



PROJECT CHARTER

DEPARTMENT: RFCD

PROJECT NAME: Ruthrauff, Gardner Lane UPRR Culvert

PROJECT ID: CFC-5RUPRR

Prepared By: Janice Hughes

Date Prepared 12/1/2016

Approval of this Project Charter indicates 1) approval of the constraining factor established for this project, 2) an understanding of the purpose and content as described in this document, and 3) agreement with the Scope, Schedule, Budget and Quality of the recommended alternative. By signing this document, each individual agrees that work should be initiated on this project with **all necessary resources allocated** and commits to fulfill his/her role and responsibilities as described herein.

Approver Name	Position	Signature	Date
Janice Hughes	Project Manager	<i>Janice Hughes</i>	1/6/17
Suzanne Shields	Department Director	<i>Suzanne Shields</i>	1/9/17
<i>NAVETTE SWISSER</i>	County Administration	<i>Navette Swisser</i>	1/10/17

*Note: Not all sections of the Project Charter format are applicable to all projects. To insure all sections have been completed as needed, do not delete any sections from this document. If a section is not applicable to the project, simply type "Not Applicable". See "Guidance for Preparing a Project Charter" and "Checklists for Project Charter & Gates" for additional information.

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PROJECT OVERVIEW

Background:

Nuisance ponding and local flooding along the Union Pacific Rail Road UPRR (aka Southern Pacific) has been a continuous problem for adjacent residents, business, streets and the railroad. Flood relief was originally part of ADOT proposed improvements for the Ruthrauff Interchange, but ADOT has not pursued the issue beyond ADOT Right-of-way. ADOT did complete an enlarged drainage channel on the west side of the Interstate that can handle the additional flows, if culverts are provided under the UPRR. The Flood Control District is currently finalizing the design for a downstream drainage channel connection from the ADOT channel to the Santa Cruz River. Construction of the channel extension is expected to start in March 2017.

Plans for construction of 2-36" SSP at Gardner Lane at the UPRR were approved by the UPRR in 2009, but the permits have lapsed. In addition, the Ruthrauff Basin Management Study (RBMS) has generated new detailed hydrologic information that substantially reduced the design flow that ADOT used for the channel on the west side of the Interstate. Relocation of the fiber optic line along the rail road right-of-way was a constraint on the original design that significantly restricted the previously UPRR approved design.

Ruthrauff TI is proposing a jack and bore under the railroad just downstream from the Ruthrauff South. This should ease our discussions.

Need Statement:

Under existing conditions there is significant ponding adjacent to the railroad with no existing outlet. This ponding floods adjacent business and streets including Highway Drive, as well as leaves a nuisance pond that typically remains wet for weeks after a flooding event breeding mosquitos and other pest. The Ruthrauff Basin Management Study identified these culverts and associated collector channels as an alternative needed to alleviate ponding and flooding within the reach of the Ruthrauff Basin.

Scope Statement:

The project will begin the design process for a culvert and channel at Gardner Lane/UPRR and a second culvert and channel at the UPRR between Wetmore Road and Ruthrauff Road. This second location is called Ruthrauff South. Concept Design Plans will be developed and submitted to the UPRR to initiate the right-of-way permit. The preferred design alternative is to utilize UPRR R/W for the collector channels. Other less effective alternatives would utilize existing roadway rights of way. Due to the need to maintain railroad operations during construction the project will consider jack and bore locations. The initial work will include survey, PISA and Cultural survey. It is assumed that this project will utilize the County's MSCP Section 10 Permit. Initial hydrology and hydraulics will utilize information from the RBMS. Utility notifications and potholing will be conducted to more fully understand potential utility conflicts. Kinder Morgan, Century Link, Tucson Water and RWRD have facilities in the area.

Once an agreement is reached with the railroad, the project can move forward with final design and construction documents. A 2-1 Gate will be held at that time.

Public Art funds will be transferred to a project in a more appropriate location.

Justification:

Current ponding is a health and safety issue, and in addition the current ponding inhibits economic development in Highway Drive Economics incentives zone and other properties east of the Railroad.

BUDGET MANAGEMENT

[Cost Model attached as Appendix B]

Cost Model Summary and Financial Schedule for Requested Budget

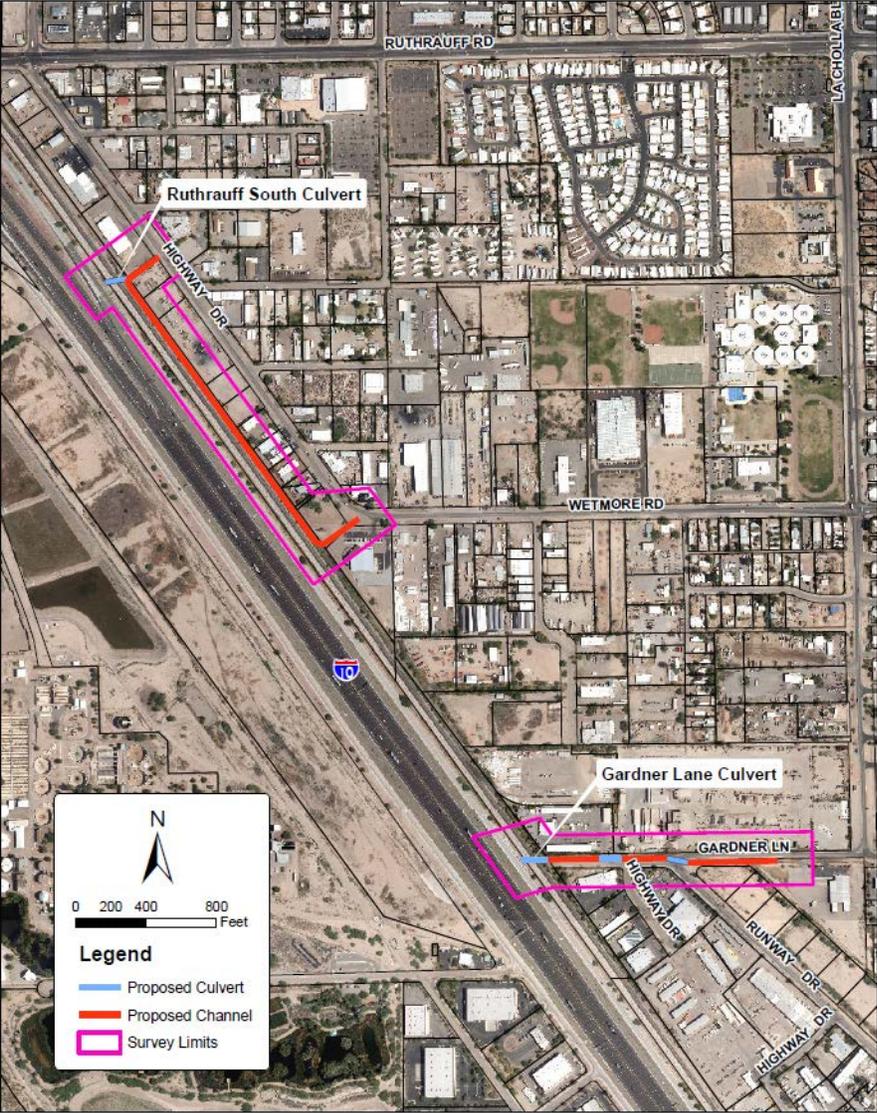
Phase	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	TOTAL	Soft Cost %
Land Acquisition	0		27,500	172,500	0	200,000	4.7%
Project Development	180,000	50,000	0	0	0	230,000	17.8%
Design		290,000	272,500	0	0	562,500	43.6%
Construction	0	0		1,487,000	0	1,487,000	18.4%
Utility Relocation	0	0	0	0	0	0	%
Public Art	0	0	0	0	0	0	%
Contingency	0		40,000	40,000	0	80,000	3.1%
TOTAL PROJECT BUDGET	180,000	340,000	340,000	1,699,500	0	2,559,500	87.6%

Requested Funding Sources

Funding Summary		
Funding Sources	Amount	% of Total
A. RFCD Tax Levy	2,560,000	100%
B.	\$	%
C.	\$	%
D.	\$	%
TOTAL FUNDING SOURCES	2,560,000	100%

This project is part of a series of projects done in conjunction with ADOT and UPRR. The most recent project is the ROMP Channel (5ROGRD). Additional projects include improvements from Prince Road to Ina Road. The Ruthrauff Basin Management Study incorporates the proposed improvements for these culverts, the UPRR improvements, the ADOT improvements and the downstream channel to the Santa Cruz. Soft costs for this project are expected to be above the norm due to the need to provide additional documentation to the UPRR and ADOT.

Map of Project Area with Polygon



ESTIMATED BENEFITS OF THIS PROJECT

Benefit	Estimated Level of Benefit			
	High	Med	Low	None
Protects Health, Safety & Property	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increases Capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meets Regulatory/Mandated Requirement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Promotes Economic Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Makes Use of Non-County Funding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Benefit	Estimated Level of Benefit			
	High	Med	Low	None
Reduces Long-Term Costs to the County	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rehabilitates/Preserves/Enhances Existing Asset	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Enhances Environment and/or Cultural Resource	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Improves System Continuity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meets Master/Long-Range Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is Regionally Significant	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SCHEDULE MANAGEMENT

[Microsoft Project Schedule attached as Appendix C]

Critical Path Tasks and Anticipated Completion Dates

To be addressed with 2-1 Gate

	Critical Path Task Description	Anticipated Completion Date
1	ADOT Approval	
2	UPRR Approval	4/2018
3	Utility Improvements	
4	Cultural Resources	12/2018
5	Easement Acquisition	
6	404 Permit - Nationwide	

QUALITY MANAGEMENT

Constraining Factor

For this project, the following one factor is understood by the project team and senior management to be the least flexible to change:

- Scope
 Schedule
 Budget
 Quality

Provide a brief explanation regarding criticality of chosen constraining factor: At this point in time, scope is most critical. The purpose of this project is to provide drainage and flood relief by providing a storm drain system that connects with existing and developing drainage improvements.

To be addressed with 2-1 Gate

ALTERNATIVES ANALYSIS

To be addressed with 2-1 Gate

Viable alternatives have been identified and are described below.

OR

Alternatives need to be developed and/or further evaluated. Alternative Summary and Recommendation to be presented at a 2.1 Gate.

OR

No alternatives are anticipated for this project.

Alternative 1: Provide a drainage culverts and collector channels in UPRR right-of-way.

Alternative 2: Provide drainage culverts in UPRR right-of-way, and a drainage collection system within existing adjacent street rights of way.

Assumption & Constraint Analysis

1. <input type="checkbox"/> Constraint (Known) or <input type="checkbox"/> Assumption (Unknown)	Alternative(s) 1 <input type="checkbox"/> 2 <input type="checkbox"/>
Description: Will be addressed at 2-1 Gate	
Impact Discussion:	

2. <input checked="" type="checkbox"/> Constraint (Known) or <input type="checkbox"/> Assumption (Unknown)	Alternative(s) 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/>
Description: Design approval of culverts and channel by the UPRR and by ADOT.	
Impact Discussion: Failure to secure approval from the UPRR or ADOT will result in termination of this project.	

TEAM MEMBER MANAGEMENT

Roles and Responsibilities

Member's Name: Janice Hughes	Affiliation: Pima County RFCD – Engineering
Role: Project Manager	
Responsibility: Coordinate project scope, schedule and budget. Coordinate agency input including COT DOT	

Member's Name: Roger Anyon	Affiliation: Cultural Resources
Role: Cultural Resources	
Responsibility: Administer contract with EcoPlan for Class III cultural resources survey	

Member's Name: Sandi Garrick	Affiliation: PC Admin
Role: Utility coordination	

Responsibility: Coordinate UPRR ROW and ROE and assist with coordination on ADOT ROW and ROE

Member's Name:	Affiliation: ADOT
Role:	
Responsibility:	

Member's Name: Mike Cabrera	Affiliation: RFCD
Role: 404 /401 Permit Coordination	
Responsibility: Assist in securing the 404 Permit/Section 10 Permit	

Member's Name: Fred Felix	Affiliation: COT DOT
Role: Adjacent Jurisdiction and Gardner Lane within City of Tucson	
Responsibility:	

Summary of Team Member Meeting

- Meeting Minutes are attached as Appendix.
- OR
- A summary of the Team Member meeting is as follows:

Date of Team Member Meeting:

Invitees:

Attendees:

Summary of Meeting Minutes:

Critical Issues and Action Items:

RISK MANAGEMENT

Assessment of Risks to Achieving Scope, Schedule, Budget and/or Quality

To be addressed with 2-1 Gate

Risk Tables

1. Risk Name: Un-known utility – Kinder Morgan, Century Link, RWRD, Tucson Water							
Probability:	High <input type="checkbox"/>	Med <input checked="" type="checkbox"/>	Low <input type="checkbox"/>	Impact:	High <input checked="" type="checkbox"/>	Med <input type="checkbox"/>	Low <input type="checkbox"/>

Action:	Control <input type="checkbox"/>	Absorb <input checked="" type="checkbox"/>	Avoid <input checked="" type="checkbox"/>	Deflect <input type="checkbox"/>
Mitigation Strategy: To be addressed with 2-1 Gate				

2. Risk Name: Scheduling determined by UPRR							
Probability:	High <input checked="" type="checkbox"/>	Med <input type="checkbox"/>	Low <input type="checkbox"/>	Impact:	High <input type="checkbox"/>	Med <input checked="" type="checkbox"/>	Low <input type="checkbox"/>
Action:	Control <input type="checkbox"/>	Absorb <input checked="" type="checkbox"/>	Avoid <input type="checkbox"/>	Deflect <input type="checkbox"/>			
Mitigation Strategy: Can impact funding calendar To be addressed with 2-1 Gate							

3. Risk Name: Cultural Mitigation							
Probability:	High <input checked="" type="checkbox"/>	Med <input type="checkbox"/>	Low <input type="checkbox"/>	Impact:	High <input checked="" type="checkbox"/>	Med <input type="checkbox"/>	Low <input type="checkbox"/>
Action:	Control <input checked="" type="checkbox"/>	Absorb <input type="checkbox"/>	Avoid <input type="checkbox"/>	Deflect <input type="checkbox"/>			
Mitigation Strategy: Two known sites, working with Cultural Resources to identify and mitigate impacts.							

3. Risk Name: Section 10 Permit							
Probability:	High <input type="checkbox"/>	Med <input checked="" type="checkbox"/>	Low <input type="checkbox"/>	Impact:	High <input type="checkbox"/>	Med <input checked="" type="checkbox"/>	Low <input type="checkbox"/>
Action:	Control <input type="checkbox"/>	Absorb <input type="checkbox"/>	Avoid <input checked="" type="checkbox"/>	Deflect <input type="checkbox"/>			
Mitigation Strategy: Anticipated to be one of the first to use this Section 10 process. Coordination will be necessary.							

COMMUNICATION MANAGEMENT

Proposed Gate Meetings

For this project, the following gate meetings are proposed:

	Proposed Date
<input checked="" type="checkbox"/> Gate 1-1 Entry Gate	Nov 2016
<input checked="" type="checkbox"/> Gate 2-1 Project Development	April 2018 (UPRR approval)
<input type="checkbox"/> Gate 3-1 Preliminary Design	
<input checked="" type="checkbox"/> Gate 3-2 Construction Documents Ready for Contractor Selection	March 2018
<input checked="" type="checkbox"/> Gate 4-1 Ready to Issue Letter of Construction Acceptance	June 2019
<input checked="" type="checkbox"/> Gate 5-1 Close Out.....	June 2019

PROCUREMENT MANAGEMENT

Proposed Project Delivery Method

The proposed project delivery method for this project is:

- Design-Bid-Build
- Construction Management at Risk
- Design-Build
- Design-Build-Own-Operate
- Job Order Contract
- Managed/Delivered by Others
- To be Determined (at Gate 2-1)

APPENDICES

[Attach legible pdf attachments after the Project Charter has been converted to pdf format.]

APPENDIX A – Map with Polygon

[Can be embedded in Charter or as Appendix]

APPENDIX B – Cost Model

[Attach legible Cost Model]

APPENDIX C – Microsoft Project Schedule

[Attach legible MSP Schedule]

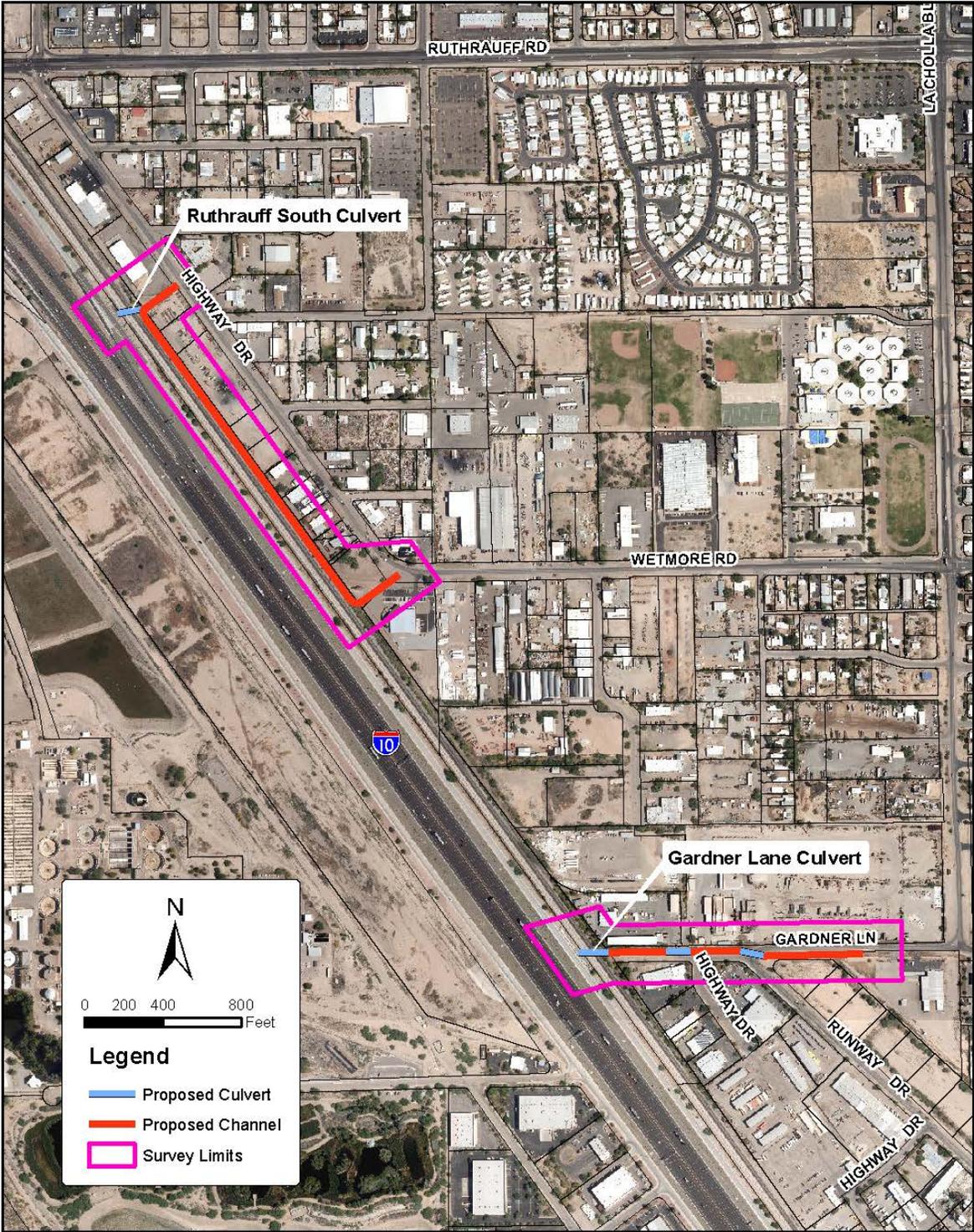
APPENDIX D – Team Member Meeting Minutes

[Can be embedded in Charter or as Appendix]

APPENDIX E - CIP Program/Phase Maintenance Request Form

[AKA CAS form. The data on this form must match the data in the Project Charter]

APPENDIX A – Map with Polygon



APPENDIX B – Cost Model

A	B	C	D	E	F	G	H	L
1								
2	Cost Model Project Line Items							
3	5RUPRR Ruthrauff Culverts at UPRR, Gardner Lane and Ruthrauff South	Original Budget	Current Budgeted/ Contracted	Paid Inception to Date	Remaining Balance	Soft Cost % of Hard Cost	Soft Cost Value	Notes
4	Land Acquisition (RWY)							
5	Contracted RWY Services (RWY)		\$0		\$0	0.0%		
6	Property Purchase (RWY)	\$140,000	\$140,000		\$140,000			*considered hard cost; but not in the % calculations
7	Temporary Easements/Agreements (RWY)		\$0		\$0			*considered hard cost; but not in the % calculations
8	Other (RWY)		\$0		\$0	0.0%		
9	Internal Labor Rollup (RWY)	\$60,000	\$60,000	\$0	\$60,000	4.7%		
10	Real Prop (RWY)	\$60,000	\$60,000		\$60,000			
11	HP (RWY)		\$0		\$0			
12	DOT (RWY)		\$0		\$0			
13	FM (RWY)		\$0		\$0			
14	NRPR (RWY)		\$0		\$0			
15	RFCD (RWY)		\$0		\$0			
16	RWRD (RWY)		\$0		\$0			
17	Other Depts (RWY)		\$0		\$0			
18	Subtotal RWY	\$200,000	\$200,000	\$0	\$200,000	4.7%	\$60,000	
19								
20	Project Development (PLN)							
21	Procurement (PLN)		\$0		\$0	0.0%		
22	A/E Services (PLN)	\$200,000	\$200,000		\$200,000	15.5%		
23	Site Studies (PLN)	\$10,000	\$10,000		\$10,000	0.8%		Includes Cultural, Environmental, other
24	Mapping/Survey (PLN)		\$0		\$0	0.0%		
25	IGA or agreements (PLN)		\$0		\$0	0.0%		
26	Other (PLN)		\$0		\$0	0.0%		
27	Internal Labor Rollup (PLN)	\$20,000	\$20,000	\$0	\$20,000	1.6%		
28	HP (PLN)		\$0		\$0			
29	DOT (PLN)	\$10,000	\$10,000		\$10,000			
30	FM (PLN)		\$0		\$0			
31	NRPR (PLN)		\$0		\$0			
32	RFCD (PLN)		\$0		\$0			
33	RWRD (PLN)		\$0		\$0			
34	Other Depts (PLN)	\$10,000	\$10,000		\$10,000			
35	Subtotal PLN	\$230,000	\$230,000	\$0	\$230,000	17.8%	\$0	
36								
37	Design (DES)							
38	Procurement (DES)		\$0		\$0	0.0%		
39	A/E Services (DES)	\$300,000	\$300,000		\$300,000	23.3%		
40	Geotechnical Services (DES)		\$0		\$0	0.0%		
41	Site Mitigation Studies (DES)	\$200,000	\$200,000		\$200,000	15.5%		Includes Cultural, Environmental, Survey
42	Community Relations (DES)		\$0		\$0	0.0%		
43	PM Services (Contracted) (DES)		\$0		\$0	0.0%		
44	CM Services (Contracted) (DES)		\$0		\$0	0.0%		
45	Permits (DES)	\$50,000	\$50,000		\$50,000	3.9%		UPRR
46	Procurement Bids, Advert & Printing (DES)	\$2,500	\$2,500		\$2,500	0.2%		*Construction Contract
47	Commissioning Agent (DES)		\$0		\$0	0.0%		*Construction Contract
48	Other (DES)		\$0		\$0	0.0%		
49	Internal Labor Rollup (DES)	\$10,000	\$10,000	\$0	\$10,000	0.8%		
50	HP (DES)		\$0		\$0			
51	DOT (DES)	\$5,000	\$5,000		\$5,000			
52	FM (DES)		\$0		\$0			
53	NRPR (DES)		\$0		\$0			
54	RFCD (DES)		\$0		\$0			
55	RWRD (DES)		\$0		\$0			
56	Other Depts (DES)	\$5,000	\$5,000		\$5,000			
57	Subtotal DES	\$562,500	\$562,500	\$0	\$562,500	43.6%	\$562,500	
58								
59	Construction (CON)							
60	CM Services (CON)	\$187,000	\$187,000		\$187,000	14.5%		Either external or internal
61	A/E Services (CON)		\$0		\$0	0.0%		
62	Construction Rollup Costs (CON)	\$1,250,000	\$1,250,000	\$0	\$1,250,000			Designated CONSTRUCTION COST for soft cost calc's (varies by project)
63	Construction (CON)	\$1,250,000	\$1,250,000		\$1,250,000			
64	Substantial Completion Milestone (CON)		\$0		\$0			
65	Closeout Activities (CON)		\$0		\$0			
66	Demolition (CON)		\$0		\$0			
67	Construction Survey/Staking (CON)		\$0		\$0			
68	Equipment / Technology (CON)		\$0		\$0			
69	Furnishings (CON)		\$0		\$0			
70	Moving/Startup/Commissioning (CON)		\$0		\$0			
71	Establishment costs (post occupancy) (CON)		\$0		\$0			
72	Capital Equipment (CON)		\$0		\$0			
73	Materials Testing /Special Insp. (CON)		\$0		\$0	0.0%		*only use if not within the contractors bid
74	Site Monitoring (CON)	\$30,000	\$30,000		\$30,000	2.3%		Includes Cultural, Environmental
75	Project Commissioning (3rd Party) (CON)		\$0		\$0	0.0%		
76	Post Design/As-Builts (CON)		\$0		\$0	0.0%		
77	Other (CON)		\$0		\$0	0.0%		
78	Internal Labor Rollup (CON)	\$20,000	\$20,000	\$0	\$20,000	1.6%		
79	HP (CON)		\$0		\$0			
80	DOT (CON)	\$10,000	\$10,000		\$10,000			
81	FM (CON)		\$0		\$0			
82	NRPR (CON)		\$0		\$0			
83	RFCD (CON)		\$0		\$0			
84	RWRD (CON)		\$0		\$0			
85	Other Depts (CON)	\$10,000	\$10,000		\$10,000			
86	Subtotal CON	\$1,487,000	\$1,487,000	\$0	\$1,487,000	18.4%	\$237,000	
87								
88	Utility Relocation (UTL)							
89	Electric (TEP, Trico)		\$0		\$0			*hard costs, included in calculation
90	Water (Tucson Water, Others)		\$0		\$0			*hard costs, included in calculation
91	Sewer (RWRD)		\$0		\$0			*hard costs, included in calculation
92	Gas (SW Gas, others)		\$0		\$0			*hard costs, included in calculation
93	Communications (UTL)		\$0		\$0			*hard costs, included in calculation
94	A/E Services (UTL)		\$0		\$0	0.0%		
95	Other (UTL)		\$0		\$0	0.0%		
96	Internal Labor Rollup (UTL)	\$0	\$0	\$0	\$0	0.0%		
97	HP (UTL)		\$0		\$0			
98	DOT (UTL)		\$0		\$0			
99	FM (UTL)		\$0		\$0			
100	NRPR (UTL)		\$0		\$0			
101	RFCD (UTL)		\$0		\$0			
102	RWRD (UTL)		\$0		\$0			
103	Other Depts (UTL)		\$0		\$0			
104	Subtotal UTL	\$0	\$0	\$0	\$0	0.0%	\$0	
105								
106	Public Art (PRT)							
107	Artist Contract (PRT)		\$0		\$0	0.0%		
108	Internal Labor (PRT) - By Division		\$0		\$0	0.0%		
109	Other (PRT)		\$0		\$0	0.0%		
110	Subtotal PRT	\$0	\$0	\$0	\$0	0.0%	\$0	
111								
112	Contingency (CTG)							
113	Design Contingency (CTG)	\$40,000	\$40,000		\$40,000	3.1%		
114	Construction Contingency (CTG)	\$40,000	\$40,000		\$40,000			*hard costs, included in calculation
115	Subtotal CTG	\$80,000	\$80,000	\$0	\$80,000	3.1%	\$40,000	
116								
117								
118	Grand Total	\$2,559,500	\$2,559,500	\$0	\$2,559,500	87.6%	\$899,500	
119								
120	Authorized Funding Sources							
121	CIP RFCD Tax Levy	\$2,560,000	\$2,560,000					
122	source 2		\$0		\$0			
123	source 3		\$0		\$0			
124	source 4		\$0		\$0			
125	source 5		\$0		\$0			
126								
127	Subtotal Funding	\$2,560,000	\$2,560,000					
128	Project budget	\$2,559,500	\$2,559,500					
129								
130								
131	Balance	\$500	\$500					

APPENDIX C – Microsoft Project Schedule

ID	Notes	Task Name	Duration	Start	Finish	Precedence	% Comp	Copy %	Cost	Cost1	2017	2018	2019	2020								
											Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
1		RRUPRR Right-of-Way Culverts at LUPRR	937 days	Mon 1/16/17	Tue 8/19/20	0%	0%	0%	\$2,559,000.00	\$2,559,000.00												
2		Land Acquisition	278 days	Mon 1/16/17	Thu 2/8/18	0%	0%	0%	\$200,000.00	\$200,000.00												
3		Contracted RWY Services (RWY)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$140,000.00	\$140,000.00												
4		Property Purchase (RWY)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
5		Temporary Easement / Agreement (RWY)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
6		Other (RWY)	180 days	Fri 6/2/17	Thu 2/8/18	0%	0%	0%	\$0.00	\$0.00												
7		Internal Labor Rollup (RWY)	278 days	Mon 1/16/17	Thu 2/8/18	0%	0%	0%	\$60,000.00	\$60,000.00												
8		Real Property (RWY)	180 days	Fri 6/2/17	Thu 2/8/18	0%	0%	0%	\$60,000.00	\$60,000.00												
9		HP (RWY)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
10		DOT (RWY)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
11		FM (RWY)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
12		NRPR (RWY)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
13		RFCD (RWY)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
14		RWRD (RWY)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
15		Other Depts (RWY)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
16		Project Development (PLN)	374 days	Mon 1/16/17	Fri 6/22/18	0%	0%	0%	\$230,000.00	\$230,000.00												
17		Procurement (PLN)	7 days	Mon 1/16/17	Tue 1/24/17	0%	0%	0%	\$0.00	\$0.00												
18		AE Services (PLN)	350 days	Mon 1/16/17	Fri 5/18/18	0%	0%	0%	\$200,000.00	\$200,000.00												
19		Site Studies (PLN)	40 days	Wed 8/7/17	Tue 8/17/18SS-10	0%	0%	0%	\$10,000.00	\$10,000.00												
20		Mapping Survey (PLN)	50 days	Mon 2/27/17	Fri 5/17/18SS-30	0%	0%	0%	\$0.00	\$0.00												
21		IGA or other agreement (PLN)	120 days	Mon 1/24/17	Fri 5/18/18FF	0%	0%	0%	\$0.00	\$0.00												
22		Other (PLN)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
23		Internal Labor Rollup (PLN)	374 days	Mon 1/16/17	Fri 6/22/18	0%	0%	0%	\$20,000.00	\$20,000.00												
24		HP (PLN)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
25		DOT (PLN)	375 days	Mon 1/16/17	Fri 6/22/18	0%	0%	0%	\$10,000.00	\$10,000.00												
26		FM (PLN)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
27		NRPR (PLN)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
28		RFCD (PLN)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
29		RWRD (PLN)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
30		Other Depts (PLN)	365 days	Mon 1/16/17	Fri 6/8/18	0%	0%	0%	\$10,000.00	\$10,000.00												
31		Design (DES)	937 days	Mon 1/16/17	Tue 8/19/20	0%	0%	0%	\$562,000.00	\$562,000.00												
32		Procurement (DES)	7 days	Mon 5/21/18	Tue 5/29/18 18	0%	0%	0%	\$0.00	\$0.00												
33		AE Services (DES)	290 days	Wed 5/30/18	Tue 7/9/19 32	0%	0%	0%	\$300,000.00	\$300,000.00												
34		Geotechnical Services (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
35		Site Mitigation Services (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$200,000.00	\$200,000.00												
36		Community Relations (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
37		PM Services (Contracted) (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
38		CM Services (Contracted) (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
39		Permits (DES)	180 days	Wed 9/20/17	Wed 5/30/18 33SF	0%	0%	0%	\$50,000.00	\$50,000.00												
40		Procurement Bids / Advert & Printing (DES)	30 days	Wed 7/10/19	Tue 8/20/19 33	0%	0%	0%	\$2,500.00	\$2,500.00												
41		Commissioning Agent (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
42		Other (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
43		Internal Labor Rollup (DES)	937 days	Mon 1/16/17	Tue 8/19/20	0%	0%	0%	\$10,000.00	\$10,000.00												
44		HP (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
45		DOT (DES)	290 days	Wed 5/30/18	Tue 7/9/19 32	0%	0%	0%	\$5,000.00	\$5,000.00												
46		FM (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
47		NRPR (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
48		RFCD (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
49		RWRD (DES)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
50		Other Depts (DES)	290 days	Wed 7/19/18	Tue 8/19/20 33	0%	0%	0%	\$5,000.00	\$5,000.00												
51		Construction (CON)	858 days	Mon 1/16/17	Wed 4/29/20	0%	0%	0%	\$1,487,000.00	\$1,487,000.00												
52		CM Services (CON)	150 days	Wed 8/21/19	Tue 1/17/20 40	0%	0%	0%	\$187,000.00	\$187,000.00												
53		AE Services (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
54		Construction Rollup costs (CON)	858 days	Mon 1/16/17	Wed 4/29/20	0%	0%	0%	\$1,290,000.00	\$1,290,000.00												
55		Construction (CON)	120 days	Wed 11/13/19	Tue 4/29/20 40FS-60	0%	0%	0%	\$1,250,000.00	\$1,250,000.00												
56		Substantial Completion Milestone (CC)	0 days	Tue 4/29/20	Tue 4/29/20 56	0%	0%	0%	\$0.00	\$0.00												
57		Construction Closeout (CON)	1 day	Wed 4/29/20	Wed 4/29/20 56	0%	0%	0%	\$0.00	\$0.00												
58		Demolition (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
59		Construction Survey/Staking (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
60		Equipment/Technology (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
61		Furnishings (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
62		Moving/Startup (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
63		Establishment Costs (post occupancy)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
64		Capable Equipment (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
65		Materials Testing/Special Inspections (CI)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
66		Site Monitoring (CON)	120 days	Wed 11/13/19	Tue 4/29/20 55SS	0%	0%	0%	\$30,000.00	\$30,000.00												
67		Project Commissioning (3rd Party) (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
68		Post Design/As-Built (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
69		Other (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
70		Internal Labor Rollup (CON)	857 days	Mon 1/16/17	Tue 4/29/20	0%	0%	0%	\$20,000.00	\$20,000.00												
71		HP (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
72		DOT (CON)	120 days	Wed 11/13/19	Tue 4/29/20 55SS	0%	0%	0%	\$10,000.00	\$10,000.00												
73		FM (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
74		NRPR (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
75		RFCD (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
76		RWRD (CON)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
77		Other Depts (CON)	120 days	Wed 11/13/19	Tue 4/29/20 55SS	0%	0%	0%	\$10,000.00	\$10,000.00												
78		Utility Relocation (UTL)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
79		Electric (TEP, Traps)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
80		Water (Tucson Water, Others)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
81		Sewer (RWRD)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
82		Gas (SW Gas, Others)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
83		Communications (UTL)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
84		AE Services (UTL)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
85		Other (UTL)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
86		Internal Labor Rollup (UTL)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
87		HP (UTL)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
88		DOT (UTL)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
89		FM (UTL)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00	\$0.00												
90		NRPR (UTL)	1 day	Mon 1/16/17	Mon 1/16/17	0%	0%	0%	\$0.00													

APPENDIX D – Team Member Meeting Minutes

Summary of Email and Meeting Communications with Team members

Sandi Garrick, PC Admin, Utility Coordination

Met several times, preliminary email sent to Alex Popovici, UPRR, response was to contact Norma Reynolds, preliminary email sent to Norma

Mike Cabrera, Flood Control

Met to discuss environmental permitting, should be able to utilize Section 10 permit, PJD will be done in house, any application to ACOE will be done by a consultant

Russ Wise, Flood Control

Russ provided background data including previously approved agreement with UPRR.

Karla Reeve Wise, Environmental Quality

Recommended talking to Russ regarding his project. Recommended no full BE rather a memo outlining disturbed area.

Neil Konigsberg, Real Property

Holding until we have more information about potential easements or acquisitions

Roger Anyon, Sustainability and Conservation

Cultural resources will be handled as a QCL contract with EcoPlan through the Sustainability and Conservation Office.



GATE AGENDA / MINUTES

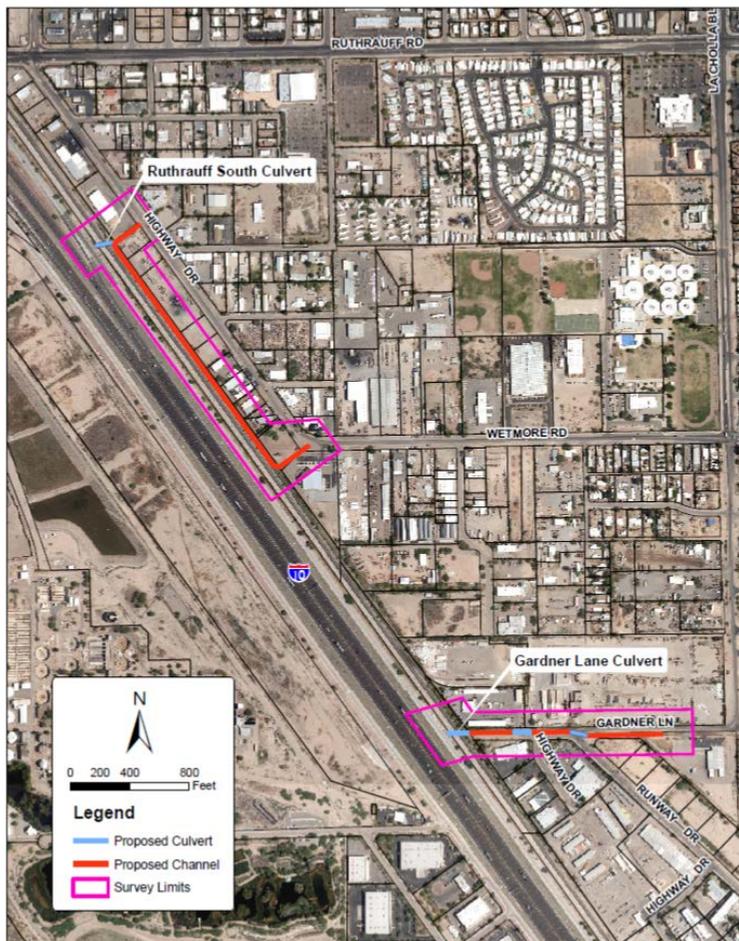
Meeting Date:	January 10, 2017	Gate Type / No.:	1-1
Department:	RFCD	Project Manager:	Janice Hughes
Project ID:	CFC-5RUPRR	Project Name:	Ruthrauff, Gardner Lane UPRR Culverts

Invitees, Attendees:

Nanette Slusser, Nancy Cole, Suzanne Shields, Larry Robison, Janice Hughes, Sandi Garrick, Fred Felix, Tony Schiavone, Roger Anyon, Julia Fonseca, Anthony Cuaron, Neil Konigsberg, Ana Olivares, Carla Danfoth, Evan Canfield, Mike Cabrera

Location/Site Map (include outline of polygon)

Has GPS Polygon changed from Project Charter? Yes or No





Project Scope	
<p>Initial Project Charter Scope: The project will begin the design process for a culvert and channel at Gardner Lane/UPRR and a second culvert and channel at the UPRR between Wetmore Road and Ruthrauff Road. This second location is called Ruthrauff South. Concept Design Plans will be developed and submitted to the UPRR to initiate the right-of-way permit. The preferred design alternative is to utilize UPRR R/W for the collector channels. Other less effective alternatives would utilize existing roadway rights of way. Due to the need to maintain railroad operations during construction the project will consider jack and bore locations. . The initial work will include survey, PISA and Cultural survey. It is assumed that this project will utilize the County's MSCP Section 10 Permit. Initial hydrology and hydraulics will utilize information from the RBMS. Utility notifications and potholing will be conducted to more fully understand potential utility conflicts. Kinder Morgan, Century Link, Tucson Water and RWRD have facilities in the area.</p> <p>Once an agreement is reached with the railroad, the project can move forward with final design and construction documents. A 2-1 Gate will be held at that time.</p> <p>Public Art funds will be transferred to a project in a more appropriate location.</p>	
<p>New/Proposed Scope Modifications (If any):</p> 	
<p>Construction Procurement Method:</p>	Different from Project Charter? Yes <input type="checkbox"/> or No <input checked="" type="checkbox"/>

1. Update – Risk: Unknown utility	
Mitigation Strategy:	
Discussion/Action:	

2. Update – Risk: Scheduling determined by UPRR	
Mitigation Strategy:	
Discussion/Action:	

3. Update – Risk: Cultural Mitigation	
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Mitigation Strategy:

Discussion/Action:

4. Update – Risk: Section 10 Permit

Mitigation Strategy:

Discussion/Action:

Lessons Learned to Date

Meeting Minutes of Discussion on Lessons Learned:

Review Project Schedule (Use Microsoft Project Schedule)

Meeting Minutes of Discussion on Schedule:

Review Project Cost Model (Use Cost Model)

Meeting Minutes of Discussion on Cost Model:



GATE APPROVAL FORM

Project Name: Ruthrauff Culverts at UPRR

Project ID: CFC.5RUPRR

Project Manager: Janice Hughes

Meeting Date: January 10, 2017

Gate Number: 1.1 Entry / Project Charter

Gate Decision:

- Project unconditionally approved - proceed to next Gate
- Project conditionally proceeds and must address open items.

Describe Conditions, using additional pages if necessary:

- Project is delayed, cancelled or denied. Explain:

Comments (Use additional pages if necessary):

1. Add a note to document the reasoning behind the higher than typical soft costs. This project includes watershed and design coordination for the watershed beyond just these two smaller initial culverts. Additionally, this includes coordination w/ ADOT, UPRR, other utilities and cultural sites.
2. Cultural notes that if a 404 nexus occurs at a cultural site, there will be extended consultation triggers/ timeline. Project has timeline for this issue if necessary.

NEXT GATE: 2-1

ESTIMATED DATE: 4/2018

**PIMA COUNTY PROJECT MANAGEMENT & GATE PROCESS MANUAL
GATE AGENDA/MINUTES**



Team Member Recommendation: (A – Approve, D – Deny, C – Conditional)

Name (Print)	Signature	Date	A/D/C
ANTHONY SCHIAVONE	<i>[Signature]</i>	1/10/17	A
PETER ANDERSON	<i>[Signature]</i>	1/10/17	A
MIKE CABRERA	<i>[Signature]</i>	1/10/17	A
Evan Canfield	<i>[Signature]</i>	1/10/17	A
ROGER ANTON	<i>[Signature]</i>	1/10/17	A
Nancy Cole	<i>[Signature]</i>	1-10-17	A
BILL ZIMMERMAN	<i>[Signature]</i>	1-10-17	A
LARRY ROBISON	<i>[Signature]</i>	1/10/17	A
Brian Smith	<i>[Signature]</i>	1/10/17	A
Andy Dinauer	<i>[Signature]</i>	1/10/17	A
Fred Felix	<i>[Signature]</i>	1/10/17	A

Gate Approval Signatures:

Name (Print)	Signature	Date	A/D/C
Project Manager: Janice Hughes, PE	<i>[Signature]</i>	1/16/17	A
Department Management: Suzanne Shields, PE	<i>[Signature]</i>	1/16/17	A
Public Works Administration: NANETTE SWANER	<i>[Signature]</i>	1/10/17	A

APPENDIX E - CIP Program/Phase Maintenance Request Form

