CONCEPTUAL URBAN STORMWATER MITIGATION PLAN NOTES:

1. THE ANTICIPATED POLLUTANTS OF CONCERN FOR THIS PROJECT WOULD BE TRASH, NUTRIENTS, OIL, GREASE, COPPER, ZINC, LEAD, CADMIUM, BACTERIA, SEDIMENTS, AND FERTILIZERS.
2. PARKING LOT AND DRIVE AISLES: THE STORM WATER CONVEYANCE SYSTEM WILL BE DESIGNED TO MINIMIZE THE INTRODUCTION OF SITE RUNOFF POLLUTANTS BY USING A SERIES OF FILTERRA BIOFILTRATION CATCH BASINS AND TRENCH DRAIN INSERTS DESIGNED TO COLLECT SILT, DEBRIS, PETROLEUM HYDROCARBONS, ETC. FROM PAVED AREA WATER RUNOFF. THE FLO-GARD INSERT SYSTEM (MEDIA FILTER) HAS BEEN IDENTIFIED FOR USE ON THIS PROJECT WITHIN THE TRENCH DRAINS. ITS COLLECTION SYSTEM IS MADE OF GEOTEXTILE FABRICS THAT COLLECT SILTS AND DEBRIS, AS WELL AS OILS AND GREASES.
3. PROTECT SLOPES AND CHANNELS: SLOPED AREAS WILL EITHER REMAIN OR BE VEGETATED WITH NATIVE OR DROUGHT TOLERANT VEGETATION TO PREVENT EROSION. DRAINAGE CHANNELS WILL DRAIN TO MEDIA FILTER SYSTEMS PRIOR TO RELEASE OF STORMWATER TO THE STREET AND/OR PUBLIC DRAINAGE SYSTEM.
4. PROVIDE STORM DRAIN SYSTEM STENCILING AND SIGNAGE: THE PROJECT OWNER WILL STENCIL "NO DUMPING DRAINS TO OCEAN" AT ALL STORM DRAIN INLETS AND CATCH BASINS, INSTALL SIGNS AND PROHIBITIVE LANGUAGE AND/OR GRAPHICAL ICONS TO PROHIBIT ILLEGAL DUMPING AT PUBLIC ACCESS POINTS, AND MAINTAIN THESE ITEMS IN THE FUTURE.
5. PROPERLY DESIGN OUTDOOR MATERIAL STORAGE AREAS: OUTDOOR MATERIAL STORAGE WILL BE MAINTAINED WITHIN A SANDBAGGED "STORAGE AREA" THAT BLOCKS CONSTRUCTION MATERIAL FROM DRAINING FROM THE SITE.
6. PROPERLY DESIGN TRASH STORAGE AREAS: TRASH STORAGE AREA SHALL BE PLACED WITHIN THE PROPERTY AND CONSTRUCTION TRASH SHALL BE PICKED UP AND PLACED IN COMMERCIAL TRASH BINS DAILY DURING CONSTRUCTION ACTIVITIES.
7. DESIGN STANDARDS FOR STRUCTURAL OR TREATMENT CONTROL BMPS: FILTERRA BIORETENTION BASINS AND FLO-GARD CATCH BASIN OR TRENCH DRAIN FILTER INSERTS ARE NON-BLOCKING, HIGH-FLOW RATE SCREENING SYSTEMS ACCOMPLISHES HIGH EFFICIENCY SEPARATION OF SETTLE-ABLE PARTICULATE MATTER AND VIRTUALLY 100 PERCENT CAPTURE OF FLOATABLE MATERIAL. ITS APPLICATION IS IDEAL TO ANY SITUATION WHERE REMOVAL OF GROSS POLLUTANTS IS DESIRED.
8. PROPERLY DESIGN PARKING AREA: ALTHOUGH THE IMPERMEABLE SURFACES WILL BE INCREASED BY THE FIRE LANE AND THE PARKING LOTS, A MAJORITY OF WATER WILL BE COLLECTED AND TREATED. THE RUNOFF OF THIS SITE WILL STILL DISCHARGE ONTO THE STREET AFTER TREATMENT. ALSO, A BELOW GROUND STORMWATER DETENTION SYSTEM WILL BE INCORPORATED TO ALLOW THE POST-CONSTRUCTION VOLUME OF RUNOFF FROM THE SITE TO MIMIC THE AMOUNT OF RUNOFF FROM THE PRE-DEVELOPED SITE.
9. PROVIDE PROOF OF ONGOING BMP MAINTENANCE: THE STANDARD MAINTENANCE SYSTEM INSPECTION FOR A FLO-GARD FILTER INSERT DEVICE IS A MINIMUM OF THREE TIMES A YEAR WHILE CHANGING AND DISPOSING OF THE FILTER MEDIUM AT LEAST ONCE A YEAR. MAINTENANCE MAY BE REQUIED MORE FREQUENTLY DEPENDING ON THE POLLUTANT LOAD IN THE DRAINAGE. THE MAINTENANCE SPECIFICATIONS WILL BE PROVIDED TO THE OWNER.
10. PROPERLY DESIGN TO LIMIT OIL CONTAMINATION AND PERFORM MAINTENANCE: THE PROJECT OWNERS WILL TREAT TO REMOVE OIL AND PETROLEUM AT THE CONSTRUCTION PARKING AREA AND PROVIDE MAINTENANCE OF THE TREATMENT SYSTEM IN ORDER TO ENSURE PROPER PROJECT COMPLIANCE.
11. HAZARDOUS WASTE MANAGEMENT: MANY OF CHEMICALS USED ON SITE MAY BE HAZARDOUS MATERIALS WHICH BECOME HAZARDOUS WASTE UPON DISPOSAL. THESE WASTES MAY INCLUDE: PAINTS AND SOLVENTS; PETROLEUM PRODUCTS SUCH AS OILS, FUELS AND GREASE; HERBICIDES AND PESTICIDES. THE FOLLOWING STEPS WILL HELP REDUCE STORM WATER POLLUTION FROM HAZARDOUS WASTES:
    A. USE UP ALL OF THE PRODUCTS BEFORE DISPOSING OF THEIR CONTAINERS.
    B. DO NOT REMOVE THE ORIGINAL PRODUCT LABEL; IT CONTAINS IMPORTANT SAFETY AND DISPOSAL INFORMATION. FOLLOW ALL OF MANUFACTURE'S INSTRUCTIONS.
    C. DO NOT OVER-APPLY HERBICIDES AND PESTICIDES. PREPARE ONLY THE AMOUNT NEEDED. FOLLOW THE RECOMMENDED USAGE INSTRUCTIONS. APPLY SURFACE DRESSINGS IN SEVERAL SMALLER APPLICATIONS, AS OPPOSED TO ONE LARGE APPLICATION, TO ALLOW TIME FOR INFILTRATION AND TO AVOID EXCESS MATERIAL BEING CARRIED OFF-SITE BY RUNOFF. DO NOT APPLY THESE CHEMICALS JUST BEFORE IT RAINS. PEOPLE APPLYING PESTICIDES MUST BE CERTIFIED IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS.
    D. DO NOT CLEAN BRUSHES OR RINSE PAINT CONTAINERS INTO THE DIRT, STREET, GUTTER, STORM DRAIN, OR STREAM. "PAINT OUT" THE BRUSHES AS MUCH AS POSSIBLE. RINSE WATER-BASED PAINTS INTO THE SANITARY SEWER. FILTER AND REUSE THINNERS AND SOLVENTS. DISPOSE OF EXCESS OIL-BASED PAINTS AND SLUDGE AS HAZARDOUS WASTE.
    E. HAZARDOUS MATERIALS AND WASTES SHOULD BE STORED IN COVERED CONTAINERS AND PROTECTED FROM VANDALISM.
    F. PLACE HAZARDOUS WASTE CONTAINERS IN SECONDARY CONTAINMENT.
    G. ARRANGE FOR REGULAR WASTE COLLECTION BEFORE CONTAINERS OVERFLOW.
12. STORMWATER RUNOFF REDUCTION: AS MENTIONED ABOVE, IF NECESSARY TO REDUCE THE STORMWATER RUNOFF OF THE POST-DEVELOPED SITE TO PRE-DEVELOPMENT LEVELS, THEN BELOW PARKING LOT RETENTION SYSTEMS (I.E., PIPES, BOXES, ETC.) WILL BE INCORPORATED INTO THIS PROJECT.

LEGEND

- NEW PAVEMENT
- NEW GRASSPAVE
- NEW RETAINING WALL
- NEW LANDSCAPED AREA
- NEW FILTERRA BIORETENTION SYSTEM
- DIRECTION OF FLOW

CREST ROAD
PROPERTY LINE
(E)SIDEWALK
(E)PARKWAY DRAIN
NEW RAMP
NEW SANCTUARY 1219.00FF
REMOVE INTERFERING CATCH BASINS AND PIPES
NEW ART ROOM 1220.57FF
PRESCHOOL PLAY AREA
(E)CLASSROOMS (1220.57)FF
NEW ADMINISTRATION BUILDING 1220.57FF
(1222.48)FF
NEW GATHERING PLAZA
INSTALL FILTERRA BIOFILTRATION
NEW PARKWAY DRAIN OUTLET TO STREET
NEW CONC V-GUTTER
(E) PARISH CENTER (1218.80)FF
CRENSHAW BLVD
NEW STAIRS
(E)ACCESS DWY
NEW TRENCH DRAIN
CONNECT SD SYSTEM TO BACK OF (E)CATCH BASIN
(E)ACCESS ROAD
NEW LIBRARY 1220.57FF
NEW TURNAROUND
(E)COURTYARD
NEW CB AND OUTLET PIPE
(E)CLASSROOMS (1222.31)FF
(E)BARRETT HALL (1222.31)FF
NEW CB
NEW RET WALL (H=8' MAX)
NEW CURB & GUTTER
NEW 3'CONC GUTTER
FIRE LANE
EXISTING A.C. PAVEMENT TO REMAIN
JOIN
(E)RECTORY (1236.9)FF
NEW MAINTENANCE GARAGE
PLANTER TO BE REMOVED
POOL

30 20 10 0 30 60 90
SCALE: 1" = 30'

NOTE: THIS PLAN ACCURATE FOR CONCEPTUAL URBAN STORMWATER MITIGATION PLAN ONLY.

FOR C.U.P. APPROVAL ONLY
PRELIMINARY NOT FOR CONSTRUCTION

"All Great Projects Start With JMC²"

PLANS PREPARED BY:
JMC²
John M.L. Chisholm, Consultants, Inc.
401 N. Pacific Coast Highway, Suite 201
San Pedro, CA 90731
P: 310.241.6550
F: 310.320.8871
www.jmc2.com

PROFESSIONAL ENGINEER — REGISTERED — CIVIL — STATE OF CALIFORNIA — No. 50792

NO.	REVISIONS:	BY:	DATE:

PROJECT: ST. JOHN FISHER
5448 CREST ROAD
RANCHO PALOS VERDES, CA 90275

SHEET TITLE: CONCEPTUAL URBAN STORMWATER MITIGATION PLAN

PROJECT NO.	20070067
SCALE	1"=30'
DATE	1/25/08
DESIGNED BY	JMC
DRAWN BY	JMC
CHECKED BY	LFJ
SHEET NO.	C-3
OF	SHTS

PROJECT NO. | SHEET SIZE 30X42 | LEVEL STMD ON

$TIME$ | $DATE$ | $FILE$ | $PLTDRVC$