GENERAL NOTES

1. All grading and construction shall conform to the 2014 County of Los Angeles Building Codes and the State Model Water Efficiency Landscape Ordinance unless specifically noted on these plans.
2. Any modifications of or changes to approved grading plans must be approved by the Building Official.
3. No grading shall be started without first notifying the Building Official. A Pre-grading meeting at the site is required before the start of the grading with the following people present: Owner, grading contractor, design civil engineer, soils engineer, geologist, County grading inspector(s) or their representatives, and when required the archeologist or other jurisdictional agencies. Permittee or his agent are responsible for arranging Pre-grade meeting and must notify the Building Official at least two business days prior to proposed pre-grade meeting.
4. Approval of these plans reflect solely the review of plans in accordance with the County of Los Angeles Building Codes and does not reflect any position by the County of Los Angeles or the Department of Public Works regarding the status of any title issues relating to the land on which the improvements may be constructed. Any disputes relating to title are solely a private matter not involving the County of Los Angeles or the Department of Public Works.
5. All grading and construction activities shall comply with County of Los Angeles Code, Title 12, Section 12.12.030 that controls and restricts noise from the use of construction and grading equipment from the hours of 8:00 PM to 6:30 AM, and on Sundays and Holidays. *(More restrictive construction activity times may govern, as required by the Department of Regional Planning and should be shown on the grading plans when applicable.)*
6. California Public Resources Code (Section 5097.98) and Health and Safety Code (Section 7050.5) address the discovery and disposition of human remains. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, the law requires that grading immediately stops and no further excavation or disturbance of the site, or any nearby area where human remains may be located, occur until the following has been measures have been taken:
a. The County Coroner has been informed and has determined that no investigation of the cause of death is required, and
b. If the remains are of Native American origin, the descendants from the deceased Native Americans have made a recommendation for the means of treating or disposing, with appropriate dignity, of the human remains and any associated grave goods.
7. The location and protection of all utilities is the responsibility of the Permittee.
8. All export of material from the site must go to a permitted site approved by the Building Official or a legal dumpsite. Receipts for acceptance of excess material by a dumpsite are required and must be provided to the Building Official upon request.
9. A copy of the grading permit and approved grading plans must be in the possession of a responsible person and available at the site at all times.
10. Site boundaries, easements, drainage devices, restricted use areas shall be located per construction staking by Field Engineer or licensed surveyor. Prior to grading, as requested by the Building Official, all property lines, easements, and restricted use areas shall be staked.
11. No grading or construction shall occur within the protected zone of any oak tree as required per Title Chapter 22.56 of the County of Los Angeles Zoning Code. The protected zone shall mean that area within the drip line of an oak tree extending there from a point at least five feet outside the drip line, or 15 feet from the trunk(s) of a tree, whichever is greater.
If an oak tree permit is obtained: (Add the following Note:)
All grading and construction within the protected zone of all oak trees shall be per oak tree permit no._____. All recommendations in the permit and associated oak tree report must be complied with and are a part of the grading plan. A copy of the oak tree permit and associated reports shall be maintained in the possession of a responsible person and available at the site at all times.
12. The standard retaining wall details shown on the grading plans are for reference only. Standard retaining walls are not checked, permitted, or inspected per the Grading Permit. A separate retaining wall permit is required for all standard retaining walls.
Note: This note only applies to standard retaining walls. Geogrid fabric and segmental retaining walls do not require a separate retaining wall permit. Details and construction notes for all Geogrid walls must be on the grading plan.
13. A preventive program to protect the slopes from potential damage from burrowing rodents is required per Section J101.8 of the County of Los Angeles Building Code. Owner is to inspect slopes periodically for evidence of burrowing rodents and a final evidence of mole evidence shall employ an exterminator for their removal.
14. If grading authorized by this plan is to extend through the rainy season, November 1 Through April 15 of the following year, separate updated plans for erosion control must be submitted prior to October per Section J111.3 of the County of Los Angeles Building Code.
15. Transfer of Responsibility: If the Field Engineer, the Soils Engineer, or the Engineering Geologist of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept their responsibility within the area of technical competence for approval upon completion of the work. It shall be the duty of the permittee to notify the Building Official in writing of such change prior to the recommencement of such grading.

INSPECTION NOTES

16. The permittee or his agent shall notify the Building Official at least one working day in advance of required inspections at following stages of the work. (Section J105.7 of the Building Code.)
(a) Pre-grade - Before the start of any earth disturbing activity or construction.
(b) Initial - When the site has been cleared of vegetation and unapproved fill has been scarified, benched or otherwise prepared for fill. Fill shall not be placed prior to this inspection. Note: Prior to any construction activities, including grading, all storm water pollution prevention measures including erosion control devices which contain sediments must be installed.
(c) Rough - When approximate final elevations have been established; drainage terraces, swales and berms installed at the top of the slope; and the statements required in this Section have been received.
(d) Final - When grading has been completed; all drainage devices installed; slope planting established, irrigation systems installed and the As-Built plans, required statements, and reports have been submitted and approved.
17. In addition to the inspection required by the Building Official for grading, reports and statements shall be submitted to the Building Official in accordance with Section J105 of the County of Los Angeles Building Code.
18. Unless otherwise directed by the Building Official, the Field Engineer for all engineered grading projects shall prepare routine inspection reports as required under Section J105.11 of the County of Los Angeles Building Code. These reports, known as "Report of Grading Activities", shall be submitted to the Building Official as follows:
1. Bi-weekly during all times when grading of 400 cubic yards or more per week is occurring on the site;
2. Monthly, at all other times; and
3. at any time when requested in writing by the Building Official.
Such "Report of Grading Activities" shall certify to the Building Official that the Field Engineer has inspected the grading site and related activities and has found them in compliance with the approved grading plans and specifications, the building code, all grading permit conditions, and all other applicable ordinances and requirements. This form is available at the following website: http://pw.lacounty.gov/bsd/grdfee/default.aspx. "Report of Grading Activities" may be scanned and uploaded at the website or faxed to (310) 530-5482. Failure to provide required inspection reports will result in a "Stop Work Order."
19. All graded sites must have drainage swales, berms, and other drainage devices installed prior to rough grading approval per Section J106.7 of the County of Los Angeles Building Code.
20. The grading contractor shall submit the statement to the grading inspector as required by Section J105.12 of the County of Los Angeles Building Code at the completion of rough grading.
21. Final grading must be approved before occupancy of buildings will be allowed per Section J105 of the County of Los Angeles Building Code.

DRAINAGE NOTES

22. Roof drainage must be diverted from graded slopes.
23. Provisions shall be made for contributory drainage at all times.
24. All construction and grading within a storm drain easement are to be done per Private Drain PD No._____ or miscellaneous Transfer Drain MTD No. _____.
25. All storm drain work is to be done under continuous inspection by the Field Engineer. Status reports required under note 18 and Section J105.11 of the County of Los Angeles Building Code shall include inspection information and reports on the storm drain installation.

AGENCY NOTES

26. An encroachment permit from (County of Los Angeles Department of Public Works) (CALTRANS) (City of _____) is required for all work within or affecting road right of way. All work within Road right of way shall conform to (County of Los Angeles Department of Public Works)(CALTRANS) (City of _____) encroachment permit.
27. An encroachment permit/connection permit is required from the County of Los Angeles Flood Control District for all work within the County of Los Angeles Flood Control District Right of Way. All work shall conform to conditions set by the Permit.
28. Permission to operate in Very High Fire Hazard Severity Zone must be obtained from the Fire Prevention Bureau or the local Fire Station prior to commencing work.
29. All work within the streambed and areas outlined on grading plans shall conform to Army Corp 404 Permit Number:_____.
California Fish & Game Permit No:_____
30. All construction/demolition, grading, and storage of bulk materials must comply with the local AQMD rule 403 for Fugitive Dust. Information on rule 403 is available at AQMD's website http://www.aqmd.com.

GENERAL GEOTECHNICAL NOTES

31. All work must be in compliance with the recommendations included in the geotechnical consultant's report(s) and the approved grading plans and specifications.
32. Grading operations must be conducted under periodic inspections by the geotechnical consultants with monthly inspection reports to be submitted to the Geology and Soils Section, (900 S. Fremont, Alhambra CA 91803 - 3rd Floor)
33. The Soil Engineer shall provide sufficient inspections during the preparation of the natural ground and the placement and compaction of the fill to be satisfied that the work is being performed in accordance with the plan and applicable Code requirements.
34. Rough grading must be approved by a final engineering geology and soils engineering report. An As-Built Geologic Map must be included in the final geology report. Provide a final report statement that verifies work was done in accordance with report recommendations and code provisions (Section J105.12 of the County of Los Angeles Building Code). The final report(s) must be submitted to the Geotechnical and Materials Engineering Division for review and approval.
35. Foundation, wall and pool excavations must be inspected and approved by the consulting geologist and soil engineer, prior to the placing of steel or concrete.
36. Building pads located in cut/fill transition areas shall be over-excavated a minimum of three (3) feet below the proposed bottom of footing.

FILL NOTES

37. All fill shall be compacted to the following minimum relative compaction criteria:
a. 90 percent of maximum dry density within 40 feet below finish grade.
b. 93 percent of maximum dry density deeper than 40 feet below finish grade, unless a lower relative compaction (not less than 90 percent of maximum dry density) is justified by the geotechnical engineer.
The relative compaction shall be determined by A.S.T.M. soil compaction test D1557-91 where applicable. Where not applicable, a test acceptable to the Building Official shall be used. (Section J107.5 of the County of Los Angeles Building Code.)
38. Field density shall be determined by a method acceptable to the Building Official. (Section J107.5 of the County of Los Angeles Building Code.) However, not less than 10% of the required density test, uniformly distributed, and shall be obtained by the Sand Cone Method.
39. Sufficient tests of the fill soils shall be made to determine the relative compaction of the fill in accordance with the following minimum guidelines:
a. One test for each two-foot vertical lift.
b. One test for each 1,000 cubic yards of material placed.
c. One test at the location of the final fill slope for each building site lot (in each four-foot vertical lift or portion thereof.
d. One test in the vicinity of each building pad for each four-foot vertical lift or portion thereof.
40. Sufficient tests of fill soils shall be made to verify that the soil properties comply with the design requirements, as determined by the Soil Engineer including soil types, shear strengths parameters and corresponding unit weights in accordance with the following guidelines:
a. Prior and subsequent to placement of the fill, shear tests shall be taken on each type of soil or soil mixture to be used for all fill slopes steeper than three (3) horizontal to one vertical.
b. Shear test results for the proposed fill material must meet or exceed the design values used in the geotechnical report to determine slope stability requirements. Otherwise, the slope must be reevaluated using the actual shear test value of the fill material that is in place.
c. Fill soils shall be free of deleterious materials.
41. Fill shall not be placed until stripping of vegetation, removal of unsuitable soils, and installation of subdrain (if any) have been inspected and approved by the Soil Engineer. The Building Official may require a "Standard Field Method for moisture, ash, organic matter, peat or other organic soils" ASTM D-2974-87 on any suspect material. Detrimental amounts of organic material shall not be permitted in fills. Soil containing small amounts of rocks may be allowed provided that the rocks are in a quantity and distributed in a manner that will not be detrimental to the future use of the site and the soils engineer approves the use of such material.
42. Rock or similar material greater than 12 inches in diameter shall not be placed in the fill unless recommendations for such placement have been submitted by the Soil Engineer and approved in advance by the Building Official. Location, extent, and elevation of rock disposal areas must be shown on an "As Built" grading plan.
43. Continuous inspection by the Soil Engineer, or a responsible representative, shall be provided during all fill placement and compaction operations where fills have a depth greater than 30 feet or slope surface steeper than 2:1. (Section J107.8 of the County of Los Angeles Building Code)
44. Continuous inspection by the Soil Engineer, or a responsible representative, shall be provided during all subdrain installation. (Section J107.2 of the County of Los Angeles Building Code)
45. All subdrain outlets are to be surveyed for line and elevation. Subdrain information must be shown on an "As Built" grading plan.
46. Fill slopes in excess of 2:1 steepness ratio are to be constructed by the placement of soil at sufficient distance beyond the proposed finish slope to allow compaction equipment to be operated at the outer limits of the final slope surface. The excess fill is to be removed prior to completion of rough grading. Other construction procedures may be used when it is demonstrated to the satisfaction of the Building Official that the angle of slope, construction method and other factors will have equivalent effect. (Section J107.2 of the County of Los Angeles Building Code.)

PLANTING AND IRRIGATION NOTES

47. Planting and irrigation on graded slopes must comply with the following minimum guidelines:

a. The surface of all cut slopes more than 5 feet in height and fill slopes more than 3 feet in height shall be protected against damage by erosion by planting with grass or groundcover plants. Slopes exceeding 15 feet in vertical height shall also be planted with shrubs, spaced at not to exceed 10 feet on centers or trees, spaced at not to exceed 20 feet on centers, or a combination of shrubs and trees at equivalent spacing. In addition to the grass or groundcover plants, the plants selected and planting methods used shall be suitable for the soil and climatic conditions of the site. Plant material shall be selected which will produce a coverage of permanent planting effectively controlling erosion. Consideration shall be given to deep-rooted planting material needing little water, maintenance, high root to shoot ratio, wind susceptibility and fire-retardant characteristics. All plant materials must be approved by the building official. (Section J110.3 of the County of Los Angeles Building Code)

Note: Planting may be modified for the site if specific recommendations are provided by both the Soils Engineer and a Landscape Architect. Specific recommendations must consider soils and climatic conditions, irrigation requirements, planting methods, fire retardant characteristics, water efficiency, maintenance needs, and other regulatory requirements. Recommendations must include a finding that the alternative planting will provide a permanent and effective method of erosion control. Modifications to planting must be approved by the Building Official prior to installation.

b. Slopes required to be planted by Section J110.3 shall be provided with an approved system of irrigation that is designed to cover all portions of the slope. Irrigation system plans shall be submitted and approved prior to installation. A functional test of the system may be required. For slopes less than 20 feet in vertical height, hose bibs to permit hand watering will be acceptable if such hose bibs are installed at conveniently accessible locations where a hose no longer than 50 feet is necessary for irrigation. The requirements for permanent irrigation systems may be modified upon specific recommendation of a landscape architect or equivalent authority that, because of the type of plants selected, the planting methods used and the soil and climatic conditions at the site, irrigation will not be necessary for the maintenance of the slope planting. (Section J110.4 of the County of Los Angeles Building Code)

c. Other governmental agencies may have additional requirements for landscaping and irrigation. It is the responsibility of the applicant to coordinate with other agencies to meet their requirements while maintaining compliance with the County of Los Angeles Building Code.

46. The planting and irrigation systems shall be installed as soon as practical after rough grading. Prior to final grading approval all required slope planting must be well established. (Section J110.7of the County of Los Angeles Building Code)

49. Landscape/Irrigation system shall be designed and maintained to prevent spray on structures. (Title 31, Section 5.407.2.1)

50. Prior to rough grade approval this project requires a landscape permit. Landscape plans in compliance with the "Model Water Efficient Landscape Ordinance" Title 23, Chapter 2.7 of California Code of Regulations (AB 1881) must be submitted to the Department of Public Works, Land Development Division, (900 S. Fremont Ave. Alhambra - 3RD Floor, CA 91803 (626) 458-4921). To obtain Landscape permit approved plans and Water Purveyor acknowledgment form must be submitted to the local Building and Safety office.

BEST MANAGEMENT PRACTICE NOTES

1. Every effort should be made to eliminate the discharge of non-stormwater from the project site at all times.
2. Eroded sediments and other pollutants must be retained on-site and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses or wind.
3. Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water.
4. Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.
5. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on-site until they can be disposed of as solid waste.
6. Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.
7. Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.
8. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.
9. As the project owner or authorized agent of the owner, I have read and understand the requirements listed above, necessary to control storm water pollution from sediments, erosion, and construction materials, and I certify that I will comply with these requirements.

Print Name _____
(Owner or authorized agent of the owner)

Signature _____ Date _____
(Owner or authorized agent of the owner)

The following BMPs as outlined in, but not limited to, the California Stormwater Best Management Practices Handbook, November 2009, or the latest revised edition, may apply during the construction of this project (additional measures may be required if deemed appropriate by the Project Engineer or the Building Official):

EROSION CONTROL
EC1 - SCHEDULING
EC2 - PRESERVATION OF EXISTING VEGETATION
EC3 - HYDRAULIC MULCH
EC4 - HYDROSEEDING
EC5 - SOIL BINDERS
EC6 - STRAW MULCH
EC7 - GEOTEXTILES & MATS
EC8 - WOOD MULCHING
EC9 - EARTH DIKES AND DRAINAGE SWALES
EC10 - VELOCITY DISSIPATION DEVICES
EC11 - SLOPE DRAINS
EC12 - STREAMBANK STABILIZATION
EC13 - RESERVED
EC14 - COMPOST BLANKETS
EC15 - SOIL PREPARATION/ROUGHENING
EC16 - NON-VEGETATED STABILIZATION

TEMPORARY SEDIMENT CONTROL
SE1 - SILT FENCE
SE2 - SEDIMENT BASIN
SE3 - SEDIMENT TRAP SE4 - CHECK DAM
SE5 - FIBER ROLLS
SE6 - GRAVEL BAG BERM
SE7 - STREET SWEEPING AND VACUUMING
SE8 - SANDBAG BARRIER
SE9 - STRAW BALE BARRIER
SE10 - STORM DRAIN INLET PROTECTION
SE11 - ACTIVE TREATMENT SYSTEMS
SE12 - TEMPORARY SILT DIKE
SE13 - COMPOST SOCKS & BERMS
SE14 - BIOFILTER BAGS

WIND EROSION CONTROL
WE1 - WIND EROSION CONTROL

EQUIPMENT TRACKING CONTROL
TC1 - STABILIZED CONSTRUCTION ENTRANCE EXIT
TC2 - STABILIZED CONSTRUCTION ROADWAY
TC3 - ENTRANCE/EXIT TIRE WASH

NON-STORMWATER MANAGEMENT
NS1 - WATER CONSERVATION PRACTICES
NS2 - DEWATERING OPERATIONS
NS3 - PAVING AND GRINDING OPERATIONS
NS4 - TEMPORARY STREAM CROSSING
NS5 - CLEAR WATER DIVERSION
NS6 - ILLICIT CONNECTION/DISCHARGE
NS7 - POTABLE WATER/IRRIGATION
NS8 - VEHICLE AND EQUIPMENT CLEANING
NS9 - VEHICLE AND EQUIPMENT FUELING
NS10 - VEHICLE AND EQUIPMENT MAINTENANCE
NS11 - PILE DRIVING OPERATIONS
NS12 - CONCRETE CURING
NS13 - CONCRETE FINISHING
NS14 - MATERIAL AND EQUIPMENT USE
NS15 - DEMOLITION ADJACENT TO WATER
NS16 - TEMPORARY BATCH PLANTS

WASTE MANAGEMENT & MATERIAL POLLUTION CONTROL
WM1 - MATERIAL DELIVERY AND STORAGE
WM2 - MATERIAL USE
WM3 - STOCKPILE MANAGEMENT
WM4 - SPILL PREVENTION AND CONTROL
WM5 - SOLID WASTE MANAGEMENT
WM6 - HAZARDOUS WASTE MANAGEMENT
WM7 - CONTAMINATION SOIL MANAGEMENT
WM8 - CONCRETE WASTE MANAGEMENT
WM9 - SANITARY/SEPTIC WASTE MANAGEMENT
WM10 - LIQUID WASTE MANAGEMENT

ESTIMATED EARTH QUANTITIES		
CUT =	0	CU. YDS.
FILL =	610	CU. YDS.
RE-COMPACT=	1332	CU. YDS.
TOTAL IMPORT =	650	CU. YDS.

Grading Plan Check No 7454
5707 Pacific Blvd
Page 4 of 13

2. The following note must be provided on the first sheet of the plans, **and must be signed and dated by the project owner or authorized agent of the owner:**

As the project owner or authorized agent of the owner, I have read and understand the Los Angeles County Best Management Practices ("BMPs") that are stated in the City's General Grading Notes under the section titled Temporary Earth And Stormwater Protective Measures. I understand that these requirements are necessary to control storm water pollution from sediments, erosion, and construction materials, and I certify that I will comply with these requirements.

As the project owner or authorized agent of the owner, I have read and understand the requirements to control storm water pollution from sediments, erosion, and construction materials, and I certify that I will comply with these requirements. I, or my representative, contractor, developer, or Engineer will make certain that all BMP shown on this plan will be fully implemented, and all erosion control devices will be kept clean and functioning. Periodic inspections of the BMPs will be conducted and a current log, specifying the exact nature of the inspection and any remedial measures will be kept at the construction site at all times and will be available for the review by the Building Official.

As the project owner or authorized agent of the owner, "I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that submitting false and/or inaccurate information, failing to update the Local SWPPP to reflect current conditions, or failing to properly and/or adequately implement the Local SWPPP may result in revocation of grading and/or other permits or other sanctions provided by law."

Name of Signer | Signature of Signer | Date

Grading Plan Check No 7454
5707 Pacific Blvd
Page 6 of 13

STATEMENTS REQUIRED TO APPEAR ON THE FIRST (1ST) SHEET OF THE PLANS

The following statements must appear verbatim on the first (1st) sheet of the plans. This requirement is not optional, and the plans will not be stamped approved by the building division until full compliance has been achieved.

1. The following note must be provided on the first sheet of the plans, **and must be signed and dated by the architect or engineer of record.** A copy of the referenced LID Manual is available at: http://dpw.lacounty.gov/wrd/lid_manual/Chapter1Introduction.pdf

As the Architect or Engineer of the project, I have reviewed the Low Impact Development Standards Manual (LID), and have prepared the implementation of the permanent Best Management Practices (BMPs) specified in the LID Manual for the following project. The project owner and contractor are aware that the selected BMPs must be installed, maintained, and monitored to ensure their effectiveness. I certify that the BMPs shown on this plan are feasible or deemed not applicable to the proposed construction activity."

As the project/property owner, I have selected appropriate BMPs to effectively minimize the negative impacts of this project's construction activities on storm water quality. The project owner and contractor are aware that the selected BMPs must be installed, maintained, and monitored to ensure their effectiveness. I certify that the BMPs shown on this plan are feasible or deemed not applicable to the proposed construction activity."

Name of Signer | Signature of Signer | Date

VICINITY MAP

PROJECT INFORMATION

GENERAL INFORMATION

Grading Permit Application No. GR_____
Earthwork Volumes Cut_____(cy), Fill 610 (cy)
Over Excavation/ Alluvial Removal & Compaction 1332 (cy) *
Export __N/A__(cy), Export Location: _____N/A_____ *
Total Disturbed Area LOT 5=0.30 , LOT 4=0.14, TOTAL=0.44 (Acres)
Total Proposed Landscape Area 1600 Square Feet *
Total Turf Area _____% (Percent of Total Proposed Landscaping) *
Total Drought Tolerant Landscaping Area __30__ % (Percent of Total Proposed Landscaping) *
Pre-Development Impervious area 0.005 (assumed) (Acres)
Post-Development Impervious area 0.30 (Acres)
Waste Discharge Identification Number (WDID #)
_____

Construction & Demolition Debris Recycling and Reuse Plan (RPP ID)
_____ *

PROPERTY INFORMATION

Property Address 5445 E 57th Street & 5707 Pacific Blvd
Tract / Parcel Map No. 6309-015-003 & 004 Lot/Parcel No: LOT 5 & 4
Property Owner Prajin Brothers LLC
Assessors ID Number(s) 6309-015-003 & 6309-015-002

Zoning, Regional Planning, and other Agency Information

Property Zoning: _____ *
Intended Land Use: _____ *
Certificate of Compliance: CC NO._____
Plot Plan Number: PP NO._____

Conditional Use Permit:
CUP NO._____
Expiration Date: _____

Oak Tree Permit Number:
OTP NO._____
Expiration Date: _____

Community Standards District:_____
California Coastal Commission Area: _____Yes, _____No
Approved volume: _____(cy)
Coastal Development Permit CDP_____
Expiration Date: _____

Note: Items marked * are required on all grading plan.

SHEET INDEX

C-1.0	PROJECT SUMMARY & NOTES
C-1.1	GRADING NOTES
C-2.0	SITE GRADING & DRAINAGE PLAN
C-2.1	GRADING SECTIONS
C-3.0	GRADING & DRAINAGE DETAILS
C-4.0	TEMP. SEDIMENT & EROSION PLAN
C-4.1	TEMP. EROSION DETAILS
C-5.0	LID PLAN SITE PLAN
C-5.1	LID PLAN NOTES & DETAILS
C-5.2	LID NOTES & DETAILS

BENCH MARK

SAYAH
ENGINEERING INC
Structural - Civil - Design
TEL 818.788.7887
15233 Ventura Blvd, Suite 1130
Sherman Oaks, Ca. 91403-2201
FAX 818.788.7827

Written dimensions on these drawings shall have precedence over scale dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the job and this office must be notified of any variations from the dimensions and conditions shown by these drawings.
These drawings, specifications and plans, designs and arrangements represented thereby are and shall remain the property of SAYAH ENGINEERING and shall not be loaned, copied or disclosed to others, nor used in connection with any work or project other than the specific project for which they have been prepared and developed without the written consent of SAYAH ENGINEERING. Visual contact with these drawings or specifications shall constitute conclusive evidence of acceptance of these restrictions.

REGISTERED PROFESSIONAL ENGINEER DANIEL H SAYAH S 6000 EXP 06-30-19 STRUCTURAL STATE OF CALIFORNIA

2554 E 57th Street & 5707 Pacific Blvd

2-Story Commercial Building

Prajin LLC
2554 E 57th Street
Huntington Park, Ca 90255

Sheet Contents:
Grading Notes

Scale: Per Plan
0' 1' 3' 5'

Revisions:

Date: 2017.06.28
Project No.: S16195
File Name: S16195_C
Sheet No.:

C-1.0

Total Sheets:

GENERAL GRADING NOTES

GENERAL

1. **California Title 24 Compliance.** All work shall conform to all requirements of State of California Title 24 regardless of the information indicated on these plans. It is the responsibility of the individual supervising the construction to ensure that the work is done in accordance with Code requirements prior to requesting inspection.
2. **Building Official's Authority.** The issuance of a permit based or approval of plans by the building official shall not prevent the building official from requiring the correction of any discovered errors or from preventing any violation of any Codes adopted by the City, relevant laws, ordinances, rules and/or other regulations.
3. **Workers' Compensation.** At time of permit issuance, contractor shall show their valid workers' compensation insurance certificate.
4. **Separate Permits.** Separate approval and permit is required from the City Public Works Department for all work located within the public right-of-way.
5. **Construction fencing.** Construction fencing shall be maintained around the perimeter of the site at all times unless the City Building Division approves the use of 24 hour security patrols.
6. **Permitted Work.** The issuance of the grading permit associated with these plans shall constitute an authorization to do only the work which is described on the permit and plans as approved by the building official.
7. **Notification to Adjacent Property Owners.** Owners of property adjacent to the work site shall be notified of any proposed excavation in accordance with California Civil Code Section 832 .
8. **Additional Authorities.** Permits issued under the provisions of the current Building Code shall not relieve the owner of the responsibility for securing permits, approvals, and/or licenses that may be required from other agency having authority to regulate any portion of the work.
9. **Modifications.** Any modifications of or changes to the approved grading plans shall be approved by the City. Owner assumes all risk for any changed work performed prior to approval by the City.
10. **Additional Reports.** In accordance with Los Angeles County Building Code Sections 111, 113, J104.3, and J105.2, the building official may require investigations and reports by an approved soil testing agency, geotechnical engineer and/or engineering geologist, and field engineer. Inspection reports shall be provided when requested in writing by the building official.
11. **Change of ownership.** Unless otherwise required by the building official, when a grading permit has been issued on a site and the owner sells the property prior to final grading approval, the new property owner shall be required to obtain a new grading permit.
12. **Dust Control.** Grading contractor shall exercise extra care to minimize the effects from disturbed earth and/or dust. Dust shall be controlled in accordance with the requirements of the South Coast Air Quality Management District and applicable County and State laws. At a minimum, continuous watering shall be performed while any earthwork is being performed. If the water is to be obtained from the local municipal water supply system, the grading contractor shall first obtain approval from the appropriate water provider.

INSPECTION

1. **Obligation to Inspect.** Grading operation for which a permit is required shall be subject to inspection by the City in accordance with Building Code Sections 108 and J105. In addition, professional inspection of grading operations shall be performed by the field engineer, geotechnical engineer and the engineering geologist retained to provide such services in accordance with this section for engineered grading (defined in Section J104.2.3), and as required by the building official for regular grading (defined in Section J104.2.2).
2. **Special Inspection.** The special inspection requirements of Building Code Section 1704.7 shall apply to work performed under a grading permit. In addition to the called inspections specified in Section J105.7, the building official may make such other inspections as may be deemed necessary to determine that the work is being performed in conformance with the requirements of this code. The building official may require continuous inspection of drainage devices by the field engineer in accordance with this section when the building official determines that the drainage devices are necessary for the protection of existing structures and/or adjacent property. In addition to the special inspection requirements of 1704.7, special inspection shall be provided for:
   a. Driven deep foundations and connection grade beams in accordance with Section 1704.8;
   b. Cast-in-Place deep foundations and connection grade beams in accordance with Section 1701.9.
3. **Field engineer.** The field engineer shall provide professional inspection of those parts of the grading project within such engineer's area of technical specialty, oversee and coordinate all field surveys, set grade stakes, and provide site inspections during grading operations to ensure the site is graded in accordance with the approved grading plan and the appropriate requirements of the current Building Code. During site grading, and at the completion of both rough grading and final grading, the field engineer shall submit statements and reports as required by Sections J105.11 and J105.12. If revised grading plans are required during the course of the work, then they shall be prepared by a civil engineer and approved by the building official.
4. **Geotechnical engineer.** The geotechnical engineer shall provide professional inspection of those parts of the grading project within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The geotechnical engineer shall provide sufficient observation during the preparation of the natural ground and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this chapter. If conditions differing from the approved geotechnical engineering and engineering geology reports are encountered during grading, the geotechnical engineer shall provide revised recommendations to the permittee, the building official and the field engineer.
5. **Engineering geologist.** The engineering geologist shall provide professional inspection of those parts of the grading project within such engineer's area of technical specialty, which shall include professional inspection of the bedrock excavation to determine if conditions encountered are in conformance with the approved report. If conditions differing from the approved engineering geology report are encountered, the engineering geologist shall provide revised recommendations to the geotechnical engineer.
6. **Soils Engineer of Record.** The duties of the soils engineer of record shall include the following:
   a. Observation of cleared areas and benches prepared to receive fill;
   b. Observation of the removal of all unsuitable soils and other materials
   c. The approval of soils to be used as fill material;

   d. The inspection of placement and compaction of fill materials; and
   e. The testing of all completed fills.
7. **Compaction Testing.** Compaction test shall not be performed by individuals other than the Soils Engineer of Record unless requested by the soils engineer of record and approved by the City Building Division.
8. **Permittee.** The permittee shall be responsible for ensuring that the grading is performed in accordance with the approved plans and specifications and in conformance with the provisions of this code. The permittee shall engage project consultants, if required under the provisions of this code, to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the project consultants, the contractor and the building official. In the event of changed conditions, the permittee shall be responsible for informing the building official of such change and shall provide revised plans for approval.
9. The permittee shall call for an inspection by the building official at the following various stages of work and shall obtain the approval of the building official prior to proceeding to the next stage of work:
   a. **Pre-grade.** Before any construction or grading activities occur at the site. Permittee shall schedule a pre-grade inspection with the building official. The permittee shall ensure that all project consultants are present at the pre-grade inspection.
   b. **Initial.** When the site has been cleared of vegetation and unapproved fill and has been scarified, benched or otherwise prepared for fill. No fill shall have been placed prior to this inspection.
   c. **Rough.** When approximate final elevations have been established, drainage terraces, swales and other drainage devices necessary for the protection of the building sites from flooding have been installed, berms have been installed at the top of the slopes, and the statements required by Section 1105.12 have been received.
   d. **Final.** When grading has been completed; all drainage devices necessary to drain the building pad have been installed, slope planting has been established, irrigation systems have been installed, and the as-built plans and required statements and reports have been submitted.
10. **Routine Field Inspections and Reports.** Unless otherwise directed by the building official, the field engineer for all engineered grading projects shall prepare routine inspection reports and shall file these reports with the building official as follows:
   a. Bi-weekly during all times when grading of 400 cubic yards or more per week is occurring on the site;
   b. Monthly, at all other times; and
   c. At any time when requested in writing by the building official.

   Such reports shall certify to the building official that the field engineer has inspected the grading site and related activities and has found them in compliance with the approved grading plans and specifications, the building code, all grading permit conditions, and all other applicable ordinances and requirements. The reports shall conform to a standard "Report of Grading Activities" form which shall be provided by the building official.
11. **Rough and Final Grading Certifications.** Consultant certifications and/or contractor certifications shall be delivered to the City on forms provided by the City based on the actual project work. No release of any grading security will be given until required rough grading certifications have been provided to and approved by the Building Division.

12. **Notification of Noncompliance.** If, in the course of fulfilling their respective duties under this chapter, the field engineer, the geotechnical engineer or the engineering geologist determines that the work is not being done in conformance with this chapter or the approved grading plans, the field engineer, geotechnical engineer or the engineering geologist shall immediately report, in writing, the discrepancies and the recommended corrective measures to the permittee and to the building official.
13. **Transfer of responsibility.** If the field engineer, the geotechnical engineer, or the engineering geologist of record is changed at any time after the grading plans required pursuant to Section J104.2.2 or J104.2.3 have been approved by the building official, the permittee shall immediately provide written notice of such change to the building official. The building official may stop the grading from commencing or continuing until the permittee has identified a replacement and the replacement has agreed in writing to assume responsibility for those parts of the grading project that are within the replacement's area of technical competence.

COMPLETION OF WORK

1. Upon completion of the rough grading work and at the final completion of the work, the following reports and drawings and supplements thereto are required for engineered grading or when professional inspection is otherwise required by the building official:
   a. An "As-built" grading plan prepared by the field engineer retained to provide such services in accordance with Section J105.3 showing all plan revisions as approved by the building official. This shall include original ground surface elevations, as-built ground surface elevations, lot drainage patterns, and the locations and elevations of surface drainage facilities and the outlets of subsurface drains. As-built locations, elevations and details of subsurface drains shall be shown as reported by the geotechnical engineer. The As-built grading plan shall be accompanied by a certification by the field engineer that to the best of his or her knowledge, the work within the field engineer's area of responsibility was done in accordance with the final approved grading plan.
   b. A report prepared by the geotechnical engineer retained to provide such services in accordance with Section J105.4, including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the approved soils engineering investigation report. The report shall include a certification by the geotechnical engineer that, to the best of his or her knowledge, the work within the geotechnical engineer's area of responsibility is in accordance with the approved soils engineering report and applicable provisions of this chapter. The report shall contain a finding regarding the safety of the completed grading and any proposed structures against hazard from landslide, settlement, or slippage.

   c. A report prepared by the engineering geologist retained to provide such services in accordance with Section J105.5, including a final description of the geology of the site and any new information disclosed during the grading and the effect of such new information, if any, on the recommendations incorporated in the approved grading plan. The report shall contain a certification by the engineering geologist that, to the best of his or her knowledge, the work within the engineering geologist's area of responsibility is in accordance with the approved engineering geology report and applicable provisions of this chapter. The report shall contain a finding regarding the safety of the completed grading and any proposed structures against hazard from landslide, settlement, or slippage. The report shall contain a final as-built geologic map and cross-sections depicting all the information collected prior to and during grading.
   d. The grading contractor shall certify, on a form prescribed by the building official, that the grading conforms to said as-built plan and the approved specifications.
2. **Notification of completion.** The permittee shall notify the building official when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures have been completed in accordance with the final approved grading plan, and all required reports have been submitted and approved.

EARTHWORK SHORING

1. The permittee shall be solely responsible for the prevention of damage to adjacent property and no person shall excavate on land sufficiently close to the property line to endanger an adjoining public street, sidewalk, alley, or other public or private property without supporting and protecting such property from settling, cracking or other damage which could result.
2. Shoring supporting adjacent City or other publicly owned property, or supporting any public utility shall be specifically approved by that agency prior to implementation. In the case of property owned by the City, specific approval of any proposed shoring method shall be obtained from the Public Works Department.
3. Design of shoring supporting private property is the sole responsibility of the permittee.
4. All shoring shall be done in accordance with the recommendations of the soils report and generally accepted engineering practices.

TEMPORARY EARTH AND STORMWATER PROTECTIVE MEASURES

1. **NPDES Compliance.** In compliance with the County of Los Angeles National Pollution Discharge Elimination System (NPDES) – Construction General Permit, Title 12.80 - Environmental Protection Code, and the Los Angeles County Building Code, all construction sites are required to Implement Best Management Practices (BMPs) to control erosion, debris, and construction-related pollutants.
2. **LACO BMP Requirements.** The following Best Management Practices ("BMPs") apply to all permits and represent the minimum standards of good housekeeping that must be implemented on all construction sites regardless of all size:
   a. Eroded sediments and other pollutants must be retained on site and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses or wind.

   b. Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water.
   c. Fuels, oils, solvents and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.
   d. Non-stormwater runoff from equipment and vehicle washing and any other activity shall be contained at the project site.
   e. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on site until they can be disposed of as solid waste.
   f. Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.
   g. Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.
   h. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.
3. **Maintenance of Protective Measures.** The owner or any person or agent in control of this property shall maintain in good condition and repair all drainage structures and temporary earth, pollutant and stormwater protective measures including rodent control as shown on the approved grading plans. All measures shall be maintained to the satisfaction of the City until final grading approval has been granted by the building official and all permanent drainage and erosion control systems, if required, are in place. All structural Best Management Practices ("BMPs") shall be accessible for inspection and maintenance
4. **Installation.** The permittee shall put into effect and maintain all precautionary measures necessary to protect adjacent water courses and public or private property from damage by erosion, flooding and deposition of mud or debris originating from the premises described on these plans prior to the start of any grading operations.
5. **Phased Operations.** As grading operations progress, all protective measures shall be updated as necessary to prevent erosion and to control construction related pollutants from discharging from the site. All best management practices shall be maintained in good working order to the satisfaction of the building official. Failure to comply with this Section is subject to "Noncompliance Penalties" pursuant to Section J11.0.8.5. Payment of a penalty shall not relieve any persons from fully complying with the requirements of this Code in the execution of the work.
6. **Failure to Provide Either SWPPP or WWECP.** Should the owner fail to submit the SWPPP or the WWECP as required by Section J110.8 or fails to install all required protective measures, it shall be deemed that a default has occurred under the conditions of the grading permit security. The building official may thereafter enter the property for the purpose of installing, by City forces or by other means, the drainage, erosion control and other devices or protective measures shown on the approved plans, or if there are no approved plans, as the building official may deem necessary to protect adjoining property from the effects of erosion, flooding or the deposition of mud, debris or constructed related pollutants.

7. **Fines.** The building official shall also have the authority to impose and collect the penalties imposed by Section J110.8.1. Payment of a penalty shall not relieve any persons from fully complying with grading operation requirements of the current Building Code.
8. **No Dumping Stencil.** All drainage structures shall bear a "No Dumping – Drains to Ocean" symbol in traffic rated paint.
9. **Other Permits.** Prior to commencement of any work and/or discharge of drainage to a watercourse, a permit from both the California Department of Fish and Game and U.S. Army Corps of Engineers may be required.

LOS ANGELES COUNTY STORM WATER POLLUTION PREVENTION ("SWPPP") AND WET WEATHER EROSION CONTROL PLAN ("WWECP") GENERAL NOTES

1. A stand-by crew for emergency work shall be available at all times during the rainy season (November 1st to April 15th). Necessary materials shall be available on-site and stockpiled at convenient locations to facilitate rapid construction of emergency devices when rain is imminent.
2. Erosion control devices shown on this plan may be removed when approved by the Building Official if the grading operation has progressed to the point where they are no longer required.
3. Graded areas adjacent to fill slopes located at the site perimeter must drain away from the top of slope at the conclusion of each working day. All loose soils and debris that may create a potential hazard to off-site property shall be stabilized or removed from the site on a daily basis.
4. All silt and debris shall be removed from all devices within 24 hours after each rainstorm and be disposed of properly.
5. A guard shall be posted on the site whenever the depth of water in any device exceeds two feet. The device shall be drained or pumped dry within 24 hours after each rainstorm. Pumping and draining of all basins and drainage devices must comply must comply with the appropriate BMP for dewatering operations.
6. The placement of additional devices to reduce erosion damage and contain pollutants within the site is left to the discretion of the Field Engineer. Additional devices as needed shall be installed to retain sediments and other pollutants on site.
7. Desilting basins may not be removed or made inoperable between November 1st and April 15th of the following year without the approval of the Building Official.
8. Storm Water Pollution and Erosion Control devices are to be modified, as needed, as the project progresses, the design and placement if these devices is the responsibility of the field engineer. Plans representing changes must be submitted for approval if requested by the Building Official.
9. Every effort should be made to eliminate the discharge of non-storm water from the project sites at all times.
10. Eroded sediments and other pollutants must be retained on-site and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses, or wind.
11. Stockpiles of earth and other construction-related materials must be protected from being transported from the site by the forces of wind or water.

12. Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soils and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.
13. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on-site until they can be disposed of as solid waste.
14. Developers/contractors are responsible to inspect all Erosion Control Devices and BMPs are installed and functioning properly if there is a 50% or greater probability of predicted precipitation, and after actual precipitation. A construction site inspection checklist and inspection log shall be maintained at the project site at all times and available for review by the Building Official (copies of the self-inspection check list and inspection logs are available upon request). A sample Log and Checklist is available as part of the Los Angeles County SWPPP and WWECP Review Sheet dated 03-07-2011 at:
    http://dpw.lacounty.gov/wrd/publications/Index.cfm
15. Trash and construction-related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.
16. Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.
17. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.

PLACEMENT OF FILL MATERIAL

1. **Acceptable Material.** Fill material shall not include organic, frozen or other deleterious materials. Unless approved by the building official, no rock or similar irreducible material greater than 12 inches in any dimension shall be included in fills.
   Exception: The building official may permit placement of larger rock when the geotechnical engineer properly devises and recommends a method of placement, and continuously inspects the placement and approves the fill stability. The following requirements shall also apply:
   a. Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan.
   b. Rock sizes greater than 12 inches (0.3 m) in maximum dimension shall be 10 feet or more below grade, measured vertically.
   c. Rocks shall be placed so as to assure filling of all voids with well-graded soil.
   d. The reports submitted by the geotechnical engineer shall acknowledge the placement of the oversized material and whether the work was performed in accordance with the engineer's recommendations and the approved plans.
   e. The location of oversized rock disposal areas shall be shown on the as-built plan.

2. **Compaction.** All fill material shall be compacted to a minimum of 90 percent of maximum density as determined by ASTM D 1557, Modified Proctor, in lifts not exceeding 12 inches in depth within 40 feet below finished grade and 90 percent of maximum dry density deeper than 40 feet below finished grade unless a lower relative compaction (not less than 90 percent of maximum dry density) is justified by the Geotechnical Engineer and approved by the building official. Where ASTM D 1557, Modified Proctor is not applicable, a test acceptable to the building official shall be used.
3. **Use of Sand Cone Method.** Field density shall be determined by a method acceptable to the building official. However, not less than ten percent of the required density tests, uniformly distributed, shall be obtained by the Sand Cone Method.
4. **Inspection of Fill.** For engineered grading, the geotechnical engineer shall provide sufficient inspections during the preparation of the natural ground and the placement and compaction of the fill to ensure that the work is performed in accordance with the conditions of plan approval and the appropriate requirements of Los Angeles County Building Code Appendix Chapter 1.
5. **Continuous Inspection.** The geotechnical engineer shall provide continuous inspection during the entire fill placement and compaction of fills that will exceed a vertical height or depth of 30 feet or result in a slope surface steeper than 2 units horizontal to 1 unit vertical (50% slope).

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Written dimensions on these drawings shall have precedence over scale dimensions. Contractor to verify and be responsible for all dimensions and conditions on the job and this office must be notified of any variations from the dimensions and conditions shown by these drawings.
These drawings and specifications, plans, designs and arrangements represented thereby are and shall remain the property of SAYAH ENGINEERING and shall not be loaned, copied or used in any way for any purpose and in connection with any work in progress other than the specific project for which they have been prepared and developed without the written consent of SAYAH ENGINEERING. Visual contact with these drawings and specifications shall constitute conclusive evidence of acceptance of these restrictions.

REGISTERED PROFESSIONAL ENGINEER
DANIEL H. SAYAH
S 6000
EXP. 06-30-15
CIVIL
STATE OF CALIFORNIA

2554 E 57th Street & 5707 Pacific Blvd
2-Story Commercial Building

Prajin LLC
2554 E 57th Street
Huntington Park, Ca 90255

Sheet Contents:
Grading Notes

Scale: Per Plan

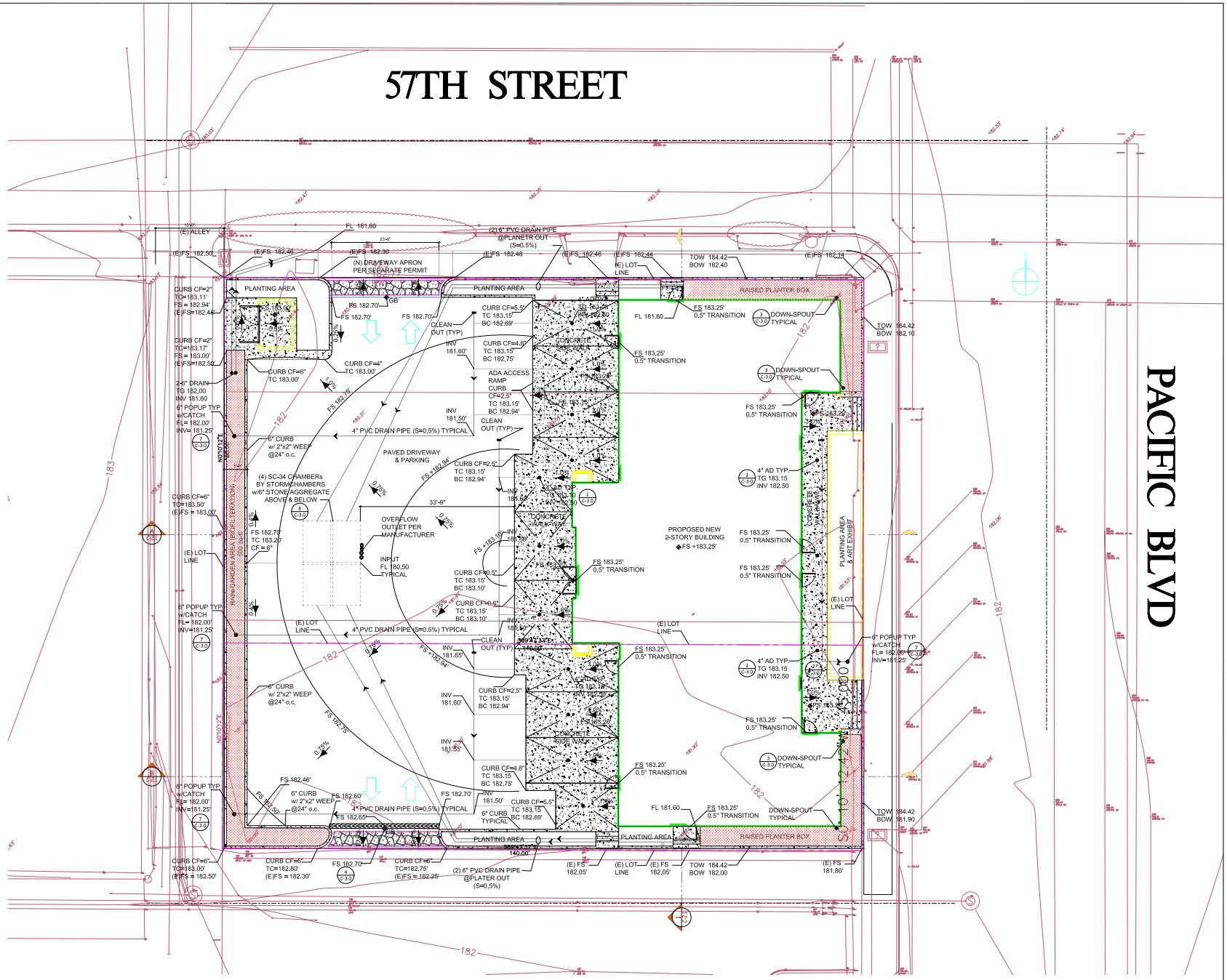
0' 1' 3' 8'

Revisions:

Date: 2017.06.28
Project No.: S16195
File Name: S16195_C
Sheet No.:

C-1.1

Total Sheets:

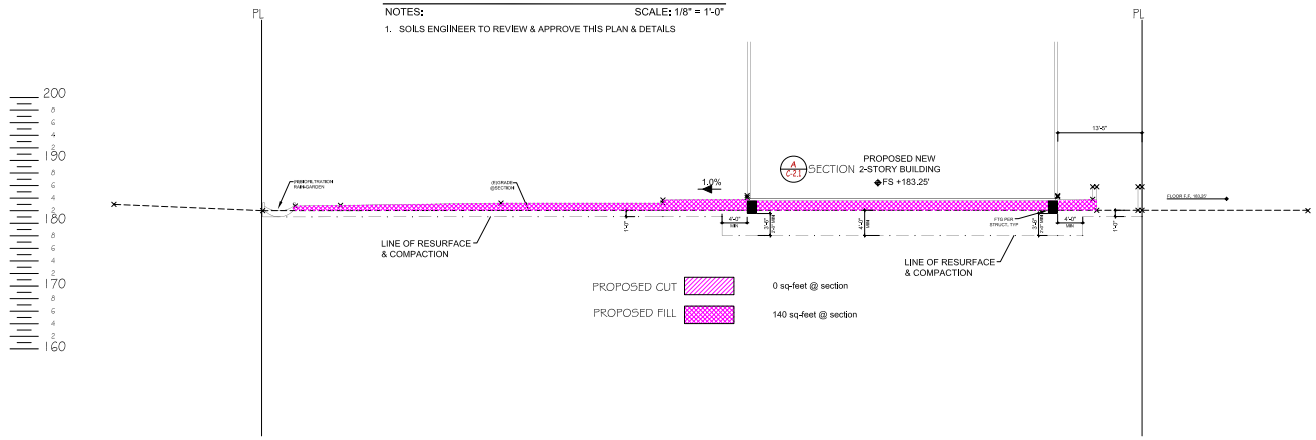

57TH STREET
PACIFIC BLVD
(E) ALLEY
(N) DRIVEWAY APRON PER SEPARATE PERMIT
PLANTING AREA
RAISED PLANTER BOX
PAVED DRIVEWAY & PARKING
(4) SC-34 CHAMBERS BY STORMCHAMBERS w/6" STONE/AGGREGATE ABOVE & BELOW
OVERFLOW OUTLET PER MANUFACTURER
INPUT FL 180.50 TYPICAL
PROPOSED NEW 2-STORY BUILDING
PLANTING AREA & ART EXHIBIT
(E) LOT LINE
4" PVC DRAIN PIPE (S=0.5%) TYPICAL
(2) 6" PVC DRAIN PIPE @PLANETR OUT (S=0.5%)
(2) 6" PVC DRAIN PIPE @PLATER OUT (S=0.5%)
DOWN-SPOUT TYPICAL
FS 183.25' 0.5" TRANSITION
6" CURB w/ 2"x2" WEEP @24" o.c.
6" POPUP TYP w/CATCH FL= 182.00' INV=181.25'
2-6" DRAIN TG 182.00 INV 181.60 6" POPUP TYP w/CATCH FL= 182.00' INV= 181.25'
4" AD TYP. TG 183.15 INV 182.50
CLEAN OUT (TYP)
ADA ACCESS RAMP CURB CF=2.5' TC 183.15' BC 182.94'
CONCRETE SIDE WALK
TOW 184.42 BOW 182.40
TOW 184.42 BOW 182.10
TOW 184.42 BOW 181.90
TOW 184.42 BOW 182.00
(E) FS 182.05'
(E) FS 181.80'
FL 181.60
FS 182.70'
FS 182.76
FS 182.94'
FS 183.10'
FS 182.46'
FS 182.60'
FS 182.65'
FS 182.80'
FS 182.30'
FS 182.75'
FS 182.26'
FS 182.46
FS 182.44
FS 182.14
FS 182.30
FS 182.50
FS 182.70
FS 182.76
FS 182.94
FS 183.25'
FS 183.20
FS 183.10
FS 183.15
FS 183.25
FS 183.25'
FS 183.25'
FS 183.25'

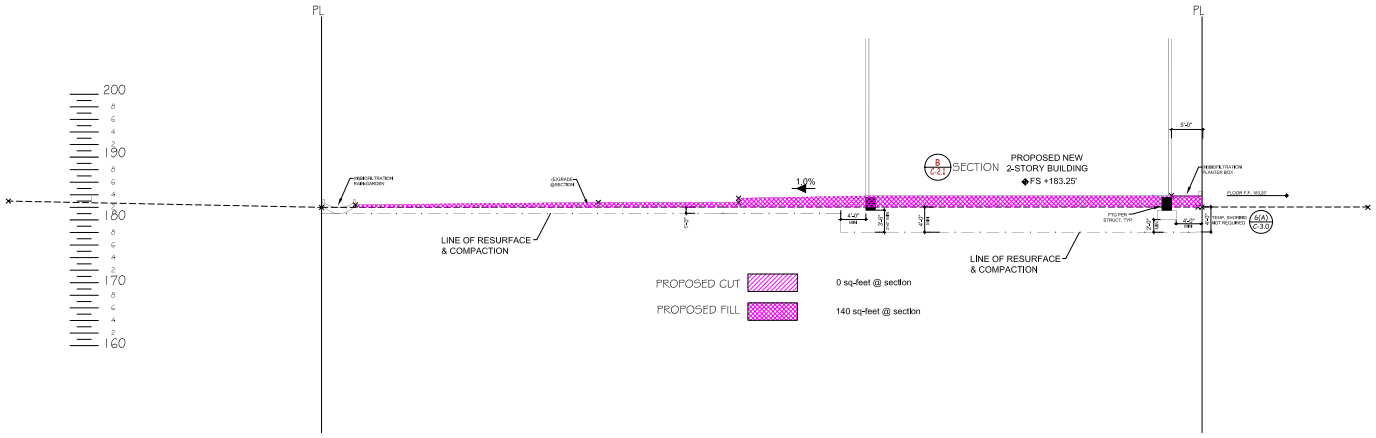
SITE GRADING SECTIONS

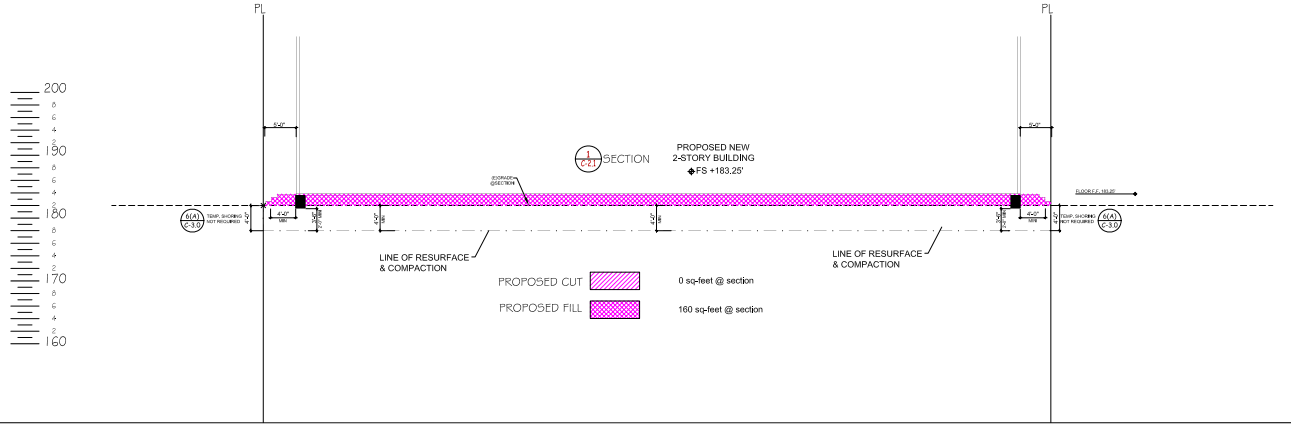
NOTES: SCALE: 1/8" = 1'-0"

1. SOILS ENGINEER TO REVIEW & APPROVE THIS PLAN & DETAILS

ESTIMATED EARTH QUANTITIES		
CUT =	0	CU. YDS.
FILL =	610	CU. YDS.
RE-COMPACT=	1332	CU. YDS
TOTAL IMPORT =	650	CU. YDS.







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REGISTERED PROFESSIONAL ENGINEER
DANIEL H. SAYAH
S 6000
EXP 06-30-19
STRUCTURAL
STATE OF CALIFORNIA

2554 E 57th Street & 5707 Pacific Blvd

2-Story Commercial Building

Prajin LLC
2554 E 57th Street
Huntington Park, Ca 90255

Sheet Contents:
Grading Sections

Scale: Per Plan

0' 1' 3' 5'

Revisions:

Date: 2017.06.28

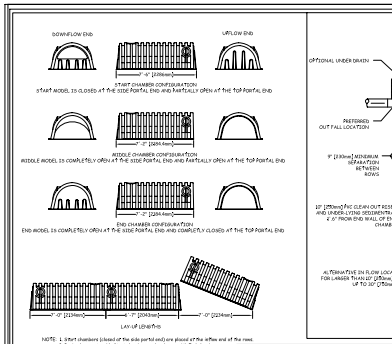
Project No.: S16195

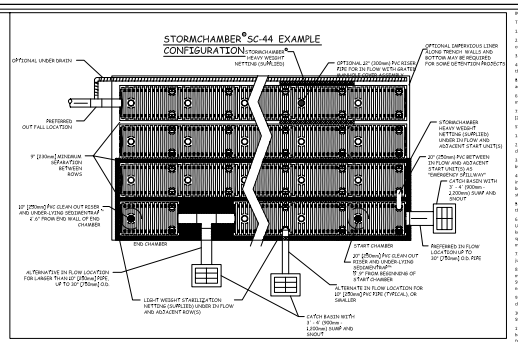
File Name: S16195_C

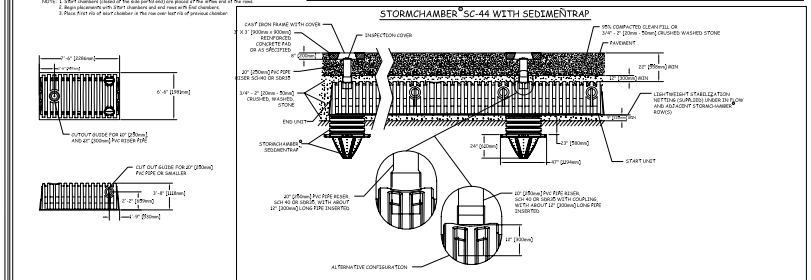
Sheet No.:

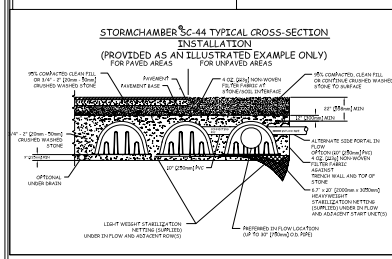
C-2.1

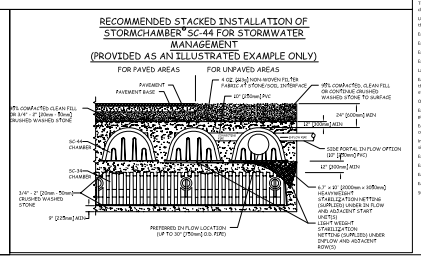
Total Sheets:











INSTALLATION OF STORMCHAMBER SYSTEMS (can be downloaded and printed from www.stormchambers.com)

TRENCH PREPARATION

1. Do not excavate trench until dry weather is forecast long enough to allow at least coverage of the StormChamber system with filter fabric prior to raining.
2. Excavate to a width and length sufficient to accommodate the number of StormChambers plus a minimum one foot border around the entire bed. The bottom of the bed must be level, unless otherwise specified.
3. Do not use heavy equipment on the excavated trench bed in order to avoid soil compaction.
4. If use of heavy equipment on the excavated trench bed can not be avoided, scarify the trench bottom and break up soil clumps and till smooth before adding the stone base.
5. Line trench walls with a 4-ounce (113g) non-woven filter fabric such as Mirafi 140N or 140NC, Synthetic Industries 401, or AMOCO 4545 or 4545. Overlap adjacent filter fabric by at least 2' (300mm). Do not place filter fabric under the StormChambers.
6. Unless otherwise specified, place 9" (230mm) of crushed, washed, 3/4" - 2" (20mm - 50mm) hard, non-calcareous stone on the bottom of the trench. The base must be level and at a zero grade.
7. If it becomes impractical to level the stone base by hand, use a low pressure, tracked dozer, not exceeding 1,000 lbs/ft² (4600kg/m²), maintaining at least 9" (230mm) of stone under the tracks at all times.

STORMCHAMBER INSTALLATION

1. Verify quantities of StormChamber units and other materials that have arrived. If anything is damaged or missing please contact StormChamber immediately.
2. Start building the StormChamber system with the Start Unit StormChambers at the inflow end of the StormChamber system. The Start Units are completely closed at the end with the two side portals.
3. Roll out rows of StormChamber light weight stabilization netting (provided with the StormChambers) parallel with the inflow and adjacent(s). Overlap the rows by approximately 2' (300mm). Keep the netting flat, if moved, straighten and flatten out.
4. Place one piece of the StormChamber heavy weight stabilization netting (provided with the StormChambers) under each StormChamber that will be receiving inlet storm drain pipes. Cut a hole in the netting to fit snugly around the exposed top of the Bullnose Trap. Place on top of the light weight netting and extend beyond all edges of the StormChamber. The purpose of heavy weight stabilization netting is to function as a "splash pan", preventing excavation of the underlying stone and soil, while allowing infiltration to occur.
5. Place the Start Unit StormChambers (completely closed at the end with the two side portals), spaced a minimum of 7.5" (190mm) apart at the center line of the chamber crown. Position the closed ends at least 2' (600mm) from the trench wall.
6. Cut open the side portals for the inflow storm drain pipes (size and location specified on the plans) and lateral connecting pipes between StormChamber Start Units (8" (200mm) or 10" (250mm) Schedule 40 or SDR 35 PVC, 6" (150mm) or 10" (250mm) HDPE will not fit) with a reciprocating saw, motor tool or a drill, or keyhole saw along the defined indented circle. 10" (250mm) PVC pipe is the largest diameter pipe that can fit into the side portals. If the inflow storm drain pipe is specified to enter the closed end wall, place a piece of the pipe against the end wall. Trace the diameter of the pipe on the end wall and cut out the circle. The maximum pipe size that can be inserted into the end wall is 36" (914mm) O.D.
7. If a cut extends more than 6.5" (15cm) beyond the intended diameter, place a piece of the StormChamber non-woven filter fabric over the hole, cut an "X" just short of the width of the opening, and insert the pipe.
8. Mark the midpoints of 10" (250mm) or 10" (250mm) PVC pipe end insert into the adjacent StormChamber Start Units where specified so that the marked midpoint is centered between the two adjacent StormChambers. Pipe length should be sufficient to extend 6" (150mm). 12" (300mm) into each adjacent StormChambers (about 4' (1220mm)). In order to facilitate placement, install the lateral connecting pipes in the specified StormChambers before attaching the end StormChambers in the row.
9. If the locations of row - connecting PVC pipes are not specified, add 48" (1800mm) or 10' (2400mm) PVC pipes to connect the inflow chamber and adjacent chamber(s) of the inflow row.
10. Place the first rib of a Middle Unit (completely open at side portal and partially open at top portal end) over the last rib of each of the Start Unit StormChambers.
11. Screw the StormChambers together at their base on both sides with angular 4" (96mm) dry wall screws. One screw on each side is sufficient to temporarily hold the StormChambers together until the stone base is placed. The gap between the two StormChambers near their base must be closed enough to prevent stone from migrating into them to prevent potential surface subsidence.
12. Continue placing and screwing the rest of the StormChambers, one at a time, leaving at least 1' (300mm) between the end of the End Unit (completely open at the side portal end, completely closed at the top portal end) and the trench wall.
13. For large StormChamber systems it is advisable to install and backfill a few StormChambers of all rows at a time as you continue to install the rest of the chambers.
14. Deposit 3/4" - 2" (20mm - 50mm) crushed, washed, hard stone directly along the centerline of the StormChambers to evenly flow down each side to keep the StormChambers in proper alignment. Avoid the use of limestone, if possible. Limestone gets pasty when wet and will tend to reduce the void spaces in the stone. Do not place the stone directly against the closed end walls at the start and end of the rows. Add stone to 6" (150mm) above the StormChambers, unless otherwise specified.
15. Level the stone cover with a vibratory compactor, not to exceed a dynamic force of 10,000 pounds (44kN), or with a low pressure, tracked vehicle not exceeding 1,000 lbs/ft² (5000g/m²).

IMPORTANT: If a low pressure, tracked dozer is used, do not run the dozer on anything less than 6" (150mm) of stone above the StormChambers. Spread stone in small piles to prevent movement of the StormChambers. Caution must be exercised when placing stone on top of the StormChambers so that excessive pressure is not applied directly on the StormChambers by equipment "tracks".

16. Cover the stone with StormChamber non-woven filter fabric. Overlap adjacent sheets by at least 2' (600mm).

BACKFILLING

1. Backfill soil must be free from large stones and large organic material (e.g. tree limbs and root stumps), and is capable of being compacted to at least 90% of the Standard Proctor Test (ASASTO Method T-99). If not, crusher run or other suitable backfill material must be used. The stone surrounding the StormChambers can also be extended up to the pavement subgrade, if desired.
2. Compaction of the soil backfill must be achieved in 12" (300mm). 8" (200mm) lifts. Grading of lifts should start in one corner of the system with a low pressure, tracked dozer, with a pressure not exceeding 1,000 lbs/ft² (5000g/m²), keeping at least 2' (300mm) of fill in front of the blade at all times. Compact lifts to 90% Standard Proctor with tracked vehicles not exceeding 1,500 lbs/ft² (8000g/m²), or with a hand operated compactor or vibratory roller not exceeding a dynamic force of 20,000 lbs (90TEq).
3. Keep the StormChamber system closed or protected from receiving sediment until the site is completely stabilized (grass growing and all pavement placed).

IMPORTANT: After compaction of backfill and setting of final grade, avoid parking on or traversing over the StormChamber installation with heavily loaded trucks and heavy equipment until paved.

IMPORTANT: These instructions assume accepted construction procedures and trucks that do not exceed specified DOT load limits. Unusual every loads or improper load distributions in vehicles may require additional cover. Contact StormChamber for installation under abnormal conditions. Installations not in compliance with these instructions will void warranty.

PRODUCT ENGINEERING SPECIFICATIONS FOR STORMCHAMBER

Each chamber will be formed from high molecular weight high density polyethylene.

Each chamber will be composed of at least 40% recycled material.

The stone base that the chambers are placed on will not be compacted in order to avoid compaction of the stone-soil interface, which restricts soil infiltration.

The chamber system will be designed without filter fabric under the chambers in order to avoid restriction of soil infiltration, which occurs from the normal clogging of the filter fabric from sediment and debris deposition.

Use of filter fabric between the soil and stone backfill layer and lining the side walls of the excavated area will be required to prevent intrusion of soil or silt into the chambers and surrounding stone.

Each chamber will be capable of supporting a minimum of 30,000 pounds (7,257kg) per square foot (i.e., two times the AASHTO H-20 Wheel Load Rating).

Each chamber will be capable of being installed with a maximum of 12 feet (3657mm) of cover above the crown of the chamber.

Each chamber system will be capable of being installed with a minimum of six inches (150mm) of stone base.

Each chamber will be 44" (1118mm) high, 78" (1981mm) wide and 30" (762mm) long.

Lay-up length will be 7' 3 (2200mm) (start and end unit) and 6'9" (2067 &mm) (middle unit).

Each chamber will have 12 sites of approximately 3.6" (91.4mm) in height, 4.8" (96.4mm) wide at the top and tapering to 4.6" (116mm) at the bottom. Spacing of the ribs at the bottom of the chamber will be approximately 4.8" (122mm) and approximately 3.2" (81.3mm) at the top. Ons smaller ribs exist dimensionally to effectively nest under and interlock to connect units will be 2.6" (71.7mm) high, 3.7" (93.8) wide at the top of the rib, and 4.1" (104mm) wide at the base.

Overall height to the inside rib will be 48.4" (1227.13mm). Overall height to the outside rib will be 44" (1118mm).

Each chamber will have a defined top portal which is structurally enhanced to compensate for loss of structural integrity when apertures are cut open to receive pipe. Each such portal will be capable to receive up to a 10" (250mm) PVC pipe.

Each chamber will have defined side portals on opposing sides which are structurally enhanced to compensate for loss of structural integrity when apertures are cut open to receive pipe.

Invert height for a 10" (250mm) PVC pipe through a defined side portal will be 21.28" (539.75mm). Invert height for an 8" (200mm) PVC pipe through a defined side portal will be 22.28" (566.18mm).

Each chamber will be capable to accept an 8" (200mm) or 10" (250mm) PVC feed pipe through a defined side portal.

Each chamber will be capable to accept up to a 36" (914mm) OD pipe through its end wall.

Each chamber will be capable of storing at least 26 cubic feet per lineal foot with 9" (229mm) of stone below and 12" (300mm) above the chamber.

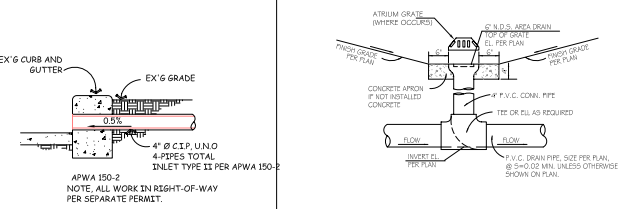
Each chamber system will be designed without utilizing a header pipe manifold system.

Stone diameter will be 3/4" - 2" (19mm - 50mm).

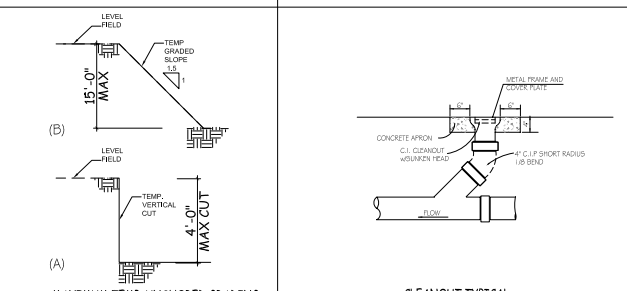
STORMCHAMBER® DESIGN DETAILS SHEET FOR SC-44 CHAMBER	For Availability and Pricing Please Call: StormChamber TOLL FREE: 1-877-4-2SHARE E-mail: info@StormChamber.com
	DRAWING REVISION 07-08-2005 — NOT TO SCALE DRAWING

8 STORM CHAMBER
N.T.S.

NOTE: REFER TO CURRENT MANUFACTURER "STORM CHAMBER" DETAIL SHEET FOR SC-34 PRODUCT PROCEDURES, SIZING, AND INSTALLATION.



5 SECTION DETAIL @ OUTLET TYPICAL
N.T.S.



6 MAXIMUM TEMP. UNSHORED GRADING
N.T.S.

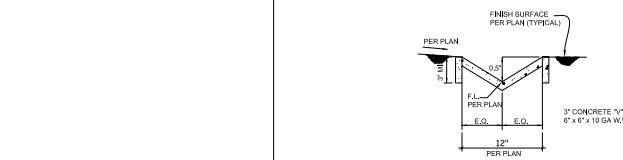
7 POPUP DRAINAGE EMITTER TYPICAL
N.T.S.

8 DETAIL
N.T.S.

1 AREA DRAIN TYPICAL
N.T.S.

2 CLEANOUT TYPICAL
N.T.S.

3 DOWN-SPOUT TYPICAL
N.T.S.



4 DOWN-SPOUT TYPICAL
N.T.S.

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Sherman Oaks, Ca. 91403-2201
FAX 818.788.7827

Written dimensions on these drawings shall have precedence over scale dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the job and this office must be notified of any variations from the dimensions and conditions shown by these drawings.

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REGISTERED PROFESSIONAL ENGINEER DANIEL H. SAYAH S 6000 EXP 06-30-19 STRUCTURAL STATE OF CALIFORNIA

2554 E 57th Street & 5707 Pacific Blvd

2-Story Commercial Building

Prajin LLC
2554 E 57th Street
Huntington Park, Ca 90255

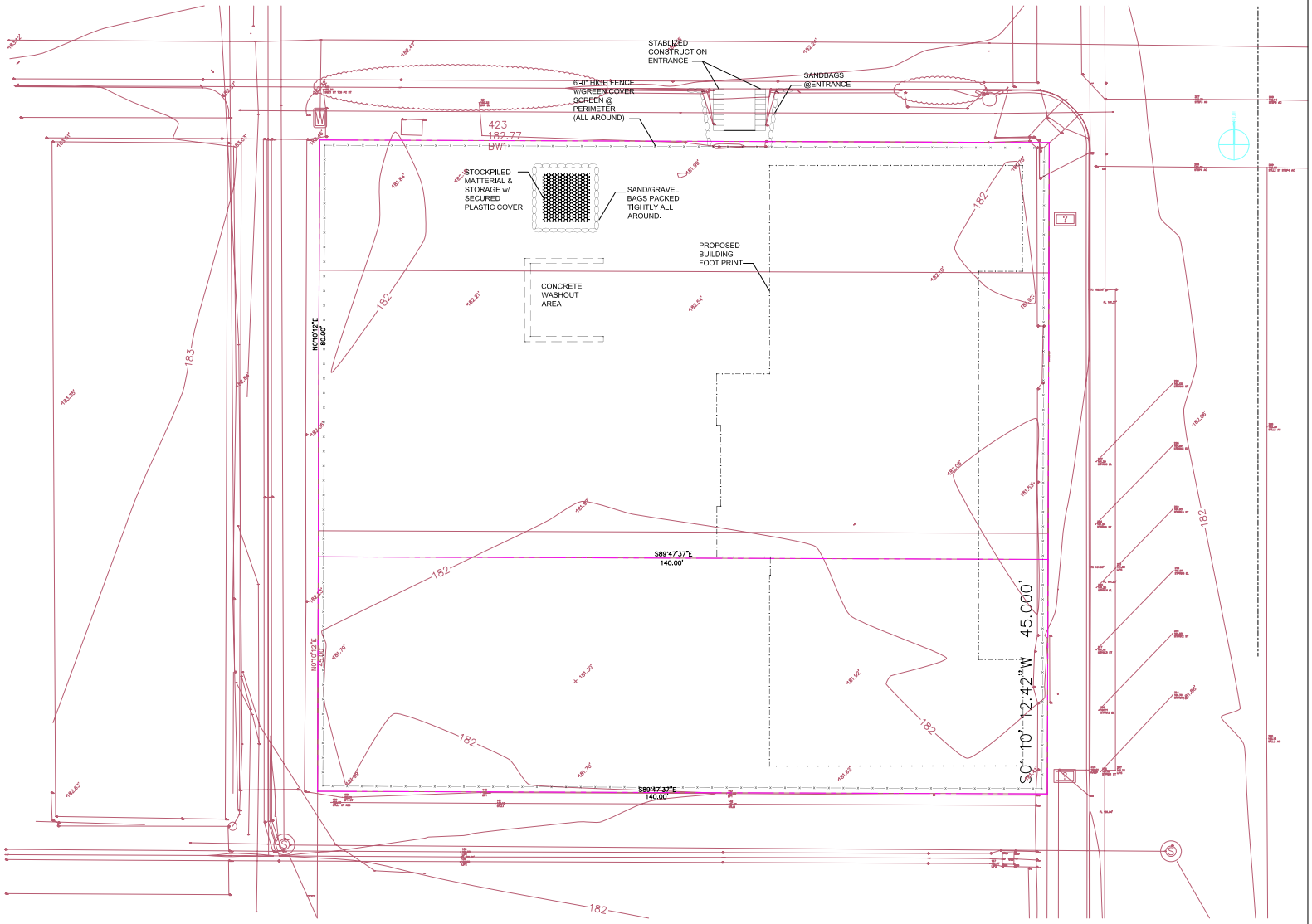
Sheet Contents:
Grading Details

Scale: Per Plan

0' 1' 3' 8'

Revisions:

Date:	2017.06.28
Project No.:	S16195
File Name:	S16195_C
Sheet No.:	C-3.0
Total Sheets:	



TEMPORARY SEDIMENT & EROSION CONTROL PLAN

NOTES: SCALE: 1/8" = 1'-0"

1. CONTRACTOR TO FOLLOW TYPICAL DETAILS AND NOTES ON SHEET C-4.1
2. CONTRACTOR TO NOTIFY ENGINEER IN WRITING FOR ANY CHANGE IN PLANS AND DETAILS

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DANIEL H. SAYAH
S 6000
EXP-06-30-19
STRUCTURAL
STATE OF CALIFORNIA

2554 E 57th Street & 5707 Pacific Blvd

2-Story Commercial Building

Prajin LLC
2554 E 57th Street
Huntington Park, Ca 90255

Sheet Contents:
Temp. Erosion Plan

Scale: Per Plan

0' 1' 3' 8'

Revisions:

Date: 2017.06.28
Project No.: S16195
File Name: S16195_C
Sheet No.:

C-4.0

Total Sheets:

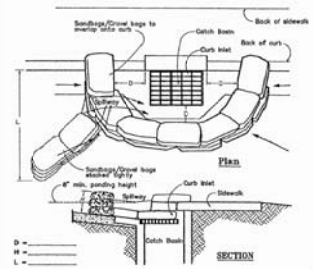
Erosion and Sediment Controls

1. Erosion control measures shall be maintained at all times.
2. Erosion control measures shall be installed as per the approved grading & erosion control plans.
3. All operational storm drain inlets shall be protected from sediment inflow.
4. Sediment control measures (traps, filters, barriers, etc.) shall be maintained at all times.
5. Temporary soil stock and other stock piled granular materials shall be kept covered, contained or bermed.
6. Sediment-laden runoff shall not flow under, around or through diversion structures.
7. Sediment, sediment-laden runoff or dewatering effluent shall not flow off the site.
8. Sediment, debris or mud shall not be deposited or tracked onto public roads or rights-of-way.
9. Seeded or landscaped areas shall be maintained to provide effective ground cover.

Chemical and Waste Controls

1. All chemicals (paints, fuels, concrete mix, fertilizers, etc.) shall be properly stored to prevent storm water contamination.
2. All waste products (building materials, wood, sheet metal, broken concrete or paving, paints, etc.) shall be disposed of or recycled properly.
3. All contaminated waters generated during construction shall be properly contained, treated and or disposed of.
4. All storm drain inlets in the vicinity of the site shall be protected from inflow during saw-cutting, sealing, paving, and building washing operations.
5. All heavy equipment shall be parked in a designated area, well away from storm drain inlets.
6. All equipment repaired or maintained on site, shall have drip pans, absorbent pads, berms or other methods used to prevent contamination of soil runoff.
7. A spill response plan shall be in place and all spills shall be cleaned up properly and promptly using dry cleaning methods.
8. Trash receptacles shall be provided for containing solid wastes generated on site, and shall be covered during the rainy season.*
9. All chemical spills or leaks (stains, sludge, etc.) on site shall be taken care of immediately.
10. Chemicals, contaminated runoff, litter, blowing debris or dust shall be properly maintained on site and removed appropriately.
11. Chemical wastes, slurries, wash waters, vehicle fluids, or other discharges shall be handled appropriately and not allowed to enter storm drain inlets.
12. Lawn clippings, pruning waste or yard waste shall not be disposed of in the street, gutters or storm drain inlets.

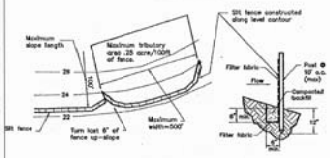
A
Catch Basin/Inlet Protection



Notes:

1. Catch Basin/Inlet protection shall be installed wherever there is a potential of stormwater or non-stormwater being discharged into it.
2. Inlet protection is required along with other pollution prevention measures such as; erosion control, soil stabilization, and measures to prevent tracking onto paved surfaces.
3. Modify inlet protection as needed to avoid creating traffic hazards.
4. Include inlet protection measures at hillside v-ditches and misc. drainage swales.
5. Inlet protection shall be inspected and accumulated sediments removed. Sediment shall be disposed of properly and in a manner that assures that the sediment does not enter the storm drain system
6. Damaged bags shall be replaced immediately.
7. Additional sandbag sediment traps shall be placed at intervals as indicated on site plan.

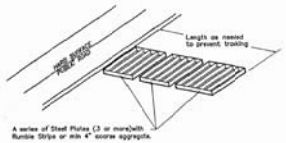
B
Silt Fence



Notes:

1. Construct the silt fence along a level contour.
2. Silt fences shall remain in place until the disturbed area is permanently stabilized.
3. Provide sufficient room for runoff to pond behind the fence and allow sediment removal equipment to pass between the silt fence and toe of slope or other obstructions. About 1200 sq. ft. of ponding area shall be provided for every acre draining to the fence.
4. Turn the ends of the filter fence uphill to prevent stormwater from flowing around the fence.
5. Leave an undisturbed or stabilized area immediately downslope from the fence.
6. Do not place in live stream or intermittently flowing channels.
7. When standard filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy-duty wire staples at least 1 inch long, tie wires or hog rings.

C
Stabilized Construction Entrance



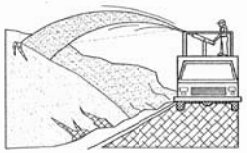
Notes:

1. Sediments and other materials shall not be tracked from the site by vehicle traffic. The construction entrance roadways shall be stabilized so as to prevent sediments from being deposited into the public roads. Depositions must be swept up immediately and may not be washed down by rain or other means into the storm drain system.
2. Stabilized construction entrance shall be:
   a. Located at any point where traffic will be entering or leaving a construction site to or from a public right of way, street, alley, and sidewalk or parking area.
   b. A series of steel plates with "rumble strips", and/or min 4" coarse aggregate with length, width & thickness as needed to adequately prevent any tracking onto paved surfaces.
3. Adding a wash rack with a sediment trap large enough to collect all wash water can greatly improve efficiency.
4. All vehicles accessing the construction site shall utilize the stabilized construction entrance sites.

Street Maintenance

1. Remove all sediment deposited on paved roadways immediately.
2. Sweep paved areas that receive construction traffic whenever sediment becomes visible.
3. Pavement washing with water is prohibited if it results in a discharge to the storm drain system.

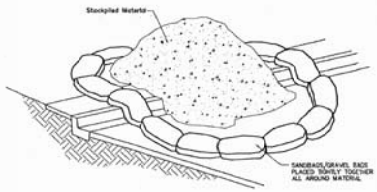
D
Erosion Control



Notes:

1. Soil/Slope stabilization practices shall be designed to preserve existing vegetation where feasible and to revegetate open areas as soon as feasible after grading. These control practices shall include temporary seeding, permanent seeding, mulching, soil stabilization, vegetative buffer strips, protection of trees, or other soil stabilization practices.
2. Soil stabilization shall be implemented on all inactive disturbed areas from November 1 thru April 15 and on all disturbed areas during a rain event or potential rain.
3. Stabilization practices shall control/prevent erosion from the forces of wind and water.
4. Stabilization practices shall be implemented in conjunction with sediment trapping/filtering practices and practices to reduce the tracking of sediment onto paved roads.
5. When using straw mulching, the minimum application shall be 2 tons/acre. Mulch must be anchored immediately to minimize loss by wind or water.
6. When using hydroseeding/mulching, the minimum application of wood fiber shall be 1,500 lbs/acre, that does not contain more than 50 percent newsprint.
7. For seeding recommendations, contact: USDA, Natural Resources Conservation Service or Ventura County RCD.

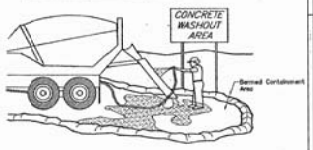
E
Material Storage



Notes:

1. Dirt and other construction related materials placed in the street or on other impervious surfaces must be contained with sandbags or other measures to prevent transport to the stormdrain system.
2. Any construction material stored or stockpiled on-site shall be protected from being transported by the force of wind or water.

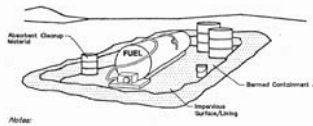
F
Concrete Waste Management



Notes:

1. Excess and waste concrete shall not be washed into the street or into a drainage system.
2. For washout of concrete and mortar products, a designated containment facility of sufficient capacity to retain liquid and solid waste shall be provided on site.
3. Slurry from concrete and asphalt saw cutting shall be vacuumed or contained, dried, picked up and disposed of properly.

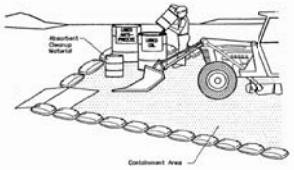
G
Vehicle/Equipment Fueling



Notes:

1. Fueling shall be performed in a designated area, away from drainage courses.
2. Absorbent cleanup material shall be on site and used immediately in the event of a spill.

H
Equipment Repair/Maintenance



Notes:

1. Leaking vehicles and equipment shall not be allowed on-site. Equipment and vehicles shall be inspected frequently for leaks and shall be repaired immediately. Clean up spills and leaks promptly with absorbent materials; do not flush with water.
2. Vehicles and equipment shall be maintained, and repaired on-site only in designated areas. Prevent run-on and run-off from designated areas. Containment devices shall be provided and areas shall be covered if necessary.
3. Designate on-site vehicle and equipment maintenance areas, away from storm drain inlets and watercourses.
4. Always use secondary containment, such as a drain pan or drop cloth, to catch spills and leaks when removing or changing fluids.
5. Legally dispose of used oils, fluids, and lubricants.
6. Provide spill containment dikes or secondary containment around stored oil, fuel, and chemical drums.
7. Maintain an adequate supply of absorbent spill cleanup materials in designated area.

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REGISTERED PROFESSIONAL ENGINEER
DANIEL H. SAYAH
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EXP.06-30-19
CIVIL
STATE OF CALIFORNIA

2554 E 57th Street & 5707 Pacific Blvd
2-Story Commercial Building

Prajin LLC
2554 E 57th Street
Huntington Park, Ca 90255

Sheet Contents:
Temp Erosion Details

Scale: Per Plan

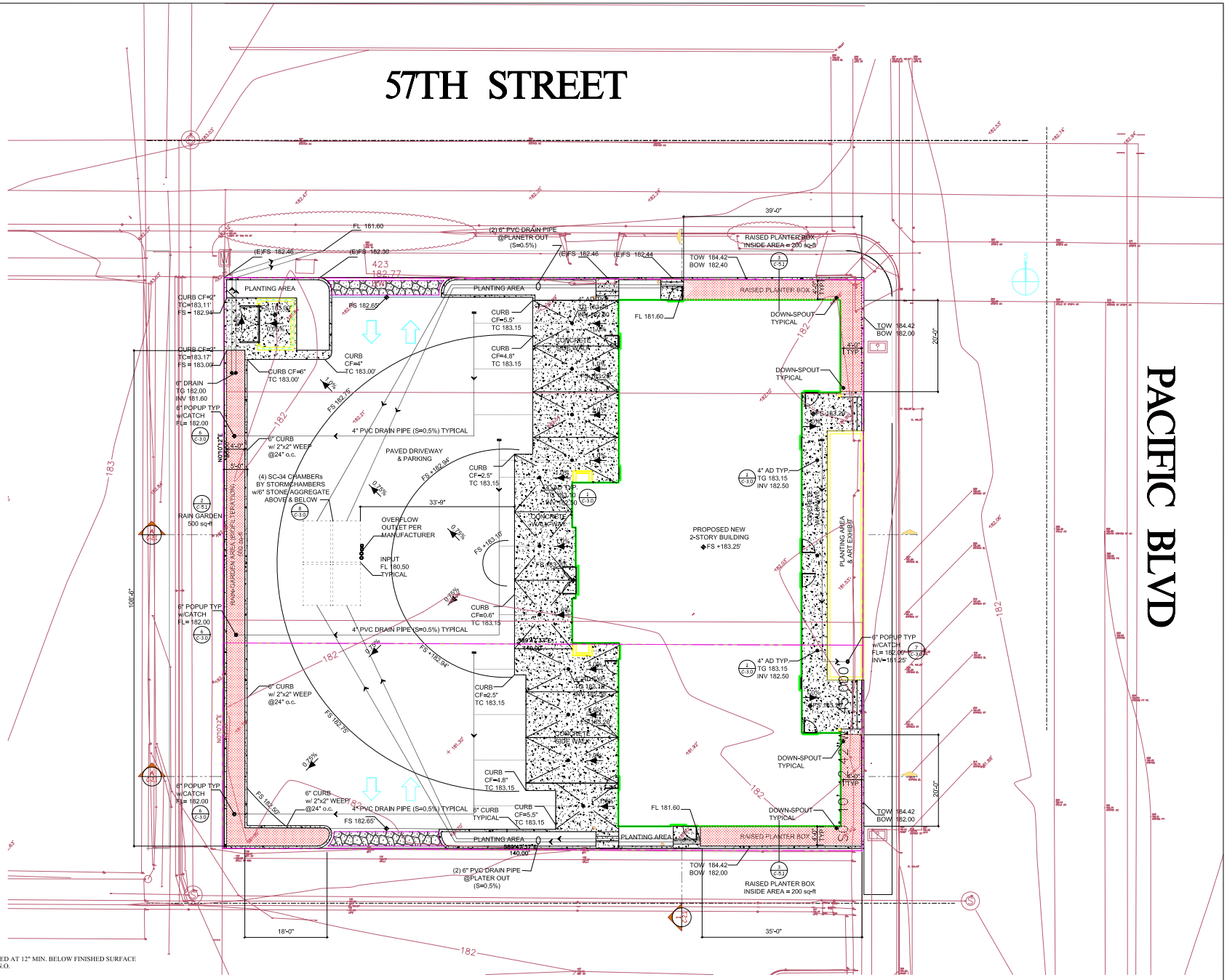
0' 1' 3' 8'

Revisions:

Date: 2017.06.28
Project No.: S16195
File Name: S16195_C
Sheet No.:

C-4.1

Total Sheets:



ESTIMATED EARTH QUANTITIES		
CUT =	0	CU. YDS.
FILL =	710	CU. YDS.
RE-COMPACT=	1332	CU. YDS
TOTAL IMPORT =	750	CU. YDS.

NOTATION

- 12" CATCH BASIN PER NDS OR EQ.
- 6" POP-UP EMMITTER PER NDS OR EQ.
- 6" AREA DRAIN PER NDS OR EQ.
- ROOF DOWNSPOUT PER ARCH
- 4" ACO TRENCH DRAIN OR EQ.
- DIRECTION OF FLOW
- DRAIN PIPE - 4" PVC, S=1% U.N.O.
- SUB-DRAIN PIPE - 4" PVC, S=1% U.N.O.
- GRADE BREAK
- RIDGE LINE
- FS FINISHED SURFACE
- FF FINISHED FLOOR
- FG FINISHED GRADE
- TW TOP OF WALL
- BW BOTTOM OF WALL
- TS TOP OF STEP
- BS BOTTOM OF STEP
- INV INVERT LINE
- FL FLOW LINE
- FF FINISHED FLOOR
- GF GARAGE FLOOR
- TG TOP OF GRATE
- DS DOWN-SPOUT
- AD AREA-DRAIN
- GB GRADE BREAK
- ELEVATION POINT
- PLANTER WALL BY OTHER(S)
- RETAINING WALL BY OTHER(S)
- HARDSCAPE PER ATCHITECTURAL
- DRIVEWAY PER ATCHITECTURAL
- LAWN PER LANDSCAPE

NOTES

1. ALL DRAINAGE PIPES SHALL BE INSTALLED AT 12" MIN. BELOW FINISHED SURFACE PER MANUFACTURER SPECIFICATION U.N.O.
2. DRAINAGE PIPES ARE 4" PVC. U.N.O.
3. DRAIN CLEANOUT AT 50'-0" MAXIMUM.
4. BUILDING STRUCTURES AND FOUNDATIONS TO HAVE WATER PROOFING, BY OTHERS
5. ANY DISCREPANCY BETWEEN THESE PLANS AND FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTING ANY IMPROVEMENTS.
6. THE SOILS AND GEOLOGY ENGINEERS ARE TO REVIEW AND APPROVE THIS PLAN AND DETAILS

SITE LID PLAN

NOTES: SCALE: 1/8" = 1'-0"

1. SOILS ENGIINEER TO REVIEW & APPROVE THIS PLAN & DETAILS

SAYAH ENGINEERING INC
Structural - Civil - Design
TEL 818.788.7887
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FAX 818.788.7827

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REGISTERED PROFESSIONAL ENGINEER DANIEL H. SAYAH S 6000 EXP.06-30-19 CIVIL STATE OF CALIFORNIA

2554 E 57th Street & 5707 Pacific Blvd

2-Story Commercial Building

Prajin LLC
2554 E 57th Street
Huntington Park, Ca 90255

Sheet Contents:
LID Site Plan

Scale: Per Plan

0' 1' 3' 5'

Revisions:

Date:	2017.06.28
Project No.:	S16195
File Name:	S16195_C
Sheet No.:	C-5.0

Total Sheets:

- Is not prone to pests and is consistent with Integrated Pest Management practices; and
- Is consistent with local water conservation ordinance requirements.

Irrigation System

Provide an irrigation system to maintain viability of vegetation, if applicable. The irrigation system must be designed to local code or ordinance specifications.

Planter Walls

Planter walls must be made of stone, concrete, brick, clay, plastic, wood, or other stable, permanent material. The use of pressure-treated wood or galvanized metal at or around a stormwater planter is prohibited.

Overflow Device

An overflow device is required at the 18-inch ponding depth. The following, or equivalent, should be provided:

- A vertical PVC pipe (SDR 26) to act as an overflow riser.
- The overflow riser(s) should be eight inches or greater in diameter, so it can be cleaned without damage to the pipe.
- The inlet to the riser should be a maximum of 18 inches above the planting soil, and be capped with a spider cap to exclude floating mulch and debris. Spider caps should be screwed in or glued (e.g., not removable). The overflow device should convey stormwater runoff in excess of the SWQDv to an approved discharge location (another stormwater quality control measure, storm drain system, or receiving water).

Maintenance Requirements

Maintenance and regular inspections are important for proper function of stormwater planters. Stormwater planters require annual plant, soil, and mulch layer maintenance to ensure optimal infiltration, storage, and pollutant removal capabilities. In general, stormwater planter maintenance requirements are typical landscape care procedures and include:

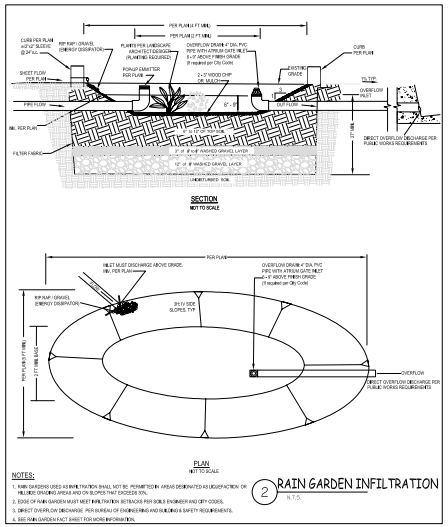
- Irrigate plants as needed during prolonged dry periods. In general, plants should be selected to be drought-tolerant and not require irrigation after establishment (two to three years).
- Inspect flow entrances, ponding area, and surface overflow areas periodically, and replace soil, plant material, and/or mulch layer in areas if erosion has occurred. Properly-designed facilities with appropriate flow velocities should not cause erosion except potentially during in extreme events. If erosion occurs, the flow velocities and gradients within the stormwater planter and flow dissipation

and erosion protection strategies in the flow entrance should be reassessed. If sediment is deposited in the stormwater planter, identify the source of the sediment within the tributary area, stabilize the source, and remove excess surface deposits.

- Prune and remove dead plant material as needed. Replace all dead plants, and if specific plants have a high mortality rate, assess the cause and, if necessary, replace with more appropriate species.
- Remove weeds as needed until plants are established. Weed removal should become less frequent if the appropriate plant species are used and planting density is attained.
- Select the proper soil mix and plants for optimal fertility, plant establishment, and growth to preclude the use of nutrient and pesticide supplements. By design, stormwater planters are located in areas where phosphorous and nitrogen levels are often elevated such that these should not be limiting nutrients. Addition of nutrients and pesticides may contribute pollutant loads to receiving waters.
- Analyze soil for fertility and pollutant levels if necessary. Stormwater planter soil media are designed to maintain long-term fertility and pollutant processing capability.
- Excavate and clean the stormwater planter if it does not drain within 96 hours after a storm event. Replace stormwater planter soil media as needed to improve the infiltration rate.
- Eliminate standing water to prevent vector breeding.
- Inspect, and clean if necessary, the underdrain.
- Inspect overflow devices for obstructions or debris, which should be removed immediately. Repair or replace damaged pipes upon discovery.
- Repair structural deficiencies to the stormwater planter including rot, cracks, and failure.
- Implement Integrated Pest Management practices if pests are present in the stormwater planter.
- Provide training and/or written guidance to all property owners and tenants. Provide a copy of the Maintenance Plan to all property owners and tenants.

A summary of potential problems that may need to be addressed by maintenance activities is presented in Table E-17.

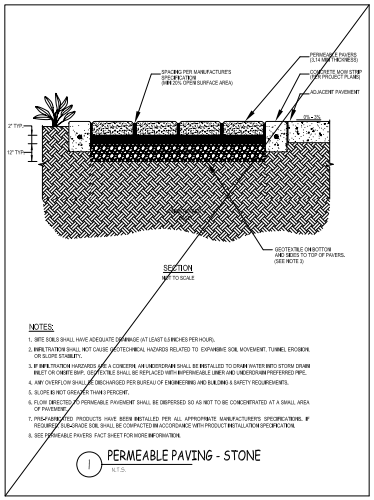
The County requires execution of a maintenance agreement to be recorded by the property owner for the on-going maintenance of any privately-maintained stormwater quality control measures. The property owner is responsible for compliance with the maintenance agreement. A sample maintenance agreement is presented in Appendix H.



NOTES:

1. RAIN GARDENS USED AS INFILTRATION SHALL NOT BE PERMITTED IN AREAS DESIGNATED AS LIQUEFACTION OR HILLSIDE GRADING AREAS AND ON SLOPES THAT EXCEEDS 30%.
2. SIDES OF RAIN GARDEN MUST MEET INFILTRATION SETBACKS PER SOILS ENGINEER AND CITY CODES.
3. DIRECT OVERFLOW DISCHARGE PER BUREAU OF ENGINEERING AND BUILDING & SAFETY REQUIREMENTS.
4. SEE RAIN GARDEN FACT SHEET FOR MORE INFORMATION.

2 RAIN GARDEN INFILTRATION
N.T.S.



NOTES:

1. SITE SOILS SHALL HAVE ADEQUATE DRAINAGE (AT LEAST 0.5 INCHES PER HOUR).
2. INFILTRATION SHALL NOT CAUSE GEOTECHNICAL HAZARDS RELATED TO EXPANSIBLE SOIL MOVEMENT, TUNNEL EROSION, OR SLOPE STABILITY.
3. IF INFILTRATION HAZARDS ARE A CONCERN, AN UNDERDRAIN SHALL BE INSTALLED TO DRAIN WATER INTO STORM DRAIN INLET OR OTHER BMP. GEOTEXTILE SHALL BE REPLACED WITH IMPERMEABLE LINER AND UNDERDRAIN PERFORED PIPE.
4. ANY OVERFLOW SHALL BE DISCHARGED PER BUREAU OF ENGINEERING AND BUILDING & SAFETY REQUIREMENTS.
5. SLOPE IS NOT GREATER THAN 5 PERCENT.
6. FLOW DIRECTED TO PERMEABLE PAVEMENT SHALL BE DISPERSED SO AS NOT TO BE CONCENTRATED AT A SMALL AREA OF PAVEMENT.
7. PRE-FABRICATED PRODUCTS HAVE BEEN INSTALLED PER ALL APPROPRIATE MANUFACTURER'S SPECIFICATIONS. IF REQUIRED, SUBGRADE SOIL SHALL BE COMPACTED IN ACCORDANCE WITH PRODUCT INSTALLATION SPECIFICATION.
8. SEE PERMEABLE PAVERS FACT SHEET FOR MORE INFORMATION.

1 PERMEABLE PAVING - STONE
N.T.S.

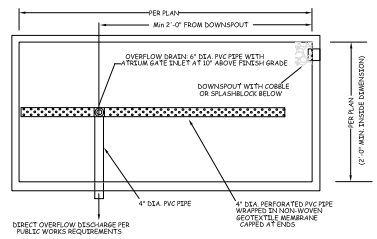
Table E-17. Stormwater Planter Troubleshooting Summary

Problem	Conditions When Maintenance Is Needed	Maintenance Required
Vegetation	Overgrown vegetation	Mow and prune vegetation as appropriate
	Presence of invasive, poisonous, nuisance, or noxious vegetation or weeds	Remove this vegetation and plant native species as needed.
Trash and Debris	Trash, plant litter, and dead leaves present	Remove and properly dispose of trash and debris.
Irrigation (if applicable)	Not functioning correctly	Check irrigation system for clogs or broken lines and repair as needed.
Inlet/Overflow	Inlet/overflow areas clogged with sediment and/or debris	Remove material. Ensure the downspout is clear of debris.
	Overflow pipe blocked or broken	Repair as needed.
Erosion/Sediment Accumulation	Splash pads or spreader incorrectly placed Presence of erosion or sediment accumulation	Check inlet structure to ensure proper function. Repair, or replace if necessary, the inlet device. Repair eroded areas with gravel as needed. Re-grade the stormwater planter as needed.
Contaminants and Pollution	Any evidence of oil, gasoline, contaminants, or other pollutants	Remove any evidence of visual contamination from floatables such as oil and grease.
Standing water	Standing water observed more than 96 hours after storm event	Inspect, and clean as needed, the underdrain to ensure proper function. Clear clogs as needed. Remove and replace planter media (sand, gravel, topsoil, mulch) and vegetation.

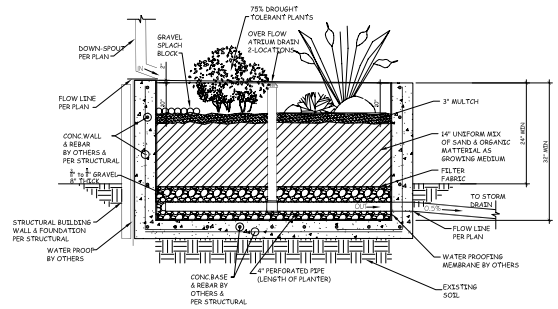
Table 5-1. Source Control Measures Selection Matrix

Project Type	Source Control Measure										
	Storm Drain Message and Signage (S-1)	Outdoor Material Storage Area (S-2)	Outdoor Trash Storage/ Waste Handling Area (S-3)	Outdoor Loading/Unloading Dock Area (S-4)	Outdoor Vehicle/Equipment Repair/Maintenance Area (S-5)	Outdoor Vehicle Equipment/ Accessory Wash Area (S-6)	Fuel & Maintenance Area (S-7)	Landscape Irrigation Practices (S-8)	Building Materials (S-9)	Animal Care and Handling Facilities (S-10)	Outdoor Horticulture Areas (S-11)
Designated Projects – New Development											
Development ≥1 acre and ≥10,000 ft^2 new impervious area	R	R^1	R^1	R^1	R^1	R^1	R^1	R	R	R^1	R^1
Industrial parks (≥10,000 ft^2)	R	R^1	R^1	R^1	R^1	R^1	R^1	R	R	–	–
Commercial malls (≥10,000 ft^2)	R	R^1	R^1	R^1	R^1	R^1	–	R	R	R^1	R^1
Retail gasoline outlets (≥5,000 ft^2)	R	R^2	R^2	R^2	R^2	R^2	R^2	R	R	–	–
Restaurants (≥5,000 ft^2)	R	R^2	R^2	R^2	–	–	–	R	R	–	–
Parking lots (≥5,000 ft^2 or ≥25 parking spaces)	R	R^1	R^1	R^1	–	–	–	R	R	R^1	R^1
Automotive service facilities (5,000 ft^2)	R	R^2	R^2	R^2	R^2	R^2	R^2	R	R	–	–
Projects in/around Significant Ecologic Areas	R	R^3	R^3	R^3	R^3	R^3	R^3	R	R	R^3	R^3
Projects potentially impacting sensitive biological species or habitats	R	R^3	R^3	R^3	R^3	R^3	R^3	R	R	R^3	R^3
Projects adding ≥2,500 ft^2 of impervious area	R	R^3	R^3	R^3	R^3	R^3	R^3	R	R	R^3	R^3

R = required; R^1 = required if outdoor activity area is included in project; R^2 = required for multi-family dwellings



PLAN (Not To Scale)



SECTION (Not To Scale)

NOTES:

1. AT LEAST 6 INCHES SHALL BE PROVIDED BETWEEN THE PLANTING SURFACE AND THE CREST OF EACH PLANTER.
2. PLANTERS SHALL NOT BE LOCATED ON UNEVEN OR SLOPED SURFACES.
3. TOP SOIL PLANTING MIX IS AT LEAST 14" DEEP.
4. TOP SOIL CONTAINS NO MORE THAN 30% COMPOST.
5. MINIMUM GRAVEL LAYER SHALL BE 6" DEEP.
6. DIRECT OVERFLOW DISCHARGE PER BUREAU OF ENGINEERING AND BUILDING AND SAFETY REQUIREMENTS.
7. PLANTING IS REQUIRED. CONSULT LANDSCAPE ARCHITECT FOR SPECIFIC PLANT TYPES.

3 RAISED PLANTER BOX
N.T.S.

SAYAH
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REGISTERED PROFESSIONAL ENGINEER
DANIEL H. SAYAH
S 6000
EXP 06-30-19
STRUCTURAL
STATE OF CALIFORNIA

2554 E 57th Street & 5707 Pacific Blvd
2-Story Commercial Building

Prajin LLC
2554 E 57th Street
Huntington Park, Ca 90255

Sheet Contents:
LID Details & Notes

Scale: Per Plan
0' 1' 3' 6'

Revisions:

Date: 2017.06.28
Project No.: S16195
File Name: S16195_C
Sheet No.:

C-5.1

Total Sheets:

S-8: Landscape Irrigation Practices

Purpose

Irrigation runoff provides a pathway for pollutants (i.e., nutrients, bacteria, organics, sediment) to enter the storm drain system. By effectively irrigating, less runoff is produced resulting in less potential for pollutants to enter the storm drain system.

General Guidance

- Do not allow irrigation runoff from the landscaped area to drain directly to storm drain system.
- Minimize use of fertilizer, pesticides, and herbicides on landscaped areas.
- Plan sites with sufficient landscaped area and dispersal capacity (e.g., ability to receive irrigation water without generating runoff).
- Consult a landscape professional regarding appropriate plants, fertilizer, mulching applications, and irrigation requirements (if any) to ensure healthy vegetation growth.

Design Specifications

- Choose plants that minimize the need for fertilizer and pesticides.
- Group plants with similar water requirements and water accordingly.
- Use mulch to minimize evaporation and erosion.
- Include a vegetative boundary around project site to act as a filter.
- Design the irrigation system to only water areas that need it.
- Install an approved subsurface drip, pop-up, or other irrigation system.[1] The irrigation system should employ effective energy dissipation and uniform flow spreading methods to prevent erosion and facilitate efficient dispersion.
- Install rain sensors to shut off the irrigation system during and after storm events.
- Include pressure sensors to shut off flow-through system in case of sudden pressure drop. A sudden pressure drop may indicate a broken irrigation head or water line.
- If the hydraulic conductivity in the soil is not sufficient for the necessary water application rate, implement soil amendments to avoid potential geotechnical hazards (i.e., liquefaction, landslide, collapsible soils, and expansive soils).

[1] If alternative distribution systems (e.g., spray irrigation) are approved, the County will establish guidelines to implement these new systems.

- For sites located on or within 50 feet of a steep slope (15% or greater), do not irrigate landscape within three days of a storm event to avoid potential geotechnical instability.[2]
- Implement Integrated Pest Management practices.

For additional guidelines and requirements, refer to the Los Angeles County Department of Health Services.

Maintenance Requirements

Maintain irrigation areas to remove trash and debris and loose vegetation. Rehabilitate areas of bare soil. If a rain or pressure sensor is installed, it should be checked periodically to ensure proper function. Inspect and maintain irrigation equipment and components to ensure proper functionality. Clean equipment as necessary to prevent algae growth and vector breeding. Maintenance agreements between LACDPW and the owner/operator may be required. Failure to properly maintain building and property may subject the property owner to citation.

[2] As determined by the City of Los Angeles, Building and Safety Division

S-3: Outdoor Trash Storage and Waste Handling Area

Purpose

Stormwater runoff from areas where trash is stored or handled can be polluted. Loose trash and debris can be easily transported by water or wind into nearby storm drain inlets, channels, and/or receiving waters. Waste handling operations (i.e., dumpsters, litter control, waste piles) may be sources of stormwater pollution.

Design Specifications

Wastes from commercial and industrial sites are typically hauled away for disposal by either public or commercial carriers that may have design or access requirements for waste storage areas. Design specifications for waste handling areas are regulated by local building and fire codes and by current County ordinances and zoning requirements. The design specifications, listed below in Table D-3, are recommendations and are not intended to conflict with requirements established by the waste hauler. The design specifications are intended to enhance local codes and ordinances while addressing stormwater runoff concerns. The waste hauler should be contacted prior to the design of trash storage and collection areas to determine established and accepted guidelines for designing trash collection areas. All hazardous waste must be handled in accordance with the legal requirements established in Title 22 of the California Code of Regulations. Conflicts or issues should be discussed with LACDPW staff.

Table D-3. Design Specifications for Outdoor Trash Storage and Waste Handling Area

Design Feature	Design Specifications
Surfacing	• Construct/pave outdoor trash storage and waste handling area with Portland cement concrete or an equivalent impervious surface.
Screens/Covers	• Install a screen or wall around trash storage area to prevent off site transport of loose trash. • Use lined bins or dumpsters to reduce leaking of liquid wastes. • Use waterproof lids on bins/dumpsters or provide a roof to cover storage area enclosure (LACDPW discretion) to prevent precipitation from entering containers.
Grading/Drainage	• Berm and/or grade waste handling area to prevent stormwater run-on. • Locate waste handling area at least 35 feet from storm drains. • Divert drainage from adjoining roofs and pavement away from adjacent trash storage areas.
Signs	• Post signs on all dumpsters and/or inside enclosures prohibiting disposal of liquids and hazardous materials in accordance with any waste disposal ordinance.

Accumulated Water

Stormwater runoff, non-stormwater runoff, and spills will accumulate in containment areas and sumps with impervious surfaces. Contaminated accumulated water must be disposed of in accordance with applicable laws and regulations, and cannot be discharged directly to the storm drain or sanitary sewer system without appropriate permitting. Contact LACDPW (1-888-CLEAN-LA) for information regarding discharge of contaminated accumulated water.

Maintenance Requirements

The integrity of structural elements that are subject to damage (e.g., screens, covers, signs) must be maintained by the owner/operator as required by local codes and ordinances. Outdoor trash storage and waste handling areas must be checked periodically to ensure containment of accumulated water and prevention of stormwater run-on. Maintenance agreements between LACDPW and the owner/operator may be required. Failure to properly maintain building and property may subject the property owner to citation.

BIO-1: Biofiltration

- The inlet to the riser should be at the ponding depth (18 inches for fenced biofiltration areas and 6 inches for areas that are not fenced), and be capped with a spider cap to exclude floating mulch and debris. Spider caps should be screwed in or glued (e.g., not removable). The overflow device should convey stormwater runoff in excess of 1.5 times the SWQDv that is not reliably retained on the project site to an approved discharge location (another stormwater quality control measure, storm drain system, or receiving water).

Maintenance Requirements

Maintenance and regular inspections are important for proper function of biofiltration areas. Biofiltration areas require annual plant, soil, and mulch layer maintenance to ensure optimal infiltration, storage, and pollutant removal capabilities. In general, biofiltration maintenance requirements are typical landscape care procedures and include:

- Irrigate plants as needed during prolonged dry periods. In general, plants should be selected to be drought-tolerant and not require irrigation after establishment (two to three years).
- Inspect flow entrances, ponding area, and surface overflow areas periodically, and replace soil, plant material, and/or mulch layer in areas if erosion has occurred. Properly-designed facilities with appropriate flow velocities should not cause erosion except potentially during in extreme events. If erosion occurs, the flow velocities and gradients within the biofiltration area and flow dissipation and erosion protection strategies in the pretreatment area and flow entrance should be reassessed. If sediment is deposited in the biofiltration area, identify the source of the sediment within the tributary area, stabilize the source, and remove excess surface deposits.
- Prune and remove dead plant material as needed. Replace all dead plants, and if specific plants have a high mortality rate, assess the cause and, if necessary, replace with more appropriate species.
- Remove weeds as needed until plants are established. Weed removal should become less frequent if the appropriate plant species are used and planting density is attained.
- Select the proper soil mix and plants for optimal fertility, plant establishment, and growth to preclude the use of nutrient and pesticide supplements. By design, biofiltration facilities are located in areas where phosphorous and nitrogen levels are often elevated such that these should not be limiting nutrients. Addition of nutrients and pesticides may contribute pollutant loads to receiving waters.
- In areas where heavy metals deposition is likely (i.e., tributary areas to industrial, vehicle dealerships/repair, parking lots, roads), replace mulch annually. In areas where metals deposition is less likely (i.e., residential lots), replace or add mulch as needed to maintain a two to three inch depth at least once every two years.

- Analyze soil for fertility and pollutant levels if necessary. Biofiltration soil media are designed to maintain long-term fertility and pollutant processing capability.
- Eliminate standing water to prevent vector breeding.
- Inspect overflow devices for obstructions or debris, which should be removed immediately. Repair or replace damaged pipes upon discovery.
- Inspect, and clean if necessary, the underdrain.

A summary of potential problems that need to be addressed by maintenance activities is presented in Table E-13.

The County requires execution of a maintenance agreement to be recorded by the property owner for the on-going maintenance of any privately-maintained stormwater quality control measures. The property owner is responsible for compliance with the maintenance agreement. A sample maintenance agreement is presented in Appendix H.

RET-5: Permeable Pavement without an Underdrain

storage capacity. The specifications of the geomembrane liner are presented in Table E-9. The entire permeable pavement area, including the sides, must be lined with geomembrane liner prior to placing the aggregate. Provide generous overlap at the seams.

Table E-9. Geomembrane Liner Specifications for Permeable Pavement

Parameter	Test Method	Specifications
Material		Nonwoven geomembrane liner
Unit weight		8 oz/yd^2 (minimum)
Filtration rate		0.08 in/sec (minimum)
Puncture strength	ASTM D-751 (Modified)	125 lbs (minimum)
Mullen burst strength	ASTM D-751	400 lb/in^2 (minimum)
Tensile strength	AST D-1682	300 lbs (minimum)
Equiv. opening size	US Standard Sieve	No. 80 (minimum)

Overflow Device

Provide an overflow device to convey high stormwater runoff flows to another stormwater quality control measure, the storm drain system, or receiving water, as appropriate. Place the overflow device a maximum of two inches above the level of the permeable pavement surface. Ensure that the two inch ponding depth is contained and does not flow out of the area at the ends or the sides.

Maintenance Requirements

Maintenance and regular inspections are important for proper function of permeable pavement without an underdrain. The following are general maintenance requirements:

- Inspect permeable pavement to determine if stormwater runoff is infiltrating properly at least twice during the wet season after significant storms. If infiltration is significantly reduced, remove surface aggregate by vacuuming. Dispose of and replace old aggregate with fresh aggregate as needed.
- Sweep permeable pavement as needed to clean it of leaves, debris, and sediment. Do not overlay permeable pavement with an impermeable surface.
- Prune vegetation and large shrubs/trees that limit access or interfere with permeable pavement operation. Rake and remove fallen leaves and debris from deciduous plant foliage. Remove poisonous, nuisance, dead, or odor-producing vegetation immediately. Mow grass to less than four inches and bag and remove grass clippings.
- Provide irrigation as needed.
- Exercise spill prevention measures when handling substances that can contaminate stormwater runoff. Implement a spill prevention plan at all non-residential sites and in areas where there is likelihood of spills.

- Eliminate standing water to prevent vector breeding.
- Inspect overflow devices for obstructions or debris, which should be removed immediately. Repair or replace damaged pipes upon discovery.
- Provide safe and efficient access to permeable pavement. Egress and ingress routes must be maintained to design standards. Roadways must be maintained to accommodate size and weight of vehicles if applicable.
- Remove obstacles that may prevent maintenance personnel and/or equipment access to the permeable pavement.
- Limit and control application of pesticides (using Integrated Pest Management practices) and fertilizers to reduce potential pollutant runoff.
- Fill and compact holes in the ground located in and around permeable pavement.
- Identify and control sources of erosion damage when native soil is exposed near the overflow device.
- Add gravel or ground cover if erosion occurs due to vehicular or pedestrian traffic.

A summary of potential problems that may need to be addressed by maintenance activities is presented in Table E-10.

The County requires execution of a maintenance agreement to be recorded by the property owner for the on-going maintenance of any privately-maintained stormwater quality control measures. The property owner is responsible for compliance with the maintenance agreement. A sample maintenance agreement is presented in Appendix H.

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EXP 06-30-19
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STATE OF CALIFORNIA

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