SOUTHWEST TRAFFIC ENGINEERING, LLC

REVISED PARKING ANALYSIS

LONGBOW 202

5818 E. MCDOWELL ROAD
MESA, AZ 85215

REVISED 8 JANUARY 2025
5 NOVEMBER 2024

PREPARED FOR
WETTA VENTURES, LLC
3104 EAST CAMELBACK ROAD, SUITE 957
PHOENIX, ARIZONA 85016

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LONGBOW 202
5818 EAST MCDOWELL ROAD (58TH STREET/MCDOWELL ROAD)
PARKING ANALYSIS

Project Description

Wetta Ventures, LLC is proposing a new industrial development (Longbow 202) on the northeast corner of 58th Street/McDowell Road in Mesa, Arizona. The project address is 5818 E. McDowell Road, Mesa, AZ 85215. The vicinity of the project is shown in **Figure 1**. The site will be located as shown in **Figure 2**. The project will include 98,296 square feet of industrial building space served by 143 parking spaces that will replace a previously planned and approved 94,011 square foot industrial building. The purpose of this parking analysis is to determine the parking needs/requirements of the proposed development.

The author of this report is a registered professional engineer (civil) in the State of Arizona having specific expertise and experience in the preparation of parking analyses.

Study Methodology

In order to analyze and evaluate the parking requirements for the project:

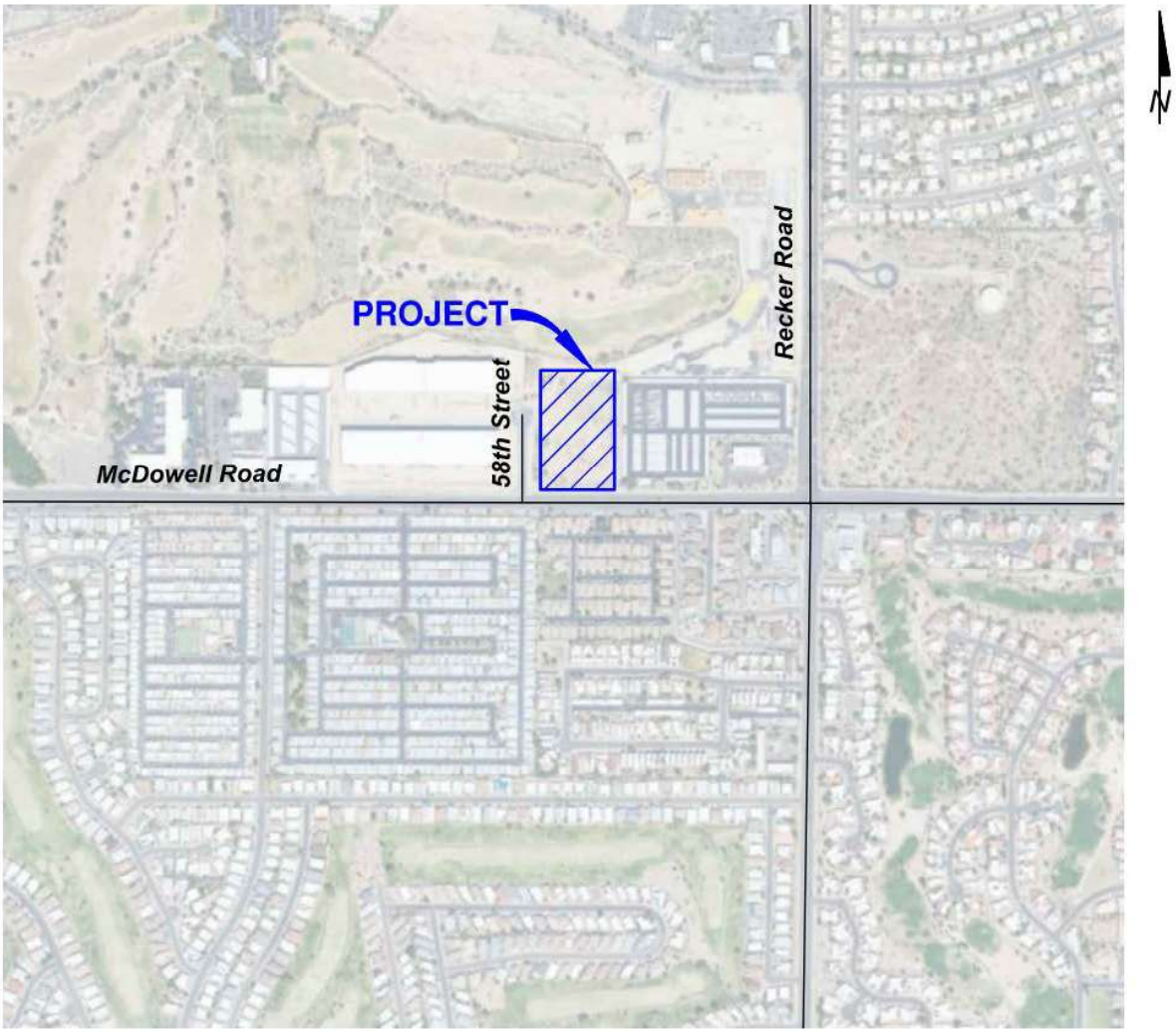
- A review of the site plan was performed to determine the proposed land use.
- A review of City of Mesa (COM) parking requirements was performed to determine the appropriate parking ratios for the site.
- The COM required number of parking spaces was determined.
- The Institute of Transportation Engineers (ITE) parking demand was estimated using *Parking Generation Manual 6th Edition*.
- A review of nearby jurisdiction's parking requirements was completed.

Proposed Development City of Mesa Parking Requirements

The Longbow 202 project will be a 98,296 square foot light industrial development served by 143 parking spaces.

COM provides parking requirements for various land uses in their Zoning Ordinance Chapter 11-32 – "On-Site Parking, Loading, and Circulation." Three of the COM land uses identified in Table 11-32-3(A) could be applied to the project. Per City of Mesa parking regulations, *Group Industrial Buildings and Uses – Shell Buildings* could be appropriate for the site. However, the project is not planned as part of a group of buildings and is expected to be a standalone industrial building, which makes *Independent Industrial Buildings and Uses – Industrial* or *Independent Industrial Buildings and Uses – Warehousing and Storage, excluding Mini-storage* a more appropriate land use. All of these land uses, and the resulting parking requirement for the project site, are shown in **Table 1**.

Figure 1 – Vicinity Map

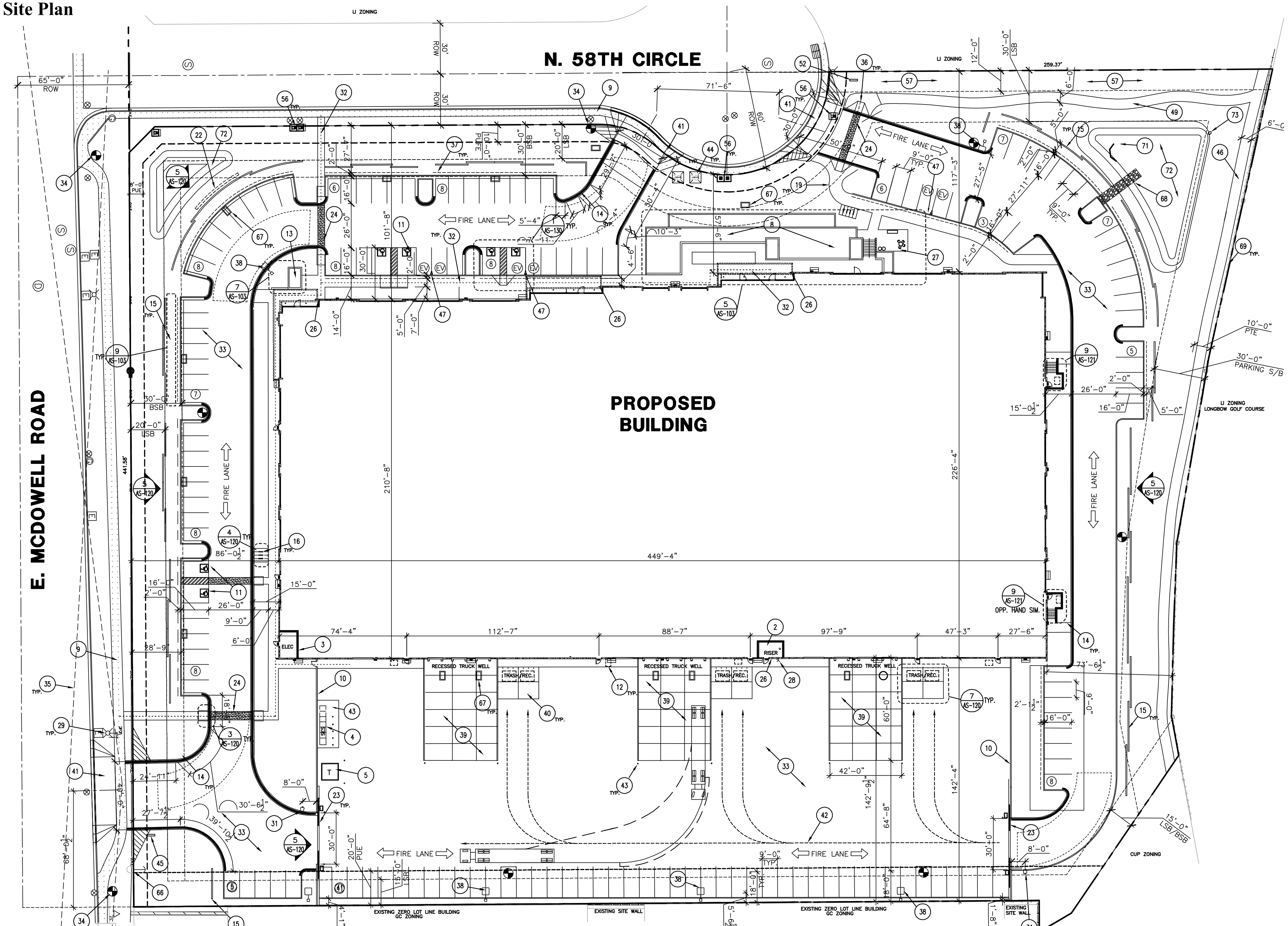


LEGEND:

= Existing Road

= Project Site

Figure 2 - Site Plan



1 SITE PLAN

SCALE 0 30 60 90 120 1" =30'-0"

LEGEND

Symbol	Description
⇦ F.L. ⇨	FIRE LANE DIRECTION
20'-0" / R55'-0"	FIRE LANE TURNING RADIUS
- - - -	ACCESSIBLE PATH TO PUBLIC WAY.
(hydrant symbol)	FIRE HYDRANT
(hatched bar)	PROVIDE FIRE LANE MARKINGS AND RED PAINTED CURB PER MESA FIRE CODE 503.9.2
EV	ELECTRIC VEHICLE PARKING STALL
KB	KNOX BOX PER COP FIRE DEPARTMENT STANDARDS, MOUNTED 5-1/2 TO 6 FEET ABOVE GRADE

KEYNOTES

2. FIRE RISER LOCATION
3. HOUSE ELECTRICAL ROOM WITH ROOF ACCESS
4. SES LOCATION WITH BOLLARD PROTECTION
5. UTILITY TRANSFORMER WITH BOLLARD PROTECTION
8. TERRACED CMU PLANTERS
9. EXISTING ROW CONCRETE SIDE WALK
10. 8' MIN MASONRY SCREEN WALL
11. ACCESSIBLE PARKING WITH AISLE AND ACCESSIBLE RAMP
12. EXTERIOR AREA FOR ASSISTED RESCUE
13. CMU PLANTER WITH SEAT WALL
14. 6" CONCRETE CURB
15. PARKING SCREEN WALL, 3'-4" AFF
16. BIKE PARKING
19. CONCRETE SIDEWALK WITH EXPOSED AGGREGATE
22. PROPOSED SIGNANGE-SEPARATE PERMIT
23. MANUAL SLIDING GATES. PROVIDE CONDUIT ROUGH-IN TO HOUSE ELECTRICAL ROOM FOR FUTURE GATE MOTOR AND ACCESS PEDESTAL
24. EXPOSED AGGREGATE AT CROSSWALK
26. KNOX BOX PER FIRE DEPARTMENT STANDARDS
27. EMPLOYEE AMENITY AREA
28. FIRE DEPARTMENT CONNECTION
29. EXISTING STREETLIGHT TO REMAIN
31. FUTURE GATE ACCESS PEDESTAL
32. ACCESSIBLE PATH TO THE PUBLIC WAY
33. CONCRETE PAVING PER CIVIL
34. EXISTING FIRE HYDRANT
35. SIGHT DISTANCE LINE
36. ACCESSIBLE RAMP
37. PARKING OVERHANG
38. POLE-MOUNTED LIGHT FIXTURE, 25'-0" MAX HEIGHT
39. TRUCK WELL WITH CONCRETE GUARDRAILS, 42" AFF
40. DOUBLE BIN REFUSE PAD
41. NEW CONCRETE SIDEWALK AND DRIVE PER CIVIL
42. SOLID WASTE VEHICLE PATH
43. 6" X 5' HIGH PIPE BOLLARD – PAINTED SAFETY YELLOW
44. EXISTING ELECTRICAL CABINET TO REMAIN
45. ELECTRONICALLY MONITORED FIRE LINE BACKFLOW PREVENTER PER CIVIL
46. MULTI-USE TRAIL PER LONGBOW DESIGN GUIDELINES AND CC&R'S. COMPACTED DECOMPOSED GRANITE WITH STEEL PLATE EDGER. TIE INTO EXISTING TRAIL AT NORTH AND SOUTH
47. PROVIDE ROUGH-IN FOR FUTURE ELECTRIC VEHICLE CHARGERS. STUB CONDUITS UP AT INTERIOR FACE OF NEAREST EXTERIOR WALL
49. ACCESSIBLE PATH TO MULT-USE TRAIL COMPACTED DECOMPOSED GRANITE WITH STEEL PLATE EDGER PER LONGBOW DESIGN GUIDELINES AND CC+R'S
52. BACKFLOW PREVENTER-SEE CIVIL
56. EXISTING WATER VALVE BOX
57. 12'-0" CLEAR OF LANDSCAPE MATERIAL. PROVIDE DECOMPOSE GRANITE WITH STEEL PLATE EDGER PER LONGBOW DESIGN GUIDELINES AND CC+R'S.
66. EXISTING POWER POLE TO REMAIN
67. CATCH BASIN PER CIVIL
68. RIP-RAP PER CIVIL
69. EXISTING GOLF COURSE FENCE TO REMAIN
71. HEADWALL WITH GUARDRAIL PER CIVIL
72. RETENTION AREA
73. MITERED PIPE END AT RETENTION BASIN SLOPE. COORDINATE TIE-IN TO GOLF COURSE STORM DRAIN SYSTEM WITH GOLF COURSE SUPERINTENDENT. RESTORE ALL CONDITIONS OF LANDSCAPE, CART PATH, AND TURF TO EXISTING PRIOR TO CONNECTION.?

ERRC SURVEY

THIS FACILITY MUST BE TESTED BY A THIRD PARTY ENTITY INDICATING THIS FACILITY IS CAPABLE OF RADIO TRANSMITTING EMERGENCY RADIO TRAMSMISSIONS ANYWHERE WITHIN THIS FACLITY. IF THE FACILITY DOES NOT MEET THE PHOENIX FIRE CODE, THEN THE FACILITY WILL NEED TO BE EQUIPPED WITH AN EMERGENCY RADIO COMMUNICATION SYSTEM.

SITE DATA

PROJECT:
LONGBOW 202 SHELL BUILDING

ADDRESS:
5818 E. MCDOWELL ROAD
MESA, AZ 85215

GOVERNING MUNICIPALITY:
CITY OF MESA

APN:
141-41-017A

LONGBOW BUSINESS PARK:
LOTS 3 AND 4, LONGBOW BUSINESS PARK LOT 6 REPLAT ACCORDING TO BOOD 1055 OF MAPS PAGE 8, MCR.

APPLICABLE CODES:
2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL PLUMBING CODE
2017 NATIONAL ELECTRICAL CODE
2018 INTERNATIONAL FIRE CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2010 ADA GUIDELINES
CITY OF MESA AMENDMENTS

PROJECT DESCRIPTION:
DEVELOPMENT OF VACANT LAND FOR A SINGLE INDUSTRIAL SHELL BUILDING. BUILDING WILL ATTAIN CERTIFICATE OF COMPLETION.

CURRENT ZONING:
LI

REQUIRED ZONING:
LI

USE RESTRICTIONS:
LONGBOW BUSINESS PARK

SITE AREA:
GROSS SITE = 300,166 SF (6.9 ACRES)
NET SITE = 288,166 SF (6.6 ACRES)

MAXIMUM LOT COVERAGE:
98,296 SF/288,166 SF = 34%
211,014 SF/288,166 SF = 73.2%

TOTAL LANDSCAPE AREA:
77,152 S.F (26.8% OF SITE AREA)
(25.7% OF THE GROSS SITE AREA)

BUILDING SETBACK	REQ.	PROV.	LANDSCAPE SETBACK	REQ.	PROV.
NORTH	0'	73'-6 1/2"	NORTH	15'	15'"
EAST	0'	142'-4"	EAST	0'	3'
SOUTH	30'	86'-0 1/2"	SOUTH	20'	20'
WEST	30'	57'-6"	WEST	15'&20'	15'&20'

OCCUPANCY(IES): PROPOSED: B AND S

BUILDING HEIGHT:
ALLOWED: 40'-0"
ACTUAL: 40'-0"

BUILDING AREA:
BUILDING FOOTPRINT 98,296 SF

CONSTRUCTION TYPE(S):
TYPE III-B W/ FIRE SPRINKLER (PER IBC AND NFPA 13)

PARKING CALCULATIONS: PER MESA ZONING "SHELL CALCULATION"

USE	S.F.		
SHELL	24,114 SF (25%)	1 SP/ 375 SF	64
	74,182 SF (75%)	1 SP/ 500 SF	148
		TOTAL SPACES REQUIRED	212

TOTAL NUMBER OF SPACES PROVIDED

STANDARD PARKING SPACES:	137
ACCESSIBLE PARKING PROVIDED:	6
TOTAL SPACES PROVIDED (REFER TO PARKING STUDY)	143

FUTURE EV SPACES: 1 ADA/5 STANDARD
LOADING SPACES: 15
BICYCLE SPACES (REQ'D/PROV'D): 14/14

PROJECT TEAM

OWNER:
WETTA VENTURES
3104 E. CAMELBACK RD. #957
PHOENIX, AZ 85016
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ARCHITECT
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4600 E. INDIANSCHOOL RD.
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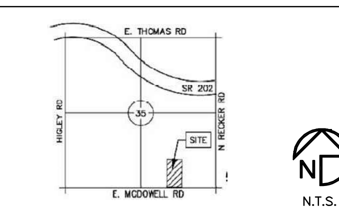
E-MAIL: kohmann@2929.com
CONTACT: KAREN OHMANN

VICINITY MAP



CITY TRACKING NUMBERS

DRB 24-00961
ZON 24-00962

DEUTSCH ARCHITECTURE GROUP
4600 E INDIAN SCHOOL RD.
PHOENIX, ARIZONA 85018
602.840.2929 2929.COM

LONGBOW 202 SHELL BUILDING
5818 E. MCDOWELL ROAD
MESA, AZ 85215

FIRST ISSUED: 12/16/2024

REVISIONS		
No.	DATE	DESCRIPTION

PROJECT NO: 25154.00
DRAWN BY: JM/CM
CHECKED BY: KO

SITE PLAN

AS-100

PRELIMINARY - NOT FOR CONSTRUCTION

Table 1 – City of Mesa Parking Requirements

Land Use	Size	Parking Requirements	Minimum Parking Spaces Needed
Independent Industrial Buildings and Uses Warehousing and Storage, excluding Mini-storage	98,296 sf	1 space per 900 s.f.	110
Independent Industrial Buildings and Uses Industrial	98,296 sf	1 space per 600 s.f.	164
Group Industrial Buildings and Uses Shell buildings (no specified use)	98,296 sf	75% at 1 space per 500 s.f. 25% at 1 space per 375 s.f.	213

The COM standard parking rate for light industrial results in a requirement of 110, 164 or 213 parking spaces. Depending on which COM industrial building land use is used to represent the site, the proposed parking supply of 143 parking spaces provides a surplus of 33 parking spaces or a deficit of 21 or 70 parking spaces, respectively.

Institute of Transportation Engineers Parking Requirements

ITE provides nationally agreed upon parking demand data for multiple land uses. National parking rates from the *Parking Generation Manual 6th Edition* (October 2023) were reviewed to provide a comparison to COM requirements and the proposed 143 parking spaces. The ITE parking requirement for project site is shown in **Table 2**.

Table 2 – Institute of Transportation Engineers Industrial Parking Requirements

Land Use	Land Use Code	Size	Parking Requirements	Minimum Parking Spaces Needed
General Light Industrial	110	98,296 sf	0.67 space per 1,000 s.f.	66

Table 2 shows the ITE weekday average parking rate during the peak period parking demand for light industrial results in a requirement of 66 parking spaces. The proposed parking supply of 143 parking spaces would provide an expected surplus of 77 parking spaces per ITE.

Industrial Parking Ratios in Nearby Jurisdictions

Based on COM requirements, the proposed site could provide fewer parking spaces than required, yet per ITE guidelines it would provide more. As City of Mesa requirements appear to be excessive for this project, parking requirements of various nearby jurisdictions (most of which experience relatively high volumes of light industrial development) were reviewed. The result of this review is shown in **Table 3**.

Table 3 – Industrial Parking Requirements by Jurisdiction

Land Use	Required Parking	Jurisdiction	Total Size	Minimum Parking Spaces
Manufacturing/ Industrial Uses	MAXIMUM spaces allowed: 1 space per 300 sq. ft. for the 1st 10,000 sq. ft. of floor area & 1 space per 3,000 sq. ft. for the remaining floor area	Avondale, Arizona	98,296 s.f.	63
Unspecified Industrial Use (Shell Building)	1 space per 1,000 sq. ft (0 to 150,000 sq. ft.)	Phoenix, Arizona	98,296 s.f.	99
Other Industrial Uses	1 space per 1,000 sq. ft. for the 1st 10,000 sq. ft. of floor area & 1 space per 5,000 sq. ft. for the remaining floor area & 1 space per 300 sq. ft. of office floor area	Goodyear, Arizona	98,296 s.f. (including an assumed 24,572 s.f. office space, 25% of building area)	105

*number of employees is not known

Table 3 shows that the proposed project would require between 105 and 63 parking spaces if it were located in Avondale, Goodyear, or Phoenix.

Conclusion

The COM standard parking rate for light industrial results in a requirement of 110, 164 or 213 parking spaces. Depending on which COM industrial building land use is used to represent the site, the proposed parking supply of 143 parking spaces provides a surplus of 33 parking spaces or a deficit of 21 or 70 parking spaces.

According to the ITE parking demand data, the project is expected to have a parking surplus of 77 parking spaces.

The same site would be considered to have adequate parking based on the requirements of several nearby jurisdictions. **Table 4** shows these nearby jurisdictions, the minimum parking requirements in the jurisdiction, and the resulting parking surplus that would exist at the site with the proposed 143 parking spaces.

Table 4 – Parking Surplus Expected in Nearby Jurisdictions

Jurisdiction	Minimum Parking Spaces Required	Proposed Parking Spaces	Parking Surplus
Avondale, Arizona	63	143	80
Phoenix, Arizona	99	143	44
Goodyear, Arizona	105	143	38

Table 4 shows that the Longbow 202 project would have a parking surplus between 38 and 80 parking spaces based on Avondale, Goodyear, or Phoenix parking standards.

The proposed 143 parking spaces are expected to adequately meet the parking demands of the Longbow 202 project.

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