

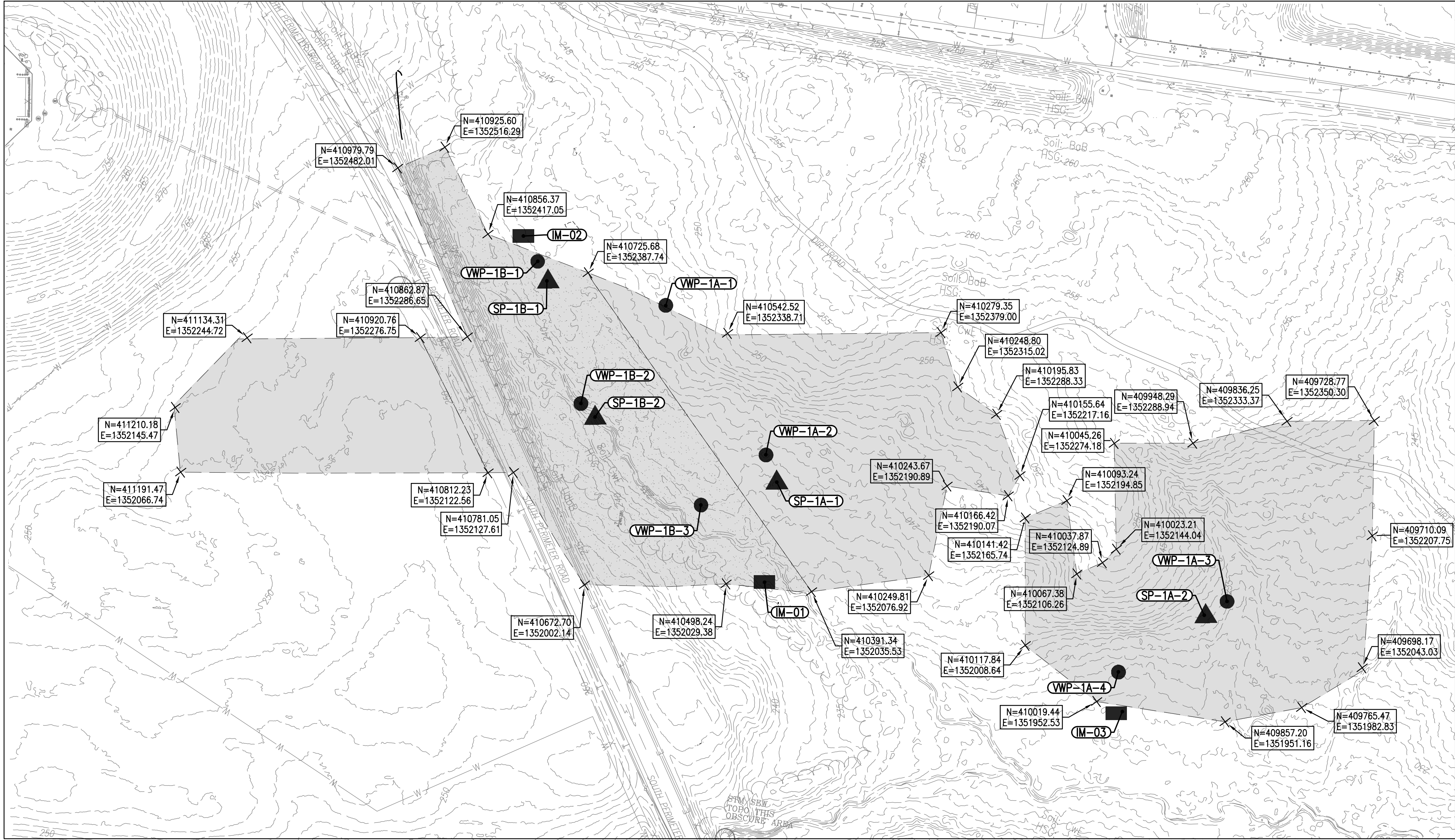
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WICK DRAINS AND SURCHARGE LIMITS

STRUCTURE	SURCHARGE HEIGHT (FT)	ESTIMATED SETTLEMENT (IN)	WICK DRAINS		COMMENTS
			SPACING (FT)	TIP ELEVATION (FT)	
CENTRAL TAXIWAY FILL AREA	FINISHED SUBGRADE ELEVATION + 5	13	4	195	APPROXIMATELY 3-4 MONTHS WAITING PERIOD IS REQUIRED AFTER THE SURCHARGE IS PLACED
SOUTHWEST TAXIWAY FILL AREA	FINISHED SUBGRADE ELEVATION + 5	21	4	190	APPROXIMATELY 3-4 MONTHS WAITING PERIOD IS REQUIRED AFTER THE SURCHARGE IS PLACED

NOTES:

- MINIMUM 125 PCF MOIST UNIT WEIGHT MATERIAL MUST BE USED AS SURCHARGE FILL.
- PREFABRICATED WICK DRAINS WITH WIDTH = 0.33 FT, THICKNESS 0.01, PLACED IN TRIANGULAR PATTERN.
- THE REQUIRED WAITING PERIOD IS MEASURED FROM THE COMPLETION OF SURCHARGE PLACEMENT. SURCHARGE MUST REMAIN IN PLACE FOR THE DURATION OF THE SPECIFIED WAITING PERIOD.
- SURCHARGE AND WICK DRAINS ARE REQUIRED WITHIN FILL AREAS TO MAINTAIN THE POST-CONSTRUCTION SETTLEMENTS LESS THAN 1-INCH. POST-CONSTRUCTION SETTLEMENTS ARE ESTIMATED TO OCCUR BETWEEN THE END OF THE SPECIFIED WAITING PERIOD AND 100 YEARS.
- SURCHARGE MATERIAL MUST NOT BE REMOVED UNTIL APPROVAL FROM GEOTECHNICAL ENGINEER IS PROVIDED.
- REFER TO SHEETS CG-121 TO CG-123 FOR GRADING PLAN.
- PRE-CONSOLIDATION AREAS SHOWN ON THIS SHEET INDICATE THE TOE OF THE FILL SLOPE REQUIRED FOR SURCHARGE. TEMPORARY SURCHARGE MATERIAL SHALL BE INSTALLED AT A 1:1 FILL SLOPE.

GEOTECHNICAL NOTES:

- THE SETTLEMENT PLATE SHOULD BE PLACED ON THE SUBGRADE, AND THE BASELINE ELEVATION OF THE PLATE AND THE RISER SHOULD BE RECORDED BEFORE FILL PLACEMENT. AT LEAST TWO SETS OF READINGS SHOULD BE TAKEN TO ESTABLISH THE BASELINE ELEVATIONS.
- THE RISER AND CASING SHOULD BE EXTENDED TO REMAIN ABOVE THE FILL SURFACE. THE ELEVATION OF THE RISER SHOULD BE RECORDED IMMEDIATELY BEFORE AND AFTER ATTACHING AN EXTENSION. THE ELEVATION ON THE RISER SHOULD BE RECORDED DAILY DURING FILL PLACEMENT AND TWICE PER WEEK AFTER COMPLETION OF THE FILL, UNTIL SETTLEMENT HAS CEASED, OR THE FREQUENCY OF MONITORING REVISED BY THE GEOTECHNICAL ENGINEER.
- VIBRATING WIRE PIEZOMETERS SHOULD BE INSTALLED AND MADE FUNCTIONAL NOT LESS THAN ONE WEEK BEFORE THE INSTALLATION OF WICK DRAINS. PROVIDE VIBRATING WIRE PIEZOMETERS AS MANUFACTURED BY ROCTEST, INC., GEOKON, INC., GEONOR INC., OR ACCEPTABLE EQUIVALENT. EACH ARRAY SHOULD HAVE A MINIMUM OF THREE PRESSURE SENSORS. FILTER SAND CONFORMING TO ASTM C778, STANDARD SPECIFICATION FOR STANDARD SAND, SHOULD BE USED. BENTONITE DRILLING MUD SHOULD NOT BE USED FOR INSTALLING THE VIBRATING WIRE PIEZOMETERS. AFTER COMPLETION OF INSTALLATION, THE AS-BUILT SURVEY COORDINATES FOR HORIZONTAL POSITION SHOULD BE DETERMINED TO AN ACCURACY OF +/- 0.01 FOOT. A BASELINE READING SHOULD BE ESTABLISHED BASED ON AN AVERAGE OF THREE STABLE READINGS.
- READINGS FROM VIBRATING WIRE PIEZOMETERS SHOULD BE RECORDED A MINIMUM OF FOUR TIMES PER DAY. ONCE SETTLEMENT CURVES PLATEAU AND GROUNDWATER LEVELS STABILIZE, READING FREQUENCIES ON APPROPRIATE INSTRUMENTATION MAY BE MODIFIED OR STOPPED BASED ON AGREEMENT WITH NAVFAC AND THE GEOTECHNICAL ENGINEER.
- THREE INCLINOMETERS SHOULD BE INSTALLED AND MADE FUNCTIONAL NOT LESS THAN ONE WEEK BEFORE THE INSTALLATION OF WICK DRAINS. A BASELINE READING SHOULD BE ESTABLISHED BASED ON AN AVERAGE OF THREE STABLE READINGS. READINGS FROM INCLINOMETERS SHOULD BE RECORDED A TWICE PER WEEK DURING EMBANKMENT FILL PLACEMENT, ONCE PER WEEK DURING SURCHARGE PERIOD. BEWEEKLY AFTER THAT DURING THE CONSTRUCTION TILL THE END OF CONSTRUCTION.

LEGEND

- WICK DRAIN/PRE-CONSOLIDATION PHASE 1A AREA
- WICK DRAIN/PRE-CONSOLIDATION PHASE 1B AREA
- SETTLEMENT PLATE
- VIBRATING WIRE PIEZOMETER
- INCLINOMETER

INCLONIMETER POINTS

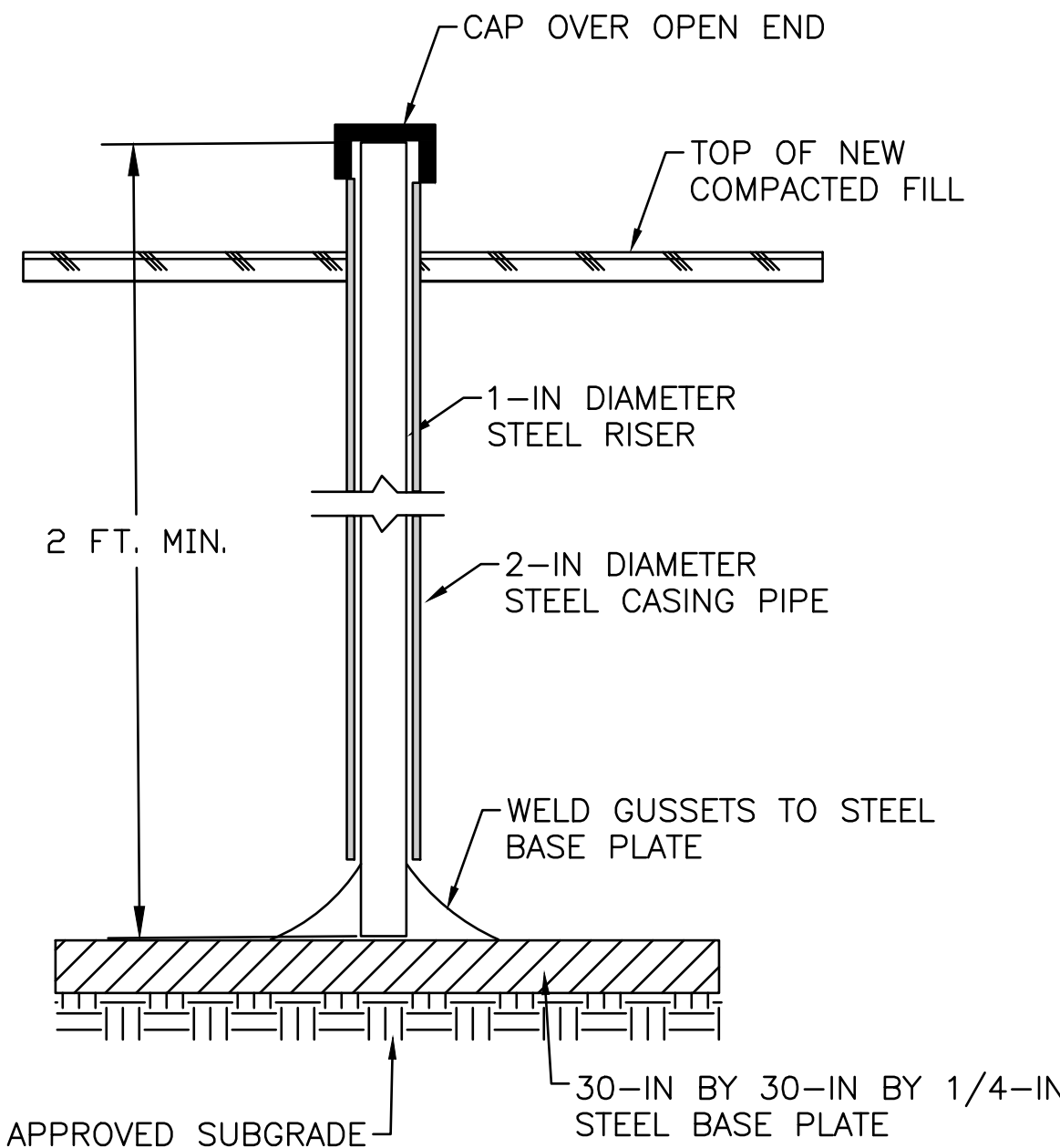
POINT #	NORTHING	EASTING
IM-01	410451.01	1352038.44
IM-02	410812.30	1352421.14
IM-03	409985.88	1351944.79

SETTLEMENT PLATE POINTS

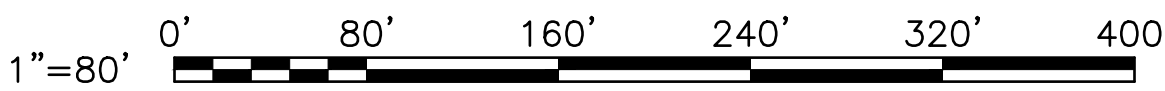
POINT #	NORTHING	EASTING
SP-1A-1	410454.39	1352164.17
SP-1A-2	409902.65	1352078.82
SP-1B-1	410775.11	1352370.11
SP-1B-2	410690.60	1352211.10

VIBRATING WIRE PIEZOMETER POINTS

POINT #	NORTHING	EASTING
VWP-1A-1	410623.94	1352361.49
VWP-1A-2	410473.00	1352195.92
VWP-1A-3	409877.06	1352100.03
VWP-1A-4	409998.08	1351993.03
VWP-1B-1	410789.91	1352392.68
VWP-1B-2	410710.53	1352225.22
VWP-1B-3	410543.81	1352122.06



SETTLEMENT PLATE DETAIL



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 53990, EXPIRATION DATE: 02-24-2023.



JOINT VENTURE

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DESIGN

PHOTO

BRANCH MANAGER

CHIEF ENGINEER

FIRE PROTECTION

21-SF-0064

NAVAL FACILITIES ENGINEERING COMMAND

WASHINGTON, DC

CAMP SPRINGS, MD

JOINT BASE ANDREWS NAVAL AIR FACILITY

P-3002 RELOCATE HAZARDOUS CARGO

PAD AND EOD PROFICIENCY RANGE

GEOTECHNICAL SITE PREPARATION PLAN

SCALE: AS NOTED

PROJECT NO.: 1396650

CONSTR. CONTR. NO. N40080-22-R-8580

NAVFAC DRAWING NO. 13140401

SHEET 131 OF 229

CG-403

DRAWING REVISION: 06 APRIL 2017

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