COUNTY OF SAN DIEGO, CALIFORNIA

PLANS FOR CONSTRUCTION OF [INSERT PROJECT NAME]

COUNTY APPROVED CHANGES		
DESCRIPTION:	APPROVED BY:	DATE:

PRIVATE CONTRACT

SHEET X	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	XX SHEETS

PRIORITY DEVELOPMENT PROJECT BMP PLAN SHEET FOR:

[INSERT PROJECT NAME]

CALIFORNIA COORDINATE INDEX _____

APPROVED FOR WILLIAM P. MORGAN
COUNTY ENGINEER

ENGINEER OF WORK
R.C.E.

GRADING PERMIT NO:
PDS20XX–LDXXXX–XXXXX

ENGINEER'S NAME: XXXXXXXX XXXXXXXXX
PHONE NO. (XXX)XXX–XXXX // EMAIL: XXXXXXX@XXXXXXX.XXX

PERMANENT SOURCE CONTROL AND SITE DESIGN BMP NOTES:

1. THIS IS A SAMPLE ONLY. SEE COUNTY OF SAN DIEGO BMP DESIGN MANUAL FOR MORE INFORMATION AND ALTERNATE STORMWATER MEASURES. YOUR PROJECT MAY NOT USE ALL OF THE BMP MEASURES SHOWN OR MAY REQUIRE ALTERNATE / ADDITIONAL BMP TYPES GIVEN PROJECT SPECIFICS.

SOURCE CONTROL BMP NOTES:

SC-A ON-SITE STORM DRAIN INLETS

1. MARK ALL INLETS WITH THE WORDS "NO DUMPING DRAINS TO WATERWAYS" OR SIMILAR. SEE STENCIL TEMPLATE PROVIDED ON THE SHEET.

SC-B INTERIOR DRAINS PLUMBED TO SANITARY SEWER

2. INTERIOR FLOOR DRAINS AND ELEVATOR SHAFT SUMP PUMPS SHALL BE PLUMBED TO SANITARY SEWER.

SC-C INTERIOR PARKING GARAGES TO SANITARY SEWER

3. PARKING GARAGE FLOOR DRAINS SHALL BE PLUMBED TO THE SANITARY SEWER.

SC-E POOLS, SPAS, PONDS WITH ACCESSIBLE SANITARY SEWER

16. IF POOLS WILL BE PLUMBED TO THE SANITARY SEWER, ENSURE THAT THIS CONNECTION WILL BE MADE ACCORDING TO COUNTY OF SAN DIEGO REQUIREMENTS.

SC-G TRASH OF REFUSE EXPOSURE REDUCTION

1. SIGNS SHALL BE POSTED ON OR NEAR DUMPSTERS WITH THE WORDS "DO NOT DUMP HAZARDOUS MATERIALS HERE" OR SIMILAR.
2. COVER STORAGE CONTAINERS WITH LEAK PROOF LIDS OR SOME OTHER MEANS. IF WASTE IS NOT IN CONTAINERS, COVER ALL WASTE PILES (PLASTIC TARPS ARE ACCEPTABLE COVERAGE) AND PREVENT STORMWATER RUNON AND RUNOFF WITH A BERM. THE WASTE CONTAINERS OR PILES MUST BE COVERED EXCEPT WHEN IN USE.
3. POST "NO LITTERING" SIGNS AND ENFORCE ANTI-LITTER LAWS.
4. PREVENT STORMWATER RUNON FROM ENTERING THE WASTE MANAGEMENT AREA BY ENCLOSING THE AREA OR BUILDING AND BERM AROUND THE AREA.

SC-H INDUSTRIAL PROCESSES PERFORMED INDOORS

30. IF INDUSTRIAL PROCESSES ARE TO BE LOCATED ONSITE, STATE: "ALL PROCESS ACTIVITIES TO BE PERFORMED INDOORS. NO PROCESSES TO DRAIN TO EXTERIOR OR TO STORM DRAIN SYSTEM."

SC-I STORAGE OF EQUIPMENT/MATERIALS EXPOSURE REDUCTION

31. STORAGE OF NON-HAZARDOUS LIQUIDS MUST BE COVERED BY A ROOF AND/OR DRAIN TO THE SANITARY SEWER SYSTEM, AND BE CONTAINED BY BERMS, DIKES, LINERS, OR VAULTS.
32. STORAGE OF HAZARDOUS MATERIALS AND WASTES MUST BE IN COMPLIANCE WITH THE LOCAL HAZARDOUS MATERIALS ORDINANCE AND A HAZARDOUS MATERIALS MANAGEMENT PLAN FOR THE SITE.

SC-L FUEL DISPENSING COVERAGE AND GRADING REQUIREMENTS

62. FUELING AREAS (THE FUELING AREA MUST BE DEFINED AS THE AREA EXTENDING A MINIMUM OF 6.5 FEET FROM THE CORNER OF EACH FUEL DISPENSER OR THE LENGTH AT WHICH THE HOSE AND NOZZLE ASSEMBLY MAY BE OPERATED PLUS A MINIMUM OF ONE FOOT, WHICHEVER IS GREATER) MUST HAVE IMPERMEABLE FLOORS (I.E., PORTLAND CEMENT CONCRETE OR EQUIVALENT SMOOTH IMPERVIOUS SURFACE) THAT ARE (1) GRADED AT THE MINIMUM SLOPE NECESSARY TO PREVENT PONDING; AND (2) SEPARATED FROM THE REST OF THE SITE BY A GRADE BREAK THAT PREVENTS RUN-ON OF STORM WATER TO THE MEP.
63. FUELING AREAS MUST BE COVERED BY A CANOPY THAT EXTENDS A MINIMUM OF TEN FEET IN EACH DIRECTION FROM EACH PUMP. (ALTERNATIVE: THE FUELING AREA MUST BE COVERED AND THE COVER'S MINIMUM DIMENSIONS MUST BE EQUAL TO OR GREATER THAN THE AREA WITHIN THE GRADE BREAK OR FUEL DISPENSING AREA.) THE CANOPY (OR COVER) MUST NOT DRAIN ONTO THE FUELING AREA. IF POSSIBLE USE A PERIMETER DRAIN OR SLOPE PAVEMENT INWARD WITH DRAINAGE TO A BLIND SUMP (MUST BE PROPERLY MAINTAINED AND WATER PROPERLY DISPOSED OF); PAVE AREA WITH CONCRETE RATHER THAN ASPHALT.

SC-M LOADING DOCKS COVERAGE AND GRADING REQUIREMENTS

65. ROOF DOWNSPOUTS MUST BE POSITIONED TO DIRECT STORM WATER AWAY FROM THE LOADING AREA. WATER FROM LOADING DOCK AREAS SHOULD BE DRAINED TO THE SANITARY SEWER WHERE FEASIBLE. DIRECT CONNECTIONS TO STORM DRAINS FROM DEPRESSED LOADING DOCKS ARE PROHIBITED.
66. LOADING DOCK AREAS DRAINING DIRECTLY TO THE SANITARY SEWER MUST BE EQUIPPED WITH A SPILL CONTROL VALVE OR EQUIVALENT DEVICE, WHICH MUST BE KEPT CLOSED DURING PERIODS OF OPERATION.
67. PROVIDE A ROOF OVERHANG OVER THE LOADING AREA OR INSTALL DOOR SKIRTS (COWLING) AT EACH BAY THAT ENCLOSE THE END OF THE TRAILER.

SC-6A LARGE TRASH GENERATING FACILITY BMPS

83. ENCLOSURES SHALL BE STRUCTURALLY STRONG AND CONSTRUCTED OF REINFORCED MASONRY BLOCK OR WOOD PANELS/BOARDS. REFER TO COUNTY STAFF FOR SPECIFIC GUIDELINES.
3. THE ENCLOSURE SLAB SHOULD BE DESIGNED TO KEEP STORM WATER DRAINAGE OUT OF THE ENCLOSURE AREA, TYPICALLY SLOPED AT 0.5%. SLAB CONSTRUCTION SPECIFICATIONS WILL VARY ACCORDING TO METHODS OF CONSTRUCTION, BUT SHOULD BE AT LEAST 4 INCHES OF REINFORCED CONCRETE.
4. STURDY GATES/DOORS SHALL BE INSTALLED ON ALL ENCLOSURES. GATES SHOULD NOT BE MOUNTED DIRECTLY ONTO THE BLOCK WALL OR INSIDE OF ENCLOSURE. THE ENCLOSURE SHOULD INCLUDE HARDWARE TO SECURE THE GATE'S DOORS BOTH OPEN AND CLOSED (I.E., CANE BOLT W/SLEEVE AND LATCH BETWEEN DOORS AND SLEEVE IN PAVEMENT).
5. TO PREVENT TRASH ENCLOSURES FROM CONTRIBUTING TO STORM WATER RUNOFF POLLUTION, ALL ENCLOSURES MUST BE FITTED WITH A ROOF DEIGNED TO DRAIN INTO ON-SITE LANDSCAPE AREAS (WHERE NECESSARY) AND/OR TO APPROPRIATE BMPS. THE ROOF MUST PROVIDE SUFFICIENT CLEARANCE TO ALLOW THE DUMPSTER LID TO OPEN TO THE 90 DEGREE POSITION.
6. ENCLOSURE ROOFS NOT CONFORMING TO COUNTY SPECIFICATIONS FOR PATIO COVERS MAY REQUIRE A BUILDING PERMIT. GENERALLY ROOFS NOT MORE THAN 12 FEET IN HEIGHT ABOVE GRADE AND CONSTRUCTED WITH CONVENTIONAL LIGHT-FRAME WOOD CONSTRUCTION ARE CONSIDERED ACCEPTABLE. THE USE OF METAL ROOFS IS NOT RECOMMENDED AS THEY CAN ACT AS A SOURCE OF POLLUTANTS.

SC-6D AUTOMOTIVE FACILITY BMPS

96. AUTO REPAIR, MAINTENANCE ACTIVITIES, FUELING, AND VEHICLE WASHING MUST BE CONDUCTED IN COVERED AREAS. COVERS 10 FEET HIGH OR LESS SHOULD HAVE A MINIMUM OVERHANG OF 3 FEET ON EACH SIDE, COVERS HIGHER THAN 10 FEET SHOULD HAVE A MINIMUM OVERHANG OF 5 FEET ON EACH SIDE. OVERHANG SHOULD BE MEASURED FROM THE PERIMETER OF THE HYDRAULICALLY ISOLATED ACTIVITY AREA.
97. ACTIVITY AREAS SHOULD BE PROTECTED FROM RUN-ON THROUGH THE USE OF GRADING, BERMS, OR DRAINS. DIRECT DRAINAGE FROM THE HYDRAULICALLY ISOLATED AREA TO AN APPROVED SANITARY SEWER OR A BMP.
98. PAVE ACTIVITY AREAS WITH HYDRAULIC CONCRETE OR APPROPRIATELY SEALED ASPHALT CEMENT.

SITE DESIGN BMP NOTES:

4.3.1 MAINTAIN NATURAL DRAINAGE PATHWAYS AND HYDROLOGIC FEATURES

1. A SETBACK OF 50 TO 200 FEET IS REQUIRED FOR DEVELOPMENT ADJACENT TO WATERS OF THE U.S. NO STRUCTURAL BMPS ARE TO BE PLACED IN BUFFER ZONES.
2. USE A CONSTRUCTION FENCE OR SILT FENCE AROUND THE BUFFER ZONE TO PREVENT CONSTRUCTION EQUIPMENT FROM ENTERING.

4.3.2 CONSERVE NATURAL AREAS, SOILS AND VEGETATION

4.3.7 LANDSCAPE WITH NATIVE OR DROUGHT TOLERANT SPECIES

SD-A TREE WELLS

1. REFER TO BMP DESIGN MANUAL APPENDIX B SECTION B.2.2.1 FOR TREE WELL CREDIT VOLUMES AND APPENDIX E FACT SHEET SD-A "TREE WELLS" FOR DESIGN CRITERIA AND CONSIDERATIONS.
2. MINIMUM OPEN TREE PLANTING SPACE DIMENSION 4'x6'.
3. FOR TREE WELL SUBSURFACE DRAINAGE OPTIONS, SEE DWG GS-1.10.
4. PROVIDE MINIMUM 24" TREE BOX.
5. TREES WITH GREATER THAN 4" DIAMETER AT BREAST HEIGHT SHALL NOT BE PLANTED WITHIN THE CLEAR RECOVERY ZONE (AS DEFINED IN TOPIC 309 OF THE CALTRANS HIGHWAY DESIGN MANUAL).
6. DETAILS INTENDED FOR NEW TREE PLANTINGS TO ACHIEVE FULL SOIL VOLUME.
7. TO ADAPT DETAIL TO EXISTING TREE LOCATIONS, PROTECT EXISTING TREE ROOTING AREA; DO NOT DISTURB EXISTING TREE ROOTS AND PROVIDE REQUIRED SOIL VOLUME.
8. REQUIRED SOIL VOLUME SHALL BE LOCATED WITHIN 1.5x THE MATURE TREE CANOPY RADIUS.
9. SEE DRAWING GS-4.1, GS-4.2, AND GS-4.3 SIDEWALK SECTIONS FOR GUIDANCE ON PLACING PERMEABLE PAVEMENT OVER REQUIRED SOIL ROOTING VOLUME.
10. 18" MINIMUM STEP OUT ZONE IS REQUIRED WHEN PARALLEL PARKING IS PROVIDED.
11. A 3:1 (H:V) SLOPE MAY BE USED IN LIEU OF THE GRAVITY WALL WHERE ADEQUATE SPACE IS AVAILABLE SEE DETAIL GS-5.7.
12. SEE SDRSD DWG L-1 THROUGH L-6 FOR TREE INSTALLATION REQUIREMENTS.
13. REMOVE WIRE AND BURLAP FROM ROOT BALL PRIOR TO BACKFILLING.
14. PROVIDE 30 MIL PLASTIC LINER WHERE CONCRETE WILL BE POURED ON TOP OF STRUCTURAL SOIL.
15. SEAL PLASTIC LINER TO ADJACENT IMPROVEMENTS AND EDGE RESTRAINT PER MANUFACTURER'S RECOMMENDATIONS.
16. STREET IMPROVEMENTS AND DRAINAGE STRUCTURES SHALL BE CONSTRUCTED ACCORDING TO THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION) AND THE COUNTY OF SAN DIEGO SPECIAL PROVISIONS AND SPECIFICATIONS FOR THE IMPROVEMENT OF NEW STREETS.

SD-B IMPERVIOUS AREA DISPERSION

1. DISPERSION MUST MEET THE FOLLOWING DESIGN CRITERIA. DEVIATION FROM THE BELOW CRITERIA MAY BE APPROVED AT THE DISCRETION OF COUNTY STAFF IF IT IS DETERMINED TO BE APPROPRIATE.
2. IMPERVIOUS AREA DISPERSION PLACEMENT: ENSURE AREA IS GRADED; AND LOCATED SO THAT FULL DCV WATER DRAINS TO THE AREA OF DISPERSION.
3. DISPERSION IS OVER AREAS WITH SOIL TYPES CAPABLE OF SUPPORTING OR BEING AMENDED (E.G., WITH SAND OR COMPOST) TO SUPPORT VEGETATION. MEDIA AMENDMENTS MUST BE TESTED TO VERIFY THAT THEY ARE NOT A SOURCE OF POLLUTANTS.
4. DISPERSION HAS VEGETATED SHEET FLOW OVER A RELATIVELY LARGE DISTANCE (MINIMUM 10 FEET) FROM INFLOW TO OVERFLOW ROUTE.
5. PERVIOUS AREAS SHOULD BE FLAT (WITH LESS THAN 5% SLOPES) AND VEGETATED.
6. INFLOW VELOCITIES ARE LIMITED TO 3 FEET/SECOND OR LESS OR USE ENERGY DISSIPATION METHODS (E.G., RIPRAP, LEVEL SPREADER) FOR CONCENTRATED INFLOW.
7. DISPERSION AREAS MUST BE OWNED BY THE PROJECT OWNER AND BE DEDICATED FOR THE PURPOSES OF DISPERSION TO THE EXCLUSION OF OTHER FUTURE USES THAT MIGHT REDUCE THE EFFECTIVENESS OF THE DISPERSION AREA.
8. DISPERSION TYPICALLY REQUIRES DENSE AND ROBUST VEGETATION FOR PROPER FUNCTION. DROUGHT TOLERANT SPECIES SHOULD BE SELECTED TO MINIMIZE IRRIGATION NEEDS. A PLANT LIST TO AID IN SECTION CAN BE FOUND IN BMPDM APPENDIX E.25.

SD-D PERMEABLE PAVEMENT

1. DETAIL TO BE USED ONLY WHEN APPROVED BY COUNTY AND SHALL MEET CURRENT APPROVED COUNTY SPECIFICATION FOR "PERMEABLE ASPHALT AND CONCRETE PAVEMENT".
2. REFERENCE BMP DESIGN MANUAL FACT SHEET SD-D "PERMEABLE PAVEMENT".
3. AGGREGATE LAYERS SHALL MEET CURRENT APPROVED COUNTY SPECIFICATION FOR "AGGREGATE FOR PERMEABLE PAVEMENT AND RAIN GARDEN". SEE DETAILS GS-4.4 & GS-4.5 FOR LONGITUDINAL AND CROSS-SLOPE REQUIREMENTS.
4. IMPERMEABLE LINER TO BE USED TO PROMOTE WATER RE-USE, PROTECT NEARBY BUILDING FOUNDATIONS, AND AVOID INFILTRATION AROUND UTILITIES.
5. DEPTH OF RESERVOIR LAYER (PER THE DESIGN PLANS) SHALL ADDRESS STORMWATER CONVEYANCE REQUIREMENTS AS WELL AS THE STRUCTURAL PAVEMENT DESIGN REQUIREMENTS. ENGINEER TO DESIGN SYSTEM TO ACHIEVE STORAGE, DRAW-DOWN, AND STRUCTURAL REQUIREMENTS.
6. AGGREGATE DEPTH MAY BE GREATER THAN SPECIFIED MINIMUM (PER THE DESIGN PLANS) TO ACHIEVE INTENDED STORM WATER STORAGE VOLUMES. SUBSURFACE MATERIAL LAYER DEPTHS PER MANUFACTURER'S AND GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
7. SURFACE MATERIAL PER MANUFACTURER'S RECOMMENDATIONS.
8. BOTTOM OF RESERVOIR LAYER SHALL BE AT LEAST 10' ABOVE THE SEASONAL HIGH WATER TABLE OR 2' ABOVE THE BEDROCK ELEVATION (AS DETERMINED BY THE GEOTECHNICAL INVESTIGATION).
9. ENHANCED DESIGN CONTAINS A WATER STORAGE LAYER AND AN INFILTRATION SUMP BENEATH THE UNDERDRAIN PIPE WHICH IS SIZED TO DRAIN THE DESIGN STORM WITHIN 96 HOURS.
10. WHERE IN-SITU SOILS ARE NOT CONDUCIVE TO INFILTRATION OF DESIGN STORM VOLUMES WITHIN 72 HOURS, UNDERDRAIN SYSTEMS SHALL BE CONSIDERED THROUGH COORDINATION WITH THE COUNTY ENGINEER.
11. WHEN FILTER LAYER IS OMITTED, PROVIDE GEOTEXTILE BENEATH THE RESERVOIR LAYER WHICH MEETS CURRENT APPROVED COUNTY SPECIFICATION FOR GEOSYNTHETICS MATERIALS.
12. TOP OF PAVEMENT SHOULD BE DESIGNED TO ACHIEVE 1% MINIMUM SLOPE IN ALL DIRECTIONS.
13. IF PAVEMENT SLOPE EXCEEEDS 1%, REFER TO GS-4.4 AND 4.5 FOR DETAIL.
14. IN CASE OF TREE PLANTINGS, STRUCTURAL SOIL MAY EXTEND UNDER THE RESERVOIR LAYER.
15. IN AREAS OF TREE PLANTINGS ASSOCIATED WITH SAND BASED STRUCTURAL SOIL (SSBS), THE SSBS MAY EXTEND UNDER THE AGGREGATE BASE LAYER OF THE SIDEWALK.
16. SEAL IMPERMEABLE LINER TO ADJACENT IMPROVEMENTS AND EDGE RESTRAINT PER MANUFACTURER'S RECOMMENDATIONS.
17. JOINTS TO HAVE 1/2" MAXIMUM GAPS IN ACCORDANCE WITH THE LATEST ADA REQUIREMENTS AND TO BE FILLED WITH AASHTO #8 STONES OR APPROVED EQUIVALENT. MINIMUM GAPS SHALL BE 1/4" OR PER THE MANUFACTURE'S RECOMMENDATIONS.
18. OTHER TYPES OF EDGE RESTRAINTS (SUCH AS STEEL OR PLASTIC) SHALL BE ALLOWED AS APPROVED BY THE COUNTY ENGINEER AND BASED ON MANUFACTURER'S RECOMMENDATIONS.
19. CONCRETE EDGE RESTRAINT (MIN 4" WIDE x 7½" DEEP); MORTAR OR POLYMER ADHERED PAVERS TO TOP; ALTERNATIVELY EXTEND EDGE RESTRAINT TO SURFACE.
20. DETAIL TO BE USED ONLY WHEN APPROVED BY COUNTY AND SHALL MEET CURRENT APPROVED COUNTY SPECIFICATION FOR "PERMEABLE ASPHALT AND CONCRETE PAVEMENT".
21. REFERENCE BMP DESIGN MANUAL FACT SHEET SD-D "PERMEABLE PAVEMENT".
22. 30 MIL PLASTIC LINER TO BE USED TO PROMOTE WATER RE-USE, PROTECT NEARBY BUILDING FOUNDATIONS, AND AVOID INFILTRATION AROUND UTILITIES.
23. DEPTH OF RESERVOIR LAYER (PER THE DESIGN PLANS) SHALL ADDRESS STORMWATER RETENTION REQUIREMENTS AS WELL AS THE STRUCTURAL PAVEMENT DESIGN REQUIREMENTS. ENGINEER TO DESIGN SYSTEM TO ACHIEVE STORAGE, DRAW-DOWN, AND STRUCTURAL REQUIREMENTS.
24. AGGREGATE DEPTH MAY BE GREATER THAN SPECIFIED MINIMUM (PER THE DESIGN PLANS) TO ACHIEVE INTENDED STORM WATER STORAGE VOLUMES. SUBSURFACE MATERIAL LAYER DEPTHS PER MANUFACTURER'S AND GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
25. BOTTOM OF RESERVOIR LAYER SHALL BE AT LEAST 10' ABOVE THE SEASONAL HIGH WATER TABLE OR 2' ABOVE THE BEDROCK ELEVATION (AS DETERMINED BY THE GEOTECHNICAL INVESTIGATION).
26. ENHANCED DESIGN CONTAINS A WATER STORAGE LAYER AND AN INFILTRATION SUMP BENEATH THE UNDERDRAIN PIPE WHICH IS SIZED TO DRAIN THE DESIGN STORM WITHIN 96 HOURS.
27. WHERE IN-SITU SOILS ARE NOT CONDUCIVE TO INFILTRATION OF DESIGN STORM VOLUMES WITHIN 96 HOURS, UNDERDRAIN SYSTEMS SHALL BE CONSIDERED THROUGH COORDINATION WITH THE COUNTY ENGINEER.
28. TOP OF PAVEMENT SHOULD BE DESIGNED TO ACHIEVE 1% MINIMUM SLOPE IN ALL DIRECTIONS.

SD-E RAIN BARRELS

1. CLEAR AND OBVIOUS SIGNAGE MUST BE PROVIDED WHEREVER HARVESTED RAINWATER IS USED. SIGNS WITH PURPLE BACKGROUND (PANTONE COLOR #512) AND BLACK LETTERING SHOULD READ: "CAUTION: RECLAIMED WATER, DO NOT DRINK" IN ENGLISH AND SPANISH. AREAS REQUIRING SIGNAGE INCLUDE ENTRANCES TO ROOMS (INCLUDING MECHANICAL ROOMS) WHERE HARVESTED WATER IS PIPED OR USED, IRRIGATION AND AUTOMOBILE WASHING HOSES, LOW-FLOW OUTLET ORIFICES, TOILET TANKS THAT USE HARVESTED WATER FOR FLUSHING, AND ANY SPIGOTS, DRAWDOWN PIPES, OR ACCESS HATCHES.
2. ALL PIPES AND HOSES USED TO CONVEY HARVESTED WATER SHOULD BE PURPLE IN COLOR (PANTONE COLOR #512) OR CONTINUOUSLY WRAPPED WITH PURPLE MYLAR TAPE TO INDICATE THAT THE WATER IS NOT SAFE TO DRINK. TAPE-WRAPPED PIPE SHALL DISPLAY THE WARNING PROVIDED ABOVE IN NOMINAL ½-INCH BLACK, UPPERCASE LETTERING IN TWO PARALLEL LINES SUCH THAT AFTER WRAPPING THE PIPE A FULL LINE OF TEXT IS VISIBLE. PIPES THAT ARE COMPLETELY COLORED PURPLE SHALL DISPLAY THE WARNING ON BOTH SIDES AT INTERVALS NOT EXCEEDING 3 FEET. ADDITIONALLY, ALL VALVES (EXCEPT FIXTURE SUPPLY CONTROL VALVES) MUST BE EQUIPPED WITH LOCKING FEATURES.

SD-F AMENDED SOIL

1. REFER TO BMP DESIGN MANUAL APPENDIX B SECTION 2.1.1 FOR DISPERSION AREA CREDIT VOLUMES AND APPENDIX E FACT SHEET SD-B "IMPERVIOUS AREA DISPERSION" FOR DESIGN CRITERIA AND CONSIDERATIONS.
2. BOTTOM OF DISPERSION AREA SHALL BE AT LEAST 10' ABOVE THE SEASONAL HIGH WATER TABLE OR 2' ABOVE THE BEDROCK ELEVATION (AS DETERMINED BY THE GEOTECHNICAL INVESTIGATION).
3. DISPERSION AREA INLET AND OUTLET ELEVATIONS SHALL BE SET TO CONVEY THE 50-YEAR STORM WITHOUT INUNDATING THE SIDEWALK.
4. SIDE SLOPES STEEPER THAN 3:1 REQUIRE COUNTY APPROVAL.
5. TREES AND PLANTS SHALL BE INSTALLED PER THE APPROVED LANDSCAPE PLANS.
6. SEAL PLASTIC LINER TO ADJACENT IMPROVEMENTS AND EDGE RESTRAINT PER MANUFACTURER'S RECOMMENDATIONS.
7. STREET IMPROVEMENTS AND DRAINAGE STRUCTURES SHALL BE CONSTRUCTED ACCORDING TO THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION) AND THE COUNTY OF SAN DIEGO SPECIAL PROVISIONS AND SPECIFICATIONS FOR THE IMPROVEMENT OF NEW STREETS.

COUNTY APPROVED CHANGES

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PRIVATE CONTRACT

SHEET X	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	XX SHEETS

PRIORITY DEVELOPMENT PROJECT BMP PLAN SHEET FOR:

[INSERT PROJECT NAME]

CALIFORNIA COORDINATE INDEX _____

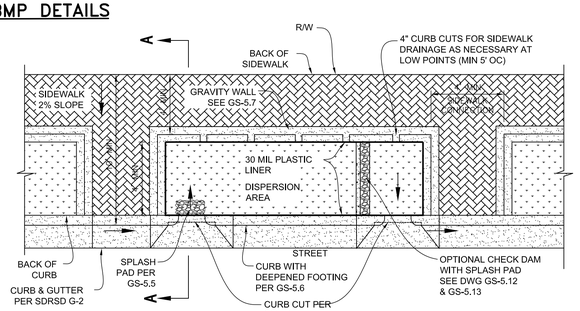
APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER

ENGINEER OF WORK _____ R.C.E.

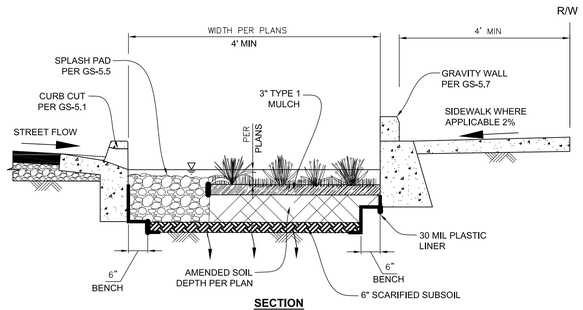
GRADING PERMIT NO: PDS20XX-LDXXXX-XXXXX

ENGINEER'S NAME: XXXXXXXX XXXXXXXXX
PHONE NO. (XXX)XXX-XXXX // EMAIL: XXXXXXX@XXXXXXX.XXX

SITE DESIGN AND SOURCE CONTROL BMP DETAILS



PLAN VIEW

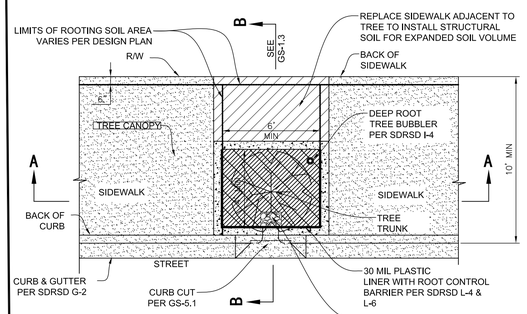


SECTION A-A

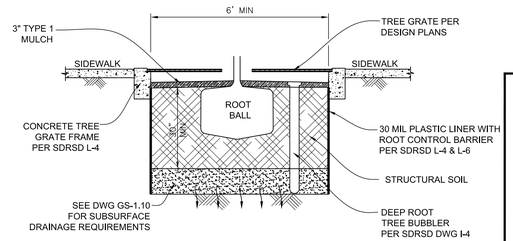
AMENDED SOIL

NO SCALE

SD-F



PLAN VIEW

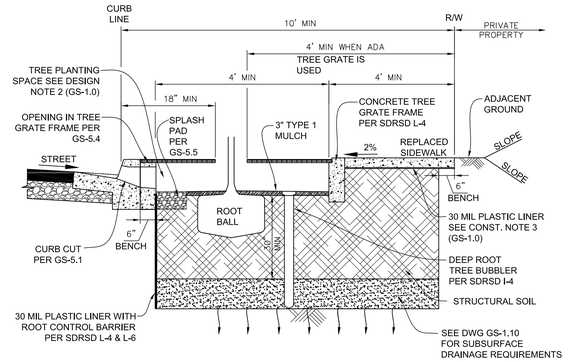


SECTION A-A

TREE WELL

NO SCALE

SD-A

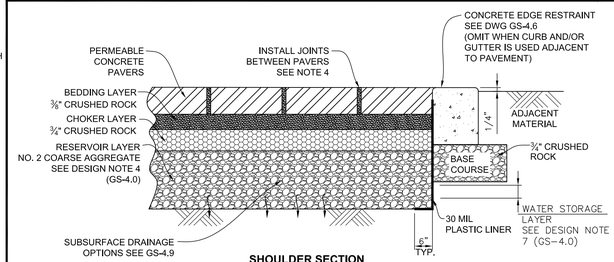


SECTION B-B

TYPICAL STORM DRAIN SIGNAGE

NO SCALE

SC-A



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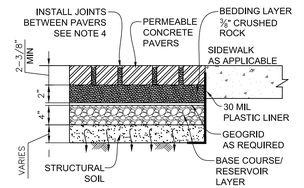
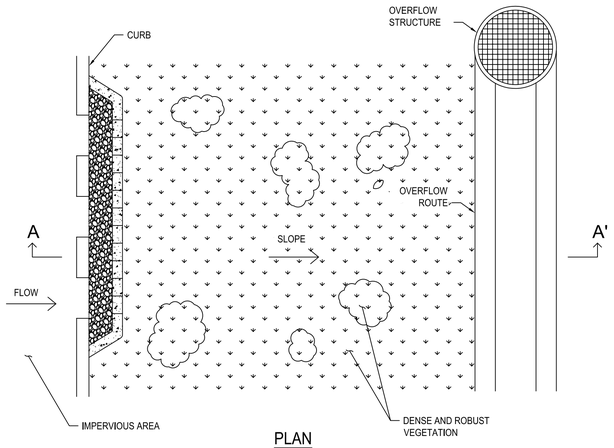
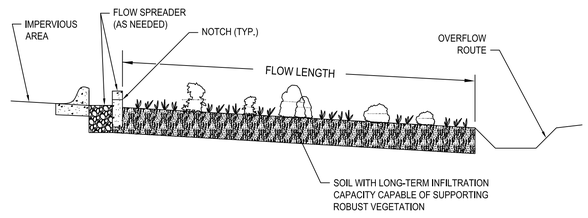


PERMEABLE PAVERS OVER STRUCTURAL SOIL



PLAN

NOT TO SCALE



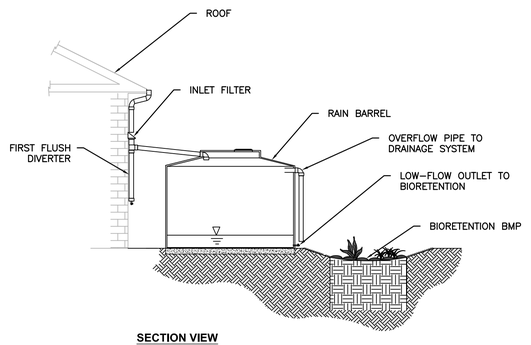
SECTION A-A'

NOT TO SCALE

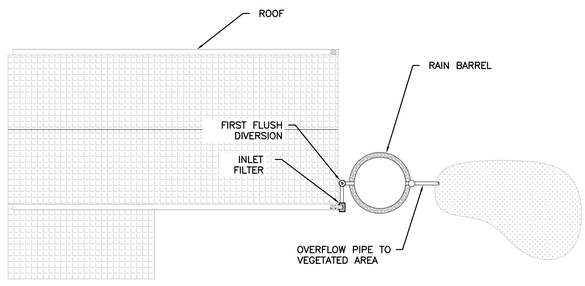
IMPERVIOUS AREA DISPERSION

NO SCALE

SD-B



SECTION VIEW

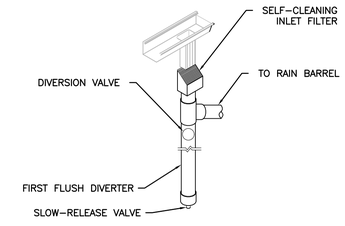


PLAN VIEW

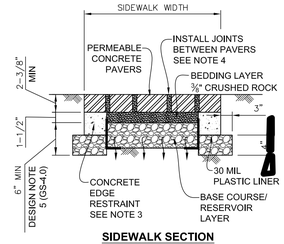
RAIN BARREL

NO SCALE

SD-E



PRETREATMENT DETAIL



SIDEWALK SECTION

PERMEABLE PAVEMENT (PAVERS)

NO SCALE

SD-D

COUNTY APPROVED CHANGES		
DESCRIPTION:	APPROVED BY:	DATE:

PRIVATE CONTRACT

SHEET X	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	XX SHEETS

PRIORITY DEVELOPMENT PROJECT BMP PLAN SHEET FOR:

[INSERT PROJECT NAME]

CALIFORNIA COORDINATE INDEX _____

APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER

ENGINEER OF WORK

R.C.E.

GRADING PERMIT NO:

PDS20XX-LDXXXX-XXXXX

ENGINEER'S NAME: XXXXXXXX XXXXXXXXX
PHONE NO. (XXX)XXX-XXXX // EMAIL: XXXXXX@XXXXXX.XXX

STRUCTURAL BMP NOTES:

SOIL MEDIA SPECIFICATIONS:

TEXTURE AND COMPOSITION (BY VOLUME):

SOIL MEDIA SHOULD CONSIST OF A LOAMY SAND CONFORMING TO THE FOLLOWING SPECIFICATIONS:

- 65% SAND
- 20% SANDY LOAM
- 15% COMPOST

ORGANIC MATTER MATERIAL:

MAXIMUM 5% BY WEIGHT IN OVERALL SOIL MEDIA. ORGANIC MATTER SHOULD BASED FROM VEGETATION–BASED FEEDSTOCK AND INCLUDE NO ANIMAL MANURE OR BYPRODUCTS.

INFILTRATION RATES:

5 IN/HR FILTRATION RATE. REFER TO BMP DM FOR METHODOLOGY.

pH: 6 TO 8

CATION EXCHANGE CAPACITY (CEC): GREATER THAN 5 MILLIEQUIVALENTS (MEQ)/100 GRAMS SOIL

PHOSPHORUS: TOTAL PHOSPHORUS SHOULD NOT EXCEED 15 PPM

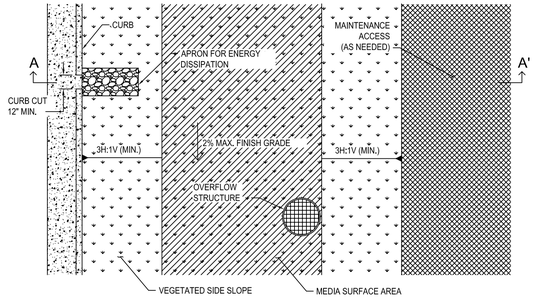
REFER TO THE COUNTY OF SAN DIEGO LID HANDBOOK APPENDIX G FOR FURTHER SOIL MEDIA SPECIFICATIONS.

VEGETATION SPECIFICATIONS:

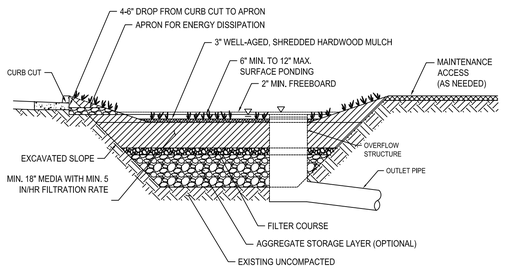
FOR BIOFILTRATION TO FUNCTION PROPERLY AS STORMWATER TREATMENT AND BLEND INTO THE LANDSCAPING, VEGETATION SELECTION IS CRUCIAL. APPROPRIATE VEGETATION WILL HAVE THE FOLLOWING CHARACTERISTICS:

1. PLANT MATERIALS MUST BE TOLERANT OF SUMMER DROUGHT, PONDING FLUCTUATIONS, AND SATURATED SOIL CONDITIONS FOR 10 TO 48 HOURS.
2. IF PLANT SPACING ALLOWS, IT IS RECOMMENDED THAT A MINIMUM OF THREE TREE SPECIES, THREE SHRUB SPECIES, AND THREE HERBACEOUS GROUNDCOVER SPECIES BE INCORPORATED TO PROTECT AGAINST FACILITY FAILURE FROM DISEASE AND INSECT INFESTATIONS OF A SINGLE SPECIES. PLANT ROOTING DEPTHS MUST NOT DAMAGE THE UNDERDRAIN, IF PRESENT. SLOTTED OR PERFORATED UNDERDRAIN PIPE MUST BE MORE THAN 5 FEET FROM TREE LOCATIONS (IF SPACE ALLOWS).
3. NATIVE PLANT SPECIES OR HARDY CULTIVARS THAT ARE NOT INVASIVE AND DO NOT REQUIRE CHEMICAL INPUTS ARE RECOMMENDED TO BE USED TO THE MAXIMUM EXTENT PRACTICABLE.
4. SHADE TREES SHOULD BE FREE OF BRANCHES BELOW 1/3 THEIR TOTAL HEIGHT.

STRUCTURAL BMP DETAILS

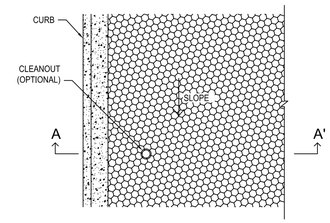


PLAN
NOT TO SCALE



SECTION A-A'
NOT TO SCALE

BIORETENTION
NO SCALE
INF-2



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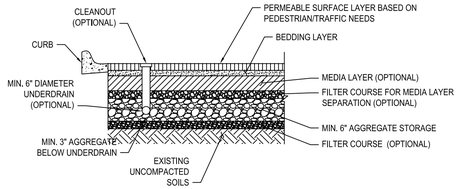
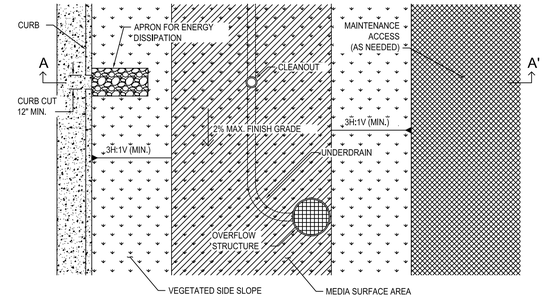
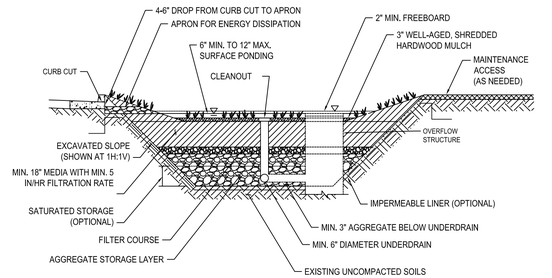


SECTION A-A'
NOT TO SCALE

PERMEABLE PAVEMENT
NO SCALE
INF-3



PLAN
NOT TO SCALE



SECTION A-A'
NOT TO SCALE

BIOFILTRATION
NO SCALE
BF-1

COUNTY APPROVED CHANGES		
DESCRIPTION:	APPROVED BY:	DATE:

PRIVATE CONTRACT

SHEET X	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	XX SHEETS

PRIORITY DEVELOPMENT PROJECT BMP PLAN SHEET FOR:

[INSERT PROJECT NAME]

CALIFORNIA COORDINATE INDEX _____

APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER

ENGINEER OF WORK
R.C.E.

GRADING PERMIT NO:
PDS20XX–LDXXXX–XXXXX

ENGINEER'S NAME: XXXXXXXX XXXXXXXXX
PHONE NO. (XXX)XXX–XXXX // EMAIL: XXXXXX@XXXXXXX.XXX

INSERT BMP PLAN
SEE EXAMPLE PROJECT

SCALE 1" = ___'

BMP NOTES:

1. THESE BMPS ARE MANDATORY TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS OR THESE PLANS.
2. NO CHANGES TO THE PROPOSED BMPS ON THIS SHEET WITHOUT PRIOR APPROVAL FROM THE COUNTY.
3. NO SUBSTITUTIONS TO THE MATERIAL, TYPES, OR PLANTING TYPES WITHOUT PRIOR APPROVAL FROM THE COUNTY ENGINEER.
4. NO OCCUPANCY WILL BE GRANTED UNTIL THE COUNTY STAFF HAS INSPECTED THIS PROJECT FOR APPROPRIATE BMP CONSTRUCTION AND INSTALLATION.
5. ALL VEGETATED BMPS SHALL BE SHOWN ON LANDSCAPE PLANS PER PERMIT #_____.
6. REFER TO THE MAINTENANCE PLAN IN ATTACHMENT 3 OF SWQMP FOR ACCESS TO STRUCTURAL BMPS TO INSPECT AND PERFORM MAINTENANCE, FEATURES PROVIDED TO FACILITATE INSPECTION, MAINTENANCE THRESHOLDS, RECOMMENDED EQUIPMENT TO PERFORM MAINTENANCE, AND SPECIAL TRAINING OR CERTIFICATION REQUIREMENTS FOR INSPECTION AND MAINTENANCE PERSONNEL.
7. ALL GRADING CONTOURS SHALL BE CONSISTENT WITH DMA EXHIBIT.
8. SEE PROJECT SWQMP FOR ADDITIONAL INFORMATION.

SOURCE CONTROL BMPS				
SYMBOL	QUANTITY	BMP TYPE	BMP DM FACT SHEET ID	SHEET NO. (S)①

SITE DESIGN BMPS②				
SYMBOL	QUANTITY	BMP TYPE	BMP DM FACT SHEET ID	SHEET NO. (S)①

STRUCTURAL BMPS								
SYMBOL	DMA #	BMP INFORMATION			MAINTENANCE CATEGORY	MAINTENANCE AGREEMENT OR MAINTENANCE NOTIFICATION RECORD DOC. #	CONSTRUCTION PLAN SHEET #①	LANDSCAPE PLAN # _____ & SHEET # (FOR VEGETATED BMPS ONLY)
		QUANTITY	DESCRIPTION / TYPE OF STRUCTURAL BMP	BMP ID #(S)				
ADD ROWS AS NEEDED								
SIGNIFICANT SITE DESIGN BMPS③ (IN DMA'S WITHOUT STRUCTURAL BMPS)								
			TREE WELLS					
			DISPERSION AREAS					
			TREE WELLS					
			DISPERSION AREAS					
ADD ROWS AS NEEDED								

BMP TABLE NOTES:

1. IF THIS BMP IS NOT BEING BUILT DURING THIS PHASE OF DEVELOPMENT, INDICATE WHICH PHASE IT WILL BE BUILT (E.G. "B" = BUILDING PHASE).
2. INCLUDE SIGNIFICANT SITE DESIGN BMPS HERE IF LOCATED IN DMA'S IN COMBINATION WITH STRUCTURAL BMPS. SIGNIFICANT SITE DESIGN BMPS ARE SITE DESIGN BMPS CREDITED IN WORKSHEET B-1.1 OF THE BMP DESIGN MANUAL FOR DESIGN CAPTURE VOLUME (DCV) REDUCTIONS.
3. INCLUDE SIGNIFICANT SITE DESIGN BMPS HERE FOR DMA'S THAT ONLY INCLUDE SIGNIFICANT SITE DESIGN BMPS THAT PROVIDE FULL DCV AND HYDROMODIFICATION MANAGEMENT CONTROL (IF APPLICABLE) REDUCTION.

COUNTY APPROVED CHANGES		
DESCRIPTION:	APPROVED BY:	DATE:

PRIVATE CONTRACT

SHEET X	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	XX SHEETS

PRIORITY DEVELOPMENT PROJECT BMP PLAN SHEET FOR:

[INSERT PROJECT NAME]

CALIFORNIA COORDINATE INDEX _____

APPROVED FOR WILLIAM P. MORGAN
COUNTY ENGINEER

ENGINEER OF WORK
R.C.E.

GRADING PERMIT NO:
PDS20XX-LDXXXX-XXXXX

ENGINEER'S NAME: XXXXXXXX XXXXXXXXX
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