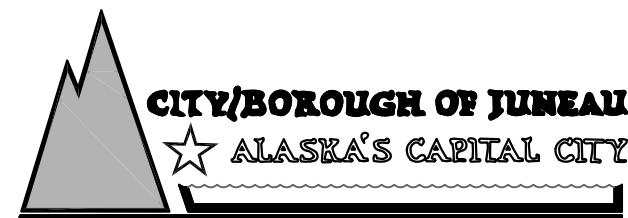
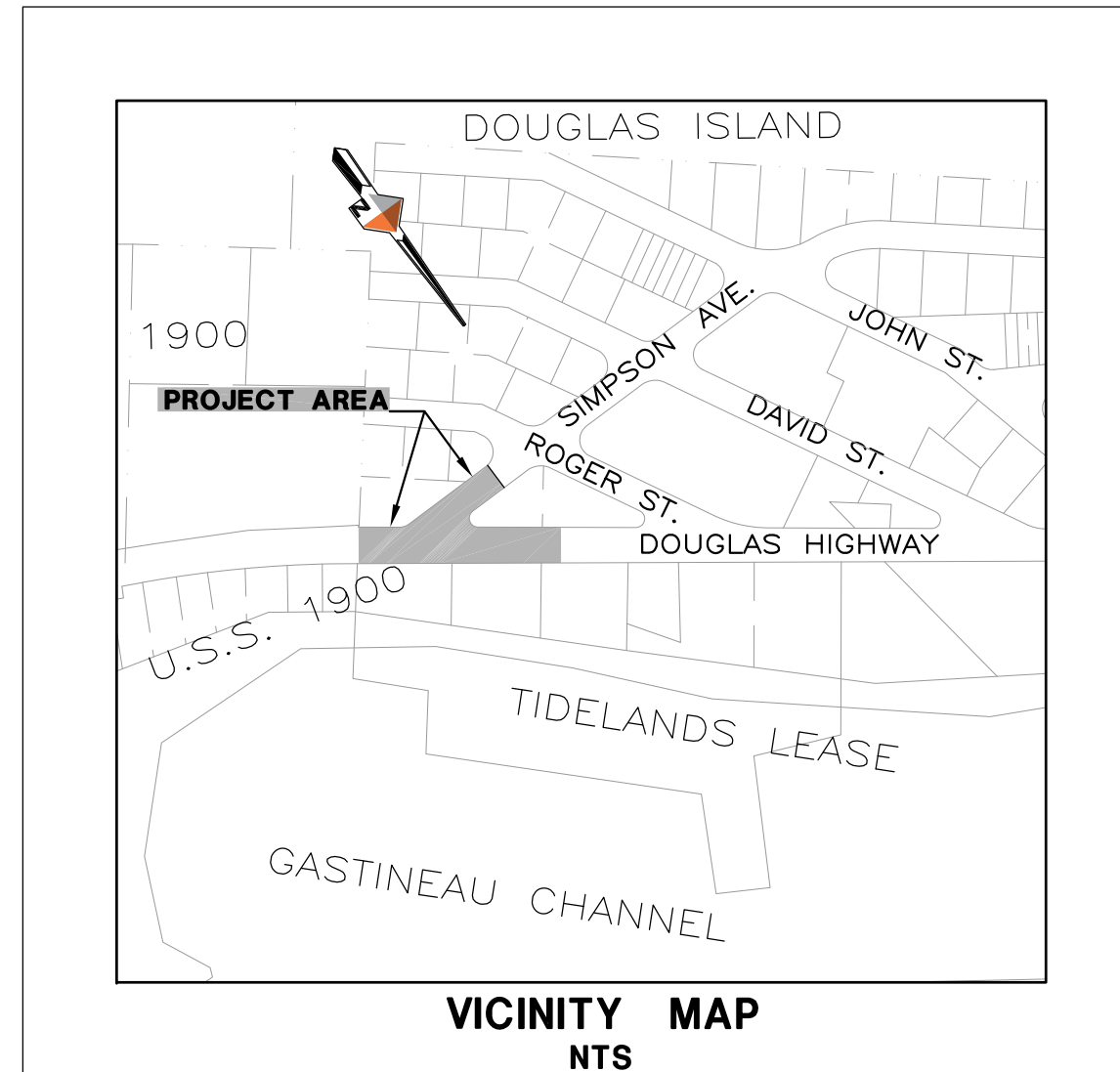


DOUGLAS HIGHWAY SEWER INFILL, LID 93 CONTRACT NO. E12-277

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LEGEND

DESCRIPTION	EXISTING	REMOVE	PROPOSED
ATB LIMIT			-----
CATCH BASIN			
CONTROL POINT			
CUT LIMITS			-----
ELECTRICAL UTILITY			-----
FILL LIMITS		
FIRE HYDRANT			
FLOW LINE DITCH			
GRAVEL DRIVEWAY			
HOUSE NO			
MAILBOX			
PROJECT CONTROL LINE			-----
PROPERTY LINE			
POWER POLE			
REMOVE AND REPLACE AC			
SANITARY SEWER PIPE			
SANITARY SEWER MANHOLE			
SEPTIC TANK			
SIGN			
STORM DRAIN PIPE		-----	
STORM DRAIN MANHOLE			
SURVEY MONUMENT			
TELEPHONE			
TREE			
WATER LINE PIPE			
WATER VALVE BOX			

LEGEND

AC	ASPHALT PAVING
ATB	ASPHALT-TREATED BASE
BV	BUTTERFLY VALVE
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED POLYETHYLENE PIPE
CONC	CONCRETE
CTE	CONNECT TO EXISTING
DI	DUCTILE IRON
DIA	DIAMETER
FG	FINISHED GRADE
GV	GATE VALVE
INV	INVERT
LT	LEFT
MH	MANHOLE
MN	MAGNETIC NAIL
MTE	MATCH TO EXISTING
NO	NUMBER
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE PIPE
RT	RIGHT
STA	STATION
STD	STANDARD

ABBREVIATIONS TO BE USED WITHOUT PERIODS

GENERAL NOTES

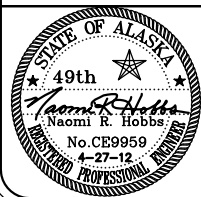
- LARGE BOULDERS, BEDROCK, HARDPAN, STUMPS, LOGS, ORGANICS AND GROUND WATER MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING TRENCHING AND DITCHING.
- CONTRACTOR SHALL ASSURE GARBAGE PICKUP AND DAILY MAIL SERVICE WILL BE UNINTERRUPTED TO ALL RESIDENCES AFFECTED BY THIS PROJECT.
- CBJ ENGINEERING STANDARD DETAILS BOOK DATED AUGUST 14, 2011 IS MADE A PART OF THIS CONTRACT, WITH CURRENT REVISIONS AS APPLICABLE.
- EXISTING PIPE LOCATIONS ARE DERIVED FROM CBJ AND ADOT/PF AS-BUILTS OR FIELD LOCATED. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. DEPTH OF THE EXISTING PIPES SHOWN ON THE PROFILES ARE ASSUMED. CONTRACTOR SHALL FIELD VERIFY THE DEPTH OF EACH EXISTING SERVICE AND FIRE HYDRANT LEG PRIOR TO INSTALLING THE RESPECTIVE SEWER OR STORM DRAIN PIPE.
- GRADING, ALIGNMENT AND PIPE LENGTHS ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
- LOCATION OF SANITARY SEWER MANHOLES AND SERVICES ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
- PIPE LENGTHS AND SLOPES GIVEN IN SUMMARY TABLES ARE TO CENTER OF MANHOLES.
- THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES AT 780-6808 OF PROPOSED WATER SERVICE INTERRUPTION AND SUBMIT THE "WATER SYSTEM SPECIAL USE PERMIT" (COSIGNED BY THE ENGINEER) AT LEAST 48 HOURS PRIOR TO SHUTDOWN OF MAINLINE WATER PIPE.
- PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A BOUNDARY SURVEY. EXISTING RECORD PLATS DO NOT CLOSE WITH EACH OTHER IN SOME CASES. THE PROPERTY LINES SHOWN ON THESE PLANS ARE A BEST GUESS APPROXIMATION OF CLOSURE.
- HORIZONTAL AND VERTICAL CONTROL IS GIVEN ON THE PLAN SHEETS. THE CONTRACTOR SHALL VERIFY AGREEMENT BETWEEN HORIZONTAL AND VERTICAL CONTROL BEFORE BEGINNING WORK. THE STATIONING ALIGNMENT IS GENERALLY ALONG THE CENTERLINE OF THE HIGHWAY FOR THE TANGENT SECTION BETWEEN STA "D" 12+05 AND THE EOP. THE HIGHWAY CENTERLINE CURVE BETWEEN THE BOP AND 12+05 HAS BEEN IGNORED FOR SIMPLICITY. HIGHWAY MONUMENTS DO NOT MATCH PRECISELY WITH THE PROJECT CENTERLINE GEOMETRY.
- WHERE SURVEY MONUMENTS ARE TO BE DISTURBED, CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (IE. REBARS, CONCRETE NAILS, CHISELED X'S) PRIOR TO CONSTRUCTION AND REMONUMENT AFTER COMPLETION OF WORK IN THAT AREA. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR.
- ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.
- ALL DRIVEWAY PAVEMENT CUTS SHALL BE RE-PAVED TO MATCH EXISTING PAVEMENT ALONG A NEAT SAWCUT LINE.
- THE CONTRACTOR SHALL RESTRICT HIS COMPACTION AND OTHER VIBRATION INDUCING OPERATIONS AS NECESSARY TO ASSURE NO DAMAGE OCCURS TO ADJACENT BUILDINGS OR STRUCTURES.
- THE PLAN SHEETS DO NOT SHOW ALL TREES AND BRUSH THAT WILL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. ALL TREES AND BRUSH DAMAGED DURING CONSTRUCTION SHALL BE EITHER REMOVED AND DISPOSED OF OR TRIMMED TO A NEAT APPEARANCE.
- THE CONTRACTOR SHALL GRADE ALL DITCHING DISTURBED ALONG DOUGLAS HIGHWAY TO RESTORE UNIFORM FLOW BETWEEN CULVERT INVERTS.
- THE CONTRACTOR SHALL NOT WALK TRACKED EQUIPMENT ON THE PAVED SURFACE OF DOUGLAS HIGHWAY WITHOUT TAKING NECESSARY PRECAUTIONS TO PROTECT PAVEMENT.
- THE LOCATION OF UNDERGROUND ELECTRIC, TELEPHONE AND CABLE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. FIELD VERIFY.

"D" PROJECT BASELINE

DESCRIPTION	STATION	NORTHING	EASTING	TANGENT DATA		CURVE DATA		
				BEARING & DIST.	RADIUS	DELTA	LENGTH	BEARING & DIST.
BOP	10+00.00	2357867.64	2541728.16	N45°45'58"W - 620.00				
EOP	16+20.00	2358300.14	2541283.93					

HORIZONTAL AND VERTICAL CONTROL

PT No.	ELEVATION	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
DH-1	61.20	2358029.68	2541604.45	12+01.68	29.80 RT	MAG NAIL
DH-2	63.10	2358238.39	2541389.62	15+01.20	29.49 RT	MAG NAIL



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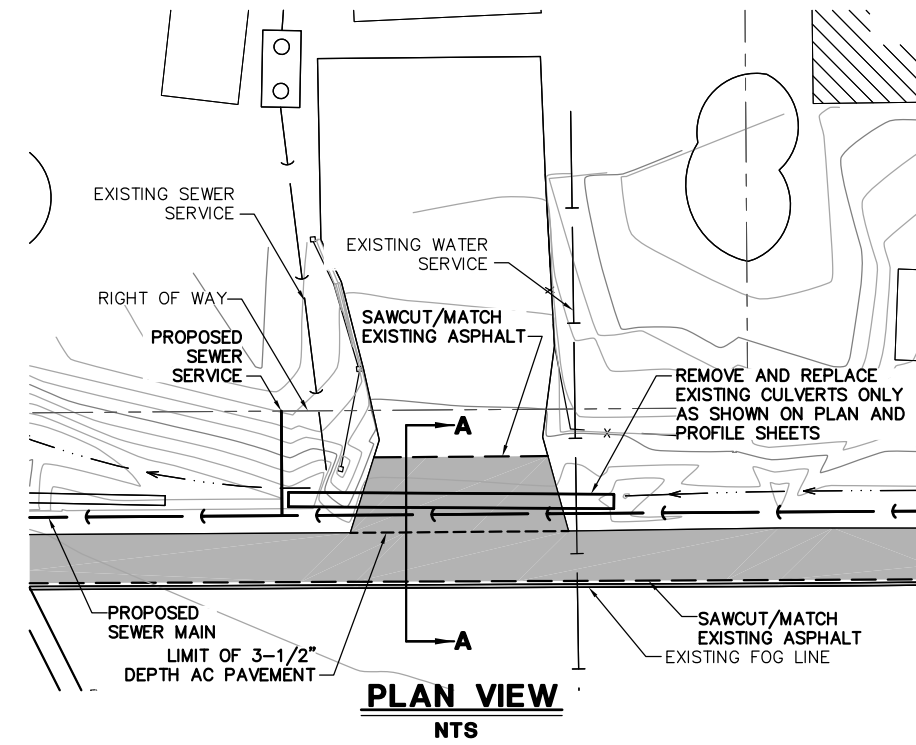
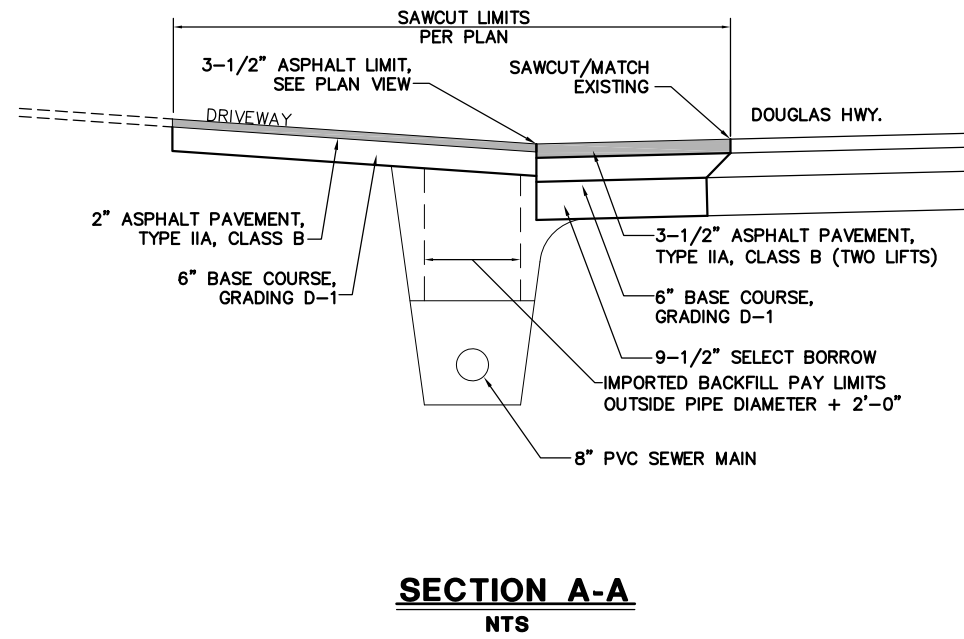
**DOUGLAS HIGHWAY
 SEWER INFILL, LID 93
 CONTRACT NO. E12-277**

**LEGEND, ABBREVIATIONS, GENERAL
 NOTES, AND SURVEY CONTROL**

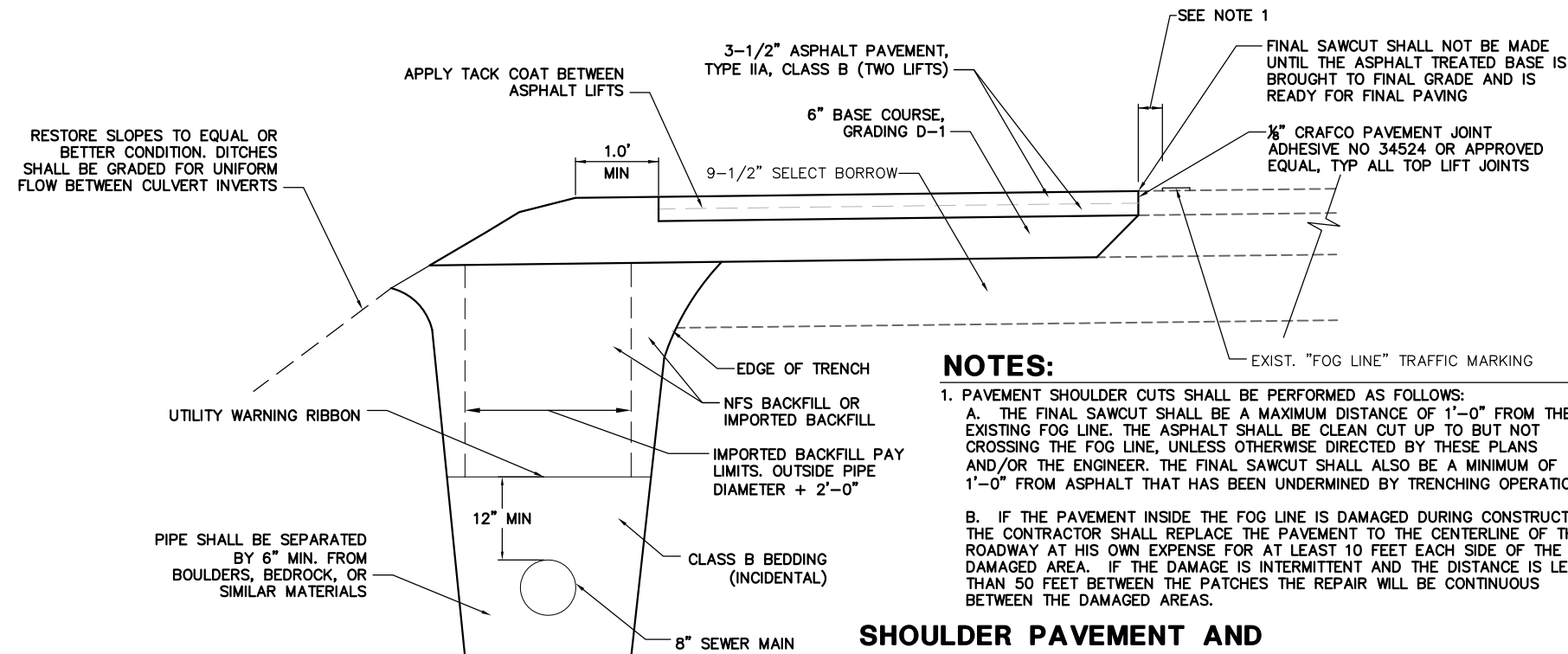
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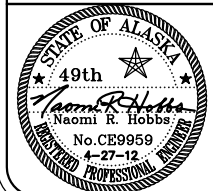
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TYPICAL DRIVEWAY DETAIL
NTS



- NOTES:**
- PAVEMENT SHOULDER CUTS SHALL BE PERFORMED AS FOLLOWS:
 - THE FINAL SAWCUT SHALL BE A MAXIMUM DISTANCE OF 1'-0" FROM THE EXISTING FOG LINE. THE ASPHALT SHALL BE CLEAN CUT UP TO BUT NOT CROSSING THE FOG LINE, UNLESS OTHERWISE DIRECTED BY THESE PLANS AND/OR THE ENGINEER. THE FINAL SAWCUT SHALL ALSO BE A MINIMUM OF 1'-0" FROM ASPHALT THAT HAS BEEN UNDERMINED BY TRENCHING OPERATIONS.
 - IF THE PAVEMENT INSIDE THE FOG LINE IS DAMAGED DURING CONSTRUCTION THE CONTRACTOR SHALL REPLACE THE PAVEMENT TO THE CENTERLINE OF THE ROADWAY AT HIS OWN EXPENSE FOR AT LEAST 10 FEET EACH SIDE OF THE DAMAGED AREA. IF THE DAMAGE IS INTERMITTENT AND THE DISTANCE IS LESS THAN 50 FEET BETWEEN THE PATCHES THE REPAIR WILL BE CONTINUOUS BETWEEN THE DAMAGED AREAS.



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No. CE9959
4-27-12
REGISTERED PROFESSIONAL ENGINEER

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ALASKA'S CAPITAL CITY

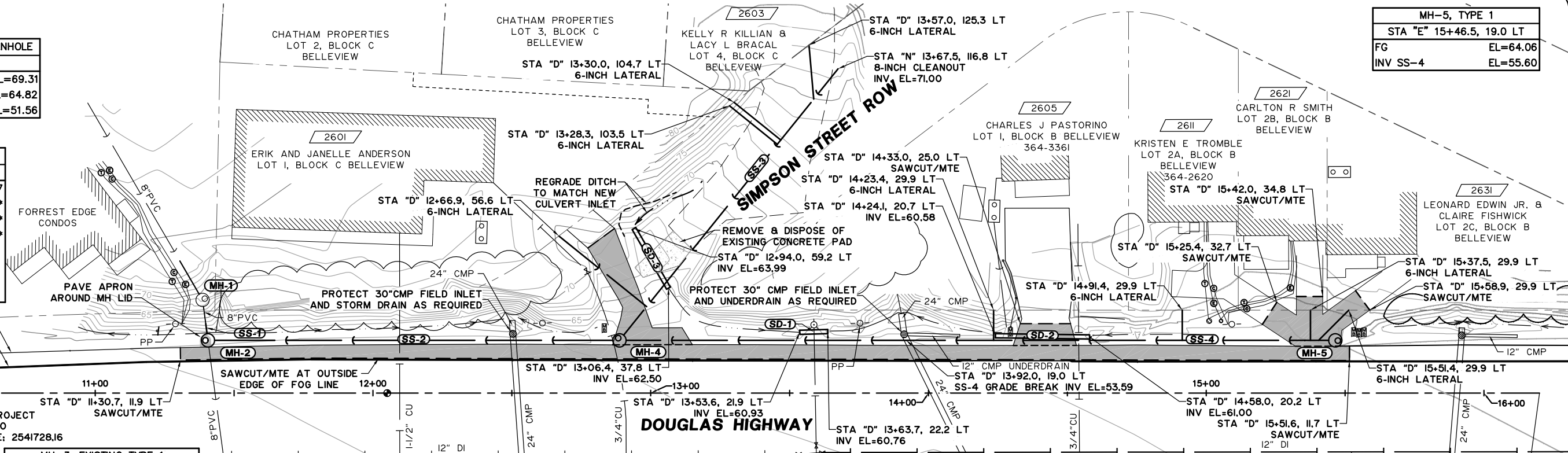
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DOUGLAS HIGHWAY
SEWER INFILL, LID 93
CONTRACT NO. E12-277

TYPICAL SECTIONS AND DETAILS

MH-1, EXISTING TYPE 1 DROP MANHOLE	
STA "E" 11+38.6, 33.6 LT	
FG	EL=69.31
INV 8" PVC IN	EL=64.82
INV 8" PVC OUT	EL=51.56

MH-2, TYPE 1	
STA "E" 11+40.6, 19.0 LT	
FG	EL=60.67
INV SS-1	EL=50.69*
INV SS-2	EL=50.85*
INV 8" PVC OUT	EL=50.69*
*INVERTS ARE APPROXIMATE ONLY. SET MANHOLE TO MATCH EXISTING 8" PVC OUTFALL AND ADJUST GRADES AS REQUIRED.	



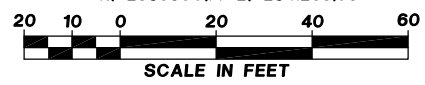
MH-5, TYPE 1	
STA "E" 15+46.5, 19.0 LT	
FG	EL=64.06
INV SS-4	EL=55.60

MH-3, EXISTING TYPE 1	
STA "E" 11+50.0, 51.3 RT	
FG	EL=52.12
INV 8" PVC IN	EL=46.47
INV 8" PVC OUT	EL=46.17

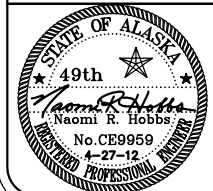
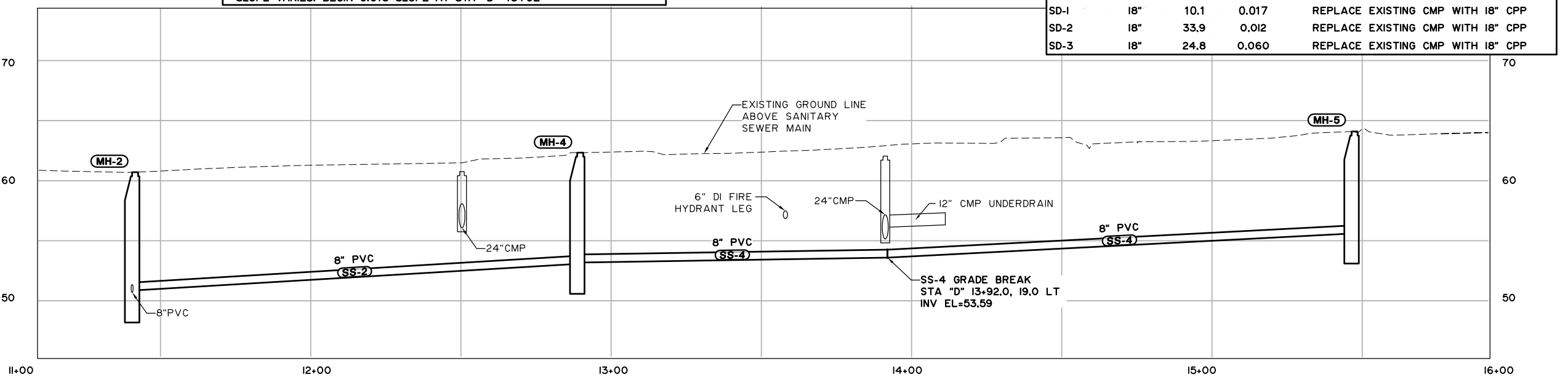
SANITARY SEWER - PIPE SUMMARY				
PIPE	DIA	LENGTH	TYPE	SLOPE
SS-1	8"	6.0	PVC	MTE
SS-2	8"	148.2	PVC	0.015
SS-3	8"	126.8	PVC	0.142*
SS-4	8"	257.7	PVC	0.004**
*INSTALL 11.25-DEGREE LONG-RADIUS SWEEP AT MH-4				
**SLOPE VARIES. BEGIN 0.013 SLOPE AT STA "D" 13+92				

MH-4, TYPE 1	
STA "E" 12+88.7, 19.0 LT	
FG	EL=62.30
INV SS-2	EL=53.07
INV SS-3	EL=53.18
INV SS-4	EL=53.18

STORM SEWER - PIPE SUMMARY				
PIPE	DIA	LENGTH	SLOPE	REMARKS
SD-1	18"	10.1	0.017	REPLACE EXISTING CMP WITH 18" CPP
SD-2	18"	33.9	0.012	REPLACE EXISTING CMP WITH 18" CPP
SD-3	18"	24.8	0.060	REPLACE EXISTING CMP WITH 18" CPP



- NOTES**
- STATIONING SHOWN ON THE PROFILE IS IN RELATION TO THE PROJECT CENTERLINE. THE ORIGINAL GROUND PROFILE SHOWN IS ALONG THE CENTERLINE OF THE PROPOSED SANITARY SEWER MAIN.
 - DRIVEWAY CULVERTS ARE NOT SHOWN ON THE PROFILE.



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SEWER INFILL, LID 93
CONTRACT NO. E12-277

PLAN & PROFILE
DOUGLAS HIGHWAY
BOP TO STA "D" 16+20

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