



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
Manila

097.13 DPWA
01-19-2016

15 JAN 2016

DEPARTMENT ORDER)

NO. 15)

Series of 2016)

SUBJECT: Guidelines on the Processing and Approval of "As-Staked" Plan

To hasten the processing and approval of "As-Staked" plan for greater efficiency in the implementation of projects, the following guidelines are hereby issued for the information and compliance of all concerned:

1. The conduct of "As-Staked" or pre-construction survey shall be required for all infrastructure projects to be implemented by DPWH and the result of said survey shall be the basis of the preparation of the corresponding "As-Staked" plan. Said survey which is also known as a site layout survey, is the process of verifying the actual field condition and staking out the alignment/location of the proposed and existing facilities and structures vis-à-vis the approved detailed engineering plan prior to the construction activity.
2. The "As-Staked" plan shall be a new set of plan depicting the actual field condition and requirements derived from the "As-Staked" survey. Annex "A" lists all the required drawings/information to be included in the "As-Staked" plan.
3. The "As-Staked" plan shall be prepared by the contractor based on the pre-construction survey jointly conducted by the contractor, implementing office (Construction and Planning & Design Section/Division of District/Regional Office and Unified Project Management Office), and construction supervision consultant (CSC), if any. Upon issuance by the DPWH of the Notice to Proceed (NTP) for a contract, the implementing office (IO) shall provide the contractor with an editable CAD file (electronic/soft copy) of the approved original plan of the project to facilitate the preparation of "As-Staked" plan. The plan shall be reviewed and evaluated by the Planning and Design Section/Division of the IO for District/Region implemented projects.
4. In all cases, the IO shall see to it that, within the prescribed time duration shown in Annex "B", the contractor must have submitted the "As-Staked" plan of the entire project together with supporting documents as listed in Annex "C". In the event that the contractor failed to deliver the "As-Staked" plan on time for processing, the contractor shall submit to the IO a request for one (1) time extension of fifteen (15) days, regardless of the project cost, to prepare the plan. No initial payment (first progress billing) shall be made to the contractor if partial or complete "As-Staked" plan is not submitted. The request shall state the reasons for delay and shall be approved by the following:

Implementing Office	Approving Authority
District Engineering Office (project cost < PhP 50M)	District Engineer

Implementing Office	Approving Authority
Regional Office (project cost < PhP 200M)	Regional Director
Regional Office (project cost ≥ PhP 200M)	Undersecretary for Technical Services
Unified Project Management Office	Undersecretary for Technical Services

5. Major design changes from the original plan as stated in Annex "D" should not be included in the "As-Staked" plan but shall be covered in a separate revised design plan.
6. Submission of "As-Staked" plan is not required if there are no changes in the original plan. The Project Engineer/Manager shall issue a certification to this effect to be concurred by the Head of IO within the prescribed time duration in Annex "B" after the issuance of NTP.
7. Submission of partial "As-Staked" plan (covering a portion/section of the project) may be allowed for large projects (costing PhP 200M and above) as long as it covers more than fifty percent (50%) of the physical target of the project. However, for structures such as buildings, bridges, and other related structures wherein each component affects the overall structural integrity, partial "As-Staked" plan shall not be allowed. The partial "As-Staked" plan covering the remaining portion/section of the project shall be submitted within the prescribed time duration shown in Annex "B".
8. The approval of "As-Staked" plans involving increase/decrease of less than five percent (5%) in quantities of major items of work [i.e. pay items which represent at least twenty percent (20%) of the total estimated cost of the contract] and less than ten percent (10%) of minor items of work and do not involve major design changes as mentioned in Annex "D" shall be approved by the Head of the IO. "As-Staked" plans involving increase/decrease exceeding the said limits and plans with major design changes shall be approved by the official who approved the original plan.
9. The "As-Staked" plan shall be prepared in accordance with D.O No. 56, series of 1995, re: Quality of Plans as per attached Annex "E".

All documents submitted for review/approval shall consist of original copies with editable electronic copy.

The IO concerned shall be responsible in keeping all the original copies of the above-cited plan together with all the documents appurtenant thereto for future reference.

This Order shall take effect immediately.


ROGELIO L. SINGSON
Secretary

Department of Public Works and Highways
Office of the Secretary



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Annex A

LIST OF REQUIRED DRAWINGS/INFORMATION IN THE AS-STAKED PLAN

Highway Plan

1. Cover Sheet
2. Index of Drawings
3. Summary of Quantities (Original and "As-Staked")
4. Drainage Schedule
5. Schedule Listings of Other Applicable Structures (e.g., Bio-engineering solutions, Road Signages)
6. Plan and Profile
7. Detailed Roadway Cross-sections superimposing the original cross-sections
8. Confirmatory Soil Boring Logs (for retaining walls)

Bridge Plan

1. Cover Sheet
2. Index of Drawings
3. Summary of Quantities (Original and As-Staked)
4. Bridge plan and elevation showing profile of riverbed along centerline superimposing the original profile.
5. Confirmatory soil boring log at substructures

Water Project Plan

1. Cover Sheet
2. Index of Drawings
3. Summary of Quantities (Original and As-Staked)
4. Longitudinal profile along centerline of river indicating the existing left and right banks, elevation of the proposed structures, Design Flood Level (DFL) and Ordinary Water Level (OWL)
5. River cross-sections indicating the proposed works and superimposing the original cross-sections.
6. Confirmatory soil boring logs
7. Plan, Profile, and Cross Sections (for Urban Drainage)

Building Plan

1. Cover Sheet
2. Index of Drawings
3. Vicinity Map, Location Plan
4. Topographic Plan
5. Perspective

Annex B

**PREPARATION AND SUBMISSION OF "AS-STAKED" PLAN
(Time Duration in Calendar Days)**

Project Type	Project Cost				
	Below 50M	50M up to 100M	Above 100M up to 150M	Above 150M up to 200M	Above 200M
Road Projects	15 days	30 days	45 days	60 days	90 days
Bridge Projects	15 days	30 days	45 days	60 days	75 days
Flood Control Projects	15 days	30 days	45 days	60 days	90 days
Buildings	12 days	25 days	35 days	45 days	60 days

Notes:

1. The above durations also include conduct of "As-Staked" survey and geotechnical investigation.
2. The above durations shall commence from the date of acceptance of the Notice to Proceed (NTP) by the contractor.

Annex C

SUPPORTING DOCUMENTS FOR REVIEW AND APPROVAL OF AS-STAKED PLAN

Highway Plan

1. Copy of the complete set of approved Original Plans
2. Detailed Technical Justifications for the changes in the Original Plans as per "As-Staked" survey.
3. Detailed Quantity Calculations of all the items of work involved.
4. Geotechnical/Soil Materials Test Report (for retaining walls)
5. Draft Itemized Cost of Revisions

Bridge Plan

1. Copy of the complete set of approved Original Plans
2. Detailed Technical Justifications for the changes in the Original Plans as per "As-Staked" survey.
3. Detailed Quantity Calculations of all the items of work involved
4. Geotechnical Reports for confirmatory borings, if necessary.
5. Draft Itemized Cost of Revisions

Water Project Plan

1. Copy of the complete set of approved Original Plans
2. Detailed Technical Justifications for the changes in the Original Plans as per "As-Staked" survey.
3. Detailed Quantity Calculations of all the items of work involved
4. Geotechnical/Soil investigation report
5. Draft Itemized Cost of Revisions

Building Plan

1. Copy of the complete set of approved Original Plans
2. Detailed Technical Justifications for the changes in the Original Plans as per "As-Staked" survey.
3. Draft Itemized Cost of Revisions (for earthwork pay items only)

Notes: Where there is substitution of materials involved, the following shall be submitted:

- a. Certification of non-availability of the specified materials from three (3) leading manufacturers or suppliers
- b. Technical Specifications of the original and substitute materials
- c. Design analysis

Annex D

MAJOR CHANGE IN DESIGN

Highway Plan

1. Horizontal re-alignment and the corresponding vertical alignment.
(Re-alignment refers to partial/section change in route direction)
2. Changes in soil classification (i.e. common material to rock material)
3. Changes in structure type (i.e., structure masonry to reinforced concrete;
pipe culvert to box culvert)

Bridge Plan

1. Changes in bridge finished grade elevation
2. Increase/decrease in sizes of the following structural members:
 - 2.1 Girder
 - 2.2 Slab
 - 2.3 Columns
 - 2.4 Footings
 - 2.5 Piles
3. Change in foundation design
4. Change in specification of materials to be used
5. Changes in construction methodology affecting structural design

Water Project Plan

1. Changes in foundation/structure scour protection works
2. Changes in type of slope protection

Building Plan

1. Change in topographic/site development plan
2. Change in foundation design and other structural building components
3. Change in specification of materials to be used
4. Changes in construction methodology affecting structural design

Notes:

1. Major change in design as enumerated above shall be prepared and included in a separate revised design plan.
2. Any additional works or deletions shall be included in the revised design plan.



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
Manila
Annex E

22 March 1995

DEPARTMENT ORDER)

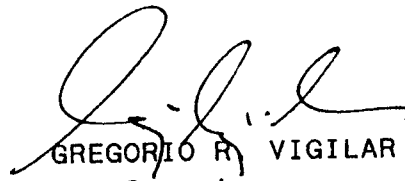
No. 56)
Series of 1995 3/2/95 SUBJECT: Quality of Plans

To facilitate the review and approval of plans submitted by the Project Management and Regional Offices (PMOs and ROs) henceforth, all Detailed Engineering plans, "As-Staked" plans and other related plans prepared either in-house or by consultants should be thoroughly checked by the Implementing Offices as to quality of workmanship and conformity with the following requirements prior to submittal of same for approval by higher DPWH officials:

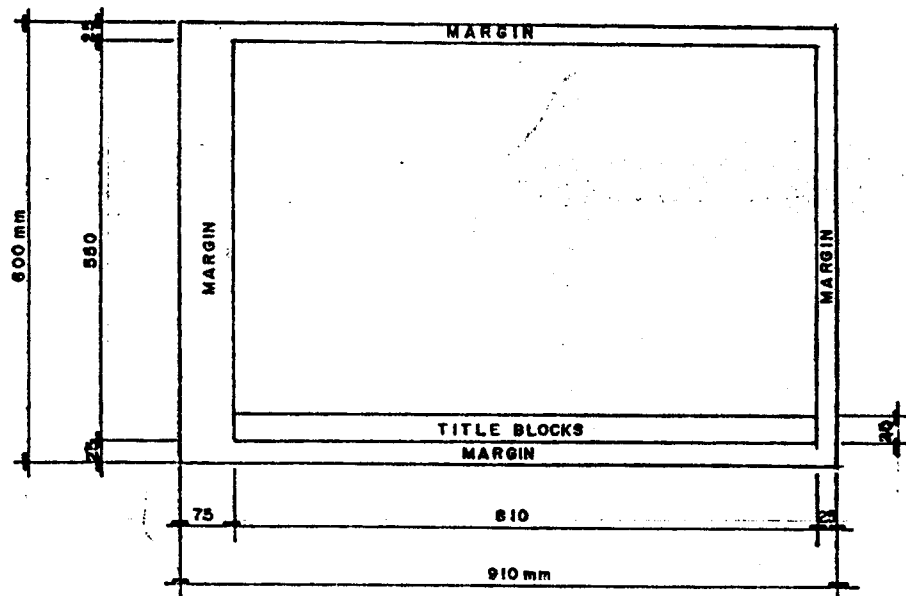
1. All the sheets in a set of plans should be uniform and of one standard size (refer to attached four sheets of drawings).
 - a) For Architectural, Structural, and Mechanical-Electrical plans for building and related projects, use 508mm x 762mm (20 inches x 30 inches) size.
 - b) For Bridge, Highway, Flood Control and Drainage, Water Supply and related projects, use 600mm x 910mm size.
2. Draftsmanship should be of professional quality. Drafting and lettering works should be done in ink and with the use of technical pens and Leroy or similar lettering templates.
3. All words on the plans should be correctly spelled and grammatical errors in the various texts of the General Notes should be looked after.
4. The meaning and intent of the provisions and/or specifications under the General Notes should be made clear and specific and should leave no room for misinterpretations that may lead to Variation Orders later on.

5. Revised or new plans for specific structures and other items of work should be prepared in standard sheets and properly authenticated with signatures of concerned DPWH officials and/or consultants.
6. All plans should be prepared using Mylar or other high quality tracing paper.
7. All sheets of the set of plans should be neat and clean and without any crossed-out or voided portion thereon.
8. The title block should be made an integral part of the sheet of plan and not merely patched-up thereon.
9. Soil boring logs should be shown on the plans for buildings, bridges, hydraulic control and related structures.

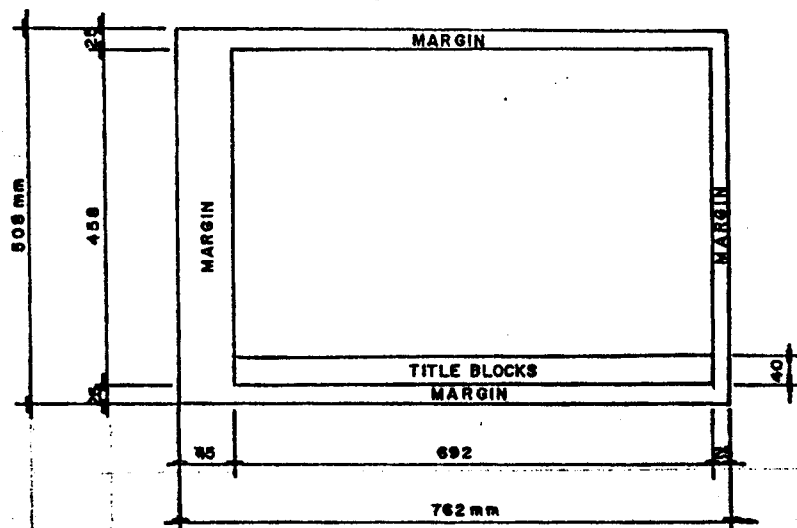
Strict compliance hereon is enjoined.


GREGORIO R. VIGILAR
Secretary

do/luz/**



**STANDARD SIZE (600 mm X 910 mm)
FOR BRIDGE, HIGHWAYS, FLOOD CONTROL & DRAINAGE
AND WATER SUPPLY PROJECTS**



**STANDARD SIZE (508 mm X 762 mm).
FOR ARCHITECTURAL, STRUCTURAL &
MECHANICAL - ELECTRICAL PLANS FOR
BUILDINGS PROJECTS**

810 mm

(CONSULTING FIRM)	DESIGN	SUBMITTED	(DPWH OFFICE)	REC'G APPROVAL		REVIEWED	REC'G APPV'L	APPROVED	PROJ. & LOCATION	SHT. CONTENTS	SET NO.	SHT. NO.
	DRAWN											
	CHECKED	PROJ. MANAGER DATE		PROJ. DIRECTOR DATE	REG'L DIRECTOR DATE	DIV. CHIEF DATE	ASST. DIRECTOR DATE	DIRECTOR BOD. DATE				
90 mm	50 mm	50 mm	90 mm	5 EQUAL SPACES = 300 mm					90 mm	90 mm	25	25

PLANS FOR APPROVAL OF BUREAU OF DESIGN

(CONSULTING FIRM)	DESIGN	SUBMITTED	(DPWH OFFICE)	RECOMMENDING APPROVAL				APPROVED	PROJ. & LOCATION	SHT. CONTENTS	SET NO.	SHT. NO.
	DRAWN											
	CHECKED	PROJ. MANAGER DATE		PROJ. DIRECTOR DATE	REG'L DIRECTOR DATE	DIRECTOR BOD DATE	UNDERSECRETARY DATE					
90 mm	50 mm	50 mm	90 mm	4 EQUAL SPACES = 300 mm				90 mm	90 mm	25	25	

PLANS FOR APPROVAL BY UNDERSECRETARY

(CONSULTING FIRM)	DESIGN	SUBMITTED	(DPWH OFFICE)	RECOMMENDING APPROVAL				APPROVED	PROJ. & LOCATION	SHT. CONTENTS	SET NO.	SHT. NO.
	DRAWN											
	CHECKED	PROJ. MANAGER DATE		PROJ. DIRECTOR DATE	REG'L DIRECTOR DATE	DIRECTOR BOD DATE	UNDERSECRETARY DATE	SECRETARY DATE				
90 mm	50 mm	50 mm	90 mm	5 EQUAL SPACES = 300 mm				90 mm	90 mm	25	25	

PLANS FOR APPROVAL BY SECRETARY

TITLE BLOCK FOR 600 mm X 910 mm PLANS PREPARED BY CONSULTANTS

810 mm										
(OFFICE)	PROJECT & LOCATION	SHEET CONTENTS :	DESIGNED	SUBMITTED	REC'G APPROVAL	REVIEWED :	REC'G APPROVAL :	APPROVED :	SET NO.	SHT. NO.
			DRAWN :							
			CHECKED :	DIVISION CHIEF DATE	REG'L DIRECTOR DATE	DIVISION CHIEF DATE	ASST. DIRECTOR DATE	DIRECTOR BOD DATE		
150 mm	120 mm	120 mm	70 mm	5 EQUAL SPACES = 300 mm					25 mm	25 mm

PLANS FOR APPROVAL OF BUREAU OF DESIGN

(OFFICE)	PROJECT & LOCATION :	SHEET CONTENTS :	DESIGNED	SUBMITTED	RECOMMENDING APPROVAL			APPROVED :	SET NO.	SHT. NO.
			DRAWN :							
			CHECKED :	DIVISION CHIEF DATE	REGIONAL DIRECTOR DATE	DIRECTOR BOD DATE	UNDERSECRETARY DATE			
150 mm	120 mm	120 mm	70 mm	4 EQUAL SPACES = 300 mm					25	25

PLANS FOR APPROVAL BY UNDERSECRETARY

(OFFICE)	PROJECT & LOCATION	SHEET CONTENTS :	DESIGNED	SUBMITTED	RECOMMENDING APPROVAL :				APPROVED :	SET NO.	SHT. NO.
			DRAWN								
			CHECKED	DIVISION CHIEF DATE	REGION'L DIR. DATE	DIRECTOR BOD DATE	UNDERSECRETARY DATE	SECRETARY DATE			
150 mm	120 mm	120 mm	70 mm	5 EQUAL SPACES = 300 mm					25	25	

PLANS FOR APPROVAL BY SECRETARY

TITLE BLOCK FOR 600 mm X 910 mm PLANS

PREPARED BY DISTRICT/REGIONAL OFFICE

692 mm

(OFFICE)	PROJECT & LOCATION :	SHEET CONTENTS :	DESIGNED :	SUBMITTED :	REC'G APPROVAL	REVIEWED :	REC'G APPROVAL	APPROVED :	SET NO	SHT. NO.
			DRAWN							
			CHECKED :	DIVISION CHIEF DATE	REGION'L DIR. DATE	DIVISION CHIEF DATE	ASS'T. DIRECTOR DATE	DIRECTOR BOD DATE		
120 mm	80 mm	80 mm	70 mm	5 EQUAL SPACES = 292 mm					25 mm	25 mm

PLANS FOR APPROVAL OF BUREAU OF DESIGN

(OFFICE)	PROJECT & LOCATION :	SHEET CONTENTS :	DESIGNED :	SUBMITTED	RECOMMENDING APPROVAL :			APPROVED :	SET NO	SHT. NO.
			DRAWN							
			CHECKED :	DIVISION CHIEF DATE	REGIONAL DIRECTOR DATE	DIRECTOR BOD DATE	UNDERSECRETARY DATE			
120 mm	80 mm	80 mm	70 mm	4 EQUAL SPACES = 292 mm					25 mm	25 mm

PLANS FOR APPROVAL BY UNDERSECRETARY

(OFFICE)	PROJECT & LOCATION	SHEET CONTENTS	DESIGNED :	SUBMITTED :	RECOMMENDING APPROVAL :				APPROVED :	SET NO	SHT. NO.
			DRAWN :								
			CHECKED :	DIVISION CHIEF DATE	REGION'L DIR. DATE	DIRECTOR BOD DATE	UNDERSECRETARY DATE	SECRETARY DATE			
120 mm	80 mm	80 mm	70 mm	5 EQUAL SPACES = 292 mm					25 mm	25 mm	

PLANS FOR APPROVAL BY SECRETARY

TITLE BLOCK FOR 508 mm X 762 mm PLANS
PREPARED BY DISTRICT / REGIONAL OFFICE