NORTHWEST CORNER OF LAUREL AVENUE AND O'HARA AVENUE,
CITY OF OAKLEY, CONTRA COSTA COUNTY, CA 94561

Stormwater Control Plan for McDonald's Oakley (Laurel Ave)

Owner: O'HARA PROPERTIES, LLC

November 5, 2020

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I. PROJECT DATA

Project Name / Number	McDonald's Oakley (Laurel Ave)
Application Submittal Date	October 12, 2020
Project Location	Northwest Corner of Laurel Avenue and O'Hara Avenue
Name of Developer	Core States Group
Project Phase No.	Not Applicable
Project Type and Description	4,597 SF Restaurant Building with drive-through lane and parking
Project Watershed	Laurel Road Basin - Lower Sand Creek Basin
Total Project Site Area (acres)	74,443 SF (1.709 AC)
Total Area of Land Disturbance (acres)	25,208 SF (0.579 AC)
Total New Impervious Area (acres)	10,352 SF (0.238 AC)
Total Replaced Impervious Surface Area	4,407 SF (0.101 AC)
Total Pre-Project Impervious Surface Area	38,425 SF (0.882 AC)
Total Post-Project Impervious Surface Area	53,184 SF (1.221 AC)
50% Rule	Does Not Apply
Project Density	FAR = 0.06
Applicable Special Project Categories	None
Percent LID and non-LID treatment	100% LID
HMP Compliance	Exempt (Contra Costa County hardened - exempt catchment area)

II. SETTING

II.A. PROJECT LOCATION AND DESCRIPTION

This project involves the demolition of existing parking lot curbing and construction of a new restaurant building and parking lot. The parcel fronts Laurel Avenue to the south. See Figure 1.

The proposed use is consistent with current (RB) retail business zoning. The project will include a drive-through lane which will require a conditional use permit.

The existing site was permitted for the construction of a 13,969 sf grocery store with 18,307 sf of pervious area on a 83,124 sf parcel resulting in 22.71% pervious area. The site parcel boundaries have since been revised to 74,443 sf and the proposed development will provide 21,259 sf of pervious area and relocated 2,587 sf of pervious area to the parcel to the north. The onsite proposed pervious area will increase to 28.56%. If the previous parcel boundary is acknowledged and the pervious area within the pervious site area also increases to 28.69%.

II.B. EXISTING SITE FEATURES AND CONDITION

The site is irregularly shaped and generally sloped approximately 4 feet from the southwest corner towards the northeast corner. Most of the site is covered with parking lot pavement or is pervious area. The site was previously developed with landscaping around the perimeter and interior islands with IMPs. See Figure 2. Soils are mapped by the Geotechnical Survey typical of the area as Delhi Sand (DaC), Hydrologic Soil Group "A". Depth to groundwater was identified at 15 and 30 ft. Fluctuations in groundwater levels are expected to occur seasonally in response to changes in precipitation, irrigation, and other factors. The existing drainage system is connected to a municipal storm drain in the southbound lanes of O'Hara Avenue east of the site.

II.C. OPPORTUNITIES AND CONSTRAINTS FOR STORMWATER CONTROL

No site constraints are recognized with the proposed project. The objective of creating a high volume vehicle trips restaurant area, and parking requirements limit opportunities to reduce site imperviousness.

The proposed increased pervious areas in the northwest corner and southeast corners of the site might be usable as locations for increased treatment BMPs; however, overall site impervious area is proposed to decrease from the existing permitted design. The City storm drain system in O'Hara Avenue is deep enough to provide sufficient hydraulic head to route runoff across the surface of the site to a stormwater treatment facility, through the facility, and then to drain treated runoff to the City storm drain.

III. LOW IMPACT DEVELOPMENT DESIGN STRATEGIES

III.A. OPTIMIZATION OF SITE LAYOUT

III.A.1. LIMITATION OF DEVELOPMENT ENVELOPE

No limitations were identified for the proposed site regarding the development envelope.

III.A.2. PRESERVATION OF NATURAL DRAINAGE FEATURES

The site has previously been developed to implement IMPs that will be maintained or expanded to provide adequate runoff treatment.

III.A.3. SETBACKS FROM CREEKS, WETLANDS, AND RIPARIAN HABITATS

No setback limitations were identified for the proposed site regarding the proximity to creeks, wetlands, and riparian habitats.

III.A.4. MINIMIZATION OF IMPERVIOUSNESS

The landscaped areas surrounding the site will be increased verses the previously permitted development and expanded to the extent practicable, given project parking and circulation requirements, to reduce impervious area of the project. Landscaping in these areas will be upgraded to for aesthetic value or implemented in site IMP treatment.

III.A.5. USE OF DRAINAGE AS A DESIGN ELEMENT

The use of bioretention facilities as landscape amenities was previously permitted and constructed and are proposed to remain with the redevelopment of the parcel.

III.B. USE OF PERMEABLE PAVERS

No proposed use of permeable pavers is included in the proposed site.

III.C. DISPERSAL OF RUNOFF TO PERVIOUS AREAS

The proposed building onsite runoff discharges to an IMP and all other proposed drainage management areas are routed to self-treating DMAs, Self-Retaining DMAs, or IMPs before reaching the municipal conveyance system.

III.D. BIORETENTION OR OTHER INTEGRATED MANAGEMENT PRACTICES

Existing IMPs made up of bioretention swales are utilized onsite and as treatment for the overall development offsite prior to reaching the municipal conveyance system. The proposed site decreases the site impervious area compared to the originally permitted plans that implemented the IMPs decreasing the runoff routed through the treatment system.

IV. DOCUMENTATION OF DRAINAGE DESIGN

IV. DESCRIPTION OF EACH DRAINAGE MANAGEMENT AREA

IV.A.1. TABLE OF DRAINAGE MANAGEMENT AREAS

DMA Name	Area (SF)	Surface Type / Description	DMA Type / Drains to
DMA-17	6,707	Paving	Drains to IMP # IMP-13B
DMA-21	6,379	Paving	Drains to IMP # IMP-13B
DMA-22A	4,297	Roof	Drains to IMP # IMP-11
DMA-22B	3,736	Paving	Drains to IMP # IMP-11
DMA-4	1,822	Landscape	Self-Treating
DMA-14	1,629	Paving	Drains to IMP # IMP-10
DMA-11	5,112	Paving	Drains to DMA-20 (Self-Retaining Area)
DMA-12	5,809	Paving	Drains to IMP # IMP-6
DMA-13	9,049	Paving	Drains to IMP # IMP-13B
DMA-10	9,228	Paving	Drains to IMP # IMP-13A
DMA-26	2,333	Landscape	Self-Treating
DMA-16	23,286	Paving	Drains to IMP # IMP-13B
DMA-5	1,092	Landscape	Self-Treating
DMA-9	9,692	Paving	Drains to IMP # IMP-8
DMA-8	6,448	Paving	Drains to IMP # DMA-20 (Self-Retaining Area)

IV.A.2. DRAINAGE MANAGEMENT AREA DESCRIPTIONS

DMA-17, totaling 6,707 square feet, drains the development drive aisle from Laurel Avenue west of the proposed site. DMA-17 drains to Bioretention Facility IMP-13B. Runoff will enter the facility through underground conveyance piping.

DMA-21, totaling 6,379 square feet, drains the southwest section of the parking area and a portion of the drive-through surrounding the building. DMA-21 drains to Bioretention Facility IMP-13B. Runoff will enter the facility through underground conveyance piping.

DMA-22A, totaling 4,297 square feet, drains the roof of the building. DMA-22A drains to Bioretention Facility IMP-11, and will be connected via a downspout daylight and surface flow through DMA-22B.

DMA-22B, totaling 3,736 square feet, drains the south portion of the drive-through surrounding the building. DMA-22B drains to Bioretention Facility IMP-11. Runoff will enter the facility through curb cuts.

DMA-4, totaling 1,822 square feet, is a landscaped area with existing trees. The trees and landscaping will remain. Drainage from DMA-4 will be self-treated before routing to Bioretention Facility IMP-13B. Runoff will enter the facility through curb cuts.

DMA-14, totaling 1,629 square feet, drains the south section of the parking area and a portion of the drive-through surrounding the building. DMA-14 drains to Bioretention Facility IMP-10. Runoff will enter the facility through curb cuts.

DMA-11, totaling 5,112 square feet, drains the development drive aisle from Laurel Avenue east of the proposed site. DMA-11 drains to Self-Retaining DMA-20. Runoff will enter the facility through underground conveyance piping.

DMA-12, totaling 5,809 square feet, drains the east section of the parking area. DMA-12 drains to Bioretention Facility IMP-6. Runoff will enter the facility through curb cuts.

DMA-13, totaling 9,049 square feet, drains the center section of the parking area. DMA-13 drains to Bioretention Facility IMP-6. Runoff will enter the facility through curb cuts.

DMA-10, totaling 9,228 square feet, drains the east section of the parking area. DMA-12 drains to Bioretention Facility IMP-6. Runoff will enter the facility through curb cuts.

DMA-26, totaling 2,333 square feet, is a landscaped area with existing trees. The trees and landscaping will remain. Drainage from DMA-26 will be self-treated before routing to Bioretention Facility IMP-13B.

DMA-16, totaling 23,286 square feet, drains the northwest section of the parking area. DMA-16 drains to Bioretention Facility IMP-13B. Runoff will enter the facility through curb cuts.

DMA-5, totaling 1,092 square feet, is a landscaped area with existing trees. The trees and landscaping will remain. Drainage from DMA-5 will be self-treated before routing to Bioretention Facility IMP-13B.

DMA-9, totaling 9,692 square feet, drains the north section of the parking area. DMA-9 drains to Bioretention Facility IMP-8. Runoff will enter the facility through curb cuts.

DMA-8, totaling 6,448 square feet, drains the northeast section of the parking area. DMA-8 drains to Self-Retaining DMA-20. Runoff will enter the facility through underground conveyance piping.

IV.A.3. INTEGRATED MAMANGEMENT AREAS

Runoff from impervious areas on the site, including roofs and paved areas, will be routed to 6 (six) bioretention facilities (see Figure 5 - Stormwater Control Plan).

Each of the bioretention facilities are existing to remain or shall be expanded upon with design and construction criteria according to the *Stormwater C.3 Guidebook, 7th Edition*.

Bioretention Facility IMP-11, 3,060 sf of existing area, is located near the southwest corner of the site, and will remain with existing trees and landscaping along the southwestern perimeter. The management area overall pervious area will be increased with no proposed increase in facility sizing. The facility is adjacent to the building drive through.

Bioretention Facility IMP-10, 2,823 sf of existing area, is located near the southeast corner of the site, and will remain with existing trees and landscaping along the southeastern perimeter. The management area overall pervious area will be increased with no proposed increase in facility sizing. The facility is adjacent to the southeastern parking area.

Bioretention Facility IMP-6, 2,039 sf of existing area, is located near the eastern side of the site, and will remain with existing trees and landscaping along the perimeter. There are no proposed changes to the area or design of the facility. The facility is adjacent to the southeastern parking area.

Bioretention Facility IMP-8, 1,800 sf of existing area, is located near the northeast corner of the site, and will remain with existing trees and landscaping along the northeastern landscape island. There are no proposed changes to the area or design of the facility. The facility is adjacent to the northeastern parking area.

Bioretention Facility IMP-13A, 2,665 sf of existing area, is located near the northeast corner of the overall development and will remain with existing trees and landscaping. There are no proposed changes to the area or design of the facility. The facility is adjacent to the southeastern parking area.

Bioretention Facility IMP-13B, 5,682 sf of existing area, is located near the northeast corner of the overall development and will remain with existing trees and landscaping. There are no proposed changes to the area or design of the facility. The facility is adjacent to the southeastern parking area.

IV.A.4. TABULATION AND SIZING CALCULATIONS

See Figure 2 - Output from the IMP Sizing Calculator.

V. SOURCE CONTROL MEASURES

V.A. SITE ACTIVITIES AND POTENTIAL SOURCES OF POLLUTANTS

On-Site activities that could potentially produce stormwater pollutants include:

- Driveways and parking lots
- Food Service
- Trash Management

V.B. SOURCE CONTROL TABLE

See below, “Appendix E – Stormwater Pollutant Sources / Source Control Checklist”

APPENDIX D—STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions on page 16 of the *Stormwater C.3 Guidebook*):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your Stormwater Control Plan drawings.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in a table in your Stormwater Control Plan. Use the format shown in Table 3-1 on page 17 of the *Guidebook*. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	**... THEN YOUR STORMWATER CONTROL PLAN SHOULD INCLUDE THESE SOURCE CONTROL BMPs**		
1 **Potential Sources of Runoff Pollutants**	**2** **Permanent Controls—Show on Stormwater Control Plan Drawings**	**3** **Permanent Controls—List in Stormwater Control Plan Table and Narrative**	**4** **Operational BMPs—Include in Stormwater Control Plan Table and Narrative**
☒ **A.** On-site storm drain inlets	☒ Locations of inlets.	☒ Mark all inlets with the words "No Dumping! Flows to Bay" or similar.	☒ Maintain and periodically repaint or replace inlet markings. ☒ Provide stormwater pollution prevention information to new site owners, lessees, or operators. ☐ See applicable operational BMPs in Fact Sheet SC-74, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks ☒ Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
☒ **B.** Interior floor drains and elevator shaft sump pumps		☒ State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.	☒ Inspect and maintain drains to prevent blockages and overflow.

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☐ **C.** Interior parking garages		☐ State that parking garage floor drains will be plumbed to the sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.
☐ **D1.** Need for future indoor & structural pest control		☐ Note building design features that discourage entry of pests.	☐ Provide Integrated Pest Management information to owners, lessees, and operators.
☒ **D2.** Landscape/ Outdoor Pesticide Use	☒ Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. ☒ Show self-retaining landscape areas, if any. ☒ Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)	State that final landscape plans will accomplish all of the following. ☒ Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. ☒ Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. ☒ Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. ☒ Consider using pest-resistant plants, especially adjacent to hardscape. ☒ To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	☒ Maintain landscaping using minimum or no pesticides. ☒ See applicable operational BMPs in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks ☒ Provide IPM information to new owners, lessees and operators.

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☐ **E.** Pools, spas, ponds, decorative fountains, and other water features.	☐ Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)	If the local municipality requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.	☐ See applicable operational BMPs in Fact Sheet SC-72, "Fountain and Pool Maintenance," in the CASQA Stormwater Quality Handbooks
☒ **F.** Food service	☒ For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment. ☒ On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.	☒ Describe the location and features of the designated cleaning area. ☒ Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.	☒ See the brochure, "Water Pollution Prevention Tips to Protect Water Quality and Keep Your Food Service Facility Clean." Provide this brochure to new site owners, lessees, and operators.

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☒ **G.** Refuse areas	☒ Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas. ☒ If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area. ☒ Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.	☒ State how site refuse will be handled and provide supporting detail to what is shown on plans. ☒ State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.	☒ State how the following will be implemented: Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks
☐ **H.** Industrial processes.	☐ Show process area.	☐ If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."	☐ See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks

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❑ **I.** Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)	❑ Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area. ❑ Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults. ❑ Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.	Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains. Where appropriate, reference documentation of compliance with the requirements of Contra Costa Hazardous Materials Programs for: ▪ Hazardous Waste Generation ▪ Hazardous Materials Release Response and Inventory ▪ California Accidental Release (CalARP) ▪ Aboveground Storage Tank ▪ Uniform Fire Code Article 80 Section 103(b) & (c) 1991 ▪ Underground Storage Tank www.cchealth.org/groups/hazmat/	❑ See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks

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❑ **J.** Vehicle and Equipment Cleaning	❑ Show on drawings as appropriate: (1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses. (2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use). (3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer. (4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.	❑ If a car wash area is not provided, describe measures taken to discourage on-site car washing and explain how these will be enforced.	Describe operational measures to implement the following (if applicable): ❑ Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system. ❑ Car dealerships and similar may rinse cars with water only. See Fact Sheet SC-21, "Vehicle and Equipment Cleaning," in the CASQA Stormwater Quality Handbooks

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❑ **K.** Vehicle/Equipment Repair and Maintenance	❑ Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater. ❑ Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas. ❑ Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.	❑ State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area. ❑ State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements. ❑ State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.	In the Stormwater Control Plan, note that all of the following restrictions apply to use the site: ❑ No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains. ❑ No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately. ❑ No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.

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❑ **L.** Fuel Dispensing Areas	❑ Fueling areas[1] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable. ❑ Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.		❑ The property owner shall dry sweep the fueling area routinely.

[1] The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

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❑ **M.** Loading Docks	❑ Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer. ❑ Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation. ❑ Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.		❑ Move loaded and unloaded items indoors as soon as possible. ❑ See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks
❑ **N.** Fire Sprinkler Test Water		❑ Provide a means to drain fire sprinkler test water to the sanitary sewer.	❑ See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks

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O. Miscellaneous Drain or Wash Water or Other Sources ☐ Boiler drain lines ☐ Condensate drain lines ☒ Rooftop equipment ☒ Drainage sumps ☒ Roofing, gutters, and trim. ☐ Other sources		☐ Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system. ☐ Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system. ☒ Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment. ☒ Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water. ☒ Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff. ☐ Include controls for other sources as specified by local reviewer.	
☒ **P.** Plazas, sidewalks, and parking lots.			☒ Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

VI. STORMWATER FACILITY MAINTENANCE

VI.A. OWNERSHIP AND RESPONSIBILITY FOR MAINTENANCE IN PERPETITY

Maintenance of stormwater facilities will be the responsibility of the property owner and will be performed by the owner's contractors or employees as part of routine maintenance of buildings, grounds, and landscaping. The applicant has reviewed the existing agreement regarding the maintenance of stormwater facilities and commits to execute any necessary agreements prior to completion of construction. The applicant accepts responsibility for interim operation and maintenance of stormwater treatment and flow-control facilities until that responsibility is formally transferred to a subsequent owner. The existing BMP Inspection and Maintenance Responsibility is provided below.

VI.B. SUMMARY OF MAINTENANCE REQUIREMENTS FOR EACH STORMWATER FACILITY

The 6 (six) bioretention facilities will be maintained on the following schedule at a minimum. Details of maintenance responsibilities and procedures will be included in a Stormwater Facility Operation and Maintenance Plan to be submitted for approval as required in the conditions of approval.

At no time will synthetic pesticides or fertilizers be applied, nor will any soil amendments, other than aged compost mulch or sand/compost mix, be introduced.

Daily: The facilities will be examined for visible trash during regular policing of the site, and trash will be removed.

After Significant Rain Events: A significant rain event is one that produces approximately a half inch or more rainfall in a 24-hour period. Within 24 hours after each such event, the following will be conducted:

The surface of the facility will be observed to confirm there is no ponding.

- Inlets will be inspected, and any accumulations of trash or debris will be removed.
- The surface of the mulch layer will be inspected for movement of material. Mulch will be replaced and raked smooth if needed.

Prior to the Start of the Rainy Season: In September or each year, the facility will be inspected to confirm there is no accumulation of debris that would block flow, and that growth and spread of plantings does not block inlets or the movement of runoff across the surface of the facility.

Annual Landscape Maintenance: In December – February of each year, vegetation will be cut back as needed, debris removed, and plants and mulch replaced as needed. The concrete work will be inspected for damage. The elevation of the top of soil and mulch layer will be confirmed to be consistent with the design reservoir depth.

VII. CONSTRUCTION PLAN CHECKLIST

See below, “IMP Construction Checklist”

IMP CONSTRUCTION CHECKLIST

LAYOUT (to be confirmed prior to beginning excavation)

- ❒ Square footage of the facility meets or exceeds minimum shown in Stormwater Control Plan
- ❒ Site grading and grade breaks are consistent with the boundaries of the tributary Drainage Management Area(s) (DMAs) shown in the Stormwater Control Plan
- ❒ Inlet elevation of the facility is low enough to receive drainage from the entire tributary DMA
- ❒ Locations and elevations of overland flow or piping, including roof leaders, from impervious areas to the facility have been laid out and any conflicts resolved
- ❒ Rim elevation of the facility is laid out to be level all the way around, or elevations are consistent with a detailed cross-section showing location and height of interior dams
- ❒ Locations for vaults, utility boxes, and light standards have been identified so that they will not conflict with the facility
- ❒ Facility is protected as needed from construction-phase runoff and sediment

EXCAVATION (to be confirmed prior to backfilling or pipe installation)

- ❒ Excavation conducted with materials and techniques to minimize compaction of soils within the facility area
- ❒ Excavation is to accurate area and depth
- ❒ Slopes or side walls protect from sloughing of native soils into the facility
- ❒ Moisture barrier, if specified, has been added to protect adjacent pavement or structures.
- ❒ Native soils at bottom of excavation are ripped or loosened to promote infiltration

OVERFLOW OR SURFACE CONNECTION TO STORM DRAINAGE
(to be confirmed prior to backfilling with any materials)

- ❒ Overflow is at specified elevation (typically no lower than two inches below facility rim)
- ❒ No knockouts or side inlets are in overflow riser
- ❒ Overflow location selected to minimize surface flow velocity (near, but offset from, inlet recommended)
- ❒ Grating excludes mulch and litter (beehive or atrium-style grates with ¼" openings recommended)
- ❒ Overflow is connected to storm drain via appropriately sized piping

UNDERGROUND CONNECTION TO STORM DRAIN/OUTLET ORIFICE
(to be confirmed prior to backfilling IMP with any materials)

- ❒ Perforated pipe underdrain (PVC SDR 35 or approved equivalent) is installed with holes facing down
- ❒ Perforated pipe is connected to storm drain (treatment only) or orifice (treatment-and-flow-control)
- ❒ Underdrain pipe is at elevation shown in plans. In facilities allowing infiltration, preferred elevation is above native soil but low enough to be covered by at least 2 inches of Class 2 perm; in sealed planter boxes or bioretention facilities with liners, preferred elevation is as near bottom as possible
- ❒ Cleanouts are in accessible locations and connected via sweeps
- ❒ Structures (arches or large diameter pipes) for additional surface storage are installed as shown in plans and specifications and have the specified volume

(continued)

IMP CONSTRUCTION CHECKLIST (CONTINUED)

DRAIN ROCK/SUBDRAIN (to be confirmed prior to installation of soil mix)

- ❒ Rock is installed as specified. Class 2 permeable, Caltrans specification 68-1.025 recommended, or 4"-6" pea gravel is installed at the top of the crushed rock layer
- ❒ Rock is smoothed to a consistent top elevation. Depth and top elevation are as shown in plans
- ❒ Slopes or side walls protect from sloughing of native soils into the facility
- ❒ No filter fabric is placed between the subdrain and soil mix layers

SOIL MIX

- ❒ Soil mix is as specified. Quality of mix is confirmed by delivery ticket or on-site testing as appropriate to the size and complexity of the facility
- ❒ Mix installed in lifts not exceeding 12"
- ❒ Mix is not compacted during installation but may be thoroughly wetted to encourage consolidation
- ❒ Mix is smoothed to a consistent top elevation. Depth of mix (18" min.) and top elevation are as shown in plans, accounting for depth of mulch to follow and required reservoir depth

IRRIGATION

- ❒ Irrigation system is installed so it can be controlled separately from other landscaped areas. Smart irrigation controllers and drip emitters are recommended
- ❒ Spray heads, if any, are positioned to avoid direct spray into outlet structures

PLANTING

- ❒ Plants are installed consistent with approved planting plan
- ❒ Any trees and large shrubs are staked securely
- ❒ No fertilizer is added; compost tea may be used
- ❒ No native soil or clayey material are imported into the facility with plantings
- ❒ 1"-2" mulch may be applied following planting; mulch selected to avoid floating
- ❒ Final elevation of soil mix maintained following planting
- ❒ Curb openings are free of obstructions

FINAL ENGINEERING INSPECTION

- ❒ Drainage Management Area(s) are free of construction sediment and landscaped areas are stabilized
- ❒ Inlets are installed to provide smooth entry of runoff from adjoining pavement, have sufficient reveal (drop from the adjoining pavement to the top of the mulch or soil mix, and are not blocked
- ❒ Inflows from roof leaders and pipes are connected and operable
- ❒ Temporary flow diversions are removed
- ❒ Rock or other energy dissipation at piped or surface inlets is adequate
- ❒ Overflow outlets are configured to allow the facility to flood and fill to near rim before overflow
- ❒ Plantings are healthy and becoming established
- ❒ Irrigation is operable
- ❒ Facility drains rapidly; no surface ponding is evident
- ❒ Any accumulated construction debris, trash, or sediment is removed from facility

VII. CERTIFICATIONS

ENGINEER CERTIFICATION

I hereby certify that the sizing, selection, and preliminary design of the Best Management Practices and control measures in this Stormwater Management Plan meet the requirements of Regional Water Quality Control Board Order R2-2015-0049.

Travis Vincent, P.E.
Core States Group
R.C.E. NO. 37356

OWNER'S CERTIFICATION

I hereby certify that the onsite, stormwater treatment systems installed to meet the requirements for regulated projects are properly operated and maintained for the life of the project pursuant to Regional Water Quality Control Board Order R2-2015-0049 agreement to maintain best management practices.

Earl Callison
O'Hara Properties, Inc.
3820 Blackhawk Road,
P.O. Box 807
Danville, CA 94526

FIGURE 1

VICINITY MAP

VICINITY MAP

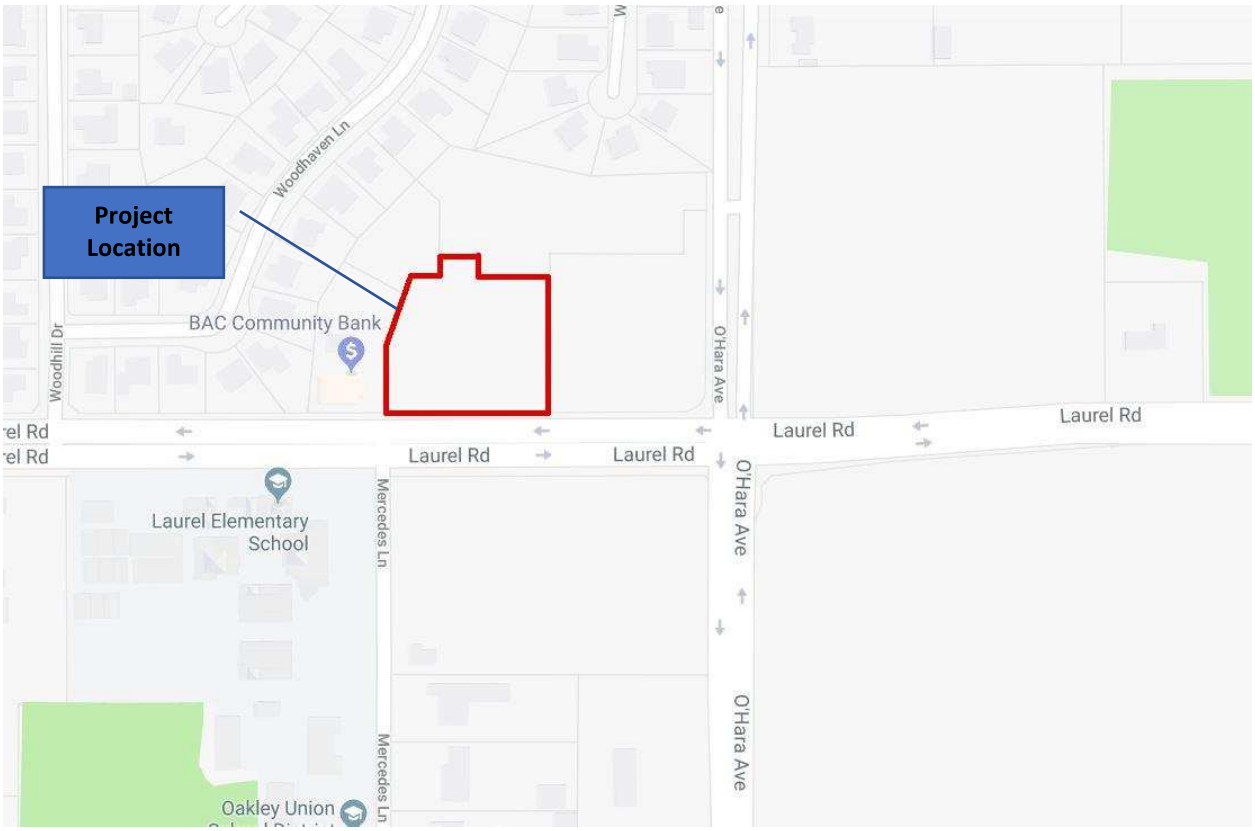


FIGURE 2

EXISTING CONDITIONS AERIAL MAP

EXISTING CONDITIONS AERIAL MAP

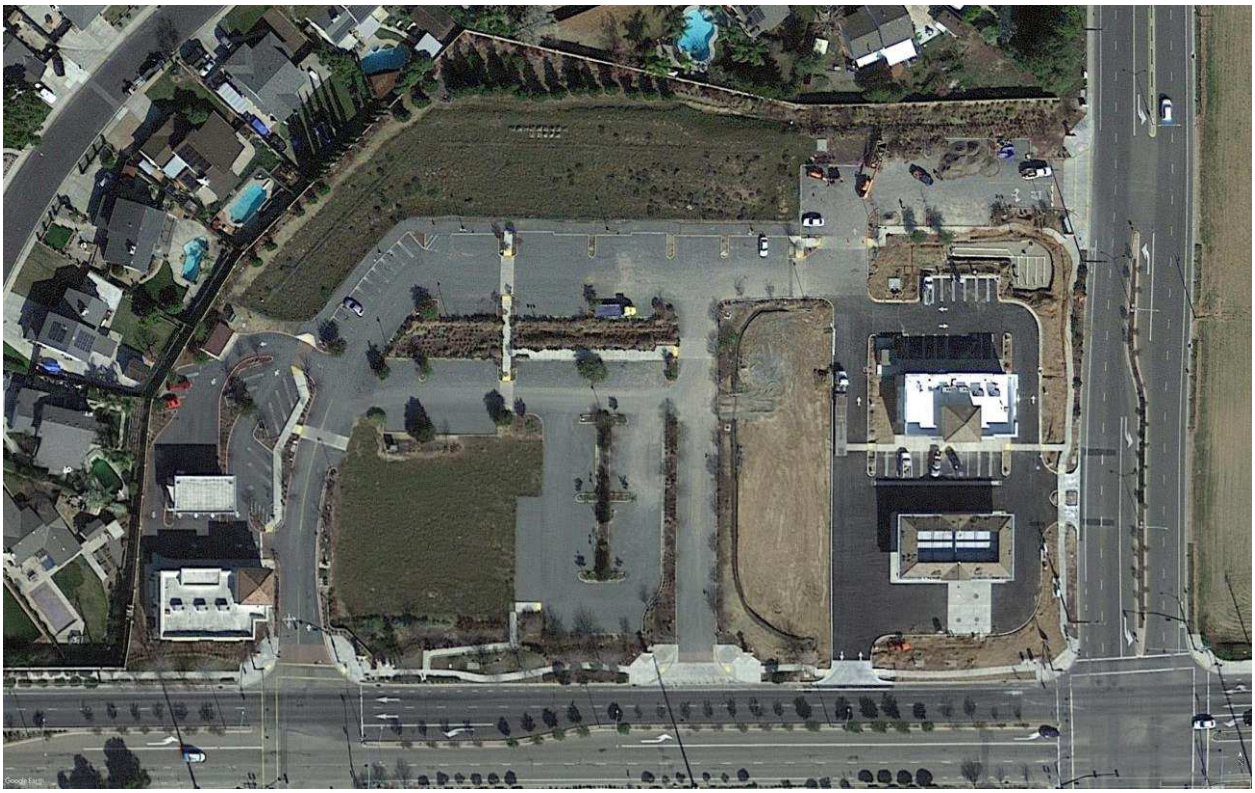


FIGURE 3

OUTPUT FROM THE IMP SIZING CALCULATOR

Project Name: McDonald's (Laurel Ave)
Project Type: Treatment and Flow Control
APN: 035-510-006
Drainage Area: 299,750
Mean Annual Precipitation: 11.3

Self-Treating DMAs

DMA Name	Area (sq ft)
DMA3	3,227.0
DMA4	1,879.0
DMA5	1,098.0
DMA26	2,353.0
DMA27	2,526.0
DMA28	12,104.0

II. Self-Retaining Areas

Self-Retaining DMA	
DMA Name	**Area (sq ft)**
DMA20	81,633

III. Areas Draining to Self-Retaining Areas

DMA Name	Area (sq ft)	Surface Type	Runoff Factor	Product (Area x Runoff Factor) [A]	Receiving Self Retaining DMA	Receiving Self-Retaing DMA Area (sq ft) [B]	Ratio [A]/[B]
DMA2	2995	Concrete or Asphalt	1.0	2,995.0	DMA20	81,633	0.04
DMA8	6481	Concrete or Asphalt	1.0	6,481.0	DMA20	81,633	0.08
DMA11	5118	Concrete or Asphalt	1.0	5,118.0	DMA20	81,633	0.06

IV. Areas Draining to IMPs

IMP Name: IMP6
IMP Type: Bioretention Facility
Soil Group: IMP6

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA12	5,993	Concrete or Asphalt	1.00	5,993
			Total	5,993
			Area	

IMP Sizing

IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
0.070	0.886	372	2,039

Surface Volume	0.058	0.886	308	1,019

IMP Name: IMP8
IMP Type: Bioretention Facility
Soil Group: IMP8

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA9	9,762	Concrete or Asphalt	1.00	9,762
			Total	9,762

IMP Sizing			
IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area 0.070	0.886	605	1,800
Surface Volume 0.058	0.886	501	900

IMP Name: IMP10
IMP Type: Bioretention Facility
Soil Group: IMP10

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA14	3,750	Concrete or Asphalt	1.00	3,750
			Total	3,750

IMP Sizing			
IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area 0.070	0.886	232	2,823
Surface Volume 0.058	0.886	193	1,411

IMP Name: IMP11
IMP Type: Bioretention Facility
Soil Group: IMP11

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA22	7,620	Conventional Roof	1.00	7,620
			Total	7,620

IMP Sizing			
IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area 0.070	0.886	472	3,060
Surface Volume 0.058	0.886	391	1,530

IMP Name: IMP13A
IMP Type: Bioretention Facility
Soil Group: IMP13A

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA1	19,317	Concrete or Asphalt	1.00	19,317
DMA10	9,126	Concrete or Asphalt	1.00	9,126

IMP Sizing			
IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume

Total	28,443				
Area		0.070	0.886	1,763	2,665
Surface Volume		0.058	0.886	1,461	1,980

IMP Name: IMP13B
IMP Type: Bioretention Facility
Soil Group: IMP13B

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA13	7,139	Concrete or Asphalt	1.00	7,139
DMA15	3,082	Concrete or Asphalt	1.00	3,082
DMA16	23,677	Concrete or Asphalt	1.00	23,677
DMA17	8,685	Concrete or Asphalt	1.00	8,685
DMA18	19,156	Concrete or Asphalt	1.00	19,156
DMA21	6,519	Conventional Roof	1.00	6,519
DMA23	4,356	Conventional Roof	1.00	4,356
DMA25	18,630	Conventional Roof	1.00	18,630
Total	91,244			

	IMP Sizing			
	IMP Sizing Factor	**Rain Adjustment Factor**	**Minimum Area or Volume**	**Proposed Area or Volume**
Area	0.070	0.886	5,656	5,682
Surface Volume	0.058	0.886	4,687	4,800

IMP Name: IMP13C
IMP Type: Bioretention Facility
Soil Group: IMP13C

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA24	7,126	Conventional Roof	1.00	7,126
Total	7,126			

	IMP Sizing			
	IMP Sizing Factor	**Rain Adjustment Factor**	**Minimum Area or Volume**	**Proposed Area or Volume**
Area	0.070	0.886	442	2,426
Surface Volume	0.058	0.886	366	1,801

Report generated on 9/28/2020 12:00:00 AM by the Contra Costa Clean Water Program IMP Sizing Tool software (version 1.3.1.0).

FIGURE 4

STORMWATER MANAGEMENT PLAN CHECKLIST

STORMWATER CONTROL PLAN CHECKLIST

CONTENTS OF EXHIBIT

Show all the following on drawings:

- ☒ Existing natural hydrologic features (depressions, watercourses, relatively undisturbed areas) and significant natural resources.
- ☒ Existing and proposed site drainage network and connections to drainage off-site.
- ☒ Layout of buildings, pavement, and landscaped areas.
- ☒ Impervious areas proposed (roof, plaza/sidewalk, and streets/parking) and area of each.
- ☒ Entire site divided into separate Drainage Management Areas, with each DMA identified as self-treating, self-retaining (zero-discharge), draining to a self-retaining area, or draining to an IMP. Each DMA has one surface type (roof, paving, or landscape), is labeled, and square footage noted.
- ☒ Locations, footprints, and square footage of proposed treatment and flow-control facilities.
- ☒ Potential pollutant source areas, including refuse areas, outdoor work and storage areas, etc. listed in Appendix C and corresponding required source controls.

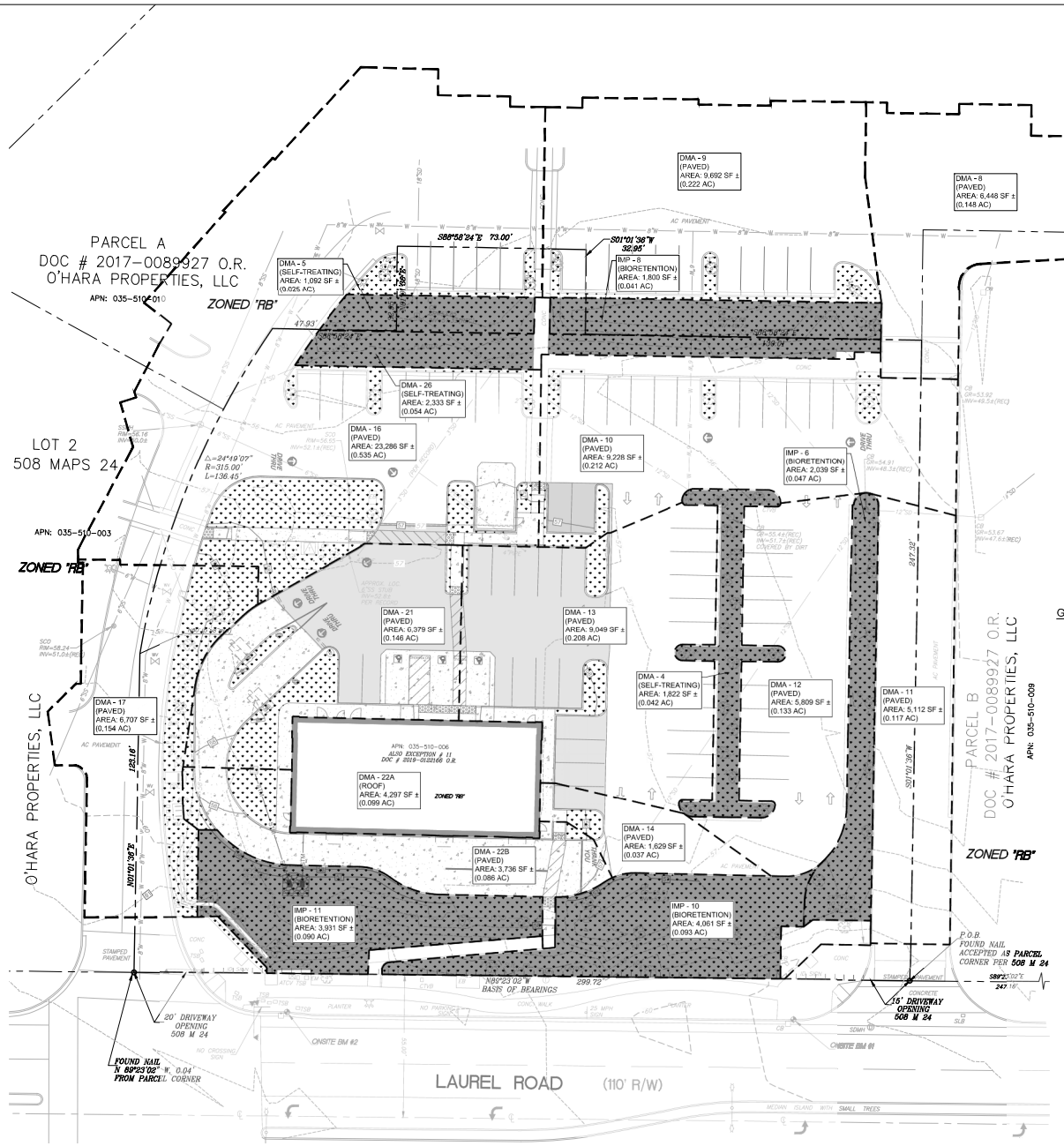
CONTENTS OF REPORT

Include all the following in a report:

- ☒ Narrative analysis or description of site features and conditions that constrain, or provide opportunities for, stormwater control. Include soil types (including Hydrologic Soil Group), slopes, and depth to groundwater.
- ☒ Narrative description of site design characteristics that protect natural resources.
- ☒ Narrative description and/or tabulation of site design characteristics, building features, and pavement selections that minimize imperviousness of the site.
- ☒ Tabulation of DMAs, including self-treating areas, self-retaining areas, areas draining to self-retaining areas, and areas tributary to Integrated Management Practices (IMPs), in the format shown in Chapter 4. Output from the IMP Sizing Calculator may be used.
- ☒ Sketches and/or descriptions showing there is sufficient hydraulic head to route runoff into, through, and from each IMP to an approved discharge point.
- ☒ A table of identified pollutant sources and for each source, the source control measure(s) used to reduce pollutants to the maximum extent practicable. See Appendix D.
- ☒ General maintenance requirements for infiltration, treatment, and flow-control facilities.
- ☒ Means by which facility maintenance will be financed and implemented in perpetuity.
- ☒ Statement accepting responsibility for interim operation & maintenance of facilities.
- ☒ Identification of any conflicts with codes or requirements or other anticipated obstacles to implementing the Stormwater Control Plan.
- ☒ Construction Plan C.3 Checklist.
- ☒ Certification by a civil engineer, architect, and landscape architect.
- ☒ Appendix: Compliance with flow-control requirements
(if using an HM compliance option other than the design guidance in Chapter 3).

FIGURE 5

STORMWATER CONTROL PLAN



GENERAL NOTES:

PERMITTED PERVIOUS AREA: 18,307 SF OF 83,124 SF PARCEL [22.71%]

EXISTING PERVIOUS AREA: 36,018 SF OF 74,443 SF PARCEL [48.38%]

PERVIOUS AREA MOVED OFFSITE: 2,587 SF REDRAWN TO NORTHERN PARCEL

PROPOSED PERVIOUS AREA: 21,259 SF OF 74,443 SF PARCEL [28.56%]

EXISTING AND PERMITTED DOWNSTREAM DMA / IMP BASINS NOT SHOWN ON THE PLAN HAVE NO PROPOSED REVISIONS FROM THE EXISTING CONDITIONS.

STORMWATER CONTROL LEGEND

- EXISTING PROPERTY BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING 5' INTERVAL CONTOUR LINE
- EXISTING 1' INTERVAL CONTOUR LINE
- PROPOSED 5' INTERVAL CONTOUR LINE
- PROPOSED 1' INTERVAL CONTOUR LINE
- EXISTING CURB
- PROPOSED CURB
- PROPOSED MOUNTABLE CURB
- PROPOSED BUILDING
- EXISTING SANITARY STRUCTURES
- EXISTING WATER STRUCTURES
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING UNDERGROUND ELECTRIC
- EXISTING TELEPHONE
- EXISTING OVERHEAD WIRES
- EXISTING SANITARY
- EXISTING STORM
- EXISTING STORM STRUCTURES
- PROPOSED STORM
- PROPOSED STORM STRUCTURES
- PERVIOUS AREA
- BIOSWALE AREA
- DMA/IMP BASIN DELINEATION

811 Know what's below. Call before you dig.

REV	DATE	DESCRIPTION	BY

CORE STATES GROUP
CORE STATES INC.
CIVIL ENGINEERING
2485 Estes Avenue, Suite 102
Concord, CA 94520
Phone: (925) 457-2877
jhardy@corestates.com

PREPARED FOR: McDonald's USA, LLC

DRAWN BY	STD ISSUE DATE
JD	2020
REVIEWED BY	DATE ISSUED
JH	07/14/2020

CSG PROJECT # MCD-26879

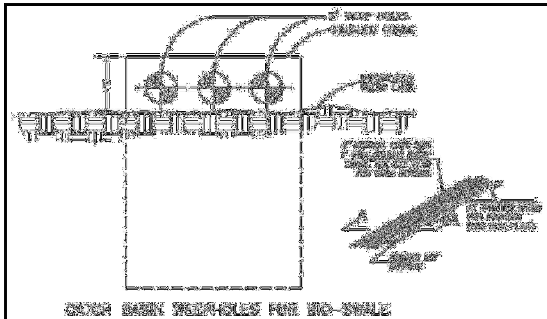
TITLE: CONCEPT PLAN FOR McDONALD'S OAKLEY, CA

SHEET: STORMWATER CONTROL PLAN

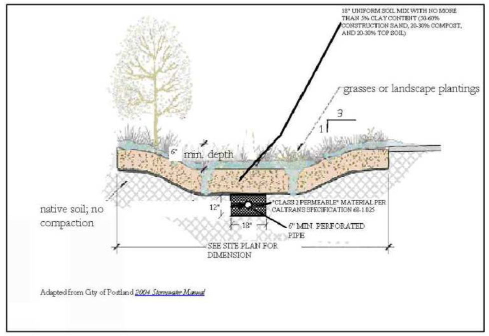
SITE ID MCD-26879

SITE ADDRESS LAUREL RD, OAKLEY, CA 94561

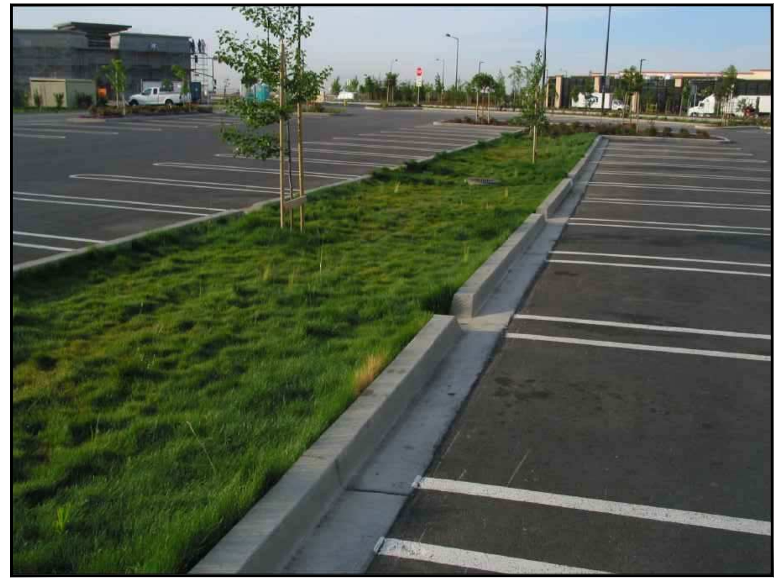
SHEET NO. C7 MCD-26879



1. PERFORATED PIPE SHALL BE SDR 35.



BIO-RETENTION
SCALE: N.T.S.



BIO-SWALE
SCALE: N.T.S.

Project Name: McDonald's (Laurel Ave)
Project Type: Treatment and Flow Control
APN: 035-510-006
Drainage Area: 291,349
Mean Annual Precipitation: 11.3

Self-Treating DMAs

DMA Name	Area (sq ft)
DMA3	3,227.0
DMA4	1,822.0
DMA5	1,092.0
DMA26	2,333.0
DMA27	2,526.0
DMA28	12,104.0

II. Self-Retaining Areas

Self-Retaining DMA	
DMA Name	Area (sq ft)
DMA20	81,633

III. Areas Draining to Self-Retaining Areas

DMA Name	Area (sq ft)	Surface Type	Runoff Factor	Product (Area x Runoff Factor) [A]	Receiving Self Retaining DMA	Receiving Self-Retaing DMA Area (sq ft) [B]	Ratio [A]/[B]
DMA2	2995	Concrete or Asphalt	1.0	2,995.0	DNA20	81,633	0.04
DMA8	6448	Concrete or Asphalt	1.0	6,448.0	DNA20	81,633	0.08
DMA11	5112	Concrete or Asphalt	1.0	5,112.0	DNA20	81,633	0.06

IV. Areas Draining to IMPs

IMP Name: IMP6
IMP Type: Bioretention Facility
Soil Group: IMP6

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA12	5,809	Concrete or Asphalt	1.00	5,809
			Total	5,809

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.070	0.886	360	2,039

Surface Volume	0.058	0.886	298	1,019

IMP Name: IMP8
IMP Type: Bioretention Facility
Soil Group: IMP8

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA9	9,692	Concrete or Asphalt	1.00	9,692
			Total	9,692

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.070	0.886	601	1,800
Surface Volume	0.058	0.886	498	900

IMP Name: IMP10
IMP Type: Bioretention Facility
Soil Group: IMP10

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA14	1,629	Concrete or Asphalt	1.00	1,629
			Total	1,629

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.070	0.886	101	2,823
Surface Volume	0.058	0.886	84	1,411

IMP Name: IMP11
IMP Type: Bioretention Facility
Soil Group: IMP11

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA22A	4,297	Conventional Roof	1.00	4,297
DMA22B	3,736	Concrete or Asphalt	1.00	3,736
			Total	8,033

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.070	0.886	498	3,060
Surface Volume	0.058	0.886	413	1,530

IMP Name: IMP13A
IMP Type: Bioretention Facility
Soil Group: IMP13A

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA1	19,317	Concrete or Asphalt	1.00	19,317
DMA10	9,228	Concrete or Asphalt	1.00	9,228
			Total	28,545

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.070	0.886	1,770	2,665
Surface Volume	0.058	0.886	1,466	1,980

IMP Name: IMP13B
IMP Type: Bioretention Facility
Soil Group: IMP13B

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA13	9,049	Concrete or Asphalt	1.00	9,049
DMA15	3,082	Concrete or Asphalt	1.00	3,082
DMA16	23,286	Concrete or Asphalt	1.00	23,286
DMA17	6,707	Concrete or Asphalt	1.00	6,707
DMA18	19,156	Concrete or Asphalt	1.00	19,156
DMA21	6,379	Conventional Roof	1.00	6,379
DMA23	4,356	Conventional Roof	1.00	4,356
DMA25	18,630	Conventional Roof	1.00	18,630
			Total	90,645

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.070	0.886	5,619	5,682
Surface Volume	0.058	0.886	4,656	4,800

IMP Name: IMP13C
IMP Type: Bioretention Facility
Soil Group: IMP13C

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA24	7,126	Conventional Roof	1.00	7,126
			Total	7,126

IMP Sizing	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.070	0.886	442	2,426
Surface Volume	0.058	0.886	366	1,801

Report generated on 10/9/2020 12:00:00 AM by the Contra Costa Clean Water Program IMP Sizing Tool software (version 1.3.1.0).

DRAINAGE TABLES
SCALE: N.T.S.

811 Know what's below. Call before you dig.

CORE STATES INC.
4240 East Jurupa Street, Suite 402
Ontario, CA 91761
Phone: (909) 467-8907
SAnti@core-eng.com

PREPARED FOR: McDonald's USA, LLC

DRAWN BY	STD ISSUE DATE	REVIEWED BY	DATE ISSUED	CSG PROJECT #
JO	2020	TV	07/14/2020	MCD-26879

TITLE: CONCEPT PLAN FOR McDONALD'S OAKLEY, CA
SHEET: STORMWATER DETAILS
SITE ID: MCD-26879 | SITE ADDRESS: LAUREL RD, OAKLEY, CA 94561
SHEET NO. MCD-26879 C8

REV	DATE	DESCRIPTION	BY

FIGURE 6

BIORETENTION AREA GUIDELINES & MAINTENANCE CHECKLIST

BMP Inspection and Maintenance Responsibility

BMP Designation	Responsible Party	Description of Inspection and Maintenance Activity	Frequency of Maintenance
Storage Drain Message and Signage	O'Hara Properties, Inc.	Inspect stenciling for legibility. Re-stencil as necessary.	Bi-annual maintenance
Catch basins	O'Hara Properties, Inc.	To be inspected and cleaned of all debris and sediment.	Bi-annual maintenance
Vegetated Swales	O'Hara Properties, Inc.	Inspect swale for erosion, damage to vegetation and sediment, debris and litter accumulations. Repair damage areas within the channel and remove debris, litter and sediment. Extra watering during drought conditions and reseeding of bare areas-application of fertilizers and pesticides should be minimal.	Monthly maintenance and additional maintenance after a significant storm event

Designation of Individuals Responsible for Stormwater Treatment BMP Operation and Maintenance	
Date Completed	
Facility Name	
Facility Address	
Designated Contact for Operation and Maintenance	
Name:	Title or Position:
Telephone:	Alternate Telephone:
Email:	
Off-Hours or Emergency Contact	
Name:	Title or Position:
Telephone:	Alternate Telephone:
Email:	
Corporate Officer (authorized to execute contracts with the City, Town, or County)	
Name:	Title or Position:
Address:	
Telephone:	Alternate Telephone:
Email:	

Stormwater BMP Inspection and Maintenance Log

Facility Name	
Address	
Begin Date	End Date

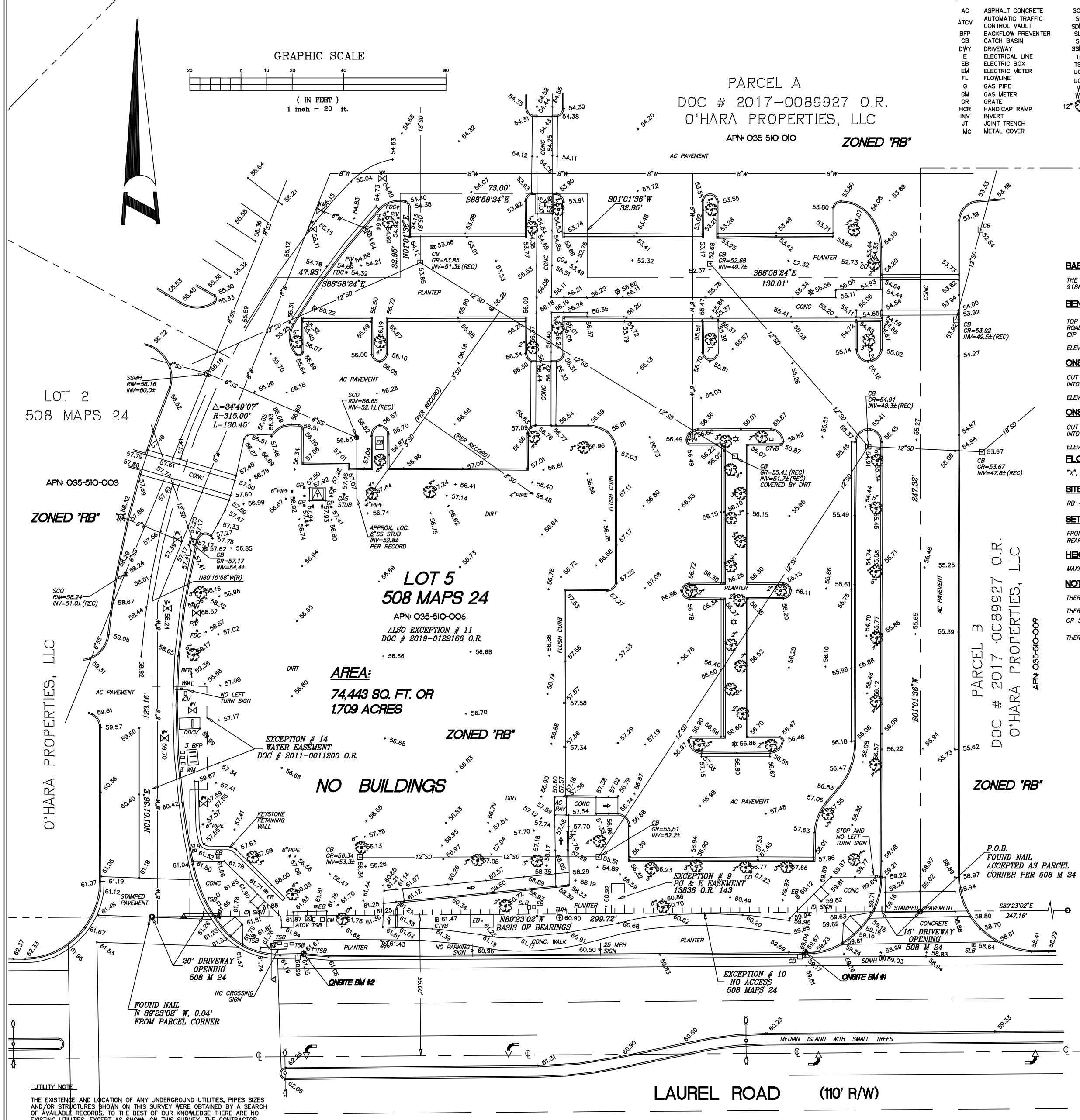
Date	BMP ID#	BMP Description	Inspected by:	Cause for Inspection	Exceptions Noted	Comments and Actions Taken

Instructions: Record all inspections and maintenance for all treatment BMPs on this form. Use additional log sheets and/or attach extended comments or documentation as necessary. Submit a copy of the completed log with the annual independent inspectors' report to the municipality, and start a new log at that time.

- BMP ID# — Always use ID# from the Operation and Maintenance Manual.
- Inspected by — Note all inspections and maintenance on this form, including the required independent annual inspection.
- Cause for inspection — Note if the inspection is routine, pre-rainy-season, post-storm, annual, or in response to a noted problem or complaint.
- Exceptions noted — Note any condition that requires correction or indicates a need for maintenance.
- Comments and actions taken — Describe any maintenance done and need for follow-up.

ATTACHMENT 1

TOPOGRAPHIC & BOUNDARY SURVEY

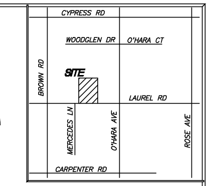


ABBREVIATIONS

AC	ASPHALT CONCRETE	SCO	SANITARY CLEAN OUT
ATCV	AUTOMATIC TRAFFIC CONTROL VAULT	SD	STORM DRAIN PIPE
BFP	BACKFLOW PREVENTER	SDMH	STORM DRAIN MANHOLE
CB	CATCH BASIN	SLB	STREET LIGHT BOX
DWY	DRIVEWAY	SS	SANITARY SEWER PIPE
E	ELECTRICAL LINE	SSMH	SANITARY SEWER MANHOLE
EB	ELECTRIC BOX	TB	TELEPHONE BOX
EM	ELECTRIC METER	TSB	TRAFFIC SIGNAL BOX
FL	FLOWLINE	UGE	UNDERGROUND ELECTRIC
G	GAS PIPE	UGT	UNDERGROUND TELEPHONE
GM	GAS METER	W	WATER PIPE
GR	GRATE	WM	WATER METER
HCR	HANDICAP RAMP	12"	TREE W/ SIZE
INV	INVERT		
JT	JOINT TRENCH		
MC	METAL COVER		

SYMBOLS

FOUND IRON PIPE PER 508 M 24 OR AS NOTED
TEMPORARY BENCHMARK
FIRE HYDRANT
JP JOINT POLE
STORM DRAIN MANHOLE
SANITARY SEWER MANHOLE
TELEPHONE MANHOLE
STREET SIGN
TRAFFIC SIGNAL
WV WATER VALVE
SURVEYED PROPERTY LINE
EASEMENT LINE
CENTER LINE
ASSESSOR'S PARCEL LINE
LOT LINE



VICINITY MAP

N. T. S.

BASIS OF BEARINGS:

THE SOUTHERLY LINE OF LOT 5, TAKEN AS NORTH 89°23'02" WEST, AS SHOWN ON SUBDIVISION 9188, FILED IN BOOK 508 OF MAPS, PAGE 24, CONTRA COSTA COUNTY RECORDS WAS USED.

BENCHMARK:

TOP OF CURB, NORTH RETURN OF THE NORTHEASTERLY CORNER OF INTERSECTION OF LAUREL ROAD, WITH O'HARA AVENUE, AS SHOWN ON PLANS FOR O'HARA AVENUE ROADWAY IMPROVEMENTS, CIP PROJECT # 96.

ELEVATION = 55.48 FEET, NAVD88 DATUM.

ONSITE BM #1:

CUT SQUARE ON TOP OF CURB ABOVE CATCH BASIN, WESTERLY RETURN OF MAIN DRIVEWAY INTO SHOPPING CENTER, AS SHOWN HEREON.

ELEVATION = 59.67 FEET, NAVD88 DATUM.

ONSITE BM #2:

CUT SQUARE ON TOP OF CURB ABOVE CATCH BASIN, EASTERLY RETURN OF ENTRY DRIVEWAY INTO SHOPPING CENTER, ACROSS MERCEDES LANE, AS SHOWN HEREON.

ELEVATION = 61.67 FEET, NAVD88 DATUM.

FLOOD ZONE:

"X", PER COMMUNITY PANEL NO. 06 013C 0355G, DATED MARCH 21, 2017

SITE ZONE:

RB – RETAIL BUSINESS

SETBACKS:

FRONT – 10 FEET
REAR AND SIDE – NONE

HEIGHT RESTRICTION:

MAXIMUM HEIGHT 35 FEET

NOTES:

THERE IS NO EVIDENCE OF RECENT EARTH MOVING WORK OR BUILDING CONSTRUCTION.

THERE ARE NO KNOWN PROPOSED CHANGES IN STREET RIGHT OF WAY LINES OR STREET OR SIDEWALK CONSTRUCTION.

THERE WERE NO MARKERS DELINEATING WETLAND AREAS OBSERVED.

LEGAL DESCRIPTION:

ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE CITY OF OAKLEY, IN THE COUNTY OF CONTRA COSTA, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

LOT 5, AS SHOWN ON SUBDIVISION 9188, FILED OCTOBER 7, 2008, BOOK 508 OF MAPS, PAGE 24, CONTRA COSTA COUNTY RECORDS.

BEING THE SAME AS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 5 AND RUNNING THENCE ALONG THE SOUTHERLY LINE THEREOF, NORTH 89°23'02" WEST, 299.72 FEET; THENCE LEAVING SAID SOUTHERLY LINE AND RUNNING NORTH 01°01'36" EAST, 123.19 FEET TO A POINT ON A NON-TANGENT 315.00-FOOT RADIUS CURVE, CONCAVE SOUTHEASTERLY, TO WHICH POINT A RADIAL BEARS NORTH 80°15'58" WEST; THENCE 136.45 FEET NORTHEATERLY ALONG AN ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 24°49'07"; THENCE SOUTH 88°58'24" EAST, 47.93 FEET; THENCE NORTH 01°01'36" EAST, 32.95 FEET; THENCE SOUTH 88°58'24" EAST, 73.00 FEET; THENCE SOUTH 01°01'36" WEST, 32.95 FEET; THENCE SOUTH 88°58'24" EAST, 130.01 FEET; THENCE SOUTH 01°01'36" WEST, 247.33 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM ALL OIL, GAS AND OTHER HYDROCARBON SUBSTANCES AND ALL OTHER MINERALS AND ASSOCIATED SUBSTANCES CONTAINED WITHIN OR UNDERLYING THE SAID PROPERTY WHICH ARE AT OR BELOW A DEPTH OF 500 FEET FROM THE SURFACE THEREOF, WITHOUT ANY RIGHT OF SURFACE ENTRY AS RESERVED IN THE DEED FROM LOUIS DEL BARBA, ET AL, RECORDED DECEMBER 31, 1979, IN BOOK 9677 OF OFFICIAL RECORDS, PAGE 495, AND AS CONVEYED IN QUITCLAIM DEED FROM LOUIS J. DEL BARBA, FREDERICK J. DEL BARBA AND SHIRLEY A. DEL BARBA TO EMMA DEL BARBA, AS TO AN UNDIVIDED ONE-HALF INTEREST, RECORDED DECEMBER 31, 1979, IN BOOK 9677 OF OFFICIAL RECORDS, PAGE 502.

EXCEPTIONS PER CHICAGO TITLE COMPANY COMMITMENT FOR TITLE INSURANCE, ORDER 60600873-606-TEO-PJ, DATED JANUARY 7, 2020.

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORD OR IS CREATED, ATTACHES OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I-REQUIREMENTS ARE MET
2. PROPERTY TAXES
3. PROPERTY TAXES
4. PRIOR TO CLOSE OF ESCROW, PLEASE CONTACT THE TAX COLLECTOR'S OFFICE TO CONFIRM ALL AMOUNTS OWING
5. LIEN OF SUPPLEMENTAL TAXES, IF ANY

   1–5 NOT A SURVEY MATTER
6. EASEMENT FOR ELECTRIC TRANSMISSION LINE GRANTED TO PACIFIC GAS AND ELECTRIC COMPANY, A CORPORATION, IN BOOK 138 OF DEEDS, PAGE 353

   THE EXACT LOCATION OF SAID EASEMENT IS NOT DISCLOSED IN THE PUBLIC RECORDS
7. EASEMENT FOR PIPELINES GRANTED TO GREAT YELLOWSTONE CORPORATION, A NEVADA CORPORATION, IN BOOK 6029, PAGE 280 OF OFFICIAL RECORDS

   THE EXACT LOCATION OF SAID EASEMENT IS NOT DISCLOSED IN THE PUBLIC RECORDS
8. EASEMENT FOR PIPELINES GRANTED TO WESTERN CONTINENTAL OPERATION COMPANY, A CALIFORNIA CORPORATION, IN BOOK 7809, PAGE 25, OFFICIAL RECORDS

   THE EXACT LOCATION OF SAID EASEMENT IS NOT DISCLOSED IN THE PUBLIC RECORDS
9. EASEMENT FOR UTILITIES AND FACILITIES TOGETHER WITH INGRESS AND EGRESS GRANTED TO PACIFIC GAS AND ELECTRIC COMPANY, A CALIFORNIA CORPORATION, IN BOOK 13838, PAGE 143 OF OFFICIAL RECORDS, AS DOCUMENT NO. 87-174097

   BURDENS THE SURVEYED PROPERTY
10. RELEASE AND RELINQUISHMENT OF ABUTTER'S OR ACCESS RIGHTS TO LAUREL ROAD, OVER THE SOUTHERLY BOUNDARY LINE OF PREMISES, AS SET FORTH ON THE FILED MAP OF SAID LAND

    EXCEPTING THAT AREA DESIGNATED AS "15' AND 20' DRIVEWAY OPENING" ON SAID MAP

    BURDENS THE SURVEYED PROPERTY
11. COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS RECORDED OCTOBER 7, 2008 AS DOCUMENT NO. 2008-0219756, OFFICIAL RECORDS

    RE-RECORDED JULY 15, 2009 AS DOCUMENT NO. 2009-0166465, OFFICIAL RECORDS

    RE-RECORDED SEPTEMBER 27, 2017 AS DOCUMENT NO. 2017-0177054, OFFICIAL RECORDS.

    RE-RECORDED AUGUST 2, 2019 AS DOCUMENT NO. 2019-0122166, OFFICIAL RECORDS

    AFFECTS THE SURVEYED PROPERTY
12. MATTERS CONTAINED IN THAT CERTAIN DOCUMENT ENTITLED MEMORANDUM OF AGREEMENT, RECORDED OCTOBER 7, 2008, DOCUMENT NO. 2008-0219759, OFFICIAL RECORDS

    NOT A SURVEY MATTER
13. MATTERS CONTAINED IN THAT CERTAIN DOCUMENT ENTITLED MEMORANDUM OF SITE DEVELOPMENT AGREEMENT, RECORDED JULY 15, 2009, DOCUMENT NO. 2009-0166466, OFFICIAL RECORDS

    NOT A SURVEY MATTER
14. EASEMENT FOR WATER UTILITY PIPELINES AND FACILITIES GRANTED TO DIABLO WATER DISTRICT, A LOCAL GOVERNMENTAL AGENCY OF THE STATE OF CALIFORNIA, RECORDED JANUARY 14, 2011, DOCUMENT NO. 2011-0011200, OFFICIAL RECORDS

    BURDENS THE SURVEYED PROPERTY
15. RIGHTS OF THE PARTIES IN POSSESSION
16. THE TRANSACTION CONTEMPLATED IN CONNECTION WITH THIS REPORT IS SUBJECT TO REVIEW AND APPROVAL OF THE COMAPNY'S CORPORATE UNDERWRITING DEPARTMENT

UTILITY NOTE

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES, PIPES SIZES AND/OR STRUCTURES SHOWN ON THIS SURVEY WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES, EXCEPT AS SHOWN ON THIS SURVEY. THE CONTRACTOR SHALL ASCERTAIN THE TRUE LOCATION OF ANY UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN HEREON.

SURVEYOR'S CERTIFICATE:

TO McDONALD'S CORPORATION, A DELAWARE CORPORATION, McDONALD'S USA, LLC, A DELAWARE LIMITED LIABILITY COMPANY, McDONALD'S REAL ESTATE COMPANY, D/B/A (DELAWARE), McDONALD'S REAL ESTATE COMPANY, A DELAWARE CORPORATION AND CHICAGO TITLE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS.

THE FIELD WORK WAS COMPLETED ON FEBRUARY 27, 2020.

DATE OF PLAT OR MAP APRIL 17, 2020.

PROFESSIONAL LAND SURVEYOR
PIOTR ZIEBA
No. 6246
STATE OF CALIFORNIA

SIGNED: Piotr Zieba
PIOTR ZIEBA, LS 6246

NO.	DATE	DESCRIPTION	BY

ALTA/NSPS SURVEY

1070 LAUREL ROAD

OAKLEY CONTRA COSTA COUNTY CALIFORNIA

Prepared for McDONALD'S USA, LLC

ZIEBATECH LAND SURVEYING
9925 WINDSOR WAY
SAN RAMON, CALIFORNIA 94583
PHONE: (925) 551-0108
E-MAIL: EZIEBA • AOL.COM

SHEET 1 OF 1 SHEETS

JOB NO. 20 - 0317

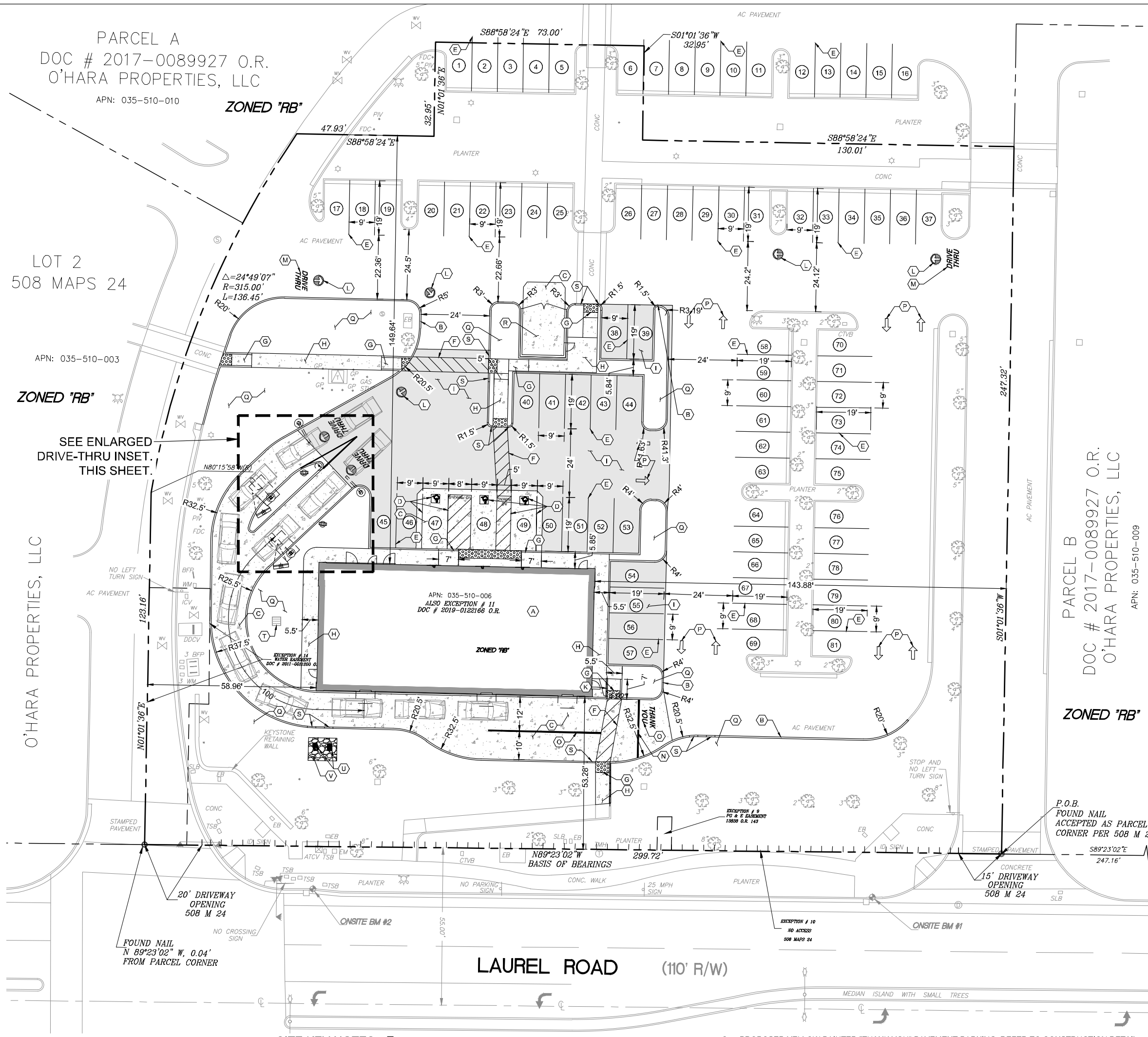
L/C: 004 - 5010

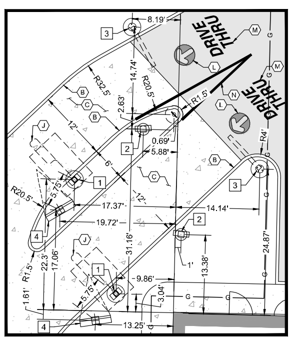
ATTACHMENT 2

SITE PLAN

GENERAL DEVELOPMENT NOTES:

1. McDONALD'S ROAD SIGN AND BASE ARE BY THE SIGN CONTRACTOR. CONDUIT AND WIRING ARE BY THE GENERAL CONTRACTOR. THE FOUNDATION DESIGN ARE BY OTHERS.
2. BASES, ANCHOR BOLTS, CONDUIT AND WIRING FOR ALL OTHER SIGNS ARE BY THE GENERAL CONTRACTOR.
3. PROPOSED UTILITIES ARE ONLY SHOWN IN SCHEMATIC LAYOUT. EXACT LOCATIONS SHALL BE DETERMINED PRIOR TO CONSTRUCTION. SHOULD THERE BE ANY DISCREPANCIES, THE CONTRACTOR SHALL HALT WORK AND NOTIFY THE ENGINEER OF RECORD.
4. THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO DETERMINE EXACT POINT OF SERVICE CONNECTION AT EXISTING UTILITY. REFER TO THE BUILDING ELECTRICAL AND PLUMBING DRAWINGS FOR UTILITY SERVICE ENTRANCE LOCATIONS, SIZES, AND CIRCUITING.
5. FINISH WALK AND CURB ELEVATIONS SHALL BE 6" ABOVE FINISH PAVEMENT UNLESS OTHERWISE NOTED ON THESE PLANS.
6. ALL DIMENSIONS SHOWN ARE TAKEN FROM FACE OF CURB UNLESS OTHERWISE INDICATED.
7. ALL FEATURES SHOWN ARE EXISTING UNLESS OTHERWISE INDICATED.
8. ALL DIMENSIONS FROM PROPERTY LINES ARE PERPENDICULAR UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THE SITE UNTIL WORK IS ACCEPTED BY THE OWNER.
10. ANY DAMAGE TO THE EXISTING CURB AS A RESULT OF THIS DEVELOPMENT MUST BE REPLACED AS NECESSARY.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ANY DEBRIS AND FLUSH OUT ALL EXISTING AND NEW STORM DRAINAGE FACILITIES WITHIN THE PROJECT LIMITS AT THE COMPLETION OF THE CONSTRUCTION.
12. ALL NEW BUILDING SIGNAGE WILL COMPLY WITH ZONING REGULATIONS.
13. PROVIDE ADEQUATE OFF-STREET PARKING FOR CONSTRUCTION EMPLOYEES. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEE VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVEWAY CONDITIONS.
14. ALL QUANTITIES SHOWN ON PLANS ARE APPROXIMATE AND FOR REFERENCE ONLY.
15. CONTRACTOR TO VERIFY ALL MINIMUMS CALLED OUT ON THE CIVIL PLANS AND SHALL NOTIFY ENGINEER AND ACM IF MINIMUMS CANNOT BE MET.





ENLARGED DRIVE-THRU
SCALE: 1"=10'

SIGN LEGEND:

1. PROPOSED SPRINGBOARD CANOPY.
2. PROPOSED DIGITAL PRE-BROWSE MENU BOARD.
3. PROPOSED WELCOME POINT GATEWAY.
4. PROPOSED OUTDOOR DIGITAL MENU BOARD (ODMB).

*VERIFY SIGNAGE WITH SIGN ORDER REQUEST FORM.
*VERIFY LOCATIONS WITH McDONALD'S REPRESENTATIVE.

GRAPHIC SCALE
1" = 20'

SITE KEY NOTES: ⬡

A. PROPOSED MCDONALDS 4597 BUILDING. REFER TO ARCHITECTURAL PLANS FOR DETAILS.
B. PROPOSED CONCRETE CURB. REFER TO CONSTRUCTION DETAIL SHEETS.
C. PROPOSED CONCRETE PAD. REFER TO CONSTRUCTION DETAIL SHEETS.
D. PROPOSED ACCESSIBLE PARKING STRIPING. MUST BE LONG LIFE EPOXY. REFER TO CONSTRUCTION DETAIL SHEETS.
E. PROPOSED PARKING STRIPING (TYP.). MUST BE LONG LIFE EPOXY. REFER TO CONSTRUCTION DETAIL SHEETS.
F. PROPOSED CROSSWALK STRIPING. REFER TO CONSTRUCTION DETAIL SHEETS.
G. PROPOSED ACCESSIBLE CURB RAMP WITH 3' DEEP DETECTABLE WARNING. REFER TO CONSTRUCTION DETAIL SHEETS.
H. PROPOSED CONCRETE SIDEWALK. REFER TO CONSTRUCTION DETAIL SHEETS.
I. PROPOSED ASPHALT PAVEMENT. REFER TO CONSTRUCTION DETAIL SHEETS.
J. DETECTOR LOOP(S) TO BE INSTALLED / REPLACED AT EXISTING DRIVE THRU WINDOWS AS DIRECTED BY MCDONALD'S CONSTRUCTION MANAGER. REFER TO CONSTRUCTION DETAIL SHEETS.
K. PROPOSED GUARDRAIL. REFER TO CONSTRUCTION DETAIL SHEETS.
L. PROPOSED YELLOW DRIVE-THRU DIRECTION PAVEMENT MARKINGS. REFER TO CONSTRUCTION DETAIL SHEETS.
M. PROPOSED YELLOW PAINTED "DRIVE THRU" PAVEMENT MARKINGS. REFER TO CONSTRUCTION DETAIL SHEETS.
N. PROPOSED 6" WIDE YELLOW PAINTED STRIPE. REFER TO CONSTRUCTION DETAIL SHEETS.
O. PROPOSED YELLOW PAINTED "THANK YOU" PAVEMENT PARKING. REFER TO CONSTRUCTION DETAIL SHEETS.
P. PROPOSED DIRECTIONAL SITE ARROWS. REFER TO CONSTRUCTION DETAIL SHEETS.
Q. PROPOSED LANDSCAPE AREA.
R. PROPOSED TRASH ENCLOSURE.
S. PROPOSED CURB TRANSITION. REFER TO CONSTRUCTION DETAIL SHEETS.
T. PROPOSED YARD INLET. REFER TO CONSTRUCTION DETAIL SHEETS.
U. PROPOSED MITERED END SECTION PIPE CUT GROUTED WITH RIP RAP.
V. PROPOSED RIP RAP.

GENERAL NOTES:

THIS DRAWING REFERENCES: BOUNDARY & TOPOGRAPHIC SURVEY
APN: 035-510-006, LOT 5
OAKLEY
CONTRA COSTA COUNTY, STATE OF CALIFORNIA
PREPARED BY: ZIEBATECH LAND SURVEYING
DATED: 02/27/2020

APPLICANT: McDONALD'S CORPORATION
110 N CARPENTER ST.
CHICAGO, IL 60607

PROPERTY OWNER: OHARA PROPERTIES LLC
3820 BLACKHAWK ROAD
DANVILLE, CA 94506

1) SITE ADDRESS: TBD LAUREL RD
OAKLEY, CA 94561
CONTRA COSTA COUNTY, STATE OF CALIFORNIA

2) ZONING DATA:
21-3.5

ZONED: RB - RETAIL BUSINESS
EXISTING USE: VACANT LAND

PROPOSED USE: RESTAURANT
(PERMITTED)

	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA:	0.344 AC (3,500 S.F.)	1.709 AC. (74,443 S.F.)	1.709 AC (74,443 S.F.)
MIN. LOT FRONTAGE:	35'	213.11'	231.11'
MIN. LOT WIDTH:	N/A	200.00'	200.00'
MIN. FRONT YARD:	10'	N/A	53.28' (S)
MIN. SIDE YARD:	10'	N/A N/A	143.88' (E) 58.96' (W)
MIN. REAR YARD:	0'	N/A	149.64' (N)
MAX. IMPERVIOUS SURFACE:	N/A	48.89% (36,390 S.F.)	64.41% (47,948 S.F.)
MAX. HEIGHT:	35'	N/A	18'-10"

3) PARKING REQUIREMENTS:
9.1.1402

1 SPACE PER 150 SQUARE FEET OF NET PUBLIC AREA.

4,299 S.F. X (1/150) = 29 SPACES
REQUIRED = 29 SPACES

EXISTING McDONALD'S AREA PARKING: 69 SPACES (INCLUDING 0 ACCESSIBLE SPACES)
PROPOSED McDONALD'S AREA PARKING: 81 SPACES (INCLUDING 3 ACCESSIBLE SPACES)

PARKING STALL DIMENSIONS:
EXISTING: VARIES
REQUIRED: 9'X19'
PROPOSED: 9'X19'

4) ALL EXISTING FEATURES ARE TO REMAIN UNLESS OTHERWISE NOTED.
5) ALL PAVEMENT MARKINGS SHALL BE LONG LIFE EPOXY.
6) PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
7) ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
8) ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
9) SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
10) ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
11) CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.

SITE LEGEND

- EXISTING PROPERTY BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING ROAD CENTERLINE
- PROPOSED ROAD CENTERLINE
- PROPOSED DITCH CENTERLINE
- PROPOSED LIMITS OF BMP / DETENTION
- PROPOSED SAWCUT LINE
- EXISTING CURB
- PROPOSED CURB
- PROPOSED MOUNTABLE CURB
- PROPOSED BUILDING
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- EXISTING SANITARY STRUCTURES
- EXISTING WATER STRUCTURES
- PROPOSED PARKING COUNT

811
Know what's below.
Call before you dig.

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. CORE STATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

REV	DATE	DESCRIPTION	BY

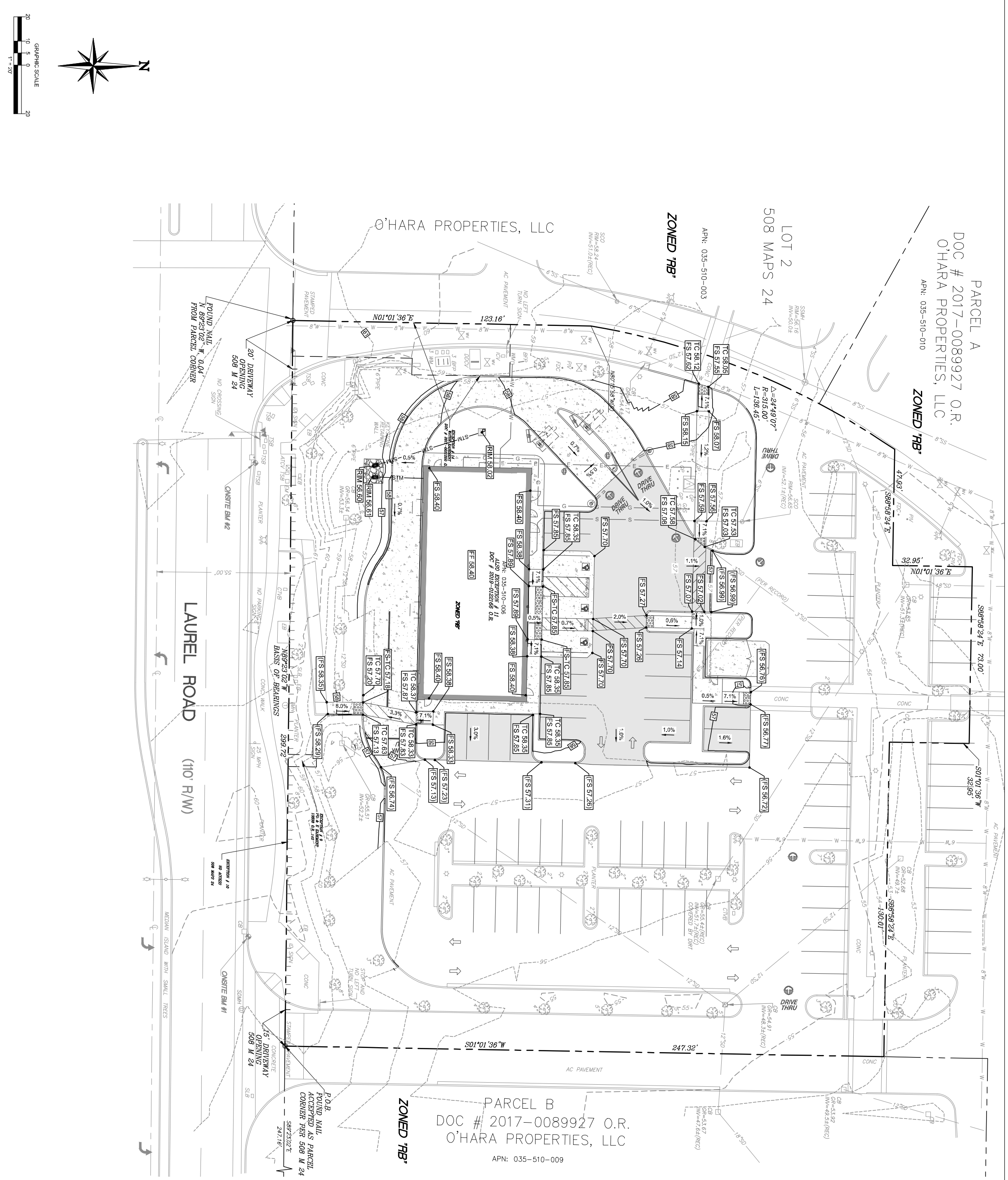
CORE STATES INC.
4240 East Jurupa Street, Suite 402
Ontario, CA 91761
Phone: (909) 467-8907
SAnti@core-eng.com

PREPARED FOR:
McDonald's USA, LLC

DRAWN BY	JO
STD ISSUE DATE	2020
REVIEWED BY	TV
DATE ISSUED	07/14/2020
CSG PROJECT #	MCD-26879
TITLE	CONCEPT PLAN FOR McDONALD'S OAKLEY, CA
SHEET	SITE PLAN
SITE ID	MCD-26879
SITE ADDRESS	LAUREL RD, OAKLEY, CA 94561
SHEET NO.	MCD-26879 C4

ATTACHMENT 3

GRADING PLAN



CUT/FILL VOLUMES

CUT	8.3 CY
FILL	835.1 CY
NET	826.81 CY

GRADING LEGEND

- EXISTING PROPERTY BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING ROAD CENTERLINE
- PROPOSED ROAD CENTERLINE
- PROPOSED DITCH CENTERLINE
- PROPOSED LIMITS OF BMP / DETENTION
- EXISTING 5' INTERVAL CONTOUR LINE
- EXISTING 1' INTERVAL CONTOUR LINE
- PROPOSED 5' INTERVAL CONTOUR LINE
- PROPOSED 1' INTERVAL CONTOUR LINE
- TC XX.XX / RIM XX.XX / FS XX.XX — PROPOSED SPOT SHOTS
- EXISTING CURB
- PROPOSED CURB
- PROPOSED MOUNTABLE CURB
- PROPOSED BUILDING
- EXISTING SANITARY STRUCTURES
- EXISTING WATER STRUCTURES
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING UNDERGROUND ELECTRIC
- EXISTING TELEPHONE
- EXISTING OVERHEAD WIRES
- EXISTING SANITARY
- EXISTING STORM

811 Know what's below. Call before you dig.

SHEET NO.	TITLE	DRAWN BY	PREPARED FOR:
C5 MCD-26879	CONCEPT PLAN FOR McDONALD'S OAKLEY, CA	JO	McDonald's USA, LLC
		STD ISSUE DATE 2020	
	SHEET: GRADING PLAN	REVIEWED BY TV	
		DATE ISSUED 07/14/2020	
	SITE ID MCD-26879 / SITE ADDRESS LAUREL RD, OAKLEY, CA 94561	CSG PROJECT # MCD-26879	

CORE STATES INC.
4240 East Jurupa Street, Suite 402
Ontario, CA 91761
Phone: (909) 467-8907
SAnti@core-eng.com

REV	DATE	DESCRIPTION	BY

ATTACHMENT 4

PREVIOUSLY PERMITTED STORMWATER QUALITY CONTROL PLANS

STORM WATER QUALITY CONTROL PLAN & REPORT

RETAIL CENTER

Proposed Parcels 1 – 5
North of Laurel Road & West of O'Hara Avenue
Contra Costa County
Oakley, CA

Prepared For:

O'HARA PROPERTIES, INC.
3820 BLACKHAWK ROAD
P.O. BOX 807
DANVILLE, CA 94526
(925) 736-1571

Prepared By:

ams associates, Inc.
85 Moraga Way, Suite 200
Orinda, CA 94563
(925) 253-2777

Date Revised: December 1, 2009

TABLE OF CONTENTS

STORMWATER QUALITY CONTROL CRITERIA PLAN

for

RETAIL CENTER
OAKLEY, CA

I. WATER QUALITY

A. Regulatory Requirements

Surface water quality is subject to federal, state and local water quality requirements. General requirements are shown in the following table and discussed in more detail below.

Water Quality Requirement	Enforcing Agency
Clean Water Act	United States Environmental Protection Agency (USEPA), but largely delegated to the SWRCB and RWQCB.
National Pollutant Discharge Elimination System Permit (NPDES)	California State Water Resources Control Board (SWRCB)
Municipal Separate Storm Sewer System Permit (MS4)[1]	Regional Water Quality Control Board (RWQCB)
Stormwater C-3 Guidebook	City of Oakley

The federal Clean Water Act (33 U.S.C. §§1251 et seq.) is the principal federal statute governing water quality. The Goal of the Clean Water Act is to protect the physical, chemical and biological integrity of the waters of the United States. The Clean Water Act requires the State to adopt water quality standards for water bodies and have those standards approved by the EPA. The California state agencies that set water quality standards are the California State Water Resources Control Board (SWRCB) and the Regional water Quality Control Boards (RWQCBs) that are under the SWRCB's purview. Water quality standards consist of a designated beneficial use or uses for a particular water body, along with water quality objectives based upon these uses {40 C.F.R. §131.3(i)}. Designated beneficial uses of water bodies describe the appropriate uses of that water body, such as contact recreation, warm water habitat and municipal or drinking water uses. Water quality objectives are limits or levels of water pollutants and/or narrative statements that represent the quality of water that support a particular use.

Under the Clean Water Act, National Pollutant Discharge Elimination System (NPDES) permits require effluent limits necessary to meet water quality control standards for pollutants that may cause or contribute to an exceedence of a State Water Quality Control Standard (40 C.F.R. §122.44). NPDES permits may establish enforceable effluent limitations on discharges, require monitoring of discharges, designate reporting requirements, or require the permittee to perform Best Management Practices (BMPs). BMPs are procedures designed to minimize the release of pollutants. BMPs may be used in addition to numeric effluent limitations, or, in some cases, in lieu of numeric effluent limitations {40 C.F.R § 122.44(k)}. When application of numeric effluent limitations is technically infeasible, such as in permits governing stormwater discharges, effluent limitations are expressed as BMPs.

The medium MS4 (Order No. R-2002-0181) is the NPDES permit governing stormwater discharges and certain non-stormwater discharges to the public storm drain system within the City of Oakley and County of Contra Costa under the Central Valley RWQCB. The medium MS4 Permit relies primarily on the Stormwater C-3 Guidebook, which sets forth BMPs and other water quality control measures to manage water quality for stormwater discharges to the municipal storm drain system. The Stormwater C-3 Guidebook is administered by the City of Oakley. The Central Valley RWQCB has determined that compliance with the Stormwater C-3 Guidebook (as it will be modified pursuant to the MS4 Permit) meets the permitting requirements of the medium MS4. The Stormwater C-3 Guidebook is the principal policy and guidance document for the area-wide NPDES Stormwater Program and the Stormwater C-3 Guidebook addresses post-construction, long-term water quality management.

II. PROJECT DESCRIPTIONS

A. Development Characteristics

The proposed commercial site is approximately 6.88± acres irregularly shaped. The subject property is located North of Laurel Road and West of O'Hara Avenue in Oakley, Contra Costa County, California. The subject property is zoned as PD with Flood Zone 'X' (Panel # 0600250355B). This includes the existing one (1) parcel with APN#: 035-510 - 001.

III. SITE DESCRIPTION

The temporary project name is Retail Center. Refer to the Vicinity Map exhibit provided in Section IX of this report for location of the project site and surrounding planning areas.

A. Existing Site Features and Conditions

Currently, the site is bound by an existing residential development to the north and west. There are open fields to the east, across O'Hara Avenue and Laurel Road to the South. The site slopes from a high of approximately 55 ft. in the Southwestern corner to approximately 45 ft. above the main sea level near the Northeastern corner of the property. Please see survey in Section IX of this report.

This report prepared by ams associates, inc. for 6.88± acres of the site. The entire site is 7.01± acres of which 0.13± acre will be part of a future dedication to the city.

B. Groundwater

According to the Geotechnical Report prepared by ENGEO, Incorporated, the subsurface assessments conducted within the general site vicinity have identified groundwater at depths between 15 and 30 ft. Fluctuations in groundwater levels are expected to occur seasonally in response to changes in precipitation, irrigation and other factors. Soils at the site are all mapped by the Geotechnical Survey as Delhi Sand (DaC), Group A.

Note: Reference from ENGEO Incorporated Geological Report dated of May 7th, 2002 & Project No. 5514.3.001.01

IV. MEASURES TO LIMIT IMPERVIOUSNESS

A. Site Pre-Construction vs. Post-Construction

The total area of the existing Parcel 1 is 7.01± acres. The existing site is covered with open fields.

This report prepared by ams associates, inc. for 6.88 ± acres of the site, included in Parcel 1 (1.97 ± acres), Parcel 2 (0.79 ± acre), Parcel 3 (0.50 ± acre), Parcel 4 (1.91 ± acres) and Parcel 5 (1.71 ± acres).

The proposed Site Plan shown consists of 17,341 Sq. Ft. of a Rite Aid building which will not be built at this moment, 4,000 Sq. Ft. of bank, 6,000 Sq. Ft. of Shops A, 15,000 Sq. Ft of Shops B and 13,969 Sq. Ft. of a Fresh & Easy building with 5,769 ± Sq. Ft. (0.13± acres) of a future dedication along O'Hara Avenue.

The proposed site will provide approximately 2.87 ± acres of Bioretention, Self-Treating, and Self-Retaining.

B. Measure Used to Limit Directly Connected Impervious Areas

The proposed site will construct 20,495 ± Sq. Ft. (0.47 acre) of Bioretention, 23,187 ± Sq. Ft. (0.53 acre) of Self-Treating and 81,633 ± Sq. Ft. (1.87 acre) of Self-Retaining.

In summary, we will be providing over one acre of Bioretention which does not currently exist.

V. SELECTION AND PRELIMINARY DESIGN OF TREATMENT AND HYDROGRAPH MODIFICATION BMPs

1. Please see next page.

Project Name: Laurel Retail Center
Project Type: Treatment and Flow Control
APN: 035-510-001
Drainage Area: 299,750
Mean Annual Precipitation: 11.3

Self-Treating DMAs

DMA Name	Area (sq ft)
DMA3	3,227.0
DMA4	1,879.0
DMA5	1,098.0
DMA26	2,353.0
DMA27	2,526.0
DMA28	12,104.0

II. Self-Retaining Areas

Self-Retaining DMA	
DMA Name	**Area (sq ft)**
DMA20	81,633

III. Areas Draining to Self-Retaining Areas

DMA Name	Area (sq ft)	Surface Type	Runoff Factor	Product (Area x Runoff Factor) [A]	Receiving Self Retaining DMA	Receiving Self-Retaing DMA Area (sq ft) [B]	Ratio [A]/[B]
DMA2	2995	Concrete or Asphalt	1.0	2,995.0	DMA20	81,633	0.04
DMA8	6481	Concrete or Asphalt	1.0	6,481.0	DMA20	81,633	0.08
DMA11	5118	Concrete or Asphalt	1.0	5,118.0	DMA20	81,633	0.06

IV. Areas Draining to IMPs

IMP Name: IMP6
IMP Type: Bioretention Facility
Soil Group: IMP6

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA12	5,993	Concrete or Asphalt	1.00	5,993
			Total	5,993

IMP Sizing

IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area 0.070	0.885	371	2,039

Surface Volume	0.058	0.885	308	1,019

IMP Name: IMP8
IMP Type: Bioretention Facility
Soil Group: IMP8

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA9	9,762	Concrete or Asphalt	1.00	9,762
			Total	9,762

IMP Sizing

	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.070	0.885	605	1,800
Surface Volume	0.058	0.885	501	900

IMP Name: IMP10
IMP Type: Bioretention Facility
Soil Group: IMP10

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA14	3,750	Concrete or Asphalt	1.00	3,750
			Total	3,750

IMP Sizing

	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.070	0.885	232	2,823
Surface Volume	0.058	0.885	192	1,411

IMP Name: IMP11
IMP Type: Bioretention Facility
Soil Group: IMP11

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA22	7,620	Conventional Roof	1.00	7,620
			Total	7,620

IMP Sizing

	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
Area	0.070	0.885	472	3,060
Surface Volume	0.058	0.885	391	1,530

IMP Name: IMP13A
IMP Type: Bioretention Facility
Soil Group: IMP13A

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA1	19,317	Concrete or Asphalt	1.00	19,317
DMA10	9,126	Concrete or Asphalt	1.00	9,126

IMP Sizing

IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume

Total	28,443				
Area		0.070	0.885	1,762	2,665
Surface Volume		0.058	0.885	1,460	1,980

IMP Name: IMP13B
IMP Type: Bioretention Facility
Soil Group: IMP13B

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA13	7,139	Concrete or Asphalt	1.00	7,139
DMA15	3,082	Concrete or Asphalt	1.00	3,082
DMA16	23,677	Concrete or Asphalt	1.00	23,677
DMA17	8,685	Concrete or Asphalt	1.00	8,685
DMA18	19,156	Concrete or Asphalt	1.00	19,156
DMA21	6,519	Conventional Roof	1.00	6,519
DMA23	4,356	Conventional Roof	1.00	4,356
DMA25	18,630	Conventional Roof	1.00	18,630
		Total		91,244

IMP Sizing			
IMP Sizing Factor	**Rain Adjustment Factor**	**Minimum Area or Volume**	**Proposed Area or Volume**
Area	0.070	0.885	5,652	5,682
Surface Volume	0.058	0.885	4,683	4,800

IMP Name: IMP13C
IMP Type: Bioretention Facility
Soil Group: IMP13C

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA24	7,126	Conventional Roof	1.00	7,126
		Total		7,126

IMP Sizing			
IMP Sizing Factor	**Rain Adjustment Factor**	**Minimum Area or Volume**	**Proposed Area or Volume**
Area	0.070	0.885	441	2,426
Surface Volume	0.058	0.885	366	1,801

Report generated on 11/30/2009 12:00:00 AM by the Contra Costa Clean Water Program IMP Sizing Tool software (version 1.3.1.0).

VI. STORM WATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

1. Please see next 10 pages.

APPENDIX E—STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions on pages 34-35 of the *Stormwater C.3 Guidebook*):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your Stormwater Control Plan drawings.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in a table in your Stormwater Control Plan. Use the format shown in Table 3-1 on page 35 of the *Guidebook*. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	**... THEN YOUR STORMWATER CONTROL PLAN SHOULD INCLUDE THESE SOURCE CONTROL BMPs**		
1 **Potential Sources of Runoff Pollutants**	**2** **Permanent Controls—Show on Stormwater Control Plan Drawings**	**3** **Permanent Controls—List in Stormwater Control Plan Table and Narrative**	**4** **Operational BMPs—Include in Stormwater Control Plan Table and Narrative**
☒ **A. On-site storm drain inlets**	☒ Locations of inlets.	☒ Mark all inlets with the words "No Dumping! Flows to Bay" or similar.	☒ Maintain and periodically repaint or replace inlet markings. ☒ Provide stormwater pollution prevention information to new site owners, lessees, or operators. ☐ See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com ☒ Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."

APPENDIX E—STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR STORMWATER CONTROL PLAN SHOULD INCLUDE THESE SOURCE CONTROL BMPs		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on Stormwater Control Plan Drawings**	3 **Permanent Controls—List in Stormwater Control Plan Table and Narrative**	4 **Operational BMPs—Include in Stormwater Control Plan Table and Narrative**
☒ **B.** Interior floor drains and elevator shaft sump pumps		☒ State that interior floor drains and elevator shaft sump pumps will be plumbed to `bioretention area`.	☒ Inspect and maintain drains to prevent blockages and overflow.
☐ **C.** Interior parking garages		☐ State that parking garage floor drains will be plumbed to the sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.
☐ **D1.** Need for future indoor & structural pest control		☐ Note building design features that discourage entry of pests.	☐ Provide Integrated Pest Management information to owners, lessees, and operators.

APPENDIX E—STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR STORMWATER CONTROL PLAN SHOULD INCLUDE THESE SOURCE CONTROL BMPs		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on Stormwater Control Plan Drawings**	3 **Permanent Controls—List in Stormwater Control Plan Table and Narrative**	4 **Operational BMPs—Include in Stormwater Control Plan Table and Narrative**
☒ **D2.** Landscape/ Outdoor Pesticide Use	☒ Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. ☒ Show self-retaining landscape areas, if any. ☒ Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)	State that final landscape plans will accomplish all of the following. ☒ Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. ☒ Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. ☒ Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. ☒ Consider using pest-resistant plants, especially adjacent to hardscape. ☒ To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	☒ Maintain landscaping using minimum or no pesticides. ☒ See applicable operational BMPs in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com ☒ Provide IPM information to new owners, lessees and operators.
☐ **E.** Pools, spas, ponds, decorative fountains, and other water features.	☐ Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)	If the local municipality requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.	☐ See applicable operational BMPs in Fact Sheet SC-72, "Fountain and Pool Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

APPENDIX E—STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on Stormwater Control Plan Drawings**	3 **Permanent Controls—List in Stormwater Control Plan Table and Narrative**	4 **Operational BMPs—Include in Stormwater Control Plan Table and Narrative**
☒ F. Food service	☒ For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment. ☒ On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.	☒ Describe the location and features of the designated cleaning area. ☒ Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.	☒ See the brochure, "Water Pollution Prevention Tips to Protect Water Quality and Keep Your Food Service Facility Clean." Provide this brochure to new site owners, lessees, and operators.
☒ G. Refuse areas	☒ Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas. ☒ If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area. ☒ Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.	☒ State how site refuse will be handled and provide supporting detail to what is shown on plans. ☒ State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.	☒ State how the following will be implemented: Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

APPENDIX E—STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR STORMWATER CONTROL PLAN SHOULD INCLUDE THESE SOURCE CONTROL BMPs		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on Stormwater Control Plan Drawings**	3 **Permanent Controls—List in Stormwater Control Plan Table and Narrative**	4 **Operational BMPs—Include in Stormwater Control Plan Table and Narrative**
❑ **H.** Industrial processes.	❑ Show process area.	❑ If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."	❑ See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
❑ **I.** Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)	❑ Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area. ❑ Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults. ❑ Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.	Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains. Where appropriate, reference documentation of compliance with the requirements of Contra Costa Hazardous Materials Programs for: ▪ Hazardous Waste Generation ▪ Hazardous Materials Release Response and Inventory ▪ California Accidental Release (CalARP) ▪ Aboveground Storage Tank ▪ Uniform Fire Code Article 80 Section 103(b) & (c) 1991 ▪ Underground Storage Tank www.cchealth.org/groups/hazmat/	❑ See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

APPENDIX E—STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR STORMWATER CONTROL PLAN SHOULD INCLUDE THESE SOURCE CONTROL BMPs		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on Stormwater Control Plan Drawings**	3 **Permanent Controls—List in Stormwater Control Plan Table and Narrative**	4 **Operational BMPs—Include in Stormwater Control Plan Table and Narrative**
❑ J. Vehicle and Equipment Cleaning	❑ Show on drawings as appropriate: (1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses. (2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use). (3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer. (4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.	❑ If a car wash area is not provided, describe measures taken to discourage on-site car washing and explain how these will be enforced.	Describe operational measures to implement the following (if applicable): ❑ Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system. ❑ Car dealerships and similar may rinse cars with water only. See Fact Sheet SC-21, "Vehicle and Equipment Cleaning," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

APPENDIX E—STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on Stormwater Control Plan Drawings**	3 **Permanent Controls—List in Stormwater Control Plan Table and Narrative**	4 **Operational BMPs—Include in Stormwater Control Plan Table and Narrative**
❑ **K.** Vehicle/Equipment Repair and Maintenance	❑ Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater. ❑ Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas. ❑ Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.	❑ State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area. ❑ State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements. ❑ State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.	In the Stormwater Control Plan, note that all of the following restrictions apply to use the site: ❑ No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains. ❑ No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately. ❑ No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.

APPENDIX E—STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on Stormwater Control Plan Drawings**	3 **Permanent Controls—List in Stormwater Control Plan Table and Narrative**	4 **Operational BMPs—Include in Stormwater Control Plan Table and Narrative**
❑ L. Fuel Dispensing Areas	❑ Fueling areas[1] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable. ❑ Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.		❑ The property owner shall dry sweep the fueling area routinely. ❑ See the Business Guide Sheet, "Automotive Service—Service Stations" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

[1] The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

APPENDIX E—STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on Stormwater Control Plan Drawings**	3 **Permanent Controls—List in Stormwater Control Plan Table and Narrative**	4 **Operational BMPs—Include in Stormwater Control Plan Table and Narrative**
☒ **M.** Loading Docks	☒ Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer. ☒ Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation. ☒ Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.		☒ Move loaded and unloaded items indoors as soon as possible. ☒ See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
☒ **N.** Fire Sprinkler Test Water		☒ Provide a means to drain fire sprinkler test water to the sanitary sewer.	☒ See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

APPENDIX E—STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR STORMWATER CONTROL PLAN SHOULD INCLUDE THESE SOURCE CONTROL BMPs		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on Stormwater Control Plan Drawings**	3 **Permanent Controls—List in Stormwater Control Plan Table and Narrative**	4 **Operational BMPs—Include in Stormwater Control Plan Table and Narrative**
O. Miscellaneous Drain or Wash Water ☐ Boiler drain lines ☐ Condensate drain lines ☒ Rooftop equipment ☒ Drainage sumps ☒ Roofing, gutters, and trim.		☐ Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system. ☐ Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system. ☒ Rooftop mounted equipment with potential to produce pollutants shall be roofed and/or have secondary containment. ☒ Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water. ☒ Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff.	
☒ **P.** Plazas, sidewalks, and parking lots.			☒ Plazas, sidewalks, and parking lots shall be swept regularly to prevent the accumulation of litter and debris. Debris from pressure washing shall be collected to prevent entry into the storm drain system. Washwater containing any cleaning agent or degreaser shall be collected and discharged to the sanitary sewer and not discharged to a storm drain.

VII. BEST MANAGEMENT PRACTICES

This section discusses the Best Management Practices (BMPs) for new development and redevelopment to reduce predictable pollutants in run-off entering Storm Drain Systems that drain to the Bay. The Control Measures of the BMPs listed herein:

A. General Site Design Control Measures

1. Conserve Natural Areas
   _____ applicable __X__ not applicable

There are no natural areas to be conserved in this project site. The site is covered with vacant dirt with native vegetation.

2. Protect Slopes and Channels
   __X__ applicable _____ not applicable

There aren't some proposed swales or ditches located on this project that need to be protected.

3. Minimize Impervious Area
   _____ applicable __X__ not applicable

We are providing Bio-Swales per the Contra Costa Clean Water Program.

B. Site Specific Source Control Measures

1. Storm Drain Message and Signage
   __X__ applicable _____ not applicable

The Catch Basin Storm Drain message will be legibly stenciled in clear view, according to the Contra Costa Clean Water Program and will be approved by the City of Oakley's Inspector.

2. Outdoor Material Storage Area Design
   _____ applicable __X__ not applicable

We do not provide Outdoor Material Storage to house merchandise at this moment.

3. Outdoor Trash Storage and Waste Handling Area Design
__X__ applicable _____ not applicable

Trash Enclosures are to be constructed for this project. Screen Wall and Roof to be provided as part of the construction of the Enclosures. Containers or dumpsters are to be leakproof and lids are to be waterproof. Signs are to be posted on all dumpsters informing users that hazardous materials are not to be disposed of therein.

4. Outdoor Loading/Unloading Dock Area Design
__X__ applicable _____ not applicable

The loading dock for Fresh & Easy will be designed as a dock leveler pit per the standard requirements from BMP.

5. Outdoor Vehicle/Equipment/Accessory Washing Area
_____ applicable __X__ not applicable

6. Fueling Area Design
_____ applicable __X__ not applicable

7. Refuse Area
__X__ applicable _____ not applicable

It is potential for the site to have refuse areas. It is owner's responsibility to provide the method and means of disposing refuse from the agreement.

C. Treatment Control Measures

The BMPs Treatment Control Measures are designed to treat the more frequent, low-flow storm events or first flush portions of run-off from larger storm events.

We are proposing the construction of Bio-Swales for the treatment control for the referenced project.

D. BMP Inspection and Maintenance

The following documents (Please see next 3 pages) included are to be used in conjunction with inspection and maintenance to properly adhere to the BMPs:

- BMP Inspection and Maintenance Responsibility
- Designation of Individuals Responsible for Stormwater Treatment BMP
- Stormwater BMP Inspection and Maintenance Log

BMP Inspection and Maintenance Responsibility

BMP Designation	Responsible Party	Description of Inspection and Maintenance Activity	Frequency of Maintenance
Storage Drain Message and Signage	O'Hara Properties, Inc.	Inspect stenciling for legibility. Re-stencil as necessary.	Bi-annual maintenance
Catch basins	O'Hara Properties, Inc.	To be inspected and cleaned of all debris and sediment.	Bi-annual maintenance
Vegetated Swales	O'Hara Properties, Inc.	Inspect swale for erosion, damage to vegetation and sediment, debris and litter accumulations. Repair damage areas within the channel and remove debris, litter and sediment. Extra watering during drought conditions and reseeding of bare areas-application of fertilizers and pesticides should be minimal.	Monthly maintenance and additional maintenance after a significant storm event

Designation of Individuals Responsible for Stormwater Treatment BMP Operation and Maintenance	
Date Completed	
Facility Name	
Facility Address	
Designated Contact for Operation and Maintenance	
Name:	Title or Position:
Telephone:	Alternate Telephone:
Email:	
Off-Hours or Emergency Contact	
Name:	Title or Position:
Telephone:	Alternate Telephone:
Email:	
Corporate Officer (authorized to execute contracts with the City, Town, or County)	
Name:	Title or Position:
Address:	
Telephone:	Alternate Telephone:
Email:	

Stormwater BMP Inspection and Maintenance Log

Facility Name	
Address	
Begin Date	End Date

Date	BMP ID#	BMP Description	Inspected by:	Cause for Inspection	Exceptions Noted	Comments and Actions Taken

Instructions: Record all inspections and maintenance for all treatment BMPs on this form. Use additional log sheets and/or attach extended comments or documentation as necessary. Submit a copy of the completed log with the annual independent inspectors' report to the municipality, and start a new log at that time.

- BMP ID# — Always use ID# from the Operation and Maintenance Manual.
- Inspected by — Note all inspections and maintenance on this form, including the required independent annual inspection.
- Cause for inspection — Note if the inspection is routine, pre-rainy-season, post-storm, annual, or in response to a noted problem or complaint.
- Exceptions noted — Note any condition that requires correction or indicates a need for maintenance.
- Comments and actions taken — Describe any maintenance done and need for follow-up.

IX. EXHIBITS

Exhibit A – Vicinity Map

Exhibit B – Site Map

Exhibit C – Topographic Survey (Existing Condition)

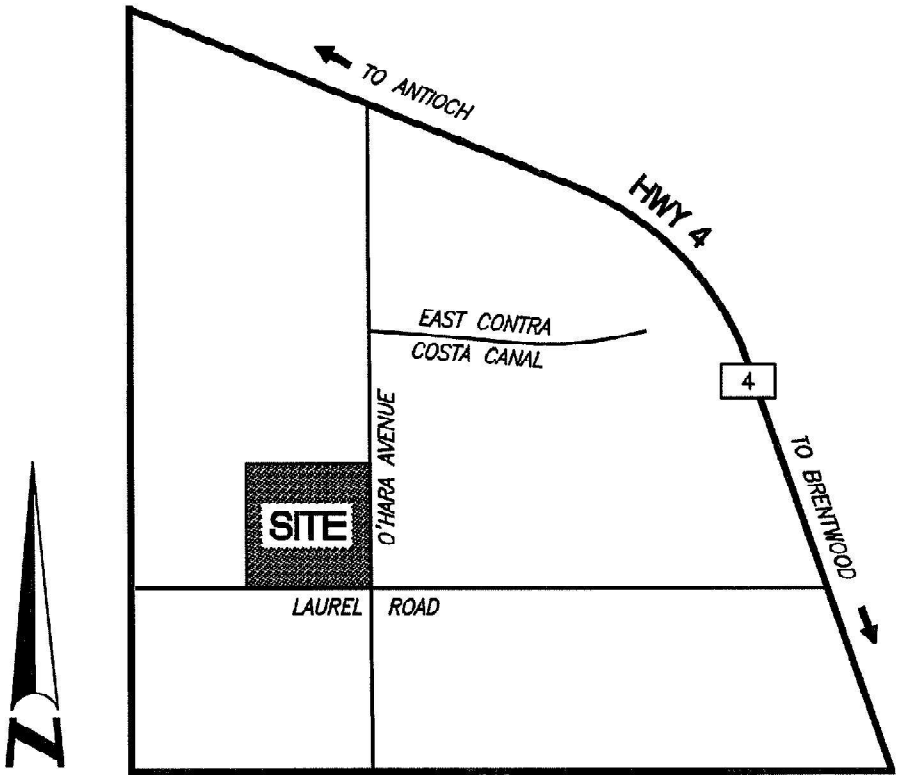
Exhibit D – Grading Plan

Exhibit E – Utility Plan

Exhibit F – Stormwater Control Plan

VICINITY MAP

N. T. S.



LEGEND:

1. PARKING LIGHT, SEE ELECTRICAL AND ARCH. FOR DETAIL
2. RAISED WALKWAY(SEE DETAIL 5 SHEET C-3)
3. 4' SCREEN WALL WITH TRELLIS (SEE FRESH & EASY ARCH. PLAN FOR DETAIL)
4. 6' HIGH WROUGHT IRON FENCE WITH GATE(SEE ARCH. DRAWINGS FOR DETAIL)
5. 8' HIGH MASONRY WALL, TYP.(SEE STRUCTURAL PLANS FOR DETAIL)
6. BIKE RACK (SEE ARCH. PLANS FOR DETAIL)
7. INSTALL HANDRAIL(SEE FRESH & EASY ARCH. PLANS FOR DETAIL)
8. STAMPED ASPHALT(SEE ARCH. PLANS FOR DETAIL)
9. SEE OFFSITE PLAN FOR O'HARA AVE. IMPROVEMENT
10. MONUMENT SIGN TYP.(SEE SIGN PACKAGE AND ARCH. PLANS FOR DETAIL)
11. CART CORRAL (SEE ARCH. DRAWINGS FOR DETAIL)
12. 4' SCREEN WALL (SEE ARCH. DRAWINGS FOR DETAIL)
13. 4' SIDEWALK
14. RED ROLLED CURB FOR FIRE ACCESS
15. REMOVE EXISTING BARRICADE
16. 10' TO 11'± HIGH MASONRY WALL, TYP.(SEE STRUCTURAL PLANS FOR DETAILS)
17. INSTALL HANDRAIL (SEE ARCH. DRAWINGS FOR DETAIL)
18. TRASH ENCLOSURE (SEE ARCH. DRAWINGS FOR DETAIL)
19. 6' SIDEWALK
20. CONSTRUCT GRAVITY WALL, SEE STRUCTURAL PLAN FOR DETAIL

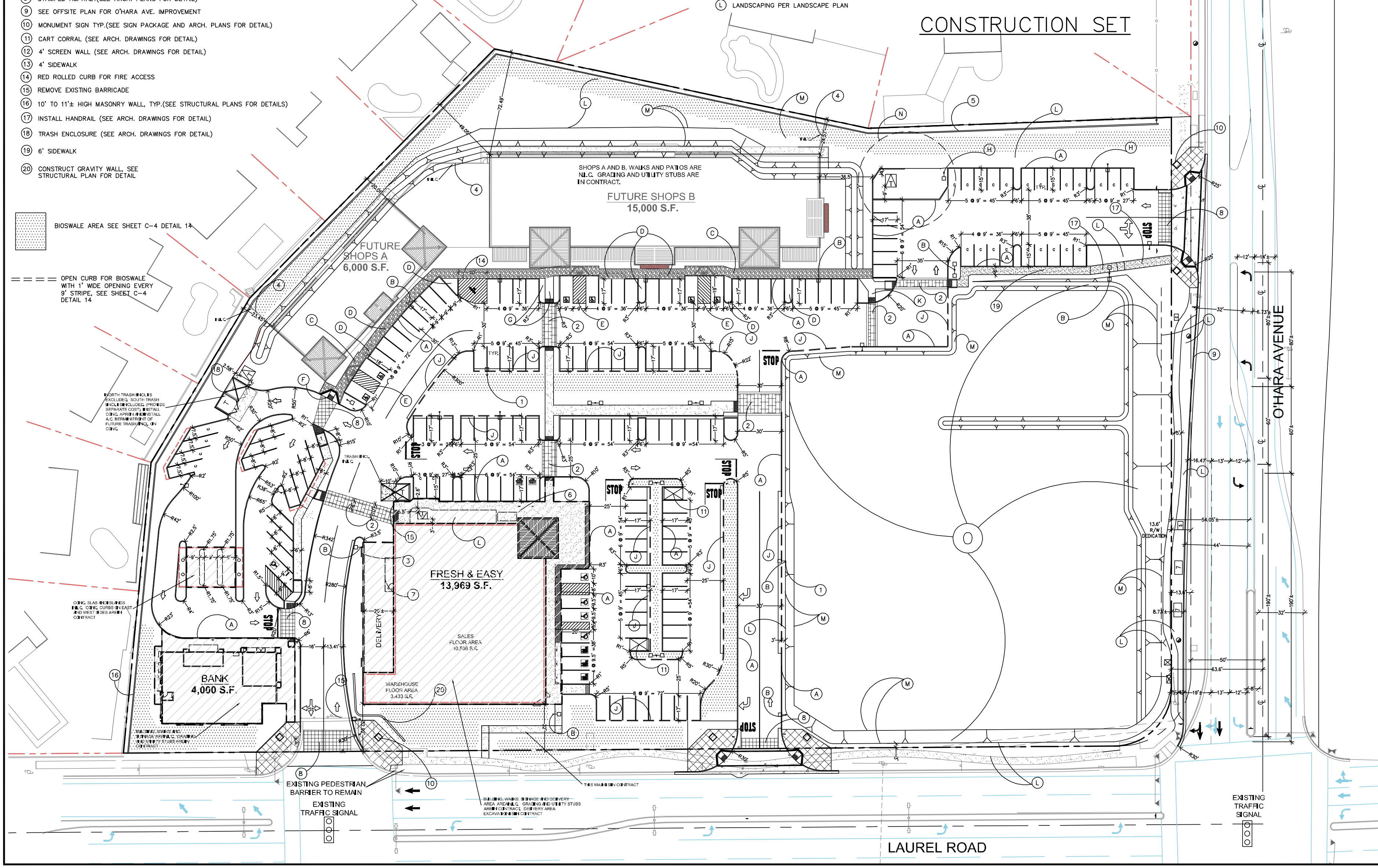
BIOSWALE AREA SEE SHEET C-4 DETAIL 14

OPEN CURB FOR BIOSWALE WITH 1' WIDE OPENING EVERY 9' STRIPE, SEE SHEET C-4 DETAIL 14

PHASE ONE NOTES:

- (A) CONCRETE CURB IN CONTRACT
- (B) LIGHTS ARE IN CONTRACT UNLESS OTHERWISE NOTED (TYPICAL)
- (C) TEMPORARY ASPHALT WALK 7' WIDE X 2" THICK. WIDEN WHERE NECESSARY TO PROVIDE 4' CLEARANCE AT LIGHT POLES.
- (D) EXCLUDE LANDSCAPING IN THESE PLANTERS. PROVIDE IRRIGATION STUBS
- (E) DELETE CURB DEPRESSION (USE VERTICAL CURB). DELETE RAMPS, SIGNAGE AND HANDICAP LOGOS. PAINT AS 3 STANDARD STALLS AT EACH LOCATION. (APPLIES TO SHOPS A&B ONLY).
- (F) INCLUDE CONCRETE HANDICAP ACCESS AT THIS LOCATION
- (G) INCLUDE LANDSCAPING, CONCRETE WALK AND HANDICAP ACCESS AT THIS LOCATION
- (H) MOVE TWO LIGHTS INTO PLANTERS
- (I) DELETE THESE LIGHTS
- (J) SLOTTED CONCRETE CURB
- (K) CONSTRUCT WALKWAY
- (L) LANDSCAPING PER LANDSCAPE PLAN
- (M) INSTALL MESH AND HYDROSEED THESE SLOPES
- (N) SEE GRADING PLAN. DELETE TRASH ENCLOSURES AND INSTALL CURB. PROVIDE TEMPORARY LANDSCAPING AND IRRIGATION IN AREA OF FUTURE TRASH ENCLOSURES.
- (O) DEVELOPMENT WITHIN THIS AREA IS FUTURE. ALL SURFACE IMPROVEMENTS ARE N.I.C. GRADING AND UTILITY STUBS ARE IN CONTRACT. PARTIAL LANDSCAPING IS IN CONTRACT. UTILITY STUBS TO INCLUDE SEWER, WATER, STORM DRAIN, GAS, ELECTRICAL, TELEPHONE, CABLE TV, LANDSCAPE IRRIGATION AND SITE LIGHTING

CONSTRUCTION SET



GRAPHIC SCALE
1" = 30'

DATE:	11-02-09	REV #	BY	DATE	DESCRIPTION
SCALE:	1" = 30'	4	LM	07-23-09	REVISION OF THE ADA WALK
DESIGNED:	LM	5	LM	11-02-09	ISSUED FOR DELTA 5
DRAWN:	LK				
CHECKED:	FI				
PROJ. MGR:	LM				
FILE PATH:					

ams associates, inc. PLANNING ENGINEERING SURVEYING
85 MORAGA WAY
SUITE 200
ORINDA, CA 94563
925-253-2777 FAX 925-253-2778

HORIZONTAL CONTROL PLAN
BLACKHAWK PROPERTIES INC.
NW CORNER LAUREL ROAD & O'HARA AVENUE
OAKLEY CONTRA COSTA CALIFORNIA

SHEET C-10 OF
PROJECT 06-1972

ABBREVIATIONS

AC	ASPHALT CONCRETE	OHE	OVERHEAD ELECTRIC
ATCV	AUTOMATIC TRAFFIC CONTROL VAULT	OHE&T	OVERHEAD ELECTRIC & TELEPHONE
		OHT	OVERHEAD TELEPHONE
BFP	BACKFLOW PREVENTER	PL	PLANTER
CB	CATCH BASIN	SCO	SANITARY CLEAN OUT
DWY	DRIVEWAY	SD	STORM DRAIN PIPE
E	ELECTRICAL LINE	SS	SANITARY SEWER PIPE
EB	ELECTRIC BOX	SDMH	STORM DRAIN MANHOLE
EM	ELECTRIC METER	SSMH	SANITARY SEWER MANHOLE
EOP	EDGE OF PAVEMENT	TB	TELEPHONE BOX
EX	EXISTING	TBM	TEMPORARY BENCH MARK
FL	FLOWLINE	TSB	TRAFFIC SIGNAL BOX
G	GAS PIPE	UGE	UNDERGROUND ELECTRIC
GM	GAS METER	UGT	UNDERGROUND TELEPHONE
GR	GRATE	W	WATER PIPE
HCR	HANDICAP RAMP	WM	WATER METER
INV	INVERT	12"	TREE W/ SIZE
LF	LINEAR FEET		
MC	METAL COVER		

SYMBOLS

- BENCH MARK
- FIRE HYDRANT
- FOUND MONUMENT
- SANITARY SEWER MANHOLE
- STORM DRAIN MANHOLE
- STREET SIGN
- TRAFFIC SIGNAL
- WATER VALVE
- ELECTRIC TRANSFORMER
- SURVEYED PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT LINE

LEGAL DESCRIPTION:

ALL THAT CERTAIN REAL PROPERTY SITUATE IN THE CITY OF OAKLEY, COUNTY OF CONTRA COSTA, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL "A" (LOT A), AS SHOWN ON SUBDIVISION 5535, FILED OCTOBER 28, 1983 IN BOOK 274 OF MAPS, PAGES 19-23, CONTRA COSTA COUNTY RECORDS, AND CORRECT BY CERTIFICATE OF CORRECTION RECORDED JANUARY 31, 1984, BOOK 11635, PAGE 479, SERIES NO. 84-14007, OFFICIAL RECORDS.

EXCEPTING THEREFROM:

ALL OIL, GAS AND OTHER HYDROCARBON SUBSTANCES AND ALL OTHER MINERALS AND ASSOCIATED SUBSTANCES CONTAINED WITHIN OR UNDERLYING THE SAID REAL PROPERTY WHICH ARE AT OR BELOW A DEPTH OF 500 FEET FROM THE SURFACE THEREFROM, WITHOUT ANY RIGHT OF SURFACE ENTRY, AS RESERVED IN THE DEED FROM LOUIS DEL BARBA, ET AL, RECORDED DECEMBER 31, 1979, BOOK 9677 OF OFFICIAL RECORDS, PAGE 495, AND CONVEYED IN QUITCLAIM DEED FROM LOUIS J. DEL BARBA, FREDERICK J. DEL BARBA AND SHIRLEY A. DEL BARBA TO EMMA DEL BARBA, AS TO AN UNDIVIDED ONE-HALF (1/2) INTEREST, RECORDED JANUARY 31, 1979, BOOK 9677 OF OFFICIAL RECORDS, PAGE 502.

( ) DATA PER TITLE REPORT

EASEMENTS PER FIRST AMERICAN TITLE INSURANCE COMPANY PRELIMINARY REPORT ORDER NO. NCS-247992, DATED JULY 21, 2006.

EXCEPTION # 4: EASEMENT FOR ELECTRIC TRANSMISSION LINE IN FAVOR OF PACIFIC GAS AND ELECTRIC COMPANY, A CORPORATION, RECORDED OCTOBER 29, 1908 IN BOOK 133 OF DEEDS, PAGE 353.

LOCATION OF SAID EASEMENT CANNOT BE DEFINED OF RECORD.

EXCEPTION # 5: EASEMENT FOR PIPELINES IN FAVOR OF GREAT YELLOWSTONE CORPORATION, A NEVADA CORPORATION, RECORDED DECEMBER 22, 1969 AS BOOK 6029, PAGE 280 OF OFFICIAL RECORDS.

LOCATION OF SAID EASEMENT CANNOT BE DEFINED OF RECORD.

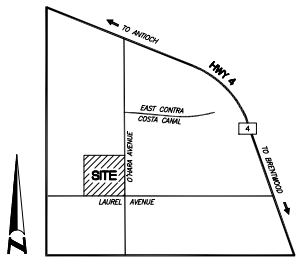
EXCEPTION # 6: EASEMENT FOR PIPELINES IN FAVOR OF WESTERN CONTINENTAL OPERATION COMPANY, A CALIFORNIA CORPORATION, RECORDED MARCH 31, 1976 AS BOOK 7809, PAGE 25 OF OFFICIAL RECORDS.

LOCATION OF SAID EASEMENT CANNOT BE DEFINED OF RECORD.

EXCEPTION # 9: EASEMENT FOR OVERHANGS IN FAVOR OF PACIFIC GAS AND ELECTRIC COMPANY, A CALIFORNIA CORPORATION, RECORDED AUGUST 14, 1987 AS INSTRUMENT NO. 87-174097, BOOK 13838, PAGE 143 OF OFFICIAL RECORDS.

EXCEPTION # 10: EASEMENT FOR ANCHORS IN FAVOR OF PACIFIC GAS AND ELECTRIC COMPANY, A CALIFORNIA CORPORATION, RECORDED AUGUST 14, 1987 AS INSTRUMENT NO. 87-174097, BOOK 13838, PAGE 143 OF OFFICIAL RECORDS.

GRAPHIC SCALE
0 50
1"=50'



VICINITY MAP
N.T.S.

BASIS OF BEARINGS:

THE CENTERLINE OF O'HARA AVENUE, AS SHOWN ON THE SUBDIVISION MAP NO. 5535 RECORDED IN BOOK 274 AT PAGES 19 - 23, TAKEN AS NORTH 01°01'36" EAST, WAS USED AS BASIS OF BEARINGS FOR THIS SURVEY.

BENCHMARK:

BENCHMARK # 486, U.S.B.R. BRONZE TABLET IN EAST HEADWALL OF CANAL SYPHON UNDER O'HARA AVENUE.

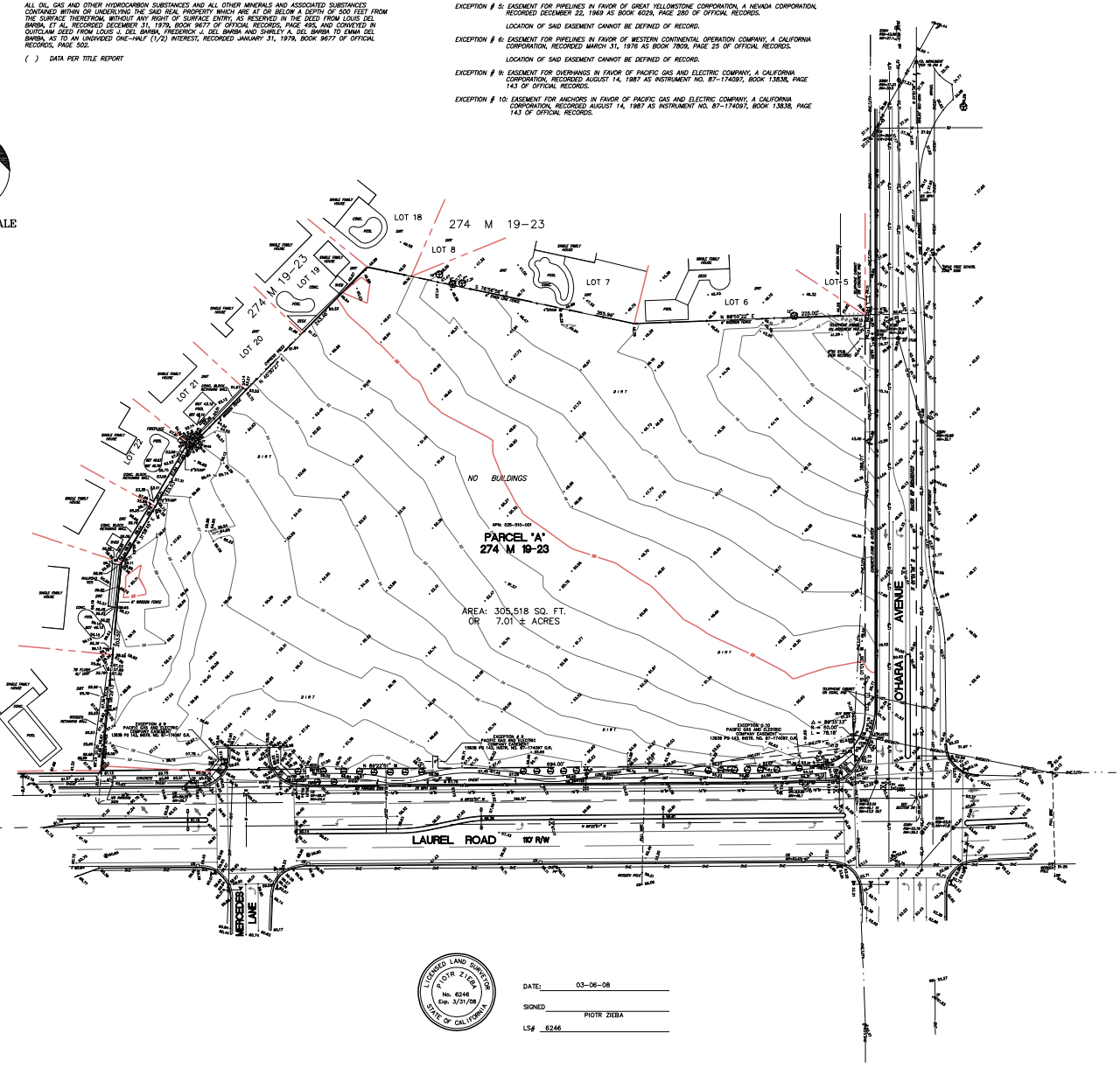
ELEVATION = 47.399 FEET, MEAN SEA LEVEL DATUM.

SITE ZONE: CO

FLOOD ZONE: "X", PER COMMUNITY PANEL NO. 0602503556, DATED JULY 16, 1987.

UTILITY NOTE

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES, PIPES SIZES AND/OR STRUCTURES SHOWN ON THIS SURVEY WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES, EXCEPT AS SHOWN ON THIS SURVEY. THE CONTRACTOR SHALL ASCERTAIN THE TRUE LOCATION OF ANY UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN HEREON.



LICENSED LAND SURVEYOR
PIOTR ZIEBA
No. 6246
Exp. 3/31/08
STATE OF CALIFORNIA

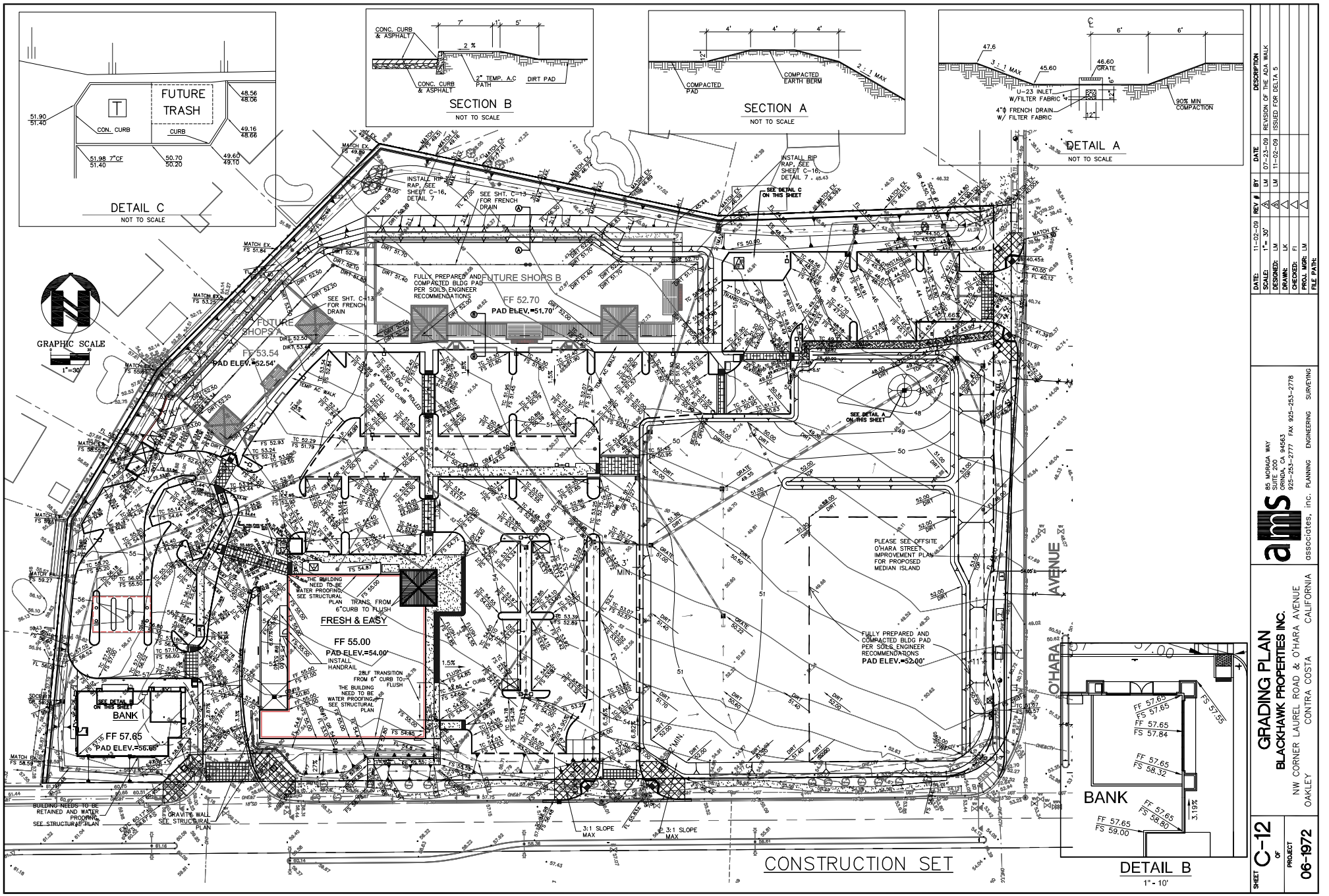
DATE: 03-06-08
SIGNED
PIOTR ZIEBA
LS# 6246

DATE:	09-24-08	REV #	BY	DATE	DESCRIPTION
SCALE:	1"= 50'			09-18-07	ISSUED FOR 2ND PLANNING SUBMITTAL
DESIGNED:	LM			06-06-08	FIRST PLAN CHECK
DRAWN:	LK			04-09-09	PERMIT SET
CHECKED:	FI				
PROJ. MGR:	LM				
FILE PATH:					

85 MORAGA WAY
SUITE 200
ORINDA, CA 94563
925-253-2777 FAX 925-253-2778
ams associates, inc. PLANNING ENGINEERING SURVEYING

TOPOGRAPHIC SURVEY
BLACKHAWK PROPERTIES INC.
NW CORNER LAUREL ROAD & O'HARA AVENUE
OAKLEY CONTRA COSTA CALIFORNIA

SHEET C-18 OF
PROJECT 06-1972



DESCRIPTION	DATE	REV #	BY
REVISION OF THE ADA WALK	07-23-09	1	LM
ISSUED FOR DELTA 5	11-02-09	2	LM

DATE: 11-02-09
SCALE: 1" = 30'
DESIGNED: LM
DRAWN: LK
CHECKED: FI
PROJ. MGR: LM
FILE PATH:

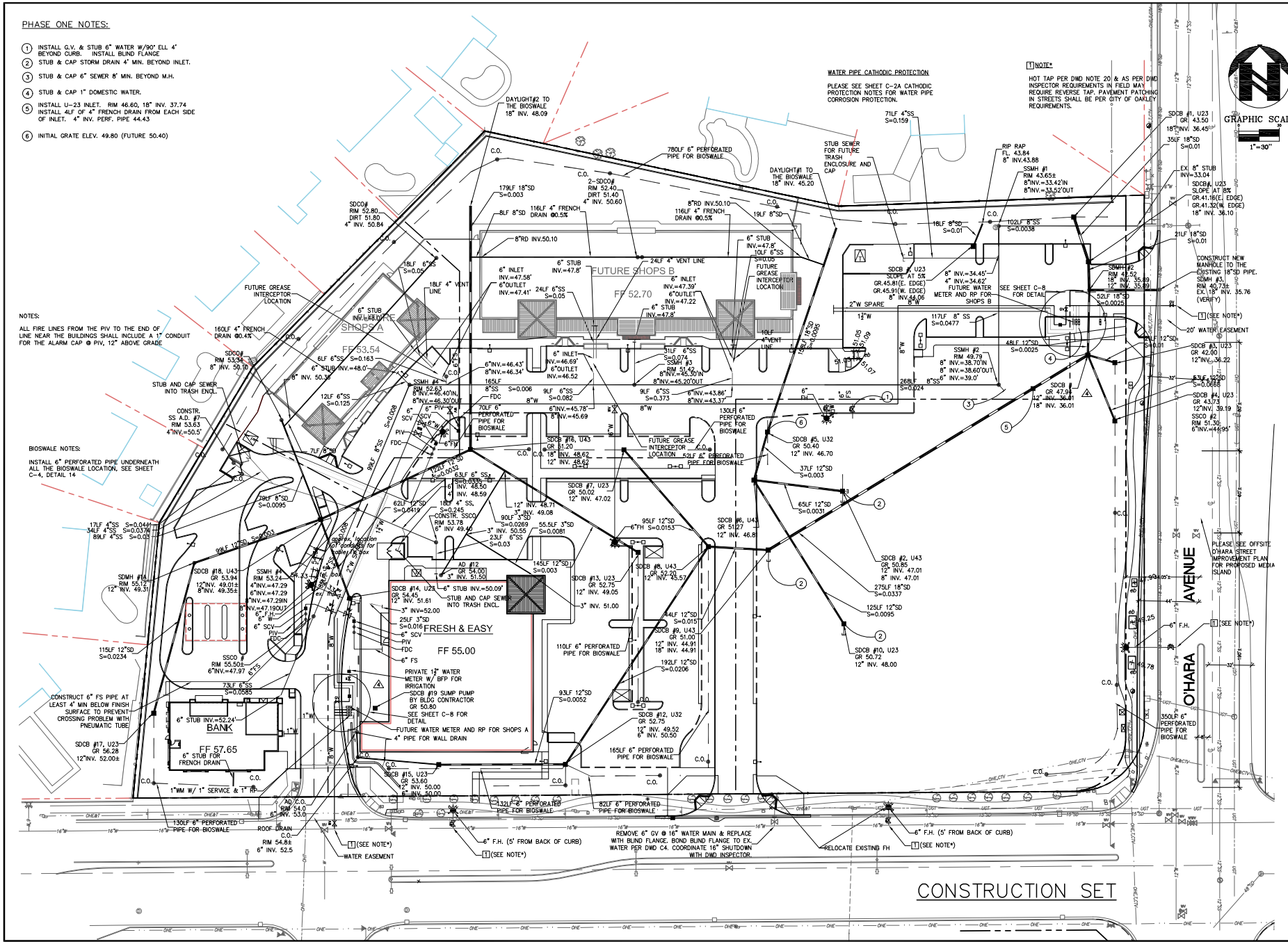
ams associates, inc. PLANNING ENGINEERING SURVEYING
85 MORAGA WAY
ORINDA, CA 94563
925-253-2777 FAX 925-253-2778

GRADING PLAN

BLACKHAWK PROPERTIES INC.

NW CORNER LAUREL ROAD & O'HARA AVENUE
OAKLEY CONTRA COSTA CALIFORNIA

SHEET C-12 OF
PROJECT 06-1972



DESCRIPTION	DATE	BY	REV #
REVISION OF ADA WALK AND UTILITY	07-23-09	LM	
CHECK VALUE AND METER REVISION	08-20-09	LM	

DATE: 08-20-09 REV #
SCALE: 1" = 30'
DESIGNED: LM
DRAWN: LK
CHECKED: FI
PROJ. MGR: LM
FILE PATH:

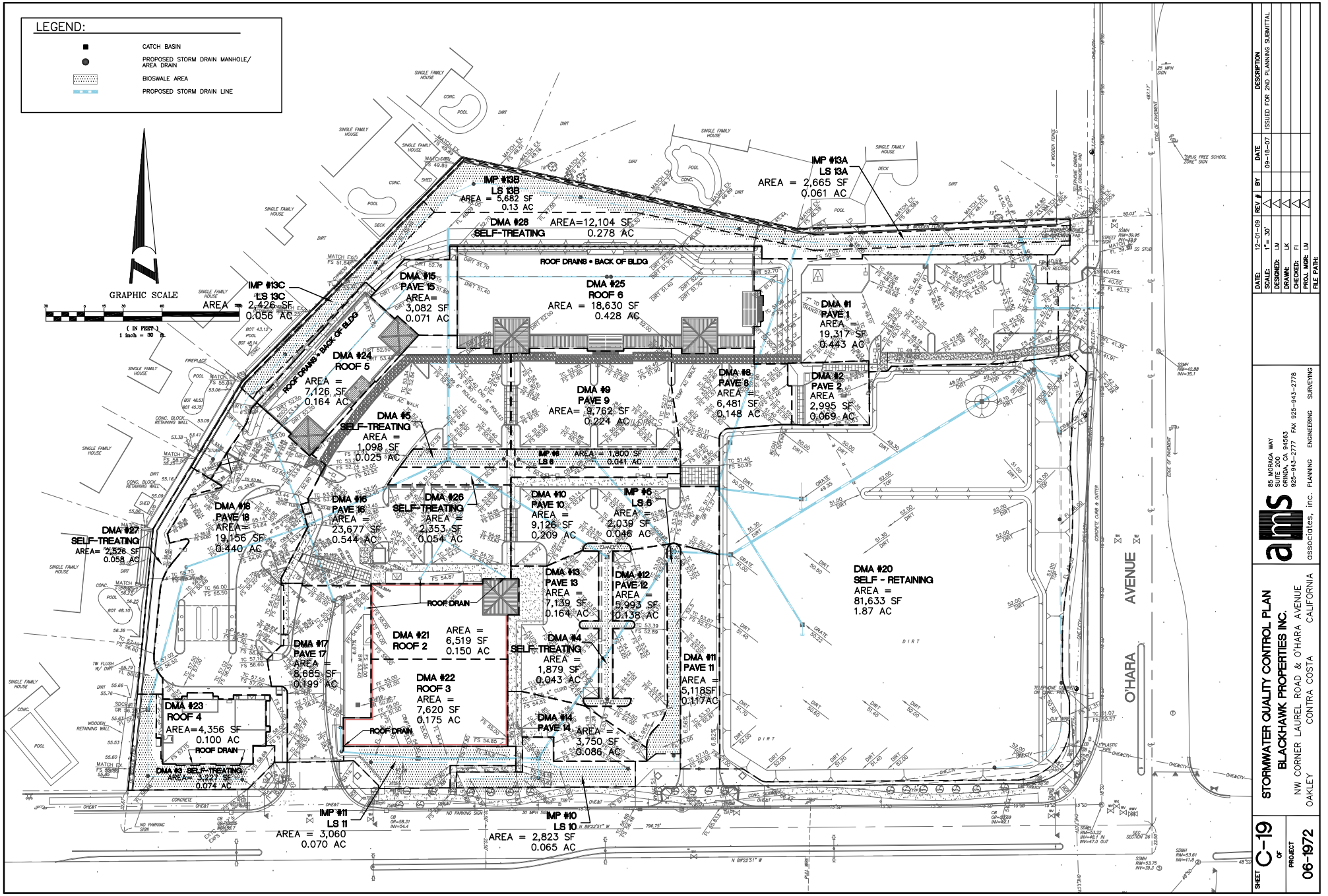
ams associates, inc. PLANNING ENGINEERING SURVEYING
85 MORAGA WAY SUITE 200 ORINDA, CA 94563
925-253-2777 FAX 925-253-2778

UTILITY PLAN

BLACKHAWK PROPERTIES INC.

NW CORNER LAUREL ROAD & O'HARA AVENUE
OAKLEY CONTRA COSTA CALIFORNIA

SHEET C-13 OF
PROJECT 06-1972



DATE:	12-01-09	REV #	BY	DATE	DESCRIPTION
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DESIGNED:	LM				
DRAWN:	LK				
CHECKED:	FI				
PROJ. MGR:	LM				
FILE PATH:					

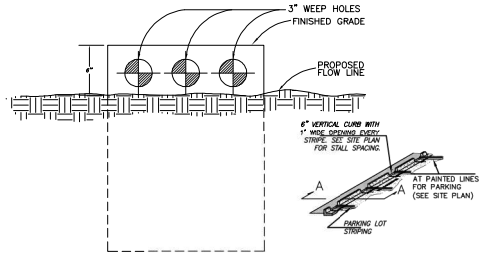
ams associates, inc. PLANNING ENGINEERING SURVEYING
85 MORAGA WAY
SUITE 200
ORINDA, CA 94563
925-943-2777 FAX 925-943-2778

STORMWATER QUALITY CONTROL PLAN
BLACKHAWK PROPERTIES INC.

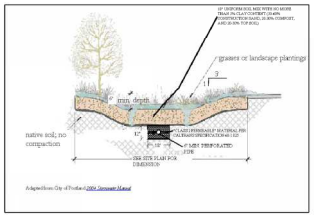
NW CORNER LAUREL ROAD & O'HARA AVENUE
OAKLEY CONTRA COSTA CALIFORNIA

SHEET C-19 OF

PROJECT 06-1972



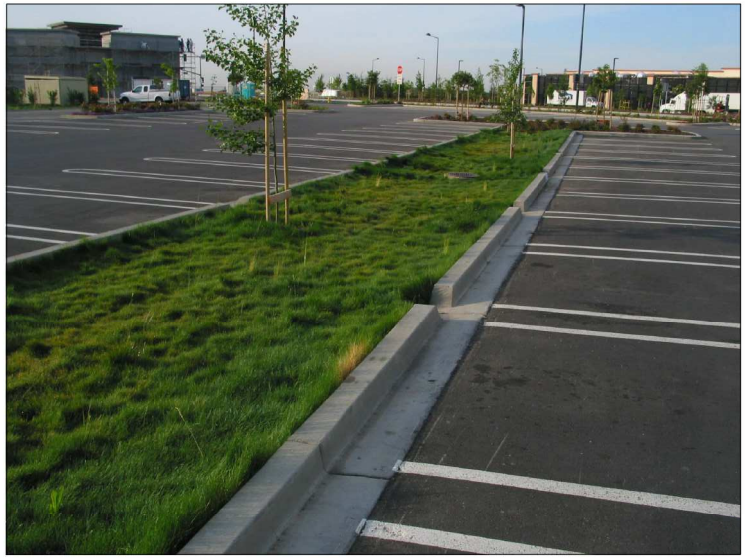
CATCH BASIN WEEPHOLES FOR BIO-SWALE



1. PERFORATED PIPE SHALL BE SDR 35.

SECTION A-A
NOT TO SCALE

1 C-19A BIO-RETENTION
NOT TO SCALE



2 C-19A BIO-SWALE
NOT TO SCALE

Project Name: Laurel Retail Center
Project Type: Treatment and Flow Control
APN: 035-510-001
Drainage Area: 299,750
Mean Annual Precipitation: 11.3

Self-Treating DMAs

DMA Name	Area (sq ft)
DMA3	3,227.0
DMA4	1,879.0
DMA5	1,098.0
DMA26	2,353.0
DMA27	2,526.0
DMA28	12,194.0

II. Self-Retaining Areas

Self-Retaining DMA	
DMA Name	Area (sq ft)
DMA20	81,633

III. Areas Draining to Self-Retaining Areas

DMA Name	Area (sq ft)	Surface Type	Runoff Factor	Product (Area x Runoff Factor) [A]	Receiving Self Retaining DMA	Receiving Self-Retaining DMA Area (sq ft) [B]	Ratio [A]/[B]
DMA2	2965	Concrete or Asphalt	1.0	2,965.0	DMA20	81,633	0.04
DMA8	6481	Concrete or Asphalt	1.0	6,481.0	DMA20	81,633	0.08
DMA11	5118	Concrete or Asphalt	1.0	5,118.0	DMA20	81,633	0.06

IV. Areas Draining to IMPs

IMP Name: IMP6
IMP Type: Bioretention Facility
Soil Group: IMP6

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
DMA12	5,993	Concrete or Asphalt	1.00	5,993				
			Total	5,993				
				Area	0.070	0.885	371	2,039

IMP Name: IMP8
IMP Type: Bioretention Facility
Soil Group: IMP8

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
DMA8	9,762	Concrete or Asphalt	1.00	9,762				
			Total	9,762				
				Area	0.070	0.885	605	1,800
				Surface Volume	0.058	0.885	501	900

IMP Name: IMP10
IMP Type: Bioretention Facility
Soil Group: IMP10

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
DMA14	3,750	Concrete or Asphalt	1.00	3,750				
			Total	3,750				
				Area	0.070	0.885	232	2,823
				Surface Volume	0.058	0.885	192	1,411

IMP Name: IMP11
IMP Type: Bioretention Facility
Soil Group: IMP11

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
DMA22	7,620	Conventional Roof	1.00	7,620				
			Total	7,620				
				Area	0.070	0.885	472	3,960
				Surface Volume	0.058	0.885	391	1,530

IMP Name: IMP13A
IMP Type: Bioretention Facility
Soil Group: IMP13A

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
DMA1	19,317	Concrete or Asphalt	1.00	19,317				
DMA10	9,126	Concrete or Asphalt	1.00	9,126				
				Surface Volume	0.058	0.885	368	1,619

Total	28,443					
Area		0.070	0.885	1,762	2,665	
Surface Volume		0.058	0.885	1,460	1,980	

IMP Name: IMP13B
IMP Type: Bioretention Facility
Soil Group: IMP13B

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
DMA13	7,139	Concrete or Asphalt	1.00	7,139				
DMA15	3,082	Concrete or Asphalt	1.00	3,082				
DMA16	23,677	Concrete or Asphalt	1.00	23,677				
DMA17	8,685	Concrete or Asphalt	1.00	8,685				
DMA18	19,156	Concrete or Asphalt	1.00	19,156				
DMA21	6,519	Conventional Roof	1.00	6,519				
DMA23	4,356	Conventional Roof	1.00	4,356				
DMA25	18,630	Conventional Roof	1.00	18,630				
			Total	91,244				
				Area	0.070	0.885	5,652	5,682
				Surface Volume	0.058	0.885	4,683	4,806

IMP Name: IMP13C
IMP Type: Bioretention Facility
Soil Group: IMP13C

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor	IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
DMA24	7,126	Conventional Roof	1.00	7,126				
			Total	7,126				
				Area	0.070	0.885	441	2,426
				Surface Volume	0.058	0.885	366	1,801

Report generated on 11/30/2009 12:00:00 AM by the Contra Costa Clean Water Program IMP Sizing Tool software (version 1.3.1.0).

3 C-19A DRAINAGE TABLE
NOT TO SCALE

NO	DESCRIPTION	DATE	BY
1	ISSUED FOR 2ND PLANNING SUBMITTAL	09-18-07	

DATE: 12-01-09
SCALE: NO SCALE
DESIGNED: LM
DRAWN: LK
CHECKED: FI
PROJ. MGR: LM
FILE PATH:

ams associates, inc. PLANNING ENGINEERING SURVEYING
85 MORAGA WAY
SUITE 200
ORINDA, CA 94563
925-945-2777 FAX 925-943-2778

STORMWATER DETAIL

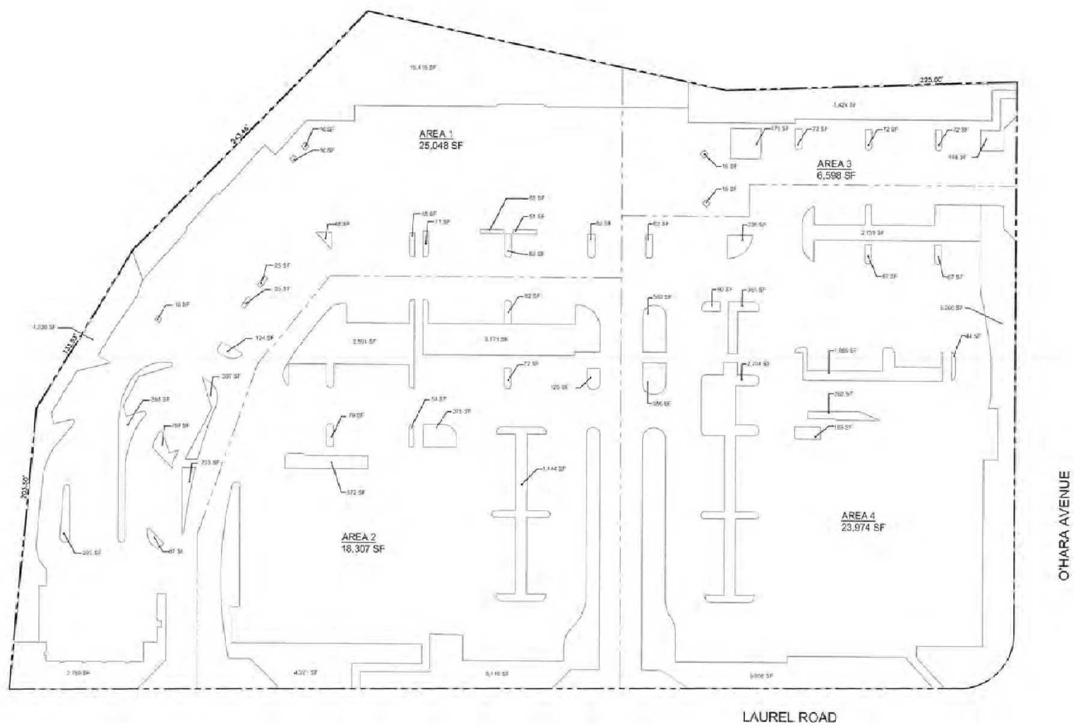
BLACKHAWK PROPERTIES INC.

NW CORNER LAUREL ROAD & O'HARA AVENUE
OAKLEY CONTRA COSTA CALIFORNIA

SHEET C-19A
OF
PROJECT 06-1972

ATTACHMENT 5

PREVIOUSLY PERMITTED LANDSCAPE PLANS



SITE DATA:

APN:	035-510-001
ZONING	COMMERCIAL
GROSS SITE AREA	±299,749S.F (6.88 AC.)
LANDSCAPED AREA	73,927 S.F (24.6 %)

LANDSCAPE SUMMARY:

AREA 1	25,048 S.F.
AREA 2	18,307 S.F.
AREA 3	6,598 S.F.
AREA 4	23,974 S.F.
TOTAL LANDSCAPE	**73,927 S.F.**

IMPERVIOUS AREA CALCULATION:

SITE AREA	299,749 S.F.
LANDSCAPE AREA	- 73,927 S.F.
IMPERVIOUS AREA	225,822 S.F. = 75.4%

NOTE:
EXHIBIT INCLUDES ALL SITE REVISIONS THRU FEBRUARY 20, 2009

LANDSCAPE/IMPERVIOUS SURFACE CALCULATIONS - EXHIBIT A

SCALE: 1"=40'-0"

ARC Inc.
ARCHITECTS
Benicia Office:
560 First Street, Ste. B-201
Benicia, CA 94510
Tel: (707) 745-0502
Vallejo Office:
616 Marin Street
Vallejo, CA 94590
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arc@arcincarchitects.com

LAUREL PLAZA
LAUREL ROAD & O'HARA AVE.
OAKLEY, CA

O'HARA PROPERTIES
3820 BLACKHAWK ROAD
DANVILLE, CA

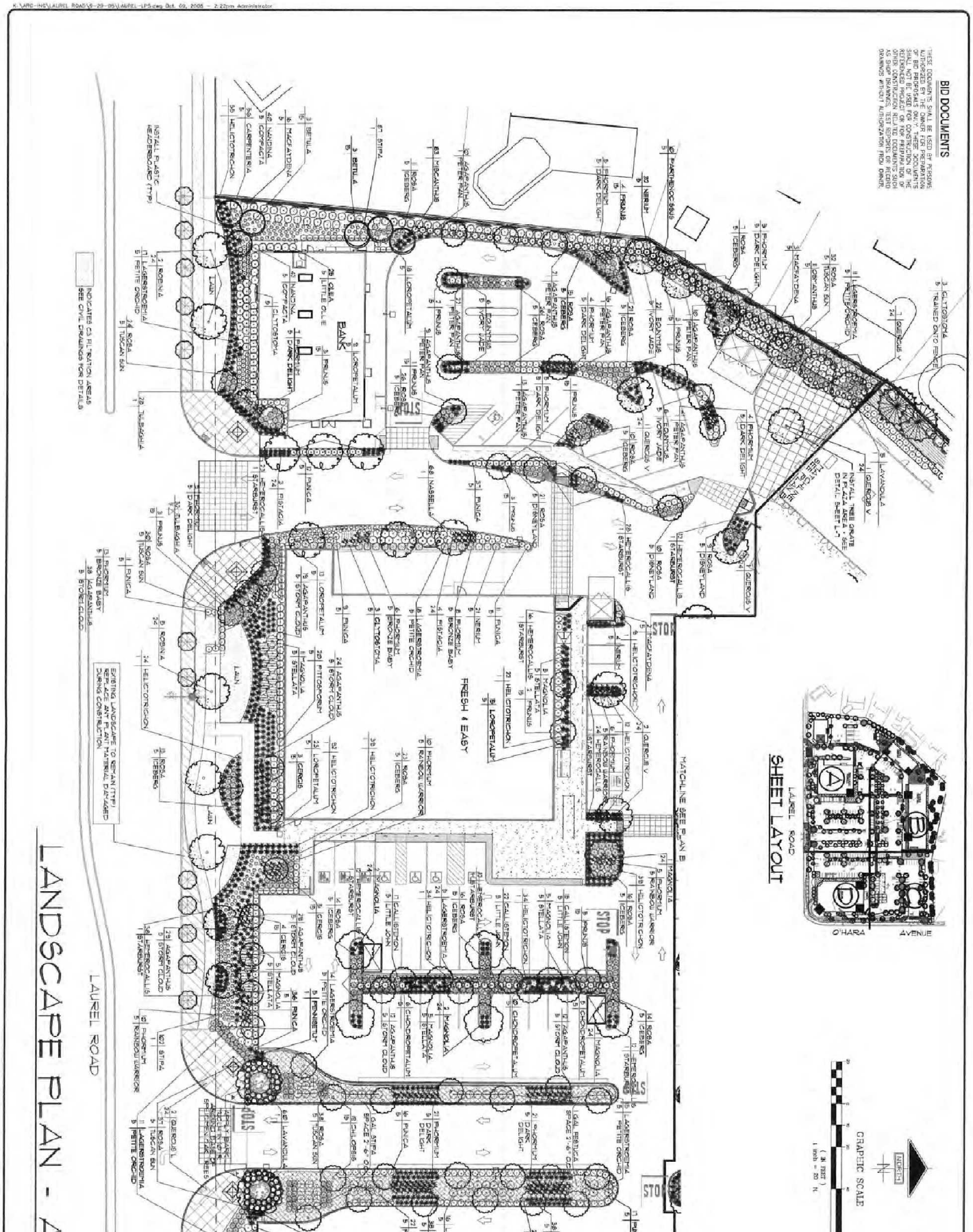
DATE: 2-23-09

REV. NO. REV. DATE

LANDSCAPE/
IMPERVIOUS
SURFACE CALCS

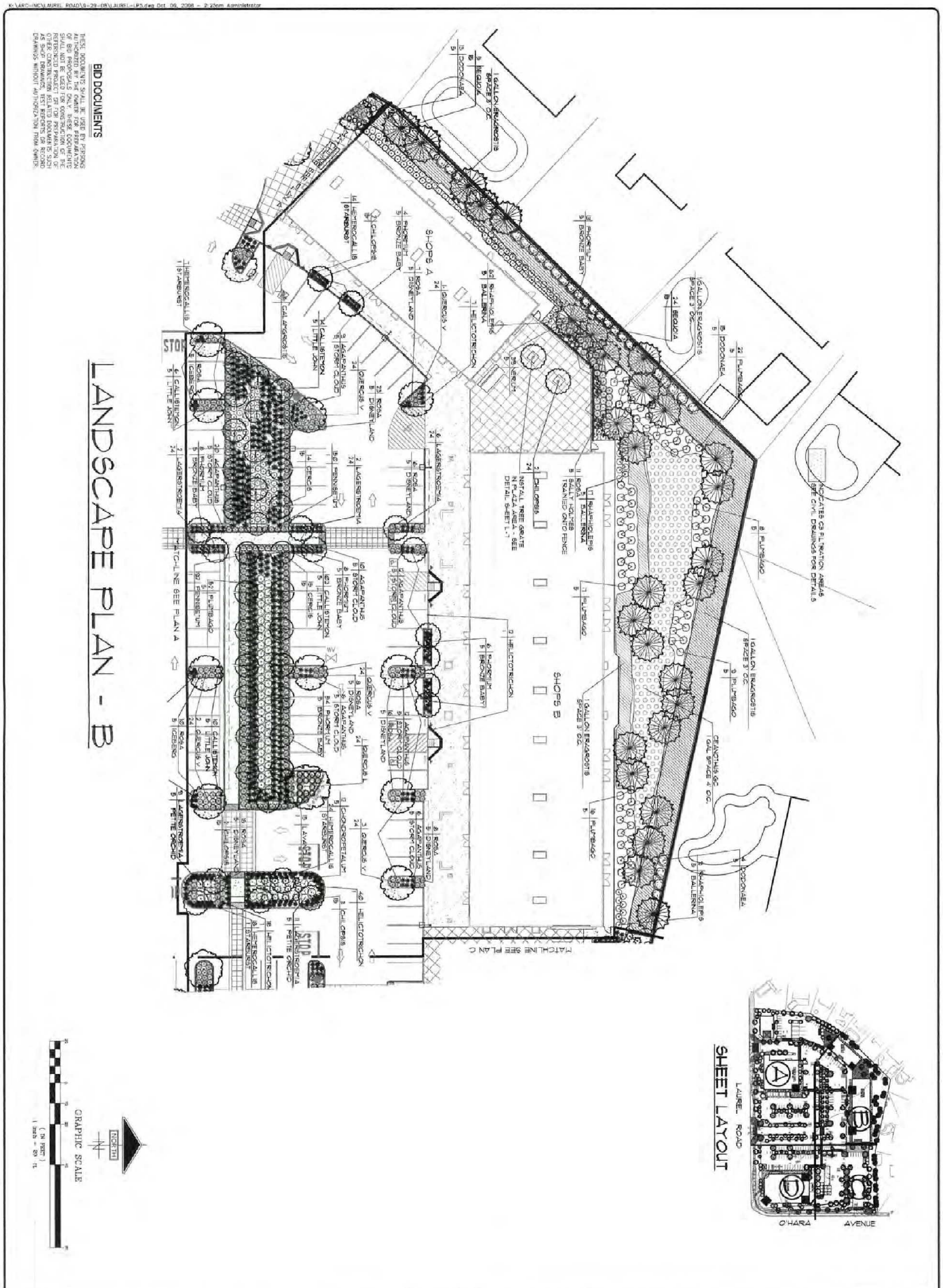
X-150

JOB NO.: BHS02



SHEET NUMBER: L-4 TITLE OF DRAWING: LANDSCAPE A	DATE: 8/1/08 DRAWN BY: KDF THIS PLAN IS:	TITLE OF PROJECT: LAUREL RETAIL CENTER OAKLEY, CA	REV / DATE / DESCRIPTION	BORRECCO/KILIAN & ASSOCIATES, INC. LANDSCAPE ARCHITECTS 1241 Pine Street Martinez, California 94553 Phone: 925/372-5306 FAX: 925/372-5308

K:\ARC-INC\LAUREL ROAD\9-29-08\LAUREL-LP5.dwg Oct. 09, 2008 - 2:23pm Administrator



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SHEET NUMBER: L-5

TITLE OF DRAWING: LANDSCAPE B

DATE: 8/1/08

DRAWN BY: KDF

THIS PLAN IS:

TITLE OF PROJECT: LAUREL RETAIL CENTER

OAKLEY, CA

REV	DATE	DESCRIPTION

BORRECCO/KILIAN & ASSOCIATES, INC.
LANDSCAPE ARCHITECTS
1241 Pine Street
Martinez, California 94553
Phone: 925/372-5306
FAX: 925/372-5308

NOTE

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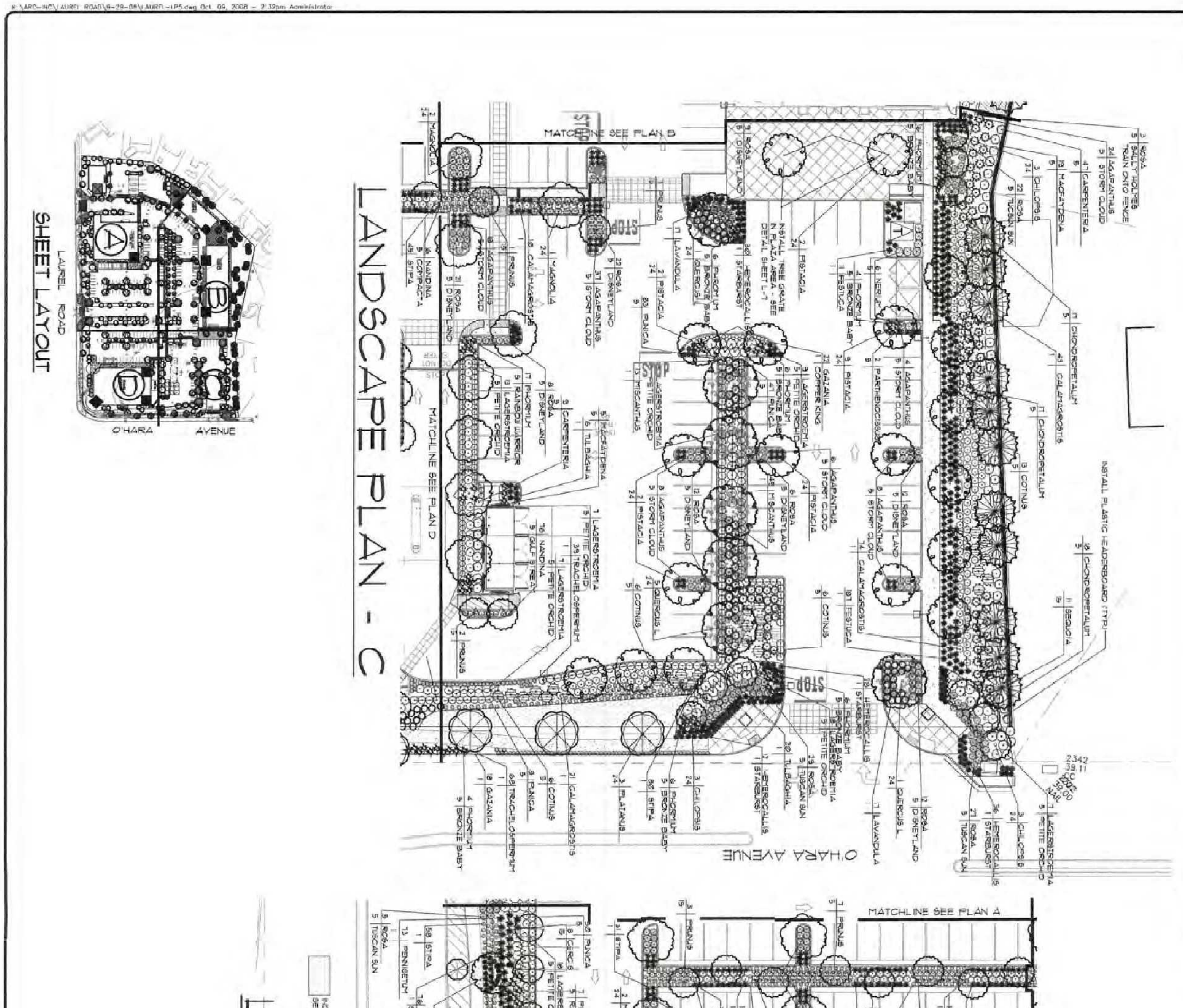
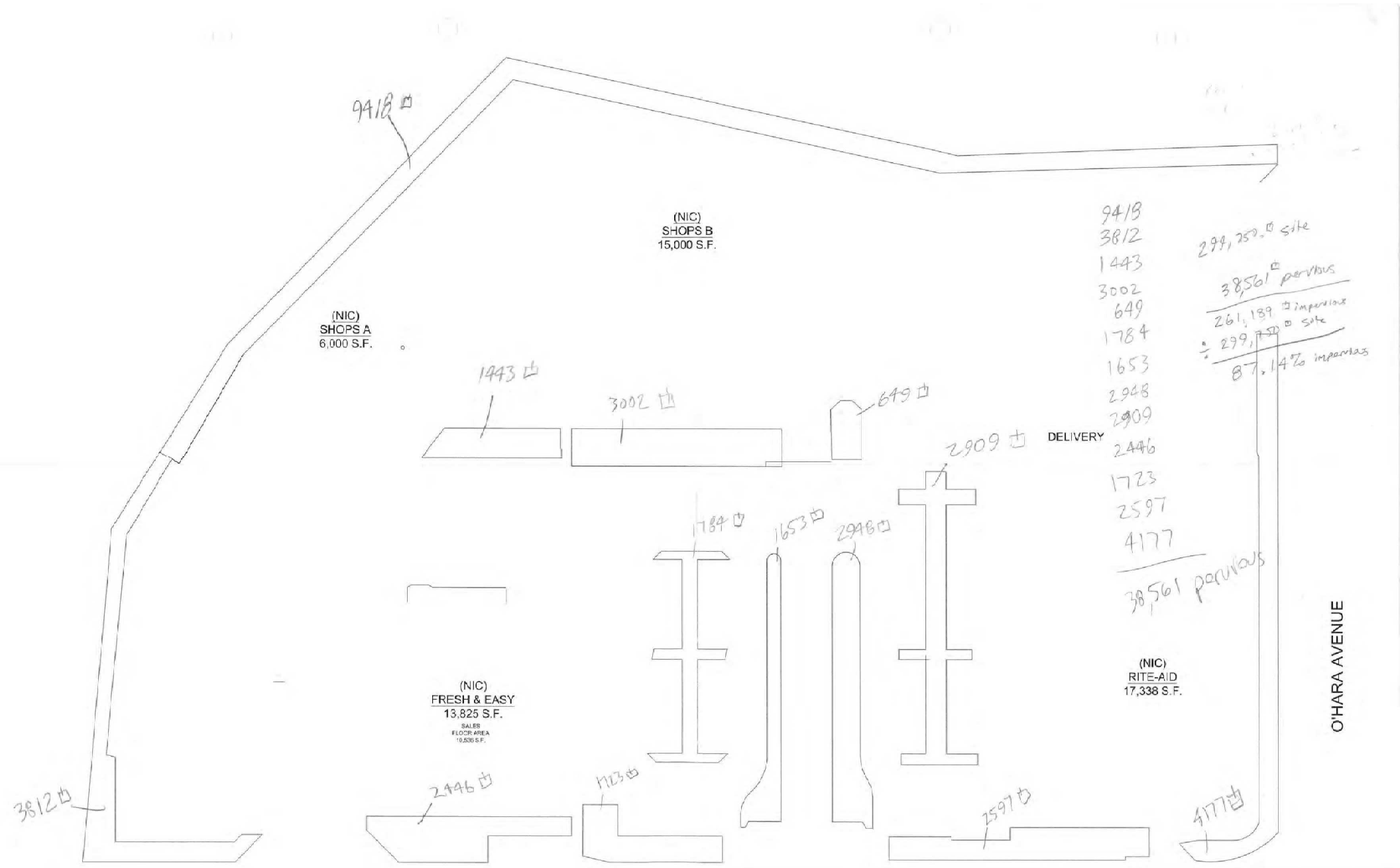


SHEET NUMBER: L-6
DATE: 2/1/08
DRAWN BY: KDF
TITLE OF DRAWING: LANDSCAPE C

TITLE OF PROJECT:
LAUREL RETAIL CENTER
OAKLEY, CA

BORRECCO/KILIAN & ASSOCIATES, INC.
LANDSCAPE ARCHITECTS
1241 Pine Street
Martinez, California 94553
Phone: 925/372-5306
FAX: 925/372-5308


9418
(NIC)
SHOPS B
15,000 S.F.
(NIC)
SHOPS A
6,000 S.F.
1443
3002
649
2909
DELIVERY
1784
1653
2948
(NIC)
FRESH & EASY
13,825 S.F.
SALES
FLOOR AREA
10,535 S.F.
(NIC)
RITE-AID
17,338 S.F.
3812
2446
1723
2597
4177
O'HARA AVENUE
9418
3812
1443
3002
649
1784
1653
2948
2909
2446
1723
2597
4177
38,561 pervious
299,250 site
38,561 pervious
261,189 impervious
÷ 299,750 site
87.14% impervious

SHADE CALCULATIONS

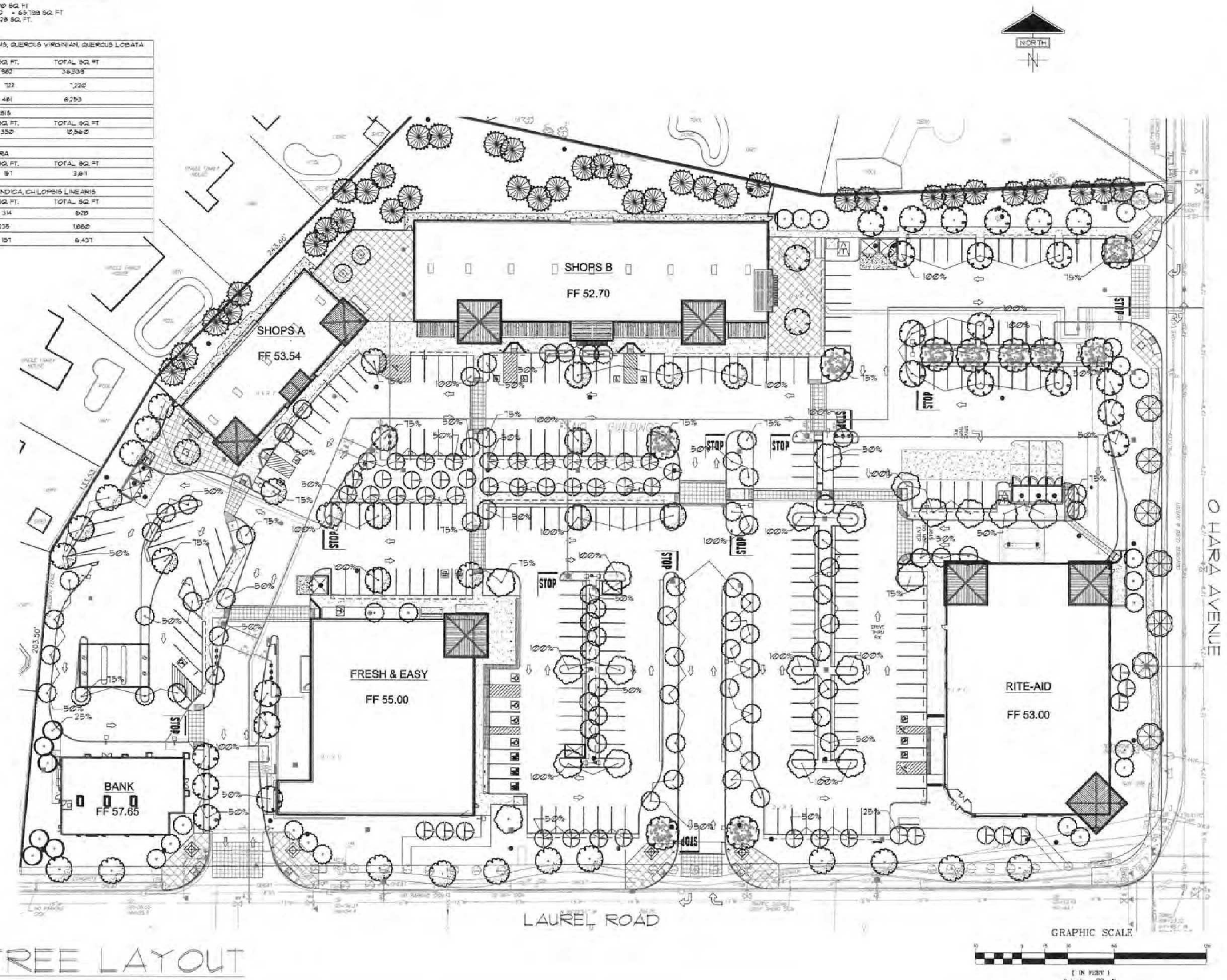
TOTAL PARKING AREA = 131,600 SQ. FT
50% SHADE AREA REQUIDISNEYLAND = 65,799 SQ. FT
SHADE PROVIDED = 72,978 SQ. FT.

35' DIAMETER SHADE TREES: PISTACIA CHINENSIS, QUERCUS VIRGINIAN, QUERCUS LOBATA MAGNOLIA GRANDIFLORA			
NO. OF TREES	PERCENT OF SHADE	SQ. FT.	TOTAL SQ. FT
37	100%	982	36,339
10	75%	722	7,220
13	50%	481	6,253

30' DIAMETER SHADE TREES: CERCIS CANADENSIS			
NO. OF TREES	PERCENT OF SHADE	SQ. FT.	TOTAL SQ. FT
32	50%	330	10,560

25' DIAMETER SHADE TREES: PRUNUS CERASIFERA			
NO. OF TREES	PERCENT OF SHADE	SQ. FT.	TOTAL SQ. FT
23	50%	157	3,611

20' DIAMETER SHADE TREES: LAGERSTROEMIA INDICA, CHILOPSIS LINEARIS			
NO. OF TREES	PERCENT OF SHADE	SQ. FT.	TOTAL SQ. FT
2	100%	314	628
8	75%	235	1,880
41	50%	157	6,437



SHADE TREE LAYOUT

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SHEET NUMBER: L-3
TITLE OF DRAWING: SHADE
DATE: 8/1/08
DRAWN BY: KDF

TITLE OF PROJECT: LAUREL RETAIL CENTER
OAKLEY, CA

BORRECCO/KILIAN & ASSOCIATES, INC.
LANDSCAPE ARCHITECTS
1241 Pine Street
Martinez, California 94553
Phone: 925/372-5306
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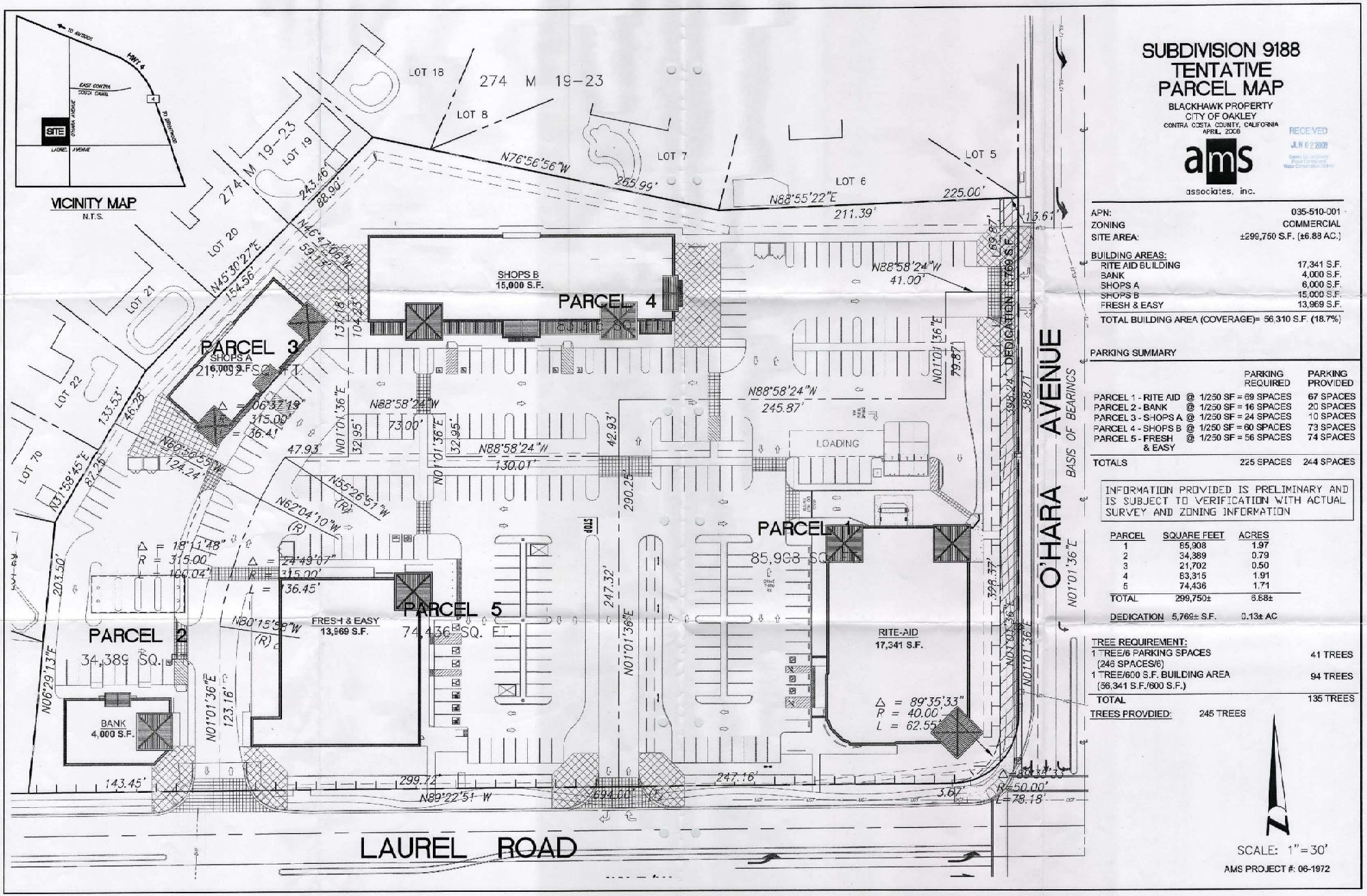

SUBDIVISION 9188
TENTATIVE PARCEL MAP

BLACKHAWK PROPERTY
CITY OF OAKLEY
CONTRA COSTA COUNTY, CALIFORNIA
APRIL, 2008

RECEIVED
JUN 02 2008

ams associates, inc.

APN:	035-510-001
ZONING	COMMERCIAL
SITE AREA:	±299,750 S.F. (±6.88 AC.)

BUILDING AREAS:

RITE AID BUILDING	17,341 S.F.
BANK	4,000 S.F.
SHOPS A	6,000 S.F.
SHOPS B	15,000 S.F.
FRESH & EASY	13,969 S.F.

TOTAL BUILDING AREA (COVERAGE)= 56,310 S.F. (18.7%)

PARKING SUMMARY

	PARKING REQUIRED	PARKING PROVIDED
PARCEL 1 - RITE AID @ 1/250 SF =	69 SPACES	67 SPACES
PARCEL 2 - BANK @ 1/250 SF =	16 SPACES	20 SPACES
PARCEL 3 - SHOPS A @ 1/250 SF =	24 SPACES	10 SPACES
PARCEL 4 - SHOPS B @ 1/250 SF =	60 SPACES	73 SPACES
PARCEL 5 - FRESH & EASY @ 1/250 SF =	56 SPACES	74 SPACES
TOTALS	225 SPACES	244 SPACES

INFORMATION PROVIDED IS PRELIMINARY AND IS SUBJECT TO VERIFICATION WITH ACTUAL SURVEY AND ZONING INFORMATION

PARCEL	SQUARE FEET	ACRES
1	85,908	1.97
2	34,389	0.79
3	21,702	0.50
4	83,315	1.91
5	74,436	1.71
TOTAL	299,750±	6.88±
DEDICATION	5,769± S.F.	0.13± AC

TREE REQUIREMENT:

1 TREE/6 PARKING SPACES (246 SPACES/6)	41 TREES
1 TREE/600 S.F. BUILDING AREA (56,341 S.F./600 S.F.)	94 TREES
TOTAL	135 TREES

TREES PROVDIED: 245 TREES

SCALE: 1"=30'

AMS PROJECT #: 06-1972