

CRANE BUZZ



Resources | Solutions

“Project Planning Considerations”

Overhead Handling System Operational & Characteristic Data

1. New or existing facility_____
2. Capacity_____
3. Quantity_____
4. Crane / configuration type_____
 - a. Bridge crane
 - i. Single Girder Top Running_____
 - ii. Double Girder Top Running_____
 - iii. Single Girder Under Running_____
 - iv. Double Girder Under Running_____
 - b. Gantry crane
 - i. Single Leg Single Girder_____
 - ii. Single Leg Double Girder_____
 - iii. Double Leg Single Girder_____
 - iv. Double Leg Double Girder_____
 - c. Wall traveling jib crane
5. Span_____
6. Lift height_____
7. True Vertical Lift required?_____
8. Power supply
 - a. Electric_____
 - b. Air_____
 - c. Manual_____
 - i. Hand pushed_____
 - ii. Chain / geared driven_____
9. Speeds
 - a. Hoist_____
 - b. Trolley_____
 - c. Bridge_____
10. Control type
 - a. 2-speed_____
 - b. VFD_____
11. Controller location
 - a. From hoist_____
 - b. Sliding PB_____
 - c. Radio primary w/ back-up PB_____
 - d. Cab_____
 - i. Skeleton_____
 - ii. Enclosed w/ climate control_____

12. Mainline voltage_____
13. Control voltage_____
14. Environmental
- a. Indoor / outdoor_____
 - b. Ambient operating temperature_____
 - c. Dust exposure_____
 - d. Hazardous conditions_____
 - i. Explosion proof_____
 1. Group, Class & Division (electrical rating) _____
 - ii. Spark resistant (mechanical rating) _____
15. Service Class Rating
- a. CMAA (crane)_____
 - b. HMI (hoist)_____
 - c. FEM (both)_____
 - d. Load Spectrum
 - i. Shifts per day_____
 - ii. Maximum load_____
 - iii. Number of maximum lifts per shift _____
 - iv. Average load_____
 - v. Number of average lifts per shift _____
 - vi. Average lift height _____
16. Support / suspension configuration
- a. Capacity_____
 - b. Length_____
 - c. Support centers _____
 - d. Clear ceiling / lowest obstruction_____
 - e. Running surface above finish floor (AFF)_____
 - f. Runway for bridge
 - i. Free standing (not braced to building steel or other structure)_____
 - ii. Semi-free standing (braced to building steel or other structure)_____
 - iii. Ceiling suspended
 1. With or without suspension materials_____
 - a. Be clear on design, bracing type and location_____
 2. Will building steel support the applied loads_____
 - iv. Runway beams only
 1. With tie-backs to sit on haunches as provided by others_____
 2. Columns to be designed, supplied and installed by others, typically same as building support columns_____
 3. Bottom flanges of beams to be drilled to match hole pattern in haunches_____
 4. Include runway end stops_____
 - g. Monorail for hoist(s) only
 - i. Free standing (not braced to building steel or other structure)_____
 - ii. Semi-free standing (braced to building steel or other structure)_____
 - iii. Ceiling suspended
 1. With or without suspension materials_____
 - a. Be clear on design, bracing type and location_____
 2. Will building steel support the applied loads_____
 - h. Rail in floor or fixed to finish surface for gantry crane_____
 - i. Floor thickness / capacity_____
 - j. Foundations / footers requirement_____

17. Rail size

- a. Top running
 - i. ASCE type / size_____
 - ii. Square bar, dimensions_____
- b. Under running, beam size / flange width_____

18. Mainline conductors

- a. Festoon_____ul style="list-style-type: none;"> - i. C-track or tag line suspended_____
- b. Cable reel_____ul style="list-style-type: none;">- i. Swivel or fixed_____
- c. Conductor bars
 - i. 3 or 4-bar type_____
 - ii. Bottom or side entry type_____
 - iii. Enclosed / buss type_____
- d. Brand_____
- e. Amp size_____

19. Below hook attachment

- a. Magnet_____
 - b. Spreader bar_____
 - c. Sling_____
 - d. Coil handling_____
 - e. Sheet lifter_____
 - f. Need for control from PB or radio_____ul style="list-style-type: none;"> - i. Cable reel from hoist to attachment with bayonet style male & female plugs_____
- g. Constant load on hook (or removed when not in use)_____

20. System design

- a. Drawings for approval_____
- b. P.E. designed structural steel_____ul style="list-style-type: none;">- i. Stamped and wet signed drawings_____

21. Installation

- a. Union or non-union labor_____
- b. Rental equipment included_____
- c. Working time frame limitations_____
- d. Space limitations_____
- e. Production considerations_____
- f. Contractor insurance requirements_____

22. Delivery

- a. Date for delivery and installation_____ul style="list-style-type: none;">- i. Flexible or critical_____