



**PRESENTATION TO THE SCIENCE & TECHNOLOGY
PORTFOLIO COMMITTEE - 24 JUNE 2008**

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- 2. GWD's Claims against Business and Government Leadership**
- 3. A Manufacturing Foundation to Address Poverty and Joblessness**
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- 5. Views of the Plan by the Chairwoman of the African Housewives League**

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NOTICE OF MEETING FOR PORTFOLIO COMMITTEE ON SCIENCE AND TECHNOLOGY

Date: 24 June 2008
Time: 10:00 – 12:30
Venue: Committee Room 1, 120 Plein Street

Mr. G Oliphant
(Chairperson)

DRAFT AGENDA

1. Welcome, opening address and apologies
2. Deliberations and adoption by the Committee on the South African National Space Agency Bill [B20-2008]
3. Deliberations and reconsideration of Section 5 (3) of the Human Sciences Research Council Bill [B16B-2007]
4. Presentation by Mr G Woods of Greville Woods Developments on the following:
 - (a) Reasons why Poverty, Unemployment, Crime and Violence are increasing problems in SA but decreasing in other countries.
 - (b) The necessity to incorporate engineering leadership to drive RDP policy development and implementation.
 - (c) Local manufacturing is internationally competitive contrary to popular belief.
 - (d) The Ford/GWD Plan has better engineering, management and training than the successful Chinese Plan.
 - (e) The main reasons that prevented the Ford/GWD plan from developing
 - (f) Overview on the Ford/GWD Business Plan
 - (g) How the Ford/GWD Plan can provide the industrial foundation to begin to address SA's major socio-economic problem, poverty.
- (5) AOB (Any other business)
- (6) Announcements

If you have been appointed as an alternate member to the above Committee, please discuss your possible participation in this meeting with the members of your party serving on the Committee as well as your Chief Whip.

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Good Morning Chairman and members of the Science & Technology Portfolio Committee

My technical team comprises Chris Ellis the engineer who headed the development of the latest Bantam Pick-up, Denver Barnes the engineer who for the past 30 years has project managed the development and introduction of every Mazda and Ford vehicle to SA manufacturing, Robert Mac Geoghegan a manufacturing specialist used by members of this team to restructure a multi-billion factory at the request of the SA government. Myself Greville Wood who long time ago was an engineer at Ford's product engineering office and because of relationships formed Ford directors hired to provide the industrial R&D for this plan. Peter and Chris Wood are members of this team as specialists in software development and architecture. The team who will assist in implementing the plan we have to address joblessness within communities is the 47year of African Housewives League represented by Ms Bongi Mavuka as chairwoman and Ms Elizabeth Tlatsi Secretary.

We will handle the first points and then proceed to the presentation, which is about creating manufacturing industry in poor communities using the provision of houses and classrooms to kick start general manufacturing.

Reasons why Poverty, Unemployment, Crime and Violence are increasing problems in SA but decreasing in other countries.

In the 1980's Ford, GM, Goodyear collectively and privately investigated what could be done about joblessness, skills training and housing for black people and Ford developed a manufacturing business plan based upon my research. There has been no support from Business Leaders and government to implementing this plan to address poverty except

In 1987 a director from local business leadership informed directors and engineers from Ford, GM, Goodyear and GWD that we did not understand manufacturing and in 2007 the CEO of Business Leadership supported by his chairman tried to convince the COO of Business Unity SA that Ford, GM, Goodyear and Siemens were incompetent in developing manufacturing business plans. Siemens countered and wrote to the CEO of Business Leadership on the 4 April 2008 and stated that, ***"We believe that the initiative is good and that it can contribute to achieving the socio-economic goals of our country."***

In 1994 Minister Naidoo's office referred to directors and engineers from Ford, Siemens and GWD as elitists who had no part to play in SA's future. Mr. Alan Hirsch then in the Dti was convinced by the Sociology Department at Wits that the Mine Workers Development Agencies knew more about manufacturing than the companies mentioned and in 2005 Treasury's Macro Economic Policy Unit came to similar conclusions.

This summarizes the 20 odd page letter GWD sent to the Speaker dated 30 May 2008 which reveals that government and local business leaders do not have the engineering skills to create the manufacturing industries SA requires to accelerate economic growth. This 1984 Ford/GWD plan satisfies every aspect the Centre for International Development – Harvard (CID) stated regarding manufacturing development to accelerate growth their final report to AsgiSA and was and still in 100% BEE.

The following figures are taken from the final report the CID – Harvard presented to AsgiSA and supports that leaderships does not have the engineering skills to reverse this pattern and accelerate growth through manufacturing: -

- Since 1960 to 2004 the real value of SA's exports grew by only 0.7% annually in contrast to Argentina 169%, Australia 238%, Botswana 1887% and Malaysia 4392%.
- SA's is 6million jobs less than the America's, Eastern Europe and East Asia of similar levels of development
- Government and local business leadership are impotent next to the engineering plans dominating 21st Century industry and this has resulted in the loss of nearly 1million jobs from1984 to 2004.

The necessity to incorporate engineering leadership to drive RDP policy

Malaysia, India, China and Korea's economic recovery was engineering lead The Harvard Business School Report 9 798-066 on China facing the 21st Century spelt this out as follows

Mao's long-time lieutenant, Deng Xiaoping, was asked to stabilize the economy. Deng brought back technical experts and the economy quickly recovered. These reforms had an immediate impact and production of all types jumped sharply pushing up wages. Higher incomes created demand for consumer goods and local

governments began to direct savings into collectively owned manufacturing firms, known as "Township and Village Enterprises. Throughout the 1980s, their output grew at an average rate of 30% a year and by 1995, 23 million TVE's employed 129 million people, which lifted over 430 million out of poverty

The report then state that very little policy was provided. Instead engineering drove economic transformation and policy was written around successful industries. This is in sharp contrast to what SA is trying to do by creating policy and hoping that engineering will follow. Russia tried this method and in 1972 Ford and Fiat were asked by Russia to restructure their truck and car factories as this method had destroyed them. Engineers reported that Russian bureaucrats were overriding engineering leadership.

This is precisely how government have reacted to this plan over the past 14 years and the last report from the Centre for International Development AsgiSA confirms that bureaucratic constraints are inhibiting industrial growth.

Local manufacturing is internationally competitive

On the 2 June 2007 we presented this plan to BUSA and the SA Academy of Engineering and showed how through appropriate business models local manufacturing can become competitive as other countries are using low skilled labour to supply international markets successfully.

The main reasons that prevented the Ford/GWD plan from developing

The CID's final report to AsgiSA has confirmed every aspect of this plan, which since 1994 to 2008 government has rejected and they are

- Low skilled workers can be used to manufacture world-class goods
- Appropriate business models have to be created
- These business models must be replicated
- Economic product R&D must be stimulated

We will now show how engineering can lead policy in creating a manufacturing foundation to begin to lift the majority above poverty while expanding our manufacturing base. I introduce Denver Barns a long time associate from my Ford Product Engineering days that will present a business plan to do the job.

GWD MANUFACTURING PROPOSAL

(Completed Feasibility Study)

Overview

- This presentation reviews the implications of establishing a factory to manufacture low cost houses.
- The project will offer employment, skills transfer and houses to needy communities. This project requires a total investment of R 29.5 mils for a time adjusted rate of return of 20%.
- In return, this single project will deliver 1,670 houses per annum, create 200 jobs with skills training and offer factory ownership.
- Review of the project will demonstrate opportunities for expansion on a national scale.

Macro Vision

- To fast track development engineers into national projects that ensure the rapid upgrade of semi-literate, low-skilled township and rural village communities to first world competencies in the realm of manufacturing and construction as a practical solution to joblessness.
- To create jobs through an industrial business plan designed to provide South Africa with a growing R4-6 Billion manufacturing industry where economic development is required most.

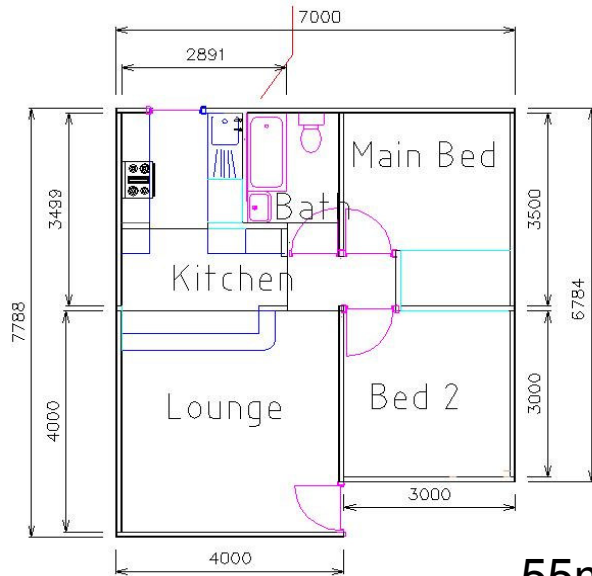
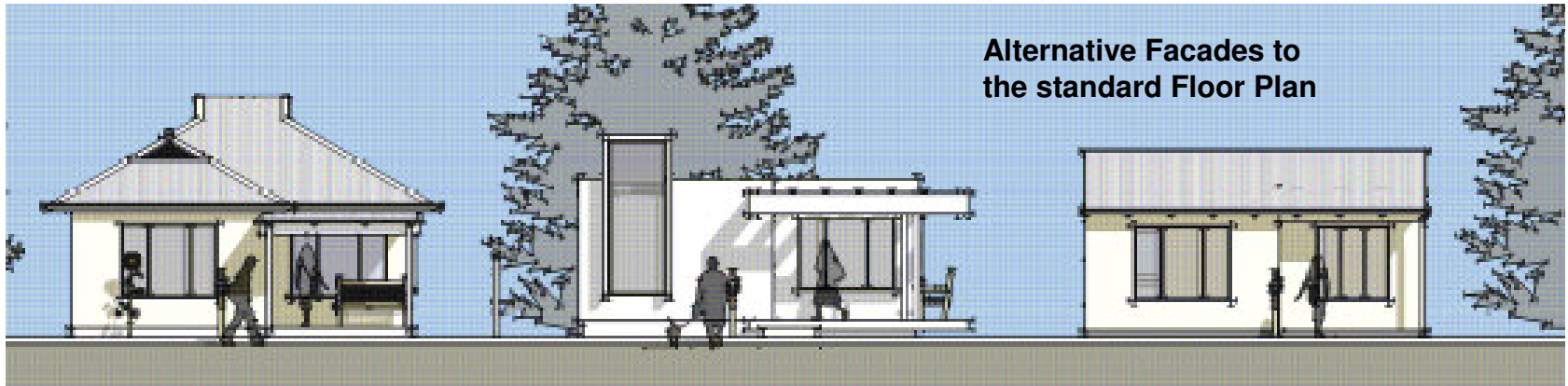
Program Vision

- To provide sustainable employment AND low cost housing to needy communities.
- To achieve this by the manufacture of houses in a factory and delivery to a prepared site for erection.
- To develop the production tooling, operating processes and skills training to allow these factories to be owned and staffed by the communities.
- To provide on-going support for problem resolution.
- To expand the concept and develop multiple factories around South Africa to manufacture these houses and provide employment in the communities.

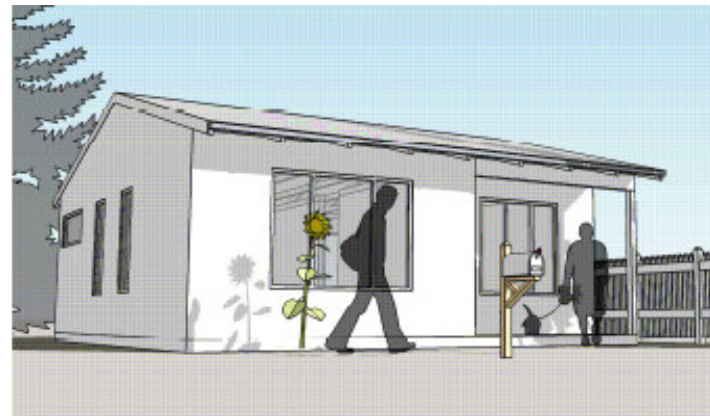
Product

- The proposed house comprises a 55m² manufactured dwelling with composite cement insulated walls and insulated ceiling. Accommodation comprises 2 bedrooms, lounge, kitchen and bathroom.
- Facilities include bath/shower, toilet, basin, sink, shelving, geyser and gas burner, lighting, plug points and all utilities connected.
- Houses will be manufactured in sections which will be transported to a prepared site for assembly and completion.
- Houses will comply with SABS 0400 and be fully bondable

Product



55m² House



Product (contd.)

The product is projected to be better than current low cost (and conventional) houses in the following important attributes:

- Beam-on-pile foundations will ensure that house does not crack in all soil types;
- Insulation in wall cavities and ceilings provides superior thermal insulation;
- House specification and finish levels are projected to exceed the customers' expectations.

The production concept is suitable for the production of classrooms, small shops and other community based building and facility requirements.

Development Team

Greville Wood – Product Development & Industrial R&D

- Broad technical experience within the fields of power generation; automotive component design, vehicle development; medical technologies; real estate, property development and construction. Political passion – persuading government and parliament to develop a practical solution to poverty and joblessness.

Chris Ellis – Product and Manufacturing Engineering

- Independent – 40 years ex-Ford component engineering, vehicle design, advanced engineering and advanced manufacturing. Held the position of Chief Program Engineer responsible for design, development and manufacture of the 2002 Bantam half tonne pickup program.

Development Team (contd.)

Denver Barnes – Project Management

- Independent – 40 years ex-Ford product development and program management. Has had program responsibility for the implementation of multiple new vehicle programs over the last 30 years. Functional scope of experience includes strategy, project viability, program execution and control.

Robert MacGeoghegan – Industrial Management

- Private consultant with extensive expertise in improving industrial business processes. Clients include Dulux, Chemical Services, Continental Tyres and Industex. Industex coating plant improved to operate at zero defect.

Business Concept

- At a macro level, it is an industrial business plan designed to provide a growing multi billion manufacturing industry where economic development is required within low skilled, township and rural village communities, where labour, not capital, will be the means of wealth creation.
- Initially implement a development facility to validate and refine the production process; to document all processes; to demonstrate quality levels and deliver a 'production ready' concept.
- Transition into a fully functional housing factory, implement skills training and commence with the manufacture and delivery of manufactured houses.

Business Concept (contd.)

- Expand the concept and develop community operated factories in multiple locations for the mass production of complete houses. Initial funding for factories can be provided by IDC and NEF loans.
- Housing factories will provide skills training and employment. Government subsidies at current funding levels will contribute significantly towards both housing AND employment AND will generate profit and tax. An employment benefit structure that contributes toward factory ownership is also planned.

Market Summary

- GWD will focus on the manufacture and delivery of subsidised (RDP), affordable (GAP) and bonded mass housing schemes for Government (national, provincial and local) and financial institutions.
 - President Mbeki has stated that government is able to provide 260,000 housing units per annum (comprising approx 50% RDP and 50% GAP)
 - The projected backlog of 2.2 to 2.6 million units presents an opportunity for delivery of cost efficient, quality houses at an accelerated pace.
 - Proposed manufacturing process delivers 7 houses per day – approx 1670 houses per annum.
 - This supply represents less than 0.6% of the market requirements and will offer major replication and expansion opportunities in the future

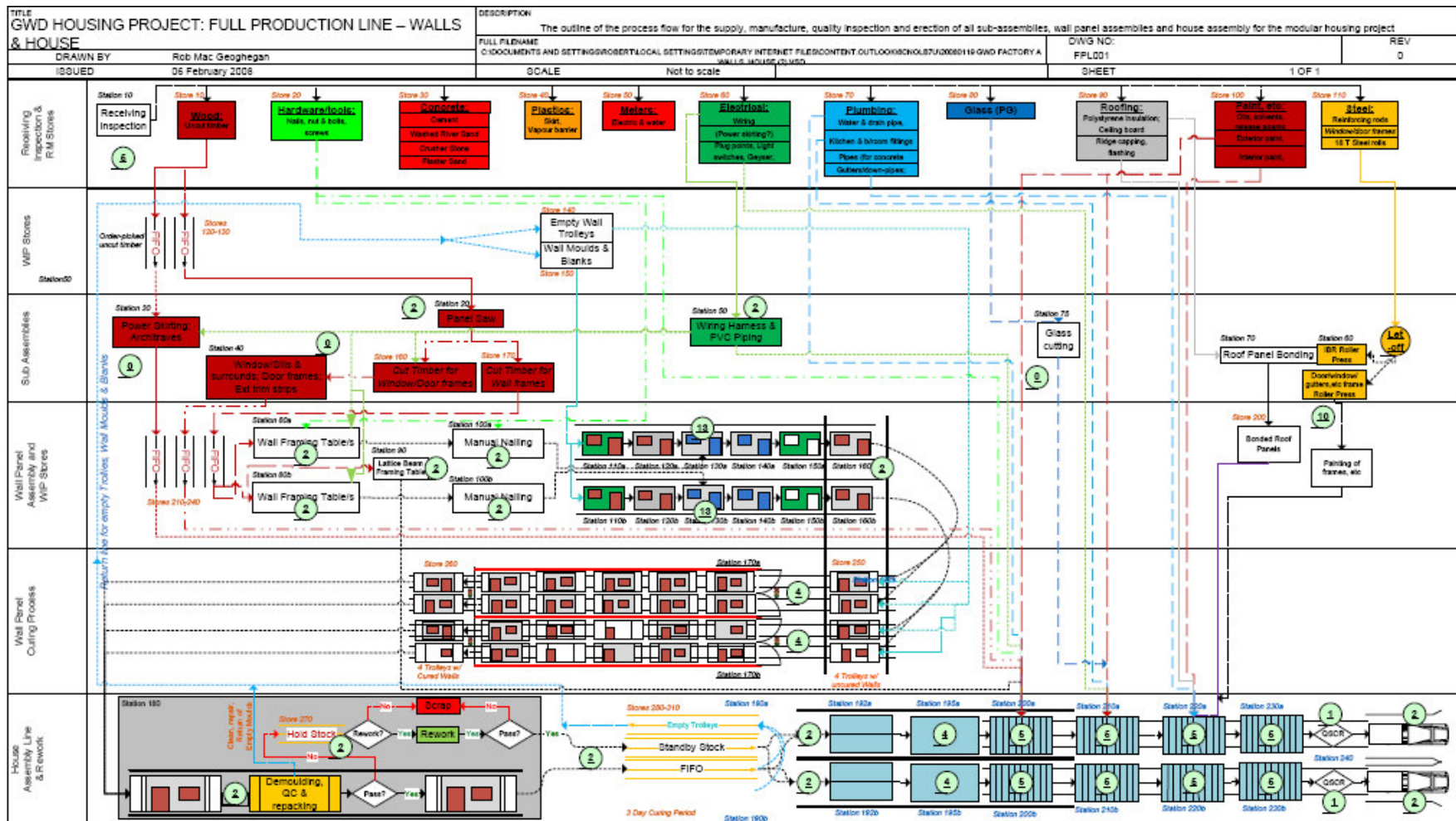
Competition

- Housing supply is currently supported by large construction groups, SME's, various BEE groups and small contractors, but the industry is hampered by lack of capacity (primarily skills). As an example small cap company RBA Holdings (Market cap R155 mils) is able to construct between 1,200 to 2,000 houses per annum.
- All construction utilises traditional building methods but does not develop a sustainable economic community.
- The manufacture and assembly of a house under factory conditions offers major advantages relative to:
 - High output
 - Repeatability supporting high levels of quality;
 - Improved cost efficiencies of material and labour;
 - Low dependency on weather conditions;
 - Enhanced skills set with portability versus conventional construction.

Manufacturing Plan

- Manufacturing strategy - to develop and maintain a world class manufacturing facility, team and production management system.
- The plant will maximize the use of low skilled labour with semi-automated processes where quality standards dictate.
- To support this strategy it is essential to implement the project into two phases:
 - Development Phase – Implement a development facility (proposed at Wilgespruit – Gauteng) to finalise the designs; to prove out tooling and processes to be production ready and to manufacture sample houses for validation and approval ahead of the full manufacturing facility.
 - Production Phase – Build first factory (Gauteng or Eastern Cape) and facilitate, commission and start up through a pilot process and transitioning into a mass production manufacturing plant.

Factory Process Layout



Quality Plan

- Central to the Manufacturing Strategy is the training of people and will include learnerships (Merseta), skills, process training and extensive implementation of a quality management system.
- The manufacturing facility will comply with ISO 9000 – Quality; ISO 14001- Environmental and OSHAS 18001 – Health and Safety.
- A comprehensive plan will be implemented to establish specifications for all materials and implement procedures for all direct and indirect processes of running the manufacturing operation.

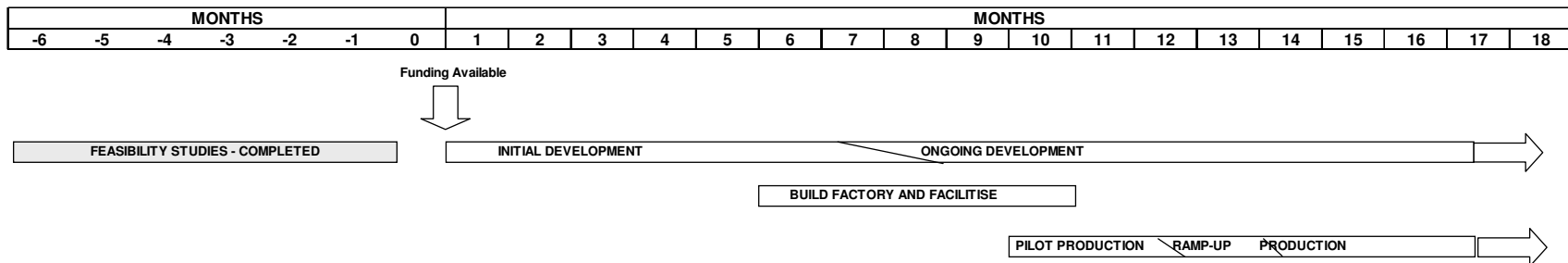
Resources

- A resource plan and structure requiring a total headcount of 207 people (66 staff and 141 hourly positions) has been identified.
- Headcount will largely be sourced from the adjacent communities

Cybernetic Support

- With the potential to expand the factory concept to multiple locations, there is a need to provide technical support and expertise. Rather than costly travel, processes will be developed to provide technical support via video-audio streams to remote locations for timely and efficient resolution.

Timing



Project Start

Timespan

Development Phase:

Month 1

6 - 8 mths

Build 1st Factory

Month 6

4 – 5 mths

Start Pilot Production

Month 10

3 months

Full Production

Month 13

Ongoing

Financial Implications

Revenue Equation

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Cycle Ave
Cycle Length (years)	10													
Volume (houses)		-	417	1,694	1,666	1,666	1,666	1,666	1,666	1,666	1,666	1,666	1,666	1,669
Average Retail Price (Rands)		49,502	52,517	55,715	59,108	62,708	66,527	70,578	74,876	80,610	84,274	89,406	93,409	73,691
Retail Price (Excluding VAT)	14%	43,423	46,068	48,873	51,849	55,007	58,357	61,911	65,681	70,711	73,925	78,426	81,938	64,641
Management Contingency		(440)	(467)	-	-	-	-	-	-	-	-	-	-	-
Selling Expenses		(53)	(56)	(60)	(63)	(67)	(71)	(75)	(80)	(84)	(90)	(95)	(101)	(78)
Franchise Fee	1%	(495)	(525)	(557)	(591)	(627)	(665)	(706)	(749)	(806)	(843)	(894)	(934)	(737)
Average Revenue (R/unit)		R 42,435	R 45,019	R 48,256	R 51,195	R 54,313	R 57,621	R 61,130	R 64,852	R 69,820	R 72,992	R 77,437	R 80,903	R 63,826

- Project evaluated over a 10 year cycle
- Average annual production 1,669 houses
- A 55m² house sells for R49,500 at current prices

Investment

		Development R (000's)	Production R (000's)	Total R (000's)
Buildings	Sub Total	R 1,160.0	R 8,000.0	R 9,160.0
Facilities & Equipment	Sub Total	R 1,817.0	R 3,530.7	R 5,347.7
Tooling	Sub Total	R 357.0	R 1,518.2	R 1,875.2
Total Investment		R 3,334.0	R 13,048.9	R 16,382.9
Engineering	Sub Total	R 7,695.0	R 3,497.4	R 11,192.4
Contingencies	Sub Total	R 1,124.0	R 800.0	R 1,924.0
Total Expenses		R 8,819.0	R 4,297.4	R 13,116.4
Project Total		R 12,153.0	R 17,346.3	R 29,499.3

Profitability

CONTRIBUTION COST (Q1 - 2008)		Program Assumption	
		(P/U)	
Local Material and Consumables	R	(30,763)	
Material Cost Provision		(306)	
Subtotal Material	R	(31,070)	
Labour Direct		(5,791)	
Transport and Plant Hire		(436)	
Buy-off Inspection Fee		(81)	
Total Contribution Cost	R	<u>(37,378)</u>	
PROFITABILITY (Cycle Average)		Program Assumption	
Net Revenue (P/U)	R	63,829	
Revenue Provision (P/U)		-	
Contribution Costs (P/U)		<u>(53,592)</u>	
Contribution Margin (P/U)	R	10,237	
Contribution Margin (%)	%	16.0	%
Incremental Costs/Income (P/U)	R	360	
Total Fixed Costs		(7,304)	
Profit Before Tax	R	<u>3,294</u>	
Profit Before Tax (R mils)			R 5.5

Financial Sensitivities

		<u>PBT</u> (Mils)	<u>TARR</u>	<u>COMMENT</u>
Volume:				
@ 7 units/day (1669 pa)	Base	R 5.50	20%	} Low sensitivity to volume
@ 6 units/day (1430 pa)		R 4.70	16%	
@ 5 units/day (1200 pa)		R 3.90	12%	
Investment:				
Base Program (R29.5 mils)	Base	R 5.50	20%	} Low sensitivity to investment
+ R 5.0 mils		R 5.00	15%	
+ R10.0 mils		R 4.50	12%	
Material Cost:				
less 5%		R 8.60	30%	} High sensitivity to cost (cost control/reduction important)
Base Program	Base	R 5.50	20%	
+ 5%		R 2.40	9%	
+ 8%		R 0.50	0%	

Opportunities

Opportunities:

- Visible commitment to a community by Government for houses, jobs and accelerated delivery;
- Creating manufacturing skills and structures suitable for further product development and export potential;
- Widespread application to multiple communities.

Risks

- **Technical:**
 - Productionising thin wall cement cladding with low skills is a technical concern. However, the process is well established (internationally/locally) and the risk assessment is low.
- **Timing:**
 - Set-up to implement the plan recognizing bureaucracy;
 - Recruitment and skills training may take longer than planned.
- **Business:**
 - High value/high output process will require a payment on delivery process to minimize working capital;
 - The project team will deliver to a performance contract.
- **Political:**
 - Rivalry for jobs in the factory within the community preventing the plan from developing, or sabotaging the factory by unfulfilled job seekers (assistance from Housewives League);
 - Delivery expectation versus implementation time lag within communities.

What Are We Offering

Delivery of:

- A business plan to manufacture 7 x 55m² houses per day that are competitively priced and bondable;
- The set-up of a manufacturing facility with all of the tooling and processes developed ready for production;
- The recruitment and training of the labour force to manufacture, administer and deliver a quality product;
- On-going support for daily production problem resolution;
- Private or community ownership;
- On-going development of new manufactured products for domestic and export markets;
- A concept for implementation at a national level.

What Are We Offering (contd.)

Community focused social and economic benefits:

- Much needed jobs and income for members of the communities;
- Accelerated housing delivery;
- Contribute towards delivery of the Millennium Development Goals;
- A sense of ownership will minimize socio-economic crimes;
- Lowering housing costs.

What Do We Need

- Recognition that a manufacturing and engineering focused policy is an imperative for addressing sustainable job creation, skills development, housing delivery and economic growth;
- Funding to implement the project to fully demonstrate the business mode;
- Availability of proclaimed land with services (roads/sewerage/water/electricity) that is ready for housing construction;
- Pay-on-delivery process – cash flow;
- A direct link to Government Housing to iron out and circumvent these problems.

Back-up Attachments

Product Specification

PROPOSED GWD HOUSE SPECIFICATION

55m² manufactured dwelling with insulated walls and internal walls

Roof - IBR insulated and flush ceiling

Two bedrooms with doors

Lounge/Family Room

Bathroom with handbasin, toilet and bath/shower

Kitchen with single bowl sink and splash board

Gas hob

100 litre hot water geyser

Electricity and water connected

Shelving in Kitchen and Bedrooms

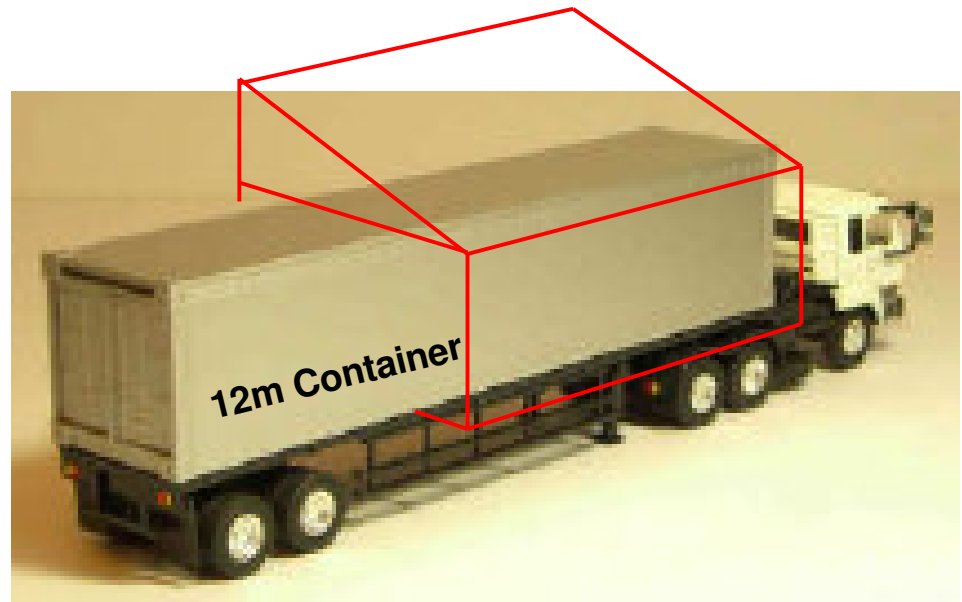
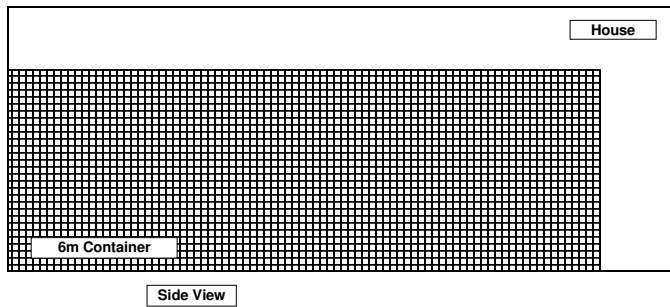
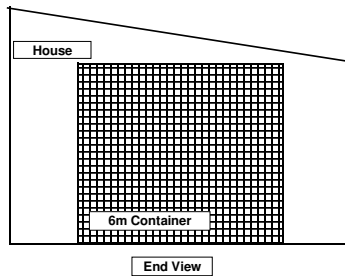
Light fittings and plug points

Vinyl tiling in splash areas of bathroom and kitchen

Two external doors

Transporting House

Size Relationship
of House Section
vs 6m (20 ft)
Container



Resources

Modular House Manufacturing Facility Salaried & Hourly Headcount		Dwg: 20080119 GWD Factory A Walls & House.vsd Issue: 1 Date: 12 May 2008 Reviewed by: CE; RMG		For Development Phase							For Production Phase						
				35							207						
				Salaried				Hourly			Salary				Hourly		
				35				0			66				141		
				6	7	7	0	15	0	0	6	10	15	2	33	0	141
Manager	Supervisor	Team Leader		Other		Hourly	Manager	Supervisor	Team Leader	Other		Hourly					
1	Factory Management			2			2										
2	Purchasing, Pre-production, Planning & Control			5			16										
3	Fabrication & Curing			3			71										
4	Final Assembly & On-site Installation			5			81										
5	Finance & Admin			5			16										
6	Plant Engineering			11			18										
7	IT Management			4			3										

Quality Plan

<p>Manufacturing Facility Factory to comply with:</p> <ul style="list-style-type: none"> - ISO 9000:2000 Quality - ISO 14001 Environmental - OSHAS 18001 Health & Safety 	<p>Materials Specifications for all base materials</p>
<p>Houses The following Standards will be used:</p> <ul style="list-style-type: none"> - SABS 082 Timber Frame Structures - SABS 0400 Deemed to satisfy rules of the National Building Regulations - SANS 10161 for Foundations 	<p>Lead Time Value adding vs non-value adding ratios Process flexibility</p> <p>Economic Order Quantity (EOQ)</p> <ul style="list-style-type: none"> - Determine how much to make - Hour-by-hour charts - Calculate EOQ - Minimise die/ mold changeover times
<p>People Implementation of a Quality Management System</p> <ul style="list-style-type: none"> - Linearity charts - Ishikawa diagrams - Quality maps - Process flow diagrams - Control charts - FMEA - Deployment flow diagram - Pareto analysis - Robust planning <p>Skills and Process Training</p> <ul style="list-style-type: none"> - Pre-control charts - Xbar-R charts - Cp / Cpk <p>Training considerations:</p> <ul style="list-style-type: none"> - Train the trainers - Trainer qualifications (Meseta) - Learnerships & incentives (Meseta) - Adult vs child learners - Communication styles - Computer aided learning on site (own time) <p>Courses:</p> <ul style="list-style-type: none"> - CDI / VW Production Game - MDW Teams 	<p>Processes</p> <ul style="list-style-type: none"> Receiving Inspection In-process batch control Buy-Off Standards Site set-up standards All operating Systems Process for data collection and storage <p>JIT Techniques:</p> <ul style="list-style-type: none"> - Setup reduction - Reduce time - Test solutions - Calculate takt times - Get process to flow - Standard work - Line balancing - Machine reliability - Jidoka & Poka-yoke - Pull systems - Facility planning - Material handling reduction - Critical spares
	<p>Other Warranty for latent defects</p>

Deliverables

DEVELOPMENT PHASE

- Finance & Project
 - Set-up of business entity
 - Costing of products
 - Preparation of budgets
 - Financial control
 - Financial analysis
 - Develop detailed work plans
- Engineering
 - Finalise the designs (house/classroom/school/shop)
 - Develop detail drawings of all components
 - Confirm selection of all materials
 - Develop material specifications
 - Development of testing and performance standards
 - Completion of initial Bill of Material
 - Initial orders for parts for the pilot manufacturing project
- Purchasing
 - Identify suppliers
 - Initial make/buy decisions
 - Order of initial tooling and equipment
 - Early supplier contracts
- Manufacturing
 - Development of plant layout and process flow
 - Pilot plant construction
 - Detail plant layout
 - Installation and commissioning of equipment and tooling
 - Design of storage and racking
 - Development of process sheets
 - Establish buy-off standards
 - Establish manufacturing times for all processes
 - Establish manning requirements
 - Preliminary maintenance schedules
- Logistics
 - Order cycles and lead times
 - Establish inventory requirements
 - Material handling requirements and equipment
 - Storage needs
 - Establish relevant logistic processes
- Resources
 - Recruitment and training
 - Personnel contracts

PILOT PRODUCTION

- Engineering
 - All component testing to be conducted
 - All components inspected and signed-off vs drawings
 - Drawing modifications vs final samples
 - SABS testing to be conducted
 - Engineering sign-off
 - Customer sign off
- Purchasing
 - Ensure sample availability of all components and stock
- Manufacturing
 - Tool try-out of all in-house manufactured components
 - Try out assembly process
 - Verify process sheets
 - Verify labour standards
- Inspection
 - Implement corrections and refinements to process
 - Manufacturing sign-off
- Logistics
 - Storage and materials control
 - Verify loading, delivery, unloading process of house
 - Buy-off of assembled house on site
- Site Management
 - Establish and verify site development processes
- Resources
 - Initial production staff trained and in place
- Finance
 - Financial control
 - Salaries and wages
 - SARS/Municipal/Regional functions

Profit Model

Retail Price - Standard House	@2008 conditions		R 49,502.06
House excluding VAT		14%	43,422.86
Management contingency		1%	(440.27)
less Selling Expenses			(53.00)
Less Franchise Fee		1%	(495.02)
			<hr/>
Nett Revenue			R 42,434.56
Contribution Cost			
Material Cost			(30,648.75)
Material cost provision		1%	(306.49)
Labour - Manufacturing (incl benefits)			(4,910.66)
Labour - Site			(880.80)
Manufacturing/Site consumables			(114.48)
Plant hire per site			(210.00)
Transport House Delivery			(225.94)
Buy-off Inspection Fee			(81.00)
			<hr/>
			(37,378.13)
Allocated Costs			
Admin & Selling			(4,293.74)
Power & water			(188.28)
Rates & Taxes			(11.30)
Maintenance			(15.49)
IT Support			(663.11)
Design Fees		1%	(511.38)
Development levy		1%	(511.38)
Investment			(1,767.48)
Interest on Loans			(549.20)
VAT Rebate			3,932.58
General transport LDV			(37.66)
			<hr/>
			R (4,616.45)
Nett Profit /(Loss)			R 439.99

Income Statement

		Average 2007	Average 2008	Average 2009	Program									Weighted Average		
					Average 2010	Average 2011	Average 2012	Average 2013	Average 2014	Average 2015	Average 2016	Average 2017	Average 2018		Average 2019	
Volumes	Years 10	-	1,659	1,666	1,694	1,666	1,666	1,666	1,666	1,666	1,666	1,666	1,666	1,666	1,666	1669
Retail Price		47,350	49,502	52,517	55,715	59,108	62,708	66,527	70,578	74,876	80,610	84,274	89,406	93,449	73,695	
Retail Price (Excluding VAT)	14%	41,535	43,423	46,067	48,873	51,849	55,007	58,357	61,911	65,681	70,711	73,925	78,427	81,973	64,645	
Management Contingency		(415)	(440)	(467)	-	-	-	-	-	-	-	-	-	-	-	
Selling Expenses		(50)	(53)	(56)	(60)	(63)	(67)	(71)	(75)	(80)	(84)	(90)	(95)	(101)	(78)	
Franchise Fee	1%	(474)	(495)	(525)	(557)	(591)	(627)	(665)	(706)	(749)	(806)	(843)	(894)	(934)	(737)	
Net Revenue		40,596	42,435	45,019	48,256	51,195	54,313	57,620	61,130	64,853	69,820	72,992	77,438	80,938	63,829	
Contribution Cost																
Material Cost		(29,189)	(30,649)	(32,181)	(33,790)	(35,480)	(37,254)	(39,116)	(41,072)	(43,126)	(45,282)	(47,546)	(49,924)	(52,420)	(42,486)	
Material - Cost Provision		(292)	(306)	(322)	(338)	(355)	(373)	(391)	(411)	(431)	(453)	(475)	(499)	(524)	(425)	
Labour - Site Preparation		(816)	(881)	(951)	(1,027)	(1,110)	(1,198)	(1,294)	(1,398)	(1,510)	(1,630)	(1,761)	(1,902)	(2,054)	(1,488)	
Labour - Manufacturing (incl. benefits)		(4,547)	(4,911)	(5,304)	(5,728)	(6,186)	(6,681)	(7,215)	(7,793)	(8,416)	(9,089)	(9,816)	(10,602)	(11,450)	(8,293)	
Manufacturing/Site Consumables		(109)	(114)	(120)	(126)	(133)	(139)	(146)	(153)	(161)	(169)	(178)	(186)	(196)	(159)	
Plant Hire per Site		(200)	(210)	(221)	(232)	(243)	(255)	(268)	(281)	(295)	(310)	(326)	(342)	(359)	(291)	
Transport - House Delivery		(215)	(226)	(237)	(249)	(262)	(275)	(288)	(303)	(318)	(334)	(351)	(368)	(386)	(313)	
Buy-off Inspection Fee		(75)	(81)	(87)	(94)	(102)	(110)	(119)	(129)	(139)	(150)	(162)	(175)	(189)	(137)	
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Contribution Cost		(35,443)	(37,378)	(39,423)	(41,585)	(43,869)	(46,285)	(48,839)	(51,539)	(54,396)	(57,418)	(60,615)	(63,998)	(67,578)	(53,592)	
Economic Profit		5,153	5,056	5,596	6,671	7,326	8,028	8,782	9,590	10,457	12,402	12,378	13,440	13,360	10,237	
Margin		12.7%	11.9%	12.4%	13.8%	14.3%	14.8%	15.2%	15.7%	16.1%	17.8%	17.0%	17.4%	16.5%	16.0%	
Incremental Costs & Other Incomes																
Overheads		(204)	(215)	(225)	(237)	(248)	(261)	(274)	(288)	(302)	(317)	(333)	(350)	(367)	(298)	
Cybernetic Support		(614)	(663)	(716)	(773)	(835)	(902)	(974)	(1,052)	(1,136)	(1,227)	(1,326)	(1,432)	(1,546)	(1,120)	
Investment		(1,767)	(1,767)	(1,767)	(1,767)	(1,767)	(1,767)	(1,767)	(1,767)	(1,767)	(1,767)	(1,767)	(1,767)	(1,767)	(1,767)	
Interest		(549)	(549)	(549)	(549)	(549)	(549)	(549)	(549)	(549)	(549)	(549)	(549)	(549)	(549)	
Design Fees		(474)	(511)	(552)	(596)	(644)	(696)	(751)	(811)	(876)	(947)	(1,022)	(1,104)	(1,192)	(864)	
Development Provision		(474)	(511)	(552)	(596)	(644)	(696)	(751)	(811)	(876)	(947)	(1,022)	(1,104)	(1,192)	(864)	
VAT Rebates		3,710	3,933	4,169	4,419	4,684	4,965	5,263	5,578	5,913	6,268	6,644	7,043	7,465	5,822	
Total Incremental Costs & Other		(372)	(285)	(194)	(101)	(5)	94	195	299	405	514	624	737	851	360	
Fixed Costs																
Administration & Selling Expense		(3,976)	(4,294)	(4,637)	(5,008)	(5,409)	(5,842)	(6,309)	(6,814)	(7,359)	(7,947)	(8,583)	(9,270)	(10,011)	(7,251)	
General Transport		(36)	(38)	(40)	(42)	(44)	(46)	(48)	(50)	(53)	(56)	(58)	(61)	(64)	(52)	
Rentals		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Fixed Costs		(4,012)	(4,331)	(4,677)	(5,050)	(5,452)	(5,887)	(6,357)	(6,864)	(7,412)	(8,003)	(8,642)	(9,331)	(10,076)	(7,304)	
Fully Accounted PBT		770	440	725	1,521	1,868	2,234	2,620	3,025	3,450	4,913	4,360	4,845	4,135	3,294	

MANUFACTURING LED STRATEGY

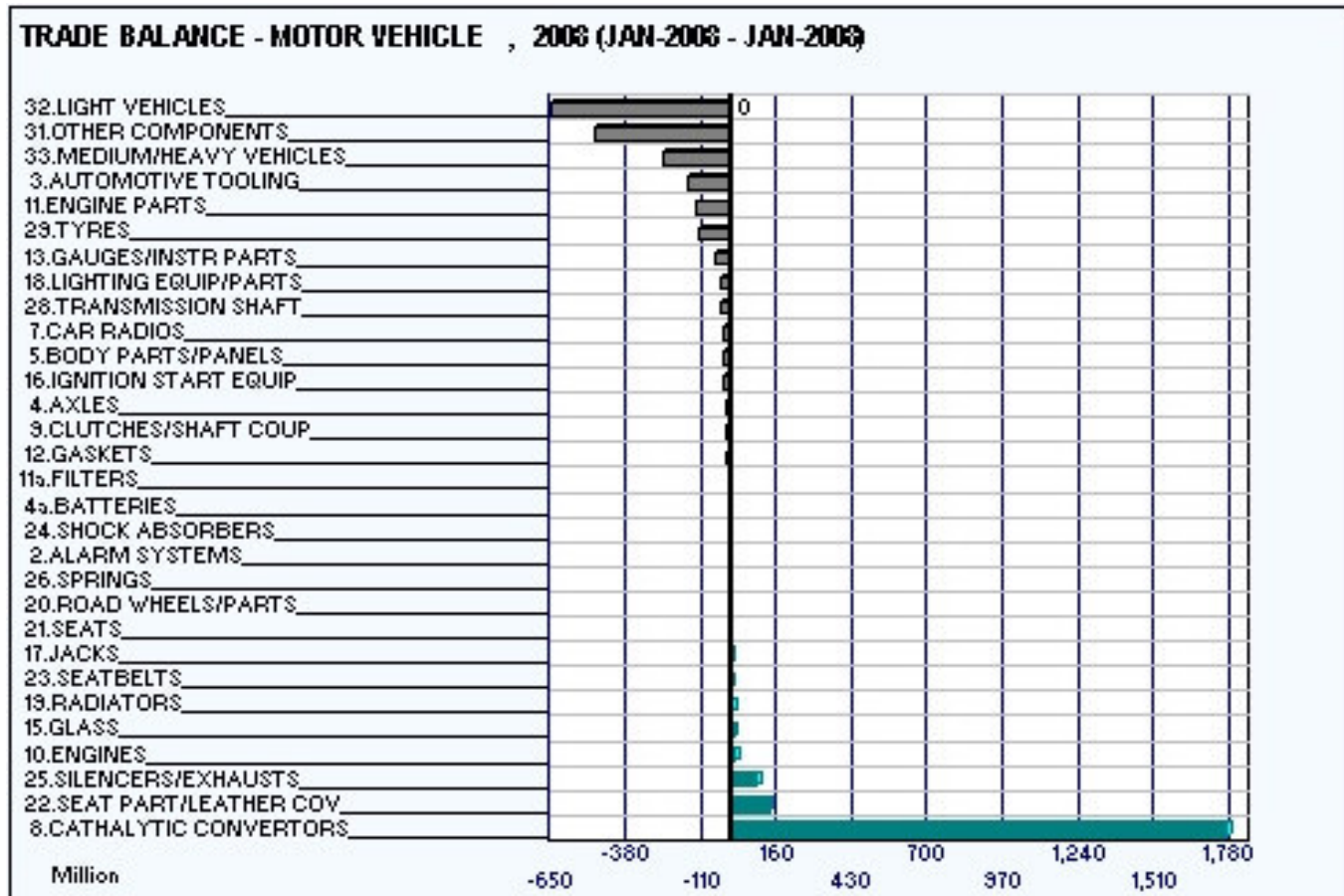
(Personal Observations)

D H Barnes
343 Olivier Street
Waterkloof,
Pretoria, 0181
June 24, 2008

Personal Observations

- Commenced career in automotive industry in mid 60's – Local Content by mass
- Local product development activities provided support for local manufacture of many commodities;
- The era of political isolation further strengthened the manufacturing industry – self reliance;
- Current policies have allowed this technology base to be superseded by globalisation strategies with the result that many commodities, parts and systems are no longer manufactured in SA.
- Manifested in two directions:
 - Small highly skilled commodity companies absorbed into large internationals where the technology skills are centralised abroad;
 - Manufacturing capacities are rationalised in global sourcing often limiting production in SA to lower value (technology) products.

Personal Observations



Catalysts, exhaust components and leather (seats) only major automotive export commodities

Personal Observations

- Extract from SA Trade Statistics – 2007

	<u>Imports</u>	<u>Exports</u>
– Vehicle Parts	R40.5 bils	R38.0 mils
– Electrical Machinery	R53.9 bils	R11.7 bils

- There is a great need to grow the manufacturing infrastructure locally
- The housing manufacturing project represents a small step in a broad manufacturing led economy

Conclusion

The picture on the screen has absolutely nothing to do with this manufacturing programme except to show those who believe that a house is too large to manufacture are wrong! This is a WW2 ship assembly line based upon Henry Ford's principles where the average time to build a ship dropped from 10 months to 16 days. This assembly line slipped 2 to 3 ships per day.



The plan that Denver outlined can easily be manufactured and these factories can be replicated hundreds of times around the country.

It is also the plan that: -

- The CSIR has run away from since 1987
- A CSIR director Dr H Maree ran away from in 2005 when asked to evaluate the plan by the engineering advisor to the minister of S&T- Prof R Marcus
- NACI ran away from it in 2004
- This is the plan that since 1994 government has rejected without any business or technical reason except bureaucratic belief that Ford, GM, Goodyear and Siemens are incompetent in manufacturing development

Manufacturing is by far the most effective means available to quickly bring low-skilled communities into the formal economy and create wealth. Ways must be found to expand the product complexity of the proposed housing factories not only in houses but other consumer commodities, through market analysis and economic product development.

The local tried and tested way to achieve this goal is to use the systems and procedures that Ford and GM used in the 1960's to create the local component

manufacturing industry, as it is this expertise we require to drive the factories into long-term economic growth.

The following framework is required to support the expansion of a manufacturing led plan: -

1. A market analysis identifying both local and export opportunities
2. The implementation of a manufacturing product development infrastructure
Attached to the GWD hand out
3. Development of international coalitions where resource and expertise are pooled to effectively compete in international markets and grow new ones.
4. Create Young Engineer's programmes to provide future engineers

All of these elements are in line with the final CID report to AsgiSA. The SA Academy of Engineering also supports this business plan proposal, as does Business Unity SA who approached government regarding development but was ignored.

Concluding, the Visions of the Housing Act of 1997 is correct in promoting the use of RDP housing delivery to develop economically sustained communities. The CSIR admitted that they did not have expertise to achieve this objective. Also it appears that although the Minister of Housing has more than 12 advisors not one is capable of developing industry let alone from housing delivery. Therefore it should be not a surprise to hear around R50billion has been spent without creating one economically sustainable community from housing delivery. Therefore the entire RDP housing programme from 1997 to the present has been implemented contrary to the Act of 1997 and has effectively housing has been used to reinforce poverty.

Mr Richard Thatcher is Chief Director Housing Legislation, Department of Housing and I have asked him to attend and give his views on this claim.

I wish to thank Madam Speaker for passing this plan on the S&T PC, the Chairman and members of the S&T PC for inviting us and we will be prepared to answer all questions



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[Reg. No 0290 – 890]

2008.06.20

"LIFT AS YOU RISE"



THE AFRICAN HOUSEWIVES LEAGUE PERSPECTIVE OF THE GWD MANUFACTURING PLAN

Science & Technology Portfolio Committee 24 June 2008

On behalf of the African Housewives League, we wish to thank you for this opportunity to present our view of the project in terms of understanding; support; aspirations and above all the anxiety to see the project take off.

As a 47year old Non –Governmental Organization without capital, we carry out projects with the little we can provide from our pockets and find it imperative to enter into partnership with South Africa experts and knowledgeable engineers to get job creation going.

Our goal with this partnership is to ensure job creation and accessibility of housing. This means decent housing that is bondable, comfortable, of adequate size and good quality for generations of people can live in. After 14years, time has run out for the concept of "RDP" and we must accept that this policy has failed the majority of South Africans by not providing jobs so they can afford decent housing.

In this partnership we envisage training that will develop, transfer skills and empower our communities at large and provide an opportunity for qualified engineers to re-consider staying in South Africa, instead of leaving with their skills.

This project is essential to create jobs, and turn the tide of poverty while eliminating the housing backlog. Providing housing without jobs just reinforces poverty and creates greater slums and misery.

The proposed factories will manufacture the products for housing and then assemble the houses in factories, making them more affordable and changing low skilled communities into factory literate communities. The factories will remain sustainable well after the housing projects are completed through product development. This will create a ripple effect of training others coming into the fold and the development of spin-off industries.

The theme for the year 2008 is "TURNING THE TIDE OF POVERTY. Through this Select Committee, we the African Housewives League, request Parliament to protect the jobless who are suffering daily. Please see to it that engineering is brought into the process to lead policy; as for the past 14 years policy without engineering leadership has just extended poverty, unemployment and human misery.