

Pleasant Hill Library

Level 4 schedule report - new public library via the unified construction workflow | Pleasant Hill, California

Civic / library. New public library building: submittals and deferred approvals, procurement and deliveries, sitework and grading, rammed-aggregate ground improvement, structure and slab work, exterior enclosure (curtain wall, glazing, panels), roofing, interior build-out and finishes, furniture and equipment installation, commissioning and closeout. Program window 5 Aug 2020 to 15 Apr 2022, **443 working days**, 650 activities in 70 outline sections, 9 contract milestones, recorded from the Primavera P6 baseline Rev.2.

Project brief

New public library in Pleasant Hill, California. The control model is a Level 4 CPM network: 623 FS/SS logic links, an 140-activity driving path, long-lead procurement controls, and risk mitigation built into the program.

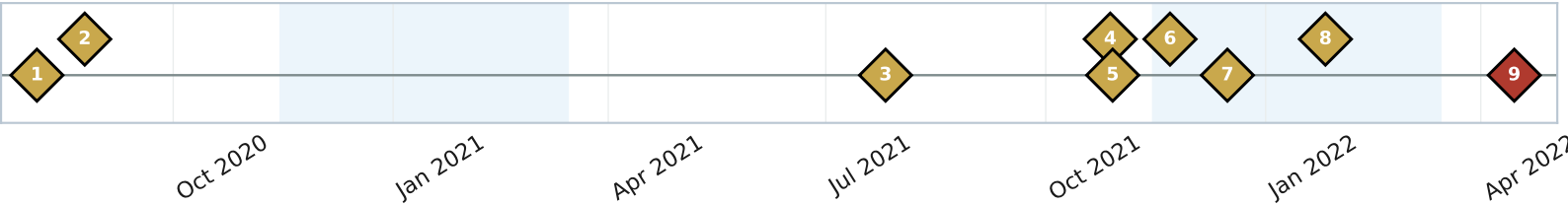
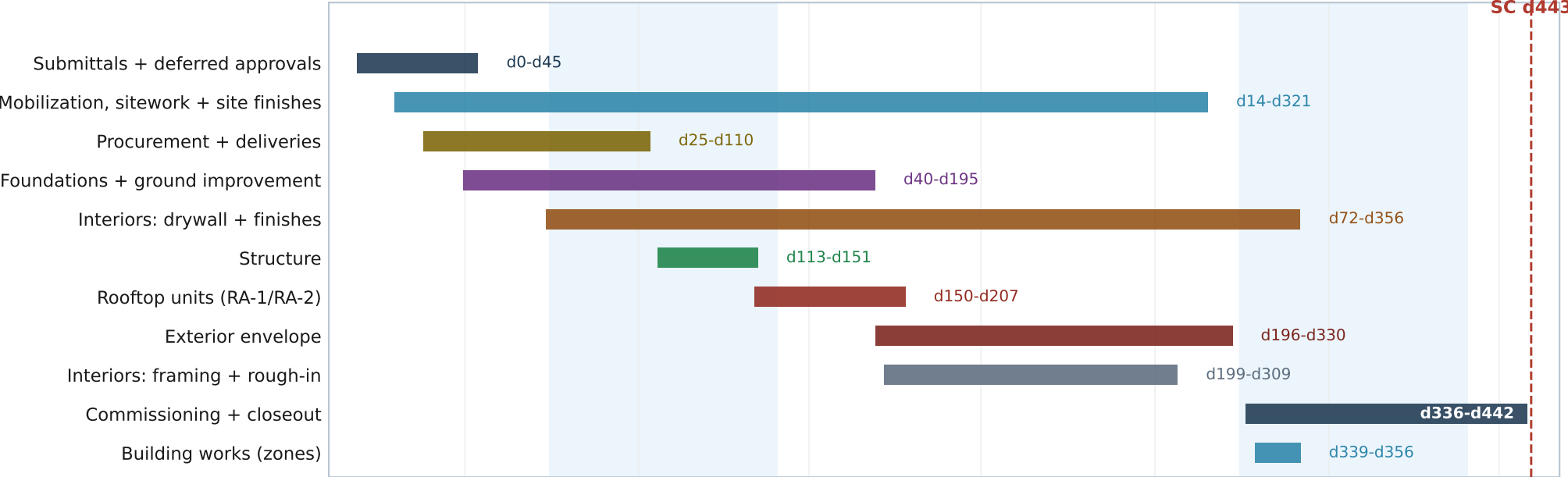
Measure	This build	Note
Total: T0 to completion	443 wd - Aug 5, 2020 to Apr 15, 2022	Recorded baseline Rev.2; offsets govern
Construction start to completion	429 wd - 2020-08-25 to Apr 15, 2022	Mobilization through closeout
Submittals + approvals complete	d45 - 2020-10-07	Gates every fabrication release
Structure complete	d151 - 2021-03-04	Structural framing, 5 activities, fully overlapped
Building enclosed	d330 - 2021-11-10	Envelope spans the second winter
Commissioning + closeout complete	d442 - 2022-04-15	Start-up, testing, punch, final cleanup

How to read this package. Page 2 is the Level 2 milestone schedule. The Level 4 Gantt follows directly under it in continuous pages of 26 rows, each page's time axis fitted to the work on that page, across 28 pages, red for the driving path, gold milestone markers numbered to the Level 2 strip, same-page FS/SS logic drawn as elbows. The body after the Gantt carries the phase windows, the long-lead register, the longest activities, the risks with their mitigations, and the basis and audit record.

Read first: the three schedule drivers

1. Approvals gate procurement. The submittals stream runs 105 working days with a dedicated deferred-approval track inside it. Every fabrication release waits on that stream, and the longest procurement chains in the program (60 working days) start inside the same window. A slipped approval does not move one package; it moves the enclosure and everything the enclosure gates.
2. Foundations cross the wet season. Foundation work runs 134 working days from Oct 2020 into May 2021, straight through the Northern California rainy season, on rammed-aggregate ground improvement. The work is split by yard (activity yard, service yard, transformer yard) so one wet front cannot stop all of it, and the yard chains sit on the driving path to permanent power.
3. Zoned interiors converge on commissioning. The building is built as quadrant trains: framing, rough-in and drywall by zone, then interior trim and finishes by room. The trains merge into a closeout window that overlaps the last 182 days of the program. Systems have to complete zone by zone, or testing, furniture install and punch compress into the same final weeks.

Pleasant Hill Library - Level 2 schedule: phases and milestones (numbered strip, legend below). Blue bands: California winter (rain season)



1. NOTICE OF AWARD - Aug 05, 2020

2. NOTICE TO PROCEED - Aug 25, 2020

3. BUILDING DRY-IN - Jul 26, 2021

4. SITE WORK COMPLETE - Oct 28, 2021

5. BUILDING EXTERIOR COMPLETE - Oct 29, 2021
6. CONDITIONED AIR - Nov 22, 2021

7. TEMPORARY CERTIFICATE OF OCCUPANCY - Dec 16, 2021

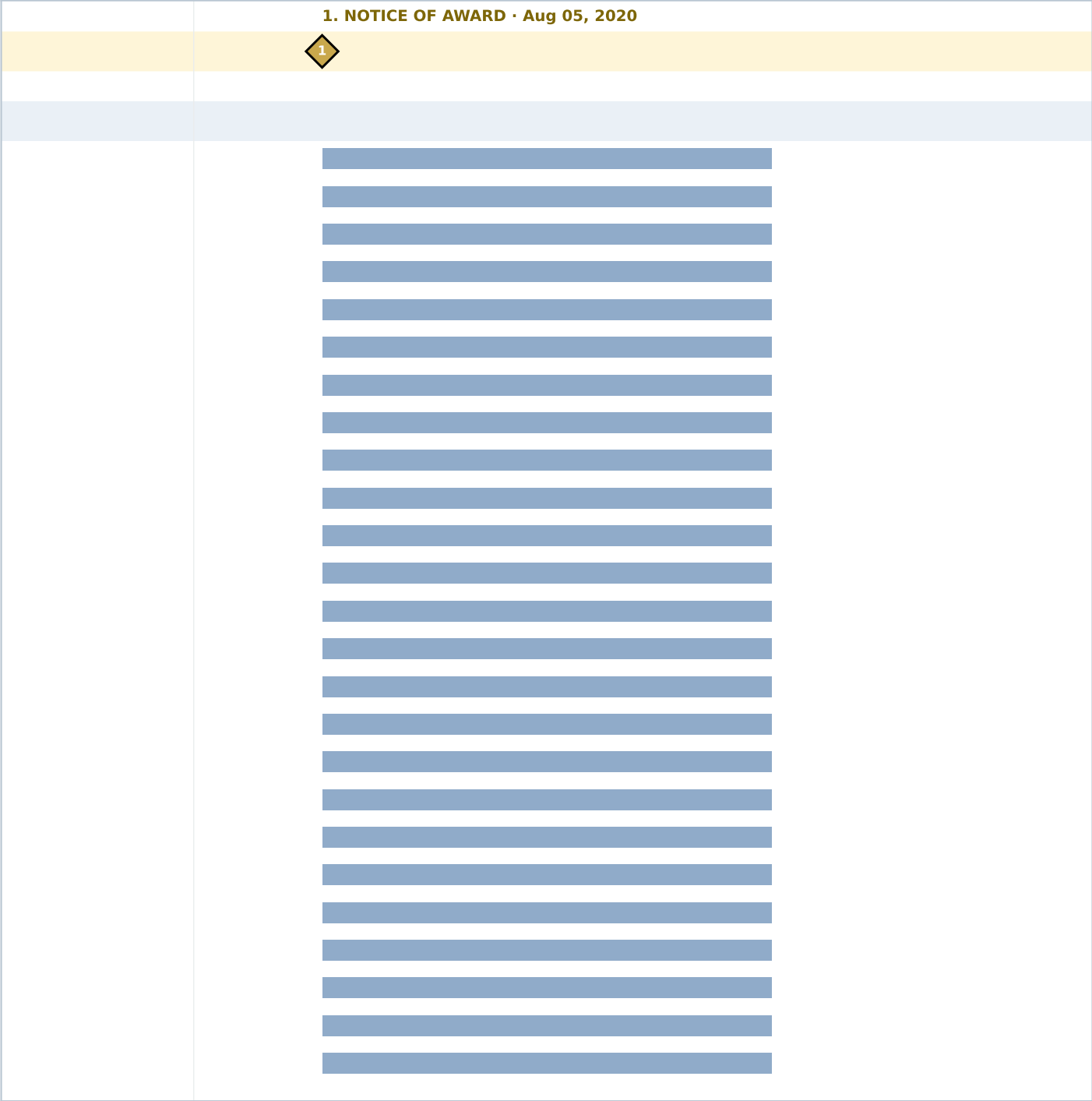
8. SUBSTANTIAL COMPLETION - Jan 26, 2022

9. PROJECT COMPLETION - Apr 15, 2022

CONTRACT MILESTONES

PREPARE & SUBMIT

- 22 PREPARE & SUBMIT - 05 12 00 - STRUCTURAL STEEL
- 23 PREPARE & SUBMIT - 05 12 50 - BUCKLING RESTRAINED
- 24 PREPARE & SUBMIT - 07 42 13.23 - METAL COMPOSITE M
- 25 PREPARE & SUBMIT - 07 42 47 - ULTRA-HIGH PERFORMAN
- 26 PREPARE & SUBMIT - 08 41 13 - ALUMINUM-FRAMED ENTR
- 27 PREPARE & SUBMIT - 08 44 13 - GLAZED ALUMINUM CURT
- 28 PREPARE & SUBMIT - 12 24 13 - ROLLER WINDOW SHADES
- 29 PREPARE & SUBMIT - 21 13 00 - FIRE PROTECTION SYST
- 30 PREPARE & SUBMIT - 23 72 33 - ENERGY RECOVERY VENT
- 31 PREPARE & SUBMIT - 25 30 00 - BUILDING AUTOMATION
- 32 PREPARE & SUBMIT - 26 24 13 - SWITCHBOARDS
- 33 PREPARE & SUBMIT - 26 51 00 - INTERIOR LUMINAIRES
- 34 PREPARE & SUBMIT - 26 56 00 - EXTERIOR LUMINAIRES
- 35 PREPARE & SUBMIT - 27 41 16 - AUDIO VISUAL & VIDEO
- 36 PREPARE & SUBMIT - 27 51 23 - INTERCOMMUNICATIONS
- 37 PREPARE & SUBMIT - 28 16 00 - INTRUSION DETECTION
- 38 PREPARE & SUBMIT - 28 23 00 - VIDEO SURVEILANCE
- 39 PREPARE & SUBMIT - 28 31 11 - DIGITAL, ADDRESSABLE
- 40 PREPARE & SUBMIT - 32 93 00 - PLANTING MATERIALS
- 41 PREPARE & SUBMIT - 05 40 00 - COLD-FORMED METAL FR
- 42 PREPARE & SUBMIT - CEILING SUSPENSION SYSTEMS
- 43 PREPARE & SUBMIT - MISC METAL SUPPORTS FOR HVAC AN
- 44 PREPARE & SUBMIT - SCULPTURAL LOG OBJECT AND DESIG
- 45 PREPARE & SUBMIT - BOOK SHELVING SEISMIC ANCHORING
- 46 PREPARE & SUBMIT - ROOF/SAFETY TIE-OFF ANCHORS



Aug 2020

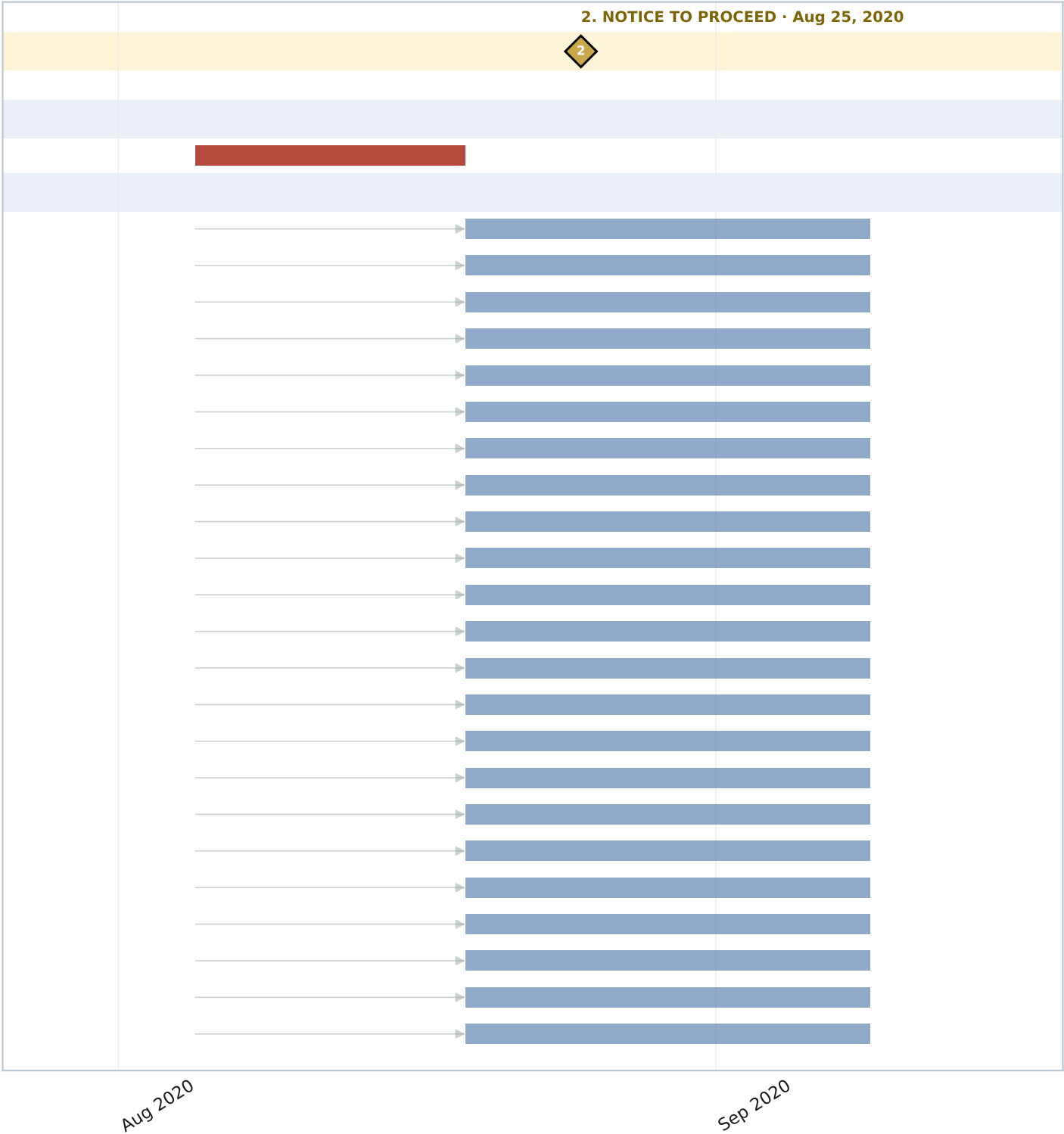
CONTRACT MILESTONES

PREPARE & SUBMIT (CONT.)

47 PREPARE & SUBMIT - EXTERIOR CLADDING DESIGN AND CA

REVIEW & APPROVE

- 61 REVIEW & APPROVE - 05 12 00 - STRUCTURAL STEEL
- 62 REVIEW & APPROVE - 05 12 50 - BUCKLING RESTRAINED
- 63 REVIEW & APPROVE - 07 42 13.23 - METAL COMPOSITE M
- 64 REVIEW & APPROVE - 07 42 47 - ULTRA-HIGH PERFORMAN
- 65 REVIEW & APPROVE - 08 41 13 - ALUMINUM-FRAMED ENTR
- 66 REVIEW & APPROVE - 08 44 13 - GLAZED ALUMINUM CURT
- 67 REVIEW & APPROVE - 12 24 13 - ROLLER WINDOW SHADES
- 68 REVIEW & APPROVE - 21 13 00 - FIRE PROTECTION SYST
- 69 REVIEW & APPROVE - 23 72 33 - ENERGY RECOVERY VENT
- 70 REVIEW & APPROVE - 25 30 00 - BUILDING AUTOMATION
- 71 REVIEW & APPROVE - 26 24 13 - SWITCHBOARDS
- 72 REVIEW & APPROVE - 26 51 00 - INTERIOR LUMINAIRES
- 73 REVIEW & APPROVE - 26 56 00 - EXTERIOR LUMINAIRES
- 74 REVIEW & APPROVE - 27 41 16 - AUDIO VISUAL & VIDEO
- 75 REVIEW & APPROVE - 27 51 23 - INTERCOMMUNICATIONS
- 76 REVIEW & APPROVE - 28 16 00 - INTRUSION DETECTION
- 77 REVIEW & APPROVE - 28 23 00 - VIDEO SURVEILANCE
- 78 REVIEW & APPROVE - 28 31 11 - DIGITAL, ADDRESSABLE
- 79 REVIEW & APPROVE - 32 93 00 - PLANTING MATERIALS
- 80 REVIEW & APPROVE - 05 40 00 - COLD-FORMED METAL FR
- 81 REVIEW & APPROVE - CEILING SUSPENSION SYSTEMS
- 82 REVIEW & APPROVE - MISC METAL SUPPORTS FOR HVAC AN
- 83 REVIEW & APPROVE - SCULPTURAL LOG OBJECT AND DESIG



REVIEW & APPROVE (CONT.)

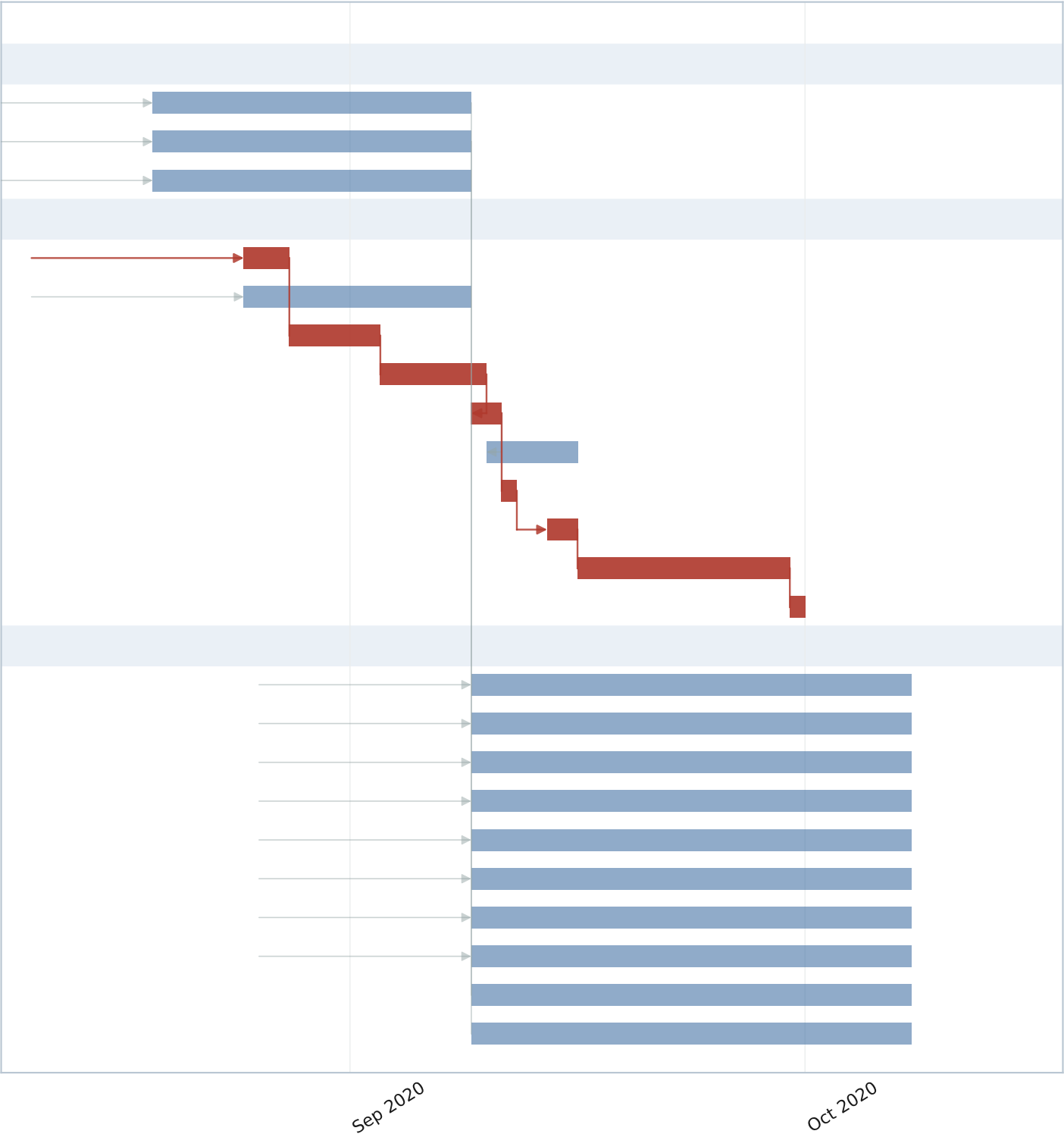
- 84 REVIEW & APPROVE - BOOK SHELVING SEISMIC ANCHORING
- 85 REVIEW & APPROVE - ROOF/SAFETY TIE-OFF ANCHORS
- 86 REVIEW & APPROVE - EXTERIOR CLADDING DESIGN AND CA

MOBILIZATION

- 116 USA SITE
- 115 MOBILIZE
- 117 INSTALL ALL SWPPP
- 118 TREE PROTECTION
- 119 BUILD LAY DOWN AREA
- 120 ALL DEMO
- 121 SET OFFICE TRAILER
- 122 INSTALL TEMP POWER
- 123 CLEAR & GRUB SITE
- 124 SURVEY

DEFERRED APPROVAL

- 49 DEFERRED APPROVAL - 21 13 00 - FIRE PROTECTION SYS
- 50 DEFERRED APPROVAL - 28 31 11 - DIGITAL, ADDRESSABL
- 51 DEFERRED APPROVAL - 05 40 00 - COLD-FORMED METAL F
- 52 DEFERRED APPROVAL - CEILING SUSPENSION SYSTEMS
- 53 DEFERRED APPROVAL - MISC METAL SUPPORTS FOR HVAC A
- 54 DEFERRED APPROVAL - 08 44 13 - GLAZED ALUMINUM CUR
- 55 DEFERRED APPROVAL - 05 12 50 BUCKLING - RESTRAINED
- 56 DEFERRED APPROVAL - SCULPTURAL LOG OBJECT AND DESI
- 57 DEFERRED APPROVAL - BOOK SHELVING SEISMIC ANCHORIN
- 58 DEFERRED APPROVAL - ROOF/SAFETY TIE-OFF ANCHORS



DEFERRED APPROVAL (CONT.)

59 DEFERRED APPROVAL - EXTERIOR CLADDING DESIGN AND C

PROCURE & DELIVER

92 PROCURE & DELIVER - 12 24 13 - ROLLER WINDOW SHADE

93 PROCURE & DELIVER - 23 72 33 - ENERGY RECOVERY VEN

94 PROCURE & DELIVER - 25 30 00 - BUILDING AUTOMATION

98 PROCURE & DELIVER - 27 41 16 - AUDIO VISUAL & VIDE

99 PROCURE & DELIVER - 27 51 23 - INTERCOMMUNICATIONS

100 PROCURE & DELIVER - 28 16 00 - INTRUSION DETECTIO

101 PROCURE & DELIVER - 28 23 00 - VIDEO SURVEILLANCE

102 PROCURE & DELIVER - 32 93 00 - PLANTING MATERIALS

88 PROCURE & DELIVER - 05 12 00 - STRUCTURAL STEEL

91 PROCURE & DELIVER - 08 41 13 - ALUMINUM-FRAMED ENT

89 PROCURE & DELIVER - 07 42 13.23 - METAL COMPOSITE

90 PROCURE & DELIVER - 07 42 47 - ULTRA-HIGH PERFORMA

95 PROCURE & DELIVER - 26 24 13 - SWITCHBOARDS

97 PROCURE & DELIVER - 26 56 00 - EXTERIOR LUMINAIRES

96 PROCURE & DELIVER - 26 51 00 - INTERIOR LUMINAIRES

107 PROCURE & DELIVER - 05 40 00 - COLD-FORMED METAL

109 PROCURE & DELIVER - MISC METAL SUPPORTS FOR HVAC

105 PROCURE & DELIVER - 21 13 00 - FIRE PROTECTION SY

106 PROCURE & DELIVER - 28 31 11 - DIGITAL, ADDRESSAB

104 PROCURE & DELIVER - 08 44 13 - GLAZED ALUMINUM CU

111 PROCURE & DELIVER - BOOK SHELVING SEISMIC ANCHORI

112 PROCURE & DELIVER - ROOF/SAFETY TIE-OFF ANCHORS

103 PROCURE & DELIVER - 05 12 50 - BUCKLING RESTRAINE



PROCURE & DELIVER (CONT.)

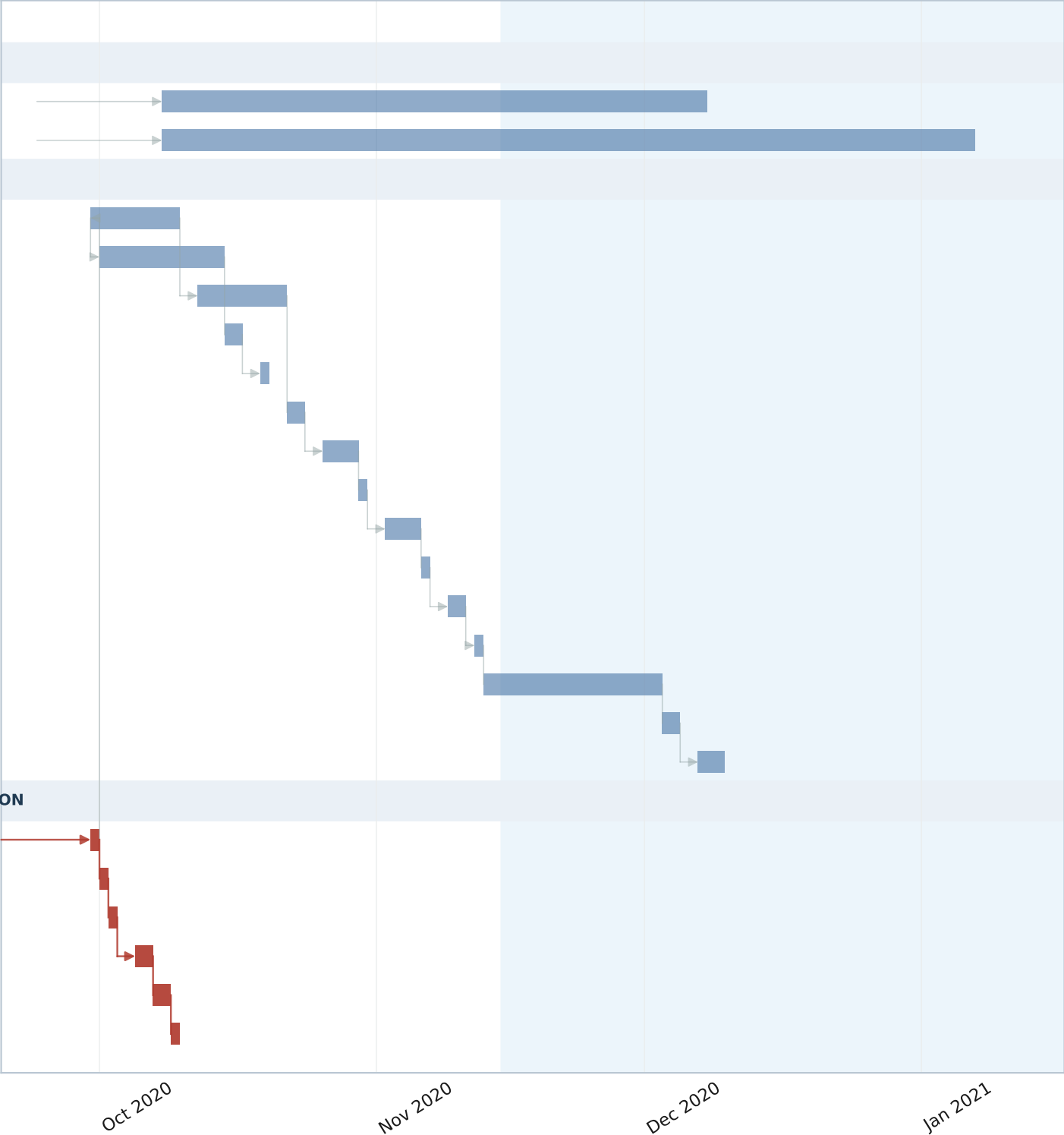
- 108 PROCURE & DELIVER - CEILING SUSPENSION SYSTEMS
- 110 PROCURE & DELIVER - SCULPTURAL LOG OBJECT AND DES

SITE GRADING & BUILDING PAD

- 126 OVER EXCAVATION & RECOMPACT PARKING LOT
- 127 OVER EXCAVATION & RECOMPACT BUILDING PAD
- 128 SUB GRADE SITE
- 129 FINE GRADE BUILDING PAD
- 130 CERTIFY BUILDING PAD
- 131 FINE GRADE FIELD
- 132 EXCAVATE BIOSWALES
- 133 GRAVE V DITCH
- 134 LANDSCAPING GRADING
- 135 SURVEY WALLS
- 136 EXCAVATE WALL FOOTING
- 137 SUB GRADE PARKING LOT
- 138 SUB GRADE FLAT WORK
- 139 PLACE AB FOR PARKING LOT
- 140 PLACE AB FOR FLAT WORK

TRANSFORMER YARD / TRASH ENCLOSURE - FOUNDATION

- 530 STAKING
- 531 LAYOUT/SET BATTER BOARDS
- 532 DRILL FOOTINGS
- 533 INSTALL FOOTING REBAR
- 534 SET ANCHOR BOLT TEMPLATES
- 535 PLACE CONCRETE AT POST FOOTINGS

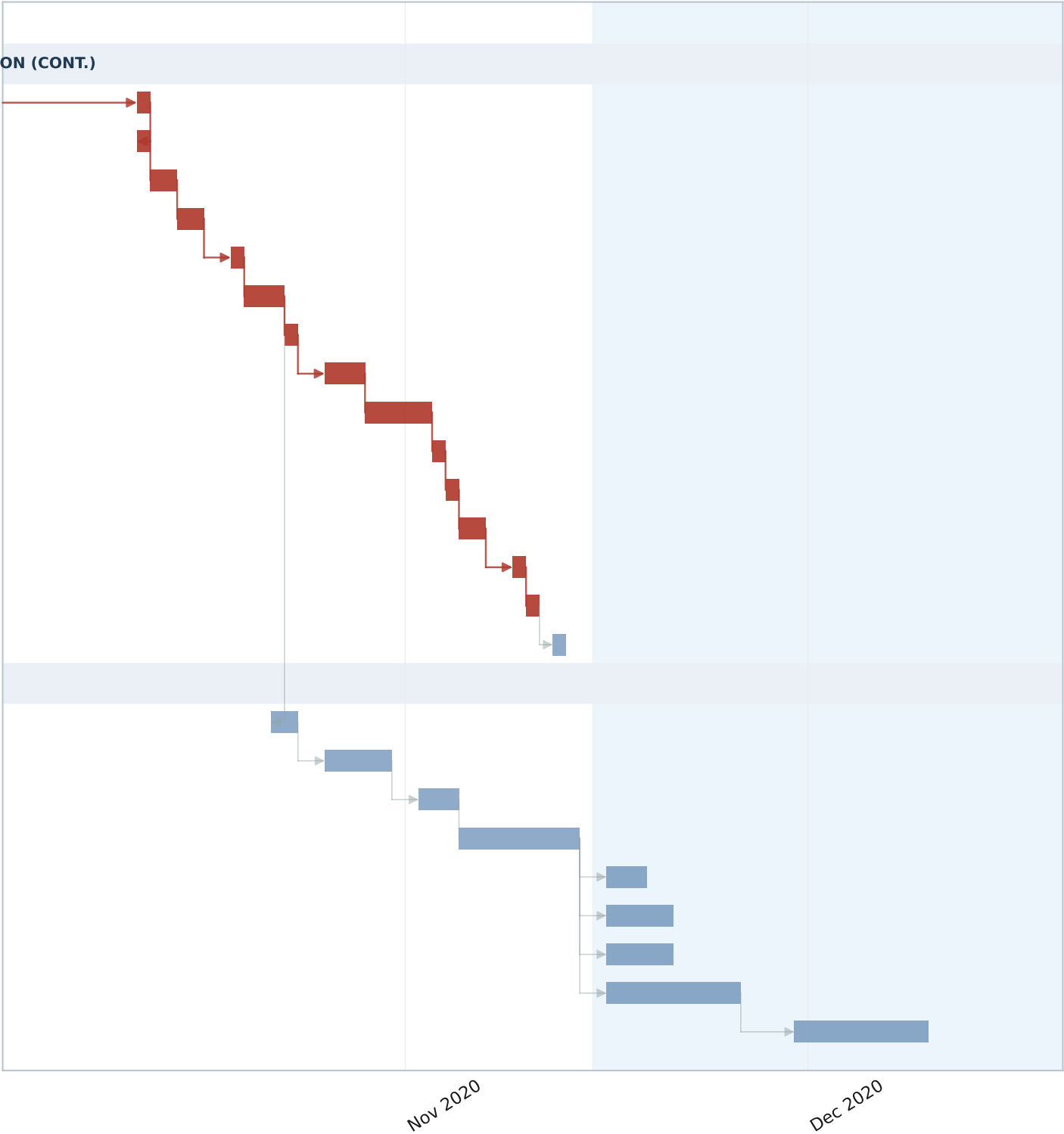


TRANSFORMER YARD / TRASH ENCLOSURE - FOUNDATION (CONT.)

- 536 CONCRETE CURE
- 537 STRIP TEMPLATES/CLEAN UP
- 538 INSTALL POSTS
- 539 GROUT BASE PLATES
- 540 PLACE CONCRETE COVER @ BOLTS
- 541 INSTALL UG DRAIN PIPING
- 542 EXCAVATE THICKENED EDGES
- 543 UG ROUGH ELECTRICAL
- 544 UG ROUGH PLUMBING
- 545 PLACE PRECAST TRANSFORMER PAD
- 546 INSTALL BOLLARDS (NOT CALLED OUT ON PLANS RFI SUB
- 547 INSTALL SOG AND CURB REBAR
- 548 PLACE CONCRETE
- 549 CONCRETE CURE
- 550 STRIP FORMWORK, CLEAN UP

FOOTINGS

- 149 SURVEY BUILDING GRIDLINES
- 150 SET BATTER BOARDS
- 151 LAYOUT FOOTINGS GRADE BEAMS
- 152 EXCAVATE FOOTINGS GRADE BEAMS
- 154 FIRE RISER
- 153 UG ELECTRIC INTO BUILDING
- 156 UG PLUMBING/SLEEVES
- 155 UG HYDRONIC PIPING
- 157 INSTALL FOOTING REBAR



FOOTINGS (CONT.)

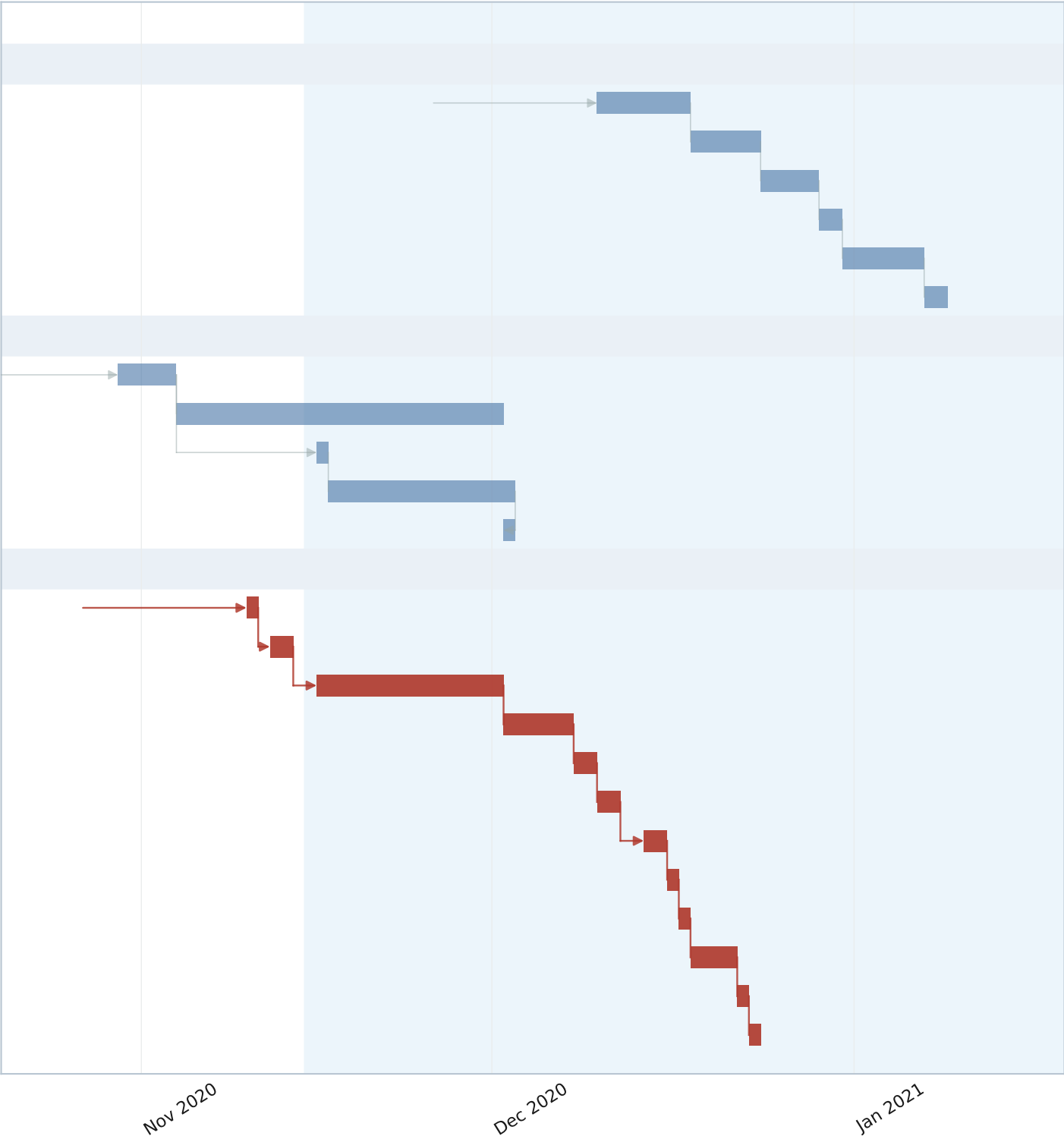
- 158 INSTALL ANCHOR BOLT TEMPLATES
- 159 SLAB DOWEL TEMPLATES
- 160 SURVEY ANCHOR BOLTS
- 161 POUR CONCRETE FOOTINGS
- 162 FOOTING CURE
- 163 STRIP/CLEAN/POWERWASH

UTILITIES

- 142 INSTALL SEWER LINE
- 143 INSTALL STORM DRAIN AROUND BUILDING
- 144 SURVEY WATER LINES
- 145 FIRE WATER
- 146 DOMESTIC WATER

SERVICE YARD - FOUNDATION

- 568 STAKING
- 569 LAYOUT/SET BATTER BOARDS
- 570 UNDERSLAB MEPT ROUGH
- 571 UG STORM DRAIN/UNDER DRAIN
- 572 DRILL FOOTINGS
- 573 INSTALL FOOTING REBAR
- 574 SET ANCHOR BOLT TEMPLATES
- 575 PLACE CONCRETE AT FOOTINGS
- 576 CONCRETE CURE
- 577 INSTALL POSTS
- 578 GROUT BASE PLATES
- 579 PLACE CONCRETE COVER @ BOLTS

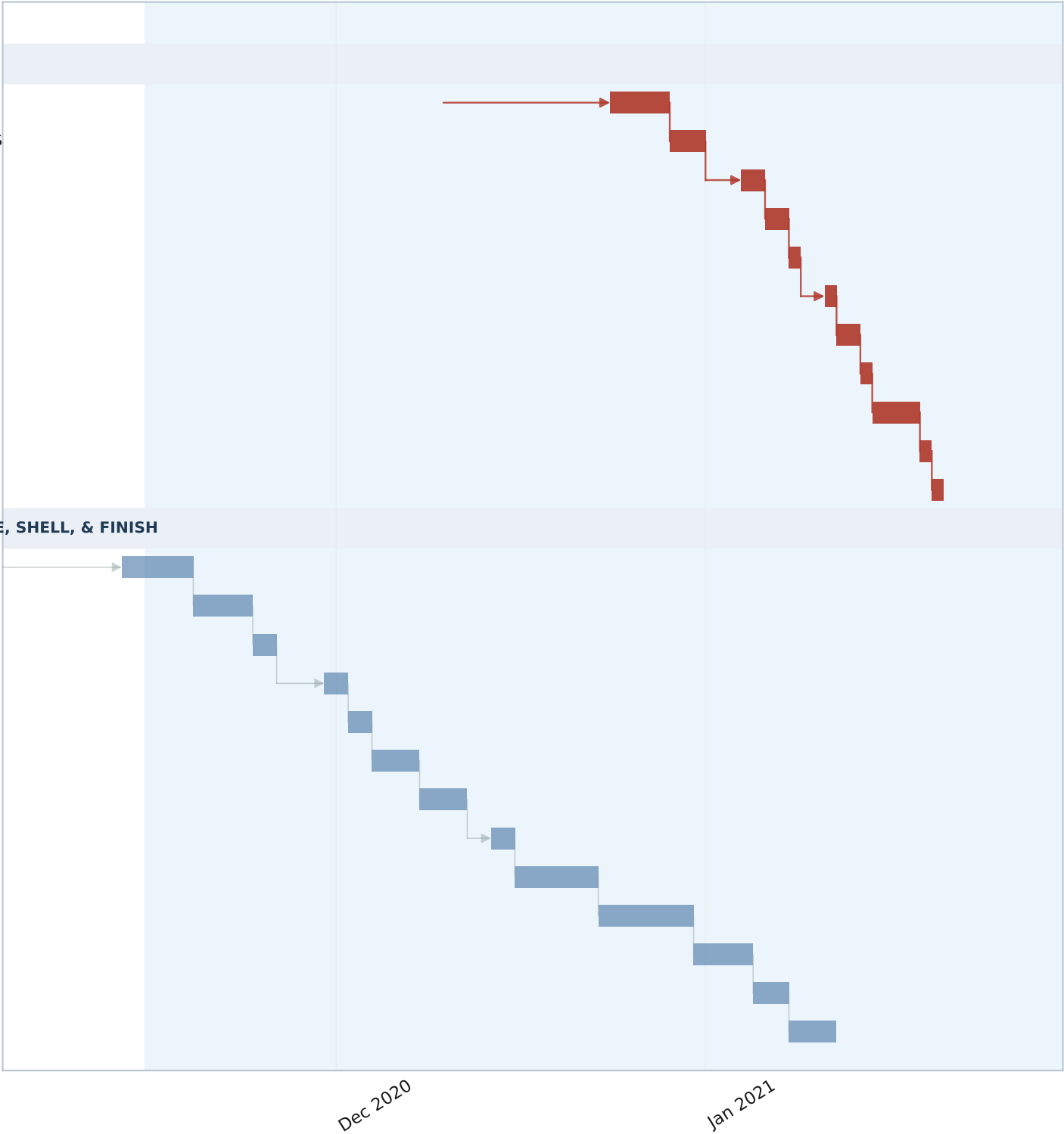


SERVICE YARD - FOUNDATION (CONT.)

- 580 EXCAVATE FOR HOUSEKEEPING PADS/BOLLARD FOOTINGS
- 581 FORMWORK FOR HOUSEKEEPING PADS/BOLLARD FOOTINGS
- 582 HOUSEKEEPING PAD/BOLLARD FOOTING REBAR
- 583 SET BOLLARD EMBEDS
- 584 PLACE CONCRETE @ PADS/BOLLARD FOOTINGS
- 585 EXCAVATE THICKENED EDGES @ SOG
- 586 FORMWORK FOR SOG
- 587 SET FLOOR SINK
- 588 PLACE UNDERSLAB ROCK
- 589 INSTALL SOG REBAR
- 590 PLACE CONCRETE SLAB ON GRADE

TRANSFORMER YARD / TRASH ENCLOSURE - ENCLOSURE, SHELL, & FINISH

- 552 ERECT STEEL FRAME
- 553 PAINT
- 554 INSTALL PAN DECK
- 555 ROOF DRAINS/RWL'S
- 556 ROOF DECK INSULATION
- 557 INSTALL PVC ROOF
- 558 INSTALL DOORS/GATES/HARDWARE
- 559 UHPC PANEL MOCK UP
- 560 MOCK UP REVIEW
- 561 INSTALL UHPC PANELS
- 562 INSTALL GSM FLASHING'S
- 563 PAINT
- 564 INSTALL ELECTRICAL FINISH/LIGHTING



CONTRACT MILESTONES

3. BUILDING DRY-IN · Jul 26, 2021

TRANSFORMER YARD / TRASH ENCLOSURE - ENCLOSURE, SHELL, & FINISH

565 PLUMBING FINISHES

STRUCTURAL FRAMING

189 ERECT STRUCTURAL STEEL COLUMNS

190 ERECT SS ROOF STRUCTURE

191 PLUMB, LINE, WELD, BOLT STRUCTURAL STEEL

192 INSTALL METAL DECK

193 GROUT COLUMN BASES

SERVICE YARD - ENCLOSURE & FINISH

592 FABRICATE/INSTALL FRAMING

593 ROUGH ELECTRICAL IN WALL

594 ROUGH LV IN WALL

595 INSTALL GATES/HARDWARE

596 INSTALL DOORS HARDWARE

597 INSTALL UHPC PANELS

598 INSTALL ELECTRICAL TRIM

599 INSTALL LV TRIM/CAMERAS

600 SET BACKFLOW

601 INSTALL PLUMBING FINISHES

602 SET CONDENSER UNITS

603 SET HEAT PUMPS

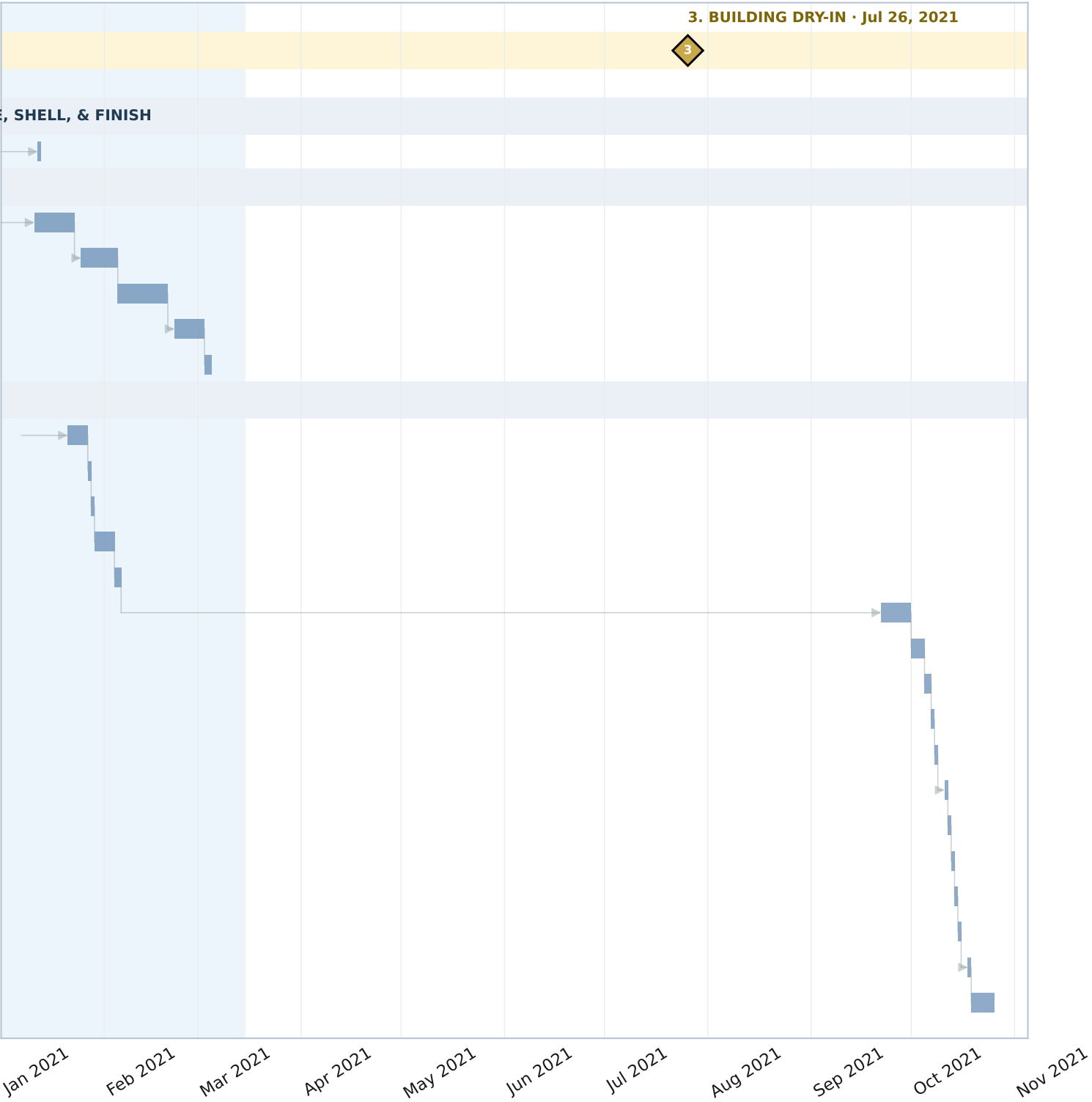
604 SET PUMPS 1&2

605 MAKE UP ELECTRICAL

606 CONTROL WIRING

607 PLUMB CONDENSATES

608 START UP/COMMISSIONING

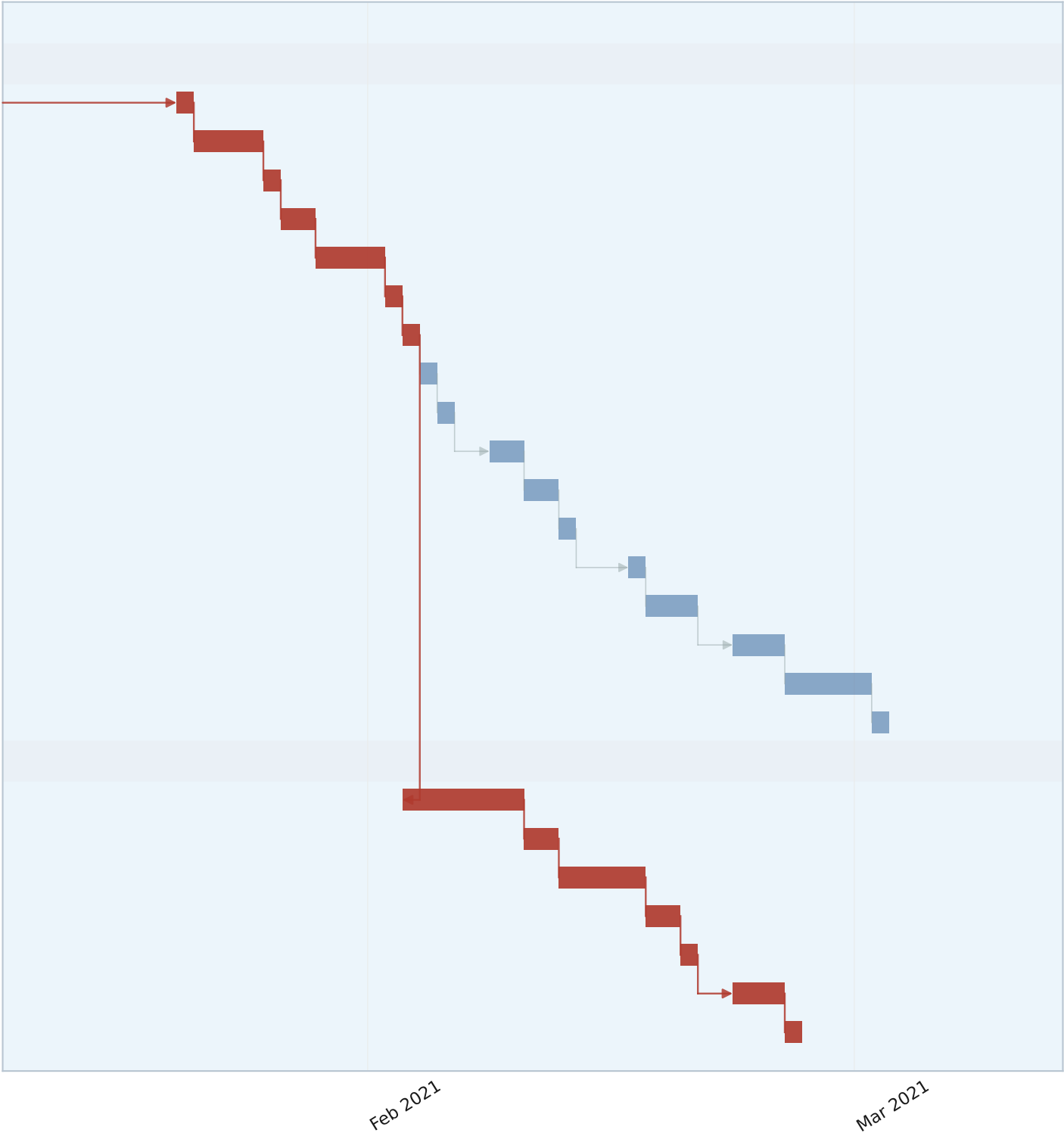


OUTDOOR PATIO

- 610 STAKING
- 611 LAYOUT/SET BATTER BOARDS
- 612 DRILL POST FOOTINGS
- 613 REBAR FOR POSTS
- 614 SET ANCHOR BOLT TEMPLATES
- 615 PLACE CONCRETE
- 616 CONCRETE CURE
- 617 PLACE CONCRETE COVER @ BOLTS
- 618 EXCAVATE THICKENED EDGES
- 619 EDGE FORM SLAB
- 620 UNDERSLAB ROCK
- 621 SLAB REINFORCEMENT
- 622 PLACE CONCRETE
- 623 FRAME FENCE ELEMENTS
- 624 INSTALL FENCE PANELS
- 625 INSTALL GATES/HARDWARE
- 626 INSTALL EXIT SIGNAGE

ACTIVITY YARD

- 628 COORDINATE SCULPTURAL LOG FOOTINGS
- 629 EXCAVATE PLANTER WALLS AND CURBS
- 630 CURB AND RAMP FORMWORK
- 631 REBAR FOR CURB/RAMP/PLANTER
- 632 SET EMBEDS FOR BENCHES
- 633 DOUBLE UP FORMWORK
- 634 INSTALL PLANTER DRAIN

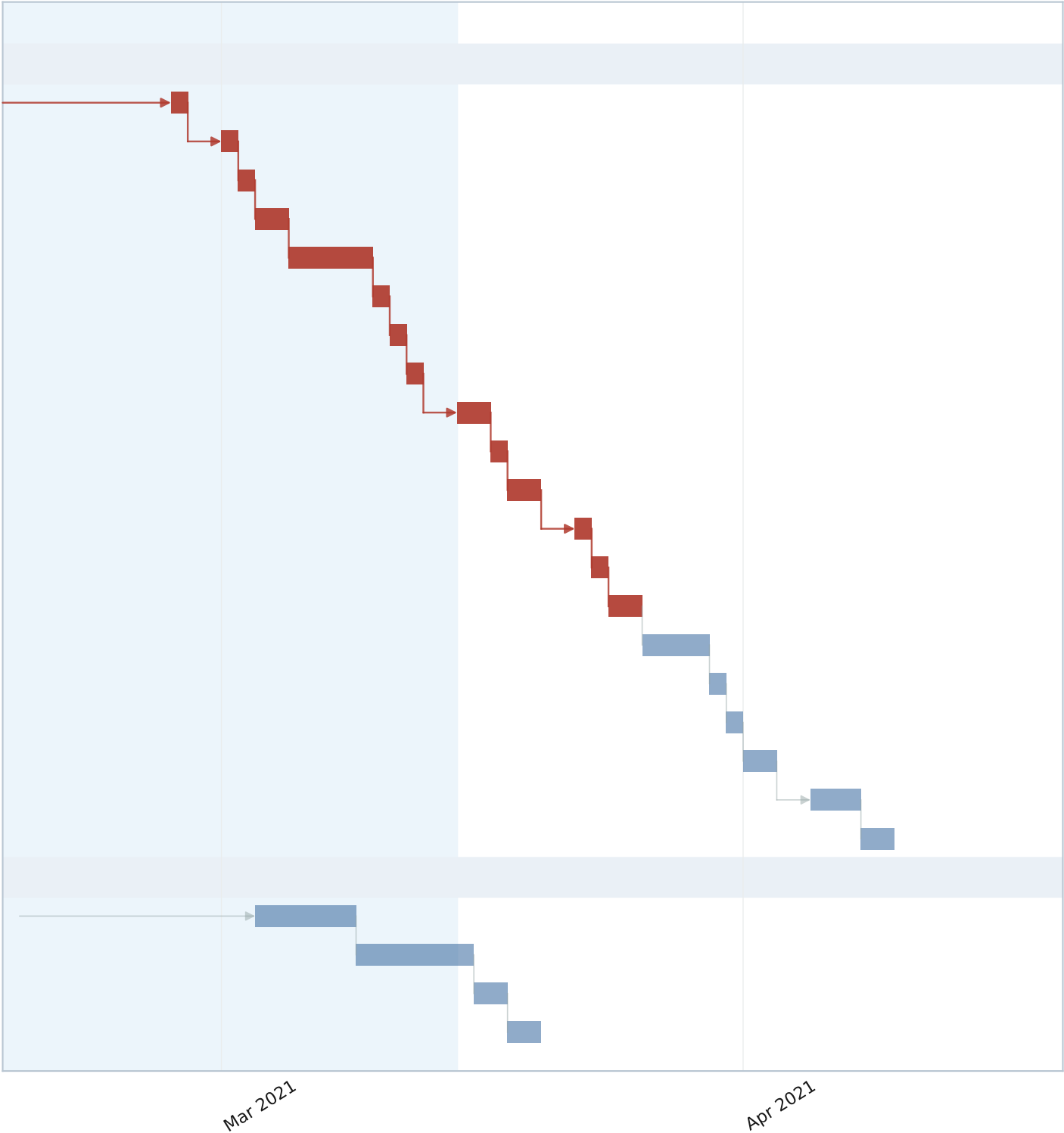


ACTIVITY YARD (CONT.)

- 635 PLACE CONCRETE AT PLANTER/CURBS/RAMP
- 636 CONCRETE CURE
- 637 STRIP FORMWORK, CLEAN UP
- 638 WATERPROOFING
- 639 FINISH GRADE/ROCK
- 640 LAYOUT FENCE POSTS
- 641 DRILL FENCE POST FOOTINGS
- 642 REBAR FOR POST FOOTINGS
- 643 SET ANCHOR BOLT TEMPLATES
- 644 PLACE CONCRETE AT POST FOOTINGS
- 645 SLAB ON GRADE FORMWORK/EXPANSION
- 646 REBAR FOR SLAB ON GRADE
- 647 PLACE CONCRETE
- 648 INSTALL DECORATIVE FENCE
- 649 INSTALL GATES/HARDWARE
- 650 INSTALL FLAGSTONE HEADER/GROUT IN PLACE
- 651 PLACE SAND BEDDING
- 652 INSTALL FLAGSTONE PAVING
- 653 INSTALL OFCI SCULPTURAL LOGS
- 654 PLACE ENGINEERED WOOD FIBER MATERIAL

SLAB ON GRADE

- 165 EDGE FORM SLAB, EXT CURB
- 166 UNDERSLAB MEP ROUGH IN STUB UP
- 167 UNDERSLAB ROCK
- 168 WATERSTOP, VAPOR BARRIER



SLAB ON GRADE (CONT.)

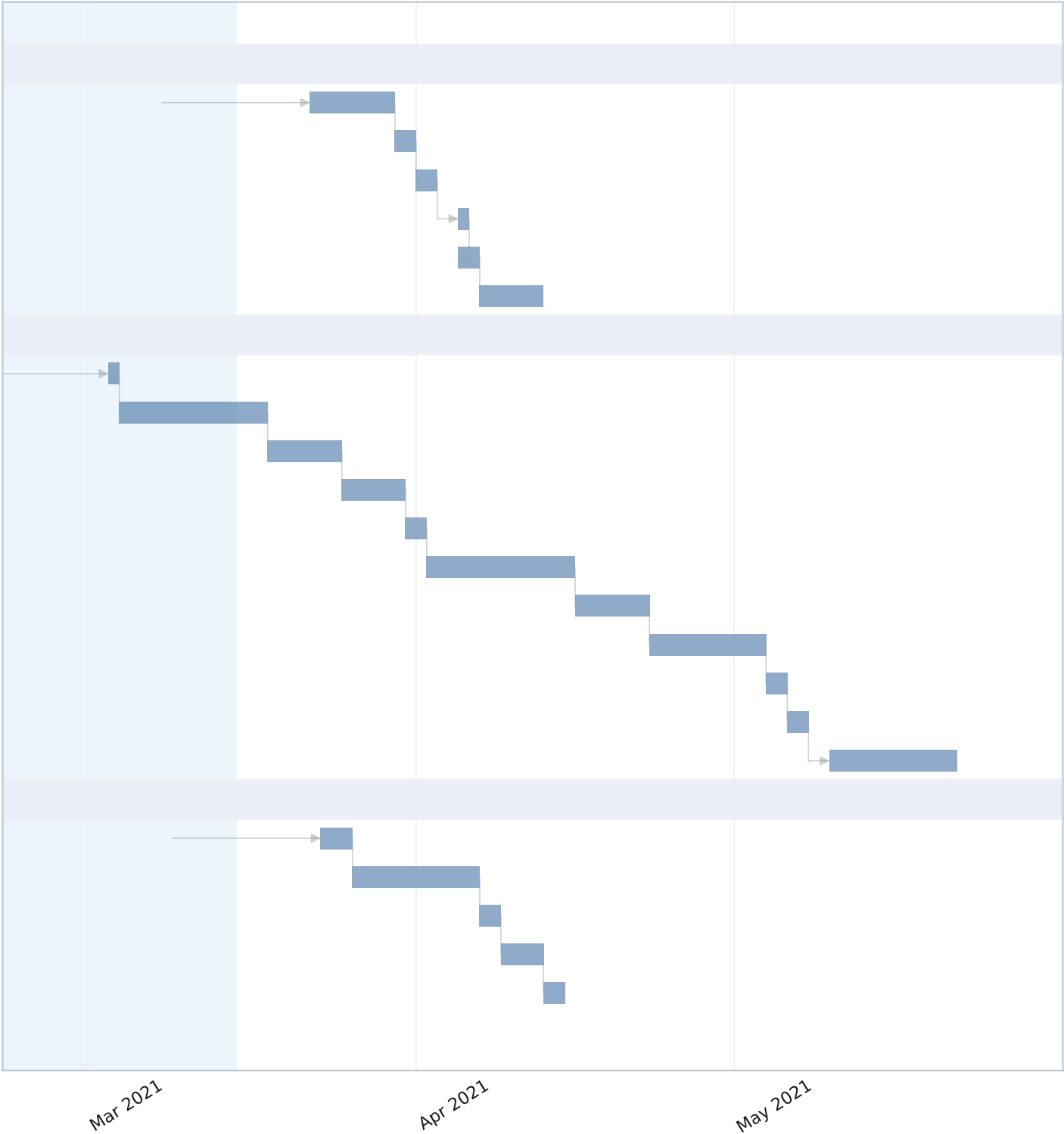
- 169 SLAB ON GRADE, CURB REBAR, DRAG BARS TO COLUMN BA
- 170 SLAB/FLATWORK DOWEL SLEEVES
- 171 SET EMBEDS, TRENCH CONVECTORS
- 172 PLACE/CURE SLAB ON GRADE CONCRETE
- 173 STRIP FORMWORK, CLEAN UP
- 174 BELOW GRADE WATERPROOFING

RA-1/RA-2

- 196 COORDINATE PENETRATIONS/ROOF ANCHORS
- 197 INSTALL GLASS MAT DECK
- 198 VAPOR BARRIER
- 199 INSTALL BLOCKING, NAILERS
- 200 INSTALL ROOF ANCHORS
- 201 INSTALL EPS WITH PLYWOOD BACKER, FURRING
- 202 INSTALL UNDERLAYMENT
- 203 INSTALL FLASHING'S, GUTTERS
- 204 INSTALL ROOF DRAINS
- 205 INSTALL PVC ROOF
- 206 INSTALL STANDING SEAM METAL ROOF

PARKING LOT

- 668 EXCAVATE CURB/GUTTER/THICKENED EDGES
- 669 FORMWORK CURB AND GUTTER
- 670 REBAR
- 671 PLACE AND FINISH CURB AND GUTTER
- 672 STRIP FORMWORK, CLEAN UP



PLAZA CONCRETE

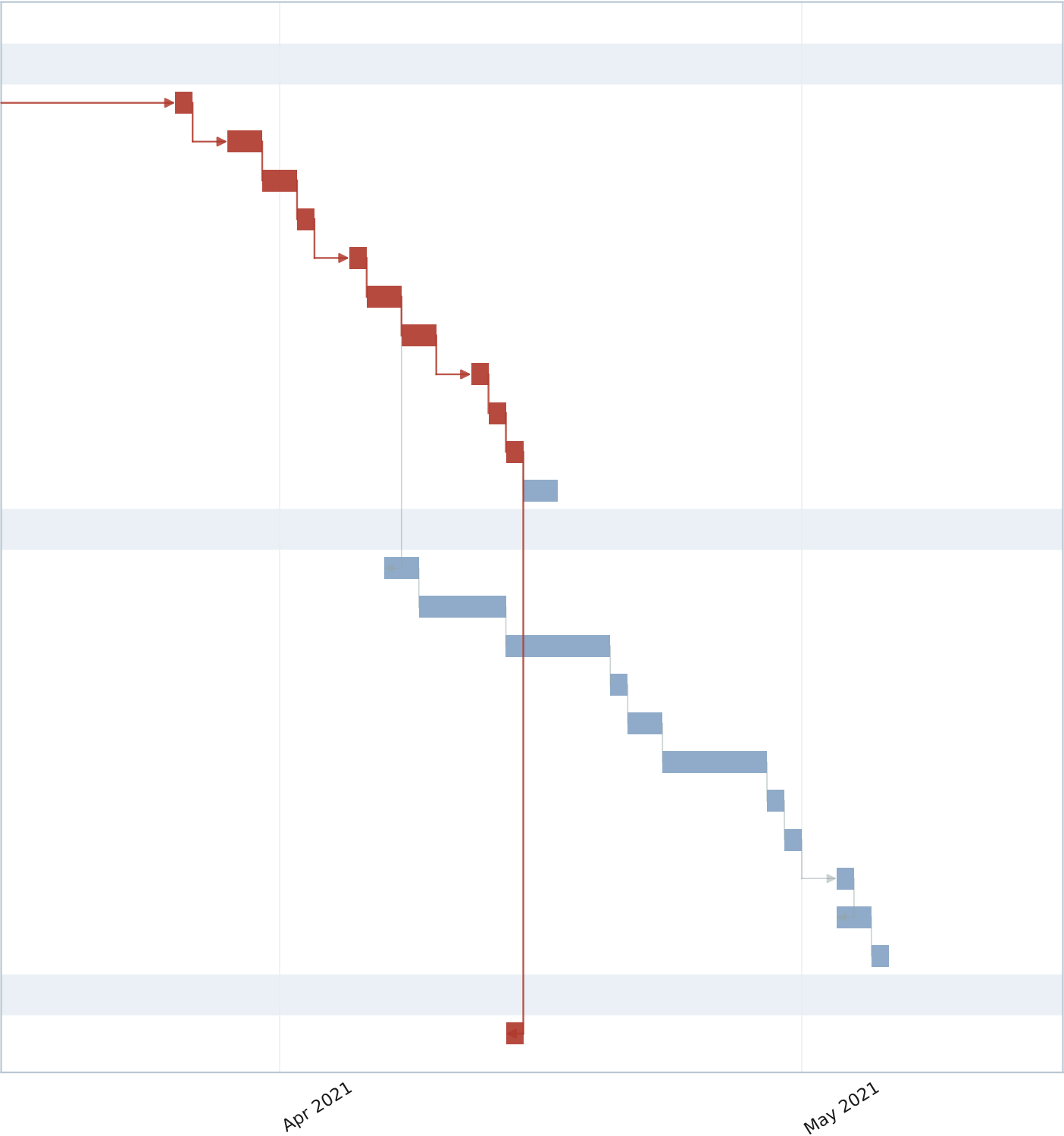
- 680 FINISH GRADING
- 681 EXCAVATE SEAT BOLLARD FOOTINGS/TREE WELLS/BIKE R
- 682 REBAR FOR SEAT BOLLARDS/BIKE RACK FOOTINGS
- 683 FORMWORK FOR SEAT BOLLARDS
- 684 PLACE BOLLARD/BIKE RACK FOOTINGS
- 685 FORM PERIMETER AND TREE WELLS
- 686 REBAR
- 687 SET SEAT BOLLARDS
- 688 PLACE AND FINISH
- 689 SAW CUT CONTROL JOINTS
- 690 STRIP FORMWORK, CLEAN UP

TOPPING SLAB

- 176 LAYOUT STACKS AND ANCHOR POINTS
- 177 INSTALL 1" EPS FOAM
- 178 INSTALL RADIANT FLOOR PIPING
- 179 FORM DEPRESSED SLABS
- 180 EXPANSION MATERIAL AT COLUMNS
- 181 INSTALL REBAR
- 182 SET CANE DETECTOR EMBEDS
- 183 SET FLOOR MOUNTED ELECTRICAL BOXES
- 184 PLACE/CURE/CUT/TOPPING SLAB
- 185 STRIP FORMWORK, CLEAN UP
- 186 TOPPING SLAB SEALANT

MONUMENT SIGN

- 697 EXCAVATE FOOTINGS FOR SIGN AND LIGHTING



MONUMENT SIGN (CONT.)

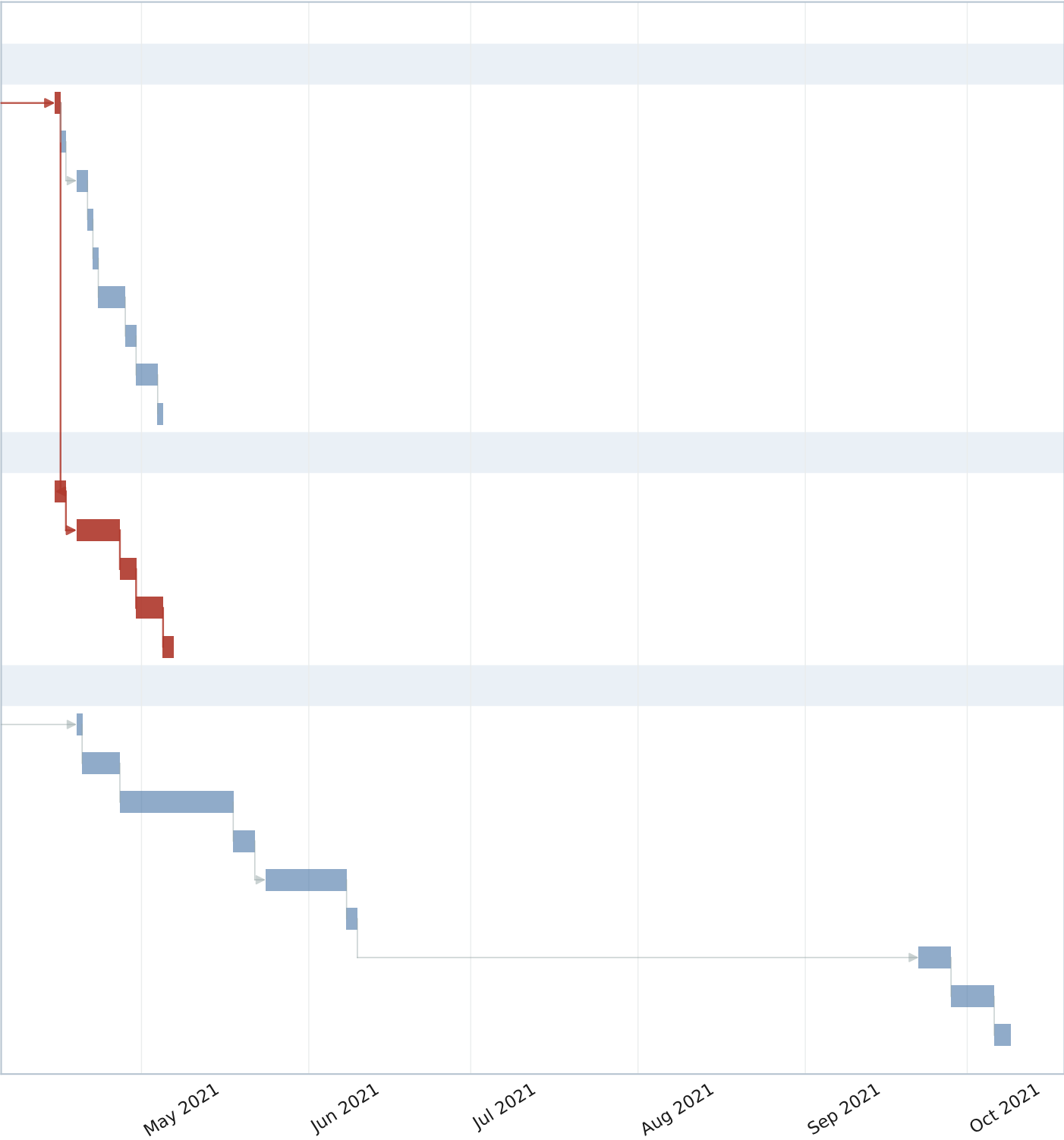
- 698 FOOTING REBAR
- 699 SET EMBEDS
- 700 UG ELECTRICAL
- 701 PLACE CONCRETE @ FOOTINGS
- 702 BACKFILL 80%
- 703 FABRICATE/INSTALL STEEL FRAME
- 704 INSTALL GFRC PANELS
- 705 INSTALL SITE LIGHTING
- 706 BACKFILL/FINISH GRADE

SIDEWALKS @ PARKING LOT

- 674 FINISH GRADE/ROCK
- 675 FORMWORK
- 676 REBAR
- 677 PLACE AND FINISH
- 678 STRIP FORMWORK, CLEAN UP

SITE HARDSCAPING

- 656 STAKING
- 657 INSTALL IRRIGATION SLEEVES
- 658 UG ELECTRICAL/SITE LIGHTING/EV/SIGN
- 659 DRILL LIGHT POLES
- 660 REBAR/FORM/POUR LIGHT POLE BASES
- 661 STRIP POLE BASE FORMWORK, CLEAN UP
- 662 FINISH GRADE/THICKENED EDGES @ WALKS
- 663 FORMWORK @ WALKS
- 664 REBAR



SITE HARDSCAPING (CONT.)

665 PLACE CONCRETE @ WALKS

666 INSTALL SITE LIGHTING

LANDSCAPING

708 INSTALL IRRIGATION MAINS/CONTROL WIRING/VALVES

709 INSTALL IRRIGATION BACKFLOW PREVENTOR

710 INSTALL LANDSCAPE HEADERS

711 INSTALL LATERALS/HEADS/ COVERAGE TEST- EAST

712 INSTALL LATERALS/HEADS/ COVERAGE TEST- WEST

713 INSTALL LATERALS/HEADS/COVERAGE TEST-SOUTH

714 INSTALL LATERALS/HEADS/COVERAGE TEST-PARKING LOT

715 IMPORT TOPSOIL AND FINE GRADING-EAST

716 IMPORT TOPSOIL AND FINE GRADING-WEST

717 IMPORT TOPSOIL AND FINE GRADING-PARKING LOT

718 IMPORT TOPSOIL AND FINE GRADING-SOUTH

719 PLANTING-EAST

720 PLANTING-WEST

721 PLANTING PARKING LOT

722 PLANTING-SOUTH

723 MULCH-PLANTERS AND TREES

EXTERIOR ENVELOPE

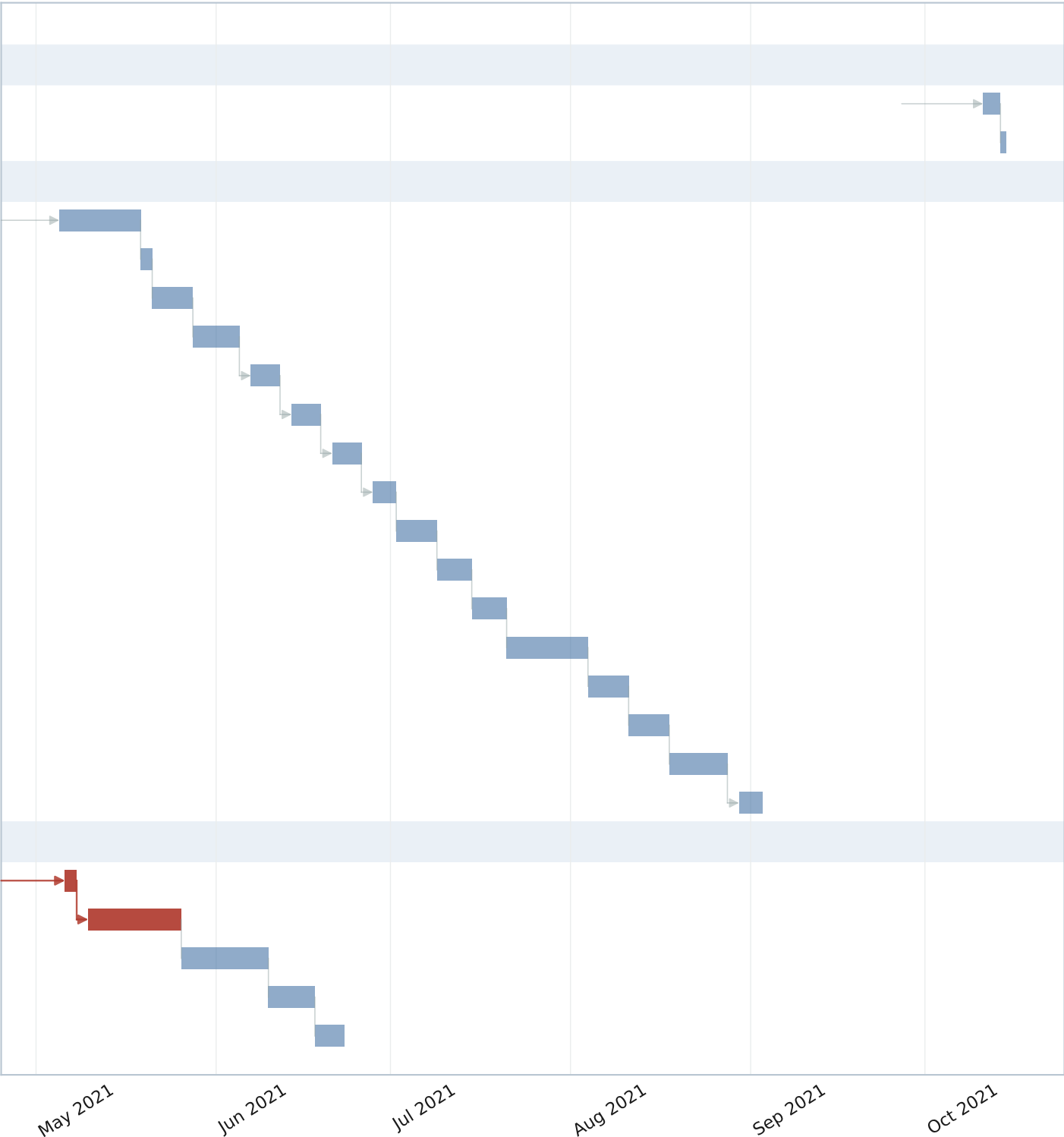
209 LAYOUT FRAMING

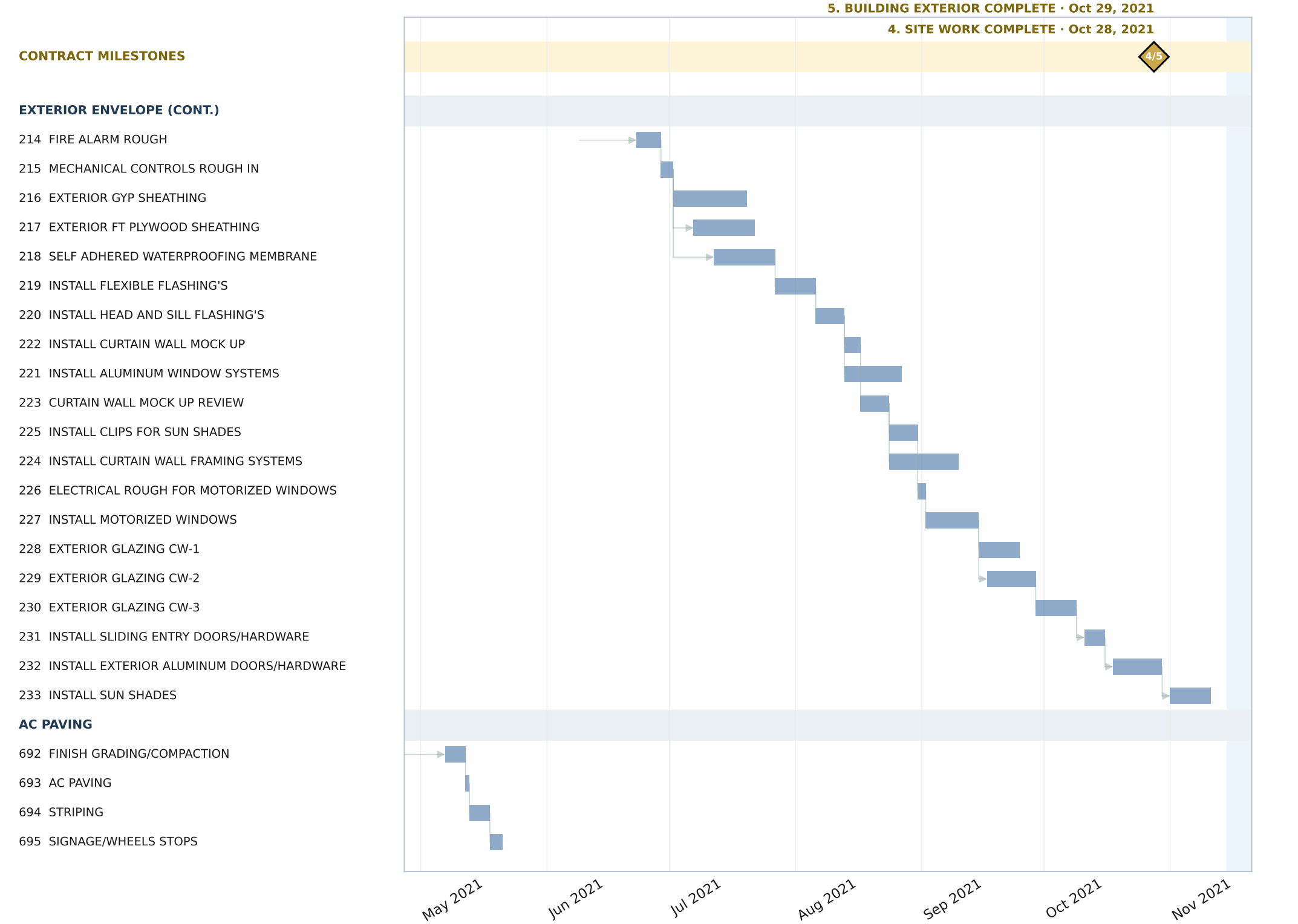
210 FRAME EXTERIOR WALLS

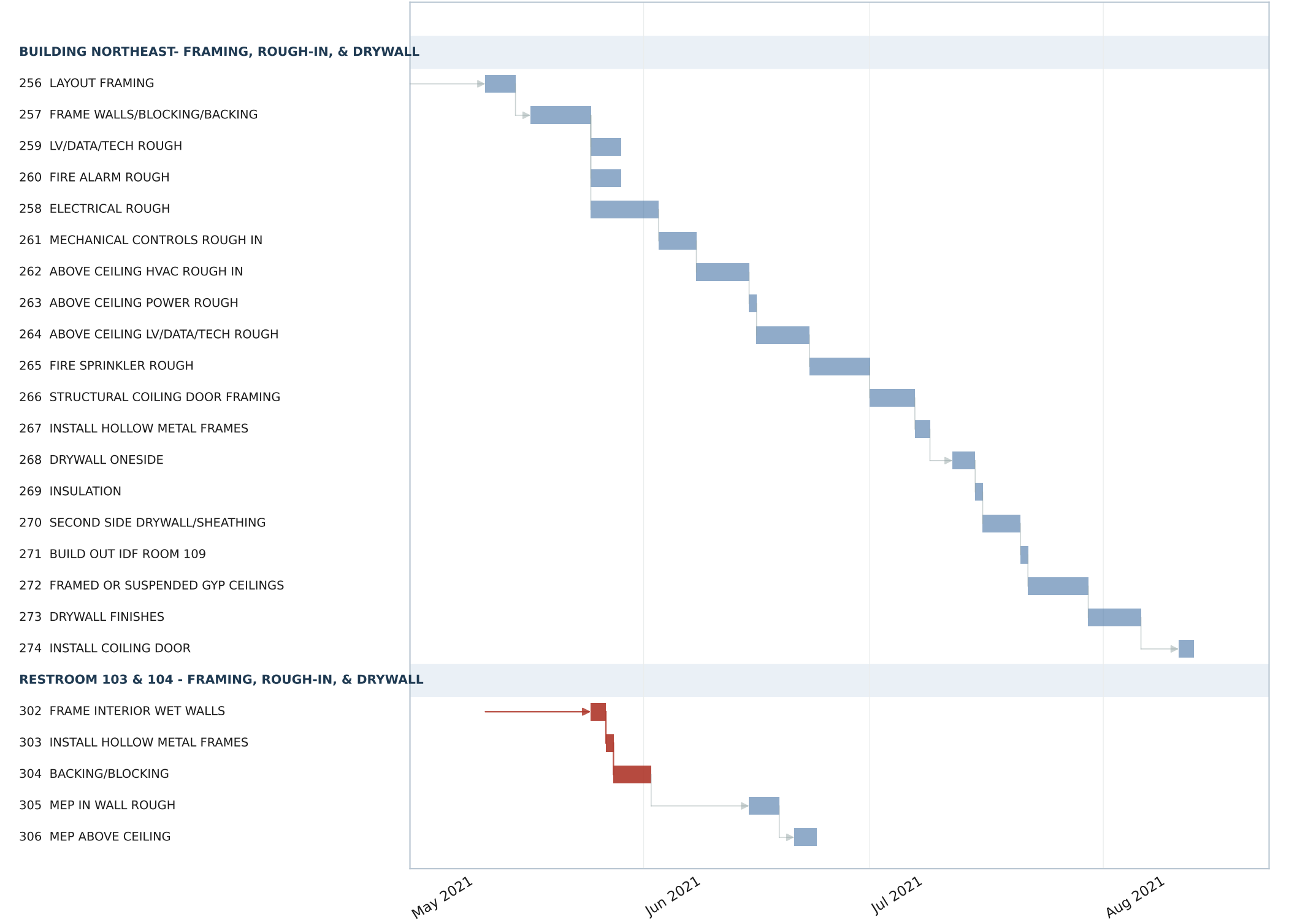
211 BLOCKING/BACKING

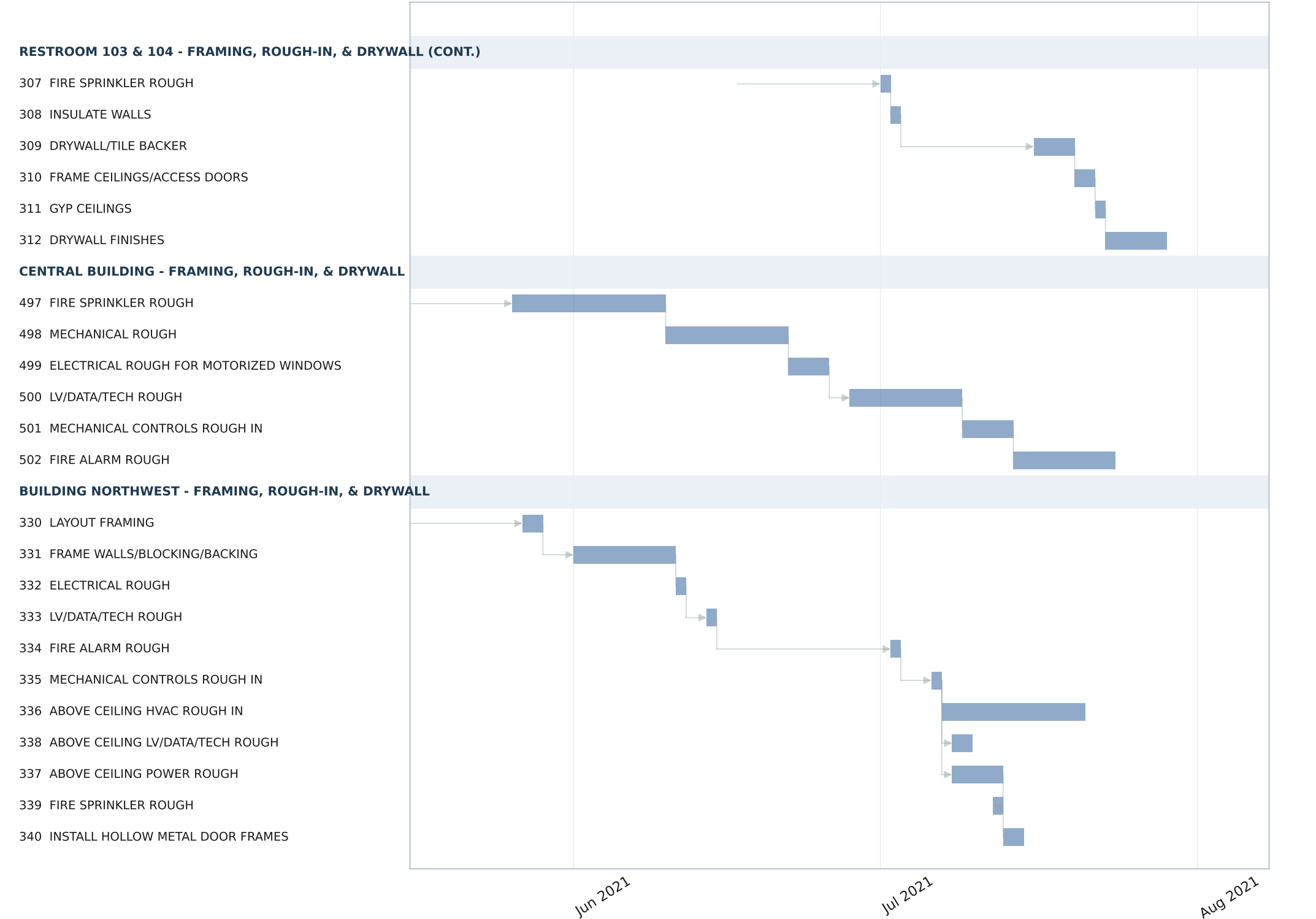
212 ELECTRICAL ROUGH

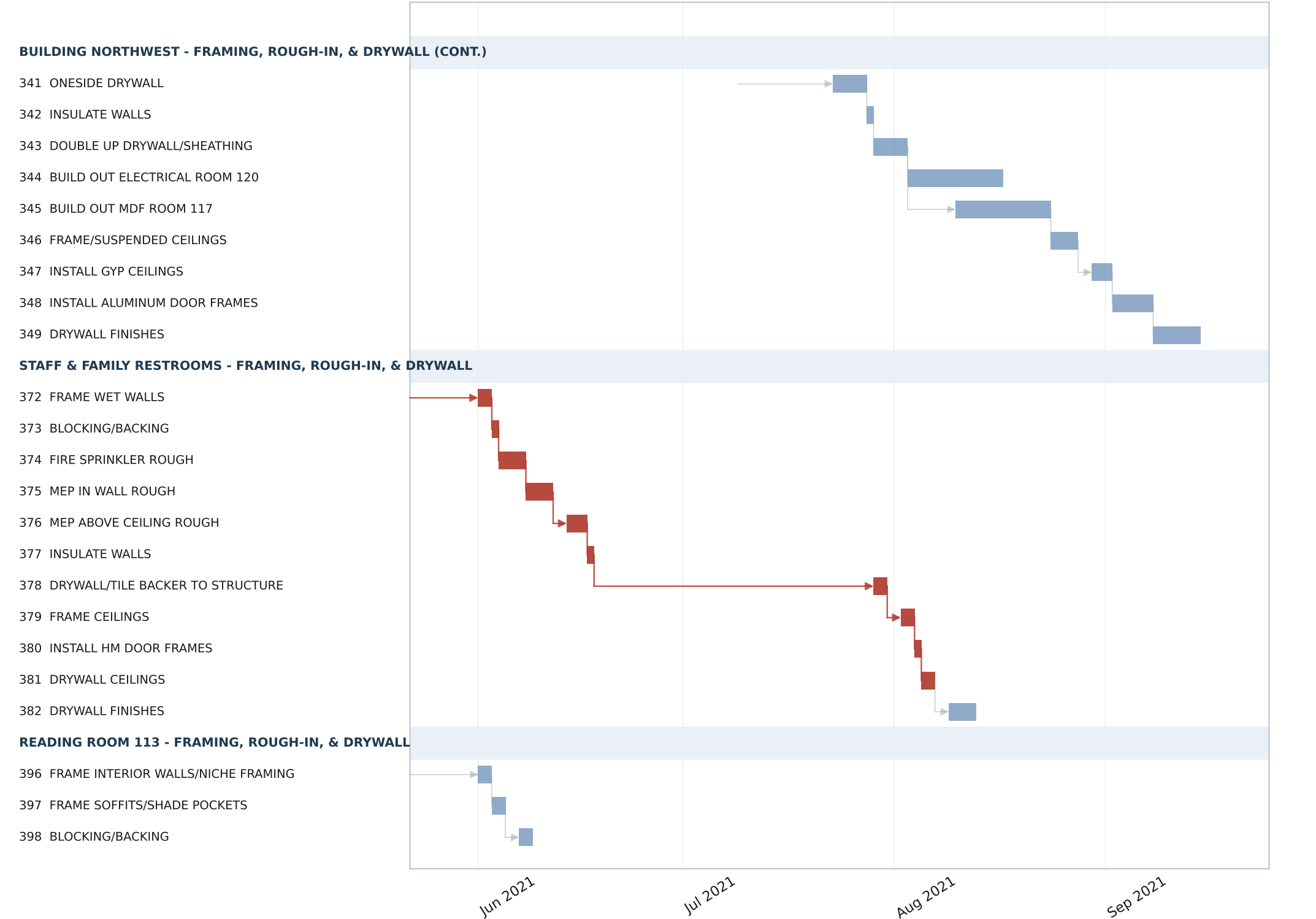
213 LV/DATA/TECH ROUGH

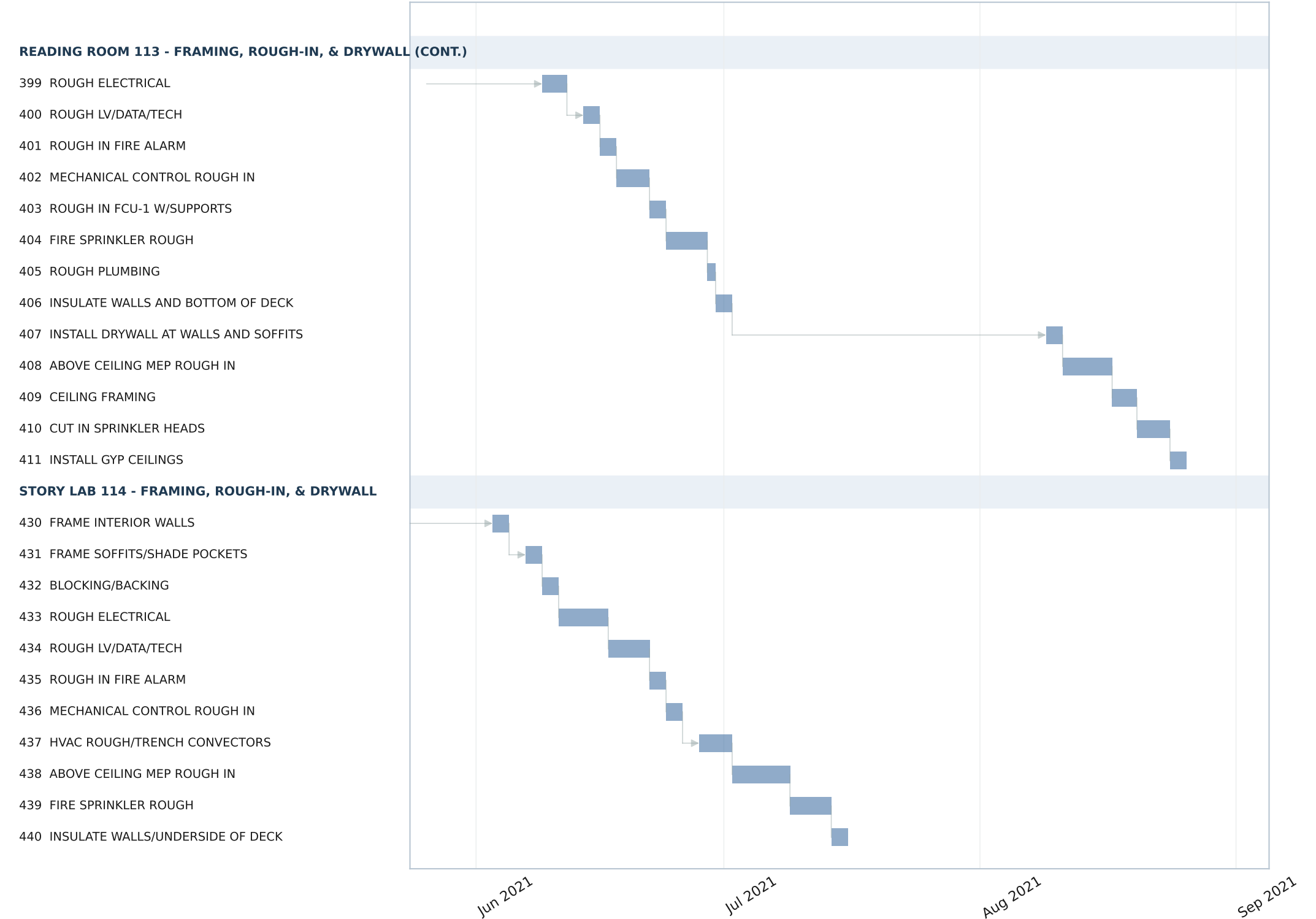


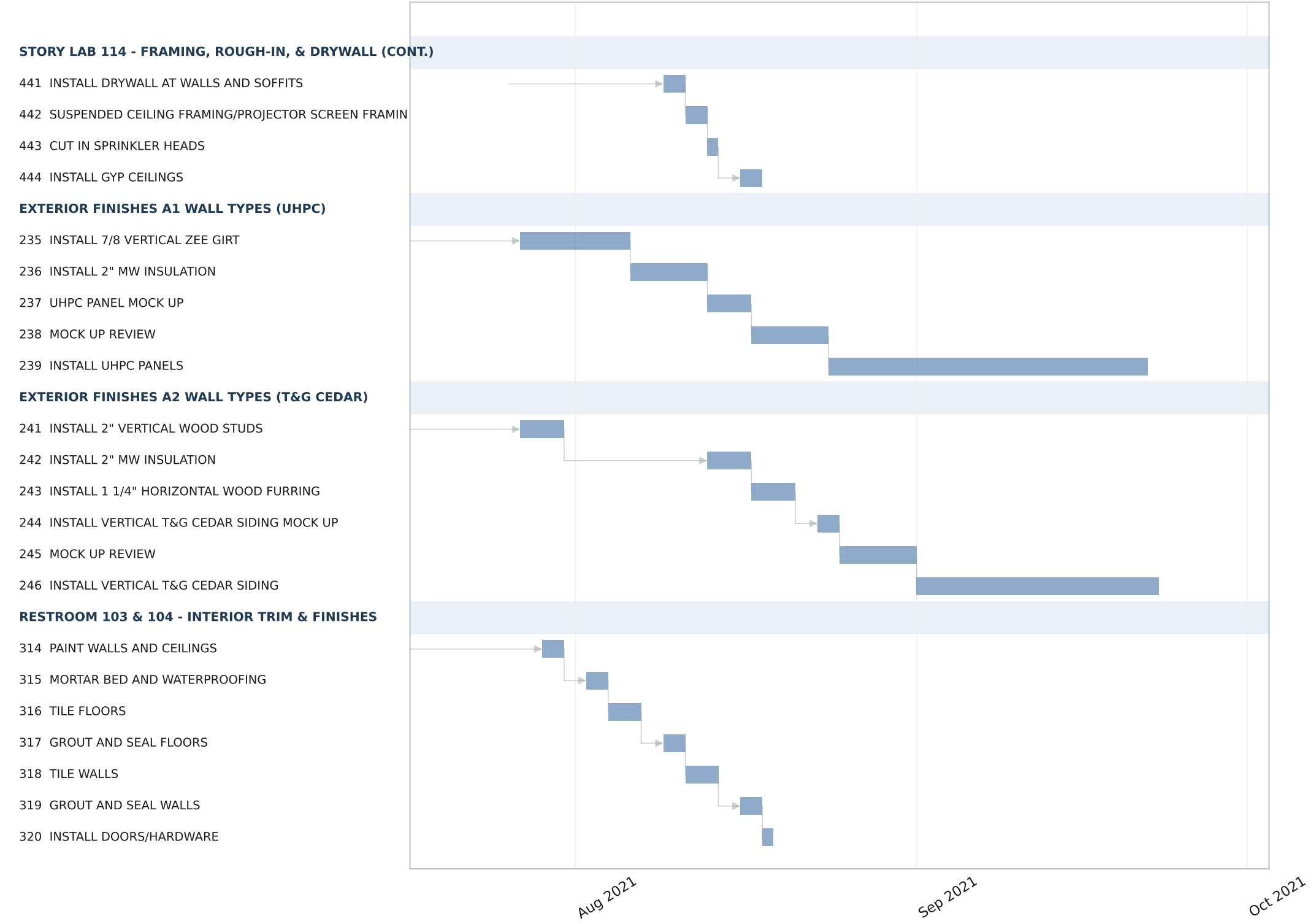


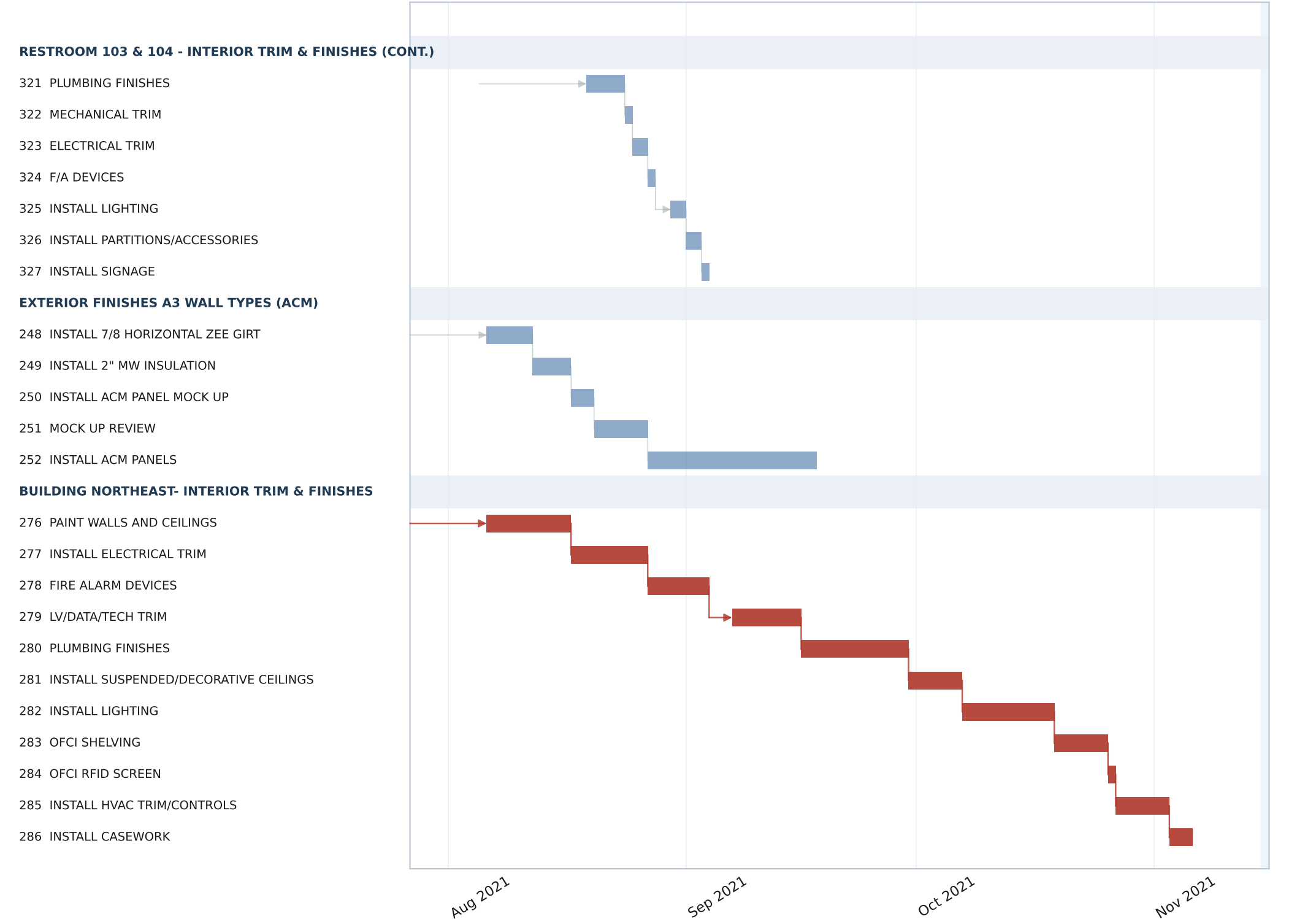












CONTRACT MILESTONES

6. CONDITIONED AIR · Nov 22, 2021

6

BUILDING NORTHEAST- INTERIOR TRIM & FINISHES (CONT.)

- 287 INSTALL DOORS/HARDWARE
- 288 INSTALL WINDOW COVERINGS/CONTROLS
- 289 INSTALL SIGNAGE
- 290 INSTALL FEC
- 291 INSTALL FLOORING/BASE

STAFF & FAMILY RESTROOMS - INTERIOR TRIM & FINISHES

- 384 PAINT WALLS AND CEILINGS
- 385 MORTAR BED AND WATERPROOFING
- 386 TILE FLOORS/GROUT/SEAL
- 387 TILE WALLS/GROUT/SEAL
- 388 PLUMBING FINISHES
- 389 INSTALL LIGHTING
- 390 INSTALL ELECTRICAL TRIM
- 391 INSTALL F/A DEVICES
- 392 INSTALL TOILET ACCESSORIES
- 393 INSTALL SIGNAGE

STORY LAB 114 - INTERIOR TRIM & FINISHES

- 446 TAPE/TOP/FINISH
- 447 PAINT WALLS AND CEILINGS
- 448 INSTALL DECORATIVE CEILINGS AGB-1
- 449 INSTALL HVAC TRIM/CONTROLS
- 450 INSTALL TRENCH CONVECTOR GRILLES
- 451 INSTALL ELECTRICAL TRIM
- 452 INSTALL FIRE ALARM DEVICES
- 453 INSTALL LV,DATA.TECH TRIM

Sep 2021 Oct 2021 Nov 2021 Dec 2021

STORY LAB 114 - INTERIOR TRIM & FINISHES (CONT.)

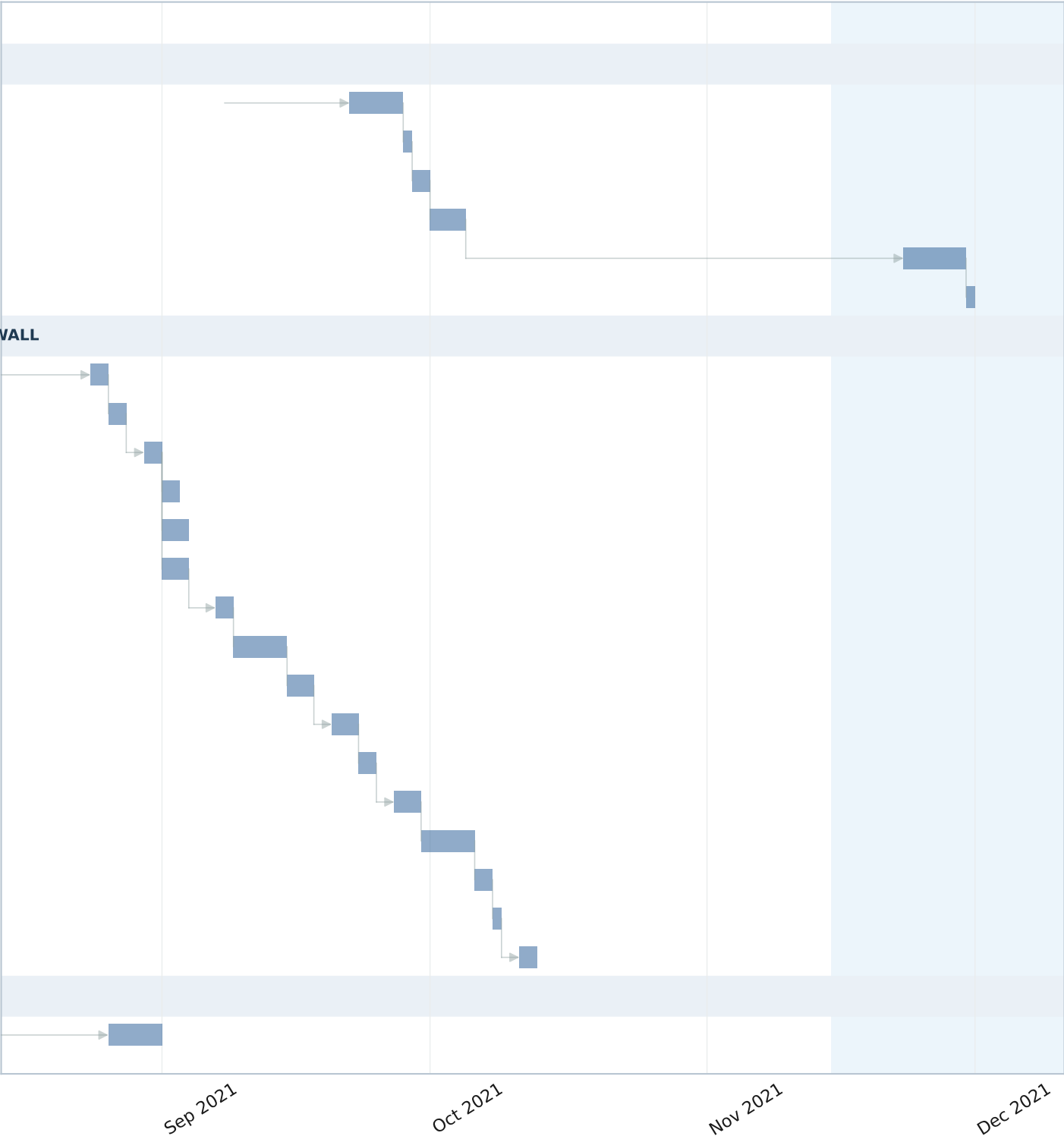
- 454 INSTALL LIGHTING
- 455 INSTALL PROJECTOR/SCREEN
- 456 INSTALL MOTORIZED WINDOW COVERINGS/CONTROLS
- 457 INSTALL WOOD FEATURE PANEL LIN-4
- 458 INSTALL FLOORING
- 459 INSTALL WOOD BASE WB-1

MAKER CLASSROOM 115 - FRAMING, ROUGH-IN, & DRYWALL

- 462 FRAME INTERIOR WALLS/NICHE FRAMING
- 463 FRAME SOFFITS/SHADE POCKETS
- 464 BLOCKING/BACKING
- 466 ROUGH LV/DATA/TECH
- 465 ROUGH ELECTRICAL
- 467 ROUGH IN FIRE ALARM
- 468 MECHANICAL CONTROL ROUGH IN
- 469 HVAC ROUGH IN
- 470 FIRE SPRINKLER ROUGH
- 471 ROUGH PLUMBING
- 472 INSULATE WALLS AND BOTTOM OF DECK
- 473 INSTALL DRYWALL AT WALLS,SOFFITS, SLOPED CEILINGS
- 474 ABOVE CEILING MEP ROUGH IN
- 475 CEILING FRAMING
- 476 CUT IN SPRINKLER HEADS
- 477 INSTALL GYP CEILINGS

READING ROOM 113 - INTERIOR TRIM & FINISHES

- 413 TAPE/TOP/FINISH

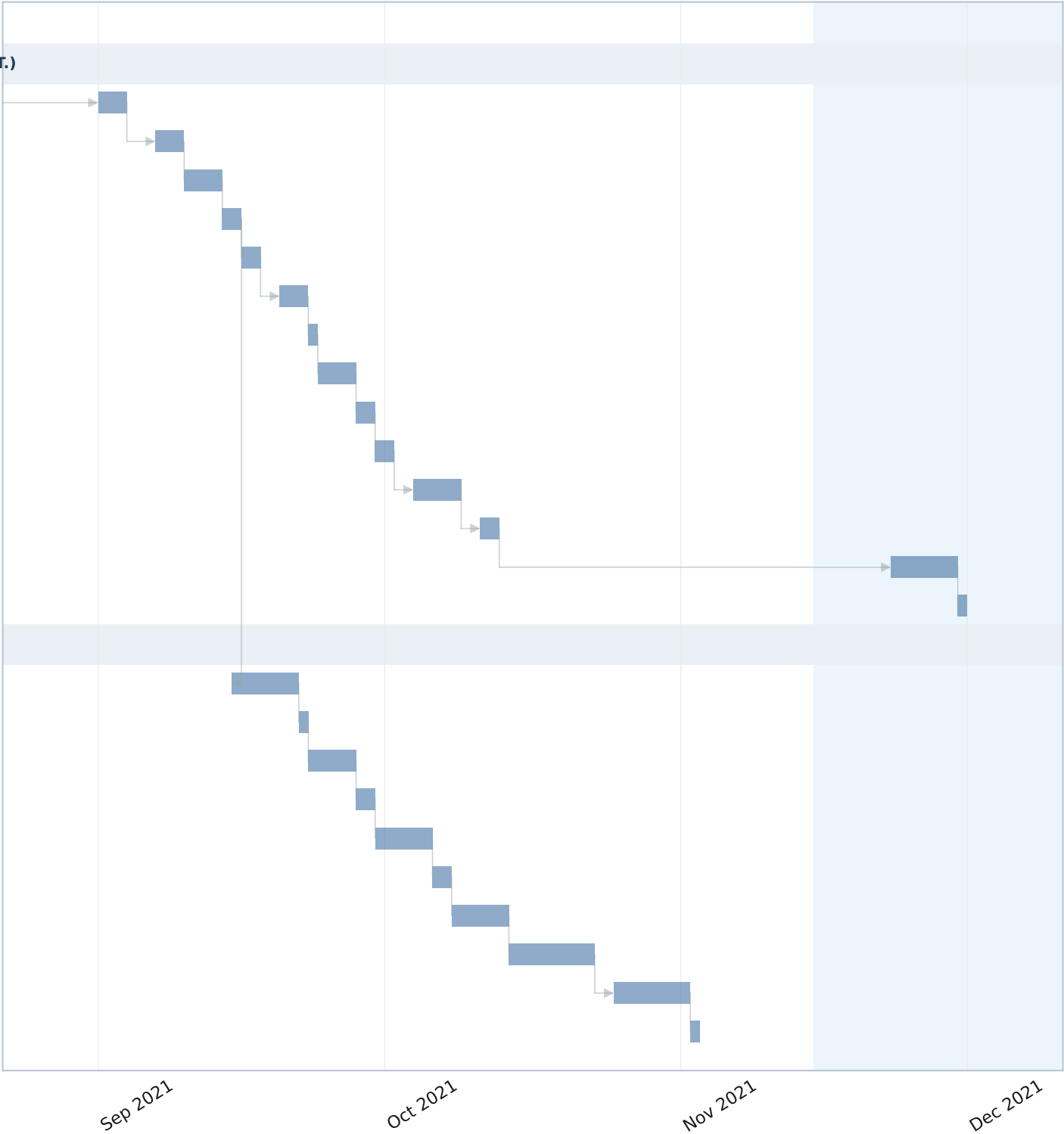


READING ROOM 113 - INTERIOR TRIM & FINISHES (CONT.)

- 414 INSTALL ALUMINUM DOORS/WINDOWS/HARDWARE
- 415 PAINT WALLS AND CEILINGS
- 416 INSTALL ELECTRICAL TRIM
- 417 INSTALL FIRE ALARM DEVICES
- 418 LV TRIM/WINDOW CONTROLS
- 419 INSTALL LIGHTING
- 420 NICHE CASEWORK
- 421 INSTALL WD-1A PANELS
- 422 INSTALL AWP-1 PANELS/WC-1 FABRIC
- 423 INSTALL MOTORIZED WINDOW MOCK UP
- 424 MOCK UP REVIEW
- 425 INSTALL MOTORIZED WINDOW COVERINGS
- 426 INSTALL FLOORING/BASE
- 427 INSTALL BANQUETTE BENCH

BUILDING NORTHWEST - FINTERIOR TRIM & FINISHES

- 351 PAINT WALLS AND CEILINGS
- 352 INSTALL FRP PANELING
- 353 INSTALL CASEWORK
- 354 INSTALL COUNTERTOPS
- 355 INSTALL OFCI ITEMS
- 356 INSTALL PLUMBING FINISHES
- 357 INSTALL HVAC TRIM/CONTROLS
- 358 INSTALL SUSPENDED/DECORATIVE CEILINGS
- 359 INSTALL LIGHTING/LIGHTING CONTROLS
- 360 INSTALL MECHANICAL CONTROLS



CONTRACT MILESTONES

7. TEMPORARY CERTIFICATE OF OCCUPANCY · Dec 16, 2021

7

BUILDING NORTHWEST - FINTERIOR TRIM & FINISHES (CONT.)

- 361 INSTALL ELECTRICAL TRIM
- 362 FIRE ALARM DEVICES
- 363 LV/DATA/TECH TRIM
- 364 INSTALL DOORS/HARDWARE
- 365 INSTALL WINDOW COVERINGS/CONTROLS
- 366 INSTALL MARKERBOARDS
- 367 INSTALL CORNER GUARDS
- 368 INSTALL SIGNAGE
- 369 INSTALL FLOORING/BASE

MAKER CLASSROOM 115 - INTERIOR TRIM & FINISHES

- 479 INSTALL ALUMINUM DOORS/WINDOWS/HARDWARE
- 480 PAINT WALLS AND CEILINGS
- 481 INSTALL SUSPENDED CEILING LIN-2
- 482 INSTALL LIGHTING
- 483 ELECTRICAL TRIM
- 484 INSTALL FIRE ALARM DEVICES
- 485 LV/DATA/TECH TRIM
- 486 MECHANICAL CONTROLS
- 487 INSTALL MOTORIZED WINDOW COVERINGS/CONTROLS
- 488 INSTALL CASEWORK
- 489 INSTALL COUNTERTOPS
- 490 PLUMBING FINISHES
- 491 INSTALL WOOD PANELING WD-2
- 492 INSTALL FLOORING/BASE
- 493 INSTALL CORNER GUARDS

Oct 2021

Nov 2021

Dec 2021

MAKER CLASSROOM 115 - INTERIOR TRIM & FINISHES (CONT.)

494 INSTALL FEC

CENTRAL BUILDING - INTERIOR TRIM & FINISHES

504 COMPLETE GFRG SKYLIGHT SURROUNDS

505 PAINT AESS ELEMENTS

506 INSTALL LINEAR WOOD CEILINGS LIN-1

512 INSTALL HVAC CONTROLS

509 INSTALL FIRE ALARM DEVICES

510 INSTALL LV/DATA/TECH TRIM

508 INSTALL ELECTRICAL TRIM

511 INSTALL HVAC EQUIPMENT, FANS/TC GRILLES

507 INSTALL LIGHTING

513 INSTALL WINDOW COVERINGS/CONTROLS

514 INSTALL OFCI ITEMS

515 INSTALL FLOORING/BASE

516 INSTALL SIGNAGE

REINFORCED AGGREGATE MULCH

725 INSTALL GEOTEXTILE

726 AGGREGATE INFILL AND COMPACTION

727 INSTALL GRAVEL PAVE SYSTEM

728 INFILL GEOWEB WITH AGGREGATE MULCH

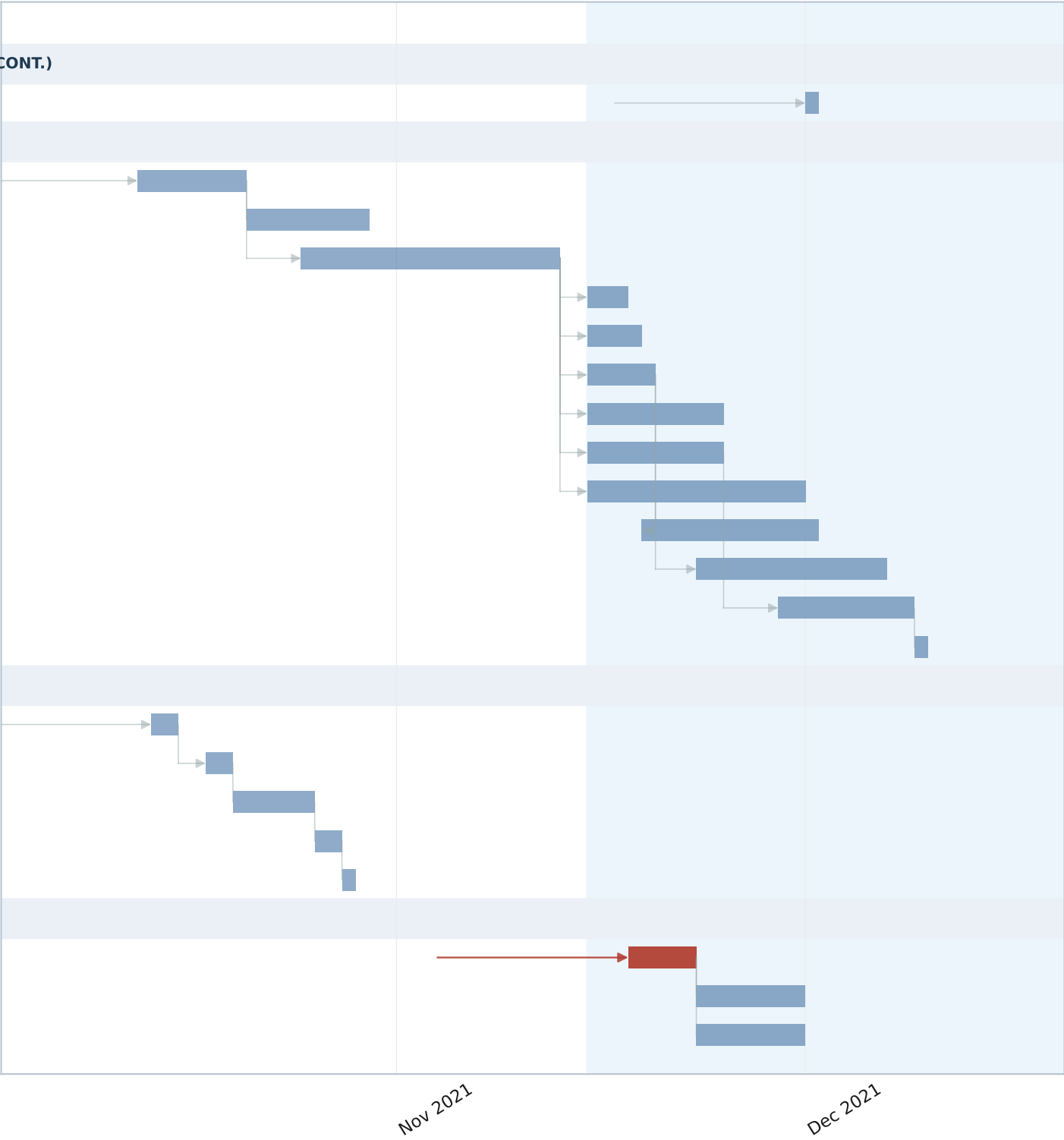
729 CLEAN AND FINISH

START UP TESTING & COMMISIONING

518 HVAC STARTUP

519 TAB

520 FIRE ALARM TESTING



9. PROJECT COMPLETION · Apr 15, 2022

8. SUBSTANTIAL COMPLETION · Jan 26, 2022

CONTRACT MILESTONES

START UP TESTING & COMMISIONING (CONT.)

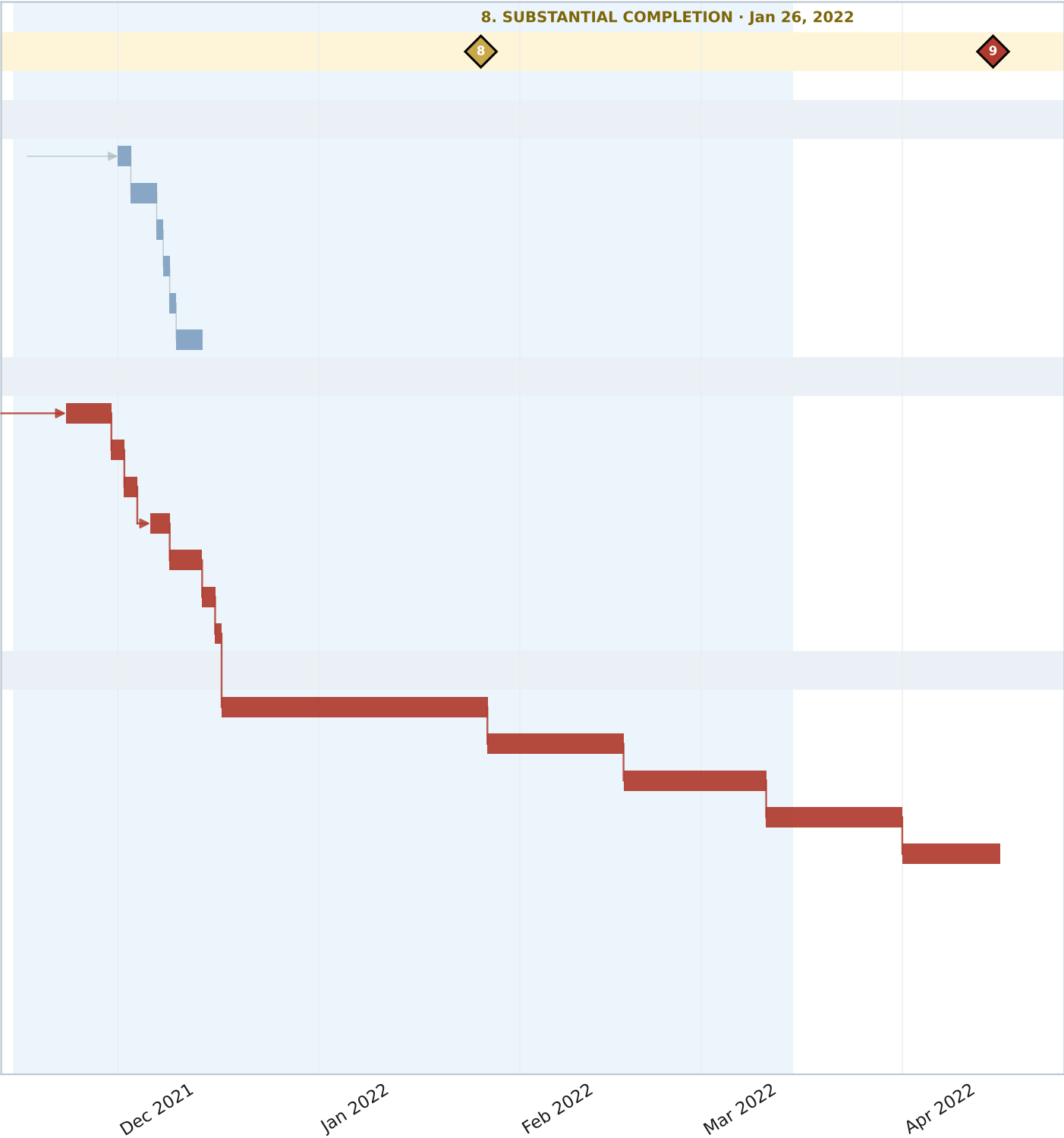
- 521 LIGHTING CONTROLS AND DAY LIGHTING
- 522 WATER HEATER STARTUP TEMPERATURE CONTROLS
- 523 OPERABLE WINDOW TESTING
- 524 OPERABLE SKYLIGHT TESTING
- 525 INDOOR SHADE SYSTEMS
- 526 LANDSCAPE IRRIGATION CONTROLS

BUILDING NORTHEAST- TERRAZZO FLOORING

- 293 FLOOR PREP
- 294 DESIGN LAYOUT
- 295 POURING
- 296 GRINDING
- 297 POLISHING
- 298 SEALING
- 299 INSTALL WOOD BASE

PROEJCT MILESTONES & CLOSEOUT

- 14 WEATHER DAYS
- 16 CONTRACTOR GENERATE PUNCHLIST
- 17 OWNER/ARCHITECT GENERATE PUNCHLIST
- 18 PUNCHLIST CORRECTIONS
- 19 FINAL CLEANUP



Phase windows

Phase	Window	Activities
Submittals + deferred approvals	2020-08-05 to 2020-10-07	63
Mobilization, sitework + site finishes	2020-08-25 to 2021-10-28	181
Procurement + deliveries	2020-09-09 to 2021-01-06	25
Foundations + ground improvement	2020-09-30 to 2021-05-05	57
Interiors: drywall + finishes	2020-11-13 to 2021-12-16	131
Structure	2021-01-11 to 2021-03-04	5
Rooftop units (RA-1/RA-2)	2021-03-03 to 2021-05-21	11
Exterior envelope	2021-05-06 to 2021-11-10	41
Interiors: framing + rough-in	2021-05-11 to 2021-10-12	114
Commissioning + closeout	2021-11-18 to 2022-04-15	14
Building works (zones)	2021-11-23 to 2021-12-16	7

Long-lead register

Critical procurement packages, ranked by duration. These are the chains that cannot slip quietly.

Item	Duration	Recorded window
PROCURE & DELIVER - 26 51 00 - INTERIOR LUMINAIRES	60 wd	2020-09-09 to 2020-12-04
PROCURE & DELIVER - SCULPTURAL LOG OBJECT AND DESIGN AND STRUCT	60 wd	2020-10-08 to 2021-01-06
PROCURE & DELIVER - 07 42 13.23 - METAL COMPOSITE MATERIAL WALL	40 wd	2020-09-09 to 2020-11-03
PROCURE & DELIVER - 07 42 47 - ULTRA-HIGH PERFORMANCE CONCRETE (	40 wd	2020-09-09 to 2020-11-03
PROCURE & DELIVER - 26 24 13 - SWITCHBOARDS	40 wd	2020-09-09 to 2020-11-03
PROCURE & DELIVER - 26 56 00 - EXTERIOR LUMINAIRES	40 wd	2020-09-09 to 2020-11-03
PROCURE & DELIVER - 05 12 50 - BUCKLING RESTRAINED BRACES PHL IF	40 wd	2020-10-08 to 2020-12-07
PROCURE & DELIVER - CEILING SUSPENSION SYSTEMS	40 wd	2020-10-08 to 2020-12-07

Longest activities on the program

Activity	Section	Duration
PROCURE & DELIVER - 26 51 00 - INTERIOR LUMINAIRES	PROCURE & DELIVER	60 wd
PROCURE & DELIVER - SCULPTURAL LOG OBJECT AND DESIGN	PROCURE & DELIVER	60 wd
PROCURE & DELIVER - 07 42 13.23 - METAL COMPOSITE MA	PROCURE & DELIVER	40 wd
PROCURE & DELIVER - 07 42 47 - ULTRA-HIGH PERFORMANC	PROCURE & DELIVER	40 wd

Activity	Section	Duration
PROCURE & DELIVER - 26 24 13 - SWITCHBOARDS	PROCURE & DELIVER	40 wd
PROCURE & DELIVER - 26 56 00 - EXTERIOR LUMINAIRES	PROCURE & DELIVER	40 wd
PROCURE & DELIVER - 05 12 50 - BUCKLING RESTRAINED B	PROCURE & DELIVER	40 wd
PROCURE & DELIVER - CEILING SUSPENSION SYSTEMS	PROCURE & DELIVER	40 wd
PROCURE & DELIVER - 05 12 00 - STRUCTURAL STEEL	PROCURE & DELIVER	30 wd
PROCURE & DELIVER - 08 41 13 - ALUMINUM-FRAMED ENTRA	PROCURE & DELIVER	30 wd

Risks and mitigation

1. Deferred approvals gate procurement

Risk: The baseline carries a dedicated deferred-approval stream inside a 105-working-day submittals window. A slipped approval moves every dependent procurement and delivery with it.

Mitigation: Submittal packages sequenced by procurement need, not by spec order; approval durations tracked as activities with owners, exactly as the baseline records them; no fabrication release before approval.

2. Curtain wall and glazing lead time

Risk: Exterior enclosure depends on the longest procurement chains in the program, and the envelope gates interior finishes in every zone.

Mitigation: Early release of enclosure packages, mock-up and testing ahead of bulk fabrication, zone-by-zone enclosure so interiors start where the envelope closes first.

3. Foundations across the wet season

Risk: Foundation work runs 134 working days from October 2020 into May 2021, straight through the California rainy season, on rammed-aggregate ground improvement.

Mitigation: Ground improvement sequenced ahead of the heaviest rain months, yard-by-yard foundations (activity yard, service yard, transformer yard) decoupled so one wet front cannot stop all of them.

4. Zoned interiors merging at finishes

Risk: The building is built as quadrant trains (framing, rough-in, drywall by zone). Zone trains that drift apart collide at finishes, furniture install, and commissioning.

Mitigation: Trains paced to the slowest zone with buffers held at the merge points, not inside the zones; finishes released zone by zone as recorded in the baseline's zone sections.

5. Commissioning and FF&E; tail

Risk: Closeout scope overlaps the last 182 days of the program; late systems completion compresses testing, furniture and equipment install, and punch into the same weeks.

Mitigation: Systems completed and started up by zone ahead of finishes, FF&E; install sequenced behind area punch, closeout milestones pulled forward with float reported openly instead of absorbed silently.

6. Permanent power dependency

Risk: Transformer yard and service yard foundations sit on the path to permanent power; a slip there delays every system start-up downstream.

Mitigation: Utility scope broken out as its own foundation sections in the baseline, coordinated early with the utility provider, temporary power plan held as the priced fallback.

Basis and audit record

1. Activities, names, dates, and durations are reproduced as recorded in the Baseline Rev.2 P6 print (16 pages, 729 rows); source spellings are preserved in the Level 4.
2. Calendar: working days, Monday to Friday. Holidays are not modeled, matching the source record. Dates on the charts are illustrative at the stated T0; day offsets govern.
3. Logic: 623 links derived from the recorded sequence (finish-to-start where the recorded dates chain, start-to-start where work overlaps). The red chain in the Level 4 is the longest logic path through that network: the driving path to completion, 140 activities. Level 4 pages are continuous runs of 26 rows in section order, and each page's time axis is fitted to the work on that page, so no page carries empty months or stretched rows and short activities keep readable arrows. Nothing is moved or rescheduled: bars sit on their recorded dates. A link whose predecessor sits on an earlier page enters as a short stub arrow at the successor's start, so no activity sits on the chart untied.
4. The Level 2 groups the 70 outline sections into delivery phases by trade and zone; phase windows are the earliest start and latest finish of their recorded activities.
5. The source print's own summary row (PROJECT DURATION, 600 CD'S) is a roll-up, not work: it is excluded from the chart and from the network. The program it summarizes is the 443-working-day window above.
6. No cost data is shown: this is a schedule package. Durations are working days unless a date is given.

Prepared with the Construction AI pipeline. Jeremy Dinh, Intermediate Estimator.