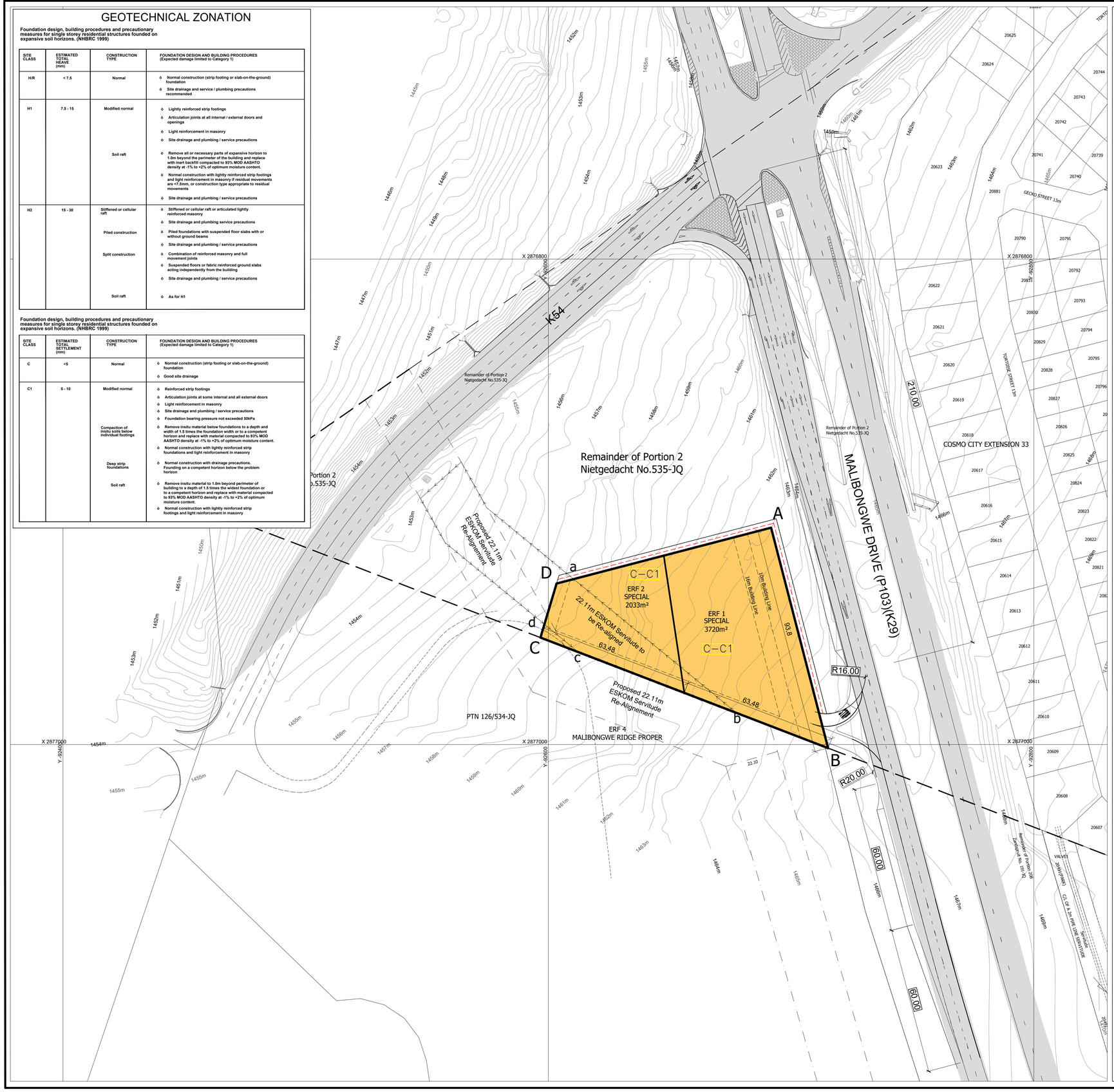
GEOTECHNICAL ZONATION

Foundation design, building procedures and precautionary measures for single storey residential structures founded on expansive soil horizons. (NHBRC 1999)

SITE CLASS	ESTIMATED TOTAL HEAVE (mm)	CONSTRUCTION TYPE	FOUNDATION DESIGN AND BUILDING PROCEDURES (Expected damage limited to Category 1)
H/R	< 7.5	Normal	◊ Normal construction (strip footing or slab-on-the-ground) foundation ◊ Site drainage and service / plumbing precautions recommended
H1	7.5 - 15	Modified normal	◊ Lightly reinforced strip footings ◊ Articulation joints at all internal / external doors and openings ◊ Light reinforcement in masonry ◊ Site drainage and plumbing / service precautions
		Soil raft	◊ Remove all or necessary parts of expansive horizon to 1.0m beyond the perimeter of the building and replace with inert backfill compacted to 93% MOD AASHTO density at -1% to +2% of optimum moisture content. ◊ Normal construction with lightly reinforced strip footings and light reinforcement in masonry if residual movements are <7.5mm, or construction type appropriate to residual movements ◊ Site drainage and plumbing / service precautions
H2	15 - 30	Stiffened or cellular raft	◊ Stiffened or cellular raft or articulated lightly reinforced masonry ◊ Site drainage and plumbing service precautions
		Piled construction	◊ Piled foundations with suspended floor slabs with or without ground beams ◊ Site drainage and plumbing / service precautions
		Split construction	◊ Combination of reinforced masonry and full movement joints ◊ Suspended floors or fabric reinforced ground slabs acting independently from the building ◊ Site drainage and plumbing / service precautions
		Soil raft	◊ As for H1

Foundation design, building procedures and precautionary measures for single storey residential structures founded on expansive soil horizons. (NHBRC 1999)

SITE CLASS	ESTIMATED TOTAL SETTLEMENT (mm)	CONSTRUCTION TYPE	FOUNDATION DESIGN AND BUILDING PROCEDURES (Expected damage limited to Category 1)
C	<5	Normal	◊ Normal construction (strip footing or slab-on-the-ground) foundation ◊ Good site drainage
C1	5 - 10	Modified normal	◊ Reinforced strip footings ◊ Articulation joints at some internal and all external doors ◊ Light reinforcement in masonry ◊ Site drainage and plumbing / service precautions ◊ Foundation bearing pressure not exceeded 50kPa
		Compaction of insitu soils below individual footings	◊ Remove insitu material below foundations to a depth and width of 1.5 times the foundation width or to a competent horizon and replace with material compacted to 93% MOD AASHTO density at -1% to +2% of optimum moisture content. ◊ Normal construction with lightly reinforced strip foundations and light reinforcement in masonry
		Deep strip foundations	◊ Normal construction with drainage precautions. Founding on a competent horizon below the problem horizon
		Soil raft	◊ Remove insitu material to 1.0m beyond perimeter of building to a depth of 1.5 times the widest foundation or to a competent horizon and replace with material compacted to 93% MOD AASHTO density at -1% to +2% of optimum moisture content. ◊ Normal construction with lightly reinforced strip footings and light reinforcement in masonry



GENERAL NOTES

1. TOWNSHIP BOUNDARY
A-B-C-D-A

2. ROADS

Reserve widths of all internal streets are indicated on the plan. Splays on all Class 5 streets are 10mx10m.

Maximum slope on roads is 1: 20
Minimum slope on roads is 1: 200

3. CONTOUR LINES

The Contour lines are based on standards laid down in Regulation 21(2) of the Town Plannign and Townships Ordinance (TVL) 25 of 1965 as amended.

..... 2021/11/04
Xan Swart Date

4. CO-ORDINATES

The Co-ordinate reference is based on Lo 29 WGS84 system. Baseplan mapping was done by:

..... 2021/11/04
Xan Swart Date

5. FLOODLINES

It is hereby certified that in terms of the provisions of section 144 of the National Water Act (Act 36 of 1998) that the township is not affected by any floodlines.

Specialist Engineer: Eben Beetge
Firm: CIVIL ENGINEERING DEVELOPMENTS CC

..... 2021-11-03
Signature Date

6. GEOLOGICAL

It is hereby certified that the layout of the township complies with the recommendations and requirements set out in the Geotechnical Report no. 04/814/2, dated 16 June 2005.

Engineering Geologist: NINO WELLARD
Firm: MOORE SPENCE JONES (Pty) Ltd.

7. All dimensions shown on the plan are approximate, scaled in meters and subject to final survey

SERVITUDE NOTES

1. a b c d a represents an existing Eskom Servitude that will be re-aligned as illustrated.

DRAFT PROPOSED TOWNSHIP

COSMO CITY EXTENSION 55

SITUATED ON PART OF PORTION 2
OF THE FARM
NIETGEDAGCHT NO. 535 - JQ

CITY OF JOHANNESBURG METROPOLITAN MUNICIPALITY

N

LOCALITY PLAN SCALE 1 : 50 000

SCHEDULE OF ERVEN

ZONING	LAND USE	± ha	%	NUMBERS	QUANTITY
SPECIAL	PUBLIC GARAGE	0.5753	100	1 - 2	2
TOTAL		0.5753	100		2

NOTES

- OUTSIDE BOUNDARY OF TOWNSHIP
- FARM BOUNDARY
- GEOTECHNICAL ZONES
- 1:50 YEARS FLOODLINE
- 1:100 YEARS FLOODLINE
- LINE OF NO ACCESS

OWNERSHIP:
COSMOPOLITAN PROJECTS
JOHANNESBURG (PTY) LTD

DESIGN AND DRAWN:
A MATHEY

DATE	AMENDMENT

cosmopolitan consult

P.O. Box 754
Auckland Park
Tel: (011) 541-3800

Date:	NOVEMBER 2021
Scale:	1 : 5 500
PLAN No:	COSMOCITYX55_001