

6.0 Itemized Estimate of Probable Costs

6.1 Recommended Alternative

The estimate of probable construction cost for the recommended alternative is \$629,761,000. The detailed estimate of probable cost is shown in Table 68. An implementation plan including cost breakouts for individual construction segments will be provided in the next phase of the study.

The estimated costs are based on unit prices from ADOT's Construction Cost Data Base and recent bid data. The pavement structural sections used for the cost estimate were a combination of flexible and rigid pavement sections throughout the project limits. These structural sections included milling depths of the existing pavement sections that were to remain. Eleven structural sections were used as follows:

LOCATION	WIDENING OR RECONSTRUCTION	REHABILITATION (FULL WIDTH)	
		MILL	REPLACE
MP 183.0 to MP 190.8 Eastbound and westbound	½" AR-ACFC 12" AC 18" AB	½"	½" AR-ACFC 2 ½" AC
MP 190.8 to MP 195.0 Eastbound	½" AR-ACFC 12" AC 6" PBTB 6" AB	½"	½" AR-ACFC 3" AC
MP 190.8 to MP 195.0 Westbound	½" AR-ACFC 12" AC 6" PBTB 6" AB	5"	½" AR-ACFC 5" AC
MP 195.0 to MP 202.3 Eastbound and westbound	1" AR-ACFC 14" Dowelled PCCP 4" PBTB 4" AB		
MP 202.3 to MP 214.0 Eastbound and westbound	½" AR-ACFC 12" AC 12" AB	3'	½" AR-ACFC 3" AC
Ramps and cross roads Urban Rural heavy truck traffic	1" AR-ACFC 10" PCCP 4" AB		
Ramps and cross roads Rural	½" AR-ACFC 5" AC 8" AB		

AR-ACFC exception (Rio de Flag structures): EB MP 197.08-197.95; WB MP 196.83-197.74
AR-ACFC exception: All cross roads and ramps 300 feet from ramp/cross road intersections

For estimating purposes, all existing ramps and cross roads not impacted by the Recommended Alternative are to remain in place if determined to be in satisfactory condition at the time of final design.

The following assumptions were also used for the cost estimate:

- A Recommended Alternative has not been identified for the new Lone Tree TI. The cost estimate includes costs for the Braided Over Alternative as a placeholder.
- A Recommended Alternative has not been identified for the Butler Avenue TI. The cost estimate includes costs for the Roundabout Alternative as a placeholder.
- A pedestrian grade separation option is included in the overall cost estimate for the Butler TI roundabout alternative. The estimated cost of the pedestrian grade separations along the south side of Butler Avenue is \$1,100,000.
- No costs are included for the replacement of the Fourth Street bridge over I-40, although the I-40 mainline improvements anticipate modified bridge spans. The bridge replacement may be a joint ADOT/City of Flagstaff project; however, it is anticipated that it will be funded separately from the I-40 improvements.
- No costs were assigned for new R/W on USFS land. Since the required R/W is owned by the federal government, there would be no cost to ADOT for the land.
- Estimated costs for the new R/W acquisition for the project are not yet available.
- Clearing and grubbing includes removal of trees.
- The roadway excavation item does not differentiate rock excavation from normal excavation. The unit price for excavation was increased to account for the added costs associated with rock excavation.
- 70 gallons of water are required per cubic yard of earthwork.
- All culverts are extended to the appropriate clear zone requirements or width of roadway widening, whichever distance is greater.
- The total cost for each size of box culvert extension and new headwall(s) was computed. Unit prices reflect the cost per linear foot including the headwalls.
- Existing end sections for pipe culverts are unsalvageable.
- Structural backfill costs were included in the cost of the drainage elements and other structure related items.
- A percentage of the total construction cost was assumed for utility relocations.
- The noise mitigation recommendations shown on the plan sheets are preliminary. A unit cost of \$33 per square foot is included for noise barrier wall.
- The ITS communication and distribution landline system includes 3-3" conduit, 2-144 single mode fiber optic, conductors, pull boxes at \$75 per linear foot for the corridor length. Also included are super nodes at the West Flagstaff TI and the new US 89 TI at \$150,000 each.
- A load center and electrical service at the West Flagstaff TI and new US 89 TI are included at \$25,000 each.
- Detection stations are included at one mile spacing, each direction, at \$20,000 per station.
- CCTV assemblies (pole, foundation, camera at \$20,000 each) are included at two mile spacing.
- A DMS assembly includes the structure, foundations, and sign at \$400,000 each.

- Partial interchange lighting at A-1 Mountain TI, Flagstaff Ranch TI, Walnut Canyon TI, Cosnino TI and Winona TI.
- Hybrid interchange lighting at new Camp Navajo TI, Bellemont TI, West Flagstaff TI, new Woody Mountain TI, new Lone Tree TI, Country Club TI, and new US 89 TI interchange.
- Ground-in rumble strip was included for both sides of the mainline roadways for the entire project length.
- Except as noted, one inch of AR-ACFC was included for bridge deck areas and anchor slabs.
- Bridge rail on the A-1 Mountain TI UP structure will be replaced.
- Wildlife connectivity structures and wildlife fencing items are shown as placeholders since estimated costs are not available at this time. Estimated quantities and costs will be provided in subsequent versions of this report when the information becomes available.
- As a placeholder for railroad traffic control, \$25,000 has been included in the estimated cost for each of the Riordan railroad bridges. The amount of railroad traffic control necessary during demolition of the existing bridges and construction of the new structures can be estimated more accurately during final design.
- The estimated costs do not include additional costs that may be incurred by implementing the overall project in phases.

For structure cost estimating, the following unit prices were assumed:

- Concrete \$300/CY to \$450/CY
- Reinforcing \$1.00/lb
- Reinforcing (Epoxy Coated) \$1.50/lb
- Structural Steel \$2.00/lb to \$2.50/lb
- AASHTO PC/PS Girders \$195/ft to \$230/ft
- Drilled Shaft Foundations \$250/ft to \$600/ft
- CIP Retaining Walls \$45/SF to \$75/SF

Table 68 – Estimate of Probable Construction Cost – Recommended Alternative

Arizona Department of Transportation

Estimated Engineering Construction Cost

Itemized Estimate

Project Number: 40 CN 183.0 / H758601C

Location: BELLEMONT TO WINONA

Version: INITIAL PROJECT ASSESSMENT

Alternative: 0

ROADWAY

Item No	Item Description	Unit	Quantity	Unit Price	Amount
2010011	CLEARING AND GRUBBING	ACRE	310	\$2,000.00	\$620,000
2020021	REMOVAL OF CONCRETE CURB AND GUTTER	L.FT.	9,140	\$10.00	\$91,400
2020023	REMOVE EXISTING CONCRETE MEDIAN BARRIER	L.FT.	2,354	\$4.50	\$10,593
2020025	REMOVAL OF CONCRETE SIDEWALKS, DRIVEWAYS AND SLABS	SQ.FT.	29,891	\$4.50	\$134,510
2020029	REMOVAL OF ASPHALTIC CONCRETE PAVEMENT	SQ.YD.	845,319	\$2.50	\$2,113,298
2020041	REMOVAL OF PIPE	L.FT.	549	\$20.00	\$10,980
2020052	REMOVE (BRIDGE RAILING)	L.FT.	650	\$50.00	\$32,500
2020054	REMOVE (HEADWALL)	EACH	62	\$3,000.00	\$186,000
2020060	REMOVE AND SALVAGE (END TREATMENTS)	EACH	116	\$200.00	\$23,200
2020071	REMOVE GUARD RAIL	L.FT.	87,876	\$6.00	\$527,256
2020080	REMOVE BITUMINOUS PAVEMENT (MILLING) (1/2")	SQ.YD.	249,201	\$1.00	\$249,201
2020085	REMOVE BITUMINOUS PAVEMENT (MILLING) (3")	SQ.YD.	520,392	\$2.00	\$1,040,784
2020088	REMOVE BITUMINOUS PAVEMENT (MILLING) (4 1/2" TO 6")	SQ.YD.	42,189	\$3.00	\$126,567
2020101	REMOVE FENCE	L.FT.	50,442	\$2.00	\$100,884
2030112	SHOULDER BUILD-UP (MILLED AC)	L.FT.	254,010	\$1.00	\$254,010
2030113	SHOULDER BUILD-UP (COMPACTION)	HOOR	176	\$100.00	\$17,600
2030301	ROADWAY EXCAVATION	CU.YD.	2,558,602	\$10.00	\$25,586,020
2030701	CROWN DITCH	L.FT.	4,350	\$5.20	\$22,620
2090005	FURNISH WATER	M.GAL.	498,000	\$2.00	\$996,000
3030022	AGGREGATE BASE, CLASS 2	CU.YD.	545,539	\$30.00	\$16,366,170
3030026	AGGREGATE SUBBASE, CLASS 6	CU.YD.	31,215	\$35.00	\$1,092,525
3080031	BITUMINOUS TREATED BASE (6" PERMEABLE)	SQ.YD.	761,793	\$12.00	\$9,141,516
4010010	PORTLAND CEMENT CONCRETE PAVEMENT (10")	SQ.YD.	202,400	\$50.00	\$10,120,000
4010016	PORTLAND CEMENT CONCRETE PAVEMENT (14" DOWELED)	SQ.YD.	573,374	\$60.00	\$34,402,440
4040111	BITUMINOUS TACK COAT	TON	1,818	\$520.00	\$945,360
4040116	APPLY BITUMINOUS TACK COAT	HOOR	3,008	\$150.00	\$451,200
4040270	ASPHALT BINDER (PG 70-10)	TON	34,318	\$500.00	\$17,159,000
4140040	ASPHALTIC CONCRETE FRICTION COURSE (ASPHALT-RUBBER)	TON	79,155	\$45.00	\$3,561,975
4140042	ASPHALT RUBBER MATERIAL (FOR AR-ACFC)	TON	7,520	\$700.00	\$5,264,000
4140044	MINERAL ADMIXTURE (FOR AR-ACFC)	TON	710	\$90.00	\$63,900
4160004	ASPHALTIC CONCRETE (3/4" MIX) (END PRODUCT) (SPECIAL MIX)	TON	686,358	\$32.00	\$21,963,456
4160031	MINERAL ADMIXTURE	TON	6,456	\$90.00	\$581,040
5012524	STORM DRAIN PIPE, 24"	L.FT.	4,000	\$50.00	\$200,000
5012936	PIPE CULVERT, 36"	L.FT.	280	\$120.00	\$33,600
5012948	PIPE CULVERT, 48"	L.FT.	1,351	\$140.00	\$189,140
5012954	PIPE CULVERT, 54"	L.FT.	43	\$160.00	\$6,880
5012972	PIPE CULVERT, 72"	L.FT.	23	\$250.00	\$5,750
5014536	FLARED END SECTION, 36" (C-13.20 OR C-13.25) (PIPE CULVERT)	EACH	10	\$900.00	\$9,000
6016105	HEADWALL (PIPE CULVERTS) (48" TO 72")	EACH	11	\$5,800.00	\$63,800
6045011	ACCESS BARRIER GATE (STORM SEWER)	EACH	2	\$10,000.00	\$20,000
7041501	PAVEMENT MARKINGS	L.SUM	1	\$386,000.00	\$386,000
704X003	PAVEMENT MARKING (MAINLINE)	L.SUM	1	\$897,000.00	\$897,000
7330031	TRAFFIC SIGNAL (SYSTEM AT LONE TREE TI)	EACH	1	\$300,000.00	\$300,000
7330032	TRAFFIC SIGNAL (SYSTEM AT COUNTRY CLUB TI)	EACH	1	\$300,000.00	\$300,000
7330033	TRAFFIC SIGNAL (SYSTEM AT US 89 TI)	EACH	1	\$300,000.00	\$300,000
8050003	SEEDING (CLASS II)	ACRE	310	\$2,800.00	\$868,000
9030008	FENCE (WILDLIFE)	L.FT.			\$
9030011	BARBED WIRE FENCE, TYPE 1	L.FT.	57,972	\$8.00	\$463,776
9050001	GUARD RAIL, W-BEAM, SINGLE FACE	L.FT.	104,433	\$20.00	\$2,088,660
9050036	GUARD RAIL, ANCHOR ASSEMBLY	EACH	132	\$700.00	\$92,400
9050040	GUARD RAIL, END TERMINAL ASSEMBLY	EACH	132	\$3,000.00	\$396,000

Arizona Department of Transportation
Estimated Engineering Construction Cost

Itemized Estimate

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Alternative: 0

9050430	THRIE-BEAM GUARD RAIL TRANSITION SYSTEM	EACH	66	\$1,500.00	\$99,000
9080001	CONCRETE CURB (C-05.10) (TYPE A)	L.FT.	8,750	\$11.00	\$96,250
9080084	CONCRETE CURB AND GUTTER	L.FT.	22,096	\$14.00	\$309,344
9080201	CONCRETE SIDEWALK (C-05.20)	SQ.FT.	75,136	\$7.00	\$525,952
9100002	CONCRETE BARRIER (SINGLE FACE)	L.FT.	3,426	\$80.00	\$274,080
9100012	CONCRETE BARRIER (SPECIAL) (STA. 1785+00 TO 1830+50)	L.FT.	4,500	\$150.00	\$675,000
9100014	CONCRETE BARRIER (SPECIAL) (NEW US 89 WB RAMPS)	L.FT.	720	\$150.00	\$108,000
9100051	CONCRETE BRIDGE BARRIER	L.FT.	650	\$150.00	\$97,500
9100112	CONCRETE HALF BARRIER TRANSITION (C-10.70)	EACH	66	\$2,500.00	\$165,000
9140133	NOISE BARRIER WALL	SQ.FT.	461,298	\$33.00	\$15,222,834
9140153	RETAINING WALL (TRAFFIC INTERCHANGES)	SQ.FT.	96,130	\$45.00	\$4,325,850
9140155	RETAINING WALL (SPECIAL) (STA. 1785+00 TO 1830+50)	SQ.FT.	25,550	\$55.00	\$1,405,250
9240103	MISCELLANEOUS WORK (TRAFFIC SIGNING) (MAINLINE)	L.SUM	1	\$249,500.00	\$249,500
9240104	MISCELLANEOUS WORK (TRAFFIC SIGNING) (TRAFFIC INTERCHANGES)	L.SUM	1	\$1,850,000.00	\$1,850,000
9240108	MISCELLANEOUS WORK (ITS-WILDLIFE DETECTION)	L.SUM	1	\$100,000.00	\$100,000
9240111	MISCELLANEOUS WORK (ITS-COMM AND ELECT DISTRIB) (LANDLINE SYS)	L.FT.	165,000	\$75.00	\$12,375,000
9240119	MISCELLANEOUS WORK (ITS-COMM AND ELECT DISTRIB) (SUPER NODES)	EACH	2	\$150,000.00	\$300,000
9240120	MISCELLANEOUS WORK (ITS-DETECTION STATIONS)	EACH	60	\$20,000.00	\$1,200,000
9240121	MISCELLANEOUS WORK (ITS-POWER) (ELECTRICAL SERVICE)	EACH	2	\$25,000.00	\$50,000
9240122	MISCELLANEOUS WORK (ITS-CCTV ASSEMBLY)	EACH	10	\$25,000.00	\$250,000
9240126	MISCELLANEOUS WORK (ITS-DETECTION) (WIRELESS COMMUNICATIONS)	L.SUM	1	\$200,000.00	\$200,000
9240133	MISCELLANEOUS WORK (ITS-BRIDGE DECK ICING DETECTION AND WARNING)	EACH	1	\$25,000.00	\$25,000
9240134	MISCELLANEOUS WORK (ITS-ROADWAY WEATHER INFORMATION TECHNOLOGY)	EACH	1	\$20,000.00	\$20,000
9240135	MISCELLANEOUS WORK (ITS-DMS) (NEW ASSEMBLY)	EACH	6	\$400,000.00	\$2,400,000
9240136	MISCELLANEOUS WORK (ITS-TRAVLER INFORMATION SYSTEM) (TRAVEL TIME SIGNS)	EACH	4	\$50,000.00	\$200,000
9240168	MISCELLANEOUS WORK (TI LIGHTING) (ELECTRICAL DISTRIBUTION)	L.FT.	177,500	\$15.00	\$2,662,500
9240172	MISCELLANEOUS WORK (TI LIGHTING) (POLE ASSEMBLY)	EACH	570	\$5,000.00	\$2,850,000
9240173	MISCELLANEOUS WORK (TI LIGHTING) (LOAD CENTER)	EACH	8	\$20,000.00	\$160,000
9240174	MISCELLANEOUS WORK (TI LIGHTING) (EXTEND PRIMARY ELECTRIC SERVICE)	EACH	8	\$200,000.00	\$1,600,000
9280037	GROUND-IN RUMBLE STRIP (12 INCH)	L.FT.	386,607	\$0.20	\$77,321
9240117	MISCELLANEOUS WORK (NEW TI BRIDGE)	SQ.FT.	271,908	\$100.00	\$27,190,800
9240117	MISCELLANEOUS WORK (REPLACE EXISTING BRIDGE)	SQ.FT.	251,100	\$114.00	\$28,625,400
9240117	MISCELLANEOUS WORK (WIDEN BRIDGE)	SQ.FT.	29,260	\$136.00	\$3,979,360
9240146	MISCELLANEOUS WORK (RCB CULVERT) (5' X 4')	L.FT.	31	\$534.00	\$16,554
9240146	MISCELLANEOUS WORK (RCB CULVERT) (8' X 4')	L.FT.	456	\$380.00	\$173,280
9240146	MISCELLANEOUS WORK (RCB CULVERT) (10' X 4')	L.FT.	34	\$596.00	\$20,264
9240146	MISCELLANEOUS WORK (RCB CULVERT) (6' X 6')	L.FT.	31	\$402.00	\$12,462
9240146	MISCELLANEOUS WORK (RCB CULVERT) (6' X 7')	L.FT.	155	\$440.00	\$68,200
9240146	MISCELLANEOUS WORK (RCB CULVERT) (8' X 8')	L.FT.	39	\$395.00	\$15,405
9240146	MISCELLANEOUS WORK (RCB CULVERT) (10' X 8')	L.FT.	212	\$1,133.00	\$240,196
9240146	MISCELLANEOUS WORK (RCB CULVERT) (10' X 10')	L.FT.	67	\$1,282.00	\$85,894
9240146	MISCELLANEOUS WORK (RCB CULVERT) (12' X 10')	L.FT.	391	\$1,175.00	\$459,425
9240146	MISCELLANEOUS WORK (RCB CULVERT) (12' X 12')	L.FT.	67	\$1,982.00	\$132,794
9240146	MISCELLANEOUS WORK (RCB CULVERT) (16' X 14')	L.FT.	293	\$1,098.00	\$321,714
9240146	MISCELLANEOUS WORK (RCB CULVERT) (20' X 13') (STR. NO.)	L.FT.	33	\$1,752.00	\$57,816
9240146	MISCELLANEOUS WORK (RCB CULVERT) (2-10' X 5') (STR. NO.)	L.FT.	315	\$726.00	\$228,690
9240146	MISCELLANEOUS WORK (RCB CULVERT) (2-10' X 6') (STR. NO.)	L.FT.	268	\$523.00	\$140,164
9240146	MISCELLANEOUS WORK (RCB CULVERT) (2-10' X 8') (STR. NO.)	L.FT.	303	\$914.00	\$276,942
9240146	MISCELLANEOUS WORK (RCB CULVERT) (3-10' X 5') (STR. NO.)	L.FT.	27	\$1,832.00	\$49,464
9240146	MISCELLANEOUS WORK (RCB CULVERT) (3-10' X 8') (STR. NO.)	L.FT.	69	\$1,538.00	\$106,122
9240146	MISCELLANEOUS WORK (RCB CULVERT) (4-10' X 4') (STR. NO.)	L.FT.	25	\$1,775.00	\$44,375
9240146	MISCELLANEOUS WORK (RCB CULVERT) (5-10' X 9') (STR. NO.)	L.FT.	53	\$1,958.00	\$103,774
9240171	MISCELLANEOUS WORK (WILDLIFE CROSSING STRUCTURE)	EACH			\$
ROADWAY SUBTOTAL					\$272,098,486

Arizona Department of Transportation
Estimated Engineering Construction Cost

Itemized Estimate

Project Number: 40 CN 183.0 / H758601C

Location: BELLEMONT TO WINONA

Version: INITIAL PROJECT ASSESSMENT

Alternative: 0

934XX01	MISCELLANEOUS WORK (UNKNOWN) (15%)	COST	15%		\$40,814,773
SUBTOTAL					\$312,913,259
207XX01	DUST PALLIATIVE (1%)	COST	1%		\$3,129,133
209XX01	FURNISH WATER (1%)	COST	1%		\$3,129,133
701XX01	MAINTENANCE AND PROTECTION OF TRAFFIC (10%)	COST	10%		\$31,291,326
810XX01	EROSION CONTROL AND POLLUTION PREVENTION (1%)	COST	1%		\$3,129,133
924XX02	CONTRACTOR QUALITY CONTROL (2%)	COST	2%		\$6,258,265
925XX01	CONSTRUCTION SURVEYING AND LAYOUT (2%)	COST	2%		\$6,258,265
SUBTOTAL					\$366,108,513
901XX01	MOBILIZATION (10%)	COST	10%		\$36,610,851
SUBTOTAL					\$402,719,365
951X001	CONSTRUCTION ENGINEERING (15%)	COST	15%		\$60,407,905
951X002	CONTINGENCY (20%)	COST	20%		\$80,543,873
951X010	INDIRECT COST ALLOCATION (3.42%)	COST	3.42%		\$13,773,002
Roadway					\$557,444,145

PROJECT WIDE

401X014	PCCP SMOOTHNESS INCENTIVE	LANE MILE	50	\$9,000.00	\$450,000
401X015	PCCP MATERIALS QUALITY INCENTIVE	SQ.YD.	775,774	\$1.50	\$1,163,661
414X001	AR-ACFC SMOOTHNESS INCENTIVE	LANE MILE	130	\$9,000.00	\$1,170,000
416X002	ASPHALTIC CONCRETE (END PRODUCT) MATERIALS QUALITY INCENTIVE	TON	686,358	\$3.00	\$2,059,074
PROJECT WIDE					\$4,842,735

OTHER COST

	FINAL DESIGN COSTS (10%)	COST	10%		\$56,228,688
	RIGHT-OF-WAY (USFS) COST UNKNOWN	ACRE	67		\$
	RIGHT-OF-WAY (STATE TRUST LAND) COST UNKNOWN	ACRE	15		\$
	RIGHT-OF-WAY (CITY OF FLAGSTAFF) COST UNKNOWN	ACRE	4		\$
	RIGHT-OF-WAY (BOARD OF REGENTS) COST UNKNOWN	ACRE	15		\$
	RIGHT-OF-WAY (PRIVATE OWNERSHIP) COST UNKNOWN	ACRE	57		\$
	ENVIRONMENTAL MITIGATION COST UNKNOWN	L.SUM	1		\$
	UTILITY RELOCATION	COST	2%		\$11,245,738
OTHER COST					\$67,474,426

Summary	
Section	Total
Roadway	\$557,444,000
PROJECT WIDE	\$4,843,000
OTHER COST	\$67,474,000
Total Project Cost	\$629,761,000

6.2 Estimate of Future Maintenance Costs

Table 69 – Estimate of Future Annual Maintenance Costs per Lane-Mile

Annual Maintenance Cost Per Lane Mile Using PeCoS Latest FY Data ¹	
Category	Other Locations
1. Paved Surfaces & Shoulders	420
2. Roadside	230
3. Drainage & Environmental	100
4. Rest Areas	230
5. Traffic Operations - Signal & Lighting; Signing & Striping - ITS	935
6. Landscaping	85
7. Winter Storms	155
8. Emergency Response	30
9. Miscellaneous Maintenance ²	300
10. Support and Other Operating Expenses	1165
11. Other Specialty Items ³	
MCL = Maintenance Cost per Lane Mile	\$3,650
Total Estimated Annual Maintenance Costs of Project at PA/DCR Phase and at Maintenance Phase	
Annual Maintenance Cost of Project at PA/DCR Phase	Other Locations ⁶
PW = Additional Pavement Width ⁴	44
NL = Number of 12-ft Wide Lanes	3.666666667
LP = Length of Project in Miles	25
PMC = Current Project Maintenance Cost	\$334,583
Annual Maintenance Cost of Project at Beginning of Maintenance Phase	Other Locations ⁶
IF = Inflation Factor ⁵	1.058
N = Number of Years to Maintenance Phase	3
PMCI = Project Maintenance Cost including Inflation	\$396,243

- Notes:
- 1- Lane mile width is 12 ft, Total maintenance lane miles = 27,722 miles
Metropolitan Phoenix maintenance lane miles = 2016 miles, Other Locations = 25,706 miles
 - 2- Miscellaneous maintenance include building and yard maintenance, work training, material handling, vegetation control and contract administration considered in the maintenance cost breakdown
 - 3- For Other Specialty Items, contact Central Maintenance.
 - 4- Additional Pavement width includes the main line, ramps and shoulders
Additional Pavement Width = New Pavement Width - Existing Pavement Width
 - 5- Based on increase in maintenance costs of 76% over the last 10 years
 - 6- Numbers for maintenance cost at PA/DCR Phase and Beginning of Maintenance Phase represent an Example Project, 24 feet wide, 2 miles long, going into the maintenance phase 3 years later.