



Mr. Darrell White, Interim Director

CERTIFIED MAILED/EMAILED

TO: All Vendors
Tywana Scott, Procurement Assurance Analyst
Herbert Judon, Augusta Regional Airport

FROM: Darrell White *D White*
Interim Procurement Director

DATE: November 25, 2024

SUBJ: Clarifications to the Specifications, Responses to Vendor's Questions,
Changes to Drawings and Changes to Project Manual Specifications

BID ITEM: BID Item #24-264 Augusta Regional Airport Checkpoint Modernization
for Augusta, GA – Augusta Regional Airport

BID OPENING DATE: Friday, December 6, 2024 @ 11:00 a.m.

ADDENDUM NO. 2

This Addendum shall form a part of the referenced BID Item #24-264 Augusta Regional Airport Checkpoint Modernization and any agreement entered into in connection therewith equally as if bound into the original document. Acknowledge receipt of all Addendums on Attachment "B" within the Specifications package.

Clarifications to the Specifications:

- When you are instructed to **ADD, DELETE, or MAKE CHANGES** to a **BID ITEM PAGE OR PAGES**, these additions, deletions, or changes **MUST** be made on the bid item pages you submit with your bidding proposal, whether handwritten or computer generated.
- When you are instructed to **DELETE** something which is **NOT** on a Bid Item Page, you may line through the text diagonally and/or print or write the word **"DELETE"** on the text being deleted. Physically removing the page(s) is not necessary.
- When you are instructed to **ADD A NON-BID ITEM PAGE(S), OR PORTIONS THEREOF**, you **MUST CONSIDER** it/them in developing your bid, but the physical insertion of the new page(s) into the proposal is not necessary.

Responses to Vendor's Questions:

1. Question: We have reviewed the bid documents and noticed that the bid date is set for the Monday following the four-day Thanksgiving weekend. Based on our experience, this timing is not ideal, as subcontractors typically avoid bidding during this period. We recommend selecting a different date to ensure we receive more competitive responses.
Response: Per Addendum # 1 the new opening date is Friday, December 6, @ 11:00 a.m.
2. Question: I have the bid docs and will distribute them to subcontractors soon. The City set the bid date for 12/2, which is the Monday after Thanksgiving. Getting good subcontractor participation is going to be extremely difficult with that as the bid date. Do you think they would consider moving the bid date to the following Monday, 12/9? Or even 12/5 would be better. Let me know what you think.
Response: I Per Addendum # 1 the new opening date is Friday, December 6, @ 11:00 a.m.

Suite 605 - 535 Telfair Street, Augusta Georgia 30901
(706) 821-2422 - Fax (706) 821-2811

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3. Question: Planning and Development Review Comment: Provide an erosion control plan showing limits of disturbance and perimeter control BMPs. Include concrete washout detail.
Response: New sheet C-021 provided. Notes added to sheet G-082. G-001 sheet index updated.
4. Question: Planning and Development Review Comment: Provide a hydraulic summary of the changes to the site due to the project.
Response: Hydraulic and Hydrology summary report provided.
5. Question: I was looking at the foundation plan and noted the 8" concrete suspended slab between column line "T.5" and "V". However, I don't see a section that illustrates the space below that formed suspended slab. What elevation do you want the finished grade in that space below the 8" slab?
Response: Grading to follow existing contours. Remove the top 4" of topsoil, then pour a 2" thick mud slab of concrete.
6. Question (11/04/2024): Also, I spoke to the vendor for the temporary partition walls indicated on the drawings. He tells me that product costs about \$500 per linear foot. Do you know if the Airport has planned to retain and store these temporary wall components at the completion of the project? The vendor tells me that they usually pay for themselves after about 4 uses.
Response: Question deals with future events not connected with this project but assume airport will retain and store the temporary partitions after the completion of the project.
7. Question: We request a 1-week extension for questions to be asked as the site visit was just today and it has generated many questions to be asked. The deadline is tomorrow per the RFP. Please consider a 1-week extension for questions?
Response: The last day for questions was Wednesday, November 13, 2024 @ 5:00 p.m. and will not be extended due to the tight schedule.
8. Question: This is a very complex and time sensitive project. 365 days is a very tight schedule and with MEP items still being anywhere from 6 to 12 months lead time we request that the authority revise the construction schedule from 365 to 540 days?
Response: The schedule associated with this project is extremely critical. The 365 days is the maximum allotted time for the project as the expansion must be open and operational prior to Master 2026.
9. Question: Can procurement please provide building permit cost for this project?
Response: Please reach out to Augusta Licensing and Inspections Department for those costs (706) 312-5050.
10. Question: Are offerors to submit evidence of competency and evidence of financial responsibility to perform the work with their bid?
Response: See Page GP20-2, Section 20-02 Qualification of Bidders.
11. Question: Does each individual M/WBE form have to be sealed individually or together?
Response: A separate form must be provided for each proposed DBE subcontractor to be used on this job.
12. Question: Who signs the letter of intent and affirmation?
Response: The DBE firm.
13. Question (11/13/2024): Where are these forms/documents located? DBE Program Statement, BF – 13, DBE Contractors Listing, Bidder Assurance
Response: All required forms and documents are located within the project manual.
14. Question: Please clarify the schedule breakdown and total days for this project (mobilization, construction duration, and closeout). There are conflicting day durations within the specs and drawings and due to the magnitude of liquidated damages we would like to have this clarified.

Response: Please refer to the revised project work area / schedule matrix on sheet G-081 attached to this addendum. Mobilization is proposed as 60 calendar days, construction 335 calendar days to substantial completion, additional 30 days to final.

15. Question: The specifications list a DBE goal of 13.3% minority and 6.9% female. Are these intended to be separate goals for a total of 20.2% or is the 6.9% female within the 13.3% minority goal.

Response: 13.3% is the overall DBE goal.

16. Question: Please confirm badging costs of \$100 per person to be badged and that this cost is to be covered by the contractor.

Response: Yes, all time and expenses associated with badging must be paid for by the contractor.

17. Question: Can a detail of the existing brick perimeter fence in the courtyard be provided in order to accurately price replacement?

Response: The standard detail of the garden wall has been provided derived from the Terminal Record Drawings.

18. Question: Is the "STARC – RealWall" system shown on drawing G-024 required to be used as the temporary wall system or can we frame temporary walls with metal studs and drywall?

Response: Temporary walls with metal studs and drywall will be permitted. This will be updated on the drawings and issued via Addendum.

19. Question: Is barb wire required on top of the temporary chain link fencing at the contractor staging area?

Response: No, however, the contractor staging area shall be secured at all times.

20. Question: Drawing C-051 shows the pond structure in the courtyard demolition area but does not state if the entire structure is to be removed, filled in, or remain operational. Section 10-S501 shows the area is to be covered by a platform, not backfilled. Please provide clarification on the extent of demo of the pond.

Response: The existing pond shall be demoed. Pond to be filled in to match adjacent grade.

21. Question: Drawing AD101 note 4.017 calls for the patio slab to remain. However, drawing AD202 note 4.011 calls for the stone and brick supporting that slab to be demolished. This elevation also does not show the arch culvert over the pond. If we demolish the stone and brick walls the slab will not be supported. Please clarify the demo required on this patio. Section 1-AD301 shows the slab and supporting walls remaining.

Response: Stone and brick do not support the patio slab. Arch culvert is supported by a concrete beam behind the stone veneer. Slab and supporting beam (walls) to remain.

22. Question: There are two security gates at the entrance and exit of the existing TSA screening area that are not noted as demo or to remain. One is located on column line 21 between column lines J and K. The other is located on column lines that are not marked, the corner is on column line 15.5 just north of J, extending plan east to the building corner just before column line 16.5. Please clarify if these are to be removed or remain in place.

Response: The 2 existing security grilles are to be demolished. This will be updated in the demolition plans and issued via Addendum 2.

23. Question: During the pre-bid there were DBE compliance forms mentioned that are not included in the specifications. Pages BF-40 as well as BF-42 through BF-45 for good faith efforts documentation and other DBE compliance.

Response: DBE forms have been provided within the project manual.

24. Question: Has a geotechnical report been done? If so, can it be provided before the proposal due date? Drawing S501 tells us to refer to it for the subgrade materials.

Response: Yes, the geotechnical report is included within this Addendum 2.

25. Question: Can you provide a list of the contractors that were at the pre-bid walkthrough?
Response: Please reach out to Elizabeth Giles at Augusta Regional Airport for that list if available. Ms. Giles coordinated the walkthrough on behalf of the Airport.
26. Question: Multiple keying manufacturers are listed in the door hardware specification. Do we need to price an existing key manufacturer or can any of the listed manufactures be used?
Response: Door hardware spec will be updated and issued in Addendum 2. All cores are to be BEST.
27. Question: Is there an anticipated start and completion date for when this work should begin and end?
Response: NTP is anticipated for January 2025, completion January 2026.
28. Question: I was looking at the foundation plan and noted the 8" concrete suspended slab between column line "T.5" and "V". However, I don't see a section that illustrates the space below that formed suspended slab. What elevation do you want the finished grade in that space below the 8" slab? Please clarify the purpose of that space. Are we correct in noting that the slab forming materials will have to be removed through the floor hatch?
Response: Grading will follow existing contours. Remove the top 4" of topsoil, then pour a 2" thick mud slab of concrete. Slab forming materials may be removed through the tunnel under the existing Connector.
29. Question: Also, I spoke to the vendor for the temporary partition walls indicated on the drawings. He tells me that product costs about \$500 per linear foot. Do you know if the Airport has planned to retain and store these temporary wall components at the completion of the project? The vendor tells me that they usually pay for themselves after about 4 uses.
Response: Question deals with future events not connected with this project but assume airport will retain and store the temporary partitions after the completion of the project.
30. Question: Based on the location of the project and barricade placement, as per the FAA the barricades are to be connected to delineate any foot traffic; the plans show a 5 ft spacing, and this is not allowed. The maximum allowable spacing as per the FAA is 4ft and that is out on a TXY or RWY project. Any projects inside the Movement/Non-Movement lines need to be interconnected. Which qty do you want for the estimate? Barricades with spacing - 14 barricades and 28 lights / Barricades with no spacing - 24 barricades and 48 lights
Response: Contractor shall plan on installing barricades with no spacing.
31. Question: Please provide unlocked drawings. We have received 8 requests for the drawings' password so far. In order to provide pricing for this project, our subcontractors need to be able to extract drawings and upload into their software.
Response: Augusta Blueprint is selling the plans and specifications for this project on behalf of Augusta, GA. They can be reached at (706) 722-6488 or www.augustablue.com
32. Question: D108 Scott Office on the finish legend is not shown on the plans. Please advise.
Response: Room is incorrectly shown on schedule. This is an existing room that is being demolished. This will be clarified in the schedule and issued via Addendum 2.
33. Question: The Podium in room TSA Checkpoint B156 is shown on page A401. Highlighted note states that the podium shall receive sheet vinyl flooring. There are no sheet vinyl flooring specs in the finish legend. Should this get LVT? Please advise.
Response: Yes, this can get LVT-1. This will be updated and issued via Addendum 2.
34. Question: Sheet G-024 calls for Starc- Real Wall. Can specifications be provided?
Response: Provide manufacturer's standard "RealWall" temporary partition system. Bidder may use gyp board and stud partitions per the added detail on sheet G-024 at their option.
35. Question: Is an ACM survey available for the space?
Response: No.

36. Question: Will a BDA system be required for the building? If one is not currently required, should bidders be required to carry the cost of testing and an allowance for the system should it be required?
Response: Bid should reflect what is currently in the contract documents.
37. Question: Can you outline the badging requirements for the project? What costs are associated with this?
Response: Contractor shall badge an adequate number of employees to oversee and control work as well as provide escorting services. These badged employees must pass federal background checks and training. All time and expenses shall be at the cost of the contractor in the amount of \$100.00.
38. Question: Please confirm the DBE goal for this project is 13.3%?
Response: DBE goal is 13.3%
39. Question: Can the GA Department of Transportation and MARTA DBE lists be provided?
Response: Information is available online.
40. Question: Can Davis-Bacon wage rates be provided?
Response: Davis-Bacon wage rates are provided in the project manual. Reference pages FP-35 through FP-44 of Federal Contract Provisions.
41. Question: Is any landscaping or irrigation required?
Response: No, not included within the scope of this project.
42. Question: S-002 refers to a geotechnical report. Is this report available?
Response: Yes, the geotechnical report is included within this Addendum 2.
43. Question: Sheet A-601 door schedule calls for door type WD. Can these be elevated?
Response: This is an error - The door in question should be type F. This will be corrected via Addendum 2.
44. Question: Can basis of design be provided for the security grille?
Response: Intent is to have an open specification for this item. No Basis of Design will be furnished.
45. Question: Please confirm FF&E is contractor furnished and contractor installed per I-701 note 1.
Response: Yes.
46. Question: Can furniture specifications be provided in accordance with the note on I-702?
Response: Please see AGS Checkpoint FFE Package 111824.pdf.
47. Question: Can basis of design be provided for the signage?
Response: See Detail 2/I-802. Intent is to match existing signage as much as possible.
48. Question (11/14/2024): Please confirm signage is contractor furnished and contractor installed per I-801 note 8.
Response: Yes.
49. Question (11/14/2024): Can we schedule additional site visits for our team?
Response: Yes, but approval must be granted by Augusta Regional Airport prior to. Pending availability and schedule, escorting into the project area may not be available.
50. Question: Who currently handles the HVAC controls?
Response: Johnson Controls, Inc. per Section 23 0900-2.1. A
51. Question: Can the project manual be provided in a searchable PDF format?
Response: Please see response to Question # 31 above.
52. Question: Section 015000 calls for a jobsite trailer. Logistically, this trailer will likely be located offsite. Would the airport consider hosting the OAC in an existing conference room?

Response: OAC meeting may be held in commercial terminal pending availability. Contractor shall still plan on locating a job trailer onsite for their use.

53. Question: Will a pre-bid RFI extension be considered?

Response: No. This project has a tight schedule and deadline.

54. Question: Sheet A-511 shows columns with 1x4 hardwood trim vertically as corner protection. Heavy wood base was observed on site. Has this base profile been detailed?

Response: Wall bases are detailed on Sheet A-002.

55. Question: Section 034911 para 1.6.A requires the supplier to be a PCI or APA certified manufacturer. Could this requirement be waived?

Response: Formglas is an acceptable substitution. Otherwise, please furnish item(s) as specified.

56. Question: Section 034911 list Formglas as an acceptable manufacturer of the GFRC. Formglas does not meet the requirements of this Division 3 specification. Please confirm that the Formglas product is acceptable.

Response: Formglas is an acceptable substitution.

57. Question: Is the public address system visual paging integration with the MUFIDS an existing or new feature?

Response: Not applicable to this project. Paging scope limited to the extension of the existing paging zone to the new area.

58. Question: Who is the MUFIDS provider?

Response: Not applicable to this project. Paging scope limited to the extension of the existing paging zone to the new area.

59. Question: Will the existing paging network accommodate the new PoE communications station?

Response: Project should entail the extension of the existing paging zone to the new area.

60. Question: The existing PA controller is running Windows 7. Should that be upgraded to a current OS as part of this project?

Response: No, project should entail the extension of the existing paging zone to the new area.

61. Question: Does a subcontractor need to be Atlas IED certified?

Response: Yes, please refer to section 1.7 Quality Assurance of section 27 55 10 for contractor qualification requirements.

62. Question: Are the 14 speakers being demoed being reinstalled or are they being replaced with new speakers? If being replaced, will the AV subcontractor need to run new speaker cables back to the head end?

Response: All speakers are being replaced and new cabling will need to be provided to extend speakers to existing zone per Keyed Note 9.717 on T-101.

63. Question: Are there existing EOL device(s) now or will the AV subcontractor need to install new EOL device(s)?

Response: Subcontractor to provide all components required for a fully functional system, assume new EOL device.

64. Question: Does the current licensing for the IP108 need to be renewed with this project as it has expired?

Response: System licensing is not part of this project's scope of work.

Changes to Drawings:

1. **Replace Sheet G-001 COVER SHEET with Revised Sheet G-001, herein attached.**

Revisions include:

a. **Added sheet C-021 Erosion Plan & Details to the Sheet Index.**

2. **Replace Sheet G-024 CONSTRUCTION PHASING PLAN DETAILS with Revised Sheet G-024, herein attached. Revisions include:**
 - a. **Added detail for gyp board and metal stud interior temporary walls.**
3. **Replace Sheet G-081 CONSTRUCTION SAFETY PHASING PLAN WA MATRIX with Revised Sheet G-081, herein attached. Revisions include:**
 - a. **Added overall construction schedule.**
4. **Replace Sheet G-082 CONSTRUCTION SAFETY PHASING PLAN – KEY PLAN with Revised Sheet G-082, herein attached. Revisions include:**
 - a. **Added note to drawing about concrete washout location.**
5. **Add Sheet C-021 EROSION PLAN & DETAILS, herein attached. Sheet includes limits of disturbance, perimeter control BMP's, and concrete washout detail.**
6. **Replace Sheet AD100 – OVERALL FIRST FLOOR DEMOLITION PLAN with revised Sheet AD100, herein attached. Revisions include:**
 - a. **Inclusion of existing Concourse in the drawing.**
7. **Replace Sheet AD101 –FIRST FLOOR DEMOLITION PLAN AREA B with revised Sheet AD101, herein attached. Revisions include:**
 - a. **Keyed note added for demolition of existing security grilles.**
8. **Replace Sheet AD201 – EXTERIOR ELEVATIONS - DEMOLITION with revised Sheet AD201, herein attached. Revisions include:**
 - a. **Add Keyed Note 4.027 regarding existing handrail removal.**
9. **Replace Sheet AD202 – EXTERIOR ELEVATIONS - DEMOLITION with revised Sheet AD202, herein attached. Revisions include:**
 - a. **Delete Keyed Note 4.027 regarding existing handrail removal.**
10. **Replace Sheet A-100 – OVERALL FLOOR PLAN with revised Sheet A-100, herein attached. Revisions include:**
 - a. **Inclusion of existing Concourse in drawing.**
11. **Replace sheet A-105 – ROOF PLAN with revised Sheet A-105, herein attached. Revisions include:**
 - a. **Modify text of Keyed Note 4.167 to include provision of new ridge cap and/or wall flashing with replacement of standing seam metal roof.**
12. **Replace Sheet A-401 – ENLARGED PLANS AND DETAILS with revised Sheet A-401, herein attached. Revisions include:**
 - a. **Change flooring at STSO podium from Sheet Vinyl Flooring to LVT Flooring (LVT-1).**
13. **Replace Sheet A-511 – PLAN DETAILS with revised Sheet A-511, herein attached. Revisions include:**
 - a. **Replacement of Inpro expansion joint assembly model numbers with generic expansion joint designations on Details 1, 2 & 9.**
14. **Replace Sheet A-512 – PLAN DETAILS with revised Sheet A-512, herein attached. Revisions include:**
 - a. **Replacement of Inpro expansion joint assembly model numbers with generic expansion joint designations on Details 2 & 5.**
15. **Replace Sheet A-601 SCHEDULES with Revised Sheet A-601, herein attached. Revisions include:**
 - a. **Remove Doors B120O, D114 & D115 from Schedule – these are existing doors being demolished.**
 - b. **Change Door Type for door B110B from “WD” to “F”.**

Changes to Project Manual Specifications:

1. **TABLE OF CONTENTS – Added Section 012300 ALTERNATES to the list.**

2. **BID FORM – Revise page BF-3 Bid Amount to include entry for Alternate # 1 bid amount**
3. **Add Specification Section 012300 – ALTERNATES in its entirety.**
4. **Revise Specification Section 012100 – Allowances, paragraph 1.3.A Allowance 01 from \$20,000.00 to \$60,000.00 for purchase of resin sheet RS-1**
5. **Revise Specification Section 079513 as follows:**
 - a. **Revise paragraph 2.2.A.1.a. assembly IEJ-2-2 from Inpro 113-A07-50 to Inpro 114-A07-050.**
 - b. **Revise paragraph 2.2.F.1.b. assembly EEJ-1-2 from Inpro 1100-200 to Inpro 615-A09-050.**
6. **Delete Specification Section 087100 – DOOR HARDWARE in its entirety and replace with Specification Section 087100 – DOOR HARDWARE herein attached.**

Please acknowledge addendum in your submittal

END ADDENDUM

ATTACHMENTS:

- REVISED TABLE OF CONTENTS (6 PAGES)**
- REVISED BID FORM (4 PAGES)**
- REVISED SECTION 012300-ALTERNATES (2 PAGES)**
- REVISED SECTION 012100-ALLOWANCES (2 PAGES)**
- REVISED SECTION 079513 EXPANSION JOINT CA (4 PAGES)**
- REVISED SECTION 087100 DOOR HARDWARE (21 PAGES)**
- REVISED DRAWINGS (17 PAGES)**
- FURNISHINGS & ACCESSORIES PKGE (20 PAGES)**
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092216 Gypsum Board Assemblies.....	092216-1 – 092216-6
092400 Cement Plastering.....	092400-1 – 092400-6
093000 Tiling.....	093000-1 – 093000-4

095100 Acoustical Ceilings	095100-1 – 095100-4
095426 Suspended Wood Ceilings	095426-1 – 095426-4
096500 Resilient Flooring	096500-1 – 096500-4
096623 Resinous Matrix Terrazzo Flooring	096623-1 – 096623-8
096813 Tile Carpeting.....	096813-1 – 096813-4
097200 Wall Coverings.....	097200-1 – 097200-4
099113 Exterior Painting	099113-1 – 099113-6
099123 Interior Painting.....	099123-1 – 099123-6
102600 Wall and Door Protection.....	102600-1 – 102600-2
104100 Signage.....	104100-1 – 104100-10
104400 Fire Protection Specialties.....	104400-1 – 104400-4
105113 Metal Lockers.....	105113-1 – 105113-2
111400 Pedestrian Control Equipment.....	111400-1 – 111400-6
123623.13 Plastic-Laminate-Clad Countertops	123623.13-1 – 123623.13-4
123661.16 Solid Surfacing Countertops	123661.16-1 – 123661.16-4
210000 General Fire Suppression Provisions	210000-1 – 210000-6
210500 Common Work Results for Fire Suppression.....	210500-1 – 210500-8
210529 Hangers and Supports for Fire Suppression Piping and Equipment ..	210529-1 – 210529-6
210548 Seismic Bracing for Fire Suppression Piping and Equipment	210548-1 – 210548-4
210553 Identification for Fire Suppression Piping and Equipment	210553-1 – 210553-4
210560 Fire Suppression Piping	210560-1 – 210560-8
220000 General Plumbing Provisions.....	220000-1 – 220000-6
220500 Common Work Results for Plumbing.....	220500-1 – 220500-12
220523 General Duty Valves for Plumbing Piping.....	220523-1 – 220523-6
220529 Hangers and Supports for Plumbing Piping and Equipment.....	220529-1 – 220529-6
220553 Identification for Plumbing Piping and Equipment.....	220553-1 – 220553-4
220700 Plumbing Insulation	220700-1 – 220700-8
221116 Domestic Water Piping	221116-1 – 221116-10
221119 Plumbing Specialties	221119-1 – 221119-8
221316 Drainage and Vent Piping	221316-1 – 221316-8
224000 Plumbing Fixtures	224000-1 – 224000-6
230000 General HVAC Provisions.....	230000-1 – 230000-6
230500 Common Work Results for HVAC	230500-1 – 230500-14
230513 Common Motor Requirements for HVAC Equipment	230513-1 – 230513-4

230514 Motor Controllers for HVAC Equipment	230514-1 – 230514-10
230529 Hangers and Supports for HVAC Piping and Equipment	230529-1 – 230529-6
230547 Seismic Bracing for Suspended Utilities and Floor Mounted Equipment.....	230547-1 – 230547-4
230548 Vibration Controls for HVAC Piping and Equipment	230548-1 – 230548-4
230593 Testing, Adjusting, and Balancing	230593-1 – 230593-12
230700 HVAC Insulation.....	230700-1 – 230700-10
230900 Controls System Equipment.....	230900-1 – 230900-14
230993 Sequence of Operation	230993-1 – 230993-4
232300 Refrigerant Piping and Condensate Drains	232300-1 – 232300-8
233113 Metal Ductwork.....	233113-1 -233113-12
233300 Duct Accessories	233300-1 – 233300-8
233423 Power and Gravity Ventilators	233423-1 – 233423-6
233600 Air Terminals	233600-1 – 233600-6
233713 Diffusers, Registers, Grilles and Louvers	233713-1 – 233713-4
234000 Bipolar Ionization Air Purification Systems	234000-1 – 234000-6
238119 Rooftop Units	238119-1 – 238119-8
238126 Split System Heat Pumps and Air Conditioners	238126-1 – 238126-6
260500 Common Work Results for Electrical	260500-1 – 260500-16
260502 Electrical Demolition and Alterations.....	260502-1 – 260502-4
260519 Low-Voltage Electrical Power Conductors and Cables	260519-1 – 260519-6
260526 Grounding and Bonding for Electrical Systems.....	260526-1 – 260526-8
260529 Hangers and Supports for Electrical Systems	260529-1 – 260529-6
260533 Raceways and Boxes for Electrical Systems.....	260533-1 – 260533-12
260543 Underground Ducts and Raceways for Electrical Systems	260543-1 – 260543-10
260544 Sleeves and Sleeve Seals for Electrical Raceways and Cabling	260544-1 – 260544-4
260553 Identification for Electrical Systems	260553-1 – 260553-10
260574 Overcurrent Protection Device Arc-Flash Study.....	260574-1 – 260574-6
260913 Electrical Power Monitoring and Control	260913-1 – 260913-12
260923 Lighting Control Devices	260923-1 – 260923-6
260943.03 Distributed Lighting Controls	260943.03-1 – 260943.03-12
262213 Low-Voltage Distribution Transformers.....	262213-1 – 262213-6
262416 Panelboards	262416-1 – 262416-8
262716 Wiring Devices.....	262726-1 – 262726-8

264113 Lightning Protection for Structures 264113-1 – 264113-4

264313 Surge Protection for Low-Voltage Electrical Power Circuits 264313-1 – 264313-4

265100 Interior Lighting 265100-1 – 265100-6

270528 Pathways for Communications Systems 270528-1 – 270528-6

270553 Identification for Communications Systems 270553-1 – 270553-6

271513 Communications Copper Horizontal Cabling 271513-1 – 271513-14

275510 Public Address and Paging System 275510-1 – 275510-8

280500 Common Works Results for Physical Security Systems 280500-1 – 280500-12

281000 Access Control System 281000-1 – 281000-10

282000 Video Surveillance 282000-1 – 282000-10

283111 Digital, Addressable Fire-Alarm Systems 283111-1 – 283111-10

BID FORM

(Failure to furnish all requested data will be cause for considering BIDDER non-responsive and may render this BID invalid on that basis.)-

BID FOR: BID ITEM #24-264 AUGUSTA REGIONAL AIRPORT CHECKPOINT MODERNIZATION

SUBMITTED TO: Augusta, Georgia
Attn: Procurement Director
535 Telfair Street, Room 605
Augusta, GA 30901

SUBMITTED BY: _____

Bidder's Name

Address

City, State and Zip Code

Phone / Fax Date Completed

1. The undersigned, hereinafter called Bidder, in compliance with the "Notice to Bidders" accepting all of the terms and conditions of the "Instructions to Bidders," including without limitation those dealing with the disposition of the Bid Security; proposes and agrees, if awarded the Contract, to enter into an agreement with the Owner utilizing the form Contract included in the Bid Documents. Bidder shall furnish all materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the work to be performed under the Contract within the time indicated in the contract, in full and complete accordance with the shown, noted, described and reasonably intended requirements of the Contract Documents, to the full and entire satisfaction of the Owner, for the amounts contained in this Bid Schedule.
2. This Bidder's bid shall remain open for ninety (90) calendar days after the day of Bid opening. If awarded a contract, Bidder will sign the Contract and submit the Contract Security and other documents required by the Contract Documents within fifteen (15) calendar days after the date indicated in Owner's Notice of Award. If contract is to be awarded, Notice of Award will occur within ninety (90) calendar days of Bid opening.
3. In submitting this Bid, the Bidder represents that:
 - a. Bidder has become thoroughly familiar with the terms and conditions of the Bid Documents accepting the same as sufficient to indicate understanding of all the conditions and requirements under the Contract which will be executed for the Work.

- b. Bidder has examined the site and locality where the Work is to be performed, the legal requirements (federal, state, and local laws, ordinances, rules, and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as Bidder deems necessary.
- c. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from submitting a bid; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
- d. No member of the Augusta Board of Commissioners, Aviation Commission or other officers or employees of said Owner Is interested directly or indirectly in the bid or in any portion of the bid or in the Contract or any part of the Contract, which may be awarded the undersigned on the basis of such bid, without such full disclosure being made.
- e. It is a condition of this bid and any subsequent contract entered into pursuant to this bid, and it shall be made a condition of each subcontract entered into pursuant to the prime contract, that the Contractor and any subcontractor shall not require any laborer or mechanic employed in the performance of the contract to work in surroundings or under working conditions which are unsatisfactory, hazardous, or dangerous to his/her health or safety, as determined under Construction Safety and Health Standards, Title 29 , CFR Part 1518 36FR7340, promulgated by the U.S. Secretary of Labor, in accordance with Section 107 of the Contract Work hours and Safety Standards act, Stat. 96; that is further condition of this bid that Bidder shall be solely responsible for the enforcement of such Construction and Health Standards, and that Bidder fully understands that the Owner and its authorized representatives will not assume any liability resulting from the Contractor's failure to police and enforce all such standards.
- f. The description under each bid item, being briefly stated, implies, although it does not mention, all incidentals and that the prices stated are intended to cover all such work, materials and incidentals as constitute Bidder's obligations as described in the Specifications, and any details not specifically mentioned, but evidently included in the Contract shall be compensated for in the item which most logically includes it.
- g. The unit prices bid include all applicable taxes and fees. Bids shall also include appropriate provisions for price escalation for materials and labor including but not limited to increases in federal, state and local sales taxes and income or FICA taxes.

4. **Contract Time:** Bidder agrees that:

- a. The work will be completed within the timeframes described in the General Provisions and the Construction Documents.
- b. Bidder shall commence work with an adequate force and equipment at the time stated in the Notice to Proceed and complete all work by the date established in said Notice. Bidder

shall not work overtime or on Saturdays, Sundays, or legal holidays except as specifically allowed by the Contract Documents and approved by the Owner.

- c. The quantities of work listed in the Bid Schedules are APPROXIMATE and are assumed solely for the comparison of bids. Compensation will be based upon the unit price bid and the ACTUAL quantities of work performed in accordance with the Contract Documents and as accepted by the ENGINEER.

5. **Bid Schedule:** See Bid Amount page BF-3.

BID AMOUNT

Base Bid proposed shall include the cost of all the work of the project.

Base Bid = \$ _____

Base Bid Written = _____

Alternates - The following amounts shall be added to or deducted from the Bid Amount. Refer to Section 012300- Alternates.

Alternate #1: Add/(Deduct) \$ _____

Alternate #1 Written = _____

6. **Determination of Low Bidder:** Low bidder will be determined based on the total of the base bid plus, if any alternates are included in documents, all bid alternates regardless of the alternates chosen for the project.

7. **Execution of Contract:** Bidder agrees that in case of failure on its part to execute the said Contract and Bonds within fifteen (15) days after the date indicated in the "Notice of Award," the check or bid bond accompanying this bid, and the money payable thereon, shall be paid to the Owner as liquidated damages for such failure; otherwise the Bid Security or check accompanying this bid shall be returned to the undersigned.

8. **Bid Documentation:** The following required documents are attached to and made a part of this bid
- a. Required Bid Security in the form of a Bid Bond payable to the order of City of Augusta, Georgia;
 - b. Performance of Work by Subcontractor List;
 - c. Performance of Work by Contractor List;
 - d. DBE Program Statement;
 - e. DBE Contractors Listing;
 - f. Bidder Assurance;
 - g. DBE Letter(s) of Intent to Perform Work as a Subcontractor;
 - h. Good Faith Effort forms (if necessary);

- i. Certificate of Prompt Payment;
- j. Certification of Compliance with FAA Buy American Preference;
- k. Offeror/Bidder Regarding Tax Delinquency and Felony Convictions.

9. Name and business address (mailing and street) of Bidder to which all formal notices shall be sent:

10. The terms used in this bid, which are defined in the General Provisions of the Construction Contract as a part of the Contract Documents, have the meanings assigned to them in the General Provisions.

11. Bidder hereby acknowledges receipt of the following addenda:

Addendum No.	Date
_____	_____
_____	_____
_____	_____

12. The Bidder shall state on the line below, if a corporation, the name of state in which incorporated and the date of said corporation.

Signed this _____ day of _____, 20_____.

Contractor

By: _____

(Signature of individual, partner or officer signing the Bid)

(SEAL)

License Number

ATTEST:

NOTE: If Contractor is a Corporation, Secretary should attest seal. Seal is required if Bidder is a Corporation.

If Contractor is a Partnership, all partners shall execute the bid (add spaces as required).

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Description of Alternates.

1.2 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Form will be reviewed and accepted or rejected at Authority's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.3 SCHEDULE OF ALTERNATES

A. **Alternate No. 01 – ATS-2 Alternate Feeder**

1. **Base Bid Item: Drawing number 1/E-701** Base bid should include (2) 2" conduits and associated conductors noted on plans to MSB in the outdoor equipment yard, new branch breakers in panel MSB and the new equipment shown on the One-line diagram, panels EHMFL, MF, EHMFL and MFL, transformers T-5, T-6. Base bid should additionally include the installation of stay-in-place meters for 30 days. Meters should be located on the load or normal line side of ATS-1 and ATS-2. Metering data should archive and save peak demand. Metering data to be provided to Electrical Engineer to evaluate if the generator has capacity, and if the bid alternate is accepted.
2. **Alternate Item: Drawing number 1/E-701 Bid Alt:** In addition to all equipment included in base bid, the existing feed from ATS-2 to existing panel EHDP to be intercepted and re-routed. Conductors shall remain installed from panel EHDP and routed into a new bussed tap box as described in keynote 9.316 on sheet E-701. New conductors as sized on sheet E-701 shall be installed between bussed tap box and existing ATS-2. The location of tap box and disconnect is assumed to be in the equipment yard near ATS-2, however, the feed to existing panel EHDP will need to be field located, the tap box/disconnect should be field located where the cable intercept is most accessible. A 200A fused disconnect switch with 150A fuses installed within 10'-0" of cable length between disconnect and tap box. This disconnect will serve as an overcurrent protection device to apply tape rules per NEC. The 200A fused switch will feed new panel EHMFL. Bid alternate should include a credit for the 125A breaker installed in MSB, which will no longer be used, and a partial credit for the portion of the panel EHMFL feed that will be routed to tap box/disconnect in lieu of MSB.

PART 2 - PART 2 PRODUCTS - Not Used

PART 3 - PART 3 EXECUTION - Not Used

END OF SECTION 012300

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Cash allowances.

1.2 CASH ALLOWANCES

- A. Costs Included in Cash Allowances: Cost of product and installation to Contractor or subcontractor, less applicable trade discounts.
- B. Contractor Responsibilities:
 - 1. Coordinate with Owner and Consultant in determination of products, suppliers, and installers.
 - 2. Obtain proposals from suppliers and installers.
 - 3. On notification of which products have been selected, execute purchase agreement with designated supplier and installer.
 - 4. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
 - 5. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.
 - 6. Prepare Change Order

1.3 ALLOWANCES SCHEDULE

- A. Allowance 01: Include the stipulated sum of **\$60,000.00** for purchase of resin sheet RS-1 as indicated on the drawings. Contractor shall include in base bid the labor for handling and installation of the resin panels. Allowance is only intended to cover material purchase.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 012100

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SECTION 079513 EXPANSION JOINT COVER ASSEMBLIES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Expansion joint cover assemblies for floor, wall, ceiling, and soffit surfaces.

1.2 REFERENCE STANDARDS

- A. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes 2021.
- B. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric) 2021.
- C. ASTM B308/B308M - Standard Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles 2020.
- D. ASTM E1966 - Standard Test Method for Fire-Resistive Joint Systems 2015 (Reapproved 2019).
- E. UL 2079 - Standard for Tests for Fire Resistance of Building Joint Systems Current Edition, Including All Revisions.

1.3 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide joint assembly profiles, profile dimensions, anchorage devices and available colors and finish.
- C. Shop Drawings: Indicate specific joint product and splice locations, miters, layout of the work, affected adjacent construction, anchorage locations, and locations of splices.
- D. Manufacturer's Installation Instructions: Indicate rough-in sizes and required tolerances for item placement.

PART 2 - PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design Products: of manufacture, operation, performance, and appearance, Drawings and Specifications are based on products of InPro. Provided compliance with Project requirements products of the following manufacturers, which do not modify the intended performance characteristics or aesthetic effects, as judged solely by the, will also be acceptable:

1. Construction Specialties, Inc: www.c-sgroup.com/#sle.
2. EMSEAL Joint Systems, Ltd: www.emseal.com/#sle.
3. MM Systems Corp: www.mmsystemscorp.com/#sle.
4. Nystrom, Inc: www.nystrom.com/#sle.

2.2 EXPANSION JOINT COVER ASSEMBLY APPLICATIONS

A. Interior Wall to Wall Joints Subject to Thermal Movement:

1. Basis of Design Product:
 - a. Drawing Designation IEJ-2-2: **Inpro 114-A07-050**.
 - b. Drawing Designation IEJ-4-4: Inpro 114-A07-100.
2. Provide manufacturer's standard fire barrier where required.
3. Substitutions: See Section 01 6000 - Product Requirements

B. Interior Floor to Wall Joints Subject to Thermal Movement:

1. Basis of Design Product:
 - a. Drawing Designation FEJ-2-2: InPro 432-A02-050.
2. Provide manufacturer's standard fire barrier where required.
3. Substitutions: See Section 01 6000 - Product Requirements.

C. Interior Wall to Wall Corner Joints Subject to Thermal Movement:

1. Basis of Design Product:
 - a. Drawing Designation IEJ-1-1: Inpro 113-A09-025.
 - b. Drawing Designation IEJ-1-2: Inpro 113-A09-050.
2. Provide manufacturer's standard fire barrier where required.
3. Substitutions: See Section 01 6000 - Product Requirements.

D. Interior Wall to Ceiling Gypsum Board Joints Subject to Thermal Movement:

1. Basis of Design Product:
 - a. Drawing Designation CEJ-2-2: Inpro 114-A09-050.
2. Provide manufacturer's standard fire barrier where required.
3. Substitutions: See Section 01 6000 - Product Requirements.

E. Interior Ceiling to Ceiling Joints Subject to Thermal Movement:

1. Basis of Design Product:
 - a. Drawing Designation CEJ-1-1: Inpro 113-A07-025.
 - b. Drawing Designation CEJ-1-2: Inpro 113-A07-050.
 - c. Drawing Designation CEJ-3-4: Inpro 114-A07-100
2. Substitutions: See Section 01 6000 - Product Requirements

F. Exterior Wall to Wall Joints Subject to Thermal Movement:

1. Basis of Design Product:
 - a. Drawing Designation EEJ-1-1: Inpro 1100-100.
 - b. Drawing Designation EEJ-1-2: **Inpro 615-A09-050**.

- c. Drawing Designation EEJ-1-4: Inpro 1100-400.
- d. Drawing Designation EEJ-3-4: Inpro 1250-400.
- 2. Provide manufacturer's standard fire barrier where required.
- 3. Provide manufacturer's standard insulated vapor barrier system meeting cyclic movement requirements of ASTM E 1399.
- 4. Substitutions: See Section 01 6000 - Product Requirements.

G. Exterior Roof to Wall Joints Subject to Thermal Movement:

- 1. Basis of Design Product:
 - a. Drawing Designation REJ-1-2: Inpro 651-A02-050.
 - b. Drawing Designation REJ-1-6: Inpro 651-A02-150.

H. Exterior Membrane Roof Expansion Joint Covers:

- 1. Basis of Design Product:
 - a. InPro 661 Series Curb Mounted Centering Bar Exterior Expansion Joint.
 - b. Provide manufacturer's standard fire barrier where required.
 - c. Provide manufacturer's standard insulated vapor barrier system meeting cyclic movement requirements of ASTM E 1399.
 - d. Substitutions: See Section 01 6000 - Product Requirements.

2.3 EXPANSION JOINT COVER ASSEMBLIES

- A. Expansion Joint Cover Assemblies - General: Factory-fabricated and assembled; designed to completely fill joint openings, sealed to prevent passage of air, dust, water, smoke; suitable for traffic expected.
 - 1. Joint Configurations: As indicated on drawings.
 - 2. Joint Cover Sizes: Selected to suit joint width and configuration, based on manufacturer's published recommendations and limitations.
 - 3. Lengths: Provide covers in full lengths required; avoid splicing wherever possible.
 - 4. Anchors, Fasteners, and Fittings: Provided by cover manufacturer.
- B. Floor Joint Covers: Coordinate with indicated floor coverings.
- C. Resilient Seal Type Covers: Having flat exposed surface without crevices that could collect dirt; designed to withstand expected movement without extrusion of seal from joint assembly; for floors, provide style that is flush with top of floor covering; for exterior joints, weathertight.
- D. Covers in Fire Rated Assemblies: Provide cover assembly having fire rating equivalent to that of assembly into which it is installed.

2.4 MATERIALS

- A. Extruded Aluminum: ASTM B221 (ASTM B221M), 6063 alloy, T6 temper; or ASTM B308/B308M, 6061 alloy, T6 temper.
 - 1. Exposed Finish Outdoors: Natural anodized.

- B. Resilient Seals:
 - 1. For Ceilings: Any resilient material, flush, pleated, or hollow gasket.
 - 2. For Pedestrian Traffic Applications: EPDM rubber, Neoprene, or Santoprene; no PVC; Shore A hardness of 65 to 90 Durometer.
- C. Anchors and Fasteners: As recommended by cover manufacturer.
- D. Backing Paint for Aluminum Components in Contact with Cementitious Materials: Asphaltic type.

2.5 ACCESSORIES

- A. Resilient Fire Barrier: For use with metal expansion joint covers and elastomeric seals without use of mechanical fasteners, with fire rating in accordance with surrounding construction performance capabilities.
 - 1. Fire Resistance Rating: Match rating of adjacent assemblies, in accordance with ASTM E1966 and UL 2079.

PART 3 - PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that joint preparation and dimensions are acceptable and in accordance with manufacturer's requirements.

3.2 INSTALLATION

- A. Install components and accessories weathertight in accordance with manufacturer's instructions.
- B. Align work plumb and level, flush with adjacent surfaces. Seal between adjacent materials and joints.
- C. Rigidly anchor to substrate to prevent misalignment.

3.3 PROTECTION

- A. Do not permit traffic over unprotected floor joint surfaces.
- B. Provide strippable coating to protect finish surface.

END OF SECTION 079513

SECTION 087100 – DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
 - 1. Swinging doors.
 - 2. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
 - 1. Mechanical door hardware.
 - 2. Electromechanical door hardware.
 - 3. Cylinders specified for doors in other sections.
- C. Related Sections:
 - 1. Division 08 Section “Hollow Metal Doors and Frames”.
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
 - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
 - 2. ICC/IBC - International Building Code.
 - 3. NFPA 70 - National Electrical Code.
 - 4. NFPA 80 - Fire Doors and Windows.
 - 5. NFPA 101 - Life Safety Code.
 - 6. NFPA 105 - Installation of Smoke Door Assemblies.
 - 7. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:
 - 1. ANSI/BHMA Certified Product Standards - A156 Series.
 - 2. UL10C – Positive Pressure Fire Tests of Door Assemblies.
 - 3. ANSI/UL 294 – Access Control System Units.
 - 4. ULC-S319 - Electronic Access Control Systems.
 - 5. ULC-60839-11-1, Alarm and Electronic Security Systems - Part 11-1: Electronic Access Control Systems - System and Components Requirements.
 - 6. UL 305 – Panic Hardware.
 - 7. ULC-S132, Emergency Exit and Emergency Fire Exit Hardware.

8. ULC-S533 – Egress Door Securing and Releasing Devices.
9. ANSI/UL 437- Key Locks.
10. ULC-S328, - Burglary Resistant Key Locks.

1.3 SUBMITTALS

- A. **Product Data:** Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. **Door Hardware Schedule:** Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 1. **Format:** Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
 2. **Organization:** Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
 3. **Content:** Include the following information:
 - a. Type, style, function, size, label, hand, and finish of each door hardware item.
 - b. Manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
 - e. Explanation of abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for door hardware.
 - g. Door and frame sizes and materials.
 - h. Warranty information for each product.
 4. **Submittal Sequence:** Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. **Shop Drawings:** Details of electrified access control hardware indicating the following:
 1. **Wiring Diagrams:** Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
 - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.

- b. Complete (risers, point-to-point) access control system block wiring diagrams.
 - c. Wiring instructions for each electronic component scheduled herein.
2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- E. Informational Submittals:
- 1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

1.4 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
- C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
 - 1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
 - 2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

- F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
 - 1. Function of building, purpose of each area and degree of security required.
 - 2. Plans for existing and future key system expansion.
 - 3. Requirements for key control storage and software.
 - 4. Installation of permanent keys, cylinder cores and software.
 - 5. Address and requirements for delivery of keys.
- H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
 - 1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
 - 2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
 - 3. Review sequence of operation narratives for each unique access controlled opening.
 - 4. Review and finalize construction schedule and verify availability of materials.
 - 5. Review the required inspecting, testing, commissioning, and demonstration procedures
- I. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

- B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
 - 1. Structural failures including excessive deflection, cracking, or breakage.
 - 2. Faulty operation of the hardware.
 - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 4. Electrical component defects and failures within the systems operation.
- C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.
- D. Special Warranty Periods:
 - 1. Ten years for mortise locks and latches.
 - 2. Five years for exit hardware.
 - 3. Twenty five years for manual overhead door closer bodies.
 - 4. Two years for electromechanical door hardware.

1.8 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:
 - a. Two Hinges: For doors with heights up to 60 inches.
 - b. Three Hinges: For doors with heights 61 to 90 inches.
 - c. Four Hinges: For doors with heights 91 to 120 inches.
 - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
 - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
 - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
 - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
 - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
4. Hinge Options: Comply with the following:
 - a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
5. Manufacturers:
 - a. Bommer Industries (BO).
 - b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
 - c. Stanley Hardware (ST).

2.3 POWER TRANSFER DEVICES

- A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with

Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

- a. Architectural Builders Hardware (AH) - PT1000-EZ Series.
- b. Pemko (PE) - EL-CEPT Series.
- c. Securitron (SU) - EL-CEPT Series.

B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:

- a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Electrical Connecting Kit: QC-R001.
- b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Connector Hand Tool: QC-R003.

2. Manufacturers:

- a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) – QC-C Series.
- b. Stanley Hardware (ST) – WH Series.

2.4 DOOR OPERATING TRIM

A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.

1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
2. Furnish dust proof strikes for bottom bolts.
3. Surface bolts to be minimum 8” in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.

5. Manufacturers:

- a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
- b. Trimco (TC).

B. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
5. Manufacturers:
 - a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
 - b. Trimco (TC).

2.5 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years' experience designing secured master key systems and have on record a published security keying system policy.
- B. Cylinders: Original manufacturer cylinders complying with the following:
 1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
 2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
 3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
 4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
 5. Keyway: Match Facility Standard.
- C. Interchangeable Cores: Provide small format interchangeable cores as specified, core insert, removable by use of a special key; usable with other manufacturers' cylinders.
- D. Keying System: Each type of lock and cylinders to be factory keyed.
 1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
 3. Existing System: Field verify and key cylinders to match Owner's existing system.
- E. Key Quantity: Provide the following minimum number of keys:
 1. Change Keys per Cylinder: Two (2)
 2. Master Keys (per Master Key Level/Group): Five (5).
 3. Construction Keys (where required): Ten (10).
 4. Construction Control Keys (where required): Two (2).
 5. Permanent Control Keys (where required): Two (2).
- F. Construction Keying: Provide temporary keyed construction cores.
- G. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 KEY CONTROL

- A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.

1. Manufacturers:
 - a. Lund Equipment (LU).
 - b. MMF Industries (MM).
 - c. Telkee (TK).

2.7 MECHANICAL LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Where specified, provide status indicators with highly reflective color and wording for "locked/unlocked" or "vacant/occupied" with custom wording options if required. Indicator to be located above the cylinder with the inside thumb-turn not blocking the visibility of the indicator status. Indicator window size to be a minimum of 2.1" x 0.6" with a curved design allowing a 180-degree viewing angle with protective covering to prevent tampering.
2. Manufacturers:
 - a. Corbin Russwin Hardware (RU) – ML2000 Series.
 - b. Sargent Manufacturing (SA) – 8200 Series.
 - c. Schlage (SC) – L9000 Series.

2.8 ELECTROMECHANICAL LOCKING DEVICES

- A. Electromechanical Mortise Locksets, Grade 1 (Heavy Duty): Subject to same compliance standards and requirements as mechanical mortise locksets, electrified locksets to be of type and design as specified below.

1. Electrified Lock Options: Where indicated in the Hardware Sets, provide electrified options including: outside door lock/unlock trim control, latchbolt and lock/unlock status monitoring, deadbolt monitoring, and request-to-exit signaling. Support end-of-line resistors contained within the lock case. Unless otherwise indicated, provide electrified locksets standard as fail secure.

2. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
3. High Security Monitoring: Provide lock bodies which have built-in request to exit monitoring and are provided with accompanying door position switches. Provide a resistor configuration which is compatible with the access control system.
4. Manufacturers:
 - a. Corbin Russwin Hardware (RU) - ML20900 Series.
 - b. Sargent Manufacturing (SA) - 8200 Series.
 - c. Schlage (SC) - L9000 EL/EU/RX Series.

2.9 LOCK AND LATCH STRIKES

- A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:
 1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
 2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
 3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
 4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.
- B. Standards: Comply with the following:
 1. Strikes for Mortise Locks and Latches: BHMA A156.13.
 2. Strikes for Bored Locks and Latches: BHMA A156.2.
 3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
 4. Dustproof Strikes: BHMA A156.16.

2.10 ELECTRIC STRIKES

- A. Standard Electric Strikes: Electric strikes tested to ANSI/BHMA A156.31, Grade 1, for use on non-rated or fire rated openings. Strikes shall be of stainless steel construction tested to a minimum of 1500 pounds of static strength and 70 foot-pounds of dynamic strength with a minimum endurance of 1 million operating cycles. Provide strikes with 12 or 24 VDC capability, fail-secure unless otherwise specified. Where specified provide latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike.
 1. Manufacturers:
 - a. HES (HS) - 1006 Series.
- B. Provide electric strikes with in-line power controller and surge suppressor by the same manufacturer as the strike with the combined products having a five year warranty.

2.11 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
5. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
6. Motorized Electric Latch Retraction: Devices with an electric latch retraction feature must use motors which have a maximum current draw of 600mA. Solenoid driven latch retraction is not acceptable.
7. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
 - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
 - b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
8. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
9. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
10. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
11. Rail Sizing: Provide exit device rails factory sized for proper door width application.
12. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions

specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.

1. Manufacturers:
 - a. Corbin Russwin Hardware (RU) - ED4000 / ED5000 Series.
 - b. Detex (DE) – Advantex.
 - c. Sargent Manufacturing (SA) - 80 Series.

2.12 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Large Body Cast Iron): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control.

1. Manufacturers:
 - a. Corbin Russwin Hardware (RU) – DC8000 Series.
 - b. Norton Door Controls (NO) – 9500 Series.
 - c. Sargent Manufacturing (SA) – 281 Series.

2.13 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:
 - a. Stainless Steel: 300 grade, 050-inch thick.
5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:
 - a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
 - b. Trimco (TC).

2.14 DOOR STOPS AND HOLDERS

- A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.
- B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
 1. Manufacturers:
 - a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
 - b. Trimco (TC).

2.15 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
 1. National Guard Products (NG).
 2. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

2.16 ELECTRONIC ACCESSORIES

- A. Request-to-Exit Motion Sensor: Request-to-Exit Sensors motion detectors specifically designed for detecting exiting through a door from the secure area to a non-secure area. Include built-in timers (up to 60 second adjustable timing), door monitor with sounder alert, internal vertical pointability coverage, 12VDC or 24VDC power and selectable relay trigger with fail safe/fail secure modes.
 1. Manufacturers:
 - a. Securitron (SU) - XMS Series.
- B. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.
 1. Manufacturers:
 - a. Securitron (SU) - DPS Series.

2.17 FABRICATION

- A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.18 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
 - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
 - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
 - 2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
 - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."

4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures" and "Cash Allowances". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
 1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.
 2. Submit documentation of incomplete items in the following formats:
 - a. PDF electronic file.
 - b. Electronic formatted file integrated with the Openings Studio™ door opening management software platform.

3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.

- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.
2. The supplier is responsible for handing and sizing all products.
3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.

- B. Manufacturer's Abbreviations:

1. MK - McKinney
2. SU - Securitron
3. RO - Rockwood
4. RU - Corbin Russwin
5. SA - SARGENT
6. BE - BEST Locks & Closers
7. HS - HES
8. RF - Rixson
9. PE - Pemko
10. OT - Other

Hardware Sets

Set: 1.0

Doors: **B110B**

Description: EXTERIOR SINGLE - EAC DELAYED EGRESS EXIT

3 Hinge (heavy weight)	T4A3386 NRP	US32D	MK
1 Electric Power Transfer	CEPT-10	630	SU ⚡
1 Electrified Rim Exit, Fail Secure	ED5200 D N9905ET M110 M54 CT6R	630	RU ⚡
1 SFIC Final Core	BEST SFIC Final Core - Match Owner Requirements	626	BE
1 Door Closer	281 CPS	EN	SA
1 Kick Plate	K1050 10" X 2" LDW 4BE CSK	US32D	RO
1 Gasketing (Head)	2891APK		PE
2 Gasketing (Jamb)	290APK		PE
1 Rain Guard	346C x (Width of Frame Head)		PE
1 Sweep	3452CNB		PE
1 Threshold	2009APK x Length Required x MSES25SS		PE
1 ElectroLynx Harness	QC-C012		MK ⚡
1 ElectroLynx Harness	QC-C2500P		MK ⚡
1 ElectroLynx Harness	QC-C300P		MK ⚡
1 Card Reader / Keypad	By Others		OT
1 Position Switch	DPS-M - BK		SU ⚡
1 Power Supply	AQD (Amperage as Required)		SU ⚡

Notes: Operational Description: Door contact switch indicates propped door condition. Pressing inside pushbar for more than one second sounds local alarm and starts an irreversible 30-second delay. (Subject to approval by local AHJ). During the delay cycle the latchbolt remains engaged and no egress is possible. Latch is released after delay, allowing egress. Outside card reader temporarily unlocks lever and allows ingress without affecting the alarm or delayed egress component. Manual ingress when unlocked by mechanical key and does not affect delay/alarm function. Inside cylinder resets alarm.

Set: 2.0

Doors: B111, B151, B152, B153, B154, B155

Description: STC INTERIOR SINGLE - EAC MORTISE LOCK ELECTRIC STRIKE - TESTING ROOMS / OFFICES

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Storeroom/Closet Lock	72 8204 LNL	US26D	SA
1 SFIC Final Core	BEST SFIC Final Core - Match Owner Requirements	626	BE
1 SMART Pac Bridge Rectifier	2005M3		HS ⚡
1 Electric Strike	1006	630	HS ⚡
1 Door Closer	281 CPS	EN	SA

1 Kick Plate	K1050 10" X 2" LDW 4BE CSK	US32D	RO
1 Set Door Seals	303AS		PE
1 Auto Door Bottom	4131_RL		PE
1 ElectroLynx Harness	QC-C1500 (Power Supply to Hinge or Device)		MK ⚡
1 Card Reader / Keypad	By Others		OT
1 Motion Sensor	XMS		SU ⚡
1 Position Switch	DPS-M - BK		SU ⚡
1 Power Supply	AQD (Amperage as Required)		SU ⚡

Notes: Operational Description: Door is normally closed and locked. Presenting a valid credential to the reader will momentarily release the electric strike allowing the door to be pulled open. Entry by mechanical key override. Free egress at all times by turning inside lever. Request to exit motion sensor shunts alarm upon exiting. Door position switch reports status of door. Strike is fail secure, upon power failure the door will remain locked.

Set: 3.0

Doors: **B150, D111**

Description: INTERIOR SINGLE - EAC MORTISE LOCK ELECTRIC STRIKE - TESTING ROOMS / OFFICES

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Storeroom/Closet Lock	72 8204 LNL	US26D	SA
1 SFIC Final Core	BEST SFIC Final Core - Match Owner Requirements	626	BE
1 SMART Pac Bridge Rectifier	2005M3		HS ⚡
1 Electric Strike	1006	630	HS ⚡
1 Door Closer	281 CPS	EN	SA
1 Kick Plate	K1050 10" X 2" LDW 4BE CSK	US32D	RO
3 Silencer	608		RO
1 ElectroLynx Harness	QC-C1500 (Power Supply to Hinge or Device)		MK ⚡
1 Card Reader / Keypad	By Others		OT
1 Motion Sensor	XMS		SU ⚡
1 Position Switch	DPS-M - BK		SU ⚡
1 Power Supply	AQD (Amperage as Required)		SU ⚡

Notes: Operational Description: Door is normally closed and locked. Presenting a valid credential to the reader will momentarily release the electric strike allowing the door to be pulled open. Entry by mechanical key override. Free egress at all times by turning inside lever. Request to exit motion sensor shunts alarm upon exiting. Door position switch reports status of door. Strike is fail secure, upon power failure the door will remain locked.

Set: 4.0

Doors: **B159**

Description: INTERIOR PAIR - EAC FAIL SECURE MORTISE LOCK - PUBLIC WAITING

6 Hinge, Full Mortise, Hvy Wt	T4A3786	US26D	MK
1 Electric Power Transfer	CEPT-10	630	SU ⚡
1 Flush Bolt	2845	US32D	RO
1 Dust Proof Strike	570	US26D	RO
1 Fail Secure Lock	RX 72 8273-12V LNL	US32D	SA ⚡
2 SFIC Final Core	BEST SFIC Final Core - Match Owner Requirements	626	BE
1 Coordinator	2672	US28	RO
2 Mounting Bracket	2601D	Gray	RO
2 Door Closer	281 CPS	EN	SA
2 Armor Plate	K1050 36" X 2" LDW 4BE CSK	US32D	RO
1 Astragal	357SP X S88BL		PE
2 Silencer	608		RO
1 ElectroLynx Harness	QC-C1500 (Power Supply to Hinge or Device)		MK ⚡
1 ElectroLynx Harness	QC-CXXP (Hinge to Device)		MK ⚡
2 Card Reader / Keypad	By Others		OT
2 Position Switch	DPS-M - BK		SU ⚡
1 Power Supply	AQD (Amperage as Required)		SU ⚡

Notes: Operational Description: Door is normally closed and locked. Presenting a valid credential to reader on either side will momentarily unlock the lever allowing the door to be opened. Entry by mechanical key override. Built in request to exit sensor shunts alarm upon exiting. Door position switch reports status of door. Lock is fail secure, upon power failure the door will remain locked.

Set: 5.0

Doors: **D107, D110**

Description: INTERIOR SINGLE - MORTISE STOREROOM LOCK - ELECTRICAL / COMM ROOMS

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Storeroom/Closet Lock	72 8204 LNL	US26D	SA
1 SFIC Final Core	BEST SFIC Final Core - Match Owner Requirements	626	BE
1 Surface Closer	281 CPSH	EN	SA
1 Kick Plate	K1050 10" X 2" LDW 4BE CSK	US32D	RO
3 Silencer	608		RO

Set: 6.0

Doors: **D106**

Description: STC INTERIOR SINGLE - MORTISE CLASSROOM LOCK -TRAINING ROOM

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Classroom Lock	72 8237 LNL	US26D	SA
1 SFIC Final Core	BEST SFIC Final Core - Match Owner Requirements	626	BE
1 Door Closer	281 O10	EN	SA
1 Kick Plate	K1050 10" X 2" LDW 4BE CSK	US32D	RO
1 Door Stop	400 / 441 (Type as Required)	US26D	RO
1 Set Door Seals	303AS		PE
1 Auto Door Bottom	4131_RL		PE

Set: 7.0

Doors: B109A, B110A, B110N

Description: OVERHEAD DOORS

1 SFIC Final Core	BEST SFIC Final Core - Match Owner Requirements	626	BE
1 Mortise Cylinder	64 72 42 Mortise Cylinder Housing	US32D	SA
1 Hardware	Balance of Hardware by Others		

Notes: Card reader installed by overhead door manufacturer.

Set: 8.0

Doors: D113

Description: ETR

1 Hardware	Existing Hardware to Remain		OT
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END OF SECTION 087100



AGS - CHECKPOINT MODERNIZATION

1501 Aviation Way, Augusta, GA 30906

R0119700-231215.02

Furnishings & Accessories Package

November 2024

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TEAM CONTACTS

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7900 International Drive,
Suite 980
Bloomington, MN 55425
952-641-8829

Dane Ridenour
Project Manager
5001 LBJ Freeway, Suite
1015
Dallas, TX 75244
469-208-0424

FURNITURE SUMMARY

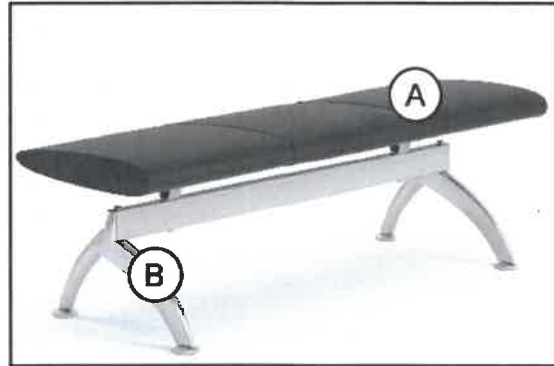
CODE	DESCRIPTION	B.O.D. MANUFACTURER
SEATING		
S-1	BERNU BENCH	ARCONAS
S-2	STACKING CHAIR	HERMAN MILLER
S-3	MIRRA TASK CHAIR	HERMAN MILLER
S-4	VERUS SIDE CHAIR	HERMAN MILLER
CASEGOODS		
CG-1	INTERVIEW/ SEARCH TABLE	CRYPTOMAX
CG-2	RENEW HEIGHT ADJUSTABLE TABLE	HERMAN MILLER
CG-3	JUMP SPACE HEIGHT ADJUSTABLE DESK	HERMAN MILLER
CG-4	PASSPORT WORK TABLE	HERMAN MILLER
CG-5	EVERYWHERE SQUARE TABLE	HERMAN MILLER
CG-6	RENEW SERIES WORKSTATION	HERMAN MILLER
CG-7	EVERYWHERE RECTANGULAR TABLE	HERMAN MILLER
CG-8	LOCKER TOWER, 3 HIGH	TEKNION
WASTE/RECYCLING RECEPTACLES		
WR-1	TROSA WASTE/ RECYCLING UNIT	MAGNUSON GROUP
WR-2	SMALL PLASTIC WASTE UNIT	RUBBERMAID
STANCHIONS		
ST-1	STANCHION	TURNSTILE SECURITY SYSTEMS INC.

PRODUCT DATA SHEET

S-1

MANUFACTURER: Arconas
PRODUCT NAME / MODEL NO.:
 Bemu Bench/ BB3S
LEAD TIME: To be confirmed by manufacturer per in stock availability.
SPECIFICATIONS:
 3 seat upholstered bench with satin aluminum finish support beam and legs.
 Country/State of Origin: Canada.
DIMENSIONS:
 72"W x 18"H x 25.5"D. Seat Height: 18"H.

ITEM IMAGE:

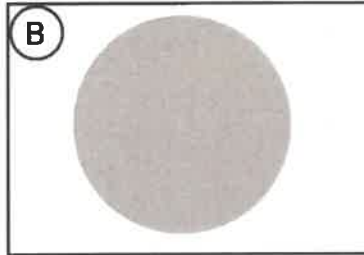


*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:



A
 F-1 Graded-In Upholstery- Black Vinyl or COM: Pallas Textiles, JUGGERNAUT- ABYSS
 OVERALL UPHOSLTERY



B
 Standard Powder Coated Metal- CLOUD SILVER
 BEAM & LEGS FINISH

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
B156	TSA Checkpoint	6

TOTAL QUANTITY: 6

CONTACT:

Scott Jelliman, Product Representative
 905-272-0727, sjelliman@arconas.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

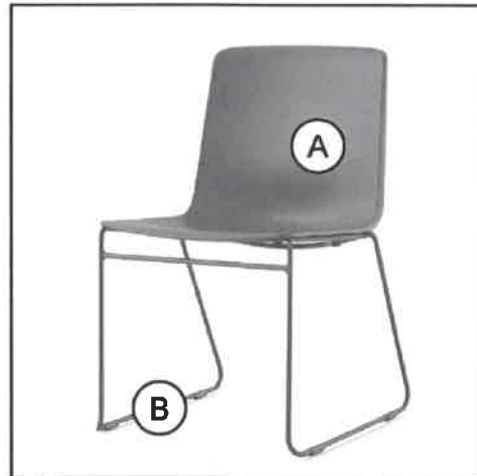
S-2

MANUFACTURER: Herman Miller
PRODUCT NAME / MODEL NO.:
 Pronta Stacking Chair /
LEAD TIME: To be confirmed by manufacturer per in stock availability.

SPECIFICATIONS:
 Molded plastic shell with powder coated metal frame and glides. Country/State of Origin: Manufacturer to confirm.

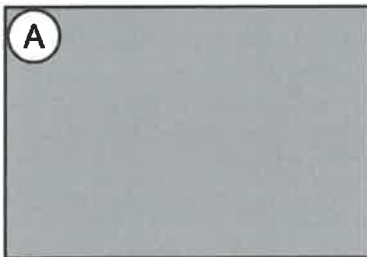
DIMENSIONS:
 21"W x 32"H x 23.2"D. Seat Height: 17.8"H.

ITEM IMAGE:

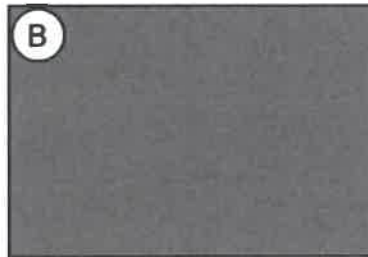


*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:



Glacier (DBK)



Satin Carbon (SNC)

SHELL FINISH

METAL FRAME & LEGS FINISH

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
D106	TSA BREAK ROOM	12
B155	PRIVATE SCREENING	1

TOTAL QUANTITY: 13

CONTACT:

Matt Grynol, Product Representative
 (612) 518-1515, matt.grynol@millerknoll.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

S-3

MANUFACTURER: Herman Miller
PRODUCT NAME / MODEL NO.:
 Mirra 2 Task Chair / MRF123AWFFAJG1C-9G18M17BK1A703
LEAD TIME: To be confirmed by manufacturer per in stock availability.
SPECIFICATIONS: Task chair with Suspension back and seat, adjustable arms and hard casters for carpeted areas (B152, B151, B153) and soft floor casters for LVT flooring (in area B154). Country/State of Origin: Manufacturer to confirm.
DIMENSIONS:
 30"W x 41.75"H x 18.5"D. Seat Height: 14.75"H.

ITEM IMAGE:

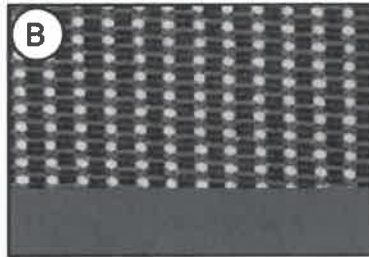


*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:



A
 Black / Graphite 8M17/G1
 BACK UPHOLSTERY



B
 Graphite / Graphite 1A703/G1
 SEAT UPHOLSTERY



C
 Graphite G1
 FRAME FINISH

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
B152	SCOTT OFFICE	1
B151	CORA OFFICE	1
B153	TESTING	3
B154	REMOTE RESOLUTION	7

TOTAL QUANTITY: 12

CONTACT:

Matt Grynol, Product Representative
 (612) 518-1515, matt.grynol@millerknoll.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

S-4

MANUFACTURER: Herman Miller

PRODUCT NAME / MODEL NO.:

Verus Side Chair / PIA4S1SPBK-
 SNA36505G440G05

LEAD TIME: To be confirmed by manufacturer per in stock availability.

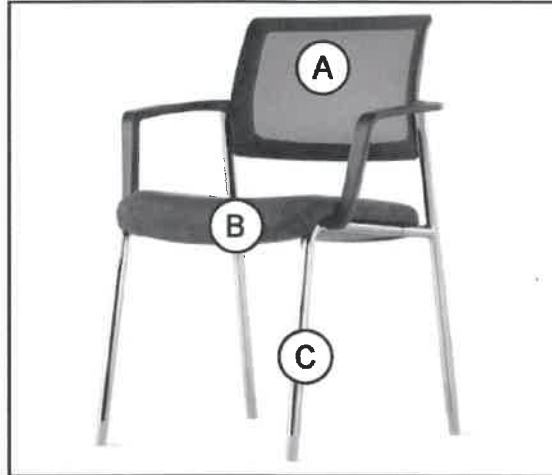
SPECIFICATIONS:

Side chair with suspension back, upholstered seat, fixed arms and glides. Country/State of Origin: Manufacturer to confirm.

DIMENSIONS:

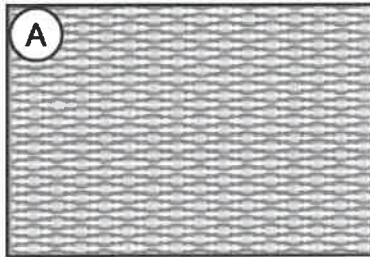
19.3"W x 32.9"H x 23.5"D. Seat Height: 18.8"H.

ITEM IMAGE:



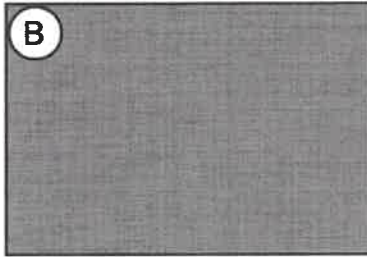
*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:



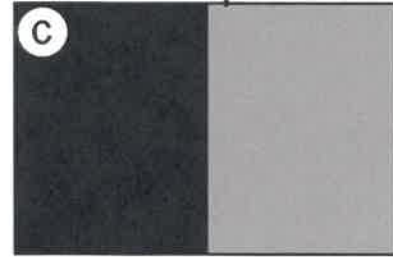
F-2

Graded-In Fabric: Herman Miller, SLATE SUSPENSION, 36505. BACK UPHOLSTERY



F-3

Graded-In Fabric: Maharam, VILLANELLE FABRIC, 40G05 SEAT UPHOLSTERY



BLACK & SATIN ALUMINUM FRAME & LEGS

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
B152	SCOTT OFFICE	1
B151	CORA OFFICE	1

TOTAL QUANTITY: 2

CONTACT:

Matt Grynol, Product Representative
 (612) 518-1515, matt.grynol@millerknoll.com

REFERENCES:

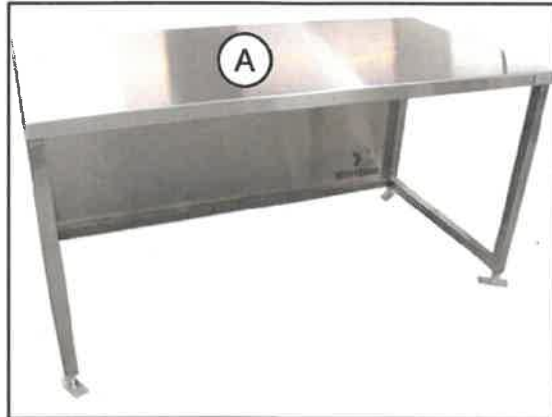
SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

CG-1

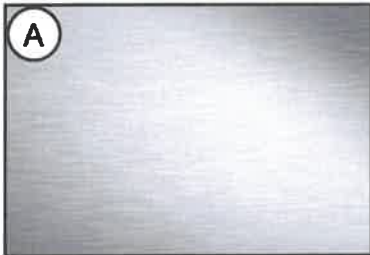
MANUFACTURER: Kryptomax
PRODUCT NAME / MODEL NO.:
 INTAKE TABLE / KM-TBL-INTK-306042
LEAD TIME: To be confirmed by manufacturer per in stock availability.
SPECIFICATIONS:
 16 gauge stainless steel table with full length back panel and foot flanges for floor mounting.
 Country/ State of Origin: USA
DIMENSIONS:
 60"W x 42"H x30"D.

ITEM IMAGE:



*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:



BRUSHED STAINLESS STEEL

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
B155	PRIVATE SCREENING	1

TOTAL QUANTITY: 1

CONTACT:

<https://www.kryptomax.com/>
 (972) 479-0699, sales@g2at.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

CG-2

MANUFACTURER: Herman Miller

PRODUCT NAME / MODEL NO.:

Renew Height Adjustable Table / DU-6ACS3042LEPLASUD(FINISH)

LEAD TIME: To be confirmed by manufacturer per in stock availability.

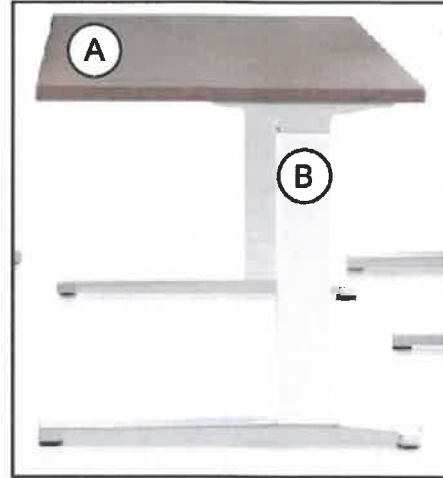
SPECIFICATIONS:

Rectangular table with T-Foot Base, square edge, laminate top with thermo edge, and with electric standard range. Country/State of Origin: Manufacturer to confirm.

DIMENSIONS:

42"W x 22-48"H x 30"D.

ITEM IMAGE:

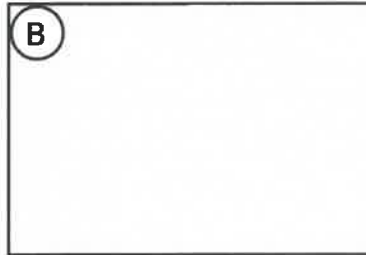


*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

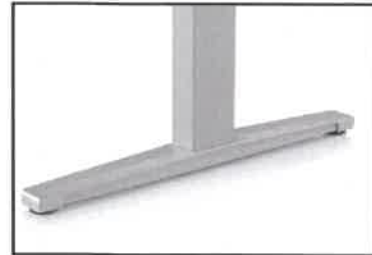
MATERIALS:



Woodgrain Laminate
 WALNUT ON ASH
 TABLE TOP FINISH



Metal Finish
 STUDIO WHITE
 METAL BASE



T-FOOT BASE

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
B153	Testing	3

TOTAL QUANTITY: 3

CONTACT:

Matt Grynol, Product Representative
 (612) 518-1515, matt.grynol@millerknoll.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

CG-3

MANUFACTURER: Herman Miller

PRODUCT NAME / MODEL NO.:

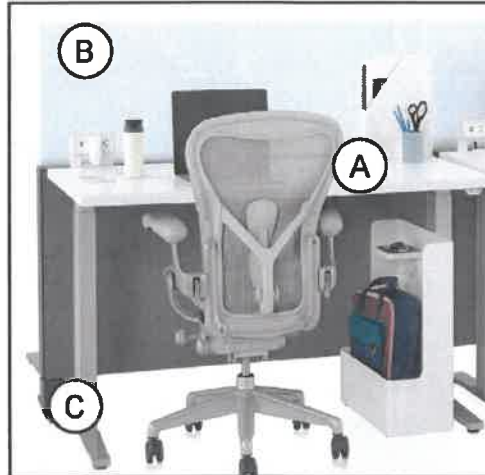
Nevi Sit-to-Stand Tables

LEAD TIME: To be confirmed by manufacturer per in stock availability.

SPECIFICATIONS: Height adjustable table with S-foot, square edge, laminate top with thermo edge, Electric standard range, legs with cross beam. Ambient height adjustable table screen, thin profile fabric, right & left return screen, U screen, mounted on top of work surface, with 42"H privacy. Country/State of Origin: Manufacturer to confirm.

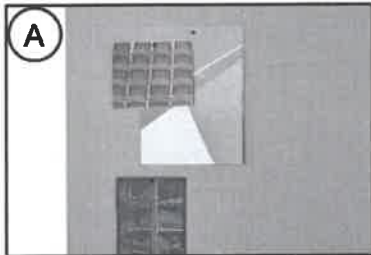
DIMENSIONS: 60"W x 28.5" - 47.25"H x 30"D.

ITEM IMAGE:



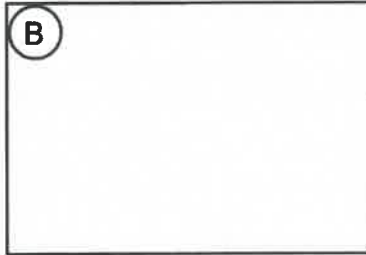
*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:

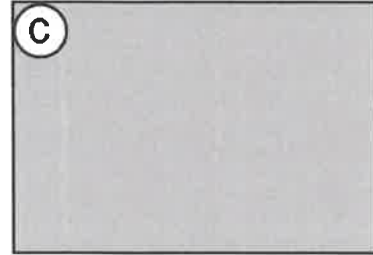


Graded-In tackable fabric. Color to be selected upon review of options.

THIN PROFILE SCREEN



STUDIO WHITE
 TABLE TOP LAMINATE FINISH



FOLKSTONE GREY
 C-FOOT METAL BASE FINISH

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
B154	Remote Resolution	7

TOTAL QUANTITY: 7

CONTACT:

Matt Grynol, Product Representative
 (612) 518-1515, matt.grynol@millerknoll.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

CG-4

MANUFACTURER: Herman Miller

PRODUCT NAME / MODEL NO.:

Passport Work Table - Large / HJALNNS2027C-MLBSLBSBK, HJASNNS4227F

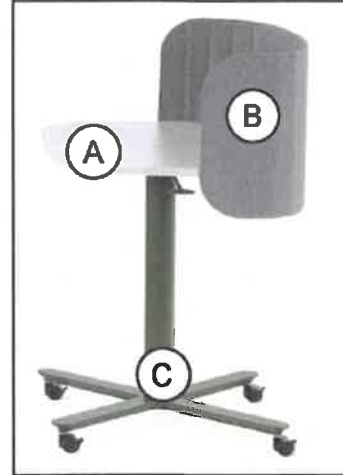
LEAD TIME: To be confirmed by manufacturer per in stock availability.

SPECIFICATIONS: Height adjustable light-weight table with a single-column, mobile base. Country/State of Origin: Manufacturer to confirm.

DIMENSIONS:

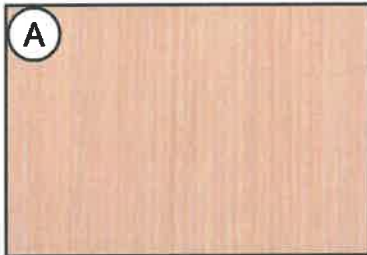
27"W x 27" - 45"H x 20"D

ITEM IMAGE:

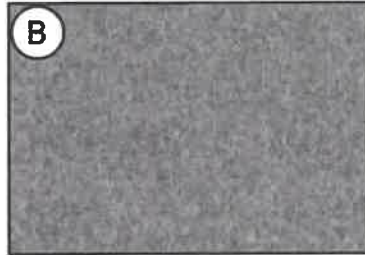


*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:



A
CLEAR ON ASH LAMINATE
TOP/ EDGE FINISH



B
DARK GREY 1HS08
SCREEN FABRIC



C
BLACK
LEG/ FRAME METAL FINISH

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
D112	Training	1

TOTAL QUANTITY: 1

CONTACT:

Matt Grynol, Product Representative
(612) 518-1515, matt.grynol@millerknoll.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

CG-5

MANUFACTURER: Herman Miller

PRODUCT NAME / MODEL NO.:
 Everywhere Table, Square / DT1BS3636LSLB-SLBSSNC57

LEAD TIME: To be confirmed by manufacturer per in stock availability.

SPECIFICATIONS: Square shaped table top with straight/ squared-edge profilr, laminate top with thermoplastic edge, single column base metal base with glides. Country/State of Origin: Manufacturer to confirm.

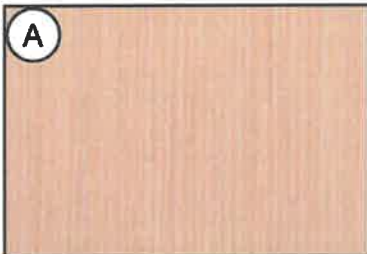
DIMENSIONS:
 36"W x 28.5"H x 36"D.

ITEM IMAGE:

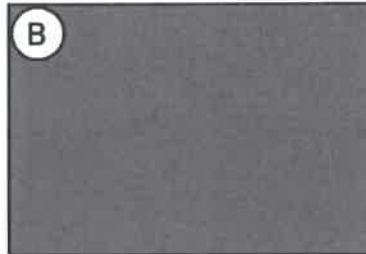


*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:



CLEAR ON ASH LAMINATE
 TOP/ EDGE FINISH



SATIN CARBON
 LEG/ BASE FINISH

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
D106	TSA Breakroom	3

TOTAL QUANTITY: 3

CONTACT:

Matt Grynol, Product Representative
 (612) 518-1515, matt.grynol@millerknoll.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

CG-6

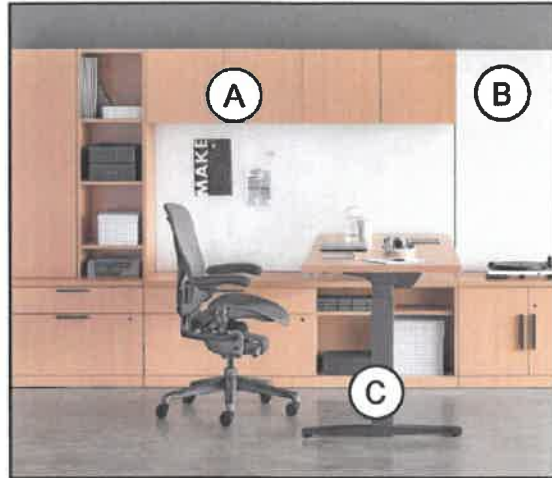
MANUFACTURER: Herman Miller
PRODUCT NAME / MODEL NO.:
 Canvas Private Office

LEAD TIME: To be confirmed by manufacturer per in stock availability.

SPECIFICATIONS: Wall mounted glass back panel with magnetic surface, a hutch, a height adjustable table, wall mounted overhead storage cabinets with hinged doors, low credenza with doors, low credenza with open drawers with box file. 2-1/4"H base, Country/State of Origin: Manufacturer to confirm.

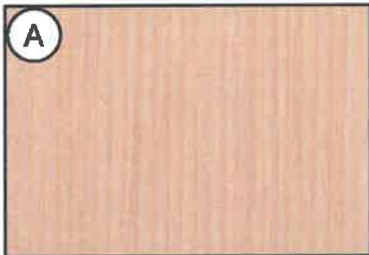
DIMENSIONS: Overall storage unit: 126"W x 20"D, Height Adjustable Table: 72"W x 30"D, Glass Back Panel: 66"W x 30-7/8"H

ITEM IMAGE:



*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:



A
 CLEAR ON ASH LAMINATE
 CABINETRY FACE/
 WORKSURFACE

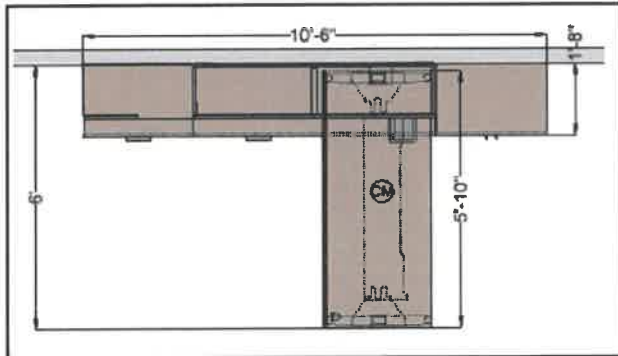


B
 STUDIO WHITE BACK
 PAINTED GLASS
 WHITE BOARD WALL



C
 GRAPHITE
 WORKSURFACE BASE

TYPICAL LAYOUT:



AREA OF USE:

ROOM #	ROOM NAME	QTY.
B151	Cora Office	1
B152	Scott Office	1

TOTAL QUANTITY: 2

CONTACT:

Matt Gynol, Product Representative
 (612) 518-1515, matt.gynol@millerknoll.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

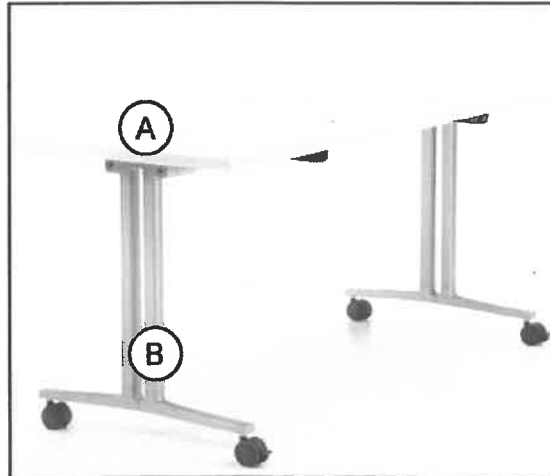
CG-7

MANUFACTURER: Herman Miller
PRODUCT NAME / MODEL NO.:
Everywhere Table - Rectangular
LEAD TIME: To be confirmed by manufacturer per in stock availability.

SPECIFICATIONS:
Rectangular table with laminate top, square edge, Flip-Top base with casters. Country/State of Origin: Manufacturer to confirm.

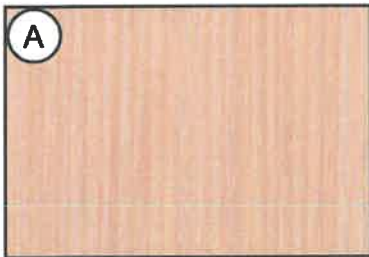
DIMENSIONS:
60"W x 28.5"H x 24"D

ITEM IMAGE:

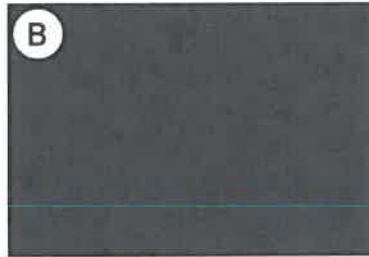


*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

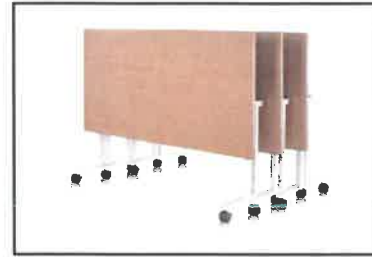
MATERIALS:



CLEAR ON ASH LAMINATE
Use: TOP



GRAPHITE SATIN
Use: BASE



FLIP- TOP BASE

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
D112	TRAINING	6

TOTAL QUANTITY: 6

CONTACT:

Matt Grynol, Product Representative
(612) 518-1515, matt.grynol@millerknoll.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

CG-8

MANUFACTURER: Teknion

PRODUCT NAME / MODEL NO.:

Ledger Plus Triple Locker Tower, Three High / PLTTSF366

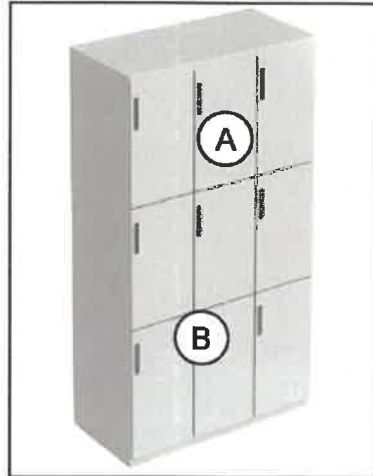
LEAD TIME: To be confirmed by manufacturer per in stock availability.

SPECIFICATIONS: Triple locker three high style in laminate finish, rectangular handle style, and lockable. Lock type options to be reviewed and approved by client. Country/State of Origin: Manufacturer to confirm.

DIMENSIONS:

36"W x 66"H x 18"D.

ITEM IMAGE:

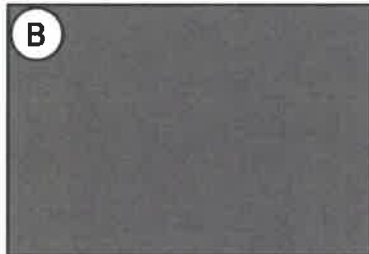


*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

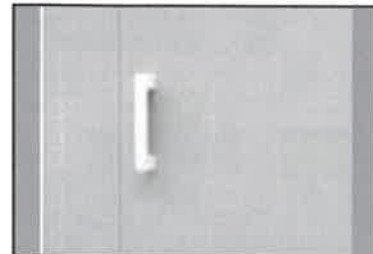
MATERIALS:



COASTAL ELM LAMINATE
 Use: FACE, EDGE TRIM



ANTHRACITE MICA PAINT 68X
 Use: HARDWARE



RECTANGULAR HANDLE STYLE

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
D106	TSA BREAKROOM	7

TOTAL QUANTITY: 7

CONTACT:

Matt Grynol, Product Representative
 (612) 518-1515, matt.grynol@millerknoll.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

ST-1

MANUFACTURER: Turnstile Security Systems Inc.

PRODUCT NAME / MODEL NO.:

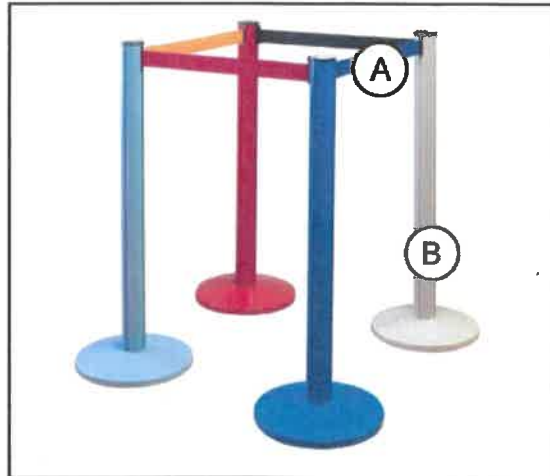
Portable Posts Systems

LEAD TIME: To be confirmed by manufacturer per in stock availability.

SPECIFICATIONS: Rugged, flexible, and durable portable post system, versatile, easy to store or configure. Features a 2" nylon belt 6.56" long that can expand up to 12' and a belt lock. Weighted rounded bottom base. Country/State of Origin: Manufacturer to confirm.

DIMENSIONS: Belt: 2"H x 6.56"L, Post & Base: To be provided by manufacturer.

ITEM IMAGE:

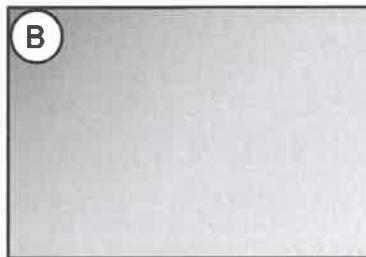


*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:



BLACK
 NYLON BELT



SATIN CHROME
 BASE

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
B109	QUEUING	59
B110	PRECHECK	32

TOTAL QUANTITY: 91

CONTACT:

<https://www.turnstilesecurity.com/>
 (888) 371-2222, sales@turnstilesecurity.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

WR-1

MANUFACTURER: Magnuson Group

PRODUCT NAME / MODEL NO.:

Trosa Waste/ Recycling Unit / TRO-1818L

LEAD TIME: To be confirmed by manufacturer per in stock availability.

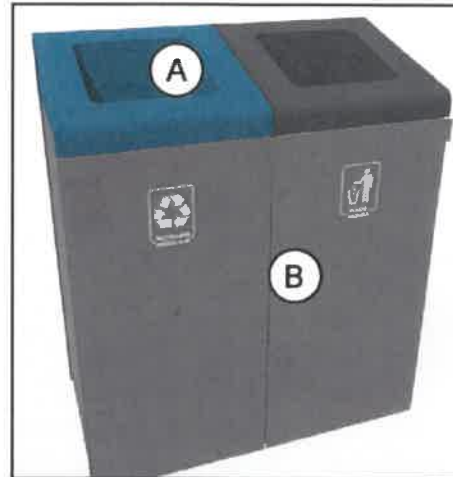
SPECIFICATIONS:

Features an angled lid opening, integrated door pull, soft closing hinges, and liner guides for ease of accessibility and maintenance. One waste and one recycling. Country/State of Origin: Manufacturer to confirm.

DIMENSIONS:

18"W x 40"H x 18"D

ITEM IMAGE:



*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:



TEXTURED BLUE
RAL 5009
TOP FINISH



TEXTURED ANTHRACITE
RAL 7016
BODY FINISH



WASTE & RECYCLING
TOP OPENING

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
D106	TSA BREAKROOM	2

TOTAL QUANTITY: 2

CONTACT:

<https://www.magnusongroup.com/>

(800) 342-5725, custserv@magnusongroup.com

REFERENCES:

SHEET NUMBER I-701, I-702

PRODUCT DATA SHEET

WR-2

MANUFACTURER: Rubbermaid

PRODUCT NAME / MODEL NO.:

Rubbermaid Office Trash Can- 7 Gallon, Black/
S-9970BL

LEAD TIME: In Stock

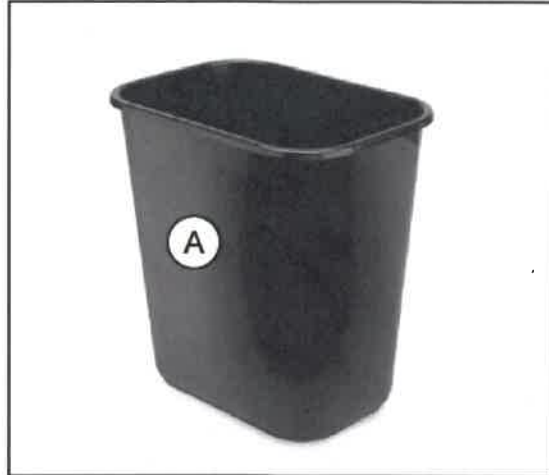
SPECIFICATIONS:

Easy to clean, space-efficient trash can that can fit under desks. Composed of lightweight plastic that is dent, rust, and chip resistant. Features rolled rim to add strenght and holds up liners. Country/State of Origin

DIMENSIONS:

10"W x 15"H x 14"D

ITEM IMAGE:



*Image is a representation of the product. Refer to written specifications for accurate details, materials and dimensions.

MATERIALS:



BLACK
OVERALL COLOR



Rolled Rim



Space-Efficient

TYPICAL LAYOUT:

AREA OF USE:

ROOM #	ROOM NAME	QTY.
B151	CORA OFFICE	1
B152	SCOTT OFFICE	1
B155	PRIVATE SCREENING	1
D112	TRAINING	1

TOTAL QUANTITY: 4


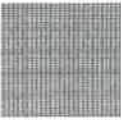

CONTACT:

<https://www.uline.com>, Distributor
(800) 295-5510, customer.service@uline.com

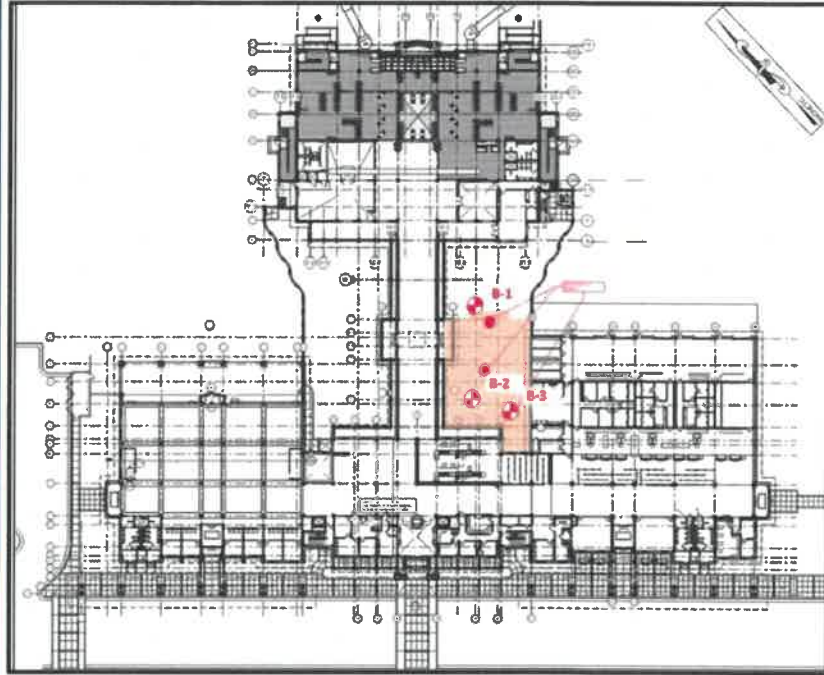
REFERENCES:

SHEET NUMBER I-701, I-702

MATERIAL SCHEDULE

IMAGE	CODE	MANUFACTURER	NAME	STYLE #	COLOR	PROPERTIES
	F-1	PALLAS	JUGGERNAUT		ABYSS	100% POLYURETHANE. STA-KLEEN FINISH/ BACKING. 54"W. WS-BLEACH CLEANABLE. 500,000 DOUBLE RUBS (WYZENBEEK), NFPA 260-CLASS 1
	F-2	HERMAN MILLER	INTERWEAVE 2	36505	SLATE	65% ELASTOMETRIC, 35% POLYESTER. 200,000 DOUBLE RUBS (WYZENBEEK). PASSES NFPA 260
	F-3	MAHARAM	METHOD	40G05	VILLANELLE	100% RECYCLED POLYESTER, STAIN REPELLENT FINISHES AVAILABLE, W/S/B- CLEAN WITH WATER-BASED CLEANSER; MILW, WATER-FREE CLEANING SOLVENT, OR DILUTED HOUSEHOLD BLEACH. 100,000 DOUBLE RUBS (WYZENBEEK), PASSES CAL 117-2013

GEOTECHNICAL ENGINEERING REPORT



AGS Checkpoint Modernization Augusta, Richmond County, Georgia

PREPARED FOR:

Mead & Hunt, Inc
2011 Commerce Drive, Suite D103
Peachtree City, Georgia 30269

NOVA Project Number: 10103-20240030

June 28, 2024





June 28, 2024

Mead & Hunt, Inc.
2011 Commerce Drive, Suite D103
Peachtree City, Georgia 30269

Attention: Mr. Dane Ridenour, AIA, CSI
Senior Project Architect

Subject: Geotechnical Engineering Report
AGS CHECKPINT MODERNIZATION
Augusta, Richmond County, Georgia
NOVA Project Number 10103-2024030

Dear Mr. Ridenour:

NOVA Engineering and Environmental, LLC (NOVA) has completed the authorized subsurface exploration and geotechnical engineering evaluation for the AGS Checkpoint Modernization project located at the August Regional Airport in Augusta, Richmond County Georgia. The work was performed in general accordance with NOVA Proposal Number 10103-2024030, dated March 13, 2024. This report briefly discusses our understanding of the project at the time of the subsurface exploration, describes the geotechnical consulting services provided by NOVA, and presents our findings, conclusions and recommendations.

We appreciate your selection of NOVA and the opportunity to be of service on this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,
NOVA Engineering and Environmental, LLC
Georgia Engineering License No. PEF005170

Dante Blyden
Project Engineer



Marc D. Johnston, P.E.
Principal Geotechnical Engineer
GA P.E. License No. 027809

Digitally signed by: Marc D. Johnston, PE
DN: CN = Marc D. Johnston, PE email = mjohnston@usanova.com C = US O = NOVA Engineering and Environmental, LLC
Date: 2024.06.28 15:10:42 -04'00'

Copies Submitted: Addressee (electronic)

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APPENDICES

- Appendix A – Figures and Maps
- Appendix B – Subsurface Data
- Appendix C – Laboratory Test Data
- Appendix D – Qualifications of Recommendations

1.0 INTRODUCTION

This section provides information relating to our contract, the purpose of the services provided and a summary of our understanding of the project.

1.1 PROJECT NAME AND LOCATION

The AGS Checkpoint Modernization Project is located at the Augusta Regional Airport, address 1501 Aviation Way, Augusta, Richmond County, Georgia. The Richmond County Geographic Information System (GIS) maps the site as approximately 1,319.60 acres in one (1) parcel identified as parcel number 1590002000. The location of this project is the landscaped area south of the breezeway of the existing checkpoint building. The location of the site is indicated on the Site Location Map included as Figure 1 in Appendix A.

1.2 AUTHORIZATION AND SCOPE OF SERVICES

Our services on this project were as described in our Proposal Number 10103-2024030 dated March 13, 2024, which were authorized on April 22, 2024, by Ms. Mary Shaffer of Mead & Hunt, Inc.

The primary objective of these services was to perform a geotechnical exploration within the areas of the proposed construction and to assess the findings as they relate to the geotechnical aspects of the planned site development. The authorized services included site reconnaissance, soil test borings (STBs) and sampling, field and laboratory testing, engineering evaluation of the field data and the preparation of this report.

The assessment of the presence of wetlands, floodplains, or water classified as state waters was beyond the scope of this exploration. Additionally, the assessment of site environmental conditions, including the detection of pollutants in the soil, rock, or groundwater, at the site was also beyond the scope of this geotechnical exploration and evaluation.

2.0 PROJECT INFORMATION

Our understanding of this project is based on discussions with Mr. Dane Ridenour of Mead & Hunt, Inc., review of the provided documents, a site reconnaissance during boring layout, and our experience with similar projects.

2.1 SITE PLANS and DOCUMENTS

We were furnished with the following documents:

- AGS Checkpoint Geotech Scope provided by Mead & Hunt, Inc.
- Scope of Geotechnical Services provided by Mead & Hunt, Inc.

2.2 PROJECT SITE

The site is currently developed as the Augusta Regional Airport Checkpoint Building. As previously stated, the location of this project is immediately south of the breezeway, in an area that is landscaped. According to the United State Georgia Survey (USGS) topographic maps and reviewed aerial imagery, existing elevations range from approximately 146 feet-MSL to 140 feet-MSL.

2.3 PROPOSED DEVELOPMENT

The proposed construction will consist of an addition to the existing Checkpoint Building.

Structural loading information for the proposed addition nor the existing structure were provided. We have therefore assumed that column and wall loads will not exceed 150 kips and 3 kips per lineal foot (klf), respectively. We anticipate finished grades will be relatively close to existing site grades and only minor fine grading will be required during construction.

If the above project information and/or presumptions are incorrect, NOVA should be afforded the opportunity to re-evaluate the recommendations detailed herein based on the correct information. Once the project design is complete, additional field and laboratory testing may be required to finalize the geotechnical exploration.

3.0 FIELD AND LABORATORY PROCEDURES

3.1 FIELD EXPLORATION

Test locations were established in the field by NOVA personnel using a handheld GPS device and estimating distances and angles from site landmarks. Prior to initiating field testing, underground utilities were marked by a private utility locating firm. Underground utility related adjustments of the test locations were made at the time of the field exploration. The approximate test locations are shown on Figure 3 in Appendix A. If increased accuracy is desired, test locations and elevations should be surveyed.

Our field exploration was conducted during the period of June 11th to June 12th, 2024, and included the following:

- Three (3) Soil Test Borings (STBs) drilled within the proposed expansion area of development, drilled to depths ranging from 30 to 47 feet below existing grade.

Soil Test Borings

The STBs were performed per the general guidelines of ASTM Designation D-1586, "Penetration Test and Split-Barrel Sampling of Soils". A hollow-stem auger was used to advance the borings. At regular intervals, soil samples were obtained with a standard 1.4-inch I.D., 2.0-inch O.D., split-tube sampler. The sampler was first seated 6 inches and then driven an additional 1 foot with blows of a 140-pound hammer falling 30 inches. The number of hammer blows required to drive the sampler the final foot is designated the "Penetration Resistance". The penetration resistance, when properly interpreted, is an index to the soil strength and density. Representative portions of the soil samples, obtained from the sampler, were placed in jars and transported to our laboratory for further evaluation.

Test Boring Records in Appendix B show the standard penetration test (SPT) resistances, or "N-values", and present the soil conditions encountered in the borings.

Groundwater: The groundwater levels reported on the Test Boring Records represent measurements made at the completion of the soil test borings. The soil test borings were subsequently backfilled with the soil cuttings and patched with quick-setting concrete.

3.2 LOCAL EXPERIENCE

NOVA has previously conducted geotechnical studies at the Augusta Regional Airport along Taxiway F, E, and G, as well as several aprons and safety areas. The typical subsurface conditions were found to consist of existing fill and coastal plain soils, generally composed of clayey SAND and sandy CLAY. High moisture content soils were found during these previous explorations.

3.3 LABORATORY TESTING

A laboratory testing program was conducted to characterize materials encountered at the site using split-barrel samples recovered from the site. The laboratory test data are presented in Appendix C and summarized in the table below. Selected test data are presented on the Boring Logs attached in Appendix B. The specific tests are briefly described below.

It should be noted that all soil samples would be properly disposed of 30 days following the submittal of this NOVA subsurface exploration report unless you request otherwise.

3.3.1 Soil Classification

Soil classification provides a general guide to the engineering properties of various soil types and enable the engineer to apply experience to current problems. In our explorations, samples obtained during drilling operations are observed in our laboratory and visually classified by an engineer. The soils are classified according to consistency (based on number of blows from standard penetration tests), color, and texture. These classification descriptions are included on our "Test Boring Logs". The classification system discussed above is primarily qualitative; laboratory testing is generally performed for detailed soil classification.

3.3.2 Moisture Content

The moisture content is the ratio expressed as a percentage of the weight of water in a mass of soil to the weight of the solid particles. This test was conducted in general accordance with ASTM D 2216. A total of three (3) moisture content tests were performed during this exploration. The results are shown on the Boring Logs in Appendix B and in the table below.

3.3.3 Atterberg Limits

The Atterberg Limits are different descriptions of the moisture content of fine-grained soils as it transitions between a solid to a liquid-state. For classification purposes the two primary Atterberg Limits used are the plastic limit (PL) and the liquid limit (LL). The plastic index (PI) is also calculated for soil classification.

The plastic limit (PL) is the moisture content at which a soil transitions from being in a semisolid state to a plastic state. The liquid limit (LL) is defined as the moisture content at which a soil transitions from a plastic state to a liquid state. Three (3) tests were performed in this study in accordance with ASTM D4318. The results are provided in Appendix C and in the table below.

3.3.4 SIEVE ANALYSIS

The sieve analysis consists of passing a soil sample through a series of standard sieve openings. The percentage of soil, by weight, passing the individual sieves is then recorded and generally presented in a graphical format. The percentage of fines passing through the No. 200 sieve is generally considered to represent the amount of silt and clay of the tested soil sample. The sieve analysis test was conducted in general accordance with ASTM Designation D 1140. A total of three (3) sieve analysis tests were performed in this study. The results are provided in Appendix C and in the table below.

Boring Number (Composite Samples)	Depth (ft)	Natural Moisture Content (%)	Plastic Limit (PL)	Liquid Limit (LL)	Percent Passing #200 Sieve (%)	USCS
B-1	6-7 ½	13.1	27	64	38.6	SC
B-2	3 ½-5	23.7	37	82	70.0	CH
B-3	13 ½-15	16.6	19	42	47.6	SM

4.0 SUBSURFACE CONDITIONS

4.1 GEOLOGY

The site is located in the Coastal Plain Geologic Region of Georgia. The Coastal Plain soils are composed of sedimentary deposits that extend from the fall line and thicken to the east as they approach the coast. The sedimentary deposits range in age from Upper Cretaceous to Recent. In the area of the project site, the surface soil profile often consists of sands with lenses of clay and silt of variable thickness. Sites located near the boundary with the Piedmont Geologic Region to the north are underlain by residual soils and rock formations of the Piedmont at various depths. The upper soils at the site appear to be more recent alluvial deposits associated with the floodplain areas of the Savannah River.

According to the “Geology of the Georgia – State Map of 1976”, the site is underlain by the Coastal Plain Sedimentary Rock, Stream Alluvium. This consists of undifferentiated terrace deposits (Qal).

4.2 SOIL CONDITIONS

The following paragraphs provide generalized descriptions of the subsurface profiles and soil conditions encountered by the borings conducted during this study.

The Test Boring Records in Appendix B should be reviewed to provide more detailed descriptions of the subsurface conditions encountered at each boring location. These records represent our interpretation of the subsurface conditions based on the field logs and visual observations of samples by an engineer. The lines designating the interface between various strata on the Boring Logs represent the approximate interface locations and elevation. The actual transition between strata may be gradual. Groundwater levels shown on the Boring Logs represent the conditions at the time of drilling. It should be understood that soil conditions may vary between boring locations.

4.2.1 SURFACE MATERIALS

Topsoil: Topsoil was encountered in all of the soil test borings ranging in thickness from 3 to 4 inches. Please note the topsoil thicknesses are frequently erratic and thicker zones of topsoil should be anticipated.

4.2.2 FILL SOILS

Fill soils were encountered in all of the borings extending to depths ranging from 3 to 5 feet below existing ground surface. The encountered fill generally consisted of clayey SAND and sandy CLAY. Standard penetration resistance values ranged

from 2 to 10 bpf (blows per foot). The table below shows the depths of fill encountered, and the approximate elevation of the bottom of fill.

BORING	DEPTH (feet)	APPROXIMATE ELEVATION BOTTOM of FILL SOILS (Feet-MSL)
B-1	5	135
B-2	3	137
B-3	3	137

4.2.3 COASTAL PLAIN SOILS

Coastal plain soils were encountered all borings beneath the fill materials. The coastal plain soils generally consisted of clayey SAND and sandy CLAY. Standard penetration resistance values ranged from 1 to 27 bpf, but more generally ranged from 10 to 24 bpf.

4.3 GROUNDWATER CONDITIONS

4.3.1 GENERAL

Groundwater in the Coastal Plain typically occurs as an unconfined or semi-confined aquifer condition. Recharge is provided by the infiltration of rainfall and surface water through the soil overburden. More permeable zones in the soil matrix, as well as fractures, joints and discontinuities in the underlying bedrock can affect groundwater conditions. The groundwater table in the Coastal Plain is expected to be a subdued replica of the original surface topography.

Groundwater levels vary with changes in season and rainfall, construction activity, surface water runoff, and other site-specific factors. Groundwater levels in the Augusta area are typically lowest in the late summer-early fall and highest in the late winter-early spring, with annual groundwater fluctuations of 4 to 8 feet; consequently, the water table may vary at times.

4.3.2 SOIL TEST BORING GROUNDWATER CONDITIONS

Groundwater was encountered in 2 of the borings at the time of drilling and approximately 24 hours of drilling. Groundwater levels were measured at depths of 20 to 27 feet below existing ground surface (approximate elevations of 113 feet-MSL to 120 feet-MSL).

5.0 RECOMMENDATIONS

5.1 SITE PREPARATION

5.1.1 PROTECTION OF ADJACENT STRUCTURES

The protection of the adjacent, existing building from damage caused by construction is the responsibility of the contractor. The possible effects of construction activities at this site on the existing adjacent building and utilities represent important geotechnical-related constraints on the proposed development.

The foundation type(s) supporting the existing building are unknown. The contractor must implement safeguards to avoid disturbing and/or undermining the existing foundations during construction of the planned addition.

5.1.2 GENERAL

Prior to proceeding with construction, all slabs, foundations, pavements, vegetation, root systems, topsoil, and other deleterious non-soil materials should be stripped from proposed construction areas. Topsoil may be stockpiled and subsequently re-used in landscaped areas. Debris-laden materials, if present, should be excavated, transported, and disposed of off-site in accordance with appropriate solid waste rules and regulations. All existing utility locations should be reviewed to assess their impact on the proposed construction and relocated/grouted in-place as appropriate.

After clearing and stripping, areas that are at grade or which will receive fill should be carefully evaluated by a NOVA geotechnical engineer. This evaluation should initially include observation of the materials exposed below the stripped subgrade. The exposed materials should be proof rolled with multiple passes of a 20- to 30-ton loaded truck, or other vehicle of similar size and weight under the observation of the geotechnical engineer. The purpose of the proof rolling is to locate soft, weak, or excessively wet fill or residual soils present at the time of construction. Unstable materials observed during the evaluation and proof rolling operations should be undercut and replaced with structural fill or stabilized in-place by scarifying and re-densifying.

Should low consistency/relative density and/or debris laden fill materials be encountered during construction, it may need to be excavated and replaced or stabilized in place. Actual remedial recommendations can best be determined by the geotechnical engineer in the field at the time of construction.

Based on the natural moisture contents measured during our exploration, some of the existing subgrade soils are well above the optimum moisture content. These wet subgrade soils will likely be unstable and will quickly degrade under construction traffic. Aeration, drying and re-compaction of the existing soil subgrades should be anticipated during construction. If the proposed construction is during the wet season, chemical drying with lime or cement may be required.

5.1.3 EXISTING / OLD FILL

Previously placed fill materials were encountered during this exploration. Based on our experience, we anticipate fill materials likely exist at other locations between our borings. Old fills are frequently erratic in composition and consistency. In the event that low consistency and/or debris-laden fill materials are encountered during construction, typical recommendations would include undercutting and backfilling with structural fill and/or stabilizing in-place with fabric, stone, and/or other remedial techniques. Actual remedial recommendations can best be determined by the geotechnical engineer in the field at the time of construction.

Low consistency near surface fills were encountered in boring B-2 and B-3. Some undercutting and replacement and/or densification of these materials in the vicinity of these borings should be anticipated during construction.

5.1.4 PLASTIC SOILS

Plastic clays were encountered in boring B-2 at a depth of approximately 3 to 8 feet below grade. We note that the current geotechnical investigation consisted of widely spaced borings and limited laboratory testing. Expansive soils should be expected at other areas across the site.

Plastic clays are expansive and will swell or shrink upon increasing or decreasing moisture content, respectively, leading to potential structural damages. In addition, these soils have the potential to lose some of their strength when exposed to the combination of wet weather and construction traffic. The severity of these potential problems depends to a great extent on the weather conditions during construction. A concerted effort should be made to control construction traffic and surface water while subgrade soils are exposed.

Soils with a high plasticity are not considered suitable for the direct support of structural elements due to the potential for swell and loss of strength if exposed

to changes in moisture. Therefore, if encountered during construction, these materials should be undercut a minimum of 3 feet below structural elements (foundations, slabs, etc.) and replace with structural fill place in accordance with Section 5.3 of this report.

5.2 GROUNDWATER CONTROL

During this exploration, the depths to groundwater was 20 to 27 feet below the existing ground surface during time of drilling (approximate elevations ranging from 113 feet-MSL to 120 feet-MSL) Based on the planned cuts necessary to reach design subgrades, we do not anticipate significant groundwater control problems during mass grading, or foundation/utility excavation operations. The groundwater appears to be below planned slab elevations; consequently, we anticipate a conventional wall drainage system will be appropriate along the base of the exterior walls.

5.3 FILL PLACEMENT

5.3.1 FILL SUITABILITY

All materials to be used for backfill or structural fill should be evaluated and, if necessary, tested by NOVA prior to placement to determine if they are suitable for the intended use. In general, based on visual examination of the existing residual soils generally appear suitable for re-use as structural fill. Prior to construction, bulk samples of the proposed fill materials should be laboratory-tested to confirm their suitability. Any off-site materials used as fill should be approved by NOVA prior to acquisition.

5.3.2 SOIL COMPACTION

Fill should be placed in thin, horizontal loose lifts (maximum 8-inch) and compacted to at least 95 percent of the modified Proctor maximum dry density (ASTM D 1557). The upper 8 inches of soil beneath pavements and slab-on-grade should be compacted to at least 95 percent of the maximum dry density. In confined areas, such as utility trenches or behind retaining walls, portable compaction equipment and thinner fill lifts (3 to 4 inches) may be necessary. Fill materials used in structural areas should have a target maximum dry density of at least 100 pounds per cubic foot (pcf). If lighter weight fill materials are used, the NOVA geotechnical engineer should be consulted to assess the impact on design recommendations.

Soil moisture content should be maintained within 2 percent of the optimum moisture content. We recommend that the grading contractor have equipment

on site during earthwork for both drying and wetting fill soils. Moisture control may be difficult during rainy weather.

Filling operations should be observed by a NOVA soils technician, who can confirm suitability of material used and uniformity and appropriateness of compaction efforts. The technician can also document compliance with the specifications by performing field density tests using the nuclear, or sand cone testing methods (ASTM D6938, or D1556, respectively). One test per 400 cubic yards and every 2 feet of placed fill is recommended, with test locations well distributed throughout the fill mass. When filling in small areas, at least one test per day per area should be performed.

The site should be graded during construction to maintain positive drainage away from the construction areas, to prevent ponding of storm water on the site during and shortly following significant rain events. The construction areas should be sealed and crowned with a smooth roller to minimize ponding water from storm events at the end of each day of work.

5.4 SHALLOW FOUNDATIONS

Based on presumed column loads of 150 kips, NOVA recommends that the proposed pavilion be supported on a shallow foundation system subject to the recommendations contained herein.

Design: After the recommended site and subgrade preparation and fill placement, shallow foundation support of the proposed structure should be feasible. Foundations bearing on firm/stiff, undisturbed residual soils and or properly compacted structural fill may be designed for a maximum allowable bearing pressure of 2,500 pounds per square foot (psf).

We recommend minimum foundation widths of 24 inches for ease of construction and to reduce the possibility of localized shear failure. Exterior foundation bottoms should be at least 18 inches below exterior grades for protection against frost damage.

Settlement: Settlements for shallow foundations were assessed based on the subsurface conditions encountered during this exploration using SPT values to estimate elastic modulus, based on published correlations and our previous experience. Based on the stated structural loads, the recommended soil bearing capacities and the presumed foundation elevations as discussed above, we expect post-construction, primary, total settlement beneath individual foundations will be less than 1 inch. We estimate differential settlement between adjacent

foundations will be less than ½ inch. The final deflected shape of the structure will be dependent on actual foundation locations and loading.

To reduce differential settlement, if low consistency/relative density materials are encountered, a lower bearing capacity should be used, or the foundations should be extended to more competent materials. We anticipate that timely communication between the geotechnical engineer and the structural engineer, as well as other design and construction team members, will be required.

Please note that if actual design column loads differ significantly from the stated loads, NOVA should be notified immediately in order to re-evaluate the foundation recommendations and confirm anticipated settlements are still appropriate for the actual design loads.

5.5 SLABS-ON-GRADE (SOGs)

5.5.1 GENERAL

The conditions exposed at subgrade levels will vary across the site and may include existing fill or new structural fill. SOGs may be adequately supported on the new structural fill and firm/stiff natural soil subgrade conditions subject to the recommendations in this report. Slabs-on-grade should be jointed around columns and along walls to reduce cracking due to differential movement.

An underdrain system is not required. However, we recommend a minimum of 6-inches of graded aggregate base (GAB) beneath the slabs to:

- Reduce non-uniform support conditions,
- Provide a stable base to support construction traffic, and
- Provide a base that can be fine graded to design tolerances.

GAB should be compacted to 98 percent of the maximum dry density as determined by the modified Proctor compaction test (ASTM D 1557) and overlain by a conventional plastic vapor barrier.

Once grading is completed, the subgrade is usually exposed to adverse construction activities and weather conditions during the period of sub-slab utility installation. The subgrade should be well-drained to prevent the accumulation of water. If the exposed subgrade becomes saturated or frozen, the geotechnical engineer should be consulted.

After utilities have been installed and backfilled, a final subgrade evaluation should be performed by the geotechnical engineer immediately prior to slab-on-

grade placement. If practical, proofrolling may be used to re-densify the surface and to detect any soil that has become excessively wet or otherwise loosened.

5.5.2 SUBGRADE MODULUS

A coefficient of subgrade reaction (k) of 125 pci may be used for conventional slab design where slabs bear upon subgrades prepared in accordance with previous recommendations.

Please note that this magnitude of k is intended to reflect the elastic response of soil beneath a typical floor slab under light loads with a small load contact area often measured in square inches, such as loads from forklifts, automobile/truck traffic or lightly loaded storage racks. The recommended coefficient of subgrade reaction (k) is not applicable for heavy slab loads caused by bulk storage or tall storage racks, or for mat foundation design.

Several design methods are applicable for conventional slab design. We have assumed that the slab designer will utilize the methods discussed in the American Concrete Institute (ACI) Committee 360 report, "Guide to Design of Slabs-on-Ground, (ACI 360R-10).

5.6 SEISMIC SOIL SITE CLASSIFICATION

In accordance with the 2018 International Building Code (IBC), the seismic Site Class was estimated using the standard penetration resistance values obtained from the soil test borings performed during this study. Based upon this analysis, and our knowledge of general subsurface conditions in the area, we believe the soil profiles associated with a Site Class "D" are generally appropriate for this site.

6.0 LIMITATIONS

The findings, conclusions and recommendations presented in this report represent our professional opinions concerning subsurface conditions at the site. The opinions presented are relative to the dates of our exploration and should not be relied on to represent conditions at significantly later dates or at locations not explored. The opinions included herein are based on information provided to us, the data obtained at specific locations during the study and our experience. If additional information becomes available that might impact our geotechnical opinions, it will be necessary for NOVA to review the information, reassess the potential concerns, and re-evaluate our conclusions and recommendations.

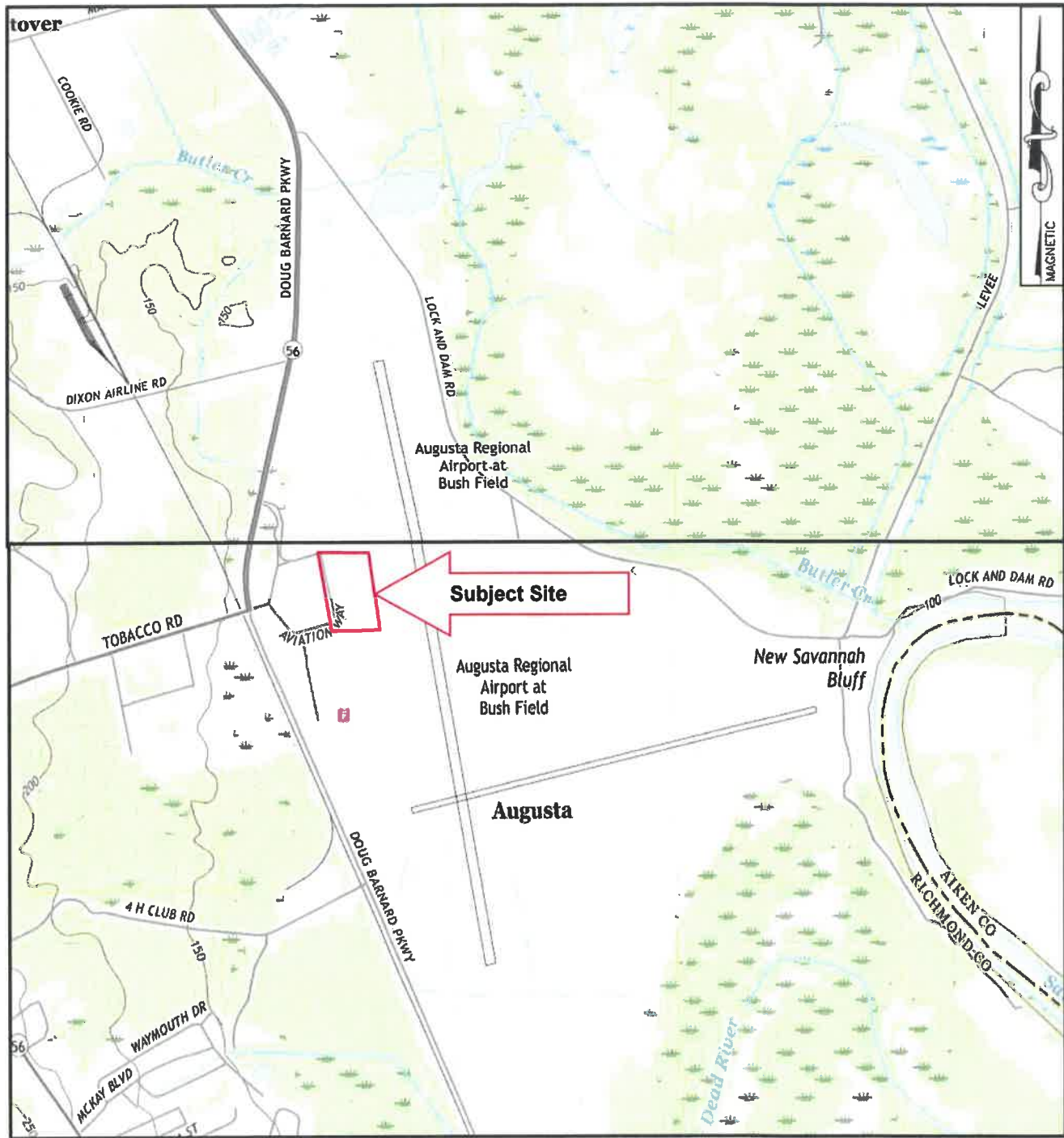
Regardless of the thoroughness of a geotechnical exploration, there is the possibility that conditions between test locations will differ from those encountered at specific test locations, that conditions are not as anticipated by the designers and/or the contractors, or that either natural events or the construction process have altered the subsurface conditions. These variations are an inherent risk associated with subsurface conditions in this region and the approximate methods used to obtain the data. These variations may not be apparent until construction.

This report is intended for the sole use of the above-mentioned project. The scope of services performed during this study may not satisfy other users' requirements. Use of this report or the findings, conclusions or recommendations by others will be at the sole risk of the user. NOVA is not responsible or liable for the interpretation by others of the data in this report, nor their conclusions, recommendations, or opinions.

Our professional services have been performed, our findings obtained, our conclusions derived, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and local practices in the State of Georgia. This warranty is in lieu of all other statements or warranties, either expressed or implied.

APPENDIX A

Figures and Maps



 Approximate Property Boundary

FIGURE 2
TOPOGRAPHIC MAP
 SOURCE: USGS Mechanic Holl, GA, SC,
 2020,
 SCALE: Not to scale



AGS Checkpoint Modernization
 Mead & Hunt, Inc
 Augusta, Richmond County, Georgia
 NOVA Project Number 10103-2024030



 Approximate Property Boundary

FIGURE 1
SITE LOCATION
 SOURCE: Richmond County GIS
 SCALE: Graphic as shown above



AGS Checkpoint Modernization
 Mead & Hunt, Inc.
 Augusta, Richmond County, Georgia
 NOVA Project Number 10103-2024030

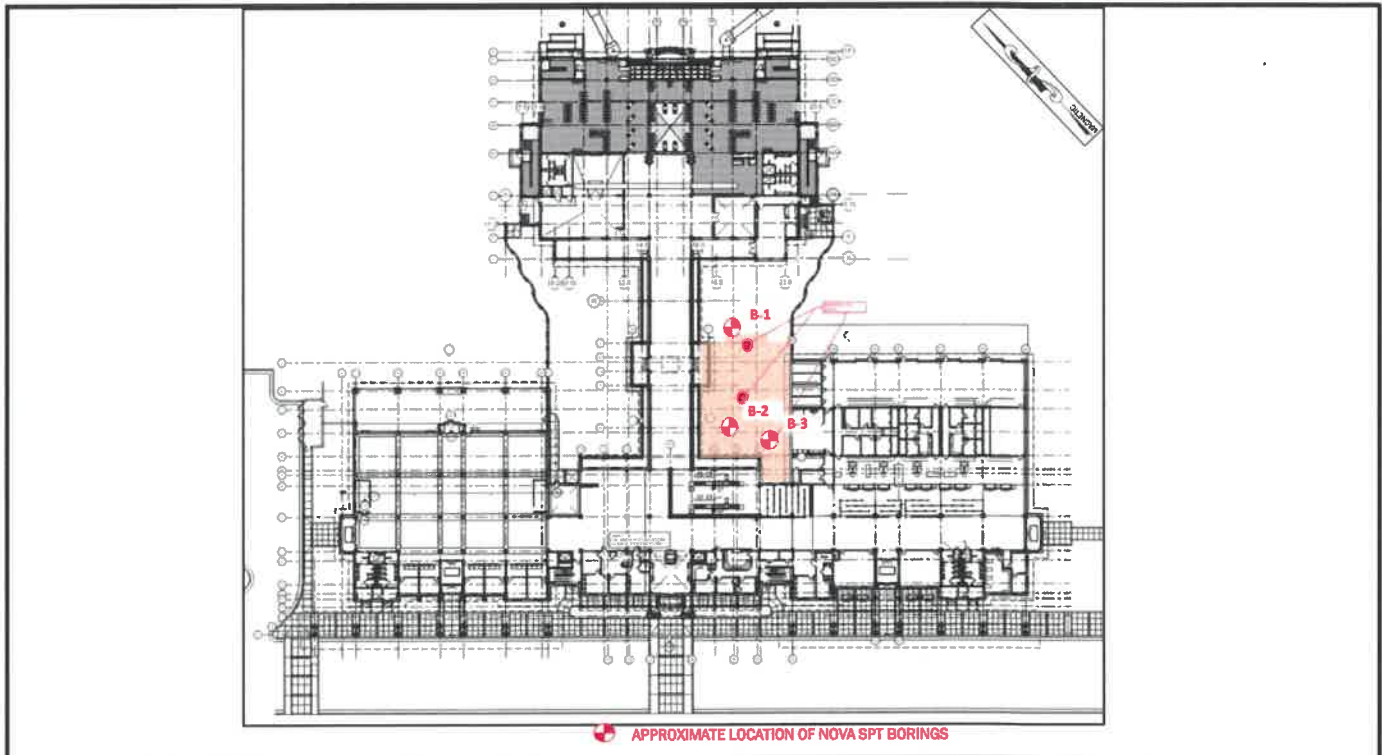
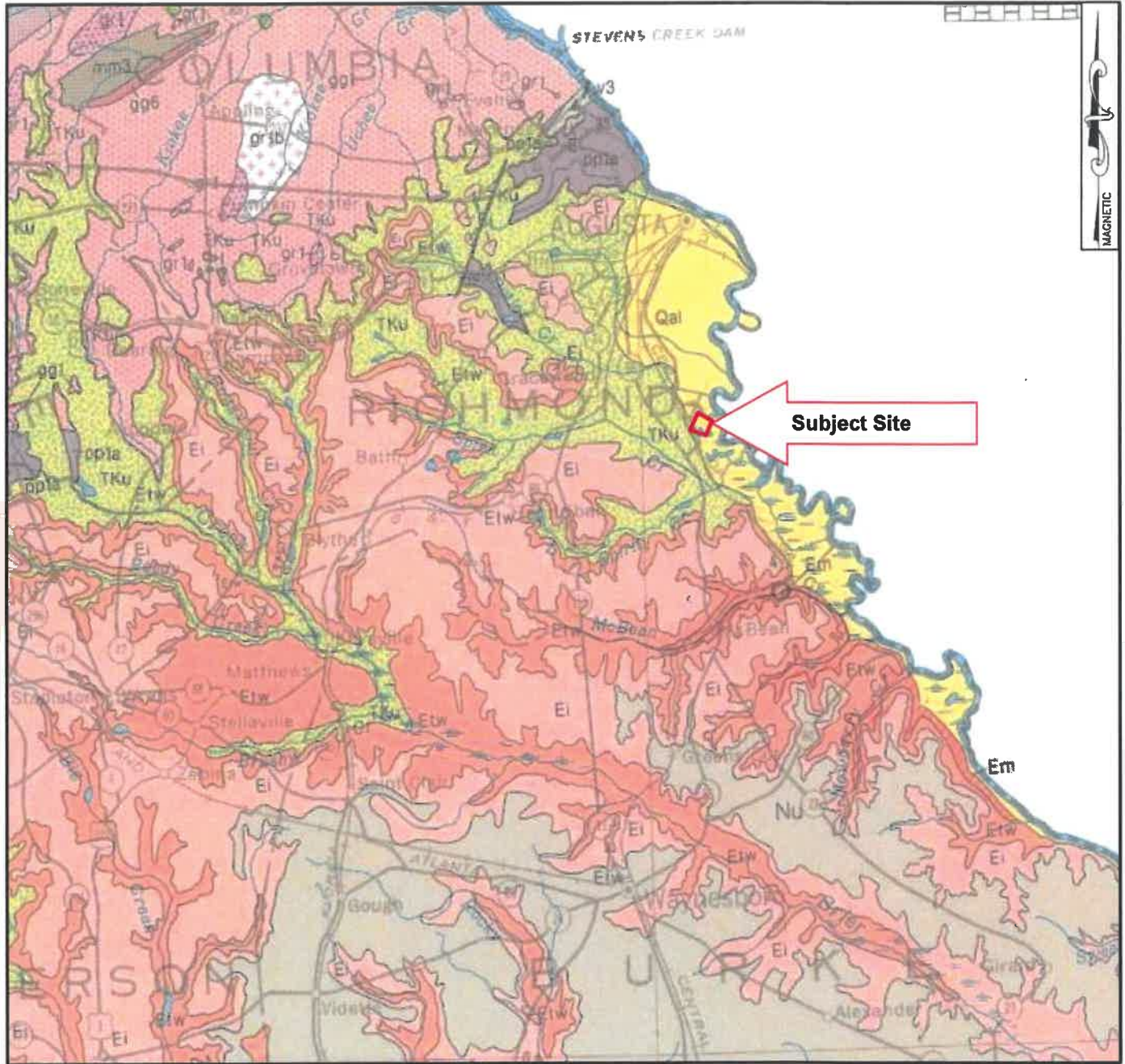


FIGURE 3
BORING LOCATION PLAN
 SOURCE: Site Plan, provided by Mead & Hunt
 SCALE: NTS



AGS Checkpoint Modernization
 Mead & Hunt, Inc.
 Augusta, Richmond County, Georgia
 NOVA Project Number 10103-2024030



Coastal Plain Sedimentary Rocks, Stream Alluvium: Includes undifferentiated terrace deposits (Qal).

 **Approximate Property Boundary**

FIGURE 4
REGIONAL GEOLOGY
 SOURCE: Georgia State Map of 1976
 SCALE: NTS










AGS Checkpoint Modernization
 Mead & Hunt, Inc
 Augusta, Richmond County, Georgia
 NOVA Project Number 10103-2024030

APPENDIX B

Subsurface Data

KEY TO SYMBOLS AND CLASSIFICATIONS

DRILLING SYMBOLS

	Split Spoon Sample
	Undisturbed Sample (UD)
	Auger Only
	Standard Penetration Resistance (ASTM D1586-67)
	Water Table at least 24 Hours after Drilling
	Water Table 1 Hour or less after Drilling
100/2"	Number of Blows (100) to Drive the Spoon a Number of Inches (2)
NX, NQ	Core Barrel Sizes: 2½- and 2-Inch Diameter Rock Core, Respectively
REC	Percentage of Rock Core Recovered
RQD	Rock Quality Designation – Percentage of Recovered Core Segments 4 or more Inches Long
	Loss of Drilling Water
MC	Moisture Content Test Performed
N/E	Not Encountered
N/M	Not Measured
<u>C</u>	Caving

CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY

	<u>Number of Blows, "N"</u>	<u>Approximate Relative Density</u>
SANDS	0 – 4	Very Loose
	5 – 10	Loose
	11 – 30	Medium Dense
	31 – 50	Dense
	Over 50	Very Dense
	<u>Number of Blows, "N"</u>	<u>Approximate Consistency</u>
SILTS and CLAYS	0 – 2	Very Soft
	3 – 4	Soft
	5 – 8	Firm
	9 – 15	Stiff
	16 – 30	Very Stiff
	31 – 50	Hard
	Over 50	Very Hard

DRILLING PROCEDURES

Soil sampling and standard penetration testing performed in accordance with ASTM D1586-67. The standard penetration resistance is the number of blows of a 140 pound hammer falling 30 inches to drive a 2-inch O.D., 1½-inch I.D. split spoon sampler one foot. Core drilling performed in accordance with ASTM D2113-08. The undisturbed sampling procedure is described by ASTM D1587-08 (2012). Unless other arrangements are made, NOVA will dispose of all soil and rock samples remaining at the time of report submission.




















SOIL CLASSIFICATION CHART

COARSE GRAINED SOILS	GRAVELS	Clean Gravel less than 5% fines	GW	Well graded gravel
			GP	Poorly graded gravel
		Gravels with Fines more than 12% fines	GM	Silty gravel
	SANDS	Clean Sand less than 5% fines	SW	Well graded sand
			SP	Poorly graded sand
		Sands with Fines more than 12% fines	SM	Silty sand
		SC	Clayey sand	
FINE GRAINED SOILS	SILTS AND CLAYS Liquid Limit less than 50	Inorganic	CL	Lean clay
			ML	Silt
		Organic	OL	Organic clay and silt
	SILTS AND CLAYS Liquid Limit 50 or more	Inorganic	CH	Fat clay
			MH	Elastic silt
		Organic	OH	Organic clay and silt
HIGHLY ORGANIC SOILS		Organic matter, dark color, organic odor	PT	Peat

PARTICLE SIZE IDENTIFICATION

GRAVELS	Coarse	¾ inch to 3 inches
	Fine	No. 4 to ¾ inch
SANDS	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40
SILTS AND CLAYS		Passing No. 200

STRATA SYMBOLS

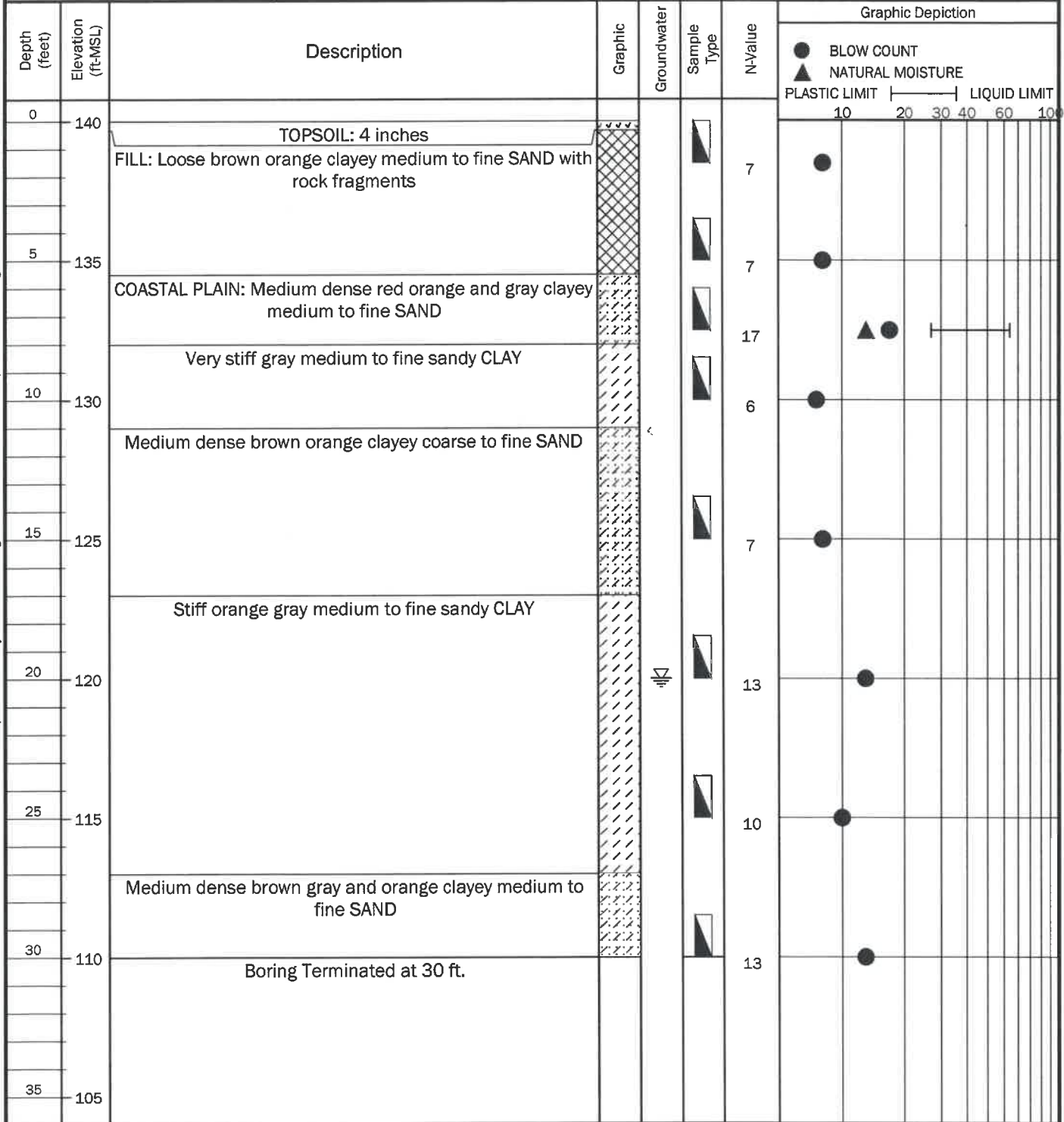
	Paving		Well Graded Sand - SW		Silt - ML
	Gravel / Graded Aggregate Base		Silty Sand - SM		Elastic Silt - MH
	Fill		Clayey Sand - SC		Low Plasticity Clay - CL
	Topsoil		Poorly graded silty, clayey sand - SM/SC		High Plasticity Clay - CH
Alluvium			Clayey Sand and Gravel - SC/GC		Partially Weathered Rock (PWR)
	Poorly Graded Sand - SP		Silty Sand and Gravel - SM/GM		Rock



TEST BORING RECORD B-1

PROJECT: AGS Checkpoint Modernization PROJECT NO.: 10103-2024030
 CLIENT: Mead & Hunt
 PROJECT LOCATION: Augusta, Georgia
 LOCATION: 33.373603 N, -81.972508 W ELEVATION: 140 ft-MSL
 DRILLER: Betts Environmental LOGGED BY: DB
 DRILLING METHOD: Hollow Stem Auger DATE: 6/12/2024
 DEPTH TO - WATER> INITIAL: 20 AFTER 24 HOURS: NM CAVING> C

This information pertains only to this boring and should not be interpreted as being indicative of the site.

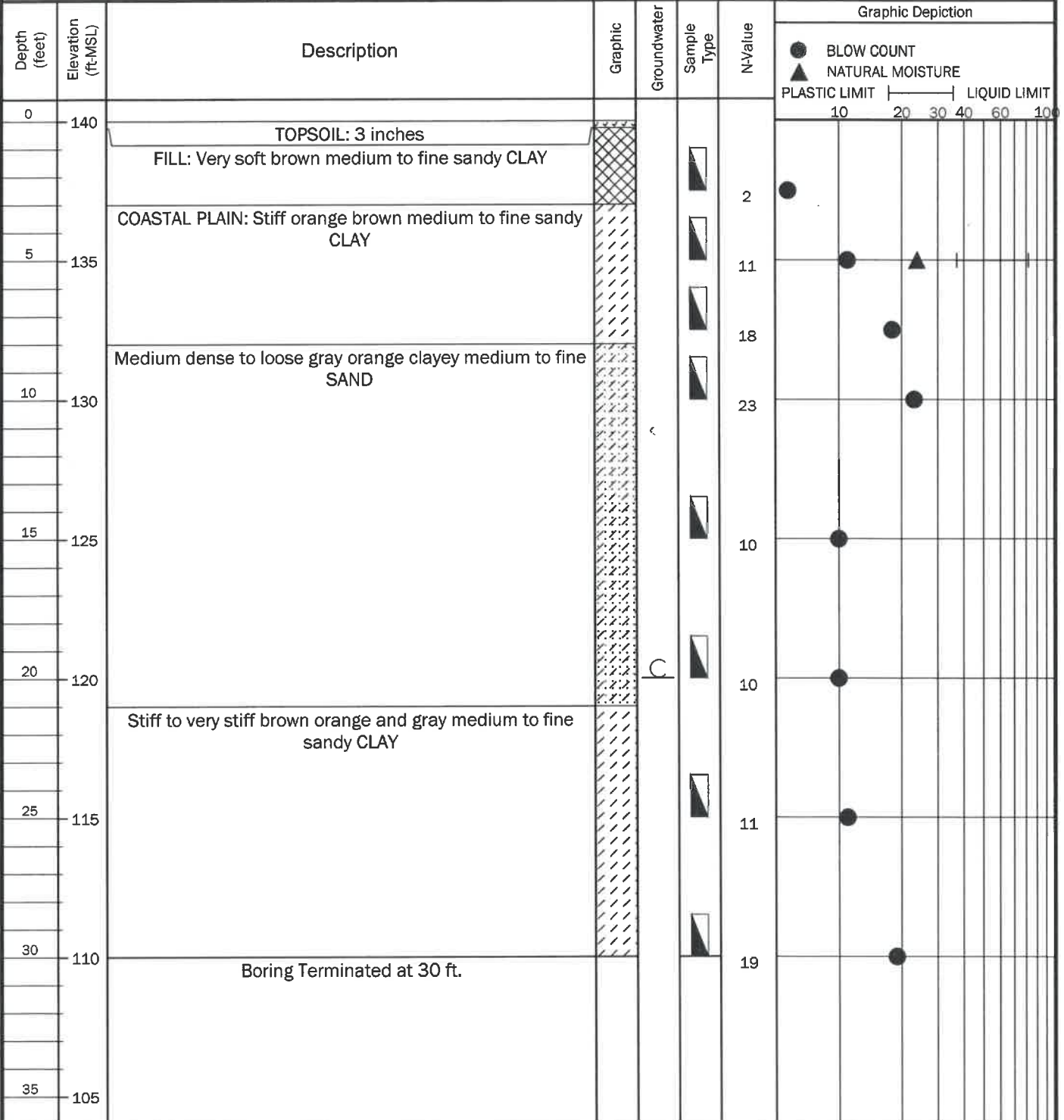




TEST BORING RECORD B-2

PROJECT: AGS Checkpoint Modernization PROJECT NO.: 10103-2024030
 CLIENT: Mead & Hunt
 PROJECT LOCATION: Augusta, Georgia
 LOCATION: 33.373569 N, -81.972719 W ELEVATION: 140 ft-MSL
 DRILLER: Betts Environmental LOGGED BY: DB
 DRILLING METHOD: Hollow Stem Auger DATE: 6/12/2024
 DEPTH TO - WATER> INITIAL: NE AFTER 24 HOURS: NM CAVING> C 20

This information pertains only to this boring and should not be interpreted as being indicative of the site.

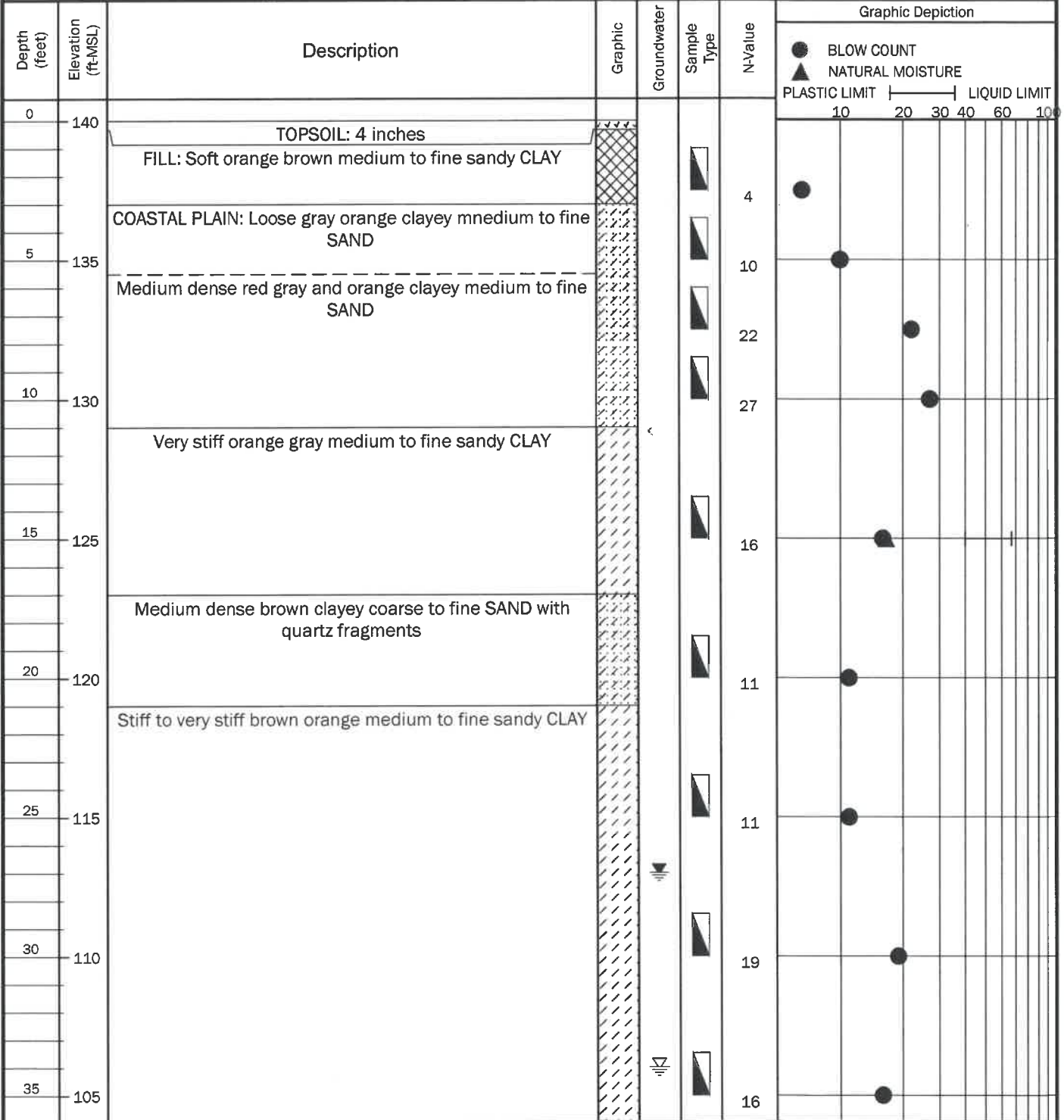




TEST BORING RECORD B-3

PROJECT: AGS Checkpoint Modernization PROJECT NO.: 10103-2024030
 CLIENT: Mead & Hunt
 PROJECT LOCATION: Augusta, Georgia
 LOCATION: 33.373506 N, -81.972717 W ELEVATION: 140 ft-MSL
 DRILLER: Betts Environmental LOGGED BY: DB
 DRILLING METHOD: Hollow Stem Auger DATE: 6/12/2024
 DEPTH TO - WATER> INITIAL: 34 AFTER 24 HOURS: 27 CAVING> C

This information pertains only to this boring and should not be interpreted as being indicative of the site.





**TEST BORING
RECORD
B-3**

PROJECT: AGS Checkpoint Modernization PROJECT NO.: 10103-2024030
 CLIENT: Mead & Hunt
 PROJECT LOCATION: Augusta, Georgia
 LOCATION: 33.373506 N, -81.972717 W ELEVATION: 140 ft-MSL
 DRILLER: Betts Environmental LOGGED BY: DB
 DRILLING METHOD: Hollow Stem Auger DATE: 6/12/2024
 DEPTH TO - WATER> INITIAL: 34 AFTER 24 HOURS: 27 CAVING> C

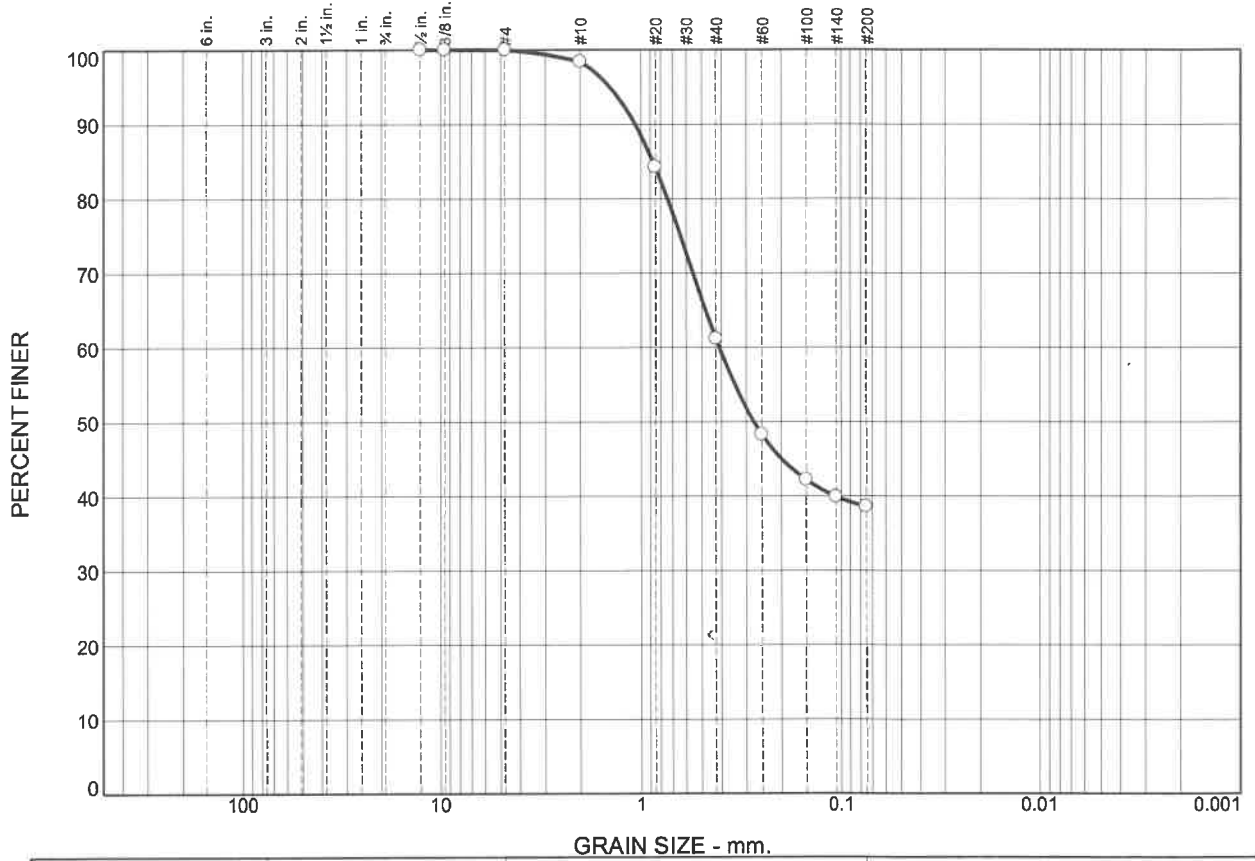
This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	Graphic Depiction	
							PLASTIC LIMIT	LIQUID LIMIT
							10	100
		Very loose brown coarse to fine SAND						
40	100				WOH			
		Medium dense orange brown clayey medium to fine SAND						
45	95				24			
		Boring Terminated at 47 ft.						
50	90							
55	85							
60	80							
65	75							
70	70							

APPENDIX C

Laboratory Reports

Particle Size Distribution Report

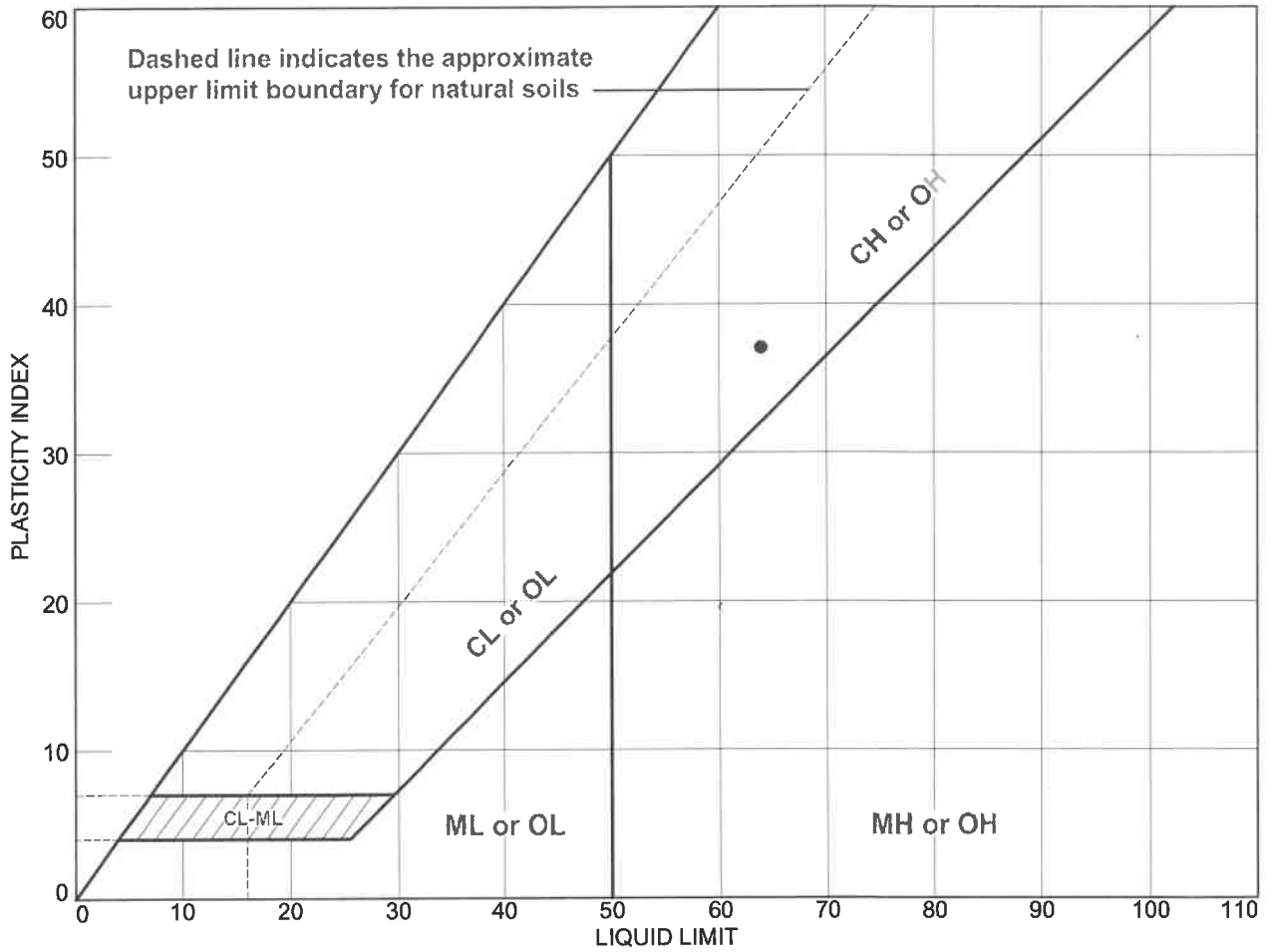


	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	1.6	37.2	22.6	38.6	

SOIL DATA					
SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	AASHTO
○	B-1	B-1	6'-7.5'	Tan brown clayey SAND	A-7-6(8)

Nova Engineering & Environmental Norcross, GA	Client: Mead & Hunt, Inc. Project: Augusta Regional Airport (AGS) - Checkpoint Modernization Project No.: 2024030
Figure	

LIQUID AND PLASTIC LIMITS TEST REPORT

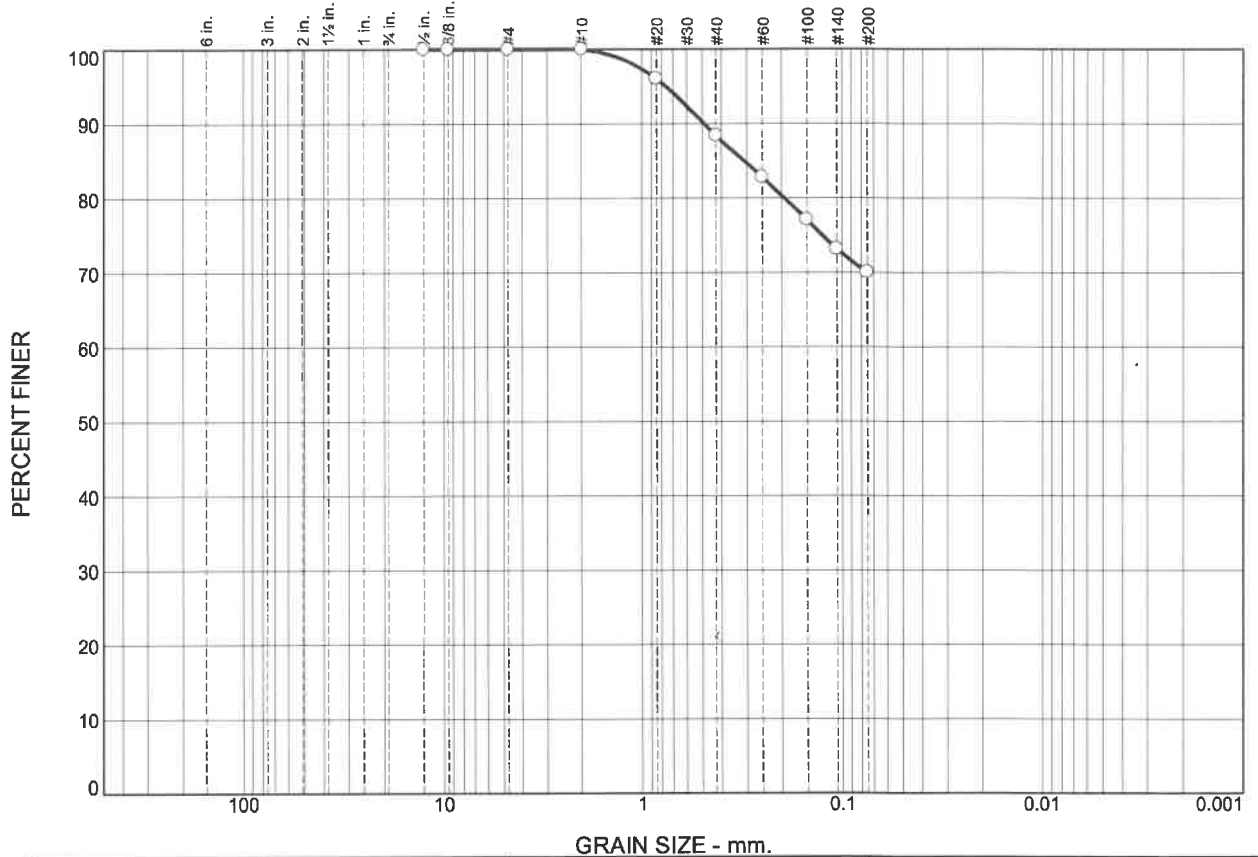


SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	B-1	B-1	6'-7.5'	13.1	27	64	37	SC

**Nova Engineering
& Environmental
Norcross, GA**

Client: Mead & Hunt, Inc.
Project: Augusta Regional Airport (AGS) - Checkpoint Modernization
Project No.: 2024030 **Figure**

Particle Size Distribution Report

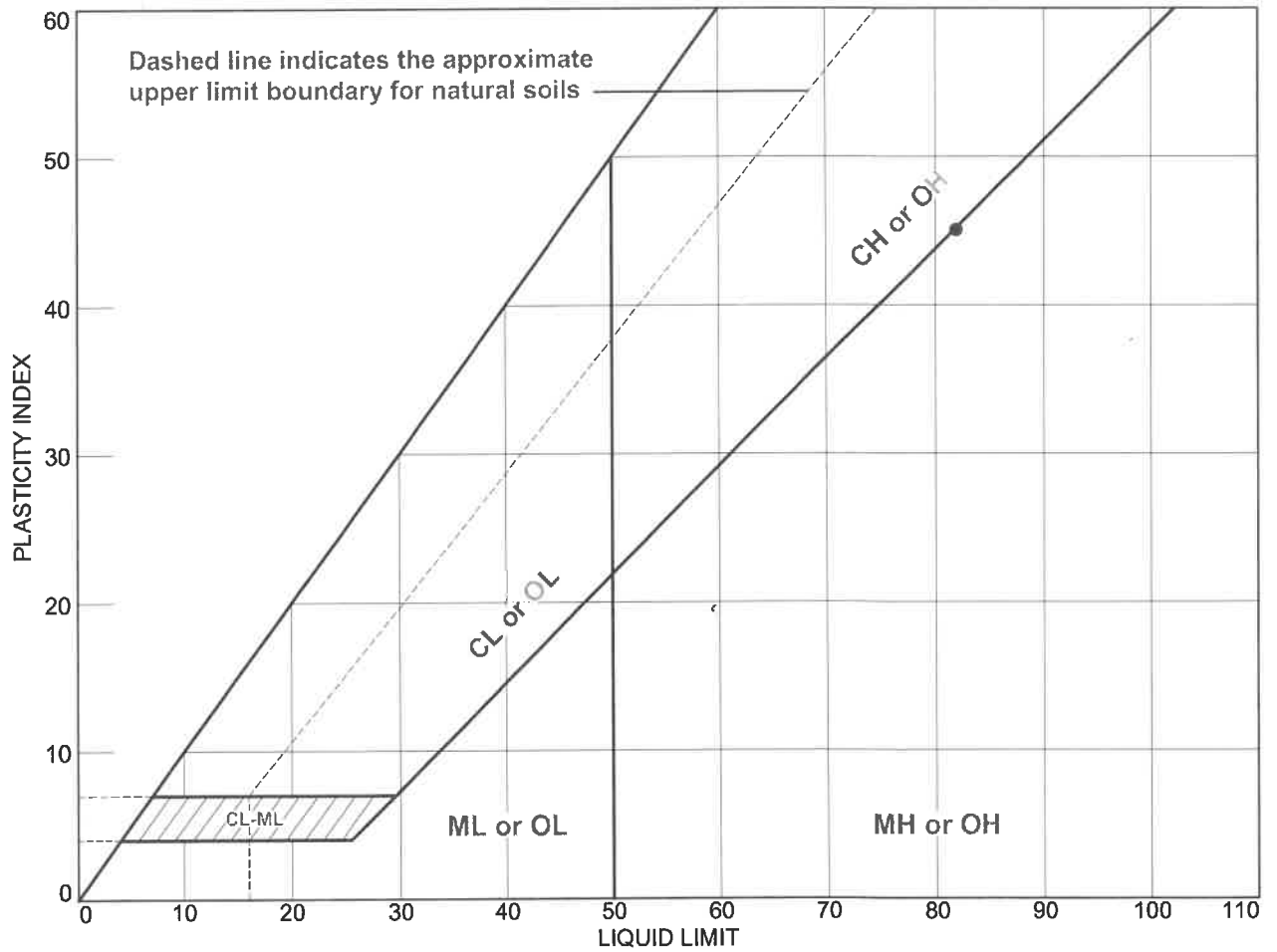


	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	11.6	18.4	70.0	

SOIL DATA					
SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	AASHTO
○	B-2	B-2	3.5'-5'	Orange brown sandy fat CLAY	A-7-5(34)

Nova Engineering & Environmental Norcross, GA	Client: Mead & Hunt, Inc. Project: Augusta Regional Airport (AGS) - Checkpoint Modernization Project No.: 2024030
Figure	

LIQUID AND PLASTIC LIMITS TEST REPORT

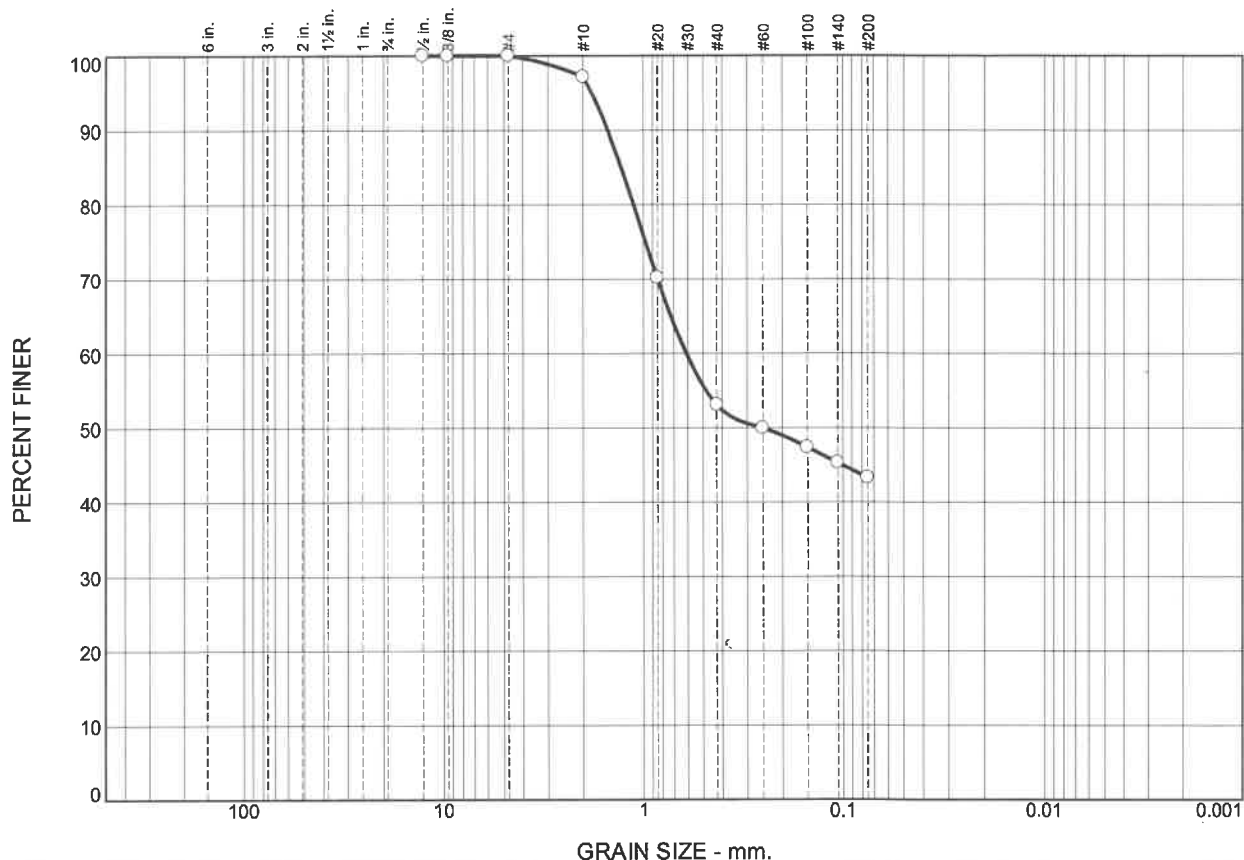


SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	B-2	B-2	3.5'-5'	23.7	37	82	45	CH

**Nova Engineering
& Environmental
Norcross, GA**

Client: Mead & Hunt, Inc.
Project: Augusta Regional Airport (AGS) - Checkpoint Modernization
Project No.: 2024030 **Figure**

Particle Size Distribution Report



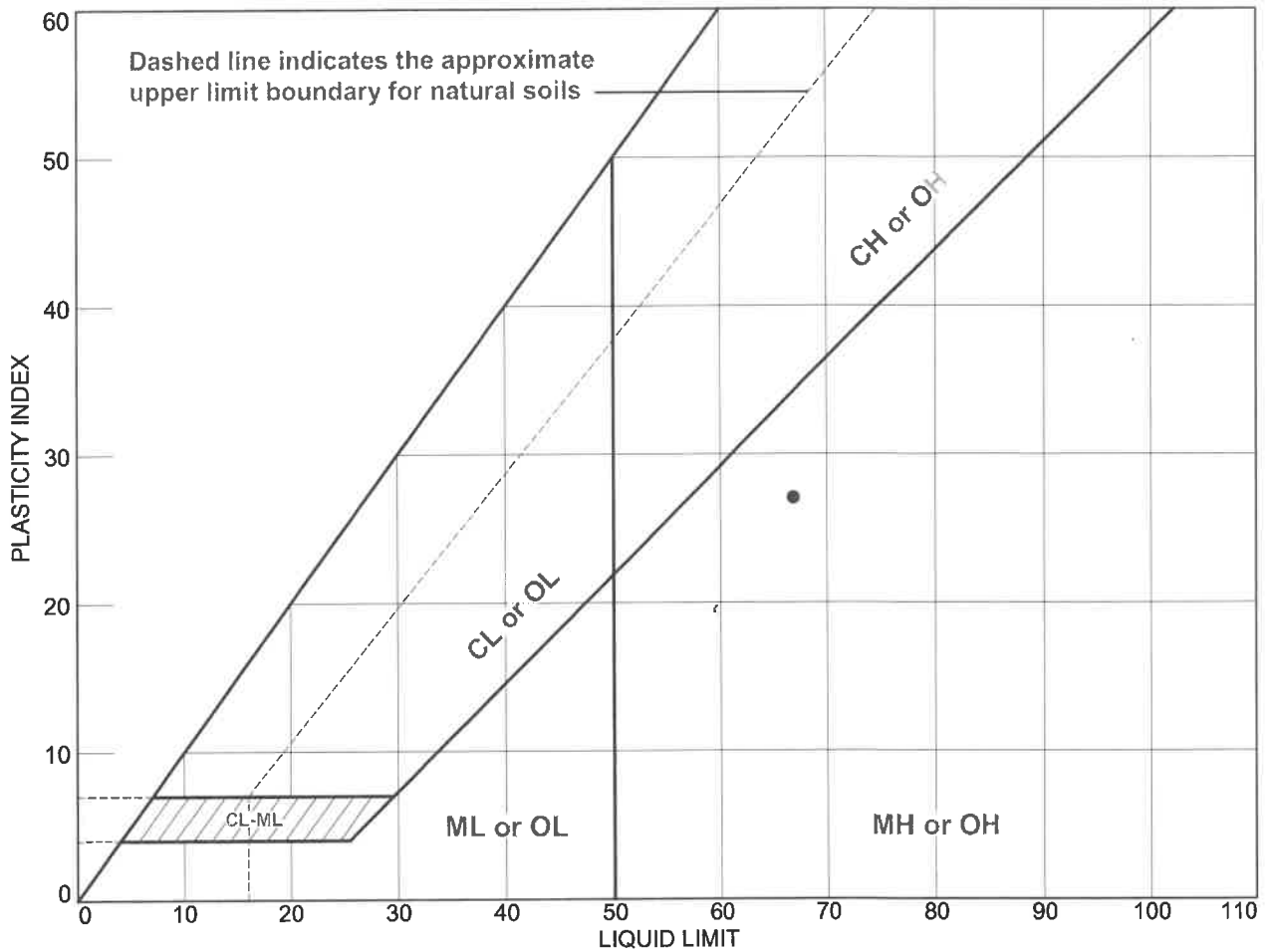
	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	2.9	44.0	9.8	43.3	

SOIL DATA					
SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	AASHTO
○	B-3	B-3	13.5'-15'	Tan orange silty SAND	A-7-5(7)

**Nova Engineering
& Environmental
Norcross, GA**

Client: Mead & Hunt, Inc.
Project: Augusta Regional Airport (AGS) - Checkpoint Modernization
Project No.: 2024030 **Figure**

LIQUID AND PLASTIC LIMITS TEST REPORT



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	B-3	B-3	13.5'-15'	16.6	40	67	27	SM

**Nova Engineering
& Environmental
Norcross, GA**

Client: Mead & Hunt, Inc.
Project: Augusta Regional Airport (AGS) - Checkpoint Modernization
Project No.: 2024030

Figure

APPENDIX D

Qualifications of Recommendations

QUALIFICATIONS OF RECOMMENDATIONS

The findings, conclusions, and recommendations presented in this report represent our professional opinions concerning subsurface conditions at the site. The opinions presented are relative to the dates of our site work and should not be relied on to represent conditions at later dates or at locations not explored. The opinions included herein are based on information provided to us, the data obtained at specific locations during the study and our past experience. If additional information becomes available that might impact our geotechnical opinions, it will be necessary for NOVA to review the information, reassess the potential concerns, and re-evaluate our conclusions and recommendations.

Regardless of the thoroughness of a geotechnical exploration, there is the possibility that conditions between borings will differ from those encountered at specific boring locations, that conditions are not as anticipated by the designers and/or the contractors, or that either natural events or the construction process have altered the subsurface conditions. These variations are an inherent risk associated with subsurface conditions in this region and the approximate methods used to obtain the data. These variations may not be apparent until construction.

The professional opinions presented in this geotechnical report are not final. Field observations and foundation installation monitoring by the geotechnical engineer, as well as soil density testing and other quality assurance functions associated with site earthwork and foundation construction, are an extension of this report. Therefore, NOVA should be retained by the owner to observe all earthwork and foundation construction to document that the conditions anticipated in this study actually exist, and to finalize or amend our conclusions and recommendations. NOVA is not responsible or liable for the conclusions and recommendations presented in this report if NOVA does not perform these observations and testing services.

This report is intended for the sole use of CLIENT only. The scope of work performed during this study was developed for purposes specifically intended by CLIENT and may not satisfy other users' requirements. Use of this report or the findings, conclusions or recommendations by others will be at the sole risk of the user. NOVA is not responsible or liable for the interpretation by others of the data in this report, nor their conclusions, recommendations, or opinions.

Our professional services have been performed, our findings obtained, our conclusions derived, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices in the State of Georgia. This warranty is in lieu of all other statements or warranties, either expressed or implied.

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer

will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it.* A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys.

Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the “Findings” Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site’s subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report’s Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are **not** final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals’ misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals’ plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note*

conspicuously that you’ve included the material for information purposes only. To avoid misunderstanding, you may also want to note that “informational purposes” means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled “limitations,” many of these provisions indicate where geotechnical engineers’ responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are **Not** Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a “phase-one” or “phase-two” environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer’s services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer’s recommendations will **not** of itself be sufficient to prevent moisture infiltration.* Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. *Geotechnical engineers are **not** building-envelope or mold specialists.*



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