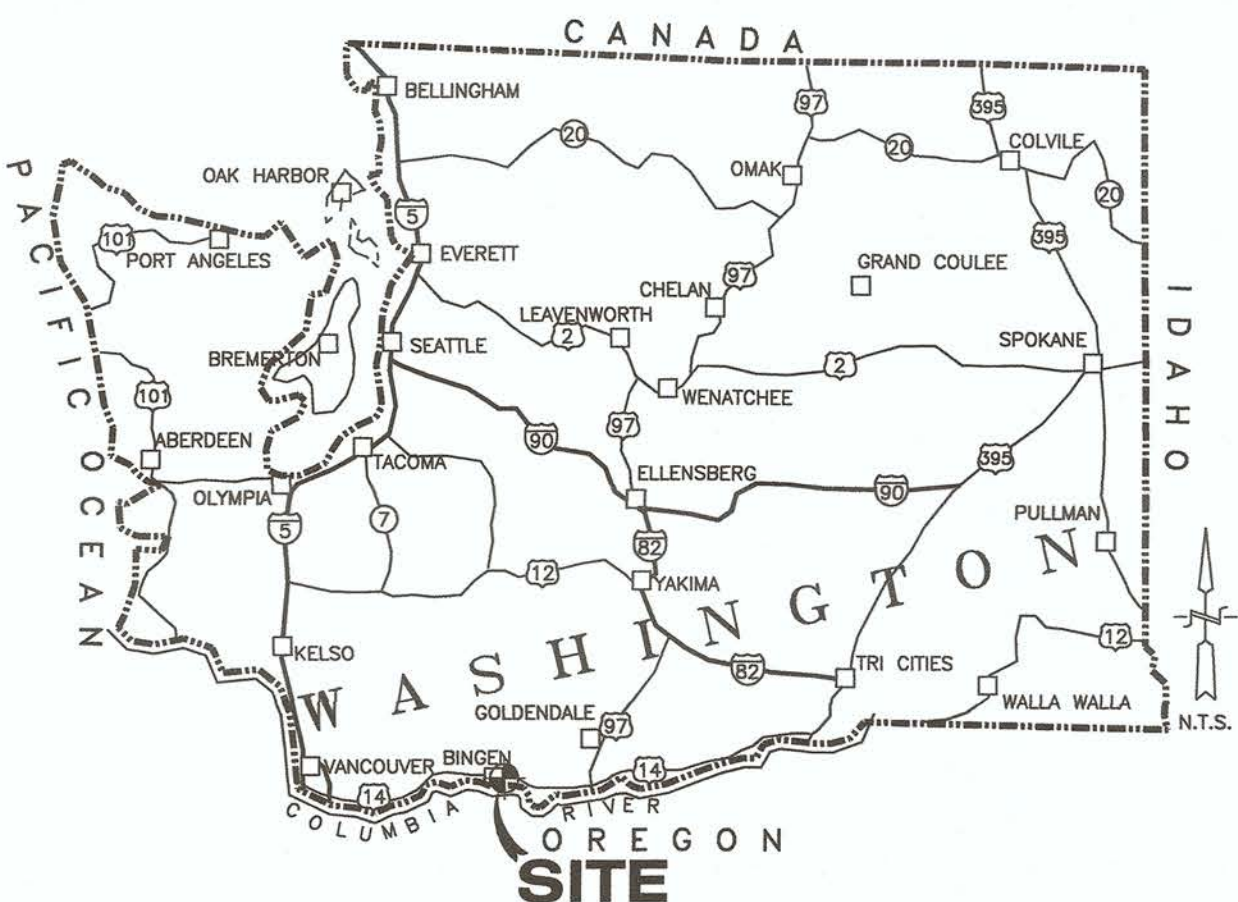


# PROPOSED BPT IRRIGATION-DRAINAGE-FILL PROJECT

## POK PROJECT ID #2022-02 FOR THE Klickitat County Port District No. 1 APRIL 2022



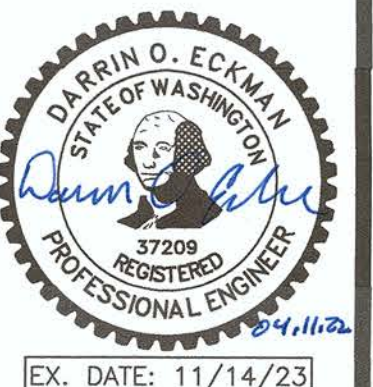
Design	T.E.C.	Survey	T.E.C.
DWG. No.	K:\WORK ORDERS\16100\16149\DRAWINGS\16149_BPT_SMALL	Drawn	T.E.C.
Date	04/11/2022	Scale	NONE
Work Order No.	16149		

**COVER SHEET**  
FOR THE  
BPT IRRIGATION-DRAINAGE-FILL PROJECT  
POK PROJECT ID #2022-02  
BINGEN, KLIKITAT COUNTY, WASHINGTON

**TENNESON ENGINEERING CORP.**  
CONSULTING ENGINEERS  
3775 CRATES WAY  
THE DALLES, OREGON 97058  
PH. 541-296-9177 FAX 541-296-6657  
PLOT DATE: 4/11/2022

**FOR BID**

1" = 1" IF THIS BAR IS NOT ONE INCH, THEN ADJUST SCALES ACCORDINGLY

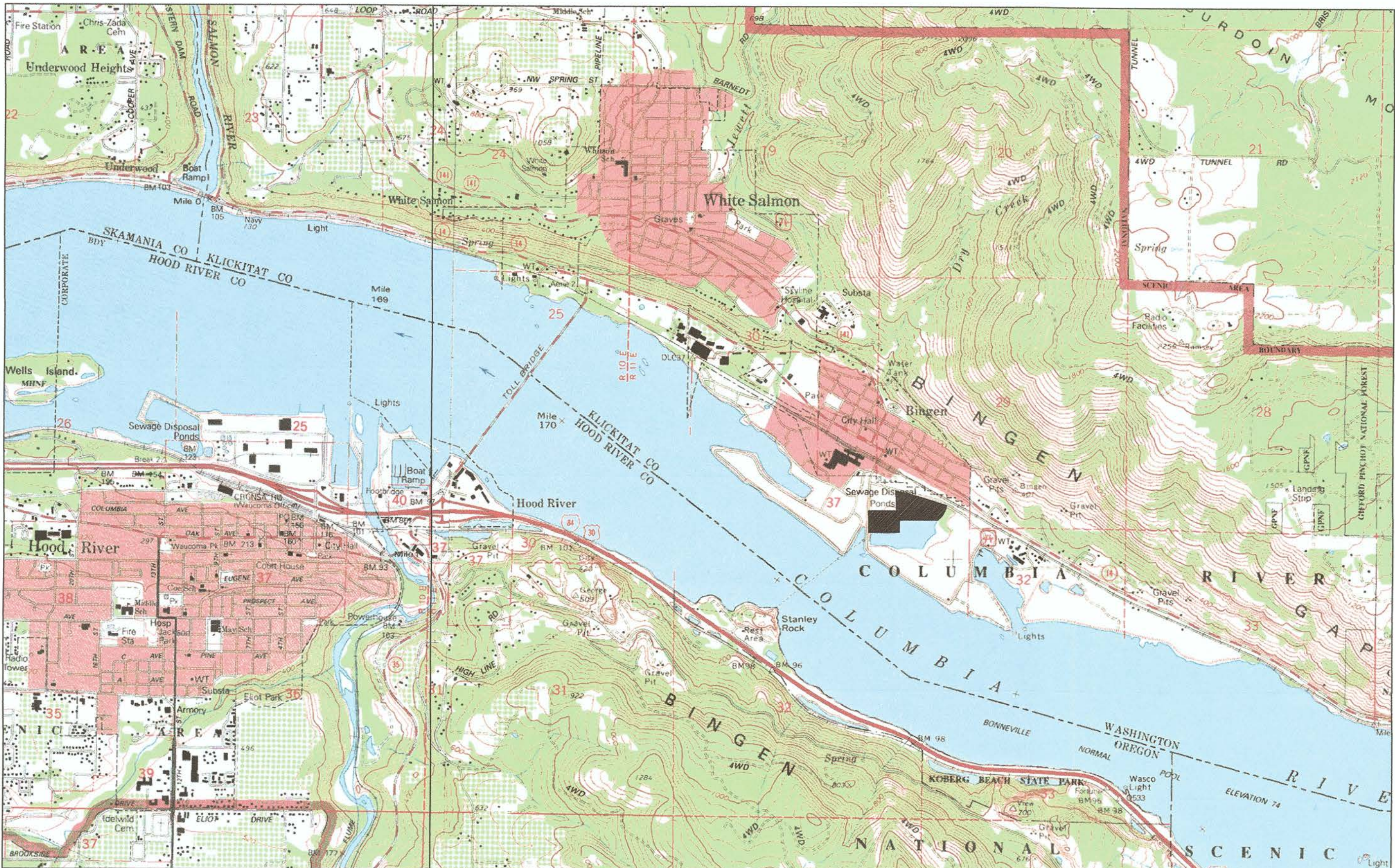


**COVER**

**SHEET C-000**

Work Order No. 16149

SHEET INDEX	
BASE BID	
SHEET	DESCRIPTION
C-000	COVER SHEET
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**VICINITY MAP**  
APPROXIMATE SCALE 1"=2,000'

**OWNER:**  
Klickitat County Port District No. 1  
154 East Bingen Point Way, Ste. A  
Bingen, WA 98605  
PH: 509-493-1655  
FX: 509-493-4257  
MARGIE ZIEGLER, EXECUTIVE DIRECTOR

**ENGINEER:**  
TENNESON ENGINEERING CORP.  
3775 CRATES WAY  
THE DALLES, OR. 97058  
PH. 541-296-9177  
FAX 541-296-6657  
DARRIN ECKMAN, PROJECT MANAGER  
MICHAEL PIKE, PROJECT DESIGNER



GENERAL NOTES:

- A) CONTRACTOR SHALL CONFORM TO ALL CONSTRUCTION PERMITS PROCURED BY THE OWNER.
- B) CONTRACTOR TO PAY ALL TESTING COSTS. CONTRACTOR SHALL COORDINATE AND PAY ALL COSTS ASSOCIATED WITH CONNECTING TO EXISTING WATER, SANITARY SEWER AND STORM SEWER FACILITIES.
- C) CONTRACTOR SHALL PROVIDE ALL BONDS AND INSURANCE REQUIRED BY PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION.
- D) ALL MATERIALS AND WORKMANSHIP FOR FACILITIES IN STREET RIGHT-OF-WAY OR EASEMENTS SHALL CONFORM TO APPROVING AGENCIES' CONSTRUCTION SPECIFICATIONS WHEREIN EACH HAS JURISDICTION, INCLUDING BUT NOT LIMITED TO THE COUNTY, WASHINGTON DEPARTMENT OF HEALTH (DOH) AND THE WASHINGTON DEPARTMENT OF ECOLOGY (DOE).
- E) UNLESS OTHERWISE APPROVED BY THE JURISDICTION, CONSTRUCTION OF ALL PUBLIC FACILITIES SHALL BE DONE BETWEEN 7:00 AM. AND 5:00 P.M., MONDAY THROUGH FRIDAY.
- F) THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DRAWINGS INCLUDING SUCH INCIDENTALS AS MAY BE NECESSARY TO MEET APPLICABLE AGENCY REQUIREMENTS AND PROVIDE A COMPLETED PROJECT.
- G) THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES A MINIMUM OF 48 BUSINESS HOURS (2 BUSINESS DAYS) PRIOR TO START OF CONSTRUCTION AND COMPLY WITH ALL OTHER REQUIREMENTS OF THE SERVING UTILITIES.
- H) ANY INSPECTION BY THE OWNER OR OTHER AGENCIES SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE CONTRACT DOCUMENTS, APPLICABLE CODES AND AGENCY REQUIREMENTS.
- I) CONTRACTOR SHALL ERECT AND MAINTAIN BARRICADES, WARNING SIGNS, TRAFFIC CONES PER LOCAL REQUIREMENTS IN ACCORDANCE WITH THE MUTCD (WASHINGTON AMENDMENTS). ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES. ALL TRAFFIC CONTROL MEASURES SHALL BE APPROVED AND IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITY.
- J) CONTRACTOR SHALL BE PROPERLY LICENSED BY THE APPROPRIATE STATE AGENCY.
- K) ELEVATIONS ARE BASED ON AN ASSUMED DATUM AS SHOWN ON THE PLANS.
- L) STATIONING IS BASED ON PRIMARY ALIGNMENT SHOWN.

EXISTING UTILITIES & FACILITIES:

- A) THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF APPROVED DRAWINGS ON THE CONSTRUCTION SITE AT ALL TIMES WHEREON HE WILL RECORD ANY APPROVED DEVIATIONS IN CONSTRUCTION FROM THE APPROVED DRAWINGS, AS WELL AS THE STATION LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES ENCOUNTERED. THESE FIELD RECORD DRAWINGS SHALL BE KEPT UP TO DATE AT ALL TIMES AND SHALL BE AVAILABLE FOR INSPECTION BY THE OWNER UPON REQUEST. FAILURE TO CONFORM TO THIS REQUIREMENT MAY RESULT IN DELAY OF PAYMENT AND/OR FINAL ACCEPTANCE OF THE PROJECT.
- B) UPON COMPLETION OF CONSTRUCTION OF ALL NEW FACILITIES, CONTRACTOR SHALL SUBMIT A CLEAN SET OF FIELD RECORD DRAWINGS CONTAINING ALL RECORD DRAWINGS TO THE ENGINEER FOR USE IN THE PREPARATION OF RECORD DRAWINGS FOR SUBMITTAL TO THE OWNER. ALL INFORMATION SHOWN ON THE CONTRACTORS FIELD RECORD DRAWINGS SHALL BE SUBJECT TO VERIFICATION BY THE ENGINEER. IF SIGNIFICANT ERRORS OR DEVIATIONS ARE NOTED BY THE ENGINEER, AN AS-BUILT SURVEY PREPARED AND STAMPED BY A REGISTERED PROFESSIONAL LAND SURVEYOR AND/OR QUALIFIED ENGINEER SHALL BE COMPETED AT THE CONTRACTOR'S EXPENSE.
- C) THE LOCATION AND DESCRIPTIONS OF EXISTING UTILITIES SHOWN ON THE DRAWING, 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 AND SIZES OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- D) THE CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING PROPERTY AND STREET MONUMENTS PRIOR TO CONSTRUCTION. ANY MONUMENTS DISTURBED DURING CONSTRUCTION OF THE PROJECT SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR AT THE CONTRACTORS EXPENSE.
- E) CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WHERE NEW FACILITIES CROSS. CONTRACTOR SHALL BE RESPONSIBLE FOR EXPOSING POTENTIAL UTILITY CONFLICTS FAR ENOUGH AHEAD OF CONSTRUCTION TO MAKE NECESSARY GRADE MODIFICATIONS WITHOUT DELAYING THE WORK. IF GRADE MODIFICATION IS NECESSARY, CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER, AND THE DESIGN ENGINEER SHALL OBTAIN APPROVAL PRIOR TO CONSTRUCTION. ALL UTILITY CROSSINGS SHALL BE POTHOLED AS NECESSARY PRIOR TO EXCAVATING OR BORING TO ALLOW THE CONTRACTOR TO PREVENT GRADE OR ALIGNMENT CONFLICTS.
- F) ALL FACILITIES SHALL BE MAINTAINED IN-PLACE BY THE CONTRACTOR UNLESS OTHERWISE SHOWN OR DIRECTED. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO SUPPORT, MAINTAIN, OR OTHERWISE PROTECT EXISTING UTILITIES AND OTHER FACILITIES AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR TO LEAVE EXISTING FACILITIES IN AN EQUAL OR BETTER-THAN-ORIGINAL CONDITION AND TO THE SATISFACTION OF THE ENGINEER.
- G) UTILITIES OR INTERFERING PORTIONS OF UTILITIES THAT ARE ABANDONED IN PLACE SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL PLUG THE REMAINING EXPOSED ENDS OF ABANDONED UTILITIES.
- H) CONTRACTOR SHALL REMOVE ALL EXISTING SIGNS, MAILBOXES, FENCES, LANDSCAPING, ETC., AS REQUIRED TO AVOID DAMAGE DURING CONSTRUCTION AND REPLACE THEM TO EXISTING OR BETTER CONDITION.
- I) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGING CONSTRUCTION ACTIVITIES TO ENSURE THAT PUBLIC STREETS AND RIGHT-OF-WAYS ARE KEPT CLEAN OF MUD, DUST OR DEBRIS. DUST ABATEMENT SHALL BE MAINTAINED BY ADEQUATE WATERING OF THE SITE BY THE CONTRACTOR.

GRADING, PAVING & DRAINAGE:

- A) UNLESS OTHERWISE NOTED, ALL GRADING, ROCKING AND PAVING TO CONFORM TO WSDOT/APAWA STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND MUNICIPAL CONSTRUCTION, CURRENT EDITION.
- B) CLEAR AND GRUB WITHIN WORK LIMITS ALL SURFACE VEGETATION, TREES, STUMPS, BRUSH, ETC. DO NOT DAMAGE OR REMOVE TREES EXCEPT AS APPROVED BY THE ENGINEER SHOWN ON THE DRAWINGS. PROTECT ALL ROOTS TWO INCHES IN DIAMETER OR LARGER. (BY OWNER)
- C) STRIP WORK LIMITS, REMOVING ALL ORGANIC MATTER, WHICH CANNOT BE COMPACTED INTO A STABLE MASS. ALL TREES, BRUSH AND DEBRIS ASSOCIATED WITH CLEARING, STRIPPING OR GRADING SHALL BE REMOVED AND STOCKPILED AT A LOCATION DETERMINED BY OWNER.
- D) IMMEDIATELY FOLLOWING STRIPPING OPERATIONS, COMPACT SUBGRADE TO 95% OF THE MAXIMUM DRY DENSITY PER ASTM D698 TEST METHOD (STANDARD PROCTOR). SUBGRADES MUST BE INSPECTED AND APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO PLACING EMBANKMENTS, ENGINEERED FILLS OR FINE GRADING FOR BASE ROCK.
- E) ALL FILLS SHALL BE ENGINEERED EXCEPT FOR FILLS LESS THAN 18-INCHES IN DEPTH WHICH ARE LOCATED OUTSIDE THE PUBLIC RIGHT-OF-WAY, BUILDING PADS, PARKING LOTS OR OTHER AREAS TO BE IMPROVED. ENGINEERED FILLS SHALL BE CONSTRUCTED IN 6" LIFTS OVER APPROVED SUBGRADES. EACH LIFT SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY PER ASTM D698 TEST METHOD (STANDARD PROCTOR).
- F) CRUSHED ROCK SHALL CONFORM TO WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION. COMPACT TO 95% OF THE MAXIMUM DRY DENSITY PER ASTM D698 TEST METHOD (STANDARD PROCTOR). WRITTEN COMPACTION TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY MUST BE RECEIVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO PLACING HMA PAVEMENT.
- G) HMA PAVEMENT SHALL CONFORM TO WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION. MIX TO BE COMMERCIAL, DENSE GRADED MIX(4"), GRADE PG. 64-28. PAVEMENT SHALL BE COMPACTED TO MINIMUM OF 91% OF MAXIMUM DENSITY.
- H) UNLESS OTHERWISE SHOWN ON THE DRAWINGS, STRAIGHT GRADES SHALL BE RUN BETWEEN ALL FINISH GRADE ELEVATIONS AND/OR FINISH CONTOUR LINES SHOWN.
- I) FINISH PAVEMENT GRADES AT TRANSITION IN EXISTING PAVEMENT SHALL MATCH EXISTING PAVEMENT GRADES OR BE FEATHERED PAST JOINTS WITH EXISTING PAVEMENT AS REQUIRED TO PROVIDE A SMOOTH, FREE DRAINING SURFACE.
- J) ALL EXISTING OR CONSTRUCTED MANHOLES, CLEANOUTS, MONUMENTS, GAS VALVES, WATER VALVES AND SIMILAR STRUCTURES SHALL BE ADJUSTED TO MATCH FINISH GRADES OF THE PAVEMENT. SIDEWALK, LANDSCAPING AREA OR MEDIAN STRIP WHEREIN THEY INTERFERE WITH VALVE BOXES AND RISERS ARE CLEAN AND CENTERED OVER THE OPERATION NUT. ADJUSTMENT AFTER PLACEMENT OF FINAL WEARING COURSE WILL NOT BE ALLOWED.
- K) UNLESS OTHERWISE SHOWN ON THE DRAWINGS, NO CUT OR FILL SLOPES SHALL BE CONSTRUCTED STEEPER THAN 2H:1V.
- L) OWNER SHALL SEED AND MULCH ALL EXPOSED SLOPES AND DISTURBED AREA, WHICH ARE NOT SCHEDULED TO BE LANDSCAPED.
- M) TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION.

TESTING AND INSPECTION:

- A) THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED OR NECESSARY INSPECTIONS ARE COMPLETED BY THE OWNER'S AUTHORIZED INSPECTORS PRIOR TO PROCEEDING WITH SUBSEQUENT WORK WHICH COVERS OR THAT IS DEPENDENT ON THE WORK TO BE INSPECTED. FAILURE TO OBTAIN NECESSARY INSPECTION(S) AND APPROVAL(S) SHALL RESULT IN THE CONTRACTOR BEING FULLY RESPONSIBLE FOR ALL PROBLEMS ARISING FROM UNSPECTED WORK.
- B) UNLESS OTHERWISE SPECIFIED, THE FOLLOWING TABLE OUTLINES THE MINIMUM TESTING SCHEDULE FOR THE PROJECT. THIS TESTING SCHEDULE IS NOT COMPLETE, AND DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF OBTAINING ALL NECESSARY INSPECTIONS FOR ALL WORK PERFORMED, REGARDLESS OF WHO IS RESPONSIBLE FOR PAYMENT.

REQUIRED TESTING AND FREQUENCY		Party Responsible for payment	
		Contractor	Others (See note 1)
STREETS, PARKING LOTS, PADS, FILLS. ETC.			
SUBGRADE	1 TEST/4000 S.F./LIFT (2 MIN)		✓ See note 3
AGGREGATE	1 TEST/4000 S.F./LIFT		✓ See note 3
ASPHALT	1 TEST/4000 S.F./LIFT (2 MIN)		✓
PIPED UTILITIES, ALL			
TRENCH BACKFILL	1 TEST/200 FOOT TRENCH/LIFT (2 MIN)		✓
WATER			
PRESSURE	(TO BE WITNESSED BY ENGINEER OR APPROVING AGENCY)	✓	
BACTERIAL WATER TEST	PER OHD/DOH REQUIREMENTS	✓	See note 2
CHLORINE RESIDUAL TEST	PER OHD/DOH REQUIREMENTS	✓	
SANITARY SEWER			
AIR TEST	PER CITY OR ODOT/APWA WHICHEVER IS MORE STRINGENT	✓	See note 4
MANDREL	95% OF ACTUAL INSIDE DIAMETER	✓	
TV INSPECTION	LINES MUST BE CLEANED PRIOR TO TV WORK	✓	
MANHOLE	VACUUM TEST EACH MANHOLE. WITNESSED BY ENGINEER OR APPROVING AGENCY.	✓	See note 4
STORM			
MANDREL	95% OF ACTUAL INSIDE DIAMETER	✓	
TV INSPECTION	LINES MUST BE CLEANED PRIOR TO TV WORK	✓	
NOTE 1: OTHERS REFERS TO OWNER, ENGINEER OR APPROVING AGENCY AS APPLICABLE. CONTRACTOR RESPONSIBLE FOR SCHEDULING TESTING. ALL TESTING MUST BE COMPLETED PRIOR TO PERFORMING SUBSEQUENT WORK.			
NOTE 2: TESTING MUST BE PERFORMED BY AN APPROVED INDEPENDENT TESTING AGENCY.			
NOTE 3: IN ADDITION TO IN PLACE DENSITY TESTING, THE SUBGRADE AND AGGREGATE SHALL BE PROOF-ROLLED WITH A LOADED 10 YARD DUMP TRUCK PROVIDED BY THE CONTRACTOR. LOCATION AND PATTERN OF PROOF-ROLL TO BE AS DIRECTED BY THE OWNERS AUTHORIZED REPRESENTATIVE.			
NOTE 4: CONTRACTOR MAY USE HYDROSTATIC TESTING IN LIEU OF VACUUM AND AIR TESTING.			

PIPED UTILITIES:

- A) ALL TAPPING OF EXISTING UTILITIES MUST BE DONE BY CONTRACTOR FORCES.
- B) THE END OF ALL UTILITY STUBS SHALL BE MARKED WITH A 2X4 COLOR CODED AND WIRED TO PIPE STUB.
- C) ALL NON-METALLIC WATER, SANITARY AND STORM SEWER PIPING SHALL HAVE AN ELECTRICALLY CONDUCTIVE INSULATED 14 GAUGE COPPER TRACER WIRE THE FULL LENGTH OF THE INSTALLED PIPE USING BLUE WIRE FOR WATER AND GREEN FOR STORM AND SANITARY PIPING. TRACER WIRE SHALL BE EXTENDED UP INTO ALL VALVE BOXES, AND MANHOLES AND CATCH BASINS. TRACER WIRE PENETRATIONS INTO MANHOLES SHALL BE WITHIN 18 INCHES OF THE RIM ELEVATION AND ADJACENT TO MANHOLE STEPS. THE TRACER WIRE SHALL BE TIED TO THE TOP MANHOLE STEP OR OTHERWISE SUPPORTED TO ALLOW RETRIEVAL FROM THE OUTSIDE OF THE MANHOLE. USE WATERPROOF FITTINGS AT ALL CONNECTIONS.
- D) NO TRENCHES IN ROADS OR DRIVEWAYS SHALL BE LEFT IN AN OPEN CONDITION OVERNIGHT. ALL SUCH TRENCHES SHALL BE CLOSED BEFORE THE END OF EACH WORK DAY AND NORMAL TRAFFIC FLOWS RESTORED.
- E) SANITARY SEWER LATERALS TO BE RUN TO EDGE OF R.O.W. AT 1/4" PER 12" SLOPE. LATERALS TO BE INSTALLED DOWNSTREAM OF MAINLINE CLEAN OUTS AND/OR MANHOLES. ALL CATCH BASINS TO HAVE 8" PVC. SDR-35 LATERALS. CATCH BASIN LOCATION MAY BE MODIFIED TO ACCOMMODATE LOW SPOTS CREATED DURING CONSTRUCTION. ENGINEER AND/OR CITY MAY REQUIRE ADDITIONAL CATCH BASINS TO BE PLACED AT LOW SPOTS CREATED DURING CONSTRUCTION.
- F) CONTRACTOR TO MAKE MINOR ADJUSTMENT TO SERVICE LOCATIONS, WHERE NECESSARY, TO AVOID CONFLICT. MAINTAIN 5' MINIMUM SEPARATION BETWEEN STORM AND SANITARY AND 10' MIN. SEPARATION BETWEEN SANITARY AND WATER, 1' TO MANHOLES OR CATCH BASINS AND 5' BETWEEN MANHOLES AND CATCH BASINS. MAINTAIN 1' VERTICAL AND 2' HORIZONTAL SEPARATION BETWEEN COUNTY AND PRIVATE FRANCHISE UTILITY SERVICES AND 2' HORIZONTAL SEPARATION BETWEEN COUNTY UTILITIES IN A COMMON TRENCH.

PRIVATE UTILITIES:

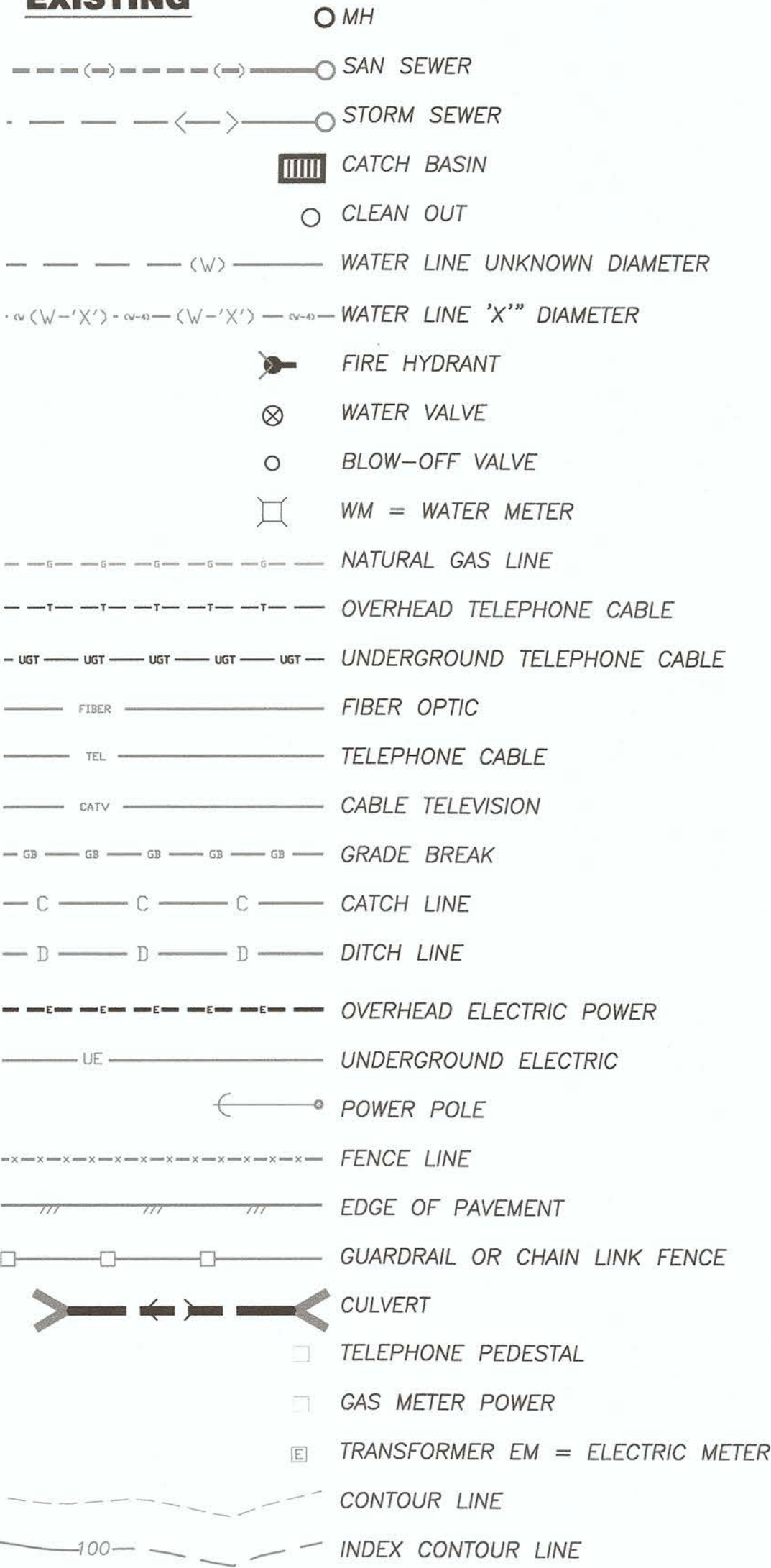
- A) UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR APPROVED BY JURISDICTION HAVING AUTHORITY, ALL NEW PRIVATE UTILITIES (IRRIGATION, POWER, BROADBAND, TELEPHONE & GAS) SHALL BE INSTALLED UNDERGROUND. INSTALLATION OF PRIVATE UTILITIES IN A COMMON TRENCH WITH WATER, SANITARY SEWER OR STORM SEWER IS PROHIBITED.
- B) CONTRACTOR SHALL COORDINATE WITH POWER, TELEPHONE, GAS AND BROADBAND COMPANIES FOR LOCATION OF VAULTS, PEDESTALS, ETC. ALL ABOVE GRADE FACILITIES SHALL BE PLACED IN A LOCATION OUTSIDE THE PROPOSED SIDEWALK LOCATION.
- C) POWER, TELEPHONE, GAS AND BROADBAND TRENCHING AND CONDUITS SHALL BE INSTALLED PER UTILITY COMPANY REQUIREMENTS WITH PULL TAPE. CONTRACTOR SHALL VERIFY WITH UTILITY COMPANY FOR SIZE AND TYPE OF CONDUIT PRIOR TO CONSTRUCTION. ALL CHANGES IN DIRECTION OF UTILITY CONDUIT RUNS SHALL HAVE LONG RADIUS BENDS.
- D) CONTRACTOR SHALL NOTIFY AND COORDINATE WITH PRIVATE UTILITY FOR RELOCATION OF POWER POLES, VAULTS, ETC.
- E) ALL PRIVATE UTILITY STRUCTURES (VAULTS, PEDESTALS, LIGHT POLES., ETC.) SHALL BE SET A MINIMUM OF 1 FOOT FROM ANY PROPERTY CORNER OR SURVEY MONUMENT.
- F) IRRIGATION WATERLINE TO BE FLUSHED AND PRESSURE TESTED TO 150 PSI FOR 60 MINUTES WITH NO LOSS OF PRESSURE

ABBREVIATIONS:

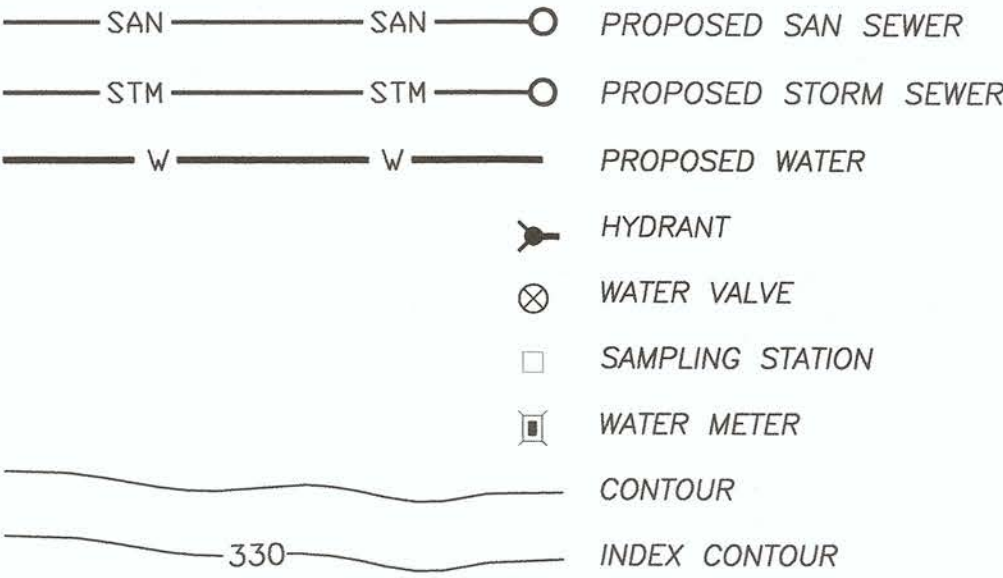
AASHTO - AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS  
ABS - ACRYLONITRILE BUTADIENE STYRENE  
APWA - AMERICAN PUBLIC WORKS ASSOCIATION  
ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS  
AWWA - AMERICAN WATER WORKS ASSOCIATION  
BF - BOTTOM OF FOOTING  
BSW - BACK OF SIDEWALK  
BW - BOTTOM OF WALL  
CDF - CONTROLLED DENSITY FILL  
CL - CLASS  
CLR - CLEAR  
CONT. - CONTINUOUS  
COTG - CLEANOUT TO GRADE  
C.Y. - CUBIC YARD  
DCVA - DOUBLE CHECK VALVE ASSEMBLY  
DEQ - OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY  
DI - DUCTILE IRON  
DIA., Ø - DIAMETER  
DR - DIMENSION RATIO  
(E) - EXISTING  
EL - ELEVATION  
FDC - FIRE DEPARTMENT CONNECTION  
FF - FINISH FLOOR  
FG - FINISH GRADE  
FL - FLANGE  
FM - FORCE MAIN  
FW - FIRE WATER  
G.V. - GATE VALVE  
H. HORIZ. - HORIZONTAL  
HMAC - HOT MIX ASPHALT CONCRETE  
H.S. - HIGH STRENGTH  
HYD. - HYDRANT  
LEN. - LENGTH  
IE - INVERT ELEVATION  
L.F. - LINEAL FEET  
LP - LIGHT POLE  
LT. - LEFT  
MUTCD - MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES  
MV - MEDIUM VOLTAGE  
N.C. - NORMALLY CLOSED  
N.O. - NORMALLY OPEN  
O.C., O/C - ON CENTER  
ODOT - OREGON DEPARTMENT OF TRANSPORTATION  
OG - ORIGINAL GROUND  
OHD - OREGON HEALTH DIVISION  
(P) - PROPOSED

PC - POINT OF CURVATURE  
PCC - PORTLAND CEMENT CONCRETE  
P.I.V. - POST INDICATOR VALVE  
PO - PUSH ON  
POC - POINT ON CURVE  
PRC - POINT OF REVERSE CURVATURE  
PSI - POUNDS PER SQUARE INCH  
PT - POINT OF TANGENCY  
PVC - POLYVINYL CHLORIDE  
ROW - RIGHT OF WAY  
RT. - RIGHT  
S - SLOPE  
SAN - SANITARY  
SD - STORM DRAIN  
SDCB - STORM DRAIN CATCH BASIN  
SDCO - STORM DRAIN CLEANOUT  
SDMH - STORM DRAIN MANHOLE  
SDR - STANDARD DIMENSION RATIO  
S.F. - SQUARE FEET  
SSCO - SANITARY SEWER CLEANOUT  
SSMH - SANITARY SEWER MANHOLE  
SS - SANITARY SEWER  
STA - STATION  
STM - STORM  
SW - SIDEWALK  
S.Y. - SQUARE YARD  
TC - TOP OF CURB  
TS - TOP OF SIDEWALK OR SLAB  
TF - TOP OF FOOTING  
TP - TOP OF PAVEMENT  
TW - TOP OF WALL  
TYP. - TYPICAL  
U.N.O. - UNLESS NOTED OTHERWISE  
V. VERT. - VERTICAL  
SDR - STANDARD DIMENSION RATIO  
S.F. - SQUARE FEET  
SSCO - SANITARY SEWER CLEANOUT  
SSMH - SANITARY SEWER MANHOLE  
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TYP. - TYPICAL  
U.N.O. - UNLESS NOTED OTHERWISE  
V. VERT. - VERTICAL

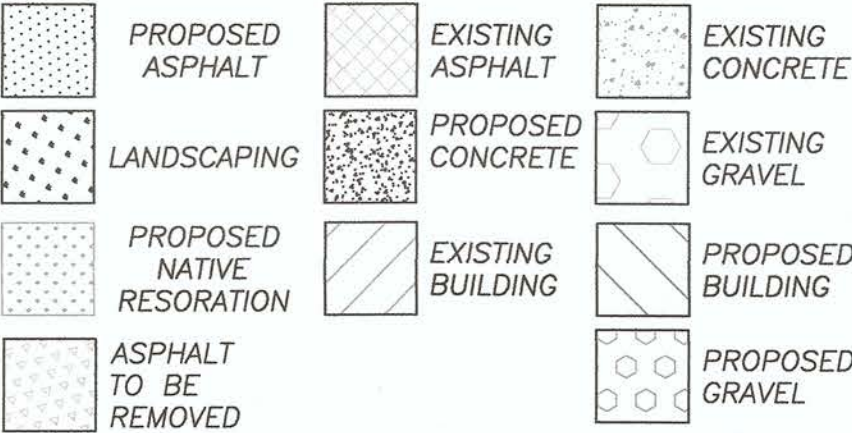
EXISTING



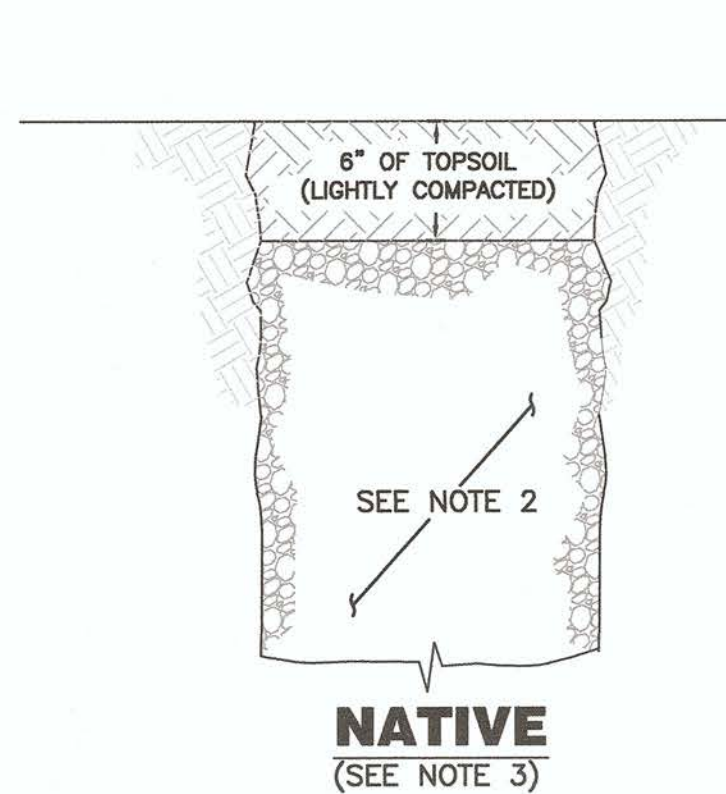
PROPOSED



HATCH

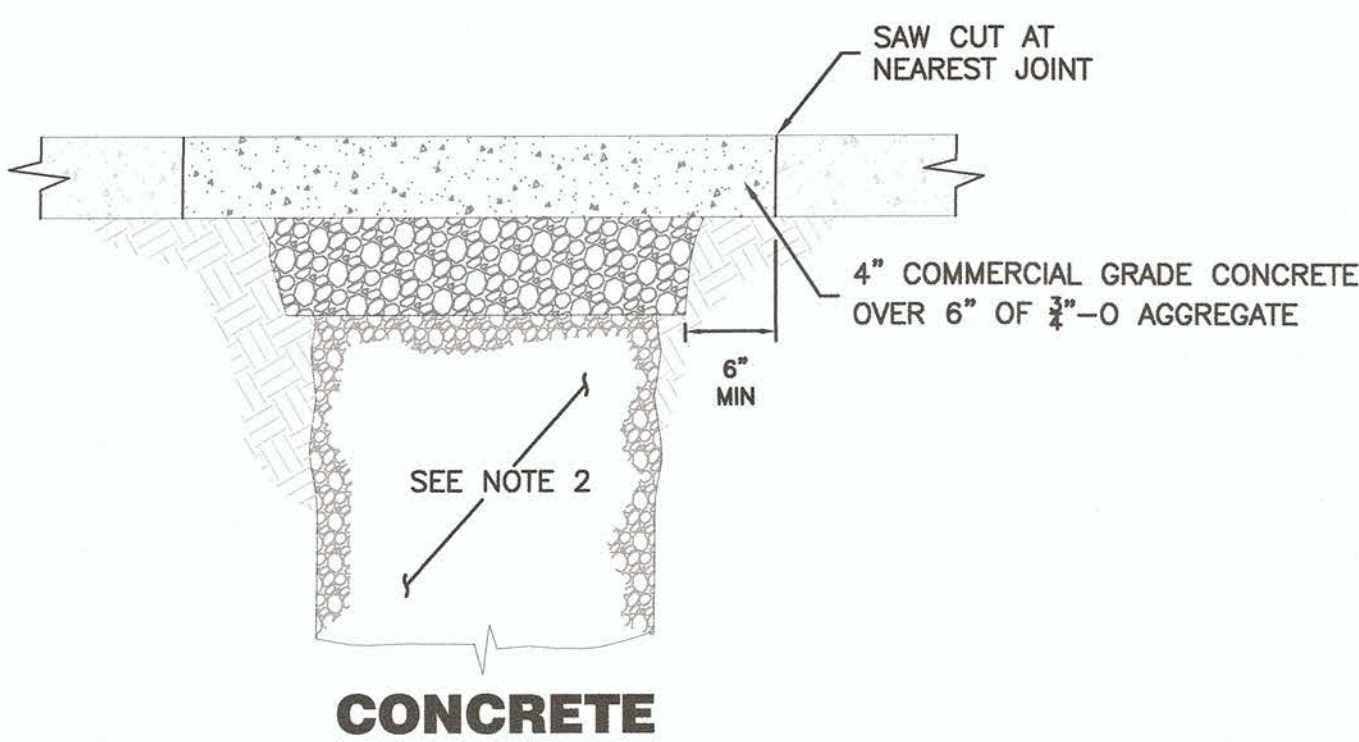






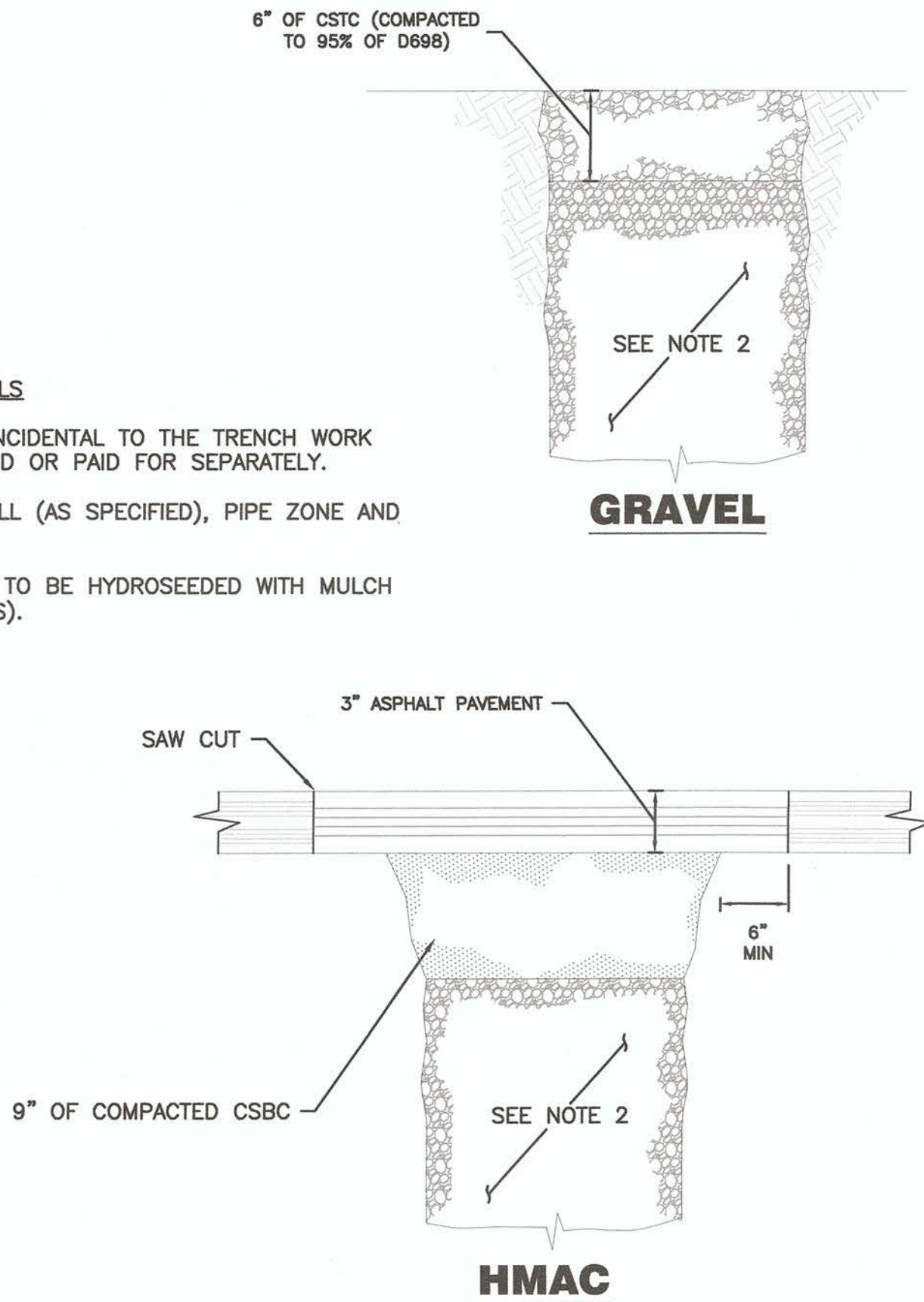
GENERAL NOTES FOR ALL DETAILS

1. SURFACE RESTORATION IS INCIDENTAL TO THE TRENCH WORK AND WILL NOT BE MEASURED OR PAID FOR SEPARATELY.
2. COMPACTED TRENCH BACKFILL (AS SPECIFIED), PIPE ZONE AND PIPE BEDDING PER DETAIL.
3. NATIVE RESTORATION AREAS TO BE HYDROSEEDDED WITH MULCH AND FERTILIZER (BY OTHERS).



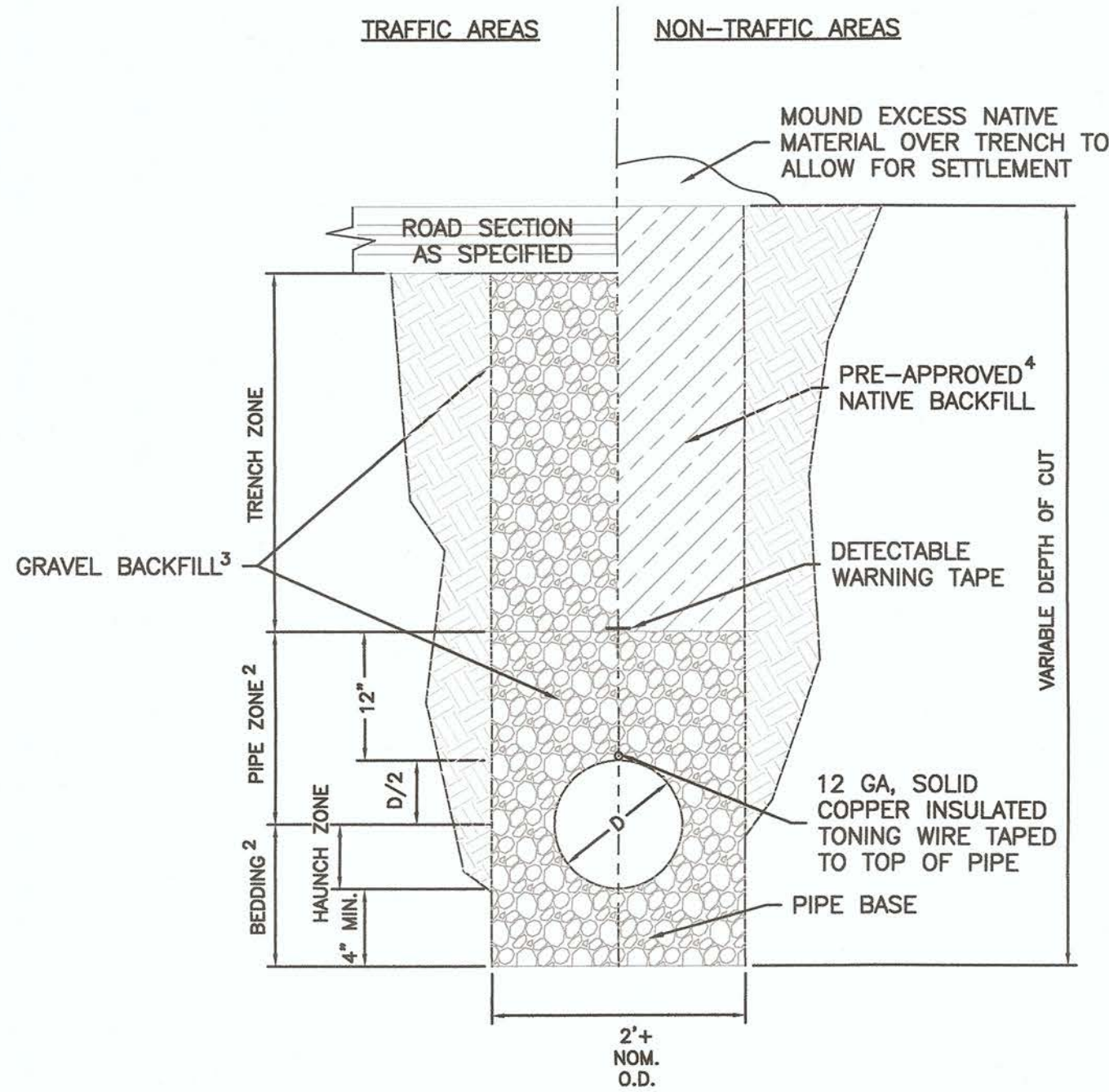
TYPICAL TRENCH RESTORATION DETAILS

SCALE: NONE



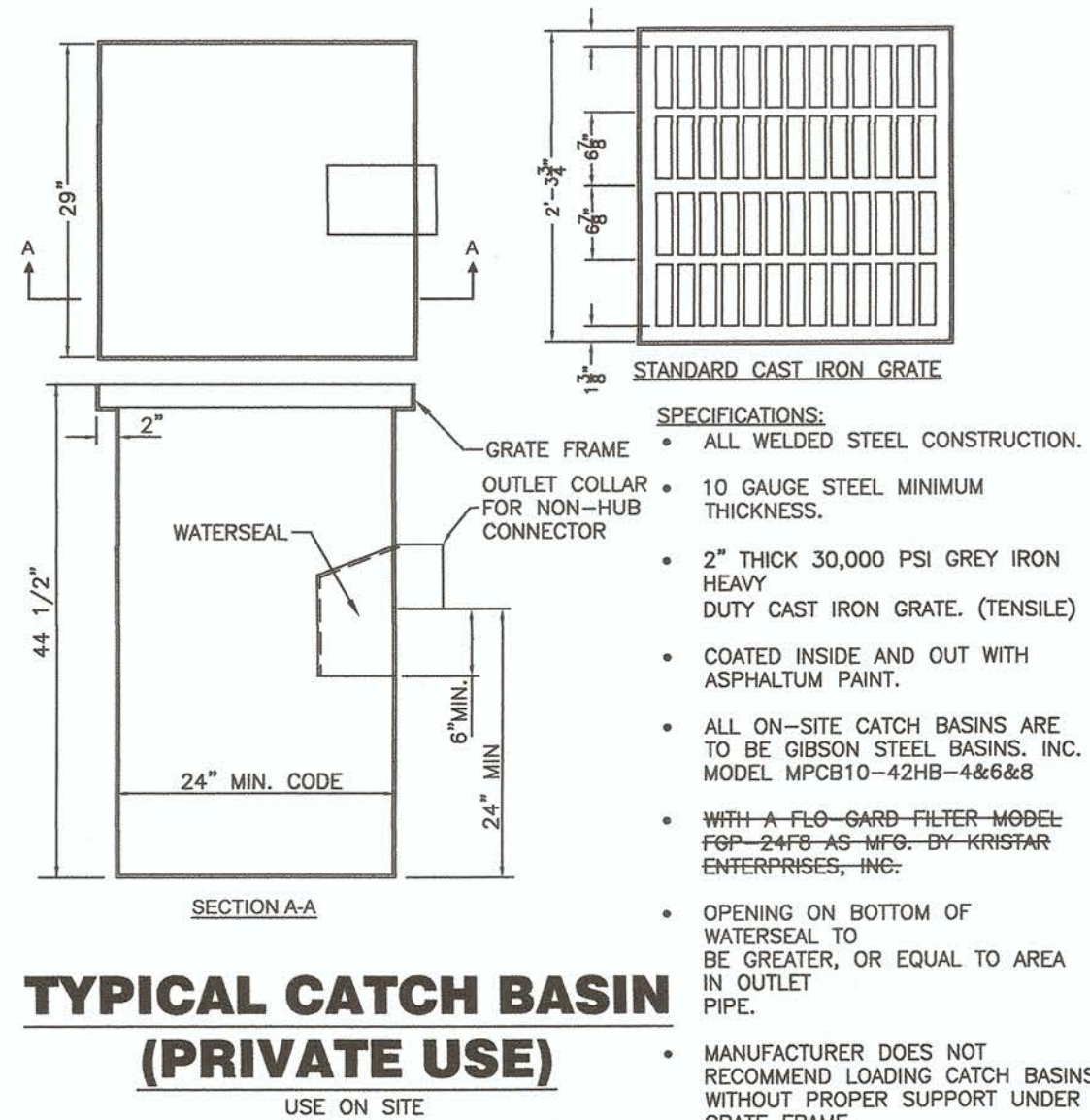
NOTES

1. GENERAL PIPE INSTALLATION REQUIREMENTS SHALL BE PER SECTION 7-08 OF WSDOT STANDARD SPECIFICATIONS
2. PIPE ZONE AND BEDDING MATERIAL SHALL CONFORM TO WSDOT STANDARD SPECIFICATIONS 9-03.12(3)
3. GRAVEL BACKFILL PER WSDOT SPECIFICATIONS SECTION 9-03.19, AND COMPACTED TO 95% MAX. DENSITY (AASHTO T-99). NATIVE SOILS MAY BE USED UPON APPROVAL BY REVIEWING AUTHORITY IF TESTING SHOWS MATERIAL IS CLASSIFIED AS A-1 OR A-3 BY AASHTO
4. OUTSIDE THE ROADWAY PRISM, SUITABLE NATIVE BACKFILL SHALL BE COMPACTED TO 90% MAX. DENSITY (AASHTO T-99).
5. ALL COMPACTION SHALL BE IN ACCORDANCE WITH THE COMPACTION CONTROL TEST OF WSDOT STANDARD SPECIFICATIONS 2-03.3(14)D.



PIPE INSTALLATION DETAIL

SCALE: NONE



TYPICAL CATCH BASIN (PRIVATE USE)

USE ON SITE

Design	T.E.C.	Survey	T.E.C.
Work Order No.	16149	DWG. No.	16149
Date	04/11/2022	Drawn	T.E.C.
Scale	NONE	Scale	NONE

**DETAILS**

FOR THE  
BPT IRRIGATION-DRAINAGE-FILL PROJECT  
POK PROJECT ID #2022-02

BINGEN, KLICKITAT COUNTY, WASHINGTON

**TENNESON ENGINEERING CORP.**  
CONSULTING ENGINEERS  
3775 CRATES WAY  
THE DALLES, OREGON 97058  
PH. 541-296-9177 FAX 541-296-6657  
PLOT DATE: 4/11/2022

**FOR BID**

1"

IF THIS BAR IS NOT ONE INCH, THEN ADJUST SCALES ACCORDINGLY

**DARRIN O. ECKHART**  
STATE OF WASHINGTON  
REGISTERED PROFESSIONAL ENGINEER  
EX. DATE: 11/14/23

**DETAILS**

**SHEET C-011**

Work Order No.  
16149



GENERAL NOTES:

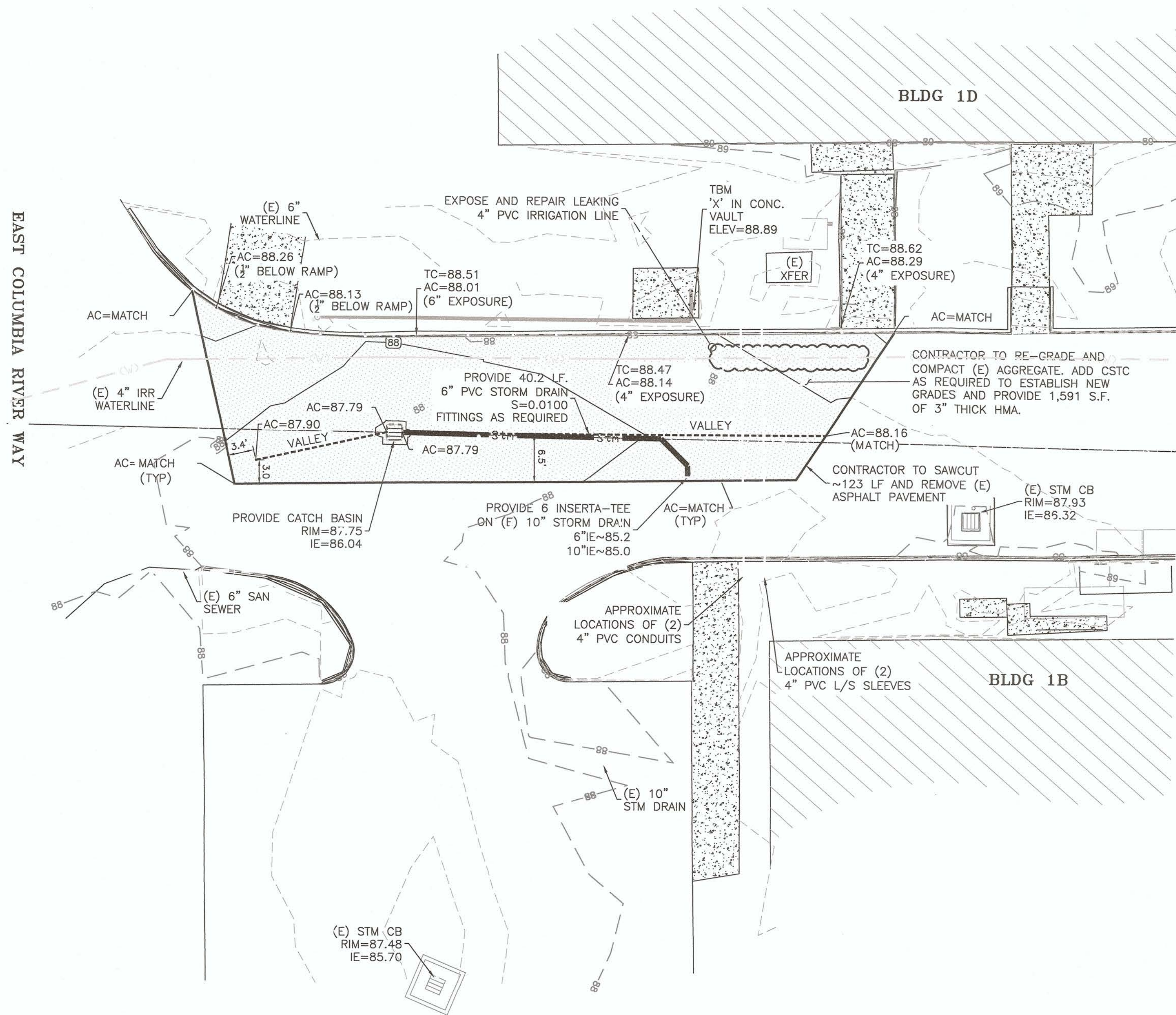
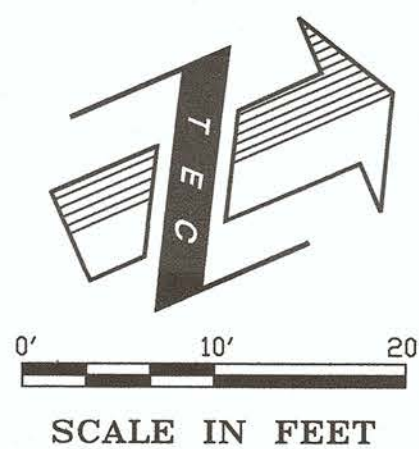
1. CONTRACTOR SHALL COMPLY WITH STATE UTILITY LOCATE PROVISIONS. NO EXCAVATION SHALL BE PERFORMED WITHOUT PROPER NOTIFICATION OF UTILITIES.
2. KNOWN UTILITIES IN THE AREA OF WORK HAVE BEEN SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR. NO RESPONSIBILITY IS ASSUMED BY EITHER THE OWNER OR THE CONSULTING ENGINEER FOR THE COMPLETENESS OR ACCURACY OF THE LOCATIONS, TYPE, OR NUMBER OF EXISTING UTILITIES.
3. CONTRACTOR TO ARRANGE A PRE-CONSTRUCTION MEETING PRIOR TO START OF WORK WITH THE OWNER AND ENGINEER.
4. UNLESS OTHERWISE APPROVED BY THE OWNER, CONSTRUCTION SHALL BE DONE BETWEEN 7:00 A.M. AND 5:00 P.M., MONDAY THROUGH FRIDAY.
5. ANY INSPECTION BY THE OWNER OR OTHER AGENCIES SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE CONTRACT DOCUMENTS, APPLICABLE CODES AND AGENCY REQUIREMENTS.
6. CONTRACTOR SHALL ERECT AND MAINTAIN BARRICADES, WARNING SIGNS, TRAFFIC CONES PER LOCAL REQUIREMENTS IN ACCORDANCE WITH THE MUTCD (WASHINGTON AMENDMENTS, IF ANY). ALL TRAFFIC CONTROL MEASURES SHALL BE APPROVED AND IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITY.
7. THE AFFECTED PARKING SPACES AND DRIVEWAY INTO BUILDING 1B MAY BE CLOSED FOR A MAXIMUM OF FIVE (5) CONSECUTIVE BUSINESS DAYS. FINAL PAVEMENT PLACEMENT NOT INCLUDED IN THESE TIMEFRAMES.
8. CONTRACTOR SHALL ERECT AND MAINTAIN BARRICADES AND WARNING SIGNS TO PROTECT PEDESTRIANS.
9. COORDINATE IRRIGATION SYSTEM OPERATION WITH OWNER WHEN WORKING NEARBY.



OVERALL PLAN  
SCALE: N.T.S.

<b>OVERALL PLAN</b>	Design	T.E.C.	Survey	T.E.C.
	K:\WORK ORDERS\16100\16149\DRAWINGS\16149_BPT_SMALL	DWG. No.		
<b>FOR THE</b> <b>BPT IRRIGATION-DRAINAGE-FILL PROJECT</b> POK PROJECT ID #2022-02	Date	04/11/2022	Drawn	T.E.C.
	Work Order No.	16149	Scale	NONE
<b>TENNESON ENGINEERING CORP.</b> CONSULTING ENGINEERS 3775 CRATES WAY THE DALLES, OREGON 97058 PH. 541-296-9177 FAX 541-296-6657 PLOT DATE: 4/11/2022	<b>FOR BID</b>			
<b>OVERALL PLAN</b>	<b>SHEET C-101</b>			
Work Order No. 16149				





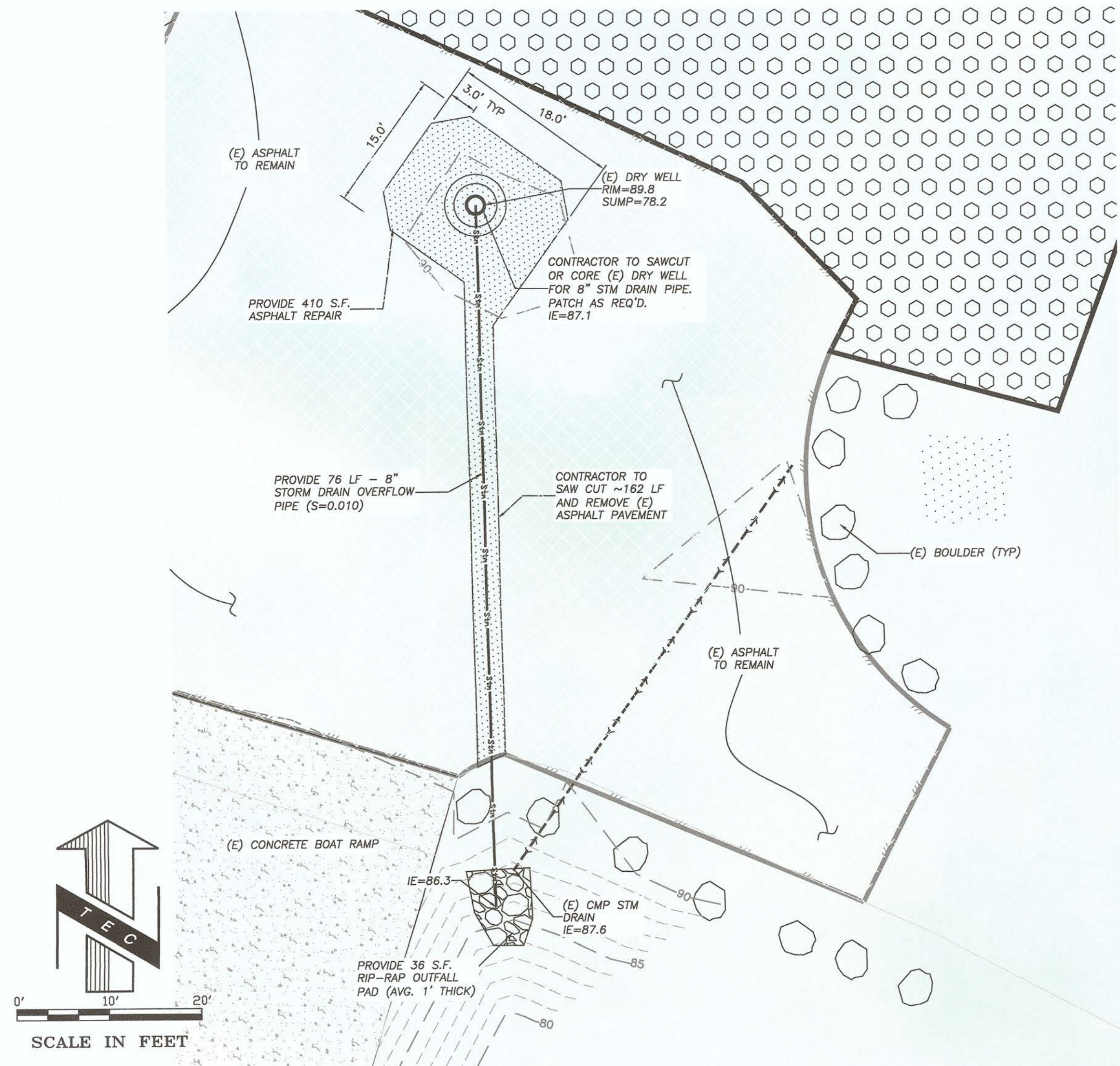
**BASE BID WORK ITEM**  
**BLDG 1B IRRIGATION AND DRAINAGE REPAIRS**  
SCALE: 1"=10'

**BLDG 1B IRRIGATION AND DRAINAGE REPAIRS-NOTES**

1. DIMENSIONS ARE APPROXIMATE. ALL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.
2. SAW CUT, REMOVE & DISPOSE OF EXISTING ASPHALT PAVEMENT.
3. EXPOSE (E) IRRIGATION PIPE TO IDENTIFY LEAK. PORT WILL ACTIVATE PUMPS TO ASSIST IN LOCATING THE LEAK. EXCAVATE AS NECESSARY AND REPAIR LEAK. ASSUME (2)-10 L.F. SECTIONS OF PIPE REPLACEMENT AND (4) COUPLINGS IN PRICING.
4. EXCAVATE, INSTALL AND BACKFILL STORM DRAIN CATCH BASIN AND 6" PVC STORM DRAIN PIPE. CONNECT TO (E) 10" STORM DRAIN.
5. RE-GRADE (E) AGGREGATE TO GRADES INDICATED.
6. COMPACT EXPOSED AGGREGATE.
7. FURNISH, PLACE AND COMPACT ADDITIONAL WSDOT CRUSHED SURFACING TOP COURSE (CSTC) AS REQUIRED TO ESTABLISH GRADES
8. TACK COAT EDGES OF EXISTING ASPHALT PAVEMENT.
9. FURNISH, PLACE & COMPACT 3" OF WSDOT CLASS 1/2" HOT MIX ASPHALT (HMA).
10. SAND SEAL THE RESULTING JOINT.

<b>BASE BID WORK</b>		Design T.E.C.	Survey T.E.C.
FOR THE <b>BPT IRRIGATION-DRAINAGE-FILL PROJECT</b> POK PROJECT ID #2022-02		DWG. No. K:\WORK ORDERS\16100\16149\DRAWINGS\16149_BPT_SMALL	Drawn T.E.C.
BINGEN, KLICKITAT COUNTY, WASHINGTON		Date 04/11/2022	Scale NONE
<b>TENNESON ENGINEERING CORP.</b> CONSULTING ENGINEERS 3775 CRATES WAY THE DALLES, OREGON 97058 PH. 541-296-9177 FAX 541-296-6657 PLOT DATE: 4/11/2022		<b>FOR BID</b>	
		<b>BASE BID</b>	
<b>SHEET C-111</b>		Work Order No. 16149	





**ADDITIVE WORK ITEM #1**  
**MARINA DRYWELL REPAIR**  
SCALE: 1"=10'

**MARINA DRYWELL REPAIR - NOTES:**

1. DIMENSIONS ARE APPROXIMATE. ALL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.
2. SAW CUT, REMOVE & DISPOSE OF EXISTING ASPHALT PAVEMENT.
3. SAWCUT OR CORE HOLE IN (E) DRYWELL STRUCTURE FOR STM DRAIN OVERFLOW PIPE.
4. EXCAVATE, INSTALL AND BACKFILL 8" PVC C900 OR CMP STM DRAIN OVERFLOW PIPE
5. EXCAVATE & DISPOSE OF AGGREGATE/SOIL WITHIN THE ASPHALT REPAIR AREA TO A DEPTH OF 12".
6. COMPACT EXPOSED SUBGRADE.
7. FURNISH, PLACE AND COMPACT 9" OF WSDOT CRUSHED SURFACING BASE COURSE (CSBC)
8. TACK COAT EDGES OF EXISTING ASPHALT PAVEMENT.
9. FURNISH, PLACE & COMPACT 3" OF WSDOT CLASS 1/2" HOT MIX ASPHALT (HMA).
10. SAND SEAL THE RESULTING JOINT.



**ADDITIVE WORK ITEM #3**  
**BLDG 1A ASPHALT REPAIR**  
SCALE: 1"=10'

**BLDG 1A ASPHALT REPAIR - NOTES:**

1. DIMENSIONS ARE APPROXIMATE. ALL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.
2. SAW CUT, REMOVE & DISPOSE OF EXISTING ASPHALT PAVEMENT.
3. EXCAVATE & DISPOSE OF AGGREGATE/SOIL WITHIN THE ASPHALT REPAIR AREAS TO A DEPTH OF 9".
4. COMPACT EXPOSED SUBGRADE.
5. FURNISH, PLACE AND COMPACT 9" OF WSDOT CRUSHED SURFACING BASE COURSE (CSBC)
6. TACK COAT EDGES OF EXISTING ASPHALT PAVEMENT.
7. FURNISH, PLACE & COMPACT 3" OF WSDOT CLASS 1/2" HOT MIX ASPHALT (HMA).
8. SAND SEAL THE RESULTING JOINT.

<b>ADDITIVE WORK ITEMS #1 &amp; #3</b> FOR THE <b>BPT IRRIGATION-DRAINAGE-FILL PROJECT</b> POK PROJECT ID #2022-02	Design	T.E.C.	Survey	T.E.C.
	DWG. No. 16149_BPT_SMALL			
	Date	04/11/2022	Drawn	T.E.C.
	Work Order No.	16149	Scale	NONE

**TENNESON ENGINEERING CORP.**  
 CONSULTING ENGINEERS  
 3775 ORATES WAY  
 THE DALLES, OREGON 97058  
 PH. 541-296-9177 FAX 541-296-6657  
 PLOT DATE: 4/11/2022

**FOR BID**

1" = 10'  
 IF THIS BAR IS NOT ONE INCH, THEN ADJUST SCALES ACCORDINGLY

D. R. R. O. E. C. A. M. N.  
 STATE OF WASHINGTON  
 37208  
 REGISTERED  
 PROFESSIONAL ENGINEER  
 EX. DATE: 11/14/23

**ADDITIVE #1 & #3**  
**SHEET C-112**  
 Work Order No. 16149



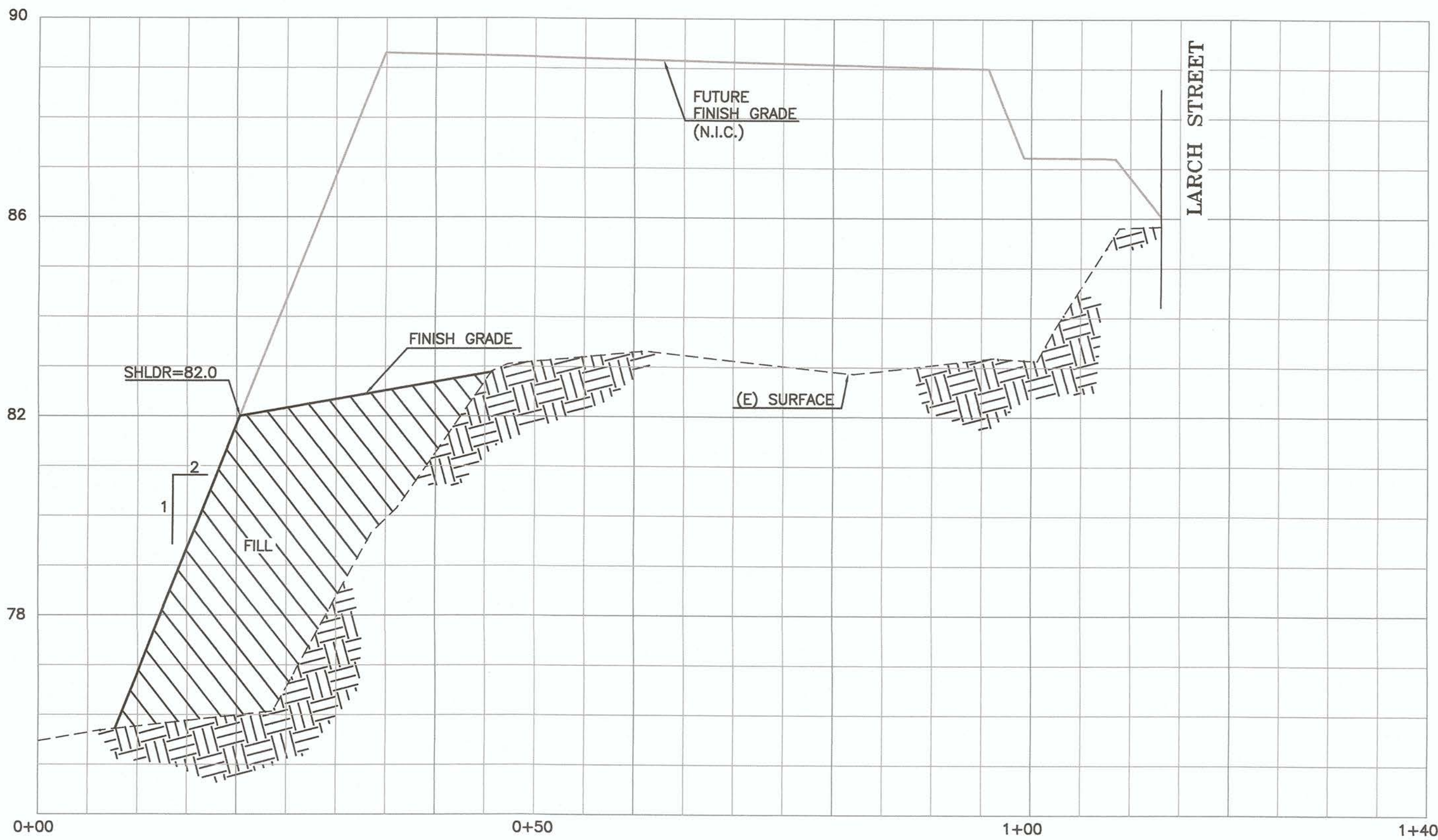
LOT 9 BOUNDARY FILL - NOTES:

1. CONTOURS SHOWN ARE AT 1.0-FOOT INTERVALS UNLESS NOTED OTHERWISE.
2. MAXIMUM SLOPE TO BE 2H:1V.
3. GRADES ARE TO BE STRAIGHT BETWEEN GRADING LIMITS AND GRADE BREAKS SHOWN.
4. COMPUTER GENERATED, SOLID EARTHWORK VOLUMES TO DESIGN GRADE:

LOT 9:  
± 900 C.Y. EMBANKMENT COMPACTION

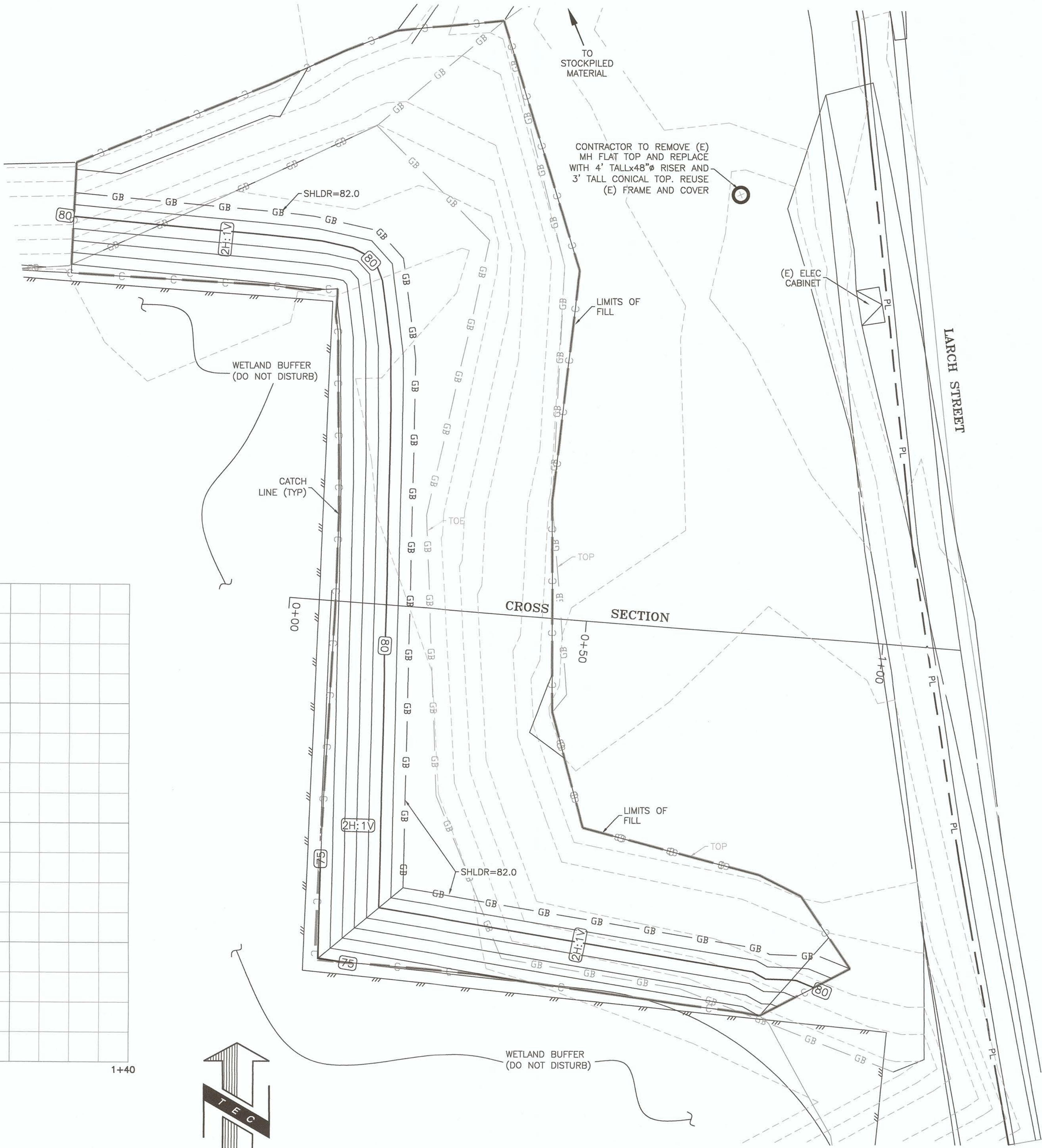
NOTE:  
VOLUMES PROVIDED ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. ADDITIVE WORK ITEM #2 IS LUMP SUM.

5. FILLS SHALL BE PLACED IN DRY WEATHER WITH PROPER CONTROLS ON MOISTURE AND COMPACTION. FILLS SHALL BE PLACED IN THIN LIFTS AND COMPACTED TO A FIRM, UNYIELDING MASS. THE THICKNESS OF THE LIFTS WILL NEED TO BE DETERMINED IN THE FIELD, AS A GENERAL RULE FOR SELF PROPELLED COMPACTORS, THE LIFTS SHALL NOT EXCEED 8 INCHES AS MEASURED IN A LOOSE CONDITION.
6. CONTRACTOR TO CONDUCT PROOF ROLLS WITH LOADED 10 CY TRUCK OR EQUIVALENT LOADER OVER EACH LIFT - TO BE OBSERVED AND APPROVED BY THE ENGINEER.
7. WATER SHALL BE USED AS NEEDED FOR DUST CONTROL DURING CONSTRUCTION ACTIVITIES.
8. REMOVE AND DISPOSE OF VEGETATION ON LOT 9 AS DIRECTED BY OWNER. VEGETATION MAY BE PILED ON PORT PROPERTY TO THE NORTHEAST OF BINGEN HARBOR.
9. MATERIAL ON OR WITHIN 4 FEET OF FACE OF SLOPE TO HAVE NO ROCKS LARGER THAN 3" IN DIMENSION AND CONSIST OF NO MORE THAN 10% ROCKS (BY VOLUME). REMOVE ANY ROCKS GREATER THAN 24" IN DIMENSION AND STACK IN BERM AT NORTH EDGE OF LOT. AVOID 'NESTING' REMAINING ROCKS IN FILL.
10. HEAVILY COMPACT SUBGRADE WITH A 20,000 LB VIBRATORY ROLLER PRIOR TO PLACING FILL.
11. FILL MATERIAL TO BE REASONABLY WELL-GRADED GRANULAR MATERIAL WITH A MAXIMUM PARTICLE SIZE OF 8 INCHES IN ANY DIMENSION. MATERIAL MUST BE COMPACTABLE INTO A SOLID, UNYIELDING MASS.
12. AS A DEDUCTIVE ALTERNATE (AT THE PORTS SOLE DISCRETION) SUITABLE FILL MATERIAL MAY BE PROVIDED BY THE PORT IN TRUCK DUMPED PILES ON LOT 9, DIRECTLY NORTH OF (E) ENTRANCE.
13. CONTRACTOR TO REMOVE AND REPLACE (E) MANHOLE FLAT TOP SLAB WITH 4' TALL x 48" DIAMETER RISER AND 3' TALL CONICAL TOP. REUSE (E) FRAME AND COVER.

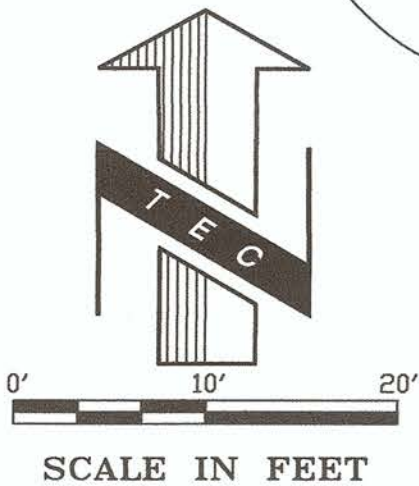


**CROSS-SECTION**  
SCALE: 1"=10' H  
1"=2' V

K:\WORK ORDERS\16100\16149\DRAWINGS\16149\_BPT\_SMALL\_PROJECTS.dwg



**LOT 9 BOUNDARY FILL PLAN**  
SCALE: 1"=10'



Design T.E.C.	DWG. No. K:\WORK ORDERS\16100\16149\DRAWINGS\16149_BPT_SMALL	Date 04/11/2022	Drawn T.E.C.	Scale NONE
<b>ADDITIVE WORK ITEM #2</b>				
FOR THE <b>BPT IRRIGATION-DRAINAGE-FILL PROJECT</b> POK PROJECT ID #2022-02				
BINGEN, KLUCKITAT COUNTY, WASHINGTON				
<b>TENNESON ENGINEERING CORP.</b> CONSULTING ENGINEERS 3775 CRATES WAY THE DALLES, OREGON 97058 PH. 541-296-9177 FAX 541-296-6657 PLOT DATE: 4/11/2022				
<b>FOR BID</b>				
IF THIS BAR IS NOT ONE INCH, THEN ADJUST SCALES ACCORDINGLY				
<b>ADDITIVE #2</b>				
SHEET <b>C-113</b>				
Work Order No. 16149				