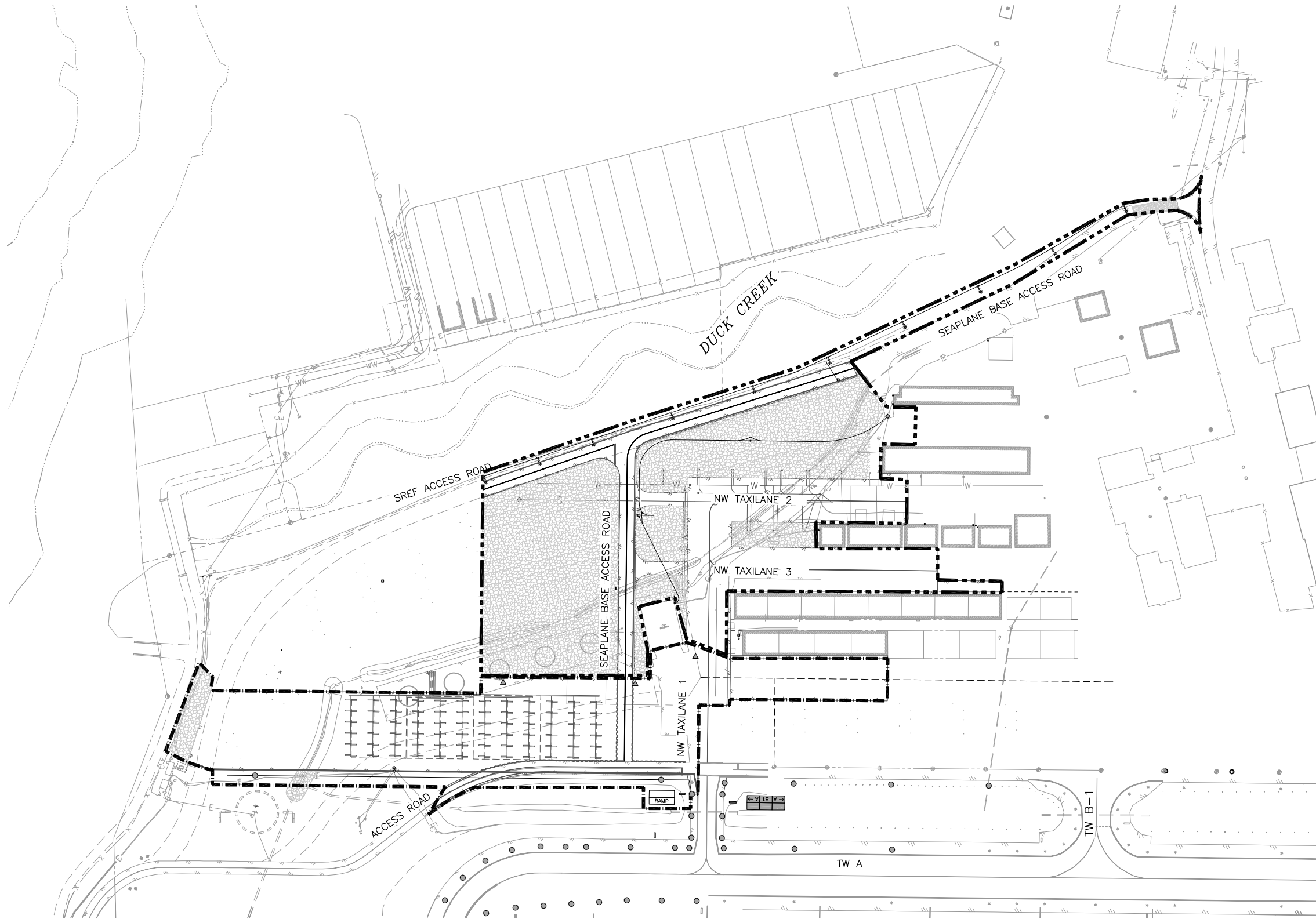


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 Drawn By: C. SLATTEN  
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**LEGEND**

- BID SCHEDULE 1
- BID SCHEDULE 2

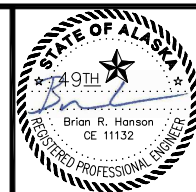
**GENERAL NOTE**

1. ALL OF PROPOSED STORM DRAIN, SANITARY SEWER, AND WATER UTILITY SHALL BE PAID UNDER THEIR RESPECTIVE BID SCHEDULE BOUNDARIES WITH THE FOLLOWING EXCEPTIONS:
  - A. STORM DRAIN PIPE P11, P40 & P41. SHALL BE PAID UNDER BID SCHEDULE 1.
  - B. STORM DRAIN MANHOLE S12, S40 & S41 SHALL BE UNDER BID SCHEDULE 1.
  - C. ALL WATER MAINS SHALL BE UNDER BID SCHEDULE 1.
  - D. ALL SANITARY SEWER SYSTEMS SHALL BE UNDER BID SCHEDULE.
  - E. EVAR FENCE IS NOT SHOWN ON THIS SHEET. EVAR FENCING SHALL BE PAID UNDER BID SCHEDULE 1.



BY	DATE	REVISIONS

SCALE	
HORZ.	SCALE
VERT.	SEE GRAPHIC
W.O. NO.	1123.62033
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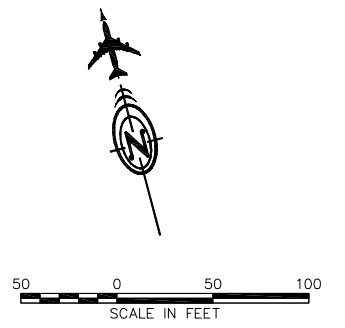
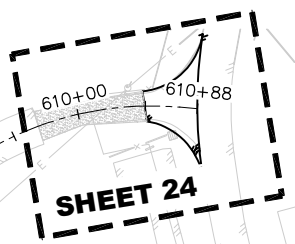
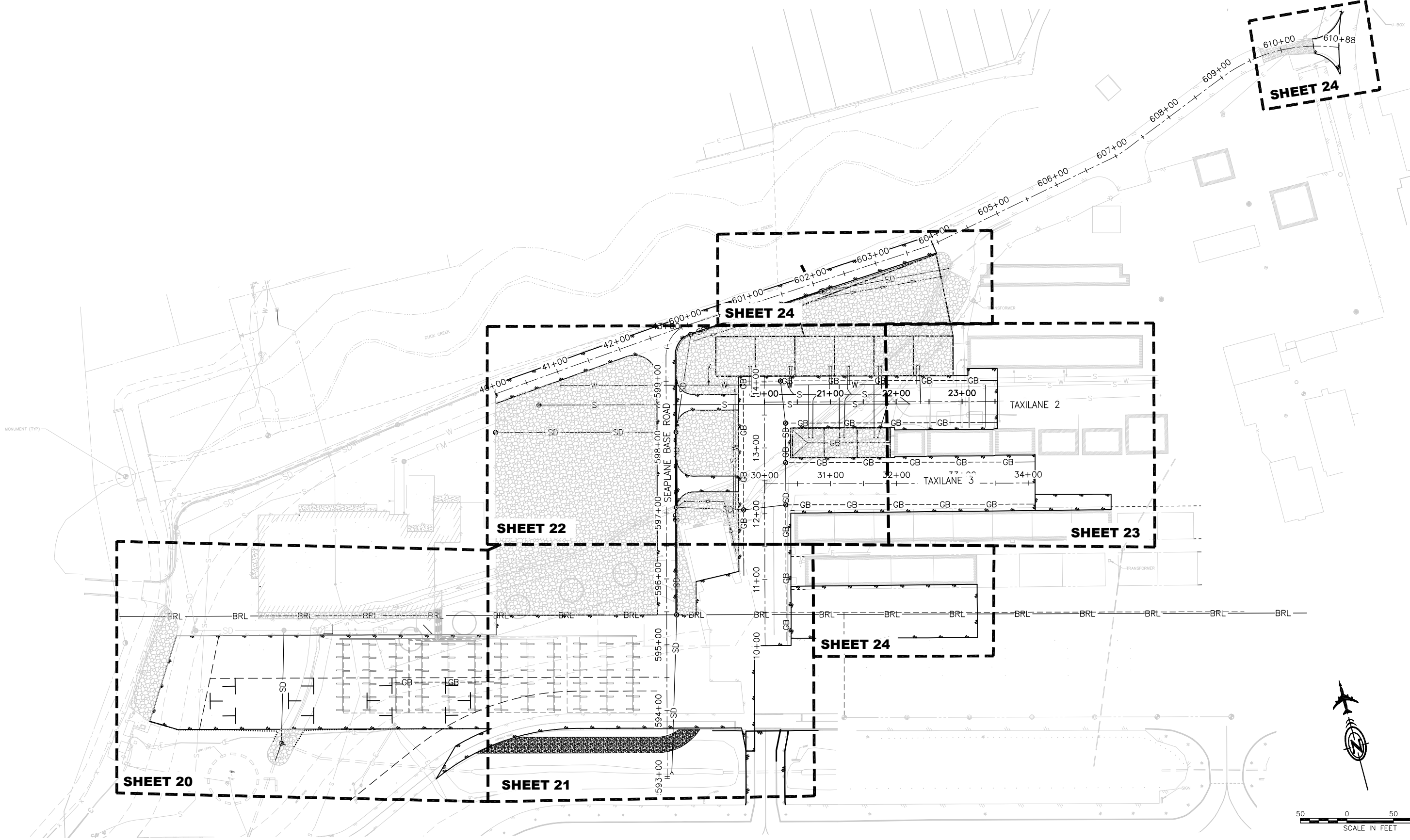


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 907-562-2000  
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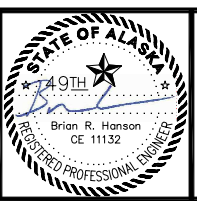
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 JUNEAU, ALASKA  
 RUNWAY SAFETY AREA IMPROVEMENTS – PHASE 2B  
 CONTRACT NO. BE-17-045  
 AIP No. 3-02-0133-XXX-2016  
 NORTHEAST DEVELOPMENT AREA BID SCHEDULE 1 & 2

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 Script File:  
 Plot Date:  
 DWG File No. 232-89  
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FILE NO.	



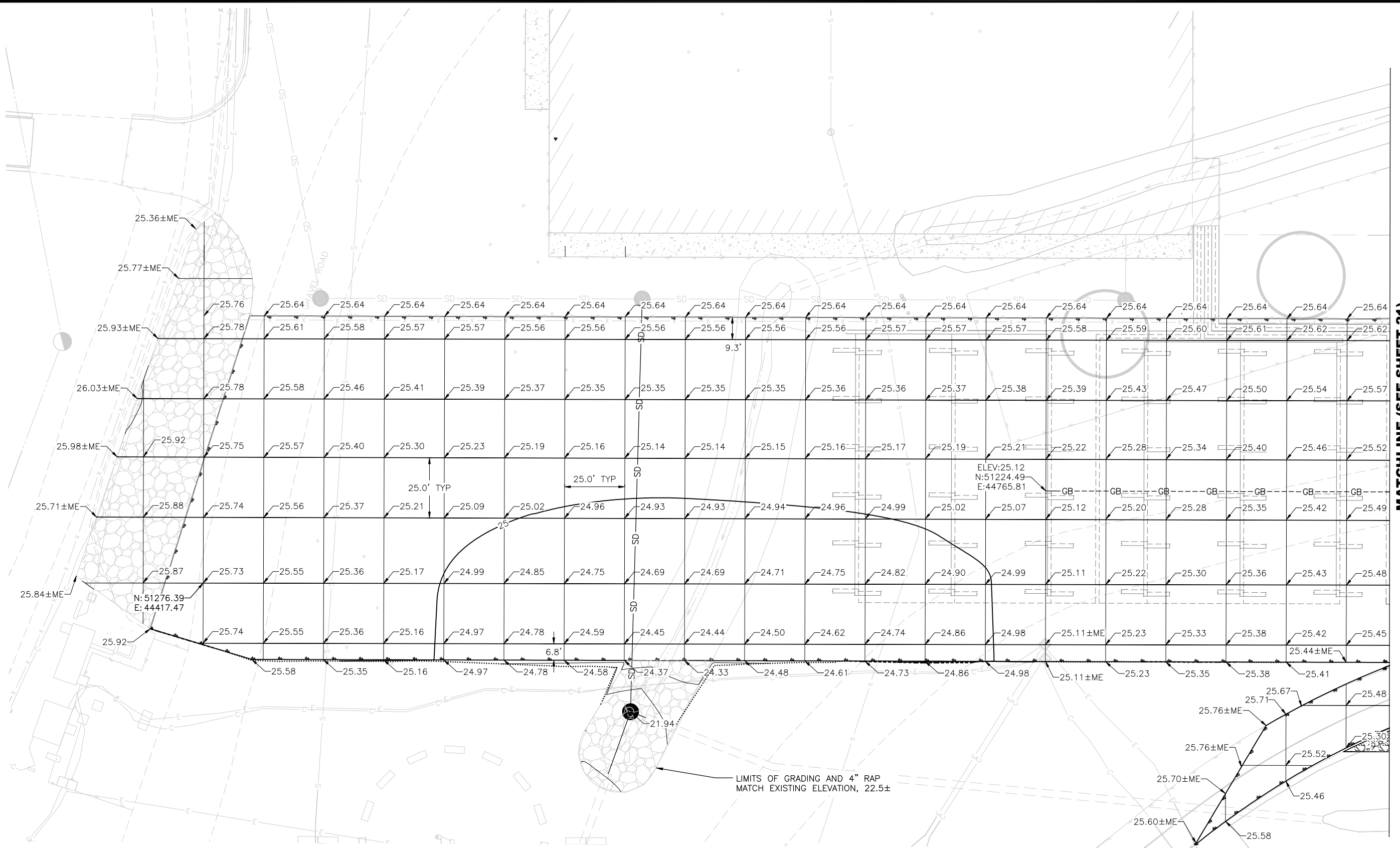
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 CONTRACT NO. BE-17-045  
 AIP No. 3-02-0133-XXX-2016  
 NW GRADING PLAN

SHEET  
 19  
 OF  
 66

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 Designed By: C. WILT  
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 Drawn By: C. SLATTEN  
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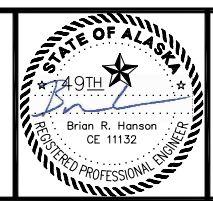


MATCHLINE (SEE SHEET 21)



BY	DATE	REVISIONS

SCALE	
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 CONTRACT NO. BE-17-045  
 AIP No. 3-02-0133-XXX-2016  
 NW GRADING PLAN

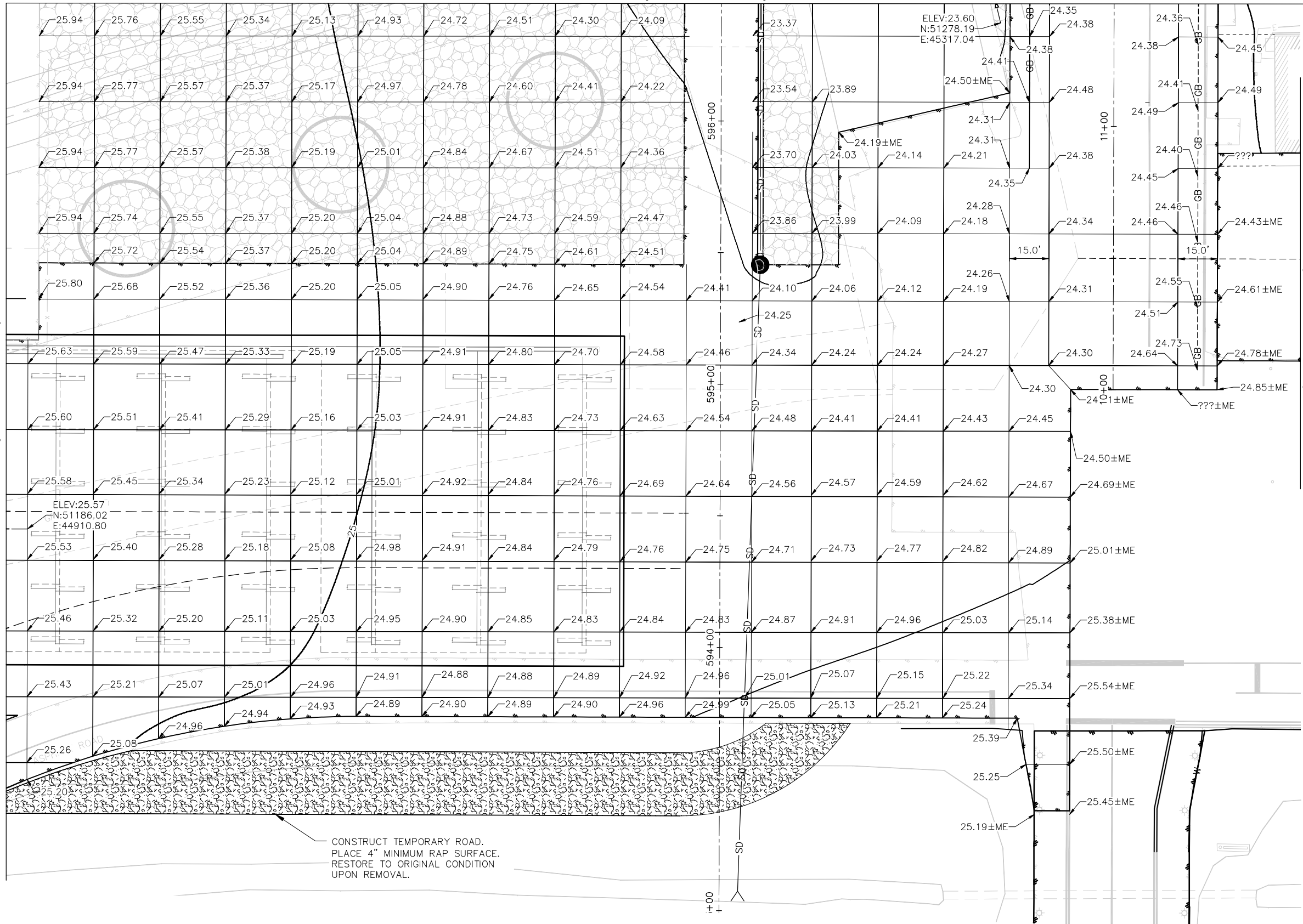
SHEET  
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 Designed By: C. WILT  
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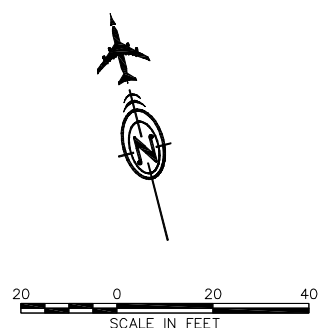
**MATCHLINE (SEE SHEET 22)**

**MATCHLINE (SEE SHEET 20)**

**MATCHLINE (SEE SHEET 24)**

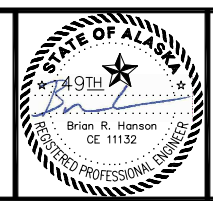


CONSTRUCT TEMPORARY ROAD.  
 PLACE 4" MINIMUM RAP SURFACE.  
 RESTORE TO ORIGINAL CONDITION  
 UPON REMOVAL.



BY	DATE	REVISIONS

SCALE	
HORZ.	SCALE
VERT.	SEE GRAPHIC
W.O. NO.	1123.62033
FILE NO.	



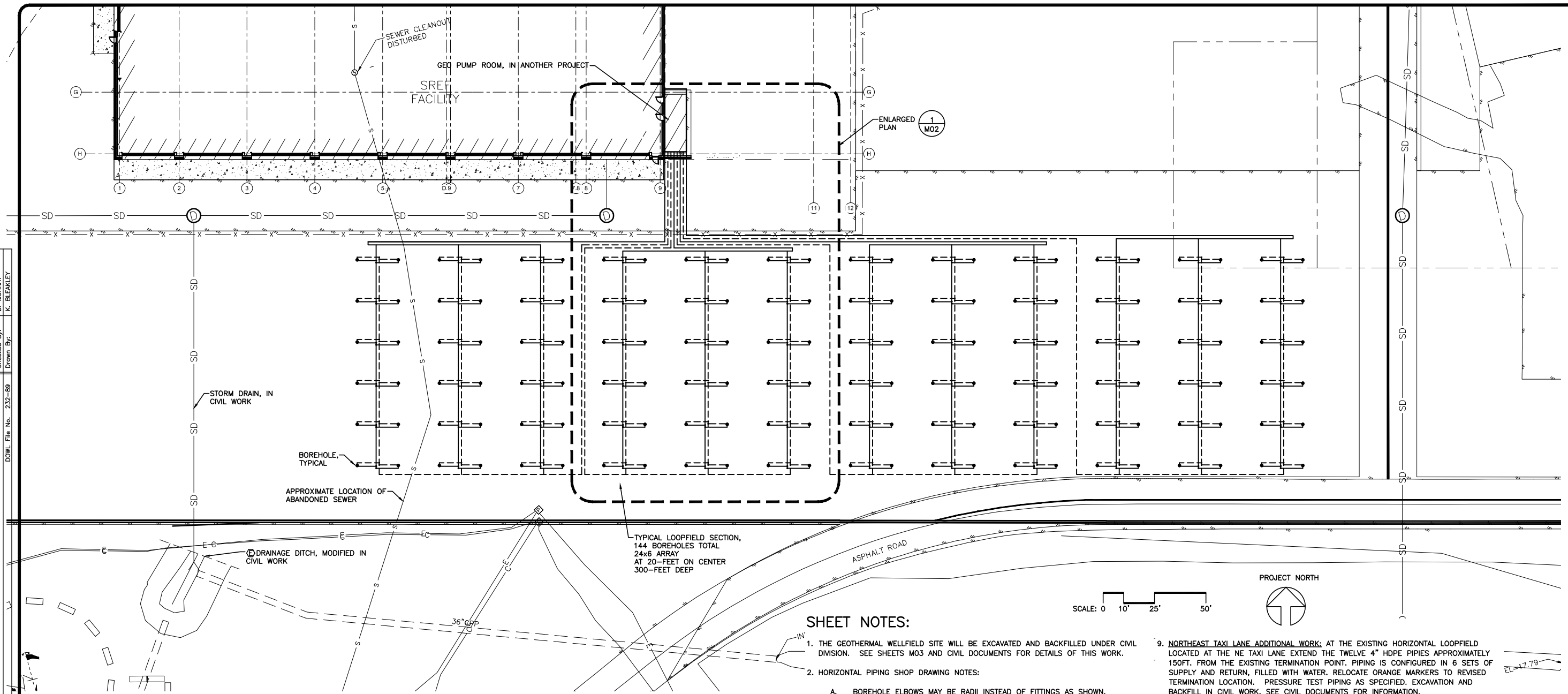
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 CONTRACT NO. BE-17-045  
 AIP No. 3-02-0133-XXX-2016  
 NW GRADING PLAN

SHEET  
 21  
 OF  
 66

File: Z:\Current Projects\Juneau\461\Drawings\Working Drawings\M01.dwg PLOT DATE: 2016-07-13 10:36 SAVED DATE: 2016-07-13 10:35  
 DWG File No. 232-89  
 Designed By: D. MURRAY  
 Checked By: D. MURRAY  
 Drawn By: K. BLEAKLEY



**SHEET NOTES:**

1. THE GEOTHERMAL WELLFIELD SITE WILL BE EXCAVATED AND BACKFILLED UNDER CIVIL DIVISION. SEE SHEETS M03 AND CIVIL DOCUMENTS FOR DETAILS OF THIS WORK.
2. HORIZONTAL PIPING SHOP DRAWING NOTES:
  - A. BOREHOLE ELBOWS MAY BE RADII INSTEAD OF FITTINGS AS SHOWN.
  - B. MAINTAIN TOLERANCE OF FITTING LOCATIONS PLUS OR MINUS 12 INCHES.
  - C. PROVIDE 5 PIPE DIAMETERS BETWEEN ALL FITTINGS.
  - D. SLOPE PIPING UP TOWARDS THE SREF PUMP ROOM SO THAT TRAPPED AIR IS MINIMIZED.
3. TRENCHING NOT SHOWN. SEE TRENCH DETAILS FOR BURIED PIPING INSTALLATION ON SHEET M03 AND CIVIL DOCUMENTS.
4. FINISH DEPTH OF BOREHOLES IS TO BE 300 FEET. GEOTHERMAL U-TUBE ASSEMBLY IS TO BE 3/4-INCH DIAMETER.
5. INSULATE GSHS & GSHR MAINS AND FEED MAINS INCLUDING MAINS BETWEEN BOREHOLES. DO NOT INSULATE BRANCH PIPING TO EACH BOREHOLE.
6. PRESSURE TEST THE GEOTHERMAL WELLFIELD. FLUSH AND PURGE ALL PIPING AS SPECIFIED. SEE DETAIL ON SHEET M03.
7. SEE M03 DETAILS FOR MINIMUM DEPTHS OF PIPING, BOREHOLES, BEDDING AND BORROW MATERIALS, INSULATION, AND TRENCHING REQUIRED. PLEASE NOTE THAT AREAS OUTSIDE OF BOREHOLE LOCATIONS AND PIPING TRENCHES MAY HAVE DIFFERENT MINIMUM DEPTHS, HOWEVER, THE BURY DEPTHS SHOWN ON M03 SHALL BE MAINTAINED FOR GEOTHERMAL PIPING INSTALLATION AREAS. COORDINATE WITH CIVIL.
8. SEE CIVIL DRAWING FOR STAGING AND STORAGE REQUIREMENTS AND LIMITS.
9. **NORTHEAST TAXI LANE ADDITIONAL WORK:** AT THE EXISTING HORIZONTAL LOOPFIELD LOCATED AT THE NE TAXI LANE EXTEND THE TWELVE 4" HDPE PIPES APPROXIMATELY 150FT. FROM THE EXISTING TERMINATION POINT. PIPING IS CONFIGURED IN 6 SETS OF SUPPLY AND RETURN, FILLED WITH WATER. RELOCATE ORANGE MARKERS TO REVISED TERMINATION LOCATION. PRESSURE TEST PIPING AS SPECIFIED. EXCAVATION AND BACKFILL IN CIVIL WORK. SEE CIVIL DOCUMENTS FOR INFORMATION.

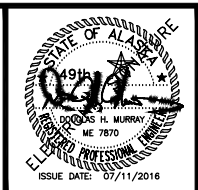
BY	DATE	REVISIONS

SCALE	
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VERT.	SEE GRAPHIC
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FILE NO.	

**PLAN PREPARED BY:**  
**MURRAY & ASSOCIATES, P. C.**  
 CONSULTING ENGINEERS  
 MURRAYPC.COM  
 ALASKA LICENCE #AEC750

P O BOX 21081  
 JUNEAU, ALASKA 99802

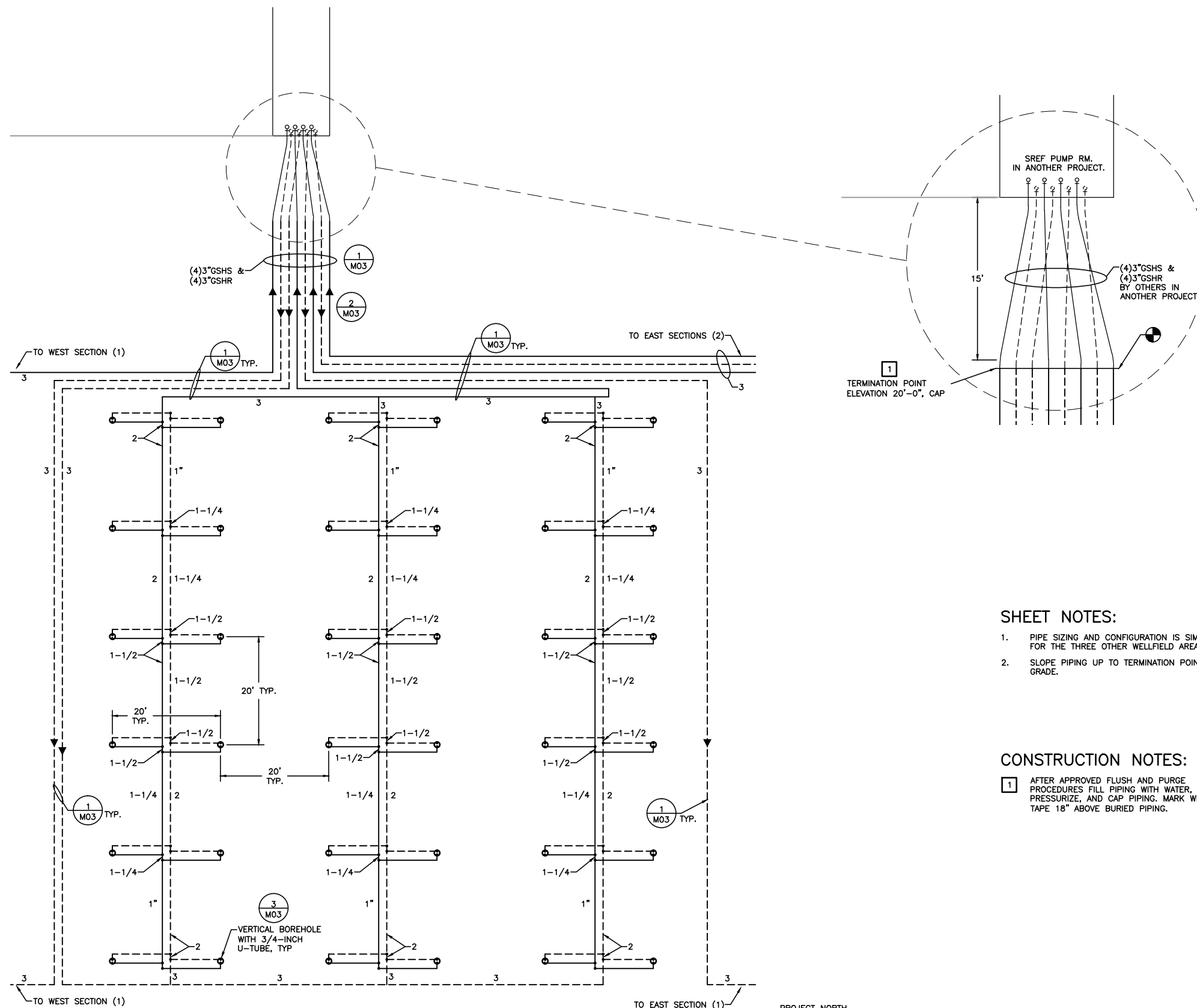
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 FAX: 907 780-6182



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 RUNWAY SAFETY AREA IMPROVEMENTS - PHASE 2B  
 CONTRACT NO. BE-17-045  
 AIP No. 3-02-0133-XXX-2016  
 GEOTHERMAL LOOPFIELD

SHEET M01 OF 3

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 DWG File No. 232-89  
 Designed By: D. MURRAY  
 Checked By: D. MURRAY  
 Drawn By: K. BLEAKLEY



**SHEET NOTES:**

- PIPE SIZING AND CONFIGURATION IS SIMILAR FOR THE THREE OTHER WELLFIELD AREAS.
- SLOPE PIPING UP TO TERMINATION POINT, 1% GRADE.

**CONSTRUCTION NOTES:**

- AFTER APPROVED FLUSH AND PURGE PROCEDURES FILL PIPING WITH WATER, PRESSURIZE, AND CAP PIPING. MARK WITH TAPE 18" ABOVE BURIED PIPING.

1 ENLARGED PLAN - PARTIAL LOOPFIELD

SCALE: 0 5' 10' 20'



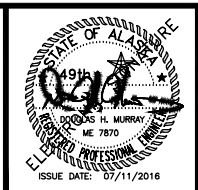
BY	DATE	REVISIONS

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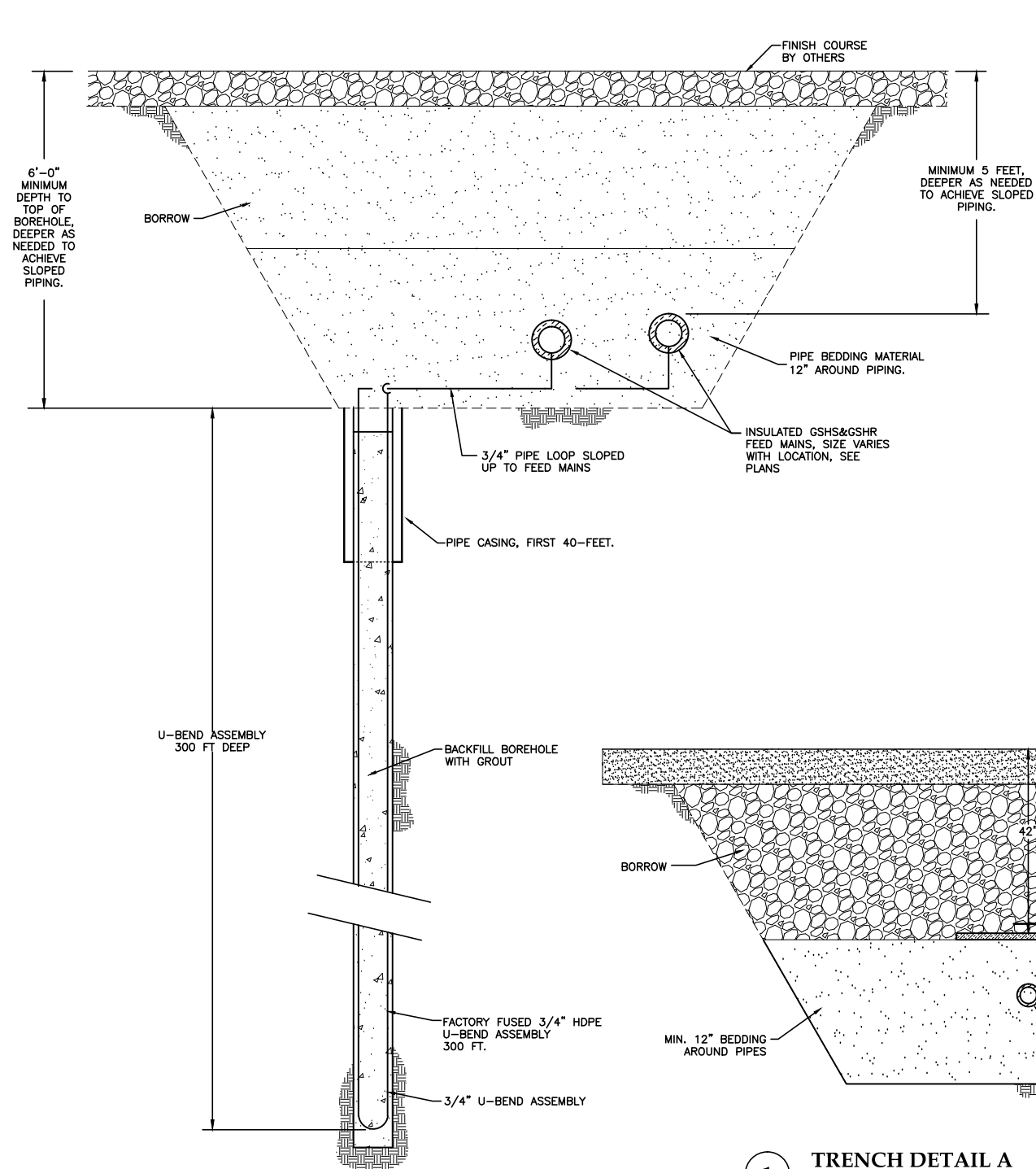
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 JUNEAU, ALASKA 99802

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 FAX: 907 780-6182

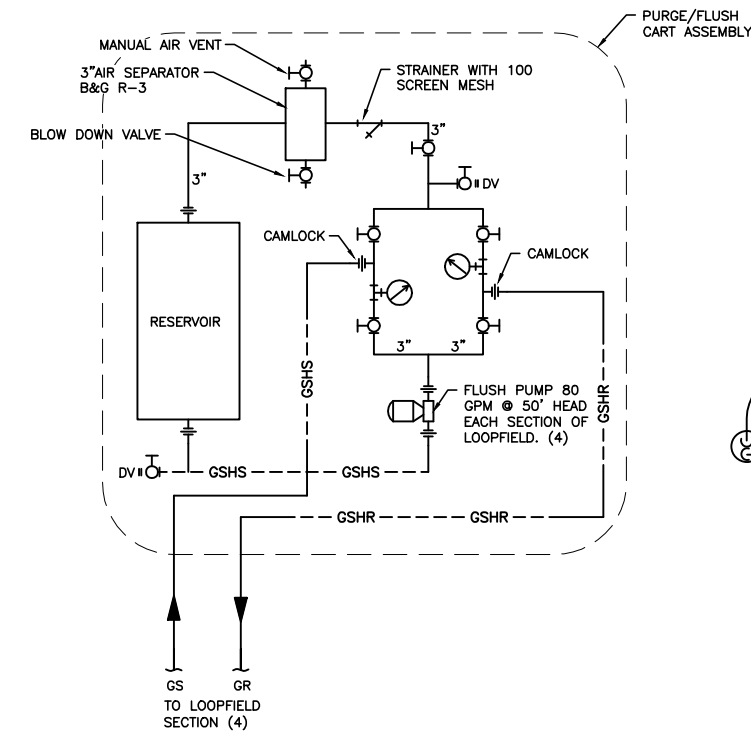


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 RUNWAY SAFETY AREA IMPROVEMENTS - PHASE 2B  
 CONTRACT NO. BE-17-045  
 AIP No. 3-02-0133-XXX-2016  
 ENLARGED PLAN - PARTIAL LOOPFIELD

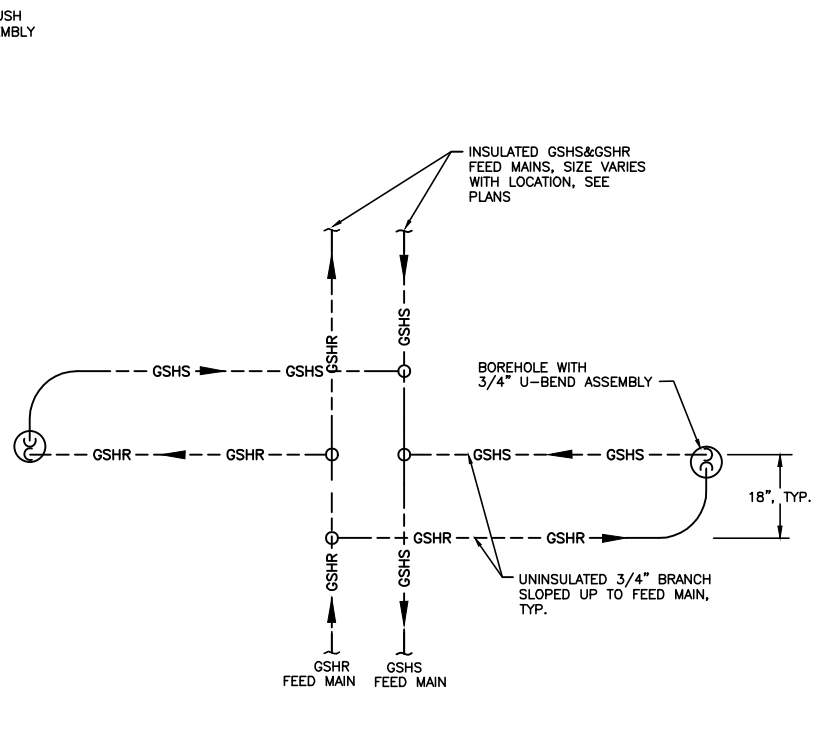
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 Checked By: D. MURRAY  
 Drawn By: K. BLEAKLEY



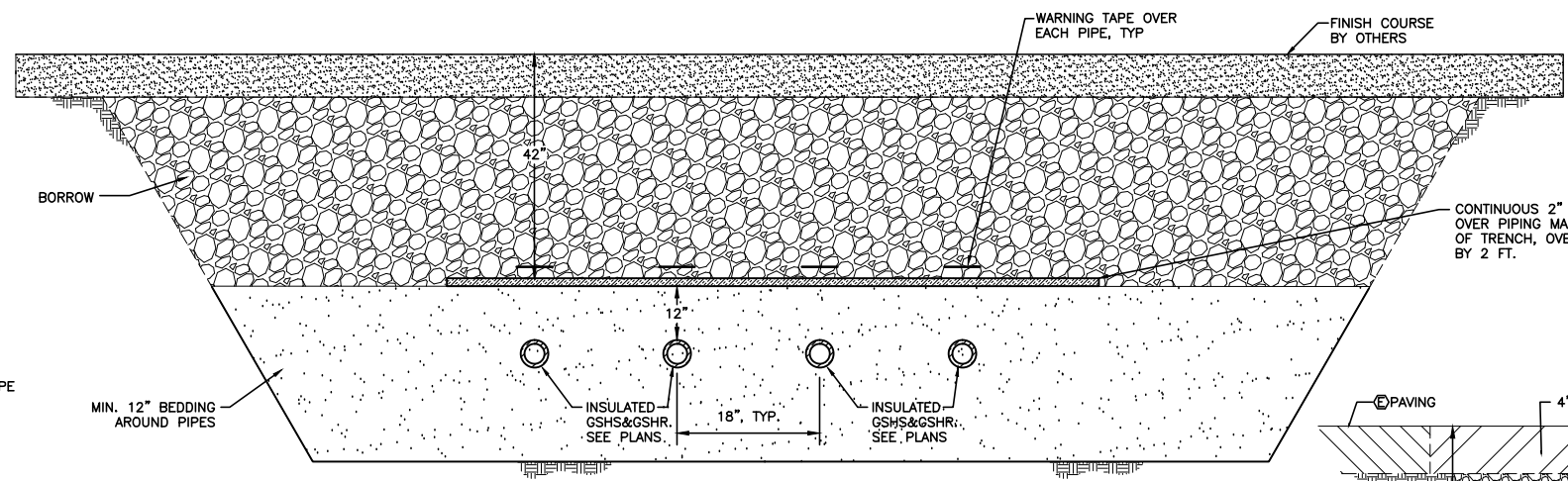
3 BOREHOLE SECTION  
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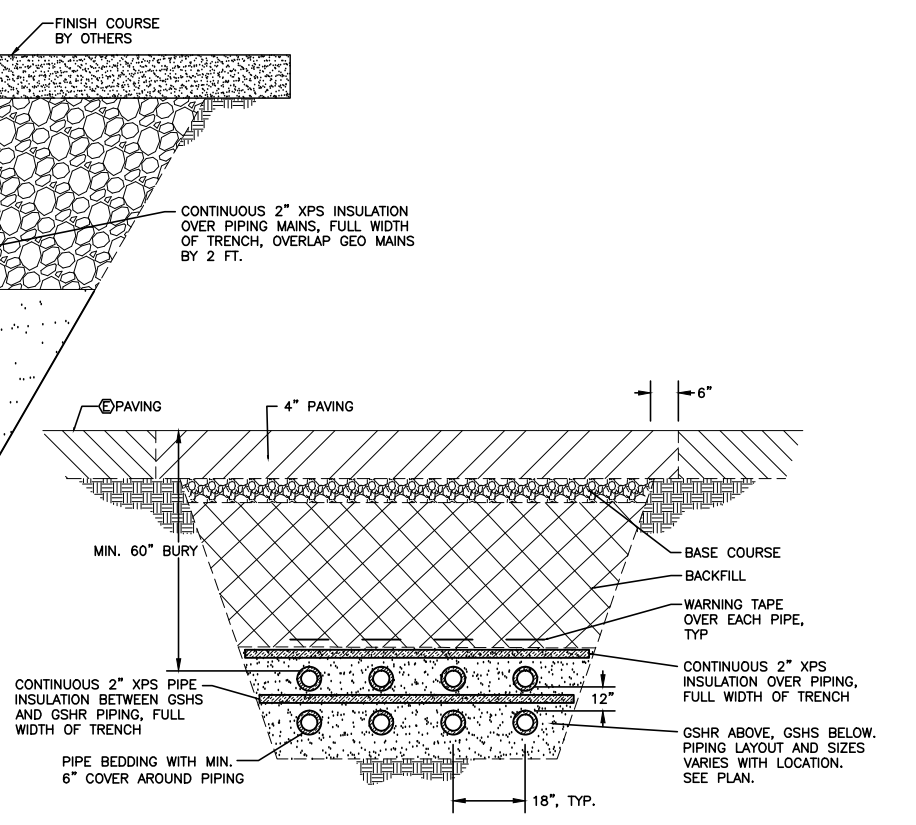
4 PURGE/FLUSH CART ASSEMBLY PIPING DIAGRAM  
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5 BOREHOLE CONNECTION PLAN  
NO SCALE



1 TRENCH DETAIL A  
NO SCALE



2 TRENCH DETAIL B  
NO SCALE

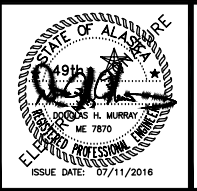
BY	DATE	REVISIONS

SCALE	
HORZ. SCALE	
VERT. SEE GRAPHIC	
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FILE NO.	

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 ALASKA LICENCE #AEC750

P O BOX 21081  
 JUNEAU, ALASKA 99802

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DETAILS