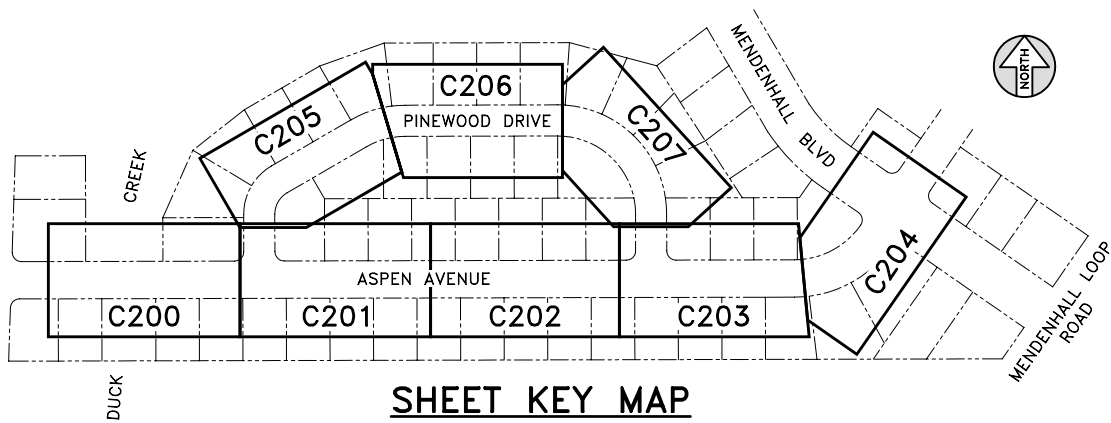
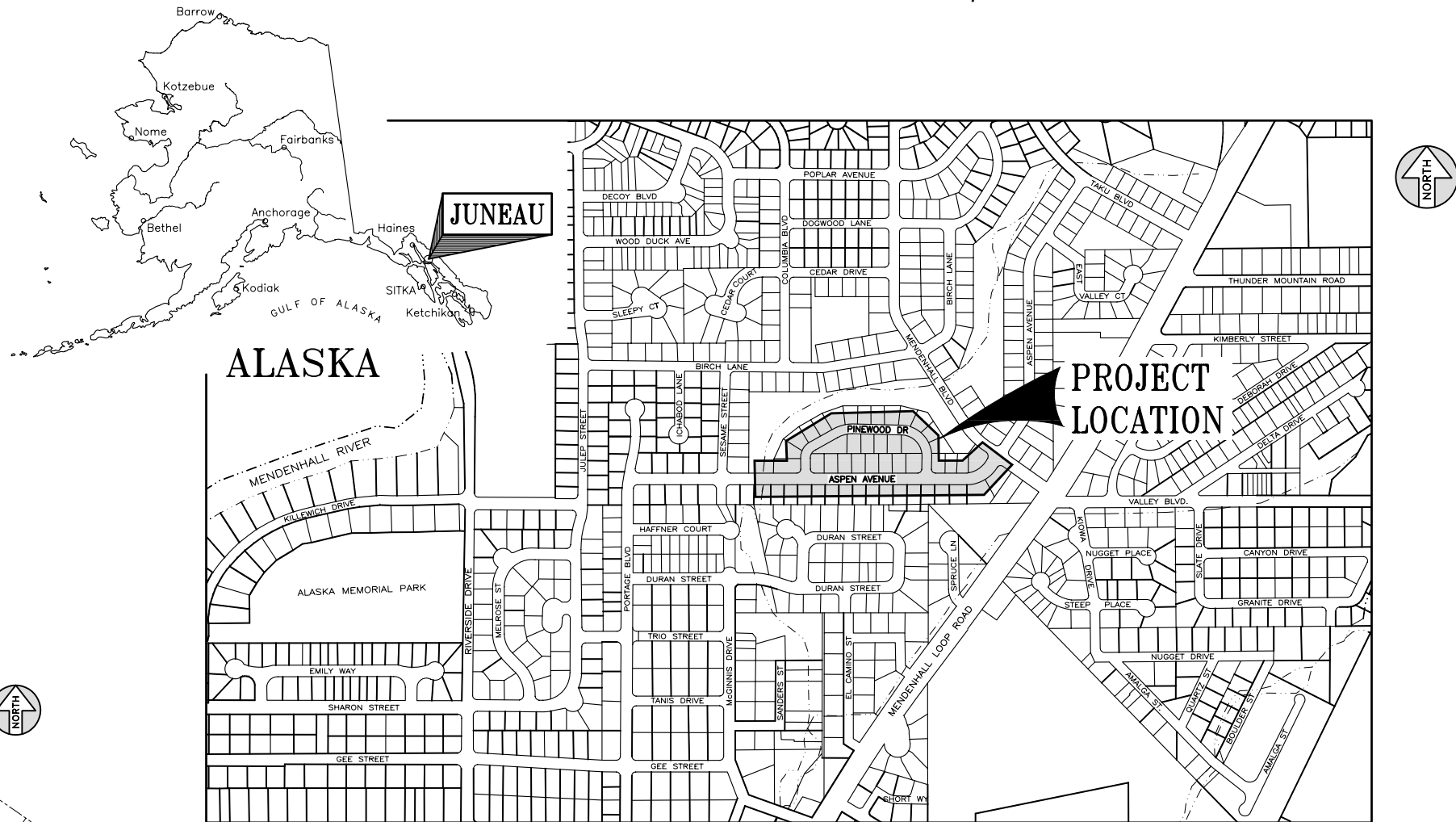


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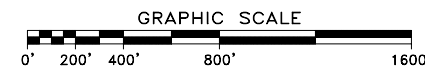
ASPEN AVENUE PAVEMENT & DRAINAGE IMPROVEMENTS

CBJ CONTRACT No. BE17-165

CITY & BOROUGH OF JUNEAU, ALASKA



PROJECT LOCATION MAP



DESIGN KAP

DRAWN KAP

CHECK JMP

APPROVED JMP

No.	DATE	REVISION

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

PDC ENGINEERS
PLAN • DESIGN • CONSTRUCT
6205 Glacier Highway, Juneau, Alaska 99801
907.780.6060 | AECC605

STATE OF ALASKA
49TH
Joseph M. Pusich
CE 8152
2/1/2017

ASPEN AVENUE PAVEMENT & DRAINAGE IMPROVEMENTS
CBJ CONTRACT No. BE17-165
CITY & BOROUGH OF JUNEAU, ALASKA

COVER SHEET

DATE: FEBRUARY 1, 2017
PDC No. 16409JN
SHEET **C001**

GENERAL CONSTRUCTION NOTES

1. CBJ ENGINEERING STANDARD DETAILS BOOK FOR CIVIL ENGINEERING PROJECTS AND SUBDIVISION IMPROVEMENTS DATED AUGUST, 2011 AND CBJ ENGINEERING STANDARD SPECIFICATIONS DATED DECEMBER, 2003 ARE MADE A PART OF THIS CONTRACT, WITH CURRENT REVISIONS AS APPLICABLE.
2. LARGE BOULDERS, HARDPAN, STUMPS, LOGS, ORGANICS AND GROUND WATER MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING TRENCHING, DITCHING AND ROADWAY EXCAVATION OPERATIONS. THESE MATERIALS SHALL BE DISPOSED OF AS REQUIRED BY THE ENGINEER.
3. GRADES AND ALIGNMENTS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
4. LOCATION OF WATER SYSTEM IMPROVEMENTS, SANITARY SEWER MANHOLES, STORM DRAIN STRUCTURES, PIPING AND PIPE LENGTHS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
5. CONNECTIONS TO EXISTING SIDE STREETS AND DRIVEWAYS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
6. LOCATIONS OF EXISTING UNDERGROUND SEWER, WATER, TELEPHONE, CABLE TELEVISION, AND POWER UTILITIES SHOWN ON THESE PLANS WERE DERIVED FROM CBJ AS-BUILTS OR FIELD LOCATES. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING THE UTILITIES THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. ANY DAMAGE RESULTING TO THESE UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. CALL "DIAL BEFORE YOU DIG" @ 586-1333 FOR UNDERGROUND UTILITY LOCATES PRIOR TO ANY EXCAVATION ACTIVITIES.
7. CONTRACTOR SHALL ASSURE GARBAGE PICKUP, DAILY MAIL SERVICE, FUEL AND SERVICE DELIVERIES WILL BE UNINTERRUPTED TO ALL RESIDENTS AFFECTED BY THIS PROJECT.
8. PROPERTY LINE LOCATIONS USED IN THESE PLANS WERE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A BOUNDARY SURVEY.
9. ALL SIGN INSTALLATIONS OR RELOCATIONS SHALL BE PERFORMED ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (M.U.T.C.D.) WITH THE ALASKA SUPPLEMENT.
10. THE CONTRACTOR SHALL DELIVER ALL ASPHALT PAVEMENT REMOVED FROM THIS PROJECT TO A STOCKPILE AREA IN THE CBJ LEMON CREEK PIT TO BE DESIGNATED BY THE ENGINEER. CONTACT THE CBJ PIT MANAGER, ALEC VENECHUK 586-0874, FOR THE EXACT LOCATION OF THE STOCKPILE AREA.
11. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.
12. PROVIDE KNOCKOUTS IN STORM DRAIN STRUCTURES FOR ALL PIPES SHOWN ON THE PLANS.
13. ONLY HORIZONTAL ELBOW FITTINGS (BENDS) ARE SHOWN ON THE PLANS. ADDITIONAL FITTINGS WILL BE REQUIRED FOR VERTICAL DEFLECTIONS NEAR CONNECTION TO EXISTING PIPES, AND AT OTHER LOCATIONS REQUIRING GRADE CHANGES TO AVOID CONFLICTS.
14. 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.
15. THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES OPERATOR STEVE LOCKS (321-2969) OF PROPOSED WATER SERVICE INTERRUPTION AND SUBMIT THE "WATER SYSTEM SPECIAL USE PERMIT" (COSIGNED BY THE ENGINEER) AT LEAST 48-HOURS PRIOR TO SHUTDOWN OR FLUSHING OF MAINLINE WATER PIPE. NO WATER SERVICE INTERRUPTION MAY PROCEED UNTIL THIS APPROVAL IS OBTAINED.
16. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. BRASS CAP MONUMENTS, REBARS OR CHISELED X'S) PRIOR TO CONSTRUCTION THAT WILL BE DISTURBED DURING HIS WORK, AND REMONUMENT AFTER CONSTRUCTION OPERATIONS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR. ALL EXISTING PROPERTY CORNERS ARE NOT NECESSARILY SHOWN ON THE PLANS.
17. THE PLAN DRAWINGS DO NOT NECESSARILY SHOW ALL TREES AND SHRUBS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. NO TREES, SHRUBS OR LANDSCAPING ARE TO BE REMOVED OR DAMAGED, UNLESS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.
18. AEL&P, ACS AND GCI MAY CONDUCT WORK WITHIN THE PROJECT LIMITS TO RELOCATE UTILITIES AND TO UPGRADE THEIR RESPECTIVE SYSTEMS. THE CONTRACTOR SHALL COORDINATE ITS ACTIVITIES WITH EACH UTILITY COMPANY AND PROVIDE ACCESS AS NECESSARY FOR UTILITY COMPANIES TO COMPLETE THEIR WORK.
19. "JUMPING JACK", OR SIMILAR TYPE COMPACTORS SHALL BE USED FOR COMPACTION WITHIN 18 INCHES OF THE OUTSIDE SURFACE OF ALL WATER VALVE BOXES, CATCH BASINS AND MANHOLES.
20. 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 ON THIS PROJECT. SEE CBJ STANDARD SPECIFICATIONS, SECTION 02502 – STORM SEWER MANHOLES, INLETS AND CATCH BASINS AND THE DRAWINGS FOR CATCH BASIN FRAME SUPPORT REQUIREMENTS.
21. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ENGINEER APPROVED EROSION CONTROL DEVICES DURING CONSTRUCTION PER SECTION 01570 REQUIREMENTS.
22. TEMPORARY RAMPS SHALL BE PROVIDED AS REQUIRED FOR RESIDENT ACCESS TO THEIR DRIVEWAYS DURING THE CONSTRUCTION PERIOD.
23. 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.
24. WATER PIPES WILL REQUIRE 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-INCHES SHALL BE OBTAINED BETWEEN WATER AND OTHER PIPES.
25. THE CONTRACTOR SHALL NOTIFY EACH RESIDENT OF EACH DRIVEWAY CLOSURE THE DAY PRECEDING THE CLOSURE. 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.

ABBREVIATIONS

AC	ASBESTOS CEMENT
ACS	ALASKA COMMUNICATIONS SYSTEMS
ADD ALT	ADDITIVE ALTERNATE
AEL&P	ALASKA ELECTRIC LIGHT & POWER
APPROX	APPROXIMATE
AST	ABOVEGROUND STORAGE TANK
BC	BACK OF CURB
BOP	BEGINNING OF PROJECT
CB	CATCH BASIN
CBJ	CITY & BOROUGH OF JUNEAU
CHB	CHORD BEARING
CHL	CHORD LENGTH
C/L	CENTERLINE
CIP	CAST IRON PIPE
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONT	CONTINUOUS
CPP	CORRUGATED POLYETHYLENE PIPE
CTE	CONNECT TO EXISTING
DI	DUCTILE IRON
DIP	DUCTILE IRON PIPE
DIA	DIAMETER
E	EASTING
EG	EXISTING GRADE
EJIW	EAST JORDAN IRON WORKS
EL	ELEVATION
EOP	END OF PROJECT
EP	EDGE OF PAVEMENT
EXIST	EXISTING
EXP	EXPANSION
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FM	FORCE MAIN
GCI	GENERAL COMMUNICATION INC.
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH PRESSURE
IE	INVERT ELEVATION
L	LENGTH
LP	LOW POINT
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
MJ	MECHANICAL JOINT
MTE	MATCH TO EXISTING
N	NORTHING
N/A	NOT APPLICABLE
NF	NEENAH FOUNDRY COMPANY
NFS	NON-FROST SUSCEPTIBLE
NTS	NOT TO SCALE
NVC	NO VERTICAL CURVE
OC	ON CENTER
OFCO	OLYMPIC FOUNDRY CO.
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PERF	PERFORATED
PI	POINT OF INTERSECTION
P/L	PROPERTY LINE
POC	POINT ON CURVE
POL	POINT ON LINE
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R	RADIUS
RAP	RECYCLED ASPHALT PAVEMENT
ROW	RIGHT-OF-WAY
RP	RADIUS POINT
RT	RIGHT
SDMH	STORM DRAIN MANHOLE
SEP	SEPARATOR
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
T	TANGENT
TBG	TOP BACK OF GUTTER
TBM	TEMPORARY BENCH MARK
TC	TOP OF CONCRETE
TOB	TOP OF BANK
TOP	TOP OF PIPE
TYP	TYPICAL
UD	UNDERDRAIN
UON	UNLESS OTHERWISE NOTED
UST	UNDERGROUND STORAGE TANK
VC	VERTICAL CURVE
VERT	VERTICAL
VPI	VERTICAL POINT OF INTERSECTION
W/	WITH

SYMBOLS

EXISTING	PROPOSED	
		PROPERTY / BOUNDARY LINE
		UTILITY EASEMENT LINE
		PROJECT BASELINE
		TEMPORARY BENCH MARK
		SANITARY SEWER MANHOLE
		SANITARY SEWER LINE
		SANITARY SEWER SERVICE W/ CLEANOUT
		STORM DRAIN PIPE
		STORM DRAIN CATCH BASIN
		STORM DRAIN MANHOLE
		CURB & GUTTER, TYPE I
		VALLEY GUTTER, TYPE III
		ASPHALT SURFACE
		CONCRETE SURFACE
		SAWCUT AND MTE
		WATER LINE
		WATER VALVE BOX
		FIRE HYDRANT
		PROTECTION BOLLARDS
		UTILITY POLE WITH LIGHT
		UTILITY POLE ANCHOR WIRE
		ELECTRIC TRANSFORMER
		TOP OF BANK
		TOE OF SLOPE
		SIGN
		MAILBOX
		WOOD FENCE
		CHAIN LINK FENCE
		MISCELLANEOUS LANDSCAPING
		CONIFER TREE
		DECIDUOUS TREE
		STRUCTURE
		RIGID BOARD INSULATION

DESIGN KAP

DRAWN KAP

CHECK JMP

APPROVED JMP

No.	DATE	REVISION



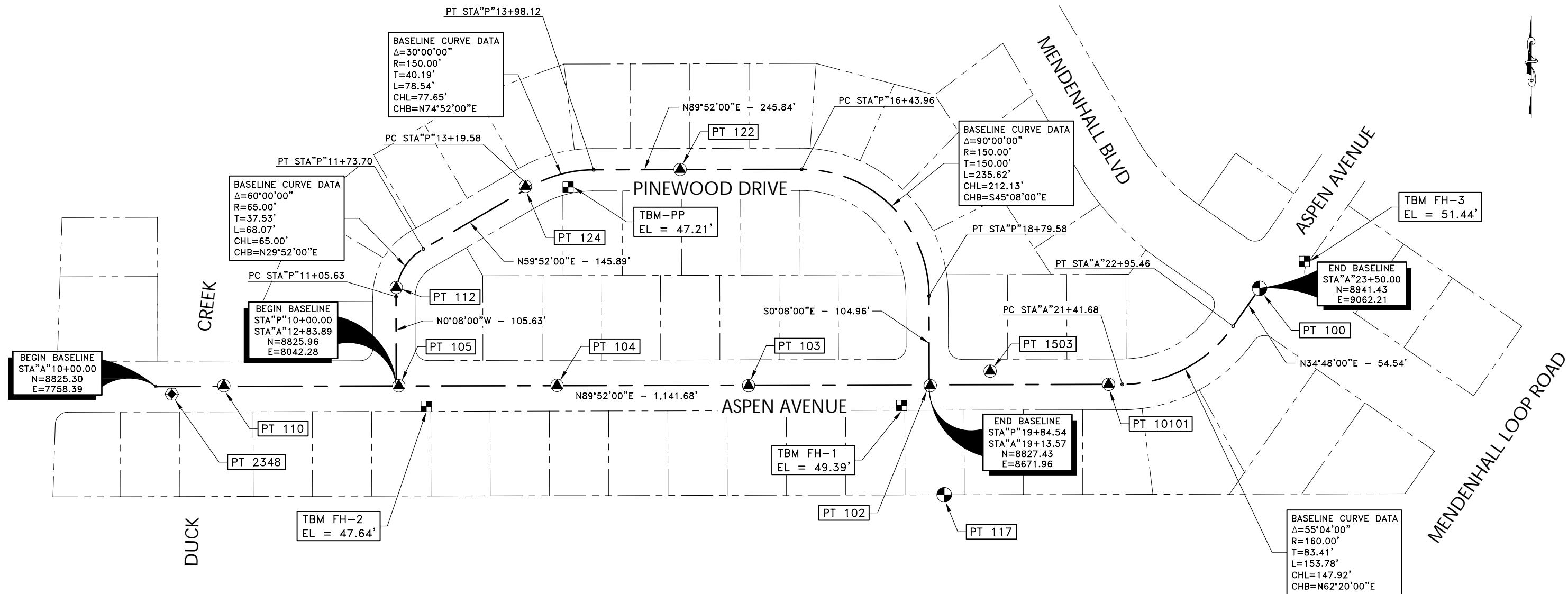
ASPEN AVENUE PAVEMENT & DRAINAGE IMPROVEMENTS

CBJ CONTRACT No. BE17-165

CITY & BOROUGH OF JUNEAU, ALASKA

GENERAL NOTES, ABBREVIATIONS AND SYMBOLS

DATE: FEBRUARY 1, 2017
PDC No. <u>16409JN</u>
SHEET C002



SURVEY CONTROL SYMBOLS

- PRIMARY MONUMENT (RECOVERED)
- 1" DIAMETER SURVEY SPIKE (ESTABLISHED)
- TEMPORARY BENCH MARK (T.B.M.)
- PK NAIL

NOTE:
THE CONTRACTOR SHALL PERFORM A CLOSED LEVEL LOOP THROUGH ALL TBM'S AS LISTED HEREON TO VERIFY ELEVATIONS PRIOR TO BEGINNING ANY GRADING WORK.

TABLE OF HORIZONTAL CONTROL

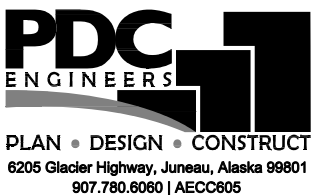
POINT #	NORTHING	EASTING	DESCRIPTION
100	8,941.43	9,062.21	CBJ MONUMENT IN CASE
102	8,826.49	8,673.12	SURVEY SPIKE
103	8,826.46	8,458.53	SURVEY SPIKE
104	8,826.77	8,232.23	SURVEY SPIKE
105	8,826.29	8,045.27	SURVEY SPIKE
110	8,826.31	7,838.58	SURVEY SPIKE
112	8,942.35	8,042.36	SURVEY SPIKE
117	8,697.47	8,689.65	GLO-PRIME MONUMENT
122	9,081.90	8,377.69	SURVEY SPIKE
124	9,061.86	8,195.00	SURVEY SPIKE
1503	8,843.50	8,743.95	3650-S - SURVEY SPIKE W/ WASHER
2348	8,816.45	7,777.15	3650-S - PK NAIL
10101	8,827.98	8,883.84	SURVEY SPIKE

TABLE OF VERTICAL CONTROL

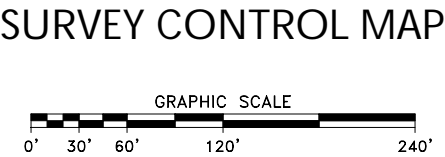
T.B.M.	NORTHING	EASTING	ELEVATION	DESCRIPTION
FH-1	8,804	8,639	49.39'	NORTH WESTERLY BOLT ON TOP FLANGE OF FIRE HYDRANT
FH-2	8,802	8,078	47.64'	NORTH WESTERLY BOLT ON TOP FLANGE OF FIRE HYDRANT
FH-3	8,973	9,115	51.44'	NORTH BOLT ON TOP FLANGE OF FIRE HYDRANT
TBM-PP	9,062	8,245	47.21'	6" GALVANIZED SPIKE 1' UP FROM GROUND LEVEL ON NORTH SIDE OF POLE

DESIGN KAP
DRAWN KAP
CHECK JMP
APPROVED JMP

No.	DATE	REVISION



ASPEN AVENUE PAVEMENT & DRAINAGE IMPROVEMENTS
CBJ CONTRACT No. BE17-165
CITY & BOROUGH OF JUNEAU, ALASKA



DATE: FEBRUARY 1, 2017
PDC No. 16409JN
SHEET C003

MAILBOX SUMMARY		
HOUSE ADDRESS	MAILBOX LOCATION	REMARKS
8267 ASPEN AVENUE	"A"11+60.3, 16.7' RT	SINGLE MAILBOX, BASE BID
8263 ASPEN AVENUE	"A"12+23.2, 17.0' RT	SINGLE MAILBOX, BASE BID
8259 ASPEN AVENUE	"A"12+92.3, 17.0' RT	SINGLE MAILBOX, BASE BID
8255 ASPEN AVENUE	"A"13+66.1, 17.0' RT	SINGLE MAILBOX, BASE BID
8250 ASPEN AVENUE	"A"14+25.1, 17.0' LT	SINGLE MAILBOX, BASE BID
8251 ASPEN AVENUE	"A"14+33.4, 17.0' RT	SINGLE MAILBOX, BASE BID
8246 ASPEN AVENUE	"A"14+96.3, 17.0' LT	SINGLE MAILBOX, BASE BID
8247 ASPEN AVENUE	"A"15+06.5, 17.0' RT	SINGLE MAILBOX, BASE BID
8242 ASPEN AVENUE	"A"15+63.5, 17.0' LT	SINGLE MAILBOX, BASE BID
8243 ASPEN AVENUE	"A"15+75.4, 17.0' RT	SINGLE MAILBOX, BASE BID
8236 ASPEN AVENUE	"A"16+36.6, 17.0' LT	SINGLE MAILBOX, BASE BID
8239 ASPEN AVENUE	"A"16+43.4, 17.0' RT	SINGLE MAILBOX, BASE BID
8234 ASPEN AVENUE	"A"17+03.0, 17.0' LT	SINGLE MAILBOX, BASE BID
8235 ASPEN AVENUE	"A"17+12.3, 17.0' RT	SINGLE MAILBOX, BASE BID
8230 ASPEN AVENUE	"A"18+09.7, 17.0' LT	SINGLE MAILBOX, BASE BID
8226 ASPEN AVENUE	"A"18+11.4, 17.0' LT	SINGLE MAILBOX, BASE BID
8233 ASPEN AVENUE	"A"18+20.4, 17.0' RT	DOUBLE MAILBOX, BASE BID
8227 ASPEN AVENUE		
8223 ASPEN AVENUE	"A"19+60.5, 17.0' RT	SINGLE MAILBOX, BASE BID
8218 ASPEN AVENUE	"A"19+74.7, 17.0' LT	SINGLE MAILBOX, BASE BID
8219 ASPEN AVENUE	"A"19+99.3, 17.0' RT	SINGLE MAILBOX, BASE BID
8214 ASPEN AVENUE	"A"20+54.6, 17.0' LT	SINGLE MAILBOX, BASE BID
8215 ASPEN AVENUE	"A"20+66.2, 17.0' RT	SINGLE MAILBOX, BASE BID
8210 ASPEN AVENUE	"A"21+02.6, 17.0' LT	SINGLE MAILBOX, BASE BID
8211 ASPEN AVENUE	"A"21+54.8, 17.0' RT	SINGLE MAILBOX, BASE BID
8207 ASPEN AVENUE	"A"22+04.8, 17.0' RT	SINGLE MAILBOX, BASE BID
8205 ASPEN AVENUE	"A"22+87.1, 17.0' RT	SINGLE MAILBOX, BASE BID
8157 PINEWOOD DRIVE	"P"11+79.1, 17.0' RT	SINGLE MAILBOX, ADD ALT
8152 PINEWOOD DRIVE	"P"12+17.8, 17.0' LT	SINGLE MAILBOX, ADD ALT
8145 PINEWOOD DRIVE	"P"12+51.9, 17.0' RT	SINGLE MAILBOX, ADD ALT
8148 PINEWOOD DRIVE	"P"12+76.0, 17.0' LT	SINGLE MAILBOX, ADD ALT
8144 PINEWOOD DRIVE	"P"13+51.4, 17.0' LT	SINGLE MAILBOX, ADD ALT
8141 PINEWOOD DRIVE	"P"14+03.0, 17.0' RT	SINGLE MAILBOX, ADD ALT
8140 PINEWOOD DRIVE	"P"14+05.6, 17.0' LT	SINGLE MAILBOX, ADD ALT
8137 PINEWOOD DRIVE	"P"14+79.6, 17.0' RT	SINGLE MAILBOX, ADD ALT
8136 PINEWOOD DRIVE	"P"14+84.3, 17.0' LT	SINGLE MAILBOX, ADD ALT
8133 PINEWOOD DRIVE	"P"15+06.7, 17.0' RT	SINGLE MAILBOX, ADD ALT
8132 PINEWOOD DRIVE	"P"15+47.3, 17.0' LT	SINGLE MAILBOX, ADD ALT
8129 PINEWOOD DRIVE	"P"16+06.5, 17.0' RT	SINGLE MAILBOX, ADD ALT
8128 PINEWOOD DRIVE	"P"16+19.9, 17.0' LT	SINGLE MAILBOX, ADD ALT
8124 PINEWOOD DRIVE	"P"16+82.2, 17.0' LT	SINGLE MAILBOX, ADD ALT
8117 PINEWOOD DRIVE	"P"17+19.2, 17.0' RT	SINGLE MAILBOX, ADD ALT
8120 PINEWOOD DRIVE	"P"17+41.6, 17.0' LT	SINGLE MAILBOX, ADD ALT
8116 PINEWOOD DRIVE	"P"17+67.8, 17.0' LT	SINGLE MAILBOX, ADD ALT
8112 PINEWOOD DRIVE	"P"18+38.6, 17.0' LT	SINGLE MAILBOX, ADD ALT
NOTES: 1. MAILBOX STATION & OFFSETS ARE GIVEN TO THE MIDDLE CENTER OF MAILBOX POST. CONTRACTOR SHALL STAKE MAILBOX POST LOCATION AFTER ROADWAY SURFACING HAS BEEN PLACED FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION. 2. REINSTALL EXISTING MAILBOX AND NEWSPAPER RECEPTACLES TO NEW CANTILEVER ARM WITH NEW CONNECTING HARDWARE. IF THE RECEPTACLES ARE DAMAGED BY THE CONTRACTOR, NEW RECEPTACLES OF THE SAME SIZE AND COLOR AND NEW HOUSE NUMBERS SHALL BE PROVIDED BY THE CONTRACTOR. 3. GANG TYPE MAILBOX ASSEMBLIES CONSTRUCTED WITH TWO RECEPTACLES ON ONE POST SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 2719.1, AS ONE PAY UNIT. 4. 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. 5. EXISTING MAILBOXES THAT ARE MOVED BY THE CONTRACTOR SHALL HAVE TEMPORARY SUPPORTS PROVIDED AS REQUIRED FOR CONTINUED USAGE AND DELIVERY/PICKUP OF MAIL.		

WATER SERVICE SUMMARY			
STREET ADDRESS	STATION & OFFSET	SIZE/TYPE	REMARKS
8267 ASPEN AVENUE	"A"11+55.6, 29.0 RT	1" CU	BASE BID
8263 ASPEN AVENUE	"A"12+27.3, 29.0 RT	1" CU	BASE BID
8164 PINEWOOD DRIVE	"P"10+60.0, 26.5 LT	1" CU	ADD ALT
8160 PINEWOOD DRIVE	"P"11+16.5, 26.4 LT	1" CU	ADD ALT
8156 PINEWOOD DRIVE	"P"11+52.1, 25.5 LT	1" CU	ADD ALT
8157 PINEWOOD DRIVE	"P"11+68.9, 23.2 RT	1" CU	ADD ALT
8152 PINEWOOD DRIVE	"P"12+02.3, 24.7 LT	1" CU	ADD ALT
8145 PINEWOOD DRIVE	"P"12+78.5, 22.3 RT	1" CU	ADD ALT
8148 PINEWOOD DRIVE	"P"12+90.5, 24.7 LT	1" CU	ADD ALT
8144 PINEWOOD DRIVE	"P"13+41.5, 24.5 LT	1" CU	ADD ALT
8141 PINEWOOD DRIVE	"P"13+89.0, 23.9 RT	1" CU	ADD ALT
8140 PINEWOOD DRIVE	"P"14+17.0, 24.0 LT	1" CU	ADD ALT
8136 PINEWOOD DRIVE	"P"14+64.0, 24.0 LT	1" CU	ADD ALT
8137 PINEWOOD DRIVE	"P"14+65.0, 24.0 RT	1" CU	ADD ALT
NOTES: 1. INSTALL NEW WATER SERVICE AND CURB BOX PER CBJ STANDARD DETAIL 406A, CTE WATER SERVICE. STATION & OFFSET ARE GIVEN TO THE CENTER OF VALVE BOX. 2. THIS WATER SERVICE BOX WAS NOT FIELD LOCATED, CONTRACTOR SHALL DETERMINE THE LOCATION OF THE EXISTING WATER SERVICE.			

SEWER STRUCTURE REMOVAL SUMMARY	
LOCATION	REMARKS
"A"10+75, 6 LT	REMOVE SSMH (F11), BASE BID
"A"12+87, 7 LT	REMOVE SSMH (E11), BASE BID
"A"15+97, 5 LT	REMOVE SSMH (C11), BASE BID
"A"19+05, 5 LT	REMOVE SSMH (B11), BASE BID
"A"21+68, 3 LT	REMOVE SSMH (W11), BASE BID
"A"22+65, 6 LT	REMOVE SSMH (V11), BASE BID
"P"11+40, 1 LT	REMOVE SSMH (E12), ADD ALT
"P"13+62, 2 RT	REMOVE SSMH (D12), ADD ALT
"P"16+68, 4 RT	REMOVE SSCO (B12.1C), ADD ALT
"P"17+34, 1 RT	REMOVE SSCO (B12C), ADD ALT
"P"18+56, 5 RT	REMOVE SSMH (B12), ADD ALT

SEWER SERVICE SUMMARY PINEWOOD DRIVE			
STREET ADDRESS	STATION & OFFSET	SIZE/TYPE	REMARKS
8164 PINEWOOD DRIVE	"P"10+47.4, 26.5 LT	4" PVC	ADD ALT
8160 PINEWOOD DRIVE	"P"11+13.9, 26.4 LT	4" PVC	ADD ALT
8156 PINEWOOD DRIVE	"P"11+49.7, 25.6 LT	4" PVC	ADD ALT
8157 PINEWOOD DRIVE	"P"11+77.6, 23.3 RT	4" PVC	ADD ALT
8152 PINEWOOD DRIVE	"P"12+10.0, 24.7 LT	4" PVC	ADD ALT
8145 PINEWOOD DRIVE	"P"12+74.7, 23.3 RT	4" PVC	ADD ALT
8148 PINEWOOD DRIVE	"P"12+77.6, 24.7 LT	4" PVC	ADD ALT
8144 PINEWOOD DRIVE	"P"13+38.5, 24.5 LT	4" PVC	ADD ALT
8141 PINEWOOD DRIVE	"P"13+82.8, 24.0 RT	4" PVC	ADD ALT
8140 PINEWOOD DRIVE	"P"14+10.3, 24.0 LT	4" PVC	ADD ALT
8137 PINEWOOD DRIVE	"P"14+58.6, 24.0 RT	4" PVC	ADD ALT
8136 PINEWOOD DRIVE	"P"14+70.0, 24.0 LT	4" PVC	ADD ALT
8133 PINEWOOD DRIVE	"P"15+36.7, 24.0 RT	4" PVC	ADD ALT
8132 PINEWOOD DRIVE	"P"15+56.0, 24.0 LT	4" PVC	ADD ALT
8129 PINEWOOD DRIVE	"P"16+10.4, 24.0 RT	4" PVC	ADD ALT
8128 PINEWOOD DRIVE	"P"16+17.9, 24.0 LT	4" PVC	ADD ALT
8124 PINEWOOD DRIVE	"P"16+65.4, 23.7 LT	4" PVC	ADD ALT
8117 PINEWOOD DRIVE	"P"17+34.7, 25.3 RT	4" PVC	ADD ALT
8120 PINEWOOD DRIVE	"P"17+50.6, 22.5 LT	4" PVC	ADD ALT
8116 PINEWOOD DRIVE	"P"17+96.4, 22.0 LT	4" PVC	ADD ALT
8112 PINEWOOD DRIVE	"P"18+32.8, 22.0 LT	4" PVC	ADD ALT
NOTES: 1. SEWER SERVICE LOCATIONS SHOWN ARE FROM LIMITED AS-BUILT INFORMATION AND WERE NOT FIELD LOCATED. CONTRACTOR SHALL FIELD LOCATE ALL SEWER SERVICES TO CONFIRM FINAL LOCATION FOR NEW SEWER SERVICE CLEANOUT INSTALLATION. 2. CONSTRUCT NEW 4" PVC SEWER SERVICE AND INSTALL NEW CLEANOUT NEAR PROPERTY LINE PER CBJ STANDARD DETAIL 213 AND CONNECT TO EXISTING SERVICE.			

SIGN ASSEMBLY TABLE			
SIGN No.	LOCATION	MUTCD DESIGNATION	LEGEND AND REMARKS
1	"P"10+19.8, 21.4 LT	R1-1	"STOP" (30"x30")
2	"P"19+56.9, 16.1 RT	R1-1	"STOP" (30"x30")
3	"A"21+49.0, 17.5 LT	R2-1	"SPEED LIMIT 20" (24"x30")
NOTES: 1. ALL SIGNS AND POSTS TO BE CONSTRUCTED IN ACCORDANCE WITH CBJ STANDARD DETAIL 127A. 2. ALL SIGNS SHALL BE HIGH INTENSITY AND LOCATED AS DIRECTED BY THE ENGINEER. 3. SALVAGE ALL EXISTING SIGN PANELS AND DELIVER TO CBJ STREET MAINTENANCE SHOP. DISPOSE OF ALL EXISTING POSTS, BRACKETS, POST SOCKETS AND FOUNDATION MATERIALS. 4. REPLACE ALL LOWER BRACKETS FOR STREET IDENTIFICATION PANELS. SALVAGE AND REINSTALL EXISTING STREET NAME SIGNS ON NEW SIGN BRACKETS. 5. ALL NEW POSTS SHALL BE "TELSPAR", OR APPROVED EQUAL AND SHALL BE PRE-PUNCHED WITH ALL KNOCKOUTS REMOVED. 6. SIGN ASSEMBLIES SHOWN ARE PART OF BASE BID WORK.			

SEWER SERVICE SUMMARY ASPEN AVENUE			
STREET ADDRESS	STATION & OFFSET	SIZE/TYPE	REMARKS
8267 ASPEN AVENUE	"A"11+52.0, 29.0 RT	4" PVC	BASE BID
8263 ASPEN AVENUE	"A"12+24.8, 29.0 RT	4" PVC	BASE BID
8259 ASPEN AVENUE	"A"12+98.3, 29.0 RT	4" PVC	BASE BID
8255 ASPEN AVENUE	"A"13+63.3, 29.0 RT	4" PVC	BASE BID
8250 ASPEN AVENUE	"A"14+24.4, 29.0 LT	4" PVC	BASE BID
8251 ASPEN AVENUE	"A"14+32.4, 29.0 RT	4" PVC	BASE BID
8246 ASPEN AVENUE	"A"14+94.6, 15.6 LT	4" PVC	BASE BID
8247 ASPEN AVENUE	"A"15+02.5, 29.0 RT	4" PVC	BASE BID
8242 ASPEN AVENUE	"A"15+65.6, 29.0 LT	4" PVC	BASE BID
8243 ASPEN AVENUE	"A"15+73.6, 17.4 RT	4" PVC	BASE BID
8236 ASPEN AVENUE	"A"16+32.4, 29.0 LT	4" PVC	BASE BID
8239 ASPEN AVENUE	"A"16+42.8, 29.0 RT	4" PVC	BASE BID
8234 ASPEN AVENUE	"A"17+03.9, 29.0 LT	4" PVC	BASE BID
8235 ASPEN AVENUE	"A"17+14.8, 29.0 RT	4" PVC	BASE BID
8230 ASPEN AVENUE	"A"17+74.7, 29.0 LT	4" PVC	BASE BID
8233 ASPEN AVENUE	"A"17+81.6, 29.0 RT	4" PVC	BASE BID
8226 ASPEN AVENUE	"A"18+45.0, 29.0 LT	4" PVC	BASE BID
8227 ASPEN AVENUE	"A"18+56.1, 29.0 RT	4" PVC	BASE BID
8223 ASPEN AVENUE	"A"19+21.1, 29.0 RT	4" PVC	BASE BID
8218 ASPEN AVENUE	"A"19+73.1, 29.0 LT	4" PVC	BASE BID
8219 ASPEN AVENUE	"A"19+81.9, 29.0 RT	4" PVC	BASE BID
8214 ASPEN AVENUE	"A"20+41.0, 29.0 LT	4" PVC	BASE BID
8215 ASPEN AVENUE	"A"20+52.9, 24.0 RT	4" PVC	BASE BID
8210 ASPEN AVENUE	"A"21+06.6, 29.0 LT	4" PVC	BASE BID
8211 ASPEN AVENUE	"A"21+45.8, 22.8 RT	4" PVC	BASE BID
8207 ASPEN AVENUE	"A"22+06.0, 29.0 RT	4" PVC	BASE BID
NOTES: 1. SEWER SERVICE LOCATIONS SHOWN ARE FROM LIMITED AS-BUILT INFORMATION AND WERE NOT FIELD LOCATED. CONTRACTOR SHALL FIELD LOCATE ALL SEWER SERVICES TO CONFIRM FINAL LOCATION FOR NEW SEWER SERVICE CLEANOUT INSTALLATION. 2. CONSTRUCT NEW 4" PVC SEWER SERVICE AND INSTALL NEW CLEANOUT NEAR PROPERTY LINE PER CBJ STANDARD DETAIL 213 AND CONNECT TO EXISTING SERVICE.			

DESIGN KAP

DRAWN KAP

CHECK JMP

APPROVED JMP

No.

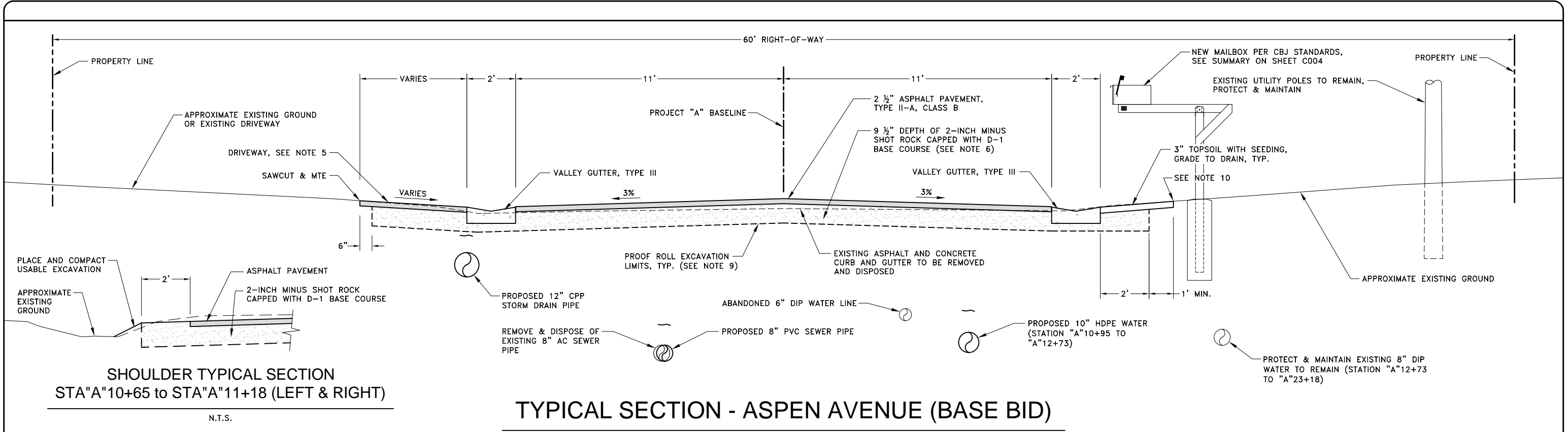
DATE

REVISION



ASPEN AVENUE PAVEMENT & DRAINAGE IMPROVEMENTS
CBJ CONTRACT No. BE17-165
CITY & BOROUGH OF JUNEAU, ALASKA

SUMMARY TABLES



TYPICAL SECTION NOTES

- SIDE SLOPES, WIDTHS AND GRADES MAY VARY AT SOME LOCATIONS, SEE GRADING SHEET C400 FOR ADDITIONAL INFORMATION.
- UNDERGROUND SEWER, WATER AND STORM SEWER SERVICES NOT SHOWN FOR CLARITY. SEE PLAN VIEW SHEETS FOR APPROXIMATE LOCATIONS.
- ADDITIONAL EXCAVATION BELOW THE NEATLINE SUBCUT LEVEL MAY BE REQUIRED BY THE ENGINEER IF ORGANIC OR OTHER UNSUITABLE MATERIALS ARE FOUND AT OR NEAR THE PLANNED SUBCUT LEVEL. USABLE MATERIAL FROM EXCAVATION SHALL BE USED TO BACKFILL THE ADDITIONAL AREAS OF EXCAVATION. BACKFILLING WITH USABLE MATERIAL FROM EXCAVATION WILL BE CONSIDERED INCIDENTAL TO OTHER WORK.
- REMOVE AND DISPOSE OF EXISTING SANITARY SEWER AND WATER PIPES THAT ARE BEING REPLACED, UNLESS NOTED OTHERWISE.
- DRIVEWAYS DISTURBED DURING CONSTRUCTION SHALL BE RECONSTRUCTED TO EQUAL OR BETTER CONDITION WITH SUBGRADE REPLACED IN LAYERS TO MATCH THOSE REMOVED, EXCEPT:
 - EXISTING ASPHALT PAVED DRIVEWAYS DISTURBED DURING CONSTRUCTION SHALL BE SUBCUT TO 12-INCHES BELOW FINISH GRADE AND REPLACED WITH 9-1/2" OF 2-INCH MINUS SHOT ROCK W/ BASE COURSE AND 2-1/2" OF ASPHALT PAVEMENT, TYPE II-A, CLASS B.
 - CONCRETE DRIVEWAYS SHALL BE SUBCUT TO 12-INCHES BELOW FINISH GRADE AND REPLACED WITH 6-INCHES OF 2" MINUS SHOT ROCK W/ BASE COURSE, GRADING D-1 AND 6-INCHES OF CONCRETE.
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- THE LIMITS OF USABLE MATERIAL AND TOPSOIL OUTSIDE THE STRUCTURAL SECTION 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.
- PROOF ROLLING BOTTOM OF SUBCUT EXCAVATION SHALL BE PERFORMED USING A MINIMUM 10-TON SELF-PROPELLED VIBRATORY COMPACTOR IN STATIC MODE. A MINIMUM OF TWO (2) PASSES (ONE PASS EQUALS DOWN AND BACK) SHALL BE MADE OVER THE SUBCUT SOILS AND AS APPROVED BY THE ENGINEER.
- CATCH LINES FOR TOPSOIL WILL VARY IN DISTANCE FROM RIGHT-OF-WAY LINES, PLACE AND GRADE TOPSOIL TO PROVIDE A SMOOTH, WELL DRAINED TRANSITION TO EXISTING GRADES.

TRAFFIC CONTROL NOTES

- ALL TRAFFIC TO BE CONTROLLED PER REQUIREMENTS OF THE ALASKA TRAFFIC MANUAL (U.S. DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE ALASKA SUPPLEMENT).
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- 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.

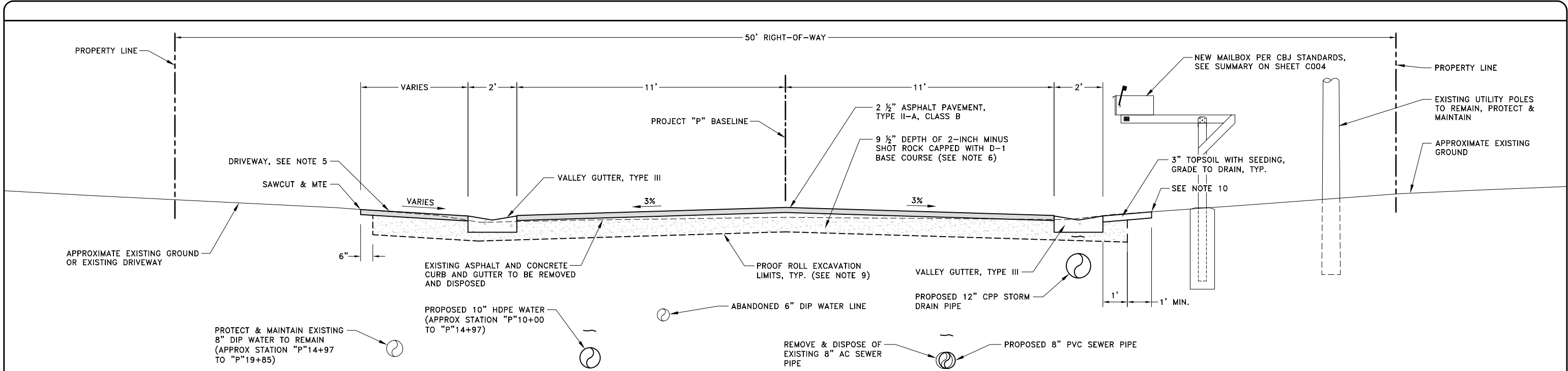
PAVING SEQUENCE REQUIREMENTS

- 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 200°F BEFORE THE SECOND LANE IS PAVED.
- THE CONTRACTOR SHALL MONITOR THE TEMPERATURE OF THE CENTERLINE EDGE OF THE FIRST PAVED LANE AND MOVE THE LAYDOWN OPERATIONS TO THE SECOND LANE ALLOWING SUFFICIENT TIME FOR THE PAVEMENT OF THE SECOND LANE TO COVER THE CENTERLINE EDGE OF THE FIRST LANE PRIOR TO COOLING TO LESS THAN 200°F.

STORM DRAIN STRUCTURE
FRAME & GRATE SUMMARY

STRUCTURE No.	EAST JORDAN, OLYMPIC FOUNDRY CO., NEENAH FOUNDRY, CBJ STANDARD No., OR APPROVED EQUAL.	STRUCTURE No.	EAST JORDAN, OLYMPIC FOUNDRY CO., NEENAH FOUNDRY, CBJ STANDARD No., OR APPROVED EQUAL.
S-1	OLYMPIC FOUNDRY SM18DI	S-16	OLYMPIC FOUNDRY SM18DI
S-2	OLYMPIC FOUNDRY SM18DI	S-17	OLYMPIC FOUNDRY SM18DI
S-3	OLYMPIC FOUNDRY SM18DI	S-18	OLYMPIC FOUNDRY SM18DI
S-4	OLYMPIC FOUNDRY SM18DI	S-19	OLYMPIC FOUNDRY SM18DI
S-5	OLYMPIC FOUNDRY SM18DI	S-20	OLYMPIC FOUNDRY SM18DI
S-6	OLYMPIC FOUNDRY SM18DI	S-21	OLYMPIC FOUNDRY SM18DI
S-7	OLYMPIC FOUNDRY SM18DI	S-22	OLYMPIC FOUNDRY SM18DI
S-8	OLYMPIC FOUNDRY SM18DI	S-23	CBJ STD 306 (NON-SKID W/OUT LUGS)
S-9	OLYMPIC FOUNDRY SM18DI	S-24	OLYMPIC FOUNDRY SM18DI
S-10	OLYMPIC FOUNDRY SM18DI	S-25	OLYMPIC FOUNDRY SM18DI
S-11	OLYMPIC FOUNDRY SM18DI	S-26	OLYMPIC FOUNDRY SM18DI
S-12	OLYMPIC FOUNDRY SM18DI	S-27	OLYMPIC FOUNDRY SM18DI
S-13	OLYMPIC FOUNDRY SM18DI	S-28	OLYMPIC FOUNDRY SM18DI
S-14	OLYMPIC FOUNDRY SM18DI	S-29	OLYMPIC FOUNDRY SM18DI
S-15	OLYMPIC FOUNDRY SM18DI		

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



TYPICAL SECTION - PINWOOD DRIVE
(ADDITIVE ALTERNATE)

N.T.S.

TYPICAL SECTION NOTES

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TRAFFIC CONTROL NOTES

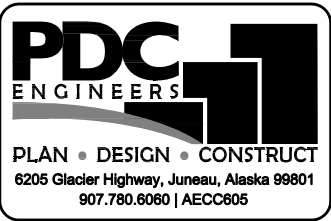
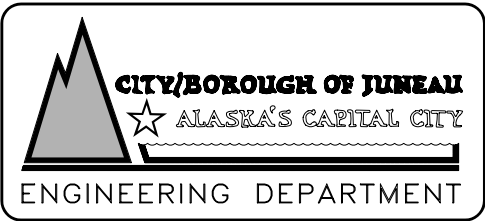
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DESIGN	KAP
DRAWN	KAP
CHECK	JMP
APPROVED	JMP

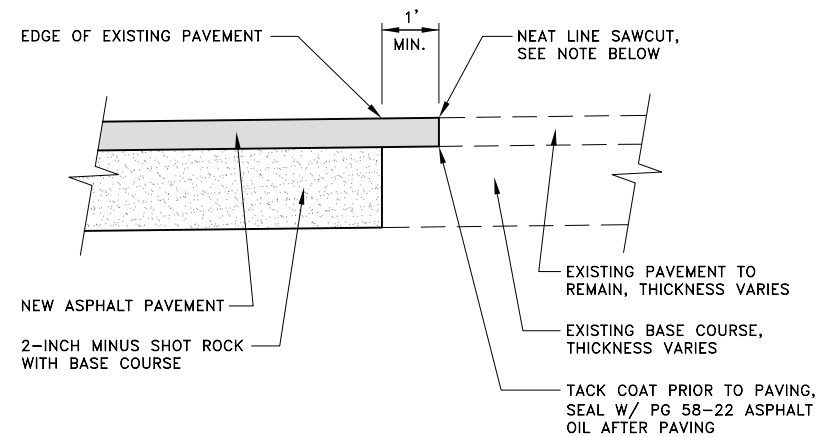
No.	DATE	REVISION



ASPEN AVENUE PAVEMENT &
DRAINAGE IMPROVEMENTS
CBJ CONTRACT No. BE17-165
CITY & BOROUGH OF JUNEAU, ALASKA

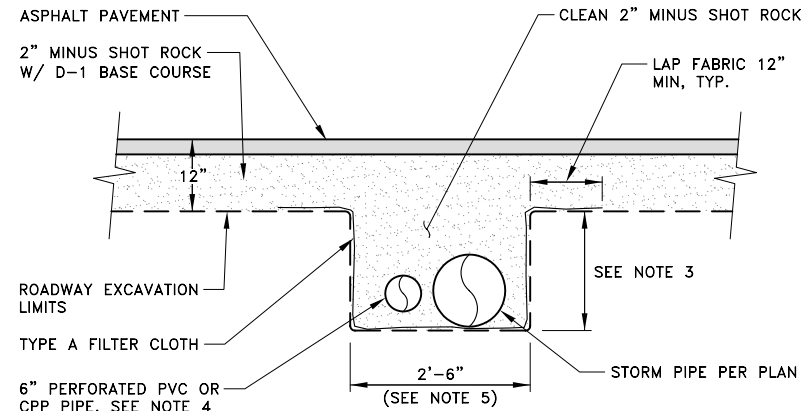
ADDITIVE ALTERNATE
TYPICAL SECTION
PINWOOD DRIVE

DATE: FEBRUARY 1, 2017 PDC No. 16409JN
SHEET C101



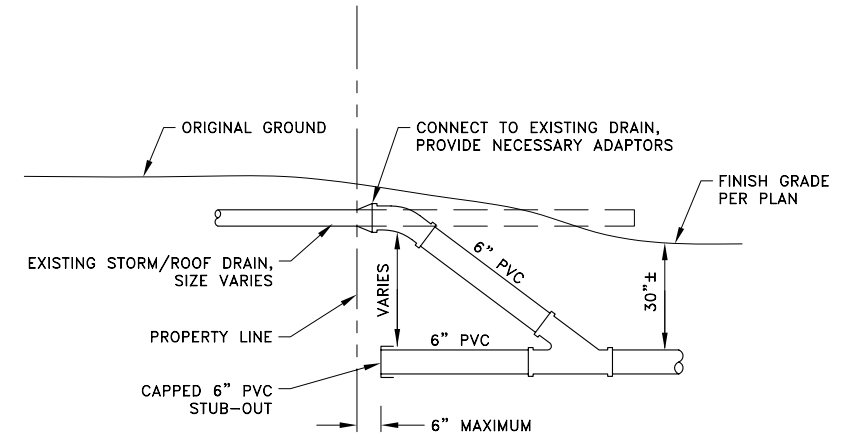
NOTE:
SAWCUT OF EXISTING PAVEMENT SHALL NOT BE MADE UNTIL 24 HOURS PRIOR TO FINAL PAVING.

1 PAVEMENT MATCH JOINT DETAIL
N.T.S.

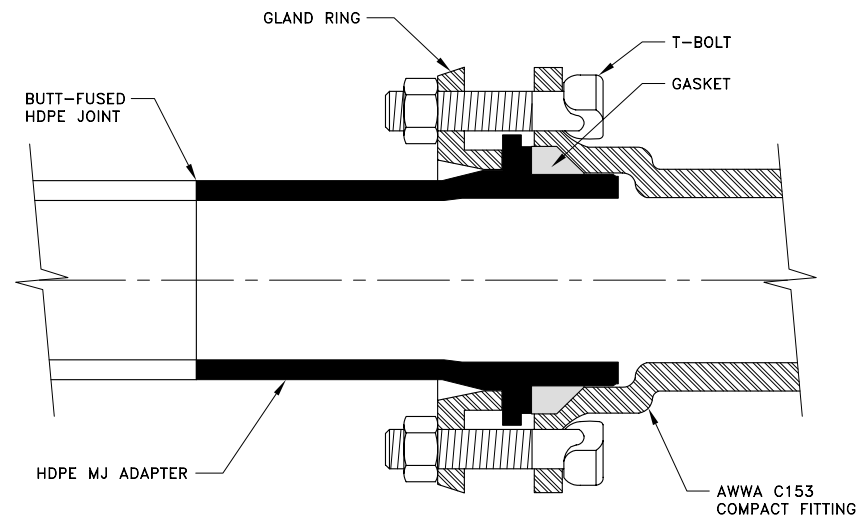


- NOTES:**
1. OUTFALL CONNECTIONS WILL BE INTO CATCH BASINS.
 2. BOTH ENDS OF PIPES SHALL BE CONNECTED IN STORM DRAIN STRUCTURES AND THE FILTER CLOTH FOLDED AND OVERLAPPED TO SEAL END OF DRAINAGE ROCK SECTION.
 3. DEPTH VARIES, SEE PLAN VIEWS.
 4. MINIMUM PIPE SLOPE SHALL BE 1%.
 5. TRENCH WIDTH SHALL BE 3'-2" WIDE AT 18" STORM PIPE CROSSINGS (P-2 & P-5).

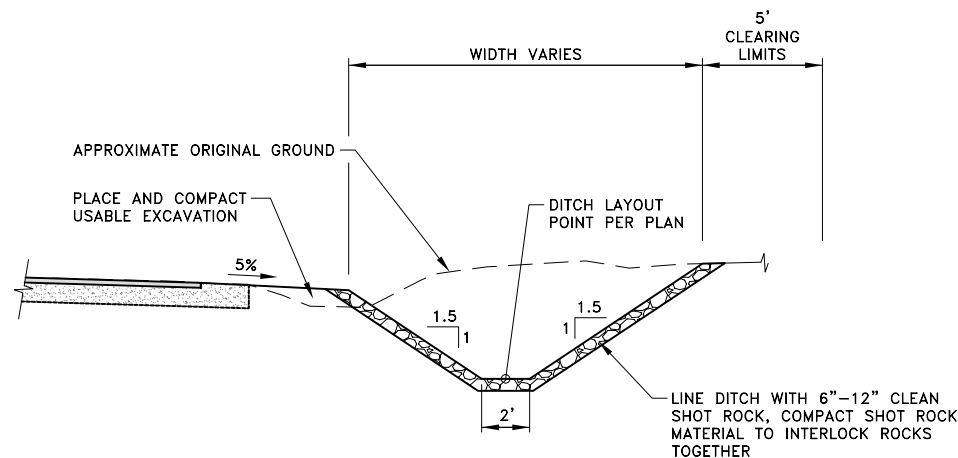
2 6" UNDERDRAIN DETAIL
N.T.S.



3 CONNECTION TO EXISTING PROPERTY DRAINS
N.T.S.



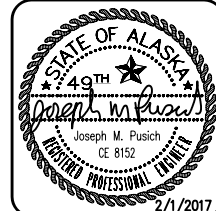
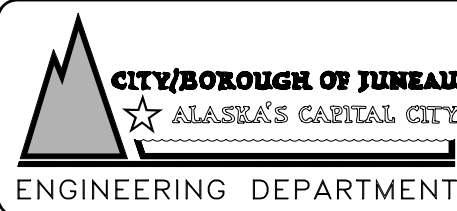
4 TYPICAL HDPE MJ CONNECTION TO DI FITTING
N.T.S.



5 DITCH TYPICAL SECTION
N.T.S.

DESIGN KAP
DRAWN KAP
CHECK JMP
APPROVED JMP

No.	DATE	REVISION



ASPEN AVENUE PAVEMENT & DRAINAGE IMPROVEMENTS
CBJ CONTRACT No. BE17-165
CITY & BOROUGH OF JUNEAU, ALASKA

CONSTRUCTION DETAILS

DATE: FEBRUARY 1, 2017
PDC No. 16409JN
SHEET C102

CORROSION PROTECTION SPECIFICATIONS AND NOTES:

ANODES

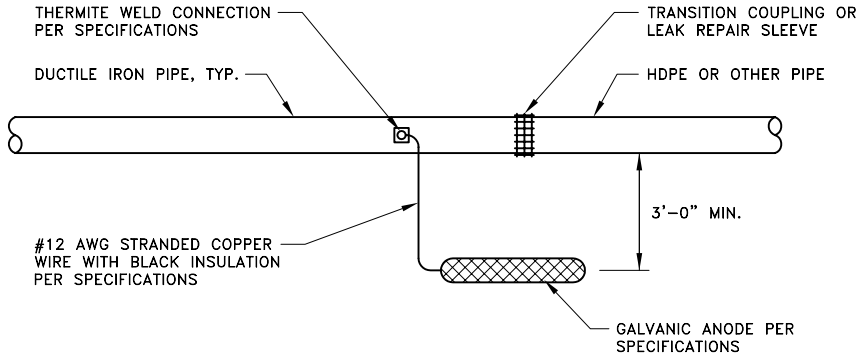
- 1. ANODES SHALL BE 18# BARE WEIGHT ZINC WITH PREPACKAGED ANODE BACKFILL.
- 2. ACCEPTABLE ANODE MODELS ARE:
 - a. MODEL NO. ZUR-18 FROM FARWEST INDUSTRIES
 - b. MODEL S18 FROM MESA PRODUCTS
 - c. APPROVED EQUAL
- 3. INSTALL TYPE, SIZE AND NUMBER OF ANODES SPECIFIED.
- 4. INSTALL 2 ANODES TO ALL CONNECTIONS TO EXISTING CAST IRON OR DUCTILE IRON 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

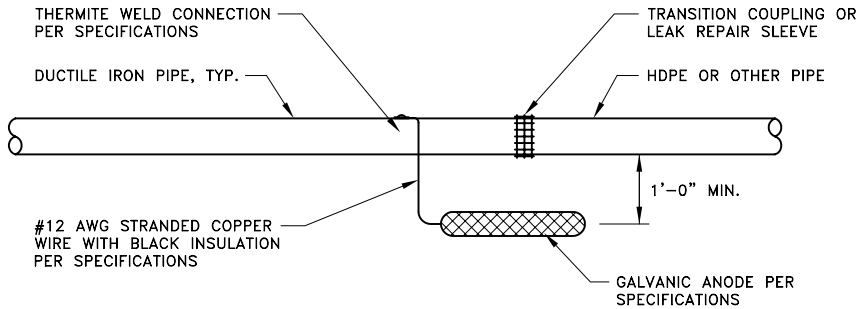
- 1. THERMITE WELD MATERIALS SHALL BE DESIGNED FOR CONNECTION OF COPPER TO DUCTILE IRON AND CAST IRON SURFACES AND SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
- 2. ACCEPTABLE MANUFACTURERS OF THERMITE WELD PRODUCTS ARE:
 - a. CADWELD BY ERICO PRODUCTS INC.
 - b. THERMOWELD BY CONTINENTAL INDUSTRIES INC.
 - c. APPROVED EQUAL
- 3. A 2-INCH MINUS 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 1/4-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 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.



PLAN



ELEVATION

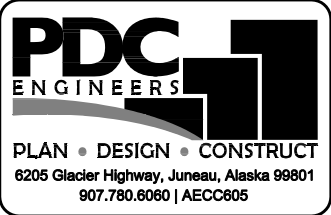
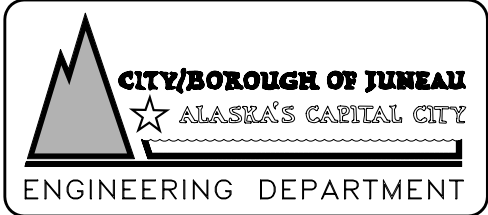
GALVANIC ANODE INSTALLATION FOR EXISTING METALLIC PIPE CONNECTIONS OR LEAK REPAIR LOCATIONS DETAIL

1

N.T.S.

DESIGN KAP
DRAWN KAP
CHECK JMP
APPROVED JMP

No.	DATE	REVISION



ASPEN AVENUE PAVEMENT & DRAINAGE IMPROVEMENTS
CBJ CONTRACT No. BE17-165
CITY & BOROUGH OF JUNEAU, ALASKA

CORROSION PROTECTION
DETAILS

DATE: FEBRUARY 1, 2017
PDC No. 16409JN
SHEET C103

STORM DRAIN PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
P-1	18"	20'	CPP	0.30%
P-2	18"	24'	CPP	0.33%
P-3	18"	140'	CPP	0.30%

NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED AND CALCULATED FROM CENTER TO CENTER OF STRUCTURES, UON.

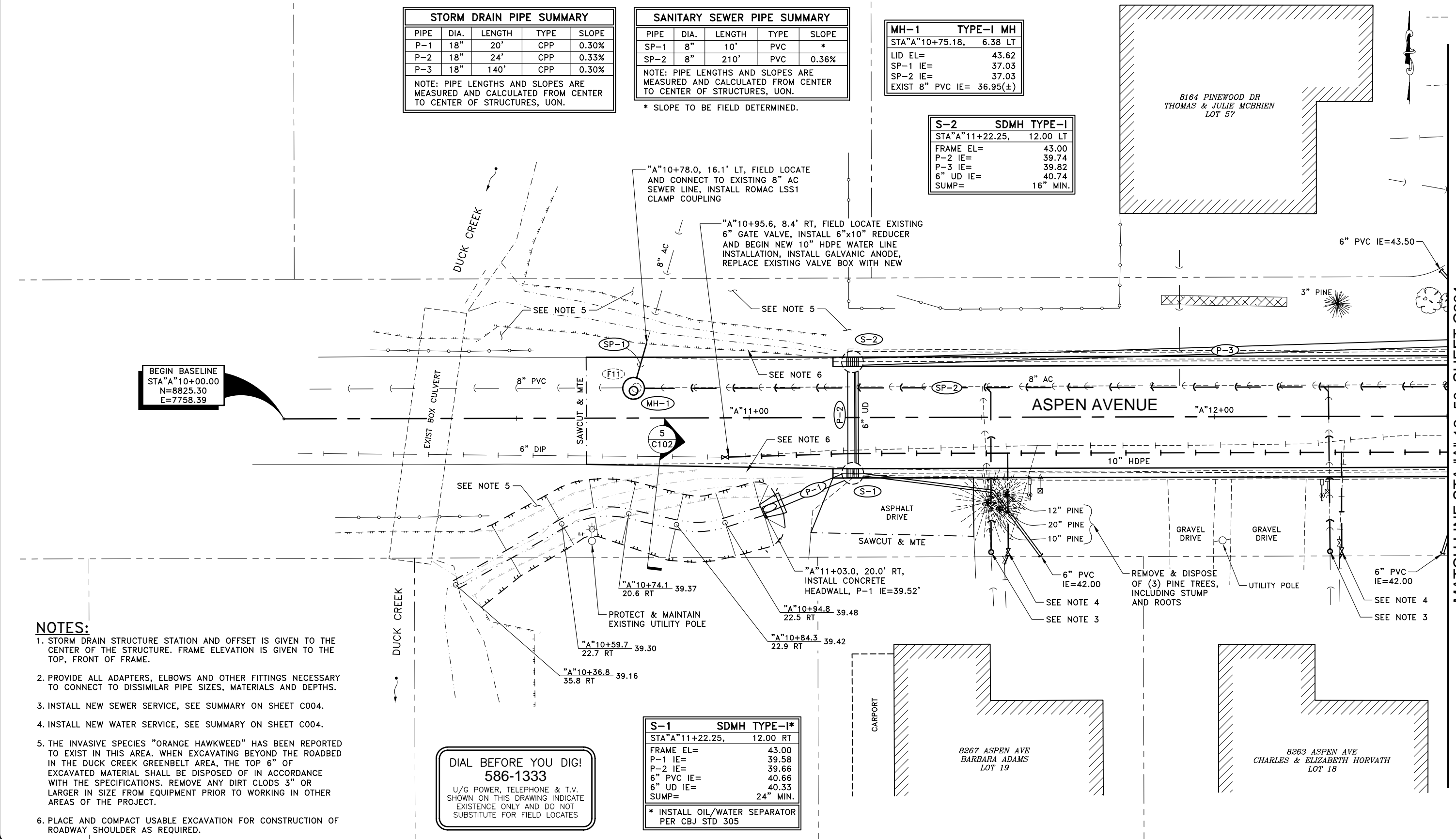
SANITARY SEWER PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
SP-1	8"	10'	PVC	*
SP-2	8"	210'	PVC	0.36%

NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED AND CALCULATED FROM CENTER TO CENTER OF STRUCTURES, UON.

* SLOPE TO BE FIELD DETERMINED.

MH-1	TYPE-I MH
STA "A" 10+75.18,	6.38 LT
LID EL=	43.62
SP-1 IE=	37.03
SP-2 IE=	37.03
EXIST 8" PVC IE=	36.95(±)

S-2	SDMH TYPE-I
STA "A" 11+22.25,	12.00 LT
FRAME EL=	43.00
P-2 IE=	39.74
P-3 IE=	39.82
6" UD IE=	40.74
SUMP=	16" MIN.



NOTES:

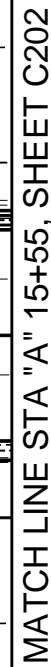
1. STORM DRAIN STRUCTURE STATION AND OFFSET IS GIVEN TO THE CENTER OF THE STRUCTURE. FRAME ELEVATION IS GIVEN TO THE TOP, FRONT OF FRAME.
2. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
3. INSTALL NEW SEWER SERVICE, SEE SUMMARY ON SHEET C004.
4. INSTALL NEW WATER SERVICE, SEE SUMMARY ON SHEET C004.
5. THE INVASIVE SPECIES "ORANGE HAWKWEED" HAS BEEN REPORTED TO EXIST IN THIS AREA. WHEN EXCAVATING BEYOND THE ROADBED IN THE DUCK CREEK GREENBELT AREA, THE TOP 6" OF EXCAVATED MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH THE SPECIFICATIONS. REMOVE ANY DIRT CLOUDS 3" OR LARGER IN SIZE FROM EQUIPMENT PRIOR TO WORKING IN OTHER AREAS OF THE PROJECT.
6. PLACE AND COMPACT USABLE EXCAVATION FOR CONSTRUCTION OF ROADWAY SHOULDER AS REQUIRED.

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S-1	SDMH TYPE-I*
STA "A" 11+22.25,	12.00 RT
FRAME EL=	43.00
P-1 IE=	39.58
P-2 IE=	39.66
6" PVC IE=	40.66
6" UD IE=	40.33
SUMP=	24" MIN.

* INSTALL OIL/WATER SEPARATOR PER CBJ STD 305

MATCH LINE STA "A" 12+50, SHEET C200



S-7 CB TYPE-IV	
STA "A" 15+31.00,	12.00 LT
FRAME EL=	44.83
P-7 IE=	41.71
P-8 IE=	41.79
P-9 IE=	41.79
6" PVC IE=	42.29
6" UD IE=	41.96
SUMP=	16" MIN.

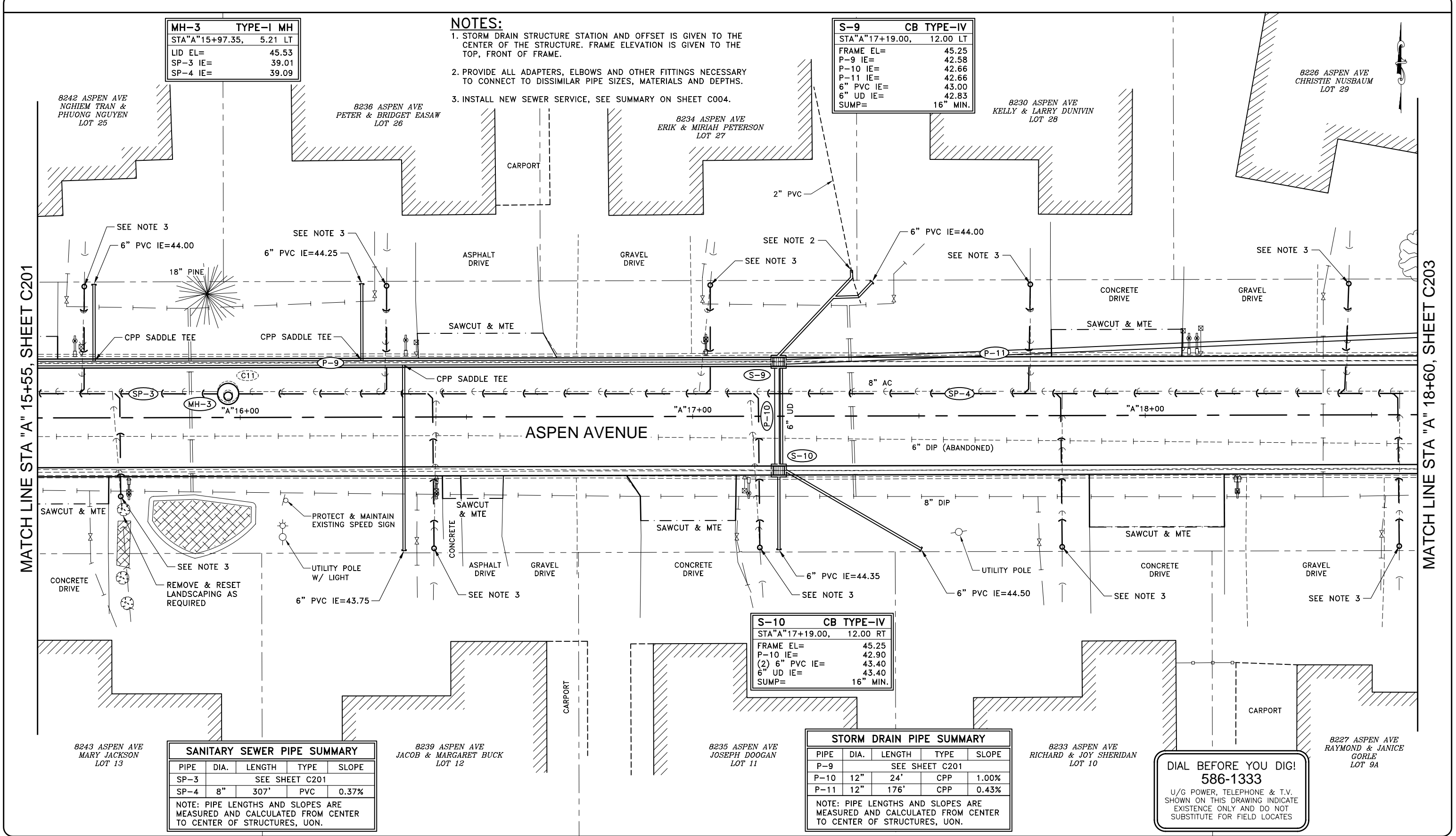
STORM DRAIN PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
P-3		SEE SHEET C200		
P-4	12"	29'	CPP	1.00%
P-5	18"	36'	CPP	0.42%
P-6	12"	20'	CPP	0.75%
P-7	12"	220'	CPP	0.42%
P-8	12"	24'	CPP	1.00%
P-9	12"	188'	CPP	0.42%
P-19	12"	98'	CPP	0.58%
NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED AND CALCULATED FROM CENTER TO CENTER OF STRUCTURES, UON.				

NOTES:

1. STORM DRAIN STRUCTURE STATION AND OFFSET IS GIVEN TO THE CENTER OF THE STRUCTURE. FRAME ELEVATION IS GIVEN TO THE TOP, FRONT OF FRAME.
2. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
3. INSTALL NEW SEWER SERVICE, SEE SUMMARY ON SHEET C004.
4. INSTALL NEW WATER SERVICE, SEE SUMMARY ON SHEET C004.
5. SEE SHEET C208 IF ADDITIVE ALTERNATE WORK IS NOT AWARDED.

S-8	CB TYPE-IV
STA "A" 15+31.00,	12.00 RT
FRAME EL=	44.83
P-8 IE=	42.03
6" PVC IE=	42.53
6" UD IE=	42.53
SUMP=	16" MIN.

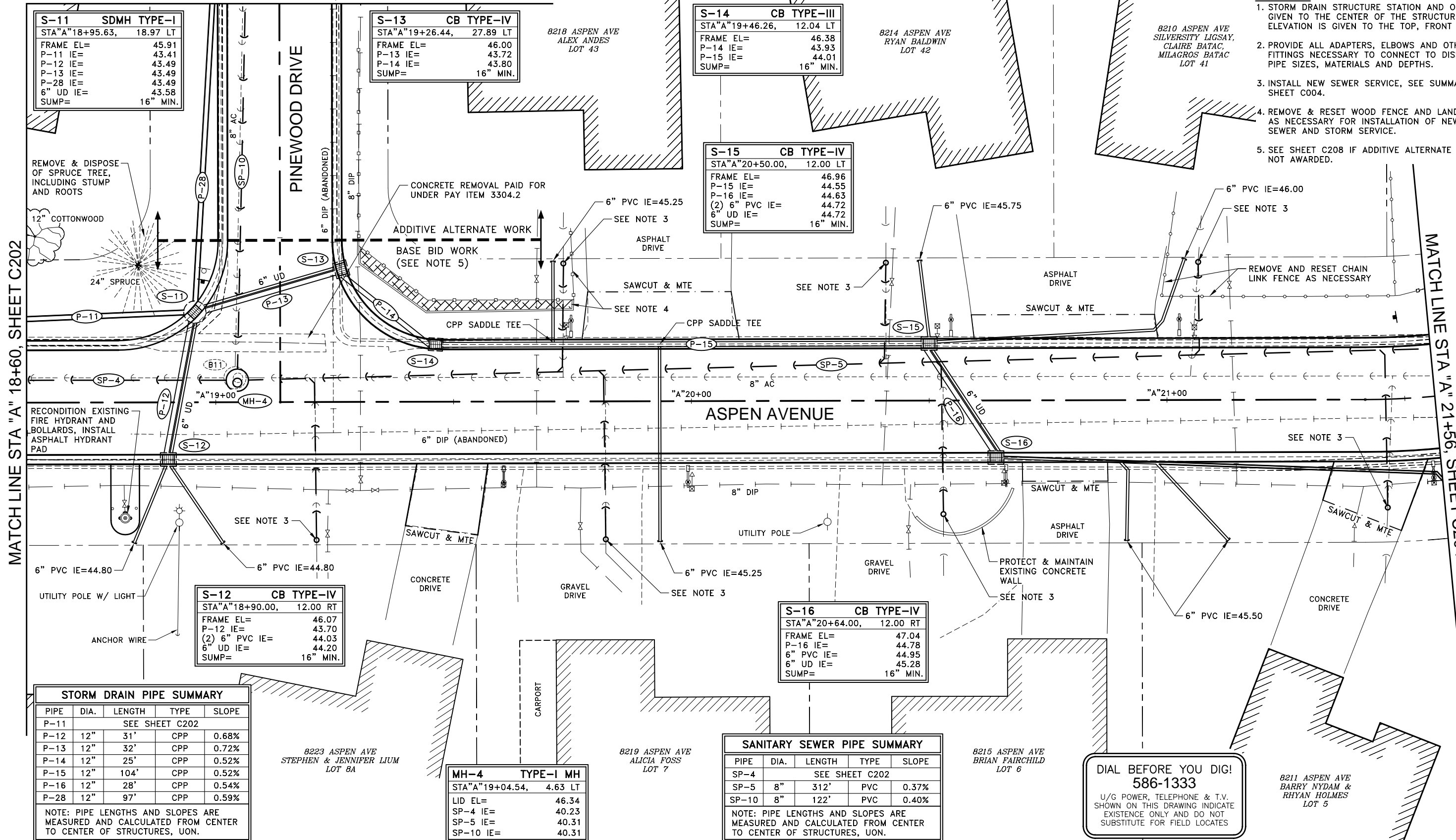
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MATCH LINE STA "P" 19+01, SHEET C207

NOTES:

1. STORM DRAIN STRUCTURE STATION AND OFFSET IS GIVEN TO THE CENTER OF THE STRUCTURE. FRAME ELEVATION IS GIVEN TO THE TOP, FRONT OF FRAME.
2. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
3. INSTALL NEW SEWER SERVICE, SEE SUMMARY ON SHEET C004.
4. REMOVE & RESET WOOD FENCE AND LANDSCAPING AS NECESSARY FOR INSTALLATION OF NEW SANITARY SEWER AND STORM SERVICE.
5. SEE SHEET C208 IF ADDITIVE ALTERNATE WORK IS NOT AWARDED.



STORM DRAIN PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
P-11	SEE SHEET C202			
P-12	12"	31'	CPP	0.68%
P-13	12"	32'	CPP	0.72%
P-14	12"	25'	CPP	0.52%
P-15	12"	104'	CPP	0.52%
P-16	12"	28'	CPP	0.54%
P-28	12"	97'	CPP	0.59%

NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED AND CALCULATED FROM CENTER TO CENTER OF STRUCTURES, UON.

MH-4 TYPE-I MH	
STA "A" 19+04.54,	4.63 LT
LID EL=	46.34
SP-4 IE=	40.23
SP-5 IE=	40.31
SP-10 IE=	40.31

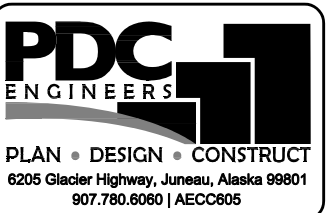
SANITARY SEWER PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
SP-4	SEE SHEET C202			
SP-5	8"	312'	PVC	0.37%
SP-10	8"	122'	PVC	0.40%

NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED AND CALCULATED FROM CENTER TO CENTER OF STRUCTURES, UON.

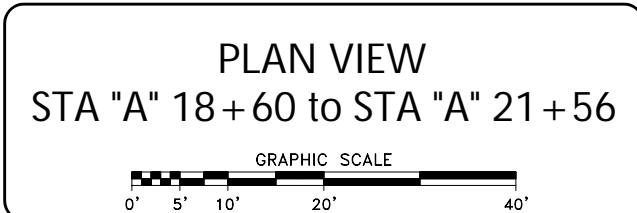
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DESIGN	KAP
DRAWN	KAP
CHECK	JMP
APPROVED	JMP

No.	DATE	REVISION



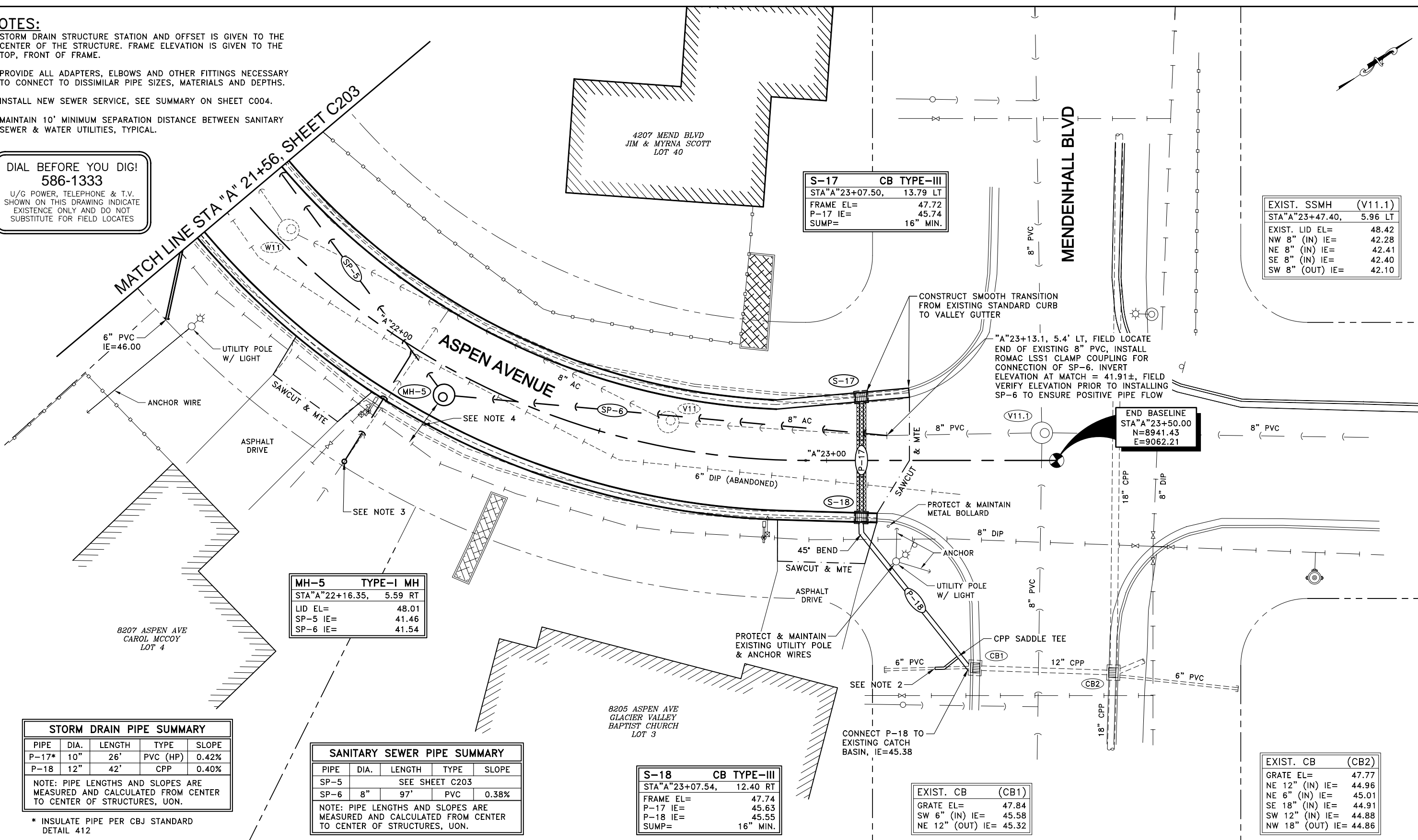
ASPEN AVENUE PAVEMENT & DRAINAGE IMPROVEMENTS
 CBJ CONTRACT No. BE17-165
 CITY & BOROUGH OF JUNEAU, ALASKA



DATE: FEBRUARY 1, 2017
PDC No. 16409JN
SHEET C203

1. STORM DRAIN STRUCTURE STATION AND OFFSET IS GIVEN TO THE CENTER OF THE STRUCTURE. FRAME ELEVATION IS GIVEN TO THE TOP, FRONT OF FRAME.
2. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
3. INSTALL NEW SEWER SERVICE, SEE SUMMARY ON SHEET C004.
4. MAINTAIN 10' MINIMUM SEPARATION DISTANCE BETWEEN SANITARY SEWER & WATER UTILITIES. TYPICAL.

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STORM DRAIN PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
P-17*	10"	26'	PVC (HP)	0.42%
P-18	12"	42'	CPP	0.40%
NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED AND CALCULATED FROM CENTER TO CENTER OF STRUCTURES, UON.				

* INSULATE PIPE PER CBJ STANDARD
DETAIL 412

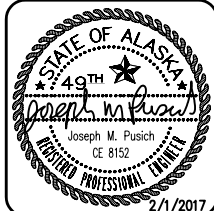
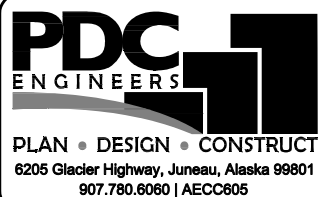
SANITARY SEWER PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
SP-5		SEE SHEET C203		
SP-6	8"	97'	PVC	0.38%
NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED AND CALCULATED FROM CENTER TO CENTER OF STRUCTURES, UON.				

S-18	CB TYPE-III
STA "A" 23+07.54,	12.40 RT
FRAME EL=	47.74
P-17 IE=	45.63
P-18 IE=	45.55
SUMP=	16" MIN.

EXIST. CB	(CB1)
GRATE EL=	47.84
SW 6" (IN) IE=	45.58
NE 12" (OUT) IE=	45.32

EXIST. CB	(CB2)
GRATE EL=	47.77
NE 12" (IN) IE=	44.96
NE 6" (IN) IE=	45.01
SE 18" (IN) IE=	44.91
SW 12" (IN) IE=	44.88
NW 18" (OUT) IE=	44.86

No.	DATE	REVISION
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CITY & BOROUGH OF JUNEAU, ALASKA

GRAPHIC SCALE

0' 5' 10' 20' 40'

DATE: FEBRUARY 1, 2017
PDC No. 16409JN

SHEET C204

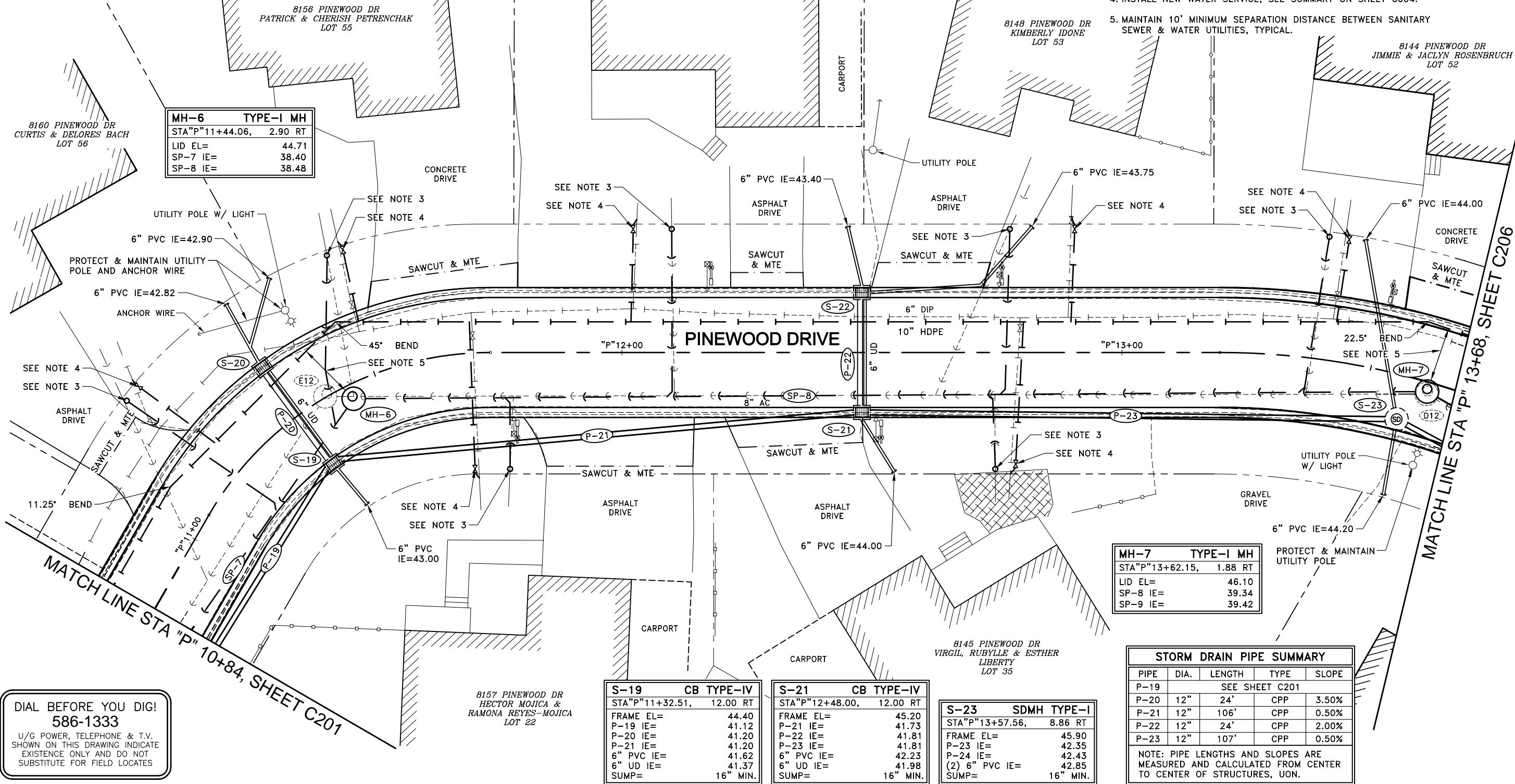
SANITARY SEWER PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
SP-7		SEE SHEET C201		
SP-8	8"	215'	PVC	0.40%

NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED AND CALCULATED FROM CENTER TO CENTER OF STRUCTURES, UON.

S-20	CB TYPE-IV
STA"P"11+32.51,	12.00 LT
FRAME EL=	44.40
P-20 IE=	42.04
6" PVC IE=	42.54
6" UD IE=	42.54
SUMP=	16" MIN.

S-22	CB TYPE-IV
STA"P"12+48.00,	12.00 LT
FRAME EL=	45.20
P-22 IE=	42.29
(2) 6" PVC IE=	42.79
6" UD IE=	42.79
SUMP=	16" MIN.

- NOTES:**
1. STORM DRAIN STRUCTURE STATION AND OFFSET IS GIVEN TO THE CENTER OF THE STRUCTURE. FRAME ELEVATION IS GIVEN TO THE TOP, FRONT OF FRAME.
 2. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
 3. INSTALL NEW SEWER SERVICE, SEE SUMMARY ON SHEET C004.
 4. INSTALL NEW WATER SERVICE, SEE SUMMARY ON SHEET C004.
 5. MAINTAIN 10' MINIMUM SEPARATION DISTANCE BETWEEN SANITARY SEWER & WATER UTILITIES, TYPICAL.



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MH-7	TYPE-I MH
STA"P"13+62.15,	1.88 RT
LID EL=	46.10
SP-8 IE=	39.34
SP-9 IE=	39.42

STORM DRAIN PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
P-19		SEE SHEET C201		
P-20	12"	24'	CPP	3.50%
P-21	12"	106'	CPP	0.50%
P-22	12"	24'	CPP	2.00%
P-23	12"	107'	CPP	0.50%

NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED AND CALCULATED FROM CENTER TO CENTER OF STRUCTURES, UON.

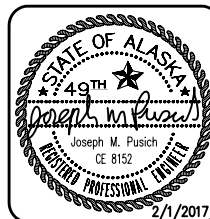
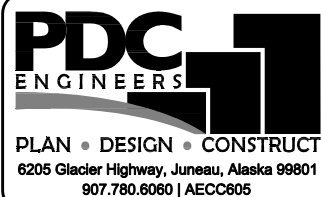
S-19	CB TYPE-IV
STA"P"11+32.51,	12.00 RT
FRAME EL=	44.40
P-19 IE=	41.12
P-20 IE=	41.20
P-21 IE=	41.20
6" PVC IE=	41.62
6" UD IE=	41.37
SUMP=	16" MIN.

S-21	CB TYPE-IV
STA"P"12+48.00,	12.00 RT
FRAME EL=	45.20
P-21 IE=	41.73
P-22 IE=	41.81
P-23 IE=	41.81
6" PVC IE=	42.23
6" UD IE=	41.98
SUMP=	16" MIN.

S-23	SDMH TYPE-I
STA"P"13+57.56,	8.86 RT
FRAME EL=	45.90
P-23 IE=	42.35
P-24 IE=	42.43
(2) 6" PVC IE=	42.85
SUMP=	16" MIN.

DESIGN KAP
 DRAWN KAP
 CHECK JMP
 APPROVED JMP

No.	DATE	REVISION



ASPEN AVENUE PAVEMENT & DRAINAGE IMPROVEMENTS
CBJ CONTRACT No. BE17-165
 CITY & BOROUGH OF JUNEAU, ALASKA

ADDITIVE ALTERNATE PLAN VIEW
STA "P" 10+84 to STA "P" 13+68
 GRAPHIC SCALE
 0' 5' 10' 20' 40'

DATE: FEBRUARY 1, 2017
 PDC No. 16409JN
 SHEET **C205**

STORM DRAIN PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
P-24	12"	74'	CPP	0.40%
P-25	12"	24'	CPP	0.50%
P-26	12"	214'	CPP	0.40%
P-27	12"	24'	CPP	0.42%

NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED AND CALCULATED FROM CENTER TO CENTER OF STRUCTURES, UON.

S-25	CB TYPE-IV
STA"P"14+35.00,	12.00 LT
FRAME EL=	45.34
P-25 IE=	42.93
(2) 6" PVC IE=	43.43
6" UD IE=	43.43
SUMP=	16" MIN.

S-27	CB TYPE-IV
STA"P"16+50.00,	12.00 LT
FRAME EL=	46.18
P-27 IE=	43.85
(2) 6" PVC IE=	44.18
6" UD IE=	44.35
SUMP=	16" MIN.

8140 PINWOOD DR
MICHAEL SMITH
LOT 51

8136 PINWOOD DR
PIERRE MORRISSETTE
& CHERRI BELL
LOT 50

8132 PINWOOD DR
ALISON GREEVER
LOT 49

8128 PINWOOD DR
RAYMOND & MARIA JORDISON
LOT 48

8141 PINWOOD DR
ALBERTA EVERSON
LOT 34

8137 PINWOOD DR
ELSIE & STUART ROBARDS
LOT 33

8133 PINWOOD DR
MARTIN & JONNA LASTER
LOT 32

8129 PINWOOD DR
NATHAN & KRISTINE COFFEE
LOT 31

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S-24	CB TYPE-IV
STA"P"14+35.00,	12.00 RT
FRAME EL=	45.34
P-24 IE=	42.73
P-25 IE=	42.81
P-26 IE=	42.81
6" PVC IE=	42.98
6" UD IE=	42.98
SUMP=	16" MIN.

SANITARY SEWER PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
SP-9	8"	298'	PVC	0.40%

NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED AND CALCULATED FROM CENTER TO CENTER OF STRUCTURES, UON.

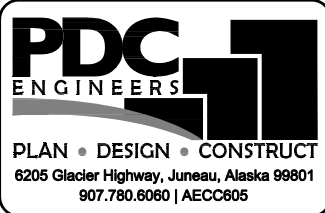
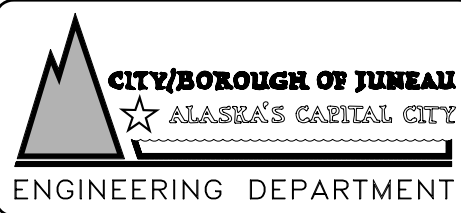
S-26	CB TYPE-IV
STA"P"16+50.00,	12.00 RT
FRAME EL=	46.18
P-26 IE=	43.67
P-27 IE=	43.75
6" PVC IE=	43.92
6" UD IE=	43.92
SUMP=	16" MIN.

NOTES:

1. STORM DRAIN STRUCTURE STATION AND OFFSET IS GIVEN TO THE CENTER OF THE STRUCTURE. FRAME ELEVATION IS GIVEN TO THE TOP, FRONT OF FRAME.
2. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
3. INSTALL NEW SEWER SERVICE, SEE SUMMARY ON SHEET C004.
4. INSTALL NEW WATER SERVICE, SEE SUMMARY ON SHEET C004.

DESIGN	KAP
DRAWN	KAP
CHECK	JMP
APPROVED	JMP

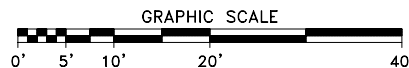
No.	DATE	REVISION



ASPEN AVENUE PAVEMENT & DRAINAGE IMPROVEMENTS
CBJ CONTRACT No. BE17-165

CITY & BOROUGH OF JUNEAU, ALASKA

ADDITIVE ALTERNATE PLAN VIEW
STA "P" 13+68 to STA "P" 16+55



DATE: FEBRUARY 1, 2017
PDC No. 16409JN
SHEET C206