



**PLANNING BOARD
CITY OF MIAMI BEACH, FLORIDA**

CFN 2015R0479855
OR BK 29712 Pgs 1957-1961 (5Pgs)
RECORDED 07/27/2015 09:13:11
HARVEY RUVIN, CLERK OF COURT
MIAMI-DADE COUNTY, FLORIDA

PROPERTY: 2901-2911 Indian Creek Drive

FILE NO: 2246

IN RE: The applicant, 2901 JMH LLC, requested Conditional Use approval for a mechanical lift parking system for a new 7-story apartment building, pursuant to Section 118, Article IV, and Section 130, Article II.

LEGAL DESCRIPTION: Lot 16 and 17, in Block 12, of Ocean Front Amended, according to the Plat thereof, as recorded in Plat Book 5, at pages 7 and 8, of the Public Records of Miami-Dade County, Florida.

MEETING DATE: April 28, 2015

CONDITIONAL USE PERMIT

The applicant, 2901 JMH LLC, requested Conditional Use approval for a mechanical lift parking system for a new 7-story apartment building, pursuant to Section 118, Article IV, and Section 130, Article II. of the Land Development Regulations of the Code of the City of Miami Beach, Florida. Notice of the request for Conditional Use was given as required by law and mailed out to owners of property within a distance of 375 feet of the exterior limits of the property, upon which the application was made.

The Planning Board of the City of Miami Beach makes the following FINDINGS OF FACT, based upon the evidence, information, testimony and materials presented at the public hearing and which are part of the record for this matter:

That the property in question is located in the RM-2, Residential Multifamily, Medium Intensity Zoning District;

That the intended Use or construction will not result in an impact that will exceed the thresholds for the levels of service as set forth in the Comprehensive Plan;

That structures and Uses associated with the request are consistent with the City Code;

That the public health, safety, morals, and general welfare will not be adversely affected when the conditions stated below are in compliance;

That necessary safeguards will be provided for the protection of surrounding property, persons, and neighborhood values if the following conditions are met.

IT IS THEREFORE ORDERED, based upon the foregoing findings of fact, the evidence, information, testimony and materials presented at the public hearing, which are part of the record for this matter, and the staff report and analysis, which is adopted herein, including the staff recommendations, and accepted by the applicant, that the Conditional Use Permit as requested and set forth above be **GRANTED**, subject to the following conditions:

1. This Conditional Use Permit is issued to 2901 JMH, LLC, as the applicant and owner of the property. Any change of operator or 50% (fifty percent) or more stock ownership, partnership interest, or the equivalent, shall require review and approval by the Planning Board as a modification to this Conditional Use Permit. Subsequent owners and

Board as a modification to this Conditional Use Permit. Subsequent owners and



Book29712/Page1957 CFN#20150479855

Page 1 of 5

PB File No. 2246
2901-2911 Indian Creek Drive
Page 2 of 5

operators shall be required to appear before the Board to affirm their understanding of the conditions listed herein. This shall not apply to owners of individual residential condominium units.

2. Prior to the issuance of any building permit associated with the construction approved herein, a Unity of Title or a covenant in lieu for lots 16 and 17 shall be submitted in a format acceptable to the City Attorney.
3. A Construction Parking and Traffic Management Plan (CPTMP) shall be approved by the Parking Director pursuant to Chapter 106, Article II, Division 3 of the City Code, prior to the issuance of a Building Permit.
4. The subject parking garage shall consist of 18 spaces, as proposed, consistent with Exhibit "A", submitted at the meeting of April 28, 2015 as it pertains to the site plan for the proposed new building. Prior to the issuance of a building permit for the project, the applicant shall submit an operational plan and narrative for the operation of the mechanical parking system and the parking garage area as a whole. This operational plan and narrative shall be subject to the review and approval of staff and, at a minimum, shall satisfy the following:
 - a) That the garage shall be in operation 24 hours per day, seven days a week, as proposed by the applicant.
 - b) The structure, operation, procedures, maintenance, service response procedures, emergency response procedures, remote technical service team, on-site service team, and spare parts inventory shall be in accordance with manufacturer's specifications, and as detailed in the operations plan.
 - c) The facility shall maintain adequate backup generators sufficient to power the vehicle lifts. The generators shall be maintained in proper operating condition. The location of the generators shall be as indicated in the submitted site plan. The generators shall be installed in accordance with Code requirements regarding minimum flood plain criteria.
 - d) Warning signs prohibiting horn honking or car alarm sounding shall be posted prominently in a location, subject to the review and approval of staff.
 - e) Warning signs indicating that there is a "One Lane Driveway" shall be posted at a location subject to the review and approval of staff.
 - f) No visitor parking shall be allowed inside the complex. A sign shall be posted at the entrance indicating this.
5. As part of the Building Permit plans for the project, the applicant shall submit revised architectural drawings, which shall be subject to the review and approval of staff; at a minimum, such plans shall satisfy the following:

- a) The final details and plans for the proposed mechanical parking system shall be made part of the building permit plans for the project and shall be subject to the review and approval of staff. Such plans shall comply with all applicable regulations and requirements of the City Code.



Book29712/Page1958 CFN#20150479855

Page 2 of 5

PB File No. 2246
2901-2911 Indian Creek Drive
Page 3 of 5

- b) A gate shall be installed at the driveway, subject to the review and approval of staff.
- c) The applicant shall install any sound attenuating design devices that may be required, throughout the property, in order to minimize any spillover of sound to adjacent properties, which may be generated by the mechanical parking system, in a manner consistent with the requirements of the City Code and subject to the review and approval of staff.
- d) The seawall along the Indian Creek waterway associated with the subject property shall be rebuilt to current standards prior to the issuance of a TCO (Temporary Certificate of Occupancy) or CO (Certificate of Occupancy) for the project approved herein.
6. The Planning Board shall retain the right to call the owner or operator, both now and in the future, back before the Board and modify this Conditional Use should there be valid complaints or violations (as determined by Code Compliance) about loud, excessive, unnecessary, or unusual noise, as related to the Mechanical Parking System, as well as the entire parking operation as a whole.
7. The applicant shall address the following Concurrency and Parking requirements, as applicable:
- a) A Method of Transportation (MOT) shall be submitted to Public Works Department staff for review and approval prior to the issuance of a building permit. The MOT shall address any traffic flow disruption due to construction activity on the site.
- b) Prior to the issuance of a building permit, the applicant shall participate in a Transportation Concurrency Management Area Plan (TCMA Plan), if deemed necessary, by paying its fair share cost, as may be determined as determined by the Concurrency Management Division.
- c) A final concurrency determination shall be conducted prior to the issuance of a Building Permit. Mitigation fees and concurrency administrative costs, if required, shall be paid prior to the issuance of any Building Permit.
- d) Prior to the issuance of a Building Permit, calculations for required parking for the project shall be determined by the Planning Department. A final determination for the required parking shall be conducted prior to the issuance of a Certificate of Occupancy or Business Tax Receipt, whichever comes first. If required, a one-

time fee in lieu of providing the required parking on site or in combination with an annual fee, as determined by staff, shall be paid prior to the issuance of the Certificate of Occupancy.

8. The applicant, operator and/or owner, both now and in the future, shall abide by all the documents and statements submitted with this application, as well as all conditions of this Order.
9. The Planning Board shall maintain jurisdiction of this Conditional Use Permit. If deemed necessary, at the request of the Planning Director, the applicant shall provide a progress report to the Board. The Board reserves the right to modify the Conditional Use approval at the time of a progress report in a non-substantive manner, to impose additional

Book29712/Page1959 CFN#20150479855

Page 3 of 5

*PB File No. 2246
2901-2911 Indian Creek Drive
Page 4 of 5*

conditions to address problems and to determine the timing and need for future progress reports. This Conditional Use is also subject to modification or revocation under City Code Sec. 118-194 (c).

10. The conditions of approval for this Conditional Use Permit are binding on the applicant, the property owners, operators, and all successors in interest and assigns. Any substantial modifications to the plans submitted and approved as part of this application, as determined by the Planning Director or designee, may require the applicant to return to the Board for approval of the modified plans.
11. The applicant shall resolve all outstanding violations and fines on the property, if any, prior to the issuance of a building permit for the project.
12. A violation of Chapter 46, Article IV, "Noise," of the Code of the City of Miami Beach, Florida (a/k/a "noise ordinance"), as may be amended from time to time, shall be deemed a violation of this Conditional Use Permit and subject to the remedies as described in section 118-194, of the City Code.
13. This order is not severable, and if any provision or condition hereof is held void or unconstitutional in a final decision by a court of competent jurisdiction, the order shall be returned to the Board for reconsideration as to whether the order meets the criteria for approval absent the stricken provision or condition, and/or it is appropriate to modify the remaining conditions or impose new conditions.
14. The Final Order shall be recorded in the Public Records of Miami-Dade County, prior to the issuance of a Building Permit.
15. The establishment and operation of this Conditional Use shall comply with all the aforementioned conditions of approval; non-compliance shall constitute a violation of the City Code, and shall be subject to enforcement procedures set forth in Section 114-8 of the Code and such other enforcement procedures as are permitted by law. Any failure by the applicant to comply with the conditions of this Order shall also constitute a basis for consideration by the Planning Board for a revocation of this Conditional Use.

16. Nothing in this order authorizes a violation of the City Code or other applicable law, nor allows a relaxation of any requirement or standard set forth in the City Code.

mb

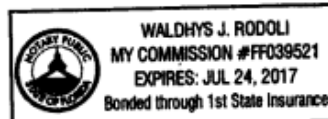
Book29712/Page1960 CFN#20150479855

Page 4 of 5

DR BK 29712 PG 1961
LAST PAGEPB File No. 2246
2901-2911 Indian Creek Drive
Page 5 of 5Dated this 13th day of MAY, 2015.PLANNING BOARD OF THE
CITY OF MIAMI BEACH, FLORIDABY: Michael Belush
Michael Belush, Planning and Zoning Manager
For ChairmanSTATE OF FLORIDA)
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this 13th day of May, 2015, by Michael Belush, Planning and Zoning Manager of the City of Miami Beach, Florida, a Florida Municipal Corporation, on behalf of the corporation. He is personally known to me.

[NOTARIAL SEAL]



Waldhys J. Rodoli
Notary:
Print Name: Waldhys J. Rodoli
Notary Public, State of Florida
My Commission Expires: 7-24-2017
Commission Number: FF039521

Approved As To Form:
Legal Department

[Signature], 5/14/2015

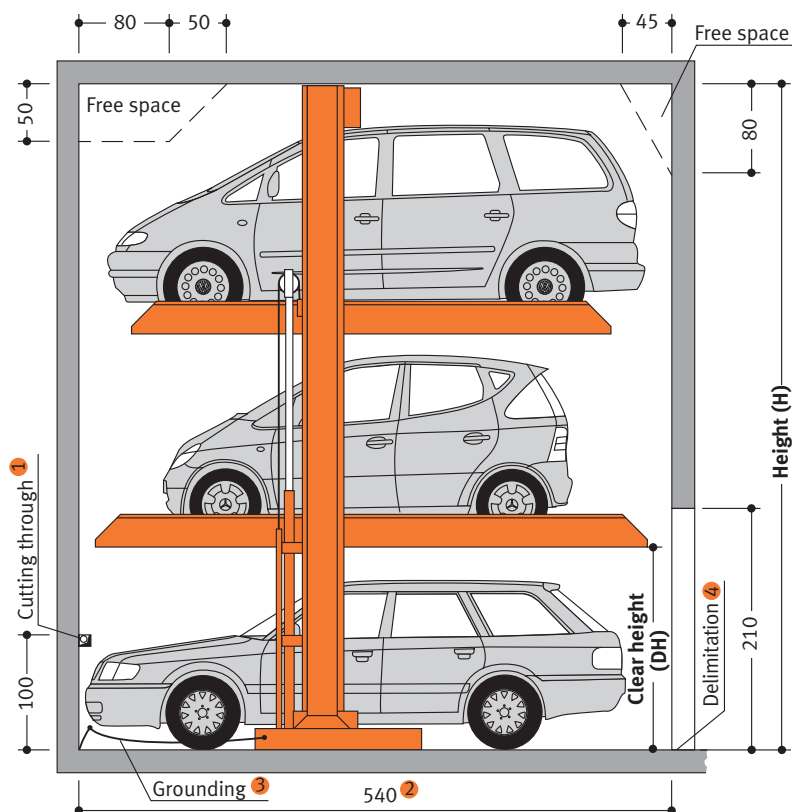
F:\PLAN\PLB\2015\4-28-15\2246 - 2901-11 Indian Creek\2246 - 2901-11 Indian Creek - CUP.docx

mb

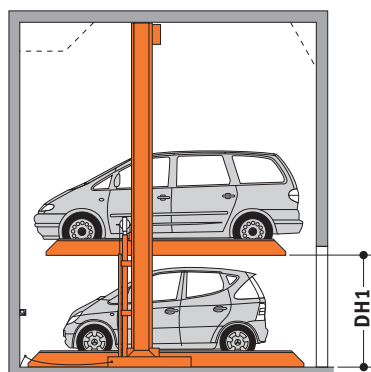
Book29712/Page1961 CFN#20150479855

Page 5 of 5

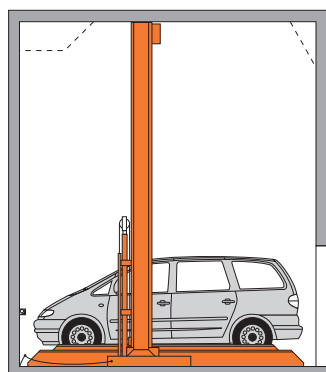
Standard type Trinity 3015-615



Function



Before lowering the platforms, the vehicle parked in the lower parking space must be driven off!



Before lowering the upper platform, the vehicle parked on the lower platform must also be driven off!

Notes

- 1 For dividing walls: cutting through 10 x 10 cm (for pipes).
- 2 If the total length is greater, the max. vehicle length for the lower parking space increases accordingly.
- 3 Potential equalization from foundation grounding connection to system (provided by the customer).
- 4 In compliance with DIN EN 14 010, 10 cm wide yellow-black markings compliant to ISO 3864 must be applied by the customer to the edge of the platform in the entry area to mark the danger zone (see »load plan« page 2).

Product Data Trinity 3015



Dimensions:

All space requirements are minimum finished dimensions. Tolerances for space requirements $+3_0$. Dimensions in cm.

EB (single platform) = 3 vehicles

Type	H	DH**	DH1**
3015-560	560	185	165
3015-615*	615	185	185

* = standard type

** = without car

Suitable for:

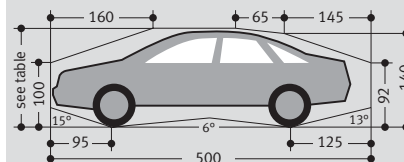
Standard passenger car and station wagon.
Height and length according to contour.

Type	Top	Middle	Bottom
3015-560	160	160	180
3015-615*	180	180	180

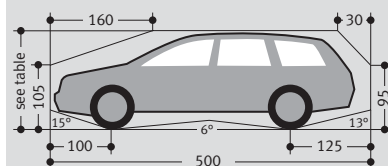
* = standard type

width	1.90 m
weight	max. 2000 kg
wheel load	max. 500 kg

Standard passenger car



Standard station wagon



Standard passenger cars are vehicles without any sports options such as spoilers, low-profile tyres etc.

KLAUS
multiparking

Klaus Multiparking GmbH
Hermann-Krum-Straße 2
D-88319 Aitrach

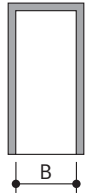
Phone +49-75 65-5 08-0

Fax +49-75 65-5 08-88

E-Mail info@multiparking.com

Internet www.multiparking.com

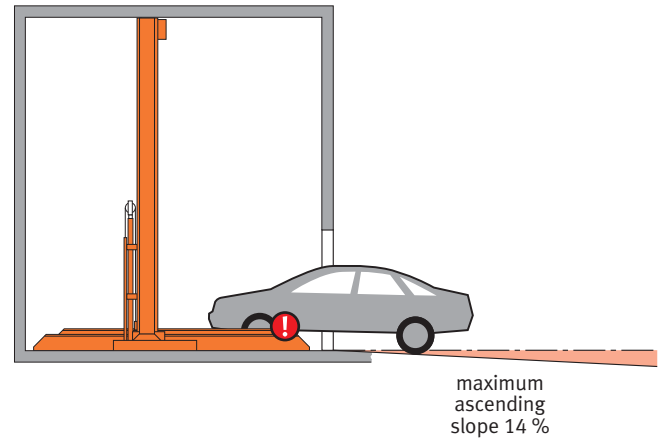
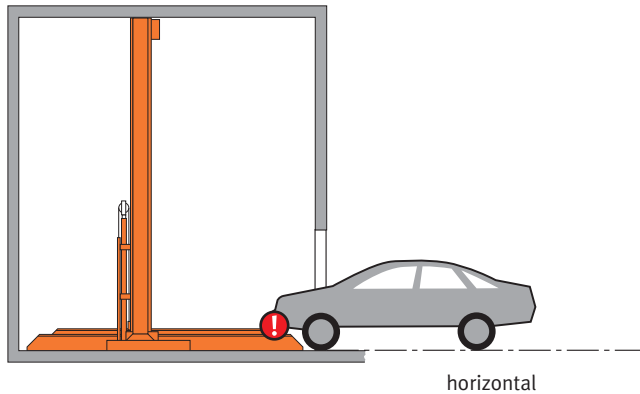
Width



usable platform width	B
220 (210*)	250
230 (220*)	260
240 (230*)	270

* upper platform

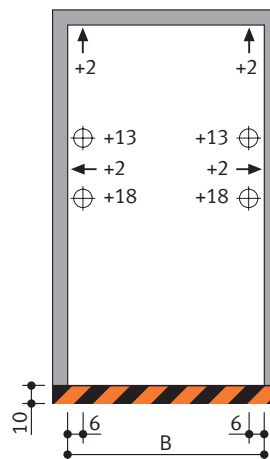
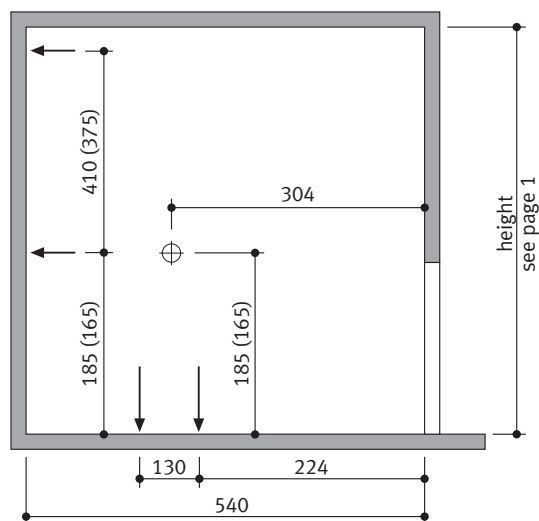
Approach



The illustrated maximum approach angles must not be exceeded. Incorrect approach angles will cause serious manoeuvring & positioning problems on the parking system for which the local agency of Klaus accepts no responsibility.

Load plan

Forces in kN



Markings compliant to ISO 3864
(Colors used in this illustration are not ISO 3864 compliant)

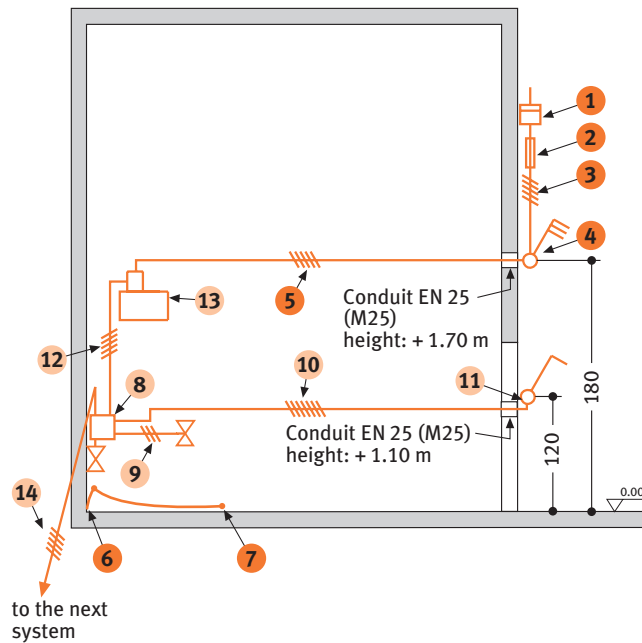
() = Dimensions for Trinity 3015-560



Units are dowelled to the floor. Drilling depth: approx. 15 cm.
Floor and walls are to be made of concrete (quality minimum C20/25)!

Electrical installation

Installation diagram



Electrical data (to be performed by the customer)

No.	Quantity	Description	Position	Frequency
1	1	Electricity meter	in the supply line	
2	1	Main fuse: 3 x fuse 16 A (slow) or circuit breaker 3 x 16 A (trigger characteristic K or C)	in the supply line	1 per unit
3	1	Supply line 5 x 2.5 mm ² (3 PH + N + PE) with marked wire and protective conductor	to main switch	1 per unit
4	1	Lockable main switch	defined at the plan evaluation	1 per unit
5	1	Supply line 5 x 2.5 mm ² (3 PH + N + PE) with marked wire and protective conductor	from main switch to unit	1 per unit
6	every 10 m	Foundation earth connector	corner pit floor	
7	1	Equipotential bonding in accordance with DIN EN 60204 from foundation earth connector to the system		1 per system

Electrical data (included in delivery of Klaus Multiparking)

No.	Description
8	Terminal box
9	Control line 3 x 0.75 mm ² (PH + N + PE)
10	Control line 7 x 1.5 mm ² with marked wire and protective conductor
11	Operating device
12	Control line 5 x 1.5 mm ² with marked wire and protective conductor
13	Hydraulic unit 3.0 kW, three-phase current, 400 V / 50 Hz
14	Control line 5 x 1.5 mm ² with marked wire and protective conductor

Technical data

Range of application

Generally, this parking system is not suited for short-time parkers (temporary parkers). Please do not hesitate to contact your local KLAUS agency for further assistance.

Units

Low-noise power units mounted to rubber-bonded-to metal mountings are installed. Nevertheless we recommend that parking system's garage be built separately from the dwelling.

Available documents

- wall recess plans
- maintenance offer/contract
- declaration of conformity
- test sheet on airborne and slid-borne sound

Corrosion protection

See separate sheet regarding corrosion protection.

Railings

If there are traffic routes next to or behind the installations, railings compliant to DIN EN ISO 13857 must be installed by the customer. Railings must also be in place during construction.

Environmental conditions

Environmental conditions for the area of multiparking systems: Temperature range -10 to +40 °C. Relative humidity 50 % at a maximum outside temperature of +40 °C. If lifting or lowering times are specified, they refer to an environmental temperature of +10 °C and with the system set up directly next to the hydraulic unit. At lower temperatures or with longer hydraulic lines, these times increase.

Sound insulation

According to DIN 4109 (Sound insulation in buildings), para. 4, annotation 4, Klaus Multiparkers are part of the building services (garage systems).

Normal sound insulation:

DIN 4109, para. 4, Sound insulation against noises from building services.

Table 4 in para. 4.1 contains the permissible sound level values emitted from building services for personal living and working areas. According to line 2 the maximum sound level in personal living and working areas must not exceed 30 dB (A).

Noises created by users are not subject to the requirements (see table 4, DIN 4109).

The following measures are to be taken to comply with this value:

- Sound protection package according to offer/order (Klaus Multiparking GmbH)
- Minimum sound insulation of building $R'_w = 57$ dB (to be provided by customer)

Increased sound insulation (special agreement):

DIN 4109, Amendment 2, Information on planning and execution, proposals for increased sound insulation.

Agreement: Maximum sound level in personal living and working areas 25 dB (A). *Noises created by users are not subject to the requirements (see table 4, DIN 4109).*

The following measures are to be taken to comply with this value:

- Sound protection package according to offer/order (Klaus Multiparking GmbH)
- Minimum sound insulation of building $R'_w = 62$ dB (to be provided by customer)

Note: User noises are noises created by individual users in our Multiparking systems. These can be noises from accessing the platforms, slamming of vehicle doors, motor and brake noises.

Page 1	Section
Dimensions	Car data
Page 2	Width
Approach	Load plan
Page 3	Electrical installation
Technical data	
Page 4	To be performed by the customer
Description	

To be performed by the customer

Safety fences

Any constraints that may be necessary according to DIN EN ISO 13857 in order to provide protection, for pathways directly in front, next to or behind the unit. This is also valid during construction.

Numbering of parking spaces

Consecutive numbering of parking spaces.

Building services

Lighting, ventilation, fire extinguishing and fire alarm systems.

Marking

According to DIN EN 14 010, a warning that identifies this danger area must be placed in the entrance area that conforms to ISO 3864. This must be done according to EN 92/58/EWG for systems without a pit 10 cm from the edge of the platform.

Wall cuttings

Any necessary wall cuttings according to page 1.

Electrical supply to the main switch / Foundation earth connector

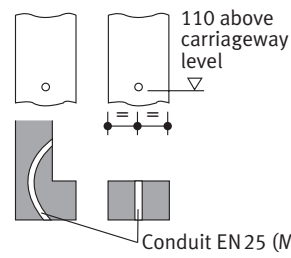
Suitable electrical supply to the main switch and the control wire line must be provided by the customer during installation. The functionality can be monitored on site by our fitters together with the electrician. If this cannot be done during installation for some reason for which the customer is responsible, the customer must commission an electrician at their own expense and risk.

In accordance with DIN EN 60204 (Safety of Machinery. Electrical Equipment), grounding of the steel structure is necessary, provided by the customer (distance between grounding max. 10 m).

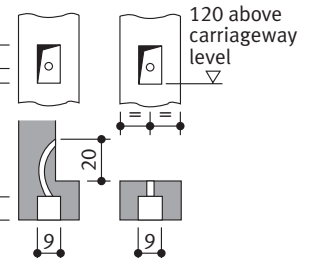
Operating device

Cable conduits and recesses for operating device (for double wing doors: please contact the local agency of Klaus Multiparking).

Operating device exposed



Operating device concealed



If the following are not included in the quotation, they will also have to be provided / paid for by the customer:

- Mounting of contactor and terminal box to the wall valve, complete wiring of all elements in accordance with the circuit diagram
- Costs for final technical approval by an authorized body
- Main switch
- Control line from main switch to hydraulic unit

Description

General description

Multiparking system providing dependent parking spaces for 3 cars one on top of the other each. The lower vehicle parks directly on the floor plate. The vehicle parked on the bottom must be driven out before lowering the platform.

Dimensions are in accordance with the underlying dimensions of height and width

The parking bays are accessed horizontally (installation deviation $\pm 1\%$).

The user is responsible for positioning the vehicle.

Operation via operating device with hold-to-run-device using master keys.

The operating elements are usually mounted either in front of the column or on the outside of the door frame

Operating instructions are attached to each operator's stand.

For garages with doors at the front of the parking system the special dimensional requirements have to be taken into account.

Multiparking system consisting of:

- 2 steel pillars with base plates (mounted on the floor)
- 2 sliding platforms (mounted to the steel pillars with sliding bearings)
- 2 platforms
- 1 mechanic synchronization control system (to ensure synchronous operation of the hydraulic cylinders while lowering and lifting the platform)
- 2 hydraulic cylinder
- 1 automatic mechanical locking system (prevents accidental lowering of the platforms)
- Dowels, screws, connecting elements, bolts, etc.
- The platforms and parking spaces are end-to-end accessible for parking!

Platforms consisting of:

- Platform base sections
- Canted access plates
- Side members
- Cross members
- Screws, nuts, washers, distance tubes, etc.

Hydraulic system consisting of:

- Hydraulic cylinder
- Solenoid valve
- Hydraulic conduits
- Screwed joints
- High-pressure hoses
- Installation material

Electric system consisting of:

- Operating device (Emergency Stop, lock, 1 master key per parking space)
- Terminal box at wall valve

Hydraulic unit consisting of:

- Hydraulic power unit (low-noise, installed onto a console with a rubber-bonded-to-metal mounting)
- Hydraulic oil reservoir
- Oil filling
- Internal geared wheel pump
- Pump holder
- Clutch
- 3-phase-AC-motor (3.0 kW, 230/400 V, 50 Hz)
- Contactor (with thermal overcurrent relay and control fuse)
- Test manometer
- Pressure relief valve
- Hydraulic hoses (which reduce noise transmission onto the hydraulic pipe)

We reserve the right to change this specification without further notice

The Klaus company reserves the right in the course of technical progress to use newer or other technologies, systems, processes, procedures or standards in the fulfillment of their obligations other than those originally offered provided the customer derives no disadvantage from their so doing.



2901 Indian Creek

Miami Beach, Florida 33140

prepared for:

Bercow Radell Fernandez Larkin & Tapanes

traffic statement

TRAFTECH
ENGINEERING, INC.

September 2020

September 4, 2020

29 ICD LLC
c/o Graham Penn, Esq.
Bercow Radell Fernandez Larkin & Tapanes, P.A.
200 South Biscayne Boulevard, Suite 850
Miami, Florida 33131

Re: 2901 Indian Creek – Traffic Statement

Dear Graham:

Traf Tech Engineering, Inc. has prepared this traffic memorandum in connection with a proposed residential project planned to be located at 2901 Indian Creek Drive in the City of Miami Beach in Miami-Dade County, Florida. The subject re-development project will consist of replacing 32 existing apartments with 30 new apartments units plus a mechanical parking lift system with a capacity for 21 vehicles plus 1 ADA parking stall. The traffic methodology for the project is contained in Attachment A and the proposed site plan in Attachment B. This traffic memorandum addresses the following topics:

- Trip Generation and Trip Distribution
- Traffic Circulation and Geometry
- Queuing

Trip Generation and Trip Distribution

A trip generation analysis was performed for the site using the trip generation equations published in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual (10th Edition)*. The trip generation analyses were undertaken for daily, AM peak hour, and PM peak hour conditions.

According to ITE's *Trip Generation Manual (10th Edition)*, the trip generation equations used for the analyses are presented below:

Multifamily Mid Rise (ITE Land Use 221)

Daily Trips

$$T = 5.44 (X)$$

Where T = average daily vehicle trip ends and X = number of units

AM Peak Hour

$T = 0.36 (X)$ with 26% inbound and 74% outbound

Where T = AM peak hour trip ends and X = number of units

PM Peak Hour

$T = 0.44 (X)$ with 61% inbound and 39% outbound

Where T = PM peak hour trip ends and X = number of units

Using the above-listed trip generation equations from the ITE document, a trip generation analysis was undertaken for the proposed residential development. The results of this effort are documented in Table 1. It is important to note that no traffic credit was given to the existing residential building since the building is currently vacant.

As shown in Table 1, the proposed 30-unit residential development generates approximately 163 daily trips, approximately 11 AM peak hour trips (3 inbound and 8 outbound) and approximately 13 trips during the typical afternoon peak hour (8 inbound and 5 outbound). Hence, the new trips generated by the proposed 30-unit residential building is minimal (one new peak hour trip every four minutes and 36 seconds).

The trip distribution for the project was based on Miami-Dade County's Cardinal Distribution data base for the years 2015 and 2045 for TAZ 633, which is applicable to the site location. Based on the distribution for TAZ 633, approximately 35% of the vehicle trips will arrive/depart to and from the north and 65% will travel to and from the south. Based on the above trip distribution, the project's traffic impacts on Indian Creek Drive (south of 29th Street) are projected to be five (5) vehicles in the AM peak hour, or one new peak hour trip every 12 minutes. Similarly, the project's traffic impacts on Collins Avenue (south of 29th Street) are projected to be five (5) vehicles in the PM peak hour, or one new peak hour trip every 12 minutes. The project's trip distribution is shown in Figure 1.

Traffic Circulation and Geometry

As shown in the site plan contained in Attachment A, the traffic circulation consists of a 22-foot two-way driveway on 29th Street. Due to the low vehicular traffic associated with the proposed use, the 22-foot driveway is anticipated to function adequately from safety and operational standpoints.

Queuing

A queuing analysis was conducted to ensure that the on-site stacking is sufficient to accommodate the maximum inbound vehicular demand anticipated at this facility. The length of queue anticipated at the underground parking area was determined using information contained in ITE's *Transportation and Land Development*, Chapter 8 – Drive-In Facilities¹. For this analysis, the following input variables were used:

- Service Rate: Based on information provided by Klaus Parking Systems, the KLAUS Model 3015 will be used for this project. According to KLAUS, this model is a dependent access triple stacker with a one-minute parking or retrieving at grade, two minutes for the mid-level and three minutes for the upper level. Hence, the average parking or retrieving time is approximately two (2) minutes for the KLAUS Model 3015, or approximately 30 vehicles in a one-hour period.
- Demand Rate: As indicated in Table 1, a maximum inbound vehicular demand of eight (8) vehicles will arrive during the highest hour, or one inbound vehicle every 7.5 minutes.

Using equation 8-9b and Table 8-11 of ITE's *Transportation and Land Development*, the maximum length of queue anticipated for inbound vehicles, at the 95% confidence level, is one (1) vehicle. Therefore, the underground staging area is sufficient to accommodate the 1-vehicle queue without spilling onto the public street system. The results of the ITE queuing procedure are contained in Attachment C.

Please give me a call if you have any questions.

TRAF TECH ENGINEERING, INC.

A large, stylized handwritten signature in green ink, appearing to read "J. Vargas", is written over the company name and the engineer's name.

Joaquin E. Vargas, P.E.
Senior Transportation Engineer

¹ By Vergil G. Stover and Frank J. Koepke.

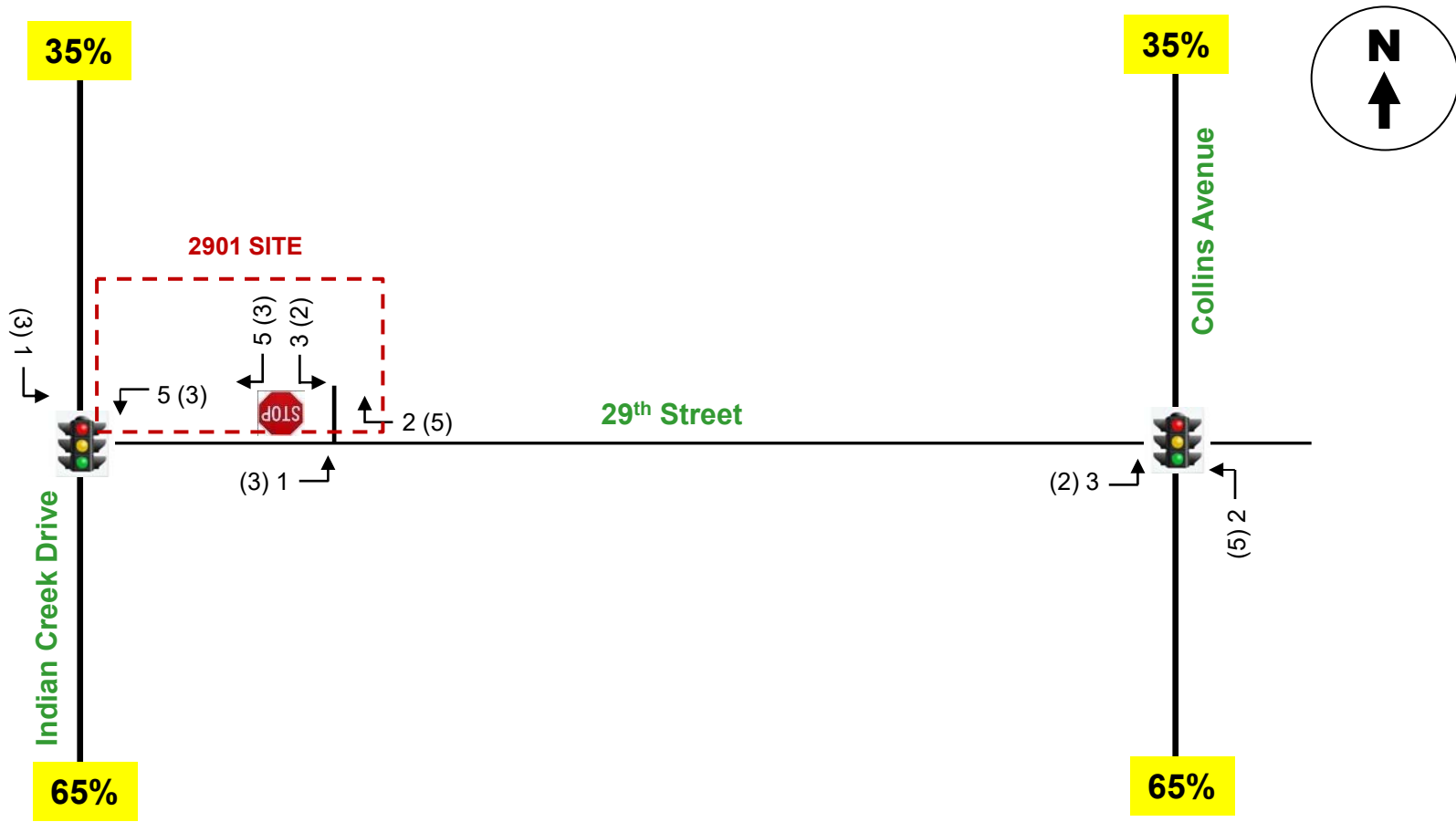


TABLE 1
Trip Generation Summary (Proposed Use)
2901 Indian Creek

Land Use	Size (units)	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Multifamily Mid Rise (LUC 221)	30	163	11	3	8	13	8	5
External Trips		163	11	3	8	13	8	5

Source: ITE Trip Generation Manual (10th Edition)

ATTACHMENT A

Traffic Methodology

TO: 2901 Indian Creek Drive

FROM: Joaquin Vargas

DATE: August 18, 2020

SUBJECT: Proposed Traffic Methodology for the 2901 Indian Creek Project

2901 Indian Creek is a proposed multifamily development to be located at northeast corner of Indian Creek Drive and 29th Street in the City of Miami Beach, Florida. The following is a summary of our proposed traffic analysis methodology in connection with the project:

- The trip generation will be based on the Institute of Transportation Engineer's (ITE) *Trip Generation* document (10th Edition). Attached is a trip generation analysis for the proposed land use at the site. As indicated in the table, 163 daily trips, 11 AM peak hour trips and 13 PM peak hour trips will be generated by the proposed 35-unit development.
- The trip distribution will be based on Miami-Dade County's Cardinal Distribution data base for the years 2015 and 2045 for TAZ 633, which is applicable to the site location. Based on the distribution for TAZ 633, approximately 35% of the vehicle trips will arrive/depart to and from the north and 65% will travel to and from the south. Based on the above trip distribution, the project's traffic impacts on Indian Creek Drive (south of 29th Street) are projected to be five (5) vehicles in the AM peak hour, or one new peak hour trip every 12 minutes. Similarly, the project's traffic impacts on Collins Avenue (south of 29th Street) are projected to be five (5) vehicles in the PM peak hour, or one new peak hour trip every 12 min.
- Traffic circulation will be evaluated in the traffic study, including its impact to the surrounding on street parking on 29th Street. If conflicts with sight distance or parking are anticipated, mitigation measures will be recommended.
- The report will include an accurate site plan (to scale with dimensions).
- The parking garage driveway on 29th Street will be evaluated as well as queuing analysis, based on the proposed mechanical parking system. The type of mechanical system and operation specifics will be addressed in the traffic report.

- Bicycle parking will be identified as part of the site plan.
- Existing traffic signal timing data and traffic counts will be included in the appendix of the traffic study, if required for this project. The traffic counts will be provided by the City of Miami Beach for the intersections of 29th Street at Indian Creek Drive and at Collins Avenue. If no recent traffic counts are available, we will collect AM and PM peak period traffic counts and will adjust them to account for Covid-19. The adjustment factor will be based on a comparison between FDOT-published 2019 traffic counts on Indian Creek Drive, south of 38th Street and on Collins Avenue, north of 35th Street with 2020 traffic counts conducted by Traf Tech Engineering, Inc. at the same FDOT Count Station locations.
- Traffic figures will be prepared for the following trip generation scenarios for each of the intersections analyzed, if required:
 1. Existing traffic counts
 2. Proposed site trips distribution
 3. Existing + future traffic growth
 4. Future or build-out (with growth rate) + site trips
- If required, capacity/level of service analyses used for purposes of this study will be in compliance with the latest (2010) HCM methodology.
- The submittal will include the Synchro/HCS output for all intersection analyzed.

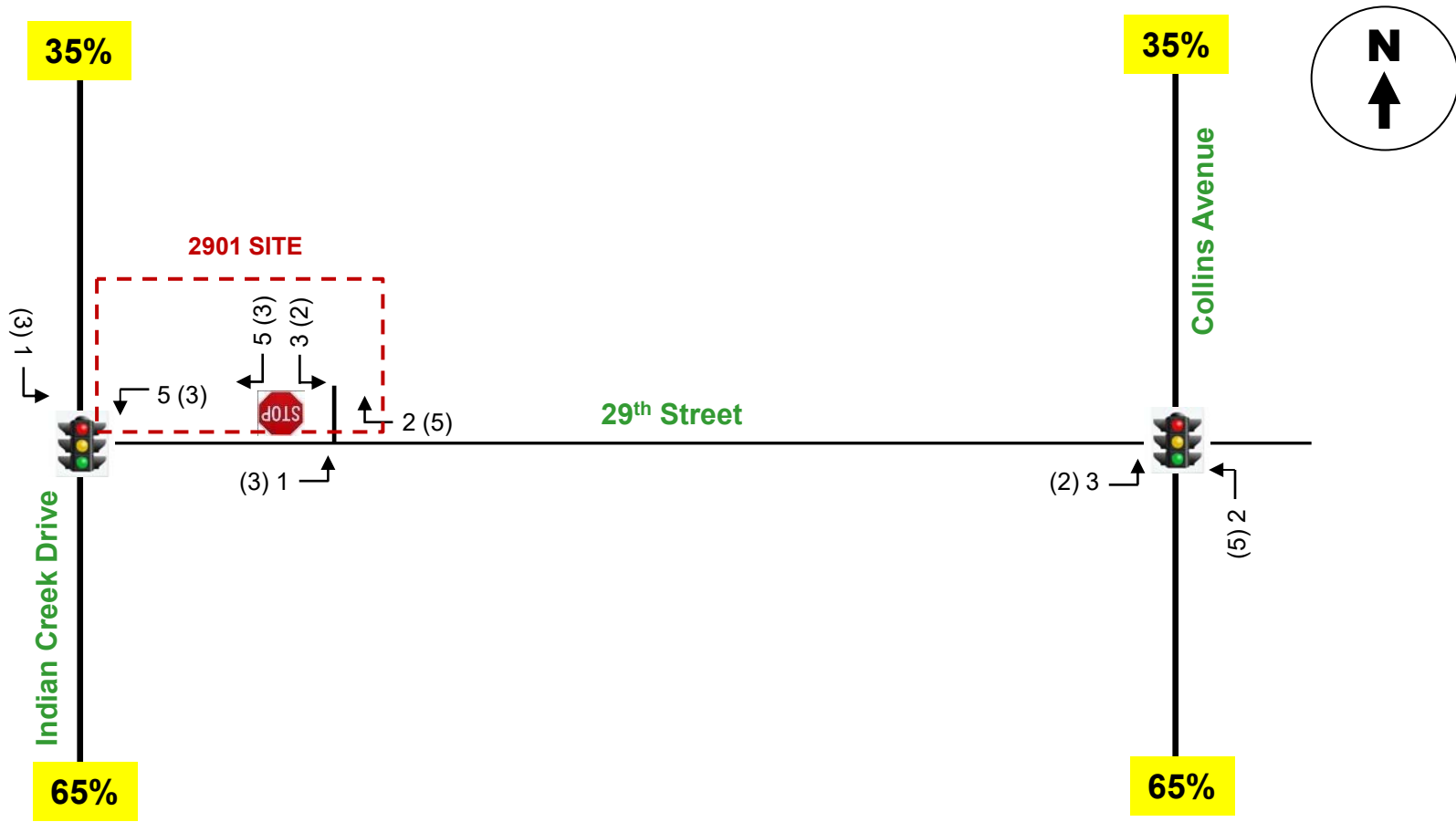
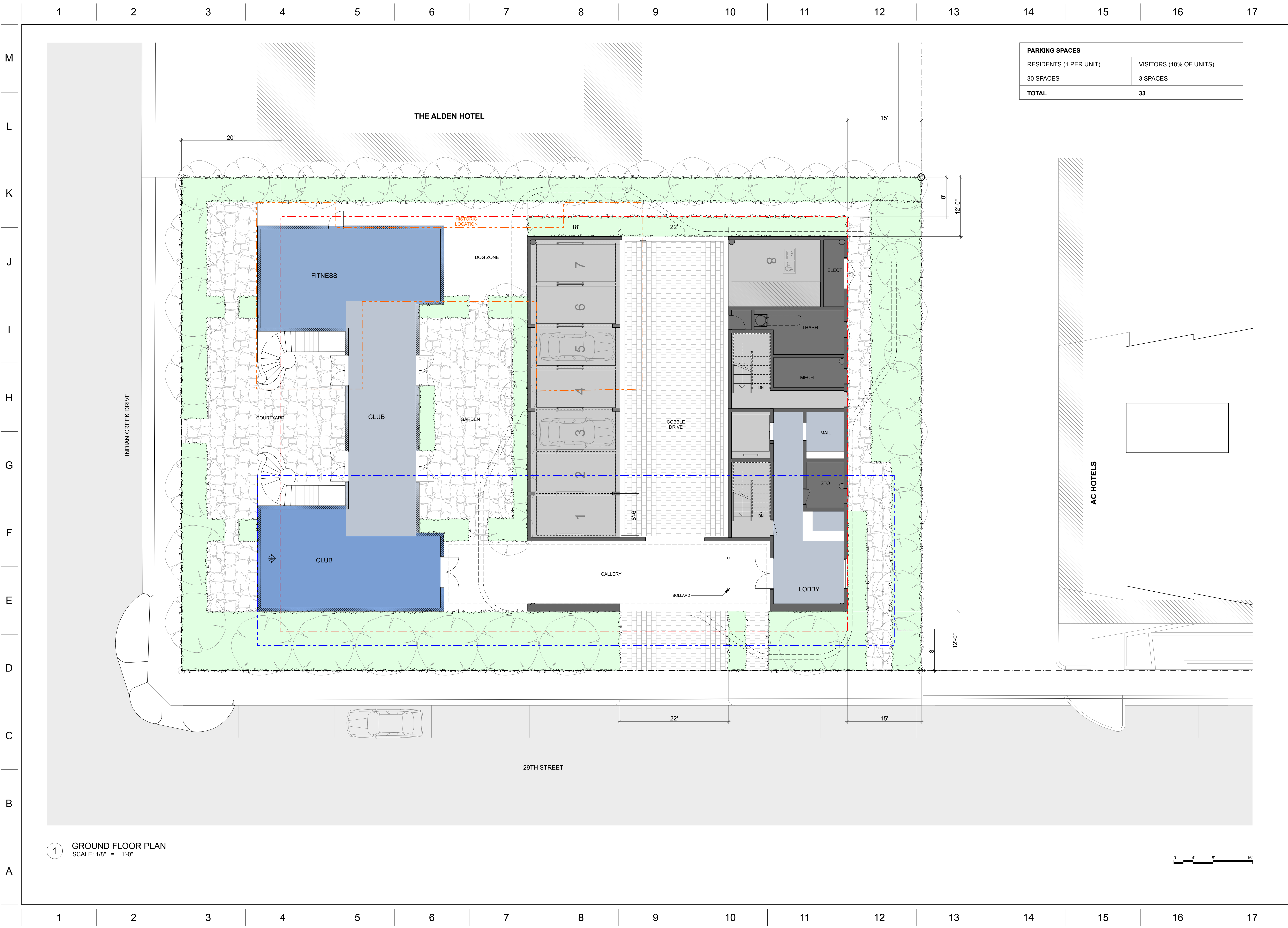


TABLE 1
Trip Generation Summary (Proposed Use)
2901 Indian Creek

Land Use	Size (units)	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Multifamily Mid Rise (LUC 221)	30	163	11	3	8	13	8	5
External Trips		163	11	3	8	13	8	5

Source: ITE Trip Generation Manual (10th Edition)



ARCHITECT:
URBAN ROBOT LLC
420 LINCOLN ROAD, S. 406
MIAMI BEACH, FL 33139
(786) 246-4857
(786) 768-2537, F

STRUCTURAL ENGINEER:

M.E.P. ENGINEERS:

CIVIL ENGINEERS:

GENERAL CONTRACTOR:

29 INDIAN CREEK
2911 INDIAN CREEK DRIVE :: MIAMI BEACH, FL 33139

SEAL

URBAN ROBOT LLC
AA26002760 RE26001534 LC26000510

REVISIONS

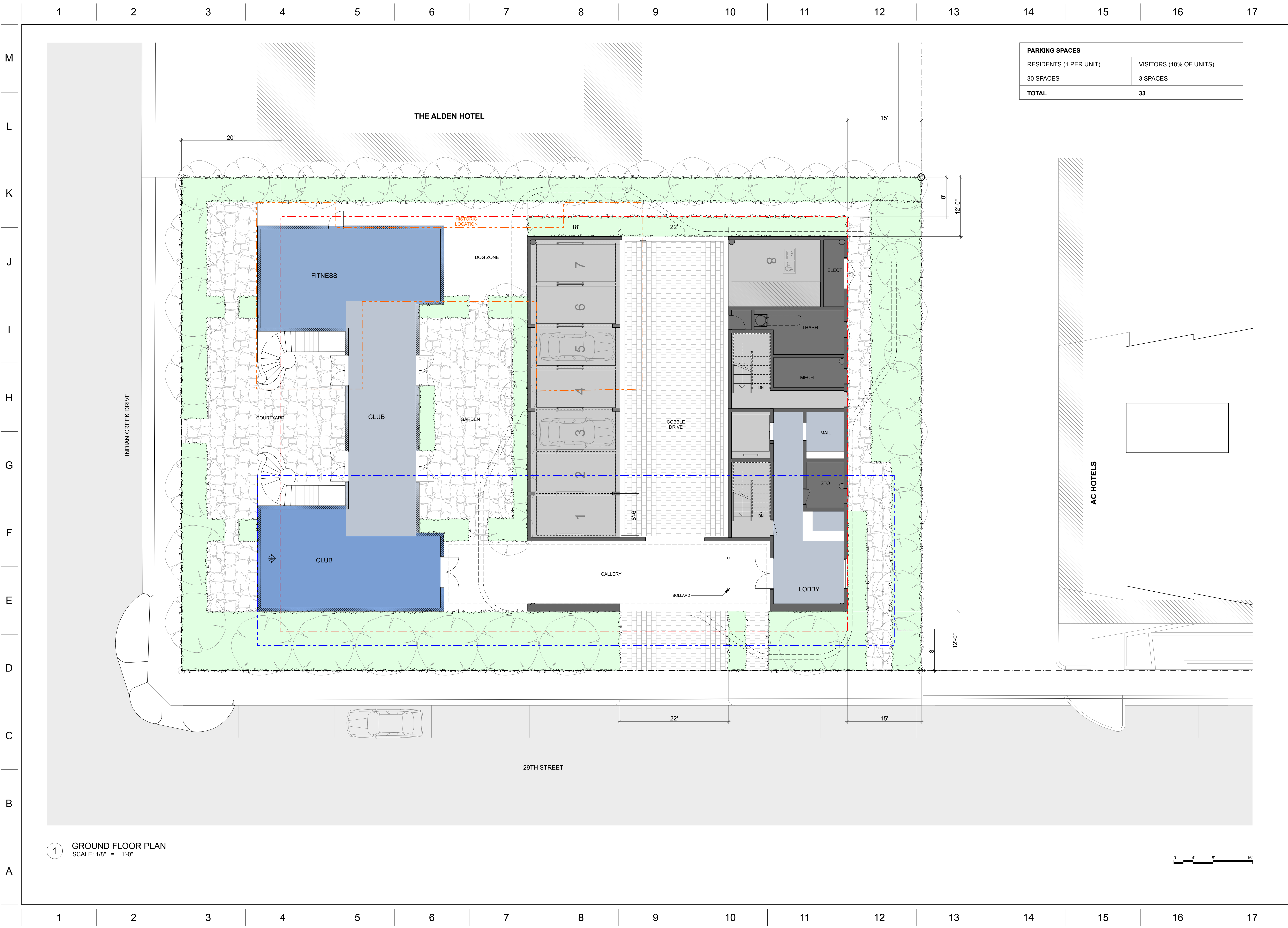
1419
PROJECT NO.

02/23/2015
DATE
AR / CMA / SV / JJ / FM /
FV / ML
DRAWN / CHECKED

GROUND FLOOR

ATTACHMENT B

Site Plan for 2901 Indian Creek



PARKING SPACES	
RESIDENTS (1 PER UNIT)	VISITORS (10% OF UNITS)
30 SPACES	3 SPACES
TOTAL	33

ARCHITECT:

URBAN ROBOT LLC
420 LINCOLN ROAD, S. 406
MIAMI BEACH, FL 33139
(786) 246-4857
(786) 768-2537, F

STRUCTURAL ENGINEER:

M.E.P. ENGINEERS:

CIVIL ENGINEERS:

GENERAL CONTRACTOR:

29 INDIAN CREEK
2911 INDIAN CREEK DRIVE :: MIAMI BEACH, FL 33139

SEAL

URBAN ROBOT LLC
AA26002760 RS26001534 LC26000510

REVISIONS

1419
PROJECT NO.

02/23/2015
DATE
AR / CMA / SV / JJ / FM /
FV / ML
DRAWN / CHECKED

GROUND FLOOR

A-29

ATTACHMENT C

Queuing Analysis

Queuing Analysis based on ITE Procedures

$q = 8$ inbound veh/hr (demand rate)

$Q = 30$ veh/hr (service rate/parking or retrieving)

$$p = \frac{q}{NQ} = 0.2667 \quad (N = 1)$$

$$Q_M = 0.2667$$

Using Acceptable Probability of 5% (95% Confidence Level)

$$M = \left(\frac{\ln(x > M) - \ln(Q_M)}{\ln(p)} \right) - 1$$

$$M = \left(\frac{\ln(0.05) - \ln(0.2667)}{\ln(0.2667)} \right) - 1$$

$$M = \left(\frac{-2.9957 - (-1.3216)}{-1.3216} \right) - 1$$

$$M = 1.27 - 1 = 0.27 \text{ vehicles, say 1 vehicle}$$