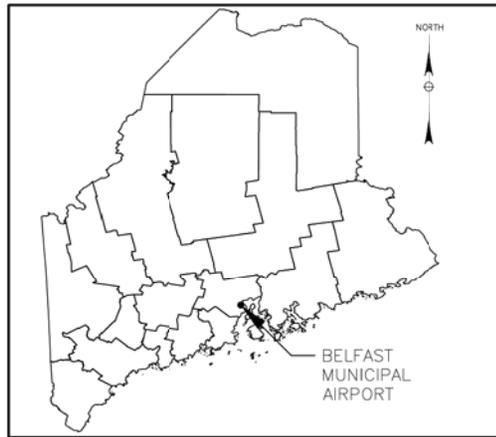


BELFAST MUNICIPAL AIRPORT

CONSTRUCT NEW RUNWAY 15 PARTIAL PARALLEL TAXIWAY (2,200' X 25') (BASE BID) AND RUNWAY 33 PARTIAL PARALLEL TAXIWAY (464' X 25') (ADD ALT)



LOCATION MAP

PREPARED FOR:



BELFAST CITY HALL
131 CHURCH STREET
BELFAST, ME
04915

PREPARED BY:



McFarland Johnson

53 REGIONAL DRIVE
CONCORD, NH 03301
(585) 905-0970
WWW.MJINC.COM

MCFARLAND JOHNSON PROJECT NUMBER: 18228.01

BID DOCUMENTS
MARCH 5, 2018

CITY OF BELFAST
COUNTY OF WALDO
STATE OF MAINE

FAA A.I.P. 3-23-0007-XXX-2018



VICINITY MAP

CEO SIGNATURE: _____

SEALED	MATTHEW T. O'BRIEN
PE_NO	12842
PE_DATE	MARCH 5, 2018

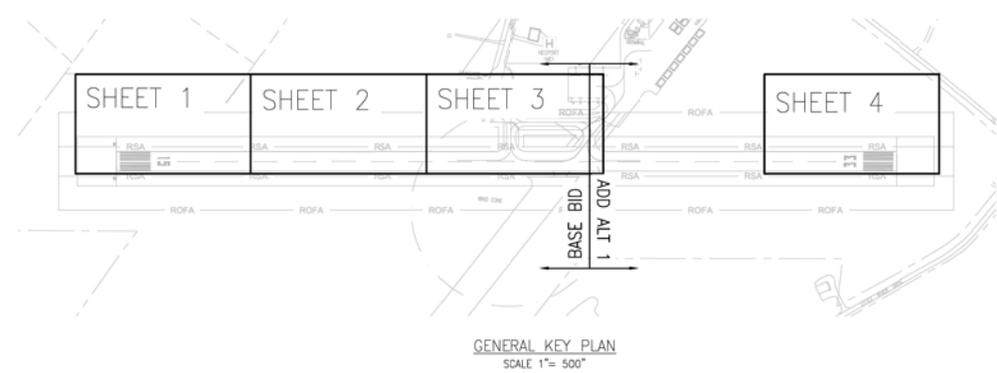


IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

Sheet List Table		
Sheet Number	Sheet Title	Sheet
COVR	TITLE SHEET	1
G-01	SHEET LIST & LEGEND	2
G-02	GENERAL PLAN AND AIRFIELD SURVEY CONTROL	3
G-03	SAFETY AND PHASING PLAN NOTES	4
CSP-01	CONSTRUCTION SAFETY AND PHASING PLAN - OVERVIEW	5
CSP-02	CONSTRUCTION SAFETY AND PHASING PLAN - PHASE 1A	6
CSP-03	CONSTRUCTION SAFETY AND PHASING PLAN - PHASE 1B	7
CSP-04	CONSTRUCTION SAFETY AND PHASING PLAN - PHASE 2	8
CSP-05	CONSTRUCTION SAFETY AND PHASING PLAN - PHASE 3	9
CSP-06	CONSTRUCTION SAFETY AND PHASING PLAN - PHASE 4	10
CSP-07	FAA PART 77 IMAGINARY SURFACES	11
S-01	EXISTING CONDITIONS SURVEY PLAN (1 OF 5)	12
S-02	EXISTING CONDITIONS SURVEY PLAN (2 OF 5)	13
S-03	EXISTING CONDITIONS SURVEY PLAN (3 OF 5)	14
S-04	EXISTING CONDITIONS SURVEY PLAN (4 OF 5)	15
S-05	EXISTING CONDITIONS SURVEY PLAN (5 OF 5)	16
EC-01	EROSION CONTROL PLAN (1 OF 4)	17
EC-02	EROSION CONTROL PLAN (2 OF 4)	18
EC-03	EROSION CONTROL PLAN (3 OF 4)	19
EC-04	EROSION CONTROL PLAN (4 OF 4)	20
EC-05	EROSION CONTROL DETAILS (1 OF 3)	21
EC-06	EROSION CONTROL DETAILS (2 OF 3)	22
EC-07	EROSION CONTROL DETAILS (3 OF 3)	23
MG-01	MITIGATION PLAN (1 OF 1)	24
D-01	DEMOLITION PLAN (1 OF 4)	25
D-02	DEMOLITION PLAN (2 OF 4)	26
D-03	DEMOLITION PLAN (3 OF 4)	27
D-04	DEMOLITION PLAN (4 OF 4)	28
C-01	GEOMETRY AND MARKING PLAN (1 OF 4)	29
C-02	GEOMETRY AND MARKING PLAN (2 OF 4)	30
C-03	GEOMETRY AND MARKING PLAN (3 OF 4)	31
C-04	GEOMETRY AND MARKING PLAN (4 OF 4)	32
TYP-01	TYPICAL SECTION AND PAVEMENT DETAILS	33
MK-01	MARKING DETAILS	34
TP-01	TAXIWAY A PROFILE (STA 307+31 - STA 319+50)	35
TP-02	TAXIWAY A PROFILE (STA 319+50 - STA 328+89) TAXIWAY D PROFILE	36
GR-01	GRADING AND DRAINAGE PLAN (1 OF 4)	37
GR-02	GRADING AND DRAINAGE PLAN (2 OF 4)	38
GR-03	GRADING AND DRAINAGE PLAN (3 OF 4)	39
GR-04	GRADING AND DRAINAGE PLAN (4 OF 4)	40
GR-05	DRAINAGE DETAILS (1 OF 2)	41
GR-06	DRAINAGE DETAILS (2 OF 2)	42
E-01	ELECTRICAL PLAN (1 OF 4)	43
E-02	ELECTRICAL PLAN (2 OF 4)	44
E-03	ELECTRICAL PLAN (3 OF 4)	45
E-04	ELECTRICAL PLAN (4 OF 4)	46
E-05	ELECTRICAL DETAILS (1 OF 2)	47
E-06	ELECTRICAL DETAILS (2 OF 2)	48
B-01	BORE PLAN (1 OF 4)	49
B-02	BORE PLAN (2 OF 4)	50
B-03	BORE PLAN (3 OF 4)	51
B-04	BORE PLAN (4 OF 4)	52
B-05	BORING LOG (1 OF 3)	53
B-06	BORING LOG (2 OF 3)	54
B-07	BORING LOG (3 OF 3)	55
B-08	LEDGE PROBES	56
XS-01	CROSS SECTIONS (STA 307+80-310+00)	57
XS-02	CROSS SECTIONS (STA 310+50-313+00)	58
XS-03	CROSS SECTIONS (STA 313+50-316+00)	59
XS-04	CROSS SECTIONS (STA 316+50-319+00)	60
XS-05	CROSS SECTIONS (STA 319+50-321+00)	61
XS-06	CROSS SECTIONS (STA 321+50-323+00)	62
XS-07	CROSS SECTIONS (STA 323+50-326+00)	63
XS-08	CROSS SECTIONS (STA 326+50-328+80)	64
XS-09	CROSS SECTIONS (STA 200+50-203+00)	65
XS-10	CROSS SECTIONS (STA 203+50-205+13)	66

PROPOSED LEGEND:

EXISTING LEGEND:



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



McFarland Johnson

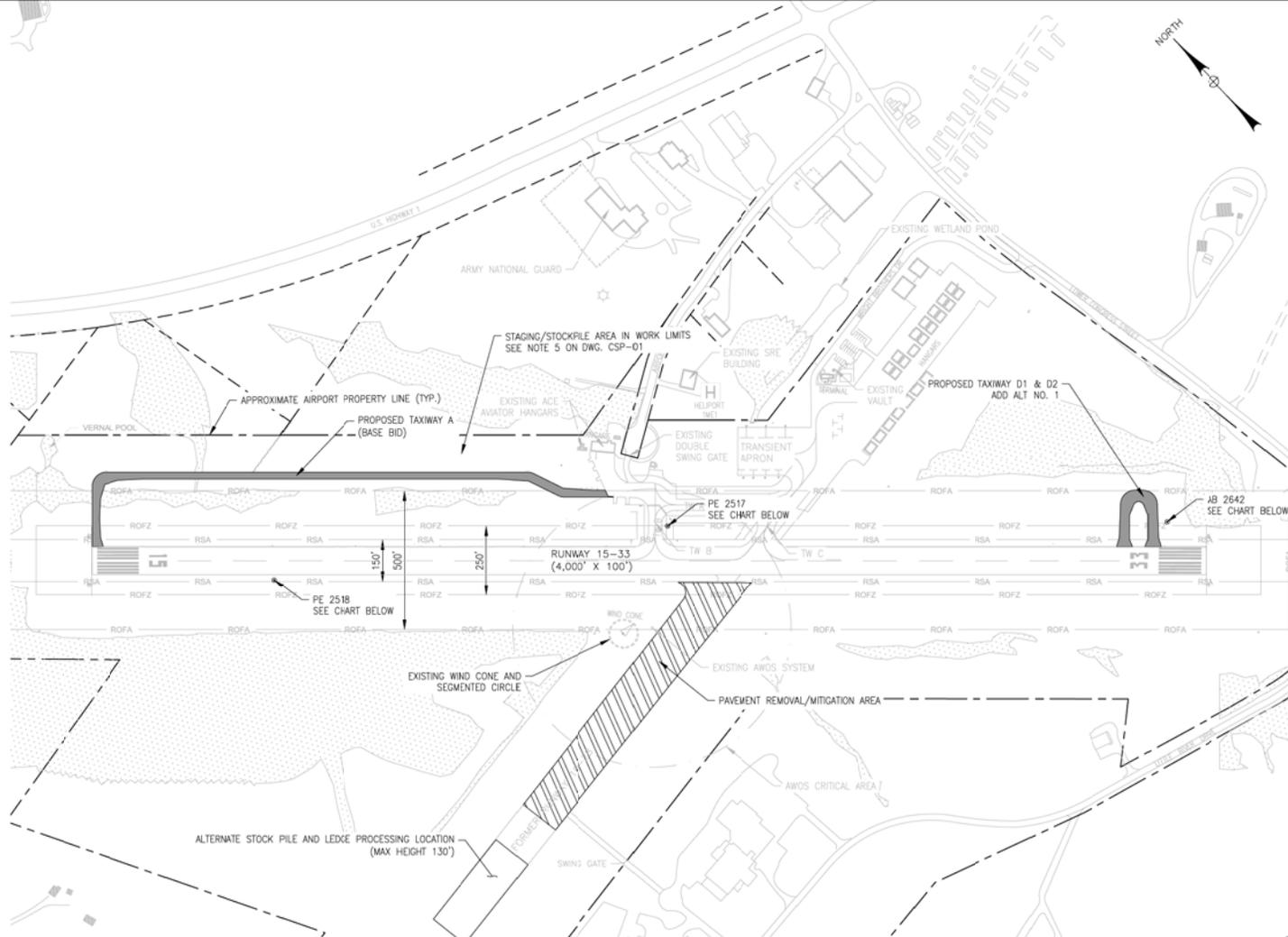
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

SHEET LIST & LEGEND		
SCALE: 1" = 500'	DESIGN: MTO	G-01 2 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

GENERAL NOTES:

1. **AIRPORT OPERATIONS COORDINATION**
 - 1.1. THE AIRPORT MANAGER SHALL HAVE THE AUTHORITY TO OPEN AND CLOSE FACILITIES, ISSUE AND CANCEL NOTAMS, AND TO COORDINATE WITH AIRPORT USERS.
2. **AIRPORT SECURITY**
 - 2.1. THE CONTRACTOR SHALL COMPLY WITH ALL AIRPORT SECURITY REQUIREMENTS. IN ADDITION, THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS AS SET FORTH IN THE FAA APPROVED CONSTRUCTION SAFETY AND PHASING PLAN.
 - 2.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING ACCESS TO THE WORK AREA AND ENSURING THAT AIRPORT SECURITY IS MAINTAINED AT ALL TIMES. THE FAA CAN IMPOSE FINES OF \$10,000 OR MORE FOR SECURITY VIOLATIONS AND INCURSIONS INTO ACTIVE AIRCRAFT OPERATION AREAS. THE CONTRACTOR SHALL PAY ALL FINES ASSESSED AGAINST THE AIRPORT DUE TO VIOLATIONS CAUSED BY THE CONTRACTOR AND HIS/HER PERSONNEL, SUBCONTRACTORS AND VENDORS.
 - 2.3. CONTRACTOR SHALL INSTRUCT SUPPLIERS AND SUBCONTRACTORS ON ACCESS PROCEDURES TO BE FOLLOWED.
 - 2.4. ALL SECURITY ARRANGEMENTS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER AND THE FAA. SEE CONSTRUCTION SAFETY AND PHASING PLAN.
 - 2.5. NO SECURITY BADGING IS REQUIRED BY OWNER.
3. **OPEN TRENCHES OR EXCAVATIONS**
 - 3.1. THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE ANY TRENCHES OR OTHER EXCAVATIONS OUTSIDE OF THE WORK AREA OPEN AT NIGHT, WEEKENDS, OR AT OTHER TIMES WHEN THE CONTRACTOR IS NOT ON THE WORK SITE.
 - 3.2. NO EXCAVATIONS EXCEEDING 3 INCHES IN DEPTH SHALL BE LEFT OPEN WITHIN AIRCRAFT OPERATION AREAS, AS DESCRIBED IN THE CONSTRUCTION SAFETY AND PHASING PLAN, WHEN THE RUNWAYS, TAXIWAYS, OR APRONS ARE IN USE.
4. **DISPOSAL OF SURPLUS AND UNSUITABLE MATERIALS**
 - 4.1. ALL UNSUITABLE EXCAVATION MATERIAL; ALL UTILITY (WATER, SEWER, TEL/DATA, & DRAINAGE) STRUCTURES, APPURTENANCES, AND PIPES; ALL BITUMINOUS CONCRETE PAVEMENT; ALL PORTLAND CEMENT CONCRETE PAVEMENT; AND ALL CONDUIT AND ELECTRICAL WIRE SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR OFF AIRPORT PROPERTY UNLESS SPECIFIC INSTRUCTIONS TO THE CONTRARY ARE INCLUDED IN THE SPECIFICATIONS.
 - 4.2. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE DISPOSAL OF MATERIALS OFF AIRPORT PROPERTY.
5. **UNDERGROUND UTILITIES AND CABLES**
 - 5.1. THE CONTRACTOR SHALL REPAIR, AT THEIR OWN EXPENSE, ANY UNDERGROUND OR OVERHEAD CABLES OR UTILITIES (SHOWN ON THE CONTRACTORS DRAWINGS OR NOT) DAMAGED BY THEIR OPERATIONS AT NO ADDITIONAL COST TO THE OWNER INCLUDING ANY DAMAGE DONE BY DRIVING THEIR EQUIPMENT OVER EXISTING UNDERGROUND CABLES OR UTILITIES. THE REPAIR OF FAA CABLES SHALL BE INSPECTED AND APPROVED BY THE FAA.
 - 5.2. THE APPROXIMATE LOCATIONS OF KNOWN UTILITIES AND UNDERGROUND CABLES ARE SHOWN ON THE CONTRACT DRAWINGS. PRIOR TO COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE ALL WORK ON AND IN THE VICINITY OF THE UNDERGROUND UTILITIES AND CABLES WITH THE FOLLOWING AGENCIES AS APPROPRIATE. THIS DUE DILIGENCE SHALL ALSO INCLUDE FIELD VERIFICATION AND LOCATION OF ALL UTILITIES.
 - THE FEDERAL AVIATION ADMINISTRATION - AIRWAYS FACILITIES BRANCH.
 - THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION - NATIONAL WEATHER BUREAU.
 - CENTRAL MAINE POWER COMPANY
 - DIG SAFE
6. **CONTRACTOR'S STAGING AREA AND HAUL ROUTE**
 - 6.1. THE CONTRACTOR SHALL USE THE AREA SHOWN ON THE PLANS (SEE DWG CSP-01) FOR THEIR STAGING AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL IMPROVEMENTS AND RESTORATION AND PROCESSING OF THE DESIGNATED AREA, SUCH AS GRUBBING, GRADING, AND CONSTRUCTION OF GRAVEL ACCESS ROADS, THAT ARE NECESSARY FOR THE UTILIZATION OF THE STAGING AND PROCESSING AREA AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ALL THE TRASH PICK UP GENERATED BY THE PROJECT. RESTROOMS WILL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR WITHIN THE STAGING AREA. THE STAGING AREA WILL BE RESTORED TO A CONDITION APPROVED BY THE ENGINEER AND OWNER. ALL WORK AND PROCESSING NECESSARY TO USE THE STAGING AND PROCESSING AREA AND HAUL ROUTES SHALL BE DEEMED INCIDENTAL TO THE OVERALL PROJECT.
 - 6.2. STATE AND LOCAL ASSOCIATED HIGHWAY LOAD LIMITS APPLY ON ALL HAUL ROUTES. ALL HAUL ROUTES SHALL BE RESTORED TO THE ORIGINAL CONDITION AT THE CONTRACTORS EXPENSE.
 - 6.3. AS NOTED ABOVE, HAUL ROUTES ARE INCIDENTAL TO THE MAINTENANCE AND PROTECTION OF TRAFFIC UNDER ITEM NUMBER UNLESS OTHERWISE OUTLINED IN THE CONTRACT DOCUMENTS.
 - 6.4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TEMPORARY ACCESS PERMITS AND ASSOCIATED FEES FOR ACCESS TO THE ADJACENT ROAD NETWORK. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK.
 - 6.5. AIRFIELD HAUL ROUTES SHOWN HAVE BEEN APPROVED BY THE FAA. ANY DEVIATION MUST BE APPROVED BY THE FAA PRIOR TO UTILIZATION. THIS IS A MINIMUM 45-DAY REVIEW PERIOD. DEVIATIONS MAY NOT BE APPROVE) BY THE FAA.
7. **WETLANDS**
 - 7.1. DISTURBANCE OF WETLANDS IS A POTENTIAL VIOLATION OF FEDERAL, STATE AND LOCAL REGULATIONS. NO DISTURBANCE OF WETLANDS IS INTENDED AS PART OF THE PROJECT EXCEPT WHERE INDICATED ON THE PLANS. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID ANY UNAUTHORIZED DISTURBANCE OF WETLANDS AS PART OF THEIR WORK. THE CONTRACTOR SHALL PAY ALL FINES ASSESSED AGAINST THE AIRPORT AND RELATED EXPENSES DUE TO VIOLATIONS CAUSED BY THE CONTRACTOR AND THEIR PERSONNEL, SUBCONTRACTORS, AND VENDORS. THE CONTRACTOR SHALL COMPLY WITH CONDITIONS SET FORTH IN THE WETLAND PERMITS OBTAINED FOR THE PROJECT. CONTRACTOR SHALL MEET THE CONDITIONS OF THE APPROVED PERMIT.
 - 7.2. WETLANDS WERE DELINEATED BY NEW EARTH ECOLOGICAL CONSULTING ON AUGUST 5, 2016.
8. **AIRPORT OPERATIONS AND SAFETY REQUIREMENTS**
 - 8.1. NORMAL AIRPORT OPERATIONS WILL BE CONDUCTED DURING CONSTRUCTION. THE CONTRACTORS WORK SHALL BE CARRIED ON IN SUCH A MANNER AS NOT TO INTERFERE WITH AIRPORT OPERATIONS. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO ENSURE THE SAFETY OF OPERATING AIRCRAFT AS WELL AS THEIR OWN EQUIPMENT AND PERSONNEL. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS SET FORTH IN THE FAA APPROVED CONSTRUCTION SAFETY AND PHASING PLAN.
 - 8.2. ALL CONTRACTOR VEHICLES SHALL HAVE A FLASHING BEACON OR ORANGE CHECKERED FLAG, AND THE COMPANY IDENTIFICATION PLAINLY VISIBLE ON BOTH SIDES OF THE VEHICLE IN ORDER TO IDENTIFY THE VEHICLE.
 - 8.3. THE CONTRACTOR SHALL HAVE A WORKING POWER VACUUM SWEEPER ON THE SITE AT ALL TIMES TO SWEEP PAVEMENTS IN THE WORK AREAS AND HAUL ROUTES AS DIRECTED BY THE ENGINEER.
 - 8.4. CONTRACTOR SHALL PERFORM BEST MANAGEMENT PRACTICES AT ALL TIMES FOR DUST MANAGEMENT AND CONTROL OR AS DIRECTED BY THE ENGINEER. A WORKING WATER TRUCK SHALL BE ON SITE AT ALL TIMES.



- NOTE:**
1. SURVEY PERFORMED BY PLUGSA AND DAY IN JULY AND DECEMBER 2015 AND ON DECEMBER 22, 2017.
 2. HORIZONTAL, DATUM: NAD83 MAINE STATE PLANES, EAST ZONE, US SURVEY FOOT
 3. VERTICAL DATUM: NAVD88
 4. SEE EXISTING CONDITIONS SURVEY PLANS ON DWG. S-01-S-05

SURVEY BENCH MARKS					
NAME	CONTROL	NORTHING	EASTING	ELEVATION	DESCRIPTION
PE 2517	PAC	271,189.06	850,643.69	180.51'	HORIZONTAL CONTROL DISK
PE 2518	SAC	272,026.52	849,489.61	191.54'	AZIMUTH MARK DISK
AB 2642	SAC	269,960.17	851946.96	158.46'	SURVEY DISK



BID DOCUMENTS



McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATION.

BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY
GENERAL PLAN AND AIRFIELD SURVEY CONTROL

SCALE: 1" = 200'	DESIGN: MTO	G-02 3 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

CONSTRUCTION SAFETY AND PHASING NOTES:

1. THE CONTRACTOR SHALL SUBMIT A WRITTEN SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) TO THE ENGINEER, THE CITY OF BELFAST AND FAA FOR REVIEW AND APPROVAL PRIOR TO MOBILIZATION AND BEFORE ANY CONSTRUCTION IS ALLOWED TO BE PERFORMED. ANY DELAY IN THE ISSUANCE OF THE NOTICE TO PROCEED DUE TO THE FAILURE BY THE CONTRACTOR TO OBTAIN AN APPROVED SPCD WILL NOT BE GROUNDS FOR ANY CONTRACT TIME EXTENSION. THE CONTRACTOR SHALL BECOME KNOWLEDGEABLE OF THE REQUIREMENTS AND PROCEDURES OF THE FAA ADVISORY CIRCULAR NO. 150/5370-2G OR (CURRENT EDITION) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION" AND THE APPROVED "CONSTRUCTION SAFETY AND PHASING PLAN" (CSPP), AND INCORPORATE RELEVANT ITEMS INTO THE SPCD WHICH MUST MEET OR EXCEED THE PROJECT'S CSPP REQUIREMENTS. THE SPCD SHALL BE MODIFIED AND UPDATED AS REQUIRED THROUGHOUT THE PROJECT TO ADDRESS EACH PHASE AND SUB PHASE AS WORK PROGRESSES. SOME, BUT NOT ALL OF THE ITEMS, TO BE ADDRESSED IN THE SPCD ARE AS FOLLOWS:

- IDENTIFICATION AND QUALIFICATIONS OF DEDICATED SAFETY & SECURITY POINT OF CONTACT
- WORK SCHEDULING, COORDINATION, AND NOTIFICATION PROCEDURES OF CONSTRUCTION ACTIVITIES.
- AIRFIELD COMMUNICATIONS AND 24-HOUR EMERGENCY NOTIFICATION PROCEDURES.
- CONSTRUCTION OPERATIONS ADJACENT TO OR WITHIN SAFETY AREAS, OBJECT FREE AREAS, NAVAD CRITICAL AREAS, AND APPROACH SURFACES. (I.E. GRADING, HAULING MATERIALS, ETC.)
- METHODS AND REQUIREMENTS FOR SEPARATING CONSTRUCTION AREAS FROM AIRPORT
- AIRPORT OPERATIONS AREAS (AOA).
- PREVENTING INTERFERENCE WITH FAA NAVAD (LS OR OTHER) CRITICAL AREAS.
- CONTROL OF FOREIGN OBJECT DEBRIS (FOD) AND DUST.
- CONSTRUCTION VEHICLE REQUIREMENTS, PROCEDURES AND DRIVER TRAINING FOR ESCORT DRIVERS.
- OPERATIONS WITHIN MOVEMENT AND NON-MOVEMENT AREAS TO PREVENT RUNWAY INCURSIONS.
- CONTRACTOR ACCESS POINTS, VEHICLE CROSSING LOCATIONS, SECURITY FENCING AND GATES, AND EMPLOYEE SECURITY TRAINING.
- PROCEDURES, REQUIREMENTS, AND COORDINATION OF RUNWAY AND/OR TAXIWAY CLOSURES, INCLUDING NOTICE TO AIRMEN (NOTAM) COORDINATION
- LIGHTED CHANNELIZER CONE PLACEMENT LOCATIONS, AND TEMPORARY CONSTRUCTION SIGN LOCATIONS.
- PROCEDURES FOR MANAGING HAZARDOUS MATERIALS
- PROCEDURES FOR LOCATING & PROTECTING EXISTING UNDERGROUND UTILITIES

2. THESE SAFETY AND PHASING PLANS HAVE BEEN APPROVED BY THE BELFAST AIRPORT MANAGER. COMBINING, MODIFYING, OR ALTERNATING PHASES/SUBPHASES WITHOUT APPROVAL OF THE BELFAST AIRPORT MANAGER THROUGH THE ENGINEER WILL NOT BE ALLOWED. IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR PREPARE THEIR BID BASED ON THE CONSTRUCTION PHASING SHOWN IN THESE DOCUMENTS. IF ANY MODIFICATIONS ARE APPROVED, THERE SHALL BE NO ADDITIONAL COST TO THE OWNER.

3. ALL OF THE CONTRACTOR'S AND SUBCONTRACTOR'S EMPLOYEES SHALL HAVE A "TAILGATE" SAFETY MEETING EVERY SHIFT CHANGE OR START OF EACH DAY PRIOR TO ANY WORK WITH THE ENGINEER TO REVIEW WORK AND SAFETY PROCEDURES. THIS DAILY COORDINATION OF THE CONSTRUCTION ACTIVITIES SHALL BE HELD TO CLEARLY IDENTIFY THE LIMITS OF WORK FOR THE DAY. THE CONTRACTOR SHALL NOT EXCEED THE LIMITS OF WORK WITHOUT APPROVAL FROM THE ENGINEER. IN ADDITION, A SIGN-IN SHEET SHALL BE KEPT FOR THE ATTENDANCE AT THIS MEETING.

4. THE CONTRACTOR SHALL PROVIDE A COMPETENT SAFETY PERSON (WHO ALSO COULD BE THE SUPERINTENDENT OR OTHER SUPERVISORY PERSON) FAMILIAR WITH AIRPORT SAFETY TO MONITOR CONSTRUCTION ACTIVITIES. THIS INDIVIDUAL WILL BE RESPONSIBLE FOR MONITORING CONSTRUCTION ACTIVITIES AND PERSONNEL TO ENSURE THAT THEY ADHERE TO THE SAFETY REQUIREMENTS ESTABLISHED BY THE CONTRACT DOCUMENTS, THE SPCD, THE REGULATIONS AND REQUIREMENTS OF THE AIRPORT, FAA, AND OTHER APPLICABLE AGENCIES.

5. THE CONTRACTOR SHALL PROVIDE A POINT OF CONTACT TO THE OWNER AND ENGINEER WHO CAN BE CONTACTED AT ANY TIME THROUGHOUT THE COURSE OF THE CONTRACT. THIS INDIVIDUAL WILL BE CAPABLE OF COORDINATING AN IMMEDIATE RESPONSE TO CORRECT ANY CONSTRUCTION RELATED ACTIVITY THAT MAY ADVERSELY AFFECT THE OPERATIONAL SAFETY OF THE AIRPORT.

6. UPON RECEIPT OF APPROVAL FOR A CLOSURE AND BEFORE EQUIPMENT ENTERS THE AIRFIELD AND CONSTRUCTION COMMENCES, THE WORK AREA SHALL BE SECURED. LIGHTING EQUIPMENT, CHANNELIZER CONES AND SAFETY BARRICADES SHALL BE PLACED AND OPERATIONAL AS APPLICABLE. THE WORK AREA SHALL BE CLEARLY DELINEATED AND ALL SAFETY REQUIREMENTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEGINNING ANY WORK.

7. CONSTRUCTION SIGNS (I.E. "CONSTRUCTION TRAFFIC" WITH ARROWS, "NO UNAUTHORIZED VEHICLES BEYOND THIS POINT" OR OTHER STANDARD MANUAL OF UNIFORM TRAFFIC CONTROL DEVICE (MUTCD) SIGNS) SHALL BE LOCATED AT THE WORK AREA CORNER/INGRESS POINTS. THERE SHALL BE NO SEPARATE PAYMENT FOR PROVIDING THESE SIGNS.

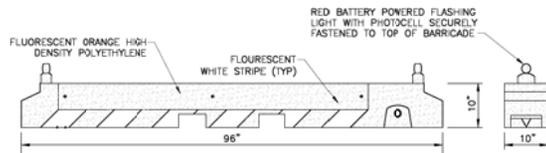
8. THE CONTRACTOR SHALL ENSURE THAT NO PAVEMENT LIPS, PAVEMENT EDGES, SIGN FOUNDATIONS, STRUCTURES OR OTHER APPURTENANCES EXCEED 3 INCHES WITHIN ACTIVE AIRCRAFT OPERATIONAL AREAS.

9. TEMPORARY TAXIWAY CLOSURES AND/OR RUNWAY CLOSURES IN ACCORDANCE WITH THE CSPP ARE SUBJECT TO WIND/WEATHER AVAILABILITY AND ARE SUBJECT TO A RECALL TIME TO BE DETERMINED BY THE BELFAST AIRPORT MANAGER, AND OUTLINED IN THE CSPP.

10. NO TAXIWAY CAUTIONS WILL BE ALLOWED FOR THIS PROJECT. HOWEVER IF WORKING UNDER A TAXIWAY CAUTION ALLOWED BY AN APPROVED CSPP, ALL ADJACENT PAVEMENTS WILL BE AVAILABLE FOR AN UNLIMITED NUMBER OF AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL CONDUCT WORK IN SUCH A MANNER THAT NO INTERFERENCE WITH AIRCRAFT OPERATIONS WILL OCCUR. THE CONTRACTOR SHALL MONITOR THE CTAF/JUNCOM RADIO FREQUENCY AT ALL TIMES. THE CONTRACTOR SHALL RELOCATE PERSONNEL AND EQUIPMENT AT LEAST 66 FEET FROM THE TAXIWAY CENTERLINE TO ALLOW SAFE PASSAGE OF AIRCRAFT, AS REQUIRED.

11. CONTRACTOR SHALL ASSIGN PERSON TO MONITOR CTAF/JUNCOM 122.975 FOR AIRPLANE TRAFFIC DURING ALL WORKING HOURS FOR THE DURATION OF THE CONTRACT (MAY BE PERFORMED BY FOREMAN).

12. DURING NIGHT WORK (IF ALLOWED), ALL LIGHTING EQUIPMENT UTILIZED SHALL BE CONTROLLED TO PREVENT STRAY LIGHT. THE CONTRACTOR SHALL DIRECT ALL LIGHTING AWAY FROM ADJACENT NEIGHBORHOODS AND IN A MANNER THAT DOES NOT INTERFERE WITH AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL PREPARE A LIGHTING PLAN TO BE REVIEWED AND APPROVED BY THE ENGINEER. THE ENGINEER SHALL APPROVE THE LOCATION AND OPERATION OF ALL LIGHTING EQUIPMENT.

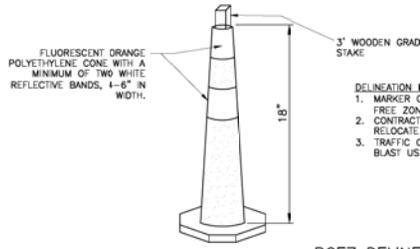


- BARRICADE NOTES:**
- BARRICADES SHALL BE MULTI-BARRIER SAFETY BARRICADES WITH REFLECTIVE STRIPING.
 - BARRIERS SHALL BE PLACED END TO END TO CREATE A CONTINUOUS BARRICADE.
 - BARRICADES SHALL BE ADEQUATELY WEIGHTED TO WITHSTAND HIGH WINDS AND/OR JET BLAST.
 - CONTRACTOR SHALL MAINTAIN THE FLASHING LIGHT IN WORKING ORDER THROUGHOUT THE PROJECT.

WATER BALLASTED LIGHTED SAFETY BARRICADE
ITEM M-120-1 NOT TO SCALE

AVIATION BARRICADE NOTES:

- ENGINEER AND THE BELFAST AIRPORT MANAGER WILL HAVE FINAL DETERMINATION WHERE EACH TYPE OF BARRICADE (LOW PROFILE, CHANNELIZER CONES, TRAFFIC CONES, ETC.) SHALL BE PLACED.
- BARRICADES SHALL BE ONE OF THE BARRICADES SHOWN ON THIS SHEET OR APPROVED EQUAL.
- ALL BARRICADES SHALL MEET REQUIREMENTS OF FAA ADVISORY CIRCULAR 150/5370-2G OR (CURRENT EDITION), "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".
- ALL BARRICADES SHALL BE SUPPLIED BY THE CONTRACTOR UNDER THE ALLOWANCE ITEM M-120-1.
- CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF THE BARRICADES/CONES TO ENSURE LIGHTS ARE OPERATING EVERY NIGHT.
- DURING NIGHT WORK (IF ALLOWED), ALL LIGHTING EQUIPMENT UTILIZED SHALL BE CONTROLLED TO PREVENT STRAY LIGHT. THE CONTRACTOR SHALL DIRECT ALL LIGHTING AWAY FROM ADJACENT NEIGHBORHOODS AND IN A MANNER THAT DOES NOT INTERFERE WITH AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL PREPARE A LIGHTING PLAN TO BE REVIEWED AND APPROVED BY THE ENGINEER. THE ENGINEER SHALL APPROVE THE LOCATION AND OPERATION OF ALL LIGHTING EQUIPMENT.

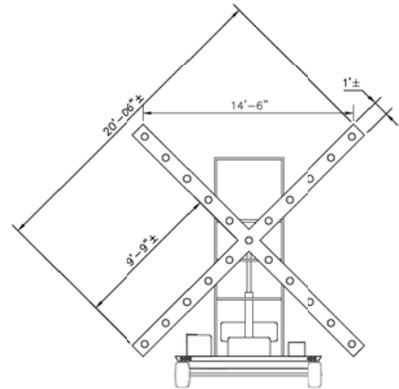


- DELINEATION MARKER NOTES:**
- MARKER CONES SHALL BE SPACED AT 20' ON CENTER TO PROTECT THE RUNWAY OBJECT FREE ZONE AND SHALL BE PLACED 125' FROM THE RUNWAY CENTERLINE.
 - CONTRACTOR SHALL MAKE FREQUENT INSPECTION OF THE MARKER CONES AND SHALL RELOCATE ANY CONES THAT ARE MISALIGNED.
 - TRAFFIC CONES SHALL BE ADEQUATELY SECURED TO WITHSTAND HIGH WINDS AND/OR JET BLAST USING GRADE STAKES AS SHOWN.

ROFZ DELINEATION MARKER
INCIDENTAL TO M-200-1 NOT TO SCALE

RUNWAY CLOSURE MARKER NOTES:

- RUNWAY CLOSURE MARKER IS TO BE A TOWABLE UNIT WHICH CAN BE QUICKLY AND EFFICIENTLY SET UP AND REMOVED FROM THE RUNWAY. THE RUNWAY CLOSURE MARKER SHALL MEET THE REQUIREMENTS OF FAA AC 150/5345-55A OR (LATEST REVISION).
- RUNWAY CLOSURE MARKER MUST BE ABLE TO WITHSTAND A MINIMUM WIND SPEED OF 40 M.P.H. WITHOUT ADVERSELY AFFECTING AIMND OR OPERATION.
- RUNWAY CLOSURE MARKER WILL CONSIST OF 21 90-WATT PAR 38 CLEAR INCANDESCENT LAMPS OR LAMPS WHICH ARE CAPABLE OF TRANSMITTING AVIATION WHITE LIGHT PER SAE-A525050, ARRANGED IN THE SHAPE OF THE LETTER "X" WITH ARMS CROSSED AT AN ANGLE APPROPRIATE TO MAKE THE "X" DISCREETLY TO APPROACHING AIRCRAFT. THE "X" FRAME CONTAINING THE LIGHTS IS TO BE PAINTED NO. 13538 AVIATION YELLOW, PER FED-STD-595, ON ALL SIDES TO ENSURE VISIBILITY.
- LIGHT FIXTURES MOUNTED IN "X" FRAME MUST INDIVIDUALLY BE CAPABLE OF PROVIDING THE FOLLOWING MINIMUM INTENSITIES:
DAYTIME EFFECTIVE INTENSITY OF 70,000 CANDELA (cd) AT THE BEAM CENTER, 34,000 cd AT 10 DEGREES RADIUS, AND 13,000 cd AT 15 DEGREES RADIUS.
NIGHTTIME EFFECTIVE INTENSITY OF 2,000 (cd) AT THE BEAM CENTER, 970 cd AT 10 DEGREES RADIUS, AND 370 cd AT 15 DEGREES RADIUS.
- LIGHT FIXTURES MOUNTED IN "X" FRAME MUST HAVE ALL LIGHT BULBS, SOCKETS, WIRING AND CONNECTIONS ENCLOSED IN WEATHER RESISTANT HOUSINGS.
- LIGHT FIXTURES MOUNTED IN "X" FRAME ARE TO BE IN A FLASHING MODE CONTROLLED BY A SOLID STATE FLASHER. FLASHER IS TO BE EQUIPPED WITH A FAIL SAFE ALLOWING LIGHTS TO REMAIN ON CONTINUOUS SHOULD FLASHER UNIT FAIL.
FLASH INTERVAL TIME WILL BE DAYTIME OPERATION - 2.5 SECONDS ON, 2.5 SECONDS OFF NIGHTTIME OPERATION - 2.5 SECONDS ON, 2.5 SECONDS OFF TO 65 VOLTS DURING NIGHTTIME OPERATION.
- THE RUNWAY CLOSURE MARKER MUST BE EQUIPPED FOR A CONNECTION TO 120V AC POWER SOURCE TO ALLOW FOR BACK-UP POWER SOURCE CAPABILITY OR ON-SITE POWER SUPPLY IF AVAILABLE. RUNWAY CLOSURE MARKER IS TO BE ENERGIZED BY A PORTABLE DIESEL ENGINE POWER SUPPLY WITH AN ADEQUATE FUEL CAPACITY TO SUPPLY POWER TO THE UNIT AT FULL LOAD FOR A MINIMUM OF 120 HOURS OF CONTINUOUS OPERATION.
- RUNWAY CLOSURE MARKER IS TO BE EQUIPPED WITH 2 LIGHTS MOUNTED ON THE BACK SIDE OF THE TOP LEGS OF THE "X" FRAME. LIGHTS ARE TO BE WIRED SUCH THAT THEY REMAIN CONTINUOUSLY ON DURING CLOSURE MARKER OPERATION AS AN INDICATION OF POWER BEING SUPPLIED TO THE UNIT.
- UNIT IS TO BE EQUIPPED WITH SOLAR POWERED SAFETY BEACON MOUNTED IN A LOCATION VISIBLE TO ATCT OR AIRPORT PERSONNEL. BEACON IS TO BE WIRED SUCH THAT IT WILL BE ACTIVATED IN THE EVENT OF TOTAL POWER LOSS AND HAVE SUFFICIENT POWER TO OPERATE FOR A MINIMUM OF 140 HOURS DAY OR NIGHT.
- RUNWAY CLOSURE MARKER AS MANUFACTURED BY SHERWIN INDUSTRIES, INC. OR APPROVED EQUAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE, MOVING AND FUELING, INCLUDING FUELING ON THE WEEKENDS AND MAINTENANCE ON THE WEEKEND.



ABBREVIATIONS:

A/P	AIRPORT	LONG.	LONGITUDE
AC	ACRES	LT	LEFT
ACC.	ACCESS	LVC	LENGTH OF VERTICAL CURVE
A.D.B.E.	AS DETERMINED BY ENGINEER	MAT'L	MATERIAL
ADD.	ADDITIVE	MAX.	MAXIMUM
ADMN.	ADMINISTRATION	MIN.	MINIMUM
ALT.	ALTERNATE	MPH	MILES PER HOUR
ADA	AIRPORT OPERATIONS AREA	N =, N =	NORTHING
APPROX.	APPROXIMATELY	NO.	NUMBER
AWOS	AUTOMATED AIRPORT WEATHER STA.	NOM.	NOMINAL
BEG.	BEGINNING	NOTAM	NOTICE TO AIRMEN
BIT.	BITUMINOUS	N.T.S.	NOT TO SCALE
BMP	BEST MANAGEMENT PRACTICE	NYSDOT	NEW YORK STATE DEPT. OF TRANSPORTATION
BVC/E	BEG. OF VERTICAL CURVE ELEV.	OFF	OFFSET
BVCS	BEG. OF VERTICAL CURVE STA.	OFZ	OBSTACLE FREE ZONE
CB	CATCH BASIN	OPZ	PRECISION APPROACH PATH INDICATOR
CMP	CORRUGATED METAL PIPE	PC	POINT OF CURVATURE
C.O.	UD CLEAN OUT	PROP.	PROPOSED
CONC.	CONCRETE	PT	POINT OF TANGENCY
CONT.	CONTINUED	PVC	POLYVINYL CHLORIDE PIPE
CY	CUBIC YARDS	PVI	POINT OF VERTICAL INTERSECTION
DIA.	DIAMETER	PVMT	PAVEMENT
DWG.	DRAWING	RCP	REINFORCED CONCRETE PIPE
E =, E =	EASTING	REL.	RUNWAY END IDENTIFIER LIGHT
EG	EXISTING GROUND	REQ'D	REQUIRED
E-EHH	EXISTING ELECTRICAL HANDHOLE	ROFA	RWY OBJECT FREE AREA
EJC	ELECTRICAL JUNCTION CAN	ROFZ	RWY OBSTACLE FREE ZONE
ELEV.	ELEVATION	RPZ	RWY PROTECTION ZONE
ELECT.	ELECTRIC OR ELECTRICAL	RSA	RWY SAFETY AREA
ELM	AIRPORT IDENTIFIER	RT	RIGHT
EMH	ELECTRICAL MANHOLE	RWY	RUNWAY
E-EMH	EXISTING ELECTRICAL MANHOLE	SEL.	SELECTIVE
EQP	EDGE OF PAVEMENT	SF	SQUARE FEET
EVCE	END OF VERTICAL CURVE ELEV	STN.	STATION
EVCS	END OF VERTICAL CURVE STA	SUPP.	SUPPLEMENTAL
EXST.	EXISTING	SY	SQUARE YARDS
FAA	FEDERAL AVIATION ADMIN.	TEMP.	TEMPORARY
FES	FLARED END SECTION	TLOFA	TAXILANE OBJECT FREE AREA
FT	FEET	TOFA	TWY OBJECT FREE AREA
GRD	GROUND WIRE	TSA	TWY OR TAXILANE SAFETY AREA
HDPE	HIGH-DENSITY POLYETHYLENE	TSS	THRESHOLD SITING SURFACE
HW	HEADWALL	TYP.	TYPICAL
IND.	INDIVIDUAL	TWY	TAXIWAY
INCID.	INCIDENTAL	UD	UNDERDRAIN
JC	JUNCTION CAN	UE DR	UNDERGROUND ELECTRIC
LAT.	LATITUDE	U/G	UNDERGROUND
LF	LINEAR FEET		

BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN IDEA IN ANY WAY. IF AN IDEA BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATION.

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

SAFETY AND PHASING PLAN NOTES

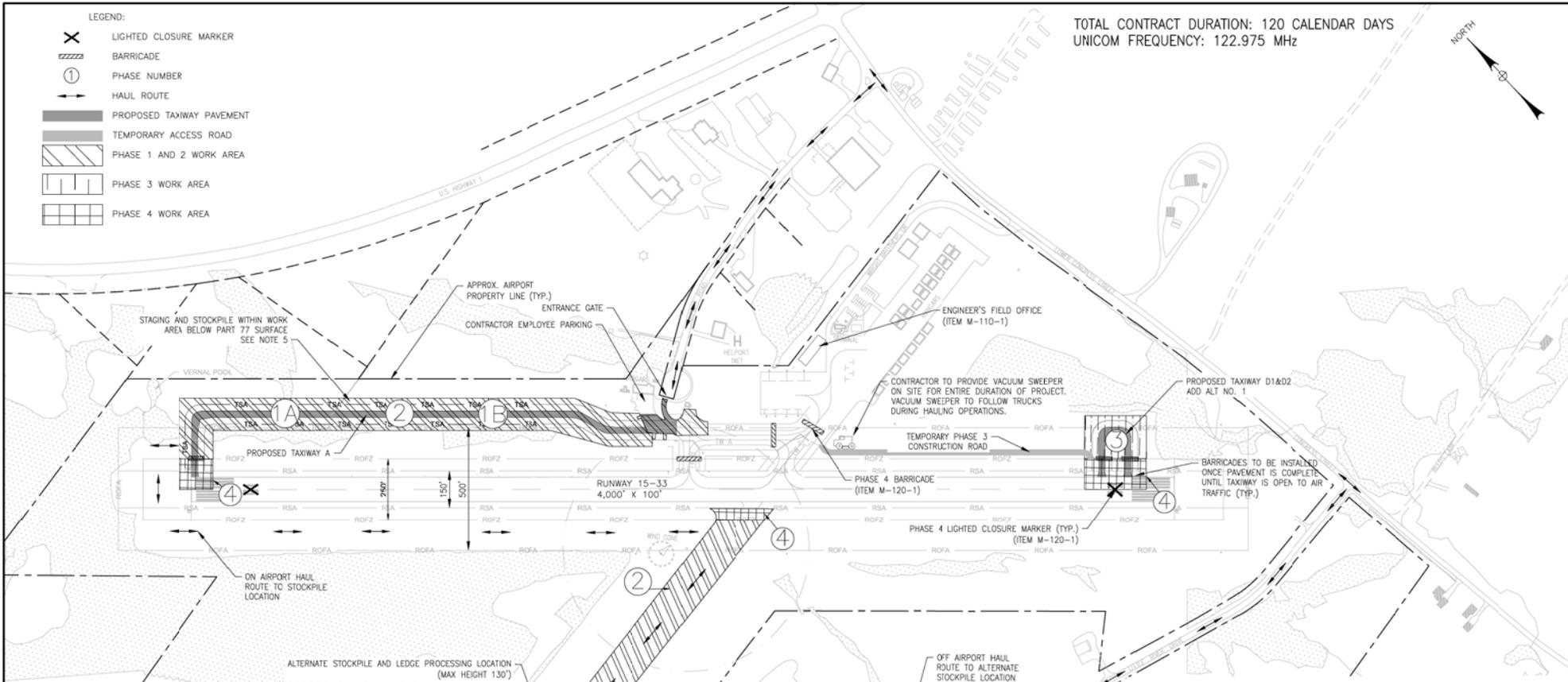
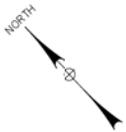
SCALE:	NTS	DESIGN:	MTD	G-03 4 OF 66
DRAWN:	BRF	PROJECT:	18228.01	
CHECKED:	SSS	DATE:	MARCH 5, 2018	



McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

- LEGEND:
- ✕ LIGHTED CLOSURE MARKER
 - ▨ BARRICADE
 - ① PHASE NUMBER
 - HAUL ROUTE
 - ▨ PROPOSED TAXIWAY PAVEMENT
 - ▨ TEMPORARY ACCESS ROAD
 - ▨ PHASE 1 AND 2 WORK AREA
 - ▨ PHASE 3 WORK AREA
 - ▨ PHASE 4 WORK AREA

TOTAL CONTRACT DURATION: 120 CALENDAR DAYS
 UNICOM FREQUENCY: 122.975 MHz



OVERALL CONSTRUCTION SCHEDULE AND PHASING
 TOTAL CONTRACT DURATION = 120 CALENDAR DAYS (SEASON 1: 60 DAYS AND SEASON 2: 60 DAYS)

1. LIGHTED BARRICADES SHALL BE PLACED AT THE LIMITS OF THE WORK AS SHOWN IN THE PLANS FOR EACH PHASE. THE LIGHTED BARRICADES SHALL BE PLACED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
2. ALL VEHICLES FROM CONSTRUCTION WORK AREA SHALL BE INSPECTED FOR FOREIGN OBJECT DEBRIS (FOD).
3. ALL TEMPORARY HAUL ROUTES AND STAGING AREAS SHALL BE LOAMED AND SEEDED AS NEEDED AT THE COMPLETION OF THE PROJECT TO RESTORE AREA TO ORIGINAL CONDITION (INCIDENTAL TO THE PROJECT).
4. ANY EXISTING PAVEMENT LAND SIDE AND AIR SIDE DAMAGED DUE TO REPEATED VEHICLE TRAFFIC OR OTHER CONSTRUCTION ACTIVITY SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
5. STAGING AREA SHALL BE ALLOWED IN WORK AREA IF HEIGHTS REMAIN BELOW PART 77 SURFACE. SEE DWG. CSP-07, ONE ALTERNATIVE FOR STOCKPILE/PROCESSING LOCATIONS HAS BEEN PROVIDED.
6. INSTALL ALL EARTH-WORK EROSION AND SEDIMENTATION CONTROL BEST MANAGEMENT PRACTICES PRIOR TO INITIAL GROUND DISTURBANCE.
7. RUNWAY 15-33 WILL REMAIN OPEN DURING PHASES 1A, 2, AND 3 BUT WILL BE SHUT DOWN FOR PHASES 1B AND 4.
8. ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE WORK ZONES AT ALL TIMES.
9. WORK WITHIN THE ROFZ WILL REQUIRE THE RUNWAY TO BE SHUT DOWN; ROFZ DELINEATION MARKERS WILL BE PLACED PRIOR TO ANY WORK AND WILL BE LOCATED AT THE ROFZ (125' FROM RUNWAY CENTER LINE). THE ROFZ MARKERS WILL BE TRAFFIC CONES MOUNTED ON A GRADE STAKE, OR CHANNELIZER CONES, PLACED APPROXIMATELY EVERY 20'.
10. ANY EXISTING PAVEMENT OR PAVEMENT MARKING OBSCURED OR DAMAGED DUE TO CONSTRUCTION ACTIVITY SHALL BE REMOVED AND REPLACED, AS DIRECTED BY THE AIRPORT OR ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.
11. ELECTRICAL BLASTING CAPS PROHIBITED ON AIRPORT PROPERTY.

IT IS ANTICIPATED, DUE TO THE FAA GRANT FUNDING, THAT THE CONSTRUCTION WILL BE SPLIT INTO 2 CONSTRUCTION SEASONS. SEASON 1 WILL BE PRE-SITE WORK INCLUDING UNCLASSIFIED EXCAVATION, ROCK EXCAVATION, TREE CLEARING AND OTHER MISCELLANEOUS SITE WORK. IT IS ANTICIPATED TO START IN THE FALL OF 2018. SEASON 2 WILL BE FOR THE REMAINDER OF THE WORK AND IS ANTICIPATED TO BE A LATE SPRING START IN 2019.

PHASE DESCRIPTIONS:

- PHASE 1A: PREPARATION SITE WORK (SEASON 1)
- PHASE 1B: BLASTING IN WORK AREA 1A (SEASON 1)
- PHASE 2: CONSTRUCT NEW TAXIWAY A OUTSIDE THE LIMITS OF THE ROFZ TO THE EXISTING APRON. PAVEMENT REMOVAL AND MITIGATION. (SEASON 2)
- PHASE 3: CONSTRUCT NEW TAXIWAY D1 & D2 OUTSIDE THE LIMITS OF THE ROFZ (SEASON 2)
- PHASE 4: CONSTRUCT NEW TAXIWAYS A AND D1 & D2 WITHIN THE LIMITS OF THE ROFZ. PAVEMENT REMOVAL AND MITIGATION. (SEASON 2)

CONTRACT PHASE DURATION	
PHASE 1A	60 CALENDAR DAYS
PHASE 1B	40 HOURS WITHIN PHASE 1A
PHASE 2	60 CALENDAR DAYS
PHASE 3	30 CALENDAR DAYS WITHIN PHASE 2
PHASE 4	12 CALENDAR DAYS WITHIN PHASE 2



BID DOCUMENTS

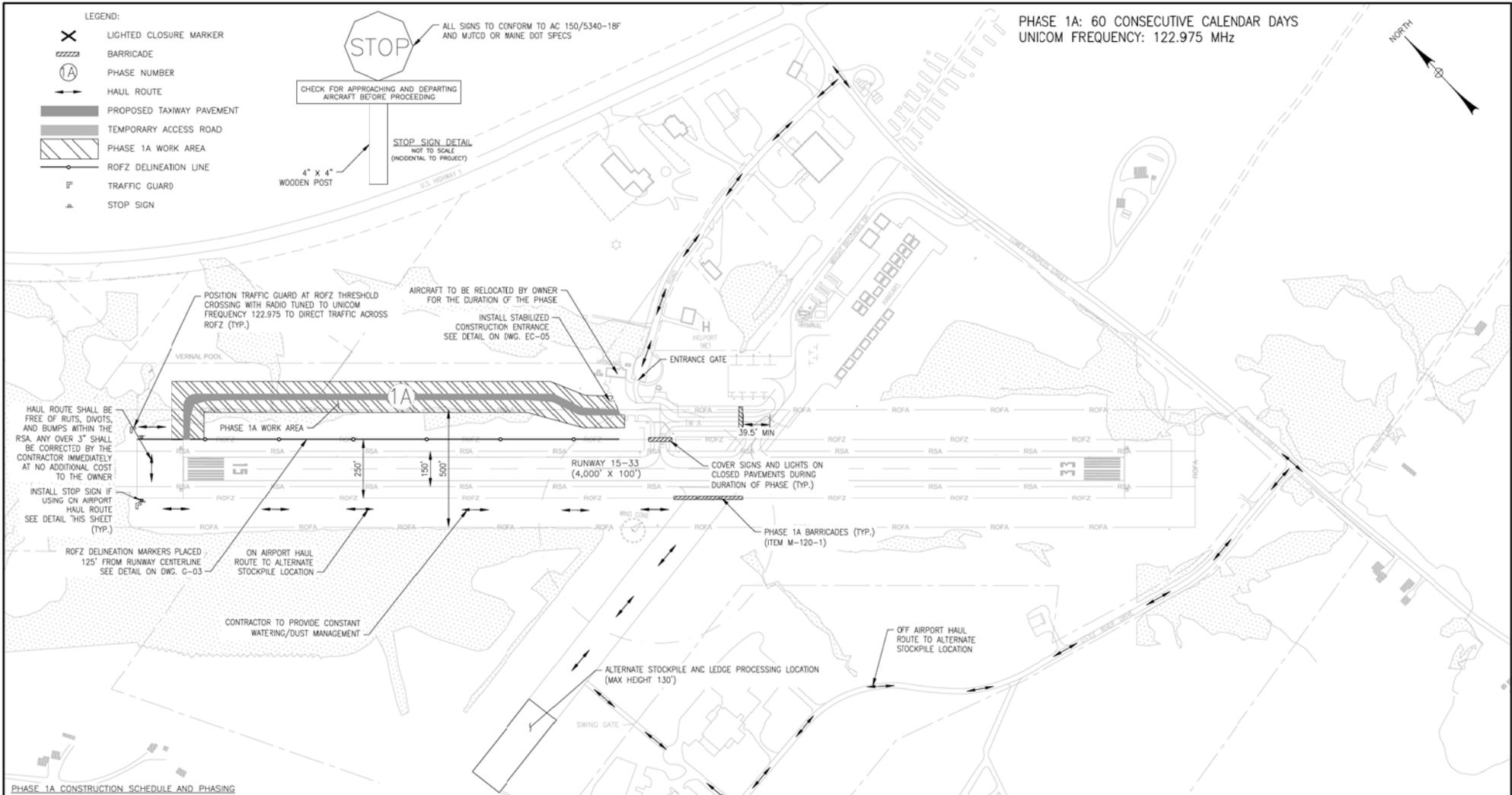
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY
CONSTRUCTION SAFETY AND PHASING PLAN - OVERVIEW

SCALE: 1" = 200'	DESIGN: MTO	CSP-01 5 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



PHASE 1A: 60 CONSECUTIVE CALENDAR DAYS
UNICOM FREQUENCY: 122.975 MHz

PHASE 1A CONSTRUCTION SCHEDULE AND PHASING

WORK AREA: INCLUDES THE SITE PREPARATION OUTSIDE THE LIMITS OF THE ROFZ TO THE EXISTING APRON.

DURATION: 60 CONSECUTIVE CALENDAR DAYS

CLOSURES: TAXIWAY B IS CLOSED ENTIRE DURATION OF PHASE

LIQUIDATED DAMAGES: \$2,100.00/DAY

RESTRICTIONS:

- ALL CONSTRUCTION PERSONNEL AND EQUIPMENT MUST REMAIN A MINIMUM OF 125' FROM THE RUNWAY CENTERLINE.
- ALL CONSTRUCTION PERSONNEL AND EQUIPMENT MUST BE SITUATED IN SUCH A WAY TO ALLOW SAFE PASSAGE FROM ALL HANGARS TO EXISTING RUNWAYS OR TAXIWAYS
- ALL TRAVEL MUST FOLLOW THE HAUL ROUTE USING THE TEMPORARY ACCESS ROADS.
- IT IS ANTICIPATED THAT PHASE 1 WILL OCCUR DURING THE FALL/WINTER OF 2018 THE CONTRACTOR SHALL FOLLOW OVERWINTER BMP'S ON DWG EC-05
- WORK SHALL NOT BEGIN PRIOR TO SEPTEMBER 15, 2018 DUE TO SCHEDULED FLY-IN EVENT
- NO TREE REMOVAL ACTIVITIES FROM MAY THROUGH AUGUST

PRIMARY WORK TO BE PERFORMED IN PHASE 1A

- MOBILIZATION
- EROSION AND SEDIMENT CONTROL
- CLEARING AND GRUBBING
- LEDGE BLASTING PREPARATION
- UNCLASSIFIED AND ROCK EXCAVATION
- LEDGE REMOVAL
- LEDGE BLASTING CLEANUP
- PROCESS LEDGE INTO P-154-1, P-209-1, AND 4" MINUS STONE



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN INSTRUMENT OR ANY PART OF AN INSTRUMENT, THE SIGNATURE OF A LICENSED PROFESSIONAL IS REQUIRED, THE SIGNATURE, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "CHECKED BY" FOLLOWED BY THE SIGNATURE, THE DATE OF SUCH ALTERATION, AND A FEE OF \$100.00 PER HOUR OF THE ALTERATION.

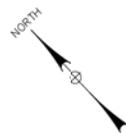


McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY
CONSTRUCTION SAFETY AND PHASING PLAN - PHASE 1A

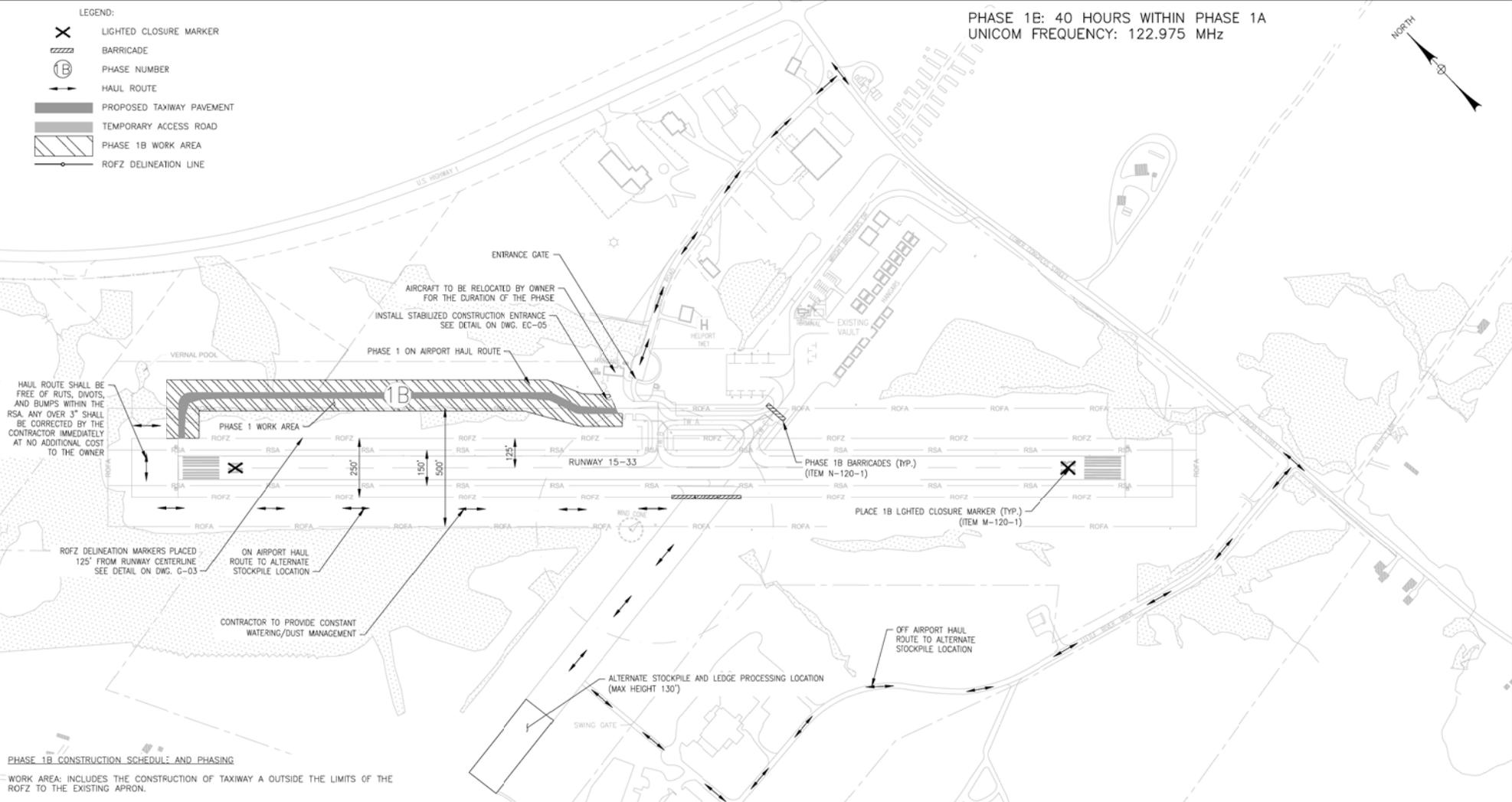
SCALE: 1" = 200'	DESIGN: MTO	CSP-02 6 of 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

PHASE 1E: 40 HOURS WITHIN PHASE 1A
 UNICOM FREQUENCY: 122.975 MHz



LEGEND:

-  LIGHTED CLOSURE MARKER
-  BARRICADE
-  PHASE NUMBER
-  HAUL ROUTE
-  PROPOSED TAXIWAY PAVEMENT
-  TEMPORARY ACCESS ROAD
-  PHASE 1B WORK AREA
-  ROFZ DELINEATION LINE



PHASE 1B CONSTRUCTION SCHEDULE AND PHASING
 WORK AREA: INCLUDES THE CONSTRUCTION OF TAXIWAY A OUTSIDE THE LIMITS OF THE ROFZ TO THE EXISTING APRON.
 DURATION: 40 HOURS WITHIN PHASE 1A

PRIMARY WORK TO BE PERFORMED IN PHASE 1B
 - LEDGE BLASTING

CLOSURES: RUNWAY 15-33 ENTIRE DURATION OF PHASE
 TAXIWAY A ENTIRE DURATION OF PHASE
 TAXIWAY B ENTIRE DURATION OF PHASE
 TAXIWAY C ENTIRE DURATION OF PHASE

LIQUIDATED DAMAGES: SEE PHASE 1A
RESTRICTIONS:

- ALL CONSTRUCTION PERSONNEL AND EQUIPMENT MUST REMAIN A MINIMUM OF 125' FROM THE RUNWAY CENTERLINE;
- ALL CONSTRUCTION PERSONNEL AND EQUIPMENT MUST BE SITUATED IN SUCH A WAY TO ALLOW SAFE PASSAGE FROM ALL HANGARS TO EXISTING RUNWAYS OR TAXIWAYS
- ALL TRAVEL MUST FOLLOW THE HAUL ROUTE USING THE TEMPORARY ACCESS ROADS.
- DURING LEDGE BLASTING THE RUNWAY SHALL BE CLOSED AND NOTAM CLOSED
- CTAF/UNICOM 122.975 MUST BE MONITORED DURING BLASTING FOR AIRPLANE TRAFFIC
- HOURLY CLOSURES SHALL BE COORDINATED AT LEAST 72 HOURS IN ADVANCE WITH THE ENGINEER AND AIRPORT MANAGER.
- ELECTRICAL BLASTING CAPS PROHIBITED ON AIRPORT PROPERTY



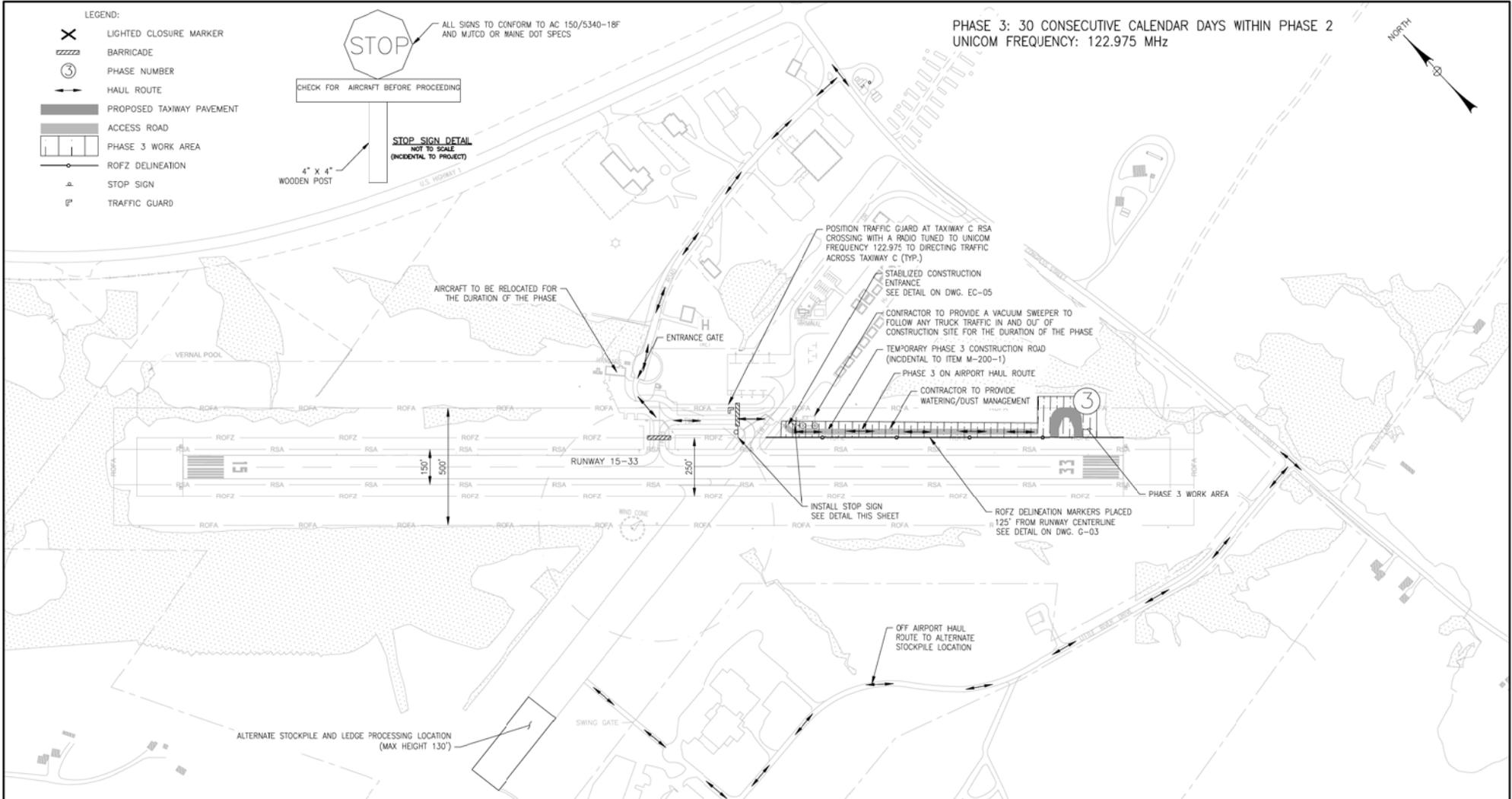
BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT CITY OF BELFAST, STATE OF MAINE		
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY		
CONSTRUCTION SAFETY AND PHASING PLAN - PHASE 1B		
SCALE: 1" = 200'	DESIGN: MTO	CSP-03 7 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



PHASE 3: 30 CONSECUTIVE CALENDAR DAYS WITHIN PHASE 2
UNICOM FREQUENCY: 122.975 MHz

PHASE 3 CONSTRUCTION SCHEDULE AND PHASING

WORK AREA: INCLUDES THE CONSTRUCTION OF TAXIWAY D1&D2 OUTSIDE THE LIMITS OF THE ROFZ.

DURATION: 30 CONSECUTIVE CALENDAR DAYS WITHIN PHASE 2

CLOSURES: TAXIWAY B ENTIRE DURATION OF PHASE

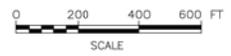
LIQUIDATED DAMAGES: \$2,100.00/DAY

RESTRICTIONS:

- ALL CONSTRUCTION PERSONNEL AND EQUIPMENT MUST REMAIN A MINIMUM OF 125' FROM THE RUNWAY CENTERLINE
- ALL CONSTRUCTION PERSONNEL AND EQUIPMENT MUST BE SITUATED IN SUCH A WAY TO ALLOW SAFE PASSAGE FROM ALL HANGARS TO EXISTING RUNWAYS OR TAXIWAYS.
- ALL TRAVEL MUST FOLLOW THE HAUL ROUTE USING THE TEMPORARY ACCESS ROADS.

PRIMARY WORK TO BE PERFORMED IN PHASE 3

- UNCLASSIFIED EXCAVATION
- CLEARING AND GRUBBING
- REMOVAL OF EXISTING DRAINAGE STRUCTURE AND PIPE
- INSTALLATION OF NEW PAVEMENT BOX SECTION
- INSTALLATION OF NEW LIGHTING AND SIGNAGE
- INSTALLATION OF NEW DRAINAGE STRUCTURES AND PIPES
- MARKING OF NEW PAVEMENT
- INSTALL TEMPORARY CONSTRUCTION ROAD, REMOVE AT COMPLETION OF PHASE



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER OR REPLY IN ANY WAY, IF AN ITEM BEARING THE SEAL OF A LICENSED PROFESSIONAL IS APPLIED, THE PLANS, SPECIFICATIONS, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE SIGNATURE, ADDRESS, CITY, STATE, AND ZIP CODE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATION.



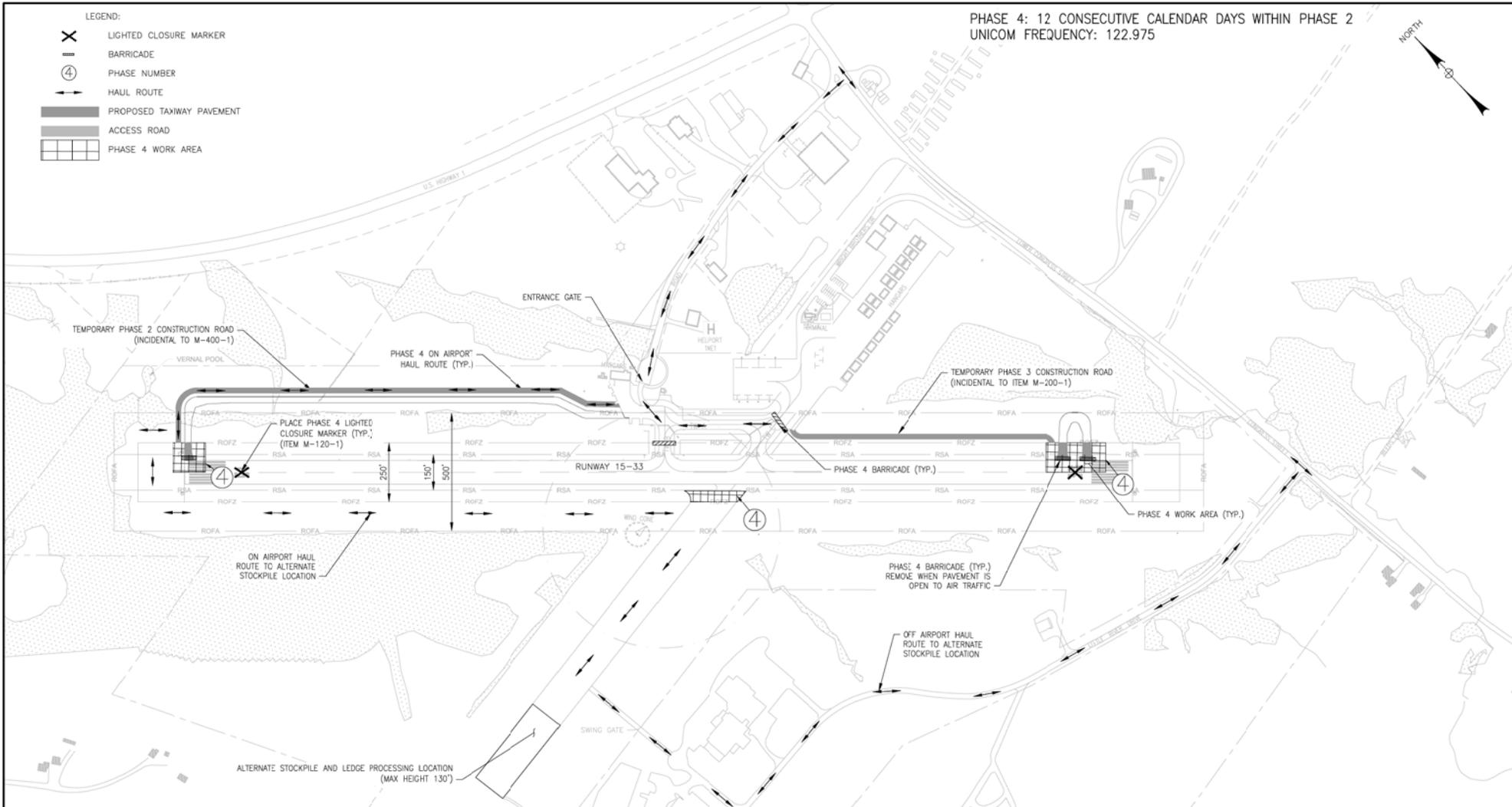
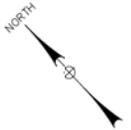
McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY
CONSTRUCTION SAFETY AND PHASING PLAN - PHASE 3

SCALE: 1" = 200'	DESIGN: MTO	CSP-05 9 of 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

- LEGEND:
- ✕ LIGHTED CLOSURE MARKER
 - BARRICADE
 - ④ PHASE NUMBER
 - ↔ HAUL ROUTE
 - ▬ PROPOSED TAXIWAY PAVEMENT
 - ▬ ACCESS ROAD
 - ▬ PHASE 4 WORK AREA

PHASE 4: 12 CONSECUTIVE CALENDAR DAYS WITHIN PHASE 2
UNICOM FREQUENCY: 122.975



PHASE 4 CONSTRUCTION SCHEDULE AND PHASING

WORK AREA: INCLUDES THE CONSTRUCTION OF TAXIWAY A AND TAXIWAY D1&D2 WITHIN THE LIMITS OF THE ROFZ AND PAVEMENT REMOVAL ON FORMER RUNWAY 10-28.

DURATION: 12 CALENDAR DAYS WITHIN PHASE 2

CLOSURES: RUNWAY 15-33 ENTIRE DURATION OF PHASE
TAXIWAY A ENTIRE DURATION OF PHASE
TAXIWAY B ENTIRE DURATION OF PHASE
TAXIWAY C ENTIRE DURATION OF PHASE

LIQUIDATED DAMAGES: \$2,100.00/DAY

RESTRICTIONS:

- RUNWAY 15-33 WILL BE CLOSED THROUGHOUT THE DURATION OF THE PHASE
- ALL TRAVEL MUST FOLLOW THE HAUL ROUTE USING THE TEMPORARY ACCESS ROADS.

PRIMARY WORK TO BE PERFORMED IN PHASE 4

- UNCLASSIFIED EXCAVATION
- MODIFICATION OF EXISTING DRAINAGE STRUCTURES AND PIPES
- MODIFICATION OF EXISTING ELECTRICAL SYSTEMS
- INSTALLATION OF NEW PAVEMENT BOX SECTION
- INSTALLATION OF NEW LIGHTING AND SIGNAGE
- INSTALLATION OF NEW DRAINAGE STRUCTURES AND PIPES
- MARKING OF NEW PAVEMENT
- REMOVAL OF EXISTING REELS, INSTALLATION OF NEW REELS
- PAVEMENT REMOVAL/MITIGATION



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY
CONSTRUCTION SAFETY AND PHASING PLAN - PHASE 4



McFarland Johnson

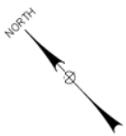
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

SCALE: 1" = 200'	DESIGN: MTO	CSP-06 10 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

LEGEND:

- 196 — EXISTING CONTOUR MAJOR
- - - - - EXISTING CONTOUR MINOR
- 200 — PART 77 CONTOUR MAJOR
- 196 — PART 77 CONTOUR MINOR

UNICOM FREQUENCY: 122.975



POSITION TRAFFIC GUARD AT ROFZ THRESHOLD CROSSING WITH RADIO TUNED TO UNICOM FREQUENCY 122.975 TO DIRECT TRAFFIC ACROSS ROFZ (TYP.)

INSTALL STOP SIGN IF USING ON AIRPORT HAUL ROUTE

ESTIMATED EXISTING SPOT ELEVATIONS (TYP.)

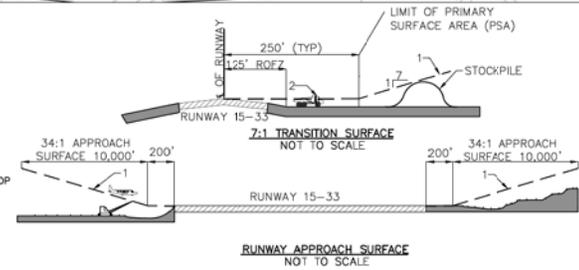
APPROX. 175' X ALTERNATE STOCKPILE AND LEDGE PROCESSING LOCATION (MAX HEIGHT 130')

SWING GATE

X APPROX. 173'

NOTES:

1. WHEN RUNWAY IS OPERATIONAL NO STOCKPILED MATERIAL MAY PENETRATE THESE SURFACES.
2. VEHICLES, EQUIPMENT, AND MATERIALS MUST REMAIN CLEAR OF THIS AREA WHILE RUNWAY IS OPERATIONAL.
3. RUNWAY 15-33 IS A NON PRECISION RUNWAY.
4. WHEN CROSSING THE RUNWAY ENDS USING THE ON AIRPORT HAUL ROUTE, THE CONTRACTOR SHALL INSTALL A STOP SIGN. SEE DETAIL ON DWG. CSP-02



NOTES:

1. SURFACES SHOWN ARE PART 77 SURFACES WHICH IS AN "IMAGINARY" SURFACE THAT SURROUNDS THE AIRSPACE OF AN AIRPORT.
2. ENGINEER SHALL APPROVE ALL STOCKPILE, STAGING AND PROCESSING LOCATIONS AND HEIGHTS LOCATED IN WORK AREA.
3. CONTRACTOR TO STATION A FLAGGER OUTSIDE THE ROFZ ON BOTH SIDES OF RUNWAY WITH RADIO TUNED TO FREQUENCY 122.975 MHZ AND DIRECT TRUCK TRAFFIC THROUGH ROFZ DURING HAULING OPERATIONS TO ALTERNATE STOCKPILE LOCATIONS.
4. CONTRACTOR SHALL INSTALL STOP SIGNS OUTSIDE OF ROFZ AND AS DIRECTED BY ENGINEER PRIOR TO USING HAUL ROUTE.



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

FAA PART 77 IMAGINARY SURFACES

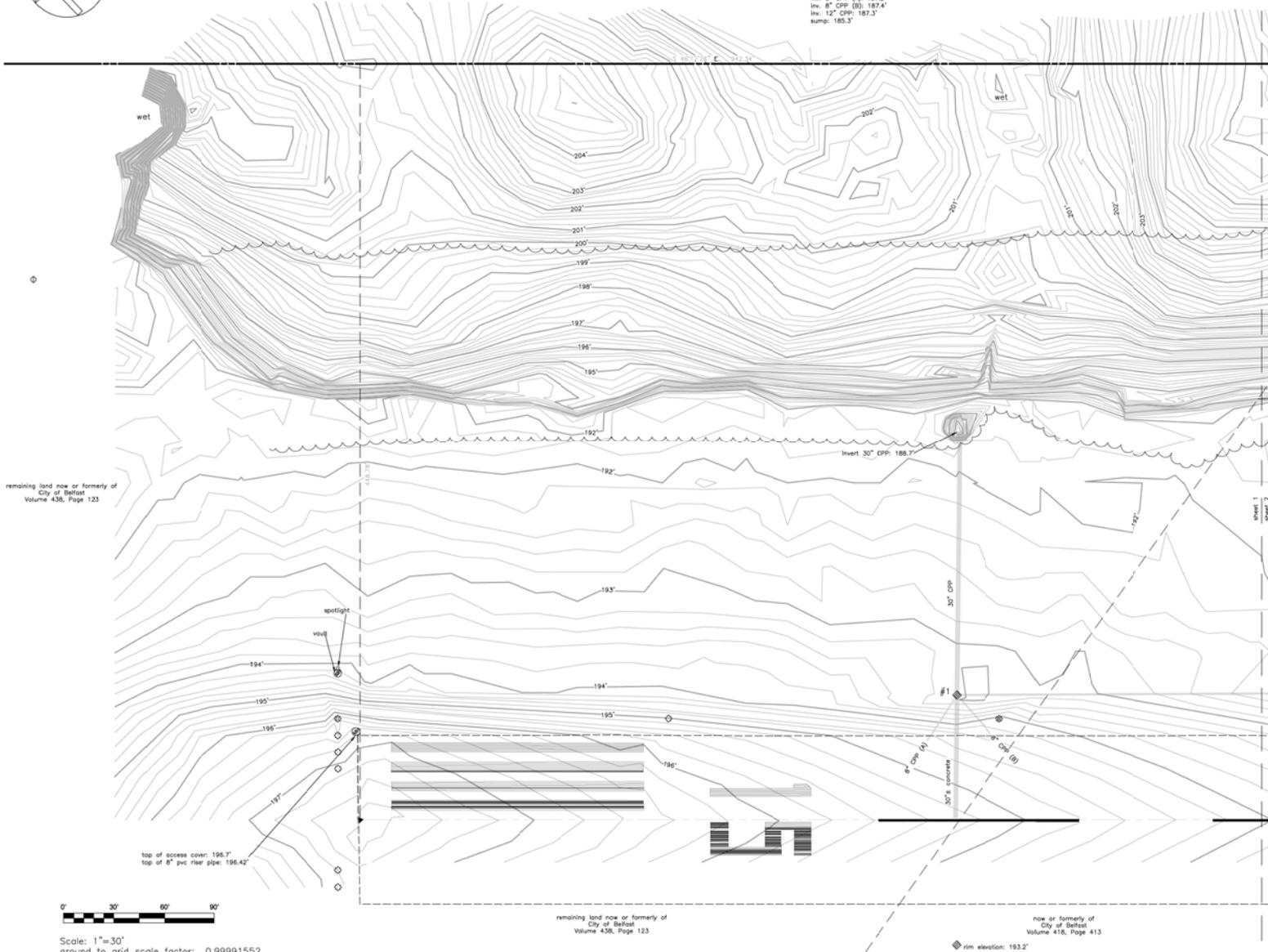
SCALE: AS SHOWN	DESIGN: MTO	CSP-07 11 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



Grid North
Maine Coordinate System of 1983
East Zone

now or formerly of
The State of Maine
Department of Defense,
Veterans and Emergency Management
Book 4092, Page 97

Catch Basin #1:
rim elevation: 193.2'
inv. 30" CPP to: 187.2'
inv. 30" concrete: 187.2'
inv. 8" CPP (A): 187.2'
inv. 8" CPP (B): 187.4'
inv. 12" CPP: 187.3'
sump: 185.3'



remaining land now or formerly of
City of Belfast
Volume 436, Page 123

remaining land now or formerly of
City of Belfast
Volume 436, Page 123

now or formerly of
City of Belfast
Volume 416, Page 413

Scale: 1"=30'
ground to grid scale factor: 0.99991552

NOTES

- (1) Documents referenced on this plan are recorded in Waldo County Registry of Deeds unless otherwise noted.
- (2) Coordinate values and North orientation reference the Maine Coordinate System of 1983, East Zone with units of U.S. Survey Feet as determined by local benchmarks Belport, Belport Az Mk and BST A. Coordinate values shown are in U.S. Survey Feet are provided as on in location. The physical location of a coordinate labeled point supercedes said coordinate values.
- (3) Contours and spot elevations shown reference the North American Vertical Datum of 1988 (NAVD88) as determined by local benchmarks Belport, Belport Az Mk and BST A.
- (4) Fieldwork was conducted during the months of July and December of 2015, and December of 2017 using a Topcon GPT-2005 total station instrument and a Trimble robotic total station instrument. Portions of ground features shown were located under snow and ice conditions.
- (5) The location of any wetlands that may exist on the subject site is not shown on this survey.
- (6) The location of visible ground features for water, sewer, communications, drainage and electrical are shown. Prior to any digging or grading call 1-888-DIG-SAFE and the local utility companies.

SURVEY STANDARD

THIS PLAN WAS PREPARED FROM INFORMATION OBTAINED BY A SURVEY CONFORMING SUBSTANTIALLY TO THE REQUIREMENTS OF TECHNICAL STANDARDS CONTAINED IN CHAPTER 90, PART 3, OF THE RULES OF THE BOARD OF LICENSES FOR PROFESSIONAL LAND SURVEYORS, EFFECTIVE APRIL 1, 2001.

Jon P. Pinkham

DATE: FEBRUARY 16, 2018
JON P. PINKHAM
MAINE PROFESSIONAL SURVEYOR, LICENSE NUMBER 2404



LEGEND

- 1/2 INCH IRON REBAR SET AFFIXED WITH CAP "PLISGA & DAY P.L.S. 2404"
- IRON PIPE FOUND
- IRON ROD / BOLT FOUND
- GRANITE / CONCRETE MONUMENT FOUND
- UTILITY POLE
- + GUY / ANCHOR
- ⊗ WATER GATE/ VALVE
- CATCH BASIN
- ▲ PK NAIL FOUND
- LAMP
- SIGN
- ⊙ MANHOLE
- VEGETATION / TREELINE
- STONEMALL
- EDGE OF PAVED OR GRAVEL SURFACE
- BOUNDARY LINE
- ADJOINER / INTERIOR LOT LINE
- CONTOUR LINE (0.2' INTERVAL)

sheet title
Existing Conditions Survey
of a portion of land of
Belfast Municipal Airport
Belfast, Maine
for
Mcfarland Johnson, Inc.

PLISGA & DAY LAND SURVEYORS 72 MAIN STREET BANGOR, ME 04401 (207) 947-0019 www.wemapi.com	PROJECT: 15109.06	SHEET: 1 of 5
	DATE: February 16, 2018	
SCALE: 1"=30'		



Grid North
Maine Coordinate System of 1983
East Zone

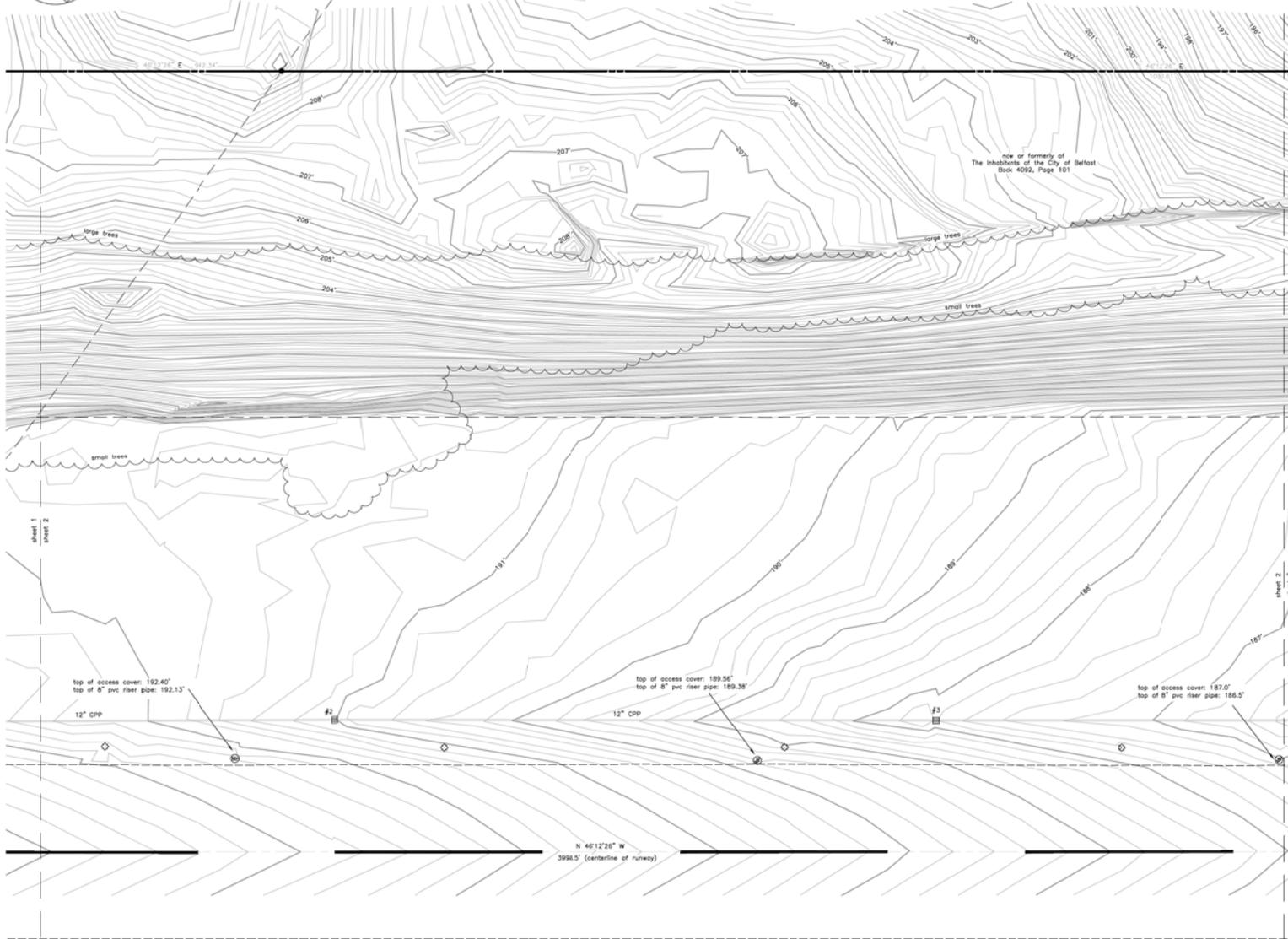
now or formerly of
The State of Maine
Department of Defense,
Veterans and Emergency Management
Book 4092, Page 97

now or formerly of
Peter G. Sanderson
Book 1443, Page 51

Remaining land now or formerly of
State of Maine
Volume 888, Page 239

Catch Basin #2:
rim elevation: 191.0'
inv. 12" CPP: 188.0'
inv. 12" CPP: 187.9'
sump: 186.0'

Catch Basin #3:
rim elevation: 187.8'
inv. 12" CPP: 184.6'
inv. 12" CPP: 184.5'
sump: 182.5'



Belfast Az Msk
bearing: 272.026.32°
Easting: 842,489.61'
Elevation (NAVD88): 191.54'



rim elevation: 191.3'



Scale: 1"=30' ground to grid scale factor: 0.99991552

now or formerly of
City of Belfast
Volume 418, Page 413

NOTES

- (1) Documents referenced on this plan are recorded in Waldo County Registry of Deeds unless otherwise noted.
- (2) Coordinate values and North orientation reference the Maine Coordinate System of 1983, East Zone with units of U.S. Survey Feet as determined by local benchmarks Belfast, Belfast Az Msk and B5T A. Coordinate values shown are in U.S. Survey Feet are provided as on in location. The physical location of a coordinate labeled point supercedes said coordinate values.
- (3) Contours and spot elevations shown reference the North America Vertical Datum of 1988 (NAVD88) as determined by local benchmarks Belfast, Belfast Az Msk and B5T A.
- (4) Fieldwork was conducted during the months of July and December of 2015, and December of 2017 using a Topcon GPT-2005 total station instrument and a Trimble robotic total station instrument. Portions of ground features shown were located under snow and ice conditions.
- (5) The location of any wetlands that may exist on the subject site is not shown on this survey.
- (6) The location of visible ground features for water, sewer, communications, drainage and electrical are shown. Prior to any digging or grading call 1-888-DIG-SAFE and the local utility companies.

SURVEY STANDARD

THIS PLAN WAS PREPARED FROM INFORMATION OBTAINED BY A SURVEY CONFORMING SUBSTANTIALLY TO THE REQUIREMENTS OF TECHNICAL STANDARDS CONTAINED IN CHAPTER 90, PART 2 OF THE RULES OF THE BOARD OF LICENSES FOR PROFESSIONAL LAND SURVEYORS, EFFECTIVE APRIL 1, 2001.

Jon P. Pinkham

DATE: FEBRUARY 16, 2018
JON P. PINKHAM
MAINE PROFESSIONAL SURVEYOR, LICENSE NUMBER 2404



LEGEND

- 1/2 INCH IRON REBAR SET AFFIXED WITH CAP "PLISGA & DAY P.L.S. 2404"
- IRON PIPE FOUND
- IRON ROD / BOLT FOUND
- GRANITE / CONCRETE MONUMENT FOUND
- ⊕ UTILITY POLE
- + GUY / ANCHOR
- ⊗ WATER GATE / VALVE
- ⊕ CATCH BASIN
- ▲ PK NAIL FOUND
- LAMP
- SIGN
- ⊕ MANHOLE
- ~ VEGETATION / TREELINE
- ~ STONEMALL
- ~ EDGE OF PAVED OR GRAVEL SURFACE
- BOUNDARY LINE
- ADJOINER / INTERIOR LOT LINE
- CONTOUR LINE (0.2' INTERVAL)

sheet title
Existing Conditions Survey
of a portion of land at
Belfast Municipal Airport
Belfast, Maine
for
Mcfarland Johnson, Inc.

PLISGA & DAY
LAND SURVEYORS
72 MAIN STREET
BANGOR, ME 04401
(207) 947-0019
www.wemapi.com

PROJECT:
15109.06
DATE:
February 16, 2018
SCALE:
1"=30'

SHEET:
2 of 5

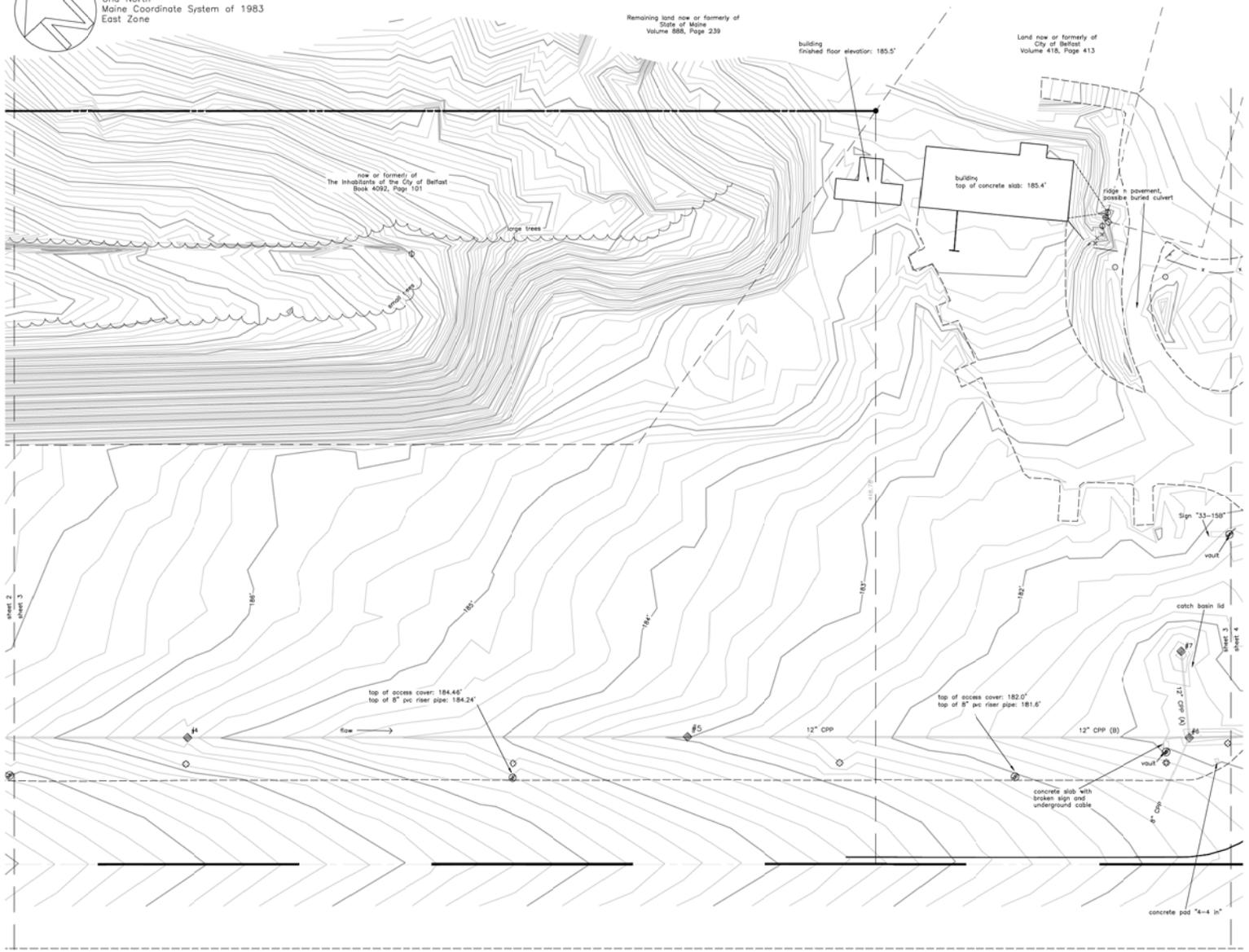


Grid North
Maine Coordinate System of 1983
East Zone

Remaining land now or formerly of
State of Maine
Volume 886, Page 239

Land now or formerly of
City of Belfast
Volume 416, Page 413

now or formerly of
the inhabitants of the City of Belfast
Book 4092, Page 101



sheet 2
sheet 3

sheet 4
sheet 5



Scale: 1"=30' ground to grid scale factor: 0.99991552

Catch Basin #4: rim elevation: 185.3' inv. 12" CPP: 181.2' inv. 12" CPP: 181.7' sump: 179.6'	Catch Basin #5: rim elevation: 183.0' inv. 12" CPP in: 178.8' inv. 12" CPP out: 178.8' sump: 176.6'	Catch Basin #6: rim elevation: 180.6' inv. 12" CPP in (A): 176.0' inv. 12" CPP in (B): 176.0' inv. 12" CPP out: 176.1' sump: 175.9'	Catch Basin #7: rim elevation: 180.5' inv. 12" CPP out: 176.4' sump: 174.5'
---	--	---	---

NOTES

- (1) Documents referenced on this plan are recorded in Waldo County Registry of Deeds unless otherwise noted.
- (2) Coordinate values and North orientation reference the Maine Coordinate System of 1983, East Zone with units of U.S. Survey Feet as determined by local benchmarks Belport, Belport Az Mks and BST A. Coordinate values shown are in U.S. Survey Feet are provided as an aid in location. The physical location of a coordinate labeled point supercedes said coordinate values.
- (3) Contours and spot elevations shown reference the North American Vertical Datum of 1988 (NAVD88) as determined by local benchmarks Belport, Belport Az Mks and BST A.
- (4) Fieldwork was conducted during the months of July and December of 2015, and December of 2017 using a Topcon GPT-2005 total station instrument and a Trimble robotic total station instrument. Portions of ground features shown were located under snow and ice conditions.
- (5) The location of any wetlands that may exist on the subject site is not shown on this survey.
- (6) The location of visible ground features for water, sewer, communications, drainage and electrical are shown. Prior to any digging or grading call 1-888-DIG-SAFE and the local utility companies.

SURVEY STANDARD

THIS PLAN WAS PREPARED FROM INFORMATION OBTAINED BY A SURVEY CONFORMING SUBSTANTIALLY TO THE REQUIREMENTS OF TECHNICAL STANDARDS CONTAINED IN CHAPTER 90, PART 4 OF THE RULES OF THE BOARD OF LICENSES FOR PROFESSIONAL LAND SURVEYORS, EFFECTIVE APRIL 1, 2001.

Jon P. Pinkham

DATE: FEBRUARY 16, 2018
JON P. PINKHAM
MAINE PROFESSIONAL SURVEYOR, LICENSE NUMBER 2404



LEGEND

- 1/4" INCH IRON REBAR SET AFFIXED WITH CAP "PLISGA & DAY P.L.S. 2404"
- IRON PIPE FOUND
- IRON ROD / BOLI FOUND
- GRANITE / CONCRETE MONUMENT FOUND
- ⊕ UTILITY POLE
- + GUY / ANCHOR
- ⊗ WATER GATE / VALVE
- ▭ CATCH BASIN
- ▲ PK NAIL FOUND
- LAMP
- SIGN
- ⊙ MAN-HOLE
- ~~~~~ VEGETATION / TREELINE
- STONEMALL
- - - EDGE OF PAVED OR GRAVEL SURFACE
- - - BOUNDARY LINE
- - - ADJONTER / INTERIOR LOT LINE
- - - CONTOUR LINE (0.2' INTERVAL)

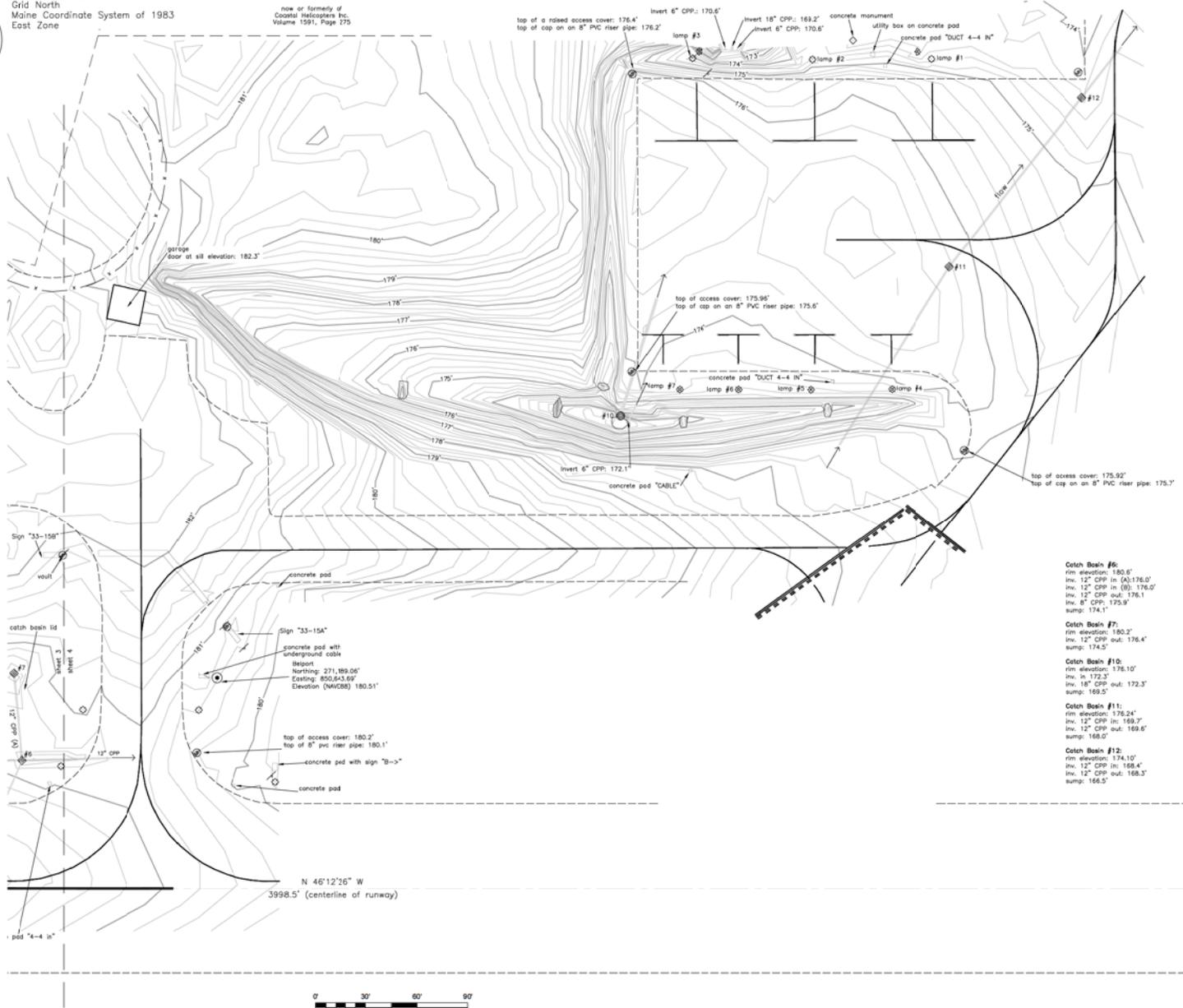
sheet title
Existing Conditions Survey
of a portion of land of
Belfast Municipal Airport
Belfast, Maine
for
Mcfarland Johnson, Inc.

PLISGA & DAY LAND SURVEYORS 72 MAIN STREET BANGOR, ME 04401 (207) 947-0019 www.wemapi.com	PROJECT: 15109.06	SHEET: 3 of 5
	DATE: February 16, 2018	SCALE: 1"=30'



Grid North
Maine Coordinate System of 1983
East Zone

now or formerly of
Coastal Helicopters Inc.
Volume 1591, Page 175



NOTES

- (1) Documents referenced on this plan are recorded in Waldo County Registry of Deeds unless otherwise noted.
- (2) Coordinate values and North orientation reference the Maine Coordinate System of 1983, East Zone with units of U.S. Survey Feet as determined by local benchmarks Belfast, Belfast Az Mk and BST A. Coordinate values shown are in U.S. Survey Feet are provided as an aid in location. The physical location of a coordinate labeled point supersedes text coordinate values.
- (3) Contours and spot elevations shown reference the North American Vertical Datum of 1988 (NAVD88) as determined by local benchmarks Belfast, Belfast Az Mk and BST A.
- (4) Fieldwork was conducted during the months of July and December of 2015, and December of 2017 using a Topcon GPT-2005 total station instrument and a Trimble robotic total station instrument. Portions of ground features shown were located under snow and ice conditions.
- (5) The location of any wetlands that may exist on the subject site is not shown on this survey.
- (6) The location of visible ground features for water, sewer, communications, drainage and electrical are shown. Prior to any digging or grading call 1-888-DIG-SAFE and the local utility companies.

SURVEY STANDARD

THIS PLAN WAS PREPARED FROM INFORMATION OBTAINED BY A SURVEY CONFORMING SUBSTANTIALLY TO THE REQUIREMENTS OF TECHNICAL STANDARDS CONTAINED IN CHAPTER 65, PART 2, OF THE RULES OF THE BOARD OF LICENSES FOR PROFESSIONAL LAND SURVEYORS, EFFECTIVE APRIL 1, 2001.

Jon P. Poulton

DATE: FEBRUARY 16, 2018
JON P. POUULTON
MAINE PROFESSIONAL SURVEYOR, LICENSE NUMBER 2404



LEGEND

- 1/4 INCH IRON REBAR SET AFFIXED WITH CAP "PLUGS & DAY P.L.S. 2404"
- IRON PIPE FOUND
- IRON ROD / BOLT FOUND
- GRANITE / CONCRETE MONUMENT FOUND
- ⊕ UTILITY POLE
- + GUY / ANCHOR
- ⊗ WATER GATE / VALVE
- ▣ CATCH BASIN
- ▲ FIX NAIL FOUND
- LAMP
- SIGN
- ⊙ MANHOLE
- ~ VEGETATION / TREELINE
- STONEMALL
- EDGE OF PAVED OR GRANUL SURFACE
- BOUNDARY LINE
- ADJOINER / INTERIOR LOT LINE
- CONTOUR LINE (0.2' INTERVAL)

Catch Basin #6:
rim elevation: 180.0'
inv. 12" CPP in (A): 176.0'
inv. 12" CPP in (B): 176.0'
inv. 12" CPP out: 176.1'
inv. 8" CPP: 175.9'
sump: 174.1'

Catch Basin #7:
rim elevation: 180.2'
inv. 12" CPP out: 176.4'
sump: 174.5'

Catch Basin #10:
rim elevation: 176.10'
inv. in: 172.3'
inv. 18" CPP out: 172.3'
sump: 169.5'

Catch Basin #11:
rim elevation: 176.24'
inv. 12" CPP in: 169.2'
inv. 12" CPP out: 169.6'
sump: 168.0'

Catch Basin #12:
rim elevation: 174.10'
inv. 12" CPP in: 168.4'
inv. 12" CPP out: 168.3'
sump: 166.5'

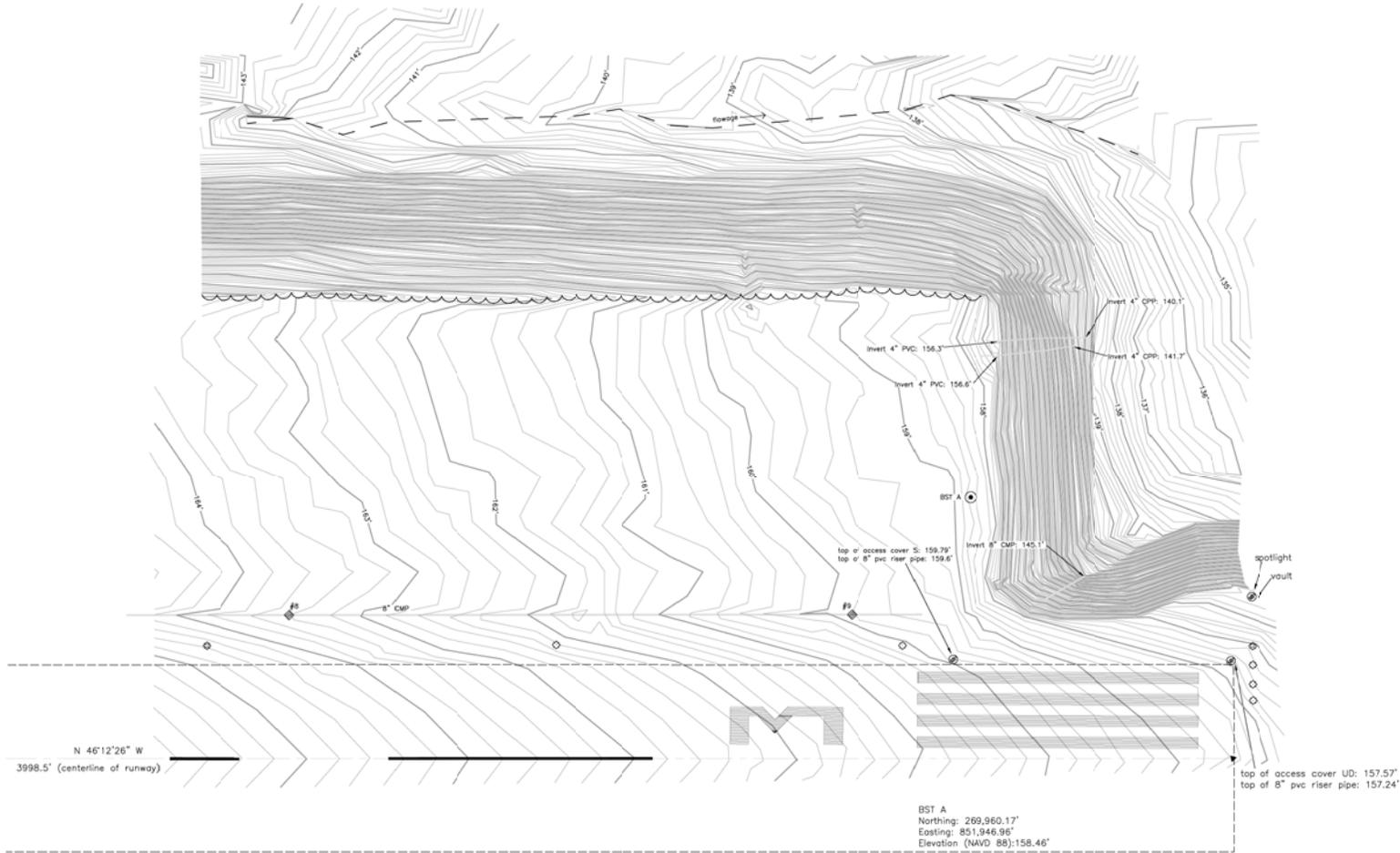
sheet title
Existing Conditions Survey
of a portion of land of
Belfast Municipal Airport
Belfast, Maine
for
Mcfarland Johnson, Inc.

PLISGA & DAY LAND SURVEYORS 72 MAIN STREET BANGOR, ME 04401 (207) 947-0019 www.wemopit.com	PROJECT: 15109.06	SHEET: 4 of 5
	DATE: February 16, 2018	
	SCALE: 1"=30'	

Scale: 1"=30' ground to grid scale factor: 0.99991552



Grid North
Maine Coordinate System of 1983
East Zone



N 46°12'26" W
3998.5' (centerline of runway)

BST A
Northing: 269,960.17'
Easting: 851,946.96'
Elevation (NAVD 88): 158.46'

Catch basin #8
rim: 154.4'
Inv. 8" CMP in: 158.4'
Inv. 8" CMP out: 158.4'
sump: 158.2'

Catch basin #9
rim: 159.8'
Inv. 8" CMP in: 154.8'
Inv. 8" CMP out: 154.8'
sump: 154.6'



Scale: 1"=30' ground to grid scale factor: 0.99991552

NOTES

- (1) Documents referenced on this plan are recorded in Waldo County Registry of Deeds unless otherwise noted.
- (2) Coordinate values and North orientation reference the Maine Coordinate System of 1983, East Zone with units of U.S. Survey Feet as determined by local benchmarks Belport, Belport Az Mks and BST A. Coordinate values shown are in U.S. Survey Feet are provided as an aid in location. The physical location of a coordinate labeled point supercedes said coordinate values.
- (3) Contours and spot elevations shown reference the North American Vertical Datum of 1988 (NAVD88) as determined by local benchmarks Belport, Belport Az Mks and BST A.
- (4) Fieldwork was conducted during the months of July and December of 2015, and December of 2017 using a Topcon GPT-2005 total station instrument and a Trimble robotic total station instrument. Portions of ground features shown were located under snow and ice conditions.
- (5) The location of any wetlands that may exist on the subject site is not shown on this survey.
- (6) The location of visible ground features for water, sewer, communications, drainage and electrical are shown. Prior to any digging or grading call 1-888-DIG-SAFE and the local utility companies.

SURVEY STANDARD

THIS PLAN WAS PREPARED FROM INFORMATION OBTAINED BY A SURVEY CONFORMING SUBSTANTIALLY TO THE REQUIREMENTS OF TECHNICAL STANDARDS CONTAINED IN CHAPTER 80, PART 2 OF THE RULES OF THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS, EFFECTIVE APRIL 1, 2001.



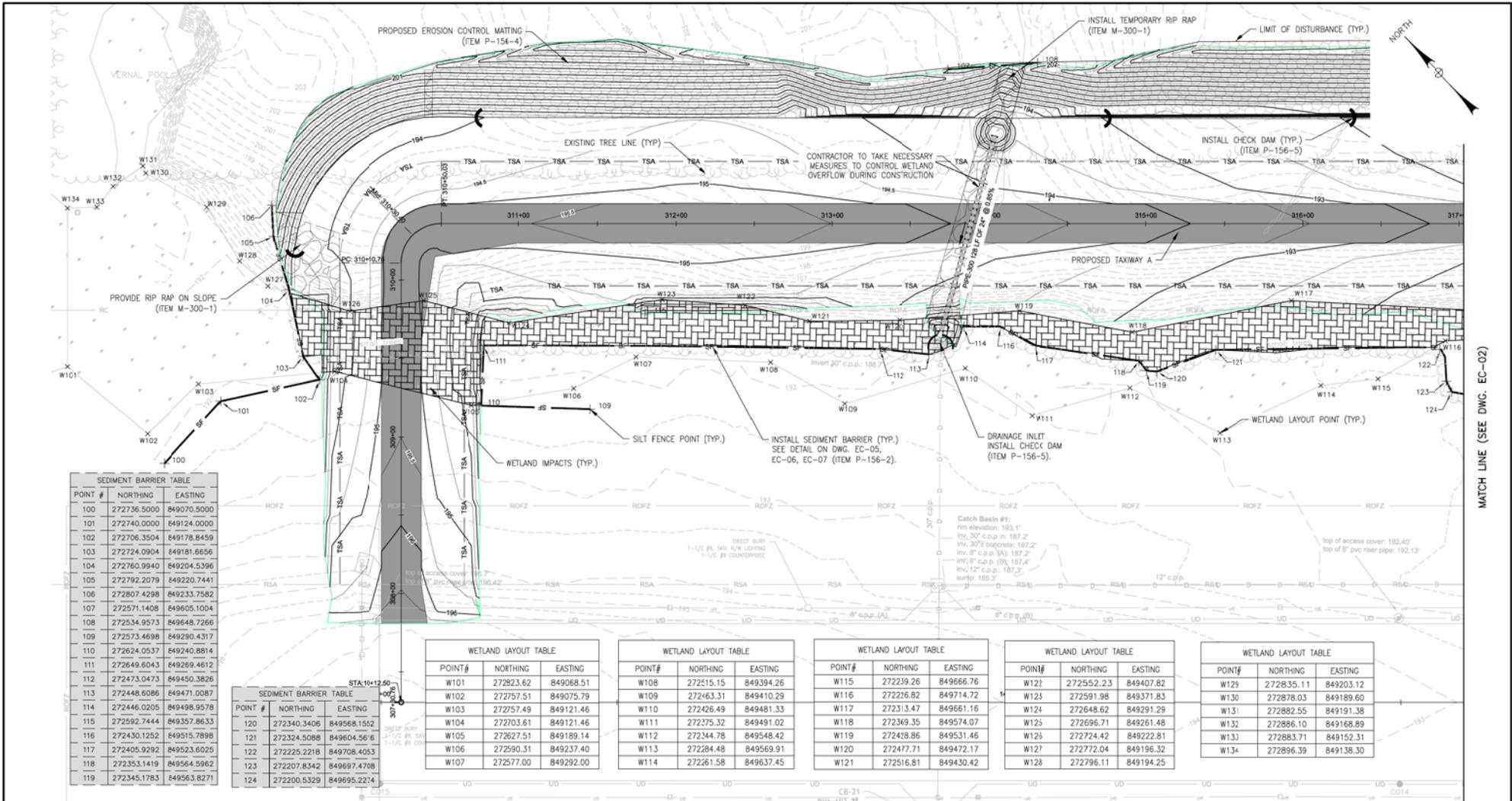
Jon P. Pliska
DATE: FEBRUARY 16, 2018
JON P. PLSKA
MAINE PROFESSIONAL SURVEYOR, LICENSE NUMBER 2404

LEGEND

- 1/2 INCH IRON REBAR SET AFFIXED WITH CAP "PLUSA & DAY P.L.S. 2404"
- IRON PIPE FOUND
- IRON ROD / BOLI FOUND
- GRANITE / CONCRETE MONUMENT FOUND
- ⊙ UTILITY POLE
- + GUY / ANCHOR
- ⊕ WATER GATE / VALVE
- CATCH BASIN
- ▲ P.K. NAIL FOUND
- LAMP
- SIGN
- ⊙ MAN-HOLE
- VEGETATION / TREELINE
- STONEWALL
- EDGE OF PAVED OR GRAVEL SURFACE
- BOUNDARY LINE
- ADJONER / INTERIOR LOT LINE
- CONTOUR LINE (0.2' INTERVAL)

sheet title
Existing Conditions Survey
of a portion of land of
Belfast Municipal Airport
Belfast, Maine
for
Mcfarland Johnson, Inc.

PLISKA & DAY LAND SURVEYORS 72 MAIN STREET BANGOR, ME 04401 (207) 947-0019 www.wemopit.com	PROJECT: 15109.06	SHEET: 5 of 5
	DATE: February 16, 2018	
	SCALE: 1"=30'	



POINT #	NORTHING	EASTING
100	272736.5000	849070.5000
101	272740.0000	849124.0000
102	272706.3504	849178.8459
103	272724.0904	849181.6656
104	272760.9940	849204.5396
105	272792.2079	849220.7441
106	272807.4298	849233.7582
107	272571.1408	849605.1004
108	272534.9573	849648.7266
109	272573.4698	849290.4317
110	272624.0537	849240.8814
111	272649.6043	849269.4612
112	272473.0473	849450.3826
113	272448.6086	849471.0087
114	272446.0205	849498.9578
115	272592.7444	849357.8633
116	272430.1252	849515.7898
117	272405.9292	849523.6025
118	272353.1419	849564.5962
119	272345.1783	849563.8271

POINT #	NORTHING	EASTING
120	272340.3406	849568.1552
121	272324.5088	849604.5676
122	272225.2218	849708.4053
123	272207.8342	849697.4708
124	272200.5329	849695.2274

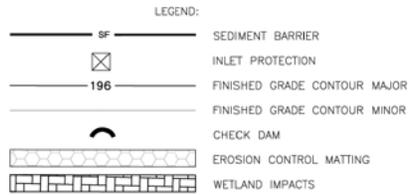
POINT#	NORTHING	EASTING
W101	272823.62	849068.51
W102	272757.51	849075.79
W103	272757.49	849121.46
W104	272703.61	849121.46
W105	272627.51	849189.14
W106	272590.31	849237.40
W107	272577.00	849292.00

POINT#	NORTHING	EASTING
W108	272515.15	849394.26
W109	272463.31	849410.29
W110	272426.49	849481.33
W111	272375.32	849491.02
W112	272344.78	849548.42
W113	272284.48	849569.91
W114	272261.58	849637.45

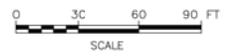
POINT#	NORTHING	EASTING
W115	272239.26	849666.76
W116	272226.82	849714.72
W117	272313.47	849661.16
W118	272369.35	849574.07
W119	272428.86	849531.46
W120	272477.71	849472.17
W121	272516.81	849430.42

POINT#	NORTHING	EASTING
W122	272552.23	849407.82
W123	272591.98	849371.83
W124	272648.62	849291.29
W125	272696.71	849261.48
W126	272724.42	849222.81
W127	272772.04	849196.32
W128	272796.11	849194.25

POINT#	NORTHING	EASTING
W129	272835.11	849203.12
W130	272878.03	849189.60
W131	272882.55	849191.38
W132	272886.10	849168.89
W133	272883.71	849152.31
W134	272896.39	849138.30



- NOTES:
- FOR CONSTRUCTION SAFETY AND PHASING PLANS SEE DWGS. CSP-01-CSP-06.
 - FOR GEOMETRY AND MARKING PLANS SEE DWGS. C-01-C-04.
 - FOR EROSION CONTROL DETAILS SEE DWG. EC-05-EC-07
 - FOR GRADING & DRAINAGE PLANS SEE DWG. GR-01-GR-04.
 - INSTALL ALL EROSION CONTROL MEASURES PRIOR TO ANY DISTURBANCE
 - DELINEATE WETLANDS USING FLAG MARKERS PRIOR TO STARTING CONSTRUCTION
 - CONTRACTOR RESPONSIBLE FOR ALL MITIGATION AND TO PAY ALL FINES IF ADDITIONAL WETLANDS ARE DISTURBED THAT ARE NOT SHOWN ON PLANS
 - IF IT IS ANTICIPATED THAT PHASE 1 WILL TAKE PLACE DURING "OVERWINTER CONDITIONS" OVERWINTER STABILIZATION METHODS SHALL BE FOLLOWED DURING PHASE 1 OF THE WORK. THE CONTRACTOR SHALL USE OVERWINTER EROSION CONTROL MIX DURING OVERWINTER CONSTRUCTION. THE OVERWINTER EROSION CONTROL MIX SHALL BE INCIDENTAL TO THE P-151-1 CLEAR AND GRUB ITEM.
 - FOR PAVEMENT MITIGATION EROSION CONTROL MEASURES SEE DWG. MG-01



BID DOCUMENTS



McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

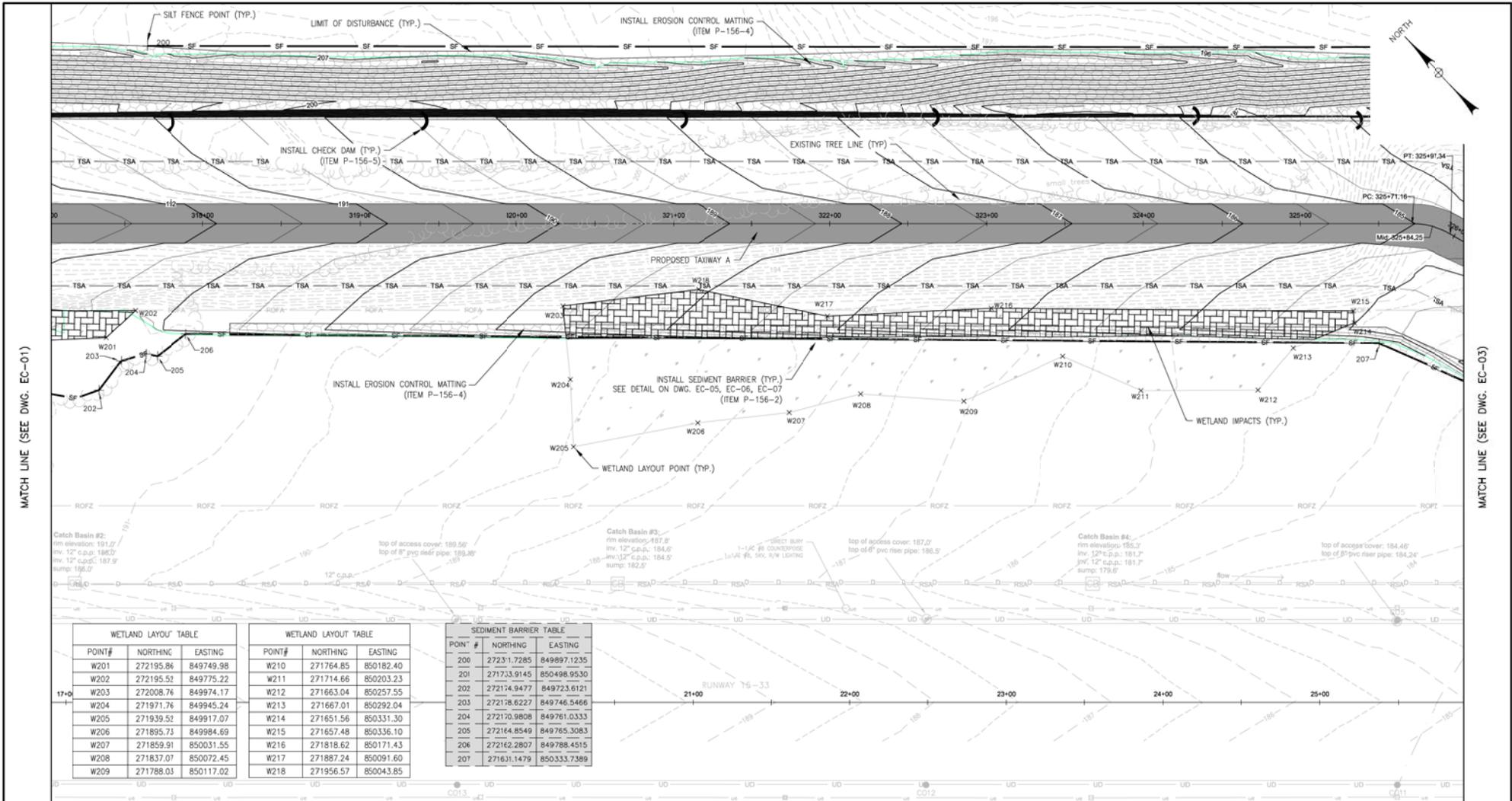
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATION.

BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

EROSION CONTROL PLAN (1 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	EC-01 17 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

MATCH LINE (SEE DWG. EC-02)



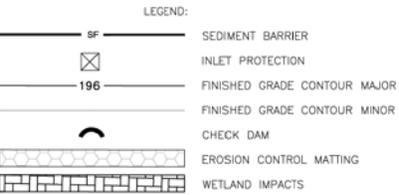
MATCH LINE (SEE DWG. EC-01)

MATCH LINE (SEE DWG. EC-03)

WETLAND LAYOUT TABLE		
POINT#	NORTHING	EASTING
W201	272195.86	849749.98
W202	272195.52	849775.22
W203	272008.76	849974.17
W204	271971.76	849945.24
W205	271939.52	849917.07
W206	271895.73	849884.69
W207	271859.91	850031.55
W208	271837.07	850072.45
W209	271788.03	850117.02

WETLAND LAYOUT TABLE		
POINT#	NORTHING	EASTING
W210	271764.85	850182.40
W211	271714.66	850203.23
W212	271663.04	850257.55
W213	271667.01	850292.04
W214	271651.56	850331.30
W215	271657.48	850336.10
W216	271818.62	850171.43
W217	271887.24	850091.60
W218	271956.57	850043.85

SEDIMENT BARRIER TABLE		
POINT#	NORTHING	EASTING
200	272317.7285	849897.1235
201	271733.9145	850498.9530
202	272174.9477	849723.6121
203	272178.6227	849746.5466
204	272170.9808	849761.0333
205	272164.8549	849765.3083
206	272162.2807	849788.4515
207	271631.1479	850333.7389



NOTES:
1. SEE DWG. EC-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER ANY ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATIONS.

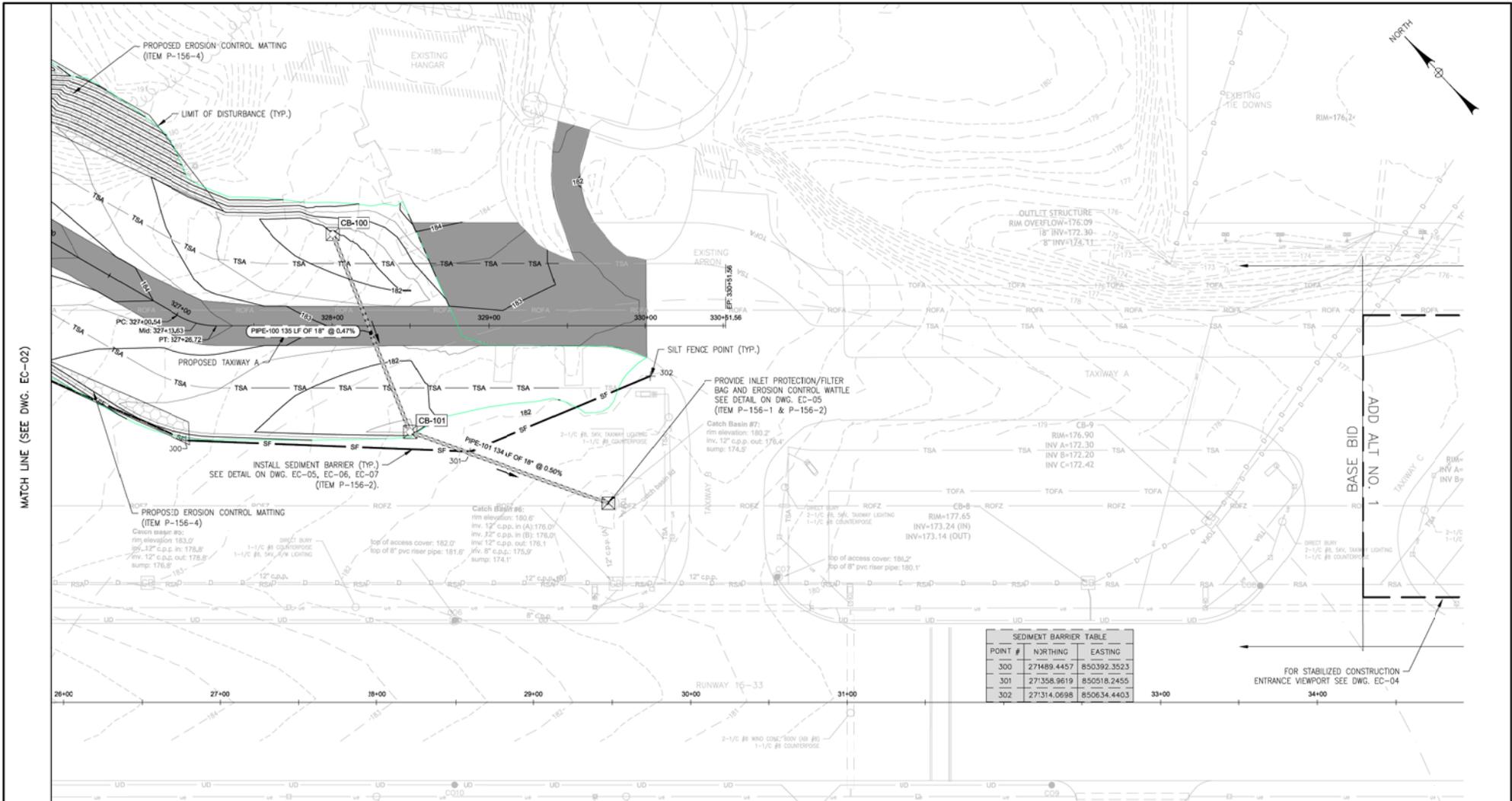


McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

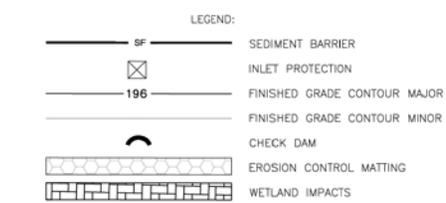
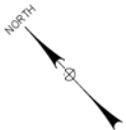
BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

EROSION CONTROL PLAN (2 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	EC-02 18 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



MATCH LINE (SEE DWG. EC-02)



NOTES:
1. SEE DWG. EC-01



SEDIMENT BARRIER TABLE		
POINT #	NORTHING	EASTING
300	271489.4457	850392.3593
301	27358.9619	850518.2485
302	27314.0698	850634.4403

BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATION.



McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

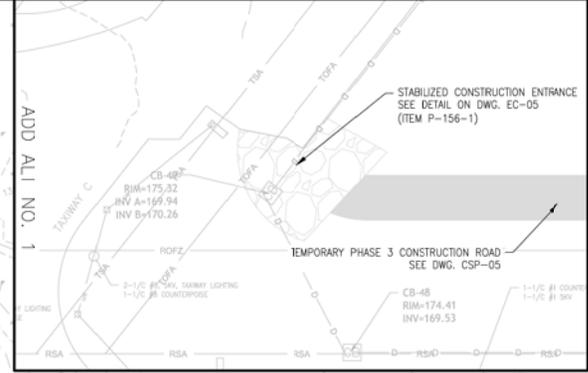
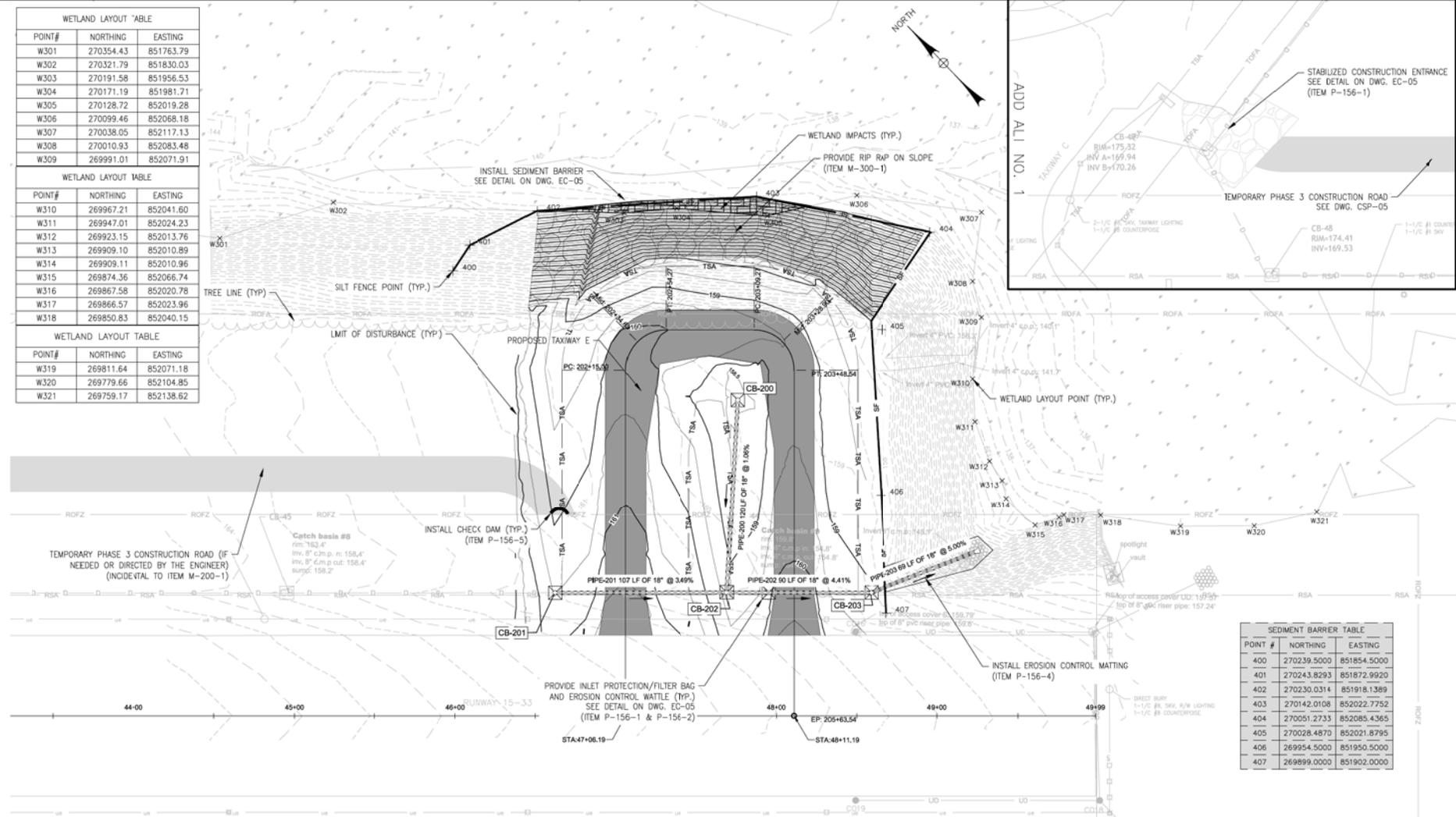
EROSION CONTROL PLAN (3 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	EC-03 19 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

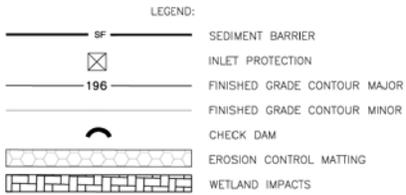
WETLAND LAYOUT TABLE		
POINT#	NORTHING	EASTING
W301	270354.43	851763.79
W302	270321.79	851830.03
W303	270191.58	851956.53
W304	270171.19	851981.71
W305	270128.72	852019.28
W306	270099.46	852068.18
W307	270038.05	852117.13
W308	270010.93	852083.48
W309	269991.01	852071.91

WETLAND LAYOUT TABLE		
POINT#	NORTHING	EASTING
W310	269967.21	852041.60
W311	269947.01	852024.23
W312	269923.15	852013.76
W313	269909.10	852010.89
W314	269909.11	852010.96
W315	269874.36	852066.74
W316	269867.58	852020.78
W317	269866.57	852023.96
W318	269850.83	852040.15

WETLAND LAYOUT TABLE		
POINT#	NORTHING	EASTING
W319	269811.64	852071.18
W320	269779.66	852104.85
W321	269759.17	852138.62



SEDIMENT BARRIER TABLE		
POINT #	NORTHING	EASTING
400	270239.5000	851854.5000
401	270243.8293	851872.9920
402	270230.0314	851918.1389
403	270142.0108	852022.7752
404	270051.2733	852085.4365
405	270028.4870	852021.8795
406	269954.5000	851950.5000
407	269899.0000	851902.0000



NOTES:
1. SEE DWG. EC-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

EROSION CONTROL PLAN (4 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	EC-04 20 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

EROSION CONTROL SPECIFICATIONS FOR UPLAND AREAS:

1. SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.
2. RECOGNIZING THAT IMMEDIATE ATTENTION TO EROSION CONTROL PRACTICES DRAMATICALLY IMPROVES SOIL AND MOISTURE CONSERVATION AND REDUCES NEGATIVE IMPACTS ON WATER QUALITY, THE CONTRACTOR SHALL GIVE HIGH PRIORITY TO THE DAILY AND TIMELY INSTALLATION OF BOTH TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATE INSTALLATION OF PRACTICES USUALLY REDUCES LONG TERM COSTS TO THE CONTRACTOR.
3. EROSION CONTROL PRACTICES ARE SHOWN ON THE PLANS WITH RESPECT TO LOCATION AS DETERMINED FROM EXISTING TOPOGRAPHY. CHANGES MAY BE INDICATED IN THE FIELD TO IMPROVE EROSION AND SEDIMENT CONTROL.
4. CONSTRUCTION SHALL PROCEED UNIT BY UNIT TO FACILITATE INSTALLATION OF EROSION CONTROL MEASURES AND THE COMPLETION OF GRADING, SEEDING, AND LANDSCAPING AS SOON AS POSSIBLE WITHIN A UNIT. THIS PROCEDURE SHOULD RESULT IN THE EXPOSURE OF THE SMALLEST PRACTICAL LAND AREA AT ANY ONE TIME.
5. ALL DISTURBED UPLAND AREAS SHALL HAVE TOPSOIL SPREAD (4" MINIMUM (REFER TO PLANS) WITHIN TWO WEEKS AND BE LIMED, FERTILIZED, TILLED, SEEDED AND MULCHED. ALL SLOPES 3:1 (1 RISE ON 3 RUN) AND STEEPER SHALL HAVE MULCH HELD IN PLACE WITH BIODEGRADABLE JUTE NETTING OR EROSION CONTROL BLANKET, STAPLED AND STAKED. EACH AREA SHALL BE TILLED, FERTILIZED, PREPARED, SEEDED AND MULCHED (WITH ANCHORED NETTING OR BLANKET IF REQUIRED) WITHIN 14 DAYS OF FINAL GRADING. WHEN PERMANENT SEEDING CANNOT BE INSTALLED BY SEPTEMBER 15, TEMPORARY SEEDING AND MULCHING OF ALL DISTURBED AREAS SHALL BE INSTALLED IMMEDIATELY AND MAINTAINED IN THAT CONDITION UNTIL PERMANENT PRACTICES CAN BE INSTALLED IN THE FOLLOWING PLANTING SEASON.
6. TEMPORARY STABILIZATION OF DISTURBED UPLAND AREAS (IF REQUIRED):

SEEDBED PREPARATION: TILL FOUR INCHES DEEP MIXING IN FERTILIZER AND GROUND LIMESTONE.

APPLY LIMESTONE 2 TONS/ACRE (100#/1,000 SQ. FT.) OR ACCORDING TO SOIL TEST.

FERTILIZE: UNIFORMLY APPLY NOT LESS THAN 400#/ACRE (14#/1,000 SQ. FT.) OF 10-10-10 OR EQUIVALENT OR AS INDICATED BY SOIL TEST. FORTY PERCENT OF NITROGEN SHOULD BE IN ORGANIC FORM.

SEEDING: SELECT APPROPRIATE SEEDING MIXTURE FROM TABLE 1. SPREAD SEED UNIFORMLY. FIRM SOIL BY ROLLING OR PACKING; IF NOT FEASIBLE, THEN RAKE LIGHTLY TO COVER SEEDS.

MULCHING: MULCH ALL DISTURBED AREAS WITH 2 TONS OF HAY OR STRAW PER ACRE (90-100#/1,000 SQ. FT.). ANCHOR ON ALL SLOPES 3:1 OR STEEPER AND FLATTER SLOPES SUBJECT TO WASH OR WIND BLOWN. USE JUTE (OR OTHER BIODEGRADABLE) NETTING OR BLANKET. STAKING AND STAPLING MAY BE REQUIRED.
7. OVERWINTER STABILIZATION OF DISTURBED UPLAND AREAS:
 - IF CONSTRUCTION OCCURS AFTER NOVEMBER 1ST, ALL DISTURBED AREAS SHOULD BE STABILIZED DAILY IF THE CONSTRUCTION IS ACTIVE. ANY EROSION OR DISCHARGES SHOULD BE REPAIRED IMMEDIATELY.
 - NO MORE THAN 1 ACRE SHOULD BE ACTIVELY WORKED ON AT ANY ONE TIME WITHOUT REGULAR INSPECTION; OR THE EXPOSED AREA SHOULD BE LIMITED TO WHICH CAN BE MULCHED IN ONE DAY. ANY MEASURES NECESSARY TO CONTROL EROSION/SEDIMENTATION SHOULD BE INSTALLED FOR THE CONDITIONS AT THE SITE (SOIL ERODIBILITY, SLOPE, GROUNDWATER, SIZE, WEATHER CONDITIONS, ETC.).
 - FOR OVER-WINTER PROTECTION, A DOUBLE ROW OF SEDIMENT BARRIERS (SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX, ETC.) SHOULD BE PLACED WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE.
 - ALL HAY MULCH SHOULD BE ANCHORED WITH NETTING, ASPHALT EMULSION CHEMICALS, TRACKING OR EROSION CONTROL MIX AFTER NOVEMBER 1ST. THE GROUND SURFACE SHOULD BE INVISIBLE UNDER THE MULCH.
 - LOAM OR SEED IS NOT EFFECTIVE AFTER OCTOBER 15. FINISHED AREAS CAN BE MULCHED WITHOUT SEEDING OR WITH DORMANT SEEDING APPLIED AT A 3 TIMES THE SPECIFIED RATE FOR PERMANENT SEEDING. ALL AREAS SEEDED DURING THE WINTER SHOULD BE INSPECTED IN THE SPRING AND REVEGETATED IF THE CATCH IS LESS THAN 75%.
 - ALL VEGETATED AREAS WITH A SLOPE OF 15% OR LESS SHOULD HAVE 90% GRASS COVER BY NOVEMBER 1ST OR SHOULD BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SF, MULCHED WITH HAY AT 75 POUNDS PER 1000 SF, AND ANCHORED WITH NETTING, OR BY NOVEMBER 15 THE AREA SHOULD BE PROTECTED WITH AN EROSION CONTROL BLANKET, EROSION CONTROL MIX, OR HAY AT A RATE OF AT LEAST 150 POUND PER 1000 SF.
 - ALL VEGETATED SLOPES GREATER THAN 15% SHOULD BE SEEDED AND MULCHED BY SEPTEMBER 1. IF A SLOPE IS NOT STABILIZED BY OCTOBER 15, THE SOIL MAY BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SF

- AND PROTECTED WITH EROSION CONTROL BLANKETS. IF THE RYE FAILS TO GROW THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 15 THE SLOPE SHOULD BE PROTECTED WITH AN EROSION CONTROL BLANKET, EROSION CONTROL MIX, OR RIPRAP.
- ALL GRASS LINED DITCHES AND CHANNELS SHOULD BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT SUFFICIENTLY GRASSSED OVER (75% COVER) BY NOVEMBER 15TH, THE DITCH SHOULD BE LINED WITH STONE RIPRAP. THE DITCH WILL NEED TO BE OVER-EXCAVATED TO ACCOMMODATE THE THICKNESS OF THE RIPRAP.
 - SOIL STOCKPILES SHOULD BE MULCHED FOR WINTER PROTECTION WITH HAY AT TWICE THE NORMAL RATE OR WITH A FOUR INCH LAYER OF "EROSION CONTROL MIX". STOCKPILES SHOULD NOT BE LEFT OVERWINTER (EVEN MULCHED) IF WITHIN 100 FEET FROM A PROTECTED RESOURCE.
8. PERMANENT STABILIZATION OF DISTURBED UPLAND AREAS:

SEED BED PREPARATION: TOPSOIL (SANDY TOPSOIL, TOPSOIL, OR SILT TOPSOIL), FRAGILE, FREE OF TREE ROOTS, WEEDS, STONES MORE THAN 1-1/2 INCHES IN DIAMETER OR LENGTH SHALL BE PLACED OVER ALL DISTURBED AREAS IN A 4" MINIMUM (REFER TO PLANS) THICK LAYER.

TOPSOIL: TOPSOIL SHALL BE FREE OF HERBICIDES AND TOXIC MATERIALS. TILL THREE TO FIVE INCHES DEEP MIXING IN THE FERTILIZER AND LIME. APPLY LIME AND FERTILIZER ACCORDING TO SOIL TEST AND CURRENT EXTENSION SERVICE RECOMMENDATIONS. IN ABSENCE OF A SOIL TEST, APPLY LIME (A PH OF 5.5-6.0 IS DESIRED) AT A RATE OF 2.5 TONS PER ACRE AND 10-20-20 ANALYSIS FERTILIZER AT A RATE OF 500# PER ACRE (40# OF NITROGEN TO BE IN AN ORGANIC OR SLOW-RELEASE FORM).

SEEDING: USDA RECOMMENDED SEED MIXES:

A. MARYLAND AVIATION ADMIN. MIX	LBS./ACRE	LBS./1000 SF
PREDATOR HARD FESCUE	131.25 (75%)	3.02
SEVEN SEAS CHEWING FESCUE	35.0 (20%)	0.80
WILDHORSE KENTUCKY BLUE GRASS	8.75 (5%)	0.20
TOTALS -	175	4.02

SEEDING METHODS: SEEDING SHOULD BE PERFORMED BY THE FOLLOWING METHOD:
HYDROSEEDING WITH SUBSEQUENT TRACKING.
TRACKING THE SEEDING WITH SMALL TRACK CONSTRUCTION EQUIPMENT SHOULD BE ORIENTED UP AND DOWN THE SLOPE.

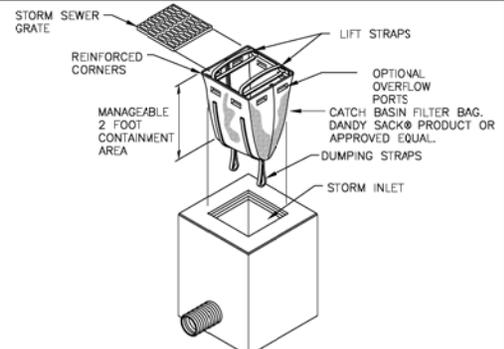
MULCHING: MULCH ALL DISTURBED AREAS WITH 2 TONS OF HAY OR STRAW PER ACRE (90 - 100#/1,000 SQ. FT.). ANCHOR ON ALL SLOPES 3:1 OR STEEPER AND ON FLATTER SLOPES SUBJECT TO WASH (WATERWAYS AND/OR WINDBLOWN) USING JUTE (OR OTHER BIODEGRADABLE) NETTING OR EROSION CONTROL BLANKET, STAKING, AND STAPLING.

MAINTENANCE: INSPECT SEEDED AREAS FOR FAILURE AND MAKE NECESSARY REPAIRS AND RESEED IMMEDIATELY. CONDUCT A FOLLOW-UP SURVEY AFTER ONE YEAR AND REPLACE FAILED PLANTS WHERE NECESSARY. IF VEGETATIVE COVER IS INADEQUATE TO PREVENT EROSION, OVERSEED AND FERTILIZE IN ACCORDANCE WITH SOIL TEST RESULTS. IF A STAND HAS LESS THAN 40% COVER, REEVALUATE CHOICE OF PLANT MATERIALS AND QUANTITIES OF LIME AND FERTILIZER. RE-ESTABLISH THE STAND FOLLOWING SEEDBED PREPARATION AND SEEDING RECOMMENDATIONS, OMITTING LIME AND FERTILIZER IN THE ABSENCE OF SOIL TEST RESULTS. IF THE SEASON PREVENTS RESOWING, MULCH OR JUTE NETTING IS AN EFFECTIVE TEMPORARY COVER. SEEDED AREAS SHOULD BE FERTILIZED DURING THE SECOND GROWING SEASON. LIME AND FERTILIZER THEREAFTER AT PERIODIC INTERVALS, AS NEEDED.
 8. TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
 9. MAINTENANCE: DURING THE CONSTRUCTION PERIOD AND UNTIL SUCH TIME AS THE LONG TERM VEGETATION IS ESTABLISHED TO A 70% VEGETATIVE STAND.
 - A. DISTURBED AREAS WILL BE FERTILIZED AND RESEEDED.
 - B. CATCH BASINS AND FILTER BAGS WILL BE CHECKED AND CLEANED AS NECESSARY.
 - C. DRAINAGE AND GRASS TREATMENT SWALES SHALL BE CHECKED FREQUENTLY AND CLEANED AS REQUIRED.
 - D. THE SILT FENCES WILL BE CHECKED ON A REGULAR BASIS AND REPAIRED AS NECESSARY TO CORRECT ANY DAMAGE, DETERIORATION, AND SHORT-CIRCUITING.
 10. REFER TO "GRADING PLANS" FOR THIS PROJECT PRIOR TO ANY SITE DISTURBANCE.
 11. INSPECTIONS: THE ENGINEER SHALL BE CONTACTED ON A REGULAR BASIS TO INSPECT ALL EROSION CONTROL PRACTICES AS WELL AS THE MAINTENANCE OF THE EROSION CONTROL COMPONENTS. REFER TO CONSTRUCTION SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. EROSION CONTROL PRACTICES SHALL BE IN STRICT ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
 12. THE MAXIMUM AMOUNT OF AREA TO BE DISTURBED AND UNSTABILIZED SHALL BE 5 ACRES AT ANY ONE TIME.
 13. THE MAXIMUM AMOUNT OF TIME ANY AREA MAY BE DISTURBED WITHOUT STABILIZATION SHALL BE 14 DAYS.

CONSTRUCTION SEQUENCE

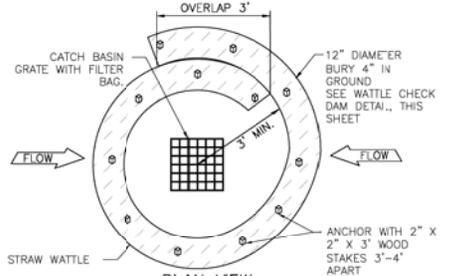
 1. INSTALL INLET PROTECTION/FILTER BAGS AT ALL LOCATIONS INDICATED ON PLAN OR AT OTHER LOCATIONS AS DETERMINED BY

- ENGINEER. INSTALL OTHER TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES AS EARTHWORK PROCEEDS.
2. CONTRACTOR SHALL LEGALLY DISPOSE OF ALL SURPLUS UNCLASSIFIED EXCAVATION AT AN APPROVED LOCATION NOTED IN THE SPECIFICATIONS.
 3. REMOVE EXISTING PAVEMENT AND SUBBASE AS REQUIRED.
 4. INSTALL NEW BASE AND SUBBASE.
 5. INSTALL ELECTRICAL AND DRAINAGE.
 6. PAVE NEW AREAS.
 7. GRADE AREA AS SHOWN ON PLANS AND LOAM, FERTILIZE AND SEED AREAS TO ESTABLISH VEGETATION.
 8. INSPECT ALL DISTURBED AREAS ON A DAILY BASIS. FOLLOWING THIS DAILY INSPECTION, INSTALL AS REQUIRED ANY AND ALL TEMPORARY DRAINAGE, EROSION, AND SEDIMENT CONTROL PRACTICES AS INDICATED, I.E., DIVERSION CHANNELS, BERMS, DRAINS, DITCHES, STONE DIKES, SILT FENCES, SEED AND MULCH OR OTHER PRACTICES AS RECOMMENDED AND SPECIFIED IN THE "MAINE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES".
 9. CLEAN AND RESTORE SILT DESTINATION SITES. REMOVE OTHER EROSION CONTROL PRACTICES ON A TIMELY BASIS AS PERMANENT MEASURES TAKE HOLD. SPOT FERTILIZE, SEED, AND MULCH AS REQUIRED.
 10. INSPECT AND MAINTAIN GRADING, EROSION CONTROL AND SEDIMENT CONTROL PRACTICES WEEKLY AND IMMEDIATELY AFTER ALL SUBSTANTIAL STORMS.
 11. REFER TO "EROSION AND SEDIMENT CONTROL PLAN" WITHIN SPECIFICATION FOR ADDITIONAL DETAILS RELATIVE TO THE REQUIRED CONSTRUCTION SEQUENCE. MAINTENANCE OF ALL EROSION CONTROL COMPONENTS SHALL BE AN ONGOING PRACTICE AND IN STRICT ACCORDANCE WITH THE APPROVED PLAN.

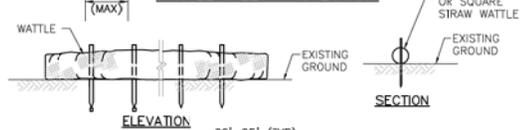


INLET PROTECTION (FILTER BAG) INSTALLATION

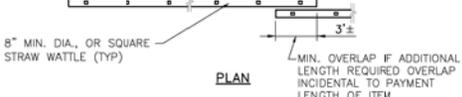
N.T.S.
(ITEM P-156-1)



PLAN VIEW WATTLE INLET PROTECTION



ELEVATION SECTION



EROSION CONTROL WATTLE

N.T.S.
(ITEM P-156-2)

SPECIES	PER ACRE	PER 1000 SQ.FT.	REMARKS
WINTER RYE	120 LBS. 3 LBS.		BEST FOR FALL SEEDING. SEED AUGUST 15 TO OCTOBER 15 FOR BEST COVER. SEED TO DEPTH OF ONE TO 1 1/2 INCHES.
OATS	2 1/2 BU OR 80 LBS.	2 LBS.	BEST FOR SPRING SEEDINGS. SEED BETWEEN APRIL 1 TO JULY 1 OR AUGUST 15 TO SEPTEMBER 15. SEED TO DEPTH OF ONE INCH.
ANNUAL RYE	40 LBS. 1 LB.		GROWS QUICKLY, BUT IS OF SHORT GRASS DURATION USE WHERE APPEARANCES ARE IMPORTANT. COVER SEED WITH NO MORE THAN 1/4 INCH OF SOIL WITH MULCH. SEEDING MAY BE DONE THROUGHOUT GROWING SEASON. SEED BETWEEN APRIL 1 AND JUNE 1 OR AUGUST 15 & SEPTEMBER 15.
FOXTAIL MILLET	30 LBS. 0.7 LB.		MAY 1 TO JUNE 30. SEED TO DEPTH OF 1/2 TO 3/4 INCH.

BID DOCUMENTS



McFarland Johnson

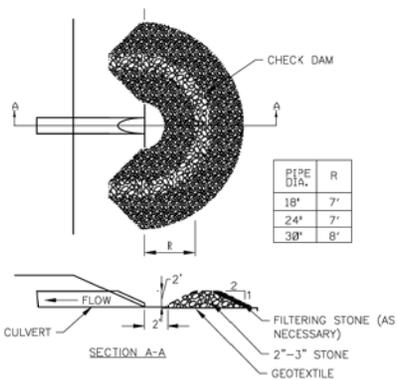
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

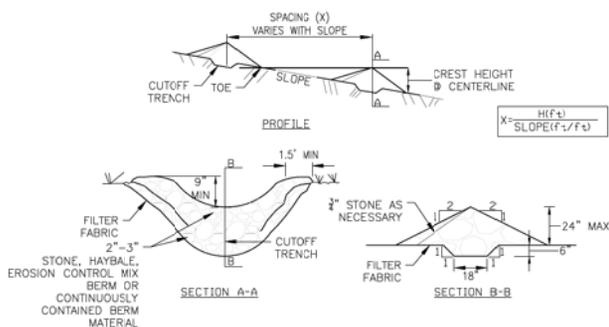
EROSION CONTROL DETAILS (1 OF 3)

SCALE: ----	DESIGN: MTO	EC-05
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



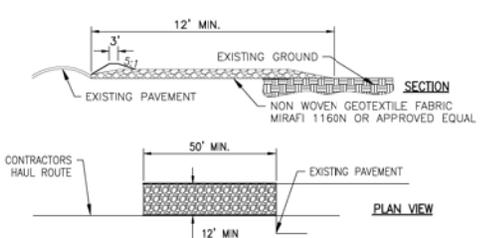
PIPE DIA.	R
18"	7'
24"	7'
30"	8'

NOTE
1. SEE STONE CHECK DAM
N.T.S.
(ITEM P-156-5)



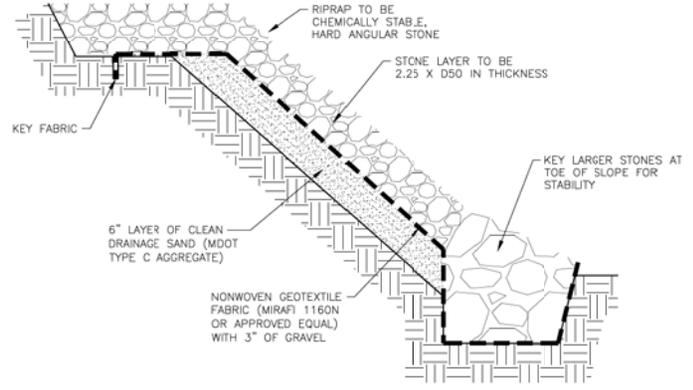
- 2\"/>

CHECK DAM
N.T.S.
(ITEM P-156-5)



- STABILIZED CONSTRUCTION ENTRANCE NOTES:
 1. STONE SIZE-USE 1\"/>

STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.
(ITEM P-156-3)



- NOTES:
 1. THE NONWOVEN GEOTEXTILE FABRIC SHALL BE COVERED WITH 3\"/>

PLAIN RIPRAP
N.T.S.
(ITEM M-300-1)

EROSION CONTROL MIX (ITEM P-156-2):

EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE PROJECT SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

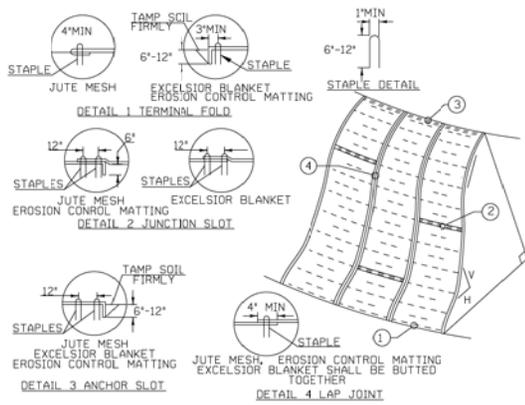
- COMPOSITION
 EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4\"/>

EROSION CONTROL MIX BERMS SEDIMENT BARRIER INSTALLATION:
 THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
 ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF STEEPER SLOPES (2:1) UP TO 20' LONG, THE BARRIER MUST BE A MINIMUM OF 12\"/>

- OVERWINTER EROSION CONTROL MIX INSTALLATION
 • CAN BE INSTALLED ON FROZEN GROUND, FORESTED AREAS, AND ON CUT AND FILL SLOPES.
 • A THICKNESS OF 2 INCHES ON 3:1 SLOPES OR LESS SHALL BE APPLIED, AN ADDITIONAL 1/2 INCH PER 20 FEET OF SLOPE OR UP TO 4 INCHES FOR A 100 FOOT SLOPE.
 • ON SLOPES GREATER THAN 3:1, 4 INCHES OR MORE OF MATERIAL IS RECOMMENDED; AND IF SLOPES ARE GREATER THAN 60 FEET LONG, 5 INCHES ARE NEEDED.
 • EROSION CONTROL MIX IS NOT RECOMMENDED ON SLOPES GREATER THAN 1:1.
 • THE MIX MUST BE DISTRIBUTED EVENLY WITH A HYDRAULIC BUCKET, PNEUMATIC BLOWER, OR BY HAND.
 • OTHER REINFORCEMENT BMP'S (I.E. RIPRAP) SHOULD BE USED ON SLOPES WITH GROUNDWATER SEEPAGE, WITHIN DRAINAGE CHANNELS AND THEIR OUTLETS, OR IN GULLIES.

BID DOCUMENTS		IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED. THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATION.
		
		BELFAST MUNICIPAL AIRPORT CITY OF BELFAST, STATE OF MAINE CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY EROSION CONTROL DETAILS (2 OF 3)
SCALE: NTS	DESIGN: MTO	EC-06
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

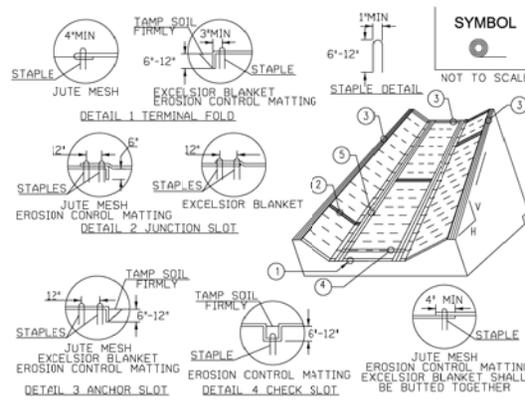
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301



CONSTRUCTION SPECIFICATIONS

1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.
6. ONLY NATURAL FIBER MATTING SHALL BE USED.

EROSION CONTROL MATTING—SIDE SLOPE
N.T.S.
(ITEM P-156-4)

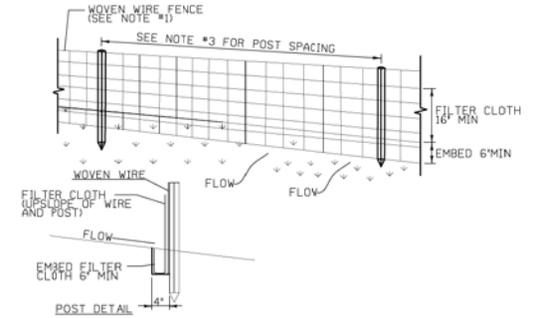


CONSTRUCTION SPECIFICATIONS

1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.
6. ONLY NATURAL FIBER MATTING SHALL BE USED.

EROSION CONTROL MATTING—DITCH
N.T.S.
(ITEM P-156-4)

SYMBOL



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI100X, STABILINKA T140N OR APPROVED EQUIVALENT.
3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER CLOTH FENCE, WHEN ELONGATION IS 200% POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS 450% POST SPACING SHALL NOT EXCEED 6'.
4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

SILT FENCE
N.T.S.
(ITEM P-156-2)

BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATION.

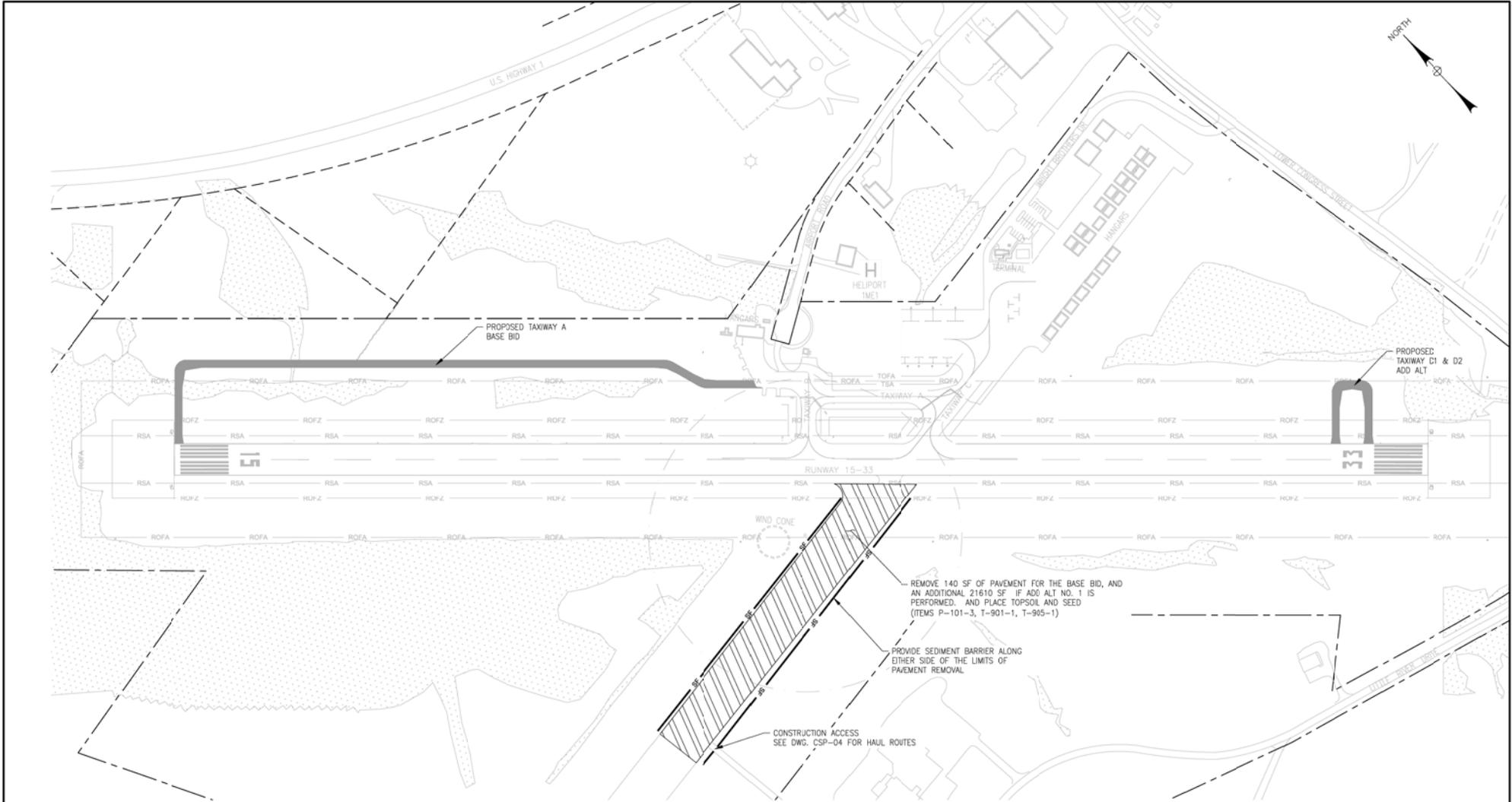


53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

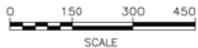
BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

EROSION CONTROL DETAILS (3 OF 3)

SCALE: NTS	DESIGN: MTO	EC-07 23 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



- NOTES:
1. FOR SAFETY AND PHASING PLANS SEE DWG. CSP-01-CSP-06
 2. FOR EROSION CONTROL PLANS AND NOTES SEE DWG. EC-01-EC-05
 3. FOR DEMOLITION PLANS SEE DWG. D-01-D-04
 4. CONTRACTOR TO MATCH EXISTING PAVEMENT THICKNESS WITH NEW TOPSOIL
 5. CONTRACTOR AND ENGINEER TO LAYOUT EXACT REMOVAL LIMITS PRIOR TO STARTING PAVEMENT REMOVAL



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATION.

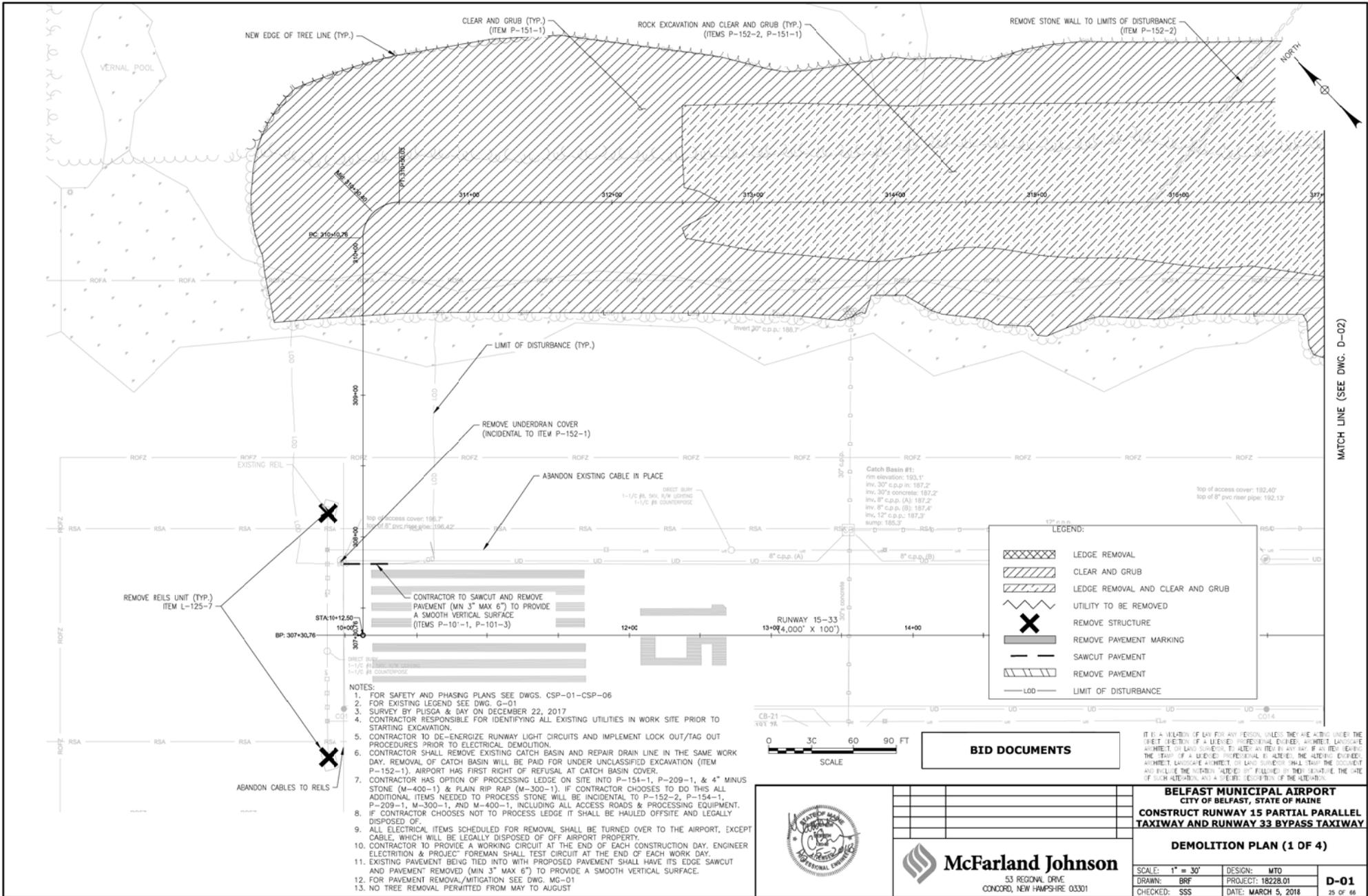


McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

MITIGATION PLAN (1 OF 1)

SCALE: 1" = 150'	DESIGN: MTO	MG-01 24 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



MATCH LINE (SEE DWG. D-02)

- NOTES:**
1. FOR SAFETY AND PHASING PLANS SEE DWGS. CSP-01-CSP-06
 2. FOR EXISTING LEGEND SEE DWG. G-01
 3. SURVEY BY PUSGA & DAY ON DECEMBER 22, 2017
 4. CONTRACTOR RESPONSIBLE FOR IDENTIFYING ALL EXISTING UTILITIES IN WORK SITE PRIOR TO STARTING EXCAVATION.
 5. CONTRACTOR TO DE-ENERGIZE RUNWAY LIGHT CIRCUITS AND IMPLEMENT LOCK OUT/TAG OUT PROCEDURES PRIOR TO ELECTRICAL DEMOLITION.
 6. CONTRACTOR SHALL REMOVE EXISTING CATCH BASIN AND REPAIR DRAIN LINE IN THE SAME WORK DAY. REMOVAL OF CATCH BASIN WILL BE PAID FOR UNDER UNCLASSIFIED EXCAVATION (ITEM P-152-1). AIRPORT HAS FIRST RIGHT OF REFUSAL AT CATCH BASIN COVER.
 7. CONTRACTOR HAS OPTION OF PROCESSING LEDGE ON SITE INTO P-154-1, P-209-1, & 4" MINUS STONE (M-400-1) & PLAIN RIP RAP (M-300-1). IF CONTRACTOR CHOOSES TO DO THIS ALL ADDITIONAL ITEMS NEEDED TO PROCESS STONE WILL BE INCIDENTAL TO P-152-2, P-154-1, P-209-1, M-300-1, AND M-400-1, INCLUDING ALL ACCESS ROADS & PROCESSING EQUIPMENT. IF CONTRACTOR CHOOSES NOT TO PROCESS LEDGE IT SHALL BE HAULED OFFSITE AND LEGALLY DISPOSED OF.
 8. ALL ELECTRICAL ITEMS SCHEDULED FOR REMOVAL SHALL BE TURNED OVER TO THE AIRPORT, EXCEPT CABLE, WHICH WILL BE LEGALLY DISPOSED OF OFF AIRPORT PROPERTY.
 9. CONTRACTOR TO PROVIDE A WORKING CIRCUIT AT THE END OF EACH CONSTRUCTION DAY. ENGINEER ELECTIONITRION & PROJEC' FOREMAN SHALL TEST CIRCUIT AT THE END OF EACH WORK DAY.
 10. EXISTING PAVEMENT BEING TIED INTO WITH PROPOSED PAVEMENT SHALL HAVE ITS EDGE SAWCUT AND PAVEMENT REMOVED (MIN 3" MAX 6") TO PROVIDE A SMOOTH VERTICAL SURFACE.
 11. FOR PAVEMENT REMOVAL/MITIGATION SEE DWG. MG-01
 12. NO TREE REMOVAL PERMITTED FROM MAY TO AUGUST

LEGEND:

- LEDGE REMOVAL
- CLEAR AND GRUB
- LEDGE REMOVAL AND CLEAR AND GRUB
- UTILITY TO BE REMOVED
- REMOVE STRUCTURE
- REMOVE PAVEMENT MARKING
- SAWCUT PAVEMENT
- REMOVE PAVEMENT
- LIMIT OF DISTURBANCE



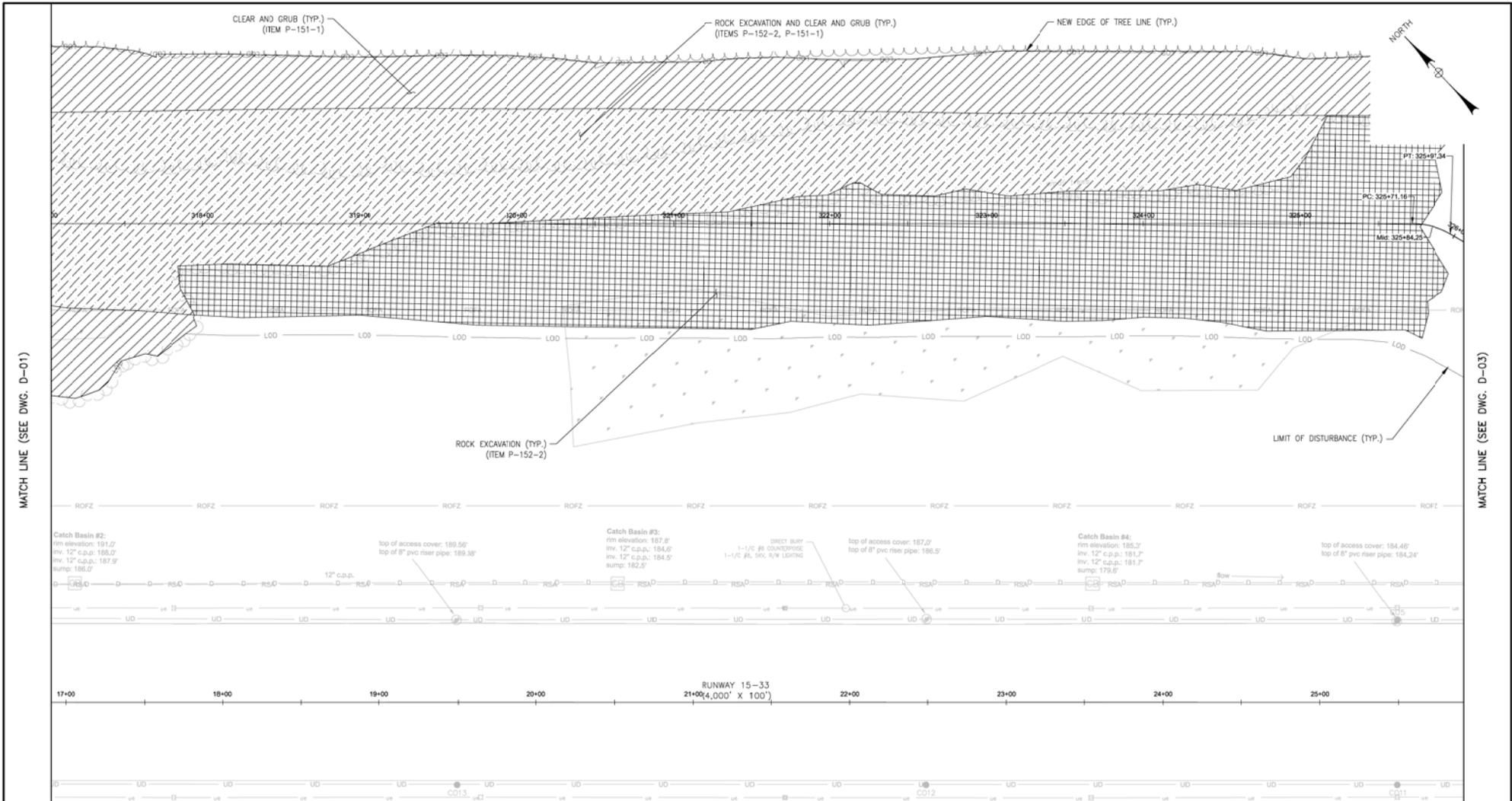
BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER OR REBUILD IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS APPLIED, THE ALTERNATIVE ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THE SIGNATURE, THE DATE OF SUCH ALTERATION, AND A CHECKED COPY OF THE ALTERNATIVE.



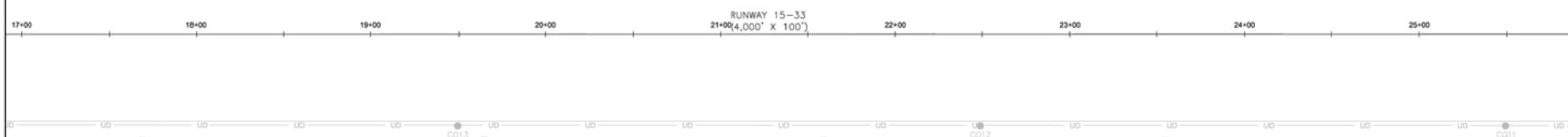
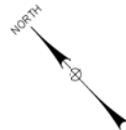
McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT CITY OF BELFAST, STATE OF MAINE		
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY		
DEMOLITION PLAN (1 OF 4)		
SCALE: 1" = 30'	DESIGN: MTO	D-01 25 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



MATCH LINE (SEE DWG. D-01)

MATCH LINE (SEE DWG. D-03)



- LEGEND:**
- LEDGE REMOVAL
 - CLEAR AND GRUB
 - LEDGE REMOVAL AND CLEAR AND GRUB
 - UTILITY TO BE REMOVED
 - REMOVE STRUCTURE
 - REMOVE PAVEMENT MARKING
 - SAWCUT PAVEMENT
 - REMOVE PAVEMENT
 - LIMIT OF DISTURBANCE

NOTES:
1. SEE DWG. D-01

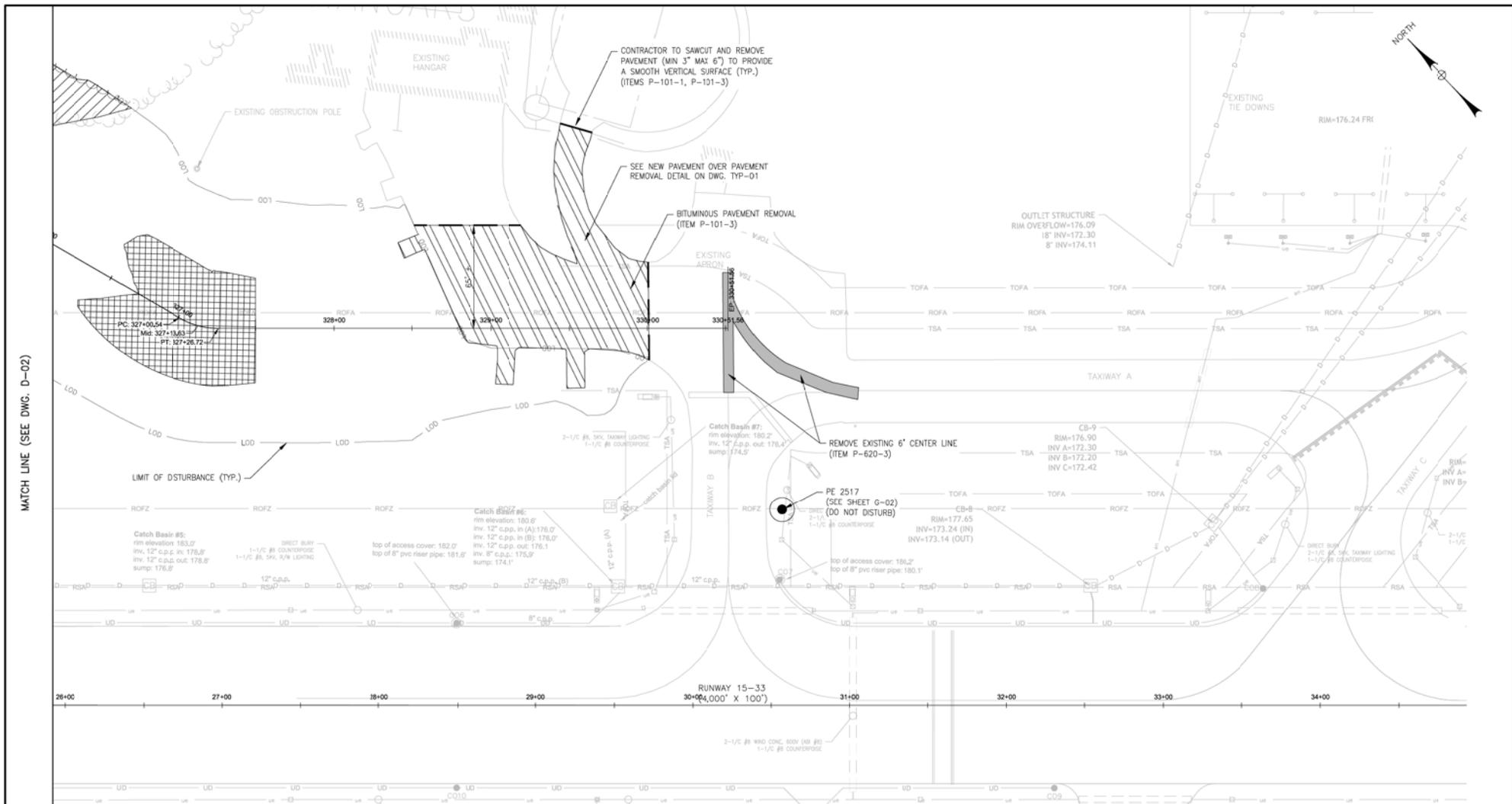


BID DOCUMENTS

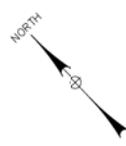
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

	<p>BELFAST MUNICIPAL AIRPORT CITY OF BELFAST, STATE OF MAINE</p>	
	<p>CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY</p>	
<p>DEMOLITION PLAN (2 OF 4)</p>		
<p>SCALE: 1" = 30'</p>	<p>DESIGN: MTO</p>	<p>D-02 28 OF 66</p>
<p>DRAWN: BRF</p>	<p>PROJECT: 18228.01</p>	
<p>CHECKED: SSS</p>	<p>DATE: MARCH 5, 2018</p>	

McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

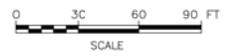


MATCH LINE (SEE DWG. D-02)



- LEGEND:**
- LEDGE REMOVAL
 - CLEAR AND GRUB
 - LEDGE REMOVAL AND CLEAR AND GRUB
 - UTILITY TO BE REMOVED
 - REMOVE STRUCTURE
 - REMOVE PAVEMENT MARKING
 - SAWCUT PAVEMENT
 - REMOVE PAVEMENT
 - LIMIT OF DISTURBANCE

NOTES:
1. SEE DWG. D-01



BID DOCUMENTS

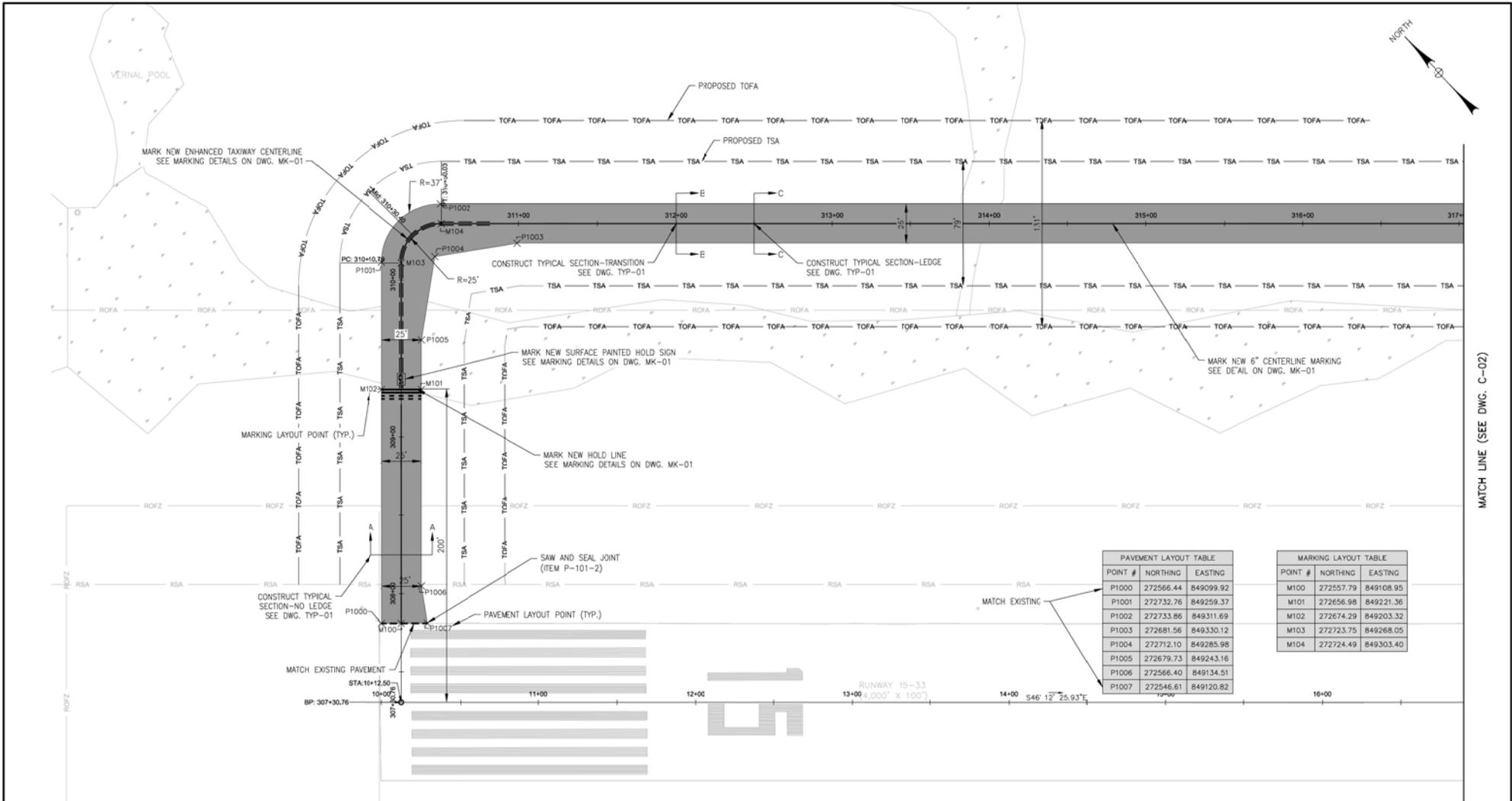
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATION.



McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

DEMOLITION PLAN (3 OF 4)		
SCALE: 1" = 30'	DESIGN: MTO	D-03
DRAWN: BRP	PROJECT: 18228.01	27 OF 66
CHECKED: SSS	DATE: MARCH 5, 2018	



MATCH LINE (SEE DWG. C-02)

PAVEMENT LAYOUT TABLE		
POINT #	NORTHING	EASTING
P1000	272566.44	849099.92
P1001	272732.76	849259.37
P1002	272733.86	849311.69
P1003	272681.56	849330.12
P1004	272712.10	849285.98
P1005	272679.73	849243.16
P1006	272566.40	849134.51
P1007	272546.61	849120.82

MARKING LAYOUT TABLE		
POINT #	NORTHING	EASTING
M100	272557.79	849108.95
M101	272656.98	849221.36
M102	272674.29	849203.32
M103	272723.75	849268.05
M104	272724.49	849303.40

- NOTES:
1. FOR SAFETY AND PHASING PLANS SEE DWG. CSP-01-CSP-06
 2. FOR EXISTING CONDITIONS AND DEMOLITION PLANS SEE DWG. D-01-D-04
 3. FOR TYPICAL PAVEMENT SECTION SEE DWG. TP-01
 4. FOR LIGHTING LAYOUT PLAN SEE DWG. ##-E-04
 5. FOR GRADING AND DRAINAGE PLAN AND PIPE LAYOUT SEE DWG. GR-01-GR-04
 6. FOR PAVEMENT MARKING DETAILS SEE DWG. MK-01
 7. ALL YELLOW AND WHITE MARKINGS SHALL RECEIVE CLASS III BEADS
 8. ALL RED MARKINGS SHALL RECEIVE CLASS I BEADS.
 9. EXISTING PAVEMENT BEING TIED INTO WITH PROPOSED PAVEMENT SHALL HAVE ITS EDGE SAWCUT AND PAVEMENT REMOVED TO PROVIDE A SMOOTH VERTICAL FACE (MIN 3" MAX 6").

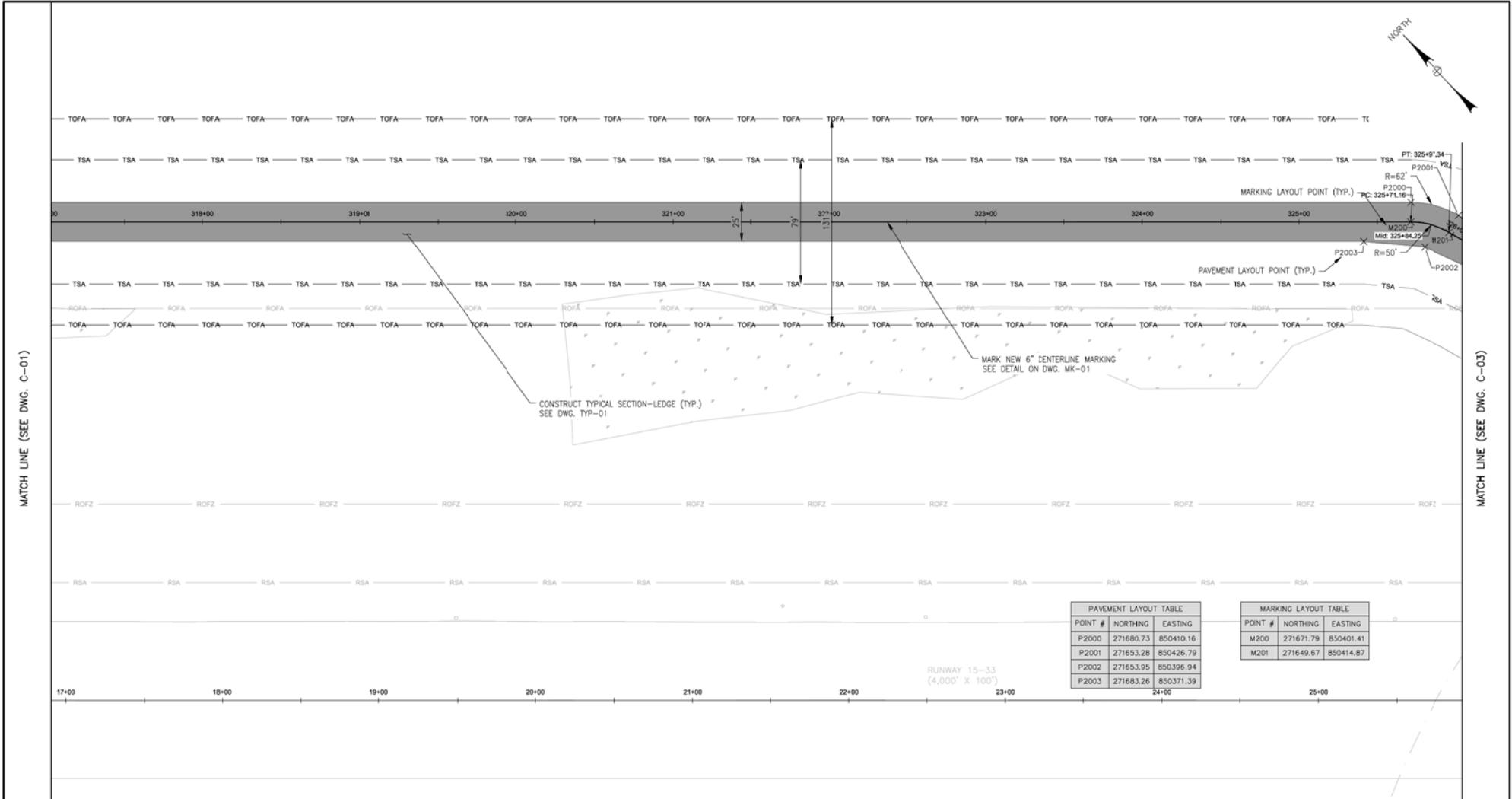
- LEGEND
- TOFA — TAXIWAY OBJECT FREE AREA
 - TSA — TAXIWAY SAFETY AREA
 - █ PROPOSED TAXIWAY PAVEMENT
 - - - SAW AND SEAL JOINT



BID DOCUMENTS

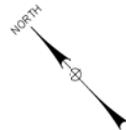
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

	McFarland Johnson 53 REGIONAL DRIVE CONCORD, NEW HAMPSHIRE 03301		BELFAST MUNICIPAL AIRPORT CITY OF BELFAST, STATE OF MAINE CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY GEOMETRY AND MARKING PLAN (1 OF 4)
	SCALE: 1" = 30' DRAWN: BRF CHECKED: SSS	DESIGN: MTO PROJECT: 18228.01 DATE: MARCH 5, 2018	



MATCH LINE (SEE DWG. C-01)

MATCH LINE (SEE DWG. C-03)



CONSTRUCT TYPICAL SECTION-LEDGE (TYP.)
SEE DWG. TYP-01

MARK NEW 6" CENTERLINE MARKING
SEE DETAIL ON DWG. MK-01

PAVEMENT LAYOUT TABLE		
POINT #	NORTHING	EASTING
P2000	271680.73	850410.16
P2001	271653.28	850426.79
P2002	271653.95	850396.94
P2003	271683.26	850371.39

MARKING LAYOUT TABLE		
POINT #	NORTHING	EASTING
M200	271671.79	850401.41
M201	271649.67	850414.87

RUNWAY 15-33
(4,000' X 100')

- LEGEND**
- TOFA — TAXIWAY OBJECT FREE AREA
 - TSA — TAXIWAY SAFETY AREA
 - ▬ PROPOSED TAXIWAY PAVEMENT
 - - - - SAW AND SEAL JOINT

NOTES:
1. SEE DWG. C-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

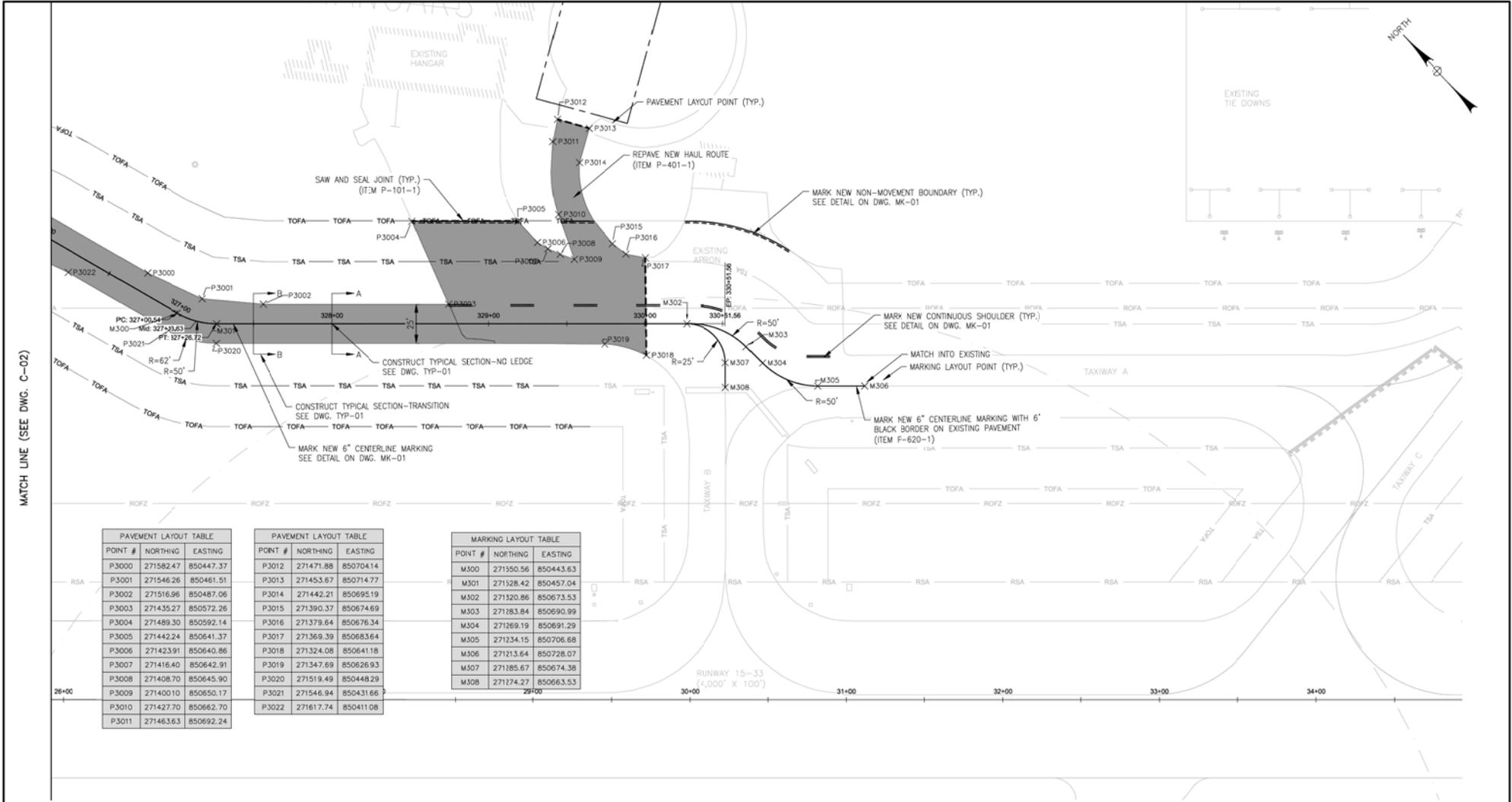


McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

GEOMETRY AND MARKING PLAN (2 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	C-02 30 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



MATCH LINE (SEE DWG. C-02)

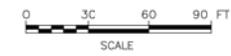
PAVEMENT LAYOUT TABLE		
POINT #	NORTHING	EASTING
P3000	271582.47	850447.37
P3001	271546.26	850461.51
P3002	271516.96	850487.06
P3003	271435.27	850572.26
P3004	271489.30	850592.14
P3005	271442.24	850641.37
P3006	271423.91	850640.86
P3007	271416.40	850642.91
P3008	271408.70	850645.90
P3009	271400.10	850650.17
P3010	271427.70	850662.70
P3011	271463.63	850692.24

PAVEMENT LAYOUT TABLE		
POINT #	NORTHING	EASTING
P3012	271471.88	850704.14
P3013	271453.67	850714.77
P3014	271442.21	850695.19
P3015	271390.37	850674.69
P3016	271379.64	850676.34
P3017	271369.39	850683.64
P3018	271324.08	850641.18
P3019	271347.69	850626.93
P3020	271519.49	850448.29
P3021	271546.94	850431.66
P3022	271617.74	850411.08

MARKING LAYOUT TABLE		
POINT #	NORTHING	EASTING
M300	271550.56	850443.63
M301	271528.42	850457.04
M302	271320.86	850673.53
M303	271283.84	850690.99
M304	271269.19	850691.29
M305	271234.15	850706.68
M306	271213.64	850728.07
M307	271285.67	850674.38
M308	271274.27	850663.53

NOTES:
1. SEE DWG. C-01

- LEGEND**
- TOFA TAXIWAY OBJECT FREE AREA
 - TSA TAXIWAY SAFETY AREA
 - PROPOSED TAXIWAY PAVEMENT
 - SAW AND SEAL JOINT



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

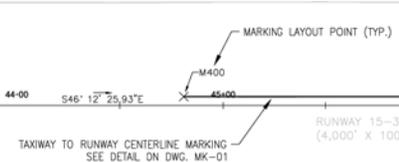
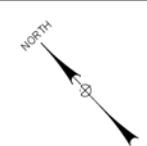
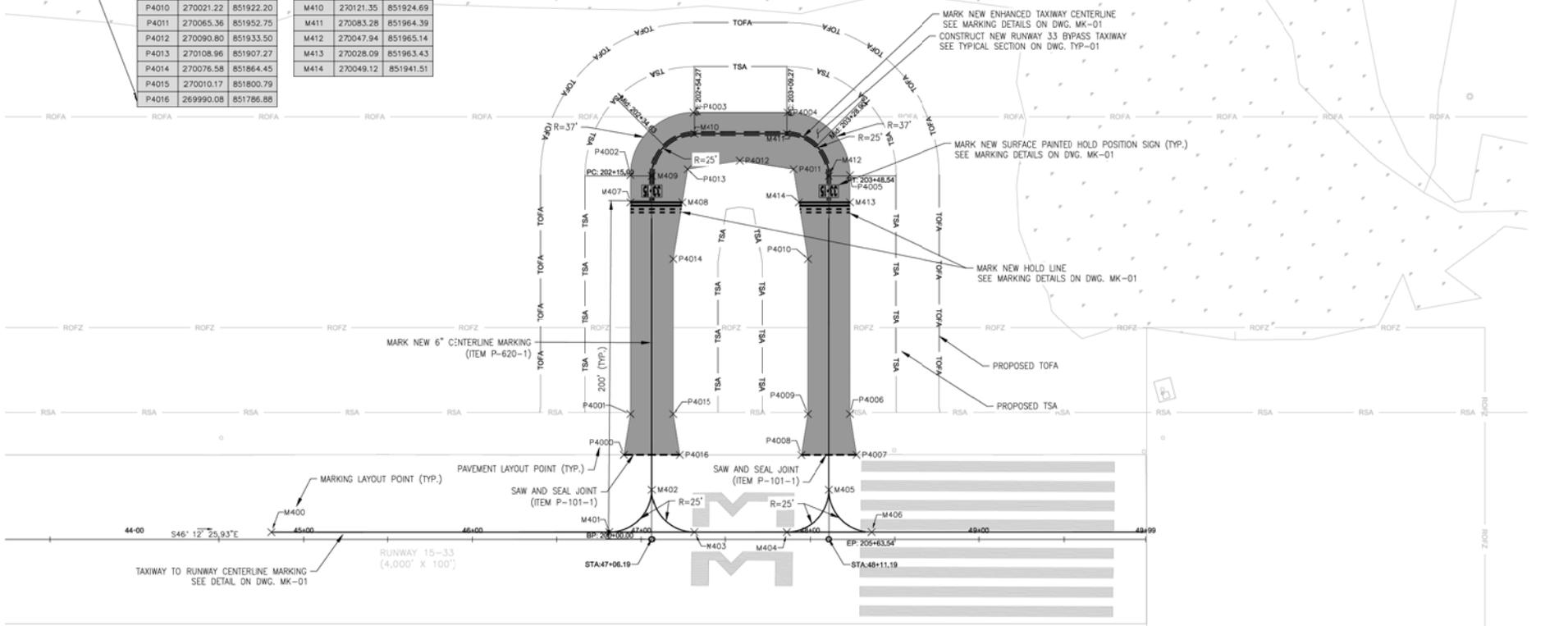
GEOMETRY AND MARKING PLAN (3 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	C-03 31 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

PAVEMENT LAYOUT TABLE		
POINT #	NORTHING	EASTING
P4000	270012.76	851763.28
P4001	270027.47	851782.74
P4002	270129.61	851880.66
P4003	270130.72	851932.98
P4004	270091.96	851973.40
P4005	270039.65	851974.51
P4006	269937.51	851876.58
P4007	269917.44	851862.69
P4008	269940.04	851839.00
P4009	269954.81	851858.53
P4010	270021.22	851922.20
P4011	270065.36	851952.75
P4012	270090.80	851933.50
P4013	270108.96	851907.27
P4014	270076.58	851864.45
P4015	270010.17	851800.79
P4016	269990.08	851786.88

MARKING LAYOUT TABLE		
POINT #	NORTHING	EASTING
M400	270124.14	851581.04
M401	269985.75	851725.43
M402	269986.50	851760.77
M403	269951.15	851761.53
M404	269913.10	851801.24
M405	269913.85	851836.58
M406	269878.50	851837.33
M407	270118.05	851869.58
M408	270097.03	851891.49
M409	270120.60	851889.34
M410	270121.35	851924.69
M411	270083.28	851964.39
M412	270047.94	851965.14
M413	270028.09	851963.43
M414	270049.12	851941.51

MATCH EXISTING



NOTES:
1. SEE DWG. C-01

- LEGEND
- TOFA — TAXIWAY OBJECT FREE AREA
 - TSA — TAXIWAY SAFETY AREA
 - █ PROPOSED TAXIWAY PAVEMENT
 - - - SAW AND SEAL JOINT



BID DOCUMENTS

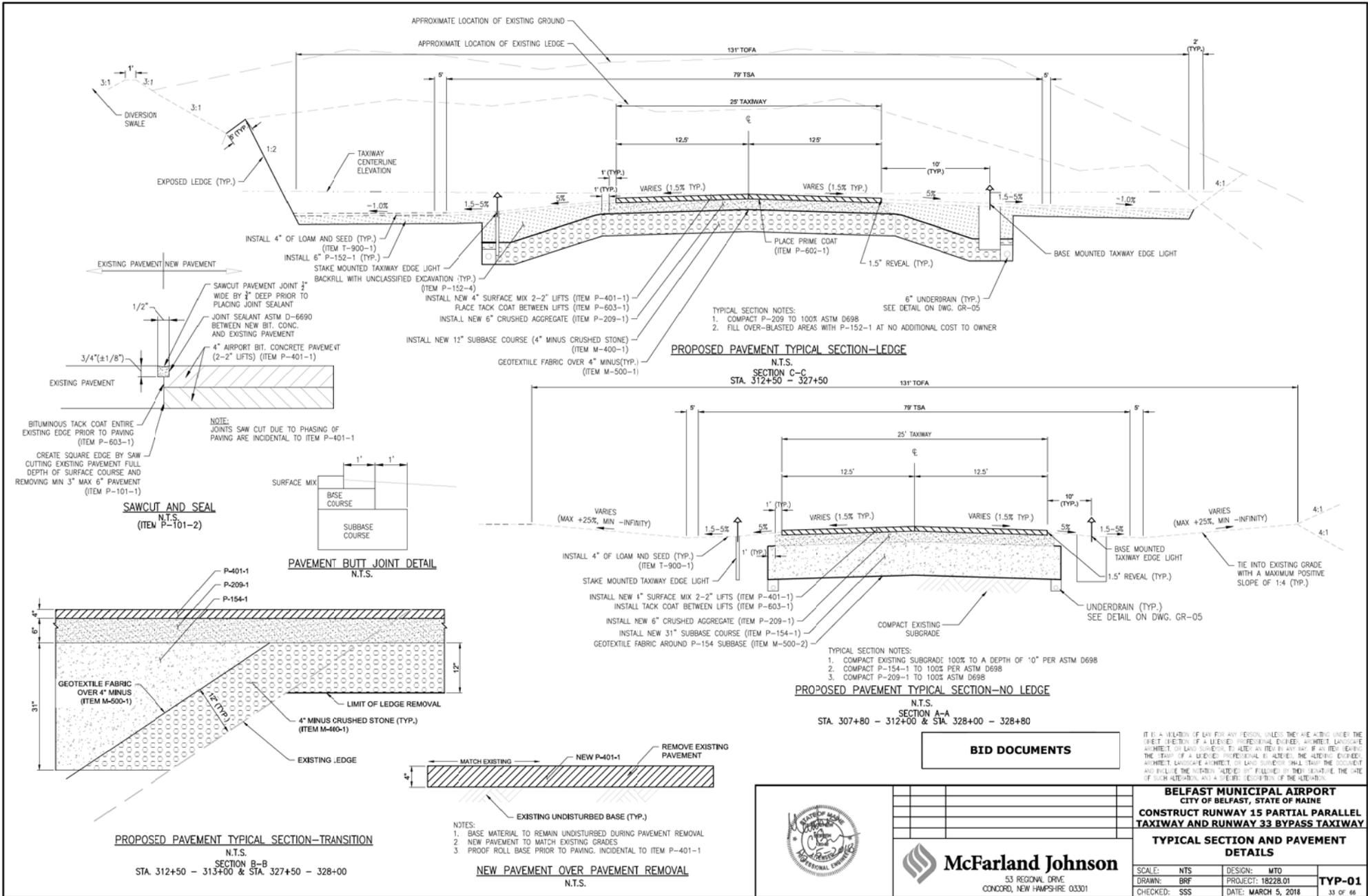
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY
GEOMETRY AND MARKING PLAN
(4 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	C-04 32 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER OR REPRODUCE ANY PART OF AN INSTRUMENT OF SERVICE OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, UNLESS THEY HAVE THE WRITTEN CONSENT AND SIGNATURE OF THE ORIGINAL AUTHOR OF THE INSTRUMENT. ANY SUCH VIOLATION IS SUBJECT TO THE PENALTIES OF THE PROFESSIONAL ENGINEERING ACT AND THE PROFESSIONAL ARCHITECTURE ACT.

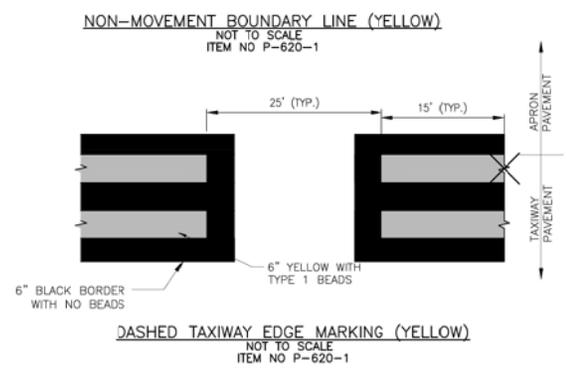
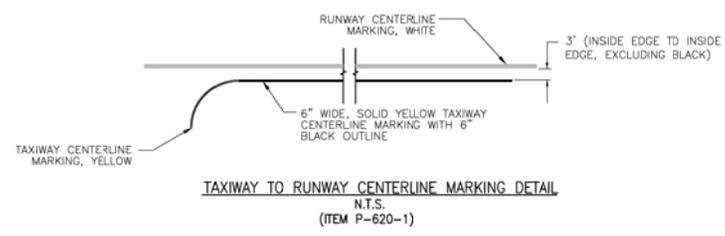
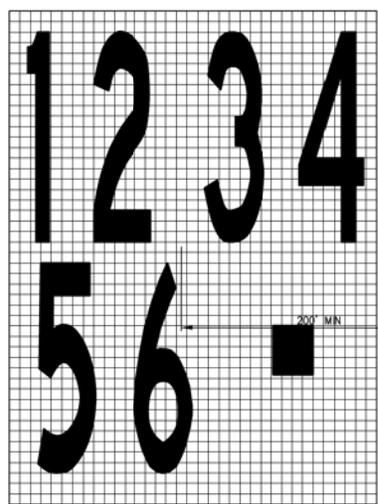
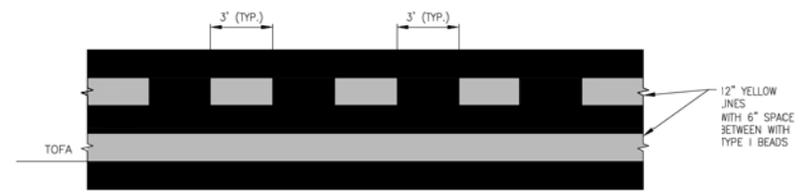
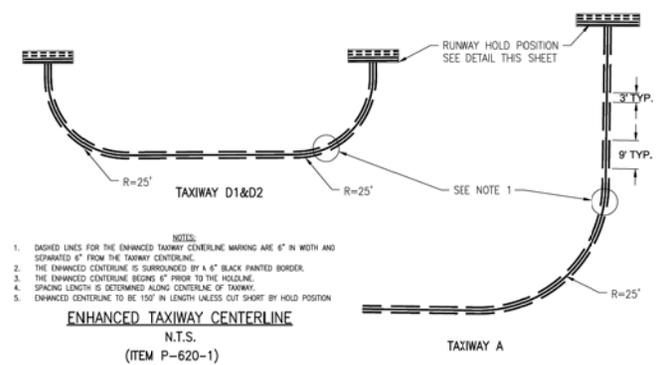
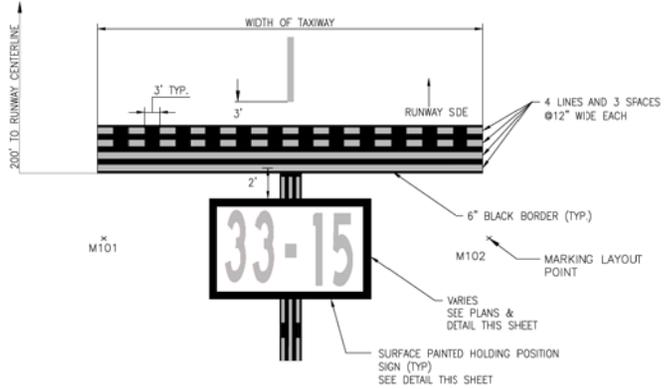
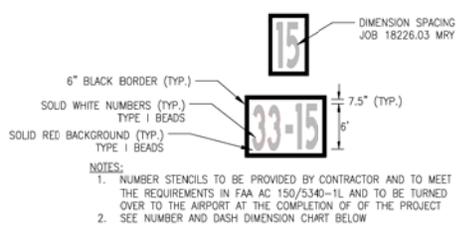
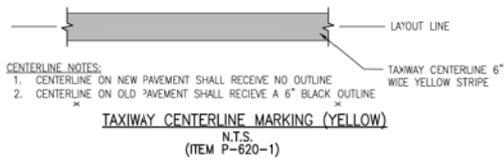
BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY



McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

TYPICAL SECTION AND PAVEMENT DETAILS

SCALE: NTS	DESIGN: MTO	TYP-01 33 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

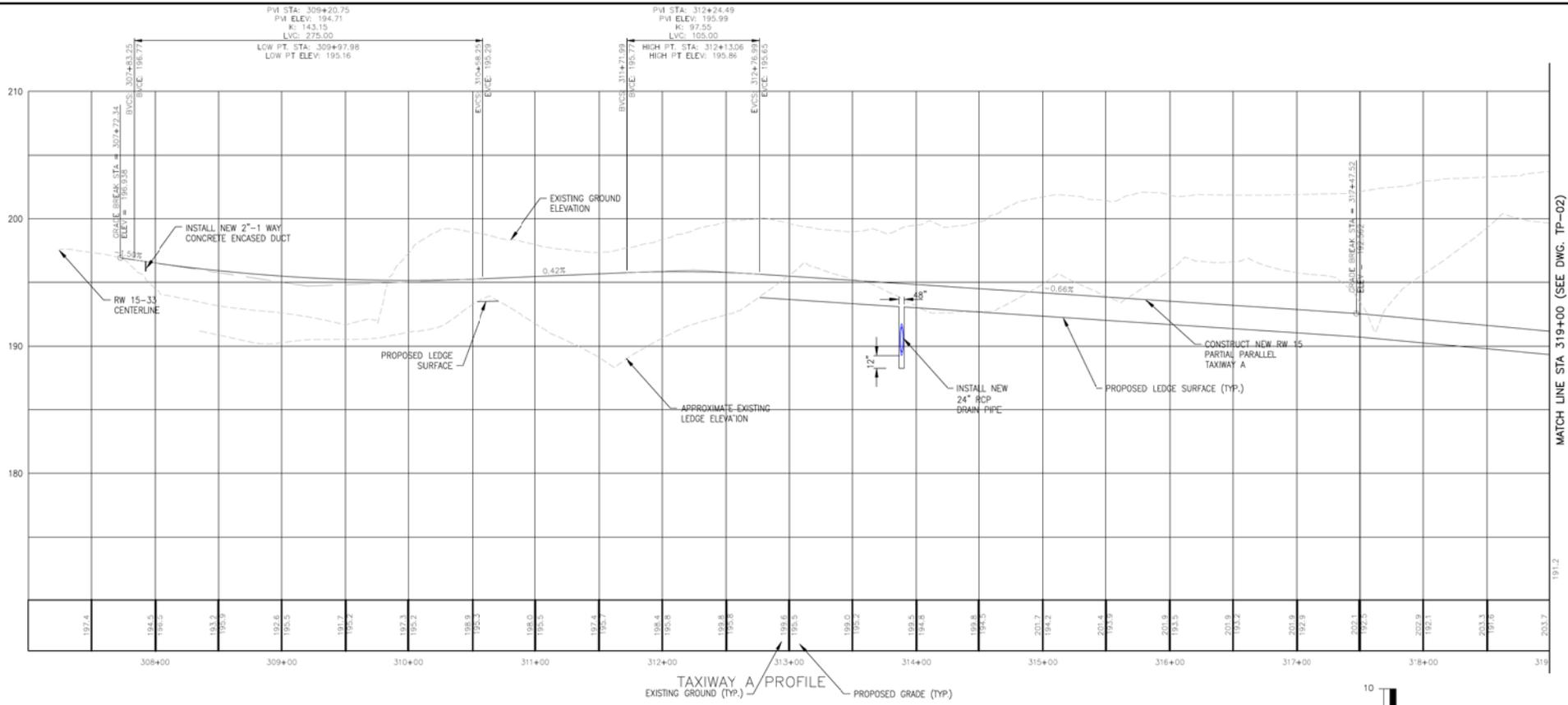


MARKING NOTES:
 1. BLACK PAINT SHALL RECEIVE NO BEADS
 2. YELLOW MARKINGS SHALL RECEIVE TYPE 1 BEADS
 3. RED MARKINGS SHALL RECEIVE TYPE 1 BEADS

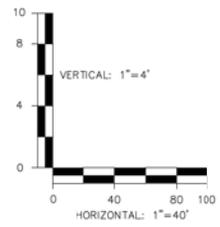
BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATIONS.

	BELFAST MUNICIPAL AIRPORT CITY OF BELFAST, STATE OF MAINE CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY	
	MARKING DETAILS	
	SCALE: NTS DRAWN: BRP CHECKED: DAN	DESIGN: MTO PROJECT: 18228.01 DATE: MARCH 5, 2018
53 REGIONAL DRIVE CONCORD, NEW HAMPSHIRE 03301	MK-01 34 OF 66	



- NOTES:
1. FOR SAFETY AND PHASING PLAN SEE DWG. CSP-01-CSP-06
 2. FOR GRADING AND DRAINAGE PLANS SEE DWG. GR-01-GR-04
 3. FOR TYPICAL SECTIONS SEE DWG. TYP-01
 4. LEDGE EXCAVATION PAY LIMITS AS SHOWN, OVER EXCAVATION OF LEDGE SHALL BE AT THE CONTRACTORS EXPENSE & NO ADDITIONAL COST TO THE OWNER

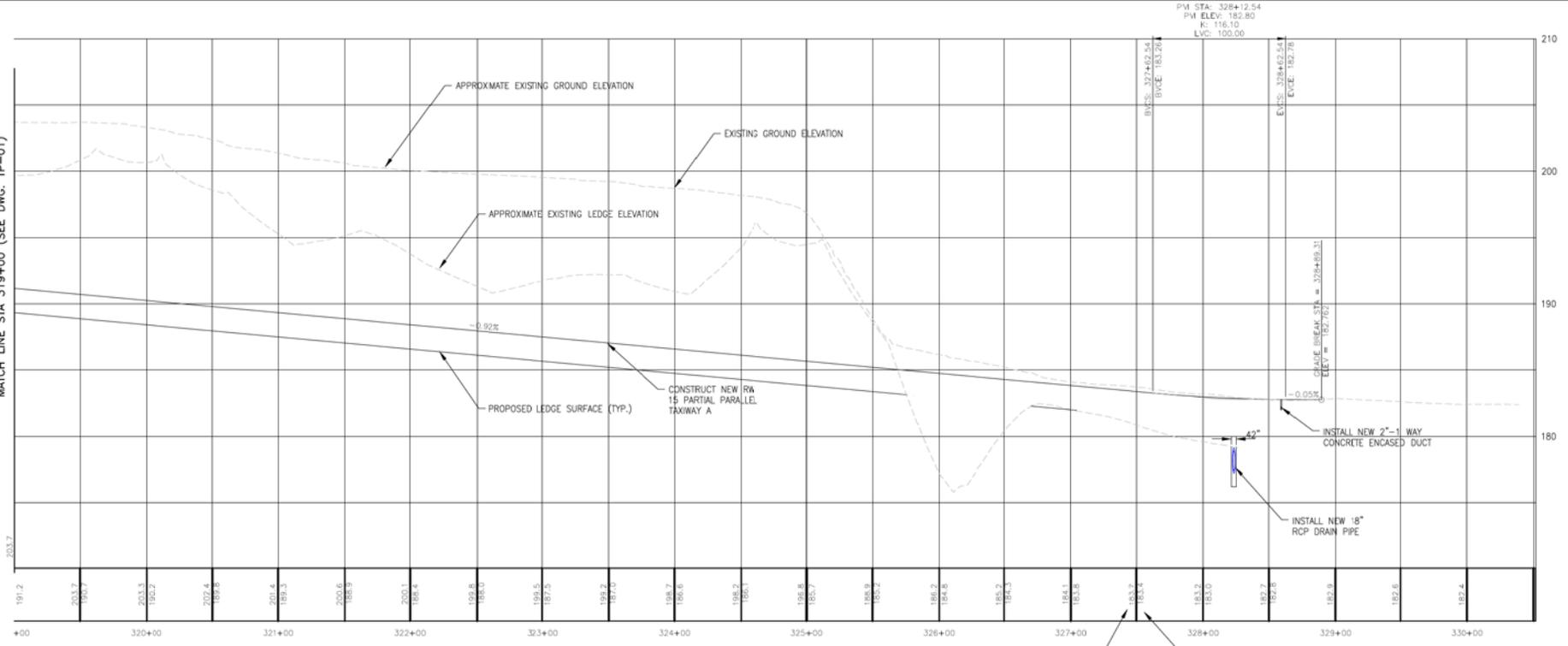


BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

	BELFAST MUNICIPAL AIRPORT CITY OF BELFAST, STATE OF MAINE CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY TAXIWAY A PROFILE (STA 307+31 - STA 319+50)		TP-01 35 OF 66
		53 REGIONAL DRIVE CONCORD, NEW HAMPSHIRE 03301	
		DESIGN: MTO PROJECT: 18228.01 DATE: MARCH 5, 2018	

MATCH LINE STA 319+00 (SEE DWG. TP-01)



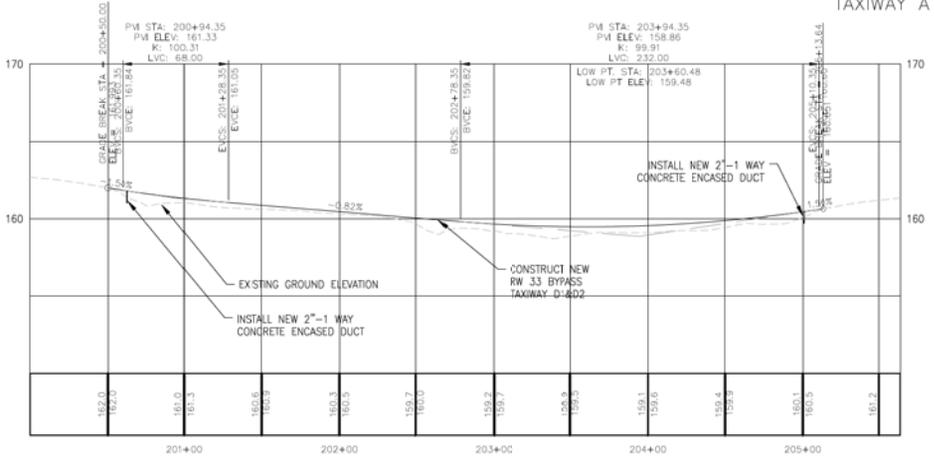
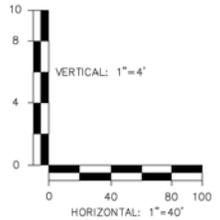
PVI STA: 3284+12.54
 PVI ELEV: 182.80
 R: 116.10
 LVC: 100.00



TAXIWAY A PROFILE

EXISTING GROUND (TYP.) PROPOSED GRADE (TYP.)

NOTES:
 1.) SEE DWG. TP-01



TAXIWAY D1/D2 PROFILE

BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



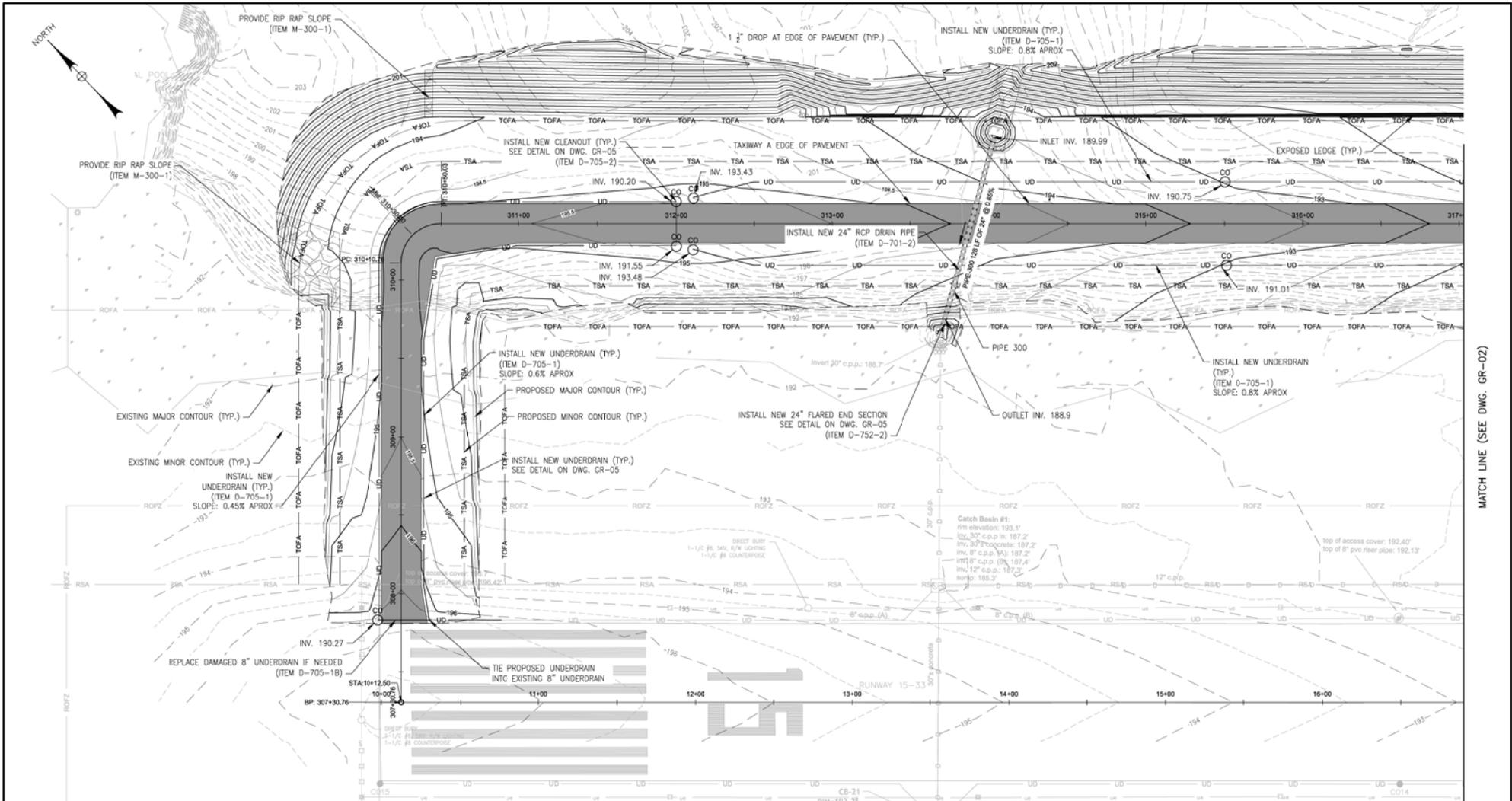
McFarland Johnson

53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

TAXIWAY A PROFILE (STA 319+50 - STA 328+89) TAXIWAY D PROFILE

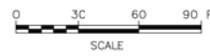
SCALE: AS SHOWN	DESIGN: MTO	TP-02 36 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



MATCH LINE (SEE DWG. GR-02)

- LEGEND:**
- UD ——— PROPOSED UNDERDRAIN PIPE
 - PROPOSED DRAIN PIPE
 - PROPOSED CATCH BASIN
 - PROPOSED CLEANOUT
 - - - - - 196' ——— EXISTING CONTOUR MAJOR
 - - - - - EXISTING CONTOUR MINOR
 - 196' ——— PROPOSED CONTOUR MAJOR
 - PROPOSED CONTOUR MINOR

- NOTES:**
1. FOR CONSTRUCTION SAFETY AND PHASING PLANS SEE DWG. CSP-01-CSP-06.
 2. FOR DEMOLITION AND EXISTING CONDITION PLAN SEE DWG. D-01-D-04
 3. FOR EROSION CONTROL PLAN SEE DWG. EC-01-EC-04
 4. FOR GEOMETRY AND MARKING PLANS SEE DWG. C-01-C-04.
 5. FOR TYPICAL PAVEMENT SECTION SEE DWG. TYP-01
 6. FOR EXISTING CONDITION LEGEND SEE DWG. G-01
 7. FOR GRADING AND DRAINAGE DETAILS SEE DWG. GR-05-GR-06
 8. FOR CROSS SECTIONS SEE DWG. XS-01-XS-10
 9. FOR PIPE AND DRAINAGE STRUCTURE SCHEDULE SEE DWG. GR-04
 10. CONTRACTOR TO NOTIFY ENGINEER OF ANY POTENTIAL INFRASTRUCTURE CONFLICTS PRIOR TO THE START OF CONSTRUCTION.



BID DOCUMENTS



McFarland Johnson

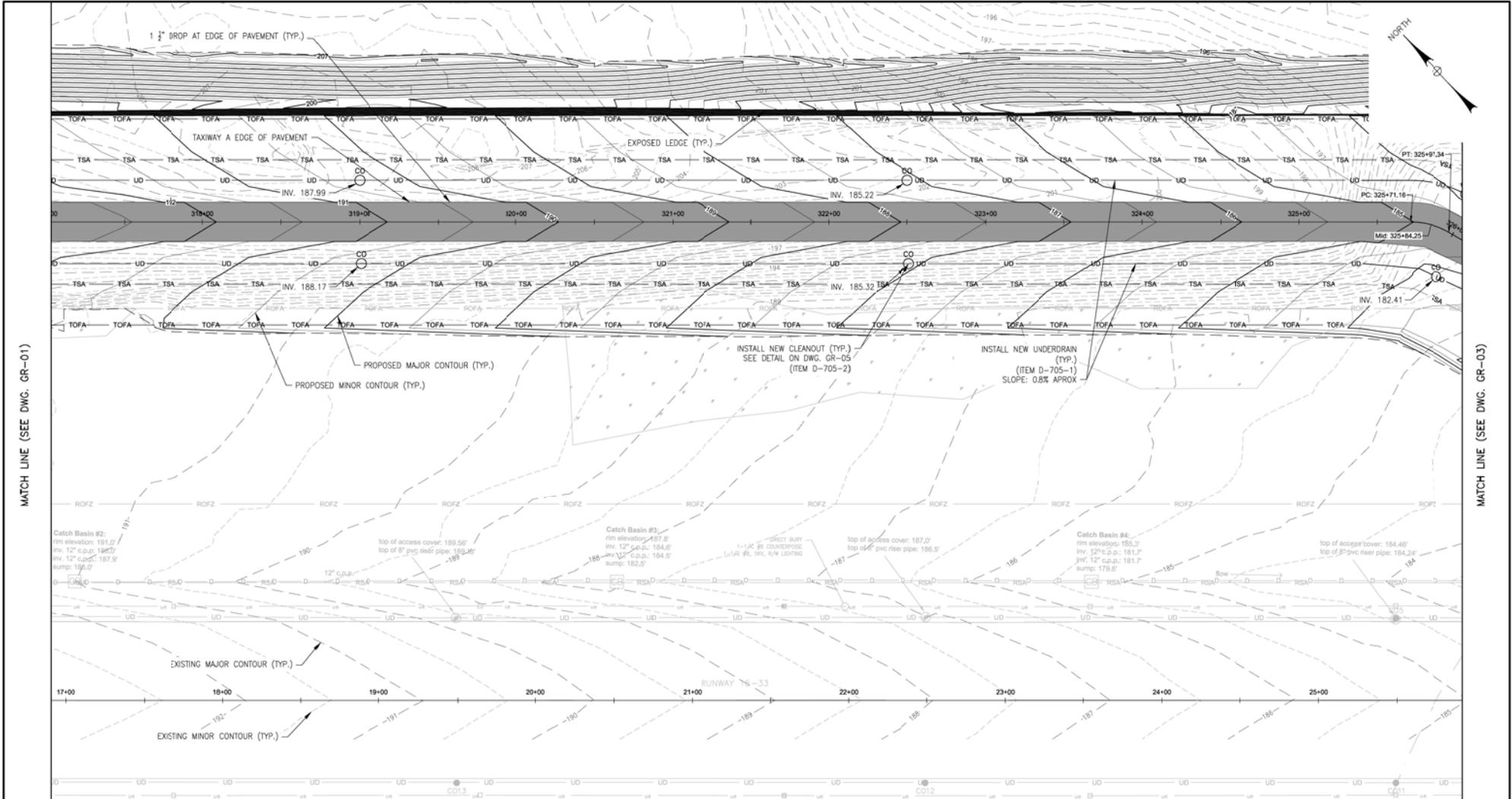
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER OR REMOVE IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATIONS.

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL
TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

GRADING AND DRAINAGE PLAN
(1 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	
DRAWN: BRP	PROJECT: 18228.01	GR-01
CHECKED: SSS	DATE: MARCH 5, 2018	37 OF 66

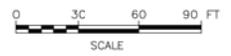


MATCH LINE (SEE DWG. GR-01)

MATCH LINE (SEE DWG. GR-03)

- LEGEND:**
- UD — PROPOSED UNDERDRAIN PIPE
 - PROPOSED DRAIN PIPE
 - PROPOSED CATCH BASIN
 - PROPOSED CLEANOUT
 - - - 196 - - - EXISTING CONTOUR MAJOR
 - - - EXISTING CONTOUR MINOR
 - 196 — PROPOSED CONTOUR MAJOR
 - PROPOSED CONTOUR MINOR

NOTES:
1. SEE DWG. GR-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

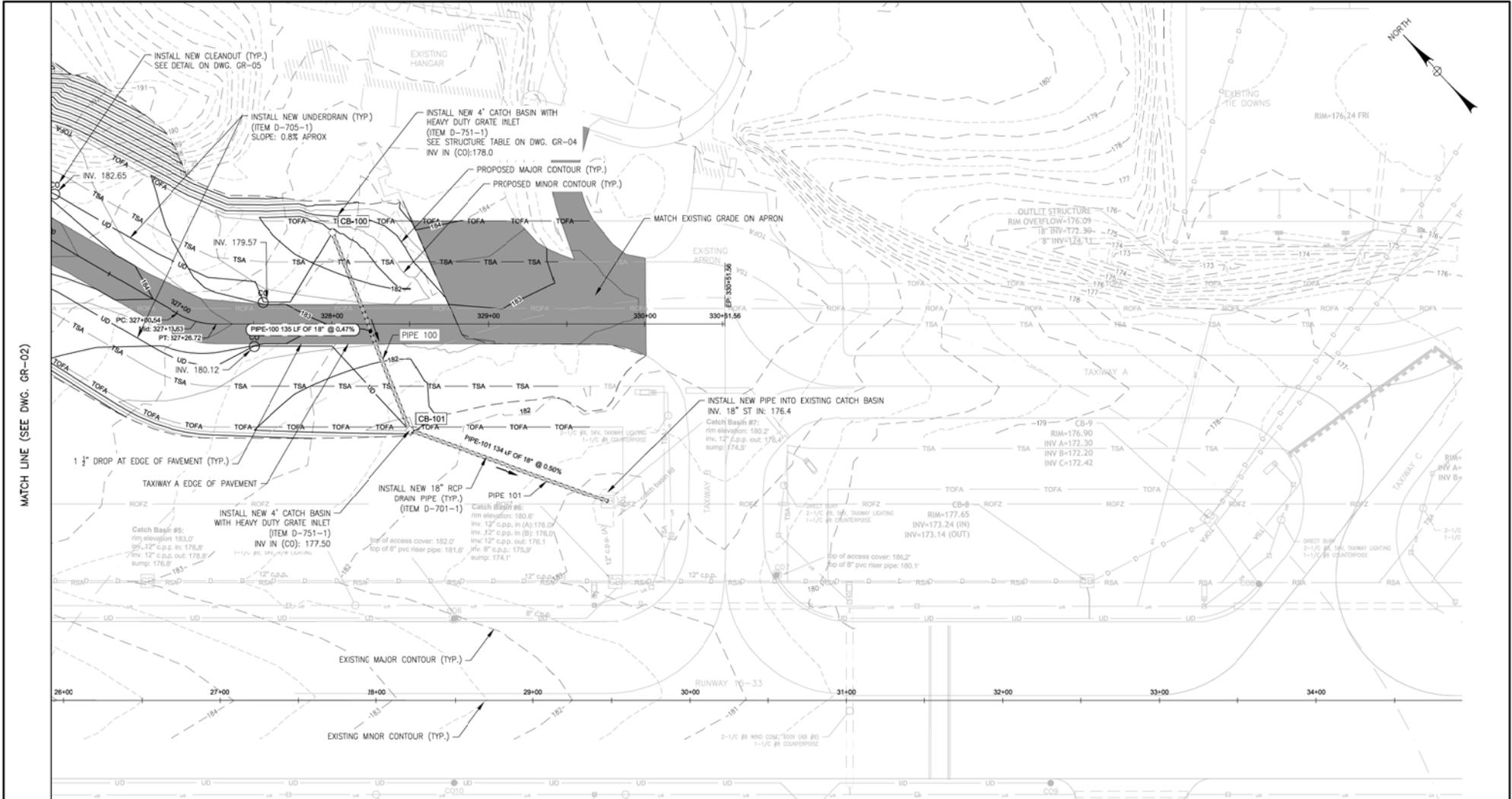


McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

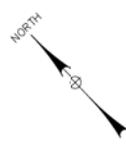
BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

GRADING AND DRAINAGE PLAN
(2 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	GR-02
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	38 OF 66

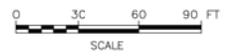


MATCH LINE (SEE DWG. GR-02)



- LEGEND:**
- UD ——— PROPOSED UNDERDRAIN PIPE
 - PROPOSED DRAIN PIPE
 - PROPOSED CATCH BASIN
 - PROPOSED CLEANOUT
 - - - - - 196' ——— EXISTING CONTOUR MAJOR
 - - - - - EXISTING CONTOUR MINOR
 - 196' ——— PROPOSED CONTOUR MAJOR
 - PROPOSED CONTOUR MINOR

NOTES:
1. SEE DWG. GR-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



McFarland Johnson

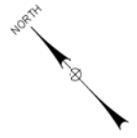
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

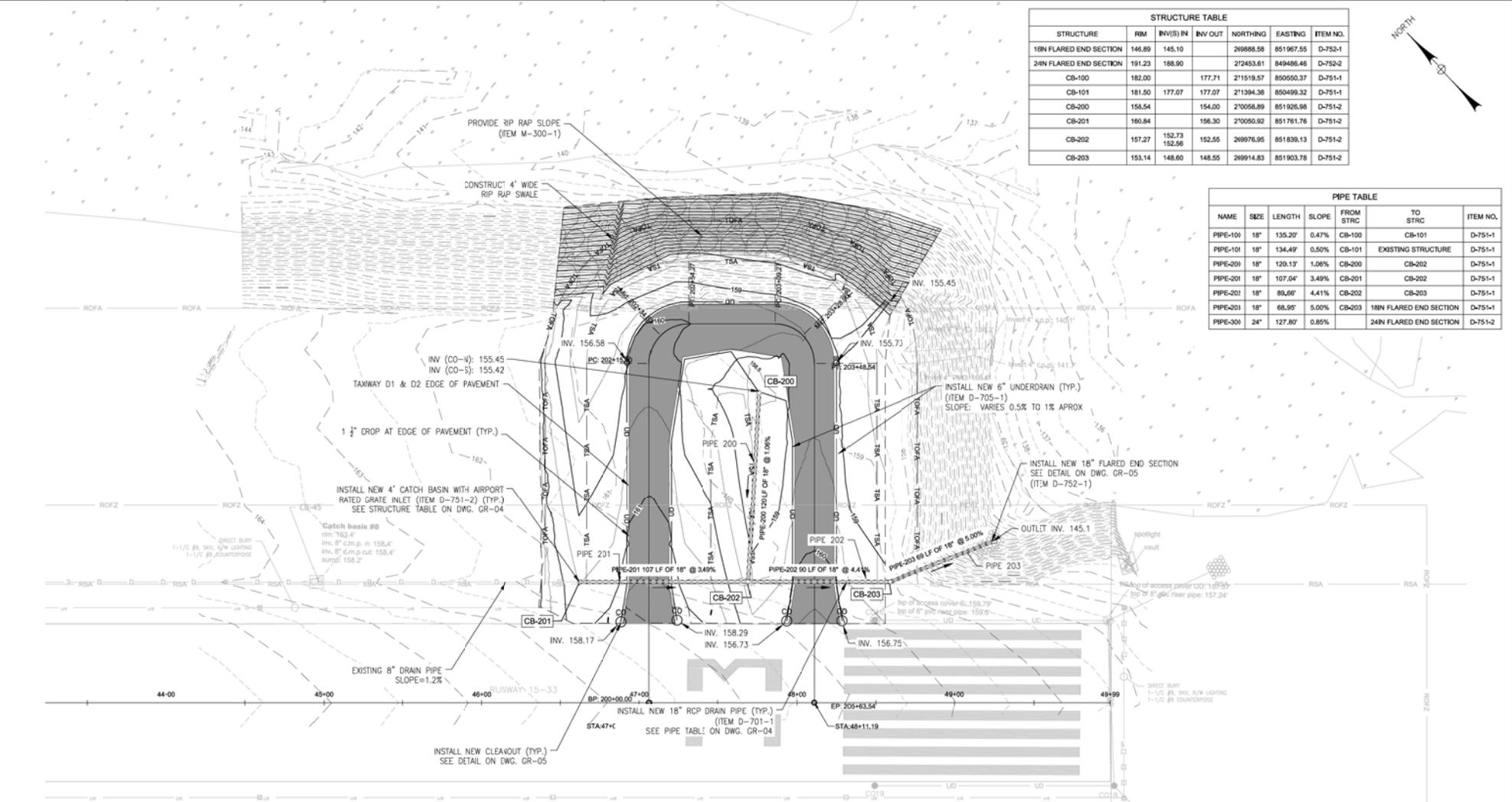
GRADING AND DRAINAGE PLAN (3 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	GR-03
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	39 OF 66

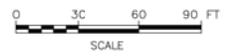
STRUCTURE TABLE						
STRUCTURE	RM	INV(S) IN	INV OUT	NORTHING	EASTING	ITEM NO.
18IN FLARED END SECTION	146.89	145.10		269888.58	851967.55	D-752-1
24IN FLARED END SECTION	191.23	188.90		272453.61	849486.46	D-752-2
CB-100	182.00		177.71	21519.57	850550.37	D-751-1
CB-101	181.50	177.07		21394.38	850499.32	D-751-1
CB-200	155.54		154.00	270058.89	851925.98	D-751-2
CB-201	160.84		156.30	270050.92	851761.76	D-751-2
CB-202	157.27	152.73	152.56	269976.95	851839.13	D-751-2
CB-203	153.14	148.60	148.55	269914.83	851903.78	D-751-2



PIPE TABLE						
NAME	SIZE	LENGTH	SLOPE	FROM STRC	TO STRC	ITEM NO.
PIPE-100	18"	135.20'	0.47%	CB-100	CB-101	D-751-1
PIPE-101	18"	134.49'	0.50%	CB-101	EXISTING STRUCTURE	D-751-1
PIPE-200	18"	120.13'	1.06%	CB-200	CB-202	D-751-1
PIPE-201	18"	107.04'	3.49%	CB-201	CB-202	D-751-1
PIPE-202	18"	89.66'	4.41%	CB-202	CB-203	D-751-1
PIPE-201	18"	68.95'	5.00%		18IN FLARED END SECTION	D-751-1
PIPE-300	24"	127.80'	0.85%		24IN FLARED END SECTION	D-751-2



- LEGEND:**
- UD — PROPOSED UNDERDRAIN PIPE
 - PROPOSED DRAIN PIPE
 - PROPOSED CATCH BASIN
 - PROPOSED CLEANOUT
 - 196 - - - EXISTING CONTOUR MAJOR
 - - - EXISTING CONTOUR MINOR
 - 196 — PROPOSED CONTOUR MAJOR
 - - - PROPOSED CONTOUR MINOR
- NOTES:**
- SEE DWG. GR-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

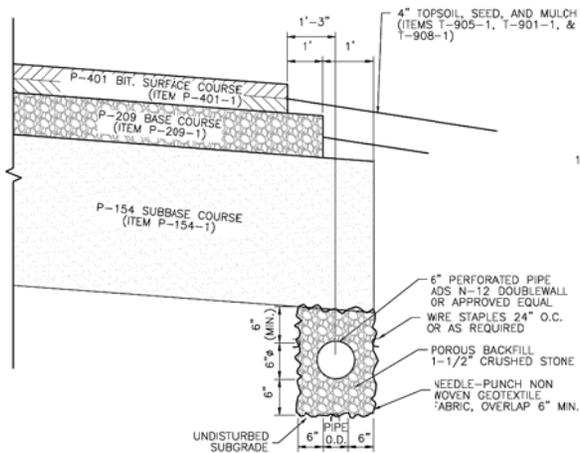


McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

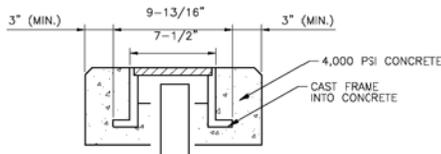
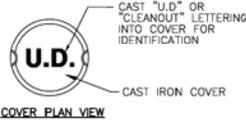
GRADING AND DRAINAGE PLAN (4 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	GR-04 40 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

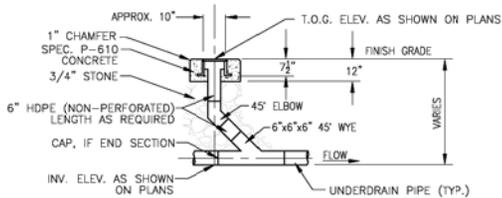


- NOTES:
1. ALL ITEMS SHOWN SHALL BE CONSIDERED INCIDENTAL UNLESS OTHERWISE NOTED IN THE DETAIL.
 2. SUBGRADE SHALL BE COMPACTED TO 95% OF ASTM D698.

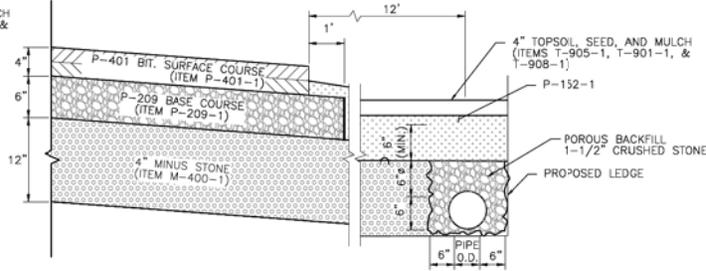
TYPICAL UNDERDRAIN INSTALLATION DETAIL WITHOUT LEDGE
N.T.S.
(ITEM D-705-1)



UNDERDRAIN CLEANOUT COVER DETAIL
N.T.S.
(INCID. TO ITEM D-705-2)

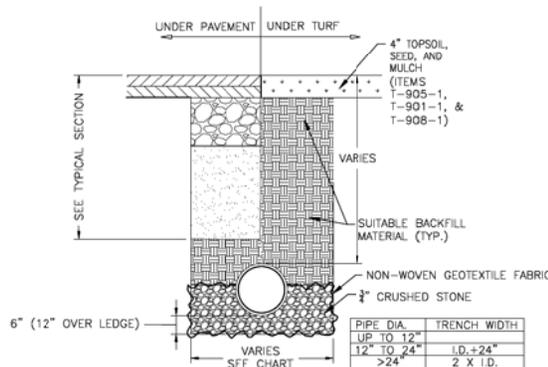


UNDERDRAIN CLEANOUT DETAIL
N.T.S.
(ITEM D-705-2)



- NOTES:
1. ALL ITEMS SHOWN SHALL BE CONSIDERED INCIDENTAL UNLESS OTHERWISE NOTED IN THE DETAIL.
 2. SUBGRADE SHALL BE COMPACTED TO 95% OF ASTM D698.

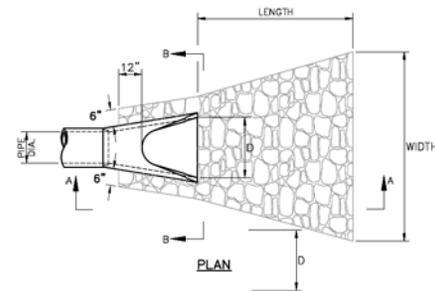
TYPICAL UNDERDRAIN INSTALLATION DETAIL WITH LEDGE
N.T.S.
(ITEM D-705-1)



- NOTES:
1. CONTRACTOR SHALL SHOR TRENCH SIDES AS REQUIRED.
 2. CONTRACTOR SHALL DEWATER TRENCH EXCAVATION AS REQUIRED.
 3. CONTRACTOR SHALL COMPACT THE EXCAVATED SUBGRADE TO 95% OF ASTM D-698 UNDER TURF AND 100% OF ASTM D-1557 UNDER PAVEMENT AND WITHIN 10' OF ALL EDGES OF PAVEMENT EVEN IN TURF.

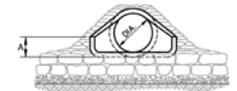
DRAIN PIPE TRENCH DETAIL
NOT TO SCALE
(ITEMS D-701-1, -2, -3)

PIPE DIA.	TRENCH WIDTH
UP TO 12"	12" ± 24"
12" TO 24"	12" ± 24"
> 24"	2 X I.D.

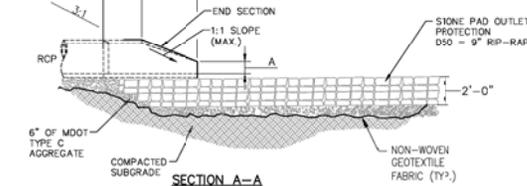


STONE PAD OUTLET PROTECTION		
PIPE DIA.	LENGTH	WIDTH
18"/24"	4'-0"	8'-0"

CONCRETE END SECTION DIMENSIONS					
PIPE DIA.	A	B	C	D	ITEM NO.
18"	9"	27"	46"	36"	D-752-1
24"	9 1/2"	43 1/2"	30"	48"	D-752-2



SECTION B-B



- NOTES:
1. THE FLARED END SECTION PIPE JOINT SHALL BE SIMILAR TO THE MAIN RUN OF PIPE JOINTS.
 2. THE PAYMENT LIMIT FOR THE FLARED END SECTION SHALL BE AT THE CONNECTION WITH THE ADJACENT RCP PIPING.
 3. FLARED END SECTIONS SHALL CONFORM AS SHOWN IN THE TABLE OR AS APPROVED BY THE ENGINEER.
 4. ALL ITEMS SHOWN SHALL BE CONSIDERED INCIDENTAL UNLESS OTHERWISE NOTED IN THE DETAIL.
 5. SUBGRADE SHALL BE COMPACTED TO 95% OF ASTM D698.

FLARED END SECTION DETAIL
N.T.S.
(ITEMS D-752-1,-2)

BID DOCUMENTS



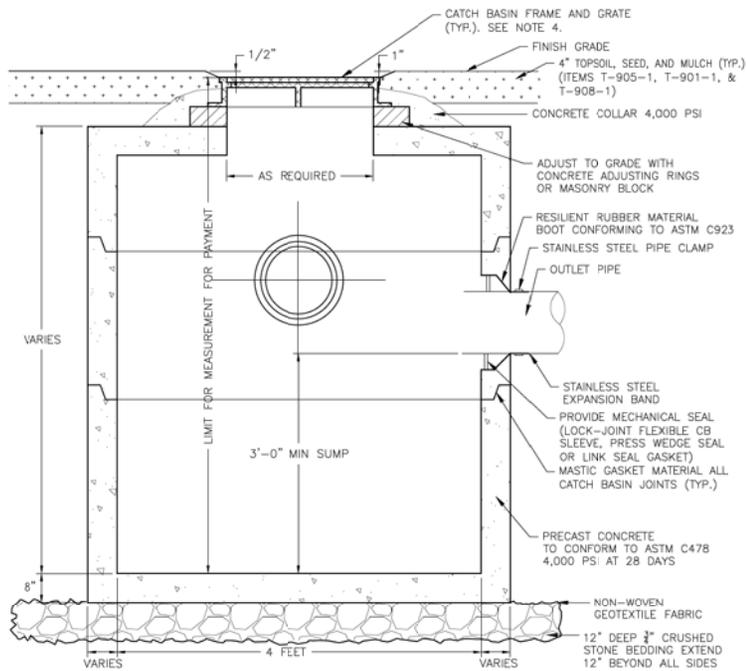
McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

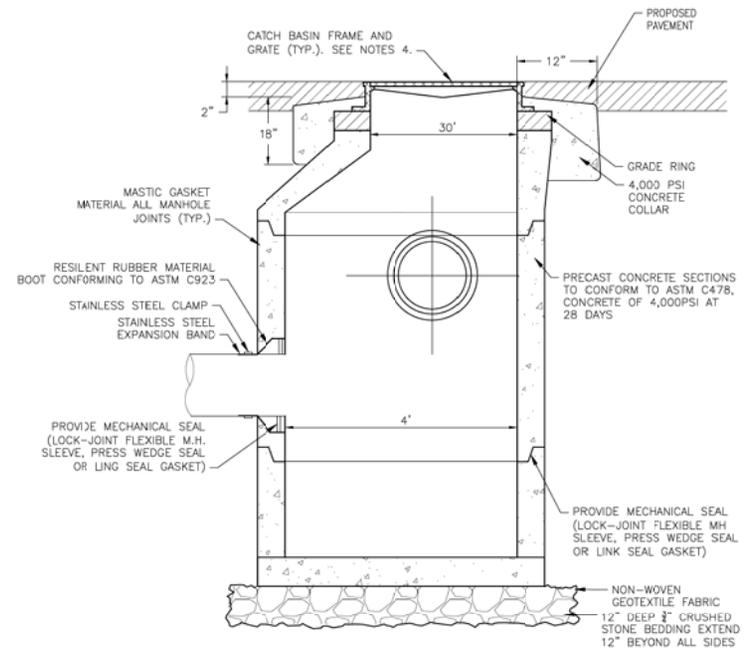
BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

DRAINAGE DETAILS (1 OF 2)

SCALE: NTS	DESIGN: MTO	GR-05 41 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



SLAB TOP CATCH BASIN DETAIL
NOT TO SCALE
(ITEMS D-751-1, -2)



CONICAL CATCH BASIN DETAIL
NOT TO SCALE
(ITEM D-751-1, -2)

CATCH BASIN NOTES:

1. ALL PREFABRICATED REINFORCED CONCRETE STRUCTURES SHALL BE DESIGNED AND CONSTRUCTED TO SUPPORT A MINIMUM OF A 30,000 LB. WHEEL LOADING. THE CONTRACTOR IS REQUIRED TO SUBMIT SHOP DRAWINGS AND MANUFACTURER CERTIFICATIONS TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION. SHOP DRAWINGS FOR LOADING SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MAINE.
2. THE WALL THICKNESS SHALL INCREASE IN SIZE TO CONFORM WITH THE REQUIREMENTS OF THE MANUFACTURER OF THE RESILIENT RUBBER BOOT AND BE SIZED ACCORDING TO THE DIAMETER OF THE STRUCTURE AND THE SIZE AND TYPE OF PIPE. THE WALL THICKNESS SHALL NOT BE LESS THAN 6" FOR STEEL COVER REQUIREMENTS AND SHALL BE DESIGNED TO MEET ALL REQUIREMENTS INCLUDING THE REQUIRED LOADING IN NOTE 1.
3. CONTRACTOR SHALL COMPACT THE EXCAVATED SUBGRADE TO 95% OF ASTM D-698 UNDER TURF AND 100% OF ASTM D-698 WITHIN 10' OF ALL EDGES OF PAVEMENT EVEN IN TURF.
4. THE FRAME AND GRATE FOR ALL AIRFIELD CATCH BASINS LOCATED OUTSIDE THE SAFETY AREA SHALL BE HEAVY DUTY (CAPABLE OF HANDLING PROOF LOADS GREATER THAN 16,000LBS), AND A MINIMUM OPENING AREA OF 3.2 SF, AND A WEIR PERMETER LINEAL FEET OF 10.6) (R-3403-F OR APPROVED EQUAL).
5. THE FRAME AND GRATE FOR ALL AIRFIELD CATCH BASINS LOCATED INSIDE THE SAFETY AREA SHALL BE AIRCRAFT LOADING R-3475 (OR APPROVED EQUAL), AND A MINIMUM OPENING AREA OF 2.7 SF, AND A WEIR PERMETER LINEAL FEET OF 9.8.
6. SEDIMENT TRAP SHALL BE INSTALL PER SPECIFICATION 751-3.11 IN ALL NEW CATCH BASINS.
7. ALL PREFAB-CONCRETE STRUCTURES SHALL HAVE COURSE, FINE, AND CONCRETE MATERIALS TESTED FOR ALKALI-SILICA REACTION (ASR) USING AASHTO T 303 MODIFIED.

BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATIONS.

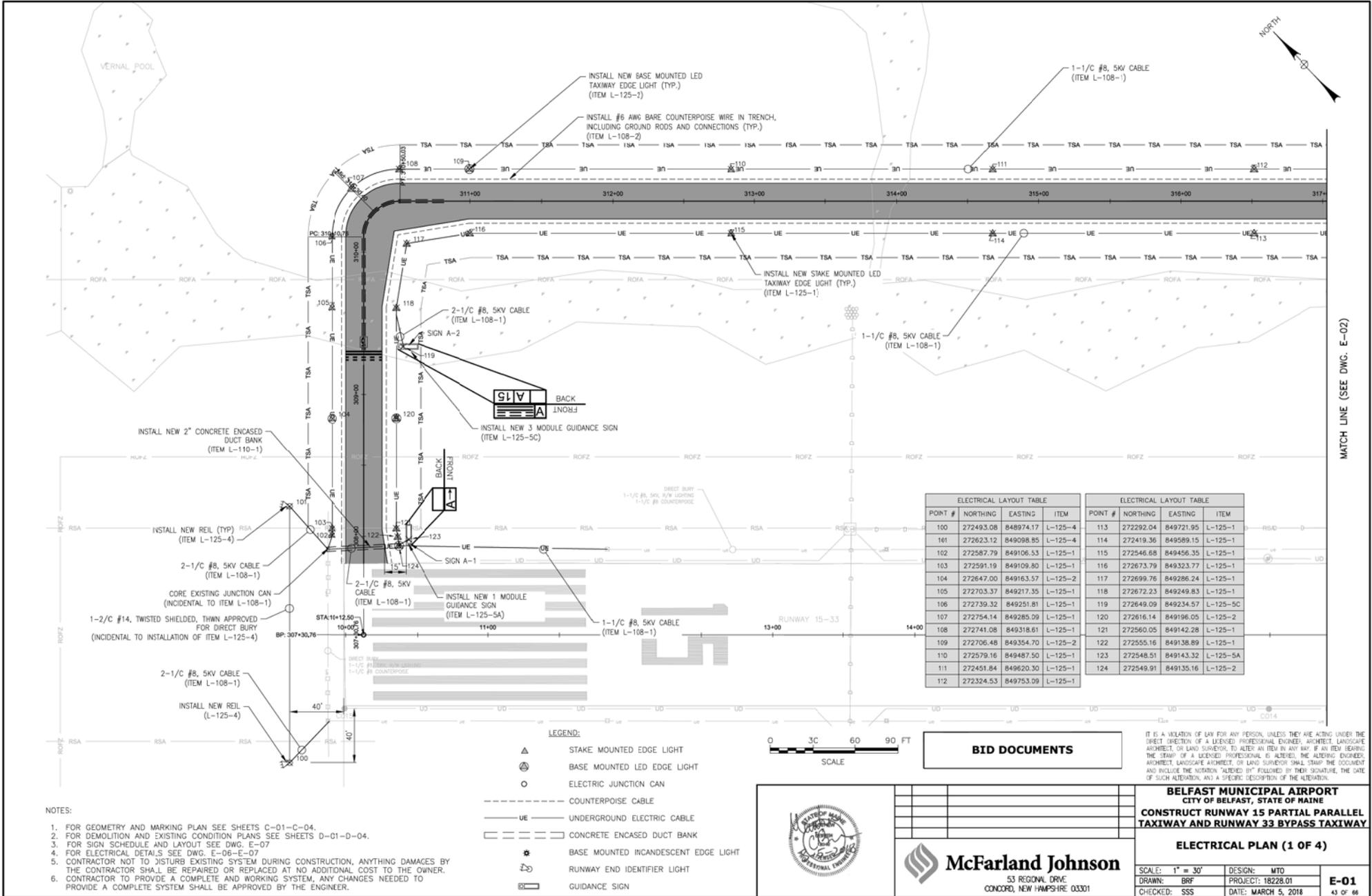
BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

DRAINAGE DETAILS (2 OF 2)



McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

SCALE: NTS	DESIGN: MTO	GR-06 42 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

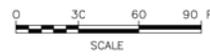


MATCH LINE (SEE DWG. E-02)

ELECTRICAL LAYOUT TABLE				ELECTRICAL LAYOUT TABLE			
POINT #	NORTHING	EASTING	ITEM	POINT #	NORTHING	EASTING	ITEM
100	272493.08	848974.17	L-125-4	113	272922.04	849721.95	L-125-1
101	272623.12	849098.85	L-125-4	114	272419.36	849589.15	L-125-1
102	272587.79	849106.53	L-125-1	115	272546.68	849456.35	L-125-1
103	272591.19	849109.80	L-125-1	116	272673.79	849323.77	L-125-1
104	272647.00	849163.57	L-125-2	117	272699.76	849286.24	L-125-1
105	272703.37	849217.35	L-125-1	118	272672.23	849249.83	L-125-1
106	272739.32	849251.81	L-125-1	119	272649.09	849234.57	L-125-5C
107	272754.14	849285.09	L-125-1	120	272616.14	849196.05	L-125-2
108	272741.08	849318.61	L-125-1	121	272560.05	849142.28	L-125-1
109	272706.48	849354.70	L-125-2	122	272555.16	849138.89	L-125-1
110	272579.16	849487.50	L-125-1	123	272548.51	849143.32	L-125-5A
111	272451.84	849620.30	L-125-1	124	272549.91	849135.16	L-125-2
112	272324.53	849753.09	L-125-1				

- NOTES:
1. FOR GEOMETRY AND MARKING PLAN SEE SHEETS C-01-C-04.
 2. FOR DEMOLITION AND EXISTING CONDITION PLANS SEE SHEETS D-01-D-04.
 3. FOR SIGN SCHEDULE AND LAYOUT SEE DWG. E-07.
 4. FOR ELECTRICAL DETAILS SEE DWG. E-06-E-07.
 5. CONTRACTOR NOT TO DISTURB EXISTING SYSTEM DURING CONSTRUCTION, ANYTHING DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
 6. CONTRACTOR TO PROVIDE A COMPLETE AND WORKING SYSTEM. ANY CHANGES NEEDED TO PROVIDE A COMPLETE SYSTEM SHALL BE APPROVED BY THE ENGINEER.

- LEGEND:
- ▲ STAKE MOUNTED EDGE LIGHT
 - BASE MOUNTED LED EDGE LIGHT
 - ELECTRIC JUNCTION CAN
 - COUNTERPOISE CABLE
 - UE UNDERGROUND ELECTRIC CABLE
 - CONCRETE ENCASED DUCT BANK
 - ★ BASE MOUNTED INCANDESCENT EDGE LIGHT
 - ⊕ RUNWAY END IDENTIFIER LIGHT
 - GUIDANCE SIGN



BID DOCUMENTS



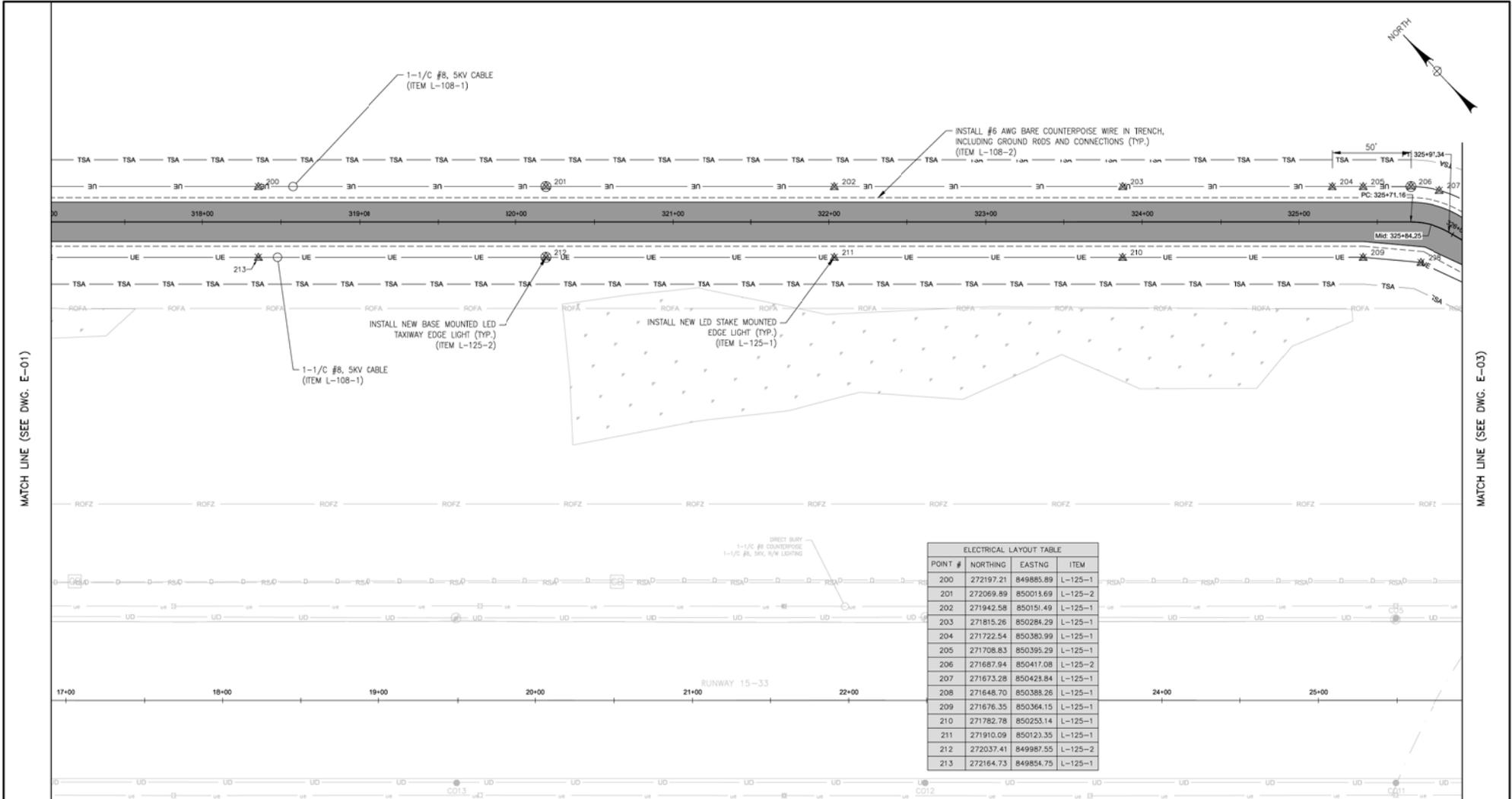
McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

ELECTRICAL PLAN (1 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	E-01 43 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



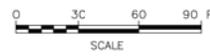
MATCH LINE (SEE DWG. E-01)

MATCH LINE (SEE DWG. E-03)

ELECTRICAL LAYOUT TABLE			
POINT #	NORTHING	EASTING	ITEM
200	272197.21	849885.89	L-125-1
201	272069.89	850013.69	L-125-2
202	271942.58	850151.49	L-125-1
203	271815.26	850284.29	L-125-1
204	271722.54	850383.99	L-125-1
205	271708.83	850395.29	L-125-1
206	271687.94	850417.08	L-125-2
207	271673.28	850428.84	L-125-1
208	271648.70	850388.26	L-125-1
209	271676.35	850364.15	L-125-1
210	271782.78	850253.14	L-125-1
211	271910.09	850123.35	L-125-1
212	272037.41	849987.55	L-125-2
213	272164.73	849854.75	L-125-1

- LEGEND:**
- ▲ STAKE MOUNTED EDGE LIGHT
 - ⊙ BASE MOUNTED LED EDGE LIGHT
 - ELECTRIC JUNCTION CAN
 - COUNTERPOISE CABLE
 - UE UNDERGROUND ELECTRIC CABLE
 - CONCRETE ENCASED DUCT BANK
 - ★ BASE MOUNTED INCANDESCENT EDGE LIGHT
 - ⊕ RUNWAY END IDENTIFIER LIGHT
 - GUIDANCE SIGN

NOTES:
1. SEE DWG. E-01



BID DOCUMENTS

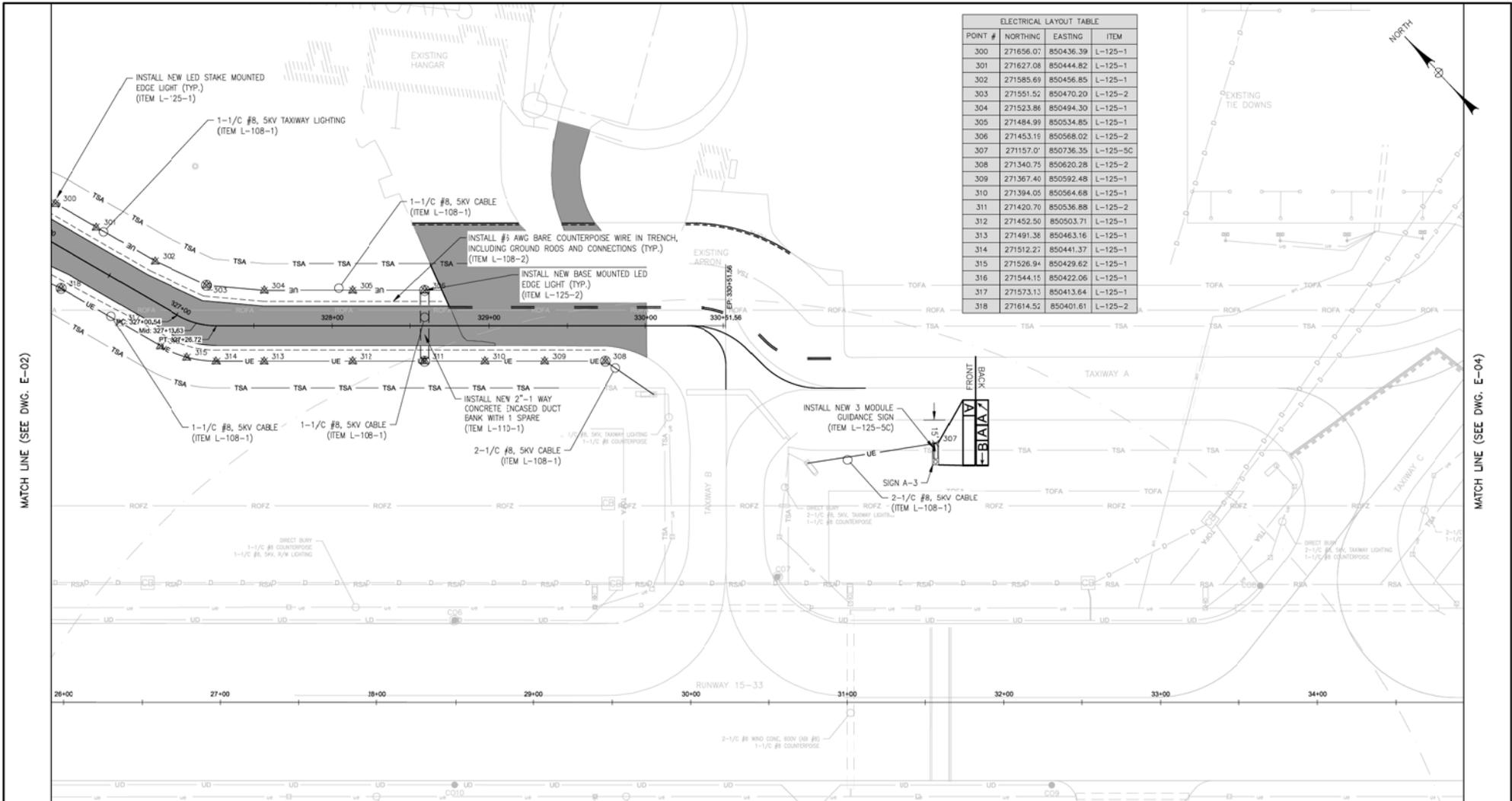
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY
ELECTRICAL PLAN (2 OF 4)

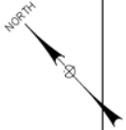
SCALE: 1" = 30'	DESIGN: MTO	E-02 44 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



ELECTRICAL LAYOUT TABLE			
POINT #	NORTHING	EASTING	ITEM
300	271656.07	850436.39	L-125-1
301	271627.08	850444.82	L-125-1
302	271585.69	850456.85	L-125-1
303	271551.52	850470.20	L-125-2
304	271523.86	850494.30	L-125-1
305	271484.99	850534.85	L-125-1
306	271453.19	850568.02	L-125-2
307	271157.07	850736.35	L-125-5C
308	271340.75	850620.28	L-125-2
309	271367.40	850592.48	L-125-1
310	271394.05	850564.68	L-125-1
311	271420.70	850536.88	L-125-2
312	271452.50	850503.71	L-125-1
313	271491.38	850463.16	L-125-1
314	271512.27	850441.37	L-125-1
315	271526.94	850429.62	L-125-1
316	271544.15	850422.06	L-125-1
317	271573.13	850413.64	L-125-1
318	271614.52	850401.61	L-125-2

MATCH LINE (SEE DWG. E-02)

MATCH LINE (SEE DWG. E-04)



LEGEND:

- ▲ STAKE MOUNTED EDGE LIGHT
- ⊙ BASE MOUNTED LED EDGE LIGHT
- ELECTRIC JUNCTION CAN
- COUNTERPOISE CABLE
- UE UNDERGROUND ELECTRIC CABLE
- CONCRETE ENCASED DUCT BANK
- ★ BASE MOUNTED INCANDESCENT EDGE LIGHT
- ⊕ RUNWAY END IDENTIFIER LIGHT
- GUIDANCE SIGN

NOTES:

1. SEE DWG. E-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

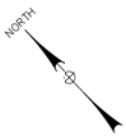
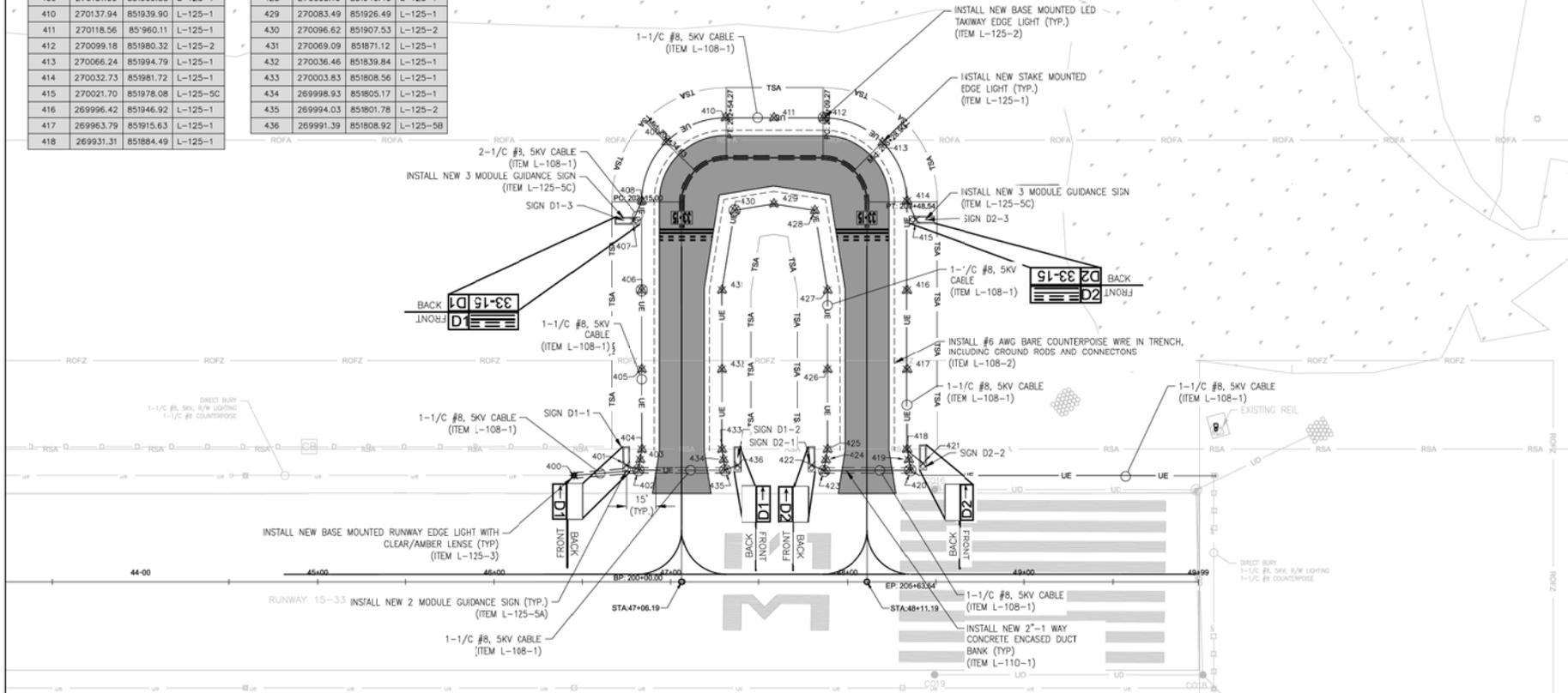
ELECTRICAL PLAN (3 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	E-03 45 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

POINT #	NORTHING	EASTING	ITEM
400	270050.86	851738.20	L-125-3
401	270034.80	851763.63	L-125-5B
402	270027.79	851766.58	L-125-2
403	270031.38	851771.33	L-125-1
404	270034.97	851776.07	L-125-1
405	270067.60	851807.36	L-125-1
406	270100.23	851838.64	L-125-2
407	270132.00	851862.17	L-125-5C
408	270136.53	851873.45	L-125-1
409	270151.00	851906.38	L-125-1
410	270137.94	851939.90	L-125-1
411	270118.56	851960.11	L-125-1
412	270099.18	851980.32	L-125-2
413	270066.24	851994.79	L-125-1
414	270032.73	851981.72	L-125-1
415	270021.70	851978.08	L-125-5C
416	269996.42	851946.92	L-125-1
417	269963.79	851915.63	L-125-1
418	269931.31	851884.49	L-125-1

POINT #	NORTHING	EASTING	ITEM
419	269926.32	851881.02	L-125-1
420	269921.34	851877.55	L-125-2
421	269919.45	851885.40	L-125-5B
422	269962.19	851839.40	L-125-5B
423	269954.89	851842.06	L-125-2
424	269958.59	851846.96	L-125-1
425	269962.30	851851.87	L-125-1
426	269994.93	851883.15	L-125-1
427	270027.56	851914.43	L-125-1
428	270065.10	851940.40	L-125-1
429	270083.49	851926.49	L-125-1
430	270096.62	851907.53	L-125-2
431	270069.09	851871.12	L-125-1
432	270036.46	851839.84	L-125-1
433	270003.83	851808.56	L-125-1
434	269998.93	851805.17	L-125-1
435	269994.03	851801.78	L-125-2
436	269991.39	851808.92	L-125-5B

MATCH LINE (SEE DWG. E-03)



LEGEND:

- ▲ STAKE MOUNTED EDGE LIGHT
- ⊙ BASE MOUNTED LED EDGE LIGHT
- ELECTRIC JUNCTION CAN
- COUNTERPOISE CABLE
- UE UNDERGROUND ELECTRIC CABLE
- CONCRETE ENCASED DUCT BANK
- ★ BASE MOUNTED INCANDESCENT EDGE LIGHT
- ⊕ RUNWAY END IDENTIFIER LIGHT
- GUIDANCE SIGN

NOTES:

1. SEE DWG. E-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



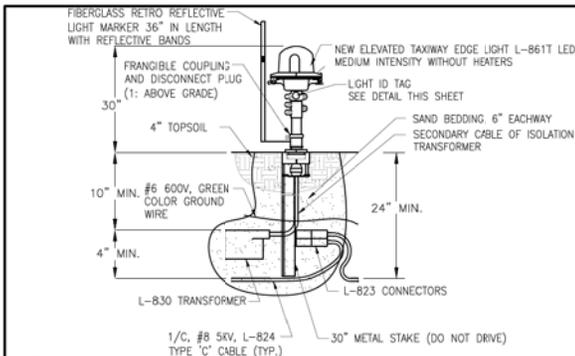
McFarland Johnson

53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

ELECTRICAL PLAN (4 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	E-04 46 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

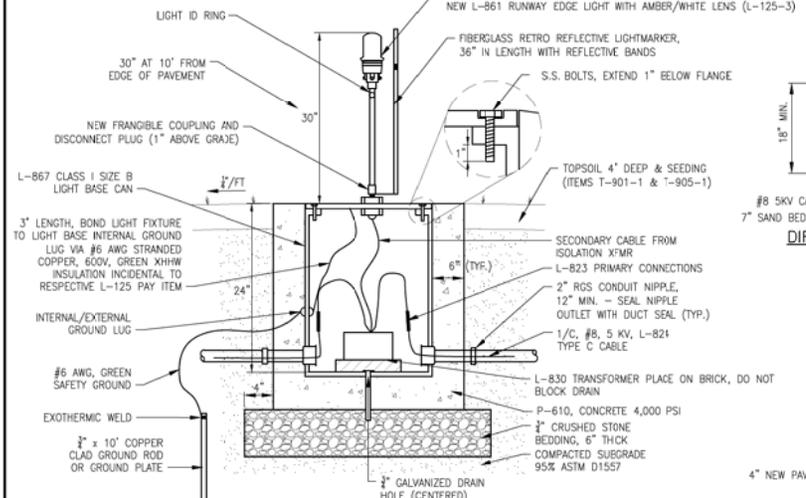


- NOTES:**
- TAXIWAY EDGE LIGHTS ARE TO BE SET 10' FROM THE EDGE OF PAVEMENT TO THE CENTERLINE OF THE LIGHT FIXTURE.
 - THE CONTRACTOR SHALL ADJUST THE HORIZONTAL DISTANCE FROM THE EDGE OF THE PAVEMENT SUCH THAT THE LIGHT FIXTURES FORM A STRAIGHT-LINE HORIZONTALLY ALONG THE ENTIRE TAXIWAY EDGE AND VERTICALLY FOLLOW THE TAXIWAY GRADE.
 - SUFFICIENT CABLE SLACK (MIN. OF 3 FEET) SHALL BE LEFT AT EACH LIGHT TO ALLOW TRANSFORMER(S) TO BE TAKEN OUT OF THE GROUND.
 - ID NUMBER SHALL BE ASSIGNED USING A LOGICAL ORDER DEPENDENT ON EXISTING LIGHT ID NUMBERS AND APPROVED BY THE ENGINEER.

STAKE MOUNTED TAXIWAY EDGE LIGHT

N.T.S.

(ITEM L-125-1)

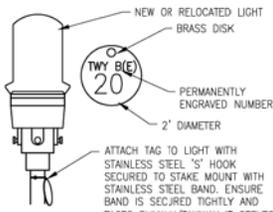


- NOTES:**
- RUNWAY OR TAXIWAY EDGE LIGHTS ARE TO BE SET 10' FROM THE EDGE OF PAVEMENT TO THE CENTERLINE OF THE LIGHT FIXTURE.
 - THE CONTRACTOR SHALL ADJUST THE HORIZONTAL DISTANCE FROM THE EDGE OF THE PAVEMENT SUCH THAT THE LIGHT FIXTURES FORM A STRAIGHT-LINE HORIZONTALLY ALONG THE ENTIRE RUNWAY EDGE AND VERTICALLY FOLLOW THE TAXIWAY GRADE.
 - SUFFICIENT CABLE SLACK (MIN. OF 3 FEET) SHALL BE LEFT IN EACH BASE TO ALLOW TRANSFORMER(S) TO BE TAKEN OUT OF THE BASE.
 - ID NUMBER SHALL BE ASSIGNED USING A LOGICAL ORDER DEPENDENT ON EXISTING LIGHT ID NUMBERS AND APPROVED BY THE ENGINEER AND AIRPORT MANAGER.
 - THE CONTRACTOR SHALL IDENTIFY WHICH LIGHT BASES REQUIRE MORE THAN TWO DUCTS OPENINGS TO ACCEPT A CONDUIT RUNNING PERPENDICULAR TO THE TAXIWAY CENTERLINE. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE ADDITIONAL DUCT OPENING.
 - FIBERGLASS RETROREFLECTIVE LIGHT MARKER SHALL BE INSTALLED ON NEW LED EDGE LIGHTS ONLY.

BASE MOUNTED TAXIWAY/RUNWAY EDGE LIGHT

N.T.S.

(ITEM L-125-2A-2B)

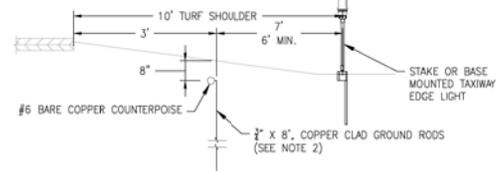


NOTE:
ID NUMBER SHALL BE ASSIGNED USING A LOGICAL ORDER DEPENDENT ON EXISTING LIGHT ID NUMBERS AND APPROVED BY THE ENGINEER

LIGHT IDENTIFICATION TAG DETAIL

N.T.S.

(INCIDENTAL TO ITEM L-125-2)

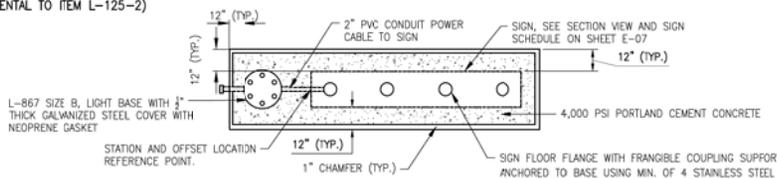


- NOTES:**
- FOR CABLE OR DUCT/CONDUIT RUNS ARE PARALLEL TO EDGE OF PAVEMENT INSTALL COUNTERPOISE HALF THE DISTANCE BETWEEN EDGE OF PAVEMENT AND THE DUCT/CONDUIT RUN
 - GROUND RODS AT 500 FOOT INTERVALS, COUNTERPOISE TERMINATIONS, AND CHANGES IN DIRECTION, COUNTERPOISE TO GROUND ROD CONNECTION TO BE EXOTHERMIC WELD.
 - GROUND RODS AND CONNECTIONS SHALL BE INCIDENTAL TO THE INSTALLATION OF THE COUNTERPOISE CABLE
 - COUNTERPOISE INSTALLATION OVER DUCT BANK WILL NOT BE MEASURED SEPARATELY FOR PAYMENT BUT RATHER SHALL BE CONSIDERED INCIDENTAL TO THE DUCT BANK INSTALLATION.

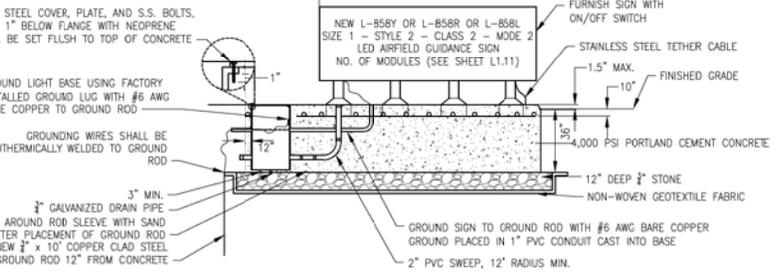
COUNTERPOISE PARALLEL TO PAVEMENT INSTALLATION DETAIL

N.T.S.

(ITEM L-108-2)



STATION AND OFFSET LOCATION REFERENCE POINT.

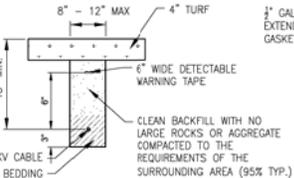


- NOTES:**
- GROUNDWIRE FROM LIGHT BASE TO GROUND ROD AND FROM SIGN TO GROUND ROD SHALL BE #6 AWG, BARE COPPER. CONNECT GROUND WIRES TO GROUND ROD WITH EXOTHERMIC WELD.
 - SIGNS AND SIGN BASES SHALL BE SET LEVEL AND TRUE, ADJUST EXISTING GRADE SURROUNDING SIGN BASE AS REQUIRED 3% MAXIMUM GRADE.
 - FURNISH SIGN WITH L-830 ISOLATION TRANSFORMER, SIZE AS REQUIRED BY SIGN MANUFACTURER.
 - THE NUMBER OF MODULES SHOWN ON THE SIGN SCHEDULE (SHEET E-07) WILL BE THE NUMBER OF MODULES PAID FOR REGARDLESS OF THE NUMBER OF MODULES REQUIRED BY THE MANUFACTURER.

L-858 AIRFIELD GUIDANCE SIGN DETAIL

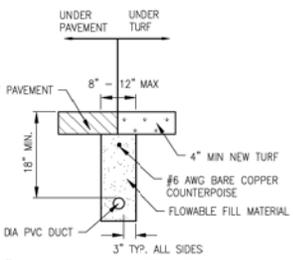
N.T.S.

(ITEM L-125-5A, 5B, 5C)



DIRECT BURY DETAIL

N.T.S.



2" 1-WAY CONCRETE ENCASED ELECTRICAL DUCT BANK

N.T.S.

(ITEM L-110-1)

BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

ELECTRICAL DETAILS (1 OF 2)

McFarland Johnson

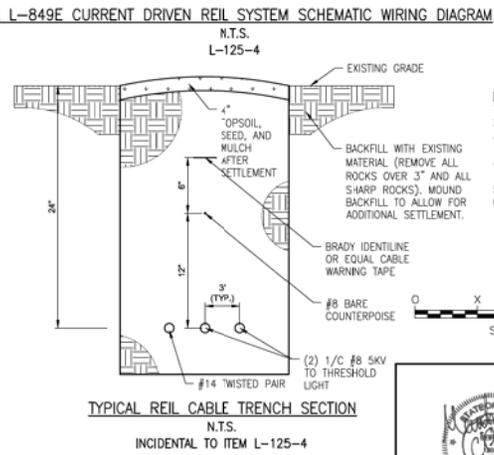
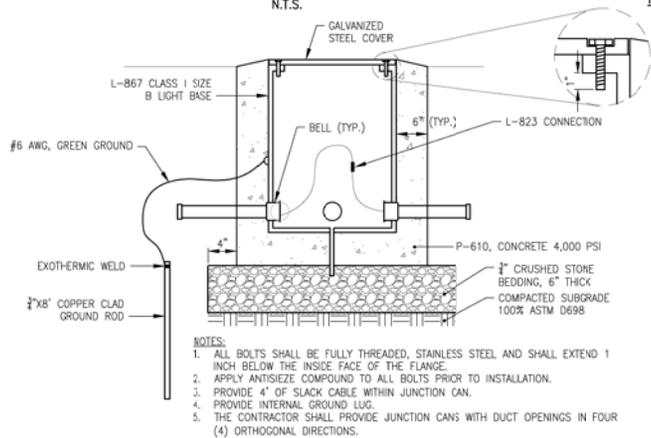
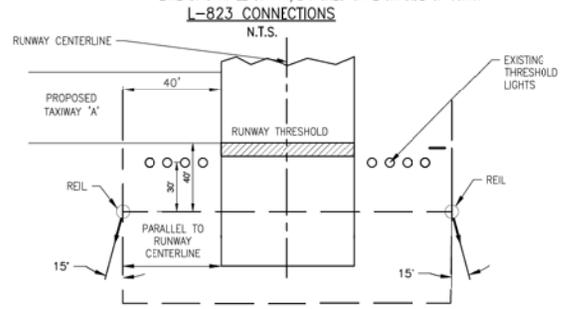
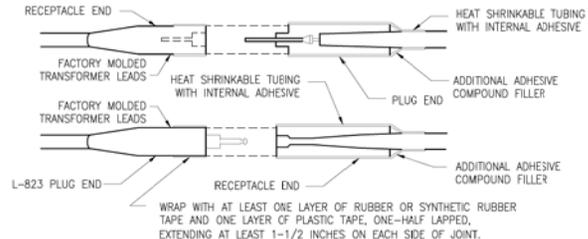
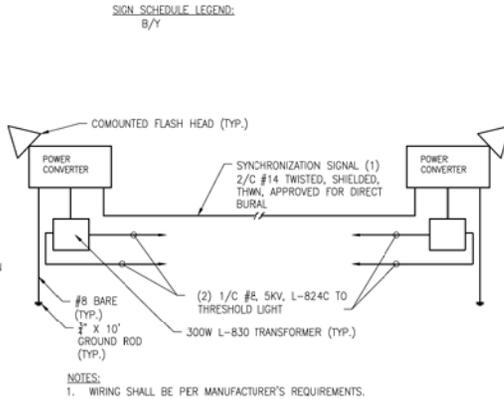
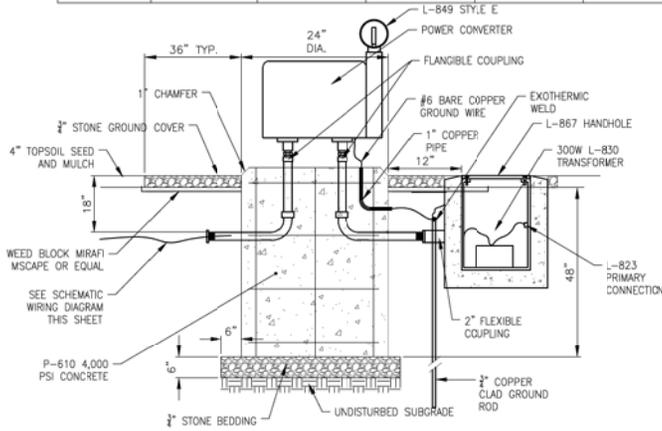
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

SCALE: NTS	DESIGN: MTO	E-06 47 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



SIGN SCHEDULE

SIGN ID	TYPE	FRONT						BACK						SIZE	STYLE	MODULES	
		MESSAGE	COLOR	MESSAGE	COLOR	MESSAGE	COLOR	MESSAGE	COLOR	MESSAGE	COLOR	MESSAGE	COLOR				
A-1	DIR	A →	B/Y	-	-	-	-	-	-	-	-	-	-	-	1	2	1
A-2	MAND/LOC	≡≡≡	B/Y	A	Y/B	-	-	LOC/MAND	A	Y/B	15	W/R	-	-	1	2	3
A-3	LOC	A	Y/B	-	-	-	-	DIR/LOC/DIR	← B	B/Y	A	Y/B	A ↗	B/Y	1	2	3
D1-1	DIR	← D1	B/Y	-	-	-	-	-	-	-	-	-	-	-	1	2	2
D1-2	DIR	D1 →	B/Y	-	-	-	-	-	-	-	-	-	-	1	2	2	
D1-3	LOC/MAND	D1	Y/B	≡≡≡	B/Y	-	-	MAND/LOC	33-15	W/R	D1	Y/B	-	-	1	2	3
D2-1	DIR	← D2	B/Y	-	-	-	-	-	-	-	-	-	-	1	2	2	
D2-2	DIR	D2 →	B/Y	-	-	-	-	-	-	-	-	-	-	1	2	2	
D2-3	MAND/LOC	≡≡≡	B/Y	D2	Y/B	-	-	LOC/MAND	D2	Y/B	33-15	W/R	-	-	1	2	3



- NOTES:**
1. THE CONTRACTOR SHALL LAYOUT THE LOCATIONS OF THE PROPOSED REILS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
 2. THE REILS SHALL BE LOCATED 40' FROM THE TAXIWAY PAVEMENT AND RUNWAY THRESHOLD.
 3. THE REILS SHALL BE LOCATED 40' FROM THE EDGE OF THE RUNWAY PAVEMENT AND EQUALLY FROM THE RUNWAY CENTERLINE. IF ADJUSTMENTS ARE NECESSARY, THE DIFFERENCE IN THE DISTANCE FROM THE RUNWAY CENTERLINE SHALL NOT EXCEED 10'.
 4. THE BEAM CENTERLINE (AIMING ANGLE) OF EACH LIGHT UNIT IS AIMED 15' OUTWARD FROM A LINE PARALLEL TO THE RUNWAY CENTERLINE AND INCLINED AT 10' ABOVE THE HORIZON.
 5. BOTH REIL UNITS ELEVATIONS SHALL BE WITHIN A 3" OF A HORIZONTAL PLANE THROUGH THE RUNWAY CENTERLINE.
 6. IN COMMISSIONING THE NEW REILS, IT MAY BE NECESSARY TO ADJUST THE AIMING ANGLES. IF DIRECTED THE CONTRACTOR SHALL PROVIDE OPTICAL BAFFLE AND CHANGE THE ANGLES TO 10' HORIZONTAL AND 20' VERTICAL.

BID DOCUMENTS



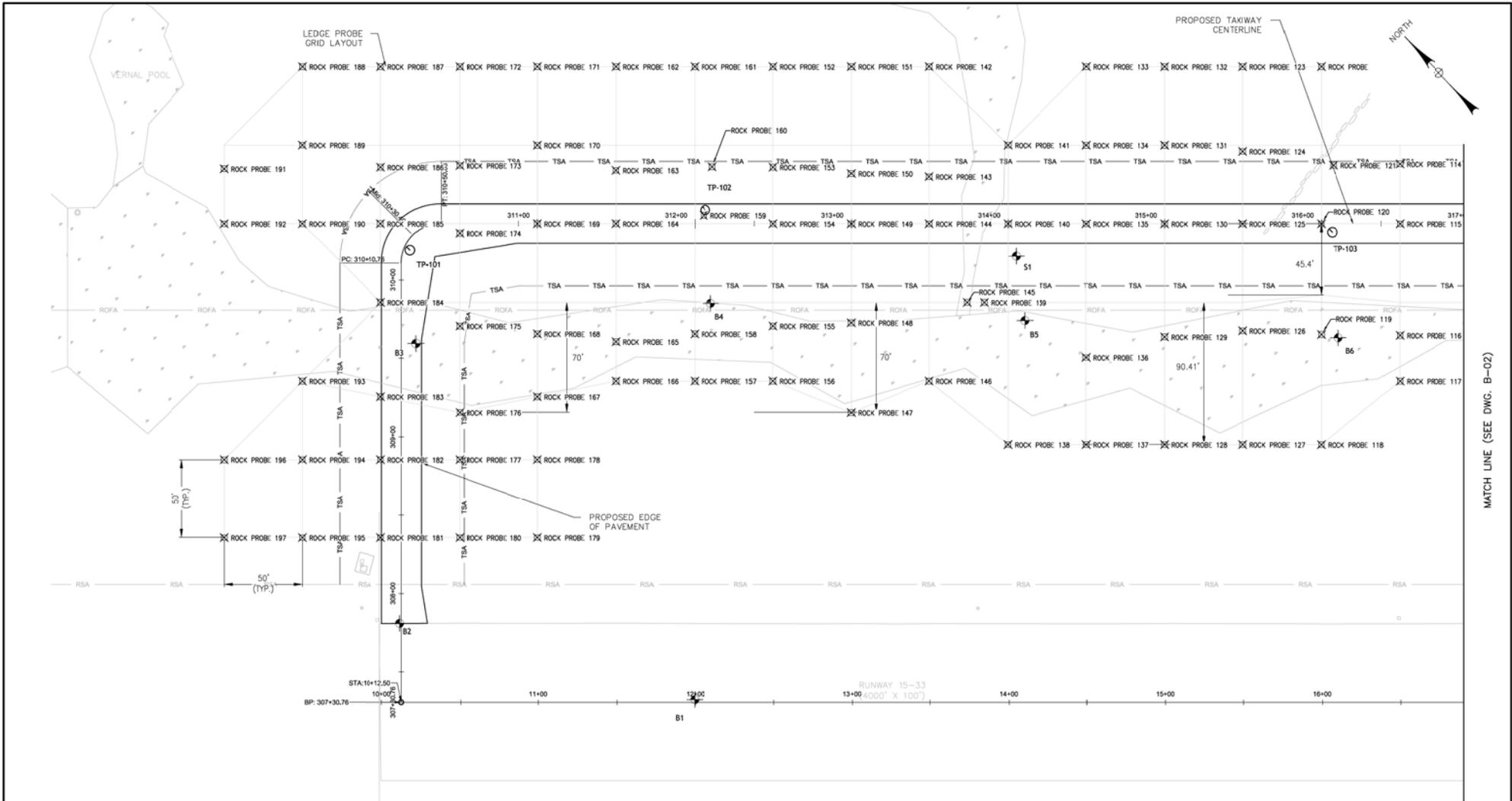
McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATIONS.

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

ELECTRICAL DETAILS (2 OF 2)

SCALE: NTS	DESIGN: MTO	E-07 48 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



MATCH LINE (SEE DWG. B-02)

LEGEND:

- BORING BY RW GILLESPIE & ASSOCIATES
- TEST PIT BY RANSOM CONSULTING
- ROCK PROBE BY RW GILLESPIE & ASSOCIATES

NOTES:

- 1.) PROPOSED GRID SPACING CENTERED ON ALIGNMENT
- 2.) LEDGE PROBE LOCATED AT GRID INTERSECTIONS
- 3.) COORDINATES SHOWN ARE BASED ON NAD 83 MAINE STATE PLANE, EAST ZONE, US FOOT
- 4.) FOR BORING LOC SEE DWG. B-05-B-07
- 5.) FOR LEDGE PROBES SEE DWG. B-08
- 6.) THESE TEST BORING LOGS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. BELFAST MUNICIPAL AIRPORT DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL ASSUMPTIONS, DEDUCTIONS, OR CONCLUSIONS WHICH THEY SHALL MAKE OR OBTAIN FROM THEIR EXAMINATION OF THE BORINGS. THE CONTRACTOR MAY AT THEIR OWN RISK AND EXPENSE UNDERTAKE THEIR OWN SUBSURFACE INVESTIGATION AT NO ADDITIONAL COST TO THE OWNER.



BID DOCUMENTS

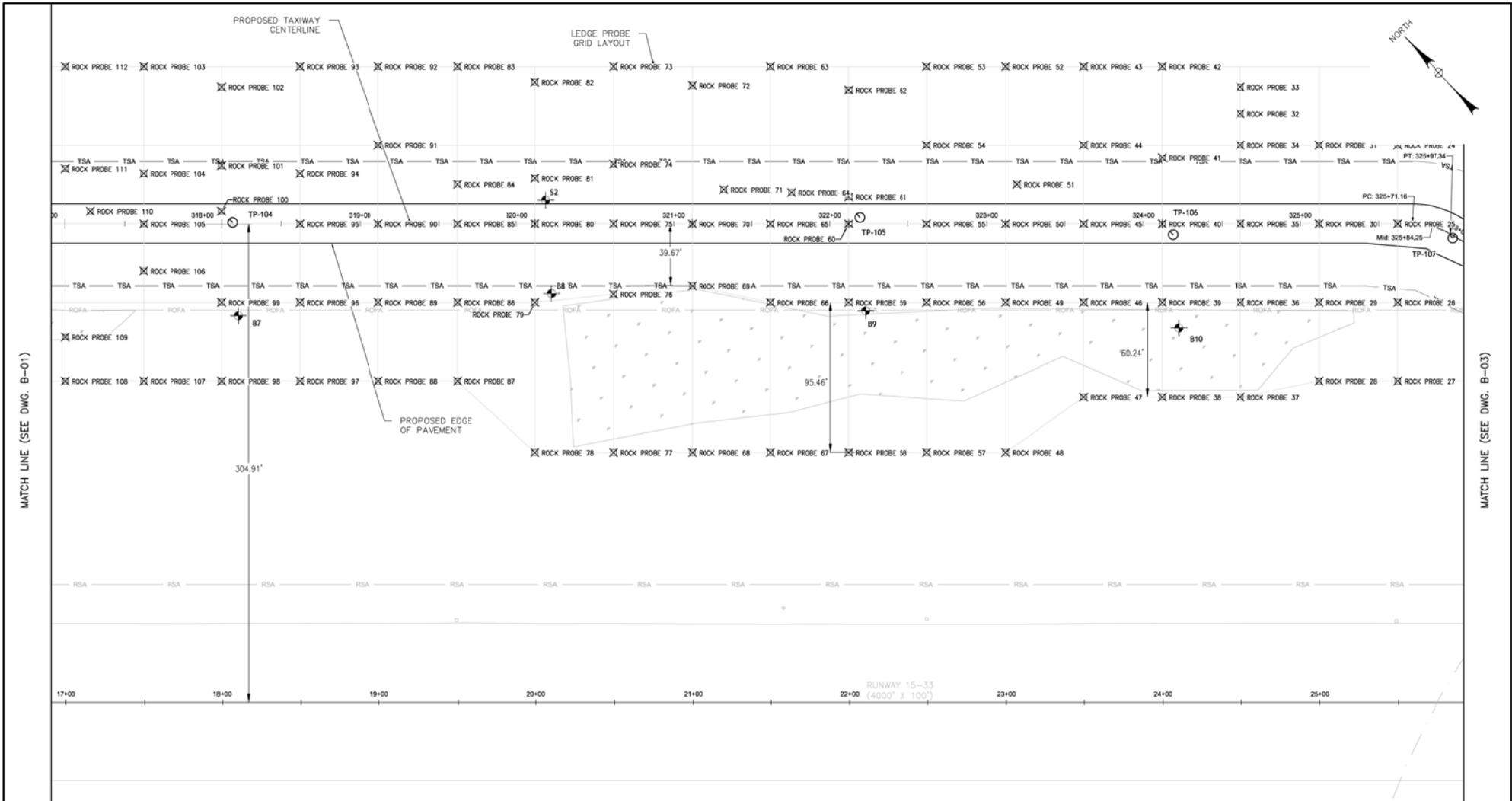
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

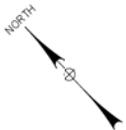
BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

BORE PLAN (1 OF 4)		B-01 49 OF 66
SCALE: 1" = 30'	DESIGN: MTO	
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



MATCH LINE (SEE DWG. B-01)

MATCH LINE (SEE DWG. B-03)

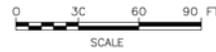


LEGEND:

- BORING BY RW GILLESPIE
- TEST PIT BY RANSOM CONSULTING
- ROCK PROBE BY RW GILLESPIE

NOTES:

1. SEE DWG. B-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATIONS.

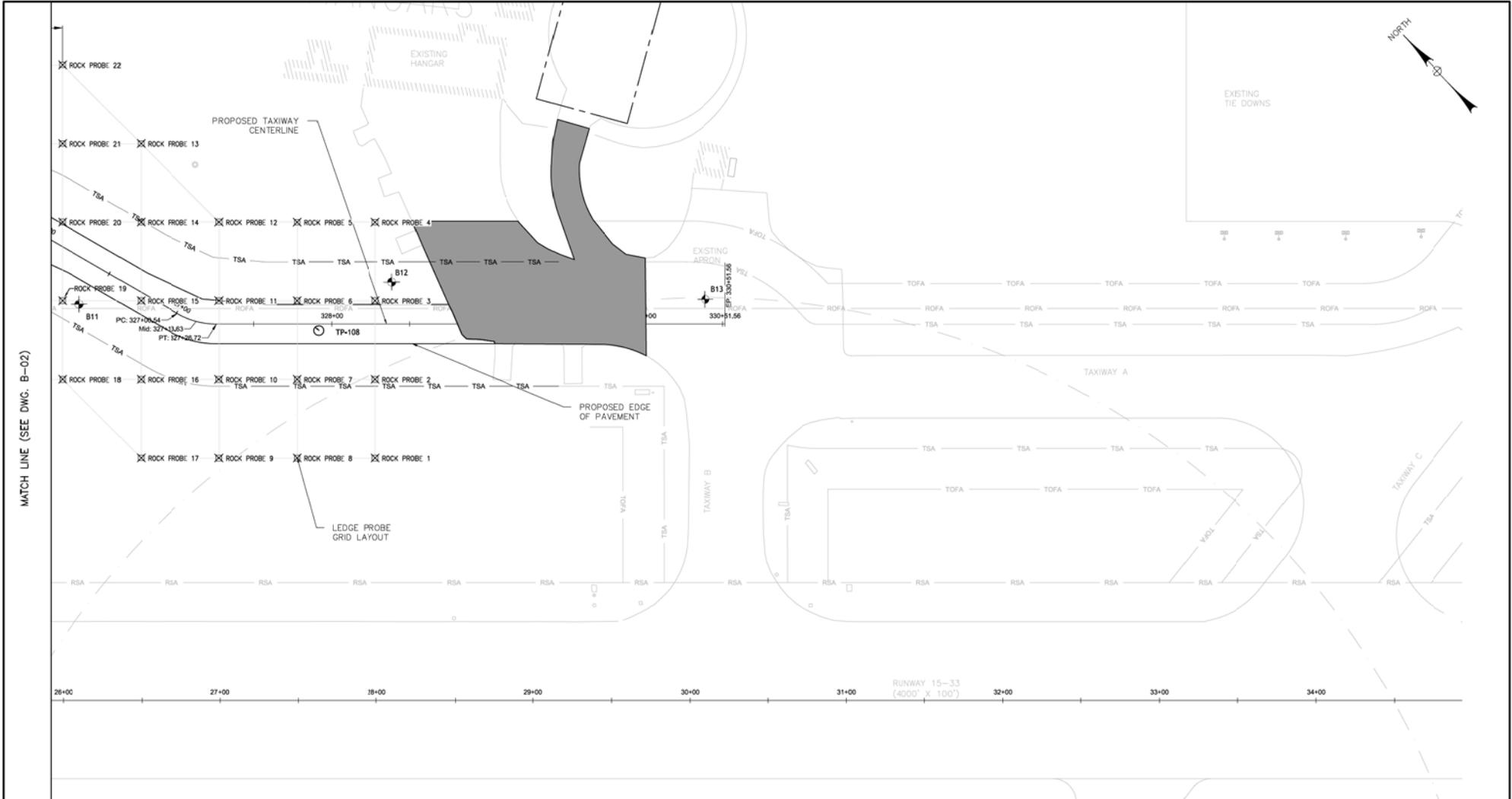


McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

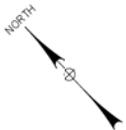
BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

BORE PLAN (2 OF 4)

SCALE: 1" = 30'	DESIGN: MTO	B-02 50 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



MATCH LINE (SEE DWG. B-02)



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

- LEGEND:**
- BORING BY RW GILLESPIE
 - TEST PIT BY RANSOM CONSULTING
 - ROCK PROBE BY RW GILLESPIE

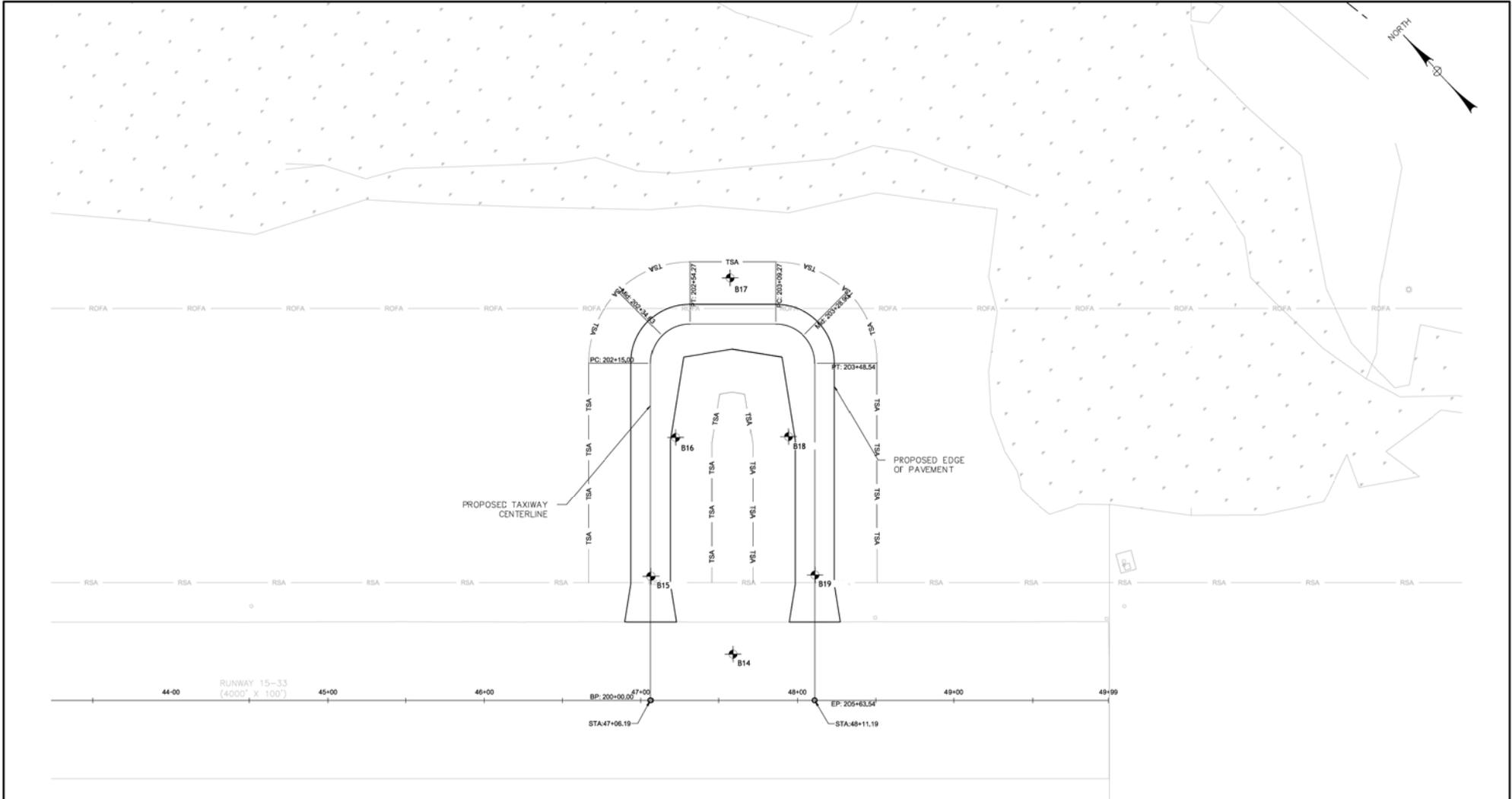
- NOTES:**
1. SEE DWG. B-01



McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

BORE PLAN (3 OF 4)		
SCALE: 1" = 30'	DESIGN: MTO	B-03 51 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

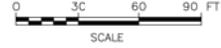


LEGEND:

- ✦ BORING BY RW GILLESPIE
- TEST PIT BY RANSOM CONSULTING
- ⊗ ROCK PROBE BY RW GILLESPIE

NOTES:

- 1. SEE DWG. B-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

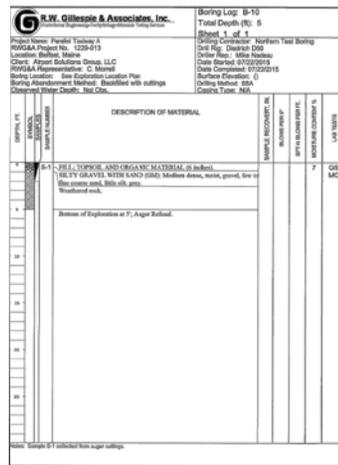
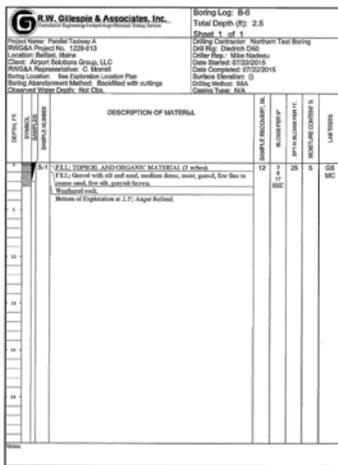
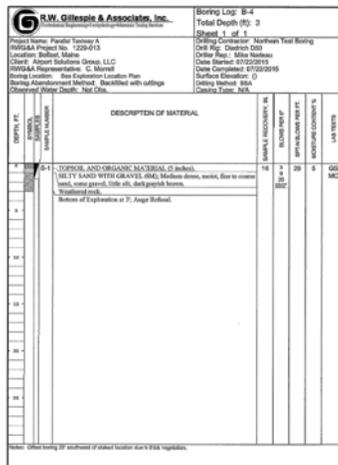
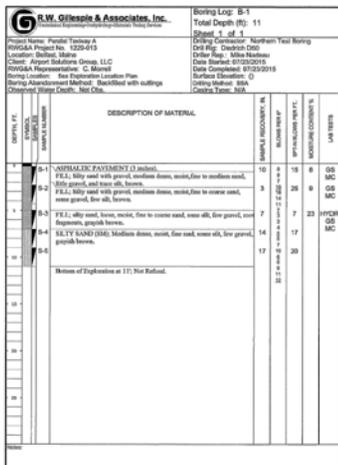


McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

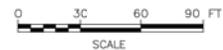
BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

BORE PLAN (4 OF 4)	
SCALE: 1" = 30'	DESIGN: MTO
DRAWN: BRF	PROJECT: 18228.01
CHECKED: SSS	DATE: MARCH 5, 2018

B-04
 52 OF 66



- NOTES:
- BORINGS TAKEN ON 7/22/2015 BY R.W. GILLESPIE & ASSOCIATES
 - TEST PITS TAKEN ON 7/18/2017 BY RANSOM CONSULTING, INC.
 - FOR BORING AND TEST PIT LOCATIONS SEE DWG. B-01-B-04
 - THESE TEST PITS AND BORING LOGS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. BELFAST MUNICIPAL AIRPORT DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL ASSUMPTIONS, DEDUCTIONS, OR CONCLUSIONS WHICH THEY SHALL MAKE OR OBTAIN FROM THEIR EXAMINATION OF THE BORINGS. THE CONTRACTOR MAY AT THEIR OWN RISK AND EXPENSE UNDERTAKE THEIR OWN SUBSURFACE INVESTIGATION AT NO ADDITIONAL COST TO THE OWNER.



BID DOCUMENTS



McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

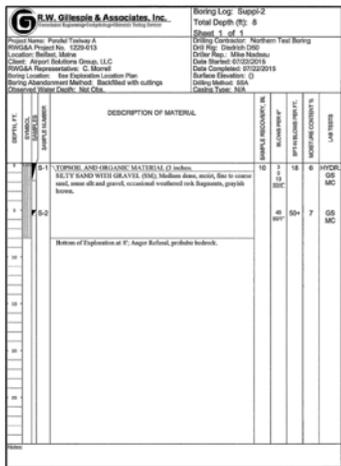
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

BORING LOG (1 OF 3)

SCALE: NTS	DESIGN: MTO	B-05 53 of 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	





NOTES:
 1. SEE DWG. B-05



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

McFarland Johnson
 53 REGIONAL DRIVE
 CONCORD, NEW HAMPSHIRE 03301

BELFAST MUNICIPAL AIRPORT
 CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

BORING LOG (3 OF 3)

SCALE: NTS	DESIGN: MTO	B-07 55 OF 66
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

	DEPTH TO ROCK (FT)	NORTHING	EASTING
1	5	271396.8	850471.3
2	6	271432.9	850505.9
5	7	271539.7	850539
6	4	271503.6	850504.4
7	3	271467.5	850469.8
8	6	271431.4	850435.2
9	14	271466	850399.1
10	2	271502.1	850433.7
11	3	271538.2	850468.4
12	5	271574.3	850503
13	8	271645	850501.5
14	4	271608.9	850466.9
15	2	271572.8	850432.3
16	3	271536.7	850397.7
17	4	271500.6	850363.1
18	3	271571.3	850361.6
19	5	271607.4	850396.2
20	14	271643.5	850430.8
21	8	271679.6	850465.4
22	Not Drilled	271715.7	850500
23	6	271721.4	850436.2
24	6	271714.2	850429.3
25	2	271678.1	850394.7
26	0.5	271642	850360.1
27	3	271605.9	850325.5
28	2	271640.5	850289.4
29	0.5	271676.6	850324
30	2	271712.7	850358.6
31	Not Drilled	271748.8	850393.2
32	11	271797.8	850370.9
33	8	271810.1	850382.7
34	13	271783.4	850357.1
35	2	271747.3	850322.5
36	0.5	271711.2	850287.9
37	0.5	271667.7	850246.2
38	0.5	271702.3	850210.1
39	0	271745.8	850251.8
40	8	271781.9	850286.4

	DEPTH TO ROCK (FT)	NORTHING	EASTING
41	8	271812.2	850315.5
42	Not Drilled	271854.1	850355.6
43	Not Drilled	271888.7	850319.5
44	7	271852.6	850284.9
45	7	271816.5	850250.3
46	0.5	271780.4	850215.7
47	2	271736.9	850174
48	5	271746.1	850113.6
49	0.5	271815	850179.6
50	7.5	271851.1	850214.2
51	6	271864.2	850236.7
52	Not Drilled	271923.3	850283.4
53	Not Drilled	271957.9	850247.3
54	9	271921.8	850212.7
55	9	271885.7	850178.1
56	0.5	271849.6	850143.5
57	2	271780.7	850077.5
58	1	271815.3	850041.4
59	0.5	271884.2	850107.4
60	7	271920.3	850142
61	8	271932.6	850153.8
62	7	271981.7	850200.9
63	Not Drilled	272027.1	850175.1
64	4	271959.9	850129.4
65	5	271954.9	850105.9
66	0.5	271918.8	850071.3
67	2	271849.9	850005.3
68	3	271884.5	849969.2
69	0.5	271961	850042.5
70	7	271989.5	850069.8
71	7	271990.9	850099.8
72	6	272053.0	850130.7
73	Not Drilled	272096.3	850103
74	6	272051.5	850060.0
75	4	272024.1	850033.8
76	0.5	271991.8	850002.8
77	2	271919.1	849933.1
78	1	271953.7	849897
79	0.5	272022.6	849963.1
80	2	272058.7	849997.7

	DEPTH TO ROCK (FT)	NORTHING	EASTING
81	8	272079.6	850017.7
82	7	272123.7	850059.9
83	Not Drilled	272165.5	850030.8
84	4	272111.4	849978.9
85	2	272093.3	849961.6
86	0.5	272057.2	849927
87	0.5	272021.1	849892.4
88	1	272055.7	849856.3
89	1	272091.8	849890.9
90	4	272127.9	849925.5
91	Not Drilled	272164	849960.1
92	Not Drilled	272200.1	849994.7
93	Not Drilled	272234.7	849958.6
94	4	272185.6	849911.5
95	3	272162.5	849889.4
96	1	272126.4	849854.8
97	1	272090.3	849820.2
98	2	272124.9	849784.1
99	2	272161	849818.7
100	7	272202.9	849858.8
101	4.5	272223.8	849878.9
102	9	272259.9	849913.5
103	Not Drilled	272303.9	849886.4
104	7	272254.8	849839.3
105	11	272231.7	849817.2
106	2	272210.1	849796.4
107	3	272159.5	849748
108	5	272194.1	849711.9
109	2	272214.3	849731.3
110	7	272260.9	849798.3
111	8	272291.6	849805.3
112	Not Drilled	272338.5	849850.3
113	Not Drilled	272373.1	849814.2
114	8	272328.4	849771.3
115	5	272300.9	849745
116	3	272249.7	849695.9
117	3	272228.7	849675.8
118	3	272234.2	849611.7
119	2	272284.7	849660.2
120	5	272335.5	849708.9

	DEPTH TO ROCK (FT)	NORTHING	EASTING
121	8	272357.0	849740.3
122	Not Drilled	272407.7	849778.1
123	Not Drilled	272442.3	849742
124	9	272403.3	849704.7
125	8	272370.1	849672.8
126	2	272321.0	849625.8
127	4	272268.8	849575.7
128	3	272303.4	849539.6
129	3	272352.8	849586.9
130	6	272404.7	849636.7
131	Not Drilled	272440.8	849671.3
132	Not Drilled	272476.9	849705.9
133	Not Drilled	272511.5	849669.9
134	Not Drilled	272475.4	849635.2
135	7	272439.3	849600.6
136	4	272378.0	849541.8
137	3	272338	849503.5
138	1	272372.6	849467.4
139	0.5	272448.2	849519.1
140	7	272473.9	849564.6
141	10	272510	849599.2
142	Not Drilled	272580.7	849597.7
143	4	272530.2	849549.2
144	4	272508.5	849528.5
145	0.5	272455.8	849511.2
146	3	272436.4	849459.3
147	3	272456.5	849409.3
148	2	272497.7	849448.8
149	3	272543.1	849492.4
150	3	272566.2	849514.5
151	Not Drilled	272615.3	849561.6
152	11	272649.9	849525.5
153	7	272603.7	849481.2
154	7	272577.7	849456.3
155	1	272530.8	849411.3
156	3	272505.6	849387.1
157	2	272540.2	849351
158	2	272561.8	849371.7
159	7	272612.1	849428.2
160	7	272630.5	849453.6

	DEPTH TO ROCK (FT)	NORTHING	EASTING
161	8.5	272684.5	849489.4
162	14	272719.1	849453.3
163	8	272671.5	849407.6
164	9	272647	849384.1
165	4	272592.8	849332.2
166	5.5	272574.8	849314.9
167	6	272602.2	849271.9
168	2	272631.0	849299.6
169	7	272681.6	849348
170	Not Drilled	272717.6	849382.6
171	Not Drilled	272753.7	849417.2
172	Not Drilled	272788.3	849381.1
173	4	272742.9	849337.5
174	5	272711.8	849307.7
175	1	272669.2	849266.9
176	1	272629.5	849228.9
177	2	272607.9	849208.1
178	5	272573.3	849244.2
179	4.5	272537.2	849209.6
180	2	272571.8	849173.5
181	Not Drilled	272606.4	849137.4
182	3	272642.5	849137.4
183	2	272671.4	849199.7
184	3	272714.7	849241.2
185	9	272750.8	849275.8
186	7	272776.7	849300.7
187	9	272822.9	849345
188	9	272857.5	849308.9
189	Not Drilled	272821.5	849274.3
190	4	272785.4	849239.7
191	7	272845.2	849227.8
192	7	272820	849203.6
193	2	272713.2	849170.5
194	4	272677.1	849135.9
195	3	272641	849101.3
196	4	272711.7	849099.8
197	9	272675.6	849065.2

NOTES:

- ROCK PROBES TAKEN BY R.W. GILLESPIE & ASSOCIATES ON 11/21/2017
- COORDINATES SHOWN BASED ON NAD83 MAINE STATE PLANES, EAST ZONE, US FOOT
- THESE TEST BORING LOGS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. BELFAST MUNICIPAL AIRPORT DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL ASSUMPTIONS, DEDUCTIONS, OR CONCLUSIONS WHICH THEY SHALL MAKE OR OBTAIN FROM THEIR EXAMINATION OF THE BORINGS. THE CONTRACTOR MAY AT THEIR OWN RISK AND EXPENSE UNDERTAKE THEIR OWN SUBSURFACE INVESTIGATION AT NO ADDITIONAL COST TO THE OWNER.

BID DOCUMENTS



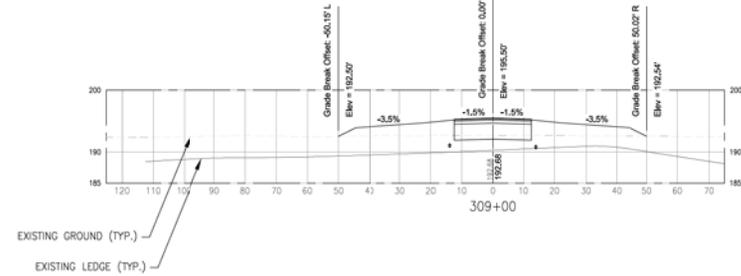
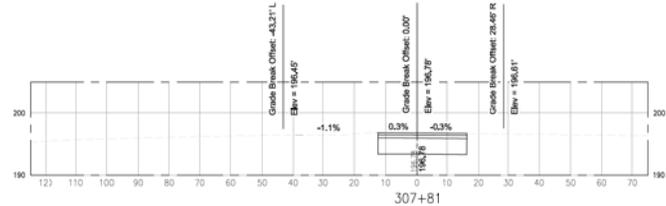
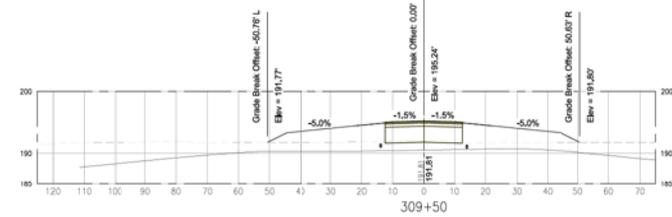
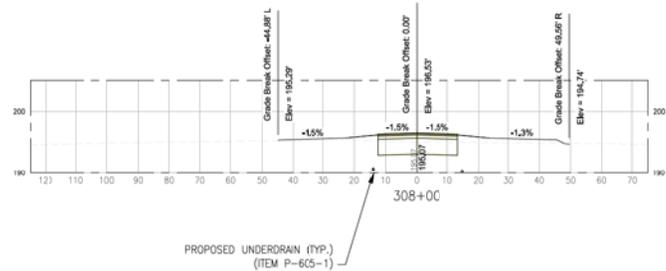
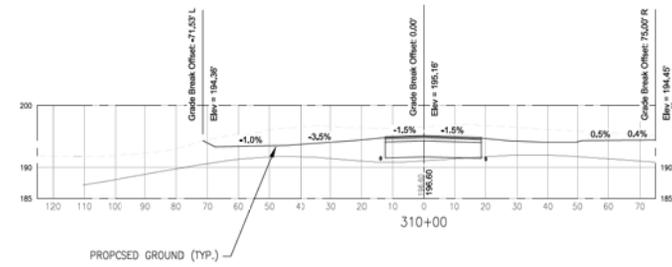
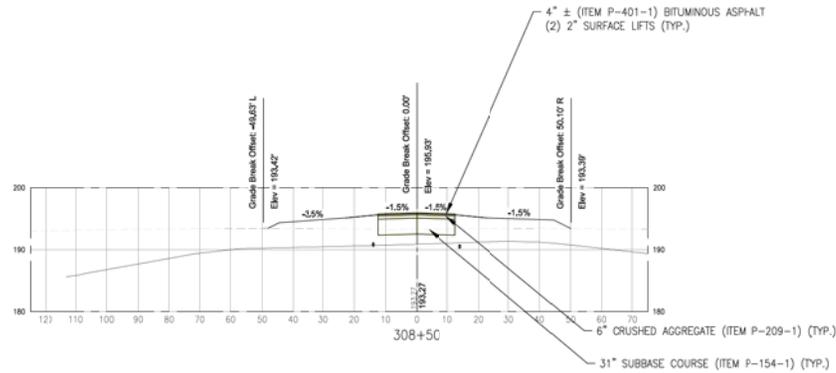
McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT OR SUPERVISORY CONTROL OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE ALTERATION.

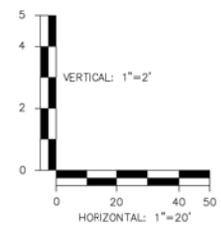
BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

LEDGE PROBES

SCALE: ----	DESIGN: MTO	B-08 56 OF 66
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



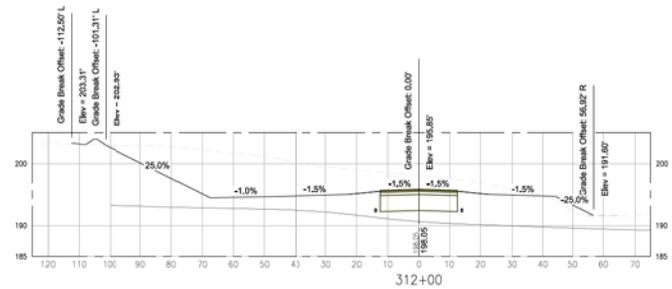
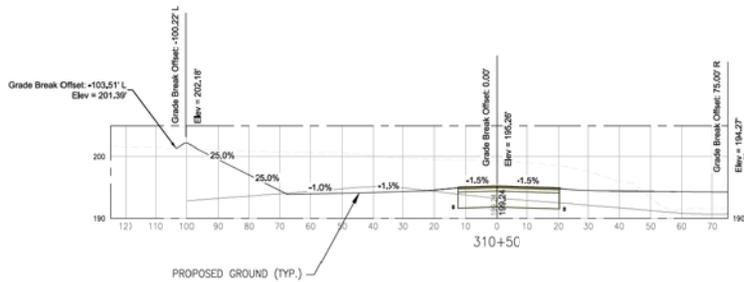
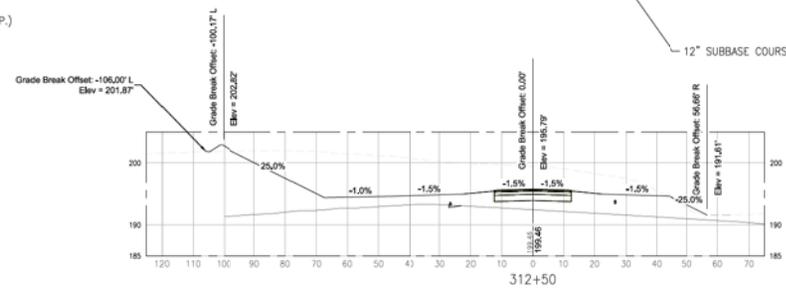
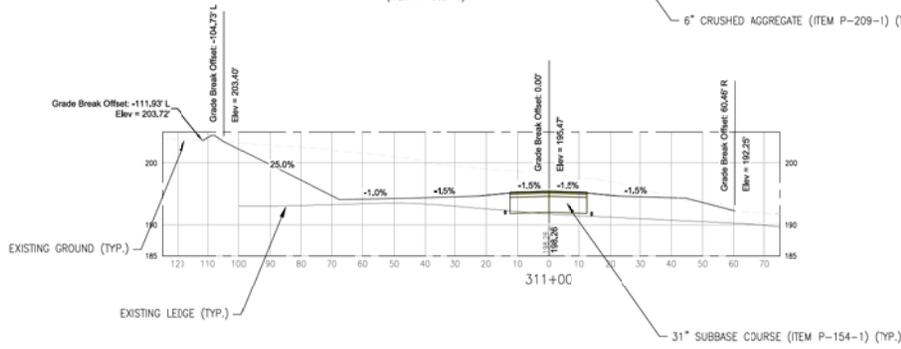
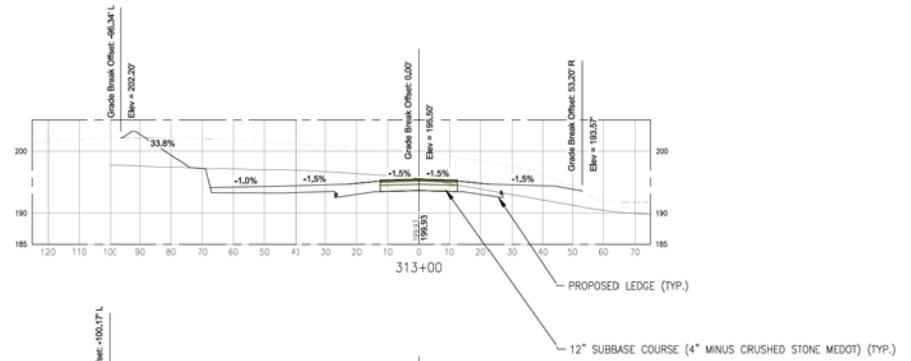
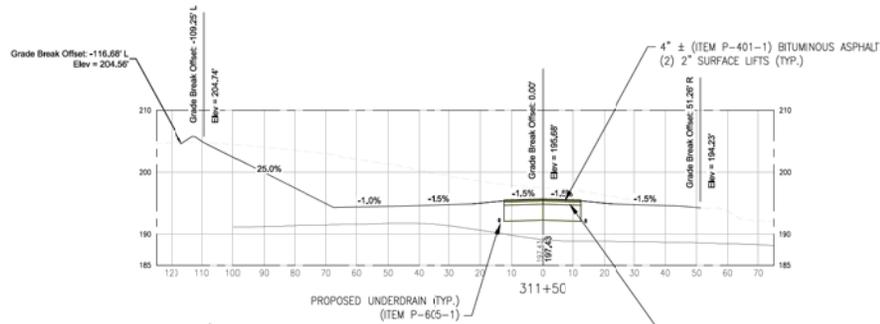
- NOTES:
- FOR LAYOUT PLANS SEE DWG. C-01-C-04
 - FOR TYPICAL SECTIONS SEE DWG. TYP-01
 - FOR GRADING AND DRAINAGE PLANS SEE DWG. GR-01-GR-04
 - ESTIMATED EXISTING LEDGE LOCATION BASED ON PROBES, SEE DWG B-01-B-04 AND B-08.
 - ADDITIONAL ROCK EXCAVATION NOT SHOWN IN THE CROSS SECTION SHALL BE APPROVED BY THE ENGINEER.
 - UNDERDRAIN SHALL BE ADJUSTED AS NEEDED TO MAINTAIN A POSITIVE SLOPE, WHERE LEDGE MAY BE ENCOUNTERED, ALL ADJUSTMENTS SHALL BE APPROVED BY THE ENGINEER.
 - PAYMENT FOR ROCK EXCAVATION (ITEM P-152-2) AS SHOWN, IN THE CROSS SECTION ANY ADDITIONAL EXCAVATION NOT APPROVED BY THE ENGINEER SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
 - PAVEMENT SECTION REPRESENTATIVE OF THE AREA, SEE TYPICAL SECTIONS FOR EXACT PAYMENT BOX SECTION



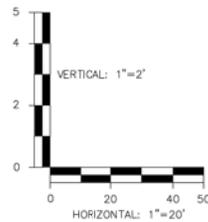
BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL SIGNATURE THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

	McFarland Johnson 53 REGIONAL DRIVE CONCORD, NEW HAMPSHIRE 03301		BELFAST MUNICIPAL AIRPORT CITY OF BELFAST, STATE OF MAINE CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY CROSS SECTIONS (STA 307+80-310+00)
	SCALE: AS SHOWN DRAWN: BRF CHECKED: SSS	DESIGN: MTO PROJECT: 18228.01 DATE: MARCH 5, 2018	XS-01 57 OF 66



NOTES:
1. SEE DWG. XS-01



BID DOCUMENTS



McFarland Johnson

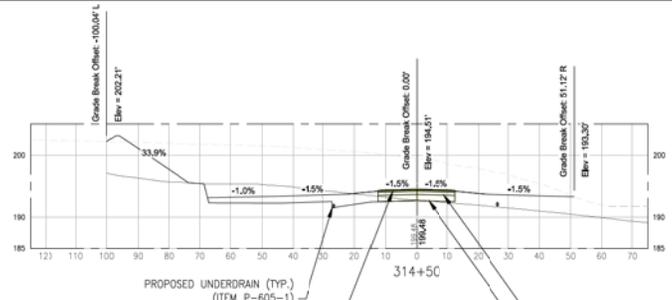
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

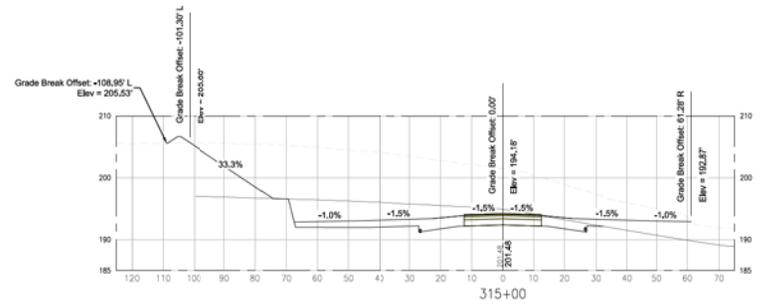
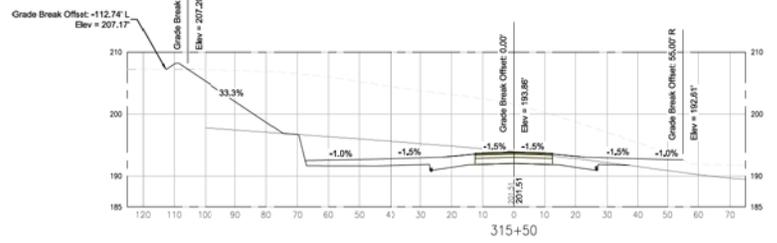
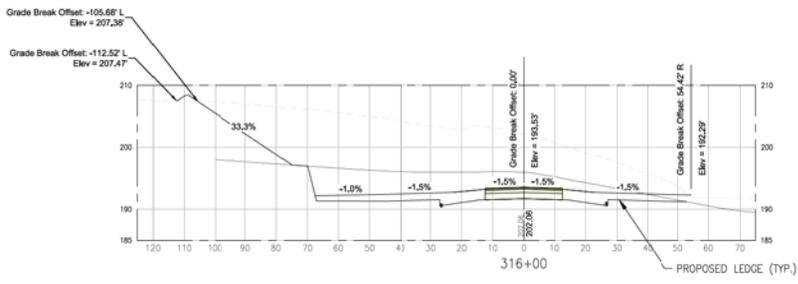
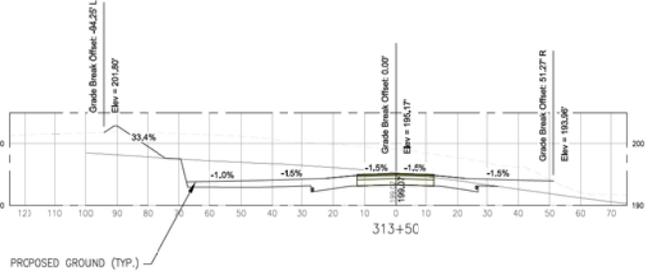
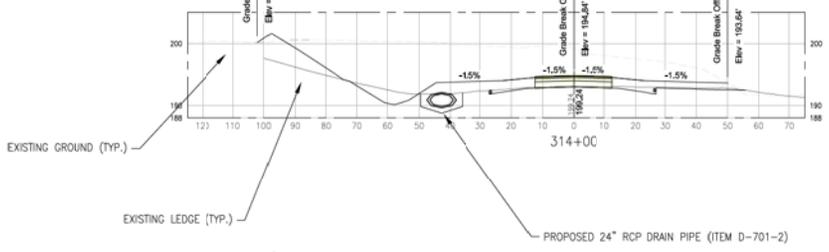
BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

CROSS SECTIONS
(STA 310+50-313+00)

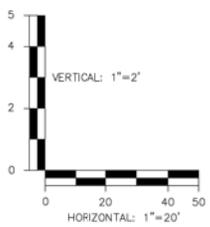
SCALE: AS SHOWN	DESIGN: MTO	XS-02
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



4" ± (ITEM P-401-1) BITUMINOUS ASPHALT
(2) 2" SURFACE LIFTS (TYP.)



NOTES:
1. SEE DWG. XS-01



BID DOCUMENTS



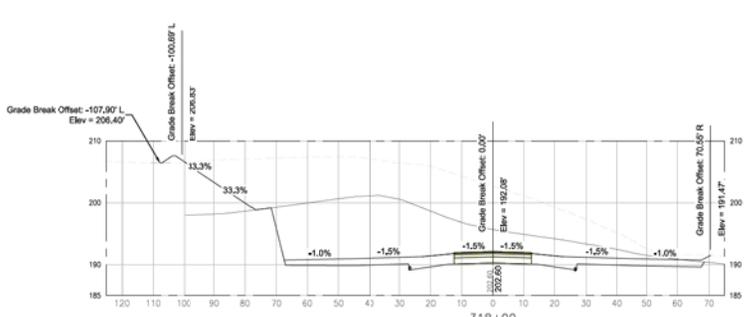
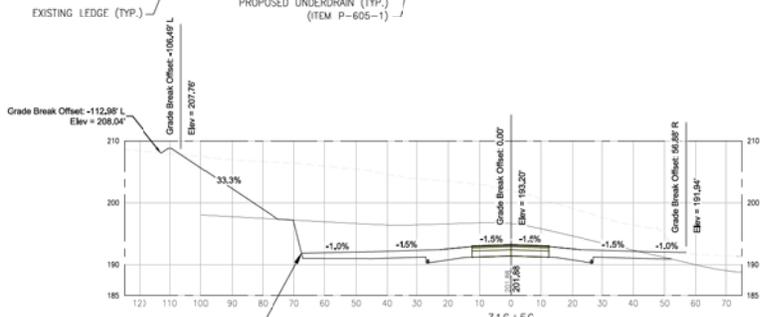
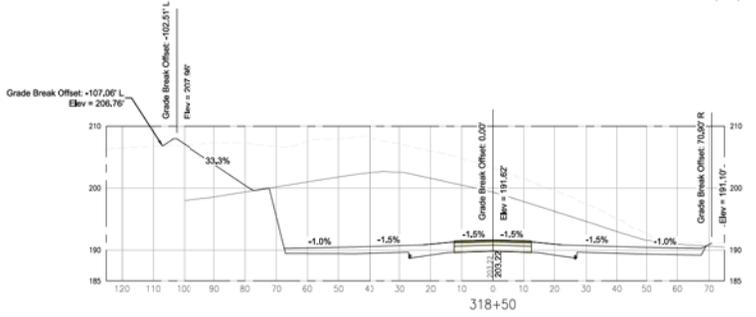
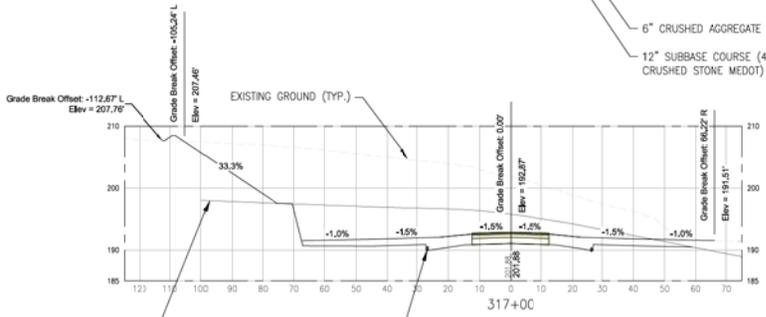
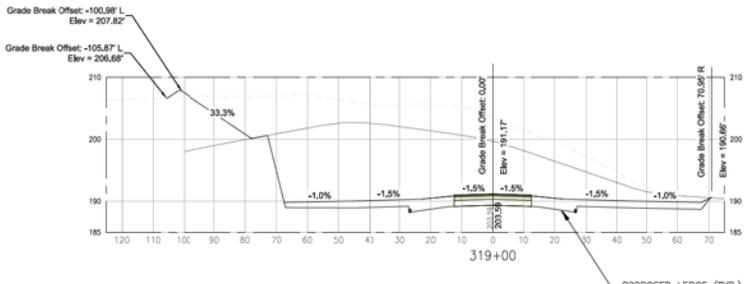
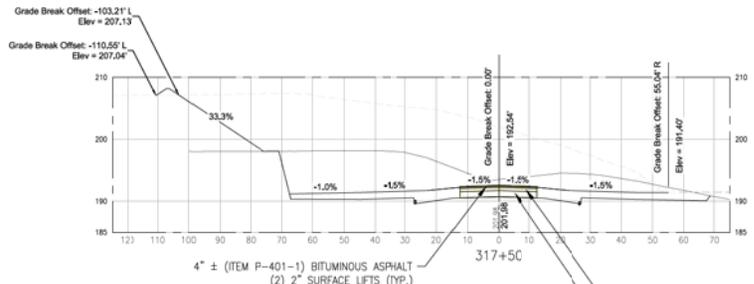
McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

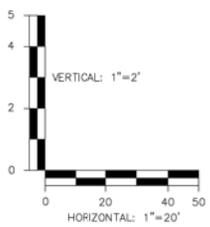
BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

CROSS SECTIONS
(STA 313+50-316+00)

SCALE: AS SHOWN	DESIGN: MTO	XS-03
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



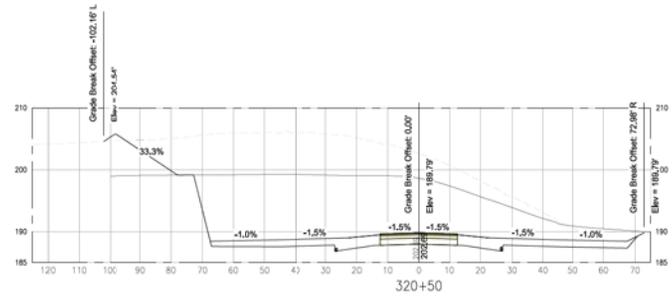
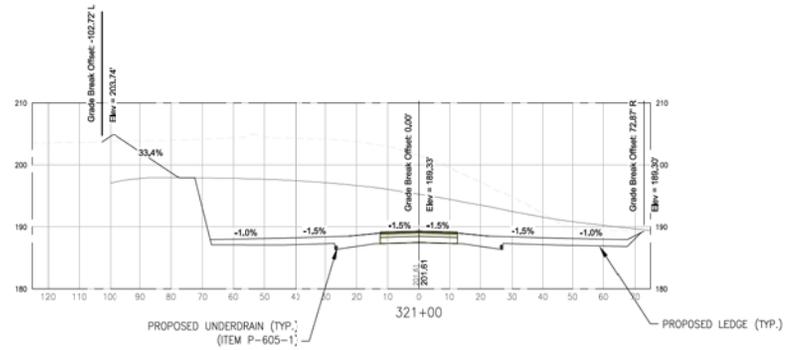
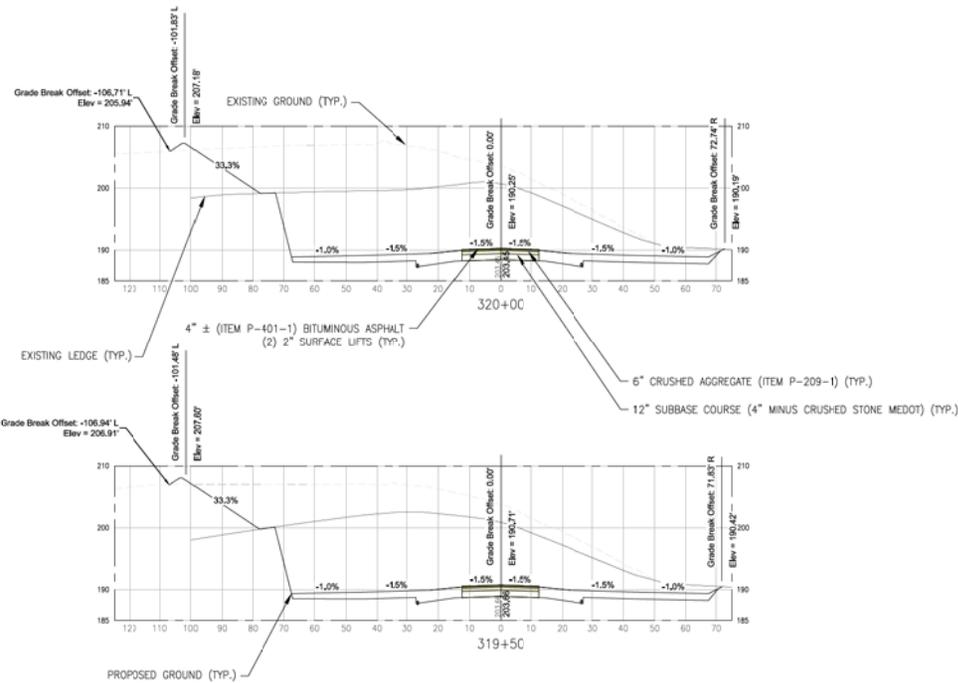
NOTES:
1. SEE DWG. XS-01



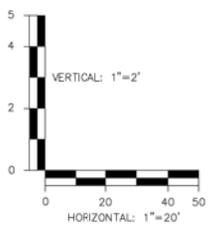
BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

	McFarland Johnson 53 REGIONAL DRIVE CONCORD, NEW HAMPSHIRE 03301		BELFAST MUNICIPAL AIRPORT CITY OF BELFAST, STATE OF MAINE CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY CROSS SECTIONS (STA 316+50-319+00)	
	SCALE: AS SHOWN DRAWN: BRF CHECKED: SSS	DESIGN: MTO PROJECT: 18228.01 DATE: MARCH 5, 2018	XS-04 60 OF 66	



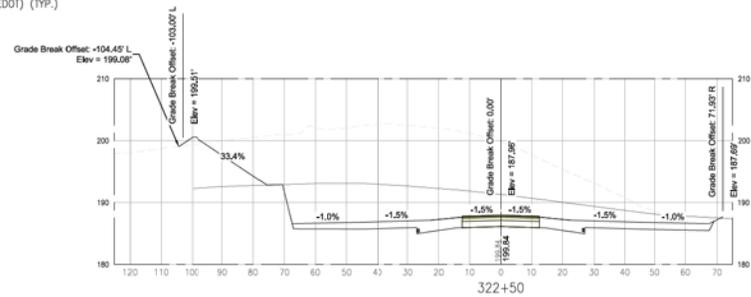
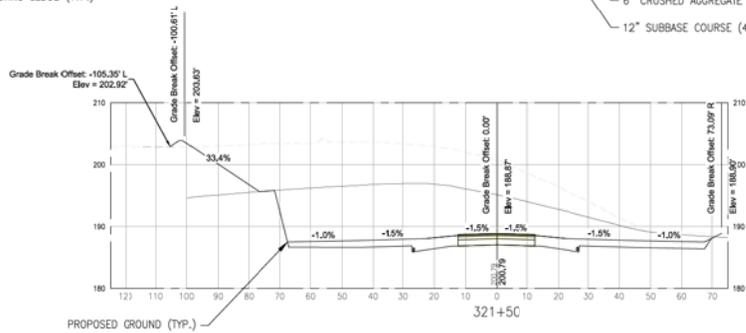
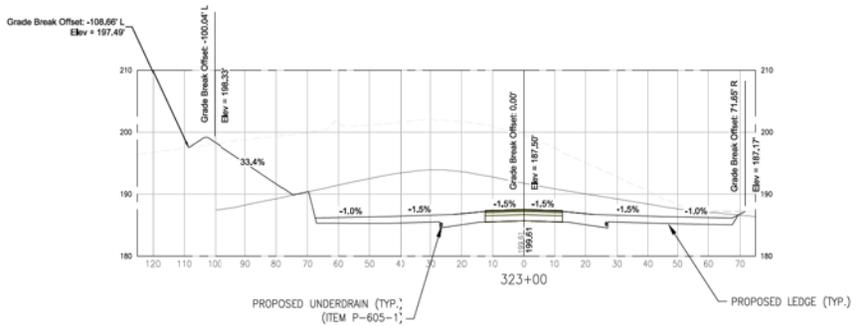
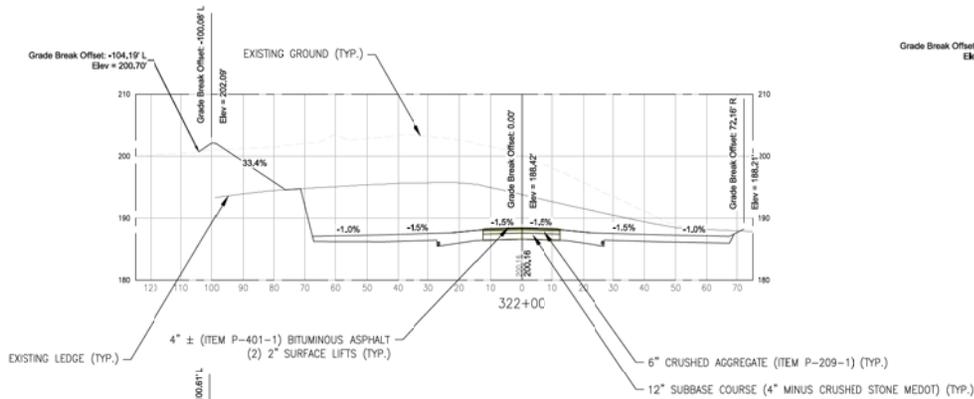
NOTES:
1. SEE DWG. XS-01



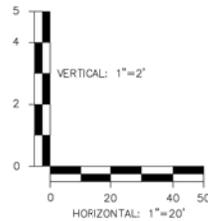
BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

	<p align="center">McFarland Johnson</p> <p align="center">53 REGIONAL DRIVE CONCORD, NEW HAMPSHIRE 03301</p>		<p align="center">BELFAST MUNICIPAL AIRPORT CITY OF BELFAST, STATE OF MAINE CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY</p> <p align="center">CROSS SECTIONS (STA 319+50-321+00)</p>
	<p>SCALE: AS SHOWN</p> <p>DRAWN: BRF</p> <p>CHECKED: SSS</p>	<p>DESIGN: MTO</p> <p>PROJECT: 18228.01</p> <p>DATE: MARCH 5, 2018</p>	



NOTES:
1. SEE DWG. XS-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

CROSS SECTIONS
(STA 321+50-323+00)

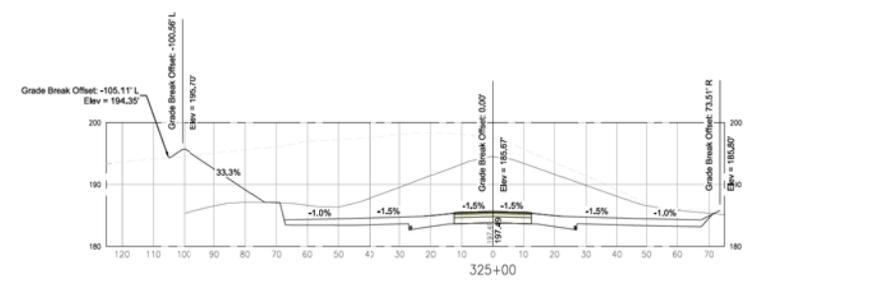
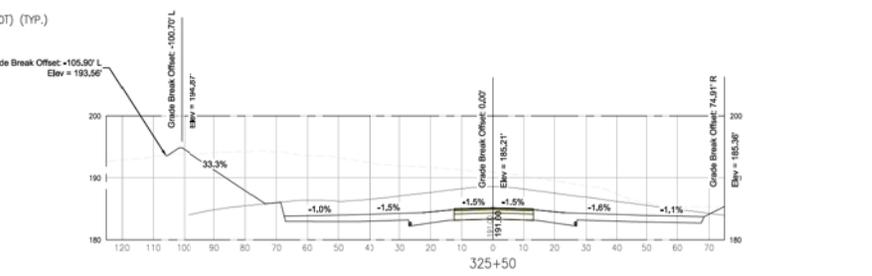
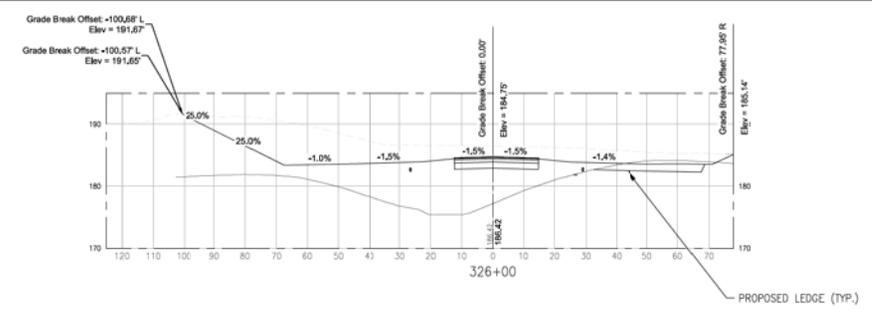
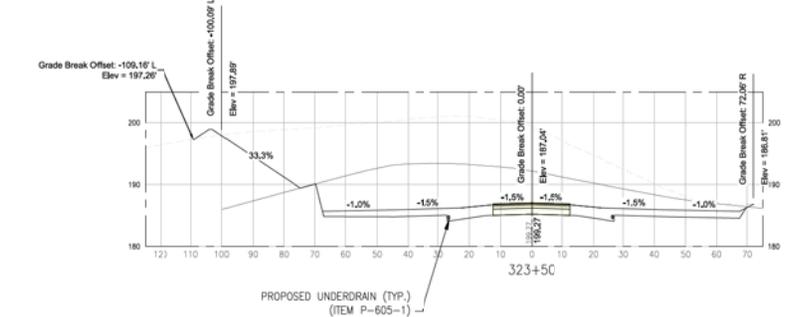
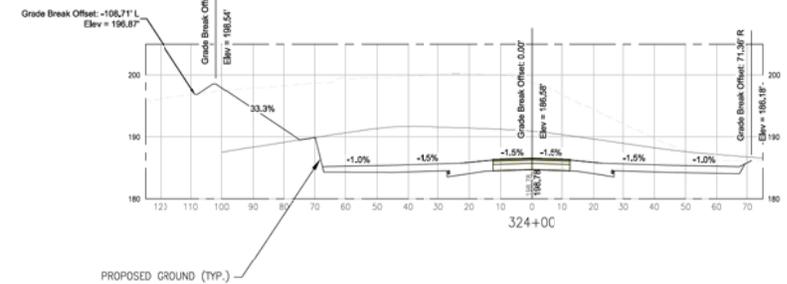
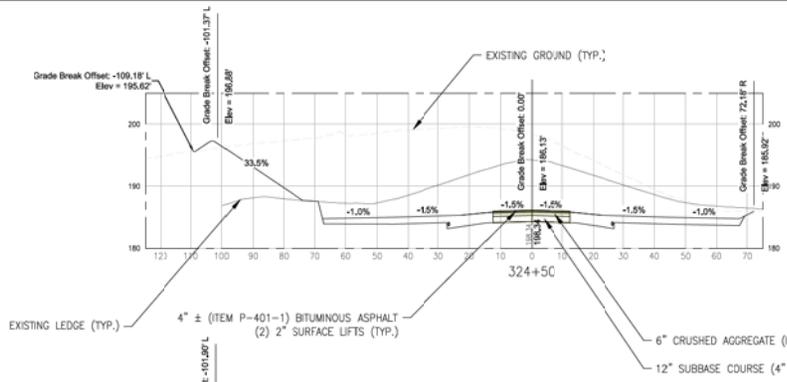
SCALE: AS SHOWN	DESIGN: MTO	XS-06
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



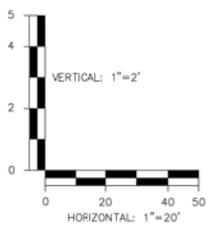
McFarland Johnson

53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

42 OF 66



NOTES:
1. SEE DWG. XS-01



BID DOCUMENTS



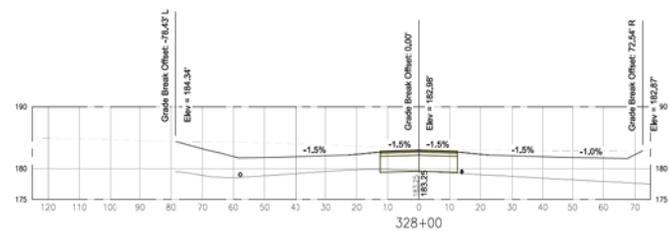
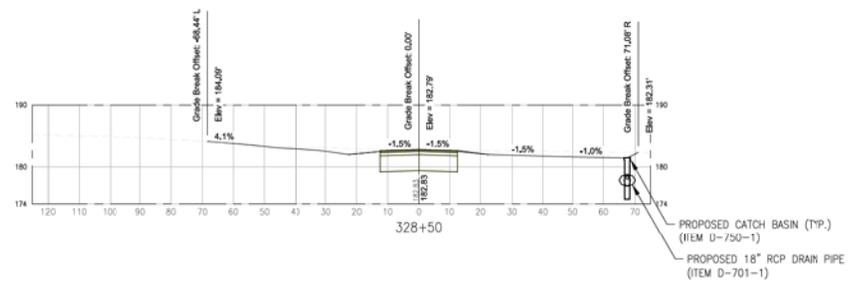
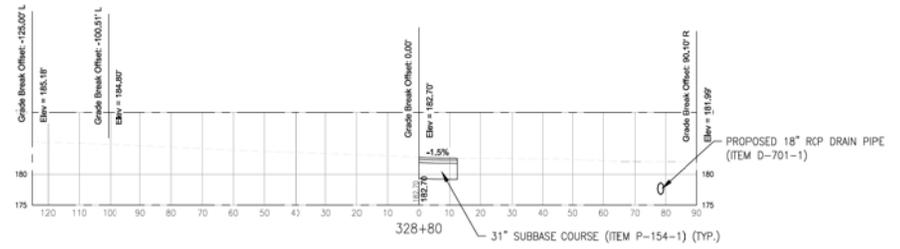
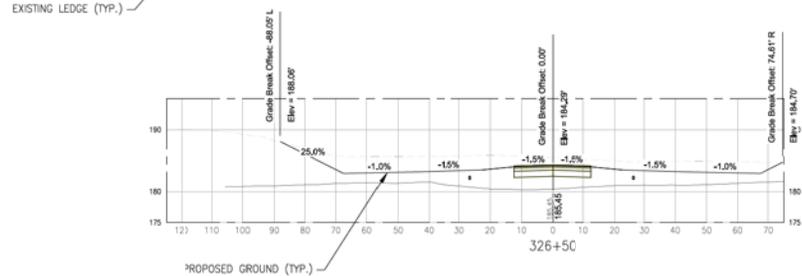
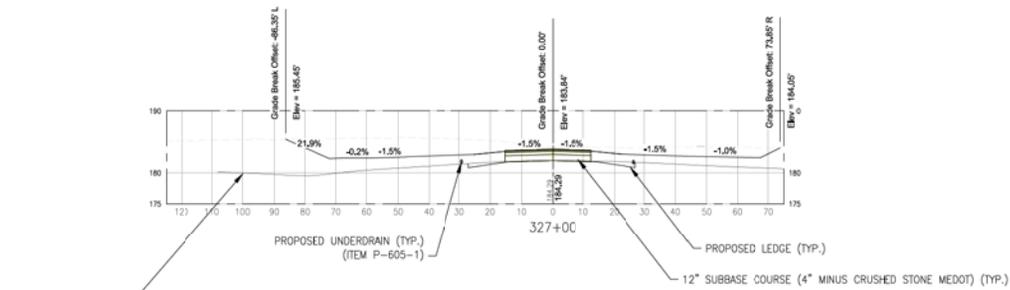
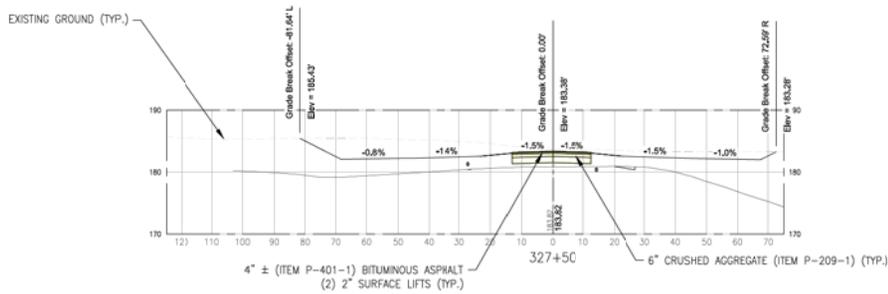
McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

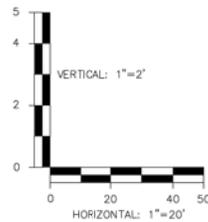
BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

CROSS SECTIONS
(STA 323+50-326+00)

SCALE: AS SHOWN	DESIGN: MTO	XS-07
DRAWN: BRP	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



NOTES:
1. SEE DWG. XS-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

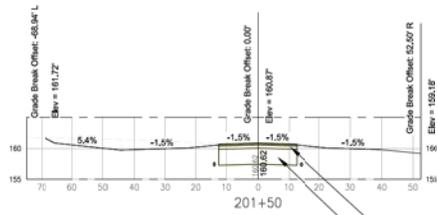
CROSS SECTIONS
(STA 326+50-328+80)

SCALE: AS SHOWN	DESIGN: MTO	XS-08
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	

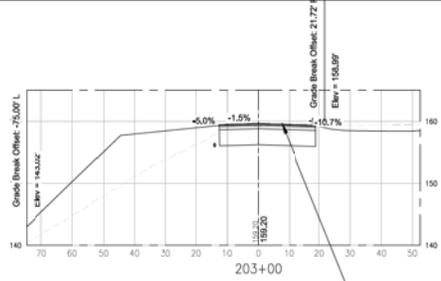


McFarland Johnson

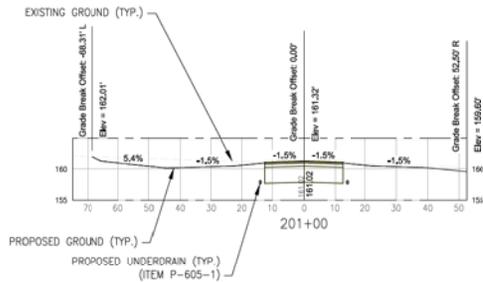
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301



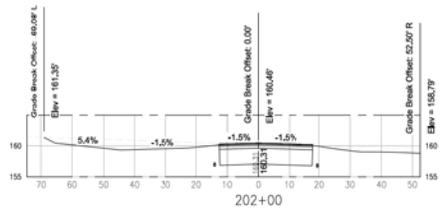
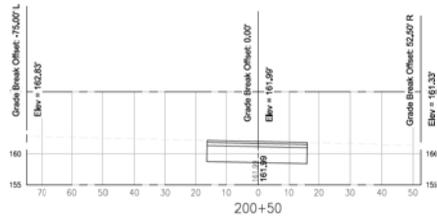
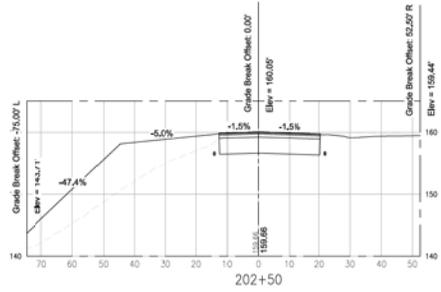
6" CRUSHED AGGREGATE (ITEM P-209-1) (TYP.)
31" SUBBASE COURSE (ITEM P-154-1) (TYP.)



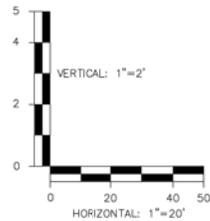
4" ± (ITEM P-401-1) BITUMINOUS ASPHALT
(2) 2" SURFACE LIFTS (TYP.)



PROPOSED UNDERDRAIN (TYP.)
(ITEM P-605-1)



NOTES:
1. SEE DWG. XS-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL SIGNATURE THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

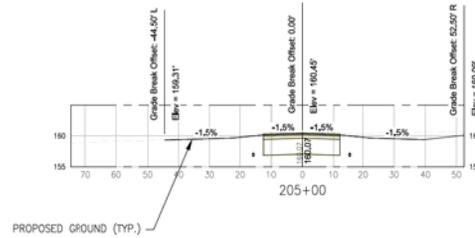
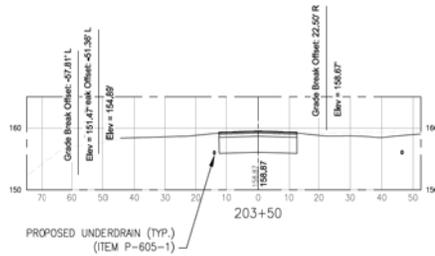
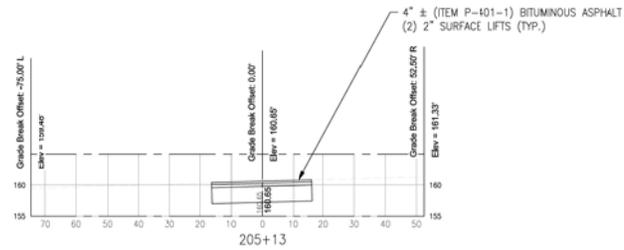
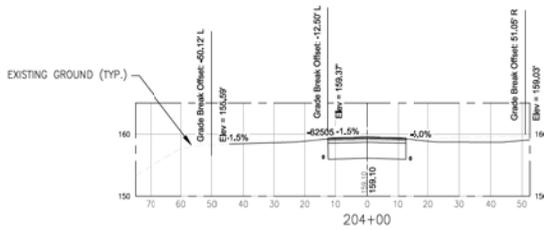
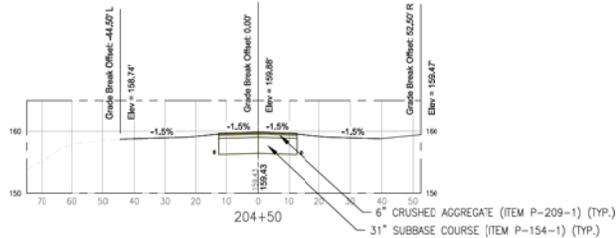


McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

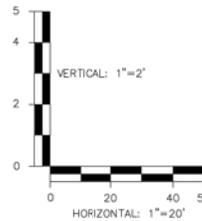
BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

CROSS SECTIONS
(STA 200+50-203+00)

SCALE: AS SHOWN	DESIGN: MTO	XS-09
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	



NOTES:
1. SEE DWG. XS-01



BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL SIGNATURE THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

BELFAST MUNICIPAL AIRPORT
CITY OF BELFAST, STATE OF MAINE
CONSTRUCT RUNWAY 15 PARTIAL PARALLEL TAXIWAY AND RUNWAY 33 BYPASS TAXIWAY

CROSS SECTIONS
(STA 203+50-205+13)



McFarland Johnson
53 REGIONAL DRIVE
CONCORD, NEW HAMPSHIRE 03301

SCALE: AS SHOWN	DESIGN: MTO	XS-10
DRAWN: BRF	PROJECT: 18228.01	
CHECKED: SSS	DATE: MARCH 5, 2018	