

1. PROJECT INFORMATION					
Project Name	Chandler Heights - McQueen Rd to Gilbert Rd				
Federal Project Number	CHN-0(240)D	TRACS Number	0000 MA CHN T0099 01C		
Lead Federal Agency	FHWA	LPA/Tribe Name	City of Chandler		
Submittal Date	03/28/2018	ADOT District	Central	Admin by:	CA Community
Land Ownership	City of Chandler, RWCD, and private				
USFWS IPaC /Consultation Code	02EAAZ00-2018-SLI-0222		Date	03/26/2018	
AGFD Online Review ID	HGIS-06508		Date	12/14/2017	

2. LOCATION INFORMATION	
Route and Mileposts	Along Chandler Heights Road from approximately 0.1 miles west of McQueen Road to approximately 0.1 miles east of Gilbert Road.
Town/City and County	Chandler, Maricopa
Date of Site Visit (if conducted)	02/15/2018
Biotic Community (per Brown 1994)	Urbanized area of the Lower Colorado River Subdivision of the Sonoran Desertscrub
Elevation (feet above mean sea level)	Approximately 1,230 to 1,260 feet
PLSS (if on BLM land)	NA

**Describe Dominant Vegetation:**

The majority of the vegetation observed in the project limits consists of landscape vegetation that included Bougainvillea (*Bougainvillea* sp.), brittlebush (*Encelia farinose*), oleander (*Nerium oleander*), fountain grass (*Pennisetum setaceum*), lantana (*lantana* sp.), Engelmann's prickly pear (*Opuntia engelmannii*), chain fruit cholla (*Cylindropuntia fulgida*), teddy bear cholla (*Cylindropuntia bigelovii*), saguaro (*Carnegiea gigantea*), barrel cactus (*Ferocactus wislizeni*), hedgehog cactus (*Echinocereus* sp.), red yucca (*Hesperaloe parviflora*), soaptree yucca (*Yucca elata*), desert spoon (*Dasyliirion wheeleri*), foothill palo verde (*Parkinsonia microphylla*), mesquite (*prosopis velutina*), smoke tree (*Psorothamnus spinosus*), ironwood (*Olneya tesota*), and Eucalyptus (*Eucalyptus* sp.).

Sparse native vegetation consisted of foothill palo verde, mesquite, saguaro, and desert broom (*Baccharis sarothroides*).

Invasive and noxious plants are present in the project limits and include Sahara mustard (*Brassica tournefortii*), saltcedar (*Tamarix ramosissima*), and Russian thistle (*Salsola kali* and *S. tragus*).

3. PROJECT/ACTIVITY DESCRIPTION		
Does the Project/Activity Require:	Yes	No
Work outside of existing ROW or easement?	X	
New ROW?	X	
New Easement(s)?	X	
Temporary Construction Easement(s)?	X	

**Acronyms Used in This Form**

- ac. – acre
- ADA – Americans With Disabilities Act
- ADEQ – Arizona Department of Environmental Quality
- ADOT – Arizona Department of Transportation
- AGFD – Arizona Game and Fish Department
- AWLW – Arizona Wildlife Linkages Workgroup
- BE – Biological Evaluation
- BESF – BE Short Form

- BGEPA – Bald and Golden Eagle Protection Act
- BLM – US Bureau of Land Management
- CA – Certification Acceptance
- CH – critical habitat
- E – endangered
- ESA – Endangered Species Act
- FHWA – Federal Highway Administration
- ID – identification number
- IPaC – Information, Planning, and Conservation system
- LPA – Local Public Agency
- MBTA – Migratory Bird Treaty Act
- MP – milepost
- NA – Not applicable
- P - proposed
- PLSS – Public Land Survey System
- ROW – Right-of-Way
- RWCD– Roosevelt Water Conservation District
- SGCN – Species of Greatest Conservation Need
- SWPPP – Stormwater Pollution Prevention Plan
- T – threatened
- TCE – Temporary Construction Easements
- TI–traffic interchange
- TV–cable television
- TRACS – Transportation Accounting System
- USFS – US Forest Service
- USFWS – US Fish and Wildlife Service

*The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by ADOT pursuant to 23 U.S.C. 326 and a Memorandum of Understanding dated January 3, 2018, and executed by FHWA and ADOT.*

**3. PROJECT/ACTIVITY DESCRIPTION (Continued)**

The City of Chandler, in coordination with the ADOT, is proposing a street improvement project. The project is located along Chandler Heights Road from approximately 0.1 miles west of McQueen Road to approximately 0.1 miles east of Gilbert Road. The existing Chandler Heights Road from McQueen Road to Gilbert Road is currently a scalloped street with roadway sections varying from a two-lane street without a median to a four-lane street with a raised curbed median island. The purpose of this project is to add capacity of Chandler Heights Road to enhance regional mobility and complement the freeway system. The scope of work for this project includes:

- Widening Chandler Heights Road to accommodate two thru lanes in each direction, bike lanes, a raised median island, curb, gutter, and sidewalks
- Reconstructing driveways and sidewalk ramps to meet ADA requirements
- Constructing drainage improvements such as scuppers, inlets, retention basins and storm drain
- Removing signs and providing new signing
- Obliterating pavement striping and replacing striping as needed
- Replacing the traffic signal at Chandler Heights Road/Adams Avenue intersection
- Relocating RWCD and private irrigation facilities
- Improving signal interconnect and street light improvements and converting all existing HPS street lights to LED street lights
- Installing or restoring landscaping and irrigation
- Installing or rehabilitating public water, sanitary sewer, and reclaimed water systems
- Replacing six-inch ACP waterline along Chandler Heights Road east of McQueen Road
- Relocating overhead electric and underground electric, gas, fiber optic, telephone and TV
- Replacing or rehabilitating waterline and sewer manhole improvements
- Geotechnical and potholing investigations
- Obtaining new ROW, PUE, DEs, RWCD irrigation easements, and TCEs

**4. GENERAL IMPACTS**

Does the Project/Activity:	Yes	No	NA
Involve ground disturbance?	<b>X</b>		
Involve vegetation removal?	<b>X</b>		
Include potential for use of herbicide?		<b>X</b>	
Include work in actively flowing or intermittent watercourse?		<b>X</b>	

<b>4. GENERAL IMPACTS (Continued)</b>				
<b>Does the Project/Activity:</b>	<b>Yes</b>	<b>No</b>	<b>NA</b>	
Include impacts to Riparian Vegetation or Wetland Habitat?		X		
Occur within identified wildlife linkage(s)? (per <a href="#">2006 AWLW map</a> on <a href="#">ADOT website</a> )		X		
If yes, enter AWLW wildlife linkage number/name:				
Does the project have the potential to affect the wildlife linkage(s)?			X	
<b>Description of ground disturbance and/or vegetation removal</b>				
<b>Geotechnical and Potholing Investigations</b>				
<p>Geotechnical investigations will be performed at 35 locations (see Figure 2 and geotechnical plans) at depths ranging from 3-15 feet throughout the project limits to determine subsurface conditions and obtain representative samples for laboratory analyses. Geotechnical investigations will result in up to approximately 0.5 acres of temporary disturbance. The equipment utilized for geotechnical investigations will consist of truck-mounted drill rig, pickup truck for sample collection, and traffic control barricading and support vehicle. Potholing will also be conducted throughout the project limits as depicted in Figure 2. Potholing investigations will result in up to approximately 36 acres of temporary disturbance. Potholing will be performed using a truck mounted vacuum excavator. Potholing and geotechnical investigation locations will be accessed from existing paved roads and off-pavement routes. Potholing and geotechnical investigations will occur within and outside existing ROW. Vegetation removal and impacts to protected plants are not anticipated from potholing or geotechnical investigations.</p>				
<b>Project Construction</b>				
<p>Based on the current preliminary design, there will be approximately 28 acres of permanent disturbance from project construction. The project area consists of roadway, associated improvements (landscaping, sidewalks, lighting, overhead power lines, and signage), undeveloped land, agricultural land with irrigation canals, as well as institutional, recreational, residential and commercial development. Protected native vegetation observed within the project area is sparse, but consisted of foothill palo verde, mesquite and saguaro that will be removed as part of construction. The majority of the vegetation within the project limits consists of landscaped shrubs, trees and groundcover. Approximately two acres of vegetation will be removed and/or relocated in the project limits as necessary.</p> <p>Construction of the project will disturb more than one acre; therefore, a Section 402 (Arizona Pollutant Discharge Elimination System) permit and a SWPPP are required from the ADEQ. There will be no work in waters of the U.S.; therefore Section 404/401 permits will not be required. Staging areas have not been determined and are the responsibility of the contractor.</p> <p>Temporary lane closures and/or lane shifts will be necessary during construction. Temporary signing will be utilized to alert the travelling public of the upcoming traffic changes. Utility relocations are planned to begin in Spring 2020. Roadway construction is expected to begin in Summer 2020 and the construction duration is anticipated to be approximately 16 months.</p>				
<b>5. ESA-PROTECTED SPECIES &amp; HABITAT</b>			<b>Yes</b>	<b>No</b>
Are any threatened, endangered or proposed species likely present in the project area?				X
Is any designated or proposed critical habitat present in the project area?				X
Is suitable habitat for threatened, endangered or proposed species present in the project area?				X
<i>If a "Yes" answer is given for any of the questions above, include a brief additional evaluation summary for each applicable species along with a determination of effects for each species addressed.</i>				
<b>Additional ESA Species Evaluation included in Section 10?</b>				X

5. ESA-PROTECTED SPECIES & HABITAT (Continued)		Yes	No	
<b>Determination of Effects</b>		<b>Mark One</b>		
1. No effect to species or critical habitat.			X	
2. May affect, but is not likely to adversely affect species or critical habitat.				
3. May affect, and is likely to adversely affect species or critical habitat.				
<i>Coordinate with the ADOT biologist if any commitments are required to protect ESA species or habitat, or if any "may affect" determinations are anticipated, as a Biological Evaluation may be required.</i>				
<b>6. OTHER SPECIAL STATUS SPECIES/RESOURCES</b>				
Does the project have the potential to impact:		Yes	No	NA
ESA Candidate Species or other species under review for ESA listing?			X	
ESA Candidate Conservation Agreement species?			X	
Bald and/or golden eagles as protected by the BGEPA?			X	
Agency special status or sensitive species (USFS, BLM, Tribal, etc.)? <i>(Only applies if the project is on the agency's land and the agency requested evaluation of those species)</i>				X
USFS only: Management Indicator Species – Change in population or trend?				X
Migratory birds, nests, or eggs as protected by the MBTA?		X		
Native plants protected by the <a href="#">Arizona Native Plant Law</a> ? <i>(Non-tribal lands only)</i>		X		
Potential for Bat Roosts? __Day, __Night, __Maternity?			X	
Are commitments included to protect other state sensitive species (e.g. SGCN Tier 1a)?		X		
Are invasive species from the <a href="#">ADOT list</a> found in the project area?		X		
<i>If a "Yes" answer is given for any of the questions above, include a brief additional evaluation summary and determination of impacts (as applicable) for each species/resource. Include any necessary commitments in the Environmental Commitments section.</i>				
<b>Additional Special Status Species Evaluation included in Section 10?</b>		X		
<b>7. ENVIRONMENTAL COMMITMENTS</b>				
The following mitigation measures will be implemented for geotechnical investigations and potholing.				
<b><u>Contractor Responsibilities:</u></b>				
<ul style="list-style-type: none"> <li>To prevent the introduction of invasive species seeds, the contractor shall inspect all earthmoving and hauling equipment at the storage facility. All vehicles and equipment shall be washed and free of all attached plant/vegetation and soil/mud debris prior to entering the construction site.</li> <li>To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site.</li> </ul>				
The following mitigation measures will be implemented for project construction.				
<b><u>City of Chandler Responsibilities:</u></b>				
<ul style="list-style-type: none"> <li>If any active bird nests cannot be avoided by vegetation clearing or construction activities, the Engineer will contact the City of Chandler project manager (480.782.3349) to evaluate the situation.</li> <li>If active bird nests are identified within the project limits, construction activities will avoid disturbing any active nest. Avoidance areas, if necessary, will be marked in the field with temporary fencing or t-posts with flagging by the approved biologist. The engineer will confer with the approved biologist to determine the appropriate avoidance strategies until the nestlings have fledged from the nest and the nest is no longer active.</li> </ul>				

**7. ENVIRONMENTAL COMMITMENTS (Continued)**

City of Chandler Responsibilities (Continued):

- Protected native plants within the project limits will be impacted by this project; therefore, the City of Chandler will determine if Arizona Department of Agriculture notification is needed. If notification is needed, the City of Chandler will send the notification at least 60 (sixty) calendar days prior to the start of construction.

Contractor Responsibilities:

- If clearing, grubbing, or tree/limb removal will occur between March 1 and August 31, the contractor shall employ a qualified biologist to conduct a migratory bird nest search of all vegetation within the 10 (ten) days prior to removal. Vegetation may be removed if it has been surveyed and no active bird nests are present. If active nests cannot be avoided, the contractor shall notify the Engineer to evaluate the situation. During the non-breeding season (September 1 – February 28), vegetation removal is not subject to this restriction.
- Prior to construction, all personnel who will be on-site, including, but not limited to, contractors, contractors' employees, supervisors, inspectors, and subcontractors shall review the attached Arizona Department of Transportation Environmental Planning "Western Burrowing Owl Awareness" flyer.
- If any burrowing owls or active burrows are identified the contractor shall notify the Engineer immediately. No construction activities shall take place within 100 feet of any active burrow.
- If the Engineer in cooperation with the Environmental Planning Biologist determines that burrowing owls cannot be avoided, the contractor shall employ a qualified biologist holding a permit from the US Fish & Wildlife Service to relocate burrowing owls from the project area, as appropriate.
- To prevent the introduction of invasive species seeds, the contractor shall inspect all earthmoving and hauling equipment at the storage facility. All vehicles and equipment shall be washed and free of all attached plant/vegetation and soil/mud debris prior to entering the construction site.
- To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site.

**8. SIGNATURES**

Prepared By

Signature



03/28/2018

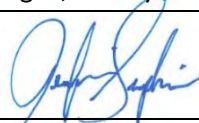
Date

Typed Name: Chris Melisi

Title, Firm: Biologist, Kimley-Horn

Reviewed By

Signature



03/28/2018

Date

Typed Name: Jennifer Simpkins

Title, Firm: Senior Biologist, Kimley-Horn

<b>9. ATTACHMENTS (Mark all that apply)</b>	
<input checked="" type="checkbox"/>	State Location and Project Vicinity Maps
<input checked="" type="checkbox"/>	USFWS IPaC Results
<input checked="" type="checkbox"/>	AGFD On-Line Environmental Review Tool Results
<input checked="" type="checkbox"/>	Agency Correspondence (Letters, E-mails, Phone Records, etc.)
<input checked="" type="checkbox"/>	Other (List): Ground Photograph Log, Geotechnical Plans, Western Burrowing Owl Awareness flyer
<b>10. ADDITIONAL TEXT (Only if needed; specify the section it applies to; continue to extra page if needed)</b>	
<p><b><u>Migratory Bird Treaty Act</u></b></p> <p>Migratory birds may nest on the ground, on structures, or in trees, shrubs, or other vegetation within the project limits. Active and inactive nests were observed during the site visit, and tree, shrubs, and cacti suitable for nesting will be removed during construction. No evidence of swallow nesting was observed at the Eastern Canal box culvert.</p> <p><b><u>City of Chandler Responsibilities:</u></b></p> <ul style="list-style-type: none"> <li>• If any active bird nests cannot be avoided by vegetation clearing or construction activities, the Engineer will contact the City of Chandler project manager (480.782.3349) to evaluate the situation.</li> <li>• If active bird nests are identified within the project limits, construction activities will avoid disturbing any active nest. Avoidance areas, if necessary, will be marked in the field with temporary fencing or t-posts with flagging by the approved biologist. The engineer will confer with the approved biologist to determine the appropriate avoidance strategies until the nestlings have fledged from the nest and the nest is no longer active.</li> </ul> <p><b><u>Contractor Responsibility:</u></b></p> <ul style="list-style-type: none"> <li>• If clearing, grubbing, or tree/limb removal will occur between March 1 and August 31, the contractor shall employ a qualified biologist to conduct a migratory bird nest search of all vegetation within the 10 (ten) days prior to removal. Vegetation may be removed if it has been surveyed and no active bird nests are present. If active nests cannot be avoided, the contractor shall notify the Engineer to evaluate the situation. During the non-breeding season (September 1 – February 28), vegetation removal is not subject to this restriction.</li> </ul> <p><b><u>Protected Native Plants</u></b></p> <p>Protected native vegetation observed within the project area is sparse, but consisted of foothill palo verde, mesquite, and saguaro that will be removed as part of construction if impacts are unavoidable; therefore, the following mitigation measure is required.</p> <p><b><u>City of Chandler Responsibility:</u></b></p> <ul style="list-style-type: none"> <li>• Protected native plants within the project limits will be impacted by this project; therefore, the City of Chandler will determine if Arizona Department of Agriculture notification is needed. If notification is needed, the City of Chandler will send the notification at least 60 (sixty) calendar days prior to the start of construction.</li> </ul> <p><b><u>State Sensitive Species</u></b></p> <p>The AGFD online environmental review tool report update (Project ID: HGIS-06508) listed the western burrowing owl (<i>Athene cunicularia hypugaea</i>) as occurring within three miles of the project vicinity. The review tool report is included in the attachments of this report. As part of the environmental review process a letter describing the project was sent to the AGFD to inform them of the project and to solicit comments. The letter requested any specific concerns, suggestions or recommendations the agency may have related to</p>	

the project. The AGFD sent a response letter that did not include any specific concerns related to this project. However, ADOT will make the following accommodations for the western burrowing owl:

**Western burrowing owl (*Athene cunicularia hypugaea*)**

The western burrowing owl is listed as a species of concern by the USFWS and they are also protected federally by the MBTA and Arizona state law (ARS Title 17). According to the AGFD website, the western burrowing owl utilizes well drained grasslands, steppes, deserts, prairies, and agricultural lands, often associated with burrowing mammals. Western burrowing owls are known to occupy vacant lots near human habitation, golf courses, or airports.<sup>1</sup>

Furthermore, the AGFD's *HabiMap™ Arizona* was accessed to review species distribution information for the western burrowing owl. Species distribution models were created for all of the SGCN. These species distribution models were modeled to represent the historic, present, and potential distribution for an individual species. A specific set of parameters was used for each species distribution model, including vegetation, elevation and slope associations, and known occurrences.<sup>2</sup> The species distribution model depicted distribution of the western burrowing owl within the project area. Therefore, this species and its habitat were evaluated for potential impacts.

During field reconnaissance, no western burrowing owls or suitable burrows were observed within or adjacent to the project limits; however, there is suitable habitat (vacant lands, agricultural lands and agricultural irrigation canals) within the project area so the following mitigation measures will be required:

**Contractor Responsibilities:**

- **Prior to construction, all personnel who will be on-site, including, but not limited to, contractors, contractors' employees, supervisors, inspectors, and subcontractors shall review the attached Arizona Department of Transportation Environmental Planning "Western Burrowing Owl Awareness" flyer.**
- **If any burrowing owls or active burrows are identified the contractor shall notify the Engineer immediately. No construction activities shall take place within 100 feet of any active burrow.**
- **If the Engineer in cooperation with the Environmental Planning Biologist determines that burrowing owls cannot be avoided, the contractor shall employ a qualified biologist holding a permit from the US Fish & Wildlife Service to relocate burrowing owls from the project area, as appropriate.**

**Noxious and Invasive Species**

Invasive and noxious plants observed within project limits were Sahara mustard, saltcedar, and Russian thistle: therefore, this project will incorporate the following measures to prevent the introduction and spread of invasive species.

**Contractor Responsibilities:**

- **To prevent the introduction of invasive species seeds, the contractor shall inspect all earthmoving and hauling equipment at the storage facility. All vehicles and equipment shall be washed and free of all attached plant/vegetation and soil/mud debris prior to entering the construction site.**

<sup>1</sup> Arizona Game and Fish Department (AGFD). 2001. *Athene cunicularia*. Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. 6 pp.

<sup>2</sup> AGFD. 2011a. Species Distribution Models.

**Contractor Responsibilities (continued):**

- To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site.



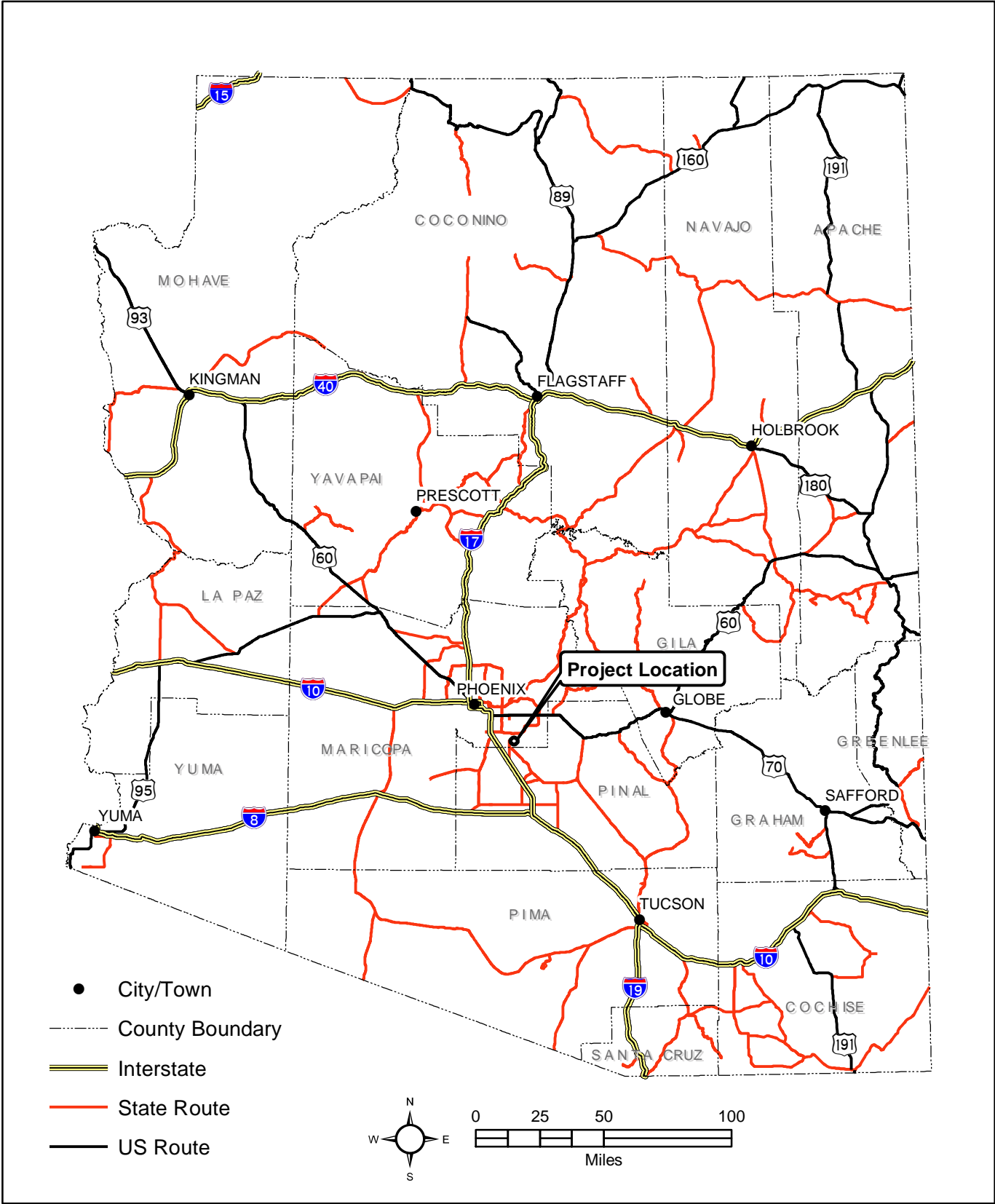
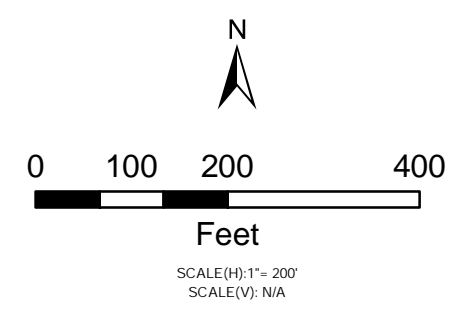
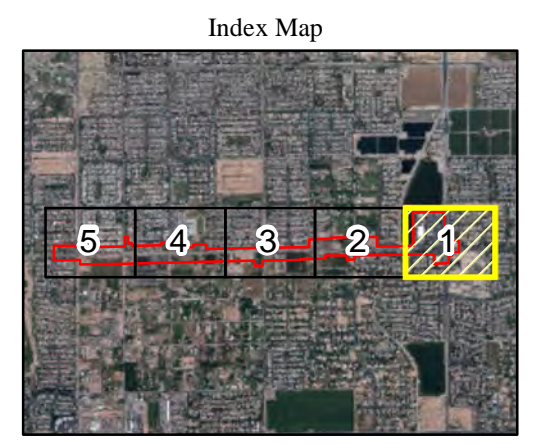


Figure 1. State Map  
 CHN-0(240)D  
 0000 MA CHN T0099 01C  
 Chandler Heights - McQueen Rd to Gilbert Rd



- Project Limits (~137 AC)
- Photo Locations/Direction
- Geotech**
  - Double Ring Infiltrometer
  - Asphalt Core
  - Proposed Test Boring
- Proposed Limits of Potholing
- Ownership**
  - City of Chandler Right-of-Way
  - Private
  - Roosevelt Water Conservation District

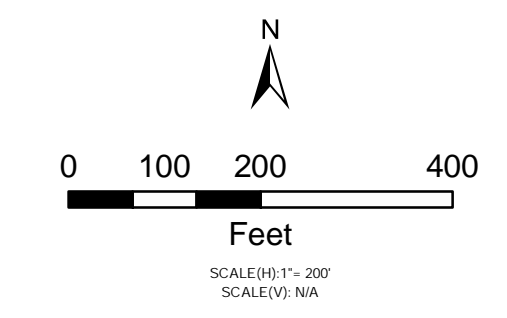
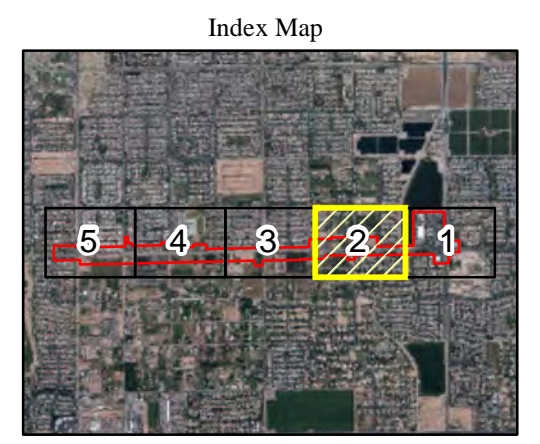


Aerial Source: FCDMC 2016

Figure 2. Vicinity Map (Sheet 1 of 5)  
 CHN-0(240)D  
 0000 MA CHN T0099 01C  
 Chandler Heights - McQueen Rd to Gilbert Rd



- Project Limits (~137 AC)
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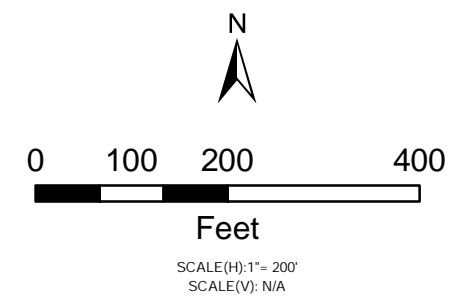
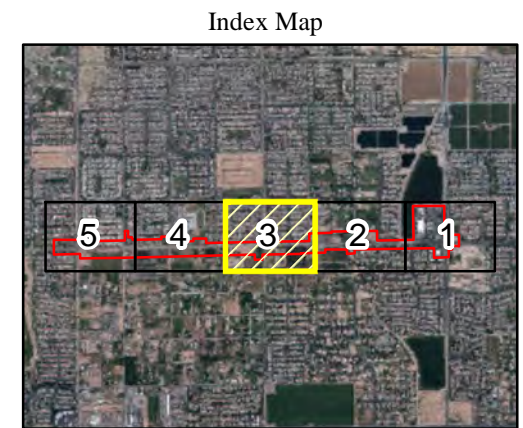


Aerial Source: FCDMC 2016

Figure 2. Vicinity Map (Sheet 2 of 5)  
 CHN-0(240)D  
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 Chandler Heights - McQueen Rd to Gilbert Rd



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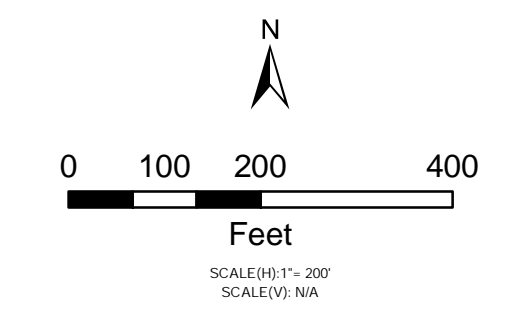
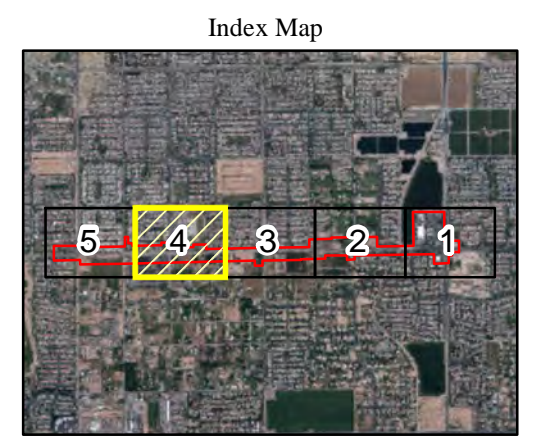


Aerial Source: FCDMC 2016

Figure 2. Vicinity Map (Sheet 3 of 5)  
 CHN-0(240)D  
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 Chandler Heights - McQueen Rd to Gilbert Rd

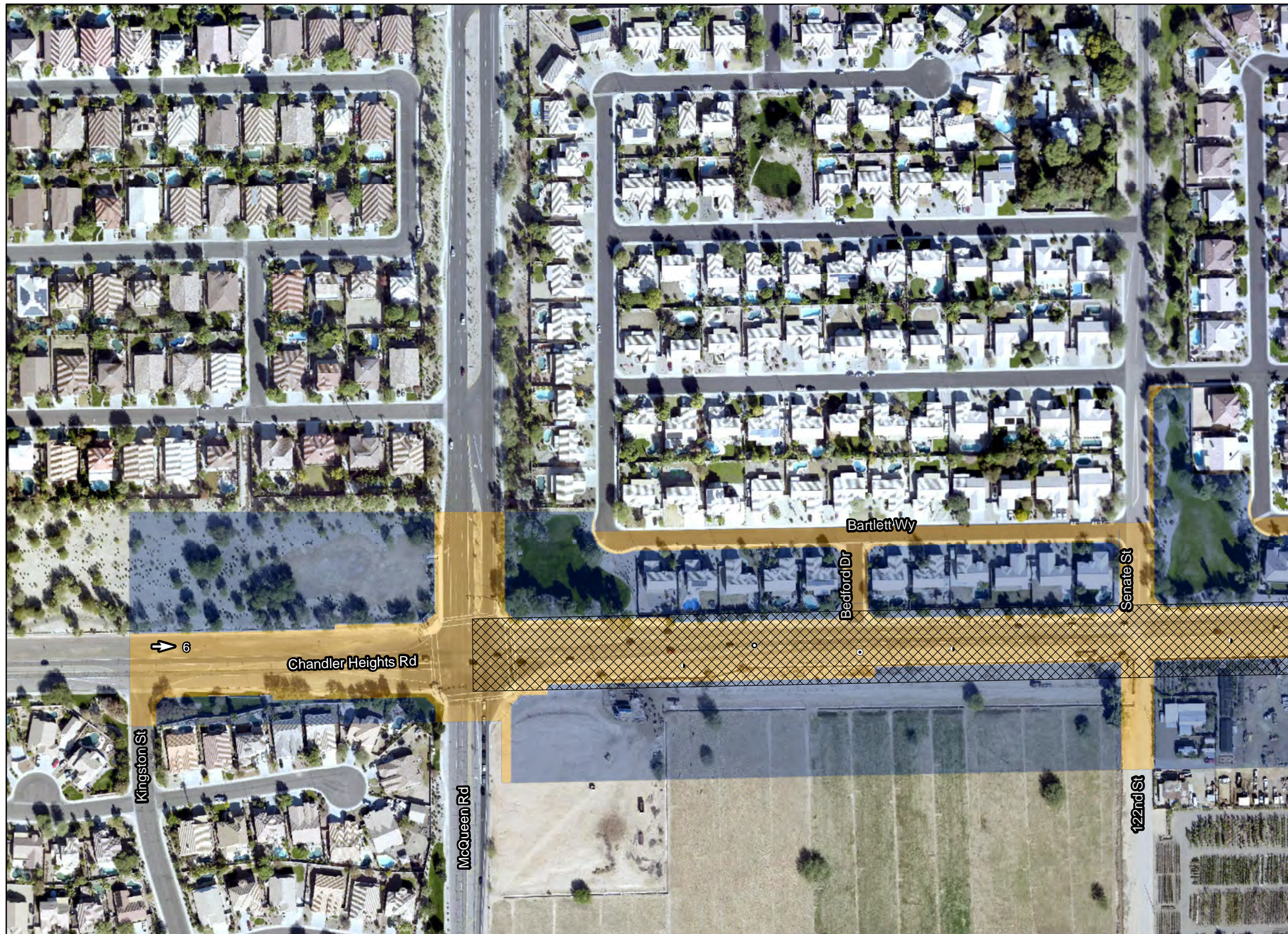


- Project Limits (~137 AC)
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  - Roosevelt Water Conservation District

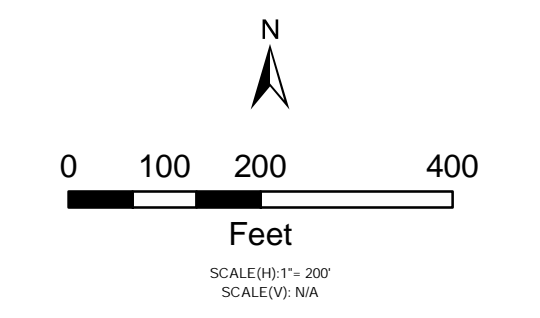
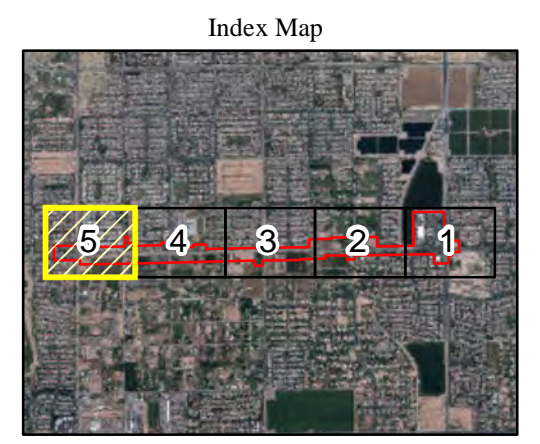


Aerial Source: FCDMC 2016

Figure 2. Vicinity Map (Sheet 4 of 5)  
 CHN-0(240)D  
 0000 MA CHN T0099 01C  
 Chandler Heights - McQueen Rd to Gilbert Rd



- Project Limits (~137 AC)
- Photo Locations/Direction
- Geotech**
  - Double Ring Infiltrometer
  - Asphalt Core
  - Proposed Test Boring
- Proposed Limits of Potholing
- Ownership**
  - City of Chandler Right-of-Way
  - Private
  - Roosevelt Water Conservation District



Aerial Source: FCDMC 2016

Figure 2. Vicinity Map (Sheet 5 of 5)  
 CHN-0(240)D  
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 Chandler Heights - McQueen Rd to Gilbert Rd



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Arizona Ecological Services Field Office  
9828 North 31st Ave

#c3

Phoenix, AZ 85051-2517

Phone: (602) 242-0210 Fax: (602) 242-2513

<http://www.fws.gov/southwest/es/arizona/>

[http://www.fws.gov/southwest/es/EndangeredSpecies\\_Main.html](http://www.fws.gov/southwest/es/EndangeredSpecies_Main.html)



In Reply Refer To:

Consultation Code: 02EAAZ00-2018-SLI-0222

Event Code: 02EAAZ00-2018-E-01327

Project Name: 0000 MA CHN T0099; CITY OF CHANDLER, CHANDLER HEIGHTS  
WIDENING

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

March 26, 2018

To Whom It May Concern:

The Fish and Wildlife Service (Service) is providing this list under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). The list you have generated identifies threatened, endangered, proposed, and candidate species, and designated and proposed critical habitat, that may occur within one or more delineated United States Geological Survey 7.5 minute quadrangles with which your project polygon intersects. Each quadrangle covers, at minimum, 49 square miles. In some cases, a species does not currently occur within a quadrangle but occurs nearby and could be affected by a project. Please refer to the species information links found at:

[http://www.fws.gov/southwest/es/arizona/Docs\\_Species.htm](http://www.fws.gov/southwest/es/arizona/Docs_Species.htm)

<http://www.fws.gov/southwest/es/arizona/Documents/MiscDocs/AZSpeciesReference.pdf>.

The purpose of the Act is to provide a means whereby threatened and endangered species and the habitats upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of Federal trust resources and to consult with us if their projects may affect federally listed species and/or designated critical habitat. A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, we recommend preparing a biological evaluation similar to a Biological Assessment to determine whether the project may

03/26/2018

Event Code: 02EAAZ00-2018-E-01327

2

affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If the Federal action agency determines that listed species or critical habitat may be affected by a federally funded, permitted or authorized activity, the agency must consult with us pursuant to 50 CFR 402. Note that a "may affect" determination includes effects that may not be adverse and that may be beneficial, insignificant, or discountable. You should request consultation with us even if only one individual or habitat segment may be affected. The effects analysis should include the entire action area, which often extends well outside the project boundary or "footprint." For example, projects that involve streams and river systems should consider downstream effects. If the Federal action agency determines that the action may jeopardize a proposed species or adversely modify proposed critical habitat, the agency must enter into a section 7 conference. The agency may choose to confer with us on an action that may affect proposed species or critical habitat.

Candidate species are those for which there is sufficient information to support a proposal for listing. Although candidate species have no legal protection under the Act, we recommend considering them in the planning process in the event they become proposed or listed prior to project completion. More information on the regulations (50 CFR 402) and procedures for section 7 consultation, including the role of permit or license applicants, can be found in our Endangered Species Consultation Handbook at:  
<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>.

We also advise you to consider species protected under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712) and the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668 et seq.). The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when authorized by the Service. The Eagle Act prohibits anyone, without a permit, from taking (including disturbing) eagles, and their parts, nests, or eggs. Currently 1026 species of birds are protected by the MBTA, including species such as the western burrowing owl (*Athene cunicularia hypugea*). Protected western burrowing owls are often found in urban areas and may use their nest/burrows year-round; destruction of the burrow may result in the unpermitted take of the owl or their eggs.

If a bald eagle (or golden eagle) nest occurs in or near the proposed project area, you should evaluate your project to determine whether it is likely to disturb or harm eagles. The National Bald Eagle Management Guidelines provide recommendations to minimize potential project impacts to bald eagles:

<https://www.fws.gov/migratorybirds/pdf/management/>

[nationalbaldeaglenanagementguidelines.pdf](https://www.fws.gov/migratorybirds/pdf/management/nationalbaldeaglenanagementguidelines.pdf)

<https://www.fws.gov/birds/management/managed-species/eagle-management.php>.

The Division of Migratory Birds (505/248-7882) administers and issues permits under the MBTA and Eagle Act, while our office can provide guidance and Technical Assistance. For more information regarding the MBTA, BGEPA, and permitting processes, please visit the following:  
<https://www.fws.gov/birds/policies-and-regulations/incidental-take.php>. Guidance for minimizing impacts to migratory birds for communication tower projects (e.g. cellular, digital

television, radio, and emergency broadcast) can be found at:  
<https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds/collisions/communication-towers.php>.

Activities that involve streams (including intermittent streams) and/or wetlands are regulated by the U.S. Army Corps of Engineers (Corps). We recommend that you contact the Corps to determine their interest in proposed projects in these areas. For activities within a National Wildlife Refuge, we recommend that you contact refuge staff for specific information about refuge resources.

If your action is on tribal land or has implications for off-reservation tribal interests, we encourage you to contact the tribe(s) and the Bureau of Indian Affairs (BIA) to discuss potential tribal concerns, and to invite any affected tribe and the BIA to participate in the section 7 consultation. In keeping with our tribal trust responsibility, we will notify tribes that may be affected by proposed actions when section 7 consultation is initiated.

We also recommend you seek additional information and coordinate your project with the Arizona Game and Fish Department. Information on known species detections, special status species, and Arizona species of greatest conservation need, such as the western burrowing owl and the Sonoran desert tortoise (*Gopherus morafkai*) can be found by using their Online Environmental Review Tool, administered through the Heritage Data Management System and Project Evaluation Program <https://www.azgfd.com/Wildlife/HeritageFund/>.

For additional communications regarding this project, please refer to the consultation Tracking Number in the header of this letter. We appreciate your concern for threatened and endangered species. If we may be of further assistance, please contact our following offices for projects in these areas:

Northern Arizona: Flagstaff Office 928/556-2001

Central Arizona: Phoenix office 602/242-0210

Southern Arizona: Tucson Office 520/670-6144

Sincerely,  
/s/ Steven L. Spangle Field Supervisor

Attachment

Attachment(s):

- Official Species List
- 

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

### **Arizona Ecological Services Field Office**

9828 North 31st Ave

#c3

Phoenix, AZ 85051-2517

(602) 242-0210

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## Project Summary

Consultation Code: 02EAAZ00-2018-SLI-0222

Event Code: 02EAAZ00-2018-E-01327

Project Name: 0000 MA CHN T0099; CITY OF CHANDLER, CHANDLER HEIGHTS WIDENING

Project Type: TRANSPORTATION

Project Description: The City of Chandler (City), in coordination with the Arizona Department of Transportation (ADOT) and Federal Highway Administration (FHWA), is proposing a street improvement project. The project is located along Chandler Heights Road from approximately 0.1 miles west of McQueen Road to approximately 0.1 miles east of Gilbert Road. The project is located in the City of Chandler, Maricopa County, Arizona. The existing Chandler Heights Road from McQueen Road to Gilbert Road is currently a scalloped street with roadway sections varying from a two-lane street without a median to a four-lane street with a raised curbed median island. The purpose of this project is to add capacity of Chandler Heights Road to enhance regional mobility and complement the freeway system.

The scope of work for this project includes:

- Widening Chandler Heights Road to accommodate two thru lanes in each direction, bike lanes, a raised median island, curb, gutter, and sidewalks
- Reconstructing driveways and sidewalk ramps to meet Americans with Disabilities Act (ADA) requirements
- Constructing drainage improvements such as scuppers, inlets, retention basins and storm drain
- Removing signs and providing new signing
- Obliterating pavement striping and replacing striping as needed
- Replacing the traffic signal at Chandler Heights Road/Adams Avenue intersection
- Relocating Roosevelt Water Conservation District (RWCD) and private irrigation facilities
- Improving signal interconnect and street light improvements and converting all existing high pressure sodium (HPS) street lights to light-emitting diode (LED) street lights
- Installing or restoring landscaping and irrigation
- Installing or rehabilitating public water, sanitary sewer, and reclaimed water systems
- Replacing six-inch asbestos-cement pipe (ACP) waterline along Chandler Heights Road east of McQueen Road
- Relocating overhead electric and underground electric, gas, fiber optic, telephone and cable television (TV)
- Replacing or rehabilitating waterline and sewer manhole improvements
- Geotechnical and potholing investigations
- Obtaining new right-of-way (ROW), public utility easements (PUE), drainage easements (DEs),

RWCD irrigation easements, and temporary construction easements (TCEs)

### Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/33.23456381257301N111.7895912403166W>



Counties: Maricopa, AZ

## Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Mammals

NAME	STATUS
Lesser Long-nosed Bat <i>Leptonycteris curasoae yerbabuena</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/3245">https://ecos.fws.gov/ecp/species/3245</a>	Endangered

## Birds

NAME	STATUS
California Least Tern <i>Sterna antillarum browni</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8104">https://ecos.fws.gov/ecp/species/8104</a>	Endangered
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is <b>proposed</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/3911">https://ecos.fws.gov/ecp/species/3911</a>	Threatened

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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# Arizona Environmental Online Review Tool Report



## *Arizona Game and Fish Department Mission*

*To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.*

### **Project Name:**

0000 MA CHN T0099; CHANDLER, CHANDLER HEIGHTS WIDENING

### **User Project Number:**

T0099, CHANDLER, CHANDLER HEIGHTS WIDEN

### **Project Description:**

The City of Chandler (City), in coordination with the Arizona Department of Transportation (ADOT) and Federal Highway Administration (FHWA), is proposing a street improvement project. The project is located along Chandler Heights Road from approximately 0.1 miles west of McQueen Road to approximately 0.1 miles east of Gilbert Road. The project is located in the City of Chandler, Maricopa County, Arizona. The existing Chandler Heights Road from McQueen Road to Gilbert Road is currently a scalloped street with roadway sections varying from a two-lane street without a median to a four-lane street with a raised curbed median island. The purpose of this project is to add capacity of Chandler Heights Road to enhance regional mobility and complement the freeway system. The scope of work for this project includes:

- Widening Chandler Heights Road to accommodate two thru lanes in each direction, bike lanes, a raised median island, curb, gutter, and sidewalks
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- Replacing six-inch asbestos-cement pipe (ACP) waterline along Chandler Heights Road east of McQueen Road
- Relocating overhead electric and underground electric, gas, fiber optic, telephone and cable television (TV)
- Replacing or rehabilitating waterline and sewer manhole improvements
- Geotechnical and potholing investigations
- Obtaining new right-of-way (ROW), public utility easements (PUE),

drainage easements (DEs), RWCD irrigation easements, and temporary construction easements (TCEs)

**Project Type:**

Transportation & Infrastructure, Road construction (including staging areas), Road widening (shoulders or additional or new lanes)

**Contact Person:**

audrey navarro

**Organization:**

Arizona Department of Transportation

**On Behalf Of:**

CITY

**Project ID:**

HGIS-06508

***Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.***

**Disclaimer:**

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HabiMap Arizona data, specifically Species of Greatest Conservation Need (SGCN) under our State Wildlife Action Plan (SWAP) and Species of Economic and Recreational Importance (SERI), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

**Locations Accuracy Disclaimer:**

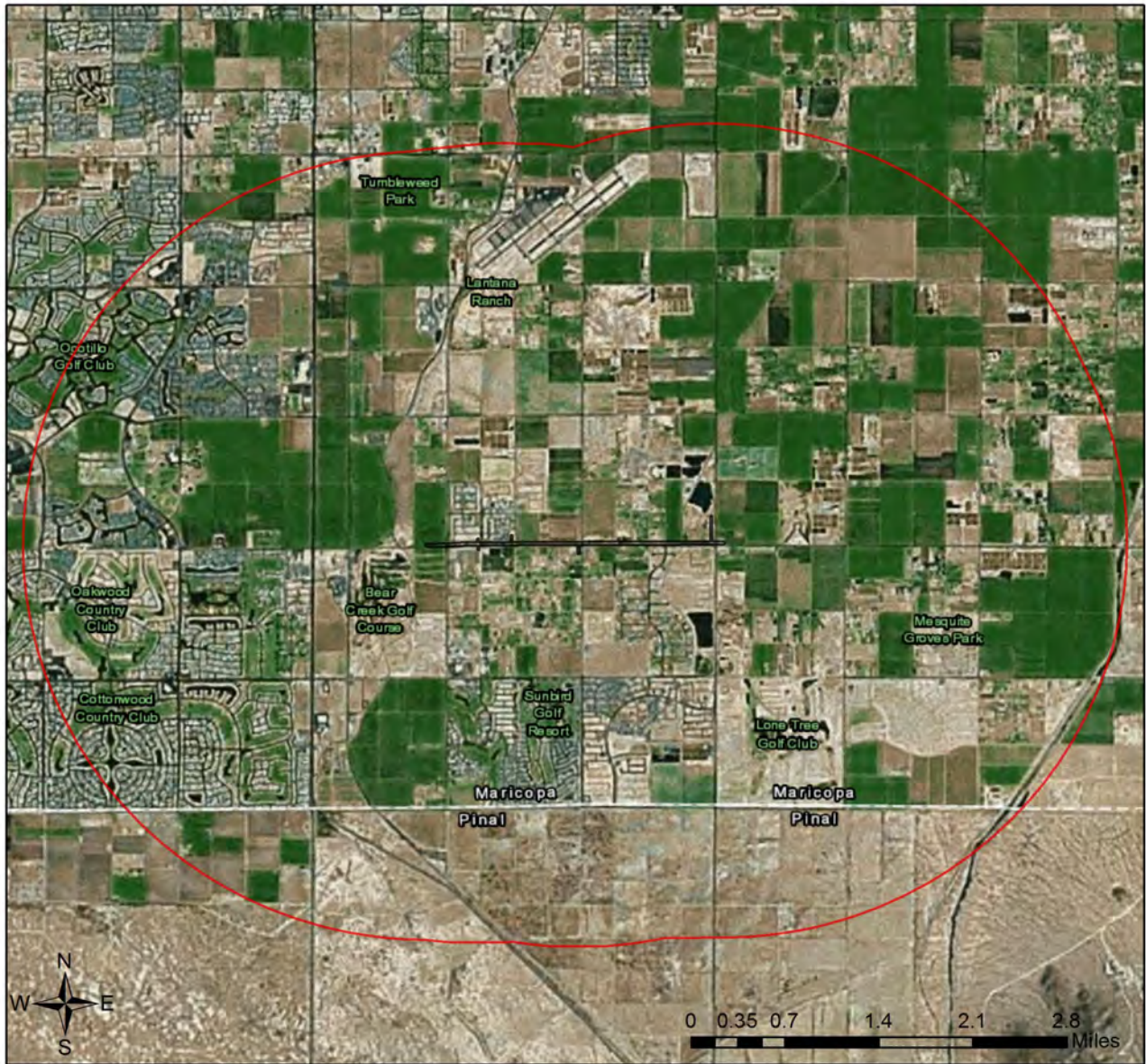
Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

**Recommendations Disclaimer:**

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:  
**Project Evaluation Program, Habitat Branch**  
**Arizona Game and Fish Department**  
**5000 West Carefree Highway**  
**Phoenix, Arizona 85086-5000**  
**Phone Number: (623) 236-7600**  
**Fax Number: (623) 236-7366**  
**Or**  
[PEP@azgfd.gov](mailto:PEP@azgfd.gov)
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies

# 0000 MA CHN T0099; CHANDLER, CHANDLER HEIGHTS WIDENING

## Aerial Image Basemap With Locator Map



- Project Boundary
- Buffered Project Boundary

Project Size (acres): 36.87

Lat/Long (DD): 33.2336 / -111.8066

County(s): Maricopa

AGFD Region(s): Mesa

Township/Range(s): T2S, R5E; T2S, R6E

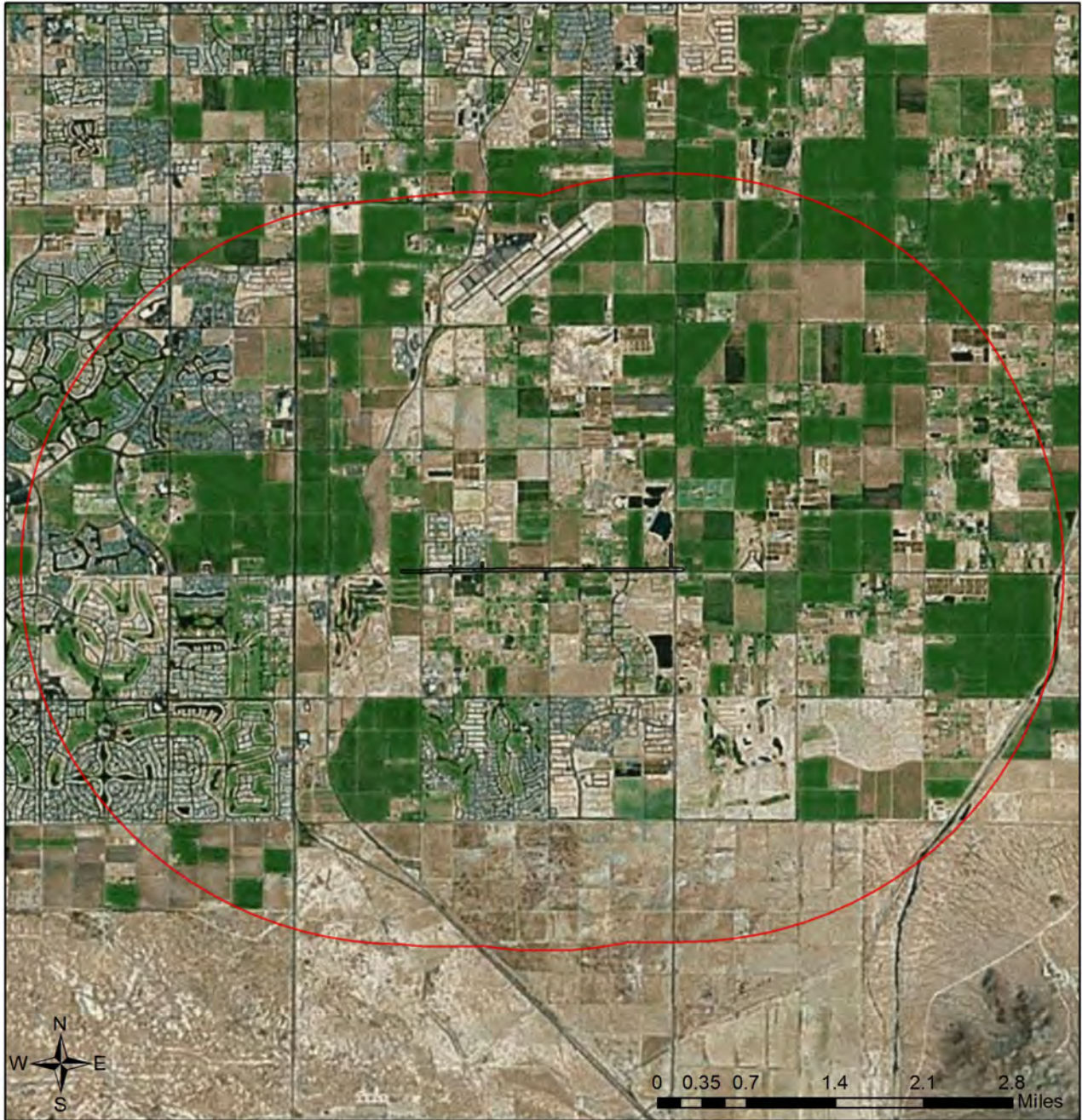
USGS Quad(s): GILA BUTTE

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo,



# 0000 MA CHN T0099; CHANDLER, CHANDLER HEIGHTS WIDENING

## Web Map As Submitted By User



- Project Boundary
- Buffered Project Boundary

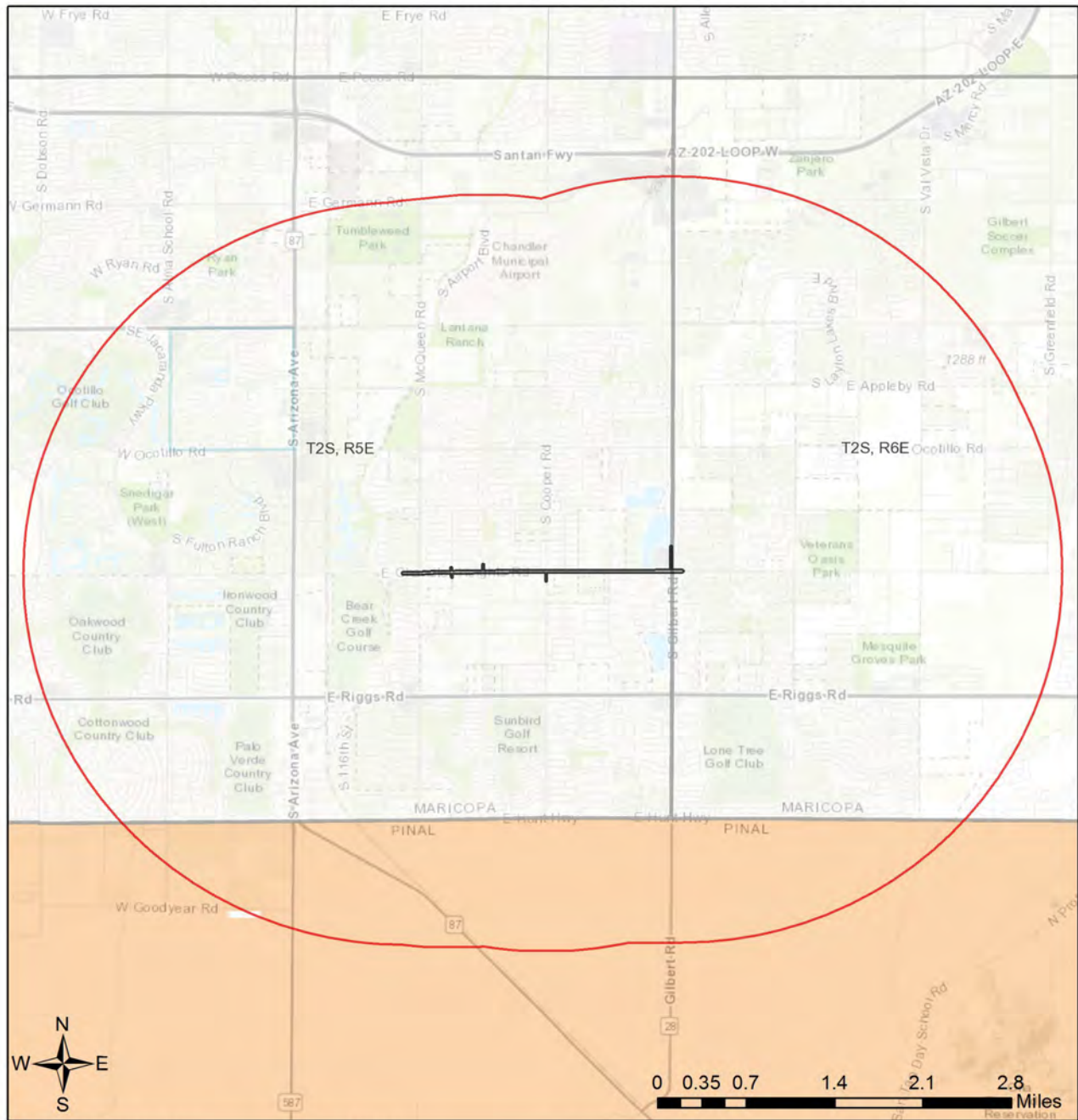
Project Size (acres): 36.87  
Lat/Long (DD): 33.2336 / -111.8066  
County(s): Maricopa  
AGFD Region(s): Mesa  
Township/Range(s): T2S, R5E; T2S, R6E  
USGS Quad(s): GILA BUTTE

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



## 0000 MA CHN T0099; CHANDLER, CHANDLER HEIGHTS WIDENING

### Topo Basemap With Township/Ranges and Land Ownership



<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-right: 5px;"></span> Project Boundary</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 2px solid red; margin-right: 5px;"></span> Buffered Project Boundary</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid gray; margin-right: 5px;"></span> Township/Ranges</li> </ul> <p><b>Land Ownership</b></p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #d9534f; margin-right: 5px;"></span> AZ Game and Fish Dept.</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #f1c232; margin-right: 5px;"></span> BLM</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #e67e22; margin-right: 5px;"></span> BOR</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #f39c12; margin-right: 5px;"></span> Indian Res.</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #f08080; margin-right: 5px;"></span> Military</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #90ee90; margin-right: 5px;"></span> Mixed/Other</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #d1c4e9; margin-right: 5px;"></span> National Park/Mon.</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #fff2cc; margin-right: 5px;"></span> Private</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #d4edda; margin-right: 5px;"></span> State and Regional Parks</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #d1ecf1; margin-right: 5px;"></span> State Trust</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #d4edda; margin-right: 5px;"></span> US Forest Service</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #c6e0b4; margin-right: 5px;"></span> Wildlife Area/Refuge</li> </ul>	<p>Project Size (acres): 36.87</p> <p>Lat/Long (DD): 33.2336 / -111.8066</p> <p>County(s): Maricopa</p> <p>AGFD Region(s): Mesa</p> <p>Township/Range(s): T2S, R5E; T2S, R6E</p> <p>USGS Quad(s): GILA BUTTE</p> <p><small>Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community</small></p>
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**Special Status Species and Special Areas Documented within 3 Miles of Project Vicinity**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Gila River Indian Reservation	Gila River Indian Reservation					
Haliaeetus leucocephalus pop. 3	Bald Eagle - Sonoran Desert Population	SC,BG A	S	S		1A

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

**Species of Greatest Conservation Need  
 Predicted within 3 Miles of Project Vicinity based on Predicted Range Models**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Aix sponsa	Wood Duck					1B
Ammospermophilus harrisi	Harris' Antelope Squirrel					1B
Aquila chrysaetos	Golden Eagle	BGA		S		1B
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Botaurus lentiginosus	American Bittern					1B
Buteo regalis	Ferruginous Hawk	SC		S		1B
Chilomeniscus stramineus	Variable Sandsnake					1B
Chionactis occipitalis klauberi	Tucson Shovel-nosed Snake	SC				1A
Colaptes chrysoides	Gilded Flicker			S		1B
Coluber bilineatus	Sonoran Whipsnake					1B
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1B
Crotalus tigris	Tiger Rattlesnake					1B
Euderma maculatum	Spotted Bat	SC	S	S		1B
Eumops perotis californicus	Greater Western Bonneted Bat	SC		S		1B
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1A
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1A
Haliaeetus leucocephalus	Bald Eagle	SC,BG A	S	S		1A
Heloderma suspectum	Gila Monster					1A
Incilius alvarius	Sonoran Desert Toad					1B
Kinosternon sonoriense sonoriense	Desert Mud Turtle			S		1B
Lasiurus blossevillii	Western Red Bat		S			1B
Lasiurus xanthinus	Western Yellow Bat		S			1B
Leopardus pardalis	Ocelot	LE				1A
Leptonycteris curasoae yerbabuenae	Lesser Long-nosed Bat	LE				1A
Lepus alleni	Antelope Jackrabbit					1B
Macrotus californicus	California Leaf-nosed Bat	SC		S		1B
Melanerpes uropygialis	Gila Woodpecker					1B
Melospiza lincolnii	Lincoln's Sparrow					1B

**Species of Greatest Conservation Need  
 Predicted within 3 Miles of Project Vicinity based on Predicted Range Models**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Melospiza aberti	Abert's Towhee		S			1B
Micruroides euryxanthus	Sonoran Coralsnake					1B
Myotis occultus	Arizona Myotis	SC		S		1B
Myotis velifer	Cave Myotis	SC		S		1B
Myotis yumanensis	Yuma Myotis	SC				1B
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					1B
Panthera onca	Jaguar	LE				1A
Passerculus sandwichensis	Savannah Sparrow					1B
Perognathus amplus	Arizona Pocket Mouse					1B
Phrynosoma goodei	Goode's Horned Lizard					1B
Phrynosoma solare	Regal Horned Lizard					1B
Phyllorhynchus browni	Saddled Leaf-nosed Snake					1B
Progne subis hesperia	Desert Purple Martin			S		1B
Rallus obsoletus yumanensis	Yuma Ridgeway's Rail	LE				1A
Setophaga petechia	Yellow Warbler					1B
Tadarida brasiliensis	Brazilian Free-tailed Bat					1B
Toxostoma lecontei	LeConte's Thrasher			S		1B
Troglodytes pacificus	Pacific Wren					1B
Vireo bellii arizonae	Arizona Bell's Vireo					1B
Vulpes macrotis	Kit Fox	No Status				1B

**Species of Economic and Recreation Importance Predicted within 3 Miles of Project Vicinity**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Callipepla gambelii	Gambel's Quail					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	Mourning Dove					

**Project Type: Transportation & Infrastructure, Road construction (including staging areas), Road widening (shoulders or additional or new lanes)**

**Project Type Recommendations:**

Fence recommendations will be dependant upon the goals of the fence project and the wildlife species expected to be impacted by the project. General guidelines for ensuring wildlife-friendly fences include: barbless wire on the top and bottom with the maximum fence height 42", minimum height for bottom 16". Modifications to this design may be considered for fencing anticipated to be routinely encountered by elk, bighorn sheep or pronghorn (e.g., Pronghorn fencing would require 18" minimum height on the bottom). Please refer to the Department's Fencing Guidelines located on Wildlife Friendly Guidelines page, which is part of the Wildlife Planning button at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

During the planning stages of your project, please consider the local or regional needs of wildlife in regards to movement, connectivity, and access to habitat needs. Loss of this permeability prevents wildlife from accessing resources, finding mates, reduces gene flow, prevents wildlife from re-colonizing areas where local extirpations may have occurred, and ultimately prevents wildlife from contributing to ecosystem functions, such as pollination, seed dispersal, control of prey numbers, and resistance to invasive species. In many cases, streams and washes provide natural movement corridors for wildlife and should be maintained in their natural state. Uplands also support a large diversity of species, and should be contained within important wildlife movement corridors. In addition, maintaining biodiversity and ecosystem functions can be facilitated through improving designs of structures, fences, roadways, and culverts to promote passage for a variety of wildlife. Guidelines for many of these can be found at: <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Minimize potential introduction or spread of exotic invasive species. Invasive species can be plants, animals (exotic snails), and other organisms (e.g., microbes), which may cause alteration to ecological functions or compete with or prey upon native species and can cause social impacts (e.g., livestock forage reduction, increase wildfire risk). The terms noxious weed or invasive plants are often used interchangeably. Precautions should be taken to wash all equipment utilized in the project activities before leaving the site. Arizona has noxious weed regulations (Arizona Revised Statutes, Rules R3-4-244 and R3-4-245). See Arizona Department of Agriculture website for restricted plants, <https://agriculture.az.gov/>. Additionally, the U.S. Department of Agriculture has information regarding pest and invasive plant control methods including: pesticide, herbicide, biological control agents, and mechanical control, <http://www.usda.gov/wps/portal/usdahome>. The Department regulates the importation, purchasing, and transportation of wildlife and fish (Restricted Live Wildlife), please refer to the hunting regulations for further information <https://www.azgfd.com/hunting/regulations>.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

Based on the project type entered, coordination with State Historic Preservation Office may be required (<http://azstateparks.com/SHPO/index.html>).

Design culverts to minimize impacts to channel geometry, or design channel geometry (low flow, overbank, floodplains) and substrates to carry expected discharge using local drainages of appropriate size as templates. Reduce/minimize barriers to allow movement of amphibians or fish (e.g., eliminate falls). Also for terrestrial wildlife, washes and stream corridors often provide important corridors for movement. Overall culvert width, height, and length should be optimized for movement of the greatest number and diversity of species expected to utilize the passage. Culvert designs should consider moisture, light, and noise, while providing clear views at both ends to maximize utilization. For many species, fencing is an important design feature that can be utilized with culverts to funnel wildlife into these areas and minimize the potential for roadway collisions. Guidelines for culvert designs to facilitate wildlife passage can be found on the home page of this application at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Based on the project type entered, coordination with U.S. Army Corps of Engineers may be required (<http://www.usace.army.mil/>)

Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

**The Department requests further coordination to provide project/species specific recommendations, please contact Project Evaluation Program directly. [PEP@azgfd.gov](mailto:PEP@azgfd.gov)**

**Project Location and/or Species Recommendations:**

HDMS records indicate that one or more listed, proposed, or candidate species or Critical Habitat (Designated or Proposed) have been documented in the vicinity of your project. The Endangered Species Act (ESA) gives the US Fish and Wildlife Service (USFWS) regulatory authority over all federally listed species. Please contact USFWS Ecological Services Offices at <http://www.fws.gov/southwest/es/arizona/> or:

**Phoenix Main Office**

2321 W. Royal Palm Rd, Suite 103  
Phoenix, AZ 85021  
Phone: 602-242-0210  
Fax: 602-242-2513

**Tucson Sub-Office**

201 N. Bonita Suite 141  
Tucson, AZ 85745  
Phone: 520-670-6144  
Fax: 520-670-6155

**Flagstaff Sub-Office**

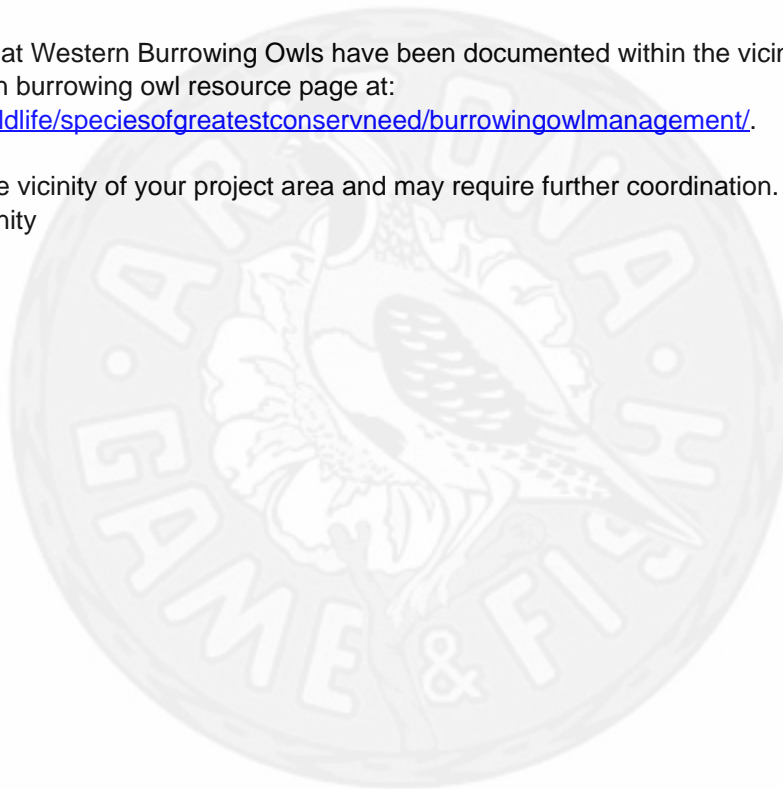
SW Forest Science Complex  
2500 S. Pine Knoll Dr.  
Flagstaff, AZ 86001  
Phone: 928-556-2157  
Fax: 928-556-2121

HDMS records indicate that Western Burrowing Owls have been documented within the vicinity of your project area. Please review the western burrowing owl resource page at:

<https://www.azgfd.com/wildlife/speciesofgreatestconservneed/burrowingowlmanagement/>.

Tribal Lands are within the vicinity of your project area and may require further coordination. Please contact:

Gila River Indian Community  
PO Box 97  
Sacaton, AZ 85247  
(520) 562-6000  
(520) 562-6010 (fax)





February 20, 2018

Arizona Department of Transportation  
c/o Jennifer Simpkins  
Kimley-Horn & Associates, Inc.  
7740 North 16<sup>th</sup> Street, Suite 300  
Phoenix, AZ 85020

Re: Review of the Chandler Heights Road Improvements (McQueen to Gilbert Road); CHN-0(240)D; 0000 MA CHN T0099 01C

Dear Ms. Simpkins:

The Arizona Game and Fish Department (Department) reviewed your Project Evaluation Request dated January 18, 2018, regarding the improvements planned to Chandler Heights Road in Chandler, AZ. The Department understands that ADOT will comply with the Arizona Native Plant Law for any ground disturbing activities, efforts will be made to minimize ground disturbance, and all temporarily disturbed land will be re-seeded to minimize erosion. In addition, the Department understands that, in accordance with ADOT Environmental Planning Group's (EPG's) guidelines, invasive species and the Migratory Bird Treaty Act (MBTA) will be addressed within the proposed project's biological report, if applicable.

The Department appreciates the opportunity to provide an evaluation of impacts to wildlife or wildlife habitats associated with the Chandler Heights Road Improvements (McQueen to Gilbert Road). If you have any questions regarding this letter, please contact me at (623) 236-7615, and visit our website for additional guidelines at:

<https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Sincerely,

A handwritten signature in black ink, appearing to read "Cheri A. Bouchér".

Cheri A. Bouchér  
Project Evaluation Program Specialist, Habitat Branch  
Arizona Game and Fish Department

cc: Laura Canaca, Project Evaluation Program Supervisor  
Kelly Wolff-Krauter, Habitat Program Manager, Region VI  
Audrey Navarro, ADOT Environmental Planning Group

AGFD# M18-01194749

[azgfd.gov](http://azgfd.gov) | 602.942.3000

5000 W. CAREFREE HIGHWAY, PHOENIX AZ 85086

GOVERNOR: DOUGLAS A. DUCEY COMMISSIONERS: CHAIRMAN, JAMES R. AMMONS, YUMA | JAMES S. ZIELER, ST. JOHNS | ERIC S. SPARKS, TUCSON  
KURT R. DAVIS, PHOENIX | EDWARD "PAT" MADDEN, FLAGSTAFF DIRECTOR: TY E. GRAY DEPUTY DIRECTOR: TOM P. FINLEY

**Photo No. 1**



View from the northeast corner of the project limits looking north along Gilbert Road with Roosevelt Water Conservation District (RWCD) reservoir adjacent.

**Photo No. 2**



View from the northeast corner of the project limits looking south along Gilbert Road.

**Ground Photographs**

CHN-0(240)D  
0000 MA CHN T0099 01C  
Chandler Heights Road Improvements (McQueen to Gilbert Road)

February 15, 2018  
191466008

**Photo No. 3**



View from the intersection of Chandler Heights Road and 132<sup>nd</sup> Street looking west along Chandler Heights Road.

**Photo No. 4**



View from the intersection of Chandler Heights Road and Cooper Road looking east along Chandler Heights Road.

**Ground Photographs**

CHN-0(240)D  
0000 MA CHN T0099 01C  
Chandler Heights Road Improvements (McQueen to Gilbert Road)

February 15, 2018  
191466008



**Photo No. 5**



View from the intersection of Chandler Heights Road and 124<sup>th</sup> Street looking east along Chandler Heights Road.

**Photo No. 6**



View from the western project limits at Kingston St. looking east along Chandler Heights Road.

**Ground Photographs**

CHN-0(240)D  
0000 MA CHN T0099 01C  
Chandler Heights Road Improvements (McQueen to Gilbert Road)

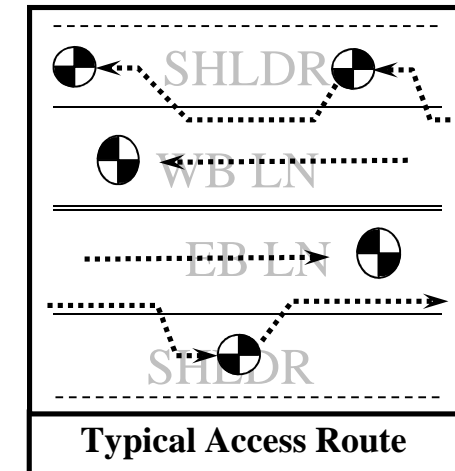
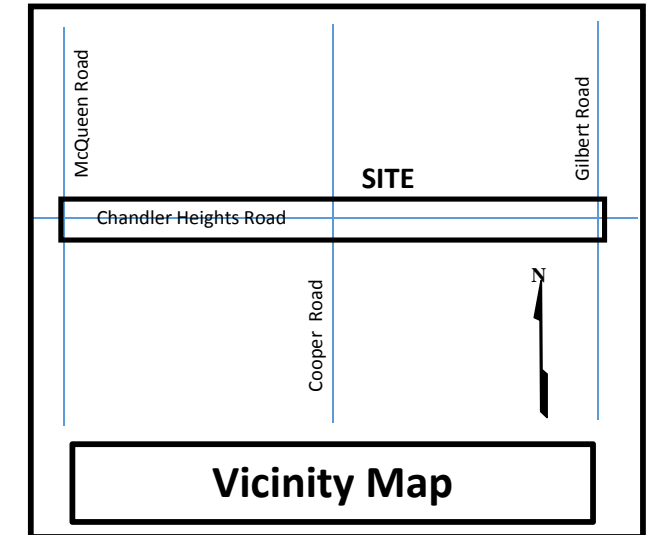
February 15, 2018  
191466008

**GENERAL NOTES:**

- 1 - All construction City of Chandler Rights-of-way (ROW) jurisdiction shall conform to the latest Maricopa Association of Governments' (MAG) Specifications as supplemented by City of Chandler.
- 2 - All construction Maricopa County Rights-of-way (ROW) jurisdiction shall conform to the latest Maricopa Association of Governments' (MAG) Specifications as supplemented by MCDOT.
- 3 - Contractor must obtain necessary permits prior to commencement of construction and maintain a copy of the permit on the project site at all times.
- 4 - Contractor must notify the jurisdictional Permit Inspector(s) at least 48 hours prior to any work being performed in the jurisdiction's ROW.
- 5 - Contractor performing excavation operations is responsible for locating and protecting all underground utilities.
- 6 - All compaction, backfill and repair within ROW will conform to the latest MAG Specifications unless stipulated otherwise in the jurisdiction's Permit.
- 7 - Any Damage to structures, equipment, materials, vegetation, and/or property shall be replaced and/or repaired in-kind to the satisfaction of the District.

**NOTES:**

- 1 - Testing locations may vary from those presented due to poor access, vegetation, overhead obstruction, utility conflict or unforeseen circumstances. Borings which differ shall be located within a 20 ft. radius of locations shown. Final locations may be field adjusted pending review.
- 2 - Existing roads / shoulders shall be used at all times, and all other excursions into surrounding property shall be prohibited.
- 3 - All values listed are to be interpreted as approximate in that slight variation will naturally occur. Any deliberate alteration where deemed necessary will be logged and reported as a revision.
- 4 - Access routes will be followed with slight variation to account for on-site restrictions.
- 5 - Equipment on-site will consist of truck-mounted drill rig, pickup truck for sample collection, and traffic control barricading and support vehicle.



**NOTE:** All Borings To Be Completed Within Existing ROW

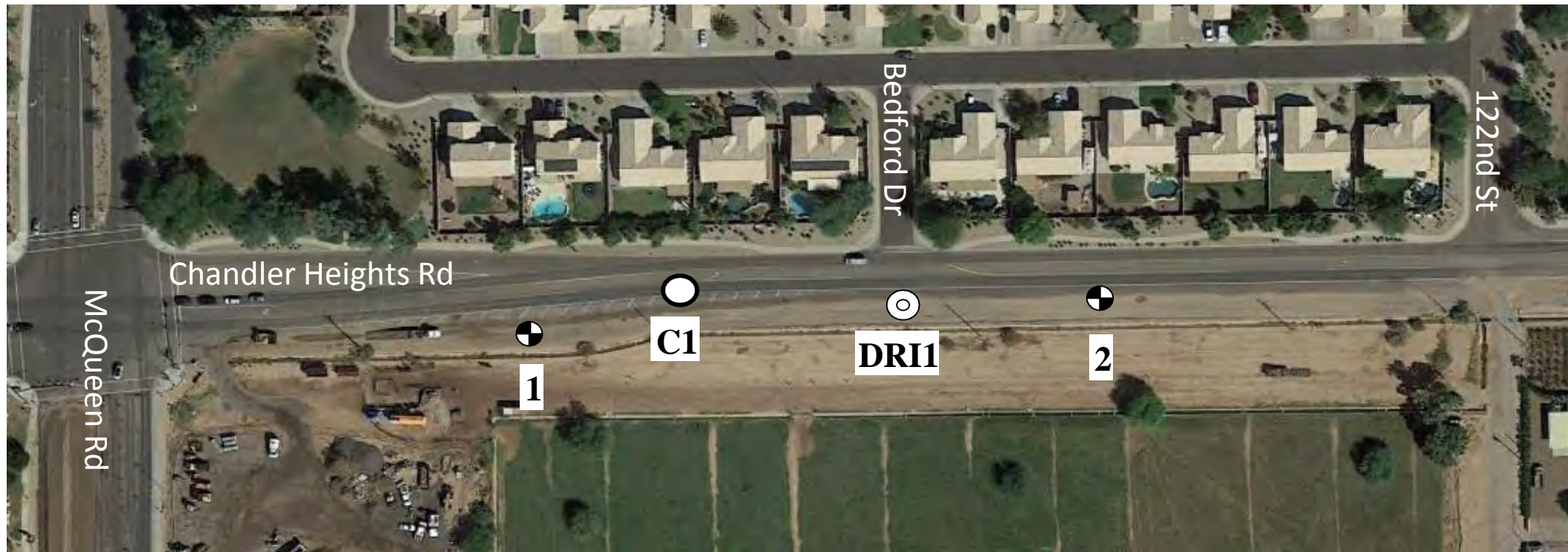
CITY PROJECT NO. : ST1614-201  
 ADOT TRACS NO. : T0099 01C  
 FEDERAL PROJECT NO. : CHN 0240D



JOB NO.	G24294
LOCATION	Chandler, Az
DATE	9/27/2017
DRAWN	AJS
PAGE	1 of 6

<b>Chandler Heights Road Improvements</b>	
McQueen Road to Gilbert Road	
Proposed Boring Locations	
<b>RICKER · ATKINSON · McBEE · MORMAN &amp; ASSOC., INC.</b>	
2105 South Hardy Drive, Suite 13, Tempe, AZ 85282-1924	








Boring #	Location	Depth
1	325' E/o McQueen	5'
2	875' E/o McQueen	10'

Note:  
Asphalt Core and Double Ring Infiltrrometer locations approximate. Final locations will be field adjusted pending review.

Boring #	Location	Depth
3	150' E/o 122nd	5'
4	700' E/o 122nd	15'
5	50' W/o 124th	5'



**LEGEND**

-  Proposed Test Boring Location
-  Asphalt Core Location
-  Double Ring Infiltrrometer Location



JOB NO.	G24294
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<b>Chandler Heights Road Improvements</b>	
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2105 South Hardy Drive, Suite 13, Tempe, AZ 85282-1924	





Boring #	Location	Depth
6	550' E/o 124th	10'
7	150' W/o 126th	5'



Note:  
Asphalt Core and Double Ring Infiltrometer locations approximate. Final locations will be field adjusted pending review.

Boring #	Location	Depth
8	375' E/o 126th	15'
9	350' W/o Cooper	5'



**LEGEND**

- Proposed Test Boring Location
- Asphalt Core Location
- Double Ring Infiltrometer Location

Call at least two full working days before you begin excavation.

**ARIZONA 811**  
Arizona Blue Stake, Inc.

Dial 8-1-1 or 1-800-STAKE-IT (782-5348)  
In Maricopa County: (602) 263-1100

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Proposed Boring Locations

**RICKER · ATKINSON · McBEE · MORMAN & ASSOC., INC.**  
2105 South Hardy Drive, Suite 13, Tempe, AZ 85282-1924





Boring #	Location	Depth
10	(WB) 325' E/o Cooper	10'
11	(EB) 875' E/o Cooper	5'






Note:  
Asphalt Core and Double Ring Infiltrometer locations approximate. Final locations will be field adjusted pending review.

Boring #	Location	Depth
12	(WB) 125' E/o 130th	15'
13	(EB) 675' E/o 130th	5'
14	(WB) 50' W/o 132nd	10'



**LEGEND**

-  Proposed Test Boring Location
-  Asphalt Core Location
-  Double Ring Infiltrometer Location

Call at least two full working days before you begin excavation.

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**Chandler Heights Road Improvements**  
McQueen Road to Gilbert Road  
Proposed Boring Locations

**RICKER · ATKINSON · McBEE · NORMAN & ASSOC., INC.**  
2105 South Hardy Drive, Suite 13, Tempe, AZ 85282-1924





Boring #	Location	Depth
15	(EB) 475' E/o 132nd	5'
16	(WB) 575' W/o Riggs Meadows	15'

N






Note:

Asphalt Core and Double Ring Infiltrometer locations approximate. Final locations will be field adjusted pending review.

Boring #	Location	Depth
17	(EB) 25' W/o Riggs Meadows	5'



**LEGEND**

-  Proposed Test Boring Location
-  Asphalt Core Location
-  Double Ring Infiltrometer Location

Call at least two full working days before you begin excavation.

**ARIZONA 811**  
Arizona Blue Stake, Inc.

Dial 8-1-1 or 1-800-STAKE-IT (782-5348)  
In Maricopa County: (602) 263-1100

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**Chandler Heights Road Improvements**  
McQueen Road to Gilbert Road  
Proposed Boring Locations

**RICKER · ATKINSON · McBEE · MORMAN & ASSOC., INC.**  
2105 South Hardy Drive, Suite 13, Tempe, AZ 85282-1924



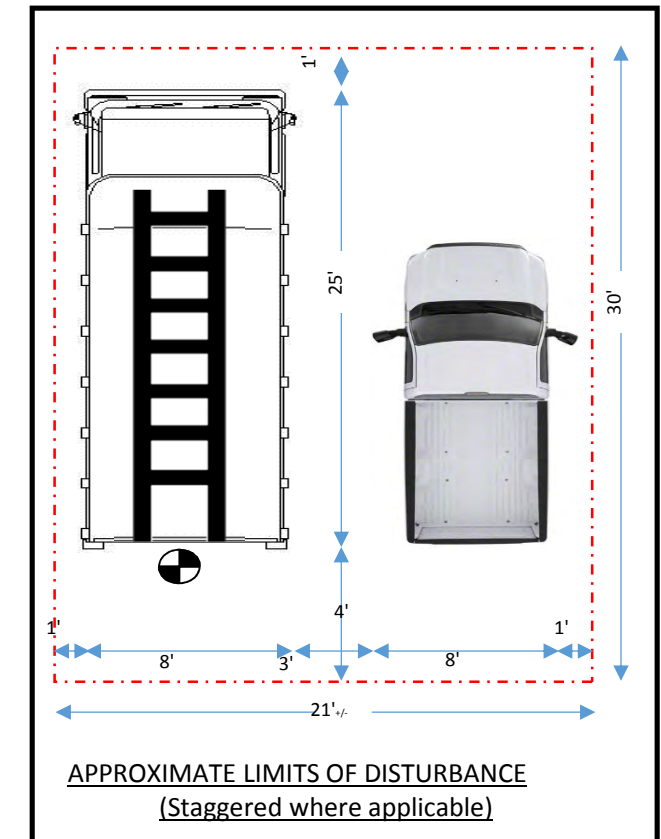
BORING GEOMETRY			LOCATION			
Boring No.	Diameter	Depth (Ft) *	Boring Location		Latitude	Longitude
1	8 inch	5	325' E of McQueen	EB SHLDR	33.2333	-111.8286
2	8 inch	10	875' E of McQueen	EB SHLDR	33.2334	-111.8208
3	8 inch	5	150' E of 122nd	EB SHLDR	33.2334	-111.8190
4	8 inch	15	700' E of 122nd	EB SHLDR	33.2335	-111.8173
5	8 inch	5	50' W of 124th	EB SHLDR	33.2335	-111.8155
6	8 inch	10	550' E of 124th	EB SHLDR	33.2335	-111.8133
7	8 inch	5	150' W of 126th	EB SHLDR	33.2335	-111.8115
8	8 inch	15	375' E of 126th	EB SHLDR	33.2336	-111.8097
9	8 inch	5	350' W of Cooper	EB SHLDR	33.2336	-111.8079
10	8 inch	10	325' E of Cooper	WB SHLDR	33.2337	-111.8053
11	8 inch	5	875' E of Cooper	EB SHLDR	33.2336	-111.8036
12	8 inch	15	125' E of 130th	WB SHLDR	33.2337	-111.8018
13	8 inch	5	675' E of 130th	EB SHLDR	33.2336	-111.8000
14	8 inch	10	50' of 130th	WB SHLDR	33.2337	-111.7982
15	8 inch	5	475' E of 132nd	EB SHLDR	33.2336	-111.7965
16	8 inch	15	575' W of Riggs Meadows	WB SHLDR	33.2338	-111.7946
17	8 inch	5	25' W of Riggs Meadows	EB SHLDR	33.2336	-111.7929
C1	6 inch	5	550' E of McQueen	EB LN		
C2	6 inch	5	440' E of 122nd	EB LN		
C3	6 inch	5	430' E of 124th	EB LN		
C4	6 inch	5	150' E of 126th	EB LN		
C5	6 inch	5	520' E of Cooper	EB LN		
C6	6 inch	5	310' E of 130th	WB LN		
C7	6 inch	5	80' E of 132nd St	WB LN		
C8	6 inch	5	380' W of Riggs Meadows	EB LN		
C9	6 inch	5	10' E of Riggs Meadows	WB LN		
DRI1	Excavated Pit	3	750' E of McQueen	EB SHLDR		
DRI2	Excavated Pit	3	640' E of 122nd	EB SHLDR		
DRI3	Excavated Pit	3	680' E of 124th	EB SHLDR		
DRI4	Excavated Pit	3	560' E of 126th	EB SHLDR		
DRI5	Excavated Pit	3	870' E of Cooper	WB SHLDR		
DRI6	Excavated Pit	3	550' E of 130th	WB SHLDR		
DRI7	Excavated Pit	3	200' E of 132nd St	EB SHLDR		
DRI8	Excavated Pit	3	680' W of Riggs Meadows	WB SHLDR		
DRI9	Excavated Pit	3	20' E of Riggs Meadows	WB SHLDR		

\* Total depth in the absence of auger refusal

Note:  
Asphalt Core locations approximate.  
Final locations will be field adjusted  
pending review.

Note:  
Double Ring Infiltrometer  
locations approximate. Final  
locations to be determined  
pending design.

Note: Boring and Double Ring Infiltrometer locations will be completed outside any roadway pavement and/or paved shoulders.



**NOTE:** All Borings  
To Be Completed  
Within Existing  
ROW

CITY PROJECT NO. : ST1614-201  
ADOT TRACS NO. : T0099 01C  
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<b>Chandler Heights Road Improvements</b>	
McQueen Road to Gilbert Road	
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<b>RICKER · ATKINSON · McBEE · MORMAN &amp; ASSOC., INC.</b>	
2105 South Hardy Drive, Suite 13, Tempe, AZ 85282-1924	





## Western Burrowing Owl Awareness

ADOT Environmental Planning

1611 W. Jackson St- Mail Drop EM02

Phoenix, AZ 85007

*The purpose of this flyer is to provide ADOT employees and contractors, working on roadside projects, with basic knowledge to reduce the risk of incidental take of Western Burrowing Owls.*

### Legal Status:

Western Burrowing Owls (*Athene cunicularia*) are protected under the Federal Migratory Bird Treaty Act of 1918. All migratory birds and their parts are fully protected. They are also protected under Arizona State Law in Title 17-101, Title 17-235, and Title 17-236.

### What to look for:

- Description– small, ground-dwelling owl.
- Length– 19.5-25.0 cm (7.68-9.85 inches)
- Wingspan– 58.42 cm (23.0 inches)
- Mass– about 150 grams
- Males are typically slightly larger than females.
- Round head, lacks ear tufts.
- Distinct oval facial ruff, framed by a broad, puffy white eyebrow.
- Eyes contain a bright yellow iris.

### Where are owls found?

- Dry, open, short grass, treeless plains.
- Dependent on fossorial mammals. (ground squirrels, prairie dogs, badgers, etc.) to construct burrows.
- Human dominated landscapes: golf courses, airports, agricultural fields.

### Identifying an active burrow:

- Owls use burrows constructed by ground squirrels, badgers, coyotes and tortoises. They can also use pipes, culverts, and ditches.
- Presence of excrement (whitewash) near entrance to burrow.
- Burrowing owls frequently decorate entrance of burrows with cow or horse manure, feathers, vegetation and trash items.

### How to avoid them:

- Scan ahead prior to arriving at a sign location.
- If burrowing owls are observed within the project area, stop and move at least 100 feet beyond the owl or occupied burrow before resuming work.

*If you think your work may potentially impact a Burrowing Owl or active burrow, please stop.*

*Move at least 100 feet from the animal or burrow before resuming work.*

*If you have any questions or think you have a borrowing owl or active burrow on your work site please*

*contact: Joshua Fife, Biologist, ADOT Environmental Planning, [jfife@azdot.gov](mailto:jfife@azdot.gov)*

*Office: (602)712-6819, Mobile: (602) 622-9622, EPG General: (602)712-7767*

*Source: Arizona Game and Fish Department Animal Abstract: Western Burrowing Owl. Heritage Data Management System*

*(revised November 25, 2013)*