**Purchasing Division**
*Finance Department*

Room 120
411 West First Street
Duluth, Minnesota 55802

218-730-5340
purchasing@duluthmn.gov

**Addendum 1**
**Solicitation 24-4405**
**DIA Midfield Ramp – Phase 2 and Deicing Tank Pad**

This addendum serves to notify all bidders of the following changes to the solicitation documents:

Please see the attached documents

Please acknowledge receipt of this Addendum by checking the acknowledgement box within the www.bidexpress.com solicitation.

Posted: **3/5/24**

**DOCUMENT 00 00 11**

**ADDENDUM NO. 1**
**March 5, 2024**

**Midfield Ramp – Phase 2 and Deicing Tank Pad**
**Duluth International Airport**
**Duluth, Minnesota**
**City of Duluth No. 24-4405**

**SEH No. DULAI 175226**

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 February 16, 2024, for this work. Bids submitted for the construction of this work shall conform to this document.

This addendum consists of 27 pages.

**Changes to Conditions of the Contract:**

1. Project #1 & #2 – REMOVE & REPLACE State Wage Rates with rates in this addendum

**Changes to Specifications:**

2. Project #1 - ADD Specification 31 25 10 – STORMWATER MANAGEMENT. – This specification is to add the required silt fence and rock entrance for the relocated storage area.

3. Project #1 - ADD Specification 32 11 22 – AGGREGATE BASE. MnDOT Class 5 is an allowable substitute for P-209. Please note that modified proctor will be used for density testing and acceptance.

**Changes to Drawings:**

4. Project #1 - G0.01 – Construction Safety Plan – REPLACE existing G0.01. New sheet shows the new stockpile location.

5. Project #1 - G0.03 – Traffic Control Plan – REPLACE existing G0.03. New sheet shows the new stockpile location.

6. Project #1 - G0.12 – General Notes and Quantities – REPLACE existing G0.12. New sheet updates quantities.

    a. Removes Bioroll quantity

    b. Adds rock construction entrance and silt fence

    c. Adds note (F) to P-209-5.1 allowing for MnDOT Class 5 Aggregate Base

7. Project #1 – C0.10 –Erosion Control Plan – REPLACE existing C0.10. New sheet shows the new stockpile location, silt fence layout, and rock construction entrance.

8. Project #1 – C1.00 –Typical Sections – REPLACE existing C1.00. New sheet shows the note allowing MnDOT Class 5 Aggregate Base Course or P-209.

Project #2 – G1.00 –Construction Safety Plan – REPLACE existing G1.00. New sheet removes the staging area for this project due to the concrete encased duct that will be installed by others. The contractor should use the staging area as depicted in Project #1.

**Clarifications and/or Answers to Pre-Bid Items**

9. Can MnDOT Class 5 aggregate be used in lieu of P-209

    a. Yes. Please note that density testing and acceptance will still follow P-209 requirements (Modified Proctor).

10. Provide information on the concrete encased duct that will be installed under the deicing tank pad

    a. A concrete encased duct bank will be installed under the deicing tank pad's project location for a future project. This work will be by others, but coordination between contractor's will be required. The deicing pad cannot progress farther than excavation until the duct bank is installed. It is anticipated the duct bank will be installed by late May to early June. The exact location of the concrete encased duct bank is unknown at this time.

11. Is fixed form paving allowable

    a. According to the P-501 specification, yes.

12. Please note the pre-bid meeting was recorded. If you would like to watch the recording please email jholbrook@sehinc.com and a link to the recording will be provided.

Note: Receipt of this Addendum No. 1, dated March 5, 2024 shall be acknowledged on www.bidexpress.com. Failure to do so will not allow Bidder to submit Bid.

**END OF ADDENDUM**

**MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY PREVAILING WAGES FOR STATE FUNDED CONSTRUCTION PROJECTS**

**THIS NOTICE MUST BE POSTED ON THE JOBSITE IN A CONSPICUOUS PLACE**

**Construction Type: Commercial**

**County Number: 69**

County Name: ST. LOUIS

Effective: 2023-12-26

This project is covered by Minnesota prevailing wage statutes. Wage rates listed below are the minimum hourly rates to be paid on this project.

All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at a rate of one and one half (1 1/2) times the basic hourly rate. *Note: Overtime pay after eight (8) hours on the project must be paid even if the worker does not exceed forty (40) hours in the work week.*

Violations should be reported to:

Department of Labor and Industry
Prevailing Wage Section
443 Lafayette Road N
St Paul, MN 55155
(651) 284-5091
DLI.PrevWage@state.mn.us

* Indicates that adjacent county rates were used for the labor class listed.

**County: ST. LOUIS (69)**

| LABOR CODE AND CLASS | | EFFECT DATE | BASIC RATE | FRINGE RATE | TOTAL RATE |
|---|---|---|---|---|---|
| **LABORERS (101 - 112) (SPECIAL CRAFTS 701 - 730)** | | | | | |
| 101 | LABORER, COMMON (GENERAL LABOR WORK) | 2023-12-26 | 31.42 | 22.69 | 54.11 |
| | | 2024-05-01 | 33.40 | 23.44 | 56.84 |
| 102 | LABORER, SKILLED (ASSISTING SKILLED CRAFT JOURNEYMAN) | 2023-12-26 | 31.42 | 22.69 | 54.11 |
| | | 2024-05-01 | 33.40 | 23.44 | 56.84 |
| 103 | LABORER, LANDSCAPING (GARDENER, SOD LAYER AND NURSERY OPERATOR) | 2023-12-26 | 28.29 | 20.41 | 48.70 |
| | | 2024-05-01 | 30.04 | 21.16 | 51.20 |
| 104* | FLAG PERSON | 2023-12-26 | 29.92 | 21.69 | 51.61 |
| 105 | WATCH PERSON | 2023-12-26 | 26.37 | 20.94 | 47.31 |

| LABOR CODE AND CLASS | | EFFECT DATE | BASIC RATE | FRINGE RATE | TOTAL RATE |
|---|---|---|---|---|---|
| 106 | BLASTER | 2023-12-26 | 27.22 | 19.29 | 46.51 |
| 107 | PIPELAYER (WATER, SEWER AND GAS) | 2023-12-26 | 41.03 | 23.67 | 64.70 |
| | | 2024-05-01 | 43.76 | 24.42 | 68.18 |
| 108 | TUNNEL MINER | FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US | | | |
| 109 | UNDERGROUND AND OPEN DITCH LABORER (EIGHT FEET BELOW STARTING GRADE LEVEL) | 2023-12-26 | 39.03 | 23.67 | 62.70 |
| | | 2024-05-01 | 41.76 | 24.42 | 66.18 |
| 110 | SURVEY FIELD TECHNICIAN (OPERATE TOTAL STATION, GPS RECEIVER, LEVEL, ROD OR RANGE POLES, STEEL TAPE MEASUREMENT; MARK AND DRIVE STAKES; HAND OR POWER DIGGING FOR AND IDENTIFICATION OF MARKERS OR MONUMENTS; PERFORM AND CHECK CALCULATIONS; REVIEW AND UNDERSTAND CONSTRUCTION PLANS AND LAND SURVEY MATERIALS). THIS CLASSIFICATION DOES NOT APPLY TO THE WORK PERFORMED ON A PREVAILING WAGE PROJECT BY A LAND SURVEYOR WHO IS LICENSED PURSUANT TO MINNESOTA STATUTES, SECTIONS 326.02 TO 326.15. | 2023-12-26 | 29.92 | 21.69 | 51.61 |
| 111* | TRAFFIC CONTROL PERSON (TEMPORARY SIGNAGE) | 2023-12-26 | 28.72 | 20.94 | 49.66 |
| **SPECIAL EQUIPMENT (201 - 204)** | | | | | |
| 201 | ARTICULATED HAULER | 2023-12-26 | 41.73 | 22.85 | 64.58 |
| 202 | BOOM TRUCK | 2023-12-26 | 41.73 | 22.85 | 64.58 |
| 203 | LANDSCAPING EQUIPMENT, INCLUDES HYDRO SEEDER OR MULCHER, SOD ROLLER, FARM TRACTOR WITH ATTACHMENT SPECIFICALLY SEEDING, SODDING, OR PLANT, AND TWO-FRAMED FORKLIFT (EXCLUDING FRONT, POSIT-TRACK, AND SKID STEER | 2023-12-26 | 28.29 | 20.41 | 48.70 |

| LABOR CODE AND CLASS | | EFFECT DATE | BASIC RATE | FRINGE RATE | TOTAL RATE |
|---|---|---|---|---|---|
| | LOADERS), NO EARTHWORK OR GRADING FOR ELEVATIONS | | | | |
| | | 2024-05-01 | 30.04 | 21.16 | 51.20 |
| 204 | OFF-ROAD TRUCK | 2023-12-26 | 33.65 | 19.95 | 53.60 |
| 205 | PAVEMENT MARKING OR MARKING REMOVAL EQUIPMENT (ONE OR TWO PERSON OPERATORS); SELF-PROPELLED TRUCK OR TRAILER MOUNTED UNITS. | 2023-12-26 | 26.91 | 19.87 | 46.78 |
| **HIGHWAY/HEAVY POWER EQUIPMENT OPERATOR** | | | | | |
| **GROUP 2** | | 2023-12-26 | 43.38 | 25.20 | 68.58 |
| | | 2024-04-29 | 45.61 | 26.40 | 72.01 |
| 306 | GRADER OR MOTOR PATROL | | | | |
| 308 | TUGBOAT 100 H.P. AND OVER WHEN LICENSE REQUIRED (HIGHWAY AND HEAVY ONLY) | | | | |
| **GROUP 3** | | 2023-12-26 | 42.81 | 25.20 | 68.01 |
| | | 2024-04-29 | 45.01 | 26.40 | 71.41 |
| 309 | ASPHALT BITUMINOUS STABILIZER PLANT | | | | |
| 310 | CABLEWAY | | | | |
| 312 | DERRICK (GUY OR STIFFLEG)(POWER)(SKIDS OR STATIONARY) (HIGHWAY AND HEAVY ONLY) | | | | |
| 314 | DREDGE OR ENGINEERS, DREDGE (POWER) AND ENGINEER | | | | |
| 316 | LOCOMOTIVE CRANE OPERATOR | | | | |
| 320 | TANDEM SCRAPER | | | | |
| 322 | TUGBOAT 100 H.P AND OVER (HIGHWAY AND HEAVY ONLY) | | | | |
| **GROUP 4** | | 2023-12-26 | 42.49 | 25.20 | 67.69 |
| | | 2024-04-29 | 44.67 | 26.40 | 71.07 |
| 323 | AIR TRACK ROCK DRILL | | | | |
| 324 | AUTOMATIC ROAD MACHINE (CMI OR SIMILAR) (HIGHWAY AND HEAVY ONLY) | | | | |
| 325 | BACKFILLER OPERATOR | | | | |
| 327 | BITUMINOUS ROLLERS, RUBBER TIRED OR STEEL DRUMMED (EIGHT TONS AND OVER) | | | | |
| 328 | BITUMINOUS SPREADER AND FINISHING MACHINES (POWER), INCLUDING PAVERS, MACRO SURFACING AND MICRO SURFACING, OR SIMILAR TYPES (OPERATOR AND SCREED PERSON) | | | | |
| 329 | BROKK OR R.T.C. REMOTE CONTROL OR SIMILAR TYPE WITH ALL ATTACHMENTS | | | | |
| 330 | CAT CHALLENGER TRACTORS OR SIMILAR TYPES PULLING ROCK WAGONS, BULLDOZERS AND SCRAPERS | | | | |
| 331 | CHIP HARVESTER AND TREE CUTTER | | | | |

| LABOR CODE AND CLASS | | EFFECT DATE | BASIC RATE | FRINGE RATE | TOTAL RATE |
|---|---|---|---|---|---|
| 332 | CONCRETE DISTRIBUTOR AND SPREADER FINISHING MACHINE, LONGITUDINAL FLOAT, JOINT MACHINE, AND SPRAY MACHINE | | | | |
| 334 | CONCRETE MOBIL (HIGHWAY AND HEAVY ONLY) | | | | |
| 335 | CRUSHING PLANT (GRAVEL AND STONE) OR GRAVEL WASHING, CRUSHING AND SCREENING PLANT | | | | |
| 336 | CURB MACHINE | | | | |
| 337 | DIRECTIONAL BORING MACHINE | | | | |
| 338 | DOPE MACHINE (PIPELINE) | | | | |
| 340 | DUAL TRACTOR | | | | |
| 341 | ELEVATING GRADER | | | | |
| 345 | GPS REMOTE OPERATING OF EQUIPMENT | | | | |
| 347 | HYDRAULIC TREE PLANTER | | | | |
| 348 | LAUNCHER PERSON (TANKER PERSON OR PILOT LICENSE) | | | | |
| 349 | LOCOMOTIVE (HIGHWAY AND HEAVY ONLY) | | | | |
| 350 | MILLING, GRINDING, PLANNING, FINE GRADE, OR TRIMMER MACHINE | | | | |
| 352 | PAVEMENT BREAKER OR TAMPING MACHINE (POWER DRIVEN) MIGHTY MITE OR SIMILAR TYPE | | | | |
| 354 | PIPELINE WRAPPING, CLEANING OR BENDING MACHINE | | | | |
| 356 | POWER ACTUATED HORIZONTAL BORING MACHINE, OVER SIX INCHES | | | | |
| 357 | PUGMILL | | | | |
| 359 | RUBBER-TIRED FARM TRACTOR WITH BACKHOE INCLUDING ATTACHMENTS (HIGHWAY AND HEAVY ONLY) | | | | |
| 360 | SCRAPER | | | | |
| 361 | SELF-PROPELLED SOIL STABILIZER | | | | |
| 362 | SLIP FORM (POWER DRIVEN) (PAVING) | | | | |
| 363 | TIE TAMPER AND BALLAST MACHINE | | | | |
| 365 | TRACTOR, WHEEL TYPE, OVER 50 H.P. WITH PTO UNRELATED TO LANDSCAPING (HIGHWAY AND HEAVY ONLY) | | | | |
| 367 | TUB GRINDER, MORBARK, OR SIMILAR TYPE | | | | |
| **GROUP 5** | | 2023-12-26 | 39.33 | 25.20 | 64.53 |
| | | 2024-04-29 | 41.36 | 26.40 | 67.76 |
| 370 | BITUMINOUS ROLLER (UNDER EIGHT TONS) | | | | |
| 371 | CONCRETE SAW (MULTIPLE BLADE) (POWER OPERATED) | | | | |
| 372 | FORM TRENCH DIGGER (POWER) | | | | |
| 375 | HYDRAULIC LOG SPLITTER | | | | |
| 376 | LOADER (BARBER GREENE OR SIMILAR TYPE) | | | | |
| 377 | POST HOLE DRIVING MACHINE/POST HOLE AUGER | | | | |
| 379 | POWER ACTUATED JACK | | | | |
| 381 | SELF-PROPELLED CHIP SPREADER (FLAHERTY OR SIMILAR) | | | | |
| 382 | SHEEP FOOT COMPACTOR WITH BLADE . 200 H.P. AND OVER | | | | |
| 383 | SHOULDERING MACHINE (POWER) APSCO OR SIMILAR TYPE INCLUDING SELF-PROPELLED SAND AND CHIP SPREADER | | | | |

| LABOR CODE AND CLASS | | EFFECT DATE | BASIC RATE | FRINGE RATE | TOTAL RATE |
|---|---|---|---|---|---|
| 384 | STUMP CHIPPER AND TREE CHIPPER | | | | |
| 385 | TREE FARMER (MACHINE) | | | | |
| **GROUP 6** | | 2023-12-26 | 38.06 | 25.00 | 63.06 |
| 387 | CAT, CHALLENGER, OR SIMILAR TYPE OF TRACTORS, WHEN PULLING DISK OR ROLLER | | | | |
| 389 | DREDGE DECK HAND | | | | |
| 391 | GRAVEL SCREENING PLANT (PORTABLE NOT CRUSHING OR WASHING) | | | | |
| 393 | LEVER PERSON | | | | |
| 395 | POWER SWEEPER | | | | |
| 396 | SHEEP FOOT ROLLER AND ROLLERS ON GRAVEL COMPACTION, INCLUDING VIBRATING ROLLERS | | | | |
| 397 | TRACTOR, WHEEL TYPE, OVER 50 H.P., UNRELATED TO LANDSCAPING | | | | |

**COMMERCIAL POWER EQUIPMENT OPERATOR**

| | | | | | |
|---|---|---|---|---|---|
| **GROUP 1** | | 2023-12-26 | 49.25 | 25.20 | 74.45 |
| | | 2024-04-29 | 51.03 | 26.40 | 77.43 |
| 501 | HELICOPTER PILOT (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 502 | TOWER CRANE 250 FEET AND OVER (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 503 | TRUCK CRAWLER CRANE WITH 200 FEET OF BOOM AND OVER, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| **GROUP 2** | | 2023-12-26 | 48.88 | 25.20 | 74.08 |
| | | 2024-04-29 | 50.64 | 26.40 | 77.04 |
| 504 | CONCRETE PUMP WITH 50 METERS/164 FEET OF BOOM AND OVER (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 505 | PILE DRIVING WHEN THREE DRUMS IN USE (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 506 | TOWER CRANE 200 FEET AND OVER (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 507 | TRUCK OR CRAWLER CRANE WITH 150 FEET OF BOOM UP TO AND NOT INCLUDING 200 FEET, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| **GROUP 3** | | 2023-12-26 | 47.35 | 25.20 | 72.55 |
| | | 2024-04-29 | 49.05 | 26.40 | 75.45 |
| 508 | ALL-TERRAIN VEHICLE CRANES (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 509 | CONCRETE PUMP 32-49 METERS/102-164 FEET (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 510 | DERRICK (GUY & STIFFLEG) (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 511 | STATIONARY TOWER CRANE UP TO 200 FEET | | | | |
| 512 | SELF-ERECTING TOWER CRANE 100 FEET AND OVER MEASURED FROM BOOM FOOT PIN (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 513 | TRAVELING TOWER CRANE (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 514 | TRUCK OR CRAWLER CRANE UP TO AND NOT INCLUDING 150 FEET OF BOOM, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY) | | | | |

| LABOR CODE AND CLASS | | EFFECT DATE | BASIC RATE | FRINGE RATE | TOTAL RATE |
|---|---|---|---|---|---|
| **GROUP 4** | | 2023-12-26 | 46.99 | 25.20 | 72.19 |
| | | 2024-04-29 | 48.68 | 26.40 | 75.08 |
| 515 | CRAWLER BACKHOE INCLUDING ATTACHMENTS (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 516 | FIREPERSON, CHIEF BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 517 | HOIST ENGINEER (THREE DRUMS OR MORE) (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 518 | LOCOMOTIVE (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 519 | OVERHEAD CRANE ( INSIDE BUILDING PERIMETER) (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 520 | TRACTOR . BOOM TYPE (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| **GROUP 5** | | 2023-12-26 | 44.91 | 25.20 | 70.11 |
| | | 2024-04-29 | 46.51 | 26.40 | 72.91 |
| 521 | AIR COMPRESSOR 450 CFM OR OVER (TWO OR MORE MACHINES) (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 522 | CONCRETE MIXER (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 523 | CONCRETE PUMP UP TO 31 METERS/101 FEET OF BOOM | | | | |
| 524 | DRILL RIGS, HEAVY ROTARY OR CHURN OR CABLE DRILL WHEN USED FOR CAISSON FOR ELEVATOR OR BUILDING CONSTRUCTION (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 525 | FORKLIFT (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 526 | FRONT END, SKID STEER 1 C YD AND OVER | | | | |
| 527 | HOIST ENGINEER ( ONE OR TWO DRUMS) (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 528 | MECHANIC-WELDER (ON POWER EQUIPMENT) (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 529 | POWER PLANT (100 KW AND OVER OR MULTIPLES EQUAL TO 100KW AND OVER) (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 530 | PUMP OPERATOR AND/OR CONVEYOR (TWO OR MORE MACHINES) (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 531 | SELF-ERECTING TOWER CRANE UNDER 100 FEET MEASURED FROM BOOM FOOT PIN (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 532 | STRADDLE CARRIER (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 533 | TRACTOR OVER D2 (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 534 | WELL POINT PUMP (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| **GROUP 6** | | 2023-12-26 | 43.28 | 25.20 | 68.48 |
| | | 2024-04-29 | 44.82 | 26.40 | 71.22 |
| 535 | CONCRETE BATCH PLANT (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 536 | FIREPERSON, FIRST CLASS BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 537 | FRONT END, SKID STEER UP TO 1 C YD | | | | |
| 538 | GUNITE MACHINE (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 539 | TRACTOR OPERATOR D2 OR SIMILAR SIZE (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 540 | TRENCHING MACHINE (SEWER, WATER, GAS) EXCLUDES WALK BEHIND TRENCHER | | | | |
| **GROUP 7** | | 2023-12-26 | 42.06 | 25.20 | 67.26 |
| | | 2024-04-29 | 43.55 | 26.40 | 69.95 |

| LABOR CODE AND CLASS | | EFFECT DATE | BASIC RATE | FRINGE RATE | TOTAL RATE |
|---|---|---|---|---|---|
| 541 | AIR COMPRESSOR 600 CFM OR OVER (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 542 | BRAKEPERSON (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 543 | CONCRETE PUMP/PUMPCRETE OR COMPLACO TYPE (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 544 | FIREPERSON, TEMPORARY HEAT SECOND CLASS BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 545 | OILER (POWER SHOVEL, CRANE, TRUCK CRANE, DRAGLINE, CRUSHERS AND MILLING MACHINES, OR OTHER SIMILAR POWER EQUIPMENT) (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 546 | PICK UP SWEEPER (ONE CUBIC YARD HOPPER CAPACITY) (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 547 | PUMP AND/OR CONVEYOR (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| **GROUP 8** | | 2023-12-26 | 39.88 | 25.20 | 65.08 |
| | | 2024-04-29 | 41.28 | 26.40 | 67.68 |
| 548 | ELEVATOR OPERATOR (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 549 | GREASER (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| 550 | MECHANICAL SPACE HEATER (TEMPORARY HEAT NO BOILER LICENSE REQUIRED) (COMMERCIAL CONSTRUCTION ONLY) | | | | |
| **TRUCK DRIVERS** | | | | | |
| **GROUP 1 *** | | 2023-12-26 | 34.85 | 21.75 | 56.60 |
| 601 | MECHANIC . WELDER | | | | |
| 602 | TRACTOR TRAILER DRIVER | | | | |
| 603 | TRUCK DRIVER (HAULING MACHINERY INCLUDING OPERATION OF HAND AND POWER OPERATED WINCHES) | | | | |
| **GROUP 2 *** | | 2023-12-26 | 34.30 | 21.75 | 56.05 |
| 604 | FOUR OR MORE AXLE UNIT, STRAIGHT BODY TRUCK | | | | |
| **GROUP 3** | | 2023-12-26 | 33.00 | 19.95 | 52.95 |
| 605 | BITUMINOUS DISTRIBUTOR DRIVER | | | | |
| 606 | BITUMINOUS DISTRIBUTOR (ONE PERSON OPERATION) | | | | |
| 607 | THREE AXLE UNITS | | | | |
| **GROUP 4 *** | | 2023-12-26 | 25.10 | 10.85 | 35.95 |
| 608 | BITUMINOUS DISTRIBUTOR SPRAY OPERATOR (REAR AND OILER) | | | | |
| 609 | DUMP PERSON | | | | |
| 610 | GREASER | | | | |
| 611 | PILOT CAR DRIVER | | | | |
| 612 | RUBBER-TIRED, SELF-PROPELLED PACKER UNDER 8 TONS | | | | |
| 613 | TWO AXLE UNIT | | | | |
| 614 | SLURRY OPERATOR | | | | |

| LABOR CODE AND CLASS | | EFFECT DATE | BASIC RATE | FRINGE RATE | TOTAL RATE |
|---|---|---|---|---|---|
| 615 | TANK TRUCK HELPER (GAS, OIL, ROAD OIL, AND WATER) | | | | |
| 616 | TRACTOR OPERATOR, UNDER 50 H.P. | | | | |
| **SPECIAL CRAFTS** | | | | | |
| 701 | HEATING AND FROST INSULATORS | 2023-12-26 | 49.26 | 21.70 | 70.96 |
| | | 2024-06-05 | 52.26 | 21.70 | 73.96 |
| 702 | BOILERMAKERS | 2023-12-26 | 44.37 | 30.55 | 74.92 |
| | | 2024-01-01 | 46.00 | 31.93 | 77.93 |
| 703 | BRICKLAYERS | 2023-12-26 | 39.90 | 33.22 | 73.12 |
| | | 2024-05-01 | 43.40 | 33.22 | 76.62 |
| 704 | CARPENTERS | 2023-12-26 | 35.60 | 24.53 | 60.13 |
| | | 2024-04-29 | 38.85 | 24.53 | 63.38 |
| 705 | CARPET LAYERS (LINOLEUM) | 2023-12-26 | 41.50 | 22.69 | 64.19 |
| | | 2024-06-01 | 44.75 | 22.69 | 67.44 |
| 706 | CEMENT MASONS | 2023-12-26 | 37.97 | 20.75 | 58.72 |
| | | 2024-04-29 | 40.40 | 20.75 | 61.15 |
| 707 | ELECTRICIANS | 2023-12-26 | 44.77 | 30.83 | 75.60 |
| | | 2024-06-02 | 46.59 | 31.64 | 78.23 |
| 708 | ELEVATOR CONSTRUCTORS | 2023-12-26 | 57.49 | 43.71 | 101.20 |
| | | 2024-01-01 | 59.95 | 44.53 | 104.48 |
| 709 | GLAZIERS | 2023-12-26 | 34.62 | 25.67 | 60.29 |
| 710 | LATHERS | 2023-12-26 | 35.95 | 25.40 | 61.35 |
| | | 2024-04-29 | 39.20 | 25.40 | 64.60 |
| 712 | IRONWORKERS | 2023-12-26 | 39.14 | 34.11 | 73.25 |
| | | 2024-04-28 | 42.34 | 34.11 | 76.45 |
| 714 | MILLWRIGHT | 2023-12-26 | 39.18 | 25.33 | 64.51 |
| 715 | PAINTERS (INCLUDING HAND BRUSHED, HAND SPRAYED, AND THE TAPING OF PAVEMENT | 2023-12-26 | 35.19 | 24.84 | 60.03 |

| LABOR CODE AND CLASS | | EFFECT DATE | BASIC RATE | FRINGE RATE | TOTAL RATE |
|---|---|---|---|---|---|
| | MARKINGS) | | | | |
| 716 | PILEDRIVER (INCLUDING VIBRATORY DRIVER OR EXTRACTOR FOR PILING AND SHEETING OPERATIONS) | 2023-12-26 | 42.15 | 26.04 | 68.19 |
| 717 | PIPEFITTERS . STEAMFITTERS | 2023-12-26 | 43.80 | 25.90 | 69.70 |
| 718 | PLASTERERS | 2023-12-26 | 38.24 | 23.23 | 61.47 |
| | | 2024-05-01 | 40.39 | 23.23 | 63.62 |
| 719 | PLUMBERS | 2023-12-26 | 43.81 | 25.90 | 69.71 |
| 720 | ROOFER | 2023-12-26 | 40.00 | 20.46 | 60.46 |
| 721 | SHEET METAL WORKERS | 2023-12-26 | 42.45 | 30.13 | 72.58 |
| | | 2024-05-06 | 45.25 | 30.13 | 75.38 |
| 722 | SPRINKLER FITTERS | 2023-12-26 | 41.02 | 26.09 | 67.11 |
| | | 2024-04-01 | 41.02 | 26.67 | 67.69 |
| 723 | TERRAZZO WORKERS | 2023-12-26 | 45.47 | 24.14 | 69.61 |
| | | 2024-04-29 | 48.27 | 24.14 | 72.41 |
| 724 | TILE SETTERS | 2023-12-26 | 32.54 | 31.46 | 64.00 |
| | | 2024-04-29 | 35.79 | 31.46 | 67.25 |
| 725 | TILE FINISHERS | 2023-12-26 | 25.23 | 22.88 | 48.11 |
| | | 2024-04-29 | 27.83 | 22.88 | 50.71 |
| 726 | DRYWALL TAPER | 2023-12-26 | 35.19 | 24.84 | 60.03 |
| 727 | WIRING SYSTEM TECHNICIAN | 2023-12-26 | 44.61 | 20.16 | 64.77 |
| 728 | WIRING SYSTEMS INSTALLER | 2023-12-26 | 31.25 | 16.34 | 47.59 |
| 729 | ASBESTOS ABATEMENT WORKER | 2023-12-26 | 36.13 | 22.45 | 58.58 |
| 730 | SIGN ERECTOR | 2023-12-26 | 32.37 | 19.40 | 51.77 |
| | | 2024-06-01 | 34.12 | 19.40 | 53.52 |

| LABOR CODE AND CLASS | EFFECT DATE | BASIC RATE | FRINGE RATE | TOTAL RATE |
|---|---|---|---|---|

**SECTION 31 25 10**

**STORMWATER MANAGEMENT**
**(MnDOT 2573)**

## PART 1 GENERAL

### 1.01 SUMMARY

A. Section Includes:
   1. Temporary measures to control soil erosion and sedimentation.
   2. Furnishing, installing and maintaining erosion or sediment control devices.

B. Related Sections:
   1. Section 31 34 10 - Geosynthetic Installation

C. Method of Measurement:
   1. Silt Fence: Measured along base of fence acceptably provided from outside to outside of end posts.
   2. Construction Exit Controls: Measure by the number of acceptably installed and maintained.

D. Basis of Payment:
   1. Payment for acceptable quantities of Stormwater Management items shall be at the Contract Unit Price as listed on the Bid Form. All associated Work items shall be considered incidental.

### 1.02 REFERENCES

A. MnDOT:
   1. 1717 - Air, Land, and Water Pollution
   2. 2573 - Storm Water Management

B. MnDOT District Vegetation Establishment Recommendations
   http://www.dot.state.mn.us/environment/erosion/vegetation.html

C. Minnesota Stormwater Manual
   https://stormwater.pca.state.mn.us/index.php?title=Temporary_construction_erosion_and_sediment_control

D. Protecting Water Quality in Urban Areas - Best Management Practices for Minnesota, published by the Minnesota Pollution Control Agency

### 1.03 DEFINITIONS

A. BMPs: Best Management Practices

B. For the NPDES permit process, the operator is defined as the Contractor

C. SWPPP: Storm Water Pollution Prevention Plan

### 1.04 SUBMITTALS

A. Proof of coverage under permit MN R100001 - NPDES/SDS Construction Stormwater Permit.

B. Name of individual responsible for meeting the requirements of this Specification, and ensuring compliance with the NPDES/SDS Permit (if applicable), and any watershed district permits (if applicable).

C. Proposed schedule for accomplishment of Work within, adjacent to, or affecting surface water.

D. Erosion and sediment control schedule.

## 1.05 REGULATORY REQUIREMENTS

A. For operations that disturb 1 acre or more of land area, apply online for NPDES/SDS Construction Stormwater Permit (MN R100001) as soon as possible.
   1. Construction may begin upon coverage notification from MPCA.
   2. Attach coverage card to SWPPP.
      a. SWPPP to be kept on Site.
      b. SWPPP and other applicable documents must be made available to federal, state, and local officials within 72 hours upon request for the duration of the permit and for 3 years following Notice of Termination (NOT).
      c. Submit NOT within 30 days of final stabilization or of meeting termination conditions of the permit.
   3. Conduct inspections required by NPDES/SDS Construction Stormwater Permit.
   4. Maintain inspection log as required by the NPDES/SDS Construction Stormwater Permit.

B. Exposed Soil Areas Adjacent to Surface Water:
   1. Provide year-round temporary erosion protection for all exposed soil areas with a continuous positive slope within 200 lineal feet of a surface water.
   2. The maximum time these areas can remain open when not actively being worked is as follows:
      a. 7 days on slopes steeper than 3:1.
      b. 3 days on slopes steeper than 3:1 that drain to construction related impaired waters or Special Waters.
      c. 7 days on slopes flatter than 3:1 that drain to construction related impaired waters or Special Waters.
      d. 14 days on slopes between 3:1 and 10:1.

## 1.06 QUALITY ASSURANCE

A. Refer to “Protecting Water Quality in Urban Areas - Best Management Practices for Minnesota.

B. Minnesota Stormwater Manual (as referenced above).

C. Obtain all necessary permits from responsible regulatory agencies.

D. Ensure minimum interference with roads, streets, walks, and adjacent occupied or used facilities. Do not close or obstruct without permission from authorities having jurisdiction.

# PART 2 PRODUCTS

## 2.01 MATERIALS

A. Silt Fence MnDOT 3886.

B. Stabilized Construction Exit: MnDOT 2573 and 3882.

# PART 3 EXECUTION

## 3.01 PREPARATION

A. Establish sediment control BMPs on all downgradient perimeters of the site and downgradient area of the site that drain to any surface water, including curb and gutter systems.

B. Preserve a 50 foot natural buffer **OR** If a buffer is infeasible on site, provide redundant (double) perimeter sediment controls when a surface water is located within 50 feet of a project's disturbance limit.

C. Place erosion control for wetland protection prior to Work on any phase of the Project.

D. Install safeguards to prevent water pollution from haul roads, work platforms, or other temporary construction facilities.

E. Minimize sediment from entering surface waters, curb and gutter systems, and storm sewer inlets.

F. Complete grading, finishing, erosion control and turf establishment on a drainage area basis to prevent excessive soil erosion.
   1. Shape exposed soil areas to permit runoff with minimal erosion.

G. Coordinate erosion control measures with earthwork and turf establishment operations.

H. Stabilize all exposed soil areas, including stockpiles, when construction activity has ceased or is completed on any portion of the site to limit soil erosion in accordance with section 1.05.B.

## 3.02 PLACING TEMPORARY EROSION CONTROL ITEMS

A. Construct items in conformance with MnDOT 2573.3 and the typical sections and elevation controls shown on Drawings.

B. Silt Fence:
   1. Provide in compliance with MnDOT 2573.3.B.
   2. Posts: MnDOT 3886.
   3. Pre-Assembled (PA): MnDOT 2573.3.B.1 and MnDOT 3886.

C. Dust Control: Prevent spread of dust during performance of Work.
   1. Application of water for dust control shall be in accordance with MnDOT 2130 and as approved by the engineer.

D. Stabilized Construction Exit
   1. Provide in compliance with MnDOT 2573.3.H prior to commencement of earthwork or hauling of materials.
   2. Minimum length shall be greater than 50 feet or 5 tire rotations.
   3. If runoff flows to or from construction exit, intercept and treat accordingly.

## 3.03 EMERGENCY EROSION CONTROL

A. Upon written order by engineer, conduct temporary erosion control Work on an emergency basis.
   1. Mobilize with sufficient personnel, equipment, materials, and incidentals within 24 hours of receipt of order.
   2. Provide immediate corrective work followed by installation of erosion control measures.

## 3.04 REPAIR AND MAINTENANCE

A. Inspect, repair, and maintain all erosion control measures to provide proper function throughout project in compliance with MnDOT 2573.3.P.

B. Failure to maintain erosion control measures: Owner may hire another firm to maintain erosion control measures. Costs associated with hiring another firm will be deducted from the Contract.

C. Silt Fence:
   1. Inspect immediately after each runoff event and minimum once daily during prolonged rainfall.

2. Make required repairs immediately.
3. When sediment deposits reach approximately one-half the height of the silt fence, remove sediment or install a second silt fence.
4. Dispose of sediment as directed by engineer.

D. Stabilized Construction Exit:
1. Maintain when effectiveness of sediment removal has been reduced.
2. Maintenance shall consist of removing sediment and cleaning the materials or placing additional materials to restore effectiveness.

## 3.05 FIELD QUALITY CONTROL

A. Inspections and maintenance prior to final acceptance:
1. Every 7 days.
2. Within 24 hours of 1/2-inch storm or greater.
3. Record and file with SWPPP.

## 3.06 CLEANUP AND RESTORATION

A. Remove temporary erosion control items when area is permanently stabilized and upon completion of Work.

B. Restore all plant, equipment, or other supplementary operation sites to prevent siltation and erosion.

C. Repair any off-site damage resulting from failure to install or maintain BMPs.

D. Restore and stabilize areas disturbed during removal of erosion controls.

**END OF SECTION**

**SECTION 32 11 22**

**AGGREGATE BASE**
**(MnDOT 2211)**

## PART 1 GENERAL

### 1.01 SUMMARY

A. Section includes construction of aggregate base courses on a prepared subgrade.

B. Related Sections:

C. Method of Measurement:
   1. Aggregate Base:
      a. Measure by volume in cubic yards based on the proposed dimensions.
      b. Payment will be made for the proposed quantity unless dimensional changes are authorized.

D. Basis of Payment:
   1. Payment for acceptable quantities of aggregate base shall be at the contract unit price as listed on the Bid Form. All associated work items shall be considered incidental.

### 1.02 REFERENCES

A. MnDOT:
   1. 2211 - Aggregate Base
   2. 3138 - Aggregate for Surface and Base Courses

### 1.03 SUBMITTALS

A. Provide for Each Aggregate Material:
   1. Name and location of source.
   2. Sample gradation.

### 1.04 HANDLING AND DELIVERY

A. Stockpile and drain aggregate removed from below water for a minimum 24 hours prior to delivery.

### 1.05 SITE CONDITIONS

A. Deposit aggregate only on dry, compact subgrade so that no rutting or displacement will occur under construction traffic.

## PART 2 PRODUCTS

### 2.01 MATERIALS

A. Aggregate Base Materials: MnDOT 3138.

B. Aggregate class: Class 5

## PART 3 EXECUTION

### 3.01 CONSTRUCTION REQUIREMENTS

A. Placing and Mixing:
   1. Place aggregate in layers to produce a maximum 3 inches of compacted thickness.
   2. With vibratory compaction, place to produce maximum 6 inches of compacted thickness.
   3. Deposit only the amount of aggregate which is intended to be spread and compacted during the same day.
   4. Add water as may be required during mixing to produce proper compaction.

B. Spreading and Compacting:
   1. Mix aggregate uniformly to maintain proper gradation.
   2. Spread and compact each layer to the required cross section and density prior to placing a succeeding layer.
   3. Compact each layer per Section 209-3.5 of Specification P-209 (Modified Proctor Density).

C. Tolerances: Construct each course to within 0.05 foot of the planned grades and staked elevations at all locations.

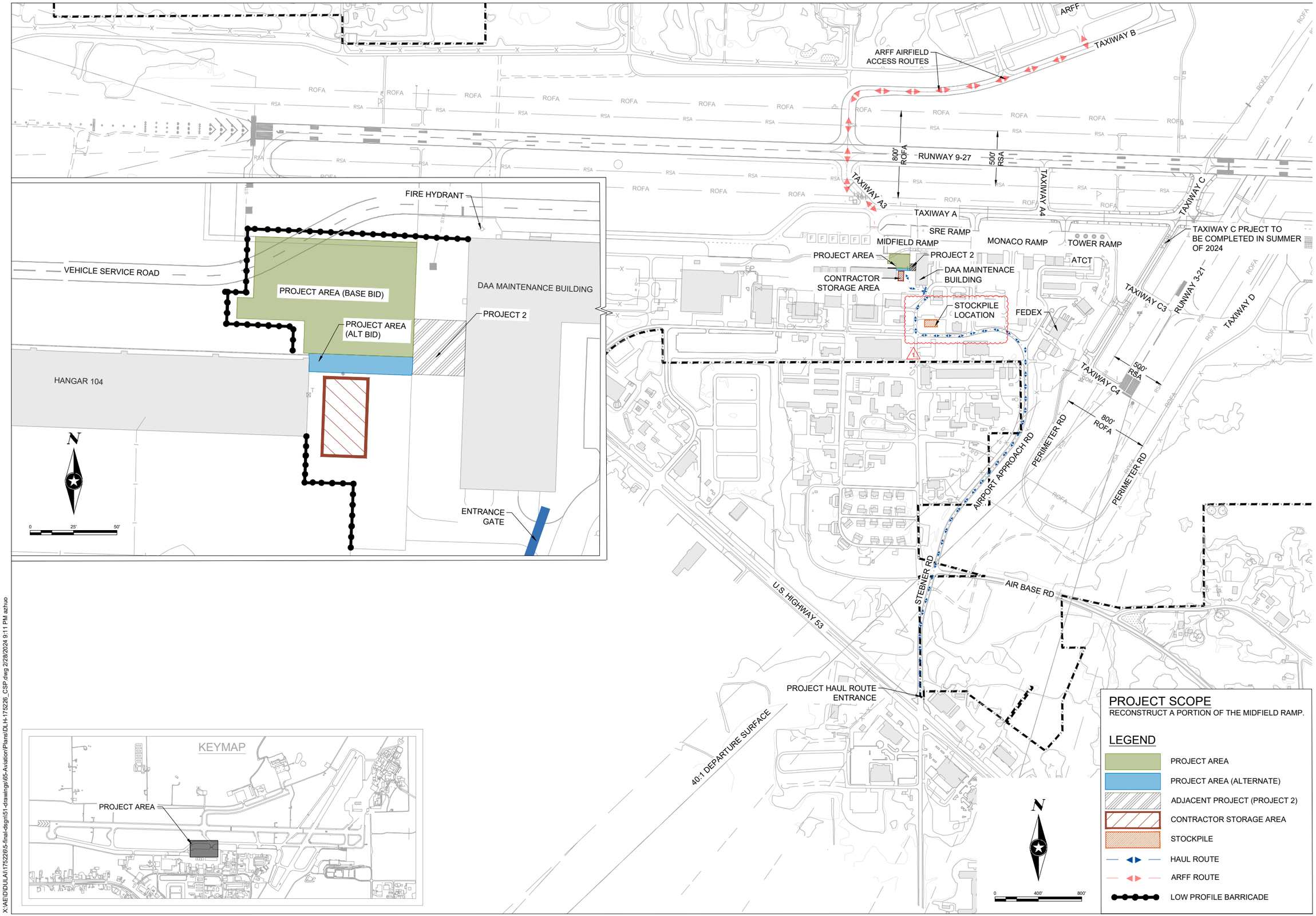
D. Aggregate in Stockpiles: Deliver and stockpile aggregate as specified in the location or site designated by on plans.

### 3.02 PROTECTION

A. Place initial surface course or otherwise protect the in-place aggregate base within 72 hours after placement.

B. Remove and replace any portion of the material which becomes contaminated after placement.

**END OF SECTION**







## PROJECT SCOPE

RECONSTRUCT A PORTION OF THE MIDFIELD RAMP.

### LEGEND

- PROJECT AREA
- PROJECT AREA (ALTERNATE)
- ADJACENT PROJECT (PROJECT 2)
- CONTRACTOR STORAGE AREA
- STOCKPILE
- HAUL ROUTE
- ARFF ROUTE
- LOW PROFILE BARRICADE


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SEH

DULUTH INTERNATIONAL AIRPORT


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 PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Shawn T. McMahon, PE — LICENSE NO. 49659

DATE FEBRUARY 15, 2024

DULUTH INTERNATIONAL AIRPORT

# 2024 MIDFIELD RAMP REPAIR - PHASE 2

DULUTH, MINNESOTA

| REVISIONS | | |
|---|---|---|
| MARK | DATE | DESCRIPTION |
| 1 | 2.28.2024 | ADDENDUM #1 |

| | |
|---|---|
| SEH FILE NO. | DULAI 175226 |
| STATE PROJECT NO. | A6901-216 |
| ISSUE DATE | FEBRUARY 15, 2024 |
| DESIGNED BY | JPH |
| DRAWN BY | MAB |


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SHEET TITLE
CONSTRUCTION SAFETY PLAN

SHEET
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## LEGEND

- PROJECT AREA
- **PROJECT AREA** (ALTERNATE)
- CONTRACTOR STORAGE AREA
- STOCKPILE
- ADJACENT PROJECT (PROJECT 2)
- HAUL ROUTE
- ACCESS GATE
- GATE GUARD LOCATION
- REQUIRED PROJECT SIGNAGE (SEE SHEET G0.03 FOR ALL SIGNAGE)
- TRAFFIC CONTROL BARRICADE

## GENERAL NOTES:

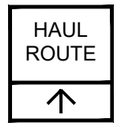
1. CONTRACTOR TO SUPPLY, PLACE, RELOCATE, MAINTAIN AND REMOVE TRAFFIC AND AIRPORT SECURITY DEVICES, AS SHOWN ON THE SHEETS, INCLUDING BUT NOT LIMITED TO:
   A. PROJECT SIGNAGE FOR HAUL ROUTES AND SITE ACCESS
   B. LIGHTED LOW PROFILE BARRICADES
   C. GATE GUARD SERVICES
   D. CONSTRUCTION VEHICLE MARKINGS
2. ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO AND BE INSTALLED IN ACCORDANCE WITH THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD) AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS"
3. GATE GUARDS SHALL BE EMPLOYED AT ANY TIME CONSTRUCTION OCCURS WITHIN THE SECURED FENCED AREA OR WHEN MATERIAL OR DELIVERIES ARE USING HAUL ROUTES.
4. ALL TRAFFIC AND AIRPORT SECURITY ITEMS SHALL BE INCLUDED UNDER 70-08 TRAFFIC CONTROL.
5. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN, APPROVED BY ENGINEER AND SPONSOR, MEETING BASIC TRAFFIC FLOW SHOWN ON THIS SHEET.
6. TRAFFIC CONTROL PLAN MUST BE APPROVED BY ENGINEER, OWNER, CITY, AND COUNTY.
7. SUBMIT TRAFFIC CONTROL PLAN 1 MONTH PRIOR TO IMPLEMENTATION.




PROJECT SIGNAGE

A

NTS




PROJECT SIGNAGE

B

NTS




PROJECT SIGNAGE

C

NTS




PROJECT SIGNAGE

D

NTS




PROJECT SIGNAGE

E

NTS



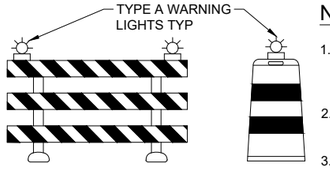

PROJECT SIGNAGE

F

NTS

## SIGN NOTES:

1. SIGNS SHALL BE ALUMINUM AT LEAST 0.10" THICK.
2. SIGNS TO BE PLACED, SUPPLIED AND MAINTAINED BY CONTRACTOR.
3. SIGNS SHALL BE ORANGE RETROREFLECTIVE BACKGROUND WITH THE EXCEPTION OF THE BLACK LETTERING.



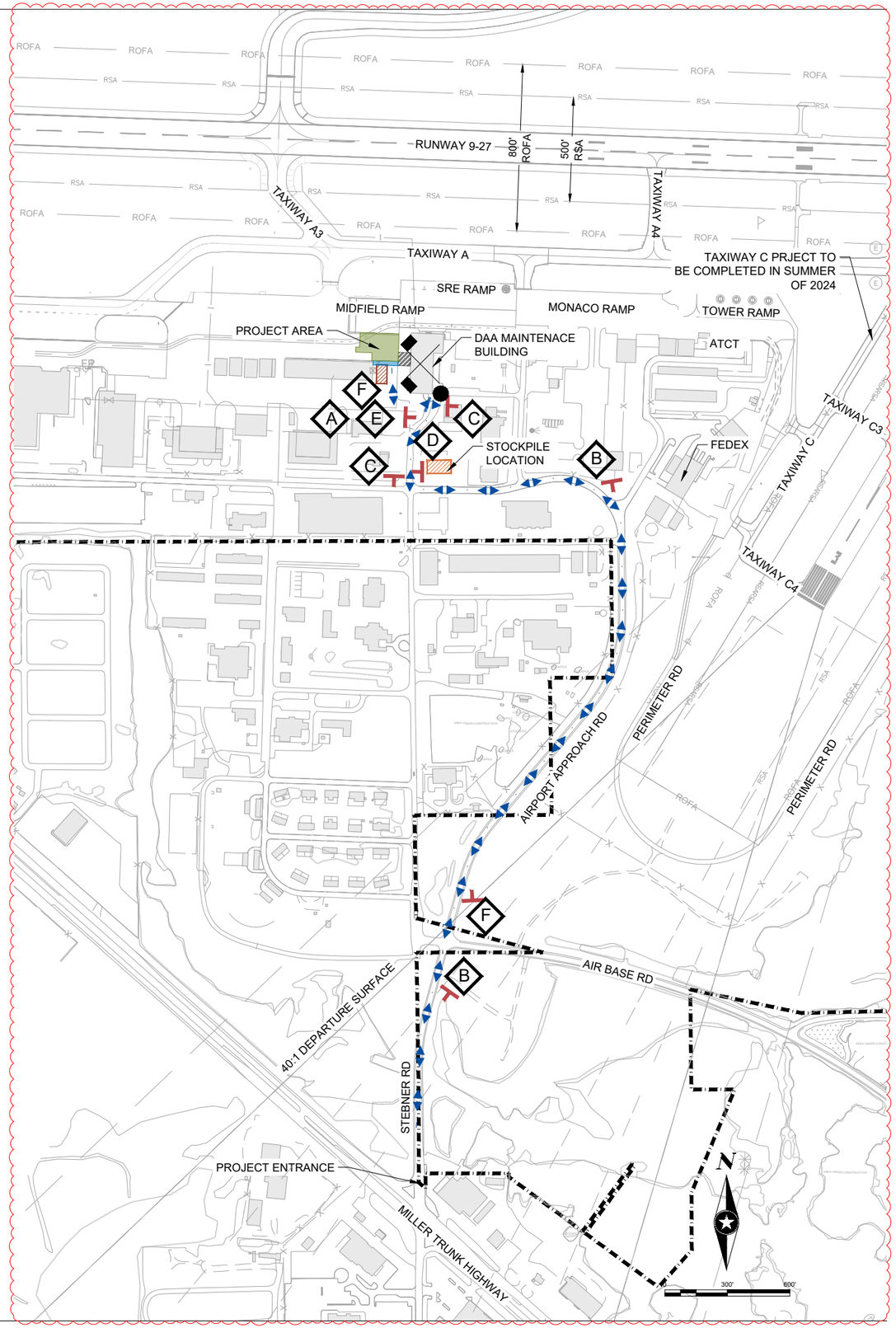

TYPE III BARRICADE
NTS

BARREL/DRUM
NTS

## NOTES:

1. BARRICADES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. TYPE III BARRICADES REQUIRE TWO (2) SANDBAGS PER LEG (EIGHT TOTAL).
3. EXACT INSTALLATION LOCATIONS TO BE DETERMINED BY THE ENGINEER.

TRAFFIC CONTROL BARRICADE
NTS




1


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DULUTH INTERNATIONAL AIRPORT

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 PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

Shawn T. McMahon, PE

DATE FEBRUARY 15, 2024 LICENSE NO. 48856

2024 MIDFIELD RAMP REPAIR - PHASE 2

DULUTH, MINNESOTA

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SHEET TITLE
TRAFFIC CONTROL

SHEET
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# GENERAL NOTES:

1. THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL MINNESOTA'S ONE-CALL NOTIFICATION CENTER (GSOC) AT 1-800-252-1166, AND COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING AND UTILITY WORK. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ANY UTILITIES DAMAGED DURING CONSTRUCTION TO THE SATISFACTION OF THE UTILITY OWNER AT NO COST.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES AS REQUIRED BY THE CONSTRUCTION COVERED IN THE PLANS.
3. ALL WORK SHALL CONFORM TO APPLICABLE LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS.
4. THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
5. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES. THE CONTRACTOR SHALL PROVIDE ALL WORK AND MATERIALS AS SHOWN ON THE PLANS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL EXISTING AREAS, PAVEMENTS, STRUCTURES, OR OTHER FACILITIES DAMAGED DURING CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER CONDITION AT NO COST TO THE OWNER.
7. THE CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM WORK UNDER THIS CONTRACT TO AN APPROVED OFF-AIRPORT DUMP SITE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE OWNER'S REPRESENTATIVE WITH REDLINED PLANS AND AS-BUILT SURVEYS, CERTIFIED BY A PROFESSIONAL LAND SURVEYOR IN THE STATE OF MINNESOTA.
9. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION STAKING.

SECURITY NOTES:

1. GENERAL INTENT: IT IS INTENDED THAT THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE AIRPORT SECURITY PLAN AND WITH THE SECURITY REQUIREMENTS SPECIFIED HEREIN BY AIRPORT OPERATIONS. THE CONTRACTOR SHALL DESIGNATE TO THE ENGINEER AND AIRPORT OPERATIONS, IN WRITING, THE NAME OF THEIR "CONTRACTOR SECURITY AND SAFETY OFFICER (CSSO)." THE CSSO SHALL BE AN EMPLOYEE OF THE CONTRACTOR AND REPRESENT THE CONTRACTOR ON THE SECURITY REQUIREMENTS FOR THE CONTRACT.
2. CONTRACTOR PERSONNEL SECURITY ORIENTATION: THE CSSO SHALL BE RESPONSIBLE FOR SCHEDULING ALL TRAINING REQUIRED FOR CONTRACTOR AND SUBCONTRACTOR PERSONNEL INTENDING TO WORK ON THE SITE. ALL SECURITY REQUIREMENTS WILL BE INCORPORATED INTO A SECURITY PLAN DEVELOPED BY THE CONTRACTOR AND APPROVED BY AIRPORT OPERATIONS. ALL CONTRACTOR EMPLOYEES SHALL BE BRIEFED ON SECURITY REQUIREMENTS PRIOR TO WORKING IN THE CONSTRUCTION AREA. THE AIRPORT SHALL BRIEF AND/OR TRAIN CONSTRUCTION RELATED VEHICLE EQUIPMENT DRIVERS ON OPERATIONS WITHIN AN AIRPORT/AIRCRAFT ENVIRONMENT. AIRPORT MANAGEMENT SHALL PROVIDE PRINTED MATERIAL TO THE CONTRACTOR THAT DEPICTS HAUL ROUTES, PROHIBITED MOVEMENT AREAS, AND DESCRIBE THE CONSEQUENCES FOR NON-COMPLIANCE WITH ESTABLISHED PROCEDURES. THE AIRPORT HAS IMPLEMENTED A ZERO-TOLERANCE APPROACH TO DRIVING VIOLATIONS.
3. PERSONNEL SECURITY FIRM: THE CONTRACTOR IS REQUIRED TO HIRE PROFESSIONAL SECURITY FOR THE PROJECT. THE SECURITY FIRM SHALL PROVIDE GATE GUARDS ANYTIME ACCESS GATES TO THE AIRFIELD ARE UNLOCKED AND IN USE. THE SECURITY FIRM WILL ALSO PERFORM ROUTINE SEARCHES OF DELIVERIES IN ACCORDANCE WITH AIRPORT SECURITY PROCEDURES. THE CONTRACTOR IS REQUIRED TO RECEIVE AIRPORT AUTHORITY APPROVAL ON SELECTION OF SECURITY FIRM.
4. IDENTIFICATION - EMPLOYEES: CONSTRUCTION PERSONNEL ON SITE FOR MORE THAN 5 DAYS (CONTRACTOR AND SUBCONTRACTORS) ARE REQUIRED TO BE BADGED. THE CSSO SHALL BE RESPONSIBLE FOR COORDINATING AND COMPLETING ALL NECESSARY DOCUMENTATION FOR BADGING. AS A REQUIREMENT OF BADGING, EACH EMPLOYEE SHALL ATTEND SAFETY AND SECURITY TRAINING AS CONDUCTED BY OPERATIONS. TRAINING WILL TAKE APPROXIMATELY TWO HOURS. BADGE APPLICATION AND PROCESSING WILL TAKE APPROXIMATELY ONE HOUR. BADGES FOR CONSTRUCTION PERSONNEL REQUIRE A FEE OF $175 PER BADGE. ALL BADGES MUST BE RETURNED TO THE AIRPORT AFTER PROJECT COMPLETION. FINAL PAYMENT WILL NOT BE MADE TO THE CONTRACTOR UNTIL ALL BADGES HAVE BEEN RETURNED. LOST BADGES RESULT IN A $200 PENALTY. ALL CONSTRUCTION PERSONNEL SHALL COMPLETE BADGE APPLICATION AND TRAINING AT LEAST SIX WEEKS PRIOR TO NOTICE TO PROCEED. DAILY OPERATIONS SHALL INCLUDE TURNING IN BADGES AT THE END OF THE WORKDAY AND CHECKING OUT THE BADGES AT THE BEGINNING OF THE NEXT WORK DAY. THE PROFESSIONAL SECURITY FIRM SHALL HANDLE THE BADGE CHECK IN/CHECK OUT PROCESS. IN THE RARE EXCEPTION AN EMPLOYEE IS NOT BADGED, THE CONTRACTOR SHALL PROVIDE AN ESCORT FOR THE UNBADGED EMPLOYEE. THE ESCORT CANNOT PERFORM ANY OTHER WORK WHILE ESCORTING AND CAN ESCORT UP TO FIVE PEOPLE MAXIMUM. ESCORT MUST BE WITHIN EARSHOT OF ALL PEOPLE BEING ESCORTED.
5. IDENTIFICATION - VEHICLES: THE CONTRACTOR, THROUGH THE CSSO, SHALL ESTABLISH AND MAINTAIN A LIST OF CONTRACTOR AND SUBCONTRACTOR VEHICLES AUTHORIZED TO OPERATE ON THE SITE OR DELIVER TO THE SITE. THE LIST MAY BE UPDATED, AS NEEDED, TO ACCOUNT FOR DIFFERENT OPERATIONAL COMPONENTS OF THE WORK.
6. SECURE ACCESS TO THE AIRFIELD: CONTRACTOR ACCESS TO THE SITE SHALL BE SHOWN ON THE PLANS. NO OTHER ACCESS POINTS SHALL BE ALLOWED UNLESS APPROVED BY AIRPORT OPERATIONS. ALL CONTRACTOR TRAFFIC AUTHORIZED TO ENTER THE SITE SHALL BE BADGED EMPLOYEES OR ESCORTED BY BADGED CONTRACTOR PERSONNEL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL TO AND FROM THE VARIOUS CONSTRUCTION AREAS ON THE SITE. THE SELECTED PROFESSIONAL SECURITY FIRM SHALL BE RESPONSIBLE FOR THE OPERATION AND SECURITY OF THE ACCESS GATES TO THE SITE. NO UNAUTHORIZED CONSTRUCTION PERSONNEL OR TRAFFIC SHALL BE ALLOWED WITHIN THE AIRPORT SECURITY FENCE. ACCESS GATES TO THE SITE SHALL BE LOCKED AND SECURED AT ALL TIMES WHEN NOT ATTENDED BY THE PROFESSIONAL SECURITY FIRM. THE CONTRACTOR IS RESPONSIBLE FOR THE IMMEDIATE CLEANUP OF ANY DEBRIS DEPOSITED ALONG THE ACCESS ROUTE AS A RESULT OF CONSTRUCTION TRAFFIC. DIRECTIONAL SIGNING FROM THE ACCESS GATE ALONG THE DELIVERY ROUTE TO THE STORAGE AREA, PLANT SITE, OR WORK SITE SHALL BE AS DIRECTED BY AIRPORT OPERATIONS. CONTRACTOR SHALL PROVIDE VISUAL CUES TO DELINEATE THE WORK AREAS. UP TO 8,000 FEET OF ORANGE SNOW FENCE, ADDITIONAL BARRELS/BARRICADES, AND SIGNAGE MAY BE REQUIRED TO CONTAIN EMPLOYEES WITHIN THE WORK AREA, AT NO ADDITIONAL COST TO THE CONTRACT.
7. COSTS ASSOCIATED WITH SECURITY: ALL COSTS ASSOCIATED WITH SECURITY ARE ASSOCIATED WITH THE TRAFFIC PROVISIONS/AIRPORT SECURITY & DEVICES/PHASING ITEM AS A LUMP SUM.
8. CONSTRUCTION RADIO CAR OPERATOR (CRCO): A CONSTRUCTION RADIO CAR IS NOT REQUIRED FOR THE PROPOSED WORK AREA. COORDINATE WITH ENGINEER OR AIRPORT FOR ACCESS OUTSIDE OF THE APPROVED WORK AREA.
9. MATERIAL DELIVERED TO THE SITE: ALL CONTRACTOR'S MATERIAL ORDERS FOR DELIVERY TO THE SITE WILL USE AS A DELIVERY ADDRESS THE STREET NAME ASSIGNED TO THE ACCESS POINT AT THE CONTRACTOR'S STAGING SITE AT THE AIRPORT. THE NAME "DULUTH INTERNATIONAL AIRPORT" SHALL NOT BE USED IN THE DELIVERY ADDRESS AT ANY TIME. THIS WILL PRECLUDE DELIVERY TRUCKS FROM ENTERING INTO THE TERMINAL COMPLEX, OR TAKING SHORT CUTS THROUGH THE PERIMETER GATES AND ENTERING INTO AIRCRAFT OPERATIONAL AREAS INAPPROPRIATELY.
10. FINES: PAYMENT OF ALL FINES ASSESSED TO DULUTH INTERNATIONAL AIRPORT DUE TO VIOLATIONS BY THE CONTRACTOR OF FAA, TSA, OR AIRFIELD SECURITY AND SAFETY REQUIREMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
    - 10.1. IF THE RESTRICTED AREA GATE IS FOUND TO BE OPEN OR UNLOCKED AND UNATTENDED, AIRPORT SECURITY POLICE AND/OR TSA MAY ISSUE THE CONTRACTOR A CITATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COURT COSTS AND IMPOSED FINES. IN ADDITION, AN UP TO $10,000.00 CHARGE MAY BE LEVIED BY THE DULUTH AIRPORT AUTHORITY AND/OR TSA FOR EACH VIOLATION SO DOCUMENTED. ALL FINES AND CHARGES SHALL BE DEDUCTED FROM FINAL PAYMENT TO THE CONTRACTOR IF FINES ARE NOT PAID WHEN DUE.
    - 10.2. IN THE EVENT THE CONTRACTOR DEVIATED FROM THE IDENTIFIED CONSTRUCTION LIMITS OR DESIGNATED HAUL ROUTES ONTO ACTIVE RUNWAY, TAXIWAY, OR SAFETY AREA, THE CONTRACTOR WILL BE FINED $1,000.00 PER OCCURRENCE. ALL FINES AND CHARGES SHALL BE DEDUCTED FROM FINAL PAYMENT DUE TO THE CONTRACTOR IF FINES ARE NOT PAID WHEN DUE.

EARTHWORK SUMMARY & NOTES:

1. STRIPPING, ON SITE STOCKPILING AND PLACING OF STRIPPED AND SALVAGED TOPSOIL WILL BE PAID FOR UNDER COMMON EXCAVATION.
2. EXCAVATION OR FIELD GRADING QUANTITIES OUTSIDE OF THE GRADING LIMITS SHALL BE DETERMINED QUANTITIES FROM A TOPOGRAPHIC SURVEY FROM BEFORE & AFTER THE WORK. THE SURVEY DATA COMPLETED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE ENGINEER.
3. UNCLASSIFIED EXCAVATION QUANTITIES ARE ESTIMATES ONLY. QUANTITIES FOR PAYMENT MUST BE JUSTIFIED FROM A TOPOGRAPHIC SURVEY FROM BEFORE & AFTER THE WORK. THE SURVEY DATA SHALL BE SUBMITTED TO THE ENGINEER.

SEQ NOTES (FOR REFERENCE ONLY):

1. REFLECTIVE MEDIA CALCULATED AT 115 SF/GAL AND 7 LBS/GAL

**STATEMENT OF ESTIMATED QUANTITIES**

| LINE NO. | ITEM NO. | ITEM DESCRIPTION | UNIT | ESTIMATED QUANTITIY | FINAL QUANTITY |
|---|---|---|---|---|---|
| **SCHEDULE A - MIDFIELD RAMP RECONSTRUCTION, PHASE 2 BASE BID (ELIGIBLE FOR STATE FUNDING)** | | | | | |
| 1 | 40-05 | MAINTENANCE & RESTORATION OF HAUL ROADS (A) | LS | 1 | |
| 2 | 40-08 | RESTORATION OF CONTRACTOR STORAGE AREAS (B) | LS | 1 | |
| 3 | 50-06 | CONSTRUCTION LAYOUT & STAKING | LS | 1 | |
| 4 | 70-08 | TRAFFIC PROVISIONS/AIRPORT SECURITY & DEVICES/PHASING | LS | 1 | |
| 5 | 02 41 35 | REMOVE PAVEMENT MARKING BY WATER BLASTING | SF | 500 | |
| 6 | 31 34 10 | GEOTEXTILE FABRIC, TYPE 7 | SY | 2600 | |
| 7 | C-102 | ROCK CONSTRUCTION ENTRANCE (INCLUDES MAINTENANCE AND REMOVAL) | EA | 1 | |
| 8 | C-102-5.2 | SILT FENCE, TYPE PREASSEMBLED (INCLUDES MAINTENANCE AND REMOVAL) | LF | 500 | |
| 9 | C-102-5.5 | INLET PROTECTION, TYPE B (INCLUDES MAINTENANCE) | EA | 4 | |
| 10 | 01 71 13 | MOBILIZATION (C) | LS | 1 | |
| 11 | P-101 | REMOVE AND DISPOSE OF FUEL LINE | LS | 1 | |
| 12 | D-705 | DRAIN TILE (6" PERFORATED, INCLUDING TRENCH, BACKFILL, FABRIC) (D) | LF | 680 | |
| 13 | P-101 | SAWING CONCRETE PAVEMENT (FULL DEPTH) | LF | 500 | |
| 14 | P-101 | REMOVE CONCRETE PAVEMENT (FULL DEPTH) | SY | 2550 | |
| 15 | P-152 | UNCLASSIFIED EXCAVATION (EV) (E) | CY | 1750 | |
| 16 | P-152.1 | UNCLASSIFIED OVER-EXCAVATION (EV) (IF NEEDED) (E) | CY | 100 | |
| 17 | P-152 | SUBGRADE PREPARATION | SY | 2600 | |
| 18 | P-154-5.1 | SUBBASE COURSE | CY | 875 | |
| 19 | P-209-5.1 | CRUSHED AGGREGATE BASE COURSE (CV) (F) | CY | 800 | |
| 20 | P-501 | CEMENT CONCRETE PAVEMENT, 12" | SY | 2050 | |
| 21 | P-501 | CEMENT CONCRETE PAVEMENT, REINFORCED 12" | SY | 515 | |
| 22 | P-604 | COMPRESSION JOINT SEALS FOR CONCRETE | LF | 3300 | |
| 23 | P-620 | TEMPORARY PAVEMENT MARKING | SF | 520 | |
| 24 | P-620 | PERMANENT PAVEMENT MARKING (INCL. REFLECTIVE BEADS) | SF | 500 | |
| **SCHEDULE B - MIDFIELD RAMP RECONSTRUCTION, PHASE 2 - ALTERNATE** | | | | | |
| 25 | 31 34 10 | GEOTEXTILE FABRIC, TYPE 7 | SY | 300 | |
| 26 | P-101 | SAWING CONCRETE PAVEMENT (FULL DEPTH) | LF | 260 | |
| 27 | P-101 | REMOVE CONCRETE PAVEMENT (FULL DEPTH) | SY | 300 | |
| 28 | P-152 | UNCLASSIFIED EXCAVATION (EV) E | CY | 220 | |
| 29 | P-152.1 | UNCLASSIFIED OVER-EXCAVATION (EV) (IF NEEDED) (E) | CY | 20 | |
| 30 | P-152 | SUBGRADE PREPARATION | SY | 300 | |
| 31 | P-154-5.1 | SUBBASE COURSE | CY | 110 | |
| 32 | P-209-5.1 | CRUSHED AGGREGATE BASE COURSE (CV) (F) | CY | 100 | |
| 33 | P-501 | CEMENT CONCRETE PAVEMENT, 12" | SY | 230 | |
| 34 | P-501 | CEMENT CONCRETE PAVEMENT, REINFORCED 12" | SY | 60 | |
| 35 | P-604 | COMPRESSION JOINT SEALS FOR CONCRETE | LF | 530 | |

SEQ NOTES:

(A) TEMPORARY HAUL ROUTE ADJACENT TO TAXIWAY D IS INCIDENTAL TO THIS ITEM.
(B) INCLUDES GRADING AND ANY OTHER MEASURES REQUIRED TO RETURN THE AREA TO PRE-CONSTRUCTION CONDITIONS OR BETTER.
(C) LIMITED TO 10-PERCENT OF THE TOTAL PROJECT COST.
(D) INCLUDES TRENCHING, BACKFILL MATERIAL, PIPE, AND FABRIC.
(E) 1,750 CY OF UNCLASSIFIED EXCAVATION, ADDITIONAL 100 CY WITH OVEREXCAVATION IF REQUIRED.
(F) MNDOT CLASS 5 AGGREGATE BASE IS ALSO ACCEPTABLE.

1


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DULUTH INTERNATIONAL AIRPORT

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 PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Shawn T. McMahon, PE
DATE FEBRUARY 15, 2024 LICENSE NO. 49858

DULUTH INTERNATIONAL AIRPORT
2024 MIDFIELD RAMP REPAIR - PHASE 2
DULUTH, MINNESOTA

| MARK | DATE | DESCRIPTION |
|---|---|---|
| 1 | 2.28.2024 | ADDENDUM #1 |

REVISIONS

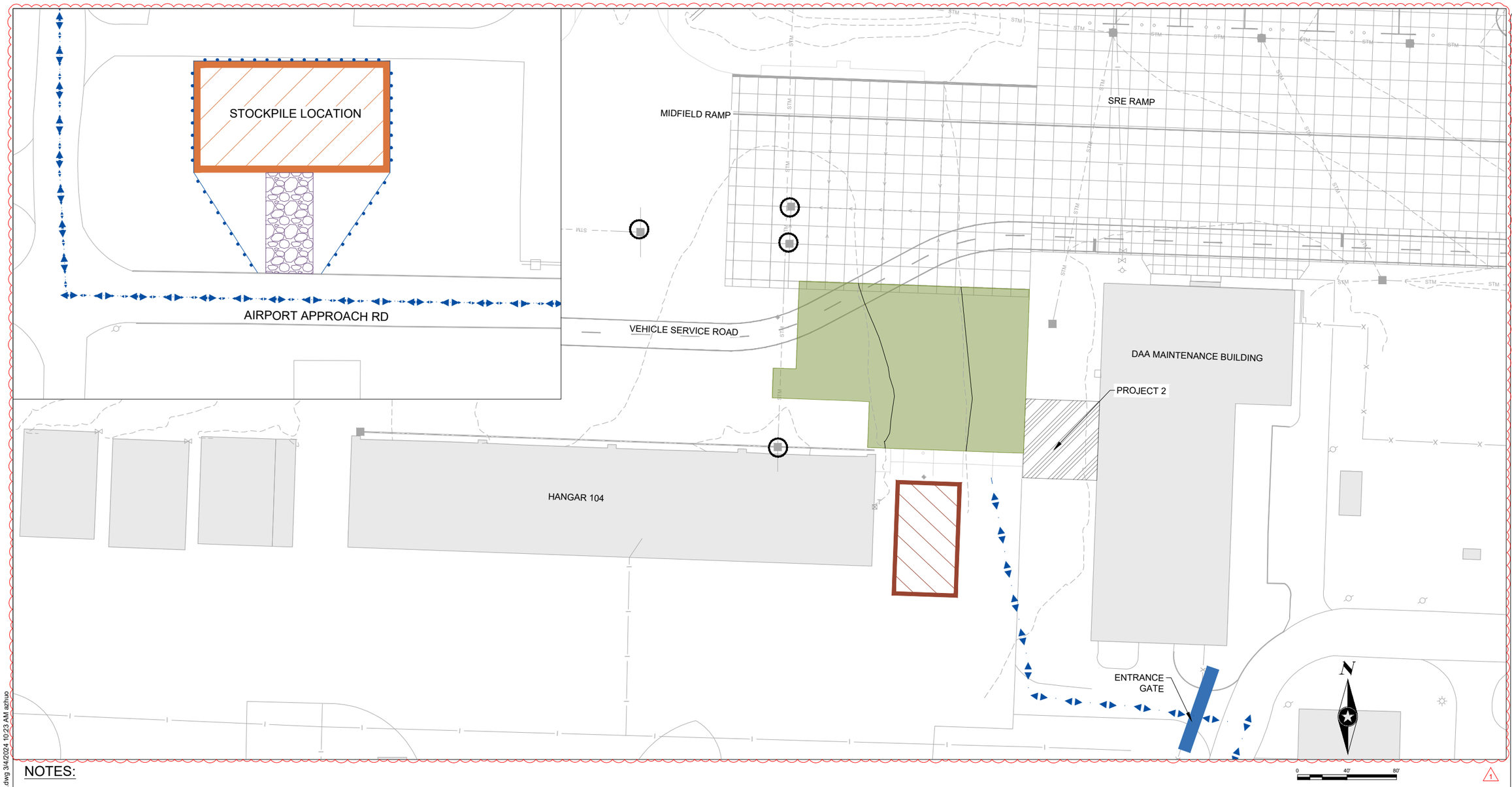
SEH FILE NO. DULAI 175226
STATE PROJECT NO. A6901-216
ISSUE DATE FEBRUARY 15, 2024
DESIGNED BY JPH
DRAWN BY LZ


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SHEET TITLE
GENERAL NOTES AND QUANTITIES

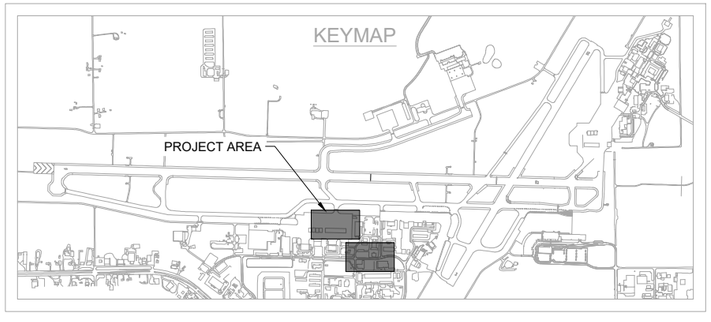
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## NOTES:

1. ALL MATERIAL STOCKPILES SHALL HAVE SILT FENCE PLACED TO PROTECT CRITICAL AREAS, PAID FOR BY BIOROLL LINE ITEM PER LF.
2. STORMWATER INLETS & CULVERTS ON MIDFIELD RAMP AND TAXIWAY A SHALL HAVE INLET PROTECTION, AS SHOWN.
3. FINAL SEDIMENT AND EROSION CONTROL FOR BATCH PLANT SHALL BE SUBMITTED BY CONTRACTOR FOR APPROVAL BY ENGINEER.
4. RESTORATION OF THE BATCH PLANT AND CONTRACTOR STORAGE AREAS WILL BE PAID FOR BY THE LINE ITEM ON THE BID FORM. RESTORATION INCLUDES GRADING, TURF ESTABLISHMENT, AND OTHER MEASURES REQUIRED TO RETURN THE AREA TO PRE-CONSTRUCTION CONDITION OR BETTER, AS APPROVED BY ENGINEER.
5. CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION AT BASINS OUTSIDE OF WORK AREA IF ENGINEER DETERMINES CURRENT CONSTRUCTION OPERATIONS WARRANT IT. INLET PROTECTION SHALL BE REMOVED AND REPLACED AS NECESSARY TO ACCOMMODATE SAFETY AREAS.
6. RESTORE CONTRACTOR STORAGE AREAS WITH SALVAGED OR 4-INCH SELECT TOPSOIL AND TURF ESTABLISHMENT (TO BE PAID UNDER ITEM 40-08).
7. EXACT LOCATIONS OF EROSION CONTROL MEASURES TO BE DETERMINED BY ENGINEER IN FIELD
8. TEMPORARY TURF ESTABLISHMENT:
   - 8.1. SEED MIX: CUT LESS SPECIAL OR APPROVED EQUAL (TO BE PAID UNDER ITEM 40-08).
   - 8.2. HYDRAULIC MULCH FOR STABILIZATION (TO BE PAID UNDER ITEM 40-08).
9. PERMANENT TURF ESTABLISHMENT:
   - 9.1. SEED MIX: CUT LESS SPECIAL OR APPROVED EQUAL (TO BE PAID UNDER ITEM 40-08).
   - 9.2. HYDRAULIC STABILIZED FIBER MATRIX (SFM) FOR STABILIZATION (TO BE PAID UNDER ITEM 40-08).




## LEGEND

- PROJECT AREA
- ADJACENT PROJECT (PROJECT 2)
- CONTRACTOR STORAGE AREA
- ROCK CONSTRUCTION ENTRANCE
- STOCKPILE
- HAUL ROUTE
- SILT FENCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- FLOW ARROW EXISTING/PROPOSED
- INLET PROTECTION

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Shawn T. McMahon, PE
DATE FEBRUARY 15, 2024 LICENSE NO. 49658

DULUTH INTERNATIONAL AIRPORT
2024 MIDFIELD RAMP REPAIR - PHASE 2
DULUTH, MINNESOTA

| MARK | DATE | DESCRIPTION |
|---|---|---|
| 1 | 2.28.2024 | ADDENDUM #1 |

REVISIONS

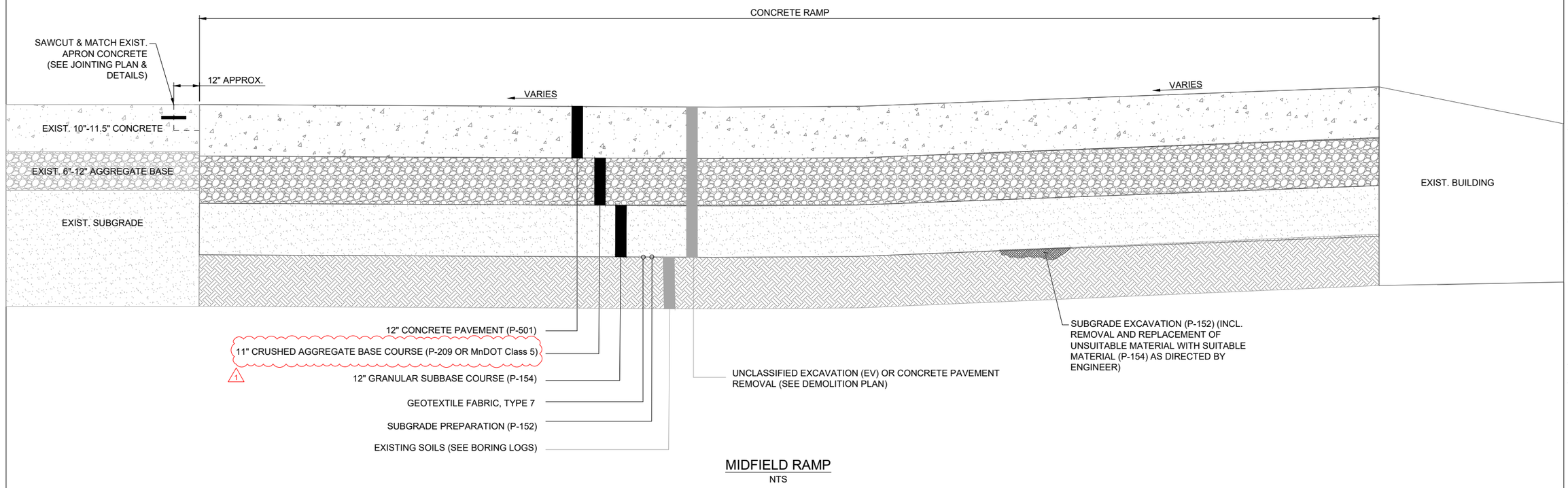
SEH FILE NO. DULAI 175226
STATE PROJECT NO. A6901-216
ISSUE DATE FEBRUARY 15, 2024
DESIGNED BY AA
DRAWN BY LZ

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SHEET TITLE
EROSION CONTROL PLAN

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MIDFIELD RAMP
NTS

## TYPICAL SECTION NOTES:

1. TYPICAL SECTIONS DRAWN TO SCALE EXCEPT WHERE THERE ARE DIMENSION BREAKS.
2. UNCLASSIFIED OVER EXCAVATION AS DIRECTED BY ENGINEER.
3. "UNCLASSIFIED OVER EXCAVATION (EV)" INCLUDES MATERIAL EXCAVATED BELOW THE TYPICAL SECTION, AS DIRECTED BY ENGINEER. EXCAVATED MATERIAL TO BECOME PROPERTY OF CONTRACTOR. REPLACEMENT OF EXCAVATED MATERIAL WITH SUITABLE GRANULAR MATERIAL WILL BE INCIDENTAL TO THE SUBGRADE EXCAVATION.
4. ALL SUBSURFACE UTILITIES NOT DESIGNATED FOR REMOVAL TO BE PROTECTED BY CONTRACTOR. ANY DAMAGED UTILITIES TO BE REPAIRED BY CONTRACTOR AT NO COST TO OWNER.
5. WHEN EXCAVATING AT THE EDGE OF EXISTING PAVEMENTS, CARE SHOULD BE TAKEN TO NOT UNDERMINE THE EXISTING PAVEMENTS. DAMAGED PAVEMENTS SHALL BE REMOVED AND REPLACED AT THE EXPENSE OF THE CONTRACTOR.
6. CONCRETE PAVEMENT REMOVAL IS INCLUDED IN PAVEMENT REMOVAL ITEM. AGGREGATE BASE REMOVAL IS INCLUDED IN UNCLASSIFIED OR COMMON EXCAVATION.
7. ALL ITEMS REQUIRED FOR DRAIN TILE (EXCAVATION, TRENCH, FILTER MATERIAL, FABRIC, CONNECTIONS, BACKFILLING, AND ASSOCIATED COMPACTION) ARE INCIDENTAL TO 6" PERFORATED PIPE INSTALLATION.
8. PIPE PERFORATIONS TO BE ORIENTED DOWNWARDS, WITH A MAXIMUM OF 3" OF COURSE FILTER AGGREGATE BENEATH THE PIPE.
9. DRAIN TILE TRENCH TO BE EXCAVATED INTO COMPACTED SUBGRADE. GEOTEXTILE FABRIC TO BE PLACED ALONG SUBGRADE INTERFACE AND AROUND TRENCH, COMPLETELY ENCLOSING THE PIPE, WITH SUFFICIENT OVERLAP TO PREVENT SUBBASE CONTAMINATION OF THE FILTER AGGREGATE.
10. SEE DRAIN TILE PLAN FOR EXACT DEPTHS AND GRADES OF THE PERFORATED UNDERDRAIN PIPES.
11. SEE CROSS SECTION SHEETS FOR EXACT CROSS SECTION GRADES AT A GIVEN STATION.

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Shawn T. McMahon, PE
DATE FEBRUARY 15, 2024 LICENSE NO. 49858

DULUTH INTERNATIONAL AIRPORT
2024 MIDFIELD RAMP REPAIR - PHASE 2
DULUTH, MINNESOTA

| MARK | DATE | REVISIONS |
|---|---|---|
| 1 | 2.28.2024 | ADDENDUM #1 |

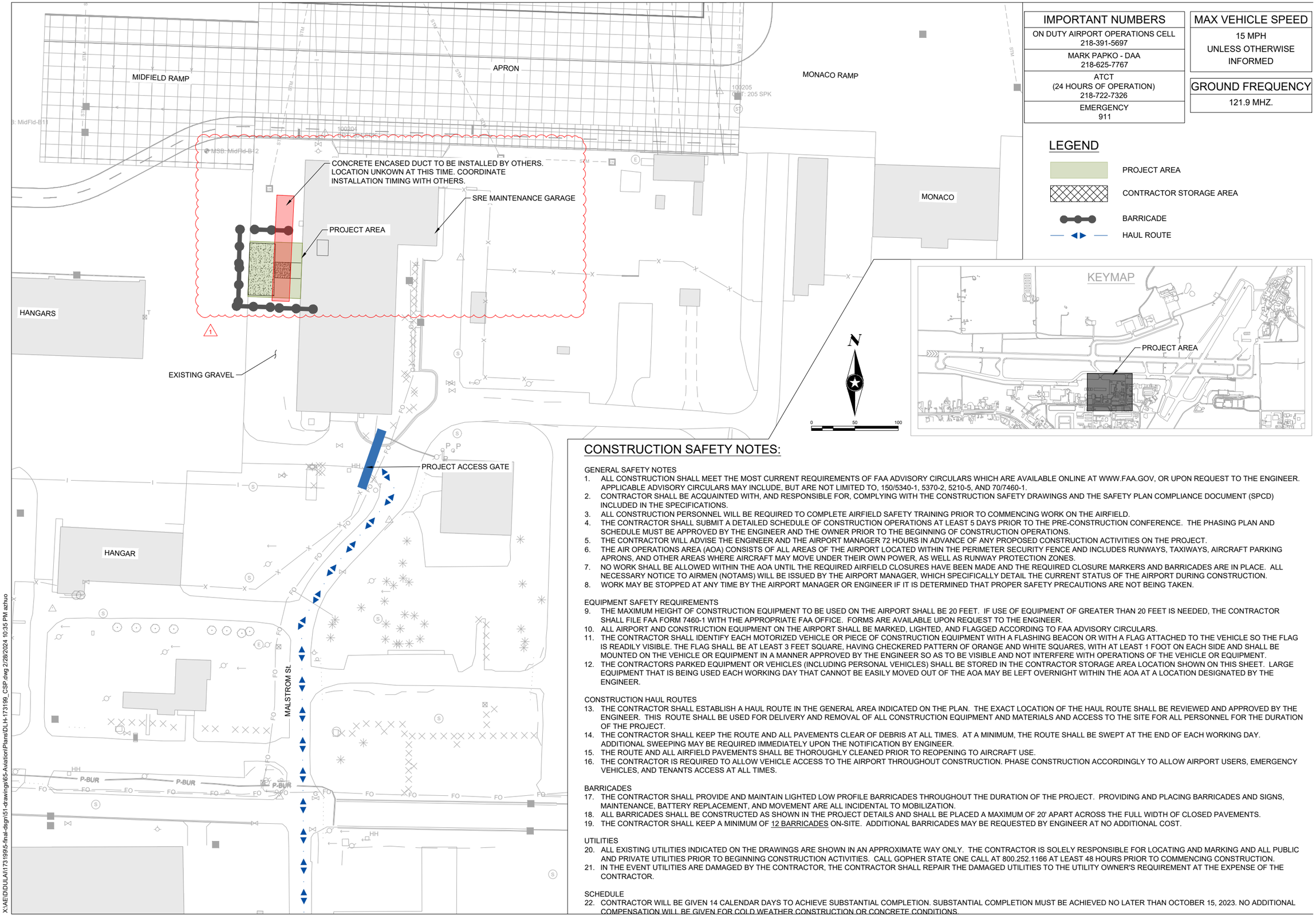
SEH FILE NO. DULAI 175226
STATE PROJECT NO. A6901-216
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SHEET TITLE
TYPICAL SECTIONS

SHEET
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| IMPORTANT NUMBERS |
|---|
| ON DUTY AIRPORT OPERATIONS CELL 218-391-5697 |
| MARK PAPKO - DAA 218-625-7767 |
| ATCT (24 HOURS OF OPERATION) 218-722-7326 |
| EMERGENCY 911 |

| MAX VEHICLE SPEED |
|---|
| 15 MPH UNLESS OTHERWISE INFORMED |

| GROUND FREQUENCY |
|---|
| 121.9 MHZ. |

## LEGEND

- PROJECT AREA
- CONTRACTOR STORAGE AREA
- BARRICADE
- HAUL ROUTE




## CONSTRUCTION SAFETY NOTES:

GENERAL SAFETY NOTES

1. ALL CONSTRUCTION SHALL MEET THE MOST CURRENT REQUIREMENTS OF FAA ADVISORY CIRCULARS WHICH ARE AVAILABLE ONLINE AT WWW.FAA.GOV, OR UPON REQUEST TO THE ENGINEER. APPLICABLE ADVISORY CIRCULARS MAY INCLUDE, BUT ARE NOT LIMITED TO, 150/5340-1, 5370-2, 5210-5, AND 70/7460-1.
2. CONTRACTOR SHALL BE ACQUAINTED WITH, AND RESPONSIBLE FOR, COMPLYING WITH THE CONSTRUCTION SAFETY DRAWINGS AND THE SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) INCLUDED IN THE SPECIFICATIONS.
3. ALL CONSTRUCTION PERSONNEL WILL BE REQUIRED TO COMPLETE AIRFIELD SAFETY TRAINING PRIOR TO COMMENCING WORK ON THE AIRFIELD.
4. THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE OF CONSTRUCTION OPERATIONS AT LEAST 5 DAYS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE. THE PHASING PLAN AND SCHEDULE MUST BE APPROVED BY THE ENGINEER AND THE OWNER PRIOR TO THE BEGINNING OF CONSTRUCTION OPERATIONS.
5. THE CONTRACTOR WILL ADVISE THE ENGINEER AND THE AIRPORT MANAGER 72 HOURS IN ADVANCE OF ANY PROPOSED CONSTRUCTION ACTIVITIES ON THE PROJECT.
6. THE AIR OPERATIONS AREA (AOA) CONSISTS OF ALL AREAS OF THE AIRPORT LOCATED WITHIN THE PERIMETER SECURITY FENCE AND INCLUDES RUNWAYS, TAXIWAYS, AIRCRAFT PARKING APRONS, AND OTHER AREAS WHERE AIRCRAFT MAY MOVE UNDER THEIR OWN POWER, AS WELL AS RUNWAY PROTECTION ZONES.
7. NO WORK SHALL BE ALLOWED WITHIN THE AOA UNTIL THE REQUIRED AIRFIELD CLOSURES HAVE BEEN MADE AND THE REQUIRED CLOSURE MARKERS AND BARRICADES ARE IN PLACE. ALL NECESSARY NOTICE TO AIRMEN (NOTAMS) WILL BE ISSUED BY THE AIRPORT MANAGER, WHICH SPECIFICALLY DETAIL THE CURRENT STATUS OF THE AIRPORT DURING CONSTRUCTION.
8. WORK MAY BE STOPPED AT ANY TIME BY THE AIRPORT MANAGER OR ENGINEER IF IT IS DETERMINED THAT PROPER SAFETY PRECAUTIONS ARE NOT BEING TAKEN.

EQUIPMENT SAFETY REQUIREMENTS

9. THE MAXIMUM HEIGHT OF CONSTRUCTION EQUIPMENT TO BE USED ON THE AIRPORT SHALL BE 20 FEET. IF USE OF EQUIPMENT OF GREATER THAN 20 FEET IS NEEDED, THE CONTRACTOR SHALL FILE FAA FORM 7460-1 WITH THE APPROPRIATE FAA OFFICE. FORMS ARE AVAILABLE UPON REQUEST TO THE ENGINEER.
10. ALL AIRPORT AND CONSTRUCTION EQUIPMENT ON THE AIRPORT SHALL BE MARKED, LIGHTED, AND FLAGGED ACCORDING TO FAA ADVISORY CIRCULARS.
11. THE CONTRACTOR SHALL IDENTIFY EACH MOTORIZED VEHICLE OR PIECE OF CONSTRUCTION EQUIPMENT WITH A FLASHING BEACON OR WITH A FLAG ATTACHED TO THE VEHICLE SO THE FLAG IS READILY VISIBLE. THE FLAG SHALL BE AT LEAST 3 FEET SQUARE, HAVING CHECKERED PATTERN OF ORANGE AND WHITE SQUARES, WITH AT LEAST 1 FOOT ON EACH SIDE AND SHALL BE MOUNTED ON THE VEHICLE OR EQUIPMENT IN A MANNER APPROVED BY THE ENGINEER SO AS TO BE VISIBLE AND NOT INTERFERE WITH OPERATIONS OF THE VEHICLE OR EQUIPMENT.
12. THE CONTRACTORS PARKED EQUIPMENT OR VEHICLES (INCLUDING PERSONAL VEHICLES) SHALL BE STORED IN THE CONTRACTOR STORAGE AREA LOCATION SHOWN ON THIS SHEET. LARGE EQUIPMENT THAT IS BEING USED EACH WORKING DAY THAT CANNOT BE EASILY MOVED OUT OF THE AOA MAY BE LEFT OVERNIGHT WITHIN THE AOA AT A LOCATION DESIGNATED BY THE ENGINEER.

CONSTRUCTION HAUL ROUTES

13. THE CONTRACTOR SHALL ESTABLISH A HAUL ROUTE IN THE GENERAL AREA INDICATED ON THE PLAN. THE EXACT LOCATION OF THE HAUL ROUTE SHALL BE REVIEWED AND APPROVED BY THE ENGINEER. THIS ROUTE SHALL BE USED FOR DELIVERY AND REMOVAL OF ALL CONSTRUCTION EQUIPMENT AND MATERIALS AND ACCESS TO THE SITE FOR ALL PERSONNEL FOR THE DURATION OF THE PROJECT.
14. THE CONTRACTOR SHALL KEEP THE ROUTE AND ALL PAVEMENTS CLEAR OF DEBRIS AT ALL TIMES. AT A MINIMUM, THE ROUTE SHALL BE SWEPT AT THE END OF EACH WORKING DAY. ADDITIONAL SWEEPING MAY BE REQUIRED IMMEDIATELY UPON THE NOTIFICATION BY ENGINEER.
15. THE ROUTE AND ALL AIRFIELD PAVEMENTS SHALL BE THOROUGHLY CLEANED PRIOR TO REOPENING TO AIRCRAFT USE.
16. THE CONTRACTOR IS REQUIRED TO ALLOW VEHICLE ACCESS TO THE AIRPORT THROUGHOUT CONSTRUCTION. PHASE CONSTRUCTION ACCORDINGLY TO ALLOW AIRPORT USERS, EMERGENCY VEHICLES, AND TENANTS ACCESS AT ALL TIMES.

BARRICADES

17. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN LIGHTED LOW PROFILE BARRICADES THROUGHOUT THE DURATION OF THE PROJECT. PROVIDING AND PLACING BARRICADES AND SIGNS, MAINTENANCE, BATTERY REPLACEMENT, AND MOVEMENT ARE ALL INCIDENTAL TO MOBILIZATION.
18. ALL BARRICADES SHALL BE CONSTRUCTED AS SHOWN IN THE PROJECT DETAILS AND SHALL BE PLACED A MAXIMUM OF 20' APART ACROSS THE FULL WIDTH OF CLOSED PAVEMENTS.
19. THE CONTRACTOR SHALL KEEP A MINIMUM OF 12 BARRICADES ON-SITE. ADDITIONAL BARRICADES MAY BE REQUESTED BY ENGINEER AT NO ADDITIONAL COST.

UTILITIES

20. ALL EXISTING UTILITIES INDICATED ON THE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR LOCATING AND MARKING AND ALL PUBLIC AND PRIVATE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES. CALL GOPHER STATE ONE CALL AT 800.252.1166 AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
21. IN THE EVENT UTILITIES ARE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGED UTILITIES TO THE UTILITY OWNER'S REQUIREMENT AT THE EXPENSE OF THE CONTRACTOR.

SCHEDULE

22. CONTRACTOR WILL BE GIVEN 14 CALENDAR DAYS TO ACHIEVE SUBSTANTIAL COMPLETION. SUBSTANTIAL COMPLETION MUST BE ACHIEVED NO LATER THAN OCTOBER 15, 2023. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR COLD WEATHER CONSTRUCTION OR CONCRETE CONDITIONS.


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Sarah A. Mattes, PE
DATE AUGUST 29, 2023 LICENSE NO. 51793

DULUTH INTERNATIONAL AIRPORT
DEICING STORAGE TANK AND PAD
DULUTH, MN

| MARK | DATE | DESCRIPTION |
|---|---|---|
| 1 | 2.28.2024 | ADDENDUM #1 |

REVISIONS

SEH FILE NO. 173199
STATE PROJECT NO. A6901-220
ISSUE DATE AUGUST 29, 2023
DESIGNED BY SAM
DRAWN BY SJL


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SHEET TITLE
CONSTRUCTION SAFETY PLAN

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Building a Better World for All of Us®

**Pre-Bid Project Agenda**

Duluth International Airport (DLH)
City of Duluth Project No. 24-4405
February 28, 2024

## 1) Introduction

1. Each individual identified
2. Sign-up sheet
   i) Please put name and contact information in the chat window
3. Purpose of meeting
   i) Discuss the elements associated with this project
4. Outline agenda
5. Describe project
   i) Project #1 will reconstruct approximately 2,550 sy of the midfield apron.
   ii) Project #2 will construct a deicing tank concrete pad.

## 2) General Information

1. Contract completion time: 70 calendar days with substantial completion by September 15, 2024
2. Project #1 DBE goal: N/A
3. Project #2 DBE goal: 0%
   i) If the contractor uses a DBE it will be voluntary credit on the project. If not, just sign and upload the form to Bid Express
4. Bid Security: 5% for each project
   i) Please note that these projects are being funded for two different funding sources. Therefore, I will need either two separate bid bonds, or one bid bond that lists each project individually.
   ii) Submit per Article 8 of the instructions to bidders (via email to purchasing@duluthmn.gov prior to the bid opening date and time).
5. Prevailing wage rates apply
   i) Project #1 – State wage rates
   ii) Project #2 – Higher of State or Davis Bacon Federal wage rates
6. Buy American requirements
   i) Project #1 – Not applicable
   ii) Project #2 – Email to jholbrook@sehinc.com with 72 hours after the bid.
7. Decision of Award
   i) The project will be awarded based on the sum of the base bids of Project #1 and Project #2.
   ii) You must bid on both projects to be considered responsive
   iii) The alternate will be considered after a low bidder is decided and will depend on the availability of funding
8. Disruptions (sheet C0.20)
   (1) Hangar 104 may occasionally need access to the east door. Contractor will have to move away from the southwest portion of the project area to allow for wing clearance. DLH will provide as much notice as possible for these movements.

## 3) Project Schedule

- March 14, 2024 — Bid opening
- March 2024 — Airport commission consideration of award
- April 2024 — FAA grant (other funding used prior to grant award?)
- May 14, 2024 — Pre-construction meeting (tentative)
- May 21, 2024 — Notice to Proceed
- September 15, 2024 — Substantial completion

## 4) Project Overview

1. Safety & Security - General
   - i) Project entrance will be at Miller Trunk Hwy and Stebner Road
     - (1) Place construction signage as shown on sheet G0.02
     - (2) Any permits required for signage are contractor's responsibility
   - ii) Contractor will be required to be badged to work on the airfield
     - (1) Contact DLH to get that set up
   - iii) Project entrance will be from the gate near the DAA Maintenance Building
     - (1) If gate is open it needs to be guarded
       - (a) Does DLH required a log of who's entering/exiting?
     - (2) Contractor vehicles within the project area need logos and flags
   - iv) Work Zone (sheets G0.01 through G0.03)
     - (1) Shown on Sheet G0.01
     - (2) Place low-level lighted barricades around the project area as shown
     - (3) Remove debris immediately for the construction site and the stockpile location
     - (4) Take necessary action to keep dust to a minimum
       - (a) There is a hydrant on the north side of the maintenance building. Any others we should use?
       - (b) Metering the hydrant is contractor's responsibility
     - (5) Sweep the project area and haul route as required as directed by the airport or RPR and at the end of the day

2. Plans
   - i) Staging Areas
     - (1) Both staging areas will be located within their respective barricades
     - (2) The 2 projects are setup as if being constructed independently
       - (a) You may absolutely complete them concurrently as substantial completion of both is 9/15/24
       - (b) Barricades from Project #1 encapsulate Project #2, so if concurrent you won't need the Project #2 barricades
       - (c) You may use the Project #1 staging area for Project #2
       - (d) Purchase 20 barricades and lights to turn over to DLH at the end of the project. Additional barricades will be supplied by DLH
   - ii) Erosion Control
     - (1) Project #1 & #2 – All bioroll and inlet protection
     - (2) Storage area in a parking lot. Use bioroll to filter runoff
       - **(a) DLH indicated this will have to be relocated**
       - **(b) Since the new location is in turf we will switch to silt fence and rock entrance for project #1.**
   - iii) Demolition
     - (1) Project #1
       - (a) Removing existing concrete and aggregate (any tie downs in concrete are incidental to concrete removal)
       - (b) There is an abandoned fuel line that runs east from the catch basin. If it is encountered during excavation, we'd like to get it out of there within our project limits. Cut and cap it within the limits however necessary. It may be under the Alternate pavement.

(2) An environmental engineer will be on-site during excavation looking for contaminated soil

iv) Typical Sections and Grading
(1) Project #1
(a) 12" P-501 over 11" P-209 CABC, over 12" P-154
**(i) MnDOT Class 5 aggregate will be allowed**
(b) Over-excavation included if needed
(2) Project #2
(a) Tank pad is 10" concrete over 12" Class V ABC
(b) Entry apron is 8" concrete over 8" Class V ABC
(3) Everything generally flows SW

v) Drainage
(1) Both projects have 6" perf. pipe
(2) Project #1 flows to an existing pipe. Connection to the pipe is incidental
(3) Project #2 flow to an existing MH. Connection to MH is incidental

vi) Pavement Marking (Project #1 only)
(1) This is the only time you'll be temporarily outside of the barricades.
(2) Remove and temp. remark the Vehicle Service Road
(a) This should be one of the very first things completed. Coordinate with DAA and RPR to complete the work
(3) Remove temp. marking and place permanent markings once curing compound is off the new concrete.

3. Specifications
i) Send all bidding requirement documents to jholbrook@sehinc.com or upload to bid express as indicated
ii) 01 51 36 – Temporary Water
(1) For Dust Control as needed
(2) Coordinate with City
iii) 01 52 19 – Temporary Sanitary Facilities
iv) 01 71 13 – Mobilization
(1) SEQ note C **limits the mobilization to 10 percent of project cost**
v) 01 77 00 – Closeout Procedures
(1) Section indicates all documentation needed for substantial completion and final acceptance
vi) 31 34 10 – Geosynthetic Installation
(1) Refer to submittals
(2) No allowance is made for seams or overlaps
vii) P-154 and P-209
(1) Modified Proctor
(2) RPR to complete density testing

viii) P-501 Concrete
(1) ASR testing

**5) Addenda**

1. Any questions requiring changes to bidding documents will be addressed via addenda

6) **Questions/Comments**
1. **Can MnDOT Class 5 aggregate be used in lieu of P-209?**
2. **Provide information on the concrete encased duct that will be installed under the deicing tank pad.**
3. **Is fixed form paving allowable?**

| Line No. | Bid Item | Description | Quantity | Unit | Item List Title |
|---|---|---|---|---|---|
| 1 | 40-05 | MAINTENANCE & RESTORATION OF HAUL ROADS [A] | 1 | LS | Project #1 - Schedule A Base Bid |
| 2 | 40-08 | RESTORATION OF CONTRACTOR STORAGE AREAS [B] | 1 | LS | Project #1 - Schedule A Base Bid |
| 3 | 50-06 | CONSTRUCTION LAYOUT & STAKING | 1 | LS | Project #1 - Schedule A Base Bid |
| 4 | 70-08 | TRAFFIC PROVISIONS/AIRPORT SECURITY & DEVICES/PHASING | 1 | LS | Project #1 - Schedule A Base Bid |
| 5 | 02 41 35 | REMOVE PAVEMENT MARKING BY WATER BLASTING | 500 | SF | Project #1 - Schedule A Base Bid |
| 6 | 31 34 10 | GEOTEXTILE FABRIC, TYPE 7 | 2600 | SY | Project #1 - Schedule A Base Bid |
| 7 | C-102 | ROCK CONSTRUCTION ENTRANCE (INCLUDES MAINTENANCE AND REMOVAL) | 1 | EA | Project #1 - Schedule A Base Bid |
| 8 | C-102-5.2 | SILT FENCE, TYPE PREASSEMBLED (INCLUDES MAINTENANCE AND REMOVAL) | 500 | LF | Project #1 - Schedule A Base Bid |
| 9 | C-102-5.5 | INLET PROTECTION, TYPE B (INCLUDES MAINTENANCE) | 4 | EA | Project #1 - Schedule A Base Bid |
| 10 | 01 71 13 | MOBILIZATION [C] | 1 | LS | Project #1 - Schedule A Base Bid |
| 11 | P-101 | REMOVE AND DISPOSE OF FUEL LINE | 1 | LS | Project #1 - Schedule A Base Bid |
| 12 | D-705 | DRAIN TILE (6" PERFORATED, INCLUDING TRENCH, BACKFILL, FABRIC) [D] | 680 | LF | Project #1 - Schedule A Base Bid |
| 13 | P-101 | SAWING CONCRETE PAVEMENT (FULL DEPTH) | 500 | LF | Project #1 - Schedule A Base Bid |
| 14 | P-101 | REMOVE CONCRETE PAVEMENT (FULL DEPTH) | 2550 | SY | Project #1 - Schedule A Base Bid |
| 15 | P-152 | UNCLASSIFIED EXCAVATION (EV) [E] | 1750 | CY | Project #1 - Schedule A Base Bid |
| 16 | P-152.1 | UNCLASSIFIED OVER-EXCAVATION (EV) (IF NEEDED) [E] | 100 | CY | Project #1 - Schedule A Base Bid |
| 17 | P-152 | SUBGRADE PREPARATION | 2600 | SY | Project #1 - Schedule A Base Bid |
| 18 | P-154-5.1 | SUBBASE COURSE | 875 | CY | Project #1 - Schedule A Base Bid |
| 19 | P-209-5.1 | CRUSHED AGGREGATE BASE COURSE (CV) [F] | 800 | CY | Project #1 - Schedule A Base Bid |
| 20 | P-501 | CEMENT CONCRETE PAVEMENT, 12" | 2050 | SY | Project #1 - Schedule A Base Bid |
| 21 | P-501 | CEMENT CONCRETE PAVEMENT, REINFORCED 12" | 515 | SY | Project #1 - Schedule A Base Bid |
| 22 | P-604 | COMPRESSION JOINT SEALS FOR CONCRETE | 3300 | LF | Project #1 - Schedule A Base Bid |
| 23 | P-620 | TEMPORARY PAVEMENT MARKING | 520 | SF | Project #1 - Schedule A Base Bid |
| 24 | P-620 | PERMANENT PAVEMENT MARKING (INCL. REFLECTIVE BEADS) | 500 | SF | Project #1 - Schedule A Base Bid |
| 25 | 31 34 10 | GEOTEXTILE FABRIC, TYPE 7 | 300 | SY | Project #1 - Schedule B - Alternate |
| 26 | P-101 | SAWING CONCRETE PAVEMENT (FULL DEPTH) | 260 | LF | Project #1 - Schedule B - Alternate |
| 27 | P-101 | REMOVE CONCRETE PAVEMENT (FULL DEPTH) | 300 | SY | Project #1 - Schedule B - Alternate |
| 28 | P-152 | UNCLASSIFIED EXCAVATION (EV) [E] | 220 | CY | Project #1 - Schedule B - Alternate |
| 29 | P-152.1 | UNCLASSIFIED OVER-EXCAVATION (EV) (IF NEEDED) [E] | 20 | CY | Project #1 - Schedule B - Alternate |
| 30 | P-152 | SUBGRADE PREPARATION | 300 | SY | Project #1 - Schedule B - Alternate |
| 31 | P-154-5.1 | SUBBASE COURSE | 110 | CY | Project #1 - Schedule B - Alternate |
| 32 | P-209-5.1 | CRUSHED AGGREGATE BASE COURSE (CV) [F] | 100 | CY | Project #1 - Schedule B - Alternate |
| 33 | P-501 | CEMENT CONCRETE PAVEMENT, 12" | 230 | SY | Project #1 - Schedule B - Alternate |
| 34 | P-501 | CEMENT CONCRETE PAVEMENT, REINFORCED 12" | 60 | SY | Project #1 - Schedule B - Alternate |
| 35 | P-604 | COMPRESSION JOINT SEALS FOR CONCRETE | 530 | LF | Project #1 - Schedule B - Alternate |
| 36 | C-105 | MOBILIZATION | 1 | LS | Project #2 - Base Bid |
| 37 | 50-06 | CONSTRUCTION LAYOUT & STAKING | 1 | LS | Project #2 - Base Bid |
| 38 | 70-08 | TRAFFIC PROVISIONS/AIRPORT SECURITY & DEVICES/PHASING | 1 | LS | Project #2 - Base Bid |
| 39 | 01-55-15 | MAINTENANCE & RESTORATION OF HAUL ROADS | 1 | LS | Project #2 - Base Bid |
| 40 | 31 25 10 | FILTER LOG, TYPE WOOD FIBER BIOROLL (INCL. MAINTENANCE) | 60 | LF | Project #2 - Base Bid |
| 41 | D-705 | DRAIN TILE (6" PERFORATED, INCLUDING TRENCH, BACKFILL, FABRIC) | 125 | LF | Project #2 - Base Bid |
| 42 | P-152-5.1 | COMMON EXCAVATION (EV) | 228 | CY | Project #2 - Base Bid |
| 43 | P-152-5.2 | SUBGRADE OVER-EXCAVATION | 10 | CY | Project #2 - Base Bid |
| 44 | 32 11 11 | SUBGRADE PREPARATION | 255 | SY | Project #2 - Base Bid |

| | | | | | |
|---|---|---|---|---|---|
| 45 | 31 23 10 | SELECT GRANULAR MATERIALS (CV) (12 INCHES THICK) | 170 | CY | Project #2 - Base Bid |
| 46 | 31 11 22 | CRUSHED AGGREGATE BASE COURSE (CV) (8 INCHES THICK) | 48 | CY | Project #2 - Base Bid |
| 47 | 31 11 22 | CRUSHED AGGREGATE BASE COURSE (CV) (12 INCHES THICK) | 13 | CY | Project #2 - Base Bid |
| 48 | 03 30 00 | CONCRETE APRON (8-INCH) | 220 | SY | Project #2 - Base Bid |
| 49 | 03 30 00 | CONCRETE APRON (10-INCH) | 40 | SY | Project #2 - Base Bid |