

COB - BOSAIR FORM

04/23/2026 8:12 AM (MST)

Submitted by Sabrina.Walker@pima.gov



BOARD OF SUPERVISORS AGENDA ITEM REPORT (BOSAIR)

All fields are required. Enter N/A if not applicable. For number fields, enter 0 if not applicable.

Record Number: PO PDC PO2600013675

Award Type: Contract

BOSAIR Activity: Board Meeting Request

Requested Board Meeting Date: 05/12/2026

Supplier / Customer / Grantor / Subrecipient: Sundt Construction, Inc.

Project Title / Description: Country Club Rd - Michigan St to Milber St

Purpose: Award: Contract No. PO2600013675 This award of contract is to provide all equipment, labor, and materials required to complete the Country Club Rd - Michigan St to Milber St project in the amount of \$3,083,135.14 for a contract term of 05/12/26 to 06/30/27.

Procurement Method: Other

Insert additional Procurement Method info, if applicable: Pursuant to A.R.S. § 34-606 and Pima County Procurement Code 11.20.060, award of PO2600013675 is recommended to the above-named contractor which has accepted the terms of the County's standard construction contract and with which the County has negotiated a satisfactory agreement.

Attachments: Department Memorandum and Contract.

Program Goals/Predicted Outcomes: Installation of curb, sidewalk and roadway improvements to coincide with the new interchange opening at Country Club.

Public Benefit and Impact: Improved public safety through continuous sidewalks and two travel lanes in each direction.

Strategic Plan Pillar • Infrastructure & Growth

Support of Prosperity Initiative: • N/A

Provide information that explains how this activity supports the selected Prosperity Initiatives N/A

Metrics Available to Measure Performance: The performance will be measured using the contractor evaluation process as outlined in BOS Policy D29.1 (E).

TO: COB, 5/6/26 (1)
VERSION: 0
PAGES: 175

ADDENDUM

MAY 06 2026 09:38 AM

Retroactive:

NO

Contract / Award Information

Record Number: PO PDC PO2600013675

Document Type: PO

Department Code: PDC

Contract Number: PO2600013675

Commencement Date: 05/12/2026

Termination Date: 06/30/2027

Supplier / Subrecipient Headquarters Location: Tempe, AZ

* Headquarters information is not a consideration for awards

Total Expense Amount:

\$3,083,135.14

Total Revenue Amount:

\$0.00

Funding Source Name(s) Required: City Revenue Other Operation 48%, Central Region Impact Fees 44%, Transfer in from Capital Projects 8%

Funding from General Fund?

NO

Contract is fully or partially funded with Federal Funds?

NO

Contract is fully or partially funded with Non-Federal Grant Funds?

NO

Were insurance or indemnity clauses modified?

NO

Vendor is using a Social Security Number?

NO

Department: Procurement

Name: Sabrina Walker *SW*

Telephone: 5207249072

Add Procurement Department Signatures

Yes


Add GMI Department Signatures

No

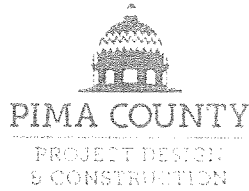
Division Manager/Procurement Officer Signature: Scott Loomis Digitally signed by Scott Loomis Date: 2026.04.23 09:55:20 -07'00' Date: _____

Procurement Director Signature: Bruce D Collins Digitally signed by Bruce D Collins Date: 2026.04.23 10:42:09 -07'00' Date: _____

Department Director Signature:  Signed by: _____ Date: 4/23/2026
F-311 E9L74A341B7

Deputy County Administrator Signature:  Date: 4/24/2026

County Administrator Signature: _____ Date: 4/27/2026



MEMORANDUM

Date: April 15, 2026
To: Jan Leshar, County Administrator
From: Rod Lane, Director PDC Initial
Re: **25138PTR Country Club Rd – Michigan St to Milber St
Competition Impracticable Procurement Request**

We are requesting your approval to utilize a “Competition Impracticable” procurement process pursuant to provisions of A.R.S. § 34-606 and Pima County Procurement Code 11.12.060 for the widening of Country Club Road between Michigan Street and Milber Street.

This memo requests approval to execute a Purchase Order with Sundt Construction, Inc. for work associated with the widening of Country Club Road between Michigan Street and Milber Street.

Background

As part of the Arizona Department of Transportation I-10 Country Club Road to Kino Parkway project, a new interchange will be constructed at Country Club Road. As part of this project, two travel lanes will be provided in each direction from I-10 to Michigan Street and transition to the existing condition of one lane in each direction north of Michigan Street. North of Milber Street, two travel lanes in each direction already exist. Pima County’s project will provide two travel lanes in each direction for the 800-ft section of roadway between Milber Street and Michigan Street. The limits of this project will overlap with work currently under construction as part of the ADOT project.

Sundt Construction, Inc. is the contractor for the ADOT I-10 Country Club Road to Kino Parkway project. They are scheduled to open the new interchange at Country Club Road in September of 2026. The removal of the interchange at Palo Verde Road will immediately follow, which will concentrate traffic down Country Club Road to the new interchange.

Recommended Approach

We are requesting approval to execute a Purchase Order with Sundt Construction, Inc. Key factors that influence this recommendation include: additional risk and conflict may occur with two contractors operating within the same project limits, and the County Project would be required to remove newly constructed improvements installed as part of the ADOT project introducing unnecessary costs to constituents. Sundt has delivered quality work for Pima County and has demonstrated an ability to work within tight project constraints and manage similar projects.


Sundt’s bid is reflective of the engineer’s estimate, and their ability to continue work from the I-10 project, maintains continuity and reduces the potential for additional costs and/or delays during construction. We have discussed other alternative methods and verified that this approach will have the highest potential for success and be delivered in a time frame that is the least impactful to our constituents.

Rodrick Lane, Director

25138PTR Country Club Rd – Michigan St to Milber St
Competition Impractical Procurement Request
April 15, 2026
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We request your concurrence/approval on this approach so that we can proceed with executing a Purchase Order and then construction. Please let me know if you have any questions.

CONCUR:

Signed by:

006678C41F68434

Bruce D. Collins, Procurement Director

Date: 4/15/2026


CONCUR:



Carmine DeBonis, Jr., Deputy County Administrator

Date: 4/15/2026

APPROVED:



Jan Lesh, County Administrator

Date: 4/15/2026

PIMA COUNTY PROJECT DESIGN AND CONSTRUCTION

PROJECT: Country Club Rd - Michigan St to Milber St

CONTRACTOR: Sundt Construction, Inc.
2620 S 55th St.
Tempe, AZ 85282

CONTRACT NO.: PO2600013675

AMOUNT: \$3,083,135.14

FUNDING: City Revenue Other Operation 48%, Central Region Impact Fees 44%, Transfer in from Capital Projects 8%

CONSTRUCTION SERVICES CONTRACT

1. Parties, Background and Purpose.

- 1.1. Parties. This Contract is entered into between Pima County, a body politic and corporate of the State of Arizona, hereafter called County, and Sundt Construction, Inc., hereinafter called Contractor, and collectively referred to as the Parties.
- 1.2. Authority. County requires, consistent with the provisions of A.R.S. Title 34, the services of a Contractor to provide all equipment, labor, and materials required to construct the Country Club Rd - Michigan St to Milber St project ("Project").
- 1.3. Solicitation. It was determined under the emergency procurement provisions of A.R.S. § 34-606 and Pima County Code 11.20.060, a competitive procurement would be contrary to the County's interests.

2. Term and Extension/Renewal/Changes.

- 2.1. Initial Term. This Contract, as approved by the Board of Supervisors, commences on 05/12/26, and terminates on 06/30/27, unless sooner terminated or further extended pursuant to the provisions of this Contract.
- 2.2. Construction Completion. Construction completion time for the work to be performed under this Contract will be 181 working days after the date of Notice to Proceed. Liquidated damages will be assessed based upon the construction completion time, as per PAG 2015 Specification Section 108-9.
- 2.3. Extension Options. County has the option to extend the contract termination date for purposes of project completion. Any modification or extension of the contract termination date must be by formal written amendment executed by the Parties.

3. Scope of Services. Contractor will provide County all labor, materials and equipment necessary to complete the project as described in Exhibit D - Construction Documents (58 pages), Exhibit B - General Conditions (10 pages), Exhibit C -Special Provisions (63 pages), current editions of the PAG Standards with Amendments, and other documents incorporated into this contract.

4. Compensation and Payment.

- 4.1 Compensation. County will pay Contractor as specified.

4.1.1 Invoices. Contractor will provide detailed documentation in support of requested payment. Contractor must cite the Contract number on all invoices. Payments will be made in accordance with A.R.S. § 34-221.

4.1.1.1 For the period of record retention required under Article 24, County reserves the right to question any payment made under this Article and to require reimbursement by setoff or otherwise for payments determined to be improper or contrary to the Contract or law

4.1.2 Price. Total payment for this Contract will not exceed \$3,083,135.14. Payment for this Contract will be made based on Exhibit A - Bid Schedule (2 pages) submitted by Contractor. County will pay line items for which the "Unit" is defined as L.S. as "Lump Sum". County will measure and pay the unit price for the actual quantities of work performed for other line items for which the "unit" is defined as a unit of measure (i.e., "each", "L.F.", etc.) and for which there is a Unit Price in accordance with the Pima Association of Governments Standard Specifications for Public Improvements ("Standard Specifications"). The quantities of unit-priced items stated in the bid schedule are estimates only and the actual quantities may be either less or more than stated in the Bid Schedule.

4.1.3 Work Performed. Contractor will not perform work in excess of the contract amount without prior authorization by an amendment executed by the Parties. Work performed in excess of the contract amount without prior authorization by amendment is at Contractor's own risk.

5. **Insurance**. The Insurance Requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract.

5.1. Ratings. Contractor's insurance shall be placed with companies licensed in the State of Arizona and the insureds shall have an "A.M. Best" rating of not less than A- VII. County in no way warrants that the minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

5.2. Insurance Coverages and Limits.

5.2.1. Minimum Scope and Limits of Insurance: Contractor will procure and maintain at its own expense insurance policies (the "Required Insurance") satisfying the below requirements (the "Insurance Requirements") until all of its obligations under this Contract have been met. The below Insurance Requirements are minimum requirements for this Contract and in no way limit Contractor's indemnity obligations under this Contract. County in no way warrants that the required insurance is sufficient to protect the Contractor for liabilities that may arise from or relate to this Contract. If necessary, Contractor may obtain commercial umbrella or excess insurance to satisfy the Insurance Requirements.

5.2.1.1. Commercial General Liability (CGL) – Occurrence Form with limits of \$2,000,000 Each Occurrence and \$2,000,000 General Aggregate. Policy will include bodily injury, property damage, and broad form contractual liability coverage, personal and advertising injury and products – completed operations.

5.2.1.2. Business Automobile Liability – Bodily Injury and Property Damage for any owned, hired, and/or non-owned automobiles used in the performance of this Contract with a Combined Single Limit (CSL) of \$1,000,000 each accident.

5.2.1.3. Workers' Compensation and Employers' Liability - Statutory requirements and benefits for Workers' Compensation. In Arizona, WC coverage is compulsory for employers of one or more employees. Employer's Liability coverage- \$1,000,000 each accident and each person - disease.

5.2.1.4. Claims-Made Coverage. Claim-Made Insurance Coverage - If any part of the Required Insurance is written on a claims-made basis, any policy retroactive date must precede

the effective date of this Contract, and Contractor must maintain such coverage for a period of not less than three years following Contract expiration, termination or cancellation.

5.3. Additional Insurance Requirements:

The policies will include, or be endorsed to include, as required by this written agreement, the following provisions:

- 5.3.1. Additional Insured: The General Liability and Business Automobile Liability Policies shall each be endorsed to include Pima County, its departments, districts, boards, commissions, officers, officials, agents, and employees as additional insureds with respect to liability arising out of the activities performed by or on behalf of Contractor.
- 5.3.2. Subrogation: The General Liability, Business Automobile Liability and Workers' Compensation Policies shall each contain a waiver of subrogation endorsement in favor of County, its departments, districts, boards, commissions, officers, officials, agents, and employees for losses arising from work performed by or on behalf of Contractor.
- 5.3.3. Primary Insurance: The Contractor's policies shall stipulate that the insurance afforded the Contractor shall be primary and that any insurance carried by County, its agents, officials, or employees shall be excess and not contributory insurance.
- 5.3.4. Insurance provided by Contractor shall not limit Contractor's liability assumed under the indemnification provisions of this Contract.

5.4. Notice of Cancellation:

Each Required Insurance policy must provide, and certificates specify, County will receive not less than 30 days advance written notice of any policy cancellation, except 10-days prior notice is sufficient when the cancellation is for non-payment of a premium. Notice shall include the County project or contract number and project description.

5.5. Verification of Coverage:

Contractor will furnish County with certificates of insurance as required by this Contract. An authorized representative of the insurer will sign the certificates.

- 5.5.1. All certificates and endorsements, as required by this Contract, are to be received and approved by County before work commences. Each insurance policy required by this Contract must be in effect at, or prior to, commencement of work under this Contract. Failure to maintain the insurance coverages or policies as required by this Contract, or to provide evidence of renewal, is a material breach of contract.
- 5.5.2. All certificates required by this Contract shall be sent directly to the appropriate County Department. The Certificate of Insurance shall include County project or contract number and project description on the certificate. County reserves the right to require complete copies of all insurance policies required by this Contract at any time.

5.6. Approval and Modifications:

The Pima County Risk Manager may modify the Insurance Requirements at any point during the Term of this Contract. This can be done administratively, with written notice from the Risk Manager and does not require a formal Contract amendment. Neither the County's failure to obtain a required insurance certificate or endorsement, the County's failure to object to a non-complying insurance certificate or

endorsement, nor the County's receipt of any other information from the Contractor, its insurance broker(s) and/or insurer(s), constitutes a waiver of any of the Insurance Requirements.

6. Indemnification.

- 6.1. To the fullest extent permitted by law, Contractor will defend, indemnify, and hold harmless Pima County and any related taxing district, and the officials and employees of each of them (collectively, "Indemnitee") from and against any and all claims, actions, liabilities, losses, and expenses (including reasonable attorney fees) (collectively, "Claims") arising out of actual or alleged injury of any person (including death) or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by any act or omission of Contractor or any of Contractor's directors, officers, agents, employees, volunteers, or subcontractor. This indemnity includes any claim or amount arising or recovered under the Workers' Compensation Law or arising out of the failure of Contractor to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. The Indemnitee will, in all instances, except for Claims arising solely from the acts or omissions of the Indemnitee, be indemnified by Contractor from and against any and all Claims. Contractor is responsible for primary loss investigation, defense and judgment costs for any Claim to which this indemnity applies. This indemnity will survive the expiration or termination of this Contract.
- 6.2. All warranty and indemnification obligations under this contract shall survive expiration or termination of the Contract, unless expressly provided otherwise. The Parties agree that any indemnification provision inconsistent with A.R.S. § 34-226 is, in all cases, not void, but will be interpreted and applied as if it were consistent with A.R.S. § 34-226.
- 6.3. Upon request, Contractor may fully indemnify and hold harmless any private property owner granting a right of entry to Contractor for the purpose of completing the project.

7. Laws and Regulations.

- 7.1. Compliance with Laws. Contractor will comply with all federal, state, and local laws, rules, regulations, standards and Executive Orders, without limitation to those designated within this Contract.
- 7.2. Choice of Law; Venue. The laws and regulations of the State of Arizona govern the rights and obligations of the Parties under this Contract. Any action relating to this Contract must be filed and maintained in Superior Court in Pima County.
- 7.3. Licensing. Contractor warrants that it is appropriately licensed to provide the services under this Contract.

8. **Status of Independent Contractor.** Contractor is an independent Contractor. Neither Contractor, nor any of Contractor's officers, agents or employees will be considered an employee of Pima County for any purpose or be entitled to receive any employment-related benefits, or assert any protections, under the Pima County Merit System. Contractor is responsible for paying all federal, state and local taxes on the compensation received by Contractor under this Contract and will indemnify and hold County harmless from any and all liability that County may incur because of Contractor's failure to pay such taxes.

9. Contractor/Subcontractor Performance.

- 9.1. Performance. Contractor will perform the work with the degree of care and skill which a licensed contractor in Arizona would exercise under similar conditions. Contractor will employ suitably trained and skilled personnel to perform all required services under this Contract. Prior to changing any key personnel, especially those key personnel County relied upon in making this Contract, Contractor will obtain County's approval.
- 9.2. Responsibility. Contractor is responsible for the professional quality, technical accuracy, timely completion, and the coordination of all its effort and other services furnished by Contractor under this Contract. Without additional compensation, Contractor will correct or revise any errors, omissions, or

other deficiencies in all products of its efforts and other services provided. This includes resolving any deficiencies arising out of the acts or omissions of Contractor found during or after the course of the services performed by or for Contractor under this Contract, regardless of County having knowledge of or condoning or accepting the products or the services. Correction of such deficiencies will be at no cost to County.

- 9.3. **Subcontractor License.** Contractor will ensure that all Subcontractors have the appropriate and current license issued by the Arizona Registrar of Contractors for work they perform under this Contract. Contractor will not permit any Subcontractor to perform work that does not fall within the scope of the Subcontractor's license, except as may be permitted under the rules of the Registrar of Contractors.
- 9.4. **Subcontractor Acts and Omissions.** Contractor will be fully responsible for all acts and omissions of its Subcontractor(s) and of persons directly or indirectly employed by Subcontractor and of persons for whose acts any of them may be liable to the same extent that Contractor is responsible for the acts and omissions of persons directly employed by it. Nothing in this Contract creates any obligation on the part of County to pay any Subcontractor, except as may be required by law.
10. **Assignment.** Contractor will not assign its rights or obligations under this Contract in whole or in part, without County's prior written approval. County may withhold approval at its sole discretion.
11. **Non-Discrimination.** Contractor will comply with all provisions and requirements of Arizona Executive Order 2009-09, which is hereby incorporated into this contract, including flow-down of all provisions and requirements to any Subcontractors. During the performance of this Contract, Contractor will not discriminate against any employee, client or any other individual in any way because of that person's age, race, creed, color, religion, sex, disability or national origin.
12. **Americans with Disabilities Act.** Contractor will comply with Title II of the Americans with Disabilities Act (Public Law 110-325, 42 U.S.C. §§ 12101-12213) and the federal regulations for Title II (28 CFR Part 35).
13. **Authority to Contract.** Contractor warrants its right and power to enter into this Contract. If any court or administrative agency determines that County does not have authority to enter into this Contract, County will not be liable to Contractor or any third Party by reason of such determination or by reason of this Contract.
14. **Non-Waiver.** The failure of County to insist in any one or more instances upon full and complete compliance with any of the terms and provisions of this Contract or to take any action permitted as a result thereof is not a waiver or relinquishment of the right to insist upon full and complete performance of the same or any other covenant or condition either in the past or in the future. The acceptance by either Party of sums less than may be due and owing it at any time is not an accord and satisfaction.
15. **Cancellation for Conflict of Interest.** This Contract is subject to cancellation for conflict of interest pursuant to A.R.S. § 38-511, the pertinent provisions of which are incorporated into this Contract by reference.
16. **Termination of Contract for Default.**
 - 16.1. Upon a failure by Contractor to cure a default under this Contract within 10 days of receipt of notice from County of the default, County may, in its sole discretion, terminate this Contract for default by written notice to Contractor. In this event, County may take over the work and complete it by Contract or otherwise. Contractor and its sureties, if any, will be liable for any damage to County resulting from Contractor's default, including any increased costs incurred by County in completing the work.
 - 16.2. **Default Events.** The following constitutes an event of default:
 - 16.2.1. Abandonment of or refusal or failure to prosecute the work or any separable part thereof with the diligence that will insure completion within the time specified in this Contract, including any extension, or a failure to complete the work (or the separable part of the work) within the specified time;

- 16.2.2. Persistent or repeated refusal or failure to supply enough properly skilled workers or materials to perform the work on schedule;
 - 16.2.3. Failure to provide competent supervision at the site;
 - 16.2.4. Failure to take down, rebuild, repair, alter or amend any defective or deficient work, or to remove any defective or deficient material;
 - 16.2.5. Failure to make prompt payment to Subcontractors or suppliers for material or labor;
 - 16.2.6. Loss of Contractor's business or other required license or authority, or any curtailment or cessation for any reason of business or business operations that would substantially impair or preclude Contractor's performance of this Contract;
 - 16.2.7. Disregard of laws, ordinances, or the instructions of County or its representatives, or any otherwise substantial violation of any provision of the Contract; or
 - 16.2.8. If a voluntary or involuntary action for bankruptcy is commenced with respect to Contractor, or Contractor becomes insolvent, makes a general assignment for the benefit of creditors, or has a receiver or liquidator appointed in respect of its assets.
- 16.3. Termination. In the event of a termination for default:
- 16.3.1. All finished and unfinished as-builts, shop drawings, documents, data, studies, surveys, drawings, photographs, reports and other information in whatever form, including electronic, acquired or prepared by Contractor for this project become County's property and will be delivered to County not later than 5 business days after the effective date of the termination;
 - 16.3.2. County may withhold payments to Contractor arising under this or any other Contract for the purpose of set-off until such time as the exact amount of damage due County from Contractor is determined; and
 - 16.3.3. Subject to the immediately preceding subparagraph 16.3.2, County's liability to Contractor will not exceed the reasonable value of work satisfactorily performed prior to the date of termination for which payment has not been previously made.
- 16.4. Non-Termination. County will not terminate the Contract for default or charge Contractor with damages under this Article if:
- 16.4.1. Except for subparagraph 16.2.8 in subsection 16.2 above, the event of default or delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of Contractor. Examples of such causes include:
 - 16.4.1.1. Acts of God or of the public enemy,
 - 16.4.1.2. Acts of County in either its sovereign or contractual capacity,
 - 16.4.1.3. Acts of another Contractor in the performance of a contract with County,
 - 16.4.1.4. Fires,
 - 16.4.1.5. Floods,
 - 16.4.1.6. Epidemics and Pandemics,

- 16.4.1.7. Quarantine restrictions,
- 16.4.1.8. Strikes,
- 16.4.1.9. Freight embargoes,
- 16.4.1.10. Unusually severe weather, or
- 16.4.1.11. Delays of Subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both Contractor and the Subcontractor(s) or suppliers; and

16.4.2. Contractor, within 3 days from the beginning of any event of default or delay (unless extended by County), notifies County in writing of the cause(s) therefor. In this circumstance, County will ascertain the facts and the extent of the resulting delay. If, in the judgment of County the findings warrant such action, the time for completing the work may be extended.

16.5. Receipt of Notice. For the purposes of subsection 16.1 above, "receipt of notice" includes receipt by hand by Contractor's onsite project manager, or under the Notices clause of this Contract.

16.6. Excusable. If, after termination of the Contract for default, County determines that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the Parties will be the same as if County had terminated the Contract for convenience as set forth in Article 17.

16.7. Rights and Remedies. The rights and remedies of County in this Article are cumulative and in addition to any other rights and remedies provided by law or under this contract.

17. **Termination for Convenience of County**. County may terminate this Contract at any time by giving written notice to Contractor of such termination and specifying the effective date thereof, at least 15 days before the effective date of such termination. In that event, all finished or unfinished documents and other materials will, at the option of County, become its property. If County terminates the Contract as provided herein, County will pay Contractor an amount based on the time and expenses incurred by Contractor prior to the termination date. However, County will make no payment for anticipated profit on unperformed services.

18. **Non-Appropriation of Funds**. Notwithstanding any other provision in this Contract, County may terminate this Contract if for any reason the Pima County Board of Supervisors does not appropriate sufficient monies for the purpose of maintaining this Contract. In the event of such termination, County has no further obligation to Contractor, other than payment for services rendered prior to termination.

19. **Notices**. Any notice required or permitted to be given under this Contract must be in writing and be served by delivery or by certified mail upon the other Party as follows:

COUNTY:
 Rod Lane, Director
 Project Design and Construction
 150 W. Congress St., 3rd Floor
 Tucson, AZ 85701
 Tel: (520) 724-3085

CONTRACTOR:
 Steve Schmitt
 Sundt Construction, Inc.
 2620 S 55th St.
 Tempe, AZ 85282
 520-780-0072

20. **Non-Exclusive Contract**. Contractor understands that this Contract is Non-Exclusive and is for the sole convenience of County. County reserves the right to obtain like services from other sources for any reason.

21. **Contract Documents**.

21.1. Incorporation of Documents: County and Contractor in entering into this Contract have relied upon information provided in - Bonds (Payment and Performance Bonds), Exhibit A – Bid Schedule, Exhibit B

– General Conditions, Exhibit C –Special Provisions, Exhibit D – Construction Documents, PAG Standards, Special Provisions, Technical Specifications and Plans, Construction Documents, Drawings and Specifications, Amendments, and on information provided in Contractor's response to this Solicitation. These documents are hereby incorporated into and made a part of this Contract by reference as if set forth in full herein.

21.2. **Order of Precedence:** In the event of a conflict or inconsistency between or among the contract documents, the documents shall take precedence in the following order:

- 21.2.1. This Contract
- 21.2.2. Exhibit A – Bid Schedule
- 21.2.3. Exhibit B – General Conditions
- 21.2.4. Exhibit C – Special Provisions
- 21.2.5. Exhibit D – Construction Documents

21.3. **Deviation:** The Parties may, by written mutual agreement, deviate from this order of precedence in resolving inconsistencies between or among contract documents. Any such agreement interpreting the documents shall be incorporated into the Contract by amendment.

21.4. **Conflict:** In the event of any conflict between any provision in the Special Conditions, and any provision of the General Conditions, or any other incorporated document, the provision in the Special Conditions shall take precedence.

22. **Bonding Requirements.** In accordance with A.R.S. §34-221, et. seq., the Contractor will provide Payment and Performance bonds for not less than 100% of the contract amount. Copies of the bonds will be attached to this Contract.

23. **Ownership of Documents.** Ownership of all original drawings, boring logs, field data, estimates, field notes, plans, specifications, documents, reports, calculations, maps and models, and other information developed by Contractor under this Contract vests in and become the property of the County and will be delivered to County upon completion or termination of the services, but Contractor may retain record copies thereof.

24. Books and Records.

24.1. **Maintenance.** Contractor will keep and maintain proper and complete books, records and accounts, which will be open at all reasonable times for inspection and audit by duly authorized representatives of County.

24.2. **Retention.** Contractor will retain all records relating to this contract at least 5 years after its termination or cancellation or until any related pending proceeding or litigation has been closed, if later. Alternatively, Contractor may, at its option, deliver such records to County for retention.

25. **Remedies.** Either Party may pursue any remedies provided by law for the breach of this Contract, provided, however, that the procedures in Article 28 are first exhausted. No right or remedy is intended to be exclusive of any other right or remedy and each is cumulative and in addition to any other right or remedy existing at law or at equity or by virtue of this Contract.

26. **Severability.** Each provision of this Contract stands alone, and any provision of this Contract found to be prohibited by law is ineffective to the extent of such prohibition without invalidating the remainder of this Contract.

27. **Delays.** Neither Party will be considered in default in the performance of its obligations to the extent that the performance of any such obligation is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of such Party.

28. Disputes.

- 28.1. Resolving Dispute. In the event of a dispute between County and Contractor regarding any part of this Contract or the Parties' obligations or performance hereunder, either Party may request a special meeting between their respective representatives to resolve the dispute. If the dispute remains unresolved, then either Party may request escalation of the issue to a meeting between the Director of the Pima County Department administering this Contract and Contractor's counterpart official, such meeting to be held within one week of the request, unless otherwise agreed. If the dispute is still not resolved after that meeting, then either Party may pursue such remedy or remedies as may be available to them under the laws of the State of Arizona.
- 28.2. Performance. The Parties will continue performance of their respective obligations under this Contract notwithstanding the existence of any dispute.

29. Public Records.

- 29.1. Disclosure. Pursuant to A.R.S. § 39-121 et seq., and A.R.S. §§ 34-603(H), 604(H), in the case of Construction or Architectural and Engineering services procured under A.R.S. Title 34, Chapter 6, all information submitted by Contractor in any way related to this contract, including, but not limited to, pricing, product specifications, work plans, and any supporting data becomes public information and upon request, is subject to release and/or review by the general public including competitors.
- 29.2. Records Marked Confidential.
- 29.2.1. Any information submitted related to this Contract that Contractor believes constitutes proprietary, trade secret or otherwise confidential information must be appropriately and prominently marked as confidential prior to submittal to County and be accompanied by an index specifically identifying and describing the general contents of each page so marked. The index is a Public Record and must not include any information considered confidential.
- 29.2.2. Notwithstanding the above provisions, in the event records marked confidential are requested for public release pursuant to A.R.S. § 39-121 et seq., County will release records marked confidential 10 business days after the date of notice to the Contractor of the request for release, unless Contractor has, within the 10 day period, secured a protective order, injunctive relief or other appropriate order from a court of competent jurisdiction in Arizona, enjoining the release of the records. For the purposes of this paragraph, the day of the request for release is not counted in the time calculation. Contractor will be notified of any request for such release on the same day of the request for public release or as soon thereafter as practicable. County shall not, under any circumstances, be responsible for securing a protective order or other relief enjoining the release of records marked confidential, nor shall County be in any way financially responsible for any costs associated with securing such an order.

30. Legal Arizona Workers Act Compliance.

- 30.1. Compliance with Immigration Laws. Contractor warrants that it will at all times during the term of this Contract comply with all federal immigration laws applicable to Contractor's employment of its employees, and with the requirements of A.R.S. § 23-214 (A) (together the "State and Federal Immigration Laws"). Contractor will further ensure that each Subcontractor who performs any work for Contractor under this Contract likewise complies with the State and Federal Immigration Laws.
- 30.2. Books & Records. County has the right at any time to inspect the books and records of Contractor and any Subcontractor in order to verify such Party's compliance with the State and Federal Immigration Laws.

- 30.3. **Remedies for Breach of Warranty.** Any breach of Contractor's or any Subcontractor's warranty of compliance with the State and Federal Immigration Laws, or of any other provision of this section, is a material breach of this Contract subjecting Contractor to penalties up to and including suspension or termination of this Contract. If the breach is by a Subcontractor, and the subcontract is suspended or terminated as a result, Contractor will take such steps as may be necessary to either self-perform the services that would have been provided under the subcontract or to retain a replacement Subcontractor (subject to County approval if SBE or DBE preferences apply), as soon as possible so as not to delay project completion.
- 30.4. **Subcontractors.** Contractor will advise each Subcontractor of County's rights, and the Subcontractor's obligations, under this Article by including a provision in each subcontract substantially in the following form:
- "Subcontractor hereby warrants that it will at all times during the term of this contract comply with all federal immigration laws applicable to Subcontractor's employees, and with the requirements of A.R.S. § 23-214 (A). Subcontractor further agrees that County may inspect the Subcontractor's books and records to ensure that Contractor is in compliance with these requirements. Any breach of this paragraph by Subcontractor is a material breach of this contract subjecting Subcontractor to penalties up to and including suspension or termination of this contract."
- 30.5. **Costs.** Any additional costs attributable directly or indirectly to remedial action under this Article are the responsibility of Contractor. In the event that remedial action under this Article results in delay to one or more tasks on the critical path of Contractor's approved construction or critical milestones schedule, such period of delay will be excusable delay for which Contractor is entitled to an extension of time, but not costs.
31. **Israel Boycott Certification.** Pursuant to A.R.S. § 35-393.01, if Contractor engages in for-profit activity and has 10 or more employees, and if this Contract has a value of \$100,000.00 or more, Contractor certifies it is not currently engaged in, and agrees for the duration of this Contract to not engage in, a boycott of goods or services from Israel. This certification does not apply to a boycott prohibited by 50 U.S.C. § 4842 or a regulation issued pursuant to 50 U.S.C. § 4842.
32. **Forced Labor of Ethnic Uyghurs.** Pursuant to A.R.S. § 35-394, if Contractor engages in for-profit activity and has 10 or more employees, Contractor certifies it is not currently using, and agrees for the duration of this Contract to not use (1) the forced labor of ethnic Uyghurs in the People's Republic of China; (2) any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; and (3) any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China. If Contractor becomes aware during the term of the Contract that the Company is not in compliance with A.R.S. § 35-394, Contractor must notify the County within 5 business days and provide a written certification to County regarding compliance within one hundred eighty days.
33. **Heat Injury and Illness Prevention and Safety Plan.** Pursuant to Pima County Procurement Code 11.40.030, Contractor hereby warrants that if Contractor's employees perform work in an outdoor environment under this Contract, Contractor will keep on file a written Heat Injury and Illness Prevention and Safety Plan. At County's request, Contractor will provide a copy of this plan and documentation of heat safety and mitigation efforts implemented by Contractor to prevent heat-related illnesses and injuries in the workplace. Contractor will post a copy of the Heat Injury and Illness Prevention and Safety Plan where it is accessible to employees. Contractor will further ensure that each subcontractor who performs any work for Contractor under this Contract complies with this provision.
34. **Amendment.** Except for the amendment provision above in Article 2, this Contract may be modified, amended, altered or extended only by a written amendment signed by the Parties.
35. **Entire Agreement.** This document constitutes the entire agreement between the Parties and all prior or contemporaneous agreements and understandings, oral or written, are hereby superseded and merged herein.

36. **Effectiveness and Date.** This contract will become effective when all Parties have signed it. The date of this Contract will be the date the Contract is signed by the last Party to sign it (as indicated by the date associated with that Party's signature).

Each Party is signing this Contract on the date below that Party's signature.

APPROVED:

Chair, Board of Supervisors

Date

ATTEST:

Clerk of the Board

Date

CONTRACTOR:

S. Schmitt

Signature

STEVE SCHMITT, AREA MANAGER

Name and Title (Please Print)

5.1.2026

Date

This contract template has been approved as to form by the Pima County Attorney's Office.

EXHIBIT A - BID SCHEDULE (2 PAGES)

BID SCHEDULE						
Country Club Rd - Michigan St to Milber St (Pima County)						
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT	
2010001	Clearing and Grubbing	LSUM	1	\$7,885.47		\$7,885.47
2020001	Removal of Structures & Obstructions	LSUM	1	\$32,151.18		\$32,151.18
2020029	Removal of Bituminous Pavement	SY	5036	\$5.32		\$26,791.52
2020061	Relocate Mailbox	EA	1	\$298.48		\$298.48
2030300	Roadway Excavation	CY	423	\$67.08		\$28,374.84
2030401	Drainage Excavation	CY	923	\$49.13		\$45,346.99
3030003	Aggregate Base	CY	1124	\$84.76		\$95,270.24
4040152	Polymer Modified Asphalt Emulsion Micro Seal	TON	12	\$1,275.00		\$15,300.00
4040172	Dry Mineral Aggregate (Micro-Surfacing) (Type III)	TON	89	\$509.77		\$45,369.53
NEW	Crack Seal (Micro-Seal)	SY	5919	\$2.01		\$11,897.19
4040274	Asphalt Binder	TON	91	\$854.54		\$77,763.14
4090003	Asphaltic Concrete (Miscellaneous Structural)	TON	91	\$159.98		\$14,558.18
4160004	Asphaltic Concrete (3/4" Mix) (End Product) (Special Mix)	TON	1810	\$107.45		\$194,484.50
4160031	Mineral Admixture	TON	19	\$477.56		\$9,073.64
5011015	Pipe, Reinforced Concrete, Class V, 18"	LF	432	\$206.57		\$89,238.24
5011025	Pipe, Reinforced Concrete, Class V, 24"	LF	570	\$230.62		\$131,453.40
5030049	Concrete U-Channel	LF	76	\$4,781.92		\$363,425.92
5030075	Sidewalk Scupper (Modified PAG 205)	EA	1	\$17,908.65		\$17,908.65
5030775	Catch Basin (Special No. 1)	EA	1	\$71,634.60		\$71,634.60
5050300	Gate & Frame	SF	665	\$-		\$-
6016087	Pipe Culvert Headwall	EA	4	\$10,506.41		\$42,025.64
6016089	U-Channel Headwall	EA	4	\$25,515.35		\$102,061.40
6070010	Sign Post (Perforated) (Single)	LF	46	\$19.10		\$878.60
6070012	Sign Post (Perforated) (Telescoping)	LF	42	\$28.65		\$1,203.30
6070042	Slip Base Assembly (Type 2 1/2T) (Telescoping)	EA	3	\$274.60		\$823.80
6070110	Foundation for Sign Post (Perforated)	EA	7	\$298.48		\$2,089.36
6080031	Regulatory Sign Panels	SF	6	\$33.43		\$200.58
6080081	Flat Sheet Aluminum w/ Direct Apply or Silk-Screen Characters	SF	8	\$286.54		\$2,292.32
7010005	Traffic Control	LSUM	1	\$35,817.30		\$35,817.30
7010260	Obilitate Pavement Marking	LF	1184	\$0.32		\$378.88
7040005	Pavement Marking (White Extruded Thermoplastic) (0.090")	LF	4594	\$0.62		\$2,848.28
7040006	Pavement Marking (Yellow Extruded Thermoplastic) (0.090")	LF	3169	\$0.62		\$1,964.78
7040130	Pavement Marking (White Extruded Thermoplastic) (Transverse) (0.090")	LF	162	\$1.13		\$183.06
7060020	Pavement Marker, Reflective, (Type C, Clear, Red)	EA	76	\$3.10		\$235.60
7060025	Pavement Marker, Reflective, (Type D, Yellow, Two-Way)	EA	63	\$3.10		\$195.30
7080005	Permanent Pavement Marking (Painted) (White) (First Application)	LF	3063	\$0.12		\$367.56
7080007	Permanent Pavement Marking (Painted) (Yellow) (First Application)	LF	2113	\$0.12		\$253.56
8030030	Rock Mulch (Type 1)	CY	138	\$203.58		\$28,094.04
8061009	Tree (24" Box)	EA	3	\$179.09		\$537.27
8061298	Shrub (Five Gallon)	EA	59	\$28.65		\$1,690.35
8070001	Landscaping Establishment	LSUM	1	\$10,000.00		\$10,000.00
8090046	Transplant Cactus	EA	2	\$1,552.08		\$3,104.16
8080001	Landscape Irrigation System (Adjust Existing Irrigation)	LSUM	1	\$5,000.00		\$5,000.00
8100001	AZPDES/NPDES (Original)	LSUM	1	\$5,000.00		\$5,000.00
8102505	Adjust Existing Valve Box and Cover	EA	1	\$1,789.17		\$1,789.17
9010001	Mobilization	LSUM	1	\$438,773.76		\$438,773.76
9080001	Concrete Curb (Std. Dtl. 209) (Type 1)	LF	1352	\$41.01		\$55,445.52
9080002	Concrete Curb (Std. Dtl. 209) (Type 1) (G)	LF	39	\$59.10		\$2,304.90
9080090	Concrete Curb Terminal Section (Std. Dtl. 212)	EA	4	\$358.17		\$1,432.68
9080201	Concrete Sidewalk	SF	6139	\$15.80		\$96,996.20
9080280	Curb Access Ramp, Std. Dtl. 207 (Type 1)	EA	5	\$3,647.40		\$18,237.00
9080281	Curb Access Ramp, Std. Dtl. 207 (Type 2)	EA	2	\$3,128.04		\$6,256.08
9080301	Concrete Driveway Apron	SF	740	\$14.80		\$10,952.00
9080602	Concrete Bus Shelter Pad	SF	332	\$15.52		\$5,152.64
9130015	Riprap (Dumped) (D50 = 6")	CY	217	\$148.96		\$32,324.32
9130016	Riprap (Dumped) (D50 = 9")	CY	200	\$148.96		\$29,792.00
9250001	Construction Survey and Layout	LSUM	1	\$41,548.07		\$41,548.07
9300100	Incidental Items Allowance	USD	1	\$20,000.00		\$20,000.00
9330002	Handrail	LF	282	\$64.03		\$18,056.46
NEW	Drainage Structure (Detail DF)	LF	19	\$3,605.61		\$68,506.59
NEW	Pipe Outlet (Detail DE)	EA	1	\$7,084.40		\$7,084.40
NEW	Structure Backfill	CY	132	\$154.11		\$20,342.52
NEW	Bituminous Tack Coat	TN	11	\$883.49		\$9,718.39
NEW	Apply Bituminous Tack Coat	HR	6	\$382.05		\$2,292.30
2010010 (NEW)	Control of Noxious Weeds (Herbicide)	SY	5000	\$0.39		\$1,950.00
NEW	Remove WL Pipe (CA)	LF	547	\$160.28		\$87,673.16
NEW	Remove WL Pipe (CA)	LF	233	\$160.28		\$37,345.24
NEW	Remove WL Pipe (Non-CA)	LF	733	\$52.41		\$38,416.53
NEW	Removal of Pipe (Gravity Sewer)	LF	18	\$528.15		\$9,506.70
NEW	Remove AC	SY		\$8.87		\$-
NEW	Remove AC	SY	235	\$8.87		\$2,084.45
NEW	Aggregate Base	CY		\$84.76		\$-
NEW	Aggregate Base	CY	162	\$84.76		\$13,731.12
NEW	AC Paving (409 Mix)	TN		\$298.48		\$-

NEW	AC Paving (409 Mix)	TN	76	\$298.48	\$23,281.44
NEW	Air/Vacuum Release Valve (1")	EA	2	\$5,820.09	\$11,240.18
NEW	Gate Valve (8")	EA	3	\$4,418.26	\$13,254.78
NEW	Gate Valve (8")	EA	1	\$5,411.99	\$5,411.99
NEW	Gate Valve (12")	EA	3	\$7,200.06	\$21,600.18
NEW	Provide Water Service (1")	EA	2	\$8,039.65	\$16,079.30
NEW	Provide Water Service (2")	EA	1	\$10,829.86	\$10,829.86
NEW	Reset Frame and Cover for Valve Box	EA	7	\$239.38	\$1,675.66
NEW	Reset Frame and Cover for Valve Box	EA	1	\$239.38	\$239.38
NEW	Final Adjust Valve	EA	7	\$1,153.30	\$8,073.10
NEW	Final Adjust Valve	EA	1	\$1,153.30	\$1,153.30
NEW	Drain Valve Assembly	EA	1	\$8,820.55	\$8,820.55
NEW	Pipe, Ductile Iron, 3"	LF	6	\$820.11	\$4,920.66
NEW	Pipe, Ductile Iron, 6"	LF	270	\$270.08	\$72,921.60
NEW	Pipe, Ductile Iron, 8"	LF	103	\$409.45	\$42,173.35
NEW	Pipe, Ductile Iron, 12"	LF	640	\$323.41	\$206,982.40
NEW	Pipe, Ductile Iron, 6" (Gravity Sewer)	LF	18	\$566.61	\$10,198.98
NEW	Miscellaneous Work (Thrust Restraint Per SD-610)	EA	2	\$1,608.17	\$3,216.34
NEW	Miscellaneous Work (Corrosion Test Stations)	LS	1	\$17,879.04	\$17,879.04
					\$ 3,083,135.14

Sundt Construction, Inc.

Contractor hereby acknowledges receipt of the complete Bid Documents for this project and has examined and is familiar with all documents, including those incorporated by reference, which are applicable to this project. By executing this Bid Schedule, Contractor hereby proposes and agrees to furnish any and all required labor, material, construction equipment, transportation, and services for the project in strict conformity with the Bid Documents, at the unit prices set in this Exhibit A.

END OF EXHIBIT A - BID SCHEDULE

EXHIBIT B - GENERAL CONDITIONS (10 pages)

ARTICLE 1. DEFINITIONS

Whenever in these Specifications, or in any document of instructions where these Specifications govern, the following terms or pronouns in place of them are used, the intent and meaning will be interpreted as follows:

Bid: The offer of the Bidder for the work when properly made out on forms containing the Bid for Lump Sum Construction supplied by County and properly submitted, signed and guaranteed.

Bid Documents: All Drawings, Technical Specifications, Supplementary General and/or General Conditions, Bid Schedule, Construction Contract and Bonds, and Contract Documents.

Bidder: Any individual, firm or corporation, qualified as herein provided, legally submitting a Bid for the work contemplated, acting directly or through an authorized representative.

Board: The Board of Supervisors, Pima County, Arizona, acting under authority of the laws of Arizona.

Building Code: The directions, provisions, and requirements contained in the current edition of the Building Codes, with Amendments, as adopted by Pima County, supplemented by such special provisions as may be necessary, pertaining to the method and manner of performing the work, quality and quantity of material to be furnished and measurement for payment of same.

Contract: The written Agreement between County and Contractor covering the performance of the work and the furnishing of labor, equipment, and materials in the construction of the work.

Contract Bond: The approved form of security furnished by Contractor and its Surety as a guarantee on the part of Contractor to execute the work in accordance with the terms of the Contract.

Contractor: The party who undertakes to execute the work, acting directly or through an authorized lawful agent or employee.

County: Pima County, Arizona, a body politic and corporate, the owner of the work.

Department: The Pima County Project Design and Construction.

Director: The Pima County Department Director, an assistant or other representative duly authorized by a Department Director to act on their behalf.

Extra Work: Work, including materials, for which no price agreement is contained in the Contract and which is deemed necessary for the proper completion of the work.

Item: A detail of work for which separate payment is made.

Laboratory: The established laboratory of the Department or other laboratories authorized by County to test materials and work involved in the Contract.

Plans: The Contract drawings or exact representations thereof, which show the location, character, dimensions, and details of the work.

Project Manager, Engineer, or Architect: The person designated by County to oversee the project on its behalf.

Standard Specifications: The directions, provisions, and requirements contained in the current edition of the PAG Standard Specifications for Public Improvements 2015 Edition with Amendments, as adopted by Pima County, supplemented by such special provisions as may be necessary, pertaining to the method and manner of performing the work, quality and quantity of material to be furnished and measurement of payment of same.

Supplementary Agreement: A written agreement executed by Contractor and County covering alterations to the project. A change order or a force account work request prepared on the approved form of the Department is a supplementary agreement.

Supplementary General Conditions or Special Conditions: The Supplementary General Conditions or Special Conditions are additional to the General Conditions, which are conditions or requirements peculiar to the project under consideration.

Surety: The corporate body which is bound with and for Contractor, who is primarily liable, and which (agrees) to be responsible for its payment of all debts pertaining to and for its acceptable performance of the work for which it has contracted.

The Work: All of the work specified in the Contract.

ARTICLE 2. RESPONSIBILITY REGARDING EXISTING UTILITIES AND STRUCTURES

County does not guarantee the existence and locations of underground utilities indicated on the plans and Contractor will investigate and verify the location of underground utilities in the field before starting work. Contractor will carefully perform excavations in the vicinity of existing structures and utilities. Contractor is responsible for any damage to, and for maintenance and protection of, existing utilities and structures. At least two full working days prior to commencing excavation, contractor must call blue Stake Center, 1-800-STAKE-IT, between the hours of 7:00 a.m. and 4:30 p.m., Monday through Friday for information relative to the location of buried utilities.

Contractor is fully responsible for costs incurred due to damage to utilities as a result of grading or excavation operations. Utility locations shown on the Plans are approximate, and not all utilities may be shown. The possibility of conflicts with existing utilities –in-place exists. If conflicting utilities interfere with Contractor's normal progress toward completion of this project, County may, at its option, authorize Contractor to relocate said conflicting utilities by Force Account.

It is the responsibility of Contractor to contact the utility companies in order for them to determine if there is a need for any bracing or shoring of power to telephone poles during the construction of this project. If bracing or shoring is necessary, Contractor will effect this work to the satisfaction of the utility company. County will make no measurement or direct payment for bracing or shoring.

ARTICLE 3. LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

- a. Laws to be Observed -- Contractor is presumed to be familiar with and at all times will observe and comply with all Federal and State laws and local ordinances, worker's compensation, occupational disease, and unemployment compensation laws together with the payment of all premiums and taxes therefor, also all laws, ordinances, and regulations in any manner affecting the conduct of the work and will indemnify and hold harmless County and its representatives against any claim arising from the violations of such laws, bylaws, ordinances or regulations, whether by Contractor or by Contractor's employees.
- b. Permits and Licenses -- Contractor will procure all County building permits, and sewer connection fees. Contractor will post required permits on site and give all notices necessary and incidental to the due and lawful prosecution of the work. Contractor will procure and pay for all other permits, fees, and applications for water, gas, electric and other utilities.
- c. Sanitary Provisions -- Contractor will provide and maintain in a neat and sanitary condition such accommodations for the use of its employees as may be necessary to comply with the requirements and regulations of the Arizona Department of Health Services or other authorities having jurisdiction therein.

- d. Public Convenience and Safety -- Contractor will have due regard for the public health and will conduct the work in such a manner as to provide and insure the safety and convenience of the public.

When special conditions prevail and extraordinary measures are necessary, the details will be set forth in the Technical Specifications or Special Provisions.

- e. Barricades, Warning Lights, and Detour Signs -- Contractor will at its expense and without further order provide, erect, and maintain at all times during the progress or temporary suspension of the work such barricades, fences, warning lights, danger signals, reflectors, signs, or other protective devices as are required to insure the safety of the public, those engaged in connection with the work and the work itself.

Unless otherwise expressly stated in the Contract, no measurement or direct payment for this work will be made, but the cost of providing, erecting, and maintaining such protection devices, including guards, watchmen and/or flagmen as required will be considered as included and paid for in the contract prices for the work.

- f. Use of Explosives -- Prohibited

- g. Preservation and Restoration of Property -- Contractor will be responsible for the preservation of all public and private property on the surface or underground, along and adjacent to the work and will conduct its operations so as to insure the prevention of injury or damage thereto. No land monuments or property will be disturbed or moved until an authorized agent has witnessed or otherwise referenced their locations.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence or the non-execution thereof on the part of Contractor, Contractor will restore such property at its own expense to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring same, or it will make good such damage or injury in an acceptable manner.

- h. Contractor's Responsibility for Work -- Until written final acceptance of the work by County, Contractor will have the charge and care thereof and will take every precaution against injury or damage to any part thereof by action of elements, or from any other cause, whether arising from the execution or non-execution of the work. The Contractor will rebuild, repair, restore, and make good all injuries or damages of any portion of the work occasioned by any of the above causes before final acceptance and will bear the expense thereof.

In case of the suspension of work for any cause whatever, Contractor will be responsible for all work and materials and will take proper care of the work, storing all materials if necessary, and will provide suitable drainage of the work and erect necessary temporary structures.

- i. Waiver of Legal Rights -- County will not be precluded or be estopped, by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefor, from showing the true amount and character of the work performed and materials furnished by Contractor, or from showing that any such measurement, estimate, or certificate is untrue or incorrectly made, or that the work or materials do not conform in fact to the Contract. Neither the acceptance by County or by any representative of County nor any payment, nor acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by County will operate as a waiver of any portion of the Contract or of any power herein reserved, or any right to damage herein provided. A waiver of any breach of the Contract is not a waiver of any other subsequent breach.

ARTICLE 4. ACCIDENTS

Contractor will provide, at the site, such equipment and medical facilities as are necessary to supply first-aid service to anyone who may be injured in connection with the work.

Contractor must promptly report in writing to County all accidents whatsoever arising out of, or in connection with the performance of the work, whether on or adjacent to the site, which caused death, personal injury, or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, Contractor will report the accident immediately by telephone or messenger to both County and the Board.

If any claim is made by anyone against Contractor or any Subcontractor on account of any accident, Contractor will promptly report the facts in writing to County, giving full details of the claim.

ARTICLE 5. RESERVED

ARTICLE 6. RESERVED

ARTICLE 7. EXECUTION, CORRELATION AND INTENT OF DOCUMENTS

The Contract documents are complementary, and what is called for by any one will be as binding as if called for by all, and the most stringent requirement will apply. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. It is not intended, however, that materials or work not covered by or properly inferable from any heading, branch, class or trade of the specifications will be supplied unless distinctly so noted on the drawings. Materials or work described in words that so applied have a well-known technical or trade meaning will be held to refer to such recognized standards.

ARTICLE 8. DETAIL DRAWINGS AND INSTRUCTIONS

County will furnish with reasonable promptness, additional instructions, by means of drawings or otherwise, necessary for the proper execution of the work. All such drawings and instructions will be consistent with the Bid documents, true developments thereof, and reasonably inferable therefrom.

ARTICLE 9. COPIES OF DRAWINGS FURNISHED

County will provide, at no cost to Contractor, two complete sets of code approved construction documents in non-reproducible form.

County will provide, at no cost to Contractor, five (5) non-reproducible sets of construction documents used during the course of bidding the work (Bid Sets) for execution on the work. It will be Contractor's responsibility to ensure that any modifications called for as a result of the permit process are transferred to the bid sets.

Contractor may purchase additional sets of code-approved sets or bid sets construction documents, at its expense.

ARTICLE 10. ORDER OF COMPLETION

Contractor will submit at such times as may be requested by County, schedules which will show the order in which Contractor proposes to carry on the work with dates at which Contractor will start the several parts of the work and estimated dates of completion of the several parts.

ARTICLE 11. CONSTRUCTION DOCUMENTS ON THE JOB SITE

Contractor will keep one copy of code approved construction documents on the job site, in good order, available to County and to County's representatives. This set of documents will be kept current as to pending and approved changes in the work.

ARTICLE 12. OWNERSHIP OF DRAWINGS

All drawings, specifications, and copies thereof furnished by County are the property of Pima County. They are not to be used on other work and with the exception of the signed Contract set, and are to be returned to County on request, at the completion of the work. All models are the property of County.

ARTICLE 13. CONTRACTOR'S UNDERSTANDING

Contractor has, by careful examination, satisfied itself as to the nature and location of the work, the conformation of the ground, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way affect the work under this Contract. No verbal agreement or conversations with any officer, agent or employee of County, either before or after the execution of this Contract, will affect or modify any of the terms or obligations herein contained.

ARTICLE 14. MATERIALS, APPLIANCES, EMPLOYEES

Unless otherwise agreed, Contractor will provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary for the execution and completion of the work.

Unless otherwise agreed, all materials will be new, and both workmanship and materials will be of good quality. Contractor will, if required, furnish satisfactory evidence as to the kind and quality of materials.

Contractor will at all times enforce strict discipline and good order among its employees, and will not employ on the work any unfit person or anyone not skilled in the work that Contractor assigns to that person.

ARTICLE 15. ROYALTIES AND PATENTS

Contractor will pay all royalties and license fees. Contractor will defend all suits or claims for infringement of any patent rights and will hold County harmless from loss on account thereof, except that County will be responsible for all such loss when a particular process or the product of a particular manufacturer or manufacturers is specified, but if Contractor has information that the process or article specified is an infringement of a patent it will be responsible for such loss unless it promptly gives such information to County.

ARTICLE 16. SURVEYS, PERMITS, AND REGULATIONS

County will furnish all property surveys unless otherwise specified. Contractor will secure and pay for permits and licenses of a temporary nature necessary for the prosecution of the work except as noted in Article 3.b. County will secure and pay for easements for permanent structures or permanent changes in existing facilities unless otherwise agreed.

Contractor will give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the work as drawn and specified. If Contractor observes that the drawings and specifications are at variance therewith, it will promptly notify County in writing, and any necessary changes will be adjusted as provided in the Contract for changes in the work. If Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations, and without such notice to County, it will bear all costs arising therefrom.

ARTICLE 17. PROTECTION OF WORK AND PROPERTY

Contractor will continuously maintain adequate protection of all its work from damage and will protect County's property from injury or loss arising in connection with this Contract. It will make good any such damage, injury, or loss, except such as may be directly due to errors in the bid documents or caused by agents or employees of County. It will adequately protect adjacent property as provided by law and the bid documents. It will provide and maintain all passageways, guard fences, lights, and other facilities for protection required by public authority or local conditions.

If an emergency should occur affecting the safety of life or the work or of adjoining property, Contractor, without special instruction or authorization from County, is hereby permitted to act at his discretion, to prevent such threatened loss or injury, and Contractor will so act, without appeal, if so instructed or authorized. Any compensation claimed by Contractor on account of emergency work will be determined by County.

Contractor is responsible for equipment, materials, and supplies until completion of the project and acceptance by County.

ARTICLE 18. INSPECTION OF WORK

County representatives will at all times have access to the work wherever it is in preparation or progress and Contractor will provide proper facilities for such access and for inspection.

If the specifications, County's instructions, laws, ordinances, or any public authority, require any work to be specially tested or approved, Contractor will give County timely notice of its readiness for inspection and if the inspection is by an authority other than County, of the date fixed for such inspection. Inspections by County will be promptly made, and where practicable at the source of supply. If any work should be covered up without approval or consent of County, it must, if required by County, be uncovered for examination at Contractor's expense.

Re-examination of questioned work may be ordered by County and if so ordered the work must be uncovered by Contractor. If such work is found to be in accordance with the bid documents, County will pay the cost of re-examination and replacement. If such work is found not to be in accordance with the bid documents, Contractor will pay such cost.

ARTICLE 19. SUPERINTENDENCE - SUPERVISION

Contractor will keep on its work site during its progress a competent Superintendent and any necessary assistants, all satisfactory to County. The Superintendent will not be changed except with the consent of County, unless the Superintendent proves to be unsatisfactory to Contractor and ceases to be in its employ. The Superintendent will represent Contractor in its absence and all directions given to it will be as binding as if given to Contractor. Contractor will give efficient supervision to the work using its best skill and attention.

If Contractor, in the course of the work, finds any discrepancy between the construction documents and the physical conditions of the locality, or any errors or omissions in the construction documents or in the layout as given by points and instructions, it will be its duty to immediately inform County, in writing, and County will promptly verify the same. Any work done after such discovery, until authorized, will be done at Contractor's risk.

Neither County nor Contractor, will employ an employee of the other without consent.

ARTICLE 20. RESERVED

ARTICLE 21. CLAIMS FOR EXTRA COST FOR ADDITIONAL WORK

If Contractor claims that any additional instructions by drawings or otherwise involve extra cost under this Contract, it will give County written notice thereof within a reasonable time after the receipt of such instructions, and in any event before proceeding to execute the work, except in an emergency endangering life or property. No such claim will be valid unless so made.

ARTICLE 22. DEDUCTIONS FOR UNCORRECTED WORK

If County deems it not expedient to correct work injured or done not in accordance with the Contract, an equitable deduction from the Contract price will be made therefor.

Contractor will promptly remove from the premises all materials condemned by County as failing to conform to the Contract, whether incorporated in the work or not, and Contractor will promptly replace and re-execute its own work in accordance with the Contract and without expense to County and will bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

If Contractor does not remove such condemned work and materials within a reasonable time, fixed by written notice, County may remove them and may store the material at the expense of Contractor. If Contractor does not pay the expense of such removal within ten days' time thereafter, County may, upon ten days written notice, sell such materials at auction or at private sale and will account for the net proceeds thereof, after deducting all the costs and expenses that should have been borne by Contractor.

ARTICLE 23. SUSPENSION OF WORK

County may at any time suspend the work, or any part thereof by giving three (3) days' notice to Contractor in writing. When the reason for such suspension involves safety, health or welfare issues, the three (3) day written notice requirement may be waived at the decision of the County Management. Contractor will resume the work within ten (10) days after the date fixed in the written notice from County to Contractor to do so.

ARTICLE 24. COUNTY'S RIGHT TO DO WORK

If Contractor neglects to prosecute the work properly or fails to perform any provision of this Contract, County may, after three (3) days written notice to the Contractor, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due Contractor.

ARTICLE 25. COUNTY'S RIGHT TO TERMINATE CONTRACT

If Contractor persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if it fails to make prompt payment to subcontractors for material or labor, or persistently disregards laws, ordinances, or the instructions of County, or otherwise is guilty of a substantial violation of any provision of the contract, then County may, without prejudice to any other right or remedy and after giving Contractor ten (10) days written notice, terminate the employment of Contractor and take possession of the premises and of all materials, tools, and appliances thereon and finish the work by whatever method County may deem expedient. In such case Contractor will not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract price will exceed the expense of finishing the work, including compensation for additional managerial and administrative service, such excess will be paid to Contractor. If such expense will exceed such unpaid balance, Contractor will pay the difference to County. County will certify the expense incurred by County as herein provided, and the damage incurred through the Contractor's default.

ARTICLE 26. REMOVAL OF EQUIPMENT

In any case of annulment or termination of this Contract before completion from any cause whatever, Contractor, if notified to do so by County, will promptly remove any part or all of its equipment and supplies from the property of County, failing which County will have the right to remove such equipment and supplies at the expense of Contractor.

ARTICLE 27. USE OF COMPLETED PORTIONS

County has the right to take possession of and use any completed or partially completed portions of the work, notwithstanding the time for completing the entire work or such portions may not have expired, but such taking possession and use is not an acceptance of any work not completed in accordance with the Bid documents. If such prior use increases the cost of or delays the work, Contractor will be entitled to such extra compensation, or extension of time, or both, as County may determine.

ARTICLE 28. PAYMENTS WITHHELD

County may decline to certify payment or, because of discovered evidence or observations, may nullify the whole or any part of any certificate for payment previously issued, to such extent as may be necessary in its opinion to protect County from loss because of:

- a. Defective work not remedied.
- b. Third party claims filed or reasonable evidence indicating probable filing of such claims.
- c. Failure of Contractor to make payments properly to Subcontractors or for labor, materials, or equipment.
- d. Reasonable evidence that the work cannot be completed for the unpaid balance of the Contract sum.
- e. Damage to another Contractor.

When the above grounds are removed, payment will be made for amounts withheld because of them.

ARTICLE 29. WARRANTY

Contractor will provide a written guarantee covering all costs for repair or replacement of defective work for a period of two (2) years (or longer if noted elsewhere in the construction documents) from substantial completion. Contractor will complete repair, or respond to County in writing with repair solution, within seventy-two (72) hours of notification by County. County may make emergency repairs to ensure life safety or to prevent property loss, without invalidating the warranty.

ARTICLE 30. LIENS

Neither the final payment nor any part of the retained percentage will become due until Contractor delivers to County a complete release of all liens arising out of this Contract, or receipts in full or in lieu thereof, and if required in either case, an affidavit that so far as it has knowledge or information, the release and receipts include all the labor for which a lien could be filed; but Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to County, to indemnify County against any lien. If any lien remains unsatisfied after all payments are made, Contractor will pay to County all monies that County may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

ARTICLE 31. RIGHTS OF VARIOUS INTERESTS

Wherever work being done by County's forces or other contractors is contiguous to work covered by this Contract the respective rights of the various interests involved will be established by the County to secure the completion of the various portions of the work in general harmony.

ARTICLE 32. SEPARATE CONTRACTS

County reserves the right to let other contracts in connection with this work. Contractor will afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and will properly connect and coordinate its work with theirs.

If any part of Contractor's work depends upon proper execution or results of the work of any other contractor, Contractor will inspect and its report will constitute an acceptance of the other contractor's work after the execution of its work.

To insure the proper execution of its subsequent work, Contractor will measure work already in place and will once report to County any discrepancy between the executed work and the drawings.

ARTICLE 33. COUNTY'S STATUS

The County has general review of the work and has the authority to reject all work and materials that do not conform to the Contract.

ARTICLE 34. CLAIMS AND DISPUTES

All claims, demands, disputes, controversies, and differences that arise between the parties hereto as result of or in connection with this Contract will be referred to County in writing with a request for review and response in accordance with this paragraph, which County will render in writing within a reasonable time.

Contractor will deliver written notice of each such claim, demand, dispute, controversy or difference to County within fifteen (15) days of the occurrence of the event giving rise thereto and written supporting data will be submitted to County within forty-five (45) days of such occurrence unless County specifies a different period of time in writing to Contractor. The submission to County with respect to any such claim, demand, dispute, controversy or difference will be a condition precedent to any exercise by Contractor of such rights or remedies as Contractor may otherwise have under the Bid documents or at law in respect of any such claim, demand, dispute, controversy or difference.

If either County or Contractor is dissatisfied with any decision of County and both parties agree in writing, then the dispute may be settled by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, and judgment upon the award rendered by the arbitrator(s) will be entered in any court having jurisdiction thereof. All arbitration hearings must be held in Tucson, Arizona.

ARTICLE 35. CLEANING UP

Contractor will, as directed by County, remove from County's property and from all public and private property, at its own expense, all temporary structures, rubbish, and waste materials resulting from its operation.

ARTICLE 36. RESERVED

ARTICLE 37. ARCHAEOLOGICAL FEATURES

Construction for this project may occur in an archaeological sensitive area. The County Office of Conservation and Sustainability Cultural Resources Division will determine prior to construction (other than emergencies) any special site monitoring requirements. Human burials, including human skeletal remains, cremations, and funerary objects are protected under A.R.S. section 41-844 on state, county, and municipal lands, and under A.R.S. section 41-865 on private lands. Should archaeological features and/or artifacts or human remains, including human skeletal or cremation remains be discovered, work at that location will cease immediately, and the area will be taped off and avoided until archaeological investigations are completed. Construction is subject to delay in that location pursuant

to applicable State law, while consultation with the Arizona State Museum and appropriate documentation and data recovery takes place. To the extent permitted by law, all archaeological artifacts and other materials will belong to Pima County. No monetary compensation will be made to Contractor for any claims due to delays in the work schedule. Only the Contract construction time will be extended to permit the original scheduled number of days for completion of the project.

ARTICLE 38. RESERVED

ARTICLE 39. RESERVED

ARTICLE 40. HAZARDOUS MATERIALS/ HAZARDOUS WASTES / HAZARDOUS SUBSTANCES ABATEMENT

Should Contractor uncover, or otherwise become aware of the presence of any Hazardous Materials, Hazardous Wastes or Hazardous Substances during the construction of this project, notice will be served immediately to the County Project Manager, and all work surrounding said materials or substances will be ceased until directed to proceed. Construction delays due to Hazardous Materials, Hazardous Wastes or Hazardous Substances abatement may occur.

If this Contract does not otherwise require the services of a Hazardous Materials contractor, abatement of such materials will be provided by Pima County, at its expense and independent of this Contract.

If this Contract already employs the services of a Hazardous Materials contractor, the cost to abate any such additional materials will be added to the contract as Additional Services, in accordance with the provisions of Article 21 "Claims for Cost of Additional Work".

ARTICLE 41. WASTE DISPOSAL FACILITIES

Contractor will legally dispose of all construction debris in appropriate County operated waste disposal facilities and pay any applicable fees. In the case of conflicts with the provisions of the Contract Specifications, this provision applies.

ARTICLE 42. AS-BUILT DRAWINGS

Contractor will keep an accurate record of all changes and deviations from the Project Plans and Specifications and submit to County one set of "As-Built" drawings including dimension, location of underground utilities, etc., upon completion of the work. As-Built drawings will be drawn and submitted in such a format as prescribed by County.

ARTICLE 43. RESERVED

ARTICLE 44. RESERVED

Contractor will be responsible for equipment, materials, and supplies until completion of the project and acceptance by County.

END OF EXHIBIT B - GENERAL CONDITIONS

EXHIBIT C – SPECIAL PROVISIONS (63 PAGES)

**SPECIAL PROVISIONS
FOR
PIMA COUNTY DEPARTMENT OF TRANSPORTATION**



**COUNTRY CLUB ROAD
MICHIGAN STREET TO MILBER STREET
ROADWAY IMPROVEMENTS**

Pima County Project No. PO2500019683
February 16, 2026

PIMA COUNTY BOARD OF SUPERVISORS

**REX SCOTT
DR. MATT HEINZ
JENNIFER ALLEN, CHAIR
STEVE CHRISTY
ANDRÉS CANO**

**DISTRICT 1
DISTRICT 2
DISTRICT 3
DISTRICT 4
DISTRICT 5**



**Kathryn Skinner, P.E. DIRECTOR
(GENERAL NOTES, 06/28/22)**

GENERAL NOTES

1. Project Location

This project is located within the Subdivision of the W ½ of the NW ¼ of Section 33, T-14-S, R-14-E Gila and Salt River Meridian, Pima County, Arizona.

2. Scope of Work

The Country Club Road roadway improvements extend from Michigan Street to Milber Street, totaling approximately 800 feet, located in Tucson, Arizona. The improvements include full-depth pavement reconstruction, the addition of one travel lane in each direction, a two-way left-turn lane, and restriping beyond the northern and southern project limits to match existing conditions.

3. Contract Time

The work specified shall be completed within 118 working days.

4. Maintenance & Protection of Traffic

The Traffic Control Plans are not included in this project's Scope of Work.

5. Permits

Before undertaking work at any location covered by this project, the contractor shall obtain all applicable permits, including but not limited to: water quality, air quality, traffic control, street closure and right of way. The approved plan is considered the right-of-way use permit for work within unincorporated Pima County when administered or funded by Pima County. The contractor is responsible for paying all applicable fees, taxes, and other costs for all work performed on this project, and for obtaining all permits including those in other jurisdictions. Before undertaking work outside the limits of the plans, specifications and project clearances, a separate right-of-way use permit is required.

The contractor shall file a Notice of Intent to use the statewide Construction General Permit for Discharge to Waters of the United States and a Notice of Termination when the site is stabilized with the Arizona Department of Environmental Quality (ADEQ). The contractor shall maintain and implement Pima County's Stormwater Pollution Prevention Plan under the Construction General Permit. The contractor is directed to Section 810 of these Special Provisions and the Stormwater Pollution Prevention Plan for the project.

Prior to any ground disturbing activity, the contractor shall obtain an Activity Permit from the Pima County Department of Environmental Quality. The contractor shall implement the standard specifications for dust suppression.

6. Storm Water/Ground Water Management

It is the contractor's responsibility to allow for any subsurface ground water and storm water runoff at the time of project construction. The contractor shall not divert or impound water in such a manner as to flood adjacent homes, facilities, or roadways. No additional compensation shall be provided for dewatering or diversion structures required to construct or protect the work. The contractor shall post the

Arizona Pollutant Discharge Elimination System (AZPDES) project number at the project ingress and egress points before ground disturbance occurs.

The contractor's attention is also directed to Section 810 of these Special Provisions and the Stormwater Pollution Prevention Plan (SWPPP) for the project regarding the requirements for temporary and permanent erosion control. The original Stormwater Pollution Prevention Plan shall remain the property of Pima County DOT and will be returned to Pima County DOT at final acceptance

The contractor shall install the required number of rain gauges before ground disturbance occurs, in accordance with Sections 810-2.08 and 810-3.08. *[INCLUDE NUMBER OF REQUIRED RAIN GAUGES HERE]* will be required on this project. At least one rain gauge is required per linear mile of roadway. The rain gauge locations shall be recorded in the SWPPP plans.

7. Construction Survey and Layout

Construction survey and layout will be provided by the contractor. See Section 925 of these Special Provisions.

8. Existing Vegetation

The removal, salvage, or protection of vegetation shall be in accordance with the details shown on the project Demolition Plans. Existing vegetation on this project shall not be disturbed beyond those limits actually needed for construction purposes. Those items unnecessarily damaged shall be repaired or replaced at the contractor's expense.

Existing or relocated vegetation which is identified on the project demolition plans as to be preserved in place on this project shall be protected in place with fencing installed at the drip-line of the tree canopy per Section 201. Preservation fencing shall be installed prior to project clearing. This protected vegetation and vegetation beyond the project impact limits shall not be disturbed. Those items in these areas which are damaged shall be repaired, remedied or replaced at the contractor's expense.

In some circumstances, vegetation from adjacent properties may obstruct construction, with branches or other plant parts leaning over into the right of way. This vegetation shall be managed per Section 201-3.05.

9. Disadvantaged Business Enterprise Goals and On-the-Job Training Hours

(NOT USED)

10. Specifications and Details

The work embraced herein shall be performed in accordance with the requirements of the following separate documents:

Pima County, (PC), Standard Details for Public Improvements.
<https://www.pima.gov/979/Supplemental-Specifications-Details-Supe>

Pima Association of Governments (PAG), Standard Specifications for Public Improvements, 2015 Edition, Volume 1, <http://apps.pagnet.org/standardspecifications>

Pima Association of Governments (PAG), Standard Details for Public Improvements, 2015 Edition, Volume 2, <http://apps.pagnet.org/standardspecifications>

Pima County/City of Tucson Signing and Pavement Marking Manual, Latest Edition
<http://webcms.pima.gov/cms/one.aspx?portalId=169&pageId=63368>

Pima County Street Lighting and ITS Conduit Design Manual, Latest Edition
<http://webcms.pima.gov/cms/one.aspx?portalId=169&pageId=63368>

Pima County Traffic Signal Design Manual, Latest Edition
<http://webcms.pima.gov/cms/one.aspx?portalId=169&pageId=63368>

Pima County Regional Wastewater Reclamation Department Standard Specifications and Details for Construction for Public Sanitary Sewers, 2012
<http://webcms.pima.gov/cms/one.aspx?portalId=169&pageId=56988>

U.S. Department of Transportation, Federal Highway Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, December 2009, and amendments
http://mutcd.fhwa.dot.gov/kno_2009r1r2.htm

Arizona Supplement to the Manual on Uniform Traffic Control Devices (MUTCD), 2009 edition (January 2012), <http://www.azdot.gov/Highways/Traffic/Standards.asp>

Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, 2008 Edition, <http://www.azdot.gov/docs/business/2008-standards-specifications-for-road-and-bridge-construction.pdf?sfvrsn=0>

Arizona Department of Transportation, Highways Division, Part 1 - Construction Standard Drawings, May 2012 with current updates
<http://azdot.gov/business/engineering-and-construction/roadway-engineering/roadway-design-standards-and-guidelines/construction-standard-drawings>

Arizona Department of Transportation, Highways Division, Part 2 - Bridge Group Structural Detail Drawings, current edition
<http://azdot.gov/business/engineering-and-construction/bridge/structure-detail-drawings>

Arizona Department of Transportation, Highways Division, Part 3 - Traffic Signals and Lighting Standard Drawings, December 2012
<http://azdot.gov/business/engineering-and-construction/traffic/signals-and-lighting-standard-drawings>

Arizona Department of Transportation, Highways Division, Part 4 - Signing and Marking Standard Drawings, January 2002 with current updates
<http://azdot.gov/business/engineering-and-construction/traffic/signing-and-marking-standard-drawings>

11. Project Limits

The contractor shall perform all work within the public right-of-way, legally obtained easements and property legally acquired by the Agency. The contractor shall assume all responsibility and liability for any encroachment upon private property. The use of private property for construction yards will be allowed only if zoning requirements allows its use for this purpose. See Section 106-9 for further details regarding temporary construction yards.

12. Noxious and Invasive Vegetation

Prior to the start of construction and before ground disturbing or earthmoving activities occur, the contractor shall treat noxious and invasive vegetation, particularly buffelgrass, in accordance with Section 201-3.04. Invasive species eradication shall continue throughout the entire project from clearing and grubbing through final project acceptance.

13. Disposal of Materials

All construction debris, rubble, and other materials that are not recycled on the project, sent to a recycling facility, or taken by the contractor, shall be disposed of by the contractor at a waste disposal facility. Costs associated with the disposal of these materials shall be incidental to the related items of work. Fees associated with the disposal of these materials shall be paid by the contractor.

14. Contract Administration

Prior to submittal of contract administration documents, examples of which are listed below, the contractor shall review all documentation for accuracy and compliance with the contract. Any variance from the plans and specifications shall be clearly noted and is subject to approval by the Engineer. A contractor's transmittal letter shall accompany all submittals and shall include certification as to accuracy and compliance with the plans and specifications.

Contract administration submittals shall include, but are not limited to, the following examples: subcontracts; purchase orders; force account billings; pay estimates; requested lien releases; and consent from surety.

Virtual monthly meetings may be scheduled with the contractor, at the discretion of the Engineer, to discuss and resolve any problems associated with contract administration submittals. Meetings shall continue on an accelerated basis after project construction completion until all contract administration issues are resolved.

Submittals that are not certified, or are incomplete, will be returned to the contractor unprocessed for proper resubmittal and may result in payment delays, or partial payment, as deemed appropriate by the Engineer.

15. Work Hours/Noise Abatement Ordinance

Construction noise abatement and start/stop times shall be in accordance with Pima County Code of Ordinances Chapter 9.30 Regulations of Excessive, Unnecessary and Annoying Noises.

16. Shoring and Bracing

There will be no separate payment for shoring and bracing, unless shown in the bidding schedule.

17. Archeological Features

In the event that human remains, including human skeletal remains, cremations, and/or ceremonial objects and funerary objects are found during excavation or construction in any part of the project area, ground disturbing activities must cease in the immediate vicinity of the discovery. Should artifacts or human remains be uncovered, the area will be taped off and further investigation by Pima County will follow. State laws ARS 41-865 and ARS 41-844 require that the Arizona State Museum (520-621-4795) be notified of the discovery by the contractor so that cultural groups who claim cultural or religious affinity to them can make appropriate arrangements for the repatriation and reburial of the remains. The human remains will be removed from the site by a professional archaeologist pending consultation and review by the Arizona State Museum and the concerned cultural groups.

The work is subject to delay in that location pursuant to ARS 41-844 while an examination takes place.

18. Hazardous Materials

If suspected hazardous materials are encountered during construction, work shall cease at the location and the Engineer shall be contacted at (520) 724-2814 to arrange for proper assessment, treatment, or disposal of those materials. The area will be taped off, and further investigation and clean up by Pima County will follow. No adjustments will be made due to work shut down. If potentially hazardous or contaminated materials are encountered, the contractor shall stop work and remove all workers within the contaminated area. For life threatening situations, follow the procedures in the Safety Plan, as specified in Subsection 107-7.02.

19. Contractor's Staging or Storage Yard

No contractor's staging area or storage yard has been identified for this project. It is the contractor's responsibility to locate a staging area(s) and obtain approval of said area(s) from the Engineer. Staging areas and vehicle storage yards are not permitted in the washes within the project area. The contractor will need to provide a SWPPP addendum to cover their offsite staging area and include the offsite staging area acreage of disturbance on their NOI. Refer to Section 106-9 of the Standard Specifications for offsite staging outside of the right-of-way. Contractor staging areas, when located outside the project clearing limits, shall be stabilized at the expense of the Contractor and approved by the Engineer.

20. Construction Water/Dust Control

The contractor shall provide potable water for use in construction, compaction and dust control. Reclaimed water may only be used if there is no discharge of this water to surface waters of the U.S. and

the reclaimed water remains on-site. The contractor shall notify the Arizona Department of Environmental Quality (ADEQ) for all discharges of reclaimed water to surface waters of the U.S. or off-site.

21. Utility Relocation

Utility relocation work not shown on the project plans or noted in the Special Provisions will be the responsibility of the appropriate utility. The contractor is hereby notified that the utility companies, in conjunction with the contract work, will perform utility relocation work. The contractor shall make every effort to cooperate fully with each utility company and acknowledges and agrees that delays to his operations may necessarily occur. Due to these delays that are anticipated by the utility companies, the Engineer shall consider requests by the contractor for contract time extensions. The contractor is also referred to Section 105-6, Cooperation With Utility Companies.

The contractor shall consider the extent of utility work in preparing the contract bid and project schedule. It will be the contractor's responsibility, prior to bidding, to contact the appropriate utilities to obtain additional information such as relocation as-builts, relocation sequencing, utility windows, construction time frames, and identification of areas requiring subgrade preparation by the contractor prior to the start of utility work.

22. Erosion Control Measures

The contractor's attention is directed to the requirements of Section 810 of the specifications and the following:

The contractor shall phase or sequence construction activities to minimize the area of disturbance at any one time. Sediment and erosion control measures shall be installed before upgradient land is disturbed. Once an area of the project has been cleared, the contractor is responsible for documenting in the SWPPP book all erosion control measure activities by the contractor or others in the area that has been cleared.

The contractor shall remove, dispose or realign temporary erosion control measures as directed by the Engineer. Subsequent removal, disposal or realignment of temporary erosion control measures will be incidental to the respective work item and no additional payment will be made.

23. Biological Requirements

(NOT USED)

24. Contractor's Environmental Requirements and Mitigation Measures

(NOT USED)

25. Quality Assurance and Quality Control

The contractor is solely responsible for quality control measures necessary to provide acceptable quality in the production, handling, and placement of all materials. The contractor's attention is directed to Special Provision 106-4 of the contract documents for quality control requirements. No payment will be made for such measures the cost being considered as included in contract items.

Quality assurance testing is the responsibility of Pima County.

26. Record Drawings

The contractor is responsible for keeping a set of record project plans on site for annotation of changes in detail, location, and depth of all items constructed which vary from the contract documents that are made during the construction. When the project includes utility potholing under either bid item, 5150005 or 5150007 such potholes shall be identified on the record drawings. The record project plans shall include any revised or added plan sheets.

Upon completion of the work, the contractor shall transfer the annotated information to a clean set of the project plans. The dimensions and notations provided on the record project plans shall be complete, clear, and legible.

No later than 60 calendar days after acceptance of the project or as directed by the Engineer, the contractor shall submit the dated record set of project plans along with a transmittal letter to the Engineer for review and acceptance. Final retention shall not be released until the record project plans are accepted by the Engineer.

The cost of furnishing record drawings shall be considered as included in the contract unit price for one or more of the contract items.

(101ABREV, 6/5/14)

SECTION 101 - ABBREVIATIONS AND DEFINITIONS

101-3 TERMS of the Standard Specifications are revised as follows:

Contract Time - Change to read "**Construction Time**". This change is applicable when the term "Contract Time" is used in all sections throughout the Standard Specifications.

Supplemental Agreement - Add the following: "All supplemental agreements will be issued in compliance with Section 11.16.010 of the Pima County Procurement Code."

(102BID_ALT, 4/13/12)

SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS

102-8 PREPARATION OF BID of the Standard Specifications is modified to add:

For bid alternates as described in the Special Provisions, the bidder shall submit the base bid and alternates only upon the forms furnished by the Agency. No consideration shall be given to any purported bids on other forms, or to any request to modify or change a bid, regardless of whether such request is submitted orally, by wire, by letter, over the telephone, or by other similar means.

In preparing an alternate bid, the bidder shall specify a unit price for those bid items for which a quantity is given for the alternate. For items showing a negative quantity, the Contractor shall use the unit price given in the base bid. The bidder shall also show the amount extended as the product of the quantity and unit price for each bid item in the column provided for that purpose. The total amount of the alternate bid shall be obtained by adding the amounts of the bid items for the bid alternate and then adding that amount to the base bid schedule.

(103BID_ALT, 07/11/16)

SECTION 103 - AWARD AND EXECUTION OF CONTRACT

103-2 AWARD OF CONTRACT of the Standard Specifications is modified to add the following to the first paragraph after the first sentence:

When bid alternates (I, II, III, etc.) are included in the contract the award of contract shall be made by the Agency to the lowest responsible and qualified bidder based on the base bid plus alternates provided the sum of which does not exceed the Agency's funding limit as follows:

If the lowest responsible bid amount exceeds the Agency's funding limits for the project, the bid will be awarded on the basis of the lowest responsible bid for the base bid plus Alternate I only;

If the lowest responsible bid amount for the Base Bid plus Alternate I still exceeds the Agency's funding limits for the project, the bid will be awarded on the basis of the lowest responsible bid for the Base Bid only.

(105REVIEW_OF_WORKSITE, 02-18-16)

SECTION 105 – CONTROL OF WORK

105-22 REVIEW OF WORKSITE is added to the Standard Specifications as follows:

(A) Incident. The contractor shall inspect the worksite at least fourteen (14) calendar days prior to the scheduled start of a construction activity for the purpose of identifying any aerial, surface, and underground utility facility or utility activity that will impact (i.e. interfere, alter, or conflict) the work. Each impact hereinafter referred to as an "Incident" whether discovered prior to or during a construction activity shall be addressed in accordance with the procedures and requirements of this Section.

Inspection of the work site shall include, but not be limited to, the collection of field data on the horizontal and vertical location of underground facilities through ground markings (A.R.S. §§ 40-360.22), exposing of underground facilities, and evaluating field data against the project plans and construction methods for impacts.

(B) Reporting. The contractor shall fill out an incident report form and assign a sequential incident number. The report form may be obtained from the Agency's website or Engineer.

The report shall include the name of the utility facility owner (if not known, identify as "unknown"), incident location (station/offset/elevation), date and time discovered, color photographs (preferably date and time stamped), description of incident including the impact on the performance of work and type of facility discovered (type of material, size, quantity, identifying marks).

(C) Notification. The contractor shall notify the Engineer, utility facility owner, and Agency Right-of-way/Utility Section of an Incident no less than fourteen (14) calendar days prior to the scheduled start date of the construction activity unless the Incident was discovered during the construction activity in which case notice shall be given immediately. Notice shall be deemed to have been duly given when the incident

report (a) has been delivered in person or (b) upon confirmation of receipt when transmitted by facsimile or email.

If the utility facility owner is not known, the contractor shall contact the state one call notification center (Arizona Blue Stake, Inc.) for assistance in identifying the owner.

(D) Resolution/Mitigation. The Agency, upon receipt of notice, shall take the necessary action to address the incident by removal or relocation of the affected facility, altering the work, or stoppage of the activity.

The Agency shall allow the utility facility owner to resolve the incident within a time frame specified by the Engineer. If the utility facility owner is unable to perform, the Agency may, at its option, authorize the contractor to perform work to resolve or mitigate the incident by force account in accordance with the provisions of subsection 109-5(B).

(E) Submission of Additional Compensation. In the event that the contractor perceives that additional compensation has occurred as a result of an incident, the contractor shall immediately bring such matter to the attention of the Engineer for the earliest possible resolution, and the Engineer shall promptly notify the affect utility provider(s) and Agency Right-of-way/Utility Section of the request for additional compensation.

The contractor may request additional compensation by (a) filing a claim in accordance with the requirements and procedures under Subsection 105-18 or (b) if agreed to by the Engineer, submit for approval by the Engineer an itemization of additional labor, material, and equipment costs. Itemization of costs shall be documented on the incident report. The amount of payment shall be determined in accordance with the provision of subsection 109-5(B).

At the request of the Engineer, the contractor shall make available all documentation supporting the amount of additional compensation, and the Engineer shall make such documentation available to the utility provider upon request.

When quantifying additional compensation under item (b) above, the contractor shall submit to the Engineer as promptly as possible following completion and acceptance by the Agency the itemization of labor, material, and equipment, but in no event later than fourteen (14) calendar days, the contractor's incurred costs which shall be considered complete and final compensation for the incident.

Failure on the part of the contractor to adhere to the procedures and requirements of this Section will be cause for dismissal of the additional compensation request.

(F) Incident Log and Progress Meeting. The contractor shall maintain a utility incident log provided by the Agency. The log shall be kept current, reviewed at the weekly progress meeting, and included with the weekly construction progress meeting minutes.

(106QA/QC, 06/20/23)

SECTION 106 - CONTROL OF MATERIAL

106-4 TESTS AND ACCEPTANCE OF MATERIALS of the Standard Specifications is revised to read:

106-4.01 General. All materials will be inspected, tested and approved prior to incorporation in the work. Any work in which materials not previously approved are used shall be performed at the contractor's risk and may be considered as unauthorized and unacceptable and not subject to the payment provisions of the contract.

Any laboratory performing sampling and testing for the project shall be open to unrestricted access for inspection and review by the Agency. The laboratory shall provide an adequate amount of enclosed space and be supplied with the proper equipment, facilities, and utilities so that the required testing procedures can be performed. It shall have adequate lighting, ventilation, and means of ingress and egress. The laboratory shall be equipped with heating and cooling equipment capable of maintaining an ambient air temperature of 68 to 78 degrees F. The laboratory and all equipment and facilities therein shall be kept clean and maintained in good working order.

Sampling and testing of materials shall be in accordance with the requirements of:

- The ADOT Materials Testing Manual
- The ADOT Materials Policy and Procedure Directives Manual.
- Applicable Federal, AASHTO, or ASTM specifications or test designations.
- Applicable specifications or test designations of other nationally recognize organizations.

Whenever a reference is made to an Arizona Test Method or an ADOT Materials Policy and Procedure Directive, it shall mean the test method or policy and procedure directive in effect on the bid opening date.

Unless otherwise specified, whenever a reference is made to a Federal, AASHTO, or ASTM specification or test designation, or to a specification or test designation of other nationally recognized organizations, it shall mean the specification or test designation in effect on the bid opening date.

106-4.02 Quality Control. The contractor is responsible for quality control measures necessary to provide acceptable quality in the production, handling, and placement of all materials. No payment will be made for such measures; the cost being considered as included in contract items.

(A) General. At the preconstruction conference, the contractor shall designate a qualified employee as Quality Control Manager to be responsible for implementing, monitoring and, as necessary, adjusting the processes to assure acceptable quality. The quality control manager shall be a full time employee of the contractor, and shall be on the project site during all construction activities. Also at the preconstruction conference, the contractor shall be prepared to discuss his understanding of the quality control responsibilities for the specified materials.

(B) Quality Sampling and Testing Supervisor. The contractor shall designate a Quality Sampling and Testing Supervisor(s) who is responsible to supervise the sampling and testing, and who meets the requirements given in Table 106-1 for the specific material on which sampling and testing is being performed. The Quality Sampling and Testing Supervisor(s) shall be an employee of the contractor or a

consultant or a consultant engaged by the contractor, and be responsible for supervising the sampling and testing on more than one project. The Quality Sampling and Testing Supervisor(s) shall be able to be at the job site within 24 hours from any point in time.

(C) Quality Sampling and Testing Technician. Quality Sampling and Testing Technicians who perform the actual sampling and testing shall meet the requirements given in Table 106-2 for the specific material on which sampling and testing is being performed. Quality Sampling and Testing Technicians shall be employees of the Quality Control Laboratory and be supervised by a qualified Quality Sampling and Testing Supervisor for the specific material on which sampling and testing is being performed.

See Table 106-1 on the next page

TABLE 106- 1 QUALITY SAMPLING AND TESTING SUPERVISOR REQUIREMENTS	
Soils and Aggregate	
Field	Laboratory
Arizona Technical Testing Institute (ATTI) "Field" certification plus one of (a) through (g) below.	Arizona Technical Testing Institute (ATTI) "Laboratory Soils/ Aggregate" certification plus one of (a) through (g) below.
Asphaltic Concrete	
Field	Laboratory
Arizona Technical Testing Institute (ATTI) "Field" certification plus one of (a) through (g) below.	Arizona Technical Testing Institute (ATTI) "Asphalt" certification plus one of (a) through (g) below.
Concrete	
Field	Laboratory
American Concrete Institute (ACI) "Concrete Field Testing Technician Grade I" certification plus one of (a) through (g) below.	American Concrete Institute (ACI) "Concrete Strength Testing Technician" Certification plus one of (a) through (g) below.
<p>(a) Professional Engineer, registered in the State of Arizona, with one year of highway materials sampling and testing experience acceptable to the Department.</p> <p>(b) Engineer- In- Training, certified by the State of Arizona, with two years of highway materials sampling and testing experience acceptable to the Department.</p> <p>(c) Obtained a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology, Construction, or related field acceptable to the Department; and with three years of highway materials sampling and testing experience acceptable to the Department.</p> <p>(d) Certified by the National Institute for Certification in Engineering Technologies (NICET) in the Construction Materials Testing field as an Engineering Technician (Level III) or higher in the appropriate subfield in which sampling and testing is being performed.</p> <p>(e) Certified by NICET in the Transportation Engineering Technology field as an Engineering Technician (Level III) or higher in the Highway Materials subfield.</p> <p>(f) Certified by NICET as an Engineering Technician, or higher, in Civil Engineering Technology with five years of highway materials sampling and testing experience acceptable to the Department.</p> <p>(g) An individual with eight years of highway materials sampling and testing and construction experience acceptable to the Department.</p>	

TABLE 106- 2 QUALITY SAMPLING AND TESTING TECHNICIAN REQUIREMENTS	
Soils and Aggregate	
Field	Laboratory
Arizona Technical Testing Institute (ATTI) "Field" certification.	Arizona Technical Testing Institute (ATTI) "Laboratory Soils/ Aggregate" certification.
Asphaltic Concrete	
Field	Laboratory
Arizona Technical Testing Institute (ATTI) "Field" certification.	Arizona Technical Testing Institute (ATTI) "Asphalt" certification.
Concrete	
Field	Laboratory
American Concrete Institute (ACI) "Concrete Field Testing Technician Grade I" certification.	American Concrete Institute (ACI) "Concrete Strength Testing Technician" Certification.

106-4.03 Quality Assurance and Quality Control Laboratory. All field and laboratory sampling and testing shall be performed by a laboratory or laboratories on the ADOT Directory of Approved Materials Testing Laboratories. When field sampling and testing procedures are performed, the appropriate valid Arizona Technical Testing Institute (ATTI) and/or American Concrete Institute (ACI) certification(s) are required.

106-4.04 Quality Assurance Testing. Compliance with specifications is determined by assurance sampling and testing. All materials shall be randomly sampled at prescribed frequencies as given in the Pima County Department of Transportation Sampling Guide Schedule. On *Pima County Capital Improvement Projects*, materials shall be sampled and tested by a qualified representative of the Agency, at the expense of the Agency, unless otherwise specified in the contract documents. Testing shall be in accordance with the Pima County Department of Transportation Sampling Guide Schedule, a copy of which can be found on the Pima County Department of Transportation web-site; Roadway Design Standards and Manuals.

106-4.05 Records. The quality control and the quality assurance laboratory shall maintain all sampling and testing records and supporting documentation used in the preparation of Weekly Sampling and Testing Reports. Upon request, the contractor shall make sampling and testing records and supporting documentation available to the Engineer for review and copying as desired.

Quality assurance and quality control results shall be provided to the Project Manager daily during paving, and weekly when not paving.

106-4.06 Weekly Reports. Weekly Sampling and Testing Reports are to be submitted to the Engineer. The weekly reports shall state the types of work, such as earthwork, Portland cement concrete, or asphaltic concrete, which have been performed during the report period. The report shall also include the process control measures taken to assure quality. The weekly report shall provide sample identification

information for materials tested during the report period, including sample number, date sampled, sample location, person obtaining sample, and original source of material. The report shall also provide the results for all required tests and any retests, corrective actions, and other relevant information. Although handwritten documentation can be included, the report's narrative, sample identification information, results for tests and any retests, and corrective actions shall be typed to ensure the Agency can make clear reproductions of the documents.

The report period shall end at midnight of each Friday, and the report shall be submitted to the Engineer no later than 5: 00 p.m. of the following Wednesday unless the Engineer and contractor agree upon a different day and time.

(107UTIL, 03/14/17)

SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107-21 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES of the Standard Specifications is modified to add:

The following utilities may have facilities in the project area:

Owner	Contact	Phone Number
Cox Communications – Tucson	Luke Moschgat	520-909-3108
Century Link	Andre Hatcher	602-430-9388
First Digital	Ryan Layton	520-262-5667
Pima County Wastewater Management	Thomas Porter	520-724-2651
Southwest Gas – Tucson	Fernando Hernandez Soto	520-794-6321
Tucson Electric Power	Gabriela Bielecka	520-641-3833
Tucson Water	Kevin Miller	520-791-4199

Cox Communications, First Digital, Pima County Wastewater Management and Tucson Electric Power have facilities within the project limits but are not anticipated to be in conflict.

Century Link, Southwest Gas and Tucson Water have facilities within the project that are in conflict with the proposed construction and relocation efforts are ongoing.

The existence and locations of underground utilities indicated on the plans are not guaranteed and shall be investigated and verified in the field by the contractor before starting work. Excavations in the vicinity of existing structures and utilities shall be carefully done. At least two full working days prior to commencing excavation, the contractor shall call Blue Stake Center, 1-800-STAKE-IT, between the hours of 7:00 a.m. and 4:30 p.m., Monday through Friday, for information relative to the location of buried utilities.

It shall be the responsibility of the contractor to contact the utility companies in order for them to determine if there is a need to brace, shore, support and protect their facilities during the construction of the project.

Utility locations shown on the project plans are approximate, and all utilities are not necessarily shown. The possibility of conflicts with existing utilities exists. If conflicting utilities interfere with the contractor's normal progress towards completion of the project, the Pima County Department of Transportation may, at its option, authorize the contractor to relocate said conflicting utilities by force account in accordance with the provisions of subsection 109-5.02 of the Standard Specifications and these Special Provisions.

(109ALLOWANCE, 04/11/17)

SECTION 109 - MEASUREMENT AND PAYMENT

109-1 MEASUREMENT OF QUANTITIES of the Standard Specifications is modified to add:

The term "Dollar" or its abbreviation "USD" (US Dollar) when included in the bidding schedule as a unit of measurement, shall mean an allowance for the payment of the work in conformance with the provisions of Subsection 109-5.01.

(110MATERIAL_SPREAD, 01/19/18)

SECTION 110-2 ASPHALTIC CONCRETE of the Standard Specifications is revised to add:

110-2.05 Material Spread. A spread lot shall be considered to be one-half shift of production. The contractor shall collect all scale tickets and record information pertaining to each spread lot on forms provided by the Engineer. Material spread information shall include the project number, date and period of time that each spread lot was placed, the spread lot number, beginning and ending station, the plans thickness, and tons placed in each lot. Completed spread lot forms shall be signed by the contractor and given to the Engineer at the end of each shift.

The Engineer, at his sole discretion, will determine areas of mainline and miscellaneous paving to be included in each spread lot and calculate the quantity of asphaltic concrete required in each spread lot using the mix design bulk density. The calculated quantity required in each spread lot will be compared to the actual quantity placed.

When the calculated quantity of asphaltic concrete varies from the actual quantity of asphaltic concrete placed, payment for the asphaltic concrete quantities will be reduced in accordance with Table 110-6 and 110-7.

The contractor will be reimbursed \$0.50/ton to offset the expense for collecting scale tickets and recording spread information when the actual quantity is within the accepted range identified in Table 110-6 and 110-7. Any other expense for material spread is considered included in the respective bid items.

No expense will be reimbursed for material spread for areas determined to be in penalty or considered rejected or in instances where material spread information is not required by the Engineer.

(A) Mainline Paving Areas. When the actual quantity in a lot is found to vary between -2.1 and -10.0 percent of the calculated quantity, pay factors will be determined in accordance with Table 110-6.

When the actual quantity is found to vary by more than +5.0 percent of the calculated quantity no payment will be made for that quantity which exceeds the +5.0 percent limit.

**Table 110-6
ASPHALTIC CONCRETE (MAINLINE PAVING)
MATERIAL SPREAD QUANTITY DISCREPENCY
CONTRACT UNIT PRICE REDUCTION PAY FACTORS**

Material Spread Variance	Contract Unit Price Reduction Pay Factor ⁽¹⁾ (Dollars per Ton)
-2.0 to +5.0% (Acceptable)	+\$0.50/ton
-2.1 to -5.0%	-\$0.50/ton
-5.1 to -8.0%	-\$1.00/ton
-8.1 to -10.0%	-\$2.00/ton
More than -10.0%	Reject
(1) Payment shall be computed by subtracting or adding the applicable Unit Price Reduction Pay Factor from the contract unit price for the asphaltic concrete and applying the adjusted price to the quantity of asphaltic concrete for the applicable range of material spread variance.	
(2) The contract unit price reduction pay factor shall not apply when contract unit price reduction factors for thickness deficiencies of Subsection 110-2.01 are applied.	

(B) Miscellaneous Paving Areas. Miscellaneous areas may include areas such as turnouts, small tapers and pathways less than 10' wide. When the actual quantity in a lot is found to vary between -5.1 and -10.0 percent of the calculated quantity, pay factors will be determined in accordance with Table 110-7.

When the quantity is found to vary by more than +10.0 percent no payment will be made for that quantity which exceeds the +10.0 percent limit.

**Table 110-7
ASPHALTIC CONCRETE (MISCELLANEOUS PAVING)
MATERIAL SPREAD QUANTITY DISCREPENCY
CONTRACT UNIT PRICE REDUCTION PAY FACTORS**

Material Spread Variance	Contract Unit Price Reduction Pay Factor ⁽¹⁾ (Dollars per Ton)
-5.0 to +10.0% (Acceptable)	+\$0.50/ton
-5.1 to -8.0%	-\$1.00/ton
-8.1 to -10.0%	-\$2.00/ton
More than -10.0%	Reject
(1) Payment shall be computed by subtracting or adding the applicable Unit Price Reduction Pay Factor from the contract unit price for the asphaltic concrete and applying the adjusted price to the quantity of asphaltic concrete for the applicable range of material spread variance.	
(2) The contract unit price reduction pay factor shall not apply when contract unit price reduction factors for thickness deficiencies of Subsection 110-2.01 are applied.	

(110CONCRETE_REDUC, 7/27/15)

SECTION 110 - CORRECTIVE REQUIREMENTS FOR DEFICIENCIES

110-3 PORTLAND CEMENT CONCRETE

110-3.01 Class S and Class B Concrete of the Standard Specifications is revised to read:

110-3.01 Class X, Class S and Class B Concrete

(A) Compressive Strength. Class X, Class S and Class B Portland cement concrete will be accepted for compressive strength and paid for in accordance with Table 110-4. Concrete will be paid for by the square foot or by the cubic yard, complete in place, except that an reduction in the contract unit price, to the nearest cent, will be made for the quantity of concrete represented by 28-day compressive strength test results less than the specified requirement.

Concrete failing to meet at least 95 percent of the 28-day compressive strength specified or any concrete failing to meet the requirements of Subsection 1006-7.01 will be subject to the provisions of Subsection 1006-7.06.

Class S, Class X, or Class B Portland cement concrete which fails to achieve the required 28-day compressive strength but meets the percent of the 28-day compressive strength noted in Table 110-4 may be subject to rejection by the Engineer if it is determined that the deficient compressive strength is detrimental to the integrity of the structure.

**TABLE 110-4
PORTLAND CEMENT CONCRETE (CLASS 'X', 'S' AND 'B')
CONTRACT UNIT PRICE REDUCTION FACTORS
FOR STRENGTH DEFICIENCIES**

3,000 psi and Below ⁽¹⁾		3,500 psi ⁽¹⁾		4,000 psi and Above ⁽¹⁾	
Percent of 28-day strength attained ⁽²⁾	Percent Reduction in Contract Unit Price ⁽³⁾	Percent of 28-day strength attained ⁽²⁾	Percent Reduction in Contract Unit Price ⁽³⁾	Percent of 28-day strength attained ⁽²⁾	Percent Reduction in Contract Unit Price ⁽³⁾
100 or more	0	100 or more	0	100 or more	0
97 - 99	3	98 - 99	2	99	1
94 - 96	6	96 - 97	4	98	2
91 - 93	9	94 - 95	6	97	3
88 - 90	12	92 - 93	8	96	4
85 - 87	15	90 - 91	10	95	5
< 85	30 ⁽⁴⁾	< 90	30 ⁽⁴⁾	< 95	30 ⁽⁴⁾

(1) Compressive strength as shown on the project plans or specified in the Special Provisions.

(2) To nearest one percent.

(3) For items measured and paid for by the cubic yard, the reduction shall not exceed \$150.00 per cubic yard.

(4) The contract unit price reduction factor applies only if the concrete represented by the test results is allowed to remain in place.

(201NOX_PLANT_REM, 10/31/18)

SECTION 201 - CLEARING & GRUBBING

201-1 DESCRIPTION of the Standard Specifications is modified to revise the 1st line of the 1st paragraph to read:

The work under this Section shall consist of clearing, grubbing, pruning, removing and ...

201-2 MATERIALS

201-2.01 Herbicides of the Standard Specifications is modified to add:

Herbicides proposed in the plan for use on projects adjacent to BLM and USFS lands shall be in conformance with the latest version of the following documents:

"Final Vegetation Treatments Using Herbicides Programmatic Environmental Impact Statement for BLM" available electronically at http://www.blm.gov/wo/st/en/prog/more/veg_eis.html;

"Environmental Assessment for Management of Noxious Weeds and Hazardous Vegetation on Public Roads on National Forest System Lands in Arizona", available electronically on the Arizona Memory Project website (Arizona State Library) at <http://azmemory.azlibrary.gov/cdm/ref/collection/feddocs/id/486>;

The environmental documents include lists of approved herbicides, mitigations and Best Management Practices.

201-3 CONSTRUCTION DETAILS

201-3.01 Clearing and Grubbing the sixth paragraph of this subsection of the Standard Specifications is revised to read:

The contractor shall carefully prune all branches of trees less than 16 feet above any part of the roadway and less than 8 feet above or within 2 horizontal feet of sidewalks, multi-use paths, traffic control cabinets and intersection site distance triangles and all branches which have been broken or injured during construction. Pruning shall be performed or directed by a certified arborist in accordance with the requirements of bid item 8061700.

201-3.02 Vegetation Preserved-In-Place the fourth paragraph of this subsection of the Standard Specifications is revised to read:

The contractor will provide and install all required preservation fence material as shown on the project plans and in conformance with the requirements of the specifications and Special Provisions.

201-3.03 Salvaged and Transplanted Vegetation of the Standard Specifications is modified to add:

The contractor shall guarantee the survival and health of all plants salvaged and replanted as part of this contract in conformance with the requirements of Subsection 809-3.08.

201-3.04 Noxious and Invasive Vegetation of the Standard Specifications is modified to replace the first sentence of paragraph one with the following:

Prior to the start of construction, the contractor shall retain the services of a person, subject to the approval of the Engineer, knowledgeable in identification of noxious and invasive plant species, such as a certified arborist, biologist, horticulturist, or botanist with a degree in a plant oriented natural resource field, or a person holding a State of Arizona Office of Pest Management Applicator License in Category B3 (Right of Way and Weed Control) to survey the limits of the project for the presence of noxious or invasive vegetation list in Table 201-3.

201-3.04 Noxious and Invasive Vegetation of the Standard Specifications is modified to revise the 2nd paragraph to read:

Removal and treatment of noxious and invasive vegetation shall be by manual methods or, when appropriate, with the application of herbicides and shall occur prior to the start of clearing and grubbing and landscape establishment.

201-3.04 Noxious and Invasive Vegetation of the Standard Specifications is modified to delete the 6th and 7th paragraphs and add the following:

Areas of noxious and invasive vegetation infestation shall be mapped on a project site map or aerial photo of the project and shall be provided to the Engineer before work begins and when work is completed. This map shall be updated throughout the duration of the project and placed in an appendix in the Stormwater Pollution Prevention Plan (SWPPP). In addition, all herbicides used at the site shall be listed in Section 1.11, *Potential Sources of Pollution*, of the SWPPP.

Noxious and invasive vegetation that shall be treated include the following:

Table 201-3 Noxious and Invasive Vegetation	
<u>Scientific Name</u>	<u>Common Name</u>
Acroptilan repens	Russian Knapweed
Alhagi maurorum	Camelthorn
Arundo donax	Giant Reed
Brassica tournefortii	Sahara Mustard
Bromus rubens	Red Brome
Bromus species	Other Brome species
Centaurea spp.	Starthistle species
Chondrilla juncea	Rush Skeletonweed
Cortaderia selloana	Pampas Grass
Cynodon dactylon	Bermudagrass
Eragrostis lehmanniana	Lehmann lovegrass
Erodium cicutarium	Redstem filaree
Hordeum murinum	Mouse Barley
Mesembryanthemum Nodiflorum	Slenderleaf Iceplant
Nicotina glauca	Tree Tobacco
Pennisetum ciliare	Buffelgrass
Pennisetum setaceum	Fountain Grass
Rhus lancea	African Sumac
Salsola species	Russian Thistle
Sorghum halepense	Johnsongrass
Sisymbrium ino	London Rocket
Sonchus asper	Spiny sowthistle

Table 201-3 Noxious and Invasive Vegetation	
<u>Scientific Name</u>	<u>Common Name</u>
Tamarix spp.	Tamarix
Tribulus terrestris	Puncturevine

Herbicides shall not be used in washes and right-of-way dip crossings classified as waters of the United States. Only manual removal of noxious and invasive plant species shall be allowed at these locations. Noxious and invasive vegetation that are treated by herbicides can be left in place to decompose. Plants that are manually dug shall be put into large plastic bags with tie closures before removing from the project. No portion of the root ball shall be left behind. Bags shall be disposed of in a landfill. Mowing or chopping of noxious and invasive vegetation is prohibited.

Buffelgrass, fountain grass, and plants treated by chemical means must be green and actively growing for herbicides to be effective. Plants shall be sprayed when greater than 50% of the plant is green material. Only targeted plants shall be sprayed. Targeted plants shall be sprayed so that the herbicide coats all leaves but does not run off.

The contractor shall keep a record of all herbicide applications, as outlined in Arizona Administrative Code R3-8-501. Treated areas shall be recorded on the project site map or aerial photo of the project as described previously. This map shall include all areas of noxious and invasive vegetation removal, whether by manual or chemical methods.

201-3.05 Vegetation from Private Property Obstructing Construction is hereby added to the Standard Specifications:

Prior to the start of construction, the contractor will bring to the attention of the Engineer vegetation from private property that extends into the right of way and impacts, obstructs or interferes with the project. The Engineer will consult with the arborist (Subsection 201-3.01) to determine the appropriate mitigation: preservation, pruning, or removal.

The Engineer shall contact the Agency’s Community Relations section regarding pruning and/or plant removal a minimum of four weeks in advance of the work. Community Relations shall direct property owners to prune and/or remove obstructive plant parts within two weeks of the time they are contacted. If removal and/or pruning are not provided by the property owner within the specified date, the property owner shall be advised that pruning and/or removal will be done by the Agency. No pruning or removal of plant parts from vegetation originating on private property shall be performed without proof of notification to the property owner by Community Relations.

If the Engineer determines that additional pruning and/or removal of plants is required during construction, the notification procedure described above shall be followed.

All required pruning shall be performed or directed by a certified arborist in accordance with the requirements of bid item 8061700.

201-4 METHOD OF MEASUREMENT of the Standard Specifications is modified to delete the 2nd and 6th paragraphs and to add the following:

No direct measurement will be made for protecting vegetation preserved-in-place, the cost of which is considered incidental to and included in the payment for the other contract items in the bidding schedule

with the exception that when the bidding schedule contains specific items referencing this Section, measurement for specified items will be made by the units designated in the bidding schedule.

Eradication and control of noxious and invasive species prior to the start of landscape establishment will be measured for payment on a USD (dollar) basis.

No direct measurement for payment will be made for eradication and control of noxious and invasive species during landscape establishment.

Landscape pruning will be measured per in conformance with bid item 8061700.

201-5 BASIS OF PAYMENT of the Standard Specifications is modified to add:

Payment for eradication and control of noxious and invasive plant species prior to the start of landscape establishment, measured as provided above, will be paid for using any of the methods described in Subsection 109-5.01 of the Standard Specifications and shall be full compensation for the work, complete in place.

Eradication and control of noxious and invasive species will be measured for payment on a USD (dollar) basis and paid for under bid item 2010010.

Payment for eradication and control of noxious and invasive plant species during landscape establishment will be paid for in conformance with Section 807 of the Standard Specifications and Special Provisions.

Payment for landscape pruning as specified herein and as directed by the Engineer will be paid for in conformance with the requirements of bid item 8061700.

(202REM_ENCHROACH_ALLOWANCE, 12/15/16)

ITEM 2020012 - REMOVAL OF ENCROACHMENTS ALLOWANCE

1. DESCRIPTION

Work under this section shall consist of removing and disposing of right-of-way encroachments located within the Pima County Right-of-Way. This includes, but is not limited to signs, monuments, flag poles, fencing, walls, lighting, and irrigation systems in the areas shown on the demolition plans. Prior to removal, the Contractor shall notify each respective private property owner a minimum of 72 hours in advance in order to provide for them a final opportunity to remove and salvage these features themselves.

2. MATERIALS (None Specified)

3. CONSTRUCTION REQUIREMENTS

The Contractor shall dispose of all removed material and features in accordance with Section 202. Relocation and/or re-establishment of any irrigation and lighting systems are the responsibility of the property owner and are not considered part of this contract.

4. METHOD OF MEASUREMENT

Removal of Encroachments will be measured on an extra work basis, in conformance with the provisions of Subsection 109-5.01.

5. BASIS OF PAYMENT

Payment for removal of encroachments will be made in accordance with the provisions of Subsection 109-5.01.

(202RELOC_MAILBOX, 11/20/14)

ITEM 2020061 - RELOCATE MAILBOX

1. DESCRIPTION

The work under this item shall consist of removing, temporarily relocating, and reinstalling new mail boxes in accordance with Standard Detail No. 102, the project plans and these Special Provisions.

2. MATERIALS

Materials for new mailboxes, posts and foundations shall be as specified in Standard Detail No. 102.

3. CONSTRUCTION REQUIREMENTS

During construction, mail boxes may need to be temporarily placed in five gallon buckets filled with aggregate base material (as required due to contractor's schedule) in a location that mail carriers will have access to. Buckets shall only be used where the outside lane is barricaded from traffic use. Buckets shall have addresses identified on the side with paint for easy identification.

For the permanent installation, the contractor shall video tape the location of the existing mail box prior to the start of construction to re-establish the layout sequence of the grouping.

New mailboxes shall be installed at the completion of work as indicated in Standard Detail No. 102. If the Engineer determines that the existing mailbox is serviceable, it may be remounted with new hardware on a new post and foundation; otherwise the contractor shall provide and install a new, similarly sized mailbox on a new post and foundation. The contractor shall coordinate the permanent location of the mail boxes with the local post office.

4. METHOD OF MEASUREMENT

Relocate mailbox will be measured and paid for as a unit each, complete in place. This item shall include videoing the existing location of the mail box, removal of the existing mailbox, temporary relocation(s) of the existing mailbox including bucket and aggregate base material, new mailbox, mounting hardware, post, foundation, and all labor materials and incidentals required to complete the work.

5. BASIS OF PAYMENT

Relocate mailbox, measured as provided above, will be paid for at the contract unit price each.

(205RDWYGRAD, 2/28/18)

SECTION 205 – ROADWAY GRADING

205-3 CONSTRUCTION DETAILS

205-3.01 General of the Standard Specifications is modified to revise the 2nd paragraph to read:

Where new bituminous pavement is to match existing bituminous surfaces, the existing bituminous surfaces is to be saw cut to a straight line with vertical edges free from irregularities. When shown on the plans or directed by the Engineer, transverse saw cuts are to be skewed to an angle of 20-degrees to a line perpendicular to the roadway centerline.

205-3.02 Excavation of the Standard Specifications is modified to read:

Excavation shall be in accordance with Subsections 203-3.01 and 203-3.03.

205-5 BASIS OF PAYMENT of the Standard Specifications is modified to read:

The accepted quantities of roadway grading measured as provided above, will be paid for at the contract unit price indicated in the bidding schedule and will be considered as compensation, in full, for the item complete in place, including removing pavement, saw cutting of existing pavement, excavating, removal and disposal of excess material, furnishing and placing embankment material including borrow, all grading, shaping and compacting of materials as specified herein and all labor, equipment, materials, tools, supplies and incidentals necessary for the work in conformance with the requirements of this Section, the project plans, Special Provisions or as may be directed by the Engineer.

(404MICRO, 01/26/16)

ITEM 4040076 - EMULSIFIED ASPHALT (MICRO-SURFACING):

ITEM 4040172 - DRY MINERAL AGGREGATE (MICRO-SURFACING)(TYPE III):

MICRO-SURFACING:

1. Description:

The work under these items shall consist of furnishing all materials and constructing micro-surfacing on an existing asphaltic concrete pavement surface. The micro-surfacing shall be a mixture of mineral aggregate, polymer modified emulsified asphalt, mineral filler, water, and other additives, properly proportioned, mixed, and spread on the pavement surface as specified herein and as directed by the Engineer.

The micro-surfacing shall be applied as a homogeneous mat, adhere firmly to the prepared surface, and have a skid-resistant surface texture. The finished product shall have a uniform appearance and it shall be able to accept straight, rolling traffic within one hour after placement without damage; however, stopping and starting traffic, and adverse weather conditions, may require additional curing time.

The contractor shall provide a minimum two-hour orientation session for project personnel, covering the construction process, materials control, and materials measurement by true weight delivered versus machine dial readings.

The contractor shall provide to the Engineer, on a daily basis, the quantity of material delivered versus material placed through the micro-surfacing mixer based on dial gauge readings. The Engineer will independently verify all dial gauge readings, and weight of material delivered. This information will be used as a check against the mix design proportions.

2. Materials:

2.01 General:

All materials shall be approved by the Engineer prior to the start of construction.

The Engineer reserves the right to sample and test any materials used on the project. All materials that do not meet specifications will be rejected.

For comparison purposes, quantities shown in the bidding schedule have been calculated based on the information given in Table 1. Application rates are affected by the unit weight and gradation of the mineral aggregate and the demand of the surface to which the micro-surfacing is being applied. Exact quantities of emulsified asphalt and dry mineral aggregate shall be determined by mix design, or as directed by the Engineer.

TABLE 1		
Material	Type II Micro-Surfacing	Type III Micro-Surfacing
Emulsified Asphalt, by weight of Dry Mineral Aggregate, percent	14	13
Dry Mineral Aggregate, pounds per square yard	22	30

2.02 Emulsified Asphalt:

Polymer modified, cationic, quick setting (mixing grade) emulsified asphalt (CQS-1hP) shall be used. A minimum of 4% polymer solids, by total weight of polymer and asphalt residue, shall be added prior to the millhead. The type and amount of polymer solids used shall be certified by the supplier.

The polymer modified emulsified asphalt shall be preapproved and certified in accordance with ADOT Materials Policy and Procedure Directive (P.P.D.) No. 8, "Sampling, Testing, and Acceptance of Emulsified Bituminous Materials". As specified in P.P.D. No. 8, two copies of the appropriate certificate (Certificate of Compliance or Certificate of Analysis), conforming to the requirements of Subsection 106.05 of the specifications, shall accompany each shipment (delivery unit) of emulsion to the project.

The polymer modified emulsified asphalt shall conform to the requirements of Table 2.

TABLE 2 Polymer Modified Emulsified Asphalt (CQS-1hP)		
TESTS ON EMULSION	TEST METHOD	REQUIREMENTS
Viscosity, Saybolt Furol seconds @ 25 °C (77 °F)	AASHTO T-59	20 - 100
Sieve Test, retained on No. 20, %	AASHTO T-59	0.10 Max (1)
Particle Charge	AASHTO T-59	Positive
Storage Stability Test, 24 hours, %	AASHTO T-59	1.0 Max
Percent Asphalt Residue by Evaporation	Arizona Test Method 512 (2)	60 Min
TESTS ON RESIDUE BY DISTILLATION AASHTO T-59 [176.7 °C (350 °F) Max.]	TEST METHOD	REQUIREMENTS
Kinematic Viscosity @ 135 °C (275 °F), cst	AASHTO T-201	650 Min
Penetration @ 25 °C (77 °F), 100 g, 5 seconds, 0.1 mm	AASHTO T-49	40 - 90
Softening Point, °C	AASHTO T-53	60 Min
Ductility @ 25 °C (77 °F), 5 cm/minute, cm	AASHTO T-51	60 Min
Elastic Recovery @ 25 °C (77 °F), %	AASHTO T-301 (3)	55 Min
<p>(1) The maximum of 0.1 percent applies to the preapproval of emulsions in accordance with P.P.D. No. 8. A maximum of 0.3 percent is allowed for emulsions that are sampled at the project site.</p> <p>(2) The percent of asphalt residue will be determined in accordance with the requirements of Arizona Test Method 512; however, in the case of dispute the percent of asphalt residue by distillation [AASHTO T 59, modified to 176.7 °C (350 °F)] will be used.</p> <p>(3) Testing shall be performed on residue by distillation, not on residue by oven evaporation.</p>		

2.03 Mineral Aggregate:

The contractor shall provide a source in accordance with the requirements of Section 1001 of the specifications.

The mineral aggregate shall consist of sound, durable crushed stone or crushed gravel. The materials shall be free from vegetation and other deleterious substances. Aggregates shall be 100% crushed with

no rounded particles. No natural sand will be allowed.

If rut-filling is specified, mineral aggregate meeting the gradation requirements of Type III shall be used.

The gradation of the mineral aggregate shall be Type III. The gradation of the mineral aggregate, when tested in accordance with the requirements of Arizona Test Method 201, shall conform to the requirements of Table 3.

TABLE 3			
SIEVE SIZE	PERCENT PASSING SIEVES		
	MIX DESIGN GRADING LIMITS		PRODUCTION TOLERANCES (See Note Below)
	TYPE II	TYPE III	
3/8 inch	100	100	----
No. 4	90-100	70-90	± 5
No. 8	65-90	45-70	± 5
No. 16	45-70	28-50	± 5
No. 30	30-50	19-34	± 5
No. 50	18-30	12-25	± 4
No. 100	10-21	7-18	± 3
No. 200	5.0-15.0	5.0-15.0	± 3.0
<p>Note: The allowable tolerance during production will be determined by applying the production tolerances to the mix design target values. However, the allowable production tolerance shall not fall outside the mix design grading limits in this table.</p>			

The mineral aggregate shall conform to the requirements of Table 4 when tested in accordance with the applicable test methods.

TABLE 4 MINERAL AGGREGATE CHARACTERISTICS		
CHARACTERISTIC	TEST METHOD	REQUIREMENTS
Sand Equivalent	AASHTO T 176 (After thoroughly sieving the sample, no additional cleaning of the fines from the plus No. 4 material is required.)	Minimum 60

TABLE 4 MINERAL AGGREGATE CHARACTERISTICS		
CHARACTERISTIC	TEST METHOD	REQUIREMENTS
Carbonates	Arizona Test Method 238	Maximum 20%
Abrasion	AASHTO T 96	500 Rev., Maximum 40%
Fractured Coarse Aggregate Particles	Arizona Test Method 212	Minimum 95% (with at least one fractured face)
Uncompacted Void Content	Arizona Test Method 247	Minimum 45.0%

Tests on aggregates outlined in Table 4, other than abrasion, shall be performed on materials furnished for mix design purposes and composited to the mix design gradation. Abrasion testing shall be performed separately for each source of mineral aggregate. All sources shall meet the requirements for abrasion. If desired, abrasion testing may be performed utilizing the parent aggregate from each source. Historical abrasion values may be supplied on sources provided the testing was conducted within the past two years.

2.04 Mineral Filler:

Mineral filler, required by the mix design, shall be Type I or Type II Portland cement conforming to the requirements of ASTM C 150. The mineral filler shall be added by weight of dry aggregate as specified by the mix design. The source of Portland cement must be on the ADOT Approved Materials Source List, as referenced in Materials Policy and Procedure Directive (P.P.D.) No. 13, "Certification and Acceptance of Hydraulic Cements, Fly Ash, Natural Pozzolan, Silica Fume, and Lime".

The mineral filler shall be added to the micro-surfacing mixture by an approved method that will ensure uniform distribution and proper control.

2.05 Water:

The water used shall be free of any injurious impurities. Potable water obtained from public utility distribution lines will be acceptable. The contractor shall state the source of water.

2.06 Additives:

Additives may be used to accelerate or retard the breaking of the emulsified asphalt and the set time of the micro-surfacing mixture, or improve the resulting finished surface.

Appropriate additives, and their applicable use range, shall be specified in the mix design.

3. Mix Design:

The contractor shall provide a mix design which has been sealed, signed, and dated by a professional engineer experienced in the preparation of micro-surfacing mix designs.

Compatibility of the aggregate, mineral filler, water, additives, and polymer modified emulsified asphalt shall be evaluated during the mix design process.

All the materials used in the mix design shall be representative of the materials proposed by the contractor for use on the project.

The mix design shall be approved by the Engineer prior to the start of micro-surfacing production. After the mix design has been approved, no material substitution will be permitted unless approved by the Engineer.

In addition to the other requirements stated herein, the mix design shall conform to the requirements of Table 5.

TABLE 5		
PROPERTY	TEST METHOD	REQUIREMENTS
Residual Asphalt Content	ASTM D 2172	6.0% - 11.5%, by weight of dry aggregate
Mineral Filler	----	0.1% - 2.0%, by weight of dry aggregate
Additives	----	As required for mix properties
Water	----	As required for mix properties
Mix Time @ 77 °F	ISSA TB-113	Controllable to 120 seconds, Minimum
Wet Track Abrasion Loss (1 hour soak)	ISSA TB-100	50 g/ft ² , Maximum
Wet Track Abrasion Loss (6 day soak)	ISSA TB-100	75 g/ft ² , Maximum
Wet Stripping	ISSA TB-114	90%, Minimum
Cohesion, within 30 minutes (Set)	ISSA TB-139	12 kg-cm torque, Minimum
Cohesion, within 60 minutes (Traffic)	ISSA TB-139	20 kg-cm torque, Minimum
Loaded Wheel Sand Adhesion	ISSA TB-109	50 g/ft ² , Maximum

TABLE 5		
PROPERTY	TEST METHOD	REQUIREMENTS
Classification Compatibility	ISSA TB-144	11 Grade Points, Minimum (AAA, BAA)
Lateral Displacement	ISSA TB-147	5%, Maximum
Specific Gravity after 1,000 cycles of 125 lb.	ISSA TB-147	2.10, Maximum

The mix design shall include test results showing the quantitative effects of moisture content on the unit weight of the aggregate (bulking effect) according to AASHTO T 19.

The mix design shall show the recommended proportions of aggregate, mineral filler, water, additive(s), and emulsified asphalt; and how the proportions are based (dry aggregate weight, total mix, etc). The mix design shall also show the allowable production tolerance for residual asphalt content.

The mix design shall also show the aggregate gradation, sand equivalent, percent carbonates, abrasion, fractured coarse aggregate particles, and uncompacted void content of the aggregate used in the mix design.

4. Equipment:

4.01 Proportioning Devices:

Individual volume or weight controls for proportioning mix components shall be provided and properly labeled. Proportioning devices shall be capable of determining the material output at any time.

The proportioning of emulsion, mineral filler, water, and additives shall be tied directly to aggregate flow.

4.02 Mixing Equipment:

(A) General:

The machine shall be specifically designed and manufactured to apply micro-surfacing. The material shall be mixed by an automatic-sequenced, self-propelled micro-surfacing mixing machine. It shall be a continuous-flow mixing unit that accurately delivers and proportions the mix components through a revolving multi-blade, double-shafted mixer. Sufficient storage capacity for all mix components is required to maintain an adequate supply to the proportioning controls.

The machine shall be a continuous-run machine capable of loading materials while continuing to apply micro-surfacing. The machine shall be equipped to provide the operator with full control of the forward and reverse speeds during application. It shall be equipped with opposite-side driver stations to assist in alignment. The self-loading device, opposite-side driver stations, and forward and reverse speed controls shall be of original-equipment-manufacturer design.

The machine shall be equipped with a water pressure system that provides a water spray immediately ahead of and outside the spreader box.

Truck mounted mixing machines are not allowed.

(B) Calibration:

Each mixing unit to be used in the performance of the work shall be calibrated in the presence of the Engineer prior to the start of micro-surfacing production. Previous calibration documentation covering the exact materials to be used may be acceptable, provided the calibration was performed within the preceding 60 days. The documentation shall include an individual calibration of each material at various settings that can be related to the machine metering devices. Any component replacement affecting material proportioning requires that the machine be recalibrated. No machine will be allowed to work on the project until the calibration has been completed and/or accepted. The ISSA Inspector's Manual describes a method that may be used for machine calibration.

4.03 Spreading Equipment:

(A) General:

The mixture shall be agitated and spread uniformly in the surfacing box by means of twin-shafted paddles or spiral augers fixed in the spreader box. A front seal shall be provided to ensure no loss of the mixture at the road contact point. The rear seal shall act as a final strike-off and shall be adjustable. The spreader box and rear strike-off shall be so designed and operated that a uniform consistency is achieved and a free flow of material is provided to the rear strike-off. The spreader box shall have suitable means provided to side shift the box to compensate for variations in the pavement geometry.

The spreading equipment shall be maintained free from buildup of the mixture on the paddles or side walls.

(B) Secondary Strike-Off:

A secondary strike-off shall be provided to improve surface texture. The secondary strike-off shall be adjustable to match the width of the spreader box and allow for varying pressures to control the surface texture.

(C) Rut-Filling Equipment:

When required, micro-surfacing material may be used to fill ruts or other depressions in the existing surface. Ruts shall be filled independently with a rut-filling box. Ruts may require multiple applications with the rut-filling box to restore the cross-section. All rut-filling material should cure under traffic for at least 24 hours before additional material is placed.

4.04 Auxiliary Equipment:

Areas that cannot be reached with the micro-surfacing machine shall be surfaced using hand squeegees to provide complete and uniform micro-surfacing coverage.

5. Construction Requirements:

5.01 Test Strip:

A test strip shall be constructed on the roadway at the beginning of the first day of production. The test strip shall be limited to 500 to 1000 feet in length and shall be placed in the same manner, and with the same materials and equipment, that will be used during the remainder of micro-surfacing placement.

The test strip shall not exhibit any signs of distress when exposed to traffic after curing for one hour. The Engineer shall determine if performance of the test strip is satisfactory. If performance of the test strip is satisfactory, normal production may proceed. If performance of the test strip is unsatisfactory, the test strip shall be removed and replaced, or repaired to the satisfaction of the Engineer, at no additional cost to the Department. After necessary adjustments are made, an additional test strip shall be constructed. If necessary, the Engineer may require that a new mix design be submitted for approval.

5.02 Weather Limitations:

The micro-surfacing shall only be placed when there is no rain, the air temperature is at least 45 °F, and the pavement surface temperature is 50 °F or higher. No micro-surfacing shall be applied when there is danger that the finished product will freeze within 24 hours following its placement. The mixture shall not be applied if weather conditions prolong opening to traffic beyond a reasonable time as determined by the Engineer.

At any time, the Engineer may require that the work cease or that the work day be reduced in the event that weather conditions, either existing or expected, are anticipated to have an adverse effect upon the micro-surfacing.

5.03 Surface Preparation:

Immediately prior to applying the micro-surfacing, the contractor shall clean the surface of all loose material, dirt, vegetation, and other objectionable material. If water is used, cracks shall be thoroughly dry before applying the micro-surfacing. The Engineer shall approve the surface preparation prior to applying the micro-surfacing.

5.04 Mixing and Application of Micro-Surfacing:

The micro-surfacing mixture shall be proportioned in accordance with the mix design.

The contractor shall determine the stockpile moisture content daily, and adjust the operation accordingly.

The micro-surfacing mixture shall be of the desired consistency when deposited in the spreader box and no additional materials shall be added to it. The mixing time shall be sufficient to produce a complete and uniform coating of the aggregate. No lumping, balling, or unmixed aggregate shall be permitted. The mixture shall be discharged into the spreader box at a sufficient rate to maintain an ample supply across the full width of the spreader box at all times. Overloading of the spreader box shall be avoided. No streaks, such as those caused by oversized aggregate, will be left in the finished surface. If excess oversize aggregate is encountered, the job will be stopped until the contractor proves that the situation has been corrected. Any skips, lumps, streaks, or tears in the finished product will not be allowed. The

contractor shall repair any such deficiencies to the satisfaction of the Engineer, at no additional cost to the Department.

The micro-surfacing mixture shall possess sufficient stability so that premature breaking of the emulsified asphalt while the mixture is in the spreader box does not occur. The mixture shall be homogeneous after mixing. During spreading, the mixture shall be free of excess water or emulsion and shall be free of segregation of the emulsion and aggregate fines from the coarser aggregate. Spraying of additional water into the spreader box is not allowed.

The surface of the existing pavement shall be pre-wetted by fogging with water ahead of the spreader box. The water used in pre-wetting the surface shall be applied such that the entire surface is damp with no apparent flowing water in front of the spreader box. The rate of application of the fog spray shall be adjusted during the day as the ambient temperature, surface texture, humidity, and dryness of the pavement surface changes.

The surface texture variation of the existing pavement throughout the work will dictate the actual spreading rates. The strike-off squeegee shall be adjusted to provide a micro-surfacing thickness which will completely fill the surface voids and provide an additional thickness not exceeding one and one-half times the largest top-size stone. The requirement for an additional thickness not exceeding one and one-half times the largest top-size stone does not apply to rut-filling operations, as these depths may vary significantly due to the surface irregularities.

The contractor shall remove micro-surfacing from any area specified by the Engineer.

The contractor shall remove any debris associated with the performance of the work on a daily basis.

5.05 Protection of Existing Features:

The contractor shall take all necessary precautions to prevent micro-surfacing or other materials used in the work from entering or adhering to gutters, gratings, hydrants, valve boxes, manhole covers, catch basins, bridge or culvert decks, permanent road markers (ceramic and reflective), and other existing fixtures.

Immediately after surfacing, the contractor shall clean and leave existing features in a condition satisfactory to the Engineer.

5.06 Joints:

No excessive buildup, untreated areas, or unsightly appearance shall be permitted on longitudinal or transverse joints. The contractor shall provide suitable width spreading equipment to produce a minimum number of longitudinal joints throughout the work. When possible, longitudinal joints shall be located within one foot of the center of a lane or within one foot of the centerline between two adjacent lanes. A four inch maximum overlap will be permitted on longitudinal joints. Partial width passes shall only be used when necessary and shall not be the last pass of any paved area. Longitudinal joints shall have no more than a 1/4 inch difference in elevation when measured by placing a 10-foot straightedge over the joint.

Care shall be taken to ensure straight lines along curbs and shoulders. No runoff on these areas will be permitted.

Construction joints shall be neat in appearance and shall be tapered or feathered to conform to the existing surfacing. All excess material shall be removed from the surface upon completion of each run.

5.07 Handwork:

Areas which cannot be accessed by the mixing machine shall be surfaced using hand squeegees to provide complete and uniform coverage. If necessary, the area to be hand worked shall be lightly dampened prior to mix placement. As much as possible, handwork shall exhibit the same finish as that applied by the spreader box.

5.08 Damage to the Micro-Surfacing:

The contractor shall remove and replace micro-surfacing which is damaged prior to the final acceptance of the work, at no additional cost to the Department.

6. Sampling and Testing Requirements:

Mineral aggregate shall be sampled in accordance with Arizona Test Method 105.

At least two weeks prior to the start of micro-surfacing production, the Engineer shall obtain a representative sample of mineral aggregate for testing. The material shall be tested for gradation in accordance with Arizona Test Method 201, and shall conform to the production tolerances shown in Table 3. The sand equivalent, fractured coarse aggregate particles, and uncompacted void content shall conform to the requirements of Table 4. If the mineral aggregate does not meet these requirements, production shall not begin until the mineral aggregate is in compliance with these requirements.

For each 300 tons of mineral aggregate used in micro-surfacing production, the Engineer shall obtain a representative sample of mineral aggregate for gradation and moisture content testing. The material will be tested for gradation in accordance with Arizona Test Method 201, and shall conform to the production tolerances shown in Table 3. Should testing indicate results not meeting these requirements, operations shall cease and the contractor shall have the option of providing a new mix design or correcting the deficiencies. The material shall be tested for moisture content in accordance with AASHTO T 265.

For each 600 tons of mineral aggregate used in micro-surfacing production, the Engineer shall obtain a representative sample of mineral aggregate for the determination of sand equivalent, fractured coarse aggregate particles, and uncompacted void content. The material shall conform to the requirements of Table 4 for these test characteristics. Should testing indicate results not meeting these requirements, operations shall cease and the contractor shall have the option of providing a new mix design or correcting the deficiencies.

During micro-surfacing production, a representative sample of the emulsion shall be obtained for testing to determine the percent asphalt residue by evaporation. A sample shall be obtained, in accordance with Arizona Test Method 103, from each delivery unit of emulsion by the contractor and witnessed by the Engineer. The emulsion shall conform to the requirements of Table 2 for percent asphalt residue by evaporation.

7. Method of Measurement:

Emulsified asphalt will be measured by the ton.

Mineral aggregate will be measured by the ton, excluding the weight of any moisture.

8. Basis of Payment:

The accepted quantities of emulsified asphalt, measured as provided above, will be paid for at the contract unit price per ton, which price shall be full compensation for the work, complete in place, as specified herein.

The accepted quantities of dry mineral aggregate, measured as provided above, will be paid for at the contract unit price per ton, which price shall be full compensation for the work, complete in place, including mineral filler, water, all surface preparation, mixing and application of materials.

Payment shall be full compensation for all surface preparation, mixing and application of materials, and for all labor, equipment, tools, cleaning, and incidentals necessary to complete the work as specified herein.

No direct measurement or payment will be made for water, additives, or mineral filler, the cost being considered as included in this contract item.

(404SEALCOATS, 03/16/21)

SECTION 404 - BITUMINOUS TREATMENTS

404-1 DESCRIPTION of the Standard Specifications is modified to add:

Crack Sealing and Filling

This work consists of furnishing and placing sealant or filler material in Contractor prepared cracks and joints of asphalt concrete or portland cement concrete pavements. All cracks and joints, including the space between asphalt concrete pavement and concrete curb and gutter, which have a clear opening of one-quarter inch ($\frac{1}{4}$ ") or greater, shall be sealed for the length of the crack that equals or exceeds one-eighth inch ($\frac{1}{8}$ ") in width. The Contractor shall notify the Engineer when cracks are encountered that have an opening greater than one and one-half inches ($1\frac{1}{2}$ "). The Engineer's authorization is required prior to filling any cracks having an average clear opening greater than one and one-half inches ($1\frac{1}{2}$ ").

404-2.01 Bituminous Materials.

(A) Bituminous Material for Slurry Seal of the Standard Specifications is revised to read:

Bituminous material for slurry seal shall be a cationic quick setting asphaltic emulsion conforming to the requirements for PMCQS-1h grade meeting the requirements of Subsection 1005-3.07.

404-2.01 Bituminous Materials of the Standard Specifications is modified to add:

(B) Material for Category 1 Cracks: Cracks and joints which have a clear opening ranging from one-quarter inch (1/4") to one and one-half inches (1 1/2") shall be classified as category 1 cracks. Sealant materials for category 1 cracks shall be a premixed, single component mixture of asphalt cement, aromatic extender oils, polymers, and granulated rubber in a closely controlled manufacturing process. Materials shall conform to the following specifications when heated in accordance with ASTM D5078 and the manufacturer's maximum safe heating temperature.

TEST	REQUIREMENT
Cone Penetration (ASTM D5329)	20-40
Resilience (ASTM D5329)	30% Minimum
Softening Point (ASTM D113)	210°F (99°C) Minimum
Ductility, 77°F (25°C) (ASTM D113)	30 cm Minimum
Flexibility (ASTM D3111 *Modified)	Pass at 30°F (-1°C)
Flow 140°F (60°C) (ASTM D5329)	3 mm Maximum
Brookfield Viscosity 380°F (193°C) (ASTM D2669)	90 Poise Maximum
Asphalt Compatibility (ASTM D5329)	Pass
Bitumen Content (ASTM D4)	60% Minimum
Tensile Adhesion (ASTM D5329)	400% Minimum
Maximum Heating Temperature	400°F (204°C)
Minimum Heating Temperature	380°F (193°C)
Flash Point (ASTM D92)	450°F Minimum

*Specimen bent 90° over a 1-inch mandrel within 10 seconds.

(C) Material for Category 2 Cracks: Cracks and joints which have a clear opening ranging from one and one-half inches (1 1/2") to three inches (3") shall be classified as category 2 cracks. Filler material for category 2 cracks shall be hot applied, pourable, high bonding mastic for application in unconfined areas and for vertical-side recessed configurations. Upon curing the material shall provide a flexible waterproof seal. The material shall be traffic ready in thirty minutes or less when installed in accordance with the manufacturer's instructions. Material for sealing category 2 cracks shall be Deery brand Level & Go Repair Mastic or approved equal.

(D) Material for Category 3 Cracks: Cracks and joints which have a clear opening greater than three inches (>3") shall be classified as category 3 cracks. Material for filling category 3 cracks shall be Deery brand Level & Go Repair Mastic or approved equal.

(E) Product Submittals: Prior to application of category 1 crack sealant and category 2 & 3 crack filler material, the Contractor shall submit the material manufacturer's product specifications together with installation recommendations which shall include surface preparation, product installation, and curing requirements. Certification of compliance for sealant material shall be submitted to the Engineer.

The Engineer may request material samples for testing, prior to and during production, to verify the quality of the materials and to ensure conformance with the applicable specifications.

404-2.02(C) Cover Materials of the Standard Specifications is modified to add:

Cover material shall meet the requirements for Class I grading or the City of Tucson/Pima County Standard Specifications for Public Improvements, 2003 Edition, Section 404-2.02(C) Cover Materials.

404-3.15 Chip Seal Coat the first sentence of the Standard Specifications is revised to read:

The type of bituminous material shall be CRS-2P.

404-3.16 Fog Coat of the Standard Specifications is modified to add:

Bituminous material for Fog Coat shall be Grade PMCQS-1h as specified in the Maricopa Association of Governments Uniform Standard Specifications for Public Works Construction, 2021 Edition, Section 713 Emulsified Asphalts Materials. The bituminous material shall be a 50:50 dilute and applied at a rate of 0.12 – 0.15 gal/SY.

404-3 CONSTRUCTION DETAILS of the Standard Specifications is modified to add:

404-3.17 CLEANING AND PREPARING CRACKS OR JOINTS:

When deleterious materials are present in the cracks and joints, they shall be removed and those cracks and joints shall be treated with a herbicide that sterilizes the soil subject to the approval of the Engineer. Cost for treatment is incidental

(A) Routing: Is not required for this work.

(B) Vacuuming: Final cleaning shall thoroughly clean cracks and joints to a minimum depth of 1" for cracks that are 3/4" or narrower and to the full asphalt depth for cracks that are wider than 3/4". Surfaces are to be inspected to assure adequate cleanliness and dryness.

High pressure 90 psi minimum, dry oil free compressed air shall be used for final cleaning and dust removal from cracks. The high pressure tool shall be integral with a vacuum unit to collect the dust and residue. Both sides of the crack or joint shall be cleaned.

404-3.18 APPLICATION OF CATEGORY 1 CRACK SEALANTS:

(A) Weather: In no case shall sealant be placed during damp roadway conditions such as wet roadway surfaces or damp material inside the cracks. Operations stopped by the Engineer, due to weather, shall be at no additional cost to the contracting Agency. If installing at night, ensure that dew is not forming on the pavement surface.

Sealant material shall only be applied when pavement temperature exceeds 40°F (4°C). If pavement temperature is lower than 40°F (4°C), it may be warmed using a heat lance that puts no direct flame on the pavement.

(B) Temperature: Sealant temperatures are to be maintained at the maximum heating temperature recommended by the manufacture.

(C) Equipment: The melter applicator unit shall be a self-contained double boiler device with the transmittal of heat through heat transfer oil. It shall be equipped with an on board automatic heat controlling device to permit the attainment of a predetermined temperature, and then maintain that temperature as long as required. The unit shall also have a means to vigorously and continuously agitate the sealant to meet the requirements of Appendix X1.1 of ASTM D6690. The sealant shall be applied to the pavement under pressure supplied by a gear pump with a hose and wand and direct connecting applicator tip. The pump shall have sufficient pressure to apply designated sealant at a rate of at least three (3) gallons (11.4 L) per minute. Melter applicators shall be approved for use by the sealant manufacturer.

(D) Placement of Sealant: The sealant shall be applied in cracks, joints, and sealant reservoirs uniformly from bottom to top and shall be filled without formation of entrapped air or voids.

Cracks and joints shall be slightly overfilled then leveled with a 3" sealing disk or v-shaped squeegee to create a neat band extending approximately 1" on each side of the crack or joint for surface waterproofing. The band shall be as neat and as thin as possible and shall not extend more than 1/8 inch above the pavement surface.

During and after placement of the sealant, the Contractor shall protect against harm to persons or animals that may be exposed to the hot material.

(E) Opening to Traffic: Sealant material shall not be exposed to traffic until fully cured. If the sealed area must be opened to traffic, blotter material shall be applied to the surface of all uncured sealant material.

All sealed cracks that have a clear opening of 1 1/2 inches or greater shall have blotter material applied prior to opening to traffic.

On two lane roads or where traffic may come in contact with the hot sealant before it cures, a blotter or specialized bond breaking material shall be used to prevent asphalt bleeding and/or pickup of sealant by vehicular traffic. Blotter material shall be compatible with the crack sealant.

404-3.19 APPLICATION OF FILLER MATERIAL FOR CATEGORIES 2 AND 3 CRACKS:

The Contractor shall comply with the material manufacturer's installation recommendations including, but not limited to, surface preparation, application equipment, and application procedures. No filler material shall be installed until all cracks to be filled have been inspected and approved by the Engineer. Filler material shall not be opened to traffic until fully cured.

404-3.20 UNACCEPTABLE WORK:

The Contractor, at no additional cost to the contracting Agency, shall correct unacceptable work.

Unacceptable work shall include, but not be limited to, unsealed or unfilled cracks, material wastage on the sides of the roadway, and excess quantities of material on the roadway that adversely affects driving.

The Contractor shall not progress to a new area until the unacceptable work is corrected to the satisfaction of the Engineer. Correction of unacceptable work shall be accomplished within five working days after notification from the Engineer of the unacceptable work.

404-4 METHOD OF MEASUREMENT of the Standard Specifications is modified to add:

The Contractor shall meet with the Engineer or the Engineer's designated representative on a daily basis and supply a signed daily report indicating the date and identifying for each road segment:

- The amount of category 1 crack sealant material applied in total pounds and the total square yards of pavement sealed.
- The amount in pounds of category 2 crack filler material installed.
- The amount in pounds of category 3 crack filler material installed.

Payment for crack sealing and crack filling shall be based on accepted quantities of Category 1 Crack Sealing, Category 2 Crack Filling, and Category 3 Crack Filling.

Accepted Category 1 Crack Sealing shall be measured by the pounds of sealant material placed.

Accepted Category 2 Crack Filling shall be measured by the pounds of filler material placed.

Accepted Category 3 Crack Filling shall be the measured by the pounds of filler material placed.

404-5 BASIS OF PAYMENT of the Standard Specifications is modified to add:

Payment for pavement crack sealing and crack filling will be at the contracted unit prices. Payment shall be full compensation for furnishing all labor, materials, equipment, tools, and incidentals used for surface preparation, placement of materials, and cleanup.

No payment will be made for crack sealing or crack filling that used unacceptable material.

(409AC_MISC_STRUCTURAL, 8/17/15)

SECTION 409 - ASPHALTIC CONCRETE (MISCELLANEOUS STRUCTURAL): of the Arizona Department of Transportation, Division of Highways, Standard Specifications is hereby added to the Standard Specifications.

409-2 Materials: of the State of Arizona, Department of Transportation Division of Highways, Standard Specifications is modified to add:

The bidding schedule quantity of asphaltic concrete is based on an estimated unit weight of 146.5 pounds per cubic foot.

409-2.02 Bituminous Material: the first paragraph of the State of Arizona, Department of Transportation Division of Highways, Standard Specifications is revised to read:

Asphalt cement shall be an asphalt binder performance grade PG 70-22, conforming to the requirements of Section 1005.

409-2.04 Mix Design: the second row of the mix design criteria table in the eighth paragraph of the State of Arizona, Arizona Department of Transportation, Division of Highways, Standard Specifications is revised to read:

Criteria	Requirement	Arizona Test Method
2. Effective Voids: %	5.3 – 5.7	815

(501DRAINAGE_PIPE, 11/22/17)

SECTION 501 - DRAINAGE PIPE

501-2 MATERIALS

501-2.05 Bedding Material of the Standard Specifications is modified to add:

Bedding material for polypropylene pipe shall be 3/8 inch washed aggregate.

501-2.06 Shading Material of the Standard Specifications is modified to add:

Aggregate for shading material of polypropylene pipe shall conform to the following requirements:

Sieve Size	Percent Passing
1-1/2 inch	100
No 4 inch	≤ 50
No. 200	*

* The total sum of the percent passing the No. 200 sieve and the plasticity index (P.I.) shall not exceed 25.

501-2.07 Trench Backfill Material the third paragraph of the Standard Specifications is revised to read:

Trench backfill material placed within the roadway prism and within 3 feet of finished subgrade, shall have a soil support value (i.e., laboratory measured R-value) equal to or greater than the design soil support value on which the pavement structural section, for the pavement area where the trench is located, was based.

501-3 CONSTRUCTION DETAILS

501-3.02 Bedding.

(C) Bedding for Pipe Culverts 36 Inches and Larger in Diameter the first paragraph of the Standard Specifications is revised to read:

Bedding for pipe having a diameter 36 inches or larger or an elliptical dimension 29 inches or larger shall consist of aggregate material, meeting the requirements of Subsection 501- 2.05, placed from the

bottom of the trench to the bottom of the pipe. Controlled low strength material (CLSM), conforming to the requirements of Subsection 501-2.04, shall then be placed from the bottom of the pipe to the pipe springline.

501-3.03 Installation of Drainage Pipe.

(B) Watertight Joints. the first and second paragraphs of the Standard Specifications are replaced with:

Drainage and storm drain pipe shall have watertight joints unless otherwise specified in the Special Provisions and indicated on the plans. Watertight joints will not require hydrostatic pressure testing except for siphon and irrigation pipe installations, as described below.

(G) Corrugated High Density Polyethylene Pipe (CHDPEP) and Steel Reinforced High Density Thermoplastic Ribbed Pipe (SRHDRP) the section and section heading of the Standard Specifications is revised to read:

(G) Polypropylene Pipe (PPP), Corrugated High Density Polyethylene Pipe (CHDPEP) and Steel Reinforced High Density Thermoplastic Ribbed Pipe (SRHDRP). Polypropylene pipe, corrugated high density polyethylene pipe and steel reinforced high density thermoplastic ribbed pipe shall be assembled and installed in conformance with ASTM D 2321 and the manufacturer's recommendations.

Watertight and water resistant joints shall conform to the requirements of Subsection 1010-2.09 unless otherwise specified on the project plans or in the Special Provisions.

The use of polypropylene pipe (PPP), corrugated high density polyethylene pipe (CHDPEP) and steel reinforced high density thermoplastic ribbed pipe (SRHDRP) for cross drainage culverts and storm drain, when permitted, is limited to thirty-six inch diameter maximum unless otherwise approved by the Engineer.

When the project plans show corrugated high density polyethylene pipe or steel reinforced high density thermoplastic ribbed pipe culverts or storm drains with exposed inlets and/or outfalls, the exposed end of the culvert or storm drain shall be constructed using a section of reinforced concrete pipe of equivalent inside diameter, and a length of at least 8 feet.

Magnetically detectable plastic tape, having a thickness of 5.5 mils and a minimum tensile strength of 5,000 pounds per square inch, shall be placed in the trench 18 to 24 inches above the centerline for the full length of the installed pipe. The tape shall be marked as to its purpose (e.g. "STORM DRAIN" or DRAINAGE PIPE").

Shading material shall have a pH value between 1.5 and 14 with no specified minimum value for resistivity.

Special care shall be taken in the handling and installation of corrugated high density polyethylene pipe and steel reinforced high density thermoplastic ribbed pipe to prevent damage and to assure that proper line and grade are maintained through the backfilling operation.

(1) Field Inspection

For polypropylene pipe, corrugated high density polyethylene pipe and steel reinforced high density thermoplastic ribbed pipe 12 to 60 inches in diameter, after completion of the final fill and before any

paving operation, the contractor shall dewater the installed pipe and provide the Engineer with either a video of the installation, a mandrel test log, or a physical measurement test log, as detailed herein. The Engineer may waive this requirement for side drains and cross drains that are short enough to visually inspect from the end of the pipe.

The Engineer shall inspect all pipes for line and grade, joint gaps and misalignments, damage, and debris. Based on the results of the inspection and deflection testing, the Engineer may accept the installation, request an action plan from the contractor to remedy any excessive deflection, or direct the contractor to remove and replace the pipe as detailed in the table below.

If the contractor disagrees with results of the first deflection test(s), they may re-test the installation using any of the methods detailed herein. The contractor shall bear the cost of the re-testing; however, if the re-testing shows that deflection is no greater than 5.0% of the AASHTO minimum pipe diameter along the complete length of the pipe, the Agency will reimburse the contractor for the cost of the re-test.

PIPE INSTALLATION	
DEFLECTION (%)	ACTION
0 - 5.0	Full Acceptance
>5.0 - 7.0	Contractor to Present Action Plan to Engineer (e.g. Remove and Reconstruct, or Remove and Replace) Retest
>7.0	Remove and Replace Retest

For pipe deflection greater than 5.0%, but less than or equal to 7.0%, the Contractor shall present an action plan to the Engineer for remedying the excessive deflection. Options may include, but are not limited to, excavating the affected portion of the run and reconstructing the pipe, or removal and replacement of the affected portion. The Engineer's approval is required before the contractor may undertake any remedial efforts. For pipe deflections greater than 7% of the AASHTO minimum pipe diameter, the contractor shall remove and replace the affected length of pipe.

(2) Inspection Procedures:

(A) Video Camera:

(1) Equipment:

Use a pipeline video inspection camera with a laser light ring projector mounted onto and in front of the camera. The video shall be in digital format and provide a minimum resolution of 480 lines per inch. The videotape must have a distance marking, accurate to one foot per 100 feet. The contractor shall install a frame grabber card on the computer used to view the video image. The speed of the moving camera through the pipe shall not be greater than 30 feet per minute.

(2) Calibration:

The contractor shall project the light or laser ring a set distance away from the camera so that the entire ring is visible in the image. Calibrate the projected light or laser ring at the beginning of the inspection

by capturing the image of an object of known length or physically measuring the pipe at the location where the light or laser ring is projected.

(3) Intervals:

Deflection measurements shall be taken continuously for each pipe run. Deflection shall be expressed to the nearest 0.1% of the AASHTO minimum pipe diameter.

(B) Mandrel:

(1) Equipment:

The mandrel testing equipment shall be the rigid, nonadjustable type, with an odd number of legs (9 minimum) having a length not less than the nominal outside diameter of the mandrel. The diameter of the mandrel at any point shall not be less than 93% or 95% of the AASHTO minimum diameter size of the pipe being tested. The mandrel shall be fabricated of metal, fitted with pulling rings at each end, and stamped or engraved with its diameter on some segment of the mandrel other than a runner. Rope with minimal elongation characteristics (less than one foot per 100 feet) shall be used to pull the mandrel through the pipe. The rope shall be marked in one-foot increments.

(2) Calibration:

The mandrels' diameter shall be calibrated before and after each day's testing by use of true circular rings of diameters equal to 93% and 95% of the AASHTO minimum inside diameter of the pipe being tested. The Engineer shall be present during the calibration.

(3) Procedure:

The rope shall be drawn through the pipe, and then attached to the leading end of the 95% diameter mandrel. The length of the pipe run, as measured by the pull rope shall be recorded. A rope marked with one-foot increments shall also be attached to the mandrel's trailing end. The mandrel shall then be pulled through the pipe run by hand. If the 95% diameter mandrel's progress is refused the location shall be recorded. The 95% diameter mandrel shall then be run through the pipe from the opposite end until its progress is refused. That location shall be recorded.

If the 95% diameter mandrel does not pass completely through the pipe, the procedure detailed above is repeated using the 93% diameter mandrel.

(C) Physical Measurement:

(1) Equipment:

Measuring devices marked with increments of 1/16 inch shall be used. These may include, but are not limited to, tape extensometers, metal measuring tapes, and wooden folding rulers with a 6-inch slide. A 24-inch level shall be used to verify vertical and horizontal control.

(2) Intervals:

Deflection measurements shall, at a minimum, be taken at each end of the pipe run and at intervals no greater than 5% of the pipe run (i.e., a minimum of 21 locations) based on the as-built length. Deflection measurements shall be taken vertically (6 to 12 o'clock) and horizontally (3 to 9 o'clock) at each location. The larger of the two measurements at each location shall be recorded. If a deflection greater than 5.0% of the AASHTO minimum pipe diameter is measured at any location, the Engineer shall require additional deflection measurements be taken at intervals of 1% of the pipe run, for a distance of up to 5% of the pipe run, in both directions from that location. Deflection shall be calculated as follows and expressed to the nearest 0.1%:

$$\% \text{ Deflection} = \frac{[\text{AASHTO Minimum Diameter} - \text{Measured Diameter}]}{\text{AASHTO Minimum Diameter}} \times 100$$

Alternately, the contractor, with the Engineer's approval, may measure the pipe diameter after placement, but prior to backfilling (D1). Measurements shall, at a minimum, be taken at each end of the pipe run and at intervals no greater than 5% of the pipe run (i.e., a minimum of 21 locations) based on the as-built length. Measurements shall be taken vertically (6 to 12 o'clock) and horizontally (3 to 9 o'clock) at each location. Locations where the measurements are taken shall be marked. After completion of the backfilling, physical measurements are again taken at the marked locations. The larger of the two measurements at each location shall be recorded (D2). Deflection shall then be calculated as follows and expressed to the nearest 0.1%:

$$\% \text{ Deflection} = \frac{[D1 - D2]}{D1} \times 100$$

(D) Testing Cost

Testing costs for the installation of CHDPEP and SRHDRP are considered incidental to the construction and included in the unit cost of the pipe. No separate measurement or payment will be made for testing, except as specified herein regarding re-testing.

(505STORMDRAIN_MANHOLES, 06/15/16)

SECTION 505 – STORMDRAIN MANHOLES

505-4 METHOD OF MEASUREMENT the second paragraph of the Standard Specifications is revised to read:

When an adjustment is accomplished by either removal of existing adjustable extension rings or by installation of new adjustable extension rings, without violation of the dimensional range specified in the project plans or standard details the adjustment will be measured as a unit for each manhole adjusted.

(510ADJ_H20_VALVE_METRO_H20, 4/4/12)

ITEM 5103102 - POTABLE WATER, ADJUST VALVE BOX AND COVER (TUCSON WATER)

1. DESCRIPTION

The work under this item shall consist of furnishing all labor, equipment, and materials required to adjust water valve boxes and covers belonging to Tucson Water. All water valve riser pipe, nut extensions, and valve boxes and covers shall be adjusted to finish grade at the existing valve locations all in accordance with the details shown on the plans and the requirements of these Special Provisions.

2. MATERIALS

Riser pipe shall be Class 200 polyvinyl chloride (PVC) pipe.

3. CONSTRUCTION REQUIREMENTS

The contractor shall use existing valve boxes and covers.

Valve boxes and covers shall be adjusted to the level of the new finished grade in accordance with Standard Detail SD-300.

Prior to setting, the valve riser pipe and valve box and cover shall be thoroughly cleaned of all grease, oils, asphaltic materials, Portland cement concrete or other deleterious materials. Cleaning shall include removal of obstructions to the valve operating nut and valve cover pick holes.

Valve riser pipe and valve box and cover not scheduled for adjustment shall be protected from any damage during the course of the work.

Valve nut extensions shall be provided where the depth to the top of the valve operating nut is 5 feet or more below finish grade. Valve nut extensions shall be installed in accordance with Standard Detail SD-305 and shall be provided by Tucson Water. The contractor shall contact Kevin Miller, Tucson Water, at 520-971-7093 to request valve nut extensions and should allow at least 5 working days for delivery. Pickup and transportation of the valve nut extensions shall be the responsibility of the contractor and coordinated with Tucson Water.

Existing riser pipe may remain in place and be shortened or lengthened to allow for the proper installation of the valve box and cover.

4. METHOD OF MEASUREMENT

Water valve box and cover requiring adjustment to accommodate changes in the finished elevation of the roadway will be measured as a unit for each valve box and cover adjusted.

No measurement will be made for installing valve nut extensions and valve riser pipe, the work to be considered incidental to adjusting valve box and cover.

5. BASIS OF PAYMENT

The accepted quantities of valve box and cover adjustment, measured as provided above, will be paid for at the contract unit price each, complete-in-place including the installation of valve nut extensions and valve riser pipe.

(607SLIP_BASES, 8/20/15)

ITEM NO. 6070042 - SLIP BASE ASSEMBLY (TYPE 2½T) (TELESCOPING)

1. DESCRIPTION

The work under this item shall consist of furnishing all materials, tools, equipment, and labor necessary to install slip base foundation assemblies for sign posts, in accordance with the Pima County and City of Tucson Signing Manual for Standard Drawing 8-3 or the ADOT Signing and Marking Manual for Standard Drawing S-1 and the requirements of these special provisions.

2. MATERIALS

All materials for the slip base assemblies shall be new, and shall be consistent with the requirements set forth in the Pima County and City of Tucson Signing Manual for Standard Drawing No. 8-3, or the ADOT Signing and Marking Manual for Standard Drawing S-1 for the 2½" square tube telescoping slip base (Type 2½T).

3. CONSTRUCTION REQUIREMENTS (None Specified)

4. METHOD OF MEASUREMENT

Slip base assemblies will be measured by the unit for each slip base foundation installed, complete in place.

5. BASIS OF PAYMENT

The accepted quantities of slip base assemblies, measured as provided above, will be paid for, at the contract unit price, which price shall be full compensation for the work, complete in place, as specified herein and as shown in the standard drawings.

(608SIGN_PANELS, 11/20/14)

SECTION 608 - SIGN PANELS

608-2 MATERIALS

608-2.02 Extruded Aluminum Sign Panels with Direct-Applied, Digitally-Imaged or Demountable Characters. the 3rd paragraph of the Standard Specifications is revised to read:

The letters, numerals, symbols, borders and other features of the sign message shall be direct-applied, digitally-imaged or demountable, and shall conform to the requirements of Subsection 608-2.06, Silk-Screen-Printed, Direct-Applied and Electronic-Cut Characters or Subsection 608-2.07, Digitally-Imaged Characters.

(701,DETOUR_SPEED 12/16/16)

SECTION 701 - MAINTENANCE AND PROTECTION OF TRAFFIC

701-3 CONSTRUCTION DETAILS

701-3.01 General of the Standard Specifications is modified to add:

The design speed for detours shall be 25 mph with a minimum of two, 11-foot lanes, one for each direction of travel unless directed otherwise by the Engineer.

703DELINEATORS_MARKERS, 5/27/14

SECTION 703 - DELINEATORS AND MARKERS

703-1 DESCRIPTION

The work under this section shall consist of furnishing and installing delineators, reference markers, object markers, snow markers and milepost markers in conformance with the details shown on the plans and in accordance with the requirements of these specifications.

The types of delineators and markers to be installed and the locations will be shown on the project plans.

703-2 MATERIALS

703-2.01 General

Certificates of Compliance conforming to the requirements of Subsection 106.05 shall be submitted.

703-2.02 Metal Posts

Posts for delineators and for all markers, including mileposts or reference markers installed on freeways shall conform to the details shown in the project plans.

703-2.03 Concrete

Concrete for the milepost or reference marker foundations shall be utility concrete conforming to the requirements of Section 922.

703-2.04 Metal Plates

Metal plates for the various types of object markers shall conform to the details shown on the plans and shall be fabricated in one piece from 0.063-inch thick aluminum-alloy sheet 3003-H 14, 5052-H 38, or 6061-T6, all conforming to the requirements of ASTM B209.

703-2.05 Paint

Paint for use on the metal plates shall conform to the requirements of Section 1002 for the type and color of paint specified on the plans.

703-2.06 Retroreflective Sheeting

Retroreflective sheeting for delineators and markers shall conform to the requirements of Section 1007.

The type of retroreflective sheeting to be applied shall be as specified on the plans.

703-2.07 Prismatic Reflectors

Prismatic reflectors for delineators and markers shall conform to the requirements of Section 1008.

The type of prismatic reflectors to be used shall be as specified on the plans.

703-2.08 Hardware

Steel bolts and nuts of the types shown on the plans shall be galvanized in accordance with the requirements of ASTM A153 or shall be cadmium plated in accordance with the requirements of ASTM B766.

703-3 CONSTRUCTION REQUIREMENTS

Metal posts shall be cut and perforated to the sizes and shape shown on the plans. The finished posts shall be straight with a permissible tolerance in straightness of 1/16 inch per three (3) feet of post length.

Posts on which galvanizing has been damaged in transporting, handling or erecting shall be repaired by the contractor at its expense in accordance with the requirements of Subsection 610- 3.06.

Metal plates shall be cut to size and shape and the holes punched for mounting all in accordance with the details shown on the plans. The surfaces and edges of the plates shall be free of buckles, warps, dents, cockles, burrs, and defects resulting from fabrication.

Posts shall be set vertically to line at the locations designated on the plans. Posts, except mileposts or reference marker posts requiring concrete foundations, shall be set firmly in the ground by a method that will not bend the post or deface the top of the post. If ground conditions are such that the posts cannot be driven without damaging the posts, pilot holes shall be required. Metal plates shall be installed after the posts have been set in place.

Posts shall be placed in the ground to the depth shown on the plans.

Foundations for the milepost or reference marker posts installed on freeways shall be constructed to the details and dimensions shown on the project plans. Excavation shall conform to the requirements of Subsection 203-5.03(A).

Existing markers and delineators that are to remain in place and which have been damaged by the contractor shall be replaced with new ones at its expense.

703-4 METHOD OF MEASUREMENT

Delineators and markers will be measured by the unit for each type of delineator and marker furnished and installed.

703-5 BASIS OF PAYMENT

The accepted quantities of delineators and markers, measured as provided above, will be paid for at the contract price each for the type of delineator or marker designated in the bidding schedule, which price shall be full compensation for the work complete in place.

(704EXTRUDED, 4/24/15)

SECTION 704 - THERMOPLASTIC STRIPES AND MARKINGS

704-2 MATERIALS

704-2.03 Physical Characteristics of the Composition

(C) **Retroreflectance.** of the Standard Specifications is revised to read:

(C) **Retroreflectance.** The white and yellow thermoplastic materials shall have the following minimum retroreflectance values by a Mirolux 30 portable retroreflectometer or similar approved device within 30 days after application to the roadway surface:

Product	Retroreflectance (Millicandelas)
White	200
Yellow	125

704-2.04 **Physical Requirements for Glass Beads** of the Standard Specifications is revised to read:

The term "glass bead" shall be synonymous with the term "glass sphere" as used herein.

Inter-mix and drop on reflective glass beads shall conform to the requirements of Subsection 708-2.02 or AASHTO M 247-13, Type 1, and may be coated or uncoated as recommended by the manufacturer. If uncoated beads are used, the thermoplastic formulation shall be configured to minimize settling of the intermix beads when the material is heated and applied.

If recommended by the manufacturer, the drop-on beads shall have an adherence coating.

704-3.03 Application

(G) **Thermoplastic Application.** the 1st paragraph of the Standard Specifications is revised to read:

The thermoplastic pavement marking material shall be extruded, ribbon, or sprayed on to the pavement surface at a material temperature between 400 and 440 degrees F, depending on manufacturer's recommendations, ambient air and pavement temperatures, and the nature of the pavement surface. The

contractor shall verify temperature requirements with a non-contact infrared thermometer as directed by the engineer.

(G) Thermoplastic Application. the 6th paragraph of the Standard Specifications is revised to read:

Unless otherwise specified, thermoplastic pavement markings for legends and symbols, and for crosswalks, stop bars and other transverse elements, shall be extruded, and shall be 0.090 ± 0.002 inches thick. Longitudinal markings, such as edge lines, lane lines, gore lines, and other markings parallel to traffic, shall be either sprayed, ribbon, or extruded thermoplastic as specified on the project plans. If sprayed, thermoplastic pavement marking lines are to be 0.060 ± 0.002 inches thick. If ribbon or extruded thermoplastic, pavement marking lines are to be 0.090 ± 0.002 inches thick. Longitudinal markings of approximately 200 feet or less may be extruded. The thermoplastic thickness shall be uniform and consistent throughout the total length of the marking project.

(706RAISE_PVMT_MK, 3/14/13)

SECTION 706 - RAISED PAVEMENT MARKERS

706-2 MATERIALS

706-2.05 Bituminous Adhesive of the Standard Specifications is modified to add:

The bituminous adhesive for pavement markers shall be a hot-melt adhesive manufactured by:

Avery Dennison Reflective Films Division 6565 West Howard Street Niles, Illinois 60714	Crafco, Incorporated 420 North Roosevelt Ave. Chandler, Arizona 85226 Product: Crafco 34269	Gulf State Asphalt Company, LP 300 Christy Place South Houston, Texas 77587 Product: Evergrip Bituminous Marker
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Product: Stimsonite 2202031

Materials other than those listed above may be used, but must be approved by the Agency, in accordance with Section 106-8.

(708PAINT_LAYOUT_MK, 4/24/15)

SECTION 708 - PAINTED PAVEMENT MARKINGS

708-1 DESCRIPTION of the Standard Specifications is modified to add:

Work under this section also includes the installation of painted layout striping that is placed prior to the final thermoplastic striping, as indicated on the project plans under the pavement marking General Notes.

708-2 MATERIALS

708-2.01 Pavement Marking Paint.

(E) Qualitative Requirements:

(9) Spraying Properties. The first paragraph of the Standard Specifications is revised to read:

The paint shall be applied at a 15 mils (.015") wet film thickness in the field. The paint shall show the following properties at ambient temperatures of 50° F to 100° F with a paint spray temperature of 150° F, maximum, and 8 pounds of post-applied glass beads per gallon of paint conforming to Subsection 708-2.02 of these specifications:

708-2.02 Reflective Glass Beads (Spheres).

(A) General. of the Standard Specifications is modified to add:

Glass beads shall conform to the requirements of AASHTO M 247-13 Type 1, with an adhesion and moisture proof coating.

(809NPSALV, 12/5/14)

SECTION 809 - NATIVE PLANT SALVAGE

809-1 DESCRIPTION of the Standard Specifications is revised to read:

The work under this section shall also include the salvaging, transporting, and planting of native trees, shrubs, cacti (including but not limited to Saguaro and Pima Pineapple cacti), succulents and ocotillo residing within the disturbance limits as required per the details shown on the project plans and under the terms and conditions of the Standard Specifications and these Special Provisions. All salvaged local stock shall be "once-moved" to a designated, permanent location, designated as the "Transplant Area" as shown on the project plans.

The work shall also include the layout and preparation of planting pits, including excavating and backfilling, and any additional borrow necessary to backfill planting pits; the storage and protection of all planted and unplanted stock and other materials; soil amendments, fertilizers, tillage, watering, staking, pruning; the cleanup of the area; removal of unwanted grasses and weeds and undesirable vegetation; disposal of unwanted or deleterious materials; and care and maintenance all in accordance with the details shown on the project plans and the requirements of these specifications.

The work shall also include all equipment, labor and materials, the documentation, measurement, and inspection of stock as identified herein.

All landscape items shall be completed within the number of days identified for the project, including documenting the conditions of the plants to be salvaged, salvaging of plant material and replanting and establishment.

809-2 MATERIALS

809-2.01 Plants Designated to be Salvaged of the Standard Specifications is modified to add:

Certificates of Compliance conforming to the requirements of Subsection 106-5.02 shall be submitted to the Engineer for all contractor furnished materials, unless otherwise specified.

The following subsections are hereby added to the Standard Specifications:

809-2.04 Local Stock. Local stock shall be defined as those cacti (including but not limited to Saguaro and Pima Pineapple cacti), succulents, and ocotillo shown on the project plans.

809-2.05 Soil Backfill. Soil backfill at plant pits shall consist of clean, native site soil, amended as follows:

809-2.05 (A) Soil Backfill for Cacti. Backfill mix for cacti, excluding Pima Pineapple Cacti shall include one (1) 50 pound bag of granular Gypsum and 5 pounds of Triple Super 0450 Phosphate, per one cubic yard of native site soil. All amendments shall be blended uniformly and homogeneously into clean, native site soil prior to backfilling of plant pits, as noted on project plans.

All rocks greater than 2" in diameter shall be removed from backfill.

809-2.05 (B) Soil Backfill for Pima Pineapple Cacti. Backfill mix shall include 0.25 pound of Soil Sulfur per plant. All amendments shall be blended uniformly and homogeneously into screened, native site soil prior to backfilling of pits, as noted on project plans.

Soil backfill at plant pits shall be screened to remove all soil clods and all rocks over ½-inch in diameter.

809-2.06 Water. Water shall conform to the requirements of Subsection 805-2.04. Water used during salvaging, planting, maintenance and landscape establishment as described herein to salvage the plants, and to properly plant, maintain, care for and establish the plant material, as described in Section 807, shall be potable and furnished by the contractor. No separate measurement or payment will be made for the water, the cost of which shall be included in other landscape items. It shall be the contractor's responsibility to secure any necessary sources, permits and approvals.

809-2.07 Paint. Paint used for marking the solar orientation on the cacti shall be water-soluble, and white in color.

809-2.08 Chemical Fertilizer. Soil Sulfur shall be Powdered or Dust (not granular), 98 percent pure. Phosphorus shall be Triple Super 0450, granular. Gypsum shall be soluble, granular, for soil backfill; and soluble, powdered, to seal cacti root cuts.

809-2.09 Wire Cage. Protection from animal damage shall consist of mechanical methods. Mechanical animal control shall be provided by wire fabric having 1-inch size spaces, with a black or dark brown PVC coating; landscape staples consisting of 1/8-inch diameter, stiff, galvanized wire, approximately 12 inches long, bent in half; and 12-gauge, galvanized annealed wire.

809-3 CONSTRUCTION DETAILS of the Standard Specifications is revised to read:

No vehicles, equipment and machinery required to perform the work shall trespass outside the boundaries of the clearing limits, approved limits of grading, and planned access routes approved by the Engineer. Vehicular access to plants from areas outside the approved limits is prohibited. The contractor shall adhere to the Standard Specifications with respect to parking of all vehicles.

All plants and natural areas outside the limits of grading, or designated as to be preserved-in-place, shall be protected during the implementation of the native plant salvage work. Damage or destruction of any

local stock pioneering, clearing or other means shall be replaced with equal-sized like-kind nursery stock. All labor and costs for replacing the damaged plants shall be at the contractor's expense.

If necessary, plants not scheduled for salvage may be trimmed or, if within the limits of grading, removed as needed to obtain access and safe working conditions around individual plants to be salvaged. Removal and trimming work shall be as approved by the Engineer.

The contractor performing the work as specified herein shall have a minimum of 8 years' experience in relocating native plants and cacti similar to those shown in the project plans and special provisions.

The contractor shall meet the following requirements and shall submit the necessary written documentation to the Engineer at the preconstruction conference as herein specified:

- (1) Must be an Arizona licensed landscape contractor in good standing.
- (2) Submit a list of a minimum of five native plant salvaging and relocation projects satisfactorily completed. The list shall include the dates of the project work, type of equipment used, description of the project and work performed, the name and phone number of a contact person representing the agency, company or owner for which the work was completed.
- (3) Project records shall show successful Saguaro replanting and survival of at least 80 percent for 3 years after replanting.
- (4) Submit a list of the contractor's key personnel (minimum one) who will supervise and perform the actual relocation operations. Personnel listed must be on site and in responsible charge during all operations. This list shall be accompanied with resumes for all key personnel. The resumes shall include at the minimum the following information and demonstrate compliance with any requirements requested: Level of and number of years of applicable training/ experience, detailed work experience including work performed, equipment operated, dates of work and work references (one project minimum), specialist skills or equipment qualifications, degree of participation on actual projects listed in (2) above or other projects similar to (2) above. Any substitution of key personnel will need to meet the requirements under this section and need prior review and approval by the Engineer.
- (5) The contractor shall be responsible to review the project, these specifications and visit the site. The subcontractor's signature on the proposal form shall certify that the contractor performing the work described in Section 809 of the Standard Specifications and these Special Provisions, whether the prime contractor or a subcontractor, has completed this review.

Pima County reserves the right to reject at any time the contractor based on the review of the qualifications statement and/or performance of the work herein.

809-3.01 Schedule and Planting Season. The contractor shall provide a tentative salvage and planting schedule to the Engineer at the pre-construction meeting and shall update this schedule as the project progresses. No later than 30 days after the contract is awarded, the Contractor shall meet with the Engineer to discuss salvage and planting schedule. The Contractor shall notify the Engineer immediately whenever changes in the salvaging and planting schedule occur.

The schedule for salvaging and planting cacti, within the contract time shall be at the discretion of the contractor, with approval from the Engineer. Planting during extremely cold, hot, wet or windy periods

shall be at the sole risk of the contractor. Plants which are damaged or die prior to final acceptance as a result of extreme weather conditions shall be removed and replaced, in kind, at no additional cost to the Agency.

It is recommended that Pima Pineapple Cacti be salvaged and planted during the months of April, May, or June. Pima Pineapple Cacti shall not be salvaged or planted during active monsoon seasons or winter rains. Transplanting shall be avoided during active flower and fruit production (first rain after June 15 through November 1).

809-3.02 Excavation. The Engineer is responsible for staking the locations of the planting pits to receive the salvage material in reasonably close conformity to the locations shown on the project plans. The Engineer shall approve the plant pit locations prior to any excavating of planting pits. The contractor shall lay out the planting pits in accordance with the project staked locations. Planting pits shall be dug prior to any salvaging activities.

Plant pits shall be located in an open area, away from the canopy of trees or large shrubs. Do not plant in sites that support dense stands of perennial grasses or non-native grasses. Do not plant in wash bottoms or slopes. Look for open site along ridge lines with little vegetative cover.

Prior to commencing plant pit or trench excavation activity, the contractor shall contact Arizona Blue Stake (800-STAKE-IT) in conformance with the requirements of Subsection 203-2. It shall be the contractor's responsibility to determine the exact location of the utilities prior to any construction operations and to notify the utility companies at least two working days prior to commencing any work on the project.

The contractor shall pay particular attention to the presence of noxious and invasive species listed in Section 201-3.04 in, or adjacent to, planting areas. Planting pits excavated in areas where the presences of noxious or invasive species are observed shall be inspected to assure complete eradication of any roots or rhizomes which may have grown into the area of the pit. All eradication work and material shall be provided by the contractor, at no additional cost to the Agency.

In the event that existing field conditions such as subsurface utilities, pipes, structures, impervious materials or inadequate drainage necessitate relocation of planting pits, the Engineer will designate new locations. Adequate drainage for planting pits shall be based on a minimum percolation rate for the pit of 6 inches per hour.

Planting pits shall be excavated to the dimensions indicated on the project plans or in the Special Provisions and shall have horizontal bottoms. When dimensions are not specified, the pits and trenches shall be excavated to a depth equivalent to the depth of the root ball, plus 6 inches. The width of pits for cacti shall be the following: width of the root ball plus 12 inches, with the plant centered in the pit (i.e. provide 6 inches additional width around all sides of root ball).

Subsequent to excavation, each plant pit shall be flagged and labeled for each plant it is to receive. No separate payment will be made by the Agency for the staking, flagging or labeling of plant pits.

Excavation of planting pits shall not be done when, in the opinion of the Engineer, the moisture content of the soil is excessive with respect to accepted horticultural practice.

809-3.03 Handling Plants. The contractor shall use care to avoid scarring or damage to plants. All plants shall be dug, handled, prepared, moved and planted with care and skill, in accordance with recognized standard practice for the kind of plant involved. The methods and/or materials shall not damage and/or mar the surface or internal structure of any plant.

Plants shall be protected at all times against freezing temperatures, the sun and the wind while in transit. All temporarily stored plants shall be protected from extreme weather.

Plants showing damage from salvaging, transporting, planting and maintenance activities or from animals shall be determined as acceptable or unacceptable by the Engineer. Should sufficient damage occur to plants, the contractor shall replace the stock with the same species of equal size, at no additional cost to the Agency.

Plants shall not be salvaged, transported or removed during rainy weather conditions as determined by the Engineer. This work may resume with approval by Engineer.

If slings or cables are used to support stock during transporting and planting, the plant shall be protected at the points of contact with the slings or cables by the use of burlap, canvas, sections of automobile tire casing, or other suitable protective material.

Cables shall be so placed as to maintain proper support and balance at all times. The contractor shall be responsible for the care of the plants and any damage caused by improper support.

809-3.04 Salvaging. The contractor shall provide the Engineer at least three days' notice prior to the requested field review with the Engineer. The local stock plants to be salvaged shall be as noted on the project plans. Plants identified for salvaging and replanting shall be determined at the discretion of the Engineer. During the field review, the contractor shall flag the individual plants to be salvaged. The work will be paid for under the applicable salvage bid item as directed by the Engineer. No separate measurement or payment will be made for field reviews.

Local stock that does not display a healthy vigorous appearance and/or displays poor health symptoms as specified in these Special Provisions shall be determined as unacceptable by the Engineer.

The contractor shall be responsible to do an investigation of underground soil, rock and surrounding area conditions near the plants using approved methods and equipment. If upon this investigation a flagged plant is found to have a decreased chance of being successfully relocated, the contractor shall contact the Engineer for a review of the field conditions. A decision will be made for each plant in question. Substitutions such as using local nursery stock from within the project limits may be considered. If the contractor is directed to salvage another plant, in lieu of the flagged plant, the contractor shall document the conditions of the substituted plant using the inventory form approved by the Engineer. Removal of the substituted plant shall not commence until the Engineer has approved the inventory data for the alternative plant.

The excavation and removal for all local stock shall be approved by the Engineer. The method shall demonstrate that the excavation process for the local stock will provide the minimal acceptable root lengths as specified herein these Special Provisions; locate and expose the roots without damaging the local stock with the equipment or machinery used for the excavating; expose the roots to appropriate lengths by the use of hand tools prior to cutting the roots.

The contractor shall mark the north exposed surface of all Saguaro and Pima Pineapple cacti to be transplanted by a method acceptable to the Engineer. The mark or its installation process shall not damage

or deface the local stock. The mark must be capable of withstanding poor weather and expected working conditions without the possibility of erasure or detachment throughout the duration of the contract.

Transporting of any plant materials for the project shall be in compliance with all State and local requirements. Should the contractor need any permits, the contractor shall be responsible to obtain all necessary permits and tags for transporting plant materials on public roadways; no separate payment will be made to the contractor for the permits. Permits and tags shall be made available to the Engineer upon request.

809-3.04 (A) Pima Pineapple Cacti Salvage. When removing plants from the ground, care shall be taken to include intact lateral and basal roots. Contractor shall hand excavate to a minimum depth of 10 inches and a minimum width of 16 inches in each direction from the center of plant. Contractor shall keep as much of the root ball intact as possible to minimize disturbance to the root structure.

All damaged roots shall be cut back to a non-damaged area on roots and immediately sealed with either powdered Gypsum or dusting Sulfur.

Salvaged Pima Pineapple cacti shall be once-moved, and placed immediately in pre-dug planting pit. Do not backfill; allow roots to seal for a duration of 24 hours prior to backfill.

Cover with 75% shade cloth.

809-3.04 B) Saguaro and other Cacti Salvage. When removing plants from the ground, care shall be taken to minimize damage to the roots. The contractor shall excavate to a minimum depth of 12 inches and a minimum width of 18 inches in each direction from the center of plant. The contractor shall keep as much of the root ball intact as possible to minimize disturbance to the root structure.

All damaged roots shall be cut back to a non-damaged area on roots and immediately sealed with either powdered Gypsum or dusting Sulfur.

Salvaged Saguaro cacti shall be once-moved, and placed immediately in pre-dug planting pit, and backfilled.

809-3.05 Pruning. All final cuts made to the lateral roots shall be accomplished by the use of sterile clippers. All cuts shall be treated with powdered Gypsum or dusting Sulfur on the same day that the cut and/or wound was made.

No cuts shall be made to the basal root of the Pima Pineapple cactus.

809-3.06 Planting.

809-3.06 (A) General. Should the contractor encounter any unforeseen or unsuitable planting condition, it shall be immediately brought to the attention of the Engineer.

All salvaged plants shall be transplanted into the designated Cacti Transplant area, as shown on the project plans.

Backfill of planting pits shall be well worked about the roots and settled by tamping so as to remove all air pockets. Backfill planting pit in 6-inch lifts, and tamp between lifts. Care shall be taken to not damage root structure during soil placement and tamping.

All plants are to be replanted in the same solar orientation and as near as possible to their vertical growth habit found prior to their initial removal.

After planting, the contractor shall maintain all local stock in established positions during construction and landscaping establishment periods.

809-3.06 (B) Saguaro and other Cacti Planting. Saguaro cacti shall be replanted at their original growing depth to not more than 2 inches deeper than their original growing depth. The root collars of all Saguaro cacti replanted deeper than their original growing depth shall be in a callused condition. No air roots or old root system shall be visible after planting in the final planting location.

If planting occurs between May and September, cacti may be covered with 75% shade cloth, at the discretion of the Engineer. Avoid planting during winter rainy season.

Final cuts to roots shall provide no less than 12-inch root lengths. After the final cut, the remaining roots shall be structurally intact with no signs of splintering or shredding. All wounds and/or cuts made to the roots shall be treated with powdered Gypsum or powdered Sulfur immediately after that the cut and/or wound was made.

Local stock shall also be required to be planted with soil backfill, as described in Section 809-2.03(A) in its final location.

All stock shall be planted to ensure positive drainage away from base of plant.

Do not irrigate at the time of transplanting. Irrigate approximately 3 weeks after transplanting to saturate the soil. Irrigation shall continue every 3 weeks for the duration of the landscape establishment period. Irrigate plants in a manner that does not result in exposure of roots or stem.

809-3.06 (C) Pima Pineapple Cacti Planting. Plant shall be replanted at its original growing depth. Local stock shall also be required to be planted with soil backfill, as described in Section 809-2.03(B) in its final location. Mound sandy soil around the lower $\frac{1}{4}$ to $\frac{1}{3}$ of the plant. Maintain this mound around the base of the plant. Remove Shade Cloth prior to installing hardware cage over the plant.

Do not irrigate at the time of transplanting. Irrigate approximately 2 weeks after transplanting at a rate of 1 gallon per plant. Irrigation shall continue every 3 weeks for the duration of the landscape establishment period. Irrigate plants in a manner that does not result in exposure of roots or stem.

809-3.07 Care and Protection of Plants.

809-3.07 (A) General. Prior to the beginning of work under Section 807 - Landscaping Establishment; the contractor shall be responsible for maintaining and protecting all planting areas, as specified in Subsection 807-3.03. Such care and protection shall include, but not be limited to, the watering of stock, removal of construction trash and debris, eradicating and removing noxious or invasive species as specified in the Special Provisions, repairing, adjusting, or replacing stakes and support wires, repairing weather damage or damage caused by the public, furnishing and applying sprays, dust, and/or cages to combat vandalism, disease, insects, rodents and pests and taking such precautions as necessary to prevent damage from cold, frost, sunburn or other hazards. All undesirable noxious or invasive species listed in Section 201-3.04 shall be eradicated with herbicides or manual methods during Phase I, and disposed of by the contractor in accordance with Subsection 807-3.03.

Transplanted stock that does not display a healthy vigorous appearance in close conformity to its appearance prior to its initial removal and/or displays poor health symptoms as specified in these Special Provisions shall be determined as unacceptable by the Engineer.

The Engineer will also inspect the transplanted stock for symptoms that indicate poor health. Poor health symptoms will include items such as presence of rot, wrinkled or loose epidermis; no measurable increases to the diameter or adjacent separation after the local stock has received adequate irrigation or rain; change in color not consistent with color changes to identical species existing in the given area. These criteria shall be used by the Engineer to determine if the transplanted stock is in close conformity in health and/or vigor and acceptable for payment; or determined unacceptable for no payment by the Agency.

After replanting, all stock within a species that becomes unacceptable as determined by the Engineer shall be cumulatively added to any previous totals of unacceptable local stock for a new cumulative total. The new total shall then be used to determine the additional quantities of local stock to be replaced by the contractor as per the details shown on the project plans and as specified in the Standard Specifications and these Special Provisions.

The Engineer will perform visual inspections each month in the presence of the contractor, unless the Engineer and the contractor agree to other arrangements in writing. Local stock measurements identified in these Special Provisions will be conducted as part of these monthly inspections, as applicable.

No further payment will be made to the contractor for any local stock determined as unacceptable by the Engineer until the unacceptable local stock quantities are replaced with nursery stock as specified in the Standard Specifications and these Special Provisions.

(B) Application of Chemicals. Any person or persons applying herbicides will be considered as doing so for hire and shall be required to be licensed in accordance with the requirements of Title 3, Chapter 2, Arizona Revised Statutes, Article 6, Section 3-377.

All herbicide application shall be done in accordance with Section 201-3.04. The contractor shall notify the Engineer and obtain prior approval of the use of any chemicals for noxious or invasive species eradication. The types of herbicide to be used and the methods of application shall be in conformity with the Environmental Protection Agency requirements, labeling instructions, and shall be approved by the Engineer. The contractor shall keep a record of all applications, the type of herbicide used such as pre- or post-emergent, the rate and method of application and the date and location of such applications on forms acceptable to the Engineer. A copy of this record shall be submitted to the Engineer after each application.

Pre-emergent herbicides or manual control shall be used on noxious or invasive species in planting areas located within the project limits; but noxious or invasive species control within granite mulch, decomposed granite, or rock mulch shall be as specified under those items of work. All areas shall be kept free of noxious or invasive species. All planting areas within the project limits shall receive an approved pre-emergent herbicide, as specified under Subsection 803-3.02. The application of herbicide shall include all areas not covered under other items of the specifications.

Herbicides shall not be used in waters of the U.S. These include washes, the edge of the wash, dip crossings and conveyances to waters of the U.S. Only manual removal of noxious and invasive species shall be allowed at these locations. Refer to Section 201-3.04.

(C) Wire Cage. The contractor shall inspect newly installed plants daily for damage caused by animals. At the first sign of such damage, and/or under the direction of the Engineer, the contractor shall protect the plants. The contractor shall construct wire perimeter protection around the plants as follows:

Install wire fabric around cacti with a minimum 12-inch distance between the plant to the wire fabric cage in all directions. Secure the wire fabric to itself with 12-gauge, galvanized annealed wire and to the ground with landscape staples driven to full depth into the soil through the bottom wire of the wire fabric.

All Wire Cages shall be removed at the end of the Landscape Establishment period.

(D) Water. The contractor shall adequately irrigate plants to maintain a healthy and vigorous growing condition during the landscape establishment period, as determined by the Engineer.

809-3.08 Plant Guarantee. The Contractor shall guarantee the survival and health of all plants salvaged and replanted as part of this contract. The salvaged native plant guarantee period shall extend through the end of the Landscaping Establishment Period. All plants which die during the guarantee period, for reasons other than acts-of-God and/or causes deliberate shall be replaced by the Contractor with plants of the same size and species.

Replacements shall be provided at the Contractor's expense.

To satisfy the plant guarantee requirements, the plant shall:

- (1) Exhibit healthy growth throughout the plant structure;
- (2) Be reasonably free from insects or other infestations that would reduce the plant's long-term potential for survival;
- (3) Be reasonably free from physical damage that would reduce the plant's long term potential for survival.

809-4 METHOD OF MEASUREMENT

The native plant salvage work for the Saguaro will be measured on a lineal foot basis for the plant type listed in the Bidding Schedule.

The native plant salvage work for the Pima Pineapple cactus will be measured on a per each basis for the plant type listed in the Bidding Schedule.

809-5 BASIS OF PAYMENT

The accepted quantities of salvaged plants, measured as provided above, will be paid for at the contract unit price each for the pay unit designated in the bidding schedule, complete in place.

No payment will be made for plants that are delivered to the transplant location area in a dead, damaged, or unhealthy condition.

Protecting cacti from animal damage will be paid in accordance with Subsection 104-3.

(908ADA DOMES, 12/5/14)

SECTION 908 - CONCRETE CURBS, GUTTERS, SIDEWALKS AND DRIVEWAYS

908-1 DESCRIPTION of the Standard Specifications is modified to add:

The work under this section shall also include the installation of Detectable Warning Surfaces at sidewalk ramps, median refuge areas and concrete landing areas.

908-2 MATERIALS

908-2.06 Detectable Warning Surface of the Standard Specifications is modified to add:

The detectable warning panel shall be a minimum of one quarter of an inch (1/4 inch) thick, exclusive of the truncated domes and the anchoring system. The panel shall include an anchoring system, such as metal or composite anchors, or composite ribbing or a combination thereof, with a minimum depth of three quarters of an inch (3/4 inch) measured from the underside of the panel, in sufficient numbers so the panel will resist movement (i.e. sliding, rocking or lifting) once in service.

Detectable warning panels shall be non-flammable, skid resistant, rigid, non-flexible, non-yielding and shall not be subject to spalling, chipping, delamination, cracking, or separation throughout the manufacturer's warranty period. The manufacturer's warranty period shall be 10 years from the date of installation and be issued to the agency.

908-4 METHOD OF MEASUREMENT of the Standard Specifications is modified to add:

Concrete sidewalk ramps and concrete landing areas will be measured as a unit for each sidewalk ramp and concrete landing area installed, complete in place, including detectable warning surfaces and ramp curb. The measurement limits for sidewalk ramps and landing areas will be shown on the project plans and the standard details.

Median refuge areas will be measured as a unit for each refuge area installed, complete in place, including detectable warning surfaces. The measurement limits for the median refuge area will be shown on the project plans and the standard details. Concrete median nose paving adjacent to the median refuge area will be measured separately.

908-5 BASIS OF PAYMENT of the Standard Specifications is modified to add:

The accepted quantities of sidewalk ramps, concrete landing areas and median refuge areas, measured as provided above, will be paid for at the contract unit price each, which price shall be full compensation for the work, complete in place, including furnishing and placing embankment material, excavating, removal of unsuitable material, backfill, compaction, grading, forming, furnishing and installing concrete, surface finishing, and furnishing and installing the detectable warning panel.

(908CONC_SIDEWALK, 1/15/14)

ITEM NO. 9080203 - CONCRETE SIDEWALK (6")

1. DESCRIPTION

The work under this item consists of furnishing all equipment, labor and materials required to construct new six-inch (6") concrete sidewalk, at the locations shown on the plans and in accordance with the details shown on the plans and the requirements of these specifications.

2. MATERIALS

Concrete shall conform to the requirements of Section 1006 for Class B $f'_c = 2500$ psi concrete.

Materials for expansion joint filler and joint seal shall conform to the requirements of Section 1011.

3. CONSTRUCTION REQUIREMENTS

At the locations shown on the project plans, the contractor shall construct new sidewalk at a minimum depth of 6 inches to the dimensions shown on the project plans and in accordance with Standard Detail 200 and the Standard Specifications.

4. METHOD OF MEASUREMENT

6" Concrete Sidewalk will be measured by the square foot, calculated from the dimensions shown on the plans and adjusted by the amount of any change ordered by the Engineer.

No separate measurement will be made for forms or expansion joints, the cost being considered as included in the cost of the contract item.

5. BASIS OF PAYMENT

The accepted quantities of 6" Concrete Sidewalk, measured as provided above, will be paid for at the contract unit price per square foot, which price shall be full compensation for the work, complete in place, including excavating, backfilling, and fine grading. No separate payment will be made for joints, the cost being considered as included in the contract item.

(908CONC_BUS_SHELTER, 5/21/15)

ITEM NO. 9080602 - CONCRETE BUS SHELTER PAD

1. DESCRIPTION

The work under this item consists of furnishing all equipment, labor and materials required to construct a pavement surface using Portland cement concrete for the bus shelter and landing pads, at the locations shown on the plans and in accordance with the details shown on the plans and the requirements of these specifications.

2. MATERIALS

Concrete shall conform to the requirements of Section 1006 for Class S concrete.

Materials for expansion joint filler and joint seal shall conform to the requirements of Section 1011.

3. CONSTRUCTION REQUIREMENTS

The 6-inch depth concrete bus shelter and landing pad paving shall be poured separately from the concrete bus bay pavement and 4-inch depth sidewalk paving when concrete bus bays and sidewalk are included in the project plans.

4. METHOD OF MEASUREMENT

Portland cement bus shelter and landing pad concrete pavement will be measured by the square foot, calculated from the dimensions shown on the plans and adjusted by the amount of any change ordered by the Engineer.

No separate measurement will be made for forms or expansion joints, the cost being considered as included in the cost of the contract items.

5. BASIS OF PAYMENT

The accepted quantities of Portland cement bus shelter and landing pad concrete pavement, measured as provided above, will be paid for at the contract unit price per square foot, which price shall be full compensation for the work, complete in place, including excavating, backfilling, and fine grading. No separate payment will be made for joints, the cost being considered as included in the contract item for Portland cement bus shelter and landing pad concrete pavement concrete pavement.

(912CONC_ CHANNEL_LINING, 1/20/15)

ITEM 9120100 - CONCRETE CHANNEL LINING

1. DESCRIPTION

The work under this item consists of furnishing all equipment, labor and materials required to construct concrete channel lining, slope paving or concrete lined drop inlets for pipe culverts at the locations shown on the plans, in accordance with the details shown on the project plans and the requirements of these specifications.

2. MATERIALS

Concrete shall be Class B, $f'_c = 2500$ psi and shall conform to the requirements of 1006.

Reinforcing steel shall be Grade 40 and shall conform to the requirements of 1003.

Materials furnished for expansion joint filler shall conform to the requirements of Section 1011

3. CONSTRUCTION DETAILS

Concrete channel lining or slope paving shall conform to the requirements of Section 912.

Steel reinforcement shall be as shown on the project plans and shall conform to the requirements of Section 605 and Section 912 of these Special Provisions.

Surfaces on which concrete channel lining or slope paving will be placed shall be finely graded to the lines and grades shown on the project plans or established by the Engineer. The surfaces shall be thoroughly compacted and shall be uniformly moistened so that water will not be drawn from the freshly placed concrete.

Unless otherwise shown on the plans, one-half ($\frac{1}{2}$) inch premolded expansion joint material, conforming to the requirements of Subsection 1011-6, shall be placed at 60 foot intervals on all concrete channel lining or slope paving. Weakened plane joints, or scoring, shall be at 15 foot intervals between expansion joints.

All expansion joint material shall extend the full depth of the concrete being placed, and shall be flush with the top of the finished surface. Expansion joint material shall be so supported, prior to placement of concrete, as to ensure tight joints. Reinforcing material shall be cut at all expansion joints.

The concrete channel lining or slope paving surfaces shall be kept continuously moist for at least seven days, beginning immediately after finishing, by means of either a water cure or fog system capable of being applied continuously, or by liquid membrane-forming compound, or by polyethylene sheeting conforming to the requirements specified in ASTM C 171. If polyethylene sheeting is used, it shall be white opaque and adjoining sheets shall overlap at least 12 inches and the laps secured to provide an airtight and windproof joint. If liquid membrane-forming compound is used it shall be Type I conforming to the requirements of ASTM C 309 and the application rate shall be 100 square feet per gallon.

4. METHOD OF MEASUREMENT

Concrete channel lining or slope paving will be measured by the square yard of exposed surface area, placed to the specified thickness. No measurement will be made of unexposed surfaces such as support slabs or joints, integral curb faces or cut-off walls.

5. BASIS OF PAYMENT

The accepted quantities of concrete channel lining or slope paving, measured as provided above, will be paid at the contract unit price per square yard, complete in place, including excavating, backfilling, fine grading, compacting, reinforcement, joint material, dowels, connections to new and existing headwalls and wingwalls, and all labor, equipment, materials, tools, supplies and incidentals necessary for the work in conformance with the requirements of this section, the project plans, or as may be directed by the Engineer.

(1007 REFSHEET, 1/19/18)

SECTION 1007 – RETROREFLECTIVE SHEETING

1007-2 MATERIAL TYPES of the Standard Specifications is revised to read:

The type of sheeting to be used for all sign type backgrounds shall be ASTM Type XI sheeting, or equivalent. This includes, but is not limited to, warning signs, regulatory signs, guide signs, and all overhead signs. Fluorescent retroreflective yellow sheeting shall be used for warning signs having yellow backgrounds. Fluorescent retroreflective yellow/green sheeting shall be used for all school signs.

The type of sheeting material to be used in other applications will be as specified herein.

For barricades, channelizers and other work zone devices, ASTM sheeting Types IV, VIII, IX, or X shall be used.

Sheeting for orange work zone signs (fluorescent) shall be ASTM Types VI, VIII, IX, or X. Roll-up orange work zone signs shall use ASTM Type VI sheeting. Work zone signs with orange backgrounds shall use fluorescent retroreflective orange sheeting, except that non-reflective sign materials may be used for temporary work zone signs where the signs will be clearly visible under available natural light.

For directly applied characters, demountable characters and shields on guide signs, ASTM sheeting Types VIII, IX, or X shall be used.

When more than one sheeting type is allowed, the contractor may use any of the types listed, provided that materials used for a particular application shall be of the same ASTM type, manufacturer, and product for all signs of the same type in the project.

Materials used for a particular application shall be of the same ASTM type, manufacturer, and product for all signs of the same type in the project.

Retroreflective sheeting of the same color, placed on the same sign panel or adjacent sign panels shall be color matched and be from the same manufacturing lot and run.

Opaque films used with sheeting shall be acrylic type films.

Direct-applied and demountable black characters shall be non-reflective

END OF DOCUMENT

EXHIBIT D – CONSTRUCTION DOCUMENTS (58 PAGES)

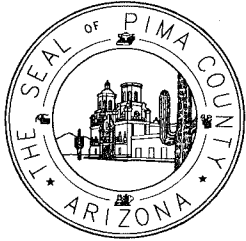
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JACOBS ENGINEERING

COUNTRY CLUB RD: FROM MICHIGAN STREET TO MILBER ST.

PLANS SIGNED AND DATED 02/10/26 (42 PAGES)

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SHEET INDEX

SHT NO.	SHT TYPE	DESCRIPTION
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2	GN1	GENERAL NOTES
3	TYP1	TYPICAL SECTIONS
4	RD1	ROADWAY DETAILS
5	HC1	HORIZONTAL CONTROL
6 - 9	D1-D4	DEMOLITION & UTILITY PLAN
10-13	RPP1-RPP4	ROADWAY PLAN & PROFILE
14 - 15	IS1-IS2	INTERSECTION PLAN & PROFILE
16 - 17	DS1-DS2	DRIVEWAY PLAN & PROFILE
18 - 30	DDT1-DDT13	DRAINAGE DETAILS
31 - 34	DPP1-DPP4	DRAINAGE PLAN & PROFILE
35 - 41	SPM1-SPM7	SIGNING & PAVEMENT MARKING
	XS1-XS6	CROSS SECTIONS

COUNTRY CLUB ROAD

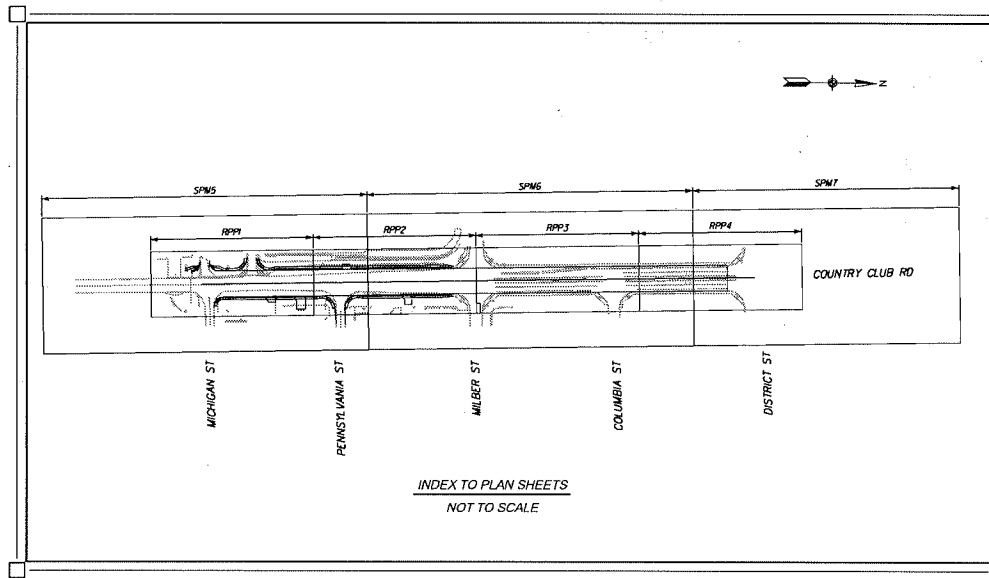
MICHIGAN STREET TO DISTRICT STREET

GENERAL DESCRIPTION OF PROJECT

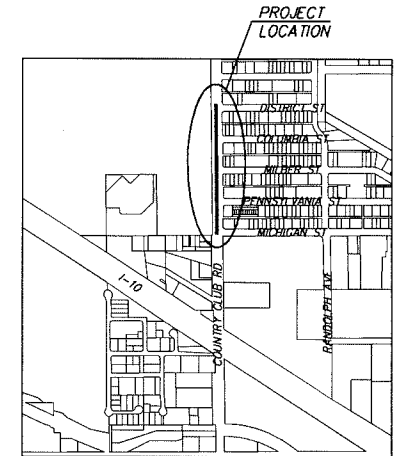
ADDITION OF ONE TRAVEL LANE IN EACH DIRECTION, A TWO-WAY LEFT-TURN LANE, AND RESTRIPING BEYOND THE NORTHERN AND SOUTHERN PROJECT LIMITS TO MATCH EXISTING CONDITIONS AT COUNTRY CLUB ROAD.

PIMA COUNTY CONTRACT NUMBER

PO2500019683



INDEX TO PLAN SHEETS
NOT TO SCALE



LOCATION MAP
NOT TO SCALE

Section 32 & 33
T-14-S, R-14-E,
G & S R B & M
Pima County, Arizona

WASTEWATER UTILITY COORDINATION TRACKING NUMBER: UPC-2025-098

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Approvals	Signatory	Date	No.	Revisions	Engineer	Date
DESIGN SECTION/PERMITS AND CODES						
TRAFFIC ENGINEERING						
STREETS AND TRAFFIC MAINTENANCE						
ENGINEERING LANDSCAPE ARCH			No.	As Built	Engineer	Date
ENGINEERING ADMINISTRATOR						



Pima County
Department of Transportation
201 N. Stone Ave, 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Approved: _____ 20____
Director

Project No. PO2500019683

Sheet No. CS Page No. 1 of 41

1-2025-025

GENERAL NOTES:

- CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE SPECIFICATIONS AND DETAILS IDENTIFIED IN THE SPECIAL PROVISIONS, INCLUDING PAG STANDARDS, AND PIMA COUNTY SUPPLEMENTAL SPECIFICATIONS AND DETAILS.
- UTILITY LOCATIONS SHOWN ON THE PLANS WERE COMPILED BASED ON THE BEST INFORMATION AVAILABLE TO THE DEPARTMENT. UTILITY LOCATIONS ARE NOT INTENDED TO BE EXACT OR COMPLETE. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES WITH THE APPROPRIATE ORGANIZATIONS. CONTACT "BLUE STAKE" AT 1-800-782-5348 TWO FULL WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION (SATURDAYS AND SUNDAYS ARE NOT CONSIDERED WORKING DAYS.)
- RIGHT-OF-WAY ENCROACHMENTS SHALL BE REMOVED ONLY BY ORDER OF PIMA COUNTY, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS, ALLEYS, AND MAILBOXES DURING CONSTRUCTION. THE CONTRACTOR WILL NOT RESTRICT EMERGENCY VEHICLES, U.S. POSTAL DELIVERY, SOLID WASTE COLLECTIONS, AND/OR ACCESS TO THE ADJACENT PROPERTIES, EXCEPT AS APPROVED BY THE ENGINEER.
- OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE DRAWINGS, NOTES, OR DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED BEFORE PROCEEDING WITH THE WORK.
- ALL STATIONING SHOWN ON THE PLANS AND PROFILES IS ALONG THE CONSTRUCTION CENTERLINE UNLESS OTHERWISE NOTED.
- EXISTING UTILITIES INCLUDE, BUT MAY NOT BE LIMITED TO, OVERHEAD AND UNDERGROUND ELECTRIC, TELEPHONE, TELEVISION, SEWER, GAS, AND WATER, AND SHALL BE MOVED BY OTHERS UNLESS OTHERWISE NOTED AND SHOWN IN THESE PLANS.
- THE CONTRACTOR'S ATTENTION IS CALLED TO THE LIMITED AREA AVAILABLE ON THE SITE FOR EXCAVATION, EMBANKMENT AND OTHER CONSTRUCTION ACTIVITIES.
- EXISTING TOPOGRAPHIC CONDITIONS SHOWN ON PLAN SHEETS REFLECT CONDITIONS AS OF AUGUST 15, 2025.
- DESIGN SPEED FOR COUNTRY CLUB ROAD (MICHIGAN ST TO MILBER ST) = 40 MPH AND ALL SIDE STREETS = 25 MPH
- DESIGN VEHICLE FOR COUNTRY CLUB ROAD (MICHIGAN ST TO MILBER ST) IS A WB-62 AND ALL SIDE STREETS ARE WB-40.

ABBREVIATION NOT INCLUDED IN PC/COT STD. DTL. 101

ABANDONED	ABAND.
DETAIL	DTL.
EDGE OF PAVEMENT	E.O.P.
OFFSET	OFF
PIMA ASSOCIATION OF GOVERNMENTS	PAG
RAISED PAVEMENT MARKER	RPM
SHOULDER	SHLDR
STOPPING SIGHT DISTANCE	SSD
TUCSON ELECTRIC POWER	TEP
VERTICAL POINT OF CURVATURE	VPC
VERTICAL POINT OF INTERSECTION	VPI
VERTICAL POINT OF TANGENCY	VPT
WIDTH	W

EARTHWORK NOTES:

- FOR ESTIMATING PURPOSES IT IS ASSUMED THAT ALL ON-SITE MATERIALS ARE ACCEPTABLE FOR USE AS ROADWAY EMBANKMENT AND TRENCH BACKFILL.
- EARTHWORK VALUES ARE ESTIMATED. NO ADJUSTMENT FACTORS FOR SHRINK OR SWELL HAVE BEEN INCLUDED.



SURVEY GENERAL NOTES:

FOUR PIMA COUNTY/CITY OF TUCSON CONTROL STATIONS WERE USED TO VERIFY THE CONTROL BASELINE FOR THIS SURVEY AS FOLLOWS:

CDT GCP ET45
1/4 COR. SECTIONS 30-29, T. 14S, R. 14E.
GRID COORDINATES N 432452.239 E 1001059.652
GROUND COORDINATES (PT. 11) N 432521.4313 E 1001219.821

CDT GCP EV63
1/4 COR. SECTIONS 30-31, T14S, R. 14E.
GRID COORDINATES N 429781.371 E 998451.867
GROUND COORDINATES (PT. 12) N 429850.136 E 996611.6193

CDT GCP IA13
NW COR. SECTION 3, T. 15S, R. 14E.
GRID COORDINATES N 424538.041 E 1011746.849
GROUND COORDINATES (PT. 22) N 424606.0251 E 1011908.72

CDT GCP IE13
SW COR. SECTION 3, T. 15S, R. 14E.
GRID COORDINATES N 419363.139 E 1011783.988
GROUND COORDINATES (PT. 25) N 419430.28 E 1011945.765

THE FOLLOWING PARAMETERS WERE SET FOR THE BASIS OF THIS SURVEY:

SYSTEM: UNITED STATES STATE PLANE 1983 (1982)
ZONE: ARIZONA CENTRAL 0202
DATUM: NAD83/92 HORIZONTAL & NAVD83 VERTICAL
GEOID MODEL: GEOID99 (CONTINENTAL US)

UNITS= INTERNATIONAL FEET (1 FOOT = 0.3048 METERS EXACTLY)

DIRECT SATELLITE MEASUREMENTS WERE MADE ON EACH POINT ON THE NORTH AMERICAN DATUM OF 1983 WITH AUTOMATIC TRANSLATIONS MADE TO THE STATE PLANE GRID SYSTEM.

GPS CALIBRATION AND TRANSLATION TO THE SURFACE WAS PERFORMED BY GPS SURVEY SOFTWARE. A GRID ADJUSTMENT FACTOR OF 1.00016000 AND SCALE ORIGIN VALUES OF N=0.000, E=0.000 WERE USED FOR THE TRANSLATION TO THE SURFACE.

ALL BEARINGS ARE GRID BEARINGS, DISTANCES ARE GROUND DISTANCES AND COORDINATES ARE GROUND COORDINATES.

THE INFORMATION SHOWN ON THIS RESULTS OF SURVEY WAS BASED ON AN OBSERVATION AND EVALUATION OF PHYSICAL CORROBORATING EVIDENCE IN THE FIELD AND A REVIEW AND ANALYSIS OF EXISTING DRAWINGS, PLATS, AND NOTES AVAILABLE AT THE TIME THE SURVEY WAS PREPARED.

THIS RESULTS OF SURVEY IS ON FILE IN THE FILE ROOM OF THE RIGHT OF WAY PLANS SECTION OF THE ARIZONA DEPARTMENT OF TRANSPORTATION, 205 SOUTH 17TH AVE, MD 612E, PHOENIX, AZ 85007, (602) 712-7270. SEE ADOT R/W FILE COPY FOR MOST CURRENT ADDITIONS OR REVISIONS.

EARTHWORK QUANTITIES

ROADWAY EXCAVATION	423 CY
DRAINAGE EXCAVATION	923 CY
TOTAL EXCAVATION	1346 CY
ROADWAY EMBANKMENT	200 CY
PIPE BACKFILL	164 CY
STRUCTURE BACKFILL	132 CY
TOTAL EMBANKMENT	496 CY
WASTE (TOTAL EXCAVATION - TOTAL EMBANKMENT)	850 CY

Pima County
Department of Transportation
201 N. Stone Ave, 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Date	By
07/29/26	Kevin Doyle
07/29/26	John Gonzalez
07/29/26	Alex Gonzalez
07/29/26	Alex Gonzalez
07/29/26	Proj. Eng.

No.	Revision Description	Engineer	Date

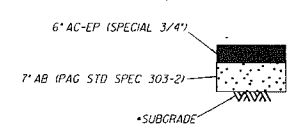
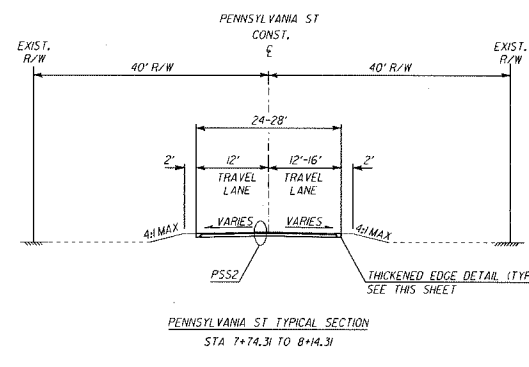
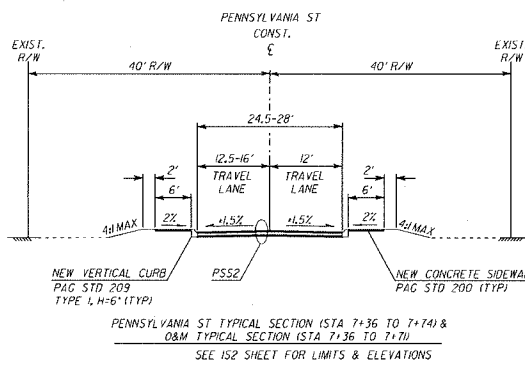
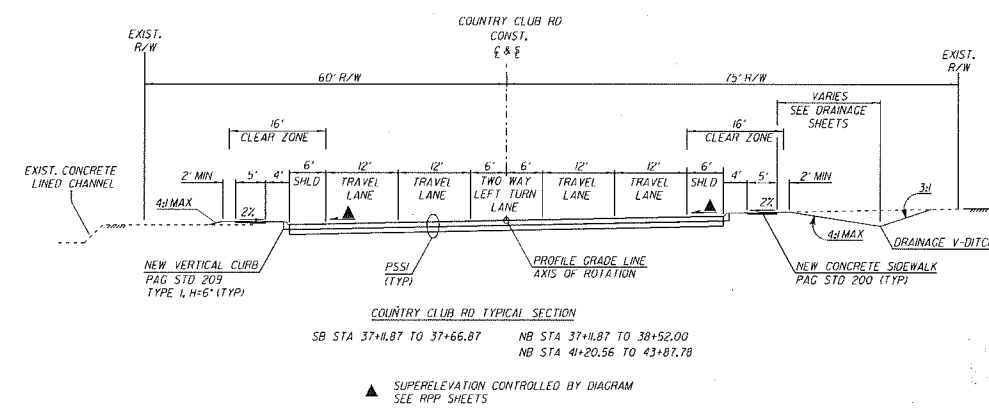
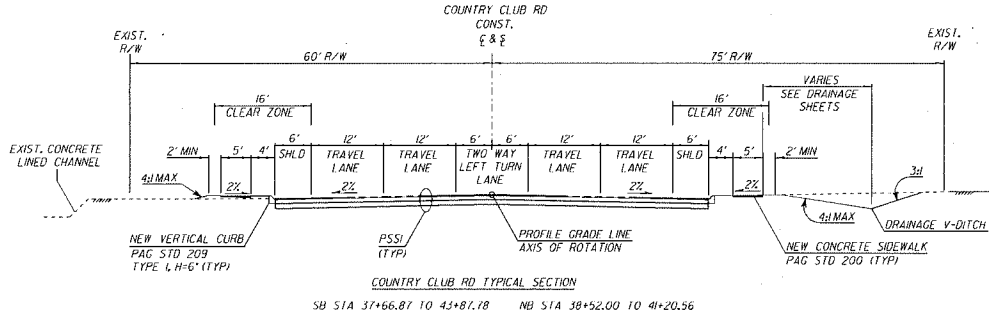


Pima County, Department of Transportation
GENERAL NOTES

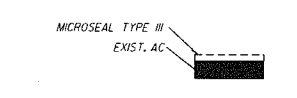
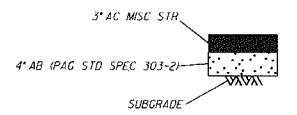
Kathryn Skinner, P.E., Director

Pima County, Department of Transportation

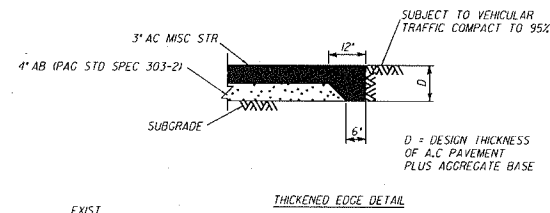
Country Club Rd. From Michigan Street To Milber St. No. P02500019683



*EXCAVATION AND SCARIFICATION SHALL CONFORM TO PAG STANDARD SPECIFICATIONS SECTIONS 203-3.01 AND 203-3.03, EXCEPT SCARIFICATION SHALL BE OMITTED ABOVE THE WATERLINE ALIGNMENT



SIA 43+87.78 TO 51+44.03 SEE RPP SHEETS



Pima County Department of Transportation
 201 N. Stone Ave. 4th floor Tucson, Arizona 85701
 Phone Number: 520-724-6410
 Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

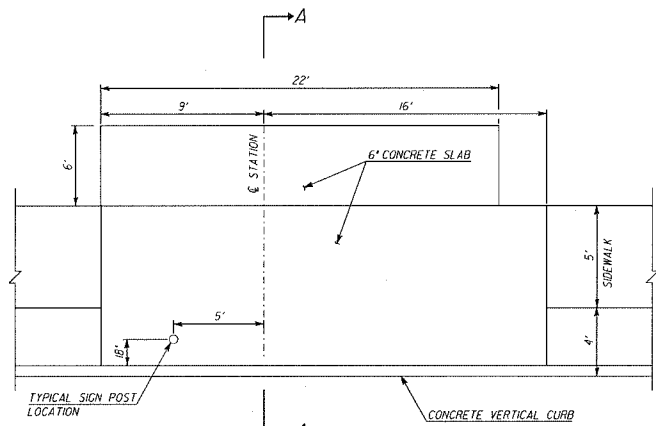
Date	07/20/25
Drawn	Ken Doyle
Checked	Ken Doyle
Design	Ken Doyle
Proj. Eng.	Ann Gonzalez

No.	Revision Description	Engineer

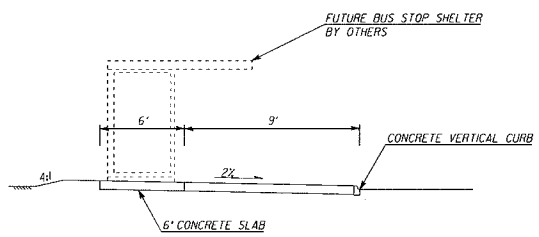
Pima County Department of Transportation

TYPICAL SECTIONS

Country Club Rd: From Michigan Street To Milber St No. P02500019683



PLAN
TYPE 1



SECTION A-A

NOTE:
1. See COT STD. DTL M-2025-002 for information not shown.

DETAIL A
BUS STOP SHELTER SLAB

Designed By	Date
Kenn Boye	07/2026
Ther Gesso	07/2026
John Gessert	07/2026
Proj. Engr.	07/2026

No.	Revision Description	Engineer	Date



ROADWAY DETAILS

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-8410
Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

Pima County Department of Transportation

Country Club Rd: From Michigan Street To Milber St No. P02500019683

APN 132-19-0265
 SEO #2020390817
 I&E WAREHOUSE, LLC
 ZONING: I-1

APN 132-19-1420
 DKT 4667, PG 590
 PIMA COUNTY
 ZONING: PAD-1B

STATION EQUATION
 AND 36+91.4 COUNTRY CLUB RD
 BK 87+17.95 COUNTRY CLUB RD (ADOT)
 FIND 2" BC SM WEST 1/4 CORNER
 ELEV=2256.32
 N 427269.98 E 1006585.13
 0+00 W. MICHIGAN ST.

38+30.58 COUNTRY CLUB RD=
 7+00 0&M
 N 427409.41 E 1006583.21

39+64.47 COUNTRY CLUB RD=
 0+00 BUSINESS ACCESS
 N 427543.29 E 1006581.36

42+61.06 COUNTRY CLUB RD=
 0+00 ALLEY-2
 N 427839.72 E 1006577.28

37+12.14 COUNTRY CLUB RD=
 7+00 E. MICHIGAN ST
 N 427290.98 E 1006584.84

38+83.63 COUNTRY CLUB RD=
 0+00 ALLEY-1
 N 427462.46 E 1006582.48

40+73.99 COUNTRY CLUB RD=
 7+00 PENNSYLVANIA ST
 N 427632.89 E 1006533.68

44+52.64 COUNTRY CLUB RD=
 7+00 MILBER ST
 N 428031.41 E 1006574.65

APN 132-23-288A
 DKT 1202, PG 106
 INDUSTRIAL PARK SITE
 ZONING: CI-1

APN 132-23-284B
 BK 13, PG 56
 INDUSTRIAL PARK SITE
 ZONING: CI-1

APN 132-23-244B
 BK 13, PG 56
 INDUSTRIAL PARK SITE
 ZONING: CI-1

APN 132-23-2390, 80
 BK 13, PG 56
 INDUSTRIAL PARK SITE
 ZONING: CI-1

APN 132-19-1420
 DKT 4667, PG 590
 PIMA COUNTY
 ZONING: PAD-1B

46+41.97 COUNTRY CLUB RD=
 0+00 ALLEY-3
 N 428220.72 E 1006572.04

48+31.29 COUNTRY CLUB RD=
 7+00 COLUMBIA ST
 N 428410.23 E 1006569.43

44+52.64 COUNTRY CLUB RD=
 0+00 ALLEY-4
 N 428599.33 E 1006566.83

52+09.94 COUNTRY CLUB RD=
 7+00 DISTRICT ST
 N 428788.64 E 1006564.22

63+78.79 COUNTRY CLUB RD=
 FIND 2" BC SM NE CORNER, SEC 32
 N 429957.38 E 1006548.1

APN 132-23-1950, 40
 BK 13, PG 56
 INDUSTRIAL PARK SITE
 ZONING: CI-1

APN 132-23-1480, 90
 BK 13, PG 56
 INDUSTRIAL PARK SITE
 ZONING: CI-1

APN 132-23-146A
 BK 13, PG 56
 INDUSTRIAL PARK SITE
 ZONING: CI-1

MATCHLINE STA. 45+00.00

MATCHLINE STA. 45+00.00

CONSTRUCTION CENTERLINE LINE DATA			
NO.	BEARING	DISTANCE	SOURCE
1	P10n	Annotation/Line Direction	158.80' MEASURED

CONSTRUCTION CENTERLINE LINE DATA				
NO.	STATION	NORTHING	EASTING	DESC.
1	36+91.4	427269.98	1006585.13	POB
2	50+09.94	428788.64	1006564.22	POE

HORIZ. 1" = 40'
 VERT. 1" = N/A

Sheet HCl of HCl Page 5 of 41

I-2025-025

Date	By	Description
07/20/26	John Duff	Designed
07/20/26	Alex Gonzalez	Checked
07/20/26	Alex Gonzalez	Proj. Engr.

No.	Revision	Description	Engineer	Date



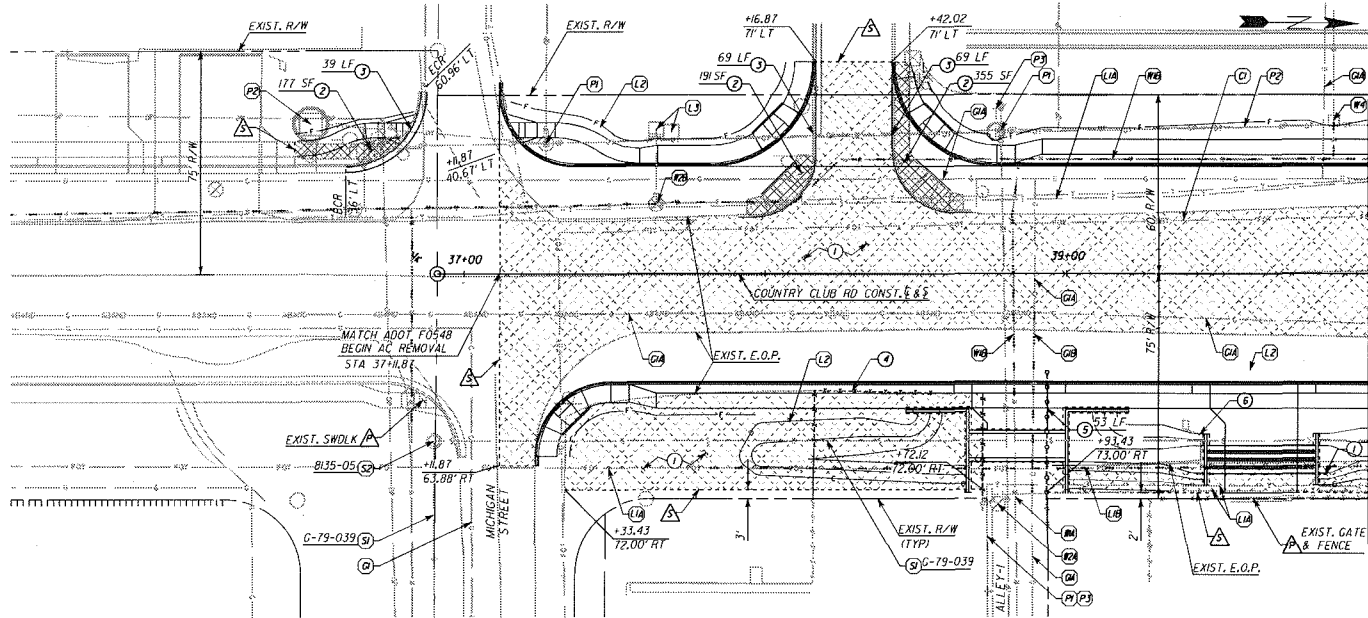
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 Department of Transportation
 201 N. Stone Ave. 4th floor Tucson, Arizona 85701
 Phone Number: 520-724-8410
 Kathryn Skinner, P.E. Director

Pima County Department of Transportation

HORIZONTAL CONTROL

Kathryn Skinner, P.E., Director

Country Club Rd. From Michigan Street To Milber St. No. P02500019683



MATCHLINE STA. 40+00.00 SEE SHT. D2

REMOVAL NOTES

- ① REMOVE ASPHALT PAVEMENT (2020029)
- ② REMOVE MISC. CONCRETE (2020001)
- ③ REMOVE CURB (2020001)
- ④ REMOVE FENCE (BY OTHERS)
- ⑤ REMOVE HANDRAIL (2020001)
- ⑥ RELOCATE SIGN AND MAILBOX (2020061)

REFERENCE NOTES

- △ SAWCUT; MATCH EXIST.
- ▲ PROTECT IN PLACE

UTILITY NOTES

- (U) EXIST. LUMEN BURIED COPPER CABLE
(A) PROTECT-IN-PLACE
(B) RELOCATE (BY OTHERS)
- (L2) EXIST. LUMEN AERIAL COPPER CABLE
PROTECT-IN-PLACE
- (L3) EXIST. LUMEN TELE. VAULTS
PROTECT-IN-PLACE
- (O1) EXIST. COX BURIED FIBER OPTIC
PROTECT-IN-PLACE
- (G) EXIST. SWG GAS LINE
(A) PROTECT-IN-PLACE
(B) RELOCATE (BY OTHERS)
- (G2) EXIST. SWG GAS LINE
RELOCATE 6" GAS LINE (BY OTHERS)
- (S) EXIST. SANITARY SEWER PIPE
PROTECT-IN-PLACE
- (S2) EXIST. SANITARY SEWER M.H.
PROTECT-IN-PLACE
- (M) EXIST. TEP/TELCO JOINT-USE POLE
PROTECT-IN-PLACE
- (P2) EXIST. TEP O.H.P.
PROTECT-IN-PLACE
- (P3) EXIST. TEP DOWN GUY
PROTECT-IN-PLACE
- (W) EXIST. TUSCON WATER LINE
(A) PROTECT-IN-PLACE
(B) RELOCATE (BY OTHERS)
- (W2) EXIST. TUSCON WATER VALVE
(A) PROTECT-IN-PLACE
(B) RELOCATE (BY OTHERS)
- (W3) EXIST. TUSCON W.M.
PROTECT-IN-PLACE

REMOVAL LEGEND

- RELOCATE UTILITY
- REMOVE CURB
- ▨ REMOVE MISC CONCRETE
- ▩ REMOVE FULL DEPTH PAVEMENT

GENERAL NOTES

- 1. SEE SPN SHEETS FOR SIGN AND PAVEMENT MARKING REMOVALS.

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E., Director

Date	Drawn	Checked	Project
02/20/26	ALFA GONZALEZ	ALFA GONZALEZ	02/20/26
07/27/26	ALFA GONZALEZ	ALFA GONZALEZ	07/27/26
07/27/26	ALFA GONZALEZ	ALFA GONZALEZ	07/27/26

No.	Revision Description	Engineer	Date



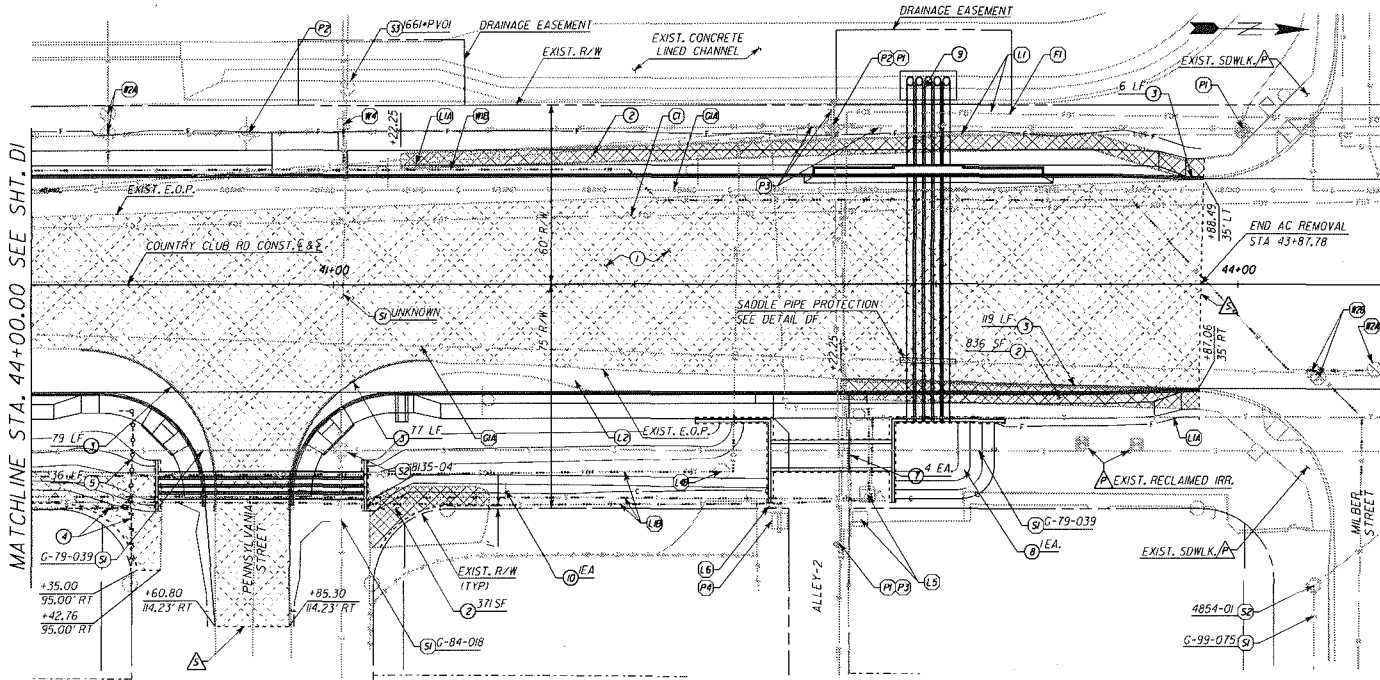
DEMOLITION & UTILITY PLANS

Pima County Department of Transportation

Kathryn Skinner, P.E., Director

Country Club Rd. From Michigan Street To Milber St. No. P02500019863

MATCHLINE STA. 44+00.00 SEE SHT. D1



MATCHLINE STA. 44+50.00 SEE SHT. D3

- REMOVAL NOTES**
- 1 REMOVE ASPHALT PAVEMENT (2020029)
 - 2 REMOVE MISC. CONCRETE (2020001)
 - 3 REMOVE CURB (2020001)
 - 4 REMOVE FENCE (BY OTHERS)
 - 5 REMOVE HANDRAIL (2020001)
 - 7 REMOVE BOLLARDS (2020001)
 - 8 REMOVE TREE (2020001)
 - 9 REMOVE SHOTCRETE CHANNEL LINING SEE DETAIL DE (2020001)
 - 10 RELOCATE SIGN (BY OTHERS)

- REFERENCE NOTES**
- A SAWCUT; MATCH EXIST.
 - △ PROTECT IN PLACE

- UTILITY NOTES**
- U EXIST. LUMEN BURIED COPPER CABLE
 - (A) PROTECT-IN-PLACE
 - (B) RELOCATE (BY OTHERS)
 - LC EXIST. LUMEN AERIAL COPPER CABLE PROTECT-IN-PLACE
 - LM EXIST. LUMEN M.H.
 - (A) PROTECT-IN-PLACE
 - (B) ADJUST TO GRADE BY OTHERS
 - LB EXIST. LUMEN SAI-BOX & POWER PEDESTAL PROTECT-IN-PLACE
 - LG EXIST. LUMEN TERMINAL CABINETS PROTECT-IN-PLACE
 - LD EXIST. COX BURIED FIBER OPTIC PROTECT-IN-PLACE
 - LE EXIST. SWG GAS LINE
 - (A) PROTECT-IN-PLACE
 - (B) RELOCATE (BY OTHERS)
 - LF EXIST. FIRST DIGITAL AERIAL FIBER OPTIC PROTECT-IN-PLACE
 - LS EXIST. SANITARY SEWER PIPE PROTECT-IN-PLACE
 - LT EXIST. SANITARY SEWER M.H. PROTECT-IN-PLACE
 - LU EXIST. SANITARY SEWER C.O. PROTECT-IN-PLACE
 - LV EXIST. TEP/TELCO JOINT-USE POLE PROTECT-IN-PLACE
 - LV EXIST. TEP O.H.P. PROTECT-IN-PLACE
 - LV EXIST. TEP DOWN CUY PROTECT-IN-PLACE
 - LV EXIST. TEP JUNCTION BOX PROTECT-IN-PLACE
 - LV EXIST. TUSCON WATER LINE
 - (A) PROTECT-IN-PLACE
 - (B) RELOCATE (BY OTHERS)
 - LV EXIST. TUSCON WATER VALVE
 - (A) PROTECT-IN-PLACE
 - (B) RELOCATE (BY OTHERS)
 - LV EXIST. TUSCON W.M. PROTECT-IN-PLACE

- REMOVAL LEGEND**
- RELOCATE UTILITY
 - REMOVE CURB
 - REMOVE MISC. CONCRETE
 - REMOVE FULL DEPTH PAVEMENT

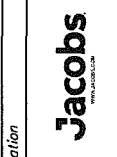
Pima County
 Department of Transportation
 201 N. Stone Ave. 4th Floor Tucson, Arizona 85701
 Phone Number: 520-724-6410
 Kathryn Skinner, P.E. Director

HORIZ. 1"= 20'
 VERT. 1"= N/A

Sheet 02 of 04 Page 7 of 41

Designed	Kenn. Doyle	Date	07/2016
Checked	Alex Gonzalez	Date	02/2016
Proj. Engr.	Alex Gonzalez	Date	02/2016

No.	Revision	Description	Engineer	Date



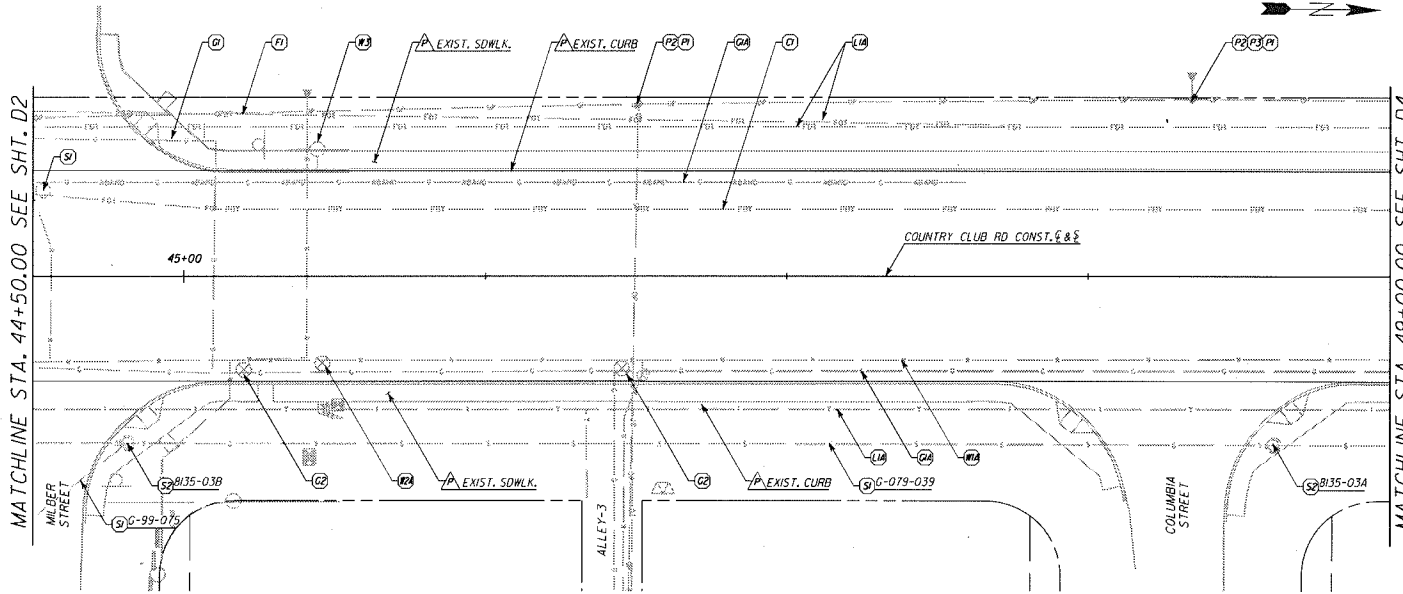
Pima County Department of Transportation
 DEMOLITION & UTILITY PLANS

1-2025-025

Country Club Rd: From Michigan Street To Milber St No. P02500019683

Kathryn Skinner, P.E., Director

MATCHLINE STA. 44+50.00 SEE SHT. D2



REFERENCE NOTES

▲ PROTECT IN PLACE

UTILITY NOTES

- U** EXIST. LUMEN BURNED COPPER CABLE (A) PROTECT-IN-PLACE
- D** EXIST. COX BURNED FIBER OPTIC PROTECT-IN-PLACE
- C** EXIST. SWG GAS LINE (A) PROTECT-IN-PLACE
- G** EXIST. SWG GAS VALVE PROTECT-IN-PLACE
- FI** EXIST. FIRST DIGITAL AERIAL FIBER OPTIC PROTECT-IN-PLACE
- S** EXIST. SANITARY SEWER PIPE PROTECT-IN-PLACE
- SP** EXIST. SANITARY SEWER M.H. PROTECT-IN-PLACE
- P** EXIST. TEL/CO JOINT-USE POLE PROTECT-IN-PLACE
- P2** EXIST. IEP D.H.P. PROTECT-IN-PLACE
- P3** EXIST. IEP DOWN CUY PROTECT-IN-PLACE
- W** EXIST. TUSCON WATER LINE (A) PROTECT-IN-PLACE
- W2** EXIST. TUSCON WATER VALVE (A) PROTECT-IN-PLACE (B) ADJUST TO GRADE
- W3** EXIST. TUSCON F.H. PROTECT-IN-PLACE

GENERAL NOTES

1. SEE SPM SHEETS FOR SIGN AND PAVEMENT MARKING REMOVALS.

HORIZ. 1"= 20'
VERT. 1"= N/A

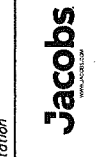
Sheet D3 of D4

Page 8 of 41

Pima County
Department of Transportation
201 N. Stone Ave, 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Revised	By	Date
07/2025	Alex Gonzalez	07/2025
03/2025	Alex Gonzalez	03/2025
07/2024	Alex Gonzalez	07/2024

No.	Revision Description	Engineer	Date

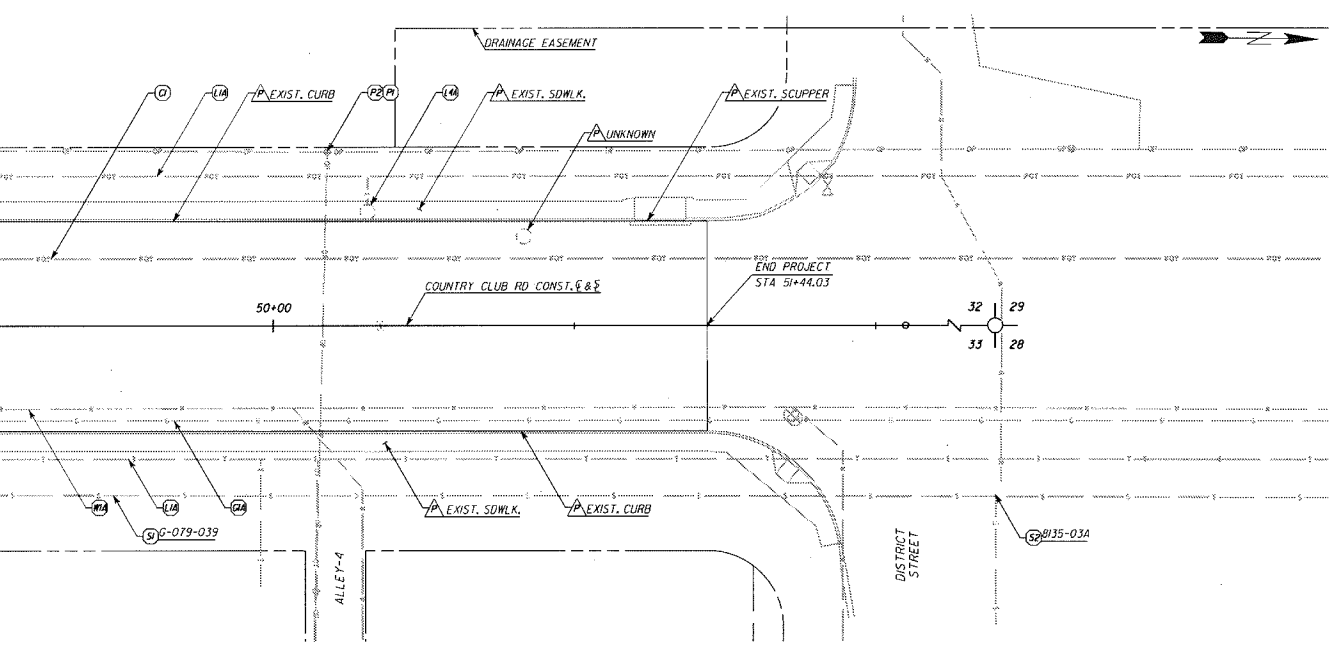


Pima County Department of Transportation
DEMOLITION & UTILITY PLANS

Kathryn Skinner, P.E., Director

Country Club Rd. From Michigan Street To Milber St. No. PO2500019683

MATCHLINE STA. 49+00.00 SEE SHT. D3



REFERENCE NOTES

(A) PROTECT IN PLACE

UTILITY NOTES

- (U)** EXIST. LUMEN BURIED COPPER CABLE
(A) PROTECT-IN-PLACE
- (L4)** EXIST. LUMEN M.H.
(A) PROTECT-IN-PLACE
(B) ADJUST TO GRADE
- (O)** EXIST. COX BURIED FIBER OPTIC
PROTECT-IN-PLACE
- (G)** EXIST. SWG GAS LINE
(A) PROTECT-IN-PLACE
- (S)** EXIST. SANITARY SEWER PIPE
PROTECT-IN-PLACE
- (S2)** EXIST. SANITARY SEWER M.H.
PROTECT-IN-PLACE
- (P)** EXIST. TEP/TELCO JOINT-USE POLE
PROTECT-IN-PLACE
- (P2)** EXIST. TEP O.H.P.
PROTECT-IN-PLACE
- (W)** EXIST. TUSCON WATER LINE
(A) PROTECT-IN-PLACE

GENERAL NOTES

1. SEE SPM SHEETS FOR SIGN AND PAVEMENT MARKING REMOVALS.

Date	Drawn	Checked	Proj. Engr.
02/20/06	Kathy Skiner	Alex Gonzalez	Alex Gonzalez
02/20/06			
02/20/06			

No.	Revision Description	Engineer	Date



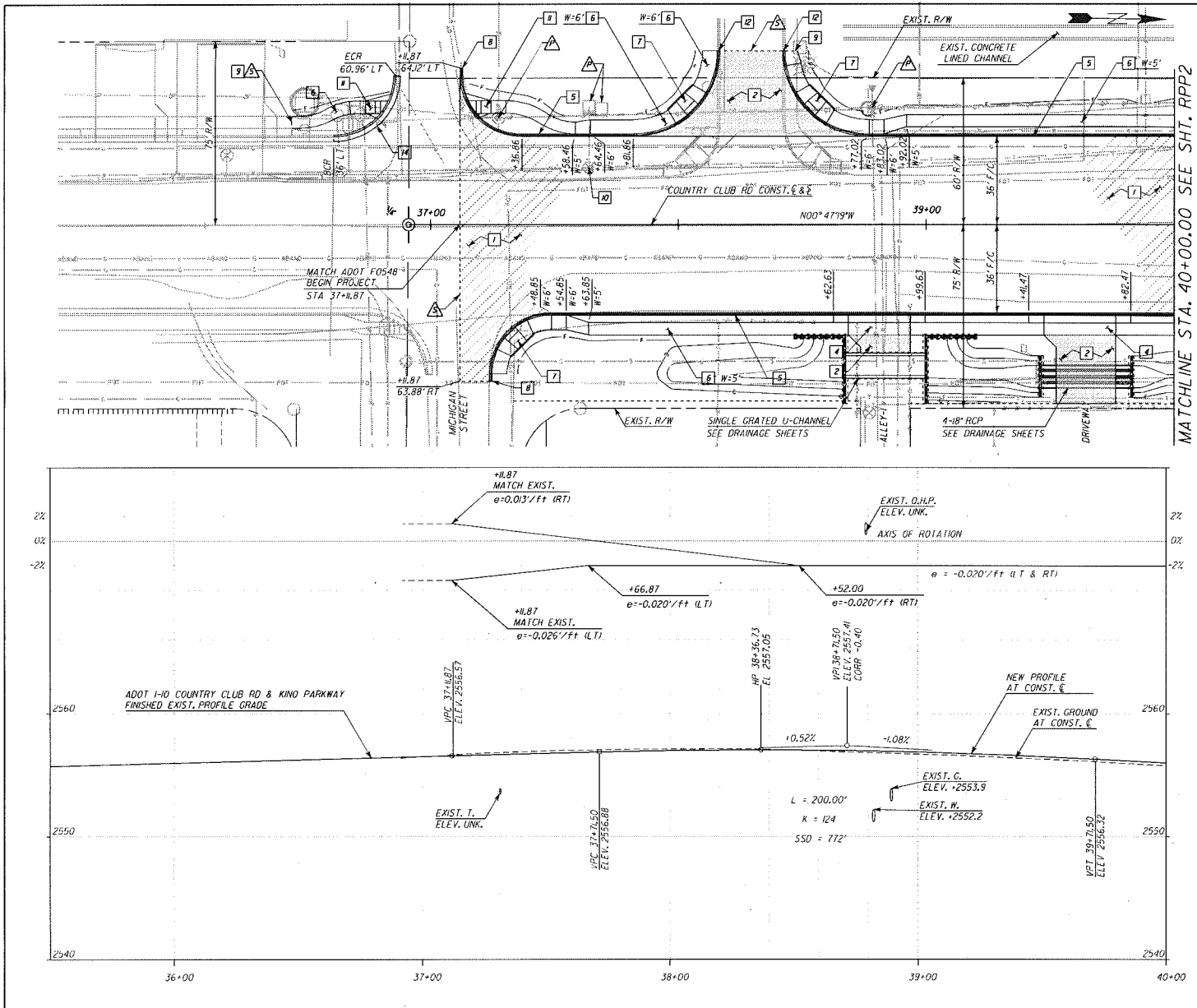
DEMOLITION & UTILITY PLANS

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

Pima County Department of Transportation

Country Club Rd. From Michigan Street To Milber St. No. P02500019683



- CONSTRUCTION NOTES**
- 1 NEW A.C. PER PAVT. STRUCT. SEC. NO. 1
 - 2 NEW A.C. PER PAVT. STRUCT. SEC. NO. 2
 - 4 NEW DRYW. (9080301) PER PAG STD DTL 206
 - 5 NEW CURB (9080001) PER PAG STD DTL 209 TYPE 1
 - 6 NEW SDWLK. (9080201) PER PAG STD DTL 200
 - 7 NEW CONC. CURB TERMINAL (9080090) PER PAG STD DTL 212
 - 8 NEW CONC. SDWLK. MATCH EXST. SDWLK. PER PAG STD DTL 203
 - 9 EXIST. W.V. RESET (8102505) PER COT STD DTL W-300
 - 11 NEW CURB RAMP (9080281) PER PAG STD DTL 207 TYPE II
 - 12 NEW CONC. CURB MATCH EXIST. CURB PER PAG STD DTL 211
 - 14 NEW CURB & CUTTER (9080002) PER PAG STD DTL 209 TYPE 1IG
- REFERENCE NOTES**
- ▲ SAWCUT; MATCH EXIST.
 - ▲ PROTECT IN PLACE

- LEGEND**
- NEW PAVEMENT SECTION - PSS1
 - NEW PAVEMENT SECTION - PSS2

MATCHLINE STA. 40+00.00 SEE SHT. RPP2

Pima County
 Department of Transportation
 201 N. Stone Ave. 4th floor Tucson, Arizona 85701
 Phone Number: 520-724-8410
 Kathryn Skinner, P.E., Director

Kathryn Skinner, P.E., Director

Date	Drawn	Checked	Proj. Engr.
07/20/06	Alex Gonzalez	Alex Gonzalez	Alex Gonzalez
07/20/06			
07/20/06			

No.	Revision Description	Engineer

Pima County Department of Transportation

ROADWAY PLAN & PROFILE

Jacobs

Country Club Rd. From Michigan Street To Milber St No. P02500019683

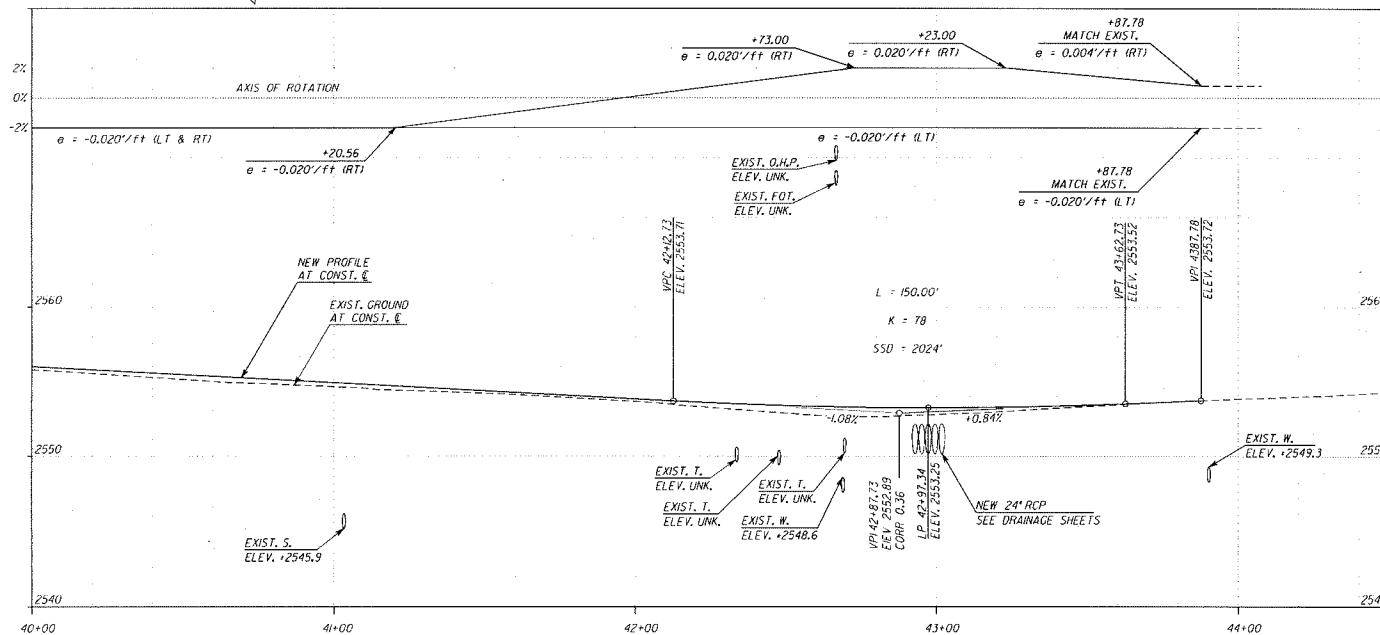
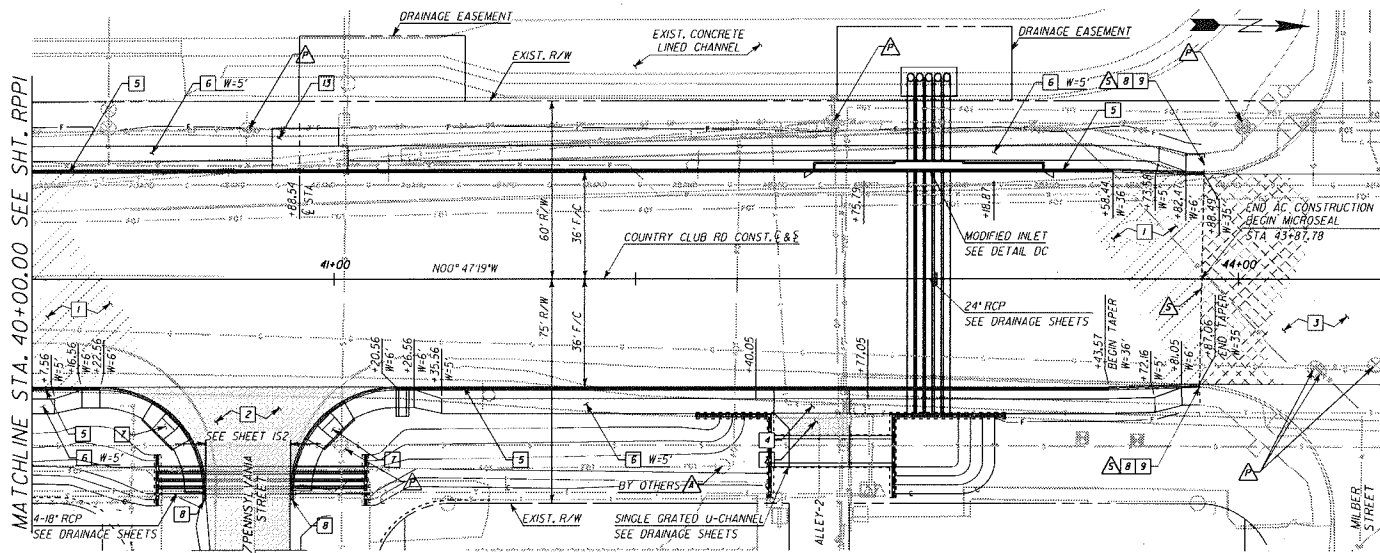


Pima County Department of Transportation

ROADWAY PLAN & PROFILE

Jacobs

MATCHLINE STA. 40+00.00 SEE SHT. RPP1



MATCHLINE STA. 44+50.00 SEE SHT. RPP3

CONSTRUCTION NOTES

- 1 NEW A.C. PER PAV'T. STRUC. SEC. NO. 1
- 2 NEW A.C. PER PAV'T. STRUC. SEC. NO. 2
- 3 NEW MICROSEAL PER PAV'T. STRUC. SEC. NO. 3
- 4 NEW DRWT. (9080301) PER PAG STD DTL 206
- 5 NEW CURB (9080001) PER PAG STD DTL 209 TYPE I
- 6 NEW SDWLK. (9080201) PER PAG STD DTL 200
- 7 NEW CURB RAMP (9080280) PER PAG STD DTL 207 TYPE I
- 8 NEW CONC. CURB TERMINAL (9080090) PER PAG STD DTL 202
- 9 NEW CONC. SDWLK. MATCH EXST. SDWLK. PER PAG STD DTL 203
- 10 NEW CURB RAMP (9080281) PER PAG STD DTL 207 TYPE II
- 11 NEW CONC. CURB MATCH EXST. CURB PER PAG STD DTL 201
- 12 NEW BUS STOP SHELTER SLAB PER DETAIL A (9080602)

REFERENCE NOTES

- △ SANUCUT; MATCH EXIST.
- △ PROTECT IN PLACE
- △ ADJUST TO GRADE

LEGEND

- [Pattern] NEW PAVEMENT SECTION - PSS1
- [Pattern] NEW PAVEMENT SECTION - PSS2
- [Pattern] MICROSEAL - PSS3

Pima County
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 Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

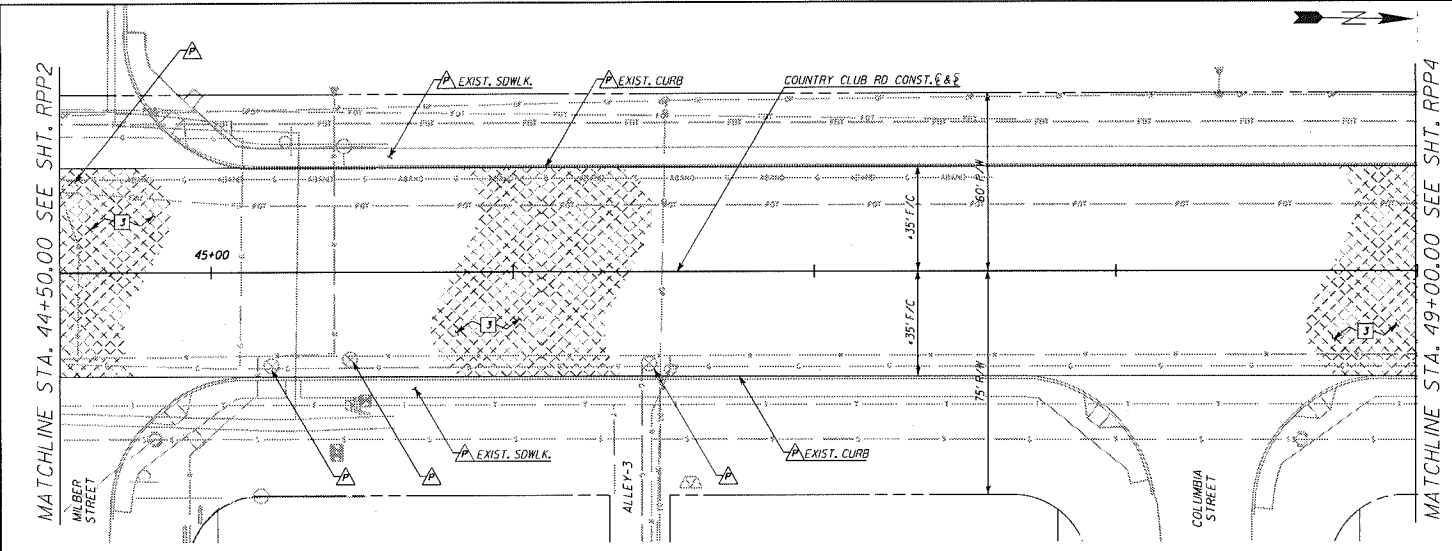
Date	Designed	Checked	Proj. Engr.
07/20/26	Alex Gonzalez	Alex Gonzalez	Alex Gonzalez
07/20/26	Alex Gonzalez	Alex Gonzalez	Alex Gonzalez

No.	Revision	Description	Engineer

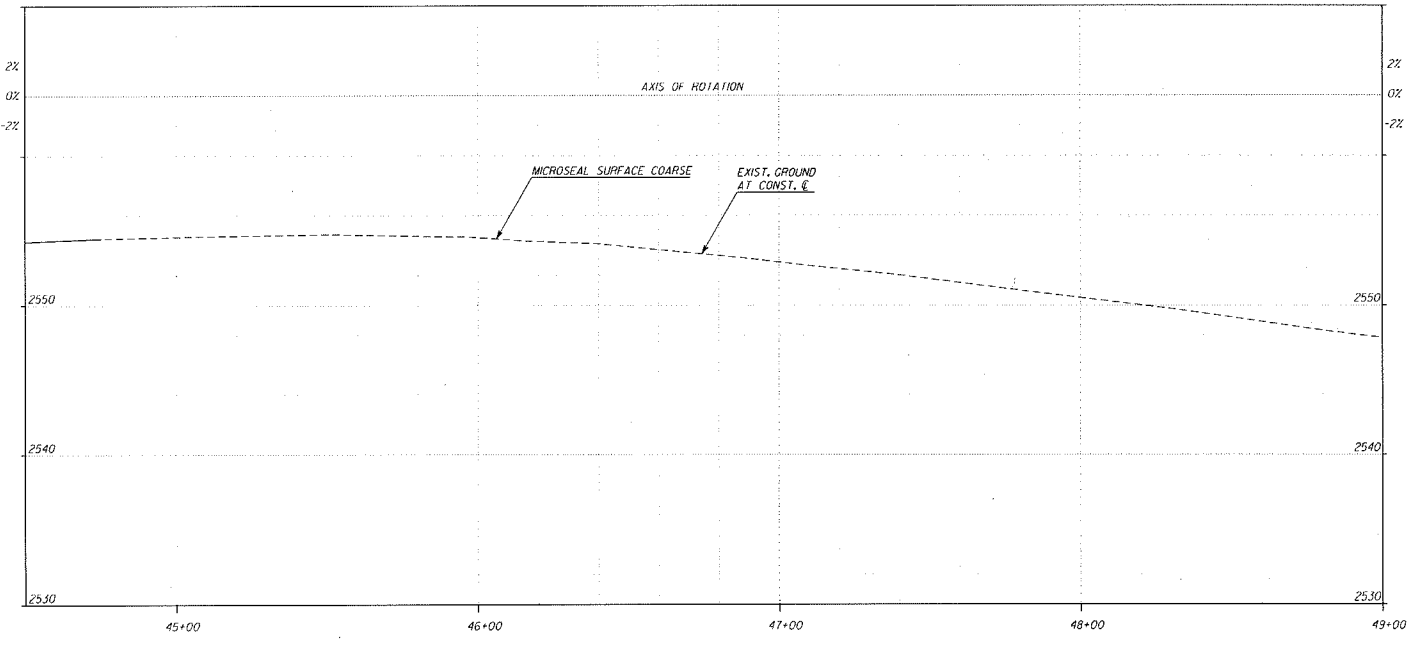


Pima County Department of Transportation
 ROADWAY PLAN & PROFILE

Country Club Rd: From Michigan Street To Milber St No. P02500019683



- CONSTRUCTION NOTES**
- 3 NEW MICROSEAL PER PAV'T. STRUC. SEC. NO. 3
- REFERENCE NOTES**
- △ PROTECT IN PLACE
- LEGEND**
- MICROSEAL - PSS3



HORIZ. 1" = 20'
 VERT. 1" = 4'

Sheet RPP3 of RPP4 Page 12 of 41

Pima County
 Department of Transportation
 201 N. Stone Ave., 4th floor Tucson, Arizona 85701
 Phone Number: 520-724-8410
 Kathryn Skinner, P.E. Director

Discipline	Name	Date
Designed	Kate Doh	07/20/08
Checked	Ally Gonzalez	07/20/08
Proj. Engr.	Ally Gonzalez	07/20/08

No.	Revision Description	Engineer	Date

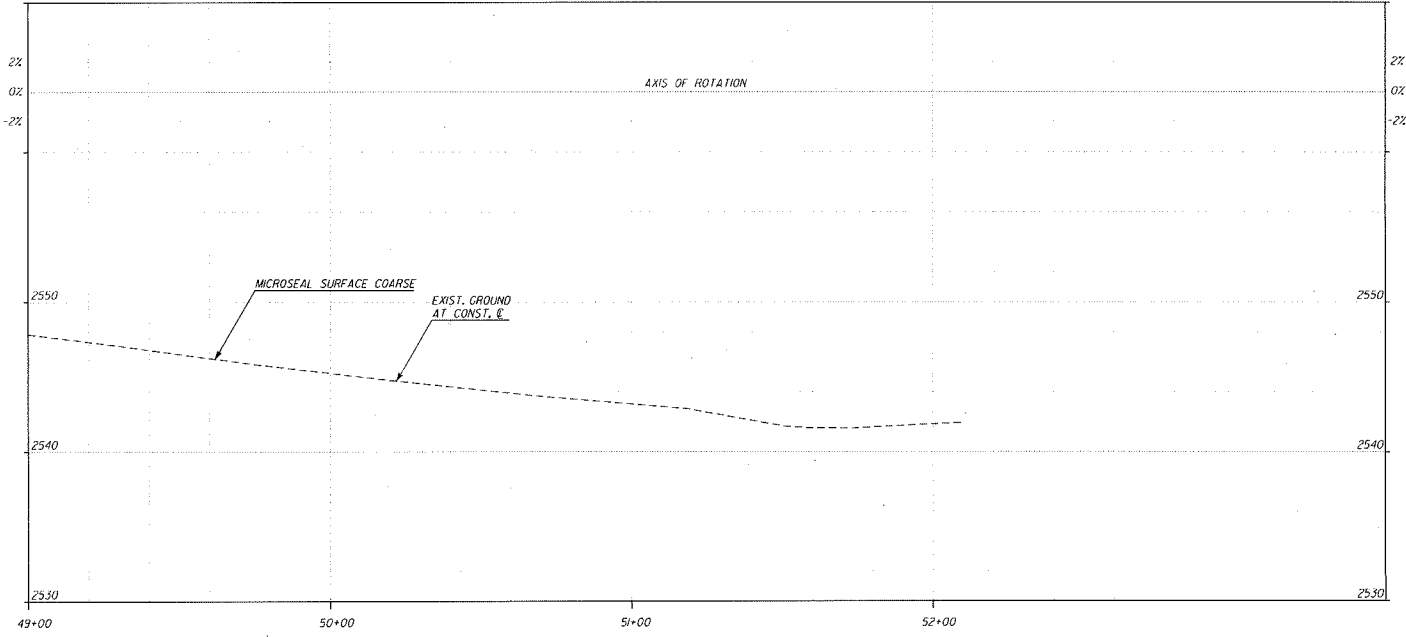
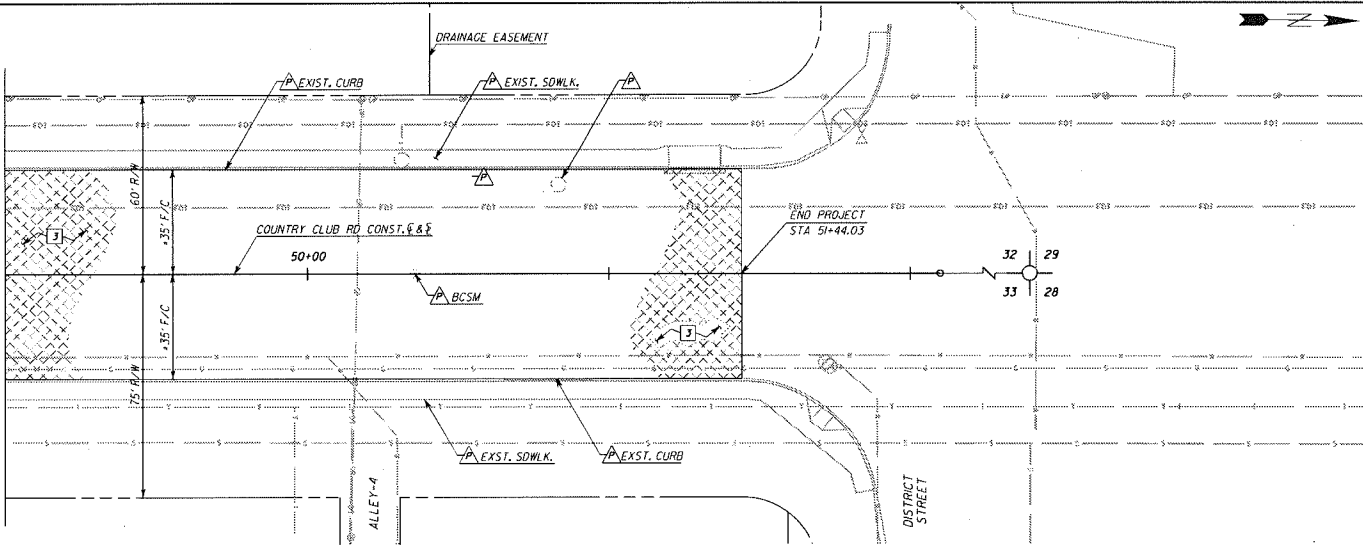


Pima County Department of Transportation
 ROADWAY PLAN & PROFILE

Kathryn Skinner, P.E., Director

Country Club Rd. From Michigan Street To Malber St No. P02500019683

MATCHLINE STA. 49+00.00 SEE SHT. RPP3



CONSTRUCTION NOTES

3 NEW MICROSEAL PER PAV'T. STRUC. SEC. NO. 3

REFERENCE NOTES

△ PROTECT IN PLACE

LEGEND

Microseal - PSS3

Date	By
07/20/06	Kathy Skiner
07/20/06	Checked
07/20/06	Approved
07/20/06	Drawn
07/20/06	Plotted

No.	Revision Description	Engineer	Date



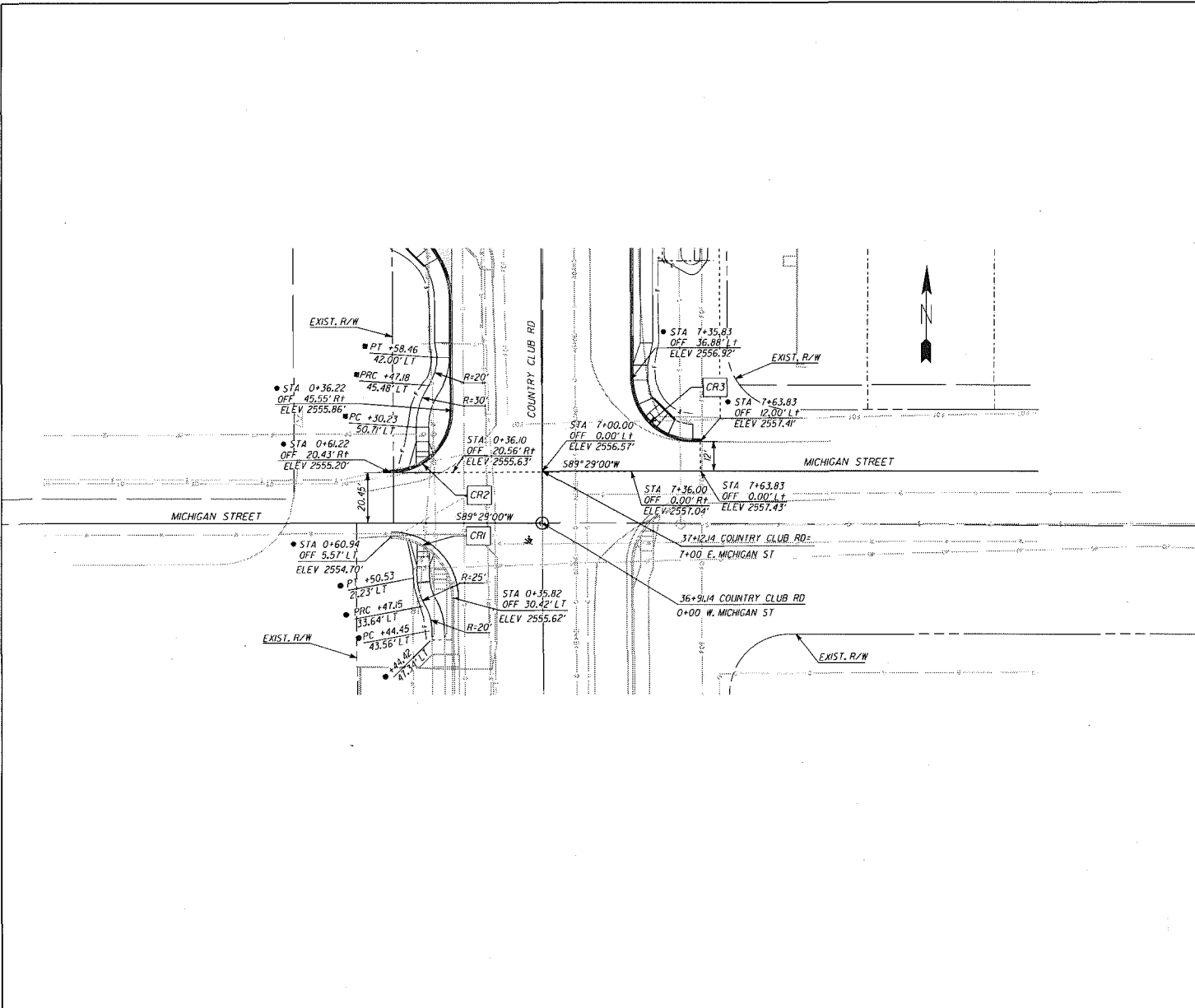
ROADWAY PLAN & PROFILE

Pima County
 Department of Transportation
 201 N. Stone Ave. 4th floor Tucson, Arizona 85701
 Phone Number: 520-724-8410
 Kathryn Skiner, P.E. Director

Kathryn Skiner, P.E., Director

Pima County Department of Transportation

Country Club Rd. From Michigan Street To Milber St. No. P02500019683



ACCESS RAMP CONTROL POINT				
NO.	RADIUS	STATION	OFFSET	ELEV
CR1	25'	0+48.10	9.04' LT	2555.02'
CR2	25'	0+48.30	24.02' RT	2555.42'
CR3	25'	7+43.19	19.28' LT	2557.15'

- REFERENCE NOTES**
- MICHIGAN ST CENTERLINE
 - COUNTRY CLUB CENTERLINE

GENERAL NOTES

1. SEE ROADWAY PLAN AND PROFILE SHEETS FOR CONSTRUCTION NOTES NOT SHOWN.

Date	By
07/20/16	Kenn. Doff
07/20/16	Mike Gonzalez
07/20/16	Alfon Gonzalez
07/20/16	Alfon Gonzalez

No.	Revision	Description	Engineer



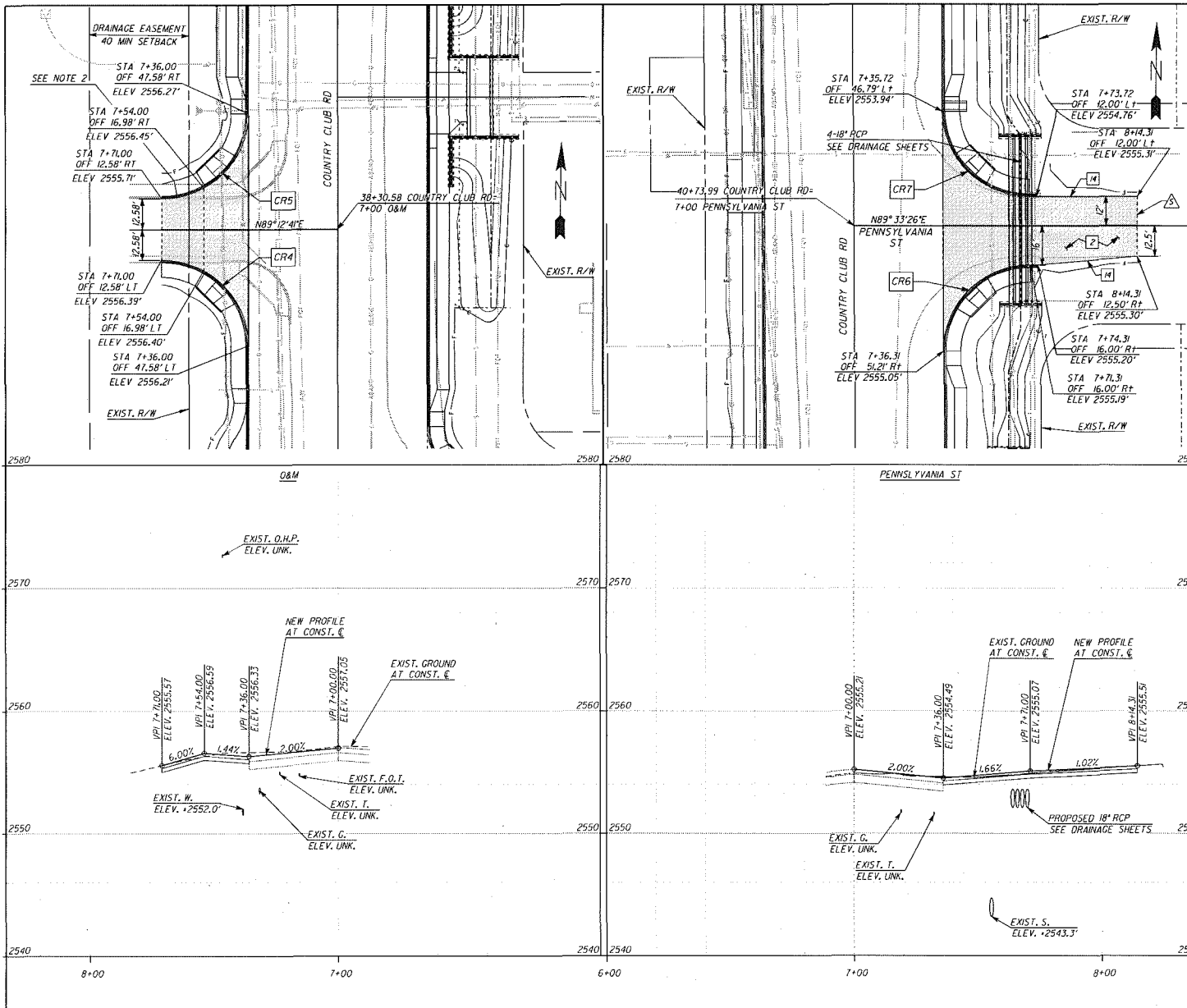
Pima County Department of Transportation
INTERSECTION PLAN & PROFILE

Pima County
 Department of Transportation
 201 N. Stone Ave. 4th floor Tucson, Arizona 85701
 Phone Number: 520-724-8410
 Kathryn Skinner, P.E., Director

Kathryn Skinner, P.E., Director

Pima County Department of Transportation

Country Club Rd: From Michigan Street To Milber St No. PO2500019683



ACCESS RAMP CONTROL POINT				
NO.	RADIUS	STATION	OFFSET	ELEV
CR4	35'	7+46.26	22.83' LT	2556.35'
CR5	35'	7+46.26	22.83' RT	2556.40'
CR6	35'	7+46.49	26.33' RT	2555.12'
CR7	35'	7+46.04	22.18' LT	2554.35'

- CONSTRUCTION NOTES**
- 2 NEW A.C. PER PAV'T. STRUCT. SEC. NO. 2
 - M THICKENED EDGE SEE TYP FOR DETAIL

- REFERENCE NOTES**
- Δ SAWCUT; MATCH EXIST.

LEGEND

NEW PAVEMENT SECTION - PSS2

- GENERAL NOTES**
1. SEE ROADWAY PLAN AND PROFILE SHEETS FOR CONSTRUCTION NOTES NOT SHOWN.
 2. PROVIDE A 5' LONGITUDINAL TAPER ALONG BACK OF SIDEWALK TRANSITIONING SIDEWALK WIDTH FROM 6' TO 5' TO MATCH EXISTING CONDITIONS.

Pima County
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201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

Date	07/20/25
Drawn	Ally Gonzalez
Checked	Ally Gonzalez
Approved	Ally Gonzalez
Project	07/20/25

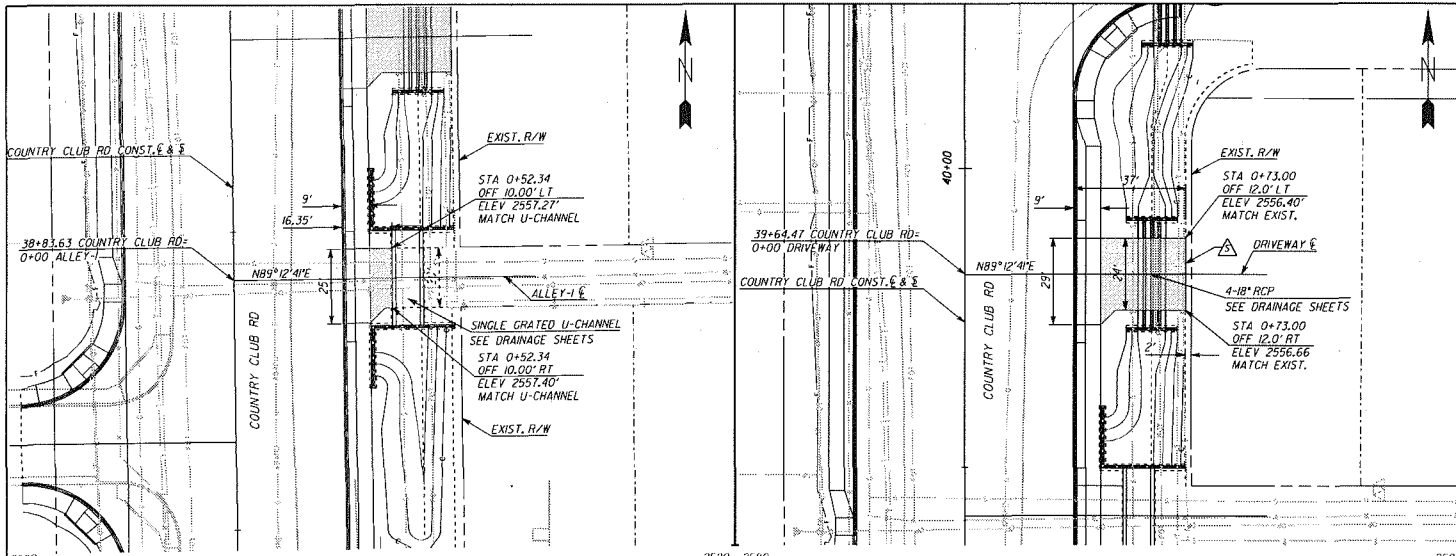
No.	Revision	Description	Engineer

Jacobs
www.jacobs.com

INTERSECTION PLAN & PROFILE

Pima County Department of Transportation

Country Club Rd: From Michigan Street To Milber St No. P02500019683



REFERENCE NOTES

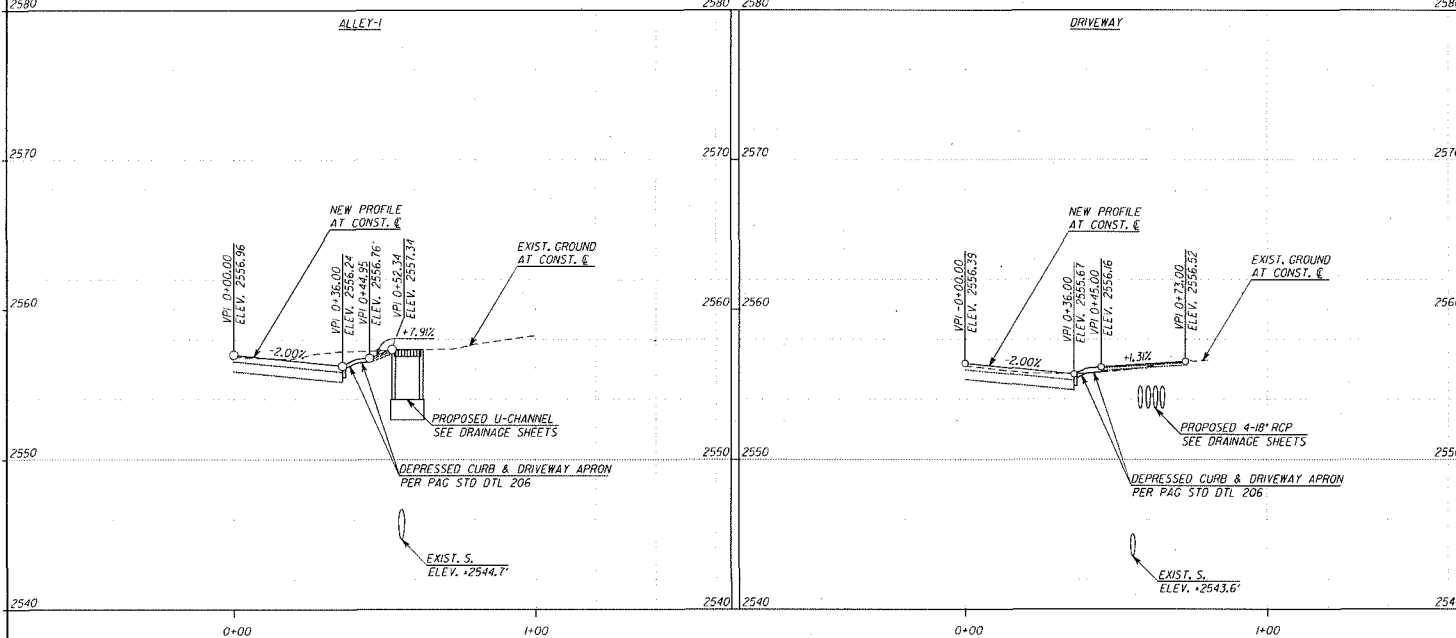
△ SAWCUT; MATCH EXIST.

LEGEND

NEW PAVEMENT SECTION - PSS2

GENERAL NOTES

1. SEE ROADWAY PLAN AND PROFILE SHEETS FOR CONSTRUCTION NOTES NOT SHOWN.



HORIZ. 1" = 20'
VERT. 1" = 4'

Sheet DSI of D52

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Pima County
Department of Transportation
201 N. Stone Ave., 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

No.	Revision	Description	Engineer	Date

Pima County Department of Transportation

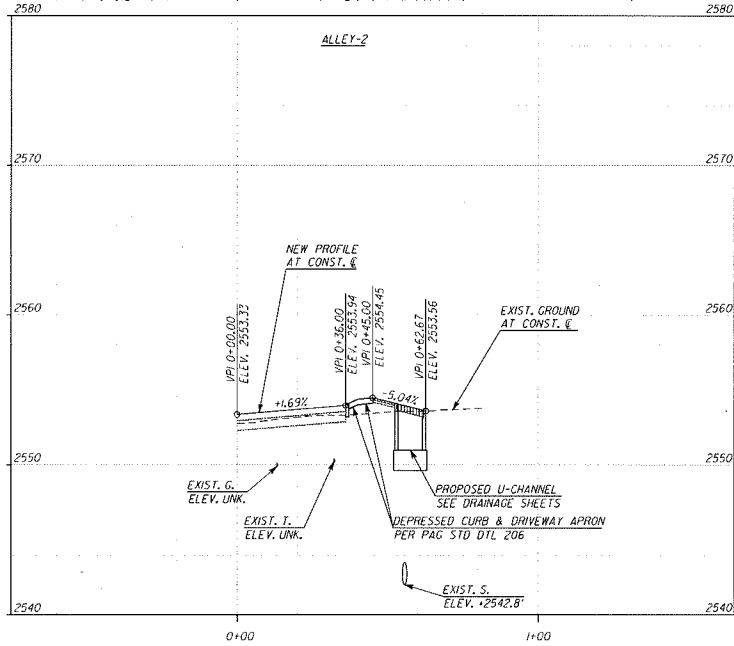
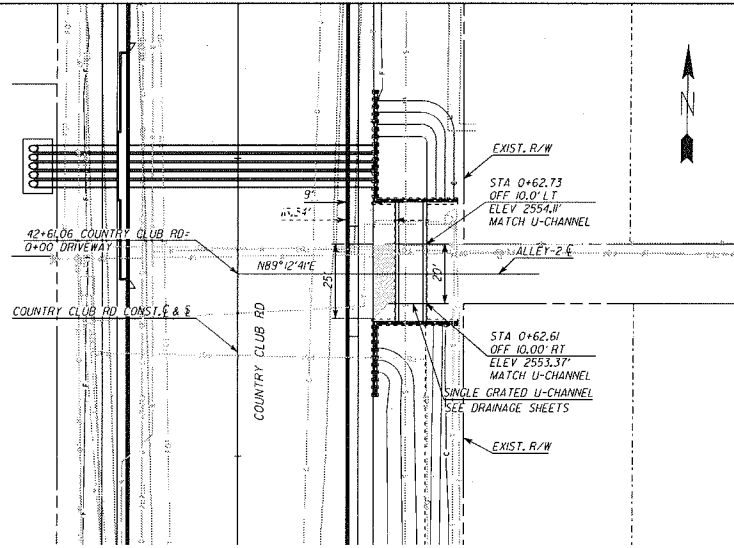
DRIVEWAY PLAN & PROFILE

Jacobs

Pima County Department of Transportation

Kathryn Skinner, P.E., Director

Date	By	Checked	Approved
07/20/06	Kath. Skinn		
07/20/06			
07/20/06			
07/20/06			



LEGEND

NEW PAVEMENT SECTION - PSS?

GENERAL NOTES

1. SEE ROADWAY PLAN AND PROFILE SHEETS FOR CONSTRUCTION NOTES NOT SHOWN.

Date	By
07/2016	Kenn Boyle
07/2016	Shawn Johnson
07/2016	Urban Land
07/2016	Proj. Engr. Alex Gonzalez

No.	Revision	Description	Engineer	Date



JACOBS
ENGINEERING GROUP

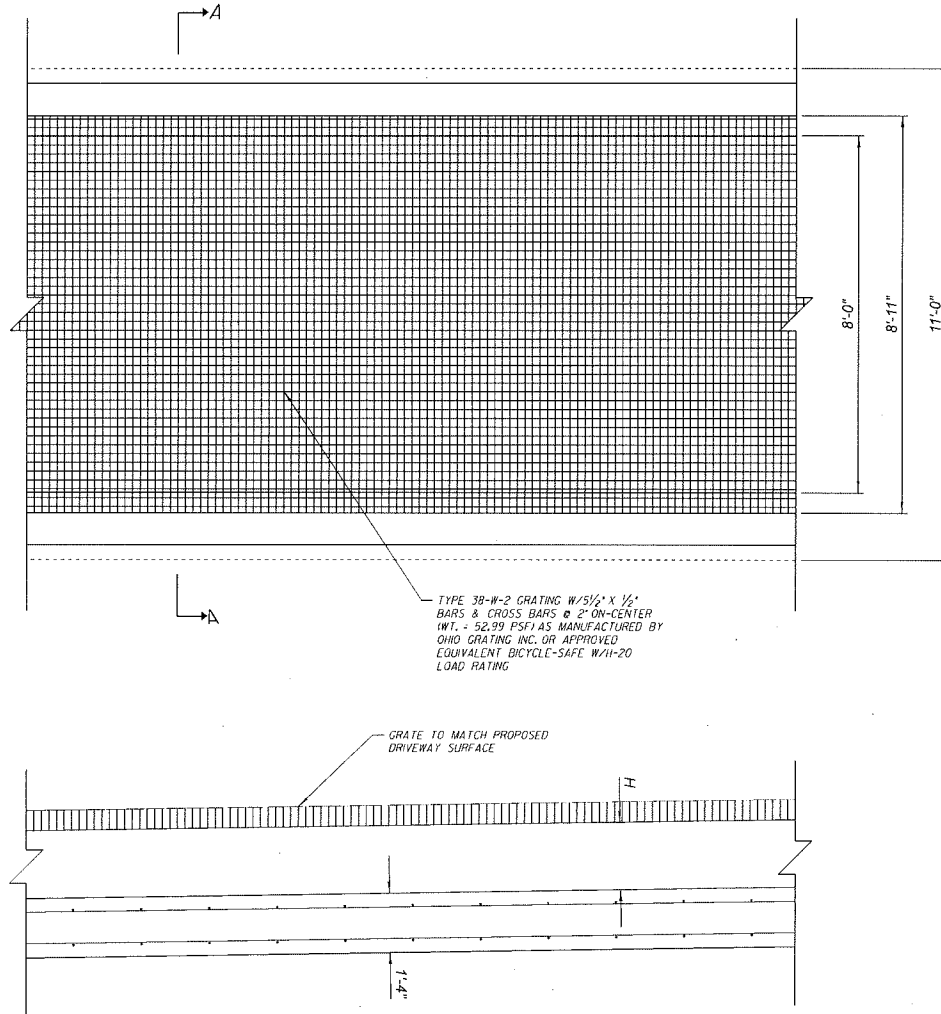
DRIVEWAY PLAN & PROFILE

Pima County
Department of Transportation
201 N. Stone Ave, 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

Pima County Department of Transportation

Country Club Rd: From Michigan Street To Milber St No. P02500019683



TYPE 38-W-2 GRATING W/5 1/2" X 1 1/2" BARS & CROSS BARS @ 2" ON-CENTER W/T. - 52.99 PSF AS MANUFACTURED BY OHIO GRATING INC. OR APPROVED EQUIVALENT BICYCLE-SAFE W/H-20 LOAD RATING

GRATE TO MATCH PROPOSED DRIVEWAY SURFACE

Notes:

1. H dimensions varies. Refer to Detail DB for U-Channel opening heights at headwall locations
2. Concrete shall be Class "S" $f_c = 4,500$ psi
3. All reinforcing bars shall be #4 unless otherwise noted. Refer to Sheet 2 & 3 for additional details
4. Grates shall conform to the proposed driveway cross slopes
5. Inside Span Dimension 'D' not to exceed 96" per Ohio Gratings Manufacturer's Specifications for H15/H20 Load Rating
6. Ohio Grating Type 38-W-2 bar spacing of 2" x 2 3/4"

DETAIL DA

Sheet 1 of 3
SINGLE U-CHANNEL

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-8410
Kathryn Skinner, P.E. Director

Date	Drawn	Checked	Proj. Eng.
07/20/06	From Grace	From Grace	AKM-Gra2006a
07/20/06	From Grace	From Grace	AKM-Gra2006a
07/20/06	From Grace	From Grace	AKM-Gra2006a

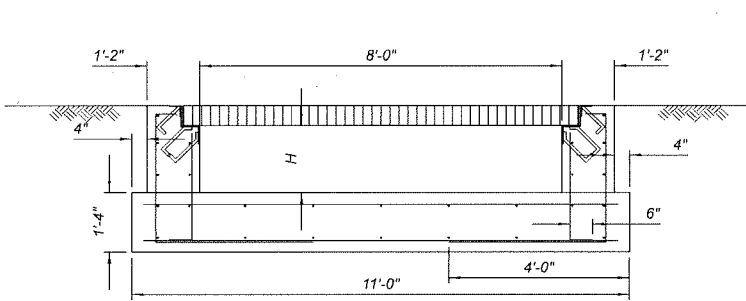
No.	Revision Description	Engineer	Date



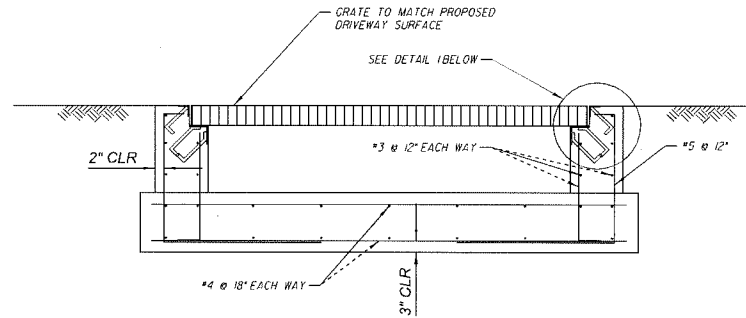
Pima County Department of Transportation
DRAINAGE DETAILS

Kathryn Skinner, P.E., Director

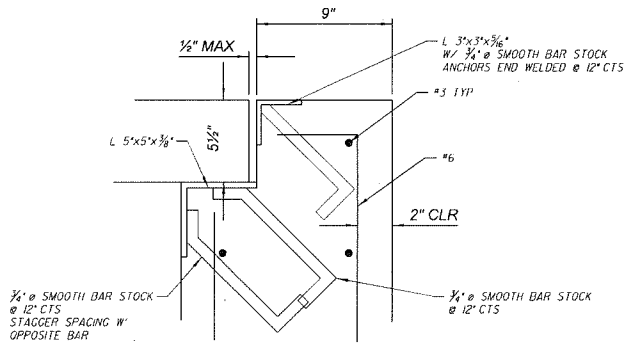
Country Club Rd. From Michigan Street To Milber St No. P02500019683



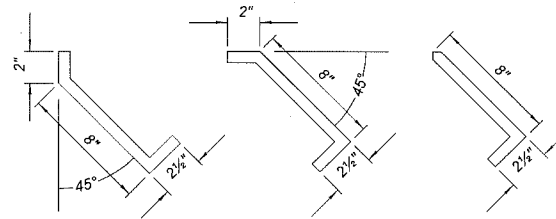
SECTION A-A
TYPE 1 - FLAT FINISH GRADE
DIMENSIONS



SECTION A-A
TYPE 1 - FLAT FINISH GRADE
REINFORCING



DETAIL I



ANCHOR DETAILS

DETAIL DA

Sheet 2 of 3
SINGLE GRATED U-CHANNEL

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-8410
Kathryn Skinner, P.E. Director

Sheet DDT2 of DDT13 Page 19 of 41

Date	From	To
02/20/20	Grace	Grace
02/20/20	Allen	Allen
02/20/20	Allen	Allen
02/20/20	Allen	Allen

Kathryn Skinner, P.E., Director

No.	Revision	Description	Engineer	Date

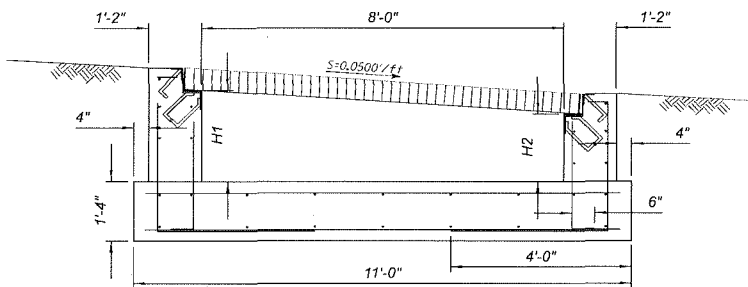


Jacobs

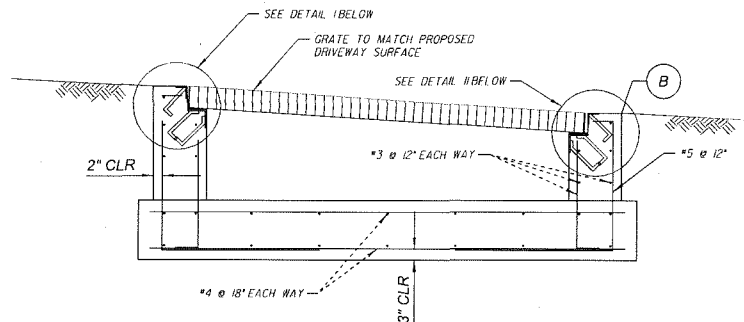
Pima County Department of Transportation

DRAINAGE DETAILS

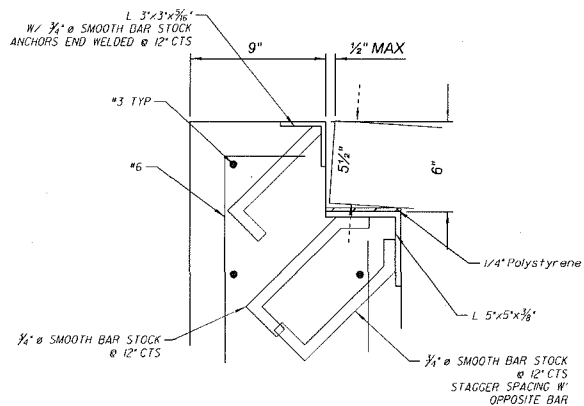
Country Club Rd. From Michigan Street To Milber St No. P02500019683



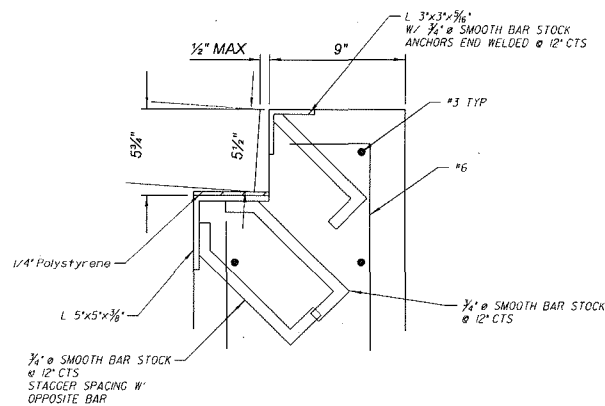
SECTION A-A
TYPE 2 - SLOPED FINISH GRADE
DIMENSIONS



SECTION A-A
TYPE 2 - SLOPED FINISH GRADE
REINFORCING



DETAIL I



DETAIL II

Notes:

1. See Sheet 2 of 3 for anchor details

DETAIL DA

Sheet 3 of 3

SINGLE GRATED U-CHANNEL

Pima County
Department of Transportation
201 N. Stone Ave, 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E., Director

Sheet DDT3 of DDT13 Page 20 of 41

Kathryn Skinner, P.E., Director

Date	By
07/20/26	Lee Grace
07/20/26	Lee Grace
07/20/26	Lee Grace
07/20/26	Lee Grace

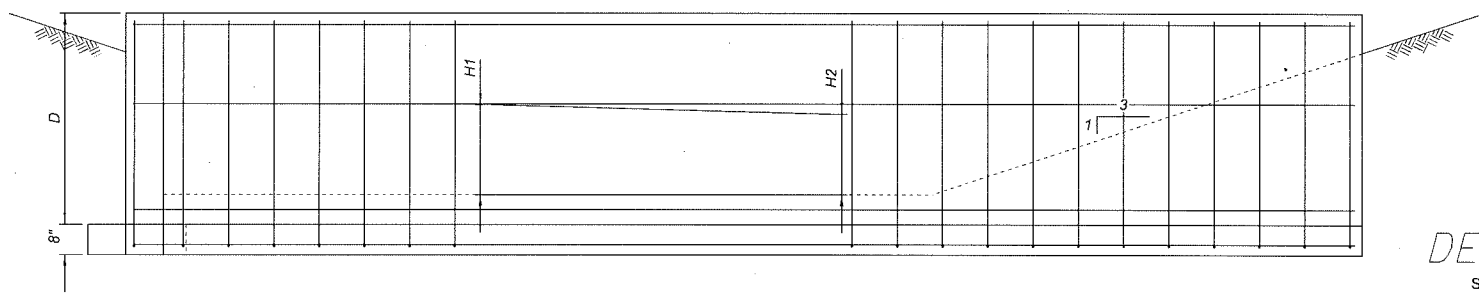
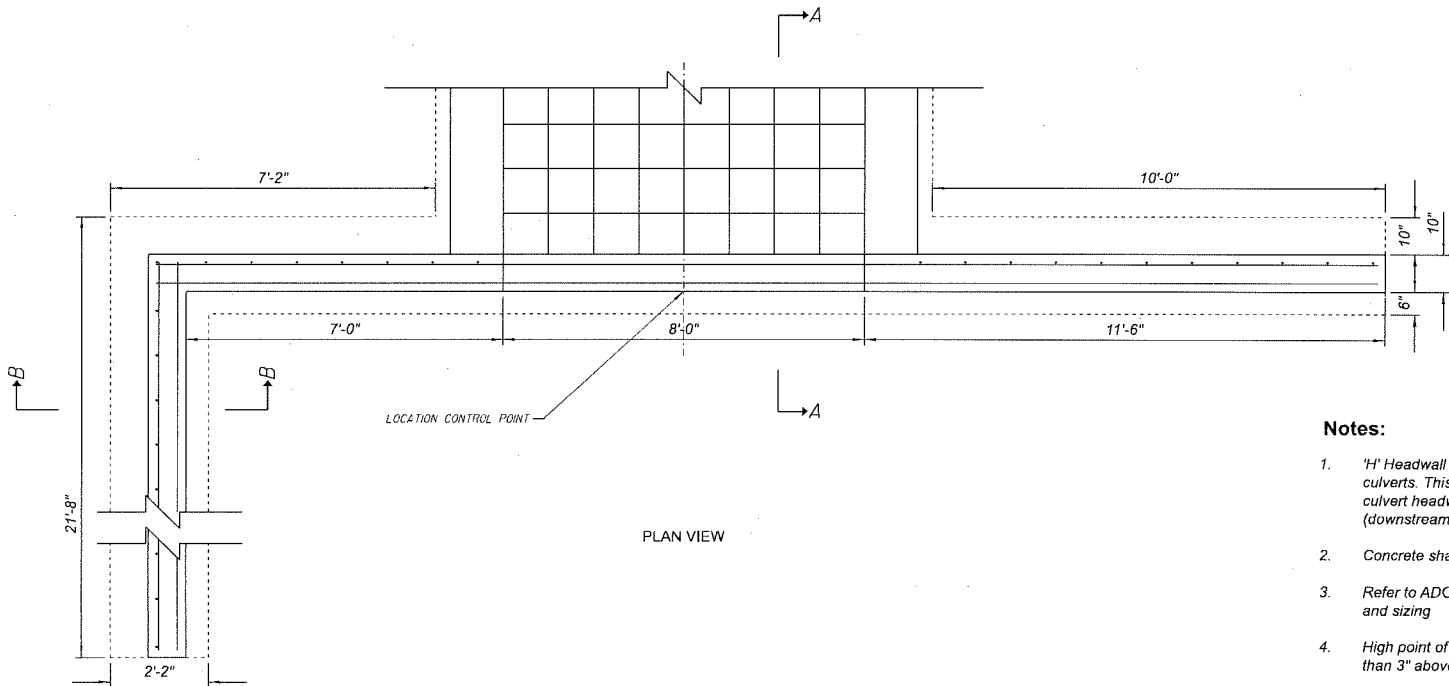
No.	Revision Description	Engineer	Date



Pima County Department of Transportation

DRAINAGE DETAILS

Country Club Rd. From Michigan Street To Milber St. No. P02500019683



Notes:

1. 'H' Headwall Opening Height varies at driveway culverts. This detail represents south (upstream) culvert headwall. Dimensions to be mirrored on north (downstream) side.
2. Concrete shall be Class "S" f'c = 4,500 psi
3. Refer to ADOT SD 6.30 for rebar placement and sizing
4. High point of headwall shall not project more than 3" above slope
5. For additional details and information, refer to ADOT SD 6.30 (1 through 5)

DETAIL DB

Sheet 1 of 2
U-CHANNEL HEADWALL

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-8410
Kathryn Skinner, P.E. Director

Date	From	To
07/20/26	Office	Office
07/20/26	Checked	Checked
07/20/26	Approved	Approved
07/20/26	Issue	Issue

No.	Revision	Description	Engineer	Date

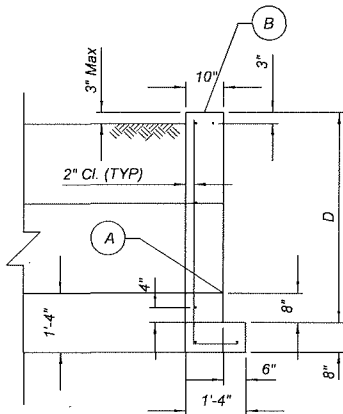


Pima County Department of Transportation
DRAINAGE DETAILS

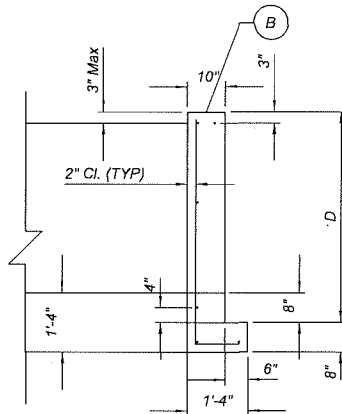
Kathryn Skinner, P.E., Director

Pima County Department of Transportation

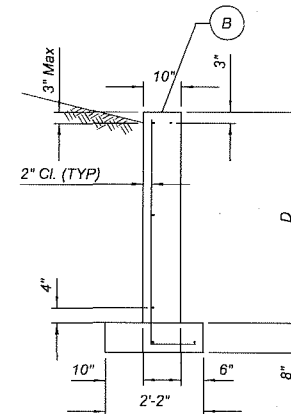
Country Club Rd. From Michigan Street To Milber St. No. P02500019683



SECTION A-A



SECTION B-B



SECTION C-C

LOCATION	U-CHANNEL INVERT ELEV (A) (FT)	TOP OF WALL ELEV (B) (FT)	D (FT)	H1 (FT)	H2 (FT)
STA 42+97.33, 46.22' RT	2550.84	2554.88	4.71	N/A - PIPE CULVERT	
STA 42+86.08, 57.50' RT	2550.84	2554.88	4.71	2.99	2.59
STA 42+44.22, 57.50' RT	2551.05	2553.62	3.24	2.05	1.65
STA 39+00.46, 57.50' RT	2553.81	2557.52	4.38	2.99	2.99
STA 38+66.80, 57.50' RT	2554.16	2557.65	4.16	2.78	2.78

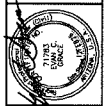
DETAIL DB

Sheet 2 of 2
U-CHANNEL HEADWALL

Pima County
Department of Transportation
201 N. Stone Ave, 4th floor Tucson, Arizona 85701
Phone Number: 520-724-8410
Kathryn Skinner, P.E. Director

Date	By
07/20/18	From: Grace
07/20/18	Max: Grace
07/20/18	Clayton: Max
07/20/18	Phil: Eng. Alex Gonzalez

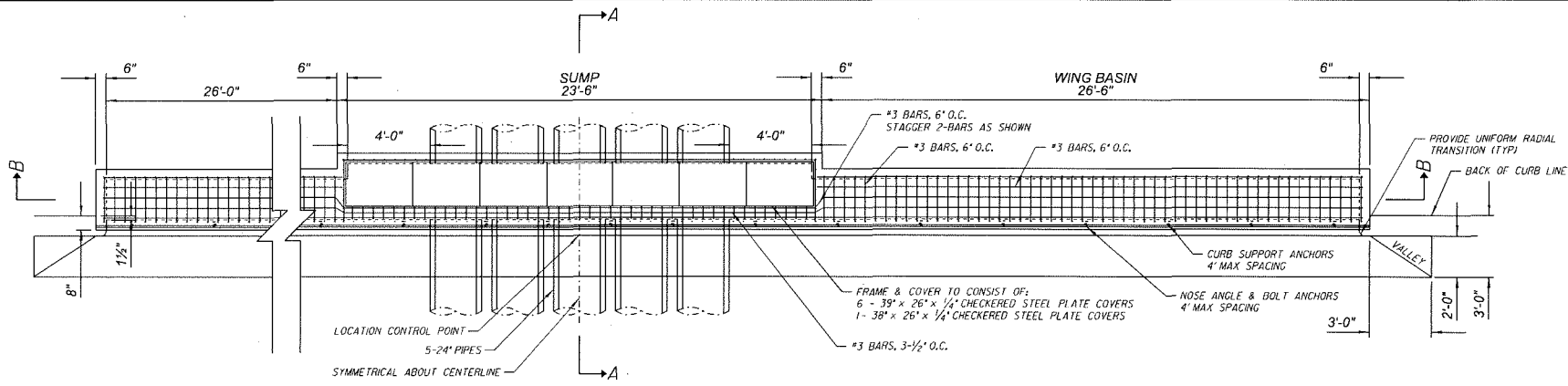
No.	Revision	Description	Engineer	Date



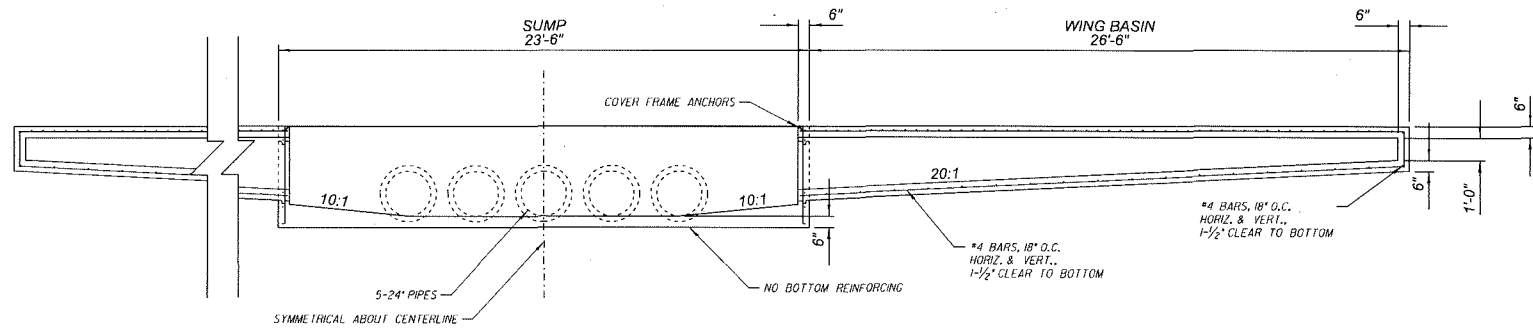
Pima County Department of Transportation
DRAINAGE DETAILS

Kathryn Skinner, P.E., Director

Country Club Rd: From Michigan Street To Milber St No. P02500019683



PLAN VIEW



SECTION B-B

Notes:

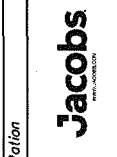
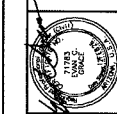
1. Refer to PAG Std Dtl 308 for additional reinforcing details.
2. Total curb opening length equal to 75'-6".
3. For additional details and information, refer to PAG Std Dtl 308 CATCH BASIN (TYPE 3) for Type 1 Curb.
4. Refer to PAG Std Dtl 308 for details on Frame & Cover and Notch & Handles.
5. Frame & Cover to consist of 7 separate Checkered Steel Plates
One Plate to be modified from PAG Std Dtl 308 to 38" Longitudinal Dimension.

DETAIL DC
Sheet 1 of 2
MODIFIED PAG 308 INLET

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

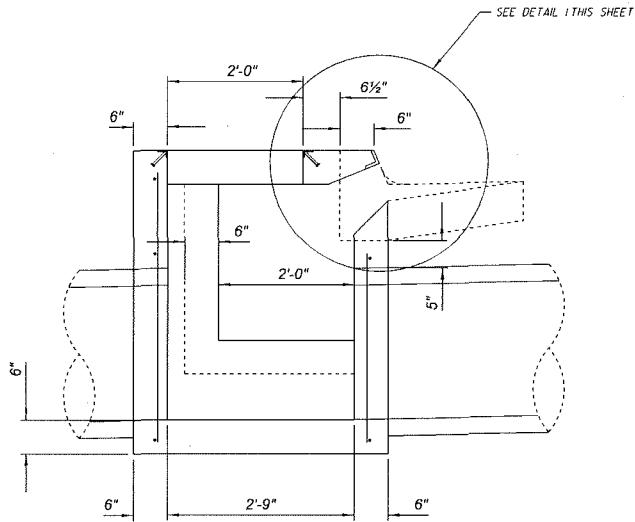
Date	By
02/20/08	From: Grace
03/20/08	Checked: Mike Miller
03/20/08	Approved: Mike Miller
02/20/08	Proj. Engr: Mike Gonzalez

No.	Revision	Description	Engineer	Date

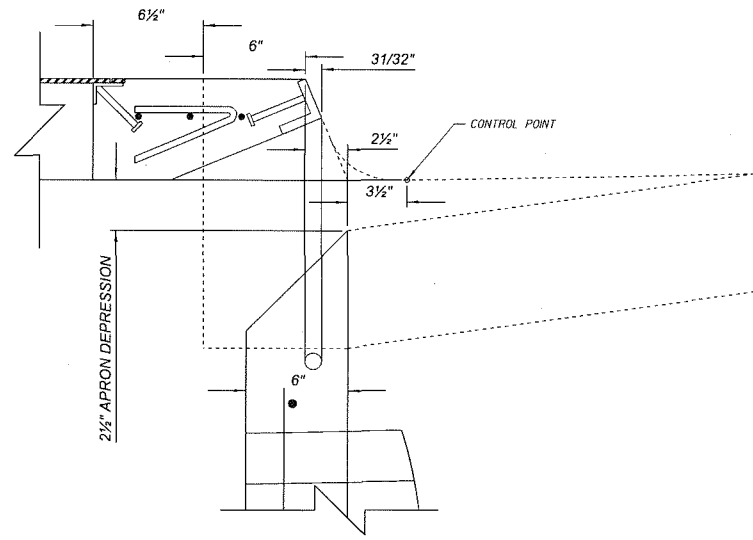


Pima County Department of Transportation
DRAINAGE DETAILS

Country Club Rd. From Michigan Street To Milber St. No. P02500019683



SECTION A-A
N.T.S.



DETAIL I

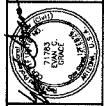
DETAIL DC

Sheet 2 of 2
MODIFIED PAG 308 INLET

Pima County
Department of Transportation
201 N. Stone Ave, 4th floor Tucson, Arizona 85701
Phone Number: 520-724-9410
Kathryn Skinner, P.E. Director

Date	By
07/21/26	Even Grace
07/21/26	Even Grace
07/21/26	Even Grace
07/21/26	Alex Gonzalez

No.	Revision Description	Engineer	Date

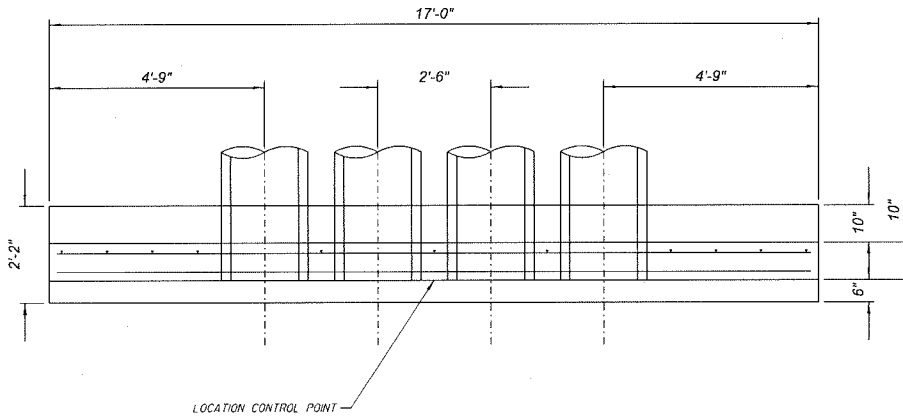


DRAINAGE DETAILS

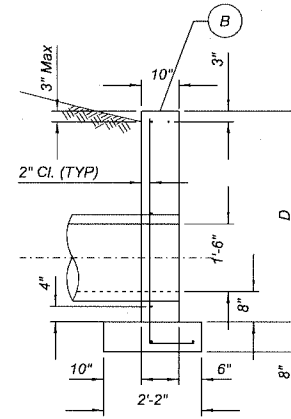
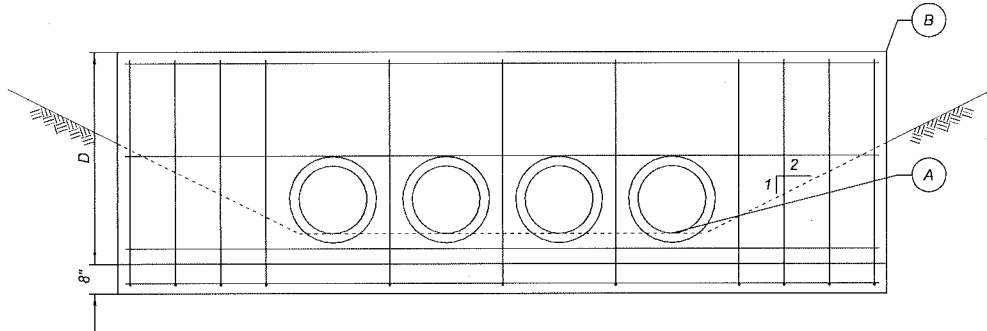
Kathryn Skinner, P.E., Director

Pima County Department of Transportation

Country Club Rd. From Michigan Street To Milber St No. P02500019683



LOCATION CONTROL POINT



LOCATION	PIPE INVERT ELEV (A) (FT)	TOP OF WALL ELEV (B) (FT)	D (FT)
STA 41+10.92, 67.19' RT	2551.71	2555.32	4.28
STA 40+41.00, 67.19' RT	2552.41	2555.72	3.98
STA 39+83.30, 61.91' RT	2552.99	2556.38	4.06
STA 39+45.63, 61.91' RT	2553.37	2556.93	4.23

Notes:

1. Dimension E equals pipe spacing
2. Concrete shall be Class "S" $f_c = 4,500$ psi
3. All reinforcing bars shall be #4 unless otherwise noted. Refer to Sheet 2 & 3 for additional details
4. High point of headwall shall not project more than 3" above slope
5. For additional details and information, refer to ADOT SD 6.30 (1 through 5)

DETAIL DD

Sheet 1 of 1

MODIFIED ADOT SD 6.30 PIPE HEADWALL

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Sheet DDT8 of DDT13

Page 25 of 41

Kathryn Skinner, P.E., Director

Date	By
02/20/09	For: Grace
02/20/09	Checked: Mike White
02/20/09	Proj. Eng.: Alex Gonzalez

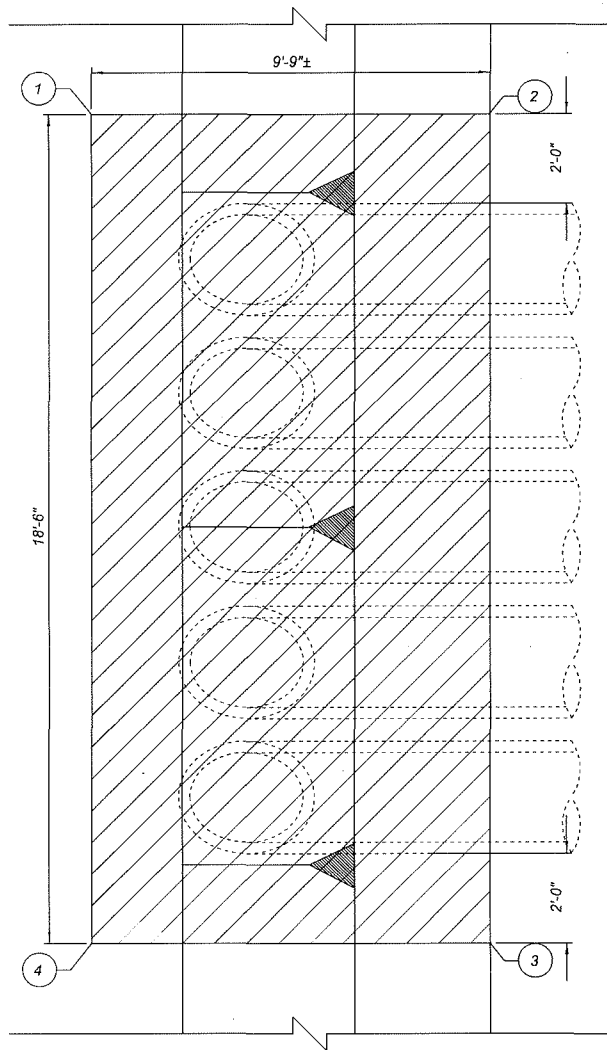
No.	Revision	Description	Engineer	Date



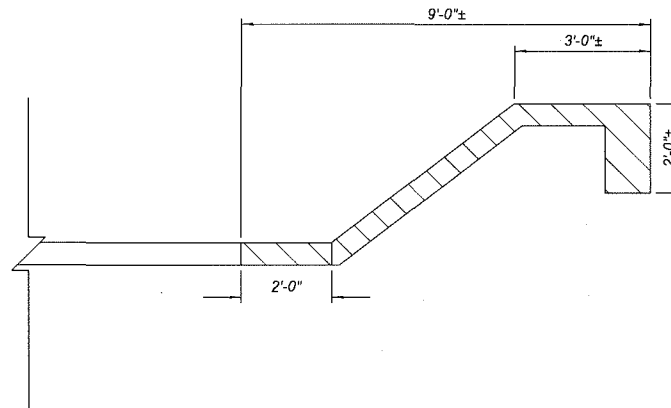
DRAINAGE DETAILS

Pima County Department of Transportation

Country Club Rd. From Michigan Street To Milber St. No. P02500019683



REMOVAL PLAN VIEW



REMOVAL ELEVATION VIEW

Notes:

1. All storm drain pipes discharging into concrete channels shall be mitered to conform to slope.
2. Existing concrete channel lining to be removed 2' beyond toe of slope
3. Top width of removal is variable. Contractor to remove existing shotcrete channel side-slope and cut-off wall

POINT	NORTHING (FT)	EASTING (FT)
1	427884.3836	1006505.3754
2	427884.5186	1006515.1814
3	427866.0204	1006515.4360
4	427865.8866	1006505.6831

DETAIL DE

Sheet 1 of 2
PIPE OUTLET TO CHANNEL

Pima County
Department of Transportation
201 N. Stone Ave., 4th floor Tucson, Arizona 85701
Phone Number: 520-724-8410
Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

Date	By
02/20/16	Engr. Grace
02/20/16	Engr. Grace
02/20/16	Proj. Eng.
02/20/16	Proj. Eng.

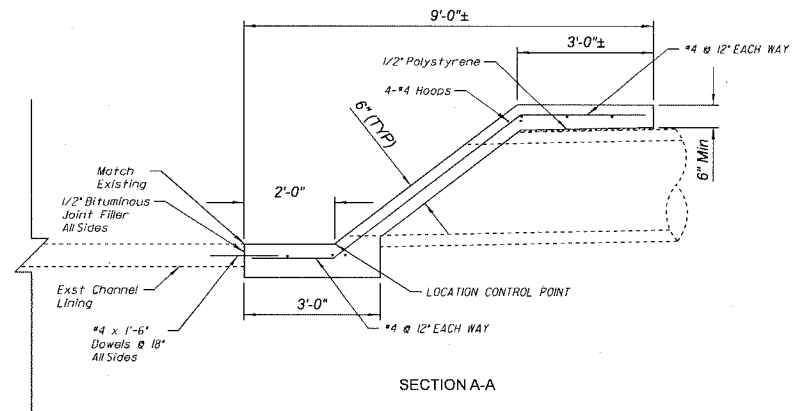
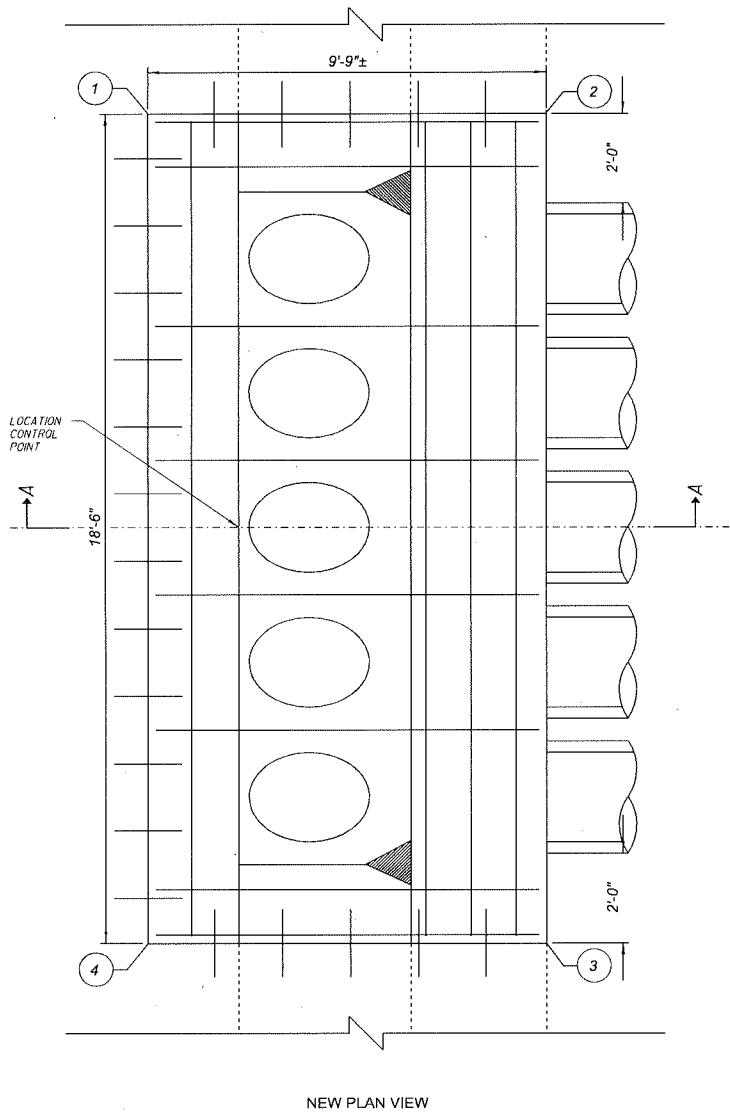
No.	Revision Description	Engineer	Date



DRAINAGE DETAILS

Pima County Department of Transportation

Country Club Rd. From Michigan Street To Milber St. No. P02500019683



SECTION A-A

Notes:

1. Match existing channel lining elevations at all tie-in locations
2. Concrete shall be Class "S" $f_c = 4,500$ psi
3. All reinforcing bars shall be #4 unless otherwise noted.

POINT	NORTHING (FT)	EASTING (FT)
1	427884.3836	1006505.3754
2	427884.5186	1006515.1814
3	427866.0204	1006515.4360
4	427865.8866	1006505.6831

DETAIL DE

Sheet 2 of 2
PIPE OUTLET TO CHANNEL

Pima County
Department of Transportation
201 N. Stone Ave, 4th Floor Tucson, Arizona 85701
Phone Number: 520-724-5410
Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

Date	By
07/20/16	Leon Orce
07/20/16	Mike Whaley
07/20/16	Mike Whaley
07/20/16	Alex Gonzalez

No.	Revision	Description	Engineer	Date

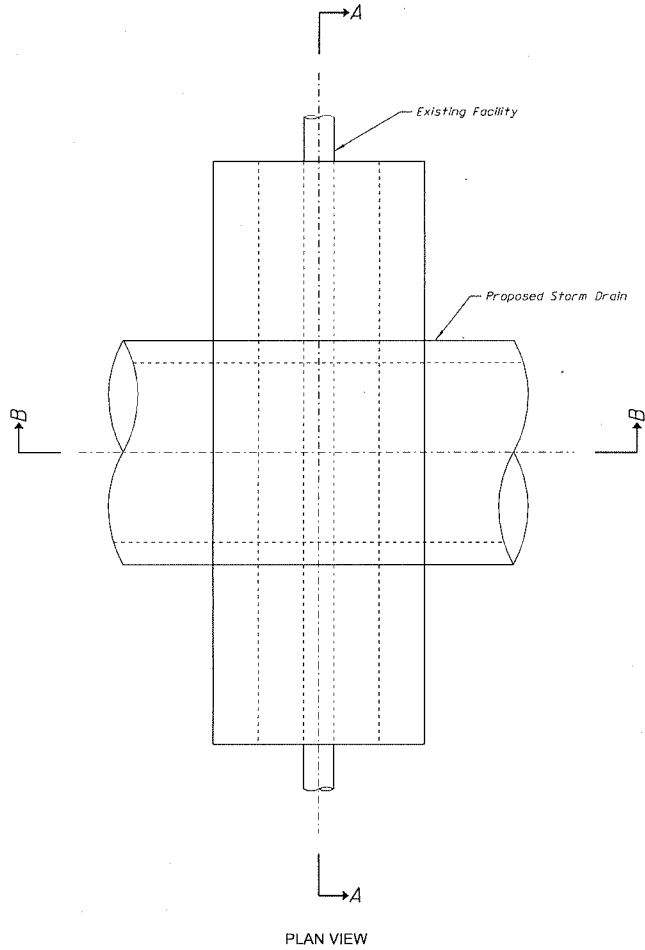


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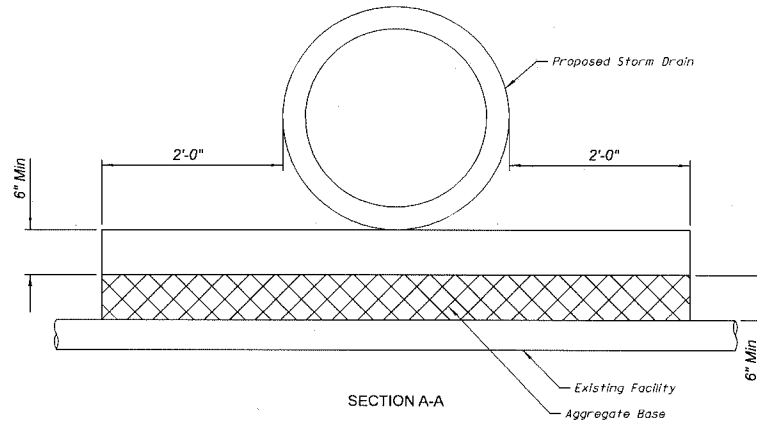
DRAINAGE DETAILS

Pima County Department of Transportation

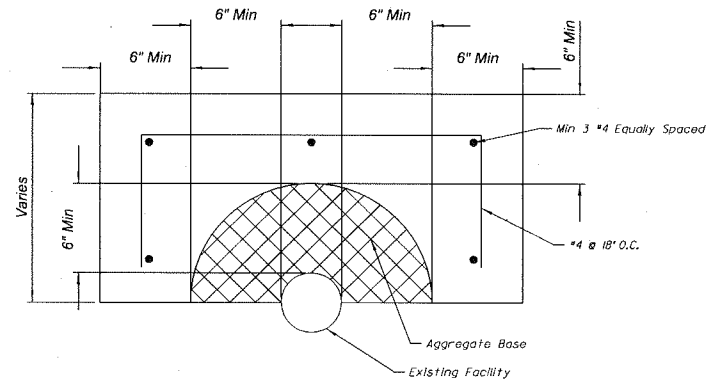
Country Club Rd. From Michigan Street To Milber St. No. P02500019683



PLAN VIEW



SECTION A-A



SECTION B-B
PROPOSED PIPE NOT SHOWN FOR CLARITY

Notes:

1. Thickness of saddle may extend to bottom elevation of proposed storm drain facility
2. Concrete shall be Class "S" f'c = 4,500 psi
3. Minimum 2" clear to all reinforcing

DETAIL DF

Sheet 1 of 1
SADDLE PIPE PROTECTION

Pima County
Department of Transportation
201 N. Stone Ave. 4th Floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Date	02/20/16
Drawn	Mike Welsch
Checked	Alex Gonzalez
Proj. Eng.	Alex Gonzalez

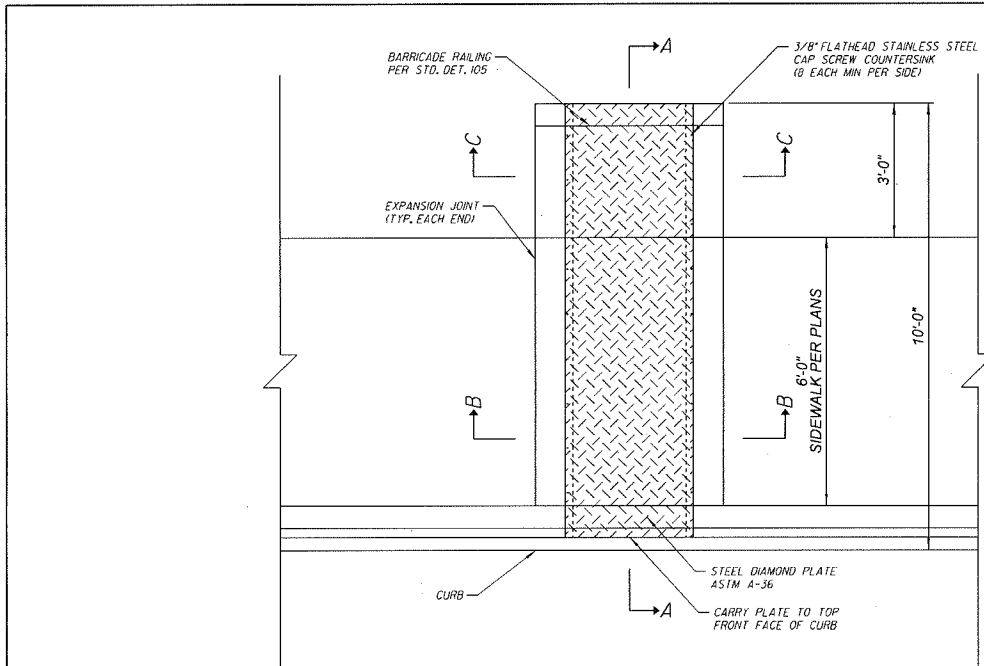
No.	Revision	Description	Engineer	Date



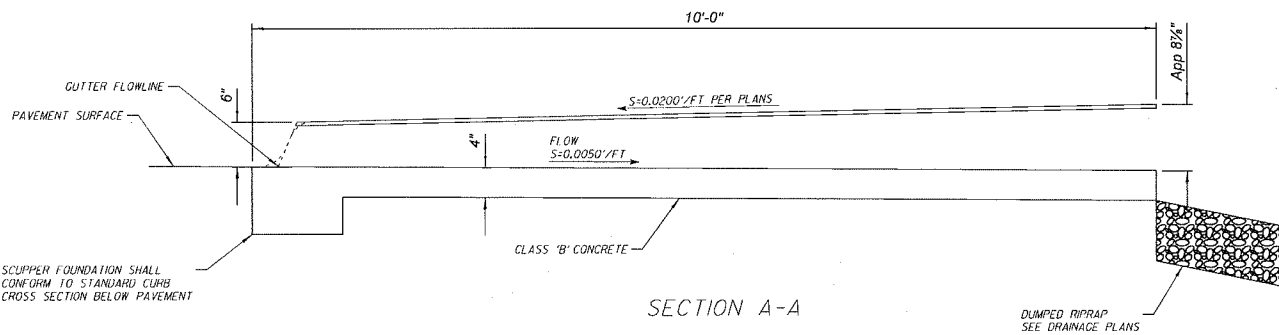
DRAINAGE DETAILS

Kathryn Skinner, P.E., Director

Pima County Department of Transportation



PLAN VIEW



SECTION A-A

Notes:

1. Steel diamond plate shall be given one shop coat of paint Mo.1 per Std. Spec. Section 1002. Exposed metal shall be painted with two coats of SSPC paint No. 5 per Std. Spec. Section 1002.
2. Steel diamond plate shall be delivered as one piece, conforming to the required scupper dimensions. Plates shall not be spliced.
3. Refer to PAG Std. Dtl. 205 for additional details

DETAIL DG

Sheet 1 of 2

MODIFIED SIDEWALK SCUPPER

Pima County
Department of Transportation
201 N. Stone Ave, 4th floor Tucson, Arizona 85701
Phone Number: 520-724-8410
Kathryn Skinner, P.E., Director

Sheet DD12of DD113 Page 29 of 41

Date	07/20/06
Drawn	Fun Grace
Checked	Mike Kibbe
Proj. Engr.	Alex Gonzalez

No.	Revision Description	Engineer	Date

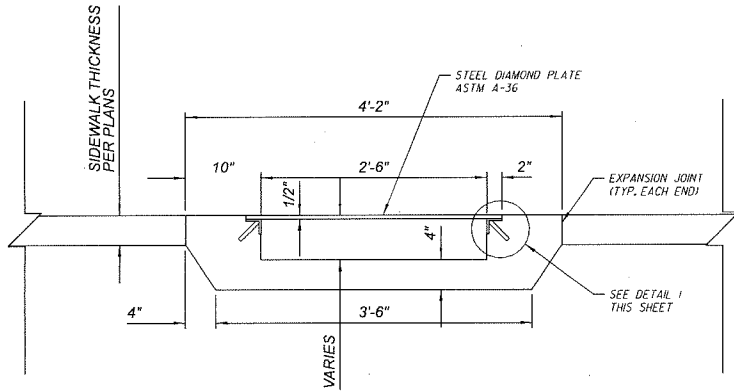


DRAINAGE DETAILS

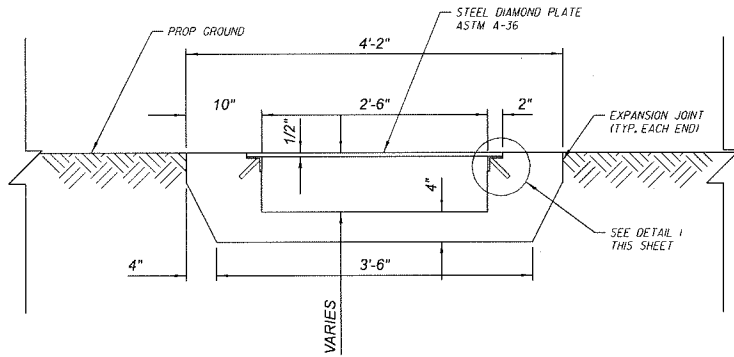
Kathryn Skinner, P.E., Director

Pima County Department of Transportation

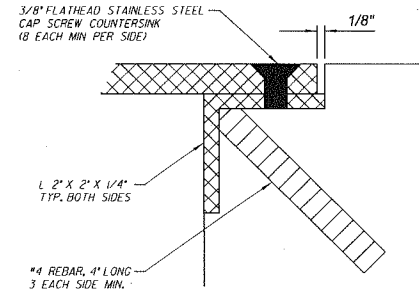
Country Club Rd. From Michigan Street To Milber St. No. P02500019683



SECTION B-B



SECTION C-C



DETAIL 1

DETAIL DG

Sheet 2 of 2
MODIFIED SIDEWALK SCUPPER

Pima County
Department of Transportation
201 N. Stone Ave, 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Date	07/20/06
Design	Eric Greer
Checked	Mike Wozniak
Proj. Eng.	Alex Gonzalez

No.	Revision	Description	Engineer	Date

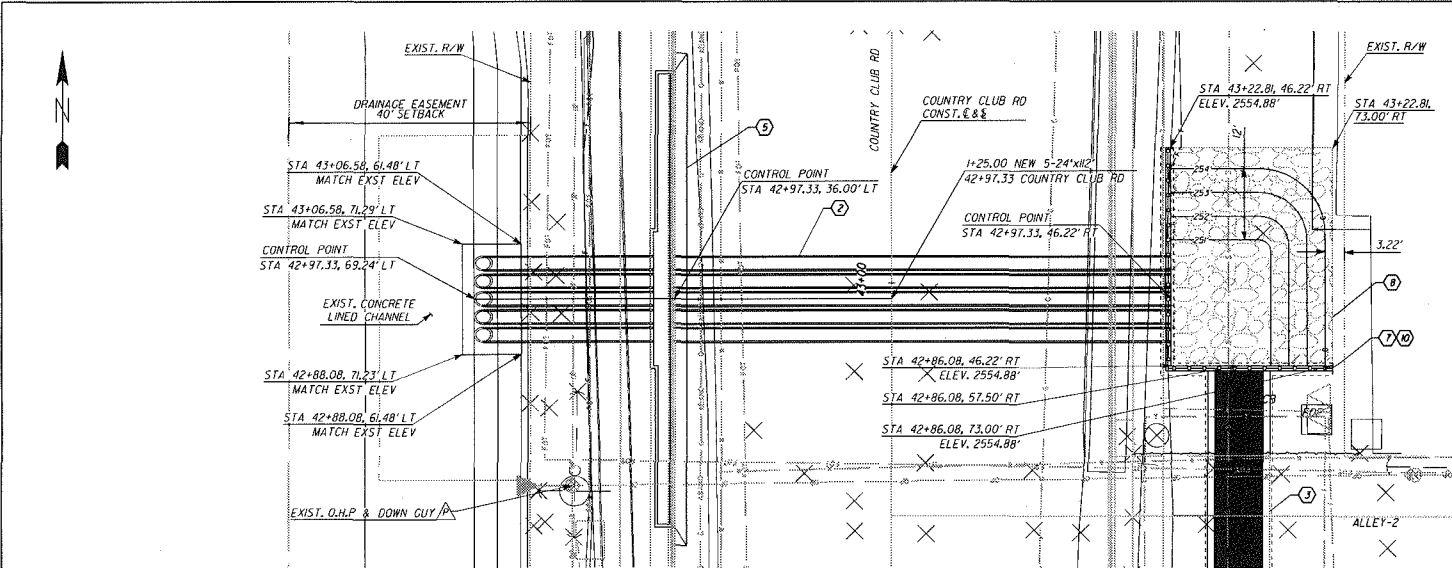


DRAINAGE DETAILS

Kathryn Skinner, P.E., Director

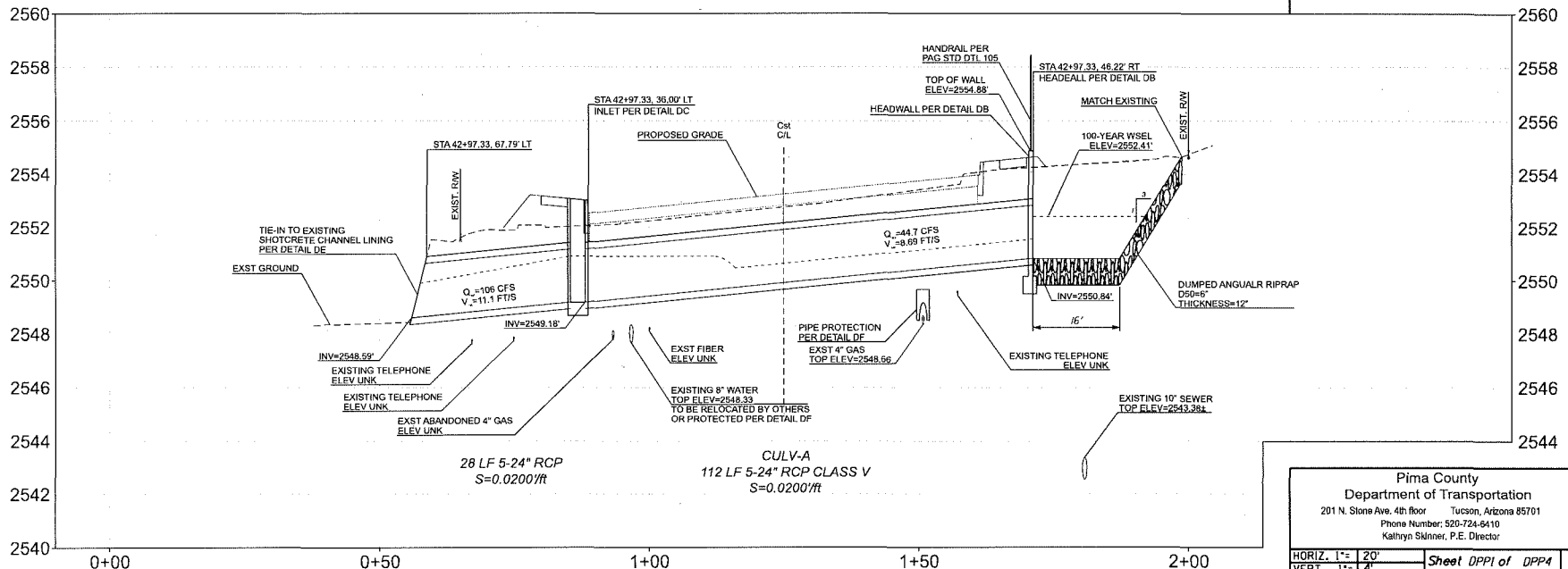
Pima County Department of Transportation

Country Club Rd. From Michigan Street To Milber St. No. P02500019683



- CONSTRUCTION NOTES**
- ② NEW 24" RCP, CLASS V (504025)
 - ③ NEW CONCRETE U-CHANNEL PER DETAIL DA (5030049)
 - ⑤ NEW CATCH BASIN (MOD. PAG 308) PER DETAIL DC (5030775)
 - ⑦ NEW U-CHANNEL HEADWALL PER DETAIL DB (6016089)
 - ⑧ NEW DUMPED RIPRAP (350-6") (933005)
 - ⑩ HANDRAIL (PAG 105) (9330002)

- REFERENCE NOTES**
- ▲ PROTECT-IN-PLACE



Pima County
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Phone Number: 520-724-9410
Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

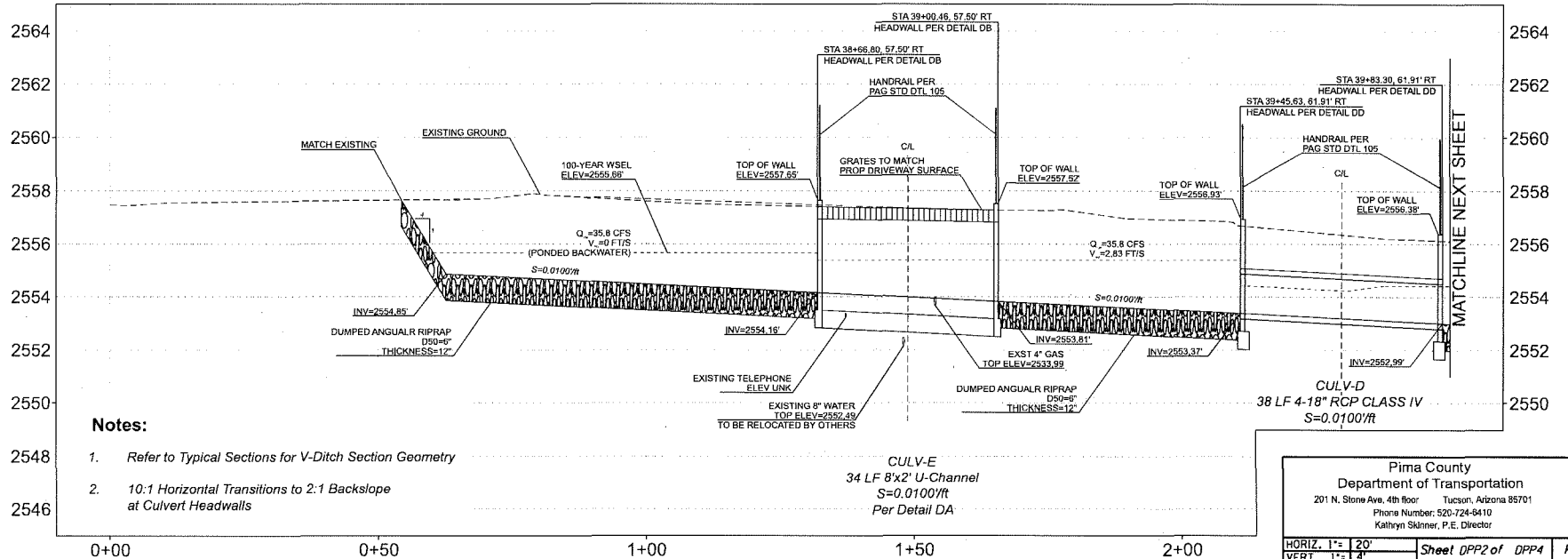
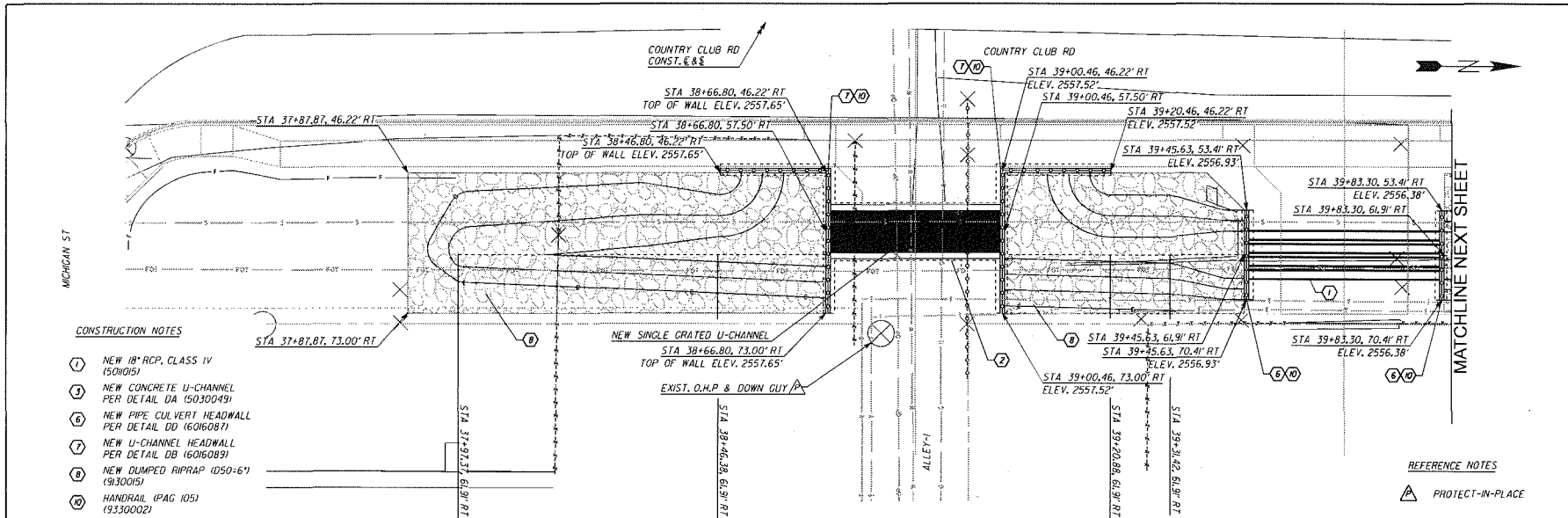
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02/20/25	02/20/25	02/20/25
02/20/25	02/20/25	02/20/25

No.	Revision	Description

Pima County Department of Transportation

DRAINAGE PLAN & PROFILE

Country Club Rd: From Michigan Street To Milber St No. P02500019683



Kathryn Skinner, P.E., Director

Date	By	Check	Appr.
07/20/26	From Office		
07/20/26	From Office		
07/20/26	From Office		
07/20/26	From Office		

No.	Revision	Description

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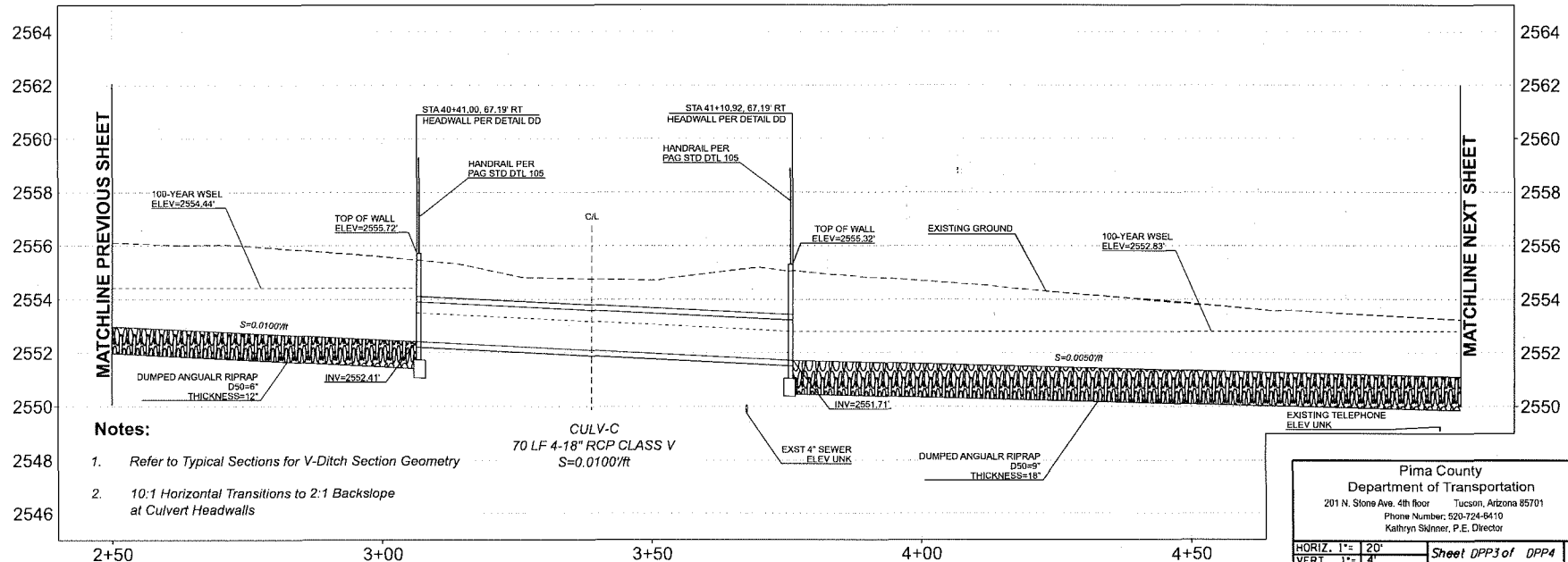
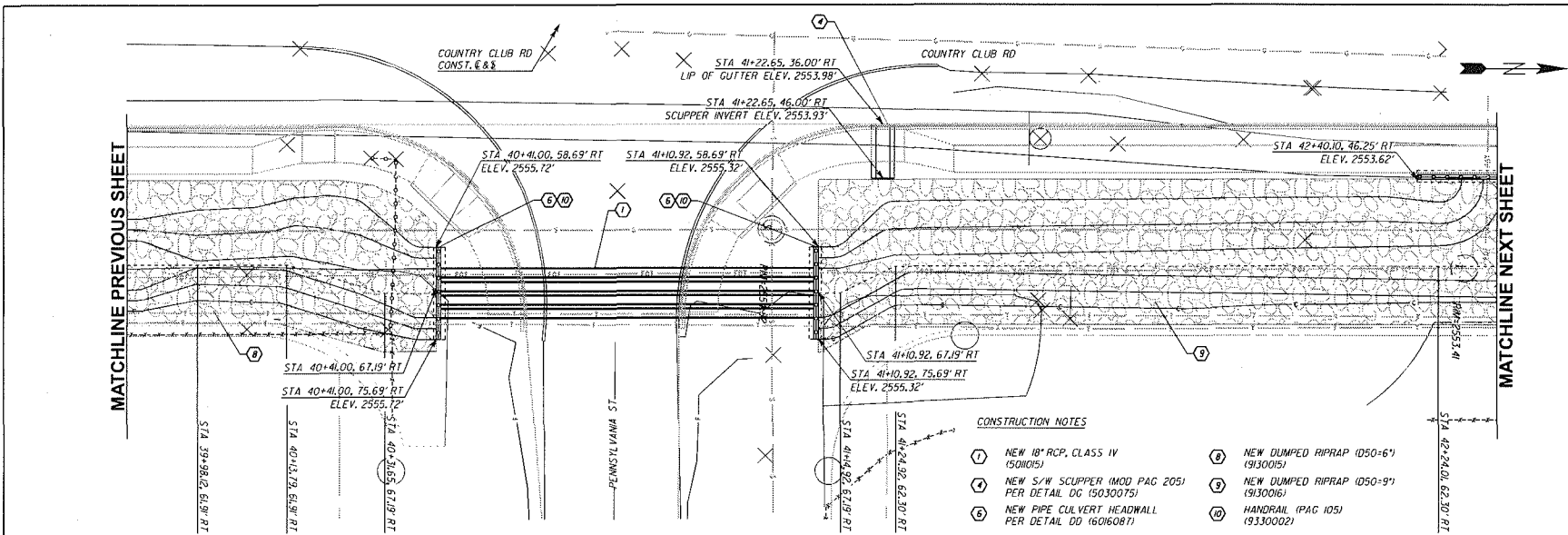
Pima County Department of Transportation

DRAINAGE PLAN & PROFILE

Pima County
Department of Transportation
201 N. Stone Ave, 4th floor
Tucson, Arizona 85701
Phone Number: 520-724-8410
Kathryn Skinner, P.E. Director

HORIZ. 1" = 20'	Sheet DPP2 of DPP4	Page 32 of 41
VERT. 1" = 4'		

Country Club Rd: From Michigan Street To Milber St No. P02500019683
I-2025-025



Pima County Department of Transportation

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-8410
Kathryn Skinner, P.E. Director

HORIZ. 1"= 20'
VERT. 1"= 4'

Sheet DPP3 of DPP4

Page 33 of 41

1-2025-025

Pima County Department of Transportation

Kathryn Skinner, P.E., Director

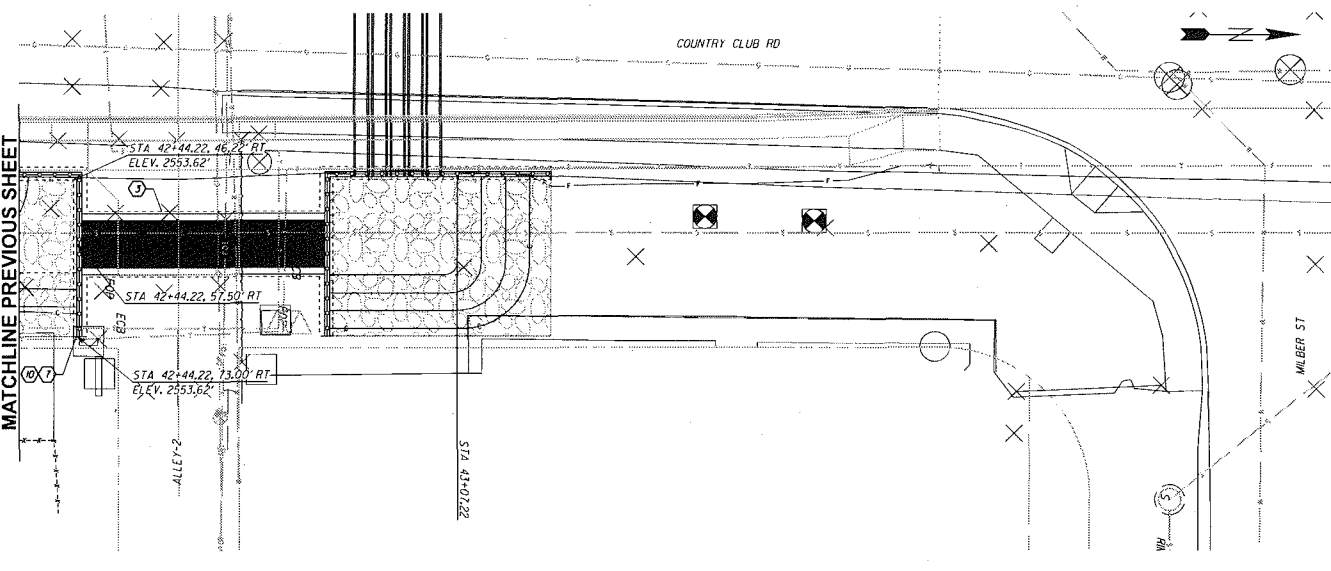
No.	Revision Description	Engineer	Date

DRAINAGE PLAN & PROFILE

Jacobs

Country Club Rd: From Michigan Street To Milber St No. P02500019683

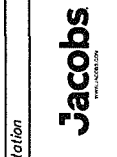
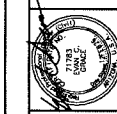
MATCHLINE PREVIOUS SHEET



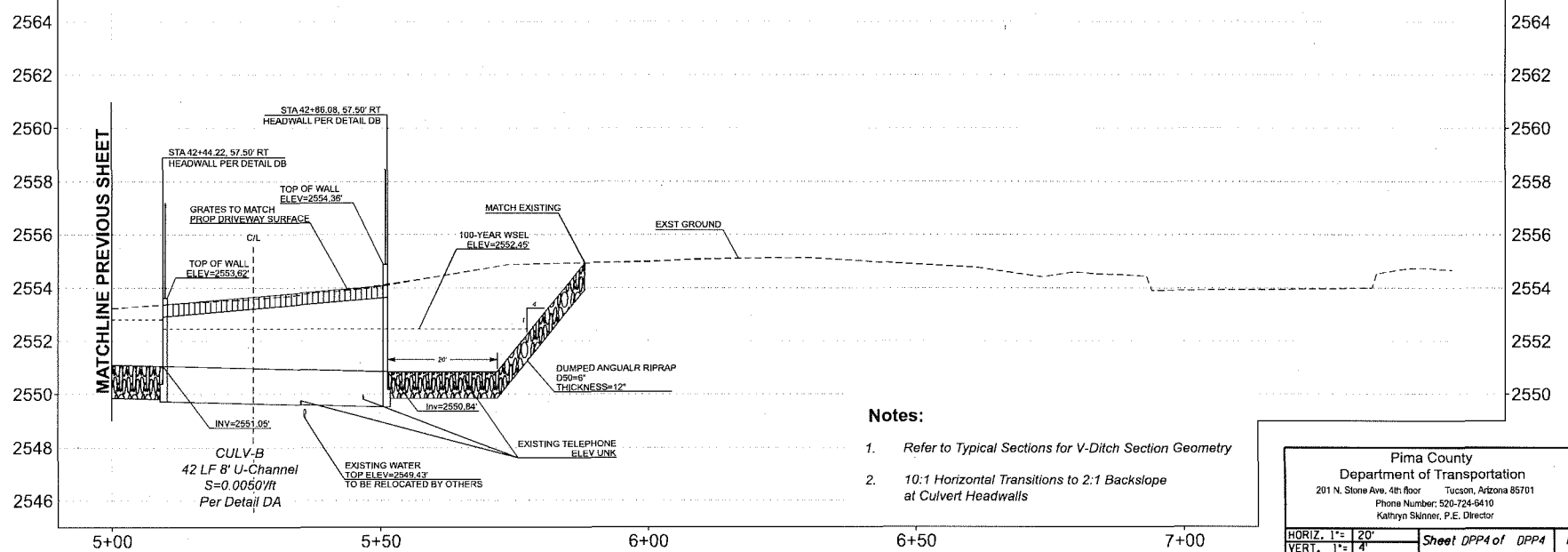
- CONSTRUCTION NOTES**
- ① NEW CONCRETE U-CHANNEL PER DETAIL DA (5030049)
 - ⑦ NEW U-CHANNEL HEADWALL PER DETAIL DB (6016089)
 - ⑩ HANDRAIL (PAG 105) (9330002)

Date	Drawn	Checked	Proj. Engr.
07/20/26	AMR	AMR	AMR
07/20/26	AMR	AMR	AMR
07/20/26	AMR	AMR	AMR

No.	Revision Description	Engineer	Date



Pima County Department of Transportation
DRAINAGE PLAN & PROFILE



- Notes:**
1. Refer to Typical Sections for V-Ditch Section Geometry
 2. 10:1 Horizontal Transitions to 2:1 Backslope at Culvert Headwalls

Pima County
 Department of Transportation
 201 N. Stone Ave, 4th floor Tucson, Arizona 85701
 Phone Number: 520-724-6410
 Kathryn Skinner, P.E, Director

HORIZ. 1"= 20'
 VERT. 1"= 4'

Sheet DPP4 of DPP4

Country Club Rd: From Michigan Street To Milber St. No. P02500019683

Kathryn Skinner, P.E., Director

PAVEMENT MARKING GENERAL NOTES:

1. ALL EQUIPMENT/MATERIALS AND CONSTRUCTION SHALL MEET OR EXCEED THE REQUIREMENTS CONTAINED IN THE CURRENT PIMA ASSOCIATION OF GOVERNMENTS (PAG) STANDARD SPECIFICATIONS AND THE STANDARD DETAILS FOR PUBLIC IMPROVEMENTS, THE PIMA COUNTY SUPPLEMENTAL SPECIFICATIONS AND DETAILS, THE SPECIAL PROVISIONS, AND THE APPROVED PLANS. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE PC/COT SIGNING AND PAVEMENT MARKING MANUAL AND APPLICABLE AMENDMENTS.
2. THE STRIPING CONTRACTOR SHALL CONTACT THE PIMA COUNTY PAVEMENT MARKING SUPERVISOR (520-724-2624) AT LEAST 3 WORKING DAYS IN ADVANCE OF ANY PAVEMENT MARKING LAYOUT BEING INSTALLED TO SCHEDULE INSPECTION AND APPROVAL OF PAVEMENT MARKINGS DURING NORMAL BUSINESS HOURS MONDAY THROUGH FRIDAY, STATE HOLIDAYS EXCLUDED.
3. UPON APPROVAL OF THE PAVEMENT MARKING LAYOUT, THE PIMA COUNTY PAVEMENT MARKING SUPERVISOR WILL ISSUE WRITTEN AUTHORIZATION TO THE CONTRACTOR TO PROCEED WITH INSTALLING ALL PAVEMENT MARKINGS AND ASSOCIATED REFLECTIVE RAISED PAVEMENT MARKERS.
4. THE PERMANENT PAVEMENT MARKINGS MAY BE MODIFIED AS DIRECTED AND APPROVED BY THE COUNTY ENGINEER OR DESIGNEE.
5. THE POSTED SPEED LIMIT IS 35 MPH. THE DESIGN SPEED FOR COUNTRY CLUB ROAD IS 40 MPH. THE DESIGN VEHICLE FOR COUNTRY CLUB ROAD IS A WB-62.
6. ALL LANE DIMENSIONS ARE MEASURED FROM THE CENTER OF LANE LINE, CENTER OF DOUBLE LANE LINE, EDGE OF PAVEMENT, OR CURB FACE UNLESS OTHERWISE NOTED.
7. THE PAVEMENT MARKING DRAWINGS ARE SCHEMATIC ONLY. THE CONTRACTOR SHALL FOLLOW ALL DIMENSIONS, APPLICABLE MARKING DETAILS, AND SPECIFIED PIMA COUNTY STANDARDS WHEN INSTALLING PAVEMENT STRIPING, SYMBOLS, LEGENDS, AND MARKERS.
8. PAINTED LAYOUT STRIPING SHALL BE 15 MIL (0.015") THICK, WATER BASED PAINT PLACED ON THE FINAL PAVEMENT SURFACE WITH 8 POUNDS PER GALLON OF AASHTO M 247-13 TYPE 1 GLASS BEADS WITH ADHESION/MOISTURE PROOF COATING. PAINTED LAYOUT STRIPING SHALL BE INSTALLED WITHIN FIVE (5) WORKING DAYS OF THE FINAL PAVEMENT SURFACE BEING COMPLETED.
9. PAINTED SYMBOLS AND LEGENDS SHALL BE APPLIED AT THE SAME TIME AS THE PAINTED STRIPING, WITH THE EXCEPTION OF BIKE LANE SYMBOLS AND WORDS (SUCH AS STOP, AHEAD, ONLY, ETC.).
10. THE FINAL LONGITUDINAL STRIPING SHALL BE 90 MIL (0.090") THICK RIBBON EXTRUDED THERMOPLASTIC REFLECTORIZED STRIPING PLACED OVER THE PAINTED LAYOUT STRIPING WITH A SINGLE DROP OF 10 POUNDS PER 100 SQUARE FEET OF AASHTO M 247-13 GLASS BEADS. THE FINAL LONGITUDINAL STRIPING SHALL BE PLACED WITHIN 21 TO 30 CALENDAR DAYS OF THE FINAL PAVEMENT SURFACE BEING COMPLETED. ALL PREVIOUSLY EXEMPTED LONGLINE MARKINGS SHALL BE APPLIED DURING THE FINAL LONGITUDINAL STRIPING.
11. ALL FINAL TRANSVERSE STRIPING, INCLUDING SYMBOLS AND LEGENDS, SHALL BE 90 MIL (0.090") ALKYD HAND CART EXTRUDED THERMOPLASTIC WITH 10 POUNDS PER 100 SQUARE FOOT OF AASHTO M 247-13 TYPE 1 GLASS BEADS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT AND INSTALLATION OF PAVEMENT MARKINGS ON THE FINAL SURFACE COURSE FOLLOWING ONE CONTROL LINE PER DIRECTION OF TRAVEL CONSISTING OF CONTROL POINTS THAT HAVE BEEN SET TO NO MORE THAN 50 FEET APART ON CURVE SECTIONS AND 200 FEET IN TANGENT SECTIONS WHERE THE PAVEMENT MARKING PATTERN DOES NOT CHANGE.
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE FINAL SURFACE COURSE IS PLACED SO THAT THE CONSTRUCTION JOINT IS NO MORE THAN ONE FOOT OFFSET FROM THE FINAL STRIPING.

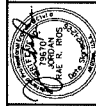
14. ALL RETROREFLECTIVE RAISED PAVEMENT MARKERS (RRPMs or RPMs) SHALL BE INSTALLED SO THAT THE REFLECTIVE FACE OF EACH MARKER IS FACING THE DIRECTION OF TRAFFIC AND IS PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW. TYPE C OR G PAVEMENT MARKERS SHALL BE INSTALLED SO THAT THE CLEAR (OR WHITE) REFLECTIVE FACE OF EACH MARKER IS FACING APPROACHING TRAFFIC AND PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW TO WHICH IT APPLIES.
15. ALL RETROREFLECTIVE RAISED PAVEMENT MARKERS (RRPMs or RPMs) SHALL BE INSTALLED PER THE CURRENT EDITION OF THE PC/COT SIGNING AND PAVEMENT MARKING MANUAL AND APPLICABLE AMENDMENTS.
16. ALL REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTION 701 OF THE PC/COT STANDARD SPECIFICATIONS. PAINTING OVER EXISTING STRIPING DOES NOT CONSTITUTE APPROVED STRIPING OBLITERATION.
17. UNLESS OTHERWISE NOTED, ALL PAVEMENT MARKINGS SHALL BE INSTALLED BY THE CONTRACTOR.
18. UPON FINAL INSPECTION, A WRITTEN ACCEPTANCE OR ITEMIZED PUNCHLIST OF MISSING OR UNACCEPTABLE PAVEMENT MARKINGS SHALL BE SUBMITTED TO THE CONTRACTOR AND PIMA COUNTY BY THE COUNTY ENGINEER OR DESIGNEE.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL STRIPING UNTIL PROJECT IS APPROVED FOR "CONSTRUCTION ACCEPTANCE" BY PIMA COUNTY. FULLY OPEN TO TRAFFIC. ALL PUNCHLIST ITEMS ARE COMPLETED, AND THE ONE YEAR MINIMUM WARRANTY BEGINS. IF THE PAVEMENT MARKING MATERIAL MANUFACTURER OFFERS A LONGER WARRANTY, THE CONTRACTOR SHALL TRANSFER THAT WARRANTY TO PIMA COUNTY.
20. THE PC/COT SIGNING AND PAVEMENT MARKING MANUAL IS AVAILABLE ONLINE.

Item Number	Item Description	Unit	SM05	SM06	SM07	Total
7010260	Obliterate Pavement Marking	L.F.	1184	0	0	1184
7040005	Pavement Marking (White Extruded Thermoplastic) (0.090")	L.F.	1880	2428	286	4594
7040006	Pavement Marking (Yellow Extruded Thermoplastic) (0.090")	L.F.	890	1936	243	3169
7040130	Pavement Marking (White Extruded Thermoplastic) (Transverse) (0.090")	L.F.	162	0	0	162
7060020	Pavement Marker, Reflective, (Type C, Clear, Red)	Each	33	39	5	76
7060025	Pavement Marker, Reflective, (Type D, Yellow, Two-Way)	Each	20	39	5	63
7080005	Permanent Pavement Marking (Painted) (White) (First Application)	L.F.	1254	1619	190	3063
7080007	Permanent Pavement Marking (Painted) (Yellow) (First Application)	L.F.	660	1297	162	2113

Pima County
 Department of Transportation
 201 N. Stone Ave. 4th floor Tucson, Arizona 85701
 Phone Number: 520-724-6410
 Kathryn Skinner, P.E. Director

Date	Prepared	Checked	Reviewed	Approved
07/20/26	Kathryn Skinner	Kathryn Skinner	Kathryn Skinner	Kathryn Skinner
07/20/26				
07/20/26				
07/20/26				

No.	Revision Description	Engineer	Date



Pima County Department of Transportation
 PAVEMENT MARKING GENERAL NOTES

Kathryn Skinner, P.E., Director

Pima County Department of Transportation

Country Club Rd. From Michigan Street To Milber St. No. P02500019683

SIGNING GENERAL NOTES:

- ALL EQUIPMENT/MATERIALS AND CONSTRUCTION SHALL MEET OR EXCEED THE REQUIREMENTS CONTAINED IN THE CURRENT PIMA ASSOCIATION OF GOVERNMENTS (PAG) STANDARD SPECIFICATIONS AND THE STANDARD DETAILS FOR PUBLIC IMPROVEMENTS. THE PIMA COUNTY SUPPLEMENTAL SPECIFICATIONS AND DETAILS, THE SPECIAL PROVISIONS AND THE APPROVED PLANS. ALL SIGNING SHALL BE INSTALLED IN ACCORDANCE WITH THE PC/COT SIGNING AND PAVEMENT MARKING MANUAL AND APPLICABLE AMENDMENTS.
- ALL SIGNS SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE LATEST EDITION OF THE PIMA COUNTY/CITY OF TUCSON SIGNING AND PAVEMENT MARKING MANUAL, THE PAG STANDARD SPECIFICATIONS, THE PIMA COUNTY SUPPLEMENTAL SPECIFICATIONS, ANY REQUIRED SPECIAL PROVISIONS, AND THESE PLANS.
- SIGNS MAY BE MODIFIED AND LOCATIONS ADJUSTED TO FIT CONDITIONS AT THE DISCRETION OF THE COUNTY ENGINEER.
- THE POSTED SPEED LIMIT IS 35 MPH. SIGN PLACEMENT SHALL BE BASED ON THE POSTED SPEED LIMIT.
- POST LENGTHS INDICATED ON SIGN SUMMARY SHEETS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ACTUAL POST LENGTHS.
- ALL PERFORATED POSTS SHALL BE INSTALLED IN A CONCRETE FOUNDATION, UNLESS OTHERWISE DIRECTED BY THE COUNTY ENGINEER.
- ALL SIGN STATION LOCATIONS ARE APPROXIMATE, THE CONTRACTOR SHALL VERIFY ACTUAL SIGN LOCATIONS WITH THE COUNTY ENGINEER PRIOR TO THE INSTALLATION OF ANY SIGN, POST, AND/OR FOUNDATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH ARIZONA 811 FOR INSTALLING ALL TRAFFIC SIGNS IN THE FIELD AND FOR MAINTAINING ALL SIGNING UNTIL PROJECT IS APPROVED FOR "CONSTRUCTION ACCEPTANCE" BY PIMA COUNTY (FULLY OPEN TO TRAFFIC, ALL PUNCH LIST ITEMS ARE COMPLETED, AND ONE YEAR WARRANTIES BEGIN).
- ALL SIGNS SHALL HAVE TYPE XI SHEETING OR AN EQUIVALENT. ALL WARNING SIGNS HAVING YELLOW BACKGROUNDS SHALL USE FLUORESCENT YELLOW SHEETING. ALL SCHOOL SIGNS SHALL USE FLUORESCENT YELLOW/GREEN SHEETING. ALL GROUND MOUNTED SIGNS SHALL HAVE AN ANTI GRAFFITI COATING APPLIED TO SIGN FACE, 3M 81160 FILM OR EQUIVALENT.
- A 3"x2" PRESSURE SENSITIVE, UV RESISTANT LABEL INDICATING THE SIGN MANUFACTURER'S NAME AND DATE OF MANUFACTURE SHALL BE PLACED IN THE UPPER RIGHT CORNER OF THE BACK OF ALL SIGNS, EXCEPT FOR STREET NAME SIGNS. AT THE TIME OF INSTALLATION, STREET NAME SIGNS SHALL INCLUDE A SIGN IDENTIFICATION DECAL AS DESCRIBED WITHIN PIMA COUNTY SIGNING AND MARKING STANDARDS DETAIL 6.11.
- ALL NEW SIGNS SHALL HAVE 0.080 GAUGE, RADIUS CORNER, ALUMINUM BACKING UNLESS OTHERWISE NOTED.
- PRIOR TO DISTURBING ANY TRAFFIC SIGNS, A SIGN CONDITION INVENTORY OF ALL EXISTING SIGNING SHALL BE CONDUCTED BY THE CONTRACTOR AND PROVIDED TO THE PIMA COUNTY SIGN SHOP SUPERVISOR (520) 724-2630. INVENTORY SHALL INDICATE CURRENT SIGN LOCATION AND CONDITION, INCLUDING ANY EXISTING DAMAGE OR DEFICIENCIES.
- THE CONTRACTOR SHALL REMOVE ANY SIGN PANELS TO BE REUSED WITH THE SIGN POSTS AND FOUNDATIONS AND REINSTALL THE PANELS ON NEW SIGN POSTS AND FOUNDATIONS AT THE LOCATIONS SHOWN ON THE PROJECT PLANS. SIGN PANELS DESIGNATED FOR RELOCATION SHALL BE REMOVED AND STORED IN SUCH A MANNER TO AVOID DAMAGE AND MAINTAIN THE INTEGRITY OF THE SIGNS. SAFE STORAGE OF STOCKPILE AND PYMENT OF DAMAGE TO THE STOCKPILE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SIGN PANEL RELOCATION WILL BE MEASURED AS A UNIT FOR EACH SIGN ASSEMBLY REMOVED, REGARDLESS OF THE NUMBER OF PANELS ON EACH ASSEMBLY.
- ALL SIGNS AND POSTS NOT BEING RE-USED ON THIS PROJECT SHALL BE DISMANTLED, STACKED AND DELIVERED TO THE OWNER (CITY OR COUNTY) BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFE STORAGE AT THE CONSTRUCTION SITE UNTIL DELIVERY AND THE SAFE UNLOADING OF THE SALVAGED MATERIAL. NOTIFICATION OF DELIVERY SHALL BE MADE AT LEAST 2 WORKING DAYS PRIOR TO DELIVERY. ALL PIMA COUNTY SIGN DELIVERIES SHALL BE MADE TO THE PIMA COUNTY SIGN SHOP AT 1313 S. MISSION ROAD (520) 724-2630. NO FRIDAY DELIVERIES.

Item Number	Item Description	Unit	SM05	SM06	SM07	Total
6070010	Sign Post (Perforated) (Single)	Lin. Ft.	23	23	-	46
6070012	Sign Post (Perforated) (Telescoping)	Lin. Ft.	13	29	-	42
6070042	Slip Base Assembly (Type 2½") (Telescoping)	Each	1	2	-	3
6070110	Foundation for Sign Post (Perforated)	Each	3	4	-	7
6080031	Regulatory Sign Panels	Sq. Ft.	6.25	-	-	6.25
6080081	Flat Sheet Aluminum wDirect Apply Or Silk-Screen Characters	Sq. Ft.	7.5	-	-	7.5

Date	Checked	Drawn	Proj. Engr.
07/20/26			
07/20/26			
07/20/26			
07/20/26			

No.	Revision	Description	Engineer	Date



Pima County Department of Transportation

Kathryn Skinner, P.E., Director

SIGNING GENERAL NOTES

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E., Director

Country Club Rd. From Michigan Street To Milber St. No. P02500019683

STA 90+85
 Match Exst
 Begin Lane Line
 Begin Solid Bike Lane
 Begin Exst NB Striping Obliteration

STA 87+26
 End Solid Bike Lane
 End Lane Line
 37+11
 End Exst NB Striping Obliteration

STA 37+60
 Begin Solid Bike Lane
 Begin Lane Line
 Begin TWLTL

STA 39+72
 End Solid Bike Lane
 Begin Dashed Bike Lane

STA 40+23
 End Dashed Bike Lane

STA 41+20
 Begin Solid Bike Lane

Pima County
 Department of Transportation
 201 N. Stone Ave, 4th Floor, Tucson, Arizona 85701
 Phone Number: 520.242.4141
 Kathryn Skinner, P.E. Director

Call at least two full working days before you begin excavation.
ARIZONA 811
 ARIZONA BLUE STAKE, INC.
 Dial 811 or 1-800-STRAKE (782-5348)
 In Maricopa County: (602) 283-1100

Sheet SW05 of SW07

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Pima County Department of Transportation

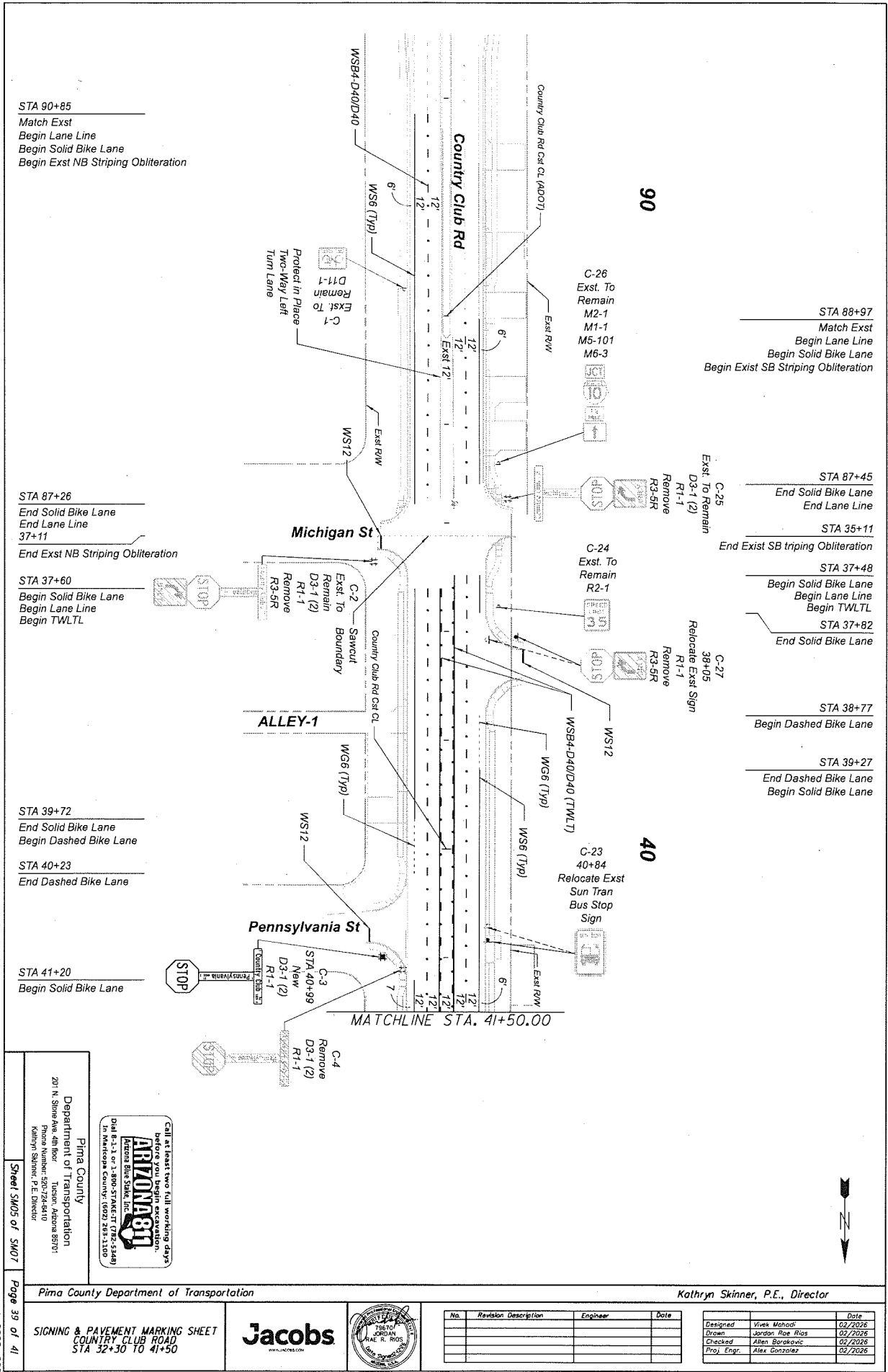
Kathryn Skinner, P.E., Director

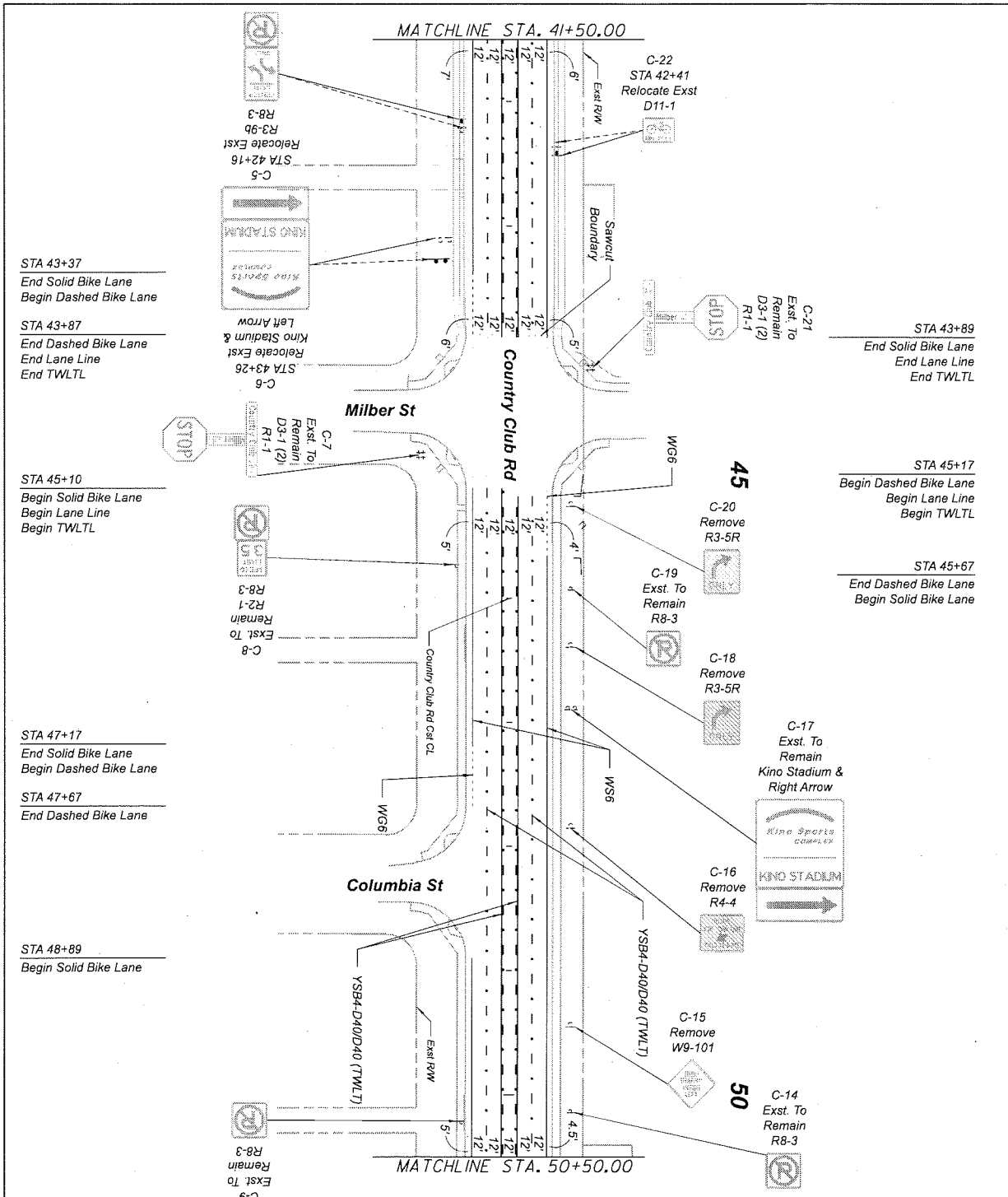
SIGNING & PAVEMENT MARKING SHEET
 COUNTRY CLUB ROAD
 STA 32+30 TO 41+50



No.	Revision Description	Engineer	Date

Designed	Checked	Proj. Engr.	Date
Vivek Mohadi	Allen Berkeovic	Alex Gonzalez	02/2026
Jordan Rice-Rios	Allen Berkeovic	Alex Gonzalez	02/2026





STA 43+37
End Solid Bike Lane
Begin Dashed Bike Lane

STA 43+87
End Dashed Bike Lane
End Lane Line
End TWLTL

STA 45+10
Begin Solid Bike Lane
Begin Lane Line
Begin TWLTL

STA 47+17
End Solid Bike Lane
Begin Dashed Bike Lane

STA 47+67
End Dashed Bike Lane

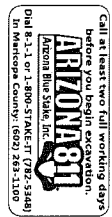
STA 48+89
Begin Solid Bike Lane

STA 43+89
End Solid Bike Lane
End Lane Line
End TWLTL

STA 45+17
Begin Dashed Bike Lane
Begin Lane Line
Begin TWLTL

STA 45+67
End Dashed Bike Lane
Begin Solid Bike Lane

Pima County
Department of Transportation
201 N. Santa Ave., 4th Floor, Tucson, Arizona 85701
Kathryn Skinner, P.E., Director



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1-2025-025

Pima County Department of Transportation

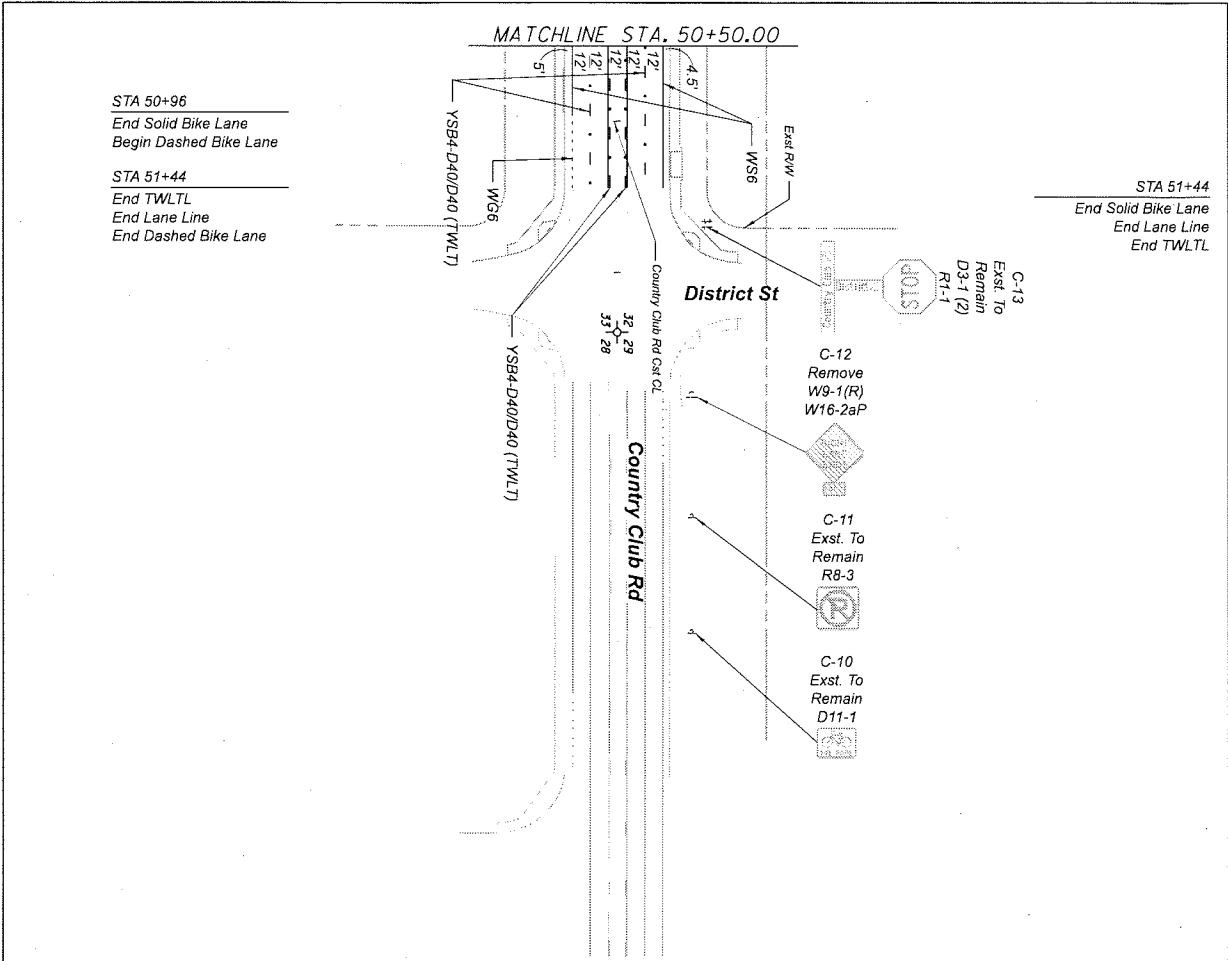
Kathryn Skinner, P.E., Director

SIGNING & PAVEMENT MARKING SHEET
COUNTRY CLUB ROAD
STA 41+50 TO 50+50



No.	Revision Description	Engineer	Date

Designed	Drawn	Checked	Proj. Engr.	Date
Vives Mohadi	Jordan Rose Altes	Alex Gonzalez	Alex Gonzalez	02/2026



STA 50+96
End Solid Bike Lane
Begin Dashed Bike Lane

STA 51+44
End TWLTL
End Lane Line
End Dashed Bike Lane

STA 51+44
End Solid Bike Lane
End Lane Line
End TWLTL

Pima County
Department of Transportation
201 N. Santa Rita Avenue, Suite 400, Tucson AZ 85701
Phone: 520.296.4100
Fax: 520.296.4100
Kathryn Skinner, P.E. Director



Sheet SM07 of SM07
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1-2025-025

Pima County Department of Transportation

Kathryn Skinner, P.E., Director

SIGNING & PAVEMENT MARKING SHEET
COUNTRY CLUB ROAD
STA 50+50 TO 55+60



No.	Revision Description	Engineer	Date

Designed	Drawn	Checked	Proj. Engr.	Date
Vivek Mahadi	Jordan Rose Pios	Alex Barakovic	Alex Gonzalez	02/2026

EPS GROUP INC.

**S COUNTRY CLUB RD E MICHIGAN STREET TO E MILBER
STREET**

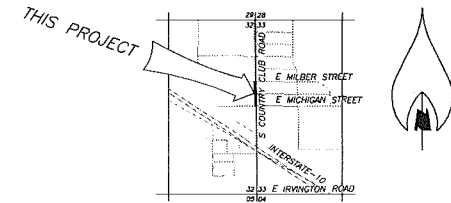
PLANS SIGNED AND DATED 03/31/26 (9 PAGES)

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S COUNTRY CLUB ROAD

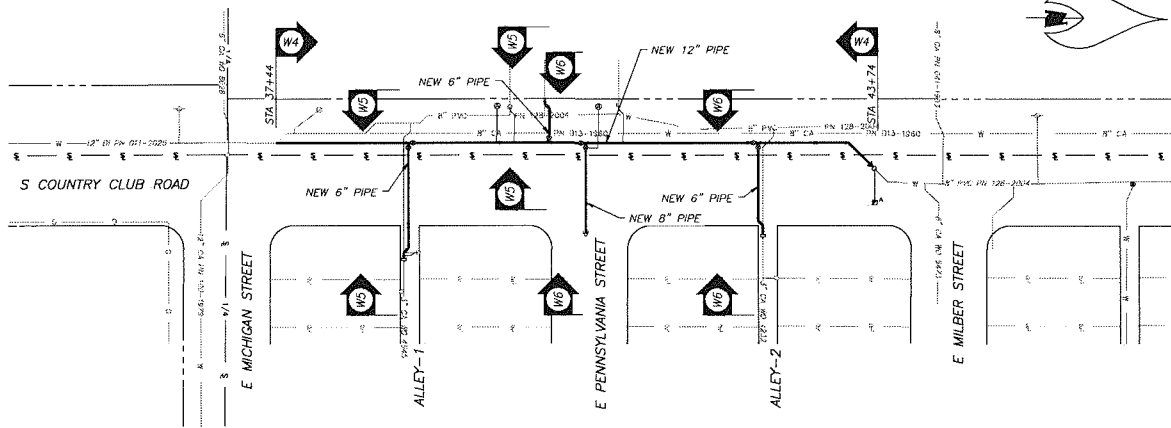
E MICHIGAN STREET TO E MILBER STREET

MODS PROGRAM CODE PRJ 000637



LOCATION MAP

SECTIONS 32 & 33 T14S, R14E
 G&SR E&M, PIMA COUNTY, ARIZONA
 LATITUDE 32°10'18"N LONGITUDE 110°55'35"W
 CITY OF TUCSON, WARD 5, COUNCILMAN RICHARD FIMBRES
 PIMA COUNTY, DISTRICT 2, SUPERVISOR DR. MATT HEINZ
 SCALE: 3"=1 MILE



SHEET INDEX PLAN
 1"=60'

INSPECTOR'S RECORD DRAWING COMMENTS	
INSPECT:	
CONTR:	
START:	FINAL
PIPE:	DIC P/CD
	DIC P/CD
SYMBOLS:	
DATES:	
PLANS SHOWN:	DATE:
MAGNETIC TAPE INST.	YES NO
FRASER WIRE INST.	YES NO
ALL VALVES HERE INSTALLED PER PLAN	
Signature:	
Date:	
GIS LAYOUT:	YES NO
	D C

TUCSON WATER Date:

ACCEPTANCE OF THESE PLANS IS VALID FOR THREE (3) YEARS AFTER THE DATE OF SIGNATURE.

TUCSON FIRE DEPARTMENT Date:

SHEET INDEX	
TW SHEET NO.	DESCRIPTION
W1	COVER SHEET, SHEET INDEX
W2	GENERAL NOTES
W3	ABBREVIATIONS AND LEGEND
W4	S COUNTRY CLUB ROAD STA 37+44 TO STA 43+74
W5	ALLEY-1 AND FIRE SERVICE LATERALS
W6	E PENNSYLVANIA STREET AND ALLEY-2 LATERALS
W7	SURVEY GENERAL NOTES
W8	HORIZONTAL CONTROL

UPC-2026-039
 W1 OF W8

FOR ENGINEERING AS-BUILT RECORD DRAWING STAMP	TUCSON WATER	CITY OF TUCSON S COUNTRY CLUB ROAD E MICHIGAN STREET TO E MILBER STREET																								
		COVER SHEET																								
		<table border="1"> <tr> <td>DESIGNED BY</td> <td>DATE</td> <td>CHECKED BY</td> <td>DATE</td> <td>SHEET</td> <td>OF</td> </tr> <tr> <td>TAS/RW</td> <td>03/25</td> <td>ALH</td> <td>03/25</td> <td>1</td> <td>8</td> </tr> <tr> <td>DRAWN BY</td> <td>DATE</td> <td>SCALE</td> <td colspan="3"></td> </tr> <tr> <td>ALH</td> <td>03/25</td> <td>1"=60'</td> <td colspan="3">4-016-2026</td> </tr> </table>	DESIGNED BY	DATE	CHECKED BY	DATE	SHEET	OF	TAS/RW	03/25	ALH	03/25	1	8	DRAWN BY	DATE	SCALE				ALH	03/25	1"=60'	4-016-2026		
DESIGNED BY	DATE	CHECKED BY	DATE	SHEET	OF																					
TAS/RW	03/25	ALH	03/25	1	8																					
DRAWN BY	DATE	SCALE																								
ALH	03/25	1"=60'	4-016-2026																							

EPS GROUP
 8710 N. Thornydale Rd, Suite 140
 Tucson, AZ 85742
 T: 520.408.1400 | F: 520.408.1403
 www.epsgroupinc.com



NO.	BY	DATE	REVISION	APPR.	DATE

GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE FOLLOWING: THE CONTRACT DOCUMENTS; TUCSON WATER STANDARD SPECIFICATIONS AND DETAILS, 2017 EDITION WITH LATEST REVISIONS; AND PAG STANDARD SPECIFICATIONS FOR PUBLIC UTILITIES VOLUME 1, 2015 EDITION; AND DRAWINGS VOLUME 2, 2015 EDITION; A COPY OF THE ABOVE REFERENCES SHALL BE MAINTAINED AT THE PROJECT SITE AT ALL TIMES; IF A CONFLICT EXISTS BETWEEN THE ABOVE PROVISIONS IN THE CONTRACT SPECIFICATIONS AND THE STANDARD SPECIFICATIONS AND DETAILS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- ALL WORK SHALL BE PERFORMED BY A CONTRACTOR LICENSED BY THE STATE OF ARIZONA, AS DETERMINED BY THE ARIZONA REGISTRAR OF CONTRACTORS (A, A-12, A-16, CR-80, AND KA).
- ALL NOTES IN TUCSON WATER STANDARD DETAIL (SD) SD-105, GENERAL CONSTRUCTION NOTES, SHALL APPLY TO AND BECOME AN INTEGRAL PART OF THIS PROJECT.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.
- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF THE PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY OF ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SERVICE TO WATER CUSTOMERS DURING CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHICH SERVICES WILL BE AFFECTED BY THIS PROJECT. IT MAY BE NECESSARY TO ACCOMPLISH TIE-OVERS, RECONNECTIONS, ETC. WHILE BUSINESS CUSTOMERS ARE CLOSED. IF INTERRUPTION OF SERVICE IS UNAVOIDABLE, THE CONTRACTOR SHALL NOTIFY THE WATER INSPECTOR A MINIMUM OF 14 DAYS IN ADVANCE TO COORDINATE SHUT-DOWNS. EVERY EFFORT SHALL BE MADE TO MINIMIZE DISRUPTION TO THE CUSTOMER. IF THE CONTRACTOR CHOOSES TO ABANDON ANY PORTION OF THE EXISTING WATER SUPPLY SYSTEM WITHOUT CONCURRENT NEW CONSTRUCTION AS CALLED FOR ON THE PLANS, THE CONTRACTOR SHALL PROVIDE ANY AND ALL MATERIALS AND CONSTRUCTION OF A TEMPORARY OR PERMANENT WATER SYSTEM TO MAINTAIN CONTINUED WATER SERVICE TO CUSTOMERS AT NO ADDITIONAL COST.
- FOURTEEN (14) DAYS PRIOR TO SHUT-DOWN OF ANY FIRE HYDRANTS OR FIRE PROTECTION SERVICE LINES, THE CONTRACTOR SHALL PROVIDE THE CITY OF TUCSON WATER DEPARTMENT CONSTRUCTION INSPECTOR WITH A WRITTEN REPORT INDICATING THE LOCATION AND DURATION OF ANY FIRE HYDRANT OR FIRE PROTECTION SERVICE SHUT-DOWNS. THE CONTRACTOR SHALL NOTIFY THE CITY OF TUCSON WATER DEPARTMENT CONSTRUCTION INSPECTOR WHEN FIRE HYDRANTS OR FIRE PROTECTION SERVICES ARE BACK IN SERVICE.
- THE CONTRACTOR SHALL MAINTAIN OPERATION OF EXISTING TRAFFIC SIGNALS, STREET LIGHTING, AND RELATED SYSTEMS AT ALL TIMES THROUGHOUT THE AREA OF CONSTRUCTION, AND SHALL BE RELOCATED BY CONTRACTOR AS REQUIRED. CONTACT CITY OF TUCSON DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEERING AT (520) 791-4259 OR CONTACT PIMA COUNTY DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEERING AT (520) 791-4259 FOR RELOCATION INSTRUCTIONS AS REQUIRED.
- THE CONTRACTOR SHALL EXERCISE CAUTION DURING CONSTRUCTION ACTIVITIES NEAR OR DIRECTLY UNDER OVERHEAD ELECTRIC FACILITIES. THE COST FOR ELECTRIC OVERHEAD PROTECTION IS BILLABLE TO THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE ELECTRIC UTILITY OWNER:
 - TUCSON ELECTRIC POWER: THE CONTRACTOR SHALL COMPLETE A TUCSON ELECTRIC POWER OVERHEAD/EXCAVATION PROTECTION APPLICATION AT LEAST TWO (2) WEEKS PRIOR TO START OF CONSTRUCTION. CONTACT TUCSON ELECTRIC POWER AT BLUESTATECOORDINATOR@TEP.COM OR (520) 917-2617.
 - TRICO ELECTRIC COOPERATIVE: THE CONTRACTOR SHALL CONTACT TRICO ELECTRIC COOPERATIVE, AT LEAST THREE (3) DAYS PRIOR TO CONSTRUCTION NEAR OR DIRECTLY UNDER ANY TRICO OVERHEAD ELECTRIC FACILITIES, FOR A STAND-BY CREW. CONTACT LARRY ASH AT (520) 794-2944 EXT. 1368.
- THE OWNER/ENGINEER DOES NOT WARRANT THE LOCATION OF EXISTING UTILITIES SHOWN ON THE DRAWINGS TO BE EXACT, NOR IS IT WARRANTED THAT ALL EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS IN THE CITY OF TUCSON/PIMA COUNTY STANDARD SPECIFICATIONS SECTION 107-21, PAG STANDARD SPECIFICATIONS SECTION 107-21, AND WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES TITLE 40, INCLUDING PROVISIONS FOR DETERMINING THE LOCATION OF ALL UTILITIES IN THE WORK AREA PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY IMPROVEMENTS ENCOUNTERED IN THE COURSE OF THE WORK.
 - THE CONTRACTOR SHALL CONTACT ARIZONA 811 (FORMERLY ARIZONA BLUE STAKE) AT 811 OR (800) 782-5348 AT LEAST TWO (2) WORKING DAYS PRIOR TO START OF CONSTRUCTION.
 - ALL DIMENSIONS AND GRADES FOR EXISTING WATER LINES ARE TAKEN FROM "AS-BUILT" DRAWINGS, AND MAY BE SCHEMATIC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXACT INFORMATION REQUIRED FOR NEW CONSTRUCTION.
 - THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF ALL TIE-IN LOCATIONS PRIOR TO THE START OF ANY CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH THE DRAWINGS INCLUDING CONFLICTS THAT MAY NOT BE SHOWN.
 - ANY SURVEY MONUMENT OR PROPERTY CORNER DISTURBED BY THIS CONSTRUCTION SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE BY A LAND SURVEYOR REGISTERED TO PRACTICE IN THE STATE OF ARIZONA, AND A RECORD OF SURVEY SHALL BE REQUIRED.
 - PIPELINE STATIONING AND OFFSETS FOR THIS PROJECT ARE FROM THE SURVEY CONTROL LINE, UNLESS OTHERWISE NOTED. ALL STATIONING IS ALONG THE SURVEY CONTROL LINE WITH OFFSETS TO THE PIPELINE.
 - IN DEVELOPED LOCATIONS, NEW WATER MAIN SHALL BE INSTALLED WITH 48 INCHES MINIMUM COVER UNLESS OTHERWISE NOTED ON THE DRAWINGS. IN NON-DEVELOPED LOCATIONS, NEW WATER MAIN SHALL BE INSTALLED WITH 60 INCHES MINIMUM COVER UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - UNLESS OTHERWISE NOTED, ALL 12" DUCTILE IRON PIPE SHALL BE PRESSURE CLASS 350.
 - UNLESS OTHERWISE NOTED, 4" TO 12" PVC PIPE SHALL BE DIMENSION RATIO 14 (DR 14), PRESSURE CLASS 305 (DUCTILE IRON OD), AND 16" PVC PIPE SHALL BE DIMENSION RATIO 18 (DR 18), PRESSURE CLASS 235 (DUCTILE IRON OD).
 - THE CONTRACTOR SHALL NOT DEFLECT PVC PIPE AT GASKETED BELL AND SPOUT JOINTS OR AS LONGITUDINAL BENDING IN THE PIPE SEGMENT. THE CONTRACTOR SHALL ONLY DEFLECT PVC PIPE AT MECHANICAL JOINT SOLID SLEEVE FITTINGS OR STANDARD DUCTILE IRON BENDS/FITTINGS. PVC PIPE MAY BE DEFLECTED AT DUCTILE IRON BENDS OR FITTINGS PROVIDED THE DEFLECTION IS WITHIN AMERICAN WATER WORKS ASSOCIATION (AWWA) AND THE MANUFACTURER'S ALLOWABLE DEFLECTION FOR THE BEND OR FITTING AND THE PIPE AT THE CONNECTION POINT.
 - ALL FITTINGS SHALL BE DUCTILE IRON AND CONNECTIONS SHALL BE MADE WITH APPROVED ADAPTERS. ALL DUCTILE IRON FITTINGS SHALL BE MINIMUM CLASS 250.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COMBINATION AIR RELEASE IN THE CONSTRUCTION AREA. THE LOCATION OF COMBINATION AIR RELEASE VALVES AS SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL COORDINATE WITH THE TUCSON WATER CONSTRUCTION INSPECTOR TO DETERMINE IN THE FIELD THE MOST EFFECTIVE AND EXACT LOCATIONS FOR COMBINATION AIR RELEASE VALVES.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WATER METERS AND METER BOXES IN THE CONSTRUCTION AREA. THIS SHALL INCLUDE AND NOT BE LIMITED TO:
 - REMOVAL: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF THE EXISTING METERS FROM THE METER BOXES, ALONG WITH THE REMOVAL OF THE EXISTING METER BOXES AND CAPPING/PLUGGING OF THE EXISTING SERVICE CONNECTION.
 - RELOCATION/INSTALLATION: DURING THIS OPERATION, METERS SHALL BE TAGGED WITH THE CORRECT ADDRESS TO VERIFY THEIR REINSTALLATION AT THE SAME LOCATION IF THE EXISTING METER IS AN AUTOMATED METER READER (AMR) WATER METER. IF THE EXISTING METER IS NOT AN AMR THE METER IS EXCHANGED/RETURNED TO TUCSON WATER FOR A NEW AMR TO BE INSTALLED AT THAT LOCATION. ALL NEWLY INSTALLED AMR METERS SHALL BE AMI-READY TO ALLOW FOR FUTURE CONVERSION TO THE ADVANCED METERING INFRASTRUCTURE (AMI) SYSTEM.
 - PROTECTION OF METERS: AT ALL TIMES THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID ANY DAMAGE TO METERS. THE CONTRACTOR SHALL PROVIDE FOR THEIR SAFE STORAGE AND THE PROPER EQUIPMENT FOR THEIR HANDLING.
 - ACCESS TO METERS: THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL IN-SERVICE METERS DURING CONSTRUCTION. AT THE CLOSE OF THE PROJECT, THE CONTRACTOR SHALL CONFIRM THAT ALL METERS AND ALL METER BOXES ARE LEFT ACCESSIBLE AND THAT ALL METER BOXES ARE ADJUSTED TO FINAL GRADE.
 - MATERIALS: TUCSON WATER SHALL SUPPLY ALL NEW AMR MODEL WATER METERS AND METER BOXES TO BE INSTALLED AS PART OF THIS PROJECT. ALL NEWLY SUPPLIED AND INSTALLED AMR METERS SHALL BE AMI-READY TO ALLOW FOR FUTURE CONVERSION TO THE ADVANCED METERING INFRASTRUCTURE (AMI) SYSTEM.

- IF ANY EXISTING DETECTABLE MARKING TAPE IS DISTURBED OR DESTROYED DURING CONSTRUCTION, THE CONTRACTOR SHALL FURNISH AND INSTALL APPROPRIATE NEW TAPE. THERE SHALL BE NO ADDITIONAL CHARGE FOR THIS REINSTALLATION.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPE, FITTINGS, APPURTENANCES OR ANY OTHER MATERIALS TO BE IN CONTACT WITH POTABLE WATER IN ACCORDANCE WITH THE LEAD-FREE REQUIREMENTS DEFINED BY THE "REDUCTION OF LEAD IN DRINKING WATER ACT OF 2011" AMENDING SECTION 1417 OF THE SAFE DRINKING WATER ACT.
- ALL EXCAVATIONS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH TUCSON WATER STANDARD SPECIFICATIONS.
- REMOVAL OF WATER LINES SHALL INCLUDE FURNISHING AND INSTALLING BACKFILL AND COMPACTOR TO MATCH EXISTING GRADE. COMPACTOR REQUIREMENTS SHALL BE THE REQUIREMENTS OF THE AGENCY WITH JURISDICTION.
- IF GROUTING OF ABANDONED WATER LINES IN JACKED AND BORED STEEL PIPE CASINGS ARE REQUIRED, THE CONTRACTOR SHALL PROVIDE A GROUTING PLAN IN ACCORDANCE WITH SPECIFICATIONS TO INCLUDE THE EXACT LOCATION OF GROUT INSERTION POINTS.
- SOIL BORINGS IF AVAILABLE ARE APPROXIMATELY LOCATED AND NUMBERED ON THE PLANS. LOGS AND SOIL DESCRIPTIONS ARE APPENDED TO THE SPECIFICATIONS BUT ARE NOT PART OF THE CONTRACT DOCUMENTS. INFORMATION CONTAINED IN THE BORING LOGS HAS BEEN USED FOR DESIGN PURPOSES ONLY AND THE CONTRACTOR SHALL NOT RELY ON THIS FOR CONSTRUCTION PURPOSES.

SEWER CONSTRUCTION NOTES

- THE CONTRACTOR SHALL CONTACT "ARIZONA 811" (DIAL 811 OR 1-800-782-5348) A MINIMUM OF TWO (2) BUSINESS DAYS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL KEEP ALL UNDERGROUND FACILITY LOCATION REQUESTS UP-TO-DATE AND COMPLY WITH ARIZONA REVISED STATUTES (A.R.S.), TITLE 40, CHAPTER 1, ARTICLE 6-3, SECTION 40-360.22 CONCERNING REGARDING THE ACCURACY BETWEEN THE UNDERGROUND FACILITY MARKINGS AND THE PROJECT PLANS SHALL BE IMMEDIATELY REPORTED TO THE DESIGN ENGINEER OR CONTRACTOR. THE CONTRACTOR SHALL VERIFY ALL PCRWDR MANHOLES AND CLEANOUTS LISTED IN THE PROJECT DOCUMENTS HAVE BEEN IDENTIFIED BY BLUE STAKE. CONTACT THE PCRWDR FIELD ENGINEERING OFFICE AT (520) 724-2651 IF ADDITIONAL ASSISTANCE IS REQUIRED IN LOCATING MANHOLES AND CLEANOUTS.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL SANITARY SEWER MANHOLES AND CLEANOUTS AT ALL TIMES.
- THE CONTRACTOR SHALL FIELD-VERIFY EXISTING SEWER LINE ELEVATIONS AND ALIGNMENTS PRIOR TO CONSTRUCTION. VERIFICATION MAY REQUIRE POT-HOLING.
- ANY HOUSE CONNECTION SEWER (HCS) OR BUSINESS CONNECTION SEWER (BCS) LINES ENCOUNTERED DURING CONSTRUCTION SHALL BE PROTECTED, REPAIRED, OR REROUTED, AS THE SITUATION DICTATES, PER PCRWDR STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, DETAIL NO. PRRWD 400 AND AT NO EXPENSE TO THE PROPERTY OWNER OR PCRWDR. HCS AND BCS LINES ARE NOT OWNED OR MAINTAINED BY PCRWDR. PRIVATE CONNECTION SEWERS CONSTRUCTED PRIOR TO JANUARY 2008 ARE NOT REQUIRED TO BE LOCATED AND MARKED.
- IMMEDIATELY REPORT ANY OF THE FOLLOWING TO THE PCRWDR OPERATIONS CONTROL CENTER (OCC) AT (520) 724-6047: ANY RELEASE OF SEWAGE, ANY DAMAGE TO THE PUBLIC SANITARY SEWER SYSTEM, OR THE DROPPING OF DEBRIS INTO A PUBLIC SANITARY SEWER MANHOLE. A PCRWDR REPRESENTATIVE WILL BE DISPATCHED TO THE SITE. THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO CONTAIN A SANITARY SEWAGE OVERFLOW (SSO). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS TO REPAIR THE SYSTEM, MITIGATE THE RELEASE OF SEWAGE, DISINFECT THE RELEASE AREAS, AND ANY REGULATORY PENALTIES LEVIED ON PCRWDR FOR SEWAGE ENTERING A NATURAL DRAINAGE WAY OR STORM WATER DRAINAGE SYSTEM. THE CONTRACTOR SHALL REPAIR ANY DAMAGE DIRECTED AND APPROVED BY THE PCRWDR FIELD REPRESENTATIVE.
- WORK SHALL NOT COMMENCE UNTIL: (A) THE CONTRACTOR HAS OBTAINED A PCRWDR PUBLIC SEWER OBSERVATION PERMIT (CONTACT THE PCRWDR PERMITS SECTION AT (520) 724-6649 FOR PERMIT APPLICATION REQUIREMENTS); (B) A PRE-CONSTRUCTION MEETING WITH THE ASSIGNED PIMA COUNTY PROJECT FIELD INSPECTOR IS

SCHEDULED AT LEAST THREE (3) FULL BUSINESS DAYS PRIOR TO START OF CONSTRUCTION; THE CONTRACTOR MUST PROVIDE THE PCRWDR MANHOLE NUMBERS WHERE THIS WORK IS LOCATED AND A DESCRIPTION OF THE CONSTRUCTION.

PIMA COUNTY DEPARTMENT OF TRANSPORTATION NOTES

- THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FROM PIMA COUNTY TRANSPORTATION DEPARTMENT PRIOR TO ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- A PRE-CONSTRUCTION FIELD MEETING SHALL BE CONDUCTED WITH PIMA COUNTY TRANSPORTATION INSPECTOR PRIOR TO ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- THE EXTENT AND TYPE OF SURFACE TREATMENTS/REPAIRS INDICATED ON THE PLANS MAY NOT BE ALL INCLUSIVE OF THE WORK THAT IS NEEDED, DEPENDING ON FIELD CONDITIONS, ADDITIONAL WORK MAY BE REQUIRED.
- THE CONTRACTOR SHALL OBTAIN A FLOODPLAIN USE PERMIT FROM PIMA COUNTY REGIONAL FLOOD CONTROL DISTRICT FOR WORK WITHIN THE LIMITS OF ANY WASH SHOWN ON THESE DRAWINGS.
- THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM PIMA COUNTY TRANSPORTATION DEPARTMENT PRIOR TO ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

CITY OF TUCSON DEPARTMENT OF TRANSPORTATION AND MOBILITY NOTES

- CONTRACTOR MUST OBTAIN EXCAVATION AND BARRICADING PERMITS FROM DTM ENGINEERING DIVISION PRIOR TO ANY WORK IN CITY PUBLIC RIGHT-OF-WAYS.
- PRIOR TO STARTING WORK, WITHIN THE PUBLIC RIGHTS-OF-WAY, THE CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH THE CITY OF TUCSON DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY INSPECTOR.
- THE EXTENT AND TYPE OF SURFACE TREATMENTS/REPAIRS INDICATED ON THE PLANS MAY NOT BE ALL INCLUSIVE OF THE WORK THAT IS NEEDED, DEPENDING ON FIELD CONDITIONS, ADDITIONAL WORK MAY BE REQUIRED.
- ALL BACKFILL, WITHIN CITY OF TUCSON RIGHT-OF-WAY, ABOVE THE UTILITY SHADING SHALL BE CONDUCTED IN ACCORDANCE WITH PAG (2015) STANDARD SPECIFICATIONS AND DETAILS, PUBLIC UTILITY ADMINISTRATIVE MANUAL AND AS DIRECTED BY CITY OF TUCSON RIGHT-OF-WAY INSPECTOR AND CITY ENGINEER.
- ALL PERMANENT PAVEMENT PATCHING, WITHIN CITY OF TUCSON RIGHT-OF-WAY, SHALL BE CONDUCTED IN ACCORDANCE WITH THE PAG (2015) STANDARD SPECIFICATIONS AND DETAILS, PUBLIC UTILITY ADMINISTRATIVE MANUAL, AND AS DIRECTED BY CITY OF TUCSON RIGHT-OF-WAY INSPECTOR AND CITY ENGINEER.
- IN ACCORDANCE TO CITY OF TUCSON TECHNICAL STANDARD MANUAL SEC. 10-02.3.3.B.5, PERMANENT PAVEMENT PATCHING SHALL BE WARRANTED FOR 5-YEARS; PAVEMENT PATCH'S FAILING WITHIN THIS PERIOD SHALL BE REPAIRED/REPLACED AT NO COST TO THE CITY OF TUCSON.
- CONTRACTOR/APPLICANT SHALL BE RESPONSIBLE FOR COMPLYING WITH FLOOD, EROSION AND STORM WATER POLLUTION PREVENTION REQUIREMENTS, AND IF REQUIRED, OBTAINING NOI/NOT/STORMWATER, FLOODPLAIN, PERMITS AS REQUIRED BY STATE AND LOCAL AGENCIES FOR THE WORK SHOWN ON THESE PLANS.
- ASPHALTIC CONCRETE SHALL CONFORM TO PAG RELOCATION SPECIFICATION FOR SECTION 408 ASPHALTIC CONCRETE MIX NO. 2, DATED DECEMBER 19, 2020.
- CONTRACTOR SHALL MAINTAIN SITE SAFETY AND PEDESTRIAN ACCESS THROUGH OR AROUND THE WORK SITE, PURSUANT TO MUTCD RECOMMENDATIONS. FOR WORK ON MAJOR OR COLLECTOR ROADWAYS (>25MPH), PEDESTRIAN CIRCULATION SHALL BE PROVIDED THROUGH OR AROUND THE WORK SITE AND NOT DETOURED TO THE OTHER SIDE OF THE STREET.

W2 OF W8

	CITY OF TUCSON S COUNTRY CLUB ROAD E MICHIGAN STREET TO E MILBER STREET
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GENERAL NOTES



ISSUED BY:	DATE:	SCALE:	SHEET:	TOTAL SHEETS:
DAH	02/28	AS SHOWN	2	8
DATE:	SCALE:	DATE:	SCALE:	DATE:
02/28	AS SHOWN	02/28	AS SHOWN	02/28
DATE:	SCALE:	DATE:	SCALE:	DATE:
02/28	AS SHOWN	02/28	AS SHOWN	02/28

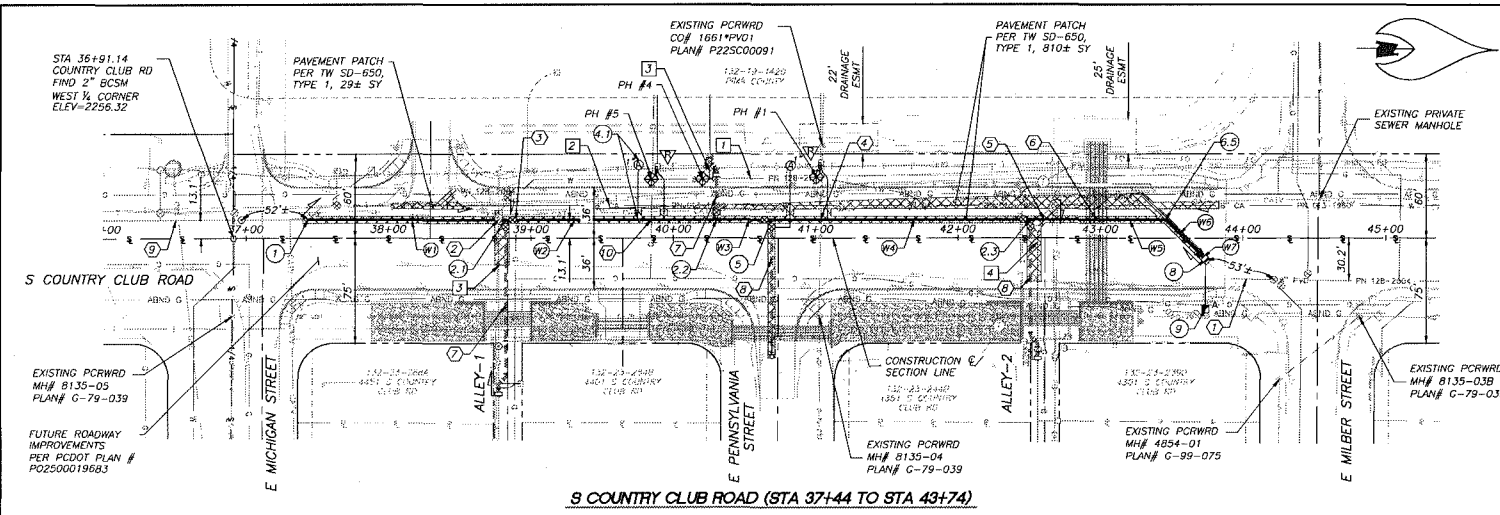
NO.	BY	DATE	REVISION	APPR.	DATE



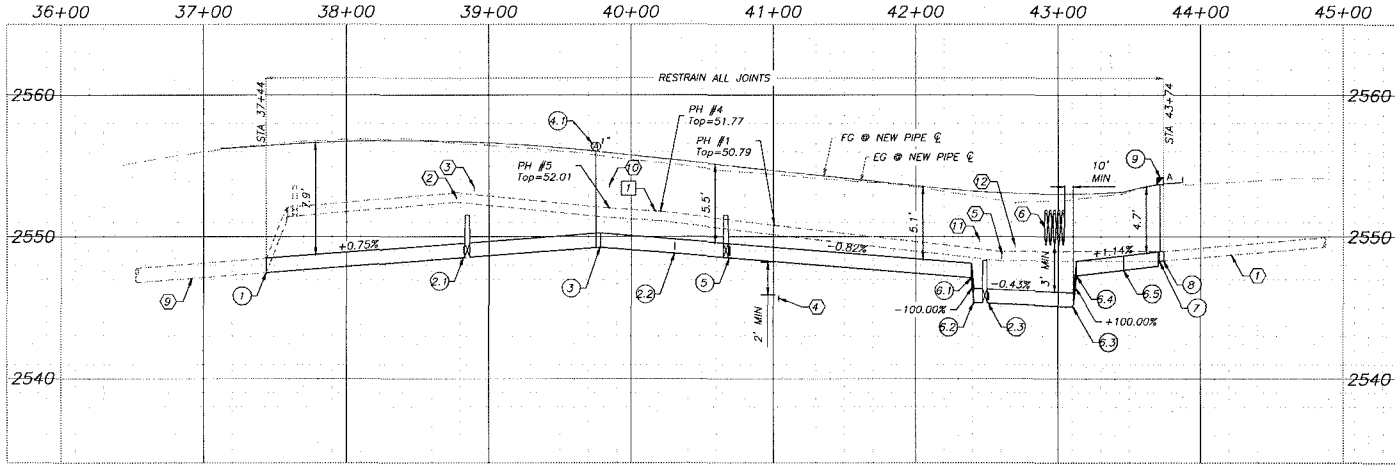
8710 N. Thornydale Rd, Suite 140
Tucson, AZ 85742
T:520-408-1400 | F:520-408-1403
www.epsgrp.com



4-016-2026



S COUNTRY CLUB ROAD (STA 37+44 TO STA 43+74)



- REMOVE / ABANDON NOTES**
- STA 37+44, 13.1' LT TO STA 43+74, 15' RT REMOVE & DISPOSE 10" NON-CA AND SMALLER PIPE TO NEAREST JOINT, AND GATE VALVES WITH BOX & COVER 663± LF
 - STA 38+41, 23' LT TO STA 43+83, 23' LT REMOVE & DISPOSE 10" CA AND SMALLER PIPE TO NEAREST JOINT, AND GATE VALVES WITH BOX & COVER 542± LF
 - SEE SHEET 5
 - SEE SHEET 6

- CONSTRUCTION NOTES**
- START CONSTRUCTION
 STA 37+43.82, 13.1' LT
 N 427322.48, E 1006571.33
 CONNECT TO EXIST. 12" DI PIPE (PH 011-2025) 1 EA
 - STA 38+82.22, 13.1' LT
 N 427450.86, E 1006569.43, INV ELEV=2548.51
 STA 40+30.40, 13.1' LT
 N 427609.03, E 1006567.39, INV ELEV=2548.81
 STA 42+50.89, 13.1' LT
 N 427829.50, E 1006564.35, INV ELEV=2545.30
 12" X 6" TEE 3 EA (NPI)
 12" GATE VALVE, B & C (CN 2.1 (N) & CN 2.3 (S)) 2 EA
 - STA 39+78.14, 13.1' LT
 N 427556.78, E 1006568.11, INV ELEV=2549.24
 GRADE BREAK
 12" SOLID SLEEVE 1 EA (NPI)
 - STA 39+75.14, 13.1' LT (LOCATION OF TAP)
 N 427553.78, E 1006568.15, INV ELEV=2549.21
 STA 39+75.14, 32.1' LT (LOCATION OF ARV)
 N 427553.23, E 1006529.08
 1" AIR RELEASE VALVE PER SD-330 1 EA
 - STA 40+69.07, 13.1' LT
 N 427647.70, E 1006566.86, INV ELEV=2548.50
 12" X 8" TEE 1 EA (NPI)
 12" GATE VALVE, B & C (S) 1 EA
 - STA 42+38.88, 13.1' LT (VERT)
 N 427817.49, E 1006564.52, INV ELEV=2547.11
 STA 42+40.89, 13.1' LT (VERT)
 N 427819.50, E 1006564.49, INV ELEV=2545.34
 STA 43+10.58, 13.1' LT (VERT)
 N 427889.19, E 1006563.53, INV ELEV=2545.04
 STA 43+12.80, 13.1' LT (VERT)
 N 427891.41, E 1006563.50, INV ELEV=2547.27
 STA 43+45.71, 13.1' LT (COR2)
 N 427924.37, E 1006563.05, INV ELEV=2547.65
 12" X 45" BEND 5 EA (NPI)
 - STA 43+71.87, 13.3' RT
 N 427950.83, E 1006589.05, INV ELEV (8")=2548.26
 12" X 8" ECCENTRIC REDUCER 1 EA (NPI)
 - STA 43+73.98, 15.5' RT
 N 427952.97, E 1006591.20, INV ELEV=2548.30
 CONNECT TO EXIST. 8" PVC PIPE (PH 128-2004) 1 EA
 - STA 43+73.54, 50.5' RT
 N 427953.01, E 1006626.19,
 INSTALL NEW CIS FLUSH GRADE PER SD-705
 MAGNESIUM ANODES INCLUDED IN COST OF CIS 1 EA

- REFERENCE NOTES**
- EXIST 8" PVC PIPE, PN 128-2004, TO REMAIN
 - STA 38+77, 13.1' LT
 INV ELEV=2552.6±
 EXIST 4" WATER
 - STA 38+89, 13.1' LT
 INV ELEV=UNK
 EXIST 4" GAS
 - STA 41+04, 13.1' LT
 INV ELEV=2545.4±
 EXIST 6" PVC SEWER
 - STA 42+60, 13.1' LT
 INV ELEV=2548.4±
 EXIST 4" WATER
 - STA 42+97, 13.1' LT
 INV ELEV=2549.6±
 FUTURE 3"-24" STORM DRAIN, TO BE DONE BY OTHERS

WATERLINE TABLE				
W#	BEARING	LENGTH	SIZE / MATERIAL	
W1	N00°47'19"W	138.4 LF	12" DIP PC350	
W2	N00°47'19"W	148.2 LF	12" DIP PC350	
W3	N00°47'19"W	38.7 LF	12" DIP PC350	
W4	N00°47'19"W	181.8 LF	12" DIP PC350	
W5	N00°47'19"W	94.9 LF	12" DIP PC350	
W6	N44°32'35"E	37.1 LF	12" DIP PC350	
W7	N44°32'35"E	3.0 LF	8" DIP PC350	

SERVICE WORK FOR EXISTING WATER METERS					
ADDRESS / STATION	EXISTING METER NO.	EXIST SERV	SERV WORK	EXIST CONNECTION DIA - MATL	NEW CONNECTION DIA - MATL
3050 E MILBER ST.	211490558	M (2")	R	2" - CU	2" - CU
3050 E MILBER ST. (IRR)	221167913	M (1")	R	3/4" - CU	1" - CU

POTHOLE TABLE				
PH #	NORTHING	EASTING	TOP OF UTILITY	UTILITY/SIZE & MATERIAL
1	427678.82	1006535.64	2550.79	TUCSON WATER 8" PVC
4	427998.78	1006538.24	2551.77	TUCSON WATER 8" PVC
5	427562.81	1006538.94	2552.01	TUCSON WATER 8" PVC

- LATERAL WATER MAIN & FIRE SERVICE PLAN & PROFILE, SEE SHEET 5
- LATERAL WATER MAIN PLAN & PROFILE, SEE SHEET 6
- EXIST 12" DI PIPE, PN 011-2025, TO REMAIN
- STA 39+85, 13.1' LT
 INV ELEV=UNK
 EXIST GAS SERVICE
- STA 42+45, 13.1' LT
 INV ELEV=UNK
 EXIST 2-TELE
- STA 42+70, 13.1' LT
 INV ELEV=UNK
 EXIST FIBER OPTIC

CITY OF TUCSON
TUCSON WATER
S COUNTRY CLUB ROAD
E MICHIGAN STREET TO E MILBER STREET

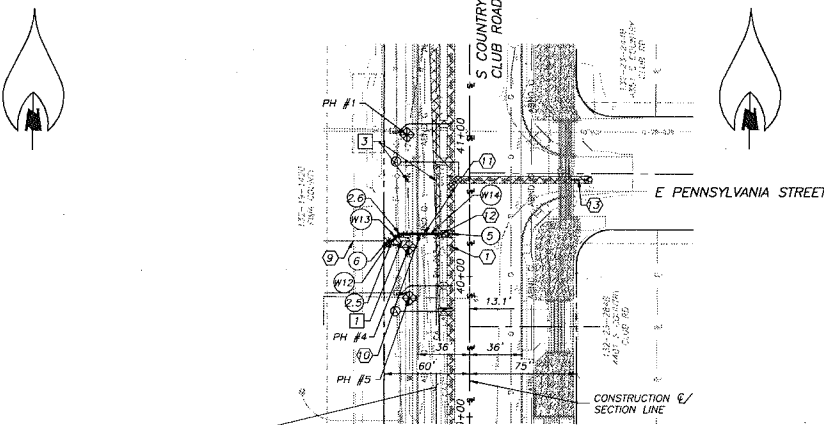
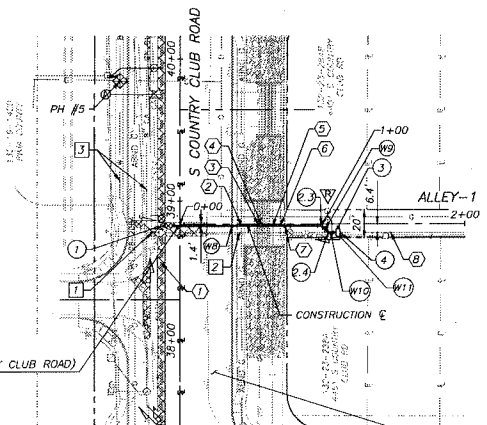
S COUNTRY CLUB ROAD
STA 37+44 TO STA 43+74

DESIGNED BY	DATE	CHECKED BY	DATE	SHEET	4	OF	8
DRYDEN	05/29	BOYD	05/29	DATE			
SCALE	HORIZ. 1"=40'		VERT. 1"=40'		PROJECT NO.		
DATE	05/29	PROJECT NO.		4-016-2026			

EPS GROUP
 8710 N. Thornydale Rd, Suite 140
 Tucson, AZ 85742
 T: 520.408.1400 | F: 520.408.1403
 www.epsgrp.com



NO.	BY	DATE	REVISION	APPR.	DATE

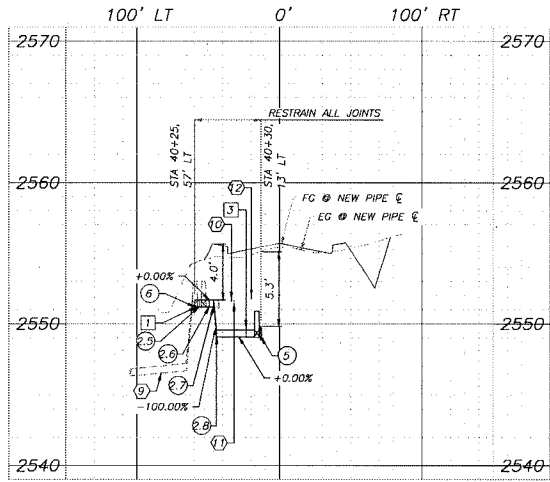
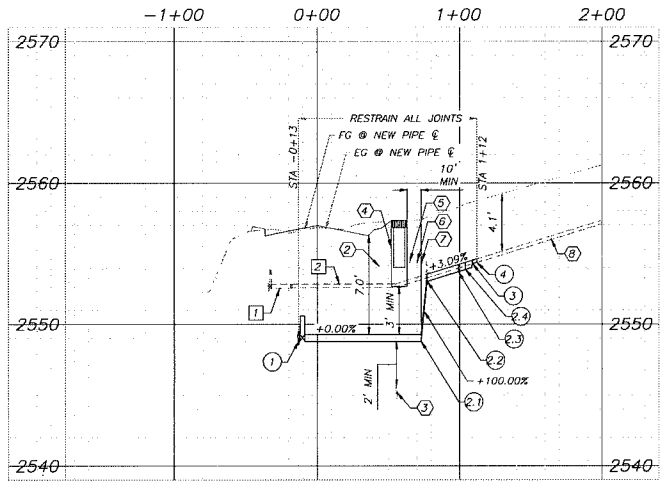


STA EQUATION
 STA 0+00.00 (ALLEY-1) =
 STA 38+83.63 (S COUNTRY CLUB ROAD)

ALLEY-1 (STA 38+82)

FUTURE ROADWAY
 IMPROVEMENTS
 PER PCDDT PLAN #
 P0250019693

FIRE SERVICE (STA 40+30)



REMOVE / ABANDON NOTES	
1	STA -0+34, 0' RT TO STA -0+15, 6' RT; STA 40+25, 57' LT TO STA 40+25, 42' LT REMOVE & DISPOSE 10" NON-CA AND SMALLER PIPE TO NEAREST JOINT, AND GATE VALVES WITH BOX & COVER
2	STA -0+15, 6' RT TO STA 1+12, 6' RT REMOVE & DISPOSE 10" CA AND SMALLER PIPE TO NEAREST JOINT, AND GATE VALVES WITH BOX & COVER
3	SEE SHEET 4

CONSTRUCTION NOTES	
1	START CONSTRUCTION STA -0+13.07, 1.4' RT N 427460.86, E 1006569.43, INV ELEV=2548.76 CONNECT TO 12" X 6" TEE 6" GATE VALVE, B & C (E)
2.1	STA 0+73.00, 1.4' RT (VERT) N 427462.05, E 1006555.49, INV ELEV=2548.76
2.2	STA 0+77.29, 1.4' RT (VERT) N 427462.10, E 1006559.74, INV ELEV=2553.02
2.3	STA 0+89.07, 1.4' RT (HORIZ) N 427462.41, E 1006581.56, INV ELEV=2553.69
2.4	STA 1+04.07, 6.4' RT (HORIZ) N 427457.47, E 1006586.63, INV ELEV=2553.85
2.5	STA 40+25.39, 54.4' LT (HORIZ) N 427603.46, E 1006528.31, INV ELEV=2551.19
2.6	STA 40+30.40, 49.2' LT (HORIZ) N 427608.53, E 1006531.25, INV ELEV=2551.19
2.7	STA 40+30.40, 46.2' LT (VERT) N 427608.57, E 1006534.25, INV ELEV=2551.19
2.8	STA 40+30.40, 44.1' LT (VERT) N 427608.60, E 1006536.38, INV ELEV=2549.06 6" X 45° BEND ADD THRUST BLOCK PER SD-610 (CN 2.4 & 2.5)
3	STA 1+09.07, 6.4' RT N 427457.54, E 1006591.63, INV ELEV=2554.27 6" X 3" ECCENTRIC REDUCER
4	STA 1+12.07, 6.4' RT N 427457.58, E 1006594.63, INV ELEV=2554.36 CONNECT TO EXIST. 3" CA (WO 4545)
5	START CONSTRUCTION STA 40+30.40, 13.1' LT N 427609.03, E 1006567.39, INV ELEV=2549.06 CONNECT TO 12" X 6" TEE 6" GATE VALVE, B & C (W)
6	STA 40+25.39, 57.2' LT N 427603.41, E 1006523.31, INV ELEV=2551.19 CONNECT TO EXIST. 6" VALVE (P22SC00091)

REFERENCE NOTES	
1	WATER MAIN PLAN & PROFILE, SEE SHEET 4
2	STA 0+43, 1.4' RT INV ELEV=UNKN ABANDONED 4" GAS
3	STA 0+56, 1.4' RT INV ELEV=2544.8± EXIST 10" SEWER
4	STA 0+58, 1.4' RT INV ELEV=2554.0± FUTURE U-CHANNEL, TO BE DONE BY OTHERS
5	STA 0+65, 1.4' RT INV ELEV=UNKN EXIST TELE
6	STA 0+70, 3.4' RT INV ELEV=UNKN EXIST TELE
7	STA 0+74, 6.4' RT INV ELEV=UNKN EXIST TELE
8	EXIST 3" CA PIPE, WO 4545, TO REMAIN
9	EXIST 6" DI PIPE, P22SC00091, TO REMAIN
10	STA 40+30, 33.7' LT INV ELEV=UNKN EXIST 2"-TELE

WATERLINE TABLE				
W#	BEARING	LENGTH	SIZE / MATERIAL	
W8	N89°12'41"E	112.1 LF	6" DIP PC350	
W9	S45°47'19"E	7.1 LF	6" DIP PC350	
W10	N89°12'41"E	5.0 LF	6" DIP PC350	
W11	N89°12'41"E	3.0 LF	3" DIP PC350	
W12	S89°10'21"W	3.0 LF	6" DIP PC350	
W13	S44°12'41"W	7.1 LF	6" DIP PC350	
W14	S89°12'41"W	36.1 LF	6" DIP PC350	

POTHOLE TABLE				
PH #	NORTHING	EASTING	TOP OF UTILITY	UTILITY/SIZE & MATERIAL
1	427678.82	1006535.64	2550.79	TUCSON WATER 8" PVC
4	427598.78	1006538.24	2551.77	TUCSON WATER 8" PVC
5	427562.81	1006538.94	2552.01	TUCSON WATER 8" PVC

SERVICE WORK FOR EXISTING WATER METERS						
ADDRESS / STATION	EXISTING METER NO.	EXIST SERV	SERV WORK	EXIST CONNECTION DIA - MATL	NEW CONNECTION DIA - MATL	
4401 S COUNTRY CLUB RD.	11233494	M (1")	R	1" - CU	1" - CU	

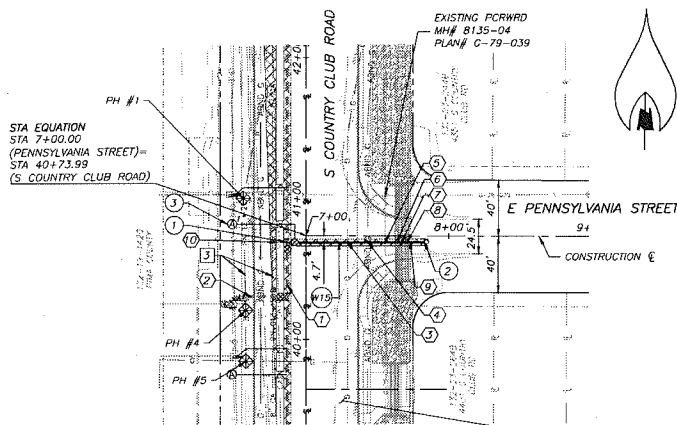
- 1) STA 40+30, 31.8' LT
INV ELEV=UNKN
ABANDONED 4" GAS
- 2) STA 40+30, 19.6' LT
INV ELEV=UNKN
EXIST CATV
- 3) LATERAL WATER MAIN PLAN & PROFILE, SEE SHEET 6



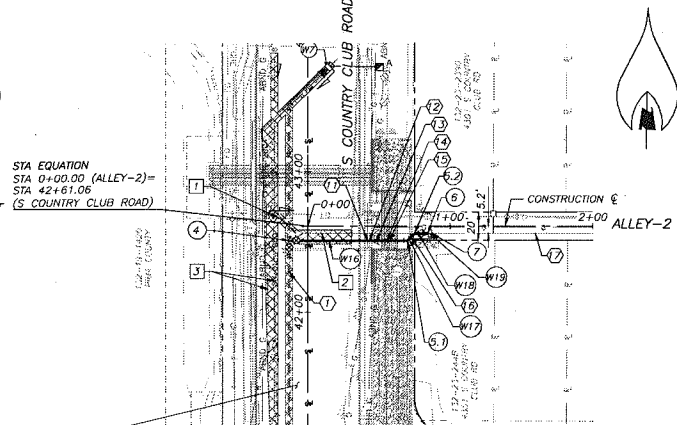
CITY OF TUCSON
S COUNTRY CLUB ROAD
 E MICHIGAN STREET TO E MILLER STREET

PROJECT INFORMATION	
PROJECT NO.	4-016-2026
DATE	01/26/20
SCALE	AS SHOWN
DESIGNED BY	TAH/RW
CHECKED BY	A/H

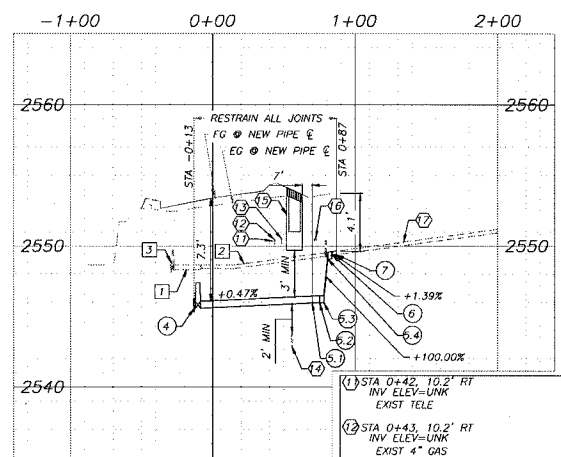
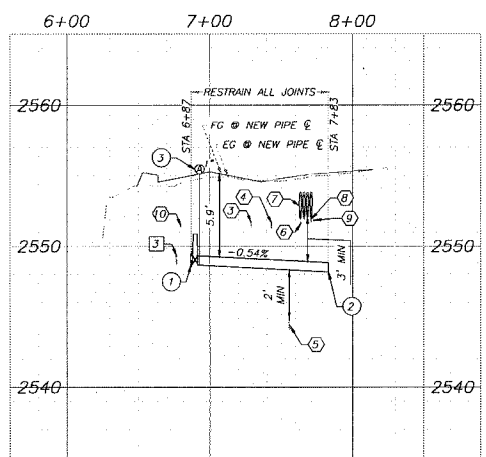
NO.	BY	DATE	REVISION	APPR.	DATE



E PENNSYLVANIA STREET (STA 40+69)



ALLEY-2 (STA 42+51)



WATERLINE TABLE			
W#	BEARING	LENGTH	SIZE / MATERIAL
W15	N89°12'41"E	96.1 LF	8" DIP PC350
W16	N89°12'41"E	83.1 LF	6" DIP PC350
W17	N44°12'41"E	7.1 LF	6" DIP PC350
W18	N89°12'41"E	9.1 LF	6" DIP PC350
W19	N89°12'41"E	3.0 LF	3" DIP PC350

POTHOLE TABLE				
PH #	NORTHING	EASTING	TOP OF UTILITY	UTILITY/SIZE & MATERIAL
1	427678.82	1006535.64	2550.79	TUCSON WATER 8" PVC
4	427598.78	1006538.24	2551.77	TUCSON WATER 8" PVC
5	427562.81	1006538.94	2552.01	TUCSON WATER 8" PVC

- REMOVE / ABANDON NOTES**
- STA -0+29, 6' LT TO STA -0+09, 5' RT REMOVE & DISPOSE 10" NON-CA AND SMALLER PIPE TO NEAREST JOINT, AND GATE VALVES WITH BOX & COVER 25± LF
 - STA -0+09, 5' RT TO STA 0+87, 5' RT REMOVE & DISPOSE 10" CA AND SMALLER PIPE TO NEAREST JOINT, AND GATE VALVES WITH BOX & COVER 96± LF
- CONSTRUCTION NOTES**
- START CONSTRUCTION**
- STA 6+26.96, 5.0' RT N 427647.70, E 1006566.86, INV ELEV=2548.67 CONNECT TO 12" X 6" TEE 8" GATE VALVE, B & C (E) 1 EA (NPI)
1 EA
 - STA 7+83.05, 4.4' RT N 427645.02, E 1006662.94, INV ELEV=2548.15 DRAIN VALVE ASSEMBLY PER SD-400 1 EA
 - STA 6+91.96, 5.0' RT (LOCATION OF TAP) N 427647.77, E 1006571.86, INV ELEV=2548.63 STA 6+48.20, 7.7' LT (LOCATION OF ARV) N 427660.09, E 1006528.00 1" AIR RELEASE VALVE PER SD-330 1 EA
- START CONSTRUCTION**
- STA -0+13.07, 10.2' RT N 427835.50, E 1006564.35, INV ELEV=2545.55 CONNECT TO 12" X 6" TEE 6" GATE VALVE, B & C (E) 1 EA (NPI)
1 EA
 - STA 0+70.00, 10.2' RT (HORIZ) N 427830.65, E 1006647.42, INV ELEV=2545.94 2" STA 0+75.00, 5.2' RT (HORIZ) N 427835.71, E 1006652.35, INV ELEV=2545.96 3" STA 0+78.00, 5.2' RT (VERT) N 427835.76, E 1006655.35, INV ELEV=2545.98 4" STA 0+81.06, 5.2' RT (VERT) N 427835.80, E 1006658.41, INV ELEV=2549.04 6" X 45' BEND ADD THRUST BLOCK PER SD-610 (CN 4.4) 4 EA (NPI)
1 EA (NPI)
 - STA 0+84.11, 5.2' RT N 427835.84, E 1006661.46, INV ELEV (3")=2549.34 6" X 3" ECCENTRIC REDUCER 1 EA (NPI)
 - STA 0+87.06, 5.2' RT N 427835.88, E 1006664.41, INV ELEV=2549.38 CONNECT TO EXIST 3" CA PIPE (WO 4232) 1 EA

- REFERENCE NOTES**
- WATER MAIN PLAN & PROFILE, SEE SHEET 4
 - FIRE SERVICE PLAN & PROFILE, SEE SHEET 5
 - STA 7+29, 4.7' RT INV ELEV=UNKN EXIST 4" GAS
 - STA 7+43, 4.7' RT INV ELEV=UNKN ABANDONED 4" GAS
 - STA 7+56, 4.6' RT INV ELEV=2543.9± EXIST 10" SEWER
 - STA 7+64, 4.5' RT INV ELEV=UNKN EXIST TELE
 - STA 7+67, 4.5' RT INV ELEV=2552.1± FUTURE 4-18" STORM DRAIN, TO BE DONE BY OTHERS
 - STA 7+71, 4.5' RT INV ELEV=UNKN EXIST TELE
 - STA 7+73, 4.5' RT INV ELEV=UNKN EXIST TELE
 - STA 6+80, 5.0' RT INV ELEV=UNKN EXIST GATE



8710 N. Thornydale Rd, Suite 140
Tucson, AZ 85742
T:520.406.1400 | F:520.406.1403
www.epsgroupinc.com



NO.	BY	DATE	REVISION	APPR.	DATE



W6 OF W8

CITY OF TUCSON
S COUNTRY CLUB ROAD
E MICHIGAN STREET TO E MILBER STREET



E PENNSYLVANIA STREET AND ALLEY-2 LATERALS STA 40+69, STA 42+51

DATE	BY	DATE	BY	DATE	BY
01/26		01/26			
01/26		01/26			
01/26		01/26			

SCALE: 1"=40'

4-016-2026

SURVEY GENERAL NOTES

FOUR PIMA COUNTY/CITY OF TUCSON CONTROL STATIONS WERE USED TO VERIFY THE CONTROL BASELINE FOR THIS SURVEY AS FOLLOWS:

- COT CCP ET#5
- 1/4 COR. SECTIONS 30-29, T.14S. R.14E.
- GRID COORDINATES N 432452.239 E 1001059.652
- GROUND COORDINATES (PT. 11) N 432521.4313 E 1001219.821
- COT CCP EV#3
- 1/4 COR. SECTIONS 30-31, T.14S. R.14E.
- GRID COORDINATES N 429781.371 E 998451.867
- GROUND COORDINATES (PT. 12) N 429850.136 E 998611.6193
- COT CCP IA13
- NW COR. SECTION 3, T.15S. R.14E.
- GRID COORDINATES N 424538.041 E 1011746.949
- GROUND COORDINATES (PT. 22) N 424506.0251 E 1011908.72
- COT CCP IE13
- SW COR. SECTION 3, T.15S. R.14E.
- GRID COORDINATES N 419363.138 E 1011783.988
- GROUND COORDINATES (PT. 25) N 419430.28 E 1011945.765

THE FOLLOWING PARAMETERS WERE SET FOR THE BASIS OF THE SURVEY:

- SYSTEM: UNITED STATES STATE PLANE 1983 (1982)
- ZONE: ARIZONA CENTRAL 0202
- DATUM: NAD83/92 HORIZONTAL & NAVD89 VERTICAL
- GEOD MODEL: GEOID99 (CONTINENTAL US)

UNITS= INTERNATIONAL FEET (1 FOOT = 0.3048 METERS EXACTLY)

DIRECT SATELLITE MEASUREMENTS WERE MADE ON EACH POINT ON THE NORTH AMERICAN DATUM OF 1983 WITH AUTOMATIC TRANSLATIONS MADE TO THE STATE PLANE GRID SYSTEM.



GPS CALIBRATION AND TRANSLATION TO THE SURFACE WAS PERFORMED BY GPS SURVEY SOFTWARE. A GRID ADJUSTMENT FACTOR OF 1.000160000 AND SCALE ORIGIN VALUES OF N=0.000, E=0.000 WERE USED FOR THE TRANSLATION TO THE SURFACE.

ALL BEARINGS ARE GRID BEARINGS, DISTANCES ARE GROUND DISTANCES AND COORDINATES ARE GROUND COORDINATES.

THE INFORMATION SHOWN ON THIS RESULTS OF SURVEY WAS BASED ON AN OBSERVATION AND EVALUATION OF PHYSICAL CORROBORATING EVIDENCE IN THE FIELD AND A REVIEW AND ANALYSIS OF EXISTING DRAWINGS, PLATS, AND NOTES AVAILABLE AT THE TIME THE SURVEY WAS PREPARED.

THIS RESULTS OF SURVEY IS ON FILE IN THE FILE ROOM OF THE RIGHT OF WAY PLANS SECTION OF THE ARIZONA DEPARTMENT OF TRANSPORTATION, 205 SOUTH 17TH AVE, MD 612E, PHOENIX, AZ 85007, (602) 712-7270. SEE ADOT R/W FILE COPY FOR MOST CURRENT ADDITIONS OR REVISIONS.

W7 OF W8

 		CITY OF TUCSON S COUNTRY CLUB ROAD E MICHIGAN STREET TO E MULBER STREET	
SURVEY GENERAL NOTES			
DRAWN BY: TGA	DATE: 05/24	SURVEY RESULT BY: TGA/RW	SHEET: 7 of 8
CHECKED BY: ALH	DATE: 03/26	SCALE: AS SHOWN	DRAWING NO. / SCALE: 4-016-2026



8730 N. Thornydale Rd, Suite 140
 Tucson, AZ 85742
 T: 520.408.1400 | F: 520.408.1403
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NO.	BY	DATE	REVISION	APPR.	DATE

APN 132-19-0265
 SEQ #20210390817
 I&E WAREHOUSE, LLC
 ZONING: I-1

APN 132-19-1420
 DKT 4667, PG 590
 PIMA COUNTY
 ZONING: PAD-18

STATION EQUATION
 4H0 36+91.4 COUNTRY CLUB RD
 BK 87+17.95 COUNTRY CLUB RD (ADOT)
 FIND 2" BC5M WEST 1/4 CORNER
 ELEV.=2256.32
 N 427269.98 E 1006585.13
 0+00 W. MICHIGAN ST.

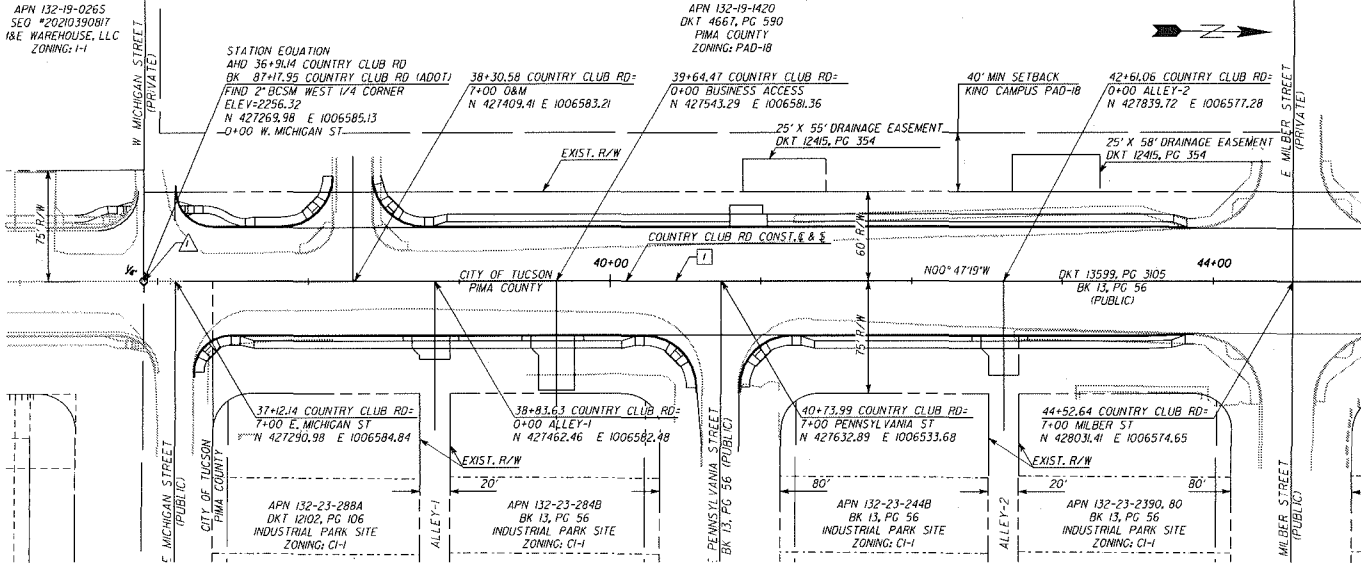
38+30.58 COUNTRY CLUB RD-
 7+00 O&M
 N 421409.41 E 1006583.21

39+64.47 COUNTRY CLUB RD-
 0+00 BUSINESS ACCESS
 N 421543.29 E 1006581.36

42+61.06 COUNTRY CLUB RD-
 0+00 ALLEY-2
 N 427839.72 E 1006577.28

25' X 55' DRAINAGE EASEMENT
 DKT 12415, PG 354

25' X 58' DRAINAGE EASEMENT
 DKT 12415, PG 354



MATCHLINE STA. 45+00.00

CONSTRUCTION CENTERLINE LINE DATA		
NO.	BEARING	DISTANCE
1	Plon Annotation, Line Direction	1598.80'
		MEASURED

CONSTRUCTION CENTERLINE LINE DATA		
NO.	NORTHING	EASTING
1	36+91.4	427269.98
2	50+09.94	428788.61
		1006566.22
		1006565.22
		PGF

MATCHLINE STA. 45+00.00

APN 132-19-1420
 DKT 4667, PG 590
 PIMA COUNTY
 ZONING: PAD-18

46+41.97 COUNTRY CLUB RD-
 0+00 ALLEY-3
 N 428220.72 E 1006572.04

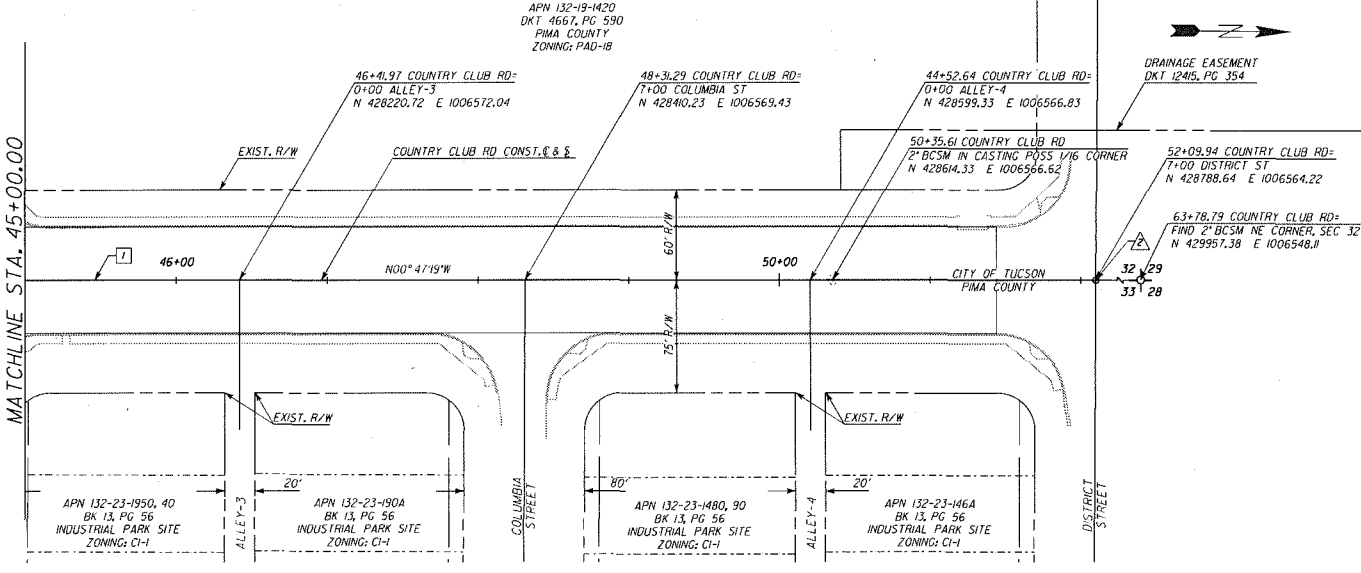
48+31.29 COUNTRY CLUB RD-
 7+00 COLUMBIA ST
 N 428410.23 E 1006569.43

50+35.61 COUNTRY CLUB RD
 2" BC5M IN CASTING POSS 1/16 CORNER
 N 42864.33 E 1006566.52

44+52.64 COUNTRY CLUB RD-
 0+00 ALLEY-4
 N 428599.33 E 1006566.83

52+09.94 COUNTRY CLUB RD-
 7+00 DISTRICT ST
 N 428788.64 E 1006564.22

63+78.79 COUNTRY CLUB RD-
 FIND 2" BC5M NE CORNER, SEC 32
 N 429957.38 E 1006548.8



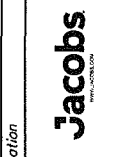
HORIZ. 1" = 40'
 VERT. 1" = N/A

Sheet

Page 8 of 8

Date	By	Check
02/20/06 <td>Wm Doyle <td>Alex Gonzalez</td> </td>	Wm Doyle <td>Alex Gonzalez</td>	Alex Gonzalez
02/20/06 <td>Wm Doyle <td>Alex Gonzalez</td> </td>	Wm Doyle <td>Alex Gonzalez</td>	Alex Gonzalez
02/20/06 <td>Wm Doyle <td>Alex Gonzalez</td> </td>	Wm Doyle <td>Alex Gonzalez</td>	Alex Gonzalez
02/20/06 <td>Wm Doyle <td>Alex Gonzalez</td> </td>	Wm Doyle <td>Alex Gonzalez</td>	Alex Gonzalez

No.	Revision	Description	Engineer



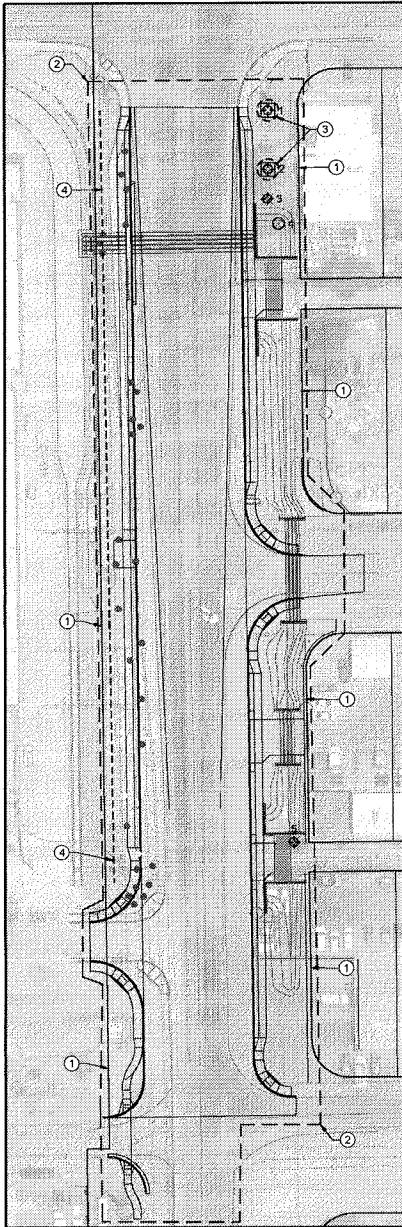
Pima County Department of Transportation
 HORIZONTAL CONTROL

ARC STUDIOS

COUNTRY CLUB ROAD FROM MICHIGAN STREET TO MILBER ST

PLANS SIGNED AND DATED 02/26/26 (6 PAGES)

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- NPPO LEGEND**
- Preserve in place (PIP)
 - ⊗ Removed from site (RFS)
 - ⊙ Velvet Mesquite
 - ⊙ Blue Palo Verde
 - ⊙ Non-native existing shrub/accents
 - ⊙ to be removed from site
 - ⊙ *Lophocereus schottii* (santa cactus) to be salvaged for reuse, refer to landscape plans

- (#) NATIVE PLANT PRESERVATION KEY NOTES**
1. Right-of-way line
 2. Project/clearing limit
 3. Vegetation preservation fence - min. 5' offset from tree trunk
 4. Construction fence

Number	Scientific Name	Common Name	Size - Height	Size - Caliper	Viability	Transplantability	Comments	Disposition
1	<i>Prosopis velutina</i>	Velvet Mesquite	20' 8"	N	L	L	PD	PIP
2	<i>Prosopis velutina</i>	Velvet Mesquite	24' 12"	N	L	L	PD	PIP
3	<i>Prosopis velutina</i>	Velvet Mesquite	18' 8"	M	L	L	PD	RFS
4	<i>Parkinsonia florida</i>	Blue Palo Verde	24' 14"	M	L	L	SZ, PD	RFS
5	<i>Prosopis velutina</i>	Velvet Mesquite	18' 6"	L	L	L	PROX, PF, PD	RFS

PLANT PRESERVATION : MITIGATION & CREDIT CALCULATIONS

TREES		MITIGATION CALCULATIONS					P.I.P. CREDIT CALCULATIONS		GRAND TOTAL						
Botanical Name	Variation	Common Name	Inventoried	Value	P.I.P.	T.O.S.	R.F.S.	%	T.O.S.(S)	R.F.S.(S)	TOTAL	6" x 12" (S)	>12" (C)	TOTAL	TOTAL
<i>Parkinsonia florida</i>		Blue Palo Verde	1	1	0	0	1	100	0	3	3	0	0	0	3
<i>Prosopis velutina</i>		Velvet Mesquite	4	3	2	0	1	33.3	0	3	3	2	0	4	-1

ABBREVIATIONS

The following abbreviations were used in the comment column. Number in (#) refer to plant requirements for preserved in place or salvaged

- PROX other vegetation in the vicinity will make salvage difficult
- PD prune damage
- PF poor form tree leaning or structure not supportive of vegetation
- SZ size of the tree, either spread, caliper or height is not conducive to salvage
- PIP preserved in place
- RFS removes from site
- SAL salvage - used during field inventory to identify trees that should be salvaged regardless of % requirements
- H high viability / transplantability
- M moderate viability / transplantability
- L low viability / transplantability

NATIVE PLANT MITIGATION SUMMARY

<i>Parkinsonia florida</i>	3	<i>Prosopis velutina</i>	0
mitigation required		mitigation required	
TOS provided	0	TOS provided	0

NATIVE PLANT SITE MONITOR

ARC Studios
3117 E Flower Street
Tucson, AZ 85716
Phone: 520.602.9695
Contact: Eric Barnett

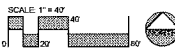
NATIVE PLANT PRESERVATION PLAN OVERVIEW

This site is located south of Ajo Way and east of Kino sports complex. The plant inventory methodology has been used for this plan. Aerial image was downloaded from PimaMaps January 2026.

No noxious or invasive species are visually prominent within the clearing limits. No special status including federally listed threatened, endangered species or highly safeguarded species of plant life were identified on this site.

SALVAGE SCHEDULE

The salvage work will be accomplished by a licensed contractor who has experience in the salvage of native desert material. This work will be performed at a time of year when successful salvage is likely. Additionally, the salvage contract will contain language requiring the replacement of any salvaged material which does not survive the transplant.



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Refer to specifications for additional information on policies, performances, and products.

LANDSCAPE SPECIFICATIONS
 PAG 802 - Landscape Grading
 PAG 806 - Trees, Shrubs, and Plants
 PAG 807 - Landscape Establishment
 PAG 809 - Native Plant Salvage

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

Date	By
07/2026	DRS
07/2026	DRS
07/2026	DRS
07/2026	DRS

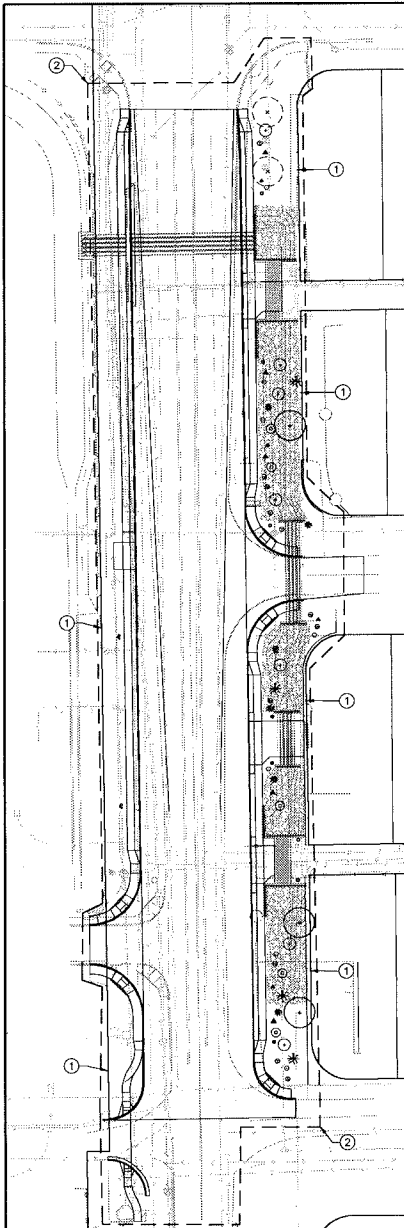
No.	Revision Description	Engineer	Date



Pima County Department of Transportation

NATIVE PLANT PRESERVATION PLAN

Country Club Road From Michigan Street To Milber St No. P02500019693



LANDSCAPE SITE PLAN KEY NOTES

1. Right-of-way line
2. Landscape enhancement limit

LANDSCAPE AND IRRIGATION MAINTENANCE SCHEDULE

1. Site shall be maintained weekly to remove litter and debris.
2. Review landscape plant materials to ensure and maintain proper growth, development and maturity to promote sustainable sites.
3. Review tree staking: adjust stakes, tree ties and supports; so that tree trunks develop and strengthen to become self-supportive.
4. Allow natural tree development and minimize tree pruning over first 24 months. Allow gradual lifting of canopy, not exceeding 1/3 to 2/3 canopy height ratio.
5. No shearing of vegetation shall occur on site.
6. Allow natural growth on shrubs, pruning should not exceed once a year.
7. No pruning of cacti/succulents, only remove spent stocks.
8. No pinching of agave, yucca, spurns, etc.
9. Program irrigation water schedules for establishment with initial weekly watering. After establishment adjusts to longer run times and duration between watering with seasonal conditions to develop deep root and sustainable periods of drought.
10. Set water schedules to evapotranspiration (ET) historical databases allowing for auto control and adjustment with seasons.
11. Focus irrigation on peak demand months; April thru June, and October.

RIGHT-OF-WAY IRRIGATION NOTES

1. Private irrigation facilities roadway crossings will only be permitted in residential roadways and NOT permitted in arterial or collector roadways.
2. Lateral lines under constant pressure shall not be permitted in the public right-of-way.
3. The HOA will register private irrigation facilities placed in the public right-of-way with Arizona 811 and become an Arizona 811 Blue Stake Inc. member.
4. Minimize the number of roadway crossings.
5. Sleeves must be in a recorded easement (easement width is dependent on what is needed for installation and/or repairs). To the extent possible, the easements should be created at the time of development/planning.
6. Irrigation lines shall be placed in ductile iron sleeves.
7. Sleeve should extend beyond the right-of-way (into private property), unless otherwise approved by TDDOT.
8. HDPE continuous line (no joints under the pavement)
9. Irrigation lines shall have a minimum of thirty (30) inches of cover.
10. Detectable marking tape shall be installed.
11. Curb shall be marked/stamped with 'IS' (Irrigation System) and/or placard at back of curb.

GENERAL LANDSCAPING NOTES

1. The Landscape Architect, or his representative, reserve the right to reduce any plant materials he deems unacceptable. (see specifications)
2. For clarification of discrepancies between the drawings and the site, it should be brought to the attention of the Landscape Architect prior to beginning work.
3. The Landscape Architect is to approve any and all substitutions.
4. Plant list quantities are provided for contractor's convenience only. Plans take precedence.
5. Exposed soil in planters shall be raked and free from rocks, roots, weeds, etc.
6. Finished grade in decorative rock areas shall be 1" below adjacent header board, paving, curbing, etc.
7. Plants shall be quality material having a growth habit that is normal for the species and be sound, vigorous, healthy, and free from insects and injury.
8. Ground cover and/or decorative rock shall extend under shrubs unless noted.
9. After all work is completed, the contractor shall remove all materials not incorporated in the scope of work from the job site.
10. Grading shall include all excavation, settlement, handling, import, distribution, transportation, and disposal necessary to bring ground to finish grade as shown on the civil and landscape plans.
11. All earthwork is to be done so that all water drains away from all structures.
12. All underground utilities are to be located before digging.
13. All plant material to be guaranteed for a period of one (1) year after final acceptance.
14. Landscape contractor shall review and accept all rough, and finish grading on all landscaped areas prior to installation of irrigation and landscape. Contractor shall remove all spoils prior to installation of decorative rock for finish grade.
15. In the event of major discrepancies between the plans and field conditions, contractor shall notify the Landscape Architect immediately. Allow a minimum of forty-eight (48) hours between notification of Landscape Architect and proceeding with construction of irrigation system.
16. All existing trees and landscape to remain shall be protected and watered during all phases of construction. If any tree dies from damage or neglect, it shall be replaced with a like species and size at no additional cost to owner.
17. Final plant locations must be in compliance with all utility setback requirements.
18. The general contractor (gc) takes full liability for this landscape and irrigation, and any damage to roadway, sidewalk and utilities.
19. The landscape shall be installed per the associated specifications.
20. Materials and improvements placed and/or maintained within the sight visibility triangles shall be located so as not to interfere with a visibility plane described by an area measured between 30 and 72 inches in height above the finished grade of the adjacent roadway surface.
21. It is the owners responsibility to keep the sight visibility triangles (svt), and the pedestrian access area clear of vegetation at all times, per unified development code (udc) section 10-01.5.1.A.
22. The only private irrigation equipment that is allowed within the row are lateral lines, tubing and emitters that are not under constant pressure. All other equipment must be on private property (excluding water meter).
23. The property owner shall replace dead or missing vegetation within 14 days to ensure full compliance with approved landscape plans.
24. Trees that have been topped or lion-tailed shall be replaced with a tree of value equal to that of the tree prior to the improper pruning.

Refer to specifications for additional information on policies, performances, and products.

Pima County
Department of Transportation
201 N. Stone Ave, 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

DATE	DESIGNED	CHECKED	DATE	DESIGNED	CHECKED
07/2019			07/2019		
07/2019			07/2019		
07/2028			07/2028		

NO.	REVISION DESCRIPTION	DATE	ENGINEER



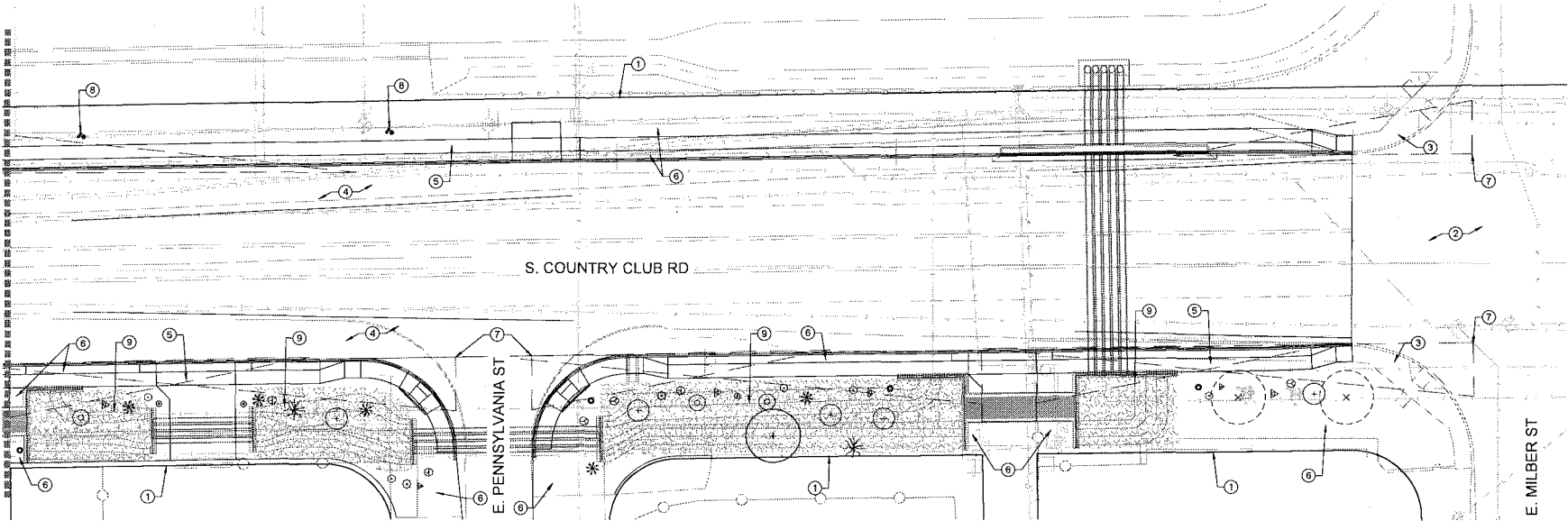
Pima County Department of Transportation

LANDSCAPE SITE PLAN

Kathryn Skinner, P.E., Director

Country Club Road From Michigan Street To Milber St No. P02500019683

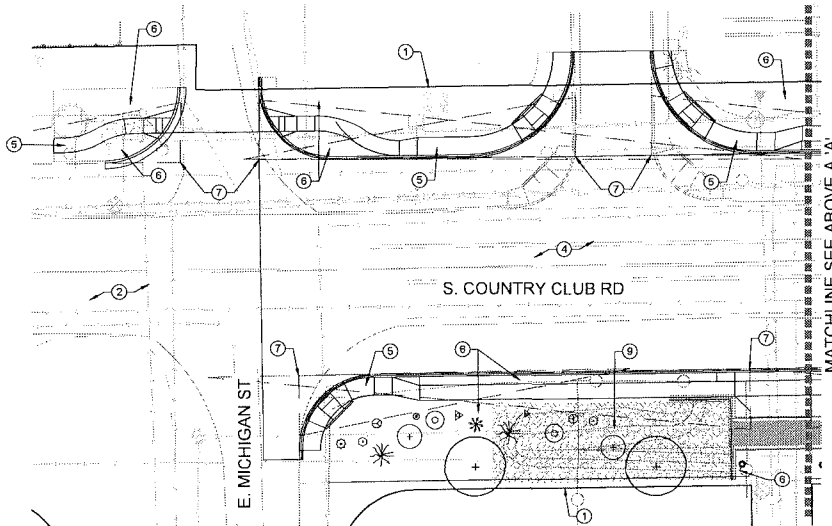
MATCHLINE SEE BELOW A-A'



S. COUNTRY CLUB RD

E. PENNSYLVANIA ST

E. MILBER ST



S. COUNTRY CLUB RD

E. MICHIGAN ST

MATCHLINE SEE ABOVE A-A'

LANDSCAPE LEGEND

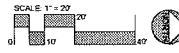
Furnish and install landscape material per plans, details and specifications. All plant material to meet ANA specifications and be of sound health and appearance.

Trees	Size	Qty
<i>Parkinsonia florida</i>	24" box	3
<i>blue palo verde</i>	1.5" caliper	

Existing tree to remain in place

Shrubs / Ground Covers	Size	Qty
<i>Larrea tridentata</i>	5 gallon	7
<i>oreocoma bush</i>		
<i>Atlixiplex polycarpa</i>	5 gallon	5
<i>cattle saltbush</i>		
<i>Encelia farinosa</i>	5 gallon	7
<i>brittlebush</i>		
<i>Sphaeralcea ambigua</i>	5 gallon	4
<i>globe mallow</i>		

Cacti / Succulents	Size	Qty
<i>Fouquieria splendens</i>	5 gallon	4
<i>ocotillo</i>		
<i>Dasylirion wheeleri</i>	5 gallon	6
<i>desert spoon</i>		
<i>Asclepias subulata</i>	5 gallon	4
<i>desert milkweed</i>		
<i>Hesperaloe parviflora</i>	5 gallon	3
<i>red yucca</i>		
<i>Opuntia phaeacantha var. engelmann prickly pear</i>	5 gallon	5
<i>Cylindropuntia versicolor</i>	5 gallon	3
<i>staghorn cholla</i>		
<i>Lophocereus schottii</i>	salvage	2
<i>senita cactus</i>		
<i>Ferocactus wislizeni</i>	5 gallon	5
<i>fishhook barrel cactus</i>		
<i>Echinocereus triglochidiatus</i>	5 gallon	4
<i>claret cup hedgehog</i>		



Refer to specifications for additional information on policies, performances, and products.

LANDSCAPE LEGEND NOTES:

- 5 gallon is interchangeable with 3 gallon, 24" box is interchangeable with 25 gallon and 30 gallon.
- Contractor must confirm ability to provide specified material or request alternates in writing within 90 days of commencement of contract. Failure to do so may result in delays in final approval of landscape.
- Contractor must provide pictures of plant material to the Landscape Architect for approval as part of the submittal process. Pictures must have been taken within the last 90 days; stock pictures will not be accepted.
- Trees shall be located a minimum of 4' from hardscape.
- Plant material to be grown for this project by Pima County Nursery.
- Trees will not be provided/grown by Pima County Nursery.

GROUND COVER MATERIAL LEGEND

Furnish and install all material per plans, details, and specs.

- Decorative rock 01
- type: screened rock
 - size: 70% 1"-3" / 30% 1/2"
 - color: desert gold
 - depth: 3"
 - notes: install in all landscape planting areas as indicated on plans

LANDSCAPE KEY NOTES

- Right-of-way line
- Existing pavement
- Existing sidewalk
- Pavement - refer to civil
- Concrete sidewalk - refer to civil
- Decorative rock typ. - all landscape areas
- Sight visibility triangle
- Transplant cacti to final location without using a temporary holding nursery (one move only)
- Rip rap - desert gold

Pima County
Department of Transportation
201 N. Stone Ave., 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

Date	Design	Drawn	Checked	Prof. Empl.
07/2018	DAK	DAK	DAK	DAK
07/2018	DAK	DAK	DAK	DAK
07/2018	DAK	DAK	DAK	DAK

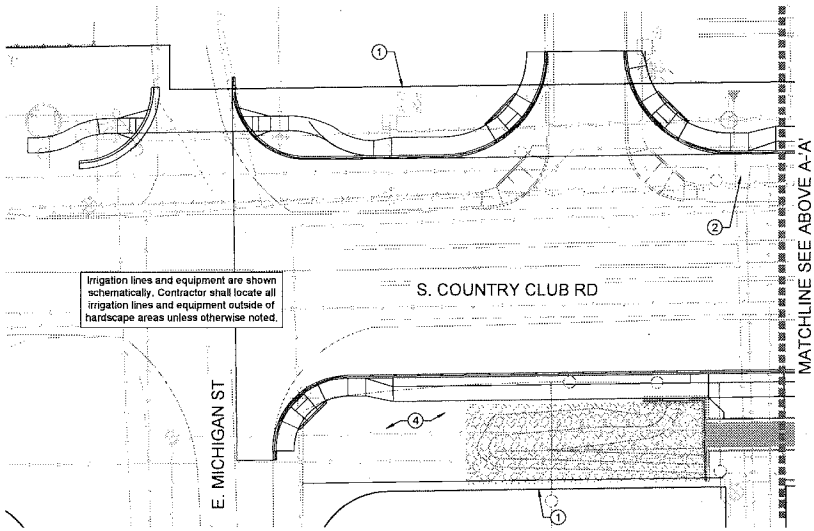
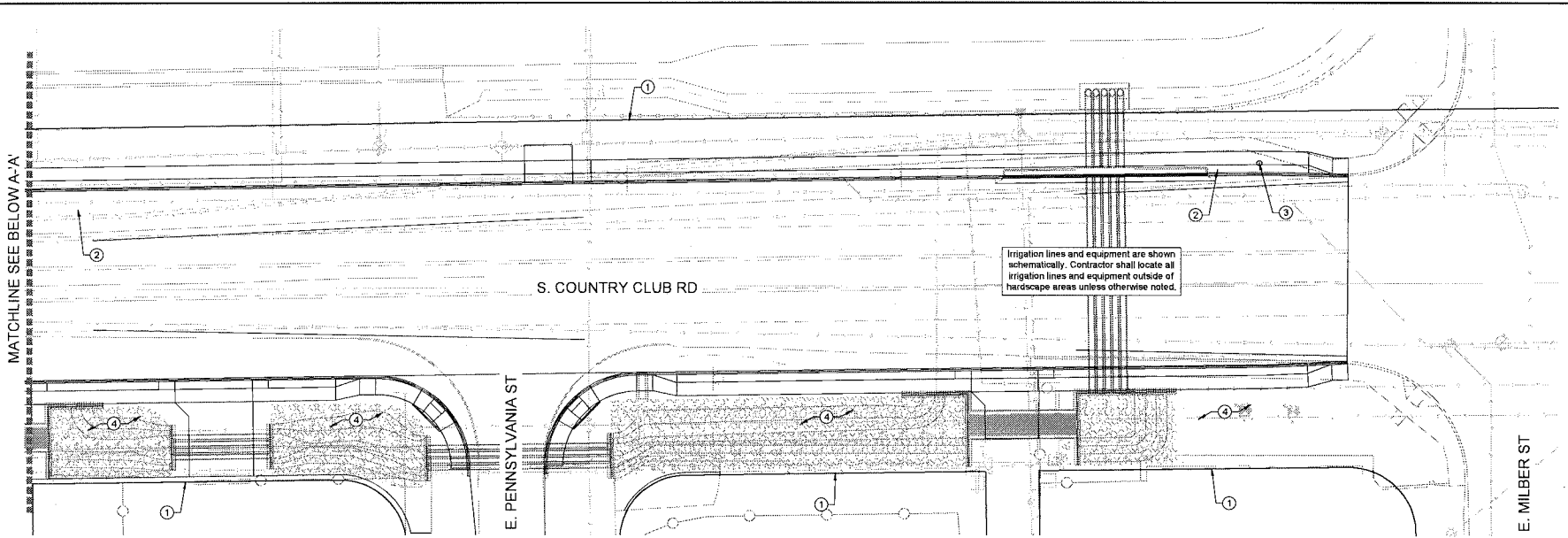
No.	Revision Description	Engineer	Date



Pima County Department of Transportation

LANDSCAPE PLAN

MATCHLINE SEE BELOW A-A'



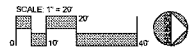
MATCHLINE SEE ABOVE A-A'

IRRIGATION NOTES

- Supplemental watering of succulent and cacti vegetation shall conform with the following requirements; water truck, water buggy, or other contractor supplied equipment with hose attachment. Hose irrigation for 15 second count on each newly installed plant, with care to spray as to not disturb finish grade, hose irrigation schedule to allow adequate establishment period:
 - every day for 2 weeks
 - every other day for 2 weeks
 - Monday and Thursday irrigation for 4 week
 - every Monday for 8 week
 - Monday every two weeks for 8 weeks
 - once a month for 6 months
 - If establishment period falls during summer month period, contractor shall extend watering through summer until on set of monsoon season and measurable rainfall.
- Contractor shall adjust schedule for summer months April through July and/ or drought tolerant periods to ensure newly installed plants receive ample moisture to maintain and promote growth.
- Contractor shall evaluate plant material on a monthly bases and adjust schedule as necessary.
- Contractor shall maintain irrigation or hand water landscaping during construction.

IRRIGATION KEY NOTES

- Right-of-way line
- Existing irrigation lateral line - field locate and relocate as needed to accommodate new sidewalk
- Existing irrigation flush end box - move west of sidewalk
- Hand watering landscaping per irrigation notes



Refer to specifications for additional information on policies, performances, and products.

Pima County
 Department of Transportation
 201 N. Stone Ave, 4th floor Tucson, Arizona 85701
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 Kathryn Skinner, P.E., Director



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Kathryn Skinner, P.E., Director

Date	Checked	Drawn
07/20/24	LSR	LSR
07/20/24	LSR	LSR
07/20/24	LSR	LSR

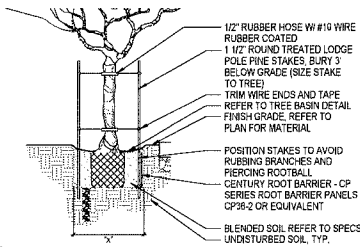
No.	Revision Description	Engineer	Date



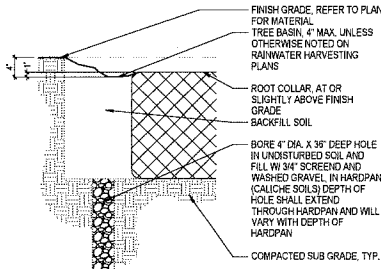
Pima County Department of Transportation

IRRIGATION PLAN

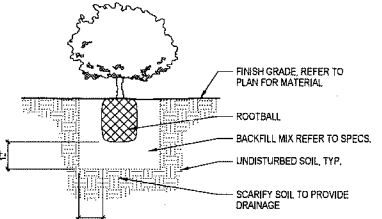
Country Club Road From Michigan Street To Milber St. No. P02500019683



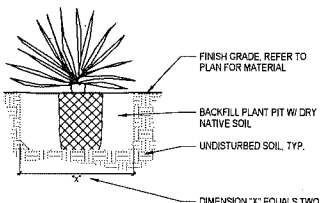
- NOTES:**
- DIMENSION "X" EQUALS TWO (2) TIMES THE BOX WIDTH. DEPTH OF PIT WILL EQUAL DEPTH OF ROOTBALL.
 - SCARIFY SIDES & BOTTOM OF PIT, & BORE HOLES ON ALL PITS.
 - IDENTIFY ROOT COLLAR AND REMOVE EXCESS SOIL FROM TOP OF ROOT COLLAR. SET ROOT COLLAR AT OR SLIGHTLY ABOVE FINISH GRADE TO ALLOW FOR SETTLEMENT. CUT ANY CIRCLING ROOTS AND ANY ADVENTITIOUS ROOTS.
 - ROOT GUARDS SHALL BE PROVIDED ON ALL SIDES WHERE ADJACENT HARDSCAPE IS WITHIN 10' OF THE TREE/PLANT.
 - REFER TO TREE STAKING DETAIL FOR ADDITIONAL INFORMATION.



- NOTES:**
- TREE BASINS NOT TO EXCEED 4" DEPTH.
 - TOP OF ROOT COLLAR TO BE EXPOSED TO SURFACE.
 - BOTTOM OF PLANT PIT EQUAL TO DEPTH OF ROOTBALL.

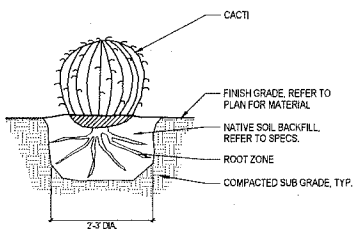


- NOTES:**
- SET CROWN OF ROOTBALL 1/2" TO 1" ABOVE FINISH GRADE TO ALLOW FOR SETTLEMENT.
 - DO NOT COVER CROWN WITH SOIL.
 - SETTLE BACKFILL BY WATERING, AND COMPACT TO REMOVE AIR POCKETS.



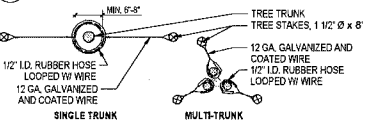
- NOTES:**
- SET CROWN OF ROOTBALL 1/2" TO 1" ABOVE FINISH GRADE TO ALLOW FOR SETTLEMENT.
 - DO NOT COVER CROWN WITH SOIL.
 - SETTLE BACKFILL SOIL BY WATERING, AND COMPACT TO REMOVE AIR POCKETS.

1 15 GALLON & 24IN BOX - TREE PLANTING NTS

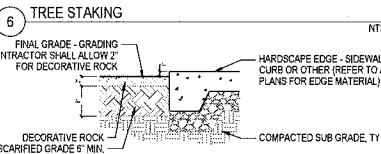


5 CACTUS PLANTING NTS

2 TREE BASIN NTS

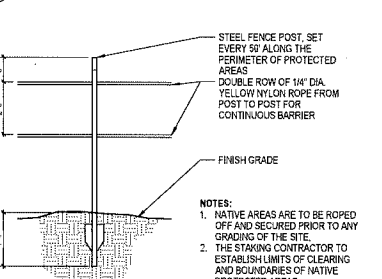


- NOTES:**
- TREES SHALL ONLY BE STAKED THAT ARE NOT SELF-SUPPORTIVE WITH NURSERY STAKE REMOVED. CONTRACTOR SHALL INCLUDE IN BIDDING TO STAKE ALL TREES AS NECESSARY THROUGH WARRANTY AND MAINTENANCE PERIOD.



7 FINAL GRADE HARDSCAPE TO DEC. ROCK NTS

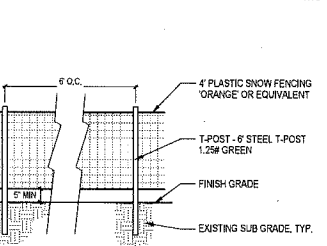
3 SHRUB PLANTING NTS



- NOTES:**
- NATIVE AREAS ARE TO BE ROPED OFF AND SECURED PRIOR TO ANY GRADING OF THE SITE.
 - THE STAKING CONTRACTOR TO ESTABLISH LIMITS OF CLEARING AND BOUNDARIES OF NATIVE PROTECTED AREAS.
 - LANDSCAPE CONTRACTOR SHALL REMOVE BARRIER AFTER FINAL LANDSCAPE WALK THROUGH OF THE SITE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

8 CONSTRUCTION FENCE NTS

4 ACCENT PLANTING NTS



9 VEGETATION PRESERVATION FENCE NTS



ARC STUDIOS, INC. RETAINS ALL RIGHTS TO LANDSCAPE AND IRRIGATION PLANS. LANDSCAPE AND IRRIGATION PLANS MAY NOT BE REPRODUCED WITHOUT PRIOR APPROVAL BY ARC STUDIOS, INC.

Refer to specifications for additional information on policies, performances, and products.

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E. Director

Kathryn Skinner, P.E., Director

DATE	07/2024
DESIGNED	DRS
CHECKED	ERB
DATE	07/2024
DESIGNED	DRS
CHECKED	ERB
DATE	07/2024
DESIGNED	DRS
CHECKED	ERB

NO.	REVISION DESCRIPTION	DATE



Pima County Department of Transportation

LANDSCAPE DETAILS

Country Club Road From Michigan Street To Milber St No. P02500019693

AGENCY CUSTOMER ID: _____

LOC #: _____



ADDITIONAL REMARKS SCHEDULE

Page 2 of 2

AGENCY Willis Towers Watson Insurance Services West, Inc.		NAMED INSURED Sundt Construction, Inc. 2620 South 55th Street Tempe, AZ 85282	
POLICY NUMBER See Page 1		EFFECTIVE DATE: See Page 1	
CARRIER See Page 1	NAIC CODE See Page 1		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

Waiver of Subrogation applies in favor of Pima County, its departments, districts, boards, commissions, officers, officials, agents, and employees with respects to General Liability, Auto Liability and Workers Compensation as required by written contract and as permitted by law.

General Liability and Auto Liability policies shall be Primary and Non-contributory with any other insurance in force for or which may be purchased by Additional Insureds as required by written contract.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**DESIGNATED INSURED FOR
COVERED AUTOS LIABILITY COVERAGE**

This endorsement modifies insurance provided under the following:

- AUTO DEALERS COVERAGE FORM
- BUSINESS AUTO COVERAGE FORM
- MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" for Covered Autos Liability Coverage under the Who Is An Insured provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

<p>Named Insured: THE SUNDT COMPANIES, INC.</p> <p>Endorsement Effective Date: 10/01/2025</p>

SCHEDULE

<p>Name Of Person(s) Or Organization(s):</p> <p>ANY PERSON OR ORGANIZATION TO WHOM OR WHICH YOU ARE REQUIRED TO PROVIDE ADDITIONAL INSURED STATUS OR ADDITIONAL INSURED STATUS ON A PRIMARY, NON-CONTRIBUTORY BASIS, IN A WRITTEN CONTRACT OR WRITTEN AGREEMENT EXECUTED PRIOR TO LOSS, EXCEPT WHERE SUCH CONTRACT OR AGREEMENT IS PROHIBITED BY LAW.</p>
--

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

Each person or organization shown in the Schedule is an "insured" for Covered Autos Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Paragraph **A.1.** of Section **II** – Covered Autos Liability Coverage in the Business Auto and Motor Carrier Coverage Forms and Paragraph **D.2.** of Section **I** – Covered Autos Coverages of the Auto Dealers Coverage Form.



ZURICH

Notification to Others of Cancellation, Nonrenewal or Reduction of Insurance

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
BAP 4277102-21	10/01/2025	10/01/2026	10/01/2025		\$ INCL	\$

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the:

Commercial Automobile Coverage Part

- A. If we cancel or non-renew this Coverage Part by written notice to the first Named Insured for any reason other than nonpayment of premium, we will mail or deliver a copy of such written notice of cancellation or non-renewal:
 1. To the name and address corresponding to each person or organization shown in the Schedule below; and
 2. At least 10 days prior to the effective date of the cancellation or non-renewal, as advised in our notice to the first Named Insured, or the longer number of days notice if indicated in the Schedule below.
- B. If we cancel this Coverage Part by written notice to the first Named Insured for nonpayment of premium, we will mail or deliver a copy of such written notice of cancellation to the name and address corresponding to each person or organization shown in the Schedule below at least 10 days prior to the effective date of such cancellation.
- C. If coverage afforded by this Coverage Part is reduced or restricted, except for any reduction of Limits of Insurance due to payment of claims, we will mail or deliver notice of such reduction or restriction:
 1. To the name and address corresponding to each person or organization shown in the Schedule below; and
 2. At least 10 days prior to the effective date of the reduction or restriction, or the longer number of days notice if indicated in the Schedule below.
- D. If notice as described in Paragraphs A., B. or C. of this endorsement is mailed, proof of mailing will be sufficient proof of such notice.

SCHEDULE	
Name and Address of Other Person(s) / Organization(s):	Number of Days Notice:
ANY PERSON OR ORGANIZATION WITH WHOM YOU HAVE AGREED,	90
THROUGH WRITTEN CONTRACT, AGREEMENT OR PERMIT	

All other terms and conditions of this policy remain unchanged.



ZURICH®

Coverage Extension Endorsement

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

Policy No. BAP 4277102-21

Effective Date: 10/01/2025

This endorsement modifies insurance provided under the:

**Business Auto Coverage Form
Motor Carrier Coverage Form**

A. Amended Who Is An Insured

1. The following is added to the **Who Is An Insured** Provision in **Section II – Covered Autos Liability Coverage**:

The following are also "insureds":

- a. Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow for acts performed within the scope of employment by you. Any "employee" of yours is also an "insured" while operating an "auto" hired or rented under a contract or agreement in an "employee's" name, with your permission, while performing duties related to the conduct of your business.
- b. Anyone volunteering services to you is an "insured" while using a covered "auto" you don't own, hire or borrow to transport your clients or other persons in activities necessary to your business.
- c. Anyone else who furnishes an "auto" referenced in Paragraphs **A.1.a.** and **A.1.b.** in this endorsement.
- d. Where and to the extent permitted by law, any person(s) or organization(s) where required by written contract or written agreement with you executed prior to any "accident", including those person(s) or organization(s) directing your work pursuant to such written contract or written agreement with you, provided the "accident" arises out of operations governed by such contract or agreement and only up to the limits required in the written contract or written agreement, or the Limits of Insurance shown in the Declarations, whichever is less.

2. The following is added to the **Other Insurance** Condition in the Business Auto Coverage Form and the **Other Insurance – Primary and Excess Insurance Provisions Condition** in the Motor Carrier Coverage Form:

Coverage for any person(s) or organization(s), where required by written contract or written agreement with you executed prior to any "accident", will apply on a primary and non-contributory basis and any insurance maintained by the additional "insured" will apply on an excess basis. However, in no event will this coverage extend beyond the terms and conditions of the Coverage Form.

B. Amendment – Supplementary Payments

Paragraphs **a.(2)** and **a.(4)** of the **Coverage Extensions** Provision in **Section II – Covered Autos Liability Coverage** are replaced by the following:

- (2) Up to \$5,000 for the cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.
- (4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to \$500 a day because of time off from work.

C. Fellow Employee Coverage

The **Fellow Employee** Exclusion contained in **Section II – Covered Autos Liability Coverage** does not apply.

D. Driver Safety Program Liability and Physical Damage Coverage

1. The following is added to the **Racing** Exclusion in **Section II – Covered Autos Liability Coverage**:

This exclusion does not apply to covered "autos" participating in a driver safety program event, such as, but not limited to, auto or truck rodeos and other auto or truck agility demonstrations.

2. The following is added to Paragraph **2.** in **B. Exclusions** of **Section III – Physical Damage Coverage** of the Business Auto Coverage Form and Paragraph **2.b.** in **B. Exclusions** of **Section IV – Physical Damage Coverage** of the Motor Carrier Coverage Form:

This exclusion does not apply to covered "autos" participating in a driver safety program event, such as, but not limited to, auto or truck rodeos and other auto or truck agility demonstrations.

E. Lease or Loan Gap Coverage

The following is added to the **Coverage** Provision of the **Physical Damage Coverage** Section:

Lease Or Loan Gap Coverage

In the event of a total "loss" to a covered "auto", we will pay any unpaid amount due on the lease or loan for a covered "auto", less:

- a. Any amount paid under the **Physical Damage Coverage** Section of the Coverage Form; and
- b. Any:
 - (1) Overdue lease or loan payments at the time of the "loss";
 - (2) Financial penalties imposed under a lease for excessive use, abnormal wear and tear or high mileage;
 - (3) Security deposits not returned by the lessor;
 - (4) Costs for extended warranties, credit life insurance, health, accident or disability insurance purchased with the loan or lease; and
 - (5) Carry-over balances from previous leases or loans.

F. Towing and Labor

Paragraph **A.2.** of the **Physical Damage Coverage** Section is replaced by the following:

We will pay up to \$75 for towing and labor costs incurred each time a covered "auto" that is a "private passenger type", light truck or medium truck is disabled. However, the labor must be performed at the place of disablement.

As used in this provision, "private passenger type" means a private passenger or station wagon type "auto" and includes an "auto" of the pickup or van type if not used for business purposes.

G. Extended Glass Coverage

The following is added to Paragraph **A.3.a.** of the **Physical Damage Coverage** Section:

If glass must be replaced, the deductible shown in the Declarations will apply. However, if glass can be repaired and is actually repaired rather than replaced, the deductible will be waived. You have the option of having the glass repaired rather than replaced.

H. Hired Auto Physical Damage – Increased Loss of Use Expenses

The **Coverage Extension** for **Loss Of Use Expenses** in the **Physical Damage Coverage** Section is replaced by the following:

Loss Of Use Expenses

For Hired Auto Physical Damage, we will pay expenses for which an "insured" becomes legally responsible to pay for loss of use of a vehicle rented or hired without a driver under a written rental contract or written rental agreement. We will pay for loss of use expenses if caused by:

- (1) Other than collision only if the Declarations indicate that Comprehensive Coverage is provided for any covered "auto";

(2) Specified Causes Of Loss only if the Declarations indicate that Specified Causes Of Loss Coverage is provided for any covered "auto"; or

(3) Collision only if the Declarations indicate that Collision Coverage is provided for any covered "auto".

However, the most we will pay for any expenses for loss of use is \$100 per day, to a maximum of \$3000.

I. Personal Effects Coverage

The following is added to the **Coverage** Provision of the **Physical Damage Coverage** Section:

Personal Effects Coverage

a. We will pay up to \$750 for "loss" to personal effects which are:

(1) Personal property owned by an "insured"; and

(2) In or on a covered "auto".

b. Subject to Paragraph a. above, the amount to be paid for "loss" to personal effects will be based on the lesser of:

(1) The reasonable cost to replace; or

(2) The actual cash value.

c. The coverage provided in Paragraphs a. and b. above, only applies in the event of a total theft of a covered "auto". No deductible applies to this coverage. However, we will not pay for "loss" to personal effects of any of the following:

(1) Accounts, bills, currency, deeds, evidence of debt, money, notes, securities, or commercial paper or other documents of value.

(2) Bullion, gold, silver, platinum, or other precious alloys or metals; furs or fur garments; jewelry, watches, precious or semi-precious stones.

(3) Paintings, statuary and other works of art.

(4) Contraband or property in the course of illegal transportation or trade.

(5) Tapes, records, discs or other similar devices used with audio, visual or data electronic equipment.

Any coverage provided by this Provision is excess over any other insurance coverage available for the same "loss".

J. Tapes, Records and Discs Coverage

1. The Exclusion in Paragraph B.4.a. of **Section III – Physical Damage Coverage** in the Business Auto Coverage Form and the Exclusion in Paragraph B.2.c. of **Section IV – Physical Damage Coverage** in the Motor Carrier Coverage Form does not apply.

2. The following is added to Paragraph 1.a. **Comprehensive Coverage** under the **Coverage** Provision of the **Physical Damage Coverage** Section:

We will pay for "loss" to tapes, records, discs or other similar devices used with audio, visual or data electronic equipment. We will pay only if the tapes, records, discs or other similar audio, visual or data electronic devices:

(a) Are the property of an "insured"; and

(b) Are in a covered "auto" at the time of "loss".

The most we will pay for such "loss" to tapes, records, discs or other similar devices is \$500. The **Physical Damage Coverage Deductible** Provision does not apply to such "loss".

K. Airbag Coverage

The Exclusion in Paragraph B.3.a. of **Section III – Physical Damage Coverage** in the Business Auto Coverage Form and the Exclusion in Paragraph B.4.a. of **Section IV – Physical Damage Coverage** in the Motor Carrier Coverage Form does not apply to the accidental discharge of an airbag.

L. Two or More Deductibles

The following is added to the **Deductible** Provision of the **Physical Damage Coverage** Section:

If an accident is covered both by this policy or Coverage Form and by another policy or Coverage Form issued to you by us, the following applies for each covered "auto" on a per vehicle basis:

1. If the deductible on this policy or Coverage Form is the smaller (or smallest) deductible, it will be waived; or
2. If the deductible on this policy or Coverage Form is not the smaller (or smallest) deductible, it will be reduced by the amount of the smaller (or smallest) deductible.

M. Temporary Substitute Autos – Physical Damage

1. The following is added to **Section I – Covered Autos**:

Temporary Substitute Autos – Physical Damage

If Physical Damage Coverage is provided by this Coverage Form on your owned covered "autos", the following types of vehicles are also covered "autos" for Physical Damage Coverage:

Any "auto" you do not own when used with the permission of its owner as a temporary substitute for a covered "auto" you do own but is out of service because of its:

1. Breakdown;
 2. Repair;
 3. Servicing;
 4. "Loss"; or
 5. Destruction.
2. The following is added to the Paragraph **A. Coverage** Provision of the **Physical Damage Coverage** Section:

Temporary Substitute Autos – Physical Damage

We will pay the owner for "loss" to the temporary substitute "auto" unless the "loss" results from fraudulent acts or omissions on your part. If we make any payment to the owner, we will obtain the owner's rights against any other party.

The deductible for the temporary substitute "auto" will be the same as the deductible for the covered "auto" it replaces.

N. Amended Duties In The Event Of Accident, Claim, Suit Or Loss

Paragraph **a.** of the **Duties In The Event Of Accident, Claim, Suit Or Loss** Condition is replaced by the following:

- a. In the event of "accident", claim, "suit" or "loss", you must give us or our authorized representative prompt notice of the "accident", claim, "suit" or "loss". However, these duties only apply when the "accident", claim, "suit" or "loss" is known to you (if you are an individual), a partner (if you are a partnership), a member (if you are a limited liability company) or an executive officer or insurance manager (if you are a corporation). The failure of any agent, servant or employee of the "insured" to notify us of any "accident", claim, "suit" or "loss" shall not invalidate the insurance afforded by this policy.

Include, as soon as practicable:

- (1) How, when and where the "accident" or "loss" occurred and if a claim is made or "suit" is brought, written notice of the claim or "suit" including, but not limited to, the date and details of such claim or "suit";
- (2) The "insured's" name and address; and
- (3) To the extent possible, the names and addresses of any injured persons and witnesses.

If you report an "accident", claim, "suit" or "loss" to another insurer when you should have reported to us, your failure to report to us will not be seen as a violation of these amended duties provided you give us notice as soon as practicable after the fact of the delay becomes known to you.

O. Waiver of Transfer Of Rights Of Recovery Against Others To Us

The following is added to the **Transfer Of Rights Of Recovery Against Others To Us** Condition:

This Condition does not apply to the extent required of you by a written contract, executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by such contract. This waiver only applies to the person or organization designated in the contract.

P. Employee Hired Autos – Physical Damage

Paragraph **b.** of the **Other Insurance** Condition in the Business Auto Coverage Form and Paragraph **f.** of the **Other Insurance – Primary and Excess Insurance Provisions** Condition in the Motor Carrier Coverage Form are replaced by the following:

For Hired Auto Physical Damage Coverage, the following are deemed to be covered "autos" you own:

- (1) Any covered "auto" you lease, hire, rent or borrow; and
- (2) Any covered "auto" hired or rented under a written contract or written agreement entered into by an "employee" or elected or appointed official with your permission while being operated within the course and scope of that "employee's" employment by you or that elected or appointed official's duties as respect their obligations to you.

However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

Q. Unintentional Failure to Disclose Hazards

The following is added to the **Concealment, Misrepresentation Or Fraud** Condition:

However, we will not deny coverage under this Coverage Form if you unintentionally:

- (1) Fail to disclose any hazards existing at the inception date of this Coverage Form; or
- (2) Make an error, omission, improper description of "autos" or other misstatement of information.

You must notify us as soon as possible after the discovery of any hazards or any other information that was not provided to us prior to the acceptance of this policy.

R. Hired Auto – World Wide Coverage

Paragraph **7.b.(5)** of the **Policy Period, Coverage Territory** Condition is replaced by the following:

- (5) Anywhere else in the world if a covered "auto" is leased, hired, rented or borrowed for a period of 60 days or less,

S. Bodily Injury Redefined

The definition of "bodily injury" in the **Definitions** Section is replaced by the following:

"Bodily injury" means bodily injury, sickness or disease, sustained by a person including death or mental anguish, resulting from any of these at any time. Mental anguish means any type of mental or emotional illness or disease.

T. Expected Or Intended Injury

The **Expected Or Intended Injury** Exclusion in Paragraph **B. Exclusions** under **Section II – Covered Auto Liability Coverage** is replaced by the following:

Expected Or Intended Injury

"Bodily injury" or "property damage" expected or intended from the standpoint of the "insured". This exclusion does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force to protect persons or property.

U. Physical Damage – Additional Temporary Transportation Expense Coverage

Paragraph **A.4.a.** of **Section III – Physical Damage Coverage** is replaced by the following:

4. Coverage Extensions

a. Transportation Expenses

We will pay up to \$50 per day to a maximum of \$1,000 for temporary transportation expense incurred by you because of the total theft of a covered "auto" of the private passenger type. We will pay only for those covered "autos" for which you carry either Comprehensive or Specified Causes of Loss Coverage. We will pay for temporary transportation expenses incurred during the period beginning 48 hours after the theft and ending, regardless of the policy's expiration, when the covered "auto" is returned to use or we pay for its "loss".

V. Replacement of a Private Passenger Auto with a Hybrid or Alternative Fuel Source Auto

The following is added to Paragraph A. **Coverage** of the **Physical Damage Coverage** Section:

In the event of a total "loss" to a covered "auto" of the private passenger type that is replaced with a hybrid "auto" or "auto" powered by an alternative fuel source of the private passenger type, we will pay an additional 10% of the cost of the replacement "auto", excluding tax, title, license, other fees and any aftermarket vehicle upgrades, up to a maximum of \$2500. The covered "auto" must be replaced by a hybrid "auto" or an "auto" powered by an alternative fuel source within 60 calendar days of the payment of the "loss" and evidenced by a bill of sale or new vehicle lease agreement.

To qualify as a hybrid "auto", the "auto" must be powered by a conventional gasoline engine and another source of propulsion power. The other source of propulsion power must be electric, hydrogen, propane, solar or natural gas, either compressed or liquefied. To qualify as an "auto" powered by an alternative fuel source, the "auto" must be powered by a source of propulsion power other than a conventional gasoline engine. An "auto" solely propelled by biofuel, gasoline or diesel fuel or any blend thereof is not an "auto" powered by an alternative fuel source.

W. Return of Stolen Automobile

The following is added to the **Coverage Extension** Provision of the **Physical Damage Coverage** Section:

If a covered "auto" is stolen and recovered, we will pay the cost of transport to return the "auto" to you. We will pay only for those covered "autos" for which you carry either Comprehensive or Specified Causes of Loss Coverage.

All other terms, conditions, provisions and exclusions of this policy remain the same.



ZURICH®

Additional Insured – Automatic – Owners, Lessees Or Contractors

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

Policy No. GLO 4277101-21

Effective Date: 10/01/2025

This endorsement modifies insurance provided under the:

Commercial General Liability Coverage Part

A. Section II – Who Is An Insured is amended to include as an additional insured any person or organization whom you are required to add as an additional insured under a written contract or written agreement executed by you, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" and subject to the following:

1. If such written contract or written agreement specifically requires that you provide that the person or organization be named as an additional insured under one or both of the following endorsements:
 - a. The Insurance Services Office (ISO) ISO CG 20 10 (10/01 edition); or
 - b. The ISO CG 20 37 (10/01 edition),

such person or organization is then an additional insured with respect to such endorsement(s), but only to the extent that "bodily injury", "property damage" or "personal and advertising injury" arises out of:

- (1) Your ongoing operations, with respect to Paragraph 1.a. above; or
- (2) "Your work", with respect to Paragraph 1.b. above,
which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph 1., insurance afforded to such additional insured:

- (a) Only applies if the "bodily injury", "property damage" or "personal and advertising injury" offense occurs during the policy period and subsequent to your execution of the written contract or written agreement; and
- (b) Does not apply to "bodily injury" or "property damage" caused by "your work" and included within the "products-completed operations hazard" unless the written contract or written agreement specifically requires that you provide such coverage to such additional insured.

2. If such written contract or written agreement specifically requires that you provide that the person or organization be named as an additional insured under one or both of the following endorsements:
 - a. The Insurance Services Office (ISO) ISO CG 20 10 (07/04 edition); or
 - b. The ISO CG 20 37 (07/04 edition),

such person or organization is then an additional insured with respect to such endorsement(s), but only to the extent that "bodily injury", "property damage" or "personal and advertising injury" is caused, in whole or in part, by:

- (1) Your acts or omissions; or
- (2) The acts or omissions of those acting on your behalf,

in the performance of:

- (a) Your ongoing operations, with respect to Paragraph 2.a. above; or
- (b) "Your work" and included in the "products-completed operations hazard", with respect to Paragraph 2.b. above,

which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph 2., insurance afforded to such additional insured:

- (i) Only applies if the "bodily injury", "property damage" or "personal and advertising injury" offense occurs during the policy period and subsequent to your execution of the written contract or written agreement; and
- (ii) Does not apply to "bodily injury" or "property damage" caused by "your work" and included within the "products-completed operations hazard" unless the written contract or written agreement specifically requires that you provide such coverage to such additional insured.

3. If neither Paragraph 1. nor Paragraph 2. above apply and such written contract or written agreement requires that you provide that the person or organization be named as an additional insured:

- a. Under the ISO CG 20 10 (04/13 edition, any subsequent edition or if no edition date is specified); or
- b. With respect to ongoing operations (if no form is specified),

such person or organization is then an additional insured only to the extent that "bodily injury", "property damage" or "personal and advertising injury" is caused, in whole or in part by:

- (1) Your acts or omissions; or
- (2) The acts or omissions of those acting on your behalf,

in the performance of your ongoing operations, which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph 3., insurance afforded to such additional insured:

- (a) Only applies to the extent permitted by law;
- (b) Will not be broader than that which you are required by the written contract or written agreement to provide for such additional insured; and
- (c) Only applies if the "bodily injury", "property damage" or "personal and advertising injury" offense occurs during the policy period and subsequent to your execution of the written contract or written agreement.

4. If neither Paragraph 1. nor Paragraph 2. above apply and such written contract or written agreement requires that you provide that the person or organization be named as an additional insured:

- a. Under the ISO CG 20 37 (04/13 edition, any subsequent edition or if no edition date is specified); or
- b. With respect to the "products-completed operations hazard" (if no form is specified),

such person or organization is then an additional insured only to the extent that "bodily injury" or "property damage" is caused, in whole or in part by "your work" and included in the "products-completed operations hazard", which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph 4., insurance afforded to such additional insured:

- (1) Only applies to the extent permitted by law;
- (2) Will not be broader than that which you are required by the written contract or written agreement to provide for such additional insured;
- (3) Only applies if the "bodily injury" or "property damage" occurs during the policy period and subsequent to your execution of the written contract or written agreement; and
- (4) Does not apply to "bodily injury" or "property damage" caused by "your work" and included within the "products-completed operations hazard" unless the written contract or written agreement specifically requires that you provide such coverage to such additional insured.

- B. Solely with respect to the insurance afforded to any additional insured referenced in Section A. of this endorsement, the following additional exclusion applies:

This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or failure to render, any professional architectural, engineering or surveying services including:

1. The preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
2. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional architectural, engineering or surveying services.

- C. Solely with respect to the coverage provided by this endorsement, the following is added to Paragraph 2. **Duties In The Event Of Occurrence, Offense, Claim Or Suit** of Section IV – **Commercial General Liability Conditions**:

The additional insured must see to it that:

- (1) We are notified as soon as practicable of an "occurrence" or offense that may result in a claim;
- (2) We receive written notice of a claim or "suit" as soon as practicable; and
- (3) A request for defense and indemnity of the claim or "suit" will promptly be brought against any policy issued by another insurer under which the additional insured may be an insured in any capacity. This provision does not apply to insurance on which the additional insured is a Named Insured if the written contract or written agreement requires that this coverage be primary and non-contributory.

- D. Solely with respect to the coverage provided by this endorsement:

1. The following is added to the **Other Insurance** Condition of Section IV – **Commercial General Liability Conditions**:

Primary and Noncontributory insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured provided that:

- a. The additional insured is a Named Insured under such other insurance; and
- b. You are required by written contract or written agreement that this insurance be primary and not seek contribution from any other insurance available to the additional insured.

2. The following paragraph is added to Paragraph 4.b. of the **Other Insurance** Condition under Section IV – **Commercial General Liability Conditions**:

This insurance is excess over:

Any of the other insurance, whether primary, excess, contingent or on any other basis, available to an additional insured, in which the additional insured on our policy is also covered as an additional insured on another policy providing coverage for the same "occurrence", offense, claim or "suit". This provision does not apply to any policy in which the additional insured is a Named Insured on such other policy and where our policy is required by a written contract or written agreement to provide coverage to the additional insured on a primary and non-contributory basis.

- E. This endorsement does not apply to an additional insured which has been added to this Coverage Part by an endorsement showing the additional insured in a Schedule of additional insureds, and which endorsement applies specifically to that identified additional insured.

- F. Solely with respect to the insurance afforded to an additional insured under Paragraph A.3. or Paragraph A.4. of this endorsement, the following is added to Section III – **Limits Of Insurance**:

Additional Insured – Automatic – Owners, Lessees Or Contractors Limit

The most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the written contract or written agreement referenced in Section A. of this endorsement; or
2. Available under the applicable Limits of Insurance shown in the Declarations,
whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

All other terms, conditions, provisions and exclusions of this policy remain the same.



ZURICH®

Notification to Others of Cancellation, Nonrenewal or Reduction of Insurance

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem.	Return Prem.
GLO 4277101-21	10/01/2025	10/01/2026	10/01/2025		INCL	

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the:

- Commercial General Liability Coverage Part**
- Liquor Liability Coverage Part**
- Products/Completed Operations Liability Coverage Part**

- A.** If we cancel or non-renew this Coverage Part(s) by written notice to the first Named Insured for any reason other than nonpayment of premium, we will mail or deliver a copy of such written notice of cancellation or non-renewal:
 1. To the name and address corresponding to each person or organization shown in the Schedule below; and
 2. At least 10 days prior to the effective date of the cancellation or non-renewal, as advised in our notice to the first Named Insured, or the longer number of days notice if indicated in the Schedule below.
- B.** If we cancel this Coverage Part(s) by written notice to the first Named Insured for nonpayment of premium, we will mail or deliver a copy of such written notice of cancellation to the name and address corresponding to each person or organization shown in the Schedule below at least 10 days prior to the effective date of such cancellation.
- C.** If coverage afforded by this Coverage Part(s) is reduced or restricted, except for any reduction of Limits of Insurance due to payment of claims, we will mail or deliver notice of such reduction or restriction:
 1. To the name and address corresponding to each person or organization shown in the Schedule below; and
 2. At least 10 days prior to the effective date of the reduction or restriction, or the longer number of days notice if indicated in the Schedule below.
- D.** If notice as described in Paragraphs **A.**, **B.** or **C.** of this endorsement is mailed, proof of mailing will be sufficient proof of such notice.

SCHEDULE	
Name and Address of Other Person(s) / Organization(s):	Number of Days Notice:
ANY PERSON OR ORGANIZATION WITH WHOM YOU HAVE AGREED,	90
THROUGH WRITTEN CONTRACT, AGREEMENT OR PERMIT	

All other terms and conditions of this policy remain unchanged.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US (WAIVER OF SUBROGATION)

This endorsement modifies insurance provided under the following:

- COMMERCIAL GENERAL LIABILITY COVERAGE PART
- ELECTRONIC DATA LIABILITY COVERAGE PART
- LIQUOR LIABILITY COVERAGE PART
- POLLUTION LIABILITY COVERAGE PART DESIGNATED SITES
- POLLUTION LIABILITY LIMITED COVERAGE PART DESIGNATED SITES
- PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
- RAILROAD PROTECTIVE LIABILITY COVERAGE PART
- UNDERGROUND STORAGE TANK POLICY DESIGNATED TANKS

SCHEDULE

Name Of Person(s) Or Organization(s):

ANY PERSON OR ORGANIZATION THAT REQUIRES YOU TO WAIVE YOUR RIGHTS OF RECOVERY, IN A WRITTEN CONTRACT OR AGREEMENT WITH THE NAMED INSURED THAT IS EXECUTED PRIOR TO THE ACCIDENT OR LOSS.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph 8. **Transfer Of Rights Of Recovery Against Others To Us** of **Section IV – Conditions:**

We waive any right of recovery against the person(s) or organization(s) shown in the Schedule above because of payments we make under this Coverage Part. Such waiver by us applies only to the extent that the insured has waived its right of recovery against such person(s) or organization(s) prior to loss. This endorsement applies only to the person(s) or organization(s) shown in the Schedule above.

Other Insurance Amendment – Primary And Non-Contributory



Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
GLO 4277101-21	10/01/2025	10/01/2026	10/01/2025		INCL	

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

Named Insured: THE SUNDT COMPANIES, INC.

Address (including ZIP Code):

This endorsement modifies insurance provided under the:

Commercial General Liability Coverage Part

1. The following paragraph is added to the Other Insurance Condition of Section IV – Commercial General Liability Conditions:

This insurance is primary insurance to and will not seek contribution from any other insurance available to an additional insured under this policy provided that:

- a. The additional insured is a Named Insured under such other insurance; and
- b. You are required by a written contract or written agreement that this insurance would be primary and would not seek contribution from any any other insurance available to the additional insured.

2. The following paragraph is added to Paragraph 4.b. of the Other Insurance Condition of Section IV – Commercial General Liability Conditions:

This insurance is excess over:

Any of the other insurance, whether primary, excess, contingent or on any other basis, available to an additional insured, in which the additional insured on our policy is also covered as an additional insured on another policy providing coverage for the same "occurrence", offense, claim or "suit". This provision does not apply to any policy in which the additional insured is a Named Insured on such other policy and where our policy is required by written contract or written agreement to provide coverage to the additional insured on a primary and non-contributory basis.

All other terms and conditions of this policy remain unchanged.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – DESIGNATED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

<p>Name Of Additional Insured Person(s) Or Organization(s): ANY PERSON OR ORGANIZATION, OTHER THAN AN ARCHITECT, ENGINEER, OR SURVEYOR, WHOM YOU ARE REQUIRED TO ADD AS AN ADDITIONAL INSURED UNDER THIS POLICY UNDER A WRITTEN CONTRACT OR WRITTEN AGREEMENT EXECUTED PRIOR TO LOSS.</p>

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your acts or omissions or the acts or omissions of those acting on your behalf:

1. In the performance of your ongoing operations; or
2. In connection with your premises owned by or rented to you.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable limits of insurance;

whichever is less.

This endorsement shall not increase the applicable limits of insurance.

NOTIFICATION TO OTHERS OF CANCELLATION ENDORSEMENT

This endorsement is used to add the following to Part Six of the policy.

**PART SIX
CONDITIONS**

- A.** If we cancel this policy by written notice to you for any reason other than nonpayment of premium, we will mail or deliver a copy of such written notice of cancellation to the name and address corresponding to each person or organization shown in the Schedule below. Notification to such person or organization will be provided at least 10 days prior to the effective date of the cancellation, as advised in our notice to you, or the longer number of days notice if indicated in the Schedule below.
- B.** If we cancel this policy by written notice to you for nonpayment of premium, we will mail or deliver a copy of such written notice of cancellation to the name and address corresponding to each person or organization shown in the Schedule below at least 10 days prior to the effective date of such cancellation.
- C.** If notice as described in Paragraphs **A.** or **B.** of this endorsement is mailed, proof of mailing will be sufficient proof of such notice.

SCHEDULE	
Name and Address of Other Person(s) / Organization(s):	Number of Days Notice:
ANY PERSON OR ORGANIZATION WITH WHOM YOU HAVE AGREED THROUGH WRITTEN CONTRACT, AGREEMENT OR PERMIT	90

All other terms and conditions of this policy remain unchanged.

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

ALL PERSONS AND/OR ORGANIZATIONS THAT ARE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT WITH THE INSURED, EXECUTED PRIOR TO THE ACCIDENT OR LOSS, THAT WAIVER OF SUBROGATION BE PROVIDED UNDER THE POLICY FOR WORK PERFORMED BY YOU FOR THAT PERSON AND/OR ORGANIZATION

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective _____ Policy No. WC 4277100 21 _____ Endorsement No. _____

Insured _____ Premium \$ _____

Insurance Company _____ Countersigned By _____

Bond #9483275 Zurich
Bond # K41929522 Federal

ARIZONA STATUTORY PERFORMANCE BOND
PURSUANT TO TITLE 34, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS THAT:

Sundt Construction, Inc.

(hereinafter "Principal"), as Principal, and Zurich American Insurance Company and Federal Insurance Company (hereinafter "Surety"), a corporation organized and existing under the laws of the State of New York and Indiana, with its principal office in the City of Schaumburg, Illinois and Whitehouse Station, New Jersey, holding a certificate of authority to transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto Pima County, Arizona (hereinafter "Obligee") in the amount of **\$3,083,135.14**, for the payment whereof, Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated 05/12/2026 for:

PO2600013675 Country Club Rd - Michigan St to Milber St

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of the contract during the original term of the contract and any extension of the contract, with or without notice to the Surety, and during the life of any guaranty required under the contract, and also performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of all duly authorized modifications of the contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, the above obligation is void. Otherwise, it remains in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copies at length in this Contract.

The prevailing party in a suit on this bond shall recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this 1st day of May, 2026.

Witness our hands this 1st day of May, 2026.

Sundt Construction, Inc.

Principal

By: S. Schuff

Zurich American Insurance Company
Federal Insurance Company

Surety

By: Betty L Tolentino

Betty L Tolentino, Attorney-in-Fact

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of San Francisco)

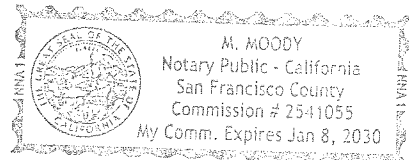
On MAY 1, 2020 before me, M. Moody, Notary Public
(insert name and title of the officer)

personally appeared Betty L. Tolentino,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing
paragraph is true and correct.

WITNESS my hand and official seal.

Signature  (Seal)



**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

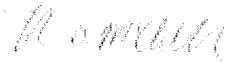
KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by Thomas O. McClellan, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Susan HECKER, K. ZEROUNIAN, Janet C. ROJO, Betty L. TOLENTINO, M. MOODY, Maureen O'CONNELL, Robert P. WRIXON, Kevin RE, Virginia L. BLACK, Salina KO, Thuyduong LE, Brittany KAVAN, Douglas B. BOWRING, Matthew KALAFATIS, Misty R HEMJE, Maria D. REYNOSO, Tina K. NIERENBERG, Harold FOY, Shawndrae N. JOHNSTON, Forrest CHAMBERLAIN, Fnu YILAN of San Francisco, California**, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 25th day of March, A.D. 2026.



ATTEST:
**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND**



By: *Thomas O. McClellan*
Vice President

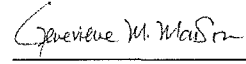


By: *Daniel Lutes*
Secretary


**State of Maryland
County of Baltimore**

On this 25th day of March, A.D. 2026, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Thomas O. McClellan, Vice President and Daniel Lutes, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposed and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



Genevieve M. Maison
Notary Public
My Commission Expires January 27, 2029



Power of Attorney

Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company

Westchester Fire Insurance Company | ACE American Insurance Company

Know All by These Presents, that FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, PACIFIC INDEMNITY COMPANY, a Delaware corporation, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY corporations of the Commonwealth of Pennsylvania, do each hereby constitute and appoint appoint Misty R. Hemje, Shawndrae N. Johnston, and Kevin Re of Walnut Creek, California; Virginia L. Black, Forrest Chamberlain, Brian F. Cooper, Harold Foy, Susan Hecker, Brittany Kavan, Salina Ko, Thuyduong Le, M. Moody, Tina K. Nierenberg, Maureen O'Connell, Julia Ortega, Maria D. Reynoso, Janet C. Rojo, Betty L. Tolentino, Robert P. Wrixon, Fnu Yilan and K. Zerounian of San Francisco, California

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY have each executed and attested these presents and affixed their corporate seals on this 3rd day of April, 2026.

[Signature of Rupert HD Swindells]

Rupert HD Swindells, Assistant Secretary

[Signature of Stephen M. Haney]

Stephen M. Haney, Vice President



STATE OF NEW JERSEY

County of Hunterdon

ss.

On this 3rd day of April, 2026 before me, a Notary Public of New Jersey, personally came Rupert HD Swindells and Stephen M. Haney, to me known to be Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY, the companies which executed the foregoing Power of Attorney, and the said Rupert HD Swindells and Stephen M. Haney, being by me duly sworn, severally and each for himself did depose and say that they are Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY and know the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of said Companies; and that their signatures as such officers were duly affixed and subscribed by like authority.

Notarial Seal



Stacy J Loftin
NOTARY PUBLIC OF NEW JERSEY
No. 50175208
COMMISSION EXPIRES OCT 15, 2026

[Signature of Notary Public]

Notary Public

CERTIFICATION

Resolutions adopted by the Boards of Directors of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY on August 30, 2016; WESTCHESTER FIRE INSURANCE COMPANY on December 11, 2006; and ACE AMERICAN INSURANCE COMPANY on March 20, 2009:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into in the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
(2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such person's written appointment as such attorney-in-fact.
(3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
(4) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing to any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
(5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested."

I, Rupert HD Swindells, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY (the "Companies") do hereby certify that

- (i) the foregoing Resolutions adopted by the Board of Directors of the Companies are true, correct and in full force and effect,
(ii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Whitehouse Station, NJ, this MAY 1, 2020



[Signature of Rupert HD Swindells]

Rupert HD Swindells, Assistant Secretary

IN THE EVENT YOU WISH TO VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT: Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: surety@chubb.com

Bond # 9483275 Zurich
Bond # K41929522 Federal

ARIZONA STATUTORY PAYMENT BOND
PURSUANT TO TITLE 34, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS THAT:

Sundt Construction, Inc.
Zurich American Insurance Company

(hereinafter "Principal"), as Principal, and Federal Insurance Company
(hereinafter "Surety"), a corporation organized and existing under the laws of the State of NY/Indiana,
with its principal office in the City of Schamburg, Illinois,^{and} Whitehouse Station, New Jersey, holding
a certificate of authority to transact surety business in Arizona issued by the Director of Department
of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto
Pima County (hereinafter "Obligee") in the amount of **\$3,083,135.14**, for the payment whereof,
Principal and Surety bind themselves, and their heirs, administrators, executors, successors
and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated
05/12/2026 for:

PO2600013675 Country Club Rd - Michigan St to Milber St

which contract is hereby referred to and made a part hereof as fully and to the same extent as if
copied at length herein.

NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, that if the Principal promptly
pays all monies due to all persons supplying labor or materials to the Principal or the
Principal's subcontractors in the prosecution of the work provided for in the contract, this obligation is
void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34, Chapter
2, Article 2, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance
with the provisions, conditions and limitations of Title 34, Chapter 2, Article 2, Arizona Revised
Statutes, to the same extent as if it were copied at length in this Contract.

The prevailing party in a suit on this bond shall recover as part of the judgment reasonable attorney
fees that may be fixed by a judge in the court.

Witness our hands this 1st day of May, 2026.

Witness our hands this 1st day of May, 2026.

Sundt Construction, Inc.

Principal

Zurich American Insurance Company

Federal Insurance Company

Surety

By: 

By: 

Betty L. Tolentino, Attorney-in-Fact



ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

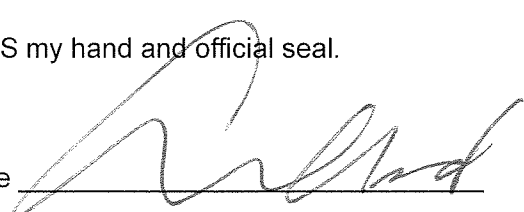
State of California
County of San Francisco)

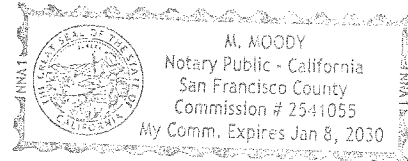
On MAY 1, 2026 before me, M. Moody, Notary Public
(insert name and title of the officer)

personally appeared Betty L. Tolentino,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature  (Seal)



**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by Thomas O. McClellan, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Susan HECKER, K. ZEROUNIAN, Janet C. ROJO, Betty L. TOLENTINO, M. MOODY, Maureen O'CONNELL, Robert P. WRIXON, Kevin RE, Virginia L. BLACK, Salina KO, Thuyduong LE, Brittany KAVAN, Douglas B. BOWRING, Matthew KALAFATIS, Misty R HEMJE, Maria D. REYNOSO, Tina K. NIERENBERG, Harold FOY, Shawndrae N. JOHNSTON, Forrest CHAMBERLAIN, Fnu YILAN of San Francisco, California**, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 25th day of March, A.D. 2026.



ATTEST:
**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

By: *Thomas O. McClellan*
Vice President

By: *Daniel Lutes*
Secretary

**State of Maryland
County of Baltimore**

On this 25th day of March, A.D. 2026, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Thomas O. McClellan, Vice President and Daniel Lutes, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Genevieve M. Maison
Notary Public
My Commission Expire January 27, 2029



EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 15th day of MAY, 2026



MJ Pethick

Mary Jean Pethick
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
reportsfclaims@zurichna.com
800-626-4577



Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

Power of Attorney

Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company

Westchester Fire Insurance Company | ACE American Insurance Company

Know All by These Presents, that FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, PACIFIC INDEMNITY COMPANY, a Delaware corporation, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY corporations of the Commonwealth of Pennsylvania, do each hereby constitute and appoint appoint Misty R. Hemje, Shawndrae N. Johnston, and Kevin Re of Walnut Creek, California; Virginia L. Black, Forrest Chamberlain, Brian F. Cooper, Harold Foy, Susan Hecker, Brittany Kavan, Salina Ko, Thuyduong Le, M. Moody, Tina K. Nierenberg, Maureen O'Connell, Julia Ortega, Maria D. Reynoso, Janet C. Rojo, Betty L. Tolentino, Robert P. Wrixon, Fnu Yilan and K. Zerounian of San Francisco, California

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY have each executed and attested these presents and affixed their corporate seals on this 3rd day of April, 2026.

[Signature of Rupert HD Swindells]

Rupert HD Swindells, Assistant Secretary

[Signature of Stephen M. Haney]

Stephen M. Haney, Vice President



STATE OF NEW JERSEY

County of Hunterdon

ss.

On this 3rd day of April, 2026 before me, a Notary Public of New Jersey, personally came Rupert HD Swindells and Stephen M. Haney, to me known to be Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY, the companies which executed the foregoing Power of Attorney, and the said Rupert HD Swindells and Stephen M. Haney, being by me duly sworn, severally and each for himself did depose and say that they are Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY and know the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of said Companies; and that their signatures as such officers were duly affixed and subscribed by like authority.

Notarial Seal



Stacy J. Loftin
NOTARY PUBLIC OF NEW JERSEY
No. 50175208
COMMISSION EXPIRES OCT 15, 2026

[Signature of Stacy J. Loftin]
Notary Public

CERTIFICATION

Resolutions adopted by the Boards of Directors of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY on August 30, 2016; WESTCHESTER FIRE INSURANCE COMPANY on December 11, 2006; and ACE AMERICAN INSURANCE COMPANY on March 20, 2009:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into in the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
(2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such person's written appointment as such attorney-in-fact.
(3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
(4) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing to any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
(5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested."

I, Rupert HD Swindells, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY (the "Companies") do hereby certify that

- (i) the foregoing Resolutions adopted by the Board of Directors of the Companies are true, correct and in full force and effect,
(ii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Whitehouse Station, NJ, this

MAY 1, 2026



[Signature of Rupert HD Swindells]
Rupert HD Swindells, Assistant Secretary

IN THE EVENT YOU WISH TO VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT:

Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: surety@chubb.com