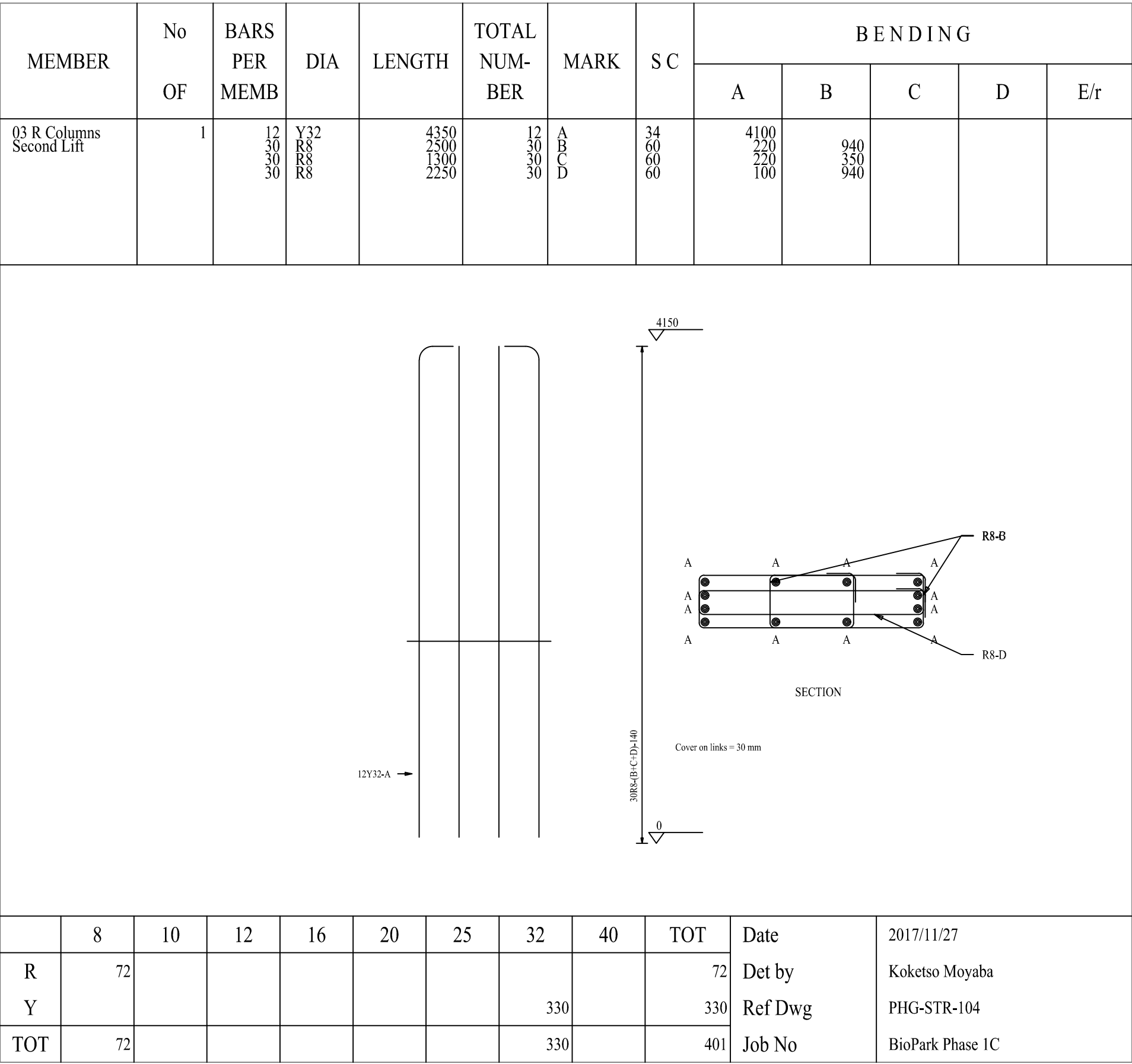
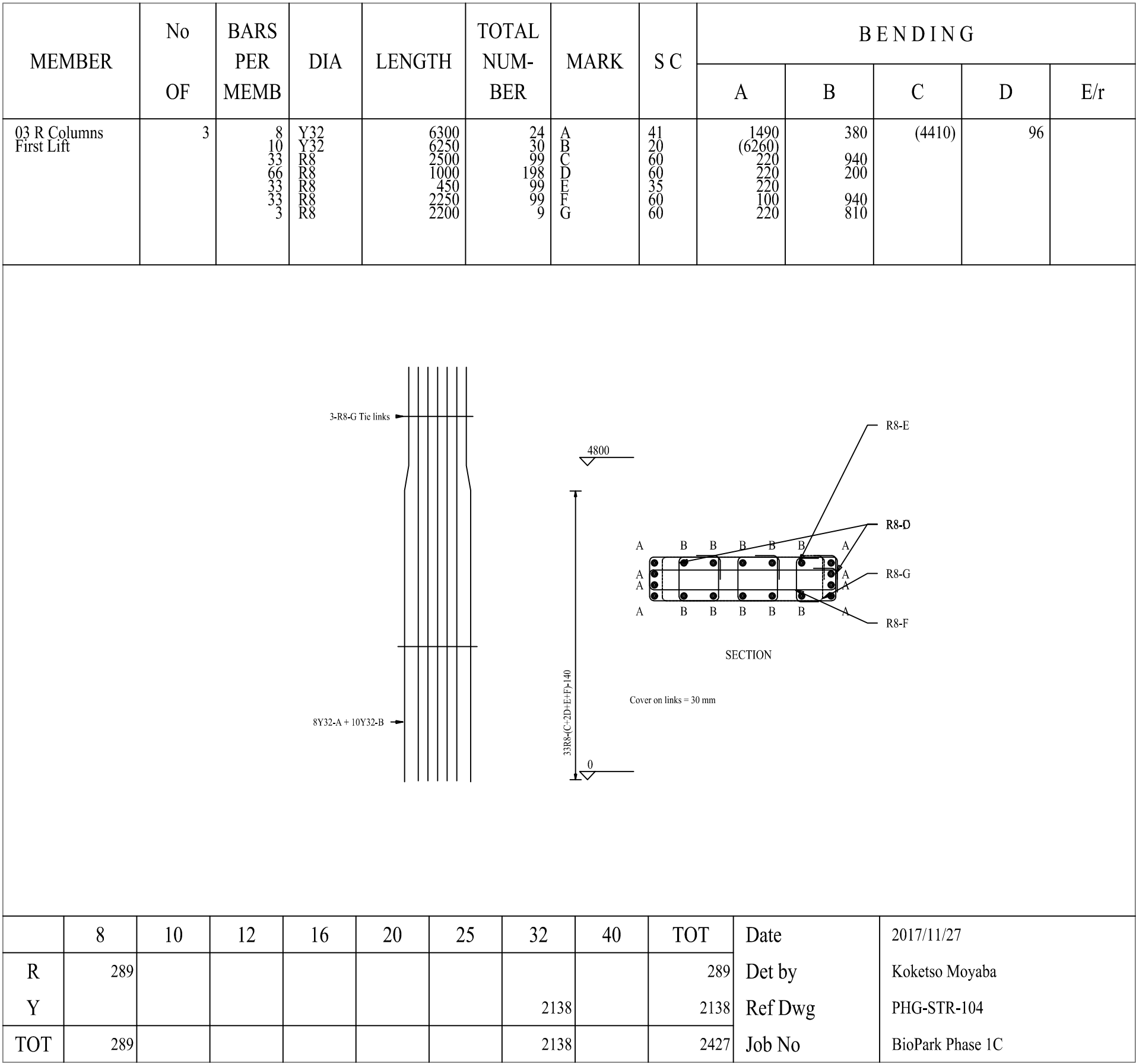
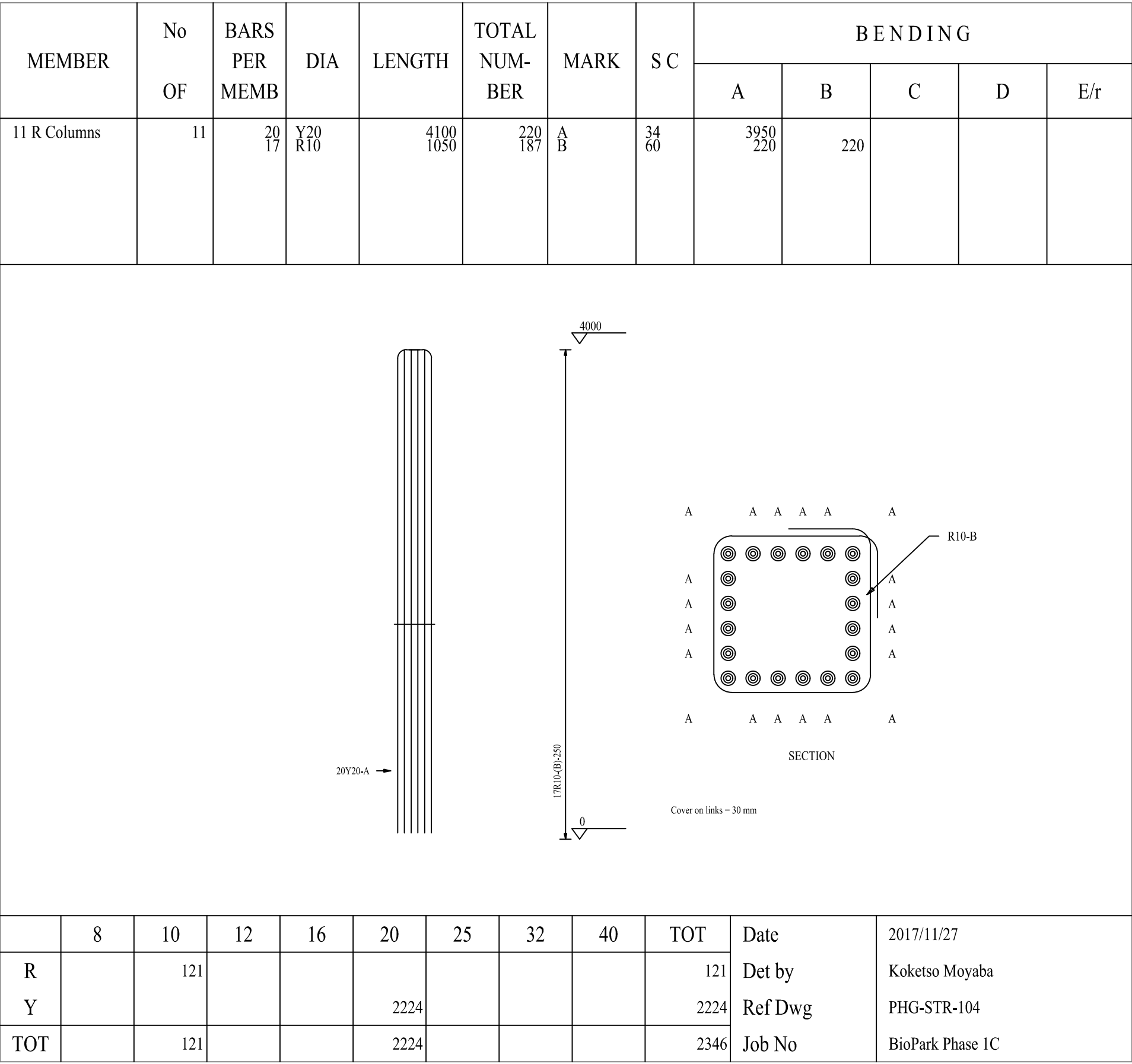
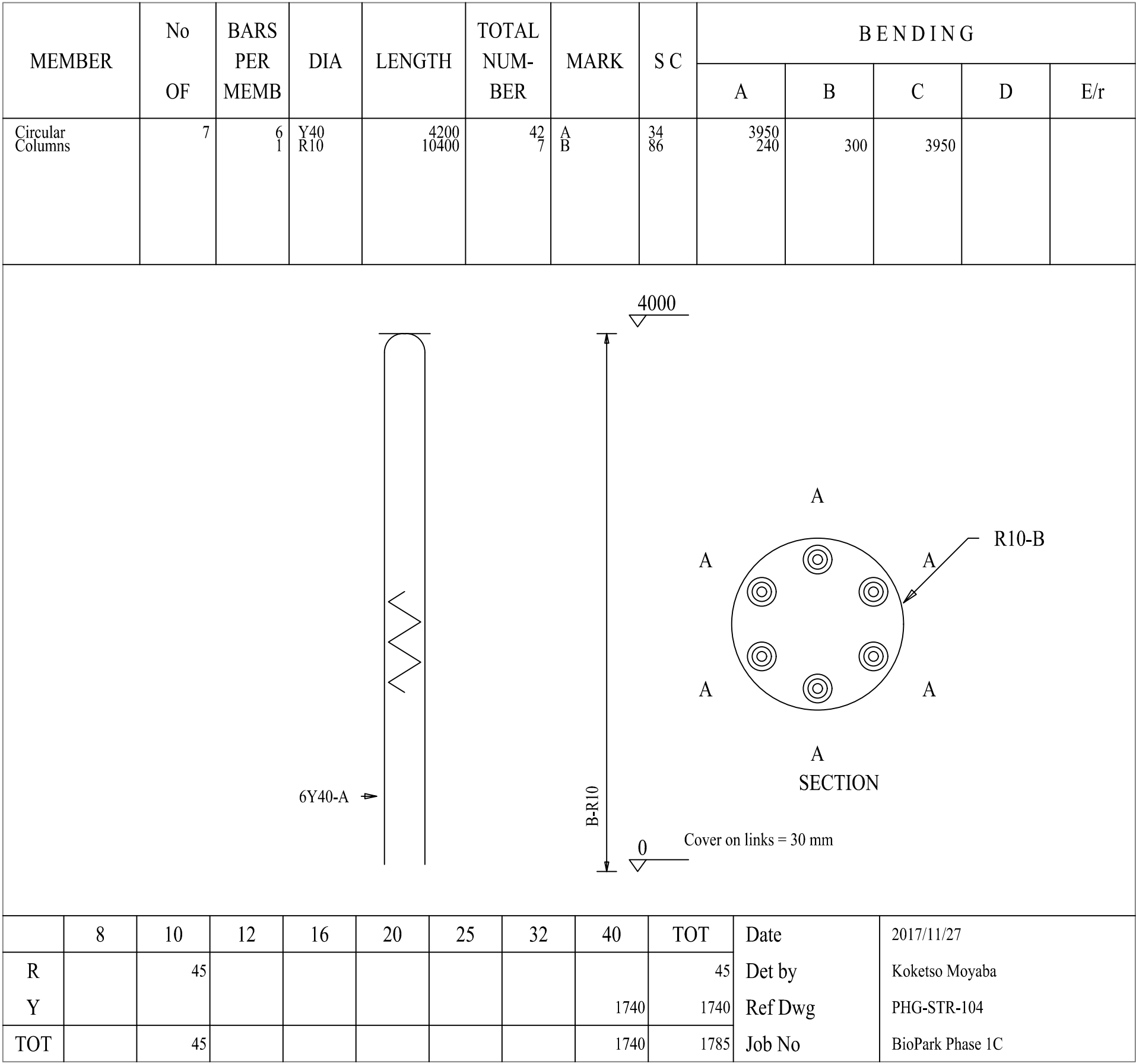




GENERAL NOTES

- FIGURED DIMENSIONS ONLY TO BE USED.
- COORDINATES BASED ON WGS84
- LEVELS BASED ON MSL DATUM
- DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE REPORTED TO ENGINEER IMMEDIATELY THEY BECOME EVIDENT.
- SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL PRIOR TO MANUFACTURE OR INSTALLATION.
- COPYRIGHT AND RIGHT OF REPRODUCTION OF THIS DRAWINGS OR ANY PORTION THEREOF IS RESERVED.

Legend

Roof Line	
Section cut	
Proposed Walls	
Concrete Work	
Fittings on Proposed uPVC Water Pipeline (Class 16)	
Fittings on Proposed Sewer Line	
Overland Stormwater Drainage	

NOTES

- Excavations for foundations and all reinforcing must be approved by the engineer before any concrete is cast.
- All basins are symmetrical about the center lines unless otherwise shown.
- Specifications:
 - Reinforced concrete work SABS 1200g
 - Structural steel work SABS 1200h
 - Paintwork on steel SABS 1200h
- Concrete work: all brickwork are load bearing and must be completed before commencing with the construction of the concrete slab
- Minimum concrete cover:
 - Bases 75mm
 - Columns 40mm
 - Beams 25mm
 - Slabs 12mm or dia
- Concrete: all ready mixed concrete will only be approved if a mix design and cement grading by SABS is submitted to the engineer.
- Test cubes minimum must be tested by an independent soil laboratory.
- All imported cement approved by the SABS must be approved by the engineer on the basis of:
 - All cement must be bought in one batch and treated to SABS 1200g.
 - A mix design must be submitted.
 - 4 sets of 3 test cubes must be submitted with age of testing as follows:
 - 3 cubes @ 7 days
 - 3 cubes @ 14 days
 - 3 cubes @ 21 days
 - 3 cubes @ 28 days
- Concrete cube strength at 28 days:
 - Blinding 15 MPa
 - Reinforced Foundations 30 MPa
 - Columns 40 MPa
 - Beams 30 MPa
 - Slabs and Staircases 30 MPa

Rev	Date	Issued for	Approved
		Preliminary	
		Information	
00	26/11/2017	Tender Contract	
		Measurement	
		Construction	
		Approval	

Client: THE INNOVATION HUB
Innovation Capital for Growing City Region
A subsidiary of the Growing Growth and Development Agency
BIO PARK
Growth
Growth
Growth

Discipline	Signature	Pr Number	Date
Architecture			
Civil/Structural			

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Project Title:
Construction of BioPark Phase 1C
Extension to Phase with a Second Floor and Lift

Drawing Title: Columns Reinforcing Layouts and Bending Schedule PHG-STR-104	Designed by: Koketso Moyaba, Civil & Structural Engineer
Date November 2017	Drawn by: Koketso Moyaba, Civil & Structural Engineer
Scale NTS	Checked by: TS Wankwany; PrEng

