Project ManagementThe Future Challenges



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Project Management Process

There are a number of approaches to managing project activities.

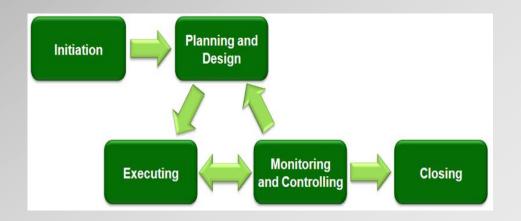
Regardless of the methodology employed, careful consideration must be given to the overall project objectives, timeline, and cost, as well as the roles and responsibilities of all participants and stakeholders.

The traditional approach

A traditional phased approach identifies a sequence of steps to be completed. In the "traditional approach", five developmental components of a project can be distinguished (four stages plus control):

Typical development phases of a construction project:

- 1. initiation
- 2. planning and design
- 3. execution and construction
- 4. monitoring and controlling systems
- 5. completion



Stages in Project Management

- Not all projects will have every stage.
- Some projects do not follow a structured planning and/or monitoring process.
- And some projects will go through the same steps multiple times
- Many industries use variations of these project stages.
- 1. For example, when working on a brick-and-mortar design and construction, projects will typically progress through stages like pre-planning, conceptual design, schematic design, design development, construction drawings (or contract documents), and construction administration.
- 2. In software development, this approach is often known as the waterfall model, i.e., one series of tasks after another in linear sequence.
- 3. 'Waterfall' development works well for small, well defined projects, but often fails in larger projects of undefined and ambiguous nature.

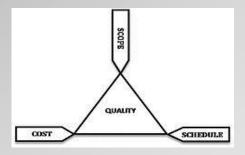
Diverse Approaches to PM

Different approaches to 'Structured Project Management can be followed:

- PRINCE2
- PRiSM (Projects integrating Sustainable Methods)
- Critical chain project management
- Event chain methodology
- Process-based management
- Agile project management
- Lean project management
- Extreme project management
- Benefits realisation management

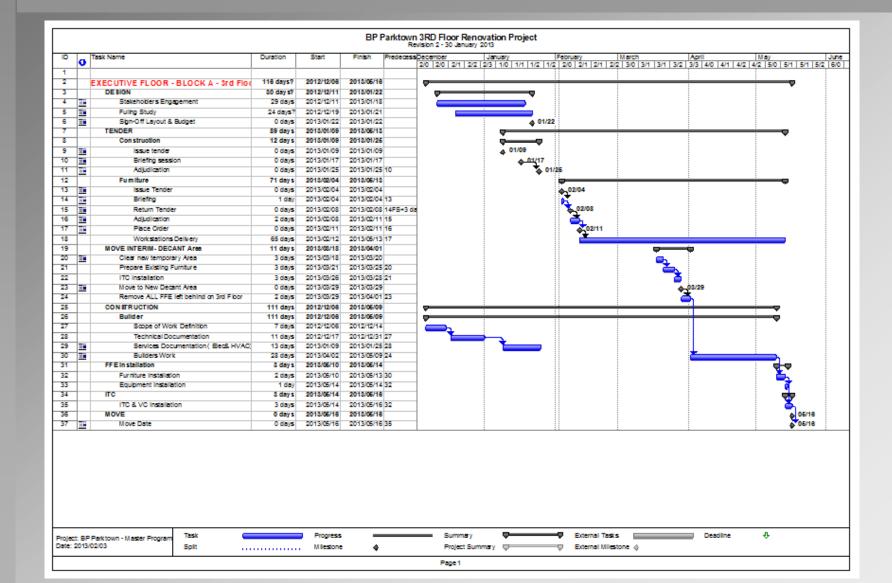
Role and function of the PM

- Project managers can have the responsibility of the planning, execution, and closing of any project, typically relating to construction industry, engineering, architecture, computing, and telecommunications
- A project manager is the person accountable for accomplishing the stated project objectives.
- Key project management responsibilities include creating clear and attainable project objectives, building the project requirements, and managing the 'triple constraint' for projects, which is cost, time, and scope.



- A project manager is often a client representative and has to determine and implement the exact needs of the client,
- **▶** CPM (Construction PM contract and fees)

Program (Timeline) Control



Cost Estimate Actual vs. Budget

Contrac	et	Rates		Total	Cost Status	Specification
		No	Items			
BUILDE	RS WORK				FCPM	
BW01	Demolition					Full demolition with the exception of the one current office to bused as a meeting room. Doors and glazing retained for reuse. Carpet retained for reuse. Kitchen fittings retained for reuse.
	Drywall					-
	Single skin					To 6 seater meeting rooms and kitchen
	Acoustic					20 seat meeting rooms and 12 seat meetings rooms Washable PVA external and internal walls to client color selec
	Painting					
						New shop front sections to meeting rooms using were possible existing glazing and doors.
_	Shopfront Doors & Ironmongery					Refit retained doors and ironmongery
	Ceilings					
	Flush Plaster					New flush plaster ceiling to 2- seater conference room and 12 seaters
	Acoustic 600x600 tiles					New suspended cling grid 600 x600 with new acoustic tiles
	Plumbing					Retain existing fittings and provide connections for repositioned kitchen and pause area
	Shop fronts					New shop front sections to meeting rooms using existing glass doors
	Shop fitting Kitchen					Reposition existing kitchen fittings
	Pause Area					Use existing second kitchen fittings in pause area
	Tiling					New floor tiling to kitchen with tiled splash backs- Tiled splash backs to pause area fittings
	SubTotal as Quoted Add Double skin 6 seat meeting rooms	1	R 22 000.00	R 660 369.44 R 22 000.00	Quote FCPM	Request Nomusa 5th October
	Add lift lobby	1	R 20 000.00	R 20 000.00	BIA Estimate	Request Normusa 5th October
	Revised SubTotal			R 702 369.44		
	P & G's @ 9% Total Building Works			R 63 213.25 R 765 582.69		
CARPE"	TS Total Ballang Works			16 100 502.00		
	TS Refit existing carpet	1	R 23 875.00	R 23 875.00		Remove existing carpet and cut down for carpets to meeting ro
	New Carpet	1	R 28 944.64	R 28 944.64		New Carpet tiles to office areas rate R250/sqm
	Vinyl Tiles Equipment Room	1	R 2 259.00	R 2 259.00		HD vinyl tiles to VC equipment room
	Laminate Floor to Pause Area Allowance for Pavelite screeds	1	R 5 800.00	R 5 800.00		New laminate floor to pause area
		-1	R 6 400.00	R 6 400.00	1	Condition of floor unknown and allowance for making good scre
DATA	Total carpets VOICE INSTALLATION			R 67 278.64	Bates Quote	
T01	Data and Voice Reconfiguration	1	R 0.00	R 0.00		Strip redundant data cabling. Reconfigure live points to new lay and add additional as required.
ICT2	VC and Data projection				Eddy	
	20 Seater	1	R 0.00	R 0.00	Eddy	Provide new video conferencing installation.
	New disaster recovery command center New VC Room	1	R 0.00	R 0.00 R 0.00	Eddy	Provide new equipment Provide new video conferencing installation.
	Total IT Installation	-	K 0.00	R 0.00	Waiting Eddy	Provide new video conterencing installation.
SERVIC	ES					
AC01	Air Conditioning Reconfiguration of AC System					*New fresh air ducting and reconfiguration of existing
		1	R 680 000.00	R 680 000.00		diffuses.Amount still needs to be confirmed with Consultant
	Sub Total AC Electrical			R 680 000.00		
ELEC01		1	R 480 000.00	R 480 000.00		Strip redundant power cabling. Reconfigure existing cabling will new to suit layout. Ne DB Board. AC Power upgrade
ELEC02	Power Packs				Quote Corp Conn.	,
	Data/voice packs	42	R 1 000.00	R 42 000.00		New power and data packs to workstations
	Cables Installation	42	R 650.00	R 27 300.00 R 4 620.00		
	Sub Total Power Packs		11.1.0.00	R 73 920.00		
	Sub Total Electrical Fire Defense			R 553 920.00		
FD01	Reconfiguration Smoke Detection/Evacuation	1	R 15 000.00	R 15 000.00	BIA Estimate	Reconfigure exiting smoke detection and speakers to suit layo
	Sub Total Fire Defense TOTAL Services			R 15 000.00 R 1 248 920.00		
FURNIT				K 1 240 920.00	1	
Furnitu	re New					
FN01	Workstations Workstations -120 degree Desk	46	R 3 774.00	R 173 604.00	Estimate	New workstations with off desk screens as Cape Town.
	Workstations Screens Frontal	60	R 2 565.00	R 153 900.00	Estimate	New workstations with off desk screens as Cape Town.
	Workstations Storage Units Suite - Frames	56 4	R 3 126.00 R 7 099.00	R 175 056.00 R 28 396.00		New workstations with off desk screens as Cape Town.
	Suite - Credenzas	4	R 4 026.00	R 16 104.00		
	Suite- Storage	6	R 4 607.00	R 27 642.00		
	Suite- Table Sub Total Workstations	1	R 3 327.00	R 3 327.00 R 578 029.00		
FN02	Screens Power Panels					
		9	R 3 420.00	R 30 780.00	Barker Street Quote	New 300 mm wide power panels to service desks not adjacent power truncking
	Sub Tota Screens			R 30 780.00		*

FN03	Chairs					
	Office Chairs Desk	46	R 3 798.00	R 174 708.00	Daurhine Oust	New EEC standard office chairs, mesh back to open plan cluster workstations
	Office Chairs Desk - EXEC	4	R 6 700.00	R 26 800.00	Dauphine Quote Estimate	workstations
	4 Seat meeting room	4	R 1 959 00	R 7 836 00		New skid based chairs fabric seat mesh back.
	6 Seat Meeting rooms - 4 No.	24	R 1 959 00		Dauphine Quote	New skid based chairs fabric seat mesh back.
	12 Seat meeting rooms 2 No	24	R 1 959.00	R 47 016.00	Duopinio Quote	New skid based chairs fabric seat mesh back.
	20 Seater Meeting Room New	20	R 2 261.00		Dauphine Quote	New skid based chairs leather seat and mesh back.
FN03	Sub Total Chairs			R 348 596.00		
FN03	Meeting & Board Room Tables	1	R 2 600.00	D 2 600 00	Barles Street Oresta	Managed 4200 diam assating table
	4 Seater Meeting Table 6 Seater Meeting Room	1	R 6 100.00	R 6 100 00	Barker Street Quote	Veneered 1200 diam meeting table Veneered meeting table chromed base
	12 Seater Meeting Room	2	R 15 000.00	R 30 000.00	Estimate	
	20 Seater Meeting Room	1	R 42 000.00	R 42 000.00	Barker Street Quote	Veneered meeting table chromed base
	Server - no storage	3	R 1 900.00	R 5 700.00	Barker Street Quote	Standard slab server veneered to match meeting tables in all meeting rooms.
	Server - with drawers	5	R 4 100.00	R 20 500.00		Server veneered to match meeting tables in all meeting rooms v drawers to 20 seater meeting room
	Sub Total Meeting Room Tables			R 106 900.00		
	Pause Area Tables					
	Tables	4	R 2 500.00	R 10 000.00	BIA estimate	N
_	Chairs	16	R 1 500.00	D 24 000 00	BIA estimate	New tables to pause area, aluminum base polished metal top New molded plastic chairs with aluminum legs.
	Sub Total Pause Area	10	K 1500.00	R 34 000.00	DIX estimate	rvew morded plastic chairs with aluminum regs.
	Executive Waiting Area Soft's					
FN011	2 Seater Sofa	2	R 9 500.00	R 19 000.00	BIA estimate	Fabric covered two seater couch to 20 seater waiting area.
	Lounge Seat	2	R 6 500.00		BIA estimate	Fabric covered lounge chairs to 20 seater waiting area.
\vdash	Coffee Table Large Sub Total Soft's	1	K 5 000.00	R 5 000.00	BIA estimate	Veneered coffee table to lounge
	Total Furniture			R 1 135 305.00		
SECOND	ARY INSTALLATION					
Signage)					
FP01	Signage & Vinyl					
	New meeting rooms signage	100	R 150.00 R 120.00	R 1 350.00	BIA estimate BIA estimate	Vinyl signage to meeting rooms as other floors
	Vinyl to glazing to meeting new rooms Etc Sub Total	100	R 120.00	R 13 350.00	DIA estimate	Vinyl finish to glazing to meeting rooms
Curtains				R 13 330.00		
BL01	VC Room			R 0.00		Assumed that exiting timber blinds will be adequate, no new
				R 0.00		provision
	Board Room			R 0.00		Assumed that exiting timber blinds' will be adequate, no new provision
	Sub Total			R 0.00		provision
Display I				14 0.00		
DIS01	New meeting rooms					
	Flexirail - Lm	50	R 220.00	R 11 000.00	DIA	Powder coated display rails to larger meeting rooms only on one wall.
	White Boards	8	R 2 000.00		BIA estimate BIA estimate	White boards to all meeting rooms
	Electric Screens	0	K 2 000.00	R 0.00	DIA estilliate	In IT budget
	Sub Total			R 27 000.00		
Bulk Fili	ng					
CIR01	New 6 Bay Bulk Filing Unit Sub Total	1	R 26 124.00	R 26 124.00 R 26 124.00	Zippel Quote	New bulk filing unit with laminate back and sides
-	Total Secondary Installations					
				P 66 474 00		
FACILITI	IES			R 66 474.00		
FACILITI BP facili	IES ities			R 66 474.00		
BP facili	IES	1	R 15 000 00			Allowance for security guard to floor during construction and
BP facili FAC05	IES Ities Security During Installation	1	R 15 000.00	R 66 474.00		Allowance for security guard to floor during construction and furniture installation
BP facili FAC05	IES titles Security During Installation Box Moves People 2 Per Person			R 15 000.00	BIA estimate	furniture installation
BP facili FAC05	IES Security During Installation Box Moves People 2 Per Person Moves Out	34	R 50.00	R 15 000.00	BIA estimate	furniture installation Box move from FL 3 to other floors in block A to allow for the refurbishment
BP facili FAC05 FAC08	IES titles Security During Installation Box Moves People 2 Per Person Moves Out Moves In			R 15 000.00	BIA estimate	furniture installation Box move from FL 3 to other floors in block A to allow for the
BP facili FAC05 FAC08	IES Itiles Security During Installation Box Moves People 2 Per Person Moves Out Moves Out Combined printer moves	34	R 50.00 R 50.00	R 15 000.00 R 1 700.00 R 4 400.00	BIA estimate BIA estimate BIA estimate	furniture installation Box move from FL 3 to other floors in block A to allow for the refurbishment Box move from block A floors to Floor 3
BP facili FAC05 FAC08	IES Ities Security During Installation Box Moves People 2 Per Person Moves Out Moves In Combined printer moves Moves Ut	34 88 3	R 50.00 R 50.00 R 2 750.00	R 15 000.00 R 1 700.00 R 4 400.00 R 8 250.00	BIA estimate BIA estimate BIA estimate BIA estimate	furniture installation Box move from FL 3 to other floors in block A to allow for the refurbishment. Box move from block A floors to Floor 3 Moves of printer of Floor 3 to allow for refurbishment.
FAC08	IES Ities Security During Installation Box Moves People 2 Per Person Moves Out Moves In Combined printer moves Moves Out Moves In Moves In	34	R 50.00 R 50.00	R 15 000.00 R 1 700.00 R 4 400.00 R 8 250.00	BIA estimate BIA estimate BIA estimate	furniture installation Box move from FL 3 to other floors in block A to allow for the refurbishment Box move from block A floors to Floor 3
FAC08 FAC09	IES Ities Security During Installation Box Moves People 2 Per Person Moves Out Moves In Combined printer moves Moves Ut	34 88 3	R 50.00 R 50.00 R 2 750.00	R 15 000 00 R 1 700 00 R 4 400 00 R 8 250 00 R 8 250 00 R 1 360 00	BIA estimate BIA estimate BIA estimate BIA estimate BIA estimate BIA estimate	furniture installation Box move from FL 3 to other floors in block A to allow for the returbishment Box move from block A floors to Floor 3 Box move from block A floors to Floor 3 Moves of printer of Floor 3 to allow for refurbishment Moving back printers to FL3
FAC08	IES Security During Installation Security During Installation Mores Out Mores In Mores In Mores In Mores Out More More In Mores Out More More In Mores Out Mores Out Mores Out Mores Out Mores In Mores In Mores In Mores In	34 88 3 3	R 50.00 R 50.00 R 2 750.00 R 2 750.00	R 15 000 00 R 1 700 00 R 4 400 00 R 8 250 00 R 1 360 00 R 3 520 00	BIA estimate	furniture installation Box move from FL 3 to other floors in block A to allow for the refurbishment. Box move from block A floors to Floor 3 Moves of printer of Floor 3 to allow for refurbishment.
BP facili FAC05 FAC08 FAC09	IES Security During Installation Sex Moves People 2 Per Person Mores Out Mores In Combined printer moves Mores to Complete Equipment Moves Mores Out Moves In Complete Supplement Moves Moves In Sub Total	34 88 3 3	R 50.00 R 50.00 R 2 750.00 R 2 750.00	R 15 000 00 R 1 700 00 R 4 400 00 R 8 250 00 R 8 250 00 R 1 360 00	BIA estimate	fundture installation Box move from FL 3 to other floors in block A to allow for the returbishment Box move from block A floors to Floor 3 Moves of printer of Floor 3 to allow for refurbishment Moving back printers to FL3 Compute moves from FL3 to temporary locations in block A
BP facili FAC05 FAC08 FAC09	IES Security During Installation Security During Installation Box Moves People 2 Per Person Moves Out Moves In Compader printer moves Moves Out Moves In Compader Equipment Moves Moves In Sub Total Flower In Moves In Sub Total Flower In Moves In Moves In Sub Total	34 88 3 3 17 44	R 50.00 R 50.00 R 2 750.00 R 2 750.00 R 80.00	R 15 000 00 R 1700 00 R 4 400 00 R 8 250 00 R 8 250 00 R 1360 00 R 3 520 00 R 42 480 00	BIA estimate	fundure installation Box move from FL 3 to other floors in block A to allow for the returbishment Box move from Block A floors to Fibor 3 Moves of printer of Fibor 3 to allow for refurbishment Moving back printers to FL3 Campute moves from FL3 to temporary locations in block A Campute moves from Block A floors to completed FL3
BP facili FAC05 FAC08 FAC09	IES Vietes Security During Installation Sex Moves People 2 Per Person Mores Out Mores In Combined printer moves Mores In Computer Equipment Moves Mores In Computer Equipment Moves Mores Out Mores In Sub Total Furniture Moves Move In Sub Total Furniture Moves Move Furniture Out & Store	34 88 3 3 17 44	R 50 00 R 50 00 R 2 750 00 R 2 750 00 R 80 00 R 80 00	R 15 000 00 R 1 700 00 R 4 400 00 R 8 250 00 R 1 360 00 R 1 37 500 00 R 37 500 00	BIA estimate	fundture installation Box move from FL 3 to other floors in block A to allow for the returbishment Box move from block A floors to Floor 3 Moves of printer of Floor 3 to allow for refurbishment Moving back printers to FL3 Compute moves from FL3 to temporary locations in block A
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BP facili FAC05 FAC08 FAC09 FAC010 Retained	IES Security During Installation Security During Installation Box Moves People 2 Per Person Moves Out Moves In Comband printer moves Moves Out Moves In Compater Equipment Moves Moves In Moves In Sub-Total Formative Country Moves In Move	34 88 3 3 17 44 50	R 50 00 R 50 00 R 2 750 00 R 2 750 00 R 80 00 R 80 00 R 750 00 R 850 00 R 1 100 00	R 15 000 00 R 1 700 00 R 4 400 00 R 4 400 00 R 8 250 00 R 1 350 00 R 1 350 00 R 2 250 00 R 2 250 00 R 2 350 00	BIA estimate	funduce installation Box move from FL 3 to other floors in block A to allow for the returbishment Box move from block A floors to Filor 3 Moves of printer of Filor 3 to allow for refurbishment Moving back printers to FL3 Carguda moves from FL3 to temporary locations in block A Compute moves from EL3 to temporary locations in block A Compute moves from Block A floors to completed FL3 Move out furniture from FL3 to storage
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BP facili FAC05 FAC08 FAC09 FAC010 Retained	IES Security During Installation Security During Installation Born Mones People 2 Per Person Mones Out Mones In Sub Total 4 Furniture Moves Mone Furniture Back & Assemble Reconfiguration tetained workstellor Reconfiguration retained workstellor Total Facility Total Facility TOTAL **Contingency © 10% Contingency © 10% GA Fees Space Planning URA Fees Total Space Planning	34 88 3 3 17 44 50 50	R 50 00 R 50 00 R 2 750 00 R 2 750 00 R 80 00 R 80 00 R 750 00 R 850 00 R 1 100 00	R 15 000 00 R 1 700 00 R 4 400 00 R 4 400 00 R 8 250 00 R 1 350 00 R 1 350 00 R 2 250 00 R 2 250 00 R 2 250 00 R 2 350 00	BIA estimate Actual area As per proposal	funduce installation Box move from FL 3 to other floors in block A to allow for the reductationness. Box move from Block A floors to Floor 3 Box move from Block A floors to Floor 3 Moves of printer of Floor 3 to allow for refurbishment Moving back printers to FL3 Compute moves from FL3 to stemporary locations in block A Compute moves from Flock A floors to completed FL3 Move out furniture from FL3 to storage Move back retained furniture items and configure for new layout As proposal
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Project Documentation

- Drawings
- Schedules
- Correspondence
- Minutes & meetings
- Appointments

 Contractor
 Professional Team
 Consultants
- **→** Oshact
- NHBRC
- Quality Assurance
- Handover

Construction Contract Types



- Lump Sum Contract
- Unit Price Contract
- Cost Plus Fixed Percentage Contract
- Cost Plus Fixed Fee Contract
- Cost Plus Variable Percentage Contract
- Target Estimate Contract
- Guaranteed Maximum Cost Contract

Contracts



JBCC (Joint Building Contracts Committee)



Principal Building Agreement



N/S Nominated Subcontract

Agreement



Minor Works Agreement

Leadership skills for Project Managers



"Good leadership skills are what make a good project manager great "

- Inspire a Shared Team Vision
- Integrity
- Great Communication Skills
- Competency in the Subject Matter of the Project
- Promote Team Building
- Good with Task Delegation
- Good Problem Solving Abilities
- Stay Cool Under Pressure

How to manage projects in today's risk economy



Plenty of risk, slow growth and unpredictable forecasting is what project managers face today. The most obvious of these is the euro zone's debt crisis, which will limit growth for companies across the entire world.

What's the view?

Project managers today need to have an objective view of required contingency to account for cost and schedule uncertainty, as well as:

- Identify common scheduling pitfalls that may result in misleading schedule or risk matrix analysis results
- Address full lifecycle risk management through cost and schedule analytics
- Report confidence levels with regards to project dates and costs

What's the solution?

The solution lies in following a systematic process of identifying, analysing and responding to project risk over the full life-cycle of a project and being able to report accurately on risks and risk management plans.

Project Management Scope

Development Typologies

RESIDENTIAL

- 1. Houses
- 2. Apartment Blocks
- 3. Townhouses
- 4. Cluster Units
- * Special Types

Golf Estates

Students Accommodation Residential Estates

Property Syndication Land Only Estates

Developer packages

Case Study: Devonshire Clusters

COMMERCIAL

- **Office Parks**
- 2. Corporate Offices

Case Study: Vodacom TZ

LEISURE

- 1. Hotels (key sales)
- 2. Resorts/Timeshare
- 3. Themed Parks
- 4. Casinos

Case Study:

HDL

PUBLIC DEV. - PPP

- 1. Hospitals
- 2. Airports
- 3. Toll Roads
- Other

Case Study:

PPP Accommodation

RETAIL

- **Shopping Malls**
- Neighborhood or convenience shopping
- 3. Line, Value Marts, etc.

Case Study:

Neighborhood Shopping

INDUSTRIAL

- **Light Industrial**
- 2. Warehousing
- 3. Other

NICHE PROJECTS

- **Retirement Villages**
- **Wellness Centers**
- 3. Cemeteries
- 4. Frail Care/Clinics
- **Marinas**
- Etc.

MIX USE

- 1. Life Style
- 2. Mix Use Developments

Case Study:

Melrose Arch / Vanilla Solution

Case Studies

1 - Cluster Development

Devonshire Estate

Acquisition

Financing

Rezoning

Design

Sales

Transfer

2 - Retirement Village

Lynnwood - Pretoria

Acquisition

Feasibility

Rezoning

Design-SDP

Design Units

Sales

Transfer

3 - Mix-Use Development

Melrose Arch

Site Assembly

Cadastral

Bulk Allocation
Bulk Disposal

Massing Exercise
Transfer of Title

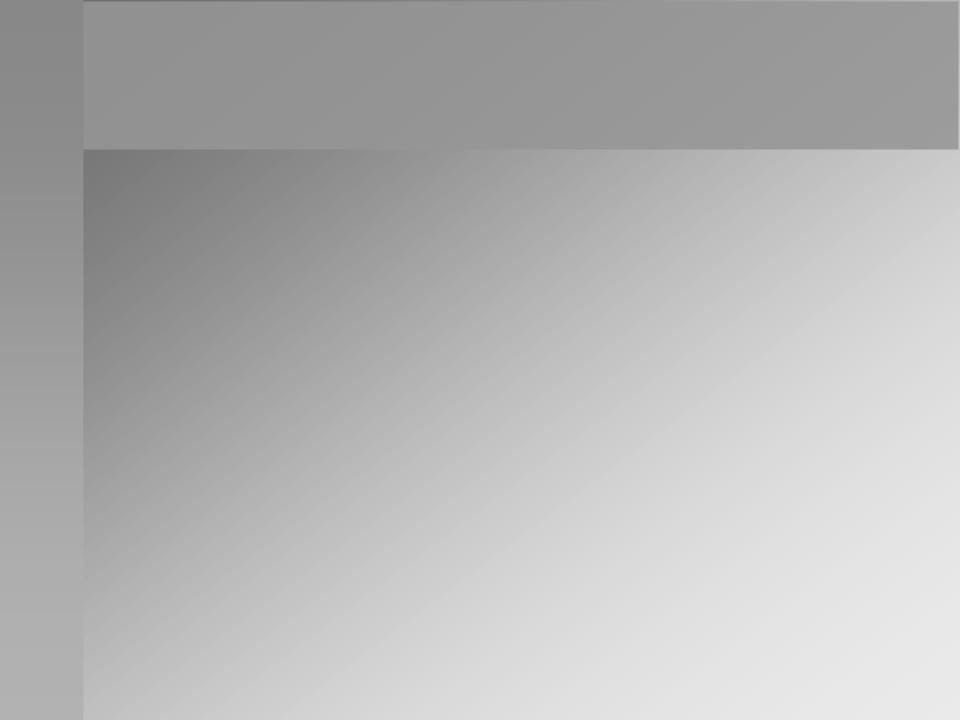
Melrose Arch

Project ManagementThe Future Challenges

THE END

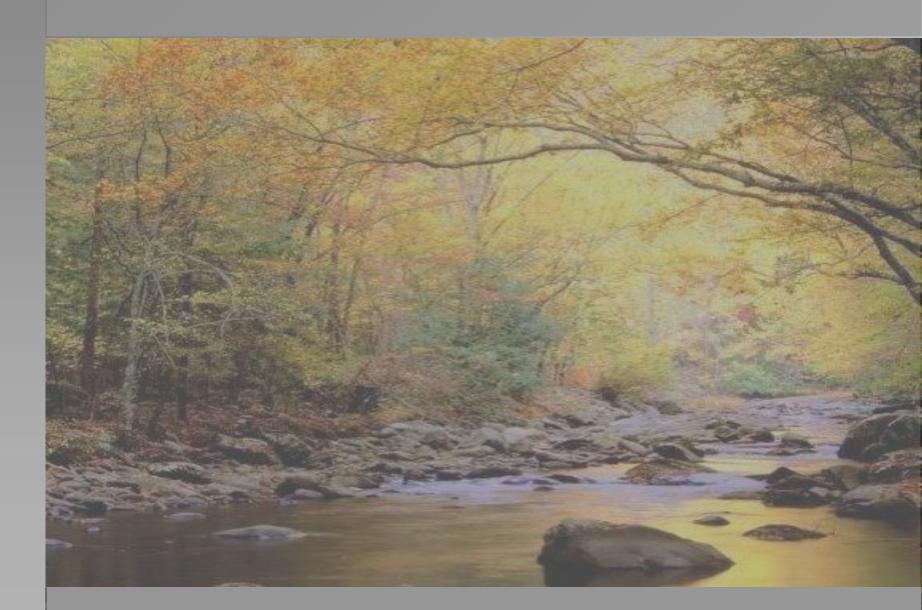
Martin C. Argimon (Pr.Arch) School of Construction Economics WITS University





The Retirement Village

Basic Development Concepts



Retirement Village Project Brief

AGENDA

- 1. Why do people move to a Retirement Village?
- 2. How to structure a Frail Care Facility
- 3. Units Analysis
- 4. Land Area Analysis
- 5. Support Facilities Frail Care
- 6. Comercial
- 7. Medical Suites
- 8. Wellness Centre
- 9. Project Phases
- 10. All Business Units

Retirement Village Basic Concepts

Why do people move to a retirement village?

- 1. Remain independent from their children
- 2. Security in times of sickness
- 3. Free from domestic and other responsibilities
- 4. Need to be near family and friends.
- 5. The long term success of any retirement village is reliant on the existence of frail care services. It is the best pull factor.

How do you structure frail care services?

- 1. High income market: tailored according to the client's needs. Frail care expenditure as variable. You can negotiate the level of care required.
- 2. The internal take-up rate for beds in your frail care unit will be slow initially.
- 3. Remember: Geriatric care is high on touch and low on technology, you cannot provide a rehab service in a frail care environment without investing on technology.

Retirement Village Basic Concepts

On what basis do people occupy units?

- 1. Frail care units usually belongs to the retirement village. Rooms in the frail care unit are rented out on a monthly basis.
- 2. The community centre also belongs to the retirement village.
- 3. Cottages can either be sold or rented.
- 4. Selling can be on a sectional title or full title basis. Share block schemes are not advisable.
- 5. If units are rented out, a popular method is long term rental through Occupational Life-right.

Retirement Village Architecture & Design concepts









Retirement Village Business Units - Project Brief

IRENE						
Schedule 1 : Area Analysis - All Bu	usiness Uni	its (Construction &	Coverage)			End
Rev. 0						77
						11
Business Units	Units	Sub-Total Gross Construction Area	FootPrint Areas	Developer's Footprint Areas	FGC FootPrint Areas	NOTES
Retirement Village - Cottage Units	m2	26380	78575	78575		
Retirement Village - Townhouses	m2	6468	15000	15000		
Support Retirement Village	m2	5,465	10930	10930		
Wellness Centre	m2	1432.8	1432.8	1432.8		
Medical Suites	m2	1908	3816	3816		
Office Park	m2	4032	10000		10000	
Art Village & Fair	m2					Open Area around the Retail Promenade
Amphitheatre	m2					Open Area around the Retail Promenade
Retail Promenade	m2	1286.4	2750	2750		
Heritage Hall	m2	400	800		800	Existing Facilities to remain
Memorial Park	m2					Landscaped gardens
Chapel	m2	400	800		800	Existing Facilities to remain
Bed&Breakfast / Hotel	m2	650	1200	1200		
Livery Stables	m2	400	2500	2500		
	m2					
TOTAL	m2	48822	127803	116203	11600	
Current Approximate Total ERF Area	m2		200000			
Residual ERF Area After Zoning	m2		72197		72197	



The Wellness Centre & Spa



Mind

- Physiology
- Psychology
- Life Skills
- Relaxation
 Techniques
- Counselling

Soul

- Chapel
- Meditation
- Area of Quite
 - Garden of Remembrance
 - Guidenace

Body

Biokenetics
Rehabilitation
Physio
Stepdown Facility
Hospice
Chronic Care
Acute Care
Overnight Facility

Body/cont.

Family Practitioner
Dietician
Sports Physilogist
Sports Massage
Hospice
TechnoGym
Pilates
Full Medical Test

- ☐ This Facility will serve the Retirement Village as well as the General Community
- □ Patients would be cared for in a 50 bed "Hotelling" Facility with Consulting rooms of aprox. 2,000 m2



The Wellness Centre & Spa

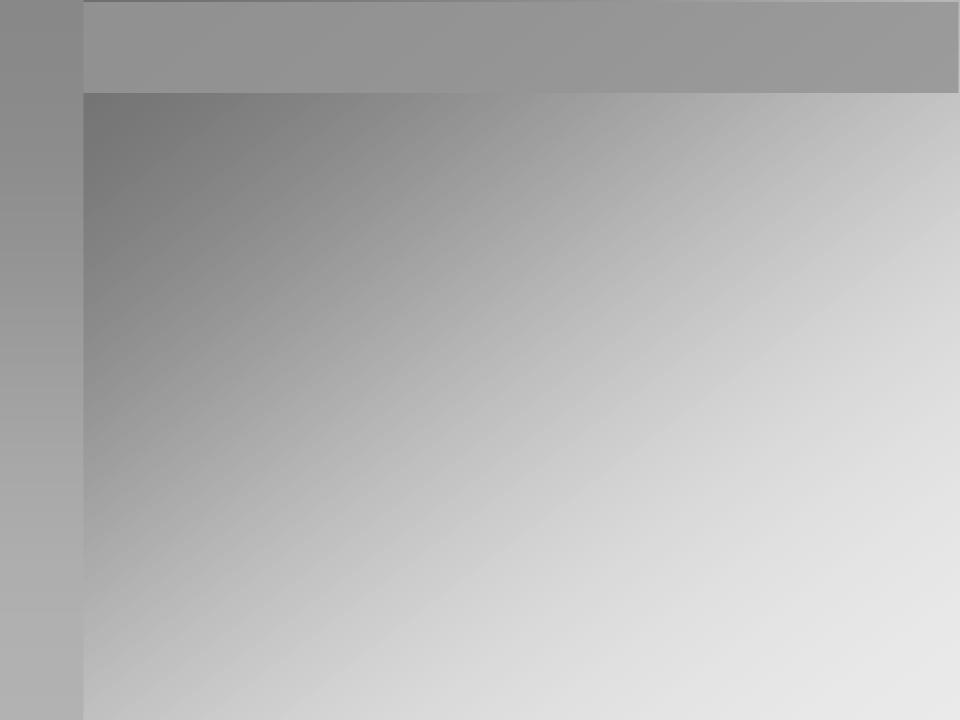


Wellness Program

Many of us lead fast-paced, stressful lives. Lifestyle diseases are on the rise, and it's becoming increasingly more difficult to "move more and eat less" in this advanced world.

- " Aims to reduce medicine usage and restore achievable health"
- Multidisciplinary Approach designed for patients' individual needs by counselling with:
 - Dietician
 - Psychological Profiling
 - Biokinetic Assessment
 - Weight & Training Program



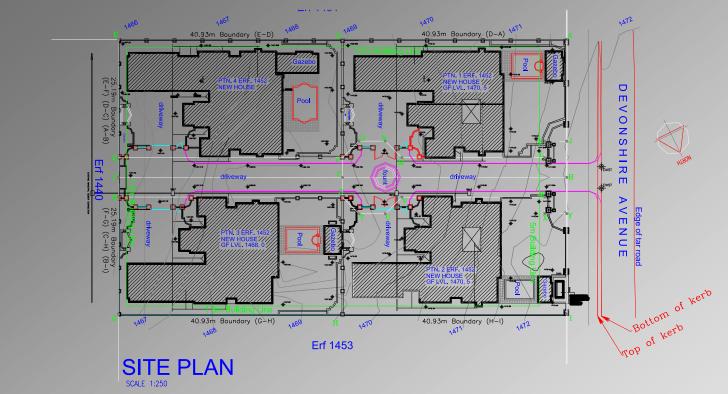


Residential Cluster Development

Business Plan & Basic Principles



Cluster Homes Development Bryanston



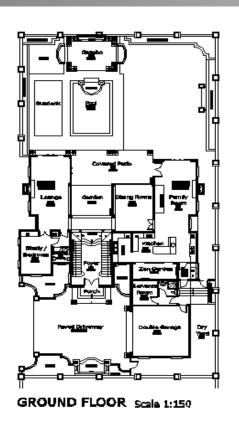




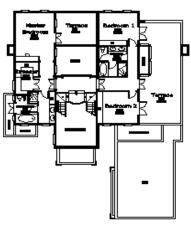


Residential Cluster Development

Business Plan & Basic Principles







FIRST FLOOR Scale 1:150

Cluster Homes Development Bryanston

ONSHIRE CLUSTERS																		
le AB : Variation Orders																		
First Issue for review with client																		
9/10 20:21																		
	VAF	VARIATION ORDERS				Ш			PC ITEMS				DIRECT CONTRACTS					
				Credit to			TIMS Allowance (_	Amount paid by	Amount paid by						
HOUSE BAMFORD	Item	Rate	Owed by client	Credit to client	Difference	Notes	Allowance (Includes VAT)	Final Cost	Difference	Notes	TIMS	Client	Item	Rate	VAT	Amount	Reference #	NOTES
	_																	
DESCRIPTION																		
1 Maids Window No items																		
2 Cornices			2,713.94														Barrel 16	
Additional request			2,713.94			1											Bamf 1	
3 3 Phase Power Supply Upgrade DB to handle 3 Phase Power			1,100			Н												
4 Electrical Installation Extras Various			12,770.74														Barrif 2	
5 Undefloor Heating No additionals																		
6 Tilling P.C. Amount (Supply & Install) Rate R220/m2 P.C. Amount (Supply & Install) Rate R160/m2 P.C. Amount (Supply & Install) Rate R140/m2 P.C. Amount (Supply & Install) Rate R80/m2						17											Ramil 12	
P.C. Amount (Supply & Install) Rate R160/m2 P.C. Amount (Supply & Install) Rate R160/m2 P.C. Amount (Supply & Install) Rate R160/m2						'3 '3											Barrf 13 Barrf 13 Barrf 13 Barrf 13	
						*3											Barrf 13	
7 Sanitaryware All Taps to owner's Specification, plus all sanitary fittings							34,477.29		-34,477.2	9							Bamf 8	
fittings Shower Doors as per Sanitary Schedule							15,000	(-15,00								Barrif 8	
9 Kitchen & Cupboards																		
Kitchen & Cupboards Kitchen Units Vanities							65,000 16,800	9	-65,00 -16,80	0							Bamf 9 Bamf 9 Bamf 9	
Bedroom Cupboards						П	45,000		-45,00	0							Bamf 9	
0 Wooden Flooring Screed Infills			4178			Н											Bamf 7	
Structural Engineer's fees			1500														Barrif 7 Barrif 6	
1 Paving No Additionals																		
2 Balustrade Exterior							10,600		12,23									
Additional amount from Allowance 3 Security Installation							10,600	22,836.10	12,23	6							Bamf 10	
No additional requirements						Н												
4 Stormwater Additional No Additionals																		
5 Gates Courtyard																		
Additional Cost from Allowance							12,200	21,472	9,27	2							Barrif 11	
6 Staircase Changes to Staircase			4,260														Bamf 4	
7 Architraves & window sills ledge No Architraves and window sills required			0			*2											Barrif 12	
S Doore & Windows						Н												
Fan Light inb Maids Bedroom Credit re. Roller Shutter door			0	13,599		14											Barrif 14 Barrif 15	
9 Fireplace Surround																		
No additionals Plumbing																		
No additionals						Н												
11 Structure Maids Shower wall																		
New Window Bathroom # 4			946 1,830														Barrif 3 Barrif 4 Barrif 4 Barrif 5	
Extractor Fan Increase in Swimming Poll size			2,750 3,850														Bamf 4 Bamf 5	
2 Appliances																		
Allowance by Developer in Specification Schedule				15,000														
SUB-TOTAL COSTS			R 37,579				R 199,077	R 44,308	R 154,76	9	R 0					R 0		
Architect's & Q.S's Fees (Mgmt ,Coord & Dwgs) @ Disbursements (additional prints & copies)	15% 10%	(On fee)	R 5,636.80 R 563.68		R 5,636.80 R 563.68							R 0.00 R 0.00						
GRAND TOTAL V.O.'s					R 15,180							R 0						
FINANCE CHARGES TO AUGUST 06					R 22,642													
					11 22,042													
GRAND TOTALS					R 37,822													

Residential Cluster Development Business Plan & Basic Principles

Various Project Documents

- **Services Agreement**
- Schedule of Draws
- Occupation-Health & Safety Act
- Conditions of Establishment
- Waiver of Builder's Lien
- **Other**

