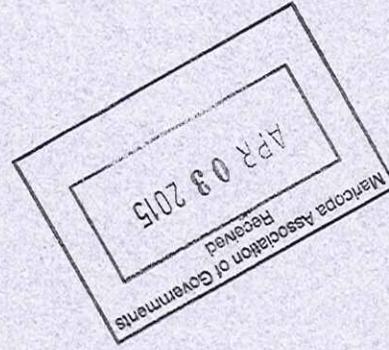


PC 1 - GERMANN
Rd



Germann
Road
from
Meridian
Road to
Ironwood
Drive

April 3

2015



PINAL • COUNTY
wide open opportunity

MAG Surface
Transportation
Program for
Pinal County

Pinal County Area - STP Application

Checklist (Optional)

Instructions	1. This page must be submitted with the printed copy of the application 2. It must be signed by the jurisdiction's manager/administrator or designated representative 3. The checklist at the bottom of the sheet is optional	
Category	Data Item	Item Enter (Yes/No)
Project Page		
1. Project Sponsorship	Project Sponsor Name	Yes
	Other Participating Agencies	No
2. Project Location	Identify the Project Location (50 Char Limit)	Yes
	Attach a map depicting the project.	Yes
	Attach a vicinity map of the project	Yes
3. Project Work Description	Provide a short work description (50 char limit)	Yes
	Overview - please describe the work to be performed, its benefits and costs	Yes
4. Proximity to the Nearest Employment and Commercial Center	Employment Center	Yes
	Name of Nearest Employment Center	Yes
	Approximate Number of Employees at the center	Yes
	Distance to the project	Yes
	Commercial Center	Yes
	Name of Nearest Commercial Center	Yes
	Approximate Square Footage of the Commercial Center	Yes
5. Regional Connectivity	Connectivity	Yes
	If the check box above is checked, briefly discuss how the project improves regional/multijurisdictional connectivity.	Yes
6. Agency Plans	Included in Agency Plans	Yes
	If the check box above is checked, briefly discuss jurisdiction General/Transportation Plan and the role of the project in the plan.	Yes
7. Community Involvement	Is the project a community request	Yes
Roadway Page(s) - Check all roadway pages submitted for funding		
1. Roadway Location	Roadway Name	Yes
	Starting Limit	Yes
	Ending Limit	Yes
	Length (to nearest 10th of a mile)	Yes
2. Federal Functional Classification	Please select the federal functional classification of the roadway	Yes
3. Current Typical Cross Section	Attach a cross section diagram that details a typical cross section of the roadway to be improved.	Yes
	Attach a photo(s) of the current roadway	Yes
	Number of Through Lanes (Both directions)	Yes
4. Bridge Condition (Required only for bridge projects)	Bridge Sufficiency Rating (from ADOT NBI Table)	NA
	Bridge Status (from ADOT NBI Table)	NA
5. Pavement Condition	Pavement Type	Yes
	Pavement Rating	NA
	Name or Description of Rating System Used - e.g. PCI, PSR, etc..	NA
	Rating system scale - please describe the scale used in the rating system - e.g. it ranges from 1 to 100 with 100 being the best condition.	NA
	Date of Rating	NA
6. Traffic	Rating	NA
	Traffic Count	Yes
	Please describe how the count was collected	Yes
	Date of Count	NA
	AADT	Yes
	K-Factor - Percent of traffic in the peak hour	Yes
	D-Factor - Percent of design hour volume flowing in the peak hour direction	Yes
	Number of lanes in the Peak Hour Direction	Yes
Posted Speed Limit (mph)	Yes	
7. Safety	Peak Hour Speed (mph)	Yes
	Number of crashes in last 3 years by crash type.	Yes
	Number of fatality crashes	Yes
	Number of incapacitating crashes	Yes
	Number of non incapacitating crashes	Yes
	Number of possible injury crashes	Yes
8. Multimodal	Number of property damage only crashes	Yes
	Multimodal characteristics (check all that apply)	Yes

Pinal County Area - STP Application

Checklist (Optional)

9. Proposed Functional Classification	Please select the federal functional classification of the roadway	Yes
10. Proposed Typical Cross Section	Attach a cross section diagram that details a typical cross section of the roadway to be improved. Number of Through Lanes on the improved roadway (Both directions)	Yes Yes
11. Access Control Improvements	Please describe access control issues and proposed improvements	Yes
12. Alignment Improvements	Describe horizontal alignment issues and proposed improvements Describe vertical alignment and proposed improvements	Yes Yes
13. Drainage Improvements	Describe drainage issues and proposed improvements	Yes
14. Bridge improvements (Required for bridge projects only)	Describe Bridge issues and proposed Improvements	NA
15. Pavement Improvements	Proposed Pavement Type Describe the current condition of the pavement and proposed improvements	Yes Yes
16. Traffic Improvements	Describe traffic issues and proposed Improvements	Yes
17. Safety Improvements	Describe safety issues and proposed Improvements	Yes
18. Multimodal Improvements	Describe multimodal issues and proposed Improvements	Yes
19. Environmental	Please describe environmental impacts or challenges of the project - e.g. endanger species, cultural assets, hazardous materials sites, 4Fs, Title VI populations, wet lands that would be affected by the project.	Yes
20. Right-of-way	Please describe right-of-way issues - e.g. whether right-of-way will be required, how much right-of-way will be required, if right-of-way is needed are actors such as the State Lands Department be involved, etc.	Yes
21. Development Activity	Please describe planned and ongoing development activity that could impact the proposed project	Yes
22. Utilities	Please describe utilities that could impact the proposed project	Yes
Intersection Page(s) - Check all intersection pages submitted for funding		
1. Intersection Location	Roadway Name A Roadway Name B	Yes Yes
2. Federal Functional Classification	Federal Functional Classification of Roadway A Federal Functional Classification of Roadway B Link to Functional Classification Maps	Yes Yes Yes
4. Current Intersection Configuration	Attach an intersection diagram Attach a photo(s) of the current intersection Number of through lanes Roadway A Roadway B	Yes Yes Yes Yes Yes
5. Pavement Condition	Pavement Type Pavement Rating Name or Description of Rating System Used - e.g. PCI, PSR, etc.. Rating system scale - please describe the scale used in the rating system - e.g. it ranges from 1 to 100 with 100 being the best condition. Date of Rating Rating	Yes Yes Yes Yes Unknown Yes
6. Traffic	Traffic Volume in the Peak Hour by approach Approach 1 traffic volume Approach 2 traffic volume Approach 3 traffic volume Approach 4 traffic volume	Yes Yes Yes Yes
7. Safety	Number of crashes in last 3 years by crash type. Number of fatality crashes Number of incapacitating crashes Number of non incapacitating crashes Number of possible injury crashes Number of property damage only crashes	Yes Yes Yes Yes Yes Yes
8. Multimodal	Multimodal characteristics (check all that apply)	Yes
9. Federal Functional Classification	Federal Functional Classification of Roadway A Federal Functional Classification of Roadway B Link to Functional Classification Maps	Yes Yes Yes
10. Proposed Typical Cross Section	Attach a cross section diagram that details a typical cross section of the roadway to be improved.	Yes
11. Access Control Improvements	Please describe access control issues and proposed improvements	Yes
12. Pavement Improvements	Proposed Pavement Type Describe pavement issues and proposed Improvements	Yes Yes

Pinal County Area - STP Application

Checklist (Optional)

13. Traffic Improvements	Traffic Congestion	Yes
	Describe traffic issues and proposed Improvements	Yes
14. Safety Improvements	Safety Impacts	Yes
	Describe safety issues and proposed Improvements	Yes
15. Multimodal Improvements	Describe multimodal issues and proposed Improvements	Yes
16. Environmental	Please describe environmental impacts or challenges of the project - .e.g. endanger species, cultural assets, hazardous materials sites that would be affected by the project.	Yes
17. Right-of-way	Please describe right-of-way issues - e.g. whether right-of-way will be required, actors such as the State Lands Department will be involved, etc.	Yes
18. Development Activity	Please describe planned and ongoing development activity that could impact the proposed project	Yes
19. Utilities	Please describe utilities that could impact the proposed project	Yes
Budget Page		
1. Project Budget	Preliminary Engineering and Final Design	Yes
	Right of way	Yes
	Construction	Yes
2. Agency CIP	Please describe the agency programming in its CIP	Yes
3. Proposed Programming	Work Phase	Yes
	Year to be Programmed	Yes
	Funding Source	Yes
	Federal Amount	Yes
	Local Amount	Yes
	Work Phase	Yes
	Year to be Programmed	Yes
	Funding Source	Yes
	Federal Amount	Yes
	Local Amount	Yes
	Work Phase	
	Year to be Programmed	
	Funding Source	
	Federal Amount	
	Local Amount	
	Work Phase	
	Year to be Programmed	
	Funding Source	
	Federal Amount	
	Local Amount	
Signature Area	Signature	Yes
	Name	Yes
	Title	Yes
	Date	Yes

Pinal County Area - STP Application

Project Description Sheet		
Instructions	1. Please enter values for all cells with a green fill pattern 2. All cells are required. If the information is not applicable enter "None" or 0.	
1. Project Sponsorship	Project Sponsor Name	Pinal County
	Other Participating Agencies	The Germann Road project is well supported by other governmental agencies. Letters of support were received from the City of Mesa and Town of Queen Creek. Reference Attachment 1 - Letters of Support
2. Project Location	Identify the Project Location (50 Char Limit)	Germann Road from Meridian Road to Ironwood Drive.
	Attach a map depicting the project.	Reference Attachment 2 - Project Location Map
	Attach a vicinity map of the project	Reference Attachment 3 - Project Vicinity Map
3. Project Work Description	Provide a short work description (50 char limit)	Design and construct a new roadway.
	Overview - please describe the work to be performed, its benefits and costs	The project will address regional connectivity by designing, acquiring right-of-way for, and constructing a 28-foot wide roadway to Pinal County roadway standards. When constructed, Germann Road will provide an east-west corridor to enable motorists to access the new State Route (SR) 24 located on Ellsworth Road approximately 3 miles north of Germann Road. Ellsworth Road is approximately 3 miles west of the meridian alignment. Germann Road from Ironwood Drive to Meridian Road will serve as an interim connection as the state freeway system is developed. Design plans for the Germann Road project have been prepared; however, they will need to be updated and reviewed by ADOT for conformity with state procurement procedures. The project design and construction costs are estimated and shown on the cost tab of this application.
4. Proximity to the Nearest Employment and Commercial Center	Employment Center	
	Name of Nearest Employment Center	The Germann Road project is within 6 miles of the Mesa Gateway Airport area. The area surrounding the airport is the business center for approximately 40 employers and 1,770 employees including Arizona State University with 351 employees.
	Approximate Number of Employees at the center	1,770
	Distance to the project	≥ 4 miles
	Commercial Center	
	Name of Nearest Commercial Center	The TRW Mesa facility is located at 11202 East Germann Road and a nursery is located at 21919 E. Germann Road.
	Approximate Square Footage of the Commercial Center	500000
	Distance to the project	< 1 mile
5. Regional Connectivity	Connectivity	<input checked="" type="checkbox"/> The project improves regional/multijurisdictional connectivity
	If the check box above is checked, briefly discuss how the project improves regional/multijurisdictional connectivity.	This segment of Germann Road does not exist. When constructed, motorist will be able to travel along Germann Road from Ironwood Drive to Ellsworth Road (4 miles) and then along Ellsworth Road from Germann Road to State Route 24 (3 miles) to access the Town of Queen Creek, City of Mesa, and SR24-Loop 202.
6. Agency Plans	Included in Agency Plans	<input checked="" type="checkbox"/> The project project is identified in the jurisdiction General/Transportation Plan
	If the check box above is checked, briefly discuss jurisdiction General/Transportation Pan and the role of the project in the plan.	The Germann Road project was first identified in Pinal County's 5-Year Transportation Program in 2011. Currently, the project is listed in the Draft 2015 Pinal County's 5-Year Transportation Improvement and Maintenance Program (TIMP) in Budget Year 2014-2015 although construction funding is not identified. Pinal County staff anticipates approval of the TIMP in June 2015. With federal STP funding, Pinal County will be able construct Germann Road in 2019. Pinal County's matching funding is allocated through the county's Safety Program listed in the TIMP (Budget Years 2016-2017 through 2018-2019).
7. Community Involvement	Is the project a community request	<input checked="" type="checkbox"/> The project been requested through a neighborhood or community meeting or by council/board/commission outside of
	If the check box above is checked, briefly describe the nature of the community request.	The project has been a high transportation priority for Pinal County leadership and San Tan Valley residents once Ironwood Drive from Bella Vista Road to U. S. 60 was improved in 2008. Pinal County has invested substantial resources with design of Germann Road but did not have the entire funding for construction allocated. Pinal County staff has responded to at least 50 inquiries from concerned citizens and continues to receive many requests from San Tan Valley residents for an additional east-west connection from Ironwood Drive into Queen Creek, Mesa, and the new SR 24-Loop 202. Community members will benefit from this project by having an alternate access to SR 24 as they travel into Maricopa County.

Pinal County Area - STP Application

Roadway Segment Sheet

Instructions	<p>1. This sheet is required for all roadway segment and bridge projects. Please omit if the project is exclusively an intersection project.</p> <p>2. Items for #4 and #14 may be omitted for non bridge projects, all other green colored cells are required</p> <p>3. A Excel work sheet for each distinct roadway section or segment is required. To add a new worksheet to this Excel workbook file, do the following:</p> <ul style="list-style-type: none"> > Right Click on the Roadway tab at the bottom of the screen > Select the "Move or Copy" option > Select the "Roadway" sheet > Check the "Create Copy" box > Click the "Okay" button 	
1. Roadway Location	Roadway Name	Germann Road from Meridian Road to Ironwood Drive.
	Starting Limit	The starting limit for Germann Road is approximately at the meridian section line where the new pavement will meet existing pavement.
	Ending Limit	The ending limit for Germann Road is at its intersection with Ironwood Drive. The intersection of Germann Road and Ironwood Drive is currently paved and has an existing traffic signal.
	Length (to nearest 10th of a mile)	1.17
Current Roadway Characteristics		
2. Federal Functional Classification	Please select the federal functional classification of the roadway	<input type="text" value="Minor Arterial"/>
	Link to Functional Classification Maps Pinal County Functionally Classified Roads (2/22/2011)	
3. Current Typical Cross Section	Attach a cross section diagram that details a typical cross section of the roadway to be improved.	(Attach cross section diagram that depicts the lane configuration, shoulders, the median, bicycle lanes, sidewalks, access control features such as barriers and adjoining features such as canals. Widths of features should be included and type of paving should be indicated) Reference Attachment 4 - Cross Section Diagram
	Attach a photo(s) of the current roadway	(Attach photo(s) of the roadway) Reference Attachment 5 - Photos
	Number of Through Lanes (Both directions)	1
4. Bridge Condition (Required only for bridge projects)	Bridge Sufficiency Rating (from ADOT NBI Table)	0
	Bridge Status (from ADOT NBI Table)	<input type="checkbox"/> Is Structurally Deficit <input type="checkbox"/> Is Functionally Obsol
	Link to ADOT NBI Table None	
5. Pavement Condition	Pavement Type	<input type="text" value="Unpaved"/>
	Pavement Rating	The 190-foot by 70-foot existing pavement area on the west leg of the Germann Road and Ironwood Drive intersection is in good condition. Existing pavement on the west end of the project servicing the dairy will be removed.
	Name or Description of Rating System Used - e.g. PCI, PSR, etc..	Pavement Condition Index (PCI)
	Rating system scale - please describe the scale used in the rating system - e.g. it ranges from 1 to 100 with 100 being the best condition.	Scale = 1 to 100
	Date of Rating	
	Rating	NA
6. Traffic	Traffic Count	According to Table 7-2 in the Germann Road Corridor Improvement Study from Power Road to Ironwood Road prepared for ADOT in July 2013 by Wilson and Company, the estimated traffic volume will be 28,000 vehicles per day in year 2035.
	Please describe how the count was collected	Pinal County obtained traffic counts for Ocotillo Road East of County line from Field Data Services. The date of the count is 12/16/2014. Reference Attachment 6 - Traffic Count. Data shown below is for Ocotillo Road as a parallel road comparison.

Pinal County Area - STP Application

Roadway Segment Sheet		
	Date of Count	12/16/2014
	AADT	20140
	K-Factor - Percent of traffic in the peak hour	61%
	D-Factor - Percent of design hour volume flowing in the peak hour direction	61%
	Number of lanes in the Peak Hour Direction	1
	Posted Speed Limit (mph)	45
	Peak Hour Speed (mph)	55
7. Safety	Number of crashes in last 3 years by crash type.	Crash history for Germann Road from Ironwood Drive to the meridian alignment is not available since no roadway currently exists. However, a Safety Analysis Report was received from MAG ITS and Safety for Ocotillo Road as a parallel road from Ironwood Drive to Meridian Road. The report cited 87 total crashes and are also shown below for the three year period between 2011-2013. Reference Attachment 7 - Crash Data
	Number of fatality crashes	1
	Number of incapacitating crashes	5
	Number of non incapacitating crashes	7
	Number of possible injury crashes	12
	Number of property damage only crashes	62
8. Multimodal	Multimodal characteristics (check all that apply)	<input checked="" type="checkbox"/> Roadway has transit route <input type="checkbox"/> Has striped bicycle lanes
Proposed Roadway Characteristics and Improvements		
9. Proposed Functional Classification	Please select the federal functional classification of the roadway	Minor Arterial ▼
	Link to Functional Classification Maps	Pinal County Functionally Classified Roads (2/22/2011)
10. Proposed Typical Cross Section	Attach a cross section diagram that details a typical cross section of the roadway to be improved.	Reference Attachment 8 - Typical Cross Section
	Number of Through Lanes on the improved roadway (Both directions)	2
11. Access Control Improvements	Please describe access control issues and proposed improvements	There are no intersecting streets onto Germann Road planned at this time. Germann Road from Meridian Road to Ironwood Drive is envisioned to be a connector road to allow traffic to access Ellsworth Road and subsequently the new SR 24.
12. Alignment Improvements	Describe horizontal alignment issues and proposed improvements	Horizontal alignment of the new roadway is designed as shown on the plans for the project. A horizontal realignment of Germann Road will be required at the west end of the project to connect the new road to the existing Germann Road. This realignment is needed to accommodate for the offset in section lines near the county boundary
	Describe vertical alignment and proposed improvements	Vertical alignment of the new roadway is designed as shown on the plans for the project.

Pinal County Area - STP Application

Roadway Segment Sheet		
13. Drainage Improvements	Describe drainage issues and proposed improvements	Drainage improvements will include a V-Ditch as shown on the Roadway Cross Section to accommodate surface drainage. The roadway is designed to have a 2% one-way crown to allow sheet flow drainage across the roadway. According to the Pinal County Area Drainage Master Plan, an estimated 1500 cfs flows across Germann Road at the Meridian alignment from south to north for the 100 year event. A three barrel 4-foot high by 10-foot span concrete box culvert is added to the cost estimate to accommodate flow for the 25-year event having no more than 8 inches overtopping the roadway.
14. Bridge improvements (Required for bridge projects only)	Describe Bridge issues and proposed Improvements	There are no bridges associated with this project.
15. Pavement Improvements	Proposed Pavement Type	<div style="border: 1px solid black; padding: 2px;">Asphaltic Concrete ▼</div>
	Describe the current condition of the pavement and proposed improvements	Proposed improvements consist of a 28-foot wide section of roadway having 5 inches of asphalt on 10 inches of aggregate base course as shown on the plans for the project. There is a section of existing asphalt pavement approximately 70-feet wide by 190-feet long on the west leg of Germann Road at the intersection of Ironwood Drive. This existing pavement is in good condition with an estimated PCI of 80. New pavement will tie into this existing pavement.
16. Traffic Improvements	Describe traffic issues and proposed Improvements	Proposed improvements consist of one-twelve foot wide travel lane in each direction. Two foot paved shoulders will be provided on either side of roadway.
17. Safety Improvements	Describe safety issues and proposed Improvements	The project is designed in accordance with current safety guidelines published by the American Association of State Highway and Transportation Officials (AASHTO) and the current edition of the Manual of Uniform Traffic Control Devices (MUTCD).
18. Multimodal Improvements	Describe multimodal issues and proposed Improvements	This project will provide an additional route for buses to access the State Highway System.
Environmental, Right-of-way and Other Considerations		
19. Environmental	Please describe environmental impacts or challenges of the project - .e.g. endanger species, cultural assets, hazardous materials sites, 4Fs, Title VI populations, wet lands that would be affected by the project.	Project plans include details to reconfigure an evaporation pond for the dairy near the meridian section line. The pond will be excavated for expansion on the south and filled in on the north for the new roadway. A clay liner is planned to contain the liquid within the pond area. Permits from the appropriate agency will be obtained for this work.
20. Right-of-way	Please describe right-of-way issues - e.g. whether right-of-way will be required, how much right-of-way will be required, if right-of-way is needed are actors such as the State Lands Department be involved, etc.	50 feet of right-of-way (ROW) currently exists along the south side of the section line that is sufficient width to accommodate the new 28-foot wide paved roadway. However, approximately 1.23 acres of new ROW will need to be acquired to accommodate the horizontal realignment of Germann Road near the meridian alignment. A cost for this new ROW is included with the estimate as a 100% County cost.
21. Development Activity	Please describe planned and ongoing development activity that could impact the proposed project	Vacant land currently exists along the project corridor. There is no planned or ongoing development that is expected to impact the proposed project.
22. Utilities	Please describe utilities that could impact the proposed project	An amount of \$350,000 is included in the project cost estimate to accommodate existing utility relocations. There are approximately 19 power poles shown on the plans to be relocated by others.

Pinal County Area - STP Application

Traffic Intersection Sheet

Traffic Intersection Sheet		
1. Intersection Location	Roadway Name A	Germann Road at Ironwood Drive.
	Roadway Name B	Germann Road at Meridian Section Line
Current Intersection Characteristics		
2. Federal Functional Classification	Federal Functional Classification of Roadway A	Minor Arterial <input type="button" value="▼"/>
	Federal Functional Classification of Roadway B	Minor Arterial <input type="button" value="▼"/>
	Link to Functional Classification Maps	Pinal County Functionally Classified Roads (2/22/2011)
4. Current Intersection Configuration	Attach an intersection diagram	Reference Attachment 9 - Intersection Diagram
	Attach a photo(s) of the current intersection	Reference Attachment 10 - Current Intersection Photo
	Number of through lanes	For Germann Road on either side of Ironwood Road.
	Roadway A	2
	Roadway B	2
5. Pavement Condition	Pavement Type	Asphaltic Concrete <input type="button" value="▼"/>
	Pavement Rating	The 190-foot by 70-foot existing pavement area on the west leg of the Germann and Ironwood intersection is in good condition. The existing pavement on the west end of the project servicing the dairy will be removed.
	Name or Description of Rating System Used - e.g. PCI, PSR, etc..	PCI
	Rating system scale - please describe the scale used in the rating system - e.g. it ranges from 1 to 100 with 100 being the best condition.	Scale = 1 to 100
	Date of Rating	
	Rating	80
6. Traffic	Traffic Volume in the Peak Hour by approach	Pinal County obtained traffic counts for Ocotillo Road East of County line from Field Data Services. The date of count is 12/16/2014. Reference Attachment 11 - Traffic Counts. Data shown below is for Ocotillo Road as a parallel road comparison.
	Approach 1 traffic volume	20140
	Approach 2 traffic volume	0
	Approach 3 traffic volume	0
	Approach 4 traffic volume	0

Pinal County Area - STP Application

Traffic Intersection Sheet

7. Safety	Number of crashes in last 3 years by crash type.	NA
	Number of fatality crashes	
	Number of incapacitating crashes	
	Number of non incapacitating crashes	
	Number of possible injury crashes	
	Number of property damage only crashes	
8. Multimodal	Multimodal characteristics (check all that apply)	<input checked="" type="checkbox"/> Roadway has transit route <input type="checkbox"/> Has striped bicycle lanes
Proposed Intersection Characteristics and Improvements		
9. Federal Functional Classification	Federal Functional Classification of Roadway A	Minor Arterial ▼
	Federal Functional Classification of Roadway B	Minor Arterial ▼
	Link to Functional Classification Maps	Pinal County Functionally Classified Roads (2/22/2011)
10. Proposed Typical Cross Section	Attach a cross section diagram that details a typical cross section of the roadway to be improved.	Reference Attachment 12 - Cross Section Diagram
11. Access Control Improvements	Please describe access control issues and proposed improvements	In regards to access control, it is anticipated that most traffic will enter onto Germann Road from Ironwood Drive where there is an existing traffic signal. Between Ironwood Drive and the meridian alignment, there are no plans for new intersecting roads; however, some traffic will enter onto Germann Road via driveways from the existing dairy.
12. Pavement Improvements	Proposed Pavement Type	Asphaltic Concrete ▼
	Describe pavement issues and proposed improvements	Proposed improvements consist of a 28-foot wide section of roadway having 5 inches of asphalt on 10 inches of aggregate base course as shown on the plans for the project.
13. Traffic Improvements	Traffic Congestion	<input checked="" type="checkbox"/> Proposed improvements improve traffic throughput in the intersection
	Describe traffic issues and proposed improvements	The segment of Germann Road will improve connectivity from Ironwood Drive to Meridian Road.
14. Safety Improvements	Safety Impacts	<input checked="" type="checkbox"/> Proposed improvements address safety issues at a current intersection
	Describe safety issues and proposed improvements	The pavement marking and signing plans show the new Germann Road west of Ironwood Drive will line up with Germann Road east of Ironwood Drive through the use of a reverse curve on the west side of the intersection. All signing and pavement markings are in accordance with the current MUTCD.
15. Multimodal Improvements	Describe multimodal issues and proposed improvements	This project will provide an additional route for buses to access the State Highway System.

Pinal County Area - STP Application

Traffic Intersection Sheet

Proposed Intersection Characteristics and Improvements

16. Environmental	Please describe environmental impacts or challenges of the project - .e.g. endanger species, cultural assets, hazardous materials sites that would be affected by the project.	Project plans include details to reconfigure an evaporation pond for the dairy near the meridian section line. The pond will be excavated for expansion on the south and filled in on the north for the new roadway. A clay liner is planned to contain the liquid within the pond area. Permits from the appropriate agency will be obtained for this work.
17. Right-of-way	Please describe right-of-way issues - e.g. whether right-of-way will be required, actors such as the State Lands Department will be involved, etc.	50-feet of right-of-way (ROW) currently exists along the south side of the section line that is sufficient width to accommodate the new 28-foot wide paved roadway. However, approximately 1.23 acres of new ROW will need to be acquired to accommodate the horizontal realignment of Germann Road near the meridian alignment. A cost for this new ROW is included with the estimate as a 100% County cost.
18. Development Activity	Please describe planned and ongoing development activity that could impact the proposed project	Vacant Land currently exists along the project corridor. There is no new planned or ongoing development that is expected to impact the proposed project.
19. Utilities	Please describe utilities that could impact the proposed project	An amount of \$375,000 is included in the project cost estimate to accommodate existing utility relocations. There are approximately 25 power poles shown on the plans to be relocated by others.

Germann Road From Meridian Road to Ironwood Road (1.17 mi x 28' Roadway)
 April 1, 2015 Application for STP Funds Thru Maricopa Association of Governments (MAG)

ITEM NO	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL AMOUNT
1	Construction Survey & Layout	LS	1	\$15,000.00	15,000
2	AZPDES (NPDES) Construction Permit Requirements (SWPPP)	LS	1	\$10,000.00	10,000
3	Erosion Control (Wattles) 12"	LF	12,300	\$1.75	21,525
4	Traffic Control	LS	1	\$20,000.00	20,000
5	Contractor Quality Control	LS	1	\$15,000.00	15,000
6	Mobilization	LS	1	\$80,000.00	80,000
7	Clearing & Grubbing	Acre	4	\$1,500.00	6,000
8	Remove Existing Tree 12" Trunk & Larger	EA	10	\$500.00	5,000
9	Remove Pipe, Backfill & Compact, Dia<30"	LF	196	\$20.00	3,920
10	Remove Existing Sidewalk	SF	42	\$9.00	378
11	Remove Chain Link Fence	LF	1,450	\$9.00	13,050
12	Remove Existing Barb Wire Fence	LF	260	\$10.00	2,600
13	Remove Existing Pavement by Milling	SY	6,200	\$4.00	24,800
14	Haul Millings to Nearest County Yard	Ton	2,000	\$10.00	20,000
15	Roadway Excavation	CY	12,800	\$8.00	102,400
16	Import Borrow Material	Ton	1,850	\$10.00	18,500
17	Earthwork for Retention Basins	CY	2,519	\$5.00	12,595
18	Sawcutting	LF	65	\$2.00	130
19	Subgrade Preparation	SY	19,219	\$4.00	76,876
20	Aggregate Base Course, (10")	Ton	9,691	\$16.00	155,056
21	Asphalt Concrete Pavement (2" R-12.5mm)	Ton	2,205	\$80.00	176,400
22	Asphalt Concrete Pavement (3" R-19mm)	Ton	3,243	\$85.00	275,655
23	Bituminous Tack Coat	Ton	8	\$550.00	4,400
24	Survey Marker, MAG Det. 120-1, Type A	EA	6	\$500.00	3,000
25	Barbed Wire Fence, ADOT Std. Dwg. C-12.10, Type 1	LF	5,954	\$5.00	29,770
26	Fence Gate, Single, ADOT Std. Dwg. C-12.10, Type 1, L=20'	EA	1	\$400.00	400
27	6" White Thermoplastic Pavement Marking	LF	12,355	\$0.75	9,266
28	6" Yellow Thermoplastic Pavement Marking	LF	12,355	\$0.75	9,266
29	Thermoplastic Left Turn Arrow	EA	2	\$170.00	340
30	Thermoplastic Right Turn Arrow	EA	1	\$170.00	170
31	Thermoplastic Pavement Legend *ONLY*	EA	1	\$200.00	200
32	ReflectORIZED Raised Pavement Marker (Type D, Yellow 2-Way)	EA	154	\$6.00	924
33	Perforated Sign Post ADOT Std Dwg S-1, Sheet 1	LF	163	\$15.00	2,445
34	Perforated Sign Post & Foundation ADOT Std Dwg S-1, Sheet 2&3	EA	17	\$225.00	3,825
35	Flat Sheet Aluminum Sign Panel, ASTM D-04956-01A Type X1 Sheeting	SF	75	\$25.00	1,875
36	36" CMP, 12 Guage, Bituminous Coated	LF	40	\$175.00	7,000
37	18" CMP, 12 Guage, Bituminous Coated	LF	40	\$100.00	4,000
38	Structural Concrete ADOT Class S, fc'=3000 psi	CY	630	\$350.00	220,500
39	Reinforcing Steel	LB	99,140	\$0.75	74,355
40	Structural Excavation and Backfill	CY	2,338	\$8.00	18,704
41	Notification Signage	EA	2	\$3,000.00	6,000
	Subtotal Items 1 thru 41				1,436,325
	Construction Contingency for Estimate (5%)	EST %			71,816
	Construction Engineering for Estimate (15%)	EST %			215,449
	Post Design Services	LS	1		5,000
	Original Available for Construction				1,728,590
	Engineering Design & Environmental by Consultant (14% of Subtotal for Const)	EST %			201,086
	ADOT PMDR (3% Const)	EST %			43,090
	Total Project Design Costs				244,176
	Total Estimated Construction & Design Cost for Project				1,972,766
	Estimated County Costs for Project				
	County Match @ 5.7% for Design	EST %			13,918
	County Match @ 100% for Utility Relocation Costs (Relocate Power Poles as shown on plans)	EA	25	\$15,000.00	375,000
	County Match @ 100% for Right-of-Way (ROW) Cost	Acre	1.23	\$150,000.00	184,500
	County Match @ 5.7% for Construction	EST %			98,530
	County Match @ 100% for Actual Actual ADOT CE Over & above Estimated 15%	EST %			215,449
	County Match @ 100% for Actual Construction Costs Above Low Bid Amount (10%)	EST %			143,633
	County Match Total for Project				1,031,030

Pinal County Area - STP Application

Budget and Signature

Instructions

1. This sheet is required for all projects
2. All work phases regardless of funding source must be included in the proposed programming.
3. The signature part of this page must be signed with the printed application sent to MAG

Preliminary Engineering and Final Design	201,086	See Cost Tab included with application - 14% of Construction Cost
Right of way	-	See Cost Tab included with application - ROW estimated as County Match @ 100%
Construction	1,728,590	See Cost Tab included with application - Includes 5% Contingency, CE Costs @ 15% & Post Design Services.
Total Cost w/o ADOT Review Fee	1,929,676	
ADOT Review Fee	43,090	Assumes the ADOT design fee is 3 percent of project cost or \$30,000, whichever is the higher amount.
Total Cost	1,972,766	See Cost Tab included with application - County Costs also shown.

2. Agency CIP

Please describe the agency programming in its CIP

Funding for this project is identified in Pinal County's 5-Year Transportation Plan as Safety Funds

3. Proposed Programming

Work Phase	Year to be Programmed/1	Funding Source	Federal Amount/2	Local Amount	Total	Share/3
PE/Design	2017	STP-MAG	230,258	13,918	244,176	6%
Construction	2019	STP-MAG	1,630,060	98,530	1,728,590	6%
None	None	None	-	-	0	0%
None	None	None	-	-	0	0%
None	None	None	-	-	0	0%
Total			1,860,318	112,448	1,972,766	

Notes: 1. Federal funds are available only for 2016, 2017, 2018 and 2019.

2. Approx. \$5.7 million is available over the period.

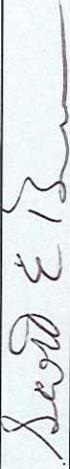
3. The minimum local share is 5.7%

Pinal County Area - STP Application

Signature: To be signed with printed hard copy that is sent to MAG

As the jurisdiction's manager/administrator or designated representative, I certify that the information contained in this application is accurate and complete and that the local funds for this project will be included in the sponsoring MAG member agency's local current CIP/TIP or budget document if the project is selected for federal funding.

Signature:



Name:

Scott Bender, P.E.

Title:

County Engineer

Date:

31-Mar-15

Louis Andersen
Public Works Director

Scott Bender
County Engineer



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Greg Stanley
County Manager

Germann Road STP Application

Attachment 1 – Letters of Support

City of Mesa
Town of Queen Creek

PUBLIC WORKS DEPARTMENT

31 North Pinal Street, Building F, PO Box 727 Florence, AZ 85132

T 520-509-3555 Hours M-F 8:00 am – 5:00 pm F 520-866-6511 www.pinalcountyaz.gov



300 E Sixth St
PO Box 1466
Mesa, Arizona 85211-1466

Mr. John Bullen
Transportation Planner II
Maricopa Association of Governments
302 N. 1st Avenue, Suite 300
Phoenix, AZ 85003

March 31, 2015

Subject: Pinal County Surface Transportation Program Application Germann Road Project

Dear Mr. Bullen:

I am pleased to provide this letter of support for Pinal County's application under the Surface Transportation Program (STP). It is my understanding that the STP funding will be utilized to design and construct a two-lane arterial section of Germann Road from Ironwood Drive to Meridian Road within the community of San Tan Valley. When this section is constructed, Germann Road will serve as an alternate east-west route for San Tan Valley residents who commute to Maricopa County by way of State Route 24 and Loop 202.

The City of Mesa fully supports development of Germann Road and plans to be actively involved in the design review and approval process as well as with utility coordination. We look forward to working with Pinal County to implement this project and enhancing regional connectivity.

Please feel free to contact Maria Angelica Deeb at (480) 644-2845 or Maria.Deeb@mesaaz.gov if you have questions or need further assistance.

Sincerely,

A handwritten signature in blue ink that reads "Scott Butler".

Scott J. Butler
Assistant to the City Manager

cc: Lenny H. Hulme, Transportation
Al Zubi, Transportation
Marc Ahlstrom, Engineering
Project File

480.644.2160 (tel)
480.644.3909 (fax)



TOWN OF
QUEEN CREEK
ARIZONA

March 31, 2015

Mr. John Kraft
Area 3 Project Manager
Pinal County Department of Public Works
31 N. Pinal Street
Florence, AZ 85132

Dear Mr. Kraft:

Re: Pinal County's MAG Pinal County Surface Transportation Program

I am writing this letter in support of Pinal County's *MAG Pinal County Surface Transportation Program (STP)* project proposal to construct a portion of Germann Road from Meridian to Ironwood. The Town of Queen Creek lies south of Germann Road and west of Meridian Road. Accordingly, the west end of this project abuts the Town of Queen Creek at the corner of Germann and Meridian, and is within Queen Creek's planning area.

Queen Creek's location between rapidly growing areas in Maricopa and Pinal Counties creates significant through traffic with the Town. A top priority of Queen Creek is to ease congestion by accommodating this pass-through traffic in defined corridors through Town and on perimeter roads. Germann Road has been identified in our transportation planning documents as one of our key perimeter roads and to this end, improvement of Germann in the area of concern is strongly supported.

If there are any additional questions or need for additional information, please feel free to contact Mr. Troy White, Public Works Director at (480) 358-3000.

Sincerely,

A handwritten signature in black ink that reads "John Kross".

John Kross
Town Manager

cc: Troy White

Louis Andersen
Public Works Director

Scott Bender
County Engineer



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Greg Stanley
County Manager

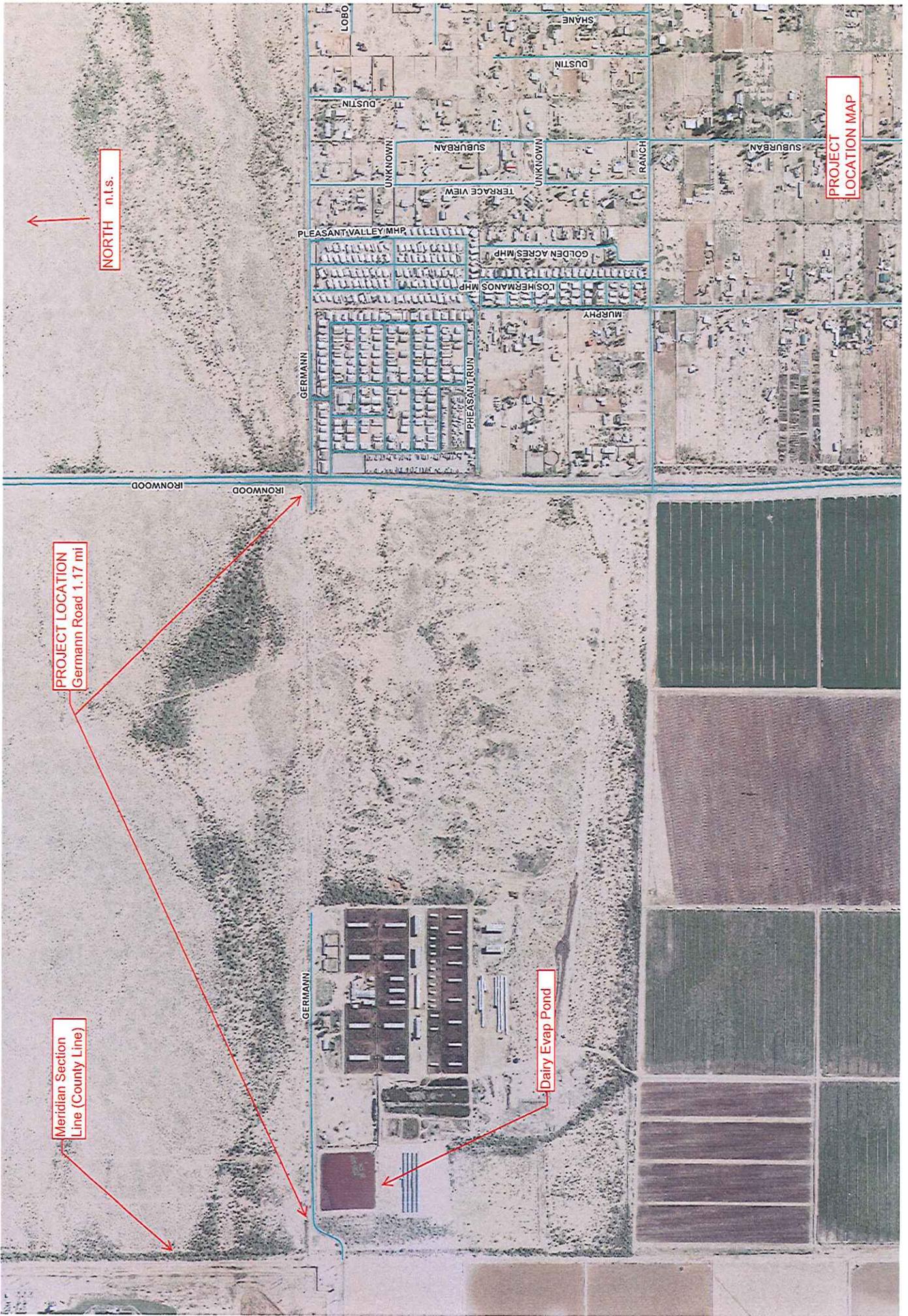
Germann Road STP Application

Attachment 2 – Project Location Map

PUBLIC WORKS DEPARTMENT

31 North Pinal Street, Building F, PO Box 727 Florence, AZ 85132

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NORTH n.t.s.

PROJECT LOCATION
Germann Road 1.17 mi

Meridian Section
Line (County Line)

Dairy Evap Pond

PROJECT
LOCATION MAP

LOBO
SHANE
DUSTIN
DUSTIN
SUBURBAN
UNKNOWN
TERRACE VIEW
PLEASANT VALLEY MHP
GOLDEN ACRES MHP
LOSHERMANS MHP
MURPHY
PHEASANT RUN
SUBURBAN
RANCH

IRONWOOD
IRONWOOD

GERMANN



Louis Andersen
Public Works Director

Scott Bender
County Engineer



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Greg Stanley
County Manager

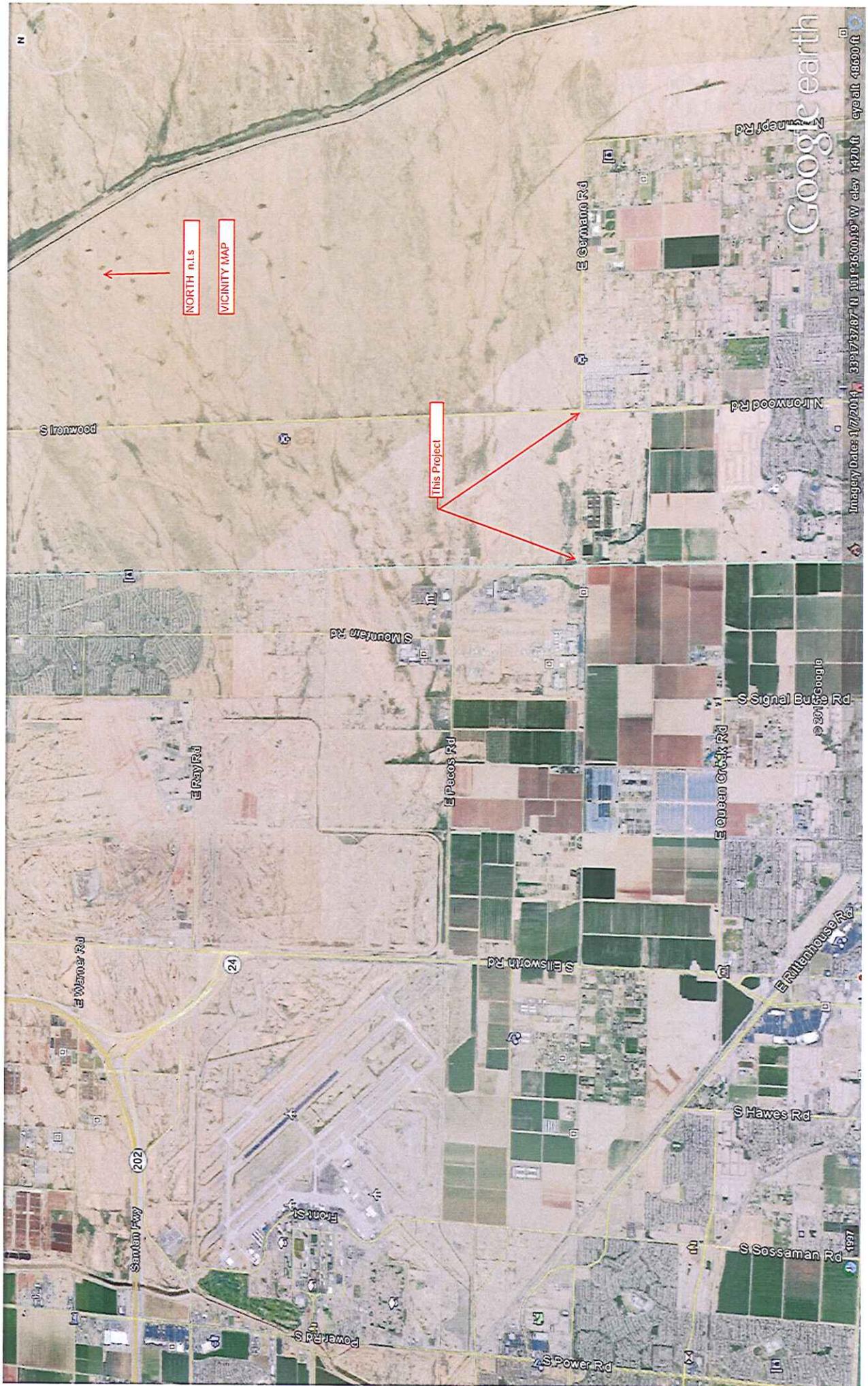
Germann Road STP Application

Attachment 3 – Project Vicinity Map

PUBLIC WORKS DEPARTMENT

31 North Pinal Street, Building F, PO Box 727 Florence, AZ 85132

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NORTH n.i.s

VICINITY MAP

This Project

Google earth

Image Date: 1/7/2014 33°17'37.87" N 111°36'00.19" W elev 1420 ft eye alt 48690 ft

Louis Andersen
Public Works Director

Scott Bender
County Engineer



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Greg Stanley
County Manager

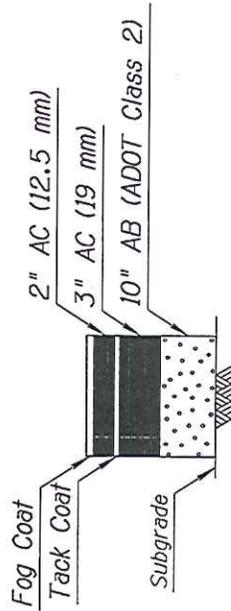
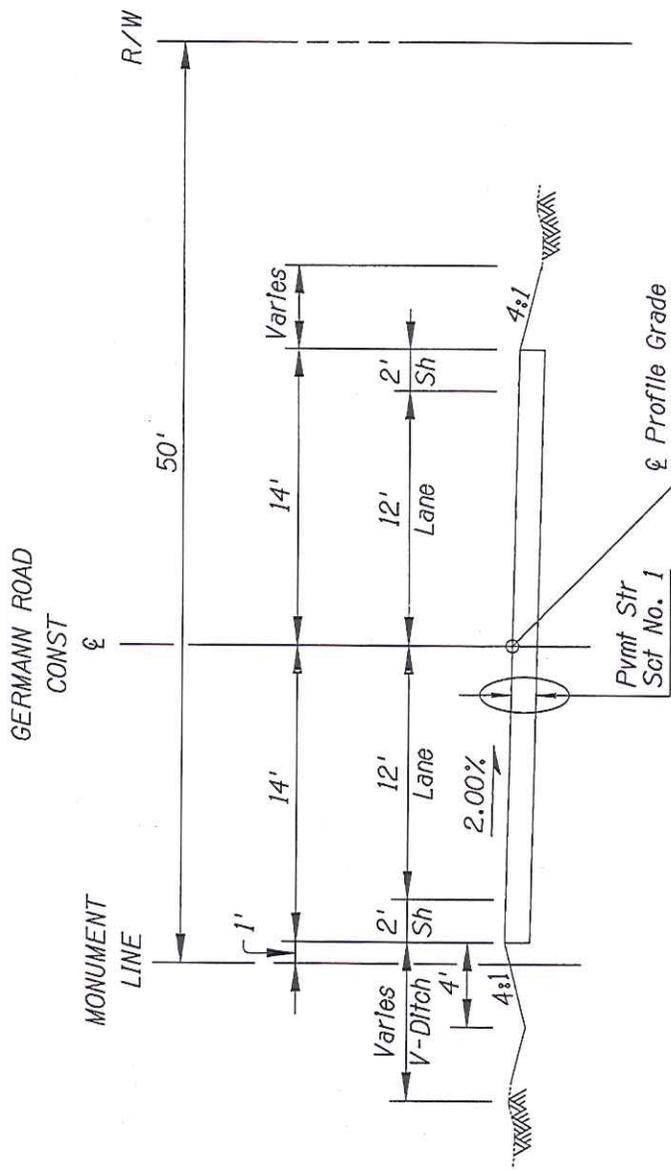
Germann Road STP Application

Attachment 4 – Cross Section Diagram

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Total Thickness = 14"
SECTION NO. 1

Sta 10+01.08 to 67+86.33

Louis Andersen
Public Works Director

Scott Bender
County Engineer



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Greg Stanley
County Manager

Germann Road STP Application

Attachment 5 – Photos

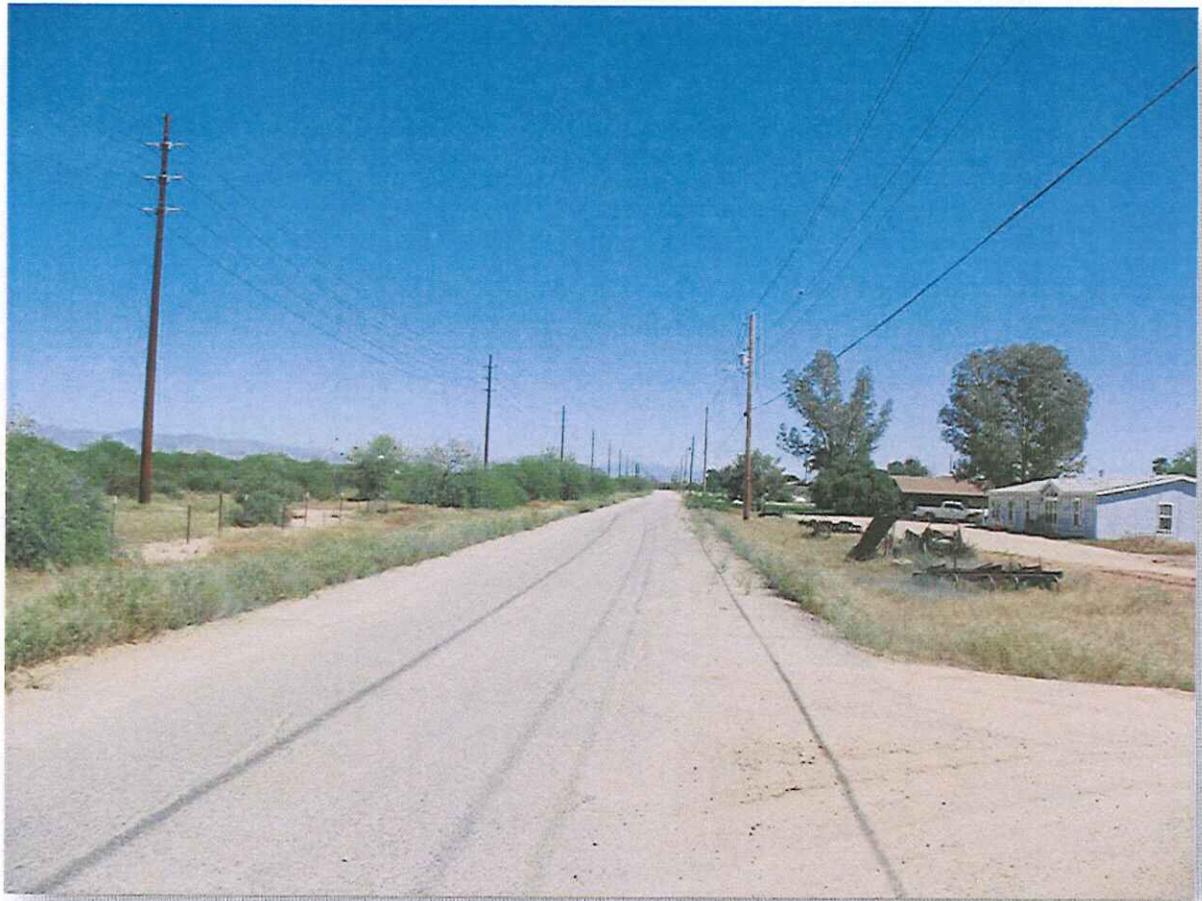
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*Germann Road (looking east) near
the meridian alignment*



Germann Road (looking east) at the dairy



*Dairy evaporation pond near
Germann Road (looking south) at
the dairy*



Germann Road (looking west)



Germann Road (looking west)



*Germann Road (looking east) at
Ironwood Drive Intersection*

Louis Andersen
Public Works Director

Scott Bender
County Engineer



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Greg Stanley
County Manager

Germann Road STP Application

Attachment 6 – Traffic Counts

PUBLIC WORKS DEPARTMENT

31 North Pinal Street, Building F, PO Box 727 Florence, AZ 85132

T 520-509-3555 Hours M-F 8:00 am – 5:00 pm F 520-866-6511 www.pinalcountyz.gov

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, December 16, 2014

City: Queen Creek

Project# 14-1351-066

Location : Ocotillo Rd East of County Line

DAY 1

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			7	4	12:00			143	143			
00:15			4	1	12:15			133	152			
00:30			5	5	12:30			130	163			
00:45			2	18	2	12	30	154	560	166	624	1184
01:00			6	6	13:00			152	154			
01:15			3	3	13:15			154	147			
01:30			8	2	13:30			185	141			
01:45			5	22	5	16	38	196	687	152	594	1281
02:00			9	2	14:00			166	163			
02:15			6	4	14:15			187	188			
02:30			8	1	14:30			185	182			
02:45			5	28	8	15	43	214	752	163	696	1448
03:00			7	5	15:00			222	139			
03:15			4	9	15:15			208	133			
03:30			8	16	15:30			242	131			
03:45			5	24	20	50	74	214	886	128	531	1417
04:00			8	24	16:00			263	124			
04:15			5	41	16:15			236	141			
04:30			9	45	16:30			258	145			
04:45			16	38	85	195	233	244	1001	152	562	1563
05:00			20	89	17:00			245	139			
05:15			24	130	17:15			258	128			
05:30			41	122	17:30			244	124			
05:45			45	130	154	495	625	241	988	122	513	1501
06:00			50	174	18:00			239	120			
06:15			54	185	18:15			233	104			
06:30			85	214	18:30			214	108			
06:45			89	278	222	795	1073	185	871	106	438	1309
07:00			103	302	19:00			166	101			
07:15			101	285	19:15			154	87			
07:30			104	286	19:30			147	85			
07:45			108	416	254	1127	1543	141	608	86	359	967
08:00			106	214	20:00			152	60			
08:15			103	185	20:15			133	65			
08:30			100	163	20:30			130	58			
08:45			87	396	136	698	1094	124	539	54	237	776
09:00			106	133	21:00			111	41			
09:15			103	131	21:15			74	42			
09:30			108	128	21:30			85	28			
09:45			106	423	124	516	939	86	356	24	135	491
10:00			104	141	22:00			60	21			
10:15			102	128	22:15			65	14			
10:30			120	122	22:30			58	19			
10:45			141	467	120	511	978	54	237	13	67	304
11:00			122	141	23:00			41	8			
11:15			131	143	23:15			42	11			
11:30			128	139	23:30			21	10			
11:45			124	505	133	556	1061	21	125	14	43	168

Total Vol. 2745 4986 7731 7610 4799 12409

GPS Coordinates:

		Daily Totals		
NB	SB	EB	WB	Combined
		10355	9785	20140

Split %	AM			PM		
	35.5%	64.5%	38.4%	61.3%	38.7%	61.6%
Peak Hour	11:45	07:00	07:00	16:30	14:00	16:30
Volume	530	1127	1543	1005	696	1569
P.H.F.	0.93	0.93	0.95	0.97	0.93	0.97

Louis Andersen
Public Works Director

Scott Bender
County Engineer



PINAL COUNTY
wide open opportunity

Greg Stanley
County Manager

Germand Road STP Application

Attachment 7 – Crash Data

PUBLIC WORKS DEPARTMENT

31 North Pinal Street, Building F, PO Box 727 Florence, AZ 85132

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3/26/2015 Safety Analysis Report

Results below are for crashes on Ocotillo Rd between Ironwood Dr and Meridian Rd excluding crashes at intersections. These are identified separately below.

Year	NoInjury	Possible Injury	Non- Incapacitating	Incapacitating	Fatal	Total
2011	3	0	0	0	0	3
2012	6	1	0	0	0	7
2013	1	0	1	0	0	2
						12

Ocotillo Rd & Ironwood Dr Intersection crashes:

Year	NoInjury	Possible Injury	Non- Incapacitating	Incapacitating	Fatal	Total
2011	6	1	1	1	0	9
2012	12	3	0	0	0	15
2013	2	2	1	1	0	6
						30

Ocotillo Rd & Gantzel Rd intersection crashes:

Year	NoInjury	Possible Injury	Non- Incapacitating	Incapacitating	Fatal	Total
2011	12	1	3	1	0	17
2012	6	1	0	2	1	10
2013	14	3	1	0	0	18
						45

Ocotillo Rd & Meridian Rd intersection - No reported crashes for 2011-2013

Crash totals for the entire length of Ocotillo Road from Ironwood Dr to Meridian Road, including all intersections:

Year	NoInjury	Possible Injury	Non- Incapacitating	Incapacitating	Fatal	Total
2011	21	2	4	2	0	29
2012	24	5	0	2	1	32
2013	17	5	3	1	0	26
						87

Louis Andersen
Public Works Director

Scott Bender
County Engineer

Greg Stanley
County Manager



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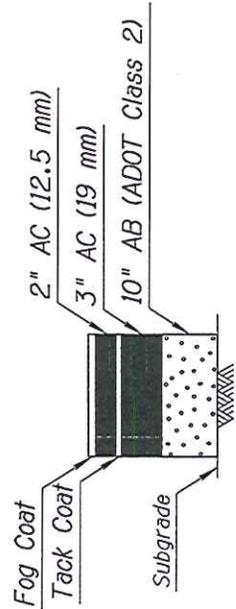
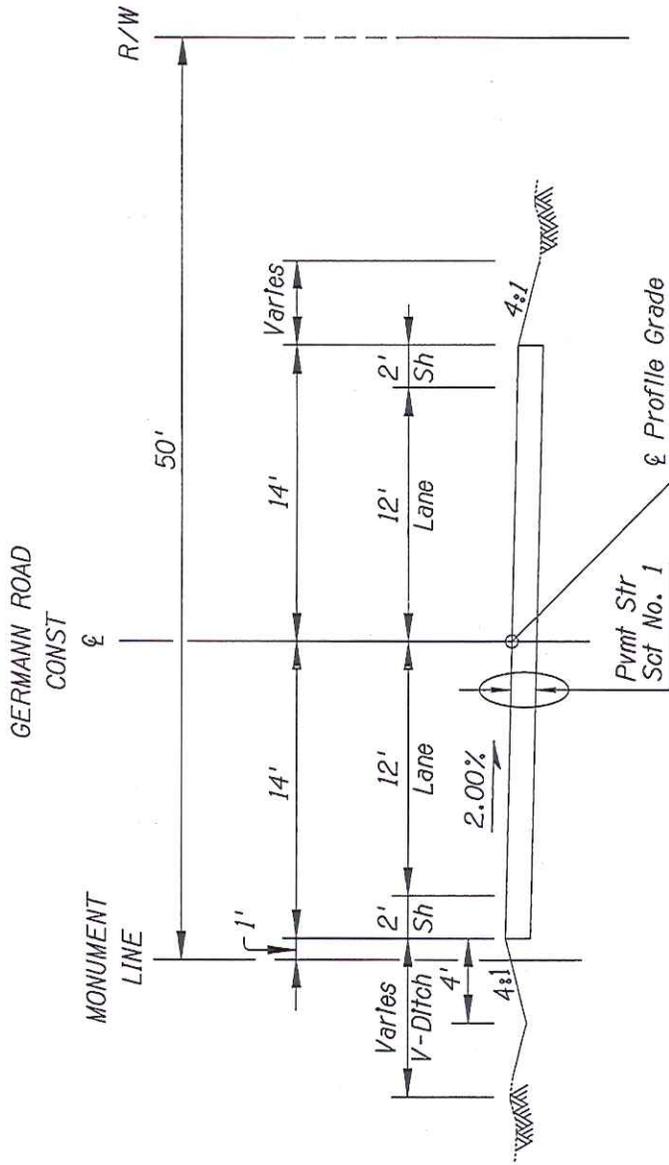
Germand Road STP Application

Attachment 8 – Typical Cross Section

PUBLIC WORKS DEPARTMENT

31 North Pinal Street, Building F, PO Box 727 Florence, AZ 85132

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Total Thickness = 14"
SECTION NO. 1

Sta 10+01.08 to 67+86.33

Louis Andersen
Public Works Director

Scott Bender
County Engineer

Greg Stanley
County Manager



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Germand Road STP Application

Attachment 9 – Intersection Diagram

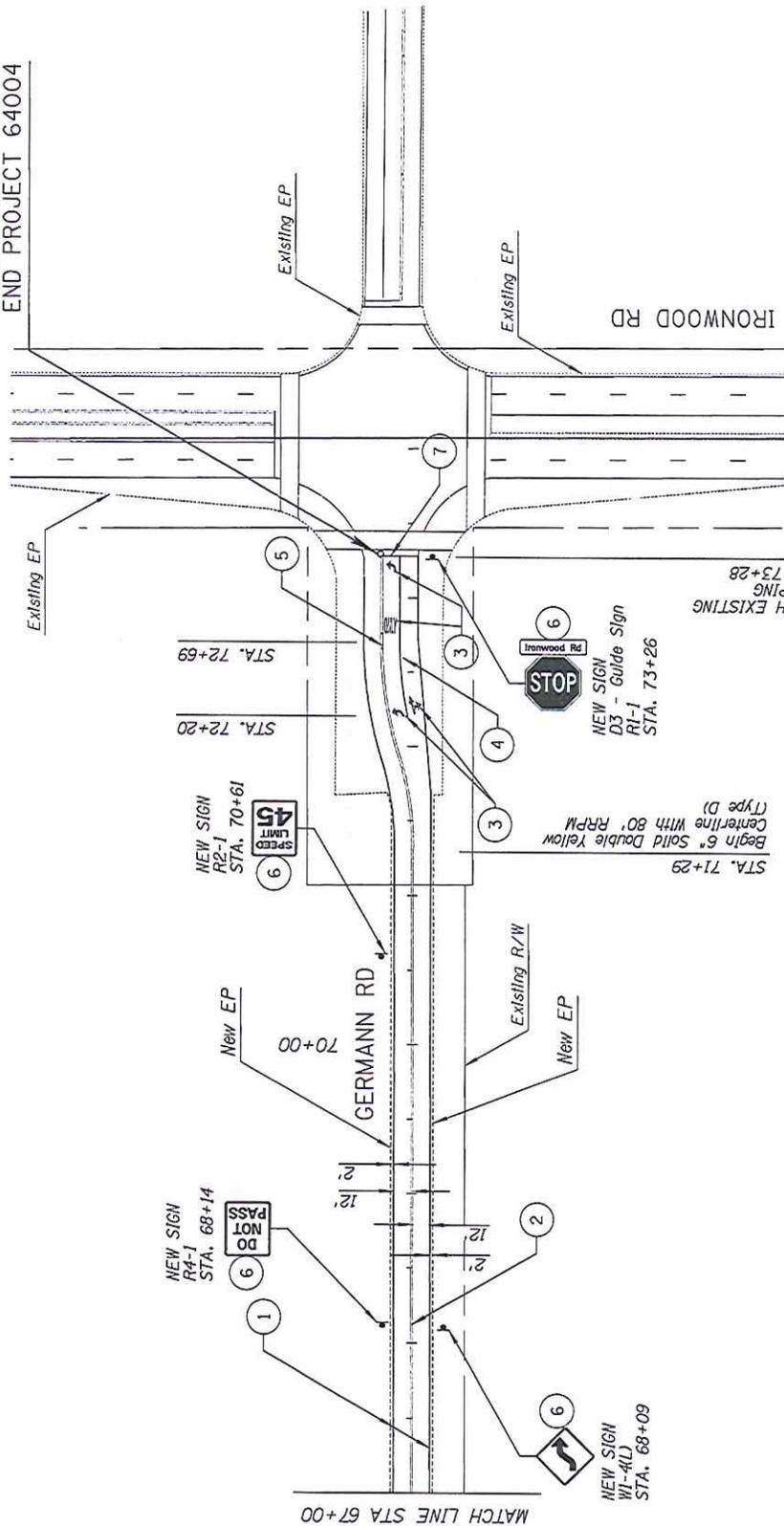
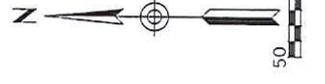
PUBLIC WORKS DEPARTMENT

31 North Pinal Street, Building F, PO Box 727 Florence, AZ 85132

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S/A. 65+61

STA 73+30
END PROJECT 64004



REVISION	NAME	DATE	PIV
ISSUED	BB	5/03	
EXAM	JS	5/03	
DESIGNED	RE	5/03	PI
			E

Carter-Burreess
1010 10th Avenue, Suite 2000
 Phoenix, AZ 85001

Louis Andersen
Public Works Director

Scott Bender
County Engineer



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Greg Stanley
County Manager

Germand Road STP Application

Attachment 10 – Current Intersection Photo

PUBLIC WORKS DEPARTMENT

31 North Pinal Street, Building F, PO Box 727 Florence, AZ 85132

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Google earth

33°16'40.88" N 110°33'47.86" W elev 1479 ft eye alt 1932 ft

© 2015 Google

N Ironwood Rd

1992

Louis Andersen
Public Works Director

Scott Bender
County Engineer

Greg Stanley
County Manager



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Ger mann Road STP Application

Attachment 11 – Traffic Counts

PUBLIC WORKS DEPARTMENT

31 North Pinal Street, Building F, PO Box 727 Florence, AZ 85132

T 520-509-3555 Hours M-F 8:00 am – 5:00 pm F 520-866-6511 www.pinalcountyaz.gov

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, December 16, 2014

City: Queen Creek

Project# 14-1351-066

Location : Ocotillo Rd East of County Line

DAY 1

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			7	4	12:00			143	143			
00:15			4	1	12:15			133	152			
00:30			5	5	12:30			130	163			
00:45			2	18	2	12	30	154	560	166	624	1184
01:00			6	6	13:00			152	154			
01:15			3	3	13:15			154	147			
01:30			8	2	13:30			185	141			
01:45			5	22	5	16	38	196	687	152	594	1281
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03:00			7	5	15:00			222	139			
03:15			4	9	15:15			208	133			
03:30			8	16	15:30			242	131			
03:45			5	24	20	50	74	214	886	128	531	1417
04:00			8	24	16:00			263	124			
04:15			5	41	16:15			236	141			
04:30			9	45	16:30			258	145			
04:45			16	38	85	195	233	244	1001	152	562	1563
05:00			20	89	17:00			245	139			
05:15			24	130	17:15			258	128			
05:30			41	122	17:30			244	124			
05:45			45	130	154	495	625	241	988	122	513	1501
06:00			50	174	18:00			239	120			
06:15			54	185	18:15			233	104			
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07:30			104	286	19:30			147	85			
07:45			108	416	254	1127	1543	141	608	86	359	967
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08:15			103	185	20:15			133	65			
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08:45			87	396	136	698	1094	124	539	54	237	776
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09:30			108	128	21:30			85	28			
09:45			106	423	124	516	939	86	356	24	135	491
10:00			104	141	22:00			60	21			
10:15			102	128	22:15			65	14			
10:30			120	122	22:30			58	19			
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11:00			122	141	23:00			41	8			
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11:45			124	505	133	556	1061	21	125	14	43	168

Total Vol. 2745 4986 7731 7610 4799 12409

GPS Coordinates:

Split %	AM			PM		
	NB	SB	Combined	NB	SB	Combined
	35.5%	64.5%	38.4%	61.3%	38.7%	61.6%
Peak Hour	11:45	07:00	07:00	16:30	14:00	16:30
Volume	530	1127	1543	10355	9785	20140
P.H.F.	0.93	0.93	0.95	0.97	0.93	0.97

Louis Andersen
Public Works Director

Scott Bender
County Engineer



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Greg Stanley
County Manager

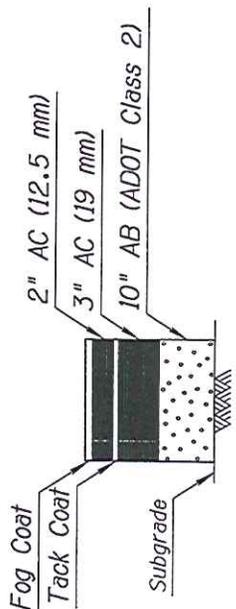
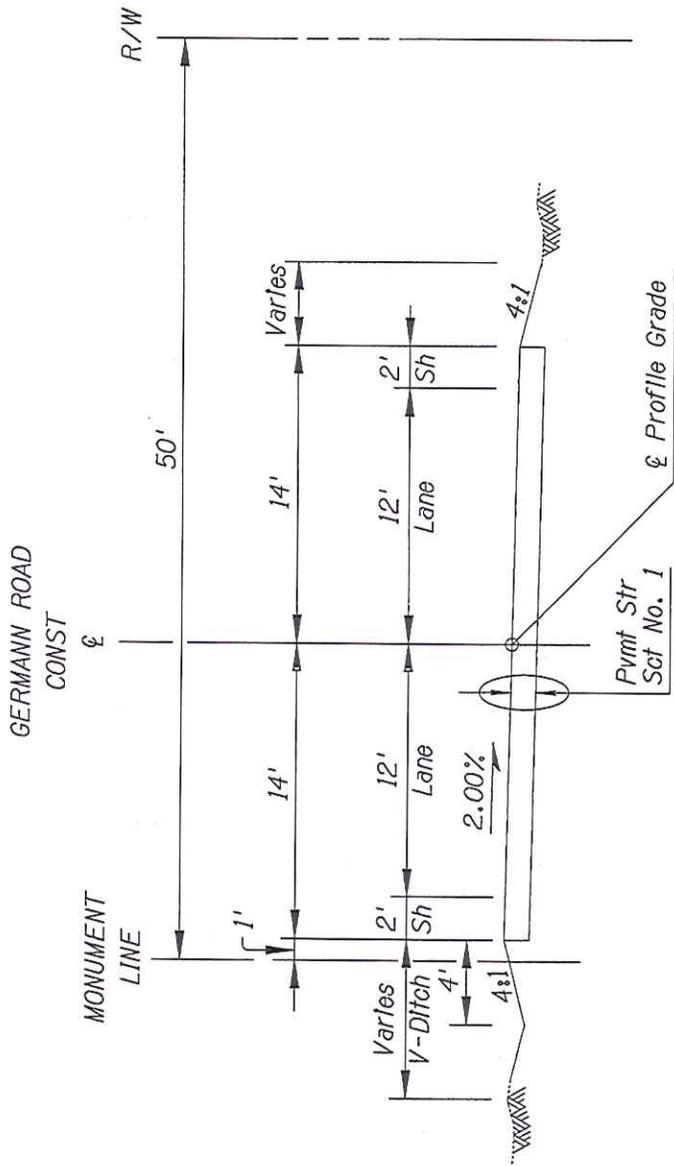
Germann Road STP Application

Attachment 12 – Cross Section Diagram

PUBLIC WORKS DEPARTMENT

31 North Pinal Street, Building F, PO Box 727 Florence, AZ 85132

T 520-509-3555 Hours M-F 8:00 am – 5:00 pm F 520-866-6511 www.pinalcountyaz.gov



Total Thickness = 14"
SECTION NO. 1

Sta 10+01.08 to 67+86.33