AACE Level 5 Estimate August 27th, 2020 Prepared by:- ARUP 77 Water Street Floor 4 New York, NY	5 - 11 1 - 2 2 11 - 5 11 -
Prepared by:- ARUP 77 Water Street Floor 4 New York, NY	Essex Hudson Greenway Bridges Estima Hackensack Bridge Life Cycle Cost Analysis
Prepared by:- ARUP 77 Water Street Floor 4 New York, NY	AACE Level 5 Estimate
Prepared by:- ARUP 77 Water Street Floor 4 New York, NY	
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New York, NY	77 Water Street
	New York, NY 10005

AACE Estimate Classification Matrix

Estimate Level	Estimate Description	Design Phase	Level of Completion	Methodology	Accuracy Range
5	Rough Order of Magnitude	Planning Schematic Design	0% to 5%	Parametric Models Capacity Factored Historical Costs	L: -20% to - 50% H: +30% to +100%
4	Concept Feasibility	Planning Schematic Design	1% to 15%	Equipment Factored Parametric Models	L: -15% to - 30% H: +20% to +50%
3	Budget Authorization	Planning Schematic Design Design Documents	10% to 40%	Unit Costs Assembles	L: -10% to - 20% H: +10% to +40%
2	Budget Control Estimate	Preliminary Design Engineering Design Documents Construction Documents	30% to 70%	Detailed Unit Cost Detailed Take-Off	L: -5% to - 15% H: +5% to +30%
1	Bid	Detailed Design Engineering Construction Documents	50% to 100%	Detailed Unit Cost Detailed Take-Off Productivities Subcontractor Quotes	L: -2% to - 5% H: +3% to + 15%



August 27th, 2020 ARUP

1 Basis of Pricing

The cost estimate is classified as a Class 5 budget authorization estimate according to Arup's estimate classification matrix (Level 5), which was developed from the Association for the Advancement of Cost Engineering (AACE) best practices. The accuracy range of this estimate has been determined to be +30%/-30% and is indicative of likely bid prices if the project was issued to tender at this current stage.

Pricing shown reflects probable construction costs obtainable for the infrastructure works on the date of this statement of probable costs. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors, that is to mean 4 to 5 bids. If fewer bids are received, bid results can be expected to be higher.

This document is based on the measurement and pricing of quantities, wherever information is provided and/or reasonable assumptions for other works not covered in the drawings and programs as stated in this document. The unit rates reflected herein have been developed from project experience and industry research

2 Scope of the Project

The scope of this cost estimate includes for the followings works:

- Contractor mobilization, construction of temporary facilities and laydown areas
- Demolition, Rehabilitation, and Replacement scopes of work for the 15 bridges outlined by Arup
- Contractor demobilization and site clean up

3 Documentations

The following documents and sources were used to develop the estimate of the Essex Hudson Greenway:

- Structural Report by NAIK
 Table of Bridges (WIP 28July20 rev0).xlsx
- 3. Google Earth

4 Project Construction Schedule

A project construction schedule was not part of the scope of work presented

Contractor's Indirect includes costs for general conditions, mobilization, site supervision, insurance, bonds, and other temporary works not included in the direct costs.

5 Contractors Overhead and Profit

Contractor's overhead and profit is reflective of the General Contractor's office overhead and profit.

6 Additional Contractor Cost Add-ons

Contractor Contingency of 25% has been included. This does not include additional items of scope, but rather design development of existing scope.

Five years of escalation has been included at 2.83%pa amounting to 15% as is included in the Essex Hudson Greenway Conceptual Cost Estimate prepared by Gardiner and Theobald on July 29th, 2020

7 Soft Costs

Soft costs have been included for this estimate under the following line items: Planning and preliminary engineering design (3%)

Final engineering design (7%)
Site investigations surveying, inspections, testing, etc. (2%)

Project and construction management (5%) Legal, permits, agency reviews (3%)

8 Assumptions

Capital Cost

Timber piles for Penhorn Creek assumed to be 25ft long

Assuming 2500 kg/m3 (.o78034 Tons/lb3) density of ballast based on AS 1141.6 and a 10% compaction

Assuming four girders length long, total replacement, 8"x12" for Penhorn Creek Assuming penetrating concrete sealer for concrete bridges

Assume 8" thick for precast concrete panels on top of bridge
Assume 6" thick for poured concrete on top of bridge

Assuming Railing is 48" bicycle/pedestrian railing and fencing
Assumed a piece of furniture for every 250 sqft
For Concrete rehabilitation, it was assumed 1" of concrete needed for repair over the calculated sqft

An average labor rate of \$150 was used to represent the average of all trades working on the project.

An average equipment rate of \$30 was used to represent the average of all equipment used on the project. If there was a substantial equipment need for an activity, the hourly equipment rate was adjusted accordingly.

Assumed geomembrane is the same cost as sheet waterproofing.

Assumed graffiti removal was done one 10% of the sf of the structures

Assumed concrete jacket for Hackensack option 1 extends for height of 30ft and is built with tremie concrete construction methods Assumed power cable installed underwater under navigation channel rests on top of river bed

The discount rate was estimated to be 4% from analyzing recent bond rates from the NJ Transportation Trust Fund Authority (https://www.state.nj.us/ttfa/financing/bonds.shtm)

Bridge operators cost assumed to be 5 people at 90k/year each
Assumed maintenance costs for mechanical equipment of the swing bridge was assumed to be 40 hours per month plus 10,000 in materials per month

An allowance for annual repairs of the bridge include costs for expansion joints, bearings, drainage, inspections, etc.

The annual allowance for alternative 1 bridge was estimated to be \$150k a year because of the older steel material stock of the bridge, alternative 2 bridge was estimated at \$50k due to new material stock and a larger composition of concrete, and alternative 3 was estimated at \$200k because of the new material stock, larger bridge footprint, and a larger composition of concrete

\$5k a month was allocated for misc. repairs of the swing bridge options

\$10k a month was allocated for misc. repairs of the swing bridge options due to larger bridge area

It was assumed the mechanical equipment would have to be repaired every 25 year

It was assumed that special maintenance and rehab costs would occur every 20 years at 5% of the project price of the Alternative 1 and 3% of the project price of Alternative 2 and 3

9 Items excluded from the Cost Estimate

Contingency and a risk based assessment of project risks, unknowns, and schedule impacts. A thorough risk assessment and statistical analysis to develop an Owner's Contractor Contingency and confidence level should be developed for a more insightful Contractor Contingency value.

The Owner's facilities onsite

Owner's direct management costs, running, and maintenance costs Planning and enquiry costs, including legal expenses and fees

Site investigation

Land acquisition costs

Tests and inspections performed by others, apart from that listed in the estimate

Compensatory costs to other interested parties
Protection or relocation of existing utilities (unless stated)

Hazardous or contaminated mitigation (unless stated)
Agency engineering, management and administrative costs

No allowance has been included for construction managers / programs managers / project managers overseeing the work's completion.

Quality Assurance to be carried out by the Owner

Discovery of archaeological artifacts and their consequential effect on the project

Local taxes and duties

No interim repairs, stabilization, or safety measures are included from now until rehabilitation.

10 Items that may affect the cost estimate

Modifications to the scope of work included in this estimate Special phasing requirements (unless stated)

Restrictive technical specifications or excessive contract conditions

Any other non-competitive bid situations

Bids delayed beyond the projected schedule

August 27th, 2020 **ARUP**

11 Statements of Probable Cost
Arup has no control over the cost of labor and materials, general contractor's or any subcontractor's method of determining prices, or competitive bidding and market conditions. This opinion of probable cost of construction is made on the basis of the experience, qualifications, and best judgment of the professional consultant familiar with the construction industry. Arup cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates.

12 Recommendation for Cost Control

Arup recommends that the Owner carefully review this document, including line item descriptions, unit prices, clarifications, exclusions, inclusions and assumptions, contingencies, escalation and markups. If the project is over budget, or if there are unresolved budgeting issues, alternate system schemes should be evaluated before proceeding into the construction phase.

13 Request for Modifications
Requests for modifications of any apparent errors or omissions to this document must be made to Arup within thirty (30) days of receipt of this estimate. Otherwise, it will be understood that the content has been concurred with and accepted by the Owner.

Life Cycle Cost of Hackensack Bridge Options

Date August 27th, 2020

Inputs

ltem	Value
Discount Rate	4.0%
Capital Cost Alternative 1	\$ 45,820,250
Capital Cost Alternative 2	\$ 48,097,807
Capital Cost Alternative 3	\$ 47,643,940
Mechanical Replacement	\$ 11,000,000
Life Cycle Length	50

Net Present Value

Option	NPV
Alternative 1	\$ 28,077,588
Alternative 2	\$ 25,365,672
Alternative 3	\$ 8,253,976

Average Yearly Life Cycle Cost (NPV)

Option	Yearly Cost
Alternative 1	\$ 561,552
Alternative 2	\$ 507,313
Alternative 3	\$ 165,080

Description

The Life Cycle Cost Analysis consists of high-level operation, maintenance, and replacement costs for the three bridge options of the Hackensack river crossing. The costs were calculated on a per annum basis and discounted to provide a view of the present value of future costs in today's dollars. The discounted yearly costs were summed to provide a Net Present Value for each alternative to provide a comparison of the life cycle costs between alternatives. The average yearly NPV cost was also calculated to demonstrate the average yearly discounted cost for operation, maintenance, and replacement works for each alternative.

*Note: The discount rate is reflective of recent bond rates of the NJ Transportation Trust Fund Authority (https://www.state.nj.us/ttfa/financing/bonds.shtm)



Hackensack Option Summary

Date August 27th, 2020

Alternative 1: Full Rehabilitation

This option includes complete rehabilitation of the existing bridge, both approach spans and center truss span. The approach spans substructure will be rehabilitated such that the approach spans are raised by 3ft to raise the girders above the flood level, taking into account sea level rise. The center truss will be returned to operable condition, including all new mechanical equipment for the movable swing span

Alternative 2: Replacement Movable Bridge

This option includes complete demolition of the existing bridge and replacement with a new low level movable bridge. The approach spans are constructed from precast concrete elements to increase durability in comparison with the existing steel structure. The navigation span will be a lightweight pedestrian truss swing span.

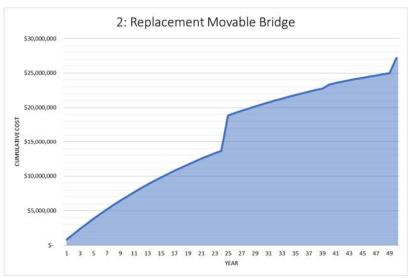
Alternative 3: Replacement High-Level Bridge

This option includes complete demolition of the existing bridge and replacement with a new high-level fixed bridge that spans the navigation channel, providing 50ft required navigation clearance. The bridge will be constructed with steel girder approach spans and a long span pedestrian truss over the navigation channel. The bridge will be approximately 2260ft in length in order to climb to the required elevation over the navigation channel at the maximum 5% grade.



Hackensack Bridge – Life Cycle Cost Comparison







Discount Rate	Source								
Year			0	1	2	3	4	5	6
Discount Rate	NJ Transportation Trust Fund Authority		4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Discount Factor	· · · · · · · · · · · · · · · · · · ·		1	0.961538462	0.924556213	0.888996359	0.854804191	0.821927107	0.790314526
Discounted Costs									
Alternative 1	Per Annum Cost	\$	972,000	\$ 934,615 \$	898,669 \$	864,104	830,870 \$	798,913 \$	768,186
Operations		\$	570,000	\$ 548,077 \$	526,997 \$	506,728	487,238 \$	468,498 \$	450,479
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$	450,000 \$	\$ 432,692 \$	416,050 \$	400,048	384,662 \$	369,867 \$	355,642
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$	120,000 \$	\$ 115,385 \$	110,947 \$	106,680	102,577 \$	98,631 \$	94,838
Maintenance		\$	402,000	\$ 386,538 \$	371,672 \$	357,377	343,631 \$	330,415 \$	317,706
Routine Mechanical Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$	192,000	\$ 184,615 \$	177,515 \$	170,687	164,122 \$	157,810 \$	151,740
Annual Repairs	\$ 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc.	\$	150,000 \$	\$ 144,231 \$	138,683 \$	133,349	128,221 \$	123,289 \$	118,547
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs, etc)	\$	60,000 \$	\$ 57,692 \$	55,473 \$	53,340	51,288 \$	49,316 \$	47,419
Replacement		\$	- \$	\$ - \$	- \$	- \$	- \$	- \$	-
Mechanical Replacement	\$ 11,000,000 25 years	\$	- \$	\$ - \$	- \$	- 5	- \$	- \$	-
Structural Rehab	\$ 2,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost	\$	- \$	\$ - \$	- \$	- 5	- \$	- \$	-
Alternative 2	Per Annum Cost	\$	872,000	\$ 838,462 \$	806,213 \$	775,205	745,389 \$	716,720 \$	689,154
Operations		\$	570,000	5 548,077 \$	526,997 \$	506,728	487,238 \$	468,498 \$	450,479
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$	450,000		416,050 \$			369,867 \$	355,642
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$	120,000				102,577 \$	98,631 \$	94,838
Maintenance	, — — — — — — — — — — — — — — — — — — —	Ś	302,000		279,216 \$	268,477		248,222 \$	238,675
Routine Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	Ś	192,000		177,515 \$			157,810 \$	151,740
Annual Repairs	\$ 50,000 Allowance for expansion joints, bearings, drainage, inspections	Ś	50,000		46,228 \$			41,096 \$	39,516
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs)	Ś	60,000		55,473 \$, ,	49,316 \$	47,419
Replacement	+	Ś	- 9		- \$		- \$	- \$	-
Mechanical Replacement	\$ 11,000,000 Every 25 years	\$	- 9		·		•	- \$	_
Structural Rehab	\$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	\$			·	- 9	- \$	- Ś	_
Alternative 3	Per Annum Cost	Ś	340,000	r	314,349 \$		290,633 \$	279,455 \$	268,707
Operations	. 5. 7	Ś	20,000		18,491 \$			16,439 \$	15,806
Electrical Operation	\$ 20,000 Allowance electrical bridge lighting	\$	20,000		18,491 \$			16,439 \$	15,806
Maintenance	20,000 / movance electrical orage lighting	Ġ	320,000		295,858 \$	284,479		263,017 \$	252,901
Annual Repairs	\$ 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$	200,000		184,911 \$			164,385 \$	158,063
Miscellaneous Repairs	\$ 120,000 10k/month (cleaning, changing lightbulbs)	ς ,	120,000		110,947 \$			98,631 \$	94,838
Replacement	T20,000 Toky month (cicaning, changing lightbodies)	¢	- 5		- \$; 102,577 \$	- \$	-
Structural Rehab	\$ 1,429,318 20 and 40 years special maintenance and rehab at 3% of capital cost	\$	- 9	· ·	·		- \$	- \$	_
Cumulative Discounted Costs	1,423,510 20 and 40 years special maintenance and remain at 570 of capital cost	,	_ 7	· 1	- ۲	- ,	-	- 7	-
Alternative 1	Per Annum Cost	Ġ	972,000	\$ 1,906,615 \$	2,805,284 \$	3,669,388	4,500,258 \$	5,299,171 \$	6,067,357
Operations	1 ci ziiiluii cost	Ġ	570,000		1,645,074 \$			3,107,539 \$	3,558,018
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	, , , , , , , , , , , , , , , , , , ,	450,000					2,453,320 \$	2,808,962
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$	120,000					654,219 \$	749,056
Maintenance	T20,000 / Mortalite for Shage operation and Shage lighting	Ġ	402,000		1,160,210 \$			2,191,633 \$	2,509,339
Routine Mechanical Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	÷	192,000					1,046,750 \$	1,198,490
Annual Repairs	\$ 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc.	ς .	150,000		432,914 \$			817,773 \$	936,321
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs, etc)	ς .	60,000				· · ·	327,109 \$	374,528
Replacement	5 O0,000 Skymonth (cleaning, changing nghibubas, etc)	š	- \$, ,	-
Mechanical Replacement	\$ 11,000,000 25 years	¢	- 9		·		•		
Structural Rehab	\$ 2,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost	¢	- 5					·	_
Alternative 2	Per Annum Cost	ç ¢	872,000		2,516,675 \$		т.		5,443,143
Operations	rei Amum cosc	¢	570,000 \$		1,645,074 \$			3,107,539 \$	3,558,018
	\$ 450,000 Bridge Operators (5 people @ \$90k)	,	450,000						2,808,962
Bridge Operators Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	ş ¢	120,000						749,056
·	Allowance for bridge operation and bridge lighting	ب خ							
Maintenance	\$ 103,000 40 hrs/month @ \$75/hrs/\$10k materials	\$	302,000 \$		871,601 \$			1,646,450 \$	1,885,125
Routine Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$	192,000 \$					1,046,750 \$	1,198,490
Annual Repairs	\$ 50,000 Allowance for expansion joints, bearings, drainage, inspections	\$	50,000 \$						312,107
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs)	\$	60,000 \$						374,528
Replacement	ć 11 000 000 - Fuery 25 years	\$	- \$	•	· ·			·	-
Mechanical Replacement	\$ 11,000,000 Every 25 years	\$ *	- \$						-
Structural Rehab	\$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	\$	- 5	· · · · · ·		- 9	т.	- \$	
Alternative 3	Per Annum Cost	\$	340,000 \$		981,272 \$			1,853,620 \$	2,122,327
		S	20,000	\$ 39,231 \$	57,722 \$	·		109,036 \$	124,843
Operations		•			the state of the s				124042
Electrical Operation	\$ 20,000 Allowance electrical bridge lighting	\$	20,000						
Electrical Operation Maintenance		\$ \$	320,000	627,692 \$	923,550 \$	1,208,029	1,481,566 \$	1,744,583 \$	124,843 1,997,484
Electrical Operation Maintenance Annual Repairs	\$ 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ \$ \$	320,000 \$ 200,000 \$	627,692 \$ 392,308 \$	923,550 \$ 577,219 \$	1,208,029 \$ 755,018 \$	1,481,566 \$ 925,979 \$	1,744,583 \$ 1,090,364 \$	1,997,484 1,248,427
Electrical Operation Maintenance Annual Repairs Miscellaneous Repairs		\$ \$ \$ \$	320,000 \$ 200,000 \$ 120,000 \$	627,692 \$ 392,308 \$ 235,385 \$	923,550 \$ 577,219 \$ 346,331 \$	1,208,029 \$ 755,018 \$ 453,011 \$	1,481,566 \$ 925,979 \$ 555,587 \$	1,744,583 \$ 1,090,364 \$ 654,219 \$	1,997,484 1,248,427
Electrical Operation Maintenance Annual Repairs	\$ 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ \$ \$ \$ \$	320,000 \$ 200,000 \$	627,692 \$ 392,308 \$ 235,385 \$ - \$	923,550 \$ 577,219 \$ 346,331 \$ - \$	1,208,029 \$ 755,018 \$ 453,011 \$ - \$	1,481,566 \$ 925,979 \$ 555,587 \$ - \$	1,744,583 \$ 1,090,364 \$ 654,219 \$	1,997,484



Discount Rate	Source							
Year	Source	7	8	9	10	11	12	13
Discount Rate	NJ Transportation Trust Fund Authority	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Discount Factor		0.759917813	0.730690205	0.702586736	0.675564169	0.649580932	0.62459705	0.600574086
Discounted Costs								
Alternative 1	Per Annum Cost	\$ 738,640 \$	710,231 \$	682,914 \$	656,648 \$	631,393 \$	607,108 \$	583,758
Operations		\$ 433,153 \$		400,474 \$	385,072 \$	370,261 \$	356,020 \$	342,327
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$ 341,963 \$		316,164 \$	304,004 \$	292,311 \$	281,069 \$	270,258
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$ 91,190 \$	87,683 \$	84,310 \$	81,068 \$	77,950 \$	74,952 \$	72,069
Maintenance		\$ 305,487 \$		282,440 \$	271,577 \$	261,132 \$	251,088 \$	241,431
Routine Mechanical Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ 145,904 \$	140,293 \$	134,897 \$	129,708 \$	124,720 \$	119,923 \$	115,310
Annual Repairs	\$ 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc.	\$ 113,988 \$	109,604 \$	105,388 \$	101,335 \$	97,437 \$	93,690 \$	90,086
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs, etc)	\$ 45,595 \$	43,841 \$	42,155 \$	40,534 \$	38,975 \$	37,476 \$	36,034
Replacement		\$ - \$	- \$	- \$	- \$	- \$	- \$	-
Mechanical Replacement	\$ 11,000,000 25 years	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
Structural Rehab	\$ 2,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
Alternative 2	Per Annum Cost	\$ 662,648 \$	637,162 \$	612,656 \$	589,092 \$	566,435 \$	544,649 \$	523,701
Operations		\$ 433,153 \$		400,474 \$	385,072 \$	370,261 \$	356,020 \$	342,327
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$ 341,963 \$	328,811 \$	316,164 \$	304,004 \$	292,311 \$	281,069 \$	270,258
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$ 91,190 \$	87,683 \$	84,310 \$	81,068 \$	77,950 \$	74,952 \$	72,069
Maintenance		\$ 229,495 \$	220,668 \$	212,181 \$	204,020 \$	196,173 \$	188,628 \$	181,373
Routine Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ 145,904 \$	140,293 \$	134,897 \$	129,708 \$	124,720 \$	119,923 \$	115,310
Annual Repairs	\$ 50,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 37,996 \$	36,535 \$	35,129 \$	33,778 \$	32,479 \$	31,230 \$	30,029
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs)	\$ 45,595 \$	43,841 \$	42,155 \$	40,534 \$	38,975 \$	37,476 \$	36,034
Replacement		\$ - \$	- \$	- \$	- \$	- \$	- \$	-
Mechanical Replacement	\$ 11,000,000 Every 25 years	\$ - \$	- \$	- \$	- \$	- \$	- \$	=
Structural Rehab	\$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	\$ - \$	- \$	- \$	- \$	- \$	- \$	=
Alternative 3	Per Annum Cost	\$ 258,372 \$	248,435 \$	238,879 \$	229,692 \$	220,858 \$	212,363 \$	204,195
Operations		\$ 15,198 \$	14,614 \$	14,052 \$	13,511 \$	12,992 \$	12,492 \$	12,011
Electrical Operation	\$ 20,000 Allowance electrical bridge lighting	\$ 15,198 \$	14,614 \$	14,052 \$	13,511 \$	12,992 \$	12,492 \$	12,011
Maintenance		\$ 243,174 \$	233,821 \$	224,828 \$	216,181 \$	207,866 \$	199,871 \$	192,184
Annual Repairs	\$ 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 151,984 \$	146,138 \$	140,517 \$	135,113 \$	129,916 \$	124,919 \$	120,115
Miscellaneous Repairs	\$ 120,000 10k/month (cleaning, changing lightbulbs)	\$ 91,190 \$	87,683 \$	84,310 \$	81,068 \$	77,950 \$	74,952 \$	72,069
Replacement		\$ - \$	- \$	- \$	- \$	- \$	- \$	-
Structural Rehab	\$ 1,429,318 20 and 40 years special maintenance and rehab at 3% of capital cost	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
Cumulative Discounted Costs								
Alternative 1	Per Annum Cost	\$ 6,805,997 \$	7,516,228 \$	8,199,142 \$	8,855,791 \$	9,487,183 \$	10,094,292 \$	10,678,050
Operations		\$ 3,991,171 \$	4,407,665 \$	4,808,139 \$	5,193,211 \$	5,563,472 \$	5,919,492 \$	6,261,819
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$ 3,150,925 \$	3,479,735 \$	3,795,899 \$	4,099,903 \$	4,392,215 \$	4,673,283 \$	4,943,542
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$ 840,247 \$	927,929 \$	1,012,240 \$	1,093,307 \$	1,171,257 \$	1,246,209 \$	1,318,278
Maintenance		\$ 2,814,826 \$	3,108,563 \$	3,391,003 \$	3,662,580 \$	3,923,712 \$	4,174,800 \$	4,416,230
Routine Mechanical Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ 1,344,394 \$	1,484,687 \$	1,619,584 \$	1,749,292 \$	1,874,012 \$	1,993,934 \$	2,109,244
Annual Repairs	\$ 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc.	\$ 1,050,308 \$	1,159,912 \$	1,265,300 \$	1,366,634 \$	1,464,072 \$	1,557,761 \$	1,647,847
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs, etc)	\$ 420,123 \$	463,965 \$	506,120 \$	546,654 \$	585,629 \$	623,104 \$	659,139
Replacement		\$ - \$	- \$	- \$	- \$	- \$	- \$	-
Mechanical Replacement	\$ 11,000,000 25 years	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
Structural Rehab	\$ 2,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
Alternative 2	Per Annum Cost	\$ 6,105,792 \$	6,742,954 \$	7,355,609 \$	7,944,701 \$	8,511,136 \$	9,055,784 \$	9,579,485
Operations		\$ 3,991,171 \$	4,407,665 \$	4,808,139 \$	5,193,211 \$	5,563,472 \$	5,919,492 \$	6,261,819
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$ 3,150,925 \$	3,479,735 \$	3,795,899 \$	4,099,903 \$	4,392,215 \$	4,673,283 \$	4,943,542
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$ 840,247 \$	927,929 \$	1,012,240 \$	1,093,307 \$	1,171,257 \$	1,246,209 \$	1,318,278
Maintenance		\$ 2,114,621 \$	2,335,289 \$	2,547,470 \$	2,751,491 \$	2,947,664 \$	3,136,292 \$	3,317,666
Routine Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ 1,344,394 \$		1,619,584 \$		1,874,012 \$	1,993,934 \$	2,109,244
Annual Repairs	\$ 50,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 350,103 \$		421,767 \$		488,024 \$	519,254 \$	549,282
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs)	\$ 420,123 \$		506,120 \$	· · · · · · · · · · · · · · · · · · ·	585,629 \$	623,104 \$	659,139
Replacement	,	\$ - \$		- \$		- \$	- \$	-
Mechanical Replacement	\$ 11,000,000 Every 25 years	\$ - \$	·	- \$		- \$	- \$	-
Structural Rehab	\$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	\$ - \$		- \$	- \$	- \$	- \$	-
Alternative 3	Per Annum Cost	\$ 2,380,699 \$	·	2,868,013 \$	3,097,705 \$	3,318,562 \$	3,530,925 \$	3,735,120
Operations		\$ 140,041 \$		168,707 \$		195,210 \$	207,701 \$	219,713
Electrical Operation	\$ 20,000 Allowance electrical bridge lighting	\$ 140,041 \$		168,707 \$		195,210 \$	207,701 \$	219,713
Maintenance	, -,,	\$ 2,240,657 \$		2,699,306 \$	2,915,487 \$	3,123,353 \$	3,323,224 \$	3,515,407
Annual Repairs	\$ 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 1,400,411 \$		1,687,066 \$		1,952,095 \$	2,077,015 \$	2,197,130
Miscellaneous Repairs	\$ 120,000 10k/month (cleaning, changing lightbulbs)	\$ 840,247 \$		1,012,240 \$		1,171,257 \$	1,246,209 \$	1,318,278
Replacement	,,, (\$ - \$		- \$		- \$	- \$	-
Structural Rehab	\$ 1,429,318 20 and 40 years special maintenance and rehab at 3% of capital cost	\$ - \$		- \$		- \$	- \$	
Structural richas	2, 123,320 20 and 10 years special manner fulled and 10 flux of capital cost	7	. 7	Y	Y	Ą	Y	



Discount Rate	Source							
Year	Source	14	15	16	17	18	19	20
Discount Rate	NJ Transportation Trust Fund Authority	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Discount Factor		0.577475083	0.555264503	0.533908176	0.513373246	0.493628121	0.474642424	0.456386946
Discounted Costs								
Alternative 1	Per Annum Cost	\$ 561,306 \$	539,717 \$	518,959 \$	498,999 \$	479,807 \$	461,352 \$	1,489,196
Operations		\$ 329,161 \$	316,501 \$	304,328 \$	292,623 \$	281,368 \$	270,546 \$	260,141
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$ 259,864 \$	249,869 \$	240,259 \$	231,018 \$	222,133 \$	213,589 \$	205,374
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$ 69,297 \$	66,632 \$	64,069 \$	61,605 \$	59,235 \$	56,957 \$	54,766
Maintenance		\$ 232,145 \$	223,216 \$	214,631 \$	206,376 \$	198,439 \$	190,806 \$	183,468
Routine Mechanical Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ 110,875 \$	106,611 \$	102,510 \$	98,568 \$	94,777 \$	91,131 \$	87,626
Annual Repairs	\$ 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc.	\$ 86,621 \$	83,290 \$	80,086 \$	77,006 \$	74,044 \$	71,196 \$	68,458
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs, etc)	\$ 34,649 \$	33,316 \$	32,034 \$	30,802 \$	29,618 \$	28,479 \$	27,383
Replacement		\$ - \$	- \$	- \$	- \$	- \$	- \$	1,045,588
Mechanical Replacement	\$ 11,000,000 25 years	\$ - \$	- \$	- \$	- \$	- \$	- \$	
Structural Rehab	\$ 2,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost	\$ - \$	- \$	·	Ψ	- \$	- \$	
Alternative 2	Per Annum Cost	\$ 503,558 \$	484,191 \$	465,568 \$		430,444 \$	413,888 \$	1,056,506
Operations		\$ 329,161 \$	316,501 \$	304,328 \$		281,368 \$	270,546 \$	260,141
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$ 259,864 \$		240,259 \$				205,374
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$ 69,297 \$	66,632 \$			59,235 \$		54,766
Maintenance		\$ 174,397 \$	167,690 \$	161,240 \$		149,076 \$	143,342 \$	137,829
Routine Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ 110,875 \$		102,510 \$		·	91,131 \$	•
Annual Repairs	\$ 50,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 28,874 \$					23,732 \$	22,819
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs)	\$ 34,649 \$		32,034 \$				27,383
Replacement		- \$,			:	T	658,536
Mechanical Replacement	\$ 11,000,000 Every 25 years	\$ - \$	- \$		*	- Ş	- \$	-
Structural Rehab	\$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	\$ - \$	- \$		Ψ.	- Ş	- \$	658,536
Alternative 3	Per Annum Cost	\$ 196,342 \$	188,790 \$	181,529 \$		167,834 \$	161,378 \$	807,494
Operations	A	\$ 11,550 \$		10,678 \$		9,873 \$	9,493 \$	9,128
Electrical Operation	\$ 20,000 Allowance electrical bridge lighting	\$ 11,550 \$		10,678 \$				9,128
Maintenance	A 200 000 All	\$ 184,792 \$	177,685 \$	170,851 \$		157,961 \$	151,886 \$	146,044
Annual Repairs	\$ 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 115,495 \$		106,782 \$		·	·	91,277
Miscellaneous Repairs	\$ 120,000 10k/month (cleaning, changing lightbulbs)	\$ 69,297 \$	66,632 \$	64,069 \$		59,235 \$		54,766
Replacement	£ 430,340, 30 and 40 are resident and asked at 20/ af and the last	\$ - \$	- \$	- \$		- \$	- \$	652,322
Structural Rehab	\$ 1,429,318 20 and 40 years special maintenance and rehab at 3% of capital cost	\$ - \$	- \$	- \$	- \$	- \$	- \$	652,322
Cumulative Discounted Costs Alternative 1	Per Annum Cost	\$ 11,239,355 \$	11,779,073 \$	12,298,031 \$	12,797,030 \$	13,276,837 \$	13,738,189 \$	15,227,385
Operations	Per Alliiulii Cost	\$ 6,590,980 \$		7,211,808 \$		7,785,799 \$		8,316,486
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$ 5,203,405 \$						
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$ 1,387,575 \$						1,750,839
Maintenance	2 120,000 Allowance for bridge operation and bridge lighting	\$ 4,648,375 \$	4,871,592 \$	5,086,223 \$		5,491,037 \$		5,865,311
Routine Mechanical Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ 2,220,120 \$						2,801,343
Annual Repairs	\$ 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc.	\$ 1,734,468 \$		1,897,844 \$		2,048,895 \$		2,188,549
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs, etc)	\$ 693,787 \$	727,103 \$	759,138 \$		819,558 \$		875,420
Replacement	y oo,oo siy month (cicaming, changing ngmoallos, ctc)	\$ - \$,
Mechanical Replacement	\$ 11,000,000 25 years	\$ - \$	- \$			- \$	•	
Structural Rehab	\$ 2,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost	\$ - \$	- \$			·		
Alternative 2	Per Annum Cost	\$ 10,083,043 \$	10,567,234 \$			11,910,907 \$	·	13,381,301
Operations		\$ 6,590,980 \$						8,316,486
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$ 5,203,405 \$						
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$ 1,387,575 \$						
Maintenance		\$ 3,492,063 \$						4,406,279
Routine Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ 2,220,120 \$						
Annual Repairs	\$ 50,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 578,156 \$						729,516
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs)	\$ 693,787 \$				819,558 \$	848,036 \$	875,420
Replacement		\$ - \$						658,536
Mechanical Replacement	\$ 11,000,000 Every 25 years	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
Structural Rehab	\$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	\$ - \$	- \$	- \$	- \$	- \$	- \$	658,536
Alternative 3	Per Annum Cost	\$ 3,931,462 \$	4,120,252 \$	4,301,781 \$	4,476,327 \$	4,644,161 \$	4,805,539 \$	5,613,033
Operations		\$ 231,262 \$	242,368 \$	253,046 \$	263,313 \$	273,186 \$	282,679 \$	291,807
-			242,368 \$	253,046 \$	263,313 \$	273,186 \$	282,679 \$	291,807
Electrical Operation	\$ 20,000 Allowance electrical bridge lighting	\$ 231,262 \$	242,300 \$,	,	-, 1	- / /	
Electrical Operation Maintenance	\$ 20,000 Allowance electrical bridge lighting	\$ 231,262 \$ 3,700,199 \$	3,877,884 \$	4,048,735 \$		4,370,975 \$	4,522,861 \$	4,668,904
·	\$ 20,000 Allowance electrical bridge lighting \$ 200,000 Allowance for expansion joints, bearings, drainage, inspections		3,877,884 \$	4,048,735 \$	4,213,014 \$	4,370,975 \$	4,522,861 \$	
Maintenance		\$ 3,700,199 \$	3,877,884 \$ 2,423,677 \$	4,048,735 \$ 2,530,459 \$	4,213,014 \$ 2,633,134 \$	4,370,975 \$ 2,731,859 \$	4,522,861 \$ 2,826,788 \$	2,918,065
Maintenance Annual Repairs	\$ 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 3,700,199 \$ \$ 2,312,625 \$	3,877,884 \$ 2,423,677 \$ 1,454,206 \$ - \$	4,048,735 \$ 2,530,459 \$ 1,518,275 \$ - \$	4,213,014 \$ 2,633,134 \$ 1,579,880 \$ - \$	4,370,975 \$ 2,731,859 \$ 1,639,116 \$ - \$	4,522,861 \$ 2,826,788 \$ 1,696,073 \$	2,918,065 1,750,839 652,322



Discount Rate	Source							
Year			21	22	23	24	25	26
Discount Rate	NJ Transportation Trust Fund Authority		4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Discount Factor			0.438833602	0.421955387	0.405726333	0.390121474	0.375116802	0.360689233
Discounted Costs						A= 0.400		
Alternative 1	Per Annum Cost	\$ \$	426,546			•		·
Operations	C 450 000 Pridro Operators /F magnic @ C00(s)	\$	250,135			222,369		·
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$ ¢	197,475				·	· · · · · · · · · · · · · · · · · · ·
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$ *	52,660					
Maintenance	A 00 000 401 - / 1 - O A 75 / A 01 1 -	\$	176,411		· · ·	156,829		
Routine Mechanical Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$	84,256			·	· · · ·	•
Annual Repairs	\$ 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc.	\$	65,825				· · · ·	
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs, etc)	\$	26,330					
Replacement	Å 44 000 000 05	\$	-	•	•			
Mechanical Replacement	\$ 11,000,000 25 years	\$	- !		Ţ.		, -, !	
Structural Rehab	\$ 2,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost	\$	- !	Υ Υ	Ψ	- 5	т т	
Alternative 2	Per Annum Cost	\$	382,663					•
Operations	450 000 0 11 0 1 15 1 0 4001)	\$	250,135		· · ·	222,369		·
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$	197,475			·		·
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$	52,660					
Maintenance	A	\$	132,528			117,817		·
Routine Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$	84,256				The state of the s	
Annual Repairs	\$ 50,000 Allowance for expansion joints, bearings, drainage, inspections	\$	21,942			·	· · · ·	·
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs)	\$	26,330					
Replacement		\$	- !	· .	·			
Mechanical Replacement	\$ 11,000,000 Every 25 years	\$	- :	:	Ţ.	- 9		
Structural Rehab	\$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	\$	- :	Υ	T		т т	
Alternative 3	Per Annum Cost	\$	149,203			132,641		·
Operations		\$	8,777		· · ·	7,802		·
Electrical Operation	\$ 20,000 Allowance electrical bridge lighting	\$	8,777					
Maintenance		\$	140,427		•	124,839		
Annual Repairs	\$ 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$	87,767			·	· · · ·	·
Miscellaneous Repairs	\$ 120,000 10k/month (cleaning, changing lightbulbs)	\$	52,660	\$ 50,635 \$	48,687 \$	46,815	45,014 \$	43,283
Replacement		\$	- :	\$ - \$	- \$	- ;	- \$	-
Structural Rehab	\$ 1,429,318 20 and 40 years special maintenance and rehab at 3% of capital cost	\$	- !	\$ - \$	- \$	- 9	- \$	-
Cumulative Discounted Costs								
Alternative 1	Per Annum Cost	\$	15,653,932					
Operations		\$	8,566,621					·
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$	6,763,122					
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$	1,803,499					
Maintenance		\$	6,041,722					
Routine Mechanical Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$	2,885,599					
Annual Repairs	\$ 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc.	\$	2,254,374					
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs, etc)	\$	901,750					
Replacement		\$	1,045,588	\$ 1,045,588 \$	1,045,588 \$	1,045,588		
Mechanical Replacement	\$ 11,000,000 25 years	\$	- :					
Structural Rehab	\$ 2,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost	\$	1,045,588	\$ 1,045,588 \$	1,045,588 \$	1,045,588		
Alternative 2	Per Annum Cost	\$	13,763,964					
Operations		\$	8,566,621					
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$	6,763,122					
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$	1,803,499	\$ 1,854,134 \$	1,902,821 \$	1,949,636	1,994,650 \$	2,037,932
					+	4,906,583	5,019,868 \$	5,128,796
Maintenance	, , ,	\$	4,538,806	\$ 4,666,237 \$	4,788,766 \$	4,500,505	-,, 1	0.000.000
Maintenance Routine Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ \$	4,538,806 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9					3,260,692
		\$ \$ \$	2,885,599 5 751,458 5	\$ 2,966,614 \$ \$ 772,556 \$	3,044,514 \$ 792,842 \$	3,119,417 \$ 812,348 \$	3,191,439 \$ 831,104 \$	849,138
Routine Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ \$ \$ \$	2,885,599	\$ 2,966,614 \$ \$ 772,556 \$	3,044,514 \$ 792,842 \$	3,119,417 \$ 812,348 \$	3,191,439 \$ 831,104 \$	849,138
Routine Maintenance Annual Repairs	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials \$ 50,000 Allowance for expansion joints, bearings, drainage, inspections	\$ \$ \$ \$	2,885,599 5 751,458 5 901,750 5 658,536 5	\$ 2,966,614 \$ \$ 772,556 \$ \$ 927,067 \$ 658,536 \$	3,044,514 \$ 792,842 \$ 951,411 \$	3,119,417	3,191,439 \$ 831,104 \$ 997,325 \$ 4,784,821 \$	849,138 1,018,966 4,784,821
Routine Maintenance Annual Repairs Miscellaneous Repairs	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials \$ 50,000 Allowance for expansion joints, bearings, drainage, inspections	\$ \$ \$ \$ \$ \$	2,885,599 5751,458 5901,750 5658,536 5	\$ 2,966,614 \$ 772,556 \$ 927,067 \$ 658,536 \$ \$ - \$	3,044,514 \$ 792,842 \$ 951,411 \$ 658,536 \$	3,119,417 812,348 974,818 658,536	3,191,439 \$ 831,104 \$ 997,325 \$ 4,784,821 \$ 4,126,285 \$	849,138 1,018,966 4,784,821 4,126,285
Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials \$ 50,000 Allowance for expansion joints, bearings, drainage, inspections \$ 60,000 5k/month (cleaning, changing lightbulbs)	\$ \$ \$ \$ \$ \$	2,885,599 5 751,458 5 901,750 5 658,536 5	\$ 2,966,614 \$ 772,556 \$ 927,067 \$ 658,536 \$ \$ - \$	3,044,514 \$ 792,842 \$ 951,411 \$ 658,536 \$ - \$	3,119,417	3,191,439 \$ 831,104 \$ 997,325 \$ 4,784,821 \$ 4,126,285 \$	849,138 1,018,966 4,784,821 4,126,285
Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials \$ 50,000 Allowance for expansion joints, bearings, drainage, inspections \$ 60,000 5k/month (cleaning, changing lightbulbs) \$ 11,000,000 Every 25 years	\$ \$ \$ \$ \$ \$ \$	2,885,599 5751,458 5901,750 5658,536 5	\$ 2,966,614 \$ 772,556 \$ 927,067 \$ 658,536 \$ \$ 5 658,536 \$	3,044,514 \$ 792,842 \$ 951,411 \$ 658,536 \$ - \$ 658,536 \$	3,119,417 812,348 974,818 658,536	3,191,439 \$ 831,104 \$ 997,325 \$ 4,784,821 \$ 4,126,285 \$ 658,536 \$	849,138 1,018,966 4,784,821 4,126,285 658,536
Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials \$ 50,000 Allowance for expansion joints, bearings, drainage, inspections \$ 60,000 5k/month (cleaning, changing lightbulbs) \$ 11,000,000 Every 25 years \$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	\$ \$ \$ \$ \$ \$ \$ \$	2,885,599 751,458 901,750 658,536 - 658,536	\$ 2,966,614 \$ 772,556 \$ 927,067 \$ 658,536 \$ 5 658,536 \$ \$ 5,905,701 \$	3,044,514 \$ 792,842 \$ 951,411 \$ 658,536 \$ 658,536 \$ 6,043,648 \$	3,119,417	3,191,439 \$ 831,104 \$ 997,325 \$ 4,784,821 \$ 4,126,285 \$ 658,536 \$ 6,303,829 \$	849,138 1,018,966 4,784,821 4,126,285 658,536 6,426,46 4
Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab Alternative 3	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials \$ 50,000 Allowance for expansion joints, bearings, drainage, inspections \$ 60,000 5k/month (cleaning, changing lightbulbs) \$ 11,000,000 Every 25 years \$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	\$	2,885,599 : 751,458 : 901,750 : 658,536 : 658,536 : 5,762,237 : 5	\$ 2,966,614 \$ 772,556 \$ 927,067 \$ 658,536 \$ \$ 658,536 \$ \$ 5,905,701 \$ \$ 309,022 \$	3,044,514 \$ 792,842 \$ 951,411 \$ 658,536 \$ - \$ 658,536 \$ 6,043,648 \$ 317,137 \$	3,119,417	3,191,439 \$ 831,104 \$ 997,325 \$ 4,784,821 \$ 4,126,285 \$ 658,536 \$ 6,303,829 \$ 332,442 \$	849,138 1,018,966 4,784,821 4,126,285 658,536 6,426,464 339,655
Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab Alternative 3 Operations	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials \$ 50,000 Allowance for expansion joints, bearings, drainage, inspections \$ 60,000 5k/month (cleaning, changing lightbulbs) \$ 11,000,000 Every 25 years \$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost Per Annum Cost	\$	2,885,599 751,458 901,750 658,536 658,536 5,762,237 300,583	\$ 2,966,614 \$ 772,556 \$ 927,067 \$ 658,536 \$ 5 658,536 \$ 5,905,701 \$ \$ 309,022 \$ \$	3,044,514 \$ 792,842 \$ 951,411 \$ 658,536 \$ - \$ 658,536 \$ 6,043,648 \$ 317,137 \$	3,119,417	3,191,439 \$ 831,104 \$ 831,104 \$ 997,325 \$ 4,784,821 \$ 4,126,285 \$ 658,536 \$ 6,303,829 \$ 332,442 \$ 332,442 \$	849,138 1,018,966 4,784,821 4,126,285 658,536 6,426,464 339,655 339,655
Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials \$ 50,000 Allowance for expansion joints, bearings, drainage, inspections \$ 60,000 5k/month (cleaning, changing lightbulbs) \$ 11,000,000 Every 25 years \$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost Per Annum Cost	\$	2,885,599 751,458 901,750 658,536 - 658,536 5,762,237 300,583	\$ 2,966,614 \$ 772,556 \$ 927,067 \$ 927,067 \$ 658,536 \$ \$ 658,536 \$ \$ 5,905,701 \$ \$ 309,022 \$ \$ 4,944,357 \$	3,044,514 \$ 792,842 \$ 951,411 \$ 658,536 \$ - \$ 658,536 \$ 6,043,648 \$ 317,137 \$ 317,137 \$ 5,074,189 \$	3,119,417	3,191,439 \$ 831,104 \$ 831,104 \$ 997,325 \$ 4,784,821 \$ 4,126,285 \$ 658,536 \$ 6,303,829 \$ 332,442 \$ 332,442 \$ 5,319,066 \$	849,138 1,018,966 4,784,821 4,126,285 658,536 6,426,464 339,655 339,655 5,434,486
Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials \$ 50,000 Allowance for expansion joints, bearings, drainage, inspections \$ 60,000 5k/month (cleaning, changing lightbulbs) \$ 11,000,000 Every 25 years \$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost Per Annum Cost \$ 20,000 Allowance electrical bridge lighting	\$	2,885,599 751,458 901,750 658,536 - 658,536 5,762,237 300,583 300,583 4,809,331	\$ 2,966,614 \$ 772,556 \$ 927,067 \$ 658,536 \$ 5 658,536 \$ 5,905,701 \$ 5 309,022 \$ 5 4,944,357 \$ 5 3,090,223 \$	3,044,514 \$ 792,842 \$ 951,411 \$ 658,536 \$ - \$ 658,536 \$ 6,043,648 \$ 317,137 \$ 317,137 \$ 5,074,189 \$ 3,171,368 \$	3,119,417	3,191,439 \$ 831,104 \$ 997,325 \$ 4,784,821 \$ 4,126,285 \$ 658,536 \$ 6,303,829 \$ 332,442 \$ 332,442 \$ 5,319,066 \$ 3,324,416 \$	849,138 1,018,966 4,784,821 4,126,285 658,536 6,426,464 339,655 339,655 5,434,486 3,396,554
Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation Maintenance Annual Repairs	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials \$ 50,000 Allowance for expansion joints, bearings, drainage, inspections \$ 60,000 5k/month (cleaning, changing lightbulbs) \$ 11,000,000 Every 25 years \$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost Per Annum Cost \$ 20,000 Allowance electrical bridge lighting \$ 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$	2,885,599 751,458 901,750 658,536 - 658,536 5,762,237 300,583 300,583 4,809,331 3,005,832	\$ 2,966,614 \$ 772,556 \$ 927,067 \$ 927,067 \$ 658,536 \$ \$ - \$ 658,536 \$ \$ 5,905,701 \$ \$ 309,022 \$ \$ 4,944,357 \$ \$ 3,090,223 \$ \$ 1,854,134 \$	3,044,514 \$ 792,842 \$ 951,411 \$ 658,536 \$ - \$ 658,536 \$ 6,043,648 \$ 317,137 \$ 317,137 \$ 317,136 \$ 1,902,821 \$	3,119,417	3,191,439 \$ 831,104 \$ 997,325 \$ 4,784,821 \$ 4,126,285 \$ 658,536 \$ 6,303,829 \$ 332,442 \$ 332,442 \$ 5,319,066 \$ 3,324,416 \$ 1,994,650 \$	849,138 1,018,966 4,784,821 4,126,285 658,536 6,426,464 339,655 339,655 5,434,486 3,396,554 2,037,932



Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators Electrical Operation \$ Maintenance Routine Mechanical Maintenance \$ Annual Repairs \$ Miscellaneous Repairs \$ Replacement Mechanical Replacement \$ 11, Structural Rehab \$ 2, Alternative 2 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$ Maintenance Routine Maintenance \$ Annual Repairs \$ Miscellaneous Repairs \$ Replacement Mechanical Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators Electrical Operation \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Electrical Operation \$ 5, Electrical Operators Electrical Operators \$ 5, Electrical Operators \$ 5, Electrical Operation \$ 5, Electrical Operators \$ 5, Electrical Operation \$ 5, Electrical Operation \$ 5, Electrical Operators \$ 5, Electrical Operation \$ 5, Electrical	450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc. 60,000 5k/month (cleaning, changing lightbulbs, etc) ,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	27 4.0% 0.34681657 \$ 337,106 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 66,589 \$ \$ 52,022 \$ \$ 20,809 \$ \$ - \$ \$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 117,918 \$ \$ 6,936 \$ \$ 6,936 \$ \$ 6,936 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$ \$ 69,363 \$ \$ 41,618 \$	190,082 \$ 150,065 \$ 40,017 \$ 134,058 \$ 64,028 \$ 50,022 \$ 20,009 \$ - \$ 290,792 \$ 190,082 \$ 40,017 \$ 64,028 \$ 16,674 \$ 20,009 \$	29 4.0% 0.320651415 311,673 \$ 182,771 \$ 144,293 \$ 38,478 \$ 128,902 \$ 61,565 \$ 48,098 \$ 19,239 \$ - \$ - \$ 279,608 \$ 182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ \$ - \$ \$ 109,021 \$ 6,413 \$ 6,413 \$ 6,413 \$ 64,130 \$ 38,478 \$	30 4.0% 0.308318668 299,686 \$ 175,742 \$ 138,743 \$ 36,998 \$ 123,944 \$ 59,197 \$ 46,248 \$ 18,499 \$ - \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$ 36,998 \$	31 4.0% 0.296460258 288,159 \$ 168,982 \$ 133,407 \$ 35,575 \$ 119,177 \$ 56,920 \$ 44,469 \$ 17,788 \$ - \$ - \$ 258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ 5,929 \$ 5,929 \$ 5,929 \$ 5,929 \$ 5,929 \$ 5,929 \$ 5,929 \$ 5,929 \$	32 4.0% 0.28505794 277,076 162,483 128,276 34,207 114,593 54,731 42,759 17,103 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219 57,012 34,207
Discount Rate Discount Factor Discounted Costs Alternative 1 Operations Bridge Operators Electrical Operation Routine Mechanical Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab Bridge Operators Electrical Operation Maintenance Routine Mechanical Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab Structural Rehab Structural Rehab Structural Replacement Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab Structural Rehab Structural Rehab Structural Rehab Structural Replacement Mechanical Replacement Mechanical Replacement Structural Repairs Structural Rehab Structural Replacement Structural Repairs Miscellaneous Repairs Structural Repairs Structural Replacement Structural Repairs Structural Replacement Structural Repairs Structural Repairs Structural Replacement Structural Repairs Structura	450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc. 60,000 5k/month (cleaning, changing lightbulbs, etc) ,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting	4.0% 0.34681657 \$ 337,106 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 139,420 \$ \$ 66,589 \$ \$ 52,022 \$ \$ 20,809 \$ \$ - \$ \$ - \$ \$ 197,685 \$ \$ 197,685 \$ \$ 197,685 \$ \$ 197,685 \$ \$ 110,4739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 117,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 117,918 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	4.0% 0.333477471 324,140 \$ 190,082 \$ 150,065 \$ 40,017 \$ 134,058 \$ 64,028 \$ 50,022 \$ 20,009 \$ - \$ - \$ \$ 290,792 \$ 190,082 \$ 150,065 \$ 40,017 \$ 100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ \$ 113,382 \$ 6,670 \$ 6,670 \$ 66,670 \$	4.0% 0.320651415 311,673 \$ 182,771 \$ 144,293 \$ 38,478 \$ 128,902 \$ 61,565 \$ 48,098 \$ 19,239 \$ - \$ - \$ 279,608 \$ 182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ \$ 109,021 \$ 6,413 \$ 6,413 \$ 6,413 \$	4.0% 0.308318668 299,686 \$ 175,742 \$ 138,743 \$ 36,998 \$ 123,944 \$ 59,197 \$ 46,248 \$ 18,499 \$ - \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	4.0% 0.296460258 288,159 \$ 168,982 \$ 133,407 \$ 35,575 \$ 119,177 \$ 56,920 \$ 44,469 \$ 17,788 \$ - \$ - \$ \$ 258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ 5,929 \$ 5,929 \$ 5,929 \$	4.0% 0.28505794 277,076 162,483 128,276 34,207 114,593 54,731 42,759 17,103 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219
Discounted Costs Alternative 1 Operations Bridge Operators Electrical Operation Maintenance Routine Mechanical Maintenance Annual Repairs Miscellaneous Repairs Seplacement Mechanical Replacement Mechanical Replacement Structural Rehab Sindge Operators Electrical Operation Maintenance Routine Maintenance Routine Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Seplacement Mechanical Replacement Mechanical Replacement Mechanical Replacement Mechanical Replacement Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation Sindintenance Annual Repairs Maintenance Annual Repairs Sindintenance Annual Repairs Sindintenance Annual Repairs Miscellaneous Repairs Sindintenance Annual Repairs Annual Repairs Sindintenance Annual Repairs A	450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc. 60,000 5k/month (cleaning, changing lightbulbs, etc) ,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting	\$ 337,106 \$ 197,685 \$ 156,067 \$ 41,618 \$ 52,022 \$ 20,809 \$ \$ - \$ \$ 156,067 \$ \$ 141,618 \$ 141,618 \$ 141,618 \$ 156,067 \$ \$ 156,067 \$ \$ 156,067 \$ \$ 156,067 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ - \$ \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ 20,809 \$ \$ \$ 10,981 \$ 10,981 \$ 10,9	324,140 \$ 190,082 \$ 150,065 \$ 40,017 \$ 134,058 \$ 64,028 \$ 50,022 \$ 20,009 \$ - \$ - \$ \$ 290,792 \$ 190,082 \$ 150,065 \$ 40,017 \$ 100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ \$ 113,382 \$ 6,670 \$ 6,670 \$ 66,670 \$ 66,695 \$	311,673 \$ 182,771 \$ 144,293 \$ 38,478 \$ 128,902 \$ 61,565 \$ 48,098 \$ 19,239 \$ - \$ 279,608 \$ 182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ \$ 109,021 \$ 6,413 \$ 6,413 \$ 6,413 \$	299,686 \$ 175,742 \$ 138,743 \$ 36,998 \$ 123,944 \$ 59,197 \$ 46,248 \$ 18,499 \$ - \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	288,159 \$ 168,982 \$ 133,407 \$ 35,575 \$ 119,177 \$ 56,920 \$ 44,469 \$ 17,788 \$ - \$ - \$ \$ 258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ \$ 5,929 \$ 5,929 \$ 59,292 \$	277,076 162,483 128,276 34,207 114,593 54,731 42,759 17,103 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219
Alternative 1 Operations Bridge Operators Electrical Operation Maintenance Routine Mechanical Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab Structural Rehab Bridge Operators Electrical Operation Maintenance Routine Maintenance Annual Repairs Bridge Operators Electrical Operation Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab Structural Repairs Alternative 3 Operations Electrical Operation Structural Repairs Annual Repairs Miscellaneous Repairs Structural Rehab St	450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc. 60,000 5k/month (cleaning, changing lightbulbs, etc) ,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting	\$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 139,420 \$ \$ 66,589 \$ \$ 52,022 \$ \$ 20,809 \$ \$ - \$ \$ - \$ \$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 110,981 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	190,082 \$ 150,065 \$ 40,017 \$ 134,058 \$ 64,028 \$ 50,022 \$ 20,009 \$ - \$ 290,792 \$ 190,082 \$ 40,017 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ 113,382 \$ 6,670 \$ 106,713 \$ 66,695 \$	182,771 \$ 144,293 \$ 38,478 \$ 128,902 \$ 61,565 \$ 48,098 \$ 19,239 \$ - \$ 279,608 \$ 182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ \$ 109,021 \$ 6,413 \$ 6,413 \$ 6,413 \$	175,742 \$ 138,743 \$ 36,998 \$ 123,944 \$ 59,197 \$ 46,248 \$ 18,499 \$ - \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ \$ 104,828 \$ 6,166 \$ 98,662 \$ 61,664 \$	168,982 \$ 133,407 \$ 35,575 \$ 119,177 \$ 56,920 \$ 44,469 \$ 17,788 \$ - \$ - \$ \$ 258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ \$ \$ 100,796 \$ 5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	162,483 128,276 34,207 114,593 54,731 42,759 17,103 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219 57,012
Operations Bridge Operators Electrical Operation Maintenance Routine Mechanical Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab Bridge Operators Electrical Operation Structural Rehab Structural Rehab Structural Operation Bridge Operators Electrical Operation Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab Structural Rehab Alternative 3 Operations Electrical Operation Structural Rehab Structural Rehab Alternative 3 Operations Electrical Operation Structural Repairs Filectrical Operation Structural Repairs Miscellaneous Repairs Structural Repairs Miscellaneous Repairs Structural Repairs Miscellaneous Repairs Structural Rehab Structural Repairs Replacement Structural Repairs Replacement Structural Replac	450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc. 60,000 5k/month (cleaning, changing lightbulbs, etc) ,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting	\$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 139,420 \$ \$ 66,589 \$ \$ 52,022 \$ \$ 20,809 \$ \$ - \$ \$ - \$ \$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 110,981 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	190,082 \$ 150,065 \$ 40,017 \$ 134,058 \$ 64,028 \$ 50,022 \$ 20,009 \$ - \$ 290,792 \$ 190,082 \$ 40,017 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ 113,382 \$ 6,670 \$ 106,713 \$ 66,695 \$	182,771 \$ 144,293 \$ 38,478 \$ 128,902 \$ 61,565 \$ 48,098 \$ 19,239 \$ - \$ 279,608 \$ 182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ \$ 109,021 \$ 6,413 \$ 6,413 \$ 6,413 \$	175,742 \$ 138,743 \$ 36,998 \$ 123,944 \$ 59,197 \$ 46,248 \$ 18,499 \$ - \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ \$ 104,828 \$ 6,166 \$ 98,662 \$ 61,664 \$	168,982 \$ 133,407 \$ 35,575 \$ 119,177 \$ 56,920 \$ 44,469 \$ 17,788 \$ - \$ - \$ \$ 258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ \$ \$ 100,796 \$ 5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	162,483 128,276 34,207 114,593 54,731 42,759 17,103 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219
Bridge Operators Electrical Operation Maintenance Routine Mechanical Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Mechanical Replacement Structural Rehab Structural Rehab Structural Operation Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab Structural Rehab Structural Rehab Structural Rehab Structural Replacement Mechanical Replacement Structural Rehab Structural Rehab Structural Rehab Structural Rehab Structural Rehab Structural Rehab Structural Repairs Structural Repairs Structural Repairs Structural Rehab Structur	120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc. 60,000 5k/month (cleaning, changing lightbulbs, etc) ,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting	\$ 156,067 \$ 41,618 \$ \$ 439,420 \$ \$ 66,589 \$ \$ 20,809 \$ \$ - \$ \$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ 20,809 \$ \$ \$ 10,981 \$ 10,981 \$ \$ 10,981 \$ \$ 10,981 \$ \$ 10,981 \$ \$ 10,981 \$ \$ 10,981 \$ 10,981 \$ \$ 10,981 \$ \$ 10,981 \$ \$ 10,981 \$ \$ 10,981 \$ \$ 10,981 \$ 10,981 \$ \$ 10,981 \$	150,065 \$ 40,017 \$ 134,058 \$ 64,028 \$ 50,022 \$ 20,009 \$ -	144,293 \$ 38,478 \$ 128,902 \$ 61,565 \$ 48,098 \$ 19,239 \$ - \$ 279,608 \$ 182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ \$ \$ 109,021 \$ 6,413 \$ 6,413 \$ 6,413 \$	138,743 \$ 36,998 \$ 123,944 \$ 59,197 \$ 46,248 \$ 18,499 \$ - \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	133,407 \$ 35,575 \$ 119,177 \$ 56,920 \$ 44,469 \$ 17,788 \$ - \$ - \$ \$ 258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ \$ \$ 100,796 \$ 5,929 \$ 5,929 \$ 59,292 \$	128,276 34,207 114,593 54,731 42,759 17,103 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219 57,012
Electrical Operation Maintenance Routine Mechanical Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Mechanical Replacement Structural Rehab S2, Alternative 2 Per Annum Co Operations Bridge Operators Electrical Operation Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Mechanical Replacement Structural Rehab S1, Alternative 3 Per Annum Co Operations Electrical Operation Maintenance Annual Repairs Structural Rehab S1, Alternative 3 Per Annum Co Operations Electrical Operation SMaintenance Annual Repairs Miscellaneous Repairs Structural Rehab S1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators Electrical Operation SSElectrical Operation Spridge Operators Electrical Operation SSElectrical OP	120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc. 60,000 5k/month (cleaning, changing lightbulbs, etc) ,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting	\$ 41,618 \$ 139,420 \$ \$ 66,589 \$ \$ 52,022 \$ \$ 20,809 \$ \$ - \$ \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ - \$ \$ \$ 117,918 \$ \$ \$ 6,936 \$ \$ \$ 10,981 \$ \$ 6,9363 \$ \$ 10,981 \$ \$ 69,363 \$ \$ 41,618 \$	40,017 \$ 134,058 \$ 64,028 \$ 50,022 \$ 20,009 \$ \$ \$ 290,792 \$ 190,082 \$ 150,065 \$ 40,017 \$ 100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ \$ \$ \$ 113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	38,478 \$ 128,902 \$ 61,565 \$ 48,098 \$ 19,239 \$ -	36,998 \$ 123,944 \$ 59,197 \$ 46,248 \$ 18,499 \$ - \$ - \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	35,575 \$ 119,177 \$ 56,920 \$ 44,469 \$ 17,788 \$ - \$ - \$ \$ 258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ \$ - \$ \$ 5,929 \$ 5,929 \$ 59,292 \$	34,207 114,593 54,731 42,759 17,103 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219 57,012
Maintenance Routine Mechanical Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab S2, Alternative 2 Per Annum Co Operations Bridge Operators Electrical Operation SMaintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab S1, Alternative 3 Per Annum Co Operations Electrical Operation Structural Rehab S1, Alternative 3 Per Annum Co Operations Electrical Operation Sincellaneous Repairs Alternative 3 Per Annum Co Operations Fieder Costs Alternative 1 Per Annum Co Operations Structural Rehab S1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Sindige Operators Sindige Operators Sindige Operators Sindige Operation S	192,000 40 hrs/month @ \$75/hr+\$10k materials 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc. 60,000 5k/month (cleaning, changing lightbulbs, etc) ,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting	\$ 139,420 \$ \$ 66,589 \$ \$ 52,022 \$ \$ 20,809 \$ \$ - \$ \$ - \$ \$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 17,341 \$ \$ 20,809 \$ \$ 110,981 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	13,058 \$ 64,028 \$ 50,022 \$ 20,009 \$ -	128,902 \$ 61,565 \$ 48,098 \$ 19,239 \$ - \$ - \$ 279,608 \$ 182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ - \$ 109,021 \$ 6,413 \$ 6,413 \$ 6,413 \$	123,944 \$ 59,197 \$ 46,248 \$ 18,499 \$ - \$ - \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	119,177 \$ 56,920 \$ 44,469 \$ 17,788 \$ - \$ - \$ - \$ \$ 258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ - \$ \$ 100,796 \$ 5,929 \$ 5,929 \$ 59,292 \$	114,593 54,731 42,759 17,103 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219 57,012
Routine Mechanical Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab S2, Alternative 2 Per Annum Co Operations Bridge Operators Electrical Operation SMaintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab S1, Alternative 3 Per Annum Co Operations Electrical Operation Structural Rehab S1, Alternative 3 Per Annum Co Operations Electrical Operation Sincellaneous Repairs Alternative 3 Per Annum Co Operations Electrical Operation Sincellaneous Repairs Annual Repairs Annual Repairs Structural Rehab S1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators Electrical Operation Sincellaneous Repairs Sincellaneous R	150,000 Allowance for expansion joints, bearings, drainage, inspections, etc. 60,000 5k/month (cleaning, changing lightbulbs, etc) ,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting	\$ 66,589 \$ \$ 52,022 \$ \$ 20,809 \$ \$ - \$ \$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ - \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ - \$ \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ - \$ \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ - \$ \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ - \$ \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ - \$ \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ - \$ \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ \$ 17,341 \$ \$ \$ 20,809 \$ \$ \$ \$ 10,981 \$ \$ \$ 6,936 \$ \$ \$ \$ 110,981 \$ \$ \$ 6,9363 \$ \$ \$ 110,981 \$ \$ \$ 69,363 \$ \$ \$ 41,618 \$ \$ \$ \$ 20,809 \$ \$ \$ \$ 20,809 \$ \$ \$ \$ 20,809 \$ \$ \$ \$ 20,809 \$ \$ 20,809 \$ \$ 20,	64,028 \$ 50,022 \$ 20,009 \$ -	61,565 \$ 48,098 \$ 19,239 \$ -	59,197 \$ 46,248 \$ 18,499 \$ - \$ - \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	56,920 \$ 44,469 \$ 17,788 \$ - \$ - \$ - \$ \$ 258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ - \$ \$ 100,796 \$ 5,929 \$ 5,929 \$ 59,292 \$	54,731 42,759 17,103 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219 57,012
Annual Repairs \$ Miscellaneous Repairs \$ Replacement Mechanical Replacement \$ 11, Structural Rehab \$ 2, Alternative 2 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$ Maintenance Routine Maintenance \$ Annual Repairs \$ Miscellaneous Repairs \$ Replacement Mechanical Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Miscellaneous Repairs \$ Alternative 1 Per Annum Co Operations Bridge Operators Electrical Operation \$ Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators Electrical Operation \$	150,000 Allowance for expansion joints, bearings, drainage, inspections, etc. 60,000 5k/month (cleaning, changing lightbulbs, etc) ,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting	\$ 52,022 \$ 20,809 \$ \$ 20,809 \$ \$ - \$ \$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ 117,918 \$ \$ \$ 6,936 \$ \$ \$ 6,936 \$ \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	50,022 \$ 20,009 \$ - \$ 290,792 \$ 190,082 \$ 150,065 \$ 40,017 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ 113,382 \$ 6,670 \$ 106,713 \$ 66,695 \$	48,098 \$ 19,239 \$ -	46,248 \$ 18,499 \$ - \$ - \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	44,469 \$ 17,788 \$ - \$ - \$ - \$ \$ 258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ - \$ \$ 100,796 \$ 5,929 \$ 5,929 \$ 59,292 \$	42,759 17,103 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219 57,012
Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab \$ 2, Alternative 2 Per Annum Co Operations Bridge Operators Electrical Operation Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab \$ 11, Structural Rehab \$ 11, Structural Rehab \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ \$ Per Annum Co Operations Electrical Operation \$ \$ 1, Cumulative Discounted Costs Alternative 1 Operations Bridge Operators Electrical Operation \$ \$ 1, Cumulative Discounted Costs Alternative 1 Operations Bridge Operators Electrical Operation \$ \$ 5, Electrical Operation \$ \$ 5, Electrical Operation \$ \$ 1, Cumulative Discounted Costs Alternative 1 Operations Bridge Operators Electrical Operation \$ \$ 5, Electrical Operation	60,000 5k/month (cleaning, changing lightbulbs, etc) ,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting	\$ 20,809 \$ \$ - \$ \$ \$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ 117,918 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	20,009 \$ \$ \$ 290,792 \$ 190,082 \$ 150,065 \$ 40,017 \$ 100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ \$ \$ \$ 113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	19,239 \$ \$ \$ 279,608 \$ 182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ \$ \$ \$ 109,021 \$ 6,413 \$ 6,413 \$ 6,413 \$	18,499 \$	17,788 \$	17,103 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219 57,012
Replacement Mechanical Replacement Structural Rehab \$ 2, Alternative 2 Operations Bridge Operators Electrical Operation Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab \$ 1, Alternative 3 Operations Electrical Operation \$ 20 Alternative 3 Operations Electrical Operation \$ 3 Alternative 3 Operations Electrical Operation \$ 4 Maintenance Annual Repairs \$ 5 Cumulative Discounted Costs Alternative 1 Operations Bridge Operation \$ 5 Electrical Operation \$ 5 Alternative 1 Operations Bridge Operators Electrical Operation \$ 5 Electrical Operation	,000,000 25 years ,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting	\$ - \$ \$ - \$ \$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ 5 - \$ \$ 5 - \$ \$ 117,918 \$ \$ 6,936 \$ \$ 10,981 \$ \$ 69,363 \$ \$ 41,618 \$	- \$ - \$ 290,792 \$ 190,082 \$ 150,065 \$ 40,017 \$ 100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ - \$ 113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	- \$ - 5 - 7 - 7 - 7 - 7 - 7 - 7 - 8 - 7 - 8 - 8 - 8 - 96,837 - 96,837 - 96,837 - 97 - 97 - 97 - 97 - 97 - 97 - 97 - 9	- \$ - \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	- 248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 5,701 91,219 57,012
Mechanical Replacement \$ 11, Structural Rehab \$ 2, Alternative 2 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$ Maintenance Routine Maintenance \$ Annual Repairs \$ Miscellaneous Repairs \$ Replacement Mechanical Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators Electrical Operation \$,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ - \$ \$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ - \$ \$ \$ \$ - \$ \$ \$ \$ 117,918 \$ \$ 6,936 \$ \$ \$ 6,936 \$ \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	- \$ 290,792 \$ 190,082 \$ 150,065 \$ 40,017 \$ 100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ - \$ 113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	- \$ - \$ 279,608 \$ 182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ - \$ 109,021 \$ 6,413 \$ 6,413 \$ 6,413 \$	- \$ - \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	- \$ - \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ - \$ 100,796 \$ 5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	248,571 162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 91,219 57,012
Structural Rehab \$ 2, Alternative 2 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$ Maintenance Routine Maintenance \$ Annual Repairs \$ Miscellaneous Repairs \$ Replacement Mechanical Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost ost 450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ - \$ \$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ - \$ \$ \$ 117,918 \$ \$ 6,936 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	- \$ 290,792 \$ 190,082 \$ 150,065 \$ 40,017 \$ 100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ - \$ 113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	- \$ 279,608 \$ 182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ 109,021 \$ 6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	- \$ 268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	- \$ 258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ - \$ 100,796 \$ 5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 91,219 57,012
Alternative 2 Operations Bridge Operators Electrical Operation Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab S1, Alternative 3 Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ 11, Structural Rehab \$ 12, Alternative 3 Per Annum Coordinate Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Operations Bridge Operators Electrical Operation \$ \$ Selectrical Operation S Electrical Operation S	450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 302,424 \$ \$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ - \$ \$ \$ \$ 117,918 \$ \$ 6,936 \$ \$ 10,981 \$ \$ 69,363 \$ \$ 41,618 \$	290,792 \$ 190,082 \$ 150,065 \$ 40,017 \$ 100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ - \$ 113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	279,608 \$ 182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ - \$ 109,021 \$ 6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	268,854 \$ 175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	258,513 \$ 168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ - \$ 100,796 \$ 5,929 \$ 94,867 \$ 59,292 \$	162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 91,219 57,012
Operations Bridge Operators Electrical Operation Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab S1, Alternative 3 Per Annum Co Operations Electrical Operation Miscellaneous Repairs Miscellaneous Repairs Maintenance Annual Repairs Miscellaneous Repairs Structural Rehab S1, Cumulative Discounted Costs Alternative 1 Per Annum Co	450,000 Bridge Operators (5 people @ \$90k) 120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 197,685 \$ \$ 156,067 \$ \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ - \$ \$ \$ \$ \$ 117,918 \$ \$ 6,936 \$ \$ 10,981 \$ \$ 69,363 \$ \$ 41,618 \$	190,082 \$ 150,065 \$ 40,017 \$ 100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ 113,382 \$ 6,670 \$ 106,713 \$ 66,695 \$	182,771 \$ 144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ 109,021 \$ 6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	175,742 \$ 138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	168,982 \$ 133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ - \$ 100,796 \$ 5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	162,483 128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 91,219 57,012
Bridge Operators Electrical Operation Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab S1, Alternative 3 Per Annum Co Operations Electrical Operation Miscellaneous Repairs Miscellaneous Repairs Miscellaneous Repairs Miscellaneous Repairs Structural Rehab S1, Cumulative Discounted Costs Alternative 1 Per Annum Co	120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 156,067 \$ 41,618 \$ 41,618 \$ \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ - \$ \$ \$ 5 \$ - \$ \$ \$ 117,918 \$ \$ 6,936 \$ \$ \$ 6,936 \$ \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	150,065 \$ 40,017 \$ 100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ - \$ 113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	144,293 \$ 38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$	138,743 \$ 36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	133,407 \$ 35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ - \$ 100,796 \$ 5,929 \$ 5,929 \$ 594,867 \$ 59,292 \$	128,276 34,207 86,087 54,731 14,253 17,103 96,920 5,701 91,219 57,012
Electrical Operation \$ Maintenance Routine Maintenance \$ Annual Repairs \$ Miscellaneous Repairs \$ Replacement Mechanical Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operation \$	120,000 Allowance for bridge operation and bridge lighting 192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 41,618 \$ 104,739 \$ \$ 66,589 \$ \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ - \$ \$ \$ 117,918 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	40,017 \$ 100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ - \$ 113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	38,478 \$ 96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ 109,021 \$ 6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	36,998 \$ 93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	35,575 \$ 89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ - \$ 100,796 \$ 5,929 \$ 5,929 \$ 59,292 \$	34,207 86,087 54,731 14,253 17,103 96,920 5,701 91,219 57,012
Maintenance Routine Maintenance Annual Repairs Miscellaneous Repairs Replacement Mechanical Replacement Structural Rehab S1, Alternative 3 Per Annum Co Operations Electrical Operation Miscellaneous Repairs Miscellaneous Repairs Miscellaneous Repairs Structural Rehab S1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Structural Rehab S1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Sindge Operators Electrical Operation S Electrical Operation S	192,000 40 hrs/month @ \$75/hr+\$10k materials 50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 104,739 \$ 66,589 \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ 5 \$ 17,918 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	100,710 \$ 64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ 113,382 \$ 6,670 \$ 106,713 \$ 66,695 \$	96,837 \$ 61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ 109,021 \$ 6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	93,112 \$ 59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	89,531 \$ 56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ - \$ 100,796 \$ 5,929 \$ 5,929 \$ 59,292 \$	86,087 54,731 14,253 17,103 96,920 5,701 91,219 57,012
Routine Maintenance \$ Annual Repairs \$ Miscellaneous Repairs \$ Replacement Mechanical Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operation \$	50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 66,589 \$ 17,341 \$ \$ 20,809 \$ \$ - \$ \$ \$ \$. \$ \$ \$ \$. \$ \$ \$ \$ \$ \$ \$	64,028 \$ 16,674 \$ 20,009 \$ - \$ - \$ \$ 113,382 \$ 6,670 \$ 106,713 \$ 66,695 \$	61,565 \$ 16,033 \$ 19,239 \$ - \$ - \$ 109,021 \$ 6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	59,197 \$ 15,416 \$ 18,499 \$ - \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	56,920 \$ 14,823 \$ 17,788 \$ - \$ - \$ - \$ \$ 100,796 \$ 5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	54,731 14,253 17,103 - - - 96,920 5,701 91,219 57,012
Annual Repairs \$ Miscellaneous Repairs \$ Replacement Mechanical Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operation \$	50,000 Allowance for expansion joints, bearings, drainage, inspections 60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 17,341 \$ 20,809 \$ \$ - \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	16,674 \$ 20,009 \$ - \$ - \$ - \$ 113,382 \$ 6,670 \$ 106,713 \$ 66,695 \$	16,033 \$ 19,239 \$ - \$ - \$ - \$ 109,021 \$ 6,413 \$ 102,608 \$ 64,130 \$	15,416 \$ 18,499 \$ - \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	14,823 \$ 17,788 \$ - \$ - \$ - \$ 100,796 \$ 5,929 \$ 94,867 \$ 59,292 \$	14,253 17,103 - - - 96,920 5,701 91,219 57,012
Miscellaneous Repairs \$ Replacement Mechanical Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operation \$	60,000 5k/month (cleaning, changing lightbulbs) ,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 20,809 \$ \$ - \$ \$ \$ - \$ \$ \$ \$ - \$ \$ \$ \$ \$ - \$ \$ \$ \$ \$ \$ \$ - \$	20,009 \$ - \$ - \$ - \$ 113,382 \$ 6,670 \$ 106,713 \$ 66,695 \$	19,239 \$ - \$ - \$ - \$ 109,021 \$ 6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	18,499 \$ - \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	17,788 \$ - \$ - \$ - \$ 100,796 \$ 5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	17,103 - - - 96,920 5,701 91,219 57,012
Replacement Mechanical Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operation \$ Electrical Operation \$,000,000 Every 25 years ,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ - \$ \$ - \$ \$ - \$ \$ 117,918 \$ \$ 6,936 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	- \$ - \$ - \$ 113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	- \$ - \$ - \$ 109,021 \$ 6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	- \$ - \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	- \$ - \$ - \$ 100,796 \$ 5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	- - 96,920 5,701 5,701 91,219 57,012
Mechanical Replacement \$ 11, Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ - \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ 113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	- \$ - \$ 109,021 \$ 6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	- \$ - \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	- \$ - \$ 100,796 \$ 5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	96,920 5,701 5,701 91,219 57,012
Structural Rehab \$ 1, Alternative 3 Per Annum Co Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost ost 20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ - \$ \$ 117,918 \$ \$ 6,936 \$ \$ 6,936 \$ \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	- \$ 113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	- \$ 109,021 \$ 6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	- \$ 104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	- \$ 100,796 \$ 5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	96,920 5,701 5,701 91,219 57,012
Alternative 3 Operations Electrical Operation Maintenance Annual Repairs Miscellaneous Repairs Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Operations Bridge Operators Electrical Operation \$ Per Annum Co	20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 117,918 \$ \$ 6,936 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	113,382 \$ 6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	109,021 \$ 6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	104,828 \$ 6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	100,796 \$ 5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	96,920 5,701 5,701 91,219 57,012
Operations Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$	20,000 Allowance electrical bridge lighting 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 6,936 \$ \$ 6,936 \$ \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	6,670 \$ 6,670 \$ 106,713 \$ 66,695 \$	6,413 \$ 6,413 \$ 102,608 \$ 64,130 \$	6,166 \$ 6,166 \$ 98,662 \$ 61,664 \$	5,929 \$ 5,929 \$ 94,867 \$ 59,292 \$	5,701 5,701 91,219 57,012
Electrical Operation \$ Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$	200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 6,936 \$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	6,670 \$ 106,713 \$ 66,695 \$	6,413 \$ 102,608 \$ 64,130 \$	6,166 \$ 98,662 \$ 61,664 \$	5,929 \$ 94,867 \$ 59,292 \$	5,701 91,219 57,012
Maintenance Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$	200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 110,981 \$ \$ 69,363 \$ \$ 41,618 \$	106,713 \$ 66,695 \$	102,608 \$ 64,130 \$	98,662 \$ 61,664 \$	94,867 \$ 59,292 \$	91,219 57,012
Annual Repairs \$ Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$		\$ 69,363 \$ \$ 41,618 \$	66,695 \$	64,130 \$	61,664 \$	59,292 \$	57,012
Miscellaneous Repairs \$ Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$		\$ 41,618 \$				· · · · · · · · · · · · · · · · · · ·	
Replacement Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$	120,000 10k/month (cleaning, changing lightbulbs)		40,017 \$	20 470 ¢	36 998 \$	35,575 \$	34.207
Structural Rehab \$ 1, Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$		ė ė		30,470 Ş	30,330 7		
Cumulative Discounted Costs Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$		\$ - \$	- \$	- \$	- \$	- \$	-
Alternative 1 Per Annum Co Operations Bridge Operators \$ Electrical Operation \$,429,318 20 and 40 years special maintenance and rehab at 3% of capital cost	\$ - \$	- \$	- \$	- \$	- \$	-
Operations Bridge Operators \$ Electrical Operation \$							
Bridge Operators \$ Electrical Operation \$	ost	\$ 22,016,230 \$	22,340,370 \$	22,652,044 \$	22,951,729 \$	23,239,889 \$	23,516,965
Electrical Operation \$		\$ 9,877,864 \$	10,067,946 \$	10,250,717 \$	10,426,459 \$	10,595,441 \$	10,757,924
·	450,000 Bridge Operators (5 people @ \$90k)	\$ 7,798,314 \$	7,948,378 \$	8,092,672 \$	8,231,415 \$	8,364,822 \$	8,493,098
	120,000 Allowance for bridge operation and bridge lighting	\$ 2,079,550 \$	2,119,568 \$	2,158,046 \$	2,195,044 \$	2,230,619 \$	2,264,826
Maintenance		\$ 6,966,493 \$	7,100,551 \$	7,229,453 \$	7,353,397 \$	7,472,574 \$	7,587,168
Routine Mechanical Maintenance \$	192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ 3,327,280 \$	3,391,308 \$	3,452,873 \$	3,512,070 \$	3,568,991 \$	3,623,722
Annual Repairs \$	150,000 Allowance for expansion joints, bearings, drainage, inspections, etc.	\$ 2,599,438 \$	2,649,459 \$	2,697,557 \$	2,743,805 \$	2,788,274 \$	2,831,033
Miscellaneous Repairs \$	60,000 5k/month (cleaning, changing lightbulbs, etc)	\$ 1,039,775 \$	1,059,784 \$	1,079,023 \$	1,097,522 \$	1,115,310 \$	1,132,413
Replacement		\$ 5,171,873 \$	5,171,873 \$	5,171,873 \$	5,171,873 \$	5,171,873 \$	5,171,873
Mechanical Replacement \$ 11,	,000,000 25 years	\$ 4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285
Structural Rehab \$ 2,	,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost	\$ 1,045,588 \$	1,045,588 \$	1,045,588 \$	1,045,588 \$	1,045,588 \$	1,045,588
Alternative 2 Per Annum Co	ost	\$ 19,896,220 \$	20,187,012 \$	20,466,620 \$	20,735,474 \$	20,993,988 \$	21,242,558
Operations		\$ 9,877,864 \$	10,067,946 \$	10,250,717 \$	10,426,459 \$	10,595,441 \$	10,757,924
Bridge Operators \$	450,000 Bridge Operators (5 people @ \$90k)	\$ 7,798,314 \$	7,948,378 \$	8,092,672 \$	8,231,415 \$	8,364,822 \$	8,493,098
Electrical Operation \$	120,000 Allowance for bridge operation and bridge lighting	\$ 2,079,550 \$	2,119,568 \$	2,158,046 \$	2,195,044 \$	2,230,619 \$	2,264,826
Maintenance		\$ 5,233,535 \$		5,431,082 \$	5,524,194 \$	5,613,725 \$	5,699,813
Routine Maintenance \$	192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ 3,327,280 \$	3,391,308 \$	3,452,873 \$	3,512,070 \$	3,568,991 \$	3,623,722
Annual Repairs \$	50,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 866,479 \$		899,186 \$	914,602 \$	929,425 \$	943,678
Miscellaneous Repairs \$	60,000 5k/month (cleaning, changing lightbulbs)	\$ 1,039,775 \$		1,079,023 \$	1,097,522 \$	1,115,310 \$	1,132,413
Replacement		\$ 4,784,821 \$	4,784,821 \$	4,784,821 \$	4,784,821 \$	4,784,821 \$	4,784,821
•	,000,000 Every 25 years	\$ 4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285
•	,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	\$ 658,536 \$		658,536 \$	658,536 \$	658,536 \$	658,536
Alternative 3 Per Annum Co	• • • • • • • • • • • • • • • • • • • •	\$ 6,544,381 \$	6,657,764 \$	6,766,785 \$	6,871,613 \$	6,972,410 \$	7,069,330
Operations		\$ 346,592 \$		359,674 \$	365,841 \$	371,770 \$	377,471
Electrical Operation \$	20,000 Allowance electrical bridge lighting	\$ 346,592 \$	353,261 \$	359,674 \$	365,841 \$	371,770 \$	377,471
Maintenance	-,	\$ 5,545,467 \$	5,652,180 \$	5,754,789 \$	5,853,451 \$	5,948,318 \$	6,039,536
	200,000 Allowance for expansion joints, bearings, drainage, inspections	\$ 3,465,917 \$		3,596,743 \$	3,658,407 \$	3,717,699 \$	3,774,710
·	120,000 10k/month (cleaning, changing lightbulbs)	\$ 2,079,550 \$		2,158,046 \$	2,195,044 \$	2,230,619 \$	2,264,826
Replacement		\$ 652,322 \$		652,322 \$	652,322 \$	652,322 \$	652,322
Structural Rehab \$ 1,	220,000 20.9 month (oleaning) olianging lightwalibaj		032,322 9	652,322 \$	652,322 \$	652,322 \$	652,322



Discount Rate	Source							
Year			33	34	35	36	37	38
Discount Rate	NJ Transportation Trust Fund Authority		4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Discount Factor		0	.274094173	0.26355209	0.253415471	0.243668722	0.234296848	0.225285431
Discounted Costs								
Alternative 1	Per Annum Cost	\$	266,420 \$	256,173 \$	246,320 \$	236,846 \$	227,737 \$	218,977
Operations		\$	156,234 \$	150,225 \$	144,447 \$	138,891 \$	133,549 \$	128,413
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$	123,342 \$	118,598 \$	114,037 \$	109,651 \$	105,434 \$	101,378
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$	32,891 \$	31,626 \$	30,410 \$	29,240 \$	28,116 \$	27,034
Maintenance		\$	110,186 \$	105,948 \$	101,873 \$	97,955 \$	94,187 \$	90,565
Routine Mechanical Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$	52,626 \$	50,602 \$	48,656 \$	46,784 \$	44,985 \$	43,255
Annual Repairs	\$ 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc.	\$	41,114 \$	39,533 \$	38,012 \$	36,550 \$	35,145 \$	33,793
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs, etc)	\$	16,446 \$	15,813 \$	15,205 \$	14,620 \$	14,058 \$	13,517
Replacement	A 44.000.000.05	\$	- \$	- \$	- \$	- \$	- \$	-
Mechanical Replacement	\$ 11,000,000 25 years	\$	- \$	- \$	- \$	- \$	- \$	-
Structural Rehab	\$ 2,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost	\$	- \$	- \$	- \$	- \$	- \$	-
Alternative 2	Per Annum Cost	\$	239,010 \$	229,817 \$	220,978 \$	212,479 \$	204,307 \$	196,449
Operations	4	\$	156,234 \$	150,225 \$	144,447 \$	138,891 \$	133,549 \$	128,413
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$	123,342 \$	118,598 \$	114,037 \$	109,651 \$	105,434 \$	101,378
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$	32,891 \$	31,626 \$	30,410 \$	29,240 \$	28,116 \$	27,034
Maintenance	6 103 000 40 hrs/month @ 67F /hrs/640h	\$	82,776 \$	79,593 \$	76,531 \$	73,588 \$	70,758 \$	68,036
Routine Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$ *	52,626 \$ 13,705 \$	50,602 \$ 13,178 \$	48,656 \$ 12,671 \$	46,784 \$	44,985 \$	43,255 11,264
Annual Repairs Miscellaneous Repairs	\$ 50,000 Allowance for expansion joints, bearings, drainage, inspections \$ 60.000 5k/month (cleaning, changing lightbulbs)	ې د	13,705 \$ 16,446 \$	13,178 \$ 15,813 \$	12,6/1 \$ 15,205 \$	12,183 \$ 14,620 \$	11,715 \$ 14,058 \$	11,264 13,517
·	\$ 60,000 5k/month (cleaning, changing lightbulbs)	\$ ¢						
Replacement Mechanical Replacement	\$ 11,000,000 Every 25 years	\$	- \$	- \$ - \$	- \$ - \$	- \$ - \$	- \$ - \$	-
Structural Rehab	\$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	ş ¢	- ş - \$	- \$ - \$	- ş - \$	-	- ş - \$	-
Alternative 3	Per Annum Cost	÷	93,192 \$	89,608 \$	86,161 \$	- ş 82,847 \$	79,661 \$	76,597
Operations	Per Announ Cost	\$ \$	5,482 \$	5,271 \$	5,068 \$	4,873 \$	4,686 \$	4,506
Electrical Operation	\$ 20,000 Allowance electrical bridge lighting	¢	5,482 \$	5,271 \$	5,068 \$	4,873 \$	4,686 \$	4,506
Maintenance	20,000 Allowance electrical bridge lighting	¢	87,710 \$	84,337 \$	81,093 \$	77,974 \$	74,975 \$	72,091
Annual Repairs	\$ 200,000 Allowance for expansion joints, bearings, drainage, inspections	¢	54,819 \$	52,710 \$	50,683 \$	48,734 \$	46,859 \$	45,057
Miscellaneous Repairs	\$ 120,000 10k/month (cleaning, changing lightbulbs)	ς ς	32,891 \$	31,626 \$	30,410 \$	29,240 \$	28,116 \$	27,034
Replacement	2 120,000 10ty month (cleaning, changing lightballos)	\$	- \$	- \$	- \$	- \$	- \$	-
Structural Rehab	\$ 1,429,318 20 and 40 years special maintenance and rehab at 3% of capital cost	Ś	- \$	- \$	- \$	- \$	- \$	_
Cumulative Discounted Costs	2) 125020 20 and 10 years openin manner and a remarkation of superior section	Y	Ψ	Y	Y	Y	Y	
Alternative 1	Per Annum Cost	Ś	23,783,385 \$	24,039,557 \$	24,285,877 \$	24,522,723 \$	24,750,460 \$	24,969,437
Operations		\$	10,914,158 \$	11,064,383 \$	11,208,830 \$	11,347,721 \$	11,481,270 \$	11,609,683
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	, \$	8,616,441 \$	8,735,039 \$	8,849,076 \$	8,958,727 \$	9,064,160 \$	9,165,539
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$	2,297,717 \$	2,329,344 \$	2,359,754 \$	2,388,994 \$	2,417,109 \$	2,444,144
Maintenance		\$	7,697,354 \$	7,803,301 \$	7,905,175 \$	8,003,129 \$	8,097,317 \$	8,187,881
Routine Mechanical Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$	3,676,348 \$	3,726,950 \$	3,775,606 \$	3,822,390 \$	3,867,375 \$	3,910,630
Annual Repairs	\$ 150,000 Allowance for expansion joints, bearings, drainage, inspections, etc.	\$	2,872,147 \$	2,911,680 \$	2,949,692 \$	2,986,242 \$	3,021,387 \$	3,055,180
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs, etc)	\$	1,148,859 \$	1,164,672 \$	1,179,877 \$	1,194,497 \$	1,208,555 \$	1,222,072
Replacement		\$	5,171,873 \$	5,171,873 \$	5,171,873 \$	5,171,873 \$	5,171,873 \$	5,171,873
Mechanical Replacement	\$ 11,000,000 25 years	\$	4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285
Structural Rehab	\$ 2,291,012 20 and 40 years special maintenance and rehab at 5% of capital cost	\$	1,045,588 \$	1,045,588 \$	1,045,588 \$	1,045,588 \$	1,045,588 \$	1,045,588
Alternative 2	Per Annum Cost	\$	21,481,568 \$	21,711,386 \$	21,932,364 \$	22,144,843 \$	22,349,150 \$	22,545,599
Operations		\$	10,914,158 \$	11,064,383 \$	11,208,830 \$	11,347,721 \$	11,481,270 \$	11,609,683
Bridge Operators	\$ 450,000 Bridge Operators (5 people @ \$90k)	\$	8,616,441 \$	8,735,039 \$	8,849,076 \$	8,958,727 \$		9,165,539
Electrical Operation	\$ 120,000 Allowance for bridge operation and bridge lighting	\$	2,297,717 \$	2,329,344 \$	2,359,754 \$	2,388,994 \$		2,444,144
Maintenance		\$	5,782,589 \$	5,862,182 \$	5,938,713 \$	6,012,301 \$	6,083,059 \$	6,151,095
Routine Maintenance	\$ 192,000 40 hrs/month @ \$75/hr+\$10k materials	\$	3,676,348 \$	3,726,950 \$	3,775,606 \$	3,822,390 \$	3,867,375 \$	3,910,630
Annual Repairs	\$ 50,000 Allowance for expansion joints, bearings, drainage, inspections	\$	957,382 \$	970,560 \$	983,231 \$	995,414 \$		1,018,393
Miscellaneous Repairs	\$ 60,000 5k/month (cleaning, changing lightbulbs)	\$	1,148,859 \$	1,164,672 \$	1,179,877 \$	1,194,497 \$		1,222,072
Replacement		\$	4,784,821 \$	4,784,821 \$	4,784,821 \$	4,784,821 \$	4,784,821 \$	4,784,821
Mechanical Replacement	\$ 11,000,000 Every 25 years	\$	4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285 \$	4,126,285
Structural Rehab	\$ 1,442,934 20 and 40 years special maintenance and rehab at 3% of the capital cost	\$	658,536 \$	658,536 \$	658,536 \$	658,536 \$		658,536
Alternative 3	Per Annum Cost	\$	7,162,522 \$	7,252,129 \$	7,338,291 \$	7,421,138 \$	7,500,799 \$	7,577,396
Operations		\$	382,953 \$	388,224 \$	393,292 \$	398,166 \$	402,852 \$	407,357
Electrical Operation	\$ 20,000 Allowance electrical bridge lighting	\$	382,953 \$	388,224 \$	393,292 \$	398,166 \$	402,852 \$	407,357
Maintenance		\$	6,127,247 \$	6,211,583 \$	6,292,676 \$	6,370,650 \$		6,517,717
Annual Repairs	\$ 200,000 Allowance for expansion joints, bearings, drainage, inspections	\$	3,829,529 \$	3,882,240 \$	3,932,923 \$	3,981,656 \$	4,028,516 \$	4,073,573
Miscellaneous Repairs	\$ 120,000 10k/month (cleaning, changing lightbulbs)	\$	2,297,717 \$	2,329,344 \$	2,359,754 \$	2,388,994 \$		2,444,144
Replacement	A	\$	652,322 \$	652,322 \$	652,322 \$	652,322 \$		652,322
Structural Rehab	\$ 1,429,318 20 and 40 years special maintenance and rehab at 3% of capital cost	\$	652,322 \$	652,322 \$	652,322 \$	652,322 \$	652,322 \$	652,322



Discount Rate	Source									
Year					39	40	41	42	43	44
Discount Rate	NJ Trans	sportation Trust Fund Authority			4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Discount Factor					0.216620606	0.208289045	0.200277928	0.19257493	0.185168202	0.178046348
Discounted Costs										
Alternative 1	Per Ann	um Cost		\$	210,555 \$	679,650 \$	194,670	\$ 187,183	179,983 \$	173,061
Operations				\$	123,474 \$	118,725 \$	114,158	\$ 109,768 \$	105,546 \$	101,486
Bridge Operators	\$	450,000 Bridge Operators (5 people @ \$90	()	\$	97,479 \$	93,730 \$	90,125	\$ 86,659 \$	83,326 \$	80,121
Electrical Operation	\$	120,000 Allowance for bridge operation ar	d bridge lighting	\$	25,994 \$	24,995 \$	24,033	\$ 23,109 \$	22,220 \$	21,366
Maintenance				\$	87,081 \$	83,732 \$	80,512	\$ 77,415 \$	74,438 \$	71,575
Routine Mechanical Maintenance	\$	192,000 40 hrs/month @ \$75/hr+\$10k mat	erials	\$	41,591 \$	39,991 \$	38,453	\$ 36,974 \$	35,552 \$	34,185
Annual Repairs	\$	150,000 Allowance for expansion joints, be	arings, drainage, inspections, etc.	\$	32,493 \$	31,243 \$	30,042	\$ 28,886 \$	27,775 \$	26,707
Miscellaneous Repairs	\$	60,000 5k/month (cleaning, changing light	bulbs, etc)	\$	12,997 \$	12,497 \$	12,017	\$ 11,554 \$	11,110 \$	10,683
Replacement				\$	- \$	477,193 \$	-	\$ - 5	- \$	-
Mechanical Replacement	\$	11,000,000 25 years		\$	- \$	- \$	-	\$ - \$	- \$	-
Structural Rehab	\$	2,291,012 20 and 40 years special maintenan	ce and rehab at 5% of capital cost	\$	- \$	477,192.80 \$	-	\$ - \$	- \$	-
Alternative 2	Per Ann	um Cost		\$	188,893 \$	482,175 \$	174,642	\$ 167,925	161,467 \$	155,256
Operations				\$	123,474 \$	118,725 \$	114,158	\$ 109,768 \$	105,546 \$	101,486
Bridge Operators	\$	450,000 Bridge Operators (5 people @ \$90	()	\$	97,479 \$	93,730 \$	· · · · · · · · · · · · · · · · · · ·			•
Electrical Operation	\$	120,000 Allowance for bridge operation ar		\$	25,994 \$	24,995 \$	·			·
Maintenance	•			Ś	65,419 \$	62,903 \$	60,484			
Routine Maintenance	Ś	192,000 40 hrs/month @ \$75/hr+\$10k mat	erials	\$	41,591 \$	39,991 \$	•			·
Annual Repairs	\$	50,000 Allowance for expansion joints, be		\$	10,831 \$	10,414 \$	10,014			8,902
Miscellaneous Repairs	Ś	60,000 5k/month (cleaning, changing light		\$	12,997 \$	12,497 \$	·			· ·
Replacement	Ψ	co,oco signional (cicaling, changing iigh	54153 ₁	Ś	- \$	300,547 \$		\$ - \$		
Mechanical Replacement	Ś	11,000,000 Every 25 years		¢	- \$	- \$	_	ζ	- \$	_
Structural Rehab	\$	1,442,934 20 and 40 years special maintenan	ce and rehab at 3% of the canital cost	ς ς	- \$	300,547 \$	-	\$ - 9	, ; ;	_
Alternative 3	т	um Cost	ce and renab at 370 or the capital cost	Ś	73,651 \$	368,530 \$		7		60,536
Operations	I CI AIIII	ani cost		Ś	4,332 \$	4,166 \$	·			·
Electrical Operation	\$	20,000 Allowance electrical bridge lighting		Ś	4,332 \$	4,166 \$	· · · · · · · · · · · · · · · · · · ·			·
Maintenance	y	20,000 Anowance electrical bridge lighting		ė	69,319 \$	66,652 \$	64,089			56,975
Annual Repairs	\$	200,000 Allowance for expansion joints, be	orings drainago inspections	\$	43,324 \$	41,658 \$	•			·
·	\$ \$	· · · · · ·		۶ \$		24,995 \$				·
Miscellaneous Repairs	Ş	120,000 10k/month (cleaning, changing ligh	itbuibs)	\$ ¢	25,994 \$		24,033			
Replacement	Ś	1 420 210 20 and 40 years special maintanen	as and rabab at 20/ of conital cost	\$ \$	- \$ - \$	297,711 \$	-	\$ - \$ \$ - \$	• • • • • • • • • • • • • • • • • • •	-
Structural Rehab Cumulative Discounted Costs	ş	1,429,318 20 and 40 years special maintenan	ce and renab at 3% of capital cost	Ş	- ş	297,711 \$	-	- ;	· - >	-
Alternative 1	Por Ann	um Cost		\$	25,179,992 \$	25,859,642 \$	26,054,312	\$ 26,241,495	26,421,479 \$	26,594,540
Operations	rei Aiiii	uni cost		ç	11,733,156 \$	11,851,881 \$	11,966,040			
Bridge Operators	Ś	450,000 Bridge Operators (5 people @ \$90	NE)	ċ	9,263,018 \$	9,356,748 \$				
Electrical Operation	\$	120,000 Allowance for bridge operation ar		ć	2,470,138 \$	2,495,133 \$				
Maintenance	y	120,000 Allowance for bridge operation at	id bridge lighting	¢	8,274,963 \$	8,358,695 \$	8,439,207			
Routine Mechanical Maintenance	ċ	192,000 40 hrs/month @ \$75/hr+\$10k ma	torials	ċ	3,952,221 \$	3,992,213 \$				
Annual Repairs	ç	150,000 Allowance for expansion joints, be		۶ خ	3,932,221 \$	3,118,916 \$				
Miscellaneous Repairs	ې خ	60,000 5k/month (cleaning, changing ligh		٠ خ	1,235,069 \$	1,247,566 \$	1,259,583			
·	ş	60,000 Sk/month (cleaning, changing ligh	tbuibs, etc)	\$	5,171,873 \$	5,649,066 \$				
Replacement	\$	11 000 000 35 veers		\$ \$	4,126,285 \$					
Mechanical Replacement		11,000,000 25 years 2,291,012 20 and 40 years special maintenal	account robab at E0/ of capital cost	ş ç						
Structural Rehab Alternative 2	\$ Por Ann	um Cost	ice and renab at 5% of capital cost	\$ ¢	1,045,588 \$ 22,734,492 \$	1,522,781 \$ 23,216,667 \$				
	Pel Allii	uiii Cost		\$	11,733,156 \$	11,851,881 \$				
Operations	¢	450,000 Dridge Operators (Finesple @ ¢0)	NA	ş						
Bridge Operators	\$	450,000 Bridge Operators (5 people @ \$90	·	\$ \$	9,263,018 \$	9,356,748 \$				
Electrical Operation	\$	120,000 Allowance for bridge operation ar	a bridge lighting	\$	2,470,138 \$	2,495,133 \$				
Maintenance	_	402,000, 401, /	r. est.	\$	6,216,514 \$	6,279,418 \$				
Routine Maintenance	\$	192,000 40 hrs/month @ \$75/hr+\$10k ma		\$	3,952,221 \$	3,992,213 \$				
Annual Repairs	\$	50,000 Allowance for expansion joints, be		\$	1,029,224 \$	1,039,639 \$				
	_	60,000 5k/month (cleaning, changing ligh	tbulbs)	\$	1,235,069 \$	1,247,566 \$				
Miscellaneous Repairs	\$	ooyooo onymenen (oreaning) onanging iigi			4 704 034 C	E 00E 3CO Ć	5,085,369	\$ 5,085,369 \$		
Replacement				\$	4,784,821 \$	5,085,369 \$				4 126 205
Replacement Mechanical Replacement	\$	11,000,000 Every 25 years		\$ \$	4,126,285 \$	4,126,285 \$	4,126,285	\$ 4,126,285 \$		
Replacement Mechanical Replacement Structural Rehab	\$ \$	11,000,000 Every 25 years 1,442,934 20 and 40 years special maintena		\$ \$ \$	4,126,285 \$ 658,536 \$	4,126,285 \$ 959,084 \$	4,126,285 959,084	\$ 4,126,285 \$ \$ 959,084 \$	959,084 \$	959,084
Replacement Mechanical Replacement Structural Rehab Alternative 3	\$ \$	11,000,000 Every 25 years		\$	4,126,285 \$ 658,536 \$ 7,651,047 \$	4,126,285 \$ 959,084 \$ 8,019,577 \$	4,126,285 959,084 8,087,671	\$ 4,126,285 \$ \$ 959,084 \$ \$ 8,153,147 \$	959,084 \$ 8,216,104 \$	959,084 8,276,640
Replacement Mechanical Replacement Structural Rehab Alternative 3 Operations	\$ \$ Per Ann	11,000,000 Every 25 years 1,442,934 20 and 40 years special maintenal um Cost	nce and rehab at 3% of the capital cost		4,126,285 \$ 658,536 \$ 7,651,047 \$ 411,690 \$	4,126,285 \$ 959,084 \$ 8,019,577 \$ 415,855 \$	4,126,285 959,084 8,087,671 419,861	\$ 4,126,285 \$ \$ 959,084 \$ \$ 8,153,147 \$ \$ 423,713 \$	959,084 \$ 8,216,104 \$ 427,416 \$	959,084 8,276,640 430,977
Replacement Mechanical Replacement Structural Rehab Alternative 3	\$ \$	11,000,000 Every 25 years 1,442,934 20 and 40 years special maintena	nce and rehab at 3% of the capital cost	\$	4,126,285 \$ 658,536 \$ 7,651,047 \$ 411,690 \$ 411,690 \$	4,126,285 \$ 959,084 \$ 8,019,577 \$ 415,855 \$ 415,855 \$	4,126,285 959,084 8,087,671 419,861 419,861	\$ 4,126,285 \$ 959,084 \$ \$ 959,084 \$ \$ \$ 8,153,147 \$ \$ 423,713 \$ \$ 423,713 \$	5 959,084 \$ 6 8,216,104 \$ 6 427,416 \$ 6 427,416 \$	959,084 8,276,640 430,977 430,977
Replacement Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation Maintenance	\$ \$ Per Ann	11,000,000 Every 25 years 1,442,934 20 and 40 years special maintenal um Cost	nce and rehab at 3% of the capital cost	\$	4,126,285 \$ 658,536 \$ 7,651,047 \$ 411,690 \$	4,126,285 \$ 959,084 \$ 8,019,577 \$ 415,855 \$ 415,855 \$ 6,653,688 \$	4,126,285 959,084 8,087,671 419,861 419,861 6,717,777	\$ 4,126,285 \$ 959,084 \$ \$ 959,084 \$ \$ \$ 8,153,147 \$ \$ 423,713 \$ \$ 423,713 \$	5 959,084 \$ 6 8,216,104 \$ 6 427,416 \$ 6 427,416 \$	959,084 8,276,640 430,977 430,977
Replacement Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation	\$ \$ Per Ann	11,000,000 Every 25 years 1,442,934 20 and 40 years special maintenal um Cost	nce and rehab at 3% of the capital cost	\$	4,126,285 \$ 658,536 \$ 7,651,047 \$ 411,690 \$ 411,690 \$	4,126,285 \$ 959,084 \$ 8,019,577 \$ 415,855 \$ 415,855 \$	4,126,285 959,084 8,087,671 419,861 419,861 6,717,777	\$ 4,126,285 \$ \$ 959,084 \$ \$ 8,153,147 \$ \$ 423,713 \$ \$ 423,713 \$ \$ 6,779,401 \$	5 959,084 \$ 6 8,216,104 \$ 6 427,416 \$ 7 427,416 \$ 7 6,838,654 \$	959,084 8,276,640 430,977 430,977 6,895,629
Replacement Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation Maintenance	\$ \$ Per Ann	11,000,000 Every 25 years 1,442,934 20 and 40 years special maintenal um Cost 20,000 Allowance electrical bridge lightin	nce and rehab at 3% of the capital cost g earings, drainage, inspections	\$	4,126,285 \$ 658,536 \$ 7,651,047 \$ 411,690 \$ 411,690 \$ 6,587,035 \$	4,126,285 \$ 959,084 \$ 8,019,577 \$ 415,855 \$ 415,855 \$ 6,653,688 \$	4,126,285 959,084 8,087,671 419,861 419,861 6,717,777 4,198,610	\$ 4,126,285 \$ \$ 959,084 \$ \$ 8,153,147 \$ \$ 423,713 \$ \$ 6,779,401 \$ \$ 4,237,125 \$	959,084 \$ 8,216,104 \$ 427,416 \$ 427,416 \$ 6,838,654 \$ 4,274,159 \$	959,084 8,276,640 430,977 430,977 6,895,629 4,309,768
Replacement Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation Maintenance Annual Repairs	\$ \$ Per Ann \$	11,000,000 Every 25 years 1,442,934 20 and 40 years special maintenal um Cost 20,000 Allowance electrical bridge lightin 200,000 Allowance for expansion joints, be	nce and rehab at 3% of the capital cost g earings, drainage, inspections	\$	4,126,285 \$ 658,536 \$ 7,651,047 \$ 411,690 \$ 411,690 \$ 6,587,035 \$ 4,116,897 \$	4,126,285 \$ 959,084 \$ 8,019,577 \$ 415,855 \$ 415,855 \$ 6,653,688 \$ 4,158,555 \$	4,126,285 959,084 8,087,671 419,861 419,861 6,717,777 4,198,610 2,519,166	\$ 4,126,285 \$ \$ 959,084 \$ \$ 8,153,147 \$ \$ 423,713 \$ \$ 423,713 \$ \$ 6,779,401 \$ \$ 4,237,125 \$ \$ 2,542,275 \$	959,084 \$ 8,216,104 \$ 8,216,104 \$ 427,416 \$ 427,416 \$ 6,838,654 \$ 4,274,159 \$ 2,564,495 \$	959,084 8,276,640 430,977 430,977 6,895,629 4,309,768 2,585,861



Discount Rate	Source									
Year					45	46	47	48	49	50
Discount Rate	NJ Tran	sportation Trust Fund Authority			4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Discount Factor				().171198412	0.164613858	0.158282555	0.152194765	0.14634112	0.140712615
Discounted Costs										
Alternative 1	Per Anr	um Cost		\$	166,405 \$	160,005 \$	153,851	\$ 147,933	\$ 142,244 \$	1,684,611
Operations				\$	97,583 \$	93,830 \$	90,221	\$ 86,751	\$ 83,414 \$	80,206
Bridge Operators	\$	450,000 Bridge Operators (5 people @ \$90	k)	\$	77,039 \$	74,076 \$	71,227	\$ 68,488	\$ 65,854 \$	63,321
Electrical Operation	\$	120,000 Allowance for bridge operation ar	nd bridge lighting	\$	20,544 \$	19,754 \$	18,994	\$ 18,263	\$ 17,561 \$	16,886
Maintenance				\$	68,822 \$	66,175 \$	63,630	\$ 61,182	\$ 58,829 \$	56,566
Routine Mechanical Maintenance	\$	192,000 40 hrs/month @ \$75/hr+\$10k mat	erials	\$	32,870 \$	31,606 \$	30,390	\$ 29,221	\$ 28,097 \$	27,017
Annual Repairs	\$	150,000 Allowance for expansion joints, be	arings, drainage, inspections, etc.	\$	25,680 \$	24,692 \$	23,742	\$ 22,829	\$ 21,951 \$	21,107
Miscellaneous Repairs	\$	60,000 5k/month (cleaning, changing light	tbulbs, etc)	\$	10,272 \$	9,877 \$	9,497	\$ 9,132	\$ 8,780 \$	8,443
Replacement				\$	- \$	- \$	-	\$ -	\$ - \$	1,547,839
Mechanical Replacement	\$	11,000,000 25 years		\$	- \$	- \$	-	\$ -	\$ - \$	1,547,839
Structural Rehab	\$	2,291,012 20 and 40 years special maintenan	ce and rehab at 5% of capital cost	\$	- \$	- \$	-	\$ -	\$ - \$	-
Alternative 2	Per Ann	um Cost		\$	149,285 \$	143,543 \$	138,022	\$ 132,714	\$ 127,609 \$	1,670,540
Operations				\$	97,583 \$	93,830 \$	90,221	\$ 86,751	\$ 83,414 \$	
Bridge Operators	\$	450,000 Bridge Operators (5 people @ \$90	k)	\$	77,039 \$	74,076 \$	· · · · · · · · · · · · · · · · · · ·			•
Electrical Operation	\$	120,000 Allowance for bridge operation ar		\$	20,544 \$	19,754 \$				·
Maintenance	•			Ś	51,702 \$	49,713 \$	47,801			
Routine Maintenance	Ś	192,000 40 hrs/month @ \$75/hr+\$10k mat	rerials	Ś	32,870 \$	31,606 \$	· ·			· ·
Annual Repairs	\$	50,000 Allowance for expansion joints, be		Ś	8,560 \$	8,231 \$	·			·
Miscellaneous Repairs	Ś	60,000 5k/month (cleaning, changing light		Ś	10,272 \$	9,877 \$		•		·
Replacement	· · · · ·	oo,ooo on, month (cleaning, changing iigh		Ś	- \$	- \$			\$ - \$	
Mechanical Replacement	Ś	11,000,000 Every 25 years		¢	- \$	- \$	-	•	\$ - \$	1,547,839
Structural Rehab	\$	1,442,934 20 and 40 years special maintenan	ce and rehab at 3% of the canital cost	¢	- \$	- Ś	- -	T.	\$ - \$	-
Alternative 3	т	um Cost	ce and remain at 570 or the capital cost	Ś	58,207 \$	55,969 \$		T	T T	
Operations	T CI AIII	um cost		Ś	3,424 \$	3,292 \$	·			·
Electrical Operation	\$	20,000 Allowance electrical bridge lighting	T	\$	3,424 \$	3,292 \$	· ·	•		•
Maintenance	Ą	20,000 Allowance electrical bridge lighting	3	¢	54,783 \$	52,676 \$	50,650			45,028
Annual Repairs	\$	200 000 Allowance for expansion joints, he	arings drainage inspections	Ş	34,240 \$	32,923 \$	·	•		·
·	\$ \$	200,000 Allowance for expansion joints, be		۶ \$	20,544 \$					•
Miscellaneous Repairs	Ş	120,000 10k/month (cleaning, changing light	itbuibs)	\$ &						
Replacement	<u>,</u>	1 120 210 20 and 10 areas are significant areas	d b b t 20/ f t t t t t t t t t t t	\$ \$	- \$ - \$	- \$ - \$	-	·	· .	-
Structural Rehab Cumulative Discounted Costs	\$	1,429,318 20 and 40 years special maintenan	ce and renab at 5% of capital cost	Ş	- \$	- \$	-	\$ -	\$ - \$	-
Alternative 1	Por Ann	um Cost		\$	26,760,944 \$	26,920,949 \$	27,074,800	\$ 27,222,733	\$ 27,364,977 \$	29,049,588
Operations	rei Alli	unicost		¢	12,380,423 \$	12,474,253 \$				
Bridge Operators	Ś	450,000 Bridge Operators (5 people @ \$90	N-1	¢	9,774,018 \$	9,848,094 \$				
Electrical Operation	\$	120,000 Allowance for bridge operation ar		ç Ç	2,606,405 \$	2,626,158 \$				
Maintenance	Y	120,000 Anowance for bridge operation a	id bridge lighting	¢	8,731,456 \$	8,797,631 \$	8,861,260			
Routine Mechanical Maintenance	ċ	192,000 40 hrs/month @ \$75/hr+\$10k ma	torials	ç	4,170,248 \$	4,201,853 \$				
Annual Repairs	ې خ			ب خ	3,258,006 \$	3,282,698 \$				
Miscellaneous Repairs	ş ¢	150,000 Allowance for expansion joints, be 60,000 5k/month (cleaning, changing ligh		ş ¢	1,303,202 \$	1,313,079 \$	1,322,576			1,348,931
	ş	60,000 Sk/month (cleaning, changing ligh	itbuibs, etc)	\$	5,649,066 \$	5,649,066 \$				
Replacement	\$	11 000 000 35 years		. \$	4,126,285 \$					
Mechanical Replacement Structural Rehab	\$ \$	11,000,000 25 years 2,291,012 20 and 40 years special maintena	aco and robab at EW of capital cost	ş ¢	1,522,781 \$	4,120,263 \$ 1,522,781 \$				
Alternative 2		um Cost	ice and renab at 5% of capital cost	ş	24,025,243 \$	24,168,786 \$				
	Pel Alli	uni cost		\$	12,380,423 \$	12,474,253 \$				
Operations	ć	AFO OOO Dridge Operators (Finesple @ CO)		ş						
Bridge Operators	\$	450,000 Bridge Operators (5 people @ \$90	·	\$ ¢	9,774,018 \$					
Electrical Operation	\$	120,000 Allowance for bridge operation ar	in minde lighting	\$ *	2,606,405 \$	2,626,158 \$				
Maintenance		402,000 40 km/m 11, 0 675 / 1 4401	A	\$	6,559,452 \$	6,609,165 \$				
Routine Maintenance	\$	192,000 40 hrs/month @ \$75/hr+\$10k ma		\$ \$	4,170,248 \$	4,201,853 \$				
Annual Repairs	\$	50,000 Allowance for expansion joints, be		\$ •	1,086,002 \$	1,094,233 \$				
Miscellaneous Repairs	\$	60,000 5k/month (cleaning, changing ligh	itbuips)	\$	1,303,202 \$	1,313,079 \$				
Replacement				\$	5,085,369 \$	5,085,369 \$	5,085,369			
•	_			S	4,126,285 \$	4,126,285 \$				
Mechanical Replacement	\$	11,000,000 Every 25 years		T .					\$ 959,084 \$	959,084
Mechanical Replacement Structural Rehab	\$	1,442,934 20 and 40 years special maintena	nce and rehab at 3% of the capital cost	\$	959,084 \$	959,084 \$				
Mechanical Replacement Structural Rehab Alternative 3	\$		nce and rehab at 3% of the capital cost	\$	8,334,847 \$	8,390,816 \$	8,444,632	\$ 8,496,378	\$ 8,546,134 \$	
Mechanical Replacement Structural Rehab Alternative 3 Operations	\$ Per Anr	1,442,934 20 and 40 years special maintena um Cost		т т	8,334,847 \$ 434,401 \$	8,390,816 \$ 437,693 \$	8,444,632 440,859	\$ 8,496,378 \$ 443,903	\$ 8,546,134 \$ \$ 446,829 \$	449,64
Mechanical Replacement Structural Rehab Alternative 3	\$	1,442,934 20 and 40 years special maintena		\$	8,334,847 \$ 434,401 \$ 434,401 \$	8,390,816 \$ 437,693 \$ 437,693 \$	8,444,632 440,859 440,859	\$ 8,496,378 \$ 443,903 \$ 443,903	\$ 8,546,134 \$ \$ 446,829 \$ \$ 446,829 \$	449,644
Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation Maintenance	\$ Per Anr	1,442,934 20 and 40 years special maintena um Cost		\$	8,334,847 \$ 434,401 \$	8,390,816 \$ 437,693 \$	8,444,632 440,859	\$ 8,496,378 \$ 443,903 \$ 443,903 \$ 7,102,442	\$ 8,546,134 \$ \$ 446,829 \$ \$ 446,829 \$ \$ 7,149,271 \$	449,64 4 449,644 7,194,29 9
Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation	\$ Per Anr	1,442,934 20 and 40 years special maintena um Cost	g	\$	8,334,847 \$ 434,401 \$ 434,401 \$	8,390,816 \$ 437,693 \$ 437,693 \$	8,444,632 440,859 440,859 7,053,740	\$ 8,496,378 \$ 443,903 \$ 443,903 \$ 7,102,442	\$ 8,546,134 \$ \$ 446,829 \$ \$ 446,829 \$ \$ 7,149,271 \$	449,64 4 449,644 7,194,29 9
Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation Maintenance	\$ Per Anr \$	1,442,934 20 and 40 years special maintena um Cost 20,000 Allowance electrical bridge lightin	g earings, drainage, inspections	\$	8,334,847 \$ 434,401 \$ 434,401 \$ 6,950,413 \$	8,390,816 \$ 437,693 \$ 437,693 \$ 7,003,089 \$	8,444,632 440,859 440,859 7,053,740 4,408,587	\$ 8,496,378 \$ 443,903 \$ 443,903 \$ 7,102,442 \$ 4,439,026	\$ 8,546,134 \$ \$ 446,829 \$ \$ 446,829 \$ \$ 7,149,271 \$ \$ 4,468,294 \$	449,64 4 449,644 7,194,29 9 4,496,437
Mechanical Replacement Structural Rehab Alternative 3 Operations Electrical Operation Maintenance Annual Repairs	\$ Per Anr \$ \$	1,442,934 20 and 40 years special maintena um Cost 20,000 Allowance electrical bridge lightin 200,000 Allowance for expansion joints, bo	g earings, drainage, inspections	\$	8,334,847 \$ 434,401 \$ 434,401 \$ 6,950,413 \$ 4,344,008 \$	8,390,816 \$ 437,693 \$ 437,693 \$ 7,003,089 \$ 4,376,931 \$	8,444,632 440,859 440,859 7,053,740 4,408,587 2,645,152	\$ 8,496,378 \$ 443,903 \$ 443,903 \$ 7,102,442 \$ 4,439,026 \$ 2,663,416	\$ 8,546,134 \$ 446,829 \$ \$ 446,829 \$ \$ 7,149,271 \$ \$ 4,468,294 \$ \$ 2,680,977 \$	449,644 449,644 7,194,299 4,496,437 2,697,862

