Submission No 14

INQUIRY INTO THE BUILDING THE EDUCATION REVOLUTION PROGRAM

Organisation: Ocean Shores Public School P&C Association

Name: Mr Leonard Cronin

Position: President

Date received: 14/05/2010

OCEAN SHORE PS BER ISSUES

School allocation $2.5m
3 classrooms $2.2m
Hall/canteen upgrade $300,000

REED's refusal to supply school with cost breakdowns or written estimates.

REED's continually escalating costs dramatically out of line with our own cost estimates.

REED's inability to schedule commencement of work, delays in tendering, disdain for school building committee and lack of attendance at meetings.

IPO's refusal to allow school access to REED's cost estimates to enable school to evaluate and ensure value for money.

IPO's refusal to incorporate school's sustainable design features

IPO's refusal to incorporate any active ventilation systems or a/c.

IPO's refusal to allow any modifications to home base.

Floor area of proposed 3 classrooms plus storage 431 sq m = $5104 psm ($2.2m allocated. Commercial rate for such would be no more than $2000 psm). Original estimated by REED indicated that there would be at least $500,000 left over. Current estimates are that the buildings will cost the full $2.2 m.

School asked for mixed mode ventilation systems which include natural cooling and a/c as a backup in hot weather. Refused by IPO despite the rest of school being a/c.

Other sustainable features such as PV panels, LED lights refused.

Electronic whiteboards on original design plans now removed.

School asked for modification of double homebase to suit our needs and improve ventilation and lighting. Refused by IPO

Canteen refurbishment quotes obtained by school $20,000. REED's original estimate $50,000. Now $100,000. No explanation given.

Hall upgrade. School proposed to add insulation, ventilation, improve lighting, and internal changes to rooms using remainder of $300,000 after canteen upgrade. REED stated that only $100,000 would be left and this would go some way to improving insulation and ventilation, but would be limited, no money left to make internal changes.

REED asked for cost estimates to enable school to determine value for money. Refused by REED, backed up by IPO. No transparency, 20% being taken off the top by Dept and

REED as per IPO website. REED states that GST is deducted from allocation, therefore school receives allocation minus GST. This is incorrect.

Canteen refurbishment scheduled by REED to begin over Christmas holidays. Canteen closed and emptied. No tendering actuated by REED, therefore no progress. School canteen closed, losing money and amenity. No satisfactory explanation given by REED.

No tenders sought and no work commenced as of today. Two meetings arranged with REED have been unattended by REED without explanation. Late attendance at all other meetings by REED project manager. Poor communication with school by REED, despite attempts by principal to contact REED and promises to give school weekly progress reports.

BER Personnel contacted:

Verity Frith's Office:
Emailed 11 Feb 2010 re sustainability issues. Message left 3 March, no response.
Called 26 March.

IPO via website number
BER specialist. Re contractor's refusal to supply costings to the school to allow us to ascertain why they have escalated and conduct our own audit to ensure value for money. He was unable to clarify this, stating that there must be a guideline somewhere that gave contractor the right to withhold costings. When pressed to quote the guideline he was unable to do so and refused further conversation, stating that he could only talk to the school principal about these matters.

REED Group
BER Program Director contacted re their manager's poor communication with the school and no-show at meetings he arranged with the school and delays in tendering resulting in canteen closure and loss of income to the school. Promised a new program manager and meeting with Neither of which took place.
Further meeting with program manager resulted in doubling of cost estimates for canteen part of the project without explanation, inability to explain delays in work commencing and no reason why school was not informed. Costs for new buildings now inflated without any explanation. Promised to fast track canteen, but no work commenced 5 weeks later (28 March). Refusal to provide cost breakdown and estimates to school.
Message left 28 March

DEWR
Contacted 10 Feb 2010 re value for money and verification. Told that this was not the responsibility of the DEWR and to contact State Govt.

Julia Gillard's Office
Contacted 10 Feb re verification and value for money. Told to contact DEWR.

From: Leonard Cronin
To: <don.page@parliament.nsw.gov.au>
Date: 26/03/2010 5:27 PM
Subject: Copy of Leonard Cronin's email to Verity Firth's Office

Dear Don
This is a copy of the email I sent to Verity Firth's Office, dated 11 Feb 2010

Dear David,

Further to our telephone conversation today.

The following measures were initiated by the school to fulfil our obligations under the BER guidelines and our own SEMP to incorporate sustainable building principles and design the buildings to maximise energy efficiency. We wish to use our Federal funds to improve the learning experience of our students and reduce their exposure to toxic fumes, high room temperatures and high CO2 levels.

1. **Mixed-mode cooling systems**. It has been established that a mixed mode ventilation system is the best way to maximise cooling using natural ventilation with the introduction of air conditioning when necessary on hot days. Mixed natural and mechanical ventilation will remove toxic fumes and cool the room, and is best achieved using a system of louvre windows coupled with a CardiffAir mechanical ventilation unit. An automatic control system that responds to temperature and carbon dioxide levels adjusts the airflow through the building and initiates cooling when needed. Studies show that a mixed mode ventilation system can provide a 41% energy saving. Air quality studies show that by increasing the ventilation rate by 25% improves school performance by 14.5%. Reducing the temperature by 1 degree improves performance by 3.5%.

One of our new buildings will be used as a computer centre. The 30 computer stations will generate a significant heat load and will emit significantly more toxic fumes at elevated temperatures. The budget to install this system supplied by REED's engineers amounts to $33,000.

2 **Photovoltaic electricity generation**. The school wishes to reduce its carbon footprint and its energy costs by using some of the BER funds to install sufficient photovoltaic panels to neutralise the extra electricity load created by the new buildings. We estimate 30 kw as the required offset.

3. **LED lights**. Latest technology in LED lighting will, at little or no extra cost, reduce lighting costs by up to 50% compared to compact fluorescent lights (CFLs). LEDs last 5 times longer than CFLs, contain no toxic mercury and provide better light quality. The school will save up to $1200 per year and reduce its CO2 emissions from 10.6 to 4 tonnes by replacing 100 CFLs.

4. **Solar hot water system.** The school has been informed by REED than an inefficient standard electric hot water system must be used in the canteen upgrade.

5. **Split Roof Design**. Please see attached PDF showing the modification to the roof design proposed for the DHB building. Note that this is merely to show the shape of the roof and skylight and is not part of the plans developed for the school. This roof design allows natural light into the room and maximises the airflow and removal of hot air through louvres coupled with a mechanical CardiffAir system

REED stated that the cost of the above measures are well within our BER $2.5 million budget. They can be implemented at no cost to the NSW Ed. Dept.

REED informed the school that these proposals had all been rejected by the IPO/DET. A meeting was arranged with

reps from the IPO (and DET ( ) to allow the school to put forward these sustainable design features.

An email was received by the school on 1 Dec from (presumably a member of the IPO or DET).

Points in email referring to the school's proposals follow. words are italicised in bold. Our response follows each point:

Unless the school is in an air cooled zone, any form of air-conditioning is not approved.

It appears from the above remark that the school is not in an air cooled zone, despite nearby schools being in the zone. Yet the school is fully air-conditioned and is located in a subtropical area experiencing high temperatures and humidity. Funds were obviously made available to retrofit a/c units into the classrooms. This decision reflects the need for air cooling in the school to improve student and staff comfort and learning outcomes. Representatives from the IPO. Asset Management and DET who were called to a meeting at the school (23/11/09) were unable to justify the Dept's air cooling zoning policy, joking about schools in Lismore which were in and out of the zoning. Their response, and I quote: "If you know the answer you can tell us" .

It is cheaper and more energy efficient to install air cooling during the building process. The mixed-mode ventilation system proposed by the school uses 40% less energy than standard a/c systems currently in use.

Being obviously an environmentally aware school, natural cross ventilation will be maximised when windows and roof ventilators are managed correctly. The plans provided give minimal information on how cross ventilation is to be achieved, in fact the extent of windows shown possibly does not meet BCA and will not exhaust warm/hot air.

Detailed plans and information regarding the school's proposal for a hybrid (mixed mode) ventilation system were supplied to the IPO by the architect Greg Dart. Extensive research shows that effective natural ventilation cannot be achieved by passive ventilation systems without outside air movement. The design proposed by the DET is passive and ineffective on still days (hence the air-conditioned classrooms in the school). It is not sufficient to merely state that managing roof ventilators and windows correctly will maximise cross ventilation or to state that the design proposed will not exhaust warm air. This is not an evidenced based assessment.

Re lighting, the lights will be triphosphorus T5s, a very enegy efficient light that replicates very closely full spectrum lighting. (DET's research indicates that LED lights are not up to this performance at this stage). The light strip system of the CDR provides exceptional natural light into the rooms while minimising heat gain (a shortcoming of the skylight design proposed). Lux levels from these light strips frequently result in lux levels in excess of 2,000 lux.

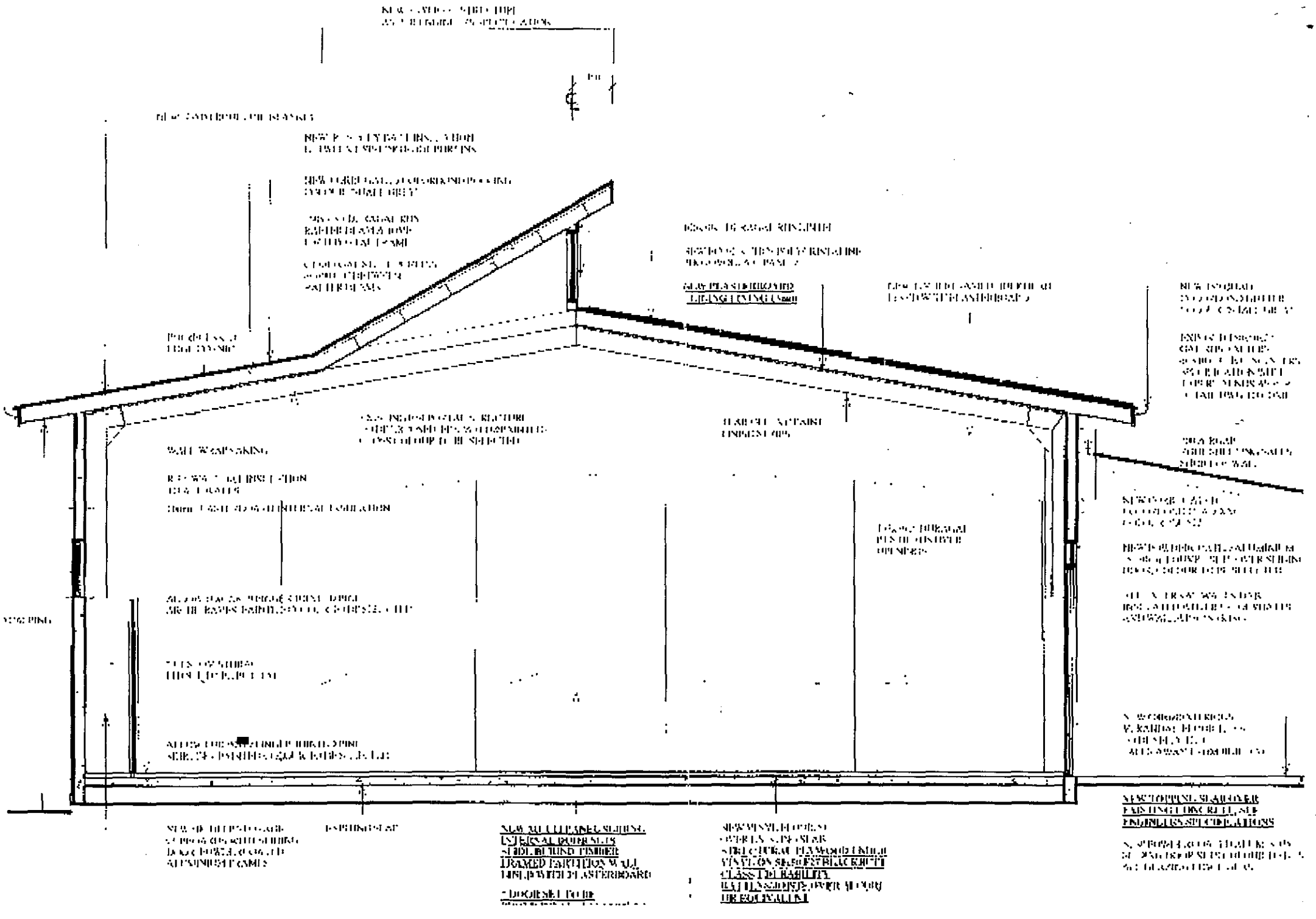
This statement contradicts current LED lighting research and design. CFLs do not produce "exceptional natural light", have been implicated in epilepsy and are significantly less efficient and hotter than LEDs. The roof design proposed by the school allows natural light into the room without heat gain and facilitates the exhaustion of hot air from the room, thus reducing the use of artificial lighting and air cooling, saving energy. Classrooms in the school currently have translucent strips in the roof to let in more light, these also let in significant heat and are ineffective to the extent that lights are running most of the time in the classrooms to improve inadequate light levels. The school's proposal is a significant improvement on the standard classroom design.

fails to address the school's proposal to offset the energy consumption of the buildings through the installation of sufficient photovoltaic panels, or the installation of solar hot water in the canteen.

I look forward to your response.

I will also be seeking a response from Julia Gillard's office

Yours



Gov Funding $300,000

Ocean Shores Public School (School ID 1227) Project 1			
Website Headings	**Item Description**	**Detail Breakdown**	**Website Cost Summary**
Design Doc, Field Data, Site Management	Statutory Planning, Design,Documentation and Certification Costs	42,000	
	Field Data Capture	600	
	Site Supervision	28,317	
	Profit Margin	39,294	110,211
MC Project Management	MC Project Management	13,577	13,577
Modular Building Cost	MDR Building Cost		
	(1) Design and construction of in-situ substructure for MDR Building unit including cutting and filling site to levels, excavation, disposal of spoil, concrete piers and footings, backfill and compact ready for installation; (2) Transportation of MDR Building unit from the manufacturer's premises to site, unload and install in final position including making weathertight and connections to services;		0
Preliminaries	Preliminaries comprising Site Establishment and Dis-Establishment, Site Accommodation, Site Labour, Temporary Works, Site Fencing, Security and the like	30,228	30,228
Substructure	Earthworks	0	
	Termite Control	0	
	Concrete	0	
	Masonry	0	0
Superstructure	Concrete	0	
	Roof Structure	0	
	Timber Flooring	0	
	Light Steel Framing	0	
	Structural Steel	0	
	Light Timber Framing	0	
	Masonry	0	
	Roofing	20,700	
	Cladding	0	
	Doors	0	
	Overhead Doors	0	
	Windows and Glazing	38,670	
	Hardware	0	
	Ceilings	0	
	Terrazzo	0	
	Plastering and Linings	14,251	
	Tiling	880	
	Resilient Finishes	6,256	
	Carpet	0	
	Painting	3,581	
	Metal Fixtures	40,900	
	Timber Fixtures	2,591	
	Miscellaneous Fixtures and Furniture	13,862	
	Signs and Display	1,090	
	Extinguishers and Blankets	357	
	Hydraulic Services	11,000	
	Mechanical Services	84,400	
	Electrical Services	39,530	
	Lifts	0	278,068
Site Works	Demolition	8,270	
	Site Preparation & Bulk Earthworks	0	
	External Works - Excluding Power Upgrade	0	
	External Works - Power Upgrade	0	
	Landscaping	0	8,270
Site Services	Site Electrical Services	0	
	Site Hydraulic Services	0	0
Design and Price Risk	Design and Price Risk	28,734	28,734
IPO Project Management Cost	IPO Project Management Cost	3,900	3,900
IPO Contingency	IPO Contingency	15,000	15,000
Substation Allowance	Substation Allowance	0	0
MC Incentive Fee	MC Incentive Fee	5,819	5,819
Total		493,806	493,806

Gov Funding $ 2,200,000.00

Ocean Shores Public School (School ID 1227) Project 2			
Website Headings	**Item Description**	**Detail Breakdown**	**Website Cost Summary**
Design Doc, Field Data, Site Management	Statutory Planning, Design,Documentation and Certification Costs	168,000	
	Field Data Capture	2,400	
	Site Supervision	109,302	
	Profit Margin	151,675	431,376
MC Project Management	MC Project Management	52,405	52,405
Modular Building Cost	MDR Building Cost		
	(1) Design and construction of in-situ substructure for MDR Building unit including cutting and filling site to levels, excavation, disposal of spoil, concrete piers and footings, backfill and compact ready for installation; (2) Transportation of MDR Building unit from the manufacturer's premises to site, unload and install in final position including making weathertight and connections to services;		0
Preliminaries	Preliminaries comprising Site Establishment and Dis-Establishment, Site Accommodation, Site Labour, Temporary Works, Site Fencing, Security and the like	121,410	121,410
Substructure	Earthworks	11,001	
	Termite Control	2,132	
	Concrete	150,758	
	Masonry	0	163,891
Superstructure	Concrete	0	
	Roof Structure	92,365	
	Timber Flooring	0	
	Light Steel Framing	21,450	
	Structural Steel	0	
	Light Timber Framing	0	
	Masonry	40,758	
	Roofing	75,278	
	Cladding	43,056	
	Doors	8,214	
	Overhead Doors	990	
	Windows and Glazing	47,993	
	Hardware	9,884	
	Ceilings	38,865	
	Terrazzo	0	
	Plastering and Linings	67,800	
	Tiling	451	
	Resilient Finishes	9,102	
	Carpet	18,098	
	Painting	17,572	
	Metal Fixtures	4,418	
	Timber Fixtures	8,529	
	Miscellaneous Fixtures and Furniture	101,382	
	Signs and Display	3,340	
	Extinguishers and Blankets	375	
	Hydraulic Services	41,000	
	Mechanical Services	7,000	
	Electrical Services	128,291	
	Lifts	0	786,211
Site Works	Demolition	3,400	
	Site Preparation & Bulk Earthworks	34,410	
	External Works - Excluding Power Upgrade	10,608	
	External Works - Power Upgrade		
	Landscaping	20,109	68,527
Site Services	Site Electrical Services	37,232	
	Site Hydraulic Services	34,745	71,977
Design and Price Risk	Design and Price Risk	114,866	114,866
IPO Project Management Cost	IPO Project Management Cost	28,600	28,600
IPO Contingency	IPO Contingency	110,000	110,000
Substation Allowance	Substation Allowance		0
MC Incentive Fee	MC Incentive Fee	22,459	22,459
Total		1,971,722	1,971,722