CAROLINAS SCHEDULING SOP

April 1st, 2025

A) Schedule Development:
   a. Pre-Award / Pursuits – Excel (with marketing's help)
   b. AP – Excel
   c. SD – Excel (or P6 per Owner contract): Level of Detail – General Permitting, Design, CMAR design deliverables, bidding and GMP approvals, milestone construction items and overall time frame.
   d. DD – P6: Level of Detail – Detailed Permitting, Pre-Construction, Design Packages, Bid Schedule. Negotiated contract NTP and Final Completion Dates.
      i. Converted to P6 Schedule by deliverable for this set.
      ii. Scheduler has 2 weeks to develop a draft schedule.
      iii. Project Team review and adjustment period 1 week. Buy in of superintendent is required.
      iv. All work time/day constraints, weather days, holidays, etc. to be included.
      v. Scheduler has 1 week to finalize.
   e. CD/Set Following DD – P6
      i. Scheduler has 2 weeks to develop an updated schedule after project team feedback.
      ii. Project Team review and adjustment period 1 week.
      iii. Scheduler has 1 week to finalize.
   f. Bid Schedule – P6
      i. All bid alternates must be included in the schedule
   g. Baseline – P6
      i. Scheduler has 2 weeks to baseline the schedule with final ops team and sub feedback from GMP acceptance or as required by Owner contract.
      ii. Baseline schedule to be change ordered into subcontracts with conformed set of documents.
   h. As-Built Schedule
      i. A final As-Built Schedule is done on every project showing all work activities complete.
   i. Activity IDs:
      i. No More Than 5 Characters
      ii. Always Match from Bid Schedule to Progress Schedule
      iii. No activity should have a duration longer than 15 days
   j. Items needed from Project Teams to Develop Schedule:
      i. Latest Excel Schedule (showing activities and durations)
      ii. Procurement Log (showing durations of long lead items)
      iii. Copy of Owner Contract
         1. Schedule exhibit
         2. Weather assumptions
         3. Cash loading
         4. Manpower loading
      iv. Current Set of Drawings and Specifications
      v. BIM Model (Navisworks latest .nwd file)
   k. Common Scheduling Tools included in project schedules:
      i. 4D modeling for all high rise, or complicated projects mandatory
      ii. Weather per owner contract
      iii. Work restrictions per contract (holidays, exams, etc.)
      iv. SCO closeout as to get substantial completion in bid schedule
      v. Owner furnished and/or owner installed items included
      vi. All allowances included (drawings, pricing, decision, proceed)

B) Schedule Plan
   a. Who Develops the Baseline Schedule?

          i.   Scheduling Manager with input from project team
- b. Who Performs Updates?
  - i. Scheduler: Over $10M Contract Value
  - ii. Team: $10M or less Contract Value*Scheduling Manager Signs off/Reviews Updates Once Per Month*
    1. The team must provide the scheduler their update by the second Friday of each month.
  - iii. Project Team Provides Monthly Feedback on Previous Update Forms
    1. Every activity should have populated dates – AS / AF or PS / PF. **Nothing should be left blank.**
    2. The deadline for the feedback on the update forms will be set by the project scheduler to correspond with two days prior to the bi-weekly site schedule meetings.
  - iv. All schedule updates are saved via the below file path:
    1. Z:\Shared\East\Charlotte\Charlotte Departments\Scheduling\Schedules\1 - Project Files
  - v. Project scheduler assembles Monthly Project Schedule Report for Owner
    1. Monthly Reporting (Sent by Sr Scheduler): Baseline Complete, 30/60/90, On Schedule, Pull Planning. Distribution once per month by the last day of the month to (Pres, VP, OD, Generals, PX, Sr. Supt/PM). [See the Attached Tracker to be Used]
       a. Green: Positive Float
       b. Yellow: 0-Negative 15 Days Float
       c. Red: More than Negative 15 Days Float
- c. Schedule Update Frequency?
  - i. Bi-Weekly or per owner contract
  - ii. Head scheduler walks each project once per quarter.
  - iii. Schedule Meeting:
    1. Prior to Schedule Update Meeting: Project scheduler walks each project once per month with Lead Super / PM
    2. Usually lasts less than an hour.
    3. Held on the jobsite.
    4. All ops team members are expected to attend.
       a. Some trades may be invited depending on the meeting.
    5. Project is on a screen/projector for team to see.
    6. All remaining preconstruction and procurement items are reviewed/updated.
    7. Every work activity that is ongoing or scheduled for the near term is reviewed for duration and sequence. **– UPDATE is required from project team to scheduler at least two days in advance of meeting.**
    8. Near term schedule is adjusted live at the meeting to match the next few weeks of the pull plan boards. The CPM schedule and pull plan boards should match closely but not necessarily be exact as the pull plan boards are expected to have a greater level of detail and getting the CPM schedule to match exactly would be a waste of effort.
    9. Record schedule changes in schedule narrative as required by Owner Contract
    10. Fragnets/Impacts are discussed and added to the schedule as necessary.
    11. At the end of the schedule meeting the team knows what the CPM schedule is projecting for substantial completion and the critical path.
  - iv. Schedule Reports are customized for each project. [Use Formatted Reports Included in Folder: Z:\Shared\East\Charlotte\Charlotte Departments\Scheduling\Schedules\10- Standard Layouts] Common reports include:
    1. Full Schedule
    2. Baseline Comparison
    3. Look-Ahead Schedule (usually 4 to 8 weeks out)

4. Longest Path
5. Total Float Report
6. Update Form (for ops team)
d. What does the schedule department look like?
   i. Lead Scheduler (Vishal) with (1) scheduler (Raleigh – long term get (1) additional based on workload) and (1) senior scheduler (Charlotte).
      1. Senior Scheduler: Manage 5-10 small, medium and large projects or 1-2 very large projects
      2. Scheduler: 1-5 projects small/medium
   ii. Role of PE: Work with the Superintendent and make sure all the Procurement / Permitting Updates are complete.
   iii. No 3rd party scheduling unless minority participation is needed or for special circumstances.
   iv. All JV and 3rd party schedulers must comply to the above SOP. This SOP must be sent to those individuals at the start of project preconstruction.
   v. Variances to the above SOP must be signed off at DDs by VP.
      1. Select projects may perform their own updates with VP and scheduling manager's approval. All updates will still be reviewed monthly by the scheduling department.

C) **Schedule Templates to Develop by October 1st, 2025:**
   a. School
   b. Office Building
   c. Preconstruction/Permitting
   d. List of Milestones
   e. Cx/MEP Build Out
   f. Closeout

D) **Schedule Update Training:**
   a. PM – Focus on having full updates and tracking log for submittals / material in conjunction with PE.
   b. Superintendent
      i. Focus on having full updates before meeting. Don't waste time providing update when sitting down with the scheduler. Provide guidance to assistant supers and PEs on project.

E) **4D Scheduling Parameters:**
   a. All vertical projects more than 2 levels
   b. Show structure through skin – *show site only no surrounding modeling needed*
   c. 4D Logistics plans used on an as-needed basis for pursuits
   d. Once P6 schedule is initially developed at CD/Set Following DD, individual has 1 week to complete the 4D simulation.
   e. Led by the scheduling department with VDC's assistance (model development). VDC may need to be more or less involved depending on the workload of the scheduling team to prioritize schedule development and updates as their first priority.

F) **Timelines:**
   a. When a fragnet is needed?
      i. Any time a design revision is necessary. ASI, PR, OCO, material procurement delay.
      ii. Stop work order issued
      iii. Weather event
   b. When is a recovery schedule needed?
      i. Documented delay pushing the substantial completion by more than 15 days or as stipulated by owner contract.

G) **Pull Planning:**
   a. Who Performs the Training? Scott DeBernardo (to review Option 1 listed below) & Brad Arthur (to review Option 2 listed below)

      b. 3-4 Week Lookahead:
- i. Format? Whiteboard in conference room.
- **ii.** Show: Deliveries, preinstallation meetings, inspections and key safety activities. **High Level** activities ONLY (Steel Fab/Delivery, Steel Start, SOG Pours, MEP RI's, ect.)
  1. Option 1: Use color coded stickers previously used in table on board.
  2. Option 2: Highlight site logistics plan and risers and note sequencing on plan (posted in conference room).
- iii. Pull planning discussions held during weekly subcontractor meetings.

      c. Have Separate Milestone Board (Whiteboard in conference room)

NEW SOP will apply to the following jobs:
1. **Any New Starts after 4/1**
   a. **Kane**
   b. **WCPSS – Athens, Ligon, WCEIB**
   c. **Wake Convenience**
   d. **RDU T2 Expansion (3ʳᵈ party)**
   e. **RDU T2 – JBB (3ʳᵈ party)**
   f. **RDU Aviation Roadwork (3ʳᵈ party)**
   g. **RDU Lumley Roadwork (3ʳᵈ party)**
   h. **Onslow Airport**
   i. **NC Ports North Entry**
   j. **NC Education Campus**
   k. **NC History Center**
   l. **NC History Museum (JV scheduler)**
2. **Retro Active projects starting 4/1**
   a. **RDU Runway (3ʳᵈ party)**
   b. **RDU PE3 (3ʳᵈ party)**
   c. **Wake Tech C**
   d. **DPS School of Arts**
   e. **Garner Park**
3. **Projects not included if not done by 4/1**
   a. **Rex Road ES**
   b. **Swift Creek ES**
   c. **Duke Med**
   d. **Infrastructure – ECSU, FSU, NCSU**

Project Matrix

Project Name	Project Location	Previous Update/ Meeting Date	Next Update/ Meeting Date	Update Type	Baseline Complete	30/60/90	On Schedule	Pull Planning	Contract Start	Current Projected Finish	Contract Finish (Needs to Match JDE for Reporting)	Impact Description	VP/PX/Ops Dir	Lead Manager	Lead Superintendent
CHARLOTTE															
Active															
Forsyth County Courthouse	Winston Salem	07/05/22	**08/02/22**	BiWeekly	🟢	🟢	🟢	🟢		05/10/23	05/10/23		David Stanton	Lee Littleton	Jack Barfield
Morrison Yard	Charleston	06/29/22	**08/03/22**	BiWeekly	🟢	🟢	🔴	🟢	06/01/21	10/19/22	07/03/22		David Stanton	Jason Stevens	Kyle Jordan
Mooresville - Police Station	Mooresville	07/25/22	**08/08/22**	BiWeekly	🟢	🟢	🔴	🟢	05/04/21	08/30/22	09/05/22		John Schlobohm	Aislinn Nagy	Raymondo Brady
Garinger HS	Charlotte	07/27/22	**08/10/22**	BiWeekly	🟢	⚪	🟢	🟢	09/01/21	12/27/22	12/22/22		John Schlobohm	Deanna Skipper	Tony Spagnolo
CMS Elon, Hawk Ridge, Polo Relief ES	Charlotte	07/21/22	**08/18/22**	BiWeekly	🟢	⚪	🟡	🟢				Building Permit Delay	John Schlobohm	Michael Parks	Marty Smith
Elon Rec Center	Charlotte	07/21/22	**08/18/22**	BiWeekly					08/05/22		06/09/23		John Schlobohm	Michael Parks	Marty Smith
PRECON															
Freshfields Village - Kiawah	Kiawah Island	05/12/21		Preliminary	🔵	⚪	🔵	🔵	11/01/22				David Stanton		Adam Creed
Emanuel 9 Project	Charleston SC			Precon	🔵	⚪	🔵	🔵	07/04/22	TBD			Nick Wegener	Ryan Kearns	TBD
2905 Griffith Office Tower	Charlotte			Preliminary	🔵	⚪	🔵	🔵					Beth Davis	Kyle Fisher	Jim Thorpe
CMS School of the Arts	Charlotte				🔵	⚪	🔵	🔵					John Schlobohm		
CMS South Meck Office Tower	Charlotte				🔵	⚪	🔵	🔵					John Schlobohm		
OmShera Dual-Flag Southend Hotel	Charlotte	On Hold	**On Hold**		🔵	⚪	🔵	🔵	TBD	TBD	TBD		Mike Wehner	Bill Lorenzo	TBD
Citi Group	Johnston City	Updates by Project Team	**Updates by Project Team**	Weekly	🔵	⚪	🔵	🔵	04/11/22	10/31/22	10/31/22		Mike Wehner	Mike Wehner	Paul Distante
City of Lexington	Lexington				🔵	⚪	🔵	🔵	`August 2022				Mike Wehner	Aislinn Nagy	Raymondo Brady
127 W. Worthington Office Tower	Charlotte	05/25/22	**TBD**	Preliminary					03/02/23	06/04/24	06/04/24		Mike Wehner	Hunt Werner	
LewisGale B.H.E	Salem, VA			Precon					08/01/22	12/31/22	TBD		David Stanton	Dan Morris	
The Charles	Charleston, SC			Preliminary									David Stanton		
ABNC															
RALEIGH - Randy Hart															
CONSTRUCTION															
Wilson YMCA (JV)	Wilson	07/14/22	**08/03/22**	BiWeekly	🟢	🟢	🟢	🔵	03/01/21	07/20/22	07/20/22	OCO #3 - Signed	Scott Garner	Greg Scheer	Jeno Cossette
Cary Park	Cary	07/28/22	**08/11/22**	BiWeekly	🟢	⚪	🔴	🔵	03/01/21	05/15/23	05/15/23		Jeff Beam	Page Martin	Evan Hanes
Chatham EOC - Phase 2	Chatham County	08/01/22	**08/15/22**	BiWeekly	🟢	⚪	🔴	🔵	07/19/21	03/20/23	03/20/23		Tony Stoneking	Josh Taylor	Brad Arthur
DHHS Fleet Enabling (JV)	Raleigh	07/26/22	**08/23/22**	Monthly	🟢	⚪	🟢	🔵	08/15/21	07/29/22	04/24/22	Pending OCO #5	Jeff Munzemaier	N/A	Eric Stanley
RDU - West RON	Raleigh	07/01/22	**08/05/22**	Monthly	🟢	⚪	🟢	🔵	08/09/21	12/05/22	08/22/22	Pending OCO	Trent Johnson	N/A	Warren Cochran
NCSU Electrical Grid	Raleigh	06/15/22	**08/19/22**	Monthly	🟢	⚪	🟢	🔵	10/01/21	05/01/25	05/01/25		Tony Stoneking	Colby Willis	Tom Kiesow
Wake Tech Public Safety	Wendell	07/19/22	**08/02/22**	BiWeekly	🔵	⚪	🔵	🔵	03/28/22	09/28/23	09/28/23		Zach Hall	N/A	Mike Flanagan / Patrick Bobo
UNCW Randall Library (JV)	Wilmington	06/29/22	**08/03/22**	BiWeekly	🟢	⚪	🟢	🔵	06/17/22		09/18/24		Tony Stoneking	Josh Taylor	Terry Terragna
DHHS Campus (JV)	Raleigh		**Baseline**	Baseline					03/01/22		07/01/25		Tony Stoneking	Jeff Munzemaier	Eric Stanley
COD Public Works Renovations	Durham	07/28/22	**08/11/22**	BiWeekly					06/01/22		01/23/23		Tony Stoneking	Lauren McCauley	Matt Howe
SPG															
PRECON															
Copper District	Clayton			Design Schedule	🔵	⚪	🔵	🔵	10/02/21		Spring 2024		Tony Stoneking	Dave Goltz	TBD
NC History Museum (JV)	Raleigh		**Precon**	Precon	🔵	⚪	🔵	🔵	Summer 2023	TBD			Tony Stoneking	Zach Hall	Greg Scheer
Dorethea Dix Park (JV)	Raleigh		**Precon**	Precon	🔵	⚪	🔵	🔵	Summer 2022		Spring 2024		Jeff Beam	Kyle Coyne	Scott DeBernardo
WCPSS Elementary School - E-52	Raleigh		**Precon**	Precon	🔵	⚪	🔵	🔵	02/01/23		10/25/24		Tony Stoneking	Lauren McCauley	Brad Arthur
Kane Park City South	Raleigh		**Precon**	Precon					11/15/22		02/16/25		Jeff Beam	William Byrd	Shelly Goodwin
Longfellow 54	Durham		**Precon**	Precon									Jeff Leahy	N/A	Greg Scheer
RAL - RFP Projects															