TO SCALE

PROJECT CONTROL

PROJECT CONTROL POINTS (CP) EXIST WITHIN THE CITY OF CUPERTINO CORPORATION YARD AT 10555 MARY AVE AT THE LOCATIONS DESCRIBED BELOW.

CP	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	5000.00	10000.00	100.00	23' SOUTH OF SIGN SHOP DOOR
101	5183.74	10000.00	101.24	WEST END OF PARKING LOT IN-LINE WITH SOLAR PANEL COLUMNS
102	5077.94	9875.79	103.75	BETWEEN STORAGE GATES C-2/C-3

CITY OF CUPERTINO APPROVAL

APPROVED BY: _____

TIMM BORDEN , RCE 45512, DIRECTOR OF PUBLIC WORKS

DATED: 4/1/16

REVIEWED BY: _____

SHEET INDEX

SHEET	DWG	DRAWING
1	TS01	TITLE SHEET
2	DT01	DETAILS
3	DT02	DETAILS
4	IP01	IMPROVEMENT PLAN
5	EC01	CONSTRUCTION BEST MANAGEMENT PRACTICES

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Land Surveying
Stormwater Compliance

1570 Oakland Road
San Jose, CA 95131

(408) 487-2200
HMHca.com

REGISTERED PROFESSIONAL ENGINEER JON CACCIOTTI No. 82825 CIVIL STATE OF CALIFORNIA

CUPERTINO

CITY OF CUPERTINO
SERVICE CENTER
PARKING LOT MODIFICATION
CUPERTINO, CALIFORNIA

NO	DATE	DESCRIPTION
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△		
△		

PROJECT NO:	4786.00
CAD DWG FILE:	478690TS01.DWG
DESIGNED BY:	LA
DRAWN BY:	LA
CHECKED BY:	JC
DATE:	3/10/16

H/MH

TITLE SHEET

TS01

1 OF 5

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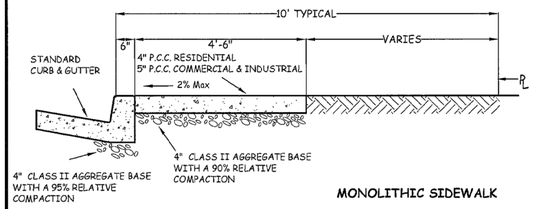
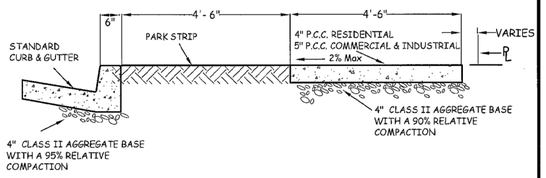


MONOLITHIC SIDEWALK



DETACHED SIDEWALK

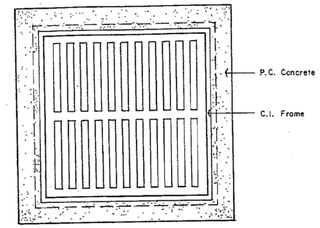
NOTES:

1. Driveway concrete thickness: Residential - 4". Commercial and Industrial - 5" w/ #4 rebar 18" O.C. both ways.
2. One pound of dispersing black shall be mixed with each cubic yard of concrete at the batch plant.
3. Sidewalks, curbs and gutters shall be Class "A" (6 sacks per cubic yard) as per Standard Specification and shall attain a strength 3,000 p.s.i. in 28 days.
4. Sidewalk finish shall be light broom.

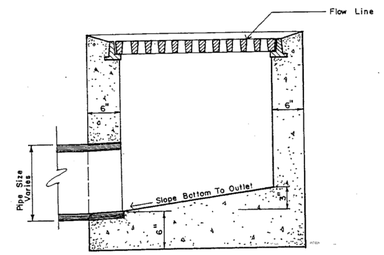
SIDEWALK DETAILS

REVISED 7/2013

CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY: City Engineer	DATE: 7/19/13	1-19



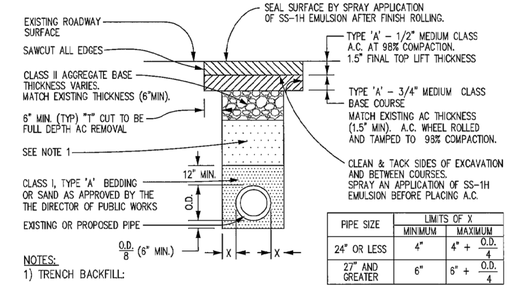
PLAN



SECTION

STANDARD 24" FLAT GRATE DROP INLET

CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY: CITY ENGINEER	DATE: 2/10/09	3-4



PIPE SIZE	LIMITS OF X	
	MINIMUM	MAXIMUM
24" OR LESS	4"	4" + O.D./4
27" AND GREATER	6"	6" + O.D./4

NOTES:

1) TRENCH BACKFILL:

CLASS II OR CLASS III AGGREGATE BASE AT 95% COMPACTION, OR CONTROLLED DENSITY BACKFILL, SHALL BE USED FOR TRENCH BACKFILL.

NATIVE MATERIALS MAY BE USED AS BACKFILL ONLY WITH WRITTEN CONSENT FROM THE DIRECTOR OF PUBLIC WORKS. NATIVE BACKFILL COMPACTION SHALL BE 90% FROM THE BOTTOM OF TRENCH TO 2.5' BELOW SUBGRADE; 95% WITHIN 2.5' OF SUBGRADE. RELATIVE COMPACTION PER ASTM D1557, D2922, D2216 AND D3017. CONTRACTOR SHALL VERIFY SUITABILITY OF NATIVE BACKFILL PRIOR TO BEGINNING CONSTRUCTION.

2) IF EDGE OF TRENCH IS 3' OR LESS FROM THE LIP OF GUTTER, THE CONTRACTOR SHALL REPAVE TO THE LIP OF GUTTER.

3) NEW ASPHALT THICKNESS SHALL MATCH EXISTING ASPHALT THICKNESS (3" MINIMUM TOTAL THICKNESS IS REQUIRED).

EXISTING STREET TRENCH RESTORATION

TO BE USED FOR ALL PUBLIC STORM DRAIN PIPE

REV 8/5/15

CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY: CITY ENGINEER	DATE: 8/5/15	4-24

LEGEND AND ABBREVIATIONS

- FLOW LINE
- STORM DRAIN (EXISTING)
- ELECTRIC (EXISTING)
- REMOVE CONCRETE RETAINING WALL, CONCRETE CURB AND/OR CONCRETE SLAB TO A DEPTH OF 2 FEET BELOW FG
- PLACE 3" HOT MIX ASPHALT ON 8" CLASS 2 AGGREGATE BASE
- PLACE CITY OF CUPERTINO STANDARD SIDEWALK OR CURB RAMP
- OVERLAND RELEASE
- 4974.91 NORTHING / 9891.98 EASTING

AB	AGGREGATE BASE
AC	ASPHALTIC CONCRETE OR HOT MIX ASPHALT PER CALTRANS STANDARD SPECIFICATIONS
BOC	BACK OF CURB
BOW	BACK OF WALK
CL	CENTERLINE
CONF	CONFORM
CP	CONTROL POINT
CSD	CUPERTINO SANITARY DISTRICT
DI	DROP INLET
E	EAST
EXIST	EXISTING
FC	FACE OF CURB
FG	FINISHED GRADE
FOW	FACE OF WALL
FL	FLOW LINE
GB	GRADE BREAK
HMA	HOT MIX ASPHALT
HP	HIGH POINT
INV	INVERT
N	NORTH
OG	ORIGINAL GRADE
PCC	PORTLAND CEMENT CONCRETE
PVC	POLYVINYL CHLORIDE
S	SOUTH
SD	STORM DRAIN
SDCB	STORM DRAIN CATCH BASIN
SDR	STANDARD DIMENSION RATIO
STD	STANDARD
TC	TOP OF CURB
TG	TOP OF GRATE
TYP	TYPICAL
W	WEST

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REGISTERED PROFESSIONAL ENGINEER JON CACCIOTTI No. 82825 CIVIL STATE OF CALIFORNIA

CUPERTINO

CITY OF CUPERTINO SERVICE CENTER PARKING LOT MODIFICATION

CUPERTINO, CALIFORNIA

NO	DATE	DESCRIPTION

PROJECT NO:	4786.00
CAD DWG FILE:	478600DT01.DWG
DESIGNED BY:	LA
DRAWN BY:	LA
CHECKED BY:	JC
DATE:	3/10/16
HMH	

DETAILS

DT01

2 OF 5

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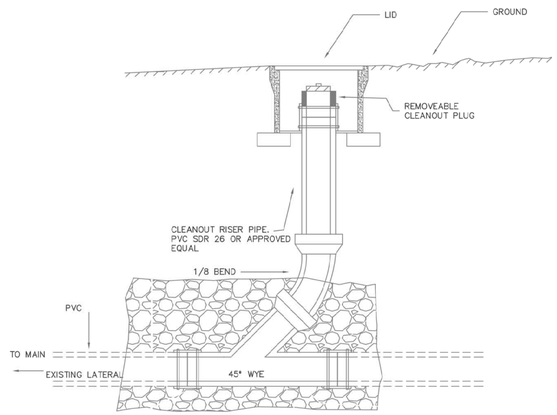


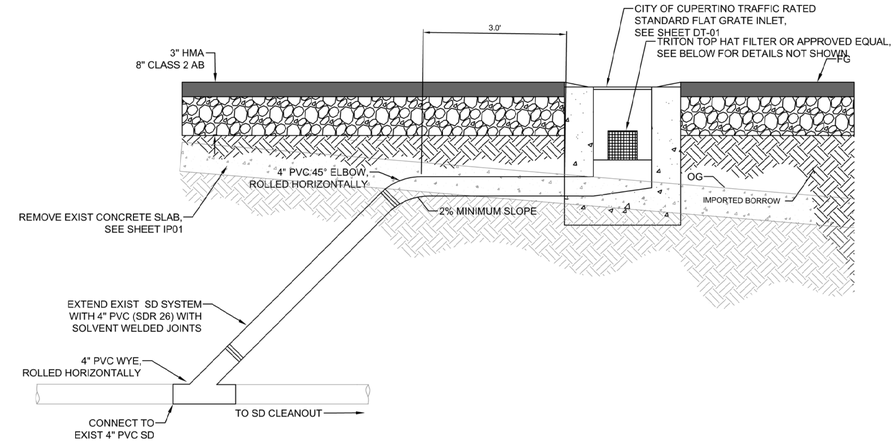
NOTE:

1. ALL NEW PIPING SHALL BE PVC SDR 26, OR APPROVED EQUAL UNLESS OTHERWISE NOTED.
2. ALL CLEAN-OUT BOXES SHALL BE CHRISTY CONCRETE PRODUCTS MANUFACTURED BY OLDCASTLE PRECAST, INC. WITH THE FOLLOWING MODEL NUMBERS:

	4" RISER		6" RISER	
	NON-TRAFFIC	TRAFFIC	NON-TRAFFIC	TRAFFIC
BOX	F08	G05T	F08	G08T
LID	F08C	G05CT	F08C	G05CT

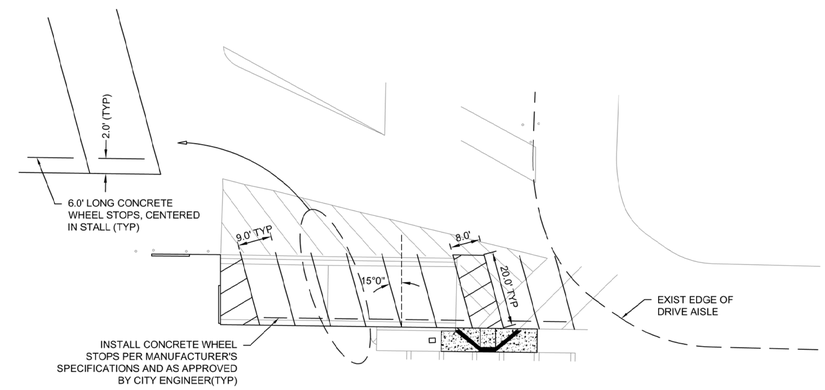
CLEAN-OUT INSTALLATION DETAIL

NOT TO SCALE



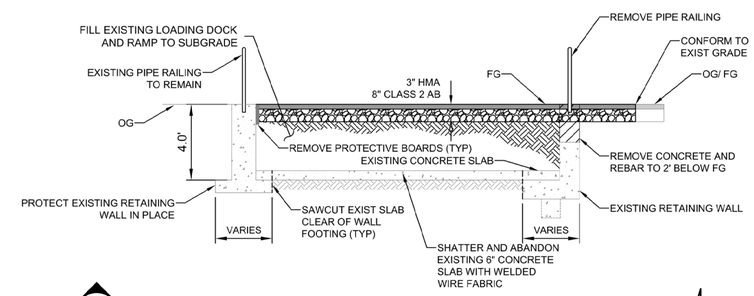
STORM DRAIN INLET DETAIL

NOT TO SCALE



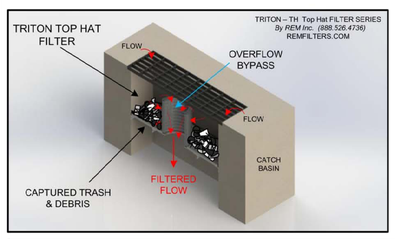
STRIPING PLAN

SCALE 1"=20'

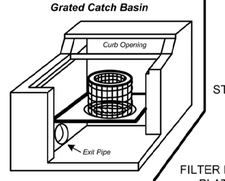


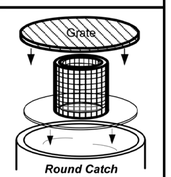
A/3 SCALE 1"=4'

REM's TRITON – TH (Top Hat) Series (Or Approved Equal) (24" x 24" WITH STANDARD SIZE FILTER)

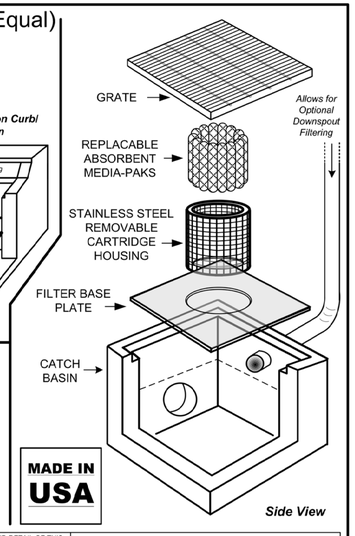


Shown with a Combination Curb/ Grated Catch Basin





Round Catch Basin Shown



Notes:

- *The TRITON - TH Series Filters may be customized in the field to fit catch basins with irregular dimensions or unusual frame and grate types. REM also designs custom filters for unique storm water infrastructures and applications.*
- *Base plates are constructed using High Density Polyethylene Plastic (HDPE).*
- *Filter cartridge housings are constructed utilizing Type 304 Stainless Steel, with 2" welded square openings.*
- *Removable cartridge tops are constructed utilizing over 80% recycled ABS Plastic.*
- *REM TRITON replacement Filter Media Packs are charged with REM FOG media an expanded volcanic ash medium treated to be highly hydrophobic housed in a durable geo-textile perforated polypropylene woven fabric. REM FOG media effectively encapsulates liquefied petroleum hydrocarbons (Fats, Oils & Grease including animal fats). The media's hydrophobic characteristic allows for greater polishing of flow resulting in the reduction of Total Suspended Solids (TSS). Suspended solid reduction includes but is not limited to debris, trash, silt sediment and agglomerated heavy metals. (Additional media options are available including mixed blends of granulated carbon [AC] and Zeolite [ZEO].*
- *REM TRITON filter cartridges are removable for ease of cleaning and maintenance.*
- *Filter designs include a high flow overflow bypass to eliminate pooling or flooding during heavy rain events.*
- *See our Specifier Sheet for sizes, models and flow rate information.*
- *Maintenance information and replacement REM Media Packs are available upon request by contacting REM at sales@remfilters.com or (888) 526-4736.*
- *Made in the USA.*

Cartridge Diameter size may vary by catch basin. Taller cartridge options provide greater volume capacity and increased treatment rates.

THE DESIGN AND DETAIL OF THIS DRAWING IS THE PROPERTY OF REM INC. AND IS NOT TO BE USED EXCEPT IN CONNECTION WITH OUR WORK, DESIGN AND INVENTION RIGHTS ARE RESERVED.	**REM Inc.**		
U.S. Patent Number: 6,217,757	**TRITON TOP HAT SERIES** *(Top-Hat Cartridge System)*		
PH: (888) 526-4736	DRAWN BY: C.F.	FOR: Drop Inlet Combinations	REV
DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.	SCALE: 1/4 : 1	DATE: 3/3/2013	SHEET: 1 OF 1

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REGISTERED PROFESSIONAL ENGINEER JON CACCIOTTI No. 82825 CIVIL STATE OF CALIFORNIA

CUPERTINO

CITY OF CUPERTINO SERVICE CENTER PARKING LOT MODIFICATION

CUPERTINO, CALIFORNIA

NO	DATE	DESCRIPTION

PROJECT NO:	4786.00
CAD DWG FILE:	4786000DT01.DWG
DESIGNED BY:	LA
DRAWN BY:	LA
CHECKED BY:	JC
DATE:	3/10/16
HMH	

DETAILS

DT02

3 OF 5

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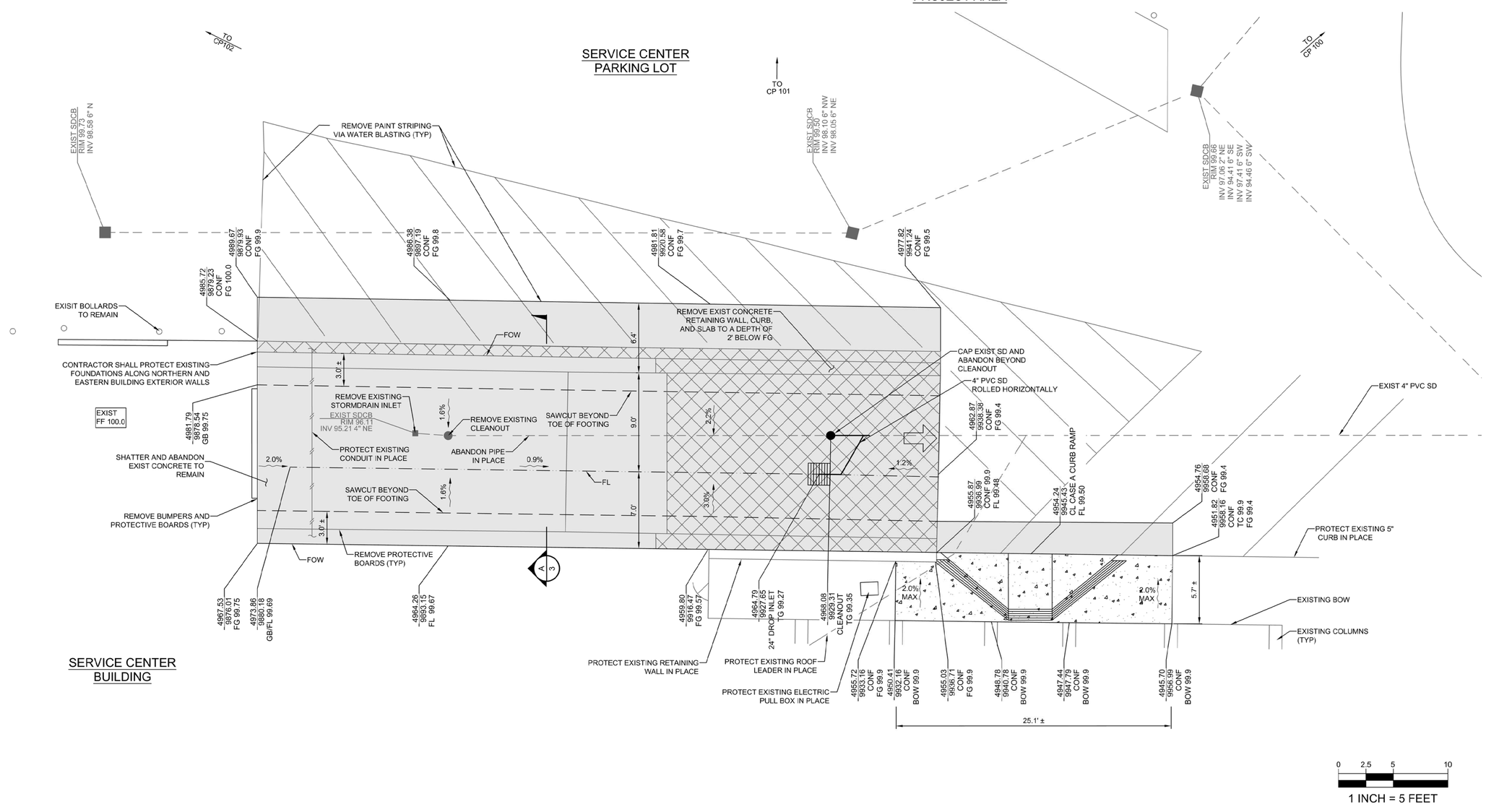
PROJECT AREA

SHEET NOTES

1. FL ELEVATION LABELED AT CENTERLINE OF CURB RAMP REPRESENTS THE FL AT THE DEPRESSED LANDING LOCATION.
2. MAXIMUM SLOPES SHOWN ON CALTRANS 2010 STANDARD PLAN A88A (DATED MAY 11, 2011) ARE ABSOLUTE. NO ALLOWANCE FOR CONSTRUCTION TOLERANCES WILL BE GIVEN.
3. PAVEMENT STRIPING SHALL BE 4 INCH WHITE PAINT.
4. LIMITS OF SIDEWALK REPLACEMENT SHALL EXTENDED TO REPLACE ENTIRE SIDEWALK PANEL TO NEAREST JOINT.
5. CONTRACTOR SHALL PROTECT EXISTING FOUNDATIONS ALONG NORTHERN AND WESTERN BUILDING EXTERIOR WALLS. SHOULD ANY PROPOSED ACTIVITIES AFFECT THE EXISTING FOUNDATION, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER IMMEDIATELY. CONTRACTOR SHALL NOT PERFORM WORK WHICH MAY DETERIORATE AND/OR COMPROMISE THE EXISTING BUILDING FOUNDATION.



SERVICE CENTER
BUILDING

0 2.5 5 10

1 INCH = 5 FEET

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REGISTERED PROFESSIONAL ENGINEER
JON CACCIOTTI
No. 82825
CIVIL
STATE OF CALIFORNIA

CUPERTINO

CITY OF CUPERTINO
SERVICE CENTER
PARKING LOT MODIFICATION

CUPERTINO, CALIFORNIA

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CAD DWG FILE:	478600IP01.DWG
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CHECKED BY:	JC
DATE:	3/10/16

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IMPROVEMENT PLAN

IP01

4 OF 5

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In the Santa Clara Valley, storm drains flow directly to our local creeks, and on to San Francisco Bay, with no treatment.

Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands.

Proper management of construction sites reduces pollution significantly.

This sheet summarizes the "Best Management Practices" (BMPs) for storm water pollution prevention.

ORDINANCE OF THE CITY OF CUPERTINO FOR STORM WATER POLLUTION PREVENTION & WATERCOURSE PROTECTION: Chapter 9.18

9.18.040 Discharge into the storm drain prohibited

It shall be unlawful to discharge, or cause, allow, or permit to be discharged into any storm drain or natural outlet or channel all waste, including but not restricted to, sewage, industrial wastes, petroleum products, coal tar or any refuse substance arising from the manufacture of gas from coal or petroleum, chemicals, detergents, solvents, paints, contaminated or chlorinated swimming pool water, pesticides, herbicides and fertilizers.

9.18.070 Accidental Discharge

All persons shall notify the Director of Public Works by telephone immediately upon accidentally discharging wastes to enable countermeasures to be taken by the City to minimize damage to storm drains and the receiving waters. This notification shall be followed, within ten (10) days of the date of occurrence, by a detailed written statement describing the causes of the accidental discharge and the measures being taken to prevent further occurrences. Such notifications will not relieve persons of liability for violations of this chapter or for any fines imposed on the city on account thereof under Section 13350 of the California Water Code, or for violations of Section 5650 of California Fish and wildlife Code, or any other applicable provisions of State or Federal laws.

9.18.220 Violation*

Any person who violates any provision of this Chapter shall be guilty of a misdemeanor and upon conviction thereof shall be punished as provided in Chapter 1.12 of the City of Cupertino Municipal Code.

Chapter 1.12: General Penalty, Section 1.12.010, paragraph D, states*:

Unless otherwise specified by this code, an infraction is punishable by:
1. A fine not to exceed $100 for a first violation
2. A fine not to exceed $200 for a second violation
3. A fine not to exceed $500 for a third violation of the same chapter within one year.

9.18.240 Civil penalty for illicit discharges*

Any person who discharges pollutants, in violation of this Chapter, by the use of illicit connections shall be civilly liable to the City in a sum **not to exceed twenty-five thousand dollars per day per violation** for each day in which such violation occurs.

*Excerpts – For complete CODE language refer to the City of Cupertino Municipal Code.

Cupertino
Building Dept: 408-777-3228
Public Works Dept: 408-777-3354

Santa Clara County
Recycling Hotline: 800-533-8414
www.reducewaste.org
www.recyclestuff.com
Small Business Hazardous Waste: 408-299-7300

Cupertino Sanitary Sewer Distr 408-253-7071

Santa Clara Valley Urban Runoff Pollution Prevention Prgm 800-794-2482

State Office of Emergency Services 1-800-852-7550 (24 hrs)

Report spills to 911

General Construction and Site Supervision

Storm Drain Pollution from Construction Activities

Construction sites are common sources of storm water pollution. Materials and wastes that blow or wash into a storm drain, gutter, or street have a direct impact on local creeks and the Bay.

As a contractor, or site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

General Principles

- Keep **an orderly site** and ensure good housekeeping practices are used.
- **Maintain equipment** properly.
- **Cover** materials when they are not in use.
- Keep materials **away from streets**, storm drains and drainage channels.
- Ensure **dust control** water doesn't leave site or discharge to storm drains.

Advance Planning To Prevent Pollution

- **Schedule excavation and grading activities for dry weather periods.** To reduce soil erosion, plant temporary vegetation or place other erosion controls before rain begins. Use the *Erosion and Sediment Control Manual*, available from the Regional Water Quality Control Board, as a reference.
- **Control the amount of runoff** crossing your site (especially during excavation!) by using berms or temporary or permanent drainage ditches to divert water flow around the site. Reduce stormwater runoff velocities by constructing temporary check dams or berms where appropriate.
- **Train your employees and subcontractors.** The city can provide brochures about these issues for you to distribute to workers at your construction site. Inform your subcontractors about the stormwater requirements and their own responsibilities. Use *Blueprint for a Clean Bay*, a construction best management practices guide available at our Building Dept. counter.

Good Housekeeping Practices

- **Designate one area of the site** for auto parking, vehicle refueling, and routine equipment maintenance. The designated area should be well away from streams or storm drain inlets, bermed if necessary. Make major repairs off site.
- **To prevent off-site tracking of dirt**, provide entrances with stabilized aggregate surfaces. Or provide a tire wash area.
- **Keep materials out of the rain** – prevent runoff contamination at the source. Cover exposed piles of soil or construction materials with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
- **Keep pollutants off exposed surfaces**. Place trash cans and recycling receptacles around the site to minimize litter.
- **Clean up leaks, drips and other spills** immediately so they do not contaminate soil or groundwater or leave residue on paved surfaces. Use dry cleanup methods whenever possible. If you must use water, use just enough to keep the dust down.
- **Cover and maintain dumpsters**. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. Never clean out a dumpster by hosing it down on the construction site.
- **Place portable toilets** away from storm drains. Make sure portable toilets are in good working order. Check frequently for leaks.

Materials/Waste Handling

- **Practice Source Reduction** -- minimize waste when you order materials. Estimate carefully.
- **Recycle excess materials**, whenever possible, such as concrete, asphalt, scrap metal, solvents, degreasers, cleared vegetation, paper, rock, and vehicle maintenance materials such as used oil, antifreeze, batteries, and tires. www.reducewaste.org for info.
- **Dispose of all wastes properly**. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste. Never bury waste materials or leave them in the street or near a creek or stream bed.

Permits

- In addition to local grading and building permits, you will need to obtain coverage under the State's General Construction Activity Stormwater Permit if your construction **site's disturbed area totals 5 acres or more**. Information on the General Permit can be obtained from the Regional Water Quality Control Board. (This criteria will change to one acre as of Mar. 2003.)

Landscaping, Gardening, and Pool Maintenance

Landscaping/Garden Maintenance

- **Protect stockpiles** and landscaping materials **from wind and rain** by storing them under tarps or secured plastic sheeting.
- **Schedule** grading and excavation projects **during dry weather**.
- Use temporary **check dams or ditches** to divert runoff away from storm drains.
- **Protect storm drains with sandbags, gravel-filled bags, straw wattles,** or other sediment controls.
- **Re-vegetation** is an excellent form of erosion control for any site.
- **Store** pesticides, fertilizers, and other chemicals **indoors** or in a shed or storage cabinet.
- **Use pesticides sparingly**, according to instructions on the label. Rinse empty containers, and use rinsewater as product. Dispose of rinsed, empty containers in the trash. Dispose of unused pesticides as hazardous waste.
- In Cupertino, **residents** with curbside recycling can collect lawn, garden and tree trimmings in **yardwaste totes**. Yardwaste will be collected and composted by the city's contractors. Residents are encouraged to compost yardwaste on-site themselves. Or take yardwaste to a landfill where it will be composted.
- **Landscape contractors** should **take** clippings and pruning waste **to a landfill that composts yard waste** (BFI's Newby Island and Zanker Rd. landfill are the nearest).
- **Do not blow or rake leaves into the street.**

Storm Drain Pollution from Landscaping and Swimming Pool Maintenance

Many landscaping activities expose soils and increase the likelihood that earth and garden chemicals will run off into the storm drains during irrigation or when it rains.
Swimming pool water containing chlorine and copper-based algaecides should never be discharged to storm drains. These chemicals are toxic to aquatic life.

Pool/Fountain/Spa Maintenance

Draining pools or spas

When it's time to drain a pool, spa, or fountain, please be sure to call the Cupertino Sanitary District before you start for further guidance on flow rate restrictions, backflow prevention, and handling special cleaning waste (such as acid wash). Discharge flows should be kept to the low levels typically possible through a garden hose. Higher flow rates may be prohibited by local ordinance.

- **Never discharge pool or spa water to a street or storm drain; discharge to a sanitary sewer cleanout.**
- If possible, when emptying a pool or spa, let chlorine dissipate for a few days and then recycle/reuse water by **draining it gradually onto a landscaped area.**
- **Do not use copper-based algaecides**. Control algae with chlorine or other alternatives, such as sodium bromide.

Filter Cleaning

- **Never clean a filter in the street or near a storm drain.** Rinse cartridge and diatomaceous earth filters onto a dirt area, and spade filter residue into soil. Dispose of spent diatomaceous earth in the garbage.
- **If there is no suitable dirt area**, call Cupertino Sanitary for instructions on discharging filter backwash or rinsewater to the sanitary sewer.

Earth-Moving Activities

Storm Drain Pollution from Earth-Moving Activities

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains when handled improperly. Sediments in runoff can clog storm drains, smother aquatic life, and destroy habitats in creeks and the Bay. Effective erosion control practices reduce the amount of runoff crossing a site *and* slow the flow with check dams or roughened ground surfaces.

Practices During Construction

- Remove existing vegetation only when absolutely necessary. **Plant temporary vegetation for erosion control** on slopes or where construction is not immediately planned.
- **Protect downslope drainage courses, streams, and storm drains** with wattles, or temporary drainage swales. Use check dams or ditches to **divert runoff around excavations**. Refer to the Regional Water Quality Control Board's *Erosion and Sediment Control Field Manual* for proper erosion and sediment control measures.
- **Cover stockpiles** and excavated soil with secured tarps or plastic sheeting.

Dewatering Operations

Storm Drain Pollution From Dewatering Activities

Be sure to call your city's storm water inspector at 408-472-9907 before discharging water to a street, gutter, or storm drain. Filtration or diversion through a basin, tank, and sediment trap may be required. Reuse water for dust control, irrigation or another on-site purpose to the greatest extent possible.

Check for Sediment or Toxic Pollutants

- Check for odors, discoloration, or an oily sheen on groundwater.
- Ask your city inspector whether the groundwater must be tested by a certified laboratory.
- Depending on the test results, you may be allowed to discharge pumped groundwater to the storm drain OR you may be required to discharge to the sanitary sewer or collect and haul the water off-site for treatment and disposal at an appropriate treatment facility.
- When discharging to a storm drain, protect the inlet using a barrier of burlap bags filled with drain rock, or cover inlet with filter fabric anchored under the grate.
- Contact Cupertino Sanitary District at 253-7071 prior to discharging to the sanitary sewer.

Heavy Equipment Operation

Stormwater Pollution from Heavy Equipment on Construction Sites

Poorly maintained vehicles and heavy equipment that leak fuel, oil, antifreeze or other fluids on the construction site are common sources of storm drain pollution. Prevent spills and leaks by isolating equipment from runoff channels, and by watching for leaks and other maintenance problems. Remove construction equipment from the site as soon as possible.

Site Planning and Preventive Vehicle Maintenance

- **Designate one area** of the construction site, well away from streams or storm drain inlets, for auto and equipment parking, refueling, and routine vehicle and equipment maintenance. Contain the area with berms, sand bags, or other barriers.
- **Maintain all vehicles** and heavy equipment. Inspect frequently for and repair leaks.
- **Perform** major **maintenance**, repair jobs, and vehicle and equipment washing **off-site**, where cleanup is easier.
- If you must drain and replace motor oil, radiator coolant, or other fluids on site, **use drip pans or drop cloths to catch drips and spills**. Collect all spent fluids, store in separate containers, and properly dispose as hazardous waste (recycle whenever possible).
- **Do not use diesel oil to lubricate** equipment parts, or clean equipment. Use only water for any onsite cleaning.
- **Cover exposed fifth wheel hitches** and other oily or greasy equipment during rain events.

Spill Cleanup

- **Clean up spills immediately**.
- **Never hose down** "dirty" pavement or impermeable surfaces where fluids have spilled. **Use dry cleanup methods** (absorbent materials, cat litter, and/or rags) whenever possible and properly dispose of absorbent materials.
- **Sweep up** spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- **Use as little water as possible** for dust control. Ensure water used doesn't leave silt or discharge to storm drains.
- **Clean up spills on dirt areas** by digging up and properly disposing of contaminated soil.
- **Call 911 for significant spills**.
- If the spill poses a **significant hazard** to human health and safety, property or the environment, you must also **report it** to the State Office of Emergency Services.

The property owner and the contractor share ultimate responsibility for the activities that occur on a construction site. You may be held responsible for any environmental damage caused by your subcontractors or employees.

Painting and Application of Solvents and Adhesives

Storm Drain Pollution from Paints, Solvents, and Adhesives

All paints, solvents, and adhesives contain chemicals that are harmful to wildlife in local creeks, San Francisco Bay, and the Pacific Ocean. Toxic chemicals may come from liquid or solid products or from cleaning residues or rags. Paint material and wastes, adhesives and cleaning fluids should be recycled when possible, or disposed of properly to prevent these materials from flowing into storm drains and watercourses.

Handling Paint Products

- **Keep all liquid paint products and wastes away from the gutter, street, and storm drains.**

Painting Cleanup

- **Never clean brushes or rinse paint containers into a street, gutter, storm drain, French drain, or creek.**
- For **water-based paints**, paint out brushes to the extent possible, and rinse into an inside sink drain that goes to the sanitary sewer.
- For **oil-based paints**, paint out brushes to the extent possible and clean with thinner or solvent. Filter and reuse thinners and solvents, where possible. Dispose of excess liquids and residue as hazardous waste.
- When thoroughly dry, empty paint cans, used brushes, rags, and drop cloths may be **disposed of as garbage**.

Paint Removal

- **Paint chips and dust from non-hazardous dry stripping and sand blasting** may be swept up or collected in plastic drop cloths and disposed of as trash.
- **Chemical paint stripping residue**, and chips and dust from **marine paints, or paints containing lead, mercury or tributyltin** must be disposed of as hazardous wastes. Lead based paint removal requires a state-certified contractor.
- When stripping or cleaning **building exteriors** with high-pressure water, block storm drains. **Direct washwater onto a dirt area** and spade into soil. Or, check with Cupertino Sanitary District to find out if you can mop or vacuum the washwater and **dispose of it in a sanitary sewer drain**. Sampling of the washwater may be required.
- **Washwater from painted buildings constructed before 1978** can contain high amounts of **Lead**, even if paint chips are not present. Before you begin stripping paint or cleaning pre-1978 building exteriors with water under high pressure, test paint for lead by taking paint scrapings to a local laboratory. (See Yellow Pages for a state-certified laboratory.)
- If there is **loose paint** on the building, or if the **paint tests positive for lead**, block storm drains. Check with Cupertino Sanitary District to determine whether you may discharge water to the sanitary sewer, or if you must send it offsite for disposal as hazardous waste.

Paint Disposal, Return or Donation

- **Dispose** of unwanted liquid paint, thinners, solvents, glues, and cleaning fluids **as hazardous waste** (call the Small Business Hazardous Waste Prgm: 299-7300).
- Or **Return** to supplier. (Unopened cans of paint may be able to be returned. Check with the vendor regarding its "buy-back" policy.)
- **Donate** excess paint (call 299-7300 to donate.)

Roadwork and Paving

General Business Practices

- Develop and implement **erosion/sediment control plans** for roadway embankments.
- Schedule excavation and grading work during **dry weather.**
- Check for and **repair leaking equipment**.
- Perform **major equipment repairs** at designated areas in your maintenance yard, where cleanup is easier. Avoid performing equipment repairs at construction sites.
- When **refueling** or when vehicle/equipment maintenance must be done on site, designate a location away from storm drains and creeks.
- **Do not use diesel oil to lubricate** equipment parts or clean equipment.
- **Recycle** used oil, concrete, broken asphalt, etc. whenever possible, or dispose of properly. (www.recyclestuff.com for list of recycling companies.)

Asphalt/Concrete Removal

- Avoid creating excess **dust** when breaking asphalt or concrete.
- After breaking up old pavement, be sure to **remove all chunks and pieces**. Make sure broken pavement does not come in contact with rainfall or runoff.
- When making **saw cuts**, use as little water as possible. Shovel or vacuum saw-cut slurry and remove from the site. Cover or protect storm drain inlets during saw-cutting. Sweep up, and properly dispose of, all residues.
- Sweep, **never hose down streets** to clean up tracked dirt. Use a street sweeper or vacuum truck. Do not dump vacuumed liquor in storm drains.

Storm Drain Pollution from Roadwork

Road paving, surfacing, and pavement removal happen right in the street, where there are numerous opportunities for asphalt, saw-cut slurry, or excavated material to illegally enter storm drains. Extra planning is required to store and dispose of materials properly and guard against pollution of storm drains, creeks, and the Bay.

During Construction

- **Avoid paving and seal coating in wet weather**, or when rain is forecast, to prevent fresh materials from contacting stormwater runoff.
- **Cover and seal catch basins and manholes** when applying seal coat, slurry seal, fog seal, or similar materials.
- **Protect drainage ways** by using earth dikes, sand bags, or other controls to divert or trap and filter runoff.
- Never wash excess material from **exposed-aggregate concrete** or similar treatments into a street or storm drain. Collect and recycle, or dispose to dirt area.
- **Cover stockpiles** (asphalt, sand, etc.) and other construction materials with plastic tarps. Protect from rainfall and prevent runoff with temporary roofs or plastic sheets and berms.
- Park **paving machines** over drip pans or absorbent material (cloth, rags, etc.) to catch drips when not in use.
- **Clean up all spills and leaks** using "dry" methods (with absorbent materials and/or rags), or dig up, remove, and properly dispose of contaminated soil.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. ???
- Avoid over-application by **water trucks** for dust control.

Fresh Concrete and Mortar Application

Storm Drain Pollution from Fresh Concrete and Mortar Applications

Fresh concrete and cement-related mortars that wash into lakes, streams, or estuaries are toxic to fish and the aquatic environment. Disposing of these materials to the storm drains or creeks can block storm drains, causes serious problems, and is prohibited by law.

General Business Practices

- Wash out concrete mixers only in designated **washout areas** in your yard, away from storm drains and waterways, where the water will flow into a temporary waste pit in a dirt area. Let water percolate through soil and dispose of settled, hardened concrete as garbage. Whenever possible, recycle washout by pumping back into mixers for reuse.
- **Wash out chutes** onto dirt areas that do not flow to streets or drains.
- **Always store both dry and wet materials under cover,** protected from rainfall and runoff and away from storm drains or waterways. Protect dry materials from wind.
- **Secure bags of cement** after they are open. Be sure to keep wind-blown cement powder away from streets, gutters, storm drains, rainfall, and runoff.
- **Do not use diesel fuel as a lubricant** on concrete forms, tools, or trailers.

During Construction

- **Don't mix up more** fresh concrete or cement than you will use in a two-hour period.
- Set up and **operate small mixers on tarps** or heavy plastic drop cloths.
- When cleaning up after driveway or sidewalk construction, **wash fines onto dirt areas**, not down the driveway or into the street or storm drain.
- **Protect** applications of fresh concrete and mortar **from rainfall** and runoff until the material has dried.
- Wash down **exposed aggregate concrete** only when the washwater can (1) flow onto a dirt area, (2) drain onto a bermed surface from which it can be pumped and disposed of properly, or (3) be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.
- When breaking up pavement, be sure to pick up all the pieces and **dispose of properly**. Recycle large chunks of broken concrete. See www.reducewaste.org for info on recyclers.
- **Never bury** waste material. Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.
- Never dispose of **washout** into the street, storm drains, drainage ditches, or streams.

Small Business Hazardous Waste Disposal Prgm
Businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month are eligible to use this program.
Call 408-299-7300 for a quote.

CITY OF CUPERTINO

Santa Clara Valley *Urban Runoff* Pollution Prevention Program

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APPROVED BY:
TIMM BORDEN, RCE 45512 12/31/12
DIRECTOR OF PUBLIC WORKS
1/26/2011 DATE

CONSTRUCTION BEST MANAGEMENT PRACTICES

CITY OF CUPERTINO
DEPARTMENT OF PUBLIC WORKS

SHEET: 4 OF 5 SHEETS
FILE: EC01