1520 W. Cameron Ave., Suite 103 ◆ West Covina, CA 91790
Ph. 626-962-4436 ◆ Fx. 626-962-4437 ◆ www.globalenvirotraining.com

Combustion By-Product / Testing / Analysis

Jobsite:

CALIFORNIA STATE UNIVERSITY LOS ANGELES (CSULA)
STUDENT HOUSING PHASE 2
5151 STATE UNIVERSITY DR.
LOS ANGELES, CA 90032

Prepared For:

MS. BARBARA L. QUEEN
CALIFORNIA STATE UNIVERSITY LOS ANGELES (CSULA)
5151 STATE UNIVERSITY DR.
LOS ANGELES, CA 90032

January 15, 2025

PROJECT №. **E225-004**

Mario Virgen
President

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Barbara L. Queen
Planning, Design & Construction
California State University, Los Angeles (CSULA)
5151 University Dr.
Los Angeles, CA 90032

Re: Combustion By-Product Testing
California State University, Los Angeles (CSULA)
Student Housing Phase 2
5151 University Dr.
Los Angeles, CA 90032

GETC Project №. E225-004

Dear Ms. Queen,

Global Environmental Training & Consulting (GETC) performed Ambient Air Testing for Combustion By-Product (Char, Soot, & Ash) at the above referenced property. GETC has reviewed the results from the accredited laboratory and based on the samples taken on January 13, 2025, throughout Student Housing Phase 2, results have concluded that all areas identified are below the outside background sample for Combustion By-Products.

Thank you for choosing GETC as the consultant for this project. If you have any questions, or if we can be of service again in the future, please do not hesitate to contact our office at (626) 962-4436.

Respectfully submitted,

Global Environmental Training & Consulting, Inc.
Mario Virgen, I.H.
President

Enclosures

1.0 EXECUTIVE SUMMARY

1.1 GENERAL INFORMATION

Global Environmental Training and Consulting, Inc. (GETC) was retained by the California State University, Los Angeles (CSULA) to conduct Ambient Air Quality Testing for Combustion By-Products at Student Housing Phase 2 located at 5151 University Dr., in Los Angeles, California.

Carbon Black is a fine-grained solid residue that results from incomplete combustion of hydrocarbons. This testing is designed for analysis of fire residues for presence of analytes of interest (Char, Black Carbon/Soot, & Ash). The results of this test offer the client valuable information related to the extent of contamination produced by a fire from a residence or wildfire. These results can be used for cleaning assessment.

The sample collection was performed by GETC Industrial Hygienist Mr. Chris Virgen.

1.2 TASKS

GETC Performed Ambient Air Quality Testing for Combustion By-Product that included the following tasks:

- Collect Air Samples using Allergenco Cassettes within Student Housing Phase 2 (9 Total) – For Combustion By-Product Analysis.
- Air Samples were collected following the ASTM D6602-13 Standards, "Standard Practices for sampling and testing of possible Carbon Black Fugitive Emissions or Environmental Particulates."

SAMPLING TABLE
COMBUSTION BY-PRODUCT
(CHAR, SOOT, & ASH)

STUDENT HOUSING PHASE 2					
SAMPLE NO.	LOCATION	CHAR PARTICULATES	SOOT PARTICULATES	ASH	TOTAL
01	**OUTSIDE (CONTROL)**	19,913	253	293	20,459
02	PHASE 2 – OFFCE HALLWAY	8,207	73	153	8,433
03	ROOM 1102	87	0	47	134
04	ROOM 3202	180	0	33	213
05	ROOM 3306	93	20	107	220
06	ROOM 4105	6,653	40	80	6,773
07	ROOM 5306	187	13	53	253
08	ROOM 4205	220	7	27	254
09	CENTRO DE NINOS Y PADRES DINING	367	20	47	434

2.0 METHODOLOGY

This section includes the description of the methodologies used to perform the Combustion By-Product Sampling and Analysis. These methodologies include air sampling analysis.

2.1 AIR SAMPLING

- Collect and submit for analysis samples for Combustion By-Product from within Student Housing Phase 2.

2.2 SAMPLING PROCEDURES AND ANALYSIS

Sampling Procedure

The inspector collected Nine (9) air samples from Student Housing Phase 2. Methods & Equipment:

- Polarized Light Microscopy (PLM)
- epi-Reflected Light Microscopy (RLM)

The samples were numbered and shipped to a laboratory accredited under the American Industrial Hygiene Association (AIHA) and Environmental Proficiency Analytical Testing Program (EPAT).

Chain-of-Custody Procedures

Chain-of-Custody documents possession of the samples from the time they are collected until they have been analyzed and are stored. Custody documentation must be followed whenever materials are received, collected, transferred, stored, analyzed, or destroyed.

The original Chain-of-Custody is to accompany the materials at all times. Custody documentation will begin at the time a sample is collected. Each transferor should retain a copy of the Chain-of-Custody record.

Laboratory Quality Control Program

Pasteur Laboratory maintains an in-house quality control program. This program involves precision and accuracy controls, use of standard bulk reference materials, maintenance of national and state accreditation, participation in external and internal proficiency testing programs, and confirmation of analyst experience and qualification in compliance with specific internal training and competency requirements.

2.3 REPORT FORMAT

This report has been organized in a manner that presents the data in several forms to best suit the needs of the property. The "Executive Summary" provides a description of the facility and analytical results for each area tested. The Air Sampling Log, Appendix A, contains detailed information on the locations of areas sampled. The "Analytical Reports", Appendix B, is a listing of samples taken and their Combustion By-Product Content.

3.0 FINDINGS AND RECOMMENDATIONS

3.1 GENERAL SUMMARY

- Sampling Logs & COC in Appendix A.
- Complete lab analyses for Combustion By-Products are given in Appendix B.
- Sampling Scheme is given in Appendix C.

3.2 RECOMMENDATIONS

Since all indoor air samples are below the Outside (Control) sample, Global Environmental Training & Consulting, Inc. (GETC) has no recommendations at this time.

4.0 WARRANTY

The field and laboratory results reported herein are considered sufficient in detail and scope to determine the presence of airborne Combustion By-Product Compounds in Student Housing Phase 2. Global Environmental Training & Consulting, Inc. warrants that the findings contained herein have been prepared in general accordance with accepted professional practices at the time of its preparation as applied by similar professionals in the community. Changes in the state of the art or in applicable regulations cannot be anticipated and have not been addressed in the report.

The air sampling and analytical methods have been used to provide the client with information regarding the presence of Combustion By-Product Compounds existing in the Student Housing Phase 2 at the time of sampling. Test results are valid only for the areas tested. There is a distinct possibility that conditions may exist which could not be identified within the scope of the study of which were not apparent during the site visit.

No other warranties are implied or expressed.

APPENDIX A

AIR SAMPLING LOG

Chain of Custody / Microbiology Sample Log

Pasteur Laboratory
158 N. Glendora Ave., Suite S (2nd floor)
Glendora, CA 91741
Tel: (626) 963-8686
E-mail: microbiology99@aol.com

0045

NOTES: X Ash, Soot, & Char

CONTACT INFORMATION

Company: Global Environmental Training & Consulting	Address: 1520 W. Cameron Ave., Suite 103, West Covina, CA
Contact: Mario Virgen / Miguel Virgen	Fax results Y / N — Fax & Invoice to: 626-962-4437
Phone: 626-962-4436	Email results Y / N — staff@globalenvirotraining.com

PROJECT INFORMATION

Project Name: CSULA - Phase 2 Student Housing Phase 2
Project Number: E225-004
Sampling Date: January 13, 2025

TURN AROUND TIME - (TAT)

ND - 24 Hour (+50%)
SD - Same Day (+75%)
WH - Weekend/Holiday (+100%)

Rushes received after 2pm or on weekends, will be considered received the next business day.

REQUESTED SERVICES (CHECK BOXES)

Non - Culturable: Spore Trap; Tape Swab Bulk
Culturable: Anderson, Swab, Water, Bulk, Dust, Soil, Contact Plate

Sample ID	Sample Location	Sample Type	TAT (Above)	Flow Rate	Time	Total Volume	Fungi - SporeTrap Analysis	Fungi & Biological Particles	Fungi - Direct Microscopic Exam	Fungi - Standard Quant. Analysis	*E. coli* / Coliform Screen (MUG)	Bacteria - Quantitative Analysis
01	Outside/Control											
02	Phase 2 Office hallway											
03	Room 1102											
04	Room 3202											
05	Room 3306											
06	Room 4105											
07	Room 5306											
08	Room 4205											
09	Centro de niños y Padres dining											

SAMPLE TYPE CODES

AP - Andersen Plate CP - Contact Plate
Z - Zefon Air-O-Cell Ali - AllergencoD
T - Tape S - Swab BL - Bulk
M2 - Allegro M2 - Multimold Cassette

RELINQUISHED BY	DATE	RECEIVED BY	DATE
[signature]	1/5/25	[signature]	1/13/25

APPENDIX B

ANALYTICAL REPORTS

Char / Soot / Ash Particulate Report
(Aerosol Samples)
1/14/2025

Pasteur Laboratory
158 N. Glendora Ave., Suite S
Glendora, CA 91741
Tel: (626) 963-8686
E-mail: microbiology99@aol.com

Mario Virgen/Miguel Virgen
Global Environmental Training & Consulting
1520 W. Cameron Ave., Suite 103, West Covina, CA 91790
Tel: 626-962-4436 Fax: 626-962-4437
E-mail: staff@globalenvirotraining.com
Client's Project: CSULA - Phase 2 Student Housing Phase 2 - E225-004

Lab Reference No.: 00028-25-0045
Date Collected: January 13, 2025
Date Received: January 13, 2025
Date Analyzed: January 13, 2025
Sample(s) analyzed: 9

Laboratory Sample ID	12404			12405			12406			12407		
Client Sample ID	**01**			**02**			**03**			**04**		
Location	Outside / Control			Phase 2 office hallway			Rm 1102			Rm 3202		
Volume (L)	150			150			150			150		
Background Debris*	Heavy			Moderate			Light			Light		
Sample Description	AllergencoD			AllergencoD			AllergencoD			AllergencoD		
	Raw cts	No. /m³	%	Raw ct	No. /m³	%	Raw cts	No. /m³	%	Raw cts	No. /m³	%
Char particulate:	2987	19,913	97.33	1,231	8207	97.32	13	87	64.93	27	180	84.51
Soot particulate	38	253	1.24	11	73	0.87	0	0	0.00	0	0	0.00
Ash:	44	293	1.43	23	153	1.81	7	47	35.07	5	33	15.49
Total numbers / m³	**20,459**			**8,433**			**134**			**213**		
Comments												
Limit of Detection	7			7			7			7		

*Background debris is an indication of amounts of biological and non-biological particulate matters present on the sample and is characterized as *very light, light, moderate, heavy* or *very heavy. Very h* eavy background debris may obscure particulate matters, reducing visibility during analysis. Consequently, counts from very heavy background debris should be considered minimal. *The laboratory and its personnel shall not be held liable for any misinformation provided to us by the client regarding these samples or for any misuse or interpretation of information supplied by us This report relates only to samples submitted and analyzed*

Sample(s) were analyzed by: P. Chakravarty, Ph.D., Sr. Environmental Microbiologist

P. Chakravarty

Char / Soot / Ash Particulate Report
(Aerosol Samples)

1/14/2025

Pasteur Laboratory
158 N. Glendora Ave., Suite S
Glendora, CA 91741
Tel: (626) 963-8686
E-mail: microbiology99@aol.com

Mario Virgen/Miguel Virgen	Lab Reference No.: 00028-25-0045
Global Environmental Training & Consulting	Date Collected: January 13, 2025
1520 W. Cameron Ave., Suite 103, West Covina, CA 91790	Date Received: January 13, 2025
Tel: 626-962-4436 Fax: 626-962-4437	Date Analyzed: January 13, 2025
E-mail: staff@globalenvirotraining.com	
Client's Project: CSULA - Phase 2 Student Housing Phase 2 - E225-004	Sample(s) analyzed: 9

Laboratory Sample ID	12408			12409			12410			12411		
Client Sample ID	**05**			**06**			**07**			**08**		
Location	Rm 3306			Rm 4105			Rm 5306			Rm 4205		
Volume (L)	150			150			150			150		
Background Debris*	Light			Light			Light			Light		
Sample Description	AllergencoD			AllergencoD			AllergencoD			AllergencoD		
	Raw cts	No. /m³	%	Raw ct	No. /m³	%	Raw cts	No. /m³	%	Raw cts	No. /m³	%
Char particulate:	14	93	42.27	998	6653	98.23	28	187	73.91	33	220	86.61
Soot particulate	3	20	9.09	6	40	0.59	2	13	5.14	1	7	2.76
Ash:	16	107	48.64	12	80	1.18	8	53	20.95	4	27	10.63
Total numbers / m³	**220**			**6,773**			**253**			**254**		
Comments												
Limit of Detection	7			7			7			7		

*Background debris is an indication of amounts of biological and non-biological particulate matters present on the sample and is characterized as *very light, light, moderate, heavy* or *very heavy. Very h* eavy background debris may obscure particulate matters, reducing visibility during analysis. Consequently, counts from very heavy background debris should be considered minimal. *The laboratory and its personnel shall not be held liable for any misinformation provided to us by the client regarding these samples or for any misuse or interpretation of information supplied by us.This report relates only to samples s* P. Chakravarty

Char / Soot / Ash Particulate Report
(Aerosol Samples)
1/14/2025

Pasteur Laboratory
158 N. Glendora Ave., Suite S
Glendora, CA 91741
Tel: (626) 963-8686
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Global Environmental Training & Consulting
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E-mail: staff@globalenvirotraining.com
Client's Project: CSULA - Phase 2 Student Housing Phase 2 - E225-004

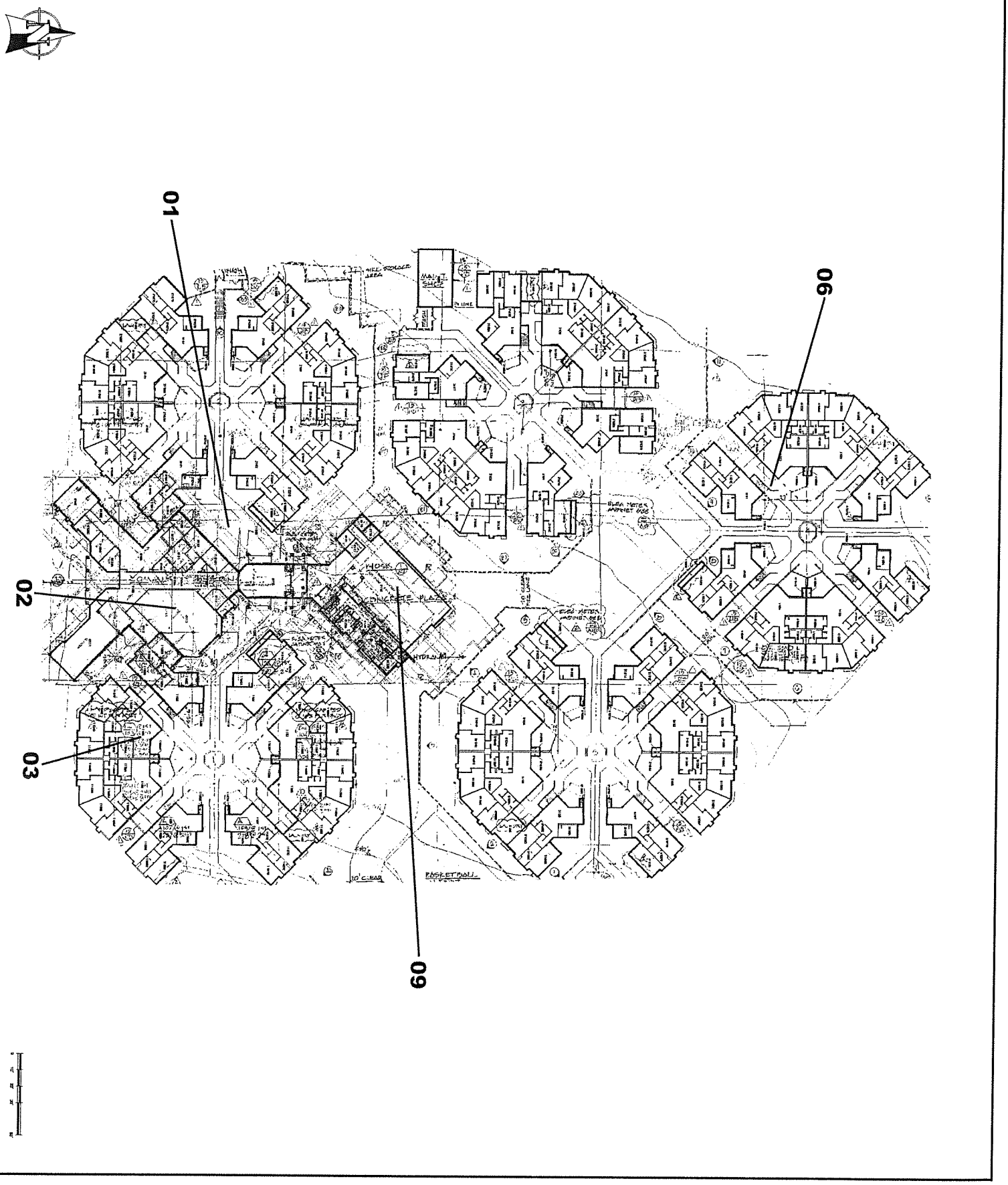
Lab Reference No.: 00028-25-0045
Date Collected: January 13, 2025
Date Received: January 13, 2025
Date Analyzed: January 13, 2025
Sample(s) analyzed: 9

Laboratory Sample ID	12412											
Client Sample ID	**09**											
Location	Centro de ninos y Padres dining											
Volume (L)	150											
Background Debris*	Light											
Sample Description	AllergencoD											
	Raw cts	No. /m³	%									
Char particulate:	55	367	84.56									
Soot particulate	3	20	4.61									
Ash:	7	47	10.83									
Total numbers / m³	**434**											
Comments												
Limit of Detection	7			< #VALUE!			< #VALUE!			< #VALUE!		

*Background debris is an indication of amounts of biological and non-biological particulate matters present on the sample and is characterized as *very light, light, moderate, heavy* or *very heavy. Very h* eavy background debris may obscure particulate matters, reducing visibility during analysis. Consequently, counts from very heavy background debris should be considered minimal. *The laboratory and its personnel shall not be held liable for any misinformation provided to us by the client regarding these samples or for any misuse or interpretation of information supplied by us.This report relates only to samples s* P. Chakravarty

APPENDIX C

SAMPLING SCHEME



BLDG 36

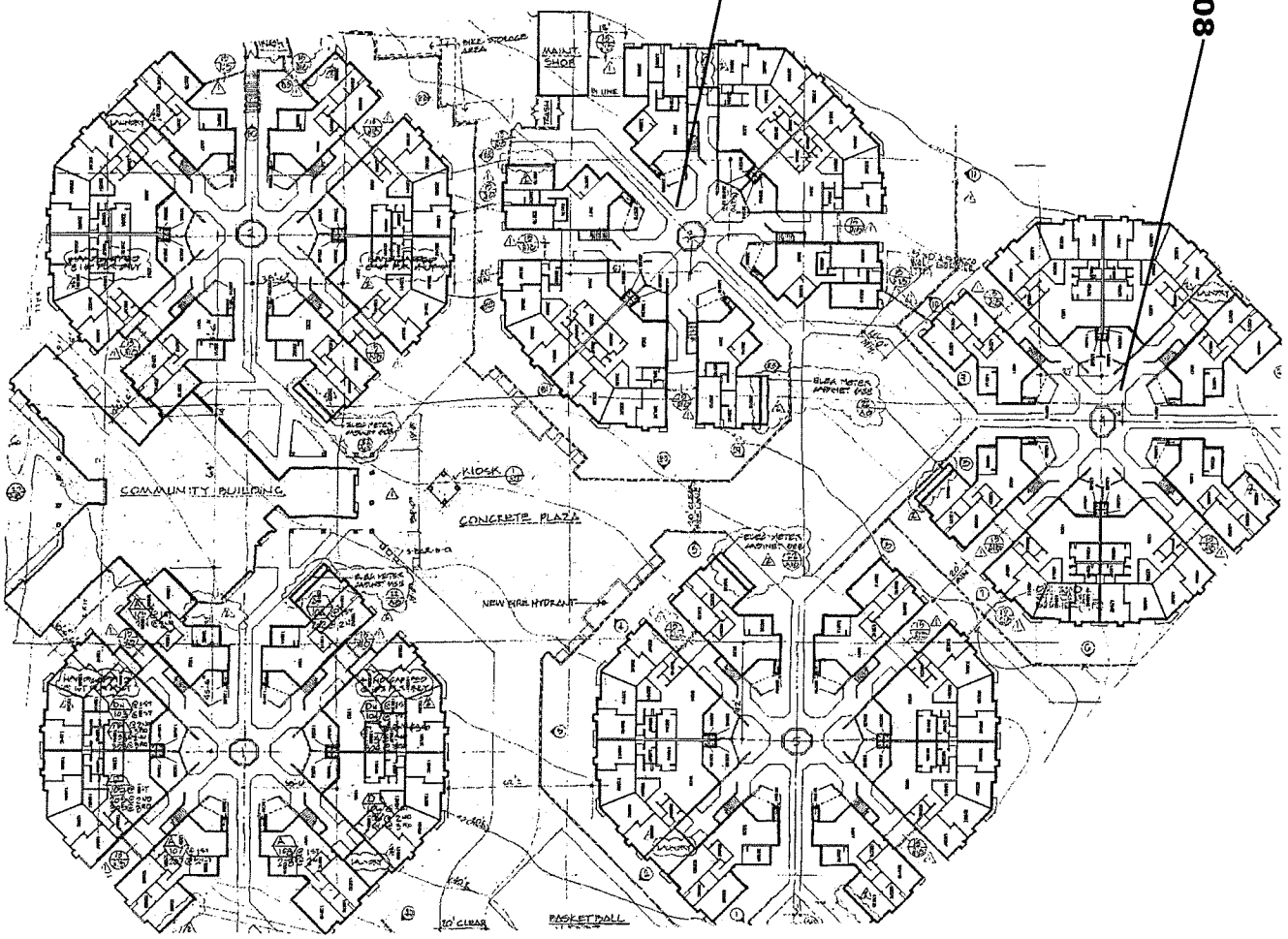
STUDENT HOUSING PHASE 2

FIRST FLOOR

LAST UPDATED: 6-12-20

CAL STATE LA

PLANNING, DESIGN & CONSTRUCTION



BLDG 36

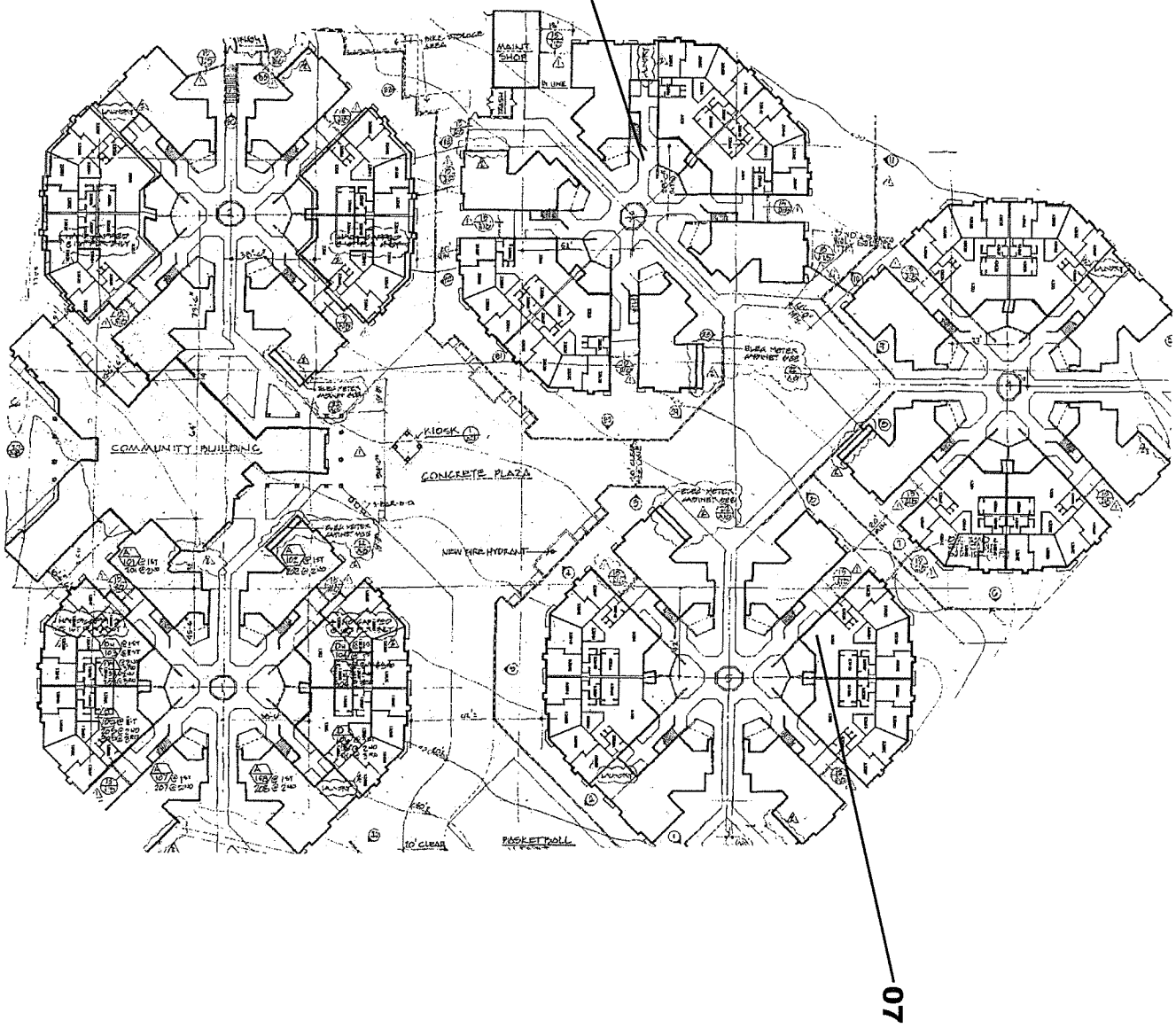
STUDENT HOUSING PHASE 2

SECOND FLOOR

LAST UPDATED: 6-12-20

CAL STATE LA

PLANNING, DESIGN & CONSTRUCTION



BLDG 36

STUDENT HOUSING PHASE 2

THIRD FLOOR

LAST UPDATED: 6-12-20

CAL STATE LA

PLANNING, DESIGN & CONSTRUCTION