MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION

2901 WEST DURANGO STREET

PHOENIX, ARIZONA 85009

For

Project No. TT0551, SKUNK CREEK CROSSING AT DESERT HILLS DRIVE

March 12, 2026

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APPENDICIES

PROFESSIONAL ENGINEER SEALS

These Special Provisions represent the efforts of Dibble and Associates Consulting Engineers, Incorporate (dba Dibble) in support of the Maricopa County Department of Transportation. A representative of Dibble has affixed their seal below, which attests that these Special Provisions were prepared under their direction.

(For use with the 2026 MCDOT Supplement to MAG)

SPECIAL PROVISIONS
Skunk Creek Crossing at Desert Hills Drive
TT0551

LOCATION OF THE WORK

This project is located in Sections 19 and 30 of Township 6N, Range 3E on Desert Hills Drive between 17th Avenue and 13th Avenue within Maricopa County, Arizona.

PROPOSED WORK

The work consists of constructing an eight cell, 10-foot by 6-foot to 7-foot (8-10'x6'-7') reinforced concrete box culvert and reconstructing the approaches to Desert Hills Drive to convey the bank-full runoff underneath Desert Hills Drive. Scope elements included with this project include removing the existing asphaltic concrete roadway, placing aggregate base, paving with asphaltic concrete pavement, applying pavement markings, installing permanent signage, constructing grouted riprap bank protection, installing pipe culverts, installing dumped riprap erosion protection and other miscellaneous work.

CONTRACT TIME

The Contractor shall complete all project work within 180 calendar days beginning with the start date specified in the Notice to Proceed.

AVAILABLE INFORMATIONAL MATERIAL

The following information is made available as an attachment to the solicitation for bids:

Geotechnical and Pavement Design Report*
Roadway Cross Sections

*Note: Soils information contained in the geotechnical report was obtained and used for design purposes. It is the responsibility of the Contractor to establish soils information for their bid and construction purposes.

SECTION 104 SCOPE OF WORK

104.2 ALTERATION OF WORK

104.2.3 Due to Extra Work*, add the following:*

Repairs required due to unforeseen problems or other causes not related to the Contractor's operations shall be repaired by the Contractor as directed by the Engineer. Written authorization from the Engineer is required prior to commencement of Engineer Authorized Repairs. The line item 104.23000, Engineers Authorized Repairs (Contingent Item), is included at the direction and discretion of the Engineer up to $7,500 per incidence with a not-to-exceed amount of $50,000 within this contract.

104.4 PARTNERING:
The County's Partnering Program is designed to build the foundation of a cohesive partnership with MCDOT, the Contractor, MCDOT's Consultant Construction Manager, Subcontractors and Suppliers through identifying outcomes, setting goals and resolving disputes. This is accomplished through all project team members being committed to: building relationships upon mutual trust and teamwork; establishing and keeping open lines of communication; performing their best on the job; being open minded to new best practices; empowering employees to solve issues at the lowest level; and maintaining cooperative working relationships to meet project goals.

To implement this, the Contractor's management personnel, the County's Resident Engineer, the Consultant Construction Manager, and the Partnering Representative will initiate a conference call to determine a Partnering Facilitator to lead the Construction Kickoff Workshop and other subsequent partnering meetings during the project. They will also determine workshop attendees, agenda specifics, duration, frequency of partnering meetings and locations. Persons required to be in attendance will be agreed upon in this conference call in accordance with MCDOT's Partnering Program.

Since the Partnering Program provides benefits to both the County and the Contractor, the County will reimburse the Contractor for one half of the cost of the partnering charges, equally divided, based upon approved invoices and documented expenses to the Contractor in connection with the Item PARTNERING, in an amount not to exceed the ALLOWANCE shown in the Bidding Schedule. Expenses eligible for reimbursement are direct expenses incurred in providing facilities, facilitators, supplies, and materials for the Construction Kickoff Workshop and other partnering meetings during the project. No labor costs or additional mark-up for profit and/or fee for Contractor will be eligible for reimbursement.

The establishment of a partnering charter on the project will not change the legal relationship of the parties to the contract, nor relieve either party from any terms of the contract.

SECTION 105 CONTROL OF WORK

105.6 COOPERATION WITH UTILITIES*, add the following:*

The following utilities are expected to be located within the limits of this project. These utilities, along with the contact information, are listed in **Table 1**.

Table 1: Utility Contact Information

Provider	Type	Contact
Arizona Public Service	Electric (Overhead)	Baldemar Garza (602) 371-7989 Baldemar.garza@aps.com
Desert Hills Water Co.	Water	Ryan Hill (480) 488-6619 rhill@cavecreekaz@gov.com
EPCOR	Water	Oscar Chambers (623) 815-3105 ochambers@epcor.com
Lumen *TerraTech (on behalf of Lumen)*	Coaxial, Fiber	Jason Jensen (801) 735-2464 jjensen@terratechllc.net
Maricopa County Department of Transportation	Utility Project Manager	Alphonso Quoziente (602) 506-2935 alphonso.quoziente@maricopa.gov
Verizon/MCI	Telecommunications	Jesus Arrieta Phone TBD jesus.arrieta@verizon.com

The following includes a description of the existing facilities and relocation plans for utility providers within the project limits:

ARIZONA PUBLIC SERVICE (ELECTRIC)
Arizona Public Service (APS) owns overhead electric lines located on the south side of Desert Hills Drive up to the secondary service for the nursery property. Relocations of electrical facilities will be required at the following locations as part of this project:

- Sta 19+55 Rt .....APS to relocate pole prior to construction.

APS has specific requirements for this project. Construction shall be in accordance with the requirements listed below:

- National Electric Safety Code clearances must be maintained.
- Maintain a 2-foot minimum clearance from any electrical facility at all times.
- All work near overhead lines must comply with Arizona Revised Statute 40-360.42.
- APS needs 24/7 access to APS distribution facilities.
- Contractor cannot store material or change grade underneath or adjacent to APS facilities without prior approval from APS.

- Contractor to contact APS to provide safe working clearances at least five (5) business days in advance of construction.

DESERT HILLS WATER COMPANY (WATER)
Desert Hills Water Company owns potable water facilities in the project vicinity. No known facilities are located in the project limits.

EPCOR (WATER)
EPCOR owns a water filling station located near the western terminus of the project limits. No known facilities are located in the project limits. The Contractor shall coordinate with EPCOR and maintain access for service and customer vehicles to the filling station at all times.

COX COMMUNICATIONS (TELECOMMUNICATIONS)
Cox Communications will be installing one underground telecommunications duct on the south side of Desert Hills Drive, within the pavement, throughout the project limits. It is anticipated that Cox Communications will complete the installation prior to construction of this project and that their installation will accommodate this project's improvements without conflict.

LUMEN (TELECOMMUNICATIONS)
Lumen owns two underground telecommunication lines located on the south side of Desert Hills Drive throughout the project limits. Relocations of telecommunication facilities will be required at the following locations in advance of this project:

- Sta 19+75 to 31+00 Rt .....Duct bank will be relocated by Lumen to a minimum two-foot depth below scour protection
- Sta 23+18 to 30+00 Rt .....Four, four-inch conduit will be relocated by Lumen to a minimum two foot depth below scour protection

The Contractor shall remove the following Lumen facilities as noted on the plans:

- Sta 19+75 Rt .....Two telecommunication pedestals
- Sta 20+02 Rt .....One telecommunications manhole
- Sta 25+95 Rt .....One telecommunication pedestal
- Sta 27+22 Rt .....Two telecommunications manholes

VERIZON/MCI (TELECOMMUNICATIONS)
Verizon/MCI owns one underground telecommunication line located on the north side of Desert Hills Drive throughout the project limits. Relocations of telecommunication facilities will be required at the following locations in advance of this project:

- Sta 9+00 to 36+70 Lt.....Duct bank will be relocated by Verizon/MCI to a minimum two-foot depth below scour protection
- Sta 18+90 Lt.....Four pull boxes will be relocated by Verizon/MCI

The Contractor shall remove the following Lumen facilities as noted on the plans:

- Sta 28+45 Lt.....One vault

105.16 MODIFICATIONS TO ADOT STANDARD SPECIFICATION, add the following:

The Contractor shall reference **Appendix C** for modifications to the ADOT Standard Specification.

SECTION 107 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC

107.1 COMPLIANCE WITH LAWS*, add the following:*

107.1.2 Environmental Mitigation Measures:

The Contractor shall adhere to all terms, conditions, and requirements contained in the Environmental Mitigations listed herein. All related documents are located in Appendices A and B to these Special Provisions.

1. 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 MCDOT Environmental Program Branch "Sonoran Desert Tortoise Awareness" flyer (Dated March 19, 2025) and become familiar with the identification and avoidance of the Sonoran Desert Tortoise.

2. If Sonoran Desert Tortoises are encountered during construction, the contractor shall adhere to the attached Arizona Game and Fish Department's "Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects" revised September 22, 2014 and located in Appendix A to these Special Provisions.

During project construction, MCDOT Environmental Program Branch shall be notified at (602) 506-8068 of any proposed changes in scope of work and/or work to be added outside the defined project limits, for evaluation of potential environmental impacts.

Payment for Environmental Mitigation Compliance is an allowance determined by MCDOT and is intended to cover all activities associated with fulfilling environmental mitigation measures that are not directly included within other pay items. Payment will be based upon approved invoices, in accordance with Section 109.5.

107.1.3 Compliance with Migratory Bird Treaty Act:

If vegetation removal activities will occur between February 1st and August 31st, the contractor shall arrange for a qualified biologist to conduct a bird nest survey of the grasses, shrubs, trees and/or limbs to determine the presence/absence of active bird nests. The survey shall be conducted within ten (10) calendar days of vegetation removal.

If active bird nests are found during the bird nest survey or during work activities, the contractor shall notify the Engineer and avoid vegetation removal or pruning until the MCDOT Environmental Program Branch authorizes the work to resume. MCDOT Environmental Program Branch will arrange for a licensed wildlife rehabilitator to remove any eggs or nestlings from active nests within five (5) working days.

The Contractor shall provide documentation of the biologist qualifications at the preconstruction meeting or prior to any survey work being performed. The biologist shall have completed a full four-year course of study in an accredited college or university leading to a bachelor's or higher degree, which included a major field (24 semester hours) of study in biological sciences, natural resources management, or related disciplines appropriate to the services provided or a combination of education and equivalent experience totaling a minimum of five years.

Between September 1st and January 31st, grubbing, shrub clearing, and tree/limb removal activities are not subject to this restriction.

Payment for Migratory Bird Treaty Act Compliance will be based upon approved invoices, in accordance with Section 109.5.

107.2 PERMITS*, add the following:*

107.2.1 AZPDES/NPDES Construction General Permit Requirements*, add the following:*

This project construction activities will disturb one or more acres of land; therefore, the project is subject to the Arizona Pollutant Discharge Elimination System (AZPDES) program and requires coverage under the Construction General Permit (CGP). The Contractor is responsible for obtaining CGP coverage and complying with permit requirements.

107.2.2 Dust Control Permit, *add the following:*

The Contractor shall obtain a Dust Control Permit from the Maricopa County Air Quality Department and comply with Rule 310: Fugitive Dust from Dust-Generating Operations. No construction activity disturbance of the site is allowed until the Dust Control Permit has been issued.

107.2.3 Compliance with Maricopa County Stormwater Regulation:

This project activities are subject to the Maricopa County Stormwater Quality Management and Discharge Control Regulation (County Stormwater Regulation) and require a County Stormwater Permit from the Maricopa County Planning and Development Department (P&D). The Contractor shall be responsible for all activities associated with obtaining pre-construction Stormwater Permit approvals, Stormwater Permit compliance during construction, and payment of fees relating to and established by the regulation. No construction activity disturbance of the site is allowed until the Stormwater Permit has been issued. Permit requirements and related information are available from the following website:

https://www.maricopa.gov/1631/Commercial-Construction

Obtaining post-construction permit coverage and post-construction permit compliance are not Contractor responsibilities.

Fines and penalties imposed by Maricopa County Environmental Services Department for Contractor's failure to comply with the County Stormwater Permit shall be paid by the Contractor.

Payment for County Stormwater Permit is an allowance determined by the permitting agency and is intended to cover administrative cost only associated with applying for and receiving the approved permit. Payment will be based upon approved invoices, in accordance with Section 109.5.

107.2.4 Corps of Engineers Section 404 Permit:

The Contractor shall adhere to all applicable terms and conditions of the Department of the Army Nationwide Permit Number 14 pursuant to Section 404 of the Clean Water Act, including 401 Water Quality Certification issued by the Arizona Department of Environmental Quality**.**

During project construction, MCDOT Environmental Program Branch shall be notified at (602) 506-8068 of any proposed changes in scope of work and/or work to be added outside the defined project limits, for evaluation of potential environmental impacts.

Payment for 404 Permit Compliance will be made at the Contract Lump Sum Price. Payment shall be full compensation for performing all activities associated with fulfilling

404 Permit Compliance that are not directly included within other pay items. Contractor will be compensated for this contract item at a rate of 15% of the contract lump sum amount with the first progress payment. The remaining 85% of the contract amount will be pro-rated over the entire length of the project.

Nationwide Permit Number 14 and related documents are located in **Appendix B** to these Special Provisions.

SECTION 108 COMMENCEMENT, PROSECUTION AND PROGRESS

108.4 Contractor's Construction Schedule*, replace with the following:*

108.4.1 Schedules:

(A) Definitions:

Activity:

A discrete, identifiable task or event that contributes to completing the project and can be used to schedule and monitor the work.

Activity ID:

A unique alphanumeric identification code permanently assigned to an activity.

Baseline Schedule:

A Critical Path Method (CPM) schedule illustrating the contractor's committed plan to complete the work within the contract time and used to compare the progress of the work.

Constraint:

A limitation placed on a scheduled activity that affects the start or end date of an activity.

Critical Path:

The longest continuous chain of activities which establishes the minimum overall project duration.

Critical Path Method (CPM):

A network-based planning technique that uses activity durations and relationships to calculate a schedule for the project.

Data Date:

The date from which a schedule is calculated, where all activities occurring earlier than the data date are complete and all activities occurring on or after the data date are planned.

Duration:

The estimated time required to complete an activity as recorded on the Project Schedule.

Float Suppression/Sequestering:

The process of utilizing zero free float techniques that allows an activity to start as late as possible by using all available free float of that activity, by the utilization of overly generous activity durations, or by using overly restrictive calendar non-working periods.

Free Float:

The amount of time an activity may be delayed without delaying the early start date of its successors.

Longest Path:

The longest continuous path of activities through a project, which controls project early completion.

Look-Ahead Schedule:

A computer-generated schedule that shows the previous week's work and the work planned for the current and next three weeks.

Milestone:

An activity, with no duration, that is typically used to represent the beginning, end, interim stages, and significant events of the project, or contractually required dates.

Monthly Progress Schedule:

A monthly update to the approved baseline schedule.

Narrative:

A written report explaining the Project Schedule in detail.

Predecessor:

An activity that affects the start or finish date of another activity with a logically tied relationship.

Preliminary Schedule:

A CPM schedule that shows the Baseline Schedule for the first 60 calendar days of contract time and, the work breakdown structure and milestones for the entire contract.

Project Schedule:

A logic-based critical path for all work leading up to and including substantial completion or final acceptance that is used for tracking the performance of the work. The term “Project Schedule” will refer to one or more of the following:

(a) Baseline Schedule,

(b) Monthly Schedule, or

(c) Recovery Schedule.

Record Schedule:

A CPM schedule that shows the actual start and finish date of each activity, durations, and all changes.

Recovery Schedule:

A CPM schedule that shows the activity changes to recover the time lost due to incompletion of the work within the contract time as specified in the Monthly Progress Schedule.

Scheduler:

An individual, who creates, maintains and revises the Project Schedule using applicable software.

Successor:

An activity whose start or finish date is affected by the logically tied relationship with another activity.

Time Impact Analysis (TIA):

A forward-looking, prospective schedule analysis developed to demonstrate the impact of a change to the current schedule on its longest path.

Total Float (Float):

The cumulative duration of time an activity may be delayed without delaying the contract time or a contractual milestone.

Work Breakdown Structure (WBS):

A framework for organizing and ordering the work activities into hierarchical groups.

(B) General:

The Contractor shall prepare, furnish, and use the Project Schedule to plan, monitor, and report the progress of the work. The schedule shall demonstrate a detailed plan to complete the work in accordance with the contract time and be used in communication to coordinate activities among all affected parties.

The Contractor shall provide a Scheduler to create and maintain all schedules, updates, Narratives, reports, and TIA related to this project. The Scheduler shall be proficient in CPM schedule development, analysis of resources applicable to the required detail of the Project Schedule and shall be able to perform the required tasks using the specified software.

The Scheduler shall be present at all schedule meetings, in person or via teleconference, and made available for discussion or meetings when requested by the Engineer. The contractor's project management personnel, subcontractors, and suppliers shall actively communicate with the Scheduler to develop and maintain accurate updates of progress and schedule revisions throughout the duration of the contract.

The County's review and comment on a schedule for compliance with this specification does not do the following:

(1) Imply or constitute approval of particular construction methods or relieve the Contractor of its responsibility to provide sufficient materials, equipment, and labor to complete the project in accordance with the contract.

(2) Attest to the validity of assumptions, activities, relationships, sequences, resource allocations, or other aspects of the schedule.

(3) Imply the Contractor is entitled to a Supplemental Agreement extending the contract time or adjusting the contract price.

(4) Relieve the Contractor from compliance with the requirements of the contract or result in the approval of a deviation, exception to, or other variation from the contract. Failure to include an element of work required by the contract in the schedule does not release or relieve the Contractor from responsibility to perform such work.

In preparing, developing, and updating the Project Schedule the Contractor shall not utilize:

(1) Float suppression techniques in the schedule, including interim dates imposed by the Contractor other than project milestone(s).

(2) The inclusion of activities or constraints in a path or chain leading to a project milestone which are unrelated to the work as specified in the contract.

(3) Activity durations or sequences determined by the County to be unreasonable in whole or in part.

The Contractor shall not use preferential sequencing, whereby activities that could be performed concurrently and are established in the Project Schedule as sequential simply to consume float. The Contractor shall not indicate artificial activity durations by inflating activities in the schedule to consume float and influence the Critical Path. Sequestering of float is cause for rejection of the Contractor's schedule submittal. If float sequestering is identified, the Contractor shall revise the schedule appropriately.

Total Float is a commodity available to both the County and the Contractor for sequential use until depleted and not for the exclusive use or financial benefit of either party. A schedule showing an early completion date shall show the time between the scheduled completion date(s) and the required contract completion deadline(s) as Total Float.

The County will not be liable to the Contractor for delays by any party when the Contractor completes the work prior to expiration of contract time.

If a delay in performing the work is caused by the County, the Contractor shall immediately notify the County in writing that a revision to the contract is necessary in accordance with Subsection 104.2 and Subsection 109.8.2. The Contractor shall include a description of the cause of delay, the projected amount of Total Float to be used, and the revised Monthly Progress Schedule showing the use of the Total Float in the Monthly Progress submittal. The Contractor shall work cooperatively with the County, other contractors, and third parties to identify and implement, to the maximum extent possible, no-cost measures to recover all schedule delays, regardless of the cause of the delays.

The Contractor shall coordinate with the County, local governmental entities, utility companies, railroad companies, and any third party entities when developing and maintaining the Project Schedule. The Contractor shall coordinate its planning and scheduling efforts as required to address conflicts and comments received from adjacent projects and other entities.

(C) BLANK:

(D) Baseline Schedule:

The Contractor shall submit a Baseline Schedule before or at the Preconstruction Conference for the Engineer's review and approval.

The Baseline Schedule shall be in the following format:

i. Project ID: The schedule project ID shall match the filename format in Subsection 108.4.1 (K) of the specifications. The project name shall be the Project number followed by "_SCH_" followed by the project description.

ii. Activity ID: Each activity shall be assigned a unique identification number. Activity ID numbers shall not be changed or reassigned for the duration of the contract. Within each group of the WBS, activity IDs shall be numbered sequentially in increments of 10 in the order of their start date or by finish date of a finish milestone. Milestone activities shall begin with "M". Use 10 characters or less.

iii. Activity Name: Each activity shall be defined with a unique name that contains the description of work. Each name shall at a minimum consist of a verb or work function (i.e., remove, excavate, form, install), an object (i.e., curb, pipe, footing) and a location (i.e., street, station, bridge number). For example, "Install Barrier Dtl C – S1 120+25 Lt". The activity quantity may be included after location.

The Contractor shall create an activity name using the following:

a) Use 50 characters or less.

b) Use "S1, S2, …" for stage naming if applicable.

c) Do not use all capital letters.

d) Keep names readable, but use abbreviations as needed. Do not use periods when abbreviating. All abbreviations shall be consistent.

e) Location is not required if object name is specific, such as “CMP #201”.

The Contractor shall provide a list of abbreviations and acronyms. The work related to each activity shall be limited to one stage, one area, one traffic control phase, and one responsible party of the contract.

iv. Activity Code: Activities shall be assigned with project activity codes that will be used to classify, categorize, and organize activities for reporting. Only use project-level activity codes and not global or enterprise codes. At a minimum, all activities shall have an activity code for responsible party, stages, and phases. Additional activity codes shall be added if requested by the County.

v. Milestones: The Contractor shall separately identify each project milestone, conforming to the scheduling requirements set forth in the contract.

vi. Constraints: The Contractor shall not use date constraints to logically begin or complete a project activity unless specific calendar dates are shown in the contract. Specific contract dates may only be applied as a constraint to a milestone activity and input as either a “Start on or After” or “Finish on or Before” date. No other constraint types shall be allowed.

vii. Duration: Activity duration shall not exceed 20 calendar days unless approved by the Engineer. Activity durations shall be at least one calendar day. Durations shall represent the anticipated productivity rates that factor in all limitations to the productivity. Long lead activities such as procurement and Level of Effort activities may exceed 20 calendar days.

viii. Relationships: All activities shall have at least one predecessor and one successor except for the project start and project end milestones. Negative lags or negative floats shall not be allowed. Predecessors and successors shall not be linked to the same activity with different relationship types. The start of an activity shall have a Start-to-Start or Finish-to-Start relationship with preceding activities. The completion of an activity shall have a Finish-to-Start or Finish-to-Finish relationship with succeeding activities. Do not use Start-to-Finish relationships. Do not use Finish-to-Start relationships with a lag or overlap.

ix. If applicable, the schedule shall include but not be limited to all activities below:

1. Mobilization/Demobilization
2. Right of Way Acquisition
3. Submittal development
4. Submittal review and acceptance
5. Submittal and approval of material samples and mix designs
6. Submittal and approval of shop drawings
7. Long lead items, material, and equipment procurement
8. Procurement of permits
9. Environmental commitments and mitigation activities
10. Equipment and plant setup
11. Fabrication of special items
12. Erection and removal of falsework and shoring
13. Utility and railroad relocations
14. Cure times for concrete
15. Cure times for pavement before striping
16. Landscape and seeding establishment periods
17. Test periods
18. Major traffic stage changes
19. Substantial completion
20. Punchlist completion
21. Final cleanup

x. The schedule shall be in detail to allow day-to-day monitoring and review of the Contractor's operations. It shall show the order and interdependence of activities and the sequence of work.

xi. The Contractor shall detail the Critical Path activities and logic ties in the schedule to show the work sequencing. The Contractor shall use the CPM software to determine the controlling activities in the critical path. The critical activities shall be prominently distinguished on all reports by the use of color or pattern.

xii. The Contractor shall provide the number of activities to assure adequate project planning and allow for monitoring and evaluation of work progress.

xiii. The Contractor shall provide activities as necessary to depict third-party work related to the contract. Third-party work activities may include but is not limited to railroads, utilities, real estate, and government agencies.

xiv. Seasonal, winter shutdown, traffic, special event, environmental, or other contract restrictions shall be considered and included in the schedule for all work. These restrictions shall be addressed with project calendars and shown as non-work days for each major work type. Global calendars shall not be used. Examples of major work types are earthwork, concrete paving, structures, asphalt, drainage, landscaping, etc. The Contractor shall include project calendar for curing time if applicable.

xv. The duration for each activity shall include the anticipated production rate and the time for anticipated weather stoppages. The Contractor shall not reserve random non-work days in a project calendar to account for weather stoppages.

xvi. The schedule shall have a Data Date of the start date shown in the Notice to Proceed letter.

xvii. When processing the schedule in the software, the Contractor shall use the following options:

1. When scheduling progressed activities use Retained Logic.
2. Calculate start-to-start lag from Early Start.
3. Define critical activities as Longest Path.
4. Compute Total Float as Finish Float = Late Finish – Early Finish.
5. Calendar for scheduling relationship lag as predecessor activity calendar.

xviii. The bar chart schedule plot shall be accompanied by a schedule report of the network with a tabulation of the following data for each activity:

1. Activity ID
2. Activity name
3. Original duration
4. Early start date
5. Early finish date
6. Late start date
7. Late finish date
8. Predecessors
9. Successors
10. Free float
11. Total float
12. Primary constraint date
13. Calendar
14. Responsibility for activity - e.g., prime contractor, subcontractor, supplier, etc.

(E) BLANK:

(F) BLANK:

(G) Recovery Schedule:

If the Project Schedule indicates a late completion of the work by 28 or more calendar days, the Contractor shall prepare a Recovery Schedule which demonstrates how the Contractor intends to reschedule the activities to regain compliance with the contract.

Within ten working days of receipt of the Engineer's written direction, the Contractor shall submit the Recovery Schedule to the Engineer. The Contractor shall not be required to prepare a Recovery Schedule if the Contractor requests and demonstrates, in writing, entitlement to an extension of a completion deadline due to a County-caused delay, and the Engineer concurs that a Recovery Schedule is not required at that time. If the Engineer disputes the Contractor's entitlement to a completion deadline adjustment, the Contractor shall, within five working days, submit a Recovery Schedule that does not include a completion deadline adjustment.

Within five working days after a rejection by the Engineer of the Recovery Schedule, the Contractor shall resubmit a revised Recovery Schedule incorporating the County's comments. When the Engineer accepts the Contractor's Recovery Schedule, the Contractor shall, within five working days after the Engineer's acceptance, incorporate such schedule in the Project Schedule, deliver the same to the County, and proceed in accordance with the approved Recovery Schedule.

All acceleration costs required to bring the contract work back into compliance with project milestones and the contract time due to a Contractor-caused delay shall be borne solely by the Contractor. Whenever a Recovery Schedule is required, the Contractor shall provide the following information:

i. Transmittal letter

ii. Bar chart schedule plot

iii. Electronic copy of the file used for the proposed Recovery Schedule

iv. Narrative describing all proposed changes to the Project Schedule in detail, with justification for the changes, including the following:

    1. Changes to activity original durations

    2. Changes to activity relationships and schedule logic

3. Cause of schedule slippage and actions taken to recover schedule within the shortest reasonable time (e.g., hiring of additional labor, use of additional construction equipment, and expediting of deliveries)

4. Float consumption

5. Identification of activities that have been added, deleted, or modified

6. Changes to the Project Schedule's Critical Path

(H) Revisions to Contract:

If the Contractor receives a request for extra work from the County or submits a contract change request in accordance with Subsection 104.2 asserting that an event, situation, or change affects a Critical Path of the Project Schedule, the Contractor shall prepare and submit a TIA showing the cumulative effect of the change on the completion or fixed milestone date along with a written report describing the time impact in a form satisfactory to the County complying to Section 110 of the specifications.

Each TIA shall include a fragmentary network (fragnet) demonstrating the following information:

i. How the contractor proposes to incorporate a time extension provided for in a Supplemental Agreement.

ii. The impact to the Project Schedule.

iii. The sequence of new and/or existing activity revisions that are proposed to be added to the Project Schedule that is in effect when the change or delay is encountered.

iv. The proposed method for incorporating the delay and its impact to the Project Schedule.

v. The computation of two finish dates. The first finish date shall be computed without consideration of impacts by the proposed revision. The second finish date shall be computed with consideration of impacts by the proposed revision.

If a proposed change in planned work results in altering the Critical Path or extending the schedule completion date, the Contractor shall submit a Revised Schedule and a TIA within 15 calendar days of the proposed change.

(I) Record Schedule:

The Contractor shall prepare a Record Schedule that includes actual start and actual finish dates for all activities. The Record Schedule, once approved, serves as the final update of the Project Schedule. The Contractor shall include a written certification with the Record Schedule submittal signed by the Project Manager of the Contractor in accordance with the following:

"To the best of my knowledge, the enclosed final update of the project Schedule reflects the actual start and completion dates of the activities for the project contained herein."

The Contractor shall submit the Record Schedule to the Engineer for review. Final acceptance will not be issued until the Record Schedule has been approved.

(J) Schedule Meetings and Three Week Look Ahead Schedule:

a. Baseline Schedule Presentation Meeting:

At a time agreeable to the Engineer, the Contractor shall conduct a Baseline Schedule presentation meeting within seven calendar days after submitting the proposed Baseline Schedule. The purpose of this meeting is for the Contractor to present and explain the Contractor's schedule and construction phasing plan. At a minimum, the following is to be covered at the joint review of the schedule:

(a) WBS

(b) Sequence of work - step through the schedule activity by activity

(c) Construction phasing including traffic control phasing and changes

(d) Resources to include number of construction personnel and production rates used

(e) Critical Path review

b. Weekly Project Meeting and Look-Ahead Schedule:

At the weekly project meetings, the Contractor shall provide the Engineer with a detailed Look-Ahead Schedule. The Look-Ahead Schedule is a computer-generated bar chart schedule plot that shows the previous week's work and the work planned for the current and next three weeks. The Contractor shall base the Look-Ahead Schedule on the Project Schedule and provide a greater breakdown of the Project Schedule activities for the purpose of materials inspection and testing. The Look-Ahead Schedule shall clearly note and explain all departures from the Project Schedule. The Contractor shall reference the Project Schedule activity ID numbers, WBS, and define subsequent specific daily operations for all work activities scheduled to be performed during the four-week period.

The Contractor shall identify work being performed by Disadvantaged Business Enterprise (DBE) firms as separate activities. At least one day before the weekly construction activity meetings, the contractor shall submit weekly Look-Ahead Schedules to the Engineer.

(K) Submittals:

Two 11 x 17 inch hard copies and one pdf copy of each schedule in color listed herein shall be provided to the Engineer. The Contractor shall furnish to the Engineer for project use an electronic copy of the schedule. The electronic copy shall be Primavera P6 .xml file format prepared in Primavera software.

The filename of schedules shall be submitted in the following format:

SCHEDULE FILENAME FORMAT	
Preliminary Schedule	TTTTT-YYMM-PSVV
Baseline Schedule	TTTTT-YYMM-BSVV
Monthly Progress Schedule #1	TTTTT-YYMM-MPS01VV
Monthly Progress Schedule #2	TTTTT-YYMM-MPS02VV
Recovery Schedule	TTTTT-YYMM-RCYSVV
TIA Schedule	TTTTT-YYMM-TIASVV
Record Schedule	TTTTT-YYMM-RCDSVV
3 Week Look-ahead Schedule	TTTTT-YYMM-LASVV
Schedule Narrative	TTTTT-YYMM-NARVV
Note: (1) TTTTT: First 5 digits of project number. (2) YYMM: Current 2 digit year and month. (3) VV: 2 digit version number (01, 02, etc.).	

All bar chart schedule plots shall be in color and have a size and scale acceptable to the Engineer. Include a title block and a legend on each page. The plot layout shall include a schedule activity table with corresponding bar chart. The activity table shall be grouped by the WBS and include the activity ID, activity name, duration, start date, finish date, and total float. All activities in the bar chart shall be plotted on their start and finish dates. Show relationship lines and data date line. The bar chart shall be time-scaled in two-line format with a date interval set to year/month and type set to calendar.

The Contractor shall provide two 8.5 x 11 inch hard copies of the narrative and monthly report with an electronic pdf copy.

The Contractor shall provide a schedule log file generated by the software in a .txt file format with all schedule submittals. The log file shall have the same filename as the schedule file. The Contractor shall review the log file prior to submittal to verify that the electronic schedule is in compliance with this specification.

(L) Software:

The automated system software shall be Primavera P6.

SECTION 111 ENGINEER'S OFFICE FACILITIES

111.1 DESCRIPTION*, add the following:*

Type I Engineer Office Facilities will be required for this project.

SECTION 206 STRUCTURE EXCAVATION AND BACKFILL*, replace with the following:*

Excavation and backfill for bridges, retaining walls and box culverts shall conform to the requirements of Section 203-5 – Structural Excavation and Structure Backfill of the ADOT Standard Specifications for Road and Bridge Construction, 2021. The reference to the word "Department" in the ADOT Standard Specifications is hereby replaced with "County". Reference to ADOT 104.02 is replaced with MAG 109. MAG material specifications are replaced by the material specifications referenced within the respective ADOT sections listed.

Table 2: Section 206 Bid Items

Item Number	Description
206.01000	Structural Excavation
206.02000	Structural Backfill

The project special provisions that pertain to the ADOT Standard Specifications listed above that are applicable to the project are in **Appendix C**.

SECTION 220 RIPRAP CONSTRUCTION

220.6 GROUTED RIPRAP*, replace the first two sentences of the first paragraph with the following:*

Place riprap as specified in Section 220.5. Filter material shall consist of 6” of granular bedding meeting the gradation provided on the plans and MAG 701 over high survivability erosion control geosynthetic Class A, Woven meeting the requirements of MAG 796.2.3. Secure riprap in place with Portland cement grout meeting the requirements of Table 220-1. Place grout to the full depth of the riprap section shown on the plan.

Replace the value for Slump in Table 220-1 with the following:

4 – 7 inches

Replace the first sentence of the 2nd paragraph with the following:

The cementitious materials shall meet the requirements of Section 725.2 with a minimum 28-day compressive strength of 2,000 psi. Cement shall be Type II.

SECTION 301 SUBGRADE PREPARATION

301.1 DESCRIPTION*, add the following:*

Subgrade preparation shall include the removal of water from the open subgrade caused by rain or other unforeseen events. The Contractor shall provide all necessary labor, materials, pumps, piping, and equipment to install, maintain, and operate systems for water removal from the open subgrade. Removal of water from water events that occur during non-working hours shall be performed the next working day. This work, if required, is considered incidental to subgrade preparation and no additional payment will be made.

SECTION 329 TACK COAT

329.1 DESCRIPTION*, replace with the following:*

Emulsified asphalt for tack coat shall be grade SS-1h or CSS-1h.

Part 300, add the following new Section:

SECTION 338 PRICE ADJUSTMENT FOR BITUMINOUS MATERIALS

338.1 DESCRIPTION:

Price adjustment shall be calculated based on price changes of bituminous material occurring between the date of bid opening and the date that the material is delivered or used. Price adjustment shall be bi-directional, potentially increasing or decreasing contract payments.

The term “bituminous material” as used herein shall include asphalt cement, liquid asphalt and emulsified asphalt and shall apply only to the following specific pay items requiring these materials: ***Asphalt Concrete Pavement, Bituminous Tack Coat, and Asphalt-Rubber Concrete Pavement***.

The contract unit price for each item of bituminous material shall include all costs for furnishing, hauling, handling, spreading, and mixing of the material required, including the “initial cost” of bituminous material and all applicable taxes, bonds, and insurance premiums; but excluding any difference in the cost of bituminous material that occurs between the date of bid opening and the date that the material is delivered or used and the cost of taxes, bonds and insurance directly attributed to the price adjustment amount for bituminous materials.

338.2 MEASUREMENT:

A. Asphaltic Concrete

The approved mix design designates a range of bituminous material allowable for construction. If the amount of bituminous material exceeds the allowable range, the Contractor will not be compensated for the excess bituminous material. If the bituminous material is less than the allowable range and the asphalt concrete is found to be acceptable by the Engineer, the bituminous material shall be subject to the price adjustment.

The tons of bituminous materials, which are present in asphalt concrete, shall be determined by tests using nuclear asphalt content gauge, extraction, ignition furnace, or other approved method. Tests shall be taken at least twice daily on a random basis. When only two tests are planned, they shall occur at placement of approximately 33% and 67% of the day’s planned quantity. The arithmetic average of each day’s bituminous testing that is found to be within or below the allowable range will be used to determine the amount of bituminous material present in the mix. If only one test is taken, the amount of bituminous material present in that sample will be used. The monthly production shall be the sum of the daily production.

B. Tack Coat

The tons of emulsified products to which the adjustment will be applicable will be the tons of the emulsified bituminous asphalt prior to dilution. The Contractor shall weigh the truck prior to and after placing the emulsion, the bituminous material subject to the price adjustment will be calculated based on the difference in the weight.

338.3 PAYMENT:

The “initial cost” of bituminous material will be the monthly cost posted by the Arizona Department of Transportation (ADOT) based on prices of bituminous material published in the Asphalt Weekly Monitor, a publication by Poten & Partners, Inc. The bituminous material “initial cost” price is shown for each month. This price will be deemed to be the "initial cost" for bituminous material of all types, grades, etc., on projects on which bids are opened during the month. This data may be obtained from the ADOT website:

https://apps.azdot.gov/files/cns/pdf/historical-bituminous-diesel.pdf

For each item with bituminous material for which there is a specific pay item, an adjustment in compensation will be made for either an increase or decrease in the price of bituminous material as shown on the ADOT website, current for the date of use of the material, as compared to the "initial cost".

Adjustments in compensation for emulsified asphalt will be made for the bituminous material prior to dilution.

The tons of bituminous material in asphalt-rubber binder to which the adjustment will be applied will be 0.80 multiplied times the total quantity of the item used. The adjustment will not apply to twenty (20) percent of the material assumed to constitute the rubber additive.

The tons of bituminous materials which are paid for on an invoice basis to which the adjustment will be applicable are the tons which have been delivered to the project and subsequently incorporated into the work. The adjustment will be applicable on the date of use of the bituminous material.
Price Adjustment for Bituminous Materials shall include an adjustment for the actual change in cost of premiums on required payment and performance bonds, the actual change in cost of premiums for property damage and/or public liability insurance, and the change in sales tax (identified in Section 109.2) liability incurred as a result of the price adjustment for bituminous materials. The Contractor shall provide documentation to determine the adjustment for the actual change in cost of premiums on required payment and performance bonds, property damage and/or public liability insurance, and sales tax.

No additional compensation will be made for any additional or increased charges, costs, expenses, etc., which the Contractor may have incurred since the time of bidding and which may be the result of any increase in the "initial cost" of bituminous material.

The Price Adjustment for Bituminous Materials will be made in the next regular monthly progress payment following actual use or application of the bituminous material and may cause an increase or decrease in payments.

SECTION 350 REMOVAL OF EXISTING IMPROVEMENTS

350.2.3 BACKFILL AND DISPOSAL*, add the following:*

Any voids created by said removals shall be backfilled and compacted to 95% of maximum density to the satisfaction of the Engineer.

350.3.1 SALVAGE TEMPORARY CULVERT*, add the following new subsection:*

Undamaged pipe culvert and end sections shall be salvaged and delivered to the New River Yard at 41835 N New River Rd, New River, Arizona. Contact Troy Gribler at 602-506-6195 or Roy Arnold at 602-506-6194 to arrange inspection for acceptance and delivery.

SECTION 351 RELOCATION AND ADJUSTMENT OF EXISTING IMPROVEMENTS

351.1 DESCRIPTION*, add the following:*

This work shall consist of removal and relocating tubular fencing and privacy screening to new locations identified on the project construction plans. The Contractor shall furnish all labor, materials, and equipment necessary to salvage, relocate, and install tubular fencing in a manner matching the original installation.

351.3 CONSTRUCTION REQUIREMENTS*, add the following:*

The Contractor shall identify the limits and verify the condition of existing tubular fencing and privacy screening to be salvaged. The Contractor shall also identify the current installation methods including, but not limited to, concrete foundations, embedment depths, and connections. The Contractor shall notify the Engineer of any damage discovered on existing fencing or privacy screening prior to salvage.

Prior to installation, the Contractor shall stake and verify with the Engineer the limits of new fencing. Surplus fencing shall become the property of the Contractor. Fencing or privacy screening damaged by the Contractor shall become the property of the Contractor.

As part of the fencing relocation effort, the Contractor shall provide a secured perimeter for Parcel Number 211-50-007F. The secured perimeter shall utilize temporary fencing with the following requirements, the cost of which shall be considered inclusive in the cost of other bid items:

- All temporary fencing shall be six-feet tall chain link with privacy mesh in good condition (as determined by the Engineer) and connect into the existing fencing to maintain a secure perimeter of the parcel.
- All temporary fencing shall be installed at the same time.
- Temporary fencing shall utilize posts embedded into the ground a minimum of one foot.

- If the temporary fencing should be breached due to a natural event or other means, the Contractor is responsible to restore the secure perimeter within one hour.

Any existing fence removed and not required for relocation shall become the property of the Contractor. If fencing identified for relocation is damaged by the Contractor's operations, then the Contractor shall furnish new materials, which match the existing fencing, as approved by the Engineer, at no additional cost to the County.

351.4 MEASUREMENT*, add the following:*

Measurement of tubular fence relocation shall be by the existing tubular fence length identified to be salvaged and relocated.

SECTION 401 TRAFFIC CONTROL

401.5 GENERAL TRAFFIC REGULATIONS

401.5.1 Road Closure and Road Restrictions: *append the subsection with the following:*
The Contractor shall perform construction activities during non-holiday weekdays only from 5:00 am to 5:00 pm Monday through Friday. Construction activities are not allowed at any time on holidays, weekdays between 5:00 PM and 5:00 AM or throughout the weekend from 5:00 PM Friday to 5:00 AM Monday.

A road closure for the convenience of the Contractor is not authorized. The contractor shall maintain one lane of traffic in each direction on Desert Hills Drive at all times. Closures of the roadway shall only be permitted in the following cases:

- Short duration 10 to 15-minute road closures in each direction for construction related activities shall be submitted, reviewed, and approved by the Engineer as necessary.

- Where the situation is warranted, the Contractor may submit a request in writing for approval by the Engineer where the traveled way width of Desert Hills Drive or the shoe-fly detour is narrowed to a width which can only accommodate one-way traffic with flagging operations. The minimum traveled way width shall be 12-feet with 2-foot shoulders on either side or as otherwise approved by the Engineer.

- Desert Hills Drive and the shoe-fly detour shall be closed to traffic when a steady flow of water with a nominal depth of two-inches or greater is reported by the Flood Control District of Maricopa County, Maricopa County Sherrif's Office, and/or MCDOT. The roadway shall remain closed until the flow of water has ceased and sediment has been cleared by the Contractor with approval from the Engineer.

- As noted in Section 401.5.11, in the event that the shoe-fly detour is rendered unsafe for travel, as defined by the Engineer, the Contractor shall submit a request for closure in writing to the Engineer for approval. If this event occurs more than once, the Contractor shall submit a request for a full closure until such time that Desert Hills Drive, and it's corresponding improvements with this project, can be reopened to traffic.

- During any full closure of Desert Hills Drive, the Contractor shall maintain access for emergency vehicles from one side of the work zone to the other as well as the limits located therein.

401.5.3 Temporary Lane Diversions: *append the subsection with the following:*
Traffic shall be kept on paved surfaces. All temporary lane diversions shall be paved.

401.5.5 Access to Adjacent Property*, replace with the following:*

During the AC removal and replacement process, the Contractor is required to maintain vehicular and pedestrian access to all residential parcels, fire stations hospitals, sheriff stations, schools, and medical facilities at all times.

Each roadway segment shall be milled/pulverized, the AB regraded and proof-rolled, and new AC pavement placed across the full roadway width for a variable roadway length that is not more than one intersection to the next crossing intersection, or a length as approved by the Engineer.

The Contractor shall allow residents to drive on the prepared AB subgrade surface immediately upon final compaction completion and provide a temporary 2 feet AB ramp that matches the driveway width and lip of gutter elevation at each parcel access point until the AC pavement is placed. A temporary 3-foot AB ramp that matches the roadway width will also be required from the prepared AB surface to the interface of the existing or newly finished AC roadways.

Depending on the Contractor's approved Traffic Control Plans, flaggers and traffic control devices can be used to maintain pedestrian and traffic access to residential parcels and the Fire Station, as approved by the Engineer.

Any damage to the existing AC or concrete infrastructure that is to remain shall be repaired at the Contractor's expense.

Any damage to the finished AB prior to paving shall be repaired at the Contractor's expense.

401.5.9 Construction Sequencing: *add the following subsection:*
The Contractor shall provide accommodations for two-way traffic on Desert Hills Drive with access to all properties and cross streets at all times. Provisions have been included with the project for the inclusion of a “shoe-fly” detour including land rights and bid items. It shall be the Contractor’s responsibility to develop traffic control plans for review and approval by the County.

401.5.10 Pavement Removal & Replacement Restrictions: *add the following subsection:*
For pavement replacement projects, the maximum time allowed between complete pavement removal and placement of new pavement open to traffic will be 48 continuous hours, including weekends and non-working days. Under no circumstances will a roadway be left unpaved on a national holiday or during the weekend.

401.5.11 Shoe-Fly Detour: *add the following subsection:*
The Contractor shall develop a work plan for approval by the Engineer which details how the Contractor will install, operate, maintain, and remove the shoe-fly detour. The plan shall include, but will not be limited to, descriptions of when the shoe-fly detour will be utilized, how the Contractor will manage traffic control, maintenance, and repairs during and after flow events within Skunk Creek, what equipment will be on-site for operating the detour, what contingency plans could be utilized, and list the key personnel who will perform the work and be the key emergency contacts during events. The Contractor may not utilize the shoe-fly detour for traffic until the work plan and associated traffic control plans are approved by the Engineer. The cost of preparing this work plan shall be considered inclusive in the cost of Item 401.01000 (Traffic Control).

If an events occurs which damages the shoe-fly detour at-grade crossing of Skunk Creek to the condition that, as determined the Engineer, traffic may no longer safely use the shoe-fly detour, the Contractor shall submit a written request to the Engineer for approval to repair and restore the shoe-fly detour to the conditions depicted in the construction plans.

During repair operations, a full road closure of Desert Hills Drive will be implemented between 17th Avenue and 13th Avenue. The Contractor shall make all due efforts to expeditiously complete repairs to reopen Desert Hills Drive to traffic. The Contractor shall coordinate with the Engineer and the MCDOT Public Information Officer for notifications to the Daisy Mountain Fire Department and general public of the road closure.

This shoe-fly detour repair may only occur once within the contract time. Cost of removing existing damaged materials as needed and repairing the shoe-fly detour shall be paid under the respective bid items shown on the plans and per the bid schedule. Cost of maintaining and removing the shoe-fly detour is considered inclusive in the price of Item 401.01000 (Traffic Control).

If more than one such event occurs which renders the detour unsafe for travel, as determined by the Engineer, the Contractor shall submit a written request to the Engineer for implementing a full closure of Desert Hills Drive to the general public. The Contractor shall maintain access through the work zone for emergency vehicles.

SECTION 405 SURVEY MONUMENTS

405.3 CONSTRUCTION*, add the following:*

The County will locate and tie-out the existing survey monuments. The Contractor shall furnish and install new survey markers in the asphalt concrete pavement or Portland cement concrete pavement at locations as shown in the plans and as designated by the Engineer. The Engineer will have the new survey monuments punched and documented.

Prior to any monument installation, the Contractor shall provide the inspector with a schedule and location for each installation. The Contractor shall have the “rod” and specified monument at each location for visual inspection prior to installation. Failure to obtain the inspectors approval prior to installation may result in replacement of the monument at no additional cost to the County.

SECTION 505 CONCRETE STRUCTURES

505.1 DESCRIPTION*, replace with the following:*

Concrete bridge elements, retaining walls, and box culverts shall conform to the requirements of Section 601 – Concrete Structures, Section 604 – Steel Structures, Section 605 – Steel Reinforcement, Section 910 – Concrete Barriers, and Section 914 – Walls and Miscellaneous Structures, Section 1003 – Reinforcing Steel, Section 1006 – Portland Cement Concrete and Section 1011 – Joint Materials of the ADOT Standard Specifications for Road and Bridge Construction, 2021. The reference to the word ”Department” in the ADOT Standard Specifications is hereby replaced with “County”. Reference to ADOT105.03 is replaced with MAG 105.02 and reference to ADOT106.05 is replaced with MAG 106.2. MAG material specifications are replaced by the material specifications referenced within the respective ADOT sections listed above.

All concrete mix designs, used in bridge decks, bridge approach slabs, top slabs of reinforced concrete box culverts where the top slab is designed as the traffic wearing surface and other locations as called for on the plans or in the specifications, shall be accompanied by shrinkage testing demonstrating that the 28-day shrinkage is less than 0.03% when tested in accordance with ASTM C157/C157M-17, modified as follows. The conditioning period shall be modified to consist of an initial 7-day wet curing period followed by a 21-day dry curing period. Test specimen measurements shall be modified to consist of an initial measurement taken at 12-hours; and measurements during wet curing at 24, 48, 72-hours and at 7-days; and measurements during dry curing at 14, 21,

and 28-days. Reducing Admixtures may be used to reduce shrinkage if they conform to ADOT Section 1006-2.04.

Table 3: Section 505 Bid Items

Item Number	Description
505.01100	MAG Class AA Concrete
505.02100	Reinforcing Steel
505.17002	2 ft Concrete Cut-Off Walls, MAG Det 552 Upstream
505.17014	4 ft Concrete Cut-Off Walls MAG Det 552 Downstream Weep Holes Aggregate Drain

The project special provisions that pertain to the ADOT Standard Specifications listed above that are applicable to the project are in **Appendix C**.

Part 500 add the following new Section:

SECTION 523 HEADWALL

523.1 DESCRIPTION:

The work under this section shall consist of constructing headwalls of the types and at the locations shown on the Plans.

523.2 MATERIALS AND CONSTRUCTION:

Concrete block masonry shall conform to Section 510 and concrete structures shall conform to Section 505.

523.3 MEASUREMENT:

Headwalls will be measured by the number of each type of headwall constructed and accepted.

523.4 PAYMENT:

Payment will be made at the contract unit price for each Headwall of the designated type(s).

Part 500 replace the following new Section:

SECTION 530 PAINTING

Painting for bridge elements, retaining walls, and box culverts shall conform to the requirements of Section 610—Painting of the ADOT Standard Specifications for Road and Bridge Construction, 2021. The reference to the word ”Department” in the ADOT Standard Specifications is hereby replaced with “County”. MAG material specifications are replaced by the material specifications referenced within the respective ADOT sections listed above.

Part 600 add the following new Section:

SECTION 624 TEMPORARY PIPE CULVERT INSTALLATION

624.1 DESCRIPTION:
The work under this section consists of furnishing, installing, and removing temporary pipe culvert, including pipe connectors to provide cross drainage for the show fly detour road.

The Contractor may submit for approval proposed alternative Temporary Pipe Culvert installations together with hydraulic calculations that show the proposed installation will provide a safe installation with hydraulic capacity equivalent or greater than the installation shown on the plans.

624.2 MATERIALS:
The Contractor shall furnish only Reinforced Concrete Pipe. The pipe strength shall be suitable for the proposed installation without special traffic load restrictions. Reinforced Concrete Pipe shall be Class III (minimum), Rubber Gasket, conforming to the requirements of Section 735. The pipe may be either new or used. All material shall be in serviceable condition without discernible flaws.

624.3 INSTALLATION:
Installation of reinforced concrete pipe shall conform to Section 618.

624.4 MEASUREMENT AND PAYMENT:
Payment for Temporary Pipe Culvert Installation will be made for each lineal foot installed and accepted in place with the contract price and shall include all labor, materials, and equipment for both the installation and removal of the culvert installation.

END OF SPECIAL PROVISIONS

APPENDIX A

Guidelines for Handling Sonoran Desert Tortoises

GUIDELINES FOR HANDLING SONORAN DESERT TORTOISES ENCOUNTERED ON DEVELOPMENT PROJECTS

Arizona Game and Fish Department
Revised September 22, 2014

The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

The Sonoran desert tortoise occurs south and east of the Colorado River. Tortoises encountered in the open should be moved out of harm's way to adjacent appropriate habitat. If an occupied burrow is determined to be in jeopardy of destruction, the tortoise should be relocated to the nearest appropriate alternate burrow or other appropriate shelter, as determined by a qualified biologist. Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim. Tortoises should be moved quickly, kept in an upright position parallel to the ground at all times, and placed in the shade. Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises. Tortoises must not be moved if the ambient air temperature exceeds 40□Celsius (105□Fahrenheit) unless an alternate burrow is available or the tortoise is in imminent danger.

A tortoise may be moved up to one-half mile, but no further than necessary from its original location. If a release site or alternate burrow is unavailable within this distance, and ambient air temperature exceeds 40□Celsius (105□Fahrenheit), contact the Department for guidance. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, may be placed in the Department's tortoise adoption program. *Managers of projects likely to affect desert tortoises should obtain a scientific collecting license from the Department to facilitate handling or temporary possession of tortoises.* Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

Please keep in mind the following points:

- Use the Department's Environmental On-Line Review Tool Department during the planning stages of any project that may affect desert tortoise habitat.

- Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.

- Take is prohibited by state law.

- These guidelines do not apply to Mojave desert tortoises (north and west of the Colorado River). Mojave desert tortoises are listed as threatened under the Endangered Species Act, administered by the U.S. Fish and Wildlife Service.

- These guidelines are subject to revision at the discretion of the Department.

APPENDIX B

United States Army Corps of Engineers Nationwide 14 Permit

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT
3636 NORTH CENTRAL AVENUE SUITE 900
PHOENIX, AZ 85012-1939

February 26, 2024

SUBJECT: Nationwide Permit (NWP) Verification

Marinela Papa-Konomi
Maricopa County Department of Transportation
2901 West Durango Street
Phoenix, Arizona 85012

Dear Ms. Papa-Konomi:

I am responding to your request, dated January 17, 2024, for a Department of the Army (DA) permit for your proposed project, Skunk Creek Crossing at Desert Hills Drive MCDOT Project No. TT0551 (File No. SPL-2023-00444). The proposed project is located in Skunk Creek, near Anthem, Maricopa County, Arizona (Latitude 33.842574°, Longitude -112.092024°).

Because this project would result in a discharge of dredged and/or fill material into waters of the U.S., a Department of the Army permit is required pursuant to Section 404 of the Clean Water Act (33 USC 1344; 33 CFR parts 323 and 330).

I have determined construction of your proposed project, if constructed as described in your application, would comply with Nationwide Permit (NWP) Number 14: Linear Transportation Projects. Specifically, and as shown in the enclosed figures, you are authorized to:

1. permanently discharge 220 cubic yards of riprap fill material into 0.31 acre of non-wetland waters of the U.S. (0.24 acre new fill and 0.07 acre existing roadway fill) in association with the construction of a new multi-barrel box culvert and riprap protection within Skunk Creek at Desert Hills Drive.

2. temporarily discharge fill material into 0.17 acre of non-wetland waters of the U.S., including 0.05 acre extended temporary impacts, due to construction access, equipment maneuvering~~, and the construction of a temporary paved detour road with four 60-inch-rubber gasketed reinforced concrete pipes in Skunk Creek~~.

For this NWP verification letter to be valid, you must comply with all of the terms and conditions in Enclosure 1. Furthermore, you must comply with the non-discretionary Special Conditions listed below:

1. Prior to initiating construction activities in waters of the U.S., the permittee shall clearly mark the work area limits by, at a minimum, marking the four corners of the ordinary high water mark with flagging or similar measures to ensure mechanized equipment and personnel do not enter waters of the U.S. outside of permitted work area. Adverse impacts to waters of the U.S. beyond the Corps-approved construction footprint are not authorized. Such impacts could result in permit suspension and revocation, administrative, civil, or criminal penalties, and/or substantial compensatory mitigation requirements.

2. The permittee shall ensure all temporary fills and structures associated with the temporary detour road are removed from Skunk Creek in their entirety following project completion.

3. Within 30 days of completion of the authorized work, you must sign and return the enclosed Certificate of Compliance (in accordance with General Condition 30).

This verification is valid through March 14, 2026. If on March 14, 2026 you have commenced or are under contract to commence the permitted activity you will have an additional twelve (12) months to complete the activity under the present NWP terms and conditions. However, if I discover noncompliance or unauthorized activities associated with the permitted activity, I may request the use of discretionary authority in accordance with procedures in 33 CFR part 330.4(e) and 33 CFR part 330.5(c) or (d) to modify, suspend, or revoke this specific verification at an earlier date. Additionally, at the national level the Chief of Engineers, any time prior to March 14, 2026, may choose to modify, suspend, or revoke the nationwide use of an NWP after following procedures set forth in 33 CFR part 330.5. It is incumbent upon you to comply with all of the terms and conditions of this NWP verification and to remain informed of any change to the NWPs.

An NWP does not grant any property rights or exclusive privileges. Additionally, it does not authorize any injury to the property, rights of others, nor does it authorize interference with any existing or proposed Federal project. Furthermore, it does not obviate the need to obtain other Federal, state, or local authorizations required by law.

Thank you for participating in our regulatory program. If you have any questions, please contact Alexandra Ryan at 602-230-6954 or via email at alexandra.ryan@usace.army.mil. Please help me to evaluate and improve the regulatory experience for others by completing the customer survey form at https://regulatory.ops.usace.army.mil/customer-service-survey/.

Sincerely,

Sallie Diebolt

Sallie Diebolt
Chief, Arizona Branch
Regulatory Division

Enclosures

LOS ANGELES DISTRICT
U.S. ARMY CORPS OF ENGINEERS

CERTIFICATE OF COMPLIANCE WITH DEPARTMENT OF THE ARMY NATIONWIDE PERMIT

Permit Number: *SPL-2023-00444*

Name of Permittee: *Marinela Papa-Konomi, Maricopa County Department of Transportation*

Date of Issuance: *February 26, 2024*

Upon completion of the activity authorized by this permit and the mitigation required by this permit, sign this certificate, and email it to alexandra.ryan@usace.army.mil or splregulatoryaz@usace.army.mil.

I hereby certify that the authorized work and any required compensatory mitigation has been completed in accordance with the NWP authorization, including all general, regional, or activity-specific conditions. Furthermore, if credits from a mitigation bank or in-lieu fee program were used to satisfy compensatory mitigation requirements I have attached the documentation required by 33 CFR 332.3(l)(3) to confirm that the appropriate number and resource type of credits have been secured.

_____

Signature of Permittee Date

33.843435
-112.092664

Maricopa Trail Realignment

Skunk Creek 55'-100'

Detour Road

Desert Hills Dr

Wash 2 16'-26'

15th Ave

33.841656
-112.090971

Corps File No. SPL-2023-00370
Skunk Creek Crossing at Desert Hills Drive
Project No. TT0551
New River SE, AZ (1964)
USGS 7.5' Topographic Quadrangles
Imagery Source: Maxar
Imagery Date: December 2021
Date Prepared: February 8, 2024
Preparer: Jacobs Engineering Group Inc.

- Existing Permanent Impacts (0.07 acres)
- Permanent Impacts (0.24 acres)
- Temporary Impacts (0.17 acres)
- Extended Temporary Impacts (0.05 acres)
- Boundary of Area Surveyed
- Ordinary High Water Mark (0.51 acres)
- Waters of the United States (0.51 acres)
- Skunk Creek (xx-xx) — Wash Name and Width (Feet)
- Flow Direction
- Control Point

Preliminary JD
Aerial/Impact Sheet
1 of 2

0 25 50 100 Feet

N
1" = 100' Scale

33.843435
-112.092664

Maricopa Trail
Realignment

Skunk Creek
55'-100'

Detour Road

Desert Hills Dr

15th Ave

33.841656
-112.090971

Corps File No. SPL-2023-00370
Skunk Creek Crossing at Desert Hills Drive
Project No. TT0551
New River SE, AZ (1964)
USGS 7.5' Topographic Quadrangles
Imagery Source: Maxar
Imagery Date: December 2021
Date Prepared: February 8, 2024
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Preliminary JD
Aerial/Impact Sheet
2 of 2

0 25 50 100
Feet

N
1" = 100' Scale

NATIONWIDE PERMIT NUMBER 14
Linear Transportation Projects

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**
LOS ANGELES DISTRICT
Arizona Regulatory Branch

A. General Information

This document provides the terms and conditions of the nationwide permit (NWP) by combining information from (1) the terms and conditions of the NWP (https://www.federalregister.gov/documents/2021/12/27/2021-27441/reissuance-and-modification-of-nationwide-permits), (2) Regional conditions, and (3) the Clean Water Act Section 401 water quality certification decisions (401 WQCs). The NWP is in effect from February 25, 2022 through March 14, 2026 unless modified, reissued, or revoked before that time. It is incumbent upon the permittee to remain informed of changes to the NWPs.

Links to documents related to the NWP program may be found at
https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Nationwide-Permits/

Key Sections

B. Nationwide Permit Terms

14. Linear Transportation Projects. Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, driveways, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge of dredged or

fill material in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges of dredged or fill material for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

C. Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Structures and Fills. Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify

the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after

consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through

stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____
(Transferee)

_____
(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification. (a) *Timing*. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review

process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification*: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation

requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification*: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination*: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

D. District Engineer's Decision

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by an NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters. The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure that the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for

authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

E. Further Information

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

F. Nationwide Permit Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term "discharge" means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has surface water flowing continuously year-round during a typical year.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar

document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of “independent utility”). Single and complete non-linear projects may not be “piecemealed” to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of

time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized jurisdictional stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: 1) held in trust by the United States for the benefit of any Indian tribe or individual; or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a "water of the United States." If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).

G. Nationwide Permit Regional Conditions (Arizona)

1. The permittee shall submit a pre-construction notification (PCN) for all 2021 NWPs, in accordance with General Condition 32, in the following circumstances:

a. Activities that would result in a loss* of waters of the United States within all perennial and intermittent waterbodies and special aquatic sites. (Refer to Regional Condition 2 for restrictions in special aquatic sites within the state of Arizona.)

b. Activities resulting in a discharge of dredged or fill material in waters of the U.S. on Tribal Lands**;

c. All waterbodies designated by the Arizona Department of Environmental Quality as Outstanding Arizona Waters (OAWs), within 1600 meters (or 1 mile) upstream and/or 800 meters (1/2 mile) downstream of a designated OAW, and on tributaries to OAWs within 1600 meters of the OAW (see http://www.azdeq.gov/index.html).

d. All waterbodies designated by the Arizona Department of Environmental Quality as 303(d)-impaired surface waters, within 1600 meters (or 1 mile) upstream and/or 800 meters (1/2 mile) downstream of a designated impaired surface water, and on tributaries to impaired waters within 1600 meters of the impaired water (see http://www.azdeq.gov/index.html).

2. All 2021 NWPs are revoked in the state of Arizona for activities in wetlands, mudflats, vegetated shallows, or riffle and pool complexes, as defined at 40 CFR Part 230.40-45, resulting in a loss* of waters of the United States greater than 0.10 acre.

* "Loss" means waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity.

**"Tribal Lands" refers to any lands title to which is either: 1) held in trust by the United States for the benefit of any Indian tribe or individual; or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

NOTE: Regional Conditions on the Navajo Nation may be found at https://www.spa.usace.army.mil/Portals/16/docs/civilworks/regulatory/publicnotices/Navajo%20Nation/2021%20NWP%20Reissuance_Final%20Public%20Notice_Navajo%20Nation.pdf?ver=Y05br0Ih59RLEwptpfmJOA%3d%3d.

H. 401 Water Quality Certification (401 WQC)

A 401 WQC is mandatory for any activity that requires a Clean Water Act Section 404 permit. A 401 WQC is required prior to discharging any dredged or fill material into a water of the United States. Only one of the following 401 WQCs listed below will apply to your project. The geographical location of your project will determine which 401 WQC is applicable. The 401 WQCs issued for this NWP will remain in effect through March 14, 2026.

On all "Non-Tribal Lands", lands that are not part of federally recognized Indian Reservation, the Arizona Department of Environmental Quality (ADEQ) is the agency responsible for issuing the 401 WQC.

On all "Tribal Lands", lands that are part of a federally recognized Indian Reservation, the U.S. Environmental Protection Agency (EPA) is responsible for issuing the 401 WQC except where EPA has delegated the 401 WQC authority.

If "Individual Certification" is required you must apply for, receive, and comply with the 401 WQC issued by ADEQ, EPA, or the appropriate Tribe.

Non-tribal Lands - 401 ADEQ WQCs*

Arizona Department of Environmental Quality — Certified for all projects, except ADEQ requires that a project proponent submit an application to the department for a State WQC if the proposed activity will occur within the ordinary high water mark of any of the following waters: An outstanding Arizona water; an impaired water; a water that is listed as not-attaining; or a lake. This conditional certification, authorized under A.R.S. 49-202(C), is necessary to ensure the proposed activities will not cause or contribute to an exceedance in a surface water quality standard under Arizona Administrative Code R18-11.

Tribal Lands - 401 WQCs

Fort Apache Indian Reservation (White Mountain Apache Tribe):	Individual Certification waived for all projects.
Gila River Indian Community	Individual Certification required for all projects.
Hopi Indian Reservation (Hopi Tribe):	Individual Certification required for all projects.
Hualapai Indian Reservation (Hualapai Tribe):	Individual Certification waived for all projects.
San Carlos Apache Tribe	Individual Certification waived for all projects.
Navajo Indian Reservation (Navajo Nation):	Individual Certification required for all projects.
All other Indian Reservations (EPA):	Conditionally Certified.

401 WQC Contact Information

Arizona Department of Environmental Quality
Water Quality Division
110 West Washington Street
Phoenix, Arizona 85007
Phone: (602) 771-4409
401WQC@azdeq.gov
https://azdeq.gov/cwa401

White Mountain Apache Tribe (Fort Apache Indian Reservation)
Environmental Protection Office
P.O. Box 816
Fort Apache, AZ 85926
Phone: (928) 338-4325
https://whitemountainapache.org/resources/

Gila River Indian Community
Department of Environmental Quality
P.O. Box 97
Sacaton, AZ 85147
Phone: (520) 562-2234
www.gricdeq.org

Hopi Tribe
Water Resources Program
P.O. Box 123
Kykotsmovi, Arizona 86039
Phone: (928) 734-3712
https://www.hopi-nsn.gov/tribal-services/department-natural-resources-2/water-resources/

Hualapai Tribe
Hualapai Department of Natural Resources
P.O. Box 300
Peach Springs, AZ 86434
Phone: (928) 769-2254 x2255
http://hualapai-nsn.gov/services/natural-resources/

Navajo Nation
Navajo Nation Environmental Protection Agency
PO Box 339
Window Rock, AZ 86515
Phone: (928) 871-7692
https://www.navajoepa.org/

San Carlos Apache Tribe.
Apache Gem Rd. Marker 2
San Carlos, Arizona 85550
www.SanCarlosApache.com

U.S. Environmental Protection Agency
Pacific Southwest, Region IX
75 Hawthorne Street
San Francisco, California 94105
R9cwa401@epa.gov
https://www.epa.gov/

APPENDIX C

ADOT Stored Specifications

(203STRBKFL, 10/21/21)

SECTION 203 EARTHWORK:

203-5.03(B)(1) Structure Backfill: the first paragraph of the Standard Specifications is revised to read:

Structure backfill material shall be selected from excavation or from a source selected by the contractor. It shall not contain frozen lumps, chunks of clay, or other objectionable material. Backfill material shall not contain salvaged asphaltic concrete materials. Backfill material to be used for metal piles or similar items of metal shall have a value of resistivity not less than 2,000 ohm-centimeters or the value shown on the plans. Backfill material shall have a pH value between 6.0 and 10.0, inclusive, when placed against metal installations, except aluminum. Backfill material shall have a pH value between 6.0 and 9.0, inclusive, when placed against aluminum installations. Backfill material shall have a pH value between 6.0 and 12.0, inclusive, when placed against installations other than metal. Tests for pH and resistivity shall be in accordance with the requirements of Arizona Test Method 236.

(1003REBAR,12/17/20)

SECTION 1003 REINFORCING STEEL: of the Standard Specifications is revised to read:

1003-1 General Requirements:

Reinforcing steel shall be furnished in the sizes, shapes, and lengths shown on the plans and in conformance with the requirements of the specifications.

Certificates of Compliance conforming to the requirements of Subsection 106.05 of the specifications shall be submitted for epoxy coated reinforcing bars, as well as uncoated reinforcing bars, wire, and welded wire fabric. In addition, for epoxy coated reinforcing bars, Certificates of Compliance shall be submitted from the coating manufacturer and Certificates of Analysis shall be submitted from the coating applicator.

When reinforcing steel is delivered to the project site, the contractor shall furnish the Engineer with a copy of all shipping documents. Each shipping document shall show the sizes, lengths, and weights of the reinforcing steel separately for each structure.

Reinforcing steel shall be free of dirt, oil, paint and grease and shall conform to the requirements of Section 605 of the specifications. Reinforcing steel shall be protected at all times from damage. All reinforcing steel shall be free of dirt, oil, paint and grease. Rust, surface irregularities, or mill scale will not be the cause for rejection, provided the weight, dimensions, cross-sectional area, and tensile properties of a manually wire brushed test specimen are not less than the requirements of the specifications.

1003-2 Reinforcing Bars:

Except when used for wire ties or spirals, steel bars used as reinforcement in concrete shall be deformed and shall conform to the requirements of ASTM A615 for Grade 60 steel. Unless otherwise specified, steel bars meeting the requirements of ASTM A706 may be substituted for ASTM A615 steel bars. When ASTM A706 bars are used, tack welding of the reinforcement will not be permitted unless approved by the Engineer.

Samples of reinforcing bars taken at the supplier's or fabricator's place of business shall be defined as pre-shipment samples, while those samples obtained from stockpile or shipment at the project shall be defined as project samples. A shipment shall be considered any amount of reinforcing bars delivered to a project on any given day, of one transported load.

Reinforcing bars sizes No. 4, No. 5, and No. 6 will be accepted with the submission of a Certificate of Compliance. All other reinforcing bar sizes shall be subject to pre-shipment and project sampling as outlined below.

1003-2.01 Pre-Shipment Sampling:

Prior to shipment of reinforcing bars to the project, the supplier or contractor shall contact Materials Group, Structural Materials Testing Section to obtain a laboratory number referenced to the project number. A random sample shall be taken at the supplier's place of business and delivered to the Structural Materials Testing Section. For bar size No. 14, the sample shall be one piece not less than 42 inches in length, selected at random for each shipment up to 30 tons. For bar size No. 18, the sample shall be one piece not be less than 42 inches in length, selected at random for each shipment up to 50 tons. For all other bar sizes, the sample shall be one piece not less than seven feet in length, selected at random for each shipment up to 20 tons. Samples shall be submitted for each bar size, grade, heat number, and manufacturer in the shipment. The pre-shipment bars that are obtained from the supplier or fabricator must be accompanied by a Certificate of Compliance. The information shown on the certificate must match the bar identification marks. If no Certificate of Compliance is available or the information shown on the certificate is incomplete or inaccurate, the bars will not be accepted for testing.

When the supplier or fabricator makes a shipment to a project, a Certificate of Compliance shall be furnished stating that the material in the shipment is from the same stock as the pre-shipment sample covered by the laboratory number assigned by the Structural Materials Testing Section. Reinforcing bars represented by the pre-shipment sample failing to comply with the specification requirements shall not be used on any project.

1003-2.02 Project Sampling:

The Engineer reserves the right to sample reinforcing bars at any time. Project samples shall consist of one sample bar not less than seven feet in length for all bar sizes. Placement of the reinforcing bars shall not be delayed while the contractor is awaiting test results.

Concrete placement operations shall not begin until satisfactory test results of the project sample bars are obtained.

When the supplier or fabricator makes a shipment to a project from outside the Phoenix or Tucson areas, or not otherwise subjected to pre-shipment sampling, the shipment shall be accompanied by a Certification of Compliance. Before any reinforcing bars from a shipment is to be incorporated into the project work, a project sample shall be taken, tested, and approved by the Structural Materials Testing Section. A project sample shall be taken as soon as practical upon arrival at the job site. A different project sample that is representative of each bar size, grade, heat number, and manufacturer from that shipment will be required. The sampling requirements described for pre-shipment sampling for the Phoenix or Tucson areas shall be used.

1003-3 Wire:

Steel wire used as spirals or ties for reinforcement in concrete shall conform to the requirements of AASHTO M 336. Wire shall be deformed or cold drawn (smooth).

1003-4 Welded Wire Fabric:

Welded wire fabric for concrete reinforcement shall conform to the requirements of AASHTO M 336.

1003-5 Epoxy Coated Reinforcing Bars:

1003-5.01 Steel:

Reinforcing bars shall conform to the requirements of Subsection 1003-2 of the specifications.

Epoxy coated reinforcing bars will be sampled and tested in the same manner as uncoated reinforcing bars. The coating and flexibility of the epoxy coated reinforcing bars will also be tested by the Department for acceptance.

1003-5.02 Epoxy for Coating:

A list of powdered epoxy resins which have passed prequalification tests, as described in ASTM A775, “Epoxy Coated Steel Reinforcing Bars”, is maintained on the Department’s Approved Products List (APL). The powdered epoxy resins selected by the contractor and furnished by the manufacturer shall be of the same material and quality as the resins listed on the APL, and shall be applied and cured in the same manner used to coat the test bars in the original powder prequalification test. Copies of the most current version of the APL are available on the internet from the ADOT Research Center through its Product Evaluation Program.

Prequalification testing may be performed by the National Bureau of Standards, State laboratories, or qualified private laboratories.

The Certificate of Compliance from the coating manufacturer shall properly identify the batch and/or lot number, material, quantity of batch, date of manufacture, name and address of manufacturer, and a statement that the material is the same composition as the initial sample prequalified for use. The certificate shall also state that production bars and prequalification bars have been identically prepared and applied with epoxy powders.

Patching or repair material, compatible with the coating and inert in concrete shall be made available by the epoxy coating manufacturer. This material shall be suitable to repair areas of the coating which were damaged during fabrication or handling in the field.

1003-5.03 Application of Coating:

The coating applicator’s facility shall be subject to approval by the Department. Applications for approval of facilities shall be made to the Department by the coating applicator.

The surface to be coated shall be blast cleaned in accordance with the requirements of the Society for Protective Coatings, Surface Preparation Standard SSPC-SP10, Near White Blast Cleaning.

The powdered epoxy resin coating shall be applied to the cleaned surface as soon as possible after cleaning and before visible oxidation occurs. In no case shall more than eight hours elapse between cleaning and coating.

The protective epoxy coatings shall be applied by the electrostatic spray method or the electrostatic fluidized bed method in accordance with the recommendations of the coating manufacturer. The epoxy coating may be applied before or after fabrication of the reinforcing bars.

The epoxy coating shall be applied as a smooth uniform coat. After curing, the coating thickness shall be in accordance with the requirements of ASTM A775. Coating thickness shall be controlled by taking measurements on a representative number of bars from each production lot. Coating thickness measurements shall be conducted by the method outlined in the Society for Protective Coatings Paint Application Standard SSPC-PA2.

The coating shall be checked visually after cure for continuity. It shall be free from holes, voids, contamination, cracks and damaged areas.

The coating shall not have more than two holidays (pinholes not visible to the naked eye) in any linear foot of the coated item. A holiday detector shall be used, in accordance with the manufacturer's instructions, to check the coating for holidays.

The flexibility of the coating shall be evaluated on a representative number of bars selected from each production lot. The coated bar shall be bent 120 degrees (after rebound) around a six-inch diameter mandrel. The bend shall be done at a uniform rate and may take up to one minute to complete. The test specimens shall be at thermal equilibrium between 68 and 85 degrees F at the time of testing. No cracking of the coating shall be visible to the naked eye on the outside radius of the bent bar.

The contractor shall furnish a Certificate of Analysis from the coating applicator with each shipment of coated steel. In addition to the requirements of Subsection 106.05 of the specifications, the Certificate of Analysis shall state that the coated items and coating material have been tested in accordance with the requirements of this subsection and that the entire lot is in a fully cured condition.

The coating applicator shall be responsible for performing quality control and tests. This will include inspection and testing to determine compliance with the requirements of this subsection for the coating thickness, continuity of coating, coating cure, and flexibility of coating.

The Department reserves the right to have its authorized representative observe the preparation, coating, and testing of the reinforcing bars. The representative shall have free

access to the plant, and any work done when access has been denied will be automatically rejected.

If the representative elects, lengths of coated bars may be taken from the production run on a random basis for test, evaluation, and check purposes by the Department.

1003-5.04 Shop Repair:

Epoxy coated reinforcing bars which do not meet the requirements for coating thickness, continuity of coating, coating cure, or flexibility of coating shall not be repaired.

Reinforcing bars with these defects shall be replaced, or alternately stripped of epoxy coating, recleaned and recoated in accordance with the requirements of this specification.

Coating breaks due to fabrication and handling shall be repaired with patching material if the defective area exceeds 2 percent of the surface area of the bar in a one-foot length and the damaged spot is larger than 1/4 inch by 1/4 inch.

The repair of coating breaks shall be limited to bars on which the total of the defective coating areas does not exceed 5 percent of the surface area of the reinforcing bar. Bars with greater than 5 percent damage shall be replaced, or alternately stripped of epoxy coating, recleaned and recoated in accordance with the requirements of this specification.

1003-6 Prestressing Reinforcing Steel:

Prestressing reinforcing steel shall conform to the requirements of Section 602-2.01 of the specifications.

Prestressing steel shall be high-tensile steel wire, high-tensile seven-wire strand or high-tensile alloy bars, as shown in the plans.

High-tensile steel wire shall conform to the requirements of AASHTO M 204.

High-tensile seven-wire strand shall conform to the requirements of AASHTO M 203 for Grade 270. In addition to the 0.5-inch diameter prestressing steel typically shown on the plans, 0.6-inch diameter seven-wire strand may be used for cast-in-place prestressed structures.

High-tensile alloy bars shall conform to the requirements of AASHTO M 275.

All prestressing steel shall be satisfactorily protected from damage by abrasion, moisture, rust, or corrosion and shall be free of dirt, rust, oil, grease, or other deleterious substances.

For every five reels of prestressing steel furnished, one sample not less than six feet long, will be tested by the Engineer. Samples of the furnished reels with the manufacturer's

Certificate of Compliance, a mill certificate, and a test report may be shipped directly by the manufacturer to the Engineer.

1003-7 Dowel Bars for Portland Cement Concrete Pavement:

Dowel bars shall be round, plain steel bars of the dimensions shown on the plans conforming to the requirements of AASHTO M 254 with Type B coating. The core material shall conform to the requirements of ASTM A615, Grade 60.

Epoxy coated dowel bars shall also conform to the requirements of Subsection 1003-5 of the specifications.

The Contractor shall furnish a Certificate of Compliance that properly identifies the coating material, the number of each batch of coating material used, quantity represented, date of manufacture, name and address of manufacturer, and a statement that the supplied coating material meets the requirements of AASHTO M 254 with Type B coating.

(1006PCC, 09/21/23)

SECTION 1006 PORTLAND CEMENT CONCRETE:

1006-2.01(A) General: of the Standard Specifications is revised to read:

Cementitious material is defined as an inorganic material or a mixture of inorganic materials that sets and develops strength by chemical reaction with water by formation of hydrates and is capable of doing so under water. In this specification, cementitious materials are defined as hydraulic cement (Portland cement, Portland-pozzolan cement or Portland-limestone cement) and supplementary cementitious materials (fly ash, natural pozzolan, or silica fume).

1006-2.01(B) Hydraulic Cement: the first paragraph of the Standard Specifications is revised to read:

Hydraulic cement shall consist of Portland cement, Portland-pozzolan cement or Portland-limestone cement.

1006-2.01(B) Hydraulic Cement: of the Standard Specifications is modified to add:

Portland-limestone cement shall conform to the requirements of ASTM C595 for blended hydraulic cement with moderate sulfate resistance, Type IL (MS).

1006-2.01(C)(2) Flyash and Natural Pozzolan: of the Standard Specifications is revised to read:

Fly ash and natural pozzolan shall conform to the requirements of ASTM C618 for Class C, F, or N.

TABLE 1006-5 Design Criteria: the column heading of the third column of the Standard Specifications is revised to read:

		Cementitious Material Content: Lbs. per Cu Yd. Minimum - Maximum		

1006-3.02(C) Mix Design Submittal Requirements: the items (16) and (18) of the Standard Specifications are revised to read:

(16) Volume of each material measured to the nearest hundredth of a cubic foot;

(18) Total volume measured to the nearest hundredth of a cubic foot;

1006-7.02(A) General: the fifth paragraph of the Standard Specifications is revised to read:

Concrete shall be sampled in accordance with ASTM C172 for acceptance testing of temperature, slump, unit weight and yield (when required) and air content (when required) as well as for fabrication of test cylinders for compressive strength determination at 28 days except that the concrete shall be sampled once during discharge at the middle portion of the batch. ASTM C172 includes sampling from stationary, paving and truck mixers, and from agitating and non-agitating equipment used to transport central-mixed concrete and from continuous mixing equipment as described in Specification ASTM C685/C685M. Sampling shall be at the point of discharge from truck mixers. Sufficient care shall be taken to obtain a representative sample by diverting the entire stream of the concrete to prevent segregation. Samples shall be of sufficient size to perform all the required tests and fabricate the necessary test cylinders but in no case less than 1 cubic foot.

1006-7.02(B) Class S and Class B Concrete: of the Standard Specifications is revised to read:

For Class S concrete with a compressive strength requirement less than 4000 psi, or Class B concrete, a strength test will consist of the average strength of two test cylinders. However, if the compressive strengths of the two test cylinders differ by more than 10 percent from the average of the two, the strength test result shall be the cylinder with the highest compressive strength.

For Class S concrete with a compressive strength requirement equal to or greater than 4000 psi, or Class P concrete, the compressive strength of each sample shall be determined by averaging the results of the three test cylinders. However, if the compressive strength of any one of the three test cylinders differs by more than 10 percent from the average of the three, its result shall be discarded and the compressive strength shall be the average of the remaining two cylinders. Should the individual compressive strength of any two of the three remaining cylinders differ by more than 10 percent from the average of the three, the results will be discarded and the compressive strength shall be the strength of the remaining cylinder.

1006-7.03(A)(3) Consistency: the third paragraph of the Standard Specifications is revised to read:

When the concrete is pumped, samples for consistency will be taken as the concrete leaves the mixer.

TABLE 1006-10 Air Entrainment Requirements: the table of the Standard Specifications is revised to read:

TABLE 1006-10
Air Entrainment Requirements

Elevation	Air Entrainment	Required Air Content by

	Required	Volume (%)
3000 feet or above	Yes	4 to 7
Below 3000 feet	Contractor's Option	≤ 7

SECTION 1006 PORTLAND CEMENT CONCRETE:

1006-4.01 General Requirements: of the Standard Specifications is modified to add:

1006-4.01(A) Contractor Quality Control:

The contractor shall perform the quality control measures described in Subsection 106.04(C). At the weekly meeting, the contractor shall be prepared to explain and discuss how the following processes will be employed.

(a) Aggregate Production, including crusher methods, pit extraction, and washing.

(b) Stockpile Management, including stacking methods, separation technique, plant feed technique, stockpile pad thickness, and segregation prevention.

(c) Mixing and Transport, including mixing time and revolutions, water and concrete temperature, integrity of mixing equipment, sight glass for water, slump meters, batch ticket, and travel time.

(d) Proportioning, including scale calibration, water added, water meter moisture correction, and bin loading.

The contractor shall obtain samples and perform the tests specified in the following table:

CONTRACTOR QUALITY CONTROL TESTING REQUIREMENTS			
TYPE OF TEST	TEST METHOD	SAMPLING POINT	MINIMUM TESTING FREQUENCY
Fine Aggregate for PCC (Class S or Class P)			
Gradation	ARIZ 201	Crusher Belt or Stockpile	1 per 750 CY of Concrete
Sand Equivalent	AASHTO T 176		
Coarse Aggregate for PCC (Class S or Class P)			
Gradation	ARIZ 201	Crusher Belt or Stockpile	1 per 750 CY of Concrete
Class S Portland Cement Concrete			
Entrained Air	AASHTO T 152	At Point of Discharge	1 per 40 CY of Concrete
Slump	AASHTO T 119		