

**SITE SWQ FLOW CALCULATION - SHED 1**

Calculation Table for Determination of Design Imperviousness (%)

Site Element	Unit Area (ft <sup>2</sup> )	Runoff Coefficient	Weighting factor <sup>a</sup>	Weighted % Coefficient <sup>b</sup>
Asphalt/Concrete	10,822	1.00	0.168	0.17
Roofs	45,840	0.90	0.710	0.64
Gravel/Decomposed Granite	0	0.40	0.000	0.00
Porous Pavement	0	0.35	0.000	0.00
Lawn/Landscaping	7,919	0.00	0.123	0.00
<b>Total Contributing Area<sup>c</sup></b>	<b>64,581</b>		<b>1.000</b>	<b>0.81</b>

- a. Total contributing area = sum of unit areas
- b. Weighting factor = unit area / total tributary area
- c. Weighted Coefficient = weighting factor x runoff coefficient
- d. Runoff Coefficient (C) = (0.858)(10,822) + (0.710)(45,840) + 0.000(0) + 0.000(0) + 0.123(7,919) = 0.81

**LID Credits:**

Interceptor Trees (S<sub>I</sub>) = 4792  
 Total Credit (S<sub>T</sub>) = 4792  
 Ave = A<sub>I</sub> - LID Credits = 59,789  
 I<sub>0</sub>(a<sub>v</sub>/a<sub>r</sub>) = 0.300  
 I<sub>0</sub>(a<sub>v</sub>/a<sub>r</sub>) = base a<sub>v</sub> = 0.30  
 C = (ave d. above) = 0.61  
 SWQF = I<sub>0</sub> x C x Ave = 0.17

Notes:  
 Calculations based on Treatment Control Measure Fact Sheet T-0 of the City of Davis Manual of Stormwater Quality Control Standards for New Development and Redevelopment, dated June 2008.

**SWQ LID CREDITS CALCULATIONS - SHED 1**

**Post-Construction Water Balance Calculator**

Project Name	Location	Area (sq ft)	Runoff Coefficient	SWQF	SWQF (with LID)
Shed 1	1000001	64,581	0.81	52,511	8,070

**SWQ VOLUME CALCULATIONS - SHED 2**

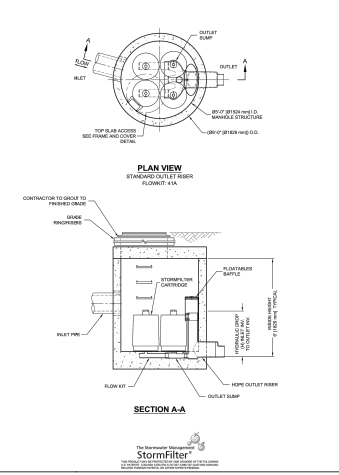
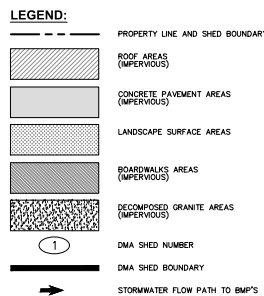
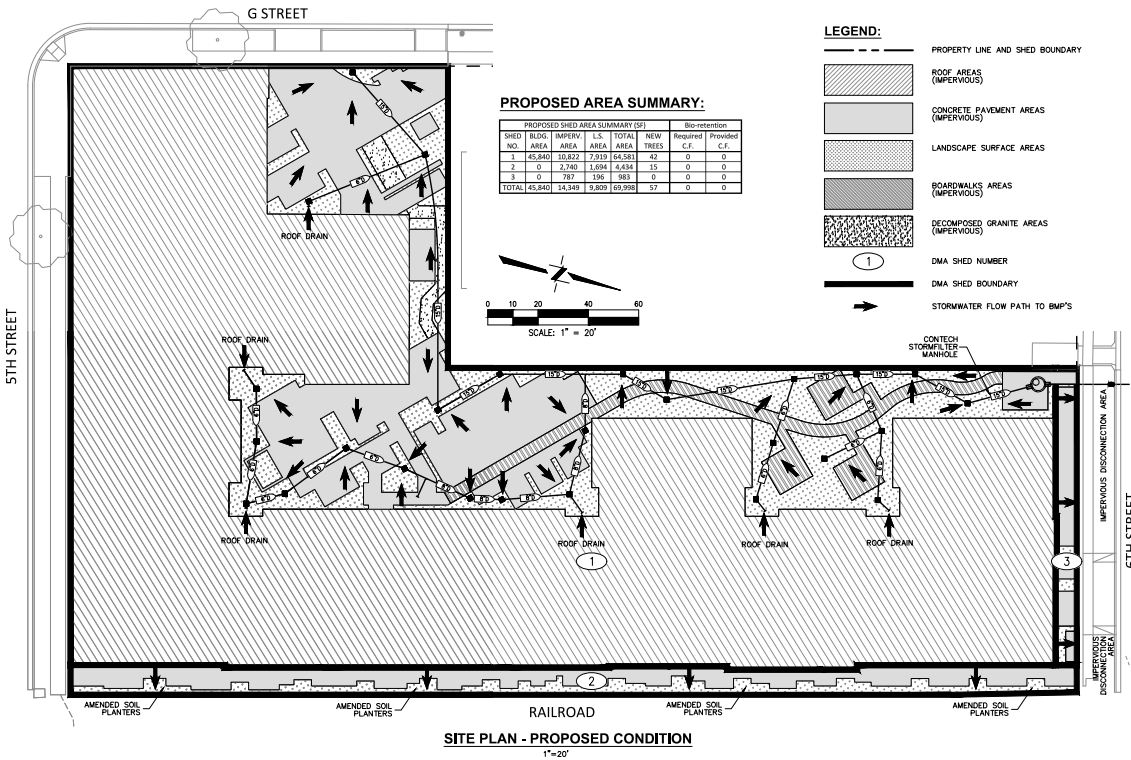
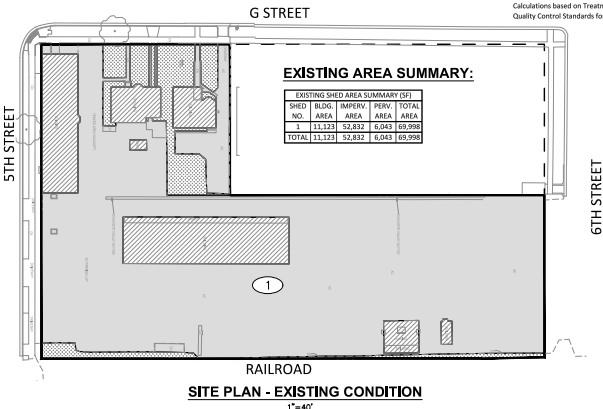
**Post-Construction Water Balance Calculator**

Project Name	Location	Area (sq ft)	Runoff Coefficient	SWQF	SWQF (with LID)
Shed 2	1000002	64,581	0.81	52,511	8,070

**SWQ VOLUME CALCULATIONS - SHED 3**

**Post-Construction Water Balance Calculator**

Project Name	Location	Area (sq ft)	Runoff Coefficient	SWQF	SWQF (with LID)
Shed 3	1000003	64,581	0.81	52,511	8,070



**PROJECT INFORMATION:**  
 PROJECT NAME: THE LUMBERYARD  
 ADDRESS: 200 5TH AND 912 G STREET  
 APPLICANT: DAVIS LUMBERYARD, LLC  
 APN: 070-100-000, 000, AND 007  
 PROJECT TYPE: COMMERCIAL/MULTI-FAMILY APARTMENTS

**PROJECT NARRATIVE:**  
 STORMWATER FROM THE ROOF OF THE FOUR STORY APARTMENT BUILDING WILL BE COLLECTED IN ROOF GUTTERS AND DOWNSPOUTS WHICH WILL BE CONNECTED DIRECTLY TO THE SITE'S UNDERGROUND STORM DRAINAGE SYSTEM. STORMWATER FROM THE SITE FLATWORK WILL SHEET DRAIN INTO ADJACENT LANDSCAPE AREAS, CAPTURED BY DRAIN BILETS AND CONNECTED DIRECTLY TO THE SITE'S UNDERGROUND STORM DRAINAGE SYSTEM. THE SITE'S UNDERGROUND STORM DRAIN SYSTEM WILL PASS THROUGH A CONTECH STORMWATER FILTER FOR STORMWATER TREATMENT BEFORE BEING DIRECTED TO SIXTH STREET AND CONNECTED TO THE CITY'S STORM DRAIN SYSTEM AT THE INTERSECTION OF SIXTH STREET AND G STREET.

**SITE DESIGN & RUNOFF REDUCTION MEASURES (SHEDS 2&3):**  
 SOIL QUALITY IMPROVEMENT AND MAINTENANCE (SHED 2)  
 MEASURE: NEW TREES WILL BE PLANTED ON THE SITE. SEE LANDSCAPE PLANTING PLAN.  
 IMPERVIOUS AREA DISCONNECTION (SHED 3)  
 IMPERVIOUS FLATWORK WILL SHEET DRAIN INTO THE LANDSCAPE PLANTER STRIP BETWEEN THE SIDEWALK AND THE STREET CURB.

**POST-CONSTRUCTION STORMWATER MEASURES:**  
 SHED 1: CONTECH STORMWATER TREATMENT MANHOLE (DETAIL HEREON) - SEE SWQ FLOW CALCULATION HEREON.  
 SHEDS 2 & 3: NON REQUIRED - SEE THE SMARTS POST-CONSTRUCTION WATER BALANCE CALCULATORS HEREON.

**STATEMENT OF COMPLIANCE**  
 STORMWATER QUALITY TREATMENT PERFORMANCE REQUIREMENTS HAVE BEEN MET ON-SITE PER E1.2 REQUIREMENTS.

**SMARTS POST-CONSTRUCTION WATER BALANCE CALCULATOR**

- THE SMARTS POST-CONSTRUCTION WATER BALANCE CALCULATOR SPREADSHEETS FOR EACH SHED ARE AVAILABLE UPON REQUEST.
- THE SMARTS POST-CONSTRUCTION WATER BALANCE CALCULATOR SPREADSHEETS USE THE 85TH PERCENTILE 24-HOUR STORM EVENT FOR DESIGN CALCULATIONS.

**HYDROMODIFICATION MANAGEMENT MEASURES:**  
 NON REQUIRED - PER SECTION E.12.1(2) OF THE GENERAL PERMITS "A" PROJECT THAT DOES NOT INCREASE IMPERVIOUS SURFACE AREA OVER THE PRE-PROJECT CONDITION IS NOT A HYDROMODIFICATION MANAGEMENT PROJECT. THIS PROJECT DOES NOT INCREASE IMPERVIOUS SURFACE AREA OVER THE PRE-PROJECT CONDITION.

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**Michaels**  
 COMMUNITIES THAT GROW

**THE LUMBERYARD**  
 500 G STREET  
 DAVIS, CA

**CONTECH**  
 STORMWATER TREATMENT MANHOLE  
 STANDARD DETAIL  
 SFM480

**STORMWATER QUALITY CONTROL PLAN**  
 SCALE: 1" = 20'  
 DATE: 11/13/2020  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]

**C1.40**