5 September 2023

David Laws, PE
Town of Oro Valley
11000 N. La Cañada Drive
Oro Valley, Arizona 85737

SUBJECT: ORACLE EXTRA SPACE STORAGE EXPANSION
HARDY ROAD/ORACLE ROAD
REVISED TRAFFIC IMPACT STATEMENT

Dear Mr. Laws,

Please find enclosed a brief traffic impact statement (TIS) regarding the Oracle Extra Space Storage Expansion project on the southeast corner of Hardy Road/Oracle Road in Oro Valley, Arizona. The vicinity of the project is shown in **Figure 1**. The project will consist of a proposed additional 51,700 square feet of mini storage space with sixty eight (68) recreational vehicle (RV) storage spaces as shown in **Figure 2**. The site will be served by two (2) access points, one existing on Oracle Road, and one proposed on Hardy Road.

The purpose of this traffic impact statement is to estimate the traffic generation associated with the Oracle Extra Space Storage project and identify the possible impacts of the site on the immediate area.

Existing Conditions

The project is located on a vacant lot adjacent to the existing Extra Space Storage facility on the southeast corner of Hardy Road/Oracle Road.

An existing Oracle Extra Space is located behind an existing Circle K on the southeast corner of Hardy Road/Oracle Road. The storage facility is served by one existing right in/right out access point (Main Access) located on the east side of Oracle Road approximately 415 feet south of Hardy Road, Northbound vehicles approaching the driveway are offered two through lanes and a shared through/right-turn lane. This driveway is approximately 205 feet south of the driveway on Oracle Road that serves the Circle K (Circle K Driveway).

Oracle Road, also known as State Route 77 (SR 77), is a north/south aligned arterial roadway bordering the west side of the project site. Three through lanes, separated by a raised median, are provided for each direction of travel. Curb, gutter, and sidewalk facilities are not present. The posted speed limit on Oracle Road is 50 miles per hour (mph). SR 77 is a regional route that connects Tucson to Globe, Arizona.

Hardy Road, east of Oracle Road, is an east/west aligned collector roadway that provides a single lane in both directions separated by a two-way center left turn lane. Curb, gutter, and sidewalk facilities are present on the north side of the roadway adjacent to the project site. The posted speed limit is 25 mph east of Oracle Road.

Hardy Road/Oracle Road is a four leg signalized intersection. Eastbound vehicles approaching the intersection are provided a dedicated left turn lane and shared through/right turn lane. The westbound approach to the intersection offers an exclusive left turn lane, through lane, and an exclusive right turn lane. Northbound and southbound approaching vehicles are provided an exclusive left turn lane, two through lanes, and a shared through/right turn lane.

Access

The Oracle Extra Space Storage expansion project is expected to be served by two (2) access points, one existing on Oracle Road, and one proposed on Hardy Road.

East Access will be located approximately 300 feet east of Oracle Road on the south side of Hardy Road between the Circle K driveway and the Sunnyslope Apartments driveway. The driveway will offer full access to and from the project site. Eastbound traffic approaching the driveway will be offered a shared through/right-turn lane, while westbound vehicles approaching the intersection will be offered a shared left turn/through lane. Northbound vehicles exiting the site will be STOP controlled and provided a shared left/right turn lane.

Main Access will remain the primary access point to the existing Oracle Extra Space facilty and will continue to operate as a right-in/right-out driveway. Westbound traffic exiting the project site will be STOP controlled and will be offered an exclusive right turn lane. Northbound vehicles approaching the driveway will be offered two through lanes and a shared through/right turn lane.

An internal connection point will be provided between the Oracle Extra Space project and the existing Extra Space Storage facility for continuity, enabling maintenance and security personnel access to both sites.

Figure 3 shows the locations, geometry, and spacing for the proposed access points that will serve the site.

Trip Generation

Trip generation was developed utilizing nationally agreed upon data contained in the Institute of Transportation Engineers (ITE) publication *Trip Generation, 11th Edition*, 2021. The project trip generation was estimated for the construction of a 51,700 square feet of mini storage space with sixty eight (68) recreational vehicle storage spaces based on ITE Land Use Code 151, Mini Warehouse (LUC 151). The result is the expected weekday trip generation for the project as shown in **Table 1**. The complete trip generation calculations can be found in the Appendix.

Table 1 – Project Site Generated Trips

Time Period	Mini-Warehouse (151) Storage Facility Building	Mini-Warehouse (151) Rec Vehicle Storage	Total
Average Daily, Inbound (vtpd)	38	7	45
Average Daily, Outbound (vtpd)	38	7	45
Total Daily	**76**	**14**	**90**
AM Peak Hour, Inbound (vtph)	3	1	3
AM Peak Hour, Outbound (vtph)	2	0	3
Total AM Peak	**5**	**1**	**6**
PM Peak Hour, Inbound (vtph)	4	1	5
PM Peak Hour, Outbound (vtph)	4	1	5
Total PM Peak	**8**	**2**	**10**

vtpd - vehicle trips per day, vtph - vehicle trips per hour

Conclusion

The Oracle Extra Space expansion project site is expected to generate an additional 6 trips during the weekday AM peak hour and 10 trips during the weekday PM peak hour. This limited number of trips is not expected to warrant additional right turn lanes or have a significant impact on the surrounding roadway network.

Thank you again for your time and review of this TIS. If you have any questions regarding the TIS, please feel free to contact me at 602.266.7983.

Respectfully Submitted,

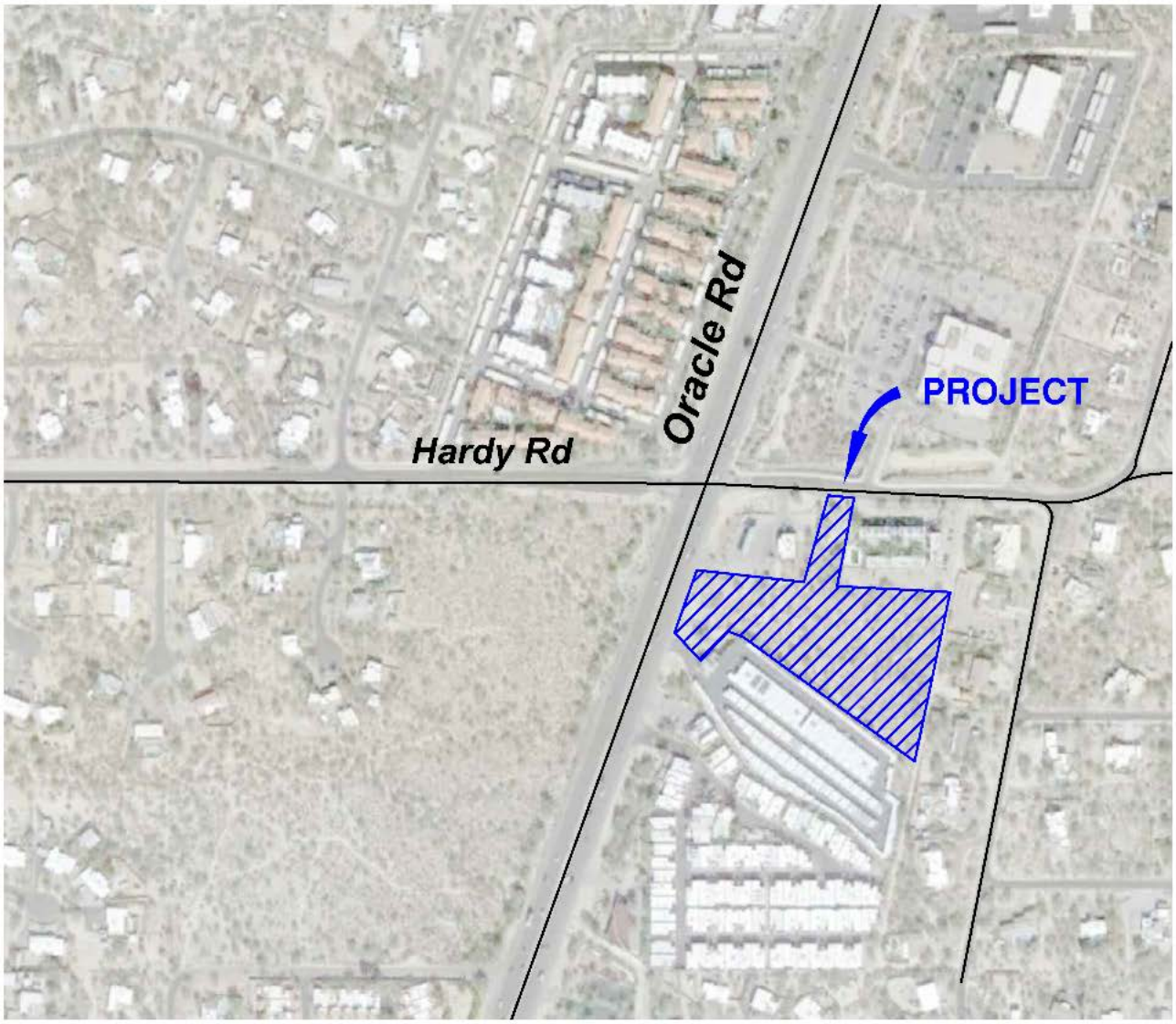
Andrew Smigielski, PE, PTOE, PTP
Southwest Traffic Engineering, LLC
Traffic Engineer

Registered Professional Engineer (Civil)
CERTIFICATE NO.
32339
ANDREW R.
SMIGIELSKI
Date Signed 5/30/23
ARIZONA, U.S.A.

cc: James Gomes, Arizona Department of Transportation (by email)
Clint Kleppe, Extra Space Storage (by email)

Attachments:
Figure 1 – Vicinity Map
Figure 2 – Site Plan
Figure 3 – Proposed Lane Configuration and Traffic Control
Trip Generation Calculations
Comment Resolution

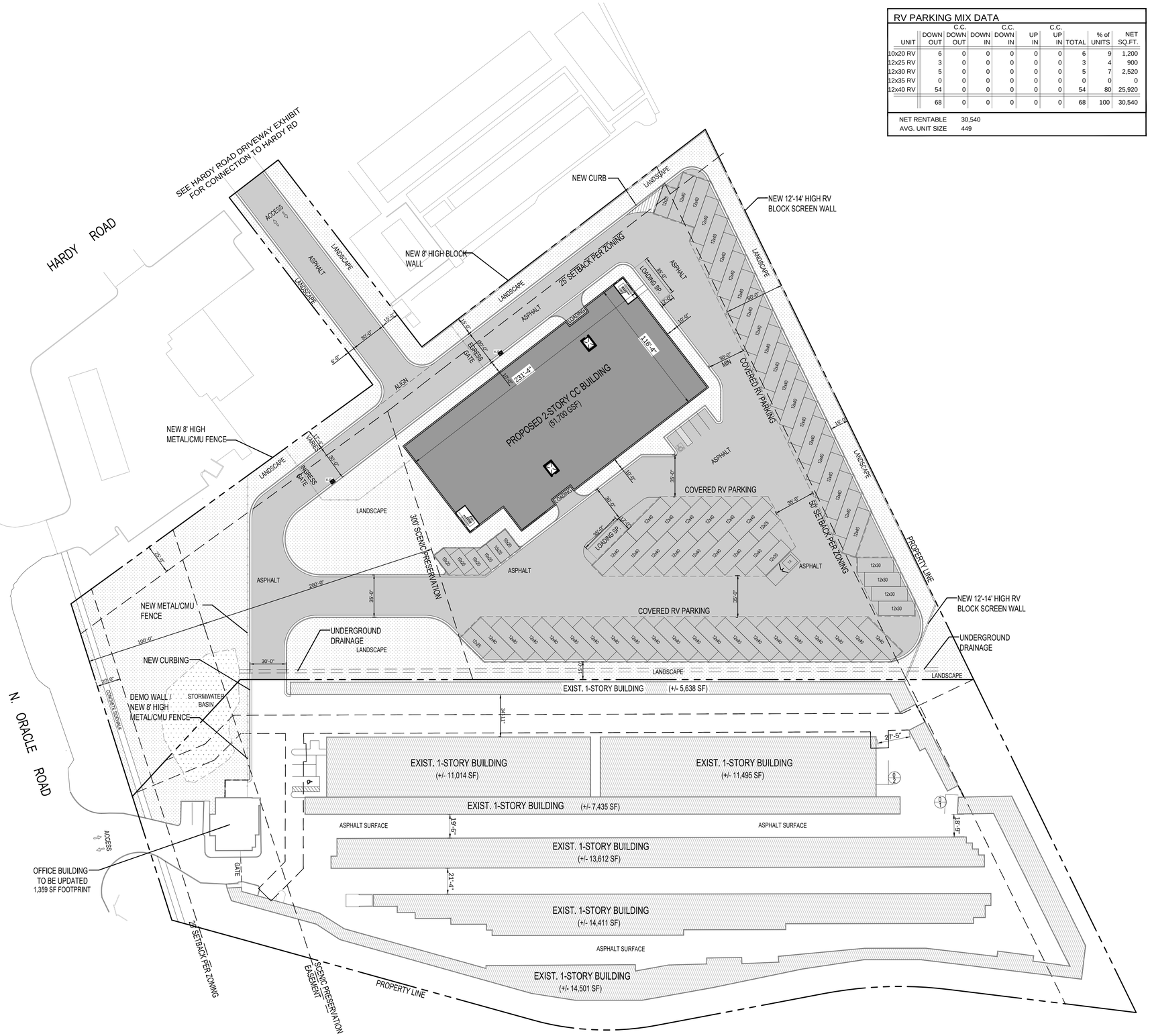
Figure 1 – Vicinity Map



LEGEND:

EXISTING ROAD

FUTURE PROJECT SITE



SITE PLAN

SCALE: 1" = 40'-0"

NORTH

RV PARKING MIX DATA									
UNIT	DOWN OUT	C.C. DOWN OUT	DOWN IN	C.C. DOWN IN	UP IN	C.C. UP IN	TOTAL	% of UNITS	NET SQ.FT.
10x20 RV	6	0	0	0	0	0	6	9	1,200
12x25 RV	3	0	0	0	0	0	3	4	900
12x30 RV	5	0	0	0	0	0	5	7	2,520
12x35 RV	0	0	0	0	0	0	0	0	0
12x40 RV	54	0	0	0	0	0	54	80	25,920
	68	0	0	0	0	0	68	100	30,540

NET RENTABLE	30,540
AVG. UNIT SIZE	449

ZONING DATA

LOT GROSS SF (COMBINED LOTS)	394,284
ZONING	C-1 - C-2 REZONE
MAX BUILDING HEIGHT	30'-0"
F.A.R. ALLOWED	.40
MINIMUM OPEN SPACE	20%
FRONT SETBACK	20'-0"
SIDE SETBACK	25'-0"
REAR SETBACK	50'-0"
SCENIC PRESERVATION SET BACK	300'

EXISTING GROSS DATA

F.A.R.	.42
LOT GROSS SF	+/- 191,315
LOT NET SF	+/- 188,498
IMPERVIOUS COVERAGE	+/- 48,872 GSF (28%)
OPEN SPACE	33,237 (18%)
BUILDING(S) GSF	+/- 79,465
EXISTING NRSF	+/- 58,580 (75% ESTIMATED)
BUILDING HEIGHT	19'-6"

TOTAL PARKING REQUIRED	N/A
REGULAR PARKING	7 SPACES
ACCESSIBLE PARKING	1 SPACES
LOADING	0 SPACES

EXPANSION GROSS DATA

F.A.R.	.25
LOT GROSS SF	+/- 228,624
LOT NET SF	+/- 199,665
IMPERVIOUS COVERAGE	+/- 104,206 GSF (52%)
OPEN SPACE	+/- 71,562 GSF (36%)
BUILDING(S) GSF	+/- 51,700
RV CANOPIES GSF	+/- 30,540
PROPOSED NRSF	+/- 39,025 (75% ESTIMATED)
BUILDING HEIGHT	29'-0"

TOTAL PARKING REQUIRED	N/A
RV PARKING	68 SPACES
REGULAR PARKING	3 SPACES
ACCESSIBLE PARKING	1 SPACES
LOADING	0 SPACES

COMBINED GROSS DATA

F.A.R.	.33
LOT NET SF	+/- 388,163
IMPERVIOUS COVERAGE	+/- 144,366 GSF (40%)
OPEN SPACE	+/- 104,799 (27%)
BUILDING(S) GSF	+/- 131,165
RV CANOPIES GSF	+/- 30,540
PROPOSED NRSF	+/- 108,206 (82% ESTIMATED)

NORTH

GRAPHIC SCALE IN FEET

0' 20' 40' 80'

ARC Services Inc.
14010 N. SUSSEX PLACE
Fountain Hills, Arizona 85268
phone (480)-837-0761
fax (480)-907-1135

seal

revisions

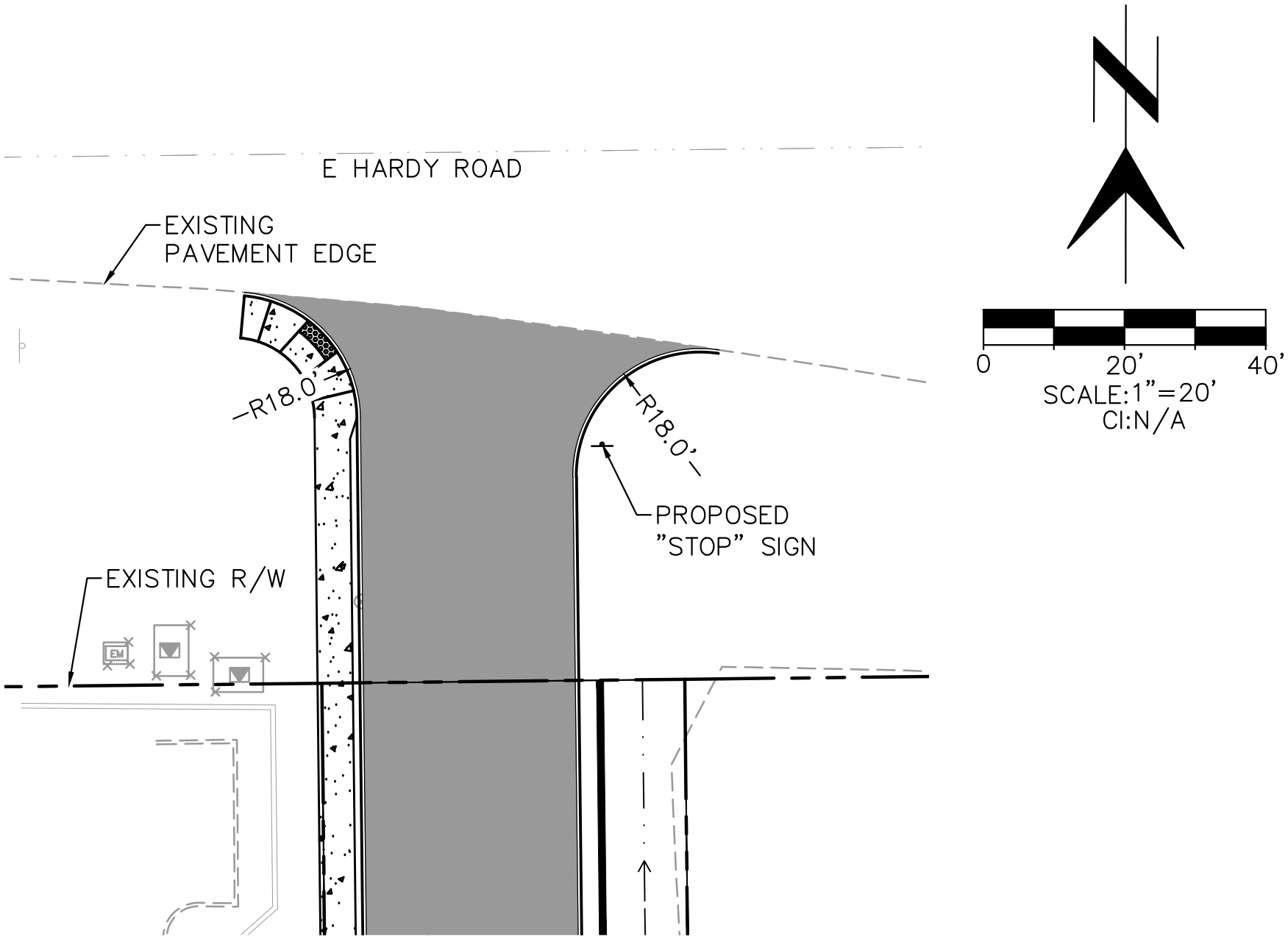
EXTRA SPACE
SELF STORAGE #0814
8710 NORTH ORACLE ROAD
ORO VALLEY, ARIZONA

Title: SITE PLAN
Date: 07/25/23
Project number: ES-OV22
Drawn by: RL
Checked by: PAG
CAD file:

- [■] Design Development
- [ ] Progress Const. Docs.
- [ ] City Submittal
- [ ] Bid Package
- [ ] Construction Issue
- [ ] Record Drawings

Sheet Number:

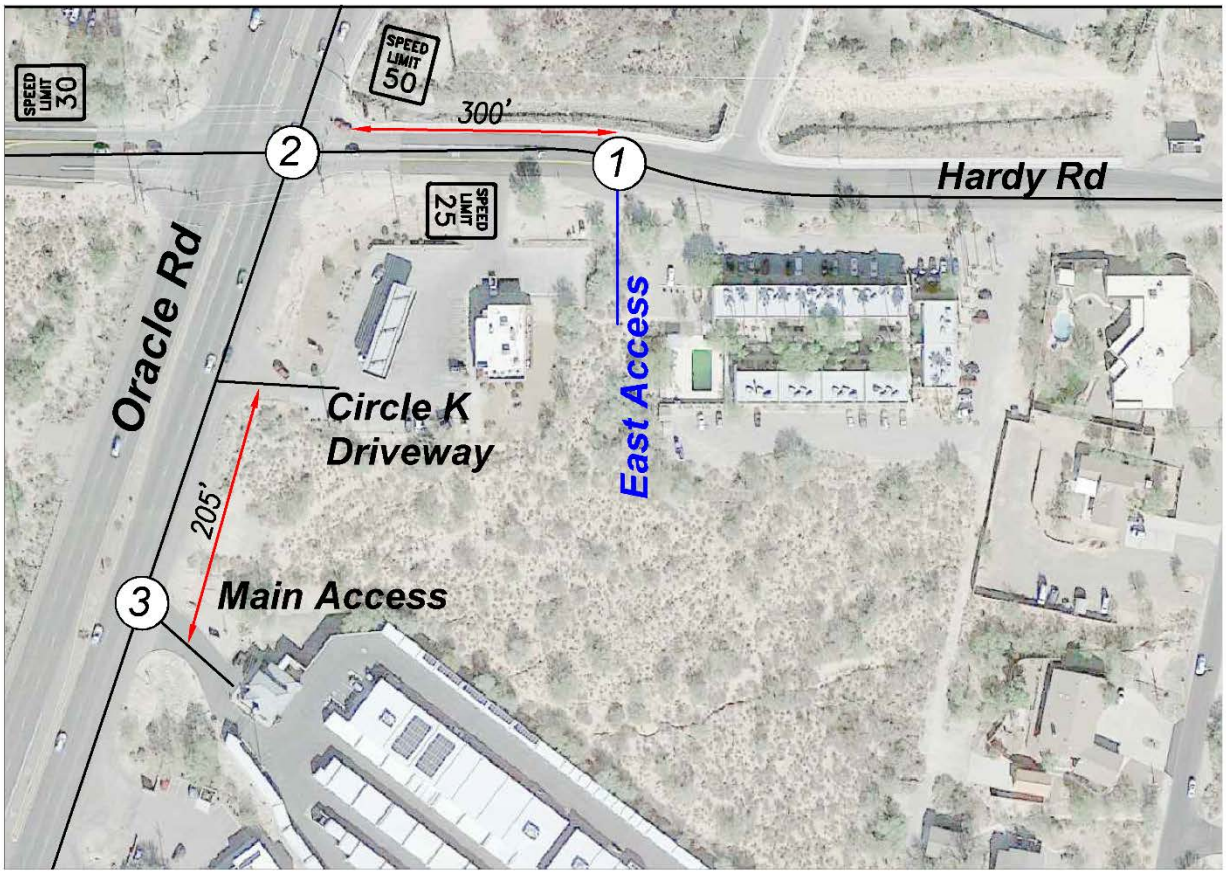
SP



3300 East Sunrise Drive, Suite 130
Tucson, Arizona 85718

HARDY ROAD
DRIVEWAY EXHIBIT

Figure 3 – Proposed Lane Configuration and Traffic Control



LEGEND:

= Traffic Signal

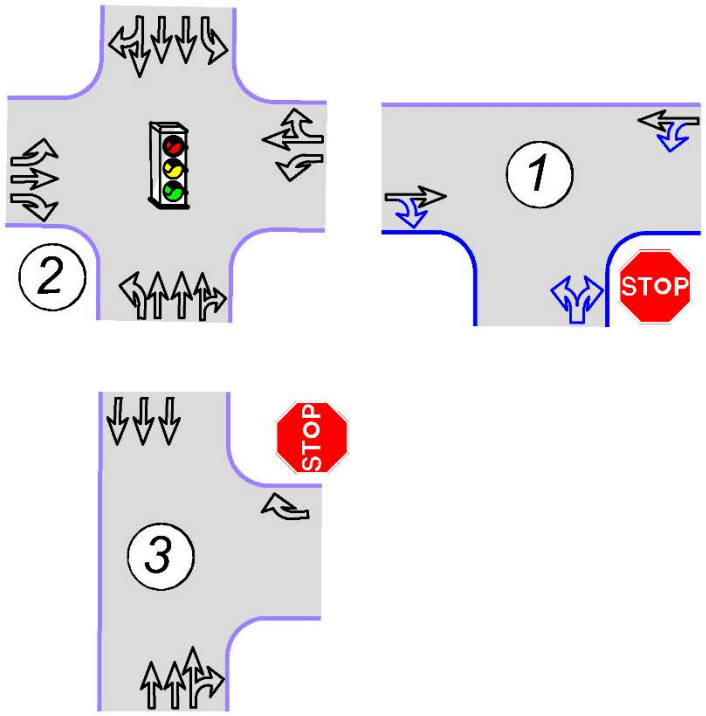
STOP = Stop Sign

= Existing Road

= New Access

= Existing Movement

= Proposed Movement



Mini-Warehouse

LAND USE: 51,700 Square Feet Mini-Warehouse

TRIP GENERATION CALCULATIONS ARE BASED ON THE INSTITUTE OF TRANSPORTATION ENGINEERS' TRIP GENERATION, 11TH EDITION. THE ITE LAND USE CODE IS Mini-Warehouse (151), General Urban/Suburban

WEEKDAY

Average Rate = 1.45 Trips per 1000 Square Feet (Sq Ft.)

T = 1.45 Trips x 51700 Sq Ft. / 1000

T = 76 VTPD

ENTER: (0.5)*(76) = **38 VTPD**

EXIT: (0.5)*(76) = **38 VTPD**

AM PEAK HOUR (ONE HOUR BETWEEN 7 AND 9 AM)

Average Rate = 0.09 Trips per 1000 Square Feet (Sq Ft.)

T = 0.09 Trips x 51700 Sq Ft. / 1000

T = 5 VPH

ENTER: (0.59)*(5) = **3 VPH**

EXIT: (0.41)*(5) = **2 VPH**

PM PEAK HOUR (ONE HOUR BETWEEN 4 AND 6 PM)

Average Rate = 0.15 Trips per 1000 Square Feet (Sq Ft.)

T = 0.15 Trips x 51700 Sq Ft. / 1000

T = 8 VPH

ENTER: (0.47)*(8) = **4 VPH**

EXIT: (0.53)*(8) = **4 VPH**

*where, T = trip ends

TRIP GENERATION SUMMARY

WEEKDAY	**76 VTPD**
AM PEAK HOUR (ONE HOUR BETWEEN 7 AND 9 AM)	**5 VPH**
PM PEAK HOUR (ONE HOUR BETWEEN 4 AND 6 PM)	**8 VPH**

Mini-Warehouse

LAND USE: 68 Storage Units Mini-Warehouse

TRIP GENERATION CALCULATIONS ARE BASED ON THE INSTITUTE OF TRANSPORTATION ENGINEERS' TRIP GENERATION, 11TH EDITION. THE ITE LAND USE CODE IS Mini-Warehouse (151), General Urban/Suburban

WEEKDAY

Average Rate = 17.96 Trips per 100 Storage Units (SU)

T = 17.96 Trips x 68 SU / 100

T = 14 VTPD

ENTER: (0.5)*(14) = **7 VTPD**

EXIT: (0.5)*(14) = **7 VTPD**

AM PEAK HOUR (ONE HOUR BETWEEN 7 AND 9 AM)

Average Rate = 1.21 Trips per 100 Storage Units (SU)

T = 1.21 Trips x 68 SU / 100

T = 1 VPH

ENTER: (0.51)*(1) = **1 VPH**

EXIT: (0.49)*(1) = **0 VPH**

PM PEAK HOUR (ONE HOUR BETWEEN 4 AND 6 PM)

Average Rate = 1.68 Trips per 100 Storage Units (SU)

T = 1.68 Trips x 68 SU / 100

T = 2 VPH

ENTER: (0.5)*(2) = **1 VPH**

EXIT: (0.5)*(2) = **1 VPH**

*where, T = trip ends

TRIP GENERATION SUMMARY

WEEKDAY	**14 VTPD**
AM PEAK HOUR (ONE HOUR BETWEEN 7 AND 9 AM)	**1 VPH**
PM PEAK HOUR (ONE HOUR BETWEEN 4 AND 6 PM)	**2 VPH**