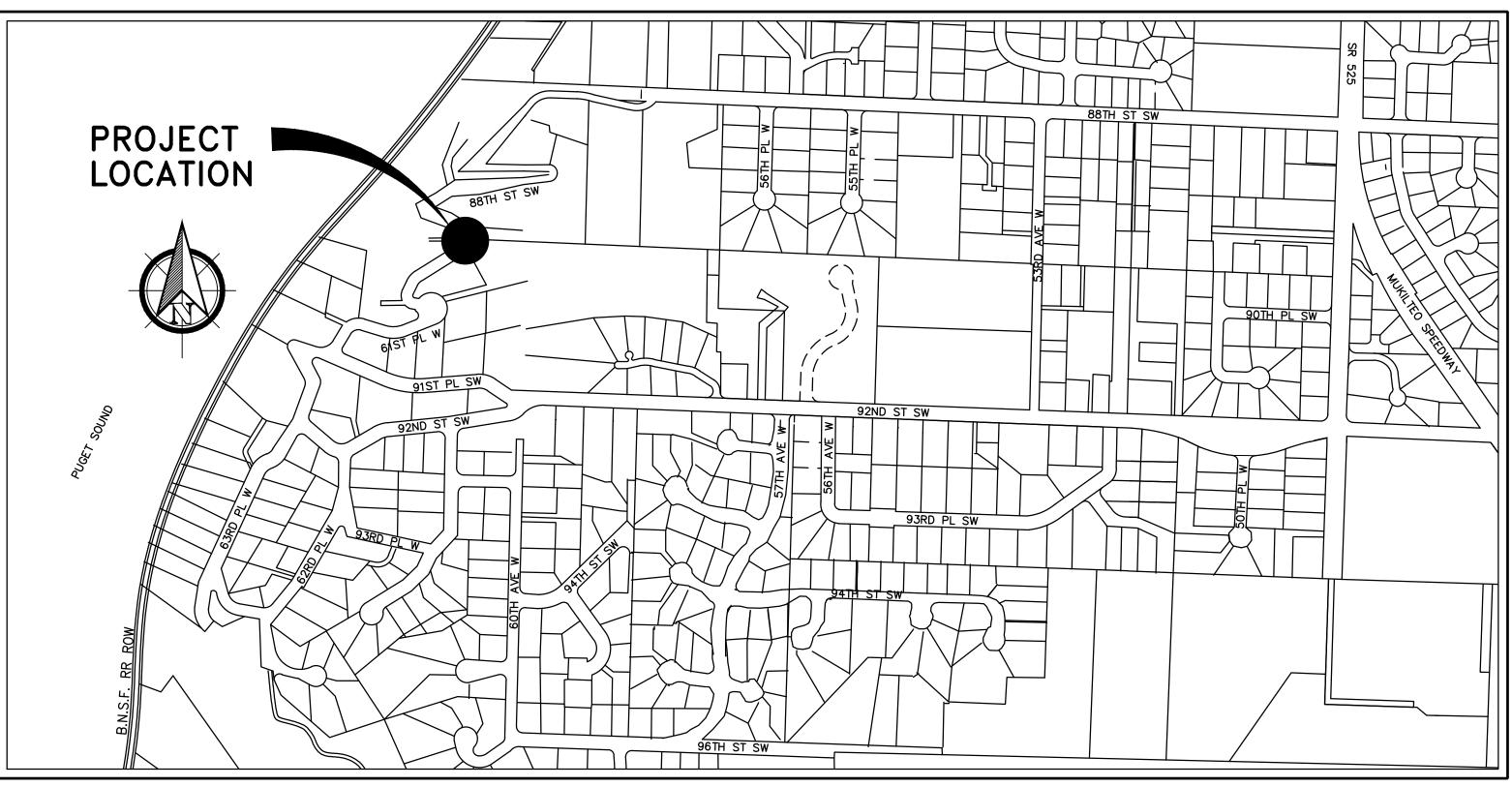
## CITY OF MUKILTEO

PUBLIC WORKS DEPARTMENT

### 61ST PLACE WEST CULVERT IMPROVEMENT PROJECT

90% DESIGN REVIEW SET - SEPTEMBER 2015



#### SHEET INDEX

	1
SHEET	TITLE
C1	TITLE SHEET, VICINITY MAP, AND SHEET INDEX
C2	SUMMARY OF QUANTITIES AND LEGEND
C3	EXISTING CONDITIONS, DEMOLITION, AND EROSION CONTROL PLAN
C4	EROSION CONTROL NOTES AND DISSIPATION DETAILS
C5	STREAM AND CULVERT PLAN AND PROFILE
C6	STREAM CROSS SECTIONS
C7	STRUCTURAL PLAN AND PROFILES
C8	ROADWAY PLAN AND PROFILES
С9	TRAFFIC CONTROL PLAN AND CLASS "A" SIGNING
C10	STRUCTURAL DETAILS
C11	DETAILS
C12	CULVERT FOUNDATION PLAN
P1	PLANTING PLAN
P2	PLANTING DETAILS
S1	RIGHT OF WAY AND SURVEY CONTROL

VICINITY MAP

SECTION 04, TWP. 28N., RGE. 17E., W.M.

NOT TO SCALE

#### CITY OFFICIALS

JENNIFER GREGERSON
BOB CHAMPION
RANDY LORD
CITY COUNCIL PRESIDENT
CHRISTINE COOK
CITY COUNCIL
LINDA GRAFER
CITY COUNCIL
STEVE SCHMALZ
EMILY VANDERWIELEN
TED WHEELER
CITY COUNCIL
CITY COUNCIL
CITY COUNCIL
CITY COUNCIL
CITY COUNCIL

#### CONTACT PERSONNEL

CONTACT NAME <u>AGENCY</u> <u>PHONE</u> (425) 263-8081 ANDREA SWISSTACK CITY OF MUKILTEO (360) 899-5953 JOHN R. TUTTLE TUTTLE ENGINEERING AND MANAGEMENT (425) 263-5345 CASEY BROWN COMCAST (425) 424-6876 (425) 783-8559 (425) 355-3355 (425) 355-3355 JEANNE COLEMAN PUGET SOUND ENERGY ANDREW RIFE PUBLIC UTILITIES DISTRICT MUKILTEO WATER DISTRICT (WATER) RICK MATTHEWS MUKILTEO WATER DISTRICT (SEWER) ROGER DARLING FRONTIER (FORMERLY VERIZON) (425) 263-4025 TIM RENNICK

#### APPROVED FOR CONSTRUCTION:

ROBERT MCGAUGHEY, P.E. CITY PUBLIC WORKS DIRECTOR

DATE



Sheet.dwg					
Shee					
Title					PLAN
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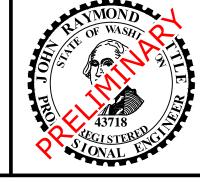
W.O. No.:

Date: 10-9-2015



## CITY OF MUKILTEO PUBLIC WORKS DEPARTMENT

11930 Cyrus Way Mukilteo, Washington 98275 425 355-4141 FAX 425 347-4544 http://ci.mukilteo.wa.us



61st Place West Culvert Improvement Project TITLE SHEET, VICINITY MAP AND SHEET INDEX SHEET NO.

C1

OF

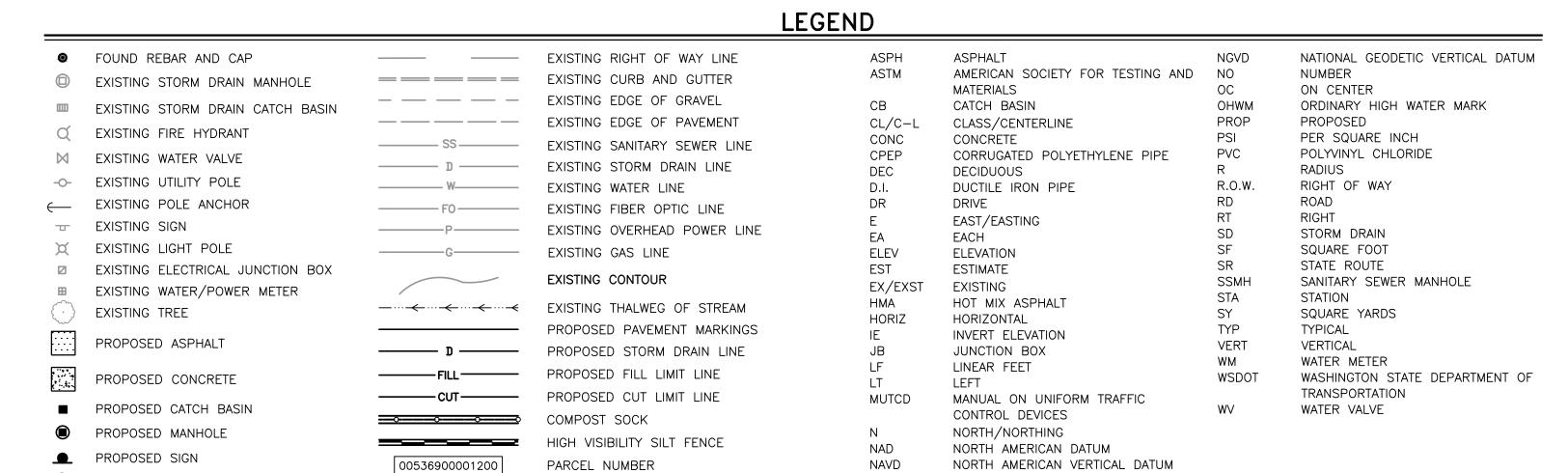
15

TOTAL SHEETS

Item No.	Item Total Quantity *		Sub-Total	Std. Item No.	Unit	Item	City of Mukilteo	Mukilteo Water and Wasewater	
		Section 1-07.2(1)	Section 1-07.2(2)				Group 1 61st Place Culvert	Group 2 61st Place Culver	
							Improvements	Improvements	
						SECTION 1: PREPARATION			
	1	1		0001	L.S.	MOBILIZATION	1		
	1	1		0035	L.S.	CLEARING AND GRUBBING	1		
	3	3		0049	EACH	REMOVING DRAINAGE STRUCTURE	3		
	1	1		0050	L.S.	REMOVAL OF STRUCTURE AND OBSTRUCTION	1		
	260	260		0120	S.Y.	REMOVING ASPHALT CONC. PAVEMENT	260		
						SECTION 2: GRADING			
	40	40		0310	C.Y.	ROADWAY EXCAVATION INCL. HAUL	40		
	850	850		0431	TON	GRAVEL BORROW INCL. HAUL	847	3	
						OFOTION 4 PRAINAGE			
	000	000		4000	0.1/	SECTION 4: DRAINAGE	000		
	200 49	200		1030 1065	C.Y.	DITCH EXCAVATION INCL. HAUL  CEMENT CONC. GUTTER	200		
)	49 71	71		1005	L.F. TON	STREAMBED SEDIMENT	71		
1	115	115		0902	TON	STREAMBED COBBLES 8 IN.	115		
2	77	77		0902	TON	STREAMBED COBBLES 12 IN.	77		
3	140	140		0904	EACH	STREAMBED BOULDER TWO MAN	140		
4	192	192		0921	TON	ROCK FOR EROSION AND SCOUR PROTECTION CLASS A	192		
5	69	69		1171	L.F.	DRAIN PIPE 8 IN. DIAM.	69		
6	29	29		3008	L.F.	CORRUGATED POLYETHYLENE CULV. PIPE 12 IN. DIAM.	29		
7	33	33		1245	L.F.	CL III REINF. CONC. CULV. PIPE 12 IN. DIAM.	33		
8	1	1		3026	L.S.	PRECAST REINF. CONC. THREE SIDED STRUCTURE NO. 1	1		
9	1	1		3075	L.S.	TEMPORARY STREAM DIVERSION	1		
						SECTION 5: STORM SEWER			
0	2	2		3091	EACH	CATCH BASIN TYPE 1	2		
						SECTION 6: SANITARY SEWER			
21	18	18		3772	L.F.	DUCTILE IRON SEWER PIPE 8 IN. DIAM.		18	
						SECTION 8: STRUCTURE			
22	120	120		4006	C.Y.	STRUCTURE EXCAVATION CLASS A INCL. HAUL	120		
23	1	1		4013	L.S.	SHORING OR EXTRA EXCAVATION CL. A	1		
24	900	900		-	L.F.	PIN PILE	900		
25	1	1		-	L.S.	CEMENT CONC. PILE CAP SLAB	1		
						SECTION 9: SURFACING			
:6	110	110		5120	TON	CRUSHED SURFACING TOP COURSE	110		
						SECTION 14: HOT MIX ASPHALT			
27	150	150		5767	TON	HMA CL. 1/2 IN. PG 64-22	150		
.7	130	130		3707	1011	1 IIVIA CL. 1/2 IIV. F G 04-22	130		
						SECTION 17: EROSION CONTROL AND ROADSIDE PLANTING			
18	18	18		6403	DAY	ESC LEAD	18		
29	2	2		6471	EACH	INLET PROTECTION	2		
0	90	90		6500	L.F.	COMPOST SOCK	90		
1	EST.	EST.		6490	EST.	EROSION/WATER POLLUTION CONTROL	EST.		
2	1	1		6416	L.S.	SEEDING, FERTILIZING, AND MULCHING	1		
3	60	60		6409	C.Y.	TOPSOIL TYPE C	60		
4	6	6		6552	EACH	PSIPE - RED ALDER	6		
5	4	4		6552	EACH	PSIPE - DOUGLAS FIR	4		
6	4	4		6552	EACH	PSIPE - WESTERN RED CEDAR	4		
7	57	57		6552	EACH	PSIPE - PACIFIC WILLOW	57		
8	57	57		6552	EACH	PSIPE - SCOULER'S WILLOW	57		
9	57	57		6552	EACH	PSIPE - BLACK TWINBERRY	57		
0	8	8		6552	EACH	PSIPE - SALMONBERRY	8		
1	68	68		6552	EACH	PSIPE - REDOSIER DOGWOOD	68		
.2	8	8		6552	EACH	PSIPE - SNOWBERRY	8		
3	12	12		6552	EACH	PSIPE - INDIAN PLUM	12		
14	8	8		6552	EACH	PSIPE - VINE MAPLE	8		
15	8	8		6552	EACH	PSIPE - SWORD FERN	8		
l6	60.0	60.0	1	6480	C.Y.	FINE COMPOST	60	1	

Summary of Quantities

					Su	mmary of Quantities		
Item Total Quantity		Sub-Total	Sub-Total	Std. Item	Unit	Item	City of Mukilteo	Mukilteo Water and Wasewater
No.	•	Section 1-07.2(1)	Section 1-07.2(2)	No.			Group 1	Group 2
							61st Place Culvert Improvements	61st Place Culvert Improvements
17	35.0	35.0		6581	C.Y.	BARK OR WOOD CHIP MULCH	35	
8	450	450		6635	L.F.	HIGH VISIBILITY SILT FENCE	450	
19	240	240		6455	S.Y.	BIODEGRADABLE EROSION CONTROL BLANKET	240	
						SECTION 18:TRAFFIC		
50	138	138		6757	L.F.	BEAM GUARDRAIL TYPE 31	138	
1	2	2		6719	EACH	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	2	
2	2	2		6766	EACH	BEAM GUARDRAIL ANCHOR TYPE 10	2	
53	1	1		6890	L.S.	PERMANENT SIGNING	1	
54	1	1		6971	L.S.	PROJECT TEMPORARY TRAFFIC CONTROL	1	
						SECTION 19: OTHER ITEMS		
55	97	97		6982	S.F.	CONSTRUCTION SIGNS CLASS A	97	
6	44	44		7006	C.Y.	STRUCTURE EXCAVATION CLASS B INCL. HAUL	35	9
57	170	170		7008	S.F.	SHORING OR EXTRA EXCAVATION CLASS B	90	80
58	1	1		7038	L.S.	ROADWAY SURVEYING	1	
9	30	30		7114	L.F.	REMOVING AND RESETTING CHAIN LINK FENCE	30	
0	79	79		7150	C.Y.	GABION CRIBBING	79	
1	3	3		3080	EACH	ADJUST MANHOLE		3
2	EST.	EST.		7715	EST.	FORCE ACCOUNT POTHOLING EXSITING UTILITIES	EST.	
3	EST.	EST.		7715	EST.	FORCE ACCOUNT WOODY DEBRIS REMOVAL	EST.	
64	EST.	EST.		7715	EST.	FORCE ACCOUNT UTILITY RELOCATION	EST.	
i5	EST.	EST.		7715	EST.	UNEXPECTED SITE CHANGES	EST.	
6	EST.	EST.		7480	EST.	ROADSIDE CLEANUP	EST.	
57	1	1		7490	L.S.	TRIMMING AND CLEANUP	1	
8	1	1		7736	L.S.	SPCC PLAN	1	
69	79	79		7550	S.Y.	CONSTRUCTION GEOTEXTILE FOR UNDERGROUND DRAINAGE	79	
70	370	370		7552	S.Y.	CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION	370	



TUTTLE ENGINEERING
AND MANAGEMENT

275 West Rio Vista, Suite 1 Burlington, WA 98233 | O: (360) 899-5953

M:(360) 920-7030 E: JTUTTLE@TUTTLE-TEAM.COM

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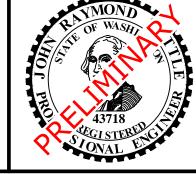
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Date: 10-12-2015



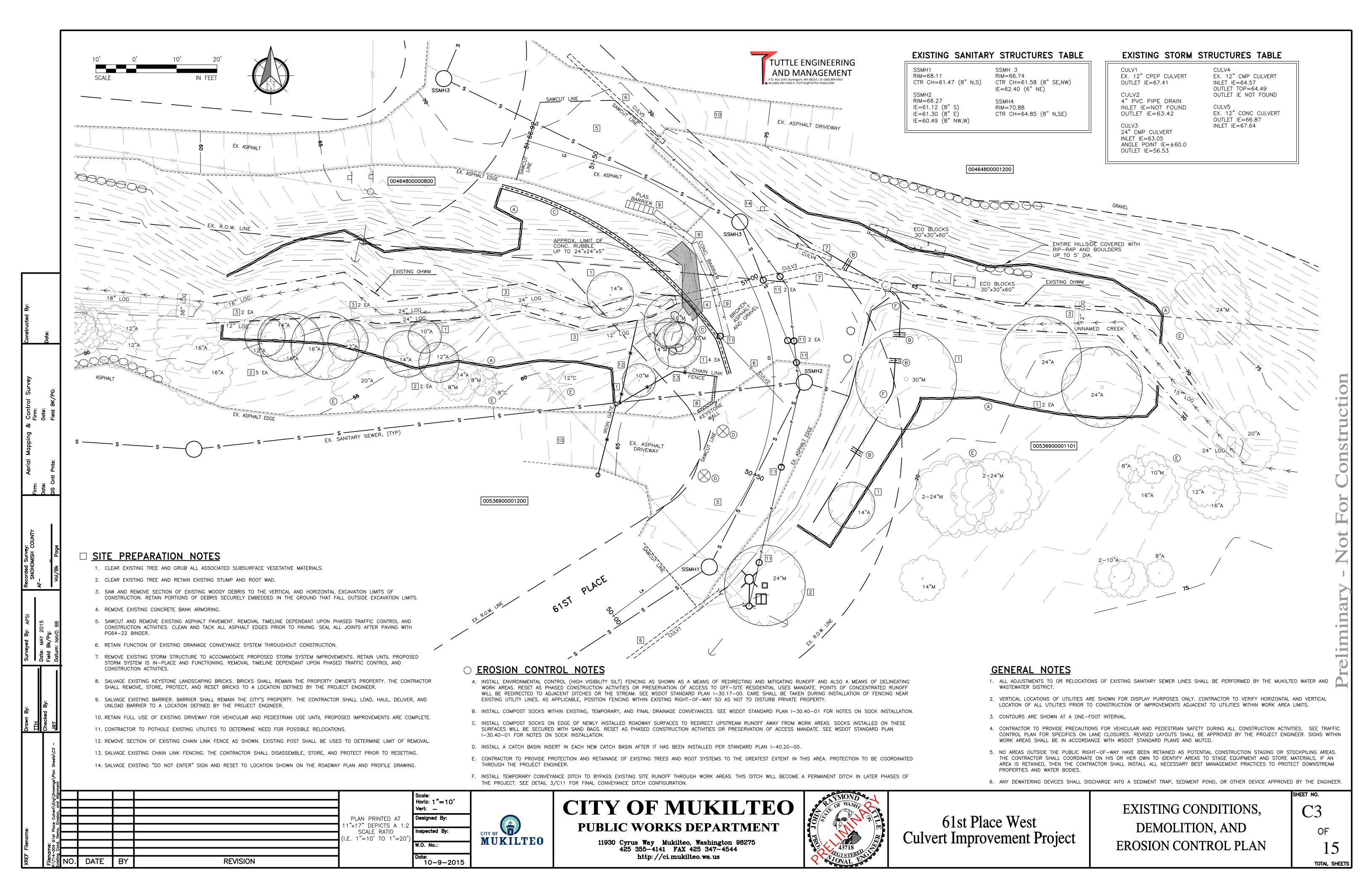
# CITY OF MUKILTEO PUBLIC WORKS DEPARTMENT

11930 Cyrus Way Mukilteo, Washington 98275 425 355-4141 FAX 425 347-4544 http://ci.mukilteo.wa.us



61st Place West Culvert Improvement Project SUMMARY OF QUANTITIES AND LEGEND C2

OF 15 TOTAL SHEETS



SUGGESTED BMPS/BMPS TO BE USED:

- BMP C101: PRESERVING NATURAL VEGETATION
- BMP C103: HIGH VISIBILITY PLASTIC OR METAL FENCE BMP C233: SILT FENCE (HIGH VISIBILITY)

#### ELEMENT 2 - ESTABLISH CONSTRUCTION ACCESS

(A) CONSTRUCTION VEHICLE ACCESS AND EXIT SHALL BE LIMITED TO 61ST PLACE WEST ONLY.

(B) ACCESS POINTS SHALL BE STABILIZED WITH QUARRY SPALL OR CRUSHED ROCK TO MINIMIZE THE TRACKING OF SEDIMENT ONTO PUBLIC ROADS OUTSIDE THE PROJECT LIMITS.

(C) WHEEL WASH OR TIRE BATHS SHOULD BE LOCATED ON-SITE, IF APPLICABLE.

(D) PUBLIC ROADS SHALL AT A MINIMUM BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR PICKUP SWEEPING AND SHALL BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. STREET WASHING IS PROHIBITED UNLESS SPECIAL PERMISSION IS GRANTED BY THE CITY ENGINEER.

(E) IF STREET WASHING IS ALLOWED, WASTEWATER SHALL BE CONTROLLED BY PUMPING BACK ON-SITE, OR OTHERWISE BE PREVENTED FROM DISCHARGING INTO SYSTEMS TRIBUTARY TO STATE SURFACE WATERS. CONSTRUCTION ACCESS FOR THIS PROJECT WILL CONSIST OF UTILIZING EXISTING PAVEMENT. THE CONTRACTOR MUST FACILITATE AND SEEK PERMISSION TO UTILIZE STAGING OR STOCKPILE AREAS PROPOSED OUTSIDE CITY RIGHT-OF-WAY.

#### SUGGESTED BMPS/BMPS TO BE USED:

- BMP C105: STABILIZED CONSTRUCTION ENTRANCE/EXIT
- BMP C107: CONSTRUCTION ROAD/PARKING AREA STABILIZATION

#### **ELEMENT 3 - CONTROL FLOW RATES**

(A) PROPERTIES AND WATERWAYS UPSTREAM AND DOWNSTREAM FROM CONSTRUCTION ACTIVITIES SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY, AND PEAK FLOW RATE OF STORMWATER RUNOFF FROM THE PROJECT SITE. CONTROLS SHALL BE INSTALLED AS EARLY IN THE DEVELOPMENT AS IS PRACTICABLE TO MITIGATE FLOWS.

(B) A DOWNSTREAM ANALYSIS HAS NOT BEEN PREPARED FOR THIS PROJECT. AN ANALYSIS WILL BE NECESSARY IF CHANGES IN FLOWS COULD IMPAIR OR ALTER CONVEYANCE SYSTEMS, STREAM BANKS, BED SEDIMENT, OR AQUATIC HABITAT. SEE THE WASHINGTON STATE DEPARTMENT OF ECOLOGY (ECOLOGY) MANUAL FOR OFF-SITE ANALYSIS GUIDANCE.

(C) NO PERMANENT STORMWATER CONTROL FACILITIES ARE PROPOSED FOR THIS PROJECT. ANY EXISTING FACILITIES PROPOSED FOR USE BY THE CONTRACTOR DURING CONSTRUCTION SHOULD BE PROTECTED FROM SILTATION DURING THE CONSTRUCTION PHASE.

SUGGESTED BMPS/BMPS TO BE USED:

- BMP C207: CHECK DAMS
- BMP C209: OUTLET PROTECTION
- BMP C235: WATTLES

#### **ELEMENT 4 - INSTALL SEDIMENT CONTROLS**

(A) THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION SHALL BE RETAINED IN AN UNDISTURBED STATE TO THE MAXIMUM EXTENT PRACTICABLE.

(B) PRIOR TO LEAVING A CONSTRUCTION SITE, STORMWATER RUNOFF FROM DISTURBED AREAS SHALL PASS THROUGH A SEDIMENT POND OR OTHER APPROPRIATE SEDIMENT REMOVAL BMP. RUNOFF FROM FULLY STABILIZED AREAS MAY BE DISCHARGED WITHOUT A SEDIMENT REMOVAL BMP, BUT MUST MEET THE FLOW CONTROL PERFORMANCE STANDARD. FULL STABILIZATION MEANS CONCRETE OR ASPHALT PAVING; QUARRY SPALLS USED AS DITCH LINING; OR THE USE OF ROLLED EROSION PRODUCTS, A BONDED FIBER MATRIX PRODUCT, OR VEGETATIVE COVER IN A MANNER THAT WILL FULLY PREVENT SOIL EROSION. SEDIMENT PONDS, VEGETATED BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, AND OTHER BMPS INTENDED TO TRAP SEDIMENT ON-SITE SHALL BE CONSTRUCTED AS ONE OF THE FIRST STEPS IN GRADING. THESE BMPS SHALL BE FULLY FUNCTIONAL BEFORE OTHER LAND DISTURBING ACTIVITIES TAKE PLACE.

(C) EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS SHALL BE SEEDED AND MULCHED ACCORDING TO THE TIMING INDICATED IN ELEMENT 5 BELOW.

SUGGESTED BMPS/BMPS TO BE USED:

- BMP C233: SILT FENCE (HIGH VISIBILITY)
- BMP C235: WATTLES

#### **ELEMENT 5 - STABILIZE SOILS**

(A) ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY APPLICATION OF EFFECTIVE BMPS THAT PROTECT THE SOIL FROM THE EROSIVE FORCES OF RAINDROP IMPACT, FLOWING WATER, AND

(B) FROM OCTOBER 1 THROUGH APRIL 30 OF EACH YEAR, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN 2 DAYS. FROM MAY 1 TO SEPTEMBER 30 OF EACH YEAR, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN 7 DAYS. THIS CONDITION APPLIES TO ALL SOILS ON SITE, WHETHER AT FINAL GRADE OR NOT.

(C) SOIL STABILIZATION MEASURES SELECTED SHOULD BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, ESTIMATED DURATION OF USE, AND POTENTIAL WATER QUALITY IMPACTS THAT STABILIZATION AGENTS MAY HAVE ON DOWNSTREAM WATERS OR GROUND WATER.

(D) SOIL STOCKPILES MUST BE STABILIZED AND PROTECTED WITH SEDIMENT TRAPPING MEASURES.

(E) WORK ON LINEAR CONSTRUCTION SITES AND ACTIVITIES, INCLUDING RIGHT-OF-WAY AND EASEMENT CLEARING, ROADWAY DEVELOPMENT, PIPELINES, AND TRENCHING FOR UTILITIES, SHALL NOT EXCEED THE CAPABILITY OF THE INDIVIDUAL CONTRACTOR FOR HIS PORTION OF THE PROJECT TO INSTALL THE BEDDING MATERIALS, ROADBEDS, STRUCTURES, PIPELINES, AND/OR UTILITIES, AND TO RE-STABILIZE THE DISTURBED SOILS, MEETING THE TIMING CONDITIONS LISTED ABOVE.

(F) IN ADDITION, AT THE DISCRETION OF THE PUBLIC WORKS DIRECTOR THOSE SITES UNABLE TO MAINTAIN THE QUALITY OF THEIR STORMWATER DISCHARGE MAY BE REQUIRED TO PROVIDE SOIL STABILIZATION TO ALL EXPOSED SOIL AREAS REGARDLESS OF THE WORKING STATUS OF THE AREA. UPON WRITTEN NOTIFICATION, THE CONTRACTOR SHALL PROVIDE FULL STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 24 HOURS.

#### SUGGESTED BMPS/BMPS TO BE USED:

- BMP C120: TEMPORARY AND PERMANENT SEEDING
- BMP C121: MULCHING
- BMP C122: NETS AND BLANKETS BMP C123: PLASTIC COVERING
- BMP C124: SODDING
- BMP C126: POLYACRYLAMIDE (PAM) FOR SOIL EROSION PROTECTION
- BMP C130: SURFACE ROUGHENING BMP C140: DUST CONTROL

#### **ELEMENT 6 - PROTECT SLOPES**

(A) CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION.

(B) CONSIDER SOIL TYPE AND ITS POTENTIAL FOR EROSION DURING BMP SELECTION, INSTALLATION, AND MAINTENANCE.

(C) REDUCE SLOPE RUNOFF VELOCITIES BY REDUCING THE CONTINUOUS LENGTH OF SLOPE WITH TERRACING AND DIVERSIONS, REDUCE SLOPE STEEPNESS, AND ROUGHEN SLOPE

(D) DIVERT UPSLOPE DRAINAGE AND RUN-ON WATERS FROM OFF-SITE PROPERTIES WITH INTERCEPTORS AT TOP OF SLOPES. OFF-SITE STORMWATER SHOULD BE HANDLED SEPARATELY FROM STORMWATER GENERATED ON THE SITE. DIVERSION OF OFF-SITE STORMWATER AROUND THE SITE MAY BE A VIABLE OPTION. DIVERTED FLOWS SHALL BE REDIRECTED TO A NATURAL DRAINAGE LOCATION AT OR BEFORE THE PROPERTY BOUNDARY.

(E) CONTAIN DOWN SLOPE COLLECTED FLOWS IN PIPES, SLOPE DRAINS, OR PROTECTED CHANNELS.

(F) PROVIDE DRAINAGE TO REMOVE GROUNDWATER INTERSECTING THE SLOPE SURFACE OF EXPOSED SOIL AREAS.

(G) EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS.

(H) CHECK DAMS SHALL BE PLACED AT REGULAR INTERVALS WITHIN TRENCHES THAT ARE CUT DOWN A SLOPE OR AS INSTALLED FOR TEMPORARY STORMWATER CONVEYANCE.

#### (I) STABILIZE SOILS ON SLOPES, AS SPECIFIED IN ELEMENT 5.

SUGGESTED BMPS/BMPS TO BE USED:

- BMP C120: TEMPORARY AND PERMANENT SEEDING
- BMP C121: MULCHING
- BMP C122: NETS AND BLANKETS
- BMP C130: SURFACE ROUGHENING
- BMP C200: INTERCEPTOR DIKE AND SWALE
- BMP C201: GRASS-LINED CHANNELS BMP C204: PIPE SLOPE DRAINS
- BMP C207: CHECK DAMS
- BMP C233: SILT FENCE (HIGH VISIBILITY)

#### **ELEMENT 7: PROTECT DRAIN INLETS**

(A) ALL STORM DRAIN INLETS, WHETHER EXISTING OR MADE OPERABLE DURING CONSTRUCTION, SHALL BE PROTECTED SO THAT STORMWATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR TREATED TO REMOVE

(B) ALL ADJACENT ROADWAYS, WHETHER PUBLIC OR PRIVATE, SHALL BE KEPT CLEAN. SEDIMENT AND STREET WASH WATER SHALL NOT BE ALLOWED TO ENTER STORM DRAINS WITHOUT PRIOR AND ADEQUATE TREATMENT UNLESS TREATMENT IS PROVIDED BEFORE THE STORM DRAIN DISCHARGES TO WATERS OF THE STATE.

SUGGESTED BMPS/BMPS TO BE USED:

• BMP C220: STORM DRAIN INLET PROTECTION

#### **ELEMENT 8: STABILIZE CHANNELS AND OUTLETS**

(A) ALL TEMPORARY ON-SITE CONVEYANCE CHANNELS SHALL BE DESIGNED, CONSTRUCTED AND STABILIZED TO PREVENT EROSION FROM THE EXPECTED VELOCITY OF FLOW FROM A 2-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION.

(B) STABILIZATION, INCLUDING ARMORING MATERIAL, ADEQUATE TO PREVENT EROSION OF OUTLETS, ADJACENT STREAM BANKS, SLOPES AND DOWNSTREAM REACHES SHALL BE PROVIDED AT THE OUTLETS OF ALL CONVEYANCE SYSTEMS.

#### SUGGESTED BMPS/BMPS TO BE USED:

- BMP C122: NETS AND BLANKETS
- BMP C207: CHECK DAMS
- BMP C209: OUTLET PROTECTION

#### **ELEMENT 9: CONTROL POLLUTANTS**

Horiz: —

Date: 10-9-2015

(A) ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS, THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER.

(B) COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM SHALL BE PROVIDED FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS, AND NON-INERT WASTES PRESENT ON THE SITE (SEE CHAPTER 173-304 WAC, AS CURRENTLY ENACTED OR HEREAFTER MODIFIED, FOR THE DEFINITION OF INERT WASTE, WHICH IS INCORPORATED HEREIN BY THIS

(C) MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, SOLVENT AND DE-GREASING CLEANING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES WHICH MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO STORMWATER RUNOFF MUST BE CONDUCTED USING SPILL PREVENTION MEASURES, SUCH AS DRIP PANS. CONTAMINATED SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL INCIDENT. EMERGENCY REPAIRS MAY BE PERFORMED ON-SITE USING TEMPORARY PLASTIC PLACED BENEATH AND, IF RAINING, OVER THE VEHICLE.

(D) WHEEL WASH, OR TIRE BATH WASTEWATER, SHALL BE DISCHARGED TO A SEPARATE ON-SITE TREATMENT SYSTEM OR TO A FULLY-FUNCTIONING SANITARY SEWER SYSTEM.

(E) APPLICATION OF ANY AGRICULTURAL CHEMICALS, INCLUDING FERTILIZERS AND PESTICIDES, SHALL BE CONDUCTED IN A MANNER AND AT APPLICATION RATES THAT WILL NOT RESULT IN LOSS OF CHEMICAL TO STORMWATER RUNOFF. MANUFACTURER RECOMMENDATIONS SHALL BE FOLLOWED FOR APPLICATION RATES AND PROCEDURES.

(F) MANAGEMENT OF PH-MODIFYING SOURCES SHALL PREVENT CONTAMINATION OF RUNOFF AND STORMWATER COLLECTED ON THE SITE. THESE SOURCES INCLUDE, BUT ARE NOT LIMITED TO, BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHING AND CURING WATERS, WASTE STREAMS GENERATED FROM CONCRETE GRINDING AND SAWING, EXPOSED AGGREGATE PROCESSES, AND CONCRETE PUMPING AND MIXER WASHOUT WATERS.

#### **ELEMENT 10: CONTROL DE-WATERING**

(A) ALL FOUNDATION, EXCAVATION, AND TRENCH DEWATERING WATER, WHICH HAS SIMILAR CHARACTERISTICS TO STORMWATER RUNOFF AT THE SITE, SHALL BE DISCHARGED INTO A CONTROLLED CONVEYANCE SYSTEM, PRIOR TO DISCHARGE TO A TEMPORARY SEDIMENT TRAPPING FACILITY. CHANNELS MUST BE STABILIZED, AS SPECIFIED IN ELEMENT 8.

(B) CLEAN, NON-TURBID DE-WATERING WATER, SUCH AS WELL-POINT GROUND WATER, CAN BE DISCHARGED TO SYSTEMS TRIBUTARY TO STATE SURFACE WATERS, AS SPECIFIED IN ELEMENT 8, PROVIDED THE DE-WATERING FLOW DOES NOT CAUSE EROSION OR FLOODING OF THE RECEIVING WATERS. THESE CLEAN WATERS SHOULD NOT BE ROUTED THROUGH SEDIMENT PONDS/TRAP IN ASSOCIATION WITH STORMWATER.

(C) HIGHLY TURBID OR OTHERWISE CONTAMINATED DEWATERING WATER, SUCH AS FROM CONSTRUCTION EQUIPMENT OPERATION, CONCRETE TREMIE POUR, OR WORK INSIDE A COFFERDAM SHALL BE HANDLED SEPARATELY FROM STORMWATER AT THE SITE.

(D) OTHER DISPOSAL OPTIONS, DEPENDING ON SITE CONSTRAINTS MAY INCLUDE, BY WAY OF EXAMPLE: 1) INFILTRATION, 2) TRANSPORT OFF-SITE IN VEHICLE, SUCH AS A VACUUM FLUSH TRUCK, FOR LEGAL DISPOSAL IN A MANNER THAT DOES NOT POLLUTE STATE WATERS, 3) ON-SITE TREATMENT USING CHEMICAL TREATMENT OR OTHER SUITABLE TREATMENT TECHNOLOGIES.

#### SUGGESTED BMPS/BMPS TO BE USED:

- BMP C152: SAWCUTTING AND SURFACING POLLUTION PREVENTION
- BMP C200: INTERCEPTOR DIKE AND SWALE BMP C240: SEDIMENT TRAP

#### **ELEMENT 11: MAINTAIN BMPS**

(A) ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMPS SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL MAINTENANCE AND REPAIR SHALL BE CONDUCTED IN ACCORDANCE WITH BMPS.

(B) SEDIMENT CONTROL BMPS SHALL BE INSPECTED WEEKLY OR AFTER A RUNOFF PRODUCING STORM EVENT DURING THE DRY SEASON AND DAILY DURING THE WET SEASON. ALL PROJECTS THAT DISTURB AN AREA GREATER THAN ONE ACRE SHALL HAVE A CERTIFIED EROSION CONTROL LEAD AVAILABLE TO THE SITE. THIS EROSION CONTROL LEAD SHALL BE RESPONSIBLE TO PROVIDE OVERVIEW OF ONGOING DAY-TO-DAY EROSION CONTROL REQUIREMENTS. THE EROSION CONTROL LEAD SHALL WITHIN 24 HOURS REPORT TO THE CITY AND ECOLOGY ANY SITE DISCHARGES THAT EXCEED STATE WATER QUALITY STANDARDS THAT HAVE OR ARE LIKELY TO HAVE ENTERED WATERS OF THE STATI

(C) ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMPS ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON-SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL OF BMPS OR VEGETATION SHALL BE PERMANENTLY STABILIZED.

#### SUGGESTED BMPS/BMPS TO BE USED:

- BMP C120: TEMPORARY AND PERMANENT SEEDING
- BMP C150: MATERIALS ON HAND
- BMP C160: CERTIFIED EROSION AND SEDIMENT CONTROL LEAD.

#### **ELEMENT 12: MANAGE THE PROJECT**

(A) CONSTRUCTION PROJECTS SHALL BE PHASED WHERE FEASIBLE IN ORDER TO PREVENT, TO THE MAXIMUM EXTENT PRACTICABLE, THE TRANSPORT OF SEDIMENT FROM ALL AREAS DURING CONSTRUCTION. REVEGETATION OF EXPOSED AREAS AND MAINTENANCE OF THAT VEGETATION SHALL BE AN INTEGRAL PART OF THE CLEARING ACTIVITIES FOR ANY PHASE

(B) WHEN ESTABLISHING PERMITTED CLEARING AND GRADING AREAS, CONSIDERATION SHOULD BE GIVEN TO MINIMIZING REMOVAL OF EXISTING TREES AND MINIMIZING DISTURBANCE/COMPACTION OF NATIVE SOILS EXCEPT AS NEEDED FOR CONSTRUCTION PURPOSES. PERMITTED CLEARING AND GRADING AREAS AND ANY OTHER AREAS REQUIRED TO PRESERVE CRITICAL OR SENSITIVE AREAS, BUFFERS, NATIVE GROWTH PROTECTION EASEMENTS, OR TREE RETENTION AREAS, SHALL BE DELINEATED ON THE SITE PLANS.

(C) COORDINATION WITH UTILITY COMPANIES AND OTHER CONTRACTORS - THE CONTRACTOR SHALL EVALUATE, WITH INPUT FROM UTILITIES AND OTHER CONTRACTORS, THE STORMWATER MANAGEMENT REQUIREMENTS FOR THE ENTIRE PROJECT, INCLUDING THE UTILITIES, WHEN PREPARING THE CONSTRUCTION SWPPP.

(D) INSPECTION AND MONITORING - ALL BMPS SHALL BE INSPECTED, MAINTAINED, AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED

(E) FOR ANY PROJECT DISTURBING MORE THAN ONE ACRE, A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL SHALL BE IDENTIFIED IN THE CONSTRUCTION SWPPP AND SHALL BE ON-SITE OR ON-CALL AT ALL TIMES. CERTIFICATION MAY BE THROUGH THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION/ASSOCIATION OF GENERAL CONTRACTORS (WSDOT/AGC) CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL CERTIFICATION PROGRAM OR ANY EQUIVALENT LOCAL OR NATIONAL CERTIFICATION AND/OR TRAINING PROGRAM, IN THE CITY'S DISCRETION.

(F) WHENEVER INSPECTION AND/OR MONITORING REVEALS THAT THE BMPS IDENTIFIED IN THE CONSTRUCTION SWPPP ARE INADEQUATE DUE TO THE ACTUAL DISCHARGE OF OR POTENTIAL TO DISCHARGE A SIGNIFICANT AMOUNT OF ANY POLLUTANT, THE SWPPP SHALL BE MODIFIED, AS APPROPRIATE, IN A TIMELY MANNER.

(G) MAINTENANCE OF THE CONSTRUCTION SWPPP - THE CONSTRUCTION SWPPP SHALL BE RETAINED ON-SITE. THE CONSTRUCTION SWPPP SHALL BE MODIFIED WHENEVER THERE IS A SIGNIFICANT CHANGE IN THE DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE OF ANY BMP.

#### SUGGESTED BMPS/BMPS TO BE USED:

- BMP C101: PRESERVING NATURAL VEGETATION
- BMP C150: MATERIALS ON HAND
- BMP C160: CERTIFIED EROSION AND SEDIMENT CONTROL LEAD
- BMP C162: SCHEDULING

#### ELEMENT 13: PROTECT LOW IMPACT DEVELOPMENT BMPS

(A) PROTECT ALL LOW IMPACT DEVELOPMENT BMPS (BIORETENTION CELLS, RAINGARDENS, PERVIOUS PAVEMENTS) FROM SEDIMENTATION PRODUCED FROM THE SITE BY INSTALLING AND MAINTAINING EROSION AND SEDIMENT CONTROL BMPS ON PORTIONS OF THE SITE THAT DRAIN TO THESE FACILITIES.

(B) RESTORE THE BMPS TO THEIR FULLY FUNCTIONING CONDITION IF THEY ACCUMULATE SEDIMENT DURING CONSTRUCTION. RESTORING THE BMP MUST INCLUDE REMOVAL OF SEDIMENT AND ANY SEDIMENT-LADEN SOILS, AND REPLACING THE REMOVED SOILS WITH SOILS MEETING THE DESIGN SPECIFICATIONS.

#### SUGGESTED BMPS/BMPS TO BE USED:

- BMP C103: HIGH VISIBILITY FENCE
- BMP C200: INTERCEPTOR DIKE AND SWALE
- BMP C233: SILT FENCE (HIGH VISIBILITY)
- BMP C235: WATTLES

AND MANAGEMENT P.O. Box 1547, Burlington, WA 98233 | O: (360) 899-5953 M:(360) 920-7030 E: JTUTTLE@TUTTLE-TEAM.COM

**REVISION** 

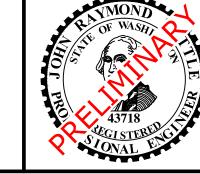
Designed By: PLAN PRINTED AT 1"x17" DEPICTS A 1:2 Inspected By: SCALE RATIO .E. 1"=10' TO 1"=20']

CITY OF **MUKILTEO** 



CITY OF MUKILTEO PUBLIC WORKS DEPARTMENT

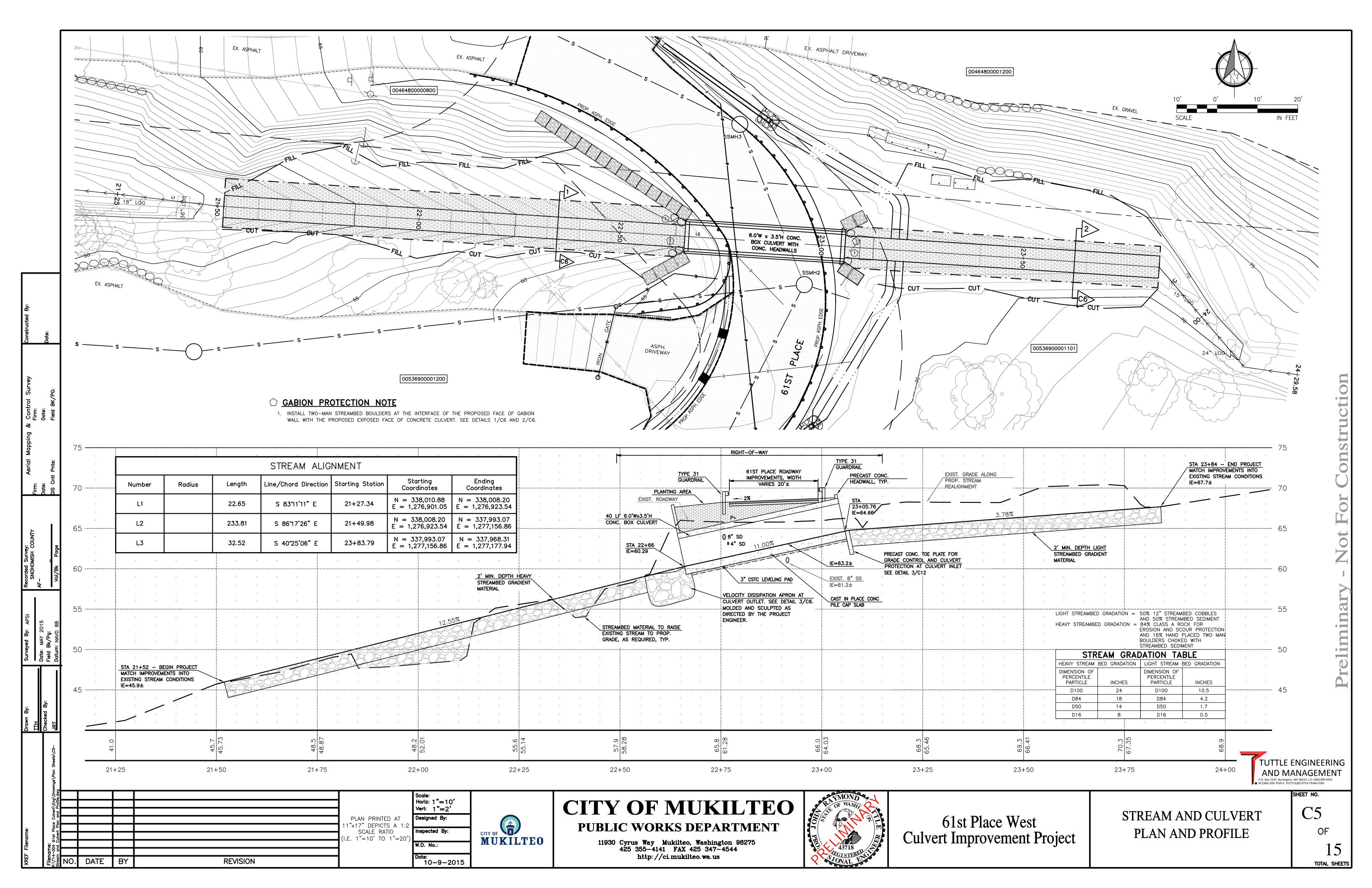
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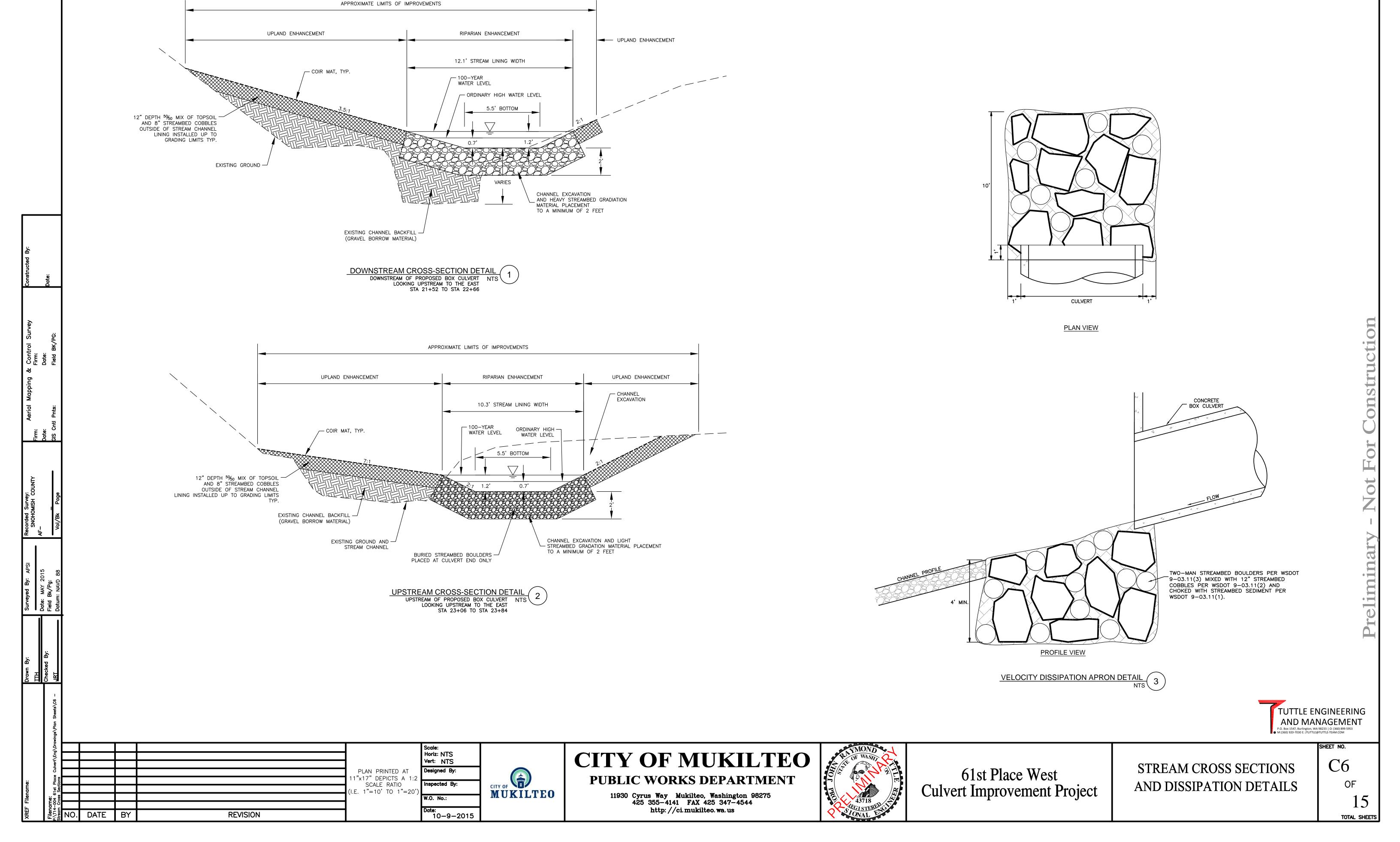


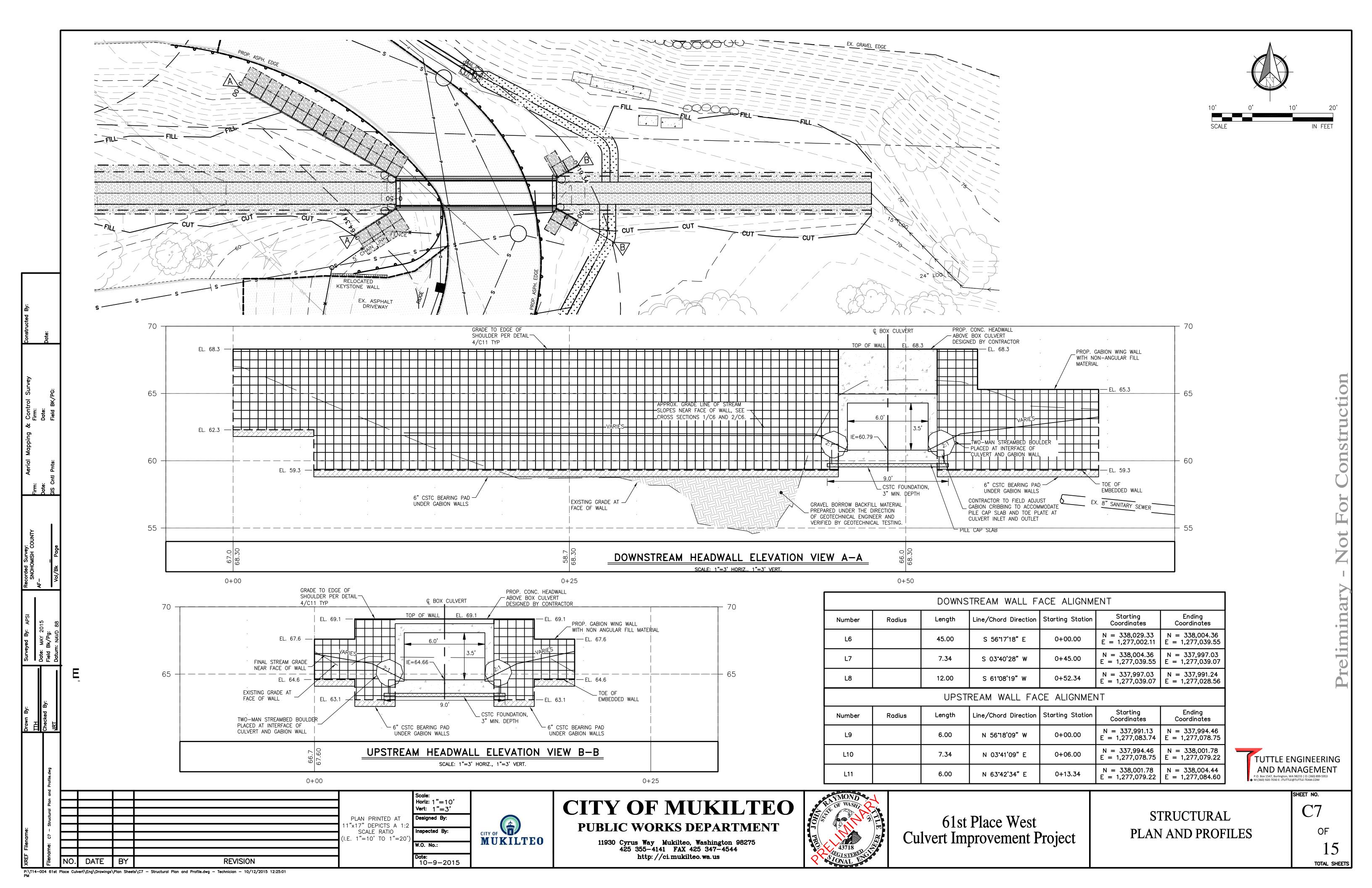
61st Place West Culvert Improvement Project

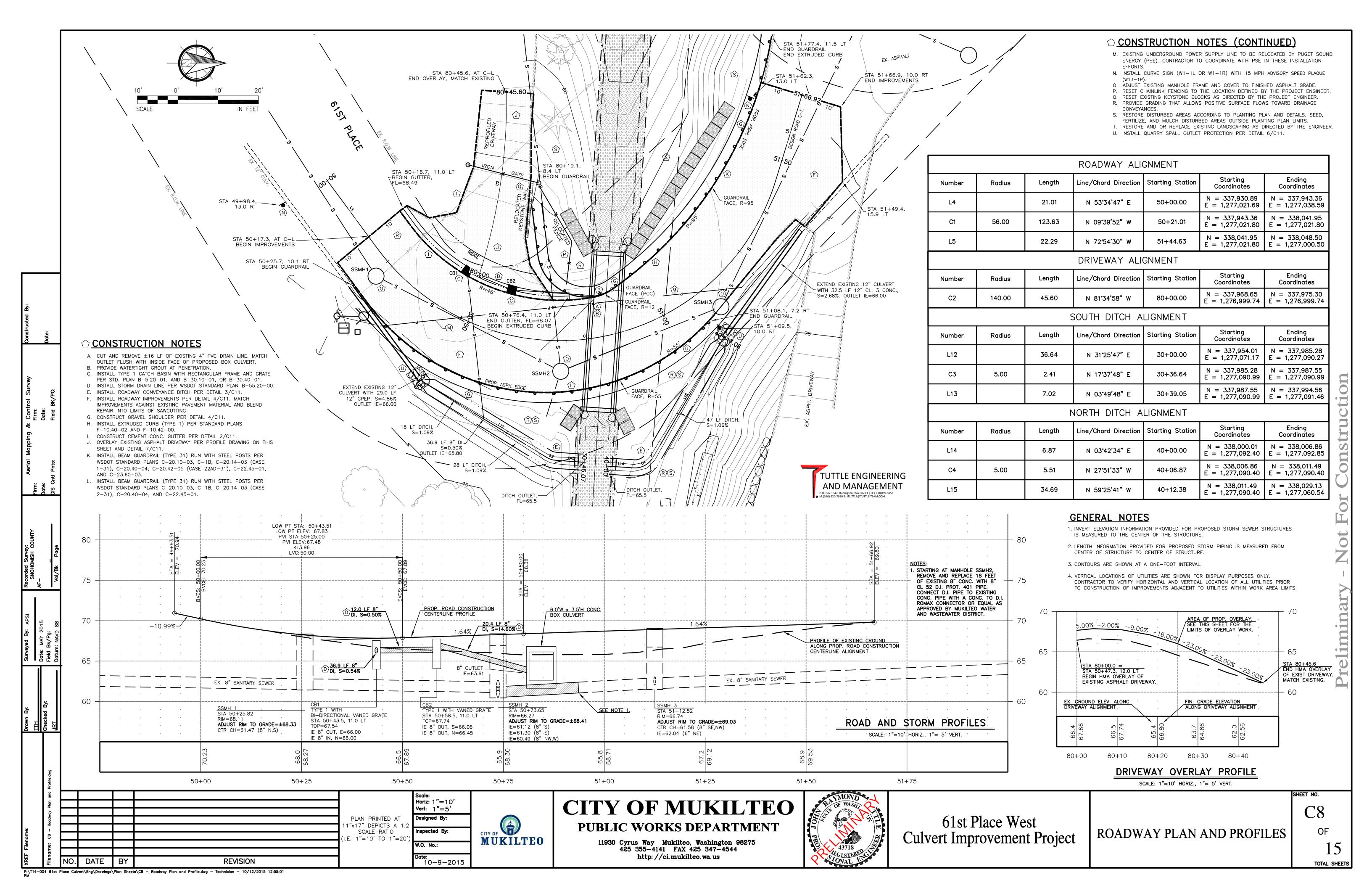
EROSION CONTROL NOTES

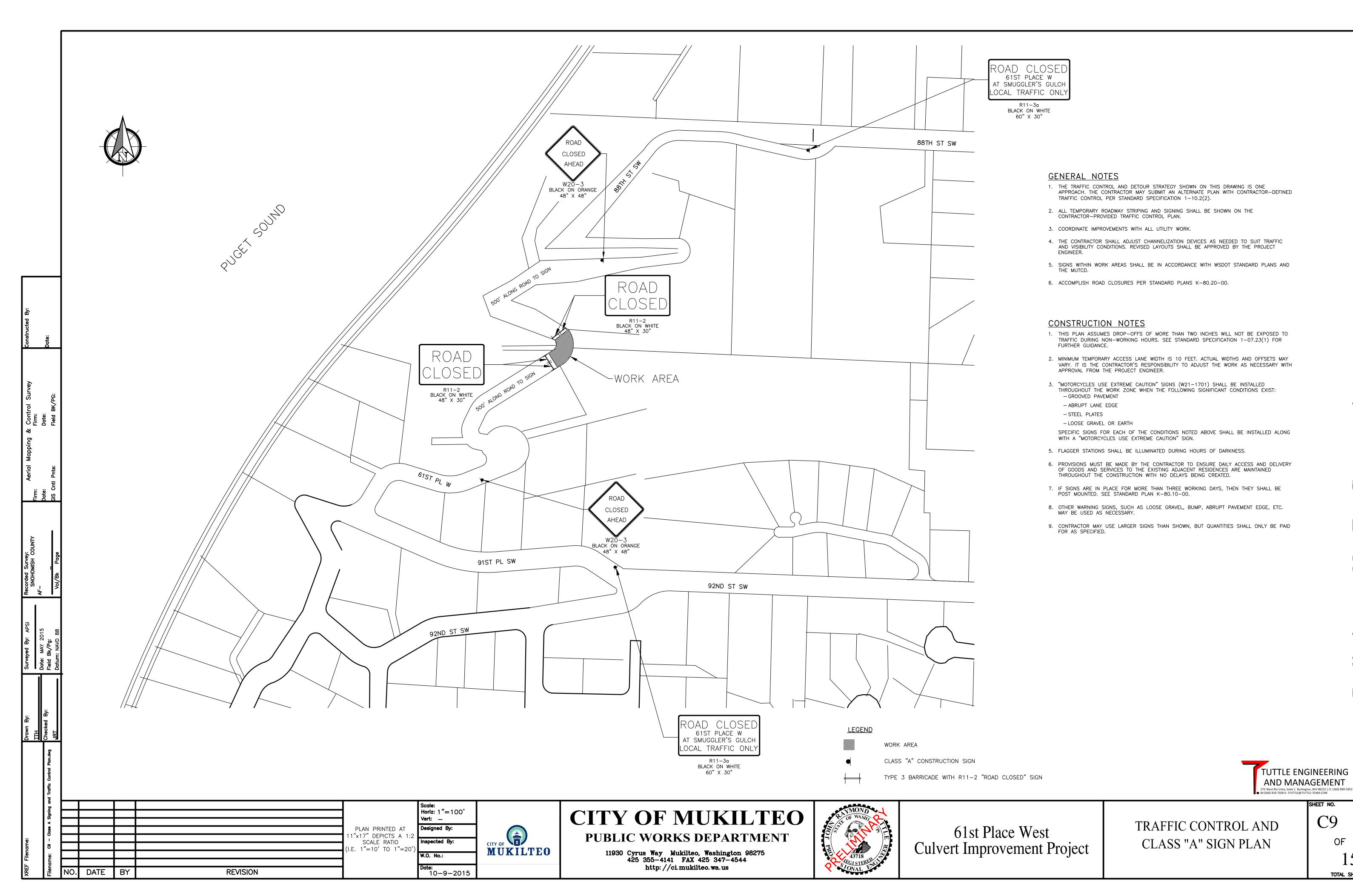
TOTAL SHEETS





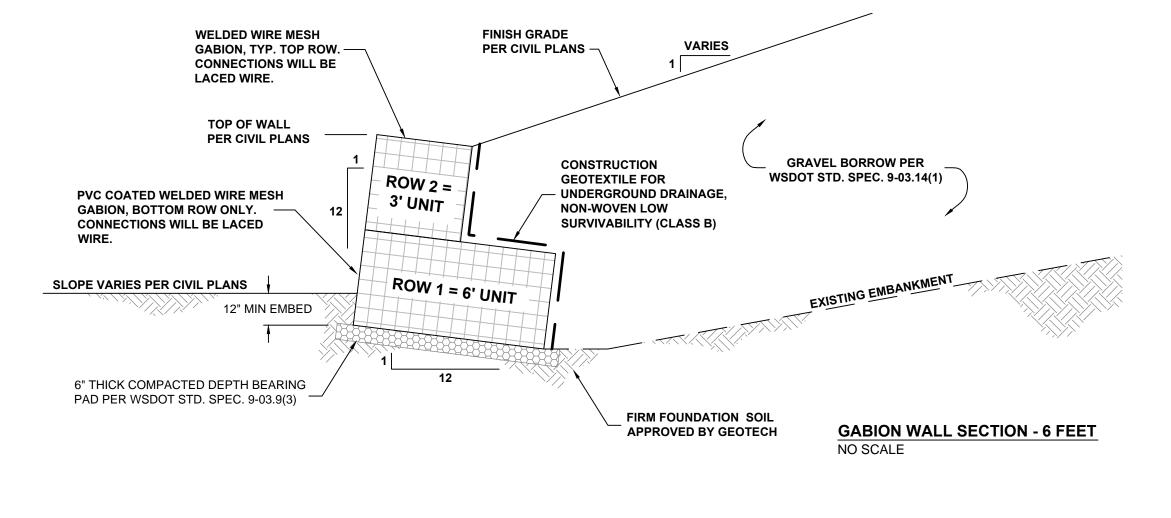


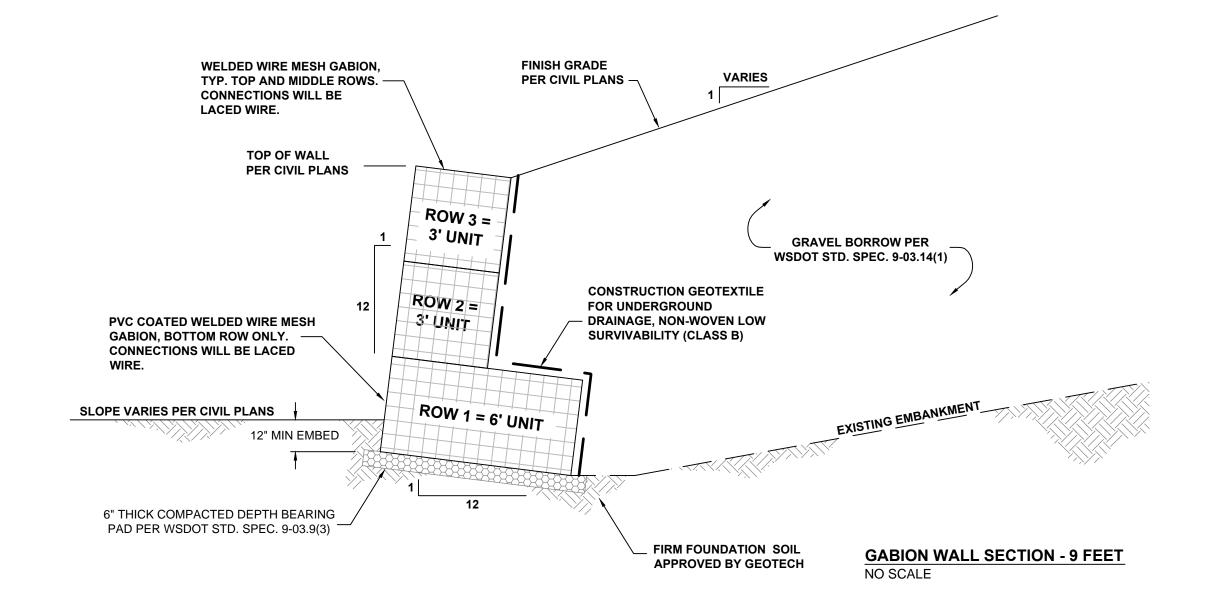




**C**9

TOTAL SHEETS





NOTES:

1. THE FOLLOWING DESIGN VALUES WERE USED:

INTERNAL ANGLE OF ERICTION FOR RETAINING

INTERNAL ANGLE OF FRICTION FOR RETAINED SOIL = 32 DEGREES UNIT WEIGHT OF SOIL = 125 LB/CU FT MAXIMUM WALL HEIGHT = 9' INCLUDING EMBEDMENT BATTER OF WALL = 1H: 12V

BACKFILL SLOPE = 3H:1V WITH 250 PSF TRAFFIC LOAD EMBEDMENT DEPTH = AS SHOWN

2. CONTRACTOR TO VERIFY ALL LOCATIONS, ELEVATIONS, AND DIMENSIONS.

#### **GENERAL NOTES:**

WALL UNITS:

1. TOP UNIT MAY BE ALTERNATED WITH 1/2 HEIGHT UNITS.

#### BEARING PAD CONSTRUCTION:

- 1. FOUNDATION SOIL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR; MAXIMUM DENSITY AS DEFINED BY ASTM D-1557, OR OTHERWISE APPROVED BY GEOTECHNICAL ENGINEER.
- 2. BEARING PAD MATERIAL SHALL BE COMPACTED TO PROVIDE A HARD SURFACE ON WHICH TO PLACE THE FIRST COURSE OF UNITS. COMPACTION WILL BE WITH MECHANICAL PLATE COMPACTORS TO AT LEAST 95 PERCENT OF ASTM D-1557.
- 3. BEARING PAD SHALL BE PREPARED TO ENSURE INTIMATE CONTACT OF UNITS WITH PAD.

COMMON BACKFILL (RETAINED SOIL):

1. BACKFILL SHALL BE COMPACTED TO A MINIMUM 95 PERCENT OF ASTM D-1557.

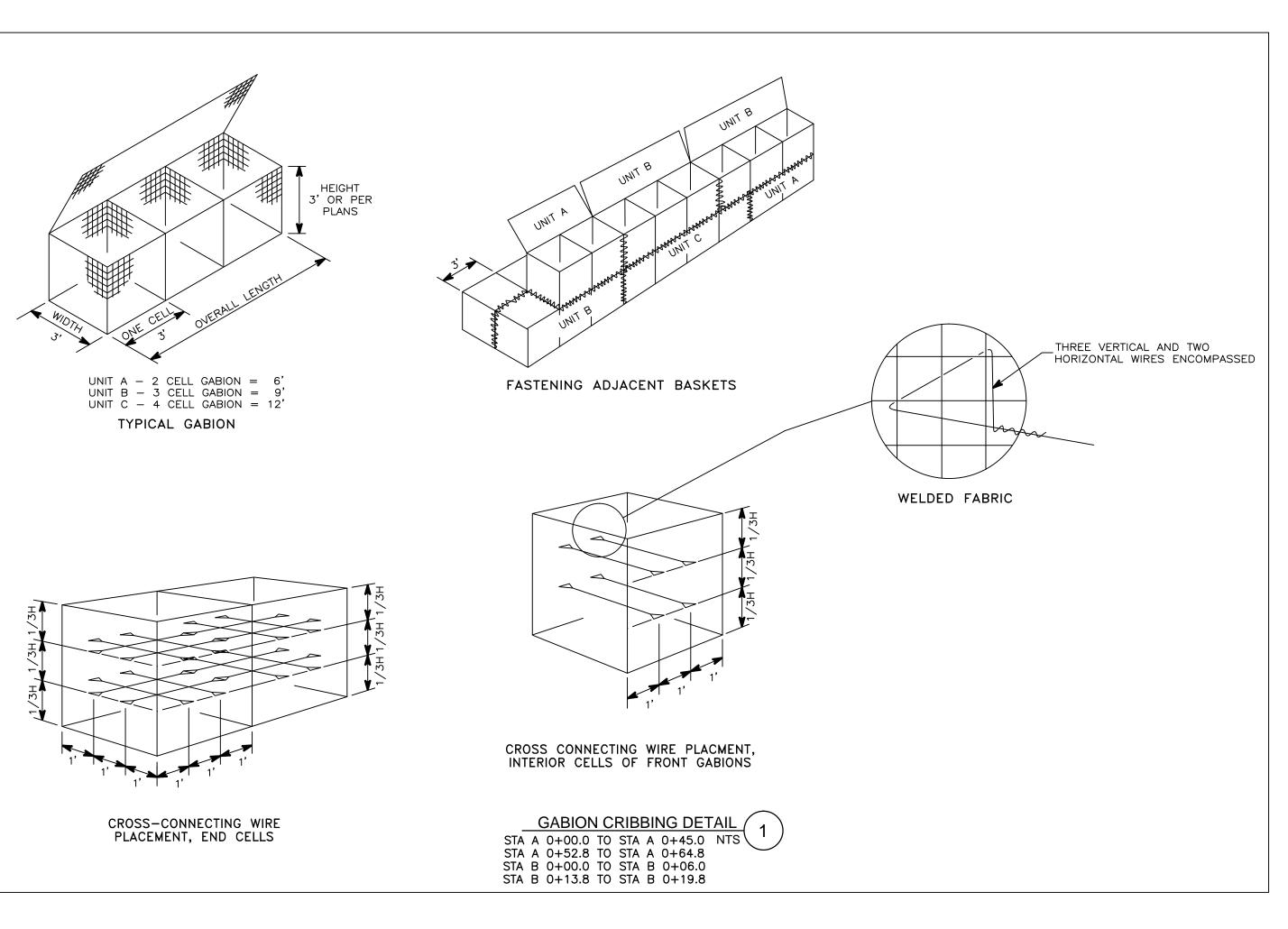
#### INSPECTIO

1. FULL-TIME INSPECTION OF THE WALL CONSTRUCTION BY THE GEOTECHNICAL ENGINEER IS REQUIRED.

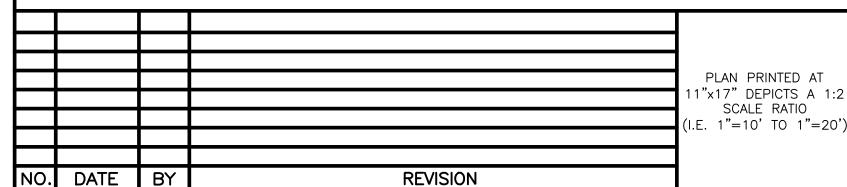
#### **SPECIAL INSPECTIONS:**

- PROVIDE SPECIAL INSPECTION BY GEOTECHNICAL ENGINEER OF RECORD FOR COMPLIANCE WITH SOIL REPORT RECOMMENDATIONS. THE FOLLOWING ITEMS SHALL THAT COMPLIANCE SPECIAL INSPECTION.
  - HAVE SPECIAL INSPECTION:
    A) EXCAVATION AND FOUNDATION SUBGRADE PREPARATION AND SOIL BEARING
  - LOAD CAPACITY CONFIRMATION.

    B) WALL LATERAL LOAD DESIGN SOIL PARAMETERS CONFIRMATION.
  - C) CRUSHED STONE STRUCTURAL FILL BEARING PAD CONSTRUCTION UNDER
  - ROCKERY AND LOCK AND LOAD WALLS.
  - D) BACKFILL SOIL MATERIALS SELECTION AND COMPACTION.
    E) DRAINAGE SYSTEMS INSTALLATION BEHIND ROCKERY AND WALLS.







CITY OF MUKILTEO

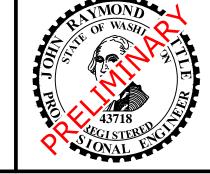
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Date: 10-9-2015

## CITY OF MUKILTEO PUBLIC WORKS DEPARTMENT

11930 Cyrus Way Mukilteo, Washington 98275 425 355-4141 FAX 425 347-4544 http://ci.mukilteo.wa.us



61st Place West Culvert Improvement Project

STRUCURAL DETAILS

SHEET NO.

C10

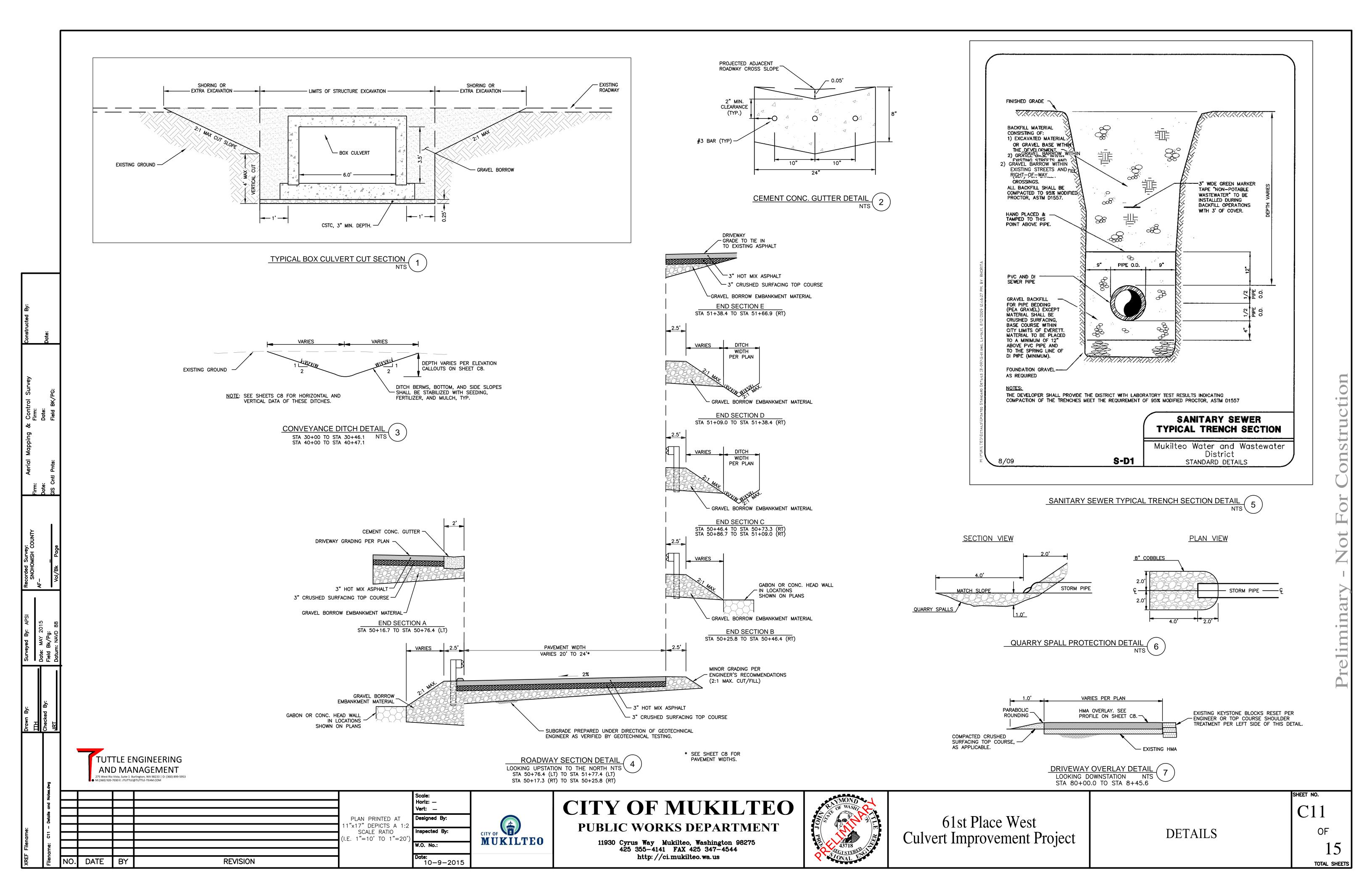
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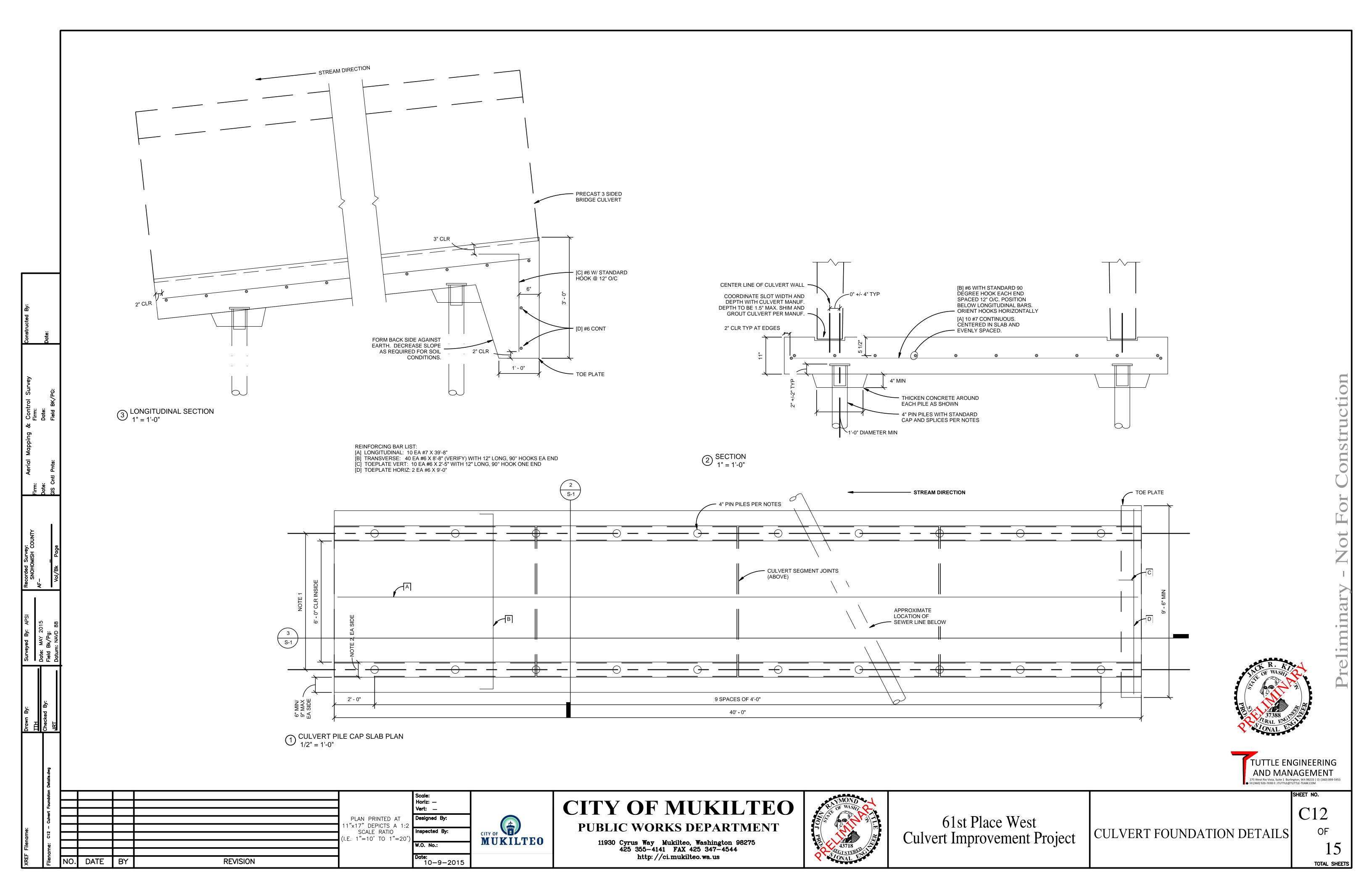
TOTAL SHEETS

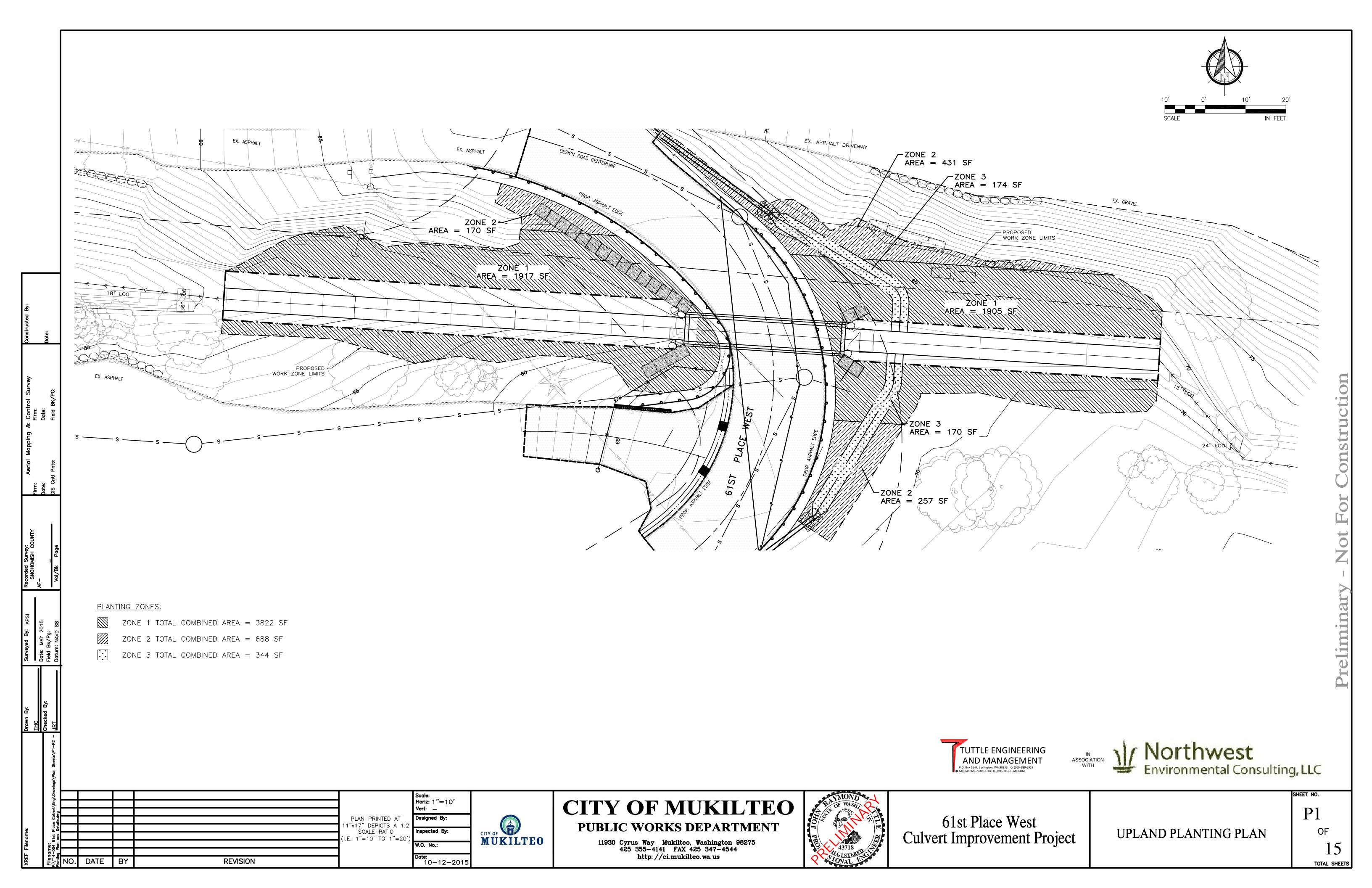
AND MANAGEMENT

275 West Rio Vista, Suite 1 Burlington, WA 98233 | 0: (360) 899-595

M:(360) 920-7030 E: JTUTTLE@TUTTLE-TEAM.COM







1. ALL TREES OVER 1-1/4" DIAMETER ARE TO BE STAKED

#### TREE AND SHRUB PLANTING SCHEDULE

SEE SHEET P1 FOR AREAS

		Minimum	Spacing	Zone 1	Zone 2	
Common Name	Scientific Name	Height	on center	Qty	Qty	Total
Trees						
Red Alder	Alnus rubra	18" Bare Root	4'		6	6
Douglas fir	Pseudotsuga menziesii	18" Bare Root	4'		4	4
Western red cedar	Thuja plicata	18" Bare Root	4'		4	4
Pacific willow	Salix lucida	36" Live Stake	4'	57		57
Scouler's willow	Salix scouleriana	36" Live State	4'	57		57
Shrubs						
Black Twinberry	Lonicera involucrata	12" Bare Root	4'	57		57
Salmonberry	Rubus spectabilis	12" Bare Root	4'		8	8
Redosier Dogwood	Cornus sericea	12" Bare Root	4'	68		68
Snowberry	Symphoricarpos albus	12" Bare Root	4'		8	8
Indian plum	Oemleria cerasiformis	12" Bare Root	4'		12	12
Vine maple	Acer circinatum	12" Bare Root	4'		8	8
Sword fern	Polystichum munitum	12" Bare Root	4'		8	8
Total				239	58	297

#### HYDROSEED MIX SCHEDULE

SEE SHEET P1 FOR AREAS

Common name	Scientific Name	% weight	% purity	% germination
Tall fescue	Festuca arundinacea	60-70	98	90
Creeping bentgrass	Agrostis palustris	10-15	98	85
Meadow foxtail	Alepocurus pratensis	10-15	90	80
Alsike clover	Trifolium hybridum	1-6	98	90
Redtop bentgrass	Agrostis alba	1-6	92	85

PLAN PRINTED AT

11"x17" DEPICTS A 1:2 SCALE RATIO (I.E. 1"=10' TO 1"=20')

**REVISION** 

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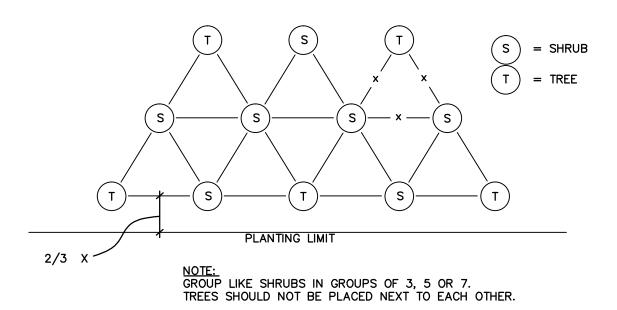
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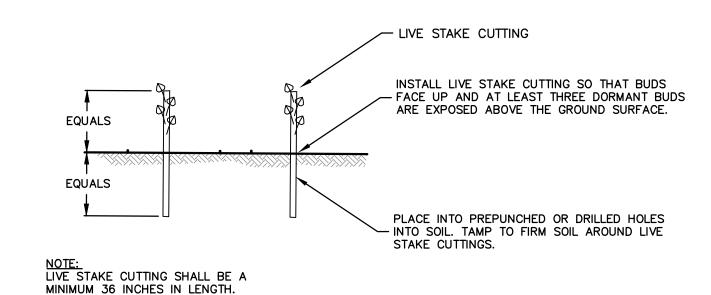
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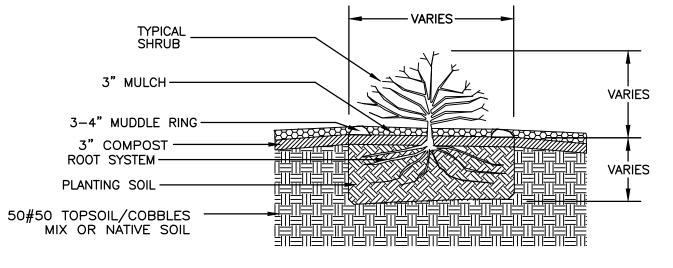
MUKILTEO



TYPICAL PLANT SPACING DETAIL X = PLANT SPACING



LIVE STAKE INSTALLATION DETAIL NOT TO SCALE



PLANTING PIT SHALL BE DEEP ENOUGH TO ENCOMPASS ROOT BALL OR PLANTING ROOTS WITHOUT BENDING.

#### NOT TO SCALE

SHRUB PLANTING DETAIL

#### SITE PREPARATION NOTE

1. REMOVE ALL LITTER AND WASTE DEBRIS FROM PROPOSED PLANTING AREAS AND BELOW THE ORDINARY HIGH WATER MARK PRIOR

#### **GENERAL NOTES**

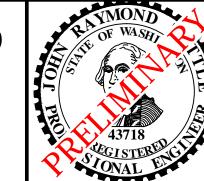
- 1. THE PLANTING AREA INCLUDES THE ENTIRE GROUND SURFACE REGARDLESS OF SURFACE COVER BETWEEN PLANTS.
- 2. VERIFY IN-WATER WORK RESTRICTIONS WITH THE CITY OF MUKILTEO AND PROJECT PERMITTING PRIOR TO PLANTING.
- 3. FOR A NATURAL APPEARANCE, SPACE ALL PLANTS IRREGULARLY AT THE DESIGNATED LOCATIONS AND SPACING.
- 4. AFTER FINISH GRADING, 5% TOPSOIL AND COBBLE MIX PLACEMENT AND COIR MAT INSTALLATION COVER COIR MAT WITH 3" OF COMPOST, AND THEN PLANT AS SPECIFIED. ALL DISTURBED AREAS OUTSIDE COIR MAT, RESTORE AREA BY SPREADING 3 INCHES OF FINE COMPOST, FOLLOWED BY THREE INCHES OF MULCH, AND THEN PLANT AS SPECIFIED.
- 5. INTERMIX SPECIES IN GROUPS OF THREE, FIVE, OR SEVEN.
- 6. PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2001) FOR PLANT SIZE AND CONDITION FOR SPECIFIED MATERIAL.
- 7. PLANT MATERIAL SHALL BE LOCALLY GROWN (PUGET SOUND REGION) AND SHALL BE IN A HEALTHY AND VIGOROUS GROWING
- 8. PLANTS LOCATED ON THE PLAN ARE SCHEMATIC AND MAY NEED ADJUSTMENT TO MEET ACTUAL FIELD CONDITIONS. WHEN A CONFLICT WITH FIELD CONDITIONS IS APPARENT, CONSULT WITH THE PROJECT BIOLOGIST.





CITY OF MUKILTEO PUBLIC WORKS DEPARTMENT

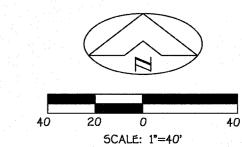
11930 Cyrus Way Mukilteo, Washington 98275 425 355-4141 FAX 425 347-4544 http://ci.mukilteo.wa.us



61st Place West Culvert Improvement Project

PLANTING DETAILS

TOTAL SHEETS



#### BASIS OF BEARING

N 10°42'13" W BETWEEN FOUND PK NAIL & WASHERS (PT #'5 704 & 700) STAMPED 'OTAK' AS SHOWN ON SHEET C2 OF A PRELIMINARY PLAN SET FOR THE CITY OF MUKILTED DATED

J. SCHOW J.

#### DATUM NAVD 88 BENCHMARK

NAVD00 VERIFIED BY GPS (WITH OPUS BASED SOLUTION) ON CONTROL POINTS 704 & 700 AS SHOWN ON SHEET C2 OF A PRELIMINARY PLAN SET FOR THE CITY OF MUKILTEO DATED MARCH 2011.

## SURVEY REFERENCES ASSESSORS PLAT OF OLYMPUS TERRACE, AFN 1670926 PLAT OF HARGREAVES & BAIR WATERFRONT TRACTS, VOL. 11, P. 106 RECORD OF SURVEY AFN 9710295005

#### RIGHT OF WAY NOTES

SURVEY NOTES

UTILITY NOTES

DURING ANY CONSTRUCTION.

PRIVATE, MUNICIPAL OR PUBLIC OWNED.

METHOD: FIELD TRAVERSE AND/OR RTK GPS

EQUIPMENT: 5" ELECTRONIC TOTAL STATION AND/OR TOPCON GB 500 RTK GPS

THE MINIMUM CLOSURE STANDARDS STATED IN WAC 332-130-090.

MAY AFFECT THE USE OR DEVELOPMENT OF THIS PROPERTY.

THE CLOSURES OF THIS FIELD TRAVERSE CONDUCTED DURING THIS SURVEY MEET OR EXCEED

IN PROVIDING THIS SURVEY, NO ATTEMPT HAS BEEN MADE TO OBTAIN OR SHOW DATA CONCERNING CONDITION OR CAPACITY OF ANY UTILITY EXISTING ON THIS SITE, WHETHER

UTILITIES OTHER THAN THOSE SHOWN MAY EXIST ON THE SITE, UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE TAKEN FROM A COMPILATION OF PUBLIC RECORDS AND VISIBLE FIELD EVIDENCE. WE ASSUME NO LIABILITY FOR THE ACCURACY OF THE PUBLIC RECORDS. UNDERGROUND UTILITY LOCATIONS ARE ONLY APPROXIMATE. UNDERGROUND

SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT SURVEYED OR EXAMINED OR

CONSIDERED AS PART OF THIS SURVEY. NO EVIDENCE OR STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONDITIONS, CONTAINERS OR FACILITIES THAT

CONNECTIONS ARE SHOWN AS STRAIGHT LINES BETWEEN VISIBLE SURFACE LOCATIONS BUT MAY CONTAIN BENDS OR CURVES NOT SHOWN. FIELD VERIFICATION IS NECESSARY PRIOR TO OR

SURVEY CONTROL, RIGHT OF WAY AND EASEMENT INFORMATION BASED ON PLANS BY GRAY & OSBORNE, INC. DATED 12/7/10 FOR THE LIFT STATION NO. 5 ACCESS IMPROVEMENT PROJECT AND ON PRELIMINARY PLANS BY OTAK FOR THE 61ST PLACE W CULVERT REPLACEMENT PROJECT DATED MARCH 2011.

# S.P.I. TEYING

9 N

A.S.P.I.
SURVEYIN

FOR TOT OF MUKILTED OF MUKILTED

FOR CITY OF MUKILTEC 1930 CYRUS WAY MUKILTEO, WA 9827

5/18/15

1"=40'
DRAWING NO.

SHEET | OF

