PLANNING DEVELOPMENT DOCUMENT

CLAREMONT TENTATIVE TRACT NO. 83751

1030 W. Foothill Blvd.
Claremont, CA 91711
APN: 8311-001-016

Single-Family Residential

Prepared for:
THE OLSON COMPANY
3010 Old Ranch Parkway, Suite 100
Seal Beach, CA 90740
(562) 596-4770

Prepared by:
ALAN R. SHORT, P.E.
7263 W. Galen Drive
Herriman, UT 84096
(949) 586-5200

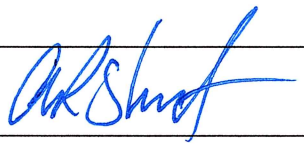
Date Prepared: July 1, 2022

OWNER'S CERTIFICATION PLANNING DEVELOPMENT DOCUMENT			
Permit/Application No.	TBD in Final	Grading Permit No.	TBD in Final
Tract/Parcel Map No.	83751	Building Permit No.	TBD in Final
CUP, SUP, and/or APN (Specify Lot Numbers if Portions of Tract)	APN 8311-001-016		

I certify that this document has been prepared for The Olson Company by Alan R. Short, P.E. This Planning Development Document is intended to comply with the requirements of the Los Angeles County Municipal Storm Water Permit, Order NO. R4-2012-0175, Planning and Development Program, for Tract/Parcel Map No. Tract/Parcel Map number, Condition Number(s) Condition Numbers, and/or Site Development Permit/Application Number Enter number, Condition Number(s) Condition Numbers requiring the preparation of a Development Planning Document (DPD).

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Los Angeles County Municipal Storm Water Permit Order No. R4-2012-0175. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the DPD. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

Signed:	Tom Moore
Name	Tom Moore
Title	VP, Operational Planning
Company	The Olson Company
Address	3010 Old Ranch Parkway, Suite 100 Seal Beach, CA 90740
Telephone #	(562) 596-4770
Date	

PREPARER (ENGINEER): Alan R. Short, P.E.			
Title		PE Registration #	30873
Company	Alan R. Short, P.E.		
Address	7263 W Galen Drive Herriman, UT 84096		
Email	alanshortpe@gmail.com		
Telephone #	(949) 586-5200		
I hereby certify that this Planning Development Document is in compliance with, and meets the requirements set forth in, Order No. R4-2012-0175, of the Los Angeles Regional Water Quality Control Board.			
Preparer Signature		Date	7/7/22
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SECTION I DISCRETIONARY PERMIT(S) AND PROJECT CONDITIONS

PROJECT INFORMATION		
Proposed Project Is:		
1. 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area.	☒Yes	☐No
2. Industrial parks 10,000 square feet or more of surface area.	☐Yes	☒No
3. Commercial malls 10,000 square feet or more surface area.	☐Yes	☒No
4. Retail gasoline outlets outlet, 5,000 square feet or more surface area.	☐Yes	☒No
5. Restaurant (SIC code 5812) 5,000 square feet or more surface area.	☐Yes	☒No
6. Parking lots 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces.	☐Yes	☒No
7. Street and road construction of 10,000 square feet or more of impervious surface area.	☐Yes	☒No
8. Automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area.	☐Yes	☒No
9. Redevelopment project in subject categories that meet the Redevelopment thresholds.	☒Yes	☐No
10. Projects located in or directly adjacent to, or discharging to a Significant Ecological Area(SEA).	☐Yes	☒No
11. Single-family Hillside Home.	☐Yes	☒No
Discretionary Permits (if applicable)	TBD	
Water Quality Conditions (list verbatim)	To be provided in Final.	

SECTION II PROJECT DESCRIPTION

II.1 PROJECT DESCRIPTION

The proposed Tentative Tract No. 83751 project site encompasses approximately 3.05 acres in the City of Claremont. The site is a mostly rectangular-shaped parcel and bordered by West Foothill Blvd. to the north, a commercial parcel and parking lot to the east, single-family detached residences to the south, and a gas station and Town Avenue to the west. A Vicinity Map is included in Section VI.

The site is currently undeveloped except for a parking lot that occupies the east third of the site. The vacant lot that the parking lot encompasses used to be occupied by a commercial building, but has since 2019 been removed. The west two thirds of the site has been undeveloped for at least 30 years, based on past aerial photography.

<table>
<tr><th colspan="5">DESCRIPTION OF PROPOSED PROJECT</th></tr>
<tr><td>Project Area: 3.05 acres</td><td colspan="2">Number of Dwelling Units: 56</td><td colspan="2">SIC Code: Not applicable</td></tr>
<tr><td>Narrative Project Description:</td><td colspan="4">Under proposed conditions, the site will be developed for residential use and plans to consist of 56 attached residential condominiums, 12 units of which will be live work residences. Associated interior driveways, common area landscaping, surface parking spaces, perimeter walls, and underground utilities are proposed.

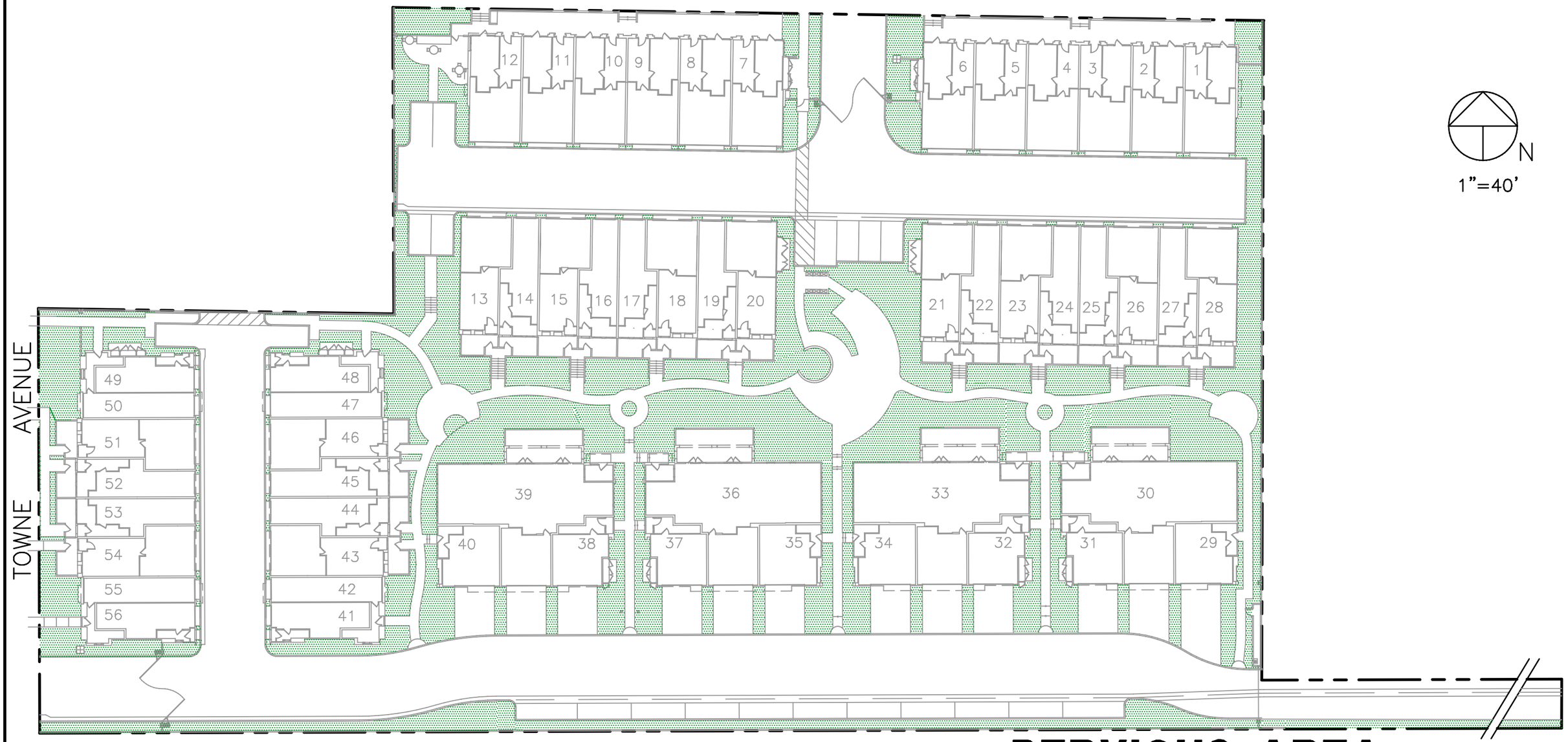
There will be 112 garage parking spaces and 21 street parking spaces along the property's drive aisles.

Landscaped areas totaling 0.60 acres are common, open space passive areas maintained by HOA.

There will not be any residential features that are of particular water quality concern proposed for the project. The project will not include swimming pools, outdoor storage areas, trash enclosures or recreational facilities of note. There are seating areas and tables in the common areas for residents to lounge.</td></tr>
<tr><td></td><td colspan="2">Pervious</td><td colspan="2">Impervious</td></tr>
<tr><td></td><td>Area (ac or ft^2)</td><td>Percentage</td><td>Area (ac or ft^2)</td><td>Percentage</td></tr>
<tr><td>Post-Project Conditions:</td><td>0.60 ac</td><td>19.7%</td><td>2.45 ac</td><td>80.3%</td></tr>
<tr><td>Drainage Patterns/ Connections:</td><td colspan="4">The site is relatively flat with elevations ranging from EL 1204 to EL 1192 above Mean Sea Level (based on Google Earth). Drainage is directed as sheet flow southwest to the alley south of the property. From the alley, a ribbon gutter conveys runoff west to N. Towne Avenue.</td></tr>
</table>

	Once offsite, the project runoff drains south on Towne Ave. to a catch basin at the northeast corner of Towne Ave. and Harrison Ave. The runoff then enters County Storm Drain BI 0566 – Line A and is conveyed west to Thompson Creek. The creek drains south and confluences with San Jose Creek and continues to drain southwest to the San Gabriel River. From there, San Gabriel River drains south and eventually outlets at the Pacific Ocean at Seal Beach. The site's drainage through the San Gabriel River Watershed is illustrated in the figures below.

FOOTHILL BLVD.



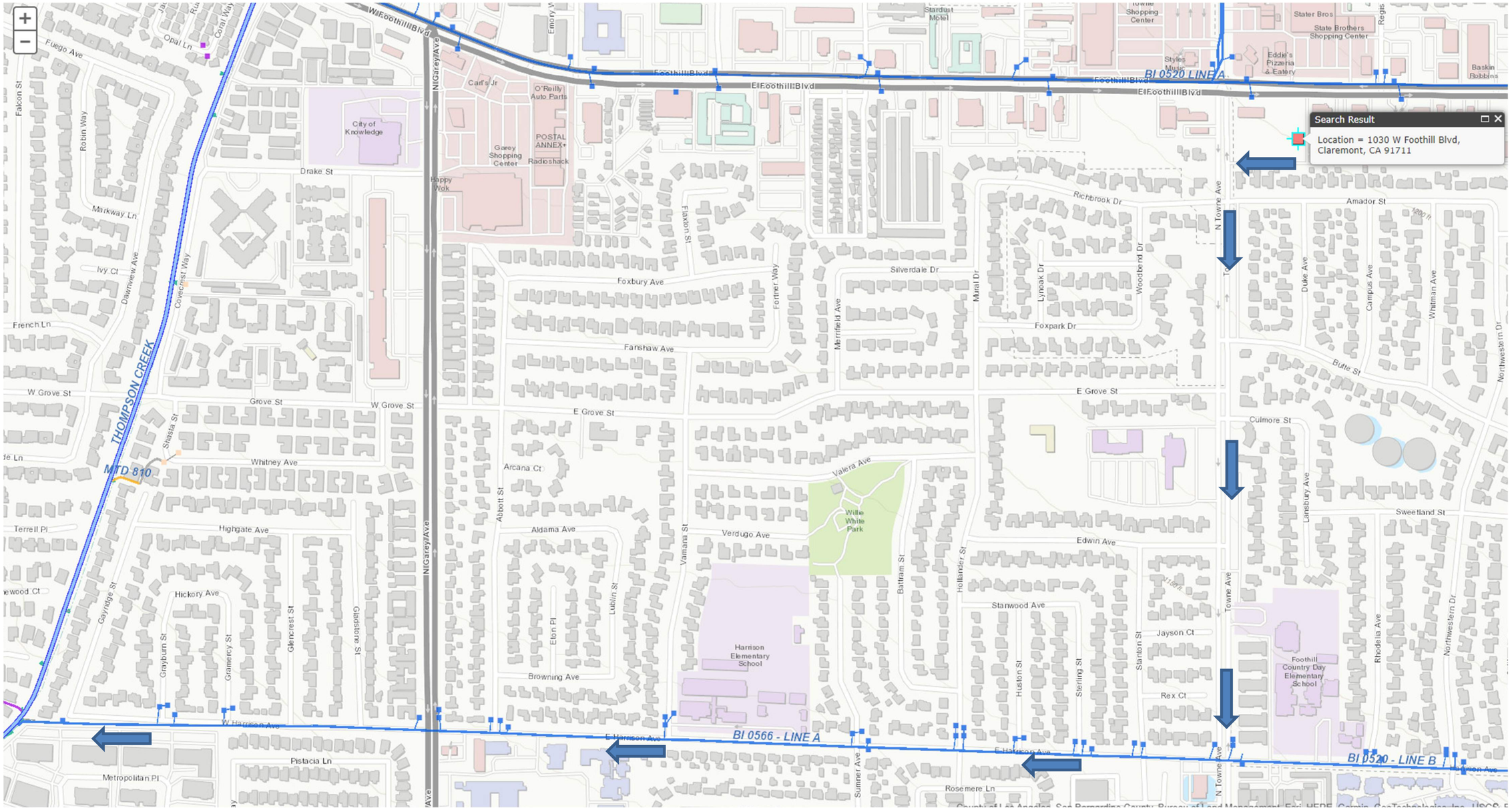
N

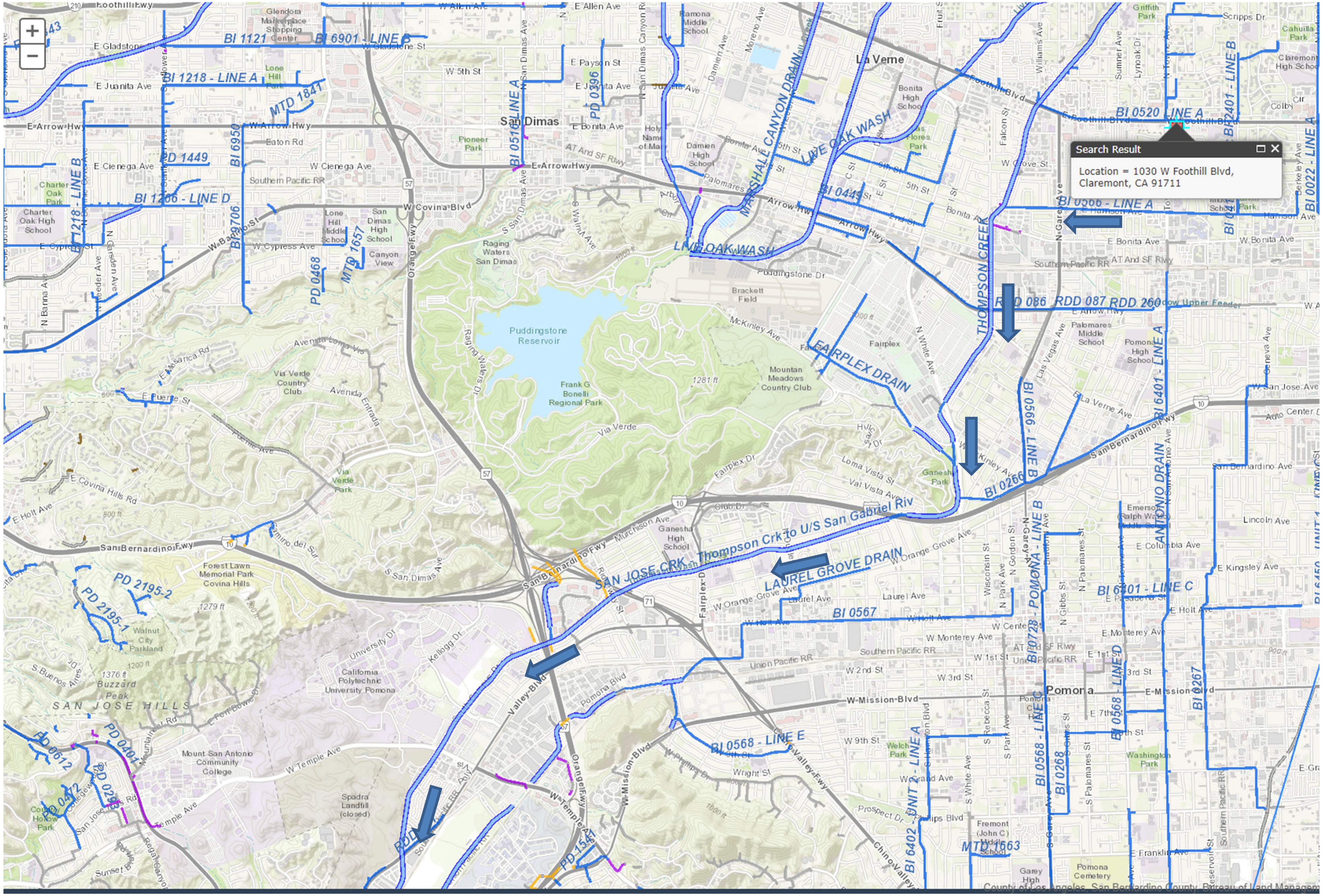
1"=40'

	TOTAL AREA	3.05 AC
	PERVIOUS AREA	0.60 AC
	% PERVIOUS	19.7 %
	% IMPERVIOUS	80.3 %

PERVIOUS AREA
PROPOSED CONDITION
TENTATIVE TRACT NO. 83751
CLAREMONT

LATEST REVISION: 4/4/22


Search Result
Location = 1030 W Foothill Blvd, Claremont, CA 91711
BI 0520 LINE A
BI 0566 - LINE A
BI 0520 - LINE B
MTD 810
W Foothill Blvd
E Foothill Blvd
N Garey Ave
N Towne Ave
Fuego Ave
Opal Ln
Coral Way
Falcon St
Robin Way
Markway Ln
Ivy Ct
Dawnview Ave
Covenant Way
French Ln
Drake St
City of Knowledge
Carl's Jr
O'Reilly Auto Parts
POSTAL ANNEX+
Radioshack
Garey Shopping Center
Happy Wok
Emory Way
Stardust Motel
Irwin Shopping Center
Styles Music
Stater Bros
State Brothers Shopping Center
Eddie's Pizzeria & Eatery
Baskin Robbins
Regis
Flaxton St
Foxbury Ave
Fortner Way
Merrifield Ave
Silverdale Dr
Murial Dr
Richbrook Dr
Lyncak Dr
Woodbend Dr
Foxpark Dr
Farnshaw Ave
Amador St
Duke Ave
Campus Ave
Whitman Ave
Butte St
Northwestern Dr
E Grove St
W Grove St
Grove St
Culmore St
Lansbury Ave
Sweetland St
Whitney Ave
Arcana Ct
Valera Ave
Willie White Park
Abbott St
Aldama Ave
Verdugo Ave
Vamana St
Edwin Ave
Battram St
Hollander St
Stanwood Ave
Jayson Ct
Towne Ave
Foothill Country Day Elementary School
Rex Ct
Rhodelia Ave
Sterling St
Huston St
Stanton St
Lubrim St
Elon Pl
Harrison Elementary School
Browning Ave
Terrell Pl
Highgate Ave
Hickory Ave
Grayridge St
Graybum St
Gramercy St
Glencrest St
Glidestone St
Shasta St
Pistacia Ln
Metropolitan Pl
Rosemere Ln
Summer Ave
E Harrison Ave
W Harrison Ave
THOMPSON CREEK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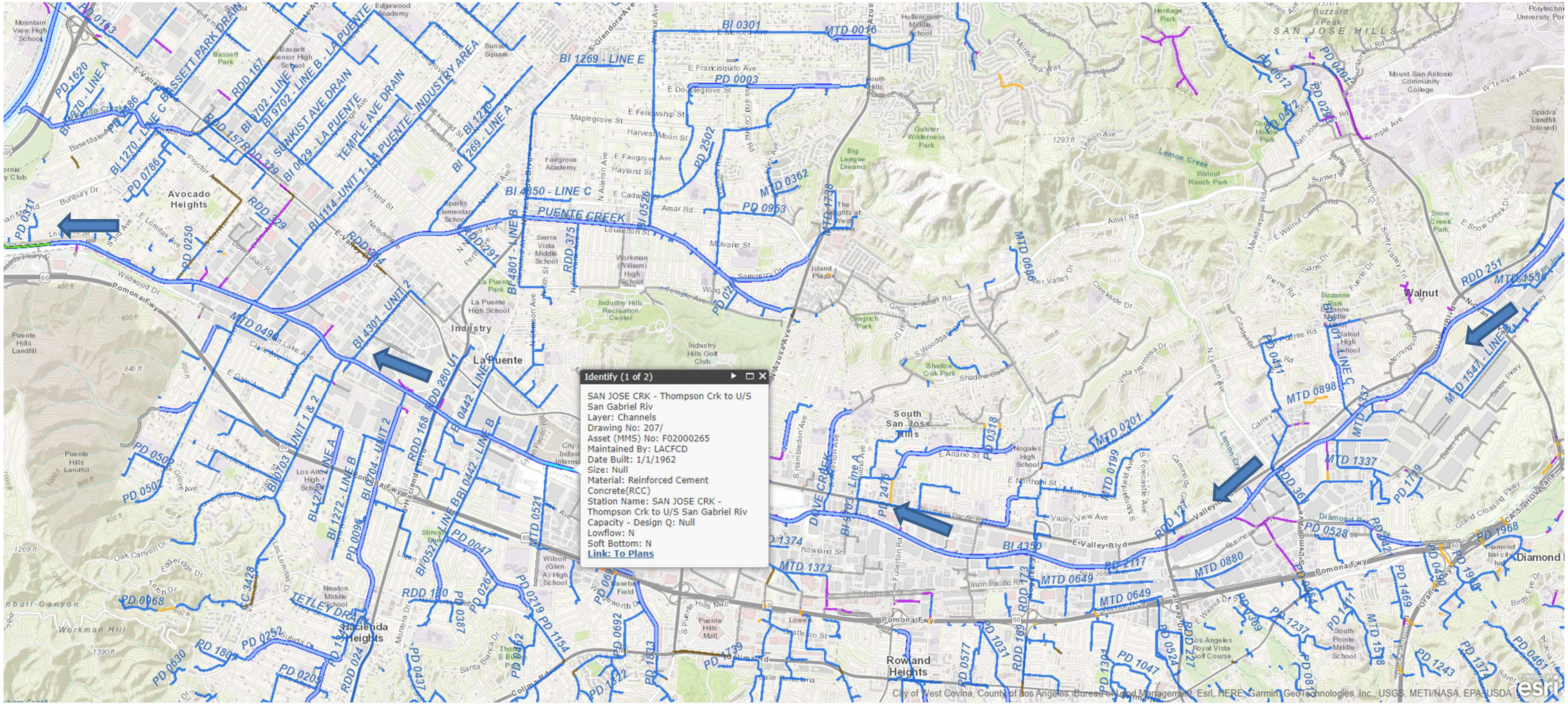
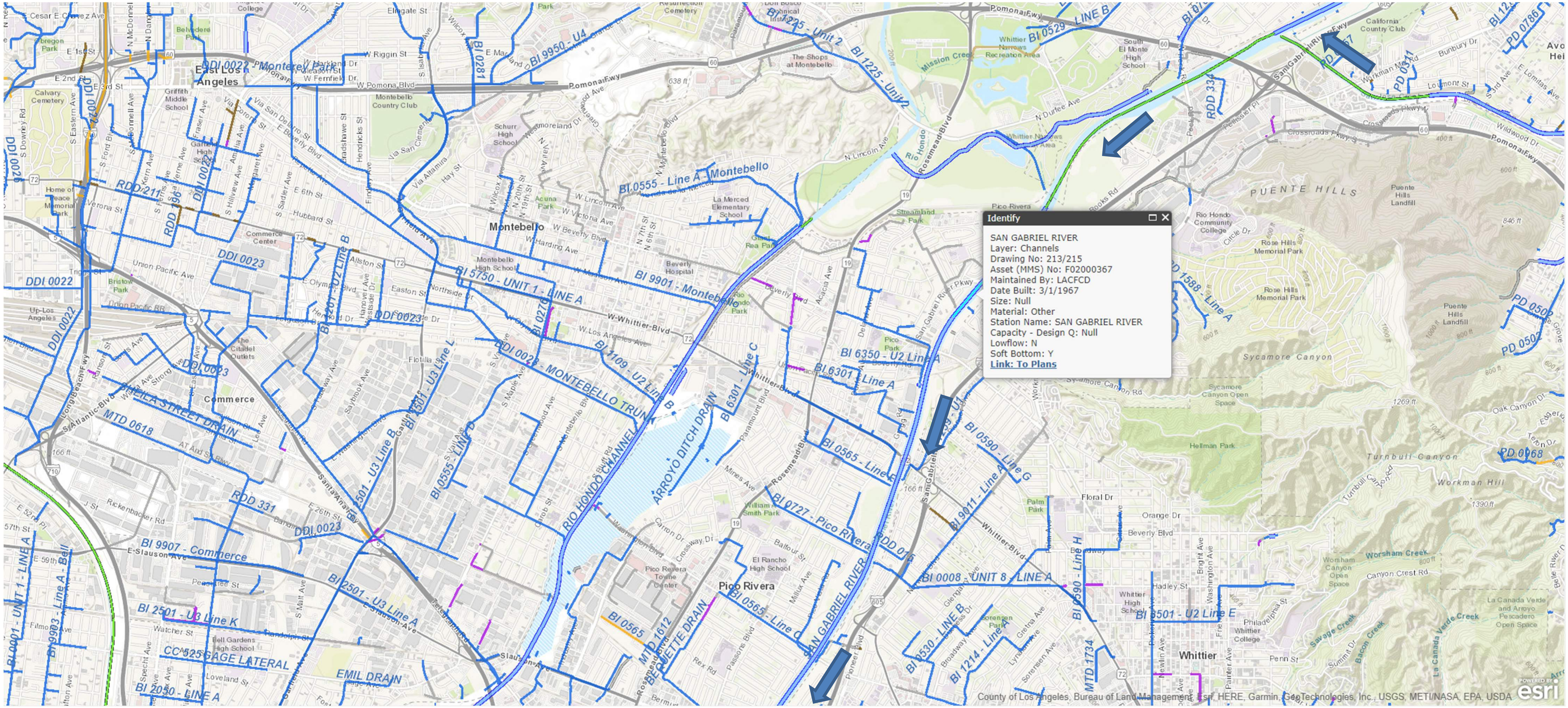
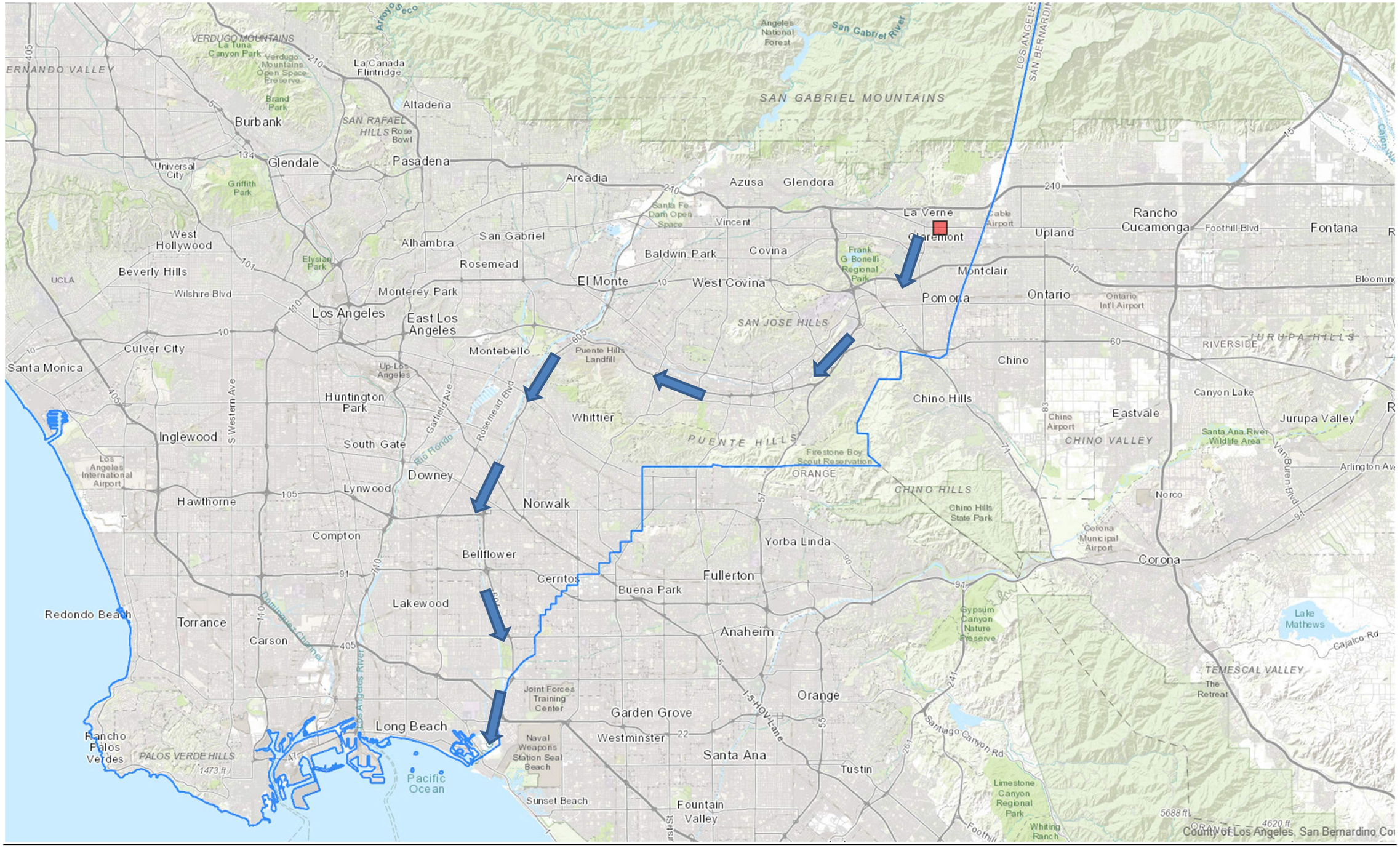
Location = 1030 W Foothill Blvd, Claremont, CA 91711
BI 0520 LINE A
BI 0566 - LINE A
BI 1121
BI 6901 - LINE B
BI 1218 - LINE A
MTD 1841
PD 1449
BI 1266 - LINE D
BI 0510 LINE A
PD 0396
MARSHALL CANYON DRAIN
LIVE OAK WASH
BI 0443
THOMPSON CREEK
RDD 086
RDD 087
RDD 260
FAIRPLEX DRAIN
BI 0566 - LINE B
BI 0266
BI 6401 - LINE A
BI 6401 - LINE C
SAN JOSE CRK
Thompson Crk to U/S San Gabriel Riv
LAUREL GROVE DRAIN
BI 0567
SAN ANTONIO DRAIN
BI 0568 - LINE E
BI 0568 - LINE D
BI 0267
BI 0268
MTD 1563
PD 2195-2
PD 2195-1
PD 0401
La Verne
San Dimas
Pomona
Puddingstone Reservoir
Frank G Bonelli Regional Park
California Polytechnic University Pomona
Mount San Antonio Community College
SAN JOSE HILLS


Identify (1 of 2)
SAN JOSE CRK - Thompson Crk to U/S San Gabriel Riv
Layer: Channels
Drawing No: 207/
Asset (MMS) No: F02000265
Maintained By: LACFCD
Date Built: 1/1/1962
Size: Null
Material: Reinforced Cement Concrete(RCC)
Station Name: SAN JOSE CRK - Thompson Crk to U/S San Gabriel Riv
Capacity - Design Q: Null
Lowflow: N
Soft Bottom: N
Link: To Plans
PUENTE CREEK
DRAIN
Avocado Heights
Industry
La Puente
South San Jose Hills
Walnut
Hacienda Heights
Rowland Heights
Diamond Bar
SAN JOSE HILLS
Pomona Fwy
Valley Blvd
Amar Rd
Lemon Creek
City of West Covina, County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, METI/NASA, EPA/USDA
esri



(source: https://pw.lacounty.gov/fcd/StormDrain/index.cfm)


VERDUGO MOUNTAINS
La Tuna Canyon Park
Verdugo Mountains Open Space Preserve
La Canada Flintridge
Brand Park
Burbank
Altadena
SAN RAFAEL HILLS
Rose Bowl
SAN GABRIEL MOUNTAINS
Angeles National Forest
San Gabriel River
Universal City
Griffith Park
Glendale
Pasadena
Arcadia
Azusa
Glendora
Santa Fe Dam Open Space
Vincent
La Verne
Claremont
Cable Airport
Rancho Cucamonga
Foothill Blvd
Upland
Fontana
West Hollywood
Beverly Hills
UCLA
Elysian Park
Alhambra
San Gabriel
Rosemead
Baldwin Park
Covina
Frank G Bonelli Regional Park
Montclair
Wilshire Blvd
Monterey Park
El Monte
West Covina
Pomona
Ontario
Ontario Int'l Airport
Los Angeles
East Los Angeles
SAN JOSE HILLS
Culver City
Montebello
Puente Hills Landfill
Chino
RIVERSIDE
JURUPA HILLS
Santa Monica
Up-Los Angeles
Huntington Park
Chino Hills
Canyon Lake
Whittier
Eastvale
Jurupa Valley
Inglewood
South Gate
PUENTE HILLS
Chino Airport
CHINO VALLEY
Santa Ana River Wildlife Area
Los Angeles International Airport
Downey
Lynwood
Norwalk
Firestone Boy Scout Reservation
ORANGE
CHINO HILLS
Chino Hills State Park
Norco
Hawthorne
Compton
Yorba Linda
Corona Municipal Airport
Bellflower
Cerritos
Fullerton
Buena Park
Corona
Lakewood
Gypsum Canyon Nature Preserve
Lake Mathews
Redondo Beach
Torrance
Carson
Anaheim
Cajalco Rd
TEMESCAL VALLEY
The Retreat
Joint Forces Training Center
Orange
Garden Grove
Long Beach
Naval Weapons Station Seal Beach
Westminster
Santa Ana
Tustin
Santiago Canyon Rd
Rancho Palos Verdes
PALOS VERDE HILLS
1473 ft
Pacific Ocean
Sunset Beach
Fountain Valley
Limestone Canyon Regional Park
Whiting Ranch
5688 ft
4620 ft
County of Los Angeles, San Bernardino Co

II.2 POST DEVELOPMENT CHARACTERISTICS

In the post-development condition, the proposed project will maintain existing drainage patterns. The site's runoff is drained via curb and gutter to catch basins and area drains where it enters the private storm drain that conveys it in a southwesterly direction. Prior to discharge onto the public right-of way, LID flows are conveyed east to a drywell with an underground 48" HDPE detention pipe. Flow exceeding the LID volume will bubble up from the catch basin at the southwest corner of the property and discharge onto Towne Avenue.

II.3 PROPERTY OWNERSHIP/MANAGEMENT

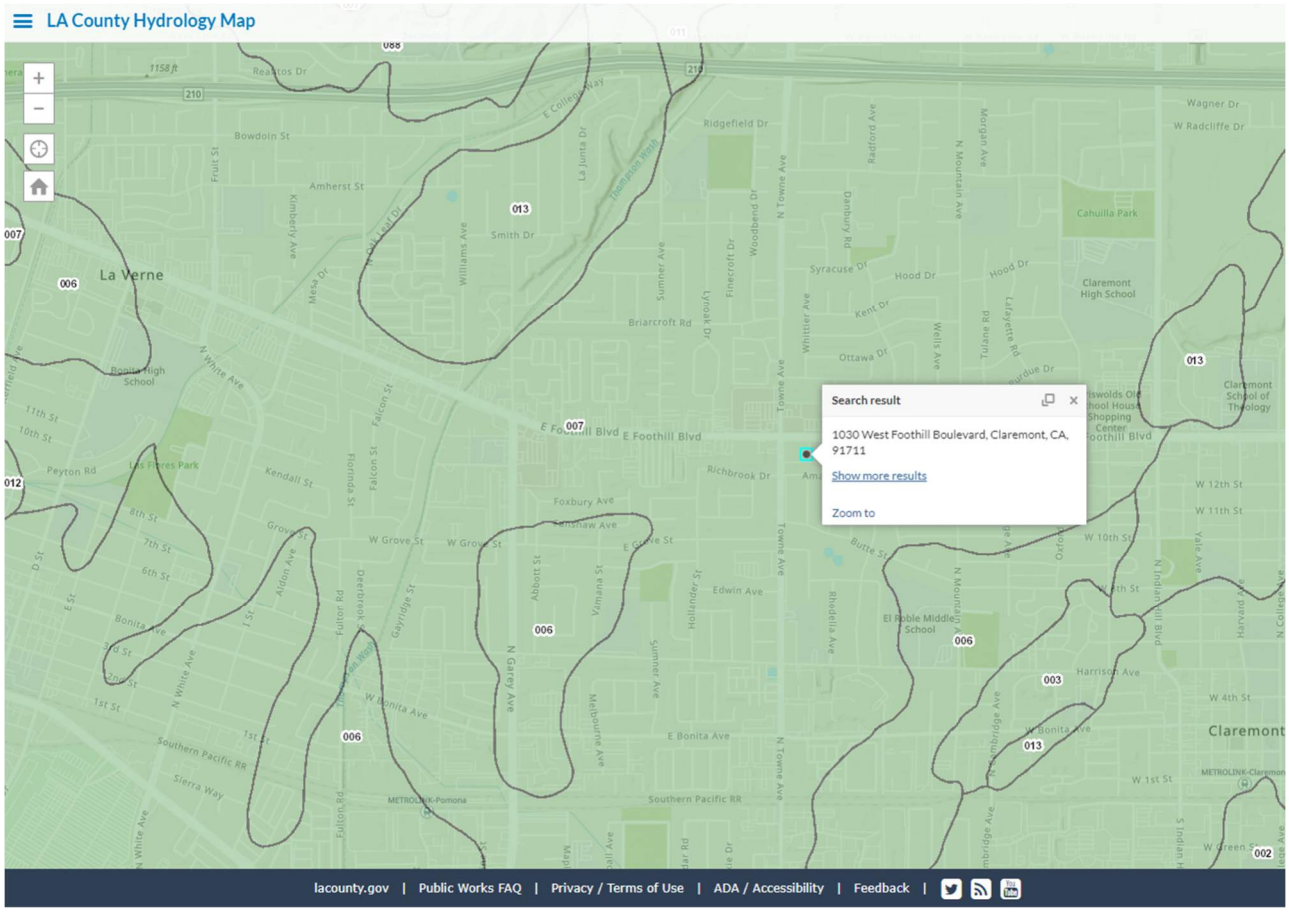
A Homeowners Association (HOA) will be formed upon project completion. The HOA will be responsible for inspecting and maintaining all BMPs prescribed for Tentative Tract No. 83751 at 1030 W. Foothill Blvd. Until an HOA is formally established, The Olson Company shall assume all BMP maintenance and inspection responsibilities for the proposed project. Inspection and maintenance responsibilities are outlined in Section V of this report.

No infrastructure will be transferred to any public agencies.

SECTION III SITE DESCRIPTION

III.1 PHYSICAL SETTING

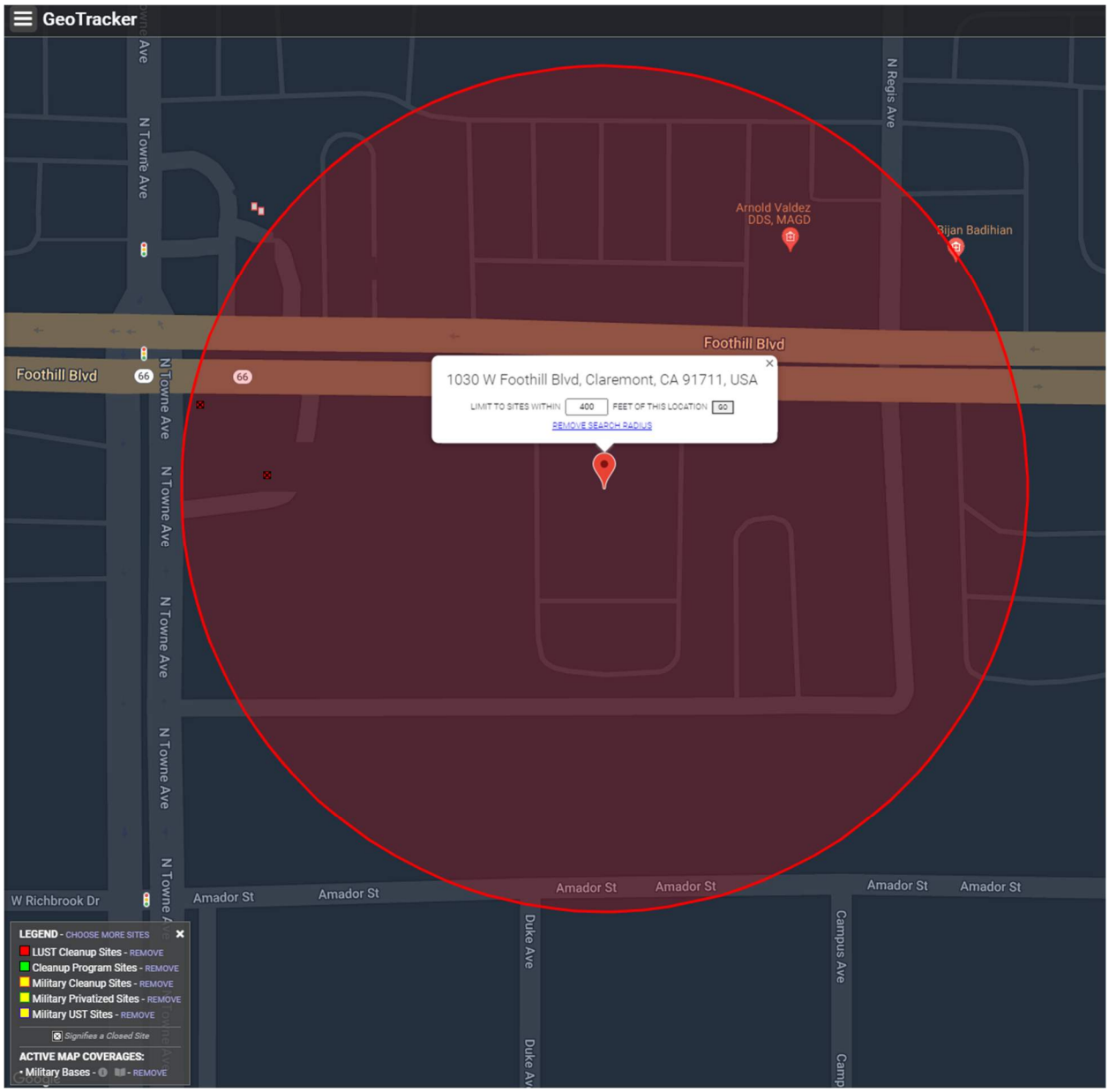
Name of Planned Community / Planning Area	Tentative Tract No. 83751
Location/Address:	1030 W. Foothill Blvd. Claremont, CA 91711
General Plan Land Use Designation:	Mixed Use
Zoning:	MU-3
Acreage of Project Site:	3.05 Acres
Predominant Soil Type:	007



III.2 SITE CHARACTERISTICS

Precipitation Zone:	0.98 inches
Topography:	The project site and overall property is relatively flat with elevation ranging from 1192 to 1206 feet above msl (based on Google Earth), descending gently to the southwest.
Soil Type and Geology:	Artificial fill materials were generally encountered up to about 3 feet below the existing ground surface within the existing building pad located at the east half of the site and within test pit TP-7. Artificial fill was not encountered within the remaining portion of the site. Alluvial deposits were encountered below the fill materials or at ground surface to the maximum depths explored of 46.5 feet. The alluvial materials consist of sand with varying amounts of silt and gravels, brown, dry to moist, medium dense to very dense. Based on the results of percolation testing and analyses, a well configuration of 20 feet depth and 6 feet diameter may utilize a "measured" peak flow rate of 0.30 ft^3/sec. This flow rate corresponds to an average peak infiltration rate of 60 in./hr. This flow rate and infiltration rate only apply to the well configuration evaluated and will differ for other configurations. These values are "measured" values and as such, an appropriate factor of safety should be applied to determine the "design" rates.
Groundwater:	Groundwater was not encountered during this firm's subsurface exploration to a maximum depth of 46.5 feet below the existing ground surface. The CDMG Seismic Hazard Zone Report 040 indicates historic groundwater is estimated to be 150 feet below the existing ground surface.
Other Geotechnical Hazards:	According to the Geotracker website, the project site does not have any active LUST cleanup sites within the project's vicinity. The gas station facility adjacent to the property to the northwest had cleanups that were closed in 1990 and 2004, respectively. There are no other sites within 500 feet of the project (see figure below).
Setbacks:	Infiltration BMPs shall follow the setback requirements set forth in the latest GMED Policy GS200.1 (dated 6/30/21). The invert of stormwater infiltration shall be set back at least 15 feet or outside a 1:1 plane drawn up from the bottom of adjacent foundations or granular soils. Stormwater infiltration shall be setback at least 10 feet from property lines.
Off-Site Drainage:	The property will not receive any off-site drainage.
Existing Utilities:	There are no existing subsurface utilities that will impact the location of LID BMPs on-site.

Significant Ecological Areas (SEAs):	There are no SEAs within the project vicinity.

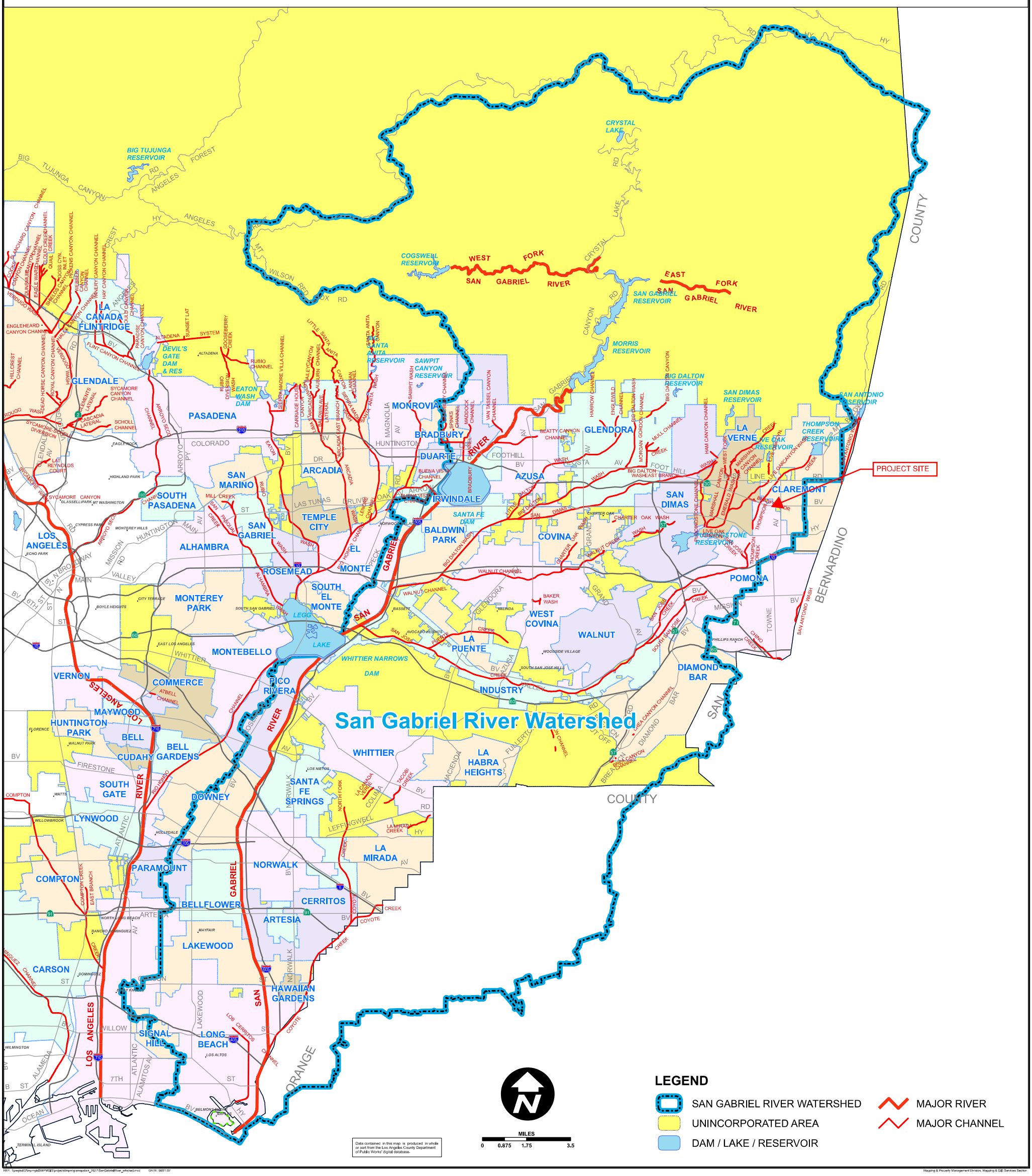


III.3 WATERSHED DESCRIPTION

Receiving Waters:	• Thompson Creek; • San Jose Creek; • San Gabriel River Reach 2; • San Gabriel River Reach 1; and • San Gabriel River Estuary
303(d) Listed Impairments:	• San Jose Creek: Coliform Bacteria, Selenium, Toxicity, Ammonia • San Gabriel River Reach 2: Coliform Bacteria, Lead • San Gabriel River Reach 1: Coliform Bacteria, pH • San Gabriel River Estuary: Copper
Applicable TMDLs:	• San Gabriel River: Metals, Bacteria, Trash
Pollutants of Concern for the Project:	Expected pollutants from attached residential developments include sediment, nutrients, pathogens, pesticides, oil & grease, and trash. Based on the 303(d) listed impairments and TMDLs for the project's receiving waters, the pollutants of concern are pathogens and trash.

COUNTY OF LOS ANGELES

SAN GABRIEL RIVER WATERSHED



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Mapping & Property Management Division, Mapping & GIS Services Section

SECTION IV BEST MANAGEMENT PRACTICES (BMPs)

SOURCE CONTROL BMPs

The following tables show source control BMPs (routine non-structural and routine structural) included in this project and those that were not included.

ROUTINE NON-STRUCTURAL BMPs				
ID	Name	Included	Not Applicable	If Not Applicable, State Brief Reason
N1	Education for Property Owners, Tenants and Occupants	☒	☐	
N2	Activity Restrictions	☒	☐	
N3	Common Area Landscape Management	☒	☐	
N4	BMP Maintenance	☒	☐	
N5	Title 22 CCR Compliance (How development will comply)	☐	☒	Residential site.
N6	Local Industrial Permit Compliance	☐	☒	Residential site.
N7	Spill Contingency Plan	☐	☒	Residential site.
N8	Underground Storage Tank Compliance	☐	☒	No USTs proposed.
N9	Hazardous Materials Disclosure Compliance	☐	☒	No hazardous wastes.
N10	Uniform Fire Code Implementation	☐	☒	No hazardous wastes.
N11	Common Area Litter Control	☒	☐	
N12	Employee Training	☒	☐	
N13	Housekeeping of Loading Docks	☐	☒	No loading docks proposed.
N14	Common Area Catch Basin Inspection	☒	☐	
N15	Street Sweeping Private Streets and Parking Lots	☒	☐	
N16	Commercial Vehicle Washing	☐	☒	No car washes.

N1, Education for Property Owners, Tenants and Occupants

Educational materials related to urban runoff can be provided to homeowners (via project owner or HOA) and employees to reduce pollutants from reaching the storm drain system. Examples of environmental

awareness materials include, but are not limited to: guidelines for landscaping and gardening, tips for pet care, vehicle cleaning, and proper disposal of household hazardous waste.

N2, Activity Restrictions

Activity restrictions can be developed to restrict activities that have the potential to create adverse impacts on water quality. Activities include but are not limited to: the handling and disposal of contaminants, trash management and litter control, irrigation and landscaping practices, vehicle and equipment cleaning, fertilizer applications and household waste management practices.

N3, Common Area Landscape Management

Common area landscape management will include minimizing fertilizer and pesticide application, use of slow-release fertilizers, maintenance activities, providing education to homeowners (via project owner and/or HOA), and providing education and training for employees on management of landscape materials and storm water management. Maintenance shall be conducted on a monthly basis at a minimum.

N4, BMP Maintenance

The project owners and/or HOA of the site will be responsible for the implementation and maintenance of each applicable non-structural BMP, as well as scheduling inspections and maintenance of all applicable structural BMP facilities through its landscape contractor and any other necessary maintenance contractors for the project site. In addition, the project owner will be required to verify treatment control BMP implementation and ongoing maintenance through inspection, self-certification, or other equally effective measure. The certification shall verify that, at a minimum, the inspection and maintenance of all structural BMPs has occurred prior to the start of the rainy season, and in accordance with frequencies outlined in the Planning Development Document prepared for the project. Maintenance frequencies are identified in Section V and shall be implemented upon completion of the project.

N11, Common Area Litter Control

Regular litter control for the entire project area shall be performed including trash pick-up on a weekly basis, and sweeping of littered common areas, as performed by the maintenance crew. In addition, pet waste receptacles will be provided throughout the project site where applicable. Proper signage regarding litter will be posted on or near trash receptacles and trash bins will have lids if not covered by canopy.

N12, Employee Training

Employees of the owner and/or HOA, as well as any contractors of the aforementioned entities will require training to ensure that employees are aware of activities that may result in pollutants reaching the storm drain. Training shall be conducted on an annual basis to ensure proper maintenance activities and daily activities are occurring.

N14, Common Area Catch Basin Inspection

Employees of the owner and/or HOA, as well as any contractors of the aforementioned entities will require training to ensure that employees are aware of activities that may result in pollutants reaching the storm drain. Training shall be conducted on an annual basis to ensure proper maintenance activities and daily activities are occurring.

N15, Street Sweeping Private Streets and Parking Lots

Street sweeping of all impervious streets and parking lots performed at a frequency that reduces or prevents sediment and debris from entering receiving waters, monthly at a minimum, and prior to the rainy season.

ROUTINE STRUCTURAL BMPs			
Name	Included	Not Applicable	If Not Applicable, State Brief Reason
Provide storm drain system stenciling and signage	☒	☐	
Design and construct outdoor material storage areas to reduce pollution introduction	☐	☒	No outdoor storage areas.
Design and construct trash and waste storage areas to reduce pollution introduction	☐	☒	No trash enclosures.
Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	☒	☐	
Protect slopes and channels and provide energy dissipation	☐	☒	No slopes or channels.
a. Properly Design: Dock areas	☐	☒	No dock areas.
b. Properly Design: Maintenance bays	☐	☒	No maintenance bays.
c. Properly Design: Vehicle wash areas	☐	☒	No vehicle wash areas.
d. Properly Design: Outdoor processing areas	☐	☒	No outdoor process areas.
e. Properly Design: Equipment wash areas	☐	☒	No equipment wash areas.
f. Properly Design: Fueling areas	☐	☒	No fueling areas.
g. Properly Design: Hillside landscaping	☐	☒	No hillsides.
h. Properly Design: Wash water control for food preparation areas	☐	☒	No food prep areas.
i. Properly Design: Community car wash racks	☐	☒	No car wash racks.

Provide storm drain system stenciling and signage

Storm drain stenciling or signage on all catch basins with the highly visible source control message “No Dumping Drains to Ocean”. This includes catch basins and grate inlets near pedestrian areas or drive aisles. Stencils shall be inspected annually and replaced as needed.

Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control

Installing and maintaining efficient irrigation systems designed to minimize water by eliminating overspray to hardscape areas and setting irrigation timing and cycle lengths in accordance with water demands, given time of year, weather, and day and night temperatures. Where feasible, includes incorporation of native tolerant species for landscaping, protection of slopes and efficient irrigation. May be used in conjunction with educational materials to homeowners as well as activity restrictions.

SITE DESIGN BMPs

The following table shows site design BMPs that are included in this project. A description of each BMPs follows:

Technique	Included?		Brief Description of Method
	Yes	No	
Minimize Impervious Area/Maximize Permeability (C-Factor Reduction)	☒	☐	Hardscape is minimized on the property where imperviousness is 80.3%. Also, infiltration BMPs will be implemented for the project to maximize retention.
Minimize Directly Connected Impervious Areas (DCIAs) (C-Factor Reduction)	☒	☐	Area drain inlets are located within landscape areas. As such, building roof drains will drain to landscaping before collecting into the area drains.
Create Reduced or "Zero Discharge" Areas (Runoff Volume Reduction)	☐	☒	
Conserve Natural Areas (C-Factor Reduction)	☐	☒	

In addition to the site design measures above, drought tolerant plants will be utilized in the project's landscape design.

LOW IMPACT DEVELOPMENT (LID) BMPs

The Los Angeles County Municipal Storm Water Permit, Order NO. R4-2012-0175 requires new development projects to retain on-site the 100% of the Stormwater Quality Design Volume (SWQDv) defined as runoff from:

a. The 0.75-inch, 24-hour rain event or

b. The 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile precipitation isohyetal map, **whichever is greater.** Except where the project is technically infeasible or where the project has an opportunity for Regional Ground Water Replenishment.

The following table shows LID BMPs that are included in this project. Note only BMPs which meet the infiltration, harvest and use, or bioretention of the SWQDv are considered acceptable. LID BMPs shall meet the design criteria of the Municipal Stormwater Permit Appendix H and the Los Angeles County LID manual (2/2014) will be considered acceptable.

LID BMPs			
Name	Yes	No	If Not Applicable, State Brief Reason
Vegetated (Grass) Strips	☐	☒	Infiltration preferred over biofiltration.
Vegetated (Grass) Swales	☐	☒	Infiltration preferred over biofiltration.
Proprietary Control Measures	☐	☒	Infiltration is feasible.
Dry Detention Basin	☐	☒	Infiltration preferred over biofiltration.
Wet Detention Basin	☐	☒	Infiltration preferred over biofiltration.
Constructed Wetland	☐	☒	Infiltration preferred over biofiltration.
Detention Basin/Sand Filter	☐	☒	Infiltration preferred over biofiltration.
Porous Pavement Detention	☐	☒	Infiltration is feasible.
Porous Landscape Detention	☐	☒	Infiltration is feasible.
Infiltration Basin	☐	☒	Other infiltration BMP selected.
Infiltration Trench	☐	☒	Other infiltration BMP selected.
Biofiltration	☐	☒	Infiltration preferred over biofiltration.
Other: RET-4 Drywell with Underground Detention	☒	☐	

It has been determined that infiltration is feasible for the proposed project due to measured infiltration rates being greater than 0.3 inches per hour. The average "measured" rate was across the wetted surface area (217 square feet side and bottom area) of the proposed infiltration drywell is 60 in/hr (modeled using measured permeability and the various soil layers). See Attachment E for details. Therefore, infiltration BMPs will be used to treat the project's DCV. Harvest and use and bioretention is not applicable and will not be used. Specific details are provided in the following sub-sections.

The infiltration system will consist of one dry well and a 48" HDPE detention pipe approximately 140 feet long. An analysis was performed to evaluate the effectiveness of infiltrating the required Design Capture Volume (DCV) and the required retention volume which includes the dry well and the supporting retention device. Our analysis uses a "flow-based" approach wherein the storm event is modeled using the design hydrograph for the design event. While flows remain below the design flow rate of the dry well, no water retention occurs. Once the storm flow exceeds the well design rate, part of the storm water is infiltrated at the maximum capacity of the well while the remaining flow is accumulated in the retention device. Once the storm flow returns to a flow rate less than the well design rate, stored water will then begin to be infiltrated and draw down based on the flow capacity of the well minus the incoming storm flow. Once the storm event is over, the remaining stored water will infiltrate at the full capacity of the dry well until gone. The final retained water in the dry well will draw down based on our transient dry well calculations.

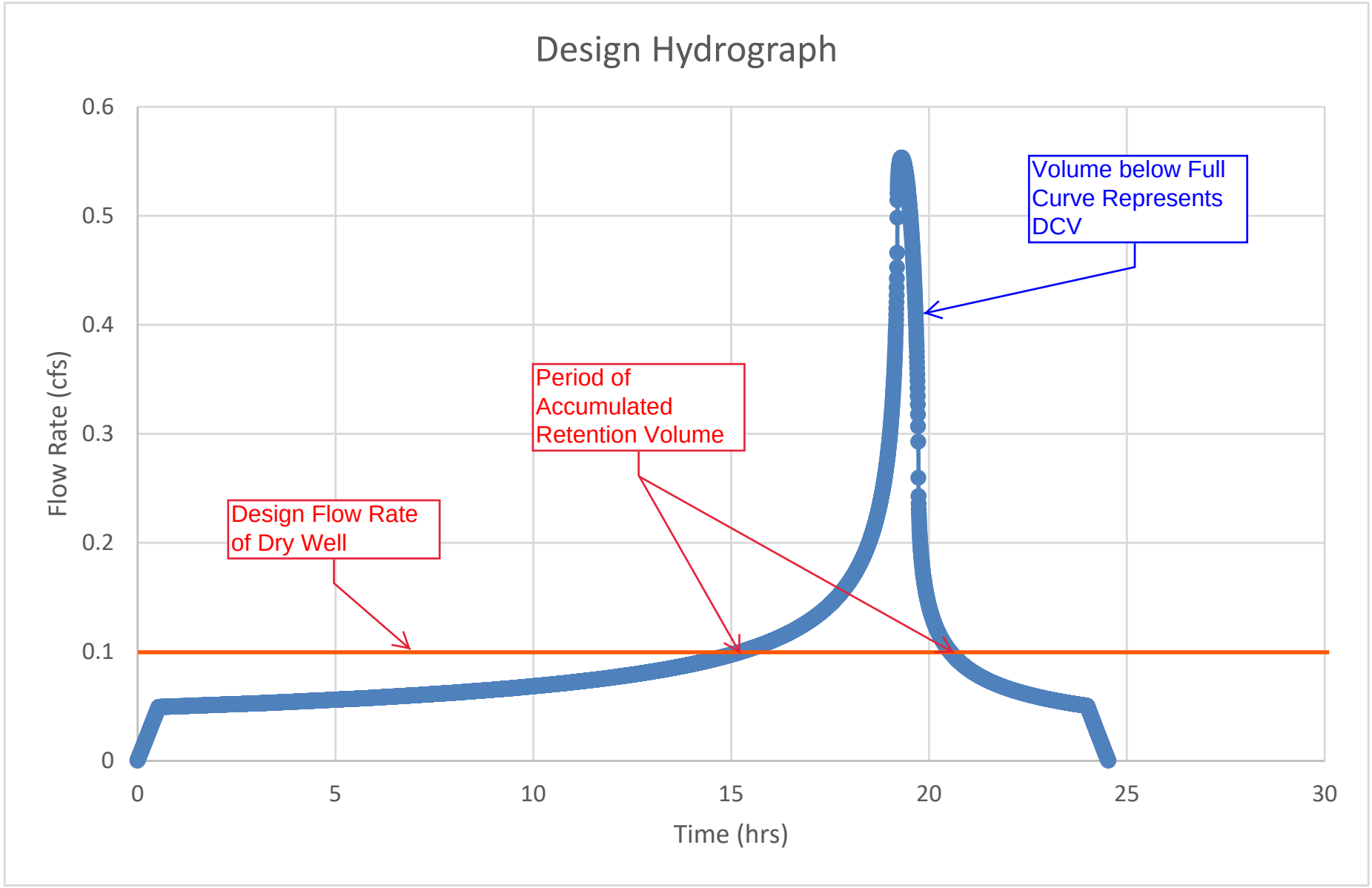
The historic shallowest groundwater level in this area is approximately 150 feet. Therefore, a Maxwell IV drywell having a total depth of 20 feet will maintain a clearance above groundwater greater than the minimum required clearance of 10 feet.

Based on the results of percolation testing and analyses, the well configuration describe here may utilize a "measured" peak flow rate of 0.30 ft^3/sec. This flow rate corresponds to an average peak infiltration rate of 60 in./hr. This flow rate and infiltration rate only apply to the well configuration evaluated and will differ for other configurations. These values are "measured" values and as such, an appropriate factor of safety should be applied to determine the "design" rates.

The design infiltration rate requires the application of a Reduction Factor in accordance with the 2021 County of Los Angeles GS200.1 guidelines. Based on the county requirements, the reduction factor (safety factor) was determined to be 3.

Based on the above reduction factor, design of the system should be based on a peak "design" flow of 0.010 cfs (0.30 cfs/3.0). Once water flow to the well has ceased, we estimate the time to empty the chamber will be approximately 0.1 hours.

Based on our analyses, the DCV of 7,988 cu-ft will be infiltrated within 27.7 hours after the storm event begins. The maximum retention volume is 1,677 cu-ft which will be required in addition to the retention capacity of the dry well. The supplemental storage device should be designed to capture flows that exceed the dry well flow capacity then flow back to the dry well once the storm flow falls below the dry well flow capacity. At 140 feet of 48" HDPE, the volume storage capacity is 1,759 cu-ft. These calculations are summarized in Attachment A and the Hydrograph Method for Drywell Sizing provided below.

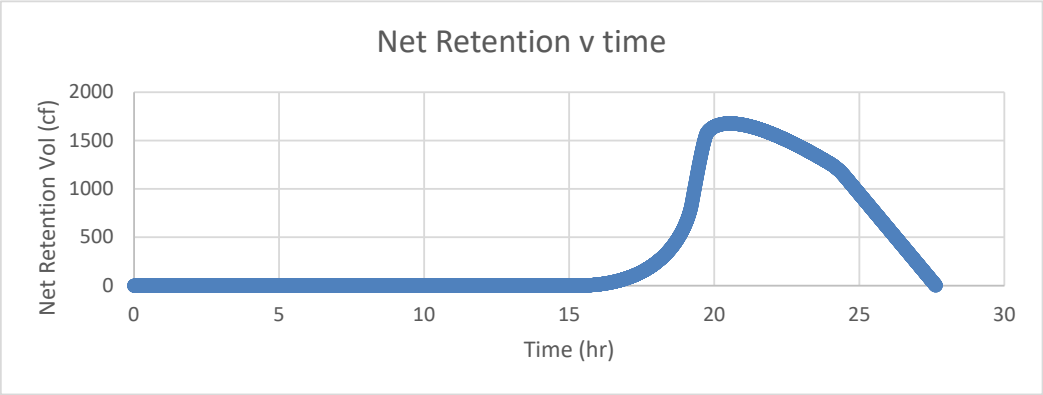

Design Hydrograph
Flow Rate (cfs)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
5
10
15
20
25
30
Time (hrs)
Volume below Full Curve Represents DCV
Period of Accumulated Retention Volume
Design Flow Rate of Dry Well

Preliminary Estimator for Dry Well Infiltration System

Hydrograph Method

J.N.: 3029.00
Client: The Olson Co.
Drainage Area ID: Total Site

Dry Well Data:		
Peak Well Flow-Measured (cfs)	0.3	
Factor of Safety	3	
Peak Well Flow-Design (cfs)	0.1	
Empty time of a well (hrs)	0.1	
Storage Volume of a Well (cuft)	200	
Number of Wells	1	
Hydrograph Data:		
Flow Rate at Begin Retention (cfs)	0.1	OK
Time at Begin Retention (hr)	15.25	
Accumulated Volume at Begin Retention (AcFt)	0.08106	
Flow Rate at End Retention (cfs)	0.1	OK
Time at End Retention (hr)	20.53	
Accumulated Volume at End Retention (AcFt)	0.1632	
Time at end of Event (hr)	24.5	
Accumulated Volume at End of Event (AcFt)	0.1834	
Treatment Data:		
Design Treatment Volume (cuft)	7988	
Allowable Drawdown Time (hrs)	96	
Analyses:		
Vol. Accumulated Above Well Peak Flow (cuft)	3578	
Duration of Peak Flow Exceedance (hr)	5.28	
Vol. Infiltrated During Exceedance of Peak (cuft)	1901	
Volume Required for Retention (cuft)	1677	
Length of 48" Retention Pipe (ft)	134	
Duration of Event (hr)	24.5	
Retention Volume at end of Event (cf)	1117	
Time Req'd to Empty Retention (hr)	3.1	
Retention Vol in Dry Well (cf)	200	
Time Req'd to Empty Dry Well (hr)	0.1	
Total Time to Drawdown Retention (hr)	3.2	
Total Time of Event + Drawdown (hr)	27.7	OK



ALTERNATIVE COMPLIANCE FOR TECHNICAL INFEASIBILITY OR OPPORTUNITY FOR REGIONAL GROUND WATER REPLENISHMENT

Alternative Compliance is not required for the proposed project, as 100% of the SWQDv will be retained onsite.

ALTERNATIVE COMPLIANCE MEASURES

Not applicable.

WATER QUALITY MITIGATION CRITERIA

Not applicable.

HYDROMODIFICATION (FLOW/VOLUME/DURATION) CONTROL CRITERIA

There are no hydrologic conditions of concern for the project site. The project site drains to hard lined channels and to major flood control channels with estimated 100-year peak flows greater than 25,000 cfs, which means it is not susceptible to hydromodification impacts (i.e., San Jose Creek and San Gabriel River). Therefore, the project site is considered exempt from hydromodification and will not be required to mitigate for 2-year pre- and post-development peak flow runoff changes.

SECTION V INSPECTION/MAINTENANCE RESPONSIBILITY FOR BMPs

It has been determined that The Olson Company shall assume all BMP inspection and maintenance responsibilities for the Claremont Tentative Tract No. 83751 project.

Contact Name:	Tom Moore
Title:	VP, Operational Planning
Company:	The Olson Company
Address:	3010 Old Ranch Parkway, Suite 100 Seal Beach, CA 90740
Phone:	(562) 682-7422
Email:	Tmoore@theolsonco.com

Should the maintenance responsibility be transferred at any time during the operational life of Tentative Tract No. 83751, such as when an HOA or POA is formed for a project, a formal notice of transfer shall be submitted to the City of Claremont at the time responsibility of the property subject to this Planning Development Document is transferred. The transfer of responsibility shall be incorporated into this Planning Development Document as an amendment.

The Owner shall verify BMP implementation and ongoing maintenance through inspection, self-certification, survey, or other equally effective measure. The certification shall verify that, at a minimum, the inspection and maintenance of all structural BMPs including inspection and performance of any required maintenance in the late summer / early fall, prior to the start of the rainy season. A form that may be used to record implementation, maintenance, and inspection of BMPs is included in Attachment C.

The City of Claremont may conduct verifications to assure that implementation and appropriate maintenance of structural and non-structural BMPs prescribed within this Planning Development Document is taking place at the project site. The Owner shall retain operations, inspections and maintenance records of these BMPs and they will be made available to the City upon request. All records must be maintained for at least five (5) years after the recorded inspection date for the lifetime of the project.

Long term funding for operations and maintenance of BMPs will be generated through HOA fees. Until an HOA is established, the Owner will provide funding for O&M. CC&Rs specifying BMP maintenance requirements of the HOA and annual HOA BMP Inspection and Maintenance budget will be finalized and submitted to the City for final review.

BMP INSPECTION & MAINTENANCE RESPONSIBILITY MATRIX				
	BMP	Inspection/Maintenance Activities	Minimum Frequency	Responsible Party
INFILTRATION BMPs				
Maxwell IV Drywell + 48" HDPE detention gallery.		The drainage system, including settling chambers and detention system should be inspected annually. Removal of deposited silt and sediment may be performed with the annual inspection, or at a minimum as follows: • When the sediment level fills 10 percent of the effective settling capacity. Maintenance should include removal of all sediment, cleaning of all filters and screens and replacement of chemical absorbents. Removed material should be disposed of at a landfill or facility that is approved to accept it. Records concerning drywell cleaning and sediment disposal should be maintained.	Annually	Owner / HOA
NON-STRUCTURAL SOURCE CONTROL BMPs				
N1	Education for Property Owners, Tenants and Occupants	Educational materials will be provided to homeowners upon occupancy (see Attachment B).	Annually	Owner / HOA

BMP INSPECTION & MAINTENANCE RESPONSIBILITY MATRIX				
	BMP	Inspection/Maintenance Activities	Minimum Frequency	Responsible Party
N2	Activity Restrictions	Activity and use restrictions will be developed and enforced by the Owner/ HOA through CC&Rs.	Ongoing	Owner / HOA
N3	Common Area Landscape Management	Maintenance shall be consistent with City requirements, plus fertilizer and/or pesticide usage shall be consistent with City of Claremont requirements. Maintenance includes mowing, weeding, and debris removal on a weekly basis. Trimming, replanting and replacement of mulch shall be performed on an as-needed basis. Trimmings, clippings, and other waste shall be properly disposed of off-site in accordance with local regulations. Materials temporarily stockpiled during maintenance activities shall be placed away from water courses and drain inlets.	Monthly	Owner / HOA
N4	BMP Maintenance	Maintenance of BMPs implemented at the project site shall be performed at the frequency prescribed in this Planning Development Document. Records of inspections and BMP maintenance shall be maintained by the Owner/HOA and documented with the Planning Development Document, and shall be available for review upon request.	Ongoing	Owner / HOA

BMP INSPECTION & MAINTENANCE RESPONSIBILITY MATRIX				
	BMP	Inspection/Maintenance Activities	Minimum Frequency	Responsible Party
N11	Common Area Litter Control	Litter patrol, violations investigation, reporting and other litter control activities shall be performed in conjunction with maintenance activities. Litter collection and removal shall be performed on a weekly basis.	Weekly	Owner/HOA
N12	Employee Training	The Owner shall educate all new employees/managers on storm water pollution prevention, particularly good housekeeping practices, prior to the start of the rainy season (October 1). Refresher courses shall be conducted annually. Materials that may be used are attached to this Planning Development Document.	Annually	Owner/HOA
N14	Common Area Catch Basin Inspection	Private catch basin inlets, area drains, swales, curb-and-gutter systems and other drainage systems shall be inspected after each storm event and, when debris is present, cleaned prior to the storm season by October 1st each year.	After each storm event and Annually	Owner/HOA
N15	Street Sweeping Private Streets and Parking Lots	Private streets and drive aisles must be swept quarterly, including prior to the start of the rainy season (October 1st).	Quarterly	Owner/HOA
STRUCTURAL SOURCE CONTROL BMPs				
Provide storm drain system stenciling and signage		Private storm drain stencils shall be inspected for legibility, at minimum, once prior to the storm season, no later than October 1st each year. Those determined to be illegible will be re-stenciled as soon as possible.	Annually	Owner/HOA

BMP INSPECTION & MAINTENANCE RESPONSIBILITY MATRIX			
BMP	Inspection/Maintenance Activities	Minimum Frequency	Responsible Party
Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	In conjunction with routine maintenance activities, verify that landscape design continues to function properly by adjusting properly to eliminate overspray to hardscape areas, and to verify that irrigation timing and cycle lengths are adjusted in accordance with water demands, given time of year, weather, day or nighttime temperatures based on system specifications and local climate patterns.	Monthly	Owner/HOA

Any waste generated from maintenance activities will be disposed of properly. Wash water and other waste from maintenance activities is not to be discharged or disposed of into the storm drain system. Clippings from landscape maintenance (i.e. prunings) will be collected and disposed of properly off-site, and will not be washed into the streets, local area drains/conveyances, or catch basin inlets.

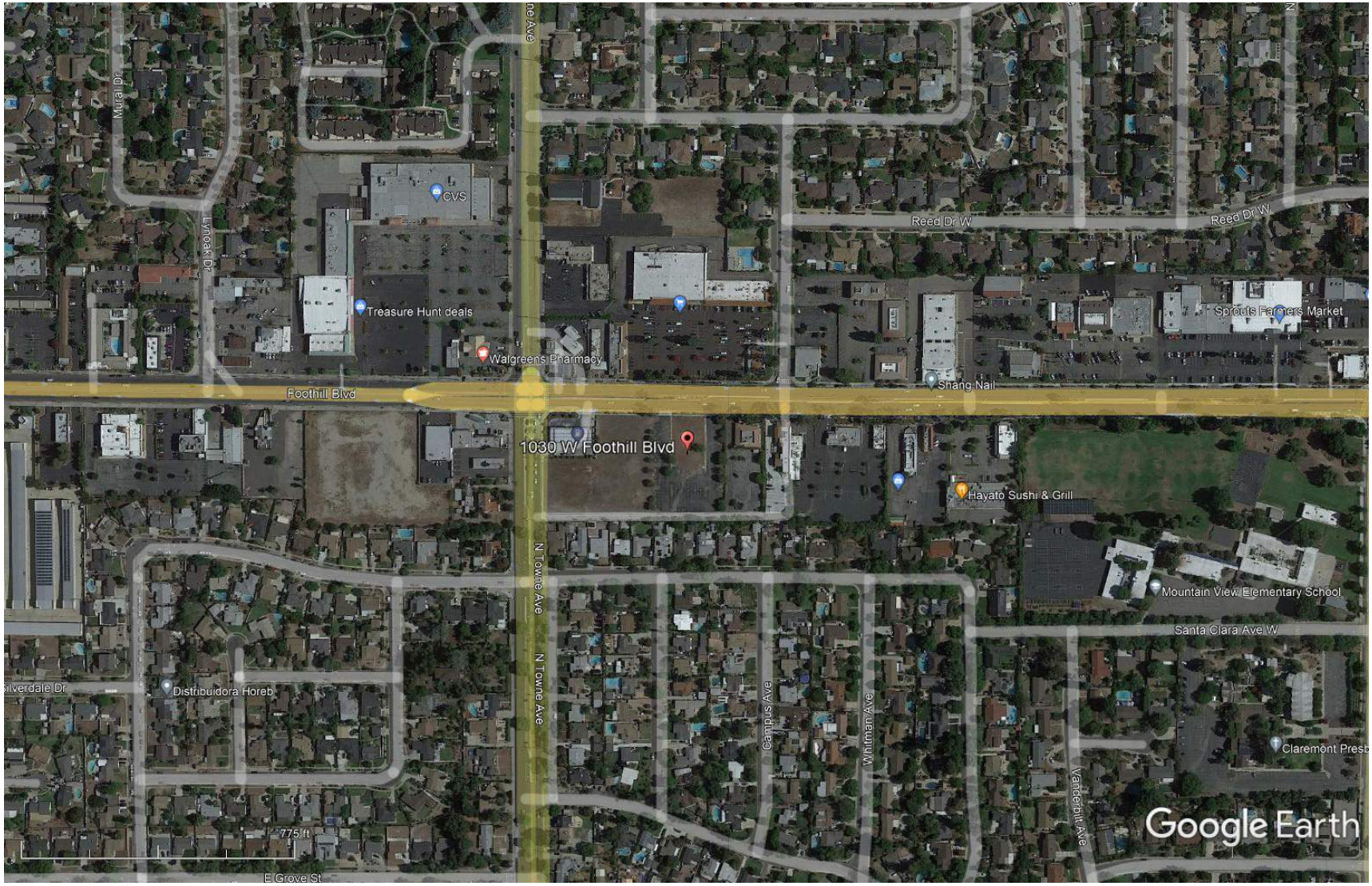
SECTION VI LOCATION MAP, PLOT PLAN & BMP DETAILS

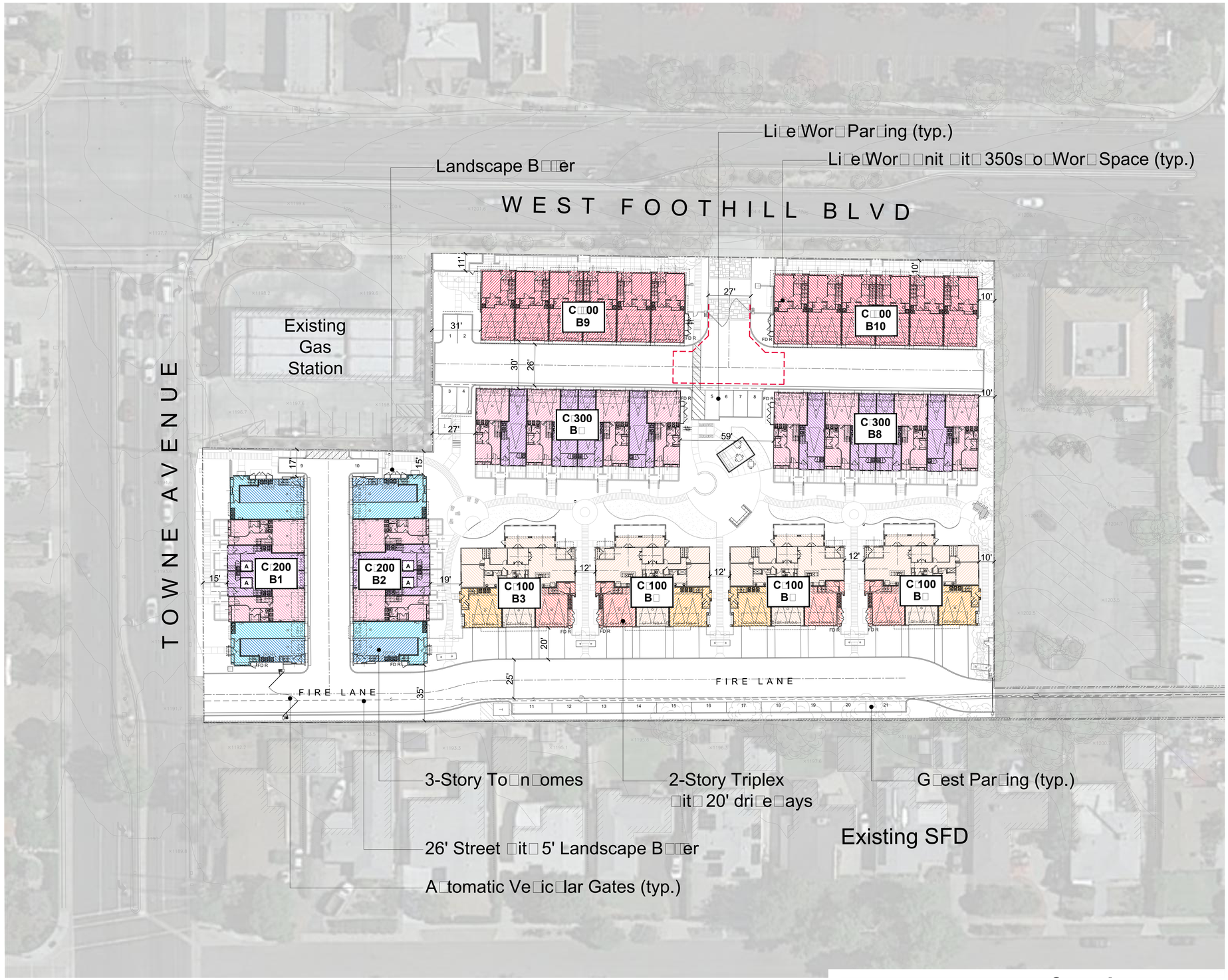
The exhibits provided in this section are to illustrate the post construction BMPs prescribed within this Planning Development Document. Drainage flow information of the proposed project, such as general surface flow lines, concrete or other surface drainage conveyances, and storm drain facilities are also depicted. All structural source control BMPs are shown as well.

EXHIBITS

- Vicinity Map
- Site Plan
- LID Schematic Exhibit
- MaxWell IV Drywell Detail
- Conceptual Grading Plan

VICINITY MAP





SITE INFORMATION
Address:1030 W. Foot□ill Bl□d.
APN: 8311-001-016
□oning: M□-3

M□-3
Commercial FAR: 1.5:1
Density: 15 d□ac
B□ilding Heig□t: 2 stories or 28'
Street Set□ac□: 10'
Set□ac□ to Residential: 10'
Open Space: 120s□□nit
Retail Par□ing: 1sp per 350s□

T□e □ollo□ing SB 1818 par□ing re□□irements apply to an entire pro□ect t□at contains set-aside a□orda□le □nits i□ re□□ested □y t□e de□eloper:
0 1 edroom nit = 1 onsite space
2 3 edroom nit = 2 onsite spaces
4 edroom nit = 2 onsite spaces
Tandem par□ing and □nco□ered par□ing is permitted
Any □ractional space is ro□nded □p to 1 □□ole space
No re□□irement □or g□est par□ing

SITE S□MMARY

De elopment Area: 3.054 ac

□nit Mix:
4 nits - P1 1213gs 2 ed 2.5 a 3-story tandem
4 nits - P1x 1268gs 2 ed 2.5 a 3-story tandem
12 nits - P2 1600gs 3 ed 3 a 3-story tandem
4 nits - P3 1654gs 3 ed 2 a 2-story sxs
12 nits - P4 1811gs 3 ed den 3.5 a 3-story sxs
4 nits - P5 1823gs 3 ed 2.5 a 2-story sxs
4 nits - P6 1855gs 4 ed 2.5 a 2-story sxs
12 nits - P7 2233gs (incl des 350s LW) 3 ed LW 3 a sxs
56 □nits - Total

Density: 18.337 d ac
Lot Co□erage: 98□980s□(74.4□)

Par□ing Re□□ired:
2□3□d - 40 □nits x 2 sp□□nit = 80 spaces
4□d - 4 □nits x 2.5 sp□□nit = 10 spaces
L□W - 12 □nits x 3 sp□□nit = 36 spaces
Total Re□□ired: 126 spaces

Par□ing Pro□ided:
112 spaces - Garages
21 spaces - Open
133 spaces - Total Pro□ided□
**total does not include additional 24 spaces on driveways*

For Open Space re□er to Landscape Dra□ings

Ar□□te□t□re □ Pla□□□□
17911 Von □arman A□e□
S□ite 200
Ir□ine□CA 92614
949.851.2133
□tgy.com

T□e Olson Company
3010 Old Ranc□ Par□□ay□S□ite 100
Seal Beac□□CA 90704

CLAREMONT
CLAREMONT□CA □ 2021-1164

Plot Date: 04.07.2022
Progress Set: 02.11.2022
1st S□□mittal Set: 04.01.2022

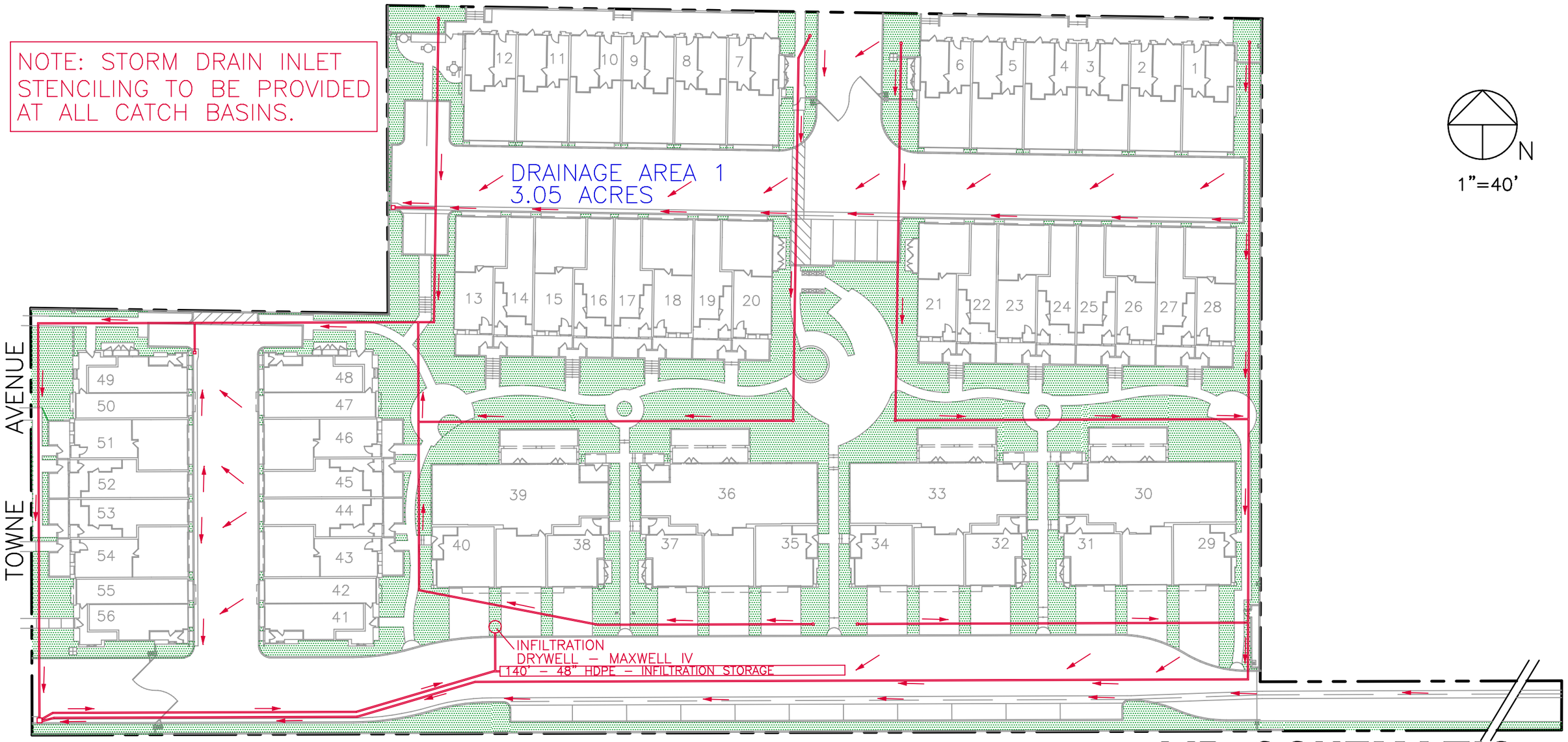
CONCEPT□AL SITE PLAN
FEBR□ARY 9□2022

0 15 30 60

A0.2

FOOTHILL BLVD.

NOTE: STORM DRAIN INLET STENCILING TO BE PROVIDED AT ALL CATCH BASINS.



N

1"=40'

REQUIRED PEAK INFITRATION RATE = 0.55 cfs
PEAK FLOW PROVIDED 0.3 cfs > FACTOR OF SAFETY 3 > 0.1 cfs DESIGN FLOW
RETENTION VOLUME REQUIRED = 1677 cf
RETENTION VOLUME PROVIDED = 1759 cf
DRAWDOWN TIME = 27.7 hours

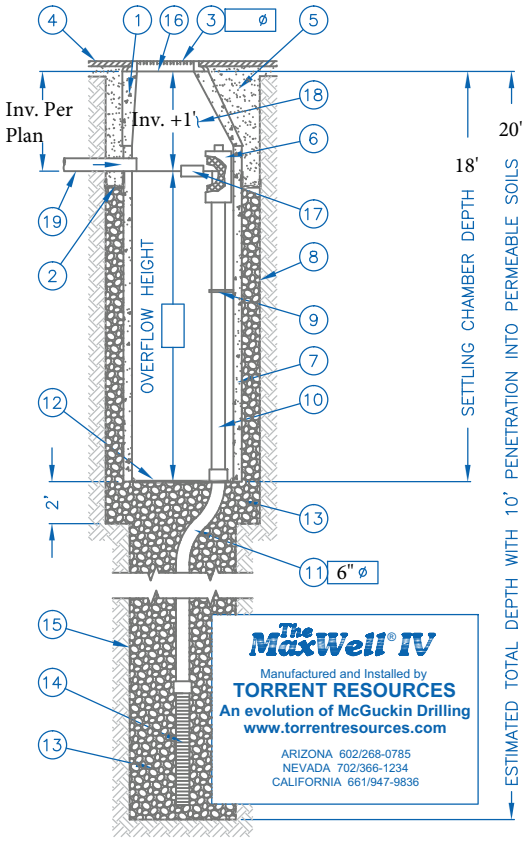
LID SCHEMATIC
CITY OF CLAREMONT
TENTATIVE TRACT NO. 83751

LATEST REVISION: 4/14/22

MAXWELL® IV DRAINAGE SYSTEM DETAIL AND SPECIFICATIONS

ITEM NUMBERS

1. **Manhole Cone** - Modified Flat Bottom.
2. **Moisture Membrane** - 6 Mil. Plastic. Applies only when native material is used for backfill. Place membrane securely against eccentric cone and hole sidewall.
3. **Bolted Ring & Grate** - Diameter as shown. Clean cast iron with wording **"Storm Water Only"** in raised letters. **Bolted in 2 locations** and secured to cone with mortar. Rim elevation ±0.02' of plans.
4. **Graded Basin or Paving** (by Others).
5. **Compacted Base Material** - 1-Sack Slurry except in landscaped installtions with no pipe connections.
6. **PureFlo® Debris Shield** - Rolled 16 ga. steel X 24" length with vented anti-siphon and Internal .265" Max. SWO flattened expanded steel screen X 12" length. **Fusion bonded epoxy coated.**
7. **Pre-cast Liner** - 4000 PSI concrete 48" ID. X 54" OD. **Center in hole** and align sections **to maximize bearing surface.**
8. **Min. 6' Ø Drilled Shaft.**
9. **Support Bracket** - Formed 12 Ga. steel. **Fusion bonded epoxy coated.**
10. **Overflow Pipe** - Sch. 40 PVC mated to drainage pipe at base seal.
11. **Drainage Pipe** - ADS highway grade with TRI-A coupler. **Suspend pipe** during backfill operations to prevent buckling or breakage. Diameter as noted.
12. **Base Seal** - Geotextile or concrete slurry.
13. **Rock** - Washed, sized between 3/8" and 1-1/2" to **best complement soil conditions.**
14. **FloFast® Drainage Screen** - Sch. 40 PVC 0.120" slotted well screen with 32 slots per row/ft.Diameter varies 120" overall length with TRI-B coupler.
15. **Min. 4' Ø Shaft** - Drilled to **maintain permeability** of drainage soils.
16. **Fabric Seal** - U.V. resistant geotextile - **to be removed by customer** at project completion.
17. **Absorbent** – Hydrophobic Petrochemical Sponge. Min. to 128 oz. capacity.
18. **Freeboard Depth** Varies with inlet pipe elevation. Increase settling chamber depth as needed to maintain all inlet pipe elevations above overflow pipe inlet.
19. **Optional Inlet Pipe** (Maximum 4", by Others). Extend moisture membrane and compacted base material or 1 sack slurry backfill below pipe invert.



AZ Lic. ROC070465 A, ROC047067 B-4, ADWR 363
CA Lic. 528080, C-42, HAZ.
NV Lic. 0035350 A - NM Lic. 90504 GF04

U.S. Patent No. 4,923,330 - ™ Trademark 1974, 1990, 2004

FOOTHILL BOULEVARD

TOWNE AVENUE

N 89°08'12" W 355.16'

N 00°17'23" W 124.99'

N 89°08'12" W 144.99'

N 00°17'23" W 273.22'

N 00°08'22" E 269.00'

N 89°48'30" E 224.94'

N 89°48'30" E 722.83'

FF=1204.1
PAD=1203.4

FF=1206.6
PAD=1205.9

FF=1203.6
PAD=1202.9

FF=1206.2
PAD=1205.5

FF=1197.6
PAD=1196.9

FF=1199.7
PAD=1199.0

FF=1201.3
PAD=1200.6

FF=1202.7
PAD=1202.0

ADA 45
FF=1196.1
PAD=1195.4

ADA 44

52 ADA
FF=1195.6
PAD=1194.9

53 ADA

49 50 51 54 55 56 48 47 46 43 42 41 40 38 37 35 34 32 31 29 39 36 33 30 12 11 10 9 8 7 6 5 4 3 2 1 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

1196.0 TOP
1188.0 INV
INFILTRATION WELL

1192.0 TC
1190.0 INV
BUBBLE UP
CATCH BASIN

LEGEND:

— — — —	TENTATIVE TRACT MAP BOUNDARY
FF= 207.50	FINISHED FLOOR ELEVATION
PAD= 206.8	PROPOSED PAD ELEVATION
	PROPOSED AREA DRAIN
	PROPOSED INLET
	PROPOSED CATCH BASIN
	PROPOSED INFILTRATION DRY WELL

TC	TOP OF CURB ELEVATION
FL	FLOW LINE ELEVATION
FS	FINISHED SURFACE ELEVATION
GF	GARAGE FLOOR ELEVATION

N

20 0 20 40 60

Scale 1" = 20'

DEVELOPER:

THE OLSON COMPANY
3010 OLD RANCH PARKWAY, SUITE 100
SEAL BEACH, CALIFORNIA 90740-2750
(562) 596-4770
ATTENTION: MR. STEVE ARMANINO

REGISTERED PROFESSIONAL ENGINEER
ALAN R. SHORT
No. 30873
EXP. 3/31/24
CIVIL
STATE OF CALIFORNIA

PREPARED BY:

7263 W Galen Drive
Herriman, UT 84096
(949) 586-5200
ALANSHORTPE@GMAIL.COM

ALAN R. SHORT, P.E.

ALAN R. SHORT, P.E.
R.C.E. 30873, EXPIRES 3/31/24

DATE: 4/14/22

CONCEPTUAL GRADING VESTING TENTATIVE TRACT NO. 83751

4/14/22

SECTION VII EDUCATIONAL MATERIALS

The following is a list of educational materials included in this DPD.

- Prevent Stormwater Pollution Tips
- Car Care Tips
- Dog Owner Tips
- Gardening Tips
- Painting Tips
- Pesticide Tips
- Recycling Tips

The brochures can be found in Attachment B.

ATTACHMENTS

Attachment A

Hydrocalc Worksheet

Peak Flow Hydrologic Analysis

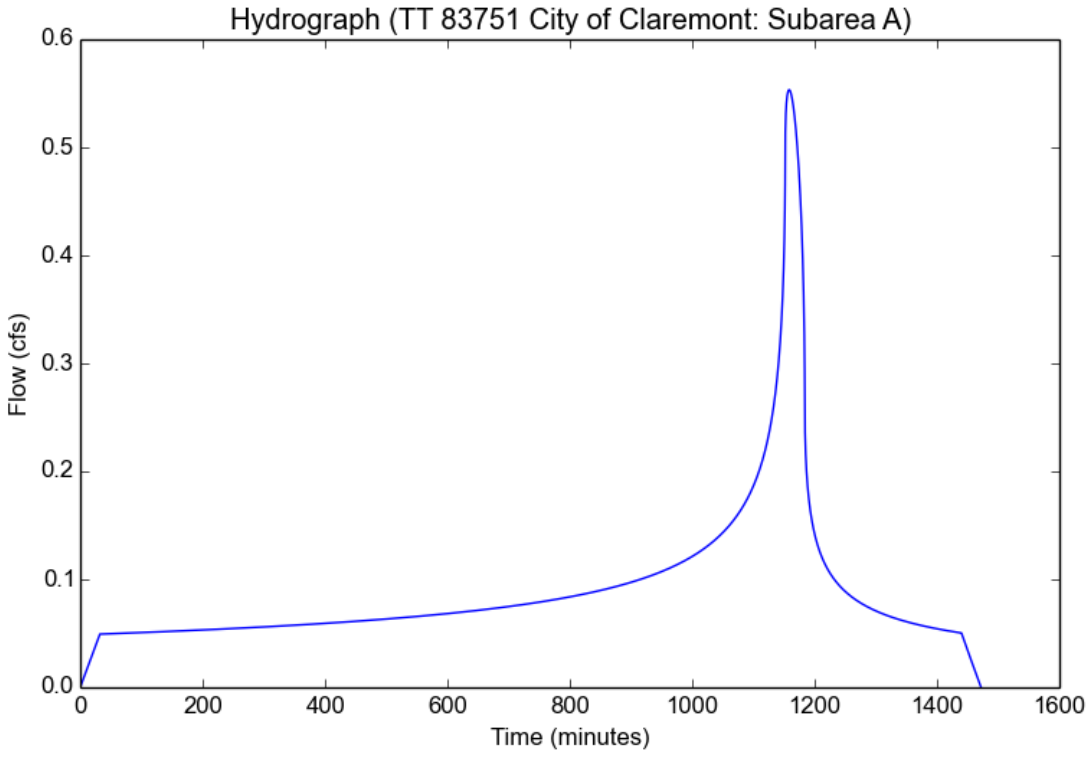
File location: E:/Claremont/TT 83751 City of Claremont - Subarea A.pdf
Version: HydroCalc 1.0.2

Input Parameters

Project Name	TT 83751 City of Claremont
Subarea ID	Subarea A
Area (ac)	3.05
Flow Path Length (ft)	760.0
Flow Path Slope (vft/hft)	0.0178
85th Percentile Rainfall Depth (in)	0.98
Percent Impervious	0.803
Soil Type	7
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	0.98
Peak Intensity (in/hr)	0.2444
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.7424
Time of Concentration (min)	32.0
Clear Peak Flow Rate (cfs)	0.5533
Burned Peak Flow Rate (cfs)	0.5533
24-Hr Clear Runoff Volume (ac-ft)	0.1834
24-Hr Clear Runoff Volume (cu-ft)	7988.6255



Attachment B

Educational Materials

Are You a Litter Bug and Don't Know It?

Take our quiz!

Have you ever...

- Dropped a cigarette butt or trash on the ground?
- Failed to pick up after your dog while out on a walk?
- Overwatered your lawn after applying fertilizers/pesticides?
- Disposed of used motor oil in the street, gutter or garbage?

If you answered **yes** to any of these actions, then **YOU ARE A LITTER BUG**!

Each of these behaviors contribute to stormwater pollution, which contaminates our ocean and waterways, kills marine life and causes beach closures.

You can become part of the solution!
To find out how, flip this card over.

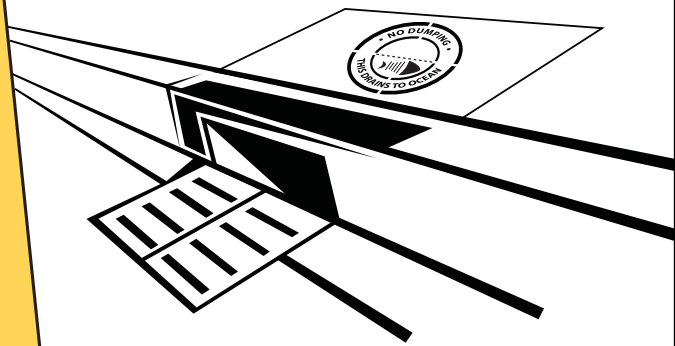
For more information, call or visit:

1 (888) CLEAN LA
www.888CleanLA.com

PROJECT Pollution PREVENTION

Follow these simple steps to prevent stormwater pollution:

- Put your garbage where it belongs — in the trash can.
- Pick up after your dog when out on a walk.
- Reduce pesticide and fertilizer use; don't overwater after application or apply if rain is forecast.
- Dispose of used motor oil at an oil recycling center or at a free Household Hazardous Waste/E-Waste collection event.



A message from the County of Los Angeles Department of Public Works.
Printed on recycled paper.

Storm Drains are for Rain...

More than 50% of the automotive oil sold to do-it-yourself oil changers is not recycled. There are more than 600 State-certified used oil collection centers within Los Angeles County.

Never dispose of automotive fluids in the street or gutter. Take them to your local auto parts store, gas station or repair shop, or a household hazardous waste Roundup for recycling.

1(888)CLEAN LA
www.888CleanLA.com

...not automotive fluids.

Car Care Tips:

You can keep your car running smoothly and efficiently, and at the same time help prevent stormwater pollution by taking these easy steps...

- When changing vehicle fluids — motor oil, transmission, brake and radiator fluids — drain them into separate drip pans to avoid spills. Do not combine these fluids. Do not dispose of these fluids in the street, gutter or garbage. It is illegal.
- If a spill occurs, use kitty litter, sawdust or cornmeal for cleanup. Do not hose or rinse with water.
- Recycle all used vehicle fluids. Call 1(888)CLEAN LA or visitwww.888CleanLA.com for the location of an auto parts store or gas station that recycles these fluids, or for the location of a local household hazardous waste Roundup.
- Regularly check and maintain your car to keep it running safely and efficiently. Water runoff from streets, parking lots and driveways picks up oil and grease drippings, asbestos from brake linings, zinc from tires and organic compounds and metals from spilled fuels and carries them to the ocean.

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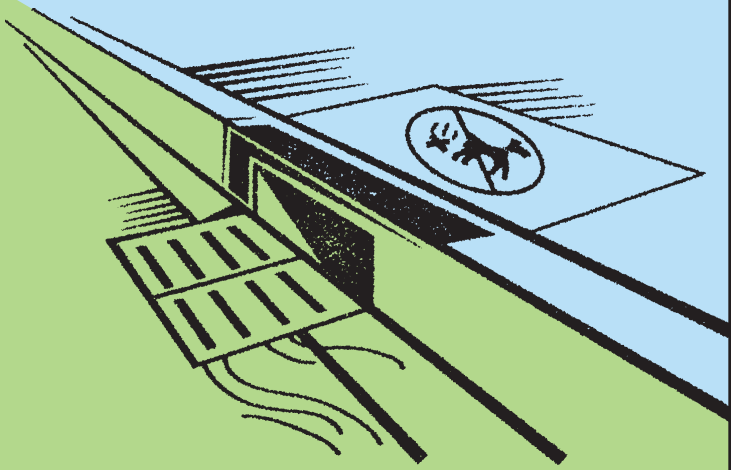
PROJECT Pollution PREVENTION

Printed on recycled paper

Pick Up After Your Pooch!



Storm drains are for rain…
they're not pooper scoopers.

L.A. County residents walk a dog without picking up the droppings more than **62,000** times per month.

Disease-causing dog waste washes from the ground and streets into storm drains and flows straight to the ocean — untreated.

Remember to bring a bag and clean up after your dog.

1 (888) CLEAN LA
www.888CleanLA.com

Tips for Dog Owners:

Dog owners can help solve the stormwater pollution problem by taking these easy steps…

- Clean up after your dog every single time.
- Take advantage of the complimentary waste bags offered in dispensers at local parks.
- Ensure you always have extra bags in your car so you are prepared when you travel with your dog.
- Carry extra bags when walking your dog and make them available to other pet owners who are without.
- Teach children how to properly clean up after a pet. Encourage them to throw the used bags in the nearest trash receptacle if they are away from home.
- Put a friendly message on the bulletin board at the local dog park to remind pet owners to clean up after their dogs.
- Tell friends and neighbors about the ill effects of animal waste on the environment. Encourage them to clean up after their pets as well.

PROJECT Pollution PREVENTION

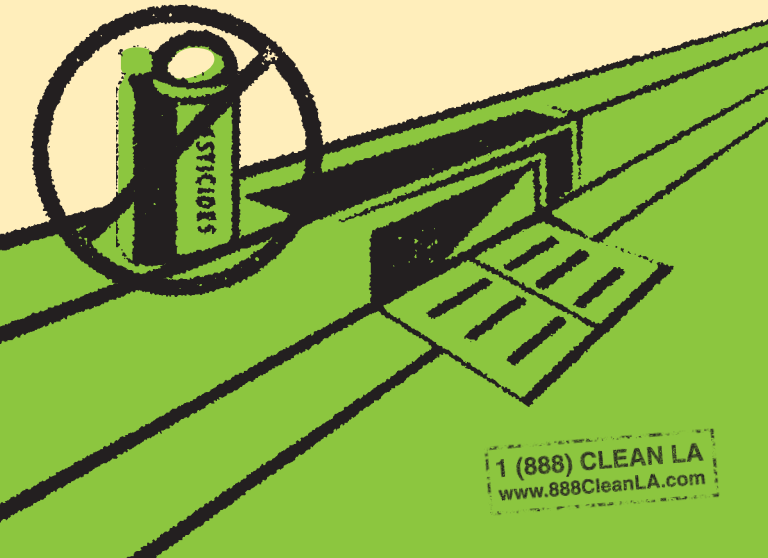
A Yard is a Terrible Thing to Waste!

Storm drains are for rain…**not yard waste.**

Residential yard waste represents about **13 percent** of the total waste generated in L.A. County.

Pesticides, fertilizer and yard waste such as leaves and mowed grass wash from the ground and streets into storm drains and flow straight to the ocean — **untreated**.

Remember to use pesticides and fertilizer wisely and pick-up yard waste.



Tips For Yard Care:

L.A. County residents can help solve the stormwater pollution problem by taking these easy steps…

- Do not over-fertilize and do not use fertilizer or pesticides near ditches, gutters or storm drains.
- Do not use fertilizer or pesticides before a rain.
- Follow the directions on the label carefully.
- Use pesticides sparingly — more is not better. "Spot" apply, rather than "blanket" apply.
- When watering your lawn, use the least amount of water possible so it doesn't run into the street carrying pesticides and other chemicals with it.
- Use non-toxic products for your garden and lawn whenever possible.
- If you must store pesticides or fertilizer, make sure they are in a sealed, water-proof container in a covered area to prevent runoff.
- Do not blow, sweep, hose or rake leaves or other yard trimmings into the street, gutter or storm drain.

PROJECT Pollution PREVENTION

A message from the County of Los Angeles Department of Public Works.
Printed on recycled paper.

Don't Paint the Town Red!

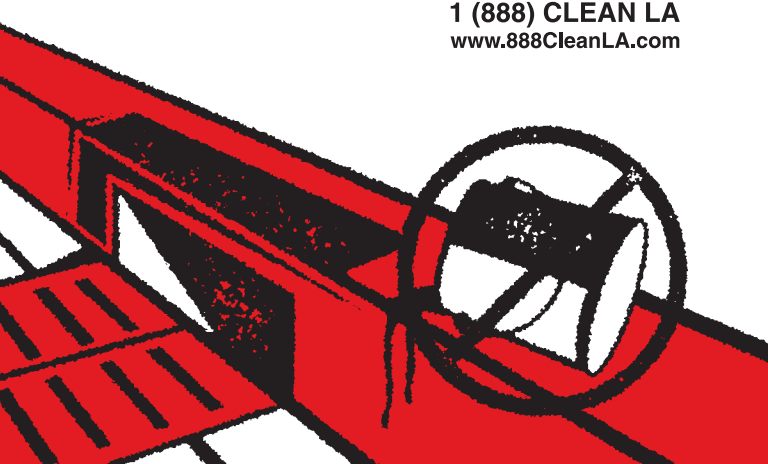
Storm drains are for rain…
they're not for paint disposal.

More than **197,000** times each month, L.A. County residents wash their dirty paint brushes under an outdoor faucet.

This dirty rinse water flows into the street, down the storm drain and straight to the ocean — **untreated**.

Remember to clean water-based paint brushes in the sink, rinse oil-based paint brushes with paint thinner, and take old paint and paint-related products to a Household Hazardous Waste/E-Waste collection event.

1 (888) CLEAN LA
www.888CleanLA.com



Tips for Paint Clean-Up:

L.A. County residents can help solve the stormwater pollution problem by taking these easy steps when working with paint and paint-related products…

- Never dispose of paint or paint-related products in the gutters or storm drains. This is called illegal dumping. Take them to a Household Hazardous Waste/E-Waste collection event. Call 1 (888) CLEAN LA or visit www.888CleanLA.com to locate an event near you.
- Buy only what you need. Reuse leftover paint for touch-ups or donate it to a local graffiti abatement program. Recycle or use excess paint.
- Clean water-based paint brushes in the sink.
- Oil-based paints should be cleaned with paint thinner. Filter and reuse paint thinner. Set the used thinner aside in a closed jar to settle-out paint particles.
- Store paints and paint-related products in rigid, durable and watertight containers with tight-fitting covers.

PROJECT Pollution PREVENTION

A message from the County of Los Angeles Department of Public Works.
Printed on recycled paper.

Storm Drains are for Rain...

More than 200,000 times each month, lawns and gardens throughout LA County are sprayed with pesticides. Overwatering or rain causes pesticides on leaves and grass to flow into the storm drain and to the ocean — untreated.

Please use pesticides wisely, not before a rain, and water carefully.

...not pesticides.

1(888)CLEAN LA
www.888CleanLA.com

Pesticide Tips:

You can keep your lawn and garden green and at the same time solve the pollution problem by taking these easy steps...

- Never dispose of lawn or garden chemicals in storm drains. This is called illegal dumping. Take them to a household hazardous waste roundup. Call 1(888)CLEAN LA or visit www.888CleanLA.com to locate a roundup or collection facility near you.
- More is not better. Use pesticides sparingly. "Spot" apply, rather than "blanket" apply.
- Read labels! Use only as directed.
- Use non-toxic products for your garden and lawn whenever possible.
- If you must store pesticides, make sure they are in a sealed, water-proof container that cannot leak.
- When watering your lawn, use the least amount of water possible so it doesn't run into the street and carry pesticide chemicals with it. Don't use pesticides before a rain storm. You will not only lose the pesticide, but also will be harming the environment.

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...they're not recycling centers.

1(888)CLEAN LA
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Recycling Tips:

You can help keep your community clean, protect our area waterways and make the beaches safe for ocean swimmers by putting recyclable materials where they belong — at a recycling center or household hazardous waste roundup. Never throw or pour anything into the streets or gutters...

- When changing vehicle fluids – transmission, hydraulic and motor oil, brake and radiator fluid – drain them into a drip pan to avoid spills. Do not combine these fluids. Do not dispose of them in the street, gutter or in the garbage. It is illegal.
- Recycle all used vehicle fluids. Call 1(888)CLEAN LA or visit www.888CleanLA.com for the location of a center that recycles these fluids, or for the location of a local household hazardous waste Roundup.
- Other materials that should be taken to a household hazardous waste Roundup are: paint and paint-related materials, household cleaners, batteries, pesticides and fertilizers, pool chemicals, and aerosol products.
- Aluminum, glass, plastic and newspapers should be placed in your curbside recycling bin or taken to a local recycling center.

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Printed on recycled paper

PROJECT Pollution PREVENTION

Attachment C

Maintenance Covenant

(placeholder for Final PDD)

RECORDING REQUESTED BY:

City of Claremont

WHEN RECORDED MAIL TO:

City Clerk
City of Claremont

SPACE ABOVE THIS LINE FOR RECORDER'S USE

MAINTENANCE COVENANT
FOR LOW IMPACT DEVELOPMENT BEST MANAGEMENT PRACTICES AND OTHER MUNICIPAL NPDES DEVELOPMENT PLANNING REQUIREMENTS

Pursuant to Chapter 8.28.050 of the Municipal Code of the City of Claremont relating to the control of pollutants carried by stormwater runoff, Low Impact Development and/or structural Best Management Practices (BMPs) have been installed on the property described more particularly below.

LEGAL DESCRIPTION

NAME OF BUSINESS: _____

ASSESSOR'S ID # _____ PARCEL NO. _____ LOT NO. _____
ADDRESS: _____

_____

I, _____ hereby certify that I am the legal owner of the property indicated above, and as such, the owner or owners for the mutual benefit of future purchasers, their heirs, successors, and assigns, do hereby fix the following protective conditions to which their property, or portions thereof, shall be held, sold and/or conveyed.

The owner or owners shall maintain the structural control devices specified in the Development Planning Document to assure that they are in good functional condition to: (1) safeguard the property owners and adjoining properties from damage; and (2) mitigate post-construction runoff pollution in accordance with municipal NPDES permit requirements. Such control devices include but are not limited to: infiltration devices, vegetative swales, various drains, inlets, catch basin inserts, roof down-drains, various vegetative infiltration controls, pipes, vortex separation systems, clarifiers, pumps, stormwater interceptors, detention/retention systems, underground stormwater distribution chambers, dry wells/french drains, or other control devices specified for the above property and shown on plans submitted by owner to the City of Claremont in accordance with Low Impact Development requirements.

The owner shall conduct a maintenance inspection of all structural control devices on the property at least once a year and retain proof of the inspection. With regard to manufactured structural controls, the owner shall maintain such controls in accordance with the inspection and maintenance schedule submitted in the approved development planning document. Said maintenance inspection shall also verify the legibility of all required stencils and signs and shall repaint and label as necessary.

The owner shall provide printed educational materials with any sale of the property which provides information on what stormwater management facilities are present, the type(s) and location(s) of maintenance signs that are required, and how the necessary maintenance can be performed.

Owner(s):

By: _____ Date: _____

By: _____ Date: _____

(PLEASE ATTACH NOTARIZATION)

Attachment D

Conditions of Approval

(placeholder for Final PDD)

Attachment E

Geotechnical Report

June 17, 2022
J.N.: 3029.00

Mr. Steve Armanino
The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, California 90740

Subject: **Preliminary Geotechnical Investigation for Proposed Water Quality Improvements, Proposed Multi-Family Residential Development, 1030 West Foothill Boulevard, Claremont, California**

Dear Mr. Armanino,

Albus & Associates, Inc. has completed a preliminary geotechnical investigation of the site for evaluation of the percolation characteristics of the site soils. The scope of this investigation consisted of the following:

- Exploratory drilling, soil sampling and test well installation
- Field percolation testing
- Laboratory testing of selected soil samples
- Engineering analysis of the data
- Preparation of this report

SITE DESCRIPTION AND PROPOSED DEVELOPMENT

Site Location and Description

The site is located at 1030 West Foothill Boulevard, within the city of Claremont, California. The west half of the site is currently undeveloped and the east half of the site is vacant. The site is bordered by single-family homes to the south, North Towne Avenue to the west, a gas station the northwest, Foothill Boulevard to the north, and a commercial building to the east. The location of the site and its relationship to the surrounding area is shown on Figure 1, Site Location Map.

The project site and overall property is relatively flat with elevation ranging from 1192 to 1206 feet above mean sea level (based on Google Earth) descending gently to the southwest.

The site consists of 3.1 acres of land. The eastern half of the site was previously occupied by a restaurant. However, the building has been demolished and wasted from the site and only the asphalt and hardscape improvements remain. The parking lot is in poor condition with numerous asphalt cracks. The western portion of the site is undeveloped. An alley likely used also as a utility easement is present along the south property line. The south and northeast property lines are bordered by a masonry block wall. Vegetation consists of medium to large trees mostly within the eastern half of the site.

N

FIGURE 1-SITE LOCATION MAP

Proposed Multi-Family Residential Development
1030 West Foothill Boulevard
Carson, California

NOT TO SCALE

Proposed Development

We understand that the site will be redeveloped for residential use. We anticipate the proposed site development will consist of attached three-story townhomes. The structures are expected to be wood-framed and developed with concrete slabs on grade yielding relatively light foundation loads. We anticipate the proposed site will also consist of associated interior driveways, perimeter/retaining walls, underground utilities, and a storm water infiltration system.

SUMMARY OF FIELD AND LABORATORY WORK

Subsurface Investigation

Subsurface explorations for this investigation were conducted on November 11, 2021 and consisted of drilling one soil boring and nine test pits. The soil boring was drilled to a maximum depth of

approximately 46.5 feet below the existing ground surface (bgs). The boring was drilled using a truck-mounted, continuous-flight, hollow-stem-auger drill rig. The test pits were excavated to the maximum depth of 10 feet below the existing ground surface utilizing a backhoe. Representatives of *Albus & Associates, Inc*. logged the exploratory borings and test pits. Visual and tactile identifications were made of the materials encountered, and their descriptions are presented on the Exploration Logs in Appendix A. The approximate locations of the borings are shown on the enclosed Geotechnical Map, Plate 1.

Bulk, relatively undisturbed and Standard Penetration Test (SPT) samples were obtained at selected depths for subsequent laboratory testing. Relatively undisturbed samples were obtained using a 3-inch O.D., 2.5-inch I.D., California split-spoon soil sampler lined with brass rings. SPT samples were obtained using a standard SPT soil sampler. During each sampling interval, the samplers were driven 18 inches with successive drops of a 140-pound automatic hammer falling 30 inches. The number of blows required to advance the sampler was recorded for each six inches of advancement. The total blow count for the lower 12 inches of advancement per soil sample is recorded on the exploration log. Samples were placed in sealed containers or plastic bags and transported to our laboratory for analyses and testing. The borings were backfilled with soil cuttings upon completion of drilling.

Two additional borings (P-1 and P-2) were drilled adjacent to boring B-1 for percolation testing. Upon completion of drilling, well materials were installed within P-1 and P-2 for subsequent percolation testing. Construction details for P-1 and P-2 consisted of 10 and 20 feet of well materials. The bottom 5 feet for both wells utilized perforated 3-inch-diameter pipe with the remaining well utilizing solid 3-inch-diameter pipe to ground surface. The joints between pipes were reinforced with duct tape and the sections of perforated pipe were covered with filter sock. The annulus space around the perforated sections were filled with gravel. Upon completion of testing, all well piping was removed from the borings and then backfilled with soil cuttings.

Percolation Testing

Percolation testing was performed on November 12, 2021, in general conformance with the constant-head test procedures outlined in the referenced Well Permeameter Method (USBR 7300-89). A water hose attached to a water source on site was connected to an inline flowmeter to measure the water flow. The flowmeter is capable of measuring flow rates up to 10 gallons per minute and as low as 0.06 gallons per minute. A valve was connected in line with the flowmeter to control the flow rate. A filling hose was used to connect the flowmeter and the test wells. Water was introduced by the filling hose near the bottom of the test wells. A water level meter with 1/100-foot divisions was used to measure the depths to water surface from the top of well casings.

Flow to the wells was terminated upon either completion of testing of all the pre-determined water levels or the flow rate exceeded the maximum capacity of the flowmeter. Measurements obtained during the percolation testing are provided in Appendix C on Plates C-1 and C-2.

Laboratory Testing

Selected soil samples of representative earth materials were tested to assist in the formulation of conclusions and recommendations presented in this report. Tests consisted of in-situ moisture contents

and dry densities, and sieve analyses. Results of laboratory testing relevant to percolation characteristics are presented in Appendix B and on the Exploration Logs in Appendix A.

ANALYSIS OF DATA

Subsurface Conditions

Artificial fill materials were generally encountered up to about 3 feet below the existing ground surface within the existing building pad located at the east half of the site and within test pit TP-7. Artificial fill was not encountered within the remaining portion of the site.

Alluvial deposits were encountered below the fill materials or at ground surface to the maximum depths explored of 46.5 feet. The alluvial materials consist of sand with varying amounts of silt and gravels, brown, dry to moist, medium dense to very dense.

A more detailed description of the interpreted soil profile at each of the boring locations, based upon the borehole cuttings and soil samples, are presented in Appendix A. The stratigraphic descriptions in the logs represent the predominant materials encountered and relatively thin, often discontinuous layers of different material may occur within the major divisions.

Groundwater

Groundwater was not encountered during this firm's subsurface exploration to a maximum depth of 46.5 feet below the existing ground surface. The CDMG Seismic Hazard Zone Report 040 indicates historic groundwater is estimated to be 150 feet below the existing ground surface.

Percolation Data

Analyses were performed to evaluate permeability using the flow rate obtained at the end of the constant-head stage of field percolation testing. These analyses were performed in accordance with the procedures provided in the referenced USBR 7300-89. The procedure essentially uses a closed-form solution to the percolation out of a small-diameter well. Using the USBR method, we calculated a composite permeability value for the head conditions maintained in the wells. The results are summarized in Table 1 below and the supporting analyses are included in Appendix C, Plates C-3 and C-4.

TABLE 1
Summary of Back-Calculated Permeability Coefficient

Test Well	Total Depth of Well (ft)	Depth to Water in Well (ft)	Height of Water in Well (ft)	Static Flow Rate (gal./min.)	Estimated Permeability, k_s (in/hr.)
P-1	10	5	5	2.95	4.4
P-2	20	15	5	8.40	12.4

Design of Dry Well

Site conditions are considered suitable for use of a dry well for infiltration of storm water. The ***infiltration rate*** in a dry well is dependent upon several factors including the soil permeabilities of the various soil layers throughout the soil mass, hydraulic gradient of water pressure head in the soil mass, and depth to groundwater. The infiltration rate is related to the permeability by Darcy's equation:

$V = ki$

Where:

V= water velocity (infiltration rate)
k= permeability
i=hydraulic gradient

The presence of differing soil layers with differing permeabilities, the variable head condition in the well shaft, and presence of ground water are factors that make determining the effective infiltration rate of a dry well somewhat complicated. We have performed the Well Permeameter tests in accordance with the test method. This test provides a means to estimate the ***Permeability Rate*** of the soils influencing the dry well, not the infiltration rate. Therefore, the effective infiltration rate must be determined using the relationship between permeability and infiltration rate as expressed by Darcy's equation. Solution of the Darcy equation essentially requires solving a differential mass balance equation. Due to these complications, the infiltration characteristics of the proposed dry well were modeled using a computer program.

Infiltration in a dry well was modeled using the software Seep/W, version 2007, by Geo-Slope International. The program allows for modeling of both partially-saturated and saturated porous medium using a finite element approach to solve Darcy's Law. The program can evaluate both steady-state and transient flow in planar and axisymmetric cases. Boundaries of the model can be identified with various conditions including fix total head, fix pressure head, fix flow rate, and head as a function of flow. Soil permeability properties can be modeled with either Fredlund et al (1994), Green and Corey (1971), Van Genuchten (1980), or Saxton et al. (1986). Only saturated permeabilities were used in our analyses.

A Seep/W model was setup with the bottom of the dry well at a depth of 20 feet below ground surface. The dry well was assumed to consist of a shaft that is 6 feet in diameter and contains a settling chamber having an inside diameter of 4 feet, outside diameter of 4.5 feet, and length of 18 feet. The annular space around the chamber between the depths of 0 and 10 feet was assumed to consist of a cement slurry. A more detailed model of the dry well design can be found on Plate 2.

The model consisted of three types of material to represent the general soil profile. The saturated permeability of material 1 was modeled to be relatively low and represents the fill soils near the surface. The saturated permeability of the primary infiltration zones, materials 2 and 3, were selected based on the coefficient of permeability estimated from percolation tests as well as laboratory gradation test results. The permeability values are summarized in Table 2.

TABLE 2
Summary of Permeability Values

Depth (ft)	Material No.	Material Type	Sat. Perm., Ks (in/hr)
0-2	1	SM (fill)	0.1
2-7.5	2	GP	12
7.5-15	3	SP	4
15-20	2	GP	12
>20	3	SP	4

Water in the well was assumed to be at a depth of 7 feet below the ground surface so a fix-head boundary was set with a total head elevation of 93 feet around the edge of the well (ground surface was set to an elevation of 100 feet).

A steady state analysis was performed to estimate the maximum inflow that the well can accommodate. Using a well as described above, we obtain a static total flow of 0.30 ft^3/sec. A plot depicting the resulting pressure head contours and flow vectors for the model is provided on Plate C-5. The average infiltration rate can be determined by taking the flow rate divided by the wetted surface area. The surface area is equal to 217 square feet which includes the side and bottom area. Based on the above flow rate and surface area, the average "measured" infiltration rate across the wetted surface area is 60 in/hr.

To evaluate the time required to empty the well once no more water is introduced, the model was reanalyzed with a variable head condition that was dependent upon the volume of water leaving the well. As water infiltrates into the surrounding soil, the volume of water remaining in the well is reduced as well as the resulting water head. A graph of the well head versus exit volume is provided in Figure 2. The function assumes a void ratio of 0.4 within the zones occupied by gravel. If some other well configuration is used, then the analyses will require updating.

The analysis was performed as a transient case over a total time of 0.28 hours. The conditions in the model were evaluated in 10 increments of time over the total duration. From our analyses, the water is evacuated from the chamber in approximately 0.24 hours. Plots depicting the resulting pressure head contours and flow vectors at selected times are provided in Appendix C on Plates C-6 through C-9. A plot of time versus water height in the well is shown on Figure 3.

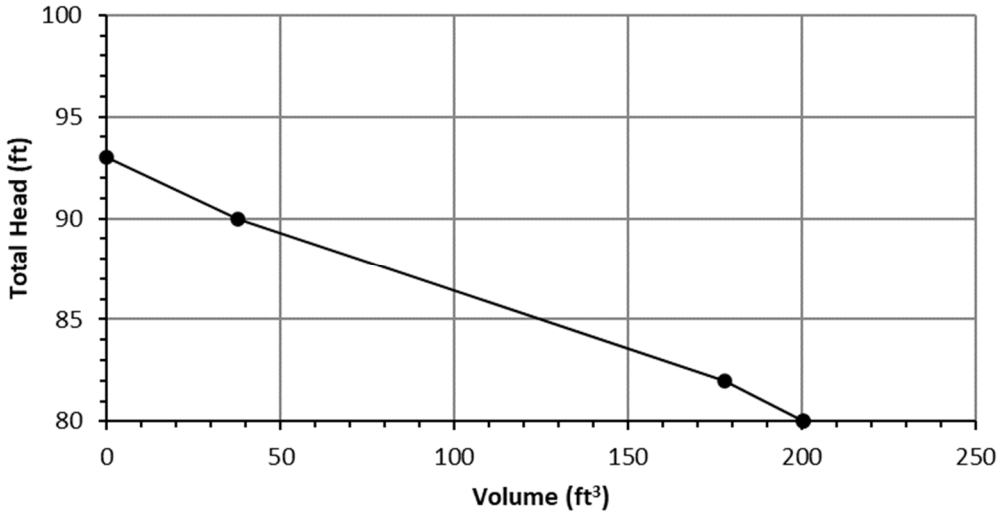


FIGURE 2- Well Head versus Exit Volume

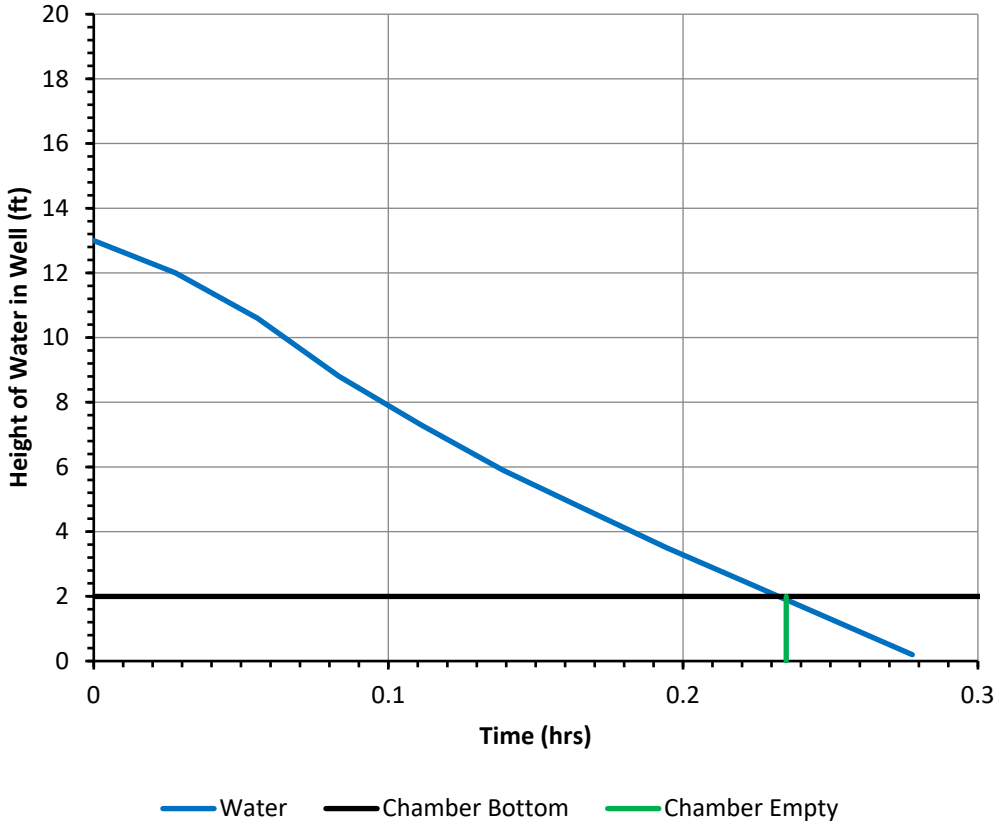


FIGURE 3- Water Head Versus Time

Design of Dry Well System

The infiltration system will consist of one dry well and a supporting retention device. An analysis was performed to evaluate the effectiveness of infiltrating the required Design Capture Volume (DVC) and the required retention volume which includes the dry well and the supporting retention device. Our analysis uses a "flow-based" approach wherein the storm event is modeled using the design hydrograph for the design event. While flows remain below the design flow rate of the dry well, no water retention occurs. Once the storm flow exceeds the well design rate, part of the storm water is infiltrated at the maximum capacity of the well while the remaining flow is accumulated in the retention device. Once the storm flow returns to a flow rate less than the well design rate, stored water will then begin to be infiltrated and draw down based on the flow capacity of the well minus the incoming storm flow. Once the storm event is over, the remaining stored water will infiltrate at the full capacity of the dry well until gone. The final retained water in the dry well will draw down based on our transient dry well calculations.

The design hydrograph was provided by the design civil engineer, Alan Short, and is presented as Plate C-10 in Appendix C. Data for the hydrograph was provided in an Excel file with incremental flow rates provided for every 0.2 minutes of the storm event. The total volume below the hydrograph curve is equal to the DCV. Retention starts at 15.25 hours into the storm event when the storm flow exceeds 0.10 cfs. Depletion of retention begins at 20.53 hours into the storm event when the storm flow drops to 0.10 cfs. The storage capacity of the dry well is 200 cuft as indicated by Figure 2.

Using this data, the various stages of infiltration were analyzed to determine the maximum retention volume needed in the supporting retention device and the total time required to infiltrate the DCV. Based on our calculations, the required supporting retention volume will be 1,677 cuft and the time required to infiltrate the DCV will be 27.7 hours of which the event occurs over 24.5 hours, leaving the system to empty about 3 hours after the end of the storm event. A summary of this calculation is provided on Plate C-11 in Appendix C.

CONCLUSIONS AND RECOMMENDATIONS

Results of our work indicate a storm water disposal system consisting of a dry well is feasible at the site. The use of a dry well is not anticipated to result in worsening any adverse conditions or hazards that may be present for the proposed site development or adjacent properties including subsidence, landsliding, or liquefaction. As discussed above, the historic shallowest groundwater level in this area is approximately 150 feet. Therefore, a dry well having a total depth of 20 feet will maintain a clearance above groundwater greater than the minimum required clearance of 10 feet.

Based on the results of percolation testing and analyses, the well configuration as depicted on Plate 2 may utilize a "measured" peak flow rate of 0.30 ft^3/sec. This flow rate corresponds to an average peak infiltration rate of 60 in./hr. This flow rate and infiltration rate only apply to the well configuration evaluated and will differ for other configurations. These values are "measured" values and as such, an appropriate factor of safety should be applied to determine the "design" rates.

The design infiltration rate requires the application of a Reduction Factor in accordance with the 2021 County of Los Angeles GS200.1 guidelines. Based on the county requirements, the reduction factor (safety factor) is determined by suming the partial reduction factors as indicated in Table 3 below.

The RFt value is prescribed by the test method used which consisted of a small diameter boring in relatively clean sands. The results should not be effected by factors such as smearing from interbedded soils or disturbance from our work. The RFv value is based site variability, number of tests, and thoroughness of the investigation. A boring was drilled in close proximity to the proposed dry well location and extended to a depth of 50 feet. Site soils are consistently granular and provide exceptional conditions for infiltration. and correlations with laboratory testing of site materials confirm the selected permeability rate obtained by the field test. The RFs value is based on the dry well providing a chamber that traps sediments and removes oils via an absorptive pillow or some other system providing for the removal of most sediment and oils before entering the dry well.

TABLE 3
Reduction Factor

Factor	Value
RFt	1.0
RFv	1.0
RFs	1.0
Total Reduction Factor (RF)	**3.0**
Note: Total Reduction Factor, RF= RFt + RFv + RFs	

Based on the above reduction factor, design of the system should be based on a peak **"design" flow of 0.010 cfs (**0.30 cfs/3.0)**.** Once water flow to the well has ceased, we estimate the time to empty the chamber will be approximately 0.1 hours.

Based on our analyses, the DCV of 7988 cuft will be infiltrated within 27.7 hours after the storm event begins and therefore meets the requirement of compete drawdown within 96 hours. The maximum **retention volume is 1,677 cuft** which will be required in addition to the retention capacity of the dry well. The supplemental storage device should be designed to capture flows that exceed the dry well flow capacity then flow back to the dry well once the storm flow falls below the dry well flow capacity.

The actual flow capacity of the dry well could be less or more than the estimated value. As such, provisions should be made to accommodate excess flow quantities in the event the dry well does not infiltrate the anticipated amount. The design also assumes that sediments will be removed from the inflowing water through an upper chamber or other device. Sediments that are allowed to enter the dry well will tend to degrade the flow capacity by plugging up the infiltration surfaces. The chamber should be checked regularly and cleared of accumulated debris and sediment at least once each year.

The well should be located at least 10 feet horizontally from any habitable structure.

In general, the dry well shaft is anticipated to be adequately stable under temporary construction conditions for uncased drilling. However, friable materials are present and will likely slough during drilling. The contractor should be prepared to install the chamber immediately following the drilling

of the shaft. Casing may be required to maintain the stability of the drilled shaft. Workers should not enter the shaft unless the excavation is laid back or shored in accordance with OSHA requirements. The placement and compaction of backfill materials, including the gravel and slurry, should be observed by the project geotechnical consultant.

LIMITATIONS

This report is based on the geotechnical data as described herein. The materials encountered in our boring excavations and utilized in our laboratory testing for this investigation are believed representative of the project area, and the conclusions and recommendations contained in this report are presented on that basis. However, soil and bedrock materials can vary in characteristics between points of exploration, both laterally and vertically, and those variations could affect the conclusions and recommendations contained herein. As such, observations by a geotechnical consultant during the construction phase of the storm water infiltration systems are essential to confirming the basis of this report.

This report has been prepared consistent with that level of care being provided by other professionals providing similar services at the same locale and time period. The contents of this report are professional opinions and as such, are not to be considered a guaranty or warranty.

This report should be reviewed and updated after a period of one year or if the site ownership or project concept changes from that described herein.

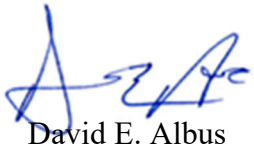
This report has been prepared for the exclusive use of **The Olson Company** to assist the project consultants in the design of the proposed development. This report has not been prepared for use by parties or projects other than those named or described herein. This report may not contain sufficient information for other parties or other purposes.

This report is subject to review by the controlling governmental agency.

We appreciate this opportunity to be of service to you. If you should have any questions regarding the contents of this report, please do not hesitate to call.

Sincerely,

ALBUS & ASSOCIATES, INC.



David E. Albus
Principal Engineer
GE 2455

Enclosures: Plate 1- Geotechnical Map
Plate 2- Dry Well Diagram
Appendix A - Exploratory Logs
Appendix B – Laboratory Testing
Appendix C - Percolation Testing and Analyses

REFERENCES

Publications and Reports

California Department of Conservation, Division of Mines and Geology, Seismic Hazard Report 040, "Seismic Hazard Zone Report for the Ontario 7.5-Minute Quadrangle, Los Angeles County, California", 2000.

Procedure for Performing Field Permeability Testing by the Well Permeameter Method, by United States Department of The Interior, Bureau of Reclamation (USBR 7300-89).

Guidelines for Geotechnical Investigation and Reporting Low Impact Development Stormwater Infiltration, by County of Los Angeles, Department of Public Works, Geotechnical and Materials Engineering Division (GS200.1 2021).

0 40 80 160

APPROX SCALE : 1" = 80'

EXPLANATION

(Locations Approximate)

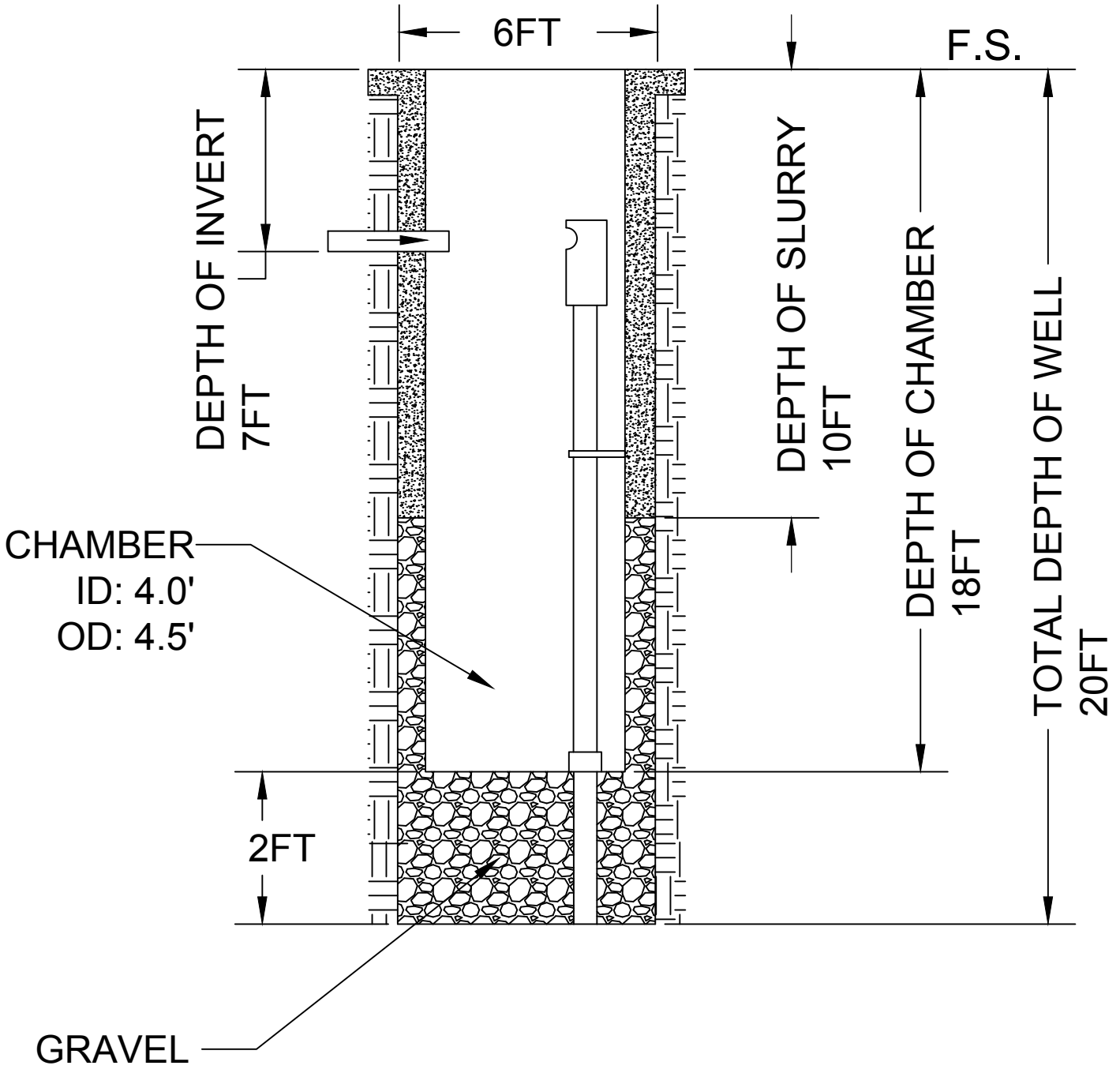
- Exploratory Boring
- Exploratory Percolation Test Boring
- Exploratory Test Pit

ALBUS ASSOCIATES

GEOTECHNICAL MAP

Job No.: 3029.00	Date: 06/17/22	Plate: 1

TYPICAL DRY WELL CONSTRUCTION



APPENDIX A

EXPLORATORY LOGS

Field Identification Sheet

Light gray

Gray

Dark gray

Gray Brown

Light brown

Brown

Dark Brown

Olive brown

Olive

Yellow

Yellowish brown

Yellowish red

Red

Reddish Brown

Tan

Description Order:

Description, Color, Moisture, Density, Grain Size, Additional Description

Description	%	Example
	0-5	Sand
trace	5-15	Sand trace Silt
with	15-30	Sand with Silt
	30+	Silty Sand

More Examples

Sand with Silt trace Clay

Sand trace Silt and Clay

Sand with Silt and Clay

Gravelly Sand with Silt trace Clay

Silty Clay with Sand trace Gravel

Moisture

Dry	absence of water
Damp	below optimum
Moist	near optimum
Very Moist	above optimum
Wet	free water visible

Density (Navfac)

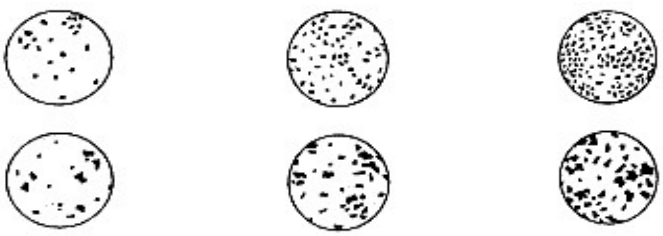
Coarse grained soils	SPT	CA
Very Loose	0-3	0-5
Loose	3-8	5-13
Medium Dense	8-14	13-22
Dense	14-25	22-40
Very Dense	25>	40>
Fine grained soils		
Very Soft	2<	0-3
Soft	2-4	3-6
Medium Stiff	4-8	6-13
Stiff	8-15	13-24
Very Stiff	15-30	24-48
Hard	30>	48>

Grain Size

Description		Sieve Size	Approx. Size
Boulders		>12"	Larger than basketball
Cobbles		3-12"	Fist to basketball
Gravel	coarse	3/4-3"	Thumb to Fist
	fine	#4-3/4"	Pea to Thumb
Sand	coarse	#10-4	Rock Salt to Pea
	medium	#40-10	Sugar to Rock Salt
	fine	#200-40	Flour to Sugar
Fines		Pass #200	Smaller than Flour

Additional Description (ie. roots, pinhole pores, debris, etc.)

Trace 5% Moderate 15% Abundant 30%



EXPLORATION LOG

Project:		Location:
Address:		Elevation:
Job Number:	Client:	Date:
Drill Method:	Driving Weight:	Logged By:

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
5		**EXPLANATION** Solid lines separate geologic units and/or material types. Dashed lines indicate unknown depth of geologic unit change or material type change. **Solid black rectangle** in Core column represents California Split Spoon sampler (2.5in ID, 3in OD). **Double triangle** in core column represents SPT sampler. **Vertical Lines** in core column represents Shelby sampler. **Solid black rectangle** in Bulk column respresents large bag sample. **Other Laboratory Tests:** Max = Maximum Dry Density/Optimum Moisture Content EI = Expansion Index SO4 = Soluble Sulfate Content DSR = Direct Shear, Remolded DS = Direct Shear, Undisturbed SA = Sieve Analysis (1" through #200 sieve) Hydro = Particle Size Analysis (SA with Hydrometer) 200 = Percent Passing #200 Sieve Consol = Consolidation SE = Sand Equivalent Rval = R-Value ATT = Atterberg Limits							
10									
15									
20									

EXPLORATION LOG

Project: Claremont (Foothill and Towne)		Location: B-1
Address: 1030 Foothill Boulevard, Claremont, CA 91711		Elevation: 1190.4
Job Number: 3029.00	Client: The Olson Company	Date: 11/12/2021
Drill Method:	Driving Weight:	Logged By: hsawyer

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		ALLUVIUM (Qal) Silty Sand (SM): Light brown, dry, medium dense, fine to medium grained sand							Max SO4 DS pH Resist Ch
				15					
		@ 4 ft, No recovery		40			N.R.		
5		@ 5 ft, Rig grinding							
		@ 6 ft, Very dense, no recovery, rock at sampler		94			N.R.		
		@ 7 ft, Decreased rig chatter							
		Sand (SP): Light brown, dry, dense, medium to coarse grained sand, trace gravel							
10		@ 9 ft, Rig chatter		32					
15		@ 15 ft, Very dense, fine to medium grained sand, trace coarse grained sand		50/ 5"					
		@ 16 ft, Rig chatter							
		@ 18 ft, Decreased rig chatter							

EXPLORATION LOG

Project: Claremont (Foothill and Towne)		Location: B-1
Address: 1030 Foothill Boulevard, Claremont, CA 91711		Elevation: 1190.4
Job Number: 3029.00	Client: The Olson Company	Date: 11/12/2021
Drill Method:	Driving Weight:	Logged By: hsawyer

Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		@ 20 ft, trace silt		78/ 8"					
		@ 22 ft, Rig chatter							
		@ 24 ft, Rig chatter							
25				50/ 5"					
30				50					
		Gravelly Sand (SP): Grayish white, dry, very dense, fine to medium grained sand, trace coarse grained sand							
		@ 32 ft, Rig chatter							
		@ 33 ft, Less rig chatter							
		@ 34 ft, Rig chatter							
35		Sand (SP): Reddish brown, moist, very dense, fine to coarse grained sand, trace silt, trace gravel, possible cobble		80/ 7"					
		@ 38 ft, Rig chatter							

EXPLORATION LOG

Project: Claremont (Foothill and Towne)		Location: B-1
Address: 1030 Foothill Boulevard, Claremont, CA 91711		Elevation: 1190.4
Job Number: 3029.00	Client: The Olson Company	Date: 11/12/2021
Drill Method:	Driving Weight:	Logged By: hsawyer

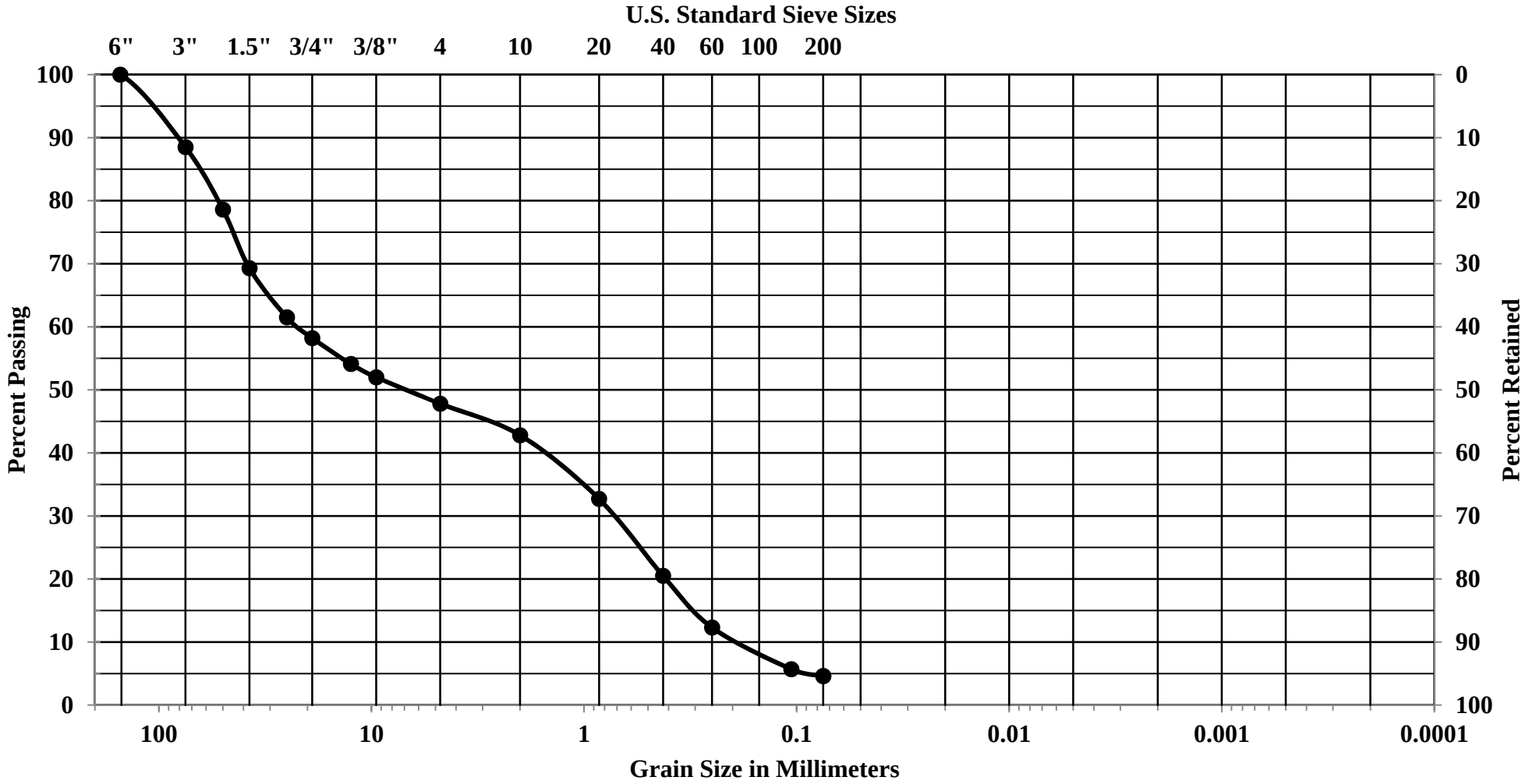
Depth (feet)	Lith-ology	Material Description	Water	Samples: Blows Per Foot	Samples: Core	Samples: Bulk	Laboratory Tests: Moisture Content (%)	Laboratory Tests: Dry Density (pcf)	Laboratory Tests: Other Lab Tests
		@ 40 ft, Decrease silt		82/ 8"	■				
		@ 43 ft, Rig chatter							
45		Silty Sand (SM): Reddish brown, moist, very dense, fine to medium grained sand, trace coarse grained sand, trace gravel		64	■				
		Sand (SP): Reddish brown, moist, very dense, medium to coarse grained sand, trace gravel			■				
		End of boring at 46.5 feet due to refusal. No groundwater encountered. Backfilled with soil cuttings.							

APPENDIX B

LABORATORY TEST PROGRAM

GRAIN SIZE DISTRIBUTION

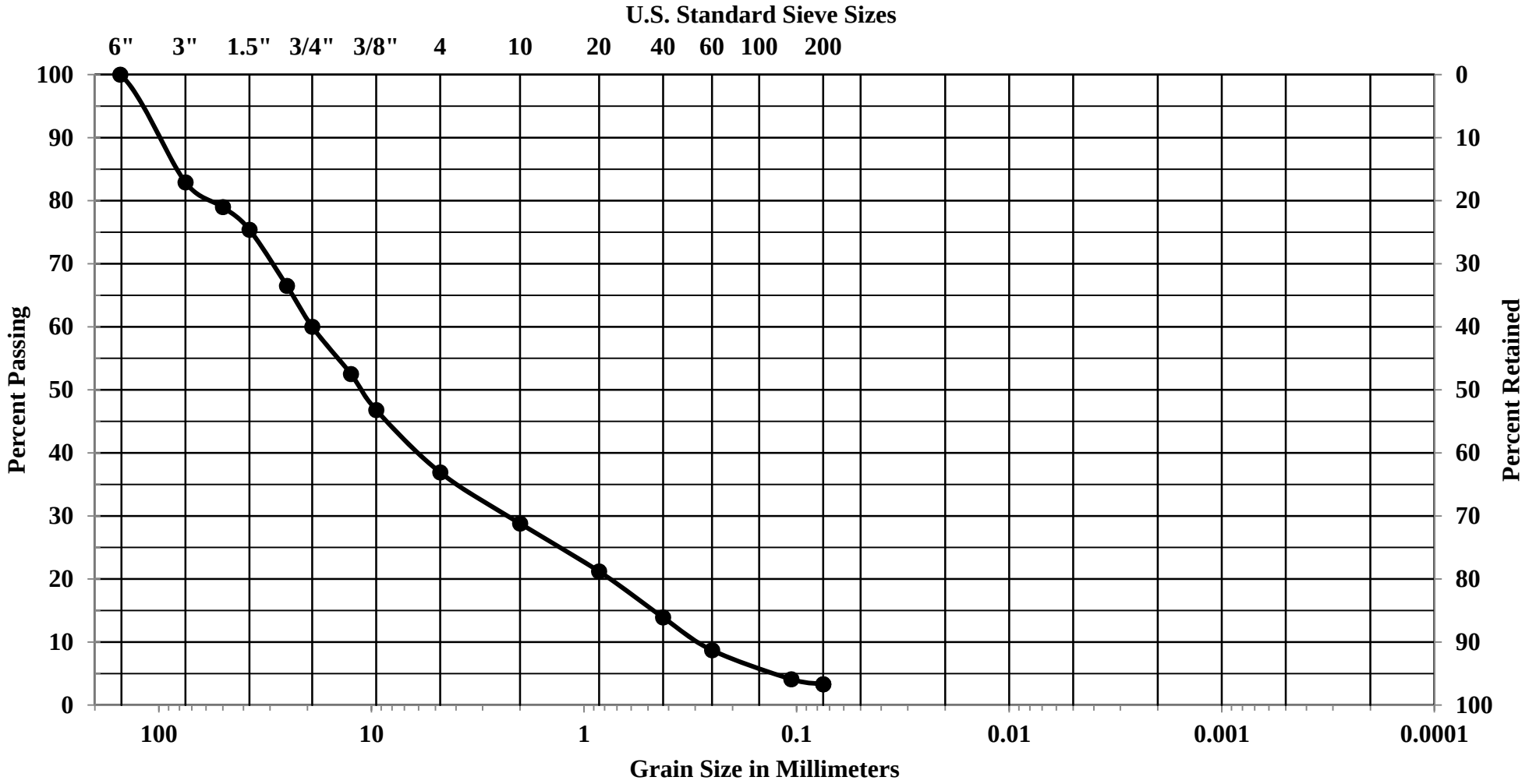
COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	



Job Number	Location	Depth	Description
3029.00	TP-2	5	Sandy Gravel (GW)

GRAIN SIZE DISTRIBUTION

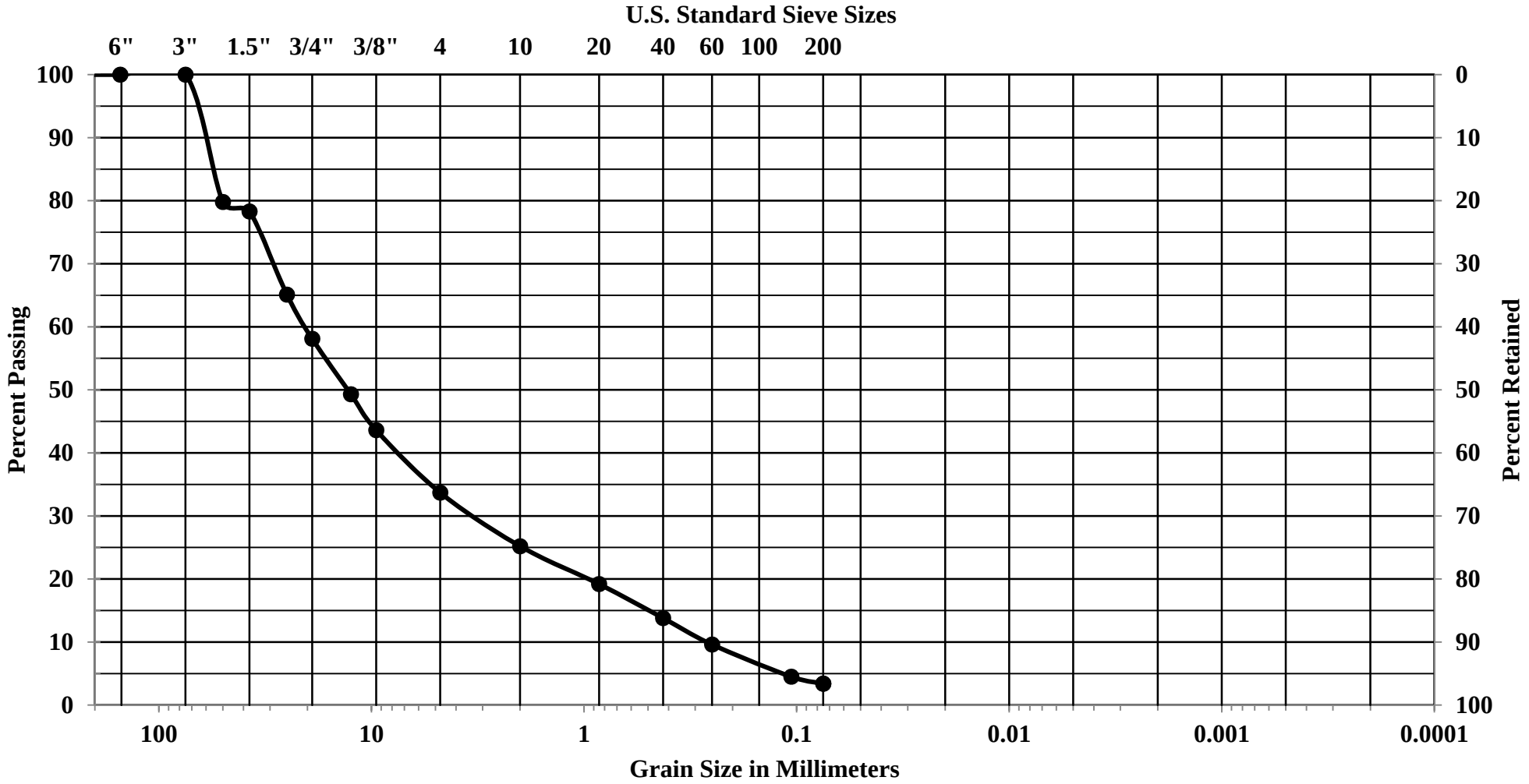
COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	



Job Number	Location	Depth	Description
3029.00	TP-3	6.5	Sandy Gravel (GP)

GRAIN SIZE DISTRIBUTION

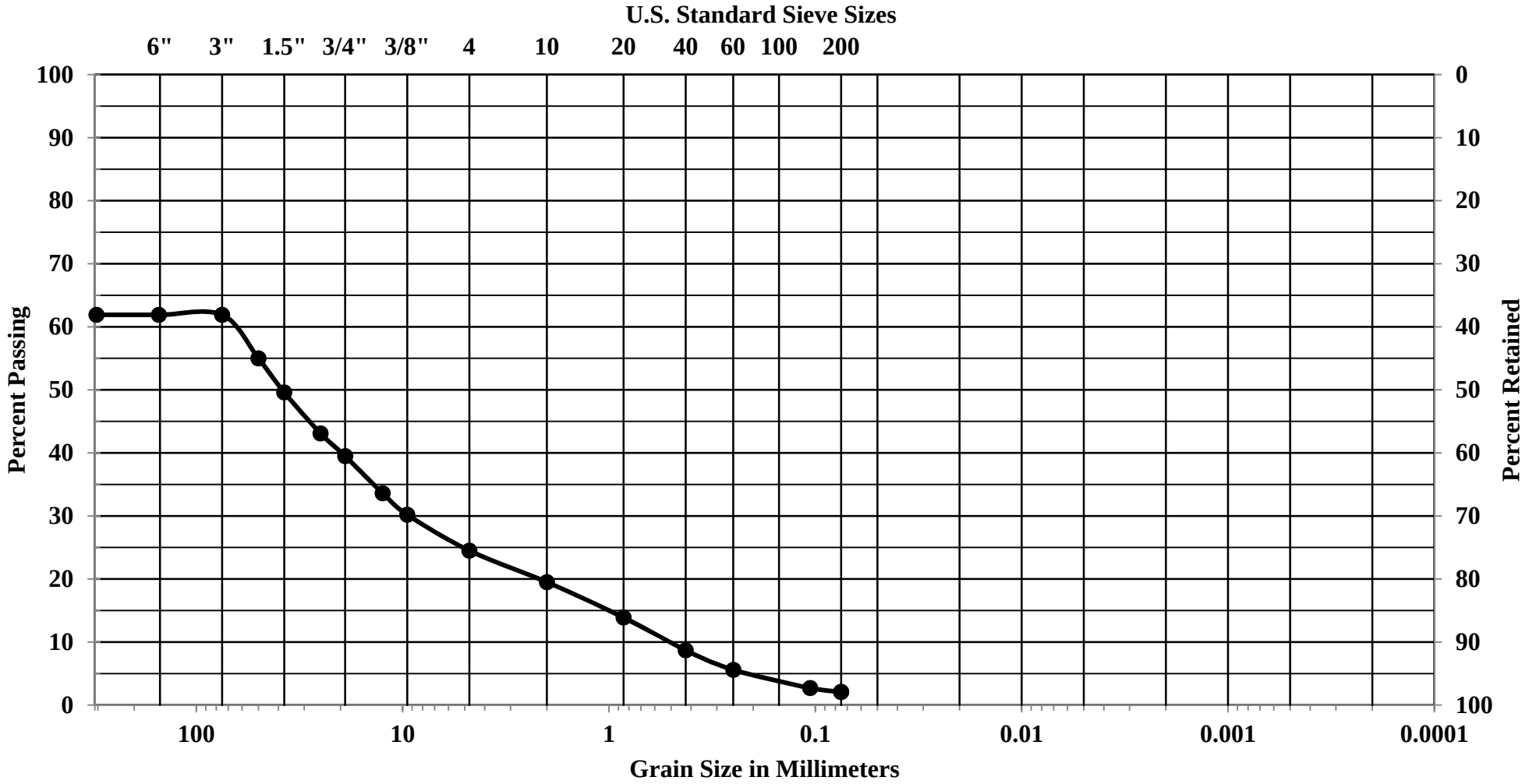
COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	



Job Number	Location	Depth	Description
3029.00	TP-4	3	Sandy Gravel (GP)

GRAIN SIZE DISTRIBUTION

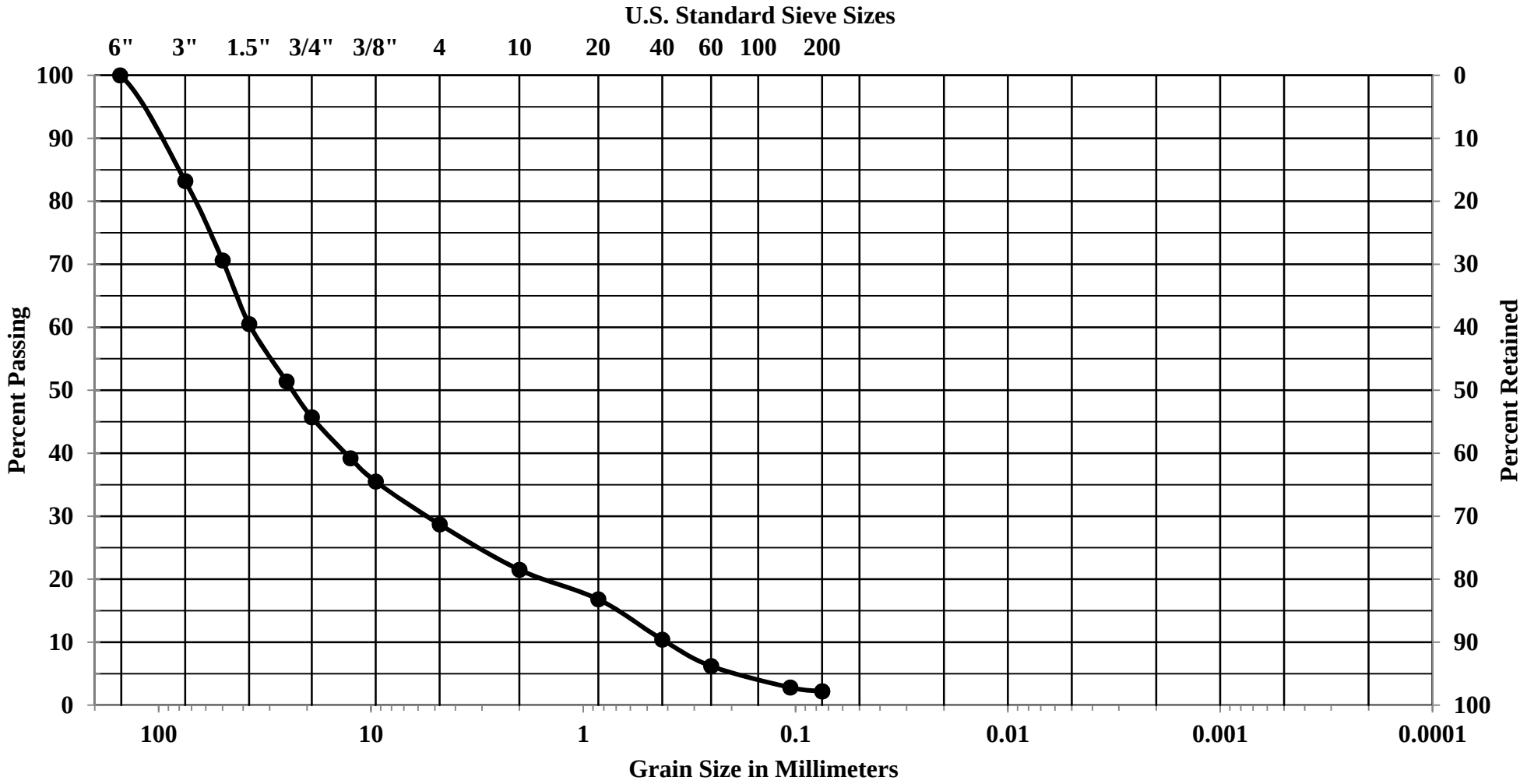
COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	



Job Number	Location	Depth	Description
3029.00	TP-5	5	Sandy Gravel (GP)

GRAIN SIZE DISTRIBUTION

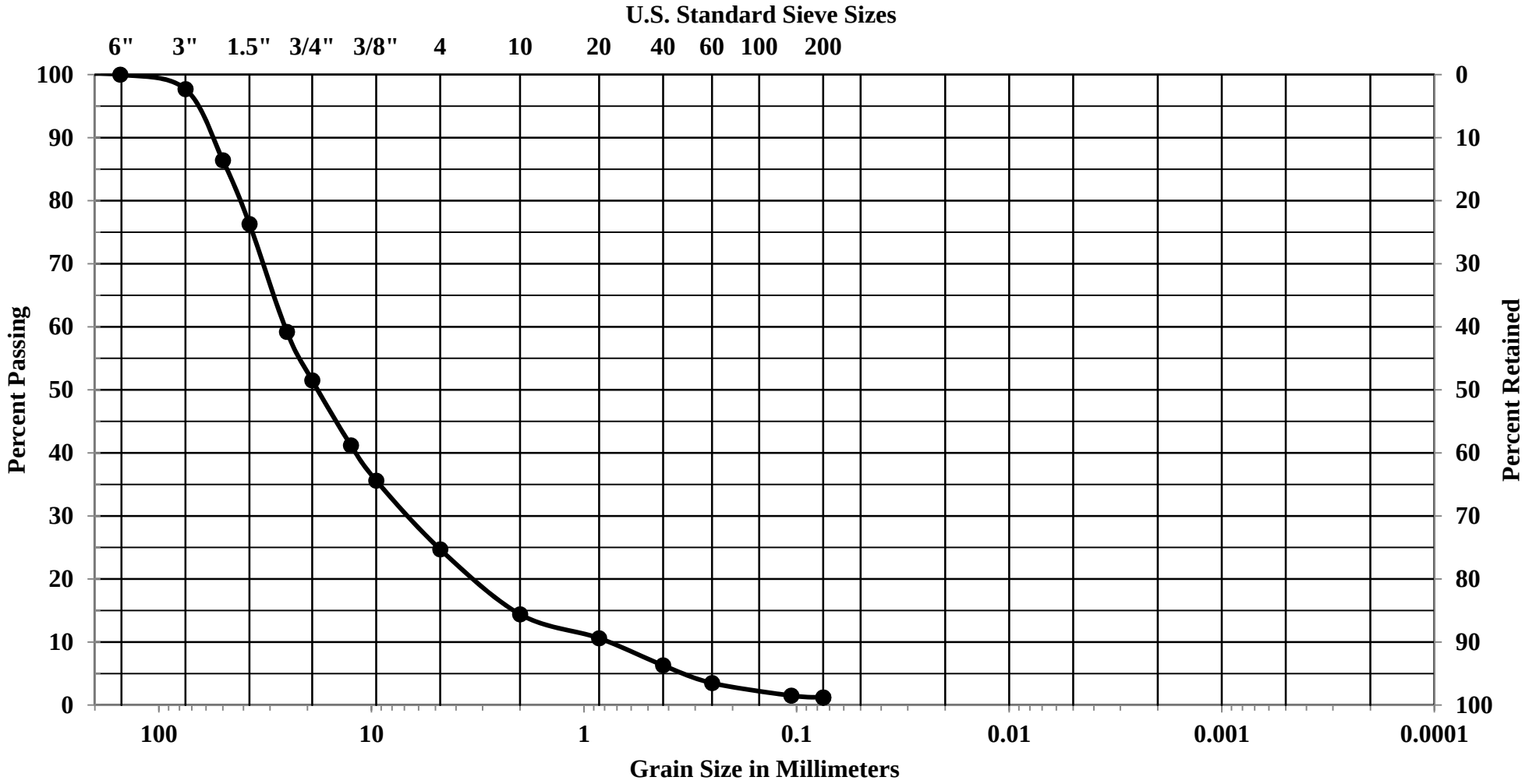
COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	



Job Number	Location	Depth	Description
3029.00	TP-6	4	Sandy Gravel (GP)

GRAIN SIZE DISTRIBUTION

COBBLES	GRAVEL		SAND			SILT AND CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	



Job Number	Location	Depth	Description
3029.00	TP-6	8	Gravel with Sand (GP)

APPENDIX C

PERCOLATION TESTING AND ANALYSES

Field Percolation Testing - Constant Head

Client: The Olson Company

Job. No.: 3029.00

Date Tested: 11/12/2021

Test by: mprincipe

Location: P-1

Top of Casing to Bottom of Well (ft): 10

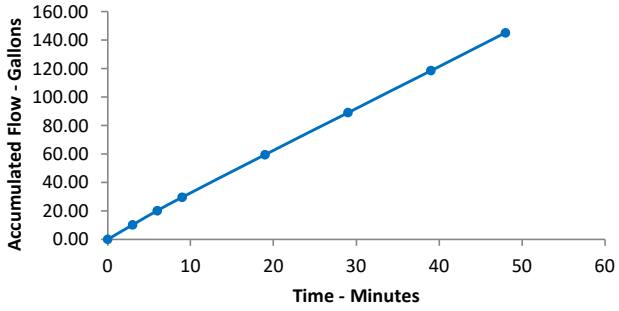
Elev. of Ground Surface (ft): 1119

Diam. of Test Hole (in): 8

Diam. of Casing (in): 3

Ht. to Top of Casing (ft): 0

Water Tempurature (C°): 21



Constant Head

Elapsed Time (minutes)	Time	Depth to H2O (ft)	Flow Rate (gal./min.)	Total H_2O used (gal)
0	12:12	5	3.52	0.00
3	12:15	5	3.23	10.13
6	12:18	5	3.04	20.25
9	12:21	5	2.95	29.65
19	12:31	5	2.95	59.61
29	12:41	5	2.95	89.11
39	12:51	5	2.95	118.61
48	13:00	5.00	2.95	145.16

Field Percolation Testing - Constant Head

Client: The Olson Company

Job. No.: 3029.00

Date Tested: 11/12/2021

Test by: mprincipe

Location: P-2

Top of Casing to Bottom of Well (ft): 20

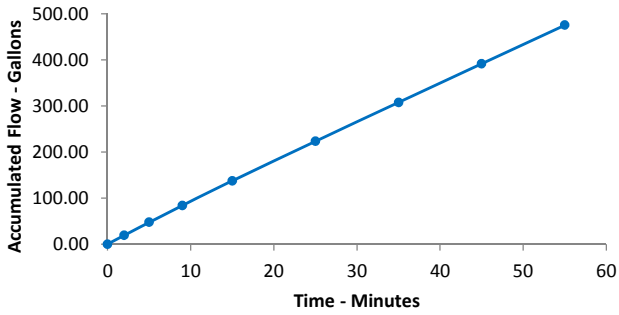
Elev. of Ground Surface (ft): 1119

Diam. of Test Hole (in): 8

Diam. of Casing (in): 3

Ht. to Top of Casing (ft): 0

Water Tempurature (C°): 21



Constant Head

Elapsed Time (minutes)	Time	Depth to H2O (ft)	Flow Rate (gal./min.)	Total H_2O used (gal)
0	13:10	15	9.70	0.00
2	13:12	15	9.30	19.00
5	13:15	15	9.00	47.50
9	13:19	15	8.80	84.10
15	13:25	15	8.40	137.50
25	13:35	15	8.40	223.50
35	13:45	15	8.40	307.50
45	13:55	15	8.40	391.50
55	14:05	15	8.40	475.50

INFILTRATION WELL DESIGN

Constant Head
USBR 7300-89 Method
J.N.: 3029.00
Client: The Olson Company
Well No.: P-1

Low Water Table	Condition 1	
High Water Table & Water Below Bottom of Well	Condition 2	
High water Table with Water Above the Well Bottom	Condition 3	
		Units:
Enter Condition (1, 2 or 3):	1	
Ground Surface to Bottom of Well (**h_1**):	10	feet
Depth to Water (**h_2**):	5	feet
Height of Water in the Well (h_1-h_2=**h**):	5	feet
Radius of Well (**r**):	4.0	Inches
Minimum Volume Required:	1473.4	Gal.
Discharge Rate of Water Into Well for Steady-State Condition (**q**):	2.95	Gal/min.
Temperature (**T**):	21	Celsius
(Viscosity of Water @ Temp. T) / (Viscosity of water @ 20° C) (**V**):	0.9647	ft^3/min.
Unsaturated Distance Between the Water Surface in the Well and the Water table (**T_u**):		Ignore T_u
Factor of Safety:	1	
Coefficient of Permeability @ 20° C (**k_{20}**):	6.04E-03	ft/min.
Design k_{20}:	4.35	in./hr.

The presence or absence of a water table or impervious soil layer within a distance of less than three times that of the water depth in the well (measured from the water surface) will enable the water table to be classified as **Condition I**, **Condition II**, **Condtion III**.

Low Water Table-When the distance from the water surface in the test well to the ground water table, or to an impervious soil layer which is considered for test puposes to be equivalent to a water table, is greater than three times the depth of water in the well, classify as **Condition I**.

High Water Table-When the distance from the water surface in the test well to the ground water table or to an impervious layer is less than three times the depth of water in the well, a high water table condition exists. Use **Condition II** when the water table or impervious layer is below the well bottom. Use **Condition III** when the water table or impervious layer is above the well bottom.

INFILTRATION WELL DESIGN

Constant Head
USBR 7300-89 Method
J.N.: 3029.00
Client: The Olson Company
Well No.: P-2

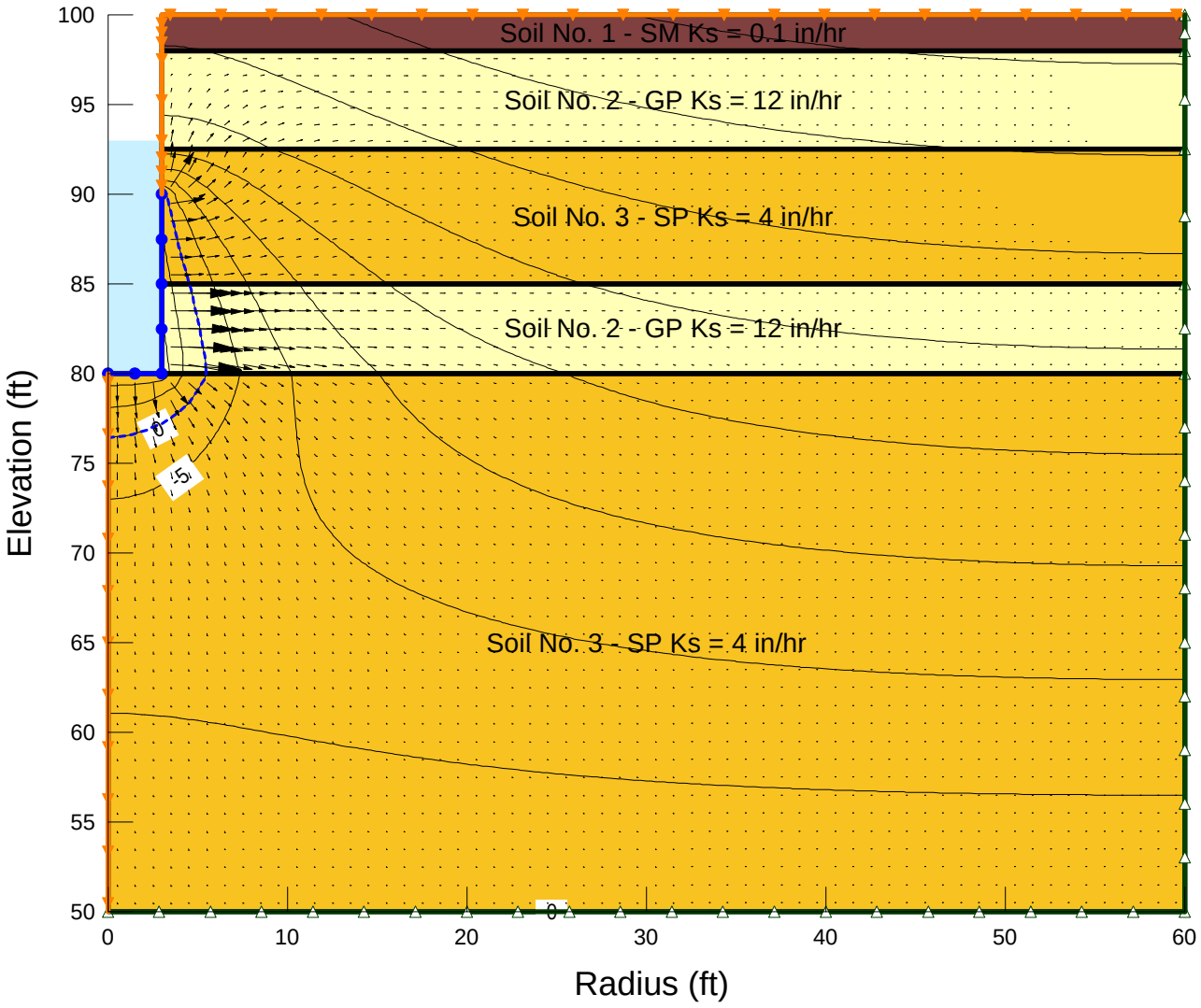
Low Water Table	Condition 1	
High Water Table & Water Below Bottom of Well	Condition 2	
High water Table with Water Above the Well Bottom	Condition 3	
		Units:
Enter Condition (1, 2 or 3):	1	
Ground Surface to Bottom of Well (h_1):	20	feet
Depth to Water (h_2):	15	feet
Height of Water in the Well (h_1-h_2=**h**):	5	feet
Radius of Well (**r**):	4.0	Inches
Minimum Volume Required:	1473.4	Gal.
Discharge Rate of Water Into Well for Steady-State Condition (**q**):	8.4	Gal/min.
Temperature (**T**):	21	Celsius
(Viscosity of Water @ Temp. T) / (Viscosity of water @ 20° C) (**V**):	0.9647	ft^3/min.
Unsaturated Distance Between the Water Surface in the Well and the Water table (T_u):		Ignore T_u
Factor of Safety:	1	
Coefficient of Permeability @ 20° C (k_{20}):	1.72E-02	ft/min.
Design k_{20}:	12.38	in./hr.

The presence or absence of a water table or impervious soil layer within a distance of less than three times that of the water depth in the well (measured from the water surface) will enable the water table to be classified as **Condition I**, **Condition II**, **Condtion III**.

Low Water Table-When the distance from the water surface in the test well to the ground water table, or to an impervious soil layer which is considered for test puposes to be equivalent to a water table, is greater than three times the depth of water in the well, classify as **Condition I**.

High Water Table-When the distance from the water surface in the test well to the ground water table or to an impervious layer is less than three times the depth of water in the well, a high water table condition exists. Use **Condition II** when the water table or impervious layer is below the well bottom. Use **Condition III** when the water table or impervious layer is above the well bottom.

STEADY STATE



Contours are Pressure Head in Feet.
Arrows indicate direction of flow and relative magnitude of velocity.

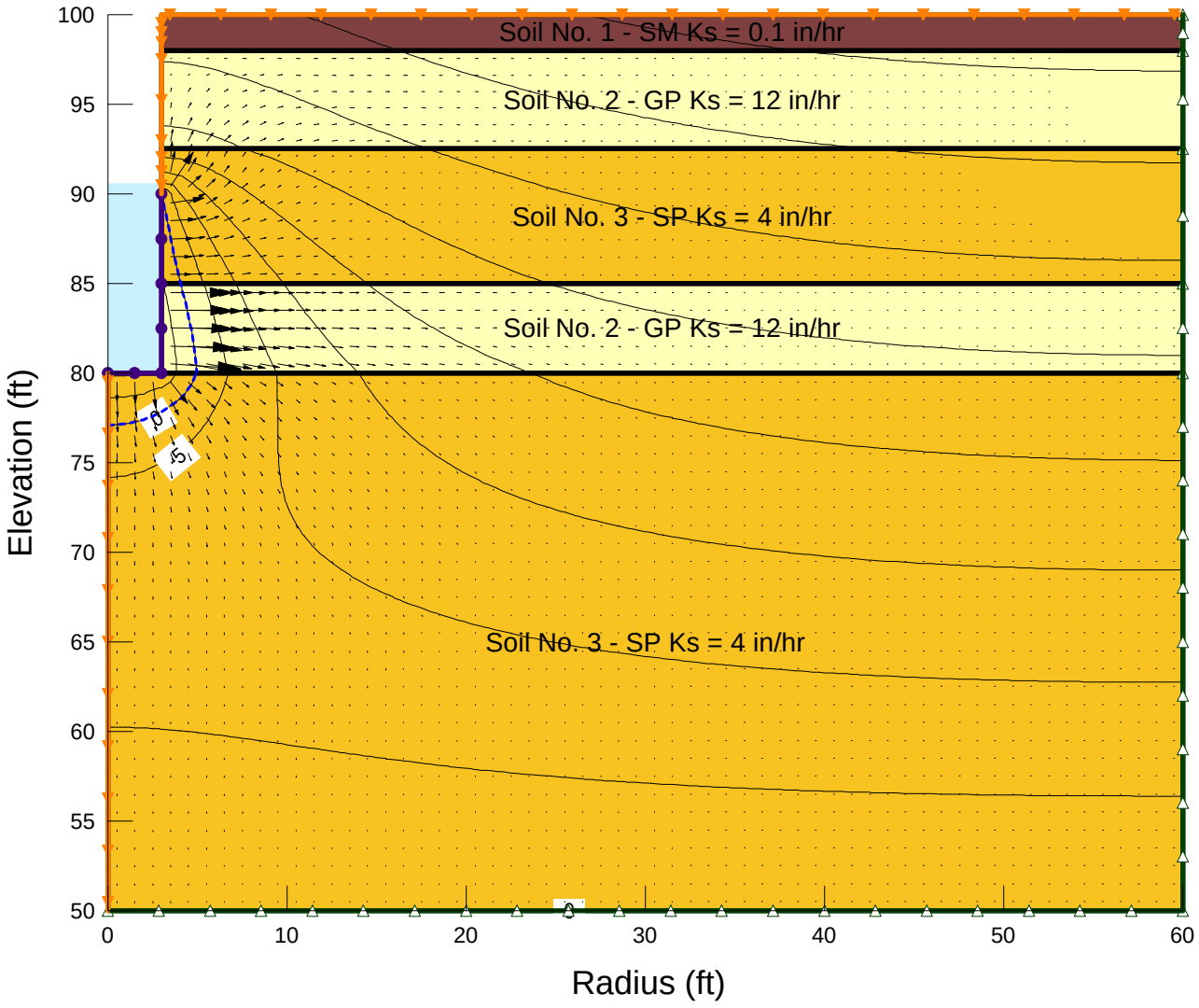
LEGEND

Zero Flux

Potential Seepage Face

Fixed Total Head = **93 FT**

TRANSIENT @ 0.056 hrs

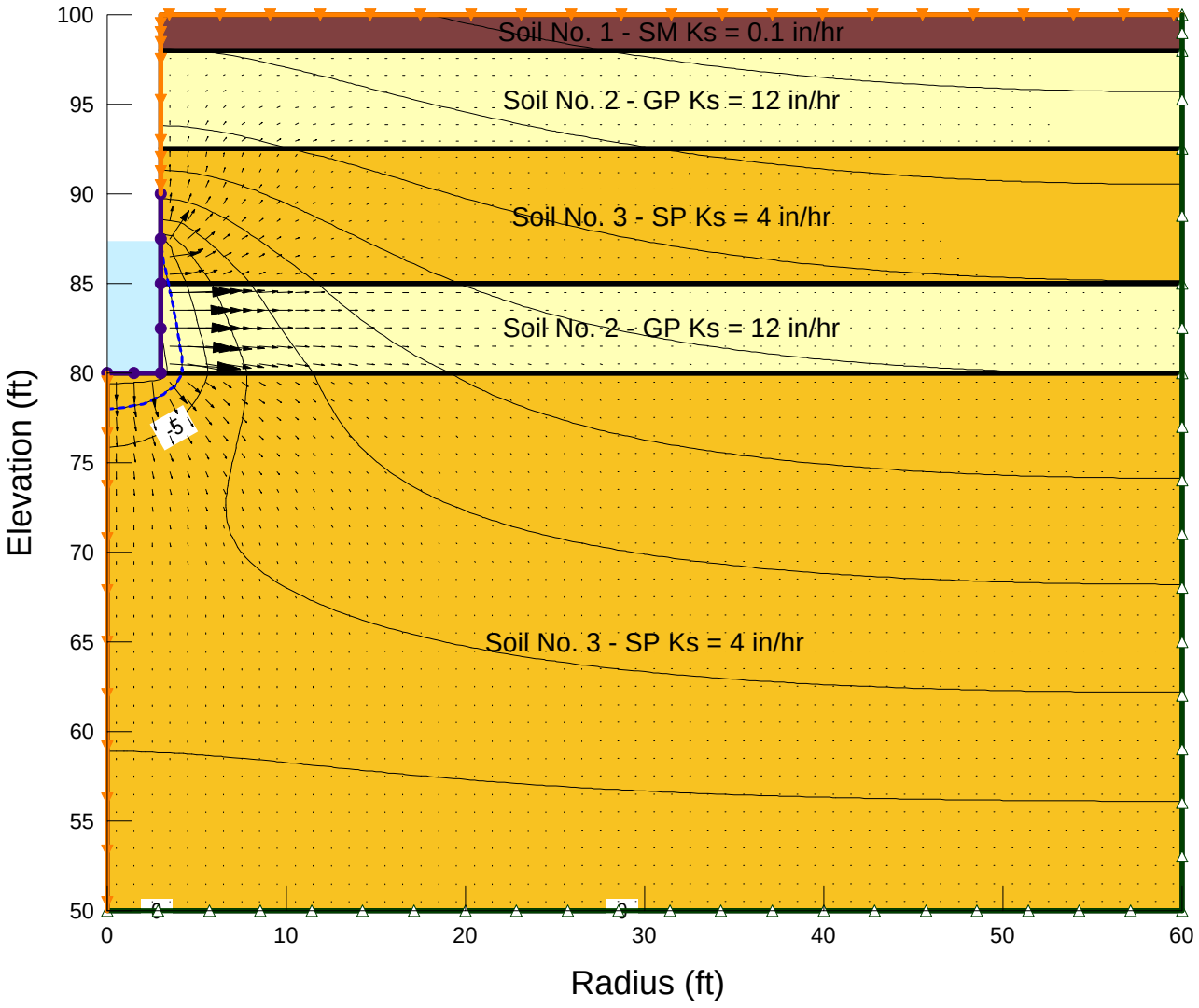


Contours are Pressure Head in Feet.
Arrows indicate direction of flow and relative magnitude of velocity.

LEGEND

- Zero Flux
- Potential Seepage Face
- Head Function

TRANSIENT @ 0.111 hrs



Contours are Pressure Head in Feet.
Arrows indicate direction of flow and relative magnitude of velocity.

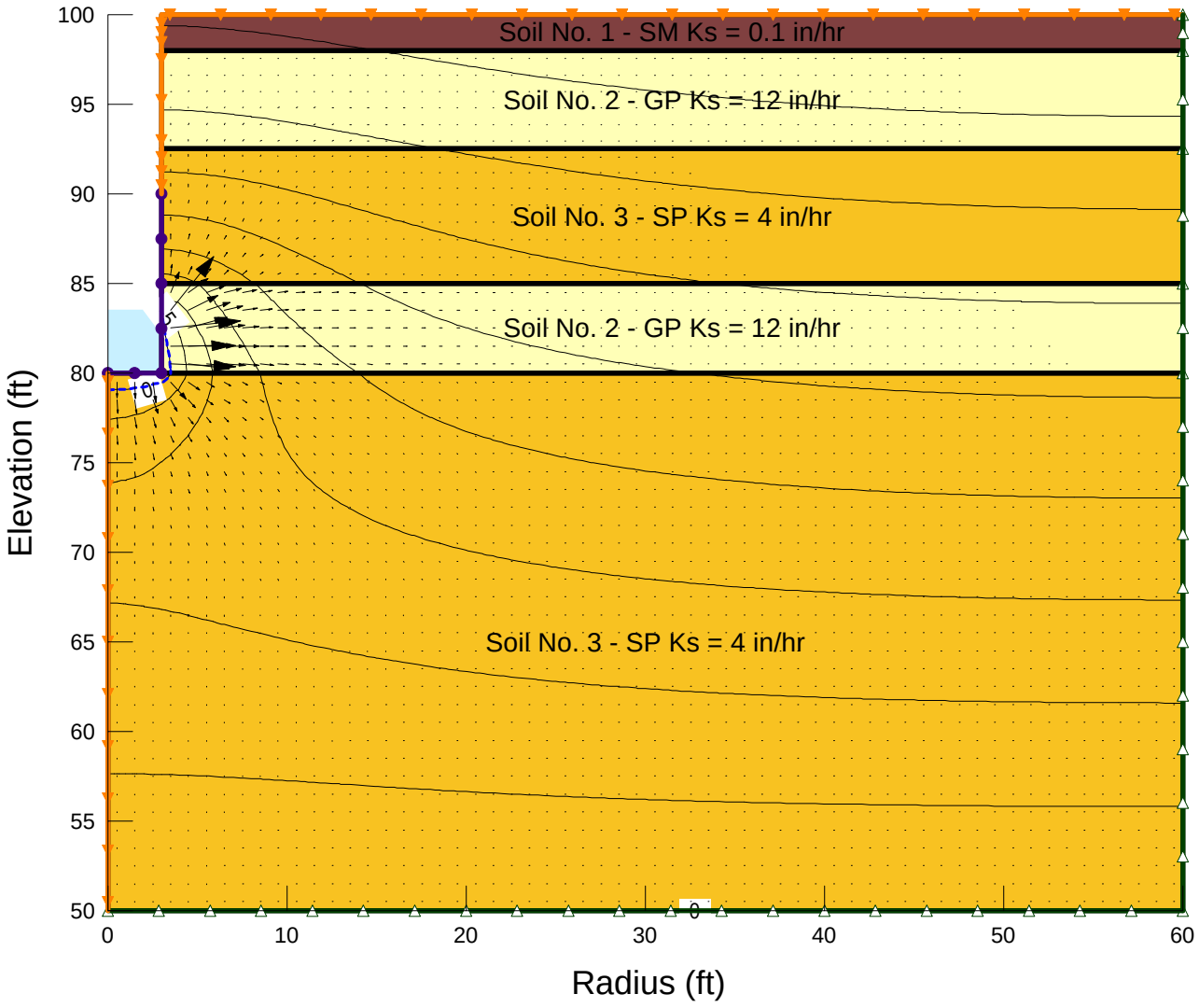
LEGEND

Zero Flux

Potential Seepage Face

Head Function

TRANSIENT @ 0.194 hrs



Contours are Pressure Head in Feet.
Arrows indicate direction of flow and relative magnitude of velocity.

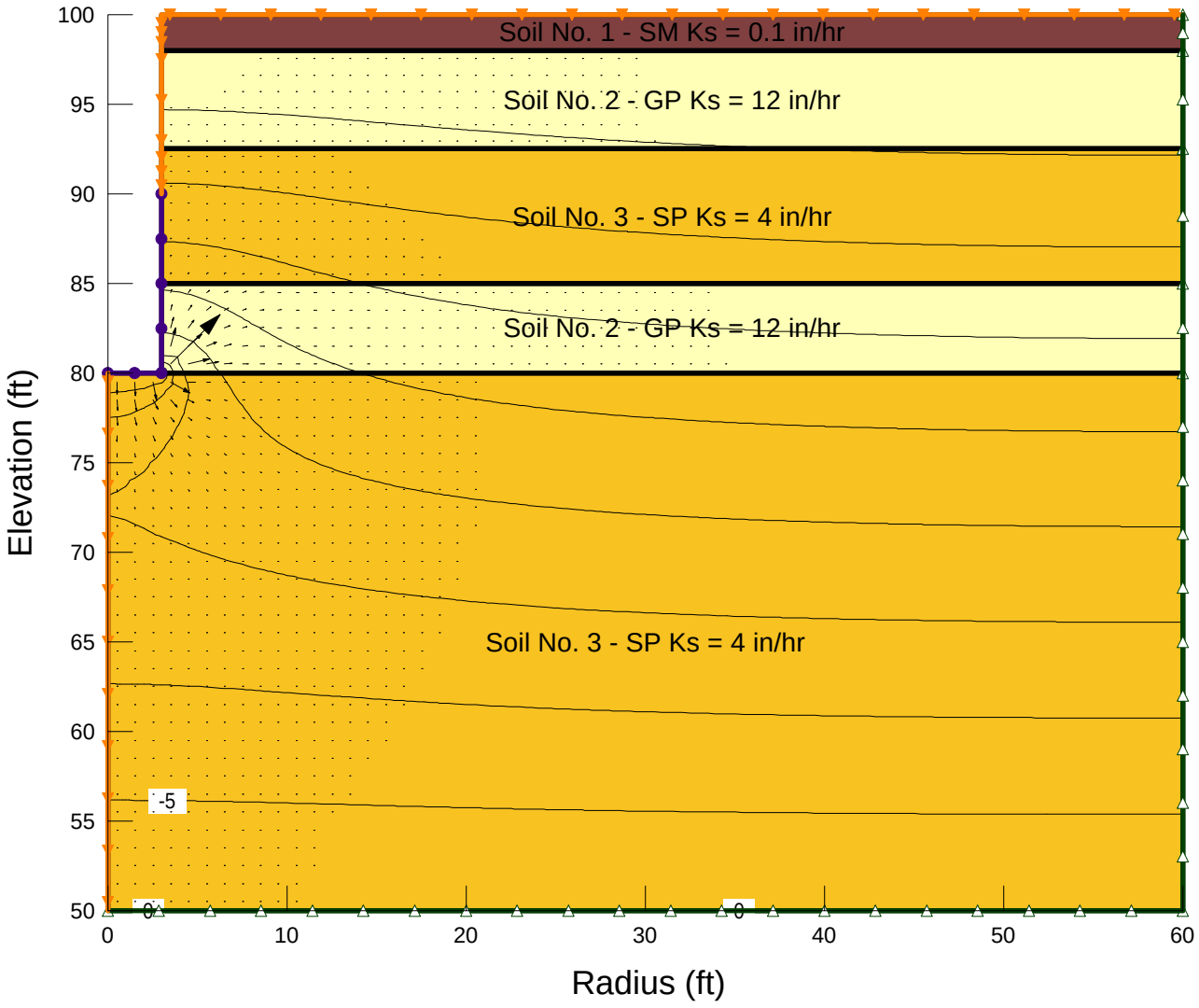
LEGEND

Zero Flux

Potential Seepage Face

Head Function

TRANSIENT @ 0.278 hrs



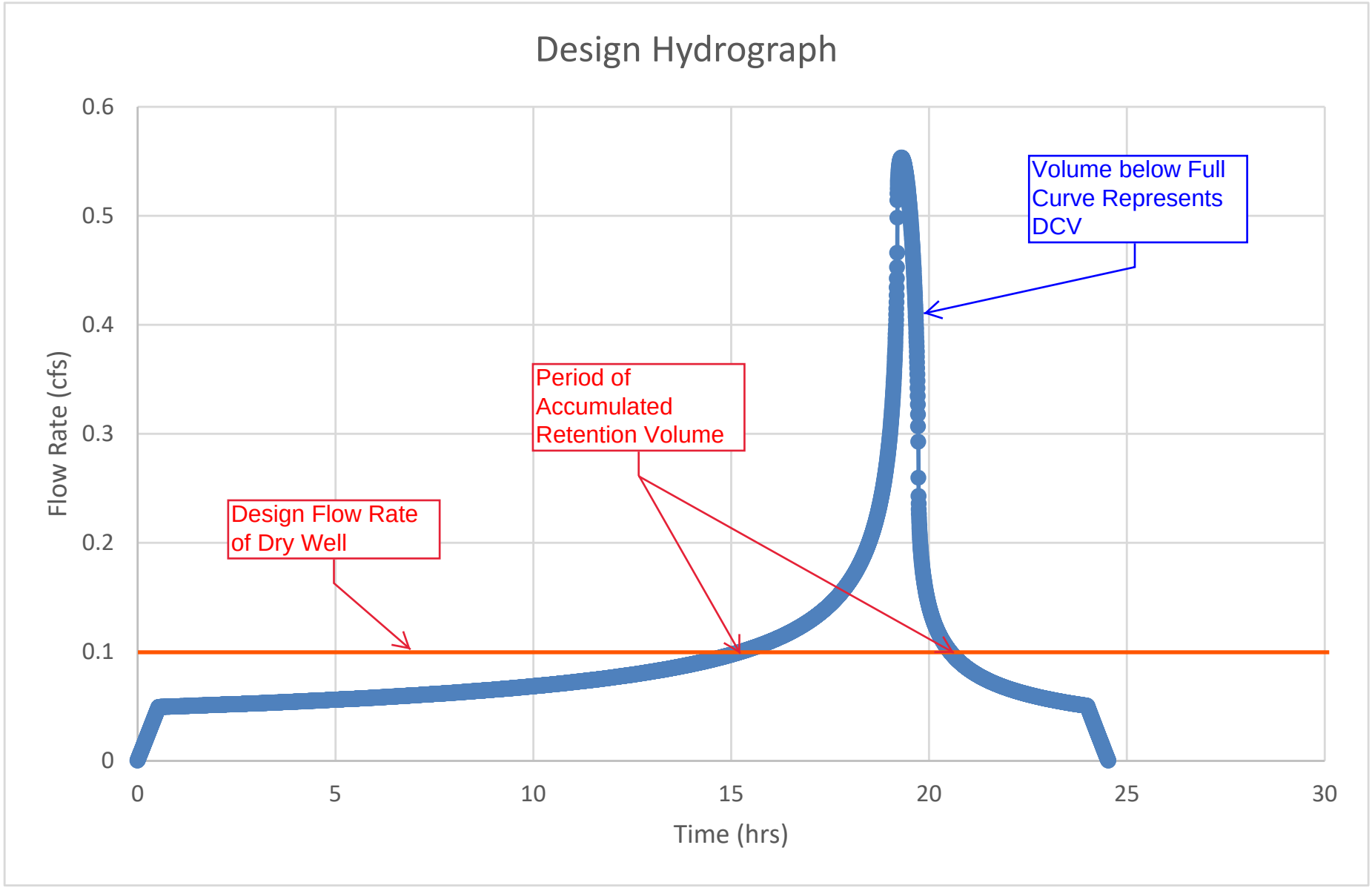
Contours are Pressure Head in Feet.
Arrows indicate direction of flow and relative magnitude of velocity.

LEGEND

Zero Flux

Potential Seepage Face

Head Function

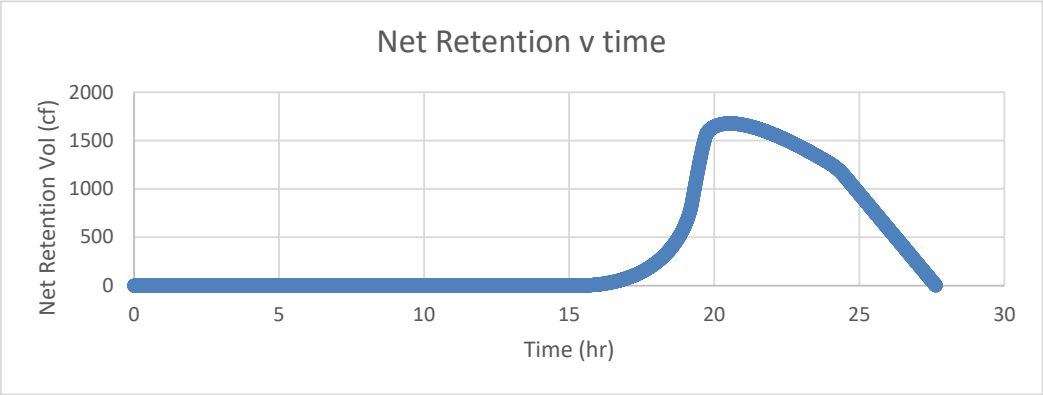

Design Hydrograph
Flow Rate (cfs)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
5
10
15
20
25
30
Time (hrs)
Volume below Full Curve Represents DCV
Period of Accumulated Retention Volume
Design Flow Rate of Dry Well

Preliminary Estimator for Dry Well Infiltration System

Hydrograph Method

J.N.: 3029.00
Client: The Olson Co.
Drainage Area ID: Total Site

Dry Well Data:		
Peak Well Flow-Measured (cfs)	0.3	
Factor of Safety	3	
Peak Well Flow-Design (cfs)	0.1	
Empty time of a well (hrs)	0.1	
Storage Volume of a Well (cuft)	200	
Number of Wells	1	
Hydrograph Data:		
Flow Rate at Begin Retention (cfs)	0.1	OK
Time at Begin Retention (hr)	15.25	
Accumulated Volume at Begin Retention (AcFt)	0.08106	
Flow Rate at End Retention (cfs)	0.1	OK
Time at End Retention (hr)	20.53	
Accumulated Volume at End Retention (AcFt)	0.1632	
Time at end of Event (hr)	24.5	
Accumulated Volume at End of Event (AcFt)	0.1834	
Treatment Data:		
Design Treatment Volume (cuft)	7988	
Allowable Drawdown Time (hrs)	96	
Analyses:		
Vol. Accumulated Above Well Peak Flow (cuft)	3578	
Duration of Peak Flow Exceedance (hr)	5.28	
Vol. Infiltrated During Exceedance of Peak (cuft)	1901	
Volume Required for Retention (cuft)	1677	
Length of 48" Retention Pipe (ft)	134	
Duration of Event (hr)	24.5	
Retention Volume at end of Event (cf)	1117	
Time Req'd to Empty Retention (hr)	3.1	
Retention Vol in Dry Well (cf)	200	
Time Req'd to Empty Dry Well (hr)	0.1	
Total Time to Drawdown Retention (hr)	3.2	
Total Time of Event + Drawdown (hr)	27.7	OK



Attachment F

City of Claremont Forms

OWNER'S CERTIFICATION
Minimum BMPs for Construction Sites Less Than 1 Acre

Plan Check #_____

City of Claremont Engineering Department (909) 399-5465

FORM **DCP-OC**

Project Name Tentative Tract No. 83751 Project Location 1030 W. Foothill Blvd.	BUILDING/GRADING PERMIT NUMBER
Owner Name The Olson Company Address 3010 Old Ranch Parkway, Suite 100 Seal Beach, CA 90740 Phone (562) 596-4770 FAX/Email	Contractor Name Address Phone FAX/Email

The National Pollutant Discharge Elimination System (NPDES) is the portion of the Clean Water Act that applies to the protection of receiving waters. Under permits from the Los Angeles Regional Water Quality Control Board (RWQCB), certain activities are subject to RWQCB enforcement. To meet the requirements of the Municipal Stormwater Permit (CAS004004), minimum best for sediment control, erosion control and construction activities must be implemented on each project site. Minimum best management practices (BMPs) include referenced in the California Stormwater Quality Association Stormwater BMP Handbook for Construction :

- **EROSION:** Erosion from slopes and channels shall be controlled by implementing an effective combination of BMPs to include: housekeeping; the limiting of grading activities during the wet season (Scheduling EC-1); inspecting graded areas during rain events; planting and maintenance of vegetation on slopes (EC-2); and covering erosion susceptible slopes.
- **SEDIMENT CONTROL:** Eroded sediments from areas disturbed by construction and from stockpiles of soil shall be retained on site through perimeter controls to minimize sediment transport from the site to streets, drainage facilities and/or adjacent properties via runoff, vehicle tracking or wind (SE-8 and TC-1).
- **NON-STORMWATER RUNOFF:** Prevent non-stormwater runoff from equipment and vehicle washing, through the use of water conservation practices (NS-1). Ensure that water from dewater operations and any other activity are contained at the project site (NS-2).
- **WASTE MANAGEMENT:** Construction related materials, wastes, spills or residues shall be retained on site to minimize transport from the site to streets, drainage facilities or adjoining properties by wind or runoff. Runoff from equipment and vehicle washing shall be contained at construction sites unless treated to remove sediment and pollutants. BMPs shall include: Material Delivery and Storage (WM-1), Stockpile Management (WM-3), Spill Prevention and Control (WM-4), Solid Waste Management (WM-5), Concrete Waste Management (WM-8), and Sanitary/Septic Waste Management (WM-9). Minimum BMPs include: (1) Soil piles must be covered with tarps or plastic; (2) leaking equipment must be repaired immediately; (3) refueling must be conducted away from catch basins; (4) catch basins must be protected when working nearby; (5) vacuum all concrete saw cutting; (6) never wash concrete waste into the street; (7) keep the site clean, sweep the gutters at the end of each working day and keep a trash receptacle on site.

As the architect/engineer/contractor of record, I have selected appropriate BMPs to effectively minimize the negative impacts of this project's construction activities on stormwater quality. The project owner is aware that the selected BMPs shall be installed, monitored, and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activity.

Alan R. Short
Architect/Engineer/Contractor of Record Name

Alan R. Short
Architect/Engineer/Contractor of Record Signature

PE
Title

7/7/22
Date

I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person(s) who manage the system or those person(s) directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that submitting false and/or inaccurate information, failing to identify the appropriate BMPs , or failing to properly and/or adequately implement the BMPs may result in revocation of grading and/or other permits or other sanctions provided by law.

Tom Moore
Landowner or Agent Name

Tom Moore
Landowner or Agent Signature

VP, Operational Planning
Title

7/7/22
Date

DEVELOPMENT/REDEVELOPMENT PLANNING PROGRAM PRIORITY PROJECT CHECKLIST

City of Claremont Engineering Department (909) 399-5465

FORM **DPC**

Project Name: Tentative Tract No. 83751	Owner Name: The Olson Company	Developer Name: The Olson Company
Project Address: 1030 W. Foothill Blvd.	Owner Address: 3010 Old Ranch Parkway, Suite 100	Developer Address: 3010 Old Ranch Parkway, Suite 100
Claremont, CA 91711	Seal Beach, CA 90740	Seal Beach, CA 90740
Check/Track Number	Owner Phone: (562) 596-4770	Developer Phone: (562) 596-4770

Part 1 – Type of Project

Does the project fall into one of the following categories?		
1. New development project equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet or more of impervious surface area (collectively over the entire project site).	X	
2. Industrial parks of 10,000 square feet or more of surface area.		
3. Commercial malls of 10,000 square feet or more of surface area.		
4. Redevelopment project that creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the entire project site) on any of the following:		
a. Existing site of 10,000 square feet or more impervious surface area.		
b. Industrial park of 10,000 square feet or more of surface area.		
c. Commercial mall 10,000 square feet or more of surface area.		
5. New development or redevelopment project that creates and/or replaces 5,000 square feet or more of impervious surface area (collectively over the entire project site) and supports one or more of the following uses:		
a. Restaurant (SIC 5812)		
b. Parking lot		
c. Automotive service facility (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) or retail gasoline outlets.		
6. New development or redevelopment project that created and/or replaces 2,500 square feet or more of impervious area whose stormwater discharge is likely to impact a sensitive biological species or habitat; and/or is located in or directly adjacent to a Sensitive Ecological Area.		
7. Street and/or road construction of 10,000 square feet or more impervious surface area*.		

If checked YES, the project is a Priority Development Project and is subject to the City planning and building authority approval of a Low Impact Development (LID) plan. * 10,000 square foot street and/or road projects shall comply with the City's Green Street's design policy.

Part 2 –Project Specific Conditions

Does the project include any of the following elements?		
1. Adds, alters, and/or replaces 300 square feet or more impervious area.**	X	
2. Vehicle or equipment fueling areas (retail or private).		
3. Vehicle or equipment maintenance areas, including repair or washing.		
4. Commercial or industrial solid waste handling or storage operations.		
5. Outdoor handling or storage of hazardous materials or hazardous waste.		
6. Outdoor manufacturing areas.		
7. Outdoor food handling or processing.		
8. Outdoor animal care, confinement, or slaughter.		
9. Outdoor horticulture activities.		

If checked YES in Part 2, this project is required to prepare a Site Specific Stormwater Mitigation Plan. ** Projects that add, alter, and/or replace 300 square feet or more impervious area, shall complete the City's Low Impact Development Worksheet.

Tom Moore

Tom Moore

Tom Moore
Applicant Name

Tom Moore
Applicant Signature

Applicant Name

7/7/22
Date

Rev. 2021

DEFINITIONS:

Pervious surfaces are those that allow storm water runoff to percolate through. Typical pervious surfaces include: grass, gravel, concrete pavers, and some specially designed asphalts.

Redevelopment means the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of a routine maintenance activity; and land-disturbing activities related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor emergency construction activities to immediately protect public health and safety.

Significant Ecological Area (SEAs) mean officially designated areas within Los Angeles County identified as having irreplaceable biological resources. Also, an area designated by the City as approved by the Regional Water Quality Control Board.

Maintenance Agreement and Transfer: All developments subject to LID and site specific plan requirements provide verification of maintenance provisions for Structural and Treatment Control BMPs, including but not limited to legal agreements; covenants; CEQA mitigation requirements; and/or conditional use permits. Verification at a minimum shall include:

- The developer's signed statement accepting responsibility for maintenance untilthe responsibility is legally transferred; and either
- A signed statement from the public entity assuming responsibility for Structural or Treatment Control BMP maintenance and conduct a maintenance inspection at least once a year; or
- Written conditions in the sales or lease agreement, which requires the recipient to assume responsibility for maintenance and conduct a maintenance inspection at least once a year; or
- Written text in project conditions, covenants and restrictions (CCRs) for residential properties assigning maintenance responsibilities to the Home Owners Association for maintenance of the Structural and Treatment Control BMPs; or
- Any other legally enforceable agreement that assigns responsibility for the maintenance of post-construction Structural or Treatment Control BMPs.

DEVELOPMENT PLANNING PROGRAM
PRIORITY DEVELOPMENT & REDEVELOPMENT PROJECTS

FORM DP-1

City of Claremont Engineering Department (909) 399-5465

Project Name	Tentative Tract No. 83751
Project Location	1030 W. Foothill Blvd., Claremont, CA 91711
Company Name	The Olson Company
Address	3010 Old Ranch Parkway, Suite 100, Seal Beach, CA 90740
Contact Name / Title	Tom Moore, VP Operational Planning
Phone / FAX / Email	(562) 596-4770

Project Certification

A completed original of this form must accompany all DPD submittals.

Best Management Practices (BMPs) have been incorporated into the design of this project to accomplish the following:

1. Minimize impacts from stormwater runoff on the biological integrity of Natural Drainage Systems and water bodies in accordance with requirements under CEQA (Cal. Pub. Resources Code § 21100), CWC § 13369, CWA § 319, CWA § 402(p), CWA §404, CZARA § 6217(g), ESA § 7, and local government ordinances.
2. Maximize the percentage of permeable surfaces to allow more percolation of stormwater into the ground.
3. Minimize the amount of stormwater directed to impermeable surfaces and to the MS4.
4. Minimize pollution emanating from the project through the use of appropriate Treatment Control BMPs and good housekeeping practices.
5. Properly design and maintain Treatment Control BMPs in a manner that does not promote breeding of vectors.
6. Provide for appropriate permanent measures to reduce stormwater pollutant loads in stormwater from the development site.

I certify that this Development Planning Document (DPD) and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted.

Post Construction BMP / Maintenance Certification

As the responsible party, I certify that all project BMPs will be implemented, monitored, and maintained to ensure their continued effectiveness in accordance with the inspection and maintenance contained in the approved DPD plan. In the event of a property transfer, the new owner will be notified of the BMPs in use at this location and will be included in the written conditions in the sales or lease agreement(s), which requires the recipient to assume responsibility for maintenance and conduct a maintenance inspection in accordance with the inspection and maintenance schedule contained in the DPD submittal. The information contained herein is, to the best of my knowledge and belief, true, accurate, and complete.

I further acknowledge, I am required to submit a certification to the City on annual basis that all LID BMPs, structural BMPs, treatment control BMPs, and hydromodification control BMPs are inspected and maintained in accordance with the approved BMP Maintenance and Inspection Plan.

In consideration of the execution of the City approval of the proposed Development Planning Document including any proposed low impact development BMPs, the applicant hereby agrees to indemnify, save and keep the City of Claremont, its officers, agents and employees free and harmless from and against any and all claims for injury, damage, loss, liability, cost and expense of any nature whatsoever, which the City of Claremont, its officer, agents, or employees may suffer, sustain, incur, pay out as a result of any and all actions, suits, proceedings, claims and demands which may be brought, made, or filed against the City of Claremont, its officers, agents, or employees by reason of or arising out of, or in any manner connected with any and all operations permitted by this approval. This indemnification extends to further agree that the City of Claremont is not responsible for any additional requirements or restrictions due to changes in regulations, policies, or enforcement practices of the California Regional Water Control Board or any other applicable regulatory agencies.

Tom Moore
Property Owner Name

Tom Moore
Property Owner Signature

VP, Operational Planning
Title

7/7/22
Date

BEST MANAGEMENT PRACTICES

BMP Name	BMP Identification Number and Name	✓ if to be used
Bioretention	RET-: Bioretention	☐
Onsite Biofiltration	BIO-1: Biofiltration	☐
Car Wash Facility	SC-21: Vehicle and Equipment Cleaning	☐
Constructed Wetlands	T-2: Wetlands	☐
Drywell	RET-4: Drywell	☑
Extended Detention Basins	T-3: Extended Detention Basin	☐
Green Roof	VEG-1: Green Roof	☐
Infiltration Basins	T-3: Infiltration Basins	☐
Infiltration Trenches	RET-2: Infiltration Trenches	☐
Landscape Design and Efficient Irrigation	S-8: Landscaping Irrigation Practices S-11: Outdoor Horticultural Areas	☑
Materials Management	S-2: Outdoor Materials Storage Area	☐
Sand Filter	T-1: Sand Filter	☐
Motor Fuel Dispensing Areas	S-7: Fuel and Maintenance Area	☐
Rain Barrels/Cisterns	RET-6: Rain Barrel/ Cisterns	☐
Stormwater Planter	VEG-2: Stormwater Planter	☐
Storm Drain Trash Screens	-N/A-	☐
Outdoor Storage	S-2 Outdoor Liquid Container Storage S-4: Outdoor Storage of Raw Materials	☐
Porous Pavement and/or Alternative Surfaces	RET-5: Permeable Pavement Without Underdrain T-5: Permeable Pavement with Underdrain	☐
Tree-Well Filter	VEG-3 Tree-Well Filter	☐
Self-Contained Areas for Vehicle or Equipment Washing, Steam Cleaning, Maintenance, Repair, or Material Processing	S-5: Outdoor Vehicle/Equipment Repair/Maintenance Area S-6: Outdoor Vehicle/Equipment/Accessory Washing Area S-7: Fuel and Maintenance Area	☐
Storm Drain System Stenciling and Signage	S-1: Storm Drain Message and Signage	☑
Trash Container Areas	S-3: Outdoor Trash Storage and Waste Handling	☐
Vegetated Swales and Strips	VEG-4: Vegetated Swales	☐
Wet Ponds	T-4: Wet Ponds	☐
Other:	• • • • •	☐

Please refer to the Los Angeles County Low Impact Development Manual foor more information.

STORM WATER /LID BMP CERTIFICATION

FORM DP-2

PROJECT NAME and ADDRESS

Tentative Tract No. 83751
1030 W. Foothill Blvd.
Claremont, CA 91711

PROJECT CHARACTERISTICS

Roofed Area	54,100	ft^2
Roadway/Parking Area (exposed)	34,250	ft^2
Landscaped/Vegetation	26,150	ft^2
Other Ground Level Impervious Areas (Ex: Outdoor work or storage areas)	18,385	ft^2
Other:		ft^2
TOTAL	132,885	ft^2

LID/INFILTRATION BMPs

(attach additional sheets as necessary)

Area Designation (must correspond on plans)	Area (ft^2)	Average Impervious Factor	SWQDv	Anticipated Potential Pollutants	Type of BMP (include model number if any)	BMP Location	BMP Treatment Capacity
Drainage Area 1	132,858	0.803	7,988 cu-ft	See report	Maxwell IV	South of Unit #39	7,988 cu-ft in 27.7 hrs

By stamping this form, I acknowledge that each treatment BMP is provided with adequate bypass or overflow so as not to contribute to localized flooding or soil instability.

*On-site flow based BMP must be authorized by the City of Claremont and meet the treatment capacities specified in Municipal Code Chapter 8.28.

I certify that I am a Professional Engineer or Licensed Architect registered in the State of California, and that the treatment methods and capacities herein comply with the requirements established by the California Regional Water Quality Control Board, Los Angeles Region, for Development Planning Projects.

Affix Registered Engineer Wet Ink Stamp Here:

REGISTERED PROFESSIONAL ENGINEER
ALAN R. SHORT
C 30873
EXP. 03/31/24
CIVIL
STATE OF CALIFORNIA

Alan R. Short		7/7/22
Print Name	**Signature**	**Date**

Rev. 2021

SOURCE CONTROL BMPs

(attach additional sheets as necessary)

Area Designation (must correspond on plans)	**Area** (ft^2)	**BMP Description**	**BMP Location** (provide latitude and longitude coordinates)