CITY OF ARLINGTON
PRAIRIE CREEK DRAINAGE IMPROVEMENTS
PHASE 2A CONSTRUCTION - PROJECT NO. P02.371

APRIL 2014

CITY OF ARLINGTON OFFICIALS

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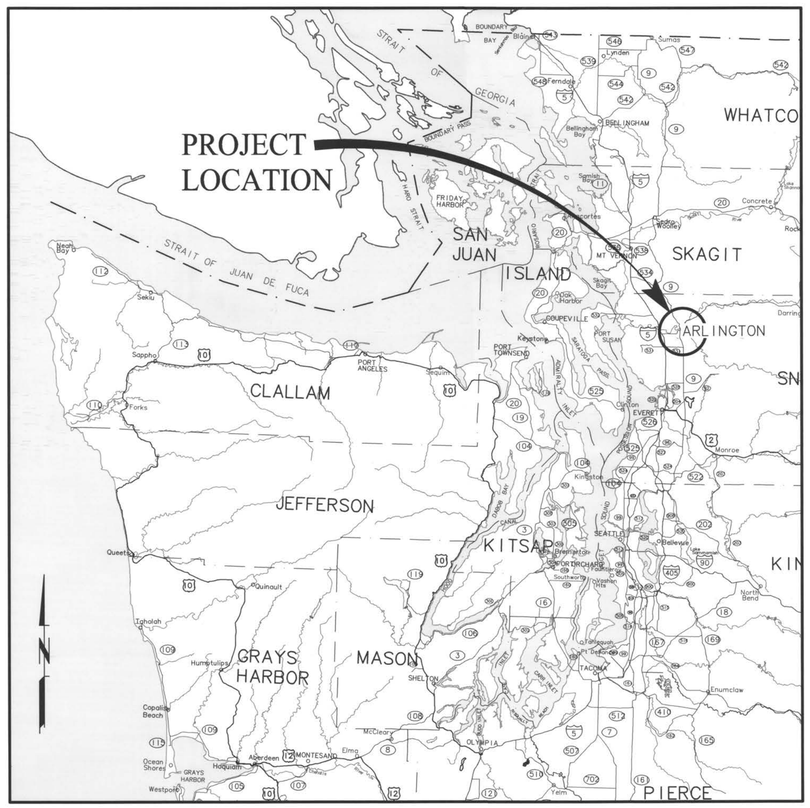
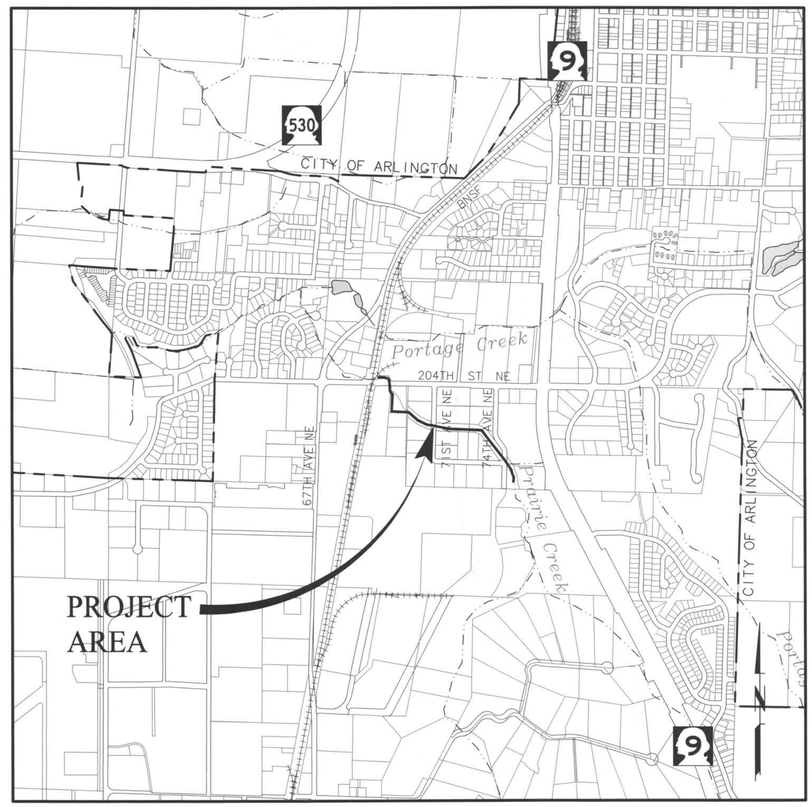
DRAWING INDEX



VICINITY MAP
SCALE: 1"=80,000'



LOCATION MAP
SCALE: 1"=500'

AS BUILT
City of Arlington Public Works
Engineering Division
X Approved ___Denied
___Approved with Conditions
Date: 11-20-2014
By:
No changes authorized unless approved by the City Engineer or designee

MSA Murray, Smith & Associates, Inc.
Engineers/Planners
2707 Colby Avenue, Suite 1110 PHONE 425.252.9003
Everett, Washington 98201-3566 FAX 425.252.8853

811 Know what's below. Call before you dig.

APPROVED FOR CONSTRUCTION

APPROVED BY
JAMES KELLY, PE
PUBLIC WORKS DIRECTOR

DATE 04-24-14

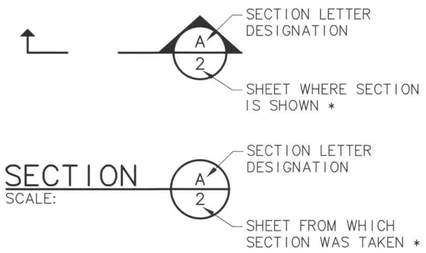
12-1347.202

ABBREVIATIONS

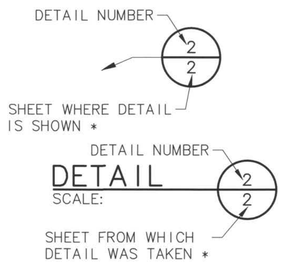
ABAND	ABANDONED
AC	ASPHALTIC CONCRETE
AL	ALUMINUM
ATB	ASPHALT TREATED BASE
AVE	AVENUE
AWWA	AMERICAN WATER WORKS ASSOCIATION
BLDG	BUILDING
BMP	BEST MANAGEMENT PRACTICES
BTM	BOTTOM
C	CENTERLINE
CARV	COMBINATION AIR RELEASE VALVE
CB	CATCH BASIN
CDF	CONTROLLED DENSITY FILL
CL	CLASS
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
COORD	COORDINATE
CONC	CONCRETE
CPLG	COUPLING
CSBC	CRUSHED SURFACING BASE COURSE
CSTC	CRUSHED SURFACING TOP COURSE
CY	CUBIC YARD
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
DOE	DEPARTMENT OF ECOLOGY
DR	DRIVEWAY
DWG	DRAWING
E	EAST
EA	EACH
EL	ELEVATION
EQ	EQUAL
EX	EXISTING
EXIST	EXISTING
FL	FLOW LINE
FLG	FLANGE
FM	FORCE MAIN
FT	FEET
G	GAS
GALV	GALVANIZED
GEN	GENERAL
HMA	HOT MIX ASPHALT
HORIZ	HORIZONTAL(LY)
HW	HEADWALL
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
INSTL	INSTALL
INV	INVERT
L	LENGTH
LF	LINEAR FOOT
LT	LEFT
LTF	LENGTH TO FIT
MFR	MANUFACTURER
MH	MANHOLE
MJ	MECHANICAL JOINT
MIN	MINIMUM
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
N	NORTH
NE	NORTHEAST
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OHWM	ORDINARY HIGH WATER MARK
PCCP	PORTLAND CEMENT CONCRETE PAVEMENT
PH	POTHOLE
PL	PLASTIC
PSF	POUNDS PER SQUARE FOOT
PVC	POLYVINYL CHLORIDE
PWR	POWER
RESTR	RESTRAIN(ED)
RJ	RESTRAINED JOINT PIPE
RT	RIGHT
R/W	RIGHT OF WAY
S	SOUTH
SCHED	SCHEDULE
SD	STORM DRAIN
SDMH	STORM MANHOLE
SERV	SERVICE
SHT(S)	SHEET(S)
SL	SLOPE
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
S/W	SIDEWALK
T, TEL	TELEPHONE
TB	THRUST BLOCK
TEMP	TEMPORARY
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
TRANS	TRANSITION
TYP	TYPICAL
VERT	VERTICAL(LY)
UGP	UNDERGROUND POWER LINE
UGT	UNDERGROUND TELEPHONE
W	WATER, WEST
WSDOT	WASHINGTON DEPARTMENT OF TRANSPORTATION
WV	WATER VALVE
WW	WINGWALL

SECTION AND DETAIL DESIGNATIONS

SECTION DESIGNATIONS



DETAIL DESIGNATIONS



* NOTE: IF PLAN AND SECTION FOR DETAIL CALL-OUT AND DETAIL ARE SHOWN ON THE SAME DRAWING, DRAWING NUMBER IS REPLACED WITH A DASH.

LEGEND

	EXISTING	PROPOSED
WATERLINE	12"W	12" DI W
ELECTRICITY	UGP	
GAS	2"G	
TELEPHONE/TELEMETRY	T	
SANITARY SEWER LINE	8"SS	
SANITARY SEWER FORCE MAIN	SS FM	
STORM DRAIN	8"SD	8"SD
CULVERT		8"D
REMOVE PIPE		
ORDINARY HIGH WATER MARK		
DRAINAGE DITCH		
FLOW LINE		
WETLAND		
TOP OF BANK		
FENCE		
PEDESTRIAN HANDRAIL		
HIGH VISIBILITY SILT FENCE		
CONSTRUCTION FENCE		
TREE/BUSH LINE		
RETAINING WALL		
CENTERLINE		
EASEMENT/PROPERTY LINE		
RIGHT-OF-WAY	R/W	
EDGE OF PAVEMENT/AC		
EDGE OF GRAVEL		
CURB		
SIDEWALK	S/W	S/W
STRUCTURE OR FACILITY		
CONTOUR MINOR		
CONTOUR MAJOR	200	200
MANHOLE		
CLEAN-OUT		
CATCH BASIN/FIELD INLET		
FITTING		
CAP		
THRUST BLOCK		
VALVE		
AIR RELEASE ASSEMBLY		
AIR/VAC ASSEMBLY		
FIRE HYDRANT ASSEMBLY		
WATER METER		
PULL BOX/JUNCTION BOX		
UTILITY POLE		
GUY WIRE		
LIGHT POST		
MAIL BOX		
SIGN		
BENCH MARK	3	
TREE DECIDUOUS		
TREE CONIFEROUS		
TREE TO BE REMOVED		
SURFACE ELEVATION	+ 176.63	+ 176.63
CATCH BASIN INSERT		
POTHOLE	PH-3	
SETTLEMENT MONITORING POINT	X	

GENERAL NOTES:

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF ARLINGTON STANDARDS, THE LATEST REVISIONS OF AWWA STANDARD SPECIFICATIONS, AND THE LATEST REVISION OF STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION BY WASHINGTON STATE D.O.T. AND WASHINGTON STATE CHAPTER, A.P.W.A.
2. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF STATE AND LOCAL HEALTH AUTHORITIES.
3. DEPTHS AND LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND BASED ON THE BEST AVAILABLE DATA AT THE TIME OF DESIGN. CONTRACTOR SHALL POTHOLE EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY DEPTHS AT CROSSINGS AND CONNECTIONS, TYPICAL ALL SHEETS.
4. THE OWNER OR OWNER'S AGENT MAY, AT ITS DISCRETION, REQUIRE TESTS AND/OR REPORTS FROM THE CONTRACTOR TO VALIDATE CLAIMS OF MATERIAL OR CONSTRUCTION ADEQUACY/COMPLIANCE. SUCH TEST/REPORTS SHALL BE PROVIDED AT THE CONTRACTOR'S EXPENSE.
5. ALL EXISTING SURFACE FEATURES SUCH AS PLANTERS, LANDSCAPING, STRUCTURES, LOTS, SWALES, DITCHES, CURBS, SIDEWALKS, FENCES, WALLS, MAILBOXES, SIGNS, GUY WIRES, PIPING, AND UTILITIES DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITION, UNLESS OTHERWISE PROPOSED.
6. MAINTENANCE OF THE WORK AREA AND APPROACH ROADS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE WORK AREA AND APPROACH ROADS SHALL BE MAINTAINED IN A CLEAN CONDITION, FREE FROM OBSTRUCTIONS AND HAZARDS.
7. A COPY OF THE CONTRACTOR'S CERTIFICATE OF INSURANCE SHALL BE AVAILABLE AT THE WORK AREA AT ALL TIMES.
8. ANY CHANGE IN CONSTRUCTION AFTER PLAN APPROVAL MUST BE SUBMITTED IN WRITING AND APPROVED BY THE CITY PRIOR TO CHANGE.
9. THE CONTRACTOR SHALL PROVIDE RECORD DRAWINGS INDICATING ALL CHANGES IN GRADE, ALIGNMENT, FITTINGS, AND MATERIALS INSTALLED AND ANY OTHER UTILITIES OR OBSTACLES NOT SO INDICATED ON THESE PLANS.
10. 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 SEAL AND CAP THE REMAINING EXPOSED ENDS OF ABANDONED UTILITIES WITH NON-SHRINK GROUT TO 1 FOOT LENGTH INTO PIPE OR ONE PIPE DIAMETER, WHICHEVER IS GREATER.
11. OPERATION OF ALL VALVES SHALL BE PERFORMED BY AUTHORIZED CITY PERSONNEL ONLY.
12. ALL PIPING SHALL HAVE A MINIMUM OF 3 FEET OF COVER FROM TOP OF PIPE TO STREET GRADE OR OTHER FINISHED GRADE, UNLESS OTHERWISE SHOWN OR APPROVED BY ENGINEER.
13. ALL CONCRETE FOR WATER MAIN WORK SHALL HAVE A MINIMUM 28-DAY STRENGTH OF 3000 PSI UNLESS OTHERWISE SPECIFIED.
14. CONTRACTOR SHALL PROTECT WATER PIPE ENDS FROM CONTAMINATED WATER AND DEBRIS AT ALL TIMES. CONTRACTOR SHALL CAP AND/OR COVER PIPE ENDS AT THE END OF EACH WORK DAY.
15. OWNER AND OWNER'S AGENT SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF ANY REQUIRED INSPECTIONS.
16. NO UNDERGROUND WORK SHALL BE "BURIED" UNTIL INSPECTED AND APPROVED BY THE OWNER'S AGENT.
17. ALL ADA FACILITIES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE PROPOSED RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) GUIDELINES.
18. UNLESS OTHERWISE SHOWN SPECIFIED ON THE PLANS, OR DIRECTED BY THE ENGINEER, CROSS SLOPES OF SIDEWALKS SHALL BE A NOMINAL 1.5%. CROSS SLOPES SHALL NOT BE LESS THAN 1% NOR EXCEED 2%.
19. MAXIMUM SLOPES SHOWN ON THE PLANS REPRESENT THE MAXIMUM ALLOWABLE SLOPES PERMITTED BY CURRENT ADA REQUIREMENTS. THE CONTRACTOR SHALL TAKE INTO CONSIDERATION CONSTRUCTION TOLERANCES WHEN PLACING SIDEWALKS TO INSURE MAXIMUM SLOPES ARE NOT EXCEEDED.
20. COMPLETED SIDEWALKS OR OTHER HARDSCAPE ELEMENTS THAT EXCEED MAXIMUM SPECIFIED SLOPES OR ARE LESS THAN MINIMUM SPECIFIED SLOPES SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
21. MEASUREMENT OF SLOPES SHALL BE PERFORMED ON THE WALKABLE SURFACE AND SHALL NOT TAKE INTO CONSIDERATION THE CURB ELEVATION.

SURVEY BENCHMARKS

Benchmark	Description	Northing	Easting	Elevation	Sheet No.
1	2" Brass Disk, 0.5' Below Grade in MIC, NW Corner Section 14, Snohomish County Control Point 3105J17	433460.3108	1321541.1120	119.25	–
2	3" Brass Disk, 1.5' Below Grade in MIC, Located in 204th and SR9 Intersection, Snohomish County Control Point 3352	433396.2620	1324211.0680	126.92	–
3	Magnail with Washer	432944.2074	1322950.5993	119.30	C-4
4	5/8" Rebar with Yellow Cap stamped "Metron Control"	432614.3043	1323709.5385	126.99	C-5
5	5/8" Rebar with Yellow Cap stamped "Metron Control"	432385.4490	1323885.5936	127.28	C-5

Project Datum:
Vertical datum is based on tie to Snohomish County control point 3105J17
Vertical Datum: NAVD 88
NAVD 88 – 3.71 = NAVD 29

City of Arlington Public Works
Engineering Division
X Approved ___Denied
___Approved with Conditions
Date: 11-20-2014
By: [signature]
No changes authorized unless approved by the City Engineer or designee.

AS BUILT

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

JLTA DESIGNED
HCM DRAWN
NPH CHECKED

NATHAN P. HARDY — STATE OF WASHINGTON — 45836 — REGISTERED PROFESSIONAL ENGINEER — 12/3/14

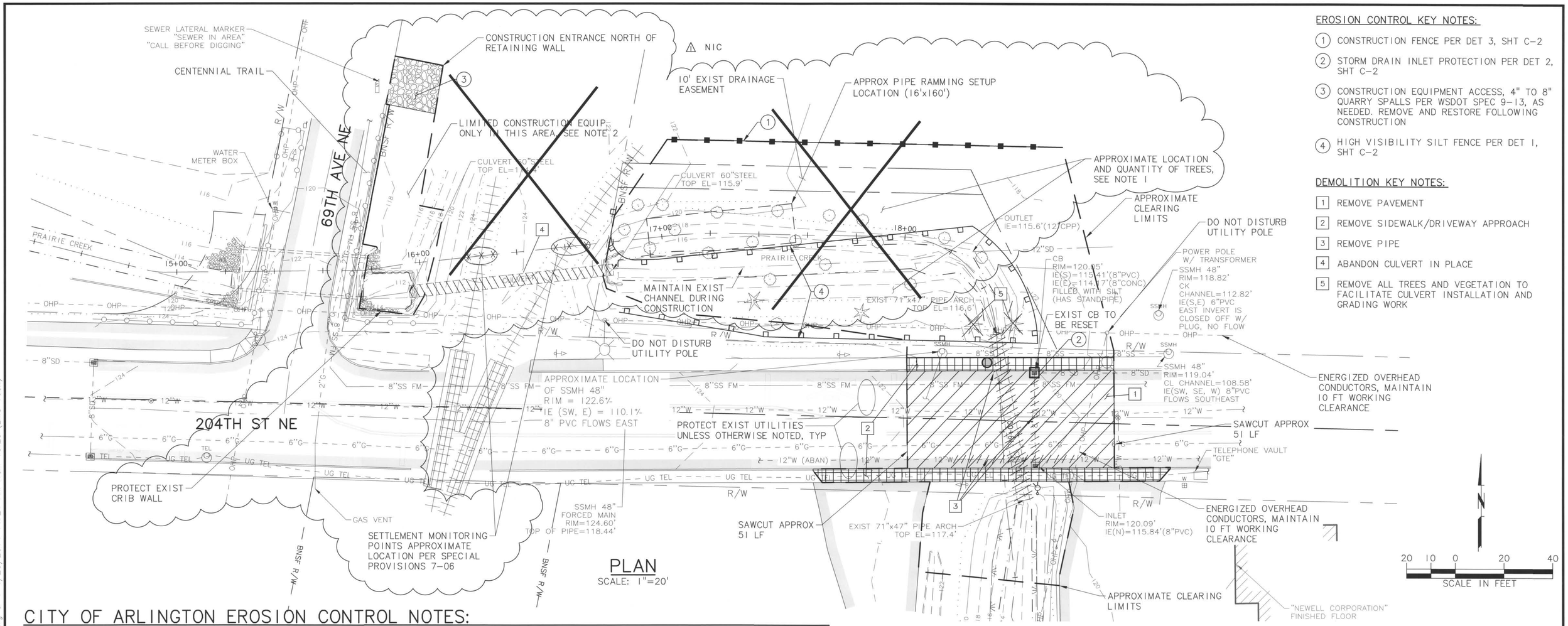
MSA Murray, Smith & Associates, Inc. Engineers/Planners
2707 Colby Avenue, Suite 1110 Everett, Washington 98201-3566
PHONE 425.252.9003 FAX 425.252.8853

CITY OF ARLINGTON
PRAIRIE CREEK DRAINAGE IMPROVEMENTS
PHASE 2A CONSTRUCTION
- PROJECT NO. P02.371

ABBREVIATIONS, SYMBOLS AND LEGEND, GENERAL NOTES AND SURVEY BENCHMARKS

PROJECT NO.: 12-1347.202 | SCALE: AS SHOWN | DATE: APRIL 2014

SHEET G-2



PLAN
SCALE: 1"=20'

EROSION CONTROL KEY NOTES:

1. CONSTRUCTION FENCE PER DET 3, SHT C-2
2. STORM DRAIN INLET PROTECTION PER DET 2, SHT C-2
3. CONSTRUCTION EQUIPMENT ACCESS, 4" TO 8" QUARRY SPALLS PER WSDOT SPEC 9-13, AS NEEDED. REMOVE AND RESTORE FOLLOWING CONSTRUCTION
4. HIGH VISIBILITY SILT FENCE PER DET 1, SHT C-2

DEMOLITION KEY NOTES:

1. REMOVE PAVEMENT
2. REMOVE SIDEWALK/DRIVEWAY APPROACH
3. REMOVE PIPE
4. ABANDON CULVERT IN PLACE
5. REMOVE ALL TREES AND VEGETATION TO FACILITATE CULVERT INSTALLATION AND GRADING WORK

CITY OF ARLINGTON EROSION CONTROL NOTES:

1. NOT USED
2. APPROVAL OF THE TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR STORM DRAINAGE DESIGN.
3. A TESC PLAN MEETING THE DOE STORM WATER MANAGEMENT MANUAL ADOPTED BY THE CITY SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO ANY WORK ON THE SITE. AN APPROVED COPY MUST BE MAINTAINED ON-SITE AND BE READILY AVAILABLE TO THE CITY INSPECTOR AT THEIR REQUEST.
4. THE TESC BMP'S SHOWN ON THE PLAN MUST BE INSTALLED PRIOR TO ALL OTHER CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM, LEAVE THE SITE, OR VIOLATE APPLICABLE WATER QUALITY STANDARDS. MAINTENANCE, REPLACEMENT, AND UPGRADING OF THE TESC PLAN IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETE AND APPROVED BY THE CITY.
5. THE BOUNDARIES OF THE CLEARING LIMITS, SHOWN ON THE TESC PLAN SHALL BE CLEARLY FENCED OR FLAGGED IN THE FIELD PRIOR TO STARTING CONSTRUCTION. NO DISTURBANCE BEYOND THE FENCED OR FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FENCING AND/OR FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION PROJECT.
6. THE TESC FACILITIES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, THESE TESC FACILITIES SHALL BE UPGRADED AND ADDED TO AS NEEDED, FOR UNEXPECTED STORM EVENTS AND TO REFLECT CHANGED CONDITIONS, AS REQUIRED BY THE CITY.
7. THE CONTRACTOR SHALL INSTALL STORM DRAIN INLET PROTECTION IN ALL CATCH BASINS ON 71ST AVE NE, 74TH AVE NE, AND 204TH ST NE BETWEEN 67TH AVE NE AND 71ST AVE NE.
8. THE CONTRACTOR SHALL PROVIDE THE CITY A 24-HOUR EMERGENCY CONTACT PHONE NUMBER OF THE CONTRACTOR'S CERTIFIED EROSION CONTROL SUPERVISOR PRIOR TO STARTING CONSTRUCTION.
9. THE TESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE CONTINUED FUNCTION AND OPERATION.
10. BETWEEN OCTOBER 1 AND APRIL 30, DISTURBED AREAS THAT ARE TO BE LEFT UNWORKED FOR MORE THAN TWO (2) DAYS SHALL BE IMMEDIATELY COVERED BY MULCH, SOD OR PLASTIC COVERING. BETWEEN MAY 1 AND SEPTEMBER 30, DISTURBED AREAS THAT ARE TO BE LEFT UNWORKED FOR MORE THAN SEVEN (7) DAYS SHALL BE IMMEDIATELY COVERED BY SEEDING OR OTHER APPROVED METHODS.
11. SEDIMENT DEPOSITS SHALL BE REMOVED FROM ALL CATCH BASINS, PRE-TREATMENT/SEDIMENT POND, AND SEDIMENT TRAPS UPON REACHING A DEPTH OF 12 INCHES.
12. WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROXIMATE RATE OF 120 POUNDS PER ACRE.
13. WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 3 INCHES, OR 3,000 POUNDS PER ACRE.
14. SOIL STOCKPILES SHALL BE STABILIZED WITHIN 24 HOURS. WHEN ACTIVELY WORKING WITH THE SOIL STOCKPILE, STABILIZATION BY GROUND COVER BMPS SHALL OCCUR AT THE END OF EACH WORK DAY.
15. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
16. MAINTENANCE AND REPAIR OF TESC FACILITIES AND STRUCTURES SHALL BE CONDUCTED IMMEDIATELY UPON RECOGNITION OF A PROBLEM OR WHEN THE TESC MEASURES BECOME DAMAGED.
17. UPON COMPLETION OF THE PROJECT, ALL BMP'S SHALL BE REMOVED FROM THE SITE AND RIGHT OF WAY. IF BMP'S ARE REQUIRED TO REMAIN IN PLACE FOR FURTHER PROTECTION, ARRANGEMENTS FOR REMOVAL SHALL BE MADE WITH THE CITY INSPECTOR.

NOTES:

1. CONTRACTOR SHALL CLEAR AND GRUB THIS AREA TO FACILITATE IMPROVEMENTS, INCLUDING ALL TREES, CONTRACTOR TO VERIFY QUANTITY AND COORDINATE WITH CITY FOR REMOVAL AND DEMOLITION EXTENTS.
2. CONTRACTOR TO COMPLETE WORK IN THIS AREA BY LONG STICK EXCAVATOR ON 204TH ST NE AND BY SMALL WHEELED EQUIPMENT AS TO NOT DAMAGE NEW TRAIL AND WALL ON 69TH AVE NE.

AS BUILT
City of Arlington Public Works Engineering Division
__Approved __Denied
X Approved with Conditions
Date: 4-29-2014
By: Jack Kelly
No changes authorized unless approved by the City Engineer or designee

NO.	DATE	BY	REVISION
1	4/22/14	NPH	CHANGE CONTRACT LIMITS - PHASE 2A (NIC)

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

JLTA DESIGNED
HCM DRAWN
NPH CHECKED

NATHAN P. HARDY STATE OF WASHINGTON 45836 REGISTERED PROFESSIONAL ENGINEER

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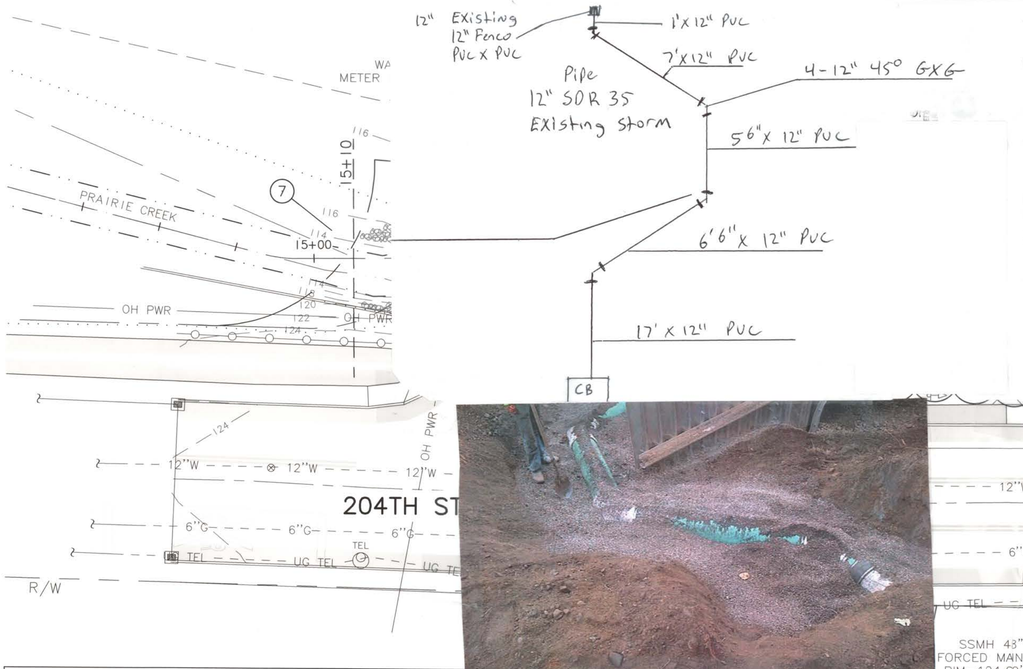
CITY OF ARLINGTON
PRAIRIE CREEK DRAINAGE IMPROVEMENTS
PHASE 2A CONSTRUCTION
- PROJECT NO. P02.371

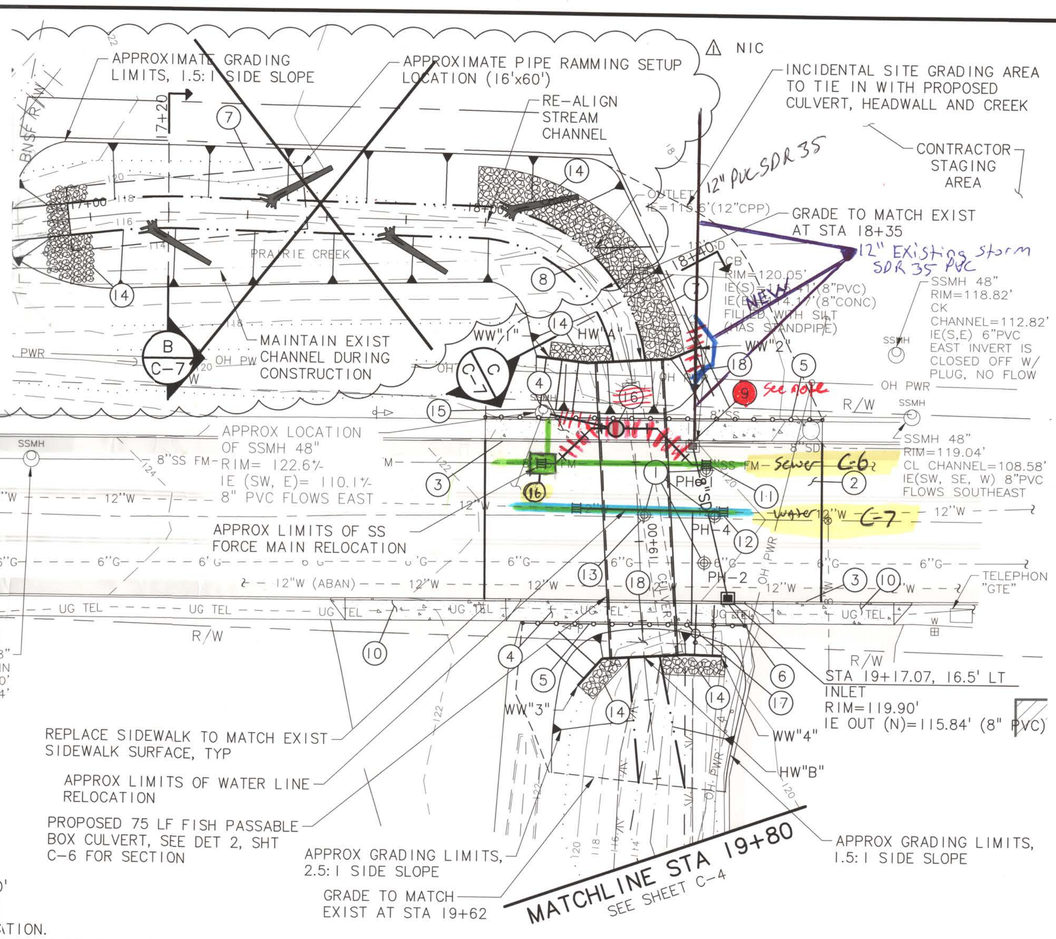
EXISTING CONDITIONS, SITE PREPARATION, AND EROSION CONTROL PLAN

PROJECT NO.: 12-1347.202 | SCALE: AS SHOWN | DATE: APRIL 2014

SHEET C-1
3 of 15

H:\EVT_Projects\12\1347\CAD\Sheets\CIVIL\12-1347-202-WA-DEMO-ESCP - P2.dwg C-1 4/25/2014 11:21 AM HCM 18.2s (LMS Tech)





204TH ST CULVERT HEADWALL DATA TABLE

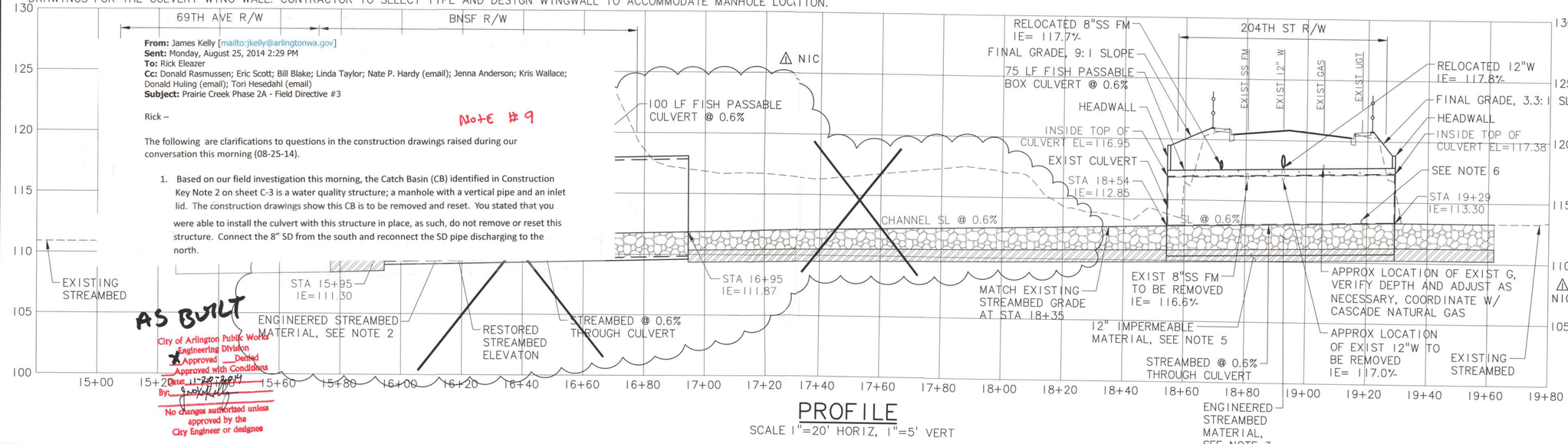
NAME	LENGTH	ANGLE*	TOP EL
WW"1" ***	13 FT	10°	119.5
HW"A" ***	21 FT	–	119.5
WW"2" ***	8 FT	20°	119.5
WW"3"	9 FT	45°	118.9
HW"B"	21 FT	–	118.9
WW"4"	9 FT	5°	118.9

* ANGLE MEASURED PARALLEL TO CULVERT HEADWALL

*** CONTRACTOR SHALL FIELD LOCATE THE EXISTING SANITARY SEWER MANHOLE PRIOR TO DEVELOPING AND SUBMITTING SHOP DRAWINGS FOR THE CULVERT WING WALL. CONTRACTOR TO SELECT TYPE AND DESIGN WINGWALL TO ACCOMMODATE MANHOLE LOCATION.

PLAN

SCALE: 1"=20'



From: James Kelly [mailto:jkelly@arlingtonwa.gov]
Sent: Monday, August 25, 2014 2:29 PM
To: Rick Eleazer
Cc: Donald Rasmussen; Eric Scott; Bill Blake; Linda Taylor; Nate P. Hardy (email); Jenna Anderson; Kris Wallace; Donald Huling (email); Tori Hesedahl (email)
Subject: Prairie Creek Phase 2A - Field Directive #3

Rick –

Note #9

The following are clarifications to questions in the construction drawings raised during our conversation this morning (08-25-14).

1. Based on our field investigation this morning, the Catch Basin (CB) identified in Construction Key Note 2 on sheet C-3 is a water quality structure; a manhole with a vertical pipe and an inlet lid. The construction drawings show this CB is to be removed and reset. You stated that you were able to install the culvert with this structure in place, as such, do not remove or reset this structure. Connect the 8" SD from the south and reconnect the SD pipe discharging to the north.

AS BUILT
City of Arlington Public Works
Engineering Division
Approved ☐ Denied
Approved with Conditions
Date: 11-20-2014
By: [signature]
No changes authorized unless approved by the City Engineer or designee

PROFILE

SCALE 1"=20' HORIZ, 1"=5' VERT

CONSTRUCTION KEY NOTES:

1. UTILITY POTHOLE:
   PH-1 – ASPHALT 39" TO TOP OF 8" SS FM
   PH-2 – ASPHALT 36" TO TOP OF 6" G
   PH-3 – ASPHALT 34" TO TOP OF 12" W
   PH-4 – ASPHALT 32" TO TOP OF 12" W
   PH-5 – ASPHALT 51" TO TOP OF EX CULVERT
2. ASPHALT CONCRETE PER DET 1, SHT C-8. REPLACE APPROX 85 LF OF PAVEMENT TO MATCH EXIST ROADWAY SURFACE. ALL PAVEMENT MARKINGS TO BE REPLACED IN KIND.
3. CURB AND GUTTER, PER CITY STD R-180
4. SIDEWALK PER CITY STD R-170
5. AL PEDESTRIAN HANDRAIL PER CITY STD R-160 AND DET 1, SHT C-7
6. INLET PER CITY STD DET SD-010
7. LARGE WOOD, SEE DET 3, SHT C-7
8. REMOVE AND REPLACE 12" STORM DRAIN, SEE DET 2, SHT C-8
9. REPLACE CB, RECONNECT W/ NEW 8" SD. MATCH EXIST IE TYPE 2 MH w/oil water seperator
10. DRIVEWAY APPROACH PER CITY STD DET R-230
11. REMOVE AND REPLACE 8" PVC SS FORCE MAIN, SEE DET 3, SHT C-6
12. REMOVE AND REPLACE 12" DI WATER MAIN, SEE DET 2, SHT C-7
13. PH-3 AND PH-5
14. SLOPE PROTECTION MATERIAL SHALL BE ONE PART THREE MAN STREAMBED BOULDERS, ONE PART ONE MAN STREAMBED BOULDERS, AND ONE PART 12" STREAMBED COBBLES PER WSDOT SPEC 9-03.11. SLOPE PROTECTION MATERIAL SHALL BE PLACED ON NON-WOVEN GEOTEXTILE FABRIC AND INSTALLED W/ 2-FT DEPTH AND EXTEND FROM EL 119 TO TOE OF SLOPE.
15. CONTRACTOR SHALL FIELD LOCATE THE EXISTING SANITARY SEWER MANHOLE PRIOR TO DEVELOPING AND SUBMITTING SHOP DRAWINGS FOR THE CULVERT WING WALL. CONTRACTOR TO SELECT TYPE AND DESIGN WINGWALL TO ACCOMMODATE MANHOLE LOCATION. CORE DRILL FOR 4" PVC DR, SEAL W/NON-SHRINK GROUT
16. SEWAGE ARV, SEE DET 4 SHT C-6, W/20 LF 4" PVC DR ROUTED TO MH TO NW.
17. CARV PER CITY STD DET W-260
18. GRADE SURFACE TO MATCH PROPOSED SIDEWALK ELEVATION AND TIE INTO PROPOSED HEAD WALL/WINGWALL ELEVATIONS OR EXISTING GROUND. 3:1 SIDE SLOPE MAX.

NOTES:

1. THE VERTICAL LOCATION OF THE EXISTING UTILITIES WHICH HAVE YET TO BE POTHOLED ARE SHOWN IN THE PROFILE AT ESTIMATED ELEVATIONS.
2. ENGINEERED STREAMBED MATERIAL SHALL BE ONE PART BY VOLUME OF STREAMBED SEDIMENT AND TWO PARTS BY VOLUME OF 8" STREAMBED COBBLES PER WSDOT SPEC 9-03.11 IN BNSF CULVERT ONLY.
3. NIC ENGINEERED STREAMBED MATERIAL SHALL BE ONE PART BY VOLUME OF STREAMBED SEDIMENT AND TWO PARTS BY VOLUME OF 4" STREAMBED COBBLES PER WSDOT SPEC 9-03.11 IN ALL AREAS EXCEPT BNSF CULVERT.
4. SEE LANDSCAPE DRAWINGS FOR PLANTING AND RESTORATION PLANS.
5. 12" IMPERMEABLE MATERIAL PER SPECIAL PROVISION 9-03.16 IN ALL DISTURBED CREEK BED LOCATIONS.
6. APPROXIMATE LOCATION OF EXISTING UGT, VERIFY DEPTH AND ADJUST AS NECESSARY. COORDINATE WITH FRONTIER COMMUNICATIONS.

NO.	DATE	BY	REVISION
1	4/22/14	NPH	CHANGE CONTRACT LIMITS – PHASE 2A (NIC)

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

JLTA DESIGNED
HCM DRAWN
NPH CHECKED

NATHAN P. HARDY STATE OF WASHINGTON 45836 REGISTERED PROFESSIONAL ENGINEER

MSA Murray, Smith & Associates, Inc. Engineers/Planners
2707 Colby Avenue, Suite 1110 Everett, Washington 98201-3566
PHONE 425.252.9003 FAX 425.252.8853

CITY OF ARLINGTON
PRAIRIE CREEK DRAINAGE IMPROVEMENTS
PHASE 2A CONSTRUCTION
- PROJECT NO. P02.371

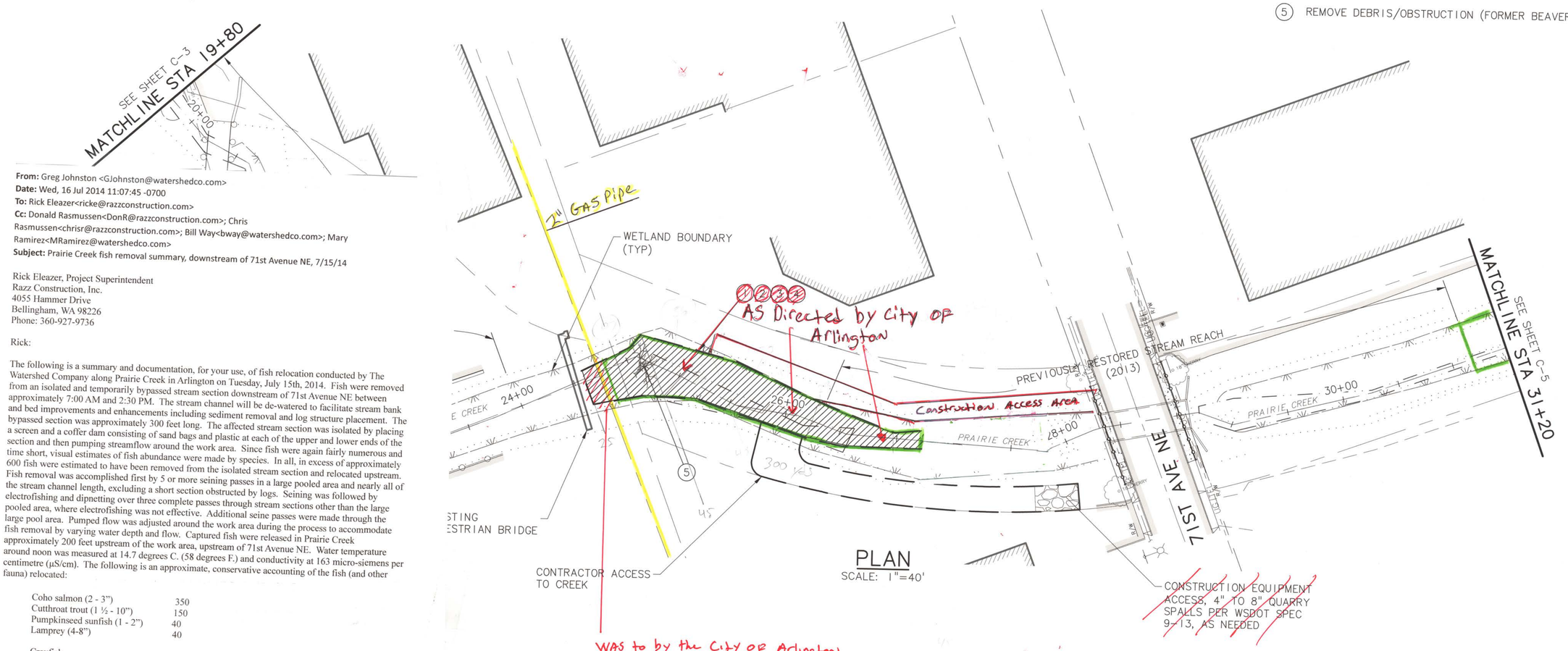
PRAIRIE CREEK
PLAN AND PROFILE
STA 14+80 TO STA 19+80

PROJECT NO.: 12-1347.202 | SCALE: AS SHOWN | DATE: APRIL 2014

SHEET C-3

CONSTRUCTION KEY NOTES:

1. SEDIMENT REMOVAL AREA. CONTRACTOR TO REMOVE DEPOSITED SEDIMENT AT THE DIRECTION OF CITY REPRESENTATIVE DOWN TO THE ELEVATION OF EXISTING GRAVEL CREEK BED WITHOUT DISTURBING EXISTING BED (APPROX. 1–2 FEET OF DEPOSITED SEDIMENT IN THIS AREA BASED ON SEDIMENT REMOVAL ACTIVITIES DURING 2013). ENSURE FINAL CHANNEL IS GRADED WITH APPROX. 0.2% SLOPE DOWNSTREAM.
2. CONTRACTOR TO REMOVE ALL EXISTING LARGE WOOD AND BURIED SILL GRADE STRUCTURES ENCOUNTERED (APPROX. ONE EVERY 30 FEET). RESTORE DISTURBED AREA WITH 12–INCHES OF IMPERMEABLE MATERIAL (SPECIAL PROVISION 9–03.16) AND 12–INCHES OF STREAMBED SEDIMENT (WSDOT SPEC. 9–03.11).
3. INSTALL LARGE WOOD AT APPROX. 30' INTERVAL IN THIS AREA PER DETAIL 3, SHEET C–7. FINAL LOCATION AT DIRECTION OF CITY REPRESENTATIVE.
4. DURING SEDIMENT REMOVAL ACTIVITIES, CONTRACTOR TO GRADE FINAL STREAM SECTION PER DETAIL 1, SHEET C–5.
5. REMOVE DEBRIS/OBSTRUCTION (FORMER BEAVER DAM).



PLAN
SCALE: 1"=40'

WAS to by the City of Arlington To Leave this area alone Due To Existing 2" Gas main.

AS BUILT
City of Arlington Public Works Engineering Division
X Approved ___Denied
___Approved with Conditions
Date: 11-20-2014
By: Jon Fuller
No changes authorized unless approved by the City Engineer or designee

NOTES:

1. CONTRACTOR SHALL ONLY USE SMALL WHEELED OR TRACKED EQUIPMENT FOR SEDIMENT REMOVAL ACTIVITIES WITHIN PRAIRIE CREEK (BOBCAT LOADER/EXCAVATOR OR EQUIVALENT) IN ORDER TO MINIMIZE DISTURBANCE TO EXISTING VEGETATION.
2. CONTRACTOR TO PROTECT EXISTING TREES.
3. SEE LANDSCAPE DRAWINGS FOR PLANTING AND RESTORATION PLANS.

From: Greg Johnston <GJohnston@watershedco.com>
Date: Wed, 16 Jul 2014 11:07:45 -0700
To: Rick Eleazer<ricke@razzconstruction.com>
Cc: Donald Rasmussen<DonR@razzconstruction.com>; Chris Rasmussen<chrisr@razzconstruction.com>; Bill Way<bway@watershedco.com>; Mary Ramirez<MRamirez@watershedco.com>
Subject: Prairie Creek fish removal summary, downstream of 71st Avenue NE, 7/15/14

Rick Eleazer, Project Superintendent
Razz Construction, Inc.
4055 Hammer Drive
Bellingham, WA 98226
Phone: 360-927-9736

Rick:

The following is a summary and documentation, for your use, of fish relocation conducted by The Watershed Company along Prairie Creek in Arlington on Tuesday, July 15th, 2014. Fish were removed from an isolated and temporarily bypassed stream section downstream of 71st Avenue NE between approximately 7:00 AM and 2:30 PM. The stream channel will be de-watered to facilitate stream bank and bed improvements and enhancements including sediment removal and log structure placement. The bypassed section was approximately 300 feet long. The affected stream section was isolated by placing a screen and a coffer dam consisting of sand bags and plastic at each of the upper and lower ends of the section and then pumping streamflow around the work area. Since fish were again fairly numerous and time short, visual estimates of fish abundance were made by species. In all, in excess of approximately 600 fish were estimated to have been removed from the isolated stream section and relocated upstream. Fish removal was accomplished first by 5 or more seining passes in a large pooled area and nearly all of the stream channel length, excluding a short section obstructed by logs. Seining was followed by electrofishing and dipnetting over three complete passes through stream sections other than the large pooled area, where electrofishing was not effective. Additional seine passes were made through the large pool area. Pumped flow was adjusted around the work area during the process to accommodate fish removal by varying water depth and flow. Captured fish were released in Prairie Creek approximately 200 feet upstream of the work area, upstream of 71st Avenue NE. Water temperature around noon was measured at 14.7 degrees C. (58 degrees F.) and conductivity at 163 micro-siemens per centimetre (µS/cm). The following is an approximate, conservative accounting of the fish (and other fauna) relocated:

Coho salmon (2 - 3")	350
Cutthroat trout (1 ½ - 10")	150
Pumpkinseed sunfish (1 - 2")	40
Lamprey (4-8")	40
Crayfish	10
Bullfrog tadpole	30
Bullfrog (small)	1
Red-legged frog	1

Please let us know if you have any questions or need any further information or assistance.

Thanks,

Greg Johnston
Senior Fisheries Biologist
The Watershed Company
750 - 6th Street S.
Kirkland, WA 98033

425-822-5242
http://www.watershedco.com/

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

JLTA DESIGNED
HCM DRAWN
NPH CHECKED

NATHAN P. HARDY — STATE OF WASHINGTON — 45836 — REGISTERED PROFESSIONAL ENGINEER

MSA Murray, Smith & Associates, Inc. Engineers/Planners
2707 Colby Avenue, Suite 1110 Everett, Washington 98201-3566
PHONE 425.252.9003 FAX 425.252.8853

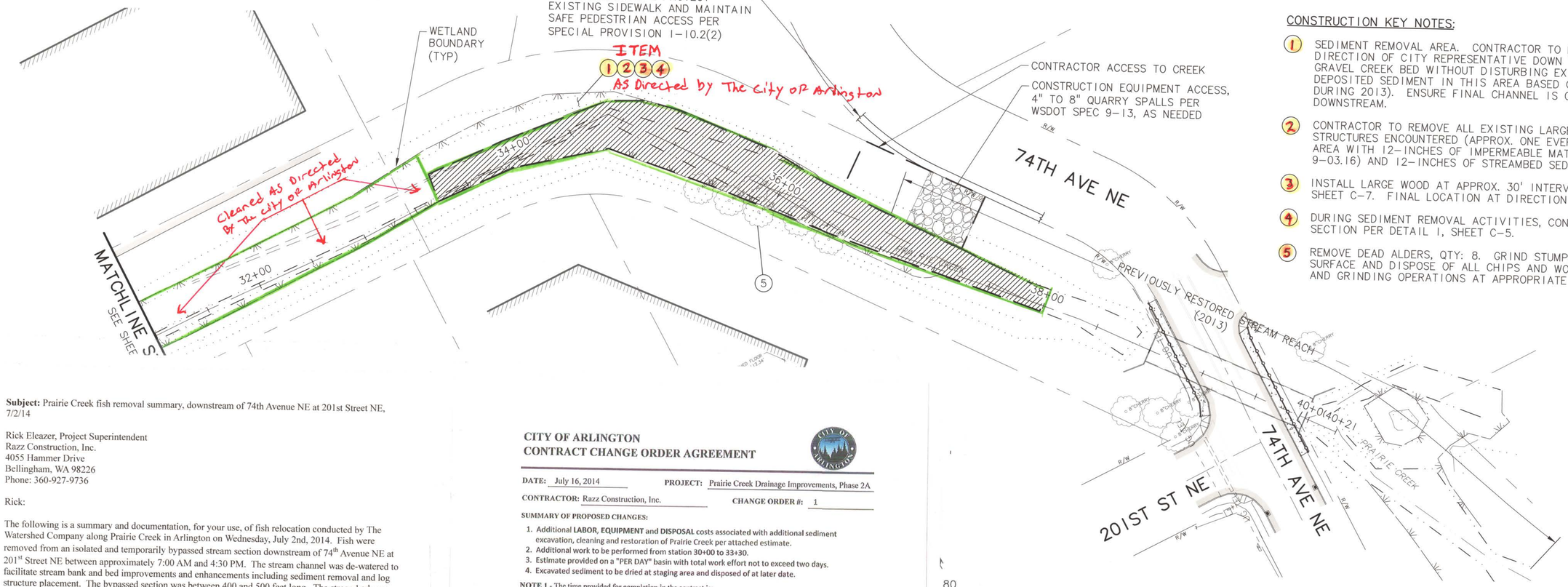
CITY OF ARLINGTON

CITY OF ARLINGTON
PRAIRIE CREEK DRAINAGE IMPROVEMENTS
PHASE 2A CONSTRUCTION - PROJECT NO. P02.371

PRAIRIE CREEK PLAN
STA 19+80 TO STA 31+20

PROJECT NO.: 12–1347.202 | SCALE: AS SHOWN | DATE: APRIL 2014

SHEET C–4



CONSTRUCTION KEY NOTES:

1. SEDIMENT REMOVAL AREA. CONTRACTOR TO REMOVE DEPOSITED SEDIMENT AT THE DIRECTION OF CITY REPRESENTATIVE DOWN TO THE ELEVATION OF EXISTING GRAVEL CREEK BED WITHOUT DISTURBING EXISTING BED (APPROX. 1-2 FEET OF DEPOSITED SEDIMENT IN THIS AREA BASED ON SEDIMENT REMOVAL ACTIVITIES DURING 2013). ENSURE FINAL CHANNEL IS GRADED WITH APPROX. 0.2% SLOPE DOWNSTREAM.
2. CONTRACTOR TO REMOVE ALL EXISTING LARGE WOOD AND BURIED SILL GRADE STRUCTURES ENCOUNTERED (APPROX. ONE EVERY 30 FEET). RESTORE DISTURBED AREA WITH 12-INCHES OF IMPERMEABLE MATERIAL (SPECIAL PROVISION 9-03.16) AND 12-INCHES OF STREAMBED SEDIMENT (WSDOT SPEC. 9-03.11).
3. INSTALL LARGE WOOD AT APPROX. 30' INTERVAL IN THIS AREA PER DETAIL 3, SHEET C-7. FINAL LOCATION AT DIRECTION OF CITY REPRESENTATIVE.
4. DURING SEDIMENT REMOVAL ACTIVITIES, CONTRACTOR TO GRADE FINAL STREAM SECTION PER DETAIL 1, SHEET C-5.
5. REMOVE DEAD ALDERS, QTY: 8. GRIND STUMPS TO 12-INCHES BELOW GROUND SURFACE AND DISPOSE OF ALL CHIPS AND WOOD DEBRIS FROM THREE REMOVAL AND GRINDING OPERATIONS AT APPROPRIATE OFFSITE LOCATION.

Subject: Prairie Creek fish removal summary, downstream of 74th Avenue NE at 201st Street NE, 7/2/14

Rick Eleazer, Project Superintendent
Razz Construction, Inc.
4055 Hammer Drive
Bellingham, WA 98226
Phone: 360-927-9736

Rick:

The following is a summary and documentation, for your use, of fish relocation conducted by The Watershed Company along Prairie Creek in Arlington on Wednesday, July 2nd, 2014. Fish were removed from an isolated and temporarily bypassed stream section downstream of 74th Avenue NE at 201st Street NE between approximately 7:00 AM and 4:30 PM. The stream channel was de-watered to facilitate stream bank and bed improvements and enhancements including sediment removal and log structure placement. The bypassed section was between 400 and 500 feet long. The streambed was dewatered by placing a screen and a coffer dam consisting of sand bags and plastic at each of the upper and lower ends of the isolated section and then pumping streamflow around the work area. Since fish were fairly numerous and time short, visual estimates of fish abundance were made by species. In all approximately 900-1,000 fish were removed from the isolated stream section. Fish removal was accomplished first by 5 or more seining passes in pooled areas, followed by electrofishing and dipnetting over three complete passes through stream sections not amenable to seining. In addition, the primary seined pool areas were also electrofished with at least 2 passes prior to the final seine passes. Fishing was begun prior to diversion of stream flow and continued as flows diminished during the dewatering process. Captured fish were released in Prairie Creek approximately 200 feet upstream of the work area. Water temperature was measured at 17.7 degrees C. (64 degrees F.) and conductivity at 150 micro-siemens per centimetre (µS/cm). The following is an approximate, conservative accounting of the fish (and other fauna) relocated:

Coho salmon (2 - 3")	500
Cutthroat trout (1 ½ - 10")	200
Pumpkinseed sunfish (1 - 2")	100
Lamprey (4-8")	100
Crayfish	12
Bullfrog tadpole	50

Please let us know if you have any questions or need any further information or assistance.

Thanks,

Greg Johnston
Senior Fisheries Biologist
The Watershed Company
750 - 6th Street S.
Kirkland, WA 98033

425-822-5242

CITY OF ARLINGTON
CONTRACT CHANGE ORDER AGREEMENT

DATE: July 16, 2014 **PROJECT:** Prairie Creek Drainage Improvements, Phase 2A

CONTRACTOR: Razz Construction, Inc. **CHANGE ORDER #:** 1

SUMMARY OF PROPOSED CHANGES:

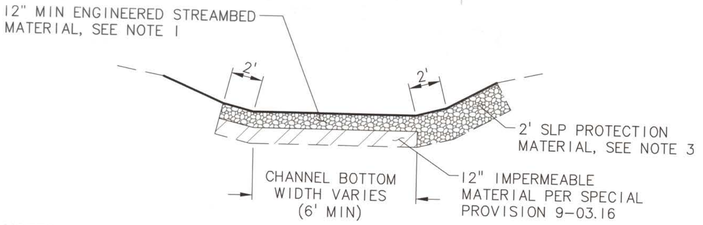
1. Additional **LABOR, EQUIPMENT** and **DISPOSAL** costs associated with additional sediment excavation, cleaning and restoration of Prairie Creek per attached estimate.
2. Additional work to be performed from station 30+00 to 33+30.
3. Estimate provided on a "PER DAY" basin with total work effort not to exceed two days.
4. Excavated sediment to be dried at staging area and disposed of at later date.

NOTE 1 - The time provided for completion in the contract is:
Unchanged ____ Increased X Decreased ____ by 2 working days.

NOTE 2 - Will this change effect expiration or extent of insurance coverage?
NO X YES ____ *If "yes", will the policies be extended* _____.

NOTE 3 - The cost shown below shall be full compensation for the items as indicated in summary above and shall be considered full payment for all materials, labor, and equipment for the work. Materials and workmanship shall be in accordance with contract specifications.

AS BUILT
City of Arlington Public Works Engineering Division
X Approved ___ Denied
Approved with Conditions
Date: 11-20-2014
By: Jack Kelly
No changes authorized unless approved by the City Engineer or designee



NOTES:

1. ENGINEERED STREAMBED MATERIAL SHALL BE ONE PART BY VOLUME OF STREAMBED SEDIMENT AND TWO PARTS BY VOLUME OF 4" STREAMBED COBBLES PER WSDOT SPEC. 9-03.11.
2. REFERENCE SHEET C-3 CALLOUTS AND DETAIL 1, SHEET C-5 FOR CHANNEL SIDE SLOPE CONDITIONS.
3. WHERE INDICATED ON SHEET C-3, SLOPE PROTECTION MATERIAL SHALL BE 1 PART THREE MAN STREAMED BOULDERS, 1 PART ONE MAN STREAMBED BOULDERS, AND 1 PART 12" STREAMBED COBBLES PER WSDOT SPEC 9-03.11. SLOPE PROTECTION MATERIAL SHALL BE PLACED ON NON-WOVEN GEOTEXTILE FABRIC AND INSTALLED WITH 2' DEPTH AND EXTEND FROM ELEVATION 119 TO TOE OF SLOPE.

RE-ALIGNED STREAM SECTION
SCALE: NTS
2 / C-3

NOTES:

1. CONTRACTOR SHALL ONLY USE SMALL WHEELED OR TRACKED EQUIPMENT FOR SEDIMENT REMOVAL ACTIVITIES WITHIN PRAIRIE CREEK (BOBCAT LOADER/EXCAVATOR OR EQUIVALENT) IN ORDER TO MINIMIZE DISTURBANCE TO EXISTING VEGETATION.
2. CONTRACTOR TO PROTECT EXISTING TREES.
3. SEE LANDSCAPE DRAWINGS FOR PLANTING AND RESTORATION PLANS.

TYPICAL PRAIRIE CREEK CHANNEL SECTION
SCALE: NTS
1 / -

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

JLTA DESIGNED
HCM DRAWN
NPH CHECKED

NATHAN P. HARDY — STATE OF WASHINGTON — 45836 — REGISTERED PROFESSIONAL ENGINEER

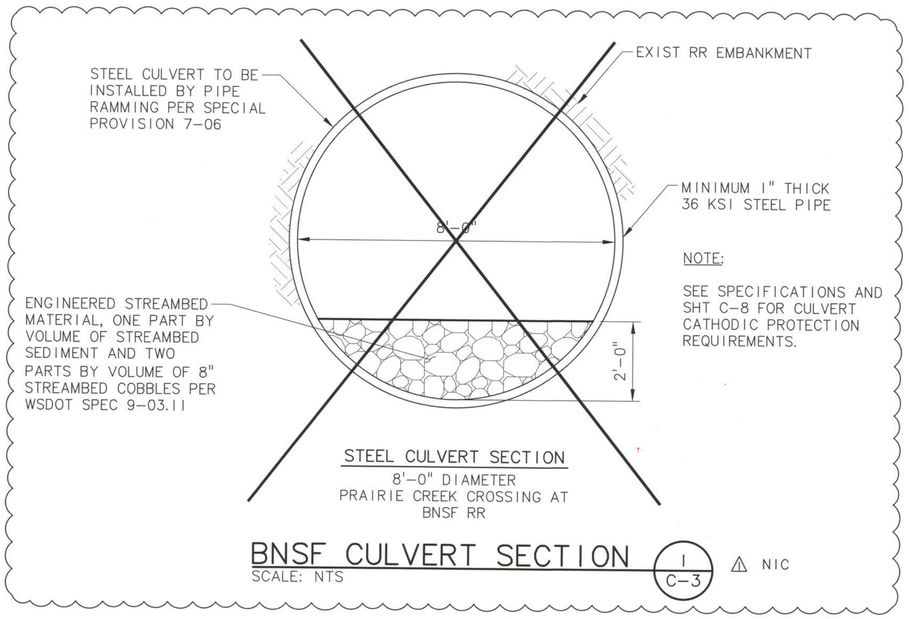
MSA Murray, Smith & Associates, Inc. Engineers/Planners
2707 Colby Avenue, Suite 1110 Everett, Washington 98201-3566
PHONE 425.252.9003 FAX 425.252.8853

CITY OF ARLINGTON
PRAIRIE CREEK DRAINAGE IMPROVEMENTS
PHASE 2A CONSTRUCTION
- PROJECT NO. P02.371

PRAIRIE CREEK PLAN
STA 31+20 TO STA 40+20

PROJECT NO.: 12-1347.202 | SCALE: AS SHOWN | DATE: APRIL 2014

SHEET C-5
7 of 15



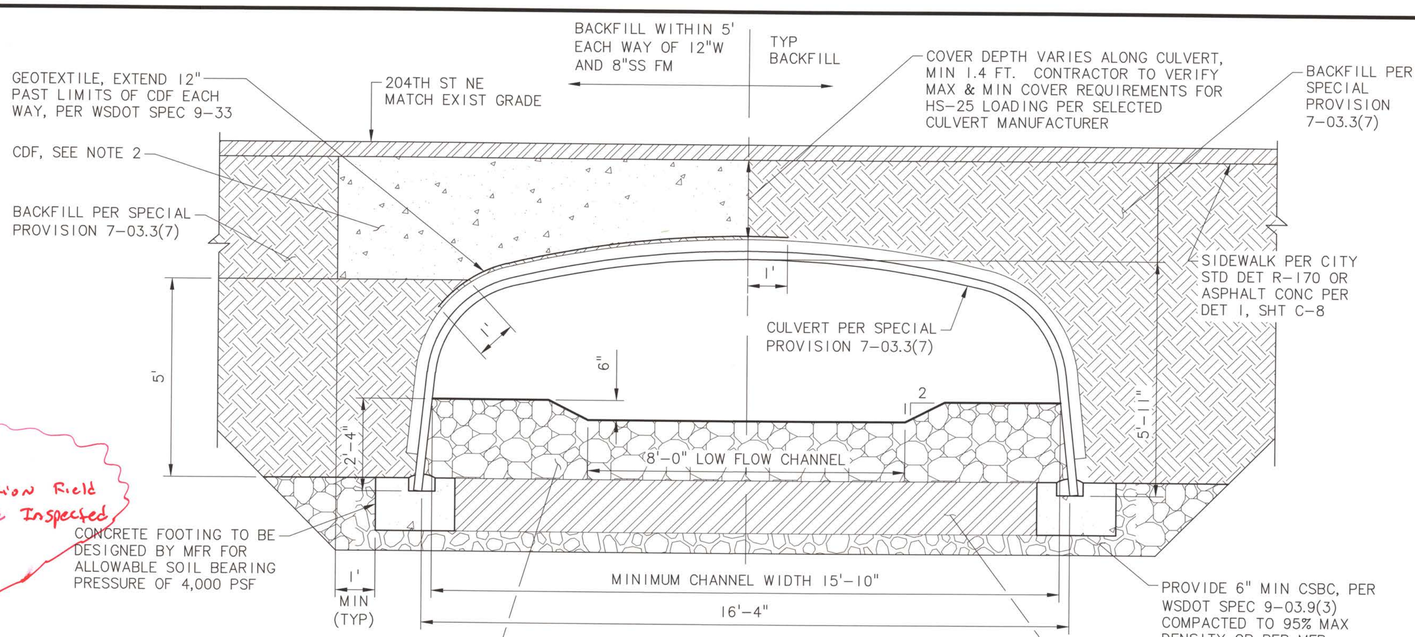
STEEL CULVERT SECTION
8'-0" DIAMETER
PRAIRIE CREEK CROSSING AT BNSF RR

BNSF CULVERT SECTION

1 / C-3

SCALE: NTS ⚠ NIC

NOTE:
All Installation Field Verified and Inspected By Jay L.



ALUMINUM BOX CULVERT SECTION

16'-4" SPAN
PRAIRIE CREEK CROSSING AT 204TH ST NE

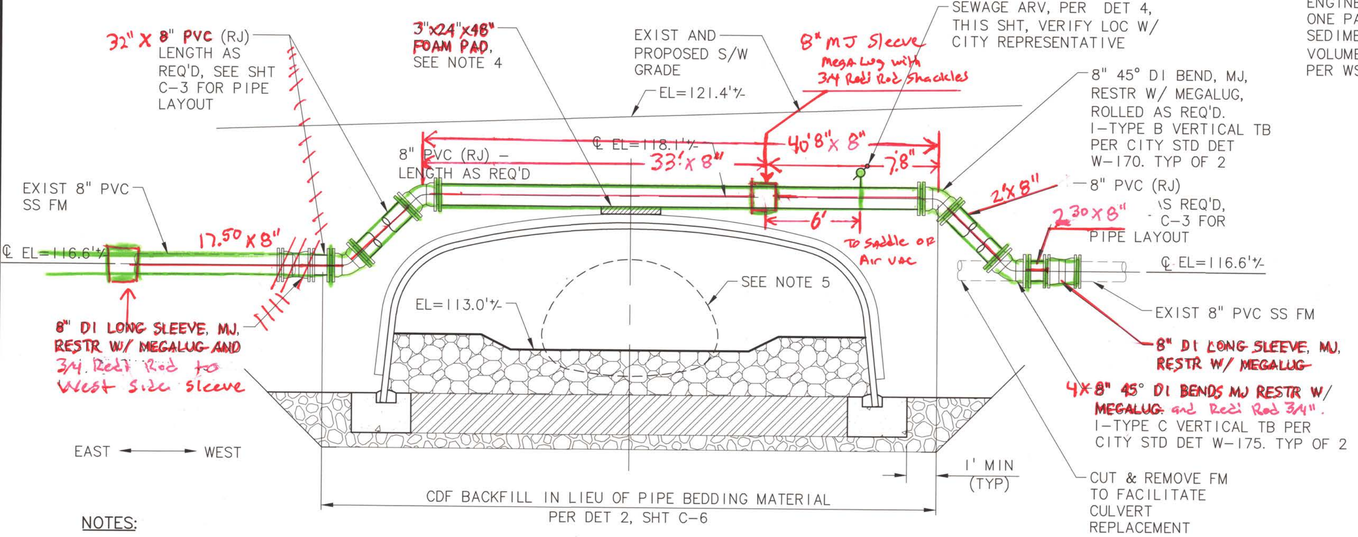
NOTES:

1. CONTRACTOR BACKFILLING REQUIREMENTS:

   A. DURING BACKFILLING OPERATIONS, ONLY SMALL TRACKED CONSTRUCTION EQUIPMENT SHALL BE NEAR THE CULVERT STRUCTURE AS FILL PROGRESSES ABOVE THE CROWN AND TO THE MINIMUM HEIGHT OF COVER. COVER OVER THE CULVERT STRUCTURE SHALL BE DETERMINED BY MEASURING FROM THE CROWN OF THE CULVERT STRUCTURE TO THE BOTTOM OF FLEXIBLE PAVEMENT OR TO THE TOP OF RIGID PAVEMENT. AFTER ADEQUATE COVER AND COMPACTION IS ACHIEVED, LIVE LOADS MAY INCREASE AT THE DISCRETION OF THE CITY REPRESENTATIVE.

   B. BACKFILL MATERIALS SHALL BE PLACED IN SYMMETRICAL LIFTS ON EACH SIDE OF THE CULVERT STRUCTURE. THE DIFFERENTIAL BETWEEN THE LIFTS ON EITHER SIDE SHALL NOT EXCEED 24 INCHES AT ANY TIME. EACH LAYER OF SOIL SHALL BE PLACED IN 6 TO 8 INCHES LOOSE THICKNESS AND COMPACTED TO A MINIMUM OF 95% DENSITY PER ASTM D1557 (MODIFIED PROCTOR).

2. CDF COVER OVER WATER AND SANITARY SEWER FORCE MAIN PIPES SHALL BE 8" MINIMUM, REDUCE CSBC DEPTH AS NECESSARY.



NOTES:

1. CONTRACTOR TO POTHOLE AND VERIFY EXISTING SANITARY SEWER FORCE MAIN IN ORDER TO VERIFY TIE-IN LOCATIONS AND ELEVATIONS.

2. ALL PVC FORCE MAIN PIPE SHALL BE FULLY RESTRAINED JOINT, SEE SPECIAL PROVISION 9-30.1(7). ALL RESTRAINED MECHANICAL JOINTS PER SPECIAL PROVISION 9-30.2(6).

3. FORCE MAIN SHALL BE RATED FOR NORMAL OPERATION AT MINIMUM 150 PSI. CONTRACTOR TO MAKE FINAL CONNECTION ONLY ON ONE SIDE OF CULVERT IN ORDER TO COMPLETE PRESSURE TEST PRIOR TO MAKING SECOND FINAL CONNECTION.

4. FOAM PAD SHALL BE FOAMULAR 400 BY OWENS CORNING, OR APPROVED EQUAL, TO BE CENTERED OVER CROWN OF CULVERT.

5. EXISTING 71" X 47" PIPE ARCH. TOP EL = 116.7'±.

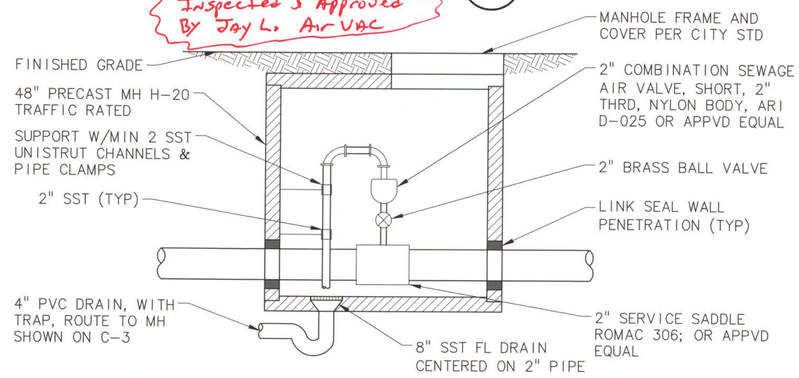
6. CONTRACTOR SHALL PROVIDE TEMPORARY BYPASS PIPING FOR THE EXISTING 8-INCH SEWER FORCE MAIN TO FACILITATE THE CONSTRUCTION OF REPLACEMENT CULVERT. SEE SECTION 7-16 OF THE SPECIAL PROVISIONS FOR SPECIFIC BYPASS PIPING AND BYPASS PLAN SUBMITTAL REQUIREMENTS.

SANITARY SEWER FORCE MAIN RELOCATION DETAIL

3 / C-3

SCALE: NTS

AS BUILT
City of Arlington Public Works
Engineering Division
X Approved ___ Denied
Approved with Conditions
Date: 11-20-2014
By:
No changes authorized unless approved by the City Engineer or designee



SEWAGE AIR RELEASE VALVE

4 / C-3

SCALE: NTS

NO.	DATE	BY	REVISION
⚠	4/22/14	NPH	CHANGE CONTRACT LIMITS – PHASE 2A (NIC)

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

JLTA DESIGNED
HCM DRAWN
NPH CHECKED

NATHAN P. HARDY — STATE OF WASHINGTON — 45836 — REGISTERED PROFESSIONAL ENGINEER

MSA Murray, Smith & Associates, Inc. Engineers/Planners
2707 Colby Avenue, Suite 1110 Everett, Washington 98201-3566
PHONE 425.252.9003 FAX 425.252.8853

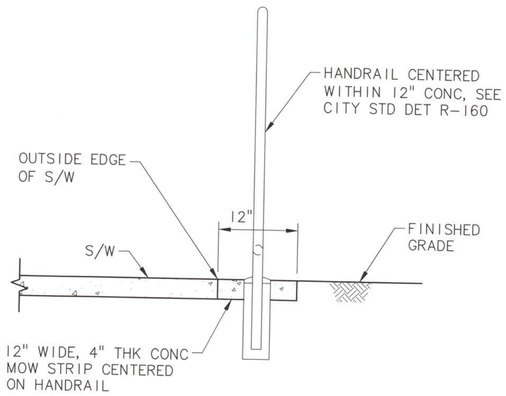
CITY OF ARLINGTON
PRAIRIE CREEK DRAINAGE IMPROVEMENTS
PHASE 2A CONSTRUCTION
- PROJECT NO. P02.371

CIVIL DETAILS - 1

PROJECT NO.: 12-1347.202 | SCALE: AS SHOWN | DATE: APRIL 2014

SHEET C-6

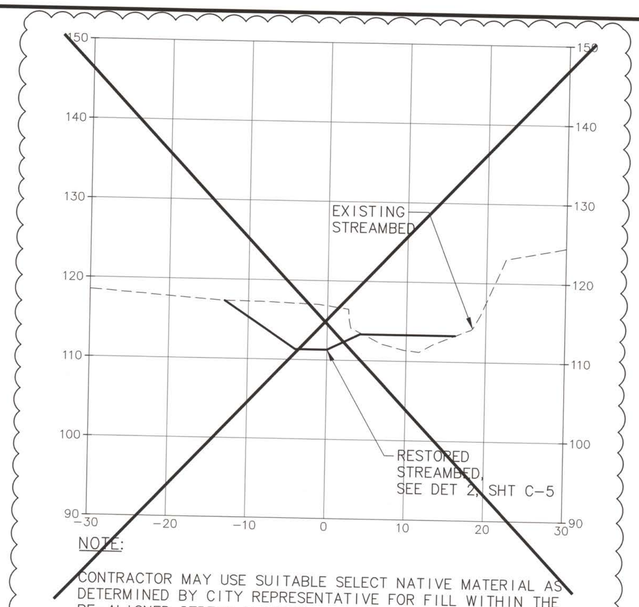
8 of 15



PEDESTRIAN HANDRAIL SPACING SECTION DETAIL

SCALE: NTS

(1 / C-3)



NOTE:

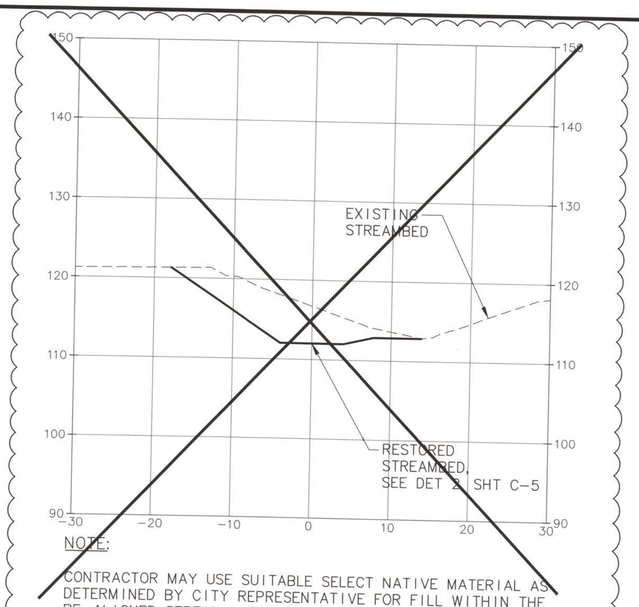
CONTRACTOR MAY USE SUITABLE SELECT NATIVE MATERIAL AS DETERMINED BY CITY REPRESENTATIVE FOR FILL WITHIN THE RE-ALIGNED STREAM CHANNEL.

⚠ NIC

STREAM SECTION @ STA 15+90

SCALE: 1"=10' HORIZ; 1"=10' VERT

(A / C-3)



NOTE:

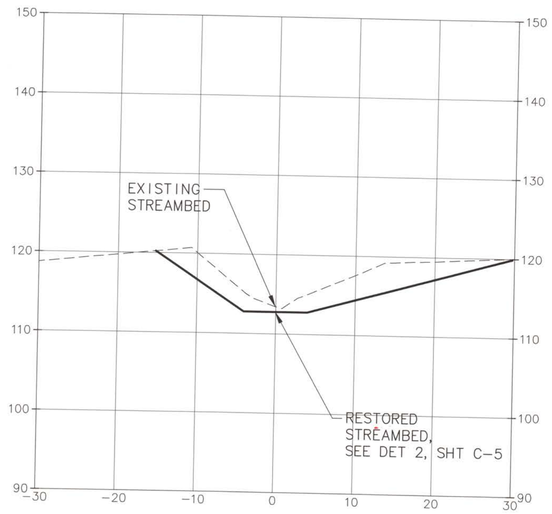
CONTRACTOR MAY USE SUITABLE SELECT NATIVE MATERIAL AS DETERMINED BY CITY REPRESENTATIVE FOR FILL WITHIN THE RE-ALIGNED STREAM CHANNEL.

⚠ NIC

STREAM SECTION @ STA 17+20

SCALE: 1"=10' HORIZ; 1"=10' VERT

(B / C-3)

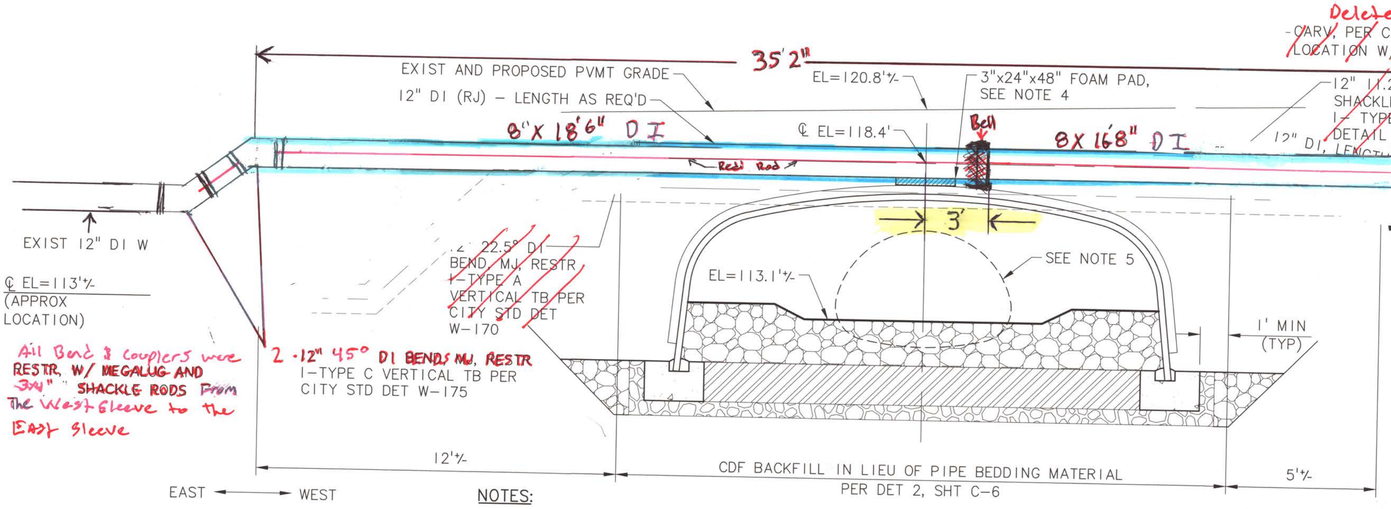


STREAM SECTION @ STA 18+40

SCALE: 1"=10' HORIZ; 1"=10' VERT

(C / C-3)

Deleted per city OR Arlington Gus



NOTES:

1. CONTRACTOR TO POTHOLE AND VERIFY EXISTING WATER MAIN TO VERIFY TIE IN ELEVATIONS AND LOCATIONS.
2. ALL DI PIPE SHALL BE FULLY RESTRAINED JOINT, SEE SPECIAL PROVISION 9-30.1(1). ALL RESTRAINED MECHANICAL JOINTS PER SPECIAL PROVISION 9-30.2(6).
3. CONTRACTOR TO MAKE FINAL CONNECTION ONLY ON ONE SIDE OF CULVERT IN ORDER TO COMPLETE PRESSURE TEST PRIOR TO MAKING SECOND FINAL CONNECTION.
4. FOAM PAD SHALL BE FOAMULAR 400 BY OWENS CORNING, OR APPROVED EQUAL, TO BE CENTERED OVER CROWN OF CULVERT.
5. EXISTING 71" X 47" PIPE ARCH. TOP EL=116.7'±.

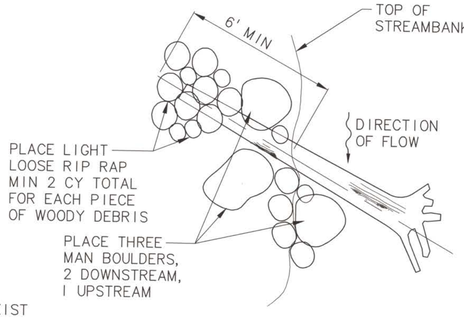
WATER LINE RELOCATION DETAIL

SCALE: NTS

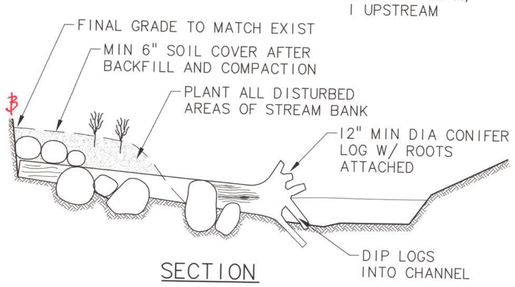
(2 / C-3)

All Installation, Cleaning & Inspection was done by the City OR Arlington. Gus OR the water Dept.

AS BUILT
City of Arlington Public Works
Engineering Division
Approved ___ Denied
Approved with Conditions
Date 11-20-2014
By:
No changes authorized unless approved by the City Engineer or designee



PLAN



SECTION

NOTES:

1. LOG ORIENTATION WILL BE GENERALLY AS SHOWN ON THE PLANS. FINAL ORIENTATION AND PLACEMENT DEPTH WILL BE DETERMINED IN FIELD BY CITY REPRESENTATIVE.
2. STREAMBED BOULDERS SHALL BE "THREE MAN" ROCK PER WSDOT SPEC 9-03.11(3).

LARGE WOODY DEBRIS TYPICAL DETAIL

SCALE: NTS

(3 / C-3)

NO.	DATE	BY	REVISION
1	4/22/14	NPH	CHANGE CONTRACT LIMITS – PHASE 2A (NIC)

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

JLTA DESIGNED
HCM DRAWN
NPH CHECKED

NATHAN P HARDY STATE OF WASHINGTON 45836 REGISTERED PROFESSIONAL ENGINEER

MSA Murray, Smith & Associates, Inc. Engineers/Planners
2707 Colby Avenue, Suite 1110 Everett, Washington 98201-3566
PHONE 425.252.9003 FAX 425.252.8853

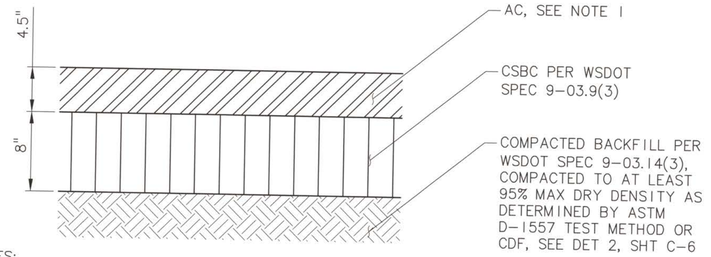
CITY OF ARLINGTON

CITY OF ARLINGTON PRAIRIE CREEK DRAINAGE IMPROVEMENTS PHASE 2A CONSTRUCTION - PROJECT NO. P02.371

CIVIL DETAILS - 2

PROJECT NO.: 12-1347.202 | SCALE: AS SHOWN | DATE: APRIL 2014

SHEET C-7



NOTES:

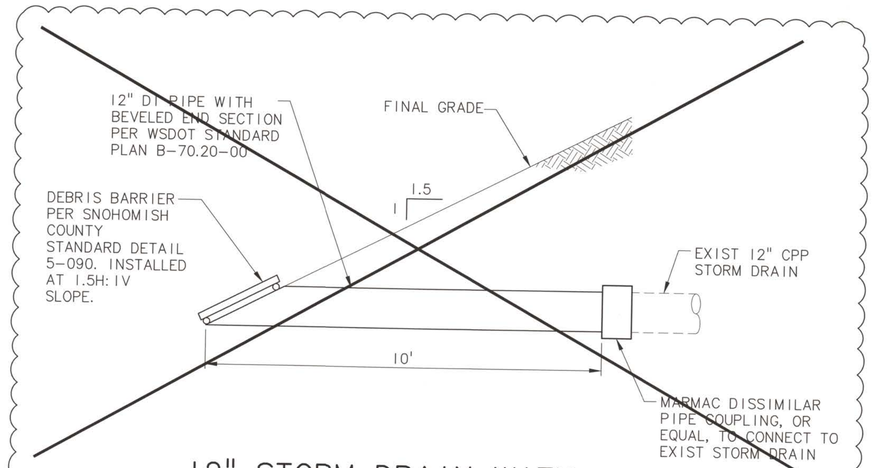
1. HMA CLASS 1/2-INCH PG64-22 PER WSDOT SPEC 5-04.

2. ROADWAY RESTORATION SHALL BE FULL WIDTH PER CITY OF ARLINGTON DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS, WITH THE EXCEPTION OF MODIFIED PAVEMENT SECTION SHOWN IN THIS DETAIL.

204TH ST NE ASPHALT CONCRETE SECTION DETAIL

SCALE: NTS

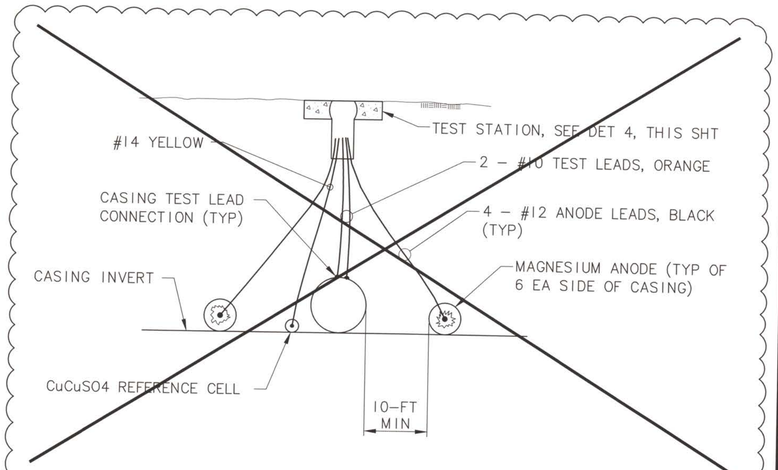
1 / C-3



12" STORM DRAIN WITH OUTLET VALVE DETAIL

SCALE: NTS

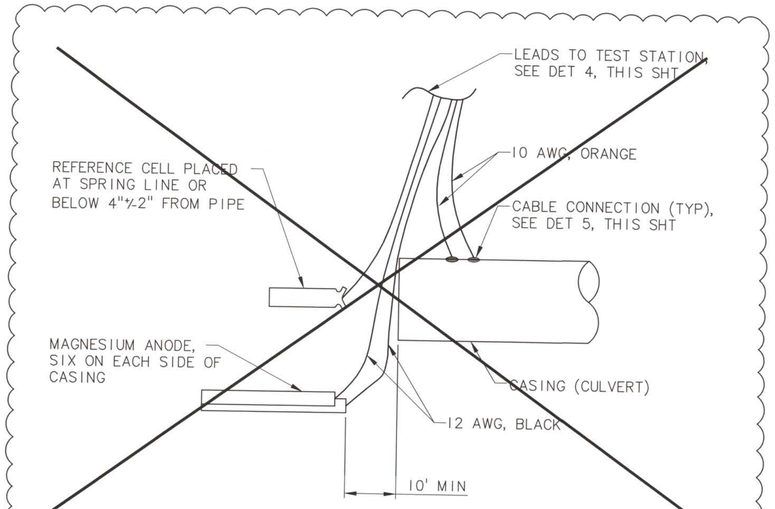
2 / C-3 ⚠ NIC



MAGNESIUM ANODE INSTALLATION

SCALE: NTS

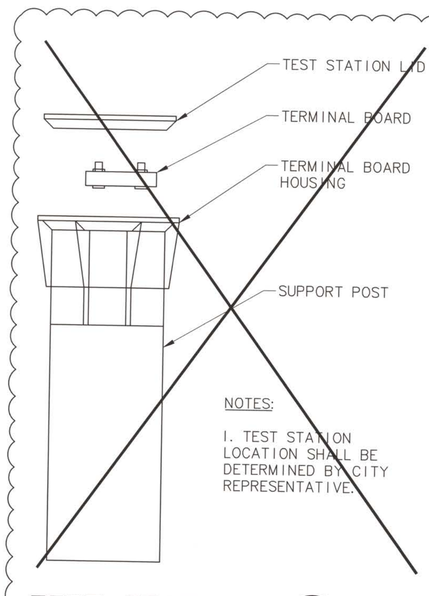
3 / - ⚠ NIC



CASING CATHODIC PROTECTION

SCALE: NTS

4 / - ⚠ NIC



NOTES:

1. TEST STATION LOCATION SHALL BE DETERMINED BY CITY REPRESENTATIVE.

TEST STATION

SCALE: NTS

5 / - ⚠ NIC

AS BUILT
City of Arlington Public Works
Engineering Division
Approved ___Denied
___Approved with Conditions
Date: 11-20-2014
By:
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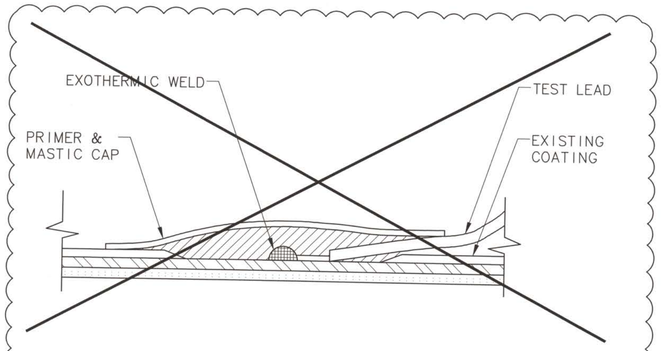
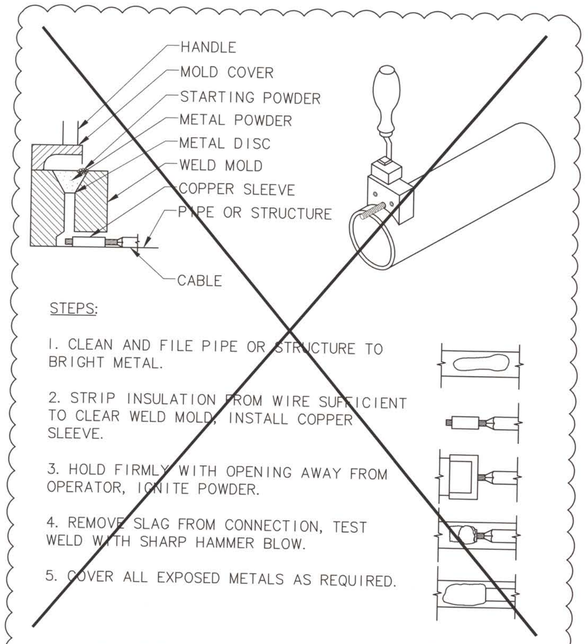


CABLE TO CASING CONNECTION

SCALE: NTS

6 / - ⚠ NIC



STEPS:

1. CLEAN AND FILE PIPE OR STRUCTURE TO BRIGHT METAL.

2. STRIP INSULATION FROM WIRE SUFFICIENT TO CLEAR WELD MOLD, INSTALL COPPER SLEEVE.

3. HOLD FIRMLY WITH OPENING AWAY FROM OPERATOR, IGNITE POWDER.

4. REMOVE SLAG FROM CONNECTION, TEST WELD WITH SHARP HAMMER BLOW.

5. COVER ALL EXPOSED METALS AS REQUIRED.

EXOTHERMIC WELD

SCALE: NTS

7 / - ⚠ NIC

NO.	DATE	BY	REVISION
1	4/22/14	NPH	CHANGE CONTRACT LIMITS – PHASE 2A (NIC)

NOTICE

0 ½ 1

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HCM DRAWN
NPH CHECKED

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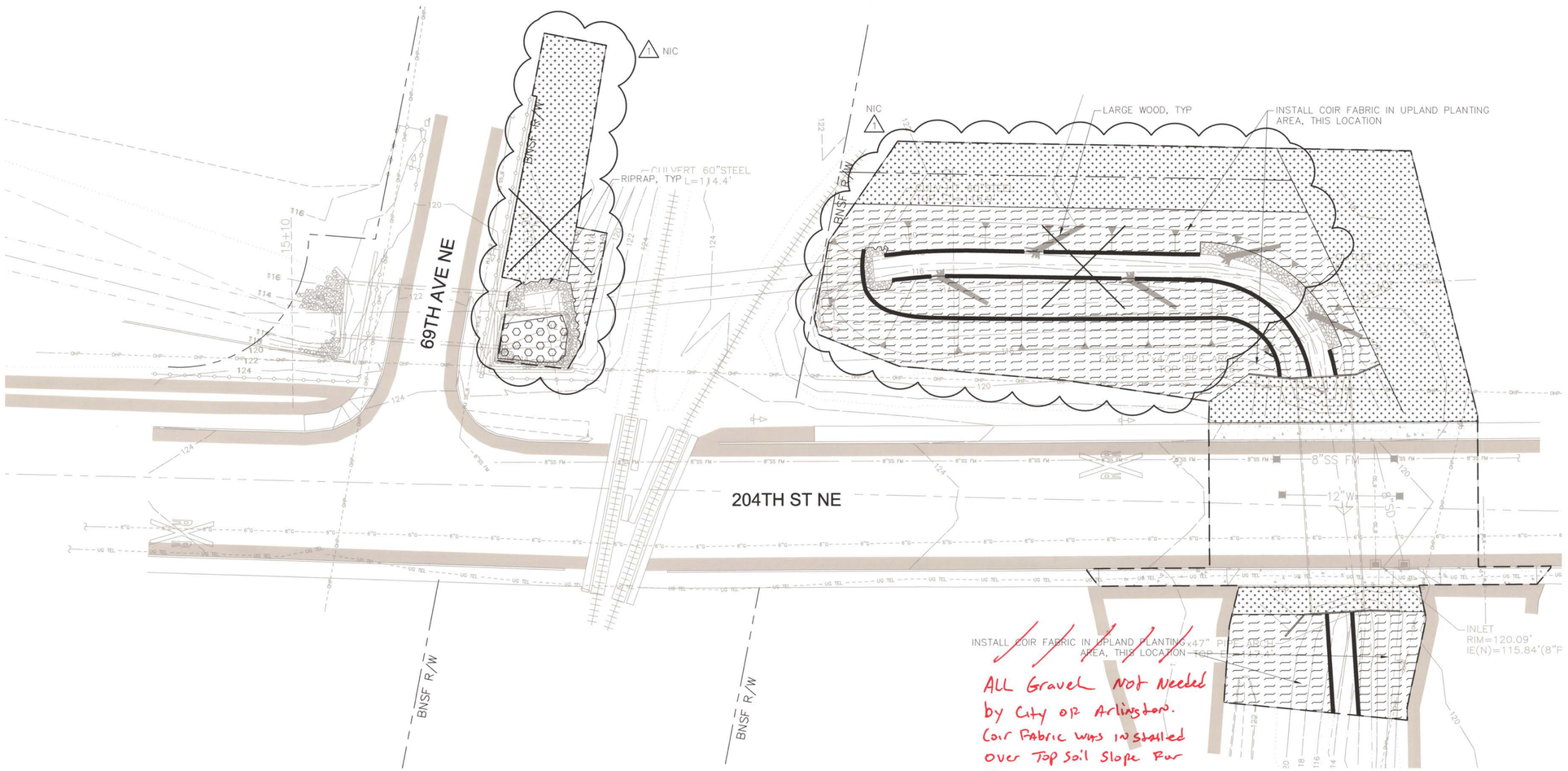
CITY OF ARLINGTON
PRAIRIE CREEK DRAINAGE IMPROVEMENTS
PHASE 2A CONSTRUCTION
- PROJECT NO. P02.371

CIVIL DETAILS - 3

PROJECT NO.: 12-1347.202 | SCALE: AS SHOWN | DATE: APRIL 2014

SHEET C-8

10 of 15



LANDSCAPE PLAN
AT 204TH ST NE & BNSF
SCALE: 1":20'

1

LEGEND:

- CONSTRUCTION LIMITS
- COIR LOG
- EXISTING WETLAND
- UPLAND PLANTING ZONE
- WETLAND PLANTING ZONE
- SEED MIX PLANTING ZONE

GENERAL NOTES:

1. EXISTING TREES AND SHRUBS SHALL BE PROTECTED AS INDICATED BY THE CITY REPRESENTATIVE AND PER SECTION 2-01.3
2. WETLAND PLANTING ZONE IS CONCEPTUAL AND SHALL BE ADJUSTED PER NEW STREAM ALIGNMENT CONDITIONS IN THE FIELD. LIVE POLES SHALL NOT BE PLANTED IN WATER. LIVE POLES NOT PLANTED IN STREAM/WETLAND ZONE SHALL BE PLANTED IN OTHER LOCATIONS AT THE DIRECTION OF THE CITY REPRESENTATIVE.
3. MULCH SHALL BE APPLIED IN A CONTINUOUS LAYER THROUGHOUT THE UPLAND PLANTING ZONE. SEE DETAILS ON SHEET L-3.

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___Approved with Conditions
Date: 11-20-2014
By: [signature]
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Seattle, WA 98107
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F: (206) 789-9684

STATE OF WASHINGTON
LICENSED
LANDSCAPE ARCHITECT
ALLISA CARLSON
LICENSE NO. 1237
EXPIRES ON 01/09/16

NO.	DATE	BY	REVISION
1	04/22/14	AMC	CHANGE CONTRACT LIMITS - PHASE 2A

NOTICE
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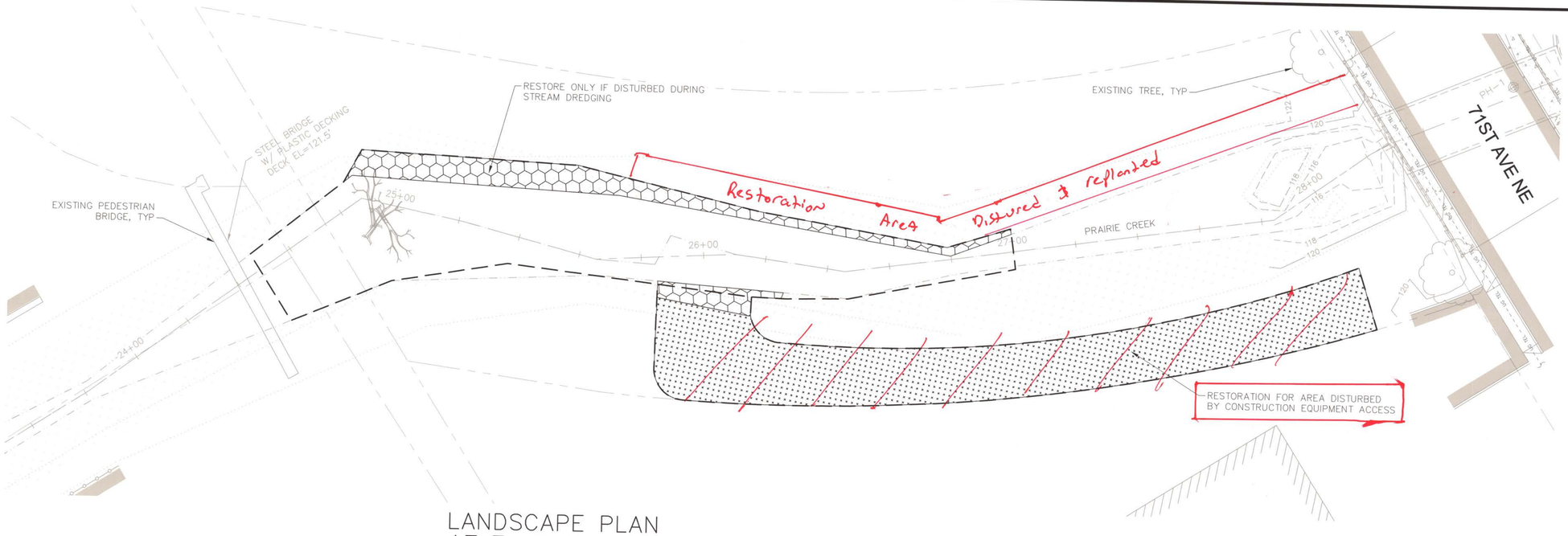
CITY OF ARLINGTON
PRAIRIE CREEK DRAINAGE IMPROVEMENTS
PHASE 2A CONSTRUCTION
- PROJECT NO. P02.371

204TH ST
CULVERT RESTORATION &
MITIGATION PLANTING PLAN

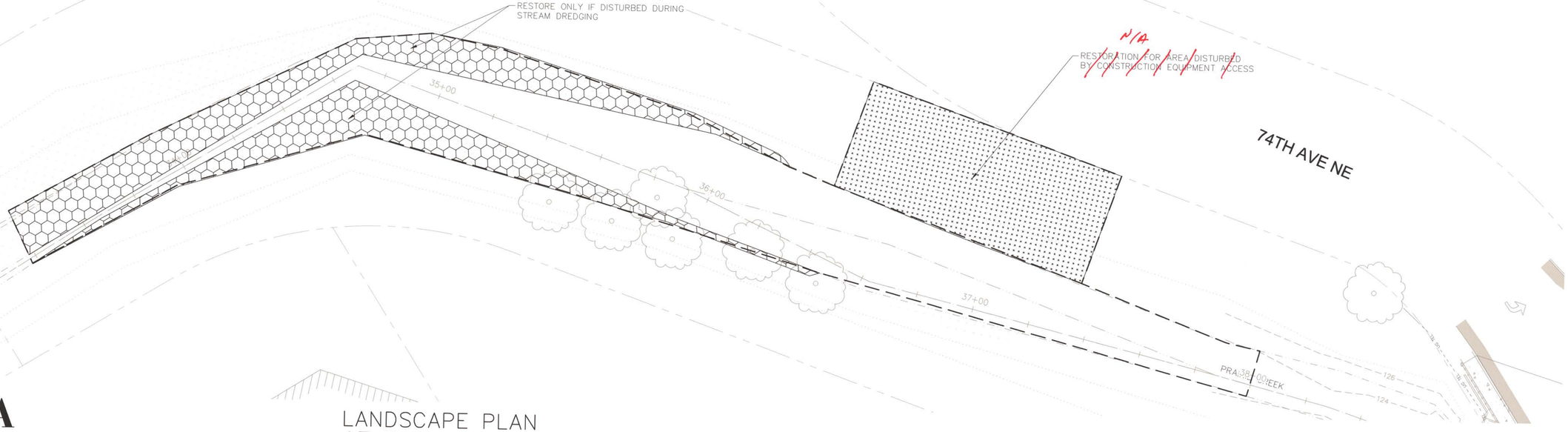
PROJECT NO.: 12-1347.202 | SCALE: | DATE: APRIL 2014

SHEET
L-1
11 of 15



LANDSCAPE PLAN
AT 71ST AVE NE
SCALE: 1": 20'

1



LANDSCAPE PLAN
AT 74TH AVE NE
SCALE: 1": 20'

2

LEGEND:

- CONSTRUCTION LIMITS
- EXISTING WETLAND
- UPLAND PLANTING ZONE
- WETLAND PLANTING ZONE
- SEED MIX PLANTING ZONE

GENERAL NOTES:

1. SEE SHEET L-1

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CITY OF ARLINGTON
PRAIRIE CREEK DRAINAGE IMPROVEMENTS
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SEDIMENT REMOVAL AREAS
RESTORATION & MITIGATION
PLANTING PLAN

PROJECT NO.: 12-1347.202 | SCALE: | DATE: APRIL 2014

SHEET
L-2
12 of 15

ALL Plants Were Inspected Prior to Planting by Bill B.

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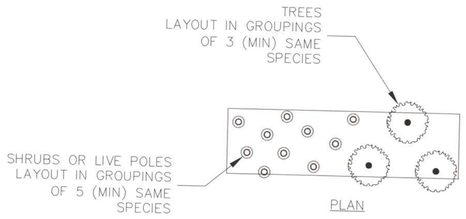
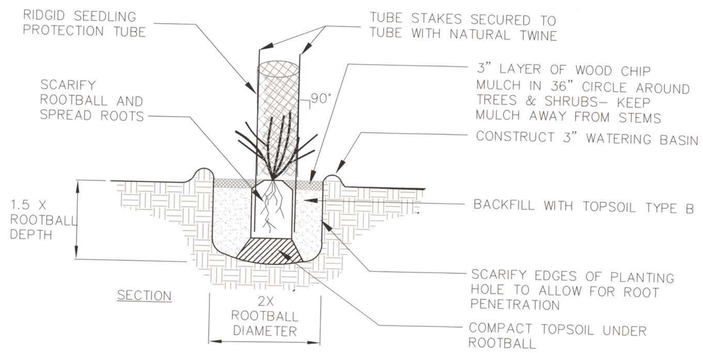


TYPICAL PLANTING GROUPINGS, AREA AND SPACING VARIES, SEE PLANTING PLAN AND PLANTING SCHEDULE

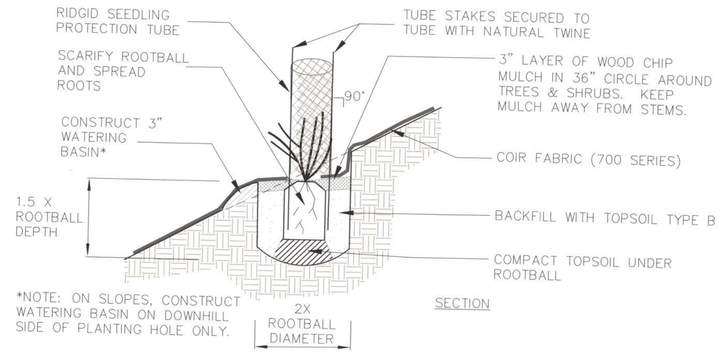
RETAIN EXISTING TREES AND SHRUBS WHERE POSSIBLE.

PROVIDE IMPORTED PLANT MATERIALS PER THE SPECIES, SIZES, AND SPACING SHOWN TO ENTIRELY COVER UNVEGETATED RESTORATION AREAS

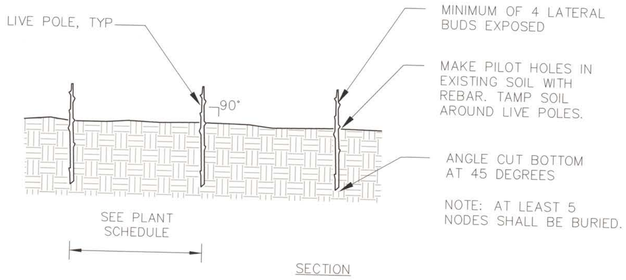
TYPICAL PLANT LAYOUT (1)
SCALE: NTS



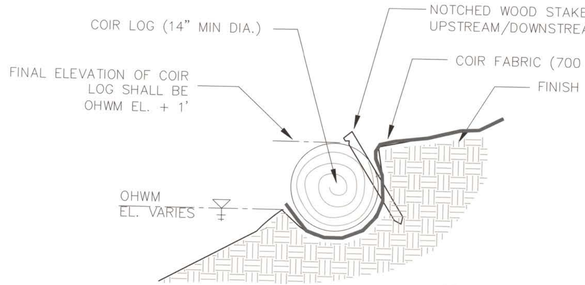
TREE/SHRUB PLANTING (2)
SCALE: NTS



SLOPE PLANTING (3)
SCALE: NTS



LIVE POLE CLUSTER (4)
SCALE: NTS



NOTES:

1. FINAL PLACEMENT OF COIR LOG SHALL BE STAKED IN THE FIELD AND ACCEPTED BY CITY REPRESENTATIVE PRIOR TO INSTALLATION.
2. KEY COIR LOG AND DOWN SLOPE END OF COIR FABRIC INTO NATIVE SOIL.

COIR LOG (5)
SCALE: NTS

PLANT SCHEDULE

SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	QUANTITY
UPLAND PLANTING ZONE				
TREES				
PSEUDOTSUGA MENZIESII	DOUGLAS FIR	1 GAL	12' OC	3
FRAXINUS LATIFOLIA	OREGON ASH	1 GAL	12' OC	3
THUJA PLICATA	WESTERN RED CEDAR	1 GAL	12' OC	3
SHRUBS				
CORYLUS CORNUTA	BEAKED HAZELNUT	1 GAL	4' OC	15
RIBES SANGUINEUM	RED CURRANT	1 GAL	4' OC	10
SAMBUCUS RACEMOSA	ELDERBERRY	1 GAL	4' OC	20
SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL	4' OC	20
ROSA PISOCARPA	CLUSTER ROSE	1 GAL	4' OC	20
ROSA NUTKANA	NOOTKA ROSE	1 GAL	4' OC	15
WETLAND PLANTING ZONE				
TREES				
SALIX LUCIDA	PACIFIC WILLOW	LIVE POLE	3' OC	125
FRAXINUS LATIFOLIA	OREGON ASH	1 GAL	8' OC	40
PICEA SITCHENSIS	SITKA SPRUCE	1 GAL	8' OC	40
SHRUBS				
CORNUS STOLONIFERA	RED-OSIER DOGWOOD	LIVE POLE	3' OC	125

NOTES:

1. ON SITE LIVE POLE CUTTINGS MAY BE SUBSTITUTED FOR A PORTION OF PACIFIC WILLOW QUANTITIES, UP TO 100% SUBSTITUTION, SEE SPECIAL PROVISIONS.

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RESTORATION & MITIGATION PLANTING DETAILS AND SCHEDULE

PROJECT NO.: 12-1347.202 | SCALE: | DATE: APRIL 2014

SHEET L-3