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ADDENDUM NO. 3
February 18, 2025

DLH North Business Development Area Hangar
City Project No. 25-4401
Duluth International Airprt
Duluth, Minnesota

SEH No. DULAI 180746

From: Short Elliott Hendrickson Inc.
3535 Vadnais Center Drive
St. Paul, MN 55110-3507
651.490.2000

To: Document Holders

DOCUMENT HOLDERS on the above-named project are hereby notified that this document shall be appended to, take precedence over and become part of the original bidding documents dated January 13, 2025, for this work. Bids submitted for the construction of this work shall conform to this document.

This addendum consists of 3 page(s) ,attached Specification Section 10 14 19, attached Specification F-162, attached Drawing No. G007, and attached Pre-Bid meeting presentation slides and meeting minutes.

Project Schedule Clarification:

Long lead times for certain materials (generator, PEMB, switch gear, etc.) may necessitate a revised schedule. The Owner will work with the Contractor to navigate those issues. The Contractor should inform the Owner and Engineer of any known issues as soon as possible.

Changes to Specifications:

1. Section No. 10 14 19 Dimensional Letter Signage – A change to the specification was made to update the building address signage.

2. Section F-162 Chain-Link Fence – A change to the specification was made to paragraph 162-2.1 to clarify fence fabric type as well as some wording throughout to clarify that new fence will be installed at the quantity shown on the bid form and the salvaged fence will make up the remainder of fence needed.

Changes to Drawings:

3. Drawing No. G007 Summary of Estimated Quantities, DELETE in its entirety and REPLACE with attached new Drawing No. G007.

4. Drawing No. C103 Proposed Fence Details, revise General Note 7 to say " CHAIN LINK FABRIC SHALL BE WOVEN FROM 9 GAUGE GALVANIZED STEEL WIRE IN A 2-INCH (50 MM) MESH AND SHALL CONFORM TO THE REQUIREMNTS OF ASTM A392."

5. Drawing No. A201 Exterior Elevations, Address signage on building in West and North Elevation should read 4615 Stebner Road.

Contractor Questions:

6. Q: Exterior Window Questions: Fiberglass both sides vs Fiberglas exterior and vinyl interiors. Is there a preferred approach. Fiberglass window color? Can the double wide windows be made up of a single window with a simulated divider pane rather than 2 window. Production costs are cheaper and performaracne is better. Do windows need to be reglazable. Cheaper window brands do not allow this.

A: Exterior Window Items. Answers in Red

- *Fiberglass both sides vs Fiberglas exterior and vinyl interiors. Is there a preferred approach. Fiberglass entire unit (Anderson 100 series)*
- *Fiberglass window color? Assume White, but to be confirmed with PEMB metal panel color.*
- *Can the double wide windows be made up of a single window with a simulated divider pane rather than 2 window. Production costs are cheaper and performaracne is better. Would need to see an example and how close it resembles a dual unit.*
- *Do windows need to be reglazable. Cheaper window brands do not allow this. If standard to the Anderson unit, then yes.*

7. Q: Glass Schedule Types Questions: The glazing specs do not have glass make ups listed. There are GL1 and GL2 glazing types listed on the plans. I believe GL2 is fire rated glass. GL1 is appearing in both exterior and interior doors/windows. Should I assume GL1 at the exterior is tinted insulated glass and GL1 at the interior is 1/4" Clear?

   A: Glass Schedule Types. *Answers in Red*

   - *The glazing specs do not have glass make ups listed. There are GL1 and GL2 glazing types listed on the plans. I believe GL2 is fire rated glass. Yes. GL1 is appearing in both exterior and interior doors/windows. Should I assume GL1 at the exterior is tinted insulated glass (Low-E Argon) and GL1 at the interior is 1/4" Clear? Correct*

8. Q: Do bids need to be held for 60 days?

   A: Yes. Tthe owner is hopeful to be able to award in under 30 days but the 60 day window may be needed.

9. Who hires for the special inspections?

   A: There will be special inspections needs by both SEH and the Contractor. The QA for the project will be performed by SEH and the QC will be performed by the Contractor. The Street and Utility Quality Control Testing Schedule and the Special Structural Testing and Inspection Program Summary Schedule included in Section 01 45 10 Quality Control for Building Construction is the responsibility of the Contractor.

10. Can the contractor have a job trailer on site?

    A: Yes, location must be approved by the DAA.

11. Q: Are there FAA permits needed?

    A: SEH has already submitted most of the needed information to the FAA and will assist the contractor with any remaining permits needed.

12. Q: Is the plan review fee by the City of Duluth the responsibility of the contractor.

    A: Yes, plan review fees must be submitted at the time of the permit application and will be the contractor's responsibility. SEH can submit the drawings to the City and will make changes to the drawings based on city comments.

13. Q: On sheet C103 it notes that a wildlife deterrent fence skirt is to be included on all permanent security fence. Is this deterrent skirt to be made of chain link fabric or some other material?

    A: In the Specification Section F-162-2.2, the skirt material is called out as follows:

    162-2.2 Chain Link Skirt Fabric. *The fabric shall be woven with a 9-gauge galvanized steel wire in a 2-inch (50-mm) mesh and shall meet the requirements of ASTM A392, Class II. The fabric shall be 5 feet (1.5 m) wide.*

14. Q: The chain link fence fabric spec notes both ASTM A392 Class 2 wire (2oz galvanized) and ASTM A491 wire (aluminum coated). Please clarify what type of chain link is to be used. Fence detail note 7 specifies aluminized chain link. Typical security fence is usually ASTM A392 Class 1 (1.2oz galvanized).

    A: In the Specification Section F-162-2.1, should read as follows:

    162-2.1 Chain Link Fence Fabric*. The fabric shall be woven with a 9-gauge galvanized steel wire in a 2-inch (50 mm) mesh and shall meet the requirements of ASTM A392, Class 2.*

    Fence detail note 7 has been revised to remove the aluminized note.

15. Q: The estimated quantities show 600' of reinstall salvaged fence and 115' of new fence. Per the attached fence plan, I'm coming up with 606' total. Please advise.

    A: Actual removal quantity on the plans is just under 600' but extra may need to be removed to get to an existing post. Actual fence quantity (both reinstalled salvaged and new fence) is 606.16' but also could be more due to having more removal than planned. The new fence will be installed close to the building and the contractor will make up the rest of the linear feet needed with the salvaged fence. We will leave those quantities as is on the bid form but will be paying per LF for those fence items during construction.

NOTE: Receipt of this Addendum No. 3, dated February 18, 2025 shall be acknowledged on Bid Express. Failure to do so will not allow Bidder to submit Bid.

END OF ADDENDUM

SECTION 10 14 19

DIMENSIONAL LETTER SIGNAGE

PART 1 GENERAL

1.01 SUMMARY

A. Provide:
   1. Dimensional letters and numbers.
      a. Cast metal:
         1) Aluminum.
   2. Signage accessories including, but not limited to:
      a. Fasteners.

1.02 REFERENCES

A. ADA Accessibility Standards

B. ANSI A117.1 - Information Systems

1.03 SUBMITTALS

A. Refer to Section 01 33 00.

B. Product Data: Submit manufacturer's current Product Data including specifications, installation instructions, and maintenance recommendations.

C. Shop Drawings: Submit manufacturer's Shop Drawings showing system installation drawings, including elevations, sections details of components, and configurations within system and between system and adjoining system.

D. Samples:
   1. Color Samples: Submit manufacturer's full range of color samples with Product Data and Shop Drawings.
   2. Font Samples: Submit example of font indicated, or if not indicated, manufacturer's standard fonts.

1.04 QUALITY ASSURANCE

A. Single Source Responsibility: Provide signage units made of components of standard construction furnished by one manufacturer as coordinated assemblies for each system.

B. Qualifications:
   1. Manufacturer: 5 years' experience in the manufacture of signage.
   2. Contractor: 3 years' experience in the installation of signage.
   3. Personnel: For actual installation of signage, use personnel skilled in work required, completely familiar with manufacturer's recommended methods of installation, thoroughly familiar with requirements of work.

1.05 PROJECT CONDITIONS

A. Drawings do not purport to show actual field dimensions, but are intended only to establish location and scope of Work. Field-verify dimensions and assume full responsibility for their accuracy.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. Dimensional Characters:
   1. Cast Metal:
      a. Standard of Quality: Unless indicated otherwise, design is based on products of Gemini Inc., Cannon Falls, MN www.signletters.com
      b. Other Acceptable Manufacturers: Subject to compliance with specified requirements, acceptable manufacturers and products are:
         1) A.R.K. Ramos, Oklahoma City, OK www.arkramos.com
         2) Metallic Arts, Inc., Spokane, WA www.metallicarts.com
         3) Metal Arts Company, Mandan, ND www.metalartslettersandplaques.com
         4) Manufacturer of comparable products submitted in compliance with Section 01 25 13.

2.02 COMPONENTS

A. Dimensional Lettering:
   1. Provide dimensional letters and numbers as indicated on the Drawings or in schedule at end of this section.
   2. Material:
      a. Cast metal: Aluminum.
   3. Font: Helvetica Medium.
   4. Finish:
      a. Aluminum:
         1) Anodized:
            a) Color: Dark Bronze.
   5. Fastening Location: Projected from surface.

B. Other Materials: Other materials not specifically described but required for complete, proper installation of signage are subject to acceptance of Architect.

PART 3 EXECUTION

3.01 EXAMINATION

A. Work of Other Trades: Prior to commencing work, carefully inspect and verify that work is complete to point where this installation may properly commence.

B. Verification of Conditions: Verify that identifying devices may be installed in accordance with original design, pertinent codes and regulations, and pertinent portions of referenced standards.

C. Discrepancies: Immediately notify Architect. Do not proceed with installation in areas of discrepancy until fully resolved. Commencement of installation signifies acceptance of surface conditions.

3.02 INSTALLATION

A. Use standard fastening methods recommended in writing by manufacturer for character form, type of mounting, wall construction, and condition of exposure indicated.

B. Provide heavy paper template to establish character spacing and to locate holes for fasteners.

C. Install plumb, true, square in neat, rigid, substantial manner.

3.03 CLEANING AND PROTECTION

A. After installation, clean all surfaces.

B. Protect from damage until acceptance by Owner.

3.04 SCHEDULE

A. Provide the following:
   1. Dimensional Letters and Numbers:
      a. 8 inches high (Two Sets):
         1) Signage Text:
            a) 4615 STEBNER ROAD (verify building number and address with Owner)
      b. Proposed lettering and message shall be approved via shop drawing review prior to fabrication.

END OF SECTION

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Item F-162 Chain-Link Fence

DESCRIPTION

162-1.1 This item shall consist of furnishing and erecting a chain-link fence in accordance with these specifications, the details shown on the plans, and in conformity with the lines and grades shown on the plans or established by the RPR. The following new materials must be provided by the contractor, in addition to the acceptable salvaged fence material saved during removals.

MATERIALS

162-2.1 Chain Link Fence Fabric. The fabric shall be woven with a 9-gauge galvanized steel wire in a 2-inch (50 mm) mesh and shall meet the requirements of ASTM A392, Class 2.

162-2.2 Chain Link Skirt Fabric. The fabric shall be woven with a 9-gauge galvanized steel wire in a 2-inch (50-mm) mesh and shall meet the requirements of ASTM A392, Class II. The fabric shall be 5 feet (1.5 m) wide.

162-2.3 Barbed wire. Zinc-coated barbed wire shall be 2-strand twisted No. 12-1/2 gauge galvanized steel wire with 4-point barbs of No. 14 gauge galvanized steel wire. All wire shall conform to ASTM A121, Type A. The barbs shall be spaced approximately 5 inches (125 mm) apart.

162-2.4 Posts, rails, and braces. Line posts, rails, and braces shall conform to the requirements of ASTM F1043 or ASTM F1083 as follows:

- Galvanized tubular steel pipe shall conform to the requirements of Group IA, (Schedule 40) coatings conforming to Type A, or Group IC (High Strength Pipe), External coating Type B, and internal coating Type B or D.

The dimensions of the posts, rails, and braces shall be in accordance with Tables I through VI of Federal Specification RR-F-191/3.

162-2.5 Wire ties and tension wires. Wire ties may be 9-gauge galvanized steel or 0.179 inch min aluminum alloy conforming to ASTM B211. Tension wire for AOA fence shall be 12.5-gauge galvanized steel hog rings.

162-2.6 Miscellaneous fittings and hardware. Miscellaneous steel fittings and hardware for use with galvanized steel fabric shall be of commercial grade steel or better quality, wrought or cast as appropriate to the article, and sufficient in strength to provide a balanced design when used in conjunction with fabric posts, and wires of the quality specified herein. All steel fittings and hardware shall be protected with a zinc coating applied in conformance with ASTM A153. Barbed wire support arms shall withstand a load of 250 pounds (113 kg) applied vertically to the outermost end of the arm.

162-2.7 Concrete. Concrete shall have a minimum 28-day compressive strength of 3000 psi (2670 kPa).

162-2.8 Marking. Each roll of fabric shall carry a tag showing the kind of base metal (steel, aluminum, or aluminum alloy number), kind of coating, the gauge of the wire, the length of fencing in the roll, and the name of the manufacturer. Posts, wire, and other fittings shall be identified as to manufacturer, kind of base metal (steel, aluminum, or aluminum alloy number), and kind of coating.

CONSTRUCTION METHODS

162-3.1 General. The fence shall be constructed in accordance with the details on the plans and as specified here using new material around the new building first and then salvaged materials to make up

the remaining fence needed. All work shall be performed in a workmanlike manner satisfactory to the RPR. The Contractor shall layout the fence line based on the plans. The Contractor shall span the opening below the fence with barbed wire at all locations where it is not practical to conform the fence to the general contour of the ground surface because of natural or manmade features such as drainage ditches. The new fence shall be permanently tied to the terminals of existing fences as shown on the plans. The Contractor shall stake down the woven wire fence at several points between posts as shown on the plans.

The Contractor shall arrange the work so that construction of the new fence will immediately follow the removal of existing fences. The length of unfenced section at any time shall not exceed 300 feet (90 m). The work shall progress in this manner and at the close of the working day the newly constructed fence shall be tied to the existing fence.

162-3.2 Clearing fence line. Clearing shall consist of the removal of all stumps, brush, rocks, trees, or other obstructions that will interfere with proper construction of the fence. Stumps within the cleared area of the fence shall be grubbed or excavated. The bottom of the fence shall be placed a uniform distance above ground, as specified in the plans. When shown on the plans or as directed by the RPR, the existing fences which interfere with the new fence location shall be removed by the Contractor as a part of the construction work unless such removal is listed as a separate item in the bid schedule. All holes remaining after post and stump removal shall be refilled with suitable soil, gravel, or other suitable material and compacted with tampers.

The cost of removing and disposing of the material shall not constitute a pay item and shall be considered incidental to fence construction.

162-3.3 Installing posts. All posts shall be set in concrete at the required dimension and depth and at the spacing shown on the plans.

The concrete shall be thoroughly compacted around the posts by tamping or vibrating and shall have a smooth finish slightly higher than the ground and sloped to drain away from the posts. All posts shall be set plumb and to the required grade and alignment. No materials shall be installed on the posts, nor shall the posts be disturbed in any manner within seven (7) days after the individual post footing is completed.

Should rock be encountered at a depth less than the planned footing depth, a hole 2 inches (50 mm) larger than the greatest dimension of the posts shall be drilled to a depth of 12 inches (300 mm). After the posts are set, the remainder of the drilled hole shall be filled with grout, composed of one part Portland cement and two parts mortar sand. Any remaining space above the rock shall be filled with concrete in the manner described above.

In lieu of drilling, the rock may be excavated to the required footing depth. No extra compensation shall be made for rock excavation.

162-3.4 Installing top rails. The top rail shall be continuous and shall pass through the post tops. The coupling used to join the top rail lengths shall allow for expansion.

162-3.5 Installing braces. Horizontal brace rails, with diagonal truss rods and turnbuckles, shall be installed at all terminal posts.

162-3.6 Installing fabric. The wire fabric shall be firmly attached to the posts and braced as shown on the plans. All wire shall be stretched taut and shall be installed to the required elevations. The fence shall generally follow the contour of the ground, with the bottom of the fence fabric no less than one inch (25 mm) or more than 4 inches (100 mm) from the ground surface. Grading shall be performed where necessary to provide a neat appearance.

At locations of small natural swales or drainage ditches and where it is not practical to have the fence conform to the general contour of the ground surface, longer posts may be used and multiple strands of

barbed wire stretched to span the opening below the fence. The vertical clearance between strands of barbed wire shall be 6 inches (150 mm) or less.

162-3.7 Electrical grounds. Electrical grounds shall be constructed at 500 feet (150 m) intervals**.** The ground shall be accomplished with a copper clad rod 8 feet (2.4 m) long and a minimum of 5/8 inches (16 mm) in diameter driven vertically until the top is 6 inches (150 mm) below the ground surface. A No. 6 solid copper conductor shall be clamped to the rod and to the fence in such a manner that each element of the fence is grounded. Installation of ground rods shall not constitute a pay item and shall be considered incidental to fence construction. The Contractor shall comply with FAA-STD-019, Lightning and Surge Protection, Grounding, Bonding and Shielding Requirements for Facilities and Electronic Equipment, paragraph 4.2.3.8, Lightning Protection for Fences and Gates, when fencing is adjacent to FAA facilities.

162-3.8 Cleaning up. The Contractor shall remove from the vicinity of the completed work all tools, buildings, equipment, etc., used during construction. All disturbed areas shall be seeded per T-901.

METHOD OF MEASUREMENT

162-4.1 Chain-link fence will be measured for payment by the linear foot (meter). Measurement will be along the top of the fence from center to center of end posts, excluding the length occupied by gate openings.

BASIS OF PAYMENT

162-5.1 Payment for chain-link fence will be made at the contract unit price per linear foot (meter).

The price shall be full compensation for furnishing all materials, and for all preparation, erection, and installation of these materials, and for all labor equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item F-162	Chain-Link Fence (Reinstall Salvaged) - per linear foot
Item F-162	Chain-Link Fence (New) – per linear foot

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM A121	Standard Specification for Metallic-Coated Carbon Steel Barbed Wire
ASTM A153	Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A392	Standard Specification for Zinc-Coated Steel Chain-Link Fence Fabric
ASTM A491	Standard Specification for Aluminum-Coated Steel Chain-Link Fence Fabric
ASTM A824	Standard Specification for Metallic-Coated Steel Marcelled Tension Wire for Use with Chain Link Fence
ASTM B117	Standard Practice for Operating Salt Spray (Fog) Apparatus

ASTM F668	Standard Specification for Polyvinyl Chloride (PVC), Polyolefin and other Organic Polymer Coated Steel Chain-Link Fence Fabric
ASTM F1043	Standard Specification for Strength and Protective Coatings on Steel Industrial Fence Framework
ASTM F1083	Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures
ASTM F1183	Standard Specification for Aluminum Alloy Chain Link Fence Fabric
ASTM F1345	Standard Specification for Zinc 5% Aluminum-Mischmetal Alloy Coated Steel Chain-Link Fence Fabric
ASTM G152	Standard Practice for Operating Open Flame Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials
ASTM G153	Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials
ASTM G154	Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials
ASTM G155	Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials

Federal Specifications (FED SPEC)

FED SPEC RR-F-191/3	Fencing, Wire and Post, Metal (Chain-Link Fence Posts, Top Rails and Braces)
FED SPEC RR-F-191/4	Fencing, Wire and Post, Metal (Chain-Link Fence Accessories)

FAA Standard

FAA-STD-019	Lightning and Surge Protection, Grounding, Bonding and Shielding Requirements for Facilities and Electronic Equipment

FAA Orders

5300.38	AIP Handbook

END OF ITEM F-162

STATEMENT OF ESTIMATE QUANTITIES

BASE BID

LINE NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	FINAL QUANTITY
1	GENERAL	GENERAL CONDITIONS	LS	1	
2	01 55 15	MAINTENANCE AND RESTORATION OF AIRPORT HAUL ROUTES	LS	1	
3	01 71 23	FIELD ENGINEERING	LS	1	
4	70-08	TRAFFIC PROVISIONS/AIRPORT SECURITY & DEVICES/PHASING	LS	1	
5	70-08	ORANGE CONSTRUCTION FENCE	LF	300	
6	31 25 10	SEDIMENT CONTROL LOG (INCLUDES MAINTENANCE AND REMOVAL)	LF	1,600	
7	31 25 10	ROCK CONSTRUCTION ENTRANCE (INCLUDES MAINTENANCE AND REMOVAL)	EACH	1	
8	31 25 10	SILT FENCE, TYPE PRESASSEMBLED (INCLUDES MAINTENANCE AND REMOVAL)	LF	550	
9	31 25 10	EROSION CONTROL BLANKET, TYPE 1	SY	1,292	
10	31 25 10	INLET PROTECTION, TYPE B (INCLUDES MAINTENANCE)	EA	5	
11	C-105	MOBILIZATION (10% OF TOTAL CONSTRUCTION COST ALLOWED)	LS	1	
12	33 44 20	MANHOLE ADJUSTMENT (LOWER BY 3"), INCLUDES EXISTING GRATE REMOVAL AND DISPOSAL	EA	1	
13	33 44 20	INSTALL CATCH BASIN/CURB BOX CASTING ON EXISTING MANHOLE	EA	1	
14	33 46 30	PERFORATED DRAINTILE (6")	LF	250	
15	33 46 30	NON-PERFORATED DRAINTILE (6") - INCLUDES INSULATION	LF	350	
16	33 46 30	DRAIN TILE CLEAN OUT	EA	11	
17	F-162	CHAIN-LINK FENCE (REINSTALL SALVAGED)	LF	600	
18	F-162	NEW CHAIN LINK SECURITY FENCE	LF	115	
19	02 41 33	REMOVE AND SALVAGE EXISTING CHAIN LINK FENCE	LF	600	
20	02 41 33	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	380	
21	02 41 33	REMOVING BITUMINOUS PAVEMENT	SY	1,120	
22	P-152	COMMON EXCAVATION (EV)	CY	2,500	
23	P-152	BORROW EXCAVATION (OFF SITE)	CY	50	
24	P-152	UNCLASSIFIED OVER EXCAVATION	CY	250	
25	P-152	SUBGRADE PREPARATION	SY	1,175	
26	31 22 10	SELECT GRANULAR/SUBBASE COURSE	CY	860	
27	31 34 10	GEOTEXTILE, TYPE 7 (SEPARATION FABRIC)	SY	1,290	
28	31 34 10	GEOTEXTILE FABRIC, TYPE 1 (SEPARATION FABRIC)	SY	2,030	
29	3149	COURSE AGGREGATE, MnDOT 3149.2H (FOR FILTRATION BASIN)	CY	265	
30	32 11 22	AGGREGATE BASE, CLASS 5 (CV)	CY	430	
31	32 15 10	SHOULDER BASE AGGREGATE	CY	2	
32	32 12 13	BITUMINOUS TACK COAT	GAL	35	
33	32 12 16	BITUMINOUS NON-WEAR COURSE (SPNWB330C - PG 58-28)	TON	200	
34	32 12 16	BITUMINOUS WEAR COURSE (SPWEA340C - PG 58-28)	TON	200	
35	32 17 23	PAVEMENT MARKING LINEAR, 4-INCH WIDTH, WHITE TYPE I (EPOXY)	LF	800	
36	32 17 23	PAVEMENT MARKING MESSAGES, HANDICAP SYMBOL & NO PARKING, WHITE TYPE I (EPOXY)	EA	3	
37	32 18 20	CONCRETE TRANSFORMER PAD, INCLUDES REINFORCEMENT AND CONDUIT	EA	1	
38	32 18 20	CURB RAMP W/DETECTABLE WARNING PANELS	SF	16	
39	32 40 00	HANDICAP PARKING SIGN	EACH	1	
40	32 16 20	CONCRETE CURB AND GUTTER	LF	85	
41	32 16 20	24" CONCRETE VALLEY GUTTER	LF	40	
42	32 18 20	4" CONCRETE SIDEWALK (5' WIDE)	SF	370	
43	31 22 20	STRUCTURE EXCAVATION	CY	2,190	
44	31 22 30	STRUCTURE BACKFILL (ENGINEERED FILL)	CY	2,190	
45	ARCH/STRU	FOUNDATION CONSTRUCTION (INCLUDING AGGREGATE PIERS IF NECESSARY)	LS	1	
46	1001	FOUNDATION ENGINEERING	LS	1	
47	1002	BOLLARDS (INCLUDING SLIP COVER W/ REFLECTIVE BANDS)	EA	2	
48	13 34 00	PRE-ENGINEERED METAL BUILDING (INCLUDES INSULATION)	LS	1	
49	ARCH/STRU	BIFOLD HANGAR DOOR - STRAP SYSTEM (60')	LS	1	
50	ARCH/STRU	BUILDING CONSTRUCTION (INCLUDES APRON, CONCRETE)	LS	1	
51	MECH.	BUILDING PLUMBING AND HVAC	LS	1	
52	ELEC.	BUILDING ELECTRICAL AND UTILITIES	LS	1	
53	ELEC.	PARKING LOT LIGHT POLE AND FIXTURE	EA	2	
54	2503.602	SEWER TRACER BOX	EA	1	
55	2503.603	4" PVC SANITARY SERVICE PIPE	LF	15	
56	2503.603	6" PVC SANITARY SERVICE PIPE	LF	130	
57	2503.603	8" PVC SANITARY SEWER MAIN SDR 35	LF	250	
58	2503.603	SANITARY SEWER MANHOLE	EA	2	
59	2503.603	CONNECT TO EXISTING SANITARY SEWER MANHOLE	EA	1	
60	2504.602	CONNECT TO EXISTING WATER MAIN	EA	1	
61	2504.602	6" x 1-1/4" TAPPING TEE WITH ELECTROFUSION SADDLE	EA	1	
62	2504.602	6" x 8" TEE CAP	EA	1	
63	2504.602	6" WATER SERVICE END CAP	EA	1	
64	2504.602	8" x 10" TAPPING TEE W/ ELECTROFUSION SADDLE	EA	1	
65	2504.602	1-1/4" CURB STOP AND BOX	EA	1	
66	2504.602	WATER TRACER BOX	EA	1	
67	2504.602	6" GATE VALVE AND BOX	EA	1	
68	2504.603	1-1/2" HDPE SDR 11 SERVICE PIPE	LF	25	
69	2504.603	8" DIPS HDPE WATER MAIN SDR 11	LF	100	
70	2504.603	6" DIPS HDPE WATER SERVICE SDR 11	LF	300	
71	2506	CONNECT DRAIN TILE TO EXISTING MANHOLE AT FILTRATION BASIN	EA	1	
72	32 92 00	STABILIZED TURF ESTABLISHMENT (INCLUDES ROCK, FABRIC, AND EDGING)	SF	300	
73	T-905	FILTER TOPSOIL BORROW (AGGREGATE AND COMPOST BLEND)	CY	600	
74	T-901	TURF ESTABLISHMENT (INCLUDES FERTILIZER, SEED, MULCHING)	ACRE	1	
75		EXISTING UNDERGROUND STORM CHAMBER MAINTENANCE (POST PROJECT)	LS	1	

STATEMENT OF ESTIMATE QUANTITIES

LINE NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	FINAL QUANTITY
BID ALTERNATE 1 (30'X30' CONCRETE APRON PATCH)					
76	31 25 10	SEDIMENT CONTROL LOG (INCLUDES MAINTENANCE AND REMOVAL)	LF	130	
77	02 41 33	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	120	
78	02 41 33	REMOVING BITUMINOUS PAVEMENT	SY	100	
79	P-152	COMMON EXCAVATION (EV)	CY	100	
80	32 13 10	6" CONCRETE PAVEMENT, INCLUDED REINFORCEMENT AND JOINT MATERIAL	SY	100	
81	32 11 22	AGGREGATE BASE, CLASS 5 (CV)	CY	35	
82	31 22 10	SELECT GRANULAR/SUBBASE COURSE	CY	70	
83	31 34 10	GEOTEXTILE, TYPE 7 (SEPARATION FABRIC)	SY	100	
BID ALTERNATE 2 (EV CHARGING STATION INCLUDING ALL ELECTRICAL COMPONENTS)					
84	ELEC.	EV CHARGING CONDUIT/CABLES/CHARGING STATION	EA	1	
BID ALTERNATE 3 (LIQUID APPLIED COATING FOR HANGAR FLOOR)					
85	09 67 00	LIQUID APPLIED COATING	SF	5220	
BID ALTERNATE 4 (APPLIANCES)					
86	11 30 00	RANGE, 36" HIGH	EA	1	
87	11 30 00	RANGE HOOD, NON-VENTED	EA	1	
88	11 30 00	MICROWAVE OVEN	EA	1	
89	11 30 00	22-CUBIC FOOT REFRIGERATOR/FREEZER	EA	1	
90	11 30 00	DISHWASHER, 32" HIGH	EA	1	
91	11 30 00	GARBAGE DISPOSAL	EA	1	
92	11 30 00	WASHER, FRONT LOADING	EA	1	
93	11 30 00	DRYER, FRONT LOADING	EA	1	
94	11 30 00	RESIDENTIAL EQUIPMENT ACCESSORIES	LS	1	

STATEMENT OF ESTIMATED QUANTITY NOTES:

1. CONTRACTOR MUST SUBMIT BIDS FOR ALL ALTERNATES ALONG WITH THE BASE BID.
2. THE UNIT PRICE WILL REMAIN THE SAME FOR ITEMS THAT APPEAR MORE THAN ONCE.

ITEMS NO. 1: THE TERM "GENERAL CONDITIONS" IS USED TO DESCRIBE EXPENSES THAT SUPPORT A PROJECT WITHOUT DIRECTLY RELATING TO JOBSITE ACTIVITIES, INCLUDING BUT NOT LIMITED TO SITE MANAGEMENT, PERMITTING, PROJECT MANAGEMENT AND COORDINATION FOR EACH SCHEDULE.

ITEM NO. 3: PROVIDING CONSTRUCTION SURVEY THROUGHOUT THE PROJECT, INCLUDING DOCUMENTING ELEVATIONS OF STRUCTURE EXCAVATION, STRUCTURAL FILL, SUBGRADE, BASE COURSE AND OTHER QUANTITY SURVEYS SUPPLIED TO THE ENGINEER FOR PAYMENT.

ITEM NO.4: INCLUDES INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL SIGNAGE, BARRICADES, TEMPORARY FENCING, AND TRAFFIC CONTROL DEVICES.

ITEMS NO.11: LIMITED TO 10% OF THE TOTAL PROJECT COSTS.

ITEM NO. 17: REINSTALLING SALVAGED FENCE, POSTS, FABRIC AND FASTENERS.

ITEM NO. 21: COMMON EXCAVATION SHALL INCLUDE ALL EXCAVATION REQUIRE TO REACH THE DEPTH REQUIRED FOR INSTALLATION OF THE TYPICAL SECTION. ALL EXCESS QUANTITES RESULTING FROM EXVACATIONS SHALL BE HAULED OFF SITE BY CONTRACTOR.

ITEM NO. 24: SUBGRADE PREPARATION SHALL INCLUDE ALL NECESSARY GRADING, COMPACTION, WATERING, AND TESTING TO ACHIVE AN ACCEPTABLE BASE PRIOR TO INSTALLING GEOTEXTILE FABIRC AND AGGREGATE BASE.

ITEM NO. 30: GALLONS OF TACK COAT CALCULATED USING THE CONVERSION 0.05 GAL/SY.

ITEMS NO. 31/32: TONS OF BITUMINOUS CALCULATED USING THE CONVERSION OF 115 LBS/SY/IN.

ITEM NO. 37: CONSTRUCTING TRANFORMER PAD PER MINNESOTA POWER DETAIL AND INCLUDES REINFORCEMENT AND CONDUIT. ITEM WILL REQUIRE COORDINATION WITH MINNESOTA POWER.

ITEM NO. 42: CONSTRUCTING SLOPED SIDEWALK INCLUDING REINFORCEMENT.

ITEMS NO. 54-59: PROVIDING SANITARY SERVICE TO THE TERMINAL BUILDING. ITEMS INCIDENTAL TO THE WORK INCLUDE TRACER WIRE, PVC FITTINGS, TESTING AND OTHER APPLICABLE CITY OF DULUTH SPECIFICATION REQUIREMENTS.

ITEMS NO. 60-70: PROVIDING WATER SERVICE TO THE TERMINAL BUILDING. ITEMS INCIDENTAL TO THE WORK INCLUDE TRACER WIRE, FITTINGS, BACKFILL, TRENCHING, TESTING, AND OTHER APPLICABLE CITY OF DULUTH SPECIFICATION REQUIREMENTS.

ITEM NO. 72: INSTALLING LANDSCAPE ROCK AND WEED BARRIER FABRIC.

ITEM NO. 75: PERFORMING MAINTENANCE ON EXISTING UNDERGROUND STORM CHAMBER AT THE END OF THE PROJECT IF ENGINEER'S INSPECTION DEEMS IT NECESSARY. THE EXPECTED MAINTENANCE IS REMOVING BUILT UP SEDIMENT FROM THE HEADER PIPES WITH A VAC TRUCK.

BID ALTERNATE 1: INSTALL A 30' X 30' CONCRETE PATCH ON EXISTING APRON. OWNER RESERVES THE RIGHT TO ONLY REPLACE THE 6" SECTION OF BITUMINOUS WITH CONCRETE IF BASE MATERIAL IS SUITABLE WITH NO CHANGE TO THE UNIT PRICE OF THE CONCRETE ITEM.

BID ALTERNATE 2: INSTALL AN EV CHARGER AS DIRECTED IN ELECTRICAL PLANS.

BID ALTERNATE 3: LIQUID APPLIED COATING FOR HANGAR FLOOR.

BID ALTERNATE 4: INTERIOR APPLIANCES.

SEH

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED Shawn McMahon, PE UNDER THE LAWS OF THE STATE OF MN. THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY 49856 , 01-13-25 THIS MEDIA SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.

Shawn McMahon, PE

DATE 01-13-25 LICENSE NO. 49856

Project Owner

DULUTH INTERNATIONAL AIRPORT (DLH)

NORTH BUSINESS DEVELOPMENT AREA HANGAR

DULUTH, MN

SEH Project	DULAI_180746
Checked By	JLV
Drawn By	LZ
Project Status	Issue Date
Issued for Bid	01-13-25

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE
1	Addendum 2	02/07/2025
2	Addendum 3	02/18/2025

STATEMENT OF ESTIMATED QUANTITIES

G007

Presentation for

Duluth International Airport
North Business Development Area Hangar
Pre-Bid Meeting

February 11, 2025

SEH

Meeting Overview

- Introduction
- Project schedule
- Existing site
- Project overview
  - Major Site Work Items
  - Utility coordination
  - Building Elevations and Floor Plans
- Alternates
- Phasing
- Administrative Items
- Addenda
- Questions

Introductions

- Duluth Airport Authority
  - Jana Kayser, Director of Business Development
  - Mark Papko, Director of Operations

- SEH
  - Jessica Vinson, Project Manager
  - Shawn McMahon, Project Manager/Senior Engineer
  - Kaci Nowicki, Senior Planner
  - Chad Bormann, Architect
  - Brian Bergstrom, Architect

* Please sign in by using the chat window:

- Name, company, email, and phone number

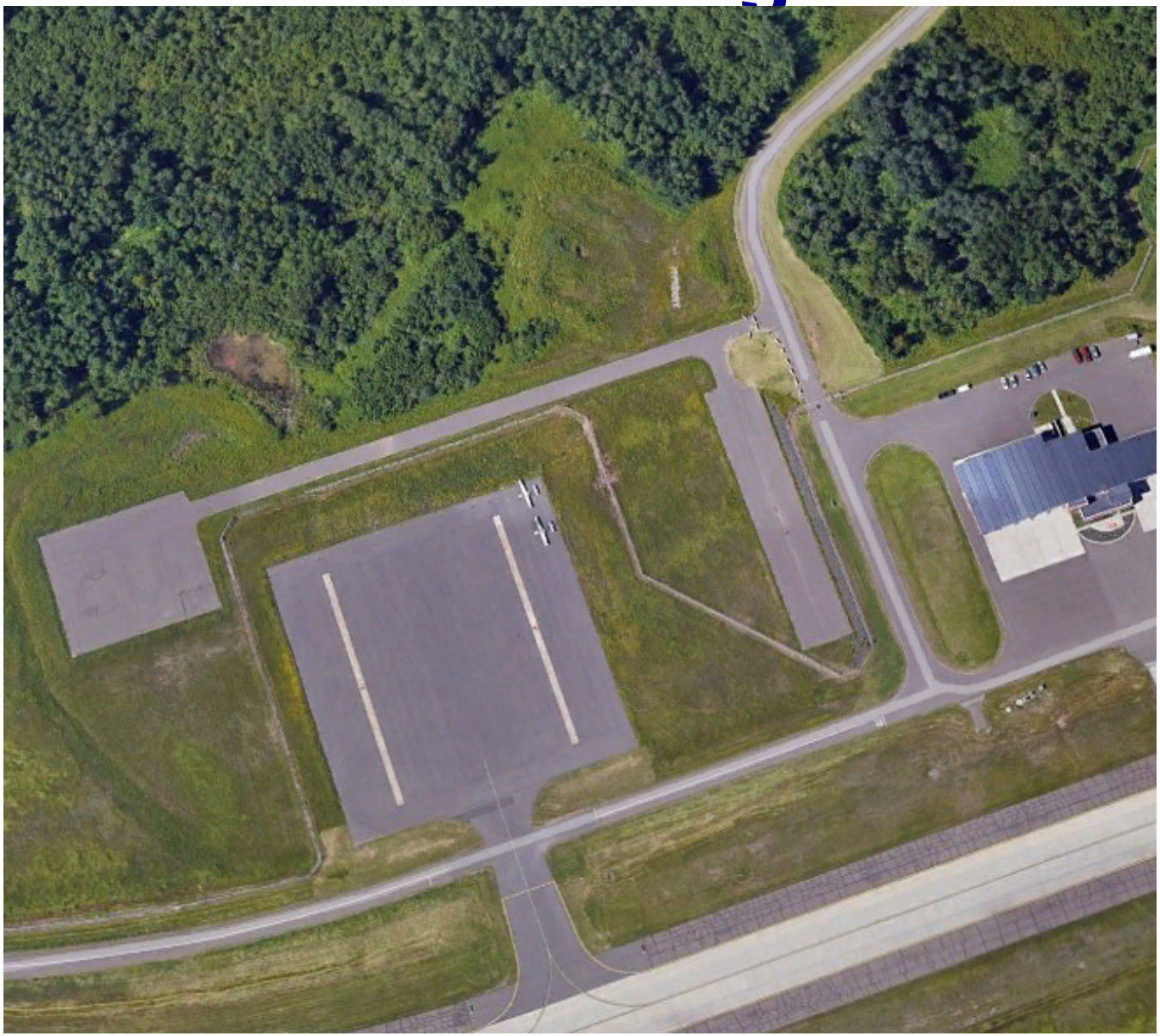
Main Points of Contact

- Project Manager
  - Jessica Vinson jvinson@sehinc.com
  - Shawn McMahon smcmahon@sehinc.com
- Architecture
  - Brian Bergstrom bbergstrom@sehinc.com
- Structural (Subconsultant)
  - Tom Rines tom@nce-duluth.com
- Electrical/Mechanical (Subconsultant)
  - Otto Maki otto@thedgroup.com

Project Schedule

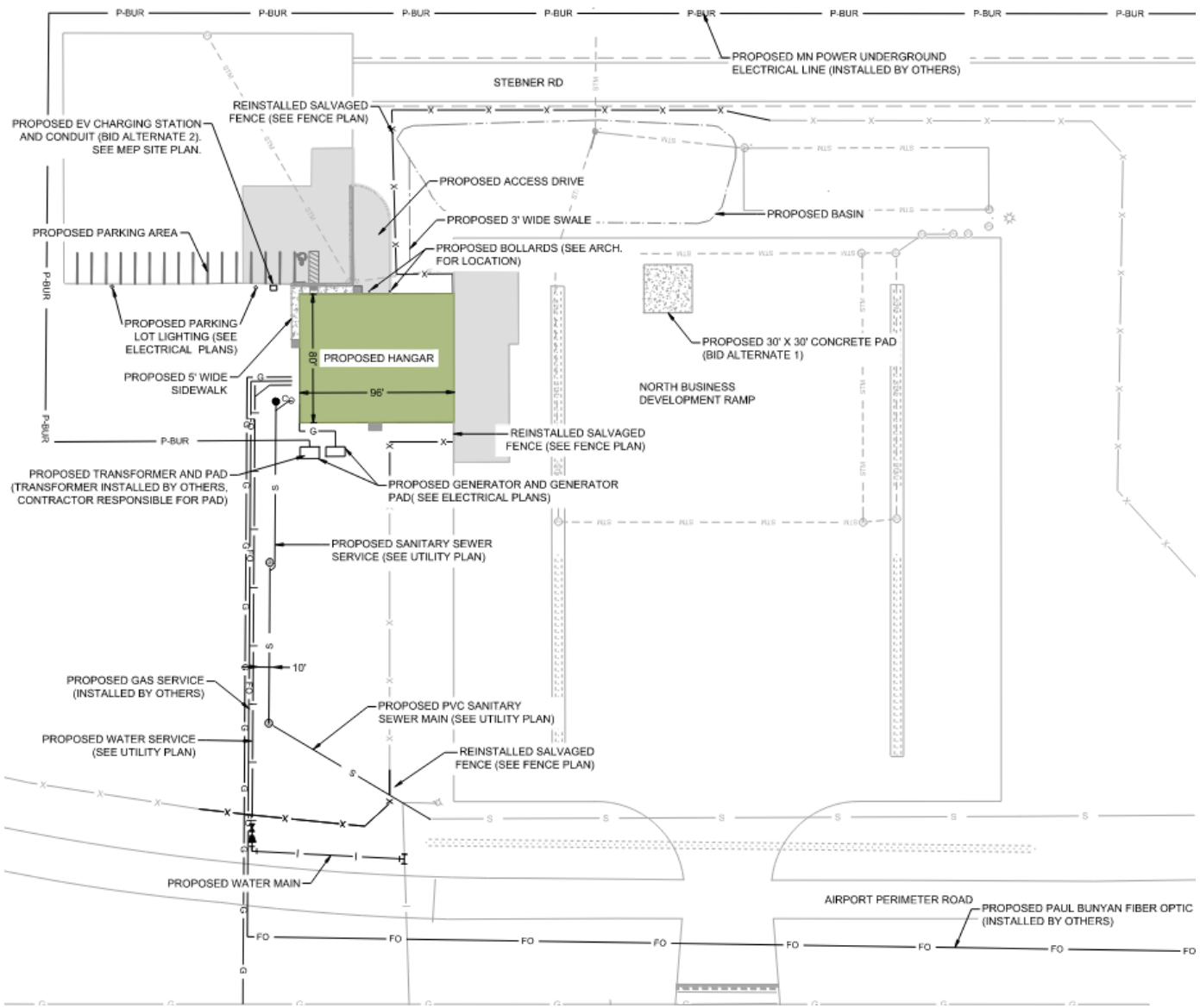
- January 22nd — Advertisement for bids
- February 3rd — Addendum No.1 Issued
- February 10th — Addendum No.2 Issued
- February 11th — Pre-bid meeting
- **February 13th — Last day for questions**
- February 18th — Addendum No. 3 (Tentative)
- *February 25th — 2 PM Bid opening (online) Bid Express*
- March 18th — Airport Authority Consideration of Award
- April 2025 — Notice to Proceed (NTP)
- May - June 2025 — Construction start (NTP)
- November 2025 — Substantial completion (150 days)

Photos – Existing Site



- Ease of construction
- Existing Fence and Temporary Security Fence
- Contractor Parking and Staging
- Restoration of Haul Road
- For Site Visits:
  - Unescorted landside access is available off Stebner Rd on the north side of the airport. For full site access, coordinate with Jessica Vinson, jvinson@sehinc.com.

Project Overview



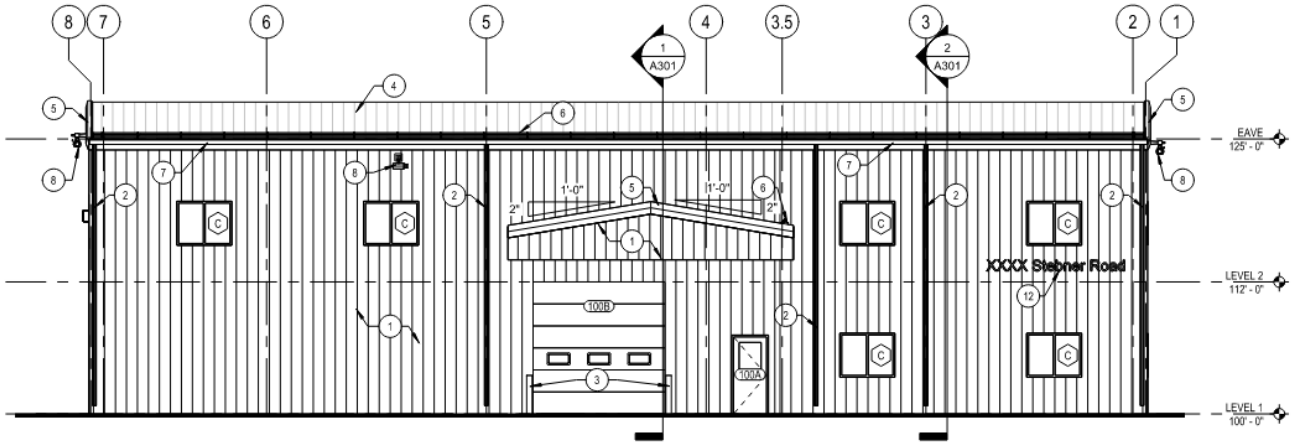
- Major Site Work Items:
  - Site work including some minor parking lot and apron reconstruction
  - Soil correction under building location
  - New asphalt ambulance access drive
  - Curb and gutter construction
  - Utility work including new water service and new sanitary service
  - Drainage swale and filtration basin
  - Grading

Utility Coordination

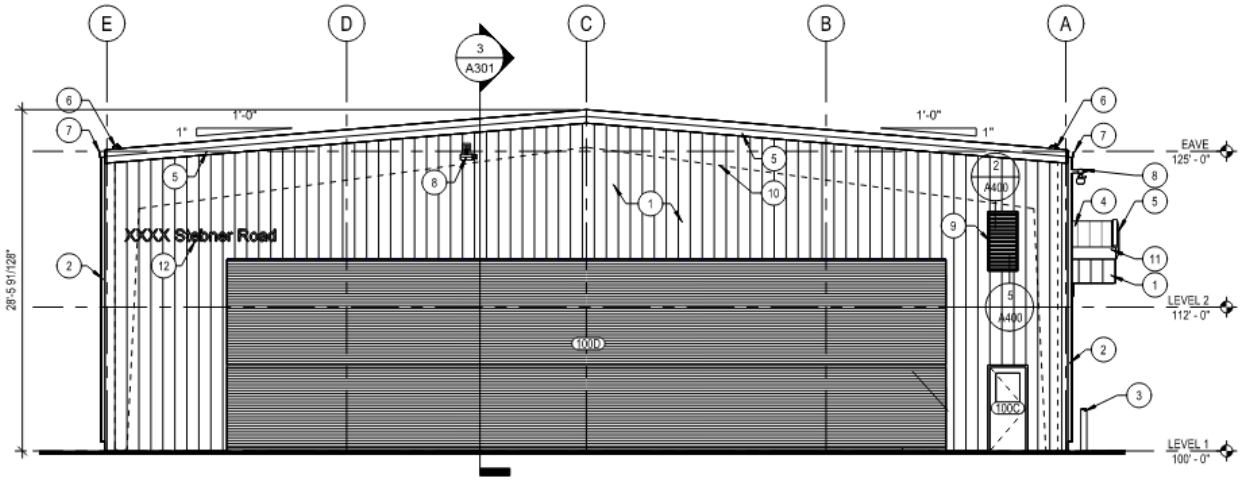
- Utilities
  - Owner will have separate contract with MN Power, City of Duluth Gas, and Paul Bunyan.
    - **MN Power**
      - The contractor will be required to coordinate with MN Power to ensure the correct size utility pad is installed as well as in place when MN Power will be on site to install the transformer.
      - The contractor will need to purchase and pick up some of the required conduits and other items from MN power for the construction of the pad.
    - **City of Duluth Gas**
      - The contractor will be required to coordinate opening the temporary fence to the south of the site when the City of Duluth will be installing the gas line.
    - **Paul Bunyan**
      - The contractor will be required to coordinate opening the temporary fence to the south of the site when Paul Bunyan is installing the fiber optic.

SEH

Building – elevation views

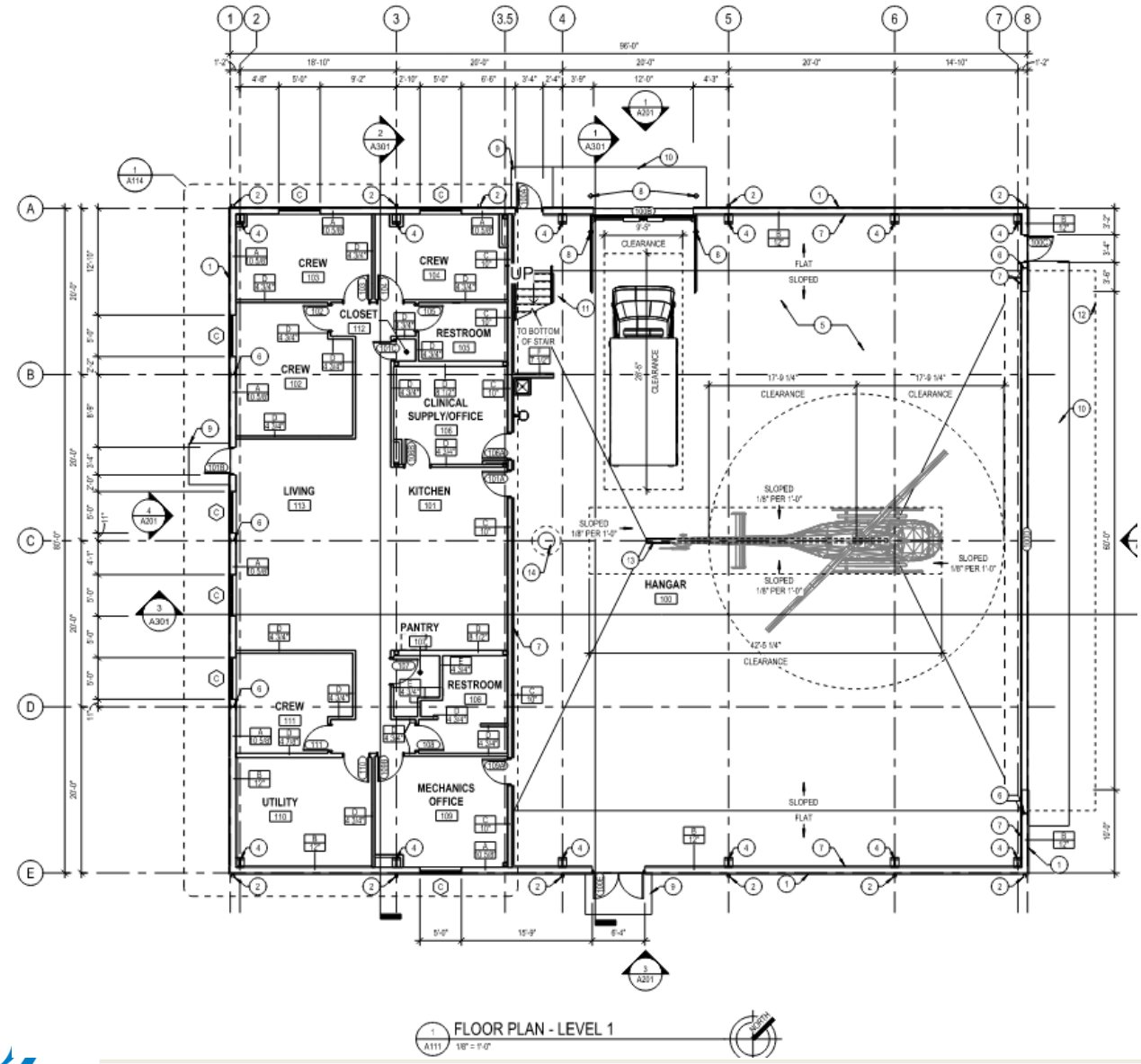


1 A201 EXTERIOR ELEVATION - WEST
1/8" = 1'-0"



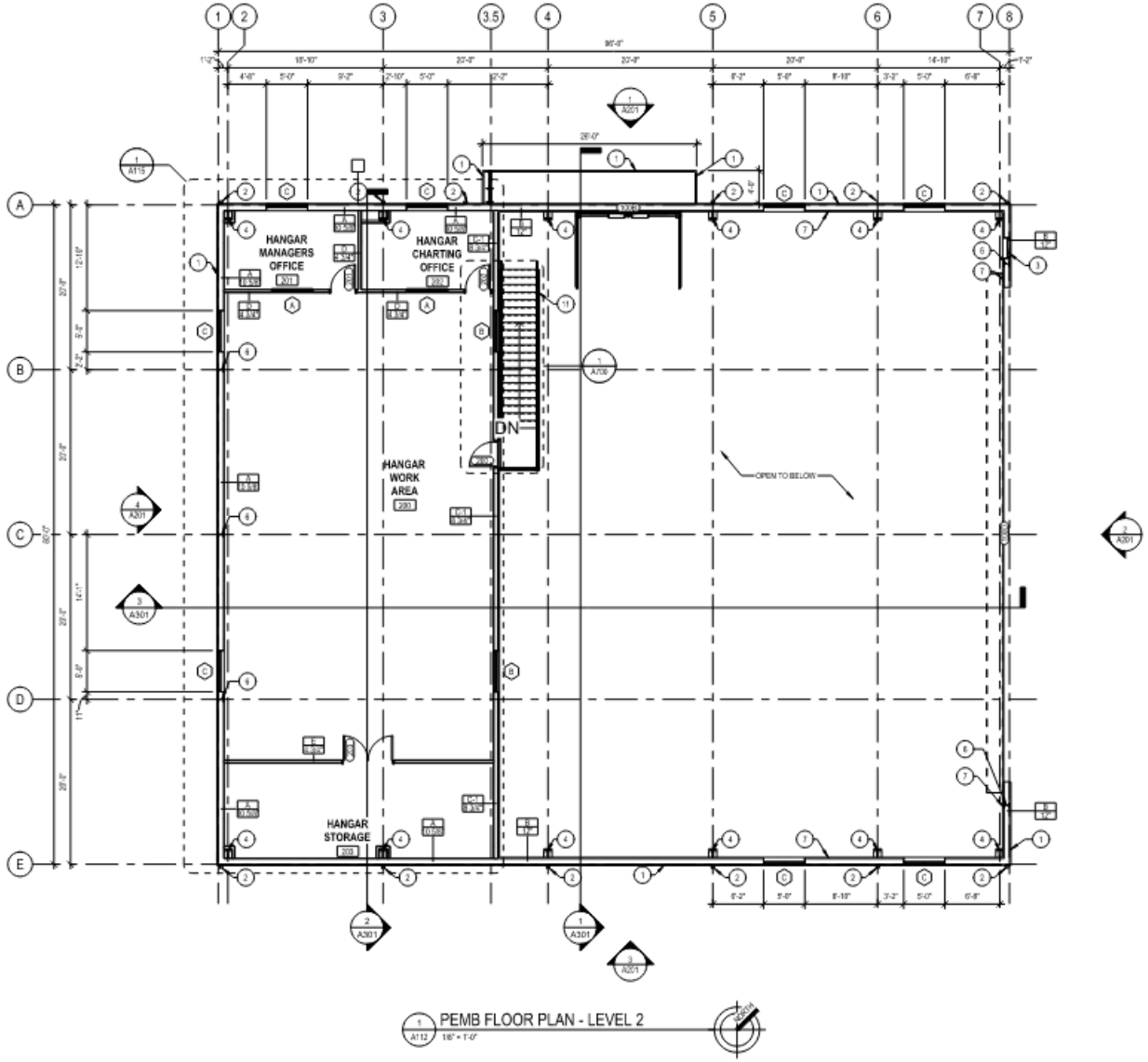
2 A201 EXTERIOR ELEVATION - NORTH
1/8" = 1'-0"

Building – first floor



- Building Dimensions:
  96’ x 80’
- Square Footage
  Hangar space = 4980 SF
  Crew quarters = 2700 sf

Building – second floor



- Building Dimensions:
  96’ x 80’
- Access to second floor is only through staircase in hangar
- Square Footage
  Hangar storage /office space= 2700 sf

Alternates

- Alternates
  - Alternate 1– 30’ x 30’ Concrete pad on existing apron
  - Alternate 2 – Install EV Charger
  - Alternate 3 – Epoxy Floor
  - Alternate 4 – Appliances
- Evaluation of Bids/Alternates
  - Alternates (Section 01 23 00) → Acceptance or Rejection: Alternates quoted will be reviewed and accepted or rejected at the Owner’s option. None, any, or all alternates may be accepted or rejected by Owner.
- Contract Times
  - 180 calendar days to final completion

Phasing

- Phase 1: Site Work
  - Site removals including pavement
  - Erosion control
  - Site grading
  - Utilities
  - Concrete curb and sloped sidewalk
  - Turf establishment
- Phase 2: Construct New Building
  - Structure excavation and engineered fill
  - Building structure, plumbing, HVAC, electrical (incl. utility connections)

– Contractor to provide schedule to maximize best value for the airport.

Administrative Items

- Bid security – 5%
  - must be sent, received, and verified prior to bid
- DBE goal – 9.9%
  - Must meet DBE goal or document good faith effort
- Wage rates
  - Federal prevailing wage rate requirements (Appendix B)
  - EEO (Appendix C)
- Buy American requirements
  - Required to be completed by Prime Contractor. Responsibility on Contractor to meet Buy-American.
  - Waiver is required if not 100%. SEH will assist will waiver application.
- Substitution requests
  - Submit electronically to PM using form in project manual
- Payment for materials on hand (Spec. 90-07)
  - Will issue two Notice to Proceeds (an early one for materials, if desired) to assist in long-lead time materials and schedule.

Administrative Items (cont'd)

- Work being performed by others
  - Gas service, underground electric service, and fiber optic
- Survey
  - Control points (engineer's responsibility)
  - Construction staking (contractor's responsibility)
    - Including quantity surveys and as-built surveys
- Permits (To be completed by Contractor)
  - Coordination with City of Duluth required
  - Building, Erosion Control, Lighting, Electrical
    - List may not be comprehensive; it is the contractor's responsibility to ensure all permits that are required are submitted.
- Bi-weekly construction meetings led by SEH
- Airport badging will not be needed for work taking 5 days or less
  - Work inside AOA will have to be escorted by SEH or DAA.

Administrative Items (Bid Procedures)

- Bid Express – all bids must be submitted through the City of Duluth Bid Express website.
  - Account is free, there is a $50 fee to bid
  - Bid Express :: City of Duluth – Solicitation No. 25-4401
  - All addenda must be acknowledged, as well as the Declaration of Non-Collusion, Equal Employment Opportunity Statement, Byrd Anti-Lobbying Certification, DBE percentage, CM 32-34, and upload Document 00 45 45.
  - Document 00 21 13 Instructions to bidders
    - Lists the additional documents that must be emailed to Jessica Vinson (jvinson@sehinc.com) within 72 hours after bid opening

Addenda

- Any questions that result in a change to the bidding documents will be formally answered via addendum
- Verbal responses are not final
- Addendum No.1 – Issued February 3, 2025
- Addendum No.2 – Issued February 10, 2025
- Addendum No. 3 - to address final questions and any other project items to be clarified (February 18, 2025)

Questions?

Meeting Minutes: North Business Development Area Hangar at Duluth International Airport

Date: February 11, 2025
Time: 19:00 UTC

Attendees:

- In person Attendance
    - Jana Kayser, DAA, jkayser@duluthairport.com
    - Mark Papko, DAA, mpapko@duluthairport.com
    - Jessica Vinson, SEH, jvinson@sehinc.com
    - Michael Moran, St. Germains Glass, 218-336-2575, mmoran@stgermainsglass.com
    - Garrett Erickson, Max Grey Construction, 218-262-6622, gerickson@maxgreyconstruction.com
    - Tory George, Parsons Electric, 218-591-1621, tory.george@archkey.com
    - Curtis Martinson, Gardner Builders, 218-576-8876, curtism@gardner-builders.com
    - Ben Nickila, Johnson Wilson, 218-628-0202, bnickila@johnsonwilson.com

- Online Attendance
    - Dustin Waldo, Ulland, 218-391-5626, DWaldo@ulland.com
    - Paul Noll, KA, 218-355-0067, paul.noll@krausanderson.com
    - Terry Norlen, WSB 218-348-4540
    - RJ Eagles WSB, 413-824-9757, REagles@wsbeng.com
    - Aaron Brockman, Northland Constructors, 218-355-1363, Aaron.brockman@northlandconstructors.us
    - Alaina Dodaro, KTM Paving, 612-741-0213, Alaina@ktmcompanies.net
    - Chad Rands, JR Jenson, 218-310-2062, crands@jrjensen.com
    - Dan Watkins, Casper Construction, 218-244-4215, dan@caspercon.com
    - Chad Borman, SEH
    - Shawn McMahon, SEH, smcmahon@sehinc.com
    - Rick Hart, Duluth Electrical Contracting
    - Nick Osbakken, Holden Electric, 218-834-9226, nosbakken@holdenelectric.com
    - Jon Brostowitz, Veit, 218-350-1037, jon.brostowitz@veitusa.com
    - Paul Scinocca, Benson Electric, 715-394-5547, Paul@becotm.com
    - Nate Sapic, Benson Electric, nate@becotm.com
    - Ted Nelson, Janice Bettschen, Stack, 218-348-3080, ted@stackbr.com, Janice@stack
    - Jim Erickson, Egan Company 612-655-5243
    - Connor Houle, Northland Contractors 218-341-3835, Connor.houle@northlandconstructors.us
    - Tom Alverson, Casper Construction 218-398-0706, tom@caspercon.com
    - Jon Carlson, Northland 218-625-3230, Jon.Carlson@northlandconstructors.us
    - Chris Krook, Belknap electric 715-394-7769, chriskrook@belknapelectric.com
    - John Sampohar, Rachel Contracting 218-355-8323
    - Mike Carlson, Max Gray 218-262-6622
    - Adam Kuettel, AW Kuettel, akuettel@awkuettel.com
    - Luke Kuettel
    - Brian C Schmidt, Brian.C.Schmidt@jci.com
    - Heath Line, KGM Contractors 218-780-9267, Heath@kgmcontractors.com
    - Jacob Kavajecz, Jamar 218-628-4439, Jacob.Kavajecz@jamarcompany.us
    - Jim Erickson, Egan Co, 612-655-5243
    - Kevin Kouba, kevin@ferchecompanies.com
    - Justin Eng, MJ Companies, 218-499-1443
    - Rick Hart, Duluth Electrical Contracting

- Kyle Aronson, KGM Contractors, kylea@kgmcontractors.com

Agenda:

1. Introduction and Attendance
2. Project Overview
3. Site Plan and Civil Work
4. Building Details
5. Project Schedule
6. Administrative Items
7. Questions and Answers

Key Points:

1. **Introduction and Attendance:**
   - Jana requested attendees to sign in via chat with their name, company, email, and phone number.
2. **Project Overview:**
   - Jana provided an overview of the North Business Development Area Hangar project at Duluth International Airport.
3. **Site Plan and Civil Work:**
   - Detailed discussion on site work, including pavement reconstruction, utility work, and grading.
   - Temporary construction fence and contractor parking were addressed.
4. **Building Details:**
   - Description of the building's layout, including hangar and crew quarters.
   - Discussion on alternates for the project, such as concrete pad, EV charger, epoxy floor, and residential appliances.
5. **Project Schedule:**
   - Key dates: February 13th for questions, February 18th for addendum #3, and February 25th for bid opening.
   - Construction notice to proceed expected around April, with substantial completion by November 2025.
6. **Administrative Items:**

- Bid security, DBE goal, wage rates, and equal opportunity requirements were discussed.
- Emphasis on the importance of early notice to proceed for long lead items.

7. **Questions and Answers:**
    - A contractor inquired about special inspections and material testing. Contractor is responsible for Quality Control, Quality Assurance and special inspections will be part of SEH's contract.
    - A contractor asked about the erosion control plan and storm chamber maintenance. SEH will clarify the requirement in Addendum 3.
    - The Airport asked for feedback of the schedule. There were no comments.
    - A contractor asked about the 60-day bid hold. The airport intends to award at the March Board meeting, but reserves the right to delay award until the April Board meeting (Third Tuesday, 8am).
    - SEH shared there should be no additional costs for the project occurring near an airport. SEH will help with all FAA permits. Badging and security shouldn't be required.

Action Items:

- **Erosion Control Plan** – SEH to add a line item for storm chamber maintenance to ensure clarity in bidding.
- **Bid Security** - Attendees reminded to ensure bid security is sent and verified before the bid opening.

Next Steps:

- Finalize and submit addendum #3 by February 18th.
- Coordinate site visits for interested contractors.
- Ensure all bid documents are submitted via Bid Express by February 25th.

Meeting Adjourned.