APPENDIX F

HYDROLOGY STUDIES

Technical Hydrology and Hydraulics Memo

For: Raising Cane's Restaurant - Hollywood (Sunset)

Prepared for:

Raising Cane's Chicken Fingers

Kristen Roberts

6800 Bishop Rd.

Plano, TX 75024-3548

Prepared by:

Hannah Smith, P.E.

Kimley-Horn & Associates

1100 W Town And Country Rd, Suite 700

Orange, CA 92868

(714) 786-6338

PE Stamp & Sign Here

1st Submittal: February 2022

Purpose of Technical Memorandum

This Technical Memorandum has been prepared to evaluate the impact of the proposed development on the existing site hydrology and demonstrate the proposed development does not significantly increase stormwater runoff flowrate and reduces stormwater runoff volumes during the 25- and 50-year storm events.

Site Description and Drainage Patterns

The project is a proposed Raising Cane's Chicken Fingers Restaurant located on southeast corner of Sunset Blvd and McCadden Street in Los Angeles, CA. The site, previously developed as a commercial lot, will be redeveloped into a new parking lot and restaurant with the addition of multiple landscape areas. Landscape will be a variety of trees, shrubs, and ground coverage of drought tolerant native species.

Land use at the proposed site will include indoor food preparation, cooking, indoor and outdoor eating areas, a dual lane drive through, and improvements to the surface parking and landscape design. A covered trash enclosure is proposed along the northeast property line, adjacent to the eastern drive aisle right outside of the property line. Expected wastes will be food waste, grease from cooking, trash and debris.

The proposed building will be a rectangle-oriented south to north with entrances on the west and north sides of the building. The drive-thru approach will be near the southwest of the building and circulation is counter-clockwise. The drive-thru exit will be to the northeast of the building, existing onto Sunset Blvd. The building will have a roof drain system that discharges to the surface drive thru area and will therefore be included in the drainage calculations.

In the existing condition, the site consists of one (1) drainage area. Storm water flows from the northeast to the southwest and is developed as a commercial retail lot. The surrounding storm drain infrastructure was designed to capture and convey stormwater runoff produced by the site under this existing condition. Refer to Appendix C for Existing Hydrology Exhibit.

In the proposed condition, in order to meet the City of Los Angeles Low Impact Development requirements, the site consists of one (1) drainage management area (DMA). During low flow design storm events (85th percentile), stormwater is captured by a proposed catch basin in the southwest corner of the site and into an underground cistern which will be used for irrigation. Refer to the project-specific Low Impact Development (LID) report for details on the proposed Capture and Reuse system. During larger storm events, stormwater will bubble out of the proposed catch basin on the southwest portion of the site and overflow to McCadden Street to mimic existing drainage conditions. Refer to the Proposed Hydrology Exhibit in Appendix E for more information.

Methodology Used

The County of Los Angeles HydroCalc program is used to determine the run-off flowrate and volume produced by the 25- and 50-year storm event when comparing the existing and proposed conditions. All calculations are in accordance with the Los Angeles County Hydrology and LID Manuals.

Summary

The hydrology analysis has been completed for the 25-year and 50-year storm events for the existing and proposed conditions. A reduction in run-off volume and peak flow is produced by decreasing the impervious areas from 95% to 71%.

During the 25-year storm event the run-off volume is decreased from 14,466 cf to 11,591 cf, a 2,875 cf (20%) reduction. The peak flow is also decreased from 2.49 cfs to 2.24 cfs, a 0.25 cfs (10%) reduction.

During the 50-year storm event the run-off volume is decreased from 16,488 cf to 13,277 cf, a 3,211 cf (19%) reduction. The peak flow is also decreased from 2.82 cfs to 2.84 cfs, a 0.02 cfs (0.7%) reduction.

The runoff analysis conducted for the proposed condition does not take into account the additional flow attenuation provided by the proposed underground capture and reuse cistern. Therefore, the reported runoff in the proposed condition is conservative and the actual expected runoff during large storm events will be further reduced by the underground capture and reuse cistern.

Based on the analysis conducted and the reduction in runoff as a result of the redevelopment of the site, it is reasonable to assume that the existing public storm drain system is adequately sized to convey the run-off from the proposed development.

Tables 1 thru 3 provide a summary of runoff produced for the 25-year storm event in the existing, proposed conditions and a comparison respectively. Tables 4 thru 6 provide a summary of runoff produced for the 50-year storm event in the existing, proposed conditions and a comparison respectively. Calculations are included for reference in Appendices B and D.

25-year Storm Event

Table 1 - Existing Condition				
DMA	**Percent Impervious**	**50-yr Rainfall Depth (in)**	**Q_{25} (cfs)**	**Discharge Volume (cu. ft.)**
DMA #1	95%	5.95	2.49	14,466
Total Site	**95%**	**5.95**	**2.49**	**14,466**

Table 2 – Proposed Conditions				
DMA	**Percent Impervious**	**50-yr Rainfall Depth (in)**	**Q_{25} (cfs)**	**Discharge Volume (cu. ft.)**
DMA #1	71%	5.95	2.24	11,591
Total Site	71%	5.95	2.24	11,591

Table 3 – 25-Year Comparison				
Condition	**Percent Impervious**	**50-yr Rainfall Depth (in)**	**Q_{25} (cfs)**	**Discharge Volume (cu. ft.)**
Existing	95%	5.95	2.49	14,466
Proposed	71%	5.95	2.24	11,591
Delta	**24%**	**0**	**-0.25**	**-2,875**

* The proposed runoff flowrate and volume are conservative as they do not into account to the runoff attenuation through the proposed underground capture and reuse cistern.

50-year Storm Event

Table 1 - Existing Condition				
DMA	**Percent Impervious**	**50-yr Rainfall Depth (in)**	**Q_{50} (cfs)**	**Discharge Volume (cu. ft.)**
DMA #1	95%	5.95	2.84	16,488
Total Site	95%	5.95	2.84	16,488

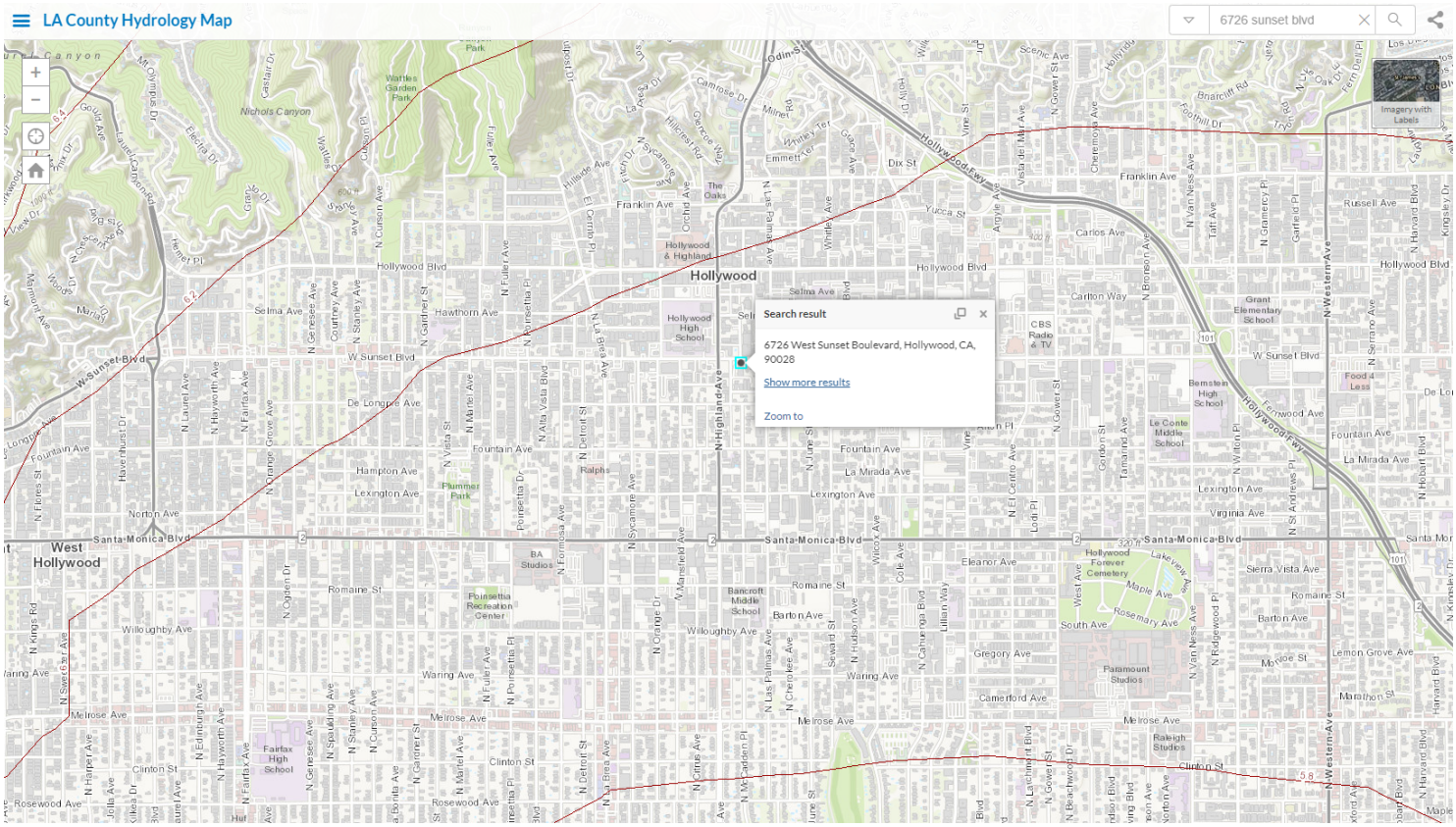
Table 2 – Proposed Conditions				
DMA	**Percent Impervious**	**50-yr Rainfall Depth (in)**	**Q_{50} (cfs)**	**Discharge Volume (cu. ft.)**
DMA #1	71%	5.95	2.82	13,277
Total Site	71%	5.95	2.82	13,277

Table 3 – 100-Year Comparison				
Condition	**Percent Impervious**	**50-yr Rainfall Depth (in)**	**Q_{50} (cfs)**	**Discharge Volume (cu. ft.)**
Existing	95%	5.95	2.84	16,488
Proposed	71%	5.95	2.82	13,277
Delta	**24%**	**0**	**-0.02**	**-3,211**

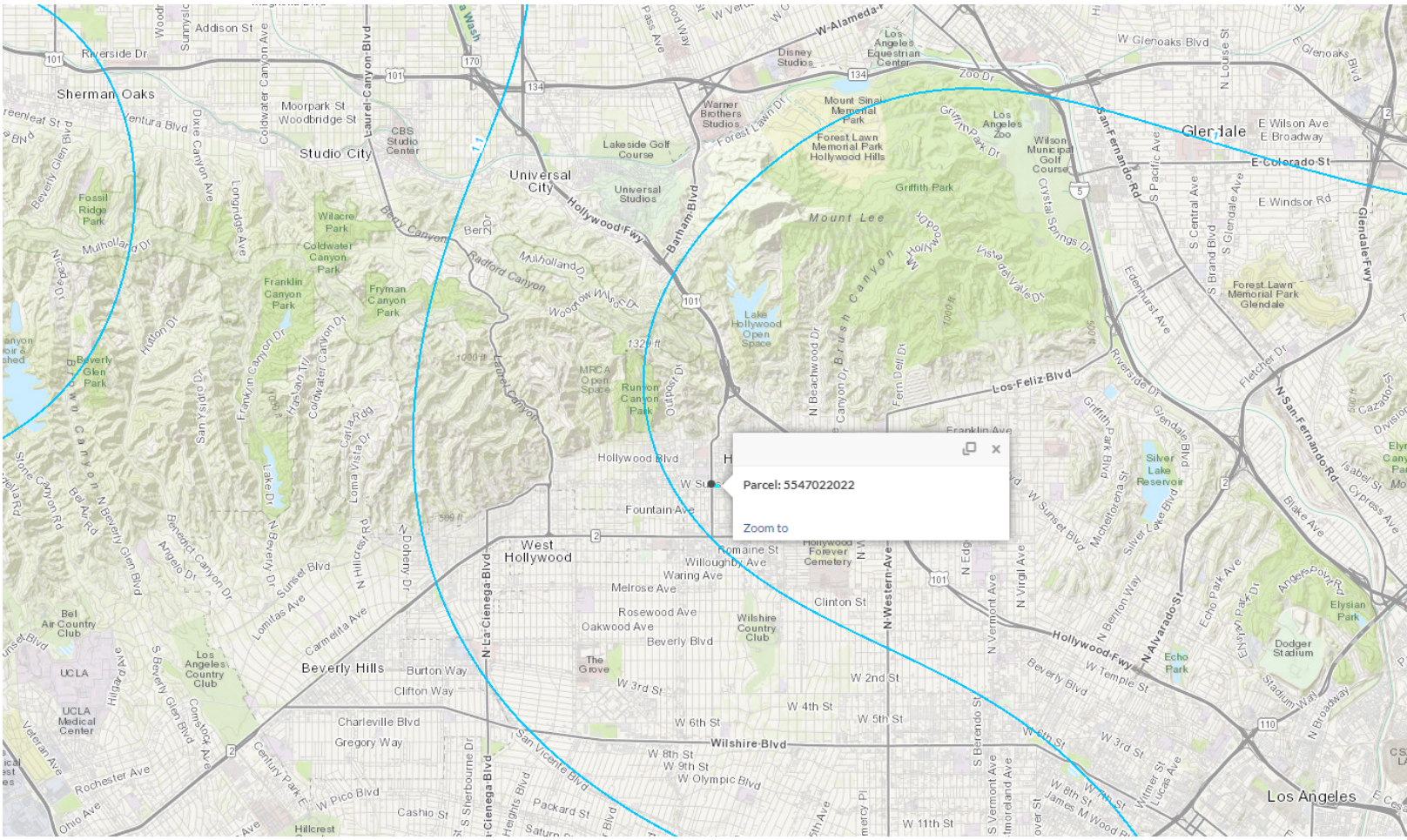
* The proposed runoff flowrate and volume are conservative as they do not into account to the runoff attenuation through the proposed underground capture and reuse cistern.

Appendix A:
LA County Hydrology Map

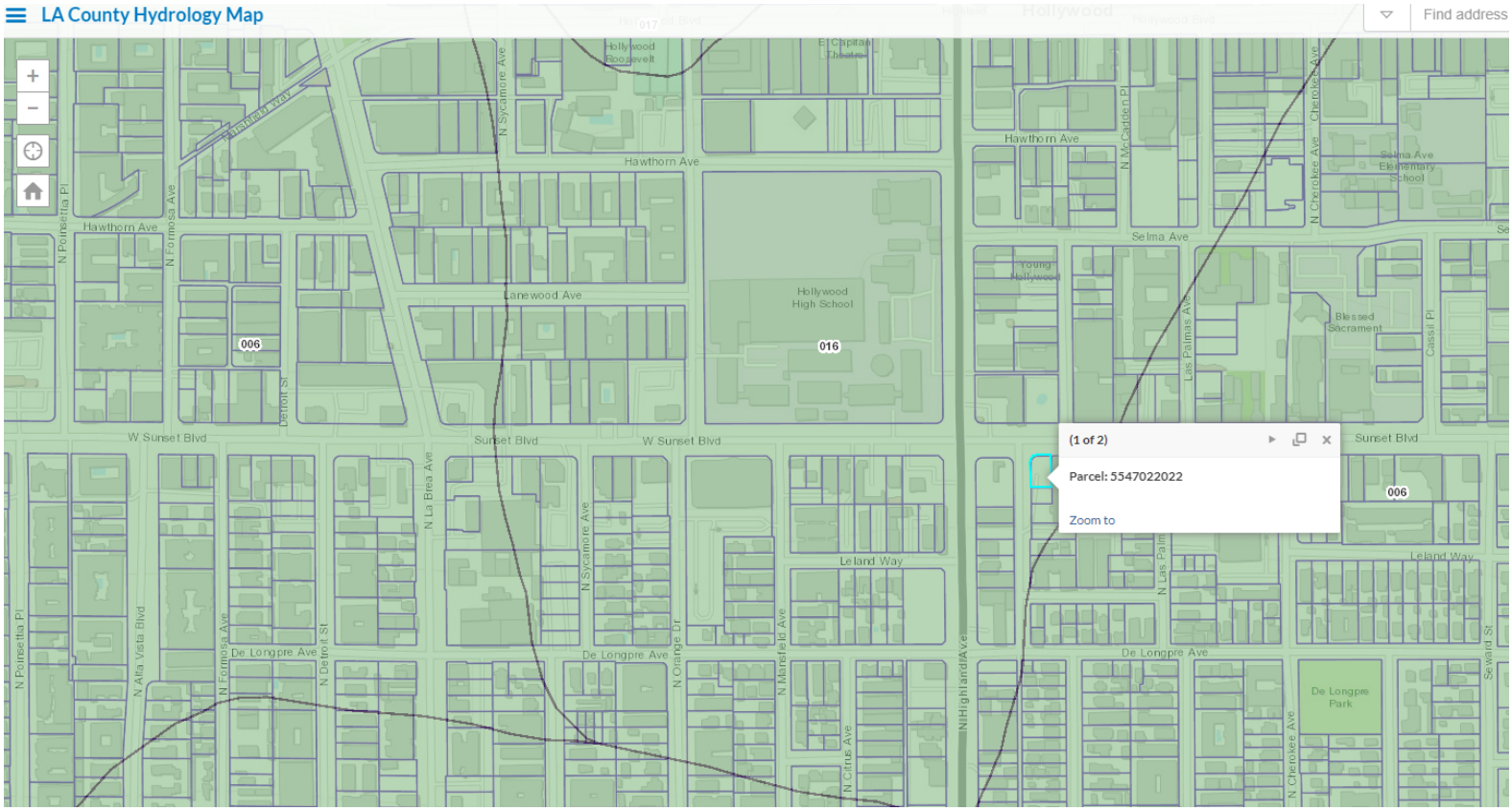
LA COUNTY 50-YR RAINFALL DEPTH = 5.95

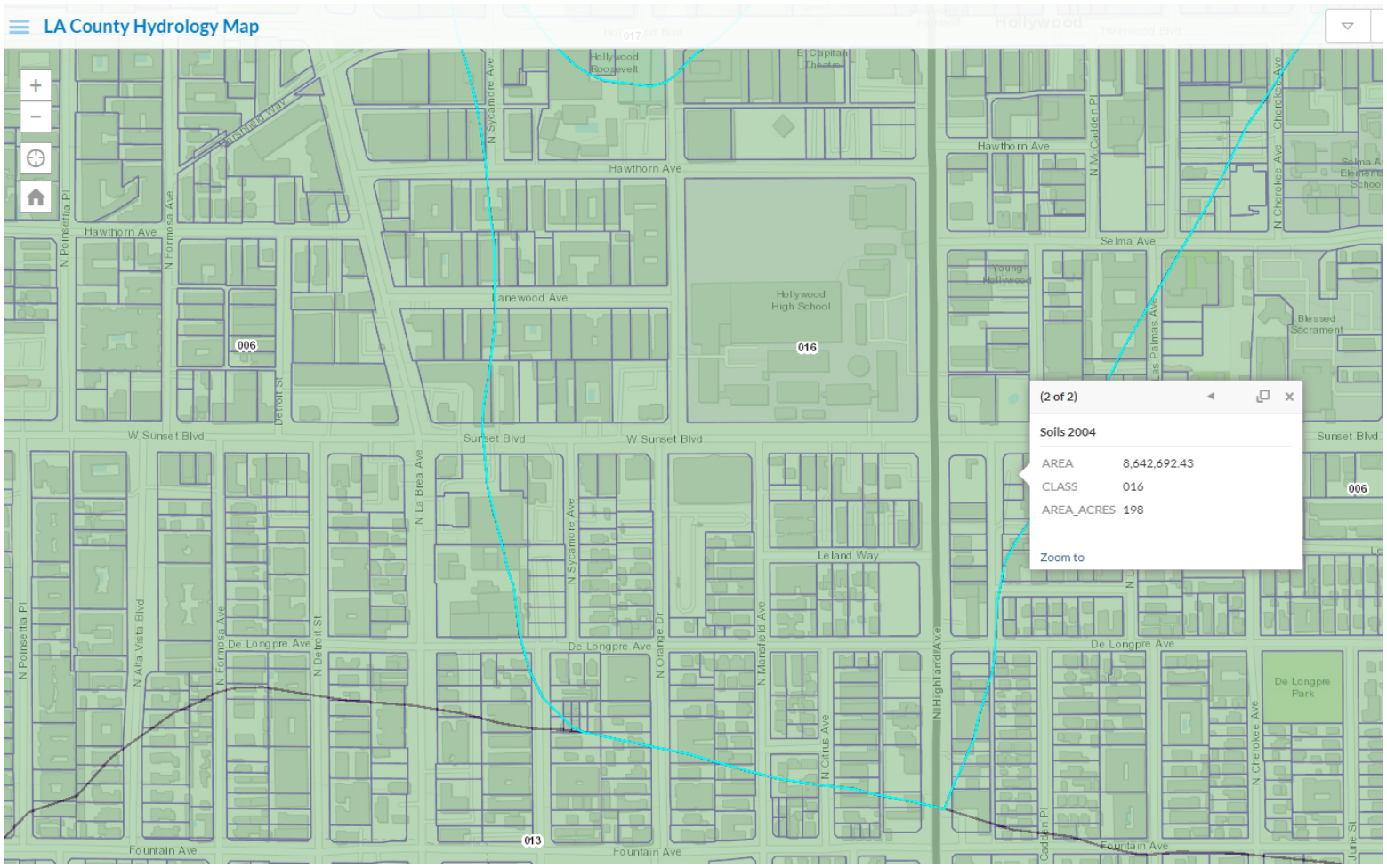


LA COUNTY 85TH PERCENTILE RAINFALL DEPTH
85TH PERCENTILE DEPTH = 1.0



LA COUNTY SOILS MAP
SOIL NUMBER 16





Appendix B :

Existing HydroCalc Analysis

Peak Flow Hydrologic Analysis

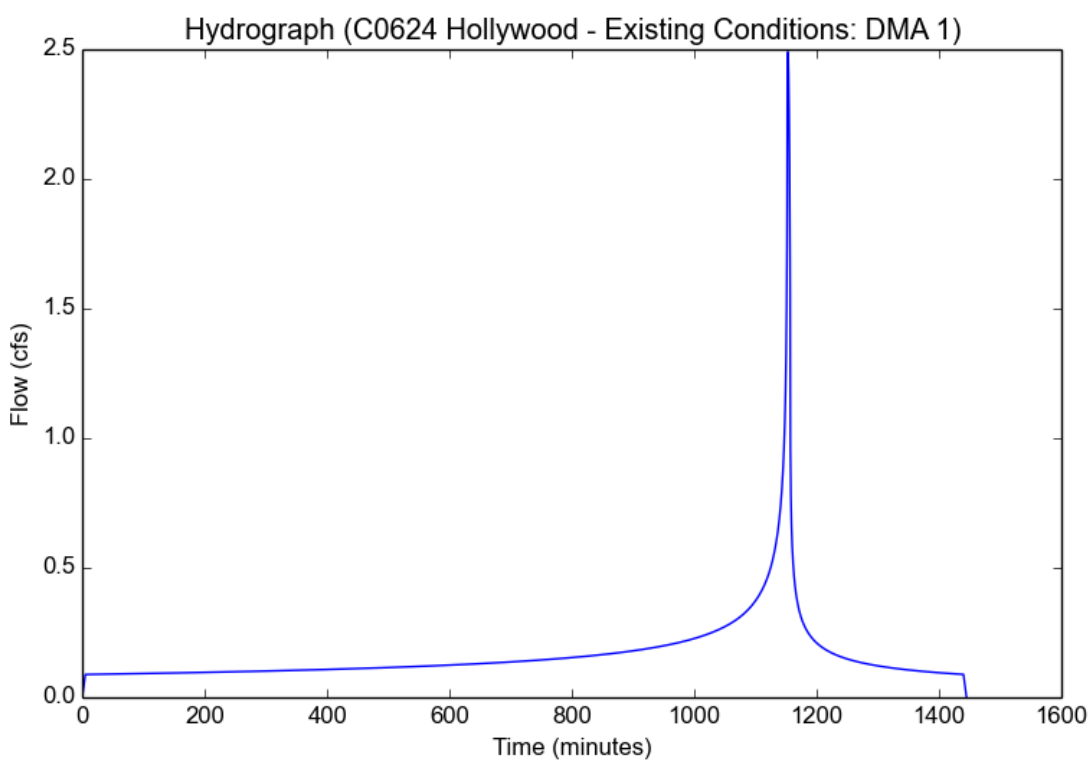
File location: K:/ORA_LDEV/Raising Cane's/094797107 - Hollywood (Sunset and Highland) 624/Reports/Hydrology Hydraulics/Appendices/Exisitng Cond
Version: HydroCalc 1.0.3

Input Parameters

Project Name	C0624 Hollywood - Existing Conditions
Subarea ID	DMA 1
Area (ac)	0.89
Flow Path Length (ft)	260.0
Flow Path Slope (vft/hft)	0.0278
50-yr Rainfall Depth (in)	5.95
Percent Impervious	0.95
Soil Type	16
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.2241
Peak Intensity (in/hr)	3.1168
Undeveloped Runoff Coefficient (Cu)	0.8554
Developed Runoff Coefficient (Cd)	0.8978
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	2.4904
Burned Peak Flow Rate (cfs)	2.4904
24-Hr Clear Runoff Volume (ac-ft)	0.3321
24-Hr Clear Runoff Volume (cu-ft)	14465.5187



Peak Flow Hydrologic Analysis

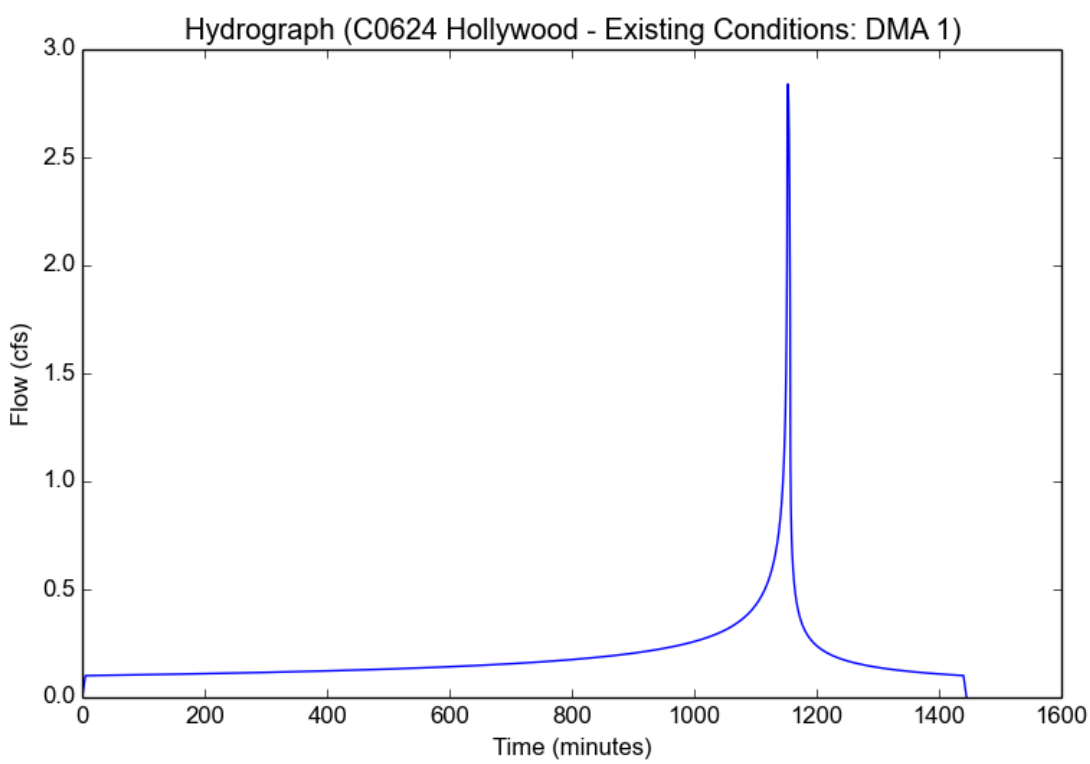
File location: K:/ORA_LDEV/Raising Cane's/094797107 - Hollywood (Sunset and Highland) 624/Reports/Hydrology Hydraulics/Appendices/Exisitng Cond
Version: HydroCalc 1.0.3

Input Parameters

Project Name	C0624 Hollywood - Existing Conditions
Subarea ID	DMA 1
Area (ac)	0.89
Flow Path Length (ft)	260.0
Flow Path Slope (vft/hft)	0.0278
50-yr Rainfall Depth (in)	5.95
Percent Impervious	0.95
Soil Type	16
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

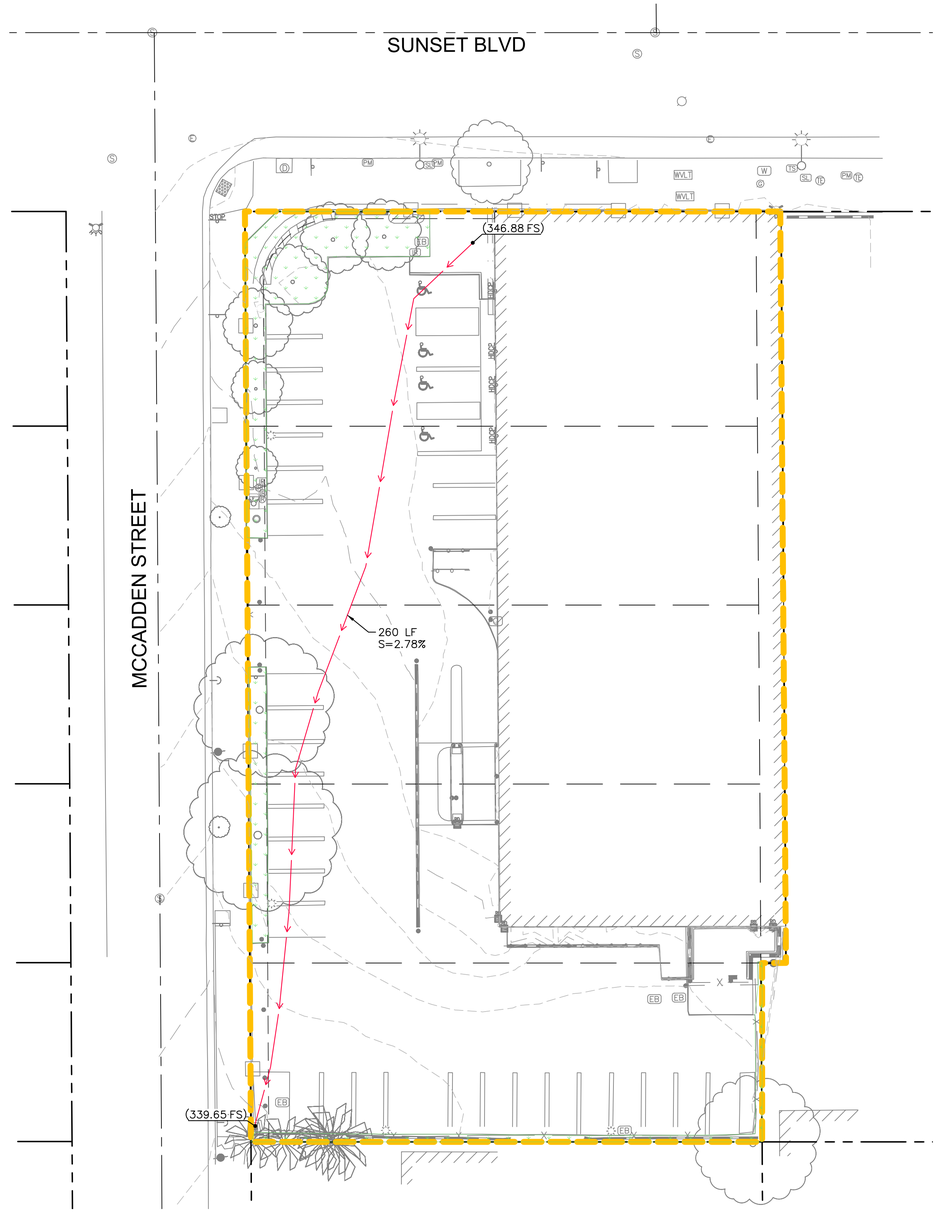
Output Results

Modeled (50-yr) Rainfall Depth (in)	5.95
Peak Intensity (in/hr)	3.5499
Undeveloped Runoff Coefficient (Cu)	0.8776
Developed Runoff Coefficient (Cd)	0.8989
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	2.84
Burned Peak Flow Rate (cfs)	2.84
24-Hr Clear Runoff Volume (ac-ft)	0.3785
24-Hr Clear Runoff Volume (cu-ft)	16488.4424



Appendix C:

Existing Hydrology Exhibit



LEGEND

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE / LEASE LINE
- EASEMENT LINE / SETBACK LINE
- SD — EXISTING STORM DRAIN LINE
- SD — PROPOSED STORM DRAIN LINE
- GB — GRADE BREAK LINE
- R — RIDGE LINE
- LONGEST PROPOSED FLOW PATH
- DENOTES DRAINAGE AREA BOUNDARY
- LANDSCAPE/PLANTER AREA
- 715.50 TC / 715.00 FS — PROPOSED SPOT ELEVATION
- (715.50 TC) / (715.00 FS) — EXISTING SPOT ELEVATION
- PROPOSED SURFACE FLOW DIRECTION
- PROPOSED STORM DRAIN PIPE FLOW DIRECTION
- EXISTING SURFACE FLOW DIRECTION

HYDROLOGY DATA TABLE

DMA #	TOTAL DRAINAGE AREA (SF)	PERVIOUS AREA (SF)	IMPERVIOUS AREA (SF)	Q_{25} (CFS)	V_{25} (CF)	Q_{50} (CFS)	V_{50} (CF)
1	38,609	2,012	36,597	2.4904	14,466	2.8400	16,488

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40
1" = 20'
WHEN PRINTED AT FULL SIZE
(24" X 36")

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
	01/25/22	80% COORDINATION SET

DRAWN BY: JC
CHECKED BY: HS
RECOMMENDED: HS

ENGINEERS SEAL: REGISTERED PROFESSIONAL ENGINEER HANNAH R. SMITH NO. 90371 CIVIL STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125

PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: 2/2/2022 EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER RCE # _____ EXP _____ DATE

Raising Cane's Chicken Fingers
6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

EXISTING CONDITIONS

1 OF 1

Drawing name: K:\ORA_LDEV\Raising Cane's\094797107 - Hollywood (Sunset and Highland) 624\CADD\Exhibits\Hydrology\C06.2 - DRAINAGE AREA MAP C06.2 Hydrology Existing Conditions.dwg Feb 02, 2022 3:19pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Appendix D:

Proposed HydroCalc Analysis

Peak Flow Hydrologic Analysis

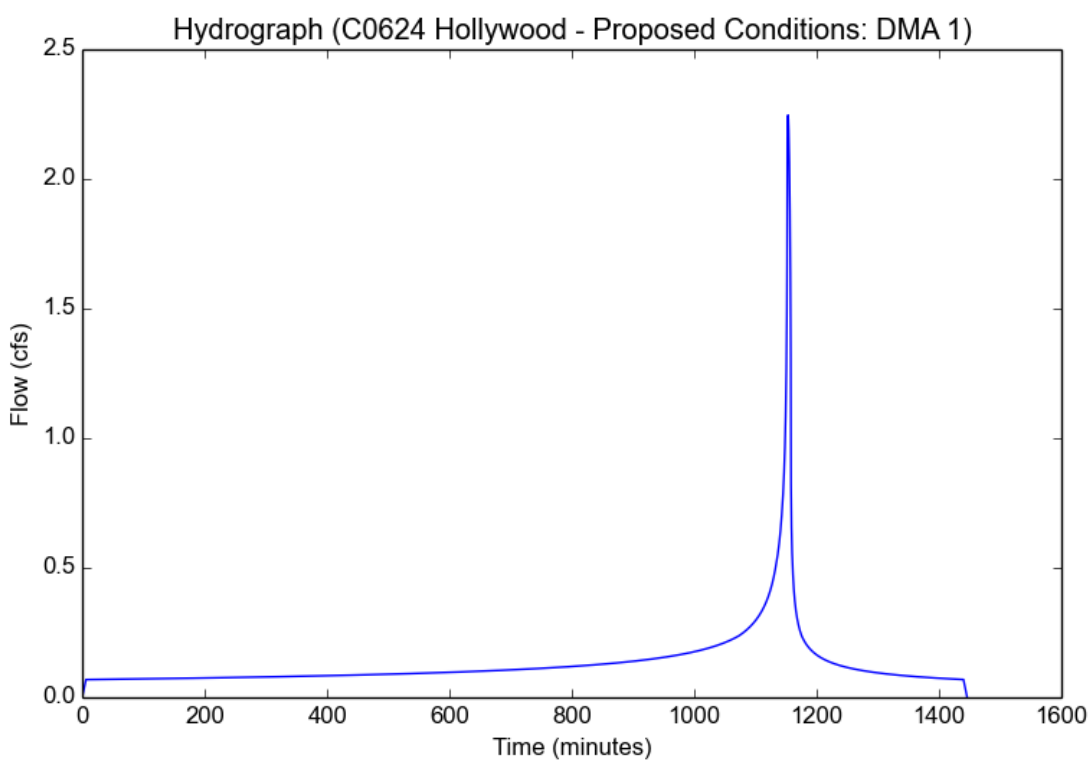
File location: K:/ORA_LDEV/Raising Cane's/094797107 - Hollywood (Sunset and Highland) 624/Reports/Hydrology Hydraulics/Appendices/Proposed Co
Version: HydroCalc 1.0.3

Input Parameters

Project Name	C0624 Hollywood - Proposed Conditions
Subarea ID	DMA 1
Area (ac)	0.89
Flow Path Length (ft)	360.0
Flow Path Slope (vft/hft)	0.0187
50-yr Rainfall Depth (in)	5.95
Percent Impervious	0.71
Soil Type	16
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.2241
Peak Intensity (in/hr)	2.8609
Undeveloped Runoff Coefficient (Cu)	0.8386
Developed Runoff Coefficient (Cd)	0.8822
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	2.2463
Burned Peak Flow Rate (cfs)	2.2463
24-Hr Clear Runoff Volume (ac-ft)	0.2661
24-Hr Clear Runoff Volume (cu-ft)	11590.8406



Peak Flow Hydrologic Analysis

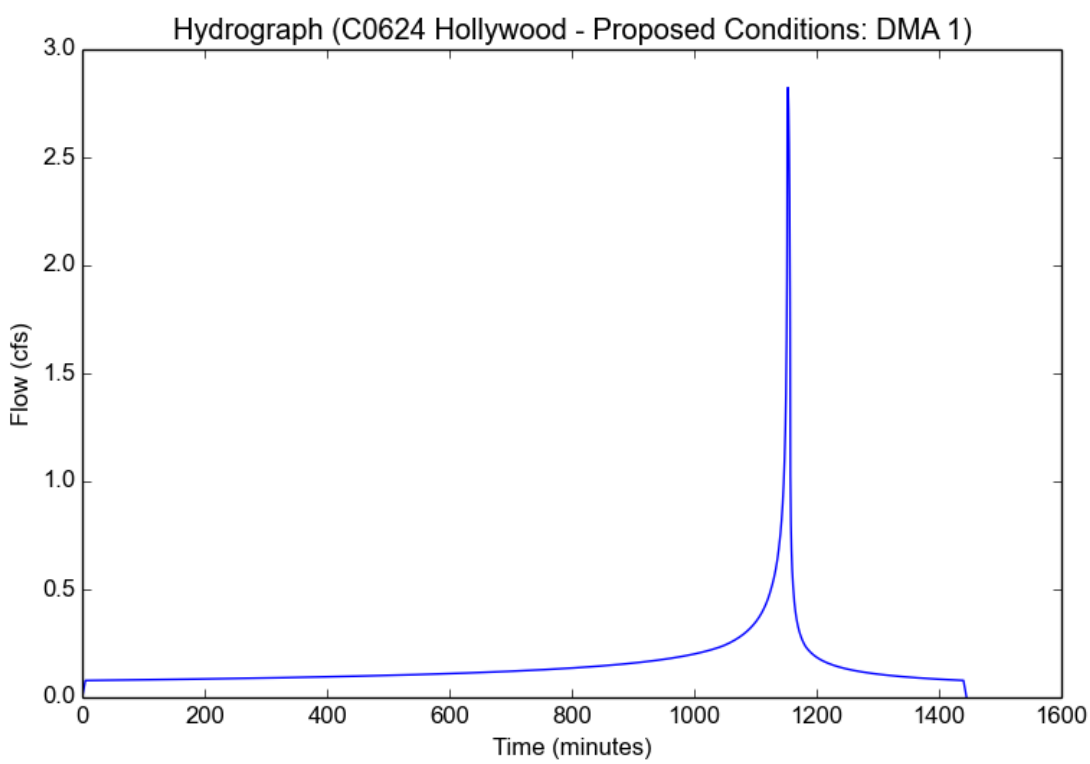
File location: K:/ORA_LDEV/Raising Cane's/094797107 - Hollywood (Sunset and Highland) 624/Reports/Hydrology Hydraulics/Appendices/Proposed Co
Version: HydroCalc 1.0.3

Input Parameters

Project Name	C0624 Hollywood - Proposed Conditions
Subarea ID	DMA 1
Area (ac)	0.89
Flow Path Length (ft)	360.0
Flow Path Slope (vft/hft)	0.0187
50-yr Rainfall Depth (in)	5.95
Percent Impervious	0.71
Soil Type	16
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

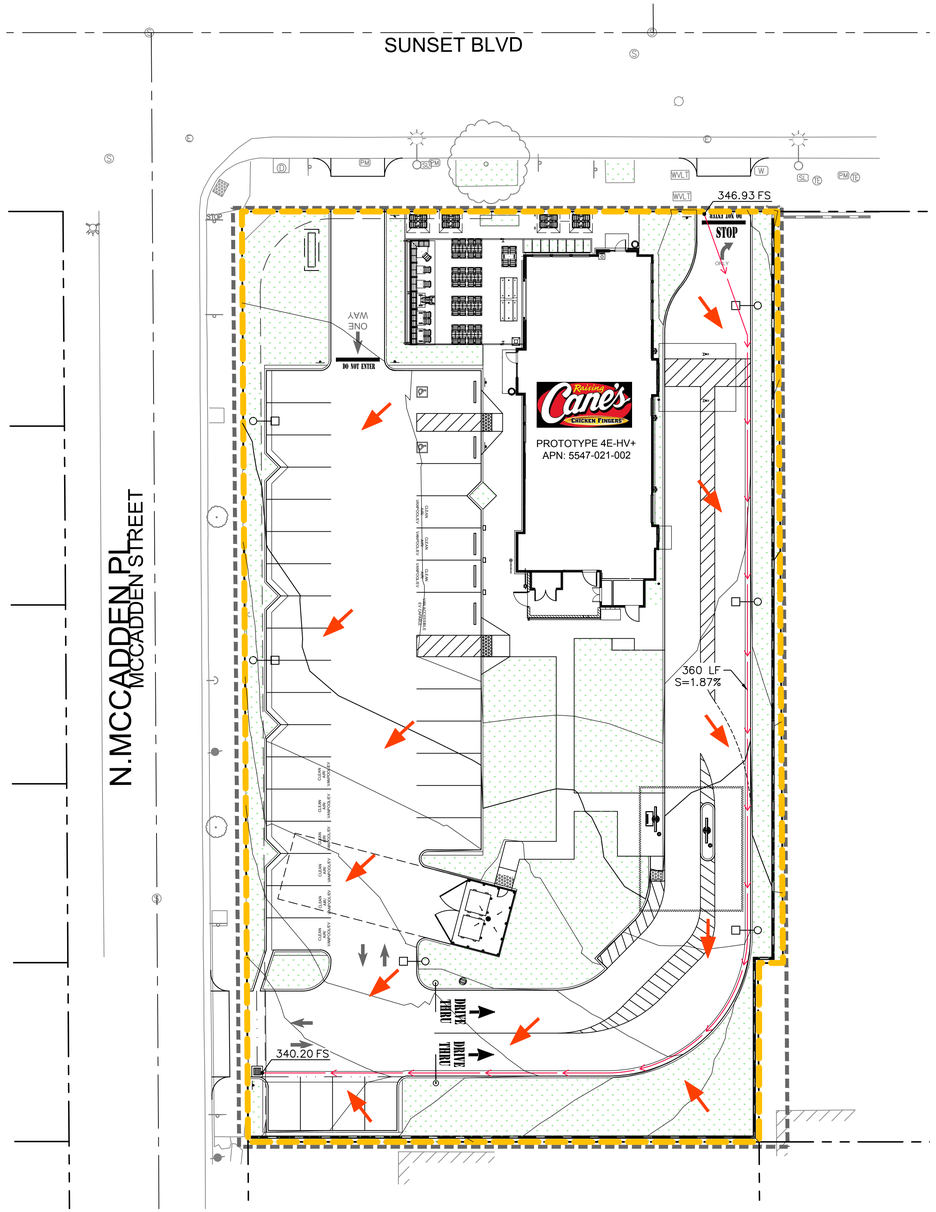
Output Results

Modeled (50-yr) Rainfall Depth (in)	5.95
Peak Intensity (in/hr)	3.5499
Undeveloped Runoff Coefficient (Cu)	0.8776
Developed Runoff Coefficient (Cd)	0.8935
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	2.823
Burned Peak Flow Rate (cfs)	2.823
24-Hr Clear Runoff Volume (ac-ft)	0.3048
24-Hr Clear Runoff Volume (cu-ft)	13277.3239



Appendix E:

Proposed Hydrology Exhibit



LEGEND

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE / LEASE LINE
- EASEMENT LINE / SETBACK LINE
- SD — EXISTING STORM DRAIN LINE
- SD — PROPOSED STORM DRAIN LINE
- GB — GRADE BREAK LINE
- R — RIDGE LINE
- LONGEST PROPOSED FLOW PATH
- DENOTES DRAINAGE AREA BOUNDARY
- LANDSCAPE/PLANTER AREA
- 715.50 TC / 715.00 FS — PROPOSED SPOT ELEVATION
- (715.50 TC) / (715.00 FS) — EXISTING SPOT ELEVATION
- PROPOSED SURFACE FLOW DIRECTION
- PROPOSED STORM DRAIN PIPE FLOW DIRECTION
- EXISTING SURFACE FLOW DIRECTION

HYDROLOGY DATA TABLE

DMA #	TOTAL DRAINAGE AREA (SF)	PERVIOUS AREA (SF)	IMPERVIOUS AREA (SF)	Q_{25} (CFS)	V_{25} (CF)	Q_{50} (CFS)	V_{50} (CF)
1	38,609	11,078	27,531	2.2460	11,591	2.8230	13,277

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40
1" = 20'
WHEN PRINTED AT FULL SIZE
(24" X 36")

Drawing name: K:\ORA_LDEV\Raising Cane's\094797107 - Hollywood (Sunset and Highland) 624\CADD\Exhibits\Hydrology\C0624 Hydrology Proposed Conditions.dwg C6.2 - DRAINAGE AREA MAP Feb 02, 2022 3:28pm by: Hannah.Smith

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
	01/25/22	80% COORDINATION SET

DRAWN BY: JC
CHECKED BY: HS
RECOMMENDED: HS

ENGINEERS SEAL: REGISTERED PROFESSIONAL ENGINEER HANNAH N. SMITH NO. 90371 CIVIL STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125

PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: 2/2/2022 EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER RCE # _____ EXP _____ DATE

Raising Cane's Chicken Fingers
6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

PROPOSED CONDITIONS

Appendix F:

Civil Grading Plans

Low Impact Development Plan
(LID Plan)

Project Name:

Raising Cane's Restaurant – 0624

6726 Sunset Boulevard, Los Angeles, Ca 90028

Prepared for:

Kristen Roberts

Raising Cane's Restaurants, LLC

6800 Bishop Road

Plano, TX 75024

(972) 769-3348

Prepared by:

Hannah Smith, P.E.

Kimley-Horn & Associates

1100 W Town And Country Road, Suite 700

Orange, CA 92868

(714) 786-6125

PE Stamp & Sign Here

1st Submittal: February 2022

Project Owner's Certification

I certify under penalty of law that this document and all attachments were prepared under my jurisdiction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathered the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner's Name:	Vincent Bohanec (KB Sunset McCadden, LLC.)		
Owner's Title:	Owner		
Company:	ARKA Properties		
Address:	9350 Wilshire Blvd., #402, Beverly Hills, CA 90212		
Email:	vmbohanex@arkaproproperties group.com		
Telephone No:	310-274-2259		
Signature:		Date:	

Preparer (Engineer) Certification

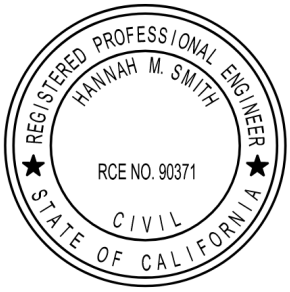
Engineer's Name:	Hannah Smith		
Engineer's Title:	P.E.		
Company:	Kimley-Horn & Associates		
Address:	1100 W Town and Country Road, Suite 700, Orange, CA 92868		
Email:	Hannah.Smith@kimley-horn.com		
Telephone No:	714-786-6125		
I hereby certify that this Low Impact Development Plan is in compliance with, and meets the standards and requirements set forth in, Order No. R4-2012-0175, of the Los Angeles Regional Water Quality Control Board and the current Los Angeles County LID Manual			
Engineer's Signature		Date	01/30/2022
Place Stamp Here			

Table of Contents

1. Project Description 2
- **1.1. Project Category 2**
- **1.2. Project Description 3**
- **1.3. Hydromodification Analysis 6**
- **1.4. Property Ownership/Management 7**

2. Best Management Practices (BMPs) 8
- **2.1. Site Design 8**
- **2.2. BMP Selection 9**
  - *2.2.1. Infiltration BMPs 9*
  - *2.2.2. Rainwater Harvest and Use BMPs 10*
  - *2.2.3. Alternative Compliance BMPs 11*
  - *2.2.4. Treatment Control BMPs 13*
  - *2.2.5. Hydromodification Control BMPs 14*
  - *2.2.6. Non-structural Source Control BMPs 15*
  - *2.2.7. Structural Source Control BMPs 16*

Attachments

Attachment A ..... BMP Fact Sheets

Attachment B ..... Calculations

Attachment C ..... Geotechnical Report

Attachment D ..... Master Covenant and Agreement (MCA)

Attachment E ..... Operations and Maintenance (O&M) Plan

Attachment F ..... Construction Plans

1. PROJECT DESCRIPTION

1.1. PROJECT CATEGORY

Category	YES	NO
1. Development [a] of a new project equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious area [b]	☐	☒
2. Development [a] of a new industrial park with 10,000 square feet or more of surface area [c]	☐	☒
3. Development [a] of a new commercial mall with 10,000 square feet or more surface area [c]	☐	☒
4. Development [a] of a new retail gasoline outlet with 5,000 square feet or more of surface area [c]	☐	☒
5. Development [a] of a new restaurant (SIC 5812) with 5,000 square feet or more of surface area [c]	☒	☐
6. Development [a] of a new parking lot with either 5,000 ft^2 or more of impervious area [b] or with 25 or more parking spaces	☒	☐
7. Development [a] of a new automotive service facility (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) with 5,000 square feet or more of surface area [c]	☐	☒
8. Projects located in or directly adjacent to, or discharging directly to a Significant Ecological Area (SEA),[d] where the development will: a. Discharge stormwater runoff that is likely to impact a sensitive biological species or habitat; and b. Create 2,500 square feet or more of impervious area [b]	☐	☒
9. Redevelopment [e] of 5,000 square feet or more in one of the categories listed above **If yes, list redevelopment category here:** 1,5, 6	☒	☐
10. Redevelopment [e] of 10,000 square feet or more to a Single Family Home, without a change in landuse.	☐	☒

a Development includes any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that results in land disturbance.

b Surfaces that do not allow stormwater runoff to percolate into the ground. Typical impervious surfaces include: concrete, asphalt, roofing materials, etc.

c The surface area is the total footprint of an area. Not to include the cumulative area above or below the ground surface.

d An area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and would be disturbed or degraded by human activities and developments. Also, an area designated by the City as approved by the Regional Water Quality Control Board.

e Land-disturbing activities that result in the creation, addition, or replacement of a certain amount of impervious surface area on an already developed site. Redevelopment does not include routine maintenance activities that are conducted to maintain the original line and grade, hydraulic capacity, or original purpose of facility, nor does it include modifications to existing single family structures, or emergency construction activities required to immediately protect public health and safety.

1.2. PROJECT DESCRIPTION

Project Address: 6726 Sunset Boulevard, Los Angeles, Ca 90028

Total Project Area (ft^2): 38,609

Total Project Area (Ac): 0.89

EXISTING CONDITIONS

Condition	Area (ft^2)	Percentage (%)
Pervious Area:	2,012	5
Impervious Area:	36,597	95

PROPOSED CONDITIONS

Condition	Area (ft^2)	Percentage (%)
Pervious Area:	11,017	29
Impervious Area:	27,592	71

SITE CHARACTERISTICS

DRAINAGE PATTERNS/CONNECTIONS	Existing: In the existing condition, the site consists of an existing commercial building with associated parking lot. The existing stie sheet flows from the northeast corner to the southwest corner and is captured into an existing drainage inlet. The site has an existing storm drain infrastructure designed to capture and treat the existing surface runoff. The remaining surface runoff is sheet flowed to the southwest offsite to the existing curb and gutter off McCadden Street and onto the public drainage system.
	Proposed: The redevelopment of the proposed Raising Cane's restaurant shall propose stormwater treatment infrastructure on-site. Due to the existing soil condition having low infiltration rates, capture and reuse was selected as the primary means of treatment. The proposed improvements will consist of (1) drainage management area, encompassing the entire site. The stormwater will sheet flow and flow from curb and gutter northwest to the southeast corner into the proposed catch basins and pipe flow in to an underground rainwater cistern for capture and irrigation reuse on site. Per the City of Los Angeles LID, the 85th percentile storm water quality depth (1.00 inches) was used to determine treatment volume for the proposed area. All volumes greater than the 85th percentile volume will

	overflow per existing drainage pattern and onto the public right-of-way off N. McCadden to the existing public system. To meet the County of LA Low Impact Development requirements, the proposed drainage management area (DMA) is as follows: Drainage Management Area (DMA) 1 has a total area of 38,609 square feet with 11,017 SF pervious area and 27,592 SF impervious area. DMA 1 consist of surface runoff from the parking lot, drive aisles, proposed drive through building and drive through lanes. The surface runoff will sheet flow and flow from curb and gutter into a proposed drop inlet catch basin at the southeast corner of the site along McCadden Pl. The surface runoff collected will flow into the proposed CDS unit for pre-treatment to remove all debris and trash before entering an underground rainwater cistern located on the southeastern portion of the property. The proposed underground cistern will store the 85th percentile storm event volume to be used for private, onsite irrigation within 7 months. Refer to Appendix B for Capture and Use Feasibility Calculations. Stormwater in excess of the 85th percentile event will overflow and bubble out offsite onto the existing curb and gutter off N. McCadden Pl. and flow south into the existing public drainage system per the existing conditions.
NARRATIVE PROJECT DESCRIPTION:	The project is a proposed Raising Cane's Chicken Fingers Restaurant located on the southeast corner of Sunset Blvd. and N McCadden Pl. in Los Angeles, CA. The site will be developed into a new parking lot and restaurant with the addition of multiple landscape areas. Landscape will be a variety of trees, shrubs, and ground coverage of drought tolerant native species. Land use at the proposed site will include indoor food preparation, cooking, outdoor eating areas, a drive through, and improvements to the surface parking and landscape design. A covered trash enclosure is proposed to the west of the building. Expected wastes will be food waste, grease from cooking, trash and debris. The proposed building will be a rectangle-oriented south to north with entrances on the west and north sides of the building. The drive-thru approach will be near the southwest of the building and circulation is counter-clockwise. The drive-thru exit will be to the northeast of the building, existing onto Sunset Blvd. The building will have a roof drain system that discharges to the surface drive thru area and will therefore be included in the drainage calculations. Based on the Geotechnical report prepared by Terracon dated December 7, 2020 the site exhibits unacceptable infiltration rates. The infiltration rate is estimated to be 0.36 in/hr (when the LA County Reduction Factor of safety of 4.0 is applied, infiltration is 0.09 in/hr.), and based on this information, infiltration was deemed infeasible as a primary means of treatment. The BMPs proposed for this site consists of one (1) CDS pre-treatment unit and one (1) underground rainwater cisterns for capture and reuse. The proposed inlet will overflow and bubble out onto the curb

	and gutter off McCadden Pl. to the existing public stormwater drainage system per existing drainage pattern.

OFF-SITE RUN ON	There is no off-site run on expected for this site.
UTILITY AND INFRASTRUCTURE INFORMATION	Proposed 2" domestic water line to connect to an existing meter located on the public right-of-way on W. Sunset Blvd., and a proposed 1" irrigation water meter and irrigation main to tap into the existing water main on W. Sunset Blvd. Improvements include connecting installing domestic and irrigation water backflow preventer in landscape area adjacent to the proposed Raising Cane's patio area. Proposed 6" sanitary sewer to be connected to the existing 8" sewer lateral located off N. McCadden Pl. The onsite sewer system will contain one new 1,500 gallon grease interceptor that will service the proposed building and trash enclosure. A new stepdown transformer will be installed in the landscape area located southeast of the proposed building as part of these improvements. Stormwater quality control measures are not anticipated to conflict with proposed and/or existing utilities.
SIGNIFICANT ECOLOGICAL AREAS (SEAS)	N/A

1.3. HYDROMODIFICATION ANALYSIS

DOES THE PROPOSED PROJECT FALL INTO ONE OF THE FOLLOWING CATEGORIES? CHECK YES/NO.	YES	NO
1. *Project is a redevelopment that decreases the effective impervious area compared to the pre-project conditions.*	☒	☐
Describe: The existing property has 95% of impervious area and the proposed project has 71% of impervious area. The proposed project to be redeveloped will result in 9,005 S.F. of increased pervious area.		
2. *Project is a redevelopment that increases the infiltration capacity of pervious areas compared to the pre-project conditions.*	☒	☐
Describe: Pervious areas is 9,005 S.F greater in post-project conditions than pre-project conditions and will result to increased infiltration wherever possible.		
3. *Project discharges directly or via a storm drain to a sump, lake, area under tidal influence, into a waterway that has a 100-year peak flow (Q_{100}) of 25,000 cfs or more.*	☐	☒
Describe:		
4. *Project discharges directly or via a storm drain into concrete or otherwise engineered (not natural) channels (e.g., channelized or armored with rip rap, shotcrete, etc.), which, in turn, discharge into receiving water that is not susceptible to hydromodification impacts.*	☒	☐
Describe: The project ultimately discharges into Los Angeles River.		

HYDROMODIFICATION ANALYSIS

The site is exempt to Hydromodification Requirements as the proposed site is a redevelopment of a previously developed site in an urbanized area that does not increase the effective impervious area (as noted in section 8.2 of the Low Impact Development Design Manual for the County of Los Angeles).

1.4. PROPERTY OWNERSHIP/MANAGEMENT

OWNER INFORMATION	Current owner on the project is KB SUnSet McCadden, LLC. The site will be leased by the end user for the project, Raising Cane's Restaurant, LLC. No infrastructure is required to be transferred to public agencies currently. There are currently no street, road, or highway projects that are planned and constructed as a part of this Low Impact Development Plan (LID). **Property Owners Information** Name: Vincent Bohanec (KB Sunset McCadden, LLC.) Company: ARKA Properties Address: 9350 Wilshire Blvd., #402, Beverly Hills, CA 90212 Phone Number: 310-274-2259 Emails: vmbohanex@arkaproproperties group.com

2. BEST MANAGEMENT PRACTICES (BMPS)

2.1. SITE DESIGN

85TH PERCENTILE, 24-HOUR STORM DEPTH	1.0 inch
SITE DESIGN	Based on the Geotechnical report prepared by Terracon dated December 7, 2020 the site exhibits unacceptable infiltration rates. The infiltration rate is estimated to be 0.36 in/hr (when the LA County Reduction Factor of safety of 4.0 is applied, infiltration is 0.09 in/hr.), and based on this information, infiltration was deemed infeasible as a primary means of treatment. The BMPs proposed for this site consists of one (1) CDS pre-treatment unit and one (1) underground rainwater cisterns for capture and reuse. The proposed inlet will overflow and bubble out onto the curb and gutter off McCadden Pl. to the existing public stormwater drainage system per existing drainage pattern.

Drainage Area	Total Site Area (Ac)	Total Site Area (SF)	Pervious (SF)	Pervious (%)	Impervious (SF)	Impervious (%)	DCV	Treatment Method
1	0.89	38,609	11,017	29%	27,592	71%	2,140	Capture and Reuse

2.2 BMP SELECTION

2.1.1. INFILTRATION BMPS

NAME	INCLUDED
Bioretention without underdrains	☐
Infiltration Trench	☐
Infiltration Basin	☐
Drywell	☐
Proprietary Subsurface Infiltration Gallery	☐
Permeable Pavement (concrete, asphalt, pavers)	☐

DESCRIPTION	N/A
CALCULATIONS	N/A

2.1.2. RAINWATER HARVEST AND USE BMPS

NAME	INCLUDED
Above-ground cisterns and basins	☐
Underground detention	☒

DESCRIPTION	Based on the Geotechnical report prepared by Terracon dated December 7, 2020 the site exhibits unacceptable infiltration rates. The infiltration rate is estimated to be 0.36 in/hr (when the LA County Reduction Factor of safety of 4.0 is applied, infiltration is 0.09 in/hr.), and based on this information, infiltration was deemed infeasible as a primary means of treatment. The BMPs proposed for this site consists of one (1) CDS pre-treatment unit and one (1) underground rainwater cisterns for capture and reuse. The proposed inlet will overflow and bubble out onto the curb and gutter off McCadden Pl. to the existing public stormwater drainage system per existing drainage pattern.
CALCULATIONS	Refer to Appendix B for feasibility and storage calculations.

2.1.3. ALTERNATIVE COMPLIANCE BMPS

BIOFILTRATION BMPS

(If Infiltration BMPs and Rainwater Harvest and Use BMPs are Infeasible)

NAME	INCLUDED
Bioretention with underdrains (i.e. planter box, rain garden, etc.)	☐
Constructed Wetland	☐
Vegetated Swale	☐
Vegetated Filter Strip	☐

DESCRIPTION	N/A
CALCULATIONS	N/A

OFFSITE BMPS

(If Infiltration BMPs, Rainwater Harvest and Use BMPs, and Biofiltration BMPs are Infeasible)

NAME	INCLUDED
Offsite Infiltration	☐
Ground Water Replenishment Projects	☐
Offsite Project - Retrofit Existing Development	☐
Regional Storm Water Mitigation Program	☐
Other:	☐
Other:	☐

DESCRIPTION	N/A
CALCULATIONS	N/A

2.1.4. TREATMENT CONTROL BMPS

NAME	INCLUDED
Media Filter	☐
Filter Insert	☐
CDS Unit	☐
Other:	☐
Other:	☐

DESCRIPTION	N/A

2.1.5. HYDROMODIFICATION CONTROL BMPS

NAME	INCLUDED
Infiltration System	☐
Above-ground Cistern	☐
Above-ground Basin	☐
Underground Detention	☐
Other:	☐
Other:	☐

DESCRIPTION	N/A
CALCULATIONS	N/A

2.1.6. NON-STRUCTURAL SOURCE CONTROL BMPS

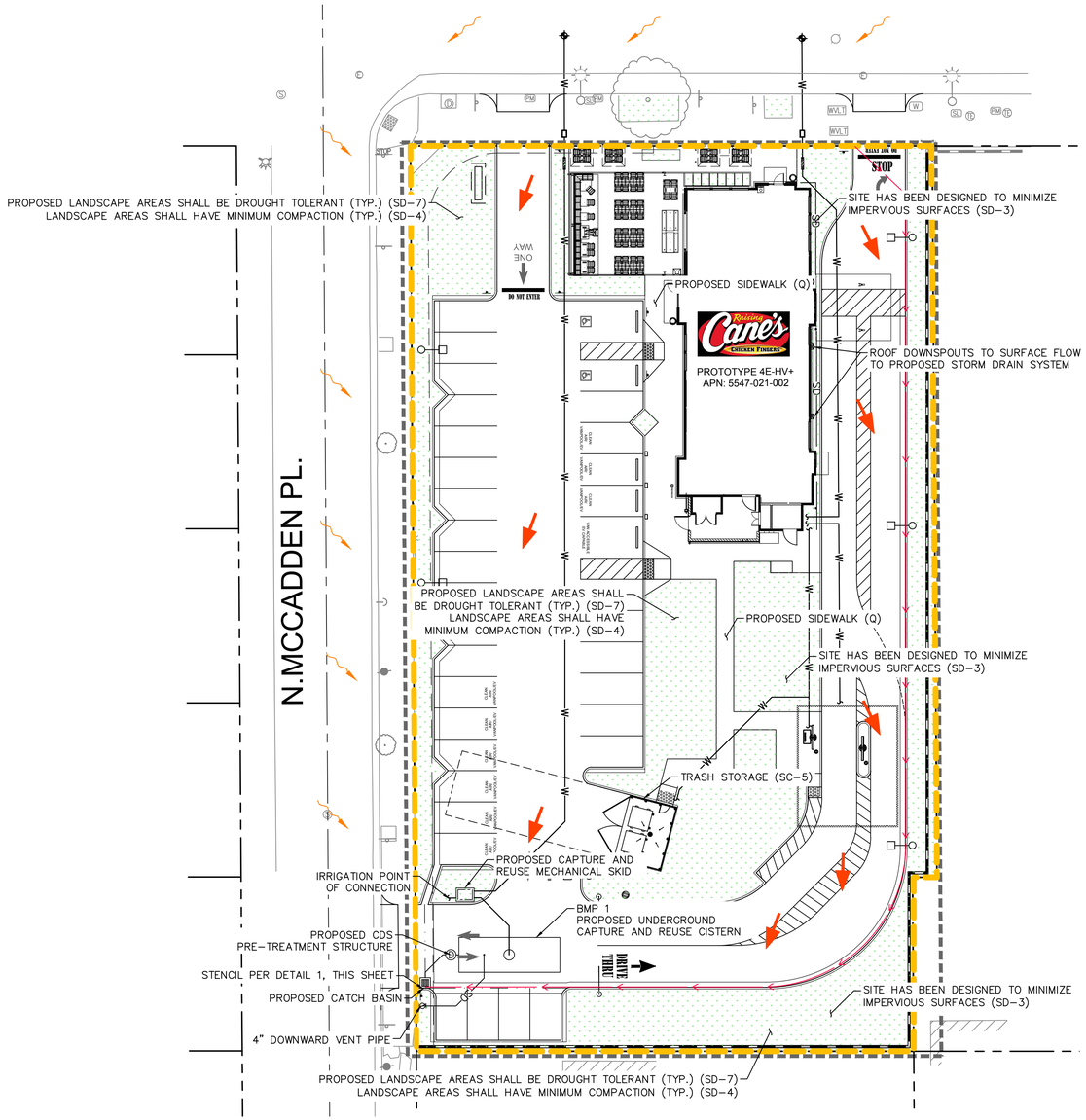
NAME	CHECK ONE	
	Included	**Not Applicable**
Education for Property Owners, Tenants and Occupants	☒	☐
Activity Restrictions	☒	☐
Common Area Landscape Management	☒	☐
Common Area Litter Control	☒	☐
Housekeeping of Loading Docks	☒	☐
Common Area Catch Basin Inspection	☒	☐
Street Sweeping Private Streets and Parking Lots	☒	☐

2.1.7. STRUCTURAL SOURCE CONTROL BMPS

NAME	CHECK ONE	
	Included	**Not Applicable**
Provide storm drain system stenciling and signage	☒	☐
Design and construct outdoor material storage areas to reduce pollution introduction	☒	☐
Design and construct trash and waste storage areas to reduce pollution introduction	☒	☐
Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	☒	☐
Protect slopes and channels and provide energy dissipation	☐	☒
Loading docks	☐	☒
Maintenance bays	☐	☒
Vehicle wash areas	☐	☒
Outdoor processing areas	☐	☒
Equipment wash areas/racks	☐	☒
Fueling areas	☐	☒
Hillside landscaping	☐	☒
Grease Interceptor	☒	☐

Attachment A

Drainage Area Map



LEGEND

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE / LEASE LINE
- EASEMENT LINE / SETBACK LINE
- SD — EXISTING STORM DRAIN LINE
- SD — PROPOSED STORM DRAIN LINE
- GB — GRADE BREAK LINE
- R — RIDGE LINE
- LONGEST PROPOSED FLOW PATH
- DENOTES DRAINAGE AREA BOUNDARY
- LANDSCAPE/PLANTER AREA
- 715.50 TC / 715.00 FS — PROPOSED SPOT ELEVATION
- (715.50 TC) / (715.00 FS) — EXISTING SPOT ELEVATION
- PROPOSED SURFACE FLOW DIRECTION
- PROPOSED STORM DRAIN PIPE FLOW DIRECTION
- EXISTING SURFACE FLOW DIRECTION

SOURCE CONTROL BMPS	
BMP ID	BMP DESCIRPTION
SC-1	PREVENT ILLICIT DISCHARGE INTO MS4 → ALL LANDSCAPE AREAS (TYP.)
SC-2	STORM DRAIN STENCILING AND SIGNAGE → ALL SD GRATED INLETS, CURB CUTS (TYP.)
SC-5	TRASH AND STORAGE AREAS
SC-6	ADDITIONAL BMPS BASED ON POTENTIAL SOURCES OF RUNOFF POLLUTANTS
A.	ON-SITE STORM DRAIN INLETS
D.	NEED FOR FUTURE INDOOR AND SOURCE CONTROL
E.	LANDSCAPE / OUTDOOR PESTICIDE USE
G.	FOOD PREPARATION AND / OR SERVICE
H.	REFUSE / TRASH COLLECTION AREAS
O.	FIRE SPRINKLER TEST WATER AND RELIEF POINT
P.	MISCELLANEOUS DRAIN OR WASH DOWN AREAS
Q.	PLAZA, SIDEWALKS, PARKING LOTS

SITE DESIGN BMPS	
BMP ID	BMP DESCIRPTION
SD-2	CONSERVE NATURAL AREAS, SOILS, AND VEGETATION
SD-3	MINIMIZE IMPERVIOUS AREAS
SD-4	MINIMIZE SOIL COMPACTION
SD-7	LANDSCAPING WITH NATIVE OR DROUGHT TOLERANT LANDSCAPING.

6" CURB ADJACENT TO DROP INLET

NO DUMPING DRAINS TO OCEAN

AT DROP INLET

3" MINIMUM HIGH BLACK LETTERING

STENCIL DETAIL 1
N.T.S.

NOTE

1. ANY CHANGES (TYPE, SIZE, LOCATION) TO APPROVED STORMWATER BEST MANAGEMENT PRACTICE (BMPS) MUST OBTAIN WRITTEN APPROVAL FROM LOS ANGELES DEPARTEMENT OF PUBLIC WORKS BUREAU OF SANITATION PRIOT TO CONSTRUCTION OF BMP(S).
2. REFER TO LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH PLAN REVIEW REPORT FOR INSTALLATION OF RAINWATER CATCHMENT AND IRRIGATION SYSTEM

LID BMP'S

DMA #	BMP ID#	TOTAL DRAINAGE AREA (SF)	PERVIOUS AREA (SF)	IMPERVIOUS AREA (SF)	SWQDv (CF)	SWQDf (cfs)	BMP PROVIDED	BMP VOLUME PROVIDED (CF)	LATITUDE	LONGITUDE
1	BMP-1	38,609	11,017	27,592	2140	0.1807	CAPTURE AND REUSE CISTERN		34.0972	-118.3379

CAPTURE AND USE FEASIBLITY

V(BMP), CF	2,140
V (BMP), GAL	16,007
PERVIOUS AREA, SF	11,017
PLANTING FACTOR	0.30
FACTORED PLANTING AREA, SF	3,305
ETWU (7-MONTH), GAL	44,467
ETWU (7-MONTH) > V(BMP)	FEASIBLE

Low Impact Development (LID)
Post Construction Stormwater Mitigation
Best Management Practices (BMPs)

STORMWATER BMP(s) VERIFICATION

Upon installation of the approved stormwater BMPs, a Stormwater Observation Report (SOR) Form shall be submitted to Department of Public Works, Bureau of Sanitation. 201 N. Figueroa, 3rd floor, station 18. The SOR Form must be with filed and approved by the Bureau of Sanitation prior to the issuance of a Certificate of Occupancy.

Project Address: 6726 Sunset Blvd, Los Angeles, CA

RESIDENTIAL (4 UNITS OR LESS, <10,000SF, < 2,500 SF within a ESA)

Item #	Stormwater BMP	Description (Units, total)	Reference Sheet(s)* (Sheet #)
1	Rain Tank(s) – 55 to 130 gal each	N/A	N/A
2	Rain Tank(s) – > 130 gal min	N/A	N/A
3	Shade Tree - min 15 gal	N/A	N/A
4	Flow thru Planter(s)	N/A	N/A
5	Permeable pavers / Porous concrete (min 10% open space)	☐ Incidental; N/A total SF ☐ Infiltration; N/A total SF	N/A
6	Rain Garden	☐ #____ - Lined; N/A total SF ☐ #____ - Unlined; N/A total SF	N/A
7	Dry Well	N/A	N/A
8	SUMP Pump (modification was not required)	N/A	N/A

ALL OTHER DEVELOPMENT
(Residential: 5 ≥ units, 10,000 ≥ SF, within a ESA and ≥2,500SF)

	Item #	Stormwater BMP	Description (Units, total)	Reference Sheet(s)* (Sheet #)
Infiltration	1	Infiltration Basin / Trench	N/A	N/A
	2	Dry Well	N/A	N/A
	3	Permeable pavers / Porous concrete (min 10% open space)	☐ Incidental; N/A total SF ☐ Infiltration; N/A total SF	N/A
Capture & Use	4	Rain Tank(s) – 530 gal min	N/A	N/A
	5	Cistern	☐ Above Grade ☒ Below Grade (1) CISTERN	C6.0, C6.1, C6.2, C8.1, C8.2
Treat & Discharge	6	Flow thru Planter(s)	N/A	
	7	Biofiltration	☐ # N/A - Lined; N/A total SF ☐ # N/A - Unlined; N/A total SF	N/A
	8	Vegetative Swale / Filter Strip	N/A	N/A
	9	Catch Basin Filter(s)	N/A	N/A
	10	Trench Drain Filter(s)	N/A	N/A
	11	Down Spout Filter(s)	N/A	N/A
	12	SUMP Pump (modification was not required)	(1) SUMP PUMP	C6.0, C6.1, C6.2, C8.1, C8.2

* At a minimum: Site Plan, Architectural Elevations, Roof Plan, Civil Sheets and Detail

STORMWATER OBSERVATION REPORT FORM
(Residential ≥ 5 units & All other Development)

LOW IMPACT DEVELOPMENT

IN THE EVENT THAT THE APPROVED STORMWATER BMP CANNOT BE BUILT PER PLANS (OR ANY MODIFICATION), CONSULT WITH BUREAU OF SANITATION STAFF PRIOR TO ANY PLAN MODIFICATIONS. FAILURE TO DO SO MAY DELAY OBTAINING A FINAL APPROVAL AND CERTIFICATE OF OCCUPANCY (C OF O).

STORMWATER OBSERVATION *means the visual observation of the stormwater related Best Management Practices (BMPs) for conformance with the approved LID Plan at significant construction stages and at completion of the project. Stormwater observation does not include or waive the responsibility for the inspections required by Section 108 or other sections of the City of Los Angeles Building Code.*

STORMWATER OBSERVATION *must be performed by the engineer or architect responsible for the approved LID Plan or designated staff in their employment.* ***As part of the observation, provide photos of the BMPs taken during various construction phases.***

STORMWATER OBSERVATION REPORT *must be signed and stamped (see below) by the engineer or architect responsible for the approved LID Plan and submitted to the city prior to the issuance to the certificate of occupancy.* ***PRIOR TO CERTIFICATE OF OCCUPANCY (C of O), SOR FORM, PRINTED PHOTOS OF THE BMPS TAKEN DURING VARIOUS CONSTRUCTION PHASES AND APPROVED STAMPED PLANS BY THE BUREAU OF SANITATION MUST BE SUBMITTED TO THE PUBLIC COUNTER FOR STAFF APPROVAL.***

Project Address: 6726 Sunset Blvd Los Angeles, CA	Building Permit No.:
Name of Engineer/Architect responsible for the approved LID Plan: Hannah Smith, P.E.	Phone Number: 714-939-1030

List all BMPs installed as part of the project: Coordinates of the most significant (or typical) BMPs:

BMP Type: Capture and Reuse # of units: 1 Lat: 34.097195 ; Long: -118.337847 *Ex: Lat: 34.04152; Long: -118.25962 (5 sig digits)*	BMP Type: Contech CDS Pre-treatment Unit # of units: 1 Lat: 34.097195 ; Long: -118.337847
BMP Type:_____ # of units: ____ Lat: _____ ; Long:_____	BMP Type:_____ # of units: ____ Lat: _____ ; Long:_____

I DECLARE THAT THE FOLLOWING STATEMENTS ARE TRUE TO THE BEST OF MY KNOWLEDGE:

1. I am the engineer or architect responsible for the approved LID Plan, and;
2. I, or designated staff under my responsible charge, has preformed the required site visits at each significant construction stage and at the completion to verify that the Best Management Practices (BMPs) as shown on approved plans have been constructed and installed in accordance with the approved LID Plan.

Signature 1/17/21 Date

REGISTERED PROFESSIONAL ENGINEER HANNAH M. SMITH RCE NO. 90371 CIVIL STATE OF CALIFORNIA

Wet Stamp of Engineer or Architect

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40
1" = 20'
WHEN PRINTED AT FULL SIZE (24" X 36")

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
	01/25/22	80% COORDINATION SET

DRAWN BY JC
CHECKED BY HS
RECOMMENDED HS

ENGINEERS SEAL — REGISTERED PROFESSIONAL ENGINEER HANNAH M. SMITH RCE NO. 90371 CIVIL STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125
PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: 2/3/2022 EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER RCE # _____ EXP _____ DATE

6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

DRAINAGE AREA MAP

C6.2

Drawing name: K:\ORA_LDEV\Raising Cane's\094797107 - Hollywood (Sunset and Highland) 624\CADD\PlanSheets\C6.2 - DRAINAGE AREA MAP.dwg C6.2 - DRAINAGE AREA MAP Feb 03, 2022 11:36am by: Debbie.Solorzano
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Attachment B

Calculations

Peak Flow Hydrologic Analysis

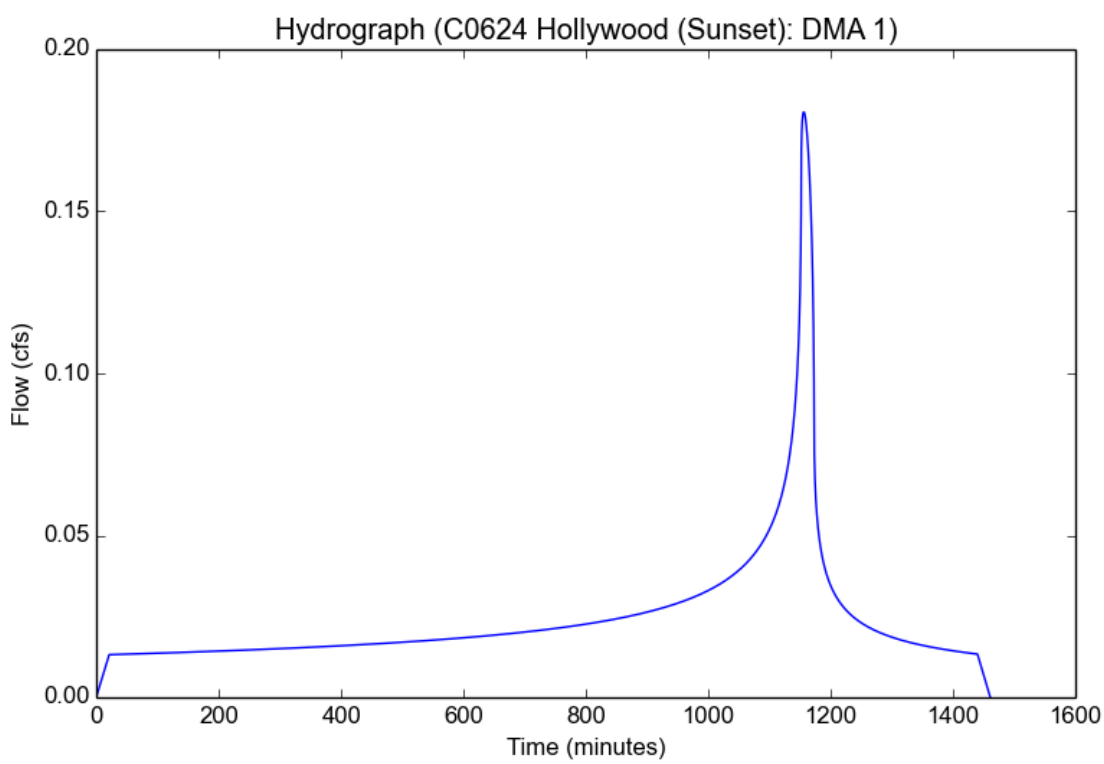
File location: K:/ORA_LDEV/Raising Cane's/094797107 - Hollywood (Sunset and Highland) 624/Reports/LID/Appendices/Appendix B - Calculations & Sit
Version: HydroCalc 1.0.3

Input Parameters

Project Name	C0624 Hollywood (Sunset)
Subarea ID	DMA 1
Area (ac)	0.89
Flow Path Length (ft)	360.0
Flow Path Slope (vft/hft)	0.019
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	0.71
Soil Type	16
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.3039
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.668
Time of Concentration (min)	21.0
Clear Peak Flow Rate (cfs)	0.1807
Burned Peak Flow Rate (cfs)	0.1807
24-Hr Clear Runoff Volume (ac-ft)	0.0491
24-Hr Clear Runoff Volume (cu-ft)	2140.284



CAPTURE AND USE FEASIBILITY CALCULATION

Note: Red values are inputs.
Black values are automatically calculated.
Green values are outputs.

V_{design} (CF) =	2140	CF
$A_{pervious}$ (SF) =	11017	SF
Planting Factor =	0.30	

i. Design Volume, V_{design}

V_{design} (CF) =	2140	CF
V_{design} (gal) =	16007	gal

ii. Pervious Area, $A_{pervious}$

$A_{pervious}$ (SF) =	11017	SF

iii. Planter Factor, PF

Planting Factor =	0.30	
PF (SF) =	3305	SF

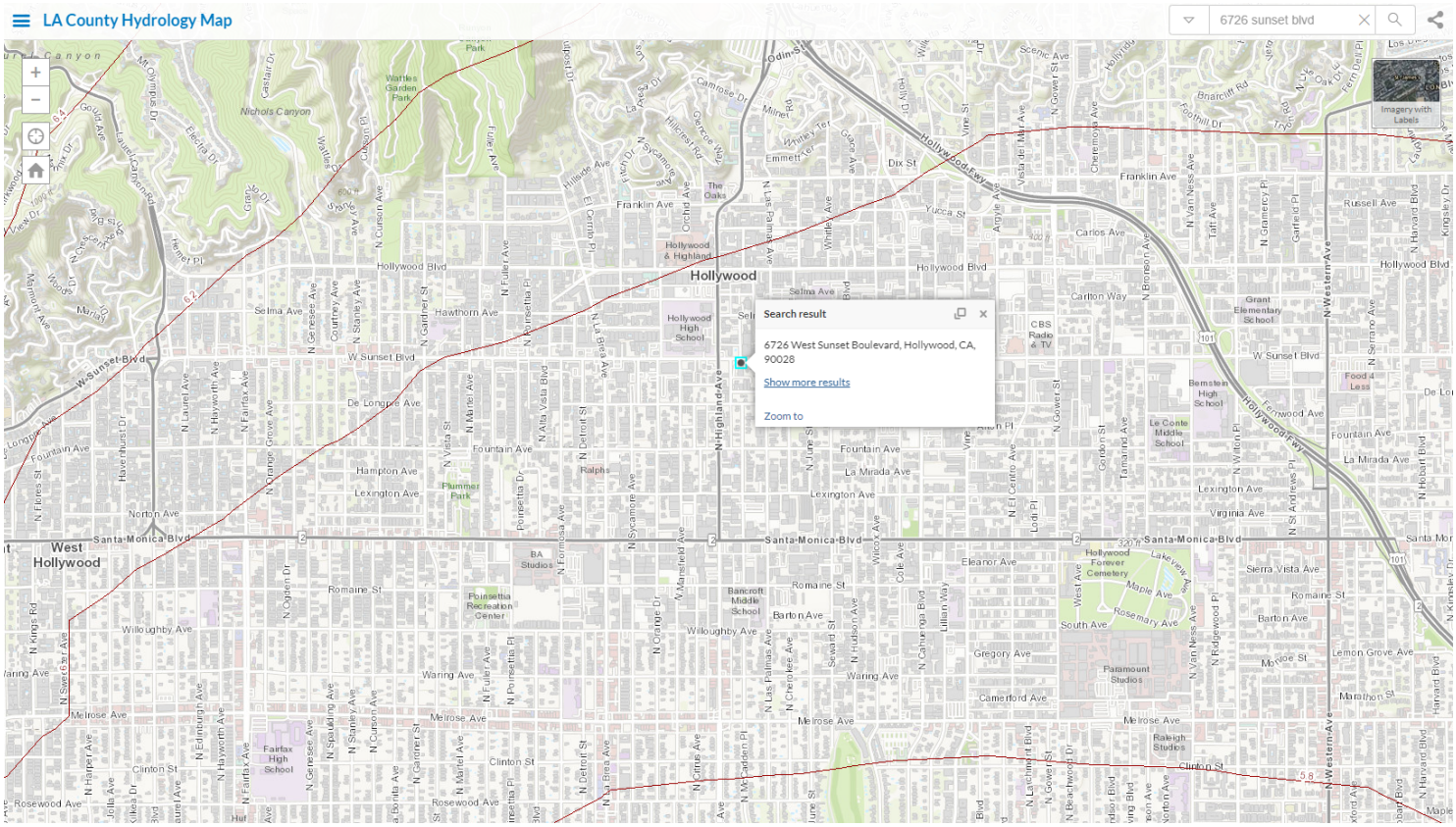
iv. $ETWU_{(7\text{-month})}$

$ETWU_{(7\text{-month})}$ (gal)=	44467	gal

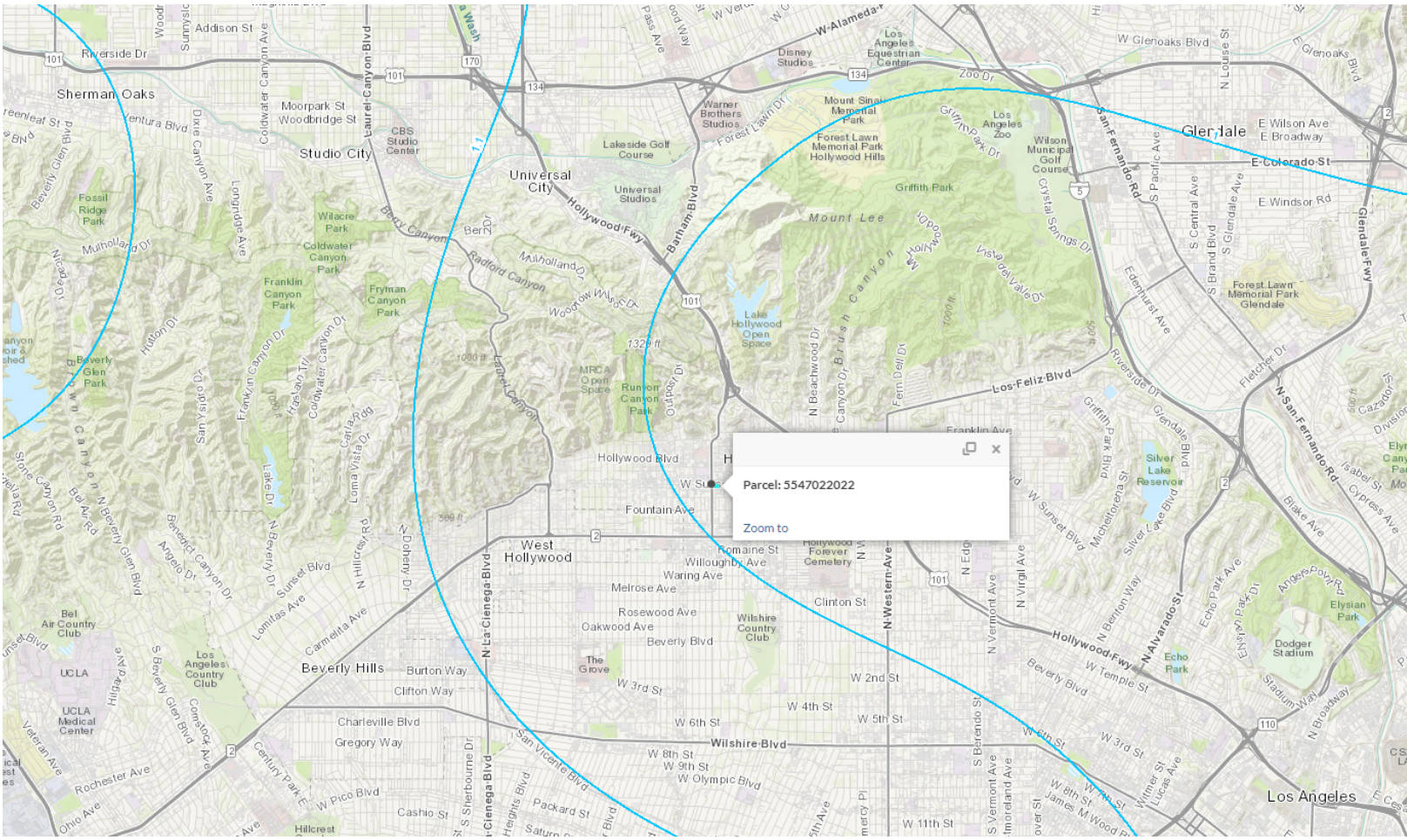
v. Feasibility

$ETWU_{(7\text{-month})}$ = 44467 > V_{design} = 16007 **, therefore** **feasible**

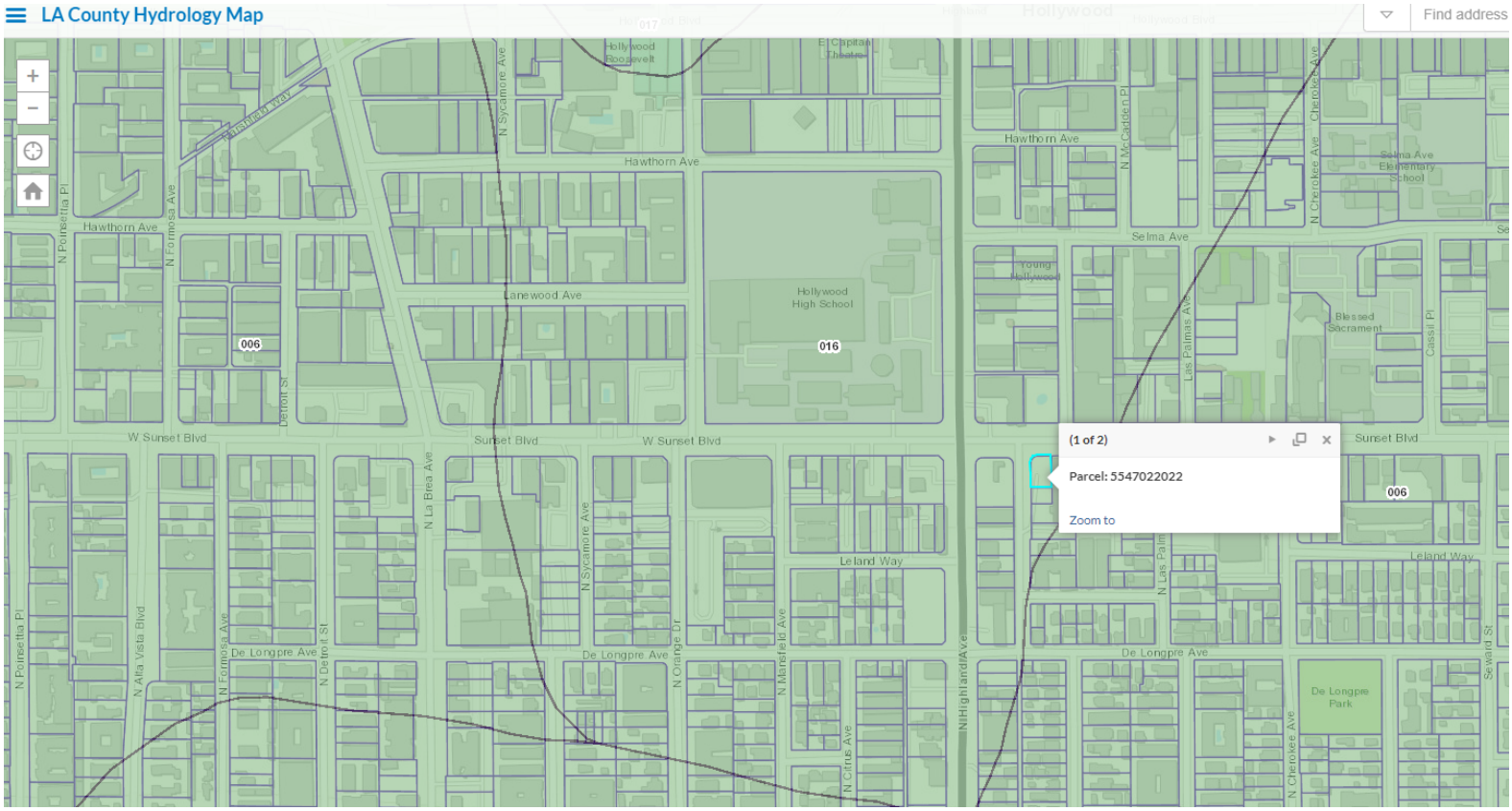
LA COUNTY 50-YR RAINFALL DEPTH = 5.95

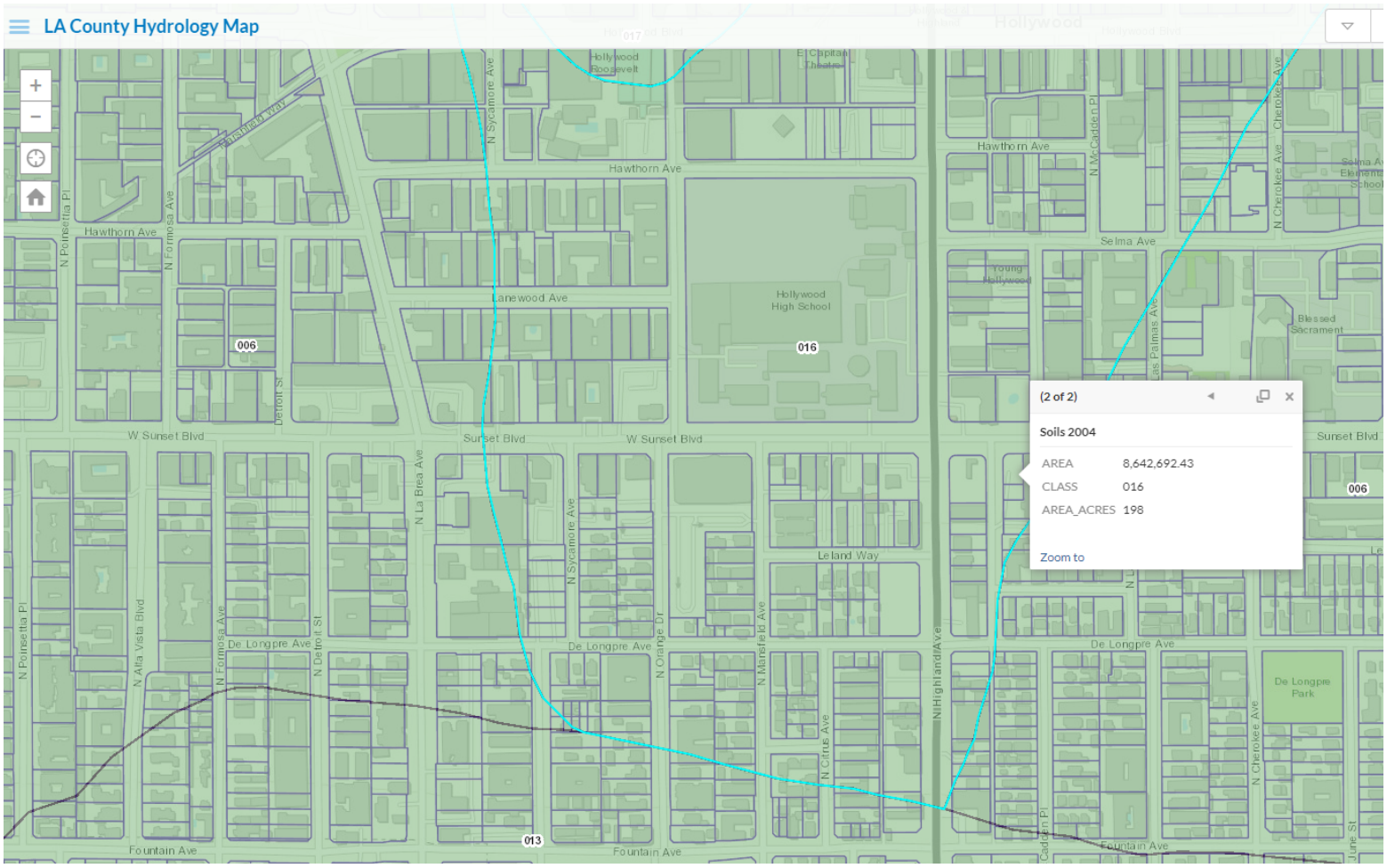


LA COUNTY 85TH PERCENTILE RAINFALL DEPTH
85TH PERCENTILE DEPTH = 1.0



LA COUNTY SOILS MAP
SOIL NUMBER 16





LOW IMPACT DEVELOPMENT (LID) CHECKLIST
ALL OTHER DEVELOPMET PROJECTS

WPD Project Plan Checker: **Counter: 213-482-7066**

TO BE FILLED OUT BY THE BUREAU OF SANITATION

	Regular		Expedited (add)	
Fee:	$ 721 (QC 721)	_____	$360.50 (QC 719) = $ 1,081.50	_____
Fee:	$ 824 (QC 714)	_____	$412 (QC 717) = $ 1,236	_____
Fee:	$ 1,030 (QC 715)	_____	$515 (QC 718) = $ 1,545	_____

☐ Credit Card (A 2.75% convenience fee will be applied to billed amounts)

☐ Check Last 4 Digits:_____

Make All Payments at the Public Works- Bureau of Engineering Cashier

PCIS# _____ ☐ Revision

The following is a list of outstanding items that are required in order for the project to be approved by the WPD for compliance with the stormwater runoff requirements:

☒ Complete the Project Summary Clearance Form (Reverse side).

☐ Provide treatment train BMP to pre-treat and infiltrate/retain/reuse the first ☐ 0.75-inch ☐ 85th percentile rain event as required by the City of Los Angeles' LID Ordinance and the Regional Board NPDES permit**.**

☐ Provide soil report addressing infiltration feasibility (include percolation test). ☐ Obtain approval from Building and Safety, Grading Division on the location of the proposed infiltration system, and include a copy of approval **on plans.**

☐ Show **on plans** detail drawings (w/size & model) of the BMP device(s) including inlet and outlet elevations**.**

☐ Show **on plans** roof drainage layout and connection(s) to treatment system(s). Include riser diagram.

☐ Identify Vegetated areas **on plans.**

☐ Submit completed Covenant & Agreement (C&A) Form with Operation and Maintenance (O&M) Plan for approval and signature prior to County recordation. **Provide 8.5"x11" Plot Plan showing location and size of each BMP(s).** ☐ Submit Supplemental C&A ☐ Submit Terminate old C&A.

☐ Submit letter of authority for the individual(s) signing the Covenant and Agreement (original copy).

☐ Provide LID Report per the guidelines of the large scale pan correction sheet.

☐ Provide one (1) set of full size plans for first time review; three (3) sets at the final SIGNOFF, with Engineer's and/or architect's stamp and signature.

☐ Obtain infiltration approval from the Upper Los Angeles Watermaster.

☐ Obtain stormwater use approval from County of Los Angeles, Department of Public Health.

☐ Return marked up plans and **large scale plan check correction sheet** with resubmittal.

☐ **Others:** _____

_____

_____

For additional information: **www.lacity.org/lid**

Project Summary Clearance Form

Permit Application #	_____ - _____ - _____	BMP4 - Type	
Development Type:	Redevelopment ? (Y N) / Liquefaction ? (Y N)	BMP4 - Quantity	
	ESA? (Y N) / Hillside Grading Area? (Y N)	BMP4 - Size	
APN #	5547-022-022, 5547-022-023, 5547-022-024	Contact Person	Hannah Smith
Development Address	6726 Sunset Blvd., Los Angeles, CA	Phone #	714-786-6338
Zip Code	90028	Email	Hannah.Smith@kimley-horn.com
Watershed (Circle one)	Ballona - LA River - Dominguez Channel - Harbor - Santa Monica Bay	Owner	
Development Impervious Area (Acre)		Owner Phone #	
Development Pervious Area (Acre)		Date Submitted	/ /
V_m	_____FT3 Or _____Gal.	WPD Staff	
Qpm (cfs)		Office (circle one)	Figueroa - Van Nuys - West LA - Harbor
BMP1 - Type	Capture and Reuse (Underground Cistern with internal sump pump)	List All Other Permit Applications Requiring Stormwater Clearance:	- 21010-201-05322 (New canopy) - 21010-201-04450 (New detached storage) - 21010-201-04451 (New covered trash enclosure)
BMP1 - Quantity			
BMP1 - Size			
BMP2 - Type			
BMP2 - Quantity			
BMP2 - Size			
BMP3 - Type			
BMP3 - Quantity			
BMP3 - Size			

Attachment C

Geotechnical Report

Geotechnical Engineering Report

Raising Cane's Restaurant (RC 624) – Hollywood
Hollywood, California
December 7, 2020
Terracon Project No. 60205249

Prepared for:
Raising Cane's Restaurants LLC
Plano, Texas

Prepared by:
Terracon Consultants, Inc.
Tustin, California

December 7, 2020

Raising Cane's Restaurants LLC
6800 Bishop Road
Plano, Texas 75024

Attn: Ms. Kristen Roberts
P: (972) 769-3348
E: KRoberts@raisingcanes.com

Re: Geotechnical Engineering Report
Raising Cane's Restaurant (RC 624) – Hollywood
6726 Sunset Boulevard
Hollywood, California
Terracon Project No. 60205249

Dear Ms. Roberts:

We have completed the Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. P60205249 dated November 12, 2020. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations, floor slabs, and pavements for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

Victor V. Nguyen, E.I.T.
Staff Engineer

REGISTERED PROFESSIONAL ENGINEER
F. FRED BUHAMDAN
C 77455
CIVIL
STATE OF CALIFORNIA

Fred F. Buhamdan, P.E.
Senior Principal

REPORT TOPICS

INTRODUCTION 1
SITE CONDITIONS 1
PROJECT DESCRIPTION 2
GEOTECHNICAL CHARACTERIZATION 3
SEISMIC CONSIDERATIONS 4
LIQUEFACTION 5
CORROSIVITY 6
GEOTECHNICAL OVERVIEW 6
EARTHWORK 7
SHALLOW FOUNDATIONS 13
FLOOR SLABS 14
LATERAL EARTH PRESSURES 15
PAVEMENTS 15
GENERAL COMMENTS 17
ATTACHMENTS 19

Note: This report was originally delivered in a web-based format. Orange Bold text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the *GeoReport* logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES
SITE LOCATION AND EXPLORATION PLANS
EXPLORATION RESULTS (Boring Logs, Laboratory Data, and Horticulture Testing Results)
SUPPORTING INFORMATION (General Notes, and Unified Soil Classification System)

Geotechnical Engineering Report

Raising Cane's Restaurant (RC 624) – Hollywood
6726 Sunset Boulevard
Hollywood, California

Terracon Project No. 60205249
December 7, 2020

INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed Raising Cane's Restaurant to be located at 6726 Sunset Boulevard in Hollywood, California. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site preparation and earthwork
- Pavement design and construction
- Foundation design and construction
- Floor slab design and construction
- Seismic site classification per CBC

The geotechnical engineering Scope of Services for this project included the advancement of six (6) test borings to depths ranging from approximately 6 to 26½ feet below existing site grade. In addition, one (1) hand auger boring was advanced within the landscape area to sample for horticulture testing.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs and as separate graphs in the **Exploration Results** section.

SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Parcel Information	The project is located at 6726 Sunset Boulevard in Hollywood, California. Approximate coordinates for the center of the site are 34.0976°N, 118.3378°W
Existing Improvements	The project site contains an unoccupied retail store with site associated loading dock, hardscaping, landscaping, and parking/drive areas.

Item	Description
Current Ground Cover	Asphalt pavement.
Existing Topography	The site is relatively flat

PROJECT DESCRIPTION

Item	Description
Proposed Structures	The project will include construction of a single-story restaurant building with associated asphalt paved parking and drive lanes, concrete hardscapes, and landscaping.
Construction	Wood frame structure supported on reinforced concrete foundation system with concrete slab-on-grades.
Finished Floor Elevation	Assumed within one foot of existing grade.
Maximum Loads (assumed)	■ Columns: 40-80 kips ■ Walls: 1 to 2 kips per linear foot (klf) ■ Slabs: 150 pounds per square foot (psf)
Grading	Minimal cut/fill – assumed to be less than one foot
Pavements	We understand that both rigid (concrete) and flexible (asphalt) pavement sections should be considered. Anticipated traffic is as follows: ■ Automobile Parking Area: Traffic Index of 4.5 ■ Driving Lanes: Traffic Index of 5.5
Infiltration	Based on our discussion with the client and civil designers, we understand that on-site infiltration is not recommended due to environmental concerns. As such, infiltration testing was not a part of our scope.
Geology	The site is situated within the northern Peninsular Ranges Geomorphic Province in Southern California. Geologic structures within this Province trend mostly northwest, in contrast to the prevailing east-west trend in the neighboring Transverse Ranges Geomorphic Province to the north. The Peninsular Range Province extends into lower California and is bounded by the Colorado Desert to the east, the Pacific Ocean to the west and the San Gabriel and San Bernardino mountains to the north. [1, 2] Surficial geologic units mapped at the site consist of Quaternary Alluvium and marine deposits of recent Quaternary age[3].

[1] Harden, D. R., "*California Geology, Second Edition*," Pearson Prentice Hall, 2004.

[2] Norris, R. M. and Webb, R. W., *"Geology of California, Second Edition,"* John Wiley & Sons, Inc., 1990.

[3] State of California – Division of Mines and Geology, Geologic Map of California, Olaf P. Jenkins Edition, Death Valley, Compiled in 1958.

GEOTECHNICAL CHARACTERIZATION

We have developed a general characterization of the subsurface soil and groundwater conditions based upon our review of the data and our understanding of the geologic setting and planned construction. The following table provides our geotechnical characterization.

The geotechnical characterization forms the basis of our geotechnical calculations and evaluation of site preparation, foundation options and pavement options. As noted in **General Comments**, the characterization is based upon widely spaced exploration points across the site, and variations are likely.

Surface conditions at the site consisted of a 2½ to 3½-inch thick layer of asphalt overlying a 2½ to 6-inch thick layer of aggregate base course. Subsurface soils at the site generally consisted of interbedded layers of stiff to hard lean clay with varying amounts of sand and gravel and stiff sandy elastic silt to an approximate depth of 26½ feet below existing ground surface (bgs). In addition, clayey sand was encountered within B-3 to an approximate depth of 2½ feet bgs. Fill soil consisting of silty sand with gravel was encountered within B-4 to an approximate depth of 2½ feet bgs.

Conditions encountered at each boring location are indicated on the individual boring logs shown in the **Exploration Results** section and are attached to this report. Stratification boundaries on the boring logs represent the approximate location of changes in native soil types; in situ, the transition between materials may be gradual.

Lab Results

Laboratory tests were conducted on selected soil samples and the test results are presented in the **Exploration Results** section and on the boring logs. Atterberg limit test results indicate that the on-site near surface soils generally have medium plasticity or are non-plastic. A consolidation test indicates that the sandy clay soils encountered at an approximate depth of 2½ feet bgs have a negligible collapse potential when saturated under normal footing loads of 2,000 psf. An Expansion Index test performed on near surface soils resulted in an expansion index of 54.

Horticulture testing was performed in the sample collected in HA-1 located within the landscape area. The exerts are presented in the **Exploration Results** section.

Groundwater Conditions

Groundwater was not observed in the borings while drilling, or for the short duration the boring remained open to a maximum depth of 26½ feet bgs. These observations represent groundwater conditions at the time of the field exploration and may not be indicative of other times, or at other locations.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

According to data collected from Geotracker from a nearby monitoring well, located approximately 1800 feet northwest of the project site at 7061 Sunset Boulevard (site ID SL204CX2382) in Los Angeles, groundwater elevations recorded on April 30, 2009 indicated an approximate ground water elevation of 64 feet bgs. [4]

SEISMIC CONSIDERATIONS

The 2019 California Building Code (CBC) Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool. This web-based software application calculates seismic design parameters in accordance with ASCE 7-16 and 2019 CBC. The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S_1 value greater than or equal 0.2.

However, Section 11.4.8 of ASCE 7-16 includes an exception from such analysis for specific structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) states that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." Based on our understanding of the proposed structures, it is our assumption that the exception in Section 11.8.4 applies to the proposed structure. However, the structural engineer should verify the applicability of this exception.

Based on this exception, the spectral response accelerations presented below were calculated using the site coefficients (F_a and F_v) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

Description	Value
2019 California Building Code Site Classification (CBC) [1]	D[2]
Site Latitude (°N)	34.0976
Site Longitude (°W)	118.3378
S_s Spectral Acceleration for a 0.2-Second Period	2.113
S_1 Spectral Acceleration for a 1-Second Period	0.759
F_a Site Coefficient for a 0.2-Second Period	1.000

[4] *https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL204CX2382*

Description	Value
F_v Site Coefficient for a 1-Second Period	1.700

1. Seismic site classification in general accordance with the *2019 California Building Code*.
2. The 2019 California Building Code (CBC) requires a site soil profile determination extending to a depth of 100 feet for seismic site classification. The current scope does not include the required 100-foot soil profile determination. Borings were extended to a maximum depth of 26½ feet, and this seismic site class definition considers that similar or denser soils continue below the maximum depth of the subsurface exploration. Additional exploration to deeper depths would be required to confirm the conditions below the current depth of exploration.

A site-specific ground motion study may reduce design values and consequently construction costs. We recommend consulting with a structural engineer to evaluate the need for such study and its potential impact on construction costs. Terracon should be contacted if a site-specific ground motion study is desired.

Faulting and Estimated Ground Motions

The site is located in southern California, which is a seismically active area. The type and magnitude of seismic hazards affecting the site are dependent on the distance to causative faults, the intensity, and the magnitude of the seismic event. As calculated using the USGS Unified Hazard Tool, the Hollywood Fault, which is considered to have the most significant effect at the site from a design standpoint, has a maximum credible earthquake magnitude of 7 and is located approximately 2.3 kilometers from the site.

Based on the USGS Design Maps Summary Report, using the American Society of Civil Engineers (ASCE 7-16) standard, the modified peak ground acceleration (PGA_M) at the project site is expected to be 0.996g. Based on the USGS Unified Hazard Tool, the project site has a mean magnitude of 6.8. Furthermore, the site is not located within an Alquist-Priolo Earthquake Fault Zone based on our review of the State Fault Hazard Maps.[5]

LIQUEFACTION

Liquefaction is a mode of ground failure that results from the generation of high pore water pressures during earthquake ground shaking, causing loss of shear strength. Liquefaction is typically a hazard where loose sandy soils exist below groundwater. The California Geological Survey (CGS) has designated certain areas as potential liquefaction hazard zones. These are areas considered at a risk of liquefaction-related ground failure during a seismic event, based upon mapped surficial deposits and the presence of a relatively shallow water table.

The project site is not located within a liquefaction hazard zone as designated by the CGS. Based on CGS maps and the anticipated depth to groundwater, liquefaction hazard potential at the site

[5] California Department of Conservation Division of Mines and Geology (CDMG), *"Digital Images of Official Maps of Alquist-Priolo Earthquake Fault Zones of California, Southern Region"*, CDMG Compact Disc 2000-003, 2000.

is considered low. Other geologic hazards related to liquefaction, such as lateral spreading, are therefore also considered low.

CORROSIVITY

The table below lists the results of laboratory soluble sulfate, soluble chloride, electrical resistivity, and pH testing. The values may be used to estimate potential corrosive characteristics of the on-site soils with respect to contact with the various underground materials which will be used for project construction.

Corrosivity Test Results Summary						
Boring	**Sample Depth (ft)**	**Soil Description**	**Soluble Sulfate (%)**	**Soluble Chlorides (ppm)**	**Electrical Resistivity (Ω-cm)**	**pH**
B-2	0.5 to 2.5	Sandy lean clay	0.0231	64	670	9.1

Results of soluble sulfate testing indicate samples of the on-site soils tested possess negligible sulfate concentrations when classified in accordance with Table 19.3.1.1 of the ACI Design Manual. Concrete should be designed in accordance with the exposure class S0 provisions of the ACI Design Manual, Section 318, Chapter 19.

GEOTECHNICAL OVERVIEW

The site appears suitable for the proposed construction based upon geotechnical conditions encountered in the test borings, provided that the recommendations provided in this report are implemented in the design and construction phases of this project.

Fill materials consisting of silty sand with gravel were encountered within B-4 to an approximate depth of 2½ feet bgs. We recommend that all fill soils be removed within the proposed building areas, and the excavation thoroughly cleaned prior to backfill placement and/or construction.

Expansive soils are present on this site. This report provides recommendations to help mitigate the effects of soil shrinkage and expansion; however, even if these procedures are followed, some movement and at least minor cracking in the structure should be anticipated. The severity of cracking and other cosmetic damage such as uneven floor slabs will probably increase if any modification of the site results in excessive wetting or drying of the expansive soils. Eliminating the risk of movement and cosmetic distress may not be feasible, but it may be possible to further reduce the risk of movement if significantly more expensive measures are used during construction. We would be pleased to discuss other construction alternatives with you upon request.

Due to the expansion potential of the near surface soils, spread footings bearing on engineered fill consisting of low volume change materials are recommended for support of the proposed

restaurant building. Engineered fill should extend to a minimum depth of 2 feet below the bottom of foundations, or 4 feet below existing grades, whichever is greater. Grading for the proposed footings should incorporate the limits of the footings plus a lateral distance of 2 feet beyond the outside edge of perimeter footings, where space is available.

Estimated movements described in this report are based on effective drainage for the life of the structure and cannot be relied upon if effective drainage is not maintained. Exposed ground, extending at least 10 feet from the perimeter, should be sloped a minimum of 5% away from the building to provide positive drainage away from the structure. Grades around the structure should be periodically inspected and adjusted as part of the structure's maintenance program.

Based on the findings summarized in this report, it is our professional opinion that the proposed construction will not be subjected to a hazard from settlement, slippage, or landslide, provided the recommendations of our report are incorporated into the proposed construction. It is also our opinion that the proposed construction will not adversely affect the geologic stability of the site or adjacent properties provided the recommendations contained in our report are incorporated into the proposed construction.

The recommendations contained in this report are based upon the results of field and laboratory testing (presented in the **Exploration Results** section), engineering analyses, and our current understanding of the proposed project.

The **General Comments** section provides an understanding of the report limitations.

EARTHWORK

The following recommendations include site preparation, excavation, subgrade preparation and placement of engineered fills on the project. The recommendations presented for design and construction of earth supported elements including foundations, slabs, and pavements are contingent upon following the recommendations outlined in this section.

Earthwork on the project should be observed and evaluated by Terracon. The evaluation of earthwork should include observation and testing of engineered fill, subgrade preparation, foundation bearing soils, and other geotechnical conditions exposed during the construction of the project.

Site Preparation

Strip and remove existing debris, pavements, and other deleterious materials from proposed building and pavement areas. Exposed surfaces should be free of mounds and depressions which could prevent uniform compaction. The site should be initially graded to create a relatively level surface to receive fill and provide for a relatively uniform thickness of fill beneath proposed building structures.

Demolition of the existing building should include complete removal of all foundation systems and remaining underground utilities within the proposed construction area. This should include removal of any loose backfill found adjacent to existing foundations. All materials derived from the demolition of existing structures and pavements should be removed from the site and not be allowed for use as on-site fill, unless processed in accordance with the fill requirements included in this report.

Fill materials were encountered to an approximate depth of 2½ feet bgs onsite. We recommend that all fill soils be removed within the proposed building areas, and the excavation thoroughly cleaned prior to backfill placement and/or construction.

Although no evidence of underground facilities such as septic tanks, cesspools, basements, and utilities was observed during the site reconnaissance, such features could be encountered during construction. If unexpected fills or underground facilities are encountered, such features should be removed, and the excavation thoroughly cleaned prior to backfill placement and/or construction.

Subgrade Preparation

Due to the expansion potential of the near surface soils, spread footings bearing on engineered fill consisting of low volume change materials are recommended for support of the proposed restaurant building. Engineered fill should extend to a minimum depth of 2 feet below the bottom of foundations, or 4 feet below existing grades, whichever is greater. Grading for the proposed footings should incorporate the limits of the footings plus a lateral distance of 2 feet beyond the outside edge of perimeter footings, where space is available.

Subgrade soils beneath exterior slabs and pavements should be scarified, moisture conditioned, and compacted to a minimum depth of 10 inches. The moisture content and compaction of subgrade soils should be maintained until slab or pavement construction.

Exposed areas which will receive fill, once properly cleared and benched where necessary, should be scarified to a minimum depth of 10 inches, moisture conditioned, and compacted per the compaction requirements in this report.

Based upon the subsurface conditions determined from the geotechnical exploration, subgrade soils exposed during construction are anticipated to be relatively workable. However, the workability of the subgrade may be affected by precipitation, repetitive construction traffic or other factors. If unworkable conditions develop, workability may be improved by scarifying and drying.

Excavation

It is anticipated that excavations for the proposed construction can be accomplished with conventional earthmoving equipment.

The bottom of excavations should be thoroughly cleaned of loose soils and disturbed materials prior to backfill placement and/or construction.

Individual contractors are responsible for designing and constructing stable, temporary excavations. Excavations should be sloped or shored in the interest of safety following local, and federal regulations, including current OSHA excavation and trench safety standards.

Fill Materials and Placement

All fill materials should be inorganic soils free of vegetation, debris, and fragments larger than 6 inches in size. Pea gravel or other similar non-cementatious, poorly-graded materials should not be used as fill or backfill without the prior approval of the geotechnical engineer.

Due to the on-site soil's expansion potential, they are not recommended for use as engineered fill beneath foundation and interior floor slabs. Such soils may be used as fill materials for the following:

- general site grading
- exterior slab areas
- pavement areas

Imported low volume change soils should be used as engineered fill for:

- interior floor slab areas
- foundation backfill
- foundation areas

Imported soils for use as fill material within proposed building and structure areas should conform to low volume change materials as indicated in the following specifications:

Gradation	Percent Finer by Weight (ASTM C 136)
3"	100
No. 4 Sieve	50-100
No. 200 Sieve	10-40

- Liquid Limit ..... 30 (max)
- Plasticity Index ..... 15 (max)
- Maximum expansion index* ..... 20 (max)

*ASTM D 4829

The contractor shall notify the Geotechnical Engineer of import sources sufficiently ahead of their use so that the sources can be observed and approved as to the physical characteristic of the import material. For all import material, the contractor shall also submit current verified reports from a recognized analytical laboratory indicating that the import has a "not applicable" (Class S0) potential for sulfate attack based upon current ACI criteria and is "mildly corrosive" to ferrous

metal and copper. The reports shall be accompanied by a written statement from the contractor that the laboratory test results are representative of all import material that will be brought to the job.

Engineered fill should be placed and compacted in horizontal lifts, using equipment and procedures that will produce recommended moisture contents and densities throughout the lift. Fill lifts should not exceed 10 inches loose thickness.

Compaction Requirements

Recommended compaction and moisture content criteria for engineered fill materials are as follows:

Material Type and Location	Per the Modified Proctor Test (ASTM D 1557)		
	Minimum Compaction Requirement	Range of Moisture Contents for Compaction Above Optimum	
		Minimum	Maximum
Approved imported fill soils:			
Beneath slabs:	90%	0%	+4%
Beneath foundations:	90%	0%	+4%
Utility trenches (pavement and structural areas)*:	90%	0%	+4%
On-site native soils			
Beneath asphalt pavements:	95%	+2%	+5%
Beneath concrete pavements:	95%	+2%	+5%
Utility trenches (Landscape areas):	90%	+2%	+5%
Exterior Slabs:	90%	+2%	+5%
Miscellaneous backfill:	90%	+2%	+5%
Aggregate base (beneath pavements):	95%	0%	+4%

* Upper 12 inches should be compacted to 95% within pavement and structural areas. Low-volume change imported soils should be used in structural areas.

Grading and Drainage

Positive drainage should be provided during construction and maintained throughout the life of the development. Infiltration of water into utility trenches or foundation excavations should be prevented during construction. Planters and other surface features which could retain water in areas adjacent to the building or pavements should be sealed or eliminated. In areas where sidewalks or paving do not immediately adjoin the structure, we recommend that protective slopes be provided with a minimum grade of approximately 5 percent for at least 10 feet from perimeter walls. Backfill against footings, exterior walls, and in utility and sprinkler line trenches should be well compacted and free of all construction debris to reduce the possibility of moisture infiltration.

We understand that stormwater infiltration is not planned onsite. However, we recommend a minimum horizontal setback distance of 10 feet from the perimeter of any building and the high-water elevation of the nearest storm-water retention basin.

Roof drainage should discharge into splash blocks or extensions when the ground surface beneath such features is not protected by exterior slabs or paving. Sprinkler systems and landscaped irrigation should not be installed within 5 feet of foundation walls.

Exterior Slab Design and Construction

Compacted subgrade composed of on-site clayey soils will expand with increasing moisture content; therefore, exterior concrete slabs may heave, resulting in cracking or vertical offsets. The potential for damage would be greatest where exterior slabs are constructed adjacent to the building or other structural elements. To reduce the potential for damage caused by movement, we recommend:

- exterior slabs should be supported directly on subgrade fill (not ABC) with no, or very low expansion potential;
- strict moisture-density control during placement of subgrade fills;
- maintain proper subgrade moisture until placement of slabs;
- placement of effective control joints on relatively close centers and isolation joints between slabs and other structural elements;
- provision for adequate drainage in areas adjoining the slabs;
- use of designs which allow vertical movement between the exterior slabs and adjoining structural elements.

Utility Trenches

It is anticipated that the on-site soils will provide suitable support for underground utilities and piping that may be installed. Any soft and/or unsuitable material encountered at the bottom of excavations should be removed and be replaced with an adequate bedding material. A non-expansive granular material with a sand equivalent greater than 30 should be used for bedding and shading of utilities, unless allowed or specified otherwise by the utility manufacturer.

On-site materials are considered suitable for backfill of utility and pipe trenches from one foot above the top of the pipe to the final ground surface, provided the material is free of organic matter and deleterious substances. Imported low volume change soils should be used for trench backfill in structural areas.

Trench backfill should be mechanically placed and compacted as discussed earlier in this report. Compaction of initial lifts should be accomplished with hand-operated tampers or other lightweight compactors. Where trenches are placed beneath slabs or footings, the backfill should satisfy the gradation and expansion index requirements of engineered fill discussed in this report. Flooding or jetting for placement and compaction of backfill is not recommended.

Construction Considerations

Upon completion of filling and grading, care should be taken to maintain the subgrade moisture content prior to construction of floor slabs and pavements. Construction traffic over the completed subgrade should be avoided to the extent practical. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. If the subgrade should become desiccated, saturated, or disturbed, the affected material should be removed, or these materials should be scarified, moisture conditioned, and recompacted prior to floor slab and pavement construction.

On-site clay and silt soils may pump, and unstable subgrade conditions could develop during general construction operations, particularly if the soils are wetted and/or subjected to repetitive construction traffic. The use of light construction equipment would aid in reducing subgrade disturbance. The use of remotely operated equipment, such as a backhoe, would be beneficial to perform cuts and reduce subgrade disturbance.

Should unstable subgrade conditions develop stabilization measures will need to be employed. Stabilization measures may include placement of aggregate base and multi-axial geogrid. Use of lime, fly ash, kiln dust or cement could also be considered as a stabilization technique. Laboratory evaluation is recommended to determine the effect of chemical stabilization on subgrade soils prior to construction.

We recommend that the earthwork portion of this project be completed during extended periods of dry weather if possible. If earthwork is completed during the wet season (typically November through April) it may be necessary to take extra precautionary measures to protect subgrade soils. Wet season earthwork operations may require additional mitigative measures beyond that which would be expected during the drier summer and fall months. This could include diversion of surface runoff around exposed soils and draining of ponded water on the site. Once subgrades are established, it may be necessary to protect the exposed subgrade soils from construction traffic.

The individual contractor(s) is responsible for designing and constructing stable, temporary excavations as required to maintain stability of both the excavation sides and bottom. Excavations should be sloped or shored in the interest of safety following local, and federal regulations, including current Occupational Safety and Health Administration (OSHA) excavation and trench safety standards.

Construction Observation and Testing

The geotechnical engineer should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during subgrade preparation, proof-rolling, placement and compaction of controlled compacted fills, backfilling of excavations to the completed subgrade.

The exposed subgrade and each lift of compacted fill should be tested, evaluated, and reworked as necessary until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency of at least one test for every 2,500 square feet of compacted fill in the building areas and 5,000 square feet in pavement areas. One density and water content test for every 50 linear feet of compacted utility trench backfill.

In areas of foundation excavations, the bearing subgrade should be evaluated under the direction of the Geotechnical Engineer. In the event that unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's evaluation of subsurface conditions, including assessing variations and associated design changes.

SHALLOW FOUNDATIONS

If the site has been prepared in accordance with the requirements noted in **Earthwork**, the following design parameters are applicable for shallow foundations.

Shallow Foundation Design Recommendations

DESCRIPTION	RECOMENDATION
Foundation Type	Spread footing foundations
Bearing Material	Engineered fill consisting of low volume change import fill extending 2 feet below the bottom of footings or 4 feet below existing site grades, whichever is deeper. On-site clayey soils should not be used as engineered fill.
Allowable Bearing Pressure	2,500 psf
Minimum Dimensions	Columns: 24 inches Walls: 18 inches
Minimum Embedment Depth Below Finished Grade	18 inches
Total Estimated Settlement	1 inch
Estimated Differential Settlement	½ to ¾ inches

Finished grade is defined as the lowest adjacent grade within five feet of the foundation for perimeter (or exterior) footings.

The allowable foundation bearing pressure applies to dead loads plus design live load conditions. The design bearing pressure may be increased by one-third when considering total loads that

include wind or seismic conditions. The weight of the foundation concrete below grade may be neglected in dead load computations.

Foundations should be reinforced as necessary to reduce the potential for distress caused by differential foundation movement. Foundation excavations should be observed by the geotechnical engineer. If the soil conditions encountered differ significantly from those presented in this report, supplemental recommendations will be required.

FLOOR SLABS

DESCRIPTION	RECOMMENDATION
Interior floor system	Slab-on-grade concrete
Floor slab support	Engineered fill consisting of low volume change import fill extending 2 feet below the bottom of footings or 4 feet below existing site grades, whichever is deeper. On-site clayey soils should not be used as engineered fill.
Subbase	Minimum 4-inches of Aggregate Base
Modulus of subgrade reaction	200 pounds per square inch per inch (psi/in) (The modulus was obtained based on estimates obtained from NAVFAC 7.1 design charts). This value is for a small loaded area (1 Sq. ft or less) such as for forklift wheel loads or point loads and should be adjusted for larger loaded areas.

The use of a vapor retarder should be considered beneath concrete slabs on grade covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

Saw-cut control joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations refer to the ACI Design Manual. Joints or cracks should be sealed with a water-proof, non-extruding compressible compound specifically recommended for heavy duty concrete pavement and wet environments.

Where floor slabs are tied to perimeter walls or turn-down slabs to meet structural or other construction objectives, our experience indicates differential movement between the walls and slabs will likely be observed in adjacent slab expansion joints or floor slab cracks beyond the length of the structural dowels. The Structural Engineer should account for potential differential settlement through use of sufficient control joints, appropriate reinforcing or other means.

LATERAL EARTH PRESSURES

Design Parameters

For engineered fill comprised of on-site soils or imported low volume change materials above any free water surface, recommended equivalent fluid pressures for unrestrained foundation elements are:

ITEM	VALUE[a, b]
Active Case	39 psf/ft
Passive Case	400 psf/ft
At-Rest Case	59 psf/ft
Friction Coefficient	0.35

[a]Note: The values are based on engineered fill consisting of low volume change materials used as backfill.
[b]Note: Uniform, horizontal backfill, compacted to at least 90% of the ASTM D 1557 maximum dry density, rendering a maximum unit weight of 125 pcf.

The lateral earth pressures herein do not include any factor of safety and are not applicable for submerged soils/hydrostatic loading. Additional recommendations may be necessary if such conditions are to be included in the design.

Fill against foundation and retaining walls should be compacted to densities specified in the Earthwork section of this report. Compaction of each lift adjacent to walls should be accomplished with hand-operated tampers or other lightweight compactors.

PAVEMENTS

General Pavement Comments

Pavement designs are provided for the traffic conditions and pavement life conditions as noted in **Project Description** and in the following sections of this report. A critical aspect of pavement performance is site preparation. Pavement designs noted in this section must be applied to the site which has been prepared as recommended in the **Earthwork** section.

Pavement Design Parameters

An estimated design R-value was used to calculate the asphalt concrete pavement thickness sections and the Portland cement concrete pavement sections. R-value testing should be completed prior to pavement construction to verify the design R-value.

Assuming the pavement subgrades will be prepared as recommended within this report, the following pavement sections should be considered minimums for this project for the traffic indices

assumed in the table below. As more specific traffic information becomes available, we should be contacted to reevaluate the pavement calculations.

Pavement Section Thicknesses

The following table provides options for AC and PCC Sections:

	Recommended Pavement Section Thickness (inches) [1]	
	Light (Automobile) Parking Traffic Index (TI) = 4.5	**On-site Driveways and Delivery Areas (TI) = 5.5**
Section I Portland Cement Concrete	5.0-inches PCC over 4-inches Class II Aggregate Base	6.0-inches PCC over 4-inches Class II Aggregate Base
Section II Asphaltic Concrete	3-inches AC over 7-inches Class II Aggregate Base	3-inches AC over 10-inches Class II Aggregate Base

1. All materials should meet the Caltrans Standard Specifications for Highway Construction.

These pavement sections are considered minimal sections based upon the expected traffic and the existing subgrade conditions. However, they are expected to function with periodic maintenance and overlays if good drainage is provided and maintained.

Subsequent to clearing, grubbing, and removal of topsoil, subgrade soils beneath all pavements should be scarified, moisture conditioned, and compacted to a minimum depth of 10 inches. All materials should meet the California Department of Transportation (Caltrans) Standard Specifications for Highway Construction. Aggregate base materials should meet the gradation and quality requirement of Class 2 Aggregate Base (¾ inch maximum) in Caltrans Standard Specifications, latest edition, Sections 25 through 29.

All concrete for rigid pavements should have a minimum flexural strength of 600 psi (4,250 psi Compressive Strength) and be placed with a maximum slump of four inches. Proper joint spacing will also be required to prevent excessive slab curling and shrinkage cracking. All joints should be sealed to prevent entry of foreign material and dowelled where necessary for load transfer.

Preventative maintenance should be planned and provided for through an on-going pavement management program in order to enhance future pavement performance. Preventative maintenance activities are intended to slow the rate of pavement deterioration, and to preserve the pavement investment.

Preventative maintenance consists of both localized maintenance (e.g. crack sealing and patching) and global maintenance (e.g. surface sealing). Preventative maintenance is usually the first priority when implementing a planned pavement maintenance program and provides the highest return on investment for pavements.

Pavement Construction Considerations

Materials and construction of pavements for the project should be in accordance with the requirements and specifications of the State of California Department of Transportation, or other approved local governing specifications.

Base course or pavement materials should not be placed when the surface is wet. Surface drainage should be provided away from the edge of paved areas to minimize lateral moisture transmission into the subgrade.

GENERAL COMMENTS

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. The findings and recommendations presented in this report were prepared in a manner consistent with the standards of care and skill ordinarily exercised by members of its profession completing similar studies and practicing under similar conditions in the geographic vicinity and at the time these services have been performed. No warranty or guarantee, express or implied, is made. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact

excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES

Field Exploration

Number of Borings	Boring Depth (feet)	Planned Location
6	6 to 26½	Building and pavement areas
1	2	Landscape area

Boring Layout and Elevations: Unless otherwise noted, Terracon personnel provided the boring layout. Coordinates were obtained with a handheld GPS unit (estimated horizontal accuracy of about ±10 feet) and approximate elevations were obtained by interpolation from google earth. If elevations and a more precise boring layout are desired, we recommend borings be surveyed following completion of fieldwork.

Subsurface Exploration Procedures: We advanced the borings with a truck-mounted drill rig using continuous hollow stem flight augers. Four samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. Test samples were collected during drilling in general accordance with the appropriate ASTM methods using Standard Penetration Testing (SPT) and sampling using either standard split-spoon or Modified California samplers. A sampling spoon was driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration was recorded as the Standard Penetration Test (SPT) resistance value, also referred to as N-values. The N-values are indicated on the boring logs at the test depths. The samples were placed in appropriate containers, taken to our soil laboratory for testing, and classified by a geotechnical engineer. In addition, we observed and recorded groundwater levels during drilling and sampling. For safety purposes, all borings were backfilled with auger cuttings after their completion. Pavements were patched with cold-mix asphalt as appropriate.

The sampling depths, penetration distances, and other sampling information was recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a Geotechnical Engineer. Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials encountered during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs represent the Geotechnical Engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

Laboratory Testing

The project engineer reviewed the field data and assigned laboratory tests to understand the engineering properties of the various soil strata, as necessary, for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to

methods were applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D7263 Standard Test Methods for Laboratory Determination of Dry Density (Unit Weight) of Soil Specimens
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D1140 Standard Test Methods for Determining the Amount of Material Finer than 75-µm (No. 200) Sieve in Soils by Washing
- ASTM D4546 Standard Test Methods for One-Dimensional Consolidation Properties of Soils Using Incremental Loading
- ASTM D4829 Standard Test Method for Expansion Index of Soils
- Corrosivity Testing will include pH, chlorides, sulfates, sulfides, Redox potential, and electrical lab resistivity

In addition, one bulk sample collected within or adjacent to the proposed landscape area will be analyzed for nutrient levels and soil suitability for the new landscape installation.

The laboratory testing program included examination of soil samples by an engineer. Based on the material's texture and plasticity, we described and classified the soil samples in accordance with the Unified Soil Classification System.

SITE LOCATION AND EXPLORATION PLANS

SITE LOCATION

Raising Cane's Restaurant (RC: 624) Hollywood ■ Hollywood, CA
December 7, 2020 ■ Terracon Project No. 60205249

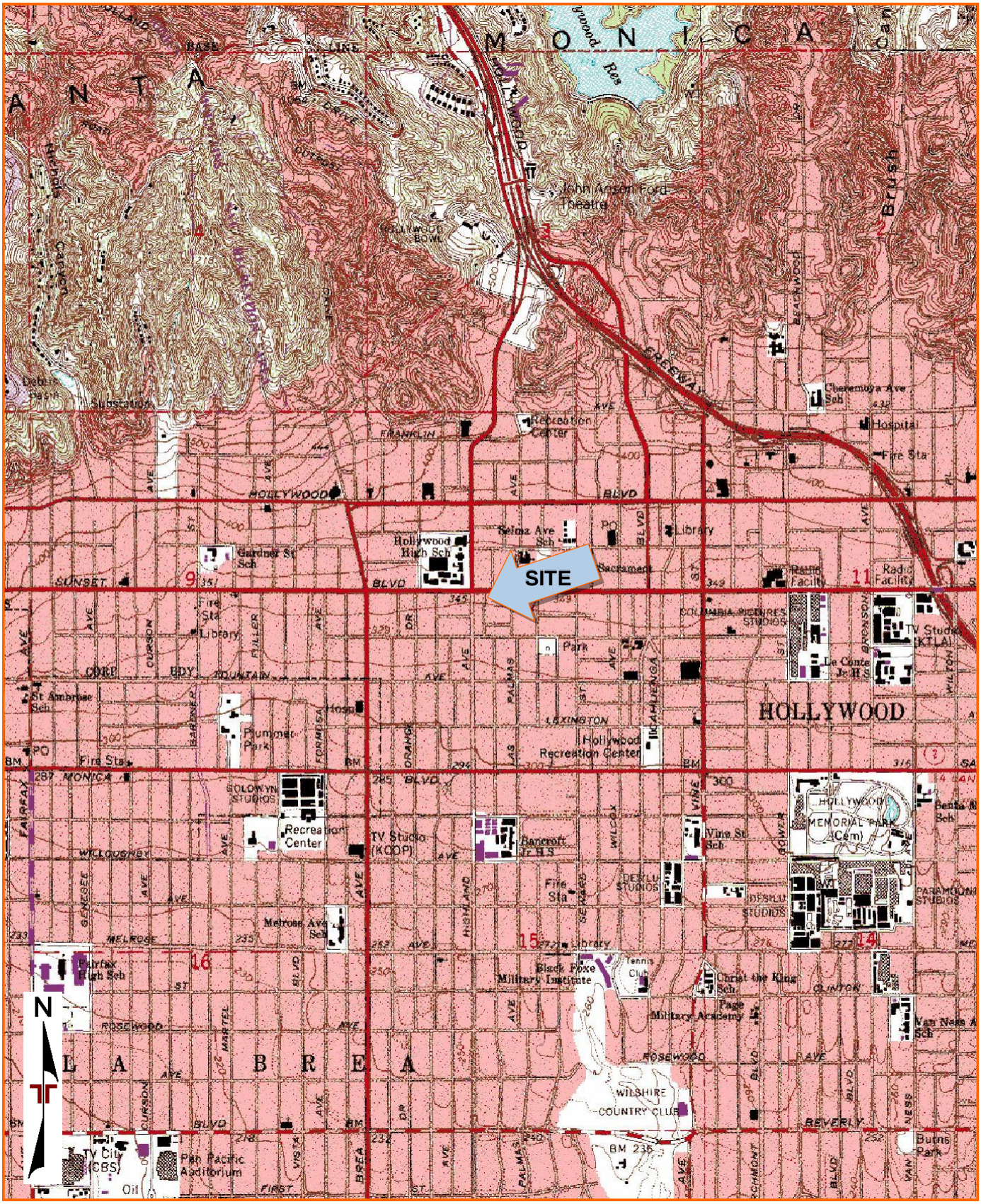


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY QUADRANGLES INCLUDE: HOLLYWOOD, CA (1/1/1994).

EXPLORATION PLAN

Raising Cane's Restaurant (RC: 624) Hollywood ■ Hollywood, CA

December 7, 2020 ■ Terracon Project No. 60205249

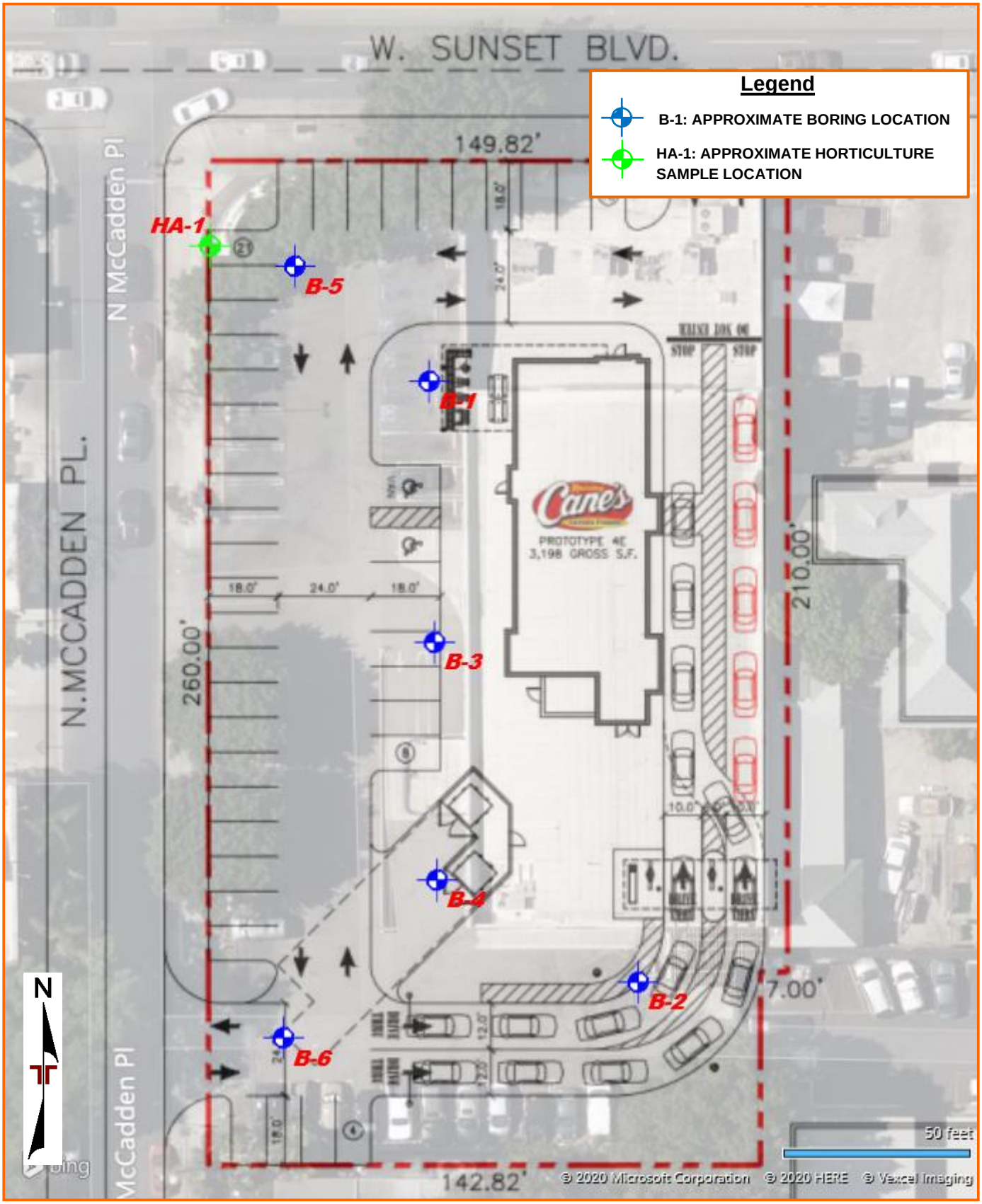


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

EXPLORATION RESULTS

BORING LOG NO. B-1

PROJECT: Raising Cane's Restaurant (RC: 624)
Hollywood

CLIENT: Raising Cane's Restaurants, LLC
Plano, TX

SITE: 6726 Sunset Blvd
Hollywood, CA

LOCATION See Exploration Plan

Latitude: 34.0977° Longitude: -118.3378°

DEPTH	Description	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	EXPANSION INDEX	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
0.3	**ASPHALT**, 3" Thickness												
0.7	**AGGREGATE BASE COURSE**, 5" Thickness												
2.5	**SANDY SILT WITH GRAVEL (ML)**, dark brown					54						44-27-17	59
5.0	**SANDY ELASTIC SILT (MH)**, dark brown, stiff				4-5-6					45	72	50-31-19	
10.0	**SANDY LEAN CLAY (CL)**, brown, very stiff	5			3-9-16					17	99		
					6-11-12					25	93		
15.0	**SANDY ELASTIC SILT (MH)**, brown, stiff	10			6-8-10					49	78		
	SANDY LEAN CLAY (CL), dark brown, very stiff	15			10-11-14					20	103		
	hard	20			11-19-30					22	102		
26.0		25			22-50/5"					40	94		
	Boring Terminated at 26 Feet												

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Hollow Stem Auger

Abandonment Method:
Boring backfilled with cement grout upon completion.
Surface capped with asphalt concrete

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started: 11-13-2020
Boring Completed: 11-13-2020
Drill Rig: CME 75
Driller: 2R Drilling
Project No.: 60205249

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 60205249 RAISING CANE'S RE.GPJ TERRACON_DATATEMPLATE.GDT 12/3/20

BORING LOG NO. B-2

PROJECT: Raising Cane's Restaurant (RC: 624) Hollywood

CLIENT: Raising Cane's Restaurants, LLC Plano, TX

SITE: 6726 Sunset Blvd Hollywood, CA

LOCATION See Exploration Plan

Latitude: 34.0973° Longitude: -118.3376°

DEPTH	Description	DEPTH (Ft.)	SAMPLE TYPE	FIELD TEST RESULTS	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	PERCENT FINES
0.3	**ASPHALT**, 3" Thickness						
0.5	**AGGREGATE BASE COURSE**, 2.5" Thickness						
	SANDY LEAN CLAY (CL), dark brown						69
	very stiff			7-8-12	20	97	
		5		10-13-15	20	90	
				12-13-19	29	97	
		10		9-12-14	18	103	
	light brown, stiff	15		5-6-7 N=13			
20.0	**SANDY LEAN CLAY WITH GRAVEL (CL)**, dark brown, very stiff	20		8-13-16 N=29			
25.0	**SANDY LEAN CLAY (CL)**, light brown with white, hard	25		29-30-42 N=72			
26.5	***Boring Terminated at 26.5 Feet***						

GRAPHIC LOG

WATER LEVEL OBSERVATIONS

EXPANSION INDEX

STRENGTH TEST: TEST TYPE; COMPRESSIVE STRENGTH (tsf); STRAIN (%)

ATTERBERG LIMITS: LL-PL-PI

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Hollow Stem Auger

Abandonment Method:
Boring backfilled with cement grout upon completion.
Surface capped with asphalt concrete

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started: 11-13-2020 | Boring Completed: 11-13-2020

Drill Rig: CME 75 | Driller: 2R Drilling

Project No.: 60205249

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 60205249 RAISING CANE'S RE.GPJ TERRACON_DATATEMPLATE.GDT 12/3/20

BORING LOG NO. B-3

PROJECT: Raising Cane's Restaurant (RC: 624) Hollywood

CLIENT: Raising Cane's Restaurants, LLC Plano, TX

SITE: 6726 Sunset Blvd Hollywood, CA

LOCATION See Exploration Plan

Latitude: 34.0975° Longitude: -118.3378°

DEPTH	Description	DEPTH (Ft.)	SAMPLE TYPE	FIELD TEST RESULTS	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
0.3	**ASPHALT**, 3" Thickness							
0.7	**AGGREGATE BASE COURSE**, 5" Thickness							
	CLAYEY SAND (SC), dark brown						31-17-14	17
2.5	**SANDY LEAN CLAY (CL)**, dark brown, stiff			8-9-9	40	93		
	very stiff	5		6-9-13	17	93		67
	brown			10-10-10	19	90		
		10		10-14-14	18	93		
		15		8-12-16	20	103		
	dark brown	20		8-12-19	20	107		
	hard	25		8-36-50/5"	18	108		
26.4	***Boring Terminated at 26.4 Feet***							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Hollow Stem Auger

Abandonment Method:
Boring backfilled with cement grout upon completion.
Surface capped with asphalt concrete

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started: 11-13-2020 | Boring Completed: 11-13-2020

Drill Rig: CME 75 | Driller: 2R Drilling

Project No.: 60205249

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 60205249 RAISING CANE'S RE.GPJ TERRACON_DATATEMPLATE.GDT 12/3/20

BORING LOG NO. B-4

PROJECT: Raising Cane's Restaurant (RC: 624) Hollywood

CLIENT: Raising Cane's Restaurants, LLC Plano, TX

SITE: 6726 Sunset Blvd Hollywood, CA

LOCATION See Exploration Plan

Latitude: 34.0973° Longitude: -118.3378°

GRAPHIC LOG	DEPTH	LOCATION	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	EXPANSION INDEX	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
	0.2	**ASPHALT**, 2.5" Thickness												
	0.7	**AGGREGATE BASE COURSE**, 6" Thickness												
		FILL - SILTY SAND (SM), with gravel, brown											NP	
	2.5	**LEAN CLAY WITH SAND (CL)**, brown with gray, very stiff				19-14-14					30	95		
			5											
	6.0	***Boring Terminated at 6 Feet***												

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Hollow Stem Auger

Abandonment Method:
Boring backfilled with Auger Cuttings
Surface capped with asphalt

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started: 11-13-2020
Boring Completed: 11-13-2020
Drill Rig: CME 75
Driller: 2R Drilling
Project No.: 60205249

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 60205249 RAISING CANE'S RE.GPJ TERRACON_DATATEMPLATE.GDT 12/3/20

BORING LOG NO. B-5

PROJECT: Raising Cane's Restaurant (RC: 624) Hollywood

CLIENT: Raising Cane's Restaurants, LLC Plano, TX

SITE: 6726 Sunset Blvd Hollywood, CA

LOCATION See Exploration Plan

Latitude: 34.0978° Longitude: -118.3379°

GRAPHIC LOG	DEPTH		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	EXPANSION INDEX	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
	0.3	**ASPHALT**, 3" Thickness												
	0.6	**AGGREGATE BASE COURSE**, 4" Thickness												
		SANDY LEAN CLAY (CL), brown												
		very stiff				5-14-25					15	85		
			5											
	6.0													
		Boring Terminated at 6 Feet												

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Hollow Stem Auger

Abandonment Method:
Boring backfilled with Auger Cuttings
Surface capped with asphalt

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started: 11-13-2020 | Boring Completed: 11-13-2020

Drill Rig: CME 75 | Driller: 2R Drilling

Project No.: 60205249

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 60205249 RAISING CANE'S RE.GPJ TERRACON_DATATEMPLATE.GDT 12/3/20

BORING LOG NO. B-6

PROJECT: Raising Cane's Restaurant (RC: 624) Hollywood

CLIENT: Raising Cane's Restaurants, LLC Plano, TX

SITE: 6726 Sunset Blvd Hollywood, CA

LOCATION See Exploration Plan

Latitude: 34.0972° Longitude: -118.3379°

GRAPHIC LOG	DEPTH		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	EXPANSION INDEX	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
	0.3	**ASPHALT**, 3.5" Thickness												
	0.8	**AGGREGATE BASE COURSE**, 6" Thickness												
		SANDY LEAN CLAY WITH GRAVEL (CL), brown												54
		dark brown, hard				18-26-28					18	107		
			5											
	6.0	***Boring Terminated at 6 Feet***												

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Hollow Stem Auger

Abandonment Method:
Boring backfilled with Auger Cuttings
Surface capped with asphalt

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started: 11-13-2020
Boring Completed: 11-13-2020
Drill Rig: CME 75
Driller: 2R Drilling
Project No.: 60205249

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 60205249 RAISING CANE'S RE.GPJ TERRACON_DATATEMPLATE.GDT 12/3/20

BORING LOG NO. HA-1

PROJECT: Raising Cane's Restaurant (RC: 624) Hollywood

CLIENT: Raising Cane's Restaurants, LLC Plano, TX

SITE: 6726 Sunset Blvd Hollywood, CA

LOCATION See Exploration Plan

Latitude: 34.0978° Longitude: -118.338°

GRAPHIC LOG	DEPTH	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	EXPANSION INDEX	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
	SANDY LEAN CLAY (CL), brown												
	2.0												
	Boring Terminated at 2 Feet												

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hand Auger

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started: 11-13-2020 | Boring Completed: 11-13-2020

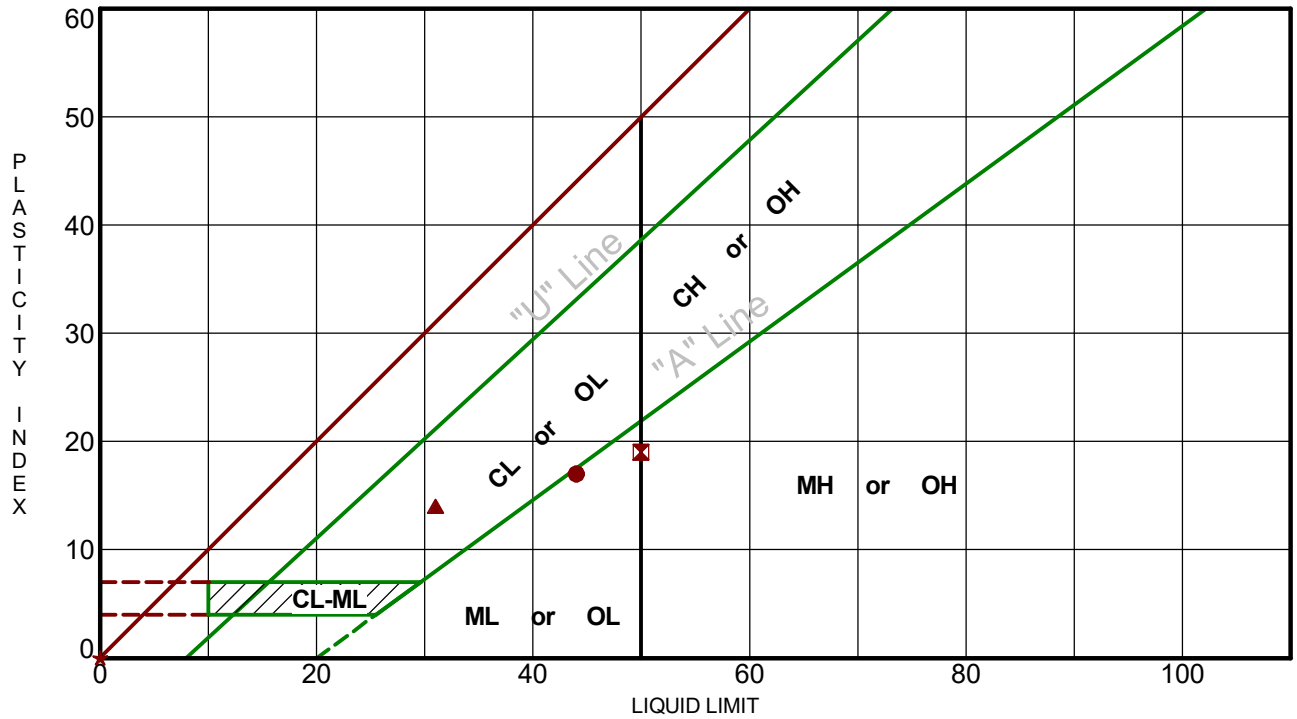
Drill Rig: CME 75 | Driller: 2R Drilling

Project No.: 60205249

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 60205249 RAISING CANE'S RE.GPJ TERRACON_DATATEMPLATE.GDT 12/3/20

ATTERBERG LIMITS RESULTS

ASTM D4318



Boring ID		Depth	LL	PL	PI	Fines	USCS	Description
●	B-1	0.7 - 2.5	44	27	17	58.9	ML	SANDY SILT
⊠	B-1	2.5 - 4	50	31	19		MH	SANDY ELASTIC SILT
▲	B-3	0.7 - 2.5	31	17	14	16.7	SC	CLAYEY SAND
★	B-4	0.7 - 2.5	NP	NP	NP		SM	SILTY SAND

PROJECT: Raising Cane's Restaurant (RC: 624)
Hollywood

SITE: 6726 Sunset Blvd
Hollywood, CA

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

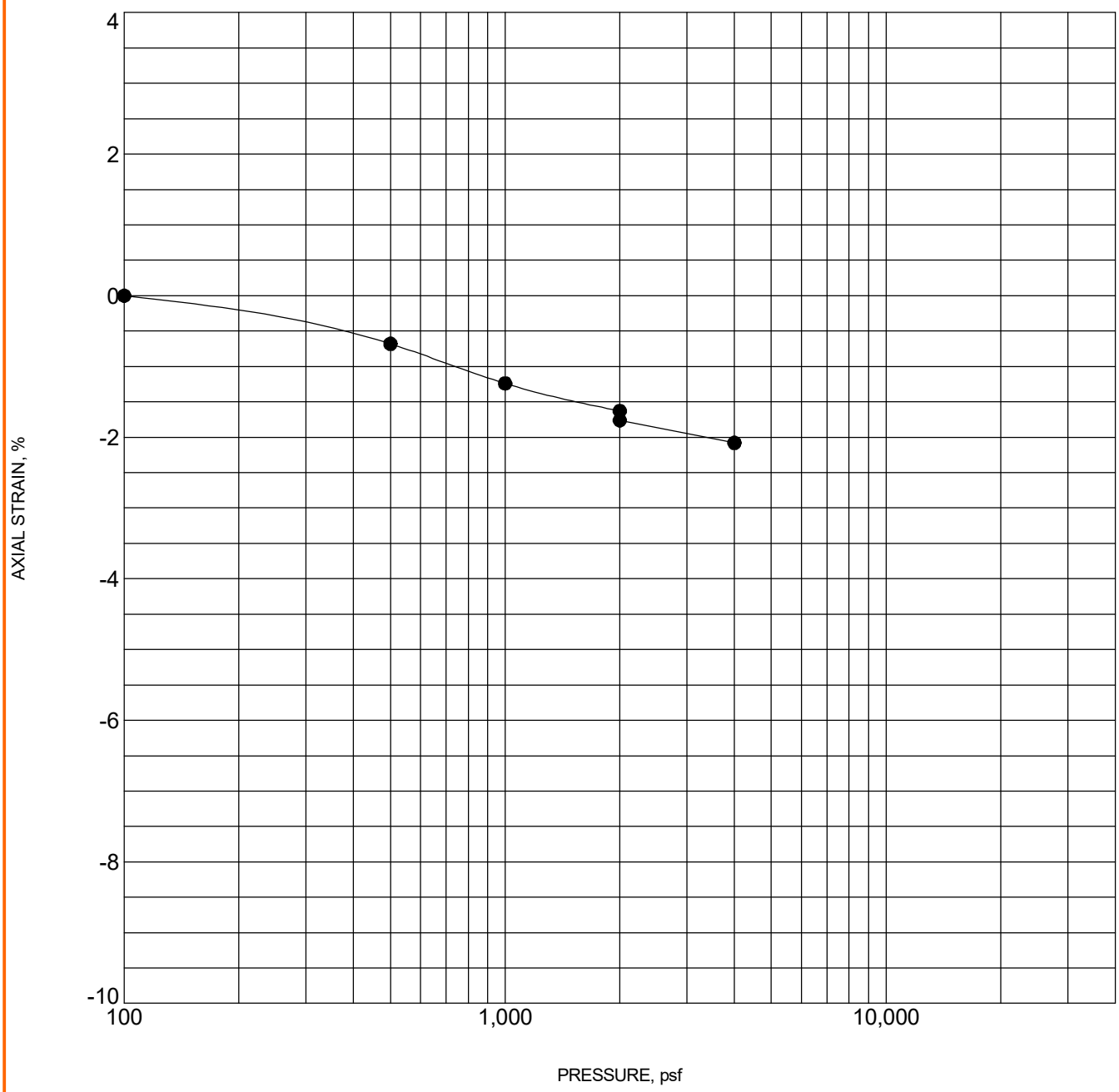
PROJECT NUMBER: 60205249

CLIENT: Raising Cane's Restaurants, LLC
Plano, TX

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ATTERBERG LIMITS 60205249 RAISING CANE'S RE.GPJ TERRACON_DATATEMPLATE.GDT 12/2/20

SWELL CONSOLIDATION TEST

ASTM D4546



Specimen Identification			Classification	γ_d, pcf	WC, %
●	B-3	2.5 - 4 ft	SANDY LEAN CLAY	93	40

NOTES: Water added at 2,000 psf

PROJECT: Raising Cane's Restaurant (RC: 624)
Hollywood

SITE: 6726 Sunset Blvd
Hollywood, CA

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

PROJECT NUMBER: 60205249

CLIENT: Raising Cane's Restaurants, LLC
Plano, TX

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. TC_CONSOL_STRAIN-USCS 60205249 RAISING CANE'S RE.GPJ TERRACON_DATATEMPLATE.GDT 12/7/20

ANAHEIM TEST LAB, INC

196 Technology Drive, Unit D
Irvine, CA 92618
Phone (949)336-6544

DATE: 11/25/2020

Terracon Consultants, Inc.
1421 Edinger Ave.
Tustin, CA 92780

P.O. NO.: Chain of Custody

LAB NO.: C-4295

SPECIFICATION: CTM-643/417/422

MATERIAL: Soil

Project No.: 60205249
Project: Raising Cane's Restaurant (RC:624) Hollywood
Sample ID: B-2 @ 0'

ANALYTICAL REPORT

CORROSION SERIES

SUMMARY OF DATA

pH	MIN. RESISTIVITY per CT. 643 ohm-cm	SOLUBLE SULFATES per CT. 417 (% by weight)	SOLUBLE CHLORIDES per CT. 422 ppm
9.1	670	0.0231%	64

RESPECTFULLY SUBMITTED

WES BRIDGER LAB MANAGER

Anaheim Office
Lab No: 20-325-0009
December 1, 2020

Terracon Consulting Inc.
1421 Edinger Ave., Suite C
Tustin, CA 92780

Attn: Victor Nguyen

Project: RC Hollywood - Los Angeles Job #: 60205249

Attached are the results of the analysis performed on a soil sample that was collected from the above- mentioned project site from a depth of 0 to 2 feet by the client and received by our laboratory on November 20, 2020. This sample was analyzed for nutrient levels, agricultural suitability, and physical characteristics in preparation for a new landscape installation.

Analytical Results and Comments

The reaction of the soil is neutral at 7.0 on the pH scale, which is within the preferred range for most plants and no pH adjustment is recommended. Free lime is favorably low.

Salinity (ECe) is safely low at 2.0 dS/m. Soluble sodium is elevated at 17.1 milliequivalents per liter (meq/l), which could cause salt sensitive plants to show tip and marginal burning of foliage if sodium is not reduced during the establishment period by employing thorough initial irrigations after planting. The sodium present is not adequately balanced by calcium and magnesium with regard to soil structure and water infiltration, as indicated by the elevated sodium adsorption ratio (SAR) value of 6.6. Applying thorough initial irrigations after planting should also lower the SAR to a safe range. Boron is safely low and nutritionally adequate.

In terms of fertility, phosphorus and calcium levels are sufficient and magnesium is well supplied. The remaining major and minor elements are low.

The texture of the soil is classified as a 'sandy loam' based on the USDA soil classification standards. The estimated water infiltration rate is 0.36 inch per hour. The actual water infiltration rate may vary with the degree of soil compaction on site. Organic content is low at 0.97% by total dry weight of the sample.

Surface Soil Preparation for Turf, Groundcover, and Mass Planting

If feasible, prior to amending the areas where severe compaction exists, the surface soil should be ripped or tilled to a 9-inch depth. Uniformly broadcast and blend the following with existing soil to a 6-inch depth.

Materials	Amount per 1000 sq.ft.
Nitrogen fortified organic amendment (compost* or redwood or fir sawdust)	4 cu. yards
Ammonium sulfate (21-0-0)	7.5 lbs.
Potassium sulfate (0-0-50)	12 lbs.

*Rates and fertilizers may have to be adjusted depending on analysis of selected compost.

Tree and Shrub Planting Guidelines

1. Excavate planting pits at least twice the diameter of the rootball.
2. The top of the rootball should be at or slightly above final grade.
3. To improve soil fertility, uniformly blend 1/3 lb. of ammonium sulfate (21-0-0) and 3/4 lb. of potassium sulfate (0-0-50) per cubic yard of backfill soil to be placed in the upper 12 inches of backfill only. If fertilizer amended soil per the mass panting recommendation is used for backfill, additional fertilizer is not required in the backfill.
4. Organic material is not required in the backfill; however, if you wish, the amended surface soil or a soil blend consisting of no more than 20% by volume organic matter can be placed in the upper 12 inches of backfill only. Soil below this depth should not contain any added organic matter because of the threat of plant disease and/or anaerobic soil conditions developing.
5. Do not cover the original rootball with other soil. Ideally, a temporary soil berm is often constructed around the outer edge of the rootball to help channel water into the rootball and then into surrounding soil until roots are established in the backfill and the rootball is no longer the sole source of water for the plant.
6. Ideally, a weed and turf free zone, preferably 2-3 ft. in diameter, should be maintained just beyond the diameter of the planting hole. A 2-4 inch deep layer of coarse mulch can be placed around the tree or shrub; mulch should be kept a minimum 4-6 inches from the trunk.

Maintenance Fertilization

For turf, groundcover, and mass planting areas, uniformly broadcast sulfur coated urea at the rate of 5 lbs. per 1000 sq. ft. The first application should occur approximately 45 days after planting, with repeat applications every 60-90 days or as growth and color dictate. In early fall and spring, substitute a complete fertilizer such as 16-6-8, or equal, for the sulfur coated urea at the rate of 6 lbs. per 1000 sq. ft. to ensure continuing supplies of phosphorus and potassium. Tree and shrub plantings can be maintained with the above fertilizers; however, the frequency between applications should be every 120 days, with the first application 60-90 days after planting. Follow each fertilization with a thorough irrigation. When plants have become well established, fertilizer applications can be less frequent.

As noted above, some of the micronutrients are below optimum. When these nutrients are low, especially in an alkaline soil, deficiencies can sometimes show in the plants. If deficiencies show once plants have become established, they may be addressed upon the first sign of deficiency. Symptoms of manganese deficiency may be seen as a general loss of color in the young leaves, followed by yellowing between veins and brownish-black spots appearing. Iron and zinc deficiency symptoms are often characterized by yellow, almost white, interveinal chlorosis on the youngest growth. If these symptoms are apparent once plants are established, then application of iron, zinc, and/or manganese chelate at the manufacturer's label rate may improve appearance. Chelates are generally more effective on alkaline soils than some of the other forms of trace elements.

If we can be of any further assistance, please feel free to contact us.

Joe Kiefer, CCA

4741 East Hunter Ave., Ste. A Anaheim CA 92807
(714) 282-8777 (714) 282-8575 fax
www.waypointanalytical.com

Terracon Consulting Inc.
1421 Edinger Ave., Suite C

Tustin CA 92780

Waypoint ANALYTICAL

4741 East Hunter Ave. Suite A
Anaheim, CA 92807
Main 714-282-8777 ° Fax 714-282-8575
www.waypointanalytical.com

Project : RC Hollywood - Los Angeles
Job #: 60205249

COMPREHENSIVE SOIL ANALYSIS

Report No : **20-325-0009**
Purchase Order :
Date Recd : 11/20/2020
Date Printed : 11/30/2020

Sample Description - Sample ID	Half Sat %	pH	ECe dS/m	NO_3-N ppm	NH_4-N ppm	PO_4-P ppm	K ppm	Ca ppm	Mg ppm	Cu ppm	Zn ppm	Mn ppm	Fe ppm	Organic % dry wt.	Lab No.
	TEC	Qual Lime		Sufficiency Factors											
Site Soil	18	7.0	2.0	1	5	39	75	3900	1250	1.1	1.1	1	4	0.97	20227
	328	Low		0.2		1.8	0.3	1.1	2.6	0.4	0.1	0	0		

Saturation Extract Values						SAR	Gravel %		Percent of Sample Passing 2 mm Screen					USDA Soil Classification	Lab No.
									Sand						
Ca meq/L	Mg meq/L	Na meq/L	K meq/L	B ppm	SO_4 meq/L		Coarse 5 - 12	Fine 2 - 5	Very Coarse 1 - 2	Coarse 0.5 - 1	Med. to Very Fine 0.05 - 0.5	Silt .002-.05	Clay 0-.002		
8.1	5.2	17.1	0.2	0.55	12	6.6	0.7	1.9	7.0	8.0	45.8	19.6	19.4	Sandy Loam	20227

Sufficiency factor (1.0=sufficient for average crop) below each nutrient value. N factor based on 200 ppm constant feed. SAR = Sodium adsorption ratio. Half Saturation %=approx field moisture capacity. Nitrogen(N), Potassium(K), Calcium(Ca) and Magnesium(Mg) by sodium chloride extraction. Phosphorus(P) by sodium bicarbonate extraction. Copper(Cu), Zinc(Zn), Manganese(Mn) & Iron(Fe) by DTPA extraction. Sat. ext. method for salinity (ECe as dS/m),Boron (B), Sulfate(SO_4), Sodium(Na). Gravel fraction expressed as percent by weight of oven-dried sample passing a 12mm(1/2 inch) sieve. Particle sizes in millimeters. Organic percentage determined by Walkley-Black or Loss on Ignition.

* LOW , SUFFICIENT , HIGH

SUPPORTING INFORMATION

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]					Soil Classification	
					Group Symbol	Group Name [B]
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	Cu ≥ 4 and 1 ≤ Cc ≤ 3 [E]		GW	Well-graded gravel [F]
			Cu < 4 and/or [Cc<1 or Cc>3.0] [E]		GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH		GM	Silty gravel [F, G, H]
			Fines classify as CL or CH		GC	Clayey gravel [F, G, H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	Cu ≥ 6 and 1 ≤ Cc ≤ 3 [E]		SW	Well-graded sand [I]
			Cu < 6 and/or [Cc<1 or Cc>3.0] [E]		SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH		SM	Silty sand [G, H, I]
			Fines classify as CL or CH		SC	Clayey sand [G, H, I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots on or above "A"		CL	Lean clay [K, L, M]
			PI < 4 or plots below "A" line [J]		ML	Silt [K, L, M]
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay [K, L, M, N]
			Liquid limit - not dried			Organic silt [K, L, M, O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line		CH	Fat clay [K, L, M]
			PI plots below "A" line		MH	Elastic Silt [K, L, M]
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay [K, L, M, P]
			Liquid limit - not dried			Organic silt [K, L, M, Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve.

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

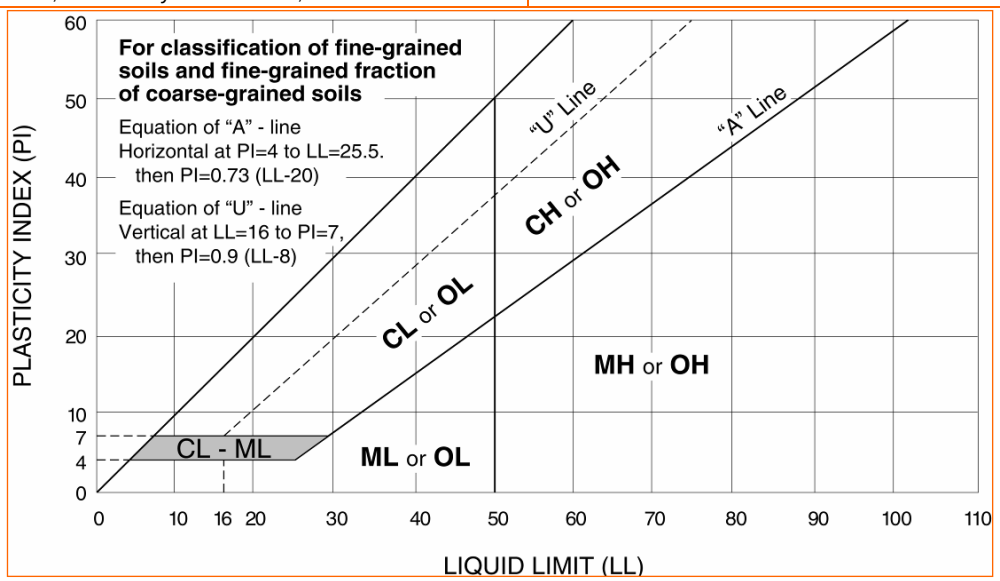
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.



GENERAL NOTES

Terracon GeoReport

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

SAMPLING

Auger	Shelby Tube	Split Spoon
Rock Core	Macro Core	Modified California Ring Sampler
Grab Sample	No Recovery	Modified Dames & Moore Ring Sampler

WATER LEVEL

- Water Initially Encountered
- Water Level After a Specified Period of Time
- Water Level After a Specified Period of Time

Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.

FIELD TESTS

(HP)	Hand Penetrometer
(T)	Torvane
(b/f)	Standard Penetration Test (blows per foot)
N	N value
(PID)	Photo-Ionization Detector
(OVA)	Organic Vapor Analyzer
(WOH)	Weight of Hammer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

LOCATION AND ELEVATION NOTES

Unless otherwise noted, Latitude and Longitude are approximately determined using a hand-held GPS device. The accuracy of such devices is variable. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance Includes gravels, sands and silts.			CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance			
Descriptive Term (Density)	Standard Penetration or N-Value Blows/Ft.	Ring Sampler Blows/Ft.	Descriptive Term (Consistency)	Unconfined Compressive Strength, Qu, psf	Standard Penetration or N-Value Blows/Ft.	Ring Sampler Blows/Ft.
Very Loose	0 - 3	0 - 6	Very Soft	less than 500	0 - 1	< 3
Loose	4 - 9	7 - 18	Soft	500 to 1,000	2 - 4	3 - 4
Medium Dense	10 - 29	19 - 58	Medium-Stiff	1,000 to 2,000	4 - 8	5 - 9
Dense	30 - 50	59 - 98	Stiff	2,000 to 4,000	8 - 15	10 - 18
Very Dense	> 50	≥ 99	Very Stiff	4,000 to 8,000	15 - 30	19 - 42
			Hard	> 8,000	> 30	> 42

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 15
With	15 - 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Particle Size
Boulders	Over 12 in. (300 mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm
Silt or Clay	Passing #200 sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 5
With	5 - 12
Modifier	> 12

PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0
Low	1 - 10
Medium	11 - 30
High	> 30

Attachment D

Master Covenant Agreement (MCA)

RECORDING REQUESTED BY
AND MAIL TO:

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUILDING AND SAFETY DIVISION
900 S. FREMONT AVENUE, 3RD FLOOR
ALHAMBRA, CA 91803-1331

Space above this line is for Recorder's use

COVENANT AND AGREEMENT
REGARDING THE MAINTENANCE OF LOW IMPACT DEVELOPMENT (LID) & NATIONAL POLLUTANTS DISCHARGE ELIMINATION SYSTEM (NPDES) BMPs

The undersigned, Raising Cane's ("Owner"), hereby certifies that it owns the real property described as follows ("Subject Property"), located in the County of Los Angeles, State of California:

LEGAL DESCRIPTION

ASSESSOR'S ID # 5547-022-022, 5547-022-023, 5547-022-059 TRACT NO._____ LOT NO. 13, 14, 15, 16 & 17

ADDRESS: 6726 Sunset Blvd., Los Angeles, Ca 90028

Owner is aware of the requirements of the County of Los Angeles' Green Building Standards Code, Title 31, Section 4.106.4 and Section 5.106.2 (LID), and National Pollutant Discharge Elimination System (NPDES) permit. The following post-construction BMP features have been installed on the Subject Property:

- ☐ Porous pavement
- ☐ Cistern/rain barrel
- ☐ Infiltration trench/pit
- ☒ Bioretention or biofiltration
- ☐ Rain garden/planter box
- ☐ Disconnect impervious surfaces
- ☐ Dry Well
- ☐ Storage containers
- ☐ Landscaping and landscape irrigation
- ☐ Green roof
- ☐ Other _____

The location, including GPS x-y coordinates, and type of each post-construction BMP feature installed on the Subject Property is identified on the site diagram attached hereto as Exhibit 1.

Owner hereby covenants and agrees to maintain the above-described post-construction BMP features in a good and operable condition at all times, and in accordance with the LID/NPDES Maintenance Guidelines, attached hereto as Exhibit 2.

Owner further covenants and agrees that the above-described post-construction BMP features shall not be removed from the Subject Property unless and until they have been replaced with other post-construction BMP features in accordance with County of Los Angeles' Green Building Standards Code, Title 31 and NPDES permit.

Owner further covenants and agrees that if Owner hereafter sells the Subject Property, Owner shall provide printed educational materials to the buyer regarding the post-construction BMP features that are located on the Subject Property, including the type(s) and location(s) of all such features, and instructions for properly maintaining all such features.

Owner makes this Covenant and Agreement on behalf of itself and its successors and assigns. This Covenant and Agreement shall run with the Subject Property and shall be binding upon owner, future owners, and their heirs, successors and assignees, and shall continue in effect until the release of this Covenant and Agreement by the County of Los Angeles, in its sole discretion.

Owner(s):

By:_____ Date:_____

By:_____ Date:_____

(PLEASE ATTACH NOTARY)

REFERENCE

PLAN CHECK NO.: _____ DISTRICT OFFICE NO.:_____

ATTACHMENTS

INSTRUCTIONS FOR FILING COVENANT AND AGREEMENT FORMS

1. Provide an 8.5" x 11" Plot Plan showing the location, quantity and size of all stormwater Best Management Practices (BMPs) – Exhibit 1 plot plan.

2. LA Sanitation and Environment (LASAN) will return a Covenant and Agreement Package (C&A) which will include; the filled out Covenant and Agreement document, Exhibit 1 plot plan and Operation and Maintenance (O&M) Plan to the applicant/property owner(s).

   PROPERTY OWNER ACKNOWLEDGEMENT AND OBLIGATION: The owner(s) agree(s) to sign and notarize the Covenant and Agreement package provided by LASAN. If the recorded Covenant and Agreement differs from the Covenant and Agreement Package provided by LASAN the property owner(s) agree(s) to execute a Supplemental Covenant and Agreement. The owner(s) assume(s) all risk, responsibility and associated permit sign off delays resulting from recording an incorrect Covenant and Agreement Package.

3. Property owner(s) must print and sign their name(s) in BLACK INK ONLY – SIGNATURE(S) MUST BE NOTARIZED.

4. Record the C&A Form, Notary Acknowledgement, Exhibit 1 plot plan and the O&M Plan with the Los Angeles County Registrar-Recorder and obtain a certified copy. This document can be recorded at the locations listed below:

   1) 12400 Imperial Highway
      Norwalk, CA 90650
      (Near the intersection of the 5 and 605 freeways)

   2) 14340 Sylvan Street
      Van Nuys, CA 91401
      (Near Van Nuys City Hall)

   3) 11701 S. La Cienega Blvd., 6th Floor
      Los Angeles, CA 90045
      (LAX Courthouse)

5. Return the recorded certified copy of the recorded Covenant and Agreement to LASAN for review and acceptance.

   FINAL APPROVAL/CLEARANCE WILL NOT BE GRANTED WITHOUT LASAN'S RECEIPT AND ACCEPTANCE OF THE CERTIFIED COPY OF THE C&A, EXHIBIT 1 PLOT PLAN AND O&M PLAN. WHERE A RECORDED C&A IS NOT ACCEPTED BY LASAN, THE SUPPLEMENTAL COVENANT AND AGREEMENT PROCESS IS REQUIRED TO BE COMPLETED WITH WET AND ORIGINAL SIGNATURES BEFORE FINAL APPROVAL/CLEARANCE IS GRANTED.

Recording requested by and mail to:

Name: _____

Address: _____

City State Zip: _____

_____

Space Above This Line For Recorder's Use

MASTER COVENANT AND AGREEMENT

REGARDING ON-SITE STORMWATER MITIGATION MEASURES AND MAINTENANCE

I (We), the undersigned, hereby certify that I am (we are) the owner(s) of the hereinafter legally described real property ("Property") located in the City of Los Angeles, County of Los Angeles, State of California (please give the legal description):

LEGAL DESCRIPTION

ASSESSOR'S ID# 5547-022-022, -023, -059 TRACT NO. _____ BLOCK NO. _____ LOT NO 13, 14, 15, 16 & 17

Site Address 6726 Sunset Blvd., Los Angeles, Ca 90028

In consideration of the City of Los Angeles allowing Raising Cane's development on said Property, I (we) do hereby covenant and agree to install, operate and maintain in a good operable condition at all times, at my (our) sole cost, all on-site stormwater Best Management Practices (BMPs) per approved plans. The location and type of each BMP feature installed on the Subject Property is identified on the site diagram attached hereto as Exhibit 1. I (we) shall maintain, in accordance with the attached Operation & Maintenance Plan (Attachment 1), the following on-site stormwater BMPs:

- ☐ Rain Tank (min 55 gal): # of barrels: _____; _____ total gallons, with minimum of _____ Sq. Ft of vegetated landscaping
- ☒ Rain Tank / Cistern: # of tanks / cistern: _____; _____ total gallons, with minimum of _____ Sq. Ft of vegetated landscaping
- ☐ Porous pavement/pavers: _____ Sq. Ft (for incidental rainfall); and / or _____ Sq. Ft. with _____ ft sub base
- ☐ Rain Garden (lined): # of rain gardens: _____; _____total Sq. Ft.
- ☐ Rain Garden (unlined): # of rain gardens: _____; _____total Sq. Ft.
- ☐ Flow Thru Planter: # of planters: _____; _____total Sq. Ft.
- ☐ Dry Well: _____ Cu. Ft.
- ☐ Infiltration Trench: _____ Cu. Ft.
- ☐ Green Roof: _____ Sq. Ft.
- ☐ Other: _____

Owner further covenants and agrees that the above-described stormwater device(s) shall not be removed from the Subject Property unless a revised Plan is approved by the Bureau of Sanitation In the event that any portion of the above-specified on-site stormwater pollution removal device(s) or BMPs is modified, I (we) shall immediately provide the Bureau of Sanitation of the City of Los Angeles with a revised Plan for their approval, and sign and record a Supplemental Covenant and Agreement, specifying all of the on-site stormwater pollution removal device(s) and BMPs, as modified (along with a modified O&M Plan). No Supplemental Covenant and Agreement shall, in any way, limit or diminish my (our) General Maintenance Obligation.

This Master Covenant and Agreement, and all obligations herein, shall run with the Property and shall be binding upon any future owners, encumbrances, their successors, heirs or assigns and shall continue in effect until the Bureau of Sanitation approves the termination hereof.

Owner further covenants and agrees that if Owner hereafter sells the Subject Property, Owner shall provide printed educational materials to the buyer regarding the stormwater device(s) that are located on the Subject Property, including the type(s) and location(s) of all such devices, and instructions for properly maintaining all such devices.

_____	_____
(Print Name of Property Owner)	(Print Name of Property Owner)
_____	_____
(Signature of Property Owner)	(Signature of Property Owner)
Dated this _____ day of _____ 20____.	Dated this _____ day of _____ 20____.

(PLEASE ATTACH NOTARY ACKNOWLEDGEMENT) Space Below This Line For Bureau Internal Use

---

Permit No. _____

Accepted by Department of Public Works, LA Sanitation and Environment for conformance with the "Instructions for Filing Covenant and Agreement Forms"? YES ☐ NO ☐; If NO, reason: _____

_____ _____ Date: _____

(Print Name) Engineering Associate (Signature)

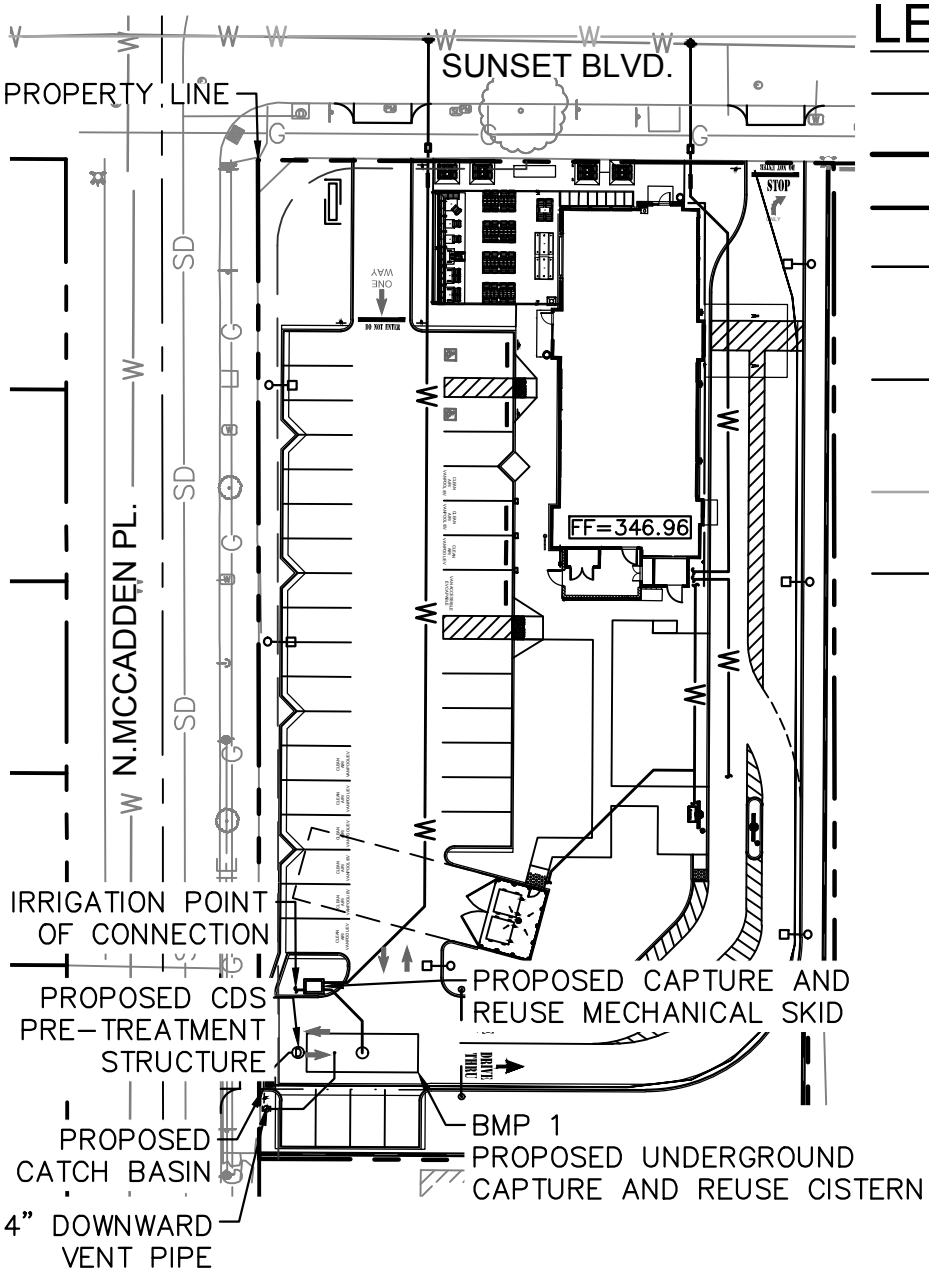
Exhibit A

Legal Description:

Lots 13, 14, 15, 16, 17 and the west 7.00 feet of that portion of lot 23 lying north of the easterly prolongation of the south line of said lot 16 of Boyle place, in the city of Los Angeles, county of los Angeles, state of California, as per map recorded in book 6, page 45 of maps, in the office of the county recorder of said county.

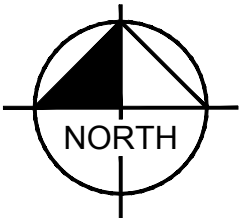
APN: 5547-022-022; 5547-022-023; 5547-022-024

EXHIBIT B



LEGEND

	CENTER LINE
	PROPERTY LINE
	RIGHT OF WAY
SD	EXISTING STORM DRAIN LINE
SD	PROPOSED STORM DRAIN LINE
W	EXISTING WATER LINE
W	PROPOSED WATER LINE



GRAPHIC SCALE IN FEET

0 25 50 100

1" = 50'
WHEN PRINTED AT FULL SIZE
(24" X 36")

BMP 1 - CAPTURE AND REUSE

V(BMP), CF	2,140
V (BMP), GAL	16,007
PERVIOUS AREA, SF	11,017
PLANTING FACTOR	0.30
FACTORED PLANTING AREA, SF	3,305
ETWU (7-MONTH), GAL	44,467
ETWU (7-MONTH) > V(BMP)	FEASIBLE

Kimley»Horn

© 2020 KIMLEY-HORN AND ASSOCIATES, INC.
1100 TOWN AND COUNTRY, SUITE 700, ORANGE, CA 92868
PHONE: 714-939-1030 FAX: 714-938-9488

Attachment E

Operations and Maintenance (O&M) Plan

Required Permits

This section must list any permits required for the implementation, operation, and maintenance of the BMPs. Possible examples are:

- Permits for connection to sanitary sewer
- Permits from California Department of Fish and Game
- Encroachment permits

If no permits are required, a statement to that effect should be made.

Recordkeeping

All records must be made available for review upon request.

Responsible Party

The owner is aware of the maintenance responsibilities of the proposed BMPs. A funding mechanism is in place to maintain the BMPs at the frequency stated in the LID Plan. The contact information for the entity responsible is below:

Name:	Michael Helm (Tenant)	KB Sunset McCadden, LLC. (Owner)
Company:	Raising Cane's Restaurants, LLC	ARKA Properties
Title:	Facilities Lead	Owner
Address 1:	6800 Bishop Road	9350 Wilshire Blvd., #402
Address 2:	Plano, TX 75024	Beverly Hills, CA 90212
Phone Number:	949-322-1936	310-274-2259
Email:	mhelm@raisingcanes.com	vmbohanex@arkaproproperties group.com

BMP Name	BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Non-Structural Source Control BMPs			
Education for Property Owners, Tenants and Occupants	EMPLOYEE EDUCATION	UPON OPENING, AND INCLUDED IN NEW HIRE ORIENTATION	OWNER AND TENANT
Activity Restriction	EMPLOYEE EDUCATION	UPON OPENING, AND INCLUDED IN NEW HIRE ORIENTATION	OWNER AND TENANT
Common Area Landscape Management	SEE BMP FACT SHEET BG-40 LANDSCAPE MAINTENANCE	PER BMP FACTSHEET	OWNER AND TENANT
Common Area Litter Control	SEE BMP FACT SHEET SC-43 PARKING AREA MAINTENANCE	PER BMP FACT SHEET	OWNER AND TENANT
Housekeeping of Loading Docks	SEE BMP FACT SHEET SC-30 OUTDOOR LOADING/UNLOADING	PER BMP FACT SHEET	OWNER AND TENANT
Common Area Catch Basin Inspection	SEE FACT SHEET SC-44 DRAINAGE SYSTEM MAINTENANCE	PER BMP FACT SHEET	OWNER AND TENANT
Street Sweeping Private Streets and Parking Lots	SEE BMP FACT SHEET SC-43 PARKING AREA MAINTENANCE	PER BMP FACT SHEET	OWNER AND TENANT
Structural Source Control BMPs			
Provide Storm Drain System Stenciling and Signage	SEE BMP FACT SHEET SD-13 STORM DRAIN SIGNAGE	PER BMP FACT SHEET	OWNER AND TENANT

BMP Name	BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Design and Construct Outdoor Material Storage Areas to Reduce Pollutant Introduction	SEE BMP FACT SHEET SD-34 OUTDOOR MATERIAL STORAGE AREAS	PER BMP FACT SHEET	OWNER AND TENANT
Design and Construct Trash and Waste Storage Areas to Reduce Pollutant Introduction	SEE BMP FACT SHEET SD-32 TRASH STORAGE AREAS	PER BMP FACT SHEET	OWNER AND TENANT
Use Efficient Irrigation Systems & Landscape Design	SEE BMP FACT SHEET SD-12 EFFICIENT IRRIGATION	PER BMP FACT SHEET	OWNER AND TENANT
Treatment Control BMPs			
UrbanGreen Rainwater Cistern	SEE MANUFACTURERS OPERATIONS AND MAINTENANCE MANUAL	PER MANUFACTURERS OPERATIONS AND MAINTENANCE MANUAL	OWNER AND TENANT
LID BMPs			
Contech CDS Unit	SEE MANUFACTURERS OPERATIONS AND MAINTENANCE MANUAL	SEE BMP FACT SHEET	OWNER AND TENANT

STORM WATER
OPERATIONS AND MAINTENANCE PLAN

FOR

Raising Cane's C0624 – Hollywood
Sunset Blvd & N Highland Ave

Document Date: 02/03/2022

Facility Completed Date: February 2022

Table of Contents

Introduction.....2
Section 1. Non-Structural "Good Housekeeping" Measures Form 4
Section 2. Treatment BMPs Form 10
Section 3. Owner/Facility Information 12

INTRODUCTION

An Operations and Maintenance (O&M) Plan is required to provide guidance to Owners (or assigned Operators/Managers), supervising and facilitating day-to-day operations and implementing the Best Management Practices (BMPs) within.

Per city, state, and federal Rules and Regulations a Storm Water Quality Management Plan Agreement with Access Rights and Covenants is recorded and lawfully executed by the Owner(s) prior to plan approval. Per the recorded document, the owner or any successor in title property of specified development shall maintain the storm water facilities, BMP(s), basins, storm water structures/controls, and appurtenances.

This O&M Plan was developed by the signing engineer and addresses site specific storm water structures/controls, appurtenances, and BMPs (e.g., actions and methods) to ensure that the engineered Treatment BMPs function as designed.

Although no one can foresee failures, misuses, neglect and/or changes that may cause illicit discharges, flooding or other hazardous conditions requiring costly remediations. The operations and maintenance procedures outlined in this plan are imperative. Routine maintenance activities, regular inspections, corrective actions, and replacement of materials shall be documented in the forms provided by the signing engineer.

Safety

Safety considerations should be taken when conducting maintenance and inspections. Hazards should be considered and avoided. Do not enter confined spaces without proper training, monitoring and safety equipment. Protective clothing, and proper pre-cautions shall be taken when walking over rip-rap rocks, long vegetative (grass) areas, along busy streets, remote locations, and/or when opening hatches, ports, grates, chamber doors, etc.

Refer to BMP Maitenance Worksheets in Section 2 for more infomration

Routine maintenance

Good Housekeeping activities may include, but not limited to, cleaning of spills/leaks, weeding, debris removal, etc. If these tasks are contracted, ensure proper care for stormwater structures. Employees, and/or contracted personnel working in/around site shall have knowledge or training in regard to the storm water structure(s), BMPs, function, and shall have access to an emergency contact readily available.

Inspections shall be conducted regularly, including prior and after rain events.

Refer to BMP Maitenance Worksheets in Section 2 for more infomration

Corrective Actions

Inspections (visual and documented) that indicate the BMP requires corrective actions shall be done as soon as possible (especially prior to rain) to avoid violations, infractions, hazardous or dangerous conditions. Corrective actions include, but not limited to, basin bank re-stabilization, removal and replacement of soil media, manufactured bio-filters, screens, rip-rap, cleaning and clearing or removal of sediment, sand, weeds, blocking storm flow conveyance(s), etc. to establish the BMP to the original design.

Refer to BMP Maitenance Worksheets in Section 5 for more infomration

BMP Modifications

In the event that materials, equipment or structure(s) are to be substituted, replaced, or modified in any way from its original design and specification(s) the modifications are to be approved by an engineer prior to installation, and requires this O&M to be modified. Prior to installation, the city shall be notified by the Owner.

Inspection Procedures

BMP Inspections shall be conducted by a qualified individual familiar with the operation of the facility and with the ability to execute corrective actions as needed.
Inspections are to be conducted as shown in tables/forms. Treatment/retention/infiltration BMPs are required to be inspected approximately 24-48 hours after a rain storm to determine if structure is infiltrating as required.

City enforcement staff is required to conduct periodic BMP inspections as part of the MS4 permit requirement. City/State personnel shall require access to BMP structures, ports, gates, locks, etc., and shall also have access all in-house BMP Inspections conducted. Inability to properly conduct, or have adequate access to BMP structures or documentation is subject to infraction or violation penalties.

Refer to BMP Maitenance Worksheets in Section 2 for more infomration

BMP Waste Disposal

Landfill and solid waste requirements shall be followed for all BMP waste. The Owner is responsible for determining and funding proper waste disposal of contaminated filtering materials and soils.

Pumping of standing water from BMP structure (e.g. basin) is subject to discharge permit requirements and the city shall be contacted prior to commencement of such activities. No turbid discharge water is allowed on city MS4 system without approved filter bag /sock.
All sediment removed from a system shall be transported/ disposed of according to erosion and sediment control regulations.

Refer to BMP Maitenance Worksheets in Section 2 for more infomration

SECTION 1.
NON-STRUCTURAL "GOOD HOUSEKEEPING" MEASURES FORM

NON-STRUCTURAL "GOOD HOUSEKEEPING" SOURCE CONTROL BMPS REQUIRED				
BMP Name/ Description Type	**Responsible Party(ies)** *or those that will perform tasks*	**BMP Implementation**	**Inspection Frequency & Schedule**	**Inspection Use (Name/date)**
1. BMP Maintenance & Funding	Owner	When BMP replacement(s) is required, the Owner shall order and provide materials to assigned personnel/staff.	Purchasing receipts and invoices are kept within this O&M Program	
2. Property Owner/Operator Awareness	Owner/Site General Manager	Owner will ensure he/she and any designated site operator(s) are familiar with this BMP Inspection Program and all requirements within, including but not limited to: 1) Keeping records of BMP Implementations, 2) Replacing, restoring, reporting damages to treatment BMPs,	Biannually for all employees, and within 2 months for new hires / designated managers.	
3. Employee Training/Education Program	Site appointed General Manager	Within 2 days for new hires, and walk-thru of the site where treatment BMPs are located and restrictions. Within 2 months, a signed acknowledgement of site policies and restrictions.	Biannual training of site BMP policies for all employees	
4. Landscape Management	Owner per Contracted Service provider	Landscaping in Biotreatment are to be maintained per original design. Replacement of plants is necessary to maintain the topsoil structure. Cuttings and trimmings will be promptly removed. Overflow kept free of debris or clogging. Owner/site operator(s) shall ensure landscaping/Groundskeeping Service providers do not blow or sweep debris, cutting, leaves, etc., into treatment BMPs and/or City maintained right of ways. All landscape maintenance contractors will	Ongoing	

		be required to sweep up all landscape cuttings, mowing and fertilizer materials off paved areas weekly and dispose of properly. Rain Garden at roof down spout shall remain weed free and inspected for gravel loss		
5. Litter/Debris Control	Owner per Contracted Service provider	Owner to ensure lids are secure, lidded, and consistent with City Ordinances. Contract with Landscaping/Groundskeeping service will include perimeter fencing and wind-blown debris.	Contracted Weekly. Inspections conducted daily as part of site operations.	
6. Sweeping Private Streets/Parking	Owner per Contracted Service provider	Contract machine sweeping of parking areas and drive ways. Sweeper Services shall include bi-annual oil/grease stains found in parking stalls. Removal shall be dry-swept and vacuumed (not chemical/water sprayed) because parking drains to bioretention basin.	Monthly	
7. SC-10 Non-Stormwater Discharges	Site appointed General Manager	Discharges of anything other than rain water to the storm water conveyance system are illegal. The only exception to this prohibition includes individually permitted discharges, pursuant to a National Pollutant Discharge Elimination System and discharges resulting from emergency firefighting activities. All projects must effectively eliminate discharges of non-storm water into the storm water conveyance system. This may involve a suite of housekeeping BMPs which could include effective irrigation, dispersion of non-storm water	Ongoing	

		discharges into landscaping for infiltration and containing wash water from vehicle washing. Site appointed General Manager shall ensure all employees are trained and continue to monitor for illicit discharges into storm drain system		
8. SC-34 Waste handling & disposal	Owner/Site General Manager	Site owner shall provide adequate number of receptacles if outdoor refuse area is necessary. Site manager shall Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available onsite. See Fact Sheet SC-34, "Waste Handling and Disposal "in the CASQA Stormwater Quality Handbook.	Ongoing	
9. SC-41 Building & grounds maintenance	Owner/Site General Manager	Site manager shall implement required "Building and Grounds Maintenance" per Fact Sheet SC-41 CASQA Stormwater Quality Handbook. Plaza, sidewalks, and parking lots shall be swept regularly to prevent accumulation of litter and debris All paved surfaces must be power cleaned at least one time a year or more as required to prevent polluted runoff.	Ongoing	
10. SC-41 Building repair & construction	Owner/Site General Manager	Site manager shall implement required "Building and Grounds Maintenance" per	Ongoing	

		Fact Sheet SC-41 CASQA Stormwater Quality Handbook.		
11. SC-43 parking/storage area maintenance	Owner/Site General Manager	Site manager shall implement required "Parking Area Maintenance" per Fact Sheet SC-43 CASQA Stormwater Quality Handbook. Plaza, sidewalks, and parking lots shall be swept regularly to prevent accumulation of litter and debris All paved surfaces must be power cleaned at least one time a year or more as required to prevent polluted runoff.	Ongoing	
12. SC-41 drainage system maintenance	Owner/Site General Manager	Site manager shall implement required "Drainage System Maintenance" per Fact Sheet SC-41 CASQA Stormwater Quality Handbook. Inspect and repair/replace stenciling as necessary Clean catch basins/inlets before wet season to remove sediments and debris accumulated during the summer Conduct inspections more frequently during the wet season for problem areas where sediment or trash accumulates more often. Clean and repair as needed. Keep accurate logs of the number of catch basins cleaned Store waste collected from cleaning activities of the drainage system in appropriate containers or temporary storage sites in a manner that prevents discharge to the storm drain	Ongoing	

		more as required to prevent polluted runoff.		

SECTION 2. TREATMENT BMPS FORM

BMP INSPECTION PROGRAM FOR TREATMENT CONTROL BMPS

One table for each BMP observation location.
TREATMENT BMPS ARE SUBJECT TO REGULATORY INSPECTION BY LOCAL, AND STATE JURISDICTIONS.

1. BMP Name/Type:	**Underground Stormwater Cistern**			Inspection Use (name,date)
BMP Function:	**Capture and Use**			
Reference #: *(as attached materials)*	**LID Exhibit and Details**			
Latitude: *(general center, or inlet/observation location.)*	**34.0971590**	Longitude:	**-118.337923**	
Describe design: *(Structures, materials, design, slope ratios, surface coverings)*	**Contech UrbanGreen 120" Capture and Reuse Cistern**			
Dimensions (ft) Top/Surface:		Bottom:		
Capacity(ft³) / Size:		Depth(ft):		
Manufacturer: *(Website/Contact Info)*	**N/A**			
Model #: *(if replacement parts required)*	**N/A**			
Inspection Type: *(Check all that apply)*	☐ Visual	☒ Other: _____		
Inspection Frequency & Schedule(s) *(Check all that apply)*	☒ After Rain ☐ Monthly ☐ Quarterly	☐ Biannually (twice a year) ☒ Annually ☒ Other: As needed		
Engineer's Notes:	*(Describe visual conditions indicating potential BMP failure, potential risks or warning indications.)* **Maintenance per manufacturer specifications**			
Additional Notes:	*(e.g. Owner's/Inspectors notes of contracted maintenance, inspection findings, incident observations, etc.)*			

BMP INSPECTION PROGRAM FOR TREATMENT CONTROL BMPS

One table for each BMP observation location.
TREATMENT BMPS ARE SUBJECT TO REGULATORY INSPECTION BY LOCAL, AND STATE JURISDICTIONS.

1. BMP Name/Type:	**Contech CDS Unit**			Inspection Use (name,date)
BMP Function:	**Pretreating**			
Reference #: ***(as attached materials)***	**LID Exhibit and Details**			
Latitude: ***(general center, or inlet/observation location.)***	**34.0971590**	Longitude:	**-118.337923**	
Describe design: ***(Structures, materials, design, slope ratios, surface coverings)***				
Dimensions (ft) Top/Surface:		Bottom:		
Capacity(ft^3) / Size:		Depth(ft):		
Manufacturer: ***(Website/Contact Info)***				
Model #: ***(if replacement parts required)***				
Inspection Type: ***(Check all that apply)***	☐ Visual	☒ Other: _____		
Inspection Frequency & Schedule(s) ***(Check all that apply)***	☒ After Rain ☐ Monthly ☐ Quarterly	☐ Biannually (twice a year) ☐ Annually ☒ Other: As needed		
Engineer's Notes:	*(Describe visual conditions indicating potential BMP failure, potential risks or warning indications.)* **Maintenance per manufacturer specifications**			
Additional Notes:	*(e.g. Owner's/Inspectors notes of contracted maintenance, inspection findings, incident observations, etc.)*			

SECTION 3. OWNER/FACILITY INFORMATION

This Section is intended to be used to save records and information.

Recommended:
Owner/Operator may use this section to save copies of in-house inspections conducted, receipts of BMP maintenance costs, copies from City/State Inspection Reports.

And/or,

Optional:
Owner/Engineer may determine if Emergency Contact Information is necessary, or Placement of contracts, and/or other O&Ms such as:

- Spill Prevention Control and Countermeasure Plan (if applicable)
- Facility Response Plan (If applicable)

Owner/facility Operator may determine this location to store O&M Training sign-in sheets, etc.

CONTECH®
ENGINEERED SOLUTIONS

CDS Guide
Operation, Design, Performance and Maintenance

CDS®

Using patented continuous deflective separation technology, the CDS system screens, separates and traps debris, sediment, and oil and grease from stormwater runoff. The indirect screening capability of the system allows for 100% removal of floatables and neutrally buoyant material without blinding. Flow and screening controls physically separate captured solids, and minimize the re-suspension and release of previously trapped pollutants. Inline units can treat up to 6 cfs, and internally bypass flows in excess of 50 cfs (1416 L/s). Available precast or cast-in-place, offline units can treat flows from 1 to 300 cfs (28.3 to 8495 L/s). The pollutant removal capacity of the CDS system has been proven in lab and field testing.

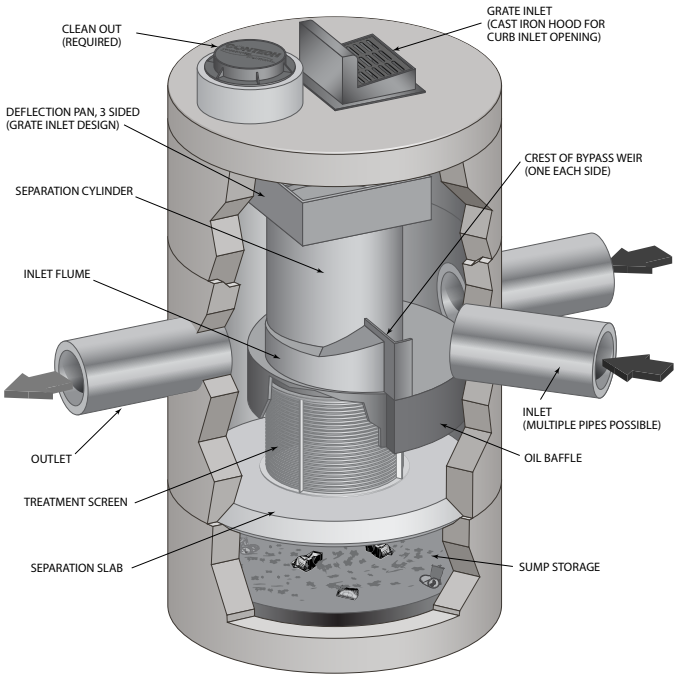
Operation Overview

Stormwater enters the diversion chamber where the diversion weir guides the flow into the unit's separation chamber and pollutants are removed from the flow. All flows up to the system's treatment design capacity enter the separation chamber and are treated.

Swirl concentration and screen deflection force floatables and solids to the center of the separation chamber where 100% of floatables and neutrally buoyant debris larger than the screen apertures are trapped.

Stormwater then moves through the separation screen, under the oil baffle and exits the system. The separation screen remains clog free due to continuous deflection.

During the flow events exceeding the treatment design capacity, the diversion weir bypasses excessive flows around the separation chamber, so captured pollutants are retained in the separation cylinder.



Design Basics

There are three primary methods of sizing a CDS system. The Water Quality Flow Rate Method determines which model size provides the desired removal efficiency at a given flow rate for a defined particle size. The Rational Rainfall Method™ or the and Probabilistic Method is used when a specific removal efficiency of the net annual sediment load is required.

Typically in the Unites States, CDS systems are designed to achieve an 80% annual solids load reduction based on lab generated performance curves for a gradation with an average particle size (d50) of 125 microns (μm). For some regulatory environments, CDS systems can also be designed to achieve an 80% annual solids load reduction based on an average particle size (d50) of 75 microns (μm) or 50 microns (μm).

Water Quality Flow Rate Method

In some cases, regulations require that a specific treatment rate, often referred to as the water quality design flow (WQQ), be treated. This WQQ represents the peak flow rate from either an event with a specific recurrence interval, e.g. the six-month storm, or a water quality depth, e.g. 1/2-inch (13 mm) of rainfall.

The CDS is designed to treat all flows up to the WQQ. At influent rates higher than the WQQ, the diversion weir will direct most flow exceeding the WQQ around the separation chamber. This allows removal efficiency to remain relatively constant in the separation chamber and eliminates the risk of washout during bypass flows regardless of influent flow rates.

Treatment flow rates are defined as the rate at which the CDS will remove a specific gradation of sediment at a specific removal efficiency. Therefore the treatment flow rate is variable, based on the gradation and removal efficiency specified by the design engineer.

Rational Rainfall Method™

Differences in local climate, topography and scale make every site hydraulically unique. It is important to take these factors into consideration when estimating the long-term performance of any stormwater treatment system. The Rational Rainfall Method combines site-specific information with laboratory generated performance data, and local historical precipitation records to estimate removal efficiencies as accurately as possible.

Short duration rain gauge records from across the United States and Canada were analyzed to determine the percent of the total annual rainfall that fell at a range of intensities. US stations' depths were totaled every 15 minutes, or hourly, and recorded in 0.01-inch increments. Depths were recorded hourly with 1-mm resolution at Canadian stations. One trend was consistent at all sites; the vast majority of precipitation fell at low intensities and high intensity storms contributed relatively little to the total annual depth.

These intensities, along with the total drainage area and runoff coefficient for each specific site, are translated into flow rates using the Rational Rainfall Method. Since most sites are relatively small and highly impervious, the Rational Rainfall Method is appropriate. Based on the runoff flow rates calculated for each intensity, operating rates within a proposed CDS system are

determined. Performance efficiency curve determined from full scale laboratory tests on defined sediment PSDs is applied to calculate solids removal efficiency. The relative removal efficiency at each operating rate is added to produce a net annual pollutant removal efficiency estimate.

Probabilistic Rational Method

The Probabilistic Rational Method is a sizing program Contech developed to estimate a net annual sediment load reduction for a particular CDS model based on site size, site runoff coefficient, regional rainfall intensity distribution, and anticipated pollutant characteristics.

The Probabilistic Method is an extension of the Rational Method used to estimate peak discharge rates generated by storm events of varying statistical return frequencies (e.g. 2-year storm event). Under the Rational Method, an adjustment factor is used to adjust the runoff coefficient estimated for the 10-year event, correlating a known hydrologic parameter with the target storm event. The rainfall intensities vary depending on the return frequency of the storm event under consideration. In general, these two frequency dependent parameters (rainfall intensity and runoff coefficient) increase as the return frequency increases while the drainage area remains constant.

These intensities, along with the total drainage area and runoff coefficient for each specific site, are translated into flow rates using the Rational Method. Since most sites are relatively small and highly impervious, the Rational Method is appropriate. Based on the runoff flow rates calculated for each intensity, operating rates within a proposed CDS are determined. Performance efficiency curve on defined sediment PSDs is applied to calculate solids removal efficiency. The relative removal efficiency at each operating rate is added to produce a net annual pollutant removal efficiency estimate.

Treatment Flow Rate

The inlet throat area is sized to ensure that the WQQ passes through the separation chamber at a water surface elevation equal to the crest of the diversion weir. The diversion weir bypasses excessive flows around the separation chamber, thus preventing re-suspension or re-entrainment of previously captured particles.

Hydraulic Capacity

The hydraulic capacity of a CDS system is determined by the length and height of the diversion weir and by the maximum allowable head in the system. Typical configurations allow hydraulic capacities of up to ten times the treatment flow rate. The crest of the diversion weir may be lowered and the inlet throat may be widened to increase the capacity of the system at a given water surface elevation. The unit is designed to meet project specific hydraulic requirements.

Performance

Full-Scale Laboratory Test Results

A full-scale CDS system (Model CDS2020-5B) was tested at the facility of University of Florida, Gainesville, FL. This CDS unit was evaluated under controlled laboratory conditions of influent flow rate and addition of sediment.

Two different gradations of silica sand material (UF Sediment & OK-110) were used in the CDS performance evaluation. The particle size distributions (PSDs) of the test materials were analyzed using standard method "Gradation ASTM D-422 "Standard Test Method for Particle-Size Analysis of Soils" by a certified laboratory.

UF Sediment is a mixture of three different products produced by the U.S. Silica Company: "Sil-Co-Sil 106", "#1 DRY" and "20/40 Oil Frac". Particle size distribution analysis shows that the UF Sediment has a very fine gradation (d50 = 20 to 30 μm) covering a wide size range (Coefficient of Uniformity, C averaged at 10.6). In comparison with the hypothetical TSS gradation specified in the NJDEP (New Jersey Department of Environmental Protection) and NJCAT (New Jersey Corporation for Advanced Technology) protocol for lab testing, the UF Sediment covers a similar range of particle size but with a finer d50 (d50 for NJDEP is approximately 50 μm) (NJDEP, 2003).

The OK-110 silica sand is a commercial product of U.S. Silica Sand. The particle size distribution analysis of this material, also included in Figure 1, shows that 99.9% of the OK-110 sand is finer than 250 microns, with a mean particle size (d50) of 106 microns. The PSDs for the test material are shown in Figure 1.

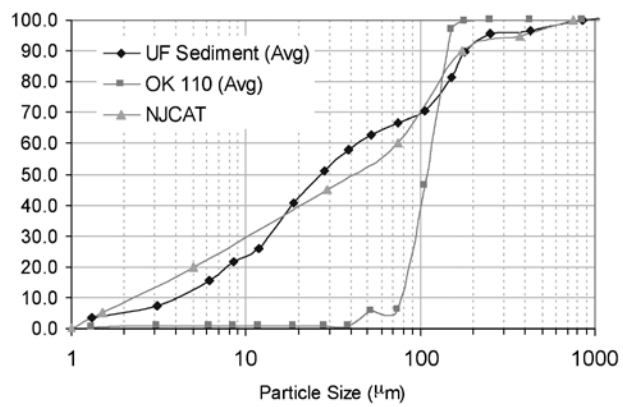


Figure 1. Particle size distributions

Tests were conducted to quantify the performance of a specific CDS unit (1.1 cfs (31.3-L/s) design capacity) at various flow rates, ranging from 1% up to 125% of the treatment design capacity of the unit, using the 2400 micron screen. All tests were conducted with controlled influent concentrations of approximately 200 mg/L. Effluent samples were taken at equal time intervals across the entire duration of each test run. These samples were then processed with a Dekaport Cone sample splitter to obtain representative sub-samples for Suspended Sediment Concentration (SSC) testing using ASTM D3977-97 "Standard Test Methods for Determining Sediment Concentration in Water Samples", and particle size distribution analysis.

Results and Modeling

Based on the data from the University of Florida, a performance model was developed for the CDS system. A regression analysis was used to develop a fitting curve representative of the scattered data points at various design flow rates. This model, which demonstrated good agreement with the laboratory data, can then be used to predict CDS system performance with respect

to SSC removal for any particle size gradation, assuming the particles are inorganic sandy-silt. Figure 2 shows CDS predictive performance for two typical particle size gradations (NJCAT gradation and OK-110 sand) as a function of operating rate.

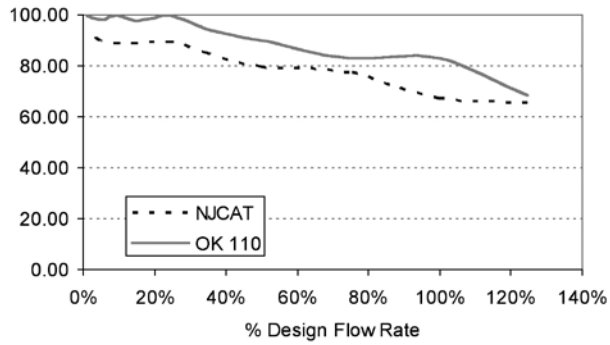


Figure 2. CDS stormwater treatment predictive performance for various particle gradations as a function of operating rate.

Many regulatory jurisdictions set a performance standard for hydrodynamic devices by stating that the devices shall be capable of achieving an 80% removal efficiency for particles having a mean particle size (d50) of 125 microns (e.g. Washington State Department of Ecology — WASDOE - 2008). The model can be used to calculate the expected performance of such a PSD (shown in Figure 3). The model indicates (Figure 4) that the CDS system with 2400 micron screen achieves approximately 80% removal at the design (100%) flow rate, for this particle size distribution (d50 = 125 μm).

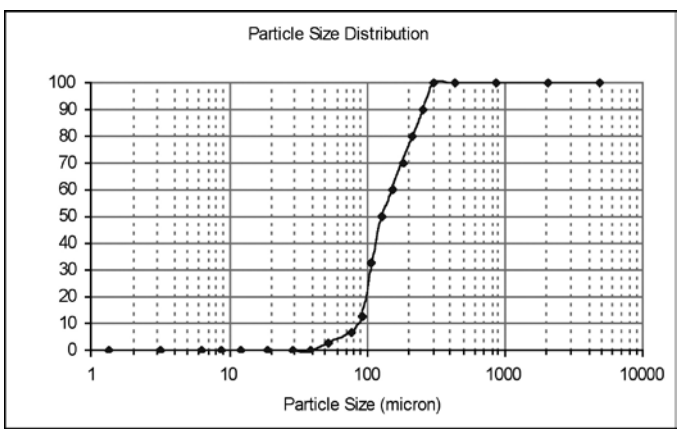


Figure 3. WASDOE PSD

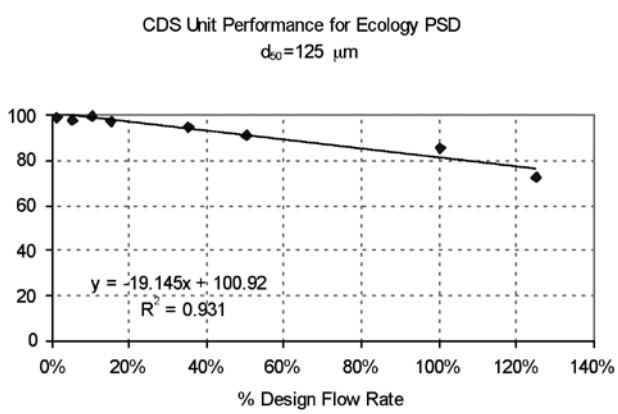


Figure 4. Modeled performance for WASDOE PSD.

Maintenance

The CDS system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit. For example, unstable soils or heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (e.g. spring and fall) however more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment washdown areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

The visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet and separation screen. The inspection should also quantify the accumulation of hydrocarbons, trash, and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified

during inspection. It is useful and often required as part of an operating permit to keep a record of each inspection. A simple form for doing so is provided.

Access to the CDS unit is typically achieved through two manhole access covers. One opening allows for inspection and cleanout of the separation chamber (cylinder and screen) and isolated sump. The other allows for inspection and cleanout of sediment captured and retained outside the screen. For deep units, a single manhole access point would allows both sump cleanout and access outside the screen.

The CDS system should be cleaned when the level of sediment has reached 75% of capacity in the isolated sump or when an appreciable level of hydrocarbons and trash has accumulated. If absorbent material is used, it should be replaced when significant discoloration has occurred. Performance will not be impacted until 100% of the sump capacity is exceeded however it is recommended that the system be cleaned prior to that for easier removal of sediment. The level of sediment is easily determined by measuring from finished grade down to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Particles at the top of the pile typically offer less resistance to the end of the rod than consolidated particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the as-built drawing for the unit to determine weather the height of the sediment pile off the bottom of the sump floor exceeds 75% of the total height of isolated sump.

Cleaning

Cleaning of a CDS systems should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole covers and insert the vacuum hose into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The area outside the screen should also be cleaned out if pollutant build-up exists in this area.

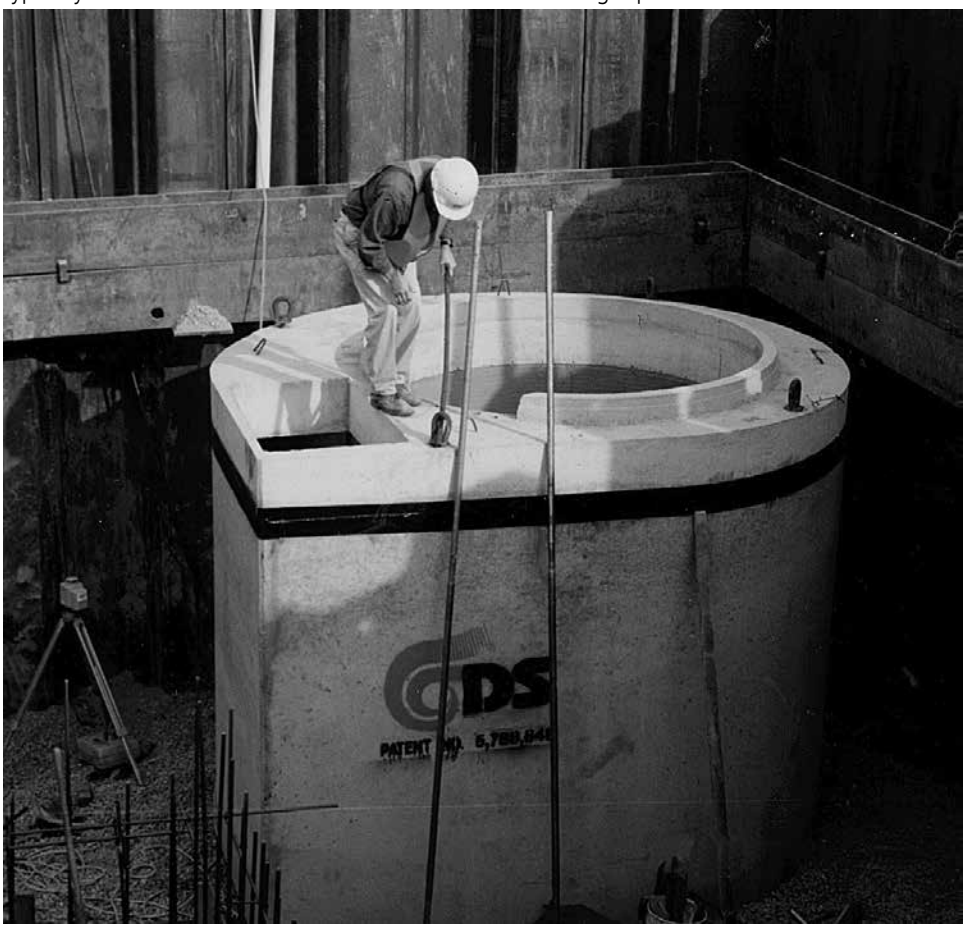
In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. The screen should be cleaned to ensure it is free of trash and debris.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and also to ensure that proper safety precautions have been followed. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the CDS system should be done in accordance with local regulations. In many jurisdictions, disposal of the sediments may be handled in the same manner as the disposal of sediments removed from catch basins or deep sump manholes. Check your local regulations for specific requirements on disposal.

CDS Model	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	y^3	m^3
CDS1515	3	0.9	3.0	0.9	0.5	0.4
CDS2015	4	1.2	3.0	0.9	0.9	0.7
CDS2015	5	1.5	3.0	0.9	1.3	1.0
CDS2020	5	1.5	3.5	1.1	1.3	1.0
CDS2025	5	1.5	4.0	1.2	1.3	1.0
CDS3020	6	1.8	4.0	1.2	2.1	1.6
CDS3025	6	1.8	4.0	1.2	2.1	1.6
CDS3030	6	1.8	4.6	1.4	2.1	1.6
CDS3035	6	1.8	5.0	1.5	2.1	1.6
CDS4030	8	2.4	4.6	1.4	5.6	4.3
CDS4040	8	2.4	5.7	1.7	5.6	4.3
CDS4045	8	2.4	6.2	1.9	5.6	4.3
CDS5640	10	3.0	6.3	1.9	8.7	6.7
CDS5653	10	3.0	7.7	2.3	8.7	6.7
CDS5668	10	3.0	9.3	2.8	8.7	6.7
CDS5678	10	3.0	10.3	3.1	8.7	6.7

Table 1: CDS Maintenance Indicators and Sediment Storage Capacities

Note: To avoid underestimating the volume of sediment in the chamber, carefully lower the measuring device to the top of the sediment pile. Finer silty particles at the top of the pile may be more difficult to feel with a measuring stick. These finer particles typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile.



CDS Inspection & Maintenance Log

CDS Model: _____ Location: _____

Date	Water depth to sediment[1]	Floatable Layer Thickness[2]	Describe Maintenance Performed	Maintenance Personnel	Comments

1. The water depth to sediment is determined by taking two measurements with a stadia rod: one measurement from the manhole opening to the top of the sediment pile and the other from the manhole opening to the water surface. If the difference between these measurements is less than the values listed in table 1 the system should be cleaned out. **Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile**.

2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.

SUPPORT

- Drawings and specifications are available at www.ContechES.com.
- Site-specific design support is available from our engineers.

CONTECH®
ENGINEERED SOLUTIONS
800-338-1122
www.ContechES.com

©2017 Contech Engineered Solutions LLC, a QUIKRETE Company

Contech Engineered Solutions provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, earth stabilization and stormwater treatment products. For information on other Contech division offerings, visit www.ContechES.com or call 800.338.1122

NOTHING IN THIS CATALOG SHOULD BE CONSTRUED AS A WARRANTY. APPLICATIONS SUGGESTED HEREIN ARE DESCRIBED ONLY TO HELP READERS MAKE THEIR OWN EVALUATIONS AND DECISIONS, AND ARE NEITHER GUARANTEES NOR WARRANTIES OF SUITABILITY FOR ANY APPLICATION. CONTECH MAKES NO WARRANTY WHATSOEVER, EXPRESS OR IMPLIED, RELATED TO THE APPLICATIONS, MATERIALS, COATINGS, OR PRODUCTS DISCUSSED HEREIN. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND ALL IMPLIED WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE ARE DISCLAIMED BY CONTECH. SEE CONTECH'S CONDITIONS OF SALE (AVAILABLE AT WWW.CONTECHES.COM/COS) FOR MORE INFORMATION.

The product(s) described may be protected by one or more of the following US patents: 5,322,629; 5,624,576; 5,707,527; 5,759,415; 5,788,848; 5,985,157; 6,027,639; 6,350,374; 6,406,218; 6,641,720; 6,511,595; 6,649,048; 6,991,114; 6,998,038; 7,186,058; 7,296,692; 7,297,266; related foreign patents or other patents pending.

cds_manual 3/17 PDF

RECYCLED PAPER

CONTECH®
ENGINEERED SOLUTIONS

DuroMax®
Rainwater Harvesting Cisterns

The experts you need to solve your stormwater challenges

Contech is the leader in stormwater solutions, helping engineers, contractors and owners with infrastructure and land development projects throughout North America.

With our responsive team of stormwater experts, local regulatory expertise and flexible solutions, Contech is the trusted partner you can count on for stormwater management solutions.

Your Contech Team

STORMWATER CONSULTANT

It's my job to recommend the best solution to meet permitting requirements.

STORMWATER DESIGN ENGINEER

I work with consultants to design the best approved solution to meet your project's needs.

REGULATORY MANAGER

I understand the local stormwater regulations and what solutions will be approved.

SALES ENGINEER

I make sure our solutions meet the needs of the contractor during construction.

Contech is your partner in stormwater management solutions

Cisterns for Stormwater Reuse and Runoff Reduction

We provided Yakult Manufacturing in Fountain Valley, California with two DuroMaxx® rainwater harvesting cisterns to capture and reuse runoff from rooftops, parking lots, and other impervious surfaces.

Low Impact Development strives to eliminate runoff by promoting infiltration wherever practical. If your site has high groundwater, soils with low permeability, bedrock, or other limiting conditions, infiltration alone may not provide enough runoff reduction to meet regulations. That's why rainwater harvesting is an important tool to help meet runoff reduction requirements.

The DuroMaxx® Rainwater Harvesting Cistern helps achieve stormwater management goals by reducing stormwater runoff while providing cost savings through the reduction of potable water use.

DuroMaxx®
STEEL REINFORCED PE TECHNOLOGY

DuroMaxx® Rainwater Harvesting Cisterns

Strength of steel and the durability of plastic ...

Our Rainwater Harvesting Cisterns are made from DuroMaxx Steel Reinforced Polyethylene (SRPE). The eighty (80) ksi steel reinforcing ribs provide the strength and pressure rated polyethylene (PE) resin provides the durability. The combination of materials results in an extraordinarily strong and durable below ground cistern.

- Available up to 120" diameter
- Includes prefabricated access points
- Lightweight - easily handled and quickly installed, often without the use of heavy construction equipment
- H-25 traffic rated design

DuroMaxx Rainwater Harvesting Cisterns have been certified to be in compliance with the Uniform Plumbing Code (UPC®) by The International Association of Plumbing and Mechanical Officials (IAPMO) Research and Testing. The DuroMaxx Rainwater Harvesting Cistern is also approved by Los Angeles City and has a research report number (RR 5726).

Engineers can now write specifications for rainwater harvesting cisterns based on a nationally recognized standard that address issues such as structural design, leakage, and repeatable manufacturing processes. Contech is one of the few companies that have received IAPMO/UPC certification for rainwater harvesting cisterns.

A 182,000 gallon DuroMaxx rainwater harvesting cistern was used at the Oceano Apartments in Woodland Hills, California to meet runoff reduction goals at this 3.57 acre site.

Learn More:
www.ContechES.com/rwh

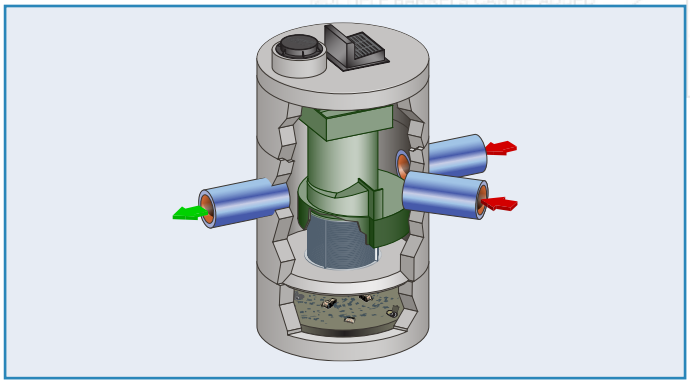
Contech is one of the few companies that have received IAPMO/UPC certification for rainwater harvesting cisterns.

DuroMaxx Rainwater Harvesting Cisterns are UPC Compliant

Pretreating harvested water protects pumps, filters, & fixtures from damage

APPLICATION TIPS

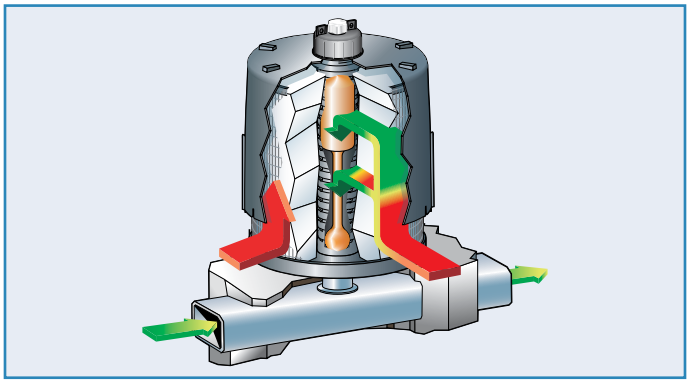
- Pretreating rainwater harvesting cisterns protects downstream pumps, filters, and fixtures from damage or clogging, and lowers cleaning and maintenance costs by keeping pollutants out of the cistern and mechanical system. Contech offers a number of pretreatment devices including CDS, StormFilter, and Jellyfish.
- For best performance, all rainwater harvesting cisterns should be leak tested and results documented using a positive pressure air test.
- All rainwater harvesting cisterns should include an inlet calming device that will introduce water to the cistern with little to no turbulence.



CDS

The CDS® hydrodynamic separator is the preferred rainwater harvesting pretreatment device. CDS is an underground stormwater treatment device that uses swirl concentration and continuous deflective separation to screen, separate and trap trash, debris, sediment, and hydrocarbons from runoff.

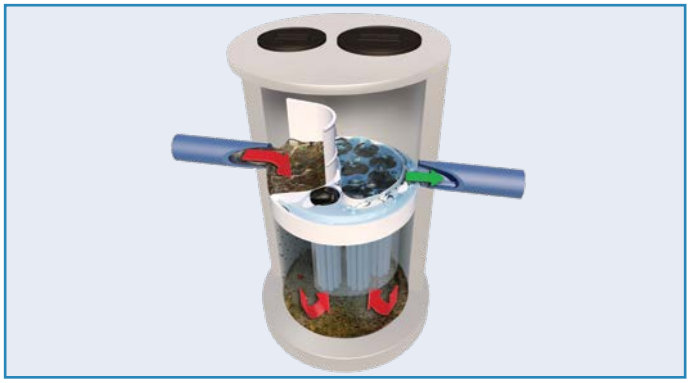
Learn More:
www.ContechES.com/cds



The Stormwater Management StormFilter®

The Stormwater Management StormFilter® uses rechargeable, media-filled cartridges that absorb and retain the most challenging target pollutants including dissolved metals, hydrocarbons, nutrients, metals and other common pollutants found in stormwater runoff.

Learn More:
www.ContechES.com/stormfilter

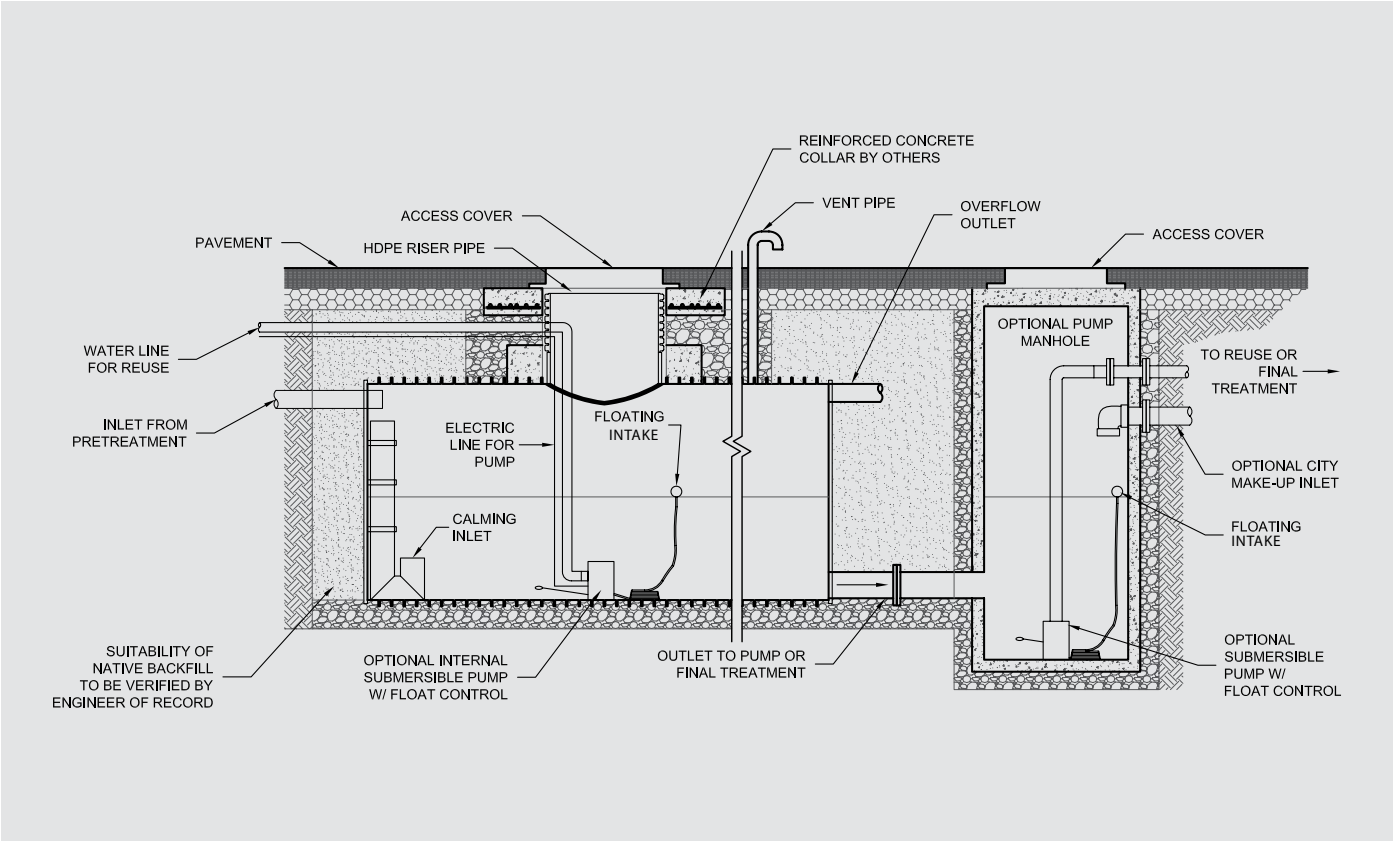


Jellyfish®

The Jellyfish® Filter is an engineered stormwater quality treatment technology featuring pretreatment and membrane filtration in a compact stand-alone treatment system, which removes a high level and a wide variety of stormwater pollutants.

Learn More:
www.ContechES.com/jellyfish

Typical Underground Cistern Components



DuroMaxx® Rainwater Harvesting Cistern Certifications

Multiple cistern layouts are available. All cisterns are tested for watertightness prior to shipment.

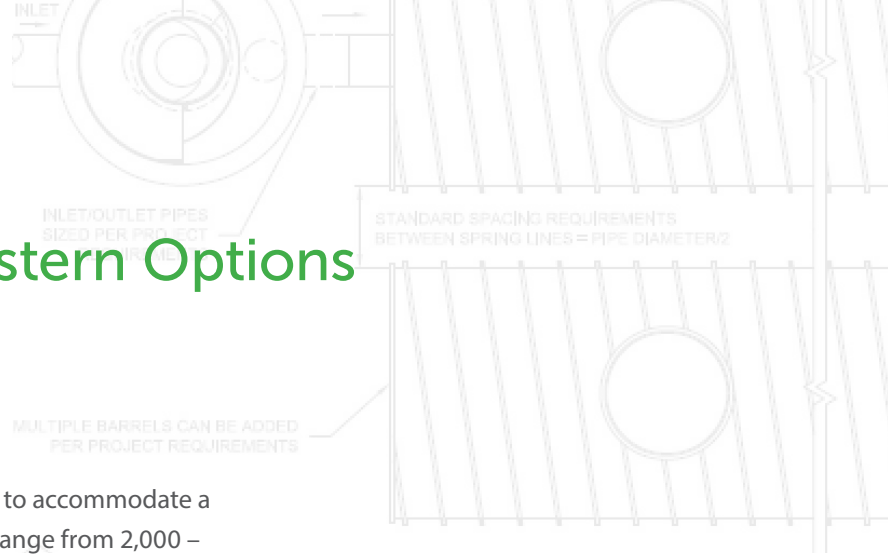
- IAPMO IGC 329 Certified
- Uniform Plumbing Code (UPC®)
- City of Los Angeles RR Approval RR 5726

Each DuroMaxx Rainwater Harvesting Cistern is custom built per the site requirements.

From inlet and outlet stub placement and size to access riser height, each cistern is designed to fit the site and provide the most economical storage solution.

Each cistern is ready to accept internal components such as pumps and level sensors or these components can be placed in a downstream wet well. Contech Design Engineers can also assist in designing each cistern to help you meet local requirements.

Rainwater Harvesting helps meet runoff reduction requirements



Rainwater Harvesting Cistern Options

Cistern sizes for every site ...

Contech offers a variety of standard cistern sizes designed to accommodate a variety of storage requirements. Cistern storage volumes range from 2,000 – 22,500 gallons, and multiple cisterns can be connected using a small diameter manifold. Custom cistern sizes are also available.

NOMINAL VOLUME (GAL)	NOMINAL DIAMETER (IN)	LENGTH (FT)	PICK WEIGHT (LB)	TOTAL VOLUME (GAL)
2,000	60	16	1,250	2,280
3,000		24	1,750	3,420
4,500		32	2,000	4,560
6,500		48	2,750	6,840
3,000	72	16	1,750	3,281
4,500		24	2,250	4,922
6,500		32	2,750	6,563
9,500		48	4,000	9,844
4,000	84	16	2,250	4,465
6,500		24	2,750	6,697
8,500		32	3,250	8,929
13,000		48	4,500	13,394
5,500	96	16	2,500	5,830
8,500		24	3,250	8,744
11,500		32	4,000	11,659
17,000		48	5,250	17,489
14,000	108	30	4,250	14,277
19,000		40	5,250	19,036
16,500	120	29	4,750	16,503
20,000		36	5,500	20,486
22,500		40	6,000	22,762

* Custom cistern sizes available. Please contact Contech at 800-338-1122.

A partner you can rely on

STORMWATER SOLUTIONS

PIPE SOLUTIONS

STRUCTURES SOLUTIONS

Few companies offer the wide range of high-quality stormwater resources you can find with us — state-of-the-art products, decades of expertise, and all the maintenance support you need to operate your system cost-effectively.

THE CONTECH WAY

Contech® Engineered Solutions provides innovative, cost-effective site solutions to engineers, contractors, and developers on projects across North America. Our portfolio includes bridges, drainage, erosion control, retaining wall, sanitary sewer and stormwater management products.

TAKE THE NEXT STEP

For more information: www.ContechES.com

NOTHING IN THIS CATALOG SHOULD BE CONSTRUED AS A WARRANTY. APPLICATIONS SUGGESTED HEREIN ARE DESCRIBED ONLY TO HELP READERS MAKE THEIR OWN EVALUATIONS AND DECISIONS, AND ARE NEITHER GUARANTEES NOR WARRANTIES OF SUITABILITY FOR ANY APPLICATION. CONTECH MAKES NO WARRANTY WHATSOEVER, EXPRESS OR IMPLIED, RELATED TO THE APPLICATIONS, MATERIALS, COATINGS, OR PRODUCTS DISCUSSED HEREIN. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND ALL IMPLIED WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE ARE DISCLAIMED BY CONTECH. SEE CONTECH'S CONDITIONS OF SALE (AVAILABLE AT WWW.CONTECHES.COM/COS) FOR MORE INFORMATION.

CONTECH® ENGINEERED SOLUTIONS

Get social with us:

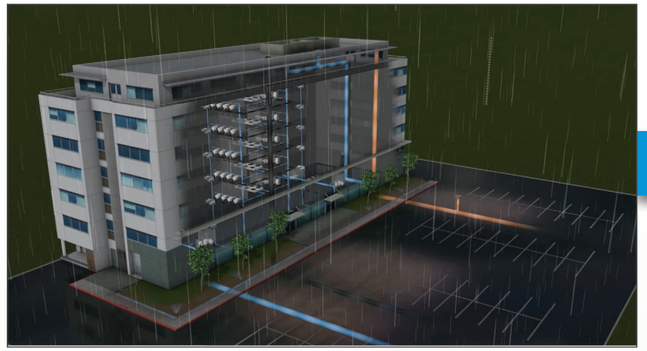
800-338-1122 | www.ContechES.com

© 2019 Contech Engineered Solutions LLC, a QUIKRETE Company

All Rights Reserved. Printed in the USA.,

HOW DOES URBANGREEN® RAINWATER HARVESTING WORK?

Transforming a Pollutant Into a Resource



Process » Rainwater falls on impervious surfaces such as roofs, sidewalks, and parking lots.

Dilemma » Polluted runoff (stormwater) is conveyed to our local streams, lakes, and oceans

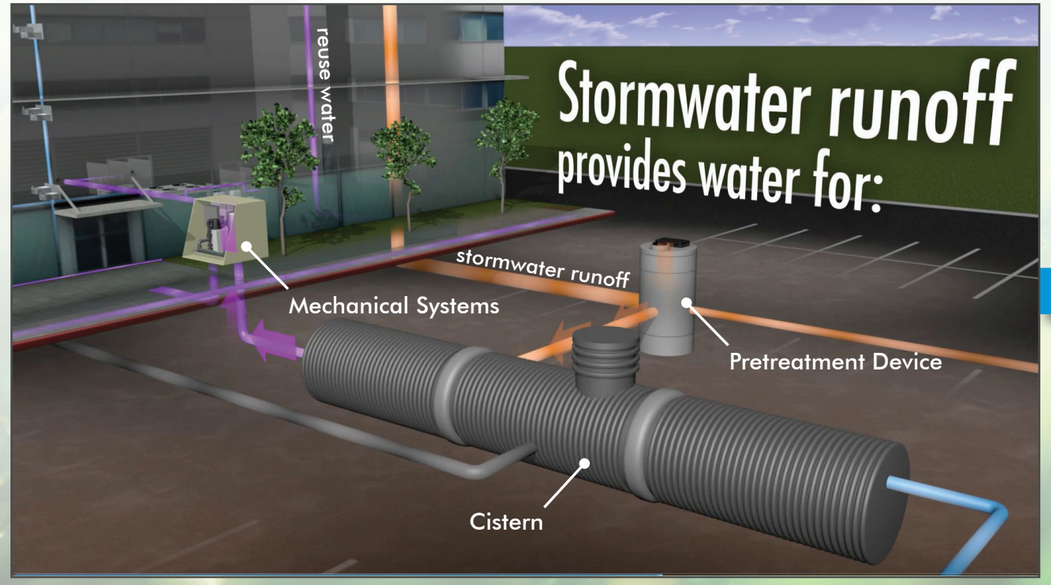
THERE'S A BETTER WAY ...

WHAT IS RAINWATER HARVESTING?

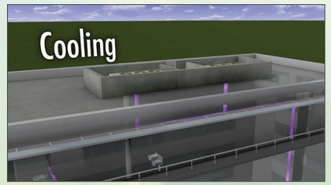
Rainwater Harvesting is the process of collecting, filtering, storing, and using rainwater:

- Reduces the amount of runoff that enters our streams, rivers, lakes, and oceans
- Reduces demand for potable water.
- Harvested water can be used for irrigation, toilet flushing, and cooling tower make-up water
- Is a "Green Solution" for managing stormwater

Solution » A rainwater harvesting system cleans stormwater and stores it for reuse in applications where potable water is typically used. A mechanical system then pumps the stored water while also providing the required level of filtration and disinfection. By implementing rainwater harvesting, stormwater runoff is reduced while also reducing the demand for potable water.



REUSE APPLICATIONS



UrbanGreen® Rainwater Harvesting reduces runoff, conserves water resources, and saves money!

CONTECH® ENGINEERED SOLUTIONS

Attachment F

Construction Plans

SHEET INDEX

ON-SITE IMPROVEMENT PLANS

FOR

RC0624

6726 SUNSET BOULEVARD

LOS ANGELES, CA

PROJECT TEAM

DEVELOPER
ROBERT MONTGOMERY
RAISING CANE'S RESTAURANTS LLC
6800 BISHOP ROAD
PLANO, TX 75024
(972) 769-3348
RMONTGOMERY@RAISINGCANES.COM

SURVEYOR
JOHN P. GERVAIS, PLS
LG LAND SURVEYING, INC.
30355 CALLEJO FELIZ TER
VALLEY CENTER, CA 92082
(619) 535-1172

OWNER
ARKA PROPERTIES GROUP, LLC
ANTHONY FEIN
9350 WILSHIRE BLVD, SUITE 402
BEVERLY HILLS, CA 90210
(310) 274-2259
AFEIN@ARKAPROPERTIESGROUP.COM

ARCHITECT
JEFF LIDERMAN/RUBEN GONZALES
PM DESIGN GROUP, INC.
38 EXECUTIVE PARK
SUITE 310
IRVINE, CA 92614
(949) 430-7051
(714) 581-3490 CELL
JLIEDERMAN@PMDGINC.COM

CIVIL ENGINEER
HANNAH SMITH, PE
KIMLEY-HORN AND ASSOCIATES, INC.
765 THE CITY DRIVE, SUITE 200
ORANGE, CA 92868
(714)-939-1030
HANNAH.SMITH@KIMLEY-HORN.COM

E4 DRY UTILITY CONSULTANT
NICOLE CAPLAN
E4 UTILITY DESIGN
324 AVE. DE LA ESTRELLA, SUITE B
SAN CLEMENTE, CA 92672
(949) 353-5134
NICOLE@E4DESIGN.COM

UTILITY PURVEYORS

WATER & ELECTRIC
LOS ANGELES
DEPARTMENT OF WATER
AND POWER
919 S. SOTO ST.
LOS ANGELES, CA 90023
(800) 342-5397

SEWER
LOS ANGELES SANITATION
BUREAU
7721 N FIGUEROA ST.
LOS ANGELES, CA 90041

GAS
SOUTHERN CALIFORNIA
GAS COMPANY
6550 VAN NUYS BLVD.
VAN NUYS, CA 91401
(800) 427-2200

PHONE
AT&T
KYLE ROGERS
(213) 516-3350
KR2343@ATT.COM

CABLE
CHARTER COMMUNICATION
ROBERT REIHS
(818) 922-6176
ROBERT.REIHS@CHARTER.COM

SURVEYOR'S NOTES

INFORMATION SHOWN HEREON IS BASED ON STEWART TITLE INSURANCE COMPANY ORDER# 20000090264 DATED AS OF JUNE 09, 2020, AS WELL AS A COPY OF EACH INSTRUMENT LISTED THEREIN, AND THE SUBJECT LAND AND EACH PARCEL THEREOF DESCRIBED IN THIS SURVEY IS THE SAME LAND AS DESCRIBED IN THE TITLE COMMENT INDICATED THEREIN. THE SUBJECT PROPERTY HAS DIRECT PHYSICAL ACCESS TO SUNSET BOULEVARD AND MCCADDEN PLACE, BOTH PUBLICLY DEDICATED AND MAINTAINED ROADS.

LEGAL DESCRIPTION PER TITLE REPORT

LOTS 13, 14, 15, 16, 17 AND THE WEST 7.00 FEET OF THAT PORTION OF LOT 23 LYING NORTH OF THE EASTERLY PROLONGATION OF THE SOUTH LINE OF SAID LOT 16 OF BOYLE PLACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 6, PAGE 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN: 5547-022-022; 5547-022-023; 5547-022-024

ESTIMATED EARTHWORK QUANTITIES

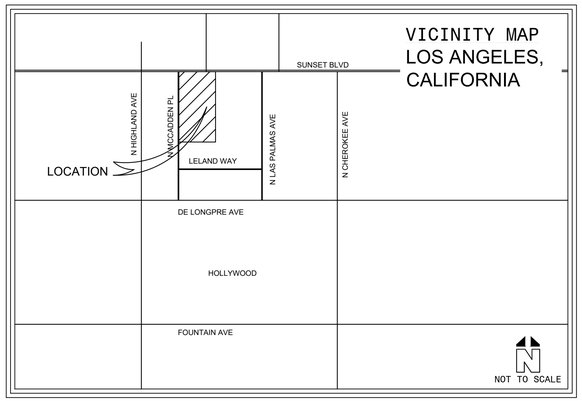
CUT:	741 CY
FILL:	308 CY
NET:	433 CY (EXPORT)

NOTE: THE ABOVE QUANTITIES ARE APPROXIMATE IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE BASE SURVEY. PROPOSED FINISHED GRADE IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLAN(S).

THE EARTHWORK QUANTITIES ABOVE ARE FOR PERMIT PURPOSES ONLY. THEY HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BULKING, CLEARING AND GRUBBING, SHRINKAGE, OVER- EXCAVATION AND RE-COMPACTION, AND CONSTRUCTION METHODS. NOR DO THEY ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, FOOTINGS, SLABS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE NEW PAVEMENTS, ETC. THE CONTRACTOR SHALL RELY ON THEIR OWN EARTHWORK ESTIMATES FOR BIDDING PURPOSES.

BASIS OF BEARINGS NOTE

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF SUNSET BLVD PER MB 6 PG 45 (I.E. N89°41'30"W).



VICINITY MAP
SCALE: NTS

SITE INFORMATION

SITE ADDRESS:	6726 SUNSET BOULEVARD LOS ANGELES, CA
ZONING DISTRICT:	C4-2D-SN (COMMERCIAL)
LAND USE:	COMMERCIAL GENERAL
EXISTING USE:	VACANT (RESTAURANT BUILDING)
PROPOSED USE:	COMMERCIAL (RESTAURANT)
TOTAL LOTS:	1
PARKING SPACES:	35

GENERAL GRADING NOTES

a. ALL GRADING SLOPES SHALL BE PLANTED AND SPRINKLERED. (7012.1)
b. STANDARD 12 INCH HIGH BERM IS REQUIRED AT TOP OF ALL GRADED SLOPES. (7013.3).
c. NO FILL TO BE PLACED, UNTIL THE CITY GRDING INSPECTOR HAS INSPECTED AND APPROVED THE BOTTOM EXCAVATION.
d. MAN-MADE FILL SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 90% MAX. DRY DENSITY WITHIN 40 FEET BELOW FINISH GRADE AND 93% OF MAX. DRY DENSITY DEEPER THAN 40 BELOW FINSIH GRADE, UNLESS A LOWER RELATIVE COMPACTION (NOT LESS THAN 90% MAX. DRY DENSITY) IS JUSTIFIED BY THE SOILS ENGINEER.
e. TEMPORARY EROSION CONTROL TO BE INSTALLED BETWEEN OVTOBER 1 AND APRIL 15. OBTAIN GRADING INSPECTOR'S AND DEPARTMENT OF PUBLIC WORKS APPROVAL OF PROPOSED PROCEDURES. [>200 CY].

GEOTECHNICAL REPORT

THE RAISING CANE'S RESTAURANT (RC0624) GEOTECHNICAL ENGINEERING REPORT DATED DECEMBER 7, 2020 PREPARED BY TERRACON CONSULTANTS, INC. AND ALL ADDENDA SHALL BE CONSIDERED PART OF THESE CONSTRUCTION DOCUMENTS.

SOILS ENGINEER ACKNOWLEDGEMENT

THIS PLAN HAS BEEN REVIEWED AND CONFORMS TO RECOMMENDATIONS OF THE SOILS ENGINEER/GEOLOGIC REPORTS DATED:

SIGNATURE AND DATE:

LEGEND

CENTER LINE
PROPERTY LINE
RIGHT-OF-WAY LINE / LEASE LINE
EASEMENT / SETBACK LINE
APPROXIMATE CIVIL LIMIT OF WORK
GB — GRADE BREAK LINE
R — RIDGE LINE
SS — PROPOSED SANITARY SEWER PIPE
SD — PROPOSED STORM DRAIN PIPE
W — PROPOSED DOMESTIC WATER PIPE
FW — PROPOSED FIRE WATER PIPE
G — PROPOSED GAS LINE
E — PROPOSED ELECTRICAL CONDUIT
T — PROPOSED TELECOMMUNICATION CONDUIT
PROPOSED SITE ELECTRICAL CONDUIT
IRR — PROPOSED IRRIGATION ELECTRICAL CONDUIT
FLOW LINE
POINT OF CONNECTION (@ BLDG)
POINT OF CONNECTION (TO EXISTING)
PROPOSED SEWER CLEANOUT
PROPOSED BACKFLOW PREVENTOR
PROPOSED WATER LINE BEND WITH THRUST BLOCK
617.50 TC / 617.00 FS — PROPOSED SPOT GRADE
(615.50 TC) / (615.00 FS) — EXISTING SPOT GRADE
2.2% — PROPOSED FLOW (DIRECTION AND SLOPE)
PROPOSED LANDSCAPE AREA
HEAVY DUTY CONCRETE PAVEMENT
STANDARD DUTY CONCRETE PAVEMENT
COLORED / STAINED STANDARD DUTY CONCRETE PAVEMENT
HEAVY DUTY ASPHALT PAVEMENT
DETECTABLE WARNING (TRUNCATED DOMES)

AB – AGGREGATE BASE
AC – ASPHALT
BC – BACK OF CURB
BS – BOTTOM OF STEP
BLDG – BUILDING
BW – BACK OF WALK
CB – CATCH BASIN
CF – CURB FACE
C/L – CENTERLINE
CONC. – CONCRETE
CONST. – CONSTRUCT, CONSTRUCTION
DF – DEEPENED FOOTING
DI – DRAIN INLET
DW – DOMESTIC WATER
E – EAST
EG – EDGE OF GUTTER
ELEC – ELECTRIC
EP – EDGE OF PAVEMENT
FF – FINISHED FLOOR
FG – FINISHED GRADE
FL – FLOW LINE
FS – FINISHED SURFACE
FW – FIRE WATER
G – GAS
GB – GRADE BREAK
HP – HIGH POINT
INV – INVERT
IRR – IRRIGATION WATER
JS – JUNCTION STRUCTURE
LP – LOW POINT
MH – MANHOLE
N – NORTH
PCC – PORTLAND CEMENT CONCRETE
P/L – PROPERTY LINE
PUE – PUBLIC UTILITY EASEMENT
PIV – POST INDICATOR VALVE
PVC – POLYVINYL CHLORIDE
R – RADIUS
RD – ROOF DRAIN
RW – RECLAIMED WATER
R/W – RIGHT-OF-WAY
S – SEWER OR SOUTH
SD – STORM DRAIN
STA – STATION
SS – SANITARY SEWER
SSPWC – STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
SW – SIDE WALK
T – TELEPHONE
TC – TOP OF CURB
W – WATER OR WEST
XXX.XX – PROPOSED ELEVATION
(XXX.XX) – EXISTING ELEVATION

SHEET INDEX

SHEET NUMBER	SHEET TITLE
C1.0	CIVIL COVER SHEET
C1.1	EXISTING CONDITIONS
C1.2	EXISTING CONDITIONS
C2.0	PRIVATE GENERAL NOTES
C3.0	EROSION CONTROL PLAN
C3.1	EROSION CONTROL DETAILS
C4.0	DEMOLITION PLAN
C5.0	SITE KEYNOTE PLAN
C5.1	DIMENSIONAL CONTROL AND SITE PLAN
C6.0	GRADING AND DRAINAGE PLAN
C6.1	DRAINAGE AREA MAP
C7.0	UTILITY PLAN
C8.0	CONSTRUCTION DETAILS
C8.1	CONSTRUCTION DETAILS

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

DRAWN BY: JC
CHECKED BY: HS
RECOMMENDED: HS

ENGINEERS SEAL: REGISTERED PROFESSIONAL ENGINEER HANNAH N. SMITH NO. 90371 CIVIL STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125
PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, P.C.E. NO. 90371 DATE: 2/14/2022 EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER RCE # _____ EXP _____ DATE

6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

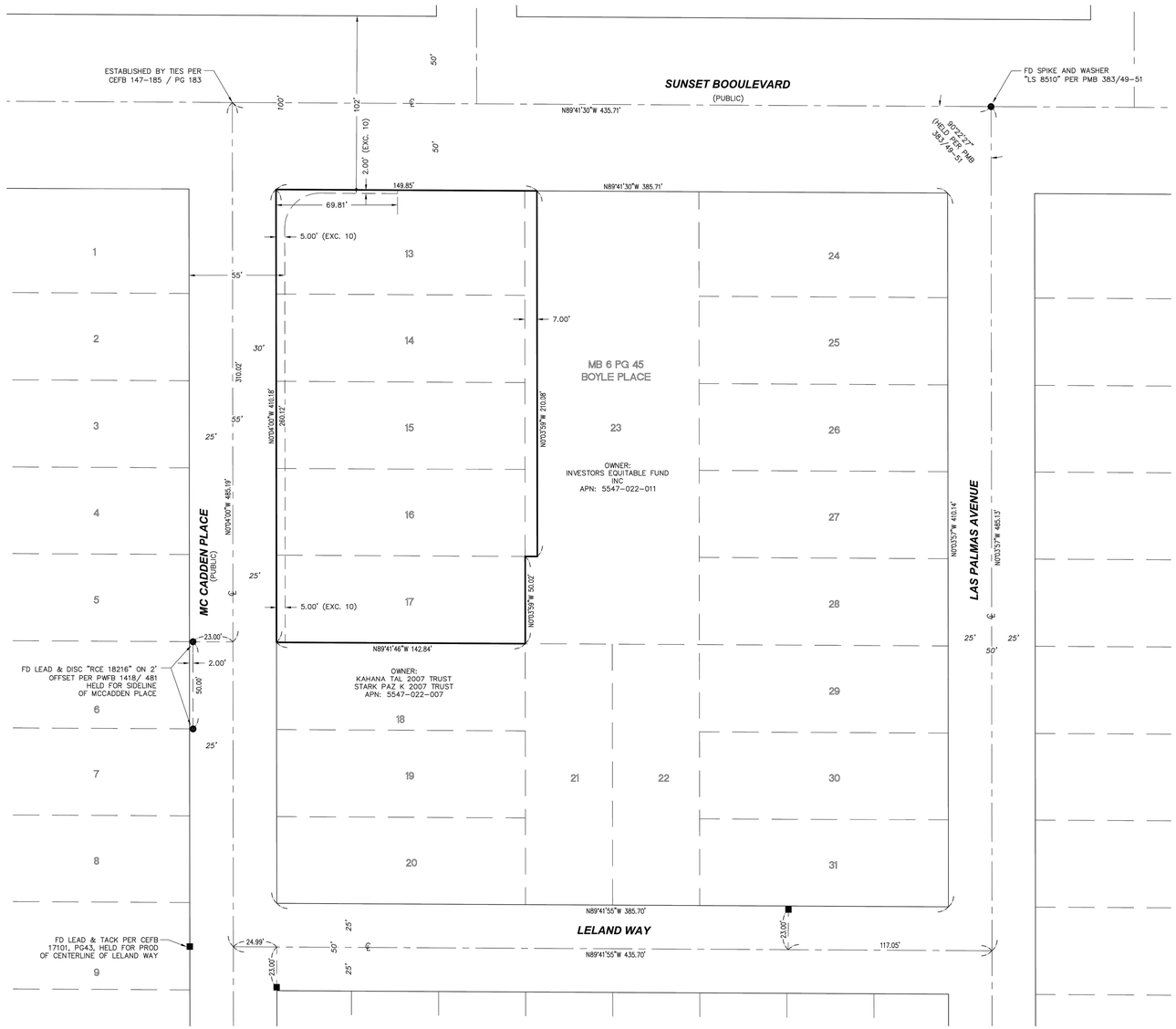
CIVIL COVER SHEET

C1.0

Drawing name: K:\ORA_LDEV\raising cane's\094797107 - hollywood (sunset and highland) 624\CADD\plansheets\C1.0 - CIVIL COVER SHEET.dwg C1.0 - CIVIL COVER SHEET Feb 14, 2022 2:10pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Drawing name: K:\ORA_LDEV\raising cane's\094797107 - hollywood (sunset and highland) 624\CADD\plansheets\C1.0 - CIVIL COVER SHEET.dwg C1.1 - EXISTING CONDITIONS Feb 14, 2022 2:10pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

PROCEDURE OF SURVEY



CERTIFICATION

TO RAISING CANE'S RESTAURANTS, LLC, A LOUISIANA LIMITED LIABILITY COMPANY AND STEWART TITLE GUARANTY COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 7a, 7b1, 8, 9, 10a, 11, 13, 14, 16, & 17 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 08/28/2020.

DATE OF PLAT OR MAP: 09/12/2020.

JOHN P. GERVAIS
PLS 8674

PROFESSIONAL LAND SURVEYOR JOHN P. GERVAIS No.8674 STATE OF CALIFORNIA

SURVEYOR'S NOTES

THIS SURVEY WAS MADE ON THE GROUND UNDER MY SUPERVISION.

INFORMATION SHOWN HEREON IS BASED ON STEWART TITLE INSURANCE COMPANY ORDER# 2000090264 DATED AS OF JUNE 09, 2020, AS WELL AS A COPY OF EACH INSTRUMENT LISTED THEREIN, AND THE SUBJECT LAND AND EACH PARCEL THEREOF DESCRIBED IN THIS SURVEY IS THE SAME LAND AS DESCRIBED IN THE TITLE COMMENT INDICATED THEREIN.

THE SUBJECT PROPERTY HAS DIRECT PHYSICAL ACCESS TO SUNSET BOULEVARD AND MCCADDEN PLACE, BOTH PUBLICLY DEDICATED AND MAINTAINED ROADS.

TABLE "A" ITEMS

2. PROPERTY ADDRESS: 6726-6734 SUNSET BOULEVARD / 1454 MCCADDEN PLACE PER VESTING DEED 2004-2933472.

3. PROPERTY IS IN ZONE X: AREA OF MINIMAL FLOOD HAZARD PER FEMA MAP 06037C1605F, EFFECTIVE ON 09/26/2008.

4. GROSS AREA = 38,625 S.F. / 0.89 AC. ±

5. VERTICAL RELIEF SHOWN HEREON.

7(a)(b1) EXTERIOR DIMENSIONS OF ALL BUILDINGS, & SQUARE FOOTAGE OF EXTERIOR BUILDINGS AT GROUND LEVEL SHOWN HEREON.

8. SUBSTANTIAL FEATURES OBSERVED IN THE PROCESS OF CONDUCTING THE SURVEY ARE SHOWN HEREON.

9. N/A – VACANT LAND

10. N/A

11. LOCATION OF UTILITIES EXISTING ON OR SERVING THE SURVEYED PROPERTY AS DETERMINED BY OBSERVED & CITY OF LOS ANGELES UTILITY PLANS – SEE NOTE ON SHEET 2.

13. ADJACENT OWNERS SHOWN HEREON.

14. DISTANCE TO NEAREST INTERSECTION SHOWN HEREON. (SUBJECT PROPERTY IS ADJACENT TO THE NEAREST INTERSECTION).

16. THERE IS NO OBSERVABLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT MONTHS.

17. SURVEYOR IS NOT AWARE OF ANY PROPOSED CHANGES IN STREET RIGHT OF WAY LINES. THERE IS NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.

LEGAL DESCRIPTION

5547-022-022

LOTS 13, 14, 15, 16, 17 AND THE WEST 7.00 FEET OF THAT PORTION OF LOT 23 LYING NORTH OF THE EASTERLY PROLONGATION OF THE SOUTH LINE OF SAID LOT 16 OF BOYLE PLACE, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 6, PAGE 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN: 5547-022-022; 5547-022-023; 5547-022-024

TITLE EXCEPTIONS/EXCLUSIONS

3. MATTERS CONTAINED IN A DOCUMENT RECORDED APRIL 7, 1980 AS INSTRUMENT NO. 80-3439962 OF OFFICIAL RECORDS. BLANKET IN NATURE.

8. MATTERS CONTAINED IN A DOCUMENT RECORDED DECEMBER 20, 2006 AS INSTRUMENT NO. 06-2837146 OF OFFICIAL RECORDS. (SEE SHEET 2).

10. IRREVOCABLE OFFER TO DEDICATE A PORTION OF THE PROPERTY FOR FUTURE STREET OR HIGHWAY PURPOSES, RECORDED DECEMBER 29, 2006 AS INSTRUMENT NO. 06-2903331 OF OFFICIAL RECORDS. PLOTTED HEREON.

MONUMENTS ESTABLISHMENTS NOTES

● FD MONUMENT AS NOTED HEREON

■ FD LEAD & TACK, NO RECORD, HELD FOR 2.0' OFFSET TO SIDELINE OF LELAND WAY, UNLESS OTHERWISE NOTED HEREON.

LOT DISTANCES SHOWN HEREON WERE ESTABLISHED BY PRORATION AND ARE ROUNDED TO THE NEAREST 0.1'.

30 15 0 30 60 90
SCALE: 1"=30'
N

Revisions			
No.	Description	By	Date

BASIS OF BEARINGS:
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF SUNSET BLVD PER MB 6 PG 45 (I.E. N89°41'30"W).

BASIS OF ELEVATIONS:
THE BASIS OF ELEVATIONS FOR THIS SURVEY IS THE CITY OF LOS ANGELES BENCH MARK: 12-14270, WIRE SPIKE IN S CURB SUNSET BLVD; 9.2FT E OF MC CADDEN PL W END CB EL = 346.021 NAVD88.

ALTA/NSPS LAND TITLE SURVEY
LOTS 13, 14, 15, 16 & 17, PORITON OF LOT 23
MB 6 PG 45
LOS ANGELES, CA

Drawn By: JPG | Project No. 20-153 | Date: 09-12-2020
Checked By: | Sheet 1 of 2

PROJECT NAME:
RAISING CANE'S HOLLYWOOD

LG LAND SURVEYING, INC.
"Quality Service You Can Count On"
30355 CALLEJO FELIZ TER
VALLEY CENTER, CA 92082
p: 619-535-1172
f: 619-618-1972
www.lglsinc.com

NOT TO SCALE
FOR REFERENCE ONLY

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

JC
DRAWN BY
HS
CHECKED BY
HS
RECOMMENDED

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125

PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER RCE # _____ EXP _____ DATE

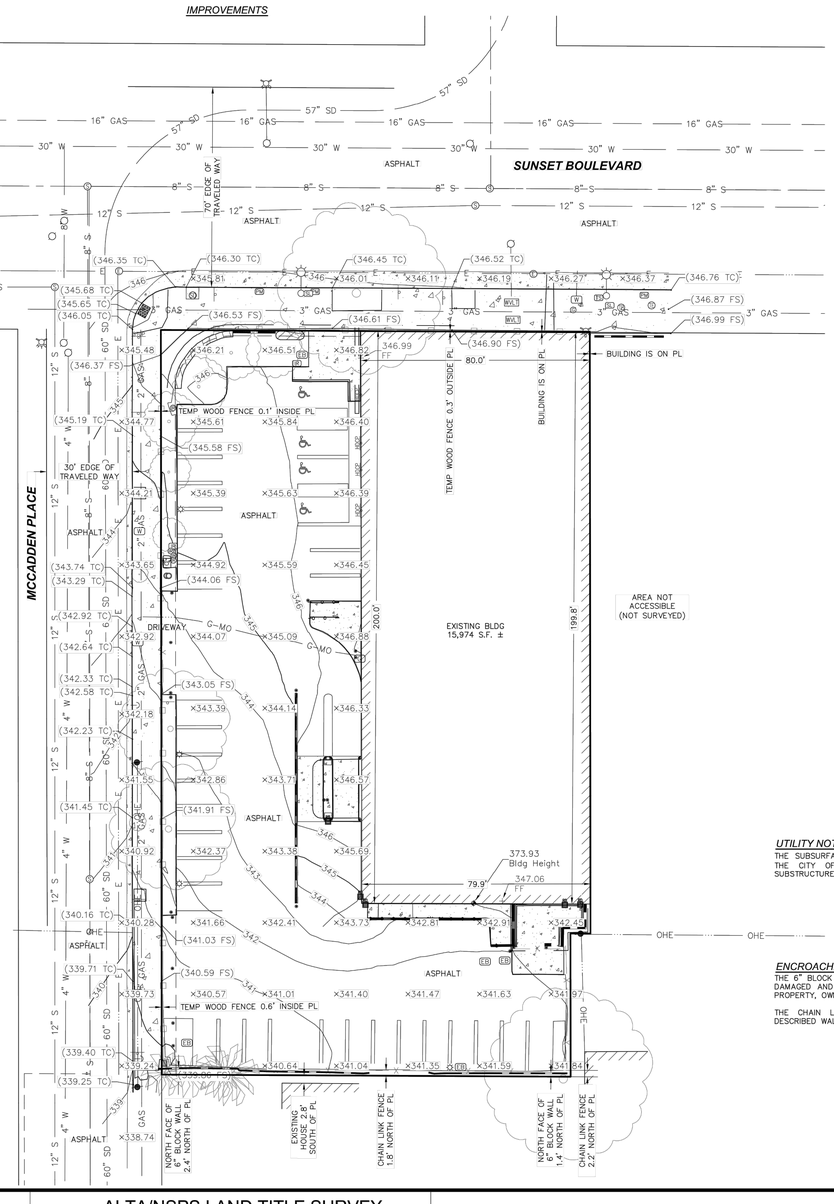
Raising Cane's Chicken Fingers
6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

EXISTING CONDITIONS

C1.1

Drawing name: K:\ORA_LDEV\raising cane's\094797107 - hollywood (sunset and highland) 624\CADD\plansheets\C1.0 - CIVIL COVER SHEET.dwg C1.2 - EXISTING CONDITIONS Feb 14, 2022 2:10pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



UTILITY NOTE:
THE SUBSURFACE UTILITY LINES SHOWN HEREON ARE PER THE CITY OF LOS ANGELES WEBSITE "NAVIGATE LA" SUBSTRUCTURE MAPS.

ENCROACHMENT NOTE:
THE 6" BLOCK WALL ALONG THE SOUTHERLY PL IS HEAVILY DAMAGED AND MAY BE ENCROACHING ONTO THE SUBJECT PROPERTY, OWNERSHIP OF SAID WALL IS UNKNOWN.

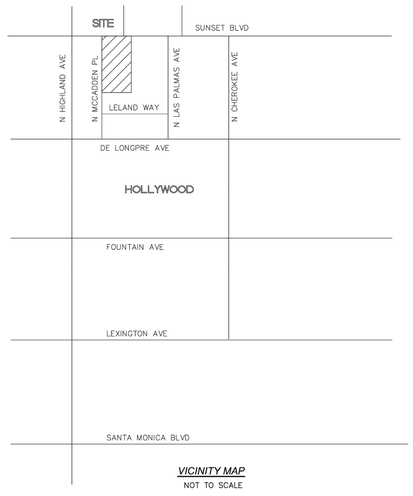
THE CHAIN LINK FENCE JUST NORTH OF THE ABOVE DESCRIBED WALL IS LEANING SOUTHERLY.

20 10 0 20 40 60
SCALE: 1"=20'
N

LEGEND:

	Backflow Assembly
	Bollard
	Building Height
	Electric Box
	Electric Manhole
	Fire Dept Connection
	Fire Hydrant
	Gas Meter
	Gas Valve
	Guy Pole/Wire
	Irrigation Box
	Irrigation Valve
	Light Pole
	Parking Meter
	Power Pole
	Roof Drain
	Sign HDCP
	Sign Misc
	Sign Stop
	Sewer Cleanout
	Sewer Manhole
	Storm Catch Basin
	Storm Drain Manhole
	Street Light
	Street Light Box
	Telephone Manhole
	Traffic Signal Box
	Tree-Misc
	Water Meter
	Water Valve
	Water Vault

X X X Chain Link Fence
Wood Fence
E Electric Line
GAS Gas Line
G-MO Gas Line Markout
S Sewer Line
SD Storm Drain
W Water Line
OHE Overhead Electric
Block Wall



VICINITY MAP
NOT TO SCALE

Revisions			
No.	Description	By	Date

BASIS OF BEARINGS:
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF SUNSET BLVD PER MB 6 PG 45 (I.E. N89°41'30"W).

BASIS OF ELEVATIONS:
THE BASIS OF ELEVATIONS FOR THIS SURVEY IS THE CITY OF LOS ANGELES BENCH MARK: 12-14270, WIRE SPIKE IN S CURB SUNSET BLVD; 9.2FT E OF MCCADDEN PL W END CB. EL = 346.021 NAVD88.

ALTA/NSPS LAND TITLE SURVEY
LOTS 13, 14, 15, 16 & 17, PORITON OF LOT 23
MB 6 PG 45
LOS ANGELES, CA

Drawn By: JPG
Checked By:
Project No. 20-153
Date: 09-12-2020
Sheet 2 of 2

PROJECT NAME:
RAISING CANE'S HOLLYWOOD

LG LAND SURVEYING, INC.
"Quality Service You Can Count On"
30355 CALLEJO FELIZ TER
VALLEY CENTER, CA 92082
p: 619-535-1172
f: 619-618-1972
www.lglsinc.com

NOT TO SCALE
FOR REFERENCE ONLY

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

JC
DRAWN BY
HS
CHECKED BY
HS
RECOMMENDED

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125

PREPARED UNDER THE DIRECT SUPERVISION OF:
DATE:
HANNAH SMITH, R.C.E. NO. 90371 EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER
RCE # _____ EXP _____
DATE

6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

EXISTING CONDITIONS

C1.2

GENERAL CONSTRUCTION NOTES

1. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
3. THE CONTRACTOR AND SUBCONTRACTORS SHOULD BE FAMILIAR WITH ALL STATE AND LOCAL REQUIREMENTS RELATED TO SITE CONSTRUCTION ACTIVITIES PRIOR TO COMMENCING WORK. ALL WORK SHALL CONFORM AS APPLICABLE TO THESE GOVERNING STANDARDS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, EXISTING PAVEMENT AND ALL OTHER DELETERIOUS MATERIAL.
5. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE COMMENCING ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. AN APPROXIMATE LIST OF THE UTILITY COMPANIES WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, GEOTECHNICAL REPORT AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
9. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND DESIGN ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS THAT ARE REQUIRED BY THE JURISDICTIONAL AGENCIES FOR THE CERTIFICATION PROCESS. ALL SURVEY COSTS WILL BE THE CONTRACTORS RESPONSIBILITY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF CALIFORNIA PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.
12. ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.
13. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
14. ANY EXISTING UTILITY, WHICH IS TO BE EXTENDED, WHICH IS THE CONNECTION POINT FOR NEW UNDERGROUND UTILITIES, OR WHICH NEW FACILITIES CROSS, SHALL BE EXPOSED BY THE CONTRACTOR PRIOR TO PLACEMENT OF THE NEW UTILITIES. COST OF SUCH EXCAVATION AND SUBSEQUENT BACKFILL SHALL BE INCLUDED IN THE PRICES PAID FOR THE VARIOUS ITEMS OF WORK. THE ELEVATIONS AND LOCATIONS OF THE EXISTING FACILITIES WILL BE CHECKED BY THE PUBLIC WORKS INSPECTOR AND THE ENGINEER. IF IN THE OPINION OF THE INSPECTOR A CONFLICT EXISTS, THEN THE ENGINEER SHALL MAKE ANY NEEDED GRADE AND/ OR ALIGNMENT ADJUSTMENTS AND REVISE THE PLANS ACCORDINGLY. ALL GRAVITY FLOW PIPELINES TO BE LAID UPGRADE FROM THE LOWEST POINT STARTING AT THE END OF EXISTING IMPROVEMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 24 HOURS PRIOR TO BACKFILLING OF ANY PIPE WHICH STUBS TO A FUTURE PHASE OF CONSTRUCTION FOR INVERT VERIFICATION. TOLERANCE SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS.

DESIGN ENGINEER'S NOTES

1. THE TERM "DESIGN ENGINEER" USED HEREIN SHALL MEAN THE ENGINEER WHO HAS SIGNED AND SEALED THESE PLANS AND IS IN RESPONSIBLE CHARGE OF THE ENGINEERING DESIGN. THE TERM "CONTRACTOR" USED HEREIN SHALL MEAN ANY GENERAL CONTRACTOR OR SUBCONTRACTOR USING THESE PLANS. ANY AGENCY SIGNATURE OR APPROVAL ON THESE PLANS DOES NOT CONSTITUTE APPROVAL OF ANY OF THESE NOTES.
2. THE DESIGN ENGINEER WILL NOT PROVIDE, OBSERVE, COMMENT ON NOR ENFORCE ANY SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY MEASURES AND SHALL BE SOLELY RESPONSIBLE FOR SAME AND COMPLYING WITH ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. THE CONTRACTOR AGREES THAT SHE/HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS AND SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
3. THE DESIGN ENGINEER SHALL HAVE NO RESPONSIBILITY FOR ANY OF THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, TECHNIQUES, EQUIPMENT CHOICE AND USAGE, SEQUENCE, SCHEDULE, SAFETY PROGRAMS, OR SAFETY PRACTICES, NOR SHALL THE DESIGN ENGINEER HAVE ANY AUTHORITY OR RESPONSIBILITY TO STOP OR DIRECT THE WORK OF ANY CONTRACTOR.
4. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE DESIGN ENGINEER AND OWNER, THEIR AGENTS AND EMPLOYEES, HARMLESS FROM ANY AND ALL CLAIMS, DEMANDS, JUDGMENTS, LOSS, DAMAGES, COSTS, EXPENSES, FEES OR LIABILITY WHATSOEVER, REAL OR ALLEGED, IN CONNECTION WITH, IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE DESIGN ENGINEER.
5. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS, THE CONTRACTOR SHALL REQUEST IN WRITING FROM THE DESIGN ENGINEER AND THE OWNER, AN INTERPRETATION BEFORE DOING ANY RELATED OR IMPACTED WORK.
6. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM CONTRACTOR OPERATIONS BY APPROPRIATE MEANS UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHOMEVER IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.
7. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO STARTING WORK NEAR THEIR FACILITIES AND SHALL COORDINATE WORK WITH UTILITY COMPANY REPRESENTATIVES.
8. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF READILY AVAILABLE RECORDS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND STANDARDS AT THE SOLE EXPENSE OF THE CONTRACTOR.
9. THE LOCATION, ELEVATIONS, SIZE, TYPE AND CONDITION OF EXISTING IMPROVEMENTS ADJACENT TO THE PROPOSED WORK INDICATED ON THESE PLANS SHALL BE CONFIRMED BY THE CONTRACTOR BY FIELD MEASUREMENTS AND OBSERVATIONS PRIOR TO CONSTRUCTION OF NEW WORK. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DESIGN ENGINEER IN WRITING IF ANY DISCREPANCIES OR CONFLICTING INFORMATION IS FOUND.
10. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES AS NEEDED, SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO THE ACTUAL LOCATION, SIZE, TYPE, OR CONDITION OF EXISTING FACILITIES DIFFERING FROM WHAT IS SHOWN ON THESE PLANS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY DAMAGE TO THE EXISTING IMPROVEMENTS AND REPLACEMENT TO THE SATISFACTION OF THE OWNER.
12. SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IN WRITING IMMEDIATELY BEFORE PROCEEDING WITH THE WORK IN QUESTION.
13. ANYTHING MENTIONED IN THE SPECIFICATIONS, IF ANY, AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN BOTH.

EROSION CONTROL NOTES

1. THE STORM WATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THIS EROSION CONTROL PLAN, THE STANDARD DETAILS, THE PLAN NARRATIVE, ATTACHMENTS INCLUDED IN SPECIFICATIONS OF THE SWPPP, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF CALIFORNIA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE PERMITTING AGENCY OR OWNER.
5. EROSION CONTROL PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
6. THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
13. STABILIZATION PRACTICES SHOULD BE INITIATED AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS WHERE CONSTRUCTION HAS TEMPORARILY CEASED.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRED IN THESE AREAS.
15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED AS SOON AS POSSIBLE.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFF SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE EROSION CONTROL PLAN AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION.
21. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACK FILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

DEMOLITION NOTES

1. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.
2. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE. UNLESS OTHERWISE NOTED, ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. REFER TO THE DEMOLITION PLAN FOR THE LIMITS OF ASPHALT REMOVAL (THE EXISTING PARKING LOT IS TO REMAIN). IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
3. THE CONTRACTOR SHALL REFER TO THE DEMOLITION PLAN AND LANDSCAPE PLAN FOR DEMOLITION/PRESERVATION OF EXISTING TREES. ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED SHALL BE REMOVED AS A PART OF THIS CONTRACT. TREE PROTECTION FENCING SHALL BE INSTALLED AS NECESSARY PRIOR TO ANY DEMOLITION.
4. CONTRACTOR SHALL ADJUST GRADE OF ANY RIMS/COVERS TO THE FINISHED ELEVATIONS OF EXISTING UTILITIES TO REMAIN.

PAVING, GRADING AND DRAINAGE NOTES

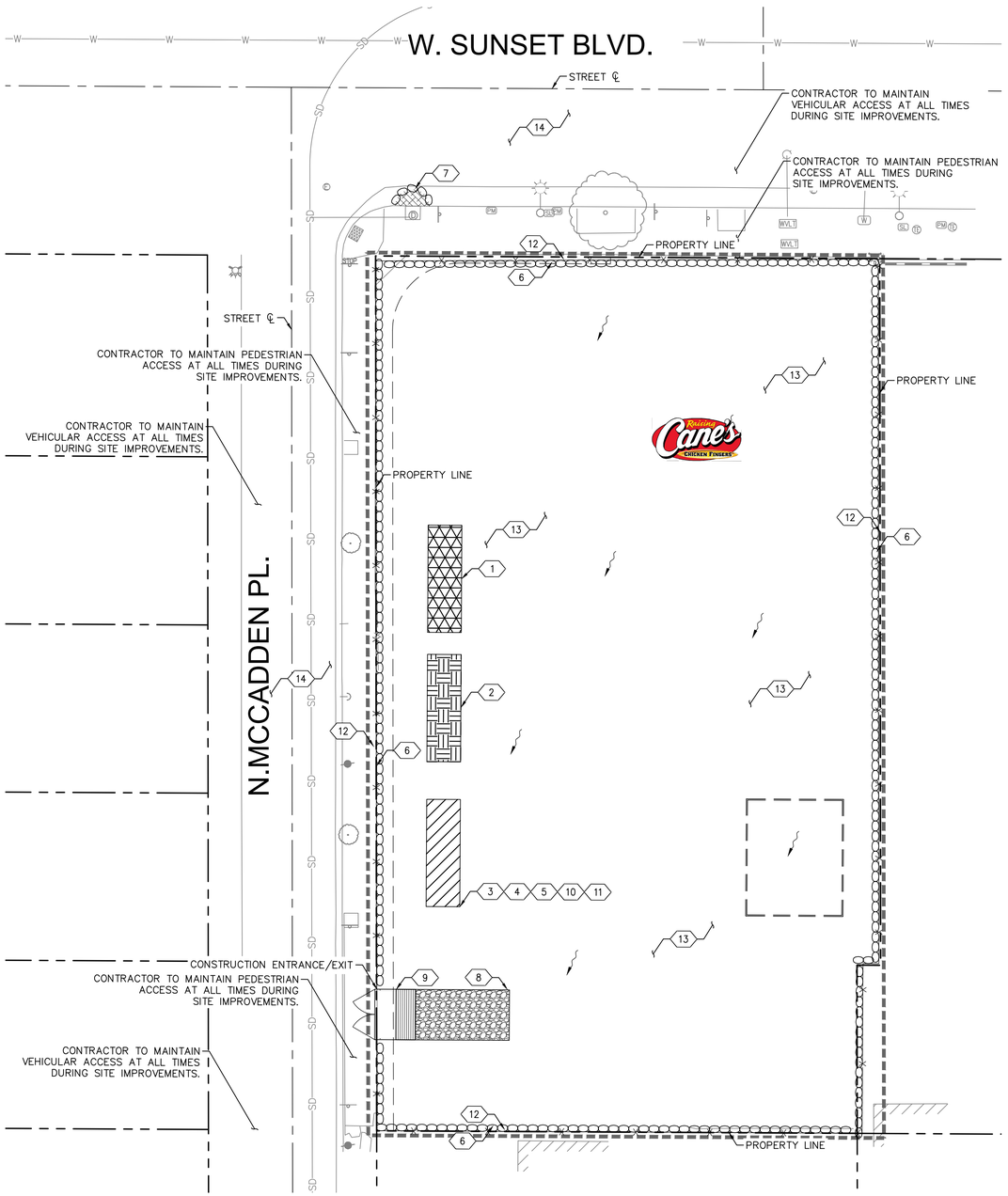
1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN JURISDICTION'S RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR CALTRANS SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS.
2. ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND REPAIRED TO EXISTING CONDITION OR BETTER.
3. TRAFFIC CONTROL ON ALL CALTRANS, LOCAL AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
4. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL AN ADEQUATE STABILIZATION OCCURS.
5. ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE COVERED WITH ROCK UNLESS INDICATED OTHERWISE ON THE LANDSCAPE PLAN.
6. ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS.
7. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.
8. WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED.
9. THE CONTRACTOR SHALL INSTALL FILTER FABRIC OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
10. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.
11. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE OWNER.
12. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY.
13. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE STABILIZED BY MEANS AND METHODS APPROVED BY THE LOCAL AGENCY. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE COVERED WITH ROCK OR MULCHED AS SHOWN ON THE LANDSCAPING PLAN.
14. ALL CUT OR FILL SLOPES SHALL BE 4 (HORIZONTAL) :1 (VERTICAL) OR FLATTER UNLESS OTHERWISE SHOWN.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
16. THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES THE WATER QUALITY STANDARDS OF THE GOVERNING CODE.
17. EXPOSED SLOPES SHOULD BE STABILIZED WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
18. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE REQUIRED PERMITS COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY GOVERNING JURISDICTIONS.
19. THE CONTRACTOR SHALL ENSURE THAT ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.
20. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS.

WATER AND SEWER UTILITY NOTES

1. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS, CLEANOUTS, GRAVITY SEWER LINES, AND DOMESTIC WATER AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
2. ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR UTILITY LOCATION AND COORDINATION IN ACCORDANCE WITH THE NOTES CONTAINED IN THE GENERAL CONSTRUCTION SECTION OF THIS SHEET. THE CONTRACTOR SHALL ALSO SCOPE THE SEWER LINES ON SITE AND RECORD A DVD.
3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE.
4. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.
5. ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING AND BACK FILLING, SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY D.I. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.
7. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
8. UNDERGROUND LINES SHALL BE SURVEYED BY A STATE OF CALIFORNIA PROFESSIONAL LAND SURVEYOR PRIOR TO BACK FILLING.
9. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT MAY NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION AND A MANDREL TEST ON GRAVITY SEWER. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDER, OWNER AND JURISDICTIONAL AGENCY AS REQUIRED.

BUILDING AND SAFETY DIVISION NOTES

1. FILL TO BE COMPACTED TO NOT LESS THAN 90% OF MAXIMUM DENSITY AS DETERMINED BY A.S.T.M. SOIL COMPACTION TEST D1557.
2. FIELD DENSITY WILL BE DETERMINED BY THE SAND-CONE METHOD A.S.T.M. 1556-07 AND/OR NUCLEAR DENSITY GAUGE METHOD A.S.T.M. 2922/3017. IN FINE GRAINED, COHESIVE SOILS, FIELD DENSITY MAY BE DETERMINED BY THE DRIVE-CYLINDER METHOD D2937 A.S.T.M. PROVIDED NOT LESS THAN 20% OF THE REQUIRED DENSITY TESTS, UNIFORMLY DISTRIBUTED, ARE BY THE SAND-CONE METHOD. THE METHOD OF DETERMINING FIELD DENSITY SHALL BE SHOWN IN THE COMPACTION REPORT. OTHER METHODS MAY BE USED IF RECOMMENDED BY THE SOILS ENGINEER AND APPROVED IN ADVANCE BY THE BUILDING OFFICIAL.



LEGEND

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE/LEASE LINE
- EASEMENT / SETBACK LINE
- APPROXIMATE CIVIL LIMIT OF WORK LINE
- FILTEXX SILTSOXX OR APPROVED EQUAL
- CONSTRUCTION FENCE WITH GREEN SCREEN
- PROPOSED STORM DRAIN LINES
- EXISTING STORM DRAIN LINES
- INLET PROTECTION
- CONSTRUCTION ENTRANCE
- STOCKPILE AREA
- SANITARY AREA, TRASH STORAGE, HAZARDOUS MATERIAL, CONCRETE MANAGEMENT, VEHICLE MAINTENANCE AND EQUIPMENT STORAGE AREA
- MATERIAL STORAGE AND DELIVERY
- DIRECTION OF FLOW

BMP NOTES

THE FOLLOWING BMPS AS OUTLINED IN, BUT NOT LIMITED TO, THE CALIFORNIA STORMWATER BMP HANDBOOK DATED NOVEMBER 2018, OR THE LATEST REVISED EDITION, MAY APPLY DURING THE CONSTRUCTION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED AS NEEDED:

EC-1, SCHEDULING
EC-2, PRESERVATION OF EXISTING VEGETATION
WE-1, WIND EROSION CONTROL
NS-1, WATER CONSERVATION PRACTICES
NS-3, PAVING AND GRINDING OPERATIONS
NS-7, POTABLE WATER/IRRIGATION
NS-12, CONCRETE CURING
NS-13, CONCRETE FINISHING
WM-4, SPILL PREVENTION AND CONTROL
WM-7, CONTAMINATED SOIL MANAGEMENT
WM-9, SANITARY/SEPTIC WASTE MANAGEMENT
WM-10, LIQUID WASTE MANAGEMENT
SE-7, STREET SWEEPING AND VACUUMING

CONTRACTOR RESPONSIBLE FOR TRAFFIC CONTROL AND PEDESTRIAN CONTROL WHILE PERFORMING WORK IN THE PUBLIC RIGHT-OF-WAY.

SITE PREPARATION SHOULD BE IN ACCORDANCE WITH GEOTECHNICAL INVESTIGATION

CONTRACTOR TO USE BEST MANAGEMENT PRACTICES TO ENSURE COMPLIANCE WITH NPDES AND WATER MANAGEMENT DISTRICT REGULATIONS FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES AND DEWATERING OPERATIONS.

MAINTENANCE NOTES

ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES MAY BE CHECKED BY A QUALIFIED PERSON ON A SCHEDULE THAT MEETS OR EXCEEDS THE GOVERNING REQUIREMENTS, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
2. FILTREXX SILTSOXXS OR APPROVED EQUAL SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE FILTREXX SILTSOXXS OR APPROVED EQUAL WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FILTREXX SILTSOXX OR APPROVED EQUAL.
3. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
4. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
5. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER.

EROSION CONTROL NOTES

1. WM-1, MATERIAL DELIVERY AND STORAGE.
2. WM-3, STOCKPILE MANAGEMENT, CONTRACTOR TO SET UP STOCKPILE AREA.
3. WM-5, SANITARY AREA.
4. WM-6, HAZARDOUS WASTE MANAGEMENT.
5. WM-8, CONCRETE WASTE MANAGEMENT.
6. SE-5, INSTALL FILTREXX SILTSOXX OR APPROVED EQUAL. REFER TO SHEET C3.1 FOR MORE INFORMATION.
7. SE-10, STORM DRAIN INLET PROTECTION. INSTALL BRIGADE INLET FILTER AT ALL DROP INLETS AND ERTEC CURB INLET GUARD AT CURB INLETS OR APPROVED EQUAL.
8. TR-1, STABILIZED CONSTRUCTION ENTRANCE/EXIT; REFER TO DETAIL 1, SHEET C3.1.
9. TR-3, ENTRANCE/OUTLET TIRE WASH; REFER TO DETAIL 2, SHEET C3.1.
10. NS-10, VEHICLE AND EQUIPMENT MAINTENANCE.
11. SD-32, TRASH STORAGE AREA.
12. CONSTRUCTION FENCE WITH GREEN SCREEN
13. WE-1, WIND EROSION CONTROL
14. SE-7, VACUUM SWEEPING OF ADJACENT STREETS.

GENERAL EROSION CONTROL NOTES

1. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES OR WIND.
2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
3. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND MUST NOT CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
4. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
5. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND.
6. SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR ANY OTHER MEANS.
7. ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
8. STORM WATER POLLUTION CONTROL REQUIREMENTS MUST BE INTEGRATED ONTO THE EROSION CONTROL PLANS FOR ANY CONSTRUCTION BETWEEN OCTOBER 1 AND APRIL 15. THE FOLLOWING NOTES AND BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, THE BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORM WATER QUALITY TASK FORCE. SACRAMENTO, CALIFORNIA 1993, OR THE LATEST REVISED EDITION MAY APPLY DURING THE CONSTRUCTION OF PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY CITY INSPECTIONS).
9. TEMPORARY EROSION CONTROL DEVICES SHOWN ON THE PLAN WHICH INTERFERE WITH THE WORK SHALL BE RELOCATED OR MODIFIED AS AND WHEN THE CONTRACTOR AND/OR THE INSPECTOR SO DIRECTS AS THE WORK PROGRESSES.
10. ALL STANDARDS REFERENCED FROM 2018 CASQA CONSTRUCTION BMP BOOK.

SEQUENCE OF CONSTRUCTION

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAYDOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

PHASE 1:
1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (1) AND CHAIN LINK FENCE WITH GREEN SCREEN AND THEN FILTREXX SILTSOXX OR APPROVED EQUAL (OR GRAVEL BAGS) WHERE SHOWN ON PLAN.
2. INSTALL INLET PROTECTION AT EXISTING INLET(S).
3. PREPARE CLEARING AND GRUBBING OF THE SITE, IF APPLICABLE.

PHASE 2:
4. PERFORM MASS GRADING. ROUGH GRADE TO ESTABLISH PROPOSED DRAINAGE PATTERNS.
5. START CONSTRUCTION OF THE BUILDING PAD AND STRUCTURES.
6. TEMPORARILY SEED WITH PURE LIVE SEED, THROUGHOUT CONSTRUCTION, DISTURBED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE OR AS REQUIRED BY GENERIC PERMIT.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40
1" = 20'
WHEN PRINTED AT FULL SIZE (24" X 36")

Drawing name: K:\ORA_LDEV\raising cane's\094797107 - hollywood (sunset and highland) 624\CADD\plansheets\C3.0 - EROSION CONTROL PLAN.dwg C3.0 - EROSION CONTROL PLAN Feb 14, 2022 2:11pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

DRAWN BY JC
CHECKED BY HS
RECOMMENDED HS

ENGINEERS SEAL
REGISTERED PROFESSIONAL ENGINEER HANNAH N. SMITH NO. 90371 CIVIL STATE OF CALIFORNIA
NOT FOR CONSTRUCTION

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125
PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, P.C.E. NO. 90371 DATE: 2/14/2022 EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER DATE
RCE # _____ EXP _____

Raising Cane's CHICKEN FINGERS
6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

EROSION CONTROL PLAN

C3.0

Drawing name: K:\ORA_LDEV\raising cane's\094797107 - hollywood (sunset and highland) 624\CADD\plansheets\C3.0 - EROSION CONTROL PLAN.dwg C3.1 - EROSION CONTROL DETAILS Feb 14, 2022 2:11pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

STORM WATER POLLUTION CONTROL
(2020 Los Angeles Green Building Code)

FORM GRN 1

Storm Water Pollution Control Requirements for Construction Activities
Minimum Water Quality Protection Requirements for All Construction Projects

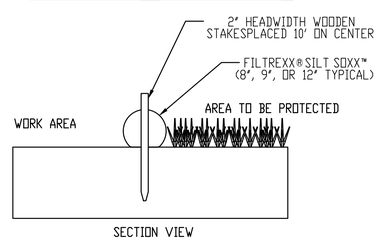
The following notes shall be incorporated in the approved set of construction/grading plans and represents the minimum standards of good housekeeping which must be implemented on all construction projects.

Construction means constructing, clearing, grading or excavation that result in soil disturbance. Construction includes structure teardown (demolition). It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility; emergency construction activities required to immediately protect public health and safety; interior remodeling with no outside exposure of construction material or construction waste to storm water; mechanical permit work; or sign permit work. (Order No. 01-182, NPDES Permit No. CAS004001 – Part 5: Definitions)

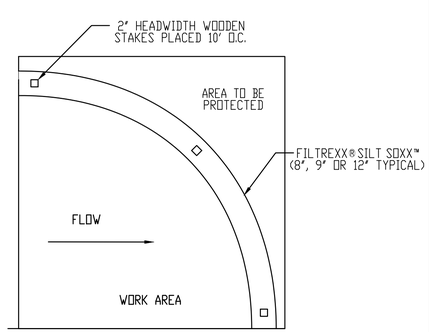
1. Eroded sediments and pollutants shall be retained on site and shall not be transported from the site via sheet flow, swales, area drains, natural drainage or wind.
2. Stockpiles of earth and other construction-related materials shall be covered and/or protected from being transported from the site by wind or water.
3. Fuels, oils, solvents and other toxic materials must be stored in accordance with their listing and shall not contaminate the soil nor the surface waters. All approved toxic storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of properly and shall not be washed into the drainage system.
4. Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained on the project site.
5. Excess or waste concrete may not be washed into the public way or any drainage system. Provisions shall be made to retain concrete waste on-site until it can be appropriately disposed of or recycled.
6. Trash and construction –related solid wastes must be deposited into a covered receptacle to prevent contamination of storm water and dispersal by wind.
7. Sediments and other materials shall not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the street/public ways. Accidental depositions must be swept up immediately and may not be washed down by rain or by any other means.
8. Retention basins of sufficient size shall be provided to retain storm water runoff on-site and shall be properly located to collect all tributary site runoff.
9. Where retention of storm water runoff on-site is not feasible due to site constraints, runoff may be conveyed to the street and the storm drain system provided that an approved filtering system is installed and maintained on-site during the construction duration.

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities.

FILTREXX®SILT SOXX™

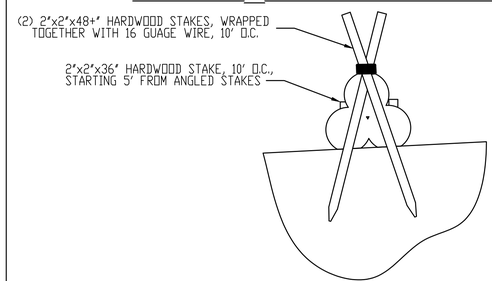


SECTION VIEW

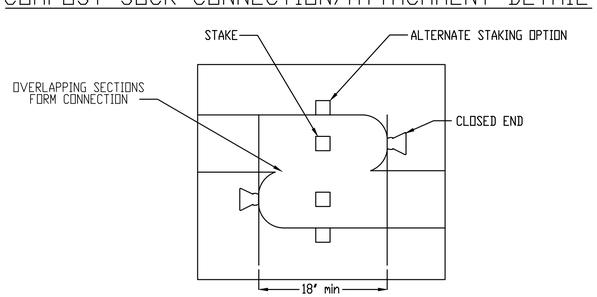


TOP VIEW

FILTREXX®PYRAMID STAKING DETAIL



COMPOST SOCK CONNECTION/ATTACHMENT DETAIL



NOTES:
1. ALL MATERIAL TO MEET FILTREXX®SPECIFICATIONS.
2. SILT SOXX™FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF FILTREXX INTERNATIONAL, LLC AND MAY NOT BE COPIED, REPRODUCED OR DIVULGED TO UNAUTHORIZED PERSONS WITHOUT THE EXPRESS WRITTEN CONSENT OF FILTREXX INTERNATIONAL. IT IS PROVIDED SOLELY FOR THE CONVENIENCE OF THE USER AND SHALL BE RETURNED UPON REQUEST.

DIMENSIONS ARE IN INCHES
ANGULAR: BEND ± 2°
TWO PLACE DECIMAL ± .015
THREE PLACE DECIMAL ± .005
DO NOT SCALE DRAWING

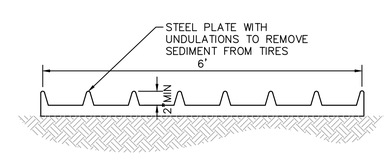
	NAME	DATE
DRAWN	DAN	6/11/2013
CHECKED		
ECO		

filtrexx® let nature do it.
FILTREXX INTERNATIONAL 2680 SANTA FE EASTERN RD. ROCKPORT, TX 78382 800.790.7291 WWW.FILTREXX.COM

SIZE D | TITLE FILTREXX®SILT SOXX™ & SEDIMENT TRAPP™ DETAILS | REV. NC
DWG/PART NO. | SHEET 1 OF 1

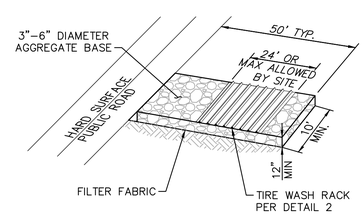
TIRE WASH RACK (2)

N.T.S.



STEEL PLATE DETAIL

STABILIZED CONSTRUCTION ENTRANCE (1)



NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

DRAWN BY: JC
CHECKED BY: HS
RECOMMENDED: HS

ENGINEERS SEAL: REGISTERED PROFESSIONAL ENGINEER HANNAH M. SMITH NO. 90371 CIVIL STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125

PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: 2/14/2022 EXP. 12/31/2022

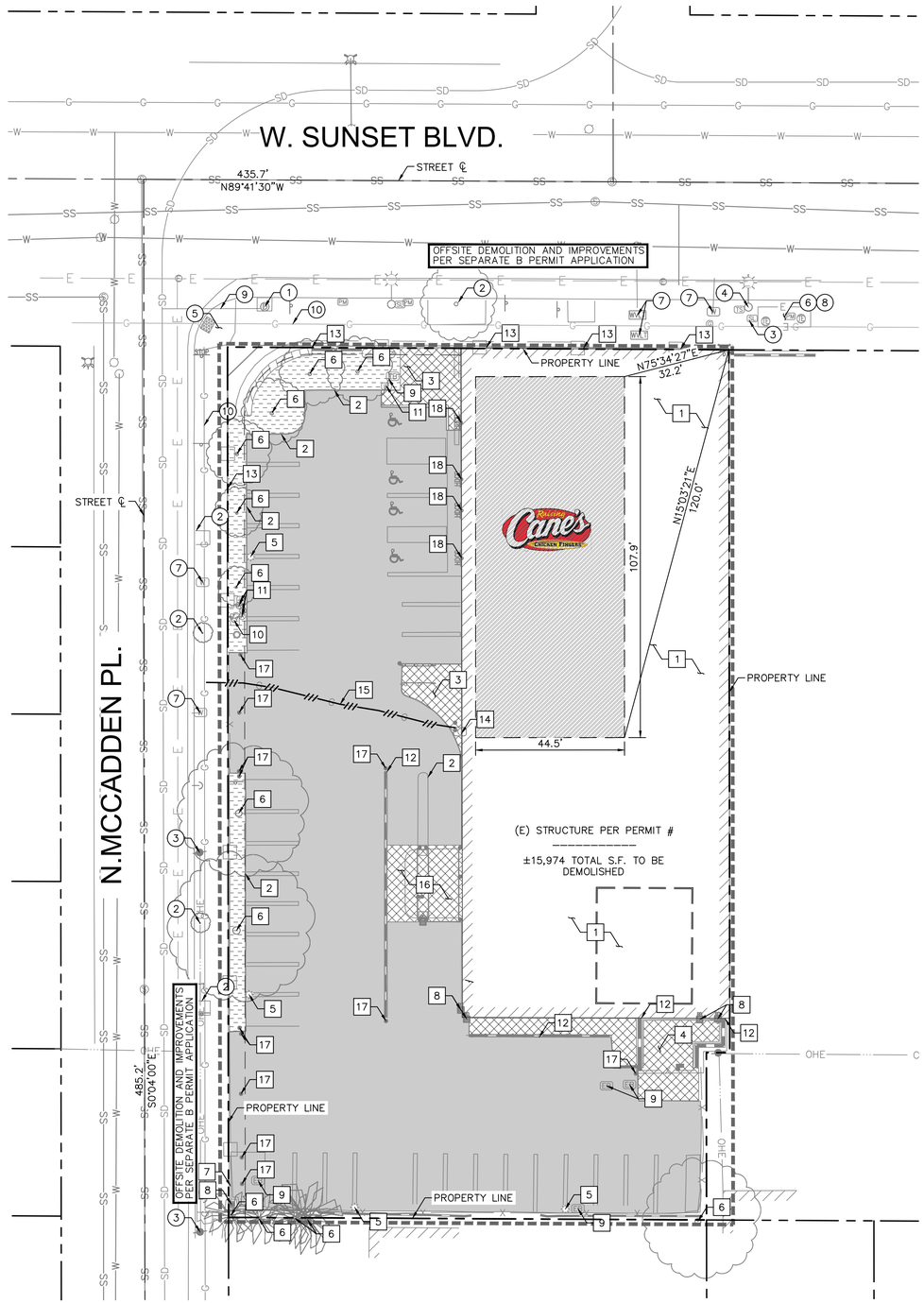
CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER RCE # _____ EXP _____ DATE

Raising Cane's Chicken Fingers
6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

EROSION CONTROL DETAILS

C3.1



GENERAL DEMOLITION NOTES

1. THE CONTRACTOR SHALL CLEAR THE PROJECT SITE AREA WITHIN THE CONFINES OF THE DEMOLITION LIMIT LINE. THE CONTRACTOR SHALL CAP IN PLACE ALL EXISTING UTILITIES AT THE DEMOLITION LIMIT LINE, UNLESS NOTED ON THE PLAN. THE CONTRACTOR SHALL DEMOLISH AND REMOVE FROM THE SITE ALL EXISTING UTILITY STRUCTURES, PLANTERS, TREES, AND ALL OTHER SITE FEATURES, UNLESS OTHERWISE NOTED ON THE PLAN.
2. DEMOLITION AND REMOVAL OF PAVEMENT INCLUDES PAVEMENT THICKNESS AS WELL AS BASE COURSE THICKNESS.
3. REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIAL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS AND SHALL PAY ALL FEES NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF DEMOLITION WORK.
6. THE CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING ABOVE AND UNDERGROUND UTILITIES. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE SHOWN FOR GENERAL INFORMATION ONLY.
7. DAMAGE TO ANY EXISTING UTILITIES AND SERVICES TO REMAIN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
8. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT DEBRIS AND UNSUITABLE MATERIALS FROM ENTERING STORM DRAINS, SANITARY SEWERS AND STREETS.
9. DUST CONTROL MEASURES SHALL BE IMPLEMENTED DURING DEMOLITION.
10. DEMOLITION IS LIMITED TO WITHIN THE DEMOLITION LIMIT LINE UNLESS OTHERWISE NOTED.
11. CONTRACTOR SHALL REMOVE DEMOLISHED MATERIALS FROM THE SITE AS WORK PROGRESSES.
13. ALL DEMOLITION SHALL COMPLY WITH CHAPTER 24 AND ARTICLE 87 OF THE CALIFORNIA FIRE CODE.
14. CONTRACTOR TO USE CARE IN HANDLING DEBRIS FROM SITE TO ENSURE THE SAFETY OF THE PUBLIC. HAUL ROUTE TO BE CLOSELY MONITORED FOR DEBRIS OR MATERIALS TRACKED ONTO ADJOINING ROADWAYS, SIDEWALKS, ETC. ROADWAYS AND WALKWAYS TO BE CLEARED DAILY OR AS NECESSARY TO MAINTAIN PUBLIC SAFETY.
15. SEE SHEET C3.0 FOR REMAINING INLET PROTECTION AND EROSION PREVENTION.
16. CONTRACTOR TO INSTALL CHAIN LINK FENCE WITH MESH SCREEN TO PROTECT PUBLIC FROM ENTERING CONSTRUCTION AREA.
17. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF EXISTING FACILITIES.
18. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.
19. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE. UNLESS OTHERWISE NOTED, ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. REFER TO THIS PLAN FOR THE LIMITS OF ASPHALT REMOVAL. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
20. THE CONTRACTOR SHALL REFER TO THIS PLAN AND LANDSCAPE PLAN FOR DEMOLITION/PRESERVATION OF EXISTING TREES. ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED SHALL BE REMOVED AS A PART OF THIS CONTRACT. TREE PROTECTION FENCING SHALL BE INSTALLED AS NECESSARY PRIOR TO ANY DEMOLITION.
21. CONTRACTOR SHALL ADJUST GRADE OF ANY RIMS/COVERS TO THE FINISHED ELEVATIONS OF EXISTING UTILITIES TO REMAIN.

LEGEND

- CENTER LINE
- PROPERTY LINE
- EASEMENT LINE / SETBACK LINE
- APPROXIMATE DEMOLITION LIMIT LINE ON-SITE
- SD — EXISTING STORM DRAIN LINE
- SS — EXISTING SEWER LINE
- G — EXISTING GAS LINE
- W — EXISTING WATER LINE
- E — EXISTING ELECTRICAL LINE
- OHE — EXISTING OVERHEAD EQUIPMENT LINE
- DEMOLISH EXISTING UTILITY
- LIMITS OF EARTHWORK PREPARATION FOR PROPOSED BUILDING AND SITE WALLS (RECOMMENDED 3 FOOT LATERAL DISTANCE BEYOND THE PERIMETER OF PROPOSED BUILDING AND SITE WALLS HAS BEEN INCORPORATED). REFER TO GEOTECHNICAL REPORT FOR MORE INFORMATION
- EXISTING ASPHALT PAVEMENT TO BE REMOVED
- EXISTING PAVEMENT TO BE REMOVED

DEMOLITION NOTES

1. REMOVE EXISTING BUILDING AND SURROUNDING FEATURES. UTILITIES TO BE CAPPED FOR FUTURE CONNECTION.
2. REMOVE EXISTING CURB / CURB & GUTTER.
3. REMOVE EXISTING SIDEWALK.
4. REMOVE EXISTING TRASH ENCLOSURE AND SURROUNDING FEATURES. UTILITIES TO BE CAPPED FOR FUTURE CONNECTION.
5. REMOVE EXISTING LIGHT POLE.
6. REMOVE EXISTING TREE.
7. REMOVE EXISTING VALLEY GUTTER.
8. REMOVE EXISTING STORM DRAIN INLET.
9. REMOVE EXISTING ELECTRICAL BOX.
10. REMOVE EXISTING BACKFLOW PREVENTOR.
11. REMOVE EXISTING IRRIGATION BOX.
12. REMOVE EXISTING RETAINING WALL.
13. REMOVE EXISTING GATE AND/OR FOUNDATION.
14. REMOVE EXISTING GAS METER.
15. REMOVE EXISTING GAS LINE.
16. REMOVE EXISTING DRIVE-THRU.
17. REMOVE EXISTING BOLLARD.
18. REMOVE EXISTING SIGN POST & FOUNDATION.

PROTECTION NOTES

1. PROTECT-IN-PLACE EXISTING STORM DRAIN INLET.
2. PROTECT-IN-PLACE EXISTING TREE.
3. PROTECT-IN-PLACE EXISTING POWER POLE.
4. PROTECT-IN-PLACE EXISTING LIGHT POLE.
5. PROTECT-IN-PLACE EXISTING CURB RAMP.
6. PROTECT-IN-PLACE EXISTING ELECTRICAL PULLBOX.
7. PROTECT-IN-PLACE EXISTING WATER APPURTENANCES.
8. PROTECT-IN-PLACE EXISTING TELECOM CABINET.
9. PROTECT-IN-PLACE EXISTING STORM DRAIN LINE.
10. PROTECT-IN-PLACE EXISTING GAS LINE.

EXISTING UTILITY NOTE

THE EXISTING UTILITIES SHOWN ON THE PLAN ARE BASED ON AVAILABLE RECORDS. THE CONTRACTOR MUST FIELD DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION. REPORT DISCREPANCIES AND POTENTIAL CONFLICTS WITH PROPOSED UTILITIES TO ENGINEER PRIOR TO INSTALLATION OF ANY PIPING.

IRRIGATION NOTE

CONTRACTOR TO CAP EXISTING IRRIGATION SYSTEM AND REMOVE IRRIGATION SYSTEM AS NEEDED FOR NEW CONSTRUCTION. CONTRACTOR TO MAINTAIN THAT KOHL'S IRRIGATION WILL CONTINUE TO WORK PROPERLY AFTER DEMOLITION OF LINES WITHIN THE CONSTRUCTION AREA.

NORTH

GRAPHIC SCALE IN FEET
0 10.1 20.2 40.4
1" =20.2 '
WHEN PRINTED AT FULL SIZE (24" X 36")

Drawing name: K:\ORA_LDEV\raising cane's\094797107 - hollywood (sunset and highland) 624\CADD\plansheets\C4.0 - DEMOLITION PLAN.dwg C4.0 - DEMOLITION PLAN Feb 14, 2022 2:11pm by: Hannah Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

DRAWN BY: JC
CHECKED BY: HS
RECOMMENDED: HS

ENGINEERS SEAL: REGISTERED PROFESSIONAL ENGINEER HANNAH W. SMITH NO. 90371 CIVIL STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125

PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: 2/14/2022 EXP. 12/31/2022

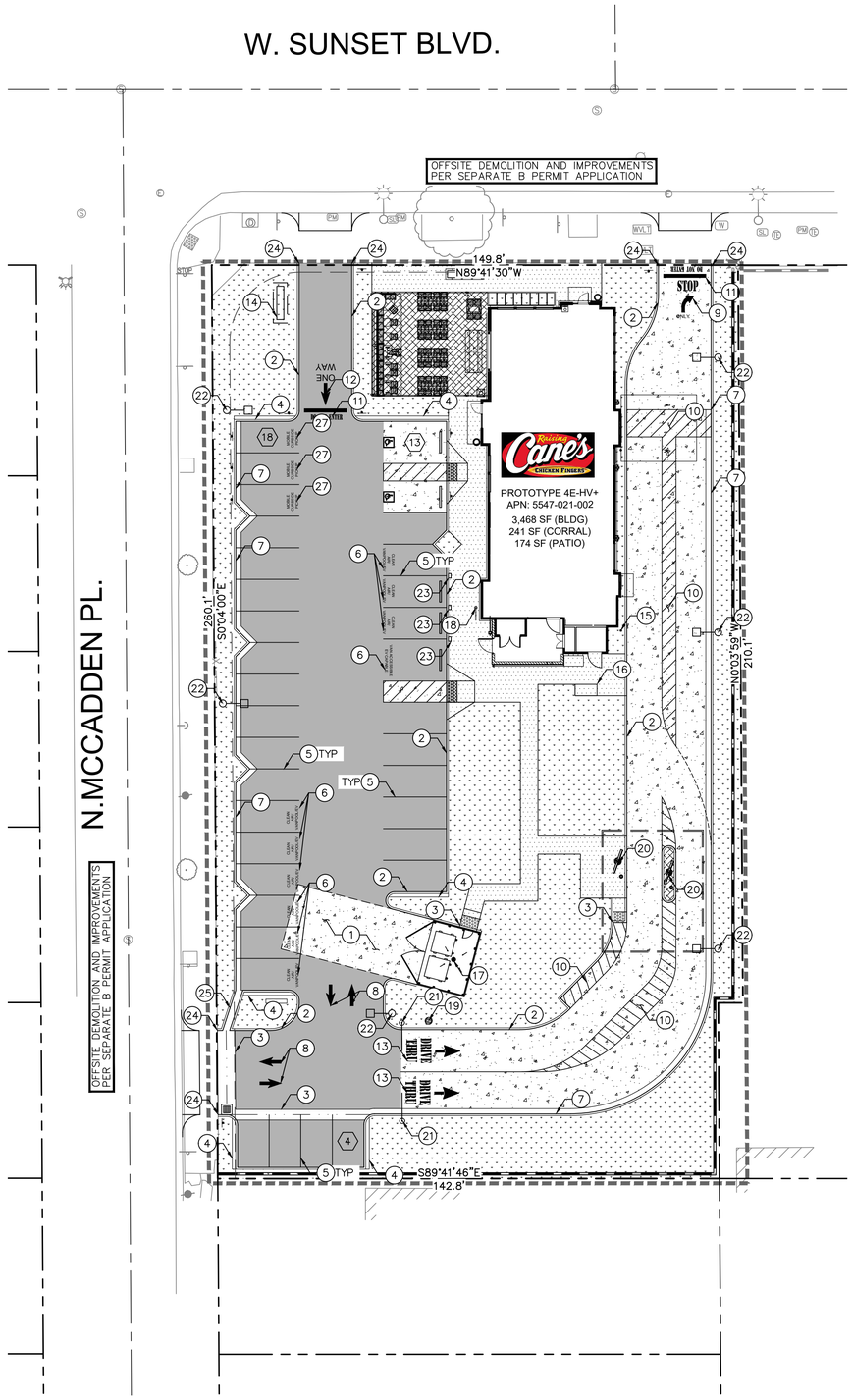
CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER RCE # _____ EXP _____ DATE

6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

DEMOLITION PLAN

C4.0



LEGEND

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- EASEMENT / SETBACK LINE
- APPROXIMATE CIVIL LIMIT OF WORK LINE
- 0" CURB FACE
- (X) PARKING STALL COUNT
- PROPOSED LIGHT POLE. REFER TO ELECTRICAL PLANS FOR MORE INFORMATION.
- STANDARD DUTY CONCRETE PAVEMENT. SECTION PER DETAIL 1, SHEET C8.0. SCORING PATTERN AND FINISH PER LANDSCAPING PLAN.
- HEAVY DUTY CONCRETE PAVEMENT. THICKENED EDGE PER DETAIL 2, SHEET C8.0 AT ALL EDGE CONDITIONS. PRIOR TO BIDDING, CONTRACTOR SHALL CONFIRM WITH RAISING CANE'S CONSTRUCTION MANAGER (CM) IF DRIVE-THROUGH CONCRETE WILL BE STAINED. IF DRIVE-THROUGH CONCRETE WILL BE STAINED, CONTRACTOR SHALL USE JET BLACK BY DAVIS COLORS OR SPECIFICATION PER CM.
- LANDSCAPE/PLANTER AREA. REFER TO LANDSCAPE PLANS FOR MORE INFORMATION.
- HEAVY DUTY ASPHALT PAVEMENT. SECTION PER DETAIL 1, SHEET C8.0.
- COLORED STANDARD DUTY SIDEWALK CONCRETE AT COVERED SEATING PATIO. SECTION PER DETAIL 1, SHEET C8.0. REFER TO LANDSCAPE PLANS FOR SIDEWALK COLOR, FINISH AND JOINT SPACING FOR MORE INFORMATION.
- DETECTABLE WARNING SYSTEM
- BIORETENTION AREA

CONSTRUCTION NOTES

1. TRASH ENCLOSURE APPROACH TO BE HEAVY DUTY CONCRETE PAVEMENT PER DETAIL 1, SHEET C8.0. JOIN ASPHALT CONCRETE PER DETAIL 3, SHEET C8.0.
2. CONSTRUCT CONCRETE CURB PER DETAIL 4, SHEET C8.0.
3. CONSTRUCT CONCRETE VALLEY GUTTER PER DETAIL 9, SHEET C8.0.
4. INSTALL 18" WALK-OFF CURB PER DETAIL 12, SHEET C8.0.
5. INSTALL STANDARD 90° PARKING STALL STRIPING PER DETAIL 7, SHEET C8.0.
6. INSTALL "CLEAN AIR/VAN POOL/EV" IN 12" HIGH WHITE LETTERS AT END OF PARKING STALL.
7. INSTALL CONCRETE CURB AND GUTTER PER DETAIL 6, SHEET C8.0.
8. INSTALL PAVEMENT MARKING ARROW PER DETAIL 11, SHEET C8.0.
9. INSTALL PAVEMENT MARKING RIGHT TURN ARROW PER DETAIL 11, SHEET C8.0.
10. INSTALL 2 COATS 60° WHITE HATCHING AT 36" O.C. 4" THICK.
11. INSTALL "DO NOT ENTER" IN 12" HIGH WHITE LETTERS.
12. INSTALL "ONE WAY" PAVEMENT MARKING PER DETAIL 11, SHEET C8.0.
13. INSTALL "DRIVE-THRU" PAVEMENT MARKING PER DETAIL 11, SHEET C8.0.
14. INSTALL MONUMENT SIGN. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.
15. INSTALL BOLLARD AT DRIVE THROUGH CURB. REFER TO ARCHITECTURAL SHEET A0.30 FOR MORE DETAILS.
16. INSTALL ONE (1) DURA BIKE LOCKER, OR APPROVED EQUAL. REFER TO ARCHITECTURAL SHEET A0.30 FOR MORE INFORMATION.
17. INSTALL COVERED TRASH ENCLOSURE AND RECYCLING BIN STORAGE. REFER TO ARCHITECTURAL SHEET A0.20 FOR MORE DETAILS.
18. INSTALL SHORT TERM BIKE RACK. REFER TO ARCHITECTURAL SHEET A0.20 FOR MORE DETAILS.
19. INSTALL PREVIEW BOARD. REFER TO ARCHITECTURAL SHEET A0.40 FOR MORE DETAILS.
20. INSTALL ORDER BOARD. REFER TO ARCHITECTURAL SHEET A0.40 FOR MORE DETAILS.
21. INSTALL HEIGHT DETECTOR POLE. REFER TO ARCHITECTURAL SHEET A0.21 FOR MORE DETAILS.
22. INSTALL SITE LIGHTING. REFER TO ARCHITECTURAL SHEET A0.30 FOR MORE DETAILS.
23. FUTURE E/V CHARGING STATION. CONDUIT TO BE INSTALLED FROM THE BUILDING TO THE STALL FOR FUTURE INSTALLATION OF CHARGING STATION.
24. JOIN EXISTING CURB, CURB & GUTTER, SIDEWALK.
25. CONSTRUCTION CONCRETE CHANNEL GUTTER PER DETAIL 10, SHEET C8.0.
26. INSTALL COMPACT 90° PARKING STALL STRIPING PER DETAIL 7, SHEET C8.0.
27. "MOBILE CURBSIDE PICKUP" PARKING STALLS. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40
1" = 20'
WHEN PRINTED AT FULL SIZE
(24" X 36")

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

DRAWN BY: JC
CHECKED BY: HS
RECOMMENDED: HS

ENGINEERS SEAL: REGISTERED PROFESSIONAL ENGINEER HANNAH R. SMITH NO. 90371 CIVIL STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125
PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: 2/14/2022 EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER RCE # _____ EXP _____ DATE

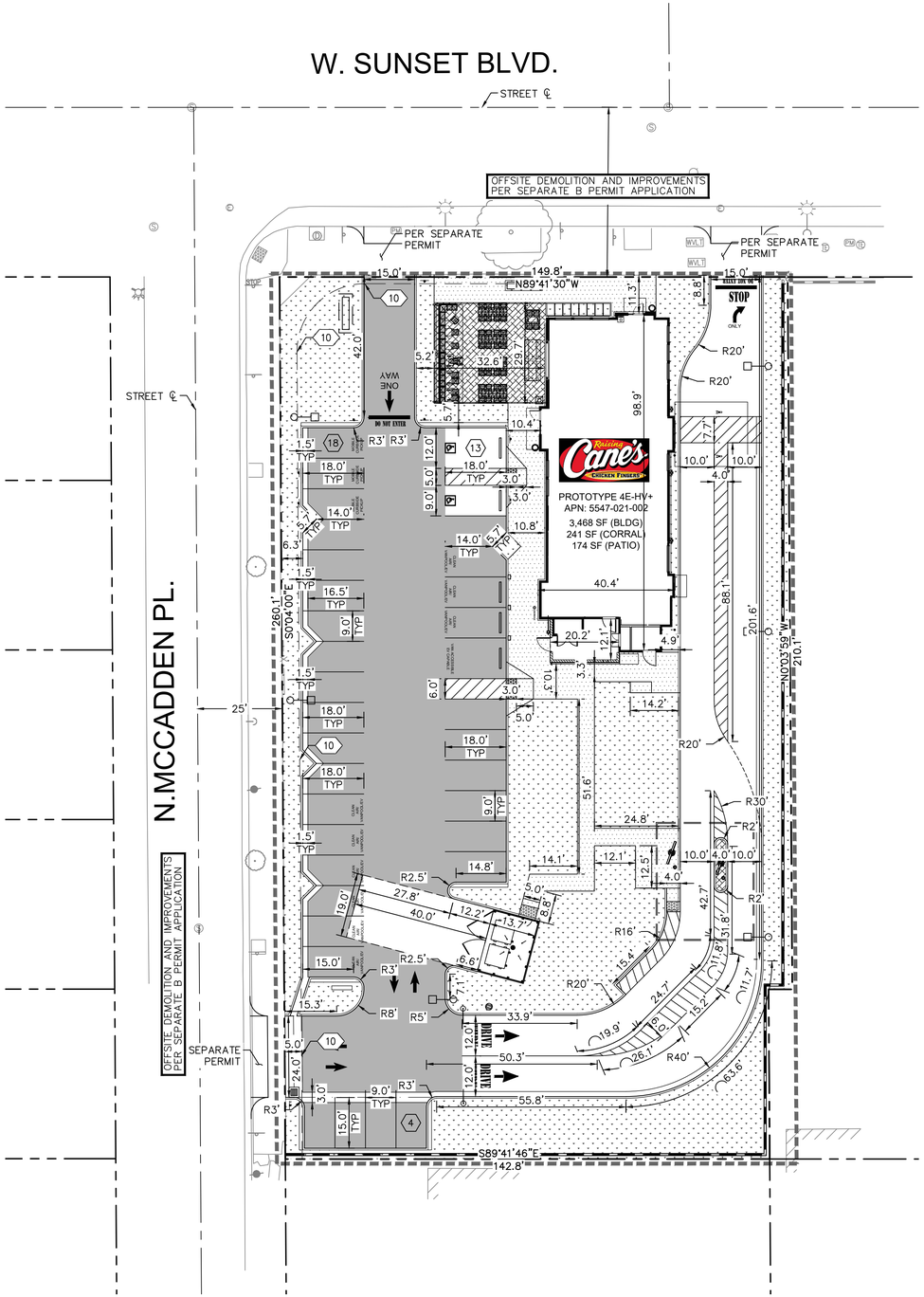
6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

SITE KEYNOTE PLAN

C5.0

Drawing name: K:\ORA_LDEV\raising cane's\094797107 - hollywood (sunset and highland) 624\CADD\plansheets\C5.0 - SITE KEYNOTE PLAN.dwg C5.0 - SITE KEYNOTE PLAN Feb 14, 2022 2:11pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



LEGEND

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE / LEASE LINE
- EASEMENT / SETBACK LINE
- APPROXIMATE CIVIL LIMIT OF WORK LINE

TITLE REPORT EXCEPTIONS

(3) MATTERS CONTAINED IN A DOCUMENT RECORDED APRIL 7, 1980 AS INSTRUMENT NO. 80-3439962 OF OFFICIAL RECORDS. BLANKET IN NATURE.

(8) MATTERS CONTAINED IN A DOCUMENT RECORDED DECEMBER 20, 2006 AS INSTRUMENT NO. 06-2837146 OF OFFICIAL RECORDS. (SEE SHEET 2).

(10) IRREVOCABLE OFFER TO DEDICATE A PORTION OF THE PROPERTY FOR FUTURE STREET OR HIGHWAY PURPOSES, RECORDED DECEMBER 29, 2006 AS INSTRUMENT NO. 06-2903331 OF OFFICIAL RECORDS. PLOTTED HEREON.

SITE DATA

PROJECT DESCRIPTION:	DEMOLITION OF EXISTING PARKING LOT AND BUILDING. NEW CONSTRUCTION OF A RAISING CANE'S DRIVE THRU RESTAURANT AND PARKING LOT.
ADDRESS:	6726-6734 SUNSET BOULEVARD, LOS ANGELES, CA 90028
APN:	5547-022-022; 5547-022-023; 5547-022-024
ZONING DISTRICT:	C4-2D-SN
ADJACENT ZONING DISTRICTS:	NW: P – PARK S: C2 – RESTRICTED COMMERCIAL E: M4 – INDUSTRIAL PARK
LAND USE:	REGIONAL CENTER COMMERCIAL
ADJACENT LAND USE:	NW: PARKS S: COMMERCIAL E: COMMERCIAL W: COMMERIAL
GENERAL PLAN DISTRICT:	REGIONAL CENTER COMMERCIAL
SPECIFIC PLAN:	NONE
FLOOD ZONE:	ZONE X – AREAS DETERMINED TO BE OUTSIDE THE 0.02% ANNUAL CHANCE FLOODPLAIN.

TOTAL DISTURBED AREA:	40,236 S.F.	(0.92 AC)
TOTAL PAD AREA:	3,448 S.F.	(0.08 AC)
TOTAL LOT AREA:	38,625 S.F.	(0.89 AC)
F.A.R.:	0.08 AC	

LOT COVERAGE

TOTAL SITE AREA:	40,236 S.F.	(0.92 AC)	100%
BUILDING AREA:	3,448 S.F.	(0.08 AC)	8.6%
IMPERVIOUS AREA:	25,800 S.F.	(0.59 AC)	64.1%
LANDSCAPE AREA:	10,988 S.F.	(0.25 AC)	27.3%

PARKING/LANDSCAPE BUFFER

FRONT:	0.0'
REAR:	0.0'
SIDE (N):	0.0'
SIDE (S):	0.0'

PARKING SUMMARY:

RAISING CANE'S: 3,468 S.F. (1 STALL/100 S.F.) = 35 STALLS REQUIRED PER CITY OF LOS ANGELES CODE 12.21.C

- ADA PARKING FOR 26-50 PARKING STALLS = 2 ADA PARKING STALLS REQUIRED, PER 2019 CBC
- FUTURE EV FOR 26-50 PARKING STALLS = 4 FUTURE EV STALLS REQUIRED PER 2019 CALGREEN
- NUMBER OF REQUIRED DESIGNATED STALLS FOR LOW-EMITTING, FUEL-EFFICIENT, CARPOOL/VANPOOL, AND ELECTRIC VEHICLES (PER 2019 CALIFORNIA GREEN BUILDING STANDARDS) = 6

TOTAL NUMBER OF PARKING SPACES PROVIDED = 35

PARKING TABLE:	RAISING CANE'S REQUIRED	PROVIDED	
STANDARD	23	15	
COMPACT (C)	–	4	
DESIGNATED	6	10	
EV CHARGING	4	4	(EV STALLS ARE ALSO DESIGNATED FOR VANPOOL)
ACCESSIBLE	2	2	(REQUIREMENTS FOR EV/DESIGNATED STALLS ARE BASED ON PROPOSED RAISING CANE'S PARKING)
TOTAL:	35	35	

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40
1" = 20'
WHEN PRINTED AT FULL SIZE (24" X 36")

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

DRAWN BY: JC
CHECKED BY: HS
RECOMMENDED: HS

ENGINEERS SEAL: REGISTERED PROFESSIONAL ENGINEER HANNAH M. SMITH NO. 90371 CIVIL STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125

PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: 2/14/2022 EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER RCE # _____ EXP _____ DATE

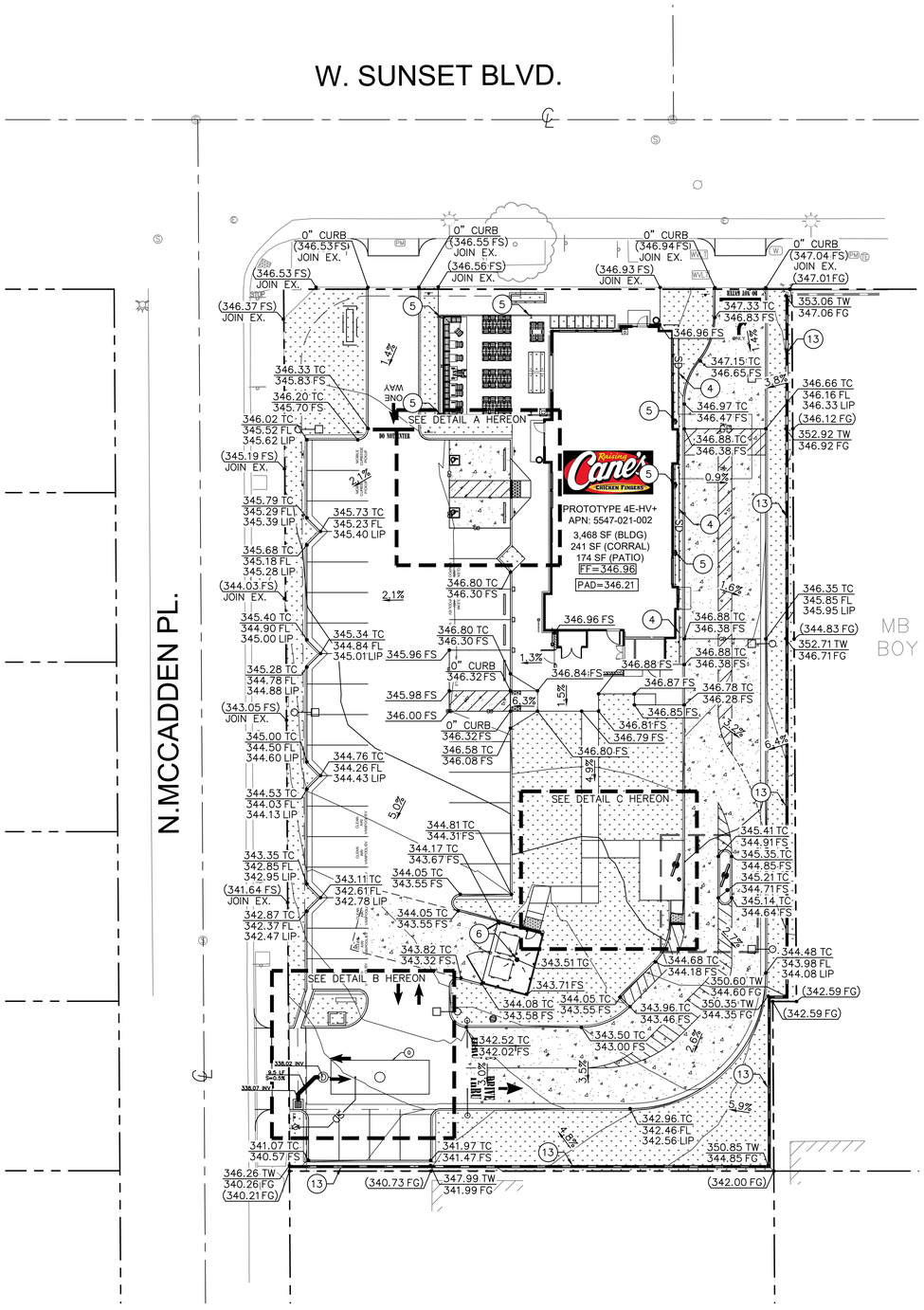
Raising Cane's CHICKEN FINGERS
6726 SUNSET BOULEVARD
LOS ANGELES, CA

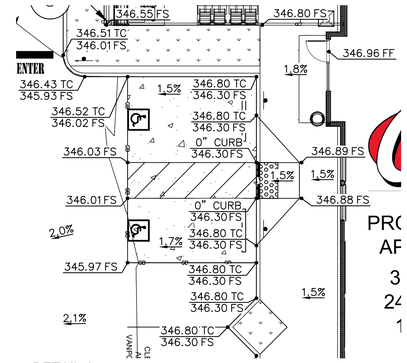
CITY OF LOS ANGELES

DIMENSIONAL CONTROL AND SITE PLAN

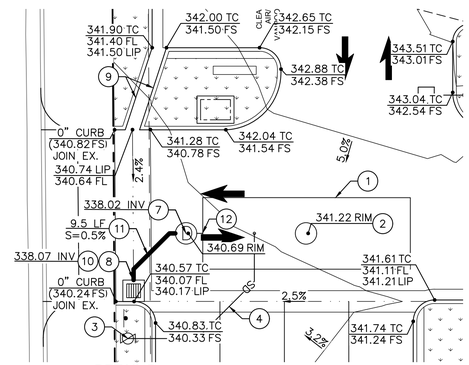
C5.1

Drawing name: K:\ORA_LDEV\raising cane's\094797107 - hollywood (sunset and highland) 624\CADD\plansheets\C5.0 - SITE KEYNOTE PLAN.dwg C5.1 - DIMENSIONAL CONTROL AND SITE PLAN Feb 14, 2022 2:11pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

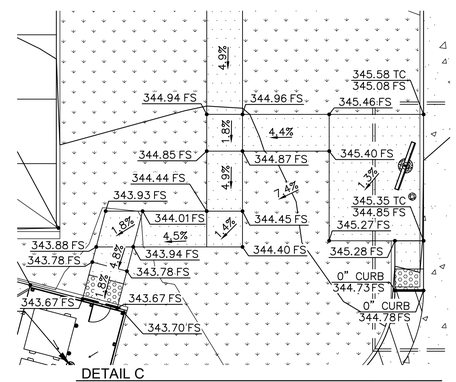




DETAIL A
SCALE: 1" = 10' (WHEN PRINTED AT FULL SIZE 24" X 36")



DETAIL B
SCALE: 1" = 10' (WHEN PRINTED AT FULL SIZE 24" X 36")



DETAIL C
SCALE: 1" = 10' (WHEN PRINTED AT FULL SIZE 24" X 36")

LEGEND

- CENTERLINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE / LEASE LINE
- EASEMENT / SETBACK LINE
- APPROXIMATE CIVIL LIMIT OF WORK LINE
- SD — PROPOSED STORM DRAIN PIPE
- SD — EXISTING STORM DRAIN PIPE
- GB — GRADE BREAK LINE
- R — RIDGE LINE
- FLOW LINE
- 0" CURB FACE
- 617.50 TC / 617.00 FS — PROPOSED SPOT ELEVATION
- (615.50 TC) / (615.00 FS) — EXISTING SPOT ELEVATION
- 2.00% — PROPOSED FLOW (DIRECTION AND SLOPE)
- LANDSCAPE AREA

GRADING AND DRAINAGE NOTES

1. PROPOSED CONTECH URBANGREEN RAINWATER CISTERN PER DETAIL 1 ON SHEET C8.1.
2. CONTECH URBANGREEN RISER MANHOLE PER DETAIL 1 ON SHEET C8.1
3. INSTALL 4" SDR-26 PVC STORM CISTERN VENTALATION PIPE. PIPE BEDDING AND TRENCHING PER DETAIL 5, SHEET C8.0. VENT SHALL EXTEND 6" ABOVE GRADE AND TERMINATE IN A DOWNWARD POSITION AND BE COVERED WITH A 1.6MM MESH SCREEN.
4. INSTALL DRAINAGE SLEEVE AGAINST BUILDING WALL PER DETAIL 15, SHEET C8.0. DRAIN THRU CURB FACE.
5. ROOF DOWN SPOUT TO DRAIN THRU CURB FACE. REFER TO DETAIL 16, SHEET C8.0 FOR MORE INFORMATION.
6. TRASH ENCLOSURE DRAIN. DRAIN TO SEWER.
7. INSTALL CONTECH CDS STORMWATER PRETREATMENT UNIT PER DETAIL 1, SHEET C8.2
8. PAINT "NO DUMPING-DRAINS TO OCEAN" ON CURB ADJACENT TO CATCH BASIN PER DETAIL 3, SHEET C8.2.
9. CONSTRUCT CONCRETE CHANNEL GUTTER PER DETAIL 10, SHEET C8.0
10. INSTALL 24"X24" JENSEN PRECAST CONCRETE STORMWATER DROP INLET. ALL GRATES SHALL BE TRAFFIC RATED.
11. INSTALL 12" SDR-26 PVC STORM DRAIN PIPE AT 0.5% MIN. PIPE BEDDING AND TRENCHING PER DETAIL 5, SHEET C8.0.
12. CONNECT 12" PIPE TO PROPOSED URBANGREEN RAINWATER CISTERN PER DETAIL 1, SHEET C8.1
13. CONSTRUCT MASONRY RETAINING WALL (TYPE B) PER SPPWC STANDARD PLANS 618-3. TOP OF WALL AND FINISHED GRADE ELEVATIONS PER PLAN.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40
1" = 20'
WHEN PRINTED AT FULL SIZE (24" X 36")

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

DRAWN BY: JC
CHECKED BY: HS
RECOMMENDED: HS

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125
PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER DATE
RCE # EXP

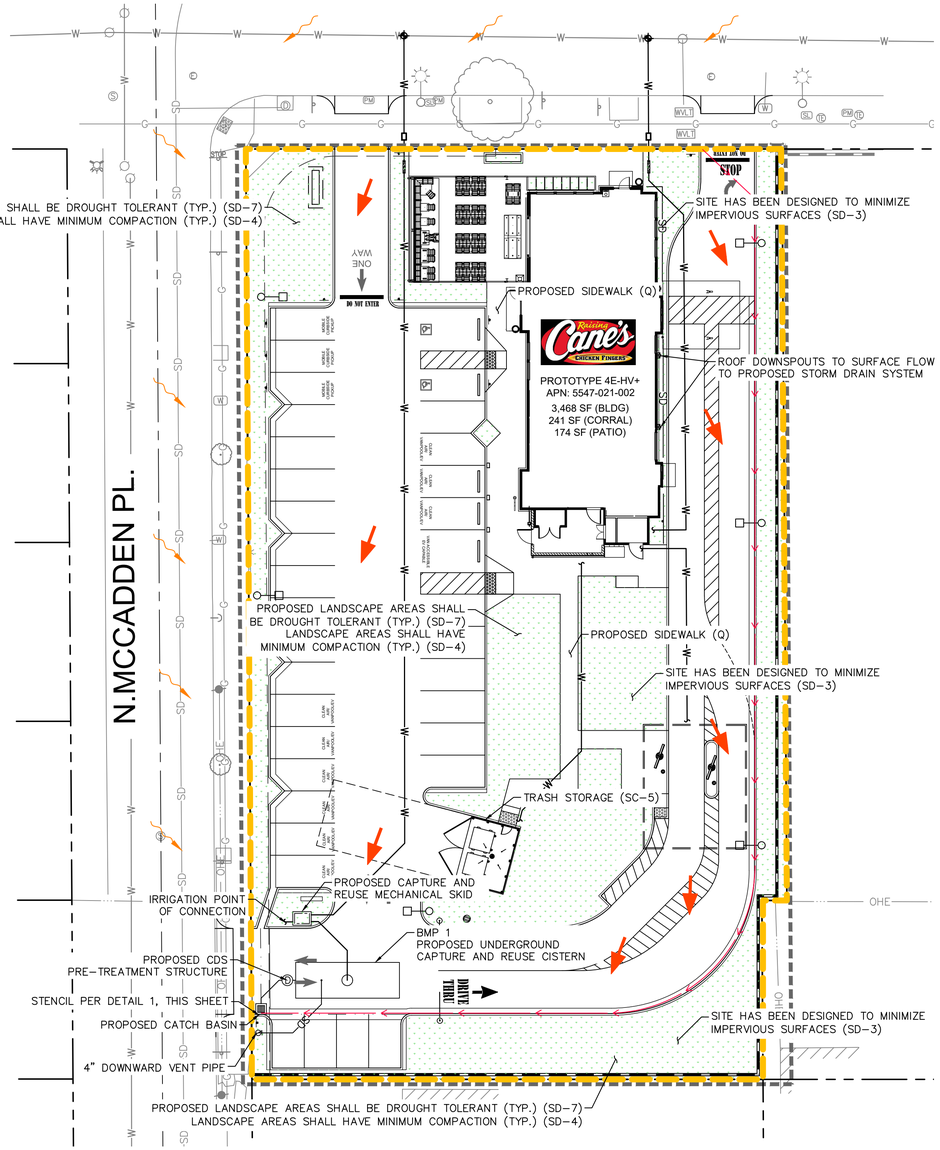
Raising Cane's Chicken Fingers
6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

GRADING AND DRAINAGE PLAN

C6.0

Drawing name: K:\ORA_LDEV\raising cane's\094797107 - hollywood (sunset and highland) 624\CADD\plansheets\C6.0 - GRADING AND DRAINAGE PLAN.dwg C6.0 - GRADING AND DRAINAGE PLAN Feb 14, 2022 2:11pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



LEGEND

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE / LEASE LINE
- EASEMENT LINE / SETBACK LINE
- SD — EXISTING STORM DRAIN LINE
- SD — PROPOSED STORM DRAIN LINE
- GB — GRADE BREAK LINE
- R — RIDGE LINE
- LONGEST PROPOSED FLOW PATH
- DENOTES DRAINAGE AREA BOUNDARY
- LANDSCAPE/PLANTER AREA
- 715.50 TC / 715.00 FS — PROPOSED SPOT ELEVATION
- (715.50 TC) / (715.00 FS) — EXISTING SPOT ELEVATION
- PROPOSED SURFACE FLOW DIRECTION
- PROPOSED STORM DRAIN PIPE FLOW DIRECTION
- EXISTING SURFACE FLOW DIRECTION

SOURCE CONTROL BMPS	
BMP ID	BMP DESCIRPTION
SC-1	PREVENT ILLICIT DISCHARGE INTO MS4 → ALL LANDSCAPE AREAS (TYP.)
SC-2	STORM DRAIN STENCILING AND SIGNAGE → ALL SD GRATED INLETS, CURB CUTS (TYP.)
SC-5	TRASH AND STORAGE AREAS
SC-6	ADDITIONAL BMPS BASED ON POTENTIAL SOURCES OF RUNOFF POLLUTANTS
A.	ON-SITE STORM DRAIN INLETS
D.	NEED FOR FUTURE INDOOR AND SOURCE CONTROL
E.	LANDSCAPE / OUTDOOR PESTICIDE USE
G.	FOOD PREPARATION AND / OR SERVICE
H.	REFUSE / TRASH COLLECTION AREAS
O.	FIRE SPRINKLER TEST WATER AND RELIEF POINT
P.	MISCELLANEOUS DRAIN OR WASH DOWN AREAS
Q.	PLAZA, SIDEWALKS, PARKING LOTS

SITE DESIGN BMPS	
BMP ID	BMP DESCIRPTION
SD-2	CONSERVE NATURAL AREAS, SOILS, AND VEGETATION
SD-3	MINIMIZE IMPERVIOUS AREAS
SD-4	MINIMIZE SOIL COMPACTION
SD-7	LANDSCAPING WITH NATIVE OR DROUGHT TOLERANT LANDSCAPING.

6" CURB ADJACENT TO DROP INLET

NO DUMPING DRAINS TO OCEAN

AT DROP INLET

3" MINIMUM HIGH BLACK LETTERING

STENCIL DETAIL (1)
N.T.S.

NOTE

1. ANY CHANGES (TYPE, SIZE, LOCATION) TO APPROVED STORMWATER BEST MANAGEMENT PRACTICE (BMPS) MUST OBTAIN WRITTEN APPROVAL FROM LOS ANGELES DEPARTEMENT OF PUBLIC WORKS BUREAU OF SANITATION PRIOT TO CONSTRUCTION OF BMP(S).
2. REFER TO LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH PLAN REVIEW REPORT FOR INSTALLATION OF RAINWATER CATCHMENT AND IRRIGATION SYSTEM

LID BMP'S

DMA #	BMP ID#	TOTAL DRAINAGE AREA (SF)	PERVIOUS AREA (SF)	IMPERVIOUS AREA (SF)	SWQDv (CF)	SWQDf (cfs)	BMP PROVIDED	BMP VOLUME PROVIDED (CF)	LATITUDE	LONGITUDE
1	BMP-1	38,609	11,017	27,592	2140	0.1807	CAPTURE AND REUSE CISTERN		34.0972	-118.3379

CAPTURE AND USE FEASIBLITY

V(BMP), CF	2,140
V (BMP), GAL	16,007
PERVIOUS AREA, SF	11,017
PLANTING FACTOR	0.30
FACTORED PLANTING AREA, SF	3,305
ETWU (7-MONTH), GAL	44,467
ETWU (7-MONTH) > V(BMP)	FEASIBLE

Low Impact Development (LID)
Post Construction Stormwater Mitigation
Best Management Practices (BMPs)

STORMWATER BMP(s) VERIFICATION

Upon installation of the approved stormwater BMPs, a Stormwater Observation Report (SOR) Form shall be submitted to Department of Public Works, Bureau of Sanitation. 201 N. Figueroa, 3rd floor, station 18. The SOR Form must be with filed and approved by the Bureau of Sanitation prior to the issuance of a Certificate of Occupancy.

Project Address: 6726 Sunset Blvd, Los Angeles, CA

RESIDENTIAL (4 UNITS OR LESS, <10,000SF, < 2,500 SF within a ESA)

Item #	Stormwater BMP	Description (Units, total)	Reference Sheet(s)* (Sheet #)
1	Rain Tank(s) – 55 to 130 gal each	N/A	N/A
2	Rain Tank(s) – > 130 gal min	N/A	N/A
3	Shade Tree - min 15 gal	N/A	N/A
4	Flow thru Planter(s)	N/A	N/A
5	Permeable pavers / Porous concrete (min 10% open space)	☐ Incidental; N/A total SF ☐ Infiltration; N/A total SF	N/A
6	Rain Garden	☐ #____ - Lined; N/A total SF ☐ #____ - Unlined; N/A total SF	N/A
7	Dry Well	N/A	N/A
8	SUMP Pump (modification was not required)	N/A	N/A

ALL OTHER DEVELOPMENT
(Residential: 5 ≥ units, 10,000 ≥ SF, within a ESA and ≥2,500SF)

	Item #	Stormwater BMP	Description (Units, total)	Reference Sheet(s)* (Sheet #)
Infiltration	1	Infiltration Basin / Trench	N/A	N/A
	2	Dry Well	N/A	N/A
	3	Permeable pavers / Porous concrete (min 10% open space)	☐ Incidental; N/A total SF ☐ Infiltration; N/A total SF	N/A
Capture & Use	4	Rain Tank(s) – 530 gal min	N/A	N/A
	5	Cistern	☐ Above Grade ☒ Below Grade (1) CISTERN	C6.0, C6.1, C6.2, C8.1, C8.2
Treat & Discharge	6	Flow thru Planter(s)	N/A	
	7	Biofiltration	☐ # N/A - Lined; N/A total SF ☐ # N/A - Unlined; N/A total SF	N/A
	8	Vegetative Swale / Filter Strip	N/A	N/A
	9	Catch Basin Filter(s)	N/A	N/A
	10	Trench Drain Filter(s)	N/A	N/A
	11	Down Spout Filter(s)	N/A	N/A
	12	SUMP Pump (modification was not required)	(1) SUMP PUMP	C6.0, C6.1, C6.2, C8.1, C8.2

* At a minimum: Site Plan, Architectural Elevations, Roof Plan, Civil Sheets and Detail

STORMWATER OBSERVATION REPORT FORM

(Residential ≥ 5 units & All other Development)

LOW IMPACT DEVELOPMENT

IN THE EVENT THAT THE APPROVED STORMWATER BMP CANNOT BE BUILT PER PLANS (OR ANY MODIFICATION), CONSULT WITH BUREAU OF SANITATION STAFF PRIOR TO ANY PLAN MODIFICATIONS. FAILURE TO DO SO MAY DELAY OBTAINING A FINAL APPROVAL AND CERTIFICATE OF OCCUPANCY (C OF O).

STORMWATER OBSERVATION *means the visual observation of the stormwater related Best Management Practices (BMPs) for conformance with the approved LID Plan at significant construction stages and at completion of the project. Stormwater observation does not include or waive the responsibility for the inspections required by Section 108 or other sections of the City of Los Angeles Building Code.*

STORMWATER OBSERVATION *must be performed by the engineer or architect responsible for the approved LID Plan or designated staff in their employment.* ***As part of the observation, provide photos of the BMPs taken during various construction phases.***

STORMWATER OBSERVATION REPORT *must be signed and stamped (see below) by the engineer or architect responsible for the approved LID Plan and submitted to the city prior to the issuance to the certificate of occupancy.* ***PRIOR TO CERTIFICATE OF OCCUPANCY (C of O), SOR FORM, PRINTED PHOTOS OF THE BMPS TAKEN DURING VARIOUS CONSTRUCTION PHASES AND APPROVED STAMPED PLANS BY THE BUREAU OF SANITATION MUST BE SUBMITTED TO THE PUBLIC COUNTER FOR STAFF APPROVAL.***

Project Address: 6726 Sunset Blvd Los Angeles, CA	Building Permit No.:
Name of Engineer/Architect responsible for the approved LID Plan: Hannah Smith, P.E.	Phone Number: 714-939-1030

List all BMPs installed as part of the project: Coordinates of the most significant (or typical) BMPs:

BMP Type: Capture and Reuse # of units: 1 Lat: 34.097195 ; Long: -118.337847 *Ex: Lat: 34.04152; Long: -118.25962 (5 sig digits)*	BMP Type: Contech CDS Pre-treatment Unit # of units: 1 Lat: 34.097195 ; Long: -118.337847
BMP Type:_____ # of units: ____ Lat: _____ ; Long:_____	BMP Type:_____ # of units: ____ Lat: _____ ; Long:_____

I DECLARE THAT THE FOLLOWING STATEMENTS ARE TRUE TO THE BEST OF MY KNOWLEDGE:

1. I am the engineer or architect responsible for the approved LID Plan, and;
2. I, or designated staff under my responsible charge, has preformed the required site visits at each significant construction stage and at the completion to verify that the Best Management Practices (BMPs) as shown on approved plans have been constructed and installed in accordance with the approved LID Plan.

Signature 1/17/21 Date

REGISTERED PROFESSIONAL ENGINEER HANNAH M. SMITH RCE NO. 90371 CIVIL STATE OF CALIFORNIA

Wet Stamp of Engineer or Architect

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40
1" = 20'
WHEN PRINTED AT FULL SIZE (24" X 36")

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

DRAWN BY JC
CHECKED BY HS
RECOMMENDED HS

ENGINEERS SEAL — REGISTERED PROFESSIONAL ENGINEER HANNAH M. SMITH RCE NO. 90371 CIVIL STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125
PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: 2/14/2022 EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER DATE
RCE # _____ EXP _____

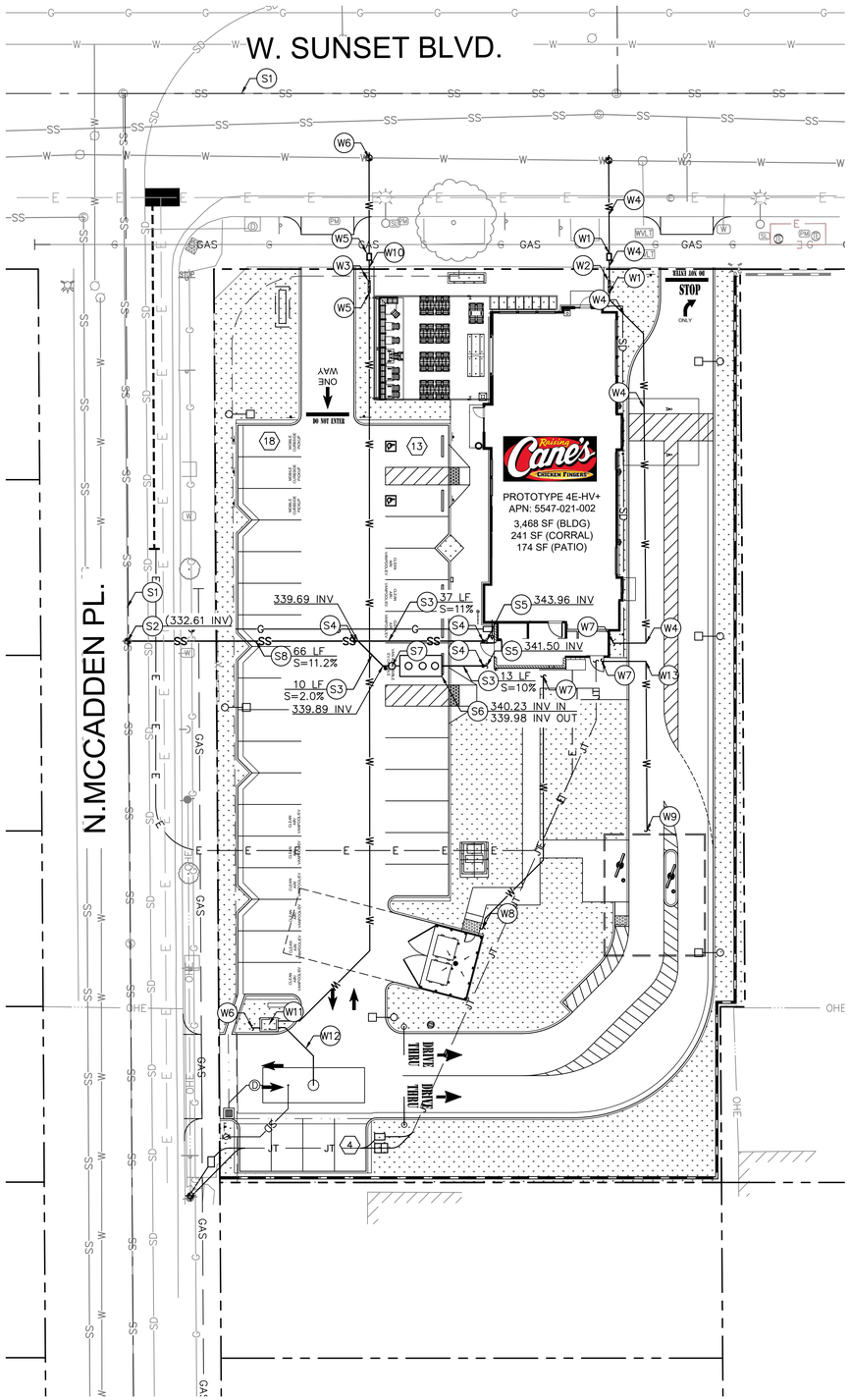
6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

DRAINAGE AREA MAP

C6.1

Drawing name: K:\ORA_LDEV\raising cane's\094797107 – hollywood (sunset and highland) 624\CADD\plansheets\C6.2 – DRAINAGE AREA MAP.dwg C6.2 – DRAINAGE AREA MAP Feb 14, 2022 2:12pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



TITLE REPORT EXCEPTIONS

(3) MATTERS CONTAINED IN A DOCUMENT RECORDED APRIL 7, 1980 AS INSTRUMENT NO. 80-3439962 OF OFFICIAL RECORDS. BLANKET IN NATURE.

(8) MATTERS CONTAINED IN A DOCUMENT RECORDED DECEMBER 20, 2006 AS INSTRUMENT NO. 06-2837146 OF OFFICIAL RECORDS. (SEE SHEET 2).

(10) IRREVOCABLE OFFER TO DEDICATE A PORTION OF THE PROPERTY FOR FUTURE STREET OR HIGHWAY PURPOSES, RECORDED DECEMBER 29, 2006 AS INSTRUMENT NO. 06-2903331 OF OFFICIAL RECORDS. PLOTTED HEREON.

DOMESTIC WATER CONSTRUCTION NOTES

(W1) INSTALL 2" DOMESTIC WATER METER AND 2" PVC SCH. 80 WATER LINE. PIPE BEDDING AND TRENCHING PER DETAIL 3, SHEET C8.1

(W2) INSTALL 2" DOMESTIC WATER BACKFLOW PREVENTER (FEBCO 825Y OR APPROVED EQUAL) WITH CAGE.

(W3) INSTALL 1" IRRIGATION WATER BACKFLOW PREVENTER (FEBCO 825Y OR APPROVED EQUAL) WITH CAGE.

(W4) INSTALL 2" PVC SCH. 80 WATER LINE. PIPE BEDDING AND TRENCHING PER DETAIL 3, SHEET C8.1

(W5) CONNECT TO EXISTING 8" AC WATER MAIN AND INSTALL 1" IRRIGATION WATER METER AND 1" PVC SCH. 80 IRRIGATION WATER LINE. PIPE BEDDING AND TRENCHING PER DETAIL 3, SHEET C8.1

(W6) IRRIGATION POINT OF CONNECTION. REFER TO LANDSCAPE PLANS FOR CONTINUATION.

(W7) BUILDING POINT OF CONNECTION (5-FT FROM BUILDING FACE). REFER TO SHEET P1.1 PLUMBING PLANS FOR CONTINUATION.

(W8) INSTALL 3/4" HOT / COLD WATER TO HOSE BIB IN TRASH ENCLOSURE. REFER TO PLUMBING PLANS FOR MORE INFORMATION. PIPE BEDDING AND TRENCHING PER DETAIL 3, SHEET C8.1

(W9) HOT/COLD WATER LINE CONNECTION TO DRIVE-THRU CANOPY. REFER TO PLUMBING PLAN SHEET P1.0 FOR CONTINUATION

(W10) INSTALL 1" PVC SCH. 80 IRRIGATION WATER LINE. PIPE BEDDING AND TRENCHING PER DETAIL 3, SHEET C8.1

(W11) INSTALL CONTECH MECHANICAL SKID SYSTEM PER DETAIL 5, SHEET C8.1

(W12) CONNECT TO SUBMERSIBLE PUMP IN URBANGREEN RAINWATER CISTER. REFER TO DETAIL 5, SHEET C8.1 FOR MORE INFORMATION.

(W13) INSTALL 3/4" PVC LINE TO DRIVE-THRU CANOPY. REFER TO PLUMBING PLAN SHEET P1.0 FOR CONTINUATION

SANITARY SEWER CONSTRUCTION NOTES

(S1) EXISTING 8" SEWER MAIN TO REMAIN.

(S2) CONNECT TO EXISTING 8" SEWER MAIN WYE. CONTRACTOR TO POTHOLE AND VERIFY LOCATION OF EXISTING WYE PRIOR TO TRENCHING AND SEWER INSTALLATION. IF DISCREPANCIES ARE FOUND, NOTIFY ENGINEER FOR FURTHER DIRECTION. CONTRACTOR TO SCOPE EXISTING LINE TO VERIFY CONDITION PRIOR TO TRENCHING AND SEWER INSTALLATION.

(S3) INSTALL 4" SDR-35 PVC SEWER PIPE AT MINIMUM 2% SLOPE. PIPE BEDDING AND TRENCHING PER DETAIL 1, SHEET C8.1

(S4) INSTALL SEWER CLEANOUT PER DETAIL 14, SHEET C8.0.

(S5) BUILDING POINT OF CONNECTION. REFER TO PLUMBING SHEET P1.2 FOR CONTINUATION.

(S6) INSTALL JENSEN PRECAST 1500 GAL. GREASE INTERCEPTOR. REFER TO PLUMBING SHEET P4.1 FOR MORE INFORMATION.

(S7) INSTALL JENSEN PRECAST SAMPLE BOX. REFER TO PLUMBING SHEET P4.1 FOR MORE INFORMATION.

(S8) INSTALL 6" SDR-35 PVC SEWER PIPE AT MINIMUM 2% SLOPE. PIPE BEDDING AND TRENCHING PER DETAIL 1, SHEET C8.1

LEGEND

	CENTER LINE
	PROPERTY LINE
	RIGHT OF WAY / LEASE LINE
	EASEMENT LINE / SETBACK LINE
	APPROXIMATE LIMIT OF WORK LINE
W	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER LINE
G	EXISTING GAS LINE
E	EXISTING UNDERGROUND ELECTRICAL LINE
T	EXISTING UNDERGROUND TELECOMMUNICATIONS LINE
SD	EXISTING STORM DRAIN LINE
W	PROPOSED WATER LINE
FW	PROPOSED FIRE WATER LINE
SS	PROPOSED SANITARY SEWER LINE
E	PROPOSED ELECTRICAL CONDUIT
	PROPOSED SITE ELECTRICAL CONDUIT
IRR	PROPOSED IRRIGATION ELECTRICAL CONDUIT
T	PROPOSED TELECOMMUNICATIONS CONDUIT
G	PROPOSED GAS LINE
GW	PROPOSED GREASE WASTE LINE
SD	PROPOSED STORM DRAIN LINE

GENERAL NOTES

1. THE EXISTING UTILITIES SHOWN ON THE PLAN ARE BASED ON AVAILABLE RECORDS. A TOPOGRAPHICAL AND UNDERGROUND SURVEY WILL BE REQUIRED TO DETERMINE THE FINAL LOCATION OF ALL EXISTING AND PROPOSED UTILITY ROUTINGS.

2. COORDINATION WITH UTILITY PURVEYORS WILL BE REQUIRED TO DETERMINE FINAL LOCATION OF ALL PROPOSED CONNECTIONS TO PUBLIC MAIN LINES.

3. ALL DRY AND WET UTILITY CROSSING SHALL HAVE MIN. 12" VERTICAL CLEARANCE.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40
1" = 20'
WHEN PRINTED AT FULL SIZE
(24" X 36")

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

DRAWN BY: JC
CHECKED BY: HS
RECOMMENDED: HS

ENGINEERS SEAL: REGISTERED PROFESSIONAL ENGINEER HANNAH M. SMITH NO. 90371 CIVIL STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125

PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: 2/14/2022 EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER RCE # _____ EXP _____ DATE

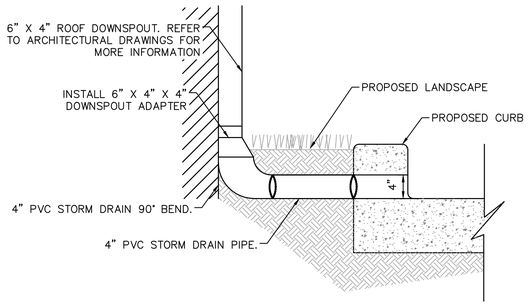
Raising Cane's Chicken Fingers
6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES

UTILITY PLAN

C7.0

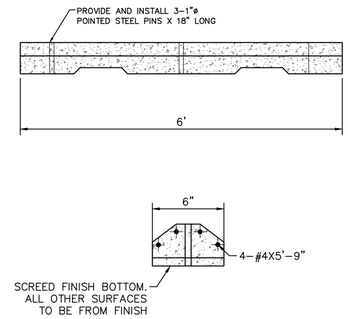
Drawing name: K:\ORA_LDEV\raising cane's\094797107 - hollywood (sunset and highland) 624\CADD\plansheets\C7.0 - UTILITY PLAN.dwg C7.0 - UTILITY PLAN Feb 14, 2022 2:12pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



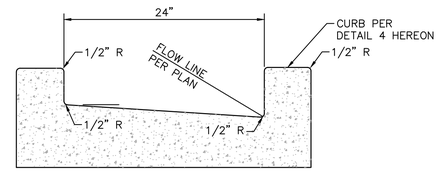
NOTES:

1. REFER TO IRRIGATION PLANS FOR ADDITIONAL WEEP HOLE LOCATIONS.

ROOF DOWNSPOUT TO PIPE DETAIL (16)
N.T.S.



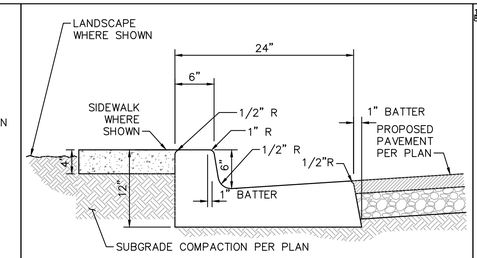
6' WIDE PRECAST WHEEL STOP (13)
N.T.S.



NOTES:

1. CONCRETE SHALL BE 2500 PSI.
2. ISOLATION JOINTS SHALL BE PLACED ONLY AS SPECIFIED
3. CONTRACTION JOINTS CONSISTING OF 1" DEEP SCORES SHALL BE PLACED AT 15' INTERVALS O.C.
4. WHERE A WALK IS ADJACENT TO THE CURB THE JOINTS SHALL ALIGN WITH JOINTS IN THE WALK.

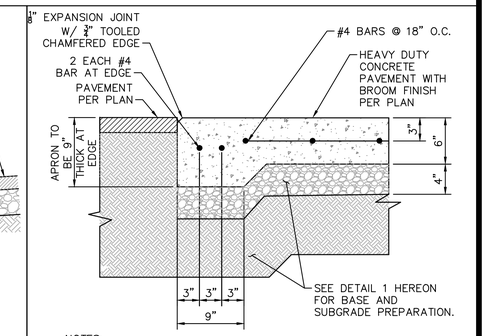
CONCRETE CHANNEL GUTTER (10)
N.T.S.



NOTES:

1. CONCRETE SHALL BE 2500 PSI.
2. ISOLATION JOINTS SHALL BE PLACED ONLY AS SPECIFIED
3. CONTRACTION JOINTS CONSISTING OF 1" DEEP SCORES SHALL BE PLACED AT 15' INTERVALS O.C.
4. WHERE A WALK IS ADJACENT TO THE CURB THE JOINTS SHALL ALIGN WITH JOINTS IN THE WALK.

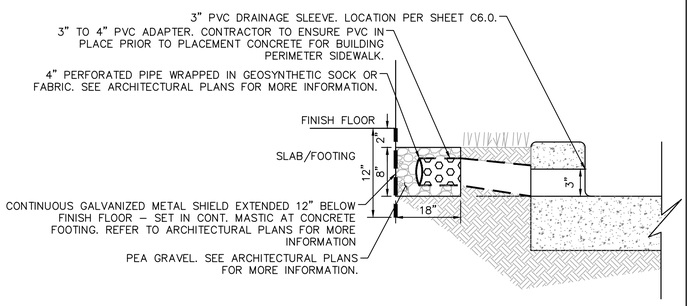
CONCRETE CURB & GUTTER (6)
N.T.S.



NOTES:

1. SEE DETAIL 1 HEREON FOR ADDITIONAL INFORMATION.
2. ISOLATION JOINTS, CONSTRUCTION JOINTS, AND CONTROL JOINTS SHALL BE PLACED ONLY AS SPECIFIED

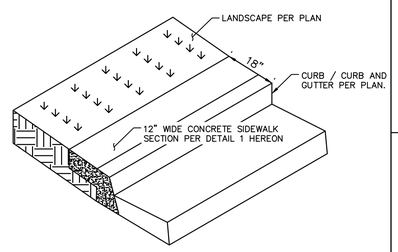
CONCRETE PAVEMENT AT DUMPSTER PAD (3)
N.T.S.



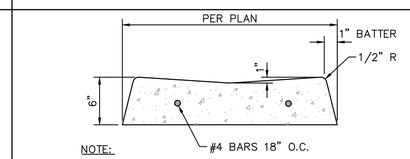
NOTES:

1. REFER TO IRRIGATION PLANS FOR ADDITIONAL WEEP HOLE LOCATIONS.

DRAINAGE SLEEVE DETAIL (15)
N.T.S.



18" WALK-OFF CURB DETAIL (12)
N.T.S.



NOTE:

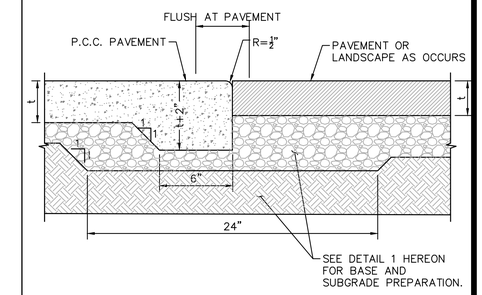
CONCRETE SHALL BE 3000 PSI.

VALLEY GUTTER (9)
N.T.S.

NOTE:
PAINT SHALL BE APPLIED AT A THICKNESS OF 22 WET MILS AND 15 DRY MILS.

DO NOT ENTER / ONE WAY BAR STRIPING (8)
N.T.S.

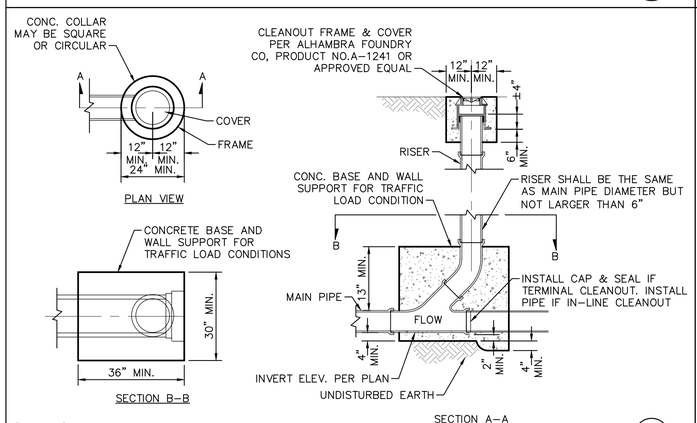
NOT USED (5)
N.T.S.



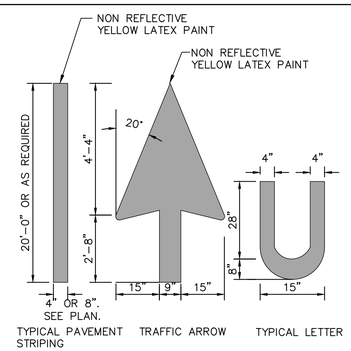
NOTES:

1. APPROVED BONDING AGENT SHALL BE APPLIED AT CONSTRUCTION JOINT.
2. SEE DETAIL 1 FOR PAVEMENT SECTION AND THICKNESS (t).
3. DETAIL APPLIES AT ALL SIDEWALK EDGE CONDITIONS AND PAVEMENT TRANSITIONS

THICKENED EDGE (2)
N.T.S.

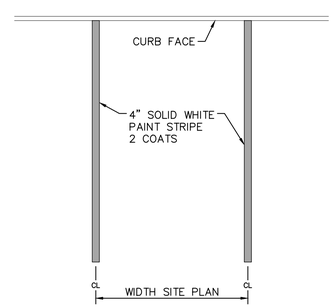


CLEANOUT DETAIL (14)
N.T.S.

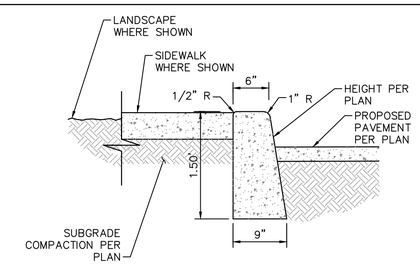


NOTE:
PAINT SHALL BE APPLIED AT A THICKNESS OF 22 WET MILS AND 15 DRY MILS.

TYPICAL PAVEMENT MARKINGS (11)
N.T.S.



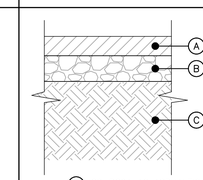
STANDARD 90° PARKING STALL STRIPING (7)
N.T.S.



NOTES:

1. CONCRETE SHALL BE 2500 PSI.
2. ISOLATION JOINTS SHALL BE PLACED ONLY AS SPECIFIED
3. CONTRACTION JOINTS CONSISTING OF 1" DEEP SCORES SHALL BE PLACED AT 15' INTERVALS O.C.
4. WHERE A WALK IS ADJACENT TO THE CURB THE JOINTS SHALL ALIGN WITH JOINTS IN THE WALK.

CONCRETE CURB (4)
N.T.S.



NOTES:

1. CONTRACTOR SHALL CONFIRM THESE PAVEMENT SECTIONS WITH THE GEOTECHNICAL REPORT BY TERRACON, DECEMBER 8, 2020.
2. MATCH EXISTING PAVEMENT SECTION IF MORE STRINGENT THAN SECTION PER THIS DETAIL.
3. CONTRACTOR TO PROVIDE R–VALUE OF COMPACTED SUBGRADE TO ENGINEER PRIOR TO PAVEMENT OPERATIONS, IN ORDER TO MAKE ANY NECESSARY ADJUSTMENTS TO THE PAVEMENT SECTION.
4. ALL TREAD SURFACES SHALL BE SLIP–RESISTANT.
5. REFER TO ARCHITECTURAL PLANS FOR COLOR, TEXTURE, PATTERN AND FINISH.
6. SEE DETAIL 2 FOR THICKENED EDGE DETAIL AT ALL EDGE CONDITIONS.

(A) C2–PG64–10 ASPHALTIC PAVEMENT, 3,500 PSI HEAVY DUTY PORTLAND CEMENT CONCRETE OR 2,500 PSI STANDARD DUTY TYPE 1 PORTLAND CEMENT

(B) CLASS II CRUSHED MISCELLANEOUS BASE COMPACTED TO 95% MAXIMUM DRY DENSITY BASED ON ASTM D1557–07 TEST METHOD OR CLASS 2 AGGREGATE BASE COMPACTED TO 95% OF THE MATERIAL'S ASTM D–1557 MAXIMUM DRY DENSITY.

(C) SUBGRADE SCARIFIED AND RECOMPACTED TO 95% MAXIMUM DRY DENSITY BASED ON ASTM D1557–07 TEST METHOD

	HEAVY DUTY ASPHALT CONCRETE PAVEMENT	STANDARD DUTY SIDEWALK CONCRETE	HEAVY DUTY CONCRETE PAVEMENT
(A)	0'–3"	0'–4"	0'–6"
(B)	0'–10"	0'–0"	0'–4"
(C)	0'–10"	0'–10"	0'–10"

PAVEMENT SECTIONS (1)
N.T.S.

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

DRAWN BY: JC
CHECKED BY: HS
RECOMMENDED: HS

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125
PREPARED UNDER THE DIRECT SUPERVISION OF:
HANNAH SMITH, R.C.E. NO. 90371 DATE: EXP. 12/31/2022

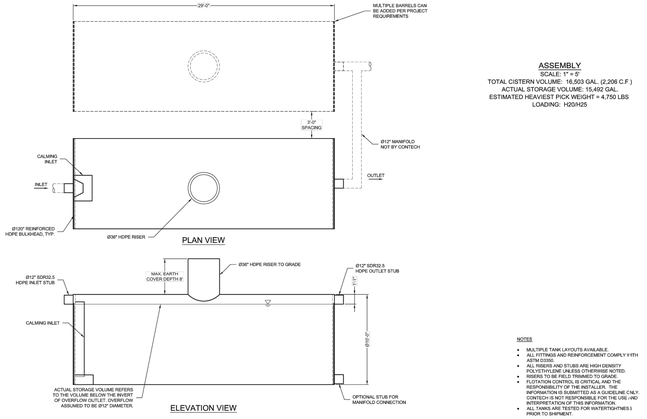
CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER RCE # _____ EXP _____ DATE

Raising Cane's Chicken Fingers
6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES
CONSTRUCTION DETAILS

C8.0

Drawing name: K:\ORA_LDEV\raising cane's\094797107 – hollywood (sunset and highland) 624\CADD\plansheets\C8.0 – CONSTRUCTION DETAILS.dwg C8.0 – CONSTRUCTION DETAILS Feb 14, 2022 2:12pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



ASSEMBLY
SCALE: 1" = 8'
TOTAL CISTERN VOLUME: 16,503 GAL. (2,206 C.F.)
ACTUAL STORAGE VOLUME: 15,492 GAL.
ESTIMATED HEAVIEST PICK WEIGHT = 4,750 LBS
LOADING: H20/HS25

NOTES

- MULTIPLE TANK LAYOUTS AVAILABLE.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM D3350.
- ALL FITTINGS AND STUBS ARE HIGH DENSITY POLYETHYLENE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- FLOTATION CONTROL IS CRITICAL AND THE RESPONSIBILITY OF THE INSTALLER. THE INSTALLED SYSTEM MUST BE ANCHORED BY OTHERS. CONTECH® IS NOT RESPONSIBLE FOR THE USE AND INTERPRETATION OF THIS INFORMATION.
- ALL TANKS ARE TESTED FOR WATERTIGHTNESS PRIOR TO SHIPMENT.

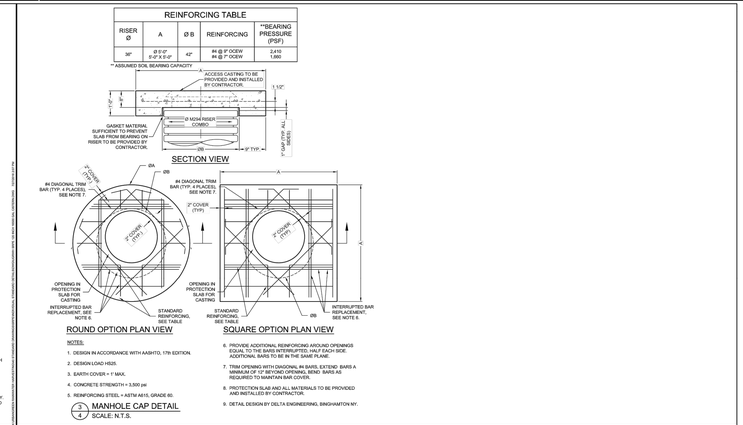
MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 LEBON FORKS LN., MARK MILL PARK LEBANON, OR 97355
800-338-1122 513-645-7000 513-645-7993 FAX

URBANGREEN

Ø120" URBANGREEN RWH SRPE CISTERN
Ø120" X 29' LONG
10,500 GAL

PROJECT No. | DES. No. | DATE 2/10/16
DRAWN DRA | CHECKED ASB
APPROVED | SHEET No. 1 OF 4



NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MIN.
4. CONCRETE STRENGTH = 3,500 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING. BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON NY.

2 MANHOLE CAP DETAIL
4 SCALE: N.T.S.

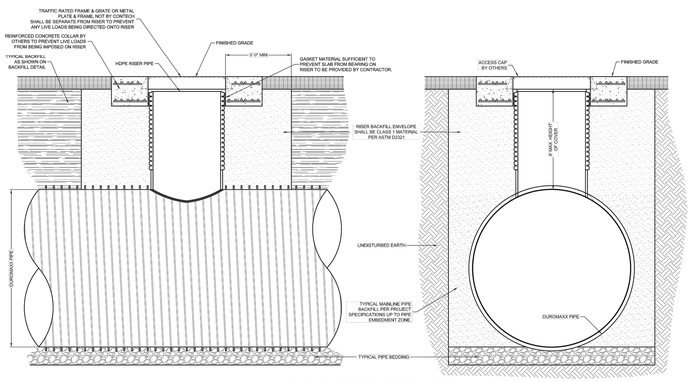
MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
11815 NE Glenn Widing Drive, Portland, OR 97220
800-548-4667 503-240-3365 800-661-1271 FAX

URBANGREEN

Ø120" URBANGREEN RWH SRPE CISTERN
Ø120" X 29' LONG
16,500 GAL

PROJECT No. | DES. No. | DATE 2/10/16
DRAWN DRA | CHECKED ASB
APPROVED | SHEET No. 4 OF 4



2 STANDARD RISER INSTALLATION DETAIL
3 SCALE: N.T.S.

MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
1475 N.E. Glenn Widing Drive, Portland, OR 97220
800-548-4667 503-240-3365 800-661-1271 FAX

URBANGREEN

Ø120" URBANGREEN RWH SRPE CISTERN
Ø120" X 29' LONG
16,500 GAL

PROJECT No. | DES. No. | DATE 2/10/16
DRAWN DRA | CHECKED ASB
APPROVED | SHEET No. 3 OF 4

SPECIFICATION FOR STEEL REINFORCED POLYETHYLENE PIPE.

SCOPE

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE STEEL REINFORCED POLYETHYLENE PIPE DETAILED IN THE PROJECT PLANS.

DESCRIPTION
DUROMAXX® IS A REINFORCED POLYETHYLENE PIPE WITH A CORRUGATED EXTERIOR AND SMOOTH INTERIOR. THE PIPE IS REINFORCED WITH HIGH STRENGTH GALVANIZED STEEL RIBS. THE CONTINUOUS REINFORCING RIBS ARE COMPLETELY ENCAPSULATED WITHIN THE POLYETHYLENE PROFILE. DUROMAXX IS MANUFACTURED USING A PATENTED, KINKLESS PROCESS THAT INSTALLS THE REINFORCING RIBS HELICALLY IN CIRCUMFERENTIAL LAP SEAM. THE RIBS PROFILE IS MANUFACTURED USING A HIGH QUALITY PRESSURE-RATED THERMOPLASTIC RESIN MEETING THE REQUIREMENTS OF ASTM F2562 "STANDARD SPECIFICATION FOR STEEL REINFORCED THERMOPLASTIC RIBBED PIPE AND FITTINGS FOR NON-PRESSURE DRAINAGE AND SEWERAGE". FOR THE PURPOSE OF HYDRAULIC DESIGN, THE RECOMMENDED MANNINGS "n" VALUE IS 0.013. PIPE DIMENSIONS ARE GENERALLY IN ACCORDANCE WITH THIS SPECIFICATION. PIPE LENGTH (LAY), DIMENSIONS SHOWN ARE SUBJECT TO MANUFACTURERS TOLERANCES OF ±1% ACCORDING TO ASTM F2562.

MATERIAL PROPERTIES
VIRGIN HIGH DENSITY POLYETHYLENE PRESSURE-RATED RESINS ARE USED TO MANUFACTURE DUROMAXX PIPE. RESINS SHALL CONFORM TO ASTM D3350 "STANDARD SPECIFICATION FOR PLASTIC PIPE FITTINGS MATERIAL" CLASSIFICATION 345464 C AS DEFINED AND DESCRIBED IN THE LATEST VERSION OF ASTM D3350 "STANDARD SPECIFICATION FOR POLYETHYLENE PLASTICS PIPE AND FITTINGS MATERIALS".

FITTINGS
ALL FITTINGS SHALL BE FABRICATED FROM DUROMAXX PIPE. ANY FITTINGS 30"ID AND BELOW WILL BE HDPE PIPE.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

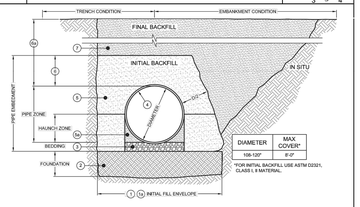
INSTALLATION
PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 "PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS" ALONG WITH PRODUCT SPECIFIC RECOMMENDATIONS CONTAINED IN CONTECH® INSTALLATION GUIDELINES FOR DUROMAXX PIPE.

INSTALLATION

PRE-CONSTRUCTION MEETING
PRIOR TO INSTALLATION OF THE DRAINAGE SYSTEM A PRE-CONSTRUCTION MEETING SHALL BE CONVENED. THOSE REQUIRED TO ATTEND ARE THE SUPPLIER OF THE DRAINAGE SYSTEM, THE GENERAL CONTRACTOR, SUB CONTRACTORS AND THE ENGINEER.

INSTALLATION OF PIPE:
IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND/OR PROJECT ENGINEER TO ENSURE THAT ALL QUESTIONS ABOUT INSTALLATION ARE ANSWERED PRIOR TO INSTALLATION. INSTALLATION MUST COMPLY WITH ALL REQUIREMENTS IN THIS DRAWING PACKAGE ANY QUESTIONS CONCERNING THESE STANDARD DETAILS CAN BE ADDRESSED BY YOUR CONTECH® REPRESENTATIVE PRIOR TO APPROVAL.

BACKFILL SHALL BE PLACED TO THE PROPER ELEVATION OVER THE SYSTEM AS OUTLINED IN THE PLANS. MINIMUM COVER FOR CONSTRUCTION LOADING NEEDS TO BE DETERMINED BASED ON THE TYPE OF EQUIPMENT TO BE USED DURING CONSTRUCTION. PROPER COVER FOR CONSTRUCTION EQUIPMENT SHALL BE DETERMINED PRIOR TO THE PRE-CONSTRUCTION MEETING BY THE ENGINEER.



*FOR INITIAL BACKFILL USE ASTM D2321, CLASS I, II MATERIAL.

1. MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER PIPE. MIN. WIDTH = (1.25 x DIAMETER) + 12" (FOLLOW ASTM D2321)
1a. MINIMUM EMBANKMENT WIDTH IS 3 PIPE DIAMETERS.
2. FOUNDATION SHALL BE WELL CONSOLIDATED & STABLE.
3. BEDDING MATERIAL SHALL BE A RELATIVELY LOOSE MATERIAL THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE, 4" TO 8" IN DEPTH.
4. DUROMAXX STEEL REINFORCED (SRRE) PIPE.
5. INITIAL BACKFILL FOR PIPE EMBEDMENT MATERIAL TO MEET ASTM D2321 CLASS I OR APPROVED EQUAL, COMPACTED TO 90% STANDARD PROCTOR (NATIVE MATERIAL CAN BE UTILIZED THAT MEETS ASTM D2321 OR APPROVED EQUAL).
   - ALL LIFTS PLACED IN CONTROLLED MANNER TO PREVENT UNEVEN LOADING. IT IS RECOMMENDED THAT LIFTS NOT EXCEED 8" UNCOMPACTED LIFT HEIGHTS.
5a. HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION.
6. INITIAL BACKFILL ABOVE PIPE MAY INCLUDE ROAD BASE MATERIAL AND RIGID PAVEMENT. MINIMUM COVER STILL APPLIES, OTHERWISE: 18" MINIMUM FOR PIPE DIAMETERS 108" - 120"
6a. HEIGHT OF COMPACTED COVER PER DIAMETER FOR CONVENTIONAL HIGHWAY LOADS (DISTANCE MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT):
   36" MINIMUM FOR PIPE DIAMETERS 120"
7. FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS PER THE PROJECT PLANS, SPECIFICATIONS. ENGINEER OF RECORD.

NOTES:
- GEOTEXTILE SHALL BE USED AS REQUIRED TO PREVENT SOIL MIGRATION.
- PIPE ZONE = 24" ABOVE PIPE FOR PIPE DIAMETERS 24" AND SMALLER. PIPE ZONE = 12" ABOVE PIPE FOR PIPE DIAMETERS 30" AND LARGER. CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING.
- BACKFILL REQUIREMENTS SHALL FOLLOW ASTM D2321. IN THE EVENT OF DISCREPANCIES, ASTM D2321 SHALL SUPERCEDE THIS DETAIL.

1 BACKFILL DETAIL
5 SCALE: N.T.S.

MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
200 Enterprise Drive, Scarborough, ME 04074
877-607-8676 207-883-6603 207-883-6603 FAX

URBANGREEN

Ø120" URBANGREEN RWH SRPE CISTERN
Ø120" X 29' LONG
16,500 GAL

PROJECT No. | DES. No. | DATE 2/10/16
DRAWN DRA | CHECKED ASB
APPROVED | SHEET No. 2 OF 4

RAINWATER CISTERN DETAIL
N.T.S.
1

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
Grading Division

District | Log No. 119900

APPLICATION FOR REVIEW OF TECHNICAL REPORTS

INSTRUCTIONS
A. Address all communications to the Grading Division, LADBS, 221 N. Figueroa St., 12th Fl., Los Angeles, CA 90012 Telephone No. (213)482-0480.
B. Submit two copies (three for subdivisions) of reports, one "pdf" copy of the report on a CD-Rom or flash drive, and one copy of application with items "1" through "10" completed.
C. Check should be made to the City of Los Angeles.

1. LEGAL DESCRIPTION
Tract: Boyle Place
Block: None Lots: FR13, FR14, FR15, FR16
3. OWNER: Kristen Roberts - Raising Cane's
Address: 6800 Bishop Rd
City: Plano Zip: 75024
Phone (Daytime): 972-396-8409

2. PROJECT ADDRESS:
6726 W Sunset Blvd
4. APPLICANT Kevin Crosby
Address: 13400 Riverside Drive Suite 202
City: Sherman Oaks Zip: 91423
Phone (Daytime): 8185744739
E-mail address: KCROSBY@PERMITPLACE.COM

5. Report(s) Prepared by: Terracon Consultants, Inc.
6. Report Date(s): December 7, 2020
7. Status of project: ☐ Proposed ☐ Under Construction ☐ Storm Damage
8. Previous site reports? ☐ YES if yes, give date(s) of report(s) and name of company who prepared report(s)

9. Previous Department actions? ☐ YES if yes, provide dates and attach a copy to expedite processing.
Dates:
10. Applicant Signature: Position: Project Manager

(DEPARTMENT USE ONLY)

REVIEW REQUESTED	FEES	REVIEW REQUESTED	FEES
☐ Soils Engineering	1,108	No. of Lots	
☐ Geology	160	No. of Acres	
☐ Combined Soils Engr. & Geol.		☐ Division of Land	
☐ Supplemental		Other	
☐ Combined Supplemental		☐ Expedite	
☐ Import-Export Route		☐ Response to Correction	
Cubic Yards:		☐ Expedite ONLY	
		Sub-total	1,268
			1,268
		TOTAL FEE	1,268

Fee Due: 1,268
Fee Verified By: Date: 12.13.21
(Cashier Use Only)

City of Los Angeles Department of Building and Safety
Payment Receipt Report 12/15/2021 (09:05:31 AM)
User ID: cashi
Receipt Ref Nbr: 2021350001-62
Transaction ID: 2021350001-62-1
GRADING REPORT $363.00
SYSTEMS DEV SURCH $32.67
GEN PLAN MAINT SURCH $38.12
DEV SERV CENTER SURCH $16.04
CITY PLAN SURCH $32.67
PLAN APPROVAL FEE $181.50
MISC OTHER $10.00
Receipt Total $674.00
PCIS Number: N/A
Job Address: 6726 W SUNSET BLVD
Owners Name: KRISTEN ROBERTS - RAISING CANE'S

ACTION BY:
THE REPORT IS: ☐ NOT APPROVED
☐ APPROVED WITH CONDITIONS ☐ BELOW ☐ ATTACHED

For Geology Date
For Soils Date

PC-GRAD-App21 (Rev 01/03/2017) Page 1 of 1 www.ladbs.org

Page 4
6726 W Sunset Blvd. (aka 6730-6740 W Sunset Blvd, 1440-1456 N McCadden Pl.)

25. Prior to the placing of compacted fill, a representative of the soils engineer shall inspect and approve the bottom excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the soil inspected meets the conditions of the report. No fill shall be placed until the LADBS Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be included in the final compaction report filed with the Grading Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter shall be submitted to the Grading Division of the Department upon completion of the compaction. In addition, an Engineer's Certificate of Compliance with the legal description as indicated in the grading permit and the permit number shall be included (7011.3).

26. No footing/slab shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.

DAN L. STOICA
Geotechnical Engineer I

DLS/dls
Log No. 119900
213-482-0480

cc: Kevin Crosby, Applicant
Terracon Consultants, Inc., Project Consultant
LA District Office

CITY OF LOS ANGELES
CALIFORNIA

BOARD OF BUILDING AND SAFETY COMMISSIONERS

JAVIER NUNEZ
VICE PRESIDENT

JOSELYN GEAGA-ROSENTHAL
LAUREL GILLETTE
GEORGE HOVAGUIMIAN
ELVIN W. MOON

ERIC GARCETTI
MAYOR

DEPARTMENT OF BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

OSAMA YOUNAN, P.E.
GENERAL MANAGER
SUPERINTENDENT OF BUILDING

JOHN WEIGHT
EXECUTIVE OFFICER

SOILS REPORT APPROVAL LETTER

January 4, 2022

LOG # 119900
SOILS/GEOLOGY FILE - 2

Kristen Roberts - Raising Cane's
6800 Bishop Rd.
Plano, TX 75024

TRACT: BOYLE PLACE (M P 6-45)
LOT(S): FR 13 (Arb.1) / FR 13 (Arb.2) / FR 14 (Arb.1) / FR 14 (Arb.2) / FR 15 (Arb.1) / FR 15 (Arb.2) / FR 15 (Arb.3) / FR 16 (Arb.1) / FR 16 (Arb.2) / FR 16 (Arb.3) / 23 (Arb.1)
LOCATION: 6726 W Sunset Blvd. (aka 6730-6740 W Sunset Blvd, 1440-1456 N McCadden Pl.)

CURRENT REFERENCE REPORT/LETTER(S)	REPORT No.	DATE OF DOCUMENT	PREPARED BY
Geology/Soils Report	60205249	12/07/2020	Terracon Consultants, Inc.

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provides recommendations for the proposed single-story restaurant building.

The project site is relatively level and includes multiple lots. The earth materials at the subsurface exploration locations consist of up to 2.5 feet of uncertified fill underlain by native soils.

The consultants recommend to support the proposed structure on conventional foundations bearing on a blanket of properly placed fill.

The referenced report is acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis ( ) refer to applicable sections of the 2020 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. Retaining walls, although briefly discussed in the report, are not proposed and not approved at this time.

2. The soils engineer shall review and approve the detailed plans prior to issuance of any permit. This approval shall be by signature on the plans that clearly indicates the soils engineer has reviewed the plans prepared by the design engineer; and, that the plans included the recommendations contained in their reports (7006.1).

LADBS G-5 (Rev.12/6/2021) AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

Page 3
6726 W Sunset Blvd. (aka 6730-6740 W Sunset Blvd, 1440-1456 N McCadden Pl.)

14. All foundations shall derive entire support from a blanket of properly placed fill with a minimum thickness of 4 feet below ground surface or 2 feet below the bottom of the footing, as recommended (and approved by the geologist and soils engineer by inspection).

15. Footings supported on approved compacted fill shall be reinforced with a minimum of four (4), ½-inch diameter (#4) deformed reinforcing bars. Two (2) bars shall be placed near the bottom and two (2) bars placed near the top of the footing.

16. Slabs placed on approved compacted fill shall be at least 3½ inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 16 inches on center each way.

17. The seismic design shall be based on a Site Class D, as recommended. All other seismic design parameters shall be reviewed by LADBS building plan check. According to ASCE 7-16 Section 11.4.8, the long period coefficient (Fv) may be selected per Table 11.4-2 in ASCE 7-16, provided that the value of the Seismic Response Coefficient (Cs) is determined by Equation 12.8-2 for values of the fundamental period of the building (T) less than or equal to 1.5Ts, and taken as 1.5 times the value computed in accordance with either Equation 12.8-3 for T greater than 1.5Ts and less than or equal to TL or Equation 12.8-4 for T greater than TL. Alternatively, a supplemental report containing a site-specific ground motion hazard analysis in accordance with ASCE 7-16 Section 21.2 shall be submitted for review and approval.

18. The structure shall be connected to the public sewer system per P/BC 2020-027.

19. All roof, pad and deck drainage shall be conducted to the street in an acceptable manner in non-erosive devices or other approved location in a manner that is acceptable to the LADBS and the Department of Public Works (7013.10).

20. An on-site storm water infiltration system at the subject site shall not be implemented, as recommended.

21. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).

22. The soils engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading (7008, 1705.6 & 1705.8).

23. Prior to pouring concrete, a representative of the consulting soils engineer shall inspect and approve the footing excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the work inspected meets the conditions of the report. No concrete shall be poured until the LADBS Inspector has also inspected and approved the footing excavations. A written certification to this effect shall be filed with the Grading Division of the Department upon completion of the work. (108.9 & 7008.2)

24. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; protection fences; and, dust and traffic control will be scheduled (108.9.1).

Page 2
6726 W Sunset Blvd. (aka 6730-6740 W Sunset Blvd, 1440-1456 N McCadden Pl.)

3. All recommendations of the report that are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.

4. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans (7006.1). Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit.

5. A grading permit shall be obtained for all structural fill and retaining wall backfill (106.1.2).

6. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density. Placement of gravel in lieu of compacted fill is only allowed if complying with LAMC Section 91.7011.3.

7. If import soils are used, no footings shall be poured until the soils engineer has submitted a compaction report containing in-place shear test data and settlement data to the Grading Division of the Department; and, obtained approval (7008.2).

8. Compacted fill shall extend beyond the footings a minimum distance equal to the depth of the fill below the bottom of footings or a minimum of two feet whichever is greater. At locations where lateral over excavation is not possible (i.e., foundations adjacent to property lines or structures), the foundations shall be deepened to bear in native soils (7011.3).

9. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).

10. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).

11. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the General Safety Orders of the California Department of Industrial Relations (3301.1).

12. Excavations shall not remove lateral support from a public way, adjacent property or an existing structure. Note: Lateral support shall be considered to be removed when the excavation extends below a plane projected downward at an angle of 45 degrees from the bottom of a footing of an existing structure, from the edge of the public way or an adjacent property. (3307.3.1)

13. A supplemental report shall be submitted to the Grading Division of the Department containing recommendations for shoring, underpinning, and sequence of construction in the event that any excavation would remove lateral support to the public way, adjacent property, or adjacent structures (3307.3). A plot plan and cross-section(s) showing the construction type, number of stories, and location of the structures adjacent to the excavation shall be part of the excavation plans (7006.2).

811 Know what's below. Call before you dig.

ISSUE	DATE	DESCRIPTION
1	02/15/22	1ST BUILDING SUBMITTAL

DRAWN BY JC
HS
CHECKED BY HS
RECOMMENDED

Kimley»Horn
1100 W TOWN & COUNTRY RD, SUITE 700
ORANGE, CA 92868
(714)-786-6125
PREPARED UNDER THE DIRECT SUPERVISION OF:
DATE:
HANNAH SMITH, R.C.E. NO. 90371 EXP. 12/31/2022

CITY OF LOS ANGELES
APPROVED BY:
CITY ENGINEER DATE
RCE # EXP

Raising Cane's Chicken Fingers
6726 SUNSET BOULEVARD
LOS ANGELES, CA

CITY OF LOS ANGELES
CONSTRUCTION DETAILS

C8.1

Drawing name: K:\ORA_LDEV\raising cane's\094797107 - hollywood (sunset and highland) 624\CADD\plansheets\C8.0 - CONSTRUCTION DETAILS.dwg C8.1 - CONSTRUCTION DETAILS Feb 14, 2022 2:12pm by: Hannah.Smith
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.