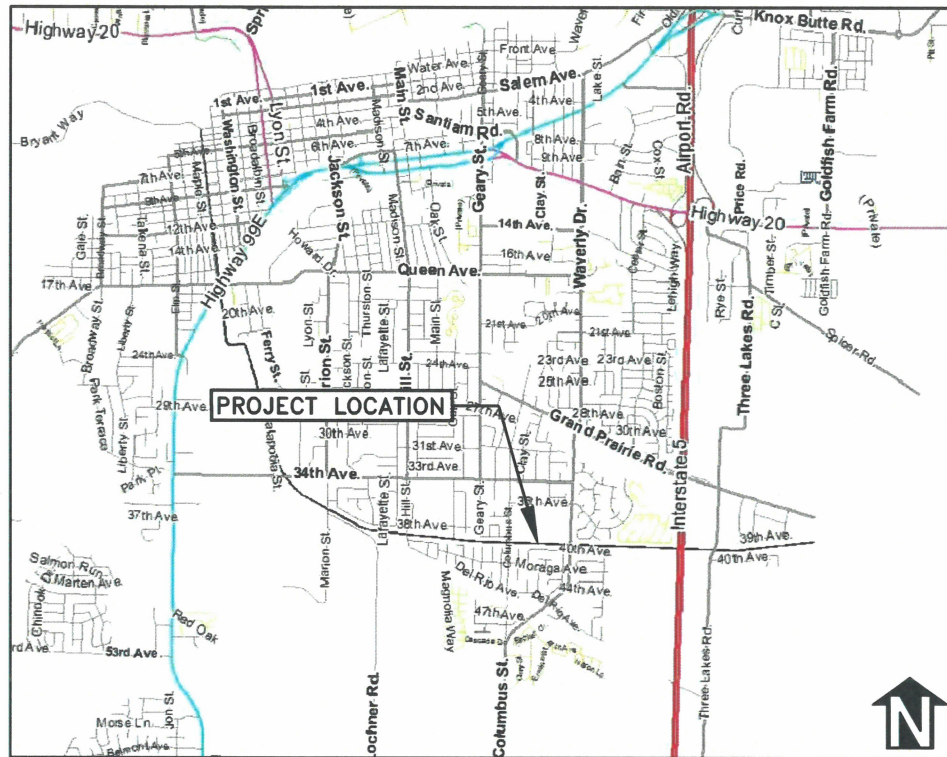
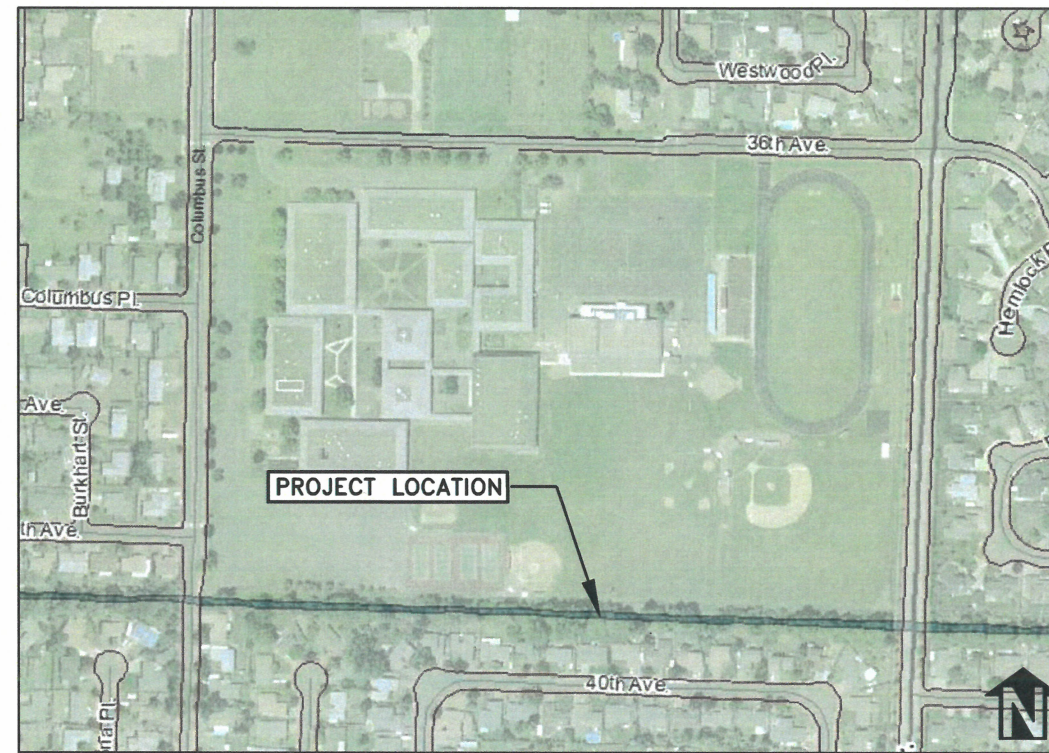


# CITY OF ALBANY

## WC-21-01, 40TH AVE CANAL BANK REPAIR



**Area Map**  
Not to Scale



**Vicinity Map**  
Not to Scale

### PROJECT LOCATION

- TAX LOT 0312 AND 0313, MAP NO. 11S-03W-20AB, CITY OF ALBANY, LINN COUNTY, OREGON
- SEC. 20, T.11S, RANGE 3W
- LAT. 44.6057°, LONG. 123.0754°
- ALL ELEVATIONS SHOWN REFER TO NGVD 29 VERTICAL DATUM

### SHEET INDEX

- SHEET 1 - COVER SHEET
- SHEET 2 - EXISTING CONDITIONS
- SHEET 3 - PROPOSED LAYOUT
- SHEET 4 - BANK REHABILITATION DETAIL
- SHEET 5 - SITE ACCESS, STAGING, & RESTORATION

### GENERAL NOTES

- CONSTRUCTION MUST BE COMPLETED BETWEEN AUGUST 1 AND SEPTEMBER 30, 2021.
- THE PROJECT SHALL BE CONSTRUCTED ACCORDING TO THE LAYOUT AND DETAILS INCLUDED IN THIS PLAN SET AND ALL PERTINENT CONDITIONS INCLUDED IN THE CITY OF ALBANY OPERATIONS AND MAINTENANCE GUIDELINES FOR THE SANTIAM-ALBANY CANAL.
- SURVEY CONTROL FOR CONSTRUCTION IS PROVIDED BY TWO WOODEN HUBS SET IN THE IMMEDIATE VICINITY BY K&D ENGINEERING. THE HUBS ARE LOCATED IN C.O.A ROW OUTSIDE THE IMMEDIATE PROJECT VICINITY. HUBS WILL BE IDENTIFIED AT PRE BID MEETING.
- CONSTRUCTION EQUIPMENT SHALL NOT OPERATE OUTSIDE THE PREDETERMINED ACCESS AREAS AS IDENTIFIED IN THE PLANS AND MARKED IN THE FIELD.
- STAGING AND STORAGE OF EQUIPMENT AND MATERIAL SHALL BE AS SHOWN ON THE PLANS AND MARKED IN THE FIELD.
- POWER EQUIPMENT SHALL BE INSPECTED DAILY FOR FLUID LEAKS. LEAKING EQUIPMENT MUST BE SHUT DOWN AND REPAIRED PRIOR TO FURTHER USE. DAILY INSPECTION REPORTS MUST BE MAINTAINED FOR EACH PIECE OF EQUIPMENT.
- MATERIAL DELIVERY SHALL BE TO THE DESIGNATED STORAGE LOCATIONS AS SHOWN ON THE PLANS AND MARKED IN THE FIELD.
- DO NOT DISTURB EXISTING TREES AND VEGETATION THAT HAVE NOT BEEN PREVIOUSLY MARKED FOR REMOVAL.
- A SITE WALK-THROUGH SHALL BE CONDUCTED AFTER COMPLETION OF THE PROJECT TO CONFIRM ALL SITE RESTORATION HAS BEEN COMPLETED PROPERLY AND THAT ALL EXCESS MATERIALS, TEMPORARY FEATURES, AND ALL EQUIPMENT FROM THE SITE HAS BEEN REMOVED.
- ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF ALBANY STANDARD CONSTRUCTION SPECIFICATIONS ANDS ASSOCIATED STANDARD DRAWINGS. THE CURRENT VERSION OF THE CITY OF ALBANY STANDARD CONSTRUCTION SPECIFICATIONS CAN BE FOUND ON THE CITY OF ALBANY'S WEBSITE AT [www.cityofalbany.net](http://www.cityofalbany.net)
- UTILITIES SHOWN ARE FOR REFERENCE ONLY. FOR A FIELD LOCATE, CALL THE UTILITIES NOTIFICATION CENTER AT 1-800-332-2344.
- ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION PREVENTION SEDIMENT CONTROL (EPSC) MEASURES IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED BY THE CITY OF ALBANY, AND VEGETATION/LANDSCAPING IS ESTABLISHED. FOR GUIDANCE, REFER TO THE CITY OF ALBANY EPSC MANUAL WHICH CAN BE FOUND AT [www.cityofalbany.net](http://www.cityofalbany.net).

DESIGNED: A. HIEMSTRA	DRAWN: A. HIEMSTRA	CHECKED: S. BELCASTRO	DATE: 4/20/21
REVISIONS			
DATE: ---	NO: ---	BY: ---	
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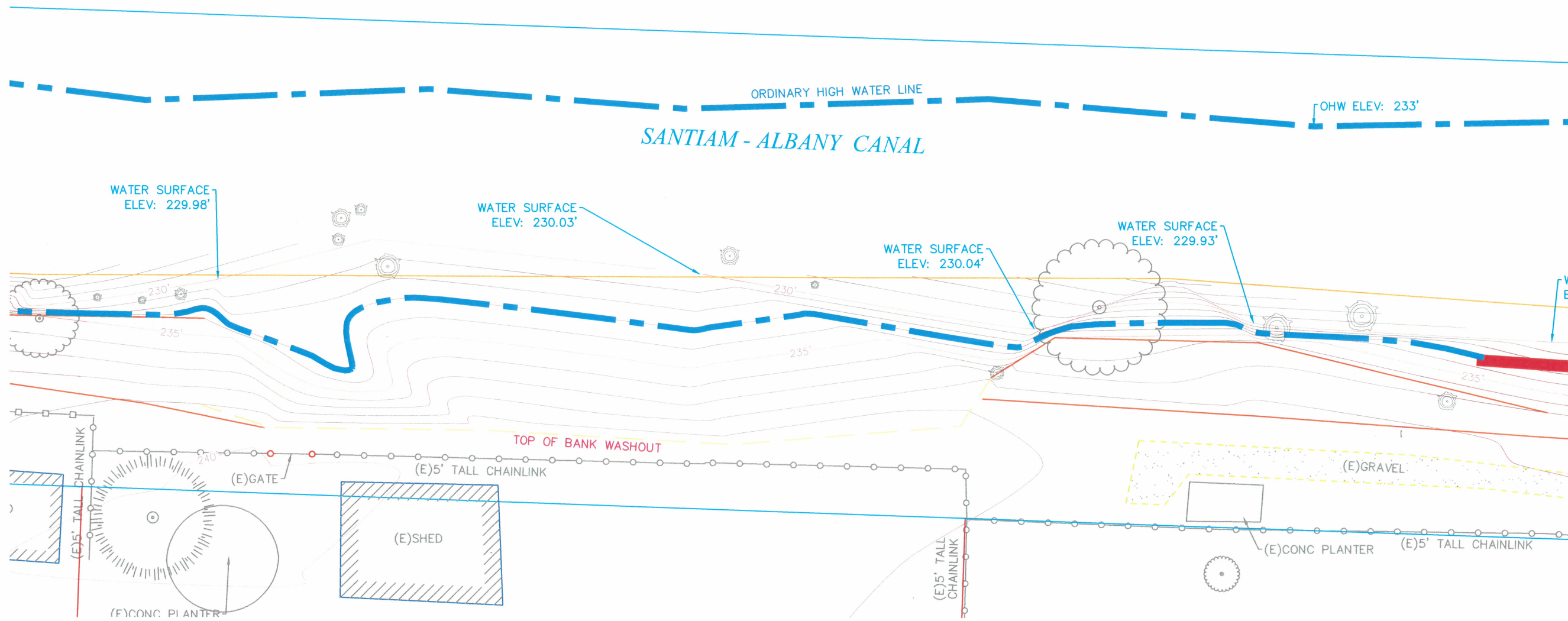
**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING SERVICES**



WC-21-01 40TH AVE CANAL BANK REPAIR  
**COVER PAGE**



EXPIRATION DATE: 06/30/2023
SHEET NO. 1 OF 5
PROJECT NO: WC-21-01
FILE:



- NOTE**
1. ORDINARY HIGH WATER PER CITY OF ALBANY TIED MARCH 25, 2021
  2. WATER SURFACE SHOTS TIED AS OF MARCH 25, 2021

**PROJECT VERTICAL DATUM -- NGVD 29**  
 ALL ELEVATIONS ARE SHOWN ON THE VERTICAL DATUM OF NGVD 29. THE VERTICAL BENCHMARK USED FOR ESTABLISHING ELEVATIONS IS LINN COUNTY GPS CONTROL POINT 93282 LOCATED AT THE INTERSECTION OF COLUMBUS STREET AND MORAGA STREET. CONTRACTOR IS TO NOTIFY ENGINEER/SURVEYOR TWO WORKING DAYS PRIOR TO DISTURBING EXISTING SURVEY MONUMENT(S). SURVEYOR IS TO RESTORE PER COUNTY SURVEYOR REQUIREMENTS AND ORS 209.150.

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).

THE LOCATION AND DESCRIPTIONS OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS. THE ENGINEER OR UTILITY COMPANIES DO NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF SUCH RECORDS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

- ABBREVIATIONS LEGEND**
- (E) - EXISTING
  - BLDG - BUILDING
  - CONC - CONCRETE
  - CO. - COUNTY
  - CS - COUNTY SURVEY
  - FD - FOUND
  - IR - IRON ROD
  - PUE - PUBLIC UTILITY EASEMENT
  - RPC - RED PLASTIC CAP
  - R/W - RIGHT-OF-WAY
  - W/ - WITH
  - YPC - YELLOW PLASTIC CAP

- EXISTING SYMBOL LEGEND**
- (Circle with dot) - (E) TREE DECIDUOUS
  - (Circle with cross) - (E) TREE MISC
  - (Square with dot) - (E) TREE STUMP
  - (Circle with line) - (E) CHAINLINK FENCE
  - (Square with line) - (E) WOOD FENCE
  - (Dashed blue line) - ORDINARY HIGH WATER LINE
  - (Dashed yellow line) - TOP OF BANK WASHOUT LINE

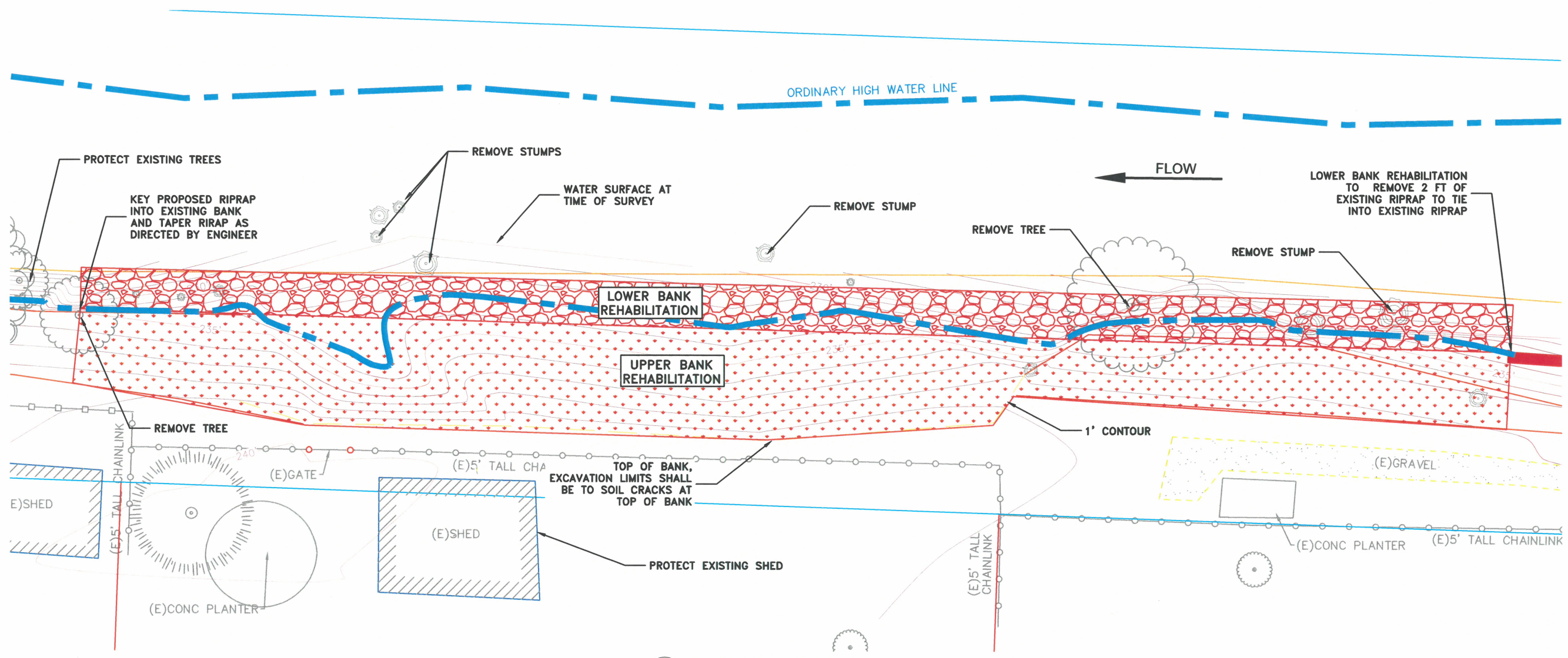
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DRAWN:	A. HIEMSTRA	NO:	
CHECKED:	S. BELCASTRO	BY:	
DATE:	4/20/21		

**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**

**WC-21-01 40TH AVE CANAL BANK REPAIR  
 EXISTING CONDITIONS**



EXPIRATION DATE: 06/30/2023  
 SHEET NO. 2 OF 5  
 PROJECT NO: WC-21-01  
 FILE:



1 PROPOSED LAYOUT  
SCALE: 1"=10'

**GENERAL NOTES**

THE INTENT OF THE BANK REHABILITATION IS TO RESTORE THE CHANNEL AND BANK TO ITS REQUIRED FUNCTION AND CONDITION PRIOR TO THE FAILURES. CONSTRUCTION WILL OCCUR IN LOWER AND UPPER BANK ZONES WITH THE LOWER BANK ZONE CONSISTING OF RIPRAP UP TO AN ELEVATION OF APPROXIMATELY 233, AND AN UPPER BANK ZONE CONSISTING OF EROSION CONTROL MATTING AND PLANTINGS UP TO THE TOP OF BANK AT AN ELEVATION OF APPROXIMATELY 238. THE ROOTING STRENGTH OF THE ESTABLISHED VEGETATION IN THE UPPER BANK ZONE IS INTENDED TO MAINTAIN THE STABILITY OF THE BANK ABOVE THE RIPRAP ONCE VEGETATION IS ESTABLISHED.

**CONSTRUCTION NOTES**

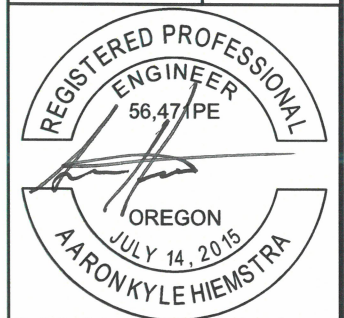
- INSTALL WORK AREA ISOLATION AS SHOWN THIS SHEET AND SHEETS 4 AND 5.
- EXCAVATE TO DESIGN ELEVATIONS, ALL LOOSE SOILS TO BE REMOVED, DO NOT DISTURB ANY EXISTING FEATURES SUCH AS EXISTING TREES, VEGETATION, OR STRUCTURES UNLESS CALLED OUT ON THE PLANS. MINIMIZE DISTURBANCE OF SOIL TO WITHIN THE MINIMUM NECESSARY AREA REQUIRED FOR EXCAVATION AND CONSTRUCTION. EXCAVATED SOIL SHALL BE REUSED AS UPPER BANK REHABILITATION.
- CONSTRUCT LOWER BANK ZONE AS SHOWN THIS SHEET AND DETAIL SHEET 4.
- CONSTRUCT UPPER BANK ZONE AS SHOWN THIS SHEET AND DETAIL SHEET 4.
- TAPER REPAIR TO EXISTING STABLE GROUND.
- REMOVE EXISTING PLANTER WALLS ADJACENT TO BANK TO PROVIDE 3 FEET OF CLEARANCE FROM PROPOSED TOP OF BANK AND BACK OF PLANTER WALL. COORDINATE WITH ENGINEER FOR THE LIMITS OF REMOVAL FOR THE EXISTING PLANTER.

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DATE: 4/20/21	DATE: ---

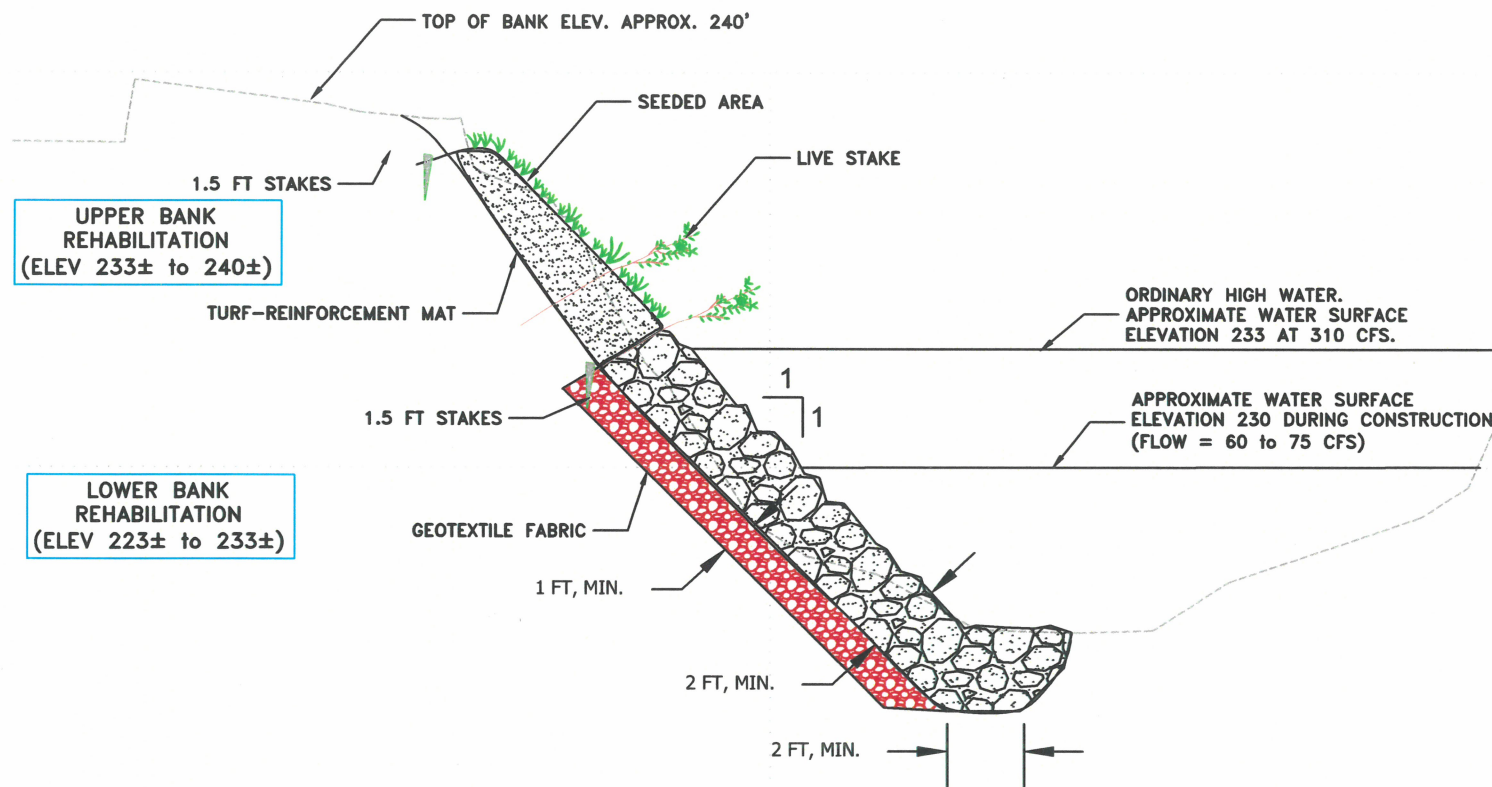
**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**



**WC-21-01 40TH AVE CANAL BANK REPAIR  
PROPOSED LAYOUT**



EXPIRATION DATE: 06/30/2023  
SHEET NO. 3 OF 5  
PROJECT NO: WC-21-01  
FILE:



**CONSTRUCTION NOTES**

1. INSTALL SILT CURTAIN TO ISOLATE PROJECT AREA AND TO PREVENT TRANSPORT OF SEDIMENT LADEN WATER FROM THE PROJECT SITE. PURSUANT TO PERMIT REQUIREMENTS, COORDINATE REMOVAL AND RELOCATION OF ANY FISH AND OTHER AQUATIC SPECIES FROM THE ISOLATED AREA PRIOR TO ADDITIONAL WORK. SILT FENCE SHALL BE LOCATED A MINIMUM OF 5 FT AWAY FROM WORK AREA TO ALLOW EQUIPMENT TO WORK ON BANK. SILT CURTAIN SHALL EXTEND PAST WORK AREA AND TERMINATE AT STATION X+XX ON NORTH SOUTH BANK. SILT CURTAIN SHALL BE ANCHORED BY CONCRETE BARRIER TO APPROVED BY ENGINEER.
2. CLEAR EXISTING VEGETATION AND EXCAVATE TO DESIGN ELEVATIONS. REMOVE ALL LOSE MATERIAL FROM BANK FAILURE. MATERIAL UNSUITABLE FOR REUSE WILL BE DISPOSED OF OFF SITE. INSPECT TO ASSURE UPSTREAM RIPRAP SECTION IS SUITABLE FOR TIE IN WITH PROPOSED RIPRAP. ADJUSTMENTS AND/OR REMOVAL OF LOOSE OR UNSTABLE ROCK AT THIS TRANSITIONAL AREA MAY BE NECESSARY TO ASSURE A SMOOTH TRANSITION TO THE PROPOSED PROJECT. DO NOT DISTURB EXISTING TREES AND VEGETATION THAT ARE NOT WITHIN THE MINIMUM NECESSARY AREA REQUIRED FOR EXCAVATION AND CONSTRUCTION. GENERALLY, STUMP REMOVAL SHOULD NOT RESULT IN EXCAVATION DEEPER THAN WHAT IS NECESSARY FOR CONSTRUCTION OF BANK TREATMENT. ASSURE LOOSE MATERIAL IS REMOVED. EXCAVATION TO BE INSPECTED BY ENGINEER PRIOR TO PLACEMENT OF FILL.
3. CONSTRUCT LOWER BANK REHABILITATION: PLACE WELL-GRADED RIPRAP AS SHOWN ON PLANS AND DIRECTED IN FIELD. RIPRAP MUST BE KEYED-IN AND COMPACTED TOGETHER TO MINIMIZE VOIDS AND MAY REQUIRE REARRANGING BY MECHANICAL EQUIPMENT TO ASSURE STABILITY. RIPRAP MUST NOT BE PLACED ABOVE ELEVATION 233. BACKFILL BEHIND 1" WASHED GRAVEL SHALL BE NATIVE FILL.
4. CONSTRUCT UPPER BANK REHABILITATION: LOSE NATIVE MATERIAL SHALL BE REMOVED AND REUSED. PLACE SOIL AND EROSION CONTROL BLANKET AS SHOWN ON THE PLANS AND AS DIRECTED IN THE FIELD. EMBANKMENT FILL SHOULD BE PLACED IN LEVEL LIFTS AND BENCHED INTO THE EXISTING EMBANKMENT. COMPACT ALL FILL IN LIFTS NOT EXCEEDING 12 INCHES. EMBED AND AND STAKE ALL ENDS OF EROSION CONTROL BLANKET A MINIMUM OF 3 FT INTO EMBANKMENT FILL OR AS DIRECTED BY THEN ENGINEER. UPPER BANK TREATMENT TO TERMINATE AT THE EXISTING TOP OF BANK ELEVATION OF APPROXIMATELY 240.
5. BROADCAST NATIVE SEED MIX ON SOIL PRIOR TO PLACING EROSION CONTROL BLANKET. PLACE WILLOWS AS SHOWN AND AS DIRECTED BY THE ENGINEER. CUTTING TO BE PLACED NEAR ZONE INTERFACE AT 2 FT SPACING.

**ESTIMATED MATERIAL QUANTITIES**

EXCAVATION, (CY)	260
CLASS 300 RIPRAP (CY)	120
TOPSOIL (CY)	20
BioD-MAT 90, (SF)	3375
1" MINUS WASHED GRAVEL	60
FILTER FABRIC (SF)	1440
NATIVE SEED MIX (LB)	3
LIVE WILLOW CUTTINGS (EACH)	250
SILT CURTAIN WORK AREA ISOLATION (LF)	235


**MATERIAL NOTES**

**LOWER BANK**  
 SILT CURTAIN - LAYFIELD FSC 13 OR EQUIVALENT.  
 RIPRAP - SHALL CONSIST OF WELL-GRADED ODOT CLASS 300 RIPRAP  
 1" MINUS WASHED ROCK SHALL BE PLACED 1 FT BEHIND RIPRAP.  
 BACKFILL SHALL CONSIST OF NATIVE BACKFILL AS DEFINED IN UPPER BANK  
 FILTER FABRIC - ODOT TYPE 1 DRAINAGE GEOTEXTILE OR EQUIVALENT

**UPPER BANK**  
 SOILS - SHALL CONSIST OF APPROVED FINE-GRAINED SOIL FREE OF CONSTRUCTION DEBRIS, HIGH PLASTICITY CLAY, OR OTHER DELETERIOUS MATERIALS. FILL SHOULD CONTAIN NO PARTICLE SIZE GREATER THAN 3 INCHES. THE SOIL SHOULD HAVE A PLASTICITY INDEX (PI) BETWEEN 10 AND 20 BASED ON ASTM 04318. SAMPLES OF PROPOSED MATERIAL SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.  
 SEED MIX - "BOAT BASIN DR PERMANENT SEED MIX" (PACIFIC NW NATIVES) OR EQUIVALENT.  
 WILLOWS - LIVE CUTTINGS WITH A MINIMUM STEM DIAMETER OF 1 INCH AND MINIMUM LENGTH OF 4 FEET.  
 TURF REINFORCEMENT MAT OR JUTE - BIOD-MAT 90  
 STAKES - WOODEN STAKES 1.5 FT LONG


DESIGNED: A. HIEMSTRA	REVISIONS
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DATE: 4/20/21	DATE: ---
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	DATE: ---

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**ENGINEERING SERVICES**



**WC-21-01 40TH AVE CANAL BANK REPAIR**  
**BANK REHABILITATION DETAILS**

**REGISTERED PROFESSIONAL ENGINEER**  
 56,471 PE



**OREGON**  
 JULY 14, 2015  
**AARON KYLE HIEMSTRA**

EXPIRATION DATE: 06/30/2023  
 SHEET NO. 4 OF 5  
 PROJECT NO: WC-21-01  
 FILE:

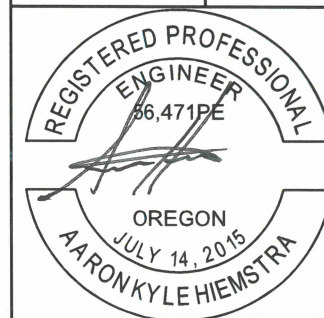


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DATE:	4/20/21	DATE:	

PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES



WC-21-01 40TH AVE CANAL BANK REPAIR  
PROPOSED LAYOUT



EXPIRATION DATE: 06/30/2023

SHEET NO. 5 OF 5

PROJECT NO: WC-21-01

FILE:

**SITE ACCESS, STAGING & RESTORATION NOTES**

- ① ACCESS TO AND FROM SITE AND ALL STAGING/STORAGE LOCATIONS OBTAINED AT GATE ON WAVERLY DRIVE. TRAFFIC CONTROL MUST BE PROVIDED AS NECESSARY FOR ENTRY AND EXIT AT THE WAVERLY GATE. STEEL PLATES MUST BE PLACED OVER ALL PUBLIC INFRASTRUCTURE (EXISTING CURB, GUTTER AND SIDEWALK) TO PREVENT DAMAGE. ANY DAMAGE WILL BE REPAIRED OR REPLACED WITHIN 14 DAYS AFTER PROJECT IS COMPLETE. FOOT TRAFFIC FROM 40th AVENUE TO THE SOUTH BANK WILL BE AVAILABLE AT 2373 40th AVENUE.
- ② UTILIZE EXISTING MAINTENANCE/ACCESS ROAD ADJACENT TO CANAL. MONITOR CONDITION OF ROAD DAILY AND CANAL BANK AND NOTIFY THE ENGINEER OF ANY CHANGING CONDITIONS ALONG TRAVEL WAY OR CANAL BANK THAT OCCUR DURING CONSTRUCTION.
- ③ WORK TO BE COMPLETED FROM IN THE DRY ON THE NORTH BANK. THE EXISTING FENCE MAY BE TEMPORARILY RELOCATED TO THE NORTH TO ACCOMMODATE EXCAVATOR ACTIVITY AND MATERIAL STORAGE. THE FENCE MAY BE TEMPORARILY MOVED A MAXIMUM OF 20 FEET NORTH FROM ITS EXISTING LOCATION. RELOCATION LIMITS WILL BE MARKED IN THE FIELD PRIOR TO THE TEMPORARY FENCE RELOCATION. UPON COMPLETION OF THE PROJECT THE FENCE MUST BE REPLACED AT ITS ORIGINAL LOCATION.
- ④ ALL GRASSES AREAS DISTURBED DURING CONSTRUCTION MUST BE RESEEDED AND RESTORED TO ITS ORIGINAL CONDITION. RESEEDING ON SOUTH ALBANY HIGH SCHOOL PROPERTY MUST BE COMPLETED IN TIME FOR GRASS TO BE ESTABLISHED BY SEPTEMBER 31st, 2021.