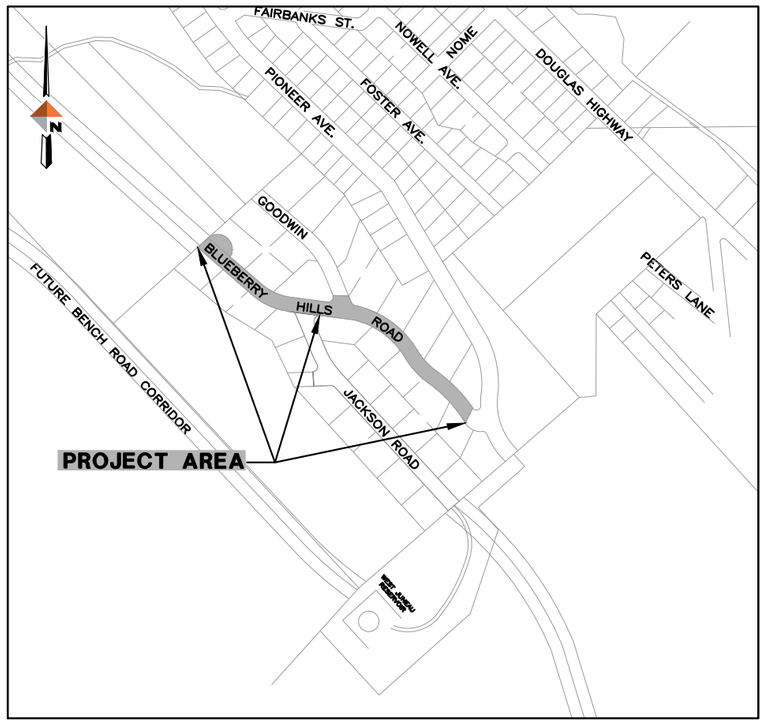
INDEX

BLUEBERRY HILLS ROAD RECONSTRUCTION

CONTRACT NO. BE17-139



VICINITY MAP
NTS

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

SHEET NO.
1 of 19

LEGEND

DESCRIPTION	EXISTING	REMOVE	PROPOSED
BURIED ELECTRICAL UTILITIES	E C T		
CATCH BASIN			CB-1
CONTROL POINT			
CURB & GUTTER			
CUT LIMITS			
FIRE HYDRANT			
HOUSE NO	2204		
MAILBOX	MB	MB	MB
PROJECT CONTROL LINE			
PROPERTY LINE			
SANITARY SEWER PIPE			
SANITARY SEWER MANHOLE	MH-1		MH-1 RECONSTRUCT OR ADJUST TO GRADE
SIGN			SEE SIGN ASSEMBLY TABLE
STORM DRAIN PIPE			S-1
STORM DRAIN MANHOLE			CB-1
SURVEY MONUMENT– REBAR W/ PLASTIC CAP			
TREE CONIFER			
TREE DECIDUOUS			
WATER LINE PIPE			
WATER VALVE BOX			

ABBREVIATIONS

AC	ASPHALT PAVING
BVC	BEGIN VERTICAL CURVE
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED POLYETHYENE PIPE
CONC	CONCRETE
CTE	CONNECT TO EXISTING
DI	DUCTILE IRON
DIA	DIAMETER
EVC	END VERTICAL CURVE
FG	FINISHED GRADE
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
LG	LIP OF GUTTER
LP	LOW POINT
LT	LEFT
MH	MANHOLE
MN	MAGNETIC NAIL
MTE	MATCH TO EXISTING
NO	NUMBER
NTS	NOT TO SCALE
PC	POINT OF CURVATURE
PRC	POINT OF REVERSE CURVATURE
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENT
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
RT	RIGHT
STA	STATION
STD	STANDARD
TBC	TOP BACK OF CURB
TBG	TOP BACK OF GUTTER
TP	TOP OF PAVEMENT
TSW	TOP OF SIDEWALK
TYP	TYPICAL

ABBREVIATIONS TO BE USED WITHOUT PERIODS

GENERAL NOTES

1. BEGIN SUBCUT AT 24 INCHES FROM PAVEMENT SAWCUT LINE AT STREET CONNECTIONS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS, OR DIRECTED BY THE ENGINEER. REMOVE AND REPLACE BASE COURSE WITH 6 INCHES OF 2" MINUS SHOT ROCK/BASE COURSE TO 12 INCHES FROM PAVEMENT SAWCUT LINE. SAWCUT AS NECESSARY ALONG ALL STREET AND DRIVEWAY APPROACHES TO PROVIDE A NEAT MATCH LINE.
2. LARGE BOULDERS, BEDROCK, STUMPS, LOGS, ORGANICS AND GROUND WATER MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING TRENCHING AND ROADWAY EXCAVATION OPERATIONS. THESE MATERIALS SHALL BE DISPOSED OF AS REQUIRED BY THE ENGINEER.
3. CONTRACTOR SHALL ASSURE GARBAGE PICKUP AND DAILY MAIL SERVICE WILL BE UNINTERRUPTED TO ALL RESIDENCES AFFECTED BY THIS PROJECT.
4. CBJ ENGINEERING STANDARD DETAILS 4TH EDITION – AUGUST 2011, IS MADE PART OF THIS CONTRACT, WITH CURRENT REVISIONS AS APPLICABLE.
5. ALL EXISTING WATER PIPES (6 INCH DIAMETER AND LARGER), AND APPURTENANCES (TO BE ABANDONED) THAT ARE WITHIN THE STREET AND SIDEWALK LIMITS, SHALL BE REMOVED AND DISPOSED OF, OR FILLED WITH FLOWABLE MIXTURE, UNLESS OTHERWISE NOTED.
6. EXISTING PIPE LOCATIONS ARE DERIVED FROM CBJ AS–BUILTS OR FIELD LOCATED. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. DEPTH OF SOME OF THE EXISTING PIPES SHOWN ON THE ELEVATIONS ARE ASSUMED. DIAL BEFORE YOU DIG 586–1333.
7. GRADING AND ALIGNMENT ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER. LOCATION OF PROPOSED WATER AND STORM DRAINAGE FACILITIES ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER. PROVIDE KNOCKOUTS IN CATCH BASINS FOR ALL PIPES SHOWN ON THE PLANS.
8. THE CONTRACTOR SHALL NOTIFY STEVE LOCKS WITH CBJ WATER UTILITIES AT 321–2969 OF PROPOSED WATER SERVICE INTERRUPTION AND SUBMIT THE "WATER SYSTEM SPECIAL USE PERMIT" TO CBJ WATER UTILITIES SUPERINTENDENT FOR APPROVAL AT LEAST 48 HOURS PRIOR TO SHUTDOWN OR FLUSHING OF MAINLINE WATER PIPE. NO WATER SERVICE INTERRUPTION MAY PROCEED UNTIL THIS APPROVAL IS OBTAINED.
9. PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT BOUNDARY SURVEY. EXISTING RECORD PLATS DO NOT CLOSE WITH EACH OTHER IN SOME CASES. THE PROPERTY LINES SHOWN ON THESE PLANS ARE A BEST FIT APPROXIMATION OF CLOSURE.
10. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING WATER AND SEWER PIPES, INCLUDING ALL SERVICES ALONG THE STORM DRAIN AND WATER PIPE ALIGNMENTS, TO DETERMINE PIPE INSULATION LOCATIONS, AND TO ENSURE DAMAGE DOES NOT OCCUR TO THE SERVICE PIPES.
11. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF OFF–SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.
12. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. BRASS CAP MONUMENTS, REBARS, CONCRETE NAILS, CHISELED X's) PRIOR TO CONSTRUCTION AND REMONUMENT AFTER SURFACING IS REPLACED. EXISTING SURVEY MONUMENTS MAY NOT BE SHOWN ON THE DRAWINGS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR.
13. ALL ASPHALT PAVEMENT TO BE REMOVED AND DISPOSED OF SHALL BE DELIVERED TO A STOCKPILE AREA AT THE LEMON CREEK CITY PIT TO BE DESIGNATED BY THE ENGINEER. CONTACT THE ENGINEER FOR THE EXACT LOCATION OF THE STOCKPILE.
14. AEL&P, ACS, AND GCI MAY CONDUCT WORK WITHIN THE PROJECT LIMITS TO RELOCATE UTILITIES AND UPGRADE THEIR RESPECTIVE SYSTEMS. THE CONTRACTOR SHALL COORDINATE ITS ACTIVITIES WITH EACH UTILITY COMPANY AND PROVIDE ACCESS AS NECESSARY FOR UTILITY COMPANIES TO CONDUCT THEIR WORK.
15. ONLY HORIZONTAL ELBOW FITTINGS (BENDS) ARE SHOWN (NOT ALL ARE LABELED) ON DRAWINGS. ADDITIONAL FITTINGS WILL BE REQUIRED FOR VERTICAL DEFLECTIONS NEAR CONNECTIONS TO EXISTING PIPES, AND AT OTHER LOCATIONS REQUIRING GRADE CHANGES TO AVOID CONFLICTS
16. THE CONTRACTOR SHALL RESTRICT ITS COMPACTION AND OTHER VIBRATION INDUCING OPERATIONS AS NECESSARY TO ASSURE NO DAMAGE OCCURS TO ADJACENT BUILDINGS OR STRUCTURES. REFER TO SECTION 01530, ARTICLE 1.7 OF THE STANDARD SPECIFICATIONS FOR FURTHER REQUIREMENTS.
17. THE PLAN DRAWINGS DO NOT SHOW ALL TREES, BUSHES AND LANDSCAPING THAT WILL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. NO TREES, BUSHES OR LANDSCAPING ARE TO BE REMOVED OR DAMAGED, UNLESS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.
18. THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT, OR OPERATE EQUIPMENT WITH ITS TRACKS OR WHEELS PLACED ON PRIVATE PROPERTY, WITHOUT THE WRITTEN APPROVAL OF THE PROPERTY OWNER.
19. THE USE OF GROUT AND QUICKSET CEMENT PRODUCTS WITH ADJUSTING RINGS, BRICKS, WOOD, STONES AND OTHER SIMILAR GRADE ADJUSTMENT DEVICES TO SUPPORT CATCH BASIN FRAMES OVER CATCH BASINS AND MANHOLES WILL NOT BE PERMITTED. SEE THE STANDARD DETAILS AND SECTION 02502 – STORM SEWER MANHOLES, INLETS AND CATCH BASINS FOR CATCH BASIN SUPPORT REQUIREMENTS. CATCH BASIN FRAME AND GRATES SHALL BE SET AT 6–3/4" BELOW TOP BACK OF CURB ELEVATION, WITH 3' LONG CONCRETE GUTTER TRANSITIONS TO BOTH SIDES OF GRATE.
20. TEMPORARY RAMPS SHALL BE PROVIDED AS REQUIRED FOR RESIDENT ACCESS TO THEIR WALKWAYS DURING THE CONSTRUCTION PERIOD.
21. THE CONTRACTOR SHALL ARRANGE FOR ELECTRICAL UTILITY LOCATES PRIOR TO ANY EXCAVATION. UNDERGROUND ELECTRICAL UTILITIES, IF SHOWN ON THE DRAWINGS, INDICATE THEIR EXISTENCE ONLY, AND MAY NOT SHOW THE ACTUAL LOCATION. OTHER BURIED ELECTRICAL UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THE DRAWINGS. DIAL BEFORE YOU DIG AT 586–1333.
22. WATER PIPES WILL BE REQUIRED TO BE INSTALLED WITH MORE THAN 60 INCHES OF COVER IN AREAS WHERE STORM DRAINAGE PIPES ARE CLOSE TO OR BELOW A DEPTH OF 60 INCHES TO INVERT. DEPTHS OF ALL STORM DRAINAGE PIPES SHALL BE DETERMINED PRIOR TO INSTALLING WATER PIPES TO ENSURE CONFLICTS BETWEEN THESE PIPES DO NOT OCCUR. A MINIMUM CLEARANCE OF 8" SHALL BE OBTAINED BETWEEN WATER AND OTHER PIPES.
23. THE CONTRACTOR SHALL PROVIDE TOP OF WATER PIPE ELEVATIONS TO THE ENGINEER AT A MAXIMUM SPACING OF 50 FEET AND AT ALL GRADE BREAKS PRIOR TO BACKFILLING OVER THE PIPE. IF THE PIPE IS BACKFILLED PRIOR TO PROVIDING THESE TOP OF PIPE ELEVATIONS, THE PIPE SHALL BE EXPOSED AND THE TOP OF PIPE SURVEYED BY THE CONTRACTOR.
24. THE CONTRACTOR SHALL NOTIFY EACH RESIDENT OF EACH DRIVEWAY CLOSURE THE DAY PRECEDING THE DAY THE DRIVEWAY IS TO BE CLOSED TO VEHICULAR ACCESS. THE RESIDENT SHALL BE INFORMED OF THE PERIOD OF TIME THE CLOSURE WILL BE IN EFFECT. NO DRIVEWAY CLOSURES WILL BE PERMITTED UNTIL THIS REQUIREMENT HAS BEEN MET TO THE SATISFACTION OF THE ENGINEER.
25. EXISTING POWER CONDUCTORS FOR LIGHTING SYSTEM HAVE NOT BEEN LOCATED AND ARE NOT SHOWN. THE CONTRACTOR SHALL HAVE THESE CONDUCTORS LOCATED AND SHALL PROTECT THEM FROM DAMAGE.

STATE OF ALASKA 49th Naomi R. Hobbs No. CE9959 01/03/17 REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907–780–3533
AECL848

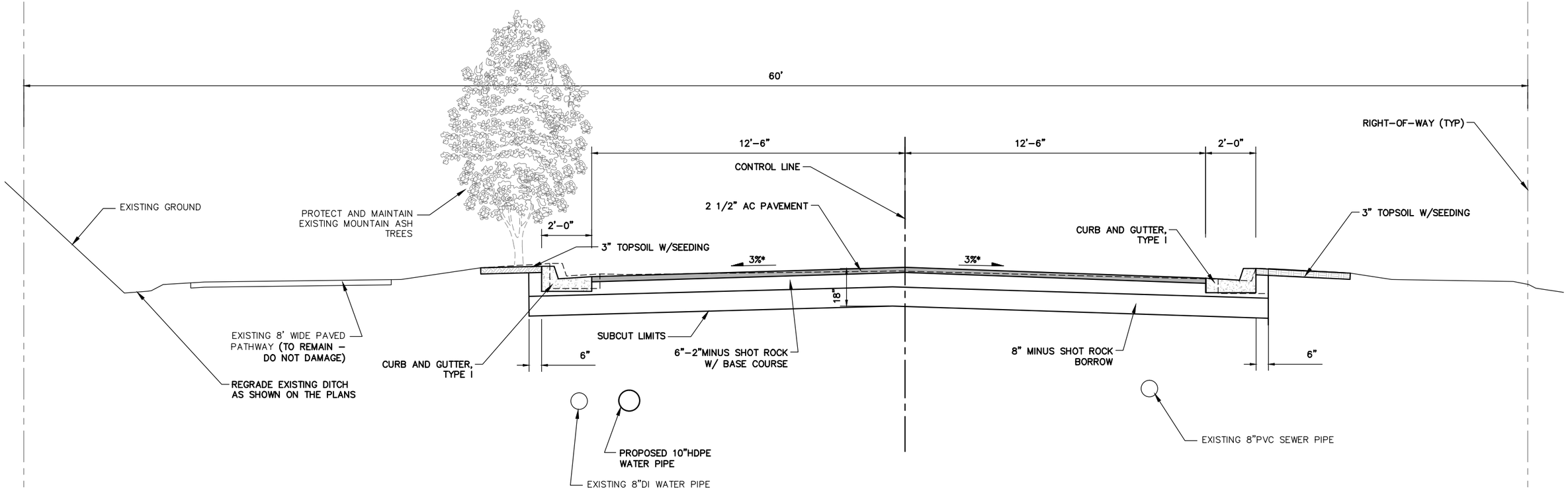
JOB No. 70890.01	DRAWN BY: J. KEMP	DESIGNED BY: J. KANOUSE	CHECKED BY: N. HOBBS	DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

LEGEND, ABREVIATIONS, AND GENERAL NOTES

SHEET NO. 2 of 19



TYPICAL SECTION
BLUEBERRY HILLS ROAD

NTS

* UNLESS OTHERWISE SHOWN ON GRADING SHEETS

SEE PLAN SHEETS FOR STORM DRAINAGE PIPING

NOTES FOR TYPICAL SECTIONS THIS SHEET

1. ADDITIONAL EXCAVATION BELOW THE NEATLINE SUBCUT LEVEL MAY BE REQUIRED, IF ORGANIC OR OTHER UNSUITABLE MATERIALS ARE FOUND AT OR NEAR THE PLANNED SUBCUT LEVEL, AS DIRECTED BY THE ENGINEER. USABLE MATERIAL FROM EXCAVATION SHALL BE USED TO BACKFILL THE ADDITIONAL AREAS OF EXCAVATION, WHICH MAY VARY FROM 6" IN DEPTH TO A DEPTH OF UP TO 5'-0" BELOW FINISH GRADE. THE BACKFILLING WITH USABLE MATERIAL FROM EXCAVATION WILL BE CONSIDERED INCIDENTAL TO OTHER WORK.
2. IF EXISTING SOILS WITHIN THE PLANNED SUBCUT LAYER ARE FOUND TO BE USABLE, AS DETERMINED BY THE ENGINEER, THE DEPTH OF EXCAVATION AND BACKFILL MAY BE DECREASED.
3. SEE HORIZONTAL AND VERTICAL CONTROL, CURB AND GUTTER LAYOUT AND GRADE DRAWINGS FOR GRADING DETAILS.
4. UNDERGROUND ELECTRICAL, SANITARY SEWER, STORM DRAIN, AND WATER AND SERVICES NOT SHOWN IN THE TYPICAL SECTION. SEE PLAN SHEETS FOR APPROXIMATE LOCATIONS.
5. ALL FILL AREAS BEYOND SUBCUT LIMITS SHALL BE BACKFILLED WITH USABLE MATERIAL FROM EXCAVATION AND GRADED TO DRAIN AS SHOWN ON THE PLAN VIEW DRAWINGS.
6. DRIVEWAYS DISTURBED DURING CONSTRUCTION SHALL BE RECONSTRUCTED TO EQUAL, OR BETTER CONDITION WITH SUBGRADE REPLACED IN LAYERS TO MATCH THOSE REMOVED EXCEPT:
   A) PAVED DRIVEWAYS SHALL BE SUBCUT TO 18 INCHES BELOW FINISH GRADE AND REPLACED WITH 11-1/2 INCHES OF SHOT ROCK BORROW, 4 INCHES OF 2"- MINUS SHOT ROCK WITH BASE COURSE, AND 2-1/2 INCHES OF A.C. PAVEMENT FOR DRIVEWAYS.
   B) ALL WORK REQUIRED TO RECONSTRUCT GRAVEL DRIVEWAYS BEYOND THE BACK OF EXISTING CURB WILL BE CONSIDERED INCIDENTAL TO OTHER WORK AND NO ADDITIONAL PAYMENT WILL BE MADE.
   C) ORGANICS, ROOTS, WOOD OR OTHER DELETERIOUS MATERIALS ENCOUNTERED IN THE DRIVEWAYS DURING EXCAVATION OPERATIONS SHALL NOT BE REPLACED, BUT SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE. BACKFILL VOIDS BELOW THE REQUIRED SUBBASE LAYER WITH USABLE MATERIAL FROM EXCAVATION.
7. TOP OF A.C PAVEMENT SHALL BE ¼ INCH TO ⅜ INCH ABOVE THE TOP EDGE OF CONCRETE GUTTER OR TOP OF CURB. TOP OF PAVEMENT GRADES GIVEN ON THE PLANS ARE ¼ BELOW ACTUAL FINISH PAVEMENT SURFACE.
8. SANITARY SEWER, WATER AND STORM DRAIN SERVICES ARE NOT SHOWN ON THE TYPICAL SECTION. SEE PLAN VIEW DRAWINGS FOR LOCATIONS.
9. GRADE TOP OF CURB AT 2%.
10. THE BASE COURSE LAYER SHALL BE 4" TO 5" OF 2-INCH MINUS SHOT ROCK WITH 1" TO 2" TOP LAYER OF BASE COURSE, GRADING D-1 FOR A TOTAL THICKNESS OF 6". THE 2" MINUS SHOT ROCK SHALL BE WELL COMPACTED PRIOR TO PLACING THE BASE COURSE GRADING D-1.
11. BASE COURSE, GRADING D-1, MAY BE USED FOR THE FULL DEPTH OF THE BASE COURSE UNDER THE PAVED DRIVEWAYS AS A NO COST SUBSTITUTION.
12. CATCH LINE FOR USABLE MATERIAL AND TOPSOIL WILL VARY IN DISTANCE FROM RIGHT-OF-WAY LINES. PLACE AND GRADE THESE MATERIALS TO PROVIDE A SMOOTH, WELL DRAINED TRANSITION TO EXISTING GRADES, AS DIRECTED BY THE ENGINEER.
13. ASPHALT THICKNESS FOR DRIVEWAY APPROACHES AND DRIVEWAYS SHALL BE 2 ½".
14. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES NOT RESURFACED WITH ASPHALT PAVEMENT OR CONCRETE SHALL BE GRADED TO A UNIFORM, WELL DRAINED APPEARANCE AND COVERED WITH TOPSOIL AND SEEDED, AS DIRECTED BY THE ENGINEER.

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 01/03/17 REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration
PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01	DRAWN BY: J. KEMP	DESIGNED BY: J. KANOUSE	CHECKED BY: N. HOBBS	DATE: JAN. 2017

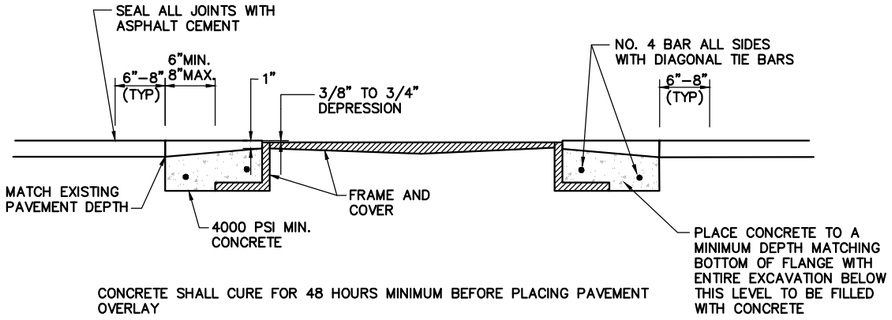
CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

TYPICAL SECTION

SHEET NO. 3 of 19

C:\Civil 3D Projects\22\70890-01\Civil\SC14-CT-TS-70890.dwg 2017-1-5 09:22:13



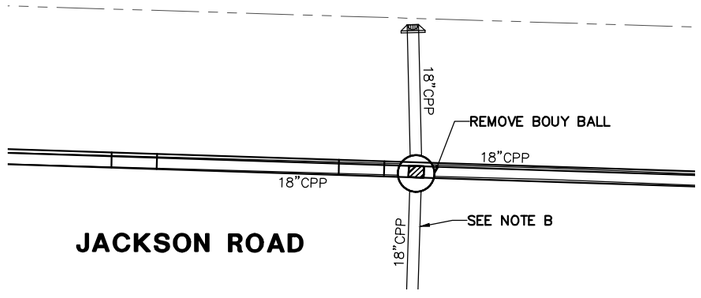
CONCRETE SHALL CURE FOR 48 HOURS MINIMUM BEFORE PLACING PAVEMENT OVERLAY

*THIS TRANSITION SLAB WILL NOT BE REQUIRED IF DEPRESSION TO COVER LUGS OR FRAME, WHICHEVER IS HIGHER, MEETS THE REQUIRED DEPRESSION RANGE FOLLOWING THE FINISH PAVING OPERATIONS

TRANSITION SLAB W/ ASPHALT PAVEMENT OVERLAY

NTS

2913
KYLE MANGER
LOT 2
NL

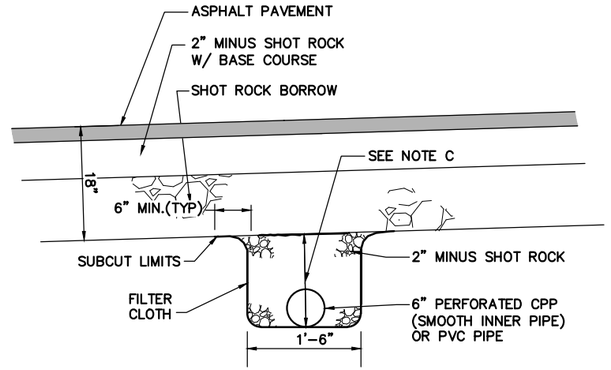


CATCH BASIN JACKSON ROAD STA "B" 14+47, 308' LT

NTS

A. REMOVE EXISTING BOUY BALL IN THE NW 18" CPP

B. COMPLETELY SEAL 18"CPP CROSSING JACKSON ROAD WITH CONCRETE PLUG.



6-INCH UNDERDRAIN

NTS

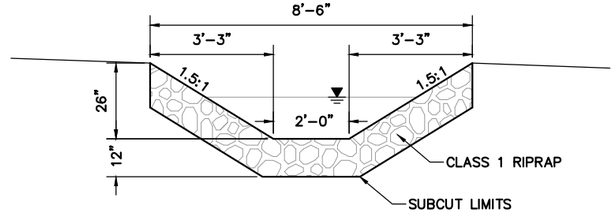
A. OUTFALL CONNECTIONS WILL BE INTO CATCH BASINS.

B. UPPER END OF PIPES SHALL BE CAPPED AND THE FILTER CLOTH FOLDED AND OVERLAPPED TO SEAL END OF DRAINAGE ROCK SECTION. VARIES AS DIRECTED BY THE ENGINEER.

C. VARIES 12" TO 30", AS DETERMINED BY THE ENGINEER.

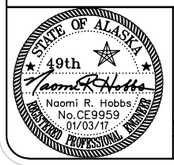
D. MINIMUM PIPE GRADIENT SHALL BE 1%.

E. ADDITIONAL LENGTH MAY BE ADDED, AS DETERMINED BY THE ENGINEER.



DRAINAGE SWALE FROM S-1 TO BOP

NTS



DOWL
Consulting Engineers • Land Surveyors • Construction Administration
PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01	DRAWN BY: J. KEMP	DESIGNED BY: J. KANOUSE	CHECKED BY: N. HOBBS	DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

DETAILS

SHEET NO.
4
of
19

SIGN ASSEMBLY TABLE

NO.	LOCATION	MUTCD DESIGNATION OR DESCRIPTION	LEGEND AND COMMENTS
1	17+83, 17' LT	R7-1	"NO PARKING ANYTIME" (12"X18") DOUBLE ARROW - REUSE EXISTING SIGN
2	20+60, 17' LT	R7-1	"NO PARKING ANYTIME" (12"X18") DOUBLE ARROW - REUSE EXISTING SIGN
3	22+88, 17' LT	R7-1	"NO PARKING ANYTIME" (12"X18") DOUBLE ARROW - REUSE EXISTING SIGN

A) ALL SIGNS TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY & BOROUGH STANDARD DETAIL NO. 127.

B) ALL SIGNS TO BE LOCATED AS DIRECTED BY THE ENGINEER.

C) ALL POSTS SHALL BE "TELSPAR", OR APPROVED EQUAL.

D) POSTS SHALL BE PRE-PUNCHED WITH ALL KNOCKOUTS REMOVED.

E) REPLACE ALL POST ASSEMBLY MATERIALS.

F) DO NOT DISTURB ANY SIGNS NOT ON THE SIGN ASSEMBLY TABLE.

CATCH BASIN FRAME AND GRATE TABLE

CATCH BASIN No.	EAST JORDAN IRON WORKS, OLYMPIC FOUNDRY CO., CBJ STANDARD No., OR APPROVED EQUAL
CB-1	EJW 7001 T2 HOOD W/7700 M2 GRATE
CB-2	EJW 7001 T2 HOOD W/7700 M2 GRATE
CB-3	EJW 7001 T2 HOOD W/7700 M2 GRATE
CB-4	EJW 7001 T2 HOOD W/7700 M3 GRATE
CB-5	EJW 7001 T2 HOOD W/7700 M3 GRATE
CB-6	EJW 7001 T2 HOOD W/7700 M2 GRATE
CB-7	EJW 7001 T2 HOOD W/7700 M2 GRATE
CB-8	EJW 7001 T2 HOOD W/7700 M2 GRATE
CB-9	EJW 7001 T2 HOOD W/7700 M2 GRATE
CB-10	EJW 7001 T2 HOOD W/7700 M2 GRATE
CB-11	EJW 7001 T2 HOOD W/7700 M2 GRATE
CB-12	EJW 7001 T2 HOOD W/7700 M3 GRATE

CATCH BASIN TOP SLAB OPENINGS SHALL BE DIMENSIONED TO FIT THE FRAME DIMENSIONS. ALL COVERS SHALL BE HEAVY DUTY CONSTRUCTION AND BICYCLE SAFE. ALL FRAMES AND GRATES SHALL BE DUCTILE IRON.

LOCAL FLOW LINE DEPRESSION AT CATCH BASIN SHALL BE ¾ INCH, WITH 36" TRANSITIONS TO EACH SIDE OF FRAME, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

RECONSTRUCT MAILBOX TABLE

HOUSE NUMBER	LOCATION	COMMENTS
2906	STA "B" 11+67, 14.5 LT	SINGLE
2909	STA "B" 13+57, 14.5 LT	SINGLE
2913	STA "B" 14+72, 14.5 LT	SINGLE
2917	STA "B" 15+67, 14.5 LT	SINGLE
2918	STA "B" 15+96, 14.5 RT	SINGLE
3000	STA "B" 18+97, 14.6 RT	SINGLE
2999 / 3000	STA "B" 21+11, 14.5 LT	GANG
3005	STA "B" 21+61, 14.5 LT	SINGLE
3004	STA "B" 21+97, 14.5 RT	SINGLE
3013	STA "B" 23+68, 23 LT	SINGLE
3025 / 3031	STA "B" 24+27, 33 LT	GANG
3010	STA "B" 24+36, 23 LT	SINGLE

CONTRACTOR SHALL STAKE MAILBOX POST LOCATION, FOR APPROVAL BY THE ENGINEER.

REINSTALL EXISTING MAILBOX AND NEWSPAPER RECEPTACLES TO NEW POST ASSEMBLIES. IF THE RECEPTACLES ARE DAMAGED BY THE CONTRACTOR, NEW RECEPTACLES OF SAME SIZE AND COLOR AND NEW HOUSE NUMBERS SHALL BE PROVIDED BY THE CONTRACTOR.

GANG MAILBOX ASSEMBLIES SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 2719.1. RECONSTRUCT MAILBOX, AS ONE PAY UNIT.

MAIL DELIVERY SERVICE SHALL NOT BE INTERRUPTED AND ACCESS TO EACH MAILBOX RECEPTACLE SHALL BE AVAILABLE TO THE UNITED STATES POSTAL SERVICE AND THE RESIDENTS AT ALL TIMES.

EXISTING MAILBOXES THAT ARE MOVED BY THE CONTRACTOR SHALL HAVE TEMPORARY SUPPORTS PROVIDED AS REQUIRED FOR CONTINUED USAGE.

PAVING SEQUENCE REQUIREMENTS:

- LAYDOWN OPERATIONS SHALL BE CONDUCTED IN A MANNER WHICH ENSURES THAT THE MINIMUM TEMPERATURE ALONG THE CENTERLINE EDGE OF THE FIRST PAVED LANE DOES NOT FALL BELOW 150°F BEFORE THE SECOND LANE IS PAVED.

NOTES FOR TRAFFIC CONTROL:

- ALL TRAFFIC TO BE CONTROLLED PER THE REQUIREMENTS OF THE ALASKA TRAFFIC MANUAL (U.S. DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE ALASKA SUPPLEMENT).
- ALL DETOURS SHALL BE AS APPROVED BY THE ENGINEER.
- ROAD CLOSURES WILL BE PERMITTED ONLY AS APPROVED BY THE ENGINEER.
- THE CONTRACTOR WILL NOT BE PERMITTED TO OBSTRUCT VEHICULAR TRAFFIC BETWEEN THE HOURS OF 4:30pm AND 8:00am SEVEN DAYS A WEEK. DURING THIS PERIOD, TWO LANES SHALL BE OPEN TO VEHICULAR TRAFFIC AND WITH A MINIMUM TOTAL WIDTH OF 18 FEET.
- PROVIDE ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES.
- A MINIMUM OF ONE LANE (11 FOOT MINIMUM WIDTH) SHALL BE KEPT OPEN TO VEHICULAR TRAFFIC AT ALL TIMES, EXCEPT A FIVE (5) MINUTE MAXIMUM STOPPAGE TO VEHICULAR TRAFFIC WILL BE PERMITTED, WITH NO MORE THAN ONE TRAFFIC STOPPAGE PER HOUR. THIS REQUIREMENT DOES NOT APPLY FOR THE DAY OF PAVING.
- PEDESTRIAN TRAFFIC SHALL BE AVAILABLE ALONG AT LEAST ONE SIDE OF THE STREET AT ALL TIMES. THE PEDESTRIAN PATHWAY SHALL BE CLEARLY MARKED AND SHALL SATISFY THE REQUIREMENTS AS DESCRIBED IN THE SPECIAL PROVISIONS.

STATE OF ALASKA 49th Naomi R. Hobbs No. CE9959 01/03/17 REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01 | DRAWN BY: J. KEMP | DESIGNED BY: J. KANOUSE | CHECKED BY: N. HOBBS | DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

TRAFFIC CONTROL NOTES, TABLES, AND PAVING SEQUENCE REQUIREMENTS

SHEET NO. 5 of 19

C:\Civil 3D Projects\22\70890-01\Civil\SC14-CT-TS-70890.dwg 2017-1-5 09:22:26

CORROSION PROTECTION SPECIFICATIONS AND NOTES:

ANODES

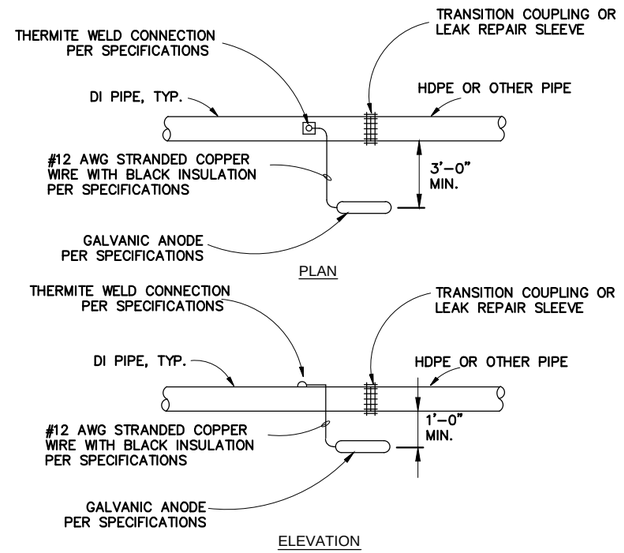
1. ANODES SHALL BE 18# BARE WEIGHT ZINC WITH PREPACKAGED ANODE BACKFILL.
2. ACCEPTABLE ANODE MODELS ARE:
   a. MODEL NO. ZUR–18 FROM FARWEST INDUSTRIES
   b. MODEL S18 FROM MESA PRODUCTS
   c. APPROVED EQUAL
3. INSTALL TYPE, SIZE, AND NUMBER OF ANODES SPECIFIED.
4. INSTALL 2 ANODES TO ALL CONNECTIONS TO EXISTING C.I. OR D.I. PIPE 12–INCH DIAMETER AND LARGER.
5. CONDUCTOR WIRE SHALL BE A MINIMUM SIZE OF 12 AWG STRANDED COPPER WITH INSULATION SUITABLE FOR WET LOCATION DIRECT BURIAL AND SHALL BE A MINIMUM OF 10 FEET LONG FROM ANODE.
6. PREPACKAGED ANODE SHALL BE SATURATED WITH WATER PRIOR TO BACKFILL.
7. ANODES SHALL BE PLACED IN NATIVE EARTH BACKFILL. DO NOT PLACE IN PIPE BEDDING MATERIAL.

THERMITE (EXOTHERMIC) WELDING

1. THERMITE WELD MATERIALS SHALL BE DESIGNED FOR CONNECTION OF COPPER TO DUCTILE IRON AND CAST IRON SURFACES AND SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
2. ACCEPTABLE MANUFACTURES OF THERMITE WELD PRODUCTS ARE:
   a. CADWELD BY ERICO PRODUCTS INC.
   b. THERMOWELD BY CONTINENTAL INDUSTRIES INC.
   c. APPROVED EQUAL
3. A 2–INCH SQUARE AREA IN THE PIPE SURFACE SHALL BE GROUND CLEAN PER MANUFACTURERS RECOMMENDATIONS PRIOR TO THERMITE WELDING.
4. WIRE ENDS SHALL HAVE PROPER ADAPTER SLEEVES TO ENSURE PROPER BOND. 12 AWG SHALL HAVE ADAPTER SLEEVES SPECIFIED BY THERMITE WELD MANUFACTURER. FIELD INSTALLED SLEEVES SHALL HAVE WIRE CONDUCTOR EXTEND ¼–INCH BEYOND ENDS OF SLEEVE.
5. WIRE CONNECTION SHALL BE TESTED FOR INTEGRITY PRIOR TO COATING.
6. CONTINUITY STRAPS SHALL BE #2 AWG COPPER STRANDED WIRE WITH THW INSULATION AND SHALL BE ATTACHED TO THE PIPE BY THERMITE WELDING AND COATED AND SEALED AS DESCRIBED BELOW.

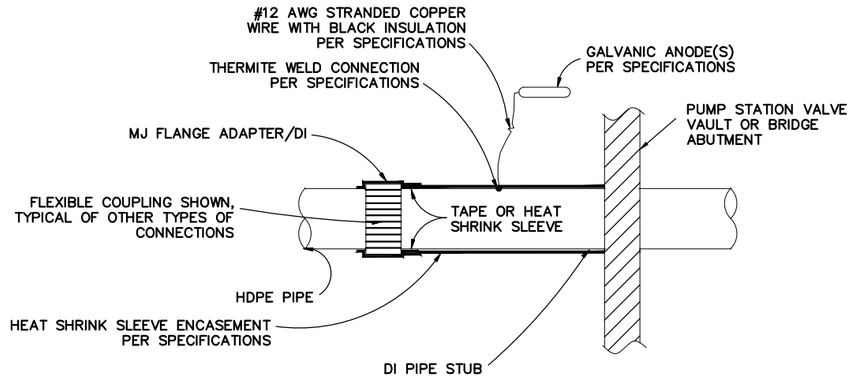
COATING AND SEALING

1. ALL THERMITE WELDS SHALL BE PROTECTED AND SEALED BY:
   a. PREFABRICATED THERMITE WELD CAPS, SIZED ACCORDING TO WIRE SIZE, MINIMUM DIMENSIONS OF 4–INCH BY 4–INCH FILLED WITH ELASTOMERIC MASTIC COATING OR,
   b. HEAT SHRINK SLEEVE PIPE ENCASEMENT AFTER COATING THERMITE WELD WITH ELASTOMERIC MASTIC COATING – HEAT SHRINK SLEEVE SHALL BE CANUSA AQUA SEAL OR APPROVED EQUAL.
2. ALL PIPE SURFACE COATING DAMAGED BEYOND THE WELD CAPS OR HEAT SHRINK SHALL BE COATED WITH PROTAL 7125 FROM DENSO NORTH AMERICA OR APPROVED EQUAL.



GALVANIC ANODE INSTALLATION FOR METALLIC PIPE CONNECTIONS TO HDPE PIPE

NTS



ENCASED METAL PIPE STUB BETWEEN HDPE PIPE AND FLEXIBLE COUPLING AT CONCRETE STRUCTURE CONNECTIONS

NTS

STATE OF ALASKA 49th Naomi R. Hobbs No. CE9959 01/03/17 REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907–780–3533
AECL848

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

JOB No. 70890.01 | DRAWN BY: J. KEMP | DESIGNED BY: J. KANOUSE | CHECKED BY: N. HOBBS | DATE: JAN. 2017

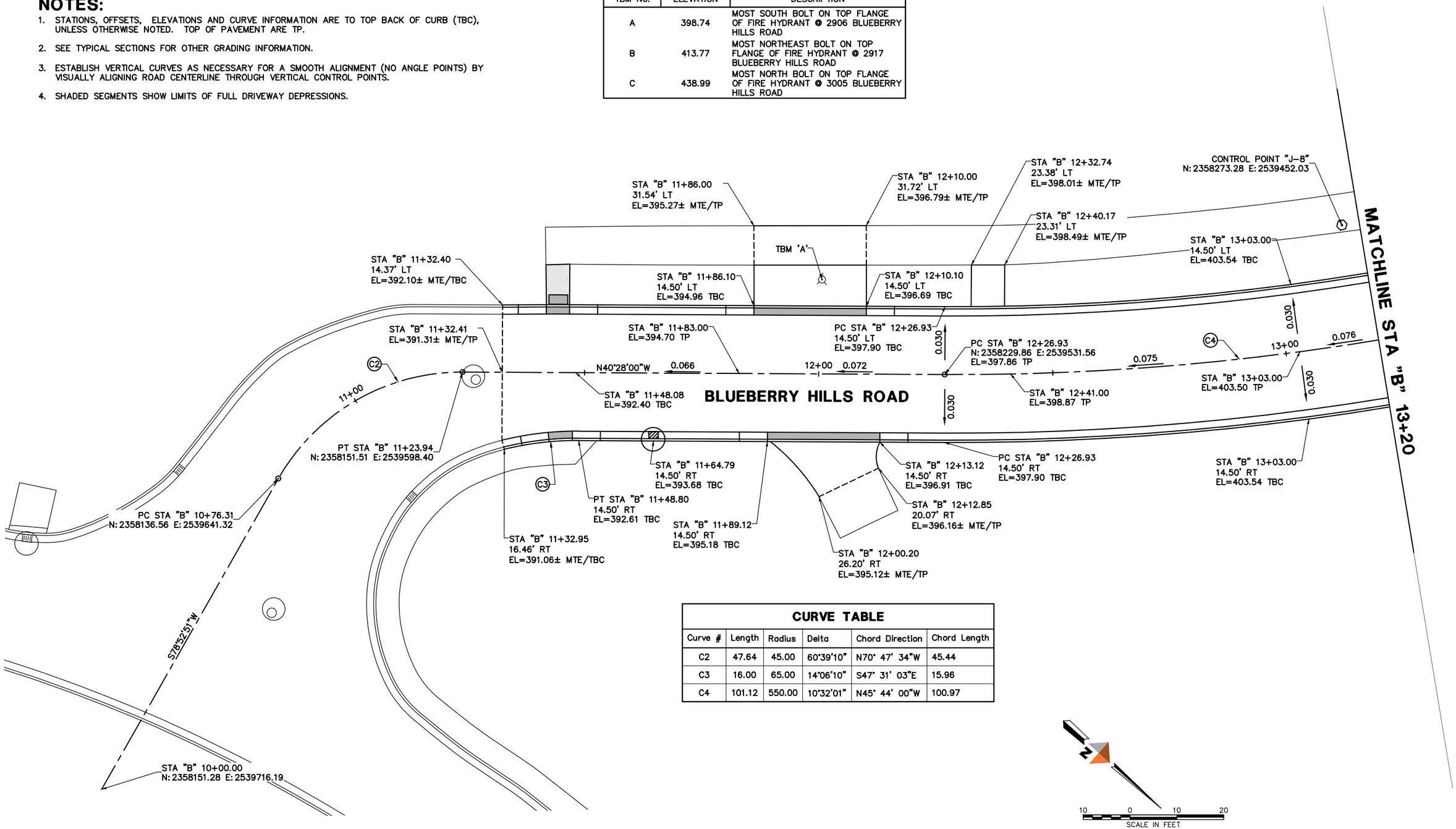
BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

CORROSION PROTECTION DETAILS

NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING ROAD CENTERLINE THROUGH VERTICAL CONTROL POINTS.
4. SHADED SEGMENTS SHOW LIMITS OF FULL DRIVEWAY DEPRESSIONS.

VERTICAL CONTROL		
TBM No.	ELEVATION	DESCRIPTION
A	398.74	MOST SOUTH BOLT ON TOP FLANGE OF FIRE HYDRANT @ 2906 BLUEBERRY HILLS ROAD
B	413.77	MOST NORTHEAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ 2917 BLUEBERRY HILLS ROAD
C	438.99	MOST NORTH BOLT ON TOP FLANGE OF FIRE HYDRANT @ 3005 BLUEBERRY HILLS ROAD



CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C2	47.64	45.00	60°39'10"	N70° 47' 34"W	45.44
C3	16.00	65.00	14°06'10"	S47° 31' 03"E	15.96
C4	101.12	550.00	10°32'01"	N45° 44' 00"W	100.97

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 01/03/17 REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01 | DRAWN BY: J. KEMP | DESIGNED BY: J. KANOUSE | CHECKED BY: N. HOBBS | DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

BLUEBERRY HILLS ROAD HORIZONTAL AND VERTICAL CONTROL CURB AND GUTTER LAYOUT AND GRADES PIONEER AVENUE TO STA "B" 13+20

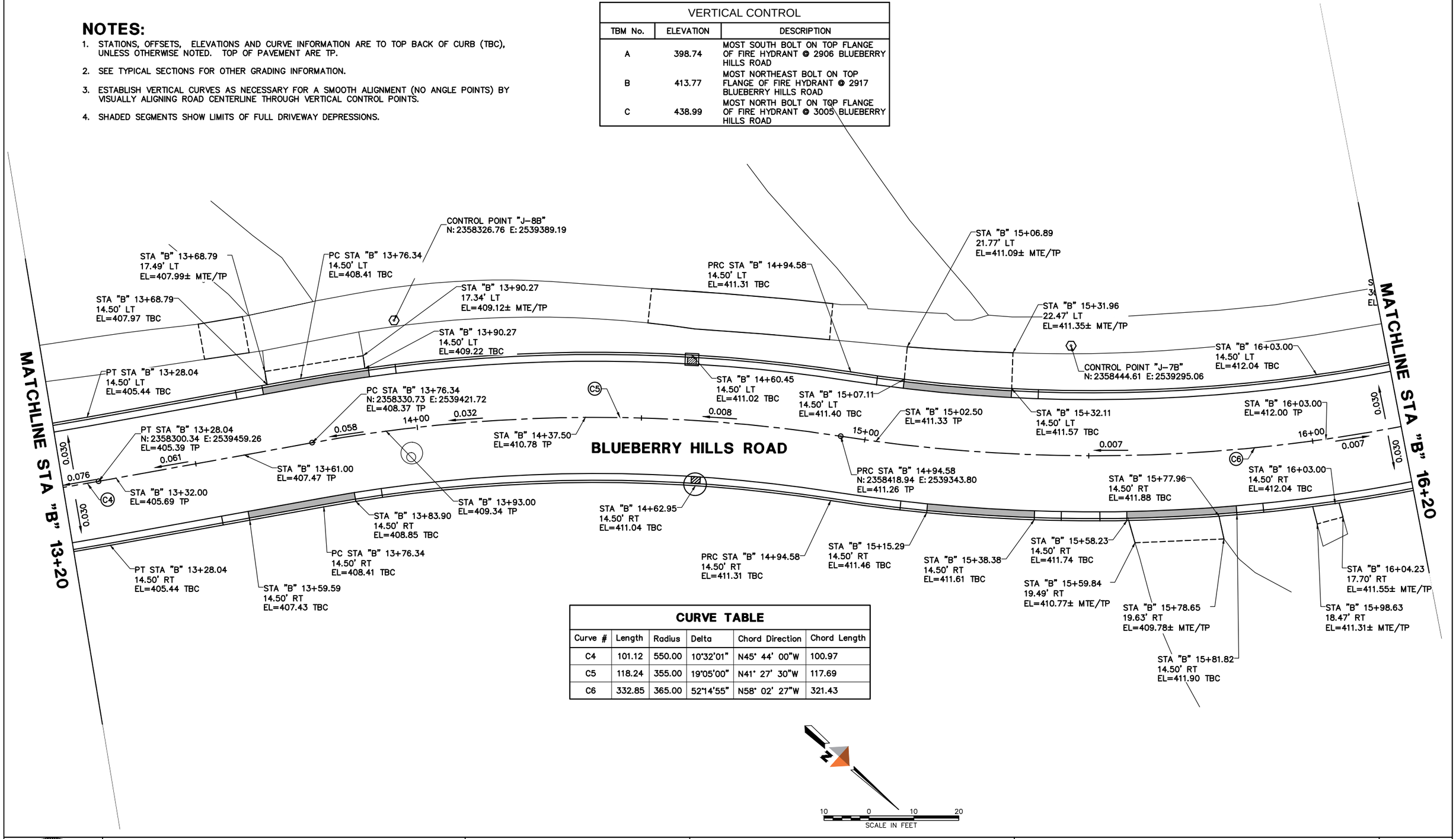
SHEET NO. 7 of 19

C:\Civil 3D Projects\22\70890-01\Civil\MC14-CT-GR-70890.dwg 2017-1-5 09:23:11

NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING ROAD CENTERLINE THROUGH VERTICAL CONTROL POINTS.
4. SHADED SEGMENTS SHOW LIMITS OF FULL DRIVEWAY DEPRESSIONS.

VERTICAL CONTROL		
TBM No.	ELEVATION	DESCRIPTION
A	398.74	MOST SOUTH BOLT ON TOP FLANGE OF FIRE HYDRANT @ 2906 BLUEBERRY HILLS ROAD
B	413.77	MOST NORTHEAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ 2917 BLUEBERRY HILLS ROAD
C	438.99	MOST NORTH BOLT ON TOP FLANGE OF FIRE HYDRANT @ 3005 BLUEBERRY HILLS ROAD



CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C4	101.12	550.00	10°32'01"	N45° 44' 00"W	100.97
C5	118.24	355.00	19°05'00"	N41° 27' 30"W	117.69
C6	332.85	365.00	52°14'55"	N58° 02' 27"W	321.43

STATE OF ALASKA 49th
Naomi R. Hobbs
No. CE9959
01/03/17
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01 | DRAWN BY: J. KEMP | DESIGNED BY: J. KANOUSE | CHECKED BY: N. HOBBS | DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

BLUEBERRY HILLS ROAD HORIZONTAL AND VERTICAL CONTROL CURB AND GUTTER LAYOUT AND GRADES STA "B" 13+20 TO STA "B" 16+20

SHEET NO. 8 of 19

C:\Civil 3D Projects\22\70890-01\Civil\MC14-CT-GR-70890.dwg 2017-1-5 09:23:18

VERTICAL CONTROL		
TBM No.	ELEVATION	DESCRIPTION
A	398.74	MOST SOUTH BOLT ON TOP FLANGE OF FIRE HYDRANT @ 2906 BLUEBERRY HILLS ROAD
B	413.77	MOST NORTHEAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ 2917 BLUEBERRY HILLS ROAD
C	438.99	MOST NORTH BOLT ON TOP FLANGE OF FIRE HYDRANT @ 3005 BLUEBERRY HILLS ROAD

MATCHLINE STA "B" 16+20

STA "B" 16+67.93
29.78' LT
EL=411.54± MTE/TP

STA "B" 16+67.85
14.50' LT
EL=411.60 TBC

CONTROL POINT "J-7"
N: 2358522.06 E: 2539206.09

STA "B" 16+43.46
30.52' LT
EL=411.72± MTE/TP

TBM 'B'

STA "B" 16+43.00
14.50' LT
EL=411.77 TBC

STA "B" 17+14.07
14.50' LT
EL=411.29 TBC

STA "B" 18+82.31
14.50' LT
EL=417.41 TBC

PT STA "B" 18+27.43
14.50' LT
EL=413.37 TBC

0.030
0.030
0.007
17+00
C6

STA "B" 16+47.36
14.50' RT
EL=411.74 TBC

STA "B" 17+14.00
EL=411.25 TP

STA "B" 17+92.00
EL=411.80 TP

PT STA "B" 18+27.43
N: 2358589.08 E: 2539071.09
EL=413.33 TP

STA "B" 18+66.50
EL=415.94 TP

PT STA "B" 18+94.50
14.50' RT
EL=418.51 TBC

0.030
0.090
0.030
0.007
0.067
18+00
0.033

STA "B" 18+90.94
14.75' RT
EL=418.16 TBC

STA "B" 18+87.69
15.45' RT
EL=417.84 TBC

STA "B" 18+17.00
EL=412.63 TP

STA "B" 18+80.90
18.52' RT
EL=416.53 TBC

BLUEBERRY HILLS ROAD

STA "B" 17+13.82
14.50' RT
EL=411.29 TBC

STA "B" 17+35.32
14.50' RT
EL=411.44 TBC

STA "B" 17+58.52
14.50' RT
EL=411.61 TBC

PC STA "B" 18+00.13
14.50' RT
EL=412.11 TBC

C7

STA "B" 18+16.31
19.30' RT
EL=412.81 TBC

STA "B" 18+27.43
12.50' RT
EL=412.95 TP

STA "B" 18+49.13
12.50' RT
EL=414.40 TP

C8

STA "B" 18+89.68
21.78' RT
EL=416.40± MTE/TP

STA "B" 18+96.51
31.63' RT
EL=415.20± MTE/TP

PT STA "B" 18+26.87
30.93' RT
EL=413.19± MTE/TBC

STA "B" 18+49.13
29.37' RT
EL=413.10± MTE/TP

STA "B" 18+71.54
29.61' RT
EL=413.87± MTE/TBC

GOODWIN ROAD

MATCHLINE STA "B" 19+00

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C6	332.85	365.00	52°14'55"	N58° 02' 27"W	321.43
C7	33.81	35.00	55°20'39"	N52° 12' 27"W	32.51
C8	28.75	25.00	65°53'52"	N62° 53' 09"E	27.19

NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING ROAD CENTERLINE THROUGH VERTICAL CONTROL POINTS.
4. SHADED SEGMENTS SHOW LIMITS OF FULL DRIVEWAY DEPRESSIONS.

N

10 0 10 20
SCALE IN FEET

STATE OF ALASKA
49th
Naomi R. Hobbs
No.CE9959
01/03/17
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01 | DRAWN BY: J. KEMP | DESIGNED BY: J. KANOUSE | CHECKED BY: N. HOBBS | DATE: JAN. 2017

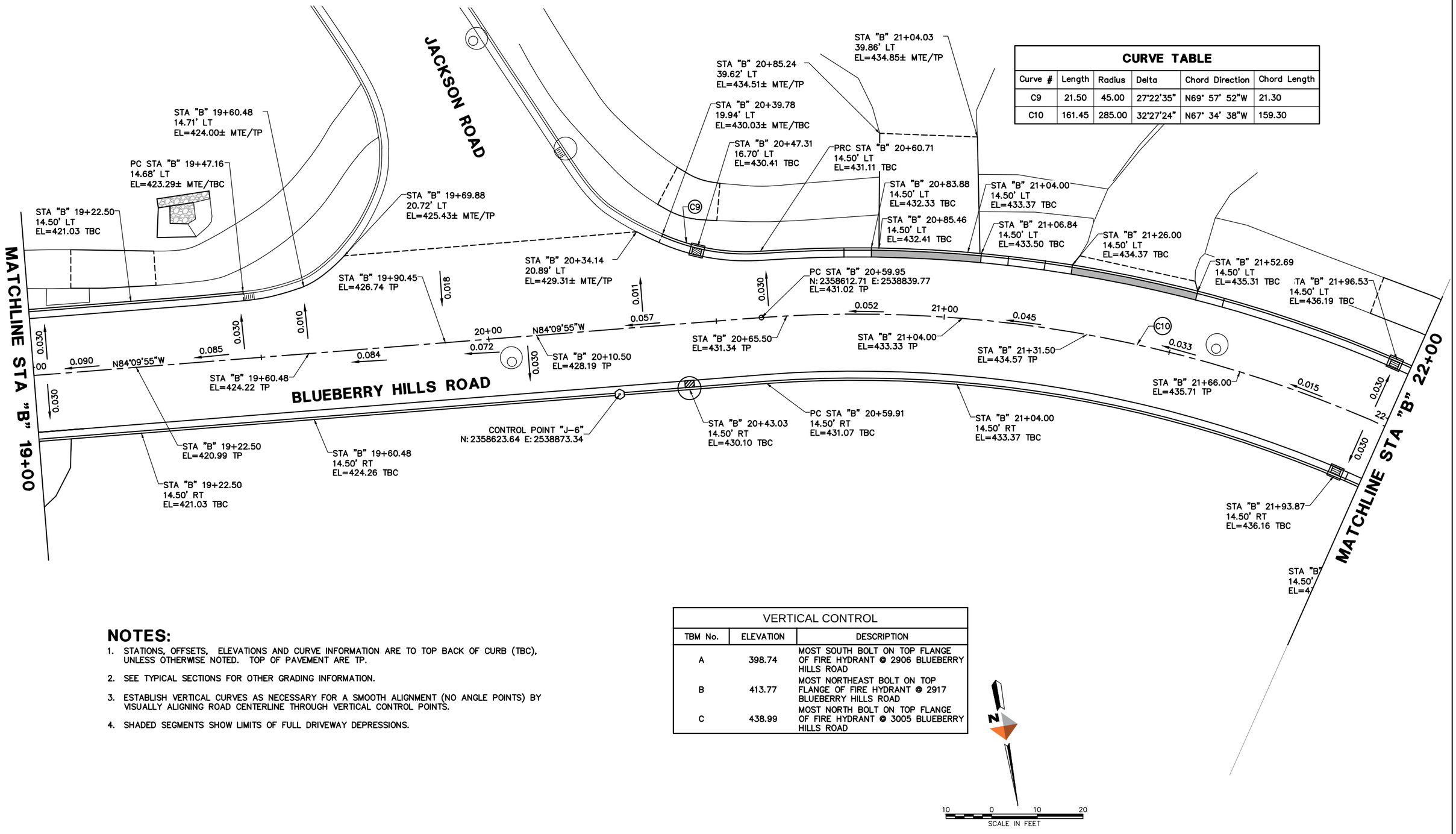
CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

BLUEBERRY HILLS ROAD HORIZONTAL AND VERTICAL CONTROL CURB AND GUTTER LAYOUT AND GRADES STA "B" 16+20 TO STA "B" 19+00

SHEET NO.
9
of
19

C:\Civil 3D Projects\22\70890-01\Civil\MC14-CT-GR-70890.dwg 2017-1-5 09:23:25



CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C9	21.50	45.00	27°22'35"	N69° 57' 52"W	21.30
C10	161.45	285.00	32°27'24"	N67° 34' 38"W	159.30

NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING ROAD CENTERLINE THROUGH VERTICAL CONTROL POINTS.
4. SHADED SEGMENTS SHOW LIMITS OF FULL DRIVEWAY DEPRESSIONS.

VERTICAL CONTROL		
TBM No.	ELEVATION	DESCRIPTION
A	398.74	MOST SOUTH BOLT ON TOP FLANGE OF FIRE HYDRANT @ 2906 BLUEBERRY HILLS ROAD
B	413.77	MOST NORTHEAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ 2917 BLUEBERRY HILLS ROAD
C	438.99	MOST NORTH BOLT ON TOP FLANGE OF FIRE HYDRANT @ 3005 BLUEBERRY HILLS ROAD

STATE OF ALASKA
49th
Naomi R. Hobbs
No. CE9959
01/03/17
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration
PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01	DRAWN BY: J. KEMP	DESIGNED BY: J. KANOUSE	CHECKED BY: N. HOBBS	DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

BLUEBERRY HILLS ROAD HORIZONTAL AND VERTICAL CONTROL CURB AND GUTTER LAYOUT AND GRADES STA "B" 19+00 TO STA "B" 22+00

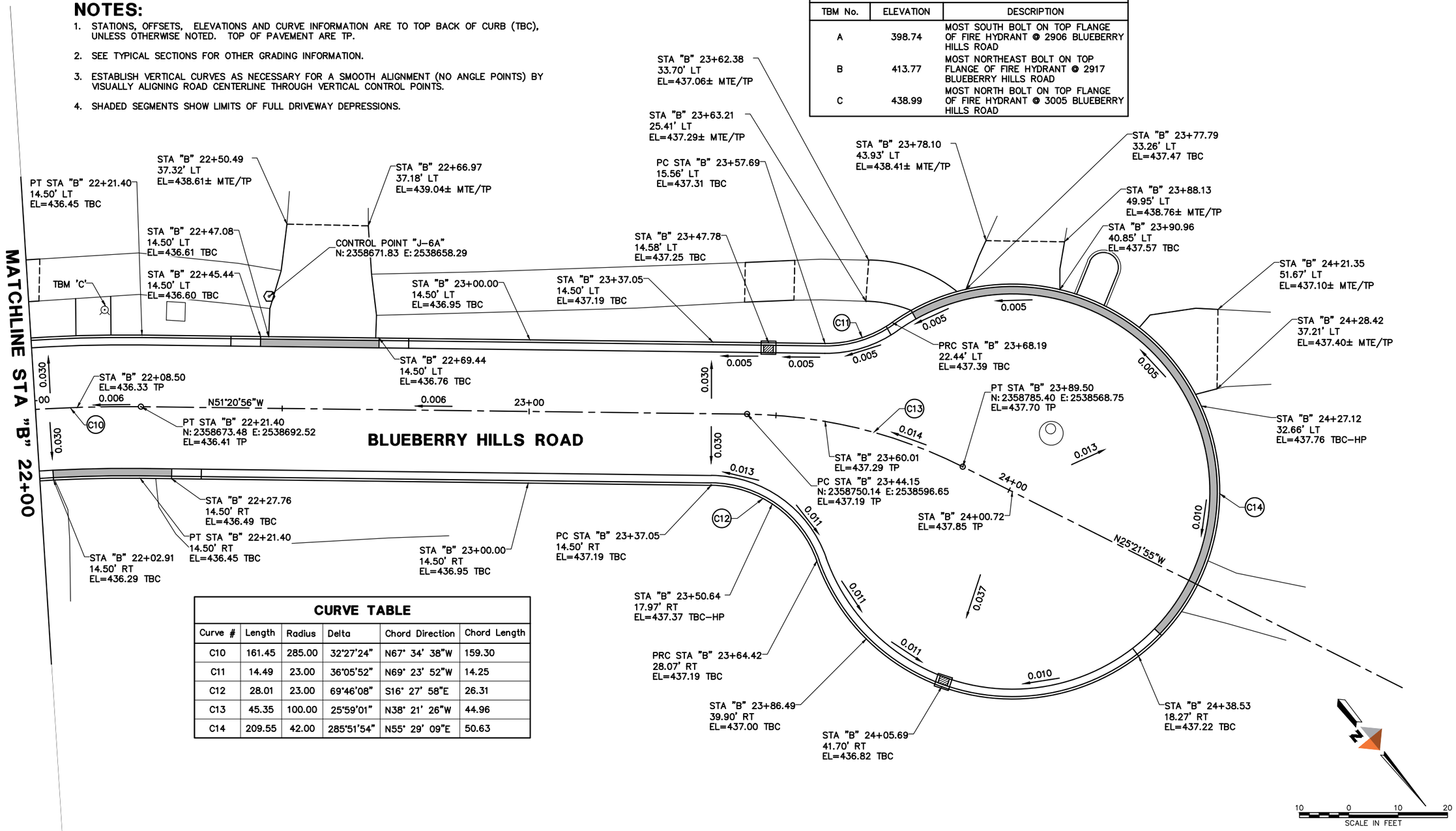
SHEET NO. 10 of 19

C:\Civil 3D Projects\22\70890-01\Civil\MC14-CT-GR-70890.dwg 2017-1-5 09:23:33

NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING ROAD CENTERLINE THROUGH VERTICAL CONTROL POINTS.
4. SHADED SEGMENTS SHOW LIMITS OF FULL DRIVEWAY DEPRESSIONS.

VERTICAL CONTROL		
TBM No.	ELEVATION	DESCRIPTION
A	398.74	MOST SOUTH BOLT ON TOP FLANGE OF FIRE HYDRANT @ 2906 BLUEBERRY HILLS ROAD
B	413.77	MOST NORTHEAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ 2917 BLUEBERRY HILLS ROAD
C	438.99	MOST NORTH BOLT ON TOP FLANGE OF FIRE HYDRANT @ 3005 BLUEBERRY HILLS ROAD



CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C10	161.45	285.00	32°27'24"	N67° 34' 38"W	159.30
C11	14.49	23.00	36°05'52"	N69° 23' 52"W	14.25
C12	28.01	23.00	69°46'08"	S16° 27' 58"E	26.31
C13	45.35	100.00	25°59'01"	N38° 21' 26"W	44.96
C14	209.55	42.00	285°51'54"	N55° 29' 09"E	50.63

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 01/03/17 REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration
PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01 | DRAWN BY: J. KEMP | DESIGNED BY: J. KANOUSE | CHECKED BY: N. HOBBS | DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

BLUEBERRY HILLS ROAD HORIZONTAL AND VERTICAL CONTROL CURB AND GUTTER LAYOUT AND GRADES STA "B" 22+00 TO EOP

SHEET NO. 11 of 19

C:\Civil 3D Projects\22\70890-01\Civil\MC14-CT-GR-70890.dwg 2017-1-5 09:23:40

PIPE SUMMARY – STORM DRAINAGE				
PIPE	SIZE	LENGTH	TYPE	SLOPE
S–1	18"	52.5	CPP	0.018
S–2	18"	296.7	CPP	0.042
SEE NOTE 3				

MH–2 EXISTING TYPE I*	
STA "B" 11+26.2, 0.9 RT	
EXISTING COVER	EL=390.84
TOP OF EXIST 8" OFFSET FLAT TOP	EL=389.94
INV 8"PVC (IN)	EL=386.78
INV 8"PVC (OUT)	EL=386.55
*TO REMAIN. NO WORK REQUIRED.	

MH–1 EXISTING TYPE I*	
STA "B" 10+51.6, 12.9 RT	
EXISTING COVER	EL=386.94
INV 8"PVC (IN) WEST	EL=380.89
INV 8"PVC (IN) SOUTH	EL=380.97
INV 8"PVC (OUT)	EL=380.72
*TO REMAIN. NO WORK REQUIRED.	

CB–1, TYPE I	
STA "B" 11+64.8, MATCH CURB	
FG	EL=393.12
INV S–1	EL=389.90
INV S–2	EL=390.00
INV 6"UD	EL=390.00
SUMP 16" MIN	

LOT 5
LIV M CADIGAN
LOT 5
586–8332

LOT 6
NELSON

2909
DAREN J BOOTON &
TAMALA E BOOTON
LOT 4
463–4630

2906
PAUL DICK &
SHARON DICK
LOT 1
586–3469

2910

HEADWALL
STA "B" 11+32.3
26.8 LT
INV EL=389.00

VERIFY CONDUIT ELEVATION AND REPORT TO THE ENGINEER BEFORE INSTALLATION OF S–1

45° BEND

INSTALL CLEANOUT

SAWCUT/MTE

INSTALL FIRE HYDRANT
STA "B" 12+36.4
20.4 LT

CONTROL POINT "J–8"
N: 2358273.28 E: 2539452.03

CONCRETE PAD

ASPHALT DRIVE

ASPHALT SIDEWALK

DO NOT DISTURB TREES

ASPHALT PAD

24"X48"
DETECTABLE TILE

8"DI

10"HDPE

8"HDPE

8"X10"HDPE
REDUCER

18"CPP

8"PVC

SALVAGE FIRE HYDRANT

13+00

12+00

11+00

DRAINAGE SWALE
SEE DETAIL SHEET 4

MH-2

SAWCUT/MTE

S-1

6"UD

S-2

CB-1

BLUEBERRY HILLS ROAD

18"CPP

MATCHLINE STA "B" 13+20

PC STA "B" 12+26.93
N: 2358229.86 E: 2539531.56

PT STA "B" 11+23.94
N: 2358151.51 E: 2539598.40

12"CPP

8"PVC

24"CPP

18"CPP

CONCRETE DRIVE

REMOVE/REPLACE CONCRETE DRIVE

SAWCUT/MTE AT EXISTING CONSTRUCTION JOINT

STOP AND WASTE VALVE

MH-1

PC STA "B" 10+76.31
N: 2358136.56 E: 2539641.32

24"CPP

ASPHALT SIDEWALK

STA "B" 10+00.00
N: 2358151.28 E: 2539716.19

PIONEER AVENUE

N

10 0 10 20
SCALE IN FEET

NOTES

1. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS. CONNECT TO EXISTING.
2. WATER PIPE INSTALLATION DEPTH MAY NEED TO BE ADJUSTED TO ACCOMMODATE STORM PIPE SYSTEM. INSULATE THE 10" HDPE AS DIRECTED BY THE ENGINEER.
3. PIPE LENGTHS ARE TO CENTER OF STRUCTURES, PIPE SLOPES ARE TO ENDS OF PIPES.

STATE OF ALASKA
49th
Naomi R. Hobbs
No. CE9959
01/03/17
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907–780–3533
AECL848

JOB No. 70890.01 | DRAWN BY: J. KEMP | DESIGNED BY: J. KANOUSE | CHECKED BY: N. HOBBS | DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

PLAN - BLUEBERRY HILLS ROAD PIONEER AVENUE TO STA "B" 13+20

SHEET NO. 12 of 19

C:\Civil 3D Projects\22\70890–01\Civil\SC14–CT–BA–70890.dwg 2017–1–5 09:24:09

PIPE SUMMARY – STORM DRAINAGE				
PIPE	SIZE	LENGTH	TYPE	SLOPE
S-2		SEE SHEET 12		
S-3	12"	18.9	CPP	0.006
S-4	12"	28.0	CPP	0.013
S-5	18"	254.0	CPP	0.004
		SEE NOTE 3		

MH-3 EXISTING TYPE I*	
STA "B" 13+98.1, 5.6 RT	
FG	EL=409.23
EXISTING COVER	EL=409.30
TOP OF EXIST 8" OFFSET FLAT TOP	EL=408.74
INV 8"PVC (IN)	EL=403.62
INV 8"PVC (OUT)	EL=403.56
*WATERPROOF MANHOLE. ADJUST TO GRADE. INSTALL NEW 4" FRAME AND COVER.	

CB-2, TYPE III	
STA "B" 14+60.5, MATCH CURB	
FG	EL=410.46
INV S-3	EL=407.90
INV S-4	EL=407.80
SUMP 16" MIN	

CB-3, TYPE I	
STA "B" 14+63.0, MATCH CURB	
FG	EL=410.48
INV S-2	EL=402.20
INV S-4	EL=407.50
INV S-5	EL=402.30
SUMP 16" MIN	

2909
DAREN J BOOTON &
TAMALA E BOOTON
LOT 4
463-4630

2913
TRACY A LABARGE
LOT 3

2917
GREGORY C BLEDSOE
& TAMARA BLEDSOE
LOT 2

LOT 3
MYRON W KLEIN
463-5580

2918
RICHARD J KNAPP
LOT 4
463-3995

2910

MATCHLINE STA "B" 13+20

MATCHLINE STA "B" 16+20

BLUEBERRY HILLS ROAD

HEADWALL W/ TRASHRACK
STA "B" 14+58.1
32.1 LT
INV EL=408.00

REMOVE/REPLACE
ROCK WALL

18"CMP

EXISTING STOP AND
WASTE VALVE

CONTROL POINT "J-8B"
N: 2358326.76 E: 2539389.19

CONTROL POINT "J-7B"
N: 2358444.61 E: 2539295.06

DO NOT DISTURB LAMP

ASPHALT
DRIVE

GRAVEL
DRIVE

12"CPP

SAWCUT/MTE

ASPHALT
SIDEWALK

DO NOT DISTURB TREES

24"CMP

S-3

CB-2

8"DI

10"HDPE

PC STA "B" 13+76.34
N: 2358330.73 E: 2539421.72

PRC STA "B" 14+94.58
N: 2358418.94 E: 2539343.80

8"PVC

14+00

15+00

16+00

PT STA "B" 13+28.04
N: 2358300.34 E: 2539459.26

MH-3

S-4

S-5

18"CPP

S-2

CB-3

REMOVE/REPLACE
CONCRETE PAD

CONCRETE PAD

EXISTING STOP AND
WASTE VALVE

EXISTING STOP AND
WASTE VALVE

EXISTING STOP AND
WASTE VALVE

ASPHALT
DRIVE

SAWCUT/MTE

10 0 10 20
SCALE IN FEET

NOTES

1. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS. CONNECT TO EXISTING.
2. WATER PIPE INSTALLATION DEPTH MAY NEED TO BE ADJUSTED TO ACCOMMODATE STORM PIPE SYSTEM. INSULATE THE 10" HDPE AS DIRECTED BY THE ENGINEER.
3. PIPE LENGTHS ARE TO CENTER OF STRUCTURES, PIPE SLOPES ARE TO ENDS OF PIPES.

STATE OF ALASKA
49th
Naomi R. Hobbs
No. CE9959
01/03/17
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01 | DRAWN BY: J. KEMP | DESIGNED BY: J. KANOUSE | CHECKED BY: N. HOBBS | DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

PLAN - BLUEBERRY HILLS ROAD STA "B" 13+20 TO STA "B" 16+20

SHEET NO. 13 of 19

C:\Civil 3D Projects\22\70890-01\Civil\SC14-CT-BA-70890.dwg 2017-1-5 09:24:18

PIPE SUMMARY – STORM DRAINAGE				
PIPE	SIZE	LENGTH	TYPE	SLOPE
S–5		SEE SHEET 13		
S–6	12"	21.0	CPP	0.051
S–7	12"	27.9	CPP	0.013
S–8	12"	18.3	CPP	0.209
S–9	18"	180.8	CPP	0.034
S–10	18"	61.5	CPP	0.066
		SEE NOTE 3		

CB–4, TYPE IV	
STA "B" 17+14.1, MATCH CURB	
FG	EL=410.73
INV S–6	EL=406.00
INV S–7	EL=405.00
SUMP 16" MIN	

CB–6, TYPE I	
STA "B" 18+90.8, MATCH CURB	
FG	EL=417.60
INV S–9	EL=411.00
INV S–10	EL=414.10
INV 6"UD	EL=414.00
SUMP 16" MIN	

MH–4, EXISTING TYPE I*	
STA "B" 16+63.0, 3.2 RT	
FG	EL=411.42
EXISTING COVER	EL=411.48
TOP OF EXIST 8" OFFSET FLAT TOP	EL=410.00
INV EXIST 8"PVC (IN)	EL=406.02
INV EXIST 8"PVC (OUT)	EL=405.77
*RECONSTRUCT EXISTING MANHOLE. REPLACE EXISTING 8" OFFSET FLAT TOP WITH NEW 18" OFFSET CONE. ADJUST TO GRADE WITH NEW 6" FRAME AND COVER AND RECYCLED RUBBER RINGS. WATERPROOF MANHOLE.	

CB–5, TYPE I	
STA "B" 17+13.8, MATCH CURB	
FG	EL=410.73
INV S–5	EL=403.30
INV S–7	EL=404.70
INV S–8	EL=404.80
INV S–9	EL=405.00
SUMP 16" MIN	

MH–5, EXISTING TYPE I*	
STA "B" 18+25.4, 4.1 RT	
FG	EL=412.98
EXISTING COVER	EL=413.06
TOP OF EXIST 8" OFFSET FLAT TOP	EL=411.84
INV EXIST 8"PVC (IN)	EL=406.67
INV 4"IP (IN)	EL=406.99
INV EXIST 8"PVC (OUT)	EL=406.58
*WATERPROOF MANHOLE. ADJUST TO GRADE. REPLACE EXISTING ADJUSTING RINGS WITH NEW ADJUSTING RINGS AND RECYCLED RUBBER RINGS. INSTALL NEW 6" FRAME AND COVER.	

2917
GREGORY C BLEDSOE
& TAMARA BLEDSOE
LOT 2

2921
CARL J & MARIA UCHYTIL
LOT 1
523–5091

2918
RICHARD J KNAPP
LOT 4
463–3995

LOT 5

MATCHLINE STA "B" 16+20

MATCHLINE STA "B" 19+00

BLUEBERRY HILLS ROAD

GOODWIN ROAD

CONCRETE DRIVE

ASPHALT SIDEWALK

SAWCUT/MTE

EXISTING STOP AND WASTE VALVE

CONTROL POINT "J–7"
N: 2358522.06 E: 2539206.09

INSTALL FIRE HYDRANT
STA "B" 16+86.0
19.3 LT

HEADWALL W/ TRASHRACK
STA "B" 17+15.8
34.2 LT
INV EL=407.00

REMOVE TOP 4" OF 2" MINUS AND PLACE TOPSOIL AND SEED

DO NOT DISTURB TREES

PT STA "B" 18+27.43
N: 2358589.08 E: 2539071.09

10X10X10 TEE

SALVAGE FIRE HYDRANT

S–5 18"CPP

S–6 12"CPP

8"CMP

CB–4

MH–4

17+00

S–7 12"CPP

18"CMP

10"HDPE

8"DI

10"GV

8"PVC

18+00

MH–5

6"UD

18"CPP

S–10

CB–5

S–8 12"CPP

18"CMP

S–9 18"CPP

SEE NOTE 4

STA "B" 17+14.7
32.4 RT
INV EL=401.50

GRADE BREAK S–9
INV EL=409.00

4"IP

CB–6

CAP CPP

PLACE WATER MAIN 6" BELOW STORM AND INSULATE

SAWCUT/MTE

CONNECT 10" HDPE TO EXISTING 8" DI ADD CORROSION PROTECTION

CONTROL POINT "J–7A"
N: 2358655.28 E: 2539018.75

PRESSURE SEWER

N

10 0 10 20
SCALE IN FEET

NOTES

1. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS. CONNECT TO EXISTING.
2. WATER PIPE INSTALLATION DEPTH MAY NEED TO BE ADJUSTED TO ACCOMMODATE STORM PIPE SYSTEM. INSULATE THE 10" HDPE AS DIRECTED BY THE ENGINEER.
3. PIPE LENGTHS ARE TO CENTER OF STRUCTURES, PIPE SLOPES ARE TO ENDS OF PIPES.
4. ANY ADJUSTMENTS IN ELEVATIONS OF PIPES AT CB–5 MUST BE APPROVED BY THE ENGINEER. ANY RAIN EVENT LARGER THAN A 25 YEAR EVENT WILL NEED S–8 AS A SECONDARY OUTLET.

STATE OF ALASKA
49th
Naomi R. Hobbs
No. CE9959
01/03/17
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907–780–3533
AECL848

JOB No. 70890.01 | DRAWN BY: J. KEMP | DESIGNED BY: J. KANOUSE | CHECKED BY: N. HOBBS | DATE: JAN. 2017

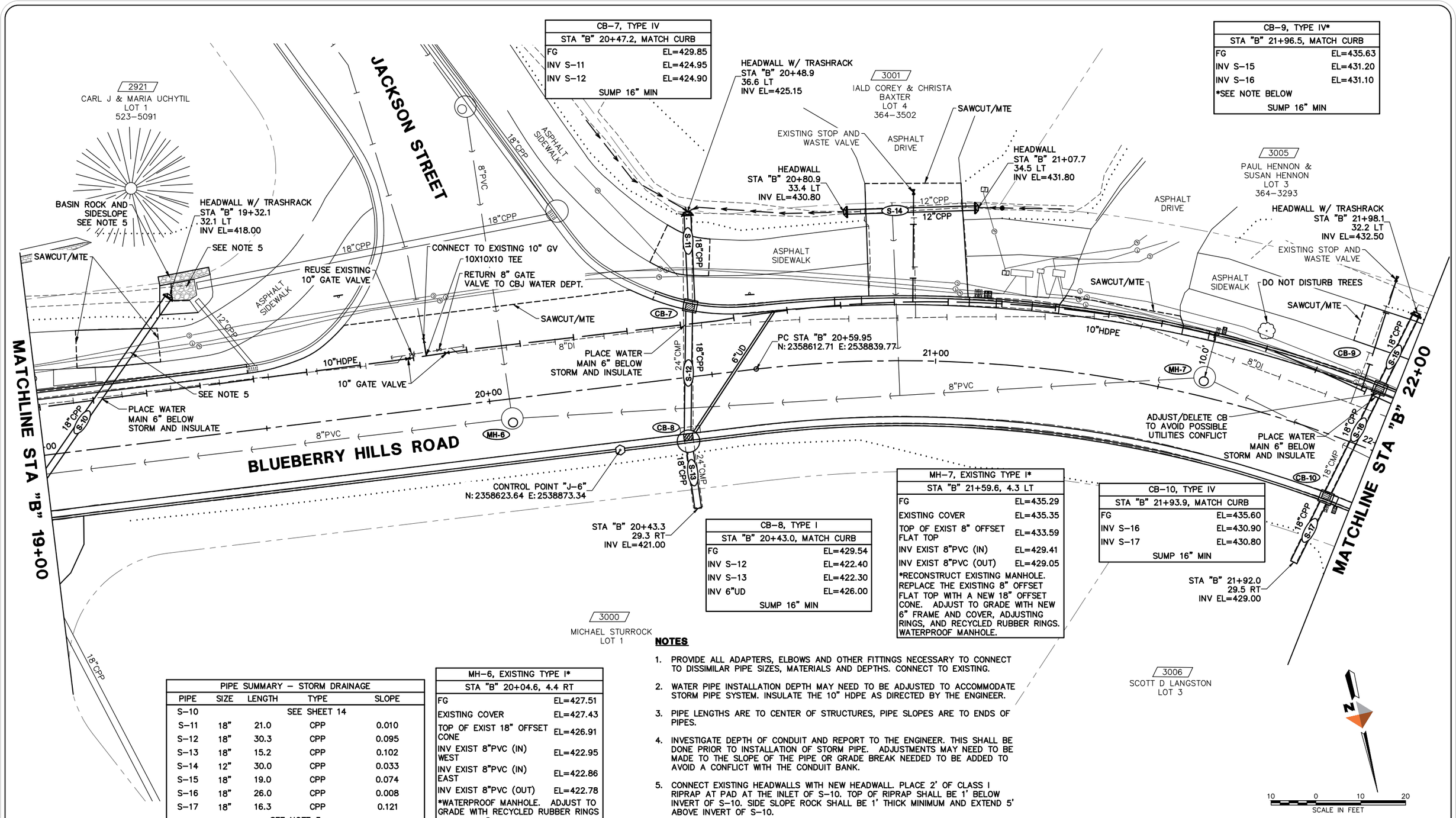
CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

PLAN - BLUEBERRY HILLS ROAD STA "B" 16+20 TO STA "B" 19+00

SHEET NO. 14 of 19

C:\Civil 3D Projects\22\70890–01\Civil\SC14–CT–BA–70890.dwg 2017–1–5 09:24:26



PIPE SUMMARY – STORM DRAINAGE				
PIPE	SIZE	LENGTH	TYPE	SLOPE
S-10		SEE SHEET 14		
S-11	18"	21.0	CPP	0.010
S-12	18"	30.3	CPP	0.095
S-13	18"	15.2	CPP	0.102
S-14	12"	30.0	CPP	0.033
S-15	18"	19.0	CPP	0.074
S-16	18"	26.0	CPP	0.008
S-17	18"	16.3	CPP	0.121
SEE NOTE 3				

NOTES

1. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS. CONNECT TO EXISTING.
2. WATER PIPE INSTALLATION DEPTH MAY NEED TO BE ADJUSTED TO ACCOMMODATE STORM PIPE SYSTEM. INSULATE THE 10" HDPE AS DIRECTED BY THE ENGINEER.
3. PIPE LENGTHS ARE TO CENTER OF STRUCTURES, PIPE SLOPES ARE TO ENDS OF PIPES.
4. INVESTIGATE DEPTH OF CONDUIT AND REPORT TO THE ENGINEER. THIS SHALL BE DONE PRIOR TO INSTALLATION OF STORM PIPE. ADJUSTMENTS MAY NEED TO BE MADE TO THE SLOPE OF THE PIPE OR GRADE BREAK NEEDED TO BE ADDED TO AVOID A CONFLICT WITH THE CONDUIT BANK.
5. CONNECT EXISTING HEADWALLS WITH NEW HEADWALL. PLACE 2' OF CLASS I RIPRAP AT PAD AT THE INLET OF S-10. TOP OF RIPRAP SHALL BE 1' BELOW INVERT OF S-10. SIDE SLOPE ROCK SHALL BE 1' THICK MINIMUM AND EXTEND 5' ABOVE INVERT OF S-10.

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 01/03/17 REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01 | DRAWN BY: J. KEMP | DESIGNED BY: J. KANOUSE | CHECKED BY: N. HOBBS | DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

PLAN - BLUEBERRY HILLS ROAD STA "B" 19+00 TO STA "B" 22+00

SHEET NO. 15 of 19

C:\Civil 3D Projects\22\70890-01\Civil\SC14-CT-BA-70890.dwg 2017-1-5 09:24:35

CB–11, TYPE IV	
STA "B" 23+47.8, MATCH CURB	
FG	EL=436.69
INV S–18	EL=432.10
INV S–19	EL=432.00
SUMP 16" MIN	

MH–8, EXISTING TYPE I*	
STA "B" 24+02.0, 14.8 LT	
FG	EL=437.57
EXISTING COVER	EL=437.53
TOP OF EXIST 8" OFFSET FLAT TOP	EL=436.36
INV EXIST 8"PVC (OUT)	EL=433.14
*WATERPROOF MANHOLE. ADJUST TO GRADE WITH NEW 6" FRAME AND COVER.	

PIPE SUMMARY – STORM DRAINAGE				
PIPE	SIZE	LENGTH	TYPE	SLOPE
S–18	12"	21.1	CPP	0.095
S–19	12"	58.5	CPP	0.113
S–20	12"	8.9	CPP	MATCH EXISTING
SEE NOTE 3				

3005
PAUL HENNON &
SUSAN HENNON
LOT 3
364–3293

3009
KEVIN J HANLEY
LOT 2
364–3743

3013
MATTHEW J WEST &
OLIVIA C BARROW
LOT 1

3006
SCOTT D LANGSTON
LOT 3

3010
SCOTT D LANGSTON
LOT 3

DRIVEWAY AND UTILITY EASEMENT

MATCHLINE STA "B" 22+00

BLUEBERRY HILLS ROAD

SAWCUT/MTE

ASPHALT DRIVE

ASPHALT SIDEWALK

GRAVEL DRIVE

INSTALL FIRE HYDRANT
STA "B" 22+12.1
20.0 LT

SALVAGE FIRE HYDRANT

18"CMP

CONTROL POINT "J–6A"
N: 2358671.83 E: 2538658.29

HEADWALL W/ TRASHRACK
STA "B" 23+47.3
34.5 LT
INV EL=434.00

12"CMP

12"CPP

S–19

CB–11

10"HDPE

8"DI

8"PVC

PC STA "B" 23+44.15
N: 2358750.14 E: 2538596.65

PT STA "B" 22+21.40
N: 2358673.48 E: 2538692.52

23+00

24+00

PLACE WATER MAIN 6" BELOW STORM AND INSULATE

INSTALL FIRE HYDRANT
STA "B" 23+96.8
48.8 LT

8X6X6 TEE

CAP END

MH–8

PT STA "B" 23+89.50
N: 2358785.40 E: 2538568.75

STA "B" 23+50.9
44.7 RT
INV EL=425.50

CB–12

SLIP LINE S–20
INTO EXISTING
18" CMP

S–20

12"CPP

LOCATION OF CUL–DE–SAC
EASEMENT APPROXIMATE

CB–12, TYPE IV	
STA "B" 24+05.6, MATCH CURB	
FG	EL=435.85
INV S–20	EL=430.80
SUMP 16" MIN	

N

10 0 10 20
SCALE IN FEET

NOTES

1. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS. CONNECT TO EXISTING.
2. WATER PIPE INSTALLATION DEPTH MAY NEED TO BE ADJUSTED TO ACCOMMODATE STORM PIPE SYSTEM. INSULATE THE 10" HDPE AS DIRECTED BY THE ENGINEER.
3. PIPE LENGTHS ARE TO CENTER OF STRUCTURES, PIPE SLOPES ARE TO ENDS OF PIPES.

STATE OF ALASKA
49th
Naomi R. Hobbs
Naomi R. Hobbs
No. CE9959
01/03/17
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907–780–3533
AECL848

JOB No. 70890.01 | DRAWN BY: J. KEMP | DESIGNED BY: J. KANOUSE | CHECKED BY: N. HOBBS | DATE: JAN. 2017

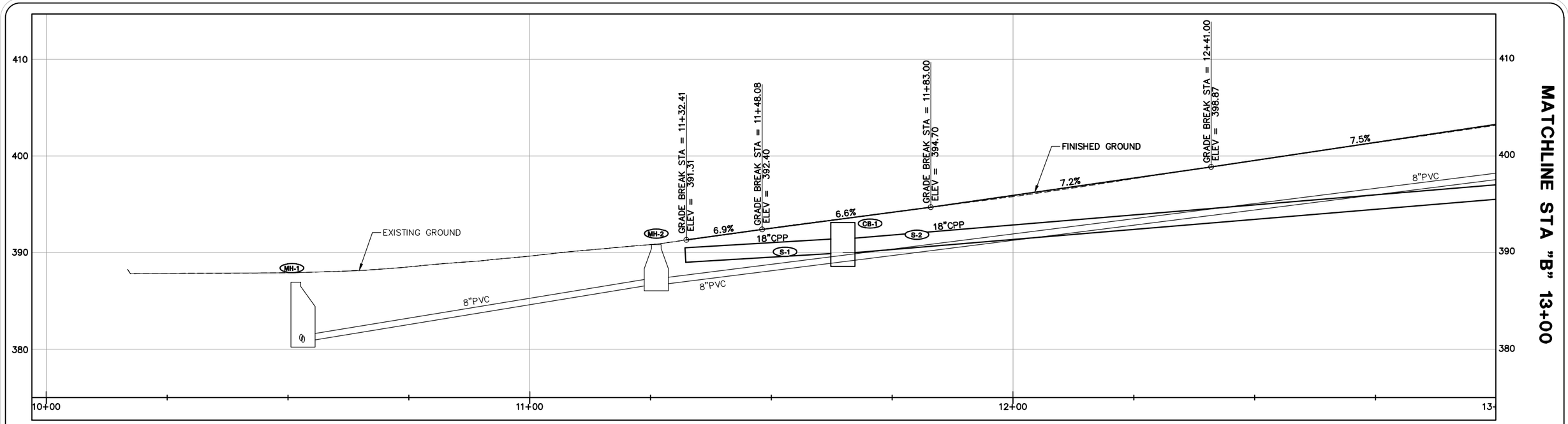
CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

PLAN - BLUEBERRY HILLS ROAD STA "B" 22+00 TO EOP

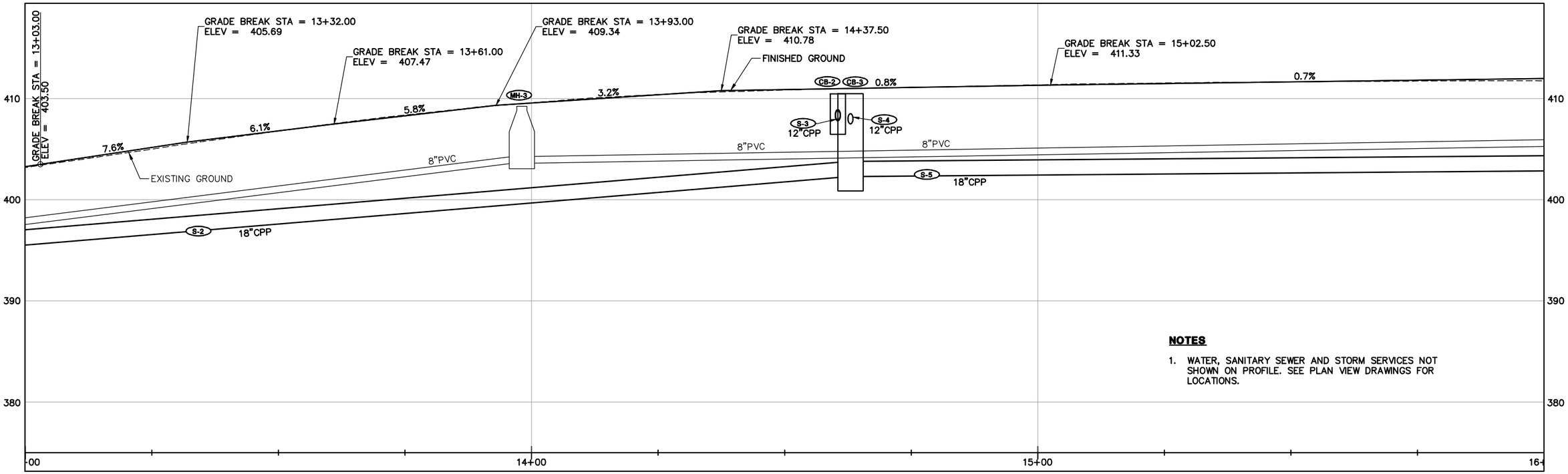
SHEET NO.
16
of
19

C:\Civil 3D Projects\22\70890–01\Civil\SC14–CT–BA–70890.dwg 2017–1–5 09:24:43



MATCHLINE STA "B" 13+00

MATCHLINE STA "B" 16+00



NOTES

1. WATER, SANITARY SEWER AND STORM SERVICES NOT SHOWN ON PROFILE. SEE PLAN VIEW DRAWINGS FOR LOCATIONS.

STATE OF ALASKA
49th
Naomi R. Hobbs
No. CE9959
01/03/17
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01	DRAWN BY: J. KEMP	DESIGNED BY: J. KANOUSE	CHECKED BY: N. HOBBS	DATE: JAN. 2017

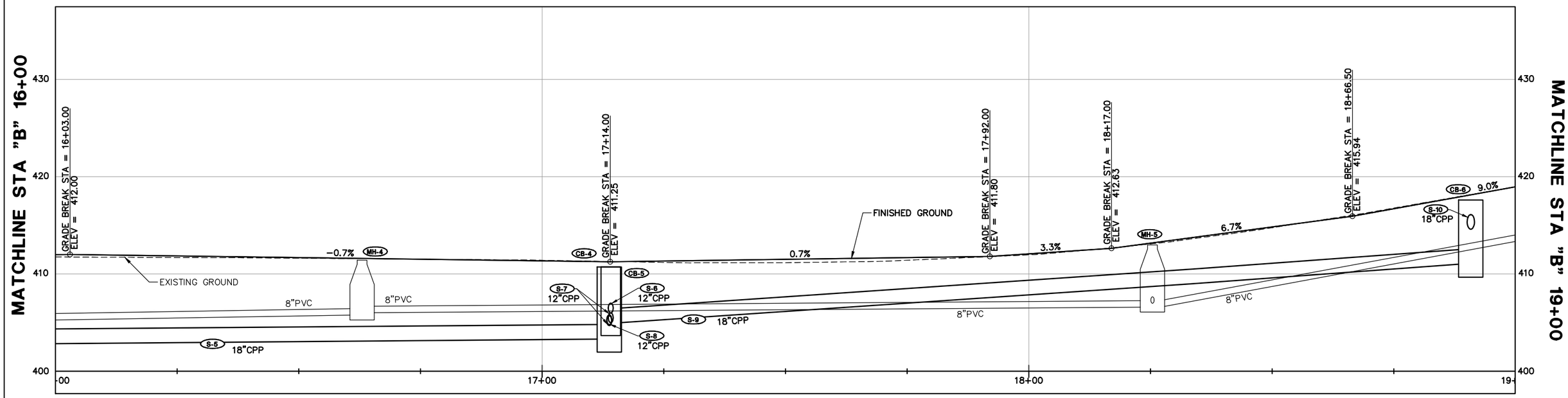
CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

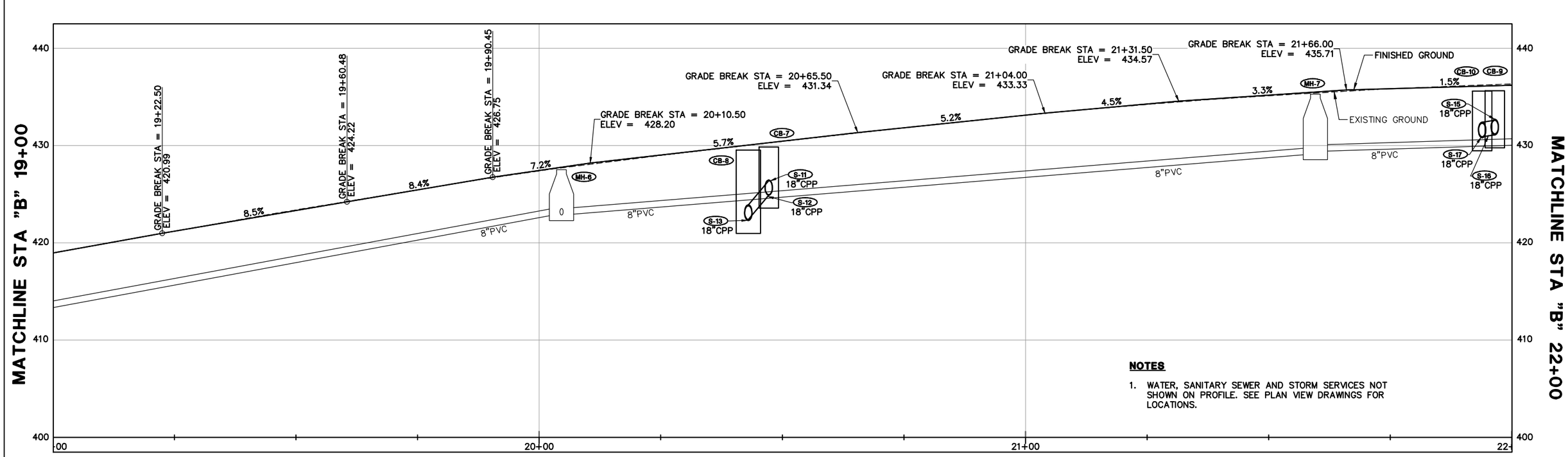
BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

PROFILE - BLUEBERRY HILLS ROAD PIONEER AVENUE TO STA "B" 16+00

SHEET NO.
17
of
19

C:\Civil 3D Projects\22\70890-01\Civil\SC14-CT-PR-70890.dwg 2017-1-5 09:25:14





NOTES

1. WATER, SANITARY SEWER AND STORM SERVICES NOT SHOWN ON PROFILE. SEE PLAN VIEW DRAWINGS FOR LOCATIONS.

STATE OF ALASKA
49th
Naomi R. Hobbs
No.CE9959
01/03/17
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

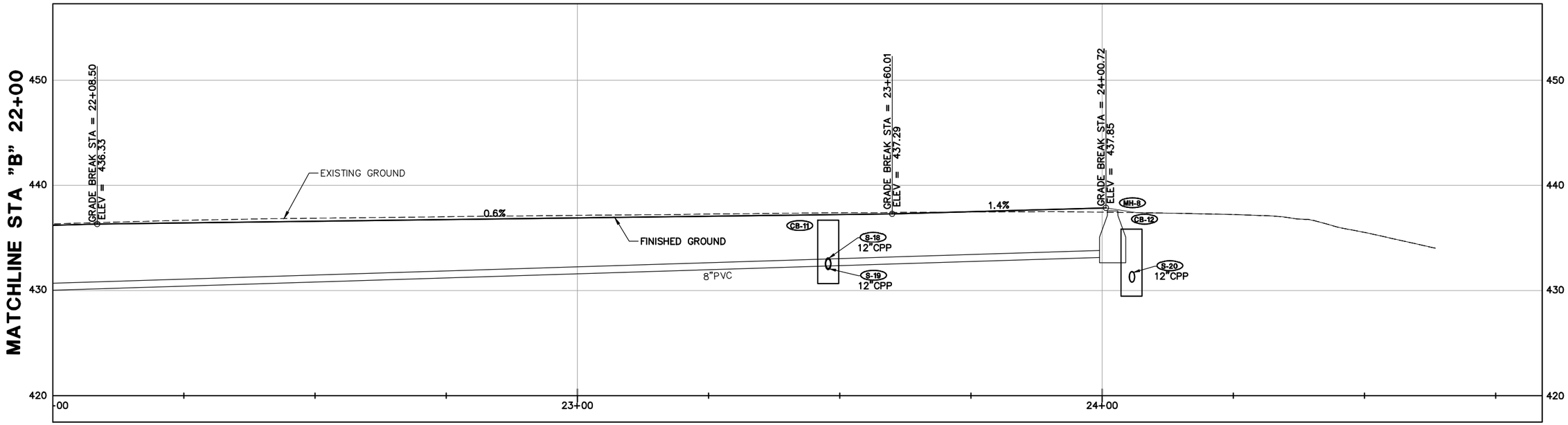
JOB No. 70890.01	DRAWN BY: J. KEMP	DESIGNED BY: J. KANOUSE	CHECKED BY: N. HOBBS	DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

PROFILE - BLUEBERRY HILLS ROAD STA "B" 16+00 TO STA "B" 22+00

SHEET NO.
18
of
19



NOTES

1. WATER, SANITARY SEWER AND STORM SERVICES NOT SHOWN ON PROFILE. SEE PLAN VIEW DRAWINGS FOR LOCATIONS.

STATE OF ALASKA
49th
Naomi R. Hobbs
No. CE9959
01/03/17
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. 70890.01	DRAWN BY: J. KEMP	DESIGNED BY: J. KANOUSE	CHECKED BY: N. HOBBS	DATE: JAN. 2017

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

BLUEBERRY HILLS ROAD RECONSTRUCTION CONTRACT NO. BE17-139

PROFILE - BLUEBERRY HILLS ROAD STA "B" 22+00 TO EOP

SHEET NO. 19 of 19