

CITY OF SAN MARCOS, CALIFORNIA PRIORITY DEVELOPMENT PROJECT (PDP) STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) FOR St. Katherine Orthodox Church [INSERT PERMIT APPLICATION NUMBERS] NE of Brighton Glen Rd and South Rancho Santa Fe Rd SAN MARCOS, CA 92078 ASSESSOR'S PARCEL NUMBER(S): 2220411100
ENGINEER OF WORK:
SHAVGER REKANI, R.C.E. 90893

ENGINEER OF WORK:

PREPARED FOR:

PDP SWQMP PREPARED BY:

City of San Marcos PDP SWQMP Template Date: July 2025
PDP SWQMP Preparation Date: August 7, 2026

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ACRONYMS

APN	Assessor's Parcel Number
BMP	Best Management Practice
HMP	Hydromodification Management Plan
HSG	Hydrologic Soil Group
MS4	Municipal Separate Storm Sewer System
N/A	Not Applicable
NRCS	Natural Resources Conservation Service
PDP	Priority Development Project
PE	Professional Engineer
SC	Source Control
SD	Site Design
SDRWQCB	San Diego Regional Water Quality Control Board
SIC	Standard Industrial Classification
SSD	Significant Site Design
SWQMP	Storm Water Quality Management Plan

PDP SWQMP PREPARER'S CERTIFICATION PAGE

Project Name: St. Katherine Orthodox C

Permit Application Number:

PREPARER'S CERTIFICATION

I hereby declare that I am the Engineer in Responsible Charge of design of storm water best management practices (BMPs) for this project, and that I have exercised responsible charge over the design of the BMPs as defined in Section 6703 of the Business and Professions Code, and that the design is consistent with the PDP requirements of the City of San Marcos BMP Design Manual, which is a design manual for compliance with City of San Marcos Municipal Code and regional MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2015-0100 as amended by Order No. R9-2015-0001, R9-2015-0100, and R9-2017-0077) requirements for storm water management.

I have read and understand that the City Engineer has adopted minimum requirements for managing urban runoff, including storm water, from land development activities, as described in the BMP Design Manual. I certify that this PDP SWQMP has been completed to the best of my ability and accurately reflects the project being proposed and the applicable BMPs proposed to minimize the potentially negative impacts of this project's land development activities on water quality. I understand and acknowledge that the plan check review of this PDP SWQMP by the City of San Marcos Land Development Division is confined to a review and does not relieve me, as the Engineer in Responsible Charge of design of storm water BMPs for this project, of my responsibilities for project design.

Engineer of Work's Signature, PE Number & Expiration Date

Shavger Rekani

Print Name

RICK

Company

Date

Engineer's Seal:

PDP SWQMP PROPERTY OWNER'S CERTIFICATION PAGE

Project Name: St. Katherine Orthodox Church

Permit Application Number:

PROPERTY OWNER'S CERTIFICATION

This PDP SWQMP has been prepared for ST. KATHERINE ORTHODOX CHURCH by RICK. The PDP SWQMP is intended to comply with the PDP requirements of the City of San Marcos BMP Design Manual, which is a design manual for compliance with City of San Marcos Municipal Code and regional MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2015-0100 as amended by Order No. R9-2015-0001, R9-2015-0100, and R9-2017-0077) requirements for storm water management.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan. Once the undersigned transfers its interests in the property, its successor-in-interest shall bear the aforementioned responsibility to implement the best management practices (BMPs) described within this plan, including ensuring on-going operation and maintenance of structural BMPs. A signed copy of this document shall be available on the subject property into perpetuity.

Property Owner's Signature

Print Name

St. Katherine Orthodox Church

Company

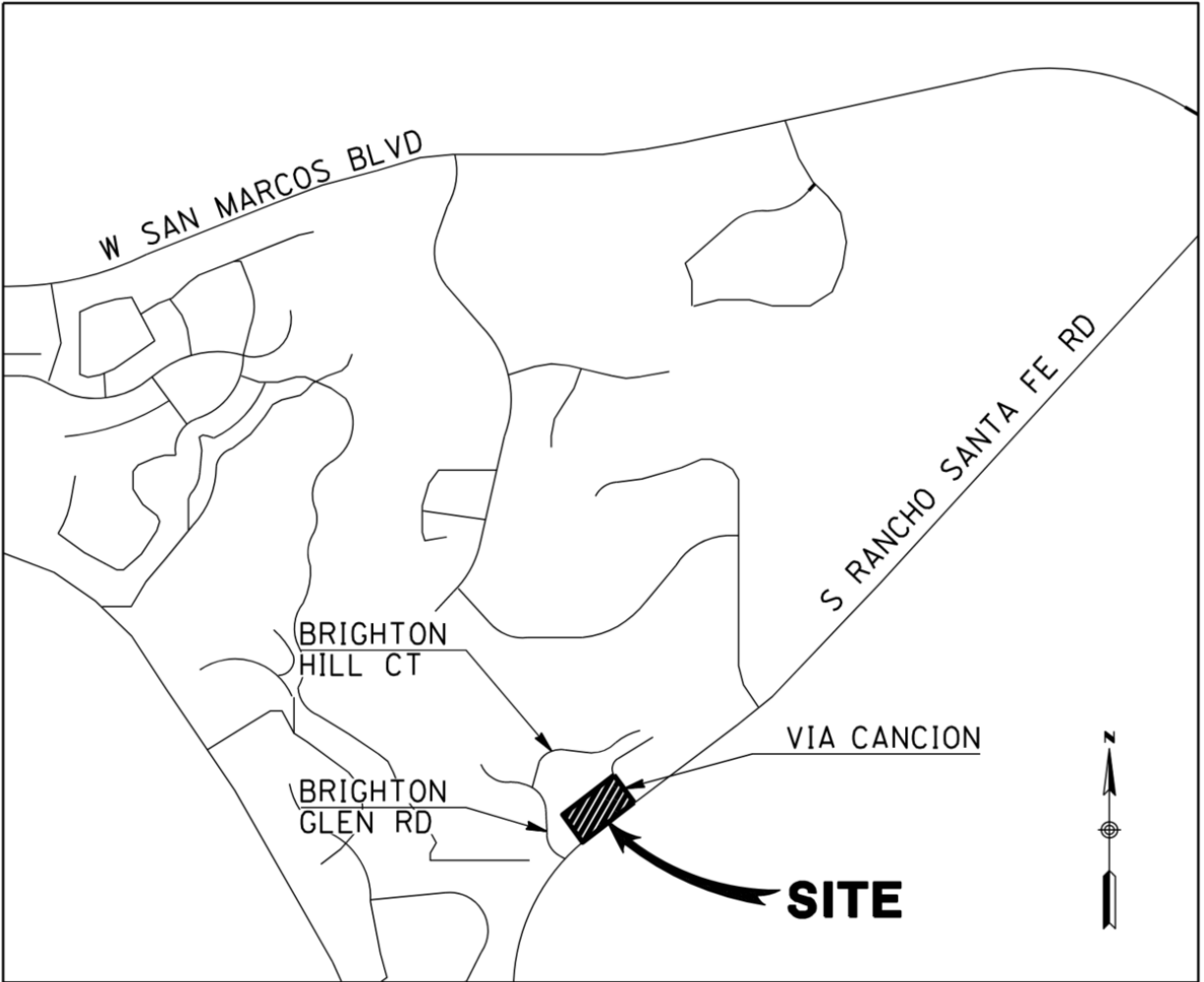
Date

SUBMITTAL RECORD

Use this Table to keep a record of submittals of this PDP SWQMP. Each time the PDP SWQMP is re-submitted, provide the date and status of the project. In column 4 summarize the changes that have been made or indicate if response to plancheck comments is included. When applicable, insert response to plancheck comments behind this page.

Submittal Number	Date	Project Status	Summary of Changes
1	08/07/26	☒ Preliminary Design / Planning/ CEQA ☐ Final Design	Preliminary Submittal
2		☐ Preliminary Design / Planning/ CEQA ☐ Final Design	
3		☐ Preliminary Design / Planning/ CEQA ☐ Final Design	
4		☐ Preliminary Design / Planning/ CEQA ☐ Final Design	

PROJECT VICINITY MAP



VICINITY MAP

NO SCALE

**Applicability of Storm Water
Best Management Practices (BMP) Requirements**
(Storm Water Intake Form for all Development Permit Applications)

Form J-1
[July 2025]

Project Identification

Project Name: St. Katherine Orthodox Church

Description: St. Katherine Orthodox Church proposes church building development, parking lot and storm drains associated with the development.

Permit Application Number (if applicable):

Date: 08/07/2025

Project Address: NE of Brighton Glen Rd and South Rancho Santa Fe Rd

APN: 2220411100

The project is (select one): ☒ New Development ☐ Redevelopment

The total proposed newly created or replaced impervious area is: 61,556 ft² (1.41) acres

The total proposed disturbed area is: 107,785 ft² (2.47) acres

Determination of Requirements

This form is required as part of the City's application process. The purpose of this form is to identify potential land development planning storm water requirements that apply to development projects. Depending on the outcome, the project will either be subject to "Standard Project," "Priority Development," and/or "Trash Capture" requirements, or the project will not be considered a development project.

Development projects are defined as: construction, rehabilitation, redevelopment, or reconstruction of any public or private development projects. In addition, the identification of a development project, as it relates to storm water regulations, would truly apply to development and redevelopment activities that have the potential to contact storm water and contribute a source of pollutants, or reduce the natural absorption and infiltration abilities of the land.

To access the BMP Design Manual, Storm Water Quality Management Plan (SWQMP) templates, and other pertinent information related to this program please refer to: <http://www.san-marcos.net/departments/development-services/watershed/development-planning>

Please contact Land Development Engineering staff with any questions on this form: engineeringdivision@san-marcos.net

Please answer each of the following steps below, starting with Step 1 and progressing through each step as noted.

STEP 1: Determine if project is a "development project"

Question	Answer
Is the project a "development project" (See definition above)? See Section 1.3 of the BMP Design Manual for further guidance, if necessary.	☒ Yes, <u>continue to Step 2</u> . No, permanent BMP requirements do not apply. No SWQMP will be required. <u>Provide brief discussion below</u> then Skip to Step 5 and select "Not a development project"
Discussion / justification if the project is <i>not</i> a "development project" (e.g., the project includes <i>only</i> interior remodels within an existing building):	

STEP 2: Determine if project is exempt from PDP requirements pursuant to MS4 Permit Provision E.3.b. (3)

Question	Answer
Is the project <i>limited to</i> any of the following: Option 1. Constructing new or retrofitting paved sidewalks, bicycle lanes or trails which are one or more of the following: • Designed and constructed to direct storm water runoff to adjacent vegetated areas, or other nonerodable permeable areas • Designed and constructed to be hydraulically disconnected from paved streets or roads • Designed and constructed with permeable pavements or surfaces in accordance with USEPA Green Streets guidance Option 2. Retrofitting or redeveloping existing paved alleys, streets, or roads that are designed and constructed in accordance with the USEPA Green Streets guidance Option 3. Ground Mounted Solar Array that meets the criteria provided in section 1.4.2 of the BMP manual	☐ Yes, permanent BMP requirements do not apply. <u>Provide brief discussion below, identifying which Option applies to the project then skip to Step 4</u> to determine if Trash Capture requirements apply. In Step 5 select “Standard Project” ☒ No, project is <i>not</i> PDP exempt. <u>Continue to Step 3.</u>

Discussion / justification, and additional requirements for exceptions to PDP definitions, if applicable:

Step 3: Determine if project is a Priority Development Project (PDP)

Question	Answer
Step 3a: Please answer all the following questions then continue to Step 3b:	
New development projects that create 10,000 square feet or more of impervious surfaces (collectively over the entire project site). This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.	☒ Yes ☐ No
Redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site on an existing site of 10,000 square feet or more of impervious surfaces). This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.	☐ Yes ☒ No
New and redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site), and support one or more of the following uses:	☒ Yes ☐ No
(i) Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (Standard Industrial Classification (SIC) code 5812).	
(ii) Hillside development projects. This category includes development on any natural slope that is twenty-five percent or greater.	
(iii) Parking lots. This category is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce.	
(iv) Streets, roads, highways, freeways, and driveways. This category is defined as any paved impervious surface used for the transportation of automobiles, trucks, motorcycles, and other vehicles.	

New or redevelopment projects that create and/or replace 2,500 square feet or more of impervious surface (collectively over the entire project site) and discharging directly to an Environmentally Sensitive Area (ESA). “Discharging directly to” includes flow that is conveyed overland a distance of 200 feet or less from the project to the ESA or conveyed in a pipe or open channel any distance as an isolated flow from the project to the ESA (i.e. not commingled with flows from adjacent lands). <i>Note: ESAs are areas that include but are not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the State Water Board and San Diego Water Board; State Water Quality Protected Areas; water bodies designated with the RARE beneficial use by the State Water Board and San Diego Water Board; and any other equivalent environmentally sensitive areas which have been identified by the Copermittees. See BMP Design Manual Section 1.4.2 for additional guidance</i>	☐ Yes ☒ No
New development projects, or redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface, that support one or more of the following uses: (i) Automotive repair shops. This category is defined as a facility that is categorized in any one of the following SIC codes: 5013, 5014, 5541, 7532-7534, or 7536-7539. (ii) Retail gasoline outlets (RGOs). This category includes RGOs that meet the following criteria: (a) 5,000 square feet or more or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.	☐ Yes ☒ No
New or redevelopment projects that result in the disturbance of one or more acres of land and are expected to generate pollutants post construction. <i>Note: See BMP Design Manual Section 1.4.2 for additional guidance.</i>	☐ Yes ☒ No
Question	Answer
Step 3b: Was “Yes” selected for one or more of the questions above?	☒ Yes, project is a PDP. If project is a redevelopment project, <u>continue to Step 3c</u>. If project is a new development project, Skip to Step 4. In Step 5 select “Priority Development Project (PDP)” ☐ No, project is a Standard Project, Skip to Step 4 to determine if Trash Capture requirements apply. In Step 5 select “Standard Project”
Step 3c: For redevelopment projects, provide the following information and continue to Step 3d: The area of existing (pre-project) impervious area at the project site is: _____ ft² (A) The total proposed newly created or replaced impervious area is _____ ft² (B) Percent impervious surface created or replaced (B/A)*100: _____%	
Step 3d: Is the percent impervious surface created or replaced less than or equal to fifty percent?	☐ Yes, only new impervious areas are considered PDP. <u>Continue to Step 4</u>. ☐ No, entire project area is considered PDP. <u>Continue to Step 4</u>.

Step 4: Determine if trash capture requirements apply	
Question	Answer
Step 4a: Is the Project within any of the following Priority Land Use (PLU) categories? High Density Residential (R-2, R-3-6, R3-10) Industrial (L-I, B-P, I, I-2) Commercial (C, NC, OP, SR) Mixed Urban (MU-1, MU-2, MU-3, MU-4) Public Transportation Stations	☐ Yes, continue to Step 4b. ☒ No, project is exempt from Trash Capture requirements. Provide brief discussion below then Skip to Step 5.
Step 4b: Is the project limited to any of the following: Option 1: A single-family home or an addition or alteration of one single family home? Option 2: An accessory dwelling unit (ADU)? Option 3: Creating equal to or less than 250 SF of new or replaced impervious area? Option 4: Trenching of underground utilities? Option 5: EV charging stations, self-sustaining fuel cells, transformers, generators and related supporting infrastructure?	☐ Yes, project is exempt from Trash Capture requirements. Provide brief discussion below, identifying which Option applies to the project then continue to Step 5. ☐ No, project is subject to Trash Capture requirements. Continue to Step 5 and Select "Trash Capture" in addition to Standard or PDP.
Discussion / justification if trash capture requirements do not apply: Project is within an A-1 Agricultural	
Step 5: Identify project type. Select the applicable project type(s) below based on Step 1-4 of this form:	
☐ Not a development project: project is not subject to requirements in the BMP manual	
☐ Trash Capture: project must comply with trash capture requirements and provide a PDP or Trash Capture SWQMP	
☐ Standard Project: project must comply with stormwater requirements of the BMP manual and provide completed Forms J-3 and J-4	
☒ Priority Development Project (PDP): project must comply with stormwater requirements of the BMP manual and provide a PDP SWQMP	

Site Information Checklist For PDPs		Form J-2B (PDP) [July 2025]
Project Summary Information		
Project Hydrologic Unit	Select One: ☒ Carlsbad 904	
Project Watershed (Refer to Figure A.2-1 in Appendix A for Hydrologic Sub Areas map)	Select One: Agua Hedionda 904.31 904.32 San Marcos ☒ 904.51 904.52 904.53 Escondido Creek 904.61 904.62	
Parcel Area (total area of Assessor's Parcel(s) associated with the project)	<u>3.09</u> Acres (<u>134,649</u> Square Feet)	
Area to be Disturbed by the Project (Project Area)	<u>2.47</u> Acres (<u>107,785</u> Square Feet)	
Project Proposed Impervious Area (subset of Project Area)	<u>1.41</u> Acres (<u>61,556</u> Square Feet)	
Project Proposed Pervious Area (subset of Project Area)	<u>1.06</u> Acres (<u>46,229</u> Square Feet)	
Note: Proposed Impervious Area + Proposed Pervious Area = Area to be Disturbed by the Project. This may be less than the Parcel Area.		
Description of Existing Site Condition		
Current Status of the Site (select all that apply): ☐ Existing development ☐ Previously graded but not built out ☐ Demolition completed without new construction ☒ Agricultural or other non-impervious use ☐ Vacant, undeveloped/natural Description / Additional Information: Land is being used as a plant nursery with very little infrastructure		

Existing Land Cover Includes (select all that apply):

- ☒ Vegetative Cover
- ☒ Non-Vegetated Pervious Areas
- ☒ Impervious Areas

Description / Additional Information:

Underlying Soil belongs to Hydrologic Soil Group (select all that apply):

- ☐ NRCS Type A
- ☐ NRCS Type B
- ☐ NRCS Type C
- ☒ NRCS Type D

Approximate Depth to Groundwater (GW):

- ☐ GW Depth < 5 feet
- ☐ 5 feet < GW Depth < 10 feet
- ☐ 10 feet < GW Depth < 20 feet
- ☐ GW Depth > 20 feet

Existing Natural Hydrologic Features (select all that apply):

- ☐ Watercourses
- ☐ Seeps
- ☐ Springs
- ☐ Wetlands
- ☒ None

Description / Additional Information:

Description of Existing Site Drainage [How is storm water runoff conveyed from the site? At a minimum, this description should answer (1) whether existing drainage conveyance is natural or urban; (2) describe existing constructed storm water conveyance systems, if applicable; and (3) is runoff from offsite conveyed through the site? if so, describe.]:

In existing conditions, the site consists of one major drainage area, Basin 1. An existing 60" corrugated steel storm drain brings run-on from an offsite golf course south of the project area where it confluent with on-site flows. These flows are then conveyed along an existing channel where it confluent with offsite flows from northeastern residential areas at a low point on-site. These offsite residential area flows are conveyed to the confluence point through a 377 ft long brow ditch that collects the run-on. The flow is then conveyed along an existing channel to an existing culver beneath Brighton Glen Road that conveys the flows to an unnamed creek tributary to San Marcos Creek.

Description of Existing Site Drainage Patterns

How is storm water runoff conveyed from the site? At a minimum, this description should answer:

- (1) whether existing drainage conveyance is natural or urban;
- (2) Is runoff from offsite conveyed through the site? if yes, quantify all offsite drainage areas, design flows, and locations where offsite flows enter the project site, and summarize how such flows are conveyed through the site;
- (3) Provide details regarding existing project site drainage conveyance network, including any existing storm drains, concrete channels, swales, detention facilities, storm water treatment facilities, natural or constructed channels; and
- (4) Identify all discharge locations from the existing project site along with a summary of conveyance system size and capacity for each of the discharge locations. Provide summary of the pre-project drainage areas and design flows to each of the existing runoff discharge locations.

Describe existing site drainage patterns:

In existing conditions, the site consists of one major drainage area, Basin 1. An existing 60" corrugated steel storm drain brings run-on from an offsite golf course south of the project area where it confluences with on-site flows. These flows are then conveyed along an existing channel where it confluences with offsite flows from northeastern residential areas at a low point on-site. These offsite residential area flows are conveyed to the confluence point through a 377 ft long brow ditch that collects the run-on. The flow is then conveyed along an existing channel to an existing culver beneath Brighton Glen Road that conveys the flows to an unnamed creek tributary to San Marcos Creek.

Description of Proposed Site Development

Project Description / Proposed Land Use and/or Activities:

The St. Katherine Orthodox Church project proposes graded pads for a church development with its associated temple, parish hall, amphitheater, and parking lot. The project also proposes one biofiltration basin to treat on-site flows which will outfall to confluence with offsite flows to Basin 1 that ties to an existing culvert along Brighton Glen Rd. The biofiltration basin will need to be designed to include enough volume to comply with hydromodification management criteria, water quality, and 100-year storm detention. The project also proposes the addition of two storm drains to facilitate these flows to their outfalls.

List/describe proposed impervious features of the project (e.g., buildings, roadways, parking lots, courtyards, athletic courts, other impervious features):

Buildings, parking lot, outside patio

List/describe proposed pervious features of the project (e.g., landscape areas):

Landscape areas, vegetated slopes, and biofiltration basins.

Does the project include grading and changes to site topography?

☒ Yes

☐ No

Description / Additional Information:

The project consists of mass graded pads for future development and grading of the canyon to maximize site usage.

Description of Proposed Site Drainage Patterns

Does the project include changes to site drainage (e.g., installation of new storm water conveyance systems)?

☒ Yes

☐ No

If yes, provide details regarding the proposed project site drainage conveyance network, including storm drains, concrete channels, swales, detention facilities, storm water treatment facilities, natural or constructed channels, and the method for conveying offsite flows through or around the proposed project site. Identify all discharge locations from the proposed project site along with a summary of the conveyance system size and capacity for each of the discharge locations. Provide a summary of pre- and post-project drainage areas and design flows to each of the runoff discharge locations. Reference to the drainage study for detailed calculations.

Describe proposed site drainage patterns:

The project will remain consisting of one major drainage area, Basin 1. The project proposes mass graded pads for the development of a church and parking lot. The proposed planning areas are assumed to be around 80 - 84% impervious in anticipation of the building development and landscape. Runoff from offsite residential flows north of the project site will continue to drain in the same pattern as pre-project conditions. On-site runoff will convey to a biofiltration basin through a proposed storm drain where it will be treated. The biofiltration basin will be sized and designed to provide water quality treatment, hydromodification management, and detention of 100-year post-project peak flow to pre-project condition. Once treated, basin runoff will be conveyed through a proposed storm drain to the existing channel to the low confluence point with the residential offsite flows. The existing 60" corrugated steel storm drain will be realigned under the parking lot and will bypass the biofiltration basin to outfall directly to the existing channel to confluence with on-site and offsite flows. The flow from the confluence point will then outfall to Basin 1 where it will tie into the existing culvert beneath Brighton Glen Road. The existing culvert ultimately discharges to Batiquitos Lagoon.

There will also be implementation of Green Street BMPs in the form of dispersion swales along the site perimeter along Via Cancion and South Rancho Sante Fe. These dispersion swales will treat existing and proposed impervious areas along the frontage streets of the project due to the frontage improvements. The dispersion swales will be located adjacent to the proposed sidewalk improvement along the aforementioned streets. The sidewalk improvements will be graded to slope toward the proposed green street dispersion swale. A catch basin will be located at the low point of the dispersion swale and will convey flows through a proposed storm drain that connects to the existing 60-inch storm drain. Further green streets analyses and calculations will be provided with future submittals.

Identification and Narrative of Receiving Water and Pollutants of Concern			
Describe flow path of storm water from the project site discharge location(s), through urban storm conveyance systems as applicable to receiving creeks, rivers, and lagoons as applicable, and ultimate discharge to the Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable):			
Proposed Storm Drain Systems → San Marcos Creek → Batiquitos Lagoon → Pacific Ocean			
List any 303(d) impaired water bodies within the path of storm water from the project site to the Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable), identify the pollutant(s)/stressor(s) causing impairment, and identify any TMDLs and/or Highest Priority Pollutants from the WQIP for the impaired water bodies:			
303(d) Impaired Water Body	Pollutant(s)/Stressor(s)	TMDLs / WQIP Highest Priority Pollutant	
San Marcos Creek	Nitrogen, Phosphorus, Selenium, Toxicity	Est. TMDL: 2020-2022	
Identification of Project Site Pollutants			
Identify pollutants expected from the project site based on all proposed use(s) of the site (see BMP Design Manual Appendix B.6):			
Pollutant	Not Applicable to the Project Site	Expected from the Project Site	Also, a Receiving Water Pollutant of Concern
Sediment		X	X
Nutrients		X	X
Heavy Metals	X		
Organic Compounds		X	
Trash & Debris		X	
Oxygen Demanding Substances		X	
Oil & Grease		X	
Bacteria & Viruses		X	
Pesticides		X	X

Hydromodification Management Requirements

Do hydromodification management requirements apply (see Section 1.6 of the BMP Design Manual)?

☒ Yes, hydromodification management flow control structural BMPs are required.

- ☐ No, the project will discharge runoff directly to existing underground storm drains discharging directly to water storage reservoirs, lakes, enclosed embayment's, or the Pacific Ocean.
- ☐ No, the project will discharge runoff directly to conveyance channels whose bed and bank are concrete-lined all the way from the point of discharge to water storage reservoirs, lakes, enclosed embayment's, or the Pacific Ocean.
- ☐ No, the project will discharge runoff directly to an area identified as appropriate for an exemption by the WMAA for the watershed in which the project resides.

Description / Additional Information (to be provided if a 'No' answer has been selected above):

Critical Coarse Sediment Yield Areas*

***This Section only required if hydromodification management requirements apply**

Based on the maps provided within the WMAA, do potential critical coarse sediment yield areas exist within the project drainage boundaries?

☒ Yes

☐ No, no critical coarse sediment yield areas (CCSYA) to be protected based on WMAA maps

If yes, demonstrate that CCSYA is not impacted per Appendix H of the BMP Design Manual and check the following that apply:

☒ On-site impacts are avoided; therefore no further analysis is required.

☐ On-site and/or upstream CCSYAs are passed through to the downstream channel, therefore no further analysis is required.

☐ CCSYAs are not avoided or bypassed through the site, therefore a No Net Impact Analysis has been provided in Attachment 2b.

Discussion / Additional Information:

Flow Control for Post-Project Runoff*

***This Section only required if hydromodification management requirements apply**

List and describe point(s) of compliance (POCs) for flow control for hydromodification management (see Section 6.3.1). For each POC, provide a POC identification name or number correlating to the project's HMP Exhibit and a receiving channel identification name or number correlating to the project's HMP Exhibit.

The project is tributary to one (1) POC for flow control for hydromodification management. POC-1 is located at the low point of the west side of the project boundary. POC-1 ties into proposed storm drain infrastructure and ultimately discharge to San Marcos Creek.

Has a geomorphic assessment been performed for the receiving channel(s)?

☒ No, the low flow threshold is 0.1Q2 (default low flow threshold)

☐ Yes, the result is the low flow threshold is 0.1Q2

☐ Yes, the result is the low flow threshold is 0.3Q2

☐ Yes, the result is the low flow threshold is 0.5Q2

If a Channel Screening Study (SCCWRP) has been performed, provide title, date, and preparer:

Discussion / Additional Information: (optional)

Other Site Requirements and Constraints
When applicable, list other site requirements or constraints that will influence storm water management design, such as zoning requirements including setbacks and open space, or local codes governing minimum street width, sidewalk construction, allowable pavement types, and drainage requirements.
Optional Additional Information or Continuation of Previous Sections As Needed
This space provided for additional information or continuation of information from previous sections as needed.

Baseline BMPs for Existing and Proposed Site Features for All Development Projects		Form J-3 [July 2025]	
A. BMPS for Existing Natural Site Features (See Fact Sheet BL-1)			
1. Check the boxes below for each existing feature on the site.		2. Select the BMPs to be implemented for each identified feature. Explain why any BMP not selected is infeasible in Form J-3/J-4-E	
☐ Check here if none are applicable ☐ Natural Waterbodies ☐ Natural storage reservoirs & drainage corridors ☒ Natural areas, soil, & vegetation (incl. trees)	2a. Conserve natural features (SD-G)	2b. Provide buffers around waterbodies (SD-H)	
	☐	☐	
	☐	--	
	☒	--	
B. BMPs for Common Impervious Outdoor Site Features (See Fact Sheet BL-2)			
1. Check the boxes below for each proposed feature.		2. Select the BMPs to be implemented for each proposed feature. If neither BMP SD-B, nor SD-I is selected for a feature, explain why both BMPs are infeasible in Form J-3/J-4-E	
☐ Check here if none are applicable ☐ Streets and roads ☐ Sidewalks & walkways ☒ Parking areas & lots ☐ Driveways ☒ Patios, decks, & courtyards ☒ Hardcourt recreation areas ☐ Other:	2a. Direct runoff to pervious areas (SD-B)	2b. Construct surfaces from permeable materials (SD-I)	2c. Minimize the size of impervious areas
	☐	☐	☐ Check this box to confirm that all impervious areas on the site will be minimized where feasible. If this box is not checked, identify the surfaces that cannot be minimized, and explain why it is infeasible to do so in Form J-3/J-4-E
	☐	☐	
	☒	☐	
	☐	☐	
	☒	☐	
	☒	☐	
	☐	☐	
C. ☒ BMPs for Rooftop Areas: Check this box if rooftop areas are proposed and select at least one BMP below. If no BMPs are selected, explain why they are infeasible in Form J-3/J-4-E			(See Fact Sheet BL-3 for descriptions)
☒ Direct runoff to pervious areas (SD-B)	☐ Install green roofs (SD-C)	☐ Install rain barrels (SD-E)	
D. ☒ BMPs for Landscaped Areas: Check this box if landscaping is proposed and select at least one BMP below. If no BMPs are selected, explain why they are infeasible in Form J-3/J-4-E			(See Fact Sheet BL-4 for descriptions)
☒ Sustainable Landscaping (SD-K)			

Note: All features and BMPS must be shown on applicable construction plans. See applicable Fact Sheets in Appendix D of the BMP Design Manual for additional Information.
 Use Form J-3/J-4-E to explain BMP feasibility or inapplicability, or to describe features not listed in this form.
 Additional explanation may be required by City Staff.

Baseline BMPs for Pollutant Generating Sources for All Development Projects

Form J-4
[July 2025]

A. Management of Stormwater Discharges

1. Identify all proposed outdoor work areas below ■ Check here if none are proposed	2. Which BMPs will be used to prevent materials from contacting rainfall or runoff? (See Fact Sheet BL-5) (Select all feasible BMPs for each work area ¹)			3. Where will runoff from the work area be routed? (See Fact Sheet BL-6) (Select one or more for each work area)			
	Overhead covering (rooftops, etc.) (SC-A)	Separation of flows from adjacent areas (berms, etc.) (SC-B)	Wind protection (screens, etc.) (SC-C)	Sanitary sewer ² (SC-D)	Containment system (SC-E)	Stormwater S-BMP or SSD-BMP ³	Other ⁴
☐ Trash & Refuse Storage	☐	☐	☐	☐	☐	☐	☐
☐ Materials & Equipment Storage	☐	☐	☐	☐	☐	☐	☐
☐ Loading & Unloading	☐	☐	--	☐	☐	☐	☐
☐ Fueling	☐	☐	--	☐	☐	☐	☐
☐ Maintenance & Repair	☐	☐	--	☐	☐	☐	☐
☐ Vehicle & Equipment Cleaning	☐	☐	--	☐	☐	☐	☐
☐ Other:	☐	☐	--	☐	☐	☐	☐

B. Prevention of Non-stormwater Discharges (See Fact Sheet BL-7)

Select on option for each feature below:		
•Storm drain inlets and catch basins...	☐ are not proposed.	■ will be labeled with stenciling or signage to discourage dumping (SC-F).
•Educational BMP Signage...	☐ are not proposed.	■ will be labeled with educational signage (SC-G).
•Interior work surfaces, floor drains, & sumps...	■ are not proposed.	☐ will not discharge directly or indirectly to the MS4 or receiving waters.
•Drain lines (e.g. air conditioning, boiler, etc.)...	■ are not proposed.	☐ will not discharge directly or indirectly to the MS4 or receiving waters.
•Fire sprinkler test water...	■ are not proposed.	☐ will not discharge directly or indirectly to the MS4 or receiving waters.

¹ Each BMP is Required where feasible. If none are selected for any feature, explain why in Form J-3/J-4-E

² Separate wastewater agency approvals will be required.

³ Structural Treatment Control BMPs (S-BMPs) and Significant Site Design BMPs (SSD-BMPs) may not receive discharges from work areas that concentrate pollutants in a manner that will impair their functioning. Discharges from proposed work area must also be included in DCV calculations for the applicable BMP.

⁴ Describe other proposed options for managing stormwater discharges in Form J-3/J-4-E

Required Explanations for BMP Infeasibility for forms J-3 and J-4		Form J-3/J-4-E [July 2025]
Baseline BMPs (from J-3 and J-4) • Required Justifications: Provide explanations of BMP inapplicability and/or infeasibility as indicated per forms J-3 and J-4. Justify why individual BMPs will not be implemented or will only be partially implemented. • Additional Explanation: Describe any proposed features and/or BMPs not listed in forms J-3 or J-4.		
BMP-Feature Combination		Explanation
Feature	Parking areas & lots	Parking areas & lots are proposed – all proposed impervious area will be treated by biofiltration basins onsite, therefore no other BMP (such as SD-B or SD-I) is necessary to treat this proposed improvement. Please see DMA exhibit for more information.
BMP	SD-B or SD-I	
Feature	Driveways	Patios, decks, & courtyards are proposed – all proposed impervious area will be treated by biofiltration basins onsite, therefore no other BMP (such as SD-B or SD-I) is necessary to treat this proposed improvement. Please see DMA exhibit for more information.
BMP	SD-B or SD-I	
Feature	Rooftop Areas - Direct runoff to pervious areas	All proposed impervious area will be treated by biofiltration basins onsite; therefore no other BMP (such as SD-B) is necessary to treat the rooftop areas and proposed improvements. Please see DMA exhibit for more information.
BMP	SD-B	
Feature	Rooftop Areas – Install green roofs	All proposed impervious areas will be treated by biofiltration basins onsite, therefore no other BMP (such as SD-C) is necessary to treat the rooftop areas and proposed improvements. Please see DMA exhibit for more information.
BMP	SD-C	
Feature	Rooftop Areas – Install rain barrels	All proposed impervious areas will be treated by biofiltration basins onsite, therefore no other BMP (such as SD-E) is necessary to treat the rooftop areas and proposed improvements. Please see DMA exhibit for more information.
BMP	SD-E	

Summary of PDP Structural BMPs	Form J-5 (PDPs) [July 2025]
PDP Structural BMPs	
All PDPs must implement structural BMPs for storm water pollutant control (see Chapter 5 of the BMP Design Manual). Selection of PDP structural BMPs for storm water pollutant control must be based on the selection process described in Chapter 5. PDPs subject to hydromodification management requirements must also implement structural BMPs for flow control for hydromodification management (see Chapter 6 of the BMP Design Manual). PDPs subject to trash capture requirements, must also implement structural BMPs for trash capture (see Chapter 4 of the BMP Design Manual). Storm water pollutant control, flow control for hydromodification management, trash capture control, and flood control detention can be achieved within the same structural BMP(s). PDP structural BMPs must be verified by the City of San Marcos at the completion of construction. This will include requiring the project owner or project owner's representative and engineer of record to certify construction of the structural BMPs (see Section 1.12 of the BMP Design Manual). PDP structural BMPs must be maintained into perpetuity, and the City of San Marcos must confirm the maintenance (see Section 7 of the BMP Design Manual). Use this form to provide narrative description of the general strategy for structural BMP implementation at the project site in the box below. Then complete the PDP structural BMP summary information sheet (page 3 of this form) for each structural BMP within the project (copy the BMP summary information page as many times as needed to provide summary information for each individual structural BMP).	

Describe the general strategy for structural BMP implementation at the site. This information must describe how the steps for selecting and designing storm water pollutant control BMPs presented in Section 5.1 of the BMP Design Manual were followed, and the results (type of BMPs selected). For projects requiring hydromodification flow control BMPs, indicate whether pollutant control and flow control BMPs are integrated or separate.

Per Figure 5-1 of the BMP design Manual, after calculating the DCV for each DMA, feasibility analysis for Harvest and Reuse was performed. Harvest and Use was deemed to be infeasible at the project site. Per Figure 5-the next step was to determine the feasibility of infiltration at the site. There has not been a geotechnical investigation yet to determine infiltration feasibility. Biofiltration basins have been selected and implemented as the pollutant control BMP for the project. The project proposes two biofiltration BMPs serving water quality, hydromodification and detention purposes for the proposed improvements.

The biofiltration side slopes are proposed to be 2:1. Due to the side slopes, a dedicated maintenance access road will be provided to accommodate the long-term maintenance of the biofiltration basins. Due to the ponding depths of the storm water events, fencing will be provided for the biofiltration basin. These design features will be in accordance with Design Criteria and Considerations for BF-1 Biofiltration per Fact Sheet E.18 – BF-1 of the City of San Marcos BMP Design Manual, dated July 2025.

There will also be implementation of Green Street BMPs in the form of dispersion swales along the site perimeter along Via Cancion and South Rancho Sante Fe. These dispersion swales will treat existing and proposed impervious areas along the frontage streets of the project due to the frontage improvements. The dispersion swales will be located adjacent to the proposed sidewalk improvement along the aforementioned streets. The sidewalk improvements will be graded to slope toward the proposed green street dispersion swale. A catch basin will be located at the low point of the dispersion swale and will convey flows through a proposed storm drain that connects to the existing 60-inch storm drain. Further green streets analyses and calculations will be provided with future submittals.

(Continue on next page as necessary.)

(Page reserved for continuation of description of general strategy for structural BMP implementation at the site)

Structural BMP Summary Information (Copy this page as needed to provide information for each individual proposed structural BMP)	
Structural BMP ID No. BF-1	
Construction Plan Sheet No.	
Type of structural BMP: ☐ Retention by harvest and use (HU-1) ☐ Retention by infiltration basin (INF-1) ☐ Retention by bioretention (INF-2) ☐ Retention by permeable pavement (INF-3) ☐ Partial retention by biofiltration with partial retention (PR-1) ☒ Biofiltration (BF-1) ☐ Biofiltration with Nutrient Sensitive Media Design (BF-2) ☐ Proprietary Biofiltration (BF-3) meeting all requirements of Appendix F ☐ Flow-thru included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) ☐ Detention pond or vault for hydromodification management ☐ Other (describe in discussion section below)	
Purpose (select all that apply): ☒ Pollutant control ☒ Hydromodification control ☒ Detention of the 100-year storm event (conjunctive use) ☐ Pre-treatment/forebay for another structural BMP ☐ Trash Capture ☐ Other (describe in discussion section below)	
Who will certify construction of this BMP? Provide name and contact information for the party responsible to sign BMP verification forms if required by the City Engineer (See Section 1.12 of the BMP Design Manual)	Shavger Rekani Rick Engineering Company 5620 Friars Road San Diego, CA 92110
Who will be the final owner of this BMP?	St. Katherine Orthodox Church
Who will maintain this BMP into perpetuity?	St. Katherine Orthodox Church
What is the funding mechanism for maintenance?	St. Katherine Orthodox Church

Structural BMP Summary Information (Copy this page as needed to provide information for each individual proposed structural BMP)
Structural BMP ID No.
Construction Plan Sheet No.
Discussion (as needed):

ATTACHMENT 1
BACKUP FOR PDP POLLUTANT CONTROL BMPS

This is the cover sheet for Attachment 1.

Indicate which Items are Included behind this cover sheet:

Attachment Sequence	Contents	Checklist
Attachment 1a	DMA Exhibit (Required) See DMA Exhibit Checklist on next page.	☒ Included
Attachment 1b	Tabular Summary of DMAs Showing DMA ID (Worksheet B.1) matching DMA Exhibit, DMA Area, and DMA Type (Required)* *Provide table in this Attachment OR on DMA Exhibit in Attachment 1a	☒ Included on DMA Exhibit in Attachment 1a ☐ Included as Attachment 1b, separate from DMA Exhibit
Attachment 1c	Form J-6, Harvest and Use Feasibility Screening Checklist (Required only for habitable structures over 9 stories in height) Refer to Appendix B.4.2 of the BMP Design Manual to complete Form J-6.	☒ Included ☐ N/A
Attachment 1d	Supporting documentation for Analysis of Infiltration Restrictions in the form of Geotechnical Report and SWQMP preparer conclusions (Required) Refer to Appendix C of the BMP Design Manual guidance.	☐ Included No infiltration feasibility document is available at this time
Attachment 1e	Pollutant Control BMP Design Worksheets / Calculations (Required) (Worksheets B.2 and B.3) Refer to Appendices B and E of the BMP Design Manual for structural pollutant control BMP design guidelines	☒ Included
Attachment 1f	Significant Site Design BMP Design Worksheets / Calculations (when applicable) Refer to Appendix I	☐ Included ☒ N/A

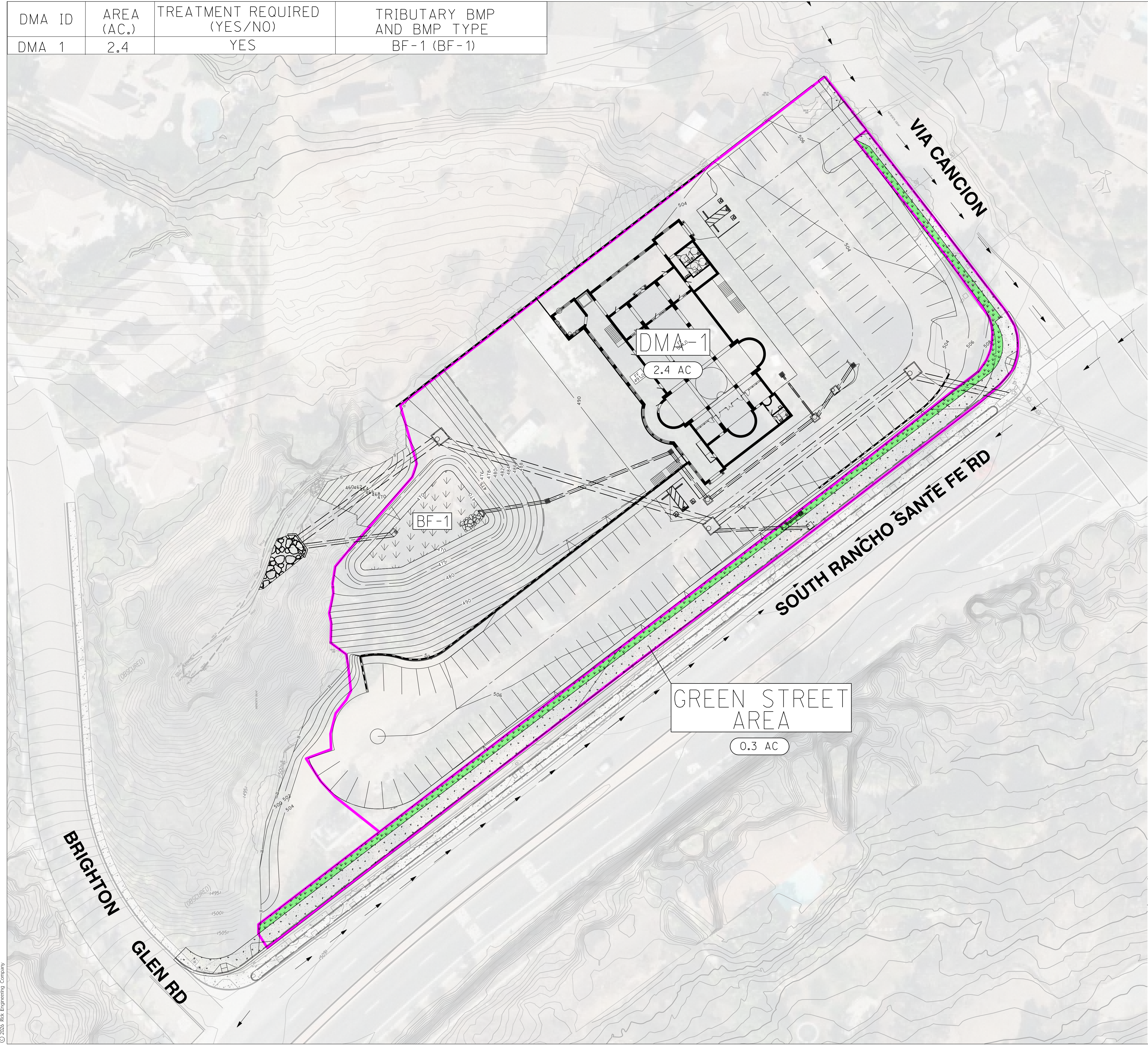
Use this checklist to ensure the required information has been included on the DMA Exhibit:

The DMA Exhibit must identify:

- Underlying hydrologic soil group
- Approximate depth to groundwater
- Existing natural hydrologic features (watercourses, seeps, springs, wetlands)
- ☐ Critical coarse sediment yield areas to be protected
- Existing topography and impervious areas
- Existing and proposed site drainage network and connections to drainage offsite
- ☐ Proposed demolition
- Proposed grading
- Proposed impervious features
- Proposed design features and surface treatments used to minimize imperviousness
- Drainage management area (DMA) boundaries, DMA ID numbers, and DMA areas (square footage or acreage), and DMA type (i.e., drains to BMP, self-retaining, or self-mitigating)
- ☐ Potential pollutant source areas and corresponding required source controls (see Chapter 4, Appendix E.1, and Form J-3 and J-4)
- ☐ Structural BMPs (identify location, type of BMP, and size/detail)

Attachment 1a

DMA ID	AREA (AC.)	TREATMENT REQUIRED (YES/NO)	TRIBUTARY BMP AND BMP TYPE
DMA 1	2.4	YES	BF-1 (BF-1)

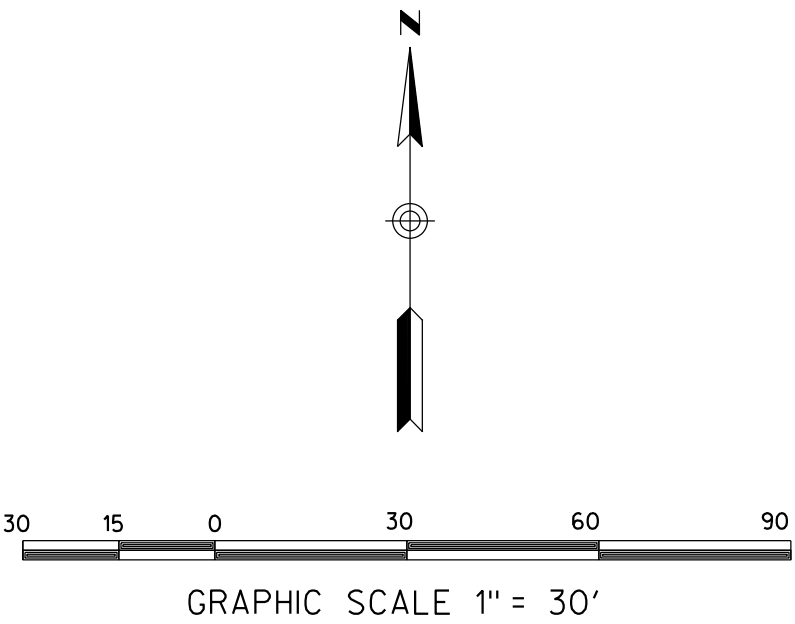


- NOTES:
1. UNDERLYING HYDROLOGIC SOIL GROUP = NRCS TYPE D
 2. THERE ARE NO EXISTING NATURAL HYDROLOGIC FEATURES LOCATED WITHIN THE PROJECT SITE
 3. THE PROJECT SITE IS NOT LOCATED WITHIN A CRITICAL COARSE SEDIMENT YIELD AREAS (ATTACHMENT 2B)
 4. PLEASE NOTE THAT THE SIDEWALK IMPROVEMENTS WILL BE GRADED TO SLOPE TOWARD THE PROPOSED GREEN STREET DISPERSION SWALE. A CATCH BASIN WILL BE LOCATED AT THE LOW POINT OF THE DISPERSION SWALE AND WILL CONVEY FLOWS THROUGH A PROPOSED STORM DRAIN THAT CONNECTS TO THE EXISTING 60-INCH STORM DRAIN. FOR ADDITIONAL INFORMATION REGARDING THE EXISTING 60-INCH STORM DRAIN AND GREEN STREET BMP, PLEASE REFER TO THE PDP SWQMP REPORT.

LEGEND:

- DMA BOUNDARY
- DMA AREA
- DMA ID
- BIOFILTRATION BMP
- GREEN STREET - DISPERSION SWALE

5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
rickengineering.com



DMA EXHIBIT
FOR
ST KATHERINE ORTHODOX CHURCH

Attachment 1b

Included as part of Attachment 1A

Attachment 1c

Harvest and Use Feasibility Checklist		Form J-6
1. Is there a demand for harvested water (check all that apply) at the project site that is reliably present during the wet season? ☒ Toilet and urinal flushing ☒ Landscape irrigation ☐ Other: _____		
2. If there is a demand; estimate the anticipated average wet season demand over a period of 36 hours. Guidance for planning level demand calculations for toilet/urinal flushing and landscape irrigation is provided in Section B.3.2. Landscape Area = 0.48 AC. Moderate plant water use = 1470 gal/acre*day. Water Demand = $0.48 \times 1470 \times 1.5 / 7.48$ CF/gal = 141.5 CF/36hr. Toilet Demand 33gal/person*day x 100 people x 1.5 days/7.48= 661 CF/36hr Total Demand = 802.5 CF/36hr		
3. Calculate the DCV using worksheet B-2.1. 4324 cubic-feet (refer to Attachment 1 of PDP SWQMP for Worksheet B-2.1) $0.25 \times \text{DCV} = 1081 \text{ CF}$		
3a. Is the 36 hour demand greater than or equal to the DCV? ☐ Yes / ☒ No ⇓	3b. Is the 36 hour demand greater than 0.25DCV but less than the full DCV? ☐ Yes / ☒ No ⇓	3c. Is the 36 hour demand less than 0.25DCV? ☒ Yes ⇓
Harvest and use appears to be feasible. Conduct more detailed evaluation and sizing calculations to confirm that DCV can be used at an adequate rate to meet drawdown criteria.	Harvest and use may be feasible. Conduct more detailed evaluation and sizing calculations to determine feasibility. Harvest and use may only be able to be used for a portion of the site, or (optionally) the storage may need to be upsized to meet long term capture targets while draining in longer than 36 hours.	Harvest and use is considered to be infeasible.
Is harvest and use feasible based on further evaluation? ☐ Yes, refer to Appendix E to select and size harvest and use BMPs. ☒ No, select alternate BMPs.		

Attachment 1d

No infiltration feasibility document is available at this time.

ATTACHMENT 2 BACKUP FOR PDP HYDROMODIFICATION CONTROL MEASURES

This is the cover sheet for Attachment 2.

- ☐ Mark this box if this attachment is empty because the project is exempt from PDP hydromodification management requirements. Provide documentation in this Attachment 2 demonstrating hydromodification exemption.

Indicate which Items are Included behind this cover sheet:

Attachment Sequence	Contents	Checklist
Attachment 2a	Hydromodification Management Exhibit (Required) See Hydromodification Management Exhibit Checklist on next page.	☒ Included
Attachment 2b	Management of Critical Coarse Sediment Yield Areas Exhibit and Analysis (Required) See Section 6.2 and Appendix H of the BMP Design Manual.	☒ Exhibit showing project drainage boundaries marked on WMAA Critical Coarse Sediment Yield Area Map ☐ Analysis per Appendix H
Attachment 2c	Channel screening study (SCCWRP) for low flow threshold (Optional) See Section 6.3.4 of the BMP Design Manual.	☒ Not performed ☐ Included ☐ Submitted as separate stand-alone document
Attachment 2d	Flow Control Facility Design, including Structural BMP Drawdown Calculations and Overflow Design Summary (Required) See Chapter 6 and Appendix G of the BMP Design Manual	☒ Included ☐ Submitted as separate stand-alone document
Attachment 2e	Vector Control Plan (Required when structural BMPs will not drain in 96 hours)	☐ Included ☒ Not required because BMPs will drain in less than 96 hours

**Use this checklist to ensure the required information has been included on the
Hydromodification Management Exhibit:**

The Hydromodification Management Exhibit must identify:

- ☐ Underlying hydrologic soil group
- ☐ Approximate depth to groundwater
- ☐ Existing natural hydrologic features (watercourses, seeps, springs, wetlands)
- ☐ Critical coarse sediment yield areas to be protected
- ☐ Existing topography
- ☐ Existing and proposed site drainage network and connections to drainage offsite
- ☐ Proposed grading
- ☐ Proposed impervious features
- ☐ Proposed design features and surface treatments used to minimize imperviousness
- ☐ Point(s) of Compliance (POC) for Hydromodification Management
- ☐ Existing and proposed drainage boundary and drainage area to each POC (when necessary, create separate exhibits for pre-development and post-project conditions)
- ☐ Structural BMPs for hydromodification management (identify location, type of BMP, and size/detail)

Attachment 2a

Attachment 2b

This exhibit reflects "potential" critical coarse sediment yield areas (PCCSYAs) identified within the project site based on regional-level mapping prepared for the "San Diego County Regional Watershed Management Area Analysis" (Regional WMAA) dated April 27, 2015, which includes "2015 Regional Potential Critical Coarse Sediment Yield Areas Map" dated September 8, 2014. As shown, the PCCSYAs are limited to the southerly edge which will not be graded or changed due to the project limits.



\\p.rickeng.com\projects\202000\20292 StKatherineOrthodoxChurch\GIS\Pro\WPA\20292 StKatherine WPA.aprx



5620 FRIARS RD
SAN DIEGO, CA 92110
rickengineering.com

JOB NUMBER: 20292
DATE OF EXHIBIT: 7/27/2026

SAN DIEGO ORANGE RIVERSIDE SACRAMENTO
SAN LUIS OBISPO SANTA CLARITA PHOENIX
TUCSON LAS VEGAS DENVER

SOURCES:
SANGIS/SANDAG AERIAL IMAGERY: 2020
ESRI TOPOGRAPHIC WORLD BASEMAP



St. Katherine Orthodox Church

PCCSY AREAS

Attachment 2d

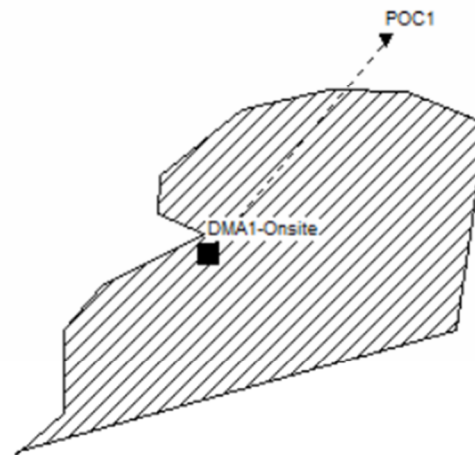
JN-20292

St. Katherine Orthodox Church

SWMM Model Schematic

Pre-Project Model for POC-1

Escondido

The logo for the City of Escondido, featuring a stylized sun or flower-like shape above the word "ESCONDIDO".

```

[TITLE]
;;Project Title/Notes
J#20292 ST KATHERINE ORTHODOXCHURCH
PRE-PROJECT CONDITION
0.5Q2

```

```

[OPTIONS]
;;Option      Value
FLOW_UNITS    CFS
INFILTRATION  GREEN_AMPT
FLOW_ROUTING  KINWAVE
LINK_OFFSETS  DEPTH
MIN_SLOPE     0
ALLOW_PONDING NO
SKIP_STEADY_STATE NO

```

```

START_DATE    09/24/1964
START_TIME    13:00:00
REPORT_START_DATE 09/24/1964
REPORT_START_TIME 13:00:00
END_DATE      05/23/2008
END_TIME      22:00:00
SWEEP_START   01/01
SWEEP_END     12/31
DRY_DAYS      0
REPORT_STEP   01:00:00
WET_STEP      00:15:00
DRY_STEP      04:00:00
ROUTING_STEP  0:01:00

```

```

INERTIAL_DAMPING PARTIAL
NORMAL_FLOW_LIMITED BOTH
FORCE_MAIN_EQUATION H-W
VARIABLE_STEP    0.75
LENGTHENING_STEP 0
MIN_SURFAREA     12.557
MAX_TRIALS        8
HEAD_TOLERANCE    0.005
SYS_FLOW_TOL      5
LAT_FLOW_TOL      5
MINIMUM_STEP      0.5
THREADS           1

```

```

[EVAPORATION]
;;Data Source Parameters
;;-----
MONTHLY      0.06  0.08  0.11  0.16  0.18  0.21  0.21  0.20  0.16  0.12  0.08  0.06
DRY_ONLY     NO

```

```

[RAINGAGES]
;;Name      Format  Interval SCF      Source
;;-----
Escondido   INTENSITY 1:00    1.0    TIMESERIES Escondido

```

```

[SUBCATCHMENTS]
;;Name      Rain Gage      Outlet      Area      %Imperv  Width  %Slope  CurbLen  SnowPack
;;-----
DMA1-Onsite Escondido      POC1      2.4      0      530      15      0

```

```

[SUBAREAS]
;;Subcatchment N-Imperv  N-Perv  S-Imperv  S-Perv  PctZero  RouteTo  PctRouted
;;-----
DMA1-Onsite    0.012  0.05  0.05  0.1  25  OUTLET

```

```

[INFILTRATION]
;;Subcatchment Suction  Ksat  IMD
;;-----
DMA1-Onsite    9.0  0.025  0.33

```

```

[OUTFALLS]
;;Name      Elevation  Type      Stage Data      Gated  Route To
;;-----

```

POC1 0 FREE NO

[TIMESERIES]

;;Name	Date	Time	Value
;;-----			
Escondido	FILE	"escondido.dat"	

[REPORT]

;;Reporting Options
INPUT NO
CONTROLS NO
SUBCATCHMENTS ALL
NODES ALL
LINKS ALL

[TAGS]

[MAP]

DIMENSIONS -1664.815 0.000 11664.815 10000.000
Units None

[COORDINATES]

;;Node	X-Coord	Y-Coord
;;-----		
POC1	8928.225	7119.302

[VERTICES]

;;Link	X-Coord	Y-Coord
;;-----		

[Polygons]

;;Subcatchment	X-Coord	Y-Coord
;;-----		
DMA1-Onsite	5972.644	3799.392
DMA1-Onsite	6357.649	4133.739
DMA1-Onsite	6357.649	4802.432
DMA1-Onsite	6661.601	5146.910
DMA1-Onsite	7482.270	5562.310
DMA1-Onsite	7107.396	5724.417
DMA1-Onsite	7127.660	6038.501
DMA1-Onsite	7776.089	6565.350
DMA1-Onsite	8495.441	6727.457
DMA1-Onsite	9103.343	6707.194
DMA1-Onsite	9741.641	6443.769
DMA1-Onsite	9488.349	4802.432
DMA1-Onsite	5992.908	3819.656

[SYMBOLS]

;;Gage	X-Coord	Y-Coord
;;-----		
Escondido	3594.961	7848.837

Pre Project EPA SWMM
Output

J#20292 ST KATHERINE ORTHODOXCHURCH
PRE-PROJECT CONDITION
0.5Q2

Analysis Options

```

Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  RDII ..... NO
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... NO
Infiltration Method ..... GREEN_AMPT
Starting Date ..... 09/24/1964 13:00:00
Ending Date ..... 05/23/2008 22:00:00
Antecedent Dry Days ..... 0.0
Report Time Step ..... 01:00:00
Wet Time Step ..... 00:15:00
Dry Time Step ..... 04:00:00

```

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	122.224	611.120
Evaporation Loss	4.812	24.061
Infiltration Loss	92.542	462.710
Surface Runoff	27.930	139.650
Final Storage	0.000	0.000
Continuity Error (%)	-2.504	

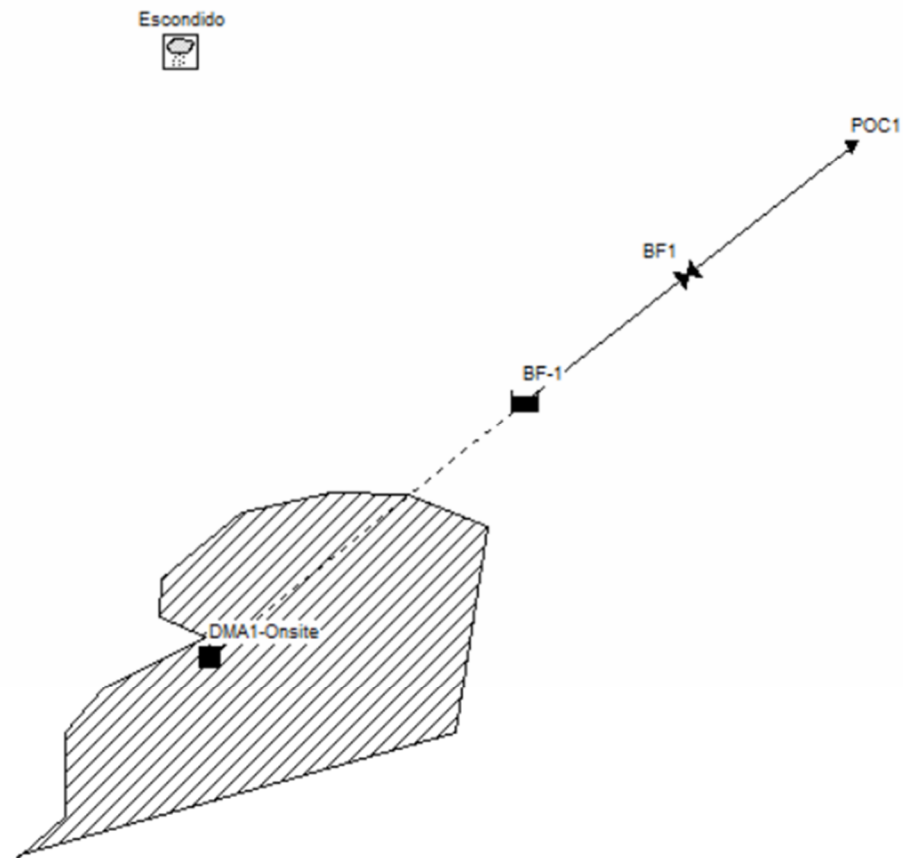
***** Flow Routing Continuity *****	Volume acre-feet	Volume 10 ⁶ gal
	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	27.930	9.101
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	27.930	9.101
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.000	0.000
Continuity Error (%)	0.000	

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
--------------	-----------------------	----------------------	---------------------	----------------------	-----------------------	-----------------------------	-----------------------	-----------------

DMA1-Onsite	611.12	0.00	24.06	462.71	139.65	9.10	1.96	0.229
-------------	--------	------	-------	--------	--------	------	------	-------

Analysis begun on: Thu Jul 23 12:12:24 2026
Analysis ended on: Thu Jul 23 12:12:36 2026
Total elapsed time: 00:00:12

SWMM Model Schematic
Post-Project Model for POC-1



[TITLE]
;;Project Title/Notes
J#20292 ST KATHERINE ORTHODOXCHURCH
PRE-PROJECT CONDITION
0.5Q2

[OPTIONS]
;;Option Value
FLOW_UNITS CFS
INFILTRATION GREEN_AMPT
FLOW_ROUTING KINWAVE
LINK_OFFSETS DEPTH
MIN_SLOPE 0
ALLOW_PONDING NO
SKIP_STEADY_STATE NO

START_DATE 09/24/1964
START_TIME 13:00:00
REPORT_START_DATE 09/24/1964
REPORT_START_TIME 13:00:00
END_DATE 05/23/2008
END_TIME 22:00:00
SWEEP_START 01/01
SWEEP_END 12/31
DRY_DAYS 0
REPORT_STEP 01:00:00
WET_STEP 00:15:00
DRY_STEP 04:00:00
ROUTING_STEP 0:01:00

INERTIAL_DAMPING PARTIAL
NORMAL_FLOW_LIMITED BOTH
FORCE_MAIN_EQUATION H-W
VARIABLE_STEP 0.75
LENGTHENING_STEP 0
MIN_SURFAREA 12.557
MAX_TRIALS 8
HEAD_TOLERANCE 0.005
SYS_FLOW_TOL 5
LAT_FLOW_TOL 5
MINIMUM_STEP 0.5
THREADS 1

[EVAPORATION]
;;Data Source Parameters
;;-----
MONTHLY 0.06 0.08 0.11 0.16 0.18 0.21 0.21 0.20 0.16 0.12 0.08 0.06
DRY_ONLY NO

[RAINGAGES]
;;Name Format Interval SCF Source
;;-----
Escondido INTENSITY 1:00 1.0 TIMESERIES Escondido

[SUBCATCHMENTS]
;;Name Rain Gage Outlet Area %Imperv Width %Slope CurbLen SnowPack
;;-----
DMA1-Onsite Escondido BF-1 2.4 84 530 5 0

[SUBAREAS]
;;Subcatchment N-Imperv N-Perv S-Imperv S-Perv PctZero RouteTo PctRouted
;;-----
DMA1-Onsite 0.012 0.07 0.05 0.1 25 OUTLET

[INFILTRATION]
;;Subcatchment Suction Ksat IMD
;;-----
DMA1-Onsite 9.0 0.025 0.33

[OUTFALLS]
;;Name Elevation Type Stage Data Gated Route To
;;-----

POC1	0	FREE	NO						
[STORAGE]									
;;Name	Elev.	MaxDepth	InitDepth	Shape	Curve Name/Params	N/A	Fevap	Psi	Ksat
IMD									
;;-----									
BF-1	0	8	0	TABULAR	BF1	0	0		
[OUTLETS]									
;;Name	From Node	To Node	Offset	Type	QTable/Qcoeff	Qexpon	Gated		
BF1	BF-1	POC1	0	TABULAR/DEPTH	RatingBF-1		NO		
;;-----									
[CURVES]									
;;Name	Type	X-Value	Y-Value						
RatingBF-1	Rating	0.000	0.0000						
RatingBF-1		0.042	0.0017						
RatingBF-1		0.083	0.0054						
RatingBF-1		0.125	0.0076						
RatingBF-1		0.167	0.0093						
RatingBF-1		0.208	0.0107						
RatingBF-1		0.250	0.0120						
RatingBF-1		0.292	0.0131						
RatingBF-1		0.333	0.0142						
RatingBF-1		0.375	0.0152						
RatingBF-1		0.417	0.0161						
RatingBF-1		0.458	0.0170						
RatingBF-1		0.500	0.0178						
RatingBF-1		0.542	0.0186						
RatingBF-1		0.583	0.0193						
RatingBF-1		0.625	0.0201						
RatingBF-1		0.667	0.0208						
RatingBF-1		0.708	0.0214						
RatingBF-1		0.750	0.0221						
RatingBF-1		0.792	0.0227						
RatingBF-1		0.833	0.0234						
RatingBF-1		0.875	0.0240						
RatingBF-1		0.917	0.0246						
RatingBF-1		0.958	0.0251						
RatingBF-1		1.000	0.0257						
RatingBF-1		1.042	0.0263						
RatingBF-1		1.083	0.0268						
RatingBF-1		1.125	0.0273						
RatingBF-1		1.167	0.0279						
RatingBF-1		1.208	0.0284						
RatingBF-1		1.250	0.0289						
RatingBF-1		1.292	0.0294						
RatingBF-1		1.333	0.0298						
RatingBF-1		1.375	0.0303						
RatingBF-1		1.417	0.0308						
RatingBF-1		1.458	0.0313						
RatingBF-1		1.500	0.0317						
RatingBF-1		1.542	0.0322						
RatingBF-1		1.583	0.0326						
RatingBF-1		1.625	0.0330						
RatingBF-1		1.667	0.0335						
RatingBF-1		1.708	0.0339						
RatingBF-1		1.750	0.0343						
RatingBF-1		1.792	0.0347						
RatingBF-1		1.833	0.0352						
RatingBF-1		1.875	0.0356						
RatingBF-1		1.917	0.0360						
RatingBF-1		1.958	0.0364						
RatingBF-1		2.000	0.0368						
RatingBF-1		2.042	0.0371						
RatingBF-1		2.083	0.0375						
RatingBF-1		2.125	0.0379						
RatingBF-1		2.167	0.0383						
RatingBF-1		2.208	0.0387						
RatingBF-1		2.250	0.0390						

RatingBF-1	2.292	0.0394
RatingBF-1	2.333	0.0398
RatingBF-1	2.375	0.0401
RatingBF-1	2.417	0.0405
RatingBF-1	2.458	0.0408
RatingBF-1	2.500	0.0412
RatingBF-1	2.583	0.0419
RatingBF-1	2.667	0.0425
RatingBF-1	2.750	0.0432
RatingBF-1	2.833	0.0439
RatingBF-1	2.917	0.0445
RatingBF-1	3.000	0.0452
RatingBF-1	3.083	0.0458
RatingBF-1	3.167	0.0464
RatingBF-1	3.250	0.0470
RatingBF-1	3.333	0.0476
RatingBF-1	3.417	0.0482
RatingBF-1	3.500	0.0488
RatingBF-1	3.583	0.0560
RatingBF-1	3.667	0.0600
RatingBF-1	3.750	0.0631
RatingBF-1	3.833	0.0658
RatingBF-1	3.917	0.0682
RatingBF-1	4.000	0.0704
RatingBF-1	4.083	0.0725
RatingBF-1	4.167	0.0744
RatingBF-1	4.250	0.0763
RatingBF-1	4.333	0.0781
RatingBF-1	4.417	0.0798
RatingBF-1	4.500	0.0814
RatingBF-1	4.583	0.0830
RatingBF-1	4.667	0.0846
RatingBF-1	4.750	0.0861
RatingBF-1	4.833	0.0876
RatingBF-1	4.917	0.0890
RatingBF-1	5.000	0.0904
RatingBF-1	5.083	0.0918
RatingBF-1	5.167	0.0931
RatingBF-1	5.250	0.0945
RatingBF-1	5.333	0.0958
RatingBF-1	5.417	0.0970
RatingBF-1	5.500	0.0983
RatingBF-1	5.583	0.0995
RatingBF-1	5.667	0.1008
RatingBF-1	5.750	0.1020
RatingBF-1	5.833	0.1031
RatingBF-1	5.917	0.1043
RatingBF-1	6.000	0.1055
RatingBF-1	6.083	0.2798
RatingBF-1	6.167	0.5976
RatingBF-1	6.250	1.0088
RatingBF-1	6.333	1.4955
RatingBF-1	6.417	2.0475
RatingBF-1	6.500	3.0011
RatingBF-1	6.583	3.4490
RatingBF-1	6.667	3.8439
RatingBF-1	6.750	4.2009
RatingBF-1	6.833	4.5292
RatingBF-1	6.917	4.8350
RatingBF-1	7.000	5.1221
RatingBF-1	7.083	6.1515
RatingBF-1	7.167	7.7956
RatingBF-1	7.250	9.8367
RatingBF-1	7.333	12.1982
RatingBF-1	7.417	14.8363
RatingBF-1	7.500	17.7210
RatingBF-1	7.583	20.8309
RatingBF-1	7.667	24.1497
RatingBF-1	7.750	27.6633
RatingBF-1	7.833	31.3610
RatingBF-1	7.917	35.2340
RatingBF-1	8.000	39.2732

RatingBF-1	8.083	41.1306
RatingBF-1	8.167	42.5599
RatingBF-1	8.250	43.9411
RatingBF-1	8.333	45.2792
RatingBF-1	8.417	46.5781
RatingBF-1	8.500	47.8409
RatingBF-1	8.583	49.0705
RatingBF-1	8.667	50.2696
RatingBF-1	8.750	51.4402
RatingBF-1	8.833	52.5843
RatingBF-1	8.917	53.7038
RatingBF-1	9.000	54.8000
RatingBF-1	9.083	55.8744
RatingBF-1	9.167	56.9285
RatingBF-1	9.250	57.9630
RatingBF-1	9.333	58.9792
RatingBF-1	9.417	59.9781
RatingBF-1	9.500	60.9604
RatingBF-1	9.583	61.9270
RatingBF-1	9.667	62.8786
RatingBF-1	9.750	63.8159
RatingBF-1	9.833	64.7395
RatingBF-1	9.917	65.6501
RatingBF-1	10.000	66.5481
RatingBF-1	10.083	67.4340
RatingBF-1	10.167	68.3085
RatingBF-1	10.250	69.1717
RatingBF-1	10.333	70.0242
RatingBF-1	10.417	70.8666
RatingBF-1	10.500	71.6988

```

;
BF1      Storage    0      1000
BF1      1          1000
BF1      1.01       500
BF1      2          500
BF1      3          500
BF1      3.01      2500
BF1      3.5       2732
BF1      4          2966
BF1      5          3453
BF1      6          3965
BF1      6.5       4230
BF1      7          4502
BF1      8.00      5064

```

```

[TIMESERIES]
;;Name      Date      Time      Value
;;-----
Escondido   FILE "escondido.dat"

```

```

[REPORT]
;;Reporting Options
INPUT      NO
CONTROLS   NO
SUBCATCHMENTS ALL
NODES      ALL
LINKS      ALL

```

```

[TAGS]

```

```

[MAP]
DIMENSIONS -1664.815 0.000 11664.815 10000.000
Units      None

```

```

[COORDINATES]
;;Node      X-Coord      Y-Coord
;;-----
POC1        8928.225      7119.302
BF-1        6318.519      5066.667

```

```

[VERTICES]
;;Link      X-Coord      Y-Coord

```

```

;;-----
[Polygons]
;;Subcatchment X-Coord Y-Coord
;;-----
DMA1-Onsite 2259.979 1430.771
DMA1-Onsite 2644.984 1765.118
DMA1-Onsite 2644.984 2433.811
DMA1-Onsite 2948.936 2778.289
DMA1-Onsite 3769.605 3193.689
DMA1-Onsite 3394.731 3355.796
DMA1-Onsite 3414.995 3669.880
DMA1-Onsite 4063.424 4196.729
DMA1-Onsite 4782.776 4358.836
DMA1-Onsite 5390.678 4338.573
DMA1-Onsite 6028.976 4075.148
DMA1-Onsite 5775.684 2433.811
DMA1-Onsite 2280.243 1451.035

[SYMBOLS]
;;Gage X-Coord Y-Coord
;;-----
Escondido 3594.961 7848.837

```

Post Project EPA SWMM
Output

POC 1

Included:

- SWMM Model Schematic
- Outlet Rating Curve
- Basin Storage Curve
- Post Processing Spreadsheet
- Peak Flow Comparison
- Flow Duration Comparison

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.012)

J#20292 ST KATHERINE ORTHODOXCHURCH
PRE-PROJECT CONDITION
0.5Q2

NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.

Analysis Options

Flow Units CFS

Process Models:

Rainfall/Runoff YES

RDII NO

Snowmelt NO

Groundwater NO

Flow Routing YES

Ponding Allowed NO

Water Quality NO

Infiltration Method GREEN_AMPT

Flow Routing Method KINWAVE

Starting Date 09/24/1964 13:00:00

Ending Date 05/23/2008 22:00:00

Antecedent Dry Days 0.0

Report Time Step 01:00:00

Wet Time Step 00:15:00

Dry Time Step 04:00:00

Routing Time Step 60.00 sec

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	122.224	611.120
Evaporation Loss	14.828	74.138
Infiltration Loss	14.643	73.217
Surface Runoff	94.891	474.455
Final Storage	0.006	0.029
Continuity Error (%)	-1.754	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	94.891	30.922
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	94.865	30.913
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.007	0.002
Continuity Error (%)	0.020	

Highest Flow Instability Indexes

All links are stable.

Routing Time Step Summary

Minimum Time Step : 59.00 sec
 Average Time Step : 60.00 sec
 Maximum Time Step : 60.00 sec
 Percent in Steady State : 0.00
 Average Iterations per Step : 1.00
 Percent Not Converging : 0.00

Subcatchment Runoff Summary

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DMA1-Onsite	611.12	0.00	74.14	73.22	474.46	30.92	2.02	0.776

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
POC1	OUTFALL	0.00	0.00	0.00	0 00:00	0.00
BF-1	STORAGE	0.15	6.41	6.41	10332 04:01	6.41

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error Percent
POC1	OUTFALL	0.00	2.01	10332 04:01	0	30.9	0.000
BF-1	STORAGE	2.02	2.02	15675 18:01	30.9	30.9	0.020

Node Flooding Summary

No nodes were flooded.

Storage Volume Summary

Storage Unit	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time of Max Occurrence days hr:min	Maximum Outflow CFS
BF-1	0.161	1	0	0	13.316	64	10332 04:01	2.01

Outfall Loading Summary

-----	Flow	Avg	Max	Total
Outfall Node	Freq	Flow	Flow	Volume
	Pcnt	CFS	CFS	10^6 gal
-----	-----	-----	-----	-----
POC1	9.74	0.03	2.01	30.911
-----	-----	-----	-----	-----
System	9.74	0.03	2.01	30.911

Link Flow Summary

-----	-----	Maximum	Time of Max	Maximum	Max/	Max/
Link	Type	Flow	Occurrence	Veloc	Full	Full
		CFS	days hr:min	ft/sec	Flow	Depth
-----	-----	-----	-----	-----	-----	-----
BF1	DUMMY	2.01	10332 04:01			

Conduit Surcharge Summary

No conduits were surcharged.

Analysis begun on: Mon Jul 27 10:04:29 2026
Analysis ended on: Mon Jul 27 10:04:47 2026
Total elapsed time: 00:00:18

BF-1 (Discharge Rating Curve)

Basin Characteristics	
WQ ponding depth (ft) =	0.5
Media Layer, including 3" mulch (ft) =	2
Gravel Choker Layer (ft) =	0.25
Gravel layer (ft) =	0.75

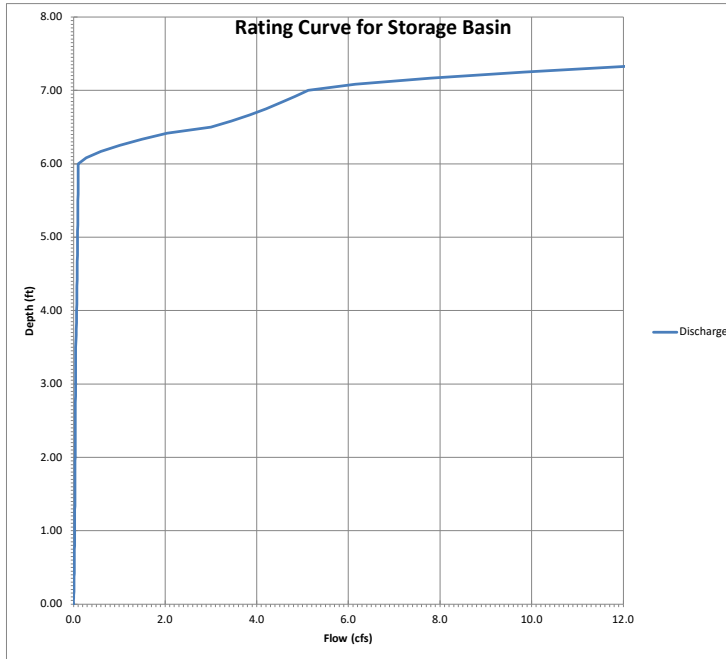
Low Flow Orifice (Underdrain)	
Num. of Orifices =	1
Orifice Invert (ft) =	0
Orifice Diameter (in) =	1
Cg =	0.6

Midflow Orifice (Lower)	
Num. of Orifices =	4
Orifice Invert (ft) =	3.5
Orifice Diameter (in) =	0.5
Cg =	0.6

Midflow Orifice (Upper)(Rectangular)	
Num. of Orifices =	4
Orifice Invert (ft) =	6
Orifice Width (ft) =	0.6
Orifice Height (ft) =	0.5
Cg (orifice) =	0.6
Cg (weir) =	3

Midflow Orifice (Upper) (Circular)	
Num. of Orifices =	0
Orifice Invert (ft) =	0
Orifice Diameter (in) =	0
C _g =	0.6

Midflow (Upper)	
Upper Weir Inv (ft) =	7
B (ft) =	10.5
Cs =	3



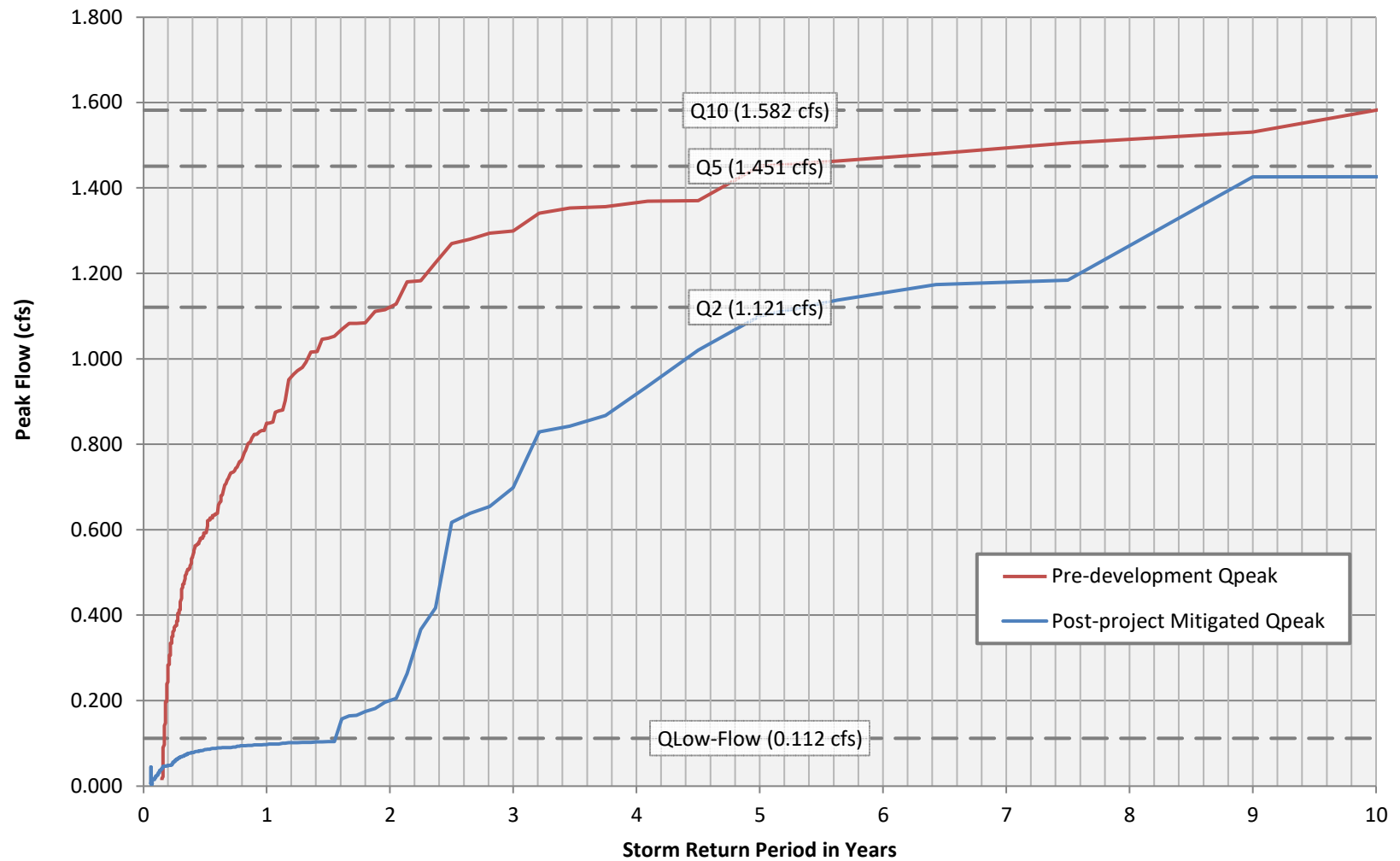
Outlet Link Rating Curve (Input to SWMM)										
h (in)	h (ft)	Underdrain Orifice	Lower Midflow	Upper Orifice (weir calc)	Upper Orifice (orifice calc)	Upper Midflow	Upper Midflow	Inlet Top	Total Flow (cfs)	Detention Rating Curve (cfs)
0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.0000
0.5	0.042	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.0017	0.0000
1.0	0.083	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.0054	0.0000
1.5	0.125	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.0076	0.0000
2.0	0.167	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.0093	0.0000
2.5	0.208	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.0107	0.0000
3.0	0.250	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.0120	0.0000
3.5	0.292	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.0131	0.0000
4.0	0.333	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.0142	0.0000
4.5	0.375	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.0152	0.0000
5.0	0.417	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.0161	0.0000
5.5	0.458	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.0170	0.0000
6.0	0.500	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.0178	0.0000
6.5	0.542	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.0186	0.0000
7.0	0.583	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.0193	0.0000
7.5	0.625	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.0201	0.0000
8.0	0.667	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.0208	0.0000
8.5	0.708	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.0214	0.0000
9.0	0.750	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.0221	0.0000
9.5	0.792	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.0227	0.0000
10.0	0.833	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.0234	0.0000
10.5	0.875	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.0240	0.0000
11.0	0.917	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.0246	0.0000
11.5	0.958	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.0251	0.0000
12.0	1.000	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.0257	0.0000
12.5	1.042	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.0263	0.0000
13.0	1.083	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.0268	0.0000
13.5	1.125	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.0273	0.0000
14.0	1.167	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.0279	0.0000
14.5	1.208	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.0284	0.0000
15.0	1.250	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.0289	0.0000
15.5	1.292	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.0294	0.0000
16.0	1.333	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.0298	0.0000
16.5	1.375	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.0303	0.0000
17.0	1.417	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.0308	0.0000
17.5	1.458	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.0313	0.0000
18.0	1.500	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.0317	0.0000
18.5	1.542	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.0322	0.0000
19.0	1.583	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.0326	0.0000
19.5	1.625	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.0330	0.0000
20.0	1.667	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.0335	0.0000
20.5	1.708	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.0339	0.0000
21.0	1.750	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.0343	0.0000
21.5	1.792	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.0347	0.0000
22.0	1.833	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.0352	0.0000
22.5	1.875	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.0356	0.0000
23.0	1.917	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.0360	0.0000
23.5	1.958	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.0364	0.0000
24.0	2.000	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.0368	0.0000
24.5	2.042	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.0371	0.0000
25.0	2.083	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.0375	0.0000
25.5	2.125	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.0379	0.0000
26.0	2.167	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.0383	0.0000
26.5	2.208	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.0387	0.0000
27.0	2.250	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.0390	0.0000
27.5	2.292	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.0394	0.0000
28.0	2.333	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.0398	0.0000
28.5	2.375	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.0401	0.0000
29.0	2.417	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.0405	0.0000

29.5	2.458	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.0408	0.000
30.0	2.500	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.0412	0.000
31.0	2.583	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.0419	0.000
32.0	2.667	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.0425	0.000
33.0	2.750	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.0432	0.000
34.0	2.833	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.0439	0.000
35.0	2.917	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.0445	0.000
36.0	3.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.0452	0.000
37.0	3.083	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.0458	0.000
38.0	3.167	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.0464	0.000
39.0	3.250	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.0470	0.000
40.0	3.333	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.0476	0.000
41.0	3.417	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.0482	0.000
42.0	3.500	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.0488	0.000
43.0	3.583	0.049	0.002	0.000	0.000	0.000	0.000	0.000	0.0560	0.007
44.0	3.667	0.050	0.003	0.000	0.000	0.000	0.000	0.000	0.0600	0.010
45.0	3.750	0.051	0.003	0.000	0.000	0.000	0.000	0.000	0.0631	0.013
46.0	3.833	0.051	0.004	0.000	0.000	0.000	0.000	0.000	0.0658	0.015
47.0	3.917	0.052	0.004	0.000	0.000	0.000	0.000	0.000	0.0682	0.017
48.0	4.000	0.052	0.005	0.000	0.000	0.000	0.000	0.000	0.0704	0.018
49.0	4.083	0.053	0.005	0.000	0.000	0.000	0.000	0.000	0.0725	0.020
50.0	4.167	0.053	0.005	0.000	0.000	0.000	0.000	0.000	0.0744	0.021
51.0	4.250	0.054	0.006	0.000	0.000	0.000	0.000	0.000	0.0763	0.022
52.0	4.333	0.054	0.006	0.000	0.000	0.000	0.000	0.000	0.0781	0.024
53.0	4.417	0.055	0.006	0.000	0.000	0.000	0.000	0.000	0.0798	0.025
54.0	4.500	0.055	0.006	0.000	0.000	0.000	0.000	0.000	0.0814	0.026
55.0	4.583	0.056	0.007	0.000	0.000	0.000	0.000	0.000	0.0830	0.027
56.0	4.667	0.056	0.007	0.000	0.000	0.000	0.000	0.000	0.0846	0.028
57.0	4.750	0.057	0.007	0.000	0.000	0.000	0.000	0.000	0.0861	0.029
58.0	4.833	0.057	0.008	0.000	0.000	0.000	0.000	0.000	0.0876	0.030
59.0	4.917	0.058	0.008	0.000	0.000	0.000	0.000	0.000	0.0890	0.031
60.0	5.000	0.058	0.008	0.000	0.000	0.000	0.000	0.000	0.0904	0.032
61.0	5.083	0.059	0.008	0.000	0.000	0.000	0.000	0.000	0.0918	0.033
62.0	5.167	0.059	0.008	0.000	0.000	0.000	0.000	0.000	0.0931	0.034
63.0	5.250	0.060	0.009	0.000	0.000	0.000	0.000	0.000	0.0945	0.035
64.0	5.333	0.060	0.009	0.000	0.000	0.000	0.000	0.000	0.0958	0.035
65.0	5.417	0.061	0.009	0.000	0.000	0.000	0.000	0.000	0.0970	0.036
66.0	5.500	0.061	0.009	0.000	0.000	0.000	0.000	0.000	0.0983	0.037
67.0	5.583	0.062	0.009	0.000	0.000	0.000	0.000	0.000	0.0995	0.038
68.0	5.667	0.062	0.010	0.000	0.000	0.000	0.000	0.000	0.1008	0.038
69.0	5.750	0.063	0.010	0.000	0.000	0.000	0.000	0.000	0.1020	0.039
70.0	5.833	0.063	0.010	0.000	0.000	0.000	0.000	0.000	0.1031	0.040
71.0	5.917	0.064	0.010	0.000	0.000	0.000	0.000	0.000	0.1043	0.041
72.0	6.000	0.064	0.010	0.000	0.000	0.000	0.000	0.000	0.1055	0.041
73.0	6.083	0.065	0.011	0.043	0.000	0.000	0.000	0.000	0.2798	0.215
74.0	6.167	0.065	0.011	0.122	0.000	0.000	0.000	0.000	0.5976	0.533
75.0	6.250	0.065	0.011	0.225	0.000	0.000	0.000	0.000	1.0088	0.943
76.0	6.333	0.066	0.011	0.346	0.000	0.000	0.000	0.000	1.4955	1.430
77.0	6.417	0.066	0.011	0.484	0.000	0.000	0.000	0.000	2.0475	1.981
78.0	6.500	0.067	0.011	0.000	0.722	0.000	0.000	0.000	3.0011	2.934
79.0	6.583	0.067	0.011	0.000	0.834	0.000	0.000	0.000	3.4490	3.382
80.0	6.667	0.068	0.012	0.000	0.932	0.000	0.000	0.000	3.8439	3.776
81.0	6.750	0.068	0.012	0.000	1.021	0.000	0.000	0.000	4.2009	4.133
82.0	6.833	0.068	0.012	0.000	1.103	0.000	0.000	0.000	4.5292	4.461
83.0	6.917	0.069	0.012	0.000	1.179	0.000	0.000	0.000	4.8350	4.766
84.0	7.000	0.069	0.012	0.000	1.251	0.000	0.000	0.000	5.1221	5.053
85.0	7.083	0.070	0.012	0.000	1.319	0.000	0.758	0.000	6.1515	6.082
86.0	7.167	0.070	0.013	0.000	1.383	0.000	2.143	0.000	7.7956	7.726
87.0	7.250	0.071	0.013	0.000	1.444	0.000	3.938	0.000	9.8367	9.766
88.0	7.333	0.071	0.013	0.000	1.503	0.000	6.062	0.000	12.1982	12.127
89.0	7.417	0.071	0.013	0.000	1.560	0.000	8.472	0.000	14.8363	14.765
90.0	7.500	0.072	0.013	0.000	1.615	0.000	11.137	0.000	17.7210	17.649
91.0	7.583	0.072	0.013	0.000	1.668	0.000	14.034	0.000	20.8309	20.759
92.0	7.667	0.073	0.013	0.000	1.719	0.000	17.147	0.000	24.1497	24.077
93.0	7.750	0.073	0.014	0.000	1.769	0.000	20.460	0.000	27.6633	27.590
94.0	7.833	0.073	0.014	0.000	1.818	0.000	23.963	0.000	31.3610	31.288
95.0	7.917	0.074	0.014	0.000	1.865	0.000	27.646	0.000	35.2340	35.160
96.0	8.000	0.074	0.014	0.000	1.911	0.000	31.500	0.000	39.2732	39.199
97.0	8.083	0.074	0.014	0.000	1.956	0.000	33.177	0.000	41.1306	41.056
98.0	8.167	0.075	0.014	0.000	2.000	0.000	34.429	0.000	42.5599	42.485
99.0	8.250	0.075	0.014	0.000	2.043	0.000	35.637	0.000	43.9411	43.866
100.0	8.333	0.076	0.014	0.000	2.085	0.000	36.806	0.000	45.2792	45.204
101.0	8.417	0.076	0.015	0.000	2.126	0.000	37.939	0.000	46.5781	46.502
102.0	8.500	0.076	0.015	0.000	2.167	0.000	39.039	0.000	47.8409	47.764
103.0	8.583	0.077	0.015	0.000	2.206	0.000	40.109	0.000	49.0705	48.994
104.0	8.667	0.077	0.015	0.000	2.246	0.000	41.151	0.000	50.2696	50.192
105.0	8.750	0.077	0.015	0.000	2.284	0.000	42.167	0.000	51.4402	51.363
106.0	8.833	0.078	0.015	0.000	2.322	0.000	43.159	0.000	52.5843	52.506
107.0	8.917	0.078	0.015	0.000	2.359	0.000	44.129	0.000	53.7038	53.626
108.0	9.000	0.079	0.015	0.000	2.395	0.000	45.078	0.000	54.8000	54.721
109.0	9.083	0.079	0.015	0.000	2.431	0.000	46.008	0.000	55.8744	55.795
110.0	9.167	0.079	0.016	0.000	2.467	0.000	46.919	0.000	56.9285	56.849
111.0	9.250	0.080	0.016	0.000	2.502	0.000	47.813	0.000	57.9630	57.883
112.0	9.333	0.080	0.016	0.000	2.536	0.000	48.690	0.000	58.9792	58.899
113.0	9.417	0.080	0.016	0.000	2.570	0.000	49.552	0.000	59.9781	59.898
114.0	9.500	0.081	0.016	0.000	2.604	0.000	50.399	0.000	60.9604	60.880
115.0	9.583	0.081	0.016	0.000	2.637	0.000	51.232	0.000	61.9270	61.846
116.0	9.667	0.081	0.016	0.000	2.670	0.000	52.052	0.000	62.8786	62.797
117.0	9.750	0.082	0.016	0.000	2.702	0.000	52.859	0.000	63.8159	63.734
118.0	9.833	0.082	0.016	0.000	2.734	0.000	53.654	0.000	64.7395	64.657
119.0	9.917	0.083	0.017	0.000	2.766	0.000	54.437	0.000	65.6501	65.568
120.0	10.000	0.083	0.017	0.000	2.797	0.000	55.209	0.000	66.5481	66.465
121.0	10.083	0.083	0.017	0.000	2.828	0.000	55.971	0.000	67.4340	67.351
122.0	10.167	0.084	0.017	0.000	2.859	0.000	56.722	0.000	68.3085	68.225
123.0	10.250	0.084	0.017	0.000	2.889	0.000	57.464	0.000	69.1717	69.088
124.0	10.333	0.084	0.017	0.000	2.919	0.000	58.196	0.000	70.0242	69.940
125.0	10.417	0.085	0.017	0.000	2.949	0.000	58.919	0.000	70.8666	70.782
126.0	10.500	0.085	0.017	0.000	2.978	0.000	59.633	0.000	71.6988	71.614

Peak Flow Frequency Summary

HMP Flow Frequency Range Based on:		SWMM - Weibull	Check
Return Period	Pre-development Qpeak (cfs)	Post-project - Mitigated Q (cfs)	
Low-Flow = 0.1*Q2	0.112	0.020	Okay! -> Decreased by 0.092 cfs
2-year	1.121	0.200	Okay! -> Decreased by 0.921 cfs
3-year	1.299	0.698	Okay! -> Decreased by 0.601 cfs
4-year	1.366	0.918	Okay! -> Decreased by 0.448 cfs
5-year	1.451	1.100	Okay! -> Decreased by 0.351 cfs
6-year	1.471	1.154	Okay! -> Decreased by 0.317 cfs
7-year	1.493	1.179	Okay! -> Decreased by 0.314 cfs
8-year	1.514	1.265	Okay! -> Decreased by 0.249 cfs
9-year	1.531	1.426	Okay! -> Decreased by 0.105 cfs
10-year	1.582	1.426	Okay! -> Decreased by 0.156 cfs

Peak Flow Frequency Curves



Low-flow Threshold:

0.1xQ2 (Pre): 0.1121 cfs

Q10 (Pre): 1.582 cfs

of Intervals between flow bins: 99

Incremental Q (Pre): 0.01485 cfs

Total Hourly Data: hours

The proposed BMP:

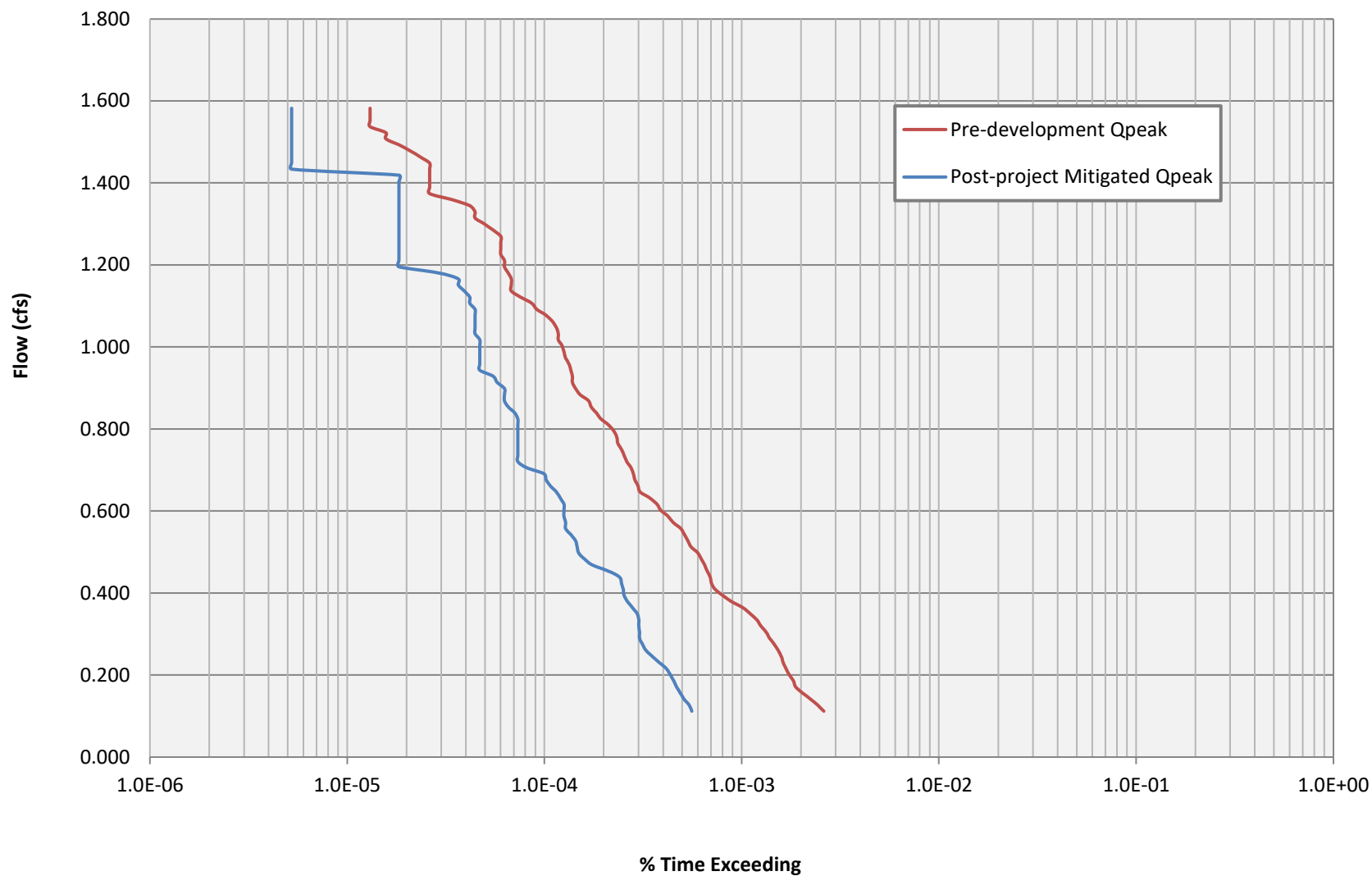
Flow Frequency Range Based on: SWMM - Weibull

Beginning of Interval (Flow Bin)	Pre-develop. Flow (cfs)	Pre-develop. Hours	Pre-develop. % Time Exceeding	Post-project Hours	Post-project % Time Exceeding	Percentage	Pass/Fail
1	0.112	997	2.60E-03	214	5.59E-04	21%	Pass
2	0.127	929	2.43E-03	207	5.41E-04	22%	Pass
3	0.142	854	2.23E-03	195	5.09E-04	23%	Pass
4	0.157	778	2.03E-03	187	4.89E-04	24%	Pass
5	0.171	719	1.88E-03	179	4.68E-04	25%	Pass
6	0.186	700	1.83E-03	173	4.52E-04	25%	Pass
7	0.201	666	1.74E-03	166	4.34E-04	25%	Pass
8	0.216	642	1.68E-03	159	4.15E-04	25%	Pass
9	0.231	621	1.62E-03	146	3.81E-04	24%	Pass
10	0.246	608	1.59E-03	135	3.53E-04	22%	Pass
11	0.261	585	1.53E-03	125	3.27E-04	21%	Pass
12	0.275	560	1.46E-03	120	3.14E-04	21%	Pass
13	0.290	530	1.38E-03	116	3.03E-04	22%	Pass
14	0.305	509	1.33E-03	116	3.03E-04	23%	Pass
15	0.320	478	1.25E-03	115	3.00E-04	24%	Pass
16	0.335	457	1.19E-03	115	3.00E-04	25%	Pass
17	0.350	423	1.11E-03	113	2.95E-04	27%	Pass
18	0.365	388	1.01E-03	107	2.80E-04	28%	Pass
19	0.379	340	8.88E-04	101	2.64E-04	30%	Pass
20	0.394	307	8.02E-04	97	2.53E-04	32%	Pass
21	0.409	281	7.34E-04	96	2.51E-04	34%	Pass
22	0.424	269	7.03E-04	94	2.46E-04	35%	Pass
23	0.439	265	6.92E-04	92	2.40E-04	35%	Pass
24	0.454	256	6.69E-04	81	2.12E-04	32%	Pass
25	0.468	248	6.48E-04	67	1.75E-04	27%	Pass
26	0.483	239	6.24E-04	61	1.59E-04	26%	Pass
27	0.498	229	5.98E-04	57	1.49E-04	25%	Pass
28	0.513	212	5.54E-04	56	1.46E-04	26%	Pass
29	0.528	204	5.33E-04	55	1.44E-04	27%	Pass
30	0.543	196	5.12E-04	52	1.36E-04	27%	Pass
31	0.558	188	4.91E-04	49	1.28E-04	26%	Pass
32	0.572	172	4.49E-04	49	1.28E-04	28%	Pass
33	0.587	162	4.23E-04	48	1.25E-04	30%	Pass
34	0.602	149	3.89E-04	48	1.25E-04	32%	Pass
35	0.617	142	3.71E-04	48	1.25E-04	34%	Pass
36	0.632	131	3.42E-04	46	1.20E-04	35%	Pass
37	0.647	117	3.06E-04	44	1.15E-04	38%	Pass
38	0.661	114	2.98E-04	41	1.07E-04	36%	Pass
39	0.676	110	2.87E-04	39	1.02E-04	35%	Pass
40	0.691	108	2.82E-04	38	9.93E-05	35%	Pass
41	0.706	105	2.74E-04	31	8.10E-05	30%	Pass
42	0.721	100	2.61E-04	28	7.32E-05	28%	Pass
43	0.736	97	2.53E-04	28	7.32E-05	29%	Pass
44	0.751	94	2.46E-04	28	7.32E-05	30%	Pass
45	0.765	90	2.35E-04	28	7.32E-05	31%	Pass
46	0.780	89	2.33E-04	28	7.32E-05	31%	Pass
47	0.795	86	2.25E-04	28	7.32E-05	33%	Pass
48	0.810	81	2.12E-04	28	7.32E-05	35%	Pass
49	0.825	74	1.93E-04	28	7.32E-05	38%	Pass
50	0.840	70	1.83E-04	27	7.05E-05	39%	Pass

Flow Frequency Range Based on: SWMM - Weibull

Beginning of Interval (Flow Bin)	Pre-develop. Flow (cfs)	Pre-develop. Hours	Pre-develop. % Time Exceeding	Post-project Hours	Post-project % Time Exceeding	Percentage	Pass/Fail
51	0.855	66	1.72E-04	25	6.53E-05	38%	Pass
52	0.869	64	1.67E-04	24	6.27E-05	38%	Pass
53	0.884	58	1.52E-04	24	6.27E-05	41%	Pass
54	0.899	55	1.44E-04	24	6.27E-05	44%	Pass
55	0.914	53	1.38E-04	22	5.75E-05	42%	Pass
56	0.929	53	1.38E-04	21	5.49E-05	40%	Pass
57	0.944	52	1.36E-04	18	4.70E-05	35%	Pass
58	0.958	51	1.33E-04	18	4.70E-05	35%	Pass
59	0.973	49	1.28E-04	18	4.70E-05	37%	Pass
60	0.988	48	1.25E-04	18	4.70E-05	38%	Pass
61	1.003	47	1.23E-04	18	4.70E-05	38%	Pass
62	1.018	45	1.18E-04	18	4.70E-05	40%	Pass
63	1.033	45	1.18E-04	17	4.44E-05	38%	Pass
64	1.048	44	1.15E-04	17	4.44E-05	39%	Pass
65	1.062	42	1.10E-04	17	4.44E-05	40%	Pass
66	1.077	39	1.02E-04	17	4.44E-05	44%	Pass
67	1.092	35	9.14E-05	17	4.44E-05	49%	Pass
68	1.107	33	8.62E-05	16	4.18E-05	48%	Pass
69	1.122	29	7.58E-05	16	4.18E-05	55%	Pass
70	1.137	26	6.79E-05	15	3.92E-05	58%	Pass
71	1.151	26	6.79E-05	14	3.66E-05	54%	Pass
72	1.166	26	6.79E-05	14	3.66E-05	54%	Pass
73	1.181	25	6.53E-05	11	2.87E-05	44%	Pass
74	1.196	24	6.27E-05	7	1.83E-05	29%	Pass
75	1.211	24	6.27E-05	7	1.83E-05	29%	Pass
76	1.226	23	6.01E-05	7	1.83E-05	30%	Pass
77	1.241	23	6.01E-05	7	1.83E-05	30%	Pass
78	1.255	23	6.01E-05	7	1.83E-05	30%	Pass
79	1.270	23	6.01E-05	7	1.83E-05	30%	Pass
80	1.285	21	5.49E-05	7	1.83E-05	33%	Pass
81	1.300	19	4.96E-05	7	1.83E-05	37%	Pass
82	1.315	17	4.44E-05	7	1.83E-05	41%	Pass
83	1.330	17	4.44E-05	7	1.83E-05	41%	Pass
84	1.345	16	4.18E-05	7	1.83E-05	44%	Pass
85	1.359	13	3.40E-05	7	1.83E-05	54%	Pass
86	1.374	10	2.61E-05	7	1.83E-05	70%	Pass
87	1.389	10	2.61E-05	7	1.83E-05	70%	Pass
88	1.404	10	2.61E-05	7	1.83E-05	70%	Pass
89	1.419	10	2.61E-05	7	1.83E-05	70%	Pass
90	1.434	10	2.61E-05	2	5.23E-06	20%	Pass
91	1.448	10	2.61E-05	2	5.23E-06	20%	Pass
92	1.463	9	2.35E-05	2	5.23E-06	22%	Pass
93	1.478	8	2.09E-05	2	5.23E-06	25%	Pass
94	1.493	7	1.83E-05	2	5.23E-06	29%	Pass
95	1.508	6	1.57E-05	2	5.23E-06	33%	Pass
96	1.523	6	1.57E-05	2	5.23E-06	33%	Pass
97	1.538	5	1.31E-05	2	5.23E-06	40%	Pass
98	1.552	5	1.31E-05	2	5.23E-06	40%	Pass
99	1.567	5	1.31E-05	2	5.23E-06	40%	Pass
100	1.582	5	1.31E-05	2	5.23E-06	40%	Pass

Flow Duration Exceedance Curves



ATTACHMENT 3
Structural BMP Maintenance Information

This is the cover sheet for Attachment 3.

Indicate which Items are Included behind this cover sheet:

Attachment Sequence	Contents	Checklist
Attachment 3a	Structural BMP Maintenance Thresholds and Actions (Required) See Structural BMP Maintenance Information Checklist on the next page.	☒ Included
Attachment 3b	1. Draft Maintenance Agreement during final engineering review 2. Executed Maintenance Agreement for As-Built	☐ Included ☒ Not included, project is in design/planning/CEQA level submittal

Use this checklist to ensure the required information has been included in the Structural BMP Maintenance Information Attachment:

■ **Preliminary Design / Planning / CEQA level submittal:**

Attachment 3a must identify:

- ☐ Typical maintenance indicators and actions for proposed structural BMP(s) based on Section 7.7 of the BMP Design Manual

Attachment 3b is not required for preliminary design / planning / CEQA level submittal.

☐ **Final Design level submittal:**

Attachment 3a must identify:

- ☐ Specific maintenance indicators and actions for proposed structural BMP(s). This shall be based on Section 7.7 of the BMP Design Manual and enhanced to reflect actual proposed components of the structural BMP(s)
- ☐ How to access the structural BMP(s) to inspect and perform maintenance
- ☐ Features that are provided to facilitate inspection (e.g., observation ports, cleanouts, silt posts, or other features that allow the inspector to view necessary components of the structural BMP and compare to maintenance thresholds)
- ☐ Manufacturer and part number for proprietary parts of structural BMP(s) when applicable
- ☐ Maintenance thresholds specific to the structural BMP(s), with a location-specific frame of reference (e.g., level of accumulated materials that triggers removal of the materials, to be identified based on viewing marks on silt posts or measured with a survey rod with respect to a fixed benchmark within the BMP)
- ☐ Recommended equipment to perform maintenance
- ☐ When applicable, necessary special training or certification requirements for inspection and maintenance personnel such as confined space entry or hazardous waste management

Attachment 3b: For private entity operation and maintenance, Attachment 3b shall include a draft maintenance agreement in the City's standard format (PDP applicant to contact the Land Development Division to obtain the current maintenance agreement forms).

☐ **As-Built submittal:**

Attachment 3b: Must be a copy of the executed and recorded maintenance agreement.

Attachment 3a

SITE DESIGN, SOURCE CONTROL AND POLLUTANT CONTROL BMP OPERATION & MAINTENANCE PROCEDURE DETAILS				
STORM WATER MANAGEMENT AGREEMENT				
BF-1 BMP ID#XXXX				
O&M RESPONSIBLE PARTY DESIGNEE: ST. KATHERINES ORTHODOX CHURCH				
BMP DESCRIPTION		INSPECTION FREQUENCY	MAINTENANCE FREQUENCY	MAINTENANCE METHOD
SITE DESIGN	LANDSCAPED AREAS	MONTHLY (NOTE: INSPECTOR SHALL CHECK FOR THE FOLLOWING MAINTENANCE INDICATORS: EROSION IN THE FORM OF RILLS OR GULLIES, PONDING WATER, BARE AREAS, ANIMAL BURROWS, HOLDS, MOUNDS, AND TRASH.)	1. AS DETERMINED BY INSPECTION; AND 2. ON OR BEFORE SEPTEMBER 30TH.	1. FILL AND COMPACT AREAS OF RUTS, RILLS, OR GULLIES; 2. RE-SEED AND/OR PLANT SLOPES AND AREAS OF EXPOSED SOILS; AND 3. ROUTINE MOWING AND TRIMMING AND TRASH REMOVAL.
	OUTLET PROTECTION	1. MONTHLY; 2. WITHIN 24 HOURS AFTER EACH "SIGNIFICANT RAIN EVENT" AND 3. WITHIN 24 HOURS FOLLOWING CONSTRUCTION IN IMMEDIATE AREA OF OUTLET PROTECTION	1. AS DETERMINED BY INSPECTION; 2. WHEN DISTURBED OR MISSING ROCKS (RIP RAP), OR SOIL EROSION BELOW AND/OR ADJACENT TO OUTLET PROTECTION ARE OBSERVED.	1. REMOVE TRASH, DEBRIS AND LEAVES. REPAIR ANY DAMAGE TO ROOF DRAINS; 2. IMMEDIATELY REPOSITION ALL DISPLACED ENERGY DISSIPATER; AND 3. IF SOIL EROSION IS FOUND, EXTEND ENERGY DISSIPATER (I.E. LANDSCAPE ROCKS AND/OR SPLASH PADS); REPOSITION OR INCREASE LIMITS OF ENERGY DISSIPATER TO FULLY COVER ERODED AREA.
SOURCE CONTROL	INTEGRATED PEST MANAGEMENT	MONTHLY (NOTE: INSPECTOR SHALL CHECK FOR INDICATIONS OF THE PRESENCE OF PESTS ON-SITE)	WHEN THE PEST OR PESTS, OBSERVED IN GREATEST ABUNDANCE OR CAUSE THE MOST OBSERVED SYMPTOMS, ARE IDENTIFIED.	CHECK FREQUENTLY FOR PESTS, AND TREAT WITH A PESTICIDE ONLY WHEN A PEST IS PRESENT, ETC.
	EFFECTIVE IRRIGATION SYSTEM	MONTHLY	WHEN BROKEN SPRINKLER HEADS, RAIN SHUTOFF DEVICES, AND FLOW REDUCERS ARE OBSERVED; OR RUNNING SPRINKLERS IN RAIN ARE OBSERVED.	REPAIR OR REPLACE THE BROKEN AND/OR MALFUNCTIONING PARTS OF IRRIGATION SYSTEM.
	TRASH STORAGE AREAS	WEEKLY	1. AS DETERMINED BY INSPECTION; 2. STANDING WATER IN TRASH STORAGE AREA. 3. LOOSE TRASH OR DEBRIS. 4. LEAKED OR SPILLED MATERIALS. 5. COMPROMISED FENCE, SCREEN, GATE, WALL, BIN, LID OR ROOF AWNING (WHERE APPLICABLE). 6. CRACKED OR OTHERWISE COMPROMISED PAVING OR OTHER FLAWED FLOOR SURFACE (AS APPLICABLE).	1. IF STANDING WATER IS OBSERVED IN THE AREA, DETERMINE THE WATER SOURCE AND REMOVE THE SOURCE. ALLOW STANDING WATER TO EVAPORATE. IF WATER DOES NOT EVAPORATE IN 48 HOURS, REDISTRIBUTE THE WATER TO LANDSCAPED AREA(S). DO NOT DRAIN WATER TO STORM DRAIN SYSTEM. 2. REMOVE AND PROPERLY DISPOSE LOOSE TRASH, DEBRIS, AND LEAKED OR SPILLED MATERIALS. USE APPROPRIATE SPILL CLEANUP MATERIAL AS NECESSARY TO REMOVE ALL LEAKED AND SPILLED MATERIALS INCLUDING MATERIALS ADHERED TO PAVEMENT. IDENTIFY AND REMOVE OR REPAIR THE SOURCE OF ANY LEAKED OR SPILLED MATERIALS. 3. REPAIR THE FOLLOWING AS APPLICABLE: COMPROMISED FENCE, SCREEN, GATE, WALL, BIN, LID OR ROOF AWNING (WHERE APPLICABLE), CRACKED OR COMPROMISED PAVING OR OTHER FLOOR SURFACE (AS APPLICABLE).
	PREVENTIVE STENCILING AND SIGNAGE	ANNUALLY	WHEN FULLY OR PARTIALLY ERASED/FADED SIGNS ARE OBSERVED; WHEN DUMPING OF TRASH ARE OBSERVED AT PUBLIC ACCESS POINTS, BUILDING ENTRANCES, PUBLIC PARKS, ETC.	1. REPLACE OR REPAINT THE STENCILS AND SIGNAGE SO THAT THEY ARE LEGIBLE; AND 2. MAKE SURE THAT THEY ARE PLACED AT ALL REQUIRED LOCATIONS (I.E.- ALL INLETS).

SITE DESIGN, SOURCE CONTROL AND POLLUTANT CONTROL BMP OPERATION & MAINTENANCE PROCEDURE DETAILS				
STORM WATER MANAGEMENT AGREEMENT				
BF-1 BMP ID#XXXX				
O&M RESPONSIBLE PARTY DESIGNEE: ST. KATHERINES ORTHODOX CHURCH				
BMP DESCRIPTION		INSPECTION FREQUENCY	MAINTENANCE FREQUENCY	MAINTENANCE METHOD
POLLUTANT CONTROL	BIOFILTRATION FACILITIES (HMP INCLUDED)	1. TWICE A YEAR (ON OR BEFORE SEPTEMBER 15TH AND FOLLOWING THE RAINY SEASON AFTER MAY 1ST); AND 2. AFTER EACH "SIGNIFICANT RAIN EVENT" (NOTE: INSPECTOR SHALL CHECK FOR THE FOLLOWING MAINTENANCE INDICATORS: EROSION IN THE FORM OF RILLS OR GULLIES, PONDING WATER, BARE AREAS, DEAD VEGETATION, ANIMAL BURROWS, HOLES, MOUNDS, AND TRASH)	1. AS DETERMINED BY INSPECTION; AND 2. ON OR BEFORE SEPTEMBER 30TH AND FOLLOWING THE RAINY SEASON AFTER MAY 1ST; AND 3. AFTER EACH "SIGNIFICANT RAIN EVENT" ²	1. REPLACE MULCH IN AREAS OF RUTS, RILLS, OR GULLIES; 2. RE-SEED AND/OR PLANT SLOPES AND AREAS OF EXPOSED SOILS; AND 3. ROUTINE MAINTENANCE TO REMOVE ACCUMULATED MATERIALS SUCH AS TRASH AND DEBRIS. 4. NON-ROUTINE MAINTENANCE WILL BE REQUIRED TO BACKWASH AND CLEAR UNDERDRAINS IF INSPECTION INDICATES UNDERDRAINS ARE CLOGGED. 5. DEPENDING ON POLLUTANT LOADS, SOILS MAY NEED TO BE REPLACED EVERY 5 TO 10 YEARS. 6. THE RISER STRUCTURE SHOULD BE MAINTAINED TO AVOID CLOGGING AND ANY LEAKAGE THROUGH BOLTHOLES.

NOTES:

1. REFER TO THE "PRIORITY DEVELOPMENT PROJECT (PDP) STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) FOR ST. KATHERINES ORTHODOX CHURCH", DATED JULY 22, 2026 FOR MORE SPECIFIC INFORMATION.

2. A SIGNIFICANT RAIN EVENT CONSIDERED WHENEVER THE NATIONAL WEATHER SERVICE REPORTS 0.50" OF RAIN IN 48 HOURS FOR THE LOCAL COMMUNITY.

3. DURING THE FIRST YEAR OF NORMAL OPERATION, ALL BMPS SHOULD BE INSPECTED ONCE BEFORE AUGUST 31 AND THEN MONTHLY FROM SEPTEMBER THROUGH MAY. THE MINIMUM INSPECTION AND MAINTENANCE FREQUENCY SHOULD BE DETERMINED BASED ON THE RESULTS OF THE FIRST YEAR INSPECTIONS.

Attachment 3b

Attachment 3B (Draft Maintenance Agreement)
will be provided with subsequent submittals.

ATTACHMENT 4
Copy of Plan Sheets Showing Permanent Storm Water BMPs

This is the cover sheet for Attachment 4.

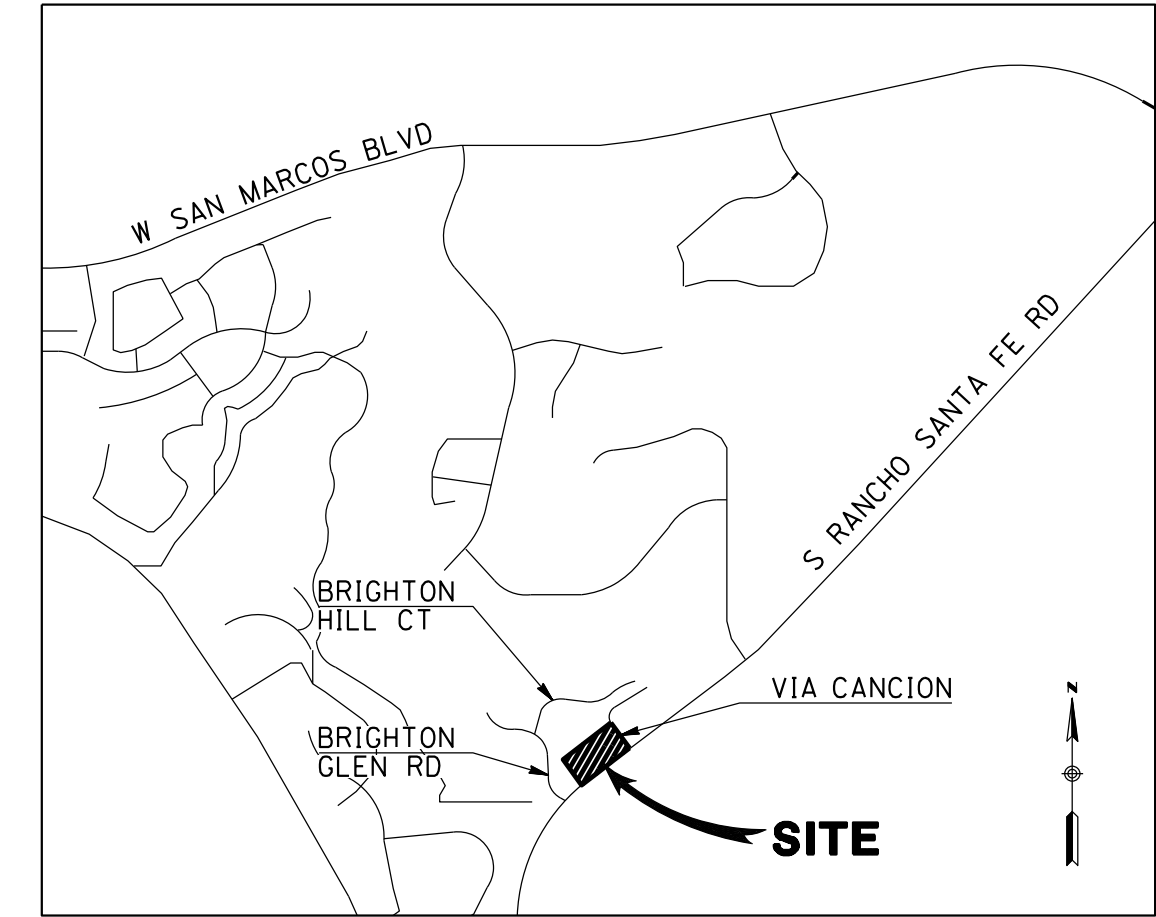
[USE CITY'S BMP TEMPLATE SHEET]

Use this checklist to ensure the required information has been included on the plans:

The plans must identify:

- ☐ Structural BMP(s) with ID numbers matching Form J-6 Summary of PDP Structural BMPs
- ☐ The grading and drainage design shown on the plans must be consistent with the delineation of DMAs shown on the DMA exhibit
- ☐ Details and specifications for construction of structural BMP(s)
- ☐ Signage indicating the location and boundary of structural BMP(s) as required by the City Engineer
- ☐ How to access the structural BMP(s) to inspect and perform maintenance
- ☐ Features that are provided to facilitate inspection (e.g., observation ports, cleanouts, silt posts, or other features that allow the inspector to view necessary components of the structural BMP and compare to maintenance thresholds)
- ☐ Manufacturer and part number for proprietary parts of structural BMP(s) when applicable
- ☐ Maintenance thresholds specific to the structural BMP(s), with a location-specific frame of reference (e.g., level of accumulated materials that triggers removal of the materials, to be identified based on viewing marks on silt posts or measured with a survey rod with respect to a fixed benchmark within the BMP)
- ☐ Recommended equipment to perform maintenance
- ☐ When applicable, necessary special training or certification requirements for inspection and maintenance personnel such as confined space entry or hazardous waste management
- ☐ Include landscaping plan sheets showing vegetation requirements for vegetated structural BMP(s)
- ☐ All BMPs must be fully dimensioned on the plans
- ☐ When proprietary BMPs are used, site-specific cross section with outflow, inflow, and model number shall be provided. Photocopies of general brochures are not acceptable.

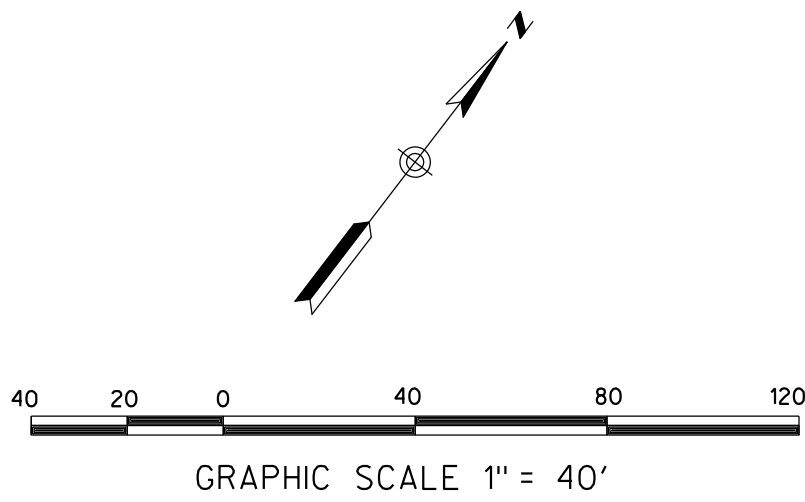
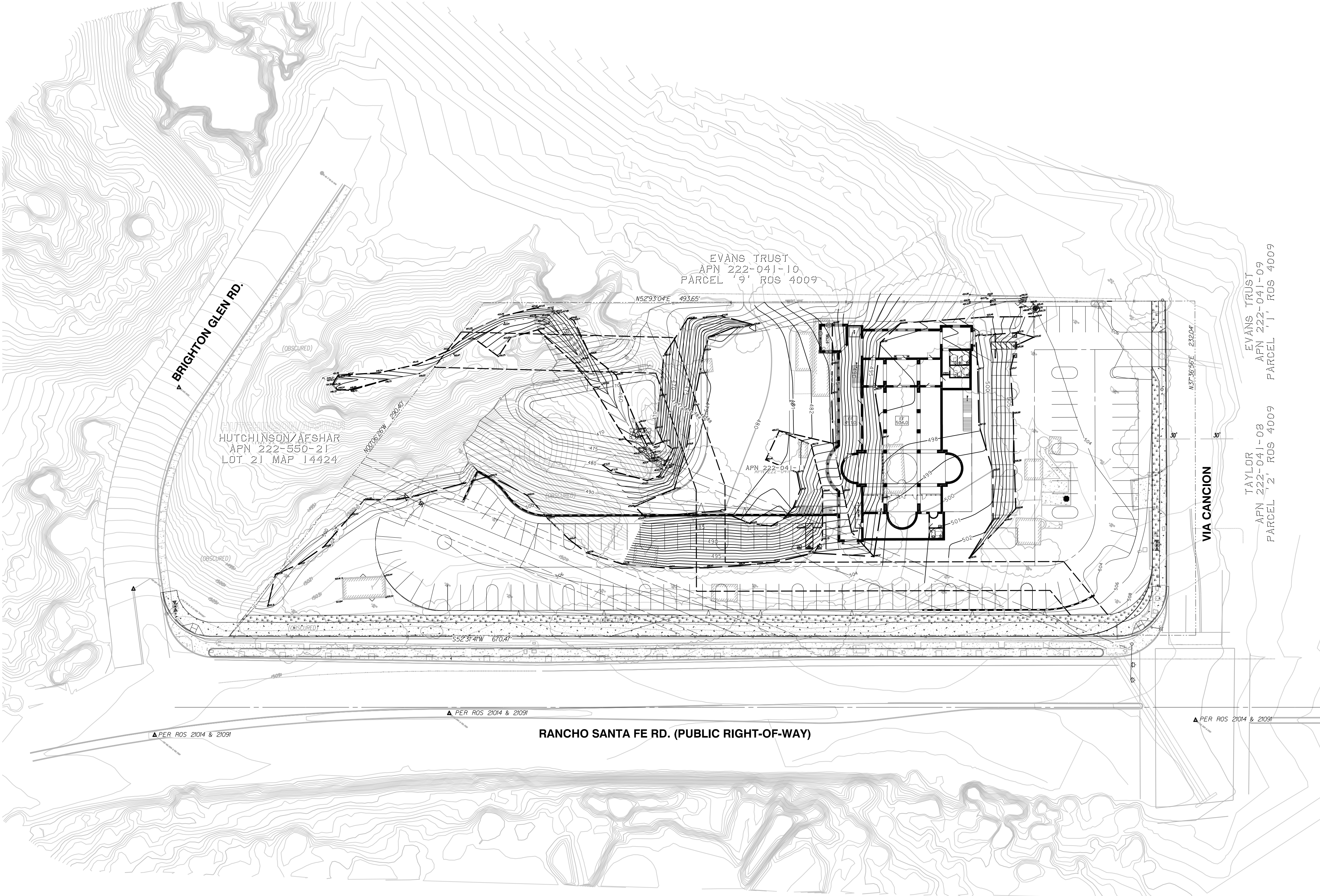
Attachment 4



VICINITY MAP
NO SCALE

DEVELOPMENT NOTES:

1. ALL GRADING IS PROPOSED TO CONFORM TO THE PROVISIONS OF SAN MARCOS MUNICIPAL CODE (SMC) SECTION 17.32, AND IN CONFORMANCE WITH THE PROJECT'S GEOTECHNICAL REPORT BY NOVA.
2. PROPOSED PIPE SIZES, WHERE SHOWN, ARE APPROXIMATE.
3. DRAINAGE SYSTEM: STORM WATER WILL BE DISPOSED OF USING SURFACE FLOW AND UNDERGROUND DRAINAGE SYSTEMS. THE SYSTEM SHOWN IS CONCEPTUAL. THE FINAL DRAINAGE DESIGN SHALL CONFORM TO CITY OF SAN MARCOS DESIGN STANDARDS AND AS APPROVED BY THE CITY ENGINEER.
4. ALL STORM WATER TREATMENT DESIGN SHALL COMPLY WITH THE RECOMMENDATION OF THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AS WELL AS CITY OF SAN MARCOS BMP DESIGN MANUAL; INCLUDING CONSTRUCTION PERIOD BMP'S IN COMPLIANCE WITH SMMC 14.15.050 (C).
5. FINAL LANDSCAPE CONSTRUCTION DOCUMENTS TO DEPICT PRIVATE VS PUBLICLY MAINTAINED SLOPES AND LANDSCAPED AREAS.
6. WALL MATERIAL SHALL BE MECHANICALLY STABILIZED EARTH OR MASONRY BLOCK SYSTEMS AS APPROVED BY PLANNING DIVISION MANAGER. WALLS SHALL BE TREATED WITH LANDSCAPING. STRUCTURAL DESIGN OF SAID WALLS SHALL BE APPROVED BY THE CITY ENGINEER.
7. ALL GRADING OPERATIONS SHALL BE COMPLETED IN ONE PHASE.
8. ALL SLOPES TO BE 2:1, UNLESS OTHERWISE SHOWN.
9. EXISTING PRIVATE AND PUBLIC EASEMENTS SHALL BE QUITCLAIMED AND EXISTING PUBLIC RIGHT-OF-WAY SHALL BE VACATED AS SHOWN ON THE TENTATIVE MAP.



LEGEND

DESCRIPTION	SYMBOL
PROJECT BOUNDARY	_____
PROPOSED RIGHT-OF-WAY	_____
PROPOSED LOT LINE	_____
PROPOSED EASEMENT	_____
EXISTING RIGHT-OF-WAY	_____

SHEET INDEX

SHEET NO.	DESCRIPTION
C1	TITLE & KEY MAP
C2	EXISTING CONDITIONS
C3-C4	CONCEPTUAL GRADING PLAN
C5	STORM WATER BMP PLAN

LEGAL DESCRIPTION

THE LAND REFER TO HEREIN BELOW IS SITUATED IN THE CITY OF SAN DIEGO, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1: (FEET)
PARCEL 10 OF RECORD OF SURVEY MAP NO. 4009, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, SEPTEMBER 5, 1956, BEING PORTIONS OF THE WEST HALF OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO UNITED STATES GOVERNMENT SURVEY, APPROVED SEPTEMBER 17, 1889.

PARCEL 2: (EASEMENT)
THE RIGHT TO USE FOR ROAD PURPOSES, THOSE CERTAIN STRIPS OF LAND SHOWN ON RECORD OF SURVEY MAP NO. 4009, RECORDED SEPTEMBER 05, 1956, AND DESIGNATED THEREON AS "EASEMENT RESERVED FOR ROAD" WHICH SAID STRIPS OF LAND ARE HEREBY DECLARED TO BE EASEMENTS FOR ROAD PURPOSES FOR THE USE AND BENEFIT OF ALL OWNERS, PRESENT AND FUTURE OF THE LAND SHOWN ON SAID RECORD OF SURVEY MAP NO. 4009, OVER WHICH SAID EASEMENTS STRIPS ARE LOCATED AND WHICH EASEMENT ARE AND SHALL BE APPURTENANT TO SAID LANDS, AND EACH AND EVERY PARCEL THEREOF.

TAX ASSESSOR PARCEL NUMBERS

222-041-11-00

ZONING DESIGNATION

AGRICULTURE-1 (A-1)

UTILITY SERVICE PROVIDERS

SEWER & WATER - VALLECITOS WATER DISTRICT
CATV/FIBER OPTIC - COX COMM./TIME WARNER CABLE
GAS & ELECTRIC - SAN DIEGO GAS & ELECTRIC
TELEPHONE - AT&T

SCHOOLS

K - 12 - SAN MARCOS UNIFIED SCHOOL DISTRICT

FIRE PROTECTION

CITY OF SAN MARCOS FIRE DEPARTMENT

MASS GRADING QUANTITIES

MASS GRADING
CUT: 3,000 CUBIC YARDS
FILL: 20,000 CUBIC YARDS
IMPORT: 17,000 CUBIC YARDS

NOTE:
1) GRADING QUANTITIES NOTED ABOVE ARE APPROXIMATE AND ARE PROVIDED HEREON FOR REVIEW PURPOSES ONLY.
2) ACTUAL EARTHWORK QUANTITIES WILL VARY IN THE FIELD DUE TO TOPOGRAPHIC VARIANCE, ACTUAL SOIL PROPERTIES AND CONSTRUCTION METHODS.

DEVELOPER/OWNERS

BY: _____

NAME: _____

ITS: _____

BY: _____

NAME: _____

ITS: _____

ENGINEER OF WORK

KAREN S. VAN ERT
R.C.E. No. 56991

DATE _____



St. Katherine of Alexandria Orthodox Church
1690 Via Cancion, San Marcos, CA 92078

Revision Schedule
No. Revision Issue Date

Drawing Set Issue Schedule
Description Issue Date
CUP



5620 FRIARS ROAD
SAN DIEGO, CA 92110

619-291-0707
rickengineering.com

SAN DIEGO ORANGE RIVERSIDE SACRAMENTO
SAN LUIS OBISPO SANTA CLARITA PHOENIX
TUCSON LAS VEGAS DENVER

CONDITIONAL USE PERMIT

ST. KATHERINE OF ALEXANDRIA ORTHODOX CHURCH

EXISTING CONDITIONS & TOPOGRAPHIC MAP

LEGAL DESCRIPTION

THE LAND REFER TO HEREIN BELOW IS SITUATED IN THE CITY OF SAN DIEGO, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1 (FEES)
PARCEL 10 OF RECORD OF SURVEY MAP NO. 4009, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, SEPTEMBER 5, 1956, BEING PORTIONS OF THE WEST HALF OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO UNITED STATES GOVERNMENT SURVEY, APPROVED SEPTEMBER 17, 1889.

PARCEL 2: (EASEMENT)
THE RIGHT TO USE FOR ROAD PURPOSES, THOSE CERTAIN STRIPS OF LAND SHOWN ON RECORD OF SURVEY MAP NO. 4009, RECORDED SEPTEMBER 05, 1956, AND DESIGNATED THEREON AS "EASEMENT RESERVED FOR ROAD" WHICH SAID STRIPS OF LAND ARE HEREBY DECLARED TO BE EASEMENTS FOR ROAD PURPOSES FOR THE USE AND BENEFIT OF ALL OWNERS, PRESENT AND FUTURE OF THE LAND SHOWN ON SAID RECORD OF SURVEY MAP NO. 4009, OVER WHICH SAID EASEMENTS STRIPS ARE LOCATED AND WHICH EASEMENT ARE AND SHALL BE APPURTENANT TO SAID LANDS, AND EACH AND EVERY PARCEL THEREOF.

ASSESSOR PARCEL NUMBER(S)

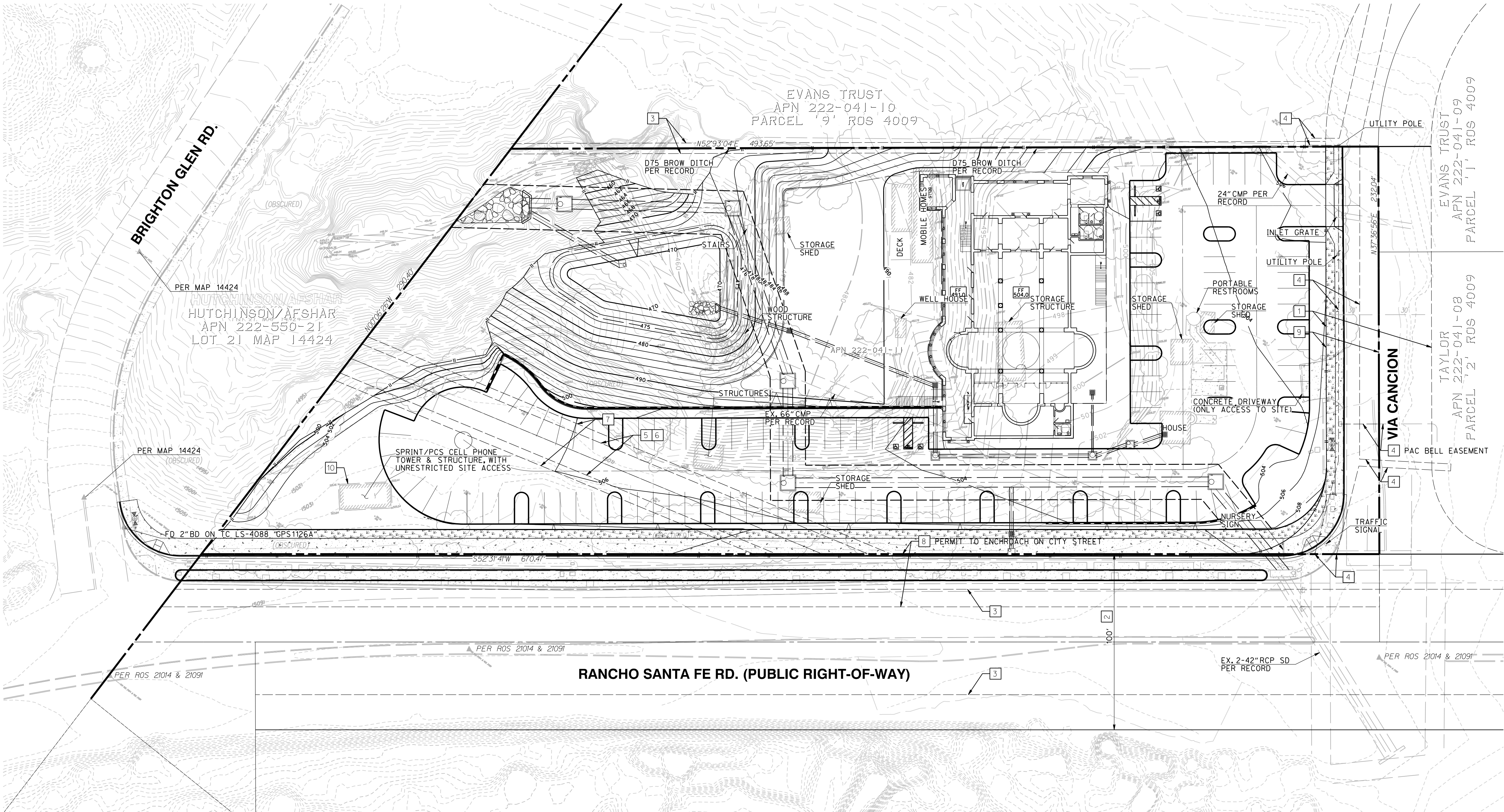
222-041-11-00

EXISTING EASEMENTS:

- 1 EASEMENT AND RIGHTS INCIDENTAL THERETO FOR INGRESS AND EGRESS, PIPELINES, DRAINAGE AND/OR PUBLIC UTILITIES AND INCIDENTAL PURPOSES THERETO OVER, UNDER, ALONG AND ACROSS THE EASEMENT PARCEL(S) HEREIN DESCRIBED ASSET FORTH IN A DOCUMENT IN VARIOUS DEEDS, (PLOTTED HEREON)
- 2 THE PRIVILEGE AND RIGHT TO EXTEND DRAINAGE STRUCTURES AND EXCAVATION AND EMBANKMENT SLOPE BEYOND THE LIMITS OF THE RIGHT OF WAY, WHERE REQUIRED FOR THE CONSTRUCTION AND MAINTENANCE OF SAID RIGHT OF WAY, AS CONTAINED IN THE DEED RECORDED SEPTEMBER 14, 1956 AS FILE NO. 1956-123622 IN BOOK 6243, PAGE 552, OFFICIAL RECORDS, AS GRANTED TO THE COUNTY OF SAN DIEGO.
- 3 ALL EASEMENTS, OFFERS AND DEDICATIONS AS SHOWN ON THE OFFICIAL MAP TRACT OF: 4009, RECORD OF SURVEY.
- 4 EASEMENTS AND RIGHTS INCIDENTAL THERETO FOR PUBLIC UTILITIES TO SAN DIEGO GAS AND ELECTRIC COMPANY, AS SET FORTH IN A DOCUMENT RECORDED APRIL 29, 1957 IN BOOK 6555 PAGE 593, OF OFFICIAL RECORDS.
- 5 EASEMENTS AND RIGHTS INCIDENTAL THERETO FOR SEWER PIPELINE TO AGERUS LAND COMPANY, AS SET FORTH IN A DOCUMENT RECORDED AUGUST 22, 1968 AS INSTRUMENT NO. 1968-145323, OF OFFICIAL RECORDS.
- 6 EASEMENTS AND RIGHTS INCIDENTAL THERETO FOR SEWER PIPELINE TO THE SAN MARCOS COUNTY WATER DISTRICT, AS SET FORTH IN A DOCUMENT RECORDED AUGUST 22, 1968 AS INSTRUMENT NO. 1968-145323, OF OFFICIAL RECORDS.
- 7 EASEMENTS AND RIGHTS INCIDENTAL THERETO FOR SEWER PIPELINE TO VALLECITOS WATER DISTRICT, AS SET FORTH IN A DOCUMENT RECORDED JUNE 6, 1990 AS INSTRUMENT NO. 1990-0307682, OF OFFICIAL RECORDS.
- 8 MATTERS CONTAINED IN A DOCUMENT RECORDED JUNE 7, 1990 AS INSTRUMENT NO. 90-0309798, OF OFFICIAL RECORDS
- 9 EASEMENT AND RIGHTS INCIDENTAL THERETO FOR ROAD PURPOSES AS SET FORTH IN A DOCUMENT RECORDED NOVEMBER 19, 1993 AS INSTRUMENT NO. 93-782297, OF OFFICIAL RECORDS.
- 10 MATTERS CONTAINED IN DOCUMENT ENTITLED MEMORANDUM OF PCS SITE AGREEMENT BY AND BETWEEN EUGENE G. CARL AND ROSEMARY S. CARL, HUSBAND AND WIFE, COMMUNITY PROPERTY (OWNERS) AND SPRINT PCS ASSETS, L.L.C., A DELAWARE LIMITED LIABILITY COMPANY, FORMERLY KNOWN AS COX PCS ASSETS, L.L.C., ("SPRINT") RECORDED MAY 9, 2002 AS INSTRUMENT NO. 2002-0394171, OF OFFICIAL RECORDS, SAID DOCUMENT WAS MODIFIED BY AN INSTRUMENT RECORDED OCTOBER 20, 2020 AS INSTRUMENT NO. 2020-637733, OF OFFICIAL RECORDS.

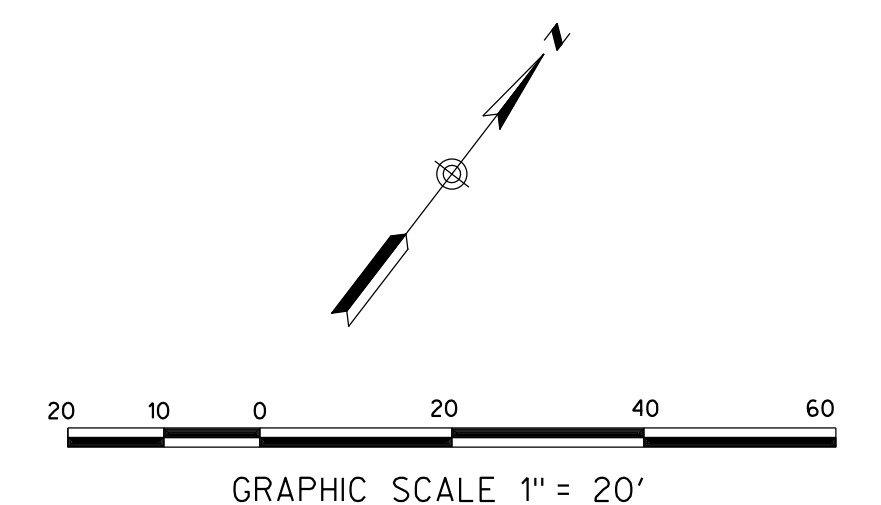
LEGEND

DESCRIPTION	SYMBOL
PROJECT BOUNDARY	---
EXISTING RIGHT-OF-WAY	---
EXISTING EASEMENT	---
EXISTING CURB	---
EXISTING CONTOUR	630
EXISTING STORM DRAIN	SD
EXISTING SEWER W/ MANHOLE	S
EXISTING WATER	W
EXISTING OVERHEAD UTILITY LINE W/ POLE	PP
EXISTING GAS	G
EXISTING DRY UTILITY	E
EXISTING EASEMENT	1
ASSESSOR PARCEL NUMBER	220-110-49



domusstudio architecture

DESCRIPTION	SYMBOL
PROJECT BOUNDARY	_____
PROPOSED RIGHT-OF-WAY	_____
PROPOSED LOT LINE	_____
PROPOSED EASEMENT	_____
EXISTING RIGHT-OF-WAY	_____
EXISTING PROPERTY LINE	_____
PROPOSED CURB	_____



Revision Schedule	
No. Revision	Issue Date

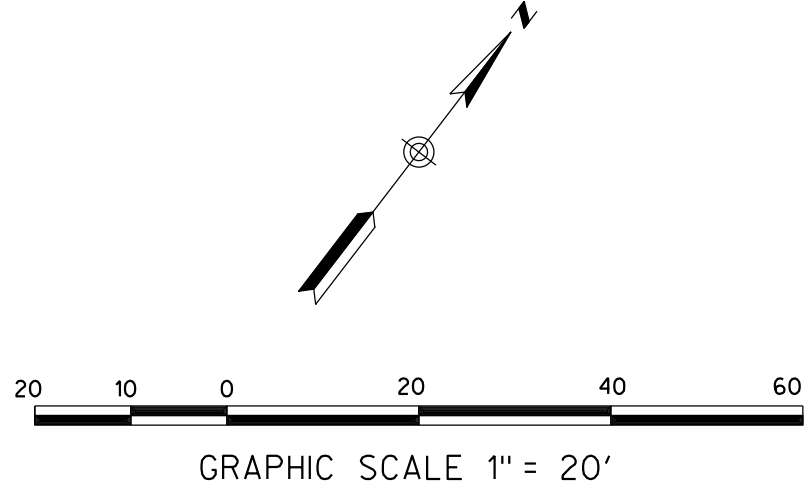
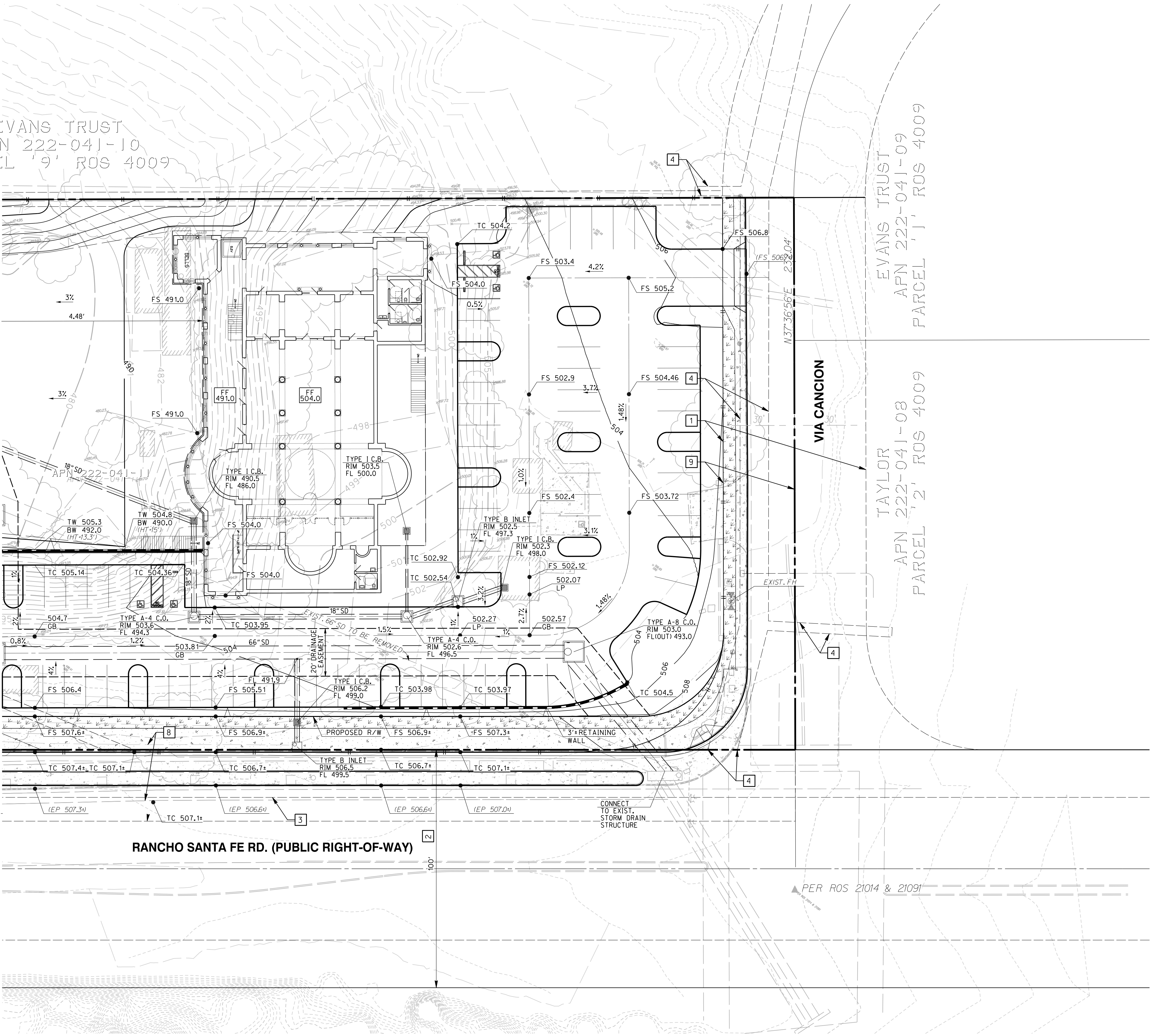
Description	Issue Date
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CONDITIONAL USE PERMIT
ST. KATHERINE OF ALEXANDRIA ORTHODOX CHURCH
CONCEPTUAL GRADING & UTILITY PLAN

SHEET 4 OF X

DESCRIPTION	SYMBOL
PROJECT BOUNDARY	---
PROPOSED RIGHT-OF-WAY	---
PROPOSED LOT LINE	---
PROPOSED EASEMENT	---
EXISTING RIGHT-OF-WAY	---
EXISTING PROPERTY LINE	---
PROPOSED CURB	---

EVANS TRUST
APN 222-041-10
PARCEL '9' ROS 4009



St. Katherine of Alexandria Orthodox Church
1690 Via Cancion, San Marcos, CA 92078

Revision Schedule
No. Revision Issue Date

Drawing Set Issue Schedule
Description Issue Date

RICK
5620 FRIARS ROAD
SAN DIEGO, CA 92110
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rickengineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO
SAN LUIS OBISPO SANTA CLARITA PHOENIX
TUCSON LAS VEGAS DENVER

domusstudio architecture

domusstudio architecture



A graphic scale bar labeled "GRAPHIC SCALE 1" = 30'". The bar is divided into segments with markings at 30, 15, 0, 30, 60, and 90 feet.