



**FIRST AMENDMENT
TO THE
LINKING AGREEMENT
BETWEEN
THE TOWN OF PARADISE VALLEY
AND
M. R. TANNER DEVELOPMENT AND CONSTRUCTION, INC.**

THIS FIRST AMENDMENT TO THE LINKING AGREEMENT (this “Amendment”) is entered into as of _____, 2026, between the Town of Paradise Valley, an Arizona municipal corporation (the “Town”), and M.R. Tanner Development and Construction, Inc., an Arizona corporation (the “Contractor”). The Town and the Contractor are the only parties to this Amendment; each is an individual “Party,” and together they are the “Parties.”

RECITALS

- A. The Parties entered into the Linking Agreement, No. CON-25-031-PBW dated February 19, 2025, for the Contractor to provide street maintenance services (the “Agreement”).
- B. The Town has determined that additional services by the Contractor are necessary (the “Additional Services”).
- C. The Parties desire to enter into this Amendment to extend the term of the Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing introduction and recitals, which are incorporated herein by reference, the following mutual covenants and conditions, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. Incorporation of Defined Terms. All capitalized terms not otherwise defined in this Amendment have the same meanings as contained in the Agreement.
2. Term of Agreement. The term of the Agreement is hereby extended and shall remain in full force and effect until June 30, 2027, unless terminated as otherwise provided pursuant to the terms and conditions of the Agreement.
3. Effect of Amendment. The Agreement is affirmed and ratified, and, except as expressly modified herein, all terms and conditions of the Agreement shall remain in full force and effect.

4. Non-Default. By executing this Amendment, the Contractor affirmatively asserts that (i) the Town is not currently in default, nor has been in default at any time prior to this Amendment, under any of the terms or conditions of the Agreement, and (ii) any and all claims, known and unknown, relating to the Agreement and existing on or before the date of this Amendment are forever waived.

5. Conflict of Interest. This Amendment and the Agreement may be canceled by the Town pursuant to ARIZ. REV. STAT. § 38-511.

6. Forced Labor of Ethnic Uyghurs. To the extent applicable under ARIZ. REV. STAT. § 35-394, the Contractor warrants and certifies that it does not currently, and agrees that it will not, for the duration of the Agreement, as amended, use the forced labor, any goods or services produced by the forced labor, or 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 the Contractor becomes aware that it is not in compliance with this paragraph, the Contractor shall notify the Town of the noncompliance within five business days of becoming aware of it. If the Contractor fails to provide a written certification that the Contractor has remedied the noncompliance within 180 days after that, the Agreement shall terminate unless the termination date of the Agreement occurs before the end of the remedy, in which case the Agreement terminates on its termination date.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties have executed this instrument as of the date and year first set forth above.

“Town”

TOWN OF PARADISE VALLEY,
an Arizona municipal corporation

Andrew Ching, Town Manager

ATTEST:

Duncan Miller, Town Clerk

APPROVED AS TO FORM:

Andrew J. McGuire, Town Attorney
Gust Rosenfeld P.L.C.

“Contractor”

M. R. TANNER DEVELOPMENT AND
CONSTRUCTION, INC.,
an Arizona corporation

Signature

Name

Title

**LINKING AGREEMENT
FOR COOPERATIVE PURCHASE**

M. R. TANNER DEVELOPMENT AND CONSTRUCTION, INC.

EXHIBIT B
JOB ORDER NO. 5
PAVEMENT PRESERVATION WORK

See the following pages

**TOWN OF PARADISE VALLEY
JOB ORDER CONTRACTING AGREEMENT
WITH
M. R. TANNER DEVELOPMENT AND CONSTRUCTION, INC.**

**JOB ORDER NO. 5
PAVEMENT PRESERVATION WORK**

This Job Order No. 5 (this “**Job Order**”) is entered into on this ____ day of _____, 2026 (the “**Effective Date**”), by and between the Town of Paradise Valley, an Arizona municipal corporation (the “**Town**”) and M.R. Tanner Development and Construction, Inc., an Arizona corporation authorized to do business in Arizona (the “**Contractor**”). This Job Order is subject to and governed by the terms and conditions of the City of Buckeye Contract No. 2025081 (the “**Base Agreement**”) and of Town of Paradise Valley Linking Agreement for Cooperative Purchase No. CON-25-031-PBW (the “**Agreement**”).

**ARTICLE 1
Scope of Work**

The JOC shall furnish all labor, materials, and equipment, as more fully set forth in the Pavement Preservation Work Proposal, which is attached hereto as **Attachment 1** and incorporated as if fully set forth herein (the “**Work**”), as set forth in the Plans and Specifications, which are attached hereto as **Attachment 2** and incorporated as if fully set forth herein (the “**Project**”).

**ARTICLE 2
Schedule of Completion**

The Contractor shall commence work within 10 days from issuance by the Town of a Notice to Proceed and shall complete the Work within 364 calendar days. In view of the difficulty or impossibility of determining the Town’s damages from delay, should the JOC fail to achieve Substantial Completion within the above number of calendar days, as may be extended by any Town-approved Change Orders, the JOC agrees to pay and will pay to the Town, in addition to all other sums owed pursuant to the Agreement, the sum of \$280 for each calendar day of delay as liquidated damages for such delay and not as a penalty. This sum may be withheld from the balance of the cost of the Work as it becomes due. Should liquidated damages exceed the cost of the Work due or to become due, then the JOC shall pay the Town the difference within three days of receipt of written demand.

**ARTICLE 3
Cost of the Work**

The JOC shall complete the Work for the prices set forth in **Attachment 1**. The total cost to complete the Work under this Job Order shall not exceed **\$3,888,159.45**

**ARTICLE 4
Bonds**

Payment and Performance Bonds are required for this Project and are attached hereto as **Attachment 3** and incorporated as if fully set forth herein.

ARTICLE 5
Additional Terms

This Job Order is subject to the terms and conditions of the Agreement and the Base Agreement and may be canceled pursuant to the provisions of A.R.S. § 38-511.

By executing this Job Order, the JOC certifies its compliance with A.R.S. § 35-393.01.

To the extent applicable under A.R.S. § 35-394, the JOC certifies that it does not, and will not, for the duration of the Agreement, use the forced labor, any goods or services produced by the forced labor, or 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.

In the event of any conflict or discrepancy between the terms of this Job Order, the Agreement, the Base Agreement, **Attachment 2** to this Job Order, and **Attachment 1** to this Job Order, the documents shall govern in that order.

ARTICLE 6
Attachments

This Job Order includes and incorporates the following Attachments:

- Attachment 1** – Proposal
- Attachment 2** – Plans and Specifications
- Attachment 3** – Payment and Performance Bonds

IN WITNESS WHEREOF, the Parties have hereunto subscribed their names.

TOWN OF PARADISE VALLEY,
an Arizona municipal corporation:

**M.R. TANNER DEVELOPMENT AND
CONSTRUCTION, INC.,**
an Arizona corporation:

Andrew Ching, Town Manager

By: _____

Name: _____

Title: _____

ATTEST:

Duncan Miller, Town Clerk

APPROVED AS TO FORM:

Andrew J. McGuire, Town Attorney

**ATTACHMENT 1
TO
JOB ORDER NO. 5**

**PROPOSAL
PAVEMENT PRESERVATION WORK**

See the following pages.



1327 West San Pedro Street · Gilbert, Arizona 85233-2403
 Phone (480) 633-8500 · Fax (480) 633-8111

CONTRACT/ PROPOSAL

CLASS A LICENSE NO. 111576-A
 An Equal Opportunity Employer

Date 2/16/2026

To Paradise Valley

 Attention Chris Martinez

Job Name Chaparral- Invergordon to 66th St
 Location _____
 Architect- Engineer _____
 Plans Dated _____
 Soil Engineer _____
 Report Date _____

We propose to furnish all labor and material necessary to complete the work as described per our unit prices. All work will be done in accordance with the plans, specifications, and per the requirements of the governing municipality.

Thank you for the opportunity of submitting a bid on the above- described job.

PROPOSAL OF WORK TO BE FURNISHED

NO.	ITEM DESCRIBED	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	CHAPARRAL- INVERGORDON TO 66TH ST				
	2" MILLING (REPAIR BEFORE MICROSEAL)	600.00	SY	2.50	1,500.00
	2" AC CAP (1/2" PMTR)	600.00	SY	20.00	12,000.00
	CRACK FILL	18,200.00	LF	0.25	4,550.00
	MICROSEAL	4,300.00	SY	5.33	22,919.00
	STRIPING (STRIPE REMOVAL, TEMP, & 30 DAY THERMO)	1.00	LS	16,400.00	16,400.00
	TRAFFIC CONTROL OFFICERS	1.00	LS	19,800.00	19,800.00
		1.00	LS	16,300.00	16,300.00
	Subtotal				\$ 93,469.00
	Sales Tax				INCLUDED
	Total Bid				\$ 93,469.00

Payment to be based on actual field-measured quantities unless otherwise stated. 90% monthly progress draws on completed work with the final 10% due 30 days after final completion and acceptance of our work. Interest will be charged at the rate of 1.5% per month on all late balances. Any and all costs or fees necessarily incurred in the pursuit of the collection of this account will be paid by the owner.

ACCEPTANCE OF CONTRACT/ PROPOSAL

The above prices, specifications and conditions on the front and **back** of this proposal are satisfactory and are hereby accepted, giving M.R. TANNER CONSTRUCTION authorization to complete work as specified. Funding verification and further payment term conditions to be established prior to execution of contract agreement or commencement of work.

M. R. TANNER CONSTRUCTION

Firm Name: _____

By: _____

Accepted by: _____

Title: _____

Title: _____

Date: _____

Date: _____



1327 West San Pedro Street · Gilbert, Arizona 85233-2403
 Phone (480) 633-8500 · Fax (480) 633-8111

CONTRACT/ PROPOSAL

CLASS A LICENSE NO. 111576-A
 An Equal Opportunity Employer

Date 2/16/2026

To Paradise Valley

 Attention Chris Martinez

Job Name Invergordon- Lincoln to McDonald
 Location _____
 Architect- Engineer _____
 Plans Dated _____
 Soil Engineer _____
 Report Date _____

We propose to furnish all labor and material necessary to complete the work as described per our unit prices. All work will be done in accordance with the plans, specifications, and per the requirements of the governing municipality.

Thank you for the opportunity of submitting a bid on the above- described job.

PROPOSAL OF WORK TO BE FURNISHED

NO.	ITEM DESCRIBED	QUANTITY	UNIT	UNIT PRICE	AMOUNT
<u>INVERGORDON- LINCOLN TO MCDONALD</u>					
	2" MILLING (WATER LINE SETTLEMENT 2,500 FT X 8 FT)	2,222.00	SY	2.50	5,555.00
	2" AC CAP (1/2" PMTR)	2,222.00	SY	20.00	44,440.00
	ASPHALT PATCHING BEFORE MICROSEAL	750.00	SF	20.00	15,000.00
	CRACK FILL	41,433.00	LF	0.25	10,358.25
	MICROSEAL	9,290.00	SY	5.33	49,515.70
	ADJUST MANHOLE AFTER MICROSEAL	1.00	EA	700.00	700.00
	ADJUST WATER VALVE AFTER MICROSEAL	13.00	EA	670.00	8,710.00
	STRIPING (STRIPE REMOVAL, TEMP, & 30 DAY THERMO)	1.00	LS	28,300.00	28,300.00
	TRAFFIC CONTROL	1.00	LS	39,300.00	39,300.00
	OFFICERS	1.00	LS	36,400.00	36,400.00
	Subtotal				\$ 238,278.95
	Sales Tax				INCLUDED
	Total Bid				\$ 238,278.95

Payment to be based on actual field-measured quantities unless otherwise stated. 90% monthly progress draws on completed work with the final 10% due 30 days after final completion and acceptance of our work. Interest will be charged at the rate of 1.5% per month on all late balances. Any and all costs or fees necessarily incurred in the pursuit of the collection of this account will be paid by the owner.

ACCEPTANCE OF CONTRACT/ PROPOSAL

The above prices, specifications and conditions on the front and **back** of this proposal are satisfactory and are hereby accepted, giving M.R. TANNER CONSTRUCTION authorization to complete work as specified. Funding verification and further payment term conditions to be established prior to execution of contract agreement or commencement of work.

M. R. TANNER CONSTRUCTION

Firm Name: _____

By: _____

Accepted by: _____

Title: _____

Title: _____

Date: _____

Date: _____



1327 West San Pedro Street · Gilbert, Arizona 85233-2403
 Phone (480) 633-8500 · Fax (480) 633-8111

CONTRACT/ PROPOSAL

CLASS A LICENSE NO. 111576-A
 An Equal Opportunity Employer

Date 5/13/2026

To Paradise Valley

 Attention Chris Martinez

Job Name Invergordon- McDonald to Chaparral
 Location _____
 Architect- Engineer _____
 Plans Dated _____
 Soil Engineer _____
 Report Date _____

We propose to furnish all labor and material necessary to complete the work as described per our unit prices. All work will be done in accordance with the plans, specifications, and per the requirements of the governing municipality.

Thank you for the opportunity of submitting a bid on the above- described job.

PROPOSAL OF WORK TO BE FURNISHED

NO.	ITEM DESCRIBED	QUANTITY	UNIT	UNIT PRICE	AMOUNT
<u>INVERGORDON- MCDONALD TO SAGE</u>					
	ASPHALT PATCHING BEFORE MICROSEAL	930.00	SF	20.00	18,600.00
	CRACK FILL	51,100.00	LF	0.25	12,775.00
	MICROSEAL	11,450.00	SY	5.33	61,028.50
	ADJUST MANHOLE AFTER MICROSEAL	-	EA	700.00	-
	ADJUST WATER VALVE AFTER MICROSEAL	24.00	EA	670.00	16,080.00
	STRIPING (STRIPE REMOVAL, TEMP, & 30 DAY THERMO)	1.00	LS	29,400.00	29,400.00
	TRAFFIC CONTROL OFFICERS	1.00	LS	33,700.00	33,700.00
		1.00	LS	29,600.00	29,600.00
<u>INVERGORDON & CHOLLA (ADA RAMPS NW & SW)</u>					
	SAW CUT, REMOVE & REPLACE EXISTING CURB & GUTTER	57.00	LF	55.00	3,135.00
	SAW CUT, REMOVE & REPLACE EXISTING SIDEWALK & RAMP	314.00	SF	2.50	785.00
	INSTALL NEW HANDICAP RAMP W/TERRACOTTA	314.00	SF	15.00	4,710.00
	2 FT ASPHALT PATCH	122.00	SF	18.00	2,196.00
	TRAFFIC CONTROL	1.00	LS	7,500.00	7,500.00
<u>INVERGORDON & VISTA (ADA RAMPS NW & SW)</u>					
	SAW CUT, REMOVE & REPLACE EXISTING CURB & GUTTER	34.00	LF	65.00	2,210.00
	SAW CUT, REMOVE & REPLACE EXISTING SIDEWALK & RAMP	176.00	SF	2.50	440.00
	INSTALL NEW HANDICAP RAMP W/TERRACOTTA	176.00	SF	15.00	2,640.00
	SAW CUT, REMOVE & REPLACE EXISTING APRON	218.00		15.00	3,270.00
	2 FT ASPHALT PATCH	100.00	SF	18.00	1,800.00
	TRAFFIC CONTROL	1.00	LS	7,500.00	7,500.00
<u>INVERGORDON- SAGE TO CHAPARRAL</u>					
	2" MILLING (FULL WIDTH)	12,300.00	SY	2.50	30,750.00
	2" AC CAP (1/2" PMTR)	12,300.00	SY	20.00	246,000.00
	PRELOWER UTILITIES	33.00	EA	490.00	16,170.00
	ADJUST MANHOLE AFTER OVERLAY	5.00	EA	700.00	3,500.00
	ADJUST WATER VALVE AFTER OVERLAY	28.00	EA	670.00	18,760.00
	STRIPING (TEMP & 30 DAY THERMO)	1.00	LS	22,700.00	22,700.00
	TRAFFIC CONTROL OFFICERS	1.00	LS	31,800.00	31,800.00
		1.00	LS	27,700.00	27,700.00
	COORDINATION WITH PHX PARKS AF CHOLLA TRAILHEAD (INCLUDED)				
	Subtotal				\$ 634,749.50
	Sales Tax				INCLUDED
	Total Bid				\$ 634,749.50

Payment to be based on actual field-measured quantities unless otherwise stated. 90% monthly progress draws on completed work with the final 10% due 30 days after final completion and acceptance of our work. Interest will be charged at the rate of 1.5% per month on all late balances. Any and all costs or fees necessarily incurred in the pursuit of the collection of this account will be paid by the owner.

ACCEPTANCE OF CONTRACT/ PROPOSAL

The above prices, specifications and conditions on the front and back of this proposal are satisfactory and are hereby accepted, giving M.R. TANNER CONSTRUCTION authorization to complete work as specified. Funding verification and further payment term conditions to be established prior to execution of contract agreement or commencement of work.

M. R. TANNER CONSTRUCTION

Firm Name: _____

By: _____

Accepted by: _____

Title: _____

Title: _____

Date: _____

Date: _____



1327 West San Pedro Street · Gilbert, Arizona 85233-2403
 Phone (480) 633-8500 · Fax (480) 633-8111

CONTRACT/ PROPOSAL

CLASS A LICENSE NO. 111576-A
 An Equal Opportunity Employer

Date 5/13/2026

To Paradise Valley

 Attention Chris Martinez

Job Name Section 6 Concrete R&R
 Location _____
 Architect- Engineer _____
 Plans Dated _____
 Soil Engineer _____
 Report Date _____

We propose to furnish all labor and material necessary to complete the work as described per our unit prices. All work will be done in accordance with the plans, specifications, and per the requirements of the governing municipality.

Thank you for the opportunity of submitting a bid on the above- described job.

PROPOSAL OF WORK TO BE FURNISHED

NO.	ITEM DESCRIBED	QUANTITY	UNIT	UNIT PRICE	AMOUNT
MOCKINGBIRD & BLUEBIRD					
	Saw Cut, Remove & Replace Existing Curb & Gutter	90.00	LF	55.00	4,950.00
	Saw Cut & Remove Existing Sidewalk & Ramp	585.00	SF	2.50	1,462.50
	Install New Handicap Ramp W/ Terracotta Truncated Domes	585.00	SF	15.00	8,775.00
	2' Asphalt Patch	184.00	SF	18.00	3,312.00
	Traffic Control	1.00	LS	5,000.00	5,000.00
MOCKINGBIRD & CUARENTA					
	Saw Cut, Remove & Replace Existing Curb & Gutter	95.00	LF	55.00	5,225.00
	Saw Cut & Remove Existing Sidewalk & Ramp	618.00	SF	2.50	1,545.00
	Install New Handicap Ramp W/ Terracotta Truncated Domes	618.00	SF	15.00	9,270.00
	Saw Cut, Remove Asphalt & Install New Apron & Valley Gutter	428.00	SF	17.00	7,276.00
	2' Asphalt Patch	320.00	SF	18.00	5,760.00
	Traffic Control	1.00	LS	5,000.00	5,000.00
MOCKINGBIRD & STALLION					
	Saw Cut, Remove & Replace Existing Curb & Gutter	36.00	LF	55.00	1,980.00
	Saw Cut & Remove Existing Sidewalk & Ramp	216.00	SF	2.50	540.00
	Install New Depressed 9" Thick Sidewalk w/ Truncated Domes	216.00	SF	18.00	3,888.00
	Install Roll Curb to Ribbon Curb Transition (Back of Sidewalk)	1.00	EA	250.00	250.00
	2' Asphalt Patch	76.00	SF	18.00	1,368.00
	Traffic Control	1.00	LS	5,000.00	5,000.00
	Subtotal				\$ 70,601.50
	Sales Tax				INCLUDED
	Total Bid				\$ 70,601.50

Payment to be based on actual field-measured quantities unless otherwise stated. 90% monthly progress draws on completed work with the final 10% due 30 days after final completion and acceptance of our work. Interest will be charged at the rate of 1.5% per month on all late balances. Any and all costs or fees necessarily incurred in the pursuit of the collection of this account will be paid by the owner.

ACCEPTANCE OF CONTRACT/ PROPOSAL

The above prices, specifications and conditions on the front and back of this proposal are satisfactory and are hereby accepted, giving M.R. TANNER CONSTRUCTION authorization to complete work as specified. Funding verification and further payment term conditions to be established prior to execution of contract agreement or commencement of work.

M. R. TANNER CONSTRUCTION

Firm Name: _____

By: _____

Accepted by: _____

Title: _____

Title: _____

Date: _____

Date: _____



1327 West San Pedro Street · Gilbert, Arizona 85233-2403
 Phone (480) 633-8500 · Fax (480) 633-8111

CONTRACT/ PROPOSAL

CLASS A LICENSE NO. 111576-A
 An Equal Opportunity Employer

Date 2/16/2026

To Paradise Valley

 Attention Chris Martinez

Job Name Section 6 Remaining Mill & Overlay
 Location _____
 Architect- Engineer _____
 Plans Dated _____
 Soil Engineer _____
 Report Date _____

We propose to furnish all labor and material necessary to complete the work as described per our unit prices. All work will be done in accordance with the plans, specifications, and per the requirements of the governing municipality.

Thank you for the opportunity of submitting a bid on the above- described job.

PROPOSAL OF WORK TO BE FURNISHED

NO.	ITEM DESCRIBED	QUANTITY	UNIT	UNIT PRICE	AMOUNT
SECTION 6 REMAINING AFTER SPRING 2026					
	2" MILLING	92,200.00	SY	2.50	230,500.00
	2" AC CAP (1/2" 70-10 LV OR COPE 1/2" LV)	92,200.00	SY	18.35	1,691,870.00
	PRELOWER UTILITIES	128.00	EA	490.00	62,720.00
	ADJUST MANHOLE	54.00	EA	700.00	37,800.00
	ADJUST WATER VALVE	60.00	EA	670.00	40,200.00
	SURVEY MONUMENT 120-1B	9.00	EA	290.00	2,610.00
	TRAFFIC CONTROL ALLOWANCE	1.00	LS	70,000.00	70,000.00
	POLICE OFFICERS	1.00	LS	53,000.00	53,000.00
SECTION 6 (ROADRUNNER & MUMMY MTN)					
	2" MILLING	5,000.00	SY	2.50	12,500.00
	2" AC CAP (1/2" 70-10 LV OR COPE 1/2" LV)	5,000.00	SY	18.35	91,750.00
	PRELOWER UTILITIES	6.00	EA	490.00	2,940.00
	ADJUST MANHOLE	5.00	EA	700.00	3,500.00
	ADJUST WATER VALVE	1.00	EA	670.00	670.00
	SURVEY MONUMENT 120-1B	1.00	EA	290.00	290.00
	TRAFFIC CONTROL ALLOWANCE	1.00	LS	10,000.00	10,000.00
	POLICE OFFICERS	1.00	LS	7,000.00	7,000.00
	Subtotal				\$ 2,317,350.00
	Sales Tax				INCLUDED
	Total Bid				\$ 2,317,350.00

Payment to be based on actual field-measured quantities unless otherwise stated. 90% monthly progress draws on completed work with the final 10% due 30 days after final completion and acceptance of our work. Interest will be charged at the rate of 1.5% per month on all late balances. Any and all costs or fees necessarily incurred in the pursuit of the collection of this account will be paid by the owner.

ACCEPTANCE OF CONTRACT/ PROPOSAL

The above prices, specifications and conditions on the front and **back** of this proposal are satisfactory and are hereby accepted, giving M.R. TANNER CONSTRUCTION authorization to complete work as specified. Funding verification and further payment term conditions to be established prior to execution of contract agreement or commencement of work.

M. R. TANNER CONSTRUCTION

Firm Name: _____

By: _____

Accepted by: _____

Title: _____

Title: _____

Date: _____

Date: _____



1327 West San Pedro Street · Gilbert, Arizona 85233-2403
 Phone (480) 633-8500 · Fax (480) 633-8111

CONTRACT/ PROPOSAL

CLASS A LICENSE NO. 111576-A
 An Equal Opportunity Employer

Date 2/16/2026

To Paradise Valley

 Attention Chris Martinez

Job Name Desert Fairways (Tatum to Shadow Mtn)
 Location _____
 Architect- Engineer _____
 Plans Dated _____
 Soil Engineer _____
 Report Date _____

We propose to furnish all labor and material necessary to complete the work as described per our unit prices. All work will be done in accordance with the plans, specifications, and per the requirements of the governing municipality.

Thank you for the opportunity of submitting a bid on the above- described job.

PROPOSAL OF WORK TO BE FURNISHED

NO.	ITEM DESCRIBED	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	DESERT FAIRWAYS (TATUM TO SHADOW MTN) MICROSEAL				
	MICROSEAL	5,600.00	SY	5.33	29,848.00
	ASPHALT PATCHING BEFORE MICROSEAL	480.00	SF	20.00	9,600.00
	STRIPING (EDGELINE REMOVAL, TEMP & THERMO)	1.00	LS	24,300.00	24,300.00
	TRAFFIC CONTROL OFFICERS	7.00	DY	1,750.00	12,250.00
		1.00	LS	10,000.00	10,000.00
	Subtotal				\$ 85,998.00
	Sales Tax				INCLUDED
	Total Bid				\$ 85,998.00

Payment to be based on actual field-measured quantities unless otherwise stated. 90% monthly progress draws on completed work with the final 10% due 30 days after final completion and acceptance of our work. Interest will be charged at the rate of 1.5% per month on all late balances. Any and all costs or fees necessarily incurred in the pursuit of the collection of this account will be paid by the owner.

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M. R. TANNER CONSTRUCTION

Firm Name: _____

By: _____

Accepted by: _____

Title: _____

Title: _____

Date: _____

Date: _____



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 Phone (480) 633-8500 · Fax (480) 633-8111

CONTRACT/ PROPOSAL

CLASS A LICENSE NO. 111576-A
 An Equal Opportunity Employer

Date 5/13/2026

To Paradise Valley

 Attention Chris Martinez

Job Name Section 3 (Excludes McDonald)
 Location _____
 Architect- Engineer _____
 Plans Dated _____
 Soil Engineer _____
 Report Date _____

We propose to furnish all labor and material necessary to complete the work as described per our unit prices. All work will be done in accordance with the plans, specifications, and per the requirements of the governing municipality.

Thank you for the opportunity of submitting a bid on the above- described job.

PROPOSAL OF WORK TO BE FURNISHED

NO.	ITEM DESCRIBED	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	<u>SECTION 3 (EXCLUDES MCDONALD)</u>				
	CRACK FILL	527,830.00	LF	0.25	131,957.50
	PMM	134,870.00	SY	1.50	202,305.00
	LIQUID RD	13,900.00	SY	3.00	41,700.00
	ASPHALT PATCHING BEFORE MICROSEAL	595.00	SF	20.00	11,900.00
	ADJUST MANHOLE	2.00	EA	700.00	1,400.00
	STRIPING (TEMP, & 30 DAY THERMO)	1.00	LS	14,700.00	14,700.00
	TRAFFIC CONTROL	25.00	DY	1,750.00	43,750.00
	Subtotal				\$ 447,712.50
	Sales Tax				INCLUDED
	Total Bid				\$ 447,712.50

Payment to be based on actual field-measured quantities unless otherwise stated. 90% monthly progress draws on completed work with the final 10% due 30 days after final completion and acceptance of our work. Interest will be charged at the rate of 1.5% per month on all late balances. Any and all costs or fees necessarily incurred in the pursuit of the collection of this account will be paid by the owner.

ACCEPTANCE OF CONTRACT/ PROPOSAL

The above prices, specifications and conditions on the front and **back** of this proposal are satisfactory and are hereby accepted, giving M.R. TANNER CONSTRUCTION authorization to complete work as specified. Funding verification and further payment term conditions to be established prior to execution of contract agreement or commencement of work.

M. R. TANNER CONSTRUCTION

Firm Name: _____

By: _____

Accepted by: _____

Title: _____

Title: _____

Date: _____

Date: _____

**ATTACHMENT 2
TO
JOB ORDER NO. 5
PLANS AND SPECIFICATIONS**

See the following pages



PV STREETS MAINTENANCE MATERIALS & SPECS



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City of Phoenix Mix Design

Low Volume 1/2" Conventional Asphalt

The Public Works Department currently uses City of Phoenix 1/2" Low Volume Mix Design for our residential and collector streets. It was designed to uphold the valley's extreme temperatures. The 1/2" aggregate prevents less voids in the asphalt which helps reduce traffic noise.

- Require a full mill at a depth of 1 1/2"
- Pave back 1 1/2" of City of Phoenix, Low Volume asphalt



**City of Phoenix
Design and Construction Management
Materials Lab
2018 Approved Conventional Asphalt Mix Designs**

The following mix designs have been approved by the City of Phoenix Materials Lab for use on all City of Phoenix projects:

PLANTS	Dispatch Phone	A-1 1/2" 4.3% (Mix Design Date)	C-3/4" 5.0% HV (Mix Design Date)	C-3/4" 5.5% LV (Mix Design Date)	D-1/2" 5.1% HV (Mix Design Date)	D-1/2" 5.6% LV (Mix Design Date)
Hanson #34 Higley	602-685-3450	AZ3425PH (1/22/2017)	AZ3419PH (1/10/2018)	AZ3419PL (1/10/2018)	AZ3412PH (1/10/2018)	AZ3412PL (1/10/2018)
Hanson #35 (51st Ave)		AZ3525PH (1/10/2018)	AZ3519PH (1/10/2018)	AZ3519PL (1/10/2018)	AZ3512PH (1/10/2018)	AZ3512PL (1/10/2018)
Southwest Asphalt #4 El Mirage	602-268-9011	452CH (1/23/2018)	432CH (1/23/2018)	432DH (1/23/2018)	422CH (1/23/2018)	422DH (1/23/2018)
Southwest Asphalt #10 New River		152CH (1/23/2018)	132CH (1/23/2018)	132DH (1/23/2018)	122CH (1/23/2018)	122DH (1/23/2018)
*Vulcan Gomez (5223-221)	602-254-0081	18151G (2/20/2018)	28151G (2/20/2018)	28152G (2/20/2018)	38151G (2/20/2018)	38152G (2/20/2018)
*Vulcan 19th Ave (5224-211)		18151H (2/20/2018)	28151H (2/20/2018)	28152H (2/20/2018)	38151H (2/20/2018)	38152H (2/20/2018)
*Vulcan #117 West 43rd Ave(5182-211)		18151D (3/12/2018)	28151D (3/12/2018)	28152D (3/12/2018)	38151D (3/12/2018)	38152D (3/12/2018)
*Vulcan #130 Sun City (5180-211)		18151S (5/15/2018)	28151S (5/15/2018)	28152S (5/15/2018)	38151S (5/15/2018)	38152S (5/15/2018)
*Vulcan West Broadway (5184-211)		18151W (4/18/2018)	28151W (4/18/2018)	28152W (4/18/2018)	38151W (4/18/2018)	38152W (4/18/2018)
*Solterra Materials, LLC		480-895-3555		S18-2-6H (8/10/2018)	S18-2-6L (8/10/2018)	S18-2-8H/S18-2-7H (9/12/2018)

*For ALL Vulcan & Solterra Materials Mix Designs, verify the oil supplier from the ticket and specify which oil supplier is being utilized in the daily report. Note the oil supplier on the City of Phoenix sample card.

**AREAS HIGHLIGHTED IN YELLOW
IS PHOENIX LOW VOLUME 1/2" MIX DESIGN**

Updated 10/16/2018



Rubberized Asphalt Mix Design

Rubberized asphalt is used on the Town's major arterials. Rubberized asphalt roads require little to no maintenance over the life span of the asphalt and reduces traffic noise by 10-15 decibels less than standard conventional asphalt.

- Require a full mill at a depth of 1 ½"
- Pave back 1 ½" of ½" High Volume Rubberized asphalt



**City of Phoenix
Design and Construction Management
Materials Lab**

2018 Approved Polymer Modified Asphalt Rubber (PMAR) Mix Designs

The following mix designs have been approved by the City of Phoenix Materials Lab for use on all City of Phoenix projects:

PLANTS	Dispatch Phone	TR 6.0% HV (Mix Design Date)	TR 6.2% LV (Mix Design Date)	TR 5.7% (Mix Design Date)		
Hanson #34 Higley	602-685-3450	AZ3412TRPH (1/10/2018)	AZ3412TRPL (1/10/2018)			
Hanson #35 (51st Ave)		AZ3512TRPH (2/5/2018)	AZ3512TRPL (2/5/2018)	AZ3512TR (8/30/2018)		
Southwest Asphalt #4 El Mirage	602-268-9011	422CT (3/7/2018)	422DT (3/7/2018)			
Southwest Asphalt #1 New River		122CT (3/7/2018)	122DT (3/7/2018)			
*Vulcan Gomez (5223-211)	602-254-0081					
*Vulcan 19th Ave (5224-211)		38643H (2/2/2018)	38644H (2/2/2018)			
*Vulcan #117 West 43rd Ave(5182-211)		38643D (2/2/2018)				
*Vulcan #130 Sun City (5180-211)						
*Vulcan W. Broadway Plant (5184-211)						
Solterra Materials, LLC	480-895-3555			S18-2-10 (10/9/2018)		

*For ALL Vulcan Materials Mix Designs, verify the oil supplier from the ticket and specify which oil supplier is being utilized in the daily report. Note the oil supplier on the City of Phoenix sample card.

**AREAS HIGHLIGHTED IN YELLOW
IS ASPHALTIC RUBBER HIGH VOLUME MIX DESIGN**

Updated: 7/12/18



East Valley Asphalt Committee (EVAC)

Approved Conventional Mix Designs

Low Volume ½" Conventional Asphalt

The Public Works Department currently uses EVAC Approved mix designs for ½" Low Volume for our residential and collector streets, see highlighted product codes in tables below of mixes used on Town owned streets. It was designed to uphold the valley's extreme temperatures. The ½" aggregate prevents less voids in the asphalt which helps reduce traffic noise.

- Require a full mill at a depth of 1 ½" – 2"
- Pave back 1 ½" (up to 2") of ½" Low Volume asphalt

Updated 1-28-2025



EVAC

East Valley Asphalt Committee Conventional Mixes

2023-2024 Approved Asphalt Mix Designs

Mixes Highlighted in Red are Only Approved for Use in the City of Scottsdale

Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Martin Marietta	34 (Coolidge)	1/2" PG 70-10	AZ3412ER	5.7	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	1/2" PG 70-10 15% RAP	AZ3412ERRAP	5.80	5/31/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	1/2" PG 70-10	AZ3412SPEA-2024	6.2	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 70-10	AZ3419ER	5.1	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 70-10 15%RAP	AZ3419ERRAP	5.60	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 70-10	AZ3419SPEA-2024	6.0	6/5/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 70-10	AZ3512ER-2023	5.7	2/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	1/2" PG 70-10	AZ3512SPEA-2024	5.8	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	3/4" PG 70-10	AZ3519ER-2023	5.3	2/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	3/4" PG 70-10	AZ3519SPEA-2024	5.4	1/29/2024	HF Sinclair
Solterra	1 (Coolidge)	1/2" PG 70-10	S24-1-10W	5.1	8/15/2024	Western



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Solterra	1 (Coolidge)	3/4" PG 70-10 15% RAP	S24-1-13W	5.1	8/19/2024	Western
Solterra	1 (Coolidge)	1/2" PG 70-10 15% RAP	S24-1-14W	5.1	8/19/2024	Western
Solterra	1 (Coolidge)	3/4" PG 70-10	S24-1-1W	5.0	8/22/2024	Western
Solterra	1 (Coolidge)	1/2" PG 70-10	S24-1-2W	5.3	8/22/2024	Western
Solterra	1 (Coolidge)	3/4" PG 70-10	S24-1-9W	5.1	8/15/2024	Western
SW Asphalt	10 (New River)	1/2" PG 70-10	121AH	5.3	1/10/2023	HF Sinclair
SW Asphalt	10 (New River)	1/2" PG 70-10	121DH	5.3	1/10/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 70-10	131AH	5.0	1/10/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 70-10	131DH	5.0	1/10/2023	HF Sinclair
SW Asphalt	2 (Florence)	1/2" PG 70-10	221AH	5.3	1/10/2023	Wright
SW Asphalt	2 (Florence)	1/2" PG 70-10	221DH	5.3	1/10/2023	Wright
SW Asphalt	2 (Florence)	3/4" PG 70-10	231AH	5.0	1/10/2023	Wright
SW Asphalt	2 (Florence)	3/4" PG 70-10	231DH	5.0	1/10/2023	Wright
SW Asphalt	3 (Queen Creek)	1/2" PG 70-10	321AH	5.3	1/10/2023	Wright
SW Asphalt	3 (Queen Creek)	1/2" PG 70-10	321DH	5.5	1/10/2023	Wright



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
SW Asphalt	3 (Queen Creek)	3/4" PG 70-10	331AH	5.0	1/10/2023	Wright
SW Asphalt	3 (Queen Creek)	3/4" PG 70-10	331DH	5.3	1/10/2023	Wright
SW Asphalt	4 (El Mirage)	1/2" PG 70-10	421AH	5.3	1/10/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	1/2" PG 70-10	421DH	5.3	1/10/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 70-10	431AH	5.0	1/10/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 70-10	431DH	5.0	1/10/2023	HF Sinclair
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	231517Q	4.8	12/21/2022	Marathon
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	231517Q	4.8	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	271518Q	5.1	1/24/2023	Marathon
Vulcan	5179 (Queen Creek)	3/4" PG 70-10	271518Q	5.1	1/24/2023	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	331517Q	5.3	12/21/2022	Marathon
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	331517Q	5.3	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	371518Q	5.4	1/24/2023	Marathon
Vulcan	5179 (Queen Creek)	1/2" PG 70-10	371518Q	5.4	1/24/2023	Wright
Vulcan	5180 (Sun City)	3/4" PG 70-10	231517S	4.6	1/3/2023	Wright



East Valley Asphalt Committee (EVAC)

Approved Modified Mix Designs

½" PG 76-22 PMTR (Polymer Modified Tire Rubber)

Rubberized asphalt is used on the Town's major arterials, see highlighted product codes in tables below of mixes used on Town owned streets. PMTR reduces maintenance costs over the life span of the asphalt and reduces traffic noise by 10-15 decibels less than standard conventional asphalt. The tire rubber helps increase tensile strength in the asphalt.

- Require a full mill at a depth of 1 ½" – 3"
- Pave back 1 ½" (up to 3") of ½" PMTR Rubberized asphalt

Updated 1-28-2025



EVAC

East Valley Asphalt Committee Modified Mixes

2023-2024 Approved Asphalt Mix Designs

Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Martin Marietta	34 (Coolidge)	1/2" PG 76-22 PMTR	AZ3412PMH-2024	6.2	6/5/2024	HF Sinclair
Martin Marietta	34 (Coolidge)	3/4" PG 76-22 PMTR	AZ3419PMH-2024	6.2	6/5/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 76-22 PMTR 15% RAP	AZ3512PMH15-2024	6.3	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 76-22 PMTR	AZ3512PMH-2024	6.2	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	1/2" PG 70-16 TR	AZ3512TRH-2024	6.2	1/29/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	3/4" PG 76-22 PMTR 15% RAP	AZ3519PMH15-2023	6.2	2/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	3/4" PG 76-22 PMTR	AZ3519PMH-2023	6.2	1/18/2023	Holly Frontier
Martin Marietta	35 (51st Ave)	3/4" PG 76-22 PMTR	AZ3519PMH-2024	6.2	4/8/2024	HF Sinclair
Martin Marietta	35 (51st Ave)	3/4" PG 70-16 TR	AZ3519TRH-2023	5.8	2/18/2023	Holly Frontier
Solterra	1 (Coolidge)	3/4" PG 76-22 PMTR	S24-1-3R	6.2	8/12/2024	Wright
Solterra	1 (Coolidge)	3/4" PG 76-22 PM	S24-1-3W	6.2	9/13/2024	Western



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
Solterra	1 (Coolidge)	1/2" PG 76-22 PMTR	S24-1-4R	6.2	8/12/2024	Wright
Solterra	1 (Coolidge)	1/2" PG 76-22 PM	S24-1-4W	6.2	9/13/2024	Western
Solterra	1 (Coolidge)	3/4" PG 70-16 TR	S24-1-5R	5.8	8/12/2024	Wright
Solterra	1 (Coolidge)	1/2" PG 70-16 TR	S24-1-6R	5.8	8/12/2024	Wright
SW Asphalt	10 (New River)	1/2" PG 76-22 PMTR	121ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	10 (New River)	1/2" PG 70-16 TR	121AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 76-22 PMTR	131ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	10 (New River)	3/4" PG 70-16 TR	131AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	2 (Florence)	1/2" PG 76-22 PMTR	221ARW	6.2	11/13/2023	Wright
SW Asphalt	2 (Florence)	1/2" PG 70-16 TR	221AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	2 (Florence)	3/4" PG 76-22 PMTR	231ARW	6.2	11/13/2023	Wright
SW Asphalt	2 (Florence)	3/4" PG 70-16 TR	231AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	3 (Queen Creek)	1/2" 76-22 PMTR	321ARW	6.2	11/13/2023	Wright
SW Asphalt	3 (Queen Creek)	1/2" PG 70-16 TR	321AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	3 (Queen Creek)	3/4" PG 76-22 PMTR	331ARW	6.2	11/13/2023	Wright



Supplier	Plant	Mix Designation	Product Code	Percent Binder	Design Date	Binder
SW Asphalt	3 (Queen Creek)	3/4" PG 70-16 TR	331AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	1/2" PG 76-22 PMTR	421ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	1/2" PG 70-16 TR	421AXH	5.8	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 76-22 PMTR	431ARH	6.2	11/13/2023	HF Sinclair
SW Asphalt	4 (El Mirage)	3/4" PG 70-16 TR	431AXH	5.8	11/13/2023	HF Sinclair
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR	236417Q	6.2	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR	236417Q	6.2	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	3/4" PG 70-16 TR	236617Q	5.8	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	3/4" PG 70-16 TR	236617Q	5.8	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR 15% RAP	256417Q	6.0	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	3/4" PG 76-22 PMTR 15% RAP	256417Q	6.0	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	1/2" PG 76-22 PMTR	336417Q	6.2	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 76-22 PMTR	336417Q	6.2	12/21/2022	Holly Frontier
Vulcan	5179 (Queen Creek)	1/2" PG 70-16 TR	336617Q	5.8	12/21/2022	Wright
Vulcan	5179 (Queen Creek)	1/2" PG 70-16 TR	336617Q	5.8	12/21/2022	Holly Frontier



High Density Mineral Bond

(Preferred treatment for utility companies)

Polymer Modified Master (PMM) Seal is the type of High Density Mineral Bond used by the Public Works Department. PMM reduces oxidative damage from moisture and UV rays from the Sun. PMM helps reduce asphalt cracking and helps extend the life cycle of the asphalt.

- Ambient and surface temperature must be at least 55 degrees or higher
- Application rate for PMM .14 - .18 gallons/square yard per coat
- Two coats of PMM are required
- Do not apply if rain is forecast within 24 hours



High Density Mineral Bond

APPLICATION RATES:

The recommended application rates for **PMM** are .14-.18 gallons/square yard per coat. Application rates may be adjusted depending on the pavement condition, traffic volume and other factors.

MIX DESIGN:

PMM assures factory quality control specifications at the jobsite eliminating the need for contractor addition of water and other additives. Additional aggregate may be added by the contractor to meet specific job requirements based on pavement surfaces, traffic volume, etc.

SURFACE PREPARATION:

Pavement must be free of loose and embedded dirt, dust, vegetation and other foreign material. If traditional cleaning methods are not effective a power washer or tack coat of asphalt emulsion diluted 1:4 with water may be used. Structural repairs should be made and cracks 1/4" and larger should be sealed with approved crack sealant material. All grease and oil spots should be treated with PrepSeal or PetroSeal.

APPLICATION EQUIPMENT:

PMM may be applied by hand spray / squeegee, mechanical spray tankers or squeegee machines. Application units should be equipped with mechanical agitation systems to maintain the consistency of the material during the Application, or to mix additional aggregate if needed.

TEST PROPERTIES	TEST METHOD	SPECIFICATION
EMULSION:		
Uniformity	ASTM D 2939.04	PASS
Weight/gallon @ 77 deg. F	ASTM D 2939.07	10.5 lbs./gal.min
Residue by Evaporation (Solids), %	ASTM D 2939.08	50% min.
Asphalt Content by Weight, %	ASTM D 2939.21	17 min.
VOC Content by Volume, %	ASTM D 244-89	< 3%
Fine Aggregate and Mineral Filler Content by Weight, %	Manufacture Certification	34% min.
Polymer Content by Volume, %	Manufacture Certification	1.8%
PERFORMANCE BASED TESTING:		
Resistance to Heat (No sagging or slipping observed.)	ASTM D 2939.14	PASS
Resistance to Water (No blistering or re-emulsification.)	ASTM D 2939.15	PASS
Wet Flow, mm	ASTM D 2939.19	0
Direct Flame Test (No continued combustion after 10 sec. No slippage, run down or charred material observed.)	ASTM D 2939.20	PASS
Wet Film Continuity (Material was uniformly distributed; no signs of inconsistency.)	ASTM D 2939.22	PASS
Resistance to Kerosene (No leakage of kerosene, loss of adhesion or discoloration of tile.)	ASTM D 2939.25	PASS
Wet Track Abrasion Test (1 hr.) gms/sqft. loss	ASTM D 3910	< 15
Wet Track Abrasion Test (6 day) gms/sqft. loss	ASTM D 3910	< 15
FINE AGGREGATE SIEVE ANALYSIS:		
	MESH SIZE	% PASSING (+ or -2)
	40	100
	50	93
	70	80
	80	69
	120	49
	200	35
	325	2



Liquid Road

(Heavier surface seal)

Liquid Road is a polymer-modified, fiber asphalt emulsion that is mixed with specially graded aggregate and is highly durable and slip resistant surface treatment.

- Ambient and surface temperature must be at least 55 degrees or higher
- Application rate for PMM .25 - .35 gallons/square yard per coat
- Two coats of PMM are required
- Do not apply if rain is forecast within 24 hours



APPLICATION RATES:

The recommended application rates for **Liquid Road** are .25-.35 gallons/square yard per coat. Application rates may be adjusted depending on the pavement condition, traffic volume and other factors.

MIX DESIGN:

Liquid Road assures factory quality control specifications at the jobsite eliminating the need for contractor addition of water and other additives. Additional aggregate may be added by the contractor to meet specific job requirements based on pavement surfaces, traffic volume, etc.

SURFACE PREPARATION:

Pavement must be free of loose and embedded dirt, dust, vegetation and other foreign material. If traditional cleaning methods are not effective a power washer or tack coat of asphalt emulsion diluted 1:4 with water may be used. Structural repairs should be made and cracks 1/4” and larger

Should be sealed with approved crack sealant material. All grease and oil spots should be treated with PrepSeal or PetroSeal.

APPLICATION EQUIPMENT:

Liquid Road shall be applied by mechanical squeegee/brush equipment. Equipment shall have continuous agitation or mixing capabilities to maintain homogenous consistency of **Liquid Road** and aggregate mixture throughout the application process. Truck mount or self- propelled squeegee/brush equipment shall have at least 2 squeegee or brush devices (one behind the other) to assure adequate distribution and penetration of **Liquid Road** into bituminous pavement. Hand squeegees and brushes shall be acceptable in areas where practicality prohibits the use of mechanized equipment.

	TEST METHOD	SPECIFICATION	
EMULSION:			
Uniformity	ASTM D 2939.04	PASS	
Weight/gallon @ 77 deg. F	ASTM D 2939.07	11.0 lbs./gal.min	
Residue by Evaporation (Solids), %	ASTM D 2939.08	55% min.	
Asphalt Content by Weight, %	ASTM D 2939.21	15% min.	
VOC Content by Volume, %	ASTM D 244-89	< 3%	
Fine Aggregate and Mineral Filler Content by Weight, %	Manufacture Certification	34% min.	
Polymer Content by Volume, %	Manufacture Certification	1.8%	
PERFORMANCE BASED TESTING:			
Resistance to Heat (No sagging or slipping observed.)	ASTM D 2939.14	PASS	
Resistance to Water (No blistering or re-emulsification.)	ASTM D 2939.15	PASS	
Wet Flow, mm	ASTM D 2939.19	0	
Direct Flame Test (No continued combustion after 10 sec. No slippage, run down or charred material observed.)	ASTM D 2939.20	PASS	
Wet Film Continuity (Material was uniformly distributed; no signs of inconsistency.)	ASTM D 2939.22	PASS	
Resistance to Kerosene (No leakage of kerosene, loss of adhesion or discoloration of tile.)	ASTM D 2939.25	PASS	
Wet Track Abrasion Test (1 hr.) gms/sqft. loss	ASTM D 3910	< 15	
Wet Track Abrasion Test (6 day) gms/sqft. loss	ASTM D 3910	< 20	
AGGREGATE SIEVE ANALYSIS:			
SILICA SAND		FINE AGGREGATE	
Mesh Size	% PASSING (+ or -2)	Mesh Size	% PASSING (+ or -2)
16	99	40	100
20	86	50	93
30	58	70	80
40	26	80	69
50	4	120	49
70	1	200	55
100	0.2	325	2



Rubberized Micro Seal

The Public Works Department uses Rubberized Micro-Seal on minor arterials that are beyond a PMM surface treatment but not ready for a mill & overlay. Rubberized Micro-Seal is a protective seal coat which extends the life of pavement. It is a thin, tough layer of asphalt emulsion blended with rubber and finely crushed stone for traction and protection from moisture and UV rays from the sun. Rubberized Micro-Seal can extend the life of asphalt for up to seven years.

- Application rate per MAG specs (section 714.2.2) shall be 18 – 24 pounds per square yard
- Ambient temperatures must be above 50 degrees



The mix design for rubberized micro-seal must 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.

ii. In addition to the other requirements stated herein, the mix design shall conform to the requirements of Table 2.

TABLE 2		
PROPERTY	TEST METHOD	REQUIREMENT
Residual Asphalt Content	ASTMD 2172	6.0%- 11.5% ,by weight of dry aggregate
Mineral Filler	ASTM C136	0.1%-2.0%, by weight of dry aggregate
Additive	----	As required for mix properties
Water	----	As required for mix properties
Polymer Content/Type	----	4%min
Mix Time @ 77° F	ISSA TB-113	Controllable to 120 seconds minimum
Wet Track Abrasion Loss, (1hour 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
Wet Cohesion, @ 30 minutes minimum (Set)	ISSA TB-139	12 Kg/em minimum
Consistency	(ISSA T-106)	2.5 to 3.0 em
Wet Cohesion, @ 60 minutes minimum (Traffic)	ISSA TB-139	20 Kg/em minimum
Loaded Wheel Sand Adhesion	ISSA TB-109	50 g/ft ² maximum
Lateral Displacement	ISSA TB-147	5% maximum
Specific Gravity after 1,000 cycles of 125 lb.	ISSA TB-147	2.10 maximum



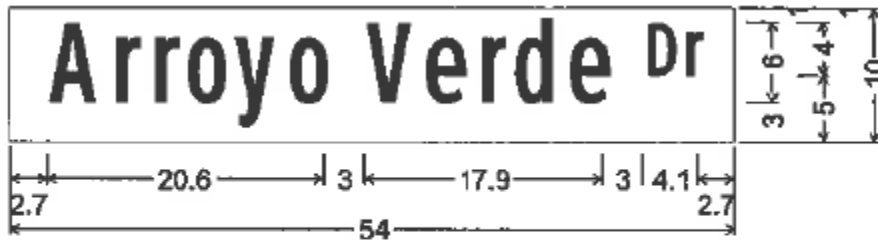
Signs

The sign shop uses aluminum, extruded street ID sign blades with white lettering on a blue background except on private roads. Private roads are with blue lettering on a white background. The sign blades are 9 inches in height. The sheeting material used on the street ID signs is Highly Intensive Prismatic (HIP) sheeting for maximum reflectivity at night, the font used is Clearview Hwy-1-B.

All regulatory signs are MUTCD approved and have the same sheeting used on the street ID signs. Regulatory signs come in different shapes and sizes.



Example of Font: Clearview Hwy-1-B. ID Signs are Blue Background, White Lettering



No border, White on Blue;
[Arroyo] ClearviewHwy-1-B;
[Verde] ClearviewHwy-1-B; [Dr] ClearviewHwy-1-B;

Street Sign Supports/Poles and Anchors:

- Sign supports are 1 ¾" X 1 ¾" X 11' powder coated green #GN-03
- Perforated Support Anchors; 2" X 2" X 30" slips into 2 ¼" X 2 ¼" X 30"

MUTCD Height Requirements for Street ID and Regulatory Signs

Per MUTCD Section 2A.18 Minimum Height for Business, Commercial or Residential Areas: Signs installed at the side of the road in business, commercial, or residential areas where parking or pedestrian movements are likely to occur, or where the view of the sign might be obstructed, shall be 7 feet. This pertains to all regulatory and street ID signs.



Concrete and Color for Sidewalk Panels

Public Works uses a M.A.G. standard 3000 psi concrete with San Diego Buff color added to the mix.

- Slump of the concrete mixture shall be determined in accordance with American Society for Testing and Materials (ASTM) C143. (see MAG, section 725.9)

Concrete Curb and Gutter

Public Works uses a M.A.G. standard 3000 psi gray concrete for all curb and gutter.

- Slump of the concrete mixture shall be determined in accordance with American Society for Testing and Materials (ASTM) C143. (see MAG, section 725.9)

Concrete for Utility Collars

Public Works uses a M.A.G. standard 3000 psi concrete with **BLACK** color added to the mix.

- Slump of the concrete mixture shall be determined in accordance with American Society for Testing and Materials (ASTM) C143. (see MAG, section 725.9)



M.A.G. 725.9 ACCEPTANCE:

(A) Plastic Concrete Properties

(1) The slump of the concrete shall meet the requirements of ASTM C94 Tolerances in Slump section. When the approved mix design or project specification requirements for slump are a “maximum” or “not to exceed”, the following tolerances apply

Specified slump: If 3” or less If more than 3” Plus tolerance 0 inch 0 inch Minus tolerance 1 1/2 inch 2 1/2 inch. When the approved mix design or project specification requirements for slump are not written as a “maximum” or “not to exceed”, the following tolerances apply: For design slump of: Tolerance 2 inch and less +/- 1/2 inch More than 2 through 4 inch +/- 1 inch More than 4 inch +/- 1 1/2 inch.

(2) Limit the maximum allowable temperature of the concrete mixture immediately before placement to 90 degrees F unless otherwise specified or unless a higher allowable temperature is pre-approved by the Engineer. At the discretion of the Engineer, recommended practices in ACI 305, Specification for Hot Weather Concreting, can provide good reference information and may be used to modify maximum allowable concrete temperature and acceptance.

Per ACI 306, Specification for Cold Weather Concreting, when the atmospheric temperature at the time of placing concrete is above 30°F the temperature of the concrete, as placed, shall not be less than 60°F. When the atmospheric temperature at the time of placing concrete is between 0°F and 30°F the temperature of the concrete, as placed, shall not be less than 65°F.

(3) Air entrained concrete shall meet the requirements of ASTM C94 Air-Entrained Concrete section. The air content of air-entrained concrete when sampled from the transportation unit at the point of discharge shall be within the approved mix design tolerance or +/- 1.5 % of the specified value. When a representative sample taken prior to discharge shows an air content below the specified level by more than the allowable tolerance, additional air entraining admixture shall be



added to the concrete mix to achieve the desired air content level, followed by a minimum of 30 revolutions at mixing speed.

(4) Per ASTM C94 Mixing and Delivery section, discharge of the concrete shall be completed within 1 1/2 hour after the introduction of the mixing water to the cementitious materials or the introduction of the cementitious materials to the aggregates. The Engineer may allow the continuation of concrete placement after the 1 1/2 hour time limit has been reached if the concrete is of such slump or workability that it can be placed without the addition of water to the batch.

Any concrete failing to meet the tolerances for plastic concrete properties in 725.9 (A) (1) through (4) shall be reviewed by the Engineer and is subject to rejection.

(B) Hardened Concrete Properties – Compressive Strength

Compressive strength of concrete shall be determined on the basis of cylinder strength tests obtained in accordance with section 725.8.2 and shall be acceptable if the tests meet or exceed the minimum specified strength. When the validity of cylinder strength tests are suspect, the strength of concrete in question shall be determined in accordance with Section 725.8.3.

When compressive strength test results are less than the specified minimum, an Engineering Analysis to determine the impact of the strength reduction may be required by the Engineer prior to the decision to accept or reject the concrete. The Engineering Analysis will be at the Contractor's expense. Any concrete that is rejected by the Engineer shall be removed and replaced by the Contractor at the Contractor's expense.

When concrete is accepted by the Engineer on the basis of test results of less than 100% of the required minimum compressive strength, an adjustment in the concrete unit price may be made for the quantity of concrete represented by such strength tests in accordance with Table 725-2.



Striping

Thermoplastic tends to be used more in warmer environments. Durability is thermoplastic's biggest advantage over paint. Thermoplastics does last longer than paint, typically 3 to 5 years where paint last approximately 1 year.

- Thermoplastic is to be applied thicker than paint.
- 90 mils is required for long line and skip lines.
- 120 mils is required for crosswalks, arrows and stop bars.

Granite

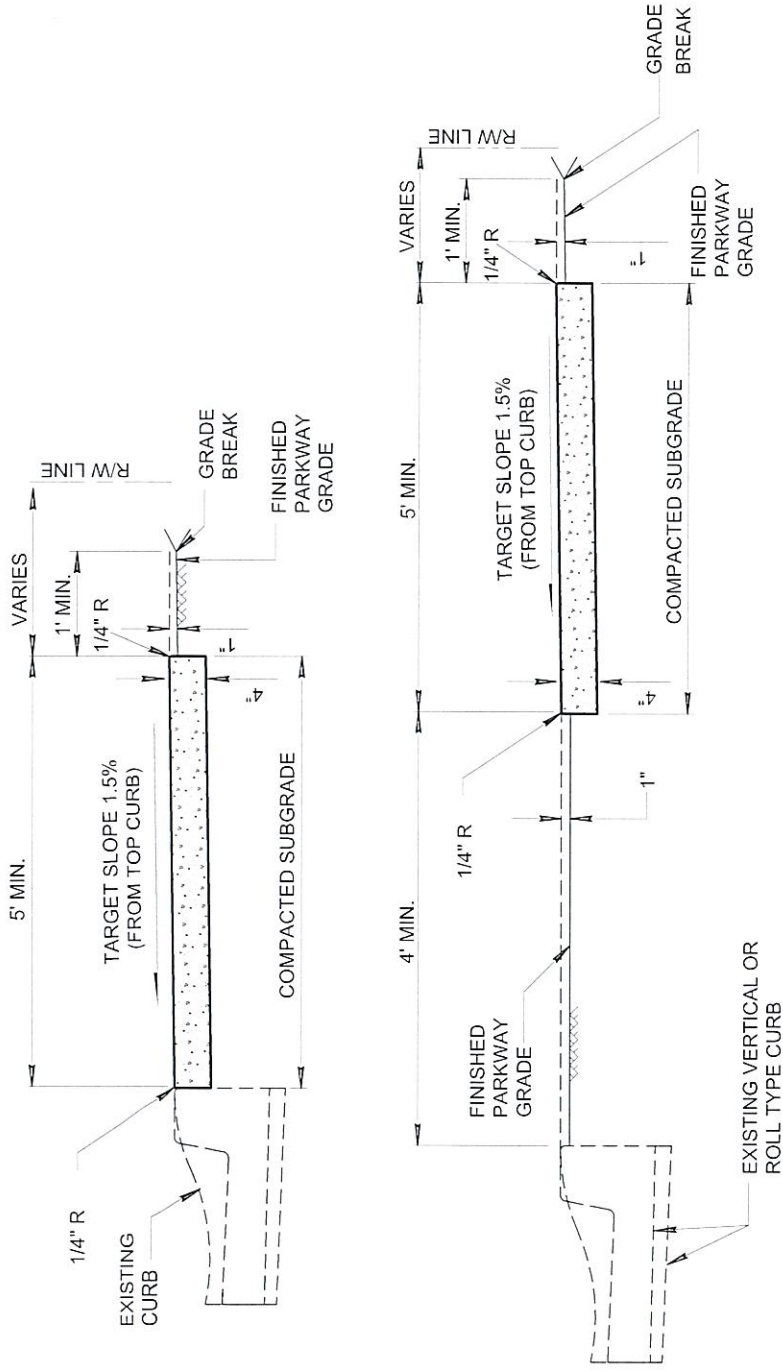
- Median Islands/R.O.W's – ½" Minus Madison Gold
- Town Hall Complex and Fire Stations – ¼" Washed Madison Gold

Traffic Signal Pole Colors

- Dunn Edwards or approved equivalent
- Color - San Diego Buff – Code# 10-27-08

Hand Rails Color

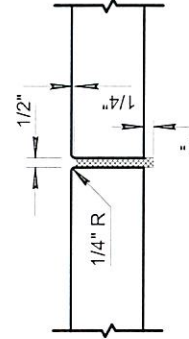
- Frazee Enamel or approved equivalent
- Color – Western Reserve – Code# 8716N



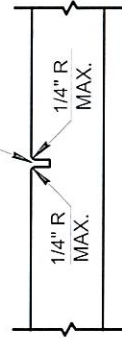
NOTES:

1. SIDEWALK CONSTRUCTION SHALL CONFORM TO SECTION 340.
2. EXPANSION JOINTS SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER, PER SECTION 729.
3. LARGE AGGREGATE, IN CONTRACTION JOINT SHALL BE SEPARATED TO A DEPTH OF 1", FINISH DEPTH SHALL BE A MINIMUM OF 3/4".
4. EXPANSION JOINTS SHALL CONFORM TO SECTION 340, BE INSTALLED PRIOR TO CONCRETE PLACEMENT, AND AT A MAXIMUM SPACING OF 50'.
5. CONCRETE SHALL BE CLASS 'B' PER SECTION 725.
6. WHEN SIDEWALK AND ADJACENT CURB ARE CONSTRUCTED MONOLITHICALLY, ALL EXPANSION AND CONTRACTION JOINTS SHALL EXTEND ACROSS THE CURB.
7. SLOPE TOLERANCE 0.5% TO 2.0%. SIDEWALK NOT IN TOLERANCE SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR.

SEE NOTE 3



EXPANSION JOINT



CONTRACTION JOINT

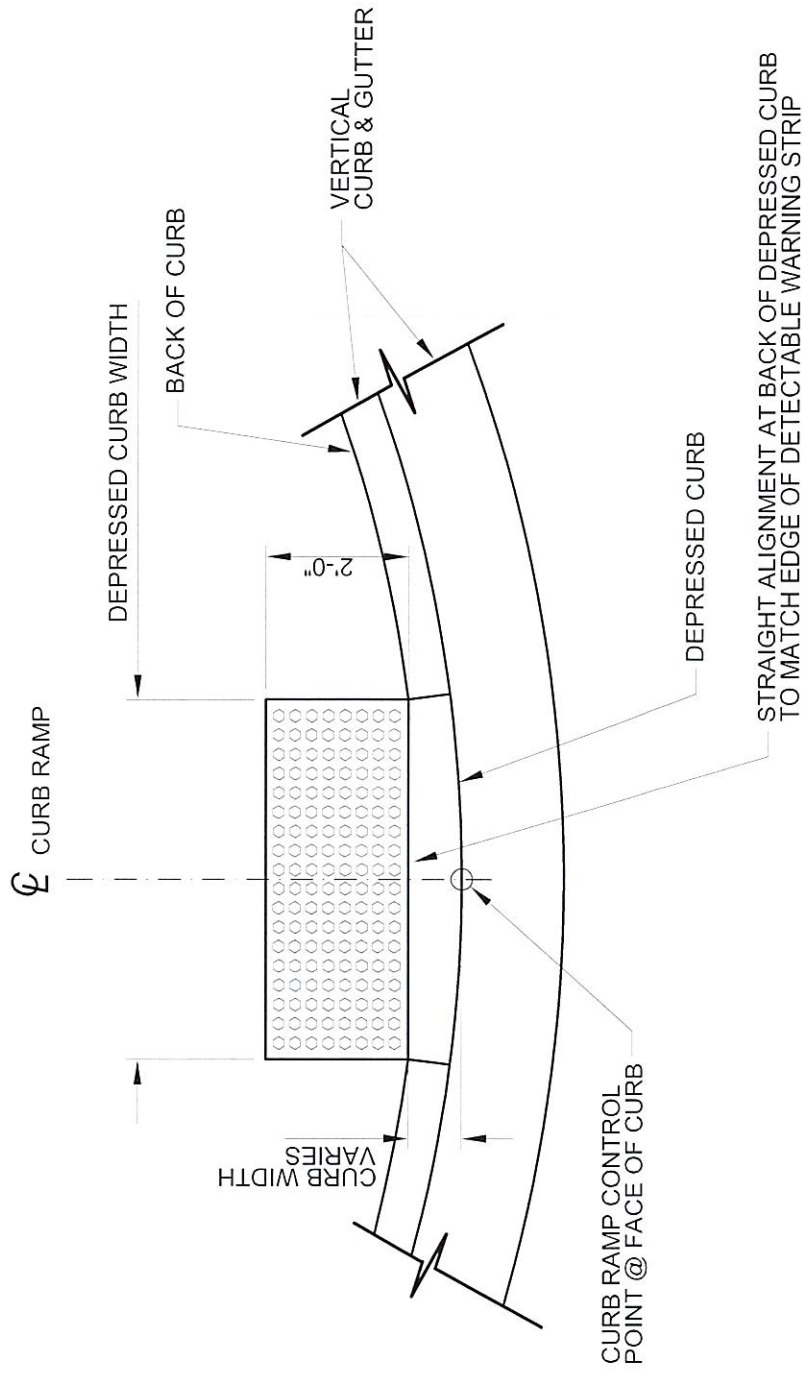
DETAIL NO.
230

MARICOPA ASSOCIATION of GOVERNMENTS
STANDARD DETAIL
ENGLISH

SIDEWALKS

REVISED
01-01-2023

DETAIL NO.
230



PLAN VIEW

DETAIL NO.
234

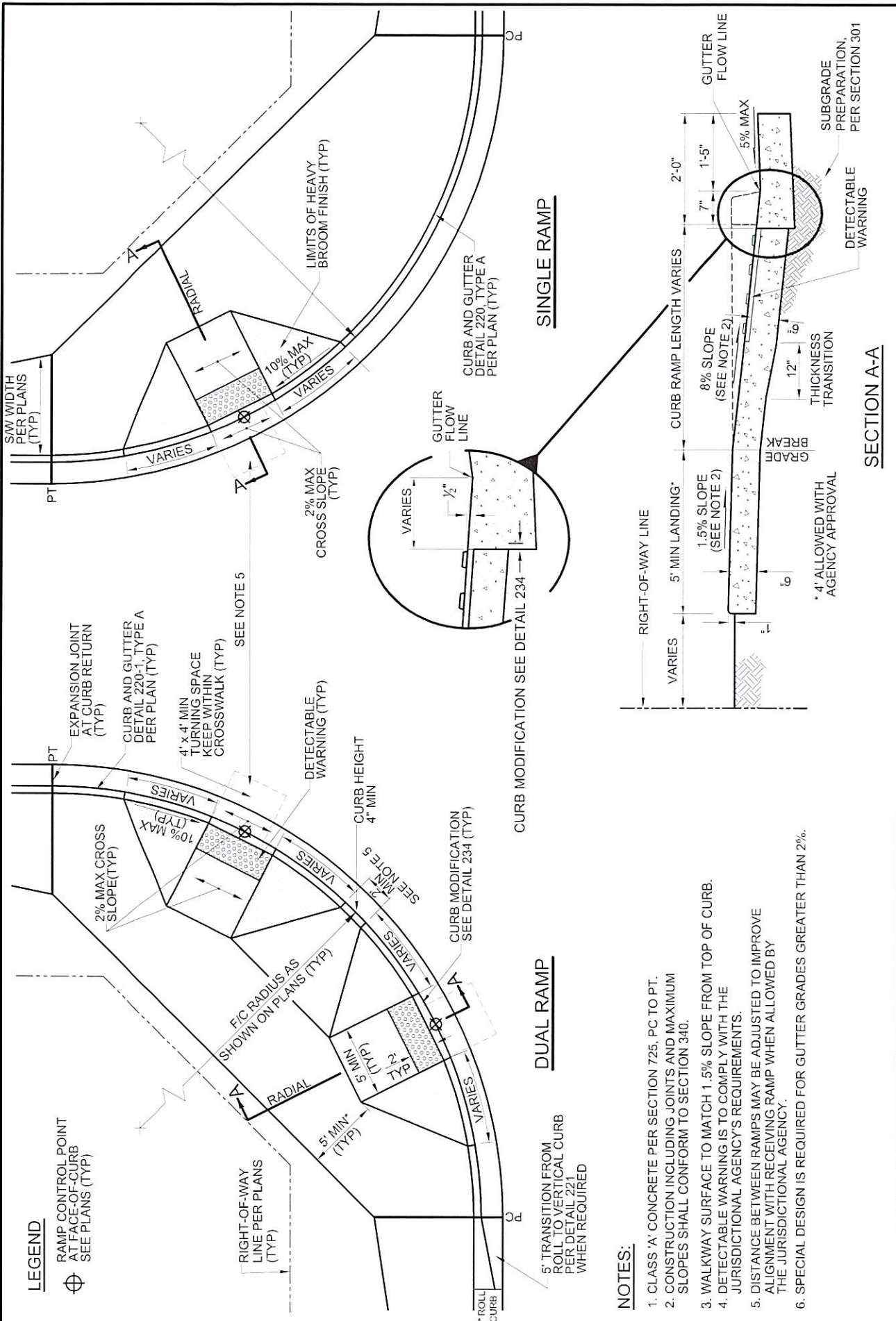


STANDARD DETAIL
ENGLISH

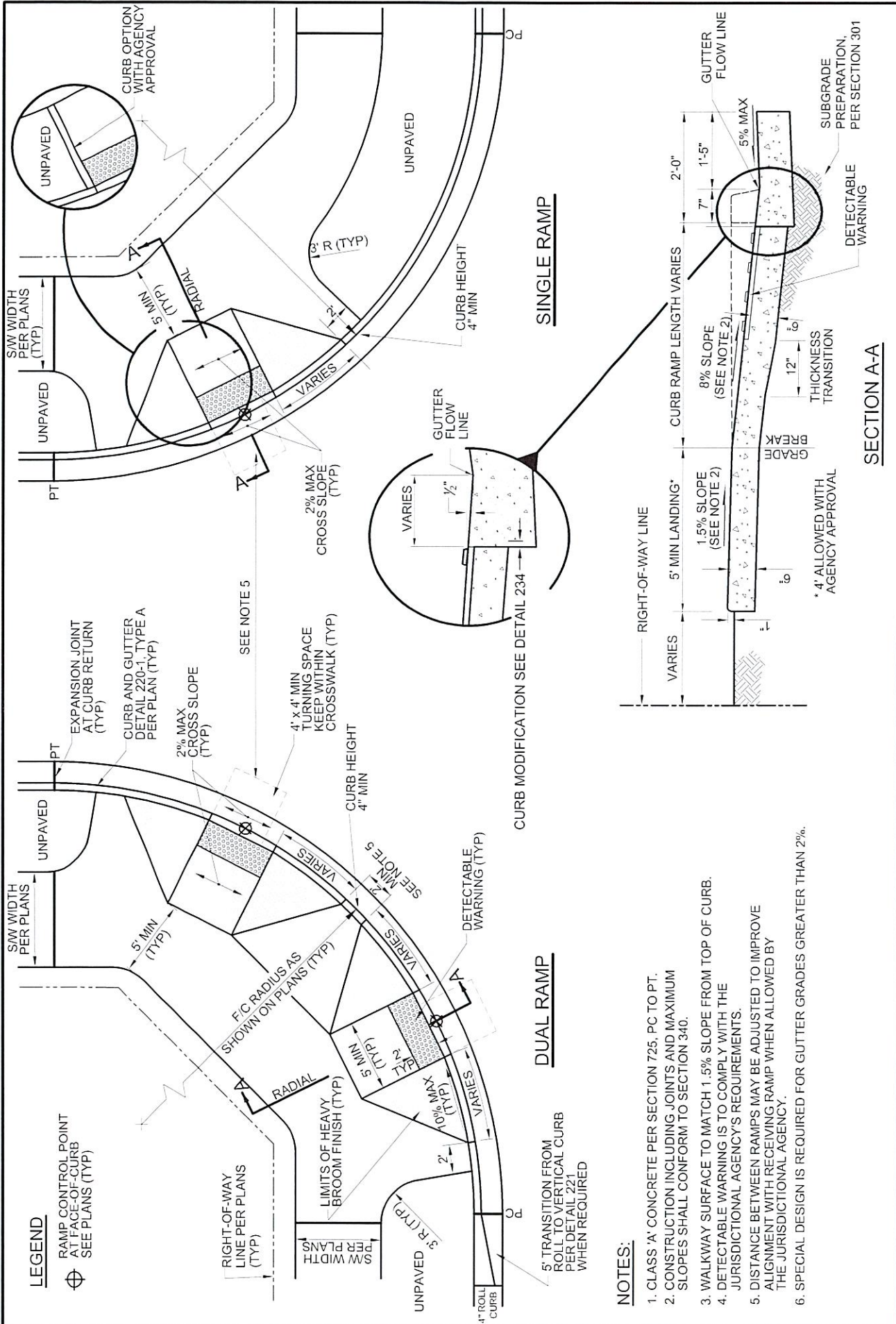
**CURB MODIFICATION
AT DETECTABLE WARNING**

REVISED
01-01-2012

DETAIL NO.
234



DETAIL NO. 236-1	STANDARD DETAIL ENGLISH	REVISIONS 01-01-2018	DETAIL NO. 236-1
25' - 35' R - RADIAL CURB RAMP ATTACHED SIDEWALK			



LEGEND RAMP CONTROL POINT AT FACE-OF-CURB SEE PLANS (TYP)	STANDARD DETAIL ENGLISH	REVISIONS 01-01-2018	DETAIL NO. 236-2
DETAIL NO. 236-2	MARICOPA ASSOCIATION of GOVERNMENTS	REVISED 01-01-2018	DETAIL NO. 236-2

- NOTES:**
1. CLASS 'A' CONCRETE PER SECTION 725, PC TO PT.
 2. CONSTRUCTION INCLUDING JOINTS AND MAXIMUM SLOPES SHALL CONFORM TO SECTION 340.
 3. WALKWAY SURFACE TO MATCH 1.5% SLOPE FROM TOP OF CURB.
 4. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.
 5. DISTANCE BETWEEN RAMPS MAY BE ADJUSTED TO IMPROVE ALIGNMENT WITH RECEIVING RAMP WHEN ALLOWED BY THE JURISDICTIONAL AGENCY.
 6. SPECIAL DESIGN IS REQUIRED FOR GUTTER GRADES GREATER THAN 2%.

SECTION A-A

SINGLE RAMP

DUAL RAMP

5' TRANSITION FROM ROLL TO VERTICAL CURB PER DETAIL 221 WHEN REQUIRED

CURB MODIFICATION SEE DETAIL 234

* 4' ALLOWED WITH AGENCY APPROVAL

SUBGRADE PREPARATION, PER SECTION 301

THICKNESS TRANSITION

DETECTABLE WARNING

8% SLOPE (SEE NOTE 2)

1.5% SLOPE (SEE NOTE 2)

CURB RAMP LENGTH VARIES

2'-0"

7"

1'-5"

5% MAX

GUTTER FLOW LINE

UNPAVED

UNPAVED

UNPAVED

UNPAVED

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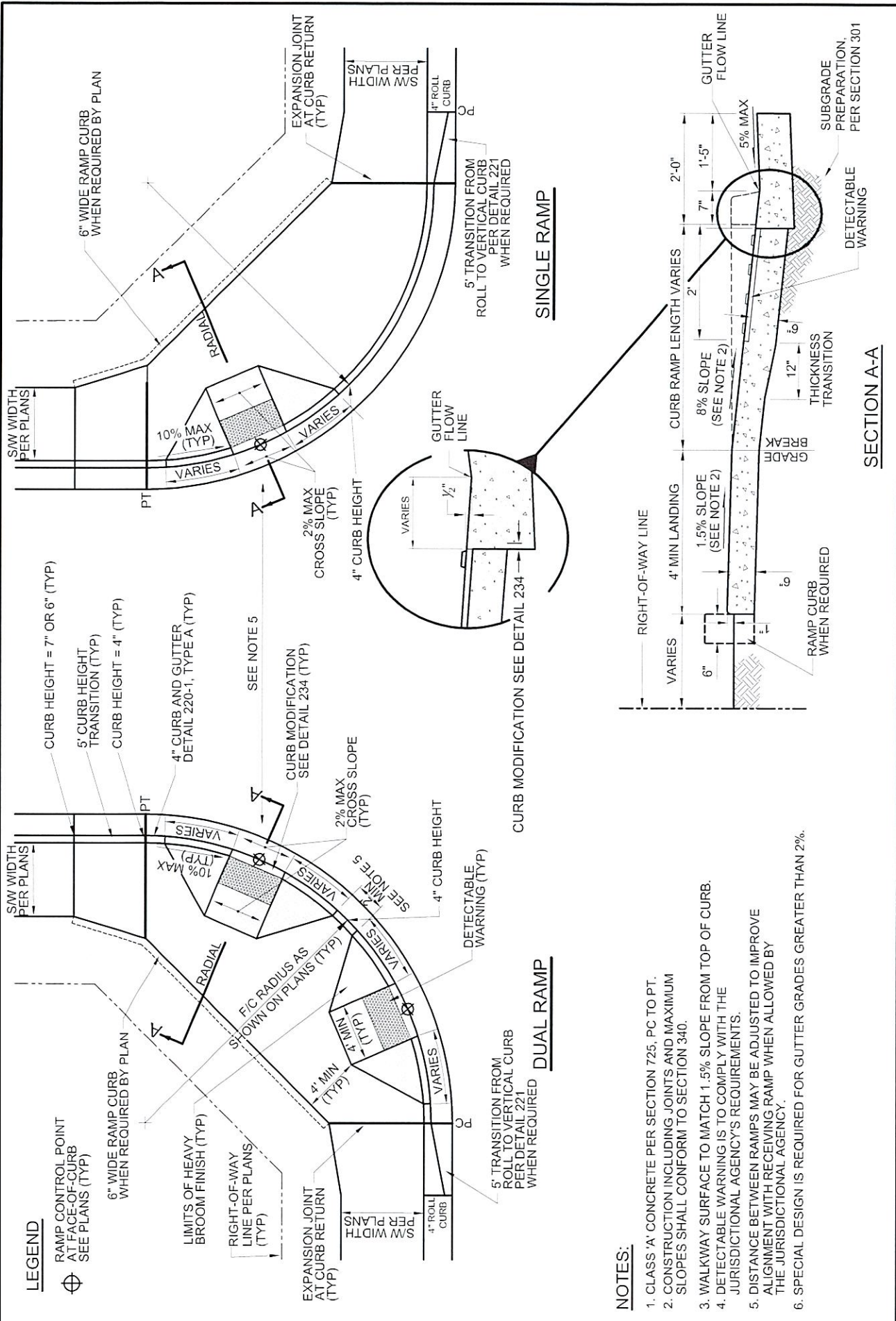
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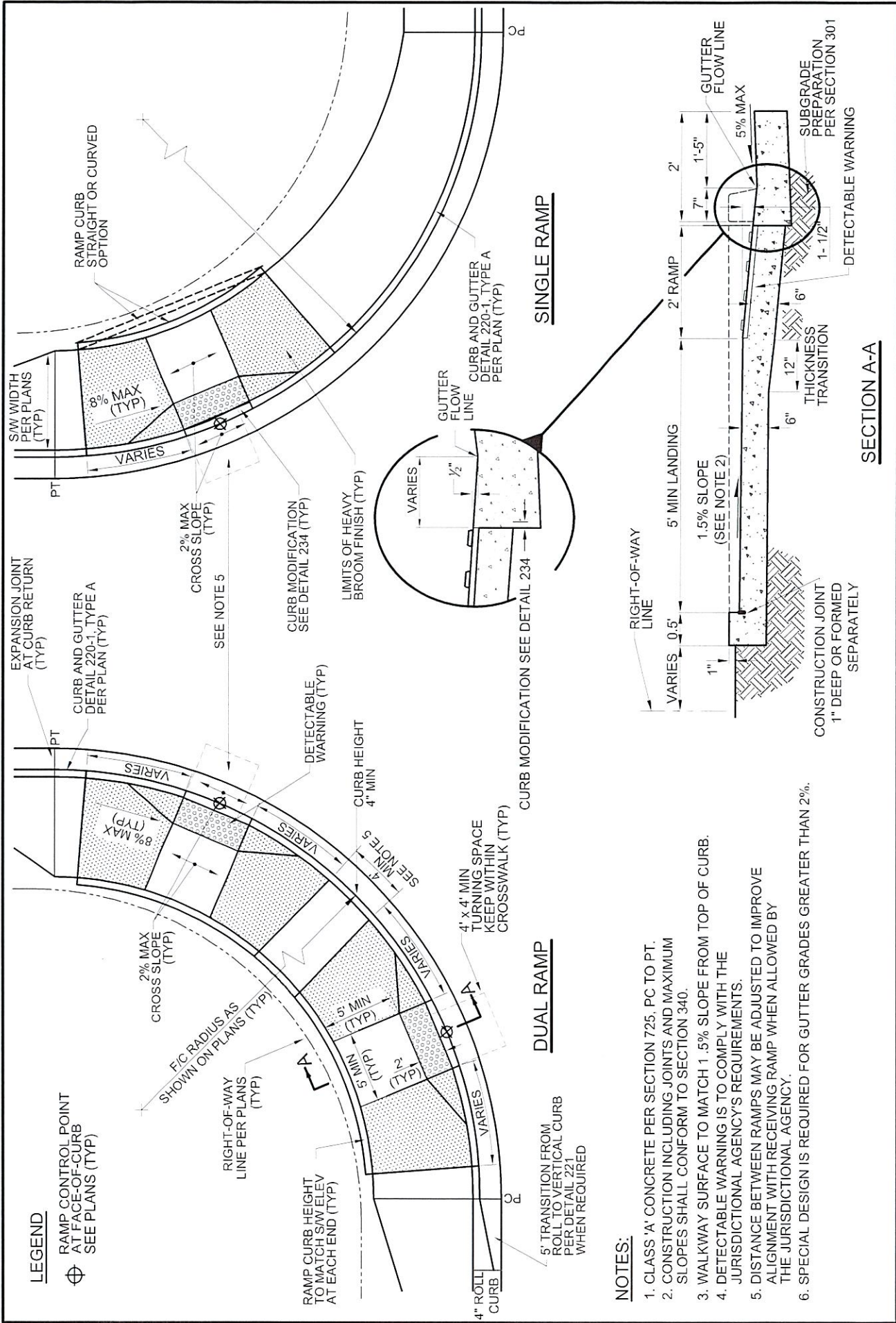


LEGEND
 ⊕ RAMP CONTROL POINT AT FACE-OF-CURB SEE PLANS (TYP)
 ⊕ 6" WIDE RAMP CURB WHEN REQUIRED BY PLAN
 ⊕ LIMITS OF HEAVY BROOM FINISH (TYP)
 ⊕ RIGHT-OF-WAY LINE PER PLANS (TYP)
 ⊕ EXPANSION JOINT AT CURB RETURN (TYP)
 ⊕ SW WIDTH PER PLANS (TYP)
 ⊕ PT

- NOTES:**
1. CLASS 'A' CONCRETE PER SECTION 725, PC TO PT.
 2. CONSTRUCTION INCLUDING JOINTS AND MAXIMUM SLOPES SHALL CONFORM TO SECTION 340.
 3. WALKWAY SURFACE TO MATCH 1.5% SLOPE FROM TOP OF CURB.
 4. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.
 5. DISTANCE BETWEEN RAMPS MAY BE ADJUSTED TO IMPROVE ALIGNMENT WITH RECEIVING RAMP WHEN ALLOWED BY THE JURISDICTIONAL AGENCY.
 6. SPECIAL DESIGN IS REQUIRED FOR GUTTER GRADES GREATER THAN 2%.

DETAIL NO. 236-3	STANDARD DETAIL ENGLISH	20' - 35' R - RADIAL CURB RAMP (COMPACT) ATTACHED SIDEWALK	REVISED 01-01-2019	DETAIL NO. 236-3
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SECTION A-A



DETAIL NO. 236-4

REVISED 01-01-2018

25' - 35' R - RADIAL COMBINATION CURB RAMP

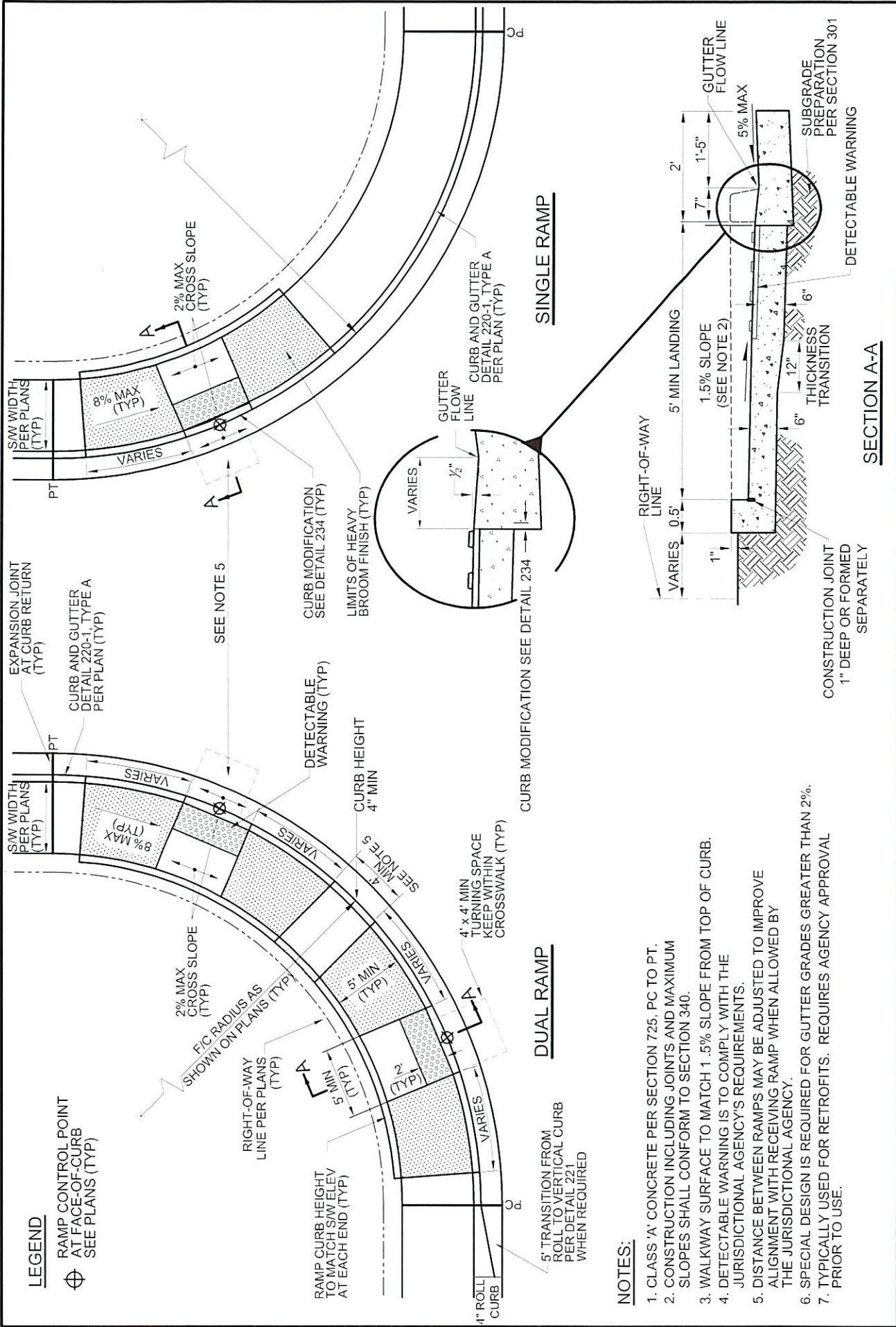
STANDARD DETAIL ENGLISH



DETAIL NO. 236-4

- NOTES:**
1. CLASS 'A' CONCRETE PER SECTION 725, PC TO PT.
 2. CONSTRUCTION INCLUDING JOINTS AND MAXIMUM SLOPES SHALL CONFORM TO SECTION 340.
 3. WALKWAY SURFACE TO MATCH 1.5% SLOPE FROM TOP OF CURB.
 4. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.
 5. DISTANCE BETWEEN RAMPS MAY BE ADJUSTED TO IMPROVE ALIGNMENT WITH RECEIVING RAMP WHEN ALLOWED BY THE JURISDICTIONAL AGENCY.
 6. SPECIAL DESIGN IS REQUIRED FOR GUTTER GRADES GREATER THAN 2%.

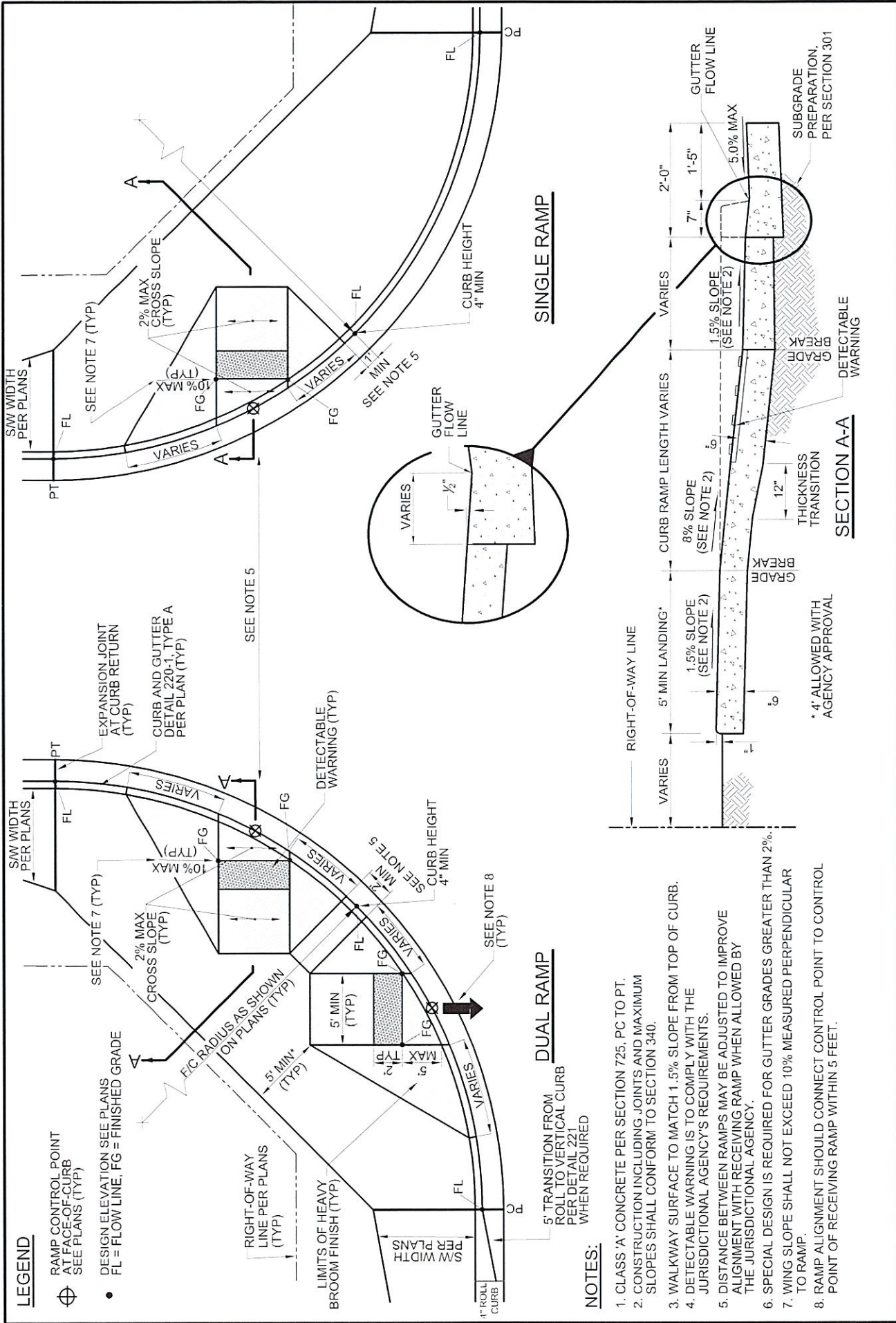
SECTION A-A



<p>LEGEND</p> <p>⊕ RAMP CONTROL POINT AT FACE-OF-CURB SEE PLANS (TYP)</p>	<p>DETAIL NO.</p> <p>236-5</p>
<p>REVISION</p> <p>01-01-2018</p>	<p>DETAIL NO.</p> <p>236-5</p>
<p>25' - 35' R - RADIAL PARALLEL CURB RAMP</p>	
<p>STANDARD DETAIL</p> <p>ENGLISH</p>	<p>DETAIL NO.</p> <p>236-5</p>

- NOTES:**
1. CLASS 'A' CONCRETE PER SECTION 725, PC TO PT.
 2. CONSTRUCTION INCLUDING JOINTS AND MAXIMUM SLOPES SHALL CONFORM TO SECTION 340.
 3. WALKWAY SURFACE TO MATCH 1.5% SLOPE FROM TOP OF CURB.
 4. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.
 5. DISTANCE BETWEEN RAMPS MAY BE ADJUSTED TO IMPROVE ALIGNMENT WITH RECEIVING RAMP WHEN ALLOWED BY THE JURISDICTIONAL AGENCY.
 6. SPECIAL DESIGN IS REQUIRED FOR GUTTER GRADES GREATER THAN 2%.
 7. TYPICALLY USED FOR RETROFITS. REQUIRES AGENCY APPROVAL PRIOR TO USE.

SECTION A-A



DETAIL NO. 237-1

REVISED 01-01-2018

25' - 35' R - DIRECTIONAL CURB RAMP ATTACHED SIDEWALK

STANDARD DETAIL ENGLISH



DETAIL NO. 237-1

NOTES:

1. CLASS 'A' CONCRETE PER SECTION 725, PC TO PT.
2. CONSTRUCTION INCLUDING JOINTS AND MAXIMUM SLOPES SHALL CONFORM TO SECTION 340.
3. WALKWAY SURFACE TO MATCH 1.5% SLOPE FROM TOP OF CURB.
4. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.
5. DISTANCE BETWEEN RAMPS MAY BE ADJUSTED TO IMPROVE ALIGNMENT WITH RECEIVING RAMP WHEN ALLOWED BY THE JURISDICTIONAL AGENCY.
6. SPECIAL DESIGN IS REQUIRED FOR GUTTER GRADES GREATER THAN 2%.
7. WING SLOPE SHALL NOT EXCEED 10% MEASURED PERPENDICULAR TO RAMP.
8. RAMP ALIGNMENT SHOULD CONNECT CONTROL POINT TO CONTROL POINT OF RECEIVING RAMP WITHIN 5 FEET.

* 4' ALLOWED WITH AGENCY APPROVAL

SECTION A-A

DETECTABLE WARNING

SUBGRADE PREPARATION PER SECTION 301

GUTTER FLOW LINE

2'-0"

1'-5"

7"

VARIES

1.5% SLOPE (SEE NOTE 2)

8% SLOPE (SEE NOTE 2)

1.5% SLOPE (SEE NOTE 2)

5.0% MAX

12"

THICKNESS TRANSITION

BR BR GR GR

5' MIN LANDING*

RIGHT-OF-WAY LINE

VARIES

VARIES

VARIES

VARIES

VARIES

VARIES

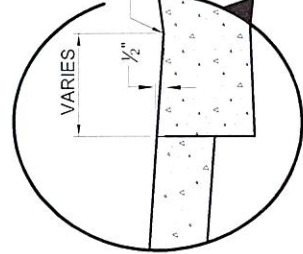
VARIES

VARIES

SINGLE RAMP

DUAL RAMP

5' TRANSITION FROM ROLL TO VERTICAL CURB PER DETAIL 221 WHEN REQUIRED



SEE NOTE 5

SEE NOTE 5

SEE NOTE 8

2% MAX CROSS SLOPE (TYP)

2% MAX CROSS SLOPE (TYP)

2% MAX CROSS SLOPE (TYP)

10% MAX (TYP)

10% MAX (TYP)

10% MAX (TYP)

PT

PT

PT

S/W WIDTH PER PLANS

S/W WIDTH PER PLANS

S/W WIDTH PER PLANS

RAMP CONTROL POINT AT FACE-OF-CURB SEE PLANS (TYP)

DESIGN ELEVATION SEE PLANS FL = FLOW LINE, FG = FINISHED GRADE

EXPANSION JOINT AT CURB RETURN (TYP)

CURB AND GUTTER DETAIL 220-1, TYPE A PER PLAN (TYP)

DETECTABLE WARNING (TYP)

DETECTABLE WARNING (TYP)

DETECTABLE WARNING (TYP)

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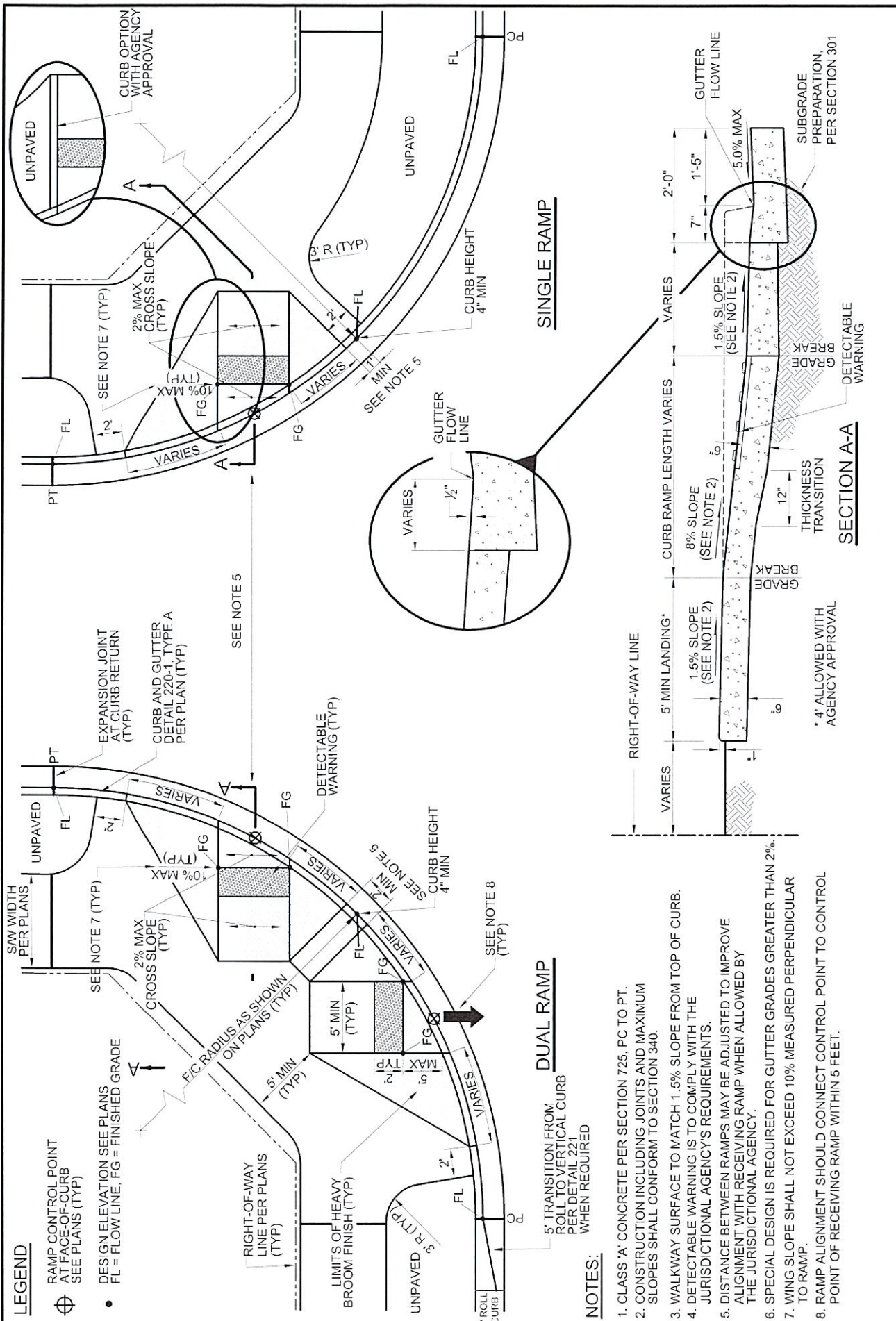
DETECTABLE WARNING (TYP)

DETECTABLE WARNING (TYP)

DETECTABLE WARNING (TYP)

DETECTABLE WARNING (TYP)

DETECTABLE WARNING (TYP)



LEGEND

- RAMP CONTROL POINT AT FACE-OF-CURB SEE PLANS (TYP)
- DESIGN ELEVATION SEE PLANS AT FACE-OF-CURB SEE PLANS (TYP)
- FL = FLOW LINE, FG = FINISHED GRADE

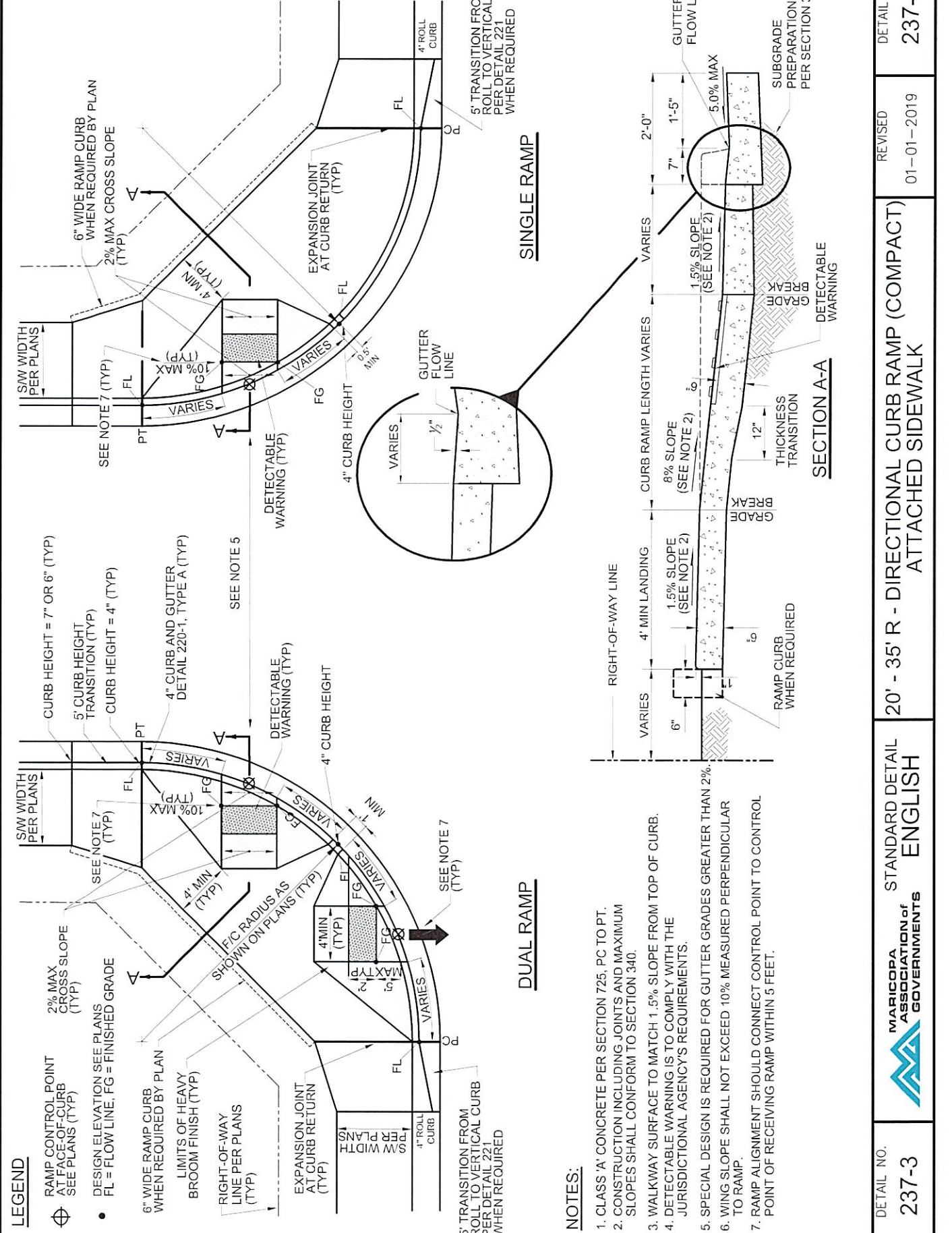
DUAL RAMP

SINGLE RAMP

- NOTES:**
1. CLASS 'A' CONCRETE PER SECTION 725, PC TO PT.
 2. CONSTRUCTION INCLUDING JOINTS AND MAXIMUM SLOPES SHALL CONFORM TO SECTION 340.
 3. WALKWAY SURFACE TO MATCH 1.5% SLOPE FROM TOP OF CURB.
 4. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.
 5. DISTANCE BETWEEN RAMPS MAY BE ADJUSTED TO IMPROVE ALIGNMENT WITH RECEIVING RAMP WHEN ALLOWED BY THE JURISDICTIONAL AGENCY.
 6. SPECIAL DESIGN IS REQUIRED FOR GUTTER GRADES GREATER THAN 2%.
 7. WING SLOPE SHALL NOT EXCEED 10% MEASURED PERPENDICULAR TO RAMP.
 8. RAMP ALIGNMENT SHOULD CONNECT CONTROL POINT TO CONTROL POINT OF RECEIVING RAMP WITHIN 5 FEET.

DETAIL NO. 237-2	STANDARD DETAIL ENGLISH	25' - 35' R - DIRECTIONAL CURB RAMP DETACHED SIDEWALK	REVISED 01-01-2018	DETAIL NO. 237-2
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LEGEND

- RAMP CONTROL POINT AT FACE-OF-CURB SEE PLANS (TYP)
- DESIGN ELEVATION SEE PLANS
- FL = FLOW LINE, FG = FINISHED GRADE

6" WIDE RAMP CURB WHEN REQUIRED BY PLAN

LIMITS OF HEAVY BROOM FINISH (TYP)

RIGHT-OF-WAY LINE PER PLANS (TYP)

EXPANSION JOINT AT CURB RETURN (TYP)

4" RAMP CURB

4" RAMP CURB

5' TRANSITION FROM ROLL TO VERTICAL CURB PER DETAIL 221 WHEN REQUIRED

4" RAMP CURB

DUAL RAMP

NOTES:

- CLASS 'A' CONCRETE PER SECTION 725, PC TO PT.
- CONSTRUCTION INCLUDING JOINTS AND MAXIMUM SLOPES SHALL CONFORM TO SECTION 340.
- WALKWAY SURFACE TO MATCH 1.5% SLOPE FROM TOP OF CURB.
- DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.
- SPECIAL DESIGN IS REQUIRED FOR GUTTER GRADES GREATER THAN 2%.
- WING SLOPE SHALL NOT EXCEED 10% MEASURED PERPENDICULAR TO RAMP.
- RAMP ALIGNMENT SHOULD CONNECT CONTROL POINT TO CONTROL POINT OF RECEIVING RAMP WITHIN 5 FEET.

SINGLE RAMP

SECTION A-A

DETAIL NO. 237-3

STANDARD DETAIL ENGLISH

20' - 35' R - DIRECTIONAL CURB RAMP (COMPACT) ATTACHED SIDEWALK

REVISED 01-01-2019

DETAIL NO. 237-3



**ATTACHMENT 3
TO
JOB ORDER NO. 5**

PAYMENT AND PERFORMANCE BONDS

See the following pages.