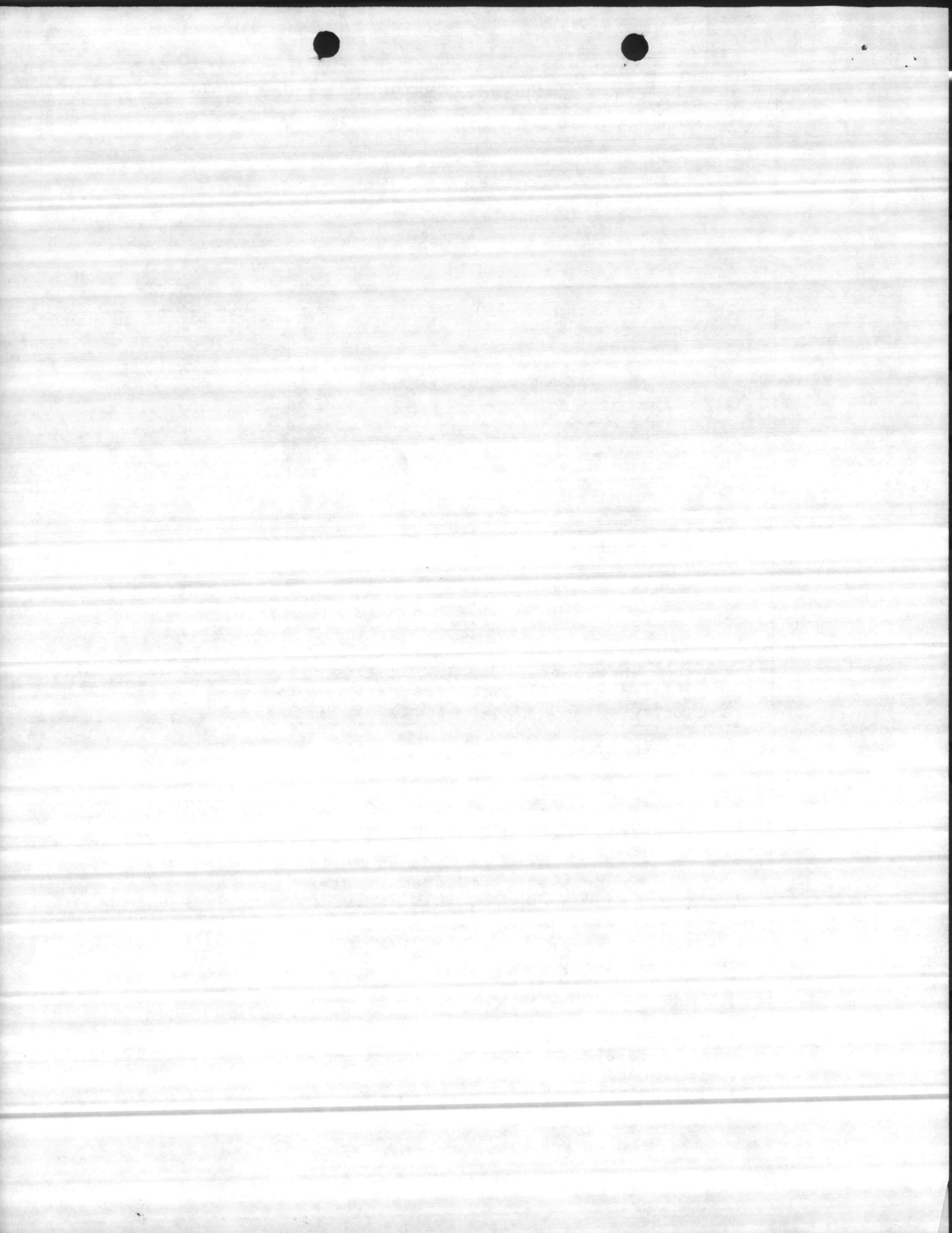
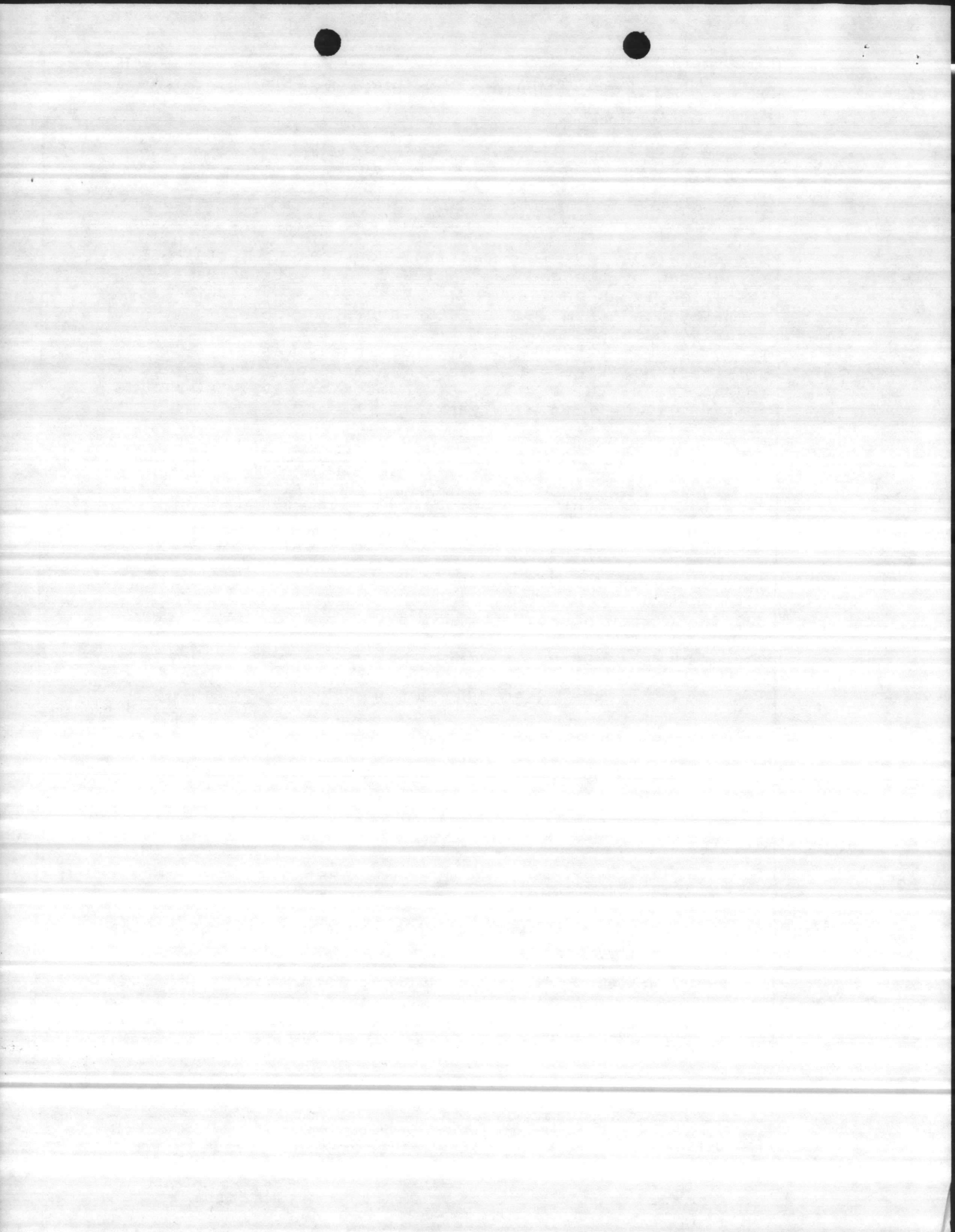


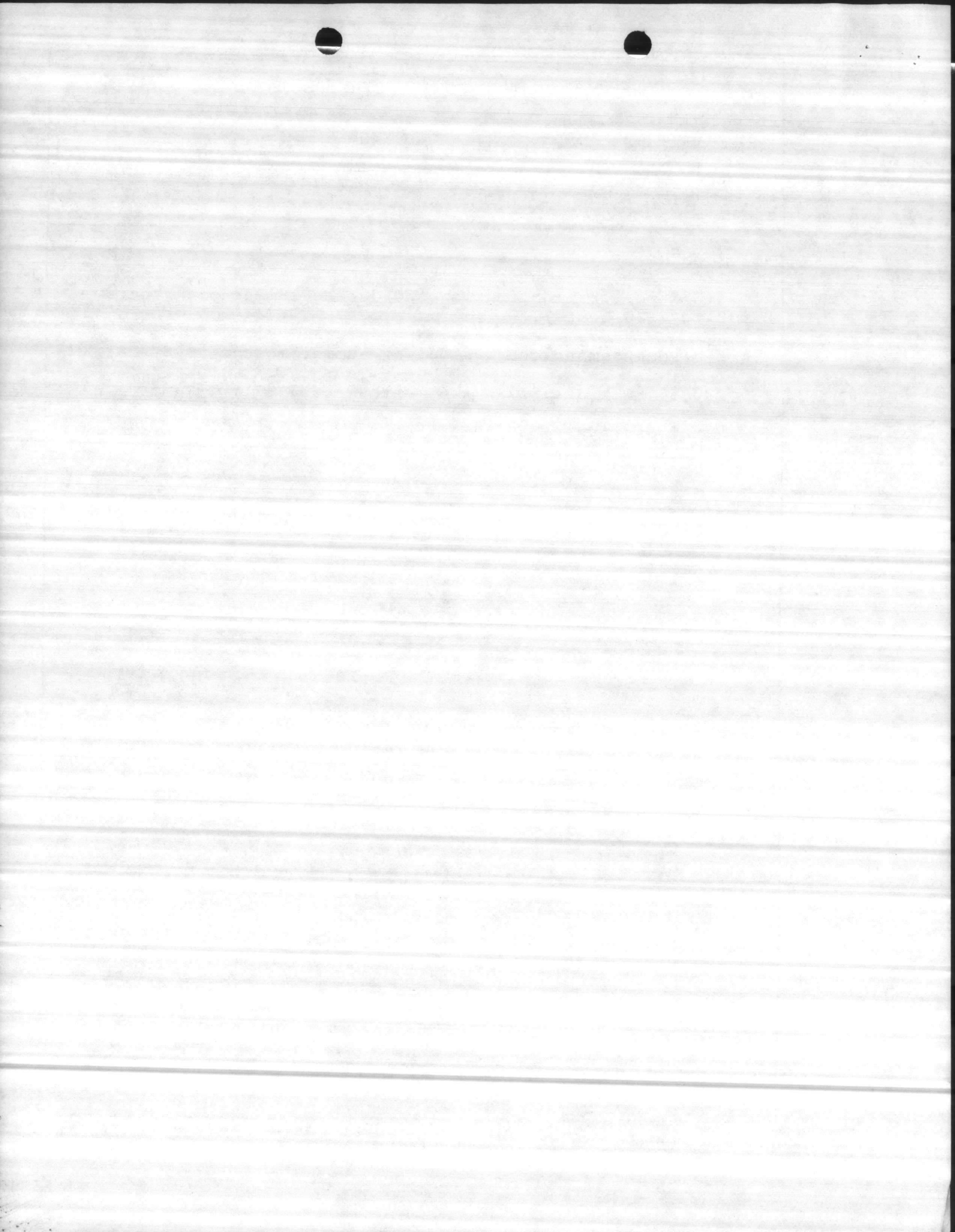
1. COMPONENT MARINE CORPS		FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA		2. DATE 20 Oct 86	
3. INSTALLATION AND LOCATION MARINE CCRPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542			4. PROJECT TITLE UPGRADE EXTERIOR LIGHTING, MAINSIDE		
5. PROGRAM ELEMENT	6. CATEGORY CODE VARIOUS	7. PROJECT NUMBER LE951R	8. PROJECT COST (\$000) 69.6		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
Replace Incandescent Fixtures		EA	1,729	34.53	59.7
Contingencies - 10%		LS	-	-	<u>6.0</u>
Total Contract Cost		LS	-	-	65.7
Design Cost 6%		LS	-	-	3.9
Supervision, Inspection & Overhead		LS	-	-	<u>0.0</u>
PROJECT COST ROUNDED		LS	-	-	69.6
10. DESCRIPTION OF PROPOSED CONSTRUCTION					
<p>Replace incandescent exterior lighting fixtures and bulbs on identified industrial facilities with energy efficient fluorescent fixtures and bulbs. See enclosure (1).</p>					
11. <u>REQUIREMENT:</u>					
<p><u>PROJECT:</u> Replace existing 100 to 200 watt incandescent exterior lighting fixtures and bulbs in the mainside, military industrial facilities of Marine Corps Base, Camp Lejeune with 9 to 14 watt PL type fluorescent fixtures and bulbs. Fixture frame to be made of marine grade aluminum with a polycarbonate prismatic diffuser to prevent corrosion. The lens to be fully gasketed and U. L. listed for wet locations. These fluorescent, single and double PL-type fixtures to be similar in appearance for all types of mounting and efficiently start-up and operate to 0 degrees farenheit. No damage is to be sustained by the building's structures. Site preparation and post construction clean-up to be included.</p> <p><u>REQUIREMENT:</u> To reduce electric consumption and demand basewide by reducing the wattage required for exterior lighting while retaining the necessary lighting levels. This will help to reduce base energy consumption to 12% below FY-85 base-line by 1995.</p>					



1. COMPONENT MARINE CORPS	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE 20 Oct 86
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542		
4. PROJECT TITLE UPGRADE EXTERIOR LIGHTING, MAINSIDE	5. PROJECT NUMBER LE951R	
<p><u>CURRENT SITUATION:</u> The existing incandescent fixtures are maintained by the occupant. 100 to 200 watt bulbs are installed in these fixtures. These standing lights are normally used from 2000 to 0600 hours, seven days a week for security purposes.</p> <p><u>IMPACT IF NOT PROVIDED:</u> Continued energy waste due to the utilization of low efficiency. Incandescent exterior lighting on industrial facilities. Approximately 2,500 MBTU's of energy will be lost each year.</p> <p style="text-align: center;"><u>ENERGY SAVINGS/YEAR</u></p> <p>9-Watt fluorescent bulb versus 125-Watt incandescent bulb. 116 Watt/fixtures x 1,729 fixtures = 200,564 Watts. Total = 200,564/1,000 = 200.56 KW 200.56 KW x 10 hours/day x 365 days/yr = 732,044.5 KWH/yr 732,044 KWH/1,000 x 3.413 MBTU/MWH = 2,498.45 MBTU/yr.</p> <p style="text-align: center;"><u>NON-ENERGY SAVINGS - ANNUAL RECURRING</u></p> <p>(Electrical Demand Savings)</p> <ol style="list-style-type: none"> 1. The yearly savings is based on the "shaving" of the monthly peak demand. 2. Exterior lighting is used from 2000 hours to 0600 hours. 3. <u>WINTER:</u> <ol style="list-style-type: none"> a. Exterior lighting is used during winter peak hours (2000 to 2100 hours). b. Peak demand charges during winter months is \$10.62/KW. 200.56 KW x \$10.62/KW x 6 months = \$12,779.70/Winter. 		



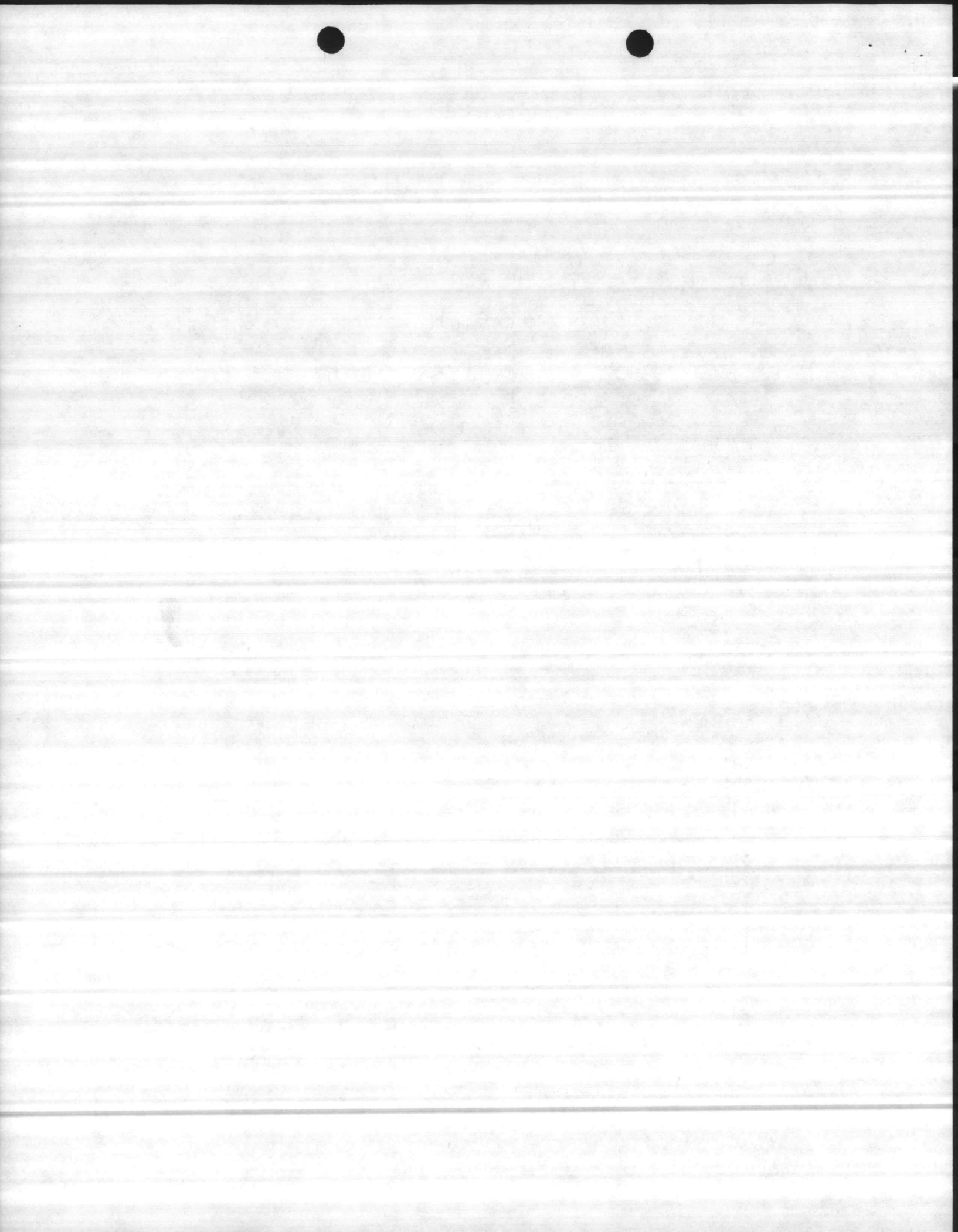
1. COMPONENT MARINE CORPS	FY 19 <u>89</u> MILITARY CONSTRUCTION PROJECT DATA	2. DATE 20 Oct. 86
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542		
4. PROJECT TITLE UPGRADE EXTERIOR LIGHTING, MAINTSIDE	5. PROJECT NUMBER LE951R	
<p>4. <u>SUMMER:</u></p> <p>a. Exterior lighting is used during summer peak hours, (2000 to 2200 hours).</p> <p>b. Peak demand charges during summer months is \$14,81/KW. 200.56 KW x \$14.81/KW x 6 months = \$17,821.74/Summer.</p> <p>5. Total Savings = \$30,601.44/year.</p>		



<u>BUILDING NO.</u>	<u>WALL FIXTURES</u>	<u>CEILING FIXTURES</u>
3B	2	0
6	1	7
7	4	0
8	1	7
9	7	1
10	1	7
12	1	7
13	0	2
25A	2	0
26	3	0
27	2	0
36	2	0
37	0	5
43	0	1
50	0	2
54	1	16
61	4	0
62	3	0
63	4	2
65	1	2
66	1	4
67	1	2
HP 51	54	0
HP 53	54	0
HP 55	54	0
HP 57	54	0
101	9	4
102	1	8
106	9	3
107	9	3
118	9	4
HP 105	76	0
HP 106	2	0
HP 107	1	0
HP 115	76	0
HP 125	76	0
HP 127	1	0
HP 135	76	0
HP 140	1	0
HP 145	76	0
HP 146	1	0
HP 155	76	0
HP 165	76	0
HP 170	1	0
HP 175	76	0
HP 185	76	0
HP 195	76	0
205	9	4
206	11	1
213	9	4
214	0	1 + 1 Recessed
216	0	1 + 1 Recessed
217	9	4
222	4	0
234	1	0
251	1	1



HP	210	1	0
HP	267	1	0
	332	4	0
	400	0	1
	401	7	0
	403	3	3
	407	1	4
	408	12	0
	411	11	0
	414	1	0
	417	1	4
	420	0	8
	422	1	4
	423	5	1
	424	11	0
	425	5	1
	431	0	1
	432	1	0
	460	2	0
	500	3	0
	512	3	0
	518	4	0
	520	1	1
	524	8	0
	531	4	0
	532	1	0
	550	0	2
	561	1	0
HP	550	86	0
HP	551	1	0
HP	560	86	0
HP	561	1	0
	656	1	0
	690	2	0
	746	2	0
	1003	0	5
	1010	1	0
	1100	1	3
	1101	14	0
	1106	1	0
	1140	60	0
	1208	3	0
	1340	60	0
	1400	4	0
S1516		2	0
S1517		2	0
	1601	4	3
	1614	0	2
	1615	1	1
	1700	3	0
	1771	17	0
	1780	29	0
	1820	2	0



MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5 (REV. 12/80)

SHEET 1 of 1

PREPARED BY P. Engle

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

Const. Contr. No. LE951R

FUNDS AVAIL. FY-89

NORFOLK, VIRGINIA

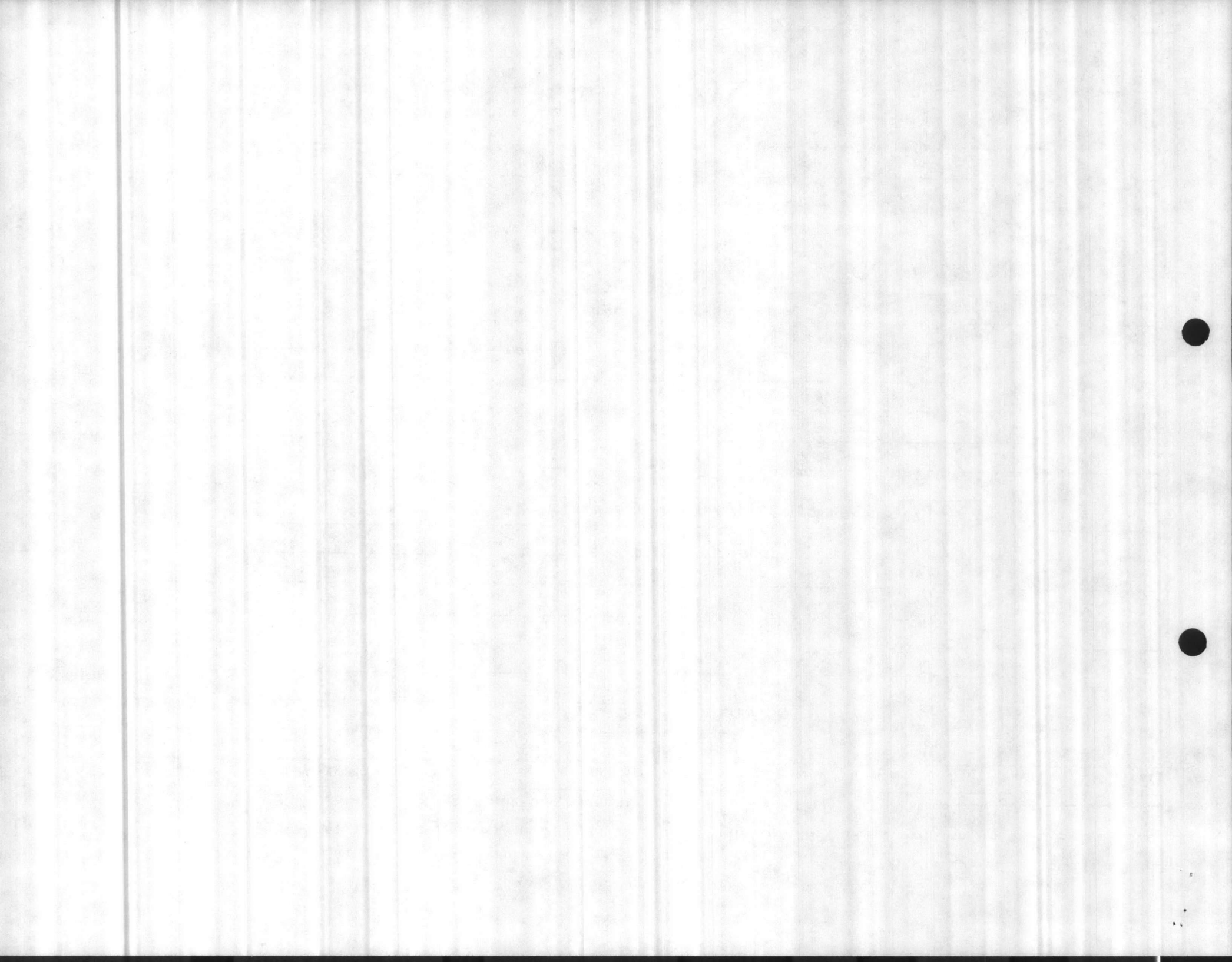
DATE 20 Oct 86

PROJECT Upgrade Exterior Lighting, Mainside

LOCATION CAMP LEJEUNE, NEC

PRELIM. FINAL

ITEMS	QUANTITY	UNIT	MATERIAL COST		LABOR COST		TOTAL COST	REMARKS
			UNIT	TOTAL	UNIT	TOTAL		
9-watt, Wall Mount, PL-type Fluorescent Fixture with Bulb	1580	EA	21.00	33,180	4.50	7,110	40,290	
9-watt, Ceiling Mount, PL-type Fluorescent Fixture with Bulb	149	EA	21.00	3,129	4.50	670.50	3,799.50	
Total	1729	EA	21.0	36,309	4.50	7,780.50	44,089.50	
Overhead (15%)							6,613.43	
Ins, Taxes, S.S. (18% of Labor)						1,400.79	1,400.49	
Sales Tax (4.5% of Material)				1,633.91			1,633.91	
Subtotal							53,737.33	
Profit (10%)							5,373.73	
Subtotal							59,111.06	
Bond (1%)							591.11	
Total Contract est Cost							59,702.17	
Contingencies (10%)							5,970.22	
Subtotal							65,672.39	
Design (6%)							3,940.34	
Total Funds Requested							69,612.73	



LIFE CYCLE COST ANALYSIS SUMMARY
ENERGY CONSERVATION INVESTMENT PROGRAM (ECIP)

1625/Util

LOCATION: CAMP LEJEUNE, NC

REGION NO: 4

LE951R

PROJECT TITLE: UPGRADE EXTERIOR LIGHTING, MAINSIDE

FISCAL YEAR 89

DISCRETE PORTION NAME:

ANALYSIS DATE: 10/86

ECONOMIC LIFE 25 YEARS

1. INVESTMENT

A. CONSTRUCTION COST	\$ 65,672.39
B. SIOH	\$ -
C. DESIGN COST	\$ 3,940.34
D. ENERGY CREDIT CALC (1A+1B+1C)X.9	\$ 62,651.46
E. SALVAGE VALUE OF EXISTING EQUIPMENT	-\$ -
F. TOTAL INVESTMENT (1D-1E)	\$ 62,651.46

2. ENERGY SAVINGS (+)/COST (-)

ANALYSIS DATE ANNUAL SAVINGS, UNIT COST & DISCOUNTED SAVINGS

FUEL	COST \$/MBTU(1)	SAVINGS MBTU/YR(2)	ANNUAL \$ SAVINGS(3)	DISCOUNT FACTOR(4)	DISCOUNTED SAVING(5)
A. ELECT	\$14.75	2,498.45	\$ 36,852.14	15.23	\$ 561,258.09
B. DIST	\$		\$		\$
C. RESID	\$		\$		\$
D. NG	\$		\$		\$
E. CO/DIST	\$		\$		\$
F. TOTAL		2,498.45	\$ 36,852.14		\$561,258.09

3. NON ENERGY SAVING (+)/COST (-)

A. ANNUAL RECURRING (+/-)	\$ 30,601.44
(1) DISCOUNT FACTOR (TABLE A)	11.65
(2) DISCOUNTED SAVING/COST (3A X 3A1)	\$ 356,506.78

B. NON RECURRING SAVING (+)/COST (-)

ITEM	SAVINGS(+) COST (-)(1)	YEAR OF OCCURRENCE(2)	DISCOUNT FACTOR(3)	DISCOUNTED SAVINGS (+) COST (-)(4)
1.	\$			\$
2.	\$			\$
3.	\$			\$
4. TOTAL	\$			\$

C. TOTAL NON ENERGY DISCOUNTED SAVINGS (+)/COST(-) (3A2+3B2.4) \$356,506.78

D. PROJECT NON ENERGY QUALIFICATION TEST

(1) 25% MAX NON ENERGY CAL (2F5 X .33)	\$185,215.17
1. IF 3D1 IS = OR > 3C GO TO ITEM 4	
2. IF 3D1 IS < 3C CALC SIR = (2F5+3D1)/1F= 11.91	
3. IF 3D12 IS => 1 GO TO ITEM 4	
4. IF 3D12 IS < 1 PROJECT DOES NOT QUALIFY	

4. FIRST YEAR DOLLAR SAVINGS 2F3+3A+(3B12/YEARS ECONOMIC LIFE)

5. TOTAL NET DISCOUNTED SAVINGS (2F5+3C)

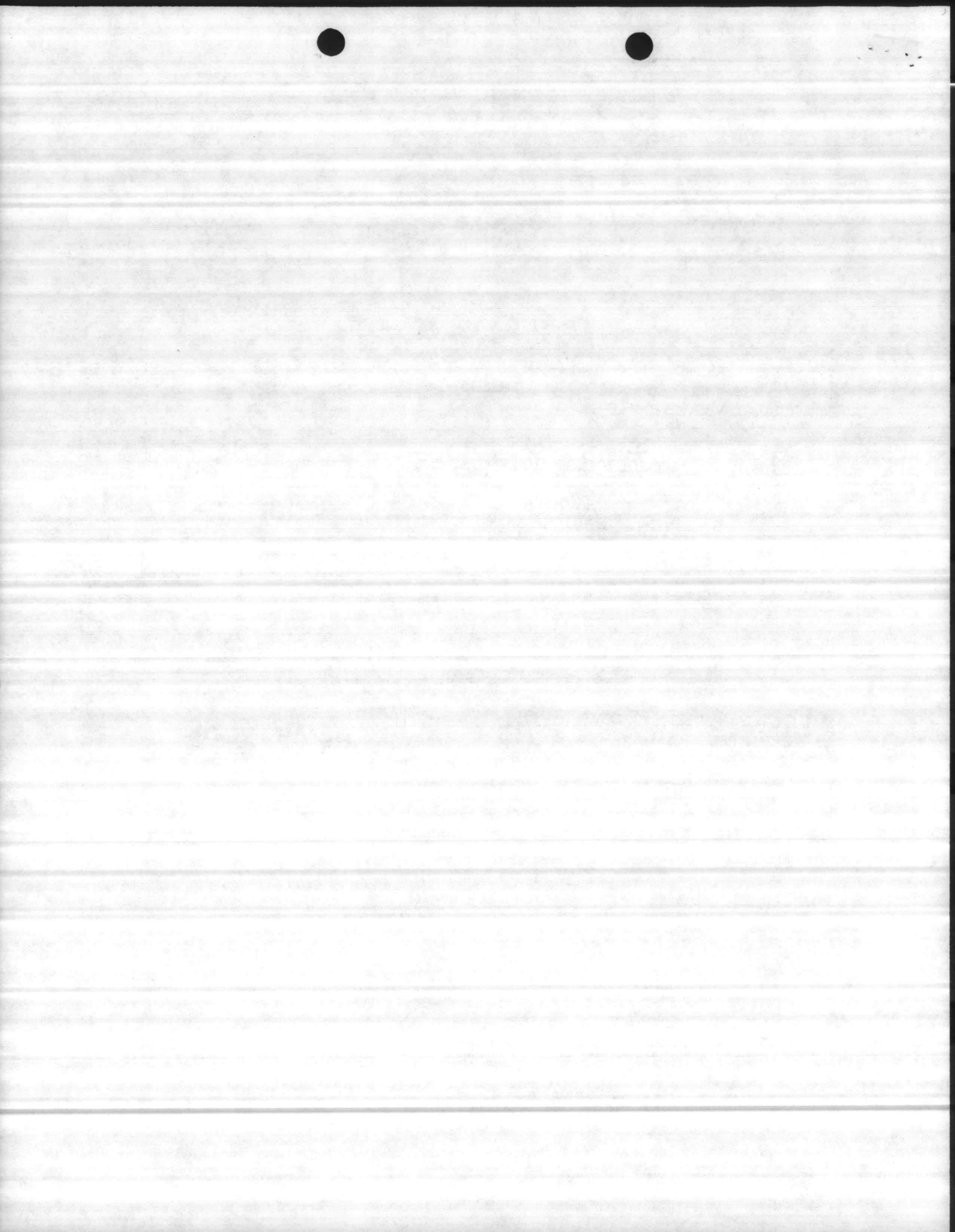
6. DISCOUNTED SAVINGS RATIO (IF < 1 PROJECT DOES NOT QUALIFY) (SIR)=(5/1F)=

7. E/C RATION (2F2/(1F/1000))= 39.88

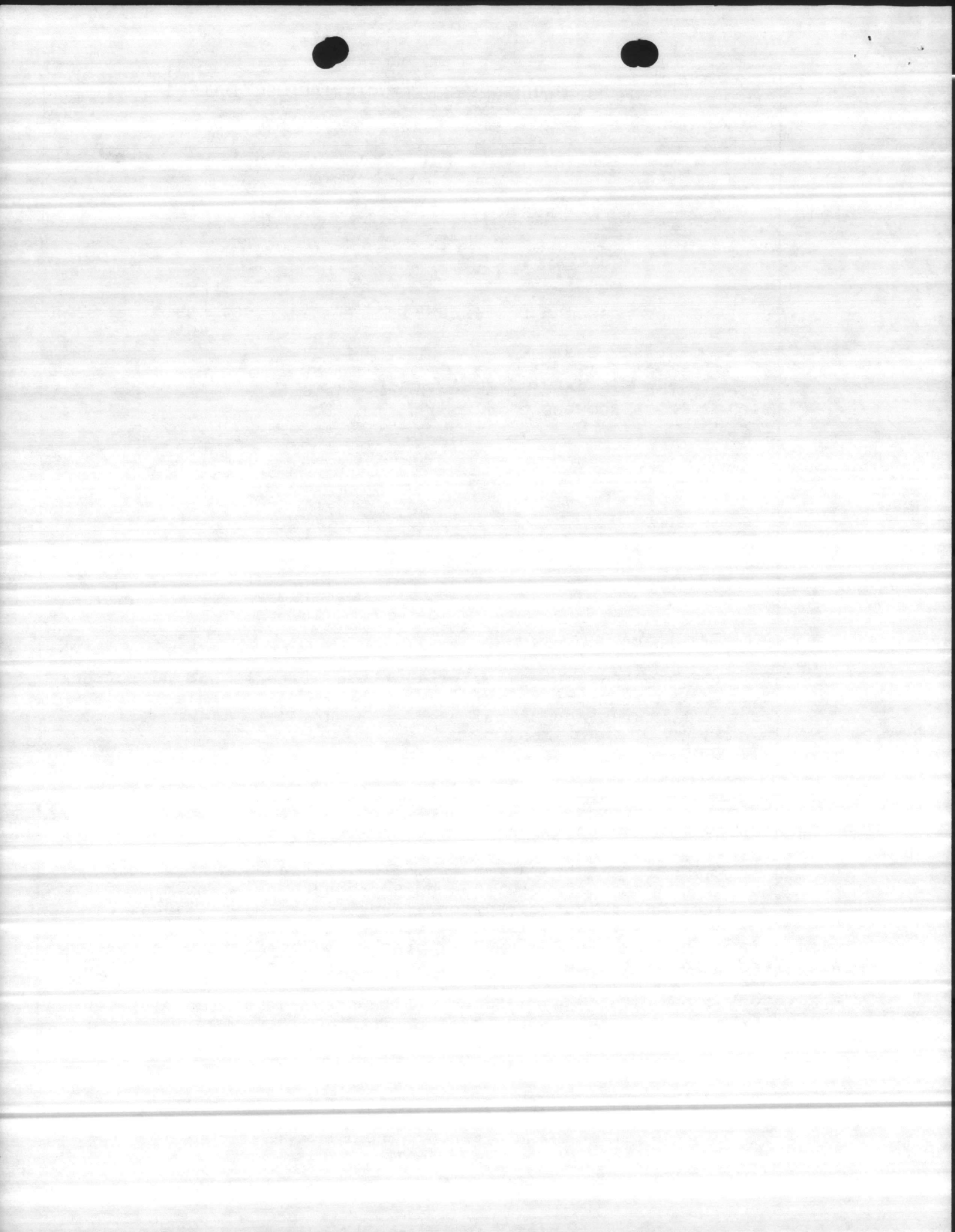
MBTU/K\$

Encl (3)

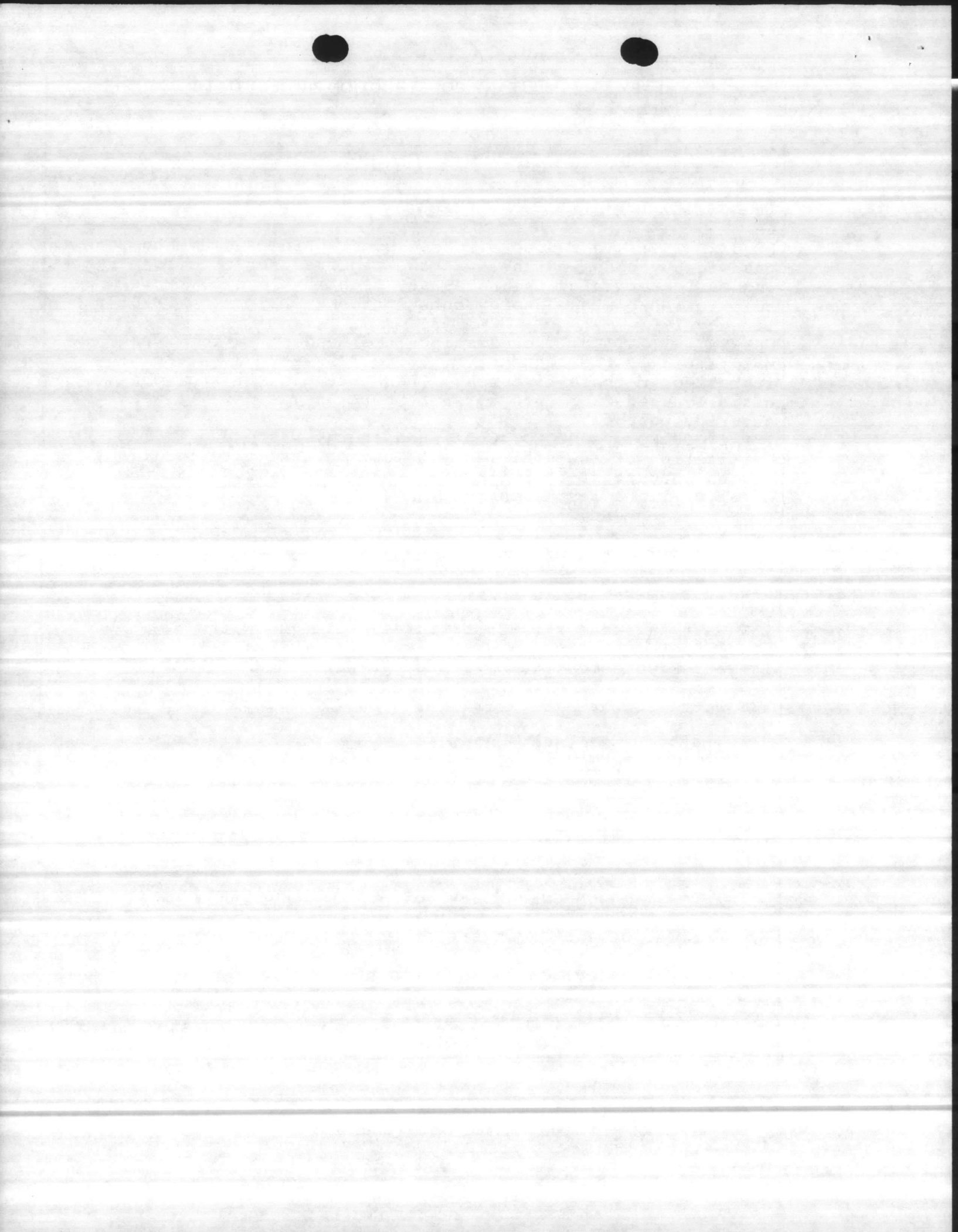
\$



1. COMPONENT MARINE CORPS		FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA		2. DATE 20 Oct 86	
3. INSTALLATION AND LOCATION MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542			4. PROJECT TITLE UPGRADE EXTERIOR LIGHTING, OUTLYING AREAS		
5. PROGRAM ELEMENT	6. CATEGORY CODE VARIOUS	7. PROJECT NUMBER LE950R	8. PROJECT COST (\$000) 78.3		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
Replace Incandescent Fixtures		EA	1,907	35.21	67.1
Contingencies - 10%		LS	-	-	6.7
Total Contract Cost		LS	-	-	73.8
Design Cost 6%		LS	-	-	4.5
Supervision, Inspection & Overhead		LS	-	-	0.0
PROJECT COST ROUNDED		LS	-	-	78.3
10. DESCRIPTION OF PROPOSED CONSTRUCTION					
<p>Replace incandescent exterior lighting fixtures and bulbs on identified industrial facilities with energy efficient fluorescent fixtures and bulbs. See enclosure (1).</p>					
11. <u>REQUIREMENT:</u>					
<p><u>PROJECT:</u> Replace existing 100 to 200 watt incandescent exterior lighting fixtures and bulbs in French Creek, Onslow Beach, Courthouse Bay, Gun Park and Hospital Point's industrial facilities with 9 to 14 watt PL type fluorescent fixtures and bulbs. Fixture frame to be made of marine grade aluminum with a polycarbonate prismatic diffuser to prevent corrosion. The lens to be fully gasketed and U. L. listed for wet locations. These fluorescent, single and double PL-type fixtures to be similar in appearance for all types of mounting and efficiently start-up and operate to 0 degrees farenheit. No damage is to be sustained by the building's structures. Site preparation and post construction clean-up to be included.</p>					



1. COMPONENT MARINE CORPS	FY 1989 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 20 Oct 86
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542		
4. PROJECT TITLE UPGRADE EXTERIOR LIGHTING, CUTLYING AREAS	5. PROJECT NUMBER LE950R	
<p><u>REQUIREMENT:</u> To reduce electric consumption and demand basewide by reducing the wattage required for exterior lighting while retaining the necessary lighting levels. This will help to reduce base energy consumption to 12% below FY-85 base-line by 1995.</p> <p><u>CURRENT SITUATION:</u> The existing incandescent fixtures are maintained by the occupant. 100 to 200 watt bulbs are installed in these fixtures. These standing lights are normally used from 2000 to 0600 hours, seven days a week for security purposes.</p> <p><u>IMPACT IF NOT PROVIDED:</u> Continued energy waste due to the utilization of low efficiency. Incandescent exterior lighting on industrial facilities. Approximately 2,830 MBTU's of energy will be lost each year.</p> <p style="text-align: center;"><u>ENERGY SAVINGS/YEAR</u></p> <p>9-Watt fluorescent bulb versus 125-Watt incandescent bulb. 116 Watt/fixtures x 1,825 fixtures = 211,700 Watts, 14-Watt Fluorescent bulb versus 200-Watt incandescent bulb. 186 Watts/fixture x 82 fixtures = 15,252 Watts. Total = 226,952/1,000 = 226.95 KW. 226.95 KW x 10 hours/day x 365 days/yr = 828,367.5 KWH/yr. 828,367.5 KWH/1,000 x 3.413 MBTU/MWH = 2,827.23 MBTU/yr.</p> <p style="text-align: center;"><u>NON-ENERGY SAVINGS - ANNUAL RECURRING</u></p> <p>(Electrical Demand Savings)</p> <ol style="list-style-type: none"> The yearly savings is based on the "shaving" of the monthly peak demand. Exterior lighting is used from 2,000 hours to 0600 hours. 		

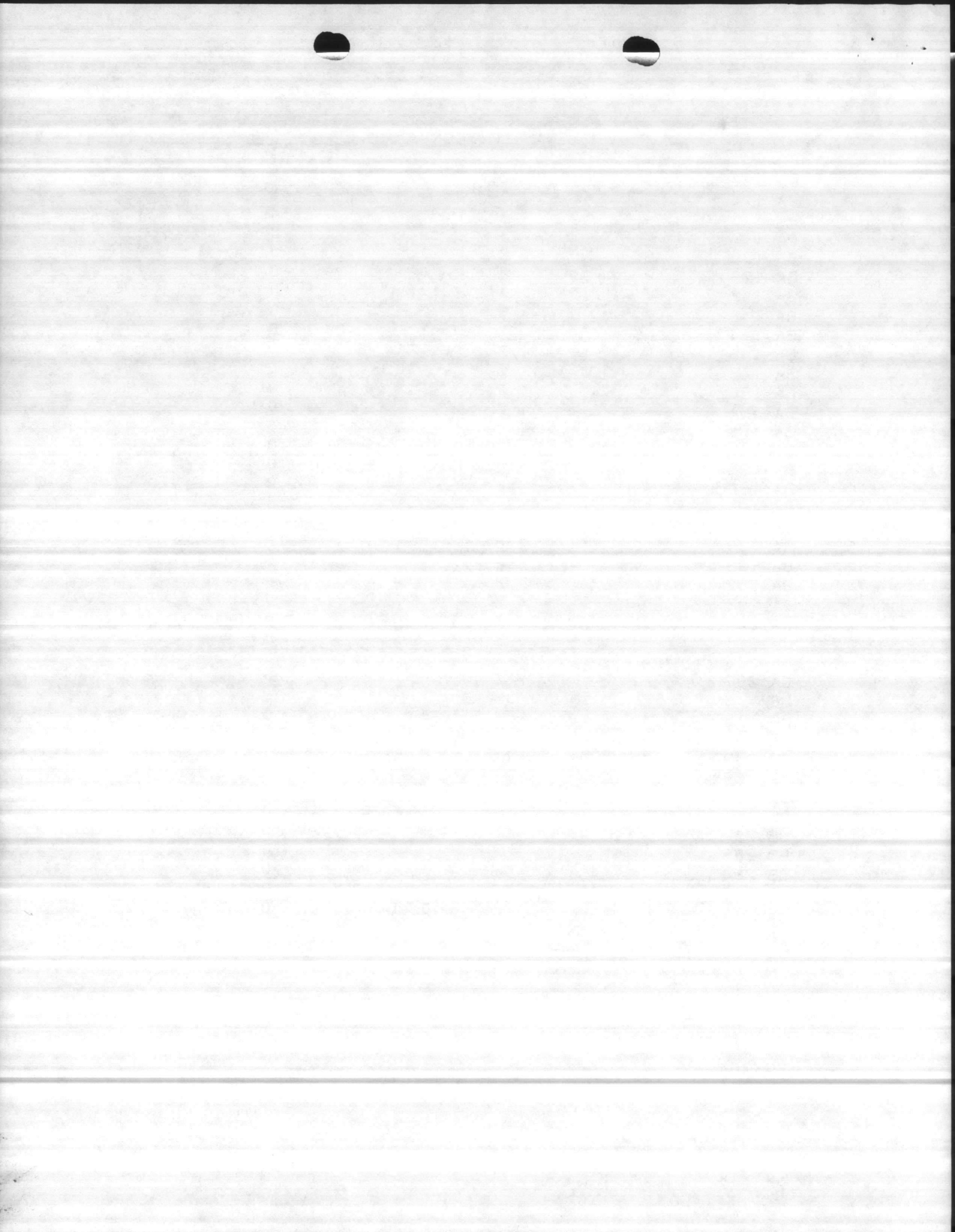


1. COMPONENT MARINE CORPS	FY 19 ⁸⁹ MILITARY CONSTRUCTION PROJECT DATA	2. DATE 20 Oct 86
3. INSTALLATION AND LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542		
4. PROJECT TITLE UPGRADE EXTERIOR LIGHTING, OUTLYING AREAS	5. PROJECT NUMBER LE950R	
<p>3. <u>WINTER:</u></p> <p>a. Exterior lighting is used during winter peak hours (2000 to 2100 hours).</p> <p>b. Peak demand charges during winter months is \$10.62/KW. 226.95 KW x \$10.62/KW x 6 months = \$14,461.26/Winter.</p> <p>4. <u>SUMMER:</u></p> <p>a. Exterior lighting is used during summer peak hours, (2000 to 2200 hours).</p> <p>b. Peak demand charges during summer months is \$14.81/KW. 226.95 KW x \$14.81/KW x 6 months = \$20,166.78/Summer.</p> <p>5. Total Savings = \$34,628.04/year</p>		

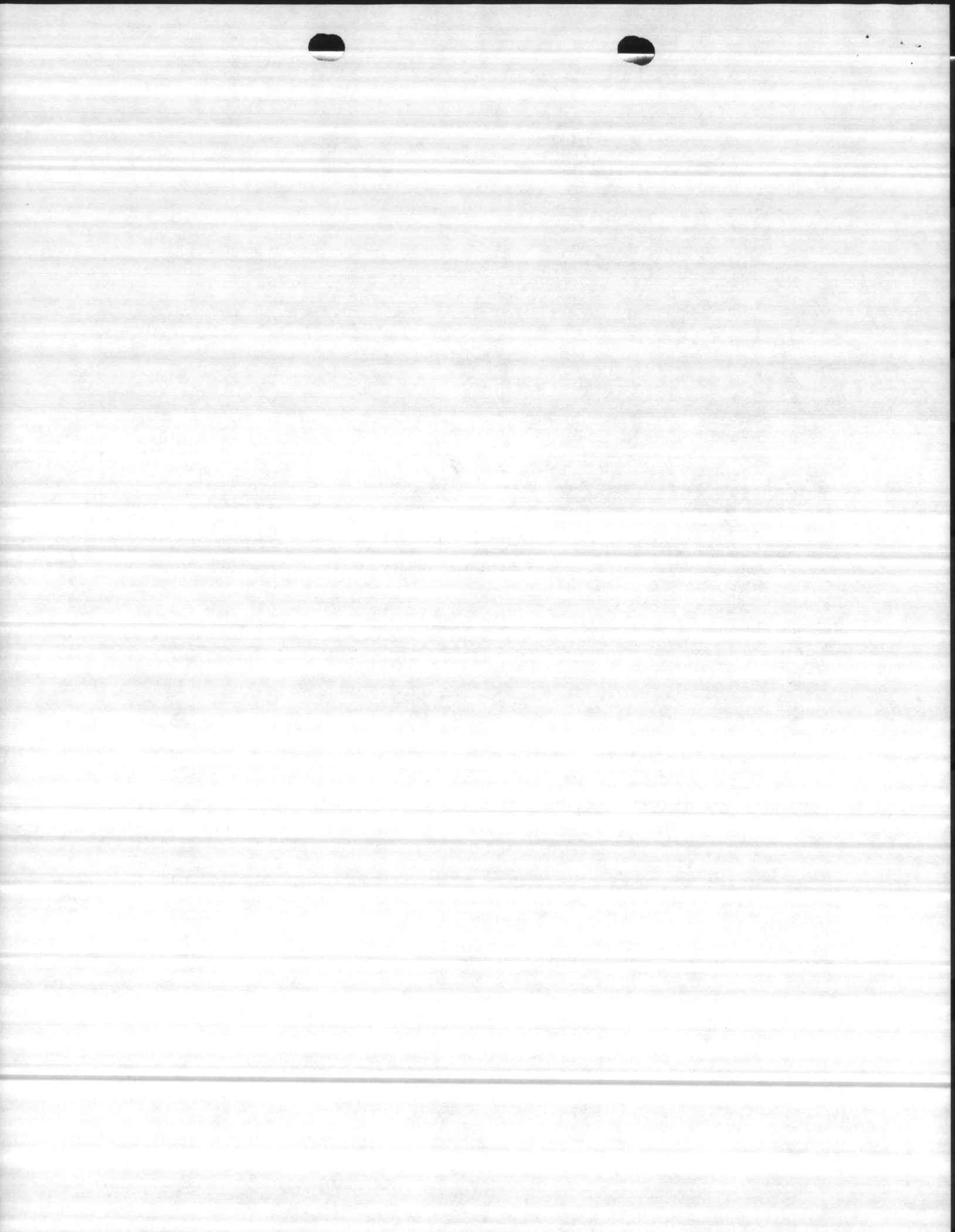


BUILDINGWALL FIXTURESCEILING FIXTURES

<u>BUILDING</u>	<u>WALL FIXTURES</u>	<u>CEILING FIXTURES</u>
BA 101	2	1
BA 114	0	41
BA 115	0	14
BA 119	3	0
BA 120	2	0
SBA 129	0	3
SBA 142	4	0
BA 143	8	0
BA 144	17	0
BA 146	2	0
BA 147	2	0
BA 180	2	0
BA 181	2	0
BA 183	2	0
BA 184	2	0
BA 188	2	0
BA 189	2	0
BA 193	0	12
BA 194	0	16
BA 195	0	12
BA 198	2	0
BA 202	2	0
BA 203	2	0
BA 204	2	0
BA 205	2	0
BA 206	2	0
BA 207	2	0
BB 8	4	0
BB 15	4	0
BB 37	2	1
BB 49	14	0
BB 69	1	0
SBB 94	1	0
BB 151	2	0
BB 250	66	0
BB 255	66	0
BB 260	78 + 6 Double	0
BB 265	78 + 6 Double	0
BB 270	78 + 6 Double	0
CR 123	0	2
ES 101	1	0
FC 202	1	0
FC 203	1	0
FC 300	12	0
FC 302	12	0
FC 303	8	0
FC 304	11	3 Recessed
FC 305	16	3 Recessed
FC 306	16	3 Recessed
FC 309	16	3 Recessed
FC 310	16	3 Recessed
FC 311	16	3 Recessed
FC 312	8	0
FC 313	3	0
FC 320	4	0



FC 361	1	0
FC 411	76	0
FC 412	76	0
FC 413	76	0
FC 414	76	0
FC 415	76	0
FC 416	76	0
FC 420	0	28
FC 515	72 + 8 Double	0
FC 516	1	0
FC 521	1	0
FC 525	72 + 8 Double	0
FC 526	1	0
FC 530	72 + 8 Double	0
FC 531	1	0
FC 550	72 + 8 Double	0
FC 551	1	0
FC 555	72 + 8 Double	0
FC 556	1	0
FC 560	72 + 8 Double	0
FC 561	1	0
FC 565	72 + 8 Double	0
FC 566	1	0
GP 11	2	0
GP 14	1	0
GP 20	4	0
GP 21	2	0
H 14	11	0
H 16	5	0
H 29	2	0
H 30	0	2
Picnic Pavilion	0	3
Picnic Lavatory	2	0



MATERIAL & LABOR COST ESTIMATE

LANTDIV NORVA 4-11012/5 (REV. 12/80)

SHEET 1 of 1

PREPARED BY P. Engle

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

Const. Contr. No. LE950R

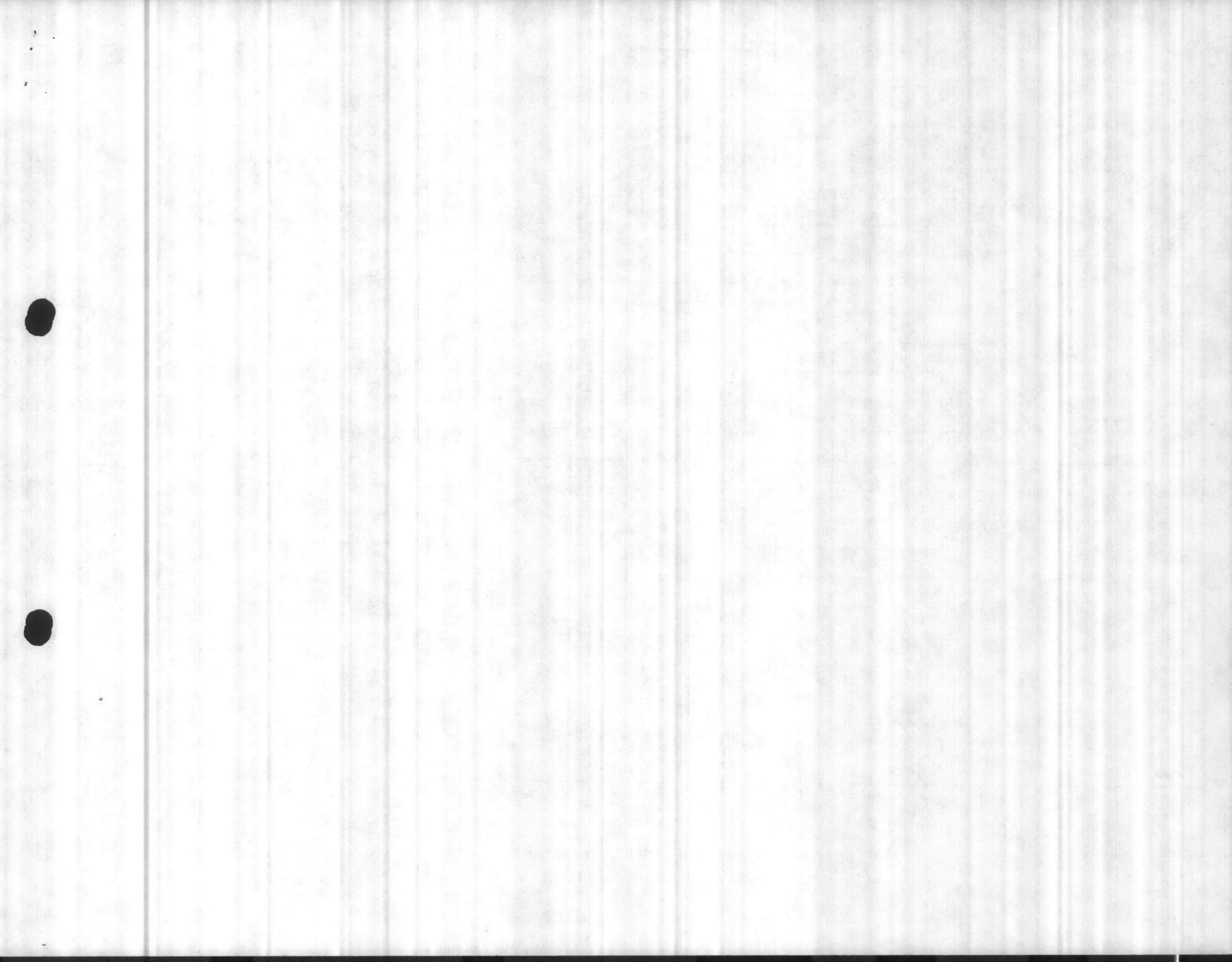
FUNDS AVAIL. FY-89

NORFOLK, VIRGINIA

DATE 20 Oct 86

PROJECT Upgrade Exterior Lighting, Outlying Areas LOCATION CAMP LEJEUNE, NEC PRELIM. FINAL

ITEMS	QUANTITY	UNIT	MATERIAL COST		LABOR COST		TOTAL COST	REMARKS
			UNIT	TOTAL	UNIT	TOTAL		
9-watt, Wall Mount, PL-type Fluorescent Fixture with Bulb	1,672	EA	21.00	35,112	4.50	7,524	42,636	
9-watt, Ceiling Mount, PL type Fluorescent Fixture with Bulb	153	EA	21.00	3,213	4.50	688.50	3,901.50	
7-watt, PL-type Fluorescent Fixture with Bulb	82	EA	33.00	2,706	4.50	369.00	3,075	
Total	1,907			41,031		8,581.50	49,612.50	
Overhead (15%)							7,441.88	
Ins, Taxes, S.S. (18% of Labor)						1,544.67	1,544.67	
Sales Tax (4.5% of Material)				1,846.40			1,846.40	
Subtotal							60,445.45	
Profit (10%)							6,044.54	
Subtotal							66,489.99	
Bond (1%)							664.90	
Total Contract est Cost							67,154.89	
Contingencies (10%)							6,715.49	
Subtotal							73,870.38	
Design (6%)							4,432.22	
Total Funds Requested							78,302.60	



LIFE CYCLE COST ANALYSIS SUMMARY
ENERGY CONSERVATION INVESTMENT PROGRAM (ECIP)

1625/Util

LOCATION: CAMP LEJEUNE, NC

REGION NO: 4

LE950R

PROJECT TITLE: UPGRADE EXTERIOR LIGHTING, OUTLYING AREAS

FISCAL YEAR 89

DISCRETE PORTION NAME:

ANALYSIS DATE: 10/86

ECONOMIC LIFE 25 YEARS

1. INVESTMENT

A. CONSTRUCTION COST	\$	73,870.38
B. SIOH	\$	-
C. DESIGN COST	\$	4,432.22
D. ENERGY CREDIT CALC (1A+1B+1C)X.9	\$	70,472.34
E. SALVAGE VALUE OF EXISTING EQUIPMENT	-\$	-
F. TOTAL INVESTMENT (1D-1E)	\$	70,472.34

2. ENERGY SAVINGS (+)/COST (-)

ANALYSIS DATE ANNUAL SAVINGS, UNIT COST & DISCOUNTED SAVINGS

FUEL	COST \$/MBTU(1)	SAVINGS MBTU/YR(2)	ANNUAL \$ SAVINGS(3)	DISCOUNT FACTOR(4)	DISCOUNTED SAVING(5)
A. ELECT	\$ 14.75	2,827	\$ 41,698.25	15.23	\$635,064.35
B. DIST	\$		\$		\$
C. RESID	\$		\$		\$
D. NG	\$		\$		\$
E. CO/DIST	\$		\$		\$
F. TOTAL		2,827	\$ 41,698.25		—————> \$635,064.35

3. NON ENERGY SAVING (+)/COST (-)

A. ANNUAL RECURRING (+/-)	\$ 34,628.04
(1) DISCOUNT FACTOR (TABLE A)	11.65
(2) DISCOUNTED SAVING/COST (3A X 3A1)	\$403,416.67

B. NON RECURRING SAVING (+)/COST (-)

ITEM	SAVINGS(+) COST (-)(1)	YEAR OF OCCURRENCE(2)	DISCOUNT FACTOR(3)	DISCOUNTED SAV- INGS (+) COST (-)(4)
1.	\$			\$
2.	\$			\$
3.	\$			\$
4. TOTAL	\$ -0-			\$

C. TOTAL NON ENERGY DISCOUNTED SAVINGS (+)/COST(-) (3A2+3B2.4) \$403,416.67

D. PROJECT NON ENERGY QUALIFICATION TEST

- (1) 25% MAX NON ENERGY CAL (2F5 X .33) \$209,571.24
- 1. IF 3D1 IS = OR > 3C GO TO ITEM 4
- 2. IF 3D1 IS < 3C CALC SIR = (2F5+3D1)/1F=12.0
- 3. IF 3D12 IS => 1 GO TO ITEM 4
- 4. IF 3D12 is < 1 PROJECT DOES NOT QUALIFY

- 4. FIRST YEAR DOLLAR SAVINGS 2F3+3A+(3B12/YEARS ECONOMIC LIFE) \$
- 5. TOTAL NET DISCOUNTED SAVINGS (2F5+3C) \$
- 6. DISCOUNTED SAVINGS RATIO (IF < 1 PROJECT DOES NOT QUALIFY) (SIR)=(5/1F)=
- 7. E/C RATION (2F2/(1F/1000))= 40.12 MBTU/K\$ ENCL (3)

