


# MEMORANDUM

## CITY & BOROUGH OF JUNEAU

155 South Seward Street, Juneau, Alaska 99801

**DATE:** May 16, 2012

**TO:** Planning Commission

**FROM:** Eric Feldt, Planner II, CFM   
Community Development Department

**FILE NO.:** CSP2012-0012

**PROPOSAL:** A City project to fill gaps in the City sewer line along portions of Simpson Avenue and Douglas Highway near Lawson Creek.

### GENERAL INFORMATION

**Applicant:** City and Borough of Juneau

**Property Owner:** City and Borough of Juneau & State of Alaska

**Property Address:** Simpson Ave. & Douglas Hwy Rights-of-Way

**Legal Description:** Rights-of-Way

**Parcel Code No.:** N/ A

**Site Size:** Approx. 600 linear feet of City Sewer line

**Zoning:** D-18

**Utilities:** City Water

**Access:** Simpson Avenue & Douglas Highway Rights-of-Way

**Existing Land Use:** Residential

**Surrounding Land Use:**

North	- D-18; Multifamily Dwellings; Douglas Hwy
South	- D-18; Single-family Dwellings; Douglas Hwy
East	- D-18; Vacant Land, Private; Douglas Hwy
West	- D-18; Common-wall & Multifamily; Douglas Hwy

### **ATTACHMENTS**

Attachment	A	Vicinity Map
Attachment	B	Ordinance 2012-08(b)
Attachment	C	Project Narrative/ Drawings

### **ANALYSIS**

The project will fill in a gap in the City sewer service area in the Belleview Subdivision on Douglas Island near Lawson Creek. See Attachment A. A new Local Improvement District (LID), project # 93 E11-287, was recently approved by the Assembly to fund this sewer installation. Construction is predicted to be from June – August, 2012. See Attachment B. Specifications of the proposed sewer line are provided as Attachment C.

As described in the narrative, the new gravity fed sewer service will benefit six developed parcels along the uphill side of Douglas Highway: 2601, 2603, 2605, 2611, 2621, & 2631 Douglas Highway, and two undeveloped parcels also on the uphill side. Some of these parcels do not currently have any access to City sewer. Others pump sewer up hill to an existing gravity fed service along Roger Street. Two sewer mains would be installed, one in the Douglas Highway right-of-way and one in the unconstructed Simpson Avenue right-of-way. This is illustrated in Attachment C.

### **CONFORMITY WITH ADOPTED PLANS**

The neighborhood is zoned D-18, permitting high density residential and low intensity commercial. Having public sewer and water is a necessity to meet high demands of permitted land uses. On-site septic and water wells are generally inadequate to serve use demands of the neighborhood, which is why high density zoning districts are only established where public utilities are provided. The subject sewer installation will fill in a gap of utility service where adjacent neighborhoods have existing services.

According to the 2008 CBJ Comprehensive Plan, development in the mapped urban service area, consisting of most developed areas of the Borough, shall have City utilities such as water and sewer to accommodate development, as stated below.

“To support the nature and density of development envisioned in the Urban Service Area, enhance the quality of life, promote public health, and protect the environment, the CBJ should provide adequate water, sewer, storm drainage, roads and earth retention facilities therein.”

The following policies (page 226 & 229) encourage the installation of City water and sewer in the urban service area.

**POLICY 12.1 IT IS THE POLICY OF THE CBJ TO PLAN FOR THE TIMELY AND EFFICIENT PROVISION OF AN APPROPRIATE LEVEL OF PUBLIC FACILITIES AND SERVICES IN ALL DEVELOPED AND DEVELOPING AREAS WITHIN THE URBAN SERVICE AREA.**

**POLICY 12.2 IT IS THE POLICY OF THE CBJ TO EXTEND PUBLIC WATER, SEWER, STORM DRAINAGE, AND EARTH RETENTION FACILITIES TO ALL AREAS WITHIN THE URBAN SERVICE AREA.**

**Standard Operating Procedures**

12.1.SOP1 Maintain an Urban Service Area boundary that defines the limits within which the full range of urban services, such as municipal water and sewer, will be provided. Such municipal services are not to be provided elsewhere. The Urban Service Area boundary is delineated in the Land Use Maps of the Comprehensive Plan.

The project will provide a needed utility service in a high density zoning district. Therefore, the project is consistent with adopted City plans.

**HABITAT**

There is no mapped habitat regulated by the Land Use Code in the subject area.

**FINDINGS**

The proposed sewer in-fill project will provide a service that will adequately accommodate existing and future development. Staff finds the project consistent with adopted plans.

**RECOMMENDATION**

It is recommended the Planning Commission adopt the Director's analysis and findings and recommend the approval of the sewer installation.

PROJECT ACCT.

419900101-760050120

# DEVELOPMENT PERMIT APPLICATION

Project Number	CITY and BOROUGH of JUNEAU	Date Received: 5/7/12
Project Name (City Staff to Assign Name)		

INFORMATION	Project Description DOUGLAS HWY SEWER INFILL LID 93 E11-387 TO CONSTRUCT NEW 8" SEWER MAINS, SEWER MANHOLE SEWER SERVICES, REPAVE ASPHALT SHOULDER AND DRIVEWAYS, AND REPAIRING DRAINAGE DITCHES		
	Project Address DOUGLAS HWY AND SIMPSON AVE		
	City/Zip DOUGLAS 99824		
	Legal Description(s) of Parcel(s) (Subdivision, Survey, Block, Tract, Lot)		
	Assessor's Parcel Number(s)		
	LANDOWNER/LESSEE		
	Property Owner's Name	Contact Person:	Work Phone:
	Mailing Address	Home Phone:	Fax Number:
	E-mail Address	Other Contact Phone Number(s):	
	PROJECT / APPLICANT	I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application. X <u>[Signature]</u> 5-7-12 Landowner/Lessee Signature Date X <u>[Signature]</u> 5/7/12 Landowner/Lessee Signature Date NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date. Applicant's Name: CALEND Mailing Address: E-mail Address: Contact Person: JOE CASTILLO Home Phone: Fax Number: Other Contact Phone Number(s): X <u>[Signature]</u> 5-2-12 Applicant's Signature Date of Application	

STAFF APPROVALS	OFFICE USE ONLY BELOW THIS LINE		
	Building/Grading Permit		
	City/State	5/7/12	65812-0013
	Project Review and City Land Action		
	Inquiry Case (Fee in Letter of ZC: Use Not Listed)		
	Mining Case (Small, Large, Rural, Extraction, Exploration)		
	Sign Approval (If more than one, fill in all applicable permit #'s)		
	Subdivision (Minor, Major, PUD, SL Vacation, St. Name Change)		
	Use Approval (Allowable, Conditional, Cottage Housing, Mobile Home Parks, Accessory Apartment)		
	Variance Case (De Minimis and all other Variance case types)		
Wetlands			
Permits			
Zone Change			
Application			
Other (Describe)			
Comments: ***Public Notice Sign Form filled out and in the file.			

# CITY/STATE PROJECT AND LAND ACTION REVIEW APPLICATION

Project Number	Project Name (15 characters)	Case Number CSP 12-013	Date Received 5/7/12
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## TYPE OF PROJECT REVIEW:

☒ City Project Review
 ☐ City Land Acquisition /Disposal
 ☐ State Project Review

**DESCRIPTION OF PROJECT** DOUGLAS HIGHWAY SEWER INFILL LID 93, E11-287  
THE CB3 PROJECT INCLUDES INSTALLING TWO 8" PVC SEWER MAINS, THREE  
SEWER MANHOLES, 8 GRAVITY SEWER SERVICES, REPAVE ASPHALT SHOULDER AND  
PRIVATE DRIVEWAYS, REPLACE DRIVEWAY CULVERTS, AND REGRADING ROADSIDE  
DRAINAGE DITCHES.

Please attach a cover letter to fully explain the project if there is not adequate space on this form.

**CURRENT USE OF LAND OR BUILDING(S):** AK. DOT/PE OWNS AND MAINTAINS THE  
ROADWAY ASPHALT AND DRAINAGE DITCHES FOR THE DOUGLAS HWY. RIGHT OF WAY.  
CB3 OWNS THE LOWER UNDEVELOPED RIGHT OFWAY FOR SIMPSON AVE. ADJACENT  
TO DOUGLAS HWY.

**PROPOSED USE OF LAND OR BUILDING(S):** INSTALL NEW SEWER MAINS, SEWER  
SERVICES, SEWER MANHOLES, REPAVE ASPHALT SHOULDER AND PRIVATE DRIVEWAYS,  
AND REGRADE DRAINAGE DITCHES.

## PROJECT NUMBERS ASSOCIATED WITH PROPOSAL:

Is this project associated with any other Land Use Permits? ☒ No ☐ Yes Case No.: \_\_\_\_\_

Capital Improvement Program # (CIP) U76-005

Local Improvement District # (LID) LID 93

State Project # \_\_\_\_\_

**ESTIMATED PROJECT COST:** \$ 189,716.00

For more information regarding the permitting process and the submittals required for a complete application, please see the reverse side.

If you need any assistance filling out this form, please contact the Permit Center at 586-0770.

### CITY/STATE PROJECT FEES

	Fees	Check No.	Receipt	Date
Application Fees	\$ <u>0</u>	_____	_____	_____
Total Fee	\$ _____	_____	_____	_____

**NOTE: MUST BE ACCOMPANIED BY DEVELOPMENT PERMIT APPLICATION FORM**

**&**

**EVEN IF THE PROPOSED PROJECT IS ASSOCIATE WITH OTHER LAND USE PERMITS, THIS APPLICATION MUST BE FILLED OUT**

TO BE COMPLETED BY THE APPLICANT

## CITY/STATE PROJECT REVIEW REQUIREMENTS

Each application for a City/State Project is reviewed by the Planning Commission at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make recommendations tailored to individual applications.

**Application:** An application for a City/State Project Review will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

**Forms:** A completed City/State Project Review Application form and Development Permit Application form. The "land owner or lessee consent" signature is mandatory for all landowners on the Development Permit Application form.

**Fees:** No fee required for projects that cost less than \$2.5 million. For projects costing more than this amount, the fee is \$1,600.00. All fees are subject to change.

**Project Description:** A detailed letter or narrative describing the project.

**Plans:** All plans are to be drawn to scale and clearly show the items listed below:

- A. Plat, site plan, floor plan and elevation views of existing and proposed structures and land;
- B. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances;
- C. Proposed traffic circulation within the site including access/egress points and traffic control devices;
- D. Existing and proposed lighting (including cut sheets for each type of lighting);
- E. Existing and proposed vegetation with location, area, height and type of plantings; and,
- F. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.)

**Document Format:** All information that is submitted as part of an application shall be submitted in either of the following formats:

- A. Electronic copies may be submitted by CD, DVD or E-mail in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf or other formats pre-approved by the Community Development Department.
- B. Paper copies may not be larger than 11" X 17" (Unless a larger paper size is preapproved by the Community Development Department).

**Application Review & Hearing Procedure:** Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

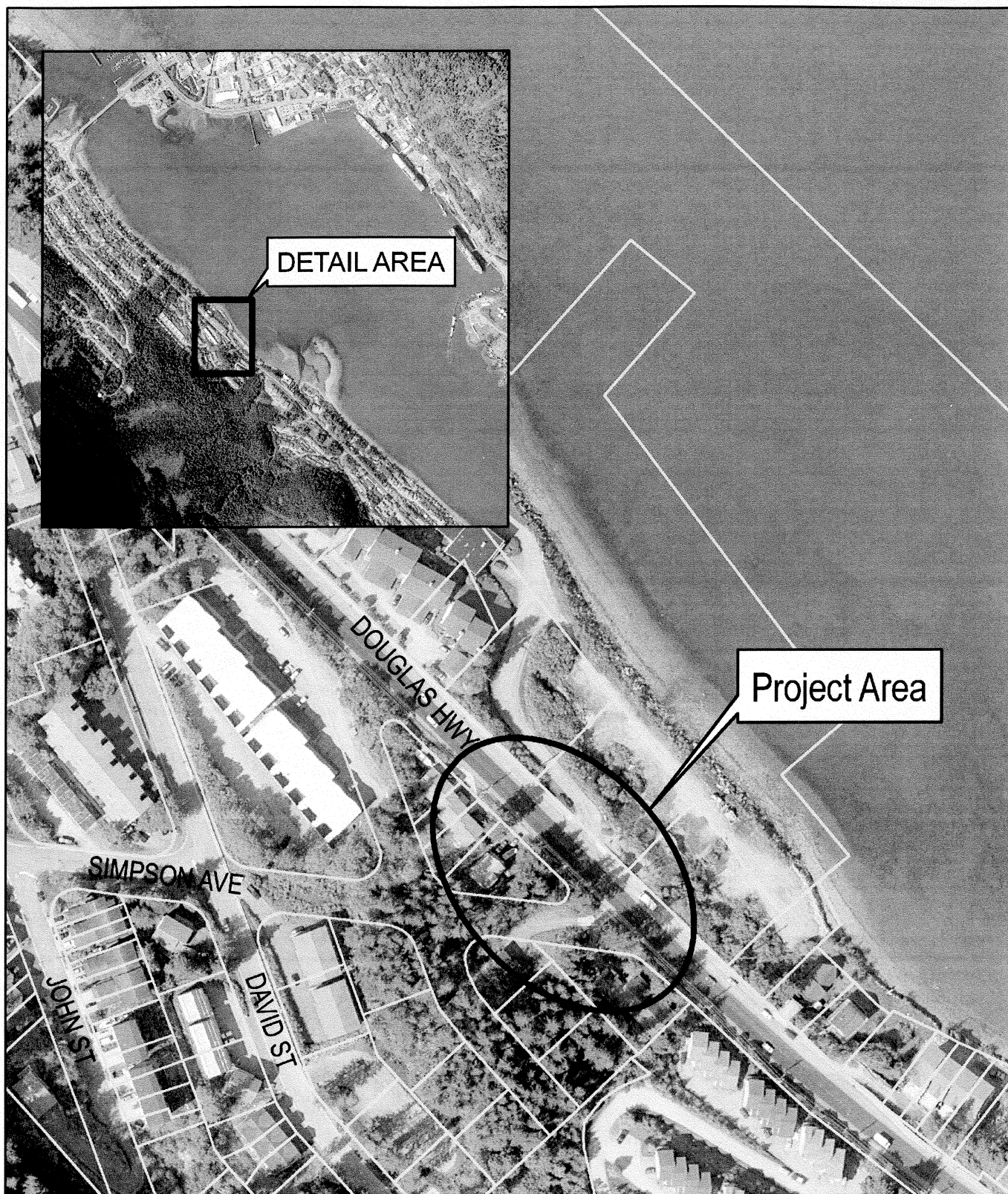
**Review:** As part of the review process the Community Development Department will evaluate the application for consistency with all applicable City & Borough of Juneau codes and adopted plans. Depending on unique characteristics of the permit request the application may be required to be reviewed by other municipal boards and committees. Review comments may require the applicant to provide additional information, clarification, or submit modifications/alterations for the proposed project.

**Hearing:** All City/State Project Review Permit Applications must be reviewed by the Planning Commission. Once an application has been deemed complete and has been reviewed by all applicable parties the Community Development Department will schedule the requested permit for the next appropriate meeting. The Planning Commission will make a recommendation based on staff's analysis and forward it to the Assembly for final approval/denial.

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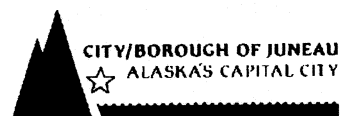
**INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED**





-NOT A SURVEY-  
Property lines are approximate

0 500 1,000 2,000 3,000 4,000 Feet



Map created: 5/14/ 2012

**ATTACHMENT A**

Presented by: The Manager  
Introduced: 02/13/2012  
Drafted by: J.W. Hartle

## **ORDINANCE OF THE CITY AND BOROUGH OF JUNEAU, ALASKA**

**Serial No. 2012-08(b)**

### **An Ordinance Creating Local Improvement District No. 93 to Construct a Sanitary Sewer System to Serve Four Parcels Located Within the 2600 Block Near Roger Street on Douglas Highway.**

**BE IT ENACTED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU, ALASKA:**

**Section 1. Classification.** This ordinance is a non-code ordinance.

**Section 2. Finding That L.I.D. is in the Public Interest.** The Assembly of the City and Borough of Juneau, having considered all material factors including the deterrence to property development, maintenance of property values, health, safety and welfare of the businesses, employees, and property owners in the proposed local improvement district, finds that the formation of a local improvement district covering property described in Exhibit "A" attached to this ordinance, to be known as Local Improvement District No. 93 of the City and Borough of Juneau, is in the public interest.

**Section 3. Creation and Boundaries.** There is created Local Improvement District No. 93 (hereinafter "L.I.D. No. 93"). The boundaries of L.I.D. No. 93 are described in Exhibit "A" attached to this ordinance and made a part hereof, and consist of four parcels along Douglas Highway.

**Section 4. Improvements to Be Constructed.** The improvements to be constructed consist of installation of a sanitary sewer along a portion of Douglas Highway not previously served by municipal sewer.

**Section 5. Estimated Cost.** The estimated cost of the project is \$300,000.

**Section 6. Source of Funds.** The portion of project costs to be met with City and Borough funds is estimated to be \$289,000. The remainder of the project costs, will be met from the assessments against the properties specially benefitted, said amount estimated to be \$11,000. Special assessment district bonds will not be issued or sold to provide funds to pay the cost of improvements.

**Section 7. Direction That Work Be Done.** The Manager is hereby authorized and directed to do or cause to be done all things necessary and useful to plan, acquire, construct, and install the improvements described in Section 4.

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**ATTACHMENT B**



**Section 8. Authorization to Acquire Land.** The Manager is hereby authorized to acquire, in the name of the City and Borough, any lands or rights in land necessary or useful for the project.

**Section 9. Authorization for Eminent Domain.** The City Manager and the City Attorney are hereby authorized to use such eminent domain proceedings, including use of declaration of taking, as may be necessary or useful to acquire property needed for the project. The costs of any property so acquired shall be added to the project cost.

**Section 10. Special Assessment Fund.** There is created within the central treasury a special fund of the City and Borough known as Special Assessment Fund No. 93. Such fund shall be used for the purposes of paying the costs of the project, the payment of principal and interest on the bonds, if any, and any other cost of the project. City and Borough funds for this project, assessments and all other receipts shall be paid into the fund.

**Section 11. Finding of Special Benefit.** The Assembly hereby finds that the property within L.I.D. No. 93 described in Exhibit "A" will be specially benefitted by the improvement and each lot or tract within such district will be specially benefitted in proportion to the amount separately assessed to each lot or tract.

**Section 12. Method of Apportioning Costs.** Costs to be borne by the properties specially benefitted within the LID boundaries shall be apportioned as described in attached Exhibit "B", Douglas Highway Sewer Infill Assessment Method.

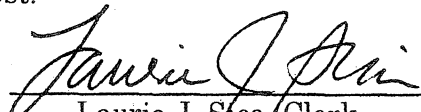
**Section 13. Prepayment in Full Discount.** No prepayment in full discount is provided.

**Section 14. Effective Date.** This ordinance shall be effective 30 days after its adoption.

Adopted this 5<sup>th</sup> day of March, 2012.

  
Bruce Botelho, Mayor

Attest:

  
Laurie J. Sica, Clerk

**Exhibit "B"**  
**Ordinance 2012-08(b)**

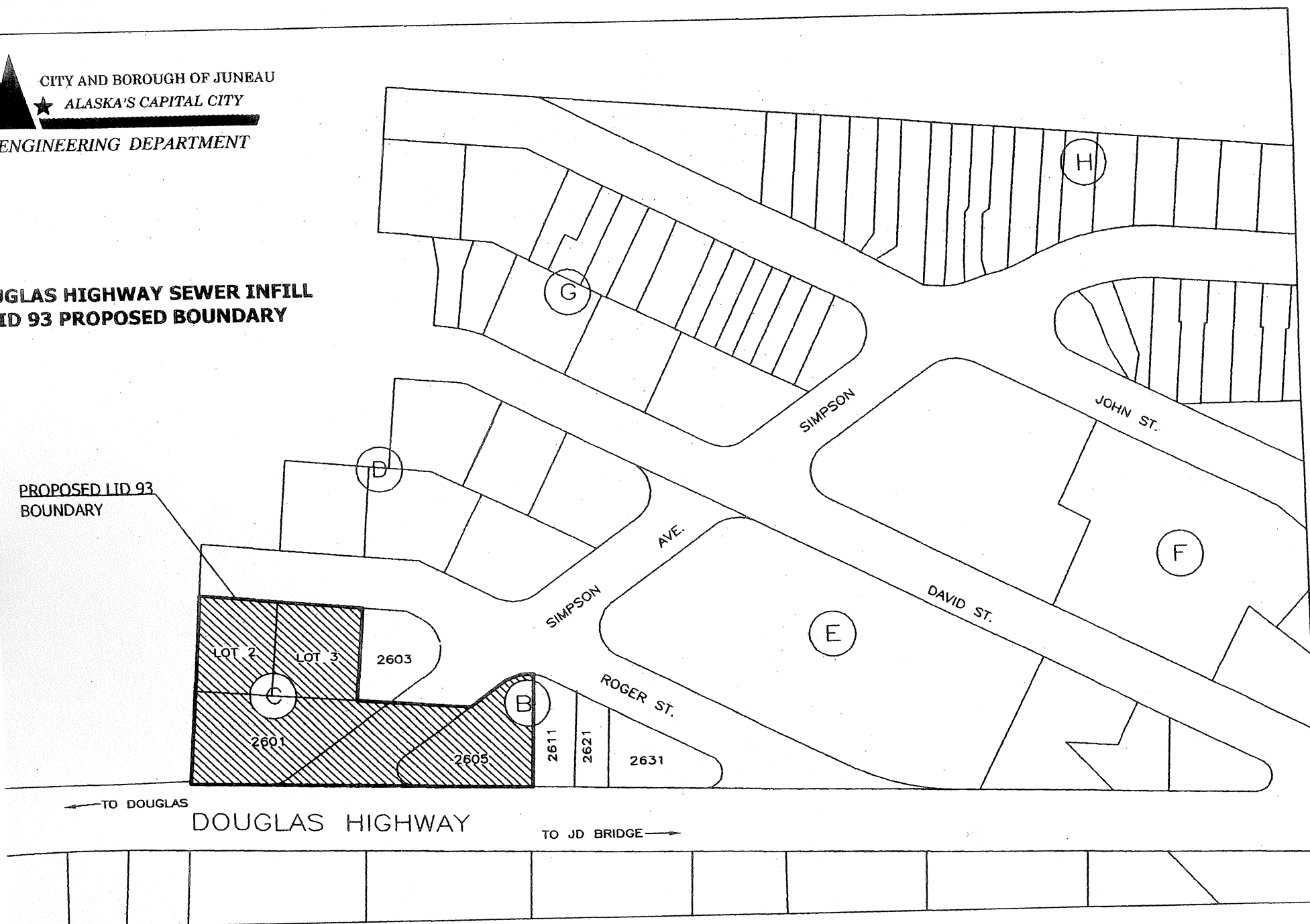
**Douglas Highway Sewer Infill LID 93 –Assessment Method**

For the purposes of these assessments, benefitted properties shall be assessed by the following method:

- Lots less than 15,000 square feet shall be assessed \$2,750

Property owners may request multiple sewer services and shall be assessed an additional \$2,500 per sewer service pipe provided.

**UGLAS HIGHWAY SEWER INFILL  
LID 93 PROPOSED BOUNDARY**



## City State Project Review

### Douglas Highway Sewer Infill LID 93 E11-287

#### Project Description

The project involves constructing a new sanitary sewer system to provide municipal sewer service to four properties in the Belleview Subdivision along Douglas Highway. The new sewer system will be constructed under an LID to provide gravity sewer services for two undeveloped lots and two existing residences that are not currently connected to the municipal sewer system.

The new 8" sewer mains will be extended along the Douglas Highway to provide four gravity sewer services for House 2605, and a residential triplex for Units 2611, 2621, and 2631; and up the undeveloped right of way portion of Simpson Avenue to provide four gravity sewer services for two undeveloped private lots and two single family residences for Houses 2601 and 2603. The residential triplex and House 2603 are connected to the municipal sewer system on Roger Street but pump up to the sewer main and therefore will not be included in the LID. The purpose is to provide these four property owners the future option to reconnect to a gravity sewer service.

The work will consist of connecting an 8" PVC gravity sewer pipe to the existing sewer manhole that collects sewer from the Forest Edge Condos and directs flows across Douglas Highway, then down to the Juneau-Douglas Sewer Collector system along the Gastineau Channel shoreline. The new sewer main will extend 405 feet along the Douglas Highway shoulder, installing three sewer manholes and four gravity sewer services. An 8" PVC sewer main will extend up Simpson Avenue right-of way for 148 feet and include four gravity sewer services.

The asphalt shoulder will be reconstructed and paved to meet State DOT/PF roadway standards.

The construction period is expected to occur from June to August 2012. The intent is to have the asphalt shoulder completed before the inclement weather begins in September. And to allow property owners sufficient time to connect their residential services and decommission septic tanks before winter sets in.

#### **Public Meeting**

A public meeting was held on January 5, 2012 to explain the LID process, the assessment method, and present the plan drawing to the property owners. The LID packet was mailed to property owners December 16, 2011 with an informal ballot for voting on the LID. Informal ballots were submitted to the City Engineering Department by January 16, 2012. The four property owners unanimously approved the LID for installing the new sewer system that will serve their lots. The CBJ Assembly approved Ordinance 2012-08 on March 5, 2012 forming Douglas Sewer Infill LID 93, E11-287.

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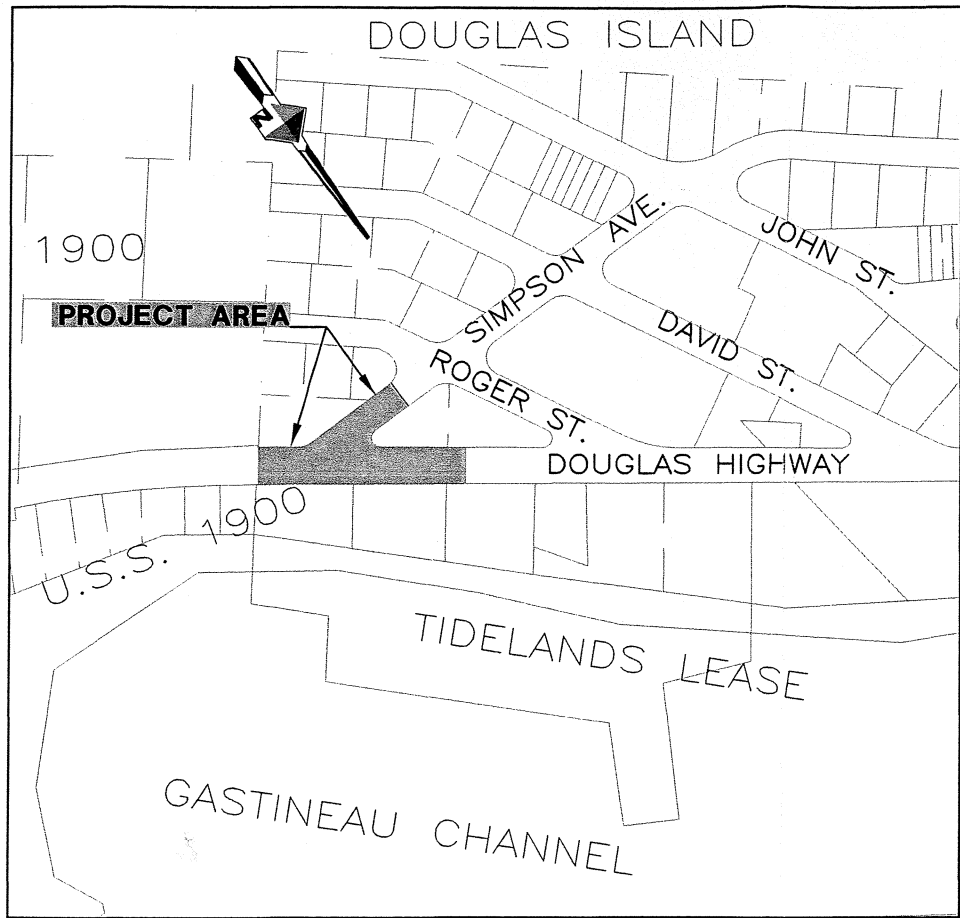
**ATTACHMENT C**

# DOUGLAS HIGHWAY SEWER INFILL, LID 93 CONTRACT NO. E11-287

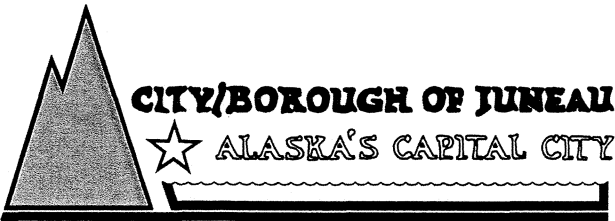
## INDEX

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TYPICAL SECTIONS AND DETAILS	3 of 4
PLAN & PROFILE DOUGLAS HIGHWAY BOP STA "D" 10+00 TO EOP STA "D" 16+20	4 of 4

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VICINITY MAP  
NTS


















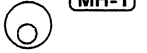








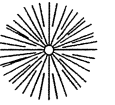
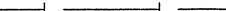

Consulting Engineers • Land Surveyors • Construction Administration

5368 Commercial Blvd.  
Juneau, Alaska 99801  
(907) 780-3533 Office  
(907) 780-3535 Fax

APPROVED BY	SHEET NO.
DIRECTOR OF PUBLIC WORKS	1 of 4
SIGNATURE _____ DATE _____	
CHIEF CIP ENGINEER	
SIGNATURE _____ DATE _____	

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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

1. LARGE BOULDERS, BEDROCK, HARDPAN, STUMPS, LOGS, ORGANICS AND GROUND WATER MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING TRENCHING AND DITCHING.
2. CONTRACTOR SHALL ASSURE GARBAGE PICKUP AND DAILY MAIL SERVICE WILL BE UNINTERRUPTED TO ALL RESIDENCES AFFECTED BY THIS PROJECT.
3. CBJ ENGINEERING STANDARD DETAILS BOOK DATED AUGUST 14, 2011 IS MADE A PART OF THIS CONTRACT, WITH CURRENT REVISIONS AS APPLICABLE.
4. 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.
5. GRADING, ALIGNMENT AND PIPE LENGTHS ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
6. LOCATION OF SANITARY SEWER MANHOLES AND SERVICES ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
7. PIPE LENGTHS AND SLOPES GIVEN IN SUMMARY TABLES ARE TO CENTER OF MANHOLES.
8. 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.
9. 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.
10. 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.
11. 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.
12. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.
13. ALL DRIVEWAY PAVEMENT CUTS SHALL BE RE-PAVED TO MATCH EXISTING PAVEMENT ALONG A NEAT SAWCUT LINE.
14. THE CONTRACTOR SHALL RESTRICT HIS COMPACTION AND OTHER VIBRATION INDUCING OPERATIONS AS NECESSARY TO ASSURE NO DAMAGE OCCURS TO ADJACENT BUILDINGS OR STRUCTURES.
15. 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.
16. THE CONTRACTOR SHALL GRADE ALL DITCHING DISTURBED ALONG DOUGLAS HIGHWAY TO RESTORE UNIFORM FLOW BETWEEN CULVERT INVERTS.
17. THE CONTRACTOR SHALL NOT WALK TRACKED EQUIPMENT ON THE PAVED SURFACE OF DOUGLAS HIGHWAY WITHOUT TAKING NECESSARY PRECAUTIONS TO PROTECT PAVEMENT.
18. THE LOCATION OF UNDERGROUND ELECTRIC, TELEPHONE AND CABLE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. FIELD VERIFY.

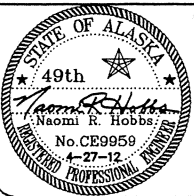
"D" PROJECT BASELINE

				TANGENT DATA	CURVE DATA			
DESCRIPTION	STATION	NORTHING	EASTING	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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CITY/BOROUGH OF JUNEAU  
ALASKA'S CAPITAL CITY

DEPARTMENT OF ENGINEERING

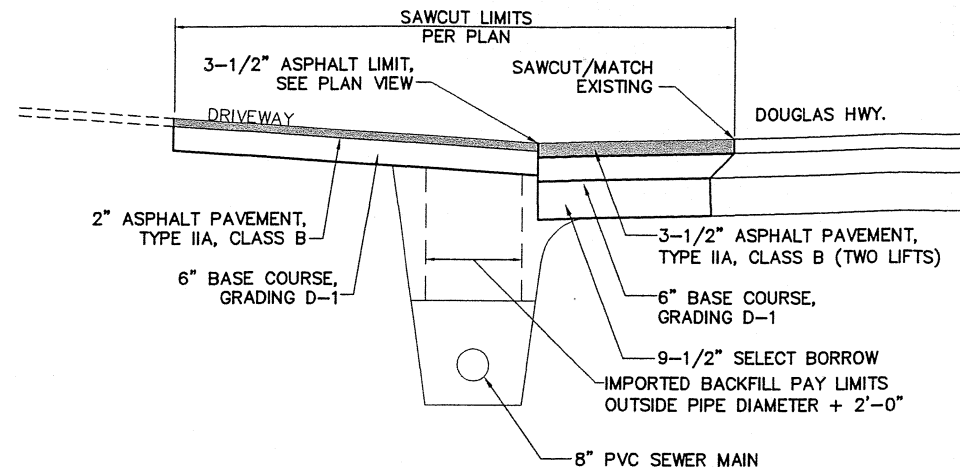
DOUGLAS HIGHWAY  
SEWER INFILL, LID 93  
CONTRACT NO. E11-287

LEGEND, ABBREVIATIONS, GENERAL  
NOTES, AND SURVEY CONTROL

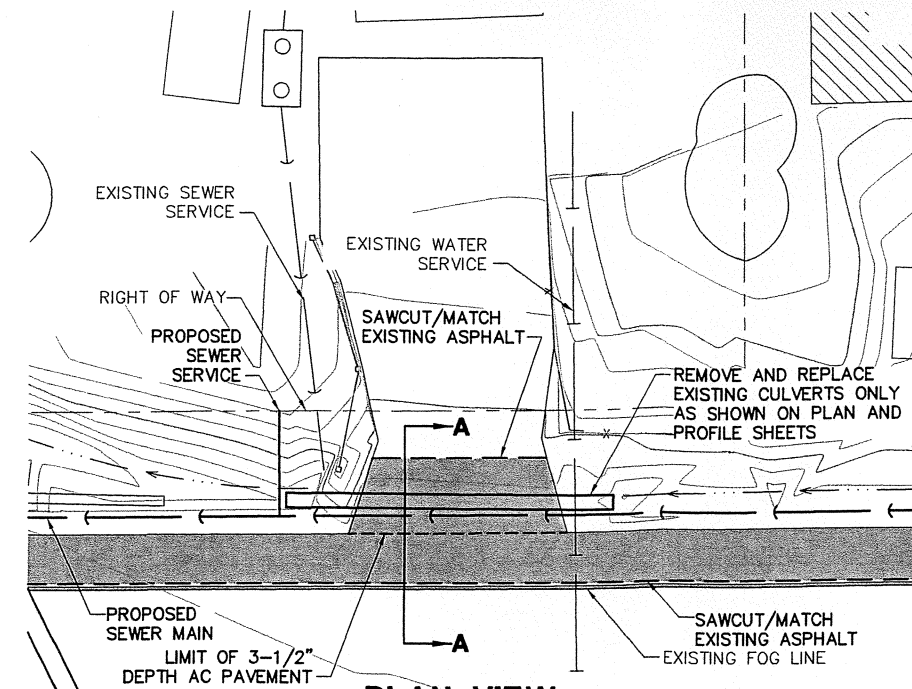
SHEET NO.

2  
of  
4



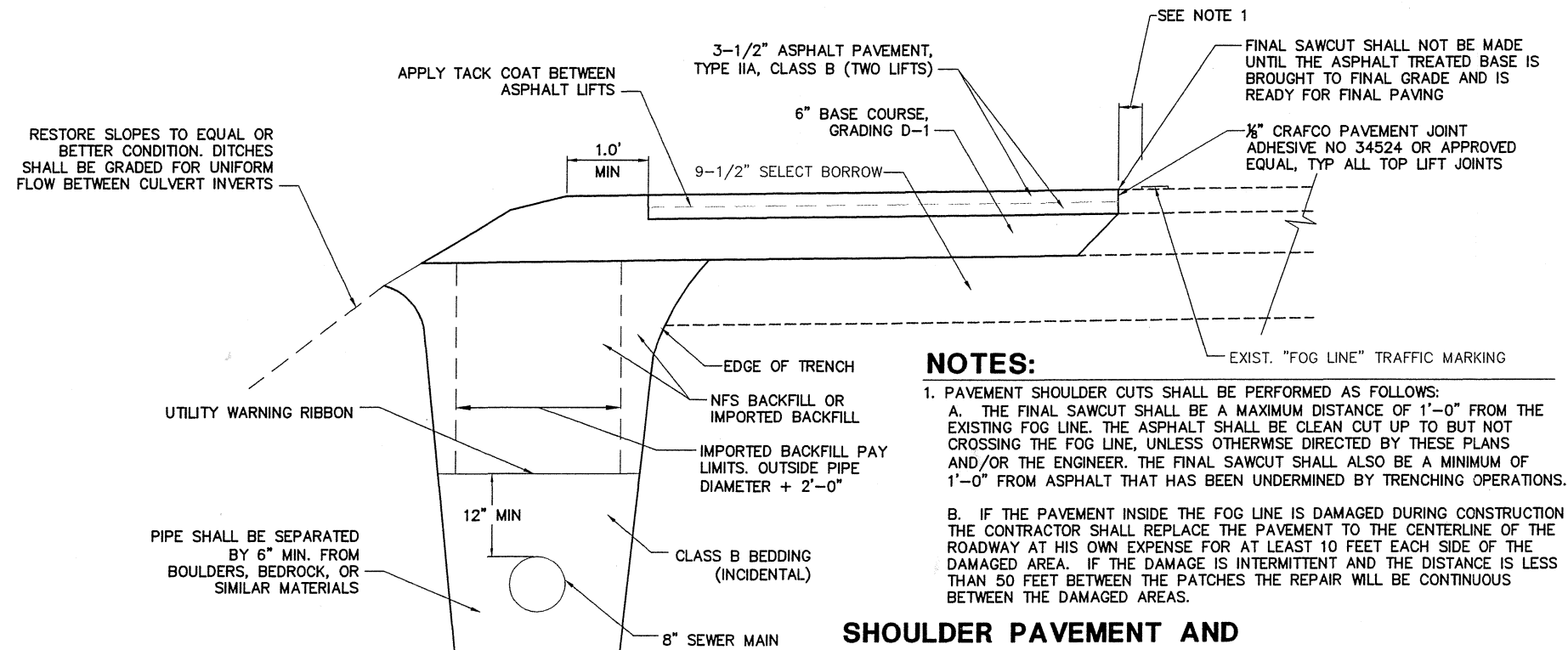


**SECTION A-A**  
NTS



**PLAN VIEW**  
NTS

**TYPICAL DRIVEWAY DETAIL**  
NTS



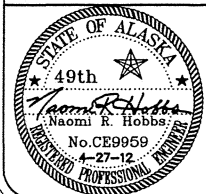
**NOTES:**

- PAVEMENT SHOULDER CUTS SHALL BE PERFORMED AS FOLLOWS:  
A. 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.  
B. 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.

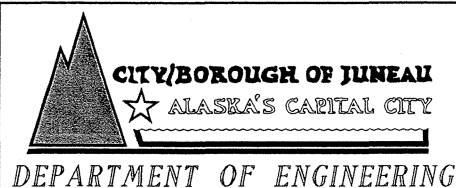
**SHOULDER PAVEMENT AND  
TYPICAL TRENCH DETAIL**

NTS  
TO BE USED WHEREVER THE PLANS CALL FOR SAWCUT/MATCH EXISTING ALONG THE EXISTING FOG LINE OF DOUGLAS HIGHWAY.

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Juneau, Alaska 99801  
(907) 780-3533 Office  
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**DOUGLAS HIGHWAY  
SEWER INFILL, LID 93  
CONTRACT NO. E11-287**

**TYPICAL SECTIONS  
AND DETAILS**

SHEET NO.  
**3**  
of  
**4**

JOB NO. J70373E DRAWN BY: STAFF DESIGNED BY: T. LOCKHART CHECKED BY: N. HOBBS DATE: APRIL 2012

S:\JIB\J70373\040 Drawings\Phase E\PLAN SET\J70373 PHASE E 03 DE-TS.dwg 2012-4-27 14:35:50

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.		

FORREST EDGE CONDOS

PAVE APRON AROUND MH LID

BEGINNING OF PROJECT  
STA "D" 10+00.00  
N: 2357867.64 E: 2541728.16

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

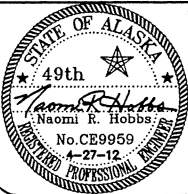
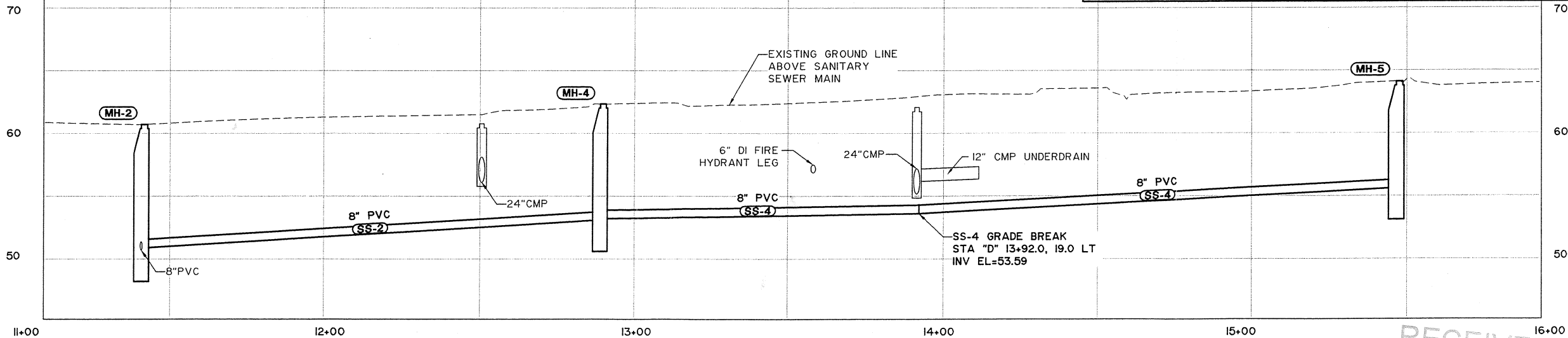
SANITARY SEWER - PIPE SUMMARY				
PIPE	DIA	LENGTH	TYPE	SLOPE
SS-1	8"	6.0	PVC	MTE
SS-2	8"	148.2	PVC	0.015
SS-3	8"	126.8	PVC	0.142*
SS-4	8"	257.7	PVC	0.004**
*INSTALL 11.25-DEGREE LONG-RADIUS SWEEP AT MH-4				
**SLOPE VARIES. BEGIN 0.013 SLOPE AT STA "D" 13+92				

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

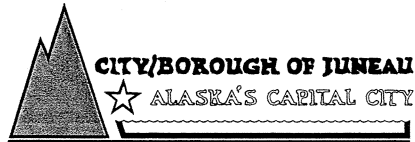
- STATIONING SHOWN ON THE PROFILE IS IN RELATION TO THE PROJECT CENTERLINE. THE ORIGINAL GROUND PROFILE SHOWN IS ALONG THE CENTERLINE OF THE PROPOSED SANITARY SEWER MAIN.
- DRIVEWAY CULVERTS ARE NOT SHOWN ON THE PROFILE.



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JOB NO. J70373E DRAWN BY: STAFF DESIGNED BY: T. LOCKHART CHECKED BY: N. HOBBS DATE: APRIL 2012

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DEPARTMENT OF ENGINEERING

**DOUGLAS HIGHWAY  
SEWER INFILL, LID 93  
CONTRACT NO. E11-287**

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

SHEET NO.

**4**  
of  
**4**