

**ADDENDUM NO. 2**

**TO THE BID DOCUMENTS**

**E. Bunnell Ave./Charles Way Water & Sewer Main Extension**

**CITY OF HOMER, ALASKA**

**Addendum Issue Date:** December 15, 2022

**Bid Submittal Date:** January 10, 2023

**Previous Addenda Issued:** 1

**Issued By:** Janette Keiser, PE  
Public Works Director  
City of Homer

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**Notice to Bidders:**

Bidders must **acknowledge receipt of this addendum** by including the Addenda Acknowledgement Form with the bid.

Bidders are required to acknowledge each addenda separately on the Addenda Acknowledgement Form. Any bids received without acknowledgment of addenda may be rejected prior to evaluation.

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The Bid Documents for the above project are amended as follows (all other terms and conditions remain unchanged):

1. Response to plan holder question:

**Question:** It looks like there is no content in the SWPPP Appendices C, F & K. I want to double check that this was intentional.

**Answer:** Appendices C, F & K are intentionally left blank at this time because the information needed for these appendices is not yet known. The SWPPP will be updated as more information becomes available. Appendix C is for a construction progress schedule that the Contractor will prepare before construction begins. Appendix F relates to conditions of coverage under the APDES Construction General Permit, which the City has not yet applied for. Appendix K is for inspection records, which will be written up by the City's construction inspector project construction progresses.

2. Addendum 1 references a change in the project schedule. This was in error. There is no change at this time to the project schedule as stated in the original bid documents.

3. Several appendices in the SWPPP mention other projects in the page headers, including the Alder Ln. Water Main Extension and the Meadows Subdivision Improvement. New SWPPP appendices are attached with corrected headers.

**Appendix A – Site Maps & Drawings**



E BUNNELL AVE

ALLEN WAY

BELUGA PL

20

CHARLES WAY

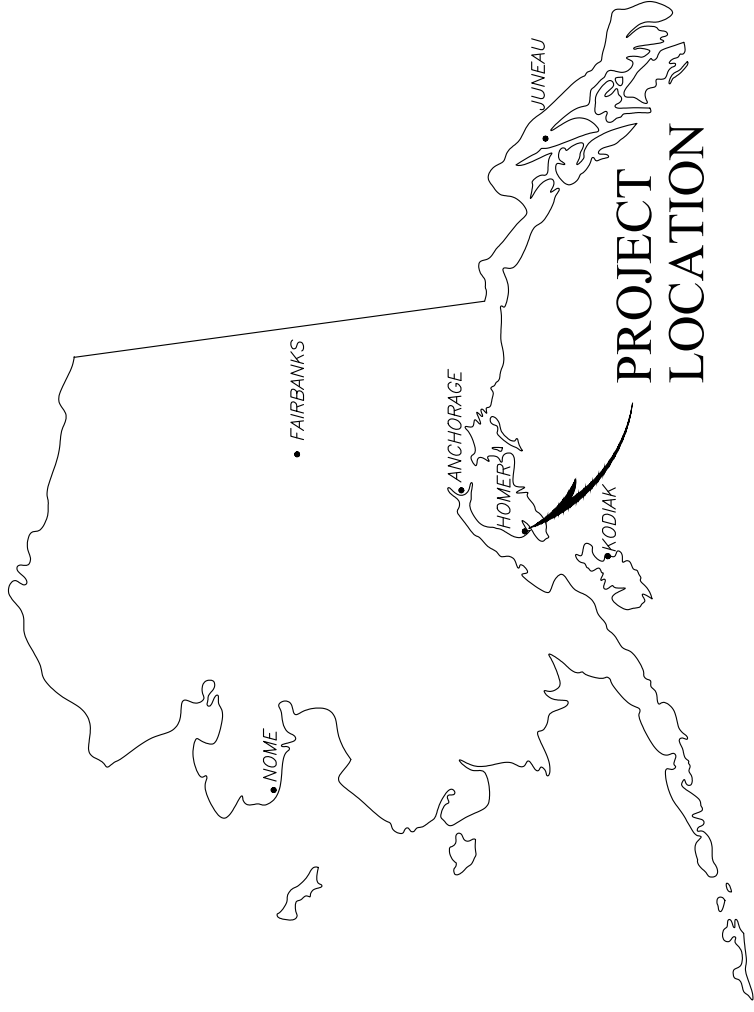
CHARLES WAY

CHARLES WAY

# CITY OF HOMER E BUNNELL AVENUE / CHARLES WAY / ALLEN WAY

## WATER MAIN EXTENSION

NOVEMBER 2, 2022



### PROJECT LOCATION

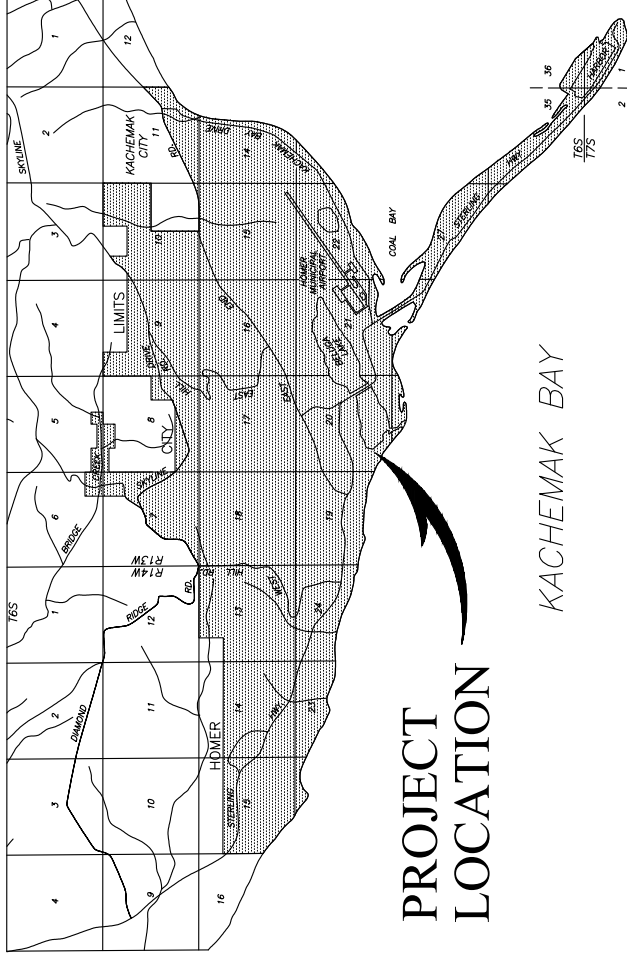
### Homer City Council

Mayor  
Ken Castner

Councilmembers  
Donna Aderhold  
Jason Davis  
Storm Hansen – Cavasos  
Rachel Lord  
Shelly Erickson  
Caroline Venuti

City Manager  
Rob Dumouchel

Public Works Director  
Janette Keiser, PE



### PROJECT LOCATION

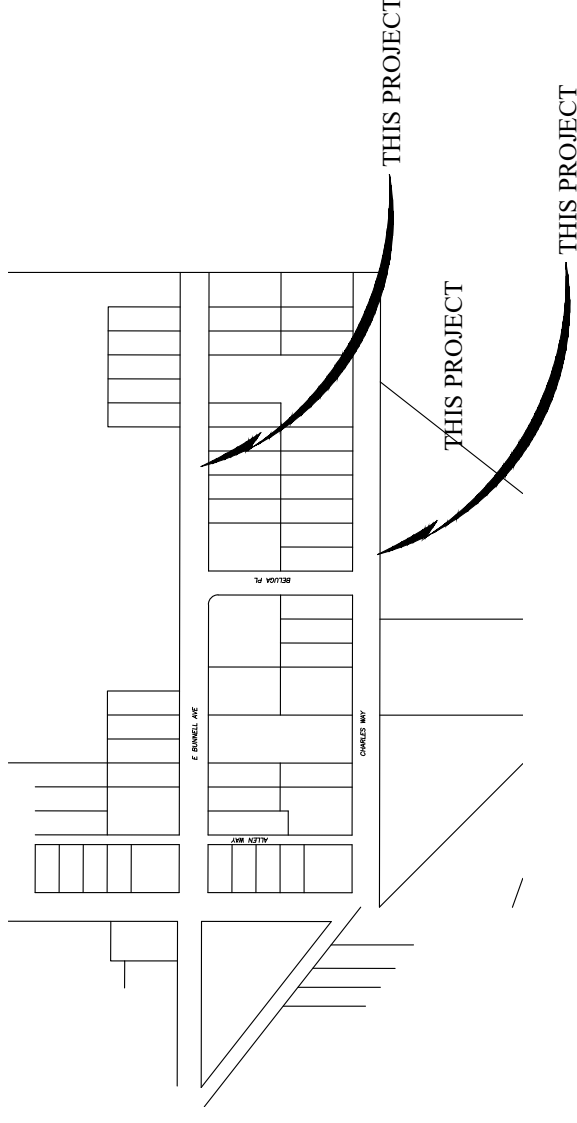
KACHEMAK BAY

### HOMER AREA MAP

SCALE: 1" = 1 MILE

## INDEX TO DRAWINGS

TITLE	SHEET
E BUNNELL AVENUE WATER MAIN PLAN AND PROFILE STA 25+00.00 TO 29+27.00	W-1
ALLEN WAY WATER MAIN PLAN AND PROFILE STA 15+00.00 TO 18+56.57	W-2
CHARLES WAY WATER MAIN PLAN AND PROFILE STA 18+56.57 TO 23+70.00	W-3
CHARLES WAY WATER MAIN PLAN AND PROFILE STA 23+70.00 TO 27+00.00	W-4
MAIN CONSTRUCTION DETAILS	W-5
CONSTRUCTION NOTES	W-6
EROSION CONTROL PLAN NO. 1	W-7
EROSION CONTROL PLAN NO. 2	W-8
EROSION CONTROL PLAN NO. 3	W-9
EROSION CONTROL PLAN NO. 4	W-10
EROSION CONTROL DETAILS	W-11



### Notes:

- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT: 811, (800) 478-3121, OR (907) 278-3121.
- THESE PLANS SHALL BE USED IN CONJUNCTION THE CITY OF HOMER "STANDARD CONSTRUCTION DETAILS" IN ADOPTION ON NOVEMBER 2, 2022.

### VICINITY MAP

SCALE: 1" = 200'



**E. BUNNELL AVENUE / CHARLES WAY / ALLEN WAY  
E. BUNNELL AVENUE WATER MAIN PLAN + PROFILE**

STA 25+00.00 to 29+27.00

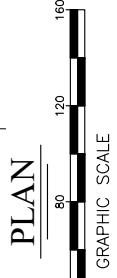
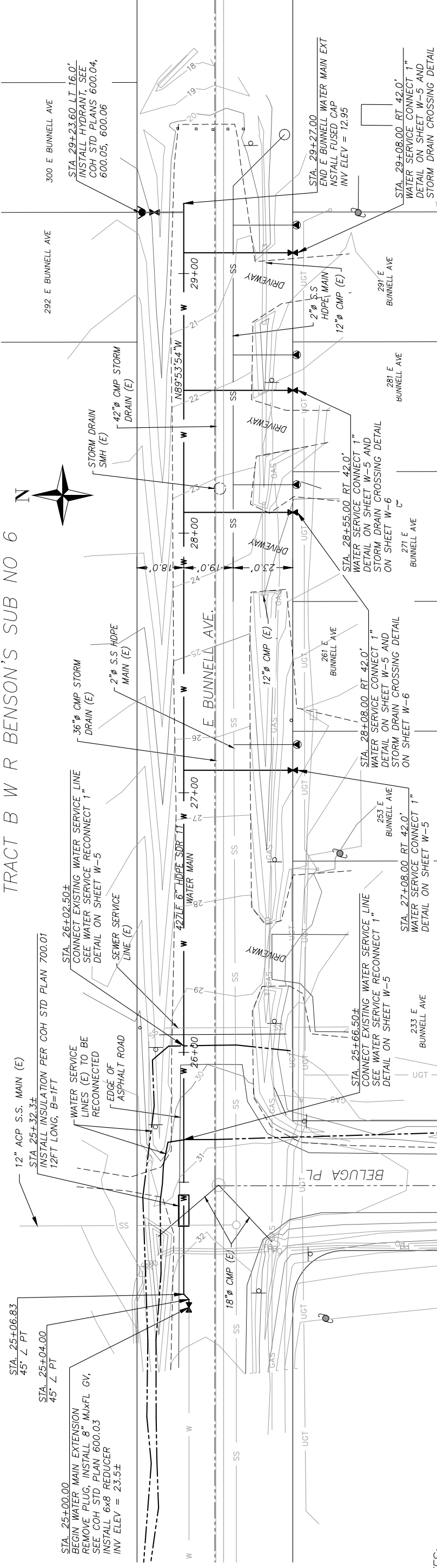
BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/2/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROD. NO.: 2022019

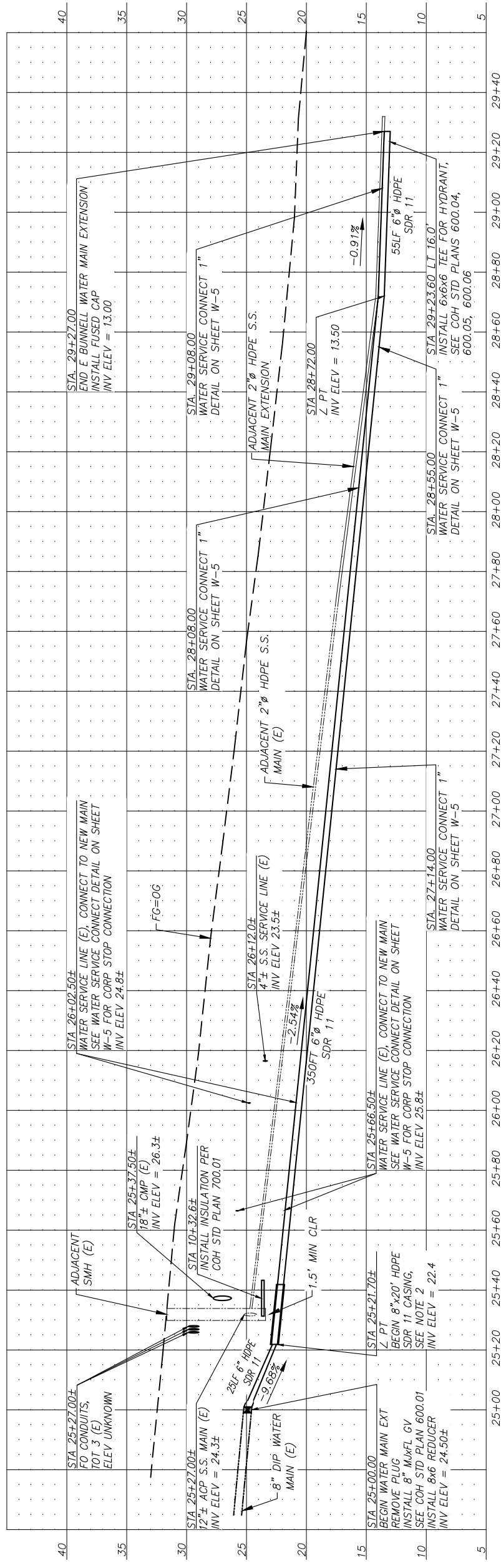
SHEET NO.:

W-1

TRACT B W R BENSON'S SUB NO 6



- NOTES:**
- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.
  - CASING SHALL BE CENTERED UNDER EXISTING SEWER MAIN. CONTRACTOR SHALL VERIFY OUTSIDE DIAMETER OF HDPE MAIN PIPE BEFORE ORDERING OR INSTALLING HDPE CASING.
  - SEE "DETAIL A - STRUCTURAL TRENCH SECTION" ON SHEET W-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN GRAVEL SURFACED AREAS. TOTAL OF 457± LINEAR FEET THIS SHEET.
  - SEE "DETAIL B - NON-STRUCTURAL TRENCH SECTION" ON SHEET W-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN NATIVE SURFACE SOIL AREAS. TOTAL OF 59± LINEAR FEET THIS SHEET.
  - SEE "DETAIL C - AC PAVEMENT STRUCTURAL TRENCH SECTION" ON SHEET W-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN AREAS OF ASPHALT SURFACING. TOTAL OF 94± LINEAR FEET THIS SHEET.



**PROFILE**



**E. BUNNELL AVENUE / CHARLES WAY / ALLEN WAY  
ALLEN WAY WATER MAIN PLAN + PROFILE**

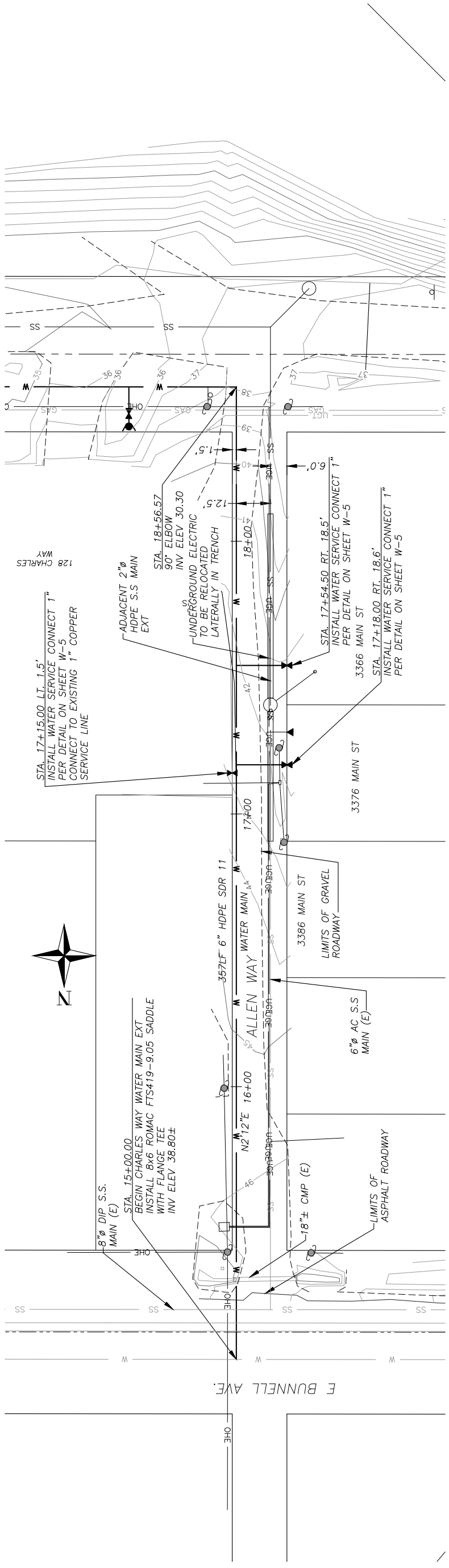
STA 15+00.00 to 18+56.57

BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/2/2022  
CHK'D: JSB  
SCALE: AS NOTED  
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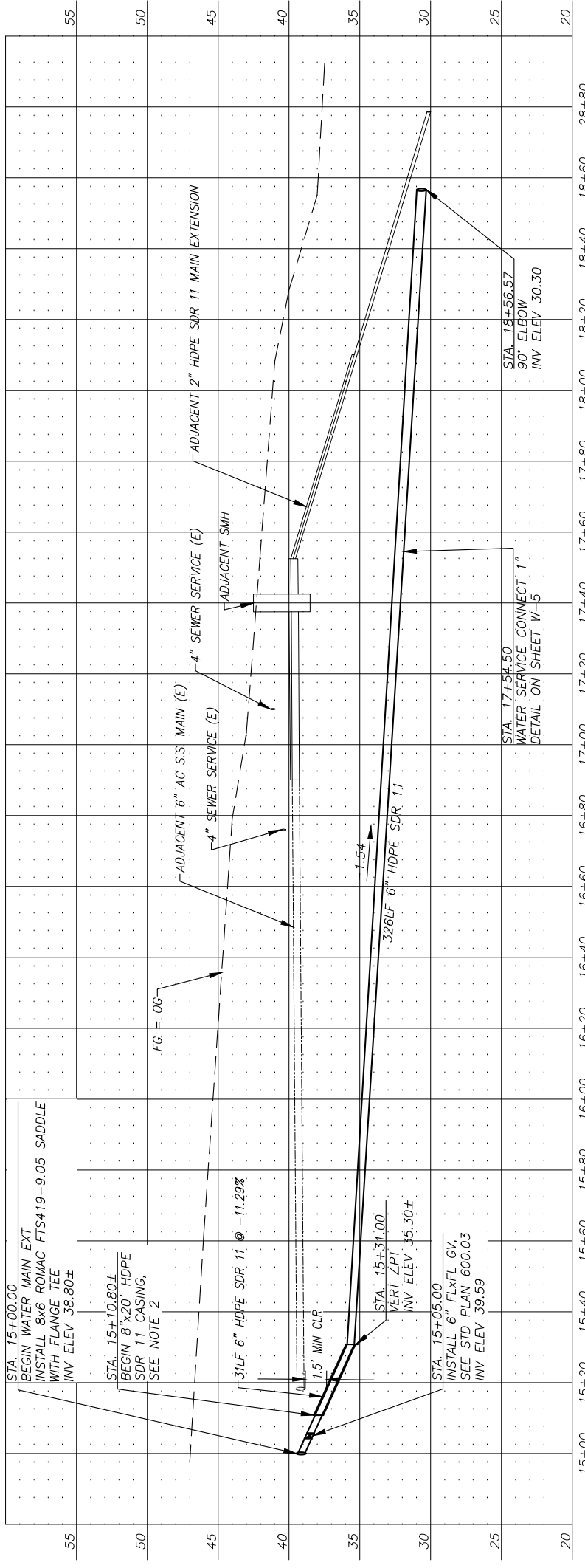
SHEET NO.:

W-2



**NOTES:**

- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.
- CASING SHALL BE CENTERED UNDER EXISTING SEWER MAIN. CONTRACTOR SHALL VERIFY OUTSIDE DIAMETER OF HDPE MAIN PIPE BEFORE ORDERING OR INSTALLING HDPE CASING.
- SEE "DETAIL A - STRUCTURAL TRENCH SECTION" ON SHEET W-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN GRAVEL SURFACED AREAS. TOTAL OF 354± LINEAR FEET THIS SHEET.
- SEE "DETAIL B - NON-STRUCTURAL TRENCH SECTION" ON SHEET W-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN NATIVE SURFACE SOIL AREAS. TOTAL OF 20± LINEAR FEET THIS SHEET.
- SEE "DETAIL C - AC PAVEMENT STRUCTURAL TRENCH SECTION" ON SHEET W-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN AREAS OF ASPHALT SURFACING. TOTAL OF 22± LINEAR FEET THIS SHEET.





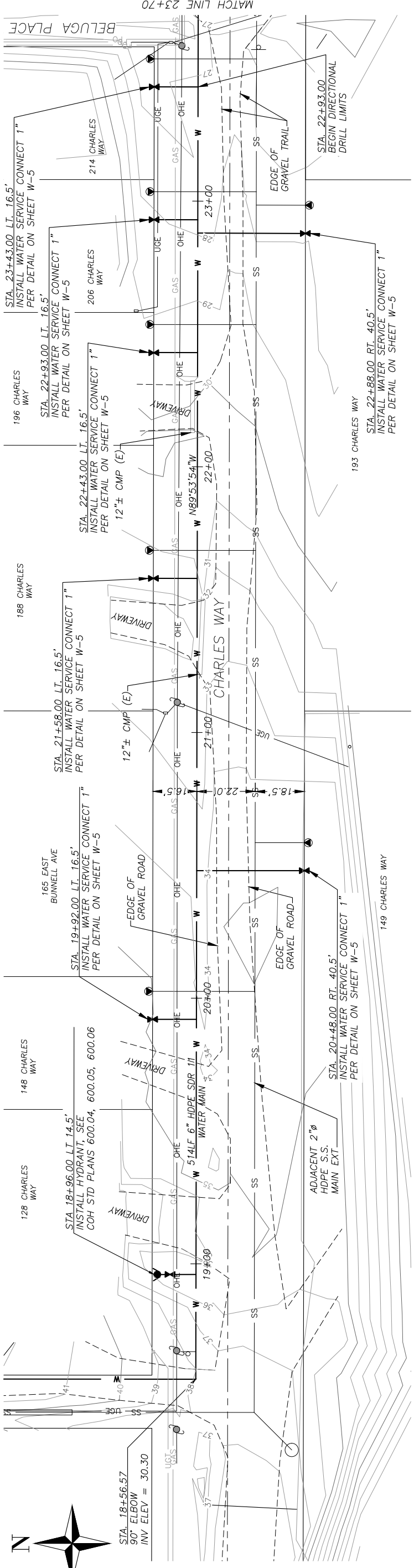
**E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
CHARLES WAY WATER MAIN PLAN + PROFILE  
STA 18+56.57 to 23+70.00**

BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

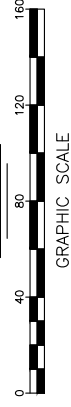
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SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:

W-3

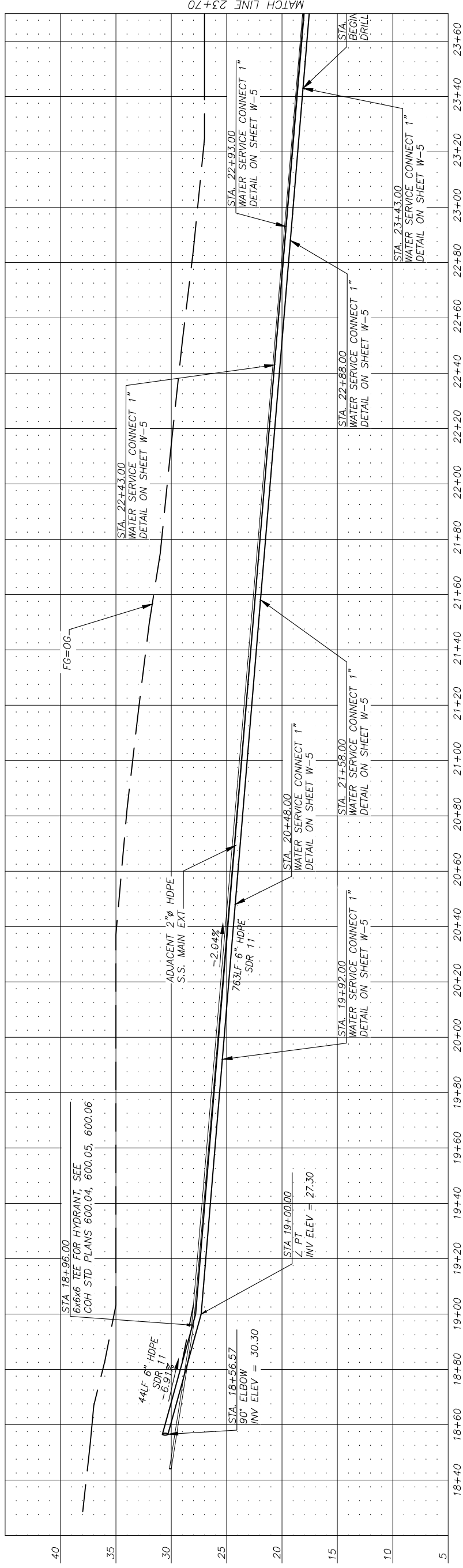


**PLAN**



**NOTES:**

- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.
- SEE "DETAIL A - STRUCTURAL TRENCH SECTION" ON SHEET W-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN GRAVEL SURFACED AREAS. TOTAL OF 103± LINEAR FEET THIS SHEET.
- SEE "DETAIL B - NON-STRUCTURAL TRENCH SECTION" ON SHEET W-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN NATIVE SURFACE SOIL AREAS. TOTAL OF 561± LINEAR FEET THIS SHEET.



**PROFILE**





**E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
CHARLES WAY WATER MAIN PLAN + PROFILE**

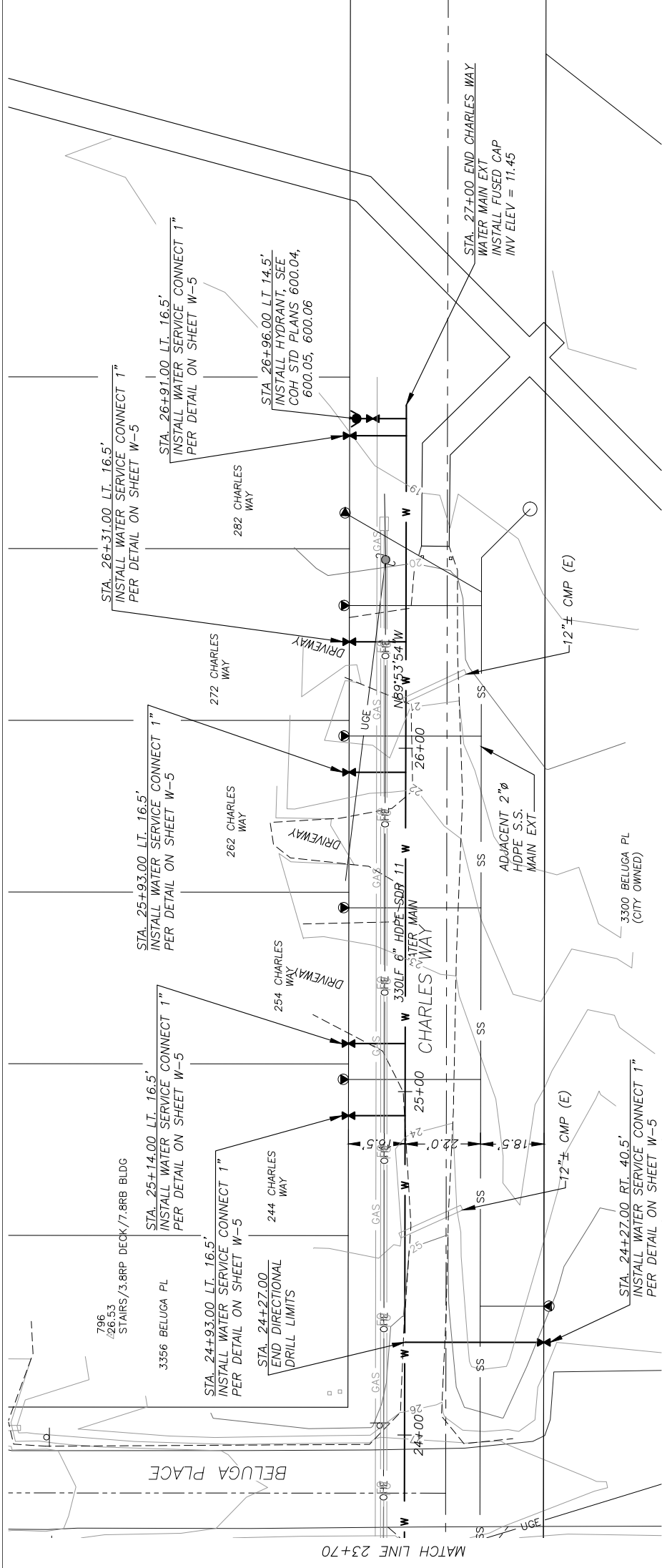
STA 23+70.00 to 27+00.00

BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

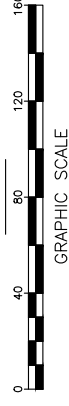
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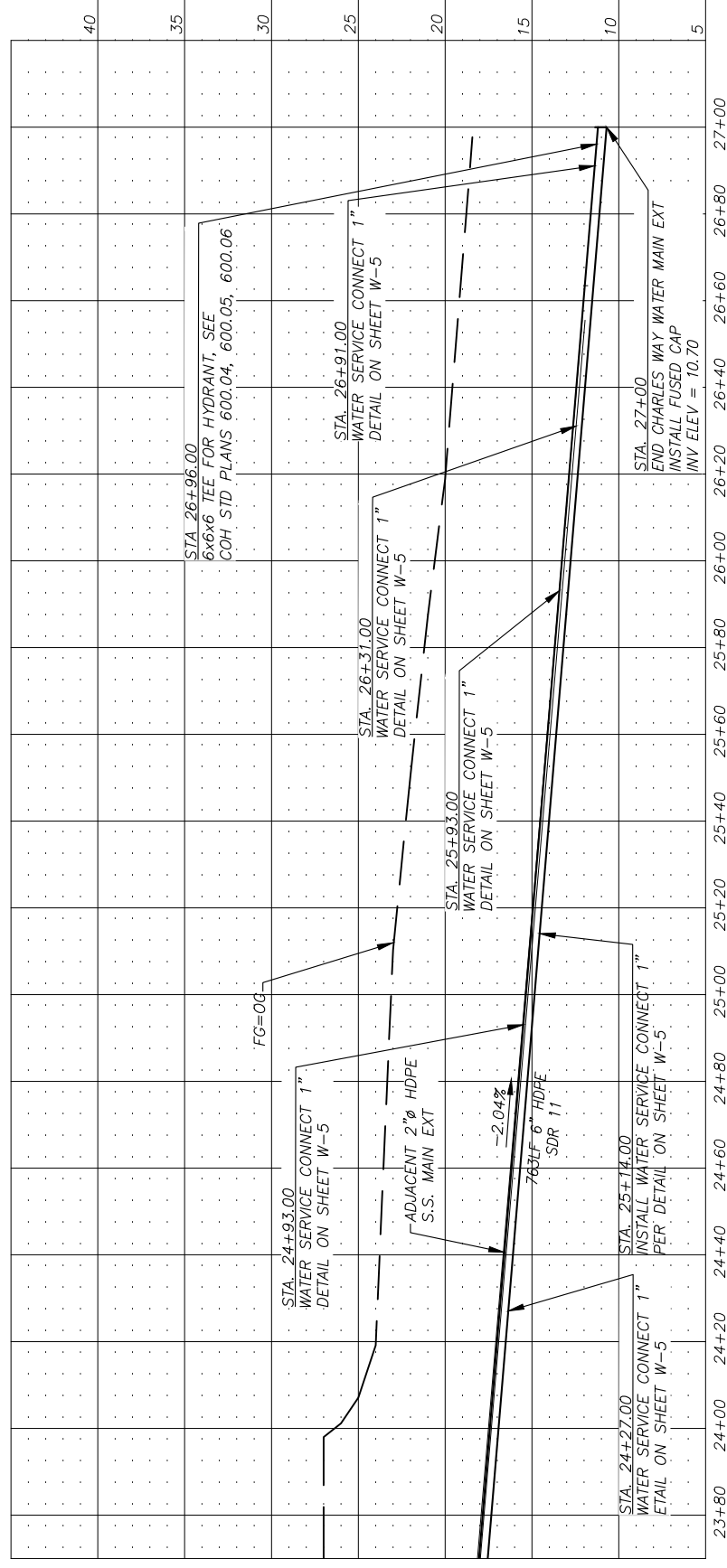
W-4



**PLAN**



- NOTES:**
- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.
  - SEE "DETAIL A - STRUCTURAL TRENCH SECTION" ON SHEET W-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN GRAVEL SURFACED AREAS. TOTAL OF 225± LINEAR FEET THIS SHEET.
  - SEE "DETAIL B - NON-STRUCTURAL TRENCH SECTION" ON SHEET W-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN NATIVE SURFACE SOIL AREAS. TOTAL OF 185± LINEAR FEET THIS SHEET.



**PROFILE**



# E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY WATER MAIN EXTENSION WATER MAIN CONSTRUCTION DETAILS

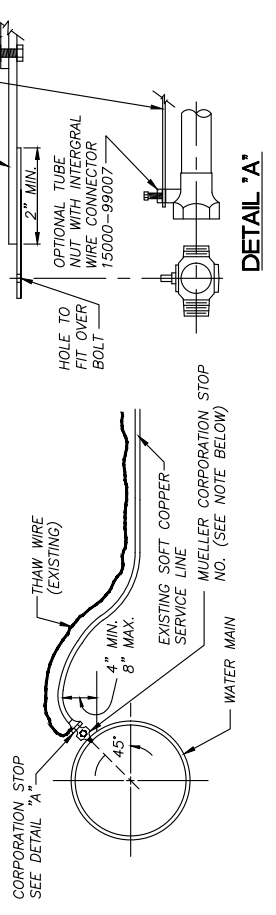
BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/2/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROD. NO.: 2022109

SHEET NO.:

W-5

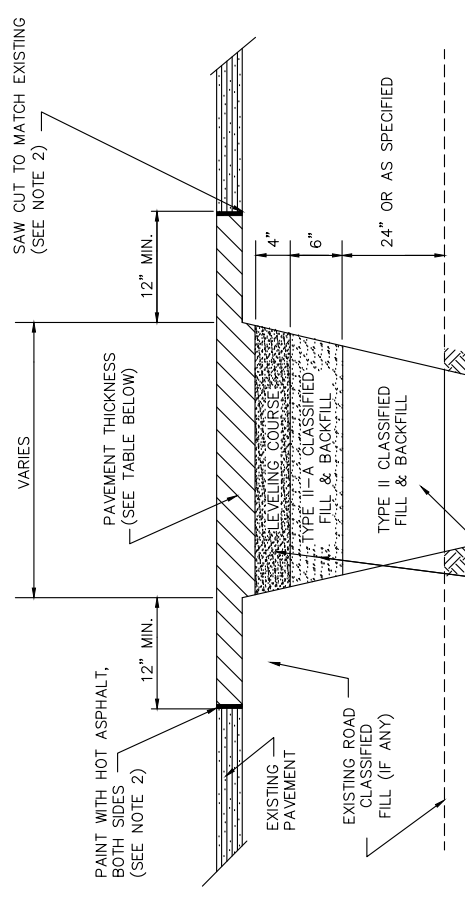
- NOTES:**
- BEFORE PERFORMING ANY EXCAVATIONS, ORIGINAL THAW WIRE - ALASKA DIGLINE AT 811, SHEET BRAZED TO NO. 2 COPPER WIRE (907) 278-3121, OR COPPER WIRE (907) 278-3121.



- NOTES:**
- USE MUELLER CORPORATION STOP NO. 15025 FOR PIPE-THREAD SADDLES.
  - MUELLER SERVICE CLAMPS TO BE USED ON ALL PLASTIC PIPE, DOUBLE STRAP OR EQUAL.
  - HOPE MAINLINES SHALL UTILIZE A SIDEWALL BRANCH SADDLE WITH INTEGRAL BRASS CC THREAD INSERT TO RECEIVE CORPORATION STOP.

## WATER SERVICE RECONNECT 1" $\phi$

NOT TO SCALE

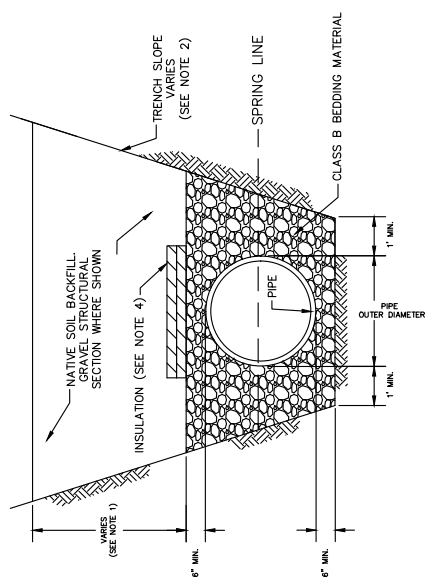


ROAD CLASSIFICATION	PAVEMENT THICKNESS
LOCAL ROAD, SIDEWALK	2"
COLLECTOR	4"
ARTERIAL +	6" OR AS SPECIFIED

- NOTES:**
- ENGINEER OR PERMITTING AGENCY MAY DIRECT ADDITIONAL AMOUNTS OF SURFACE REPLACEMENT MATERIALS AND/OR TYPE II CLASSIFIED FILL & BACKFILL, BASED UPON FIELD CONDITIONS.
  - AFTER TRENCH BACKFILL HAS BEEN COMPACTED, CONTRACTOR SHALL SAW CUT (REF. SECTION 40.02.5.J) AND REMOVE AN ADDITIONAL 12" FROM EACH EDGE OF THE ORIGINAL CUT. ENGINEER MAY REQUIRE ADDITIONAL REMOVAL IF THE EXISTING SURFACING HAS BEEN LIFTED IN THE REMOVAL PROCESS OR IF THE JOINT DOES NOT OCCUR ON UNDISTURBED MATERIAL. TRIM AND SQUARE EDGES OF EXISTING SURFACING, AND REMOVE LOOSE MATERIALS BEFORE PLACING PAVEMENT. CONTRACTOR SHALL PAINT SURFACES AND EDGES OF EXISTING PAVEMENT WITH HOT ASPHALT CEMENT AS SPECIFIED IN THE CONTRACT DOCUMENTS OR AS APPROVED BY THE ENGINEER.
  - MAXIMUM PAVEMENT LIFT THICKNESS IS 2" UNLESS OTHERWISE SPECIFIED IN THE DRAWINGS OR APPROVED BY THE ENGINEER.
  - THIS DETAIL APPLIES TO ALL NON-GRAVEL SURFACES INCLUDING, BUT NOT LIMITED TO, PAVEMENT, RECYCLED ASPHALT PAVEMENT (RAP), AND BITUMINOUS SURFACE TREATMENT, ALSO KNOWN AS CHIP SEAL.

## DETAIL C - AC PAVEMENT STRUCTURAL TRENCH SECTION

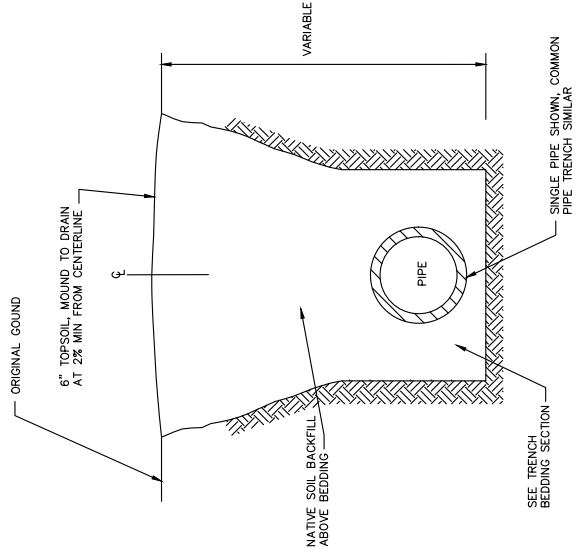
NOT TO SCALE



- NOTES:**
- TRENCH BACKFILL MATERIAL PLACED AND COMPACTED TO DEPTHS SHOWN IN THE DRAWINGS OR AS DETERMINED BY ENGINEER. COMPACT TRENCH BACKFILL TO A MINIMUM OF 95% MAXIMUM DENSITY.
  - TRENCH WALL SLOPES WILL VARY WITH SOIL STRENGTH AND CHARACTER. SLOPES SHALL CONFORM TO OSHA SAFETY STANDARDS.
  - BACKFILL SHALL BE FREE OF CLAYS AND ORGANIC MATERIALS.
  - WHEN SPECIFIED IN CONTRACT DOCUMENTS, SEE STANDARD DETAIL 20-9 FOR INSULATION DETAILS.

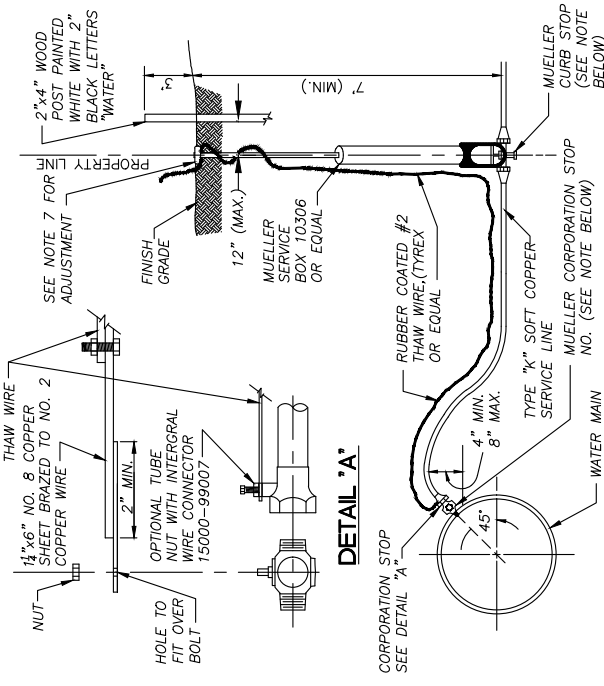
## TRENCH BEDDING SECTION

NOT TO SCALE



## DETAIL B - NON-STRUCTURAL TRENCH SECTION

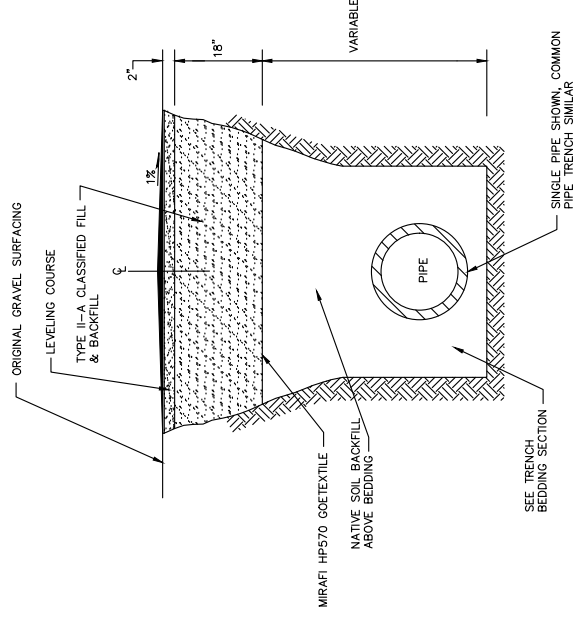
NOT TO SCALE



- NOTES:**
- USE MUELLER CORPORATION STOP NO. 15025 FOR PIPE-THREAD SADDLES.
  - USE MUELLER CORPORATION STOP NO. 15000 FOR STEEL PIPE.
  - USE MUELLER CURB STOP NO. H-15204 OR EQUAL FOR COPPER TO COPPER CONNECTIONS.
  - ROD TO BE ATTACHED TO CURB STOP WITH NO. 6 GAUGE COPPER WIRE, NO SUBSTITUTIONS.
  - MUELLER SERVICE CLAMPS TO BE USED ON ALL PLASTIC PIPE, DOUBLE STRAP OR EQUAL.
  - HOPE MAINLINES SHALL UTILIZE A SIDEWALL BRANCH SADDLE WITH INTEGRAL BRASS CC THREAD INSERT TO RECEIVE CORPORATION STOP.
  - CURB BOX FINISH ELEVATION SHALL BE AS FOLLOWS:
    - PAVED AREA 0.5" BELOW FINISH GRADE
    - GRAVEL AREA 1" TO 3" BELOW FINISH GRADE
    - YARD/UNDEVELOPED AREA 0" TO 3" ABOVE FINISH GRADE

## WATER SERVICE CONNECT 1" $\phi$

NOT TO SCALE



- NOTE:**
- CONTRACTOR SHALL CONSTRUCT A 1% CROWN WITH THE PEAK CENTERED OVER THE CENTERLINE OF THE EXCAVATION.

## DETAIL A - STRUCTURAL TRENCH SECTION

NOT TO SCALE

## DETAIL B - NON-STRUCTURAL TRENCH SECTION

NOT TO SCALE

## DETAIL C - AC PAVEMENT STRUCTURAL TRENCH SECTION

NOT TO SCALE

**CITY OF HOMER STANDARD DRAWINGS INDEX**

- 200.03 STANDARD LOCATION FOR NEW UTILITIES
- 200.04 TYPICAL UTILITY LOCATIONS
- 200.05 TYPICAL WATER AND SEWER LOCATIONS
- 200.06 COMPACTION OF BACKFILL WITHIN RIGHT-OF-WAY
- 200.07 CLASS B AND C BEDDING
- 200.08 TRENCH BACKFILL
- 400.02 RESURFACING DETAIL TYPICAL GRAVEL SECTION
- 600.03 TYPICAL VALVE BOX
- 600.04 SINGLE PUMPER "L" BASE HYDRANT ASSEMBLY
- 600.05 HYDRANT GUARD POSTS
- 600.06 FIRE HYDRANT ACCESS PAD
- 600.10 GATE VALVE EXTENSION ROD

**LEGEND & SYMBOLS**

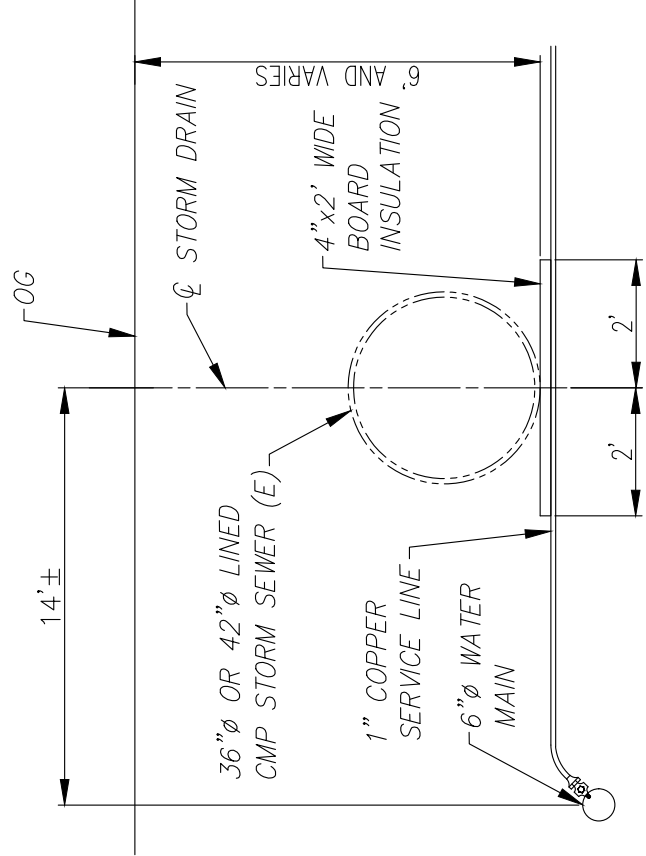
- EDGE EXISTING GRAVEL ---
- CUT CATCH LINE - - - - -
- FILL CATCH LINE - ······
- CENTERLINE -+-----+ 7+00
- UNDERGROUND ELECTRIC \_\_\_\_\_ UGE
- OVERHEAD ELECTRIC \_\_\_\_\_ OHE
- UNDERGROUND TELEPHONE \_\_\_\_\_ UGT
- WATER MAIN \_\_\_\_\_ W
- SANITARY SEWER \_\_\_\_\_ SS
- CONTOURS MAJOR \_\_\_\_\_ 85
- CONTOURS MINOR \_\_\_\_\_
- TEST PIT LOCATION ⊕ TP-1
- SIGN □
- PIPE CULVERT W/ END SECTION ▭
- FIRE HYDRANT ●
- VALVE OR RISER ⚡
- EXISTING VALVE OR RISER ⊗
- PRESSURIZED SEWER SERVICE POLY VALVE ●

**ABBREVIATIONS**

- AKDOT&PF ALASKA DEPT. OF TRANSPORTATION & PUBLIC FACILITIES
- ARV AIR RELEASE VALVE
- APDES ALASKA POLLUTION DISCHARGE ELIMINATION SYSTEM
- Δ DELTA / CENTRAL ANGLE OF CURVE
- BP BEGIN PROJECT
- C/L CENTERLINE
- CMP CORRUGATED METAL PIPE
- CO CONTRACTING OFFICER
- COH CITY OF HOMER
- CY CUBIC YARD
- DIA DIAMETER
- DIST DISTANCE
- E EASTING
- EL ELEVATION
- ELEV ELEVATION
- EP END PROJECT
- ESMT EASEMENT
- (E) EXISTING
- FL FLANGE
- FT FOOT
- GV GATE VALVE
- HDPE HIGH-DENSITY POLYETHYLENE
- IN INCH
- INV INVERT
- L LENGTH OF CURVE
- LF LINEAR FOOT
- LT LEFT
- MIN MINIMUM
- MAX MAXIMUM
- MJ MECHANICAL JOINT
- MPH MILES PER HOUR
- MSF 1000 SQUARE FEET
- MUTCD MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
- N NORTHING
- OHE OVERHEAD ELECTRIC
- PC POINT OF CURVATURE
- PI POINT OF INTERSECTION
- PRC POINT OF REVERSE CURVATURE
- PVC POINT OF VERTICAL CURVATURE
- PVI POINT OF VERTICAL INTERSECTION
- PVT POINT OF VERTICAL TANGENCY
- PT POINT OF TANGENCY
- R RADIUS
- RT RIGHT
- R/W RIGHT-OF-WAY
- SEC SECTION
- SI STREET INTERSECTION
- SF SQUARE FOOT
- SMH SEWER MANHOLE
- S.S. SANITARY SEWER
- SS STAINLESS STEEL
- STA. STATION
- STD STANDARD
- SY SQUARE YARD
- TRANS TRANSMISSION
- UGE UNDERGROUND ELECTRIC
- UGT UNDERGROUND TELEPHONE
- UTIL UTILITY
- TYP. TYPICAL
- W WATER MAIN OR SERVICE

**CONSTRUCTION NOTES**

1. DIRECTIONAL DRILLING SHALL BE UTILIZED TO INSTALL HDPE MAIN PIPE WHEREVER OPEN TRENCH INSTALLATION IS NOT REQUIRED TO PLACE HARDWARE FITTINGS AND ASSEMBLIES, VALVES, TEES, INSULATION BOARD, MANHOLES, AND CASINGS.
2. CONTRACTOR SHALL COMPLETE CONSTRUCTION IN ACCORDANCE WITH THE CITY OF HOMER STANDARD SPECIFICATIONS 2011 EDITION INCLUDING ITEMS, DRAWINGS, TECHNICAL SPECIFICATIONS, AND SPECIAL PROVISIONS TAKE PRECEDENCE OVER THE STANDARD SPECIFICATIONS.
3. THE CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS CONTAINED IN LOCAL, STATE AND FEDERAL PERMITS OBTAINED BY THE CITY FOR CONSTRUCTION OF THIS PROJECT. COPIES OF THE PERMITS SHALL BE MAINTAINED AT THE JOB SITE.
4. UNDERGROUND ELECTRICAL AND TELECOMMUNICATIONS LINES OCCUR WITHIN THE PROJECT AREA. LOCATIONS DEPICTED FOR THE UTILITIES ARE APPROXIMATE. SOME UTILITIES HAVE BEEN LOCATED FROM RECORD DRAWINGS AND UTILITY COMPANY LOCATES. CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WORK ACCORDINGLY, ALL WORK IN CLOSE PROXIMITY TO EXISTING UNDERGROUND LINES SHALL COMPLY WITH THE APPLICABLE FEDERAL, STATE AND LOCAL STATUTES, CODES AND GUIDELINES, AND THE ELECTRICAL FACILITY CLEARANCE REQUIREMENTS OF THE GOVERNING UTILITY. CONTRACTOR SHALL HAND DIG WITHIN TWO FEET OF BURIED ELECTRICAL CABLE.
6. THIS PROJECT IS REQUIRED TO BE CONSTRUCTED IN ACCORDANCE WITH THE APDES GENERAL CONSTRUCTION PERMIT FOR STORM WATER POLLUTION. THE CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS OF THE PERMIT.
7. CONTRACTOR SHALL CONSTRUCT EROSION CONTROL DEVICES AS SHOWN IN THE PLANS AND PROCEDURES AND REQUIREMENTS DOCUMENTED IN THE SWPPP PERMIT.
8. IF CONTAMINATED SOIL, GROUNDWATER, OR FREE-PRODUCT ARE ENCOUNTERED, THE CONSTRUCTION CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER WHO WILL IMMEDIATELY CONTACT THE ADEC PREVENTION AND EMERGENCY RESPONSE (PERP) OFFICE STAFF AT (907) 465-5340 / FAX (907) 465-2237 IN ACCORDANCE WITH SPILL REPORTING REQUIREMENTS UNDER 18 AAC 75.300, AND COORDINATE MANAGEMENT OF ALL CONTAMINATED MEDIA WITH EMERGENCY RESPONSE PERSONNEL.
9. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION THAT DEMONSTRATES THE PIPE MATERIAL IS CERTIFIED TO CONFORM TO ANSI/NSF STANDARD 61.
10. DISINFECTION WATER SHALL NOT BE RELEASED OVERLAND OR TO ANY CREEKS, STREAMS, TEMPORARY OR PERMANENT DRAINAGE SWALES OR DITCHES. DISINFECTION WATER SHALL BE FLUSHED INTO THE CITY OF HOMER SANITARY SEWER SYSTEM THROUGH A SANITARY SEWER MANHOLE OR CLEANOUT LOCATED WITHIN 100 FEET OF THE DISINFECTION WATER DISCHARGE POINT. ALTERNATIVELY, IF NO CITY SANITARY SEWER MANHOLE OR CLEANOUT IS LOCATED WITHIN 100 FEET OF THE DISINFECTION WATER DISCHARGE POINT, THE DISINFECTION WATER SHALL BE RETAINED IN A TANK TRUCK OR OTHER TRANSPORTABLE CONTAINER AND DISCHARGED INTO THE CITY OF HOMER SANITARY SEWER SYSTEM AT A LOCATION TO BE DETERMINED BY THE ENGINEER.
11. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION THAT DEMONSTRATES THE CHEMICAL ADDITIVE FOR DISINFECTION IS CERTIFIED TO CONFORM TO ANSI/NSF STANDARD 60.
12. DISCHARGES OF EFFLUENT FROM HYDROSTATIC TESTING AND DISINFECTION SHALL CONFORM SECTIONS 4.0 CONTROL MEASURES, 5.1 LAND DISPOSAL DISCHARGES OF HYDROSTATIC TESTING, AND 6.0 REPORTING AND RECORDKEEPING OF THE ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM "GENERAL PERMIT FOR HYDROSTATIC AND AQUIFER PUMP TESTING" PERMIT NUMBER AKG003000.
13. FIBER ROLLS SHALL BE STRAW TYPE, 6-INCH NOMINAL DIAMETER, AND AT LEAST 3.1 LB/CU.FT. DENSITY. INSTALL ROLLS AS SHOWN ON THE PLANS AND MANUFACTURER'S INSTRUCTIONS.
14. DETAIL A - STRUCTURAL TRENCH SECTION SHALL BE USED FOR WATER MAIN AND WATER SERVICE BACKFILL WITHIN ALL GRAVEL SURFACED AREAS. DETAIL B - NON-STRUCTURAL TRENCH SECTION SHALL BE USED FOR BACKFILL IN ALL AREAS CONSISTING OF NATURAL SILTY AND ORGANIC SURFACE SITE SOILS.



STORM SEWER CROSSING  
NOT TO SCALE



**F. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
WATER MAIN EXTENSION  
WATER MAIN CONSTRUCTION NOTES**

BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/2/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:  
W-6

- NOTES:
1. BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.



**E. BUNNELL AVENUE / CHARLES WAY / ALLEN WAY  
WATER MAIN EXTENSION  
EROSION CONTROL PLAN NO. 1**

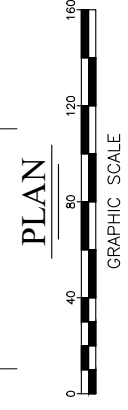
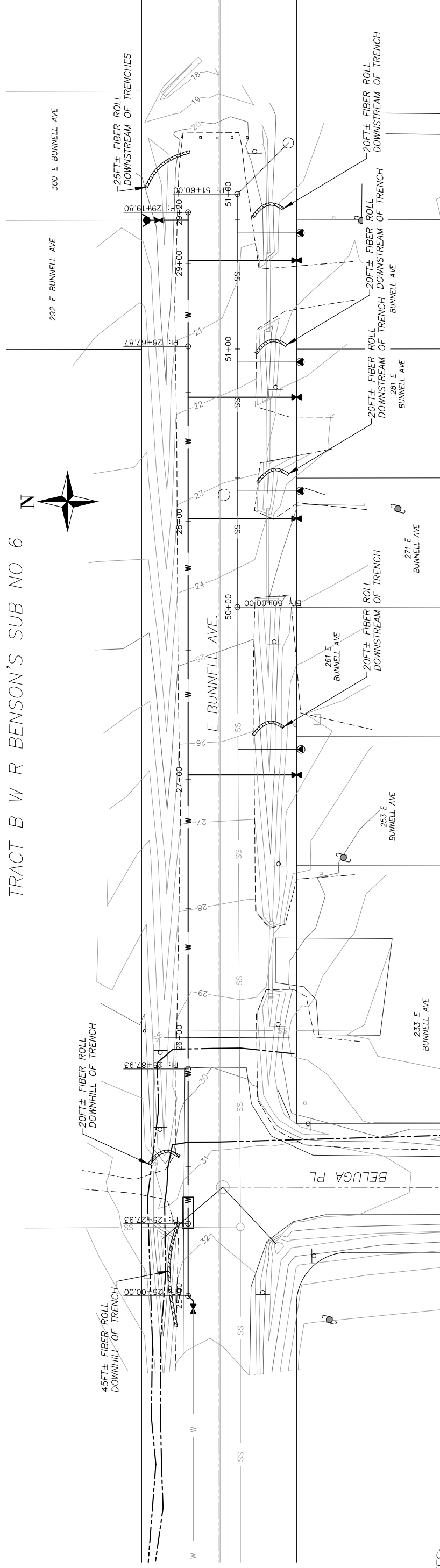
BISHOP ENGINEERING, LLC  
P.O. BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/2/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:

W-7

TRACT B W R BENSON'S SUB NO 6



**NOTES:**  
1. BEFORE PERFORMING ANY EXCAVATIONS,  
CALL ALASKA DIGLINE AT 811,  
(800) 478-3121, OR (907) 278-3121.



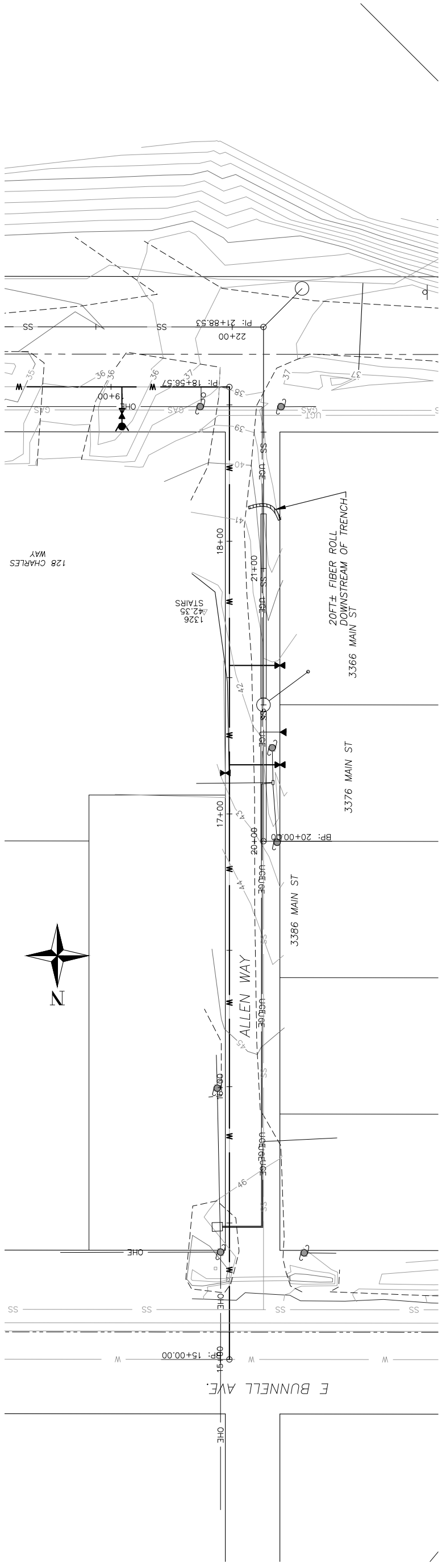
**E. BUNNELL AVENUE / CHARLES WAY / ALLEN WAY  
WATER MAIN EXTENSION  
EROSION CONTROL PLAN NO. 2**

**BISHOP ENGINEERING, LLC**  
P.O. BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

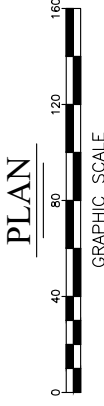
DATE: 11/2/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:

W-8



**NOTES:**  
1. BEFORE PERFORMING ANY EXCAVATIONS,  
CALL ALASKA DIGLINE AT 811,  
(800) 478-3121, OR (907) 278-3121.





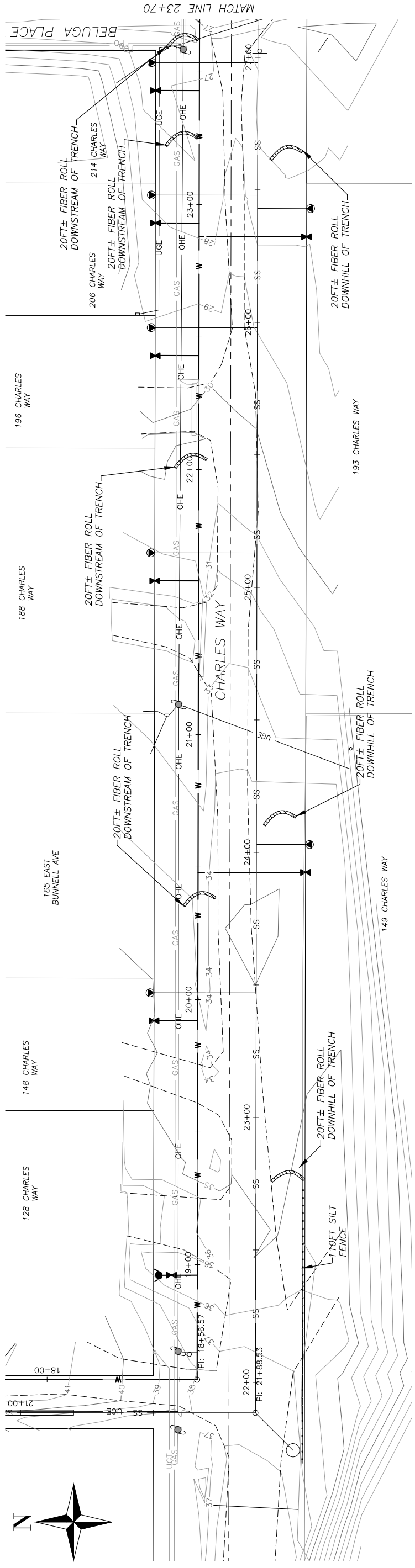
**E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
WATER MAIN EXTENSION  
EROSION CONTROL PLAN NO. 3**

**BISHOP ENGINEERING, LLC**  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

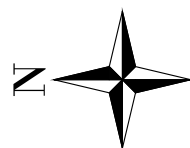
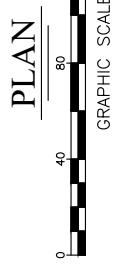
DATE: 11/2/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

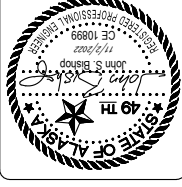
SHEET NO.:

W-9



**NOTES:**  
1. BEFORE PERFORMING ANY EXCAVATIONS,  
CALL ALASKA DIGLINE AT 811,  
(800) 478-3121, OR (907) 278-3121.





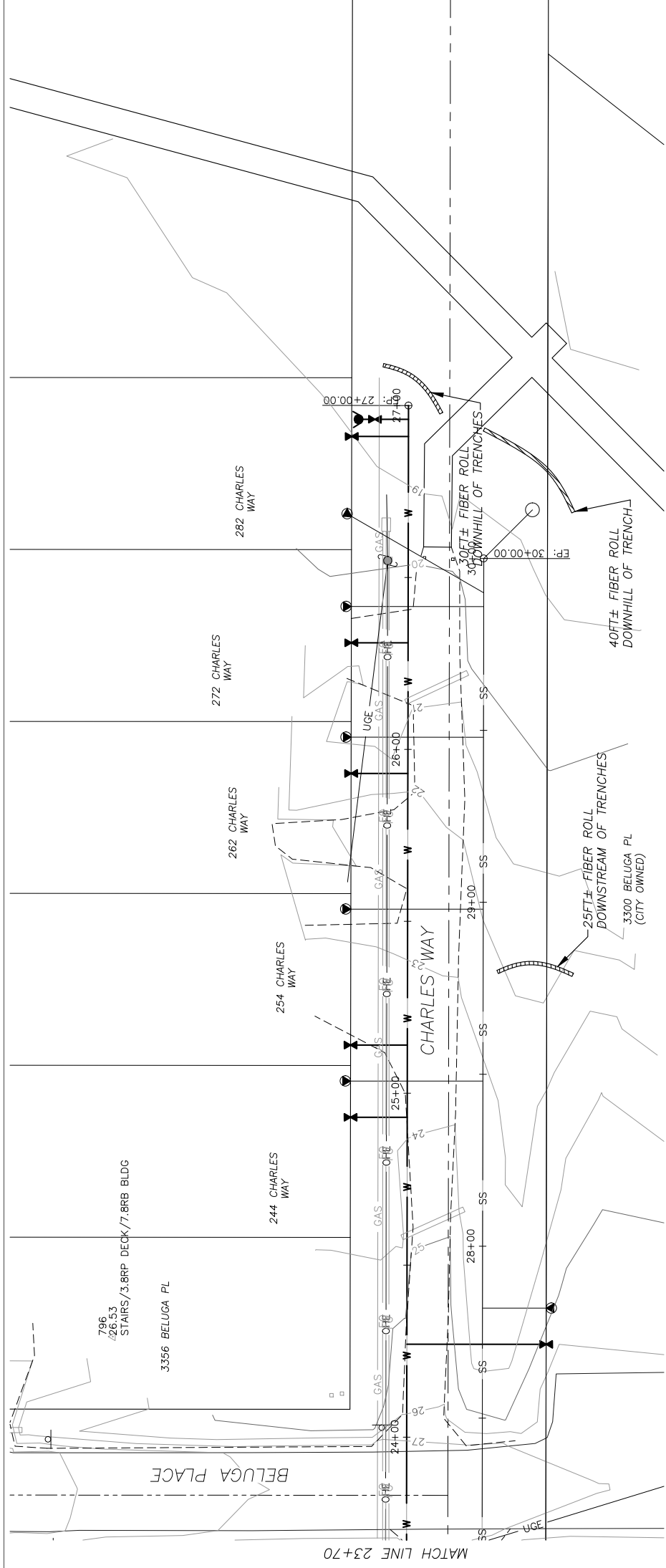
**E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
WATER MAIN EXTENSION  
EROSION CONTROL PLAN NO. 4**

**BISHOP ENGINEERING, LLC**  
P.O. BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/2/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:

W-10



**PLAN**



**NOTES:**  
1. BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811. (800) 478-3121, OR (907) 278-3121.



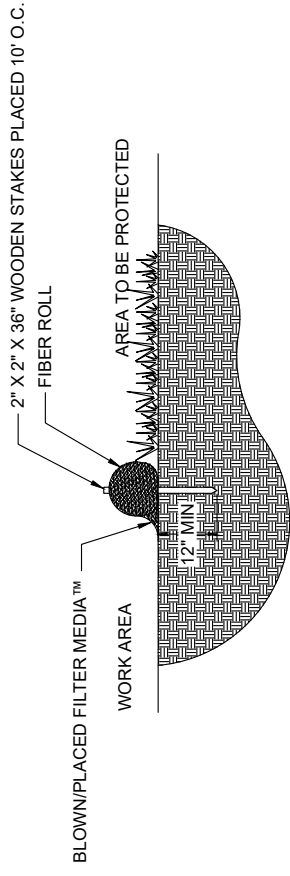
**E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
WATER MAIN EXTENSION  
EROSION CONTROL DETAILS**

**BISHOP ENGINEERING, LLC**  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

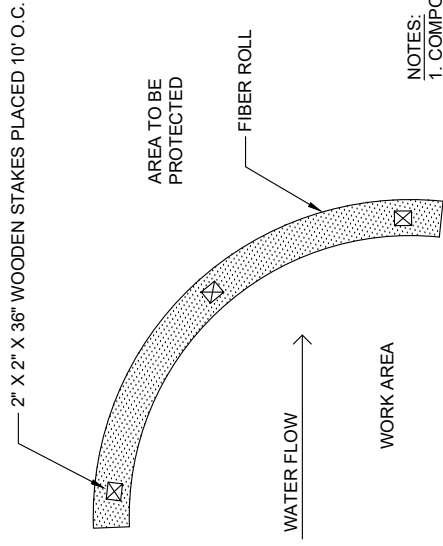
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CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:

W-11

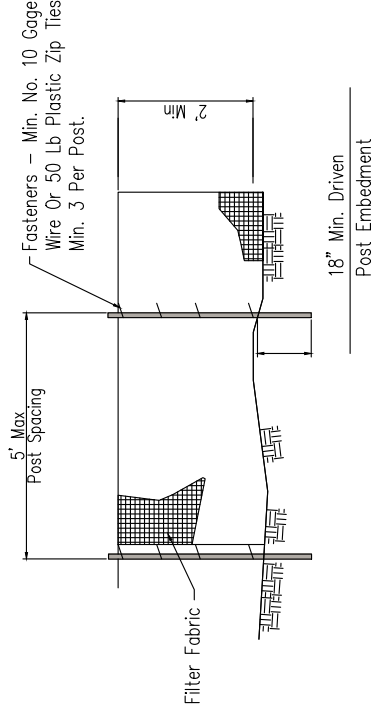


**SECTION NTS**

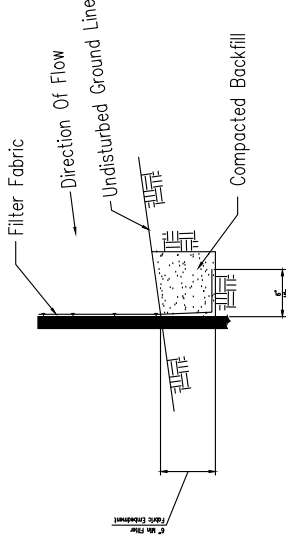


**PLAN NTS**

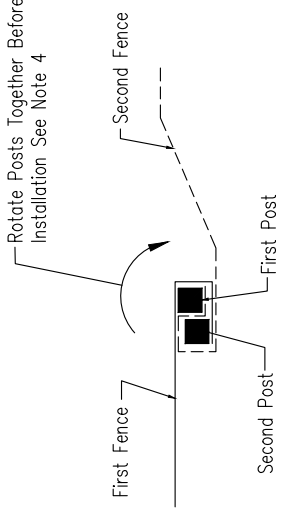
**NOTES:**  
1. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.



**ELEVATION**



**FABRIC ANCHOR DETAIL**



**SPLICE DETAIL-PLAN VIEW**

**NOTES:**  
1. Temporary silt fence shall be installed prior to any grading work in the area to be protected. Fence shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.  
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class 1 with equivalent opening size of at least 30 for nonwoven and 50 for woven.  
3. Fence posts shall be either wood post with a minimum cross-sectional area of 1.5" X 1.5" or a standard steel post.  
4. When splices are necessary make splice at post according to splice detail. Place the end post of the second fence inside the end post of the first fence. Rotate both posts together at least 180 degrees to create a tight seal with the fabric material. Cut the fabric near the bottom of the posts to accommodate the 6 inch flap. Then drive both posts and bury the flap. Compact backfill well.

**FIBER ROLL SEDIMENT CONTROL  
NTS**

**SIILT FENCE PROJECT BORDER  
NTS**

**NOTES:**

- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811. (800) 478-3121, OR (907) 278-3121.

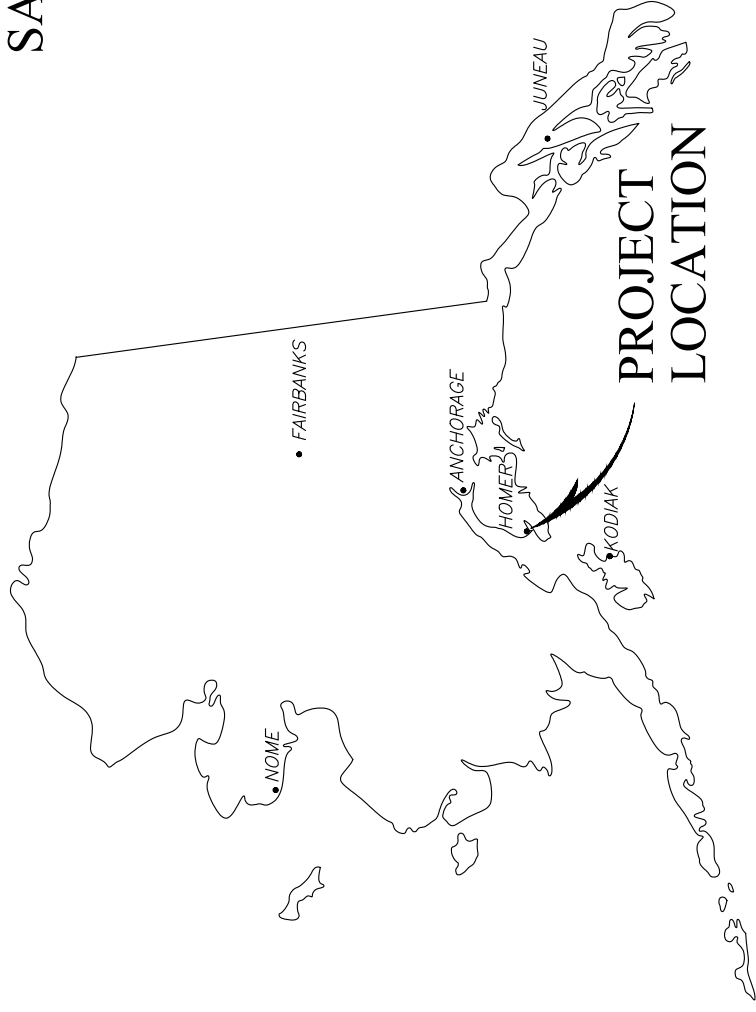


# CITY OF HOMER

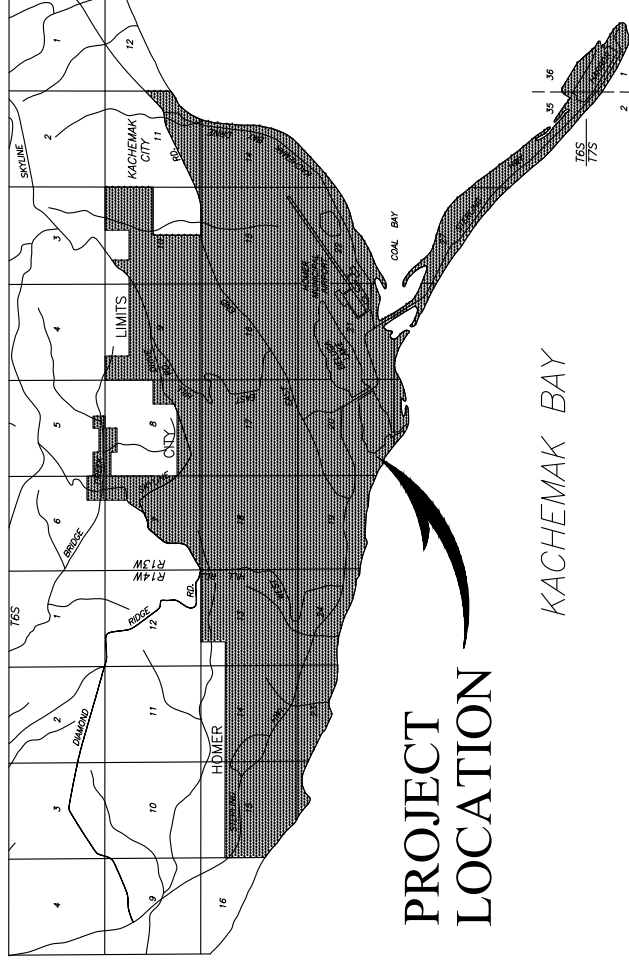
## E BUNNELL AVENUE / CHARLES WAY / ALLEN WAY

### SANITARY SEWER MAIN EXTENSION

NOVEMBER 22, 2022



### PROJECT LOCATION



### PROJECT LOCATION

### HOMER AREA MAP

SCALE: 1" = 1 MILE

### Homer City Council

Mayor  
Ken Castner

Councilmembers

- Donna Aderhold
- Jason Davis
- Storm Hansen – Cavasos
- Rachel Lord
- Shelly Erickson
- Caroline Venuti

City Manager

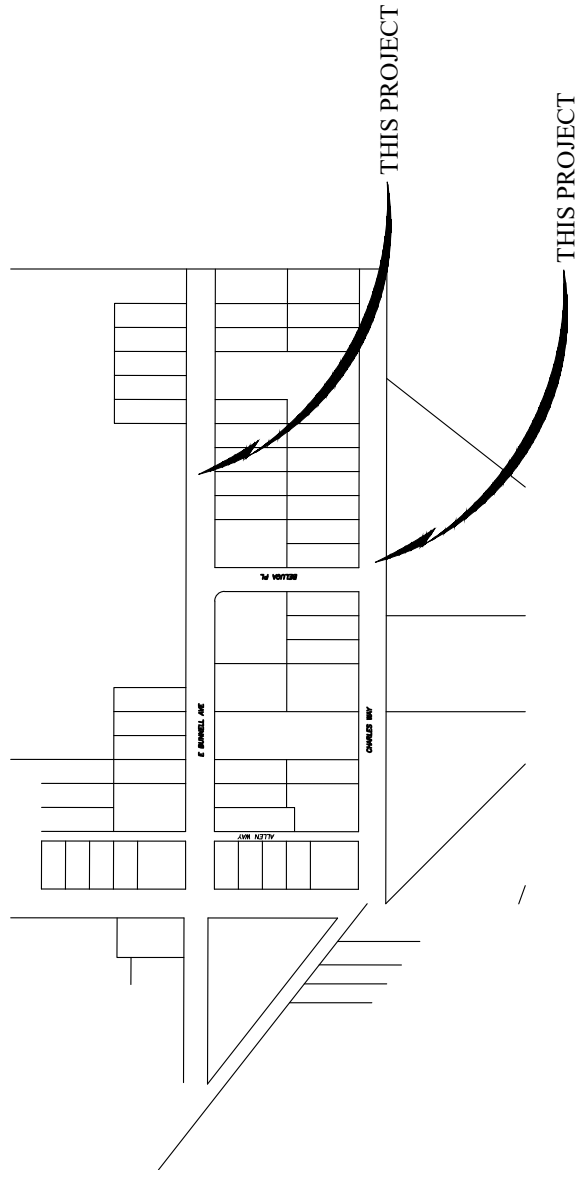
Rob Dumouchel

Public Works Director

Janette Keiser, PE

### INDEX TO DRAWINGS

TITLE	SHEET
E BUNNELL AVENUE SANITARY SEWER MAIN PLAN + PROFILE 50+00.00 TO 51+60.00	SS-1
ALLEN WAY SANITARY SEWER MAIN PLAN + PROFILE 20+00.00 TO 21+88.53	SS-2
CHARLES WAY SANITARY SEWER MAIN PLAN + PROFILE 21+88.53 TO 27+20.00	SS-3
CHARLES WAY SANITARY SEWER MAIN PLAN + PROFILE 27+20.00 TO 30+00.00	SS-4
SANITARY SEWER CONSTRUCTION DETAILS	SS-5
SANITARY SEWER CONSTRUCTION NOTES	SS-6
SANITARY SEWER LIFT STATION DETAILS & NOTES	SS-7
EROSION CONTROL PLAN NO. 1	SS-8
EROSION CONTROL PLAN NO. 2	SS-9
EROSION CONTROL PLAN NO. 3	SS-10
EROSION CONTROL PLAN NO. 4	SS-11
EROSION CONTROL DETAILS	SS-12

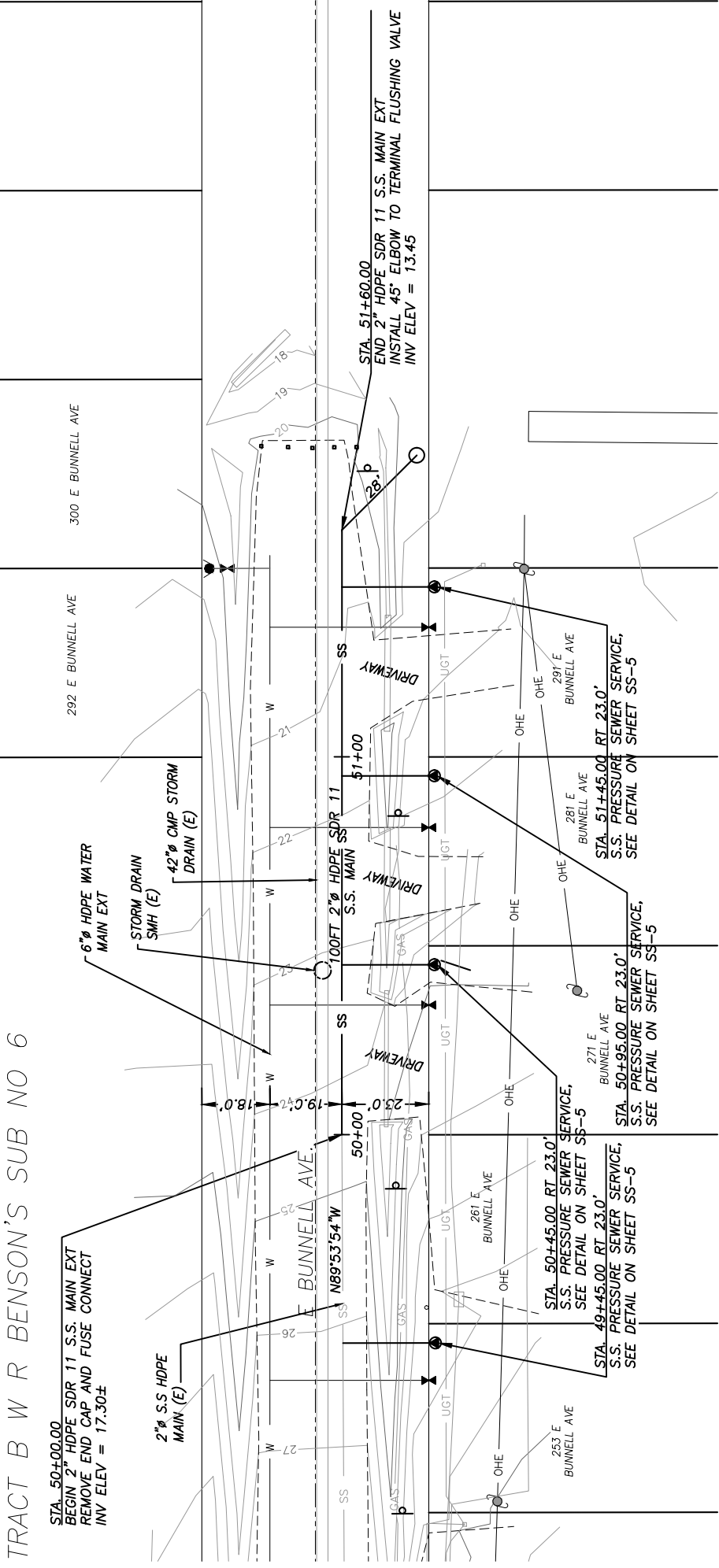
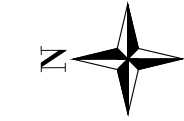


### VICINITY MAP

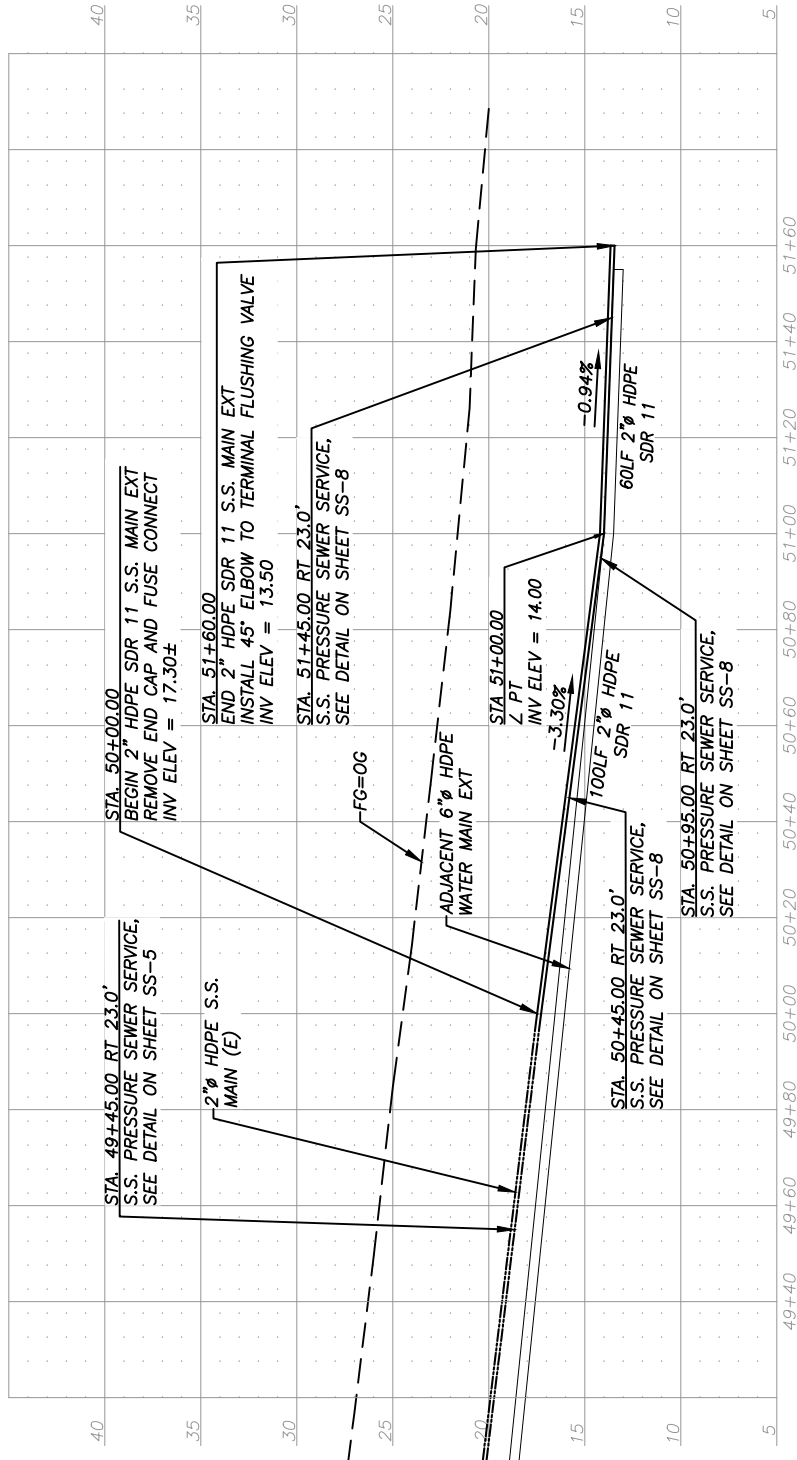
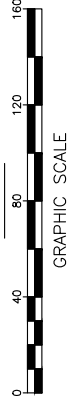
SCALE: 1" = 200'

### NOTES:

1. BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT: 811, (800) 478-3121, OR (907) 278-3121.
2. THESE PLANS SHALL BE USED IN CONJUNCTION THE CITY OF HOMER "STANDARD CONSTRUCTION DETAILS" IN ADOPTION ON NOVEMBER 22, 2022.



PLAN



PROFILE

E. BUNNELL AVENUE / CHARLES WAY / ALLEN WAY  
E. BUNNELL AVENUE S.S. MAIN PLAN + PROFILE  
STA 50+00.00 to 51+60.00



BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/22/2022  
CHK'D: JSB NOTED  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:

SS-1

NOTES:

- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.
- NO E-ONE UNITS INSTALLED FOR SERVICES SHOWN ON THIS SHEET.
- SEE "DETAIL A - STRUCTURAL TRENCH SECTION" ON SHEET SS-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN GRAVEL SURFACED AREAS. TOTAL OF 193± LINEAR FEET THIS SHEET.
- SEE "DETAIL B - NON-STRUCTURAL TRENCH SECTION" ON SHEET SS-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN NATIVE SURFACE SOIL AREAS. TOTAL OF 88± LINEAR FEET THIS SHEET.
- INSTALL E-ONE LIFT STATIONS AT:
  - 281' E. BUNNELL AVENUE
  - 291' E. BUNNELL AVENUE



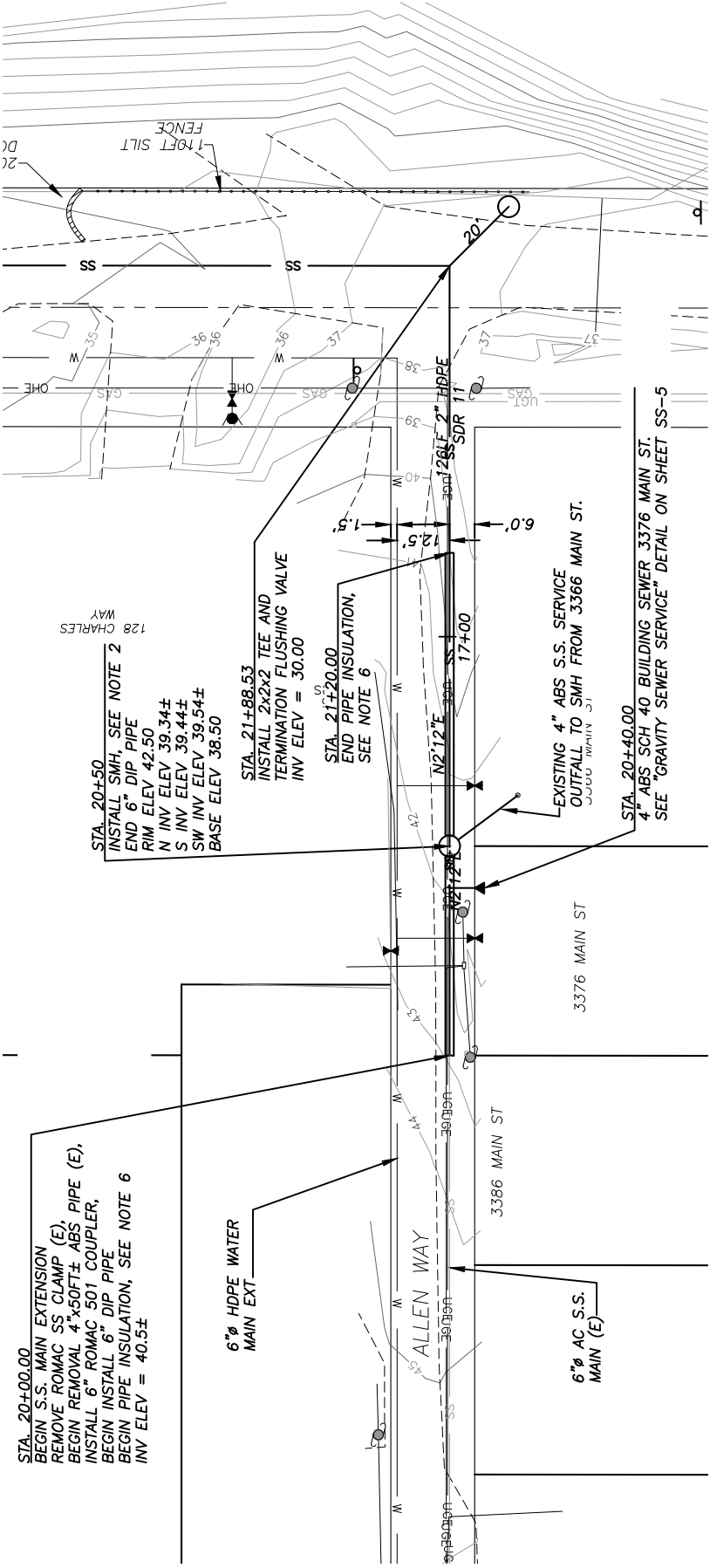
**E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
ALLEN WAY S.S. MAIN PLAN + PROFILE  
STA 20+00.00 to 21+88.53**

BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

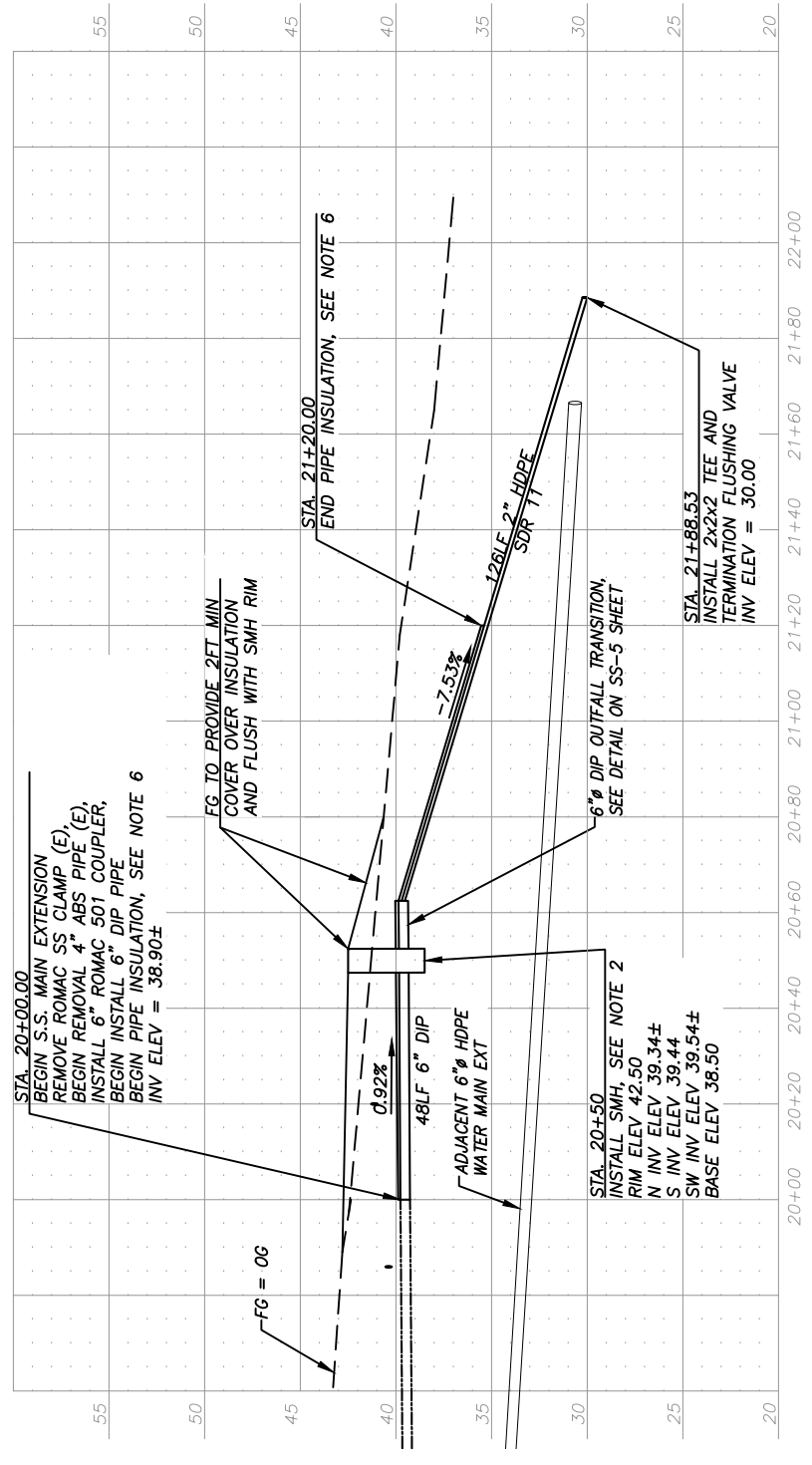
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CHK'D: JSB  
SCALE: AS NOTED  
PROD. NO.: 2022019

SHEET NO.:

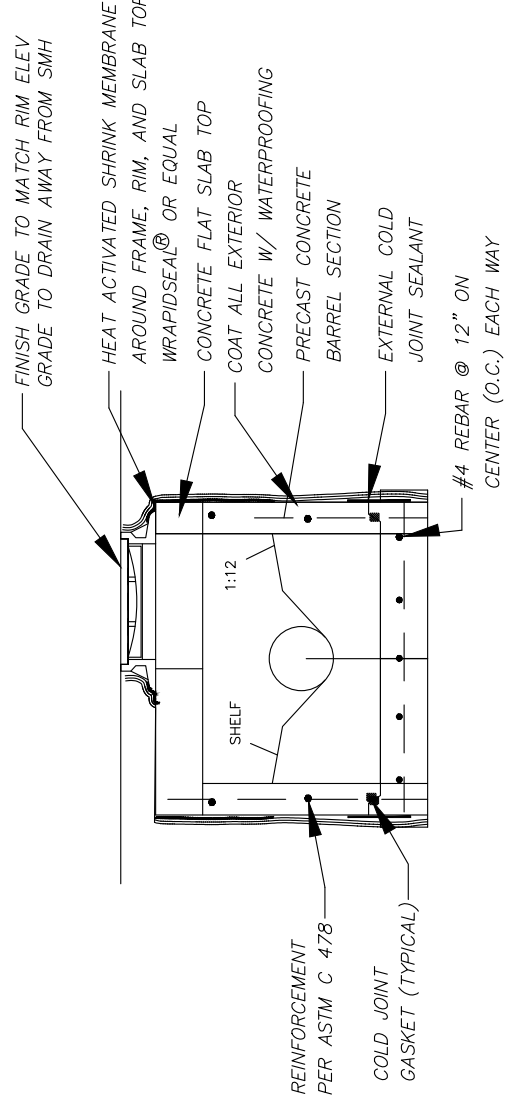
SS-2



**PLAN**  
GRAPHIC SCALE



**PROFILE**



- NOTES:**
- A. FOR DETAILS NOT SHOWN, SEE STD DETAILS, 500.02, 500.03, 500.05, 500.06, 500.08, 500.09, AND 500.12.
  - B. BACKFILL AROUND MANHOLE WITH NFS MATERIAL FULL DEPTH.
  - C. COATINGS AND WATERPROOFING
    - C.1. EXTERNAL COLD JOINT SEALANT IS TO BE WRAPIDSEAL (18" WIDE), MANUFACTURED BY CCI PIPELINE SYSTEMS, VISCOTAQ, VISCOWRAP (12" WIDE) OR APPROVED EQUAL FOR EXTERNAL JOINT SEALING.
    - C.2. EXTERIOR BURIED CONCRETE STRUCTURE WATERPROOFING SHALL BE GMX ULTRA-SHIELD WB, TUFF-N-DRY XTS, OR APPROVED EQUAL.
    - C.3. CLEAR OR OPAQUE 8-MIL POLYETHYLENE TUBE OR SHEETING FOR ENCASEMENT.
    - C.4. COLD JOINT GASKETS ARE TO BE RAM-NEK PREFORMED CONCRETE JOINT SEALANT BY HENRY COMPANY, INC., VISCOTAQ VISCOPASTE (3/4" X 1" PROFILE) OR EQUAL.

**CONSTRUCT MANHOLE**  
NOT TO SCALE

- NOTES:**
1. BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.
  2. SEE "CONSTRUCT MANHOLE" DETAIL THIS SHEET AND "SEWER MANHOLE INSTALLATION DETAILS" ON SHEET SS-6.
  3. NO E-ONE LIFT STATIONS INSTALLED WITH SERVICES SHOWN ON THIS SHEET.
  4. SEE "DETAIL A - STRUCTURAL TRENCH SECTION" ON SHEET SS-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN GRAVEL SURFACED AREAS. TOTAL OF 24± LINEAR FEET THIS SHEET.
  5. SEE "DETAIL B - NON-STRUCTURAL TRENCH SECTION" ON SHEET SS-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN NATIVE SURFACE SOIL AREAS. TOTAL OF 170± LINEAR FEET THIS SHEET.
  6. SEE COH STANDARD PLAN 700.01 FOR DETAILS WITH B=1FT. INSTALL INSULATION DIRECTLY ON PIPE.



# E. BUNNELL AVENUE / CHARLES WAY / ALLEN WAY CHARLES WAY S.S. MAIN PLAN + PROFILE

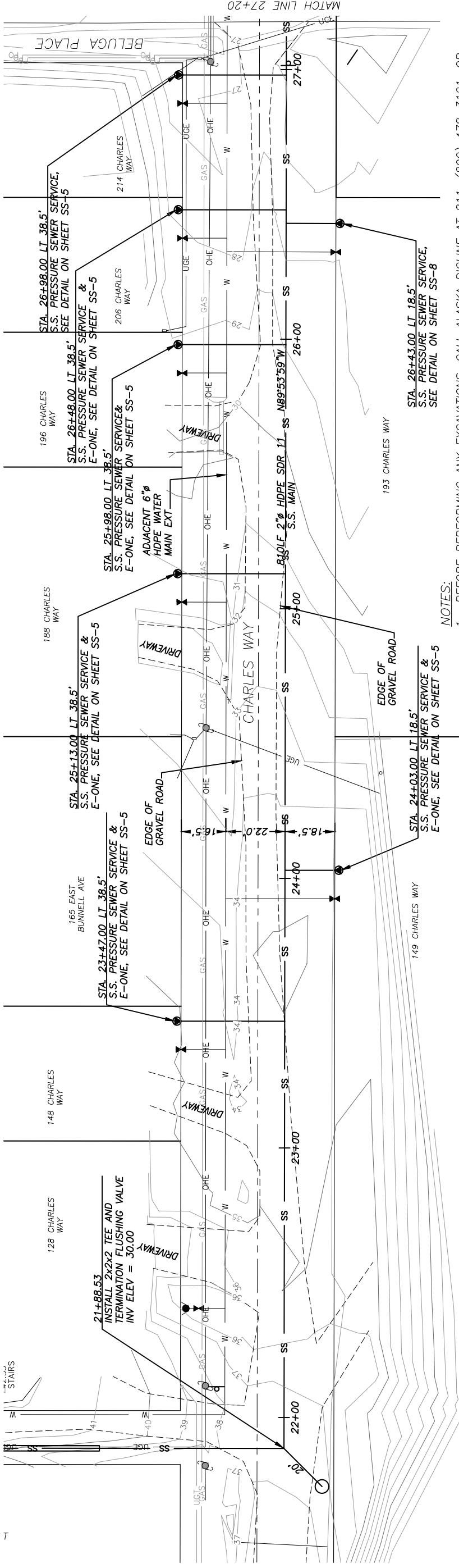
STA 21+88.53 to 27+20.00

BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

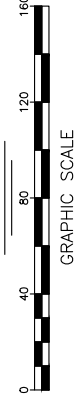
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CHK'D: JSB NOTED  
SCALE: AS NOTED  
PROD. NO.: 2022019

SHEET NO.:

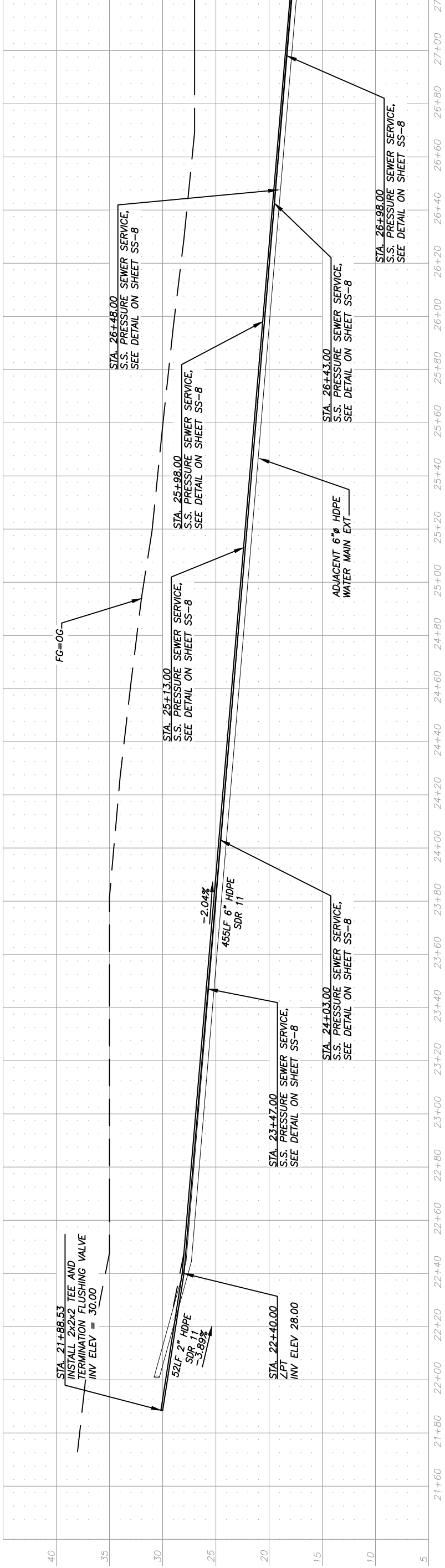
SS-3



**PLAN**



- NOTES:**
1. BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.
  2. INSTALL E-ONE LIFT STATIONS AT:
    - 2.1. 148 CHARLES WAY
    - 2.2. 149 CHARLES WAY
    - 2.3. 188 CHARLES WAY
    - 2.4. 196 CHARLES WAY
    - 2.5. 206 CHARLES WAY
  3. UNITS INSTALLED FOR SERVICES SHOWN ON THIS SHEET. SEE SHEET SS-7 FOR E-ONE DETAILS. E-ONES TO BE INSTALLED WITHIN 20 FEET OF SERVICE STUBOUT.
  4. SEE "DETAIL A - STRUCTURAL TRENCH SECTION" ON SHEET SS-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN GRAVEL SURFACED AREAS. TOTAL OF 332± LINEAR FEET THIS SHEET.
  5. SEE "DETAIL B - NON-STRUCTURAL TRENCH SECTION" ON SHEET SS-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN NATIVE SURFACE SOIL AREAS. TOTAL OF 427± LINEAR FEET THIS SHEET.



**PROFILE**



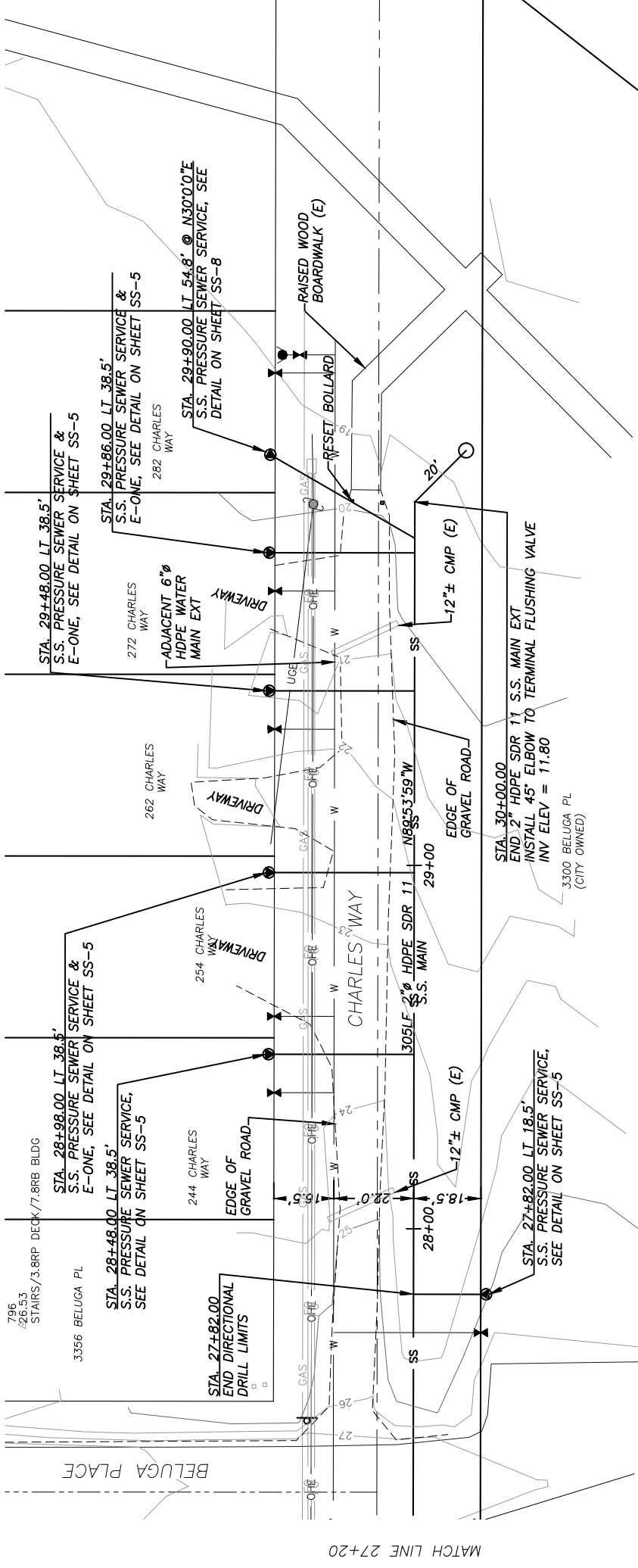
**E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
CHARLES WAY S.S. MAIN PLAN + PROFILE  
STA 27+20.00 to 30+00.00**

BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

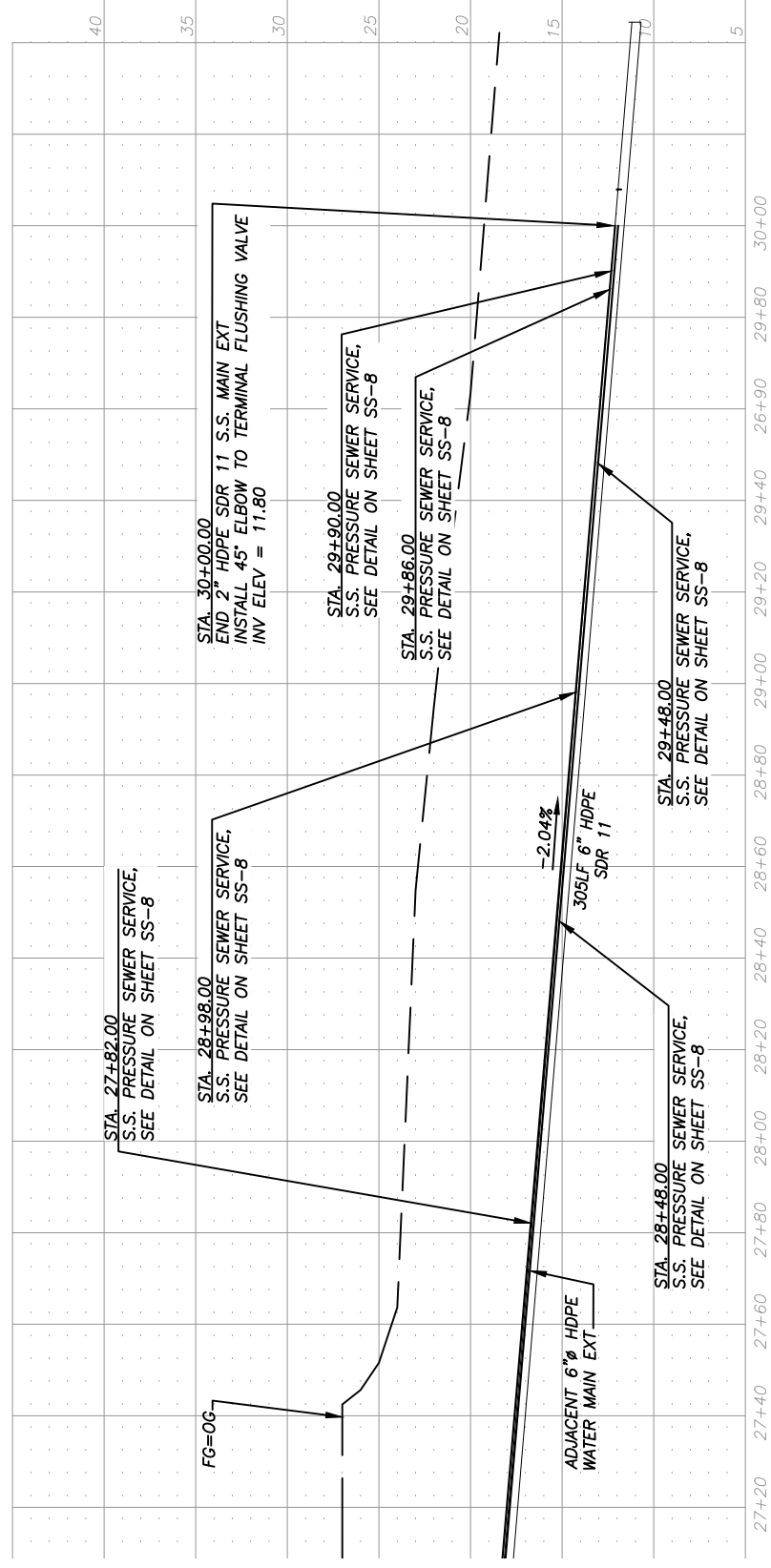
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CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:

SS-4



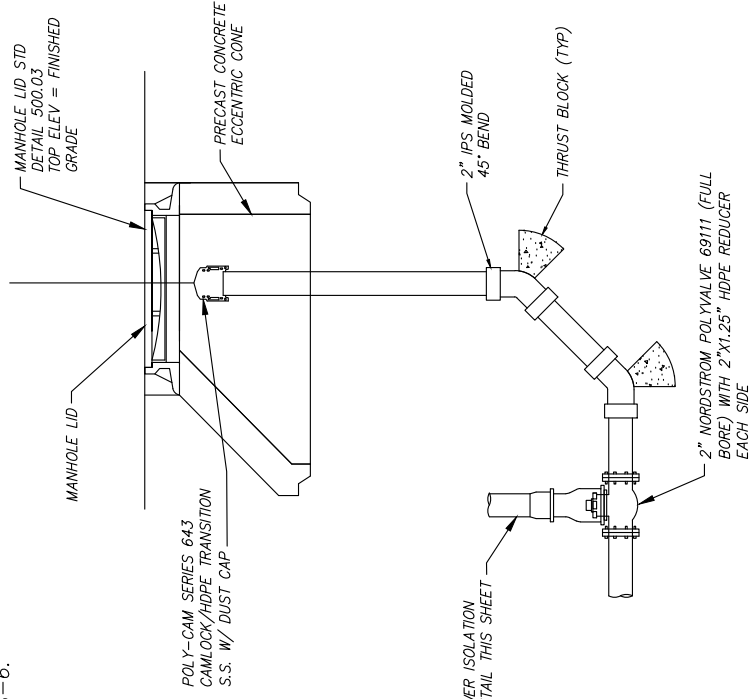
- NOTES:**
1. BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.
  2. 3 E-ONE UNITS INSTALLED FOR SERVICES SHOWN ON THIS SHEET. SEE SHEET SS-7 FOR E-ONE DETAILS. E-ONES TO BE INSTALLED WITHIN 20 FEET OF SERVICE STUBOUT.
  3. SEE "DETAIL A - STRUCTURAL TRENCH SECTION" ON SHEET SS-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN GRAVEL SURFACED AREAS. TOTAL OF 75± LINEAR FEET THIS SHEET.
  4. SEE "DETAIL B - NON-STRUCTURAL TRENCH SECTION" ON SHEET SS-5 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN NATIVE SURFACE SOIL AREAS. TOTAL OF 380± LINEAR FEET THIS SHEET.
  5. INSTALL E-ONE LIFT STATIONS AT:
    - 5.1. 254 CHARLES WAY
    - 5.2. 262 CHARLES WAY
    - 5.3. 272 CHARLES WAY



**PROFILE**

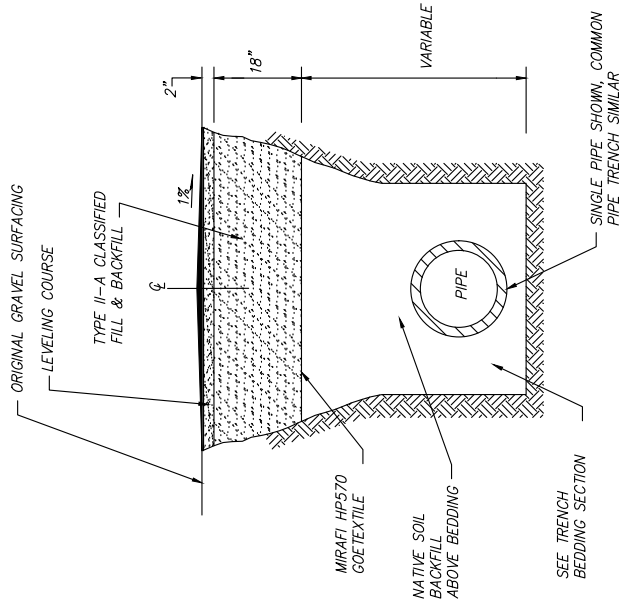
NOTES:

- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121. FOR OTHER DETAILS AND CONSTRUCTION NOTES OF THE ALTERNATE PRESSURIZED SEWER SERVICE CONNECTION, SEE SHEET SS-6.



SANITARY SEWER TERMINAL FLUSHING VALVE

NOT TO SCALE

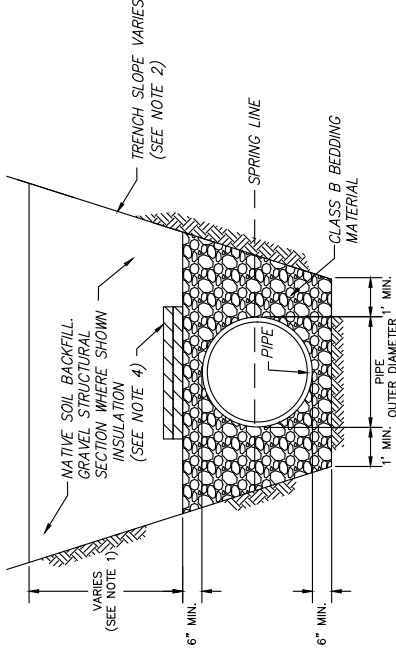


NOTE:

- CONTRACTOR SHALL CONSTRUCT A 1% CROWN WITH THE PEAK CENTERED OVER THE CENTERLINE OF THE EXCAVATION.

DETAIL A - STRUCTURAL TRENCH SECTION

NOT TO SCALE

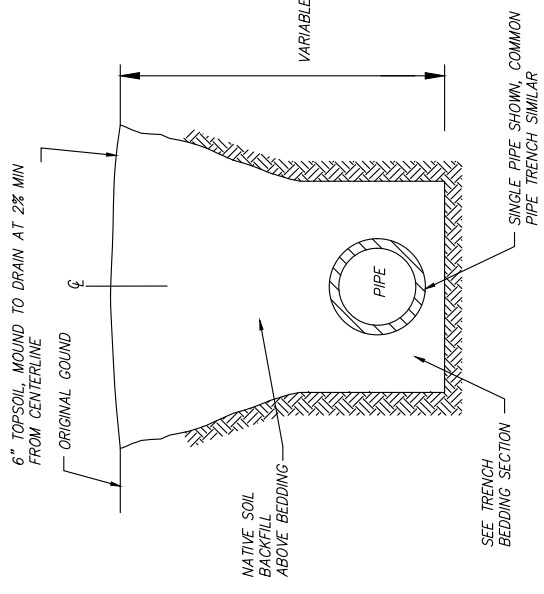


NOTES:

- TRENCH BACKFILL MATERIAL PLACED AND COMPACTED TO DEPTHS SHOWN IN THE DRAWINGS OR AS DETERMINED BY ENGINEER. COMPACT TRENCH BACKFILL TO A MINIMUM OF 95% MAXIMUM DENSITY.
- TRENCH WALL SLOPES WILL VARY WITH SOIL STRENGTH AND CHARACTER. SLOPES SHALL CONFORM TO OSHA SAFETY STANDARDS.
- BACKFILL SHALL BE FREE OF CLAYS AND ORGANIC MATERIALS.
- WHEN SPECIFIED IN CONTRACT DOCUMENTS, SEE STANDARD DETAIL 20-9 FOR INSULATION DETAILS.

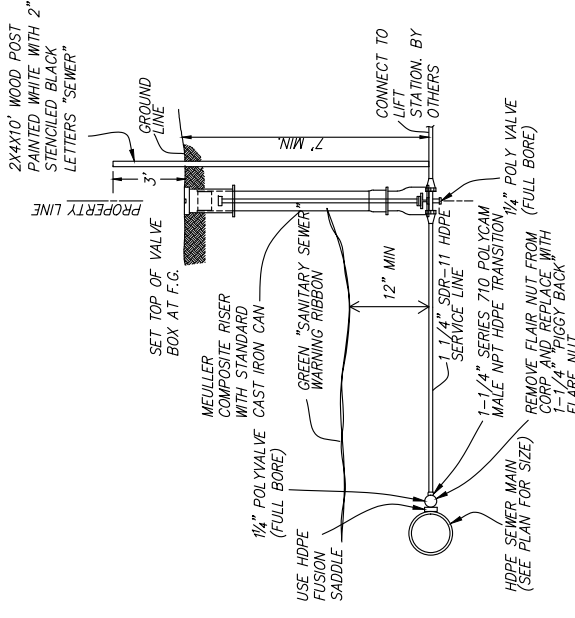
TRENCH BEDDING SECTION

NOT TO SCALE



DETAIL B - NON-STRUCTURAL TRENCH SECTION

NOT TO SCALE

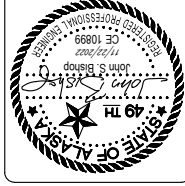


PRESSURIZED SANITARY SEWER CONNECTION

NOT TO SCALE

SANITARY SEWER CONSTRUCTION NOTES:

- MAINTAIN A MINIMUM OF 10 FEET HORIZONTAL AND 18 INCHES CLEAR VERTICAL SEPARATION BETWEEN SEWER AND WATER MAINS AT ANY POINT.
- MINIMUM BURIAL DEPTH WITHOUT INSULATION FOR PRESSURIZED SEWER SHALL BE 7 FEET. ALL SEWER SERVICES WILL BE FROST PROTECTED WITH A MINIMUM OF 2-INCH THICK BY 2-FOOT WIDE CLOSED CELL POLYSTYRENE FOAM INSULATION WITH MINIMUM COMPRESSIVE STRENGTH OF 35 PSI. ALL INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF HOMER SPECIFICATION SECTION 704.
- INSTALLATION OF SEWER SERVICE FROM RESIDENCES TO THE ONSITE RESIDENTIAL LIFT STATION SHALL BE AT A MINIMUM SLOPE OF 1%.
- THE SEWER LIFT STATION APPROVED FOR ATTACHMENT TO THIS FORCE MAIN ARE E/ONE SERIES GRINDER PUMPS (OR EQUIVALENT PRODUCT).
- ALL LIFT STATIONS WILL BE THERMALLY INSULATED BY A 3-INCH COATING OF POLYURETHANE AND WITH 40-MILOF POLYUREA COATING FOR AT LEAST THE FIRST 6 FEET BELOW THE GROUND SURFACE. THE MINIMUM DEPTH OF BURY OF THE DISCHARGE PIPE AS IT EXITS THE LIFT STATION SHALL BE 82 INCHES. MINIMUM BURY OF THE 1.25-INCH DISCHARGE PIPE SHALL BE 7 FEET.
- LIFT STATION PUMP IS MODEL SPD FOR THE DH071 GRINDER PUMP (OR EQUIVALENT) OR LARGER FOR OTHER E/ONE GRINDER PUMP MODELS. PUMP SHALL BE SINGLE PHASE, 120/240V UL LISTED AND EQUIPPED WITH A SIMPLEX CONTROL WITH VISUAL AND AUDIBLE ALARM PANEL SET IN A NEMA 4X ENCLOSURE. LIFT STATION WILL INCLUDE A THREE FLOAT SYSTEM: OFF, ON, AND HIGH LEVEL ALARM. (NOTE: E/ONE SYSTEMS HAVE PRESSURE SWITCHES, NO FLOATS)
- LIFT STATION SHALL BE EXCAVATED INTO AND BEDDED ON NATIVE AND IF POSSIBLE UNDISTURBED SOIL. IF BEDDING IS DISTURBED OR IMPORTED IT WILL BE COMPACTED TO 90% MAXIMUM DENSITY. THE LIFT STATION SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DETAILED INSTRUCTIONS AND WILL INCLUDE CONCRETE BALLAST TO PREVENT FLOATING IN THE EVENT OF HIGH GROUNDWATER CONDITIONS. LIFT STATION BACKFILL WILL CONSIST OF NATIVE SOIL COMPACTED IN ONE FOOT LIFTS.
- OWNERS OF E/ONE LIFT STATIONS SHALL RETAIN AN ANNUAL MAINTENANCE CONTRACT WITH A LOCAL CONTRACTOR QUALIFIED TO SERVICE THE LIFT STATION AND RESPOND TO ALARM CONDITIONS.
- PIPES SHALL BE BEDDED IN UNDISTURBED NATIVE SOIL OR CLASS B BEDDING. IMPORTED PIPE BEDDING AND SUB-GRADE WILL BE COMPACTED TO 90% MAXIMUM DENSITY. TRENCH BACKFILL SHALL BE NON-ORGANIC FILL AND COMPACTION WILL OCCUR IN ONE FOOT LIFTS.
- SEWER LINES SHALL BE AIR PRESSURE TESTED IN ACCORDANCE WITH CITY OF HOMER SPECIFICATION 502.3 (f).



E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
SANITARY SEWER MAIN EXTENSION  
SANITARY SEWER CONSTRUCTION DETAILS

BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/22/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:

SS-5

## CITY OF HOMER STANDARD DRAWINGS INDEX

200.03	STANDARD LOCATION FOR NEW UTILITIES
200.04	TYPICAL UTILITY LOCATIONS
200.05	TYPICAL WATER AND SEWER LOCATIONS
200.06	COMPACTION OF BACKFILL WITHIN RIGHT-OF-WAY
200.07	CLASS B AND C BEDDING
200.08	TRENCH BACKFILL
400.02	RESURFACING DETAIL TYPICAL GRAVEL SECTION
500.02	SANITARY SEWER TYPE A AND BE MANHOLE BASE PLAN
500.03	SANITARY SEWER MANHOLE HEIGHTS
500.05	SANITARY SEWER MANHOLE STEP
500.06	SANITARY SEWER MANHOLE STEP (ALTERNATE)
500.08	SANITARY SEWER MANHOLE COVER
500.09	SANITARY SEWER MANHOLE FRAME
500.12	SANITARY SEWER TYPICAL BEAVER SLIDE TYPE A + B MANHOLE
500.13	SANITARY SEWER SERVICE CONNECTION
500.15	SANITARY SEWER CLEANOUT
500.16	SANITARY SEWER CLEANOUT COVER

## LEGEND & SYMBOLS

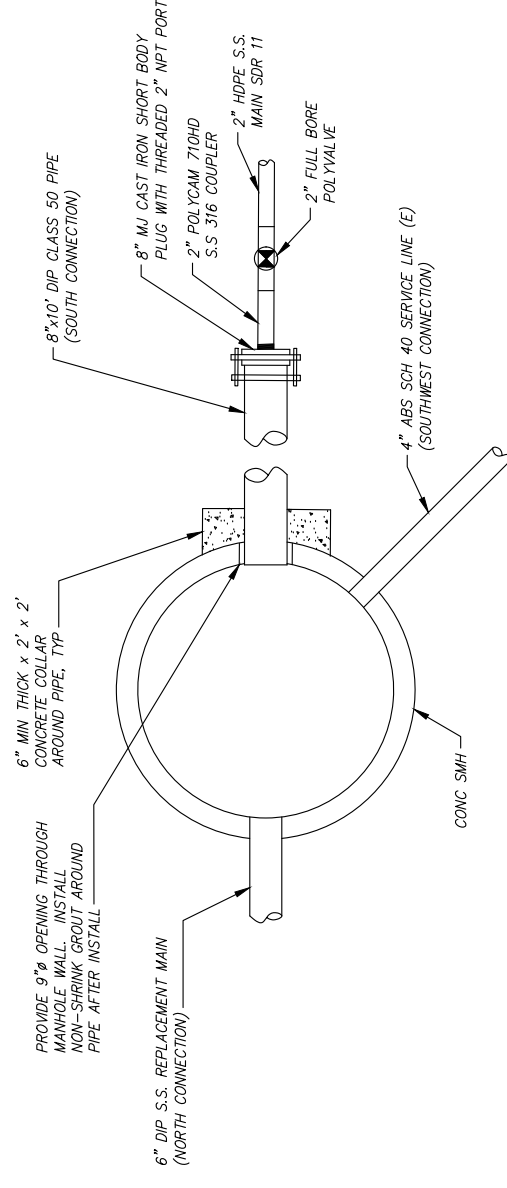
EDGE EXISTING GRAVEL	---
CUT CATCH LINE	----
FILL CATCH LINE	.....
CENTERLINE	+ - - - +
UNDERGROUND ELECTRIC	— UGE
OVERHEAD ELECTRIC	— OHE
UNDERGROUND TELEPHONE	— UGT
WATER MAIN	— W
SANITARY SEWER	— SS
CONTOURS MAJOR	— 85
CONTOURS MINOR	—
TEST PIT LOCATION	⊕ TP-1
SIGN	d
PIPE CULVERT W/ END SECTION	▭
FIRE HYDRANT	⦿
VALVE OR RISER	⊕
EXISTING VALVE OR RISER	⊗
PRESSURIZED SEWER SERVICE POLY VALVE	⊙

## ABBREVIATIONS

AKDOT&PF	ALASKA DEPT. OF TRANSPORTATION & PUBLIC FACILITIES
ARV	AIR RELEASE VALVE
APDES	ALASKA POLLUTION DISCHARGE ELIMINATION SYSTEM
Δ	DELTA / CENTRAL ANGLE OF CURVE
BP	BEGIN PROJECT
C/L	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CONTRACTING OFFICER
COH	CITY OF HOMER
CY	CUBIC YARD
DIA	DIAMETER
DIST	DISTANCE
E	EASTING
EL	ELEVATION
ELEV	ELEVATION
EP	END PROJECT
ESMT	EASEMENT
(E)	EXISTING
FL	FLANGE
FT	FOOT
GV	GATE VALVE
HDPE	HIGH-DENSITY POLYETHYLENE
IN	INCH
INV	INVERT
L	LENGTH OF CURVE
LF	LINEAR FOOT
LT	LEFT
MIN	MINIMUM
MAX	MAXIMUM
MJ	MECHANICAL JOINT
MPH	MILES PER HOUR
MSF	1000 SQUARE FEET
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
N	NORTHING
OHE	OVERHEAD ELECTRIC
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PT	POINT OF TANGENCY
R	RADIUS
RT	RIGHT
R/W	RIGHT-OF-WAY
SEC	SECTION
SI	STREET INTERSECTION
SF	SQUARE FOOT
SMH	SEWER MANHOLE
S.S.	SANITARY SEWER
SS	STAINLESS STEEL
STA.	STATION
STD	STANDARD
SY	SQUARE YARD
TRANS	TRANSMISSION YARD
UGE	UNDERGROUND ELECTRIC
UGT	UNDERGROUND TELEPHONE
UTIL	UTILITY
TYP.	TYPICAL
W	WATER MAIN OR SERVICE

## CONSTRUCTION NOTES

- DIRECTIONAL DRILLING SHALL BE UTILIZED TO INSTALL HDPE MAIN PIPE WHEREVER OPEN TRENCH INSTALLATION IS NOT REQUIRED TO PLACE HARDWARE FITTINGS AND ASSEMBLIES, VALVES, TEES, INSULATION BOARD, MANHOLES, AND CASINGS.
- MAINTAIN A MINIMUM OF TEN FEET HORIZONTAL AND EIGHTEEN INCHES VERTICAL SEPARATION BETWEEN SEWER AND WATER MAINS AT ANY POINT. IF POSSIBLE, THE SEWER MAIN WILL BE SITUATED BELOW THE WATER MAIN AT ALL CROSSINGS.
- ALL PRIVATE WELLS WITHIN 100 FEET OF THE SANITARY SEWER MAIN SHALL BE DECOMMISSIONED PER ADEC REGULATIONS.
- ALL EXISTING SEPTIC TANKS AND BIOCYCLE UNITS FOR PARCELS CONNECTING TO THE COH SEWER SYSTEM SHALL BE DECOMMISSIONED BY PUMPING THE TNAKS OF WASTE CONTENTS AND REMOVING AND DISPOSING OF THOSE TNAKS AT AN APPROVED ADEC SITE. BACKFILL THE PITS WITH CLASSIFIED FILL TYPE IV COMPACTED TO 90% RELATIVE COMPACTION.
- BUILDING SEWER EXTENSIONS FROM SERVICE STUBS TO EXISTING CLEANOUTS SHALL BE 2% EXISTING CLEANOUTS SHALL BE RECONSTRUCTED WITH ALL NECESSARY SWEEPS WHERE THE BUILDING SEWER EXTENSION IS NOT IN ALIGNMENT WITH THE EXISTING CLEANOUT SWEEP DIRECTION.
- CONTRACTOR SHALL COMPLETE CONSTRUCTION IN ACCORDANCE WITH THE CITY OF HOMER STANDARD SPECIFICATIONS 2011 EDITION INCLUDING ITEMS. DRAWINGS, TECHNICAL SPECIFICATIONS, AND SPECIAL PROVISIONS TAKE PRECEDENCE OVER THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS CONTAINED IN LOCAL, STATE AND FEDERAL PERMITS OBTAINED BY THE CITY FOR CONSTRUCTION OF THIS PROJECT. COPIES OF THE PERMITS SHALL BE MAINTAINED AT THE JOB SITE.
- LOCATIONS DEPICTED FOR THE UTILITIES AND OTHER EXISTING FEATURES ARE APPROXIMATE. SOME UTILITIES HAVE BEEN LOCATED FROM RECORD DRAWINGS AND UTILITY COMPANY LOCATES. CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.
- UNDERGROUND ELECTRICAL AND TELECOMMUNICATIONS LINES OCCUR WITHIN THE PROJECT AREA; CONTRACTOR SHALL COORDINATE WORK ACCORDINGLY. ALL WORK IN CLOSE PROXIMITY TO EXISTING UNDERGROUND LINES SHALL COMPLY WITH THE APPLICABLE FEDERAL, STATE AND LOCAL STATUTES, CODES AND GUIDELINES, AND THE ELECTRICAL FACILITY CLEARANCE REQUIREMENTS OF THE GOVERNING UTILITY. CONTRACTOR SHALL HAND DIG WITHIN TWO FEET OF BURIED ELECTRICAL CABLE.
- THIS PROJECT IS REQUIRED TO BE CONSTRUCTED IN ACCORDANCE WITH THE APDES GENERAL CONSTRUCTION PERMIT FOR STORM WATER POLLUTION. THE CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS OF THE PERMIT.
- CONTRACTOR SHALL SEED ALL DISTURBED AREAS WHERE OTHER SURFACE IS NOT SPECIFIED.
- IF CONTAMINATED SOIL, GROUNDWATER, OR FREE-PRODUCT ARE ENCOUNTERED, THE CONSTRUCTION CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER WHO WILL IMMEDIATELY CONTACT THE ADEC PREVENTION AND EMERGENCY RESPONSE (PERP) OFFICE STAFF AT (907) 465-5340 / FAX (907) 465-2237 IN ACCORDANCE WITH SPILL REPORTING REQUIREMENTS UNDER 18 AAC 75.300, AND COORDINATE MANAGEMENT OF ALL CONTAMINATED MEDIA WITH EMERGENCY RESPONSE PERSONNEL.



SEWER MANHOLE INSTALLATION DETAILS  
NOT TO SCALE



# E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY SANITARY SEWER MAIN EXTENSION SANITARY SEWER CONSTRUCTION NOTES

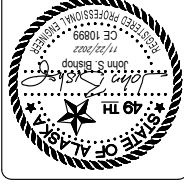
BISHOP ENGINEERING, LLC  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/22/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:

SS-6

NOTES:  
1. Before performing any excavations, call Alaska Digline at 811, (800) 478-3121, or (907) 278-3121.

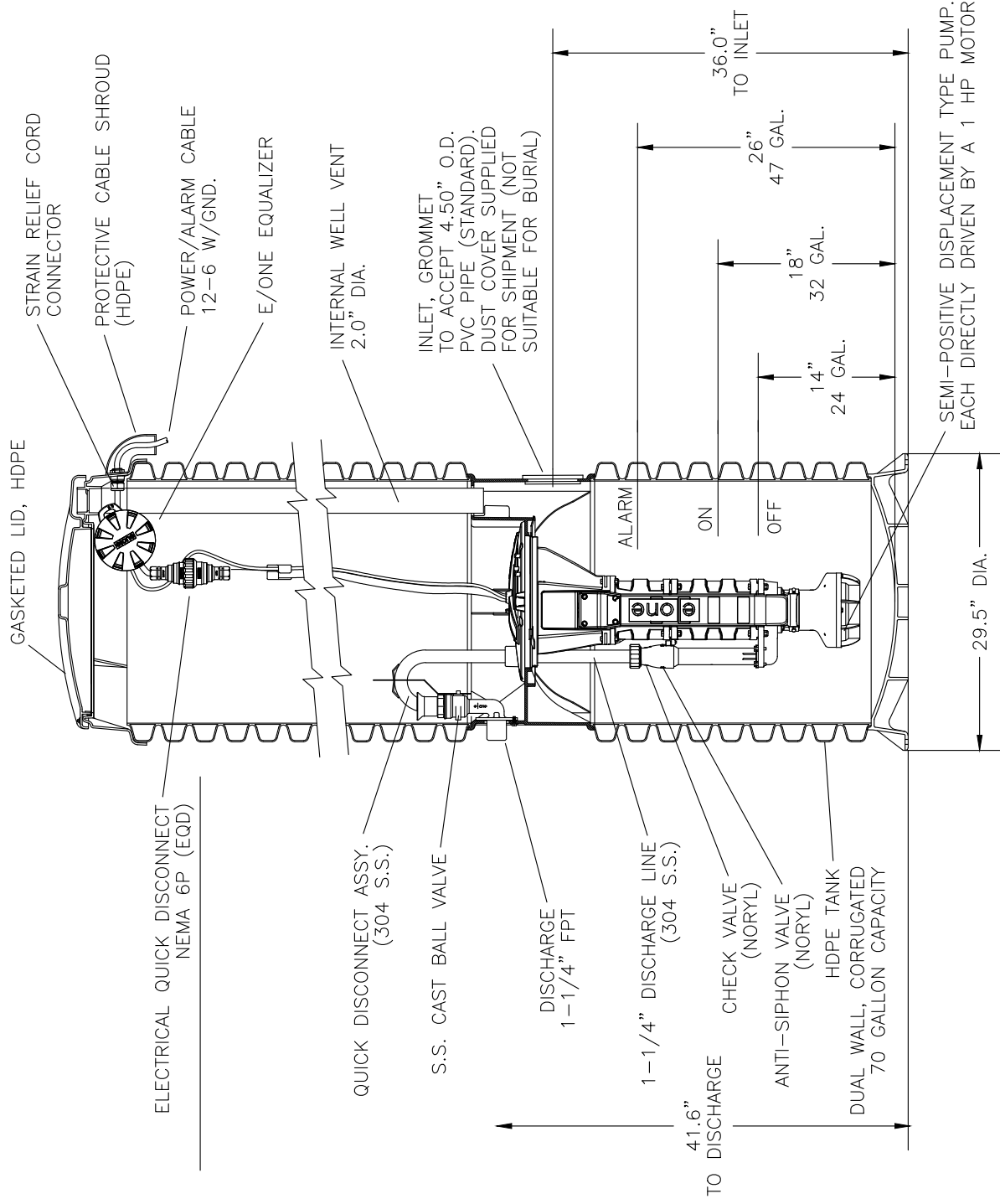


**E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
SANITARY SEWER MAIN EXTENSION  
SANITARY SEWER LIFT STATION DETAILS + NOTES**

**BISHOP ENGINEERING, LLC**  
PO BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/22/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:  
**SS-7**



- NOTES: 1. DIMENSIONS ARE FOR REFERENCE ONLY.  
2. CONCRETE BALLAST MAY BE REQUIRED (SEE INSTALLATION INSTRUCTIONS)

E-ONE D-SERIES PRESSURE SANITARY SEWER LIFT  
STATION DETAIL  
NOT TO SCALE

- NOTES:  
1. BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.

ALTERNATE PRESSURIZED SEWER SERVICE CONNECTION NOTES

1. MINIMUM BURIAL DEPTH WITHOUT INSULATION FOR PRESSURIZED SEWER SHALL BE 7 FEET. ALL SEWER SERVICES WILL BE FROST PROTECTED WITH A MINIMUM OF TWO-INCH THICK BY TWO TO FOUR FOOT WIDE CLOSED CELL POLYSTYRENE FOAM INSULATION WITH MINIMUM COMPRESSIVE STRENGTH OF 35 PSI. ALL INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF HOMER SPECIFICATION SECTION 704.
2. INSTALLATION OF SEWER SERVICE FROM RESIDENCES TO AN ONSITE RESIDENTIAL LIFT STATION SHALL BE AT A MINIMUM SLOPE OF 1%.
3. INDIVIDUAL RESIDENCE SEWER LIFT STATIONS WILL CONSIST OF AN NSF APPROVED E/ONE MODEL DH071 FACTORY ASSEMBLED 30-INCH DIAMETER HDPE 70-GALLON BASINS EQUIPPED WITH A 1 HP GRINDER PUMP (OR EQUIVALENT PRODUCT).
4. EACH LIFT STATION WILL BE THERMALLY INSULATED BY 3-INCHES OF SPRAY ON POLYURETHANE AND WITH 40-MLOF POLYUREA COATING FOR AT LEAST THE FIRST 6 FEET BELOW GROUND SURFACE. THE MINIMUM DEPTH LIFT STATION WILL BE E/ONE MODEL DH071-129 PROVIDING A 82-INCH DEPTH OF BURY OF THE DISCHARGE PIPE AS IT EXITS THE LIFT STATION. LIFT STATION 1.25 INCH HDPE SERVICE CONNECTION TO THE GRAVITY SEWER SHALL BE GRADED TO A MINIMUM DEPTH OF BURY OF 7 FT BGS WITHIN 10 FEET OF LIFT STATION DISCHARGE.
5. LIFT STATION PUMPS ARE MODEL DH071 GRINDER PUMPS (OR EQUIVALENT). PUMPS ARE TO BE SINGLE PHASE, 120/240 V UL LISTED AND EQUIPPED WITH A SIMPLEX CONTROL WITH VISUAL AND AUDIBLE ALARM PANEL SET IN A NEMA 4X ENCLOSURE. LIFT STATION WILL INCLUDE A THREE FLOAT SYSTEM: OFF, ON, AND HIGH LEVEL ALARM (NOTE: E-ONE SYSTEMS HAVE PRESSURE SWITCHES, NO FLOATS).
6. LIFT STATIONS ARE TO BE EXCAVATED INTO AND BEDDED ON NATIVE AND IF POSSIBLE UNDISTURBED SOIL. IF BEDDING IS DISTURBED OR IMPORTED IT WILL BE COMPACTED TO 90% MAXIMUM DENSITY. LIFT STATIONS WILL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DETAILED INSTRUCTIONS AND WILL INCLUDE CONCRETE BALLAST TO PREVENT FLOATING IN THE EVENT OF HIGH GROUNDWATER CONDITIONS. LIFT STATION BACKFILL WILL CONSIST OF NATIVE SOIL COMPACTED IN ONE FOOT LIFTS.
7. RESIDENCES WITH A LIFT STATION MUST RETAIN AN ANNUAL MAINTENANCE CONTRACT WITH A LOCAL CONTRACTOR QUALIFIED TO SERVICE THE LIFT STATION AND RESPOND TO ALARM CONDITIONS.
8. ALTERNATIVE EQUIVALENT ENGINEERED LIFT STATIONS MAY BE USED UPON APPROVAL OF THE CITY OF HOMER.
9. INDIVIDUAL RESIDENCE PRESSURIZED SEWER SERVICES CONSISTS OF 1.25-INCH DIAMETER SDR 11 HIGH DENSITY POLYETHYLENE PIPE. PRESSURIZED SEWER SERVICES WILL BE EQUIPPED WITH A 1.25-INCH POLY VALVE INSTALLED WITH A VALVE BOX AT THE PROPERTY LINE. THE PRESSURIZED SEWER WILL BE INSULATED WITH TWO INCHES OF INSULATION AND A MINIMUM DEPTH OF BURY OF 7 FEET BELOW GROUND SURFACE.
10. PIPE WILL BE BEDDED IN UNDISTURBED NATIVE SOIL OR CLASS B BEDDING. IMPORTED PIPE BEDDING AND SUB-GRADE WILL BE COMPACTED TO 90% MAXIMUM DENSITY. TRENCH BACKFILL SHALL BE NON-ORGANIC FILL AND COMPACTION WILL OCCUR IN ONE FOOT LIFTS.
11. SEWER LINES ARE TO BE AIR PRESSURE TESTED IN ACCORDANCE WITH CITY OF HOMER SPECIFICATION 502.3 (f).
12. NO WELLS ARE KNOWN TO BE LOCATED WITHIN 200 FEET OF ANY SANITARY SEWER MAINS OR SERVICE CONNECTIONS.





**E. BUNNELL AVENUE / CHARLES WAY / ALLEN WAY  
SANITARY SEWER MAIN EXTENSION  
EROSION CONTROL PLAN NO. 1**

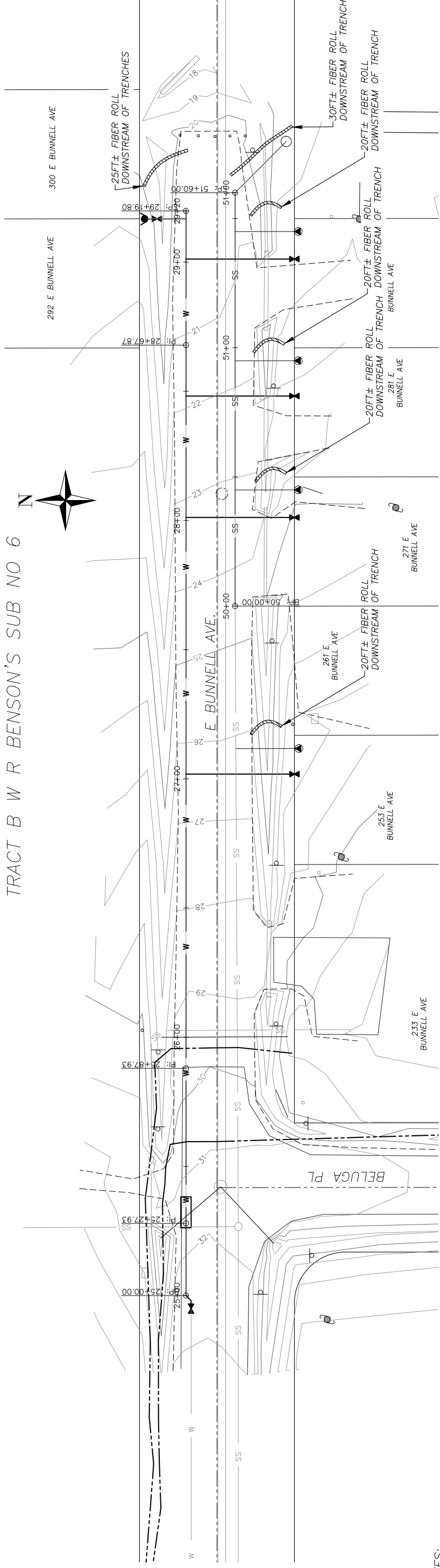
BISHOP ENGINEERING, LLC  
P.O. BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/22/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

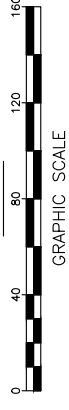
SHEET NO.:

SS-8

TRACT B W R BENSON'S SUB NO 6



PLAN



- NOTES:
- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.

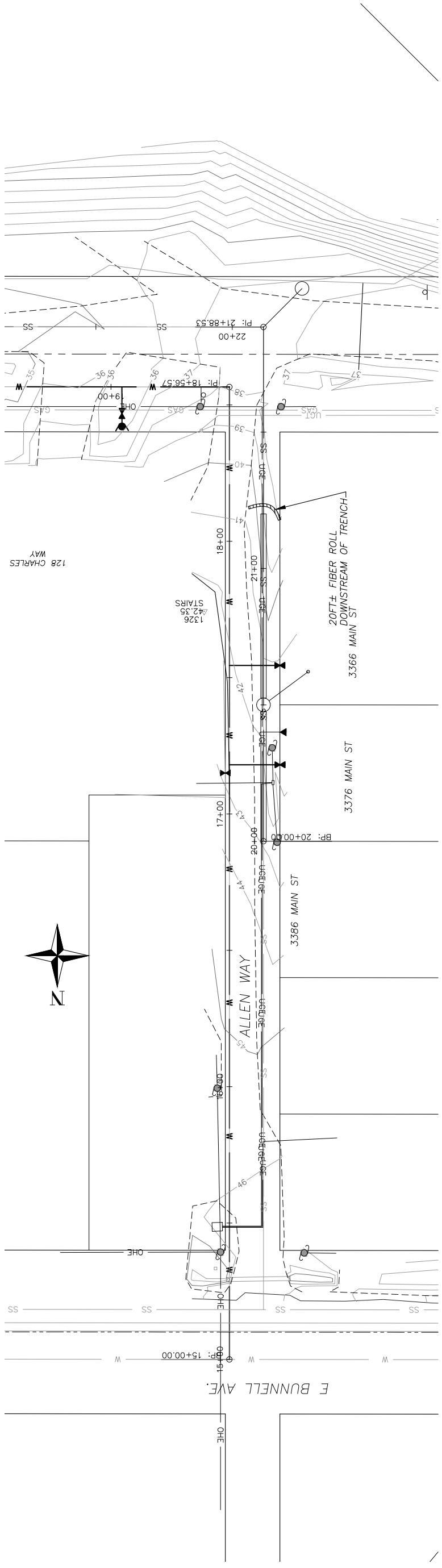


**E. BUNNELL AVENUE / CHARLES WAY / ALLEN WAY  
SANITARY SEWER MAIN EXTENSION  
EROSION CONTROL PLAN NO. 2**

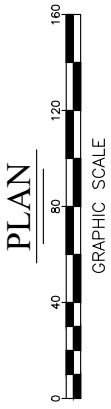
BISHOP ENGINEERING, LLC  
P.O. BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/22/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:  
SS-9



**NOTES:**  
1. BEFORE PERFORMING ANY EXCAVATIONS,  
CALL ALASKA DIGLINE AT 811,  
(800) 478-3121, OR (907) 278-3121.





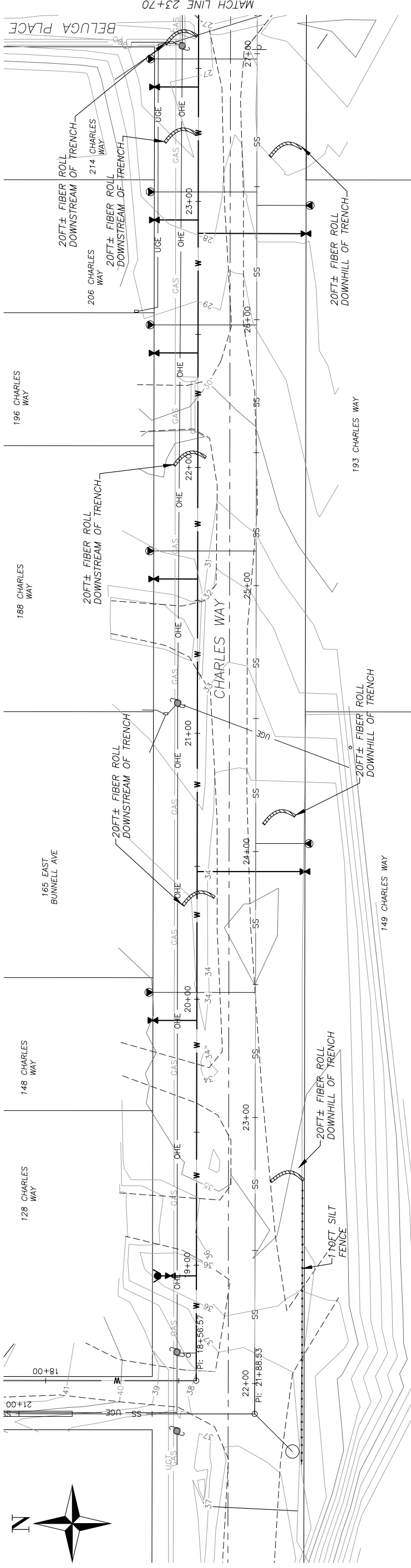
**E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
SANITARY SEWER MAIN EXTENSION  
EROSION CONTROL PLAN NO. 3**

BISHOP ENGINEERING, LLC  
P.O. BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

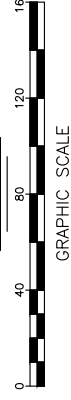
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SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:

SS-10



**PLAN**



- NOTES:**
- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.



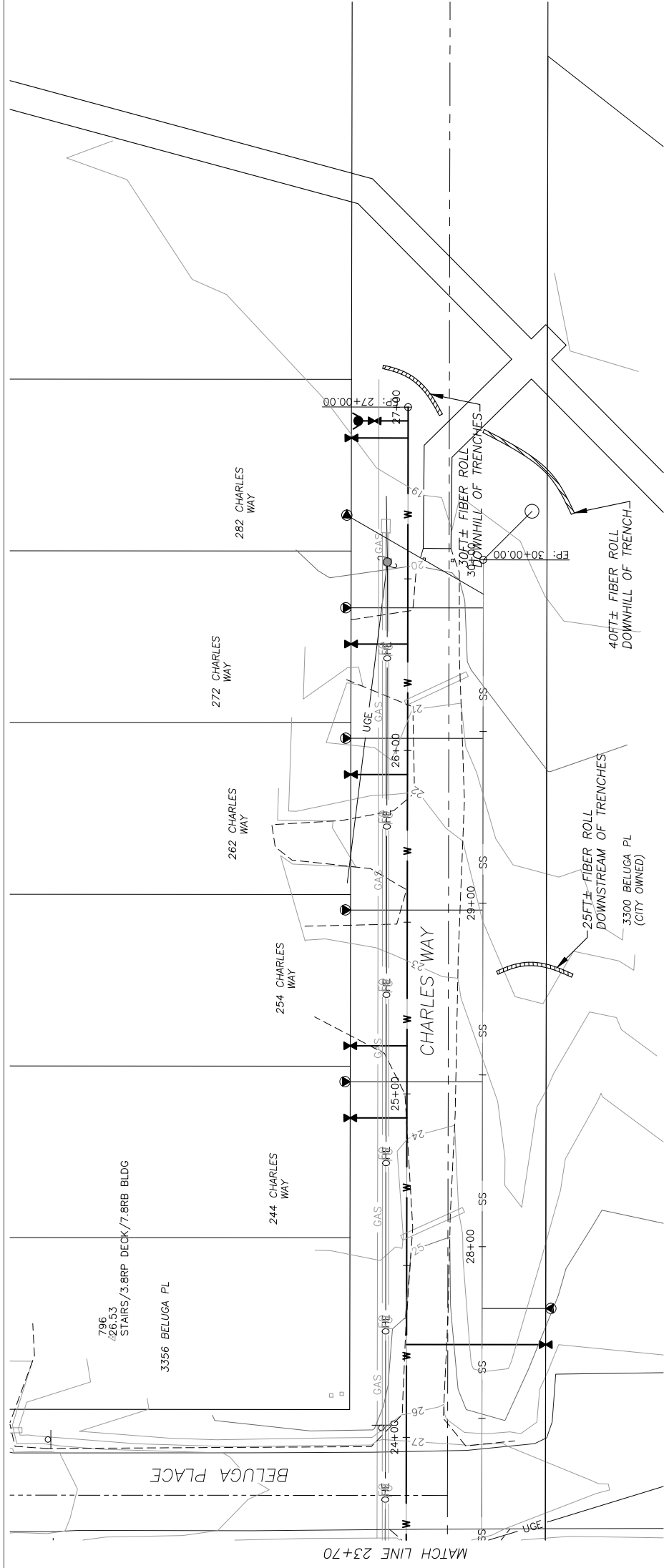
**E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
SANITARY SEWER MAIN EXTENSION  
EROSION CONTROL PLAN NO. 4**

**BISHOP ENGINEERING, LLC**  
 P.O. BOX 2501 HOMER, ALASKA 99603  
 (907) 299-7609

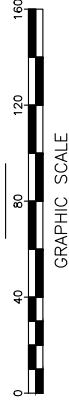
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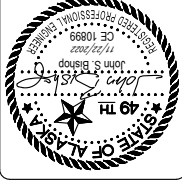
SS-11



**PLAN**



- NOTES:**
- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811. (800) 478-3121, OR (907) 278-3121.

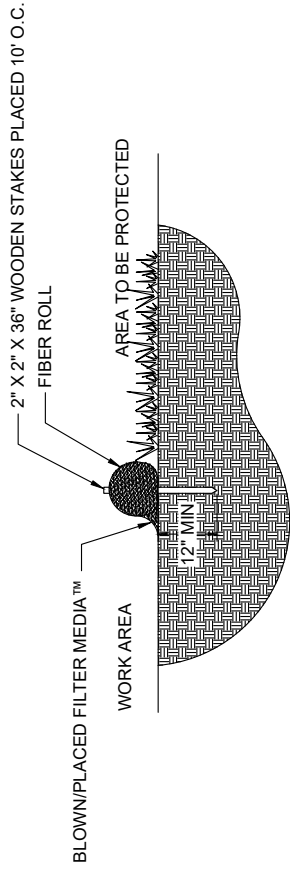


**E. BUNNEL AVENUE / CHARLES WAY / ALLEN WAY  
SANITARY SEWER MAIN EXTENSION  
EROSION CONTROL DETAILS**

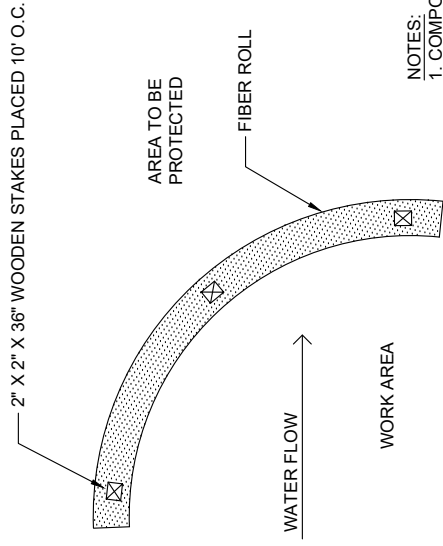
**BISHOP ENGINEERING, LLC**  
P.O. BOX 2501 HOMER, ALASKA 99603  
(907) 299-7609

DATE: 11/22/2022  
CHK'D: JSB  
SCALE: AS NOTED  
PROJ. NO.: 2022019

SHEET NO.:  
**SS-12**



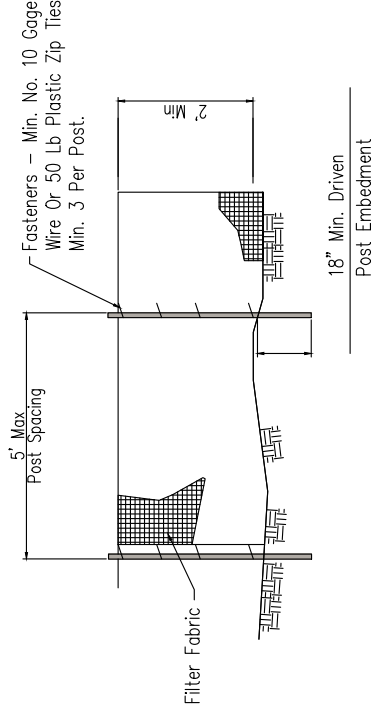
**SECTION NTS**



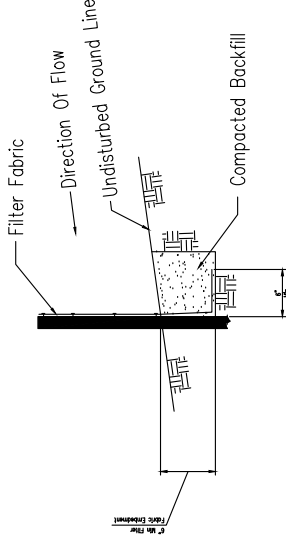
**PLAN NTS**

**NOTES:**  
1. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

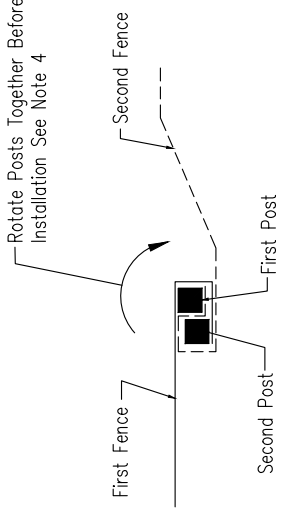
**FIBER ROLL SEDIMENT CONTROL  
NTS**



**ELEVATION**



**FABRIC ANCHOR DETAIL**



**SPLICE DETAIL-PLAN VIEW**

**NOTES:**  
1. Temporary silt fence shall be installed prior to any grading work in the area to be protected. Fence shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.  
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class 1 with equivalent opening size of at least 30 for nonwoven and 50 for woven.  
3. Fence posts shall be either wood post with a minimum cross-sectional area of 1.5" X 1.5" or a standard steel post.  
4. When splices are necessary make splice at post according to splice detail. Place the end post of the second fence inside the end post of the first fence. Rotate both posts together at least 180 degrees to create a tight seal with the fabric material. Cut the fabric near the bottom of the posts to accommodate the 6 inch flap. Then drive both posts and bury the flap. Compact backfill well.

**SIILT FENCE PROJECT BORDER  
NTS**

**NOTES:**

- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811. (800) 478-3121, OR (907) 278-3121.

**Appendix B – BMP Details**

## **BMP AK-1**

### **Preservation of Existing Vegetation**

#### *Purpose and Description*

- The purpose of preserving existing vegetation is to limit site disturbance and to minimize soil erosion by identifying and protecting pre-existing vegetation on the construction site.<sup>1</sup>

#### *Applicability*

- Natural vegetation must be preserved in all areas where no construction is planned or will occur at a later date.
- Clear only land that is needed for building activities or vehicle traffic.<sup>2</sup>
- This BMP is not to supersede existing guidelines, restrictions or law, preserve vegetation as required by local governments (such as stream buffers).
- The preservation of existing vegetation is an applicable practice in all regions and climates in Alaska.

#### *Design and Installation*

- Before any clearing begins, vegetation selected for preservation must be clearly marked with established barriers.<sup>3</sup> These barriers must be about 1 meter in height, must be highly visible and be anchored by wood or metal fence posts at spacing and depth that will adequately support the fence for the entirety of the project.<sup>1</sup>

- A site map must be prepared clearly outlining all areas of vegetation that is to be preserved.<sup>2</sup>
- Vehicle traffic, equipment storage and parking shall be kept away from these areas to prevent soil and root compaction.<sup>1</sup>
- Ground disturbance must be kept from these areas at least as far out as the leaf drip line.<sup>3</sup>
- Maintain pre-existing irrigation systems that may supply water to vegetation selected for preservation.<sup>1</sup>
- To increase chances of survival it is best to limit grade changes in these areas and areas within the drip line.<sup>3</sup>

#### *Maintenance and Inspection*

- Repair or replace damaged vegetation immediately.<sup>2</sup>
- Inspect preservation areas regularly, if barrier has been removed or visibility reduced repair or replace barrier so that visibility is restored.<sup>3</sup>
- If roots are exposed or damaged, prune ends just above damage with pruning shears or loppers and recover with native soil.<sup>3</sup>

#### *References*

<sup>1</sup>Caltrans Storm Water Quality Handbooks, March 2003, Construction Site Best Management Practices Manual, SS-2 Preservation of Existing Vegetation, [Uhttp://www.dot.ca.gov/hq/construc/stormwater/CSBMPM\\_303\\_Final.pdf](http://www.dot.ca.gov/hq/construc/stormwater/CSBMPM_303_Final.pdf)

(Continued on next page)

<sup>2</sup>USEPA (United States Environmental Protection Agency), October 2000, National Menu of Best Management Practices, Preserving Natural Vegetation,  
<http://cfpub.epa.gov/npdes/stormwater/measureofbmps/index.cfm?action=browse&Rbutton=detail&bmp=34&minmeasure=4>

<sup>3</sup>Washington State Department of Ecology, February 2005, Storm Water Management Manual for Western Washington, Construction Storm Water Pollution Prevention, BMP C101: Preserving Natural Vegetation,  
<http://www.ecy.wa.gov/pubs/0510030.pdf>



## **BMP AK-8**

### **Fiber Roll**

#### Objectives and Applications

Fiber rolls are long rolls of material such as straw, flax, rice, coconut or compost wrapped in plastic or biodegradable netting. They are placed and staked along the contour of disturbed slopes.

The purpose of a fiber roll is to shorten the slope and help to slow, filter and spread overland flows. They capture organic matter and seeds that might otherwise be washed downslope.

Fiber rolls can be applied to steep or long slopes and slopes that are susceptible to freeze/thaw activity, sheet and rill erosion or dry ravel. They can be placed along the toe, top, face and at grade-breaks on disturbed slopes. They can be placed at the perimeter of a project and around temporary stockpiles. They can be used as check dams in unlined ditches

#### Common Failures - Generally due to faulty installation or maintenance.

- Without being placed in a trench, runoff can flow underneath the roll and cause failure.
- Water can flow between rolls if they are not abutted tightly together.
- Rolls must be placed perpendicular to flow (parallel to the slope contour).
- Rolls will not work if the slope is slumping, creeping or sliding.

#### Other Considerations

- Use in areas of low shear stress.
- Avoid use on slopes that could build up ice.
- They are effective for one to two seasons.
- Fiber rolls can be staked to the ground using willow cuttings to increase the revegetation. Since the fiber roll will retain moisture, it will provide a good site for the willow.
- Rolls will be difficult to move once they are saturated.
- The quantity of sediment that a roll can capture is limited. They are typically about 8 inches in diameter.

#### Relationship to Other ESC Measures

Fiber rolls are best used in combination with seeding, mulch and/or erosion control blankets. They can be used to stabilize slopes until the permanent vegetation becomes established.

#### Alternate Sediment Control Measures

Silt fence -- the advantage of fiber rolls over silt fence is that installation is much easier, they do not have to be removed and hydroseeding can be done after their installation.

#### Other Names

Straw Wattle, Straw Roll

#### Design

**Design life:** 1 or 2 seasons

**Contributing flow drainage area:**

**Diameter:** 8 to 10 inches up to 20 inches

**Length:** 20 to 30 feet

#### Materials

**Fiber rolls:** The netting may be UV-degradable polypropylene, biodegradable burlap, jute or coir. The filling may be straw, flax, rice, coconut-fiber or compost.

**Stakes:** 1"x1" wooden stakes 24" long (18" if soils are rocky) or 3/8" rebar or 3/4" to 1 1/2" diameter live willow cuttings

#### Installation

Dig trenches across the slope (on the contour) to a depth of 3 to 5 inches. If the slope is steep or there is high rainfall, make trenches 5 to 7 inches deep. Add a slight downward angle to the trench at the ends to avoid ponding in the middle of the slope.

Start installation downslope. Determine the spacing of the rolls based on the slope gradient and soil type. Typically, place rolls 10 feet apart on 1:1 slopes, 20 feet apart on 2:1 slopes, 30 feet apart on 3:1 slopes. Space rolls closer in softer soils, farther in rocky soils.

Place the rolls in the trenches. Where two rolls meet, place the ends abutted tightly, not overlapped. At the end of the roll, turn the end upslope to prevent runoff from going around the roll end.

Stake the roll every four feet. Leave 3 inches of the stake above the roll. It may be easier to make a pilot hole through the roll and into the soil first. Fiber rolls around storm drains and inlets must be staked into the ground

#### Inspection

Ensure that the roll ends remain abutted tightly. Ensure that the rolls are in contact with the soil and thoroughly entrenched. Rolls need to be inspected after a significant rainfall. Look for scouring underneath the rolls.

#### Maintenance

Equipment cannot drive over the installed fiber rolls. If inspections reveal crushed, torn, slumping or split rolls, the damaged sections must be replaced.

Remove sediment accumulated upslope of the roll when it reaches one-half the distance between the top of the fiber roll and the ground surface.

#### Removal

Usually fiber rolls are left in place. If they are removed, the accumulated sediment must first be collected and disposed. After removal, the trenches and stake holes should be filled to blend with the slope and revegetated

## **BMP 20.00. Silt Fence**

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### DESIGN CONSIDERATIONS

#### *Objectives*

The purpose of Silt Fence is to trap sediment and prevent it from being transported out of the project area to another area, or to a water body.

#### *Description*

Silt Fence is geotextile fabric secured to posts and secured in a trench, and/or with sandbags or drain rock.

#### *Other Names*

Geotextile for Sediment Control, Sediment Barrier.

#### *Applicability*

Silt Fence is used downslope from erosion-susceptible terrain to trap sheet flow run-off before the drainage exits the project site. Adequate space must be provided for pooled water on the uphill side of the fence.

Barrier locations are chosen based on site features and conditions (e.g. soil types, climate, terrain features, sensitive areas, etc.), design plans, existing and anticipated drainage courses, and other available erosion and sediment controls. Typical barrier sites are catchpoints beyond the toe of fill, or on sideslopes above waterways or drainage channels.

Although drainage in contact with the fence is to some degree filtered by the geotextile, the fabric's small pores not only block larger-sized eroded particles but also severely restrict water exfiltration rates and behaves like a dam. For this reason, Silt Fences are not to be used for concentrated flows in continuous flow streams or ditches; or as check dams.

Silt Fence can be installed in standing water to provide time for particles to settle.

Silt Fences are used to encircle stockpiled erodible material to prevent off-site sediment transport.

Since Silt Fence installation can cause significant damage, alternative best management practices (BMPs) should be considered for installation instead of Silt Fence. Use Fiber Rolls, compost socks, brush bundles to filter small amounts of sediment in shallow gullies or ditches. Temporary settlement

basins, gravel berms, or foam barriers can be used as alternatives to Silt Fence.

Do not use Silt Fence on airport runways, taxiways, aprons, or within the Runway Safety Areas.

#### *Selection Considerations*

Use of sediment control measures and the level of effort should be commensurate with the potential problem. Silt Fence is not to be used solely as a project delineator (see Site Delineation, BMP-55).

- Use of a Silt Fence sediment control measure is usually more complex, expensive, and maintenance-prone than other sediment control measures.
- Consider impacts of the fence installation, maintenance, and removal on sensitive areas needing protection (e.g. avoid equipment encroachment on wetlands).
- Consider potential undesirable effects of fence placement (e.g. a trench in ground that will not readily “heal” after fence removal; undesirable effects of extent or depth of ponded water, etc.)
- An equipment access route and space for fence installation, maintenance, and removal must be available without encroaching into sensitive areas or off the project limits.
- Wire reinforcement can be used with Silt Fence by backing the geotextile fabric with chain link, polymeric mesh, or welded wire fencing. Below is a list of considerations for adding wire reinforcement to Silt Fence installation:
  - Consider using wire reinforcement and longer posts to resist overturn.
  - Consider using wire reinforcement in areas of high wind.
  - Consider using wire reinforcement for standing water installations.

#### *Types of Silt Fence for Purchase:*

- *With Pockets:* Sewn-in pocket Silt Fence is geotextile that has factory-sewn pockets for the posts and does not require post fasteners.
- *Without Pockets:* Silt Fence without pockets is geotextile fabric that requires fasteners to attach

the fabric to the posts or Silt Fence that is available with posts pre-attached.

- *Wire Reinforcement:* When Silt Fence is wire reinforced, the geotextile fabric is backed with chain link or welded wire fencing.

*Methods of Installation:*

- *Trenchless:* Drive support posts into the ground, attach geotextile on the upslope side of the line of stakes with a portion lying flat on the ground, and place clean rock or sandbags on the geotextile. Using sandbags to anchor the fence bottom is a less desirable method because of the tendency for undermining. Require removal of the rock or sandbags when the fence is removed.
- *Trench Key:* Drive support posts into the ground, excavate a trench on the uphill side along the line of the stakes, attach geotextile, and bury fence bottom. Use soil to backfill trench and compact to secure fence bottom. Compacted soil is preferred to gravel fill.
- *Machine Slice:* This method requires a Silt Fence installation machine or attachment. The machine utilizes a blade that plows or slices the fabric directly into the soil minimizing soil disturbance. Displaced soil must be manually backfilled into the slice before the tractor is used to mechanically compact the soil.

*Design*

Locate Silt Fence at a distance from the base of the slope or pile such that there is space for temporary storage of potential accumulated material. Consider a space of 4 feet for worker access if feasible. The grade and length of slope as well as soil erodibility must be considered when specifying silt fence. If the slope is steep or long, consider intermediate slope breaks.

Below are design considerations for Silt Fence that is not wire-reinforced:

- *Design Life:* 1 season (6 months) or less.
- *Contributing Sheet Flow Drainage Area:* Not to exceed 0.25 acres/100 ft. of fence.
- *Maximum Height of Ponding Water:* 18 in.

*Guidelines for Maximum Slope Length for Silt Fence:*

Slope (H:V)	Length of Slope Above Fence, Assumes 30 In High Fence
10:1	150 ft.
6:1	85 ft.
5:1	70 ft.
4:1	55 ft.
3:1	40 ft.
2:1	25 ft.
1:1	15 ft.

*Relationship to Other Erosion and Sediment Control Measures*

Sediment control measures are secondary to erosion prevention or soil stabilizing measures. Silt Fence may be used as part of a sequential system with other temporary or permanent measures such as vegetation, check dams, settling ponds, etc. Occasional flow velocity increases may be offset using corrective measures such as rock berms or other redirecting energy absorbers.

*Common Failures or Misuses*

- Inappropriate for intended function (e.g. used for check dam, flow diversion, diversion dam, etc.).
- Installation of Silt Fence in streams or concentrated flow.
- Use as a mid-slope protection on slopes greater than 4:1.
- Use as a perimeter control in high flow areas.
- Field-sewn seams.
- Use of incorrect type of fabric.
- Loose or sagging fabric between posts.
- Fence improperly attached or fastened to posts.
- Posts not driven deep enough into the ground.
- Posts spaced too far apart.
- Posts installed on incorrect side of fence.
- Placement of overlapped joints across pooled drainage areas.
- Fence allows spillover or bypass.
- Soil is not compacted next to fence after backfilling trench, allowing water to flow underneath.

- Trenches are too shallow to anchor the Silt Fence below ground or trenchless construction failure.
- Slope erosion occurs below the fenceline due to drainage that bypasses the barrier end, or water build-up that “blows out” a poorly-secured fence bottom.
- Fence function impairment due to sediment build-up, maintenance neglect, etc.
- Fence topples due to poor installation and/or high levels of impounded backup water or sediment.
- Uneven distribution of pooled drainage along non-level fenceline surface reduces efficiency.
- End of fence is not “J-hooked” upslope allowing water to run around the end.
- Poor support system (e.g. soil too rocky to secure posts, fabric stapled to trees, etc.).
- Installation of Silt Fence in a long continuous run.

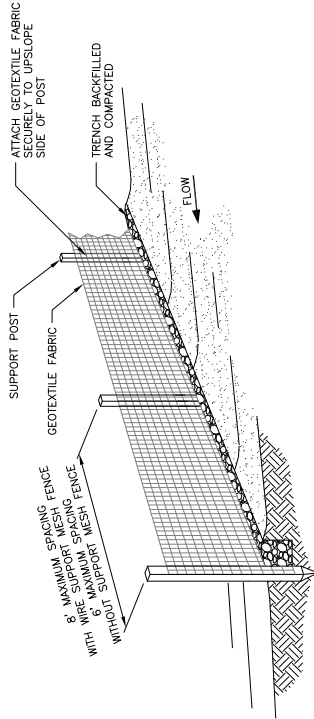
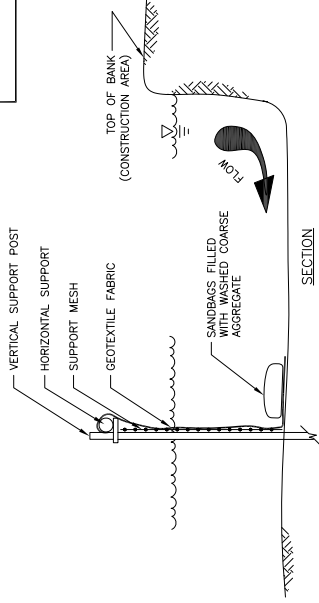
### SPECIFICATIONS

#### Standard Specification

- 633 – Silt Fence
- 729-2.04 - Geosynthetics

#### Drawing

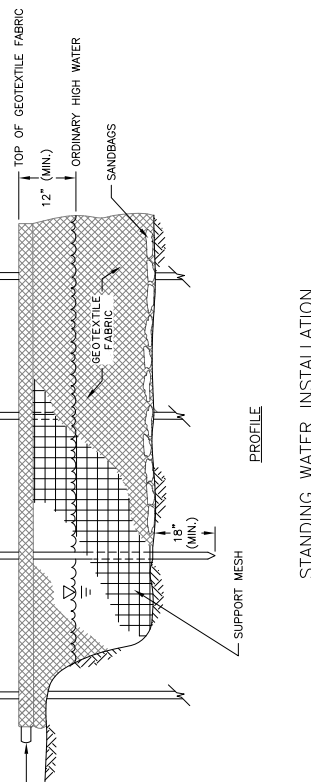
- BMP-20.00 Silt Fence (Sheets 1 and 2)



**GENERAL INSTALLATION**

NOT TO SCALE

1. 8" MAXIMUM SPACING FENCE WITH WIRE SUPPORT MESH FENCE WITHOUT SUPPORT MESH FENCE
2. 12. KEEP FENCE FABRIC TAUT.
3. 13. WHEN USING SUPPORT MESH, ATTACH GEOTEXTILE TO THE SUPPORT MESH WITH FASTENERS SPACED EVERY 24 INCHES AT THE TOP AND MIDSECTION.
4. 14. CHECK FOR SEDIMENT FLOWING THROUGH THE FENCE.
5. 15. CHECK FOR HOLES IN FENCE WHERE WIRE TIES ARE USED TO SECURE GEOTEXTILE FABRIC TO THE SUPPORT POST.
6. 16. MAINTENANCE
7. 17. 1. INSTALL ALTERNATE OR ADDITIONAL BMPs AS NEEDED TO PREVENT UNDESIRABLE SEDIMENTATION OF SENSITIVE AREAS.
8. 18. 2. REPLACE DAMAGED FABRIC.
9. 19. 3. REMEDY FENCE SAGS AS NEEDED.
10. 20. 4. REMOVE ACCUMULATED SEDIMENT BEFORE IT ACCUMULATES TO A POINT THAT REDUCES THE CAPACITY OR FUNCTION OF THE FENCE. REMOVE SEDIMENT BY EXCAVATING WATER BODY OR STORM DRAIN INLET.
11. 21. 5. DISPOSE OF SILT WASTE IN APPROVED MANNER/LOCATION (TYPICALLY IN A NON-EROSION AREA).
12. 22. 6. IF THERE IS EVIDENCE OF EXCESSIVE SEDIMENTATION AGAINST THE SILT FENCE, PROVIDE INCREASED EROSION CONTROL UPSLOPE.
13. 23. REMOVAL
14. 24. 1. WHEN DISTURBED AREAS ARE PERMANENTLY STABILIZED OR SEDIMENT PROTECTION IS NO LONGER NEEDED, REMOVE THE FENCE AND DISPOSE OF ACCUMULATED SEDIMENT OR SOIL IN PLACE.
15. 25. 2. CUT FABRIC AT GROUND LEVEL AND REMOVE SUPPORTS.
16. 26. 3. DISCARD FILTER FENCE AS APPROVED. AVOID DAMAGE TO SENSITIVE AREAS (E.G. WETLAND OR SURFACE WATER).
17. 27. 4. UNDERCUTTING.
18. 28. 5. LOOK FOR EVIDENCE OF SEDIMENT OR EROSION FLOW LEADING OFF THE DOWNHILL EDGE OF THE FENCE. (THIS UNDERLINE) INDICATOR OF DRAINAGE BYPASS OR FENCE UNDERMINE)
19. 29. 1. USE A SILT FENCE INSTALLATION MACHINE OR EQUIPMENT TO FLOW OR SLICE THE FABRIC DIRECTLY INTO THE SOIL.
20. 30. 2. BACKFILL SOIL LOOSENEED BY THE BLADE INTO THE SLICE AND USE THE TRACTOR TO MECHANICALLY COMPACT THE SOIL.
21. 31. 3. TUCK FABRIC DEEPER INTO THE GROUND WHERE NECESSARY.
22. 32. 4. INSTALL SUPPORT POSTS ALONG THE LENGTH OF THE FENCE FOLLOWING SIMILAR PROCEDURES FOR THE TRENCH METHOD.
23. 33. WINTER INSTALLATION (NOT IN PERMAFROST)
24. 34. 1. DIG A TRENCH.
25. 35. 2. BACKFILL TRENCH WITH THE LOOSENEED SOIL AND COMPACT SOIL PRIOR TO POST INSTALLATION.
26. 36. 3. MOISTEN THE BACKFILLED SOIL SO IT WILL FREEZE UP AND GRIP THE SILT FENCE FABRIC IN PLACE.
27. 37. 4. DO NOT LEAVE LARGE FROST CHUNKS AS THE BACKFILL.
28. 38. INSPECTION
29. 39. 1. INSPECT FENCELINE FOR CONTINUITY, COLLAPSE, WEATHERING, OR COMPROMISED INTEGRITY. DO NOT EXCAVATE TRENCHES IN PERMAFROST.
30. 40. 2. INSPECT FABRIC FOR TEARS, PUNCTURES, FRAYING, WEATHERING, AND COMPROMISED INTEGRITY.
31. 41. 3. CONFIRM THAT THE FENCE POSTS ARE SECURE.
32. 42. 4. ENSURE THE FENCE IS KEYED IN AND THAT THERE IS NO UNDERCUTTING.
33. 43. 5. LOOK FOR EVIDENCE OF SEDIMENT OR EROSION FLOW LEADING OFF THE DOWNHILL EDGE OF THE FENCE. (THIS UNDERLINE) INDICATOR OF DRAINAGE BYPASS OR FENCE UNDERMINE)
34. 44. 1. WHERE GROUND SURFACES ARE UNEVEN, INSTALL SHORTER FENCES FOLLOWING CONTOURS (RATHER THAN STRAIGHT LINES) OR LONG, CONTINUOUS CROSSING STRIPS THAT DIRECTS DRAINAGE TO ACCUMULATE IN LOW SPOTS).
35. 45. 2. LOCATE FENCE 3 TO 10 FEET BEYOND TOE OF FILL TO LEAVE ROOM FOR A BROAD, SHALLOW SEDIMENTATION POOL AND FOR EQUIPMENT ACCESS DURING FENCE MAINTENANCE AND REMOVAL.
36. 46. 3. IF FEASIBLE, LEAVE A MINIMUM OF 3.5-FOOT BUFFER BETWEEN FENCING AND SENSITIVE RECEIVING AREAS.
37. 47. 4. PLACE GEOTEXTILE ON THE UPSLOPE SIDE OF POSTS, OR WHERE SENSITIVE AREAS ARE LOCATED. SECURE AND PLACE POCKETS ON THE UPSLOPE SIDE OF THE FENCE.
38. 48. 5. EXCAVATE TRENCHES NOT WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION OF THE SILT FENCE. DO NOT EXCAVATE TRENCHES IN PERMAFROST.
39. 49. 10. AT JOINTS, ROLL ENOUGH OF THE ENDS OF SECTIONS TOGETHER AT SUPPORT POST SUCH THAT THE JOINT PREVENTS SILT-LADEN WATER FROM ESCAPING THROUGH THE FENCE.
40. 50. 11. IF USING THE FRONT WHEEL OF A TRACTOR OR ROLLER, COMPACT THE UPSLOPE SIDE FIRST, THEN EACH SIDE TWICE (A TOTAL OF FOUR TRIPS).



**PROFILE**

**STANDING WATER INSTALLATION**

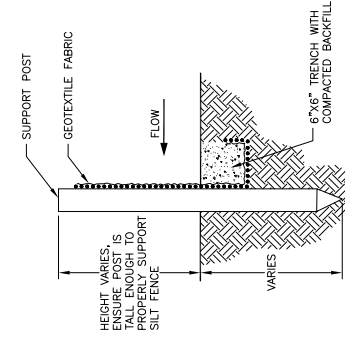
NOT TO SCALE

- STANDING WATER NOTES:**
- INSTALLATION**
1. DRIVE SUPPORT POSTS INTO THE GROUND AND ATTACH A HORIZONTAL SUPPORT MEMBER.
  2. ATTACH SUPPORT MESH AND GEOTEXTILE ON THE UPSLOPE SIDE OF THE FENCE AND ANCHOR THE GEOTEXTILE WITH SANDBAGS OR EQUIVALENT TO PREVENT GAPS.
  3. SPACE SUPPORT POSTS A MAXIMUM OF 8 FEET APART.
  4. KEEP FENCE FABRIC TAUT.

Date	REVISIONS Description	By

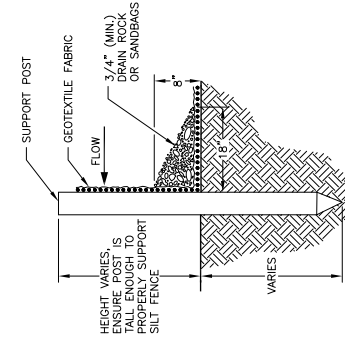
State of Alaska DOT&PF  
**SILT FENCE**  
**(NOTES, GENERAL**  
**INSTALLATION, & STANDING**  
**WATER INSTALLATION)**

Date 12/2015  
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 12/22/15



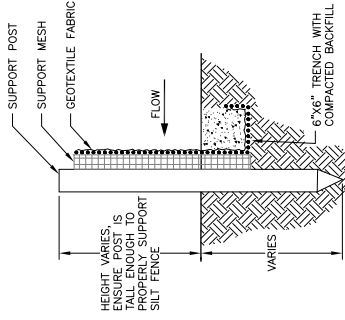
**TRENCH DETAIL**  
NOT TO SCALE

- TRENCH NOTES:**  
**INSTALLATION**
1. DRIVE SUPPORT POSTS INTO THE GROUND.
  2. FOLLOW MANUFACTURER'S SPECIFICATIONS FOR POST BURIAL DEPTH.
  3. EXCAVATE A TRENCH ON THE UPHILL SIDE ALONG THE LINE OF THE STAKES.
  4. ATTACH GEOTEXTILE TO STAKES AND BURY GEOTEXTILE BOTTOM.
  5. BACKFILL TRENCH AND COMPACT TO SECURE FENCE



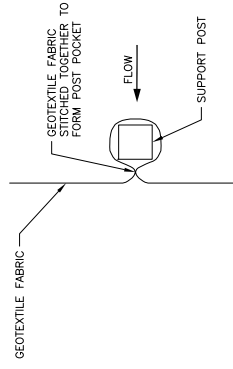
**TRENCHLESS DETAIL**  
NOT TO SCALE

- TRENCHLESS NOTES:**  
**MATERIALS**  
CLEAN ROCK OR SANDBAGS.
- INSTALLATION**
1. DRIVE SUPPORT POSTS INTO THE GROUND.
  2. ATTACH GEOTEXTILE ON THE UPHILL SIDE ALONG THE LINE OF THE STAKES.
  3. EXTEND GEOTEXTILE ON THE GROUND UPHILL OF THE FENCE.
  4. PLACE DRAIN ROCK ON GEOTEXTILE.
- REMOVAL**
1. WHEN SILT FENCE IS LOCATED IN WETLANDS OR SENSITIVE AREAS, REMOVE CLEAN ROCK OR SANDBAGS WHEN THE SILT FENCE IS REMOVED.



**SUPPORT MESH REINFORCED FABRIC DETAIL**  
NOT TO SCALE

- SUPPORT MESH REINFORCED FABRIC NOTES:**  
**INSTALLATION**
1. DRIVE SUPPORT POSTS INTO THE GROUND.
  2. EXCAVATE A TRENCH ON THE UPHILL SIDE ALONG THE LINE OF THE STAKES. DO NOT EXCAVATE TRENCHES IN PERMAFROST.
  3. EXTEND SUPPORT MESH A MINIMUM OF 3 INCHES INTO THE TRENCH.
  4. ATTACH GEOTEXTILE TO STAKES AND BURY GEOTEXTILE BOTTOM.
  5. BACKFILL TRENCH AND COMPACT TO SECURE FENCE



**SEWN-IN POCKET DETAIL**  
NOT TO SCALE

Date	REVISIONS Description	By

State of Alaska DOT&PF

**SILT FENCE  
(DETAILS)**

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Date: // //

**Appendix C – Project Schedule**



**Appendix D – Supporting Documentation**

**TMDLs**

**Endangered Species**

**Other Permits or Requirements**



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Anchorage Fish & Wildlife Field Office  
4700 Blm Road  
Anchorage, AK 99507  
Phone: (907) 271-2888 Fax: (907) 271-2786

In Reply Refer To:  
Project Code: 2022-0090107  
Project Name: Old Town Homer

September 29, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and some candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Please note that candidate species are not included on this list. We encourage you to visit the following website to learn more about candidate species in your area:

[http://www.fws.gov/alaska/fisheries/fieldoffice/anchorage/endangered/candidate\\_conservation.htm](http://www.fws.gov/alaska/fisheries/fieldoffice/anchorage/endangered/candidate_conservation.htm)

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

**Endangered Species:** The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect

threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see:

<https://www.fws.gov/birds/policies-and-regulations.php>

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a Federal nexus) or a Bird/Eagle Conservation Plan (when there is no Federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see:

<https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>

In addition to MBTA and BGEPA, Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both

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migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>

<http://www.towerkill.com>

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
-

## **Official Species List**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Anchorage Fish & Wildlife Field Office**

4700 Blm Road

Anchorage, AK 99507

(907) 271-2888

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## Project Summary

Project Code: 2022-0090107

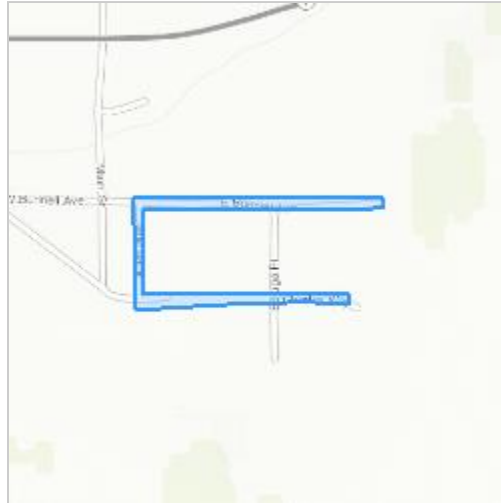
Project Name: Old Town Homer

Project Type: Wastewater Pipeline - New Constr - Below Ground

Project Description: Old town Homer Water Main and Sanitary Sewer System Exp. Located at E. Bunnell Avenue, Allen Way, & Charles Way.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@59.6392219,-151.5434573345202,14z>



Counties: Kenai Peninsula County, Alaska

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## Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Birds

NAME	STATUS
Steller's Eider <i>Polysticta stelleri</i> Population: AK breeding pop. There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1475">https://ecos.fws.gov/ecp/species/1475</a>	Threatened

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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# **USFWS National Wildlife Refuge Lands And Fish Hatcheries**

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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## Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Aleutian Tern <i>Sterna aleutica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9599">https://ecos.fws.gov/ecp/species/9599</a>	Breeds May 1 to Aug 31
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 15

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NAME	BREEDING SEASON
<p><b>Bald Eagle <i>Haliaeetus leucocephalus</i></b>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a></p>	Breeds Feb 1 to Sep 30
<p><b>Black Scoter <i>Melanitta nigra</i></b>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds elsewhere
<p><b>Black-legged Kittiwake <i>Rissa tridactyla</i></b>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds elsewhere
<p><b>Bristle-thighed Curlew <i>Numenius tahitiensis</i></b>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/3913">https://ecos.fws.gov/ecp/species/3913</a></p>	Breeds May 15 to Aug 15
<p><b>Common Eider <i>Somateria mollissima</i></b>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Jun 1 to Sep 30
<p><b>Common Loon <i>gavia immer</i></b>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/4464">https://ecos.fws.gov/ecp/species/4464</a></p>	Breeds Apr 15 to Oct 31
<p><b>Common Murre <i>Uria aalge</i></b>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Apr 15 to Aug 15
<p><b>Golden Eagle <i>Aquila chrysaetos</i></b>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a></p>	Breeds Jan 1 to Aug 31
<p><b>Hudsonian Godwit <i>Limosa haemastica</i></b>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 15 to Jul 31
<p><b>Kittlitz's Murrelet <i>Brachyramphus brevirostris</i></b>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/1633">https://ecos.fws.gov/ecp/species/1633</a></p>	Breeds elsewhere

NAME	BREEDING SEASON
<p>Lesser Yellowlegs <i>Tringa flavipes</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a></p>	Breeds May 1 to Aug 15
<p>Long-tailed Duck <i>Clangula hyemalis</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/7238">https://ecos.fws.gov/ecp/species/7238</a></p>	Breeds elsewhere
<p>Olive-sided Flycatcher <i>Contopus cooperi</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/3914">https://ecos.fws.gov/ecp/species/3914</a></p>	Breeds May 20 to Aug 31
<p>Pomarine Jaeger <i>Stercorarius pomarinus</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds elsewhere
<p>Red-breasted Merganser <i>Mergus serrator</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds elsewhere
<p>Red-necked Phalarope <i>Phalaropus lobatus</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds elsewhere
<p>Red-throated Loon <i>Gavia stellata</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds elsewhere
<p>Short-billed Dowitcher <i>Limnodromus griseus</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a></p>	Breeds Jun 1 to Aug 10
<p>Surf Scoter <i>Melanitta perspicillata</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds elsewhere
<p>Thick-billed Murre <i>Uria lomvia</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Apr 15 to Aug 15

NAME	BREEDING SEASON
<b>White-winged Scoter <i>Melanitta fusca</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
<b>Yellow-billed Loon <i>Gavia adamsii</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8199">https://ecos.fws.gov/ecp/species/8199</a>	Breeds elsewhere

## Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

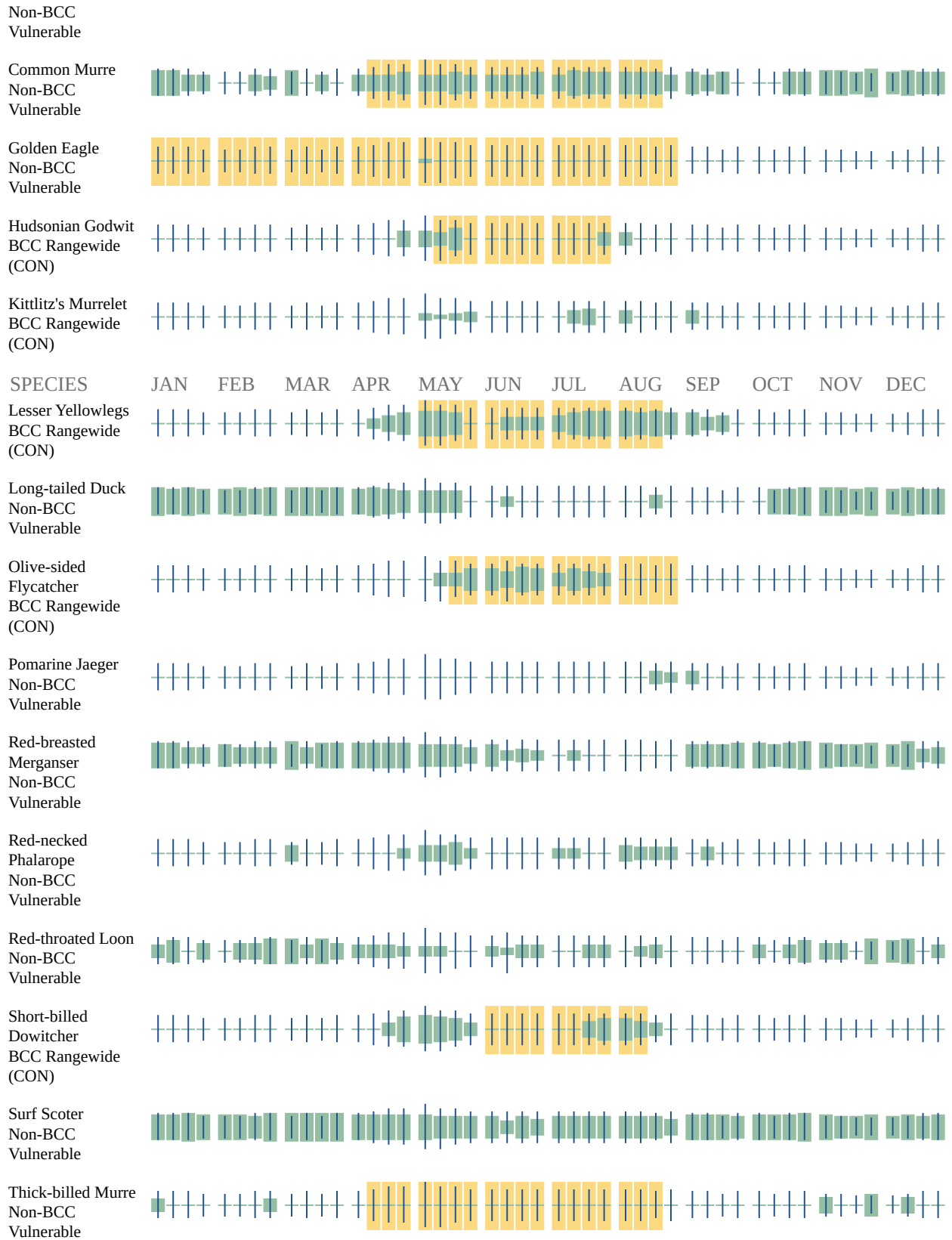
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

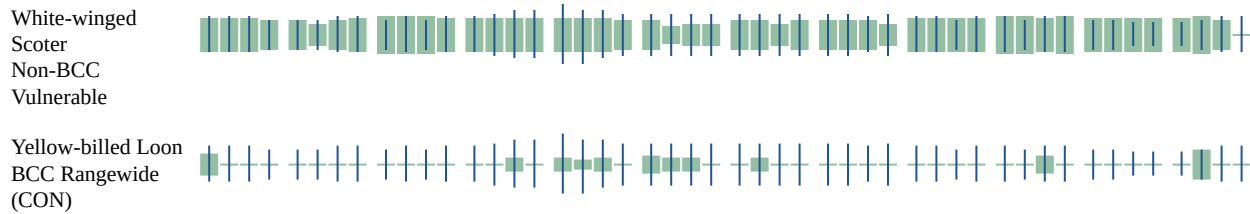
How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

### Breeding Season (■)







Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Alaska Bird Nesting Season <https://www.fws.gov/alaska-bird-nesting-season>

## Migratory Birds FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list

of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

### **What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical](#)

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[Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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## **IPaC User Contact Information**

Agency: Bishop Engineering LLC  
Name: Shannon Cefalu  
Address: PO Box 2501  
City: Homer  
State: AK  
Zip: 99603  
Email: scefalu@bishop-engineering.com  
Phone: 3603173975

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## Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE APPROXIMATELY 0.40 ACRES OF RIVERINE WETLANDS WITHIN THE BOUNDARIES OF THIS PROJECT ALONG E BUNNEL AVE.

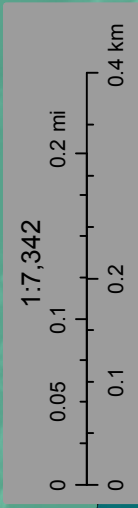
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U.S. Fish and Wildlife Service

# National Wetlands Inventory

## OLD TOWN HOMER



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands\_team@fws.gov

September 28, 2022

### Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
**OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORM**

ADEC USE ONLY

ADEC SPILL #:	ADEC FILE #:	ADEC LC:
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<b>PERSON REPORTING:</b>		<b>PHONE NUMBER:</b>		<b>REPORTED HOW? (ADEC USE ONLY)</b> <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> PERS <input type="checkbox"/> E-mail	
<b>DATE/TIME OF SPILL:</b>		<b>DATE/TIME DISCOVERED:</b>		<b>DATE/TIME REPORTED TO ADEC:</b>	
<b>INCIDENT LOCATION/ADDRESS:</b>			<b>DATUM:</b> <input type="checkbox"/> NAD27 <input type="checkbox"/> NAD83 <input type="checkbox"/> WGS84 <input type="checkbox"/> Other _____		<b>PRODUCT SPILLED:</b>
			LAT. _____		
			LONG. _____		
<b>QUANTITY SPILLED:</b> <input type="checkbox"/> gallons <input type="checkbox"/> pounds		<b>QUANTITY CONTAINED:</b> <input type="checkbox"/> gallons <input type="checkbox"/> pounds		<b>QUANTITY RECOVERED:</b> <input type="checkbox"/> gallons <input type="checkbox"/> pounds	
<b>POTENTIAL RESPONSIBLE PARTY:</b>		<b>OTHER PRP, IF ANY:</b>		<b>VESSEL NAME:</b>	
<i>Name/Business:</i>					
<i>Mailing Address:</i>				<b>VESSEL NUMBER:</b>	
<i>Contact Name:</i>				<b>&gt; 400 GROSS TON VESSEL:</b>	
<i>Contact Number:</i>				<input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>SOURCE OF SPILL:</b>				<b>CAUSE CLASSIFICATION:</b>	
<b>CAUSE OF SPILL:</b>				<input type="checkbox"/> Accident <input type="checkbox"/> Human Factors <input type="checkbox"/> Structural/Mechanical <input type="checkbox"/> Other	
<input type="checkbox"/> Under Investigation					
<b>CLEANUP ACTIONS:</b>					
<b>DISPOSAL METHODS AND LOCATION:</b>					
<b>AFFECTED AREA SIZE:</b>		<b>SURFACE TYPE:</b> <i>(gravel, asphalt, name of river etc.)</i>		<b>RESOURCES AFFECTED/THREATENED:</b> <i>(Water sources, wildlife, wells, etc.)</i>	
<b>COMMENTS:</b>					

ADEC USE ONLY

<b>SPILL NAME:</b>		<b>NAME OF DEC STAFF RESPONDING:</b>		<b>C-PLAN MGR NOTIFIED?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>DEC RESPONSE:</b> <input type="checkbox"/> Phone follow-up <input type="checkbox"/> Field visit <input type="checkbox"/> Took Report		<b>CASELOAD CODE:</b> <input type="checkbox"/> First and Final <input type="checkbox"/> Open/No LC <input type="checkbox"/> LC Assigned		<b>CLEANUP CLOSURE ACTION:</b> <input type="checkbox"/> NFA <input type="checkbox"/> Monitoring <input type="checkbox"/> Transferred to CS or STP	
<b>COMMENTS:</b>		<b>Status of Case:</b> <input type="checkbox"/> Open <input type="checkbox"/> Closed		<b>DATE CASE CLOSED:</b>	
<b>REPORT PREPARED BY:</b>				<b>DATE:</b>	

# IT'S THE LAW!

AS 46.03.755 and 18 AAC 75.300

## REPORT OIL AND HAZARDOUS SUBSTANCE SPILLS

### During Normal Business Hours

call the nearest response team office:

**Central Alaska:** (907) 269-3063  
Anchorage Fax: (907) 269-7648

**Northern Alaska:** (907) 451-2121  
Fairbanks Fax: (907) 451-2362

**Southeast Alaska:** (907) 465-5340  
Juneau Fax: (907) 465-2237

### Outside Normal Business Hours

**Toll Free** 1-800-478-9300

**International** 1-907-428-7200



Alaska Department of  
Environmental Conservation  
Division of Spill Prevention and Response  
[www.dec.alaska.gov/spar/spillreport.htm](http://www.dec.alaska.gov/spar/spillreport.htm)

### Hazardous Substance

Any hazardous substance spill, other than oil, must be reported immediately.

### Oil – Petroleum Products

#### To Water

Any amount spilled to water must be reported immediately.

#### To Land

Spills in **excess of 55 gallons** must be reported immediately.

Spills in **excess of 10 gallons, but 55 gallons or less**, must be reported within 48 hours after the person has knowledge of the spill.

Spills of **1 to 10 gallons** must be recorded in a spill reporting log submitted to ADEC each month.

#### To Impermeable Secondary Containment Areas

Any spills in **excess of 55 gallons** must be reported within 48 hours.

### Additional Requirements for Regulated Underground Storage Tank Facilities

Regulated Underground Storage Tank (UST) facilities are defined at 18 AAC 78.005 and do not include heating oil tanks.

If your release detection system indicates a possible discharge, or if you notice unusual operating conditions that might indicate a release, you must notify the ADEC UST Program within 7 days.

**UST Program: (907) 269-3055 or 269-7679**

**Appendix E – Delegation of Authority Form  
Subcontractor Certifications**

**DELEGATION OF AUTHORITY**

I, \_\_\_\_\_ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at **Old Town Homer** project site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

\_\_\_\_\_ (name of person or position)  
\_\_\_\_\_  
\_\_\_\_\_ (company)  
\_\_\_\_\_  
\_\_\_\_\_ (address)  
\_\_\_\_\_  
\_\_\_\_\_ (city, state, zip)  
\_\_\_\_\_  
\_\_\_\_\_ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix I of EPA’s Construction General Permit (CGP), and that the designee above meets the definition of a “duly authorized representative” as set forth in Appendix I.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Name:** \_\_\_\_\_  
**Company:** \_\_\_\_\_  
**Title:** \_\_\_\_\_  
**Signature:** \_\_\_\_\_  
**Date:** \_\_\_\_\_



**SUBCONTRACTOR CERTIFICATION  
STORMWATER POLLUTION PREVENTION PLAN**

**Project Title: Old town Homer Water Main & Sanitary Sewer System Exp. - E. Bunnell Avenue,  
Allen Way, & Charles Way**

**Operator(s): City of Homer**

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

**I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the practices described in the SWPPP.** \_\_\_\_\_

This certification is hereby signed in reference to the above named project: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Type of construction service to be provided:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature: \_\_\_\_\_

Title:

Date:

**Appendix F – Permit Conditions**

**Notice of Intent**

**Confirmation of Delivery of NOI to ADEC**

**ADEC Authorization of Coverage**

**2022 Alaska Construction General  
Permit**

Old Town Homer  
Storm Water Pollution Prevention Plan

**Appendix G – Grading and Stabilization Activities Log**

Date Grading Activity Initiated	Description of Grading Activity	Description of Stabilization Measure and Location	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures Initiated

**Appendix H – Monitoring Plan and Reports**

**(not required for this project)**

**Appendix I – Training Records**

**Stormwater Pollution Prevention Training Log**

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Instructor’s Name(s): \_\_\_\_\_

Instructor’s Title(s): \_\_\_\_\_

Course Location: \_\_\_\_\_ Date: \_\_\_\_\_

Course Length (hours): \_\_\_\_\_

Stormwater Training Topic: *(check as appropriate)*

- Sediment and Erosion Controls
- Emergency Procedures
- Stabilization Controls
- Inspections/Corrective Actions
- Pollution Prevention Measures

Specific Training Objective: \_\_\_\_\_

\_\_\_\_\_

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		

**Appendix J - Corrective Action Form**

Inspection Date	Inspector Name(s)	Description of BMP Deficiency	Corrective Action Needed (including planned date/responsible person)	Date Action Taken/Responsible person

## Appendix K – Inspection Records

## Appendix L – Rainfall Records



# SWPPP DAILY RECORD OF RAINFALL

PROJECT NAME: \_\_\_\_\_

DATE	PRECIPITATION (INCHES)	STORM INFO & COMMENTS	INITIALS