



Department: Public Works REPUBLIC OF SOUTH AFRICA

National Department of Public Works

SKETCH PLAN COMMITTEE MANUAL

VERSION 10.1

October 2016

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1. **DEFINITIONS**

- **1.1 Client/ Client Department** shall mean all the Central Government Departments on whose behalf the DPW may erect buildings, refurbish and repair and renovate buildings for their operational needs
- **1.2 DPW** shall mean the Department of Public Works who will be responsible for the appointment of consultants and the consultant team will receive their instructions from the departmental Project Manager
- **1.3 DPW PM** shall mean the Department of Public Works Project Manager appointed to manage the project in terms of time, cost, quality and BEE and who will issue instructions to the consultant team on behalf of the Department
- **1.4 EIA** shall mean the Environmental Impact Assessment document compiled in terms of the relevant legislation
- **1.5 HIA** shall mean the Heritage Impact Assessment document compiled in terms of the relevant legislation, being Act 25 of 1999. This act binds the State
- **1.6 HO** shall mean NDPW Head Office
- **1.7 KAM** shall mean the Key Account Management Branch in DPW that will be the main line of communication with the Client Department
- **1.8** LA Landscape Architect professionally registered as per South African Landscape Architectural Professions Act (Act Nr 45 of 2000)
- **1.9 LDP** shall mean the Landscape Development Plan that documents the landscape sketch plan design in the format as stipulated herein after
- **1.10** LDR shall mean the Landscape Development Report that documents the motivational study to the landscape sketch plan design as stipulated under the landscape architectural requirements
- **1.11 NBR** shall mean the National Building Regulations promulgated and updated from time to time under the National Building Regulations and Building Standards Act, 103 of 1977 as amended from time to time
- **1.12 PA** shall mean the Principal Agent that will act as the lead consultant appointed to coordinate the development and integration of the design by the consultant team in terms of the brief supplied and appointment conditions. When a consultant Project Manager is appointed he/she will be responsible to execute all duties referring to the Principal Agent in the document
- **1.13 RAMP** shall mean the Repair and Maintenance Program for the duration of this program
- 1.14 RO shall mean NDPW Regional Office

- **1.15 SAHRA** shall mean the South African Heritage Resources Agency which is the National Heritage Authority. Local Heritage Authority shall mean the provincial and or City Council Heritage Authority such as Heritage Western Cape etc.
- **1.16 SANS** shall mean South African National Standards
- **1.17 SP/s** (Sketch Plans) shall mean design documentation prepared for approval of stage 3 of the architect's or preliminary design stage of the engineer's appointment
- **1.18 SPC** shall mean the Sketch Plan Committee (Head Office or Regional Office) formed departmentally by the various professional levels of expertise required for the project
- **1.19 SPCM** shall mean the Sketch Plan Committee Meeting held by the SPC for scrutiny of the SPs in terms of the DPW project management delegations of as amended from time to time

2. INTRODUCTION

This Sketch Plan Committee Manual has been prepared to inform departmental Project Managers (DPW PM), Principal Agents (PA) and the Consultant Teams, about the development and submission processes of Sketch Plans (SP) to the Sketch Plan Committee (SPC) for acceptance. The various disciplines' consultant manuals must also be consulted

This manual mainly covers the following:

- (a) Request for allocation of Professional Services officials to advise on specific projects
- (b) Interaction between Professional Services officials, DPW PM and the Consultant Team
- (c) SPC submission requirements
- (d) SPCM format and terms of reference
- (e) Delegations and roles and responsibilities in respect of SP approval

Should there be discrepancies with consultant manuals in terms of the submission of SPs, the Sketch Plan Committee Manual shall have preference. Where discrepancies are noted, the DPW PM must be notified in order to ensure rectification. The interaction advised on projects with officials before submission of SP's is to maximize the success rate of submissions. Once the submission complies with the requirements, all parties will be advised of the meeting by the circulation of the agenda by the office of the chairperson, the week before the SPC meeting

This manual specifies the various disciplines' requirements to enable sign off of the recommendations. Incomplete submissions and/or uncoordinated designs may lead to re-convening the SPC meetings for the same projects The Chairperson may decide to turn any SPC meeting into a technical co-ordination meeting

The DPW PM must ensure compliance of the submission with the requirements in the SPC Manual

Interaction with departmental counterparts prior to the submission of the documentation for SPCM is compulsory to ensure guidance for the development and integration of design concepts. It is the duty of the PA to ensure compliance with this compulsory step

3. DELEGATIONS

3.1. Citation

Please find an extract of the Project Management delegations as revised.

AMENDED DELEGATION 4.1

4.1 Approval and amendments of: a) sketch plans, in the case of building project, or b) preliminary design report, in the case of engineering project or c) landscape development plan and report in the case of landscape project.

development plan and report in the case of landscape project.						
Lowest Level of Allocated Power	Maximum Financial Level of Power	Condition(s) Pertaining to Exercising of Power				
D/Project & M D/Prof Services D/Proj Man Sup D/Spec Projects TM	Unlimited	Upon opinion expressed by a Sketch Plan Committee (conditional to the general Notes and Conditions below).				

General Notes and Conditions

1. Sketch plans and/or preliminary design reports of all projects consisting of

- a) new work,
- b) upgrading, new additions or alterations to existing buildings /installations /engineering infrastructure/ landscape/ other
- c) Repair and renovation, or
- d) RAMP (for the duration of this type of project)

must be subjected to the scrutiny and comment of the Sketch Plan Committee as outlined in the table below:

Work Type	Category	Sub Category	Monetary Parameter	Minimum Level Committee to consider design proposals			
New work	A	A1	R0 – R0.5M	4			
		A2	R0.5 – R10M	3			
		A3	R10M – R20M	2			
		A4	R20M & above	1			
		A5	Master Planning	1			
	В	B1	R0 – R2M	3			
		B2	R2 – R20M	2			
		B3	R20M & above	1			
Repair and	С	C1	R0 – R5M	4			
Renovation		C2	R5M – R20M	3			
work		C3	R20M & above	2			
RAMP (for the	D	D1	R0 – R5M	3			
duration of this		D2	R5M – R20M	2			
type of project)		D3	R20M & above	1			
*see legend and explanatory notes at the end to be able to read this table –							

- 2. If serious or far-reaching comments were made by the SPC and the Professional Team was required to re-submit an amended/revised design, such amended/revised design must first be completed before final approval stages, referred to below, can be considered. PM to submit revised documentation for a further round of scrutiny at the SPC
- 3. The final approval power (delegated power as above) must only be executed subject to the comments by the SPC, design documents being in compliance with the prescribed space norms and cost limits, funds being available and the Client Department having expressed its satisfaction and granted written approval on the drawings/report
- 4. Approvals given against advise of Professional Services/ SPC will be at the risk of the approving authority in terms of this delegated power
- 5. Later amendments to design proposals, after design has been approved, must not be of such extensive nature that the project constitutes a new project or new design and may not exceed 5% of the project estimate. PM to supply full motivation as to the necessity for the amendment. Amendments may not violate space norms and cost limit set for the project. If the 5% margin stated herein is exceeded, the comments of the SPC are to be obtained again

Amendment to delegation 4.1 as contained the document entitled: DELEGATION OF POWERS, DUTIES AND FUNCTIONS WITH REGARD TO THE MANAGEMENT OF SITE CLEARANCE-, BUILDING-, LEASING- OR ENGINEERING PROJECTS, VESTED IN THE DIRECTOR-GENERAL BY VIRTUE OF HIS ROLE AS DIRECTOR-GENERAL / ACCOUNTING OFFICER OF THE DEPARTMENT OF PUBLIC WORKS.

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Work Type	Category	Sub Category	Monetary
			Parameter
New work	Α	A1	R0 – R0.5M
	Green field construction	A2	R0.5 – R10M
	(complete new building of infrastructure	A3	R10M – R20M
	(or Master Planning of an area/site incl.	A4	R20M & above
	existing facilities)	A5	Master Planning
	В	B1	R0 – R2M
	To existing facility	B2	R2 – R20M
	(upgrading and/or refurbishment resulting in	B3	R20M & above
	substantial changes to existing		
	buildings/engineering installations)		
Repair and	C	C1	R0 – R5M
Renovation	Repair/replace what is broken / dysfunctional/	C2	R5M – R20M
work	bringing the immovable asset back to its	C3	R20M & above
	original appearance		
	(without effecting any substantial changes to		
	building appearance, circulation, air flows, etc.)		
RAMP (for	D	D1	R0 – R5M
the	Repair/replace what is broken / dysfunctional	D2	R5M – R20M
duration of	and pro-actively maintain for a certain fixed	D3	R20M & above
this type of	period		
project)	(without any new work included in the project)		

Criteria 1: One part of the criteria that cannot be relaxed is the need to have all disciplines represented on such Committee if the project entails the full spectrum of activities. These are: Architecture, Landscape Architecture, Quantity Surveying, Civil-, Structural-, Electrical-, Security and Fire (Safety) and Mechanical Engineering and Town Planning

Criteria 2: Relaxation is only permitted if certain work is not part of the project e.g. if no mechanical work is part of the contract, a representative from the mechanical discipline will not be required to attend the SPCM, etc.

Criteria 3: It must be accepted that some of the SPCs (either Head – or Regional Offices) will not have professional staff for all disciplines sitting on the SPCs, and that some technical staff will not have the full competency to pronounce on all matters relating to a project (especially on structural and civil engineering matters)

Mindful of the criteria outlined *supra*, the following levels or categories of SPC can be convened:

Level 1 Committee

Departmental representation for the required disciplines is from **all professional staff members** in Professional Services Units. HO is deemed to be a Level 1 Committee

Level 2 Committee

Departmental representation for the required disciplines is a combination of professional and technical staff members i.e. a mixed compilation - (where professional staff members in the Professional Services Units, however, are presently employed in an Office, such members must be part of the SPC). Assumption herein is technical staff with appropriate training and experience in the discipline they represent

Level 3 Committee

Departmental representation for the required disciplines is by **all technical staff members**. Assumption herein is technical staff with appropriate training and experience in the discipline they represent

Level 4 Committee

Desk top procedure i.e. **no formal SPC meeting** but written comment is obtained (which can be in the form of written notes on the drawings) from relevant professional and/or technical staff^{**} in the Office from where the project is executed. In order to expedite delivery on small, low risk projects in cases where an Office does not have access to professional or technical staff in a specific discipline, the D/Projects and Maintenance may, on recommendation of the Project Manager, accept a design proposal without comment mindful of risks taken in the process

[**For purposes hereof professional and/or technical trained staff members can be drawn from spheres other than the Professional Services Units – i.e. from the PM-cadre, Works Management cadre, Property Management, etc.]

General rule for acceptance

Where insufficient competence exists either in total or per discipline in the ROs the Head of Projects may call on HO for assistance

Minimum level sketch plan committee

The second last column of the table in the delegation outlines the **minimum level** Sketch Plan Committee to scrutinise and comment on design proposals. Higher category Committees may scrutinise lower category works but not the other way round. Should an Office not be able to convene a Committee representing **all** the disciplines that are required, a partial Committee can be called together on all work categories except A3, A4, B3 and D3, provided written comments have been obtained from the particular Head Office Professional Services discipline(s) of which a member for the Committee is not available within a such an Office prior to the convening of the Committee. **An Office may also solicit the services of a professional service provider from the private sector on a term contract basis** (awarded on the basis of a tender process) to take a seat on the Committee for a period of time in the place of a departmental representative for a discipline that such Office does not have the necessary resource, subject to the principle that such professional service provider may not participate in a SPC meeting if a project to which he/she has been appointed is to be commented on

Town planning comments

As Regional Offices normally (with some exceptions) do not have Town Planners in their employ, a copy of the sketch plans is to be mailed to the D/Town Planning services at Head Office for written comments/comments in the form of written notes on drawings, which comments are to be returned to the PM by mail

3.2. CLARIFICATION

a) The personnel executing projects must act in terms of their delegations and the duties that should be fulfilled, which are outlined above

Approval and/or amendments thereto of sketch plans and the preliminary design report and drawing(s) are delegated to the Directors: Projects or Special & Major Projects. The approval is subject to the conditions above

- (b) The PA must act in terms of his appointment and interact and co-ordinate with the DPW PM as well as the other consultants
- (c) All consultants must act in terms of their appointments and liaise with the PA during the execution of their duties through DPW PMs
- (d) The opinion passed by the SPC is given in the form of a recommendation captured in the minutes of the meeting, which the DPW PM can present to his/her responsible Director. The approval given by the Director should not be construed as having relieved the consultants of any of their duties and/or responsibilities in terms of the conditions of their contracts with the department
- (e) For new Repairs & Renovations, Additions etc. projects the SP documentation will be based on the Status Quo Report and Procurement Instructions based on acceptance of scope and budget approval by the Client Department. The certification of a competent DPW PM/ Works Manager of the true reflection of the work that is required is proposed. Guard against unnecessary specification of repairs on these projects

The appropriately skilled SPC must assess the submission and the delegated Director must approve once the SPC recommends approval. The Chairperson of the SPC may make a recommendation for approval to the delegated Director once signed PM forms have been signed off. The Chairperson of the SPCM may make this recommendation regardless whether a SPCM was held/ not, depending on the project.

- (f) No sketch plan approval is required for the following types of projects:
 - 1. Facilities Management contracts
 - 2. Service contracts for a term, i.e. for a/c plants, lifts, substations, etc.
 - 3. Maintenance work at specialist installations/ sites such as the scientific basis at Marion Island, Gough Island and Antarctica
 - 4. Resurfacing of roads, Parking areas, etc.
 - 5. Replacement of same equipment i.e. distribution boards, A/C units, etc.
- (g) Desk Top approval for the following type of projects are allowed as per the delegations:
 - 1. Disability projects with a value of under R500 000
 - 2. Repairs and renovations with no change in use with a value of under R5m and where like is replaced with like

4. TERMS OF REFERENCE OF THE SKETCH PLAN COMMITTEE

The DPW PM has to comply with the afore-mentioned delegations for SP approval for projects, before proceeding to the following phase of documentation

 a) Acceptance of the sketch plan stage of projects will be formulated in the form of a recommendation from the Chairperson of the SPCM on which the responsible Director: Special Projects (Head Office) or Director: Projects (Regional Office) can base his/her decision to approve the SP or not

The PA has to ensure that all professionals on the project team have engaged with their DPW counterparts well before the SPCM and that an integrated design proposal has been submitted, whereby the inputs from all the professions have been collated in the design documentation of the Architect

- b) The SP submission (drawings and preliminary design reports) will be assessed based on the available information at SP stage for compliance with:
 - 1. Approved Procurement Instruction (including space norms, costing, special requirements and availability of funds)
 - 2. Town planning, EIA and other environmental requirements
 - 3. Client requirements and acceptance
 - 4. Departmental requirements and National Building Regulations inclusive of energy and water
 - 5. Functionality of the design
 - 6. Buildability and materiality
 - 7. Heritage requirements (HIA if applicable)
 - 8. Value for money
 - 9. Cost estimates
 - 10. Space reconciliation between proposed and requested
 - 11. Integration of various disciplines' designs
 - 12. Disability access & facilities
 - 13. Energy efficiency and sustainability
 - 14. Appropriate spatial integration as far as immediate adjacent and internal landscape spaces as well as public open space thresholds and interfaces are concerned
 - 15. A sustainable, contextual and appropriate landscape architectural response by a professionally registered landscape architect

The terms of reference of the meeting is to establish whether the consultants' design is sufficiently advanced to be accepted as having complied with the minimum requirements of the relevant work stage. Approval of the SPs by the delegated authority will entitle consultants to payment for that stage of their work

5. ROLES OF ATTENDEES OF THE MEETING

5.1. The User Client Department/ User Department

The client is the Department of Works/ Property Management Trading Entity and the user client/ user department is the department for which the facility is designed and who normally is the occupier (i.e. SAPS, Justice, etc.) of the building. The client department must sign off the architect's stage 3 drawings, indicating approval of circulation, room sizes and the positioning or grouping of rooms. If the client department cannot attend the SPCM, their signed drawings must be supplied at the meeting. This approval by client departments should in no way be construed as approval by DPW. Technical matters still require scrutiny by the professionals of the Department. The PM must ensure that the client representative with the relevant delegated authority signs off the documentation. In most cases, the clients have infrastructure specialists/units at their Head Office that have the delegated authority to sign off the design

5.2. The Departmental Project Manager

The PA informs the DPW PM that the work of the architect and the consultants is sufficiently progressed to warrant a SPCM. The DPW PM, after verifying the status then requests the PA to arrange the packaging and submission of the SP in terms of the SPC Manual

Site clearance issues should be ascertained by the DPW PM prior to the appointment of consultants. The available document should be compared with actual conditions on site, before the consultants start with their work. Should any anomalies be found, these need to be taken up with the Director: Town Planning at Head Office without delay

Any recommendations by the SCPM are to be implemented by the consultant team and the DPW PM should verify changes made to documentation in accordance

5.3. The Consulting Architect

The architect's work should be in line with the work stages 3 as set out in the Departmental Architect's Manual and the contract with the Department (Letter of Appointment). Guidelines in this document must be adhered to. The work of the other consultants must be reflected in the work of the architect i.e. position of roads, air-conditioning units and the like. The work of the architect must be detailed to include sufficient information for the quantity surveyor to measure i.e. cupboards, kitchens, screens and the like. Note that provisional sums, lump sums, monetary allowances and the like will no longer be permitted in quantity surveying documentation, as all items should be adequately designed to be measured by the QS

5.4. Consultants (various disciplines)

The consultants are expected to interact with their professional counterparts in the DPW SPC for the particular project, until satisfaction has been reached on the design prior to the SP taking place. The consultation is to be via the DPW PM or as agreed with him/her. Typically but not exhaustively, the disciplines involved in a building project would involve the following professions in the DPW SPC:

Architects, landscape architects, quantity surveyors, civil, structural, electrical and mechanical engineers, town-planners and the DPW PM. Other disciplines, such as security specialists, acoustic engineers, etc. may be appointed from time to time The PA should obtain a list of professional services officials (see PM 006(1))

The PA should obtain a list of professional services officials (see PM 006/1), allocated to the project from the DPW PM, in order to facilitate professional inputs between them and the Consultant Team

It is expected of each consultant to obtain all information necessary (guidelines/specifications/handbooks etc.) to execute his/her professional duties in terms of his/her appointment, prior to the date of the SPM. All legislation pertaining to the professions and the built environment as well as the specific work relating to the project shall be complied with

5.5 **Principal Agent (PA)**

It is expected of the PA (typically the consulting architect) to ensure that the consultants have liaised with their professional counterparts at the DPW and that the resulting information is made available to him/her for incorporation in his/her documentation. All designs and comments are to be integrated into the final SPCM submission

The work of the Consulting Architect/ Principal Agent is as set out in the appointment letter and includes, but is not limited to, the following:

Before detail design submission for SP submission is to be made comprising the following actions and documents:

- It must be ascertained from the DPW PM whether the funding, site clearance and Procurement Instruction are all in place, along with a needs assessment furnished by the user client that matches the PI
- A project execution plan (PEP) must be furnished by the PA and the work of his own firm, as well as the work of the other consultants must be evaluated for progress against the PEP. This information must be shared with the Department's Architectural Services, in order to monitor the progress and competence of the appointed consultants
- At the start of preliminary design stage (Stage 2) it is critical that the DPW PM and consulting team clarify, agree and record the required scope of works developed from the inception stage (Stage 1). Furthermore the scope of works clarification must specify each consultant's scope of works and how it interacts with the other consultants' scope of works
- During preliminary design stage (Stage 2) the required scope of works must be reviewed and if needed updated on an ongoing basis
- Submission and review of preliminary designs is a critical stage of the project, as approval is required from the DPW PM for the consultants to proceed with detail design. Each consultant must submit their preliminary designs to the DPW Counterpart/ term consultants for preliminary design review. Thereafter the DPW PM, consultant team and if needed by the DPW PM the DPW Counterpart/ term consultants must meet to review, confirm and record approval of preliminary designs for detail design development

This process thus reduces the risk of misunderstandings regarding the scope of works and paves the way for the Sketch Plan Meeting

At submission of detail design for SP recommendation the DPW Counterparts/ Term Consultants will thus be empowered to have an understanding of the project and required scope of works. This will assist in the review process and reduce changes required

6. SUBMISSION REQUIREMENTS

6.1. Submission address, dates and list of PM forms a) Submission to the SPC Meeting

DPW PM to complete PM forms

Submissions to be made for attention:

Chairperson of Sketch Plan Committee

(Att HO: Director: Architectural Services and at RO: Head of Projects)

b) Submission Times and Dates

Notification of the meeting date will be forwarded to the PM once the submissions complies with the requirements of this manual. Sufficient time must be allowed to ensure that the DPW counterparts can properly scrutinise the documentation submitted and engage with the consultants.

c) List of PM forms for SP development and SPC submissions

PM	Description of the form
PM 006-1	Allocation of Professional Services staff (2 pages)
PM 006-2	Principal Agent (Sketch Plan Check List)
PM 006-3	Distribution Page of set Documentation to Chairperson
PM 006-4	Architect submission
PM 006-5	Civil Engineer submission
PM 006-6	Structural Engineer submission
PM 006-7	Electrical Engineer submission
PM 006-8	Mechanical Engineer submission (Air conditioning and other Mechanical
	Installations)
PM 006-9	Mechanical Engineer submission (Safety & Security)
PM 006-10	Quantity Surveying Services submission
PM 006-11	Town Planning Services documentation
PM 006-12	Landscape Architect's submission
PM 006-13	Heritage Advisory Services documentation
PM 006-14	Other Consultants Disciplines submission
PM 006-15	Sketch Plan Approval by Dir: Projects (RO) or Dir: Special Projects (HO)
PM 006-16	Sketch Plan Approval by Dir: Projects (RO) or Dir: Special Projects (HO)
	(No SPCM)

6.2. Convening of the Meeting

- a) The PA (typically the architect) informs the DPW PM that the consultant team has liaised with the Departmental counterparts and that all counterparts have found the documentation acceptable to proceed to SPCM. The PA will complete relevant forms in the manual and ensure the required formats and packaging requirements have been complied with
- b) The PA further has to report to the DPW PM that he is satisfied with the outcomes of the liaison process and that a SPCM may be convened
- c) The DPW PM will assess the submission received for compliance
- d) The Chairperson requires sufficient time to coordinate the meetings and to notify officials for attendance. Notification of the meeting date will be forwarded to the DPW PM, who will notify the consultant team and the Client representative
- e) The SPC is chaired by the Director: Architectural Services or a delegated architect at HO and alternatively, by the Director: Projects or delegated architect at the RO. For the engineering projects, the Director: Projects at the RO or HO or the delegated professional engineer will chair the meeting. If the project is an engineering project it must be indicated accordingly on the covering correspondence
- f) The Director: Architectural Services/ Director: Projects / Chairperson of the SPCM retains the prerogative to determine the agenda and the course of the meeting

6.3. Submission Detail

The following documentation aims to assist in the compilation of the SP submission to ensure compliance

6.3.1

Allocation of Professional Staff to the Project Note: To be completed by the DPW PM. Approved Procurement Instruction must accompany the request Request to be forwarded to Ms Mamalo Motsoeneng for HO Projects

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РК	CJI	E!		
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WCS NO :

REFERENCE NO:

REGIONAL OFFICE (Where applicable):

		Name	Tel	Fax		Cell	E-mail address			
Departmental PM										
Principal Agen	t									
Regional KAM										
Head Office K	AM									
The allocation	The allocation of personnel to this project is hereby requested									
The following of	disciplines	, as marked below, a	are involve	ed						
Architecture					Landsca	ape Architecture				
	Heritage	Architecture				Civil En	gineering			
	Structura	al Engineering				Electrica	al Engineering			
	Mechanical Engineering (Air conditioning)		-			Mechanical Engineering (Fire Safety & Security)				
	Quantity Surveying					Town Planning Services				
Dolomite Expert					Other (specify)					
NAME DPW P	roject Mar	nager		SIGN	ATUR	RE				
DATE	DATE									
For signature	For signature of Director: Projects /Director: Special Projects (where applicable)									
NAME				SIGNATURE						
DATE				DATE						

PM 006-1 (page 2 of 2)

Allocation of Professional Staff to the Project Note: After allocation of personnel to the project, this form will be forwarded to the DPW PM for distribution to Consultants DPW PROJECT MANAGER:

PROJECT:

WCS NO :

REFERENCE NO:

Allocation of NDPW Professional Staff						
Discipline	Name	Tel nr	Fax	Cell	E-mail	
Architectural						
Civil Engineering						
Structural Engineering						
0 0						
Mechanical Engineering						
(Air-Conditioning_						
Mechanical Engineering						
(Fire Safety & Security)						
(
Town Planning						
Quantity Surveying						
Dolomite Expert						
Landscape Architectural						
Heritage Architectural						
· · · · · · · · · · · · · · · · · · ·						
Other (Specify)						
		1		1	1	

Comment

NAME

Director: Architectural Services/ Projects

SIGNATURE

DATE

6.3.2.

PM 006-3

Distribution Page for set of documentation to Chairperson Note: To be completed by the DPW PM. For Engineering projects indicate clearly on the cover correspondence the predominant engineering discipline and attach the preliminary design to this document. For solely landscape architectural projects indicate clearly as such on the cover correspondence. For building and landscape architectural projects the following information must be indicated:

PROJECT:		WCS NO : REFERENCE NO:	
		Yes	No
1.	Full set of architectural sketch plan and/or LDP drawings are attached		
2.	Project has heritage implications		
3.	Heritage Authority Permit is attached		
4.	Client Department has signed the Sketch Plan and/or LDP		
5.	Client Department has supported the SP and/or LDP and will sign at the SPC meeting		
6.	Latest approved Procurement Instruction (PI) is attached		
7.	Project is designed in terms of DPW PI		
8.	Dolomite Status Certificate is attached		
9.	Note special soil conditions, EIA, Town Planning or other relevant conditions hereunder		

NAME **DPW Project Manager** SIGNATURE

DATE

Version 10.1 October 2016

PM 006-4

6.3.3.

Are	chit	tect	ural
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Counterparts to sign at the SPCM	
Consultant Architect to complete and sign this cover page	. Attach to the outside of the set of documentation. DPW

PROJECT:		WCS NO :		
		REFERENCE NO:		
		Yes	No	
1	Set of architectural drawings attached, list of drawings on next page			
2	Approved procurement instruction is attached			
3	Copy of all disciplines' documentation has been enclosed. (QS estimate; Mechanical Eng. report & drawings, Mechanical: Fire & Safety report & drawings, Structural Eng. report & drawings, Civil Eng. report & drawings, Electrical Eng. report & drawings, Landscaping architecture reports & drawings, Specialists designs relevant to this project)			
4	The Space reconciliation document is attached			
5	The completed PM 006/2 has been attached to this set			
NAME C	onsultant Architect	SIGNATURE		
FIRM/ COI	MPANY	DATE		
For comp	letion by the Principal Agent			
		Yes	No	
Co-ordinat done and a	ion between all disciplines have been all documentation aligned accordingly			
NAME		SIGNATURE		
FIRM/ COMPANY		DATE		
For completion by DPW Architect For Sketch Plan purposes the recommendation to the SPC Chairperson is ACCEPT/NOT ACCEPT the Sketch Plan design submitted				
NAME		SIGNATURE		
DATE				

6.3.4. Principal Agent SKETCH PLAN CHECK LIST

Note: To be completed by Consultant Architect. Indicate next to EACH item whether provided or not applicable

PROJECT:

WCS NO : ______ REFERENCE NO: ______

1.	SITE PLAN	4.	SECTIONS	
1.1	Site dimension	4.1	Dimensioned floor to floor and floor to ceiling height	
1.2	Building line setbacks	 4.2	Floor levels and adjacent natural and formed ground	
13	Contours at suitable intervals and spot		levels showing excavation and filling	
	levels of pavements and floors	43	Roof slopes and type of construction and covering	
14	North point	 44	Material and finish of walls, ceilings, floors etc.	
1.4	Prevailing winds	 7.7		
1.0	Street names		Door window finishing schedules	
1.0	Type of existing and proposed-	 5		
1.7	Poundary foreco, wells and gotes	J.	Comparative schedules of reams required with cross	
	Boundary rences, waits and gates	 5.1	Comparative schedules of rooms required with areas	
4.0	Retaining wans			
1.8	Existing buildings on adjoining sites likely to	0.		
	affect the design of new buildings		Has the scheme been discussed with:	
	Rights of adjoining owners	 6.1	Specialist Department	
	Need for lateral support, etc.	 6.2	User Department	
1.9	Existing buildings on site to be -	6.3	Divisional Engineer, Telkom, telephone requirements	
	Retained	 6.4	Local Authority for -	
	Demolished		Services	
1.10	Natural water courses with flood lines and		Town-planning requirements	
	levels		Fire fighting requirements	
1.11	Servitudes and Departmentally owned		Notification to Local Authority	
	service mains which -	6.5	Quantity Surveyor for costs	
	Cannot be disturbed	 6.6	Consultant and/or Departmental Specialist	
	Need to be diverted	6.7	Structural Engineer	
1.12	New buildings	 6.8	Civil Works for roads, drainage and storm water	
1.13	Site terracing, with treatment of banks	 6.9	Mechanical, for -	
	grassed, stone pitched, concrete retaining		Fire service	
	walls. etc.		Heating, ventilating, and air- conditioning	
1.14	Roads, paths, parking (incl. disabled).		Mechanical plant/equipment	
	paving			
	with finishes- gravel tarmac concrete etc	6 10	Electrical Emergency Generators for lifts	
1 15	Positions and denths of connection points of	 6 1 1	Chemical Technology: Process design of water and	
1.10	sewer storm water drain water and fire	0.11	sewerage treatment facilities	
	service	6 1 2	Dolomite Risk Manager	
1 16	Dolomite risk zonation	 6.12	FIA	
3		 6 1 /		
2.	Overall dimensions of new work	6 15	Local Authority Landscape Architect	
2.1	Treatment at junction of new and old work	 6.16	Departmental Landscape Architect	
2.2	Structural column grid	 7		
2.3	Structural column gnd	 7.	GENERAL	
2.4	Room dimensions and areas (tollets	7.1	Any other information likely to affect the Estimate	
	excepted), corridor widths	 7.0	(state)	
2.5	Engineering service rooms and ducts	 7.2	Sustainability: the following aspects been addressed:	
2.6	Position of sanitary and other fittings		Passive design principles	
2.7	Floor finishes		innovative proposals	
2.8	Furniture layout		Alternative energy sources (20% compulsory)	
3.	ELEVATIONS		Energy calculations	
3.1	General architectural treatment	 7.3	Co-ordination with other consultants also indicated in	
32	Principal materials		architect's work i.e. structure, air conditioning etc.	
3.3	Dimensions			

CERTIFICATION BY CONSULTANT ARCHITECT

The Department's instructions given in the letter of appointment, the "Architects' Manual", with annexures, and the items on this Check List and the "Schedule of Construction and Finishes, etc." have been studied by me/us and, where applicable, complied with. Items which have not been complied with, or for which alternative proposals are made, are as follows :

CONSULTANT ARCHITECT / PRINCIPAL AGENT

DATE

Version 10.1 October 2016

6.3.5. Architectural Documentation Required

(PM 006-2 to be read in conjunction with PM 006-5 for descriptions and information required. Principal Agent/Architect to arrange and compile a set of drawings)

GUIDELINES FOR DPW ARCHITECTS

- Check List for submission to the Sketch Plan Committee Chairperson
- Have all the planning aspects listed below been considered

BASIC INFORMATION TO BE CONSIDERED

1.0 TOWNPLANNING

- Land ownership
- Description of erf/ stand (erf no. etc.)
- Erf/ stand size (sq m)
- Current zoning
- Floor Space Ratio (FSR)
- Coverage
- Current height restrictions
- Land use
- Building lines / setbacks
- Orientation/ north point
- Street names
- Site location
- EIA Environmental Impact study and expiry date of Environmental Authorization
- Access to the site
- Aesthetics of the site
- Is the site big enough for the proposed development
- Indicate position of existing buildings on adjacent sites and their usage.
- Natural ground contours at suitable vertical intervals or levels at each corner of the site
- Bulk services

2.0 PHYSICAL SITE CONDITIONS

- Geological, geotechnical and topographical site conditions
- Previous use of site and rectification
- Site development difficulty grade
- Water table/ water on site from vlei/ marsh land or other sources

3.0 ENGINEERING & UTILITY SERVICES (Civil, Structural, Electrical and Mechanical)

- Municipal or Rand Water Board, or other water supply
- Borehole/ availability of potable water
- Municipal sewerage or sewerage plant
- Storm water (Municipal) or other
- Electricity
- Fire Services, fire escapes, staircases in general
- Lifts, goods lifts, Lifts for disabled persons, hoists etc.

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4.0 HERITAGE

- Status and implication
- Existing structures on site
- Existing trees and natural features
- Permit from Heritage Authority
- Statement of significance
- Heritage Impact Assessment
- 60 Year rule and/or other triggers

5.0 SECURITY

- SAPS
- NIA & others
- Access control
- Safes
- Cells and holding areas
- Electronic equipment

6.0 LANDSCAPE ARCHITECT

- Environmental sensitivity
- Conservation status
- Indicate surrounding streetscape (roads, kerbs, sidewalks and street trees)
- Indicate topographical/ site features (ridges, slope, watercourses, existing vegetation etc.)
- Involve Landscape Architect in site layout
- SACLAP registered landscape architect to prepare landscape development plan

7.0 OTHER CONSULTANTS

Examples of other consultants that could be required include Acoustic Engineers, Façade Engineers, etc.

7.1 Acoustic engineer

- Noise control internally and externally by plant growth, earth berms and screen walls
- Sound quality reverberation times, no of persons and other calculations
- Materiality co-ordination with architect's design

DRAWINGS REQUIRED

Locality Plan Clearly indicating the position of the site in relationship to its surroundings, with a description of buildings and usage of adjacent sites. Also indicate sites such as Schools, Hospital, Municipal Buildings, Magistrates Court, Government buildings, streets and street names, pedestrian walks, parks, water courses etc.

Scale: 1:1000; 1:500

Site Plan

Scale: 1:500; 1:300; 1:200; 1:100

Site Plan to clearly indicate the following:

- Boundaries of the site
- Dimensions of the site on which the building is to be erected
- Building lines to be indicated & clearly dimensioned
- The position & width of any servitude or right of way to which the site is subject
- The registered number or other description of the site and the erf/ stand number
- Direction of true north
- The street name / s on which such site abuts
- Location of any existing drain, storm water drain, surface channel or attenuation facility on the site
- Location of the new proposed building
- Location of any existing buildings
- Indicate whether any of the existing buildings to be demolished & or any new proposed additions
- Indicate access to the site (new & existing)
- Existing trees; trees to be removed/ retained
- Position of water storage tanks, substation, water treatment plants, sewerage treatment plants & other related.
- Road layout & parking as per LDP
- Deliveries to site
- Garbage removal & storage of garbage on site
- Fire hydrants
- Wind direction
- Fencing: Indicate position, height and type, including gates
- Indicate position of flags
- Bench mark, grid system, datum point, reference point, architectural levels has to be co-ordinated with other disciplines
- Site contours to full extent of site and at minimum intervals of 500mm
- Use Departmental Title Block with the following info to be correctly depicted: Drawing number, WCS number, File Number (See http://www.publicworks.gov.za/ consultantsguidelines.html for Departmental Title Block)

Layout drawings: Plans, Sections & Elevations

Scale: 1:200, 1:100, 1:50, 1:20

General structural details of the building should be documented sufficiently so that the proposed structure of the building may be clearly understood

Fire Protection Plans

Scale: 1:100, 1:200, 1:50, 1:20

CONSIDERATION OF ACTUAL DESIGN OF BUILDING

- All the above to be taken into consideration
- Client Department planning requirements must be incorporated in the design
- Orientation of building/s: should be north / south
- Usage of site / Position of proposed buildings on site based on site analysis and land-use planning by landscape architect
- Position of proposed buildings on site to enforce built-to lines and existing street façades in order to uphold and establish well defined streetscapes and public spaces
- Building mass and layout support generally accepted urban design principles and standards
- Integrated secure street interface design to eliminate fencing as far possible
- Access to site
- Allowance for future expansion
- Levels of Buildings & taking into consideration the fall of the land
- Retaining walls: Height of retaining walls not too excessive
- Site layout showing paths, parking & economic use of roads as per LDP
- Roof structures low risk approach
- Materials compliant with Departmental Standard Specification, should be low maintenance, hard wearing, long lasting within cost limitations (life cycle of building to be taken into account)
- The design fits in aesthetically with the surrounding area in respect of height, architectural character and spaces created, tectonics and context
- Provision has been made for internal courtyards and adjoining outdoor spaces with a feasible micro climate as usable spaces of relief
- Security requirements
- Accessibility of the site and buildings by persons with disabilities
- Design compliant with all the Acts as set out in Letter of Invitation and other relevant Acts
- Sustainable design principles and calculations

PLANNING APPROVALS PROCESS PRIOR TO SUBMISSION TO THE SPCM

• Approved Procurement Instruction has been audited and the accommodation supplied for the project, is in compliance with the approved required accommodation

- Consultation has taken place with consultant architect & representative / architect of the Client Department
- Revisions to drawings have been made and re-submitted for further comment, until such time as the planning is in line with the Client Department's requirements and specific needs, and the Client Department representative is prepared to sign off, and the DPW architect considers that all the other aspects required by DPW have been complied with
- All the consultant professional disciplines have consulted with their counterparts at DPW and submitted their Design Reports & drawings
- After consultation has taken place and once the engineering reports & QS estimates & norms reconciliation are in line with what is required the DPW professionals should indicate that they are satisfied that the work is ready for submission to the SPC
- Heritage. Establish whether the existing structures are older than 60 years. If there are no Heritage implications then there is no additional approval required from the Heritage Body: SAHRA or the relevant PHRA (Provincial Heritage Resources Agencies)
- These are not necessarily the only aspects of the design to be considered

6.3.6.

Civil Engineering Consultant Civil Engineer to complete and sign this cover page. Attach to the outside of the set of documentation. DPW Counterparts to sign at the SPCM

PROJECT:			
			NI-
		Yes	NO
1	The preliminary design has been completed in terms of conditions		
2	Preliminary design report has been attached, see attached guideline and also refer to the engineer's manual		
3	The design has been coordinated with architect. Note: see engineer's manual for preliminary design documents		
4	The departmental engineer has been consulted		
5	The departmental engineer's comments have been incorporated into the design, if not, state reasons below		
6	Dolomite Status Certificate is attached		
Comments	:		
NAME C	onsultant Civil Engineer	SIGNATORE	
FIRM/ COMPANY		DATE	
For comp	letion by the Principal Agent	Yes	No
Co-ordination between all disciplines have been done and all documentation aligned accordingly			
NAME		SIGNATURE	
FIRM/ COMPANY		DATE	
For comp For Sketch the Sketch	letion by DPW Civil Engineer Plan purposes the recommendation to the Plan design submitted	ne SPC Chairperson is AC	CEPT/NOT ACCEPT
NAME		SIGNATURE	
DATE			

6.3.7. Civil Engineering Documentation Required

SKETCH PLAN (PRELIMINARY DESIGN) STAGE - (CIVIL ENGINEERING)

General Comment

The Department of Public Works has a large and diverse property portfolio. Various Departmental Guidelines have been prepared to assist Professional Consultants in the design and documentation of DPW Projects. They provide direction and guidance on DPW's requirements and enable Consultants to efficiently translate them into acceptable design solutions

The Guidelines are not intended to replace the level of initiative, competence and care as expected of consultants in the performance of their duties. Consultants are encouraged to carefully consider the merits of the Design Guidelines in the context of the needs of individual projects. If a Consultant considers a guideline not to be appropriate and that a more suitable solution is available, proposals to this effect should be raised for consideration by the Department

In the absence of express written approval for a deviation from Departmental guidelines, the Department will assume that the requirements contained in the various Design Guidelines have been fully addressed and incorporated in the proposed Design Solution and Specifications

Design calculations and investigations should be performed through all stages in an orderly, logical way. They should not only allow the design engineer to arrive at conclusions sufficient to lead to the preparation of detailed drawings, but their final form should reflect neat and systematic thought processes. At any time in the future someone wanting to check back on the original design should be able to find out what the design engineer was trying to achieve and what design standards he used

The engineer must take particular care in presenting the work connected with his design to ensure that:

- The design processes themselves are orderly, legible and logical so that the engineer charged with the checking should be able to follow them with ease
- The technical and academic quality is acceptable; and
- Adequate draughting standards are complied with

The Preliminary Design Report (PDR) gives the designer the opportunity to set out the design considerations and obtain approval for proposed deviations from Departmental standards. Where various options exist to arrive at a suitable design solution, the Department can select the preferred configuration based on information presented in the PDR. To enable the Departmental Civil Engineer to endorse the civil design at Sketch Plan Stage, the designer must have submitted a PDR documenting all facets of the design, to the Department

The following section proposes a checklist that should be completed by the Project Manager and Professional Consultant to ensure that the Departmental Civil Engineer has sufficient project detail to enable him to check the design proposal

Sketch Plan Checklist for the Civil Engineering portion of the design

(Note: Although not specifically related to the Civil Engineering, the EIA and Heritage requirements of a project as well as any interface with Service Providers and Municipalities must be addressed in detail at sketch plan stage as they could have a substantial impact on the cost of the works.)

The checklist is generic and some of the listed items/activities may not be applicable to the particular project under review. Provision must be made for a response of <u>Not</u> <u>Applicable</u> and perhaps <u>In Process</u>. Generally most of the aspects should be addressed in the PDR but it can be possible that some of the processes haven't been taken to conclusion (EIA for example) before submitting the PDR. An objective decision on allowable exclusions will have to be made by the Project Manager after consultation with the Departmental Civil Engineer so that the Sketch Plan approval is not delayed

The questions/statements below require a Yes /No /Not Applicable response

1. General

- The Project Manager has briefed Departmental Civil Engineer on client requirements and facility configuration
- The Civil Consultant has discussed design options/details with the Departmental Civil Engineer
- Environmental Impact Assessment
 - i) Application for exemption was made
 - ii) Scoping report was compiled and submitted
 - iii) Full EIA process is required by DEAT and has been initiated
 - iv) Environmental Authorization was obtained
- Have the requirements of the local municipality been established and taken into consideration in the design proposal?
- If a services report is required by the Municipality or Service Provider has it been compiled and submitted?

2. Preliminary Design Report (PDR)

- A Preliminary Design Report (PDR) has been drafted in accordance with Clause B 1.4 of PW347 Civil Engineering Manual, and has been forwarded to Departmental Civil Engineer
- The PDR includes the following:

a) General

• A Clear description of required facilities as defined by the Client Department. Definition includes function and purpose of facilities; the number and classes of occupants; periods of usage and usage patterns; all farming, abattoir or business activities listed separately

- Confirmation by the Architect or Principal Agent that the description of the facility in the Engineer's PDR is accurate and complete. Append letter of confirmation to report A summary of the Site Clearance information from the Site Clearance Report-Town Planning; problems identified at site clearance stage
- Locality of project including a large scale provincial locality map and a small scale map showing locality in town
- Photos of typical or specific site characteristics topography, access roads, vegetation, wetlands etc.
- Design criteria clearly referenced to Departmental or other guideline documentation. Deviations from standards clearly indicated and motivated
- Recommendations and motivation for further investigations, surveys and servitudes

b). Water Supply

- A preliminary assessment of water use as defined by the function or purpose of the facility
- Water demand per category calculated and presented in tabular form
- Tabled calculation of peak factors with reference to Departmental guidelines
- Local Fire Authority regulations and degree of assistance available from the Authority
- The facility classification in terms of fire risk. Tabled fire flow requirements with reference to Departmental or Fire Authority standard
- Layout drawing with position of municipal hydrants adjacent to site.
- Confirmation in writing from municipality of sufficient capacity in the municipal water supply infrastructure
- Results of investigations (diurnal flow and pressure readings) confirming the capacity of the municipal infrastructure. (Alternative to the written confirmation from municipality above)
- As-built data of Municipal water supply infrastructure
- Results of surveys, investigations, methodology and assumptions if as-built data is not available
- Verification of municipal water connection cost and the possibility of bulk water contribution cost
- A copy of the Service Level Agreement with the Service Provider is appended to this report. (Alternative to the verification of connection and bulk costs)

- Special requirements of the municipality and how these requirements have been incorporated in the design proposal.
- Where borehole water is to be utilized, test results from yield and quality tests. Recommendations on usage and abstraction rates by Geo-hydrologist
- The conceptual design of river abstraction method
- A recommendation on licensing requirements to utilize borehole or river water
- Proposals on water treatment, including disinfection, of borehole and river water. Results of the water quality analysis
- Water Storage requirements and proposal. Specific requirements of the user-department or requirements for fire fighting
- Confirmation that elevated storage towers are listed in EIA
- Proposed layout of water reticulation and placing of services. Pipe networks, ring mains etc. shown on sketch drawings
- Water supply design standards in terms of materials, hydraulic specification, velocity, pressure limits and roughness coefficients
- Specifications of materials, valves, air valves, PRV's, water meters etc.
- Placement of water meters to monitor water usage
- General arrangement and design basis for water supply pump stations, including operational control and standby capacity

c). Storm water

- Summary of statistical data of the nearest rainfall station
- The sub-catchment areas are shown on the layout plans
- Design criteria and calculation assumptions and methodology
- Design storm return period and tabulated runoff per sub-catchment
- A description of any specific design requirements in terms of storm water reuse or conduit size limitations
- Storm water design standards in terms of materials, hydraulic specification, velocity, pressure limits and roughness coefficients.
- Flood line for the 1:100 year storm event shown on the layout plan.
- Routing of storm water affecting cut and fill slopes on embankments or platforms
- Concept design of flood attenuating or control devices as well as a description of storm water management plan

d). Sewerage

• A preliminary assessment of sewer flow as defined by the function or purpose of the facility with tabulated results of calculations and design figures

- Table showing criteria and results of the peak factor calculations with reference to Departmental guidelines
- General arrangement and design basis for sewerage pump stations; including sump design, instrumentation and standby capacity
- Description of the type and capacity of the sewerage collection system
- Capacity assessment of municipal sewer or written confirmation of capacity by municipality
- Location and accurate level of municipal sewer indicated on the layout drawing
- Assessment of sewerage treatment options
- Outcome of Licensing and sewerage treatment discussions with DWAF
- Does the EIA scoping report include the establishment of an on-site sewerage treatment works?
- If on-site treatment has been proposed with irrigation of the final effluent, is there sufficient land available within the site boundary for irrigation
- Results of percolation tests if soak-aways are proposed
- Sewerage collection system design standards in terms of materials, min slopes, hydraulic specification, velocity and roughness coefficients
- Specifications of special materials, valves, pumps, macerators, water meters etc.
- Sewerage connection cost and the possibility of bulk sewer contribution cost

e). Roads and Parking

- The information relevant to vehicular traffic to be accommodated on the site e.g. Vehicle type loading, frequency and definition of functional areas
- Road classification for different functional users
- Local Authority or the road owner's regulations applicable to access
- Bulk contribution cost to municipality for access roads
- Results or recommendation on traffic study
- Applications lodged for way leaves
- Road and pavement design criteria

f). Earthworks

- Final site layout obtained from Architect
- Platform elevations obtained from Architect

- Retaining wall requirements communicated with Structural Engineer
- Slope stability and method of stabilization detailed and motivated
- Preliminary cut and fill volumes calculated and balanced
- Proposed design standards for earthworks
- Borrow pits and Spoil sites have been identified
- Borrow pits and Spoil sites were included in EIA scoping report

g). Construction Specifications and Form of Contract

- Construction Standard Specifications e.g. SANS 1200; COLTO
- Form and Conditions of contract specified e.g. GCC 2004, JBCC

h). Cost Estimate

- Cost estimate and comparison of the various design options
- Life cycle cost where needed to motivate between options and select final design configuration

i). Appendices

- Confirmation by the Architect or Principal agent that the description in the Engineers PDR is accurate and complete
- Summary and Recommendations from Site Clearance Report.
- EIA Environmental Authorisation
- Marked up architects drawings showing concept design and layout of roads and parking; bulk water supply and water reticulation; sewerage reticulation, sewer outfall, sewerage treatment, effluent or alternative sewerage disposal; storm water catchments, collection and conveyance systems
- General arrangement of pump stations
- Recommendations of Geotechnical Investigations
- Recommendations of Traffic Study
- Correspondence with Local Municipality including Service Level Agreement (SLA)
- Correspondence/ Environmental Authorisation Road Owner.
- Way leave applications
- Photos of typical or specific site characteristics. Results of Water and Sewerage investigation
- Results of Water and Sewerage investigation
- Explanatory drawings, typical details or typical road cross sections

j). Dolomite Issues

• During the design or execution (Construction) stage of the project the Project Manager (PM), consultant team and contractor should

be alert and pro-active in locating and/or detecting any trace or sign of the presence of dolomite

- Should this be found, it must immediately be brought to the attention of the PM and the designated official responsible for dolomite matters at the Regional office/ Head office
- As and where applicable, appropriate designs/specifications/details for dolomite conditions should conform to the Department's manual: "Appropriate development of infrastructure on dolomite", Document PW 344
- Should there be any uncertainty about the presence of dolomite and/or unscheduled ground movement event, then such enquiries should be referred to the Directorate: Civil & Structural Engineering at Head Office for further investigation and subsequent certification
PM 006-6

Structural Engineering Consultant Structural Engineer to complete and sign this cover page. Attach to the outside of the set of documentation. DPW Counterparts to sign at the SPCM

PROJECT:	-	WCS NO :	
		REFERENCE NO:	
		Yes	No
1	The preliminary design has been completed in terms of conditions		
2	Preliminary design report has been attached, see attached guideline and also refer to the engineer's manual		
3	The design has been coordinated with architect. Note: see engineer's manual for preliminary design documents		
4	The departmental engineer has been consulted		
5	The departmental engineer's comments have been incorporated into the design, if not, state reasons below:		
Comments			
NAME C	onsultant Structural Engineer	SIGNATURE	
FIRM/ COI	MPANY	DATE	
For comp	etion by the Principal Agent	Yes	No
Co-ordinat done and a	ion between all disciplines have been all documentation aligned accordingly		
NAME		SIGNATURE	
FIRM/ COI	MPANY	DATE	
For compl For Sketch the Sketch	etion by DPW Civil Engineer Plan purposes the recommendation to the Plan design submitted	ne SPC Chairperson is AC	CEPT/NOT ACCEPT
NAME		SIGNATURE	
DATE			

6.3.9. Structural Engineering Documentation Required

The following Documents should be used for the Compilation of Preliminary Design Reports: Structural (PDR-S) and is available on the Public works website:

PDR-S 00: GENERAL NOTES

DOCUMENTS FOR THE COMPILATION OF PRELIMINARY DESIGN REPORTS: STRUCTURAL (PDR-S)

- The following documents to be used for the compilation of the Preliminary Design Reports (Structural).
- Please note that these documents are supplementary to the PW 371 and the Manual for Consulting Structural Engineers and in no way a substitute for the said documents.
- In the case of non-compliance with any of the requirements outlined in the documents the PM 006-6 form will not be signed off.
 - 1) PDR-S 01 Front Page
 - 2) PDR-S 02 General Index
 - 3) PDR-S 03 Guideline (Structural)
 - 4) PDR-S 04 Check List

1) PDR-S 01 Front Page

- This is the standard Front Page to be used for all Preliminary Design Reports: Structural (PDR-S) compiled for the Director: Structural Engineering of this Department.
- This document is user protected with the provision that the Consultant has access only to the highlighted/bracketed text areas to enable him to describe his specific project.
- Provision was also made for the Consultant to enter his Company logo and/or details in the text box below the heading: Prepared by:

2) PDR-S 02 General Index

- The General Index is a typical example of the Table of Content for Preliminary Design Reports: Structural and gives an indication of the paragraphs that should be included in the report.
- Although most of the paragraphs will be applicable for most of the projects the Consultant will still have to adapt it for his specific project.

3) PDR-S 03 Guideline (Structural)

This document should be used as a guideline for the Consultant to compile his sketch plan documentation. It addresses problems frequently encountered with Sketch Plan submissions and aspects covered under the following heading:

1.0 General

2.0 Documents

- 2.1 Sketch Plan submissions comprise of three documents namely:
- Drawings
- Preliminary Design Report (PDR)
- Geotechnical Report
- ۶

3.0 Drawings

- 3.2.1 Locality plan
- 3.2.2 Site layout plan
- 3.2.3 Architectural drawings
- 3.2.4 Structural drawings
- 3.2.5 Semi-workshop drawings
- 4.0 Preliminary Design Report (PDR)
- 5.0 Geotechnical Report

Problems frequently encountered with sketch plan submissions

- 6.0 Foundations
- 7.0 Surface beds
- 8.0 Walls
- 9.0 Slabs
- 10.0 Columns
- 11.0 Ring beams
- 12.0 Roof trusses
- 13.0 Roof slabs
- 14.0 Concrete gutters
- 15.0 Timber beams
- 16.0 Lintels
- 17.0 Concrete grades
- 18.0 Steelwork

4) PDR-S 04 Check List

- The Check List should be completed by the Consultant who is responsible for the structural design work and the compilation of the Preliminary Design Report
- This document is also user protected with the provision that the Consultant has access to the highlighted/bracketed text areas to enable him to describe his specific project
- A hard copy of the Check List, completed and signed by the Consultant Structural Engineer, should be submitted together with the Preliminary Design Report

Electrical Engineering Consultant Electrical Engineer to complete and sign this cover page. Attach to the outside of the set of documentation. DPW Counterparts to sign at the SPCM

Network Yes No 1 The preliminary design has been completed in terms of conditions Image: Completed in terms of conditions Image: Completed in terms of conditions 2 Preliminary design report has been attached, see guideline in SPCM and also refer to the engineer's manual Image: Completed in terms of conditions Image: Completed in terms of conditions 3 The design has been coordinated with architect. Note: see engineer's manual for preliminary design documents Image: Completed in terms of conditions Image: Completed in terms of conditions 4 The departmental engineer has been consulted Image: Completed in terms of comporated into the design, if not, state reasons below: Image: Comments Comments: NAME Consultant Electrical Engineer SIGNATURE FIRM/ COMPANY DATE No Co-ordination between all disciplines have been done and all documentation aligned accordingly Image: Completed in the design submitted NAME SIGNATURE FIRM/ COMPANY DATE For completion by DPW Electrical Engineer FOR Sketch Plan purposes the recommendation to the SPC Chairperson is ACCEPT/NOT ACCEPT the Sketch Plan design submitted NAME SIGNATURE	PROJECT:		WCS NO :	
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4 The departmental engineer has been consulted Image: Consulted Image: Consulted 5 The departmental engineer's comments have been incorporated into the design, if not, state reasons below: Image: Consultant Electrical Engineer Image: Consultant Electrical Engineer NAME Consultant Electrical Engineer SIGNATURE FIRM/ COMPANY DATE For completion by the Principal Agent Yes No Co-ordination between all disciplines have been done and all documentation aligned accordingly Image: Consultant Electrical Engineer NAME SIGNATURE FIRM/ COMPANY DATE For completion by the Principal Agent Yes NAME SIGNATURE NAME SIGNATURE FIRM/ COMPANY DATE For completion by DPW Electrical Engineer For Sketch Plan purposes the recommendation to the SPC Chairperson is ACCEPT/NOT ACCEPT The Sketch Plan design submitted SIGNATURE NAME SIGNATURE	3	The design has been coordinated with architect. Note: see engineer's manual for preliminary design documents		
5 The departmental engineer's comments have been incorporated into the design, if not, state reasons below: Comments: Image: Consultant Electrical Engineer NAME Consultant Electrical Engineer FIRM/ COMPANY DATE For completion by the Principal Agent Yes NAME No Co-ordination between all disciplines have been done and all documentation aligned accordingly Image: Completion by DPW Electrical Engineer For completion by DPW Electrical Engineer SIGNATURE For Sketch Plan purposes the recommendation to the SPC Chairperson is ACCEPT/NOT ACCEPT the Sketch Plan design submitted SIGNATURE NAME SIGNATURE	4	The departmental engineer has been consulted		
Comments: NAME Consultant Electrical Engineer SIGNATURE FIRM/ COMPANY DATE For completion by the Principal Agent Yes No Co-ordination between all disciplines have been done and all documentation aligned accordingly Image: Completion by December 2012 Image: Completion by December 2012 NAME SIGNATURE Image: Completion by December 2012 Image: Completion by December 2012 FIRM/ COMPANY DATE Image: Completion by December 2012 Image: Completion by December 2012 For completion by DPW Electrical Engineer For Sketch Plan purposes the recommendation to the SPC Chairperson is ACCEPT/NOT ACCEPT the Sketch Plan design submitted SIGNATURE NAME SIGNATURE Image: 2012	5	The departmental engineer's comments have been incorporated into the design, if not, state reasons below:		
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	NAME		SIGNATURE	
DAIE	DATE			

6.3.11 Electrical Engineering Documentation Required

With reference for SPCM check list the following items should be in general in the preliminary design report:

- 1. Scope of works
- 2. Incoming power supply i.e. MV and LV networks, metering, reticulation, transformers etc.
- 3. General electrical installation i.e. distribution boards, socket outlets, dedicated socket outlets, light switches, light fittings, lighting levels, emergency lighting, external lighting, conduit wiring system
- 4. Lightning protection systems
- 5. Earthing system
- 6. Stand-by power requirements
- 7. Telephone and data wiring system
- 8. Sketch plan electrical design drawings
- 9. Alternative power provision (solar, wind etc.- depending on suitability)

GUIDELINES FOR STATUS QUO REPORT

- Signing off the report by the electrical design Engineer of the electrical installation as well as the responsible registered electrical engineer/technologist that approves the report. With his ECSA registration number
 - Name:
 - ECSA Registration Nr:
 - Signature:
 - Date:

Table of Contents

- Scope of work
- Site description
- General use of building
 - Offices
 - Sleeping units
 - Operations command centre
 - Training facilities, etc.
- Indicate spare capacity on electrical system.
 - General
 - Spare capacity per distribution board (point)
- Electrical installation:
 - Condition of the electrical installation(electrical elements and equipment)
 - Proposed correctional action / Design requirements to upgrade and or to replace / repairs required
 - Cost for repairs, maintenance and or upgrades
 - Recommendation on each installation electrical element
 - MV system
 - Supply Voltage

- MV switch room Local or council
- MV switch gear, type and area of supply.
- Transformer, size, load and type. Indicate spare capacity
- Supply and feeder cables Type, size and load
- Indicate spare capacity on electrical system
- Overhead line system. Type and size
- LV Network
 - LV Room
 - Generator Capacity, Type size and indicate spare capacity
 - Main LV Distribution board
 - PSCC values of each DB and KA rating of protection Circuit breakers.
 - SLD off all circuits and feeders, cable size and capacity.
 - LV kiosk location and number
 - LV Sub distribution boards
 - LV Cables sizes and capacity
 - LV OHL Size and capacity
 - Indicate spare capacity on LV electrical system
 - SUB LV Distribution boards
 - PSCC values of each DB and KA rating of protection Circuit
 - List of feeders and indicate spare capacity and possibility for additional load
 - ID Area of supply
 - DB's Position is it accessible as per statutory requirements
 - Do labeling comply with SANS requirements
 - Supply and feeder cable sizes.
 - Earthing system
 - SLD of BD layout and provide CB size, KA rating
 - Indicate spare capacity on electrical system
- Electrical Installation in buildings inventory
 - Number of distribution boards, Main and Sub DBs, Normal and Essential sections
 - Motor control centers (MCC)
 - Lifts
 - AC Plants and Units
 - Fire booster Pumps systems
 - Sump Pumps
 - Lights type, energy efficient, Watts, Lux levels as per SANS etc.
 - Emergency lights, Type, Battery backup, Watts etc.
 - Socket outlets, Normal and Dedicated, Connected to essential load
 - UPS
 - Generator Load
 - PABX System
 - Security System
- Cost estimate

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- Repairs to its original functional condition
- Emergency immediate repairs to avoid loss of live and or damage to building or equipment
- Maintenance to keep it in a functional / working condition and to keep the electrical elements complying with statutory requirements.
- Replacement / Upgrade to comply with statutory compliance
- Recommendations
 - To repair, upgrade, to be demolished, new project to reinstate, to maintain including life cycle cost for a period
 - Photo Report

GUIDELINES: PRELIMINARY DESIGN REPORT

- Signing off the design report by the electrical design Engineer of the electrical installation as well as the responsible registered electrical engineer/technologist that approves the report. With his ECSA registration number
 - Name:
 - ECSA Registration Nr:
 - Signature:
 - Date:

Table of Contents

- Introduction / Background
- Site description
- Load Estimate
 - Existing MV / LV Main Infrastructure
 - ID if electrical infrastructure can accommodate new requirements and indicate spare capacity. (Attach confirmation from local supply authority.) This item can delay the approval of sketch plan if not provided.
 - Number, Size of Supply, TR size, Type etc.
 - Telephone & Data network
 - Future MV / LV Infrastructure requirements
 - Load required per area
 - Total Load required
 - Proposed Fault current basic calculation
 - Voltage Drop calculations
- Scope of work
 - Existing Buildings / New Buildings
 - General use of building
 - Offices
 - Sleeping units
 - Operations command centre
 - Training facilities, etc.
 - General use of building as above
- Electrical installation requirements / Preliminary Design
 - MV system

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- MV Metering point Local or council. Current tariff scheme
- MV switch room Local or council
- MV Bus-bare section (Single or double bus) (switch gear, type and area of supply
- Transformer, size, load and type. Indicate spare capacity
- Supply and feeder cables Type, size and load. Indicate spare capacity
- Overhead lines system. Type and size
- LV Network
 - LV Room
 - Generator Capacity, Type size and indicate spare capacity
 - Main LV Distribution board
 - Metering point current tariff scheme
 - PSCC values of each DB and KA rating of protection Circuit breakers
 - SLD off all circuits and feeders, cable size and capacity
 - LV kiosk location and number
 - LV Sub distribution boards
 - LV Cables sizes and capacity
 - LV OHL Size and capacity
 - SUB LV Distribution boards
 - PSCC values of each DB and kA rating of protection Circuit
 - List of feeders and indicate spare capacity and possibility for additional load
 - ID Area of supply
 - DB's Position is it accessible as per statutory requirements
 - Do labeling comply with SANS requirements
 - Supply and feeder cable sizes
 - Earthing and Lighting system
 - SLD of BD layout and provide CB size, kA rating
- Schedule of cables
 - MV
 - LV
- Schedule of Distribution boards
 - SLD
 - Equipment
 - Name / Number of distribution boars, Main and Sub DB's, Normal and Essential sections. With load calculations
 - Type and size. (Floor unit, Wall mounted Flash or surface and height)
- Schedule of Breakers
 - Motor control centers (MCC)
 - Lifts
 - AC Plants and Units

- Fire booster Pumps systems
- Sump Pumps
- Provision of isolators for
 - AC Units
 - Extractor fans
 - Kitchen Equipment
 - Hydro Boil
 - Geyser etc.
- Schedule of Light fittings
 - Type of Luminaires, size in watts, energy efficient, Lux levels as per SANS etc.
 - Luminaire data sheet and Floor plan of typical rooms.
 - Type of Emergency luminaires, battery backup and backup time, size in watts etc.
- Socket outlets, Normal, Dedicated and Emergency
- Power skirting, Type (Please note no PVC to be used)
- Conduit and Wire Ways, Type and position (please note no PVC to be used)
- UPS
- Generator Load
- PABX System
- Security System
- Earthing and Lightning Protection
- Energy Efficiency
 - Type of light fittings
 - Type of AC system. Method of starting (sequential starting?)
 - Method of control system, occupancy sensors, BMS etc.
- Cost Estimate
 - Itemized BOQ with detail. List all items. If electrical engineer is responsible for the BOQ or obtain from QS before submission
 - P&G (only on an engineering contract)
 - Contingencies (as above)
 - No provisional sums
 - No rate only items
- List of Drawings
 - Site plan / location plan
 - Power layout (Main Supply)
 - Light Layout
 - Small Power layout, sockets, Isolators
 - Telephone and Data point layout
 - Distribution board layout
 - Security wire way layout
 - Power skirting / wire way layout

GUIDELINES: PRELIMINARY DESIGN DRAWINGS

• Table of Contents

- DPW drawing number
- DPW Title block (available on website under Architect info)
- DG Name
- Discipline: Electrical
- Description: Project name
- Title: Electrical Light layout etc.
- Legend: Top right corner with full description of item. (Standard use NRS 0002 electrical Symbols)
- Notes: Top right just under the legends.
- North point: Bottom right corner
- Circuit description and supply from DB

• Site plan / Location plan

- List of Drawings
- North Point bottom right
- Existing Electrical services
 - MV/ LV Point of supply
 - MV/ LV Cables
 - LV Distribution Boards / Kiosk's

• Electrical Layout

- Power Supply layout (Services to and on site)
- Light Layout
- Small Power layout, sockets, Isolators
- Telephone and Data point layout
- Distribution board layout
- Distribution diagram (single line for whole network and DB design)
- Security wire way layout
- Power skirting / wire way layout for security, fire protection, electrical, data, telephone

PM 006-8

Mechanical Engineering: Air-conditioning and Other Mechanical Installations Consultant Mechanical Engineer to complete and sign this cover page. Attach to the outside of the set of documentation. DPW Counterparts to sign at the SPCM

PROJECT:			
		Yes	No
1	The preliminary design has been completed in terms of conditions		
2	Preliminary design report has been attached, see attached guideline and also refer to the engineer's manual		
3	The design has been coordinated with architect. Note: see engineer's manual for preliminary design documents		
4	The departmental engineer has been consulted		
5	The departmental engineer's comments have been incorporated into the design, if not, state reasons below:		
Comment	S:		
NAME C	Consultant Mechanical Engineer	SIGNATURE	
FIRM/ CO	MPANY	DATE	
For comp	letion by the Principal Agent	Yes	No
Co-ordina done and	tion between all disciplines have been all documentation aligned accordingly		
NAME		SIGNATURE	
FIRM/ CO	MPANY	DATE	
For comp For Sketcl the Sketch	Ietion by DPW Mechanical Engineer h Plan purposes the recommendation to th n Plan design submitted	ne SPC Chairperson is AC	CEPT/NOT ACCEPT
NAME		SIGNATURE	
DATE		-	
L			

Mechanical Engineering: Safety & Security Consultant Mechanical Engineer to complete and sign this cover page. Attach to the outside of the set of documentation. DPW Counterparts to sign at the SPCM

PROJECT:			
		Yes	No
1	The preliminary design has been completed in terms of conditions		
2	Preliminary design report has been attached, see attached guideline and also refer to the engineer's manual		
3	The design has been coordinated with architect. Note: see engineer's manual for preliminary design documents		
4	The departmental engineer has been consulted		
5	The departmental engineer's comments have been incorporated into the design, if not, state reasons below:		
Comments	S:		
NAME C	Consultant Mechanical Engineer	SIGNATURE	
FIRM/ CO	MPANY	DATE	
For comp	letion by the Principal Agent	Yes	No
Co-ordinat done and	tion between all disciplines have been all documentation aligned accordingly		
NAME		SIGNATURE	
FIRM/ CO	MPANY	DATE	
For comp For Sketch the Sketch	Ietion by DPW Mechanical Engineer n Plan purposes the recommendation to the Plan design submitted	ne SPC Chairperson is ACC	CEPT/NOT ACCEPT
NAME		SIGNATURE	
DATE		-	

6.3.14 Mechanical Engineering Documentation Required

Mechanical Engineering Services: General Requirements for SPM

- 1. Proof must be provided by the consultant on the following:
 - a) Consultants appointment brief
 - b) Liaisons with Departmental professional team
 - c) Liaisons with consultant team, principle agent architect etc.
 - d) Liaison with client department e.g. letter from client department indicating areas to be air conditioned, fire suppression, security, etc.
 - e) Liaison with local authorities for any approvals required for equipment
 - f) SAPS security evaluation report for project
 - g) Demonstrated co-ordination with Architect's work
- 2. Detailed preliminary design report which should incorporate:
 - a) Type of installations required
 - b) Detailed description of installations to be provided. E.g. type of equipment, description, energy efficient equipment used, etc.
 - c) Detailed cost estimates
 - d) Life cycle cost analysis of the different type of installations/equipment inclusive of maintenance for comparison
 - e) SANS requirements for project, e.g. fire detection, sprinklers, ventilation, etc. and verification of compliance
- 3. Line drawings on the latest available architectural drawings as a minimum. To indicate proposed equipment positions, type and architectural requirements for e.g. plant rooms, service ducts, routes of pipes and ducting, etc.

1. Air conditioning

- 1.1 Completeness of drawings
- 1.2 Explain energy saving components, such as VRVs (variable refrigerant volume), sensors or manual individual switching.
 Temperature control (design temperature to ensure energy saving i.e. thermostat set points to ensure reasonable comfort standards)
- 1.3 Noise control measures
- 1.4 Heat control measures
- 1.5 Condensate how controlled at compressor as well as at air handling part of equipment and manner in which it is removed by means of pipework
- 1.6 Fresh air supply provision
- 1.7 Return air/ used air management, Potential for energy scavenging from waste air to be investigated and reported on
- 1.8 Positioning of VRVs, heat pumps and other mechanical equipment
- 1.9 Ventilation of Toilets

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- 1.10 Servicing of mechanical equipment, how is the equipment reached both for installation and routine maintenance, changing of filters, re-gassing, etc.
- 1.11 Consideration to 3 year service contract as part of the original installation contract
- 1.12 Relationship between building elevations relating to units and equipment, pipes and conduits. Co-ordination by the Architect of the proposal is to be done
- 1.13 Air flow and throw: Positioning in the room to be considered. Necessity of alternative provision such as air curtains to be considered
- 1.14 User participation and building management: Switching manual or via a Building Management System start up load to be minimized Management of temperature control
- 1.15 Off peak heating and cooling to be investigated
- 1.16 Separate Metering
- 1.17 Energy saving measures

2. Mechanical Engineering: other

- 2.1 Generators: replacement, noise control, fumes, ability to fill/ refill tanks- requirement of EIA, need for fuel trap, bund wall. Accessibility for refuelling etc. to be considered
- 2.2 Kind of structure required to house pumps and fuel tanks, architectural co-ordination to design to be done

6.3.15.

Quantity Surveying Consultant Quantity Surveyor to complete and sign this cover page. Attach to the outside of the set of documentation. DPW Counterparts to sign at the SPCM

PROJECT:		WCS NO :	_
		REFERENCE NO:	
		Yes	No
1	Elemental cost estimate is attached & is aligned with latest architectural & other engineering consultants' designs		
2	Detailed report if present estimate differs from previous estimate by more than 5%		
3	The departmental quantity surveyor has been consulted		
4	It is confirmed that the above documents are attached and have been prepared in accordance with the Manual for Consultant Quantity Surveyors (QS001) and the conditions of appointment		
Comments	::		
NAME Co	nsultant Quantity Surveyor	SIGNATURE	
FIRM/ COM	MPANY	DATE	
For compl	etion by the Principal Agent	Yes	No
Co-ordinati done and a	ion between all disciplines have been all documentation aligned accordingly		
NAME		SIGNATURE	
FIRM/ CON	MPANY	DATE	
For Sketch the Sketch	Plan purposes the recommendation to the Plan design submitted	e SPC Chairperson is ACCE	PT/NOT ACCEPT
NAME		SIGNATURE	
DATE			

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6.3.16 Quantity Surveying Documentation Required

Quantity Surveying Services: General Requirements for Sketch Plan Meeting

- 1. Supporting documentation must be provided in relation to the following aspects:
- 1.1 That the building design is the most cost-effective with regard to the need of the client and that it is indeed value for money.
- 1.2 Any special and/or expensive designs must be highlighted with an indication of the additional cost for such design.
- 1.3 Finishes are the most cost-effective, taking into account the cost of materials, the life-cycle thereof etc.
- 1.4. The cost of all specialist installations have been analysed and have been discussed with the relevant engineer(s), and
- 1.4.1 That the systems are those required for the proper functioning of the buildings, and
- 1.4.2 That it is value for money. (Consultants should not specify the "top of the range" systems if it is not required.)
- 2. The consultant QS must submit his/her estimate and cash-flows to the Departmental QS well in advance of the SPC meeting.

ROJECT:	ROJECT: WCS NO : REFERENCE NO:		
		Yes	No
	Site layout, showing site boundaries, parking access	, 🔲	
2	Title deed, Surveyor General diagrams, servitudes		

Town Planning Consultant Town Planner/ PA to complete and sign this cover page. Attach to the outside of the set of documentation. DPW

1	Site layout, showing site boundaries, parking, access	
2	Title deed, Surveyor General diagrams, servitudes	
3	Geotechnical study conducted	
4	Mapping of site (contours, structures, aerial photo)	
5	Position of sewage treatment solution (piped, other)	
6	Position of water supply solution (piped, bore hole	
7	Position of electrical supply point(s)	
8	Environmental Authorization (EIA) if applicable	
9	Existing land use rights (zoning) information	

I hereby confirm that I complied with requirements of the Site Clearance Certificate

NAME Consultant Town Planner/ PA	SIGNATURE	
FIRM/ COMPANY	DATE	
For completion by the Principal Agent		
	Yes	No
Co-ordination between all disciplines have been done and all documentation aligned accordingly		
NAME	SIGNATURE	
FIRM/ COMPANY	DATE	
For completion by DPW Town Planner For Sketch Plan purposes the recommendation to the SPC Chairper Plan design submitted	son is ACCEPT/NOT A	CCEPT the Sketch
NAME	SIGNATURE	
DATE		

6.3.18.

PM 006-12

Landscape Architectural Consultant Landscape Architect to complete and sign this cover page. Attach to the outside of the set of documentation. DPW Counterparts to sign at the SPCM

PROJECT:		WCS NO :	
	The landscape sketch plan design was	Yes	No
1	completed in line with landscape design requirements, if not, state motivation below		
2	The attached Landscape Development Plan (LDP) with sections complies with LDP requirements		
3	Landscape Development Report (LDR) has been completed to LDR requirements and is attached		
4	The design has been coordinated with architect		
5	The departmental landscape architect has been consulted		
6	The departmental consultants' comments have been incorporated into the design, if not, state motivation below		
NAME C	onsultant Landscape Architect	SIGNATURE	
FIRM/ COM	/IPANY	DATE	
For compl	etion by the Principal Agent	Yes	No
Co-ordinati done and a	on between all disciplines have been Il documentation aligned accordingly		
NAME		SIGNATURE	
		DATE	
For compl For Sketch the Sketch	etion by DPW Landscape Architect Plan purposes the recommendation to th Plan design submitted	e SPC Chairperson is ACC	EPT/NOT ACCEPT
NAME		SIGNATURE	
DATE			

6.3.19 Landscape Architectural documentation Requirements

The LDP and LDR serves to document and motivate the landscape sketch plan design and directly relates to the completion of Work Stage 2 of the Scope of Work of the Landscape Architect, as described in the Department's letter of appointment (see item 4.c, p.13). The design as documented and motivated should thus fulfill in all requirements in this regard

The professionally registered LA consultant should ensure that the departmental LA has sufficient project detail to enable him to evaluate and endorse work stage completion

General design conditions below serve to inform decision making and should be reflected in the sketch plan design. In the event of design conditions contradicting local authority guidelines, a design solution should be sought in consultation with local authority LA / official and the Departmental LA. The agreed outcome should be documented and clearly stated in the LDR

All design decisions should endorse and adhere to national legislation and environmental policies. Where existing on site scenarios stand in contradiction of such, it should be documented and clearly stated in the LDR with reference to the particular statute and brought to the attention of the PM

LANDSCAPE DEVELOPMENT PLAN (LDP)

In general the technical and academic quality should be acceptable and landscape sketch plan draughting standards complied with. The LDP could include

- Landscape Master/ Framework/ Phasing/ Precinct Plans
- Land-use planning (zones for conservation, rehabilitation, development, etc.)
- Landscape earthworks drawings in consultation with civil engineer (proposed contours, drainage etc.)
- Sketch/ Site Plans, Sections, Details, Thematic paving/ planting/ furniture design

General Format

- Maximum A1 size sheets
- Standard plain white bond paper only
- Plan Scale: 1:100, 1:200, 1:250
- Provide a line scale to all plans
- Departmental Title Block with the following info to be correctly depicted: Drawing number, WCS number, File Number
- If sketch plan constitutes more than one sheet a plan legend should be included
- Drawings Register in table format

Site Information Required

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- Locality Plan: clearly indicating the position of the site in relationship to its surrounds, with a description of buildings and usage of adjacent sites. Also indicate sites such as Schools, Hospital, Municipal Buildings, Magistrates Court, Government buildings, streets and street names, pedestrian walks, parks, water courses etc. Scale: 1:1000; 1:500
- Landscape Master Plans and large scale planning and documentation 1:500 1:750, 1:1000
- Landscape Plans, Sections & Elevations to scale: 1:200, 1:100, 1:50, 1:20
- True North (north arrow)
- Boundaries of the site
- Building lines to be indicated, dimensioned and labeled
- Indicate position & width of any servitude or right of way to which the site is subject
- The registered number/s or other description of the site and the erf/stand number/s
- The street name / s on which such site abuts
- Location of any existing drain, storm water drain or, surface channel or attenuation facility on the site
- Location of the new proposed building
- Location of any existing buildings
- Indicate whether any of the existing buildings to be demolished & or any new proposed additions
- Indicate all access points, entrances, service entrances, visual and other connections between exterior and interior spaces.
- Indicate access to the site (new & existing)
- Position of water storage tanks, sub-station, water treatment plants, sewerage treatment plants & other related.
- Wind direction (wind rose or similar diagram)
- Existing natural features (e.g. rocky outcrops, water courses, springs, wet lands etc.)
- Existing cultural/ heritage resources or features
- Bench mark, grid system, datum point, reference point, landscape levels has to be co-ordinated with other disciplines
- Site contours to full extent of site and at preferred minimum intervals of 500mm

Plan Content

- General structural details of the landscape should be documented sufficiently so that the structural elements of the landscape may be clearly understood
- Indicate existing trees to remain and to be removed. Also indicate whether indigenous or exotic. Document trees with stem diameter of 100mm in this fashion. Tree clumps and groups of saplings may be indicated by means of hatching
- Provide trunk/ tree stem diameter at approximately 1 meter above ground level, tree canopy (crown spread) diameter, height and general condition of tree

- Indicate other vegetation/ ornamental plants of note to be removed or transplanted or retained
- Where existing natural indigenous vegetation occur or is removed the extent and specie composition of such should be documented
- Indicate and distinguish between new tree, shrub, groundcover, climbers and turf grass species
- Indicate introduced planting densities, container/ plant sizes and total quantities per species
- Indicate at least both genus and specie name in each case
- Indicate if introduced specie is exotic or indigenous to Southern Africa
- Use of exotics to be motivated in LDR
- Regulations published related to the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) regarding invader species lists and control measures should be adhered to. The need for either compulsory control (category 1.a) or invasive species management programmes (category 1.b) should be discussed in LDR and specialist programmes included as appendices
- Indicate existing levels, new levels and level changes
- Proposed storm water management and attenuation systems and facilities (e.g. water drainage courses, swales, retention/ detention ponds, constructed wet lands etc.)
- Hard surfacing and paving. Differentiate between vehicular, parking and pedestrian traffic surfaces etc. and indicate level changes, kerns, bollards and proposed edgings
- Landscape architectural features incl. staircases, water features, pergolas, arbors, pavilions, podiums, amphitheaters, piers, boardwalks, gazebo's, stages etc.
- Water features including proposed mechanical design and systems design (e.g. biological, chemical etc.)
- Outdoor furniture theme incl. planters, art work, bicycle racks, tree grates, bollards, litter bins, seating, outdoor gym/play equipment etc.
- Outdoor thematic signage design
- Landscape, pedestrian and street lighting theme
- Include streetscape design, pedestrian crossings and other public landscape interventions where applicable
- Indicate building coverage, hard landscape coverage, turf grass cover, introduced planting cover, undisturbed natural vegetation cover and any other in square meter and expressed as percentages of the total site surface area, in table format
- All landscapes on levels other than natural ground (e.g. balconies, roof gardens etc.) should be included

LANDSCAPE DEVELOPMENT REPORT (LDR)

In general the academic quality, language use and report writing should be of an acceptable standard. Images, diagrams and graphs should copy well in black and white for reproduction purposes

Format

- A4 white bond paper in portrait format only
- The cover page should include the project name, WCS number and File Number

Content

The following main categories should be included and expanded upon:

- Purpose (state project brief as supplied by PM and discussed/ finalized with client department and project architects)
- Background Studies
 - Documented site analysis
 - Context studies; precedent studies
 - Photos of typical or specific site characteristics topography, access roads, vegetation, wetlands etc.
 - Locality of project including a large scale provincial locality map and a small scale map showing locality in town
 - Design criteria clearly referenced to Departmental or other guideline documentation
 - Deviations from standards clearly indicated and motivated; recommendations and motivation for further investigations, surveys and servitudes
- Heritage: Establish whether existing structures are older than 60 years, or any other triggers

If there are no Heritage implications then there is no additional approval required from the Heritage Body: SAHRA or the relevant PHRA (Provincial Heritage Resources Agencies)

Environmental Impact Assessment

Application for exemption was made/

Scoping report was compiled and submitted/

Full EIA process is required by DEAT and has been initiated/

ROD was obtained

Development requirements i.r.t. ROD is extracted and discussed

- Discussion
 - General premise
 - Design philosophy
 - Land use zoning
 - Design approach and
 - Design concept formulation
- Design Recommendation
 - Discuss design outcome with reference to sketch plans, sections, details, plant pallets (with color images)
 - Thematic design proposals and finishes
 - Preliminary assessment of water use as defined by the function or purpose of the landscape/ facilities*
 - Water demand per category calculated and presented in tabular form*

- Special requirements of the municipality and how these requirements have been incorporated in the design proposal*
- Where borehole water is to be utilized, test results from yield and quality tests*
- Recommendations on usage and abstraction rates by Geo-hydrologist;
- The conceptual design of river abstraction method*
- Recommendation on licensing requirements to utilize borehole or river water*
- Cost estimate and comparison of the various design options

(* include these items only if not covered by the civil engineer's PDR)

General Notes

- Reference material should be listed
- Title all images, diagrams and graphics included.
- Include descriptive annotations

Appendices

- EIA- Record of Decision (ROD)
- Tree survey by qualified arborist
- Certification by a qualified engineer of the 1:10/20/50/100 year flood lines as well as the 32 setback line from riverbanks
- Heritage Impact Assessment
- Phasing of proposed developments
- Rehabilitation Plans/ Preliminary Site Management Report
- Cost Estimates

GENERAL DESIGN CONDITIONS

- All client requirements should be incorporated in the design proposal
- Site/ Contextual/ Climatic and all other relevant environmental and social conditions should be acknowledged by, and be responded to in the design
- Public interfaces, transitions and connections should be well considered and integrated into the design solution
- The immediate surroundings and streetscape should be acknowledged and addressed by the design whenever possible
- Existing opportunities and constraints should be responded to or be addressed appropriately
- The best possible intervention, maximizing site potential in a sustainable and responsible manner, should be sought
- The design should be based on an ecological approach, considering and minimizing any negative impact on the natural environment
- Recycling of waste produced in the landscape and associated activities should be addressed on site as far possible
- Integrated and robust design solutions should be prevalent
- Desirable micro climatic conditions should be ensured. (Provide at least 1 shade tree for every two parking bays and prevent/ remedy large open hard surface areas)

- Appropriately scaled livable, pleasant and usable spaces should be created, desirably located relative to facilities and other design entities
- Indoor-outdoor flow and connections should be acknowledged
- A storm water management and water wise strategy should be formulated and be evident in the design proposal
- Renewable, locally sourced and recycled materials should be preferred and explored as far feasible
- Only high quality, durable and vandal resistant material-use should be considered
- Pedestrian flow and volumes should be provided for
- Level pedestrian crossings and inclusive design principles should be applied throughout
- Existing site features and vegetation should be retained and re-used as far possible
- Soil, seed, bulb and plant harvesting principles should be applied where possible
- A concise and well formulated plant material application strategy should be formulated and applied
- Plant material application should aim to:
 - i. Make use of local/ regional vegetation type plant species, geographically and topographically associated with related site conditions
 - ii. Group according to water requirements
 - iii. Apply species to typically associated natural habitats
 - iv. Prevent the introduction of alien species
 - v. Achieve a sustainable yet appropriate vegetation scenario
 - vi. Use species appropriate to the deign context
 - vii. Low maintenance species only
- General maintenance costs and implications should be considered in all design decisions
- The above conditions and requirements do not necessarily represent the full extent of design considerations and could alter or expand according to specific project and contextual requirements

PLANNING APPROVALS PROCESS PRIOR TO SUBMISSION TO THE SPCM

- Consultation has taken place with consultant architect & representative / architect of the Client Department
- Revisions to drawings have been made and re-submitted for further comment, until such time as the planning is in line with the Client Department requirements and specific needs, and the Client Department representative is prepared to sign off, and the DPW landscape architect considers that all the other aspects required by DPW have been complied with
- After consultation has taken place and once the engineering reports & QS estimates & norms reconciliation are in line with what is required the DPW professionals should indicate that they are satisfied that the work is ready for submission to the SPC

 Heritage: Establish whether the existing structures are older than 60 years or any listed plants, in term of heritage legislation, occur on site. If there are no Heritage implications then there is no additional approval required from the Heritage Body: SAHRA or the relevant PHRA (Provincial Heritage Resources Agencies)

Relevant Consultant to complete and sign this cover page.	Attach to the outside of the set of documentation. DPW
Counterparts to sign at the SPCM	

PROJECT:	WCS NO	:	
	REFERENCE NO:		
		Yes	No
1	Heritage implications are applicable on the site or structures		
2	Heritage status of building/site confirmed with the Heritage Authority in reference to Sections 3, 34, and 38 of the National Heritage Resources Act no 25 of 1999. 60 Year rule or other triggers		
3	Confirmation from Heritage Authority attached indicating that a permit will/will not be required for the work intended on this project		
4	If a permit will be required, attach Statement of Significance/ Heritage Policy/Heritage Impact Assessment document as approved by Heritage Authority, as well as provisional approval for the intended scope of works		
5	Cognizance of DPW Directives on the Management of Heritage Assets, May 2007, Version 1.0		
Comments	:		
NAME H	eritage Consultant/PA	SIGNATURE	
FIRM/ COI	MPANY	DATE	
For comp	etion by the Principal Agent		
		Yes	No
Co-ordinat done and a	ion between all disciplines have been all documentation aligned accordingly		
NAME		SIGNATURE	
For comp	etion by DPW Heritage Architect		
For Sketch the Sketch	Plan purposes the recommendation to the SPC Ch Plan design submitted	nairperson is ACCEF	PT/NOT ACCEPT
NAME		SIGNATURE	
DATE			

Other Disciplines (To be completed if applicable) Relevant Consultant to complete and sign this cover page. Attach to the outside of the set of documentation. DPW Counterparts to sign at the SPCM

PROJECT:		
	Yes N	0
1 Scope of Works		
2 List of attached documentation		
3 Noted interaction with DPW officials		
4 All documentation in line with appointm conditions and legislation	ient	
5 All documentation in line with DPW tec requirements	hnical	
6	[
Comments:		
NAME Consultant	SIGNATURE	
FIRM/ COMPANY	DATE	
For completion by the Principal Agent	Yes N	0
Co-ordination between all disciplines have been done and all documentation aligned accordingly		
NAME	SIGNATURE	
FIRM/ COMPANY	DATE	
For completion by DPW For Sketch Plan purposes the recommendation to t the Sketch Plan design submitted	the SPC Chairperson is ACCEPT/N	IOT ACCEPT
NAME	SIGNATURE	
DATE	_	

7. SKETCH PLAN COMMITTEE MEETING

7.1. Attendees of the Meeting

- 1. Chairperson (Director/ Delegated Director. For HO projects: Director: Architectural Services or delegated official, or if predominantly an engineering/ other project, the relevant Director for the discipline or Dir: Architectural Services. For RO projects: Director: Projects or delegated official
- 2. Architect (Nominated by Director: Architectural Services/ Projects)
- 3. Heritage if applicable (Nominated by Director: Architectural Services)
- 4. Civil Engineer (Nominated by Director: Civil & Structural Engineering Services/ Projects)
- 5. Structural Engineer (Nominated by Director: Civil & Structural Engineering Services/ Projects) Electrical Engineer Official (Nominated by Director: Electrical Engineering Services/ Projects)
 - a. Mechanical Engineer Official (Nominated by Director: Mechanical Engineering Services/ Projects) Mechanical (Air-conditioning & other mechanical installations)
 - b. Safety and Security
- 6. Town Planning Services (Nominated by Director: Town Planning Services)
- 7. Quantity Surveyor (Nominated by Director: QS Services/ Projects)
- 8. Landscape Architect (Nominated by Director: Architectural Services)
- 9. Head Office Key Account Management (KAM) or Regional KAM
- 10. Client Department (Director or delegated official that can sign off the sketch plan if accepted)
- 11. Departmental Project Manager attendance is compulsory or his/her responsible Director to attend
- 12. All professional consultant disciplines to be represented by at least the lead of each profession of the consortium

Note: Minutes: Chairperson is responsible for distributing the minutes within a week of the meeting. Circulation of minutes will be by e-mail, if no comment is received within a week following circulation, the minutes will be signed by the Chair for record purposes. (Copy of original on sketch plan file for the project)

7.2. Typical Agenda for Sketch Plan Committee Meetings

- 1. Welcome
- 2. Introduction and Apologies
- 3. Attendance Register
- 4. Minutes of previous meeting (if not first submission)
- 5. Terms of Reference of the Committee
- 6. Background of the project (Client department and Project Manager)
- 7. Presentation of project by Consultant Architect (maximum 15 minutes). Principal Agent/Architect to present an overview The presentation, should cover inter alia the background of the project, floor plans, the logical flow of the project, elevations, sections,locality plan, site limitation, EIA, orientation, special site conditions, disabled access and energy efficiency
- 8. Town Planning (EIA, site clearance)
- 9. Heritage (HIA, demolitions)
- 10. Mechanical Engineering: Security & Fire Safety
- 11. Mechanical Engineering: Air-conditioning and mechanical installations
- 12. Structural engineering
- 13. Civil engineering
- 14. Electrical engineering
- 15. Landscape Architecture
- 16. Other Consultants
- 17. Architecture
- 18. Quantity Surveying: Cost estimates, Norm reconciliation & Value for money
- 19.General
- 20. Special client requirements & sign off by Client Department
- 21. Recommendation if SP can be accepted (per discipline to confirm for minutes)
- 22. Closure

7.3. Typical Attendance Register for Sketch Plan Committee Meetings DEPARTMENT OF PUBLIC WORKS ATTENDANCE REGISTER Project name ______ WCS _____ Date _____ Time

CONTACT PERSON	FIRM	PHONE/FAX/CELL / EMAIL	SIGNATURE
		Tel:	
		Fax:	
		Cell:	
		Email:	
		Tel:	
		Fax:	
		Cell:	
		Email:	
		Tel:	
		Fax:	
		Cell:	
		Email:	
		Tel:	
		Fax:	
		Cell:	
		Email:	
		Tel:	
		Fax:	
		Cell:	
		Email:	
		Tel:	
		Fax:	
		Cell:	
		Email:	
		Tel:	
		Fax:	
		Cell:	
		Email	
		Tel:	
		Fax:	
		Cell:	
		Email	

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Venue

8. DECISIONS BY THE SKETCH PLAN COMMITTEE

There are typically 3 possible alternative outcomes to the SPCM

8.1. Alternative 1

The plans and documentation (i.e. architect's drawings, engineers' reports, quantity surveyor's cost estimate & norms reconciliation, etc.) do comply and are recommended by the SPC. The recommendation entails that a standard has been achieved which can enable the work to be taken to tender stage. The recommendation is then made to the Director: Special Projects or Director: Projects that work stage 3 had been achieved and that the team of consultants could proceed with the next work stage commensurate with architect's work stage 4 (technical documentation) This means that the work of the whole team of consultants has reached the standard of planning, design & work required by the DPW, for the work to be signed off as having reached a minimum equivalent of the architect's work stage 3. Go ahead for the completion of tender documentation is subject to the availability of funding, this forms part of the Departmental project manager's duties to ascertain. Additions to the scope of work should be addressed by the DPW PM in the prescribed way, although the SPC could comment on the necessity of such additions, should it wish to do so

8.2. Alternative 2

As above, with minor amendments documented in minutes that should be incorporated without re-submission to the SPC. The minutes will be forwarded to the responsible Director for approval and copy to the DPW PM

8.3. Alternative 3

When a number of solutions have not yet been achieved, or too many outstanding items requiring attention or unresolved matters impacting on the outcome, it is recommended to the DPW PM that the following actions be followed:

- a) The SPCM will be closed. Program dates to be established for the outstanding work to be finalized. A new target date to be set for submission to the SPC
- b) If it is clear at the beginning of the SPCM that the SP proposal requires major changes, time could be put to good use and with approval of various parties can be utilized for the very necessary discussions amongst the professional consultants and the DPW professionals, outside the SPCM. The attendees remained convened as a technical meeting

9. PAYMENT OF SKETCH PLAN FEES

The acceptance of the SP submitted to the SPC will normally imply that the architects have completed stage 3 of their appointment, and engineers their preliminary design report stage. The consultant can then on completion of the required amendments and approval by the relevant Director: Projects at Regional Offices and Director: Special Projects at Head Office of the SP be paid for the completion of the Sketch Plan stage. This SPC acceptance and recommendation of the SP will however, not exonerate the DPW PM of his/her obligation to ensure full compliance with the brief and that the payment is due in terms of their conditions of appointment of the various consultants, before certifying the account for payment

10. LETTER OF RECOMMENDATION TO DELEGATED AUTHORITY



To Organization Fax no. / E-mail Address (Enter Name of PM)
NDPW PM

ax no. / E-mail Address

LETTER OF RECOMMENDATION

PROJECT NAME______ WCS NO. _____

The Sketch Plan Committee has scrutinized the documentation presented and is in agreement that the documentation can be recommended for approval by the Director: Projects/ the Head: Special Projects

Regards,

(Signature)

Name (Enter name of the Chairperson of the SPCM) Chairperson of the SPCM Date

11. SKETCH PLAN APPROVAL 11.1 Sketch Plan Approval

PM 006-15

Sketch	Plan Approval	by Heads of	Projects in	Regional	Offices, Spe	ecial
Project	s Head Office,	following the	recommen	dation of t	he Chairpe	rson of
the SPC	CM	-			-	

This form to be completed and signed by the Director: Projects in the Regional Office or Director: Special Projects at Head Office

PROJECT		WCS NO :		
		REFERENCE NO:		
For attention: DPW PM:			(Name)	
		Yes	No	
1	Recommendation by Sketch Plan Committee (SPC) attached			

Recommendation by SPC approved/ approved with amendments

Comments:

NAME Director: Projects/ Special Projects SIGNATURE

DATE

A COPY OF THE SIGNED FORM TO BE FORWARDED TO THE CHAIRPERSON OF THE HO SPC FOR INFORMATION (Where applicable)

Sketch Plan Approval (No Formal SPCM) 11.2

PROJEC	CT			
For at	tention: DPW PM:	REFERENCE NO	(Name)	
Sketcl Deskte 1	h Plan Process not required (in line op studies done by the following dis Architecture	with delegated authors only:	ority)	
2	Landscape Architecture			
3	Civil Engineering			
4	Electrical Engineering			
5	Mechanical Engineering			
6	Mechanical: Fire engineering			
7	Mechanical: Security			
8	Structural Engineering			
9	Heritage Specialist			
10	Quantity Surveying			
11	Other			
SKET	CH PLAN APPROVED/ APPROVE	D AS AMENDED		
Comm	nents:			
NAME Projec	Director: Projects/ Special ets	SIGNAT	URE	

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DNA 000 40

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12. QUERIES REGARDING THE SKETCH PLAN COMMITTEE MEETING MAY BE DIRECTED TO:

Name of Regional Office

Directorate: Projects Name: Physical Address: Postal Address: E-mail Address: Telephone: Cell-phone: Fax:

Head Office:

Directorate: Architectural Services: Ms H Nienaber / Ms M Motsoeneng Physical Address: Central Government Office, c/o Madiba and Bosman Streets Postal Address: Private Bag X65, Pretoria, 0001 E-mail Address: <u>helene.nienaber@dpw.gov.za</u> / <u>mamalo.motsoeneng@dpw.gov.za</u> Tel: (012) 406 1369 / 1371