

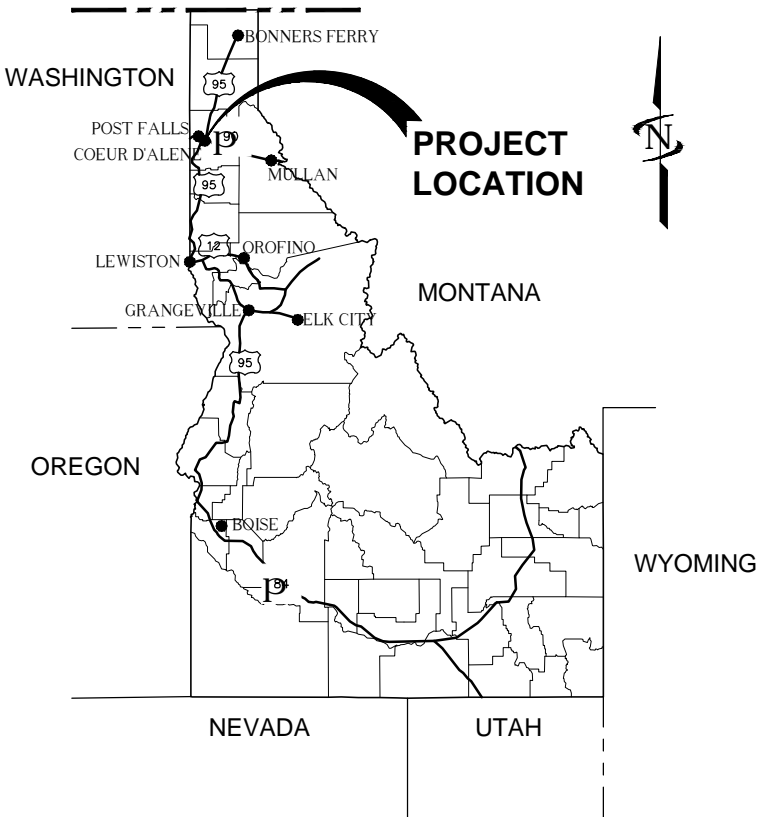
CITY OF COEUR D'ALENE WASTEWATER UTILITY 2017 OPEN TRENCH PROJECT



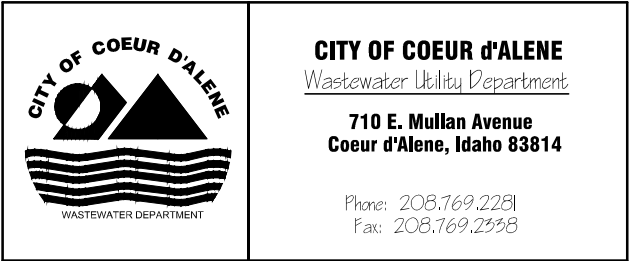
Know what's below.
Call before you dig.

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE
YOU DIG, GRADE, OR EXCAVATE FOR THE
MARKING OF UNDERGROUND MEMBER
UTILITIES

January 2017



AREA MAP



J-U-B ENGINEERS, INC.

7825 Meadowlark Way, Coeur d'Alene, ID 83815

p | 208 762 9797 f | 208 762 9797 w | www.jub.com

OTHER J-U-B COMPANIES

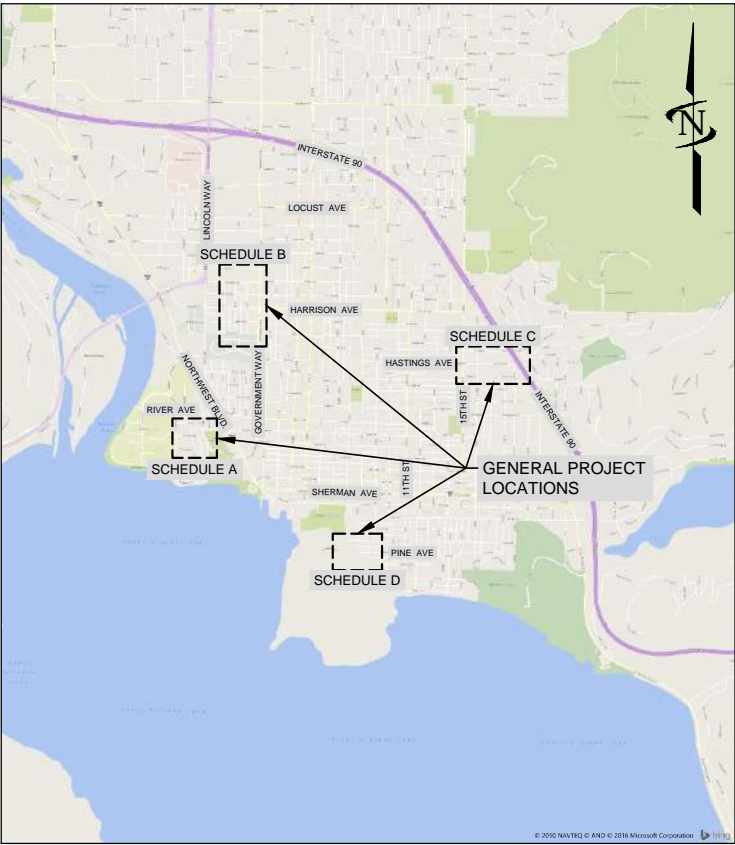


THE
LANGDON
GROUP



GATEWAY
MAPPING
INC.

PROJECT NO. 20-17-011



VICINITY MAP

UTILITY CONTACT INFORMATION		
UTILITY	COMPANY	PHONE NUMBER
UTILITY LINE LOCATES	ONE-CALL	811
GAS & ELECTRIC	AVISTA	(800) 936-6629
WATER	CDA WATER DEPARTMENT	(208) 769-2210
CABLE & TELEPHONE	FRONTIER	(208) 659-2281

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C-201	SANITARY SEWER PLAN AND PROFILE STA. 10+00 TO STA. 12+20
C-202	STORM DRAIN PLAN STA. 10+00 TO STA. 12+20
CIVIL UTILITIES: SCHEDULE B – ALLEY BETWEEN A & B ST.	
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C-204	PLAN AND PROFILE STA. 14+00 TO STA. 18+25
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CIVIL UTILITIES: SCHEDULE C – HASTINGS AVE.	
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C-207	PLAN AND PROFILE STA. 13+40 TO STA. 17+50
C-208	PLAN AND PROFILE STA. 17+50 TO STA. 18+50
CIVIL UTILITIES: SCHEDULE D – PINE AVE.	
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CIVIL UTILITIES: STANDARD DETAILS	
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LAST UPDATED: 1/20/2017

SHEET NUMBER:

G-001

1	These notes supplement the City's standard notes.
2	The location of all underground utilities is shown in an approximate way only. The contractor shall determine the exact location of all existing utilities before commencing work. The contractor shall be fully responsible for any damages which might be occasioned due to failure to exactly locate and preserve underground utilities.
3	Retain and protect existing utilities, walks, curbs, structures, approaches, fences, trees and vegetation.
4	Retain and protect all property pins and survey monuments encountered during construction. Property pins or survey monuments found during construction shall be surveyed by J-U-B ENGINEERS, Inc. prior to being disturbed and, if impacted, shall be reset by J-U-B ENGINEERS, Inc. Property lines shown are based on maps and information provided by others; locations and extents are approximate.
5	Materials and construction equipment shall not be stored on private property without written consent from the property Owner.
6	Asphalt cut limits or construction limits designate the maximum allowable surface repair that shall be paid by Owner. All items beyond construction limits or asphalt cut limits shall be retained and protected unless noted otherwise. Repair and replacement of asphalt and/or landscaped areas (eg concrete areas, sidewalks, retaining walls, barked areas, rock walls, grass areas, etc.) required beyond these limits due to Contractor's activities shall be incidental to the bid.
7	Existing asphalt surfaces may have variable depths due to prior resurfacing. Payment for removal of existing asphalt shall be computed for existing asphalt depth up to 6".
8	Contractor shall provide or otherwise maintain uninterrupted all public services (garbage, U.S. Postal Service, school bus routes, etc.) to all residences in and adjacent to the work area. If work is performed that causes traffic disruption when school is in session, Contractor shall coordinate daily with the Coeur d'Alene School District to determine appropriate detour routes and bus stops.
9	Construct final grade to match existing road profiles; provide import material as required. Grade to drain as required in the field.
10	All materials removed from project shall be legally disposed of at no additional cost to owner.
11	When a cold patch or asphalt grindings are used to repair a pothole, the contractor shall compact the material and seal the edges with a cold patch or asphalt grindings prior to opening any previously paved travel lanes. At no time shall traffic be allowed to travel on temporary gravel roadways where paving previously existed.
12	The Contractor shall have an approved set of the "City of Coeur d'Alene Standard Drawings" on the job site at all times.
13	Refer to the City of Coeur d'Alene's "Street Cut Policy" for additional information and requirements. The policy is available from the following location: https://www.cdaid.org/files/Engineering/StreetCutPolicy1998.pdf
14	Sewer service locations were obtained using CCTV Inspection and a search of available records. The actual sewer service locations may vary from those shown. Contractor shall field verify actual locations.
15	Contractor may be required to provide and utilize rock construction entry aprons at entry points to public streets adjacent to construction areas per city standard drawing M-18 at no additional cost to the owner if so directed by the City of Coeur d'Alene.
16	Notify the City Urban Forester (Katie Kosanke, 208-769-2266) at least 48 hours prior to all excavation adjacent to trees. All pruning, cutting, or other work to existing trees or vegetation shall be completed by a City-approved licensed arborist and requires a City permit.
17	It is the Contractor's responsibility to coordinate with the Owner, Engineer, and residents as required to determine status of existing sewer services as live or abandoned. Contractor shall plug abandoned services with screw plugs and non-shrink grout.
18	Maintain through access of a minimum of one lane of emergency and local traffic at all times throughout the course of the work, including during construction, temporary shut-downs, night-time shut-downs, weekends, etc.
19	Employ properly trained, equipped, attired, and certified Flaggers if traffic is constricted or re-routed through the construction zone and when a single lane is being used for bidirectional traffic.
20	Rim elevations are approximate. Construct manhole and catch basin rim elevations to match existing grades.
21	Maintain vehicular and pedestrian access to residences and businesses at all times.
22	Contractor shall develop an Erosion/Sedimentation Control (ESC) plan. All Best Management Practices (BMP) used in the ESC plan shall be installed and maintained in accordance with the State of Idaho, Catalogue of Stormwater BMP's current edition.
23	Contractor shall be responsible for obtaining all local, state, and federal permits required for stormwater pollution prevention that may be required as a result of construction activities. If required based on the Contractor's planned construction activities, Contractor shall prepare a stormwater pollution prevention plan for review by the engineer. The contractor shall comply with the U.S. Environmental Protection Agency's NPDES general permit for stormwater discharge associated with construction activity (otherwise known as the Construction General Permit or CGP) and submit a "Notice of Intent" (NOI) [EPA FORM 3510-9 (11/2008)] for coverage under the general permit. The CGP may be found in the project specifications and on the internet at: https://www.epa.gov/npdes/stormwater-discharges-construction-activities or by contacting the U.S. EPA office of water directly at (800) 424-4372. The NOI may be filed electronically at the following website: https://cdx.epa.gov . The CGP does not relieve the contractor from compliance with other regulations or contract requirements regarding stormwater pollution prevention including but not limited to: protection of surface waters, prevention of soil runoff into drains, dust control, prevention of tracking soils to adjacent streets, fuel containment, spill control, etc.

PROJECT KEYED NOTES	
N1	RETAIN AND PROTECT EXISTING UTILITIES, TYPICAL.
N2	RETAIN AND PROTECT EXISTING SURFACE FEATURES (FENCE, RETAINING WALL, CURB, SIDEWALK, PAVERS, BRICKS, TREES, BUSHES, AS APPLICABLE).
N3	NEW 48 INCH STANDARD SANITARY SEWER MANHOLE PER SS-1.
N4	REMOVE AND LEGALLY DISPOSE OF EXISTING MANHOLE, CATCH BASIN, SANITARY SEWER OR STORM DRAIN LINE, AND RELATED ITEMS, AS APPLICABLE.
N5	REPAIR EXISTING ROADWAY. MATCH EXISTING GRADES, CROWNS, DRAINAGE LINES, ETC. UNLESS OTHERWISE NOTED.
N6	SANITARY SEWER; SIZE AND LENGTH AS INDICATED; PROVIDE CONNECTIONS, FITTINGS, ADAPTERS AS NECESSARY. SANITARY SERVICE LATERAL TIE-IN LOCATIONS ARE ESTIMATED BASED UPON AVAILABLE CCTV VIDEO RECORDS. LOCATE EXISTING SERVICE IN FIELD AND CONNECT TO NEW SEWER MAIN.
N7	RETAIN AND PROTECT EXISTING UTILITY POLE. CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY TO PROTECT UTILITY POLES AS NECESSARY DURING CONSTRUCTION, TYPICAL.
N8	ABANDON EXISTING MANHOLE PER DETAIL. SALVAGE FRAME AND COVER TO WASTEWATER DEPARTMENT.
N9	NEW CONCRETE APPROACH. REFER TO THE REFERENCED CITY STANDARD DETAIL.
N10	CONNECT NEW SANITARY SEWER/ STORM DRAIN TO EXISTING MANHOLE: RE-CORE PIPE PENETRATION; CONNECT WITH SAND COLLAR; EXTEND PIPE INTO MANHOLE A MINIMUM OF 6" BEYOND INSIDE WALL FACE; RE-SIZE CHANNEL AS NECESSARY TO FIT NEW PIPE; MATCH INVERT ELEVATIONS AND GROUT INVERTS SMOOTH.
N11	ABANDON EXISTING SEWER MAIN (INCIDENTAL TO BID) FLOAT "ABANDONED SEWER" TAPE THROUGH PIPE (TAPE PROVIDED BY THE CITY). PLUG EACH EXPOSED END.
N12	STORM SEWER; SIZE AND LENGTH AS INDICATED; PROVIDE CONNECTIONS, FITTINGS, ADAPTERS AS NECESSARY.
N13	CONNECT NEW 8" SANITARY SEWER TO EXISTING MANHOLE WITH SAND COLLAR. GROUT WATER TIGHT. MATCH EXISTING FLOW LINE.
N14	CUT OFF CLEAN OUT 24" BELOW SURFACE AND INSTALL CAP OR SCREW PLUG. REPAIR DISTURBED LAWN SURFACE WITH SOD. RETAIN/PROTECT OR REPAIR/REPLACE FENCE AND OTHER SURFACE FEATURES AS NECESSARY TO COMPLETE THE WORK. INCIDENTAL TO OTHER BID ITEMS.
N15	MAINTAIN 18" MINIMUM WATER/SANITARY SEPARATION (WATER ABOVE) - OR COMPLY WITH DETAIL 1 SHEET C-501.
N16	CENTER FULL LENGTH 20' SEWER MAIN PIPE ON WATER SERVICES IN ACCORDANCE WITH DETAIL 1 SHEET C-501.
N17	EXISTING SURFACE CONSISTS OF 7-9 INCH DEPTH OF CONCRETE OVERLAIN BY 2-3 INCH DEPTH OF ASPHALT.
N18	REPLACE WATER MAIN WITH EQUIVALENT DIAMETER PVC C-900 IN ACCORDANCE WITH IDAHO SEPARATION REQUIREMENTS AND CITY STANDARD DETAILS. USE NSF 61 ROMAC COUPLERS.
N20	NOTIFY AVISTA PRIOR TO BEGINNING WORK NEAR GAS UTILITIES.
N21	SANITARY SERVICE LATERAL TIE-IN LOCATIONS ARE ESTIMATED BASED UPON AVAILABLE CCTV VIDEO RECORDS. LOCATE EXISTING SERVICE IN FIELD AND CONNECT TO NEW SEWER MAIN (SS-3)
N22	NEW 48 INCH STANDARD STORM SEWER MANHOLE.
N23	REPLACE WATER SERVICE WITH 1-IN CL200 POLY PIPE.
N24	PROVIDE RELINER INTERNAL DROP PER DETAIL.
N25	CONNECT TO EXISTING WATER MAIN. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING MAIN AND FURNISH ALL FITTINGS NECESSARY FOR SUCCESSFUL CONNECTION.
N26	REMOVE AND DISPOSE OF EXISTING PIPE, VALVES, AND FITTINGS WHEREVER EXPOSED DURING CONSTRUCTION. HANDLE AND DISPOSE OF AC PIPE IN ACCORDANCE WITH SP-15700 AND ALL APPLICABLE LOCAL, STATE AND FEDERAL LAW. CAP AND ABANDON EXPOSED ENDS PER PIPE ABANDONMENT DETAIL. ALL RELATED WORK INCIDENTAL TO THE BID.
N27	CONNECT TO EXISTING SEWER MAIN, MATCH PIPE CROWN ELEVATION.
N28	ROTATE MANHOLE CONE SO THE FRAME AND COVER ARE LOCATED CLOSEST TO THE ROADWAY CENTERLINE.
N29	GAS SERVICES ON PROJECT AREA #2 BASED ON AVISTA MAPS, NOT FIELD LOCATES. CONTRACTOR TO HAVE GAS SERVICES LOCATED PRIOR TO BEGINNING CONSTRUCTION.
N30	REPLACE WATER MAIN; SIZE, LENGTH, AND MATERIAL AS INDICATED; PROVIDE ALL CONNECTIONS, FITTINGS, AND ADAPTERS AS NECESSARY.
N31	CONNECT NEW PIPE TO EXISTING INFRASTRUCTURE; RE-CORE PIPE PENETRATION; CONNECT PIPE AND GROUT PENETRATION; MATCH INVERT ELEVATIONS AND GROUT INVERTS SMOOTH.
N32	RECONNECT TO EXISTING PIPE WITH STAINLESS STEEL SHIELDED FERNCO (STRONGBACK RC 1000 SERIES)
N33	CONNECT NEW WATER MAIN TO FIRE HYDRANT ASSEMBLY WITH MECHANICALLY RESTRAINED JOINTS. PROVIDE ALL FITTINGS AND MATERIALS NECESSARY.
N34	SANITARY SERVICE LATERAL IS BELIEVED TO BE INACTIVE; VERIFY WITH CITY DURING CONSTRUCTION; IF NOT ACTIVE, DO NOT REINSTATE.
N35	PROVIDE TEMPORARY MAILBOX LOCATION IF EXISTING MAILBOX IS DISTURBED. LIMIT IMPACT TO RETAINING WALL AND RESTORE RETAINING WALL, DRIVEWAY, AND MAILBOX TO EXISTING OR BETTER CONDITION FOLLOWING CONSTRUCTION.
N36	REPLACE WATER SERVICE AND METER IN PLACE. OWNER TO SUPPLY COPPERSETTER AND BOX. REUSE EXISTING METER. RETAIN AND PROTECT EXISTING CURB. RESTORE DISTURBED SURFACES TO EXISTING CONDITIONS, INCIDENTAL TO OTHER BID ITEMS.
N37	NEW TYPE 1 CATCH BASIN AND TYPE 2 GRATE FRAME; CONCRETE CURB REPAIR AS NECESSARY TO MATCH EXISTING, INCIDENTAL TO OTHER BID ITEMS



J-U-B ENGINEERS, INC.

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7825 Meadowlark Way
Coeur d'Alene, ID 83815

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ORIGINAL SIGNED
BY: PETER M.
STAYTON
14693
DATE ORIGINAL
SIGNED: 01/20/2017

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2017 OPEN TRENCH PROJECT
CITY OF COEUR D'ALENE WASTEWATER UTILITY

CIVIL UTILITIES: GENERAL GENERAL PROJECT INFORMATION

FILE : 20-17-011_G-001X

JUB PROJ. # : 20-17-011

DRAWN BY: WRH

DESIGN BY: JFW

CHECKED BY: PMS

ONE INCH
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY

LAST UPDATED: 1/20/2017

SHEET NUMBER:
















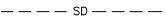

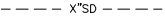



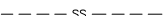







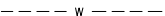



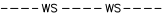























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G-003



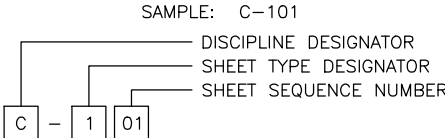
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LINE LEGEND

LINE DESCRIPTION	PROPOSED LINE	EXISTING LINE
POWER / COMMUNICATIONS		
OVERHEAD POWER		
UNDERGROUND POWER		
OVERHEAD TELEPHONE		
UNDERGROUND TELEPHONE		
FIBER OPTIC		
CABLE TELEVISION		
UNDERGROUND POWER, TEL, CABLE TV		
UNDERGROUND POWER, TEL, CABLE TV, GAS		
STORM DRAIN		
STORM DRAIN (GENERAL)		
STORM DRAIN		
ROOF DRAIN		
SANITARY SEWER		
SANITARY SEWER (GENERAL)		
SANITARY SEWER		
SANITARY SEWER SERVICE		
SEWER FORCE MAIN		
WATER		
WATER (GENERAL)		
WATER (SPECIFIED SIZE)		
WATER SERVICE		
IRRIGATION		
IRRIGATION		
GRAVITY IRRIGATION		
PRESSURE IRRIGATION		
POTABLE WATER		
NON-POTABLE WATER		
GAS		
NATURAL GAS		
NATURAL GAS SERVICE		
HIGH PRESSURE GAS		
LIQUID GAS		
UTILITY		
CHLORINE LINE		
INDUSTRIAL WASTE WATER		
DRAIN LINE		

LINE DESCRIPTION	PROPOSED LINE	EXISTING LINE
BOUNDARY		
PROPERTY LINE		
PROPERTY LINE		
RIGHT OF WAY		
TEMPORARY EASEMENT		
PERMANENT EASEMENT		
TOWNSHIP AND RANGE		
SECTION LINE		
QUARTER SECTION LINE		
1/16 SECTION LINE		
STATE LINE		
COUNTY LINE		
SITE		
FENCE		
MAJOR CONTOUR		
MINOR CONTOUR		
GRADE BREAK		
TOP OF BANK		
TOE OF SLOPE		
CUT LIMITS		
FILL LIMITS		
DITCH		
STORM SWALE		
EDGE OF WATER		
HIGH WATER		
WETLAND		
WETLAND BOG		
WETLAND MARSH		
WETLAND SWAMP		
ROADWAY		
ROAD SHOULDER		
ROAD CENTERLINE		
ROAD ASPHALT		
ROAD GRAVEL		
TOP BACK OF CURB		
LIP OF GUTTER		
LANDSCAPING LIMITS		

SHEET NUMBERING



DISCIPLINE DESIGNATORS		
DISCIPLINE	DESIGNATOR	DESCRIPTION
GENERAL	G	ALL GENERAL
	GI	GENERAL INFORMATION
	GC	GENERAL CONTRACTUAL
	GR	GENERAL RESOURCE
SURVEY/MAPPING	V	ALL SURVEY
GEOTECHNICAL	B	ALL GEOTECHNICAL
CIVIL	C	ALL CIVIL
LANDSCAPE	L	ALL LANDSCAPE
STRUCTURAL	S	ALL STRUCTURAL
ARCHITECTURAL	A	ALL ARCHITECTURE
EQUIPMENT	Q	ALL EQUIPMENT
MECHANICAL	M	ALL MECHANICAL
ELECTRICAL	E	ALL ELECTRICAL
PLUMBING	P	ALL PLUMBING
PROCESS	D	ALL PROCESS
RESOURCE	R	ALL RESOURCE

SHEET TYPE DESIGNATORS	
DESIGNATOR	SHEET TYPE
0	GENERAL (SYMBOLS, LEGENDS, NOTES, ETC.)
1	PLANS (HORIZONTAL VIEWS)
2	ELEVATIONS, PROFILES, COMBINED PLAN & PROFILES
3	SECTIONS (SECTIONAL VIEWS)
4	LARGE-SCALE VIEWS (PLANS, ELEVATIONS, ECT.)
5	DETAILS OR COMBINED DETAILS AND SECTIONS
6	SCHEDULES AND DIAGRAMS
7	USER DEFINED
8	USER DEFINED
9	3D REPRESENTATIONS (ISOMETRICS, PERSPECTIVES, PHOTOS)

SECTION AND DETAIL IDENTIFIERS

NOTE:
A DASH MAY BE PLACED IN THE LOWER PORTION
OF THE IDENTIFIER IF THE DETAIL DRAWING OR
SECTION VIEW IS LOCATED ON THE SAME SHEET.

	SECTION IDENTIFICATION	DETAIL IDENTIFICATION	CITY OF COEUR D'ALENE STANDARD DETAIL
CALLOUT	<p>SECTION LETTER</p> <p>SHEET NUMBER WHERE SECTION DRAWING IS LOCATED</p>	<p>DETAIL NUMBER</p> <p>SHEET NUMBER WHERE DETAIL DRAWING IS LOCATED</p>	<p>CITY OF COEUR D'ALENE STANDARD DETAIL DRAWING NUMBER</p>
LABEL	<p>SECTION LETTER</p> <p>SECTION</p> <p>SCALE: _____</p>	<p>DETAIL NUMBER</p> <p>DETAIL</p> <p>SCALE: _____</p>	



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2017 OPEN TRENCH PROJECT
CITY OF COEUR D'ALENE WASTEWATER UTILITY

CIVIL UTILITIES: GENERAL
LINE LEGEND, SHEET DESIGNATORS
AND SECTION AND DETAIL IDENTIFIERS

FILE : 20-17-011 G-001X

JUB PROJ. # : 20-17-011

DRAWN BY: WRH

DESIGN BY: JFW

CHECKED BY: PM

A horizontal scale bar with arrows at both ends, labeled "ONE INCH".
























































AT FULL SIZE, IF NOT ONE
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


























































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


SHEET NUMBER:

G-003

SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL
SURVEY		
CAP (ALUMINUM)		
CAP (BRASS)		
CHISELED X		
CTRL PT GENERIC		
CTRL PT 1/2" REBAR		
CTRL PT 5/8" REBAR		
CTRL PT 60D NAIL		
CTRL PT HUB & TACK		
CTRL PT PK NAIL		
CTRL PT TEMP BENCH MARK		
NAIL		
NAIL AND TAG		
NAIL (PK)		
BOLT		
DRILL STEEL		
REBAR (1/2")		
REBAR (5/8")		
STAINLESS STEEL ROD		
IRON PIPE		
RAILROAD SPIKE		
R/W MONUMENT		
STONE		
SECTION CORNER. MON.		
SECTION QUARTER MON.		
SITE		
BOLLARD		
BOULDER		
DRINKING FOUNTAIN		
FLAGPOLE		
GATE		
MAIL BOX		
PARKING METER		
POST		
SIGN		
SPOT ELEVATION		
TREE (SHRUB)		
TREE (STUMP)		
TREE (CONIFEROUS)		
TREE (DECIDUOUS)		
TEST HOLE		
WELL		
WELL (MONITORING)		

SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL
UTILITIES		
MANHOLE (GENERIC)		
PRESSURE CLEAN OUT AT GRADE		
THRUST BLOCK		
VAULT		
COMMUNICATION		
TELE. MANHOLE		
TELE. PEDASTAL		
TELE. POLE		
TV PEDASTAL		
GUY WIRE		
DOMESTIC WATER		
FIRE HYDRANT		
SPIGOT		
YARD HYDRANT		
WATER MANHOLE		
WATER METER		
WATER VALVE		
ELECTRIC		
ELEC. MANHOLE		
ELEC. METER		
ELEC. TRANS.		
JUNCTION BOX		
POWER POLE		
POWER STUB		
STREET LIGHT		
TRAFFIC SIGNAL POLE		
IRRIGATION		
IRRIGATION VALVE		
IRRIGATION VALVE BOX		
SPRINKLER		
NATURAL GAS		
GAS METER		
GAS VALVE		
SANITARY SEWER		
CLEANOUT		
SEWER STUB		
SS MANHOLE		
STORM DRAIN		
CATCH BASIN		
DRY WELL		
FLARE END		
GREASE TRAP		
SD MANHOLE		

SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL
FITTINGS		
BEND (11.25°)		
BEND (22.5°)		
BEND (45°)		
BEND (90°)		
CAP		
COUPLING		
CROSS		
REDUCER (CONCENTRIC)		
REDUCER (ECCENTRIC)		
TEE		
TRUE UNION		
WYE		
VALVES		
AIR VALVE		
BLOW OFF		
COMBO VALVE		
BALL VALVE (N.C.)		
BALL VALVE (N.O.)		
BUTTERFLY VALVE		
CHECK VALVE		
CHECK VALVE (FLANGE)		
CHECK VALVE (MJ)		
GATE VALVE		
PLUG VALVE (N.C.)		
PLUG VALVE (N.O.)		
ROAD MARKINGS		
TURN ARROW		
ARROW STRAIGHT		
ARROW STRAIGHT/TURN		
BICYCLE ROUTE		
CAR		
HANDICAP SYMBOL		
ROADWAY		
INTERSTATE ROUTE		
MAST ARM		
PEDESTRIAN SIGNAL		
STATE ROUTE		
TRAFFIC LIGHT		

SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL
ROADWAY (CONT.)		
TYPE 2 BARRICADE		
US ROUTE		
TRAFFIC ATTENUATOR		
JERSEY BARRIER		

ABBREVIATIONS	
ASSY	ASSEMBLY
>	ANGLE
@	AT (MEASUREMENTS)
BLDG	BUILDING
BM	BENCH MARK
BSC	BITUMINOUS SURFACE COURSE
BSW	BACK OF SIDEWALK
BW	BOTH WAYS
C	CHANNEL (STRUCTURAL)
C/L	CENTER LINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONT	CONTINUOUS
CPLG	COUPLING
CU FT	CUBIC FEET
CU YD	CUBIC YARD
DEG OR °	DEGREE
DET	DETAIL
DIA OR Ø	DIAMETER
DIP	DUCTILE IRON PIPE
DIST	DISTRIBUTION
DWG	DRAWING
EA	EACH
ELB	ELBOW
ELEV	ELEVATION
EW	EACH WAY
EXIST	EXISTING
FG	FINISH GRADE
FH	FIRE HYDRANT
FLG	FLANGE
FT OR '	FEET
GV	GATE VALVE
HORIZ	HORIZONTAL
ID	INSIDE DIAMETER
IN OR "	INCH
LB OR #	POUND
LF	LINEAL FEET
LN	LINEAL
MAX	MAXIMUM
MIN	MINIMUM
NO OR #	NUMBER
PE	POLYETHYLENE
PL	PLATE
PL	PROPERTY LINE
PVC	POLYVINYL-CHLORIDE
R	RADIUS
RP	RADIUS POINT
R&R	REMOVE & REPLACE
REM	REMOVE
REQ'D	REQUIRED
REV	REVISION
R/W	RIGHT-OF-WAY

S	SLOPE
SPEC	SPECIFICATION
STA	STATION
STD	STANDARD
STL	STEEL
ST STL	STAINLESS STEEL
TBC	TOP BACK OF CURB
TYP	TYPICAL
TFC	TOP FACE OF CONCRETE
W/	WITH
W/O	WITHOUT
W/REQ'D	WHERE REQUIRED



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www.jub.com

DATE ORIGINAL
SIGNED:01/06/2017

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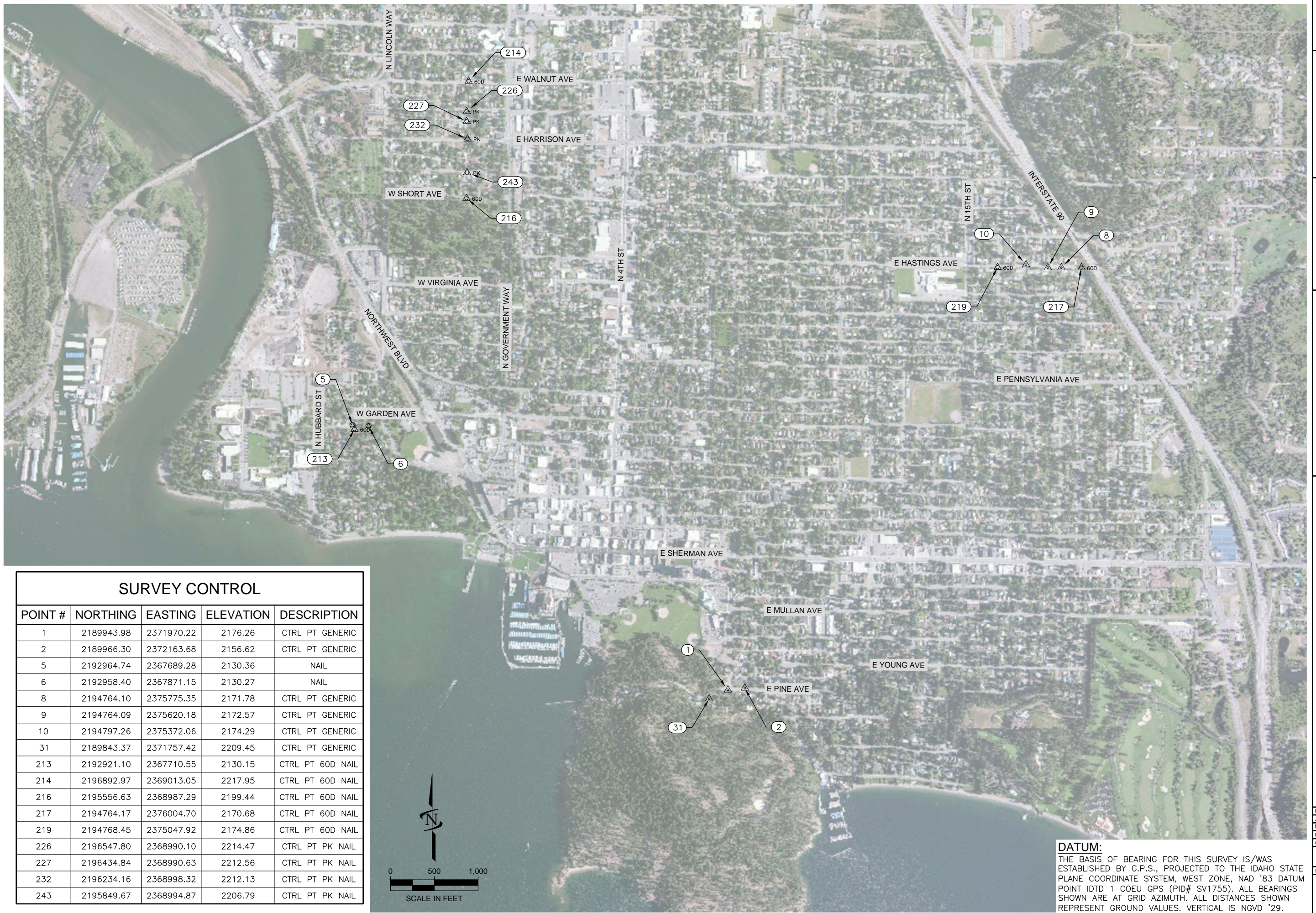
[illegible]CIVIL UTILITIES: SURVEY
SURVEY CONTROL

E: 20-17-011_V-101
B PROJ. #: 20-17-011
DRAWN BY: WRH
SIGN BY: JFW
CHECKED BY: PMS

ONE INCH
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 1/18/2017

SHEET NUMBER:

V-101

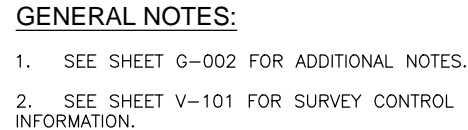


SURVEY CONTROL

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	2189943.98	2371970.22	2176.26	CTRL PT GENERIC
2	2189966.30	2372163.68	2156.62	CTRL PT GENERIC
5	2192964.74	2367689.28	2130.36	NAIL
6	2192958.40	2367871.15	2130.27	NAIL
8	2194764.10	2375775.35	2171.78	CTRL PT GENERIC
9	2194764.09	2375620.18	2172.57	CTRL PT GENERIC
10	2194797.26	2375372.06	2174.29	CTRL PT GENERIC
31	2189843.37	2371757.42	2209.45	CTRL PT GENERIC
213	2192921.10	2367710.55	2130.15	CTRL PT 60D NAIL
214	2196892.97	2369013.05	2217.95	CTRL PT 60D NAIL
216	2195556.63	2368987.29	2199.44	CTRL PT 60D NAIL
217	2194764.17	2376004.70	2170.68	CTRL PT 60D NAIL
219	2194768.45	2375047.92	2174.86	CTRL PT 60D NAIL
226	2196547.80	2368990.10	2214.47	CTRL PT PK NAIL
227	2196434.84	2368990.63	2212.56	CTRL PT PK NAIL
232	2196234.16	2368998.32	2212.13	CTRL PT PK NAIL
243	2195849.67	2368994.87	2206.79	CTRL PT PK NAIL

DATUM:

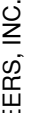

THE BASIS OF BEARING FOR THIS SURVEY IS/WAS
ESTABLISHED BY G.P.S., PROJECTED TO THE IDAHO STATE
PLANE COORDINATE SYSTEM, WEST ZONE, NAD '83 DATUM
POINT IDTD 1 COEU GPS (PID# SV1755). ALL BEARINGS
SHOWN ARE AT GRID AZIMUTH. ALL DISTANCES SHOWN
REPRESENT GROUND VALUES. VERTICAL IS NGVD '29.



(N5) TYPE 'B' SURFACE REPAIR 485 SY

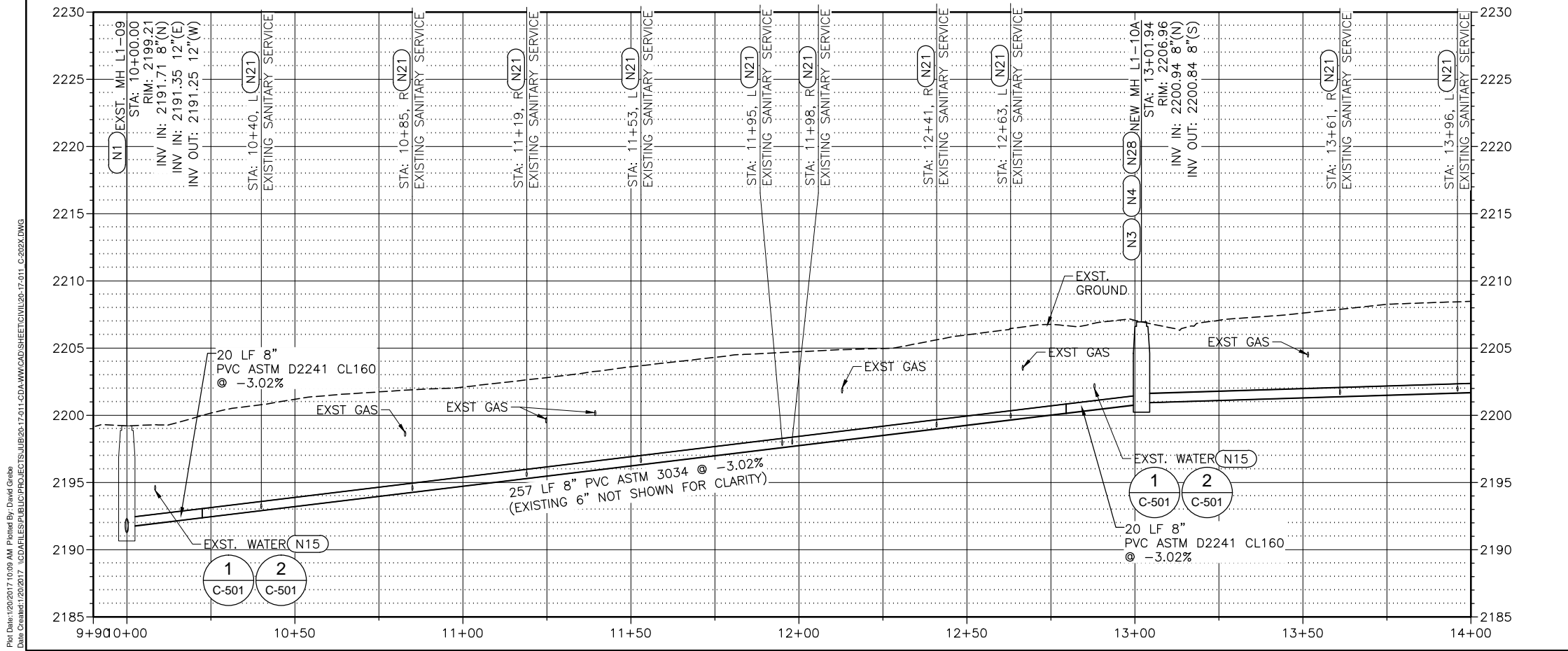
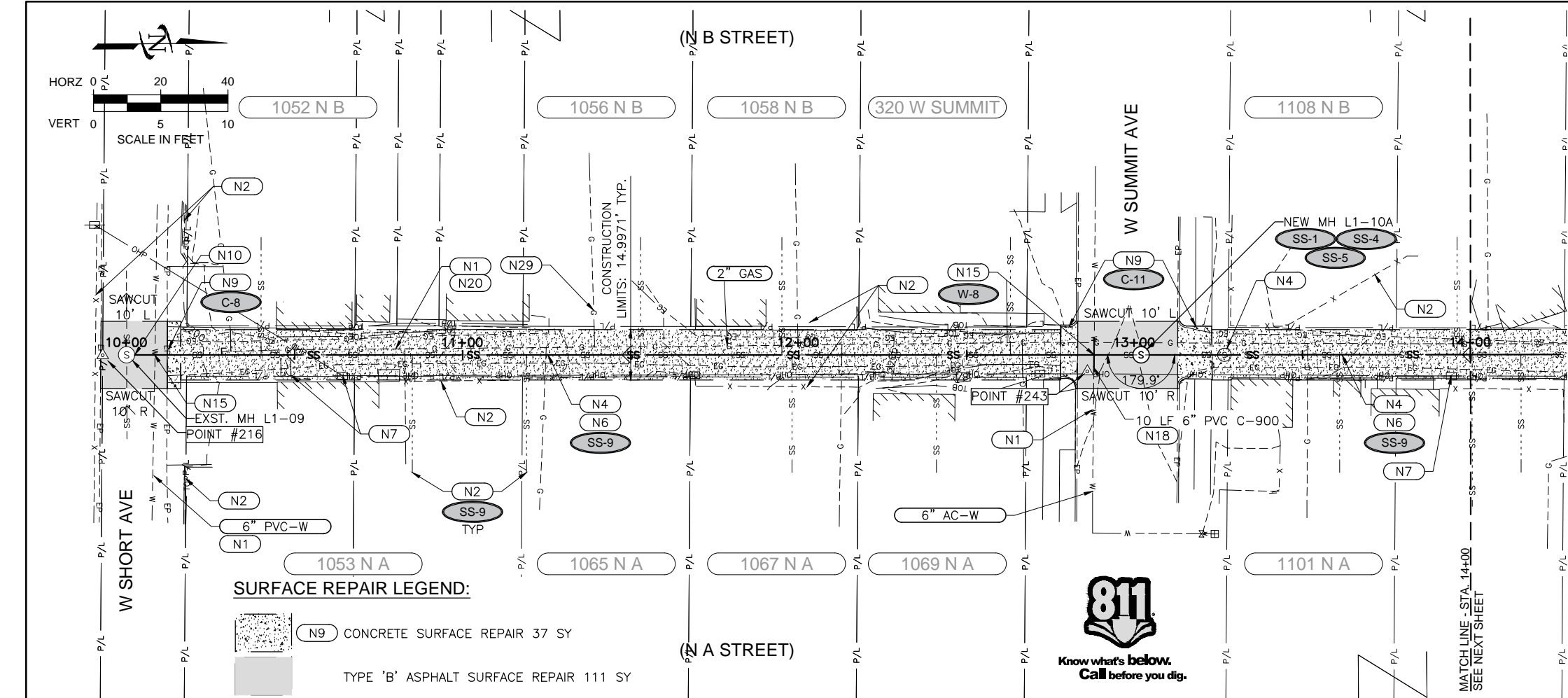


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Call before you dig.**

 J-U-B ENGINEERS, INC. Phone: 208.762.8787 Fax: 208.762.9797 www.jub.com																					
J-U-B ENGINEERS, INC. 7825 Meadowlark Way Coeur d'Alene, ID 83815																					
<p align="center">ORIGINAL SIGNED BY: PETER M. STAYTON</p> <p align="center">DATE ORIGINAL SIGNED: 01/20/2017</p>																					
<p>REUSE OF DRAWINGS</p> <p>THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF J-U-B ENGINEERS, Inc. AND IS NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF J-U-B ENGINEERS, Inc.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">REVISION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr> <th style="text-align: left;">NO.</th> <th style="text-align: left;">DESCRIPTION</th> </tr> <tr><td> </td><td>BY APR. DATE</td></tr> </tbody> </table>	REVISION																NO.	DESCRIPTION		BY APR. DATE
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<p align="center">2017 OPEN TRENCH PROJECT</p> <p align="center">CITY OF COEUR D'ALENE WASTEWATER UTILITY</p>	<p align="center">CIVIL UTILITIES: SCHEDULE A - GARDEN AVE. SANITARY SEWER PLAN AND PROFILE</p> <p align="center">STA. 10+00 TO STA. 12+20</p>																				
FILE #: 20-17-011 C-201 JUB PROJ. #: 20-17-011 DRAWN BY: WRH DESIGN BY: JFW CHECKED BY: PMS																					
<div style="text-align: center;">  <p>ONE INCH = AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY</p> </div>																					
LAST UPDATED: 1/20/2017 SHEET NUMBER: <h1 style="margin-top: 10px; text-align: center;">C-201</h1>																					




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PROJECT KEYED NOTES	
N1	RETAIN AND PROTECT EXISTING UTILITIES, TYPICAL.
N2	RETAIN AND PROTECT EXISTING SURFACE FEATURES (FENCE, RETAINING WALL, CURB, SIDEWALK, PAVERS, BRICKS, TREES, BUSHES, AS APPLICABLE).
N3	NEW 48 INCH STANDARD SANITARY SEWER MANHOLE PER SS-1.
N4	REMOVE AND LEGALLY DISPOSE OF EXISTING MANHOLE, CATCH BASIN, SANITARY SEWER OR STORM DRAIN LINE, AND RELATED ITEMS, AS APPLICABLE.
N5	REPAIR EXISTING ROADWAY. MATCH EXISTING GRADES, CROWNS, DRAINAGE LINES, ETC. UNLESS OTHERWISE NOTED.
N6	SANITARY SEWER: SIZE AND LENGTH AS INDICATED; PROVIDE CONNECTIONS, FITTINGS, ADAPTERS AS NECESSARY. SANITARY SERVICE LATERAL TIE-IN LOCATIONS ARE ESTIMATED BASED UPON AVAILABLE CCTV VIDEO RECORDS. LOCATE EXISTING SERVICE IN FIELD AND CONNECT TO NEW SEWER MAIN.
N7	RETAIN AND PROTECT EXISTING UTILITY POLE. CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY TO PROTECT UTILITY POLES AS NECESSARY DURING CONSTRUCTION, TYPICAL.
N8	ABANDON EXISTING MANHOLE PER DETAIL. SALVAGE FRAME AND COVER TO WASTEWATER DEPARTMENT.
N9	NEW CONCRETE APPROACH. REFER TO THE REFERENCED CITY STANDARD DETAIL.
N10	CONNECT NEW SANITARY SEWER/ STORM DRAIN TO EXISTING MANHOLE; RE-CORE PIPE PENETRATION; CONNECT WITH SAND COLLAR; EXTEND PIPE INTO MANHOLE A MINIMUM OF 6" BEYOND INSIDE WALL FACE; RE-SIZE CHANNEL AS NECESSARY TO FIT NEW PIPE; MATCH INVERT ELEVATIONS AND GROUT INVERTS SMOOTH.
N11	ABANDON EXISTING SEWER MAIN (INCIDENTAL TO BID) FLOAT "ABANDONED SEWER" TAPE THROUGH PIPE (TAPE PROVIDED BY THE CITY). PLUG EACH EXPOSED END.
N12	STORM SEWER: SIZE AND LENGTH AS INDICATED; PROVIDE CONNECTIONS, FITTINGS, ADAPTERS AS NECESSARY.
N13	CONNECT NEW 8" SANITARY SEWER TO EXISTING MANHOLE WITH SAND COLLAR. GROUT WATER TIGHT. MATCH EXISTING FLOW LINE.
N14	CUT OFF CLEAN OUT 24" BELOW SURFACE AND INSTALL CAP OR SCREW PLUG. REPAIR DISTURBED LAWN SURFACE WITH SOD. RETAIN/PROTECT OR REPAIR/REPLACE FENCE AND OTHER SURFACE FEATURES AS NECESSARY TO COMPLETE THE WORK. INCIDENTAL TO OTHER BID ITEMS.
N15	MAINTAIN 18" MINIMUM WATER/SANITARY SEPARATION (WATER ABOVE) - OR COMPLY WITH DETAIL 1 SHEET C-501.
N16	CENTER FULL LENGTH 20' SEWER MAIN PIPE ON WATER SERVICES IN ACCORDANCE WITH DETAIL 1 SHEET C-501.
N17	EXISTING SURFACE CONSISTS OF 7-9 INCH DEPTH OF CONCRETE OVERLAIN BY 2-3 INCH DEPTH OF ASPHALT.
N18	REPLACE WATER MAIN WITH EQUIVALENT DIAMETER PVC C-900 IN ACCORDANCE WITH IDAHO SEPARATION REQUIREMENTS AND CITY STANDARD DETAILS. USE NSF 61 ROMAC COUPLERS.
N20	NOTIFY AVISTA PRIOR TO BEGINNING WORK NEAR GAS UTILITIES.
N21	SANITARY SERVICE LATERAL TIE-IN LOCATIONS ARE ESTIMATED BASED UPON AVAILABLE CCTV VIDEO RECORDS. LOCATE EXISTING SERVICE IN FIELD AND CONNECT TO NEW SEWER MAIN (SS-3)
N22	NEW 48 INCH STANDARD STORM SEWER MANHOLE.
N23	REPLACE WATER SERVICE WITH 1-IN CL200 POLY PIPE.
N24	PROVIDE RELINER INTERNAL DROP PER DETAIL.
N25	CONNECT TO EXISTING WATER MAIN. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING MAIN AND FURNISH ALL FITTINGS NECESSARY FOR SUCCESSFUL CONNECTION.
N26	REMOVE AND DISPOSE OF EXISTING PIPE, VALVES, AND FITTINGS WHEREVER EXPOSED DURING CONSTRUCTION. HANDLE AND DISPOSE OF AC PIPE IN ACCORDANCE WITH SP-15700 AND ALL APPLICABLE LOCAL, STATE AND FEDERAL LAW. CAP AND ABANDON EXPOSED ENDS PER PIPE ABANDONMENT DETAIL. ALL RELATED WORK INCIDENTAL TO THE BID.
N27	CONNECT TO EXISTING SEWER MAIN. MATCH PIPE CROWN ELEVATION.
N28	ROTATE MANHOLE CONE SO THE FRAME AND COVER ARE LOCATED CLOSEST TO THE ROADWAY CENTERLINE.
N29	GAS SERVICES ON PROJECT AREA #2 BASED ON AVISTA MAPS. NOT FIELD LOCATES. CONTRACTOR TO HAVE GAS SERVICES LOCATED PRIOR TO BEGINNING CONSTRUCTION.
N30	REPLACE WATER MAIN: SIZE, LENGTH, AND MATERIAL AS INDICATED; PROVIDE ALL CONNECTIONS, FITTINGS, AND ADAPTERS AS NECESSARY.
N31	CONNECT NEW PIPE TO EXISTING INFRASTRUCTURE; RE-CORE PIPE PENETRATION; CONNECT PIPE AND GROUT PENETRATION; MATCH INVERT ELEVATIONS AND GROUT INVERTS SMOOTH.
N32	RECONNECT TO EXISTING PIPE WITH STAINLESS STEEL SHIELDED FERNCO (STRONGBACK RC 1000 SERIES)
N33	CONNECT NEW WATER MAIN TO FIRE HYDRANT ASSEMBLY WITH MECHANICALLY RESTRAINED JOINTS. PROVIDE ALL FITTINGS AND MATERIALS NECESSARY.
N34	SANITARY SERVICE LATERAL IS BELIEVED TO BE INACTIVE; VERIFY WITH CITY DURING CONSTRUCTION; IF NOT ACTIVE, DO NOT REINSTATE.
N35	PROVIDE TEMPORARY MAILBOX LOCATION IF EXISTING MAILBOX IS DISTURBED. LIMIT IMPACT TO RETAINING WALL AND RESTORE RETAINING WALL, DRIVEWAY, AND MAILBOX TO EXISTING OR BETTER CONDITION FOLLOWING CONSTRUCTION.
N36	REPLACE WATER SERVICE AND METER IN PLACE. OWNER TO SUPPLY COPPERSETTER AND BOX. REUSE EXISTING METER. RETAIN AND PROTECT EXISTING CURB. RESTORE DISTURBED SURFACES TO EXISTING CONDITIONS, INCIDENTAL TO OTHER BID ITEMS.
N37	NEW TYPE 1 CATCH BASIN AND TYPE 2 GRATE FRAME; CONCRETE CURB REPAIR AS NECESSARY TO MATCH EXISTING, INCIDENTAL TO OTHER BID ITEMS

GENERAL NOTES:	
1.	SEE SHEET G-002 FOR ADDITIONAL NOTES.
2.	SEE SHEET V-101 FOR SURVEY CONTROL INFORMATION.



J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC.

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ORIGINAL SIGNED
BY: PETER M. STAYTON
DATE ORIGINAL
SIGNED: 01/20/2017

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17 OPEN TRENCH PROJECT
CITY OF COEUR D'ALENE WASTEWATER UTILITY

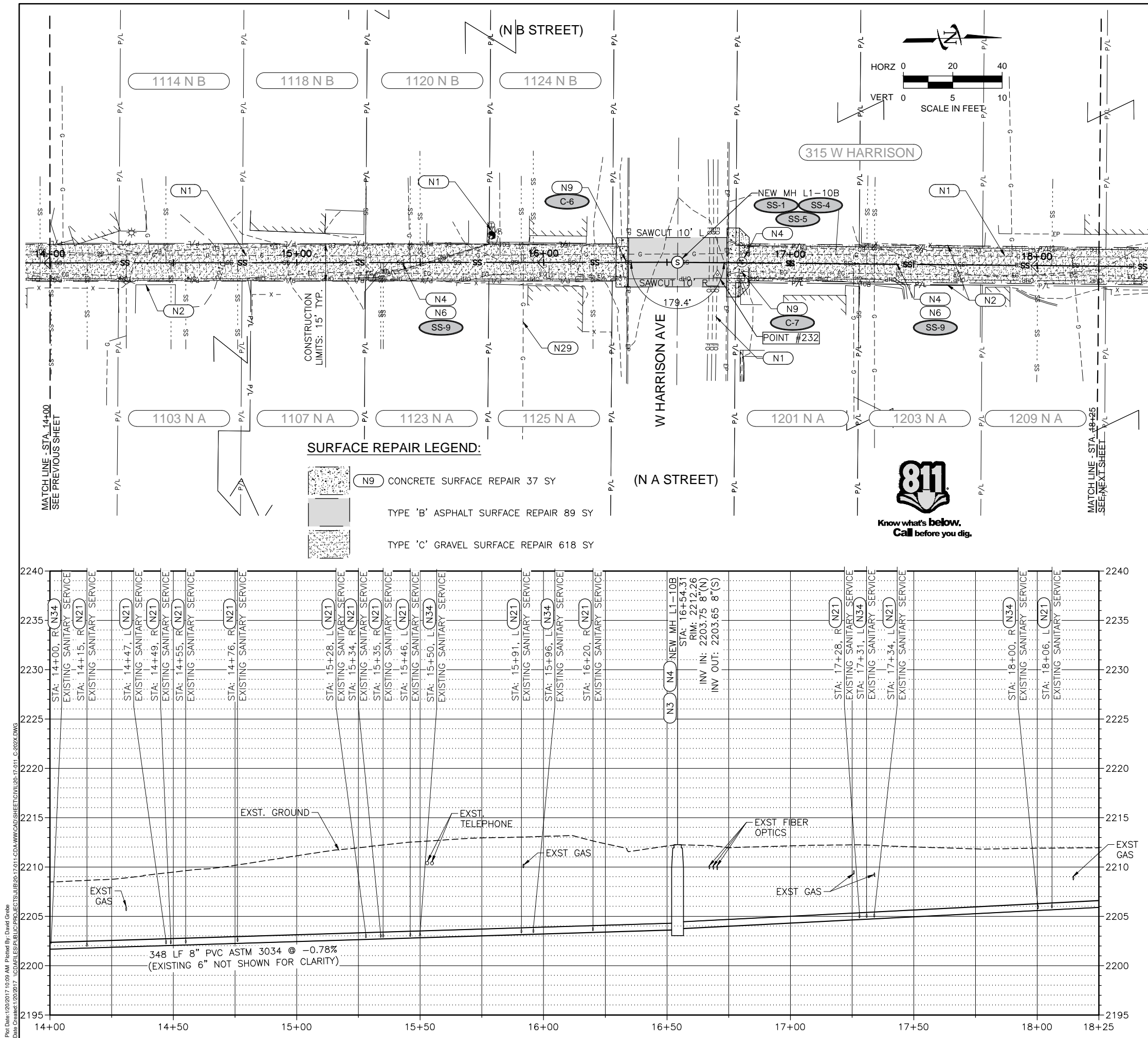
CIVIL UTILITIES: SCHEDULE B - ALLEY BETWEEN A & B ST.
PLAN AND PROFILE
STA. 10+00 TO STA. 14+00

FILE: 20-17-011 C-202X
JUB PROJ. #: 20-17-011
DRAWN BY: WRH
DESIGN BY: JFW
CHECKED BY: PMS

AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY

LAST UPDATED: 1/20/2017

SHEET NUMBER:
C-203



PROJECT KEYED NOTES	
N1	RETAIN AND PROTECT EXISTING UTILITIES, TYPICAL.
N2	RETAIN AND PROTECT EXISTING SURFACE FEATURES (FENCE, RETAINING WALL, CURB, SIDEWALK, PAVERS, BRICKS, TREES, BUSHES, AS APPLICABLE).
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N26	REMOVE AND DISPOSE OF EXISTING PIPE, VALVES, AND FITTINGS WHEREVER EXPOSED DURING CONSTRUCTION. HANDLE AND DISPOSE OF AC PIPE IN ACCORDANCE WITH SP-15700 AND ALL APPLICABLE LOCAL, STATE AND FEDERAL LAW. CAP AND ABANDON EXPOSED ENDS PER PIPE ABANDONMENT DETAIL. ALL RELATED WORK INCIDENTAL TO THE BID.
N27	CONNECT TO EXISTING SEWER MAIN, MATCH PIPE CROWN ELEVATION.
N28	ROTATE MANHOLE CONE SO THE FRAME AND COVER ARE LOCATED CLOSEST TO THE ROADWAY CENTERLINE.
N29	GAS SERVICES ON PROJECT AREA #2 BASED ON AVISTA MAPS, NOT FIELD LOCATES. CONTRACTOR TO HAVE GAS SERVICES LOCATED PRIOR TO BEGINNING CONSTRUCTION.
N30	REPLACE WATER MAIN; SIZE, LENGTH, AND MATERIAL AS INDICATED; PROVIDE ALL CONNECTIONS, FITTINGS, AND ADAPTERS AS NECESSARY.
N31	CONNECT NEW PIPE TO EXISTING INFRASTRUCTURE; RE-CORE PIPE PENETRATION; CONNECT PIPE AND GROUT PENETRATION; MATCH INVERT ELEVATIONS AND GROUT INVERTS SMOOTH.
N32	RECONNECT TO EXISTING PIPE WITH STAINLESS STEEL SHIELDED FERNO CO (STRONGBACK RC 1000 SERIES)
N33	CONNECT NEW WATER MAIN TO FIRE HYDRANT ASSEMBLY WITH MECHANICALLY RESTRAINED JOINTS. PROVIDE ALL FITTINGS AND MATERIALS NECESSARY.
N34	SANITARY SERVICE LATERAL IS BELIEVED TO BE INACTIVE; VERIFY WITH CITY DURING CONSTRUCTION; IF NOT ACTIVE, DO NOT REINSTATE.
N35	PROVIDE TEMPORARY MAILBOX LOCATION IF EXISTING MAILBOX IS DISTURBED. LIMIT IMPACT TO RETAINING WALL AND RESTORE RETAINING WALL, DRIVEWAY, AND MAILBOX TO EXISTING OR BETTER CONDITION FOLLOWING CONSTRUCTION.
N36	REPLACE WATER SERVICE AND METER IN PLACE. OWNER TO SUPPLY COPPERSETTER AND BOX. REUSE EXISTING METER. RETAIN AND PROTECT EXISTING CURB. RESTORE DISTURBED SURFACES TO EXISTING CONDITIONS, INCIDENTAL TO OTHER BID ITEMS.
N37	NEW TYPE 1 CATCH BASIN AND TYPE 2 GRATE FRAME; CONCRETE CURB REPAIR AS NECESSARY TO MATCH EXISTING, INCIDENTAL TO OTHER BID ITEMS

1. SEE SHEET G-002 FOR ADDITIONAL NOTES.
2. SEE SHEET V-101 FOR SURVEY CONTROL INFORMATION.

17 OPEN TRENCH PROJECT

CITY OF COEUR D'ALENE WASTEWATER UTILITY

CIVIL UTILITIES: SCHEDULE B - ALLEY BETWEEN A & B ST.

PLAN AND PROFILE

STA. 14+00 TO STA. 18+25

FILE: 20-17-011 C-202X

JUB PROJ. #: 20-17-011

DRAWN BY: WRH

DESIGN BY: JFW

CHECKED BY: PMS

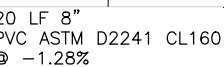
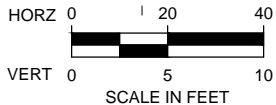
ONE INCH


AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

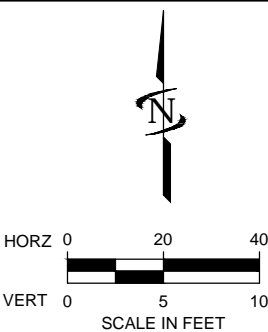
LAST UPDATED: 1/20/2017

SHEET NUMBER:

C-204




FILE : 20-17-011, C-202X
JUB PROJ. # : 20-17-011
DRAWN BY: WRH
DESIGN BY: JFW
CHECKED BY: PMS
 <p>ONE INCH</p> <p>AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY</p>
LAST UPDATED: 1/20/2017
SHEET NUMBER:
C-205





GENERAL NOTES:

1. SEE SHEET G-002 FOR ADDITIONAL NOTES.
2. SEE SHEET V-101 FOR SURVEY CONTROL INFORMATION.

SURFACE REPAIR LEGEND:

 (N5) TYPE 'B' ASPHALT SURFACE REPAIR 137 SY

 J-U-B ENGINEERS, INC.		J-U-B ENGINEERS, INC. 7925 Meadowlark Way Coeur d'Alene, ID 83815 Phone: 208.762.8787 Fax: 208.762.9797 www.jub.com																																																			
ORIGINAL SIGNED BY: PETER M. STAYTON  DATE ORIGINAL SIGNED: 01/20/2017																																																					
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2017 OPEN TRENCH PROJECT CITY OF COEUR D'ALENE WASTEWATER UTILITY		CIVIL UTILITIES: SCHEDULE C - HASTINGS AVE. PLAN AND PROFILE STA. 17+50 TO STA. 18+50																																																			
FILE #: 20-17-011 C-205X																																																					
JUB PROJ. #: 20-17-011																																																					
DRAWN BY: WRH																																																					
DESIGN BY: JFW																																																					
CHECKED BY: PMS																																																					
<div style="text-align: center;">1" = 40'</div> ONE INCH AT FULL SIZE. IF NOT ONE INCH, SCALE ACCORDINGLY																																																					
LAST UPDATED: 1/20/2017																																																					
SHEET NUMBER: C-208																																																					

1. THIS DETAIL PERTAINS TO SEPARATION REQUIREMENTS FOR POTABLE WATER AND NON-POTABLE WATER PIPELINES LOCATED WITHIN PUBLIC RIGHTS OF WAY. THE TERM PIPELINE APPLIES TO BOTH MAINS AND SERVICES.
2. REFER TO IDAPA 58.01.08.542.07 (IDAHO RULES FOR PUBLIC DRINKING WATER SYSTEMS) AND IDAPA 58.01.16.430.02.0 (IDAHO WASTEWATER RULES) FOR ALL SEPARATION REQUIREMENTS.
3. ANY CONDITIONS NOT MEETING THESE TYPICAL SEPARATION REQUIREMENTS MUST HAVE IDEQ SITE SPECIFIC APPROVAL (EG SKEWED CROSSINGS, I.E. NOT AT 90°).
4. NON-POTABLE MAINS ARE PROHIBITED FROM BEING LOCATED IN THE SAME TRENCH AS POTABLE MAINS. NEW POTABLE SERVICES ARE PROHIBITED FROM BEING LOCATED IN THE SAME TRENCH AS NON-POTABLE MAINS OR NON-POTABLE SERVICES.
5. PRESSURE SEWAGE MAINS SHALL BE NO CLOSER HORIZONTALLY THAN TEN (10) FEET AND NO CLOSER VERTICALLY THAN EIGHTEEN (18) INCHES FROM POTABLE MAINS.
6. EXISTING POTABLE SERVICES IN RELATION TO NEW NON-POTABLE MAINS, EXISTING NON-POTABLE SERVICES IN RELATION TO NEW POTABLE MAINS, AND EXISTING POTABLE SERVICES IN RELATION TO NEW NON-POTABLE SERVICES SHALL MEET THE REQUIREMENTS OF IDAPA 58.01.16.430.02.ii., WHERE PRACTICAL, BASED ON COST, CONSTRUCTION FACTORS, AND PUBLIC HEALTH SIGNIFICANCE. IF THE DEPARTMENT (IDEQ) DETERMINES THAT THERE ARE SIGNIFICANT HEALTH CONCERNS WITH THESE SERVICES, SUCH AS WHERE A LARGE EXISTING SERVICE SERVES AN APARTMENT BUILDING OR A SHOPPING CENTER, THEN THE DESIGN SHALL CONFORM WITH IDAPA 58.01.16.430.02.ii.

•NON-POTABLE MAINS IN RELATION TO POTABLE MAINS:
 ZONE 13 GREATER THAN TEN (10) FEET SEPARATION: NO ADDITIONAL REQUIREMENTS BASED ON SEPARATION DISTANCE.
 ZONE 23 TEN (10) FEET TO SIX (6) FEET SEPARATION: SEPARATE TRENCHES, WITH BOTTOM OF THE POTABLE MAIN ABOVE THE TOP OF THE NON-POTABLE MAIN, AND NON-POTABLE MAIN CONSTRUCTED WITH POTABLE-WATER CLASS PIPE.
 ZONE 33 LESS THAN SIX (6) FEET SEPARATION: DESIGN ENGINEER TO SUBMIT DATA TO THE DEPARTMENT FOR REVIEW AND APPROVAL THAT THIS INSTALLATION WILL PROTECT PUBLIC HEALTH AND ENVIRONMENT AND NON-POTABLE MAIN CONSTRUCTED WITH POTABLE-WATER CLASS PIPE.

•NEW NON-POTABLE SERVICES IN RELATION TO POTABLE SERVICES, NEW NON-POTABLE SERVICES IN RELATION TO POTABLE MAINS, AND NEW POTABLE SERVICES IN RELATION TO NON-POTABLE MAINS:
 ZONE 23 GREATER THAN SIX (6) FEET SEPARATION: NO ADDITIONAL REQUIREMENTS BASED ON SEPARATION DISTANCES.
 ZONE 33 LESS THAN SIX (6) FEET SEPARATION: DESIGN ENGINEER TO SUBMIT DATA THAT THIS INSTALLATION WILL PROTECT PUBLIC HEALTH AND THE ENVIRONMENT AND NON-POTABLE SERVICE CONSTRUCTED WITH POTABLE WATER CLASS PIPE.

ZONE 1: EIGHTEEN (18) INCHES OR MORE VERTICAL SEPARATION WITH POTABLE PIPELINE ABOVE NON-POTABLE PIPELINE: NON-POTABLE PIPELINE JOINT TO BE AS FAR AS POSSIBLE FROM THE POTABLE WATER PIPELINE.

ZONE 2: EIGHTEEN (18) INCHES OR MORE VERTICAL SEPARATION WITH POTABLE WATER PIPELINE BELOW NON-POTABLE PIPELINE: NON-POTABLE PIPELINE JOINT TO BE AS FAR AS POSSIBLE FROM THE POTABLE WATER PIPELINE, AND NON-POTABLE PIPELINE MUST BE SUPPORTED THROUGH THE CROSSING TO PREVENT SETTLING.

ZONE 3: LESS THAN EIGHTEEN (18) INCHES VERTICAL SEPARATION:

- a) NON-POTABLE PIPELINE JOINT TO BE AS FAR AS POSSIBLE FROM THE POTABLE WATER PIPELINE; AND EITHER
- b) NON-POTABLE PIPELINE CONSTRUCTED WITH POTABLE WATER CLASS PIPE FOR A MINIMUM OF TEN (10) FEET EITHER SIDE OF POTABLE PIPELINE WITH A SINGLE TWENTY (20) FOOT SECTION OF POTABLE WATER CLASS PIPE CENTERED ON THE CROSSING; OR
- c) SLEEVE NON-POTABLE OR POTABLE PIPELINE WITH POTABLE WATER CLASS PIPE FOR TEN (10) FEET EITHER SIDE OF CROSSING. USE OF HYDRAULIC CEMENTITIOUS MATERIALS SUCH AS CONCRETE, CONTROLLED DENSITY FILL, AND CONCRETE SLURRY ENCASEMENT IS NOT ALLOWED AS A SUBSTITUTE FOR SLEEVING.
- d) IF THE POTABLE PIPELINE IS BELOW NON-POTABLE PIPELINE, THE NON-POTABLE PIPELINE MUST ALSO BE SUPPORTED THROUGH THE CROSSING TO PREVENT SETTLING.



1) SCALE: NOT TO SCALE

ALL MANUFACTURED SPACERS AND END SEALS TO BE INSTALLED PER MANUFACTURERS GUIDELINES. ANY PIPE JOINTS INSIDE OF CASING MUST BE FULLY RESTRAINED OR ANNULUS MUST BE COMPLETELY FILLED WITH SAND.



SPACER SECTION VIEW

2) PIPE CASING DATA
SCALE: NOT TO SCALE

City of Coeur d'Alene Engineering Standard Drawings are available at the following website: www.cdaid.org/1089/departments/engineering/engineering-standard-drawings. The Contractor shall have a set of Standard Drawings on the job site at all times. Drawings applicable to this project may include, but are not limited to those indicated below.

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CIVIL UTILITIES: STANDARD DETAILS

C-501



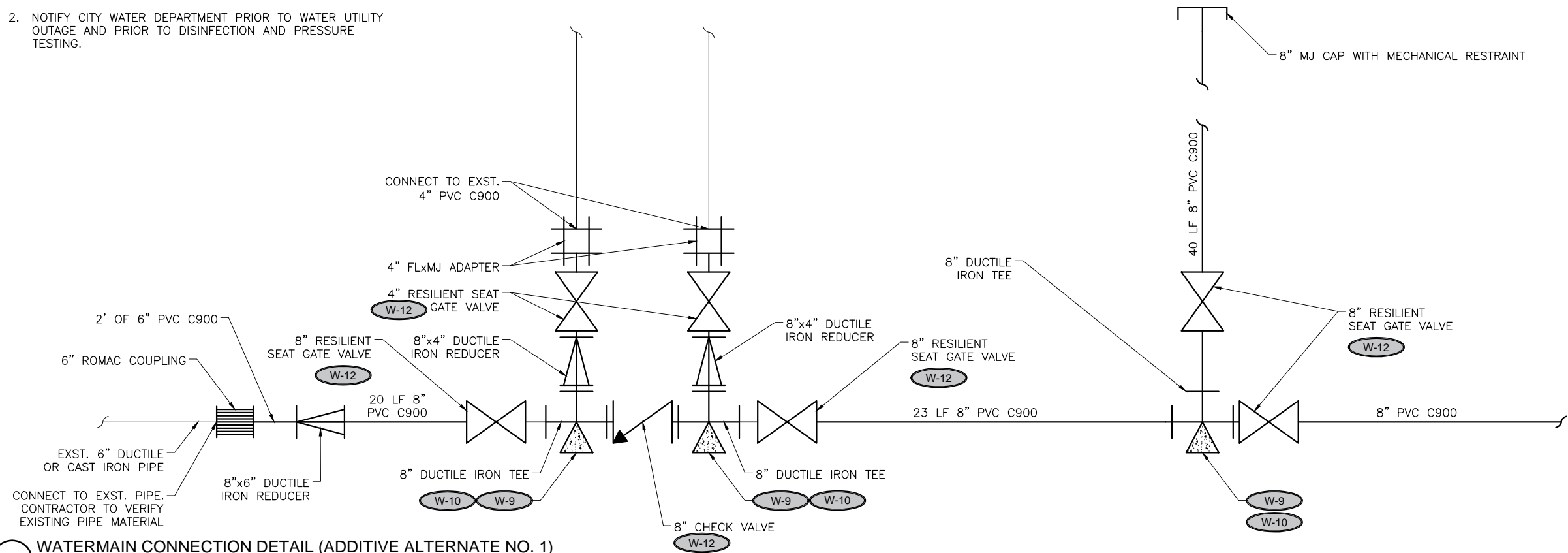
- 4 PIPE ABANDONMENT PLUG
SCALE: NOT TO SCALE



- 7 CONCRETE ROAD BASE REPLACEMENT
SCALE: NOT TO SCALE



1. CONSTRUCT, DISINFECT AND TEST WATERMAIN TO CITY OF COEUR D'ALENE STANDARDS.
2. NOTIFY CITY WATER DEPARTMENT PRIOR TO WATER UTILITY OUTAGE AND PRIOR TO DISINFECTION AND PRESSURE TESTING.



1 WATERMAIN CONNECTION DETAIL (ADDITIVE ALTERNATE NO. 1)
SCALE:NOT TO SCALE



Fax: 208.762.9797
www.jub.com

ORIGINAL SIGNED
BY: PETER M.
STAYTON
14693
DATE ORIGINAL
SIGNED: 01/20/2017

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[illegible]

DETAILS

20-17-011, C-501X
PROJ. #: 20-17-011
WN BY: WRH
GN BY: JFW
CKED BY: PMS

ONE INCH

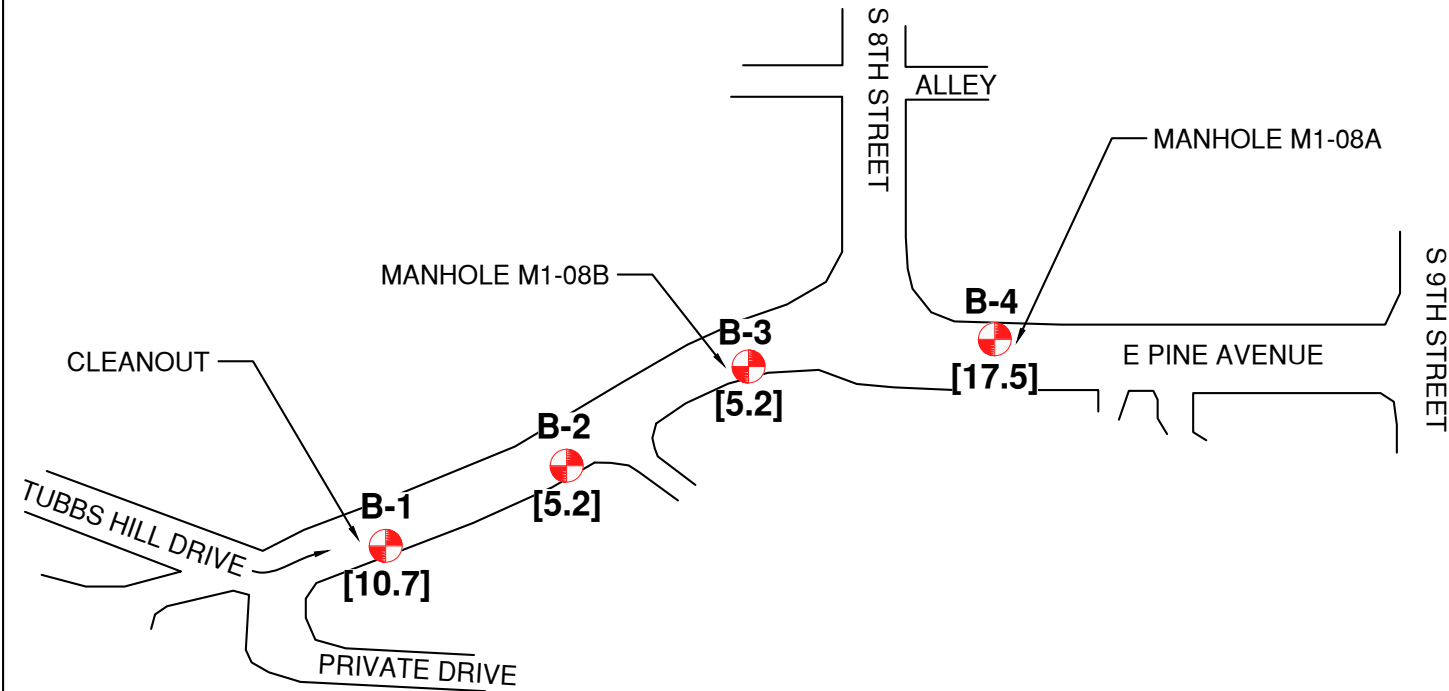
AT FULL SIZE, IF NOT ONE INCH. SCALE ACCORDINGLY

UPDATED: 1/20/2017

SHEET NUMBER:

C-503

Plot Date: 1/19/2017 5:27 PM Plotted By: Ryan Lewis
Date Created: 1/17/2017 10:20 AM C:\Users\RLewis\Documents\2016\GDA PROPOSALS & PROJECTS\GDA\PROJECTS\OPEN TRENCH UTILITY REPLACEMENT\ANSHEETS\DELIVERABLES\2017\G11 - B SHEETS.DWG



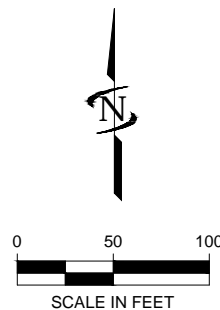
LEGEND



B-1 APPROXIMATE BORING LOCATION OBSERVED BY STRATA ON NOVEMBER 15, 2016.

[X.X]

BORING TERMINATION DEPTH (IN FEET) DUE TO BEDROCK REFUSAL OBSERVED BY STRATA ON NOVEMBER 15, 2016.



GEOTECHNICAL SHEET LIMITATIONS

THE INFORMATION PROVIDED IN GEOTECHNICAL (B) SHEETS SHOULD ONLY BE USED AS REFERENCE DOCUMENTS TO ASSIST THE DESIGN AND CONSTRUCTION TEAM WITH FEASIBILITY CONSIDERATIONS.

PROJECT DESCRIPTION

THE PROJECT INCLUDES THE REPLACEMENT OF APPROXIMATELY 450 LINEAR FEET OF SEWER LINES AND 3 MANHOLES BEGINNING AT MANHOLE M1-08A ON PINE AVENUE, EXTENDING WEST TO MANHOLE M1-08B, AND TERMINATING AT THE UN-NAMED MANHOLE (HEREIN BY REFERRED TO AS "CLEANOUT") ON TUBBS HILL ROAD. MINOR SEWER AND WATERLINE RE-ROUTING MAY BE NECESSARY ALONG PINE AVENUE AND TUBBS HILL ROAD TO COMPLY WITH CITY STANDARDS. BOTTOM OF EXISTING MANHOLE AND PIPE DEPTHS RANGE FROM 10 TO 15 FEET BELOW THE EXISTING PAVEMENT SURFACE. NO SIGNIFICANT GRADING CHANGES ARE PLANNED FOR THIS PROJECT, INCLUDING CHANGES TO THE EXISTING PIPE INVERT ELEVATIONS, BOTTOM OF MANHOLE ELEVATIONS, AND EXISTING ROADWAY SURFACE ELEVATIONS.

SUBSURFACE CONDITIONS DESCRIPTION

BORINGS ENCOUNTERED THE FOLLOWING 4 PRIMARY SUBSURFACE UNITS BELOW ASPHALT PAVEMENT SECTIONS:

- EMBANKMENT FILL:** POORLY-GRADED SAND WITH SILT, GRAVEL, COBBLES, AND BOULDERS (GP-GM) THAT WAS GRAYISH-BROWN, MEDIUM DENSE, AND WET; POORLY-GRADED SAND WITH SILT AND GRAVEL (SP-SM) THAT WAS DARK BROWN, LOOSE, AND MOIST.
- NATIVE:** SILTY SAND WITH OR WITHOUT GRAVEL (SM) THAT WAS BROWN TO DARK BROWN, LOOSE TO MEDIUM DENSE, AND MOIST; POORLY-GRADED SAND WITH SILT (SP-SM) THAT WAS LOOSE TO MEDIUM DENSE, AND MOIST.
- WEATHERED BEDROCK:** VERY CLOSE FRACTURE SPACING AND MODERATELY WEATHERED TO HIGHLY WEATHERED BEDROCK (SEE BELOW FOR ADDITIONAL DESCRIPTION).
- MASSIVE BEDROCK:** PRECAMBRIAN METAMORPHIC ROCK OF THE BELT SUPERGROUP. DESCRIBED AS A GRANITIC GNEISS WITH QUARTZ, ORTHOCLASE, PLAGIOCLASE, AND BIOTITE MINERALS, MODERATELY CLOSE TO WIDE FRACTURE SPACING, AND FRESH.

BORINGS DID NOT ENCOUNTER GROUNDWATER WITHIN THE DEPTHS EXPLORED. HOWEVER, GROUNDWATER HAS THE POTENTIAL TO CHANGE WITH SEASONAL VARIATIONS IN PRECIPITATION AND CAN BECOME PERCHED NEAR THE SOIL-BEDROCK INTERFACE.

CONSTRUCTION CONSIDERATIONS

EXCAVATABILITY

HOLLOW-STEM AUGER DRILLING EXPLORATION METHODS WERE ABLE TO PENETRATE BETWEEN 1 TO 2 FEET OF THE UPPER WEATHERED BEDROCK SURFACE. AS SUCH, THE UPPER 1 TO 2 FEET OF WEATHERED AND FRACTURED BEDROCK CAN LIKELY BE EXCAVATED USING CONVENTIONAL EXCAVATION EQUIPMENT (I.E. BACKHOE AND TRACKHOE EQUIPPED WITH STANDARD EXCAVATION TEETH). EXCAVATIONS INTO COMPETENT BEDROCK BELOW THE UPPER WEATHERED BEDROCK ZONE WILL LIKELY REQUIRE EXCAVATION EQUIPMENT WITH ROCK EXCAVATION TEETH AND/OR ROCK HAMMERING OR SPLITTING. THE CONTRACTOR SHOULD BE PREPARED TO ENCOUNTER GRAVEL WITHIN THE NATIVE SOIL AND GRAVEL, COBBLES, AND BOULDERS WITHIN THE EMBANKMENT FILL WHEN EXCAVATING TRENCHES.

DEWATERING

ALTHOUGH BORINGS DID NOT ENCOUNTER GROUNDWATER WITHIN THE DEPTHS EXPLORED, THE CONTRACTOR MAY ENCOUNTER SEASONALLY PERCHED SEEPS AND SPRINGS NEAR THE SOIL/BEDROCK INTERFACE THAT MAY REQUIRE DEWATERING DURING SEWER LINE AND MANHOLE CONSTRUCTION. AS SUCH, THE CONTRACTOR SHOULD BE PREPARED TO ENCOUNTER PERCHED WATER AND BE PREPARED TO MAINTAIN SAFE AND STABLE EXCAVATION SLOPES RELATED TO EXCAVATION SIDEWALL DESTABILIZATION FROM SEEPS, SPRINGS, OR OTHER WATER SOURCES.

TEMPORARY EXCAVATIONS AND SLOPES

SLOPES AND EXCAVATIONS MUST BE EXCAVATED, SHORED, OR BRACED IN ACCORDANCE WITH *OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION* (OSHA) SPECIFICATIONS AND LOCAL CODES. THE ON-SITE NATIVE SOIL AND EMBANKMENT FILL IS CLASSIFIED AS "C" TYPE SOIL ACCORDING TO OSHA REQUIREMENTS. AS SUCH, TEMPORARY SOIL EXCAVATIONS PLANNED FOR THE PROJECT SHOULD BE SLOPED BACK TO AT LEAST 1.5H:1V (HORIZONTAL TO VERTICAL). THE ON-SITE SOILS ARE PRONE TO CAVING CONDITIONS, WHICH CAN UNDERMINE EXISTING ASPHALT SECTIONS IF OPEN EXCAVATIONS ARE NOT PROPERLY SLOPED, SHORED, OR BRACED. THE CONTRACTOR SHOULD BE PREPARED TO SLOPE, SHORE, OR BRACE EXCAVATIONS EXTENDING LOWER THAN 2 FEET BELOW THE EXISTING ASPHALT SURFACE.



J-U-B ENGINEERS, INC.
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Coeur d'Alene, ID 83815
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Fax: 208.762.9797
www.jub.com



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NO.	DESCRIPTION	BY	DATE

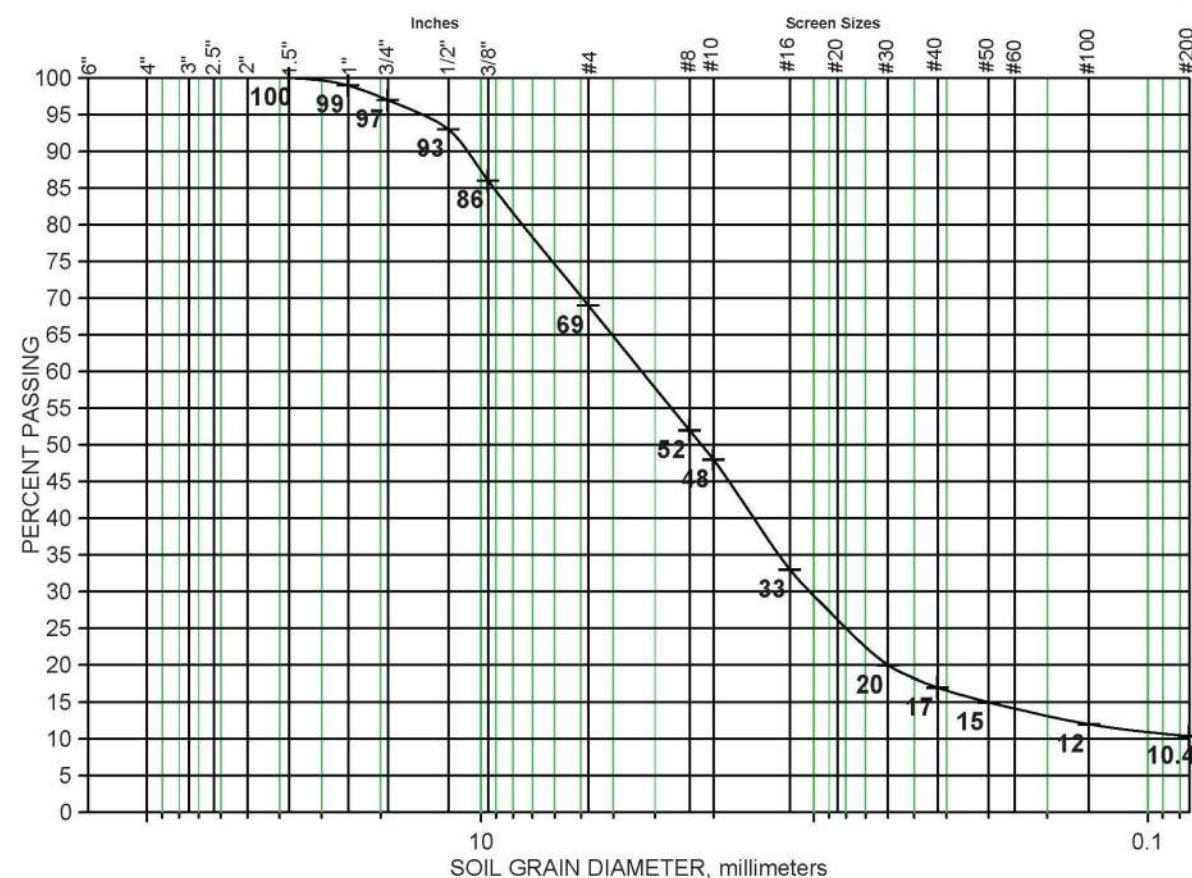
2017 OPEN TRENCH PROJECT
CITY OF COEUR D'ALENE WASTEWATER UTILITY
GENERAL GEOTECHNICAL INFORMATION

FILE: 20-17-011 - B SHEETS
JUB PROJ. #: 20-17-011
DRAWN BY: RML
DESIGN BY: N/A
CHECKED BY: PKA
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
LAST UPDATED: 1/19/2017
SHEET NUMBER:
B-100

ASTM D6913

Project: City of Coeur d'Alene Wastewater Utility
2017 Open Trench Project - Pine Ave. and Tubbs Hill Rd.
Client: J-U-B Engineers, Inc.
File: CD16079A
Sample No.: SP1600600
Sample Location: Boring B-1 from 1.5 to 2.5 feet BGS
Description: Poorly-graded SAND with Silt and Gravel (SP-SM)
Date Sampled: November 15, 2016 By: H. Kuepper
Date Tested: November 19, 2016 By: R. Matteson

Cobbles	Gravel		Sand		
	Coarse	Fine	Coarse	Medium	Fine



Reviewed by:

Ryan Lewis



MOISTURE DENSITY RELATIONSHIP CURVE and
CORRECTED MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT

Project: City of Coeur d'Alene Wastewater Utility
2017 Open Trench Project - Pine Ave. and Tubbs Hill Rd.
Client: J-U-B Engineers, Inc.

Project Number: CD16079A
Date: November 19, 2016
Tested By: E. Larson

Sample Source:	Embankment Fill
Sample Location:	Boring B-1 from 1.5 to 2.5 feet BGS
Sample Description:	Poorly-graded Sand with Silt and Gravel (SP-SM)

Sample Number: SP1600600
 Sampled By: H. Kuepper
 Date Sampled: November 15, 2016
 Date Received: November 15, 2016

Oversize Material: + $\frac{3}{8}$ -in. 14 % (As Received)
Test Method: ASTM D1557 - Method B

Grading Analysis		
<u>Screen Size</u>	<u>% Passing</u>	<u>As Tested</u>
4 inch	100	100
2 inch	100	100
3/4 inch	97	100
3/8 inch	86	100
#4 screen	69	69

ASTM D1557 (Method B)		ASTM C127		ASTM D4718		
Uncorrected Maximum Dry Density (pcf)	Uncorrected Optimum Moisture Content (%)	Oversize Bulk Specific Gravity ¹	Oversize Absorption ¹ (%)	Percent Oversize (%)	Corrected Maximum Dry Density (pcf)	Corrected Optimum Moisture Content (%)
134.5	6.5	2.650	1.0	5	136.0	6.0
<p>Legend: ◆ Optimum Point ● Proctor Points</p> <p>Zero Air Voids Curve, eq. 2.6</p> <p>Optimum Point: 134.5 pcf, 6.5% moisture</p> <p>Corrected Maximum Dry Density: 136.0 pcf, 6.0% moisture</p>				6	136.0	6.0
				7	136.5	6.0
				8	136.5	6.0
				9	137.0	6.0
				10	137.0	6.0
				11	137.5	6.0
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				30	142.5	5.0

1. Assumed Values

Reviewed By:

Ryan Lewis

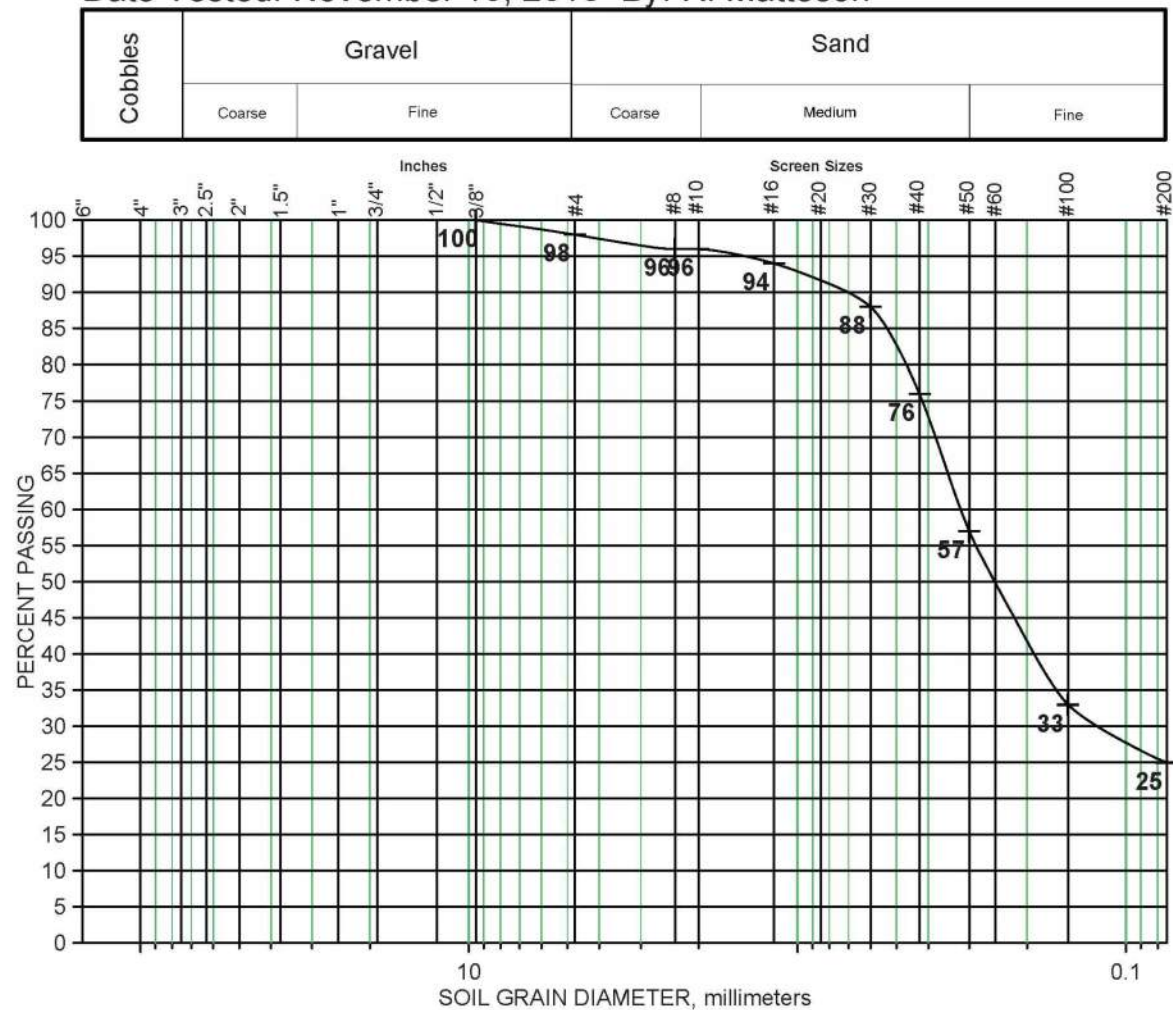


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Date Created: 1/17/2017 10:20 AM Created By: Ryan Lewis
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Project: 2017 Open Trench Project - Pine Ave. and Tubbs Hill Rd. - UTILITY REPLACEMENT PLANS SHEET DELIVERABLE 02-17-011 - B SHEETS.DWG

GRADATION ANALYSIS

ASTM D6913

Project: City of Coeur d'Alene Wastewater Utility
2017 Open Trench Project - Pine Ave. and Tubbs Hill Rd.
Client: J-U-B Engineers, Inc.
File: CD16079A
Sample No.: SP1600599
Sample Location: Boring B-4 from 6.5 to 7.5 feet BGS
Description: Silty SAND (SM)
Date Sampled: November 15, 2016 By: H. Kuepper
Date Tested: November 19, 2016 By: R. Matteson



Reviewed by: Ryan Lewis



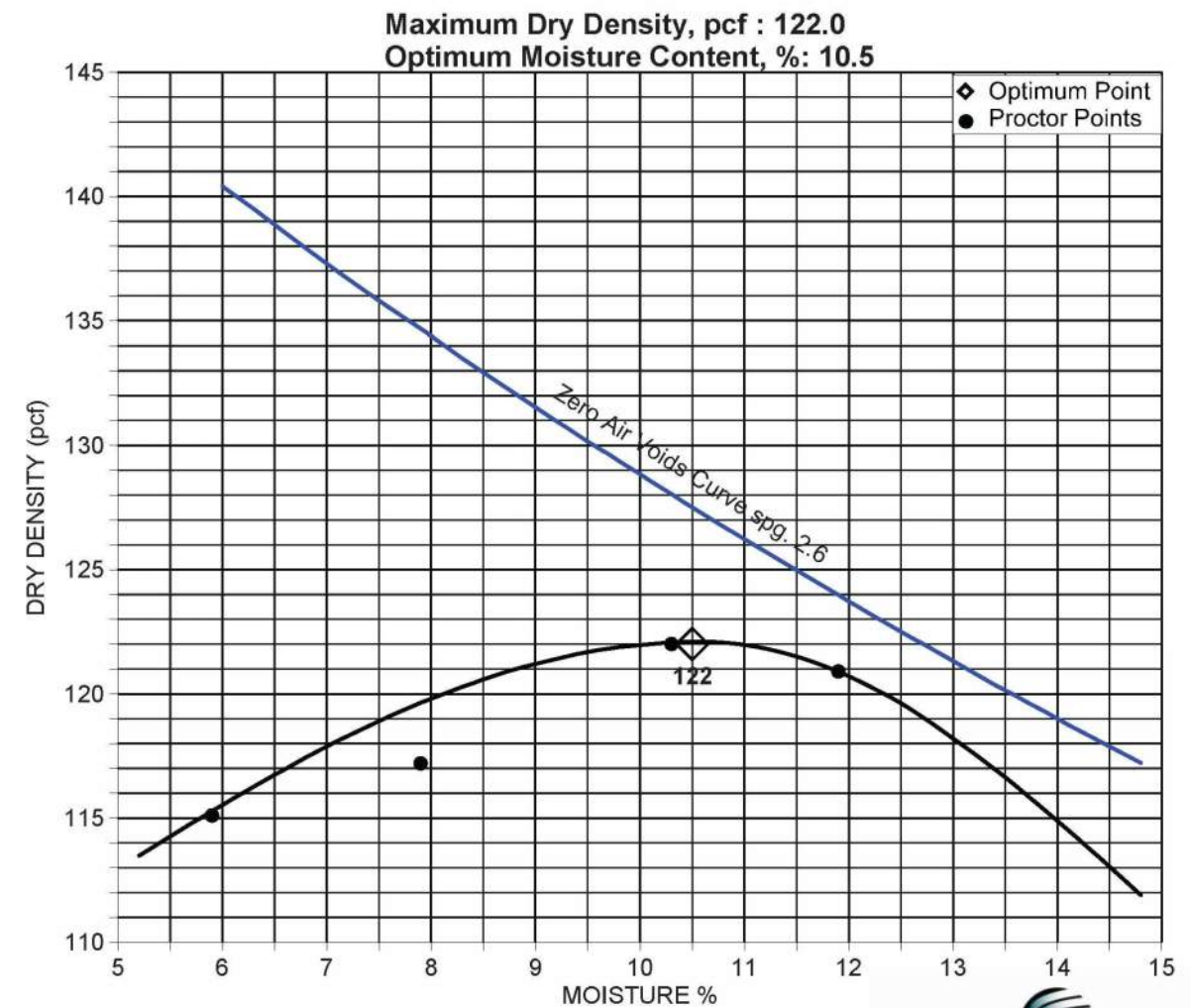
MOISTURE-DENSITY RELATIONSHIP CURVE

ASTM D1557

Method A

Project: City of Coeur d'Alene Wastewater Utility
2017 Open Trench Project - Pine Ave. and Tubbs Hill Rd.
Client: J-U-B Engineers, Inc.
Project Number: CD16079A
Sample Number: SP1600599
Sample Location: Boring B-4 from 6.5 to 7.5 feet BGS
Sample Description: Silty SAND (SM)
Date Sampled: November 15, 2016 By: H. Kuepper
Date Tested: November 17, 2016 By: E. Larson
Rammer Type: Manual

GRADING ANALYSIS		
SCREEN SIZE	% PASSING	AS TESTED
6 inch		
3 inch		
2 inch		
3/4 inch	100	100
3/8 inch	100	100
#4 screen	98	100



Reviewed By: Ryan Lewis



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NO.	DESCRIPTION	BY	DATE

2017 OPEN TRENCH PROJECT
CITY OF COEUR D'ALENE WASTEWATER UTILITY

LABORATORY TEST RESULTS 2

PH AND RESISTIVITY TEST RESULTS

SOIL RESISTIVITY & pH for Corrosion Testing
ASTM G187 & ASTM D4792

Project: City of Couer d'Alene Wastewater Utility Report date: November 19, 2016
2017 Open Trench Project -
Pine Ave. and Tubbs Hill Road
Report to: J-U-B- Engineers, Inc. File No.: CD16079A
Lab No.: SP1600599

Sample ID: Boring B-4 from 6.5 to 7.5 feet Soil Type: Silty SAND (SM)
BGS

Resistivity Test Results

ml of water	Ohms	Corr. Factor	Ohm/cm
150	2550	6.69	17060
200	1865	6.69	12477
250	1165	6.69	7794
300	925	6.69	6188
350	854	6.69	5713
400	820	6.69	5486
450	920	6.69	6155
500	945	6.69	6322

Minimum Resistivity ohm-cm = 5486

pH of Soil = 7.5 at 70 Degrees F.

Reviewed by:

Ryan Lewis



UNIFIED SOIL CLASSIFICATION SYSTEM

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL NAMES
COARSE GRAINED SOIL	GRAVEL	CLEAN GRAVEL		GW	WELL-GRADED GRAVEL, GRAVEL-SAND MIXTURES.
				GP	POORLY-GRADED GRAVEL, GRAVEL-SAND MIXTURES.
		GRAVEL WITH FINES		GM	SILTY GRAVEL, GRAVEL-SAND-SILT MIXTURES.
				GC	CLAYEY GRAVEL, GRAVEL-SAND-CLAY MIXTURES.
	SAND	CLEAN SAND		SW	WELL-GRADED SAND, GRAVELLY SAND.
				SP	POORLY-GRADED SAND, GRAVELLY SAND.
		SAND WITH FINES		SM	SILTY SAND, SAND-SILT MIXTURES.
				SC	CLAYEY SAND, SAND-CLAY MIXTURES.
FINE GRAINED SOIL	SILT AND CLAY LIQUID LIMIT LESS THAN 50%			ML	INORGANIC SILT, SANDY OR CLAYEY SILT.
				CL	INORGANIC CLAY OF LOW TO MEDIUM PLASTICITY, SANDY OR SILTY CLAY.
				CL-ML	INORGANIC MIXED CLAY AND SILT.
				OL	ORGANIC SILT AND CLAY OF LOW PLASTICITY.
	SILT AND CLAY LIQUID LIMIT GREATER THAN 50%			MH	INORGANIC SILT, MICA-CEOUS SILT, PLASTIC SILT.
				CH	INORGANIC CLAY OF HIGH PLASTICITY, FAT CLAY.
				OH	ORGANIC CLAY OF MEDIUM TO HIGH PLASTICITY.
				PT	PEAT, MUCK AND OTHER HIGHLY ORGANIC SOILS.

BORING LOG SYMBOLS

	STANDARD 2 INCH OD SPLIT SPOON SAMPLE
	CALIFORNIA MODIFIED 3 INCH OD SPLIT SPOON SAMPLE
	ROCK CORE
	SHELBY TUBE 3 INCH OD UNDISTURBED SAMPLE

GROUNDWATER SYMBOLS

	GROUND WATER AFTER 24 HOURS
	GROUND WATER AT TIME OF DRILLING
	GROUND WATER AT THE END OF DRILLING

TEST PIT LOG SYMBOLS

BG	BAGGIE SAMPLE
BK	BULK SAMPLE
RG	RING SAMPLE

SHORT HAND NOTATION:
BGS = BELOW EXISTING GROUND SURFACE
N.E. = NONE ENCOUNTERED



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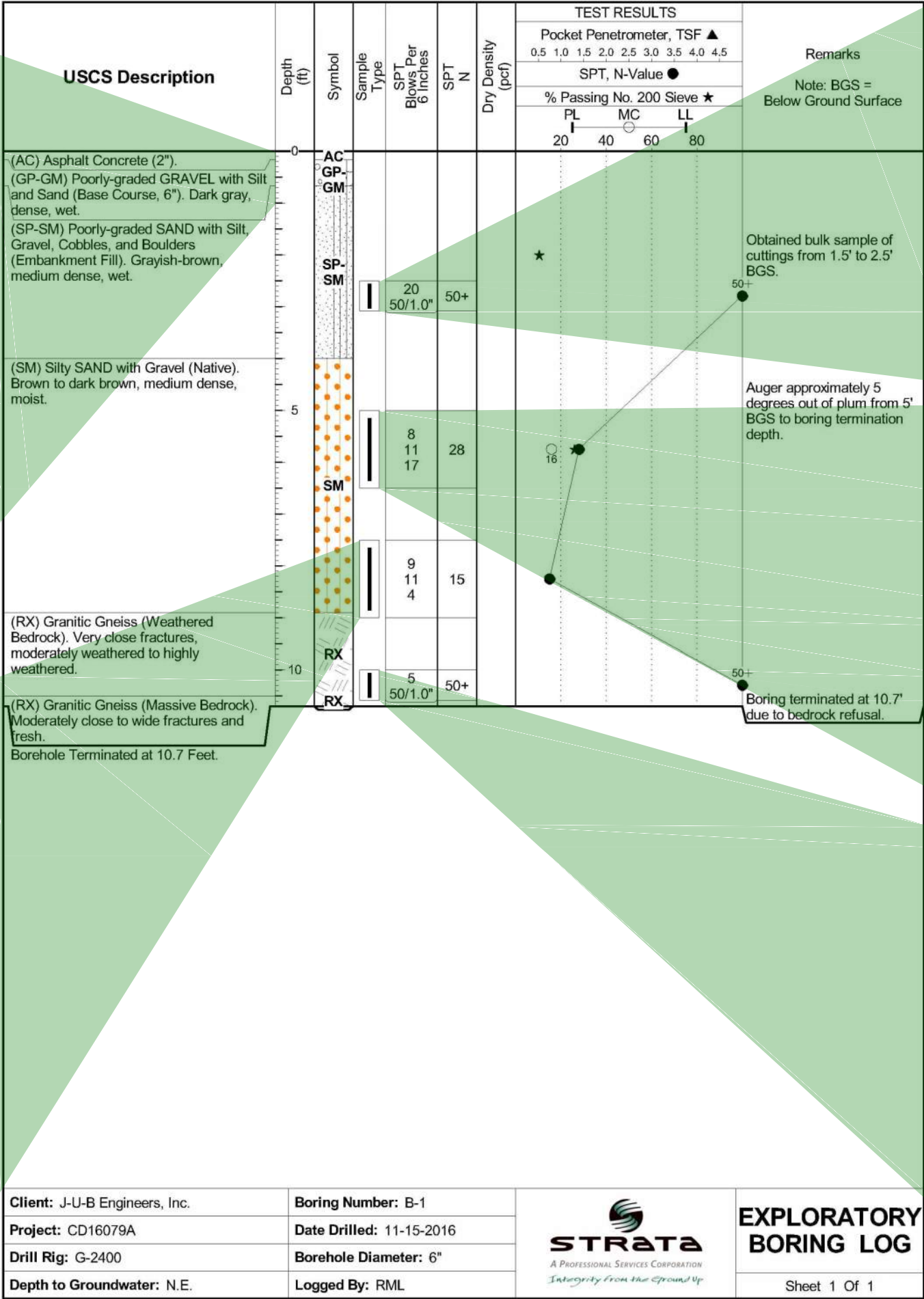
NO.	DESCRIPTION	BY	DATE


2017 OPEN TRENCH PROJECT
CITY OF COEUR D'ALENE WASTEWATER UTILITY
PH AND RESISTIVITY & USCS EXPLANATION



FILE: 20-17-011 - B SHEETS
JUB PROJ. #: 20-17-011
DRAWN BY: RML
DESIGN BY: N/A
CHECKED BY: TBO
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
LAST UPDATED: 1/19/2017
SHEET NUMBER:
B-202

Plot Date: 1/19/2017 5:11 PM Plotted By: Ryan Lewis
Date Created: 1/11/2017 10:20 AM User: RLEWIS
PROJECT: CD16079A & PROJECT: CD16079A PINE AVENUE AND TUBBS HILL ROAD - UTILITY REPAIR AGREEMENT PLANS SHEET DELIVERABLE E20-17-011 - B SHEETS.DWG


BORING LOG B-1



Client: J-U-B Engineers, Inc.	Boring Number: B-1	 A PROFESSIONAL SERVICES CORPORATION <i>Integrity from the Ground Up</i>	EXPLORATORY BORING LOG Sheet 1 Of 1
Project: CD16079A	Date Drilled: 11-15-2016		
Drill Rig: G-2400	Borehole Diameter: 6"		
Depth to Groundwater: N.E.	Logged By: RML		



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STATE OF IDAHO
STANTON K. ANDERSON

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REVISION	NO.	DESCRIPTION	BY	DATE

2017 OPEN TRENCH PROJECT
CITY OF COEUR D'ALENE WASTEWATER UTILITY

BORING LOG B-1

FILE: 20-17-011 - B SHEETS
JUB PROJ. #: 20-17-011
DRAWN BY: RML
DESIGN BY: N/A
CHECKED BY: TBD

AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
LAST UPDATED: 1/19/2017

SHEET NUMBER:
B-301

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of Foundations, Structural Construction
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NO.	DESCRIPTION	BY	APR.	DATE	

2017 OPEN TRENCH PROJECT
CITY OF COEUR D'ALENE WASTEWATER UTILITY

BORING LOG B-2


FILE : 20-17-011 - B SHEETS

SUB PROJ. # : 20-17-011

DRAWN BY: RML

DESIGN BY: N/A

CHECKED BY: TE



AT FULL SIZE, IF NOT ON
INCH. SCALE ACCORDIN

LAST UPDATED: 1/19/2017

SHEET NUMBER:

Abstract

B-302

B-302

Note: BGS =
Below Ground Surface

Advanced second boring approximately 5' west of B-2 location; observed similar soil profile.

● Boring terminated at 5.2' due to bedrock refusal.

(RX) Granitic Gneiss (Weathered Bedrock). Very close fractures, moderately weathered to highly weathered.

(RX) Granitic Gneiss (Massive Bedrock). Moderately close to wide fractures and fresh.

Borehole Terminated at 5.2 Feet.

Client: J-U-B Engineers, Inc.

Project: CD16079A

Drill Rig: G-2400

Depth to Groundwater: N.E.

Boring Number: B-2

Date Drilled: 11-15-2016

Borehole Diameter: 6"

Logged By: RML



EXPLORATORY BORING LOG

Sheet 1 Of 1



Plot Date: 1/19/2017 5:11 PM Plotted By: Ryan Lewis
Date Created: 1/17/2016 10:16:20 AM User: RLEWIS Project: CD16079A
CD16079A - UTILITY REPAIR AGREEMENT PLANS SHEET DELIVERABLE E20-17-011 - B SHEETS.DWG



BORING LOG B-3

USCS Description	Depth (ft)	Symbol	Sample Type	SPT Blows Per 6 Inches	SPT N	Dry Density (pcf)	TEST RESULTS			Remarks		
							Pocket Penetrometer, TSF ▲					
							SPT, N-Value ●					
							% Passing No. 200 Sieve ★					
							PL	MC	LL			
							20	40	60	80		
(AC) Asphalt Concrete (2").	0	AC										
(GP-GM) Poorly-graded GRAVEL with Silt and Sand (Base Course, 6"). Dark gray, dense, wet.		GP-GM										
(SM) Silty SAND with Gravel (Native). Brown to dark brown, medium dense, moist.		SM										
(RX) Granitic Gneiss (Weathered Bedrock). Very close fractures, moderately weathered to highly weathered.		RX		14 14 50	64							Increased drill difficulty observed at 3' BGS.
(RX) Granitic Gneiss (Massive Bedrock). Moderately close to wide fractures and fresh.	5	RX										Boring terminated at 5.2' due to bedrock refusal.
Borehole Terminated at 5.2 Feet.				50/2.0"	50+							

Client: J-U-B Engineers, Inc.

Boring Number: B-3

Project: CD16079A


Date Drilled: 11-15-2016

Drill Rig: G-2400

Borehole Diameter: 6"

Depth to Groundwater: N.E.


Logged By: RML




STRATA
A PROFESSIONAL SERVICES CORPORATION
Integrity from the Ground Up

EXPLORATORY BORING LOG

Sheet 1 Of 1



STRATA
A PROFESSIONAL SERVICES CORPORATION
Integrity from the Ground Up




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REVISION

NO.	DESCRIPTION	BY	DATE

2017 OPEN TRENCH PROJECT
CITY OF COEUR D'ALENE WASTEWATER UTILITY

BORING LOG B-3

FILE: 20-17-011 - B SHEETS
JUB PROJ. #: 20-17-011
DRAWN BY: RML
DESIGN BY: N/A
CHECKED BY: TBD

ONE INCH

AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

LAST UPDATED: 1/19/2017

SHEET NUMBER:
B-303

BORING LOG B-4

