

1/24
File No.NR-HQE0DOE(YARD)/4/2022-O/o SSE/Y1/DOE/HQ

Northern Railway

Headquarters Office,
Baroda House,
New Delhi.

No.DOE/2022/Status of ESP

Dated: 11-11-2022.

Divisional Railway Manager,
New Delhi, Firozpur, Lucknow,
Ambala, Moradabad.

CAO/C & CAO/C-I,
Northern Railway,
Kashmere Gate,
Delhi.

CAO/C/USBRL,
Northern Railway,
Kashmere Gate,
Delhi.

Sub: Checklist in connection with approval of ESP (Engineering Scale Plan) of station yard & GAD of Buildings other than Station Building.

Ref: (i) This office letter no.DOE/Misc/2017 dated 03.02.2017.

(ii) PCE Circular no. 601 dated 23.02.2021 read with addendum dated 16.11.2021

* * *

Vide this office letter under reference (i), check list for approval of ESP was circulated. The said checklist has been revised. The revised check list along with checklist for approval of GADs is being sent herewith. To cut down the approval time and to minimize back reference, henceforth, following procedure may be adopted as given below:

- i. ESPs may be prepared as per the Revised Checklist attached as per Annexure-I & II.
- ii. GADs of buildings may be prepared as per checklist attached as per Annexure- III.

As per GM's instructions in meeting held on dated 28.10.2022, the Sr.DEN or Dy.CE/C concerned must ensure that all Revised Checklist points are complied before submission to HQs.

This is for your information & necessary action please.

DA: Annexure-I, II & III.

Digitally Signed by Sanjay
Kumar Srivastava
(Sanjay Kumar Srivastava)
Date: 14-11-2022 10:47:24
Reason: Approved
Chief Engineer/P&D

Copy to:

- ✓ 1. Secy. to GM/NR for kind information of GM.
2. Secy. to AGM/NR for kind information of AGM.
3. Secy. to PCE/NR for kind information of PCE.
4. Sr.DEN/Co-Ord. – DLI, FZR, LKO, MB & UMB.
5. CMD/RVNL, Plot no.25. 1st floor, August Kranti Bhawan, Bhikaji Cama Palace, New Delhi-110066.
6. CMD/HRIDC, Plot No 143, 5th Floor, Railtel Tower, Sector-44, Gurugram, Haryana.
7. Director/PP, DFCCIL, 5th floor, Pragati Maidan Metro Station Building Complex, New Delhi.
8. Director/Project, RITES Bhawan, I, Sector 29 Gurgaon Haryana, 122001.

ANNEXURE I

REVISED CHECKLIST OF STATION YARDS		
CHECK LIST FOR PREPARATION OF YARD PLAN		
S.no.	Description	Yes/No/NA
1	Has Name of Work mentioned on the ESP?	
2	Type of work: Works programme/Deposited Work/Private.	
3	(i) Details of sanctioned Work as per works Programme/ work id of Railway	
	(ii) scope of work/justification for Revision,if any	
4	Has the existing layout and feasibility of new proposal been checked at site and a feasibility certificate is endorsed on the plan by the SSE/W, SSE/P.Way, SS, TI and AEN concerned .	
5	Whether North line has been shown on the top of the drawings as per para 906(a) (i) of IRWM?	
6	Have all the lines been numbered and designated for identification and reference with direction of traffic (UP and DN line) as per para 468 of Engg. Code ?	
7	Has the plan been prepared in scale of 1 in 1000 as per para 468 of Engg. Code?	
8	Has the spelling of stations names with their KM and class been shown as per working Timetable/System map and para 906(a)(iii) of IRWM ?	
9	Has the distance between Northern Railway boundary to centre line of main track at an every offset with chainage as per para 906 (a) of IRWM been shown? Has the lan plan no. mentioned on the plan?	
10	Does the plan bear the name of officers concerned along with their signatures with dates, month and year as per para 904(a) of IRWM and Pr.CE circular 601 dated 23.02.2021?	
11	Has the reference number of previously HQ approved plan on which the existing layout is based, been mentioned on the plan?	
12	Has the plan allotted divisional plan number and space for NRHQ plan number kept on the bottom and top right corner?	
13	(i) Has the gradient posts with chainages upto 2.5 km in rear of outer most point on either side as per para 8.6.2 (v) signal Engg. Manual Part-I been shown?	
	(ii) Gradient of new station yards within 50.0m from outermost point should be 1 in 1200. Permitted upto 1 in 400 with approval of GM/NR as per item no.2 note (b) chapter II of SOD-2022. Dispensation of CRS required for gradient steeper than 1 in 400 upto 1 in 260. Railway Board's condonation required for gradient steeper than 1 in 260. Dispensation or condonation obtained/to be obtained should be indicate clearly in ESP as per item no.2 note (d) (ii) chapter-II of SOD-2022.	
14	(i) Have the changes of gradient falling within 30 meter of points and crossing been revised suitably as per chapter II (2-d) of SOD-2022 ?	
	(ii) Has it been ensured that there is no change of super elevation between 18.0m out side toe of switch rail & nose of crossing respectively, except in the case of special crossing leading to snag dead ends or under circumstances as provided for in item no.22 chapter II of SOD-2022.	
15	The distance between centre of tracks in station yards should be shown & min track centre adopted as per SOD-2022.	
16	Requirement of Dead ends/ over run line for isolation and simultaneous reception. All standard dead ends should the wording " Not fit for stabling" and length should not be less than 120.0m for MACLS as para 8.6.2.(iv) of SEM-I.	

17	All running lines must be isolated from Sand Hump or Over run line (where adequate space for sand hump is not available) & take off machine siding/other siding are not extension of over run line. It should be take off from over run line as per letter no. 86-T/359/TGP/Policy/Pt.V dated 17.03.2021.	
18	(i) Have the type of platforms (i.e. passenger or goods) with length and their heights above rail level as per para 906 (a) (xiv) of IRWM been shown? (ii) Have the instructions in Expenditure control letter no. NR-HQE0DOE (YARD)/07/2021 dated 08.08.2022 complied?	
19	Platform, Structures like station building, ROB's, FOB's etc. should be hatched in different patterns for easy identification.	
20	Has the provisions for the end width of island passenger platform as per NR type plan P-37 less than 6825mm followed?	
21	Have the chainage of all points and crossings, FM's Traps Dead Ends as per para 906 (a) (xiv) of IRWM been shown in the plan?	
22	Whether max. Degree of curvature is 10 degree or less as per item no.2 Chapter-I of SOD-2022	
23	Have the complete details of curves such as curve number, deflection angle, degree of curve, radius of curve tangent length, curve length, super elevation, transition length, and speed in KMPH as per para 906(a) (xv) of IRWM been shown?	
24	Have the LC gate number, class and its Kilometerage whether manned or unmanned, interlocked or non-interlocked and current TVU upto 2.5 KM in rear of outermost point on either sides as per para 906 (a) (xv) of IRWM been shown?	
25	Have the names of nearest junctions or terminal stations on either sides as per 906(a) (ii) of IRWM been shown in the plan?	
26	Have the names of adjoining stations along with their class and KM on either sides of the station been shown?	
27	Has the infringements of standard dimensions, in tabular form, if any been shown as per para 906(a) (xvi) of IRWM ?	
28	Have the CSR of all the lines including siding been written on the plan Where to where (say FM to FM or Trap or point etc.) as per para 906(a) (xiv) IRWM. Also length of lines should be kept 750.0m as per RB letter no.2017/TT-1/75/1 dated 13.09.2018.	
29	Has the complete description of the bridge within station limit along with their direction of flow as per IRWM para 906(c) been written on the plan?	
30	Has provision of siding for Track machine as per IRTMM para 8.4.4 (30 km apart) in projects of new lines, doubling gauge conversion and yard remodelling is done?	
31	Provision of Slip siding/Catch Siding as Required: (a) If the gradient steeper than 1 in 100 falling towards Block, Slip Siding to be Provided. (b) If the gradient steeper than 1 in 80 falling towards Station, Catch Siding to be Provided.	
32	Has provision of Passenger Amenities and stations as per RB letter No.2018/LM (PA)/03/06 dated 09.04.2018 is followed?	

33	For laying of turnouts with 1 in 12 or flatter taking off from curve, it shall be ensured that the resultant lead curve radius as well as the radius of main line curve shall not be less than 350.0m . For yard remodelling in existing yards, taking off 1 in 12 or flatter turnout with inside of curved main line the resultant lead curve radius upto 290.0m is allowed with the approval of PCE/NR as per para 408(2)(e)(i) & para 408(2) (e) note(2). In case of resultant radius falls within 290.0m to 350.0m has the condonation of PCE taken before processing ESP?	
34	(i) Whether the instant case is of Pvt siding/Deposit work/GSMMCT ?	
	(ii) If Yes whether Annexure-II of checklist is attached?	
35	Frequent Revision should be avoided. New proposal should not normally be processed within three months of last approved ESP.	
As per GM's instruction in meeting on 28.10.2022, concerned Sr.DEN or Dy.CE/C must ensure that all above checklist points are compiled in the ESP before submitting it for HQ approval.		

Date:

Signature of Concern Sr.DEN/ Dy.CE/C



Annexure II

CHECKLIST OF STATION YARDS			
CHECK LIST FOR PREPARATION OF YARD PLAN			
S.no.	Description		Yes/No/NA
1	In case of Deposit work/GATI SHAKTI MULTI MODEL CARGO TERMINAL		
	a	Name of approved consultant, validity of approval of the consultant & Has the plan been got signed by the party & consultant with their stamp?	
	b	Date of DPR approval by DRM.	
	c	Allocation head in which company has been deposited the requisit amount.	
	d	Whether facility has been provided In the ESP as per approved DPR	
	e	Name of executing agency.	
<i>As per GM's instruction in meeting on 28.10.2022, concerned Sr.DEN or Dy.CE/C must ensure that all above checklist points are compiled in the ESP before submitting it for HQ approval.</i>			

Date:**Signature of Concern Sr.DEN/ Dy.CE/C**

Check List of Various Items for Approval of General Arrangement Drawing

SN.	ITEMS	REFERENCE	Compliance YES/NO/NA
1.	TITLE AND NUMBER OF DRAWINGS	IRWM 904 (a)	
	Title block size -170mm x65mm with basic information.		
	i) Name of Railway		
	ii) Name of division/ Construction Organization		
	iii) Complete Name of Work		
	iv) Mention of Reference to sanction particulars (Pink Book Item No. and year etc.)		
	v) Scale of drawing and reference to standard drawing, if any.		
	vi) Division & Construction Drawing Number		
	vii) HQ Drawing number		
	viii) Dated initials of the concerned officials (as per PCE-circular no. 601 dated 23.02.2021) including initials of officials of User Department.		
	ix) Alterations, if any, with full particulars		
	x) Numbering of sheets	IRWM 904 (b)	
2.	Endorsement of Feasibility Certificate by field & Divisional Engg. Officials		
3.	Adoption of provisions such as Type of building, building Setbacks, Ground Coverage, Floor Area Ratio (FAR)/Floor Space Index (FSI), Parking requirements in terms of Equivalent Car Spaces (ECS), High rise building criteria, staircase/corridor width etc. as per prevailing Local building bye-laws of the District/state needs to be followed (in absence of such bye-laws NBC needs to be followed).	Plz mention here the title of prevalent Bye-Laws:	
4.	The GA plans for buildings shall be in following parts:	IRWM 906(a)	
	i) Key Plan showing vicinity map that shows the station building in relation to major highways and access roads so one can at least figure out how to get there.		
	ii) Site Plan in the form of an area layout around the building showing location and approach to the building with respect to other structures existing/ proposed in the vicinity. Or it may be a plan showing location of building within an enclosure or a plot, with a plan of approach to building given separately.		
	iii) All floor plans i.e. Ground floor plan, First floor plan etc. drawn to suitable scale with proper Grid Lines . The plans should be working plans, fully dimensioned.		
	iv) A Terrace plan showing slope of the roof with location of overhead water storage tanks with its capacity, Fire tank (if required as per NBC-2016), Mumty and water outlet.		
	v) Plans Showing type of furnishings and layout of furniture.		
	vi) Drainage & Sewage plans showing (in the respective floor plans) and giving type & size of pipes/drains with slopes and direction of flow.		
	vii) Water supply plan showing (in the respective floor plans) and giving type & size of pipes/other fittings if any.		
	viii) Typical Sections through the building to clarify all heights and relevant construction details (especially through staircase, toilet & kitchen).		
	ix) Elevations from all sides showing dimension/levels of various elements of the building.		

	x) Door and window schedule with specifications such as type, dimension and material.		
	xi) Attaching detailed calculation sheet for water supply requirement		
	xii) Total plot area, Ground coverage, FAR, Floor wise area etc in tabulated form		
5.	Details on the drawing:	IRWM 906(a)	
	i) The site plan/ key plan should show north direction.		
	ii) The boundaries of land according to land plans.	IRWM 906(a) V	
	iii) Any known bench mark with the datum from which its value has been reckoned	IRWM 906(a) VI	
	iv) Temples, Mosques and graves, roads and footpaths with the names of towns or villages they lead to should be mentioned on the plan.	IRWM 906(a) X	
	v) Water supply and waste pipes should be housed in proper shaft and should be proposed (if possible) on the back side of building. Toilets on all floors should be proposed as such to reduce excessive plumbing.		
6.	Adoption of Standard sizes of drawing (i.e. A-0, A-1, A-2 etc.) as per CS No. 10 of IRWM	Pl Mention here the adopted size of Plan:	
7.	Provision of expansion joint (if required)		
8.	Provision of separate toilet facilities for differently-abled person in WS/offices ensuring prescribed size requirements		
9.	Provision of separate changing room facility/ladies toilet in WS/offices ensuring prescribed size requirements.		
10.	Development of Building as 'Green Building' as per extant instructions of Railway board.		
11.	Adoption of Rainwater harvesting system as per Rly Board letter no.2013/LMB/9/1 dated 09.09.2013		
12.	Provisions prescribed in Railway Board letter no.2013/LMB/10/15 dated 11/12/2013.		
	(a) Adoption of prescribed Plinth Area requirements for Staff Quarters		
	(b) Adoption of prescribed Specifications for Constructions of Staff Quarters		
13.	Adoption of Minimum dimensions for residential building (As per IRWM Annexure 2.10)		
14.	Adoption of applicable Fire Fighting norms as per Chapter-IV of NBC		
15.	Checked the Building Drawings in accordance with the Basics of Architecture e.g. Aesthetics, ease of movement, balance in design, matching outlook with surroundings, right proportions, possibility of future expansion etc., Guidelines of National Building Code (NBC), Any local bye laws as may be applicable, and any other specific guidelines available from reference books i.e. Time saver standards or on net for specific type of buildings or other layouts etc. Instructions contained in CE Circulars, Requirements of user department if available.		

(As per GM's instructions in meeting on 28.10.2022, concerned Sr. DEN or Dy.CE/Construction must ensure that all above checklist points are complied in the GAD before submitting it for HQ approval)

Dated:

Signature of Concerned Sr.DEN/ Dy.CE : _____