Development Application

CITY OF SCOTTSDALE

Development Application Type:
Please check the appropriate box of the Type(s) of Application(s) you are requesting

Zoning	Development Review	Land Divisions
☑ Rezoning (ZN)	☑ Development Review (Major) (DR)	☐ Subdivision (PP)
☐ In-fill Incentive (II)	☐ Development Review (Minor) (SA)	☐ Subdivision (Minor) (MD)
☐ Conditional Use Permit (UP)	☐ Wash Modification (WM)	☐ Land Assemblage
☐ Text Amendment (TA)	☐ Historic Property (HP)	**Other**
☐ Development Agreement (DA)	**Wireless Communication Facilities**	☐ Annexation/De-annexation (AN)
Exceptions to the Zoning Ordinance	☐ Small Wireless Facilities (SW)	☐ General Plan Amendment (GP)
☐ Minor Amendment (MN)	☐ Type 2 WCF DR Review Minor (SA)	☐ In-Lieu Parking (IP)
☐ Hardship Exemption (HE)	**Signs**	☐ Abandonment (AB)
☐ Variance/Accommodation/Appeal (BA)	☐ Master Sign Program (MS)	**Other Application Type Not Listed**
☐ Special Exception (SX)	☐ Community Sign District (MS)	☐ Other:

Project Name: Axon Campus

Property's Address: Southeast corner of Hayden Road and Loop 101

Property's Current Zoning District Designation: PCD

The property owner shall designate an agent/applicant for the Development Application. This person shall be the owner's contact for the City regarding this Development Application. The agent/applicant shall be responsible for communicating all City information to the owner and the owner application team.

Owner: Rick Smith	**Agent/Applicant:** Charles Huellmantel
Company: Axon Enterprise, Inc.	**Company:** Huellmantel & Affiliates
Address: 17800 N 85th St, Scottsdale, AZ 85255	**Address:** P.O. Box 1833, Tempe, AZ 85280
Phone: (480) 991-0797 **Fax:**	**Phone:** (480) 921-2800 **Fax:**
E-mail: Rick.Smith@axon.com	**E-mail:** charles@huellmantel.com
Designer: Lyle Steely	**Engineer:** Nicholas Brown
Company: Smith Group	**Company:** Wood Patel
Address: 455 N. 3rd Street., Suite 250, Phoenix AZ 85004	**Address:** 2051 W. Northern Ave., #110, Phoenix, AZ 85021
Phone: (602) 824-5348 **Fax:**	**Phone:** (602) 335-8500 **Fax:**
E-mail: lyle.steely@smithgroup.com	**E-mail:** nbrown@woodpatel.com

Please indicate in the checkbox below the requested review methodology (please see the descriptions on page 2).

- *This is not required for the following Development Application types: AN, AB, BA, II, GP, TA, PE and ZN. These applications[1] will be reviewed in a format similar to the Enhanced Application Review methodology.*

☑ **Enhanced Application Review:** I hereby authorize the City of Scottsdale to review this application utilizing the Enhanced Application Review methodology.

☐ **Standard Application Review:** I hereby authorize the City of Scottsdale to review this application utilizing the Standard Application Review methodology.

Owner Signature

Agent/Applicant Signature

Official Use Only Submittal Date: Development Application No.:

Request To Submit Concurrent Development Applications

Acknowledgment and Agreement

CITY OF SCOTTSDALE

The City of Scottsdale recognizes that a property owner may desire to submit concurrent development applications for separate purposes where one or more of the development applications are related to another development application. City Staff may agree to process concurrently where one or more the development applications related to the approval of another development application upon receipt of a complete form signed by the property owner.

Development Application Types **Please check the appropriate box of the types of applications that you are requesting to submit concurrently**		
Zoning	Development Review	Signs
☐ Text Amendment (TA)	☑ Development Review (Major) (DR)	☐ Master Sign Program (MS)
☑ Rezoning (ZN)	☐ Development Review (Minor) (SA)	☐ Community Sign District (MS)
☐ In-fill Incentive (II)	☐ Wash Modification (WM)	Other
☐ Conditional Use Permit (UP)	☐ Historic Property (HP)	☐ Annexation/De-annexation (AN)
Exemptions to the Zoning Ordinance	Land Divisions (PP)	☐ General Plan Amendment (GP)
☐ Hardship Exemption (HE)	☐ Subdivisions	☐ In-Lieu Parking (IP)
☐ Special Exception (SX)	☐ Condominium Conversion	☐ Abandonment (AB)
☐ Variance (BA)	☐ Perimeter Exceptions	Other Application Type Not Listed
☐ Minor Amendment (MA)	☐ Plat Correction/Revision	☐

Owner: Axon Enterprise, Inc.

Company: Axon Enterprise, Inc.

Address: P. O. Box 1833, Tempe, Arizona 85280-1833

Phone: (480) 921-2800 **Fax:**

E-mail: charles@huellmantel.com

As the property owner, by providing my signature below, I acknowledge and agree: 1) that the concurrent development applications are processed at the property owner's risk; 2) to hold the City harmless of all cost, expense, claims, or other liability arising in connection with the concurrent development applications; 3) to the City of Scottsdale's Substantive Policy Statement pertaining to Concurrent Applications; 4) to placing a development application on hold in order to continue processing a concurrent development application that is related to an another development application; and 5) that upon completion of the City review(s) of the development applications, one or more of the development application(s) may not be approved.

Property owner (Print Name): Axon Enterprise, Inc. Title:

Signature Date: September 10, 2020

Charles Huellmantel on behalf of Axon Enterprise, Inc.

Official Use Only: Submittal Date:

Request: ☐ Approved or ☐ Denied

Staff Name (Print):

Staff Signature: Date:

Douglas A. Ducey
Governor

Lisa A. Atkins
Commissioner

Arizona State Land Department

1616 West Adams, Phoenix, Arizona 85007
(602) 542-4631

September 10, 2020

RE: State Trust land located in in Maricopa County
ASLD Commercial Sale No. 53-121327 (the "Parcel")

The Arizona State Land Department (the "Department" or "ASLD") has received a request from Charles Huellmantel, Huellmantel & Affiliates, representing Axon, for permission to act as authorized agent for the Department to apply to the City of Scottsdale (the "Jurisdiction") to amend the Crossroads East Planned Community comparable I-1 zoning district standards related to height, and for permission to make application to the Development Review Board for approval (collectively, the "Entitlements") for the Parcel .

Axon, its employees, representatives, agents, and/or consultants (hereinafter "Applicant") therefore, has the Department's consent to file for the Entitlements as required by the Jurisdiction, subject to the following conditions and understandings.

1. Applicant shall pay all costs associated with the Entitlements and shall not be reimbursed by the Department or by any subsequent purchaser at auction.

2. Applicant, their employees, representatives, agents, and/or consultants shall be permitted to act as the Department's agents to procure the Entitlements and any related permits or approvals which may be required (the "Entitlement Process").

3. Applicant shall diligently pursue the satisfaction of all Entitlements. Further, it shall respond to all inquiries by the Department as to the status of the Entitlement Process.

4. As additional consideration for the grant of this permission, all Entitlements and/or rights and permits obtained pursuant to the described applications are the property of the Department and maybe transferred by the Department at any time.

5. The Jurisdiction is authorized to enter and inspect the subject property.

6. This authorization may be revoked at any time without notice and in no way creates an obligation on the part of the Department of any kind.

All information will be provided to Joe Charles, Sales and Commercial Leasing with a copy to me.

The Department appreciates your consideration in this matter and looks forward to working with you through this process. Please contact Joe Charles at 602-542-2558 or jcharles@azland.gov if you have any questions.

Sincerely,

Mark Edelman, AICP
Director
Planning and Engineering Division

cc: Joe Charles, ASLD Sales & Commercial Leasing

Owner Certification
Acknowledging Receipt
Of
Notice Of Right To Appeal
Exactions And Dedications

I hereby certify that I am the owner of property located at:

Southeast corner of Hayden Road and Loop 101

(address where development approval, building permits, or city required improvements and dedications are being required)

and hereby certify that I have received a notice that explains my right to appeal all exactions and/or dedications required by the City of Scottsdale as part of my property development on the parcel listed in the above address.

Signature of Property Owner

Charles Huellmantel on behalf of Axon Enterprise, Inc.

September 10, 2020
Date

CITY OF SCOTTSDALE ARIZONA

Current Planning Services
Long Range Planning Services

NOTICE OF INSPECTION RIGHTS
A.R.S. § 9-833

You have the right to:

- Have the City staff member present a photo ID.
- Have the City staff member state the purpose for the planning inspection and legal authority to conduct it.
- Know the amount of inspection fees if applicable.
- An on-site representative may accompany the City staff member during the inspection except during confidential interviews and may:
  - Receive copies of any documents taken during the inspection.
  - Receive a split of any samples taken during the inspection.
  - Receive copies of any analysis of the samples taken when available.
- Be informed if statements are being recorded.
- Be given notice that any statements may be used in an inspection report.
- Be presented with a copy of your inspection rights.
- Be notified of the due process rights pertaining to an appeal

You are hereby notified and informed of the following:

- The inspection is conducted pursuant to the authority of A.R.S § 9-462.05. and/or Scottsdale Revised Code, Appendix B, Article I. Section 1.203.
- Any statements made by anyone interviewed during this inspection may be included in the inspection report.
- Information on appeal rights related to this inspection is found under Scottsdale Revised Code, Appendix B, Article I. Section 1.801.
- There is no inspection fee associated with this inspection.

I acknowledge I have been informed of my inspection rights. If I decline to sign this form, the inspector(s) may still proceed with the inspection.

If I have any questions, I may contact the City staff member, Greg Bloemberg

at the following number (480) 312-4306.

Signature: _____ **Date:** September 10, 2020

Printed Name: Charles Huellmantel, Huellmantel & Affiliates

☐ **Check box if signature refused**

Copy of Bill of Rights left at: _____

TITLE REPORT

APPLICATION NO. 53-121237-00-100

Attached is the computer title, lease(s), right(s)-of-way and pending application(s) report for the lands contained in the application referenced above.

ADDITIONAL LEASE/PERMIT INFORMATION:

1. Mortgages and liens of record:

   ☒ None of record ☐ See attached list of liens

2. Subleases:

   ☒ None of record ☐ Sublease(s) on file for Lease No.:

3. Improvements:

   ☐ None of record ☒ Report of improvement(s) on file for Lease No.:

   23-111548-03

   {Attach screen prints of Improvement(s)}

Prepared by: Nancy Garcia
Examiner

December 27, 2019
Date

Computer Parcel Numbers Key

Parcel Number Series	Description
0001	Current State ownership
Inactive	Applications pending
1000	Leases and/or unleased parcels
4000	Environmental Impact Area
5000	Cultural Resource Area
7000	Certificate of Purchase
8000	Multi-Use lease/contracts, SLUP, Urban, government, etc.
9000	Rights-of-Way

(For Administrator use)

Arizona State Land Department

ARIZONA STATE LAND DEPARTMENT
TITLE HISTORY (BY LAND)

DATE: Dec. 24, 19
TIME: 8:49 AM

FROM: 04.0 - N - 04.0 - E - 36 THRU: 04.0 - N - 04.0 - E - 36

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 10 ORIGINAL OWNERSHIP LAST MAINT: 05-Apr-2005

----- ACQUISITION -----

		REF#:	1224275	OWNERSHIP:	STATE TRUST LAND	**--------ACRES --------**	
DESC:	SCHOOL SECT GRANT-SURVEYED	FED#:		COUNTY:	MARICOPA	SURFACE:	663.250
SUBJ:		ST #:	030	GRANT:	PERM COMMON SCHLS	SUB O/G:	663.250
DATE:	21-Oct-1915	FROM:		WITHDRAWAL:		SUB MIN:	663.250

Surface: LOTS 1 THRU 4 N2S2 N2
Oil Gas: LOTS 1 THRU 4 N2S2 N2
Mineral: LOTS 1 THRU 4 N2S2 N2
Comment: SURVEYED 5-5-1914 APPROVED 10-21-1915 FILED 9-18-1916

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 10 ORIGINAL OWNERSHIP LAST MAINT: 11-Sep-1997

----- ACQUISITION -----

		REF#:	54-99252-01	OWNERSHIP:	STATE TRUST LAND	**--------ACRES --------**	
DESC:	INCREASE/DECREASE PATENT	FED#:		COUNTY:	MARICOPA	SURFACE:	0.010
SUBJ:		ST #:	0	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	12-Feb-1992	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: 7.48 AC IS PART OF TRACT 56 STATE PLAT 27 AND 2.47 AC IS PART OF TRACT 21 STATE PLAT 16
Oil Gas:
Mineral:
Comment: INCREASE/DECREASE DUE TO RESURVEY 87-000044

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 20 RESURVEY LAST MAINT: 05-Oct-1992

----- RESURVEY -----

		REF#:	87-00044	OWNERSHIP:	RESURVEY	**--------ACRES --------**	
DESC:	RESURVEY CREDIT	FED#:		COUNTY:	MARICOPA	SURFACE:	-663.250
SUBJ:		ST #:	87-00044	GRANT:	PERM COMMON SCHLS	SUB O/G:	-663.250
DATE:	25-Feb-1988	FROM:		WITHDRAWAL:		SUB MIN:	-663.250

Surface: LOTS 1 THRU 4 N2S2 N2
Oil Gas: LOTS 1 THRU 4 N2S2 N2
Mineral: LOTS 1 THRU 4 N2S2 N2
Comment:

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Arizona State Land Department

ARIZONA STATE LAND DEPARTMENT
TITLE HISTORY (BY LAND)

DATE: Dec. 24, 19
TIME: 8:49 AM

FROM: 04.0 - N - 04.0 - E - 36 THRU: 04.0 - N - 04.0 - E - 36

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 20 RESURVEY LAST MAINT: 07-Dec-1998

----- RESURVEY -----

		REF#:	87-00044	OWNERSHIP:	RESURVEY	**--------ACRES --------**	
DESC:	RESURVEYED	FED#:		COUNTY:	MARICOPA	SURFACE:	663.920
SUBJ:		ST #:	87-00044	GRANT:	PERM COMMON SCHLS	SUB O/G:	663.920
DATE:	25-Feb-1988	FROM:		WITHDRAWAL:		SUB MIN:	663.920

Surface: LOTS 1 THRU 4 N2S2 N2
Oil Gas: LOTS 1 THRU 4 N2S2 N2
Mineral: LOTS 1 THRU 4 N2S2 N2
Comment: SEE REVISED RESURVEYS 87-00044 DATED 9-1-92 AND 5/16/95 2-12-1998

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 20 RESURVEY LAST MAINT: 06-Oct-1992

----- RESURVEY -----

		REF#:	87-00044	OWNERSHIP:	RESURVEY	**--------ACRES --------**	
DESC:	RESURVEY CREDIT	FED#:		COUNTY:	MARICOPA	SURFACE:	-663.920
SUBJ:		ST #:	87-00044	GRANT:	PERM COMMON SCHLS	SUB O/G:	-663.920
DATE:	01-Sep-1992	FROM:		WITHDRAWAL:		SUB MIN:	-663.920

Surface: LOTS 1 TO 4 N2S2 N2
Oil Gas: LOTS 1 TO 4 N2S2 N2
Mineral: LOTS 1 TO 4 N2S2 N2
Comment:

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 20 RESURVEY LAST MAINT: 07-Dec-1998

----- RESURVEY -----

		REF#:	87-00044	OWNERSHIP:	RESURVEY	**--------ACRES --------**	
DESC:	RESURVEYED	FED#:		COUNTY:	MARICOPA	SURFACE:	663.920
SUBJ:		ST #:	87-00044	GRANT:	PERM COMMON SCHLS	SUB O/G:	663.920
DATE:	01-Sep-1992	FROM:		WITHDRAWAL:		SUB MIN:	663.920

Surface: TRACTS 14 AND 25 PART OF TRACTS 21 AND 22 OUTER LOOP (SR177) STATE PLAT 16 TRACTS 15A AND 15B STATE PLAT 16A TRACT N PART OF TRACTS K AND L STATE PLAT 27 AMENDED PAT 7366 PART OF PAT 54-99252-01
Oil Gas: LOTS 1 THRU 4 N2S2 N2
Mineral: LOTS 1 THRU 4 N2S2 N2
Comment:

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Arizona State Land Department

ARIZONA STATE LAND DEPARTMENT
TITLE HISTORY (BY LAND)

DATE: Dec. 24, 19
TIME: 8:49 AM

FROM: 04.0 - N - 04.0 - E - 36 THRU: 04.0 - N - 04.0 - E - 36

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 20 RESURVEY LAST MAINT: 08-Jun-1995

----- RESURVEY -----

		REF#:	87-00044	OWNERSHIP:	RESURVEY	**--------ACRES --------**	
DESC:	RESURVEY CREDIT	FED#:		COUNTY:	MARICOPA	SURFACE:	-663.920
SUBJ:		ST #:	87-00044	GRANT:	PERM COMMON SCHLS	SUB O/G:	-663.920
DATE:	16-May-1995	FROM:		WITHDRAWAL:		SUB MIN:	-663.920

Surface: TRACTS 14 AND 25 PART OF TRACTS 21 AND 22 OUTER LOOP (SR177) STATE PLAT 16 TRACTS 15A AND 15B STATE PLAT 16A TRACT N PART OF TRACTS K AND L STATE PLAT 27 AMENDED PAT 7366 PART OF PAT 54-99252-01
Oil Gas: LOTS 1 THRU 4 N2S2 N2
Mineral: LOTS 1 THRU 4 N2S2 N2
Comment:

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 20 RESURVEY LAST MAINT: 23-Jan-1996

----- RESURVEY -----

		REF#:	87-00044	OWNERSHIP:	RESURVEY	**--------ACRES --------**	
DESC:	RESURVEYED	FED#:		COUNTY:	MARICOPA	SURFACE:	663.920
SUBJ:		ST #:	87-00044	GRANT:	PERM COMMON SCHLS	SUB O/G:	663.920
DATE:	16-May-1995	FROM:		WITHDRAWAL:		SUB MIN:	663.920

Surface: TR 25 PT TR 21 & 22 OUTER LOOP (SR117) ST PL 16 TR 15A & 15B ST PL 16A TR 14A PT TR 10C ST PL 16B TR N PT TR L ST PL 27 AMD PT TR K 1ST AMD ST PL 27 AMD PAT 7366 PT PAT 54-99252-01
Oil Gas: LOTS 1 THRU 4 N2S2 N2
Mineral: LOTS 1 THRU 4 N2S2 N2
Comment:

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 20 RESURVEY LAST MAINT: 07-Dec-1998

----- RESURVEY -----

		REF#:	87-44 & 87-172	OWNERSHIP:	RESURVEY	**--------ACRES --------**	
DESC:	RESURVEY CREDIT	FED#:		COUNTY:	MARICOPA	SURFACE:	-663.920
SUBJ:		ST #:	87-44 & 87-172	GRANT:	PERM COMMON SCHLS	SUB O/G:	-663.920
DATE:	12-Feb-1998	FROM:		WITHDRAWAL:		SUB MIN:	-663.920

Surface: TR 25 PT TR 21 22 OUTER LOOP(SR117) ST PLAT 16 TR 15A 15B ST PLAT 16A TR 14A PT TR 10C ST PLAT 16B TR N PT TR L ST PLAT 27 AMD PT TR K FIRST AMD TO ST PLAT 27 AMD PAT 7366 PT PAT 54-99252-01
Oil Gas: LOTS 1 THRU 4 N2S2 N2
Mineral: LOTS 1 THRU 4 N2S2 N2
Comment:

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Arizona State Land Department

ARIZONA STATE LAND DEPARTMENT
TITLE HISTORY (BY LAND)

DATE: Dec. 24, 19
TIME: 8:49 AM

FROM: 04.0 - N - 04.0 - E - 36 THRU: 04.0 - N - 04.0 - E - 36

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 20 RESURVEY LAST MAINT: 07-Dec-1998

----- RESURVEY -----

		REF#:	87-44 & 87-172	OWNERSHIP:	RESURVEY	**--------ACRES --------**	
DESC:	RESURVEYED	FED#:		COUNTY:	MARICOPA	SURFACE:	663.920
SUBJ:		ST #:	87-44 & 87-172	GRANT:	PERM COMMON SCHLS	SUB O/G:	663.920
DATE:	12-Feb-1998	FROM:		WITHDRAWAL:		SUB MIN:	663.920

Surface: CORE NORTH TR 25 PART TR 21 22 OUTER LOOP(SR117) ST PLAT 16 TR 15A 15B ST PLAT 16A TR 14A PART TR 10C ST PLAT 16B TR N PART TR L ST PLAT 27 AMD PART TR K ST PLAT 46 PAT 7366 PART PAT 54-99252-01
Oil Gas: LOTS 1 THRU 4 S2N2 S2
Mineral: LOTS 1 THRU 4 S2N2 S2
Comment: RESURVEY IN CORE NORTH ONLY

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 11-Sep-1997

----- DISPOSAL -----

		REF#:	CP 10041	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	CERTIFICATE OF PURCHASE - SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	0.000
SUBJ:		ST #:	0782	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	08-Jan-1988	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: LOT 2 NWSE M&B IN LOT 1 LOT 3 S2NE SENW NESW NESE
Oil Gas:
Mineral:
Comment:

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 11-Sep-1997

----- DISPOSAL -----

		REF#:	PAT 7366	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	PATENT OR PARTIAL PATENT-SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	261.360
SUBJ:		ST #:	CP 10041	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	29-Nov-1988	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: LOT 2 NWSE M&B IN LOT 1 LOT 3 S2NE SENW NESW NESE
Oil Gas:
Mineral:
Comment:

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Arizona State Land Department

ARIZONA STATE LAND DEPARTMENT
TITLE HISTORY (BY LAND)

DATE: Dec. 24, 19
TIME: 8:49 AM

FROM: 04.0 - N - 04.0 - E - 36 THRU: 04.0 - N - 04.0 - E - 36

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 23-Jan-1996

----- DISPOSAL -----

		REF#:	54-99252-00	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	CERTIFICATE OF PURCHASE - SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	0.000
SUBJ:	REVERSION RIGHTS RESERVED	ST #:	54-99252	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	20-Nov-1991	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: 7.48 AC IS PART OF TRACT 56 STATE PLAT 27 AND 2.47 AC IS PART OF TRACT 21 STATE PLAT 16
Oil Gas:
Mineral:
Comment: CP 54-99252 CANCELLED TO PATENT 54-99252-01

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 23-Jan-1996

----- DISPOSAL -----

		REF#:	54-99252-01	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	PATENT OR PARTIAL PATENT-SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	9.950
SUBJ:	REVERSION RIGHTS RESERVED	ST #:	54-99252	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	12-Feb-1992	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: 7.48 AC IS PART OF TRACT 56 STATE PLAT 27 AND 2.47 AC IS PART OF STATE PLAT 16
Oil Gas:
Mineral:
Comment:

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 09-Dec-1993

----- DISPOSAL -----

		REF#:	53-52269-00	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	CERTIFICATE OF PURCHASE - SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	0.000
SUBJ:		ST #:	53-52269	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	30-Jun-1993	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: TRACT 25 STATE PLAT 16 (OF CORE SOUTH)
Oil Gas:
Mineral:
Comment: CP 53-52269-00 CANCELLED TO PATENT 53-52269-01 9/3/93

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Arizona State Land Department

ARIZONA STATE LAND DEPARTMENT
TITLE HISTORY (BY LAND)

DATE: Dec. 24, 19
TIME: 8:49 AM

FROM: 04.0 - N - 04.0 - E - 36 THRU: 04.0 - N - 04.0 - E - 36

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 09-Dec-1993

----- DISPOSAL -----

		REF#:	53-52269-01	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	PATENT OR PARTIAL PATENT-SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	5.460
SUBJ:		ST #:	53-52269	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	03-Sep-1993	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: TRACT 25 STATE PLAT 16 (OF CORE SOUTH)
Oil Gas:
Mineral:
Comment:

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 23-Jan-1996

----- DISPOSAL -----

		REF#:	53-52008-00	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	CERTIFICATE OF PURCHASE - SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	0.000
SUBJ:	REVERSION RIGHTS RESERVED	ST #:	53-52008	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	30-Jun-1993	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: TRACTS 15A AND 15B STATE PLAT 16A (OF CORE SOUTH UNRECORDED AMD)
Oil Gas:
Mineral:
Comment: CP 53-52008-00 CANCELLED TO PATENT 53-52008-01

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LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 09-Dec-1993

----- DISPOSAL -----

		REF#:	53-52008-01	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	PATENT OR PARTIAL PATENT-SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	121.780
SUBJ:	REVERSION RIGHTS RESERVED	ST #:	53-52008	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	03-Sep-1993	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: TRACTS 15A AND 15B STATE PLAT 16A (OF CORE SOUTH UNRECORDED AMD)
Oil Gas:
Mineral:
Comment:

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Arizona State Land Department

ARIZONA STATE LAND DEPARTMENT
TITLE HISTORY (BY LAND)

DATE: Dec. 24, 19
TIME: 8:49 AM

FROM: 04.0 - N - 04.0 - E - 36 THRU: 04.0 - N - 04.0 - E - 36

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 23-Jan-1996

----- DISPOSAL -----

		REF#:	53-53947-00	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	CERTIFICATE OF PURCHASE - SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	0.000
SUBJ:		ST #:	53-53947	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	18-Jul-1995	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: M&B IN TRACT N
Oil Gas:
Mineral:
Comment: CP 53-53947-00 CANCELLED TO PATENT 53-53947-01

==========

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 21-Sep-1995

----- DISPOSAL -----

		REF#:	53-53947-01	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	PATENT OR PARTIAL PATENT-SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	6.090
SUBJ:		ST #:	53-53947	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	22-Aug-1995	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: M&B IN TRACT N
Oil Gas:
Mineral:
Comment:

==========

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 17-Mar-1999

----- DISPOSAL -----

		REF#:	53-102558-00	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	CERTIFICATE OF PURCHASE - SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	0.000
SUBJ:	SUBJECT TO EXISTING EASEMENTS	ST #:	53-102558	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	15-Dec-1998	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: M&B IN TRACT 21 - CORE SOUTH - PLAT 16
Oil Gas:
Mineral:
Comment: CP#53-102558-00 CANCELLED TO PAT#53-102558-01 2/24/99

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Arizona State Land Department

ARIZONA STATE LAND DEPARTMENT
TITLE HISTORY (BY LAND)

DATE: Dec. 24, 19
TIME: 8:49 AM

FROM: 04.0 - N - 04.0 - E - 36 THRU: 04.0 - N - 04.0 - E - 36

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 17-Mar-1999

----- DISPOSAL -----

		REF#:	53-102558-01	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	PATENT OR PARTIAL PATENT-SOLD	FED#:		COUNTY:	MARICOPA	SURFACE:	2.750
SUBJ:	SUBJECT TO EXISTING EASEMENTS	ST #:	53-102558	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	24-Feb-1999	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: M&B IN TRACT 21 - CORE SOUTH - PLAT 16
Oil Gas:
Mineral:
Comment:

==========

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 19-Jun-1999

----- DISPOSAL -----

		REF#:	53-100765-00	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	CERTIFICATE OF PURCHASE - SOLD	FED#:	0	COUNTY:	MARICOPA	SURFACE:	0.000
SUBJ:	SUBJECT TO EXISTING EASEMENTS	ST #:	53-100765	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	21-Apr-1999	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: M&B IN TRACT N OF SP 27 AMD

Oil Gas:
Mineral:
Comment: CP#53-100765-00 CANCELLED TO PATENT#53-100765-01 6/17/99

==========

LAND# 04.0-N-04.0-E-36-07-030 TYPE: 30 DISPOSAL LAST MAINT: 19-Jun-1999

----- DISPOSAL -----

		REF#:	53-100765-01	OWNERSHIP:	DISPOSAL	**--------ACRES --------**	
DESC:	PATENT OR PARTIAL PATENT-SOLD	FED#:	0	COUNTY:	MARICOPA	SURFACE:	2.500
SUBJ:	SUBJECT TO EXISTING EASEMENTS	ST #:	53-100765	GRANT:	PERM COMMON SCHLS	SUB O/G:	0.000
DATE:	17-Jun-1999	FROM:		WITHDRAWAL:		SUB MIN:	0.000

Surface: M&B IN TRACT N OF SP 27 AMD
Oil Gas:
Mineral:
Comment:

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Arizona State Land Department

ARIZONA STATE LAND DEPARTMENT
TITLE HISTORY (BY LAND)

DATE: Dec. 24, 19
TIME: 8:49 AM

FROM: 04.0 - N - 04.0 - E - 36 THRU: 04.0 - N - 04.0 - E - 36

REPORT TOTALS:

Number of Land# (s): 24

Total Acres:

Surface:	254.040
Oil Gas:	663.920
Mineral:	663.920

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land#:	04.0-N-04.0-E-36-07-030-0001	**Owner:**	STATE TRUST LAND		Active	**Surface:**	254.040	>
County:	MARICOPA	**Class:**				**Sub O/G:**	663.920	>
Grant:	PERM COMMON SCHLS	**Leased:**	>	**Last Maint:**	21-Aug-2007	**Sub Min:**	663.920	>

Surface: PART TRACTS 21 AND 22 OUTER LOOP (SR101) OF STATE PLAT 16 TRACT 14A AND PART TRACT 10C OF STATE PLAT 16B PART TRACT L AND N OF STATE PLAT 27 AMD PART TRACT K OF STATE PLAT 46
Oil Gas: LOTS 1 THRU 4 N2S2 N2
Mineral: LOTS 1 THRU 4 N2S2 N2
Comments:

Surface Maint: 21-Aug-2007 **Oil Gas Maint:** 01-Jul-1994 **Mineral Maint:** 01-Jul-1994 **Comment Maint:** 01-Jul-1994

Land#	04.0-N-04.0-E-36-07-030-1001	**Owner:**	STATE TRUST LAND		Active	**Surface:**	0.000	>
County:	MARICOPA	**Class:**				**Sub O/G:**	663.920	Y
Grant:	PERM COMMON SCHLS	**Leased:**	N	**Last Maint:**	01-Jul-1994	**Sub Min:**	0.000	>

Surface
Oil Gas: LOTS 1 THRU 4 N2S2 N2
Mineral:
Comments:

Surface Maint: 01-Jul-1994 **Oil Gas Maint:** 01-Jul-1994 **Mineral Maint:** 01-Jul-1994 **Comment Maint:** 01-Jul-1994

----------STATUS ACTIVITY----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land#	04.0-N-04.0-E-36-07-030-1018	**Owner:**	STATE TRUST LAND		Active	**Surface:**	8.200	N
County:	MARICOPA	**Class:**	CONSIS WITH DEV PLAN			**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	N	**Last Maint:**	21-Aug-2007	**Sub Min:**	0.000	>

Surface PART OF TRACT 22 IN STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 21-Aug-2007 **Oil Gas Maint:** 21-Aug-2007 **Mineral Maint:** 21-Aug-2007 **Comment Maint:** 21-Aug-2007

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Land#	04.0-N-04.0-E-36-07-030-1020	**Owner:**	STATE TRUST LAND		Active	**Surface:**	0.000	>
County:	MARICOPA	**Class:**				**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	N	**Last Maint:**	05-Dec-2017	**Sub Min:**	8.200	N

Surface
Oil Gas:
Mineral: M&B IN E2NESE
Comments: CLOSED FOR 53-119059

Surface Maint: 07-Mar-2007 **Oil Gas Maint:** 07-Mar-2007 **Mineral Maint:** 04-Dec-2017 **Comment Maint:** 04-Dec-2017

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land#	04.0-N-04.0-E-36-07-030-1021	**Owner:**	STATE TRUST LAND		Active	**Surface:**	0.000	>
County:	MARICOPA	**Class:**				**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	N	**Last Maint:**	07-Mar-2007	**Sub Min:**	655.720	Y

Surface
Oil Gas:
Mineral: LOTS 1 THRU 4 N2S2 N2 EX M&B IN SESENE E2NESE
Comments:

Surface Maint: 07-Mar-2007 **Oil Gas Maint:** 07-Mar-2007 **Mineral Maint:** 07-Mar-2007 **Comment Maint:** 07-Mar-2007

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Land#	04.0-N-04.0-E-36-07-030-1022	**Owner:**	STATE TRUST LAND		Active	**Surface:**	245.840	Y
County:	MARICOPA	**Class:**	COMMERCIAL			**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	N	**Last Maint:**	21-Aug-2007	**Sub Min:**	0.000	>

Surface PART TRACTS 21 AND 22 OUTER LOOP (SR101) OF STATE PLAT 16 TRACT 14A AND PART TRACT 10C OF STATE PLAT 16B PART TRACT L AND N OF STATE PLAT 27 AMD PART TRACT K OF STATE PLAT 46
Oil Gas:
Mineral:
Comments:

Surface Maint: 21-Aug-2007 **Oil Gas Maint:** 21-Aug-2007 **Mineral Maint:** 21-Aug-2007 **Comment Maint:** 21-Aug-2007

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-5000 **Owner:** STATE TRUST LAND Active **Surface:** 0.760 >
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 10-May-2001 **Sub Min:** 0.000 >

Surface M&B THRU TRACT 21 STATE PLAT 16 0.23 AC
TCE 20FT WIDE 0.45 AC
Oil Gas:
Mineral:
Comments:

Surface Maint: 10-May-2001 **Oil Gas Maint:** 10-May-2001 **Mineral Maint:** 10-May-2001 **Comment Maint:** 10-May-2001

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
		---					

Land# 04.0-N-04.0-E-36-07-030-5001 **Owner:** STATE TRUST LAND Active **Surface:** 0.500 >
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 11-May-2001 **Sub Min:** 0.000 >

Surface M&B THRU N2NENE
Oil Gas:
Mineral:
Comments:

Surface Maint: 11-May-2001 **Oil Gas Maint:** 11-May-2001 **Mineral Maint:** 11-May-2001 **Comment Maint:** 11-May-2001

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-5002 **Owner:** STATE TRUST LAND Active **Surface:** 1.350 >
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 06-Jun-2001 **Sub Min:** 0.000 >

Surface M&B THRU TRACTS 21 AND 22 IN S.P. 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 06-Jun-2001 **Oil Gas Maint:** 06-Jun-2001 **Mineral Maint:** 06-Jun-2001 **Comment Maint:** 06-Jun-2001

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Land# 04.0-N-04.0-E-36-07-030-5003 **Owner:** STATE TRUST LAND Active **Surface:** 4.610 >
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 12-Jun-2001 **Sub Min:** 0.000 >

Surface M&B THRU NENE
Oil Gas:
Mineral:
Comments:

Surface Maint: 12-Jun-2001 **Oil Gas Maint:** 12-Jun-2001 **Mineral Maint:** 12-Jun-2001 **Comment Maint:** 12-Jun-2001

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-5004 **Owner:** STATE TRUST LAND Active **Surface:** 2.280 >
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 14-Jun-2001 **Sub Min:** 0.000 >

Surface M&B THRU S2SENE N2NESE (620FT X 160FT)
Oil Gas:
Mineral:
Comments:

Surface Maint: 14-Jun-2001 **Oil Gas Maint:** 14-Jun-2001 **Mineral Maint:** 14-Jun-2001 **Comment Maint:** 14-Jun-2001

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Land# 04.0-N-04.0-E-36-07-030-5005 **Owner:** STATE TRUST LAND Active **Surface:** 0.920 >
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 14-Jun-2001 **Sub Min:** 0.000 >

Surface M&B THRU SENENE (200FT X 200FT)
Oil Gas:
Mineral:
Comments:

Surface Maint: 14-Jun-2001 **Oil Gas Maint:** 14-Jun-2001 **Mineral Maint:** 14-Jun-2001 **Comment Maint:** 14-Jun-2001

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-5006 **Owner:** STATE TRUST LAND Active **Surface:** 7.190 >
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 15-Jun-2001 **Sub Min:** 0.000 >

Surface M&B THRU N2N2 NESWNE SWNWSENE SWSENE SWSESENE E2E2E2S2
Oil Gas:
Mineral:
Comments:

Surface Maint: 15-Jun-2001 **Oil Gas Maint:** 15-Jun-2001 **Mineral Maint:** 15-Jun-2001 **Comment Maint:** 15-Jun-2001

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
		---					

Land# 04.0-N-04.0-E-36-07-030-5007 **Owner:** STATE TRUST LAND Active **Surface:** 570.000 >
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 27-Aug-2001 **Sub Min:** 0.000 >

Surface S2N2 S2 M&B THRU N2N2
Oil Gas:
Mineral:
Comments:

Surface Maint: 27-Aug-2001 **Oil Gas Maint:** 27-Aug-2001 **Mineral Maint:** 27-Aug-2001 **Comment Maint:** 27-Aug-2001

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-5008 **Owner:** STATE TRUST LAND Active **Surface:** 8.610 >
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 09-Jan-2002 **Sub Min:** 0.000 >

Surface M&B THRU S2NWNE N2SWNE NENW N2NWNW (3750FT X 100FT)
Oil Gas:
Mineral:
Comments:

Surface Maint: 09-Jan-2002 **Oil Gas Maint:** 09-Jan-2002 **Mineral Maint:** 09-Jan-2002 **Comment Maint:** 09-Jan-2002

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
		---					

Land# 04.0-N-04.0-E-36-07-030-5009 **Owner:** STATE TRUST LAND Active **Surface:** 254.030 >
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 01-Aug-2002 **Sub Min:** 0.000 >

Surface PART TRACT 21 22 OF STATE PLAT 16 TRACT 14A PART TRACT 10C OF STATE PLAT 16B PART TRACTS L N OF STATE PLAT 27 PART TRACT K OF STATE PLAT 46
Oil Gas:
Mineral:
Comments:

Surface Maint: 01-Aug-2002 **Oil Gas Maint:** 09-Jan-2002 **Mineral Maint:** 09-Jan-2002 **Comment Maint:** 09-Jan-2002

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
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Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-5010 **Owner:** STATE TRUST LAND Active **Surface:** 4.000 >
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 19-Aug-2002 **Sub Min:** 0.000 >

Surface M&B IN SENE N2NWNW
Oil Gas:
Mineral:
Comments:

Surface Maint: 19-Aug-2002 **Oil Gas Maint:** 19-Aug-2002 **Mineral Maint:** 19-Aug-2002 **Comment Maint:** 19-Aug-2002

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
		---					

Land# 04.0-N-04.0-E-36-07-030-7011 **Owner:** STATE TRUST LAND Inactive **Surface:** 8.200 N
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 05-Dec-2017 **Sub Min:** 0.000 >

Surface M&B IN TRACT 22 IN STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 19-Sep-2017 **Oil Gas Maint:** **Mineral Maint:** **Comment Maint:**

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	12-Sep-2016	053-119059-00-000 0	23936 TWENTY TWO FORTY TWO LLC				0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-7014 **Owner:** STATE TRUST LAND Inactive **Surface:** 120.000 N
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 26-Dec-2019 **Sub Min:** 0.000 >

Surface M&B in NW
Oil Gas:
Mineral:
Comments:

Surface Maint: **Oil Gas Maint:** **Mineral Maint:** **Comment Maint:**

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	13-Dec-2019	053-121237-00-100 0	20635 PCI SALES				0

Land# 04.0-N-04.0-E-36-07-030-8013 **Owner:** STATE TRUST LAND Inactive **Surface:** 603.590 N
County: MARICOPA **Class:** CONSIS WITH DEV PLAN **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 29-Aug-2007 **Sub Min:** 0.000 >

Surface TRACT 14 & 25 PART OF TRACTS 21 & 22 (SR 101) STATE PLAT 16 TRACTS 15A & 15B STATE PLAT 16A
Oil Gas:
Mineral:
Comments:

Surface Maint: 29-Aug-2007 **Oil Gas Maint:** 08-Apr-1999 **Mineral Maint:** 08-Apr-1999 **Comment Maint:** 08-Apr-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	21-May-1985	047-091271-00-000 0	202 FOREST CITY SCOTTSDALE CO	24-Mar-1986	30-Jun-1985	03-Jun-1986	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-8016 **Owner:** STATE TRUST LAND Inactive **Surface:** 60.320 N
County: MARICOPA **Class:** UNCLASSIFIED **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 01-Jul-1994 **Sub Min:** 0.000 >

Surface TRACT N PARTS OF TRACT 1 EXC IN STATE PLAT NO. 27 AMENDED
Oil Gas:
Mineral:
Comments:

Surface Maint: 08-Apr-1999 **Oil Gas Maint:** 08-Apr-1999 **Mineral Maint:** 08-Apr-1999 **Comment Maint:** 08-Apr-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	30-Oct-1990	044-098975-00-000 0	2004 PCI URBAN PLANNING DIV		26-Feb-1991		0

Land# 04.0-N-04.0-E-36-07-030-8017 **Owner:** STATE TRUST LAND Inactive **Surface:** 60.320 N
County: MARICOPA **Class:** CONSIS WITH DEV PLAN **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 01-Jul-1994 **Sub Min:** 0.000 >

Surface TRACT N PARTS OF TRACT 1 EXCEPTION IN STATE PLAT NO. 27 AMENDED
Oil Gas:
Mineral:
Comments:

Surface Maint: 08-Apr-1999 **Oil Gas Maint:** 08-Apr-1999 **Mineral Maint:** 08-Apr-1999 **Comment Maint:** 08-Apr-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	23-May-1988	047-095976-00-000 0	1687 CORE NORTH INC	26-Feb-1991	15-Mar-1989	14-Mar-1991	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-8018 **Owner:** STATE TRUST LAND Inactive **Surface:** 60.320 N
County: MARICOPA **Class:** CONSIS WITH DEV PLAN **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 01-Jul-1994 **Sub Min:** 0.000 >

Surface TRACT N PART OF TRACT 1 EXCEPTION STATE PLAT 27 AMENDED
Oil Gas:
Mineral:
Comments:

Surface Maint: 08-Apr-1999 **Oil Gas Maint:** 08-Apr-1999 **Mineral Maint:** 08-Apr-1999 **Comment Maint:** 08-Apr-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	29-Mar-1991	047-099246-00-000 0	1687 CORE NORTH INC				0

Land# 04.0-N-04.0-E-36-07-030-8019 **Owner:** STATE TRUST LAND Inactive **Surface:** 60.320 N
County: MARICOPA **Class:** CONSIS WITH DEV PLAN **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 01-Jul-1994 **Sub Min:** 0.000 >

Surface TRACT N PARTS OF TRACT 1 EXCEPTION IN STATE PLAT NO. 27 AMENDED
Oil Gas:
Mineral:
Comments:

Surface Maint: 08-Apr-1999 **Oil Gas Maint:** 08-Apr-1999 **Mineral Maint:** 08-Apr-1999 **Comment Maint:** 08-Apr-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	16-Aug-1991	047-099246-00-001 0	1687 CORE NORTH INC				0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-8030 **Owner:** STATE TRUST LAND Inactive **Surface:** 663.250 N
County: MARICOPA **Class:** UNCLASSIFIED **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 01-Jul-1994 **Sub Min:** 0.000 >

Surface LOTS 1 THRU 4 S2N2 N2S2 M&B IN N2N2
Oil Gas:
Mineral:
Comments:

Surface Maint: 08-Apr-1999 **Oil Gas Maint:** 08-Apr-1999 **Mineral Maint:** 08-Apr-1999 **Comment Maint:** 08-Apr-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	14-Jul-1984	047-089860-00-000 0	2071 C&S ASSOCIATES				0

Land# 04.0-N-04.0-E-36-07-030-8033 **Owner:** STATE TRUST LAND Inactive **Surface:** 663.250 N
County: MARICOPA **Class:** UNCLASSIFIED **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 01-Jul-1994 **Sub Min:** 0.000 >

Surface LOTS 1 THRU 4 S2N2 N2S2 M&B IN N2N2
Oil Gas:
Mineral:
Comments:

Surface Maint: 08-Apr-1999 **Oil Gas Maint:** 08-Apr-1999 **Mineral Maint:** 08-Apr-1999 **Comment Maint:** 08-Apr-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	07-Nov-1984	048-089762-00-000 0	2004 PCI URBAN PLANNING DIV				0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-8034 **Owner:** STATE TRUST LAND Inactive **Surface:** 603.600 N
County: MARICOPA **Class:** UNCLASSIFIED **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 01-Jul-1994 **Sub Min:** 0.000 >

Surface TRACT 14 M&B IN TRACTS 21 22 SR 117 STATE PLAT 16 AND TRACTS 15A 15B 25 STATE PLAT 16A
Oil Gas:
Mineral:
Comments:

Surface Maint: 08-Apr-1999 **Oil Gas Maint:** 08-Apr-1999 **Mineral Maint:** 08-Apr-1999 **Comment Maint:** 08-Apr-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	01-Feb-1988	044-095674-00-000 0	2004 PCI URBAN PLANNING DIV				0

Land# 04.0-N-04.0-E-36-07-030-8054 **Owner:** STATE TRUST LAND Active **Surface:** 0.100 Y
County: MARICOPA **Class:** COMMERCIAL **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 19-Jul-2012 **Sub Min:** 0.000 >

Surface M&B IN TRACT 21 STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 19-Jul-2012 **Oil Gas Maint:** 07-Jul-2000 **Mineral Maint:** 07-Jul-2000 **Comment Maint:** 07-Jul-2000

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	13-Apr-2012	023-105445-03-000 5	17825 NEW CINGULAR WIRELESS PCS LLC	19-Jul-2012	08-Jun-2012	07-Jun-2020	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land#	04.0-N-04.0-E-36-07-030-8069	**Owner:**	STATE TRUST LAND		Active	**Surface:**	0.140	Y
County:	MARICOPA	**Class:**	COMMERCIAL			**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	Y	**Last Maint:**	02-Oct-2014	**Sub Min:**	0.000	>

Surface SITE IN TRACT 21 IN STATE PLAT 16 (ANTENNA 0.8 ACRES) M&B THRU TRACT 21 IN STATE PLAT 16 (ACCESS .06 ACRES)
Oil Gas:
Mineral:
Comments:

Surface Maint: 28-Nov-2007 **Oil Gas Maint:** 28-Nov-2007 **Mineral Maint:** 28-Nov-2007 **Comment Maint:** 28-Nov-2007

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	09-Apr-2014	023-111548-03-0003	22412 T MOBILE WEST LLC	02-Oct-2014	10-May-2014	09-May-2024	0

Land#	04.0-N-04.0-E-36-07-030-8073	**Owner:**	STATE TRUST LAND		Active	**Surface:**	0.010	N
County:	MARICOPA	**Class:**	CONSIS WITH DEV PLAN			**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	Y	**Last Maint:**	17-Dec-2012	**Sub Min:**	0.000	>

Surface ANTENNA IN TRACT 21 OF STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 15-Jul-2008 **Oil Gas Maint:** 15-Jul-2008 **Mineral Maint:** 15-Jul-2008 **Comment Maint:** 15-Jul-2008

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	17-Dec-2012	023-113190-03-0003	12495 SPRINT SPECTRUM LTD PARTNRSHIP	17-Dec-2012	07-Oct-2011	06-Oct-2021	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land#	04.0-N-04.0-E-36-07-030-8075	**Owner:**	STATE TRUST LAND		Active	**Surface:**	73.560	N
County:	MARICOPA	**Class:**	CONSIS WITH DEV PLAN			**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	Y	**Last Maint:**	09-Nov-2016	**Sub Min:**	0.000	>

Surface TRACT 14A IN STATE PLAT 16B
Oil Gas:
Mineral:
Comments:

Surface Maint: 10-Sep-2009 **Oil Gas Maint:** 10-Sep-2009 **Mineral Maint:** 10-Sep-2009 **Comment Maint:** 10-Sep-2009

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	13-Apr-2016	023-113415-03-000 5	20272 CITY OF SCOTTSDALE	09-Nov-2016	01-Jul-2016	30-Jun-2021	0

Land#	04.0-N-04.0-E-36-07-030-8075	**Owner:**	STATE TRUST LAND		Inactive	**Surface:**	73.560	N
County:	MARICOPA	**Class:**	CONSIS WITH DEV PLAN			**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	N	**Last Maint:**	01-Jul-2019	**Sub Min:**	0.000	>

Surface TRACT 14A IN STATE PLAT 16B
Oil Gas:
Mineral:
Comments:

Surface Maint: **Oil Gas Maint:** **Mineral Maint:** **Comment Maint:**

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	01-Jul-2019	023-113415-03-100 0	20272 CITY OF SCOTTSDALE		01-Jul-2016	30-Jun-2021	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land#	04.0-N-04.0-E-36-07-030-8078	**Owner:**	STATE TRUST LAND		Active	**Surface:**	1.430	Y
County:	MARICOPA	**Class:**	UNCLASSIFIED			**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	Y	**Last Maint:**	03-Jun-2019	**Sub Min:**	0.000	>

Surface M&B IN E2E2NENE
Oil Gas:
Mineral:
Comments:

Surface Maint: 22-Aug-2011 **Oil Gas Maint:** 22-Aug-2011 **Mineral Maint:** 22-Aug-2011 **Comment Maint:** 22-Aug-2011

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	06-Feb-2019	023-112208-04-0005	19415 COFFMAN SPECIALTIES INC	03-Jun-2019	01-Mar-2016	28-Feb-2021	0

Land#	04.0-N-04.0-E-36-07-030-8079	**Owner:**	STATE TRUST LAND		Active	**Surface:**	80.640	N
County:	MARICOPA	**Class:**	CONSIS WITH DEV PLAN			**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	Y	**Last Maint:**	24-Aug-2011	**Sub Min:**	0.000	>

Surface TRACT 14A PART OF TRACT 10C IN STATE PLAT 16B PART OF TRACT K IN STATE PLAT 46
Oil Gas:
Mineral:
Comments:

Surface Maint: 24-Aug-2011 **Oil Gas Maint:** 24-Aug-2011 **Mineral Maint:** 24-Aug-2011 **Comment Maint:** 24-Aug-2011

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	19-Jul-2011	056-115598-00-0000	21705 ARIZ STATE LAND DEPARTMENT	24-Aug-2011	19-Nov-2002	31-Dec-2027	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-8080 **Owner:** STATE TRUST LAND Inactive **Surface:** 254.040 N
County: MARICOPA **Class:** CONSIS WITH DEV PLAN **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 15-Aug-2012 **Sub Min:** 0.000 >

Surface PART TRACTS 21 AND 22 OUTER LOOP (SR 101) OF STATE PLAT 16 TRACT 14A AND PART TRACT 10C OF STATE PLAT 16B PART TRACT L AND N OF STATE PLAT 27 AMD PART TRACT K OF STATE PLAT 46
Oil Gas:
Mineral:
Comments:

Surface Maint: **Oil Gas Maint:** **Mineral Maint:** **Comment Maint:**

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	01-Aug-2012	042-116671-00-000 0	6230 CITY OF SCOTTSDALE				0

Land# 04.0-N-04.0-E-36-07-030-8081 **Owner:** STATE TRUST LAND Inactive **Surface:** 1.480 Y
County: MARICOPA **Class:** COMMERCIAL **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 06-Dec-2019 **Sub Min:** 0.000 >

Surface M&B IN NW
Oil Gas:
Mineral:
Comments:

Surface Maint: **Oil Gas Maint:** **Mineral Maint:** **Comment Maint:**

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	23-Jul-2019	029-121006-00-100 0	6230 CITY OF SCOTTSDALE				0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9000 **Owner:** STATE TRUST LAND Active **Surface:** 7.880 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 09-Aug-2006 **Sub Min:** 0.000 >

Surface M&B THRU E2
Oil Gas:
Mineral:
Comments:

Surface Maint: 01-Jul-1994 **Oil Gas Maint:** 01-Jul-1994 **Mineral Maint:** 01-Jul-1994 **Comment Maint:** 01-Jul-1994

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	09-Aug-2006	009-001907-00-0004	761 CITY OF SCOTTSDALE	09-Aug-2006	16-Dec-1958	PERPETUAL	0

Land# 04.0-N-04.0-E-36-07-030-9001 **Owner:** STATE TRUST LAND Active **Surface:** 6.380 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 22-Jan-2019 **Sub Min:** 0.000 >

Surface M&B THRU NE
Oil Gas:
Mineral:
Comments:

Surface Maint: 01-Jul-1994 **Oil Gas Maint:** 01-Jul-1994 **Mineral Maint:** 01-Jul-1994 **Comment Maint:** 01-Jul-1994

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	22-Jan-2019	016-003330-00-0005	57 ARIZONA PUBLIC SERVICE CO	22-Jan-2019	23-Jan-1964	PERPETUAL	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9005 **Owner:** STATE TRUST LAND Active **Surface:** 4.120 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 30-May-2017 **Sub Min:** 0.000 >

Surface M&B THRU NE
Oil Gas:
Mineral:
Comments: PART OF LAND SOLD

Surface Maint: 01-Jul-1994 **Oil Gas Maint:** 01-Jul-1994 **Mineral Maint:** 01-Jul-1994 **Comment Maint:** 01-Sep-1995

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	30-May-2017	016-095513-00-000 6	742 SALT RIVER PROJECT	30-May-2017	17-Feb-1988	PERPETUAL	0

Land# 04.0-N-04.0-E-36-07-030-9006 **Owner:** STATE TRUST LAND Active **Surface:** 1.210 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 13-Feb-2013 **Sub Min:** 0.000 >

Surface M&B THRU TRACT K IN STATE PLAT 46 AND THRU TRACT L AND N IN STATE PLAT 27 AMD
Oil Gas:
Mineral:
Comments: PART OF LAND SOLD

Surface Maint: 13-Feb-2013 **Oil Gas Maint:** 01-Aug-2002 **Mineral Maint:** 01-Aug-2002 **Comment Maint:** 01-Sep-1995

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	28-Nov-2012	018-085310-00-000 6	761 CITY OF SCOTTSDALE	13-Feb-2013	04-Feb-2013	03-Feb-2023	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9012 **Owner:** STATE TRUST LAND Active **Surface:** 0.130 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 06-Apr-2017 **Sub Min:** 0.000 >

Surface M&B THRU NENENE
Oil Gas:
Mineral:
Comments:

Surface Maint: 01-Jul-1994 **Oil Gas Maint:** 01-Jul-1994 **Mineral Maint:** 01-Jul-1994 **Comment Maint:** 01-Jul-1994

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	06-Apr-2017	014-099402-00-0009	1956 CITY OF SCOTTSDALE	06-Apr-2017	16-Aug-1991	15-Aug-2041	0

Land# 04.0-N-04.0-E-36-07-030-9018 **Owner:** STATE TRUST LAND Active **Surface:** 2.070 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 14-Sep-2011 **Sub Min:** 0.000 >

Surface M&B THRU NE SESESE
Oil Gas:
Mineral:
Comments:

Surface Maint: 01-Jul-1994 **Oil Gas Maint:** 26-Aug-2002 **Mineral Maint:** 26-Aug-2002 **Comment Maint:** 26-Aug-2002

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	14-Sep-2011	014-053637-00-0006	761 CITY OF SCOTTSDALE	14-Sep-2011	10-Feb-1994	09-Feb-2044	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9020 **Owner:** STATE TRUST LAND Active **Surface:** 0.610 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 06-Oct-1997 **Sub Min:** 0.000 >

Surface M&B THRU TR 21 STATE PLAT 16 -CORE SOUTH
Oil Gas:
Mineral:
Comments:

Surface Maint: 06-Oct-1997 **Oil Gas Maint:** 06-Oct-1997 **Mineral Maint:** 06-Oct-1997 **Comment Maint:** 06-Oct-1997

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	27-Sep-1994	016-100331-00-0000	10254 CN INFRASTRUCTURE CO INC	06-Oct-1997	30-Jul-1997	PERPETUAL	0

Land# 04.0-N-04.0-E-36-07-030-9022 **Owner:** STATE TRUST LAND Active **Surface:** 0.540 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 22-Jan-2019 **Sub Min:** 0.000 >

Surface M&B THRU TRACT 21 (CORE SOUTH) STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 26-Feb-1997 **Oil Gas Maint:** 26-Feb-1997 **Mineral Maint:** 26-Feb-1997 **Comment Maint:** 26-Feb-1997

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	22-Jan-2019	018-101890-00-0006	805 SOUTHWEST GAS CORPORATION	22-Jan-2019	27-Jan-2017	26-Jan-2027	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9024 **Owner:** STATE TRUST LAND Active **Surface:** 7.030 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 02-Jun-2015 **Sub Min:** 0.000 >

Surface M&B THRU NENE
Oil Gas:
Mineral:
Comments:

Surface Maint: 11-Sep-1996 **Oil Gas Maint:** 24-Sep-2001 **Mineral Maint:** 24-Sep-2001 **Comment Maint:** 24-Sep-2001

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	02-Jun-2015	065-000057-00-000 12	6713 US BUREAU OF RECLAMATION	02-Jun-2015	02-Aug-1950	PERPETUAL	0

Land# 04.0-N-04.0-E-36-07-030-9029 **Owner:** STATE TRUST LAND Active **Surface:** 0.550 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 01-Mar-1999 **Sub Min:** 0.000 >

Surface M&B IN TRACT 21 STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 01-Mar-1999 **Oil Gas Maint:** 01-Mar-1999 **Mineral Maint:** 01-Mar-1999 **Comment Maint:** 01-Mar-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	13-Jan-1997	016-102559-00-000 0	57 ARIZONA PUBLIC SERVICE CO	01-Mar-1999	15-Dec-1998	PERPETUAL	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9030 **Owner:** STATE TRUST LAND Active **Surface:** 2.610 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 30-Jul-1999 **Sub Min:** 0.000 >

Surface M&B THRU TRACTS 21 AND 22 IN STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 30-Jul-1999 **Oil Gas Maint:** 30-Jul-1999 **Mineral Maint:** 30-Jul-1999 **Comment Maint:** 30-Jul-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	16-Sep-1997	016-103476-00-000 0	6230 CITY OF SCOTTSDALE	30-Jul-1999	10-Jun-1999	PERPETUAL	0

Land# 04.0-N-04.0-E-36-07-030-9034 **Owner:** STATE TRUST LAND Active **Surface:** 1.400 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 23-Mar-2010 **Sub Min:** 0.000 >

Surface M&B THRU NENE
Oil Gas:
Mineral:
Comments:

Surface Maint: 10-Dec-1999 **Oil Gas Maint:** 10-Dec-1999 **Mineral Maint:** 10-Dec-1999 **Comment Maint:** 10-Dec-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	10-Nov-2009	018-104874-00-000 1	57 ARIZONA PUBLIC SERVICE CO	23-Mar-2010	18-Nov-2009	17-Nov-2019	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9034 **Owner:** STATE TRUST LAND Inactive **Surface:** 0.828 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** N **Last Maint:** 17-Dec-2019 **Sub Min:** 0.000 >

Surface M&B THRU NENE
Oil Gas:
Mineral:
Comments:

Surface Maint: 17-Dec-2019 **Oil Gas Maint:** **Mineral Maint:** **Comment Maint:**

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
APPLICATION	28-Oct-2019	018-104874-00-100 0	57 ARIZONA PUBLIC SERVICE CO		18-Nov-2019	17-Nov-2029	0

Land# 04.0-N-04.0-E-36-07-030-9035 **Owner:** STATE TRUST LAND Active **Surface:** 7.190 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 07-Dec-2004 **Sub Min:** 0.000 >

Surface M&B IN TRTS 21 AND 22 OF S.P.16 TRTS 14A AND 10C OF S.P.16B OUTER LOOP (SR177)
Oil Gas:
Mineral:
Comments:

Surface Maint: 19-Oct-1999 **Oil Gas Maint:** 19-Oct-1999 **Mineral Maint:** 19-Oct-1999 **Comment Maint:** 19-Oct-1999

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	07-Dec-2004	016-103534-00-000 2	6230 CITY OF SCOTTSDALE	07-Dec-2004	13-Aug-1999	PERPETUAL	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9036 **Owner:** STATE TRUST LAND Active **Surface:** 0.030 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 15-May-2012 **Sub Min:** 0.000 >

Surface M&B THRU N2NENE
Oil Gas:
Mineral:
Comments:

Surface Maint: 07-Jan-2000 **Oil Gas Maint:** 07-Jan-2000 **Mineral Maint:** 07-Jan-2000 **Comment Maint:** 07-Jan-2000

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	14-Nov-2011	018-105136-00-000 2	12495 SPRINT SPECTRUM LTD PARTNRSHIP	15-May-2012	07-Oct-2011	06-Oct-2021	0

Land# 04.0-N-04.0-E-36-07-030-9037 **Owner:** STATE TRUST LAND Active **Surface:** 0.250 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 01-Sep-2011 **Sub Min:** 0.000 >

Surface M&B THRU TRACT 14A S.P. NO. 16-B CORE SOUTH TRACT 22 S.P. NO. 16 CORE SOUTH S.R. 117
Oil Gas:
Mineral:
Comments:

Surface Maint: 09-Aug-2000 **Oil Gas Maint:** 09-Aug-2000 **Mineral Maint:** 09-Aug-2000 **Comment Maint:** 09-Aug-2000

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	07-Jul-2010	018-105219-00-000 1	57 ARIZONA PUBLIC SERVICE CO	01-Sep-2011	13-Jul-2010	12-Jul-2020	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9039 **Owner:** STATE TRUST LAND Active **Surface:** 0.160 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 24-Feb-2012 **Sub Min:** 0.000 >

Surface M&B THRU TRACT 21 OF STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 07-Jul-2000 **Oil Gas Maint:** 07-Jul-2000 **Mineral Maint:** 07-Jul-2000 **Comment Maint:** 07-Jul-2000

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	06-May-2010	018-105447-00-0003	17825 NEW CINGULAR WIRELESS PCS LLC	24-Feb-2012	08-Jun-2010	07-Jun-2020	0

Land# 04.0-N-04.0-E-36-07-030-9040 **Owner:** STATE TRUST LAND Active **Surface:** 0.680 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 28-Sep-2000 **Sub Min:** 0.000 >

Surface M&B THRU TRACT 21, STATE PLAT 16 .23AC
TCE 20'WIDE .45AC
Oil Gas:
Mineral:
Comments:

Surface Maint: 28-Sep-2000 **Oil Gas Maint:** 28-Sep-2000 **Mineral Maint:** 28-Sep-2000 **Comment Maint:** 28-Sep-2000

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	28-Mar-2000	016-105621-00-0000	6230 CITY OF SCOTTSDALE	28-Sep-2000	15-Sep-2000	PERPETUAL	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9044 **Owner:** STATE TRUST LAND Active **Surface:** 1.350 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 30-May-2017 **Sub Min:** 0.000 >

Surface M&B THRU TRACTS 21 AND 22 IN STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 08-May-2001 **Oil Gas Maint:** 08-May-2001 **Mineral Maint:** 08-May-2001 **Comment Maint:** 08-May-2001

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	30-May-2017	018-106162-00-000 2	57 ARIZONA PUBLIC SERVICE CO	30-May-2017	05-Apr-2011	04-Apr-2021	0

Land# 04.0-N-04.0-E-36-07-030-9048 **Owner:** STATE TRUST LAND Active **Surface:** 1.090 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 04-Feb-2002 **Sub Min:** 0.000 >

Surface M&B THRU OUTER LOOP (SR 117) IN STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 04-Feb-2002 **Oil Gas Maint:** 04-Feb-2002 **Mineral Maint:** 04-Feb-2002 **Comment Maint:** 04-Feb-2002

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	19-Jun-2001	016-106715-00-000 0	6230 CITY OF SCOTTSDALE	04-Feb-2002	09-Nov-2001	PERPETUAL	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9052 **Owner:** STATE TRUST LAND Active **Surface:** 83.120 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 24-Sep-2012 **Sub Min:** 0.000 >

Surface M&B THRU TRACTS 21 AND 22 OF STATE PLAT 16 TRACT 14A OF STATE PLAT 16 TRACT K OF STATE PLAT 46 AND OUTER LOOP SR117
TCE - M&B THRU TRACT 22 OF STATE PLAT 16 - 1.88AC
Oil Gas:
Mineral:
Comments:

Surface Maint: 09-Jul-2002 **Oil Gas Maint:** 09-Jul-2002 **Mineral Maint:** 09-Jul-2002 **Comment Maint:** 09-Jul-2002

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	24-Sep-2012	016-091515-00-000 8	49 ARIZ DEPT OF TRANSPORTATION	24-Sep-2012	11-Jun-1986	PERPETUAL	0

Land# 04.0-N-04.0-E-36-07-030-9054 **Owner:** STATE TRUST LAND Active **Surface:** 0.310 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 01-Jul-2019 **Sub Min:** 0.000 >

Surface M&B THRU TRT 14A IN STATE PLAT 16-B
Oil Gas:
Mineral:
Comments:

Surface Maint: 24-Mar-2005 **Oil Gas Maint:** 24-Mar-2005 **Mineral Maint:** 24-Mar-2005 **Comment Maint:** 24-Mar-2005

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	01-Jul-2019	016-107564-00-000 1	6230 CITY OF SCOTTSDALE	01-Jul-2019	19-Nov-2004	PERPETUAL	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9056 **Owner:** STATE TRUST LAND Active **Surface:** 0.860 N
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 15-Feb-2006 **Sub Min:** 0.000 >

Surface M&B THRU TRACTS 21 22 IN STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 15-Feb-2006 **Oil Gas Maint:** 15-Feb-2006 **Mineral Maint:** 15-Feb-2006 **Comment Maint:** 15-Feb-2006

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	29-Sep-2004	016-108505-00-000 0	10336 CITY OF SCOTTSDALE	15-Feb-2006	13-Dec-2005	PERPETUAL	0

Land# 04.0-N-04.0-E-36-07-030-9057 **Owner:** STATE TRUST LAND Active **Surface:** 0.030 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 15-May-2018 **Sub Min:** 0.000 >

Surface M&B THRU TRT. 21 STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 06-Mar-2009 **Oil Gas Maint:** 06-Mar-2009 **Mineral Maint:** 06-Mar-2009 **Comment Maint:** 06-Mar-2009

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	30-Mar-2018	018-112089-00-000 1	57 ARIZONA PUBLIC SERVICE CO	15-May-2018	17-Apr-2018	16-Apr-2028	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land#	04.0-N-04.0-E-36-07-030-9059	**Owner:**	STATE TRUST LAND		Active	**Surface:**	4.120	Y
County:	MARICOPA	**Class:**				**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	Y	**Last Maint:**	22-Sep-2010	**Sub Min:**	0.000	>

Surface PARCEL 1 M&B THRU TRACT 14-A IN STATE PLAT 16-B 3.66 ACRES PARCEL 2 M&B THRU OUTER LOOP SR 117 IN STATE PLAT 16-B 0.28 ACRES PARCEL 3 M&B THRU TRACT N IN STATE PLAT 27 AMD 0.18 ACRES
Oil Gas:
Mineral:
Comments:

Surface Maint: 22-Sep-2010 **Oil Gas Maint:** 22-Sep-2010 **Mineral Maint:** 22-Sep-2010 **Comment Maint:** 22-Sep-2010

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	06-Apr-2009	016-113739-00-000 0	6230 CITY OF SCOTTSDALE	22-Sep-2010	28-Jun-2010	PERPETUAL	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land#	04.0-N-04.0-E-36-07-030-9062	**Owner:**	STATE TRUST LAND		Active	**Surface:**	1.295	Y
County:	MARICOPA	**Class:**				**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	Y	**Last Maint:**	13-Feb-2019	**Sub Min:**	0.000	>

Surface M&B THRU TRT K IN STATE PLAT 27 AMD BK352 PG28 (0.925AC 50FT SEWER)
M&B THRU TRT K IN STATE PLAT 27 AMD BK352 PG28 (0.244AC LIFT)
M&B THRU TRT K IN STATE PLAT 27 AMD BK352 PG28 (0.126AC 25FT SEWER)
Oil Gas:
Mineral:
Comments:

Surface Maint: 17-Oct-2018 **Oil Gas Maint:** 17-Oct-2018 **Mineral Maint:** 17-Oct-2018 **Comment Maint:** 17-Oct-2018

----------STATUS ACTIVITY----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	07-Feb-2019	016-119943-00-000 3	6230 CITY OF SCOTTSDALE	13-Feb-2019	04-Sep-2018	PERPETUAL	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land#	04.0-N-04.0-E-36-07-030-9063	**Owner:**	STATE TRUST LAND		Active	**Surface:**	1.600	Y
County:	MARICOPA	**Class:**				**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	Y	**Last Maint:**	13-Feb-2019	**Sub Min:**	0.000	>

Surface M&B THRU TRACT K IN STATE PLAT 46 BK. 460 PG. 34
Oil Gas:
Mineral:
Comments:

Surface Maint: 17-Oct-2018 **Oil Gas Maint:** 17-Oct-2018 **Mineral Maint:** 17-Oct-2018 **Comment Maint:** 17-Oct-2018

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	07-Feb-2019	016-119942-00-000 3	6230 CITY OF SCOTTSDALE	13-Feb-2019	04-Sep-2018	PERPETUAL	0

Land#	04.0-N-04.0-E-36-07-030-9064	**Owner:**	STATE TRUST LAND		Active	**Surface:**	13.140	Y
County:	MARICOPA	**Class:**				**Sub O/G:**	0.000	>
Grant:	PERM COMMON SCHLS	**Leased:**	Y	**Last Maint:**	13-Feb-2019	**Sub Min:**	0.000	>

Surface M&B THRU TRACT I IN STATE PLAT 27 AMD. BK 352 PG 28
Oil Gas:
Mineral:
Comments:

Surface Maint: 17-Oct-2018 **Oil Gas Maint:** 17-Oct-2018 **Mineral Maint:** 17-Oct-2018 **Comment Maint:** 17-Oct-2018

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	07-Feb-2019	016-119942-00-000 3	6230 CITY OF SCOTTSDALE	13-Feb-2019	04-Sep-2018	PERPETUAL	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9065 **Owner:** STATE TRUST LAND Active **Surface:** 25.030 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 13-Feb-2019 **Sub Min:** 0.000 >

Surface M&B THRU TRACT N IN STATE PLAT 27 AMD BK 352 PG 28
Oil Gas:
Mineral:
Comments:

Surface Maint: 17-Oct-2018 **Oil Gas Maint:** 17-Oct-2018 **Mineral Maint:** 17-Oct-2018 **Comment Maint:** 17-Oct-2018

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	07-Feb-2019	016-119942-00-000 3	6230 CITY OF SCOTTSDALE	13-Feb-2019	04-Sep-2018	PERPETUAL	0

Land# 04.0-N-04.0-E-36-07-030-9066 **Owner:** STATE TRUST LAND Active **Surface:** 0.410 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 13-Feb-2019 **Sub Min:** 0.000 >

Surface M&B THRU OUTER LOOP S.R. 101 IN STATEPLAT 16-B BK 394 PG 42
Oil Gas:
Mineral:
Comments:

Surface Maint: 17-Oct-2018 **Oil Gas Maint:** 17-Oct-2018 **Mineral Maint:** 17-Oct-2018 **Comment Maint:** 17-Oct-2018

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	07-Feb-2019	016-119942-00-000 3	6230 CITY OF SCOTTSDALE	13-Feb-2019	04-Sep-2018	PERPETUAL	0

Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

Land# 04.0-N-04.0-E-36-07-030-9067 **Owner:** STATE TRUST LAND Active **Surface:** 3.810 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 13-Feb-2019 **Sub Min:** 0.000 >

Surface M&B THRU TRACT 14-A IN STATE PLAT 16-B BK 394 PG 42
Oil Gas:
Mineral:
Comments:

Surface Maint: 17-Oct-2018 **Oil Gas Maint:** 17-Oct-2018 **Mineral Maint:** 17-Oct-2018 **Comment Maint:** 17-Oct-2018

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	07-Feb-2019	016-119942-00-000 3	6230 CITY OF SCOTTSDALE	13-Feb-2019	04-Sep-2018	PERPETUAL	0

Land# 04.0-N-04.0-E-36-07-030-9068 **Owner:** STATE TRUST LAND Active **Surface:** 0.330 Y
County: MARICOPA **Class:** **Sub O/G:** 0.000 >
Grant: PERM COMMON SCHLS **Leased:** Y **Last Maint:** 19-Nov-2018 **Sub Min:** 0.000 >

Surface M&B THRU TRACT 21 STATE PLAT 16
Oil Gas:
Mineral:
Comments:

Surface Maint: 26-Mar-2018 **Oil Gas Maint:** 26-Mar-2018 **Mineral Maint:** 26-Mar-2018 **Comment Maint:** 26-Mar-2018

----------**STATUS ACTIVITY**----------

Stat/Desc	Event Date	Kelease#/ Amend#	Rolodex#/ Name	Approval	Eff Date	Exp Date	Aus
LEASE	30-May-2018	018-112390-00-000 2	742 SALT RIVER PROJECT	19-Nov-2018	10-Jul-2018	09-Jul-2028	0

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Arizona State Land Department
1616 W Adams Street Phoenix, AZ 85007

ARIZONA STATE LAND DEPARTMENT
LAND STATUS BY QTRS

DATE: Dec. 26, 19
TIME: 11:50 AM

QTRS 04.0-N-04.0-E-36 THRU 04.0-N-04.0-E-36
PARCEL 0001 THRU 9999 AND
ACTIVE A THRU I

TOTAL NUMBER OF OWNERSHIP PARCEL (0001) PRINTED:		1
TOTAL OWNERSHIP ACRES:	SURFACE:	254.040
	OIL GAS:	663.920
	MINERAL:	663.920
TOTAL NUMBER OF ACTIVE PARCELS PRINTED:		53
TOTAL ACTIVE ACRES:	SURFACE:	1,443.505
	OIL GAS:	663.920
	MINERAL:	663.920
TOTAL NUMBER OF INACTIVE PARCELS PRINTED:		14
TOTAL INACTIVE ACRES:	SURFACE:	3,233.078
	OIL GAS:	0.000
	MINERAL:	0.000

Arizona State Land Department

DATE: Dec. 26, 19
TIME: 11:27 AM

ARIZONA STATE LAND DEPARTMENT
IMPROVEMENT / LAND TREATMENT (BY LAND)

FROM: 04.0 - N - 04.0 - E - 36 - 07 - 000 THRU: 04.0 - N - 04.0 - E - 36 - 07 - 999

LAND#	KELEASE	COMMENT / IMPROVEMENT / TREATMENT		INV#	OWNERSHIP		STATUS DATE / CODE	
04.0-N-04.0-E-36-07-030-8069	023-111548-03	NE CORNER	BACK-UP GENERATOR					
		0395	MISC	32939	50	NON-REIMBURSABLE/TEMPORARY	30-May-2009	Pending

LAND COUNT: 1

EXHIBIT "A"

TRACT 14A OF STATE PLAT NO. 16B CORE SOUTH, ACCORDING TO BOOK 394 OF MAPS, PAGE 42 OFFICIAL RECORDS OF MARICOPA COUNTY, ARIZONA.

SCHEDULE "B" ITEMS

1. Taxes for the full year of 2020.
(The first half is due October 1, 2020 and is delinquent November 1, 2020. The second half is due March 1, 2021 and is delinquent May 1, 2021.)

2. Restrictions, dedications, conditions, reservations, easements and other matters shown on the plat of State Plat No. 16 - Core South, as recorded in Plat Book 324, Page(s) 50, but deleting any covenant, condition or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604(c).

3. Restrictions, dedications, conditions, reservations, easements and other matters shown on the plat of State Plat No. 16-B - Core South, as recorded in Plat Book 394, Page(s) 42, but deleting any covenant, condition or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604(c).

4. The effect of resolutions adopting State Route Plan for the S. R. 101 Loop and any Amendments thereto for the purpose of controlling access and acquiring lands in advance for rights-of-way, recorded as 98-626667 and as 2018-324357.

5. The terms and provisions contained in the document entitled "Third Amended and Restated Development Agreement" recorded June 15, 2018 as 2018-456551 of Official Records.

And First Amendment recorded December 14, 2018 as 2018-917804.

6. Right-of-Way No. 16-106715 granted by the Arizona State Land Department to The City of Scottsdale for underground utilities and having a term (not disclosed).

And thereafter said right of way recorded as 2002-527611.

7. Right-of-Way No. 16-103534 granted by the Arizona State Land Department to The City of Scottsdale for public roadway's drainage and underground utilities and having a term (not disclosed).

And thereafter said right of way recorded as 2000-589276.

Said right of way was amended as 2004-932570.

8. Right-of-Way No. 16-107564 granted by the Arizona State Land Department to The City of Scottsdale for public roadway and underground utilities recorded as 2005-441597; and having a term (not disclosed).

And thereafter said right of way recorded as 2005-441597.

9. Right-of-Way No. 16-113739 granted by the Arizona State Land Department to The City of Scottsdale for public road and underground utilities and having a term (perpetual).

And thereafter said right of way recorded as 2010-839966.

10. The terms and provisions contained in the document entitled "Crossroads East Planning Unit V Development Agreement" recorded June 15, 2018 as 2018-456552 of Official Records.

11. The terms and provisions contained in the document entitled "Economic Development Agreement" recorded June 15, 2018 as 2018-456553 of Official Records.

12. Right-of-Way No. 18-105219 granted by the Arizona State Land Department to Arizona Public Service Company for underground 12kv electric distribution line and having a term expiring July 12, 2020.

13. Special Land Use Permit No. 23-113415-03 granted by the Arizona State Land Department to City of Scottsdale for temporary commercial events, automobile parking, traffic management and dust control, including preparation and cleanup and having a term expiring June 30, 2021.

and thereafter said Lease was amended August 28, 2015

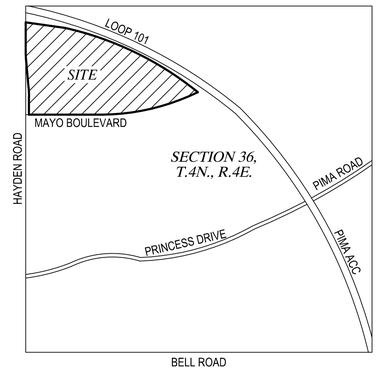
14. Temporary Right of Entry onto State Trust Lands under Lease No. 29-121006-00, granted to the City of Scottsdale for temporary construction easement, expiring December 17, 2020.

15. Right-of-Way No. 16-119942 granted by the Arizona State Land Department to City of Scottsdale for roadway and having a term (indefinite).

(legal description attached-complete Lease document ordered from the State Land Department.

16. Any facts, rights, interests or claims which would be disclosed by a correct ALTA/NSPS survey.

17. Water rights, claims or title to water, whether or not shown by the public records.



VICINITY MAP

N.T.S.

N

DESCRIPTION

TRACT 14A OF STATE PLAT NO. 16B CORE SOUTH, ACCORDING TO BOOK 394 OF MAPS, PAGE 42 OFFICIAL RECORDS OF MARICOPA COUNTY, ARIZONA.

LEGEND

(#)	PLOTTABLE SCHEDULE "B" ITEM	S.J.B.	STREET LIGHT JUNCTION BOX
		S.L.M.	STREET LIGHT MAST ARM
◉	SURVEY MONUMENT FOUND AS NOTED	T.B.	TOP OF BANK
		T.J.B.	TELEPHONE JUNCTION BOX
○	SURVEY MONUMENT WITH RLS TAG OR CAP	T.S.	TRAFFIC SIGNAL
		T.S.J.B.	TRAFFIC SIGNAL JUNCTION BOX
A.C.F.	ALUMINUM CAP FLUSH	T.V.T.	TELEPHONE VAULT
A.D.O.T.	ARIZONA DEPARTMENT OF TRANSPORTATION	V.C.G.	VERTICAL CURB & GUTTER
A.P.N.	ASSESSOR PARCEL NUMBER	W.B.O.	WATER BLOWOFF
A.R.V.	AIR RELEASE VALVE	W.B.P.	WATER BACKFLOW PREVENTOR
B.B.	BOTTOM OF BANK	W.S.E.	WATER & SEWER EASEMENT
B/C	BACK OF CURB	W.V.	WATER VALVE
BK.	BOOK	Ⓓ	STORM DRAIN MANHOLE
B.P.	BARRIER POST	Ⓔ	ELECTRIC MANHOLE
B.W.F.	BARBED WIRE FENCE	Ⓘ	IRRIGATION MANHOLE
C.B.	CATCH BASIN	Ⓣ	TELEPHONE MANHOLE
C.L.F.	CHAIN LINK FENCE	Ⓦ	WATER MANHOLE
C.O.S.	CITY OF SCOTTSDALE	SD	UNDERGROUND STORM DRAIN LINE
DOC.	DOCUMENT	E	UNDERGROUND ELECTRIC LINE
E.C.B.	ELECTRIC CABINET	G	UNDERGROUND GAS LINE
E.J.B.	ELECTRIC JUNCTION BOX	S	UNDERGROUND SEWER LINE
E.M.	ELECTRIC METER	T	UNDERGROUND TELEPHONE LINE
E.T.	ELECTRIC TRANSFORMER	W	UNDERGROUND WATER LINE
E.V.T.	ELECTRIC VAULT		BOUNDARY LINE
F/C	FACE OF CURB		EASEMENT LINE
FD.	FOUND		RIGHT-OF-WAY LINE
F.H.	FIRE HYDRANT		SECTION LINE
G.L.M.	GAS LINE MARKER	X	FENCE LINE
H.W.	HEADWALL		GATE
ID.	IDENTIFICATION		CONCRETE
I.M.H.	IRRIGATION MANHOLE		RIPRAP
I.V.	IRRIGATION VALVE		CACTUS
I.V.B.	IRRIGATION VALVE BOX		SIGN
(M)	MEASURED DATA		
M.C.	MARICOPA COUNTY		
M.C.R.	MARICOPA COUNTY RECORDS		
M.H.	MANHOLE		
NO.	NUMBER		
℄	PROPERTY LINE		
P.I.E.E.	PUBLIC INGRESS & EGRESS EASEMENT		
P.U.E.	PUBLIC UTILITY EASEMENT		
(R)	RECORD DATA		
RB.	REBAR		
R/W	RIGHT-OF-WAY		
S.C.	SINGLE CURB		

NOTES

1) ALL TITLE INFORMATION IS BASED ON A SPECIAL REPORT PREPARED AND ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY, REPORT NO. NCS-1001603-PHX1, DATED FEBRUARY 10, 2020, RECEIVED ON FEBRUARY 14, 2020.

2) THE HORIZONTAL DATUM FOR THIS SURVEY IS BASED ON THE NATIONAL GEODETIC SURVEY (NGS) WEBSITE "WWW.NGS.NOAA.GOV", ON FEBRUARY 18, 2020.

PROJECTION: ARIZONA CENTRAL ZONE, NAD 83, (EPOCH 2010)
DATUM: GRS-80
UNITS: INTERNATIONAL FEET
GEOID MODEL: GEOID 18

CONTROL POINT: 1HH2
PID: AJ3694
LATITUDE: 33°41'03.5909"N
LONGITUDE: 111°56'34.1296"W
ELLIPSOID HEIGHT: 489.71 (METERS)
DESCRIPTION: STAINLESS STEEL ROD IN SLEEVE

MODIFIED TO GROUND AT (GRID) N: 963266.200, E: 702643.084, USING A SCALE FACTOR OF 1.0001706727.

HORIZONTAL ADJUSTMENT: NONE
HORIZONTAL ROTATION: NONE

3) THIS SURVEY WAS PERFORMED WITH GLOBAL POSITIONING SYSTEM EQUIPMENT UTILIZING REAL TIME KINEMATICS SURVEYING METHODS. THE MONUMENTS LOCATED ARE WITHIN THE POSITIONAL TOLERANCES RECOMMENDED IN THE ALTA/NSPS SURVEY REQUIREMENTS ADOPTED FOR USE IN 2016 BY THE AMERICAN LAND TITLE ASSOCIATION AND THE NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS.

4) AREA OF SUBJECT PROPERTY IS 3,204,801 SQUARE FEET OR 73.5721 ACRES, MORE OR LESS.

5) ANY DISTANCES, BEARINGS, DESCRIPTIONS, ETC., WHICH MAY VARY FROM THE PROVISIONS OF THE RECORD INFORMATION NOTED ABOVE REFLECT ACTUAL MEASURED DATA, OR THE BEST INTERPRETATION OF THE UNDERSIGNED.

6) THE ABBREVIATIONS THAT APPEAR WITH THE RECORD INFORMATION REPRESENT THE FOLLOWING:
(R) ABOVE NAMED TITLE COMMITMENT
(R1) GDACS RECORD OF SURVEY, PLSS BOOK 693, PAGE 03, M.C.R.

7) ACCORDING TO FEMA FLOOD INSURANCE RATE MAP NO. 04013C1320L DATED OCTOBER 16, 2013, THE SUBJECT PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD AREAS ZONE AO. ZONE AO IS DESCRIBED AS "FLOOD DEPTHS OF 1 TO 3 FEET (USUALLY SHEET FLOW ON SLOPING TERRAIN); AVERAGE DEPTHS DETERMINED. FOR AREAS OF ALLUVIAL FAN FLOODING, VELOCITIES ALSO DETERMINED." THE SUBJECT PROPERTY INCLUDES DEPTH 1 FEET AND VELOCITY 3 FEET PER SECOND.

8) ADJOINING OWNER INFORMATION IS PER THE MARICOPA COUNTY ASSESSOR'S OFFICE GEOGRAPHIC INFORMATION SYSTEM (GIS) WEBSITE ON FEBRUARY 25, 2020.

9) SCHEDULE B ITEMS 1, 16 AND 17 ARE NOT PLOTTABLE. HOWEVER, SAID SCHEDULE B ITEMS MAY OR MAY NOT AFFECT SUBJECT PROPERTY.

10) SCHEDULE B ITEMS 2, 3, 4, 5, 10, 11 AND 13 ARE BLANKET IN NATURE AND APPEAR TO AFFECT SUBJECT PROPERTY.

11) IN THE OPINION OF THE UNDERSIGNED, THERE ARE VARYING ALIGNMENTS OF HAYDEN ROAD DEPICTED ON STATE PLAT NO. 16B CORE SOUTH RECORDED IN BOOK 394, PAGE 42, M.C.R. AND CITY OF SCOTTSDALE PUBLIC IMPROVEMENTS PROJECT FOR HAYDEN ROAD, PROJECT NO. S9904 AND SCHEDULE B ITEMS 2, 3, 7 AND 8. FURTHERMORE, EXISTING STREET MONUMENTATION ALONG HAYDEN ROAD APPEARS TO BE CONSISTENT WITH THE CONSTRUCTION CENTERLINE SHOWN ON SAID CITY OF SCOTTSDALE PUBLIC IMPROVEMENTS PROJECT. HOWEVER, THE CENTERLINE OF HAYDEN ROAD SHOWN HEREON IS BASED ON SAID STATE PLAT.

12) IN THE OPINION OF THE UNDERSIGNED, SCHEDULE B ITEM 12 MAY OR MAY NOT AFFECT SUBJECT PROPERTY. THE DOCUMENTS PROVIDED FOR SAID SCHEDULE B ITEM 12 REFER TO APPENDIX A WHICH DESCRIBES AN AREA ENCUMBERED BY AN UNDERGROUND ELECTRIC DISTRIBUTION LINE. HOWEVER, SAID APPENDIX A WAS NOT AVAILABLE AT THE TIME THIS SURVEY WAS PREPARED.

13) UNDERGROUND UTILITIES SHOWN ARE FROM FURNISHED INFORMATION PROVIDED BY UTILITY COMPANY. NOT ALL UTILITY MAPS WERE AVAILABLE AT THE TIME THIS SURVEY WAS PREPARED. NO UNDERGROUND INVESTIGATION WAS PERFORMED.

14) THERE WAS NO STREET ADDRESS OBSERVED IN THE PROCESS OF CONDUCTING THE SURVEY.

15) NO EVIDENCE OF EXISTING BUILDINGS WAS OBSERVED IN THE PROCESS OF CONDUCTING THE SURVEY.

16) SUBJECT PROPERTY CONTAINS TRAILS, VEGETATION AND WASHES THAT ARE CONSISTENT WITH LOCAL DESERT TERRAIN. HOWEVER, PORTIONS OF THE SITE HAVE BEEN GRADED AND/OR PATHS HAVE BEEN CREATED. FURTHERMORE, AN AREA IN THE SOUTHERLY PORTION OF THE PROPERTY IS CURRENTLY UNDER CONSTRUCTION AND IT APPEARS THAT AN UNDERGROUND STORM PIPE SYSTEM IS BEING INSTALLED.

CERTIFICATION

TO: ARIZONA STATE LAND DEPARTMENT
FIRST AMERICAN TITLE INSURANCE 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 1, 2, 3, 4, 8, AND 11 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON FEBRUARY 23, 2020.

GABRIEL S. RIOS, RLS 48932
WOOD, PATEL & ASSOCIATES, INC.
2051 WEST NORTHERN AVENUE - SUITE 100
PHOENIX, ARIZONA 85021
(602) 335-8500
SURVEYOR@WOODPATEL.COM

WOOD PATEL

Wood, Patel & Associates, Inc.

Civil Engineering
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602.335.8500

www.woodpatel.com

ALTA/NSPS LAND TITLE SURVEY

STATE PLAT NO. 16-B CORE SOUTH - TRACT 14A
A PORTION ON LAND LYING WITHIN THE NORTH HALF OF SECTION 36, TOWNSHIP 4 NORTH, RANGE 4 EAST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
48932
GABRIEL S. RIOS
12-31-20
(Date Signed)
ARIZONA, U.S.A.

EXPIRES 12-31-20

COMPLETED SURVEY FIELD WORK ON	2/23/2020
CHECKED BY	BD/GSR
CAD TECHNICIAN	JKP
SCALE	N.T.S.
DATE	5/26/2020
JOB NUMBER	WP# 205104
SHEET	1 OF 6

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BOUNDARY SHEET

NORTHWEST CORNER
SECTION 36, T.4N., R.4.E.
FD. 3" M.C. B.C.F. STAMPED T4N R4E
S26 S25 S35 S36 LS 33307 2003

FD. 3.5" A.C.F. HWY DIV.
RBM 6001703 348 LS 16870 2007

S73°16'20"E 1559.52'(M)
S73°16'49"E 1560.48'(R)

484.23' (M)
484.73' (R)

FD. 3.5" A.D.O.T. A.C.F. HWY DIV.
RBM 600 1703 347 LS 31591 2007

ARIZONA STATE ROUTE 101

S79°39'08"E 1146.67' (M) S79°39'37"E 1145.77' (R)

FD. 3.5" A.D.O.T. A.C.F. HWY DIV.
RBM 6001703 LS 16870 2007

SHEET 3

SHEET 5

ARIZONA STATE ROUTE 101

C1

LOT 10C
STATE PLAT NO 16-B CORE SOUTH
BOOK 394, PAGE 42,
M.C.R.

S00°00'13"W 2641.38'(M)
S00°01'40"W 2641.66'(R)
N00°00'09"E 2641.47'(R1)

500.21'(M)

HAYDEN ROAD

C4

N05°02'17"W 467.38'(M)

LOT 10C
STATE PLAT NO 16-B CORE SOUTH
BOOK 394, PAGE 42,
M.C.R.

1081.94' (M)

C3

SHEET 4

SHEET 6

FD. 3" C.O.S. B.C.F.

C2

LOT 15 OFFICE DEVELOPMENT LLC
A.P.N.: 215-07-001Y
DOC. NO. 04-0348725,
M.C.R.

PERIMETER DRIVE

PACESETTER, INC.
A.P.N.: 215-07-214
DOC. NO. 97-0466350,
M.C.R.

PACESETTER, INC.
A.P.N.: 215-07-001F
DOC. NO. 96-0032726,
M.C.R.

FD. 3" C.O.S. B.C.F.
4.8' WEST OF
PROPERTY CORNER

N00°00'13"E 300.02'(M)

55.00' (M&R)

1436.38'(M)

N89°58'08"W 1491.38'(M)

MAYO BOULEVARD

PARCEL 2
HAYDEN 50
BOOK 1447, PAGE 40,
M.C.R.

575.00' (M)
575.00' (R)

SCOTTSDALE STONEBROOK II
BOOK 390, PAGE 13,
M.C.R.

82ND STREET

WEST QUARTER CORNER
SECTION 36, T.4N., R.4E.
FD. PKN W/TAG RLS 28236

CURVE TABLE (R)

CURVE	DELTA	RADIUS	ARC
C1	20°34'22"	5539.58'	1,989.06'
C2	40°08'46"	2200.00'	1,541.50'
C3	05°02'30"	1800.00'	158.39'
C4	05°02'30"	1800.00'	158.39'

CURVE TABLE (M)

CURVE	DELTA	RADIUS	ARC
C1	20°34'23"	5539.58'	1,989.07'
C2	40°08'46"	2200.00'	1,541.50'
C3	5°02'30"	1800.00'	158.39'
C4	5°02'30"	1800.00'	158.39'

LEGEND
SEE SHEET 1

N

0 150 300
Horz. 1 in. = 150 ft.

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ALTA/NSPS LAND TITLE SURVEY

STATE PLAT NO. 16-B CORE SOUTH - TRACT 14A

A PORTION ON LAND LYING WITHIN THE NORTH HALF OF SECTION 36, TOWNSHIP 4 NORTH, RANGE 4 EAST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
48932
GABRIEL S. RIOS
Date Signed 05-26-20
ARIZONA, U.S.A.

EXPIRES 12-31-20

COMPLETED SURVEY FIELD WORK ON	2/23/2020
CHECKED BY	BD/GSR
CAD TECHNICIAN	JKP
SCALE	1" = 150'
DATE	5/26/2020
JOB NUMBER	WP# 205104
SHEET	2 OF 6

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NORTHWEST CORNER
SECTION 36, T.4N., R.4.E.
FD. 3" M.C. B.C.F. STAMPED T4N R4E
S26 S25 S35 S36 LS 33307 2003

484.23' (M)
484.73' (R)

FD. 3.5" A.D.O.T. A.C.F. HWY DIV.
RBM 600 1703 347 LS 31591 2007

20' W.S.E.

20' W.S.E.

B/C 1.2'
EAST OF P/L

20' P.U.E.

10' P.U.E.

65.4'
F/C TO F/C

PUBLIC ROADWAY &
UNDERGROUND UTILITIES 7 8

110' P.I.E.E. & P.U.E. 2 3

31.1'
F/C
TO
F/C

500.21'(M)
500.00' (R)

110' PUBLIC ROADWAY &
UNDERGROUND UTILITIES 7

LOT 10C
STATE PLAT NO.16-B CORE SOUTH
BOOK 394, PAGE 42,
M.C.R.

HAYDEN ROAD

S00°00'13"W 2641.38'(M)
S00°01'40"W 2641.66'(R)
N00°00'09"E 2641.47'(R1)

1081.94' (M)
1081.93' (R)

N65°02'17"W 497.23'(M)
N65°05'00"W 497.38'(R)

31.4'
F/C TO
F/C

110' PUBLIC ROADWAY &
UNDERGROUND UTILITIES 7

F/C 8.2'
EAST OF P/L

110' P.I.E.E. & P.U.E. 2 3

SHEET 3
SHEET 4

ARIZONA STATE ROUTE 101
4

S79°39'08"E 1146.67' (M) S79°39'37"E 1145.77' (R)

C.L.F. 0.3'
NORTH OF P/L

C.L.F. ON P/L

FD. 3.5" A.D.O.T. A.C.F. HWY DIV.
RBM 6001703 LS 16870 2007

C.L.F. 0.2'
NORTH OF P/L

B.W.F. ON P/L

DIRT
(SEE NOTE 16)

SUBJECT PROPERTY
NO BUILDINGS OBSERVED
2 3 5 10 11 13
(BLANKET ITEMS)

33' TEMPORARY
14 CONSTRUCTION EASEMENT

44' STATE LAND
15 R/W NO. 16-119942

33' TEMPORARY
14 CONSTRUCTION EASEMENT

SHEET 3
SHEET 5

SHEET 3
SHEET 4

N

0 50 100
Horz. 1 in. = 50 ft.

SHEET 3
SHEET 5

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ALTA/NSPS LAND TITLE SURVEY

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ARIZONA, U.S.A.

EXPIRES 12-31-20

COMPLETED SURVEY FIELD WORK ON	2/23/2020
CHECKED BY	BD/GSR
CAD TECHNICIAN	JKP
SCALE	1" = 50'
DATE	5/26/2020
JOB NUMBER	WP# 205104
SHEET	3 OF 6

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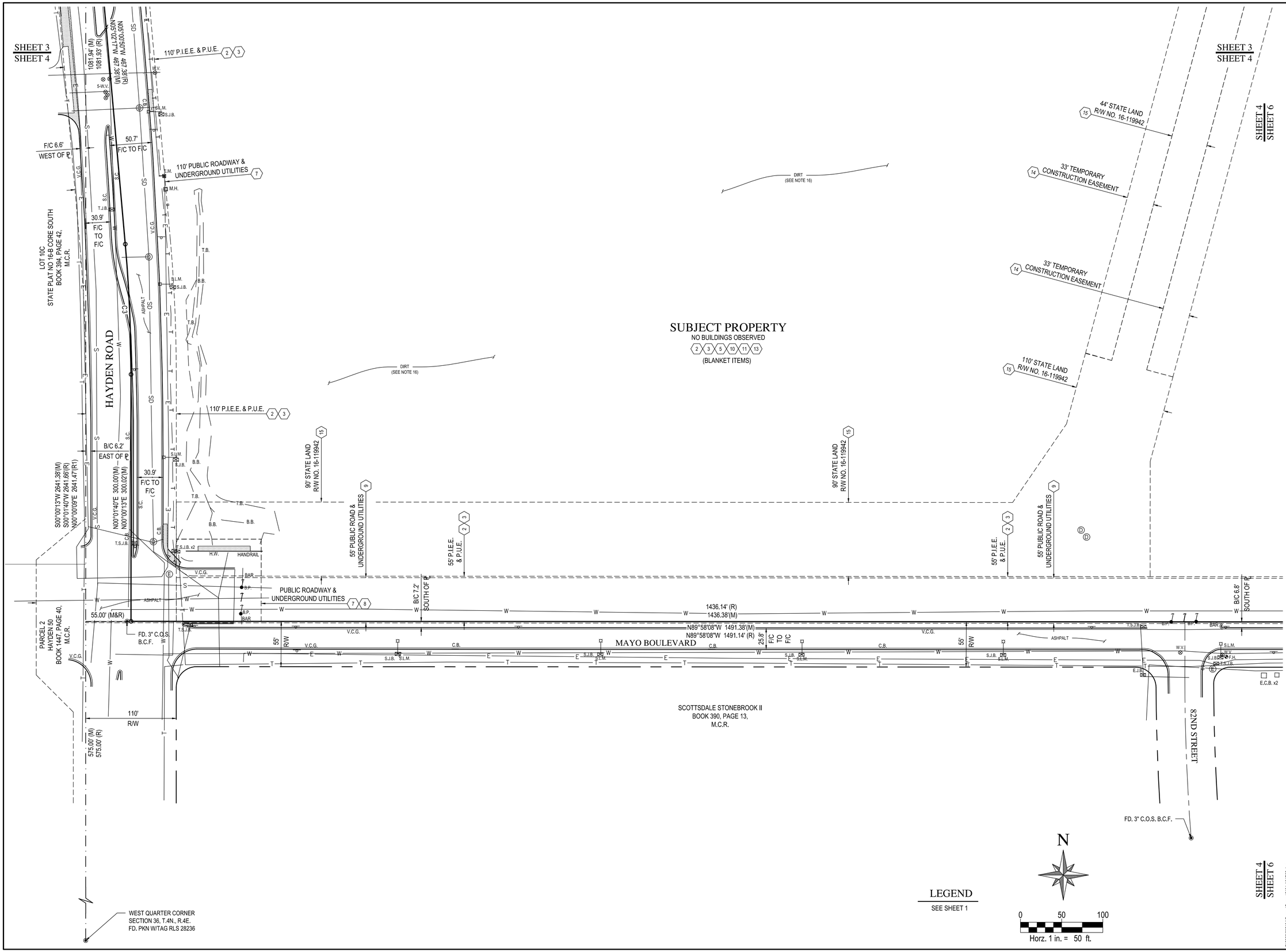

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ALTA/NSPS LAND TITLE SURVEY

STATE PLAT NO. 16-B CORE SOUTH - TRACT 14A

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48932
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Date Signed 05-26-20
ARIZONA, U.S.A.

EXPIRES 12-31-20

COMPLETED SURVEY FIELD WORK ON	2/23/2020
CHECKED BY	BD/GSR
CAD TECHNICIAN	JKP
SCALE	1" = 50'
DATE	5/26/2020
JOB NUMBER	WP# 205104
SHEET	4 OF 6

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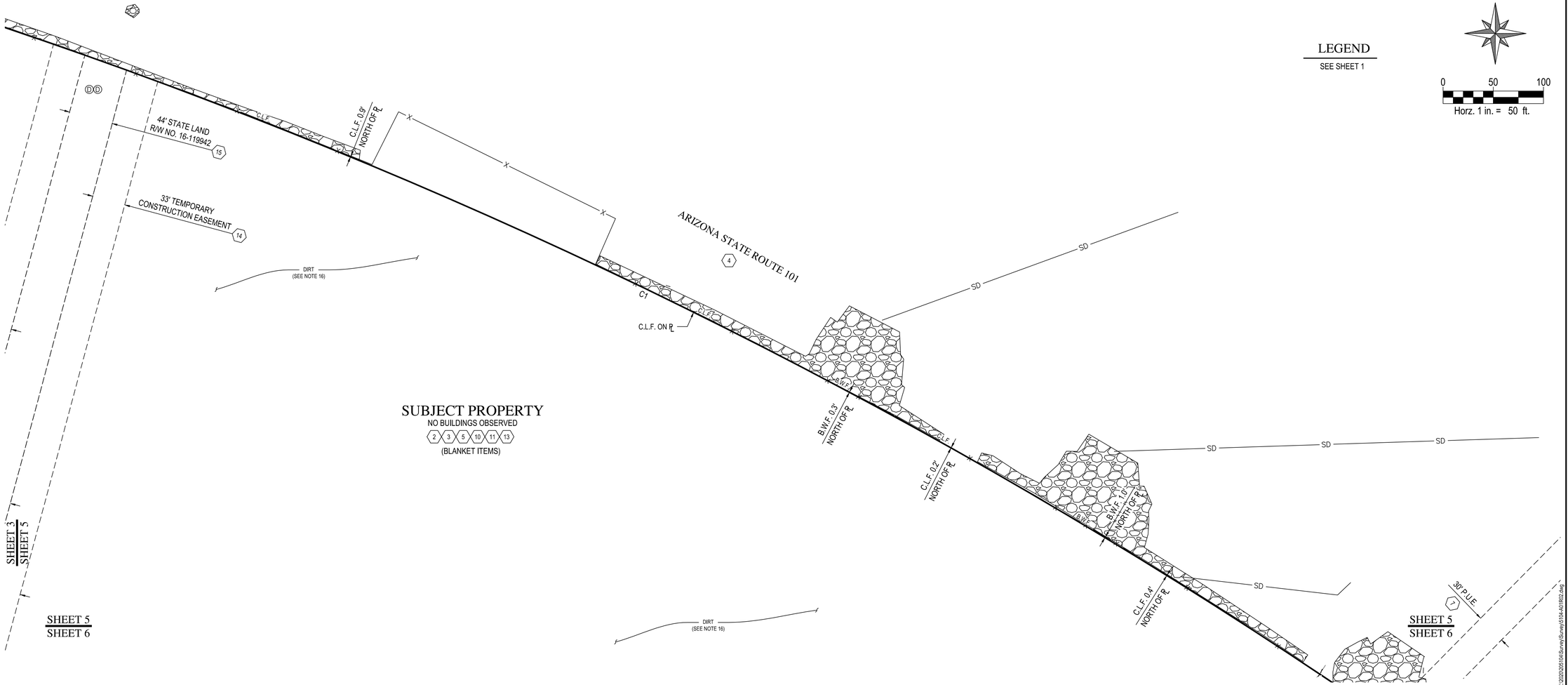
SHEET 3
SHEET 5



LEGEND

SEE SHEET 1

N

0 50 100

Horz. 1 in. = 50 ft.

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ALTA/NSPS LAND TITLE SURVEY

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REGISTERED LAND SURVEYOR
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48932
GABRIEL S. RIOS
Date Signed 05-26-20
ARIZONA, U.S.A.

EXPIRES 12-31-20

COMPLETED SURVEY FIELD WORK ON	2/23/2020
CHECKED BY	BD/GSR
CAD TECHNICIAN	JKP
SCALE	1" = 50'
DATE	5/26/2020
JOB NUMBER	WP# 205104
SHEET	5 OF 6

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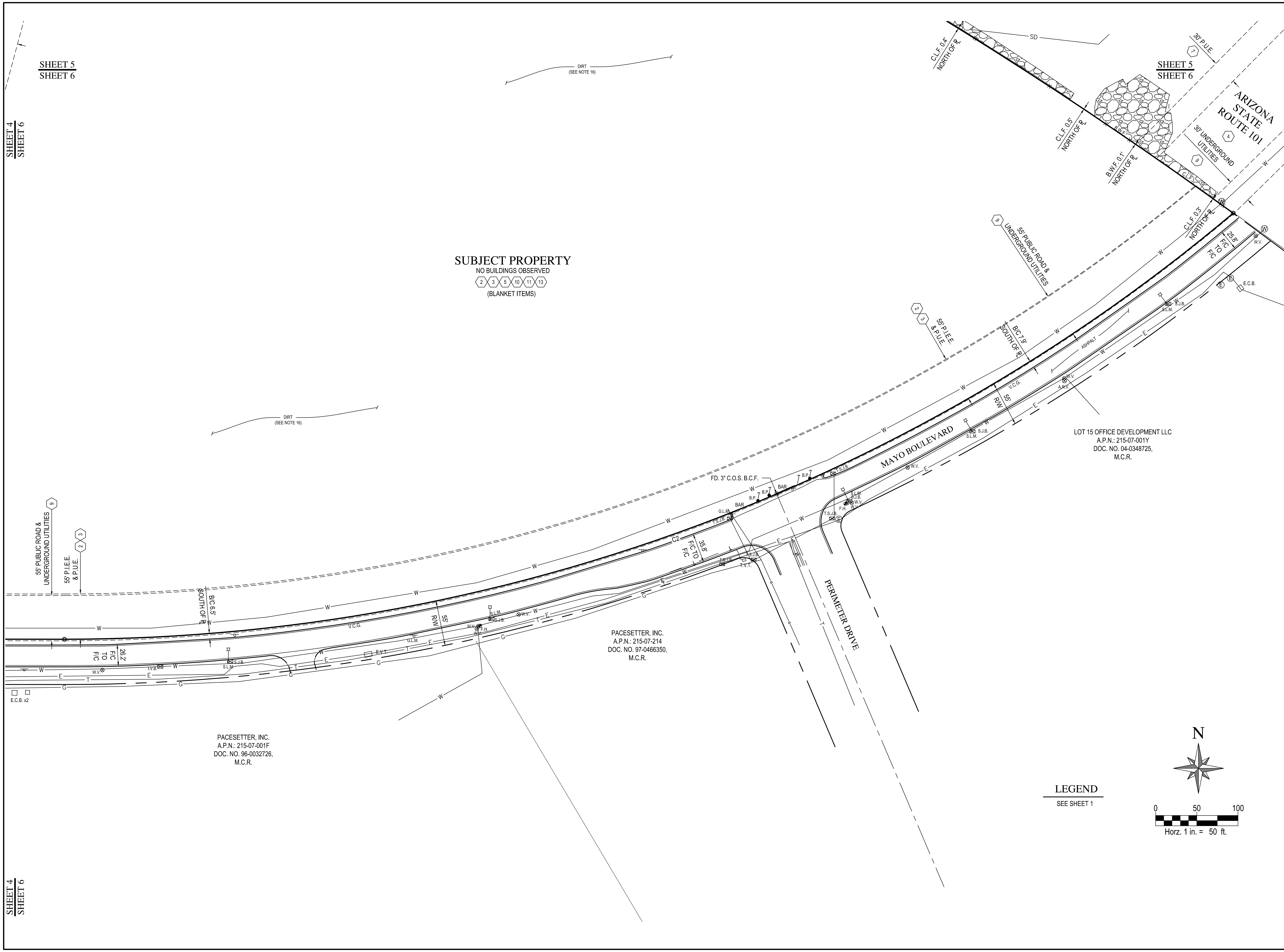
SHEET 5
SHEET 6
SHEET 4
SHEET 6
DIRT
(SEE NOTE 16)
SUBJECT PROPERTY
NO BUILDINGS OBSERVED
2 3 5 10 11 13
(BLANKET ITEMS)
ARIZONA STATE ROUTE 101
30' P.U.E.
30' UNDERGROUND UTILITIES
55' PUBLIC ROAD & UNDERGROUND UTILITIES
55' P.I.E.E. & P.U.E.
MAYO BOULEVARD
PERIMETER DRIVE
FD. 3" C.O.S. B.C.F.
LOT 15 OFFICE DEVELOPMENT LLC
A.P.N.: 215-07-001Y
DOC. NO. 04-0348725,
M.C.R.
PACESETTER, INC.
A.P.N.: 215-07-214
DOC. NO. 97-0466350,
M.C.R.
PACESETTER, INC.
A.P.N.: 215-07-001F
DOC. NO. 96-0032726,
M.C.R.
LEGEND
SEE SHEET 1
N
0 50 100
Horz. 1 in. = 50 ft.

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ALTA/NSPS LAND TITLE SURVEY

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CERTIFICATE NO. 48932
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Date Signed 05-26-20
ARIZONA, U.S.A.

EXPIRES 12-31-20

COMPLETED SURVEY FIELD WORK ON	2/23/2020
CHECKED BY	BD/GSR
CAD TECHNICIAN	JKP
SCALE	1" = 50'
DATE	5/26/2020
JOB NUMBER	WP# 205104
SHEET	6 OF 6

SITE CONTEXT PLAN PHOTOGRAPHS INDEX


A - 1


A - 2


A - 3


A - 4


B - 5


B - 6


B - 7


B - 8

C - 9


C - 10


C - 11


C - 12


D - 13


D - 14


D - 15


D - 16


E - 17


E - 18


E - 19


E - 20


F - 21


F - 22


F - 23


F - 24

Douglas A. Ducey
Governor

Lisa A. Atkins
Commissioner

Arizona State Land Department

1616 West Adams, Phoenix, Arizona 85007
(602) 542-4631

January 21, 2020

Joe Charles
Land Disposition Project Leader II
Arizona State Land Department
1616 W. Adams
Phoenix, Arizona 85007

RE: Cultural Review for Application 053-121237-00-100 (PCI Sales)

Dear Mr. Charles:

PCI Sales filed a Land Purchase application (053-121237-00-100) with the Arizona State Land Department (ASLD) for office and industrial use on State Trust Land in Maricopa County (T4N, R4E, Section 36), encompassing 120 acres. Therefore, per the 2016 Interagency Service Agreement (ISA) between the ASLD, the State Historic Preservation Office (SHPO), and the Arizona State Museum (ASM), the area cited in the above-captioned application has been reviewed in comparison to ASLD's cultural resource records. This review is undertaken to make a recommendation to ASLD's Real Estate Division regarding any properties which may be eligible for the Arizona Register of Historic Places that are known to be located within or nearby the requested Land Purchase. In addition, to make a recommendation to ASLD's Real Estate Division of any efforts ASLD should ask the applicant to undertake to identify currently unknown Register eligible properties potentially affected by ASLD granting a Land Purchase Application (053-121237-00-100).

The results of this research revealed that two cultural resources inspection's (1990-125.ASM and 1986-46.ASM) have been completed within or intersected the area cited in the application and no cultural resources were observed. Although this survey is over 10 years old, it meets current standards and does not need to be updated. Therefore, the ASLD Cultural Resources Section recommends that ASLD Real Estate Division grant Land Purchase application 053-121237-00-100 with the following conditions:

Prior to any ground disturbance in areas not previously subject to a cultural resources survey, Grantee shall arrange for a permittee of the Arizona State Museum to inspect the area for cultural, historical, and paleontological remains and submit two copies and a PDF copy of the inspection report to the Arizona State Land Department Cultural Resources Section for review and approval.

If, following receipt of ASLD Cultural Resources Section approval to proceed, any additional archaeological, paleontological, or historical site or object, or Human remains or funerary object that is at least fifty years old is discovered during the course of ground disturbing activities, all work shall cease and the grantee shall notify the Director of the Arizona State Museum pursuant to A.R.S. §41-844, and Arizona State Land Department Cultural Resources Section Manager.

Your continued cooperation with this office in considering the potential for impacts to Arizona's cultural resources is appreciated. If you have any comments or concerns, please contact Michael O'Hara at 602-542-2679 or by email at mohara@azland.gov.

Sincerely,

Tiffany L. Grew
Archaeological Compliance Specialist

CC: Erin Davis, SHPO
Ray Moore, PCI Sales

Enclosure: Tribal Consultation List

SCOTTSDALE AIRPORT VICINITY DEVELOPMENT **SHORT FORM**

For development projects within 20,000 feet of Scottsdale Airport NOT located on an Airpark taxilane or adjacent to airport property

The owner of developments within the Airport Influence Area shall complete forms required by the City and Scottsdale Airport to comply with the Scottsdale Revised Code, Chapter 5 – Aviation and the Airpark Rules and Regulations; and submit the completed forms with final plans to the assigned city project manager.

Project Name: Axon Campus	Plan#: 716-PA-2020
Site Address: Southeast corner of Hayden Road and Loop 101	
Contact name: Charles Huellmantel, Huellmantel & Affiliates	Phone: (480) 921-2800

1. HEIGHT ANALYSIS, CH. 5, SEC. 5-354. GENERAL REQUIREMENTS

☒ Applicants must conduct a height analysis for all projects located within 20,000 feet of Scottsdale Airport.

1. Complete a height analysis for all structures, appurtenances or construction equipment through the FAA at: https://oeaaa.faa.gov/oeaaa/external/portal.jsp, click on the Notice Criteria Tool (left side). If you do not exceed criteria, submit this FAA response from the website with your packet or you must complete step 2.

IF required by FAA, complete Step 2

2. Submit an FAA form 7460-1 Notice of Proposed Construction or Alteration for review and determination. Please allow about 45 days for this process. A copy of the FAA's response will be required prior to final plan approval.

2. AIRCRAFT NOISE AND OVERFLIGHT DISCLOSURE, CH. 5, SEC. 5-356 & SECT. 5-357

☐ Incorporate the Airport Disclosure for Development around Scottsdale Airport language into the CC&Rs or other procedural documents and provide a copy. *Exhibit A*

☐ An avigation easement will need to be granted to the city. If not already recorded for property, submit a notarized Avigation Easement form with packet to your project manager. *Exhibit B*

For questions regarding this form or aviation-related requirements, contact Scottsdale Airport at 480-312-2321.

SCOTTSDALE AIRPORT
SDL

SMITHGROUP

AXON CAMPUS

International Green Construction Code (IgCC) 2015

Development Review (DR) Energy Analysis Report

SMITHGROUP

Contents

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Introduction

The proposed Axon campus is located near the Loop 101 freeway and N. Union Hill Drive in Scottsdale, AZ. The building is a new 5-story Class A office building and warehouse.

Methodology

To evaluate the total energy performance of the actual design whether meet the requirement of International Green Construction Code (IgCC) 2015, the hourly simulation baseline building model and proposed building model are built by IES Virtual Environment software, version VE2019 computer software.

The following systems and loads are included in the simulation: heating systems, cooling systems, fan systems, lighting power, receptacle loads, and process loads. The Baseline building was developed with the same architecture and zoning, receptacle power, occupancy, schedule of the actual design, but comply with the ASHRAE90.1 2013 standard refence design envelope and mechanical system.

In section 602.2, IgCC defines that the performance-based designs shall demonstrate a z EPI of not more than 50 as determined in accordance with equation shown below.

zEPI = 52 x (Proposed building performance/Baseline building performance) (**Equation-1**)

where:
Proposed Building Performance = The proposed building performance in source kBtu for the proposed design of the building and its site calculated in accordance with IgCC Section 602.2.1.

Baseline Building Performance = The baseline building performance in source kBtu for a baseline building and its site calculated in accordance with IgCC Section 602.2.1.

52 = a fixed value representing the performance of a baseline building designed to comply with ASHRAE Standard 90.1-2013.

Similarly, the CO_2e emissions associated with the proposed design shall be less than the associated with the standard reference design in accordance with equation shown below.
CO_2e pdp <= (zEPI x CO_2e bbp)/52 (**Equation-2**)

Local Climate

The climate of the Scottsdale area is hot and dry in the summer, while mild in winter. The ASHRAE 1% design conditions were used in the evaluation of this project, and are as shown below,
Heating Design Day Outdoor Temperature: 35.96 ℉
Cooling Design Day Outdoor Dry-bulb Temperature: 110.84 ℉
Wet-bulb Temperature: 70.16 ℉

Building Zoning

Building HVAC zones are defined as shown below for both baseline model and proposed model,

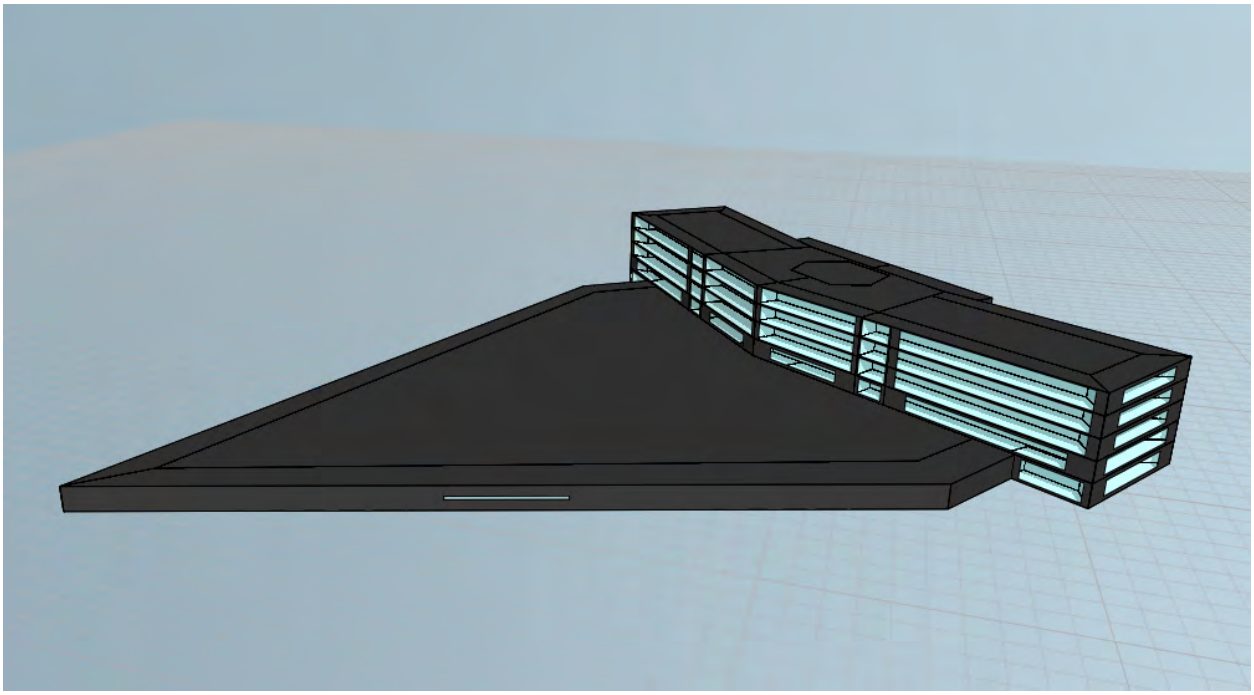


Figure1 - Building Block in IESVE Model

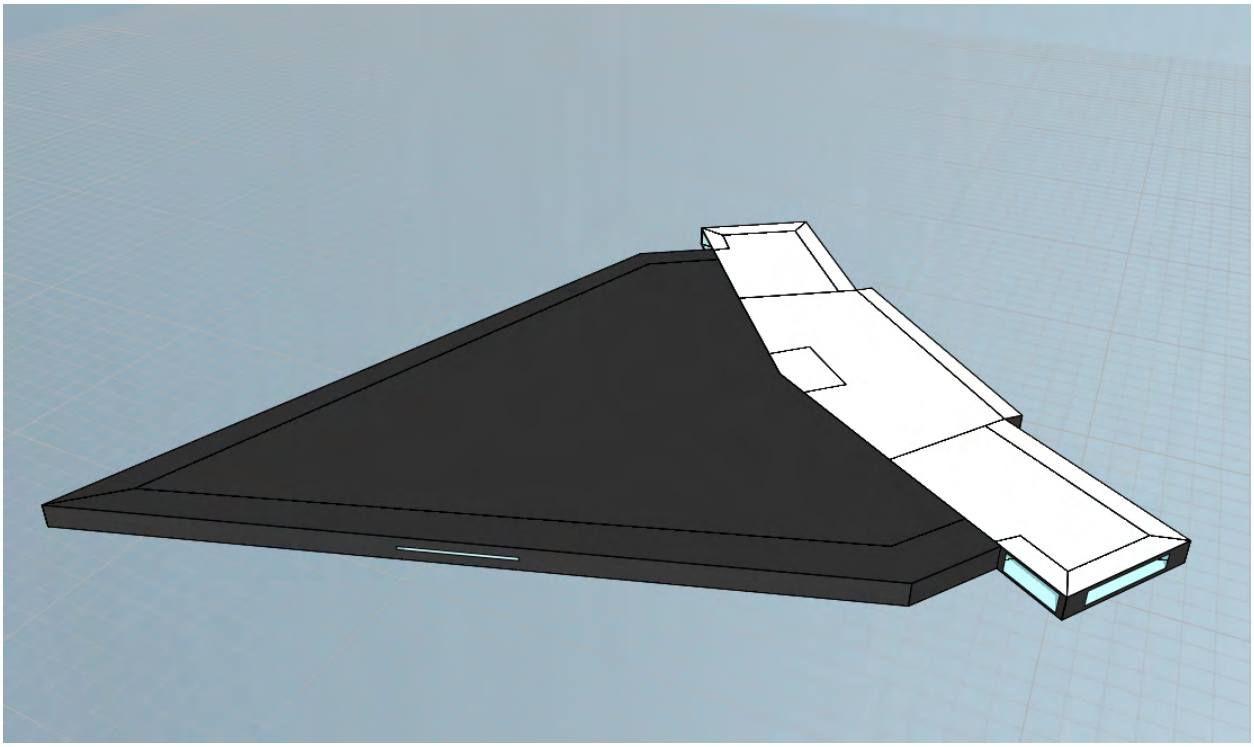


Figure2 – 1st Floor Zoning

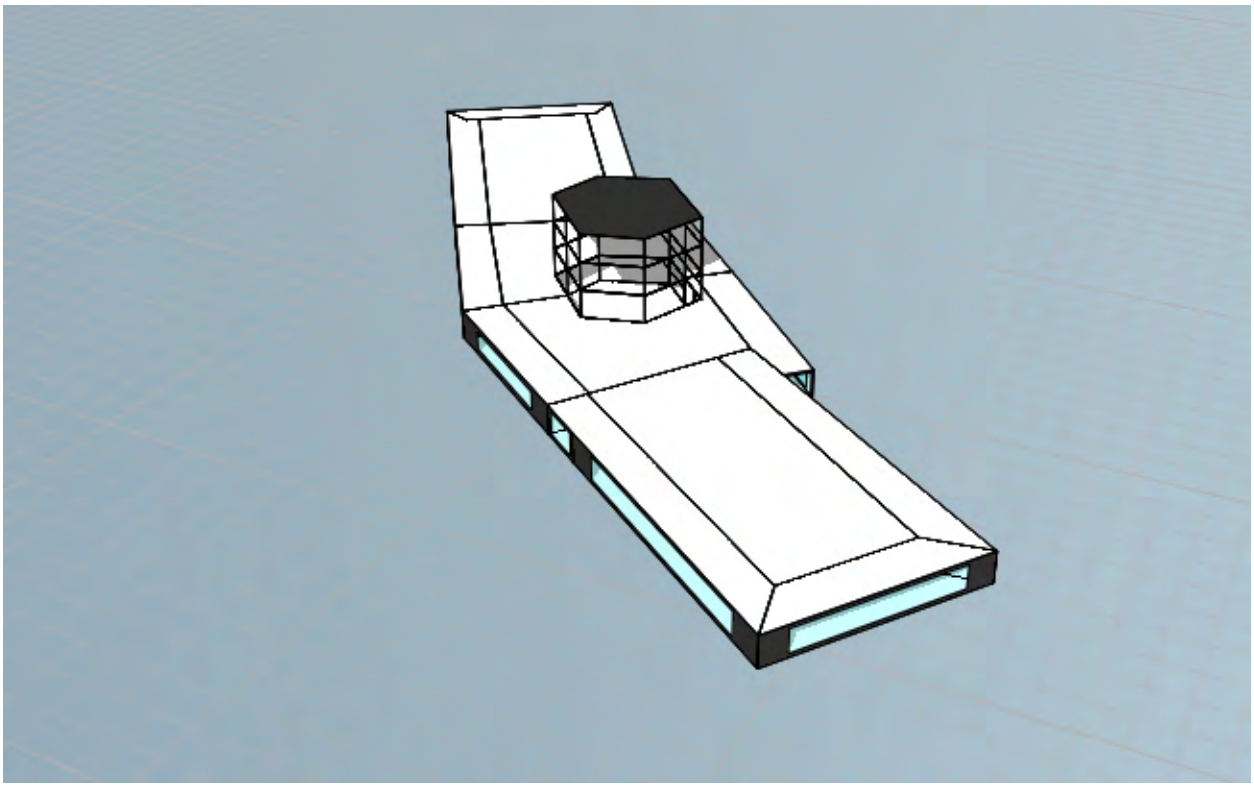


Figure 3 – 2nd Floor Zoning

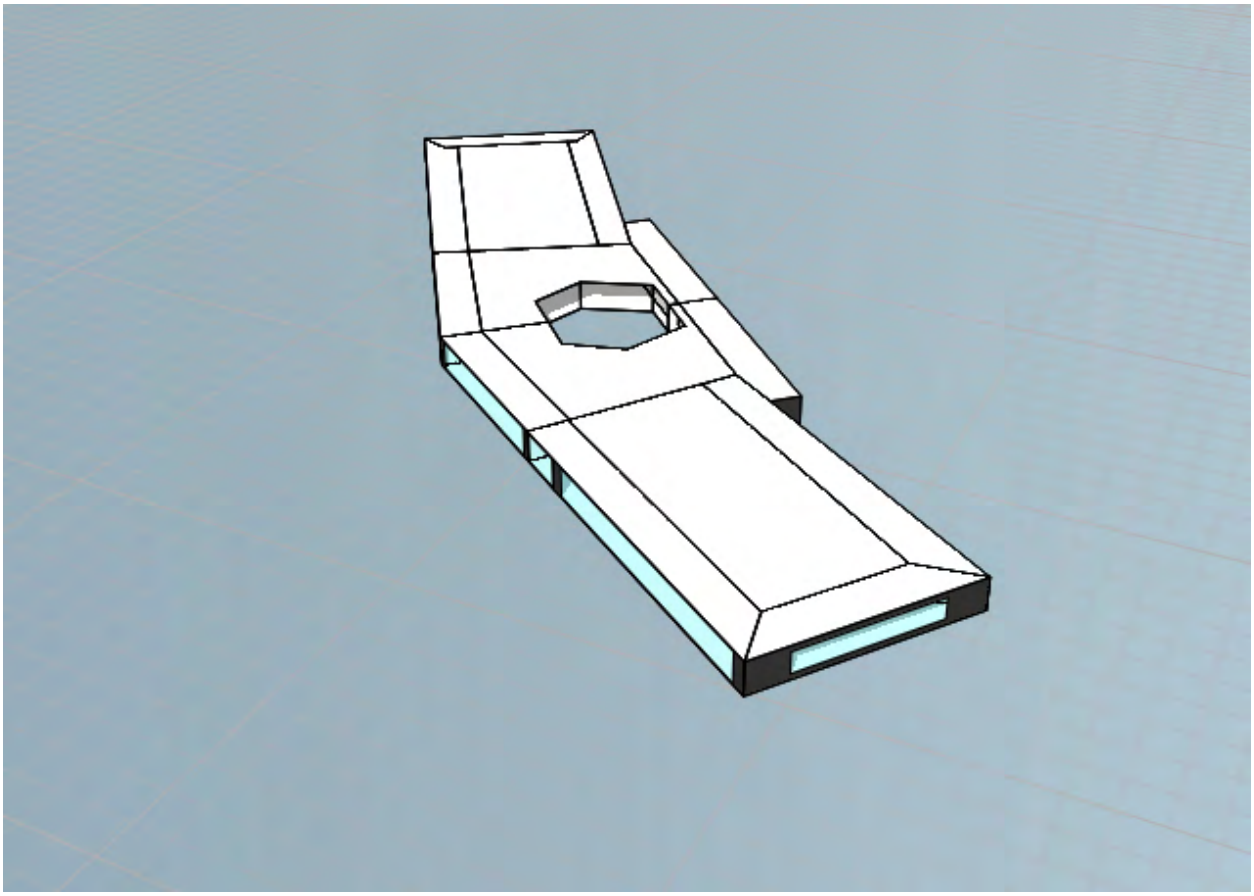


Figure 4 – 3rd thru 5th Floor Office and Conference Zoning

Each open space is composed of at least five zones: one perimeter zone for each orientation and one interior zone.

Envelope

The ASHRAE 90.1 -2013 Appendix G thermal envelope assembly requirement for CZ2, where Scottsdale is located has been applied to the Baseline model. The Construction Parameter Comparison is shown below.

Orientation	Proposed			Baseline		
	Above-grade wall area (ft²)	Vertical glazing area (ft²)	Vertical glazing area (%)	Above-grade wall area (ft²)	Vertical glazing area (ft²)	Vertical glazing area (%)
North	23526	11604	49.3	23526	8955	38.1
East	19455	8820	45.3	19455	7481	38.5
South	32854	16972	51.7	32854	14071	42.8
West	24531	11759	47.9	24531	9453	38.5
Sum	100366	49155	49.0	100366	39960	39.8

	Baseline		Proposed	
	U-value	R-value	U-value	R-value
Category	Btu/hft2F	hft2F/Btu	Btu/hft2F	hft2F/Btu
Ground/Exposed Floor	0.038	30	0.038	30
Internal Ceiling/Floor	0.19	4	0.19	4
External Wall	0.083	R13+R3.8 c.i.	0.07	13 c.i.
Roof	0.039	25 c.i.	0.26	40 c.i.

	Baseline			Proposed		
	Whole Window U-value	SHGC	Area	Whole Window U-value	SHGC	Area
Category	Btu/hft2F		% of Wall	Btu/hft2F		% of Wall
Clear Window	0.57	0.25	39.8%	0.3	0.15	49%

Operational Hours

The operation setting for Baseline and Proposed model are same.

The facility will be occupied between 8am-6pm from Monday to Friday; 9am-5pm in Sat and 10am-4pm in Sun.

Cooling/heating Setpoint: 75/70F when occupied, 80/60F when unoccupied.

Internal Heat Gain

The building electrical power of receptacle and lighting is simulated as table shown below,

Space Use		Conference	Corridor	Lobby	Manufacturing	Office
Baseline Internal Gains	Lighting(W/SF)	1.23	0.66	0.9	1.29	0.98
	Receptacle (W/SF)	1	0.2	0.5	1	1.5
	Occupancy (SF/person)	20	N/A	6.67	50	20
Proposed Internal Gains	Lighting(W/SF)	1	0.66	0.9	1	0.75
	Receptacle (W/SF)	1	0.2	0.5	1	1.5
	Occupancy (SF/person)	20	N/A	6.67	50	20

Mechanical System

The mechanical system for proposed model is same as baseline model, whose system type based on ASHREA 90.1-2013 Appendix G3.1.1A table requirement. The building will be conditioned by a variable air volume (VAV) water-cooled chilled water system. Centralized air handling units will provide conditioned air to single-duct VAV terminal units with electric reheat.

The chilled water system will consist of high efficiency chillers, cooling towers and pumps. The chillers will be centrifugal type with crossflow cooling towers. Base mounted end-suction pumps will be used in the chilled water and condenser water systems.

The detailed information of mechanical system is shown below,

Model Input			Baseline	Proposed
Mechanical System	Air Side	Terminal Unit	Single Duct VAV Box	Single Duct VAV Box
		Reheat	Electric Reheat	Electric Reheat
		Total AHU Fan Design Flow Rate (CFM)	356,627	383,371
		AHU Fan Design Pressure (INWG)	8	5
		AHU Cooling Coil Air Supply T (F)	55	55
		Fan Control	VFD	VFD
	Water Side	Design Chiller Efficiency (KW/ton)	0.56 (Based on ASHREA90.1-2013)	0.547
		Waterside Economizer	Yes	Yes
		Condenser	Cooling Tower	Cooling Tower
		Chilled Water Supply T (F)	44	44
		Chilled Water Delta T (F)	12	12
		Pump Control	VFD	VFD

Analysis Results

Results of the analysis are summarized in Table shown below.

Site Energy Usage Breakdown	Interior Lighting (MBtu)	Receptacle Equipment (MBtu)	Space Heating (MBtu)	Space Cooling (MBtu)	Heat Rejection (MBtu)	Interior Central Fans (MBtu)	Pumps (MBtu)
Baseline	4099	4752	765	3951	1348	2582	307
Proposed without PV panel	3271	4752	1061	3781	849	2141	256

Energy Usage	Electricity (MBtu)	Saving
Baseline	17804	
Proposed without PV panel	16111	9.51%
Proposed with PV panel	15628	12.22%

Based on IgCC table 602.2.1.1 Electricity Generation Energy Conversion Factors by EPA eGRID Sub-region, this project in AZNM should use the energy conversion factor 3 .10 to calculate Source Energy Usage, which is summarized in Table shown below.

Source Energy Usage Breakdown	Interior Lighting (MBtu)	Receptacle Equipment (MBtu)	Space Heating (MBtu)	Space Cooling (MBtu)	Heat Rejection (MBtu)	Interior Central Fans (MBtu)	Pumps (MBtu)
Baseline	12706	14731	2371	12248	4178	8006	953
Proposed without PV panel	10141	14731	3289	11722	2631	6636	793

Source Energy Usage	Electricity (MBtu)	Saving
Baseline	55192	
Proposed without PV panel	49944	9.51%
Proposed with PV panel	48446	12.22%

The proposed building design energy reduction can reach up to 9.51%. In addition to the saving above, this project has additional 3% energy saving from PV panel installation and application, so it is 12.22% energy saving totally it achieves. According to Equation-1, its zEPI value is 45.6, which is not more than 50 as IgCC requirement.

Based on IgCC table 602.3.1 *Electricity Emission Rate by EPA eGRID Sub-region*, this project in AZNM should use CO_2e rate 0.671 kg/kWh to calculation CO_2e emission, which is shown below.

CO2e Emission Calculation	Site Electricity (MBtu)	Electricity Emission Rate(kg/kWh)	CO_2e emission (kg) =Site Electricity * Electricity Emission Rate		(Zepi *CO_2e bbp)/52
Baseline	17804	0.671	CO_2e bbp	3500312	3072433
Proposed	15628	0.671	CO_2e pdp	3072433	N/A

As a result, the CO_2e emissions associated with the proposed design is less than the associated with the standard reference design in accordance with Equation-2, CO_2e pdp <= (zEPI x CO_2e bbp)/52.

In summary, based on above energy performance and CO_2e emissions analysis, per IgCC section 602.2, this building will comply with IgCC2015.

City of Scottsdale
International Green Construction Code (IgCC)

Development Review (DR) Checklist

This is an abbreviated checklist for IgCC compliance measures that need to be addressed during the DR process. Please refer to the building plan review checklist for complete IgCC compliance requirements.

1. HEAT ISLAND MITIGATION
    a. Please refer to attached sheet DR1.3 for heat island mitigation approach and calculations.

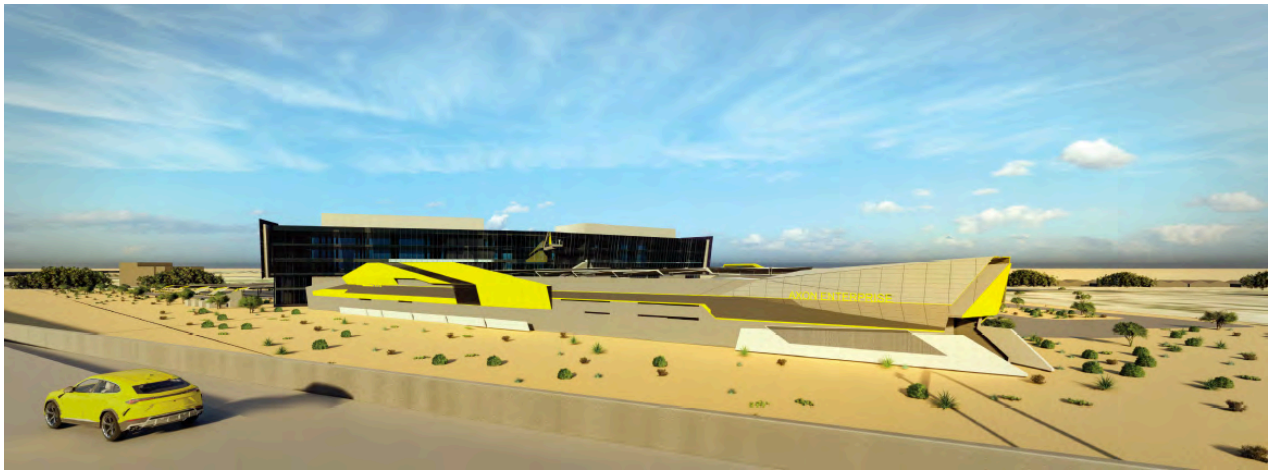
2. ENERGY COMPLIANCE PATH
    a. Refer to the attached preliminary energy report indicating the energy reduction of the building from the baseline requirements.

3. ONSITE RENEWABLE ENERGY SYSTEM
    a. To comply with the 2015 IgCC renewable energy requirement of not less than 3% of the project's annual energy consumption through on-site renewable energy, the design includes 30,000 SF of roof top solar panels.
    b. The estimated energy usage of the building based on the preliminary energy report is 4,721 MWh. The solar system is required to provide 142 MWh. A solar system of 7,636 square feet is required to meet this energy production. This is based on 11 watts per square foot of solar panel.

4. REFUSE AND RECYCLING COLLECTION
    a. Please refer to attached sheet DR6.1 for design approach to refuse and recycling collection.

Axon Scottsdale Campus

Application Narrative for
Rezoning, Development Review (Major) and
Amended Development Standards



Representative:

HUELLMANTEL & AFFILIATES

Charles Huellmantel
480.921.2800
charles@huellmantel.com
P.O. Box 1833
Tempe, Arizona 85280

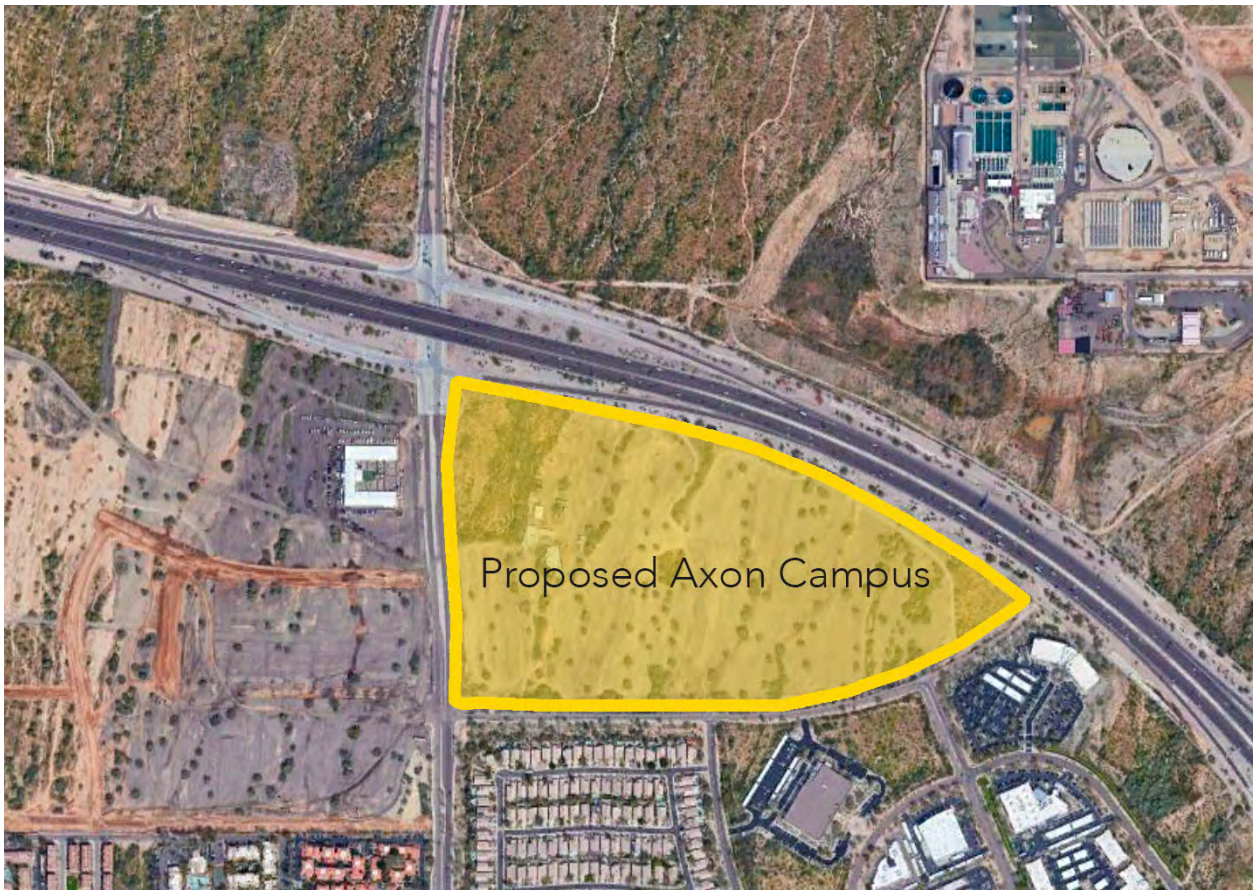
Applicant:

AXON

Axon Enterprise, Inc.
17800 N 85th Street
Scottsdale, Arizona 85255

PROJECT OVERVIEW

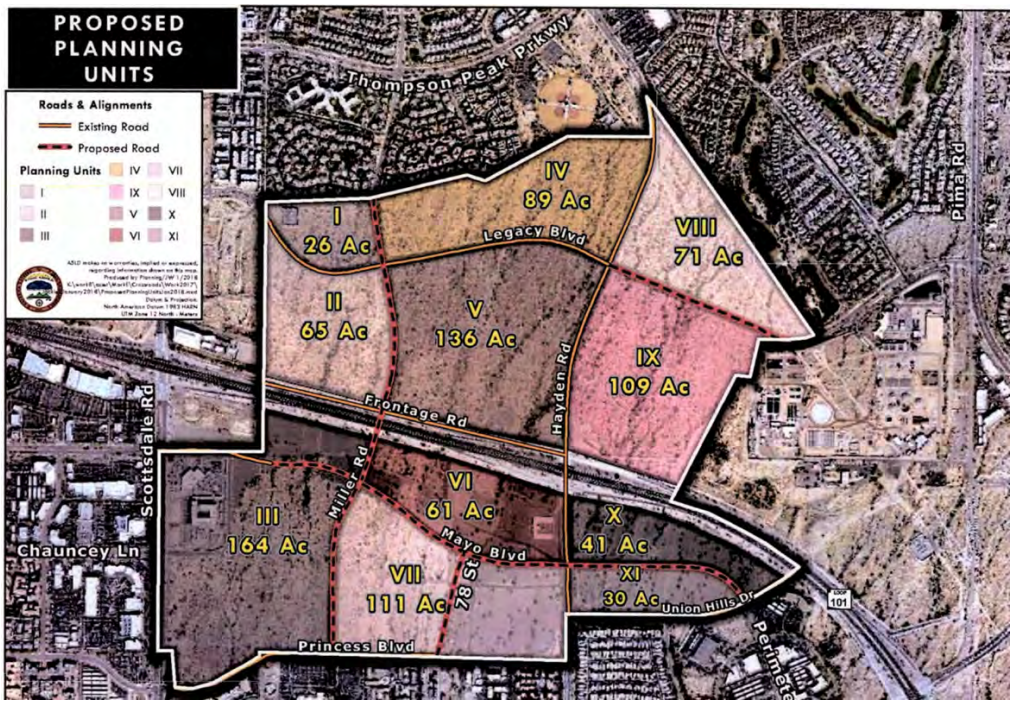
Axon Enterprise, Inc. ("Axon") is in the process of acquiring approximately 73.57 acres on the west side of the Loop 101 freeway between the Hayden Road and Princess Drive exits to expand its campus to the area shown below:



The Arizona State Land Department (ASLD) held an auction on September 10, 2020. Axon was the successful bidder and will be the owner of the land by the time this case reaches a hearing. The City of Scottsdale has previously entered into a Public Infrastructure Reimbursement Development Agreement with Axon to encourage development of this site for Axon's proposed campus. Pursuant to that agreement, Axon is filing its requests to rezone the land as well as to amend the development standards in conjunction with a request for a development review. Axon is requesting to rezone the approximately 74-acre site from PCD (Planned Community) to I-1 (Industrial Park), an amendment to the Development Standards for I-1 to accommodate an increased building height, and a Development Review (Major) for the proposed building design.

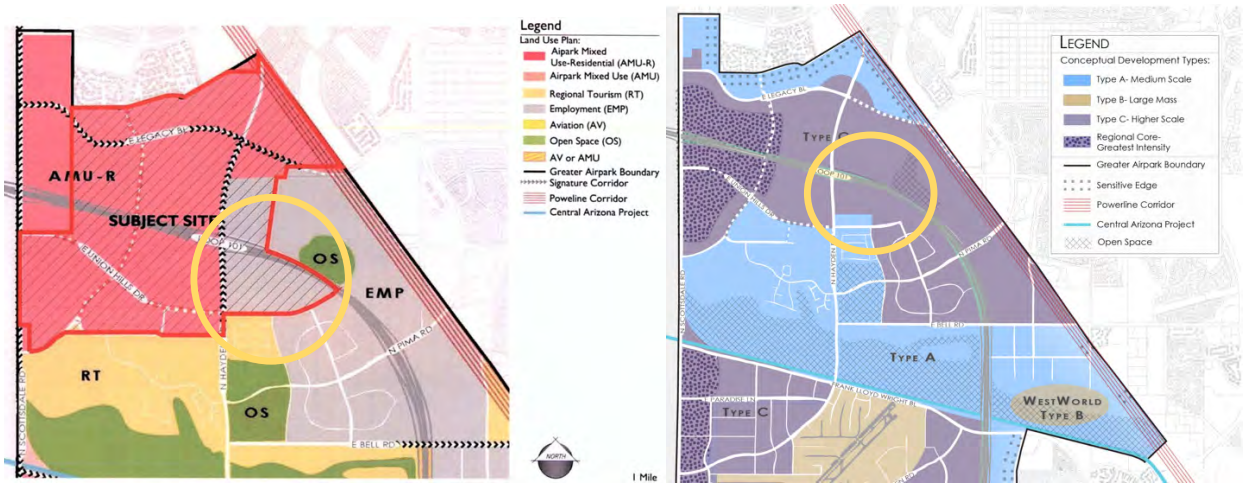
The proposed Axon campus is located within a larger planning area within the City of Scottsdale known as Crossroads East that has been subject to various Development Agreements, rezonings, and other entitlement cases over many years. The Crossroads East area is depicted below in this City-created image:

Crossroads East is divided into Planning Units, which have been broken up over time. The future Axon campus is located in Planning Units X and XI as shown in the map below created by rezoning case 19-ZN-2002#6:

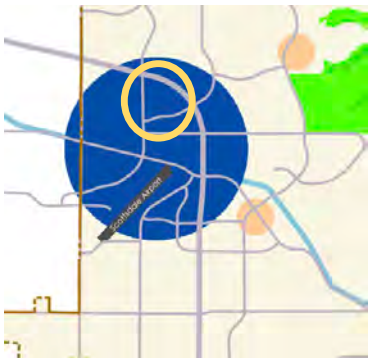


All of the land contained within the Crossroads East area was previously rezoned by the City to Planned Community (PCD) with a zoning bank allowance for various zoning categories to be permitted in the Planning Units as well as dictating the amount of land that could utilize each zoning category and placing restrictions on the number of residential units permitted.

In addition to being included in the Crossroads East Planned Community Development Plan, the future Axon campus is located with the Greater Airpark Area Plan with an Employment designation projected to be a Type C – Higher Scale Development type as shown on the maps below:



The site's overall General Plan designation is Mixed-Use Neighborhoods with a Regional Use District overlay within the Greater Airpark Growth Area as shown below:



The proposed Axon campus is proposed as an Industrial office use at a scale designed to fit well with land use plans for this area. Accordingly, the proposed rezoning, development plan and amended development standards will effectuate the City's long-term planning goals for this area and are consistent with decades of vision

for this area of Scottsdale. We were pleased at the council hearing for the Development Agreement to hear the Council unanimously agree that we share a common vision for this important land.

REZONING NARRATIVE

Axon seeks to rezone the current Planned Community (PCD) designation to the more specific I-1 (Industrial Park) category allotted in the Crossroads East Development Agreement zoning bank/Land Use Budget allotment for Planning Units X and XI.

The subject site is located within Planning Units X and XI (created by 19-ZN-2002#6) with the following zoning allowances:

Category	Zoning	Permitted Zoning Districts										
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI
Employment	I-1		•	•	•	•	•	•	•	•	•	•
Employment	C-O	•	•	•	•	•	•	•	•	•	•	•
Mixed Use	PRC & PCP		•	•		•	•	•		•		
Commercial	C-2/C-3		•	•	•	•	•	•	•	•	•	•
Residential	R-5	•	•	•	•	•	•	•	•			

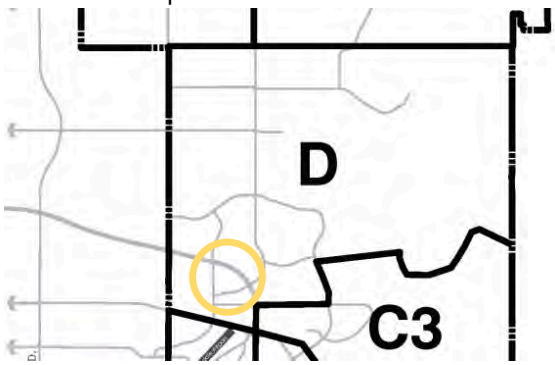
The proposed rezoning is consistent with the Land Use Budget allowance for Planning Units X and XI, which currently is as follows:

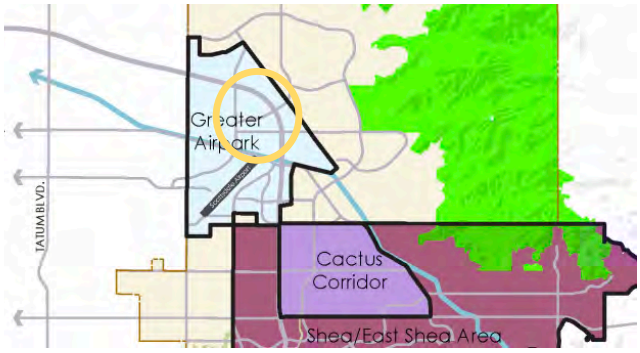
Category	Zoning	Gross Acreage by Zoning	Maximum Dwelling Unit per Gross Acre (DU/AC)	Maximum Allowable Dwelling Units
Employment	I-1	210	NP	NP
Employment	C-O	81	NP	NP
Mixed Use	PRC & PCP	407	See Schedule C	4,163
Commercial	C-2/C-3	170	NP	NP
Residential	R-5	132	23	2,806
Total		1,000		6,969

Axon proposes to utilize 74 acres of the I-1 allotment in the Land Use Budget for the rezoning of Planning Units X and XI in Crossroads East.

Compliance with Goals and Policies of the General Plan

Axon is located within Zone D of the General Plan's Five Planning Zones as well as the Greater Airpark Character Area as shown below:





Character and Design Element

1. Determine the appropriateness of all development in terms of community goals, surrounding area character, and the specific context of the surrounding neighborhood.

- Respond to regional and citywide context with new and revitalized development

  Axon's proposed campus expansion is located on a vacant parcel owned by the Arizona State Land Department that is part of a larger master planned community known as Crossroads East. Development of this parcel with Axon's proposed campus expansion helps meet this Character and Design Element Goal by furthering the City's Policy of providing new development within a regional and citywide context.

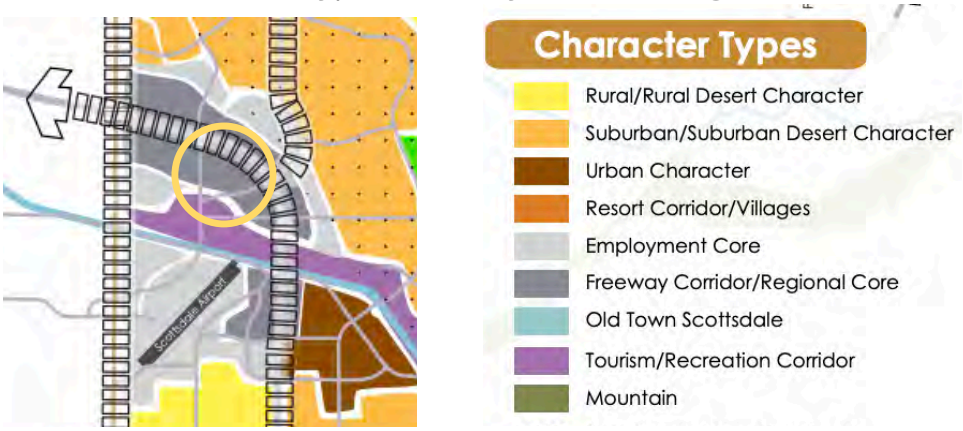
- Enrich the lives of all Scottsdale citizens by promoting safe, attractive and context compatible development

  This area is bounded on two sides by the curve of the Loop 101 freeway, with the other portions of the site oriented towards a Major Arterial – Urban Street (Hayden Road) and a Major Collector – Urban Street (Mayo Boulevard). The parcel has been planned as an employment center of larger scale with associated intensity in relationship to its proximity to the Scottsdale Airpark and freeway.

  Accordingly, Axon has designed an appropriately scaled building with a unique design that is oriented closer to the Loop 101 adjacent portion of the site with the remainder of the site as open space pending future phases. The

context of the building including its design, height and materials are consistent with the Greater Airpark Area modern and contemporary design principles featuring a sleek design and significant glazing.

- Ensure that all development is part of and contributes to the established or planned character of the area of the proposed location.
    - Urban Character Type – Freeway Corridor/Regional Core



As depicted in the image above, Axon is located with the Freeway Corridor/Regional Core Character Type of the General Plan. These areas are planned as "dense mixed-use employment core that includes a number of region-serving offices, retail and hotel uses . . . Employment along the freeway corridor will be second only to Old Town Scottsdale in intensity and positive impact on the City's economic development . . . " as detailed in the Urban Character Type section in the General Plan.

Consistent with the vision the City has for this area – as approved by Scottsdale voters – Axon is proposing an expansion of its facilities to a world-class campus and employment center. Its location off of the Hayden Road exit for the Loop 101 freeway creates a regional presence with easy access throughout the Valley that will be home to more than a thousand quality jobs in the highly sought-after technology field.

2. Review the design of all development proposals to foster quality design that enhanced Scottsdale as a unique southwestern design community.

- Continue the development review process.
  We have been collaborating with the City for some time in the preparation of this application, including ongoing conversations about conceptual design. This application includes a Development Review (Major) request, which will

require ongoing development review with both members of City staff as well as members of the public through the Open House and hearing process.

- Recognize that Scottsdale's economic and environmental well-being depends a great deal upon the distinctive character and natural attractiveness of the community, which are based in part on good site planning aesthetics in the design and development review process.
  The proposed Axon campus expansion is part of a decades-long master plan for this area between the City of Scottsdale and Arizona State Land Department for the Crossroads East Planned Community. Axon has worked with both ASLD and the City to ensure that its proposed campus meets the long-term vision for this area.

  The building itself is likely to be one of Scottsdale's most distinctive buildings, designed with high quality materials with a unique design aesthetic that is complimentary to the Greater Airpark Area. The site has been planned in a manner that allows for a variety of uses, designs and intensities that will foster aesthetically pleasing design while encouraging the planned industrial/office uses in this area.

- Promote, develop, and adopt comprehensive policies and guidelines for use in the design and development review process, which establish principles and standards for public and private development and recognize the diverse scope of development projects in the community.
  As previously mentioned, the site is located within the Crossroads East Planned Community area. ASLD and the City have worked collaboratively for many years to ensure that third parties developed within Crossroads East in a manner consistent with a unified vision for progress in this area. Axon's campus expansion is another piece of this master planned area that has been designed and planned in conjunction with the overall vision for Crossroads East.

  The policies and guidelines set forth in the Crossroads East Development Plan have provided the basis for the proposed design and process through which Axon is pursuing approval of its proposed campus expansion.

4. Encourage "streetscapes" for major roadways that promote the city's visual quality and character, and blend into the character of the surrounding area.

- Ensure compatibility with the natural desert in Natural streetscape areas.

The streetscapes have been designed consistent with the guidelines for Suburban Streetscapes including native and/or desert adapted trees that include mulga acacia trees as well as blue palo verde trees along frontages adjacent to the site.

6. Recognize the value and visual significance that landscaping has upon the character of the community and maintain standards that result in substantial, mature landscaping that reinforces the character of the city.

- Maintain the landscaping materials and pattern within a character area.
  Axon's proposed campus expansion has thoughtfully planned the landscape design in a manner that recognizes the importance of cohesive landscape palettes to reinforce the character of this area.

  The landscape design utilizes materials and patterns consistent with the surrounding area and include: palo verde trees, ironwood, saguaro cactus, prickly pear, creosote, sage, jojoba, yucca and cholla as well as a variety of other shrubs, accents and groundcovers.

- Discourage plant materials that contribute substantial air-borne pollen.
  The landscape palette has specifically chosen desert appropriate plants and excludes the use of plant materials that contribute substantial air-borne pollen.

- Encourage landscape designs that promote water conservation, safe public settings, erosion protection, and reduce the "urban heat island" effect.
  By utilizing a landscape palette consistent with the surrounding area that is sensitive to the native desert environment, the proposed project utilizes low water usage / xeriscape plantings to promote water conservation. Landscape that interferes with natural visibility has been discouraged to promote safe public settings.

- Encourage the retention of mature landscape plant materials.
  The phasing of the development of the Axon campus will allow for retention of mature landscape plant materials surrounding the site in areas that will not be disturbed for this initial phase.

Land Use Element

1. Recognize Scottsdale's role as a major regional economic and cultural center, featuring business, tourism, and cultural activities.

- Strengthen the identity of Scottsdale by encouraging land uses that contribute to the character of the community and sustain a viable economic base.
  Axon's campus expansion will further the City's goal to increase its economic base beyond tourism and recreation as noted by Mayor Lane and Councilmembers Milhaven and Phillips at a public hearing on August 25, 2020, related to public infrastructure for the proposed project. Axon's high quality, engineering jobs in programing and research and development significantly contribute to the City's economic diversity.

- Encourage land uses that preserve a high quality of life and define Scottsdale's sense of place within the region.
  The proposed campus expansion is located within a planned industrial employment hub within the Greater Airpark Character Area and along the Loop 101 freeway that places it appropriately within an area planned for this type of use. The increase in property tax generated by the expansion combined with the economic impact of additional jobs the campus will bring to this area only furthers to improve the high quality of life for Scottsdale residents.

  Additionally, the iconic building design will contribute to a sense of place specific to the Greater Airpark Area. The aeronautical influence in the building shape and modern elements reflect the high quality of development Axon proposes to bring to the area.

2. Coordinate land uses affecting regional networks (mobility, economic, and open space) with adjacent jurisdictions to maintain the integrity and efficiency of each network.

- Support the location of regional land uses, such as major employment centers along regional mobility networks.

Axon will employ more than a thousand Valley residents at this campus expansion to complement its existing presence located directly adjacent to the project site, and its proximity to the Loop 101 freeway will allow ease of access to regional mobility networks for employees and visitors.

3. Encourage the transition of land uses from more intense regional and citywide activity areas to less intense activity areas within local neighborhoods.

- Encourage the location of more intense mixed-use centers and regional employment cores along regional networks while incorporating appropriate transitions to adjoining land uses.
  Axon's proposed campus expansion is located with easy access to the Loop 101 Freeway, placing this employment core in close proximity to a regional transportation network. Because the proposed project is buffered by the Loop 101 on two sides, the more intense buildings are located on this portion of the site. On the remaining portions of the site, the scale of the building provides appropriate transition to the nearby office uses.

- Locate employment uses where impacts on residential neighborhoods are limited and access is available at citywide and regional levels.
  This site is located so as to provide minimal impact to residential neighborhoods and is concentrated in an area specifically planned to limit adjacent residential uses due to the nearby Airpark. As noted above, the site is also bounded on two sides by the Loop 101 freeway, which provides a physical barrier from the neighborhoods located to the north and east of the site.

4. Maintain a balance of land uses that support a high quality of life, a diverse mixture of housing and leisure opportunities and the economic base needed to secure resources to support the community.

- Support jobs/housing balance by integrating housing, employment, and supporting infrastructure in mixed-use centers located at appropriate locations.
  Axon's campus expansion is located within the Crossroads East Planned Community, which is master planned for a mix of commercial, residential, industrial and office uses. The Crossroads East area currently contains a mix of office and residential space, and the location of Axon's campus expansion is planned as an industrial use consistent with the General Plan's goals for this area. The proposed project fits well within the variety of uses and is consistent with a number of City planning documents including the General Plan and Greater Airpark Character Area.

5. Develop land use patterns that are compatible with and support a variety of mobility opportunities/choices and service provisions.

- Integrate the pattern of land uses and mobility systems in ways that allow for shorter and fewer automobile trips and greater choices for mobility.
  Because portions of Crossroads East have been planned with multifamily residential uses located nearby, the inclusion of Axon's proposed campus expansion provides additional employment opportunities close to dense residential uses. Axon will employ more than a thousand individuals at this location, providing ample opportunities for those nearby residents who are employees to utilize multi-modal options.

6. Promote land use patterns that conserve resources, such as land, clean air, water, and energy, and serve all people, within the community.

- Concentrate future development in "growth areas" and other centers of activity, thereby discouraging sprawl, conserving energy, and promoting community identity.
  The subject site is located within a growth area that extends from generally Scottsdale Road on the west to 96th Street on the east and from Thunderbird Road on the south to the Loop 101 on the north. The site is also located within the Greater Airpark Character Area, a part of the City targeted as a center of activity. The Airpark aims to serve as the largest employment hub outside of Old Town, highlighting a significant desire for growth in the Greater Airpark Character Area.

7. Sensitively integrate land uses into the surrounding physical and natural environments, the neighborhood setting, and the neighborhood itself.

- Focus intense land uses along major transportation networks (such as the Pima Freeway and major arterial streets) and in urban centers (such as Old Town and the Airpark).
  The proposed Axon campus expansion is located at the Hayden Road exit for the Loop 101 and is bounded on the north and east portions of the site by the Loop 101 curve. The site is both along a major transportation network (the Loop 101) as well as being located in an urban center (the Airpark). The intensity of employment center is well-located within these areas planned for growth and activity.

Economic Vitality Element

3. Encourage and support a diversity of businesses that contribute to Scottsdale's sale and property tax base so that needed infrastructure, physical amenities, services, and the expansion of such services are provided.

- Nurture and support established businesses as well as new businesses.
  Axon (formerly known as TASER International, Inc.) is a well-established global company founded in Scottsdale in 1993. Axon currently operates out of a building located directly adjacent to the proposed campus expansion. Approval of the expansion of Axon's operations to the proposed new campus location will keep Axon's new campus in Scottsdale and will help support the company's growth within the City for many years to come.

- Ensure adequate opportunities for future and expanded commercial and business activity throughout the community.
  Axon has long since outgrown its existing corporate building and has been leasing space throughout the globe for its operations as we have continued to expand. Approval of the proposed campus expansion will consolidate those operations within the City of Scottsdale and will provide future opportunities for Axon to continue growing within Scottsdale as the site is designed to accommodate future phases.

- Develop existing and attract new high value/low impact businesses.
  Axon is a technology company and provides high quality employment with minimal impact on the community in terms of resource usage. Even now, hundreds of our employees live in Scottsdale. The value to the City of Axon's expansion is projected into the billions over 10 years by the City's Economic Development staff.

4. Foster new and existing economic activities and employment opportunities that are compatible with Scottsdale's lifestyle.

- Support businesses in adapting to the constantly changing market as a result of new technologies and support those companies that are integral to the "new economy."
  Axon is a well-known inventor, designer, programmer and manufacturer of industry leading cutting-edge technology and public safety tools and equipment. Axon seeks to continue evolving its products and technology, and is a business that is built upon adapting to changing markets and policies through technological advancement. The approval of Axon's campus expansion will further the City's goal to attract and retain leaders in technology.

- Target specific economic sectors for expansion or relocation in Scottsdale that will provide for the greatest positive impact and the fewest negative impacts. These include medical and health care services, biomedical research and development, technology related research and development, business and professional services, administrative office, corporate and regional headquarters.
  Axon is a technology company, with a robust research and design component, seeking to expand its existing current building into a unified campus located on land directly adjacent to the current building. Axon is the type of company and employer the City has long sought to attract and retain, and the approval of the proposed campus expansion for Axon will further the City's goal.

- Emphasize the retention and expansion of businesses in Scottsdale and provide support mechanisms for small businesses in Scottsdale.
  This larger contiguous campus parcel allows Axon to consolidate and expand in Scottsdale. Without this unique land opportunity, we would likely need to find another city to build the campus.

6. Maintain and develop partnerships that will support and promote quality employment and business opportunities.

- Maintain and develop relationships with businesses that provide the contacts that can enhance the city's presence and position in enhancing and attracting quality and innovative business opportunities.
  Axon and the City have worked together to facilitate the proposed development of Axon's campus expansion on the subject site. The City's outreach and assistance has encouraged Axon to maintain and expand its operations within Scottsdale consistent with this goal.

- Work with other jurisdictions and agencies (i.e. Scottsdale Area Chamber, School Districts, adjacent communities, Greater Phoenix Economic Council, etc.) to coordinate business and employment opportunities.
  The City has worked with the Arizona State Land Department to master plan the Crossroads East area and ensure compatible development is encouraged in the area. Additional collaboration with the Greater Phoenix Economic Council on Axon's specific desire to expand in this location has furthered this collaborative effort to attract and maintain quality businesses in this area.

7. Sustain the long-term economic well being of the city and its citizens through redevelopment and revitalization efforts.

- Encourage quality redevelopment in employment areas to provide new jobs, new retail, and new entertainment opportunities in the Scottsdale market.
  The City has encouraged us to consolidate existing jobs into Scottsdale and to bring new jobs as we grow. Approval of the proposed campus expansion will allow Axon to provide these jobs that might otherwise not be located within the City (and in many cases are already located outside of the City).

- Encourage and support the renovation and reuse of underutilized or vacant parcels/buildings/shopping centers.
  The subject site has long been vacant and approval of the proposed campus expansion for Axon will provide for development of this large, nearly 75-acre portion of land within the key growth area of the Greater Airpark.

Community Involvement Element

1. Seek early and ongoing involvement in project/policy-making discussions.
   - Maximize opportunities for early notification of proposed projects, or projects/issues under consideration using signs, information display boards, web site postings, written correspondence, and other methods, as they become available.
     From the time Axon identified the subject property as a prime location for our campus expansion within the City of Scottsdale, we began outreach with various stakeholders in the community that included phone calls and meetings. This outreach has continued, and we have spoken with several nearby property owners and/or their representatives to notify them of Axon's plans and to begin open and early communication.

     In addition to this early outreach, we have provided the City with draft language for both "white" and "red" sign postings that include the Early Notification of a Project Under Consideration and will host a Neighborhood Open House Meeting approximately 1 month after filing of the formal submittal.

   - Encourage that project developers/owners, realtors and the real estate industry, corporations, and other public entities take responsibility for sharing information, framing issues surrounding projects, and shows accountability for being responsive to constructive citizen comments.
     As noted above, we have been proactive in our outreach with area stakeholders and surrounding property owners and/or their representatives to discuss Axon's plans for the site.

- Ensure project developer/owner is able to demonstrate citizen involvement and how comments were incorporated into proposal/issue recommendations.
  Our team is experienced in conducting neighborhood outreach. We are prepared to provide the City with prompt and accurate information related to neighborhood contacts regarding the proposed project as well as to provide responses to any potential issues or concerns that are raised.

2. Proactively seek community-wide representation on issues through vigorous outreach programs that engage citizens who are not typically involved.

- Create and use community-wide mailing lists that include representation from homeowners associations, neighborhood and service groups, the faith community, the school districts, the business community and other special interest groups.
  The City has provided a very detailed Interested Parties list that includes community members throughout Scottsdale who will receive notice of our Neighborhood Open House Meeting and an invitation to participate as well as our contact information to reach out at their convenience to discuss the project.

- Utilize communication vehicles that reach minority populations within the community.
  We are proposing a virtual Neighborhood Open House Meeting, which is appropriate given the current status of the ongoing COVID-19 pandemic. Our virtual neighborhood meetings can be attended telephonically or virtually and do not require travel to a location near the subject site, which we have experienced allows for an increase in public participation due to the added convenience of remote attendance.

4. Accept and respond to new ways of communicating and new technologies.

- Use technologies like teleconferencing and broadcasting of meetings to allow greater participation at locations throughout the community.
  We are proposing a virtual Neighborhood Open House Meeting with the option to attend telephonically as well, which will facilitate greater participation for interested community members throughout the City.

- Embrace new techniques and technologies for communication.
  Our proposed virtual Neighborhood Open House Meeting utilizes GoToMeeting format, a secure method of conducting public meetings. This is

one of the new methods for conducting neighborhood outreach we have utilized as the ongoing COVID-19 pandemic necessitated alternative public meeting methods.

- Adapt communication techniques and technologies to each situation.
  We believe that the proposed virtual Neighborhood Open House Meeting is appropriately adapted to the unique challenges presented by the ongoing COVID-19 pandemic as well as to accommodate potential attendees from across the City.

Open Space and Recreation Element

1. Protect and improve the quality of Scottsdale's natural and urban environments as defined in the quality and quantity of its open spaces.

- Promote creative residential and commercial development techniques consistent with the Character Plan for an area, to further preserve meaningful and accessible open space.
  The proposed Axon campus expansion is designed to work within the physical constraints of the site while providing a unique and open aesthetic. The main building has been designed close to the Loop 101 freeway which acts as a physical barrier to the eastern portion of the site. The site also features an open amphitheater area for events and retains large portions of open space for possible future phases.

  The project itself is consistent with the building techniques identified in the Greater Airpark Area Plan, which is discussed in greater detail below.

- Protect and use existing native plants, the design themes of character areas within which they are sited, and response to local conditions in landscape designs.
  Axon has designed the site with native plantings to compliment the surrounding natural landscape areas and consistent with the design palette of nearby buildings.

Preservation and Environmental Planning Element

5. Conserve water and encourage the reuse of wastewater.

- Encourage landscape improvements, which limit the amount of turf area (to "people places") and make optimal use of indigenous desert plants.

The proposed landscape palette includes native desert plantings including: palo verde trees, ironwood, saguaro cactus, prickly pear, creosote, sage, jojoba, yucca and cholla and does not propose any turf areas.

9. Protect and conserve native plants as a significant natural and visual resource.

- Discourage non-indigenous plants (e.g. olives) that produce pollen in landscape design.

  Landscape plantings have been carefully selected so as to not include non-native plantings, including those that produce pollen.

Growth Areas Element

7. Promote development timing that is guided by the adequacy of existing and/or expandable infrastructure, services, and facilities.

- Anticipate the need and secure land for public facilities, such as water treatment plants, reservoirs, transportation rights-of-way, parks, libraries, community centers, and other public needs, such as police and fire.

  Axon has been working with the City to identify a location within the subject site that would be suitable for a water treatment facility as well as a possible future command center and/or fire training facility for use by public safety officials.

Public Services and Facilities Element

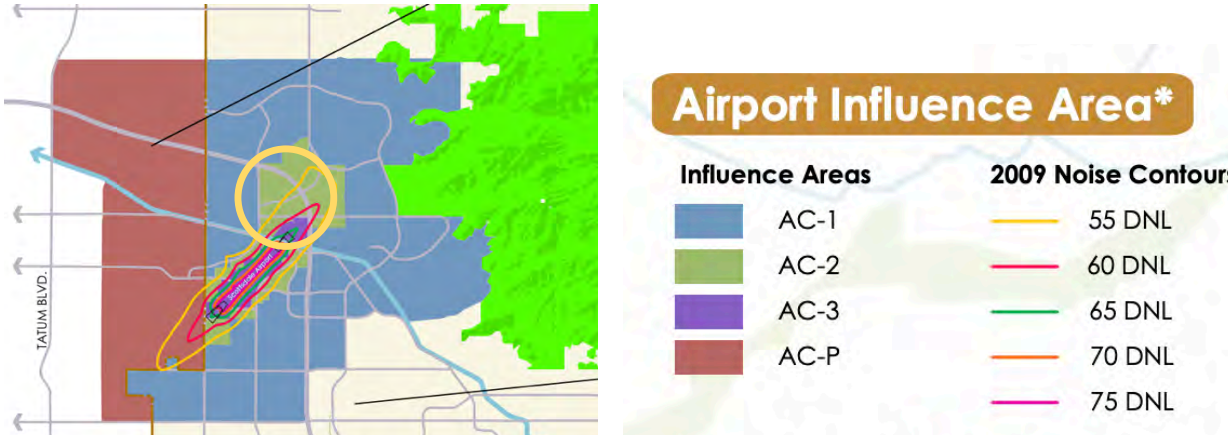
7. Provide a safe environment for all Scottsdale citizens, visitors, and private interests by alleviating physical risks that may be encountered in the normal operation and development of the community.

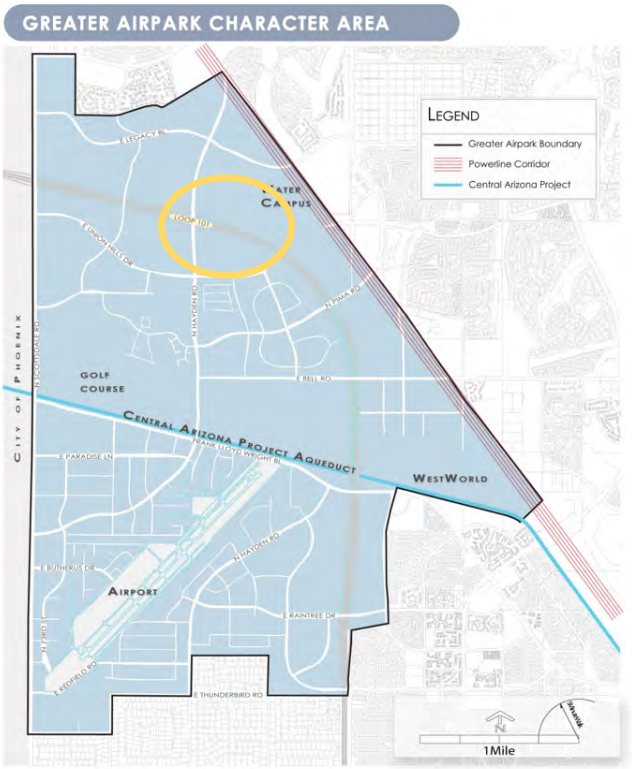
- Provide Police and Fire deployment stations, support facilities, and public safety information and training programs to minimize response times and maximize effectiveness in protecting the public from potential natural and man-made hazards.

  Axon has been working with the City, including both Police and Fire Departments, to identify a location within the subject site that would be suitable for a possible future command center and/or fire training facility for use by public safety officials. This facility would include resources to be utilized by police and fire during the Phoenix Open to maximize access and minimize response time for public safety officials.

Compliance with Goals and Policies of the Greater Airpark Character Area Plan

Axon is located within Influence Area AC-2 of the Greater Airpark Character Area as shown below:





Land Use Element

Goal LU1: Maintain and expand the Greater Airpark's role as a national and international economic destination through appropriate land uses, development, and revitalization.

Policy LU 1.2: Support a mix of uses within the Greater Airpark that promote a sense of community and economic efficiency, such as clustering similar/supportive uses and incorporating residential intended for the area's workforce, where appropriate.

Axon's proposed campus expansion is located adjacent to other office uses and within the Employment center of the Greater Airpark Area Plan. Although the immediately adjacent uses are also of an office nature, several nearby developments incorporate multifamily residential components that are intended to serve the surrounding employment hubs. The addition of Axon's campus expansion will provide additional employment opportunities for those residents as well as for people throughout the Valley.

Policy LU1.4: Encourage the redevelopment of underutilized land to more productive uses.

The subject site is undeveloped. Axon's proposed campus expansion will make productive use of this site by providing hundreds of additional jobs within this key employment area of the City.

Policy LU1.5: Maintain and continue to foster dialogue between the City of Scottsdale and Arizona State Land Department to facilitate innovative use and development of State-owned land.

Axon has agreed to purchase the subject site from the Arizona State Land Department, and both the City and ASLD have been actively involved in conversations regarding appropriate development of this site for some time. ASLD has expressed its desire for an industrial use on this site and required I-1 uses in its auction notice to convey its position on the use of the land. Consistent with this desire, Axon's application includes a request to rezone the land to I-1 and is proposing a use consistent with the zoning designation.

Policy LU1.8: Prevent erosion of Greater Airpark Employment land uses through land use regulations, such as limiting retail and restaurants in areas designated for employment.

The proposed Axon campus expansion is an employment land use within the Employment Land Use area, consistent with the Greater Airpark Character Area's Land Use Plan.

Goal LU 4: Utilize development types to guide the physical and built form of the Greater Airpark

Policy LU 4.3: Encourage higher-scale Type C development in areas with access to major transportation corridors and where lower-scale residential areas will be buffered from higher-scale development.

Axon's proposed campus expansion is located almost entirely within a Type C – Higher Scale Conceptual Development Type Area. A small portion of the site, mostly slated to be utilized by the City for its water treatment facility, is within the Type A – Medium Scale Conceptual Development Type Area. Type C Development Areas are appropriate for higher scale and building mass and intensity, and Axon is proposing a larger scale building consistent with this Conceptual Development Type.

Goal LU 5: Encourage Greater Airpark development flexibility.

Policy LU5.1: Update and provide greater flexibility in development regulations to achieve the goals of the Greater Airpark Character Plan and encourage revitalization in the area.

Axon is requesting an Amendment to the Development Standards for the I-1 Zoning District to accommodate a building with a greater height than is permitted by I-1 district standards. This flexibility allows the building to be constructed in a manner consistent with the Conceptual Development Type C area that projects higher scale projects to be located closer to the Loop 101 freeway within the Greater Airpark Area Plan.

Policy LU5.2: Greater Airpark public amenities and benefits should be provided by the private sector when development bonuses, such as increased floor area, greater intensity, greater height, development standard flexibility, and/or street abandonment are considered.

The proposed Axon campus expansion proposed public amenities which may include a water treatment facility and future command center and/or fire training facility on site. These public benefits justify flexibility in application of the development standards, and accordingly Axon requests a minor modification to the I-1 standards to allow an increased building height.

Policy LU5.5: Promote flexibility of land uses when it can be demonstrated that new land uses are viable in serving a regional market, such as corporate headquarters, tourism, and educational campuses.

The subject site is a viable location for Axon's campus expansion as it is located directly adjacent to the existing Axon facility. Axon's employment base serves a regional market and this location adjacent to the Loop 101 freeway increases its function as a regional facility.

Goal LU 6: Promote the Greater Airpark as a mixed-use economic and aviation-based employment center that is complementary to Downtown Scottsdale, the city's premier cultural, civic, and residential mixed-use core.

Axon's proposed campus expansion furthers the City's goal of having the Greater Airpark serve as an economic core and employment center. The expansion of Axon's campus on the subject site will bring hundreds of new high quality jobs to Scottsdale within the Airpark.

Policy LU6.1: Prioritize employment uses over residential uses in the Greater Airpark.

Axon proposes a purely employment use in this area and does not propose any residential uses, consistent with the goals of the Greater Airpark Area Plan and its vision as an employment core.

Economic Vitality Element

Goal EV1: Sustain the long-term economic prosperity of the Greater Airpark.

Policy EV1.3: Develop strategies, such as amending regulatory processes, that will incentivize and encourage new development and redevelopment.

Axon is requesting Amended Development Standards to accommodate an increased building height in the I-1 zoning district, and the City has previously provided a path for properties within the Crossroads East Planned Community a method of modifying standards that will encourage redevelopment of the area as ASLD sells portions to private developers. By approving Axon's requests, the City will encourage new development within the Airpark area that furthers its goals and policies by providing additional employment opportunities through retaining and encouraging expansion of an existing Scottsdale company.

Policy EV1.4: Retain and expand established Greater Airpark businesses.

Axon established its current location directly adjacent to the proposed campus expansion but has since outgrown the location. As a result, Axon has expanded its operations throughout the Valley and into other locations outside of Arizona to accommodate its growth. By approving Axon's requests, the City will allow this established Greater Airpark business the opportunity to concentrate its operations in the Valley to its Scottsdale campus and accommodate future additional growth at this location.

Policy EV1.5: Develop existing and attract new high value businesses to the Greater Airpark.

The proposed campus expansion will allow Axon, an existing high value Greater Airpark business, the opportunity to continue growing its employment base within the City and the Greater Airpark area.

Policy EV1.8: Attract a diversified business base to help insulate the city during economic downturns.

At the City Council hearing on August 25, 2020, regarding infrastructure at the proposed site, Councilmember Milhaven touted Axon's expansion as "a watershed moment in Scottsdale history" similar to when Mayo Clinic opened a campus in Scottsdale. Councilmember Milhaven noted that diversifying Scottsdale's economy beyond real estate and tourism would provide a more stable City economy.

Axon's technology-based business provides a diversified business base as noted by Councilmember Milhaven, which in turn adds economic protection to the City during periods of financial slowdown.

Goal EV2: Maintain and strengthen established economic engines in the Greater Airpark.

Policy EV2.1: Provide performance-based development incentives to area businesses to encourage reinvestment in the Greater Airpark.

The City Council recently approved a Public Infrastructure Reimbursement Development Agreement that ties Axon construction and payroll milestones to City return of infrastructure funds Axon will pay as part of the project. This agreement is a form of performance-based incentive that was the basis to encourage Axon to retain and expand its operations within the City of Scottsdale and the Greater Airpark area.

Policy EV2.3: Support the growth and development of light industrial, research and development, and manufacturing companies in the Greater Airpark that are compatible with mixed land uses and Scottsdale's environmental values.
Axon is proposing to rezone its site to I-1 (Industrial Park) to perform light industrial uses that include associated office, research and development, manufacturing and warehousing. This zoning category has been previously identified as appropriate for this site in the Crossroads East Planned Community Development Plan and associated documents. Accordingly, it reflects a compatible land use with the Greater Airpark and does not have a heavy environmental impact on the City consistent with this policy goal.

Policy EV2.4: Support the growth and development of the Greater Airpark's office industries and corporate headquarters.
Axon has an existing corporate presence within the Greater Airpark that is located directly adjacent to the proposed campus expansion. Approval of the requests would support Axon's existing corporate continued expansion within the Greater Airpark.

Goal EV4: Support the continued development of new economic opportunities that capitalize on market trends and the Greater Airpark's competitive strength.

Policy EV4.1: Encourage public and private partnerships that will pursue joint ventures between emerging technology-based research and businesses.
The City and Axon have worked collaboratively to find solutions limiting Axon's growth to identify land and incentivize Axon's expansion within the Greater Airpark area.

Policy EV4.1.1: Identify and market land that is most advantageous for locating emerging technology-based industries.
The subject site, which Axon is currently purchasing from the Arizona State Land Department, was identified as an ideal site for a light industrial use by Axon as a technology-based industry.

Policy EV4.5: Recognizing that there are limited, large scale, economic-producing opportunities remaining in Scottsdale, work with the State Land Department to attract revenue generating projects to their Greater Airpark land holdings, so as to benefit both the State and local community.

The City worked with the Arizona State Land Department to prepare the subject site for sale at public auction with the goal to find a compatible user based on the Crossroads East Development Agreements and Development Plan between the City and ASLD.

Goal EV5: Enhance existing and develop new partnerships that support quality employment, business opportunities, and workforce development.

Policy EV5.2: Maintain and develop national and international relationships that enhance the Greater Airpark's position as a premier locale for businesses.
Axon is an international company founded in Scottsdale within the Greater Airpark. Approval of the requests would allow continued expansion of this globally-recognized technology business within the Greater Airpark and further its reputation as a premier location within the City for corporate expansion.

Character and Design Element

Goal CD1: Enhance and strengthen the design character of Greater Airpark Future Land Use Areas (See Land Use Plan Map, pg 11).

Policy CD1.1: Promote innovative, high quality design using specific design criteria associated with each Future Land Use Area in the Greater Airpark: Employment Future Land Use Area.
The Greater Airpark Area Plan's vision for Employment Future Land Use Areas calls for buildings with " . . . contemporary architecture, technological and corporate/executive character, campuses, and unique expressions of corporate identify . . . " Axon's building design is extraordinarily unique and pays homage to the science fiction roots of the company's founding and features a spaceship-like building façade with futuristic contemporary designs.

Policy CD1.3: Encourage a variety of building shapes and heights that are appropriate in each Future Land Use Area in order to promote visual interest in the Greater Airpark and to promote the overall character of the specific Future Land Use Area within which they are located.
Axon is proposing an increased maximum height for its main building that will provide a contrast to the surrounding buildings and promote visual interest in Axon's campus expansion. The unique building design will provide a specific character for this site and set it apart from other nearby office buildings. The

slightly taller building provides for better use of the land including allowing for more jobs in a more iconic building.

Public Services and Facilities Element

Goal PSF3: Maintain and enhance public services including public safety, human services, and customer services in the Greater Airpark.

Policy PSF 3.1: Encourage the development of additional public safety facilities, including law enforcement, emergency, and medical services, in conjunction with area growth in order to provide and maintain adequate response time.

Axon and the City are working to identify locations on the subject site that would be suitable for a command center and/or a fire training facility. These public facilities would support police and fire operations in the area to promote more efficient management in this area, particularly during nearby events.

DEVELOPMENT REVIEW NARRATIVE

DEVELOPMENT REVIEW BOARD GUIDELINES:

A. In considering any application for development, the Development Review Board shall be guided by the following criteria:

1. The Board shall examine the design and theme of the application for consistency with the design and character components of the applicable guidelines, development standards, Design Standards and Policies Manual, master plans, character plan and General Plan.

The Axon campus has been designed with a consistent theme throughout the entire site, which conforms to the applicable guidelines, development standards, Design Standards and Policies Manual, master plans, Greater Airpark Area Plan and the General Plan. Consistency with these plans are detailed thoroughly in the rezoning narrative.

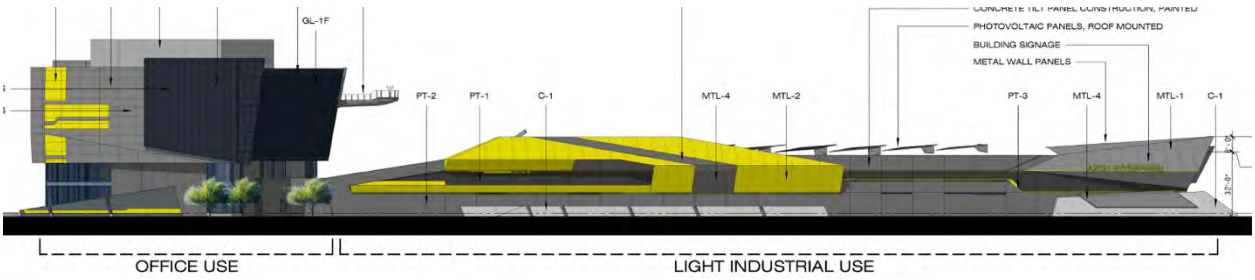
2. The architectural character, landscaping and site design of the proposed development shall:

a. Promote a desirable relationship of structures to one another, to open spaces and topography, both on the site and in the surrounding neighborhood;

The site has been designed and planned cohesively to ensure maximum compatibility between the structures, open space and landscape. The main Axon campus building is located at a central location on the site, with the parking and open space leading from the surrounding streets to the building.

b. Avoid excessive variety and monotonous repetition;

Axon has proposed a building that is interesting, varied and exciting. The materials are harmonious in color and texture but avoid monotony and the proposed colors tastefully reflect the Axon company signature look and colors. A sleek, modern look is achieved through the use of glazing, metal panels and exposed concrete. The building elevations reflect the unique, iconic design and shape that feature a central building high point which then moves to lower elevation heights as the building nears the borders of the site.



c. Recognize the unique climatic and other environmental factors of this region to respond to the Sonoran Desert environment, as specified in the ***Sensitive Design Principles****:*

1. The design character of any area should be enhanced and strengthened by new development.

- Building design should consider the distinctive qualities and character of the surrounding context and, as appropriate, incorporate those qualities in its design.

The Axon campus building is designed to consider the qualities and character of the surrounding context and has incorporated some of these qualities into its design. The building design reflects the theme and color character of the existing commercial nature of the area, near the existing Axon building and office complexes, but the Axon campus distinguishes itself with a unique design.

This design intends to be minimally invasive to the natural feel of this area by featuring a large amount of glazing. The building color palette is muted in grey metal panels and exposed concrete, creating a desert industrial aesthetic.

- Building design should be sensitive to the evolving context of an area over time.

The Axon campus will be located in an undeveloped location near the Loop 101 Freeway and Hayden Road within the Greater Airpark Area. This area is envisioned as a mainly employment centric hub featuring industrial uses and design. The building is designed to create a lasting presence with quality materials and architectural features that incorporates existing character while solidifying the building's unique, iconic design as one-of-a-kind. The inclusion of a simple natural color palette will facilitate further cohesive development with a clean contemporary design.

2. Development, through appropriate siting and orientation of buildings, should recognize and preserve established major vistas, as well as protect natural features such as:

- Scenic views of the Sonoran desert and mountains

The site is located at the southeast corner of Hayden Road and the elevated Loop 101 Freeway. Given the proximity to the freeway overpass and on- and off-ramps, the development will not significantly alter the views of the desert from Hayden Road.

- Archaeological and historical resources

A Cultural Review was compiled by Arizona State Land Department for the subject site in January 2020. The review reveals that no cultural resources were observed. If cultural resources are found during the course of construction, appropriate measure will be taken to ensure that any archeological, paleontological or historical objects are reported to the Director of the Arizona State Museum pursuant to A.R.S. §41-844.

3. Development should be sensitive to existing topography and landscaping.

- A design should respond to the unique terrain of the site by blending with the natural shape and texture of the land while minimizing disturbances to the natural environment.

The building is designed to reflect natural changes in the desert environment and elevations, including rock formations and mountains. The Axon campus building design is inspired by space and science fiction and blends both this modern and contemporary concept with the character of the existing buildings around the site and the mountain and rugged terrain of the Sonoran desert. Additionally, the rounded triangular building shape mirrors the configuration of the parcel itself.

4. Development should protect the character of the Sonoran desert by preserving and restoring natural habitats and ecological processes.

The site is planned to be planted with native trees, shrubs and bushes. This will protect the character of the Sonoran desert and restore natural habitats. The native Sonoran desert plants included in the planting palette are as follows: Blue Palo Verde and Ironwood Trees, Chuparosa and Creosote shrubs, Century Plants, Saguaro cacti, Ocotillo accents and Triangle Leaf Bursage and Black Dalea groundcover.

5. The design of the public realm, including streetscapes, parks, plazas and civic amenities, is an opportunity to provide identity to the community and to convey its design expectations.

- Streetscapes should provide continuity among adjacent uses through use of cohesive landscaping, decorative paving, street furniture, public art and integrated infrastructure elements.

The streetscape will provide continuity by improving Mayo Boulevard and the roundabout at Perimeter Drive. This portion of improvements does not include Hayden Road streetscape but a cohesive landscape palette is proposed for the north side of Mayo Boulevard, including native desert trees and shrubs consistent with existing nearby landscaping.

6. Developments should integrate alternative modes of transportation, including bicycles and bus access, within the pedestrian network that encourage social contact and interaction within the community.

The site is located at the southeast corner of Hayden Road and the Loop 101 Freeway with convenient access to an existing Pedestrian / Bicycle Corridor. The site is located close to nearby multi-family residential development, providing easy access for multi-modal transportation for employees residing close to the site.

7. Development should show consideration for the pedestrian by providing landscaping and shading elements as well as inviting access connections to adjacent developments.

- Design elements should be included to reflect a human scale, such as the use of shelter and shade for the pedestrian and a variety of building masses.

The proposed development will be well landscaped and reflect the human scale from Hayden Road and Mayo Boulevard. As the building nears the Loop 101 Freeway, the building scale is enlarged, providing scale to the vehicles traveling on the Freeway.

The building mass will be broken up into a variety of heights and materials including metal and glass panels and painted different shades of grey with Axon Yellow accents. The front (south) of the building, facing Mayo Boulevard, will consist of glass and grey metal panels mixed with concrete. The combination of colors and material create a unique, modern, architecturally interesting and appealing design.

8. Buildings should be designed with a logical hierarchy of masses:

- To control the visual impact of a building's height and size

The highest point of the Axon building is located at the entrance, facing the parking lot and ensuring appropriate access to the building. The building moves to lower elevation heights as the building gets narrower. The impact of the building height will be similar to that of nearby freeway elevations.

- To highlight important building volumes and features, such as the building entry.

As described above, the important features of the building will be accented by changes in the building height – the tallest section of the building at the building entrance and widest section. Other features of the building include an observation deck on the northwest side of the building entrance portion overlooking the manufacturing portion of the building.

9. The design of the built environment should respond to the desert environment:

- Interior spaces should be extended into the outdoors both physically and visually when appropriate

The Axon campus building is designed to unite the interior and exterior building spaces. This includes the extension of the observation deck from the 5th floor and the inclusion of an atrium on the ground level, which opens up the building from the ground floor up to the fifth floor. An amphitheater is also planned at the front (southeast) of the building, along with tiered event space and an outdoor dining patio on the west side of the building.

- Materials with colors and coarse textures associated with this region should be utilized.

The hardscape planned for the exterior of the site will incorporate the colors and textures of the region, including plain gray concrete, finished in light broom and integral color concrete with a light acid etch finish. Raised planters are proposed in the tiered event space, which will feature native desert plants, bringing the surrounding character of the desert into the project design.

The landscape colors are generally uniform in native shades of green with some accents provided by flowering ground covers and shrubs.

- A variety of textures and natural materials should be used to provide visual interest and richness, particularly at the pedestrian level. Materials should be used honestly and reflect their inherent qualities

The materials and textures provided will be used in their natural state, including metal and concrete panels. The panels will either be used with a natural finish or be painted a complimentary neutral color to provide richness and visual interest. Because the site is intended to function as a campus, pedestrian experience is key to ground floor design to convey a desert industrial aesthetic that pays homage to Axon's technical nature and Scottsdale's natural desert beauty.

- Features such as shade structures, deep roof overhangs and recessed windows should be incorporated.

Shade will be provided via roof overhangs, angled architecture and a shade structure over the tiered event space.

10. Developments should strive to incorporate sustainable and healthy building practices and products.

- Design strategies and building techniques, which minimize environmental impact, reduce energy consumption, and endure over time, should be utilized.

The site has been designed to incorporate a xeriscape landscape palette to minimize water usage. Additional sustainability features of the building include high performance glazing, photovoltaic (solar) panels, and low to no VOC interior materials and finishes. The large amounts of glass provided on the exterior of the building will ensure an abundance of daylight into the internal spaces, which will reduce lighting and energy usage.

11. Landscape design should respond to the desert environment by utilizing a variety of mature landscape materials indigenous to the arid region.

- The character of the area should be emphasized through the careful selection of planting materials in terms of scale, density, and arrangement

The landscape palette is a mixture of native desert trees (Ironwood, Blue Palo Verde), shrubs (Creosote, Chuparosa), accents (Century Plant,

Ocotillo, Saguaro) and ground cover (Black Dalea, Triangle Leaf Bursage) intermixed with hybrid trees and plants bred for the Sonoran desert environment (Thornless Mesquite, Pink Dawn Chitalpa). The arrangement and density of the plants has been carefully planned to provide groundcover and shade but reflect natural groupings and plantings.

- The landscaping should complement the built environment while relating to the various uses.

The planned landscape planting around the building is orderly and organized, with raised planters around the building base and tiered event space. As the landscape is distanced further from the building, it is arranged to reflect the natural environment and plant groupings and densities.

12. Site design should incorporate techniques for efficient water use by providing desert adapted landscaping and preserving native plants.

- Water, as a landscape element, should be used judiciously

The landscape palette has been carefully curated with the natural Sonoran desert in mind – native, low water usage plants have been chosen for the site. Water usage for landscape will be minimal and the water provided to the site for landscape will be used judiciously.

- Water features should be placed in locations with high pedestrian activity.

A water feature has been designed for the Axon campus site, at the front of the building entrance, which will have the highest density of pedestrian activity. The water feature will adhere to City of Scottsdale Code of Ordinances Article VII Division I Section 49-242 for Water Conservation.

13. The extent and quality of lighting should be integrally designed as part of the built environment.

- A balance should occur between the ambient light levels and designated focal lighting needs.

The lighting for the Axon campus has been designed to balance between the ambient light levels and designated focal lighting needs while serving as a unique design element to the iconic feature building in Axon signature Yellow.

- Lighting should be designed to minimize glare and invasive overflow, to conserve energy, and to reflect the character of the area.

The site lighting has been designed to minimize glare and invasive overflow. The lighting will be designed to be no more intense than light from the adjacent Loop 101 Freeway.

14. Signage should consider the distinctive qualities and character of the surrounding context in terms of size, color, location and illumination.

- Signage should be designed to be complementary to the architecture, landscaping and design theme for the site, with due consideration for visibility and legibility.

The Axon campus signage will be designed to be both unique and identifying as well as tasteful and considerate of the character of the surrounding area. Future signage will be integrated with the overall design aesthetic including materials and colors.

*d. Conform to the recommendations and guidelines in the **Environmentally Sensitive Lands (ESL) Ordinance**, in **the ESL Overlay District**; and*

The Axon campus site is not located in the ESL Overlay District.

*e. Incorporate unique or characteristic architectural features, including building height, size, shape, color, texture, setback or architectural details, in the **Historic Property Overlay District**.*

The Axon campus site is not located in the Historic Property Overlay District and does not have any existing buildings on the site.

3. Ingress, egress, internal traffic circulation, off-street parking facilities, loading and service
areas and pedestrian ways shall be so designed as to promote safety and convenience.

As shown in the Pedestrian Circulation Plan and Vehicular Circulation Plan, vehicular access to the site comes from Hayden Road, along Mayo Boulevard and into two separate entries, which lead directly to the vehicular parking locations. Pedestrian circulation will lead from the paring areas directly into the building from all sides of the building.

The Axon campus loading and service area is situated on the north side of the building, away from the pedestrian uses and in a distinct and safe designated location.

4. If provided, mechanical equipment, appurtenances and utilities, and their associated screening shall be integral to the building design.

Mechanical equipment is provided and screened in a manner that blends into the building design with the use of grey metal panels, similar to those used on the lower elevations of the building. Portions of mechanical equipment adjacent to the Loop 101 Freeway will not be screened as the freeways itself will act as the screening.

5. Within the Downtown Area, building and site design shall:

a. Demonstrate conformance with the ***Downtown Plan Urban Design & Architectural Guidelines****;*

b. Incorporate urban and architectural design that address human scale and incorporate pedestrian-oriented environment at the street level;

c. Reflect contemporary and historic interpretations of Sonoran Desert architectural traditions, by subdividing the overall massing into smaller elements, expressing small scale details, and recessing fenestrations;

d. Reflect the design features and materials of the urban neighborhoods in which the development is located; and

e. Address building mass, height, materials, and intensity transitions between adjacent/abutting Type 1 and Type 2 Areas, and adjacent/abutting Type 2 Areas and existing development outside the Downtown Area.

The proposed Axon campus site is not located within the Downtown Area.

6. The location of artwork provided in accordance with the Cultural Improvement Program or Public Art Program shall address the following criteria:

a. Accessibility to the public;

b. Location near pedestrian circulation routes consistent with existing or future development or natural features;

c. Location near the primary pedestrian or vehicular entrance of a development;

d. Location in conformance with the Design Standards and Policies Manual for locations affecting existing utilities, public utility easements, and vehicular sight distance requirements; and

e. Location in conformance to standards for public safety.

The proposed Axon campus is not utilizing the PDB Overlay District zoning in Scottsdale.

B. The burden is on the applicant to address all applicable criteria in this section.
This narrative addressed the above criteria applicable to the Axon campus development.

DESIGN GUIDELINES FOR OFFICE DEVELOPMENT

The following Design Guidelines for Office Development have been addressed for the proposed Axon campus development:

Site Design and Planning:

Natural and Built Site Characteristics

Topography – Grading / Drainage

1. *Site planning should respond to the natural characteristics of a site such as topography/ drainage patterns, existing vegetation, and visual resources. Proposed development (i.e. buildings, parking, and other features) should be designed and adapted to the specific site as opposed to altering the character and form of the site to accommodate development.*

   The site is graded uniquely due to its proximity to the Loop 101 Freeway as well as a drainage channel currently being constructed. These present some constraints to grading the site but our civil engineers have designed the site so as to not interfere significantly with the existing grading conditions. Drainage will be implemented through numerous runoff basins and landscape islands. The landscape palette will include various Sonoran desert plant species that will effectively provide soil erosion control and stabilization. The building itself is a one-of-a-kind, iconic design intended to provide corporate identity of Axon at this location.

   Vegetation

   The vegetation provided will include a variety of native plant species such as Ironwood and Blue Palo Verde trees, Ocotillo and Saguaro cacti. Only desert-appropriate vegetation has been planned for the site and will be placed in strategic, natural locations and densities.

2. *The orientation of buildings and outdoor spaces should consider the effect of sun angles and other climatic conditions and the preservation of views.*

   The Axon campus building is oriented at a diagonal so no one side of the building will receive the full effect of the sun on either east or west and the building architecture includes angles and building overhangs to protect southwest facing walls and windows from the sun. The location of the site, at the southeast corner of the Loop 101 and Hayden Road, ensures that the location of the building will not block views of the desert to the north as the Freeway on- and off-ramps and overpass exist in this location. Additionally, the building will be built to preserve the views to the direct east of the site.

Outdoor space is planned for the entryway of the building, with tiered event space covered by a shade canopy and additional covered outdoor dining space on the west side of the building. An atrium has been included inside the building, connecting the ground level to the fifth level of the building, providing employees the sensation of being outside.

Response to Context

3. *Build upon the established development pattern of the surrounding area.*
   The site is located at the intersection of Hayden Road and the Loop 101 Freeway, surrounded by various commercial and industrial uses and buildings and vacant parcels. The building reflects that character of the built environment, using greys, metal, glass and concrete materials that have been utilized by other existing buildings close to the site. The plant palette has been planned with native desert plant species, pulled from southwestern Arizona.

4. *Site plans should demonstrate an understanding of how the new development will be served by utility systems. The development team should work proactively with utility providers to coordinate and locate to the developments advantage any above ground equipment and related improvements considering that the best location(s) for such equipment is not always the one that is most convenient or least expensive. Below grade equipment vaults should be considered in some contexts if a grade level solution that is visually unobtrusive cannot be achieved.*
   The utility locations for this site have been planned and are provided on the landscape plans and provided for on the Preliminary Improvement Plan.

5. *Locate above ground utility equipment and related improvements away from visually featured areas of the landscape and where possible 30 to 50 feet back from important intersections. Where possible, group or co-locate equipment to more effectively provide accessibility and screening.*
   Utility locations have been carefully planned and are located away from important intersections.

6. *The site plan design should demonstrate a coordinated approach with the site plans of adjacent development (existing or planned).*
   The Axon campus site is designed with a similar approach as other sites in the vicinity. The main building will be separated from the surrounding uses and lots by the perimeter drive (Mayo Boulevard), parking and landscape. Mayo

Boulevard is a shared access drive from Hayden Road and services the neighborhood and commercial buildings to the south.

The site has been designed to separate refuse, loading, etc. from the pedestrian and employee access to the building. Loading and refuse is located off of a separate drive which does not conflict with pedestrian uses. Additional phases of the site, including potential civic uses and future Axon buildings have been planned for with street alignments off of Hayden Road.

7. *Not all development contexts are suitable for continuation in some development proposals nor do all areas or uses within in a community always present opportunities for interface. In situations where the continuation of an existing pattern of development is not desirable or is not feasible, the applicant should establish and document in the project narrative why the proposed design alternative is preferred and how the project will benefit the neighborhood and the community.*
   The site is situated in an ideal location for the Axon campus uses – other commercial uses exist in the area, and the close confines of the Loop 101 Freeway make the site undesirable for residential uses.

8. *Unless constrained otherwise, buildings should have a strong relationship to the street including a functional public entrance that is also a visual focus for the building. In place of street oriented public entrance, a strong pedestrian connection that establishes a sense of a formal public entry may be substituted.*
   The building will not necessarily be used or accessed by the general public. The entryway of the building is strongly defined with a water feature, arcaded entryway and interior Axon logo, all of which promotes intuition of a formal entrance.

9. *Where appropriate buildings should be used to help enclosure and define exterior spaces that are human scaled and furnished to encourage human use.*
   The Axon campus building will include an exterior tiered amphitheater and seating area, shaded by a canopy, for employee and company use. This area will be accented with landscape planters and a water feature, tastefully designed at human scale and encourage human use.

10. *The siting of buildings and parking areas should reinforce existing desirable spatial characteristics such as a common setback, rhythms or patterns established by building masses and their relationship to the street and to each other*

(illustration). Parking in front setbacks is generally discouraged especially in areas with high pedestrian activity or potential.

The building and the parking relate to each other appropriately, separated by obvious drives and landscape islands. The parking and parking lot aisles all lead to the building entrance and parking is located behind the landscape setbacks from the perimeter streets.

Circulation and Parking

11. *The circulation and parking areas of adjoining sites should be coordinated to the extent possible in the interest of efficiency and to reduce the dominance of the private automobile on the community landscape. Simultaneously, pedestrian movement should be reinforced and supported by site plans wherever possible in the interest of enhancing the walk-ability of commercial areas. The desirability of connectivity to residential development should be evaluated on a case-by-case basis.*

    This site will utilize the existing street system of Mayo Boulevard, with access to Hayden Road. Additional, interior access road will be constructed around the building and through the site, ensuring that the appropriate vehicles are able to access their designated locations, without pedestrian conflicts.

12. *Developments that exceed the parking required by City code or recognized industry standard are discouraged. All projects should seek opportunities and incorporate design features or transportation management strategies that strive to reduce automobile use (i.e. enhanced accessibility to public transit, enhanced pedestrian connectivity, trip reduction programs).*

    Although the development at this phase will exceed the required number of parking spaces (1,049 required and 1,083 provided), the 34 extra vehicular parking spaces ensure that all employees have parking and that parking for the Axon campus will not spill over into the adjacent neighborhood or other commercial uses. Additionally, the parking provided may serve future development on the rest of the site at a later date. At this time, the site and the adjacent streets are not serviced by the Valley Metro transit system.

13. *Site planning should work to disperse parking areas as opposed to creating singular expanses of pavement.*

    The parking is provided on the site in three separate locations, all separated from each other by landscape islands and drive aisles.

14. The use of varied paving materials (i.e. concrete pavers, stabilized granite and paving materials with textural and color variations) are encouraged to help relieve monotonous expanses of asphalt.

Five different types of paving materials and ground cover are proposed for the site including plain gray concrete in Light Broom finish, Integral Color Concrete in Light Acid Etch finish, asphalt, 3"-8" Stone Cobble and ½" Screened Decomposed Granite. These various ground covers provide textural and color variation and relieve monotony.

Pedestrian, Transit and Bicycle Facilities

18. Clearly delineated pedestrian paths (or open plazas) should connect building(s) with each other, parking areas, perimeter sidewalks and trails, and transit facilities. Developments are encouraged to make internal connections to adjoining sites whenever such connections will encourage walking over driving to the same destination.

The pedestrian paths connect to the building entrance and each other, leading from the parking areas. The surrounding uses are commercial and industrial in nature and it is unlikely that visitors to the Axon campus will also patronize the surrounding uses.

Enhanced Pedestrian Areas

23. Developments should feature an enhanced pedestrian area(s) (i.e. a plaza, patio, courtyard, linear promenade, terrace or usable landscaped area) scaled accordingly to the size and demands of the particular user or facility. Some zoning categories set forth specific requirements for such spaces.

The Axon campus will provide a tiered event space and amphitheater at the entrance of the building, complete with a shade structure, planter boxes and shade. Additional outdoor space will be provided in the form of a covered dining patio on the west side of the building. The size of the outdoor amenity spaces is appropriate for the size and the demand of the building.

25. Enhanced pedestrian areas should exhibit a higher level of design treatment incorporating seating, water features, sculpture, trash receptacles/ash urns, pedestrian scaled lighting, and other furnishings as appropriate for the specific user.

The dedicated pedestrian area has been designed to incorporate seating, a water feature, pedestrian scale lighting and landscape planters, all which will enhance the outdoor experience of the user.

Architecture

Local Influence on Design

The Greater Airpark Character Area Plan is addressed in the Rezoning portion of the narrative.

1. Building design should consider foremost the unique qualities (both natural and built) character of the surrounding area.

The building is designed to be both unique and unifying to the surrounding area. The materials and colors reflect the commercial and industrial uses surrounding the site and the distant mountain range and the desert landscape pulls from the surrounding Sonoran desert.

2. Multiple buildings on the same site or in closely related areas should share a common architectural theme and a similar vocabulary to that of nearby buildings. Precise replication or mirrored images of the same building on the same site or in the same area without adjustment for the building's unique setting and orientation are discouraged.

The Axon campus building will be the first building on the site. Future buildings are intended to share a common theme with the Axon campus, including glass facades, grey metal panels and unique, identifying signage and accents.

3. Architectural expressions that recall historic or current architectural styles that are unrelated or poorly adapted to the region are generally discouraged.

The building is designed to reflect the current architectural character of the area.

4. Unless otherwise indicated by an historic local context, building designs should demonstrate a coherent response to regional preferences and influences as further delineated in the section on "Regional Context".

The regional context of the area is reflected in the design and architecture of the building.

Regional Influence on Design

5. A building's design should refer to the dominant horizontal landforms of the Sonoran Desert and the southwest. Generally, a building's profile should step in increments to achieve full height. Forms of dramatic vertical proportion should accentuate the horizontal.

The Axon campus building is designed with a tall section of the building at one point and elevation stepdowns. The majority of the building is horizontal, with slight accents protruding from the building.

9. The use of covered walkways, trellises, arcades and similar architectural shading features is encouraged where pedestrian use will be heaviest (i.e. building entries and port-a coheres, pathways between building/transit facilities, perimeter locations where pedestrian activity justifies). Avoid creating areas of redundant shade such as occurs by placing an awning beneath an extended eave.

The building entrance, the most heavily accessed location on the site, will feature a pedestrian arcade, with tiered, shaded event space on each side.

11. Roof pitches should be shallow, not to exceed a pitch of 4:1 (rise to run) or flat.

The proposed roof line of the Axon campus building will either be flat or have a very slight rise, created by metal wall panels and the metal panel exoskeleton.

Scale and Proportion

12. New development should respect the predominant scale of development in the surrounding area especially the scale of development on adjoining sites.

This proposed new development will be approximately the same scale as the surrounding commercial and industrial uses. The scale is appropriate based on the location of the adjacent Loop 101 Freeway and the Hayden Road on- and off-ramps.

Architectural Detail, Material and Color

22. All sides of a building should reference consistent architectural detail and character. All site walls and screen walls should be architecturally integrated with the building or master planned area.

All four sides of the Axon campus building are consistent in architectural detail and character. This includes metal panels, a metal panel exoskeleton and glass glazing.

Mechanical Systems

29. HVAC and other mechanical systems must be screened in a manner that is architecturally integrated and considerate of the overall composition of the building.

The proposed HVAC and other mechanical equipment proposed for the roof will be screened with metal panels that blend into the character of the overall composition of the building.

Office Industrial, Office Warehouse and Office Aircraft Hanger

48. The exterior design of a building should reveal where possible differences in its internal function as expressions of height, massing and the composition of their elevations.

The Axon campus building will include both manufacturing uses and office uses – the office portion will be located at the southeast side of the building, built to five-stories in height. The manufacturing section of the building, angled to a point at the most northwest portion of the building, will have a be housed in a lower elevation "behind" the office use.

49. All industrial buildings, including pre-cast and sit-cast concrete structures, should incorporate sufficient architectural detail in the form of applied finishes, integral textures, patterns, colors, three dimensional recesses and projection.

The building is designed to house both office and industrial uses. The industrial / manufacturing use is located at the northwest section of the building and the exterior elevations have a variety of finished including metal panels, a metal panel exoskeleton, photovoltaic panels and concrete tilt panels. The colors include various shades of grey and signature Axon yellow accents.

Landscape Design

2. Unless otherwise constrained, landscaping should reinforce the character of neighboring properties and abutting streetscapes.

The proposed landscape palette includes various native desert species of trees, shrubs, accents and groundcover, all of which come from the surrounding Sonoran desert and have been used in the surrounding developments.

3. As a general rule, low water use and drought tolerant plants are preferred. Exceptions to this would include perennial plantings in private settings and in public/quasi-public settings that are intended to provide enjoyment to the larger community.

The proposed native species of trees, including Blue Palo Verde and Ironwood, bushes, including Creosote and Chuparosa, accents, including Saguaro and Ocotillo cacti and groundcover, including Black Dalea and Triangle Leaf Bursage, are all native to southwest United States and therefore, are low water use and drought tolerant plants.

12. A combination of dense landscaping, site walls, or berming/mounding should be provided to screen parking facilities, service and loading areas,

maintenance areas, storage areas, trash enclosures, utility cabinets and other similar elements.

Landscape has been provided along the exterior of the west side of the site where the loading and refuse will be located. This section of the site will also be shielded from the view of vehicles on Hayden Road by the future uses planned for the site.

Lighting

5. Lighting should operate for only the minimum number of hours required and should then be reduced in level or turned off. The design of lighting systems should anticipate lighting levels that will vary depending on building use, hours of operation, occupancy, and seasonal changes.

The proposed lighting for the site will conform to the City of Scottsdale standards are be appropriate for the uses on site.

7. Avoid competing light levels and ensure balanced light levels on-site and between adjacent properties. The exterior lighting design must take into consideration background lighting levels, lighting from other sources, and characteristics of the surrounding area.

The lighting planned for the Axon campus will be balanced and take into consideration the background lighting levels from other sources and the characteristics of the surrounding area.

Corporate Identification / Signage

1. Business identity, either by awnings, accent bands, paint or other applied color, literal depiction of a product, decorative roof details or materials should not be the dominant architectural feature. Accent colors should be used judiciously and corporate colors should be modified in intensity and chroma to fit within the larger proposed palette of colors and materials.

The Axon logo and specific yellow color will be applied to the building as an accent rather than a dominant architectural feature. The accent color has been applied to building to provide architectural interest and is complimented by the grey tones and materials of the larger proposed palette.

5. Repetitious signage on a building front should be avoided.

Rather than provide repetitious signage on the building front, the Axon logo is strategically placed inside the building, yet visible to the outside via the glass window fronts and atrium.

SCOTTSDALE DESIGN STANDARDS & POLICIES MANUAL

The following General Considerations & Requirements from the Scottsdale Design Standards & Policies Manual, Chapter 2, Site Planning, have been addressed regarding the Axon campus development.

Additional Design Guidelines

Site Context – Terrain: The Axon campus has been designed to incorporate the natural site landscape features into the design. This includes a native desert plant palette proposed in natural groupings and densities. The site is located at the intersection of the Loop 101 Freeway and Hayden Road, therefore natural views are not readily available but open spaces for employees have been incorporated into the building and native landscape is provided in this location in landscape planters.

Site Context – Buffering for Adjacent Land Uses: The site is diagonally adjacent to a residential use across Mayo Boulevard, therefore, buffering has been employed in the site design to separate the commercial and industrial uses in the Axon building from this residential neighborhood. This includes locating the refuse and loading as far north from the residential use as possible, separating the Axon building from the neighborhood with the parking lot, landscape islands and landscape setbacks, and orienting the building so that the office and commercial portion of the Axon building is the closest to the neighborhood while the manufacturing and industrial portion of the Axon building is located adjacent to the Loop 101 Freeway.

Site Context – Airport & Airpark Development: The site is located within the Scottsdale Airport Area and the Airport Vicinity Development Short Form is provided in the formal submittal package to the City of Scottsdale.

Site Context – Site Design Standards: The mechanical roof equipment will be screened from view via metal screens that match the character and design of the Axon campus building.

Site Context – Outdoor Lighting Ambient Lighting Zones: The proposed site is located in the Suburban Area, which allows for moderate to higher density uses. The site lighting is designed to be appropriate for this location in order to provide a safe, well-lit environment.

On-Site Circulation & Parking Area Design

Emergency Access & Fire Lanes: A Fire Access Plan is provided with this formal submittal plan set and provides locations of fire lanes, FDC and hydrant locations.

Parking Areas: The parking on the site has been designed to conform to the City of Scottsdale Zoning Ordinance. The landscape materials proposed for the parking lot landscape islands are part of the native plant palette curated for this site and are heat tolerant trees, bushes, accents and groundcovers. None of the parking aisles proposed will feature dead end turnarounds and the parking surface will be comprised of asphaltic pavement.

Refuse Collection: The location of the refuse is above ground and located in a location that is easily accessible for refuse trucks. The approach will provide vertical clearance and provides a minimum 50-foot radius for turnaround.

Pedestrian Circulation Within a Development: The pedestrian circulation has been designed to clearly lead from the parking areas to the front of the building entrance and should avoid conflicts with vehicles throughout the site.

Landscape Design

Landscape Design – Design Standards: The plant palette provided will adhere to the ADWR Low Water Use / Drought Tolerant plant list. The plants proposed will not be planted in either a PUE or Emergency Vehicle Access Easement and will be planted at least 7 feet from an underground public water or sewer lines, etc. and the proposed plant palette does not include the prohibited plants listed.

The decomposed granite on the site has been proposed as installed at a minimum of 2" depth, per the design standards. Trees will not be planted to overhand vehicle lanes or within 2 feet overhand at the head of a parking stall.

AMENDED DEVELOPMENT STANDARDS NARRATIVE

In order to accommodate Axon's proposed building height, we are requesting an amendment to the Development Standards for the I-1 Industrial Park zoning district. We are proposing the following modification to the I-1 Development Standards:

I-1 Property Development Standards Sec. 5.1804

The following property development standards apply to all land and buildings in the I-1 District:

A. *Floor area ratio*.
    1. Maximum: 0.80 multiplied by the net lot area.
B. Required open space.
    1. Minimum: 0.10 multiplied by the net lot area.
    2. For building heights over twelve (12) feet: the minimum required open space plus 0.003 multiplied by the net lot area, for each foot of building height over twelve (12) feet.
    3. Reduction for on-lot taxilane safety area and aircraft staging area: the open space calculated in B.1. or B.2. above may be reduced by up to 0.50 multiplied by the required open space, for the amount of on-lot taxilane safety area and aircraft staging area provided.
    4. Parking areas and parking lot landscaping are not included in the required open space.
    5. NAOS may be included in the required open space.
C. *Building height*.
    1. Maximum: ~~Fifty two~~ **EIGHTY-TWO** (~~52~~**82**) feet, except as otherwise provided below and in Article VII.
    2. Maximum building height within three hundred (300) feet of a residential district shown on Table 4.100.A., or the residential portion of a Planned Community P-C, or any portion of a Planned Residential Development PRD with an underlying zoning district comparable to the residential districts shown on Table 4.100.A.: Thirty-six (36) feet.
D. *Yards*.
    1. Front minimum: Twenty (20) feet.
    2. Side and rear minimum: Thirty (30) feet from a residential district shown on Table 4.100.A., or the residential portion of a P-C, or any portion of a

PRD with an underlying zoning district comparable to the residential districts shown on Table 4.100.A.

3. All outdoor activities, including storage, minimum: Fifty (50) feet from a residential district shown on Table 4.100.A., or the residential portion of a P-C, or any portion of a PRD with an underlying zoning district comparable to the residential districts shown on Table 4.100.A.

E. *Screening*.

1. All outdoor activities, mechanical equipment, outdoor storage and refuse areas shall be within an enclosed building, or screened by a solid wall at least six (6) feet in height or as otherwise approved by the Development Review Board.
2. No outdoor storage shall be visible from off-site.
3. Other requirements and exceptions are as specified in Article VII and Article X.

CivTech

September 10, 2020

Charles Huellmantel
Huellmantell & Affiliates
605 South Ash Avenue
Tempe, Arizona 85281
Telephone: (480) 921-2800
Email: charles@huellmantel.com

RE: ENHANCED TRAFFIC STATEMENT FOR THE AXON CAMPUS – SCOTTSDALE, ARIZONA

Dear Mr. Huellmantel:

CivTech is pleased to present this enhanced traffic statement for the proposed Axon Campus (`project site') located in on the south and west side of Loop 101, north of the Mayo Boulevard/Union Hills alignment and east of Hayden Road in Scottsdale, Arizona. The proposed project would develop one (1) parcel on approximately 70 acres that was previously proposed as a part of the Crossroads East PCD (Parcel 13). The previous assumptions for this parcel included industrial, manufacturing and warehousing uses totaling approximately 1.5 million square feet. The Axon Campus is an allowable use for Parcel 13 with the PCD. The proposed trip generation assumptions utilized during the Crossroads East TIA prepared for the PCD zoning process with the Arizona State Land Department (ASLD) were similar in scale. The proposed site plan can be found in **Attachment A**.

PURPOSE AND SCOPE

The purpose of this traffic statement is to determine if the relocated Mayo Boulevard, which is now proposed in a different location than originally shown within the Crossroads East TIA, can utilize roundabouts to help realign the roadway and provide more developable land for the Axon Campus. The location and potential size of roundabouts used in the relocation will be reviewed to determine if adequate spacing is provided from the arterial street network to avoid queueing through the roundabout. The typical section required for Mayo Boulevard east of Hayden Road with the Axon Campus is also being reviewed as part of this statement.

The Crossroads east TIA was approved by the City of Scottsdale on September 23, 2011 with a stipulation that the developer provide an additional lane in the northbound direction on Hayden Road fronting the project. This lane has been considered within the analysis. A trip generation comparison will be conducted as well as a capacity analysis to determine if there are additional changes to the surrounding roadway network that are needed due to the development of this parcel.

EXISTING CONDITIONS

SURROUNDING LAND USES

The project site is currently undeveloped land. Directly north of the site is the Pima (Loop 101) Freeway, and the City of Scottsdale water treatment plant. Directly to the south of the site is the Scottsdale Stonebrook single-family detached housing, Pacesetter Business complex, Hilton Garden Inn, Scottsdale Sports Complex, Sonoran Corporate Center Condominium, Hartford Place Condominium, Scottsdale Liberty Hospital, and other business buildings. Directly to the east of the site is the Pima (Loop 101) Freeway, DC Ranch Crossing Shopping Center, DC Ranch Crossing Apartment complex, Corporate Center at DC Ranch, and single-family detached housing. Directly to the west of the site is currently undeveloped land.

EXISTING ROADWAY NETWORK

The existing roadway network within the study area includes Mayo Boulevard and Hayden Road. The study roadways are discussed in further detail as follows:

Mayo Boulevard is an east-west collector roadway with one (1) lane in each direction within the vicinity of the proposed site. Mayo Boulevard begins at the southwest corner of the site at Hayden Road and continues for approximately half a mile where it turns into Union Hills Drive at Perimeter Drive. The posted speed limit is 35 miles per hour (mph) within the vicinity of the site.

Hayden Road is a north-west minor arterial roadway with two (2) lanes and a bike lane in each direction with a raised center median within the vicinity of the proposed site. Hayden Road begins southwest of the site at Scottsdale Road and continues north of the site to Deer Valley Road where it turns into Miller Road. Hayden Road provides direct access to the Loop 101 Freeway. The posted speed limit is 40 miles per hour (mph) within the vicinity of the site.

EXISTING INTERSECTION CONFIGURATION

The intersection of **Hayden Road & Mayo Boulevard** operates as an unsignalized "T" intersection with stop control in the westbound approach. The northbound approach consists of two (2) through lanes, one (1) dedicated right-turn lane, and a bike lane. The southbound approach consists of two (2) through lanes, one (1) left-turn lane, and a bike lane. The westbound approach consists of one (1) shared left-turn/through/right-turn lane. Designated pedestrian crosswalks are provided along all legs of the intersection.

EXISTING CAPACITY ANALYSIS

Peak hour capacity analyses have been conducted for the study intersections based on existing intersection configurations and traffic volumes. All intersections have been analyzed using the methodologies presented in the *Highway Capacity Manual (HCM), Special Report 209,* and Updated 2016 and using Synchro software, version 10.0 under the HCM 6th edition methodology.

The concept of level of service (LOS) uses qualitative measures that characterize operational conditions within the traffic stream. The individual levels of service are described by factors that

include speed, travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations A through F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions. Levels of service for intersections are defined in terms of delay ranges. **Table 3** lists the level of service criteria for signalized and unsignalized intersections, respectively.

Table 3 – Level of Service Criteria for Controlled Intersections

Level-of-Service	Signalized Control Delay (sec/veh)	Unsignalized Control Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80 (or v/c > 1)	> 50 (or v/c > 1)

Source: Exhibits 19-8, 20-2, 21-8, and 22-8, Highway Capacity Manual 2017

Synchro 10.0 software calculates the LOS per the HCM 2016 methodology. The 2016 HCM documents the signalized LOS calculation methodology which takes into account lane geometry, traffic volumes and cycle length/phasing to compute LOS. Synchro analysis worksheets report individual movement delay/LOS and overall delay/LOS for signalized intersections; unsignalized intersection worksheets report the worst-case delay/LOS and the average overall intersection delay. Results of the existing level of service analyses are shown in **Table 4** for both AM and PM peak hours. The existing conditions analysis worksheets have been included in **Attachment B**.

Existing volumes for this analysis were determined by using traffic counts previously conducted at this intersection from June of 2018. These counts were grown by a factor of 2.1% per year from 2018 to 2020 in order to represent traffic as it would be today.

Table 4 – Existing Peak Hour Levels of Service

ID	Intersection	Intersection Control	Approach/ Movement	Existing LOS AM (PM)
1	Hayden Road & Mayo Boulevard	1-way stop (WB)	SB left WB Shared	A (B) A (C)

The results of the existing conditions analysis summarized in Table 4 indicate that the intersection of Hayden Road & Mayo Boulevard operates with acceptable levels of service (LOS D or better).

FUTURE ROADWAY CONDITIONS

Upon buildout of this project, the Mayo Boulevard alignment will be reconstructed approximately 760 feet, center to center, north of the existing alignment. Mayo Boulevard west of Hayden Road is also currently under construction so that it connects to the existing alignment east of Scottsdale Road.

The City of Scottsdale will assist with constructing Mayo Boulevard east of Hayden Road to Perimeter Drive, no access to the Loop 101 freeway will be constructed. Mayo Boulevard could provide up to a four lane section with two lanes of travel in each direction of travel. The proposed cross-section will be determined as part of this traffic analysis and to accommodate the needs of the Axon Campus.

SITE ACCESS

Access to the site will be via one main access point along Mayo Boulevard. Future development could also provide a second access from Mayo Boulevard. Both access points will utilize the proposed roundabouts to connect to private driveways. The primary access, located at 82nd Street will be a four-legged roundabout with two eastbound approach lanes and two westbound departure lanes. All other approach and departure lanes have been assumed with one lane in each direction.

TRIP GENERATION

The potential trip generation for the Axon Campus was estimated utilizing the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition* and *Trip Generation Handbook, 3rd Edition*. The ITE *Trip Generation Manual* contains data collected by various transportation professionals for a wide range of different land uses. The data are summarized in the report and average rates and equations have been established that correlate the relationship between an independent variable that describes the development size and generated trips for each categorized land use. The anticipated trip generation comparison for the project site is provided in **Table 1**.

Table 1 - Trip Generation Summary

Land Use	ITE Code	Land Use Name	Quantity Units+	AM Distribution		PM Distribution	
				In	Out	In	Out
Previous Assumption (Crossroads East)							
Industrial Park	130	Industrial Park	490.766 KSF	82%	18%	21%	79%
Manufacturing	140	Manufacturing	490.766 KSF	78%	22%	36%	64%
Warehousing	150	Warehousing	490.766 KSF	79%	21%	25%	75%
Proposed							
General Office Building	710	General Office building	780.000 KSF	86%	14%	16%	84%
Warehousing	150	Warehousing	130.000 KSF	77%	23%	27%	73%

Land Use	ADT		AM Peak Hour				PM Peak Hour			
	Avg. Rate*	Total	Avg. Rate*	In	Out	Total	Avg. Rate*	In	Out	Total
Previous Assumption (Crossroads East)										
Industrial Park	5.25	2,576	0.49	196	43	239	0.79	81	305	386
Manufacturing	3.87	1,900	0.82	313	88	402	0.77	137	243	380
Warehousing	3.13	1,534	0.19	74	20	94	0.18	23	68	91
Total		**6,010**		**583**	**151**	**732**		**241**	**616**	**857**
Proposed										
General Office Building	9.98	7,782	0.97	654	106	760	1.03	128	673	801
Warehousing	1.93	250	0.31	32	9	41	0.33	12	31	43
Total		**8,032**		**686**	**115**	**801**		**140**	**704**	**844**
Difference (Proposed-Previous Assumption)		**1,797**		**103**	**-36**	**66**		**-101**	**88**	**-13**
Difference (%)		**30%**		**18%**	**-24%**	**9%**		**42%**	**14%**	**-2%**

Notes: *All average rates were calculated by dividing total trips generated using regression equation by the number of dwelling units. (See below.)
+ KSF = 1,000 square feet

CALCULATIONS (Equations shown only where applicable)			
Land Use [Units]	*Daily*	*AM Peak Hour*	*PM Peak Hour*
General Office Building [X = 780 SF]	FC: LN(T)=0.97*LN(X)+2.5 [9.98]	FC: T=0.94*X+26.49 [0.97]	FC: LN(T)=0.95*LN(X)+0.36 [1.03]
Warehousing [X = 130 SF]	FC: T=1.58*X+45.54 [1.93]	FC: T=0.12*X+25.32 [0.31]	FC: T=0.12*X+27.82 [0.33]

The proposed Axon Campus development could generate up to 8,032 weekday daily trips with 801 trips occurring during the AM peak hour (686 in/115 out) and 844 trips occurring during the PM peak hour (140 in/704 out)

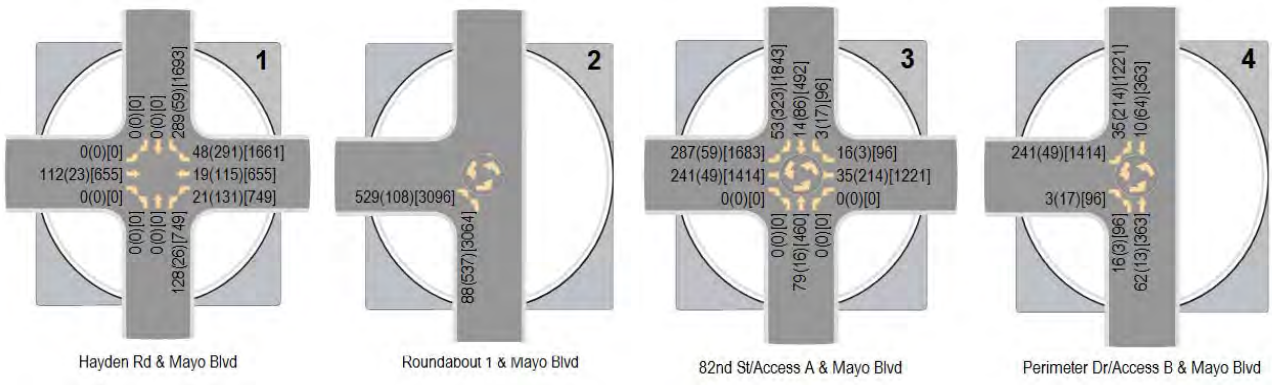
The Axon Campus is expected to generate 1,797 additional external daily trips as compared to the original Crossroads East TIA, with 66 additional trips generated during the AM peak hour (103 trips in/-36 trips out) and 13 fewer trips generated during the PM peak hour (-101 trips in/88 trips out).

TRIP DISTRIBUTION AND ASSIGNMENT

A single trip distribution pattern was taken from the previously approved Crossroads East TIA. It is expected that the development will generate trips based on future population within a 10-mile radius of the site. Future total population within a 10-mile radius of the site, as predicted by the 2030 socio-economic data compiled by the Maricopa Association of Governments (MAG), was used in that study as a basis to estimate trip distribution for the development.

Based on this information and the local street network, distribution percentages were assigned to the study roadway network. The resulting trip distribution percentages were applied to the generated trips to determine the AM and PM peak hour site traffic at the intersections within the study area and are illustrated in **Figure 1**.

Figure 1 – Site Trip Distribution



BACKGROUND TRAFFIC GROWTH PROJECTIONS

Background traffic along Hayden Road was determined by growing the existing 2020 traffic volumes by 2.1% per year to the opening year 2035. This gives a growth factor of 1.366 applied to the existing Hayden Road volumes.

CivTech recently conducted a traffic study for the Cavasson development, located on the southwest corner of Hayden Road and Legacy Boulevard. This development is anticipated to produce additional traffic on Hayden Road by the horizon year 2035. This anticipated additional traffic was added to the grown existing volumes to represent future traffic on the surrounding roadway network.

Along with the Cavasson development, Mayo Boulevard is currently being constructed so that it connects west to Scottsdale Road. The original Crossroads East TIA projected volumes for this portion of Mayo Boulevard between Hayden Road and Scottsdale Road. In order to have a more conservative estimate of approach traffic volumes, the eastbound and westbound volumes from Crossroads East for this portion of Mayo Boulevard were included in place of the existing volumes since the roadway is not yet completed and existing traffic that was present is likely construction vehicles. The horizon year for Crossroads East TIA was 2030, so the volumes used in the Axon Campus background traffic were grown by 2.1% per year for 5 years in order to represent the 2035 horizon year as projected for the Cavasson development.

Background traffic calculations as well as the Cavasson and Crossroads East volumes referenced above are located within **Attachment C**.

TRAFFIC AND IMPROVEMENT ANALYSIS

The overall intersection and approach levels of service are summarized in **Table 5** for the 2035 background and total traffic conditions. Detailed analysis worksheets for the 2035 analyses can be found in **Attachment D**.

Table 5 – Peak Hour Levels of Service

ID	Intersection	Intersection Control	Approach/ Movement	2035	
				No Build	Build
				AM (PM)	AM(PM)
1	Hayden Road & Mayo Boulevard	Signalized	NB	C(C)	D(D)
			SB	C(C)	D(D)
			EB	D(D)	D(D)
			WB	D(D)	D(D)
			Overall	**C(C)**	**D(D)**
2	Roundabout 1 & Mayo Boulevard	Roundabout	NB	NA	A(B)
			EB		A(A)
			WB		A(A)
			Overall		A(A)
3	82nd Street & Mayo Boulevard	Roundabout	NB	NA	A(A)
			SB		A(A)
			EB		A(A)
			WB		A(A)
			Overall		A(A)
4	Perimeter Drive & Mayo Boulevard	Roundabout	NB	NA	A(A)
			SB		A(A)
			EB		A(A)
			Overall		A(A)

The results of the Synchro analysis summarized in **Table 5** indicate that all study intersections operate with overall acceptable levels of service D or better.

QUEUE STORAGE ANALYSIS

Adequate turn storage should be supplied on any approach where turn lanes are permitted and/or warranted. A queuing analysis was performed for all warranted/recommended and existing intersection turn lanes where site traffic is expected as well as left turn lanes adjacent to the site. According to the methodology documented in *A Policy on Geometric Design of Highways and Streets* (the AASHTO "Green Book"*)*, the storage length for a turn lane is typically estimated as the length required to hold the average number of arriving vehicles per two minutes, where unsignalized, or per

one-and-a half signal cycles, where signalized.[1] The formulas used for the calculations are shown below.

For signalized intersections, the storage length is determined by the following formula:

Storage Length = [1.5 x (veh/hr)/(cycles/hr)] x 25 feet

For unsignalized intersections, the storage length is determined by the following formula:

Storage Length = [(veh/hr)/(30 periods/hr)] x 25 feet

The total projected traffic volumes were utilized for the calculations. From this, the resulting turn lane storage for turn movements using AASHTO guidelines were calculated and are summarized in **Table** . Calculations for the AASHTO queue storage length recommendations and the 50th percentile HCM 2016 queue storage length recommendations are provided in **Appendix E**. The 50th percentile HCM 2016 queue storage lengths are given in vehicles and multiplied by 25 feet per vehicle to determine the storage length.

Table 6 – Queue Storage Lengths

ID	Intersection	Intersection Control	Movement	Queue Storage		
				AASHTO	HCM(2)	Recommended
1	Hayden Road & Mayo Boulevard	Signalized	NB Left	50′	35′	150′
			SB Left	900′	45′	(1)300′
			EB Left	50′	225′	150′
			WB Left	225′	85′	150′
			SB Right	75′	160′	200′
			WB Right	1025′	390′	(3)

(1) A minimum of 150-feet of queue storage is recommended at all signalized intersections.
(2) HCM 50th percentile queue reported in vehicles/lane, assuming 1 vehicle ~ 25 feet.
(3) Westbound right-turn lane is a through trap lane that will provide more then the calculated queue storage.

The recommended storage lengths in **Table 6** is provided for study horizon year 2035 using the total traffic projections.

[1] *The American Association of Highway and Transportation Officials on pages 714-715 of its publication,* Geometric Design of Highways and Streets *("AASHTO Green Book"), indicates that storage length for a turn lane, exclusive of taper, "should usually be based on one and one-half to two times the average number of vehicles that would store per cycle" at a signalized intersection.*

Conclusions

The following conclusions and recommendations have been documented in this statement:

- The proposed Axon Campus development could generate up to 8,032 weekday daily trips with 801 trips occurring during the AM peak hour (686 in/115 out) and 844 trips occurring during the PM peak hour (140 in/704 out).
- The Axon Campus is expected to generate 1,797 additional external daily trips as compared to the original Crossroads East TIA, with 66 additional trips generated during the AM peak hour (103 trips in/-36 trips out) and 13 fewer trips generated during the PM peak hour (-101 trips in/88 trips out).
- All proposed intersections are anticipated to operate at acceptable levels of service.
- All intersections are anticipated to operate at acceptable levels of service with the proposed intersection lane configuration and the following roadway typical sections:
    - Mayo Boulevard should be constructed with a four-lane section, two lanes in each direction of travel between Hayden Road and 82nd Street. This will require the construction of a two-lane roundabout approximately 400 feet east of the Hayden Road alignment.
    - Mayo Boulevard could be reduced to provide a two-lane section, one lane in each direction of travel from 82nd Street to Perimeter Drive.
- Queue storage recommendations and proposed lane configuration recommendation have been provided in **Attachment E**.

Thank you for allowing CivTech to assist you on this project. We wish you the best as you proceed with the development. Please call me if you have any questions about this statement and/or if we can be of further assistance.

Sincerely,

CivTech

Dawn D Cartier, P.E., PTOE
Project Manager/President

Attachments:

A. Site Plan
B. Existing Conditions Analysis
C. Background Growth Calculations
D. 2035 Analysis Worksheets
E. Queue Storage Analysis

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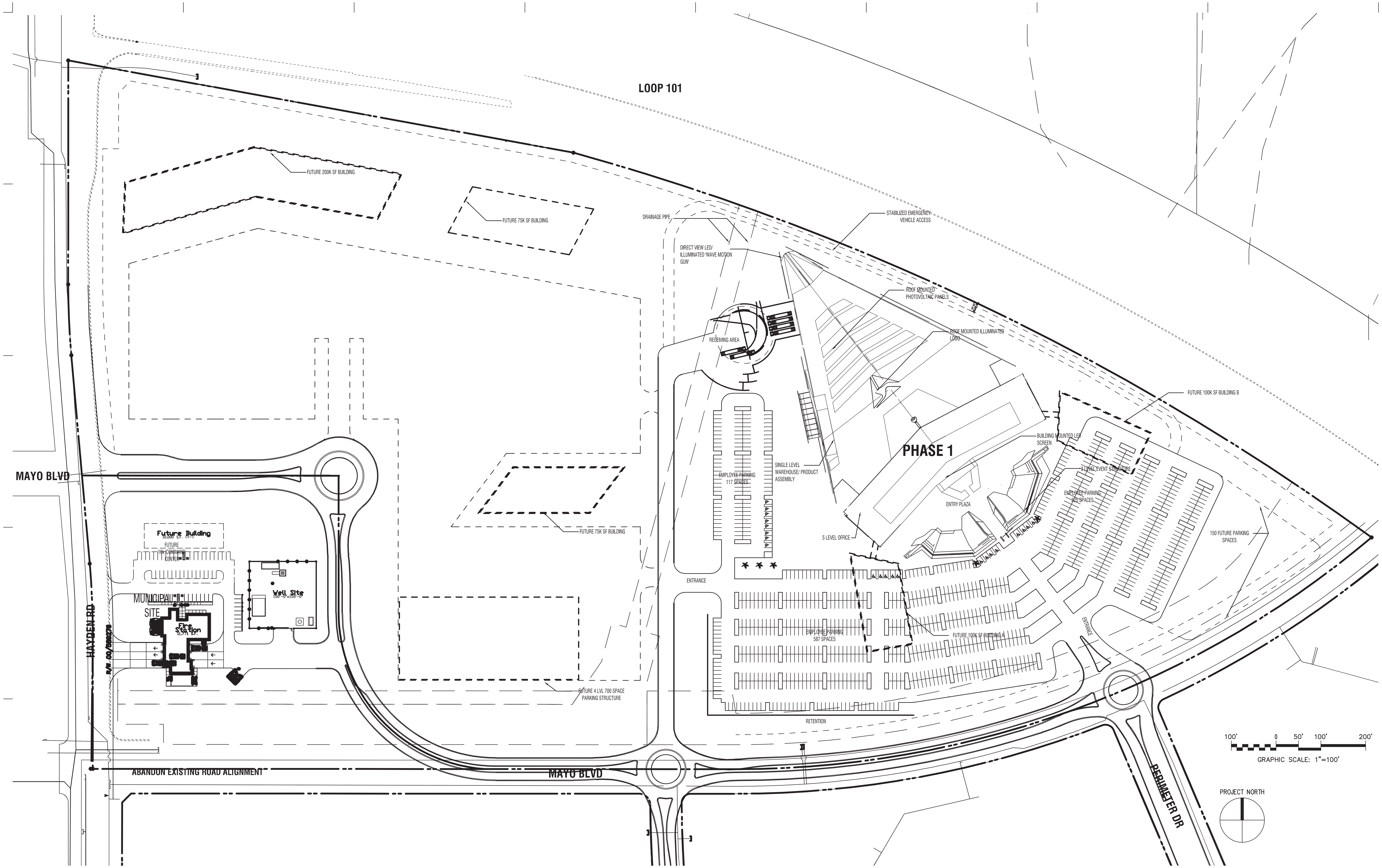
AXON

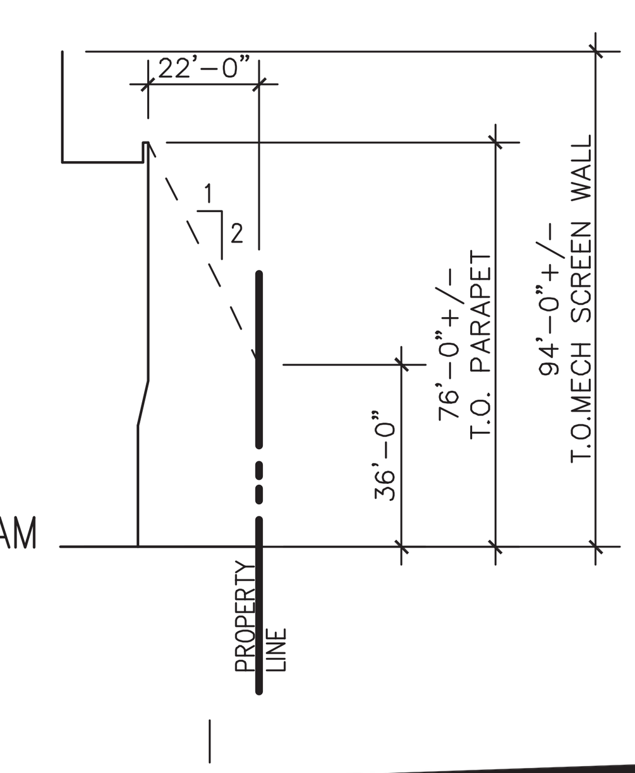


NOT FOR CONSTRUCTION

ISSUED FOR	YR	DATE

AXON HEADQUARTERS CONCEPTUAL SITE PLAN 08052020

1"=100'



BUILDING SETBACK DIAGRAM

01/13/2020

AXON CORPORATE HEADQUARTERS: FUTURE BLDG's PROPOSED

BLDG HEIGHT		76'-0" +/- TO PARAPET
ZONING:		PCD
OFFICE (B OCC)	275,000SF +/- @1:300	825 Spaces
PARKING REQUIRED		2677 Spaces
ADA REQUIRED 4%		109 Spaces

AXON CORPORATE HEADQUARTERS: FUTURE BLDG

BLDG HEIGHT		76'-0" +/- TO PARAPET
ZONING:		PCD
OFFICE (B OCC)	75,000SF +/- @1:300	225 Spaces
PARKING REQUIRED		1852 Spaces
ADA REQUIRED 4%		76 Spaces

AXON CORPORATE HEADQUARTERS: BLDG B PROPOSED

BLDG HEIGHT		76'-0" +/- TO PARAPET
ZONING:		PCD
OFFICE (B OCC)	100,000SF +/- @1:300	300 Spaces
PARKING REQUIRED		1627 Spaces
ADA REQUIRED 4%		66 Spaces

AXON CORPORATE HEADQUARTERS: BLDG A PROPOSED

BLDG HEIGHT		76'-0" +/- TO PARAPET
ZONING:		PCD
OFFICE (B OCC)	100,000SF +/- @1:300	300 Spaces
PARKING REQUIRED		1327 Spaces
ADA REQUIRED 4%		54 Spaces

AXON CORPORATE HEADQUARTERS: PHASE 1

BLDG HEIGHT		76'-0" +/- TO PARAPET
ZONING:		PCD
OFFICE (B OCC)	230,000SF +/- @1:300	767 Spaces
ASSEMBLY/ WAREHOUSE (F-1)	130,000SF +/- @1:500	260 Spaces
PARKING REQUIRED		1027 Spaces
ADA REQUIRED 4%		42 Spaces
PARKING PROVIDED		1027 Spaces
ADA PROVIDED		21 Spaces*

*Reduction to 2% (26 spaces) will be requested per Sec 9.105.c.2.a of C.O. Scottsdale Zoning code for Phase I.

ASP05

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	41	307	9	176	568
Future Vol, veh/h	0	41	307	9	176	568
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	145	365	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	46	341	10	196	631

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1049	171	0	0	351	0
Stage 1	341	-	-	-	-	-
Stage 2	708	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	223	843	-	-	1204	-
Stage 1	692	-	-	-	-	-
Stage 2	449	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	187	843	-	-	1204	-
Mov Cap-2 Maneuver	187	-	-	-	-	-
Stage 1	692	-	-	-	-	-
Stage 2	376	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	843	1204	-
HCM Lane V/C Ratio	-	-	0.054	0.162	-
HCM Control Delay (s)	-	-	9.5	8.6	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.6	-

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	237	819	5	32	352
Future Vol, veh/h	3	237	819	5	32	352
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	145	365	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	263	910	6	36	391

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1178	455	0	0	916	0
Stage 1	910	-	-	-	-	-
Stage 2	268	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	184	552	-	-	740	-
Stage 1	353	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	175	552	-	-	740	-
Mov Cap-2 Maneuver	175	-	-	-	-	-
Stage 1	353	-	-	-	-	-
Stage 2	716	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.1	0	0.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	538	740	-
HCM Lane V/C Ratio	-	-	0.496	0.048	-
HCM Control Delay (s)	-	-	18.1	10.1	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	2.7	0.2	-

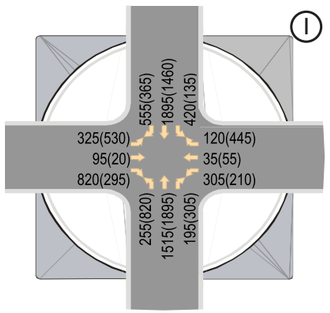
Location of counts: Hayden Road south of Loop 101

Source(s): https://www.scottsdaleaz.gov/transportation/studies-reports/traffic-volume

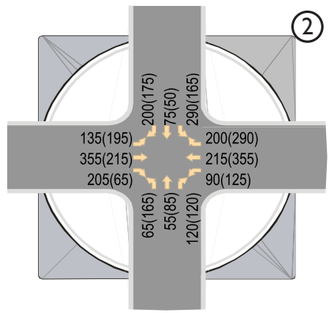
	Year	Volume
Start	2014	12,100
End	2016	12,600
AAGR		2.0%
Exp Factor		1.041

Growth Rate Used	2.1%
Per-Year Multiplier	1.021

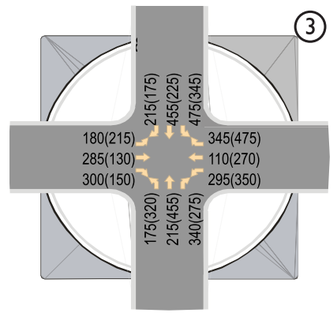
Year	Expansion Factor(s)	
2018	1.000	
2019	1.021	
2020	**1.042**	**Opening**
2021	1.064	
2022	1.087	
2023	1.110	
2024	1.133	
2025	1.157	
2026	1.181	
2027	1.206	
2028	1.231	
2029	1.257	
2030	1.283	
2031	1.310	
2032	1.338	
2033	1.366	
2034	1.394	
2035	1.424	
2036	1.454	
2037	1.484	
2038	1.515	
2039	1.547	
2040	1.580	
2041	1.613	
2042	1.647	
2043	1.681	
2044	1.717	
2045	1.753	
2046	1.789	
2047	1.827	
2048	1.865	
2049	1.905	
2050	1.945	



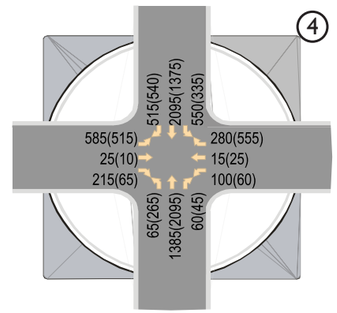
Scottsdale Rd. & Thompson Peak Pkwy



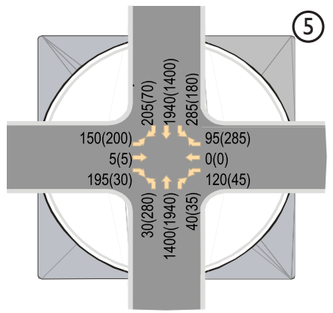
Miller Rd. & Thompson Peak Pkwy



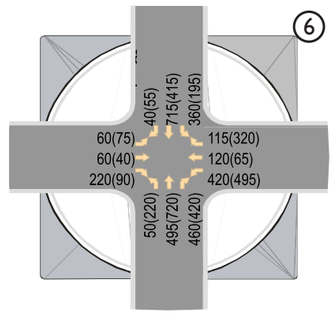
Hayden Rd. & Thompson Peak Pkwy



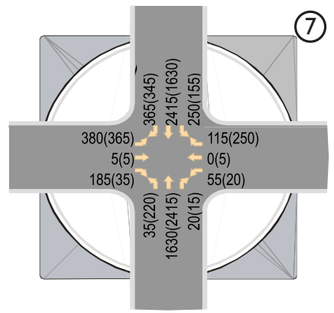
Pima Rd. & Thompson Peak Pkwy



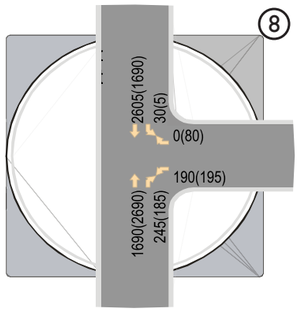
Pima Rd. & Hualapai Dr.



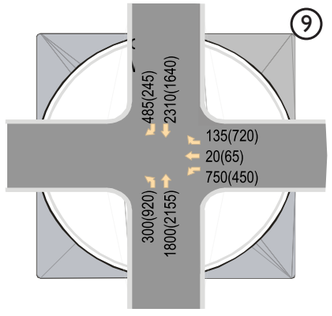
Hayden Rd. & Legacy Blvd.



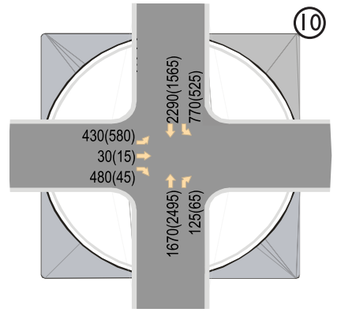
Scottsdale Rd.& Legacy Blvd.



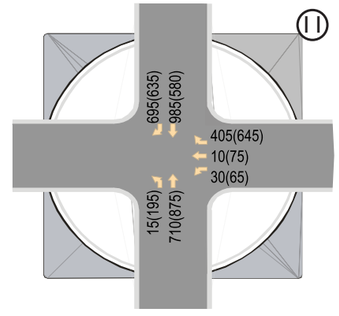
Scottsdale Rd. & 19200 North



Scottsdale Rd. & Loop 101 WB Ramps



Scottsdale Rd. & Loop 101 EB Ramps



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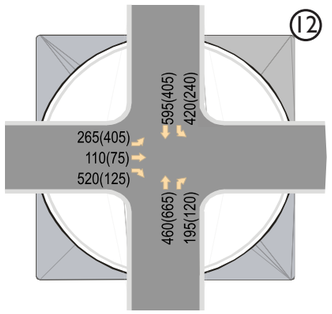
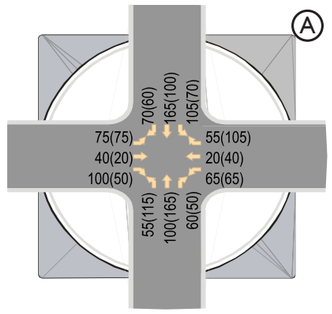
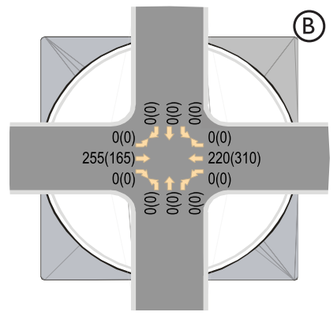


Hayden Rd. & Loop 101 EB Ramps



Miller Rd. & Legacy Blvd.



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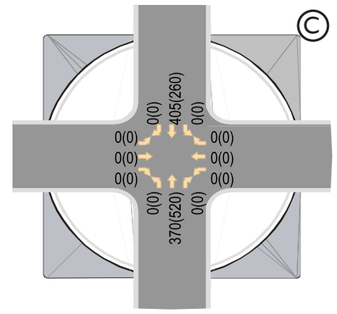

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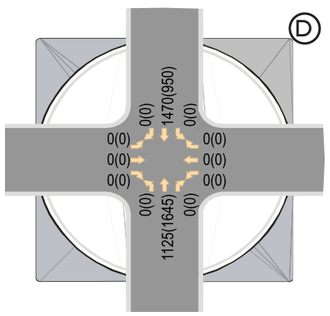
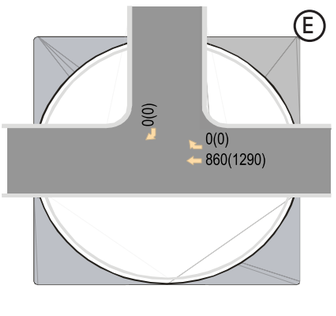


D



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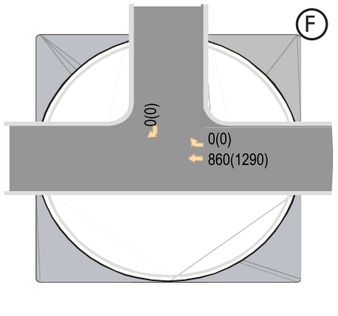

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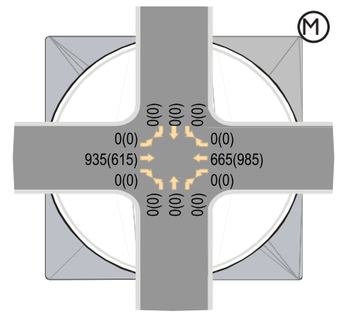

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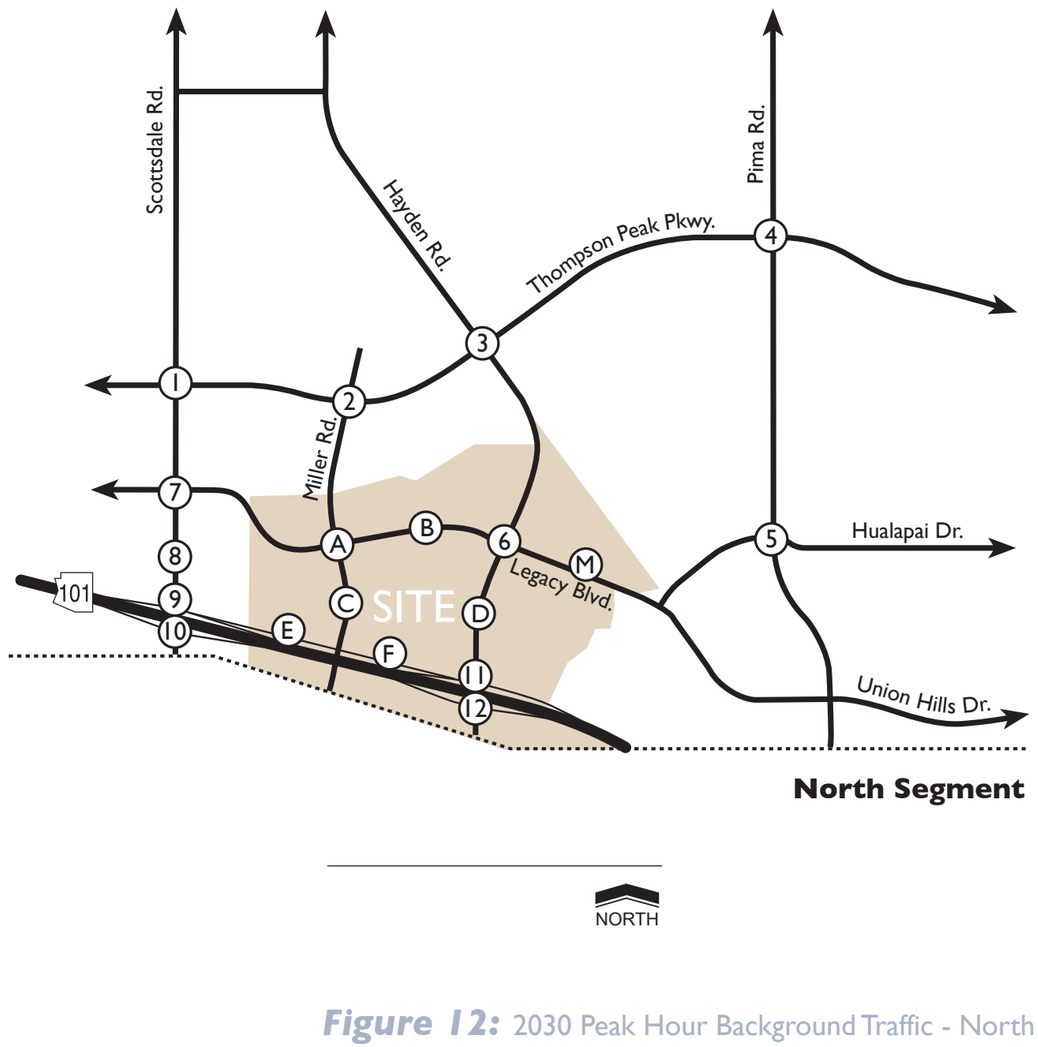
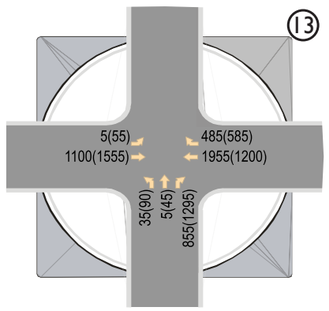
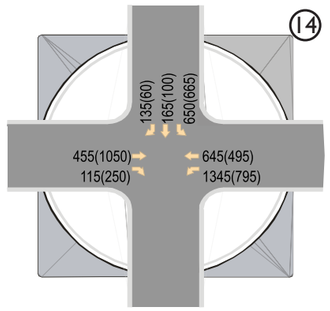


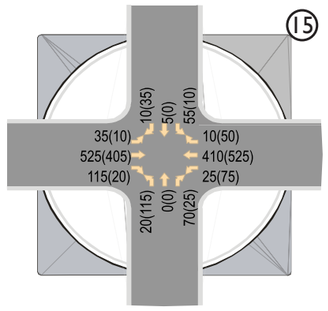
Figure 12: 2030 Peak Hour Background Traffic - North



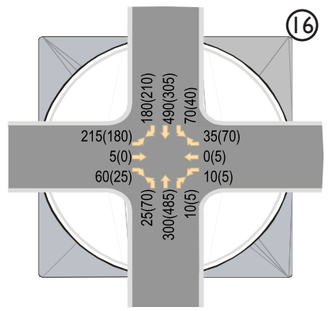
Pima Rd. & Loop 101 NB Ramps



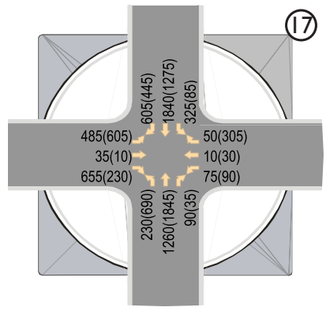
Pima Rd. & Loop 101 SB Ramps



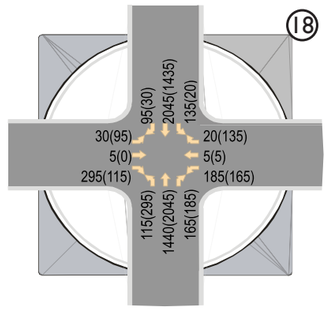
Perimeter Dr. & Princess Dr.



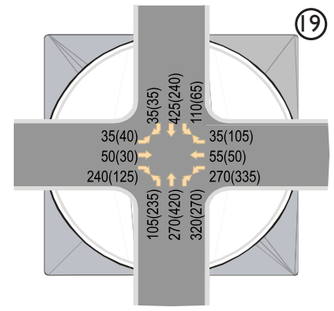
Hayden Rd. & Union Hills Rd.



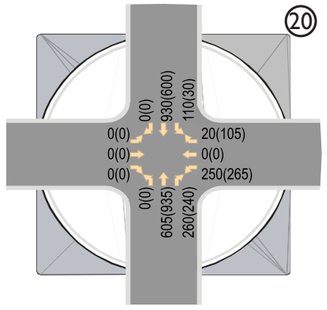
Scottsdale Rd. & Mayo Blvd.



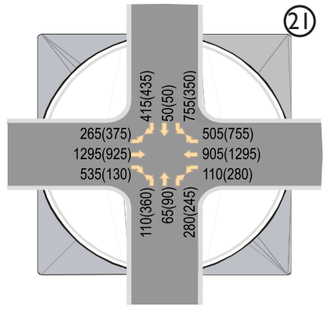
Scottsdale Rd. & Princess Dr.



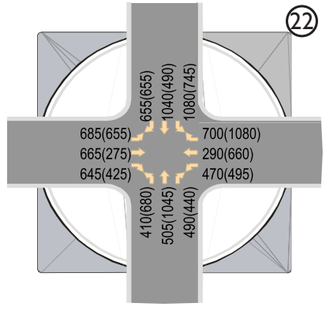
Hayden Rd. & Princess Dr.



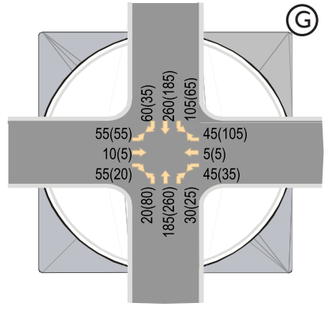
Hayden Rd. & Bell Rd.



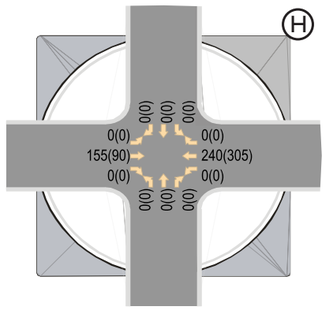
Hayden Rd. & Frank Lloyd Wright Blvd.



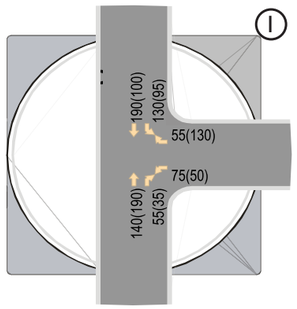
Scottsdale Rd. & Frank Lloyd Wright Blvd.



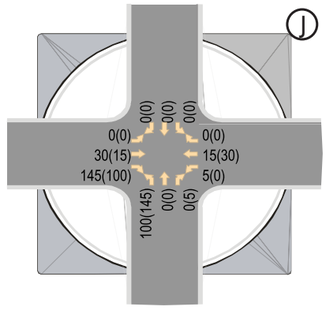
Miller Rd. & Union Hills Dr.



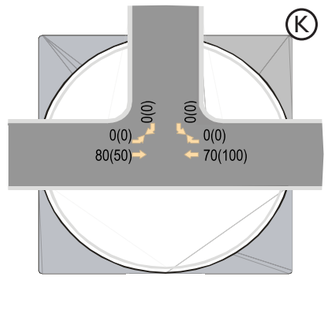
H



Miller Rd. & Princess Dr.



J



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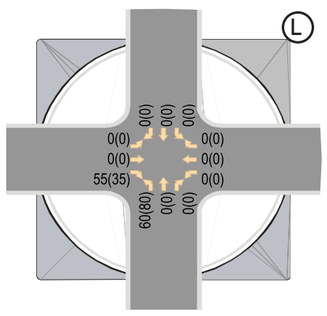
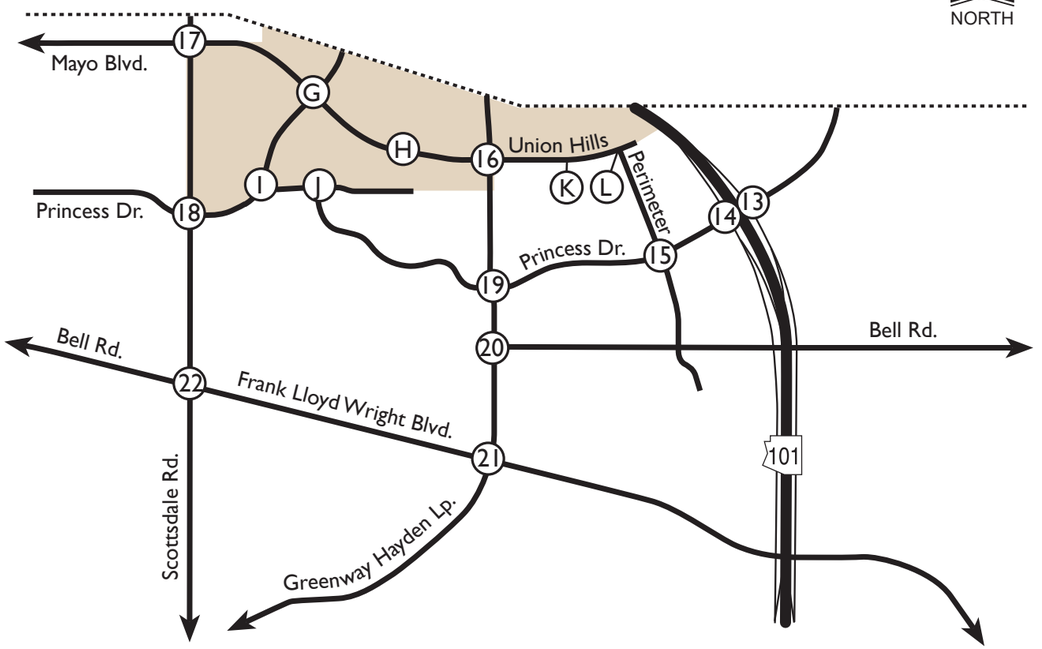


L

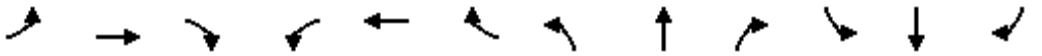
LEGEND

XX(XX) - AM(PM) Peak Hour Traffic Volumes



South Segment

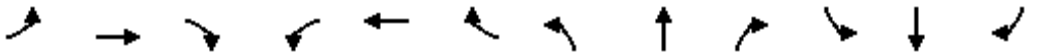
Figure 13: 2030 Peak Hour Background Traffic - South



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	6	76	11	0	56	46	667	12	240	860	215
Future Volume (veh/h)	257	6	76	11	0	56	46	667	12	240	860	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	286	7	51	12	0	1	51	741	13	267	956	239
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	411	37	271	135	71	60	297	2025	36	474	2172	969
Arrive On Green	0.17	0.19	0.19	0.01	0.00	0.04	0.01	0.19	0.19	0.03	0.20	0.20
Sat Flow, veh/h	1781	195	1420	1781	1870	1585	1781	3573	63	1781	3554	1585
Grp Volume(v), veh/h	286	0	58	12	0	1	51	368	386	267	956	239
Grp Sat Flow(s),veh/h/ln	1781	0	1615	1781	1870	1585	1781	1777	1859	1781	1777	1585
Q Serve(g_s), s	17.9	0.0	3.6	0.8	0.0	0.1	1.4	21.7	21.7	6.8	28.3	15.2
Cycle Q Clear(g_c), s	17.9	0.0	3.6	0.8	0.0	0.1	1.4	21.7	21.7	6.8	28.3	15.2
Prop In Lane	1.00		0.88	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	411	0	308	135	71	60	297	1007	1054	474	2172	969
V/C Ratio(X)	0.70	0.00	0.19	0.09	0.00	0.02	0.17	0.37	0.37	0.56	0.44	0.25
Avail Cap(c_a), veh/h	433	0	464	192	288	244	318	1007	1054	683	2172	969
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	43.4	0.0	40.7	54.3	0.0	55.6	12.6	30.0	30.0	12.6	29.9	24.7
Incr Delay (d2), s/veh	4.6	0.0	0.3	0.3	0.0	0.1	0.3	1.0	1.0	1.0	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	0.0	1.5	0.4	0.0	0.0	0.6	10.6	11.1	2.9	13.7	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	0.0	41.0	54.6	0.0	55.7	12.9	31.0	30.9	13.6	30.5	25.3
LnGrp LOS	D	A	D	D	A	E	B	C	C	B	C	C
Approach Vol, veh/h		344			13			805			1462	
Approach Delay, s/veh		46.8			54.7			29.8			26.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	72.5	6.1	27.4	8.6	77.9	24.5	9.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.5	38.5	5.5	34.5	5.5	56.5	21.5	18.5
Max Q Clear Time (g_c+I1), s	8.8	23.7	2.8	5.6	3.4	30.3	19.9	2.1
Green Ext Time (p_c), s	0.7	4.2	0.0	0.3	0.0	8.8	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C



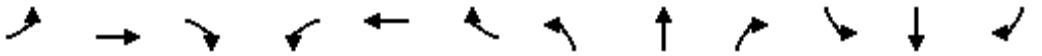
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	0	57	6	6	324	87	1287	7	44	672	271
Future Volume (veh/h)	215	0	57	6	6	324	87	1287	7	44	672	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	239	0	63	7	7	27	97	1430	8	49	747	301
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	0	255	129	75	117	380	2344	13	227	2276	1015
Arrive On Green	0.13	0.00	0.16	0.01	0.04	0.04	0.01	0.21	0.21	0.01	0.21	0.21
Sat Flow, veh/h	1781	0	1585	1781	1870	1585	1781	3623	20	1781	3554	1585
Grp Volume(v), veh/h	239	0	63	7	7	27	97	701	737	49	747	301
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	1585	1781	1777	1867	1781	1777	1585
Q Serve(g_s), s	15.1	0.0	4.2	0.5	0.4	1.9	2.2	42.8	42.8	1.1	21.4	19.2
Cycle Q Clear(g_c), s	15.1	0.0	4.2	0.5	0.4	1.9	2.2	42.8	42.8	1.1	21.4	19.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	341	0	255	129	75	117	380	1150	1208	227	2276	1015
V/C Ratio(X)	0.70	0.00	0.25	0.05	0.09	0.23	0.26	0.61	0.61	0.22	0.33	0.30
Avail Cap(c_a), veh/h	341	0	297	344	351	350	420	1150	1208	413	2276	1015
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	45.9	0.0	44.0	54.5	55.5	52.4	9.1	33.5	33.5	15.4	25.4	24.6
Incr Delay (d2), s/veh	6.3	0.0	0.5	0.2	0.5	1.0	0.4	2.4	2.3	0.4	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.0	1.7	0.2	0.2	0.8	0.9	21.1	22.2	0.5	10.3	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	0.0	44.5	54.6	56.0	53.3	9.4	35.9	35.8	15.9	25.8	25.3
LnGrp LOS	D	A	D	D	E	D	A	D	D	B	C	C
Approach Vol, veh/h		302			41			1535			1097	
Approach Delay, s/veh		50.6			54.0			34.2			25.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	82.1	5.5	23.8	9.3	81.4	20.0	9.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	47.5	15.5	22.5	7.5	56.5	15.5	22.5
Max Q Clear Time (g_c+I1), s	3.1	44.8	2.5	6.2	4.2	23.4	17.1	3.9
Green Ext Time (p_c), s	0.1	2.1	0.0	0.2	0.1	7.3	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	118	76	32	19	104	46	667	140	529	860	215
Future Volume (veh/h)	257	118	76	32	19	104	46	667	140	529	860	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	286	131	73	36	21	88	51	741	112	588	956	183
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	192	107	184	116	407	309	1410	213	673	2190	977
Arrive On Green	0.14	0.17	0.17	0.03	0.06	0.06	0.01	0.15	0.15	0.06	0.20	0.20
Sat Flow, veh/h	1781	1128	629	1781	1870	1585	1781	3095	468	3456	3554	1585
Grp Volume(v), veh/h	286	0	204	36	21	88	51	425	428	588	956	183
Grp Sat Flow(s),veh/h/ln	1781	0	1757	1781	1870	1585	1781	1777	1786	1728	1777	1585
Q Serve(g_s), s	16.5	0.0	13.1	2.2	1.3	5.2	1.8	26.5	26.5	20.2	28.2	11.5
Cycle Q Clear(g_c), s	16.5	0.0	13.1	2.2	1.3	5.2	1.8	26.5	26.5	20.2	28.2	11.5
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	371	0	300	184	116	407	309	809	814	673	2190	977
V/C Ratio(X)	0.77	0.00	0.68	0.20	0.18	0.22	0.17	0.53	0.53	0.87	0.44	0.19
Avail Cap(c_a), veh/h	371	0	432	208	282	548	328	809	814	792	2190	977
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	0.56	0.56	0.56
Uniform Delay (d), s/veh	44.3	0.0	46.7	50.6	53.4	35.1	16.9	39.0	39.0	54.7	29.6	22.9
Incr Delay (d2), s/veh	9.6	0.0	2.7	0.5	0.7	0.3	0.2	2.3	2.3	5.6	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	0.0	5.9	1.0	0.6	2.1	0.8	13.2	13.2	9.9	13.5	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	0.0	49.4	51.1	54.1	35.3	17.1	41.3	41.3	60.3	29.9	23.1
LnGrp LOS	D	A	D	D	D	D	B	D	D	E	C	C
Approach Vol, veh/h		490			145			904			1727	
Approach Delay, s/veh		52.0			42.0			39.9			39.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.9	59.2	8.0	25.0	8.6	78.5	21.0	12.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	39.9	5.1	29.5	5.4	62.0	16.5	18.1
Max Q Clear Time (g_c+I1), s	22.2	28.5	4.2	15.1	3.8	30.2	18.5	7.2
Green Ext Time (p_c), s	1.1	4.2	0.0	0.9	0.0	9.0	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	0.6
Intersection LOS	A

Approach	EB	WB	NB
Entry Lanes	1	1	1
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	874	0	172
Demand Flow Rate, veh/h	891	0	175
Vehicles Circulating, veh/h	0	175	0
Vehicles Exiting, veh/h	175	0	0
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	0.0	0.0	3.6
Approach LOS	A	-	A

Lane	Left	Bypass	Left	Left	Bypass
Designated Moves	T	R	LT	L	R
Assumed Moves	T	R	LT	L	R
RT Channelized		Free			Free
Lane Util	1.000		1.000	1.000	
Follow-Up Headway, s	2.535		2.535	2.535	
Critical Headway, s	4.328	891	4.328	4.328	0
Entry Flow, veh/h	0	1938	0	175	1938
Cap Entry Lane, veh/h	1420	0.980	1224	1420	0.980
Entry HV Adj Factor	1.000	874	1.000	0.983	0
Flow Entry, veh/h	0	1900	0	172	1900
Cap Entry, veh/h	1420	0.460	1224	1396	0.000
V/C Ratio	0.000	0.0	0.000	0.123	0.0
Control Delay, s/veh	2.5	A	2.9	3.6	A
LOS	A	3	A	A	0
95th %tile Queue, veh	0		0	0	

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

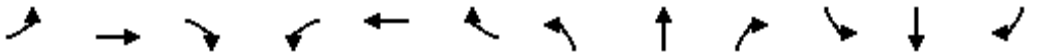
Approach	EB	WB	NB	SB
Entry Lanes	2	1	1	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	873	57	88	78
Demand Flow Rate, veh/h	890	58	90	79
Vehicles Circulating, veh/h	19	415	747	40
Vehicles Exiting, veh/h	40	422	16	415
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.1	4.1	6.1	0.7
Approach LOS	A	A	A	A

Lane	Left	Bypass	Left	Bypass	Left	Bypass	Left	Bypass
Designated Moves	LT	R	LT	R	LT	R	LT	R
Assumed Moves	LT	R	LT	R	LT	R	LT	R
RT Channelized		Yield		Yield		Free		Free
Lane Util	1.000		1.000		1.000		1.000	
Follow-Up Headway, s	2.667		2.535		2.535		2.535	
Critical Headway, s	4.645	146	4.328	18	4.328	0	4.328	60
Entry Flow, veh/h	744	1358	40	904	90	1938	19	1938
Cap Entry Lane, veh/h	1326	0.980	998	0.980	753	0.980	1373	0.980
Entry HV Adj Factor	0.981	143	0.980	18	0.980	0	0.983	59
Flow Entry, veh/h	730	1331	39	886	88	1900	19	1900
Cap Entry, veh/h	1301	0.107	978	0.020	738	0.000	1350	0.031
V/C Ratio	0.561	3.6	0.040	4.2	0.120	0.0	0.014	0.0
Control Delay, s/veh	9.0	A	4.0	A	6.1	A	2.8	A
LOS	A	0	A	0	A	0	A	0
95th %tile Queue, veh	4		0		0		0	

Intersection	
Intersection Delay, s/veh	5.0
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	415	87	50
Demand Flow Rate, veh/h	423	88	51
Vehicles Circulating, veh/h	11	273	18
Vehicles Exiting, veh/h	58	161	343
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.4	4.2	3.0
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	423	88	51
Cap Entry Lane, veh/h	1364	1045	1355
Entry HV Adj Factor	0.981	0.984	0.976
Flow Entry, veh/h	415	87	50
Cap Entry, veh/h	1339	1028	1322
V/C Ratio	0.310	0.084	0.038
Control Delay, s/veh	5.4	4.2	3.0
LOS	A	A	A
95th %tile Queue, veh	1	0	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	23	57	137	121	615	87	1287	33	103	672	271
Future Volume (veh/h)	215	23	57	137	121	615	87	1287	33	103	672	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	239	26	52	152	134	461	97	1430	26	114	747	218
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	318	132	264	466	507	509	311	1726	31	173	1745	778
Arrive On Green	0.05	0.24	0.24	0.08	0.27	0.27	0.01	0.16	0.16	0.02	0.16	0.16
Sat Flow, veh/h	1781	557	1113	1781	1870	1585	1781	3571	65	3456	3554	1585
Grp Volume(v), veh/h	239	0	78	152	134	461	97	711	745	114	747	218
Grp Sat Flow(s),veh/h/ln	1781	0	1670	1781	1870	1585	1781	1777	1859	1728	1777	1585
Q Serve(g_s), s	5.5	0.0	4.5	7.5	6.8	32.5	3.2	46.5	46.6	3.9	22.7	14.5
Cycle Q Clear(g_c), s	5.5	0.0	4.5	7.5	6.8	32.5	3.2	46.5	46.6	3.9	22.7	14.5
Prop In Lane	1.00		0.67	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	318	0	396	466	507	509	311	859	898	173	1745	778
V/C Ratio(X)	0.75	0.00	0.20	0.33	0.26	0.91	0.31	0.83	0.83	0.66	0.43	0.28
Avail Cap(c_a), veh/h	318	0	396	509	507	509	347	859	898	446	1745	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70	0.89	0.89	0.89
Uniform Delay (d), s/veh	40.0	0.0	36.6	29.7	34.4	39.0	17.2	45.6	45.6	58.0	35.1	31.7
Incr Delay (d2), s/veh	9.6	0.0	0.2	0.4	0.3	19.9	0.4	6.5	6.3	3.8	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	1.9	3.3	3.1	15.6	1.4	23.7	24.8	1.8	11.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	0.0	36.9	30.1	34.6	58.9	17.5	52.1	51.9	61.8	35.8	32.5
LnGrp LOS	D	A	D	C	C	E	B	D	D	E	D	C
Approach Vol, veh/h		317			747			1553			1079	
Approach Delay, s/veh		46.5			48.7			49.9			37.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	62.5	14.0	33.0	9.6	63.4	10.0	37.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	48.5	12.5	25.5	7.5	56.5	5.5	32.5
Max Q Clear Time (g_c+I1), s	5.9	48.6	9.5	6.5	5.2	24.7	7.5	34.5
Green Ext Time (p_c), s	0.2	0.0	0.1	0.3	0.0	6.9	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Approach	EB	WB	NB
Entry Lanes	1	1	1
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	177	0	970
Demand Flow Rate, veh/h	181	0	989
Vehicles Circulating, veh/h	0	989	0
Vehicles Exiting, veh/h	989	0	0
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	0.0	0.0	11.8
Approach LOS	A	-	B

Lane	Left	Bypass	Left	Left	Bypass
Designated Moves	T	R	LT	L	R
Assumed Moves	T	R	LT	L	R
RT Channelized		Free			Free
Lane Util	1.000		1.000	1.000	
Follow-Up Headway, s	2.535		2.535	2.535	
Critical Headway, s	4.328	181	4.328	4.328	0
Entry Flow, veh/h	0	1938	0	989	1938
Cap Entry Lane, veh/h	1420	0.980	613	1420	0.980
Entry HV Adj Factor	1.000	177	1.000	0.981	0
Flow Entry, veh/h	0	1900	0	970	1900
Cap Entry, veh/h	1420	0.093	613	1393	0.000
V/C Ratio	0.000	0.0	0.000	0.696	0.0
Control Delay, s/veh	2.5	A	5.9	11.8	A
LOS	A	0	A	B	0
95th %tile Queue, veh	0		0	6	

Intersection	
Intersection Delay, s/veh	5.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	1	1	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	177	241	18	474
Demand Flow Rate, veh/h	181	246	18	483
Vehicles Circulating, veh/h	117	85	171	243
Vehicles Exiting, veh/h	609	104	127	88
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.5	4.3	3.1	7.5
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Left	Left
Designated Moves	L	TR	LTR	LTR	LTR
Assumed Moves	L	TR	LTR	LTR	LTR
RT Channelized					
Lane Util	0.370	0.630	1.000	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.328	4.328	4.328
Entry Flow, veh/h	67	114	246	18	483
Cap Entry Lane, veh/h	1212	1286	1321	1228	1155
Entry HV Adj Factor	0.985	0.977	0.981	0.980	0.982
Flow Entry, veh/h	66	111	241	18	474
Cap Entry, veh/h	1194	1256	1296	1204	1134
V/C Ratio	0.055	0.089	0.186	0.015	0.418
Control Delay, s/veh	3.5	3.6	4.3	3.1	7.5
LOS	A	A	A	A	A
95th %tile Queue, veh	0	0	1	0	2

Intersection	
Intersection Delay, s/veh	4.3
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	102	17	309
Demand Flow Rate, veh/h	104	17	315
Vehicles Circulating, veh/h	72	55	3
Vehicles Exiting, veh/h	246	121	69
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	3.5	2.9	4.6
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	104	17	315
Cap Entry Lane, veh/h	1282	1305	1376
Entry HV Adj Factor	0.981	0.984	0.980
Flow Entry, veh/h	102	17	309
Cap Entry, veh/h	1257	1284	1348
V/C Ratio	0.081	0.013	0.229
Control Delay, s/veh	3.5	2.9	4.6
LOS	A	A	A
95th %tile Queue, veh	0	0	1

Signalized Intersection

2035

Average Vehicle Length (ft): 25 Cycles: 1.5
Intersection Cycle Length (sec): 120
Equation Used: storage length = 1.5 x (vehicles/hour)/(cycles/hour) x average vehicle length

Intersection	Approach	AM Peak (veh/hr)	Midday Peak	PM Peak (veh/hr)	Max vehs per 1.5 cycles	Max trucks per 1.5 cycles	Storage Length
Hayden Road & Mayo Boulevard	NB Left	18	0	9	1	0	**25'**
	SB Left	529	0	103	27	0	**675'**
	EB Left	18	0	16	1	0	**25'**
	WB Left	21	0	135	7	0	**175'**
	SB Right	15	0	41	3	0	**75'**
	WB Right	104	0	615	31	0	**775'**

WOOD PATEL

PRELIMINARY WATER DISTRIBUTION SYSTEM
BASIS OF DESIGN REPORT
FOR
SEC HAYDEN-LOOP 101 PROJECT

September 10, 2020
WP# 205133

WOOD PATEL

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September 10, 2020

Mr. Levi Dillon, PE
Sr. Water Resource Engineer
City of Scottsdale
9379 East San Salvador Drive
Scottsdale, Arizona 85258

480.312.5319
ldillon@scottsdaleaz.gov

Re: **SEC Hayden-Loop 101 Project**
Preliminary Water Distribution System Basis of Design Report
WP# 205133

Dear Mr. Dillon:

The proposed SEC Hayden-Loop 101 project (Site) is a 74.44-acre site, located in the northwest quarter of Section 36, Township 4 North, Range 4 East of the Gila and Salt River Meridian. More specifically, the Site is located at the northeast corner of Hayden Road and Mayo Boulevard. Refer to the Vicinity Map at the back of this report for project location. Proposed improvements for the Site include a realignment of the existing Mayo Boulevard, one (1) proposed mixed-used structure and associated parking, landscape, hardscape and utilities. The proposed structure is comprised of two (2) buildings separated by a fire wall. Building 1 is a proposed 5-story building with approximately 216,225 square-feet of office and 33,310 square-feet of industrial space. Building 2 is a proposed 114,535 square-foot single story industrial building.

Existing water infrastructure adjacent to the Site includes a public 16-inch waterline within Hayden Road and a public 12-inch waterline within Mayo Boulevard. Two (2) existing water stubs extend from the 12-inch waterline to the Site. Refer to the attached Water Exhibit for a depiction of the existing water infrastructure surrounding the Site.

The design criteria used to estimate potable water demands and evaluate system hydraulics are based on Wood, Patel & Associates, Inc.'s (WOODPATEL) understanding of the published *City of Scottsdale Design Standards and Policies Manual*, 2018, *City of Phoenix Design Standards Manual for Water and Wastewater Systems*, 2017 and *International Fire Code,* 2015. The following is a summary of the primary design criteria utilized:

- Average Day Water Demand, Office: ..... 8.34×10^{-4} gpm/ sq. ft*
- Average Day Water Demand, Industrial (Phoenix): ..... 9.03×10^{-2} gpm/ 1,000 sq. ft
- Maximum Day Demand: ..... 2.0 x ADD
- Peak Hour Demand: ..... 3.5 x ADD
- Fire Flow Demand: ..... 3,625 gpm (7,250 gpm * 50% reduction)
- Minimum Residual Pressure, Peak Hour: ..... 50 psi
- Minimum Residual Pressure, Maximum Day + Fire Flow: ..... 30 psi

- Maximum System Pressure ..... 120 psi
- Maximum Pipe Head Loss, Maximum day Demand ..... 8 ft / 1000 ft
- Maximum Pipe Head Loss, Peak Hour Demand..... 10 ft / 1000 ft
- Minimum Pipe Diameter, Public Water Line ..... 8 inches

Abbreviations: gpd = gallons per day; sf = square feet; ADD = average day demand; psi = pounds per square inch
*Includes both inside and outside use per Figure 6-1.2, COS Design Standards & Policies Manual

Proposed water infrastructure includes two (2) separate 12-inch waterline loops. The first proposed 12-inch loop will be located at the southwest corner of the Site within the realigned Mayo Boulevard and is intended to serve future Site improvements. The loop will connect to the existing waterlines in Hayden Road and Mayo Boulevard. Water demands for the proposed office and warehouse buildings will be served by the second proposed 12-inch waterline loop that ties into the existing 12-inch waterline within Mayo Boulevard at two (2) locations. Domestic water services will be provided by a 4-inch domestic meter. Fire protection for the project will be provided by a combination of a fire service for building fire sprinklers, a proposed remote fire department connection, and 15 proposed fire hydrants that have been located to meet City of Scottsdale coverage requirements.

The average day water demand for the Site is projected to be approximately 192.9 gallons per minute (gpm). Maximum day demands and peak hour demands are projected to be 385.8 gpm and 675.2 gpm, respectively (refer to the attached calculations).

WaterCAD V10i, by Haestad Methods, was utilized to analyze the existing water distribution system and proposed improvements. Results from a fire hydrant flow test, conducted on March 12, 2020, by Arizona Flow Testing LLC, were utilized to simulate the City of Scottsdale water supply for the project (refer to attached modeling results).

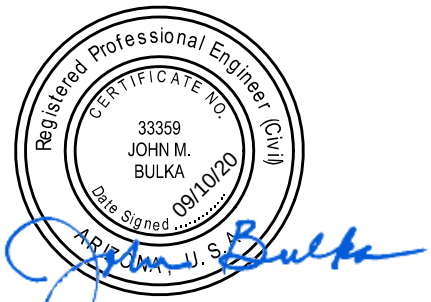
The hydraulic modeling results indicate the proposed system is capable of delivering peak hour demands, totaling 675.2 gpm, to the proposed Site, with pressures ranging from 64 to 75 pounds per square inch (psi).

The *Fire Flow + Max Day* results from the model indicate that while using the reduced flow test results, per City of Scottsdale requirements, the residual pressure in the system does not reach the required 30 psi at the TEE of the operating hydrant, when applying the entire required fire flow at a single hydrant. However, when splitting the flow evenly between six (6) of the nine (9) fire hydrants adjacent to the building, the minimum residual pressure at the TEE of an operating hydrant reached the required 30 psi. When using the raw flow test results and applying the entire fire flow to a single hydrant, the residual pressure at the TEE of the operating hydrant was 39 psi. It is believed that the system is adequate in serving the fire flow requirements for the Site. Hydraulic modeling results, calculations, and exhibits involved in the water system analysis are attached.

Thank you for your review of the Water Distribution System Basis of Design Report provided for the SEC Hayden-Loop 101 Project. Feel free to contact me if you have any questions.

Sincerely,

Wood, Patel & Associates, Inc.



John Bulka, PE
Project Manager

EXPIRES 03-31-23

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CALCULATIONS AND HYDRAULIC MODELING RESULTS

WOOD PATEL

TABLE 1
WATER DISTRIBUTION SYSTEM DESIGN CRITERIA

Project	SEC Hayden-Loop 101 Project
Location	Scottsdale Arizona
Project Number	205133
Project Engineer	John Bulka, P.E.
References	City of Scottsdale Design Standards & Policies Manual (2018)

RESIDENTIAL WATER DEMANDS			
LAND USE	**AVERAGE DAILY DEMAND (ADD)**		**NOTES**
	VALUE	**UNITS**	
< 2 dwelling DU/ac	0.69	gpm/unit	Note 1
2-2.9 dwelling DU/ac	0.66	gpm/unit	Note 1
3-7.9 dwelling DU/ac	0.36	gpm/unit	Note 1
8-11.9 dwelling DU/ac	0.33	gpm/unit	Note 1
12-22 2 dwelling DU/ac	0.33	gpm/unit	Note 1
High Density Condominium (condo)	0.27	gpm/unit	Note 1
Resort Hotel (includes site amenities)	0.63	gpm/unit	Note 1

NON-RESIDENTIAL WATER DEMANDS			
LAND USE	**AVERAGE DAILY DEMAND (ADD)**		**NOTES**
	VALUE	**UNITS**	
Restaurant	0.00181	gpm/sf	Note 1
Commercial/Retail	0.00111	gpm/sf	Note 1
Commercial High Rise	0.000834	gpm/sf	Note 1
Office	0.000834	gpm/sf	Note 1
Institutional	1.88	gpm/acre	Note 1
Industrial	0.0903	gpm/1,000 sf	Note 5
Research and Development	1.79	gpm/acre	Note 1

LANDSCAPE WATER DEMANDS			
LAND USE	**AVERAGE DAILY DEMAND (ADD)**		**NOTES**
	VALUE	**UNITS**	
Natural Area Open Space	0.00	gpm/acre	Note 1
Developed Open Space - Parks	2.49	gpm/acre	Note 1
Developed Open Space - Golf Course	5.96	gpm/acre	Note 1

HYDRAULIC MODELING CRITERIA				
	DESCRIPTION	**VALUE**	**UNITS**	**NOTES**
MAX DAY FLOW				
	Max Day Flow = Peaking Factor (PF) x ADD	3.5 x ADD	gpm	Note 1
PEAK HOUR FLOW				
	Peak Hour Flow = Peaking Factor (PF) x ADD	4 x ADD	gpm	Note 1
MODELED FIRE HYDRANT FLOW (MINIMUM)				
☐	Residential, 0 - 3,600 sf fire-flow calculation area	1,000	gpm	Note 3
☐	Residential, 3,601 - 4,800 sf fire-flow calculation area	1,750	gpm	Note 4
☐	Residential, 4,801 - 6,200 sf fire-flow calculation area	2,000	gpm	Note 4
☐	Residential, 6,201 - 7,700 sf fire-flow calculation area	2,250	gpm	Note 4
☐	Residential, 7,701 - 9,400 sf fire-flow calculation area	2,500	gpm	Note 4
☐	Residential, 9,401 - 11,300 sf fire-flow calculation area	2,750	gpm	Note 4
☐	Multi-Family Residential	-	gpm	Note 2
☑	Commercial	3,625	gpm	Note 2
HYDRAULICS				
	Residual Pressure Range, Peak Hour	50-150	psi	Note 1
	Minimum Residual Pressure, Max Day + Fire Flow (Hydrant TEE)	30	psi	Note 1
	Minimum Residual Pressure, Max Day + Fire Flow (Domestic Service)	15	psi	Note 1
	Minimum Pipe Diameter, Looped System	6	in	Note 1
	Hazen-Williams C-value	130	-	Note 1

Notes:

1. Per City of Scottsdale Design Standards & Policies Manual (2018)
2. Per 2015 International Fire Code as adopted by the City of Scottsdale. Utilizes construction type IIB, 114,535 sf area (Building 2), 50% reduction applied.
3. Residential limited to one- and two-family dwellings, assumes Type V-B construction, and has a 1-hour fire duration
4. Residential limited to one- and two-family dwellings, assumes Type V-B construction, and has a 2-hour fire duration
5. Per City of Phoenix Design Standards Manual for Water and Wastewater Systems (2017) modified to City of Scotttsdale standards.

WOOD PATEL

TABLE 2
WATER DEMAND DESIGN FLOWS

Project SEC Hayden-Loop 101 Project
Location Scottsdale Arizona
Project Number 205133
Project Engineer John Bulka, P.E.
References City of Scottsdale Design Standards & Policies Manual (2018)

HYDRAULIC MODEL NODE	ELEVATION (ft)	PRESSURE ZONE	Building	LAND USE	APPLICABLE UNIT	NUMBER OF UNITS	GPM/APPLICABLE UNIT[1]	AVERAGE DAILY DEMAND		MAX DAY DEMAND		PEAK HOUR DEMAND		Fire Flow
								(gpm)	Total (gpm)	(gpm)	Total (gpm)	(gpm)	Total (gpm)	(gpm)
J-46	1,601.9	4	1	Office	gpm/sf	216,225	0.00083	179.5	192.8	359.0	385.6	628.3	674.9	3,625.0
				Industrial	gpm/1,000 sf	33.31	0.0903	3.0		6.0		10.5		
			2	Industrial	gpm/1,000 sf	114.54	0.0903	10.3		20.6		36.1		
Total								**192.8**		**385.6**		**674.9**		

Notes
1. GPM values are based on a 12-hour active water used period per 24-hour day per the City of Scottsdale Design Standards and Policy Manual.

SEC Hayden-Loop 101 Project

FlexTable: Junction Table

Active Scenario: Calibration Static

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
EX FH-1 (FLOW B)	1,595.30	0	70	1,757.30
EX FH-2 (TEST)	1,590.98	0	72	1,757.30
EX FH-3 (FLOW A)	1,586.00	0	74	1,757.30
EX J-10	1,595.30	0	70	1,757.30
EX J-20	1,595.10	0	70	1,757.30
EX J-30	1,592.18	0	71	1,757.30
EX J-50	1,586.00	0	74	1,757.30
EX J-70	1,584.45	0	75	1,757.30
EX J-80	1,581.95	0	76	1,757.30
EX J-90	1,583.61	0	75	1,757.30
EX J-100	1,584.83	0	75	1,757.30
EX J-110	1,591.24	0	72	1,757.30
FH-12	1,584.48	0	75	1,757.30

SEC Hayden-Loop 101 Project

FlexTable: Junction Table

Active Scenario: Calibration Residual

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
EX FH-1 (FLOW B)	1,595.30	2,314	39	1,684.68
EX FH-2 (TEST)	1,590.98	0	43	1,690.31
EX FH-3 (FLOW A)	1,586.00	1,595	44	1,686.61
EX J-10	1,595.30	0	39	1,684.91
EX J-20	1,595.10	0	39	1,686.24
EX J-30	1,592.18	0	42	1,688.86
EX J-50	1,586.00	0	44	1,686.66
EX J-70	1,584.45	0	44	1,686.61
EX J-80	1,581.95	0	45	1,686.61
EX J-90	1,583.61	0	45	1,686.61
EX J-100	1,584.83	0	44	1,686.61
EX J-110	1,591.24	0	41	1,686.61
FH-12	1,584.48	0	44	1,686.61

SEC Hayden-Loop 101 Project

FlexTable: Junction Table

Active Scenario: Calibration Max

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
EX FH-1 (FLOW B)	1,595.30	3,172	14	1,627.08
EX FH-2 (TEST)	1,590.98	0	20	1,637.18
EX FH-3 (FLOW A)	1,586.00	2,187	19	1,630.54
EX J-10	1,595.30	0	14	1,627.49
EX J-20	1,595.10	0	15	1,629.88
EX J-30	1,592.18	0	18	1,634.59
EX J-50	1,586.00	0	19	1,630.62
EX J-70	1,584.45	0	20	1,630.54
EX J-80	1,581.95	0	21	1,630.54
EX J-90	1,583.61	0	20	1,630.54
EX J-100	1,584.83	0	20	1,630.54
EX J-110	1,591.24	0	17	1,630.54
FH-12	1,584.48	0	20	1,630.54

SEC Hayden-Loop 101 Project

FlexTable: Junction Table

Active Scenario: Average Day Demand

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
EX FH-1 (FLOW B)	1,595.30	0	70	1,757.03
EX FH-2 (TEST)	1,590.98	0	72	1,757.04
EX FH-3 (FLOW A)	1,586.00	0	74	1,757.03
EX J-10	1,595.30	0	70	1,757.03
EX J-20	1,595.10	0	70	1,757.03
EX J-30	1,592.18	0	71	1,757.04
EX J-50	1,586.00	0	74	1,757.03
EX J-70	1,584.45	0	75	1,757.03
EX J-80	1,581.95	0	76	1,757.03
EX J-90	1,583.61	0	75	1,757.03
EX J-100	1,584.83	0	75	1,757.03
EX J-110	1,591.24	0	72	1,757.03
FH-1	1,596.50	0	69	1,757.02
FH-2	1,601.60	0	67	1,757.01
FH-3	1,602.00	0	67	1,757.00
FH-4	1,605.00	0	66	1,757.00
FH-5	1,605.50	0	66	1,757.00
FH-6	1,604.50	0	66	1,757.01
FH-7	1,599.70	0	68	1,757.01
FH-8	1,594.00	0	71	1,757.02
FH-9	1,586.50	0	74	1,757.02
FH-10	1,594.53	0	70	1,757.01
FH-11	1,592.38	0	71	1,757.02
FH-12	1,584.48	0	75	1,757.03
FH-13	1,588.09	0	73	1,757.03
FH-14	1,591.62	0	72	1,757.03
FH-15	1,589.30	0	73	1,757.03
J-10	1,596.00	0	70	1,757.02
J-20	1,596.50	0	69	1,757.02
J-30	1,601.60	0	67	1,757.01
J-46	1,601.90	193	67	1,757.00
J-60	1,605.30	0	66	1,757.00
J-100	1,605.50	0	66	1,757.01
J-110	1,605.00	0	66	1,757.01
J-120	1,600.64	0	68	1,757.01
J-150	1,593.00	0	71	1,757.02
J-170	1,588.19	0	73	1,757.03
J-220	1,584.87	0	74	1,757.03
J-230	1,586.00	0	74	1,757.03

SEC Hayden-Loop 101 Project

FlexTable: Pipe Table

Active Scenario: Average Day Demand

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
EX P-05	EX J-10	EX FH-1 (FLOW B)	19	12.0	Ductile Iron	130.0	0	0.00
EX P-15	EX J-20	EX J-10	111	12.0	Ductile Iron	130.0	108	0.31
EX P-25	EX J-30	EX J-20	219	12.0	Ductile Iron	130.0	108	0.31
EX P-35	EX FH-2 (TEST)	EX J-30	121	12.0	Ductile Iron	130.0	108	0.31
EX P-45	EX J-50	EX FH-2 (TEST)	607	12.0	Ductile Iron	130.0	-85	0.24
EX P-55	EX FH-3 (FLOW A)	EX J-50	7	12.0	Ductile Iron	130.0	0	0.00
EX P-65	FH-12	EX FH-3 (FLOW A)	397	12.0	Ductile Iron	130.0	0	0.00
EX P-67	EX J-70	FH-12	8	12.0	Ductile Iron	130.0	0	0.00
EX P-75	EX J-80	EX J-70	889	12.0	Ductile Iron	130.0	0	0.00
EX P-85	EX J-90	EX J-80	85	12.0	Ductile Iron	130.0	0	0.00
EX P-95	EX J-100	EX J-90	58	12.0	Ductile Iron	130.0	0	0.00
EX P-105	EX J-110	EX J-100	561	16.0	Ductile Iron	130.0	0	0.00
P-05	J-10	EX J-10	53	12.0	Ductile Iron	130.0	-108	0.31
P-15	FH-1	J-10	158	12.0	Ductile Iron	130.0	-108	0.31
P-17	J-20	FH-1	15	12.0	Ductile Iron	130.0	-108	0.31
P-25	J-30	J-20	141	12.0	Ductile Iron	130.0	-108	0.31
P-35	FH-2	J-30	18	12.0	Ductile Iron	130.0	-146	0.41
P-45	J-46	FH-2	183	12.0	Ductile Iron	130.0	-146	0.41
P-47	FH-3	J-46	157	12.0	Ductile Iron	130.0	47	0.13
P-55	J-60	FH-3	105	12.0	Ductile Iron	130.0	47	0.13
P-65	J-60	FH-4	253	12.0	Ductile Iron	130.0	-47	0.13
P-75	FH-4	FH-5	303	12.0	Ductile Iron	130.0	-47	0.13
P-85	FH-5	FH-6	305	12.0	Ductile Iron	130.0	-47	0.13
P-95	J-100	FH-6	188	12.0	Ductile Iron	130.0	47	0.13
P-105	J-110	J-100	81	12.0	Ductile Iron	130.0	47	0.13
P-115	J-120	J-110	50	12.0	Ductile Iron	130.0	47	0.13
P-125	FH-7	J-120	327	12.0	Ductile Iron	130.0	47	0.13
P-135	FH-8	FH-7	400	12.0	Ductile Iron	130.0	47	0.13
P-145	J-150	FH-8	56	12.0	Ductile Iron	130.0	47	0.13
P-155	FH-9	J-150	306	12.0	Ductile Iron	130.0	85	0.24
P-165	J-170	FH-9	105	12.0	Ductile Iron	130.0	85	0.24
P-175	EX J-50	J-170	54	12.0	Ductile Iron	130.0	85	0.24
P-185	J-30	FH-10	398	12.0	Ductile Iron	130.0	-38	0.11
P-195	FH-10	FH-11	312	12.0	Ductile Iron	130.0	-38	0.11
P-205	FH-11	J-150	169	12.0	Ductile Iron	130.0	-38	0.11
P-215	J-220	EX J-70	36	12.0	Ductile Iron	130.0	0	0.00
P-225	J-230	J-220	277	12.0	Ductile Iron	130.0	0	0.00
P-235	FH-13	J-230	257	12.0	Ductile Iron	130.0	0	0.00
P-245	FH-14	FH-13	363	12.0	Ductile Iron	130.0	0	0.00
P-255	FH-15	FH-14	362	12.0	Ductile Iron	130.0	0	0.00
P-265	EX J-110	FH-15	116	12.0	Ductile Iron	130.0	0	0.00
P-PMP-1	PMP-1	EX FH-2 (TEST)	1	48.0	Ductile Iron	130.0	193	0.03
P-R-1	R-1	PMP-1	1	48.0	Ductile Iron	130.0	193	0.03

SEC Hayden-Loop 101 Project

FlexTable: Junction Table

Active Scenario: Max Day Demand

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
EX FH-1 (FLOW B)	1,595.30	0	70	1,756.31
EX FH-2 (TEST)	1,590.98	0	72	1,756.38
EX FH-3 (FLOW A)	1,586.00	0	74	1,756.32
EX J-10	1,595.30	0	70	1,756.31
EX J-20	1,595.10	0	70	1,756.33
EX J-30	1,592.18	0	71	1,756.36
EX J-50	1,586.00	0	74	1,756.32
EX J-70	1,584.45	0	74	1,756.32
EX J-80	1,581.95	0	75	1,756.32
EX J-90	1,583.61	0	75	1,756.32
EX J-100	1,584.83	0	74	1,756.32
EX J-110	1,591.24	0	71	1,756.32
FH-1	1,596.50	0	69	1,756.28
FH-2	1,601.60	0	67	1,756.25
FH-3	1,602.00	0	67	1,756.21
FH-4	1,605.00	0	65	1,756.22
FH-5	1,605.50	0	65	1,756.23
FH-6	1,604.50	0	66	1,756.24
FH-7	1,599.70	0	68	1,756.26
FH-8	1,594.00	0	70	1,756.27
FH-9	1,586.50	0	73	1,756.31
FH-10	1,594.53	0	70	1,756.27
FH-11	1,592.38	0	71	1,756.27
FH-12	1,584.48	0	74	1,756.32
FH-13	1,588.09	0	73	1,756.32
FH-14	1,591.62	0	71	1,756.32
FH-15	1,589.30	0	72	1,756.32
J-10	1,596.00	0	69	1,756.30
J-20	1,596.50	0	69	1,756.28
J-30	1,601.60	0	67	1,756.26
J-46	1,601.90	386	67	1,756.21
J-60	1,605.30	0	65	1,756.21
J-100	1,605.50	0	65	1,756.25
J-110	1,605.00	0	65	1,756.25
J-120	1,600.64	0	67	1,756.25
J-150	1,593.00	0	71	1,756.28
J-170	1,588.19	0	73	1,756.32
J-220	1,584.87	0	74	1,756.32
J-230	1,586.00	0	74	1,756.32

SEC Hayden-Loop 101 Project

FlexTable: Pipe Table

Active Scenario: Max Day Demand

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
EX P-05	EX J-10	EX FH-1 (FLOW B)	19	12.0	Ductile Iron	130.0	0	0.00
EX P-15	EX J-20	EX J-10	111	12.0	Ductile Iron	130.0	216	0.61
EX P-25	EX J-30	EX J-20	219	12.0	Ductile Iron	130.0	216	0.61
EX P-35	EX FH-2 (TEST)	EX J-30	121	12.0	Ductile Iron	130.0	216	0.61
EX P-45	EX J-50	EX FH-2 (TEST)	607	12.0	Ductile Iron	130.0	-170	0.48
EX P-55	EX FH-3 (FLOW A)	EX J-50	7	12.0	Ductile Iron	130.0	0	0.00
EX P-65	FH-12	EX FH-3 (FLOW A)	397	12.0	Ductile Iron	130.0	0	0.00
EX P-67	EX J-70	FH-12	8	12.0	Ductile Iron	130.0	0	0.00
EX P-75	EX J-80	EX J-70	889	12.0	Ductile Iron	130.0	0	0.00
EX P-85	EX J-90	EX J-80	85	12.0	Ductile Iron	130.0	0	0.00
EX P-95	EX J-100	EX J-90	58	12.0	Ductile Iron	130.0	0	0.00
EX P-105	EX J-110	EX J-100	561	16.0	Ductile Iron	130.0	0	0.00
P-05	J-10	EX J-10	53	12.0	Ductile Iron	130.0	-216	0.61
P-15	FH-1	J-10	158	12.0	Ductile Iron	130.0	-216	0.61
P-17	J-20	FH-1	15	12.0	Ductile Iron	130.0	-216	0.61
P-25	J-30	J-20	141	12.0	Ductile Iron	130.0	-216	0.61
P-35	FH-2	J-30	18	12.0	Ductile Iron	130.0	-292	0.83
P-45	J-46	FH-2	183	12.0	Ductile Iron	130.0	-292	0.83
P-47	FH-3	J-46	157	12.0	Ductile Iron	130.0	94	0.27
P-55	J-60	FH-3	105	12.0	Ductile Iron	130.0	94	0.27
P-65	J-60	FH-4	253	12.0	Ductile Iron	130.0	-94	0.27
P-75	FH-4	FH-5	303	12.0	Ductile Iron	130.0	-94	0.27
P-85	FH-5	FH-6	305	12.0	Ductile Iron	130.0	-94	0.27
P-95	J-100	FH-6	188	12.0	Ductile Iron	130.0	94	0.27
P-105	J-110	J-100	81	12.0	Ductile Iron	130.0	94	0.27
P-115	J-120	J-110	50	12.0	Ductile Iron	130.0	94	0.27
P-125	FH-7	J-120	327	12.0	Ductile Iron	130.0	94	0.27
P-135	FH-8	FH-7	400	12.0	Ductile Iron	130.0	94	0.27
P-145	J-150	FH-8	56	12.0	Ductile Iron	130.0	94	0.27
P-155	FH-9	J-150	306	12.0	Ductile Iron	130.0	170	0.48
P-165	J-170	FH-9	105	12.0	Ductile Iron	130.0	170	0.48
P-175	EX J-50	J-170	54	12.0	Ductile Iron	130.0	170	0.48
P-185	J-30	FH-10	398	12.0	Ductile Iron	130.0	-76	0.22
P-195	FH-10	FH-11	312	12.0	Ductile Iron	130.0	-76	0.22
P-205	FH-11	J-150	169	12.0	Ductile Iron	130.0	-76	0.22
P-215	J-220	EX J-70	36	12.0	Ductile Iron	130.0	0	0.00
P-225	J-230	J-220	277	12.0	Ductile Iron	130.0	0	0.00
P-235	FH-13	J-230	257	12.0	Ductile Iron	130.0	0	0.00
P-245	FH-14	FH-13	363	12.0	Ductile Iron	130.0	0	0.00
P-255	FH-15	FH-14	362	12.0	Ductile Iron	130.0	0	0.00
P-265	EX J-110	FH-15	116	12.0	Ductile Iron	130.0	0	0.00
P-PMP-1	PMP-1	EX FH-2 (TEST)	1	48.0	Ductile Iron	130.0	386	0.07
P-R-1	R-1	PMP-1	1	48.0	Ductile Iron	130.0	386	0.07

SEC Hayden-Loop 101 Project

FlexTable: Junction Table

Active Scenario: Peak Hour Demand

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
EX FH-1 (FLOW B)	1,595.30	0	69	1,754.52
EX FH-2 (TEST)	1,590.98	0	71	1,754.70
EX FH-3 (FLOW A)	1,586.00	0	73	1,754.54
EX J-10	1,595.30	0	69	1,754.52
EX J-20	1,595.10	0	69	1,754.56
EX J-30	1,592.18	0	70	1,754.65
EX J-50	1,586.00	0	73	1,754.54
EX J-70	1,584.45	0	74	1,754.54
EX J-80	1,581.95	0	75	1,754.54
EX J-90	1,583.61	0	74	1,754.54
EX J-100	1,584.83	0	73	1,754.54
EX J-110	1,591.24	0	71	1,754.54
FH-1	1,596.50	0	68	1,754.43
FH-2	1,601.60	0	66	1,754.35
FH-3	1,602.00	0	66	1,754.23
FH-4	1,605.00	0	65	1,754.26
FH-5	1,605.50	0	64	1,754.29
FH-6	1,604.50	0	65	1,754.32
FH-7	1,599.70	0	67	1,754.37
FH-8	1,594.00	0	69	1,754.41
FH-9	1,586.50	0	73	1,754.50
FH-10	1,594.53	0	69	1,754.39
FH-11	1,592.38	0	70	1,754.40
FH-12	1,584.48	0	74	1,754.54
FH-13	1,588.09	0	72	1,754.54
FH-14	1,591.62	0	70	1,754.54
FH-15	1,589.30	0	71	1,754.54
J-10	1,596.00	0	69	1,754.49
J-20	1,596.50	0	68	1,754.42
J-30	1,601.60	0	66	1,754.36
J-46	1,601.90	675	66	1,754.22
J-60	1,605.30	0	64	1,754.24
J-100	1,605.50	0	64	1,754.33
J-110	1,605.00	0	65	1,754.34
J-120	1,600.64	0	67	1,754.34
J-150	1,593.00	0	70	1,754.42
J-170	1,588.19	0	72	1,754.53
J-220	1,584.87	0	73	1,754.54
J-230	1,586.00	0	73	1,754.54

SEC Hayden-Loop 101 Project

FlexTable: Pipe Table

Active Scenario: Peak Hour Demand

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
EX P-05	EX J-10	EX FH-1 (FLOW B)	19	12.0	Ductile Iron	130.0	0	0.00
EX P-15	EX J-20	EX J-10	111	12.0	Ductile Iron	130.0	377	1.07
EX P-25	EX J-30	EX J-20	219	12.0	Ductile Iron	130.0	377	1.07
EX P-35	EX FH-2 (TEST)	EX J-30	121	12.0	Ductile Iron	130.0	377	1.07
EX P-45	EX J-50	EX FH-2 (TEST)	607	12.0	Ductile Iron	130.0	-298	0.84
EX P-55	EX FH-3 (FLOW A)	EX J-50	7	12.0	Ductile Iron	130.0	0	0.00
EX P-65	FH-12	EX FH-3 (FLOW A)	397	12.0	Ductile Iron	130.0	0	0.00
EX P-67	EX J-70	FH-12	8	12.0	Ductile Iron	130.0	0	0.00
EX P-75	EX J-80	EX J-70	889	12.0	Ductile Iron	130.0	0	0.00
EX P-85	EX J-90	EX J-80	85	12.0	Ductile Iron	130.0	0	0.00
EX P-95	EX J-100	EX J-90	58	12.0	Ductile Iron	130.0	0	0.00
EX P-105	EX J-110	EX J-100	561	16.0	Ductile Iron	130.0	0	0.00
P-05	J-10	EX J-10	53	12.0	Ductile Iron	130.0	-377	1.07
P-15	FH-1	J-10	158	12.0	Ductile Iron	130.0	-377	1.07
P-17	J-20	FH-1	15	12.0	Ductile Iron	130.0	-377	1.07
P-25	J-30	J-20	141	12.0	Ductile Iron	130.0	-377	1.07
P-35	FH-2	J-30	18	12.0	Ductile Iron	130.0	-510	1.45
P-45	J-46	FH-2	183	12.0	Ductile Iron	130.0	-510	1.45
P-47	FH-3	J-46	157	12.0	Ductile Iron	130.0	165	0.47
P-55	J-60	FH-3	105	12.0	Ductile Iron	130.0	165	0.47
P-65	J-60	FH-4	253	12.0	Ductile Iron	130.0	-165	0.47
P-75	FH-4	FH-5	303	12.0	Ductile Iron	130.0	-165	0.47
P-85	FH-5	FH-6	305	12.0	Ductile Iron	130.0	-165	0.47
P-95	J-100	FH-6	188	12.0	Ductile Iron	130.0	165	0.47
P-105	J-110	J-100	81	12.0	Ductile Iron	130.0	165	0.47
P-115	J-120	J-110	50	12.0	Ductile Iron	130.0	165	0.47
P-125	FH-7	J-120	327	12.0	Ductile Iron	130.0	165	0.47
P-135	FH-8	FH-7	400	12.0	Ductile Iron	130.0	165	0.47
P-145	J-150	FH-8	56	12.0	Ductile Iron	130.0	165	0.47
P-155	FH-9	J-150	306	12.0	Ductile Iron	130.0	298	0.84
P-165	J-170	FH-9	105	12.0	Ductile Iron	130.0	298	0.84
P-175	EX J-50	J-170	54	12.0	Ductile Iron	130.0	298	0.84
P-185	J-30	FH-10	398	12.0	Ductile Iron	130.0	-133	0.38
P-195	FH-10	FH-11	312	12.0	Ductile Iron	130.0	-133	0.38
P-205	FH-11	J-150	169	12.0	Ductile Iron	130.0	-133	0.38
P-215	J-220	EX J-70	36	12.0	Ductile Iron	130.0	0	0.00
P-225	J-230	J-220	277	12.0	Ductile Iron	130.0	0	0.00
P-235	FH-13	J-230	257	12.0	Ductile Iron	130.0	0	0.00
P-245	FH-14	FH-13	363	12.0	Ductile Iron	130.0	0	0.00
P-255	FH-15	FH-14	362	12.0	Ductile Iron	130.0	0	0.00
P-265	EX J-110	FH-15	116	12.0	Ductile Iron	130.0	0	0.00
P-PMP-1	PMP-1	EX FH-2 (TEST)	1	48.0	Ductile Iron	130.0	675	0.12
P-R-1	R-1	PMP-1	1	48.0	Ductile Iron	130.0	675	0.12

SEC Hayden-Loop 101 Project

FlexTable: Junction Table

Active Scenario: Fire Flow + Max Day

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
EX FH-1 (FLOW B)	1,595.30	0	38	1,682.30
EX FH-2 (TEST)	1,590.98	0	42	1,687.05
EX FH-3 (FLOW A)	1,586.00	0	42	1,682.21
EX J-10	1,595.30	0	38	1,682.30
EX J-20	1,595.10	0	38	1,683.47
EX J-30	1,592.18	0	40	1,685.78
EX J-50	1,586.00	0	42	1,682.21
EX J-70	1,584.45	0	42	1,682.21
EX J-80	1,581.95	0	43	1,682.21
EX J-90	1,583.61	0	43	1,682.21
EX J-100	1,584.83	0	42	1,682.21
EX J-110	1,591.24	0	39	1,682.21
FH-1	1,596.50	0	36	1,680.09
FH-2	1,601.60	0	33	1,678.22
FH-3	1,602.00	0	31	1,674.68
FH-4	1,605.00	0	29	1,671.62
FH-5	1,605.50	3,625	27	1,669.03
FH-6	1,604.50	0	29	1,671.08
FH-7	1,599.70	0	33	1,675.44
FH-8	1,594.00	0	36	1,678.13
FH-9	1,586.50	0	41	1,680.95
FH-10	1,594.53	0	36	1,678.47
FH-11	1,592.38	0	37	1,678.50
FH-12	1,584.48	0	42	1,682.21
FH-13	1,588.09	0	41	1,682.21
FH-14	1,591.62	0	39	1,682.21
FH-15	1,589.30	0	40	1,682.21
J-10	1,596.00	0	37	1,681.74
J-20	1,596.50	0	36	1,679.92
J-30	1,601.60	0	33	1,678.44
J-46	1,601.90	386	32	1,676.02
J-60	1,605.30	0	30	1,673.78
J-100	1,605.50	0	29	1,672.35
J-110	1,605.00	0	29	1,672.90
J-120	1,600.64	0	31	1,673.24
J-150	1,593.00	0	37	1,678.51
J-170	1,588.19	0	40	1,681.78
J-220	1,584.87	0	42	1,682.21
J-230	1,586.00	0	42	1,682.21

SEC Hayden-Loop 101 Project

FlexTable: Pipe Table

Active Scenario: Fire Flow + Max Day

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
EX P-05	EX J-10	EX FH-1 (FLOW B)	19	12.0	Ductile Iron	130.0	0	0.00
EX P-15	EX J-20	EX J-10	111	12.0	Ductile Iron	130.0	2,156	6.12
EX P-25	EX J-30	EX J-20	219	12.0	Ductile Iron	130.0	2,156	6.12
EX P-35	EX FH-2 (TEST)	EX J-30	121	12.0	Ductile Iron	130.0	2,156	6.12
EX P-45	EX J-50	EX FH-2 (TEST)	607	12.0	Ductile Iron	130.0	-1,854	5.26
EX P-55	EX FH-3 (FLOW A)	EX J-50	7	12.0	Ductile Iron	130.0	0	0.00
EX P-65	FH-12	EX FH-3 (FLOW A)	397	12.0	Ductile Iron	130.0	0	0.00
EX P-67	EX J-70	FH-12	8	12.0	Ductile Iron	130.0	0	0.00
EX P-75	EX J-80	EX J-70	889	12.0	Ductile Iron	130.0	0	0.00
EX P-85	EX J-90	EX J-80	85	12.0	Ductile Iron	130.0	0	0.00
EX P-95	EX J-100	EX J-90	58	12.0	Ductile Iron	130.0	0	0.00
EX P-105	EX J-110	EX J-100	561	16.0	Ductile Iron	130.0	0	0.00
P-05	J-10	EX J-10	53	12.0	Ductile Iron	130.0	-2,156	6.12
P-15	FH-1	J-10	158	12.0	Ductile Iron	130.0	-2,156	6.12
P-17	J-20	FH-1	15	12.0	Ductile Iron	130.0	-2,156	6.12
P-25	J-30	J-20	141	12.0	Ductile Iron	130.0	-2,156	6.12
P-35	FH-2	J-30	18	12.0	Ductile Iron	130.0	-2,315	6.57
P-45	J-46	FH-2	183	12.0	Ductile Iron	130.0	-2,315	6.57
P-47	FH-3	J-46	157	12.0	Ductile Iron	130.0	-1,929	5.47
P-55	J-60	FH-3	105	12.0	Ductile Iron	130.0	-1,929	5.47
P-65	J-60	FH-4	253	12.0	Ductile Iron	130.0	1,929	5.47
P-75	FH-4	FH-5	303	12.0	Ductile Iron	130.0	1,929	5.47
P-85	FH-5	FH-6	305	12.0	Ductile Iron	130.0	-1,696	4.81
P-95	J-100	FH-6	188	12.0	Ductile Iron	130.0	1,696	4.81
P-105	J-110	J-100	81	12.0	Ductile Iron	130.0	1,696	4.81
P-115	J-120	J-110	50	12.0	Ductile Iron	130.0	1,696	4.81
P-125	FH-7	J-120	327	12.0	Ductile Iron	130.0	1,696	4.81
P-135	FH-8	FH-7	400	12.0	Ductile Iron	130.0	1,696	4.81
P-145	J-150	FH-8	56	12.0	Ductile Iron	130.0	1,696	4.81
P-155	FH-9	J-150	306	12.0	Ductile Iron	130.0	1,854	5.26
P-165	J-170	FH-9	105	12.0	Ductile Iron	130.0	1,854	5.26
P-175	EX J-50	J-170	54	12.0	Ductile Iron	130.0	1,854	5.26
P-185	J-30	FH-10	398	12.0	Ductile Iron	130.0	-159	0.45
P-195	FH-10	FH-11	312	12.0	Ductile Iron	130.0	-159	0.45
P-205	FH-11	J-150	169	12.0	Ductile Iron	130.0	-159	0.45
P-215	J-220	EX J-70	36	12.0	Ductile Iron	130.0	0	0.00
P-225	J-230	J-220	277	12.0	Ductile Iron	130.0	0	0.00
P-235	FH-13	J-230	257	12.0	Ductile Iron	130.0	0	0.00
P-245	FH-14	FH-13	363	12.0	Ductile Iron	130.0	0	0.00
P-255	FH-15	FH-14	362	12.0	Ductile Iron	130.0	0	0.00
P-265	EX J-110	FH-15	116	12.0	Ductile Iron	130.0	0	0.00
P-PMP-1	PMP-1	EX FH-2 (TEST)	1	48.0	Ductile Iron	130.0	4,011	0.71
P-R-1	R-1	PMP-1	1	48.0	Ductile Iron	130.0	4,011	0.71

SEC Hayden-Loop 101 Project

FlexTable: Junction Table

Active Scenario: Fire Flow + Max Day (Six Hydrants)

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
EX FH-1 (FLOW B)	1,595.30	0	38	1,682.35
EX FH-2 (TEST)	1,590.98	0	42	1,687.05
EX FH-3 (FLOW A)	1,586.00	0	42	1,682.17
EX J-10	1,595.30	0	38	1,682.35
EX J-20	1,595.10	0	38	1,683.50
EX J-30	1,592.18	0	40	1,685.79
EX J-50	1,586.00	0	42	1,682.17
EX J-70	1,584.45	0	42	1,682.17
EX J-80	1,581.95	0	43	1,682.17
EX J-90	1,583.61	0	43	1,682.17
EX J-100	1,584.83	0	42	1,682.17
EX J-110	1,591.24	0	39	1,682.17
FH-1	1,596.50	0	36	1,680.15
FH-2	1,601.60	0	33	1,678.35
FH-3	1,602.00	604	32	1,675.76
FH-4	1,605.00	604	30	1,674.88
FH-5	1,605.50	604	30	1,674.75
FH-6	1,604.50	604	30	1,674.79
FH-7	1,599.70	604	33	1,675.94
FH-8	1,594.00	604	36	1,677.90
FH-9	1,586.50	0	41	1,680.89
FH-10	1,594.53	0	36	1,678.47
FH-11	1,592.38	0	37	1,678.44
FH-12	1,584.48	0	42	1,682.17
FH-13	1,588.09	0	41	1,682.17
FH-14	1,591.62	0	39	1,682.17
FH-15	1,589.30	0	40	1,682.17
J-10	1,596.00	0	37	1,681.79
J-20	1,596.50	0	36	1,679.98
J-30	1,601.60	0	33	1,678.51
J-46	1,601.90	386	32	1,676.71
J-60	1,605.30	0	30	1,675.51
J-100	1,605.50	0	30	1,675.13
J-110	1,605.00	0	30	1,675.27
J-120	1,600.64	0	32	1,675.36
J-150	1,593.00	0	37	1,678.43
J-170	1,588.19	0	40	1,681.73
J-220	1,584.87	0	42	1,682.17
J-230	1,586.00	0	42	1,682.17

SEC Hayden-Loop 101 Project

FlexTable: Pipe Table

Active Scenario: Fire Flow + Max Day (Six Hydrants)

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
EX P-05	EX J-10	EX FH-1 (FLOW B)	19	12.0	Ductile Iron	130.0	0	0.00
EX P-15	EX J-20	EX J-10	111	12.0	Ductile Iron	130.0	2,147	6.09
EX P-25	EX J-30	EX J-20	219	12.0	Ductile Iron	130.0	2,147	6.09
EX P-35	EX FH-2 (TEST)	EX J-30	121	12.0	Ductile Iron	130.0	2,147	6.09
EX P-45	EX J-50	EX FH-2 (TEST)	607	12.0	Ductile Iron	130.0	-1,864	5.29
EX P-55	EX FH-3 (FLOW A)	EX J-50	7	12.0	Ductile Iron	130.0	0	0.00
EX P-65	FH-12	EX FH-3 (FLOW A)	397	12.0	Ductile Iron	130.0	0	0.00
EX P-67	EX J-70	FH-12	8	12.0	Ductile Iron	130.0	0	0.00
EX P-75	EX J-80	EX J-70	889	12.0	Ductile Iron	130.0	0	0.00
EX P-85	EX J-90	EX J-80	85	12.0	Ductile Iron	130.0	0	0.00
EX P-95	EX J-100	EX J-90	58	12.0	Ductile Iron	130.0	0	0.00
EX P-105	EX J-110	EX J-100	561	16.0	Ductile Iron	130.0	0	0.00
P-05	J-10	EX J-10	53	12.0	Ductile Iron	130.0	-2,147	6.09
P-15	FH-1	J-10	158	12.0	Ductile Iron	130.0	-2,147	6.09
P-17	J-20	FH-1	15	12.0	Ductile Iron	130.0	-2,147	6.09
P-25	J-30	J-20	141	12.0	Ductile Iron	130.0	-2,147	6.09
P-35	FH-2	J-30	18	12.0	Ductile Iron	130.0	-1,978	5.61
P-45	J-46	FH-2	183	12.0	Ductile Iron	130.0	-1,978	5.61
P-47	FH-3	J-46	157	12.0	Ductile Iron	130.0	-1,592	4.52
P-55	J-60	FH-3	105	12.0	Ductile Iron	130.0	-988	2.80
P-65	J-60	FH-4	253	12.0	Ductile Iron	130.0	988	2.80
P-75	FH-4	FH-5	303	12.0	Ductile Iron	130.0	384	1.09
P-85	FH-5	FH-6	305	12.0	Ductile Iron	130.0	-220	0.62
P-95	J-100	FH-6	188	12.0	Ductile Iron	130.0	824	2.34
P-105	J-110	J-100	81	12.0	Ductile Iron	130.0	824	2.34
P-115	J-120	J-110	50	12.0	Ductile Iron	130.0	824	2.34
P-125	FH-7	J-120	327	12.0	Ductile Iron	130.0	824	2.34
P-135	FH-8	FH-7	400	12.0	Ductile Iron	130.0	1,429	4.05
P-145	J-150	FH-8	56	12.0	Ductile Iron	130.0	2,033	5.77
P-155	FH-9	J-150	306	12.0	Ductile Iron	130.0	1,864	5.29
P-165	J-170	FH-9	105	12.0	Ductile Iron	130.0	1,864	5.29
P-175	EX J-50	J-170	54	12.0	Ductile Iron	130.0	1,864	5.29
P-185	J-30	FH-10	398	12.0	Ductile Iron	130.0	168	0.48
P-195	FH-10	FH-11	312	12.0	Ductile Iron	130.0	168	0.48
P-205	FH-11	J-150	169	12.0	Ductile Iron	130.0	168	0.48
P-215	J-220	EX J-70	36	12.0	Ductile Iron	130.0	0	0.00
P-225	J-230	J-220	277	12.0	Ductile Iron	130.0	0	0.00
P-235	FH-13	J-230	257	12.0	Ductile Iron	130.0	0	0.00
P-245	FH-14	FH-13	363	12.0	Ductile Iron	130.0	0	0.00
P-255	FH-15	FH-14	362	12.0	Ductile Iron	130.0	0	0.00
P-265	EX J-110	FH-15	116	12.0	Ductile Iron	130.0	0	0.00
P-PMP-1	PMP-1	EX FH-2 (TEST)	1	48.0	Ductile Iron	130.0	4,011	0.71
P-R-1	R-1	PMP-1	1	48.0	Ductile Iron	130.0	4,011	0.71

SEC Hayden-Loop 101 Project

FlexTable: Junction Table

Active Scenario: Fire Flow + Max Day (Raw Flow Test Results)

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
EX FH-1 (FLOW B)	1,595.30	0	50	1,710.02
EX FH-2 (TEST)	1,590.98	0	54	1,714.76
EX FH-3 (FLOW A)	1,586.00	0	54	1,709.93
EX J-10	1,595.30	0	50	1,710.02
EX J-20	1,595.10	0	50	1,711.19
EX J-30	1,592.18	0	52	1,713.49
EX J-50	1,586.00	0	54	1,709.93
EX J-70	1,584.45	0	54	1,709.93
EX J-80	1,581.95	0	55	1,709.93
EX J-90	1,583.61	0	55	1,709.93
EX J-100	1,584.83	0	54	1,709.93
EX J-110	1,591.24	0	51	1,709.93
FH-1	1,596.50	0	48	1,707.80
FH-2	1,601.60	0	45	1,705.94
FH-3	1,602.00	0	43	1,702.40
FH-4	1,605.00	0	41	1,699.34
FH-5	1,605.50	3,625	39	1,696.75
FH-6	1,604.50	0	41	1,698.80
FH-7	1,599.70	0	45	1,703.16
FH-8	1,594.00	0	48	1,705.85
FH-9	1,586.50	0	53	1,708.66
FH-10	1,594.53	0	48	1,706.19
FH-11	1,592.38	0	49	1,706.21
FH-12	1,584.48	0	54	1,709.93
FH-13	1,588.09	0	53	1,709.93
FH-14	1,591.62	0	51	1,709.93
FH-15	1,589.30	0	52	1,709.93
J-10	1,596.00	0	49	1,709.46
J-20	1,596.50	0	48	1,707.64
J-30	1,601.60	0	45	1,706.15
J-46	1,601.90	386	44	1,703.74
J-60	1,605.30	0	42	1,701.50
J-100	1,605.50	0	41	1,700.07
J-110	1,605.00	0	41	1,700.62
J-120	1,600.64	0	43	1,700.95
J-150	1,593.00	0	49	1,706.23
J-170	1,588.19	0	52	1,709.50
J-220	1,584.87	0	54	1,709.93
J-230	1,586.00	0	54	1,709.93

SEC Hayden-Loop 101 Project

FlexTable: Pipe Table

Active Scenario: Fire Flow + Max Day (Raw Flow Test Results)

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
EX P-05	EX J-10	EX FH-1 (FLOW B)	19	12.0	Ductile Iron	130.0	0	0.00
EX P-15	EX J-20	EX J-10	111	12.0	Ductile Iron	130.0	2,156	6.12
EX P-25	EX J-30	EX J-20	219	12.0	Ductile Iron	130.0	2,156	6.12
EX P-35	EX FH-2 (TEST)	EX J-30	121	12.0	Ductile Iron	130.0	2,156	6.12
EX P-45	EX J-50	EX FH-2 (TEST)	607	12.0	Ductile Iron	130.0	-1,854	5.26
EX P-55	EX FH-3 (FLOW A)	EX J-50	7	12.0	Ductile Iron	130.0	0	0.00
EX P-65	FH-12	EX FH-3 (FLOW A)	397	12.0	Ductile Iron	130.0	0	0.00
EX P-67	EX J-70	FH-12	8	12.0	Ductile Iron	130.0	0	0.00
EX P-75	EX J-80	EX J-70	889	12.0	Ductile Iron	130.0	0	0.00
EX P-85	EX J-90	EX J-80	85	12.0	Ductile Iron	130.0	0	0.00
EX P-95	EX J-100	EX J-90	58	12.0	Ductile Iron	130.0	0	0.00
EX P-105	EX J-110	EX J-100	561	16.0	Ductile Iron	130.0	0	0.00
P-05	J-10	EX J-10	53	12.0	Ductile Iron	130.0	-2,156	6.12
P-15	FH-1	J-10	158	12.0	Ductile Iron	130.0	-2,156	6.12
P-17	J-20	FH-1	15	12.0	Ductile Iron	130.0	-2,156	6.12
P-25	J-30	J-20	141	12.0	Ductile Iron	130.0	-2,156	6.12
P-35	FH-2	J-30	18	12.0	Ductile Iron	130.0	-2,315	6.57
P-45	J-46	FH-2	183	12.0	Ductile Iron	130.0	-2,315	6.57
P-47	FH-3	J-46	157	12.0	Ductile Iron	130.0	-1,929	5.47
P-55	J-60	FH-3	105	12.0	Ductile Iron	130.0	-1,929	5.47
P-65	J-60	FH-4	253	12.0	Ductile Iron	130.0	1,929	5.47
P-75	FH-4	FH-5	303	12.0	Ductile Iron	130.0	1,929	5.47
P-85	FH-5	FH-6	305	12.0	Ductile Iron	130.0	-1,696	4.81
P-95	J-100	FH-6	188	12.0	Ductile Iron	130.0	1,696	4.81
P-105	J-110	J-100	81	12.0	Ductile Iron	130.0	1,696	4.81
P-115	J-120	J-110	50	12.0	Ductile Iron	130.0	1,696	4.81
P-125	FH-7	J-120	327	12.0	Ductile Iron	130.0	1,696	4.81
P-135	FH-8	FH-7	400	12.0	Ductile Iron	130.0	1,696	4.81
P-145	J-150	FH-8	56	12.0	Ductile Iron	130.0	1,696	4.81
P-155	FH-9	J-150	306	12.0	Ductile Iron	130.0	1,854	5.26
P-165	J-170	FH-9	105	12.0	Ductile Iron	130.0	1,854	5.26
P-175	EX J-50	J-170	54	12.0	Ductile Iron	130.0	1,854	5.26
P-185	J-30	FH-10	398	12.0	Ductile Iron	130.0	-159	0.45
P-195	FH-10	FH-11	312	12.0	Ductile Iron	130.0	-159	0.45
P-205	FH-11	J-150	169	12.0	Ductile Iron	130.0	-159	0.45
P-215	J-220	EX J-70	36	12.0	Ductile Iron	130.0	0	0.00
P-225	J-230	J-220	277	12.0	Ductile Iron	130.0	0	0.00
P-235	FH-13	J-230	257	12.0	Ductile Iron	130.0	0	0.00
P-245	FH-14	FH-13	363	12.0	Ductile Iron	130.0	0	0.00
P-255	FH-15	FH-14	362	12.0	Ductile Iron	130.0	0	0.00
P-265	EX J-110	FH-15	116	12.0	Ductile Iron	130.0	0	0.00
P-PMP-1	PMP-1	EX FH-2 (TEST)	1	48.0	Ductile Iron	130.0	4,011	0.71
P-R-1	R-1	PMP-1	1	48.0	Ductile Iron	130.0	4,011	0.71

FIRE HYDRANT FLOW TEST

Arizona Flow Testing LLC

HYDRANT FLOW TEST REPORT

Project Name:	Hayden/ Union Hills
Project Address:	Union Hills & 82nd Street, Scottsdale, Arizona, 85255
Client Project No.:	Not Provided
Arizona Flow Testing Project No.:	20095
Flow Test Permit No.:	C61530
Date and time flow test conducted:	March 12, 2020 at 8:30 AM
Data is current and reliable until:	September 12, 2020
Conducted by:	F. Vaughan & T. Atherton – Az. Flow Testing, LLC (480-250-8154)
Coordinated by:	Jared Berry – City of Scottsdale-Inspector (602-541-4942)

Raw Test Data

Static Pressure: **84.0 PSI**
(Measured in pounds per square inch)

Residual Pressure: **55.0 PSI**
(Measured in pounds per square inch)

Pitot Pressure: **18.0 PSI Hyd A**
29.0 PSI Hyd B
(Measured in pounds per square inch)

Diffuser Orifice Diameter: One 4-inch Hose Monster (B)
(Measured in inches) One 4 inch Pollard Diffuser (A)

Coefficient of Diffuser: 0.7875/(B) and 0.9/(A)

Flowing GPM: **3,909 GPM**
(Measured in gallons per minute)
1,595 GPM + 2,314 GPM = 3,909 GPM

GPM @ 20 PSI: **5,994 GPM**

Data with 12 PSI Safety Factor

Static Pressure: **72.0 PSI**
(Measured in pounds per square inch)

Scottsdale requires a maximum Static Pressure of 72 PSI for AFES Design.

Residual Pressure: **43.0 PSI**
(Measured in pounds per square inch)

Distance between hydrants: See Below

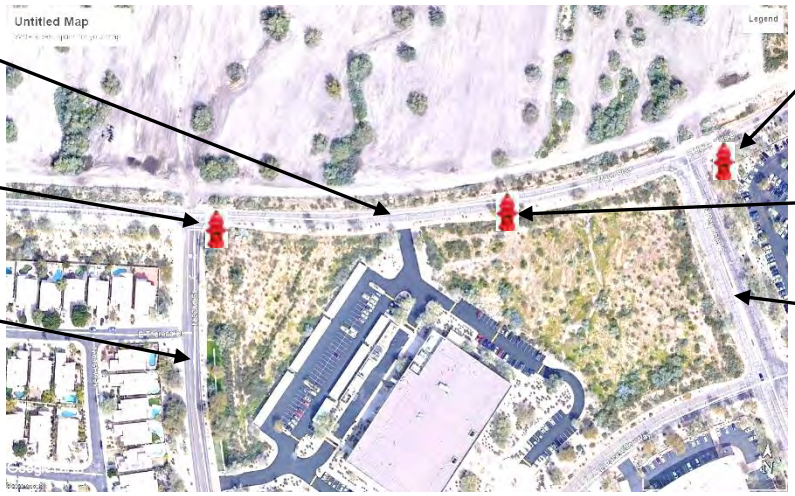
Main size: Not Provided

Flowing GPM: **3,909 GPM**

GPM @ 20 PSI**:** **5,359 GPM**

Flow Test Location

North



East Mayo Blvd.

Flow Fire Hydrant A
(630 Feet from Pressure Hydrant)

North 82nd Street

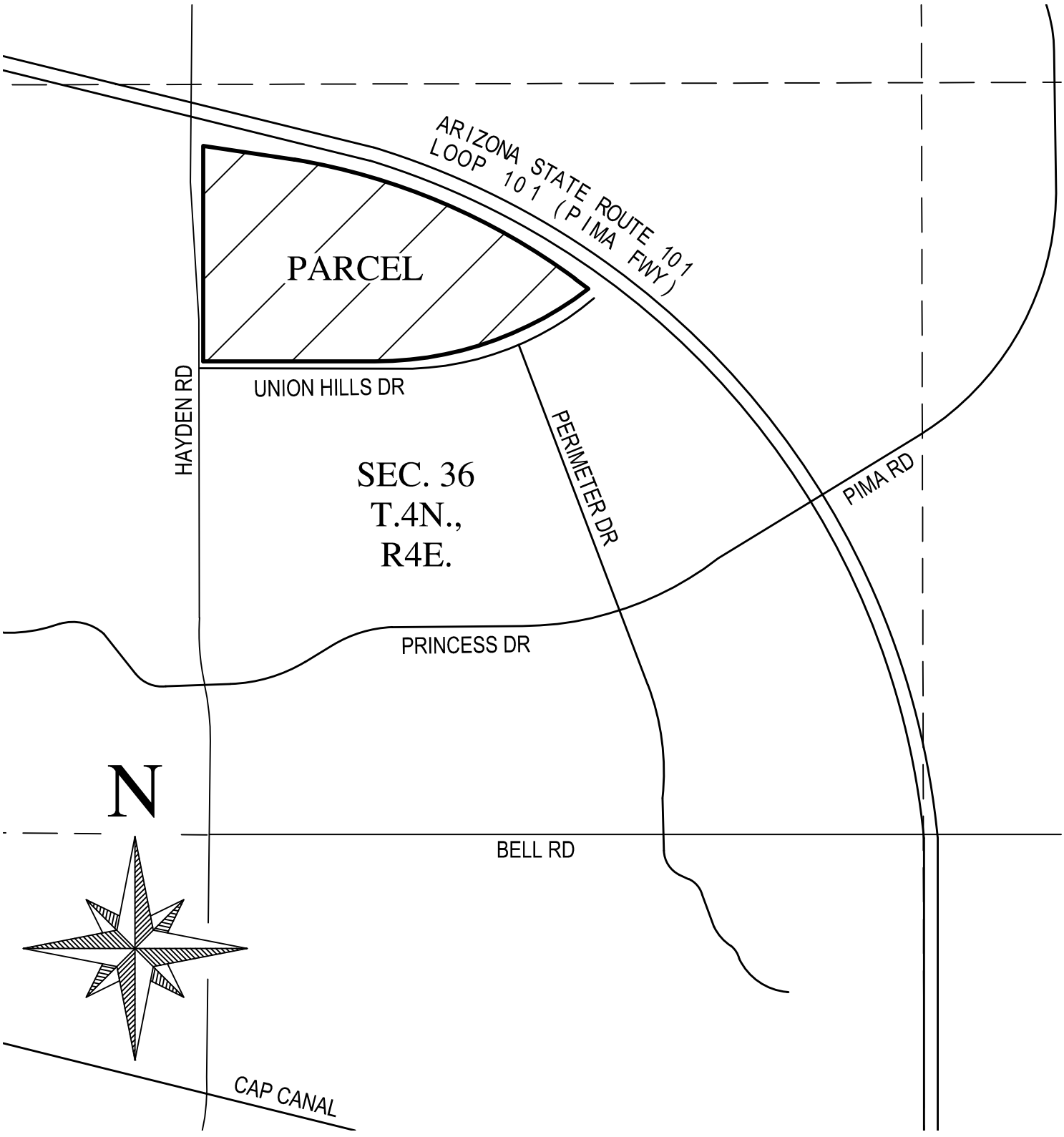
Flow Fire Hydrant B
(450 Feet from Pressure Hydrant)

Pressure Fire Hydrant

North Perimeter Drive

Project Site
Union Hills & 82nd Street

VICINITY MAP



WOOD PATEL

SEC HAYDEN-LOOP 101 PROJECT

VICINITY MAP

DATE	9/01/2020	SCALE	1" = 1000'	SHEET	1 OF 1
JOB NO.	205133	DESIGN	BJ	CHECK	NEB
		DRAWN	ACH		

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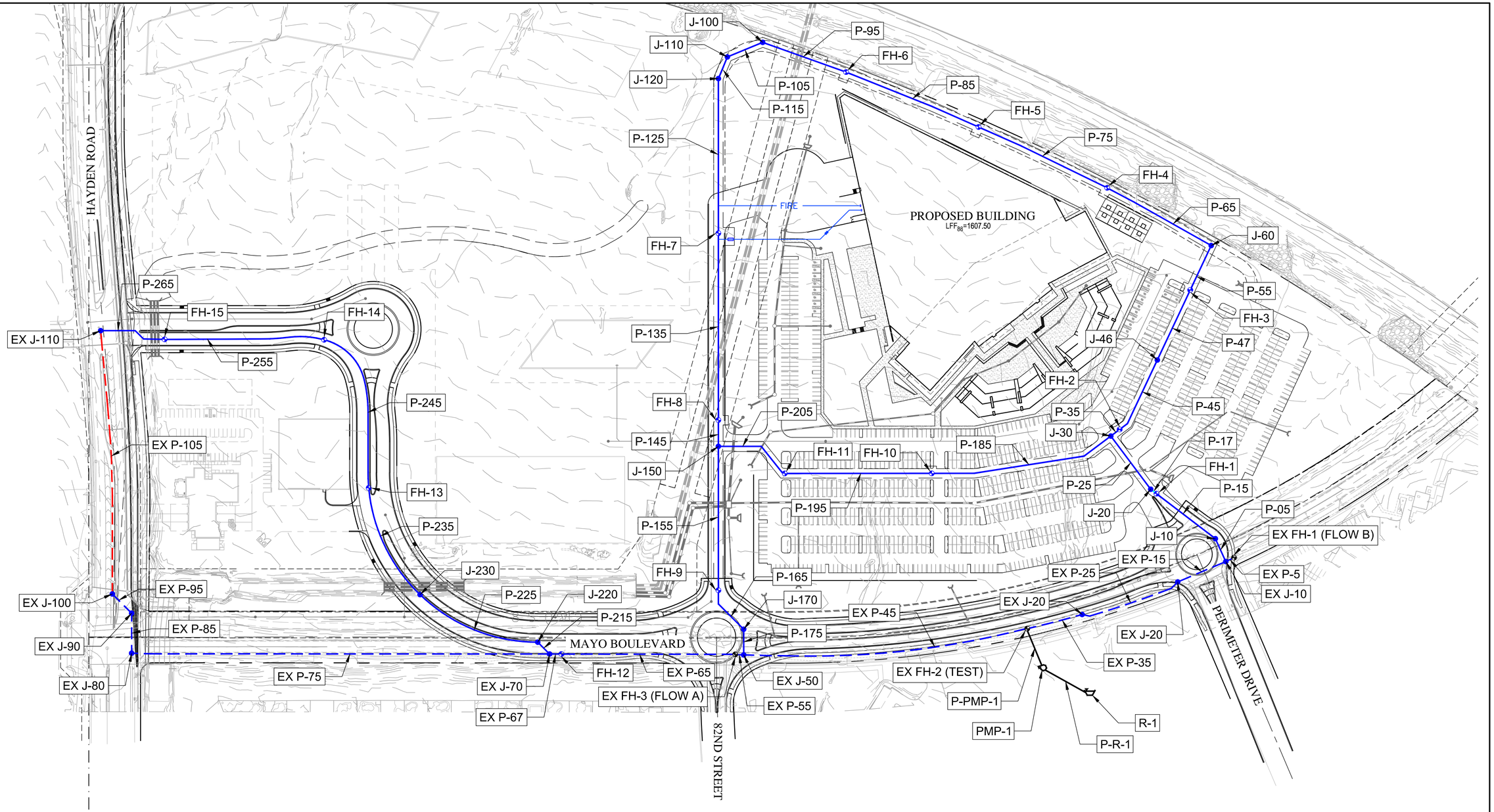
WATER EXHIBIT



N

0 50 100

Horz. 1 in. = 100 ft.

LEGEND

- PROPOSED FIRE HYDRANT
- EXISTING FIRE HYDRANT
- EXISTING 16" WATER PIPE
- EXISTING 12" WATER PIPE
- PROPOSED 12" WATER PIPE
- PROPERTY BOUNDARY
- HYDRAULIC MODEL JUNCTION NODE AND LABEL (J-10)
- HYDRAULIC MODEL PIPE LABEL (P-10)
- HYDRAULIC MODEL BACKFLOW AND LABEL (B-1)

NOT FOR CONSTRUCTION OR RECORDING

WOOD PATEL

SEC HAYDEN-LOOP 101 PROJECT

WATER SYSTEM MAP

DATE	09-10-2020	SCALE	1" = 100'	SHEET	1 OF 1
JOB NO.	205133	DESIGN	JB	DRAWN	ZR

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WOOD PATEL

PRELIMINARY WASTEWATER COLLECTION SYSTEM
BASIS OF DESIGN REPORT
FOR
SEC HAYDEN-LOOP 101 PROJECT

September 10, 2020
WP# 205133

WOOD PATEL

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Phoenix AZ 85021
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Darin L. Moore, PE, LEED GA
Jeffrey R. Minch, PE, CFM
Robert D. Gofonia, PE, RLS
Nicholas E. Brown, PE

September 10, 2020

Mr. Levi Dillon, PE
Sr. Water Resource Engineer
City of Scottsdale
9379 East San Salvador Drive
Scottsdale, Arizona 85258

480.312.5319
ldillon@scottsdaleaz.gov

Re: **SEC Hayden-Loop 101 Project**
Preliminary Wastewater Collection System Basis of Design Report
WP# 205133

Dear Mr. Dillon:

The proposed SEC Hayden-Loop 101 project (Site) is a 74.44-acre site, located in the northwest quarter of Section 36, Township 4 North, Range 4 East of the Gila and Salt River Meridian. More specifically, the Site is located at the northeast corner of Hayden Road and Mayo Boulevard. Refer to the Vicinity Map at the back of this report for project location. Proposed improvements for the Site include a realignment of the existing Mayo Boulevard, one (1) proposed mixed-used structure and associated parking, landscape, hardscape and utilities. The proposed structure is comprised of two (2) buildings separated by a fire wall. Building 1 is a proposed 5-story building with approximately 216,225 square-feet of office and 33,310 square-feet of industrial space. Building 2 is a proposed 114,535 square-foot single story industrial building.

Wastewater flows from the proposed building will discharge to a proposed 8-inch onsite sewer line. The proposed 8-inch onsite sewer line will connect to a proposed 8-inch offsite/public sewer line (south collection system) in Mayo Boulevard along the south side of the site. The proposed 8-inch offsite/public sewer line will connect to an existing 8-inch stub at the intersection of Hayden Road and Mayo Boulevard which outfalls to an existing manhole in Hayden Road. The proposed 8-inch onsite and offsite/public sewer lines are intended to also serve a portion of future development on the Site. Additionally, a proposed 8-inch offsite/public sewer line (north collection system) will be constructed in the realigned Mayo Boulevard and is intended to also serve future development on Site. This proposed 8-inch offsite/public sewer line will outfall to the existing 12-inch sewer line in Hayden Road. The north sewer collection system has been omitted from the attached capacity calculations and will be analyzed as part of the Master Planning for the Site. Refer to the attached Wastewater Exhibit for a depiction of the existing and proposed wastewater infrastructure for the Site.

The design criteria used to estimate wastewater flows and evaluate system hydraulics are based on Wood, Patel & Associates, Inc.'s (WOODPATEL) understanding of the published *City of Scottsdale Design Standards and Policies Manual*, 2018 and City of *Phoenix Design Standards Manual for Water and Wastewater Systems*, 2017. The following is a summary of the primary design criteria utilized:

- Average Day Wastewater Demand, Office: ..... 0.4 gpd / sq. ft
- Average Day Wastewater Demand, Industrial (Phoenix): .....50 gpd / 1,000 sq. ft
- Peak Factor, Office: 3
- Peak Factor, Industrial: .....$1+14/(4+P^{1/2})$
- Minimum Mean Full Flow Velocity: .....2.50 fps
- Minimum Peak Full Flow Velocity: .....10.0 fps
- Minimum Peak Flow d/D Ratio (12" dia. or less sewers): ..... d/D = 0.65

Abbreviations: gpd = gallons per day; fps = feet per second; P=population/1,000

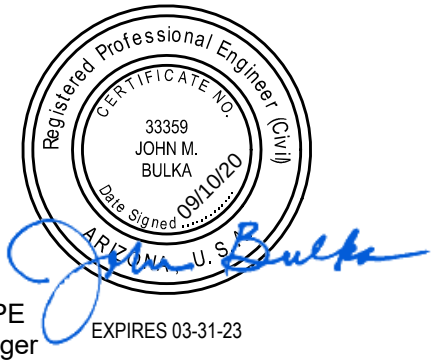
Based on the above design criteria, the projected average day flow for the proposed Site is calculated to be 93,883 gallons per day (gpd), or 65 gallons per minute (gpm). The peak flow is projected to be 292,681 gpd, or 203 gpm. The proposed sewer slopes, projected flow velocities, and pipe flow capacities are summarized on the attached spreadsheets.

It is assumed the infiltration and inflow from wet weather has been accounted for in the published design flow rates for the development and the maximum d/D. Therefore, those flows have not been added into the calculations. The proposed sanitary sewer collection system has been calculated to have an additional peak flow capacity of 134,502 gpd to serve future development.

Thank you for your review of the Preliminary Wastewater Collection System Basis of Design Report provided for the SEC Hayden-Loop 101 Project. Feel free to contact me if you have any questions.

Sincerely,

Wood, Patel & Associates, Inc.



John Bulka, PE
Project Manager

EXPIRES 03-31-23

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CALCULATIONS AND MODELING RESULTS

WOOD PATEL

TABLE 1
WASTEWATER DESIGN CRITERIA

Project	SEC Hayden-Loop 101 Project
Location	Scottsdale AZ
Project Number	205133
Project Engineer	John Bulka, P.E.
References	City of Scottsdale Design Standards and Policy Manual (2018)
	Arizona Administrative Code, Title 18, Chapter 9
	City of Phoenix Design Standards Manual for Water and Wastewater Systems (2017)

RESIDENTIAL WASTEWATER DEMANDS

LAND USE	AVERAGE DAILY DEMAND (ADD)		POPULATION[1]
	VALUE	UNITS	
Single Family Residential	250	gpd/DU	2.5 Persons per DU
Multi-Family Residential	220	gpd/DU	2.2 Persons per DU

NON-RESIDENTIAL WASTEWATER DEMANDS

LAND USE	AVERAGE DAILY DEMAND (ADD)		POPULATION[1]	Peaking Factor (PF)
	VALUE	UNITS		
Commercial/Retail	0.5	gpd/sf	0.005 Persons per sf	3
Office	0.4	gpd/sf	0.004 Persons per sf	3
Resturant	1.2	gpd/sf	0.012 Persons per sf	6
High Density Condominium	140	gpd/unit	1.4 Persons per unit	4.5
Resort Hotel	380	gpd/room	3.8 Persons per room	4.5
School: without cafeteria	30	gpd/student	0.3 Persons per Student	6
School: with cafeteria	50	gpd/student	0.5 Persons per Student	6
Cultural	0.1	gpd/sf	0.001 Persons per sf	3
Clubhouse for Subdivision Golf Course	200	gpd/DU	2 Persons per patron x2 patrons per du per day	4.5
Fitness Center/ Spa/ Health Club	0.8	gpd/sf	0.008 Persons per sf	3.5
Industrial	50	gpd/1,000 sf	0.5 Persons per 1,000 sf	See Below

HYDRAULIC MODELING CRITERIA

DESCRIPTION		VALUE
INDUSTRIAL PEAK FLOW[3]		
	Peak Flow = Peaking Factor (PF) x ADD	$[1+14/(4+P^{1/2})]$ x ADD
	(PF is based on upstream population, P = Population/1,000)	
HYDRAULICS		
	Minimum Pipe Diameter (in)	8
	Manning's "n" value	8
	Maximum d/D ratio at peak flow (D ≤ 12")	0.013
	Maximum d/D ratio at peak flow (D > 12")	0.65

PIPE SIZE	MEAN VELOCITY[2]		DESIGN SLOPE[2]	
(in)	Minimum (ft/sec)	Maximum (ft/sec)	Minimum (%)	Maximum (%)
8	2.5	10.0	0.520	6.980
10	2.5	10.0	0.390	5.121
12	2.5	10.0	0.310	3.919

Notes
1. Based on Arizona Administrative Code, Title 18, Chapter 9 value of 100 gallons per capita per day.
2. Per City of Scottsdale Design Standards and Policy Manual (2018)
3. Per City of Phoenix Design Standards Manual for Water and Wastewater Systems (2017)

TABLE 2
WASTEWATER MODEL

Project SEC Hayden-Loop 101 Project
Location Scottsdale AZ
Project Number 205133
Project Engineer John Bulka, P.E.
References City of Scottsdale Design Standards and Policy Manual (2018)
Arizona Administrative Code, Title 18, Chapter 9
City of Phoenix Design Standards Manual for Water and Wastewater Systems (2017)

		LAND USE																	
FROM NODE	**TO NODE**	**Single Family Residential (DU)**	**Multi-Family Residential (DU)**	**Commercial/Retail (sf)**	**Office (sf)**	**Resturant (sf)**	**High Density Condominium (unit)**	**Resort Hotel (room)**	**School: without cafeteria (student)**	**School: with cafeteria (student)**	**Cultural (sf)**	**Clubhouse for Subdivision Golf Course (DU)**	**Industrial (1,000 sf)**	**SEWER NODE ADD (gpd)**	**TOTAL ADD (gpd)**	**TOTAL ADD (gpm)**	**WEIGHTED PEAKING FACTOR[1]**	**PEAK FLOW (gpd)**	**PEAK FLOW (gpm)**
Outfall 1 North																			
MH-1	MH-2				216,225								147.85	93,883	93,883	65	3.1	292,681	203
MH-2	MH-3													0	93,883	65	3.1	292,681	203
MH-3	MH-4													0	93,883	65	3.1	292,681	203
MH-4	MH-5													0	93,883	65	3.1	292,681	203
MH-5	MH-7													0	93,883	65	3.1	292,681	203
MH-6	MH-7													--	--	--	--	--	--
MH-7	MH-8													0	93,883	65	3.1	292,681	203
MH-8	MH-9													0	93,883	65	3.1	292,681	203
MH-9	MH-10													0	93,883	65	3.1	292,681	203
MH-10	MH-13													0	93,883	65	3.1	292,681	203
MH-11	MH-12													--	--	--	--	--	--
MH-12	MH-13													--	--	--	--	--	--
MH-13	MH-14													0	93,883	65	3.1	292,681	203
MH-14	EX MH-1													0	93,883	65	3.1	292,681	203
Total Outfall 1		**0**	**0**	**0**	**216,225**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**147.85**	**93,883**	**93,883**	65	**3.1**	**292,681**	**203**

Note:
1. Weighted peaking factor based upon City of Scottsdale Design Standards and Policy Manual (2018) & City of Phoenix Design Standards Manual for Water and Wastewater Systems (2017) peaking factors for various land uses. The peaking factors are weighted in relation to total Average Day Demand for each use.

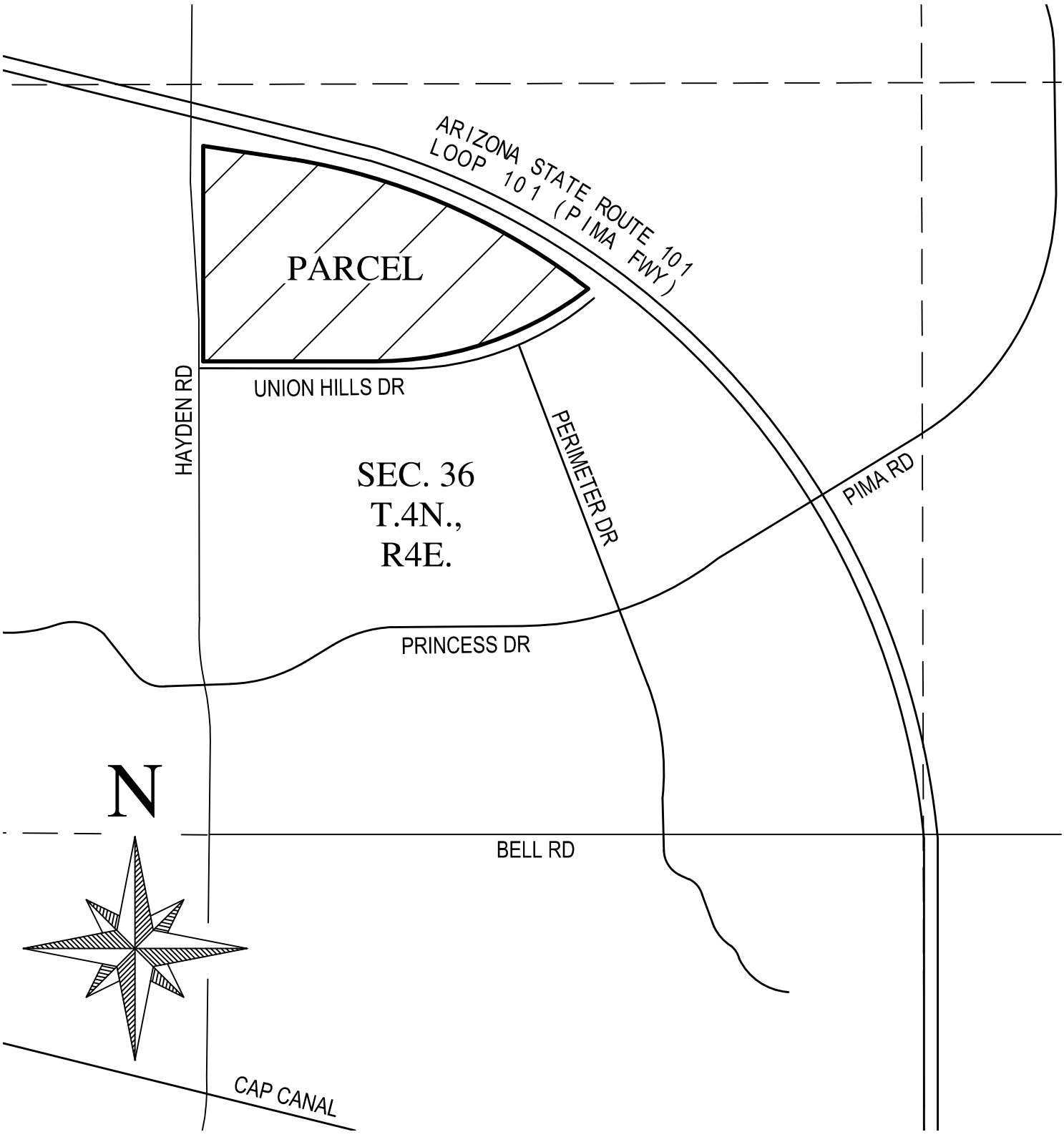
WOOD PATEL

TABLE 3
CALCULATED PIPE CAPACITIES

Project	SEC Hayden-Loop 101 Project
Location	Scottsdale AZ
Project Number	205133
Project Engineer	John Bulka, P.E.
References	City of Scottsdale Design Standards and Policy Manual (2018)
	ADEQ Bulletin No. 11
	City of Phoenix Design Standards Manual for Water and Wastewater Systems (2017)

						PEAK FLOW RESULTS					
FROM NODE	**TO NODE**	**PIPE SIZE**	**MODELED PIPE SLOPE**	**PIPE CAPACITY (0.65 FULL)**		**PEAK FLOW**		**d/D**	**Peak Flow Velocity**	**SURPLUS CAPACITY**	**PERCENT OF CAPACITY**
		(in)	**(ft/ft)**	**(gpd)**	**(gpm)**	**(gpd)**	**(gpm)**		**(ft/sec)**	**(gpd)**	**(%)**
Outfall 1 North											
MH-1	MH-2	8	0.0070	495,635	344	292,681	203	0.47	2.82	202,954	59.1%
MH-2	MH-3	8	0.0090	561,997	390	292,681	203	0.44	3.10	269,316	52.1%
MH-3	MH-4	8	0.0150	725,535	504	292,681	203	0.38	3.74	432,854	40.3%
MH-4	MH-5	8	0.0150	725,535	504	292,681	203	0.38	3.74	432,854	40.3%
MH-5	MH-7	8	0.0150	725,535	504	292,681	203	0.38	3.74	432,854	40.3%
MH-6	MH-7	8	0.0070	495,635	344	--	--	--	--	--	--
MH-7	MH-8	8	0.0080	529,856	368	292,681	203	0.45	2.97	237,175	55.2%
MH-8	MH-9	8	0.0052	427,183	297	292,681	203	0.51	2.53	134,502	68.5%
MH-9	MH-10	8	0.0080	529,856	368	292,681	203	0.45	2.97	237,175	55.2%
MH-10	MH-13	8	0.0070	495,635	344	292,681	203	0.47	2.82	202,954	59.1%
MH-11	MH-12	8	0.0110	621,311	431	--	--	--	--	--	--
MH-12	MH-13	8	0.0110	621,311	431	--	--	--	--	--	--
MH-13	MH-14	8	0.0070	495,635	344	292,681	203	0.47	2.82	202,954	59.1%
MH-14	EX MH-1	8	0.0100	592,397	411	292,681	203	0.42	3.22	299,716	49.4%

VICINITY MAP



WOOD PATEL

SEC HAYDEN-LOOP 101 PROJECT

VICINITY MAP

DATE	9/01/2020	SCALE	1" = 1000'	SHEET	1 OF 1
JOB NO.	205133	DESIGN	BJ	CHECK	NEB
		DRAWN	ACH		

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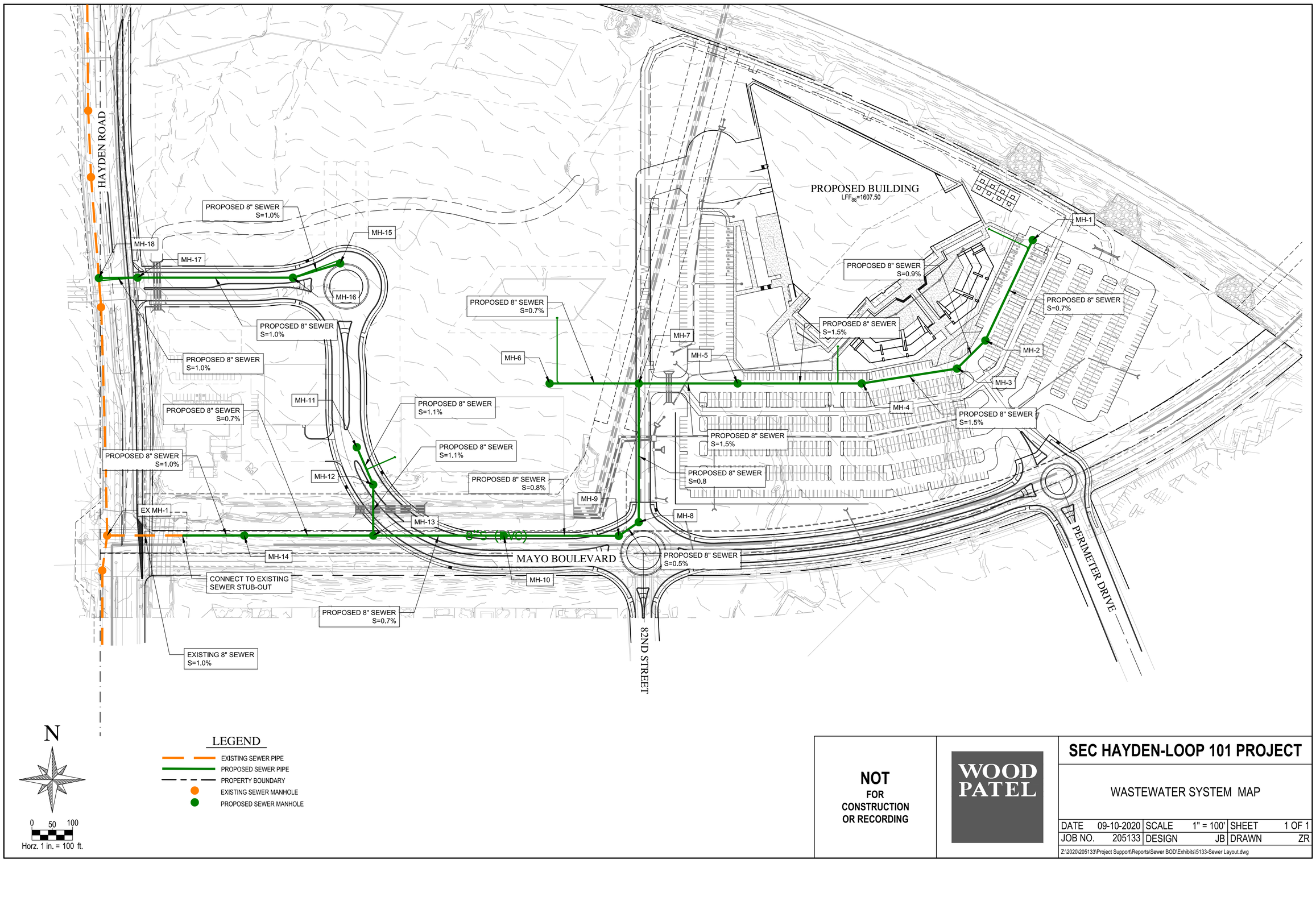
WASTEWATER EXHIBIT



N

0 50 100

Horz. 1 in. = 100 ft.

LEGEND

- EXISTING SEWER PIPE
- PROPOSED SEWER PIPE
- PROPERTY BOUNDARY
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE

NOT FOR CONSTRUCTION OR RECORDING

WOOD PATEL

SEC HAYDEN-LOOP 101 PROJECT

WASTEWATER SYSTEM MAP

DATE	09-10-2020	SCALE	1" = 100'	SHEET	1 OF 1
JOB NO.	205133	DESIGN	JB	DRAWN	ZR

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