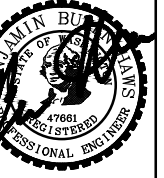




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1-29-2016

NO.	REVISION	DESCRIPTION	BY	DATE

CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIAL ACTION
SHEET LEGEND AND LINETYPES

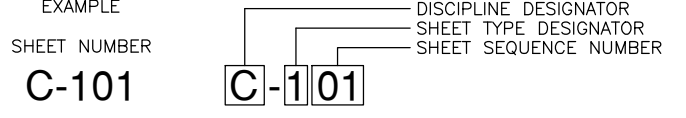
FILE: 30-11-012-G-003
JUB PROJ. #: 30-11-012
DRAWN BY: MCH
DESIGN BY: BBH
CHECKED BY: BBH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
LAST UPDATED: 1/29/2016

SHEET NUMBER:
G-002



Know what's below.
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SHEET NUMBERING

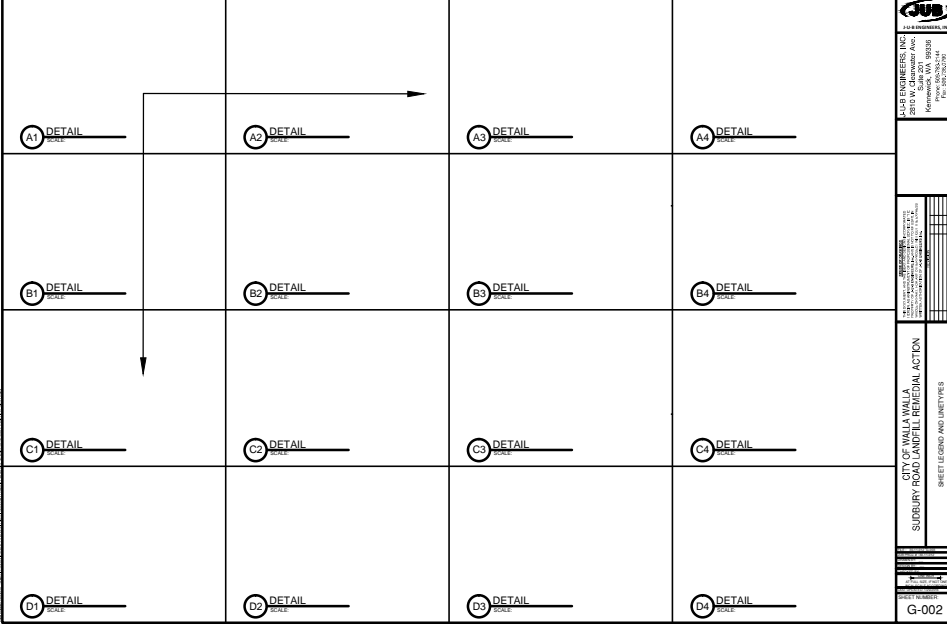


DISCIPLINE DESIGNATORS

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 ARCHITECTURAL
EQUIPMENT	Q	ALL EQUIPMENT
MECHANICAL	M	ALL MECHANICAL
ELECTRICAL	E	ALL ELECTRICAL
PLUMBING	P	ALL PLUMBING
PROCESS	D	ALL PROCESS AND GAS COLLECTION
RESOURCE	R	ALL RESOURCE
ADDITIVE BID	Z#	# = ADDITIVE BID SCHEDULE

SHEET TYPE DESIGNATORS

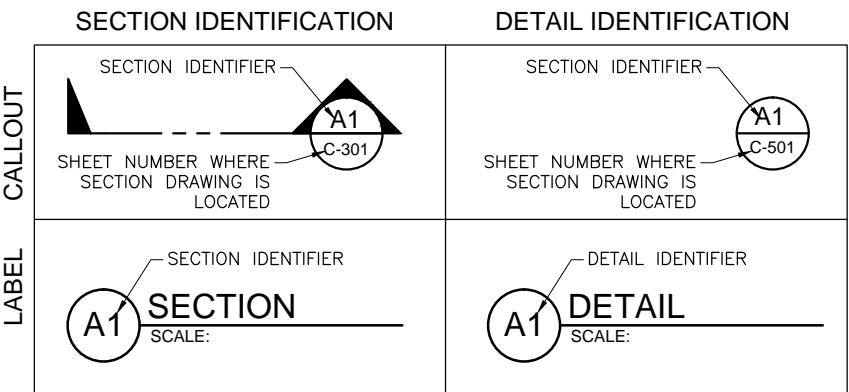
DESIGNATOR	SHEET TYPE
0	GENERAL (SYMBOLS, LEGENDS, NOTES, ETC.)
1	PLANS (HORIZONTAL VIEWS)
2	ELEVATIONS, PROFILES, COMBINED PLAN AND PROFILES
3	SECTIONS (SECTIONAL VIEWS)
4	LARGE-SCALE VIEWS (PLANS, ELEVATIONS, ETC.)
5	DETAILS OR COMBINED DETAILS AND SECTIONS
6	SCHEDULES OR DIAGRAMS
7	USER DEFINED
8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



NOTE:
THE DRAWING MODULES ARE ARRANGED BY COLUMNS AND ROWS. COLUMNS ARE IDENTIFIED WITH NUMBERS STARTING ON THE LEFT WITH 1 AND INCREASING TO THE RIGHT. ROWS ARE IDENTIFIED WITH ALPHABETICAL CHARACTERS BEGINNING AT THE TOP WITH A AND INCREASING TOWARDS THE BOTTOM. EACH MODULE IS IDENTIFIED WITH A LETTER AND NUMBER BASED ON THE UPPER LEFT HAND LOCATION.

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



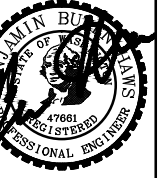
LINETYPES

DESCRIPTION	PROPOSED	EXISTING
Overhead Power, Tele, Cable TV, Gas	OHP,OHT,OHCTV,OHG	--- OHP,OHT,OHCTV,OHG ---
Underground Power, Tele, Cable TV, Gas)	P,T,CTV,G	--- P,T,CTV,G --- P,T,CTV,G ---
Ditch
Road Asphalt	EP	--- EP --- EP ---
Road Gravel	EG	--- EG --- EG ---
Road Center Line	---	---
Major Contour	----- 2125 -----	----- 2125 -----
Minor Contour	----- 2126 -----	----- 2126 -----
Fence	X X	--- X --- X --- X ---
Edge of Landscaping	LS	--- LS --- LS ---
Cut Limits	CUT	---
Fill Limits	FILL	---
Top of Bank	TOB	--- TOB --- TOB ---
Toe of Bank	TOE	--- TOE --- TOE ---
Property Line	P/L	--- P/L --- P/L ---
Property R/W	R/W	--- R/W --- R/W ---
Temporary Easement	T/E	--- T/E ---
Permanent Easement	P/E	--- P/E ---
Sanitary Sewer Service	SAN	--- SAN --- SAN --- SAN ---
Condensate Pipe	FM	--- FM --- FM ---
Potable Water	PW	--- PW --- PW ---
Non Potable Water	NPW	--- NPW --- NPW ---
Irrigation	IRR	--- IRR --- IRR ---
Storm Drain	SD	--- SD --- SD ---
Erosion Control Ditch FL	---	---
Grade Break
Air Line	---	---
HDPE Header	---	---
HDPE Lateral	---	---
Wattles	W	---
Silt Fence	---	---
MSW Extents	---	---
Electrical	E	---



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1-29-2016

NO.	DESCRIPTION	BY	DATE

CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIAL ACTION
ABBREVIATIONS AND SYMBOLS

FILE: 30-11-012-G-004
JUB PROJ. #: 30-11-012
DRAWN BY: MCH
DESIGN BY: BBH
CHECKED BY: BBH
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 1/29/2016

SHEET NUMBER:
G-003



VALVES		
SYMBOL DESCRIPTION	EXISTING SYMBOL & BLOCK NAME	PROPOSED SYMBOL & BLOCK NAME
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.)		

FITTINGS		
SYMBOL DESCRIPTION	EXISTING SYMBOL & BLOCK NAME	PROPOSED SYMBOL & BLOCK NAME
BEND (11.25°)		
BEND (22.5°)		
BEND (45°)		
BEND (90°)		
CAP		
COUPLING		
CROSS		
REDUCER (CONCENTRIC)		
REDUCER (ECCENTRIC)		
TEE		
TRUE UNION		
WYE		

UTILITIES		
SYMBOL DESCRIPTION	EXISTING SYMBOL & BLOCK NAME	PROPOSED SYMBOL & BLOCK NAME
TELE. MANHOLE		
TELE. PEDESTAL		
TELE. POLE		
TV PEDESTAL		
GUY WIRE		
VALVE (GENERIC)		
VAULT		

DOMESTIC WATER		
SYMBOL DESCRIPTION	EXISTING SYMBOL & BLOCK NAME	PROPOSED SYMBOL & BLOCK NAME
FIRE HYDRANT		
SPIGOT		
YARD HYDRANT		
WATER METER		
WATER VALVE		

SANITARY SEWER		
SYMBOL DESCRIPTION	EXISTING SYMBOL & BLOCK NAME	PROPOSED SYMBOL & BLOCK NAME
CLEANOUT		
SEWER STUB		
SS MANHOLE		

NATURAL GAS		
SYMBOL DESCRIPTION	EXISTING SYMBOL & BLOCK NAME	PROPOSED SYMBOL & BLOCK NAME
GAS METER		
GAS VALVE		

SITE		
SYMBOL DESCRIPTION	EXISTING SYMBOL & BLOCK NAME	PROPOSED SYMBOL & BLOCK NAME
BOLLARD		
BOULDER		
DRINKING FOUNTAIN		
FLAGPOLE		
GATE		
MAIL BOX		
POST		
SIGN		
SPOT ELEVATION		
TREE (SHRUB)		
TREE (STUMP)		
TREE (CONIFEROUS)		
TREE (DECIDUOUS)		
TEST HOLE		
WELL		
WELL (MONITORING)		

TYPICAL DETAILS		
SYMBOL DESCRIPTION	EXISTING SYMBOL & BLOCK NAME	PROPOSED SYMBOL & BLOCK NAME
OBJECT BREAK LINE		
PIPE END		
PIPE END FILL		

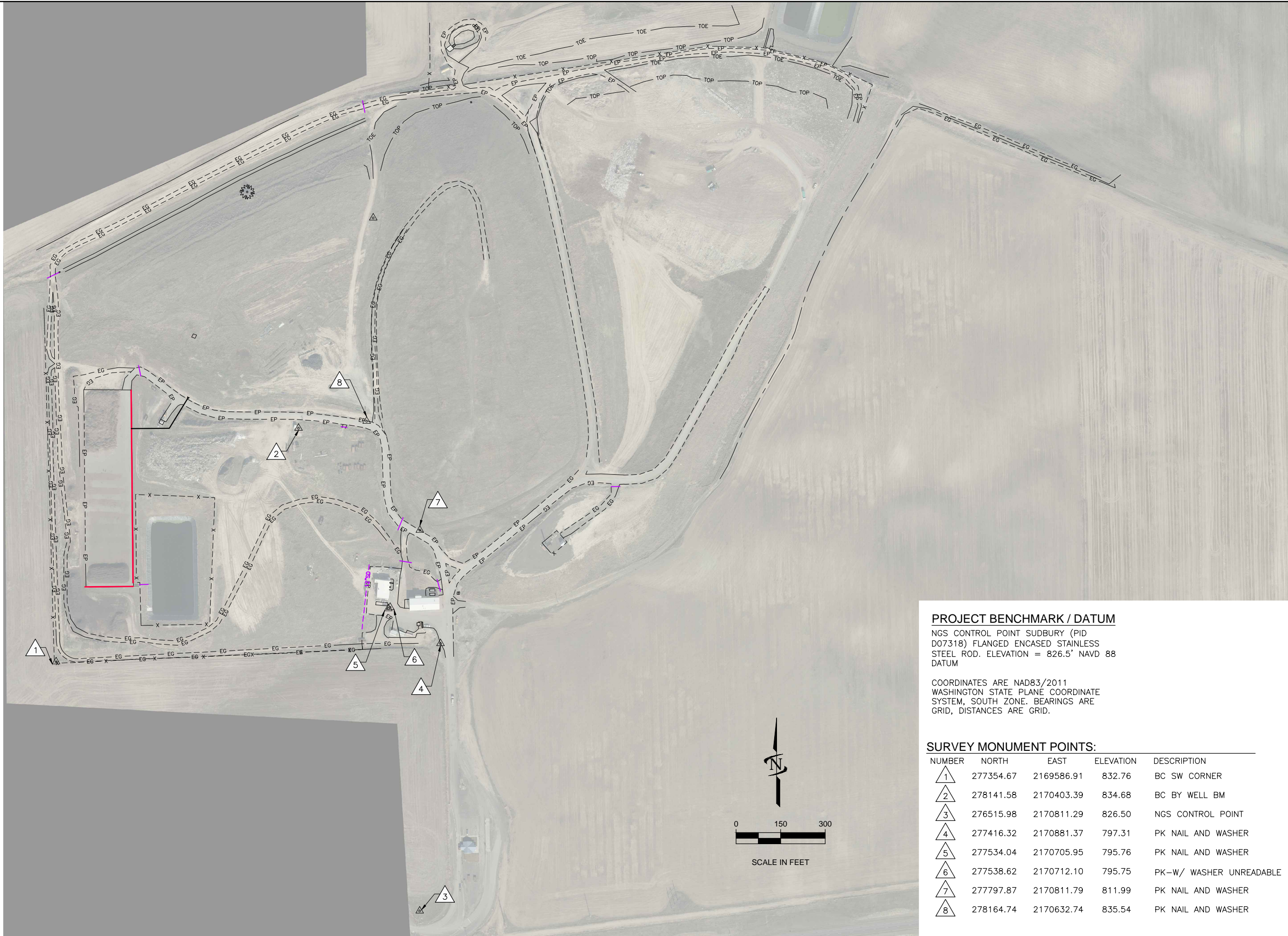
ABBREVIATIONS	
ABBREVIATION	TERM
PL	PLATE
PVC	POLYVINYL-CHLORIDE
R	RADIUS
R&R	REMOVE AND REPLACE
REQ'D	REQUIRED
REV.	REVISION
RFCA	RESTRAINED FLANGE COUPLING ADAPTER
RJ.	RESTRAINED JOINT
R/W	RIGHT-OF-WAY
S	SLOPE
SAN	SANITARY SEWER
SS	STAINLESS STEEL
SOG	SLAB ON GRADE
SPEC.	SPECIFICATION
STA	STATION
STD	STANDARD
STL.	STEEL
ST. STL.	STAINLESS STEEL
TBC	TOP BACK OF CURB
TOW	TOP OF WALL
TYP.	TYPICAL
TFC	TOP FACE OF CURB
W/	WITH
W/O	WITHOUT
W/REQ'D	WHERE REQUIRED
ABDN	ABANDONED
NPW	NON-POTABLE WATER (UTILITY WATER)

ELECTRIC		
SYMBOL DESCRIPTION	EXISTING SYMBOL & BLOCK NAME	PROPOSED SYMBOL & BLOCK NAME
ELEC. MANHOLE		
ELEC. METER		
ELEC. TRANS.		
GUY WIRE		
JUNCTION BOX		
POWER POLE		
POWER STUB		
STREET LIGHT		
TRAFFIC SIGNAL POLE		

ABBREVIATIONS	
ABBREVIATION	TERM
ASSY.	ASSEMBLY
>	ANGLE
@	AT (MEASUREMENTS)
BLDG.	BUILDING
B.M.	BENCH MARK
BSC	BITUMINOUS SURFACE COURSE
BSW	BACK OF SIDEWALK
BW.	BOTH WAYS
C	CHANNEL
C/L	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC.	CONCRETE
CONT.	CONTINUOUS
CPLG.	COUPLING
CSTC	CRUSHED SURFACING TOP COURSE
CU. FT.	CUBIC FEET
CU. YD.	CUBIC YARD
DEG. OR °	DEGREE
DET.	DETAIL
DIA. OR Ø	DIAMETER
D.I.	DUCTILE IRON PIPE
DIST.	DISTRIBUTION
DWG.	DRAWING
EA.	EACH
ELB.	ELBOW
ELEV. OR EL.	ELEVATION
E.W.	EACH WAY
EXIST.	EXISTING
F.G.	FINISH GRADE
F.H.	FIRE HYDRANT
FL	FLANGE
FT OR '	FEET
G.V.	GATE VALVES
HORIZ.	HORIZONTAL
ID	INSIDE DIAMETER
IN. OR "	INCH
LB. OR #	POUND
LF	LINEAL FEET
LN.	LINEAL
MAX.	MAXIMUM
MIN.	MINIMUM
MJ.	MECHANICAL JOINT
NO. OR #	NUMBER
O.C.E.W	ON CENTER EACH WAY
PE	POLYETHYLENE OR PLAIN END

Plot Date: 1/29/2016 3:31 PM Plotted By: Lisa Rich Date Created: 1/29/2016 10:00:00 AM WORKFILES\PUBLIC\PROJECT\JUB30-1-012 - SUDBURY LANDFILL REMEDIAL SERVICES\CAD\SHR11-012-G-004.DWG

Plot Date: 1/29/2016 3:32 PM Plotted By: Lisa Rich
 Date Created: 1/29/2016 10:00 AM Project: JUB30-1-012 - SUDBURY LANDFILL REMEDIAL SERVICES CAD SHEET 30-1-012 V-101.DWG



PROJECT BENCHMARK / DATUM

NGS CONTROL POINT SUDBURY (PID D07318) FLANGED ENCASED STAINLESS STEEL ROD. ELEVATION = 826.5' NAVD 88 DATUM

COORDINATES ARE NAD83/2011 WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. BEARINGS ARE GRID, DISTANCES ARE GRID.

SURVEY MONUMENT POINTS:

NUMBER	NORTH	EAST	ELEVATION	DESCRIPTION
1	277354.67	2169586.91	832.76	BC SW CORNER
2	278141.58	2170403.39	834.68	BC BY WELL BM
3	276515.98	2170811.29	826.50	NGS CONTROL POINT
4	277416.32	2170881.37	797.31	PK NAIL AND WASHER
5	277534.04	2170705.95	795.76	PK NAIL AND WASHER
6	277538.62	2170712.10	795.75	PK-W/ WASHER UNREADABLE
7	277797.87	2170811.79	811.99	PK NAIL AND WASHER
8	278164.74	2170632.74	835.54	PK NAIL AND WASHER



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CITY OF WALLA WALLA
 SUDBURY ROAD LANDFILL REMEDIAL ACTION
 SURVEY CONTROL

FILE: 30-11-012_V-101
 JUB PROJ. #: 30-11-012
 DRAWN BY: MCH
 DESIGN BY: BBH
 CHECKED BY: BBH

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

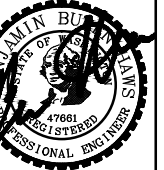
LAST UPDATED: 1/29/2016

SHEET NUMBER:
V-101



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NO.	REVISION	DESCRIPTION	BY	DATE

CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIAL ACTION
OVERALL SITE MAP

FILE: 30-11-012_V-102
JUB PROJ. #: 30-11-012
DRAWN BY: MCH
DESIGN BY: BBH
CHECKED BY: BBH

ONE INCH
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 1/29/2016

SHEET NUMBER:

V-102

KEYED NOTES

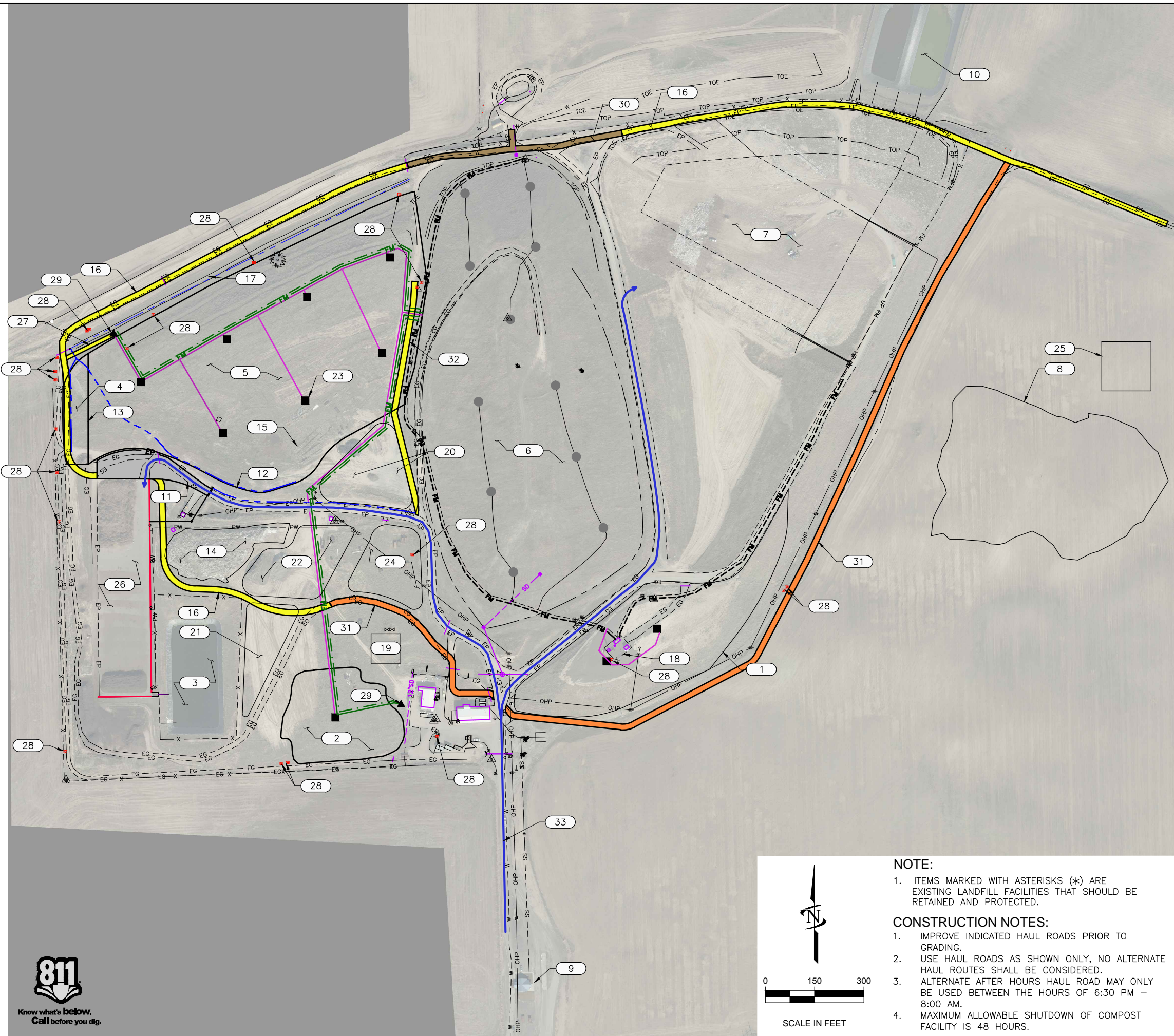
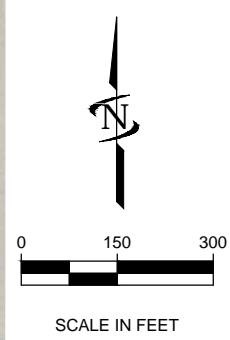
- * 1 AREA 1
- 2 AREA 2 (SEE SHEET C-101)
- * 3 COMPOST LAGOON
- 4 AREA 4
- 5 AREA 5 (SEE SHEET C-102)
- * 6 AREA 6
- * 7 AREA 7
- 8 BORROW AREA (FUTURE AREA 8) (SEE SHEET C-103)
- * 9 SCALE HOUSE (ENTRANCE/EXIT)
- * 10 LEACHATE EVAPORATION POND
- 11 COMPOST ACCESS ROAD MODIFICATION (SEE SHEET C-202)
- 12 AREA 5 BOUNDARY
- 13 AREA 4 BOUNDARY
- 14 CRUSH EXISTING CONCRETE PILE APPROXIMATELY 13,600 CY (16,400 TONS). AFTER CRUSHING, GRADE SITE TO DRAIN TOWARDS COMPOST PAD AND SEED, FERTILIZER AND MULCH.
- * 15 EXIST. CONCRETE BARRIERS (SIMILAR TO JERSEY BARRIERS) TO BE REMOVED TO OTHER AREAS SHOWN ON SHEETS C-101 AND C-102. APPROX. 1600 LF. (IN 10-FT± SECTIONS).
- 16 HAUL ROAD (6" THICK) PER DETAIL B1 ON C-501. APPROX 4,180 LF± (1,393 CY±)
- 17 NORTH DITCH (SEE SHEET C-201)
- 18 EXISTING BLOWER/FLARE FACILITY, SEE SHEET D-503.
- 19 TEMPORARY STOCKPILE AREA FOR AREA 2 EARTHWORK.
- 20 TEMPORARY STOCKPILE AREA FOR AREA 5 EARTHWORK. RESTORE THIS AREA WITH 4-INCH DEPTH OF CRUSHED CONCRETE.
- 21 STOCKPILE LOCATION FOR CRUSHED CONCRETE RUBBLE.
- 22 CONCRETE CRUSHING STAGING AREA
- 23 NEW GAS WELLS, TYP. OF 10 WITH BOLLARDS. SEE SHEET D-101.
- 24 CONTRACTOR STAGING AREA.
- 25 TEMPORARY STOCKPILE AREA FOR BORROW AREA. GRUB MATERIAL.
- 26 COMPOST FACILITY. SEE CONSTRUCTION NOTE 4.
- 27 SUMP ACCESS ROAD (12-FT WIDE x 6" THICK) PER DETAIL B1 ON C-501. APPROX. 165 LF±. (37 CY±)
- * 28 MAINTAIN AND PROTECT EXIST. MONITORING WELLS. FINE WILL BE GIVEN IF DAMAGED. SEE SPECIFICATIONS
- 29 NEW CONDENSATE SUMPS. SEE SHEET D-101. PLACE 10'x10'x4" DEEP PAD OF CRUSHED CONCRETE, WITH BOLLARDS.
- 30 THICKENED HAUL ROAD (12" THICK) PER DETAIL B1 ON C-501. APPROX. 710 LF± (473 CY±).
- 31 ALTERNATE AFTER-HOURS HAUL ROAD (6" THICK) PER DETAIL B1 ON C-501. APPROX. 3,190 LF± (1,063 CY±). ALTERNATE HAUL ROAD USE IS NOT REQUIRED AND ROAD IMPROVEMENTS ARE NOT NECESSARY IF NOT USED. SEE CONSTRUCTION NOTE 3.
- 32 AREA 5 ACCESS ROAD (6" THICK) PER DETAIL B1 ON C-501. APPROX. 720 LF± (240 CY±).
- 33 PUBLIC ACCESS ROUTE - PROVIDE TRAFFIC CONTROL NECESSARY TO CLOSE ROUTE DURING HAUL TO AREA 2, AND WORK ON COMPOST ROAD. SEE SPECIFICATION SECTION 01101.

NOTE:

1. ITEMS MARKED WITH ASTERISKS (*) ARE EXISTING LANDFILL FACILITIES THAT SHOULD BE RETAINED AND PROTECTED.

CONSTRUCTION NOTES:

1. IMPROVE INDICATED HAUL ROADS PRIOR TO GRADING.
2. USE HAUL ROADS AS SHOWN ONLY, NO ALTERNATE HAUL ROUTES SHALL BE CONSIDERED.
3. ALTERNATE AFTER HOURS HAUL ROAD MAY ONLY BE USED BETWEEN THE HOURS OF 6:30 PM - 8:00 AM.
4. MAXIMUM ALLOWABLE SHUTDOWN OF COMPOST FACILITY IS 48 HOURS.



Plot Date: 1/29/2016 5:35 PM Plotted By: Lisa Rich Date Created: 1/29/2016 WORKFILES\PUBLIC\PROJECT\JUB\30-11-012 - SUDBURY LANDFILL REMEDIAL SERVICES\CAD\SHEET\30-11-012_V-102.DWG



Know what's below.
Call before you dig.

CONSTRUCTION NOTES:

1. GRADING OF THE SITE MUST BE DONE IN THE FOLLOWING SEQUENCE:
 - 1.1. AREA 5 ROUGH GRADING MUST BE COMPLETED BEFORE BEGINNING AREA 2 ROUGH GRADING. CUT MATERIAL FROM AREA 5 MUST BE EXHAUSTED BEFORE IMPORTED FILL IS BROUGHT IN.
 - 1.2. CLEAR SITE OF LARGE VEGETATION (SAGEBRUSH/ TREES).
 - 1.3. CUT EXISTING GROUND TO 5- FEET BELOW FINISHED GRADE (SUBGRADE) AT EXTENT OF WASTE. SEE SHEETS C-106 AND C-107 FOR SUBGRADE CONTOURS.
 - 1.4. PLACE FILL IN COMPACTED LIFTS TO WITHIN 1-FOOT OF FINISHED GRADE (ROUGH GRADING)
 - 1.5. ONCE GAS EXTRACTION SYSTEM HAS BEEN INSTALLED, IMPORT FILL MIXED WITH BIOSOLIDS (FINISHED GRADING) IN COMPACTED LIFTS TO THE FINISHED GRADES SHOWN.
 - 1.6. APPLY COMPOST FROM CITY COMPOST FACILITY TO APPROX. A 1-INCH DEPTH AND WORK INTO THE SURFACE BY TRACK WALKING LOW GROUND PRESSURE EQUIPMENT PERPENDICULAR TO SLOPE.
 - 1.7. APPLY MULCH, TACKIFIER, DRYLAND SEED, AND FERTILIZER.
2. BIOSOLIDS WILL BE DELIVERED TO THE BORROW SITE BY THE OWNER. CONTRACTOR SHALL MIX INTO FINISHED GRADING SOIL.
3. CONTRACTOR SHALL LOAD AND HAUL COMPOST PURCHASED FROM CITY COMPOST FACILITY AND APPLY TO THE FINISHED GRADE.
4. PLACED FILL SHALL BE COMPACTED IN LIFTS NO THICKER THAN 24-INCHES. COMPACT TO 82% - 88% OF MAX. DENSITY PER ASTM D 698, SEE SPECIFICATIONS.
5. QUANTITIES SHOWN ARE APPROXIMATE.

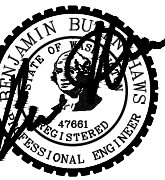
KEYED NOTES

- 1 ECOLOGY BLOCK WALL 240± LF. SEE DETAIL C3 ON SHEET C-502.
- 2 FORM CONCRETE BARRIER WALL FROM EXISTING CONCRETE BARRIERS SHOWN ON SHEET V-102. 520± LF
- 3 TEMPORARY STOCKPILE LOCATION FOR AREA 2.
- 4 NOT USED
- 5 LANDFILL GAS WELL, SEE SHEET D-101. PLACE 10'x10'x4" DEEP PAD OF CRUSHED CONCRETE. PLACE BOLLARDS AROUND WELL PER DETAIL A1 ON C-501, TYP. OF 1, THIS SHEET.
- 6 CUT/FILL TO SUBGRADE LEVEL (SEE SHEET C-106) THEN CUT/FILL TO ROUGH GRADING LEVEL. EXCESS CUT FROM AREA 5 MAY BE PLACED ON AREA 2 AS NEEDED FOR AREA 2.
- 7 IMPORT FINISHED GRADING APPROX. 9,371 CY± (THIS DOES NOT INCLUDE COMPOST OR BIOSOLIDS) SEE CONSTRUCTION NOTES.
- 8 APPLY 1-INCH THICK COMPOST OVER AREA 2 FILL. 370± CY
- 9 APPLY MULCH, TACKIFIER AND DRYLAND SEED TO AREA 2, 3± ACRES
- 10 APPLY MULCH, TACKIFIER, DRY LAND SEED AND FERTILIZER TO DISTURBED AREA OUTSIDE OF AREA 2, 1± ACRE (IN VICINITY OF AREA 2)
- 11 IMPROVE HAUL ROAD, SEE SHEET V-102 AND DETAIL B1 ON C-501.
- 12 APPROXIMATE EXTENTS OF AREA 2 WASTE.
- 13 GAS COLLECTION SYSTEM, SEE SHEET D-101.
- 14 ALTERNATE AFTER-HOURS HAUL ROAD. SEE SHEET V-102.
- 15 MAINTAIN AND PROTECT EXISTING MONITORING WELLS. FINE WILL BE GIVEN IF DAMAGED. SEE SPECIFICATIONS. TYP. OF 3, THIS SHEET.
- 16 HAUL ROAD, SEE SHEET V-102.
- 17 CONDENSATE SUMP AND PUMP, SEE SHEET D-101. PLACE 10'x10'x4" DEEP PAD OF CRUSHED CONCRETE. PLACE BOLLARDS AROUND SUMP PER DETAIL A1 ON C-501.



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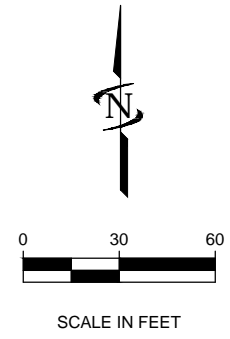
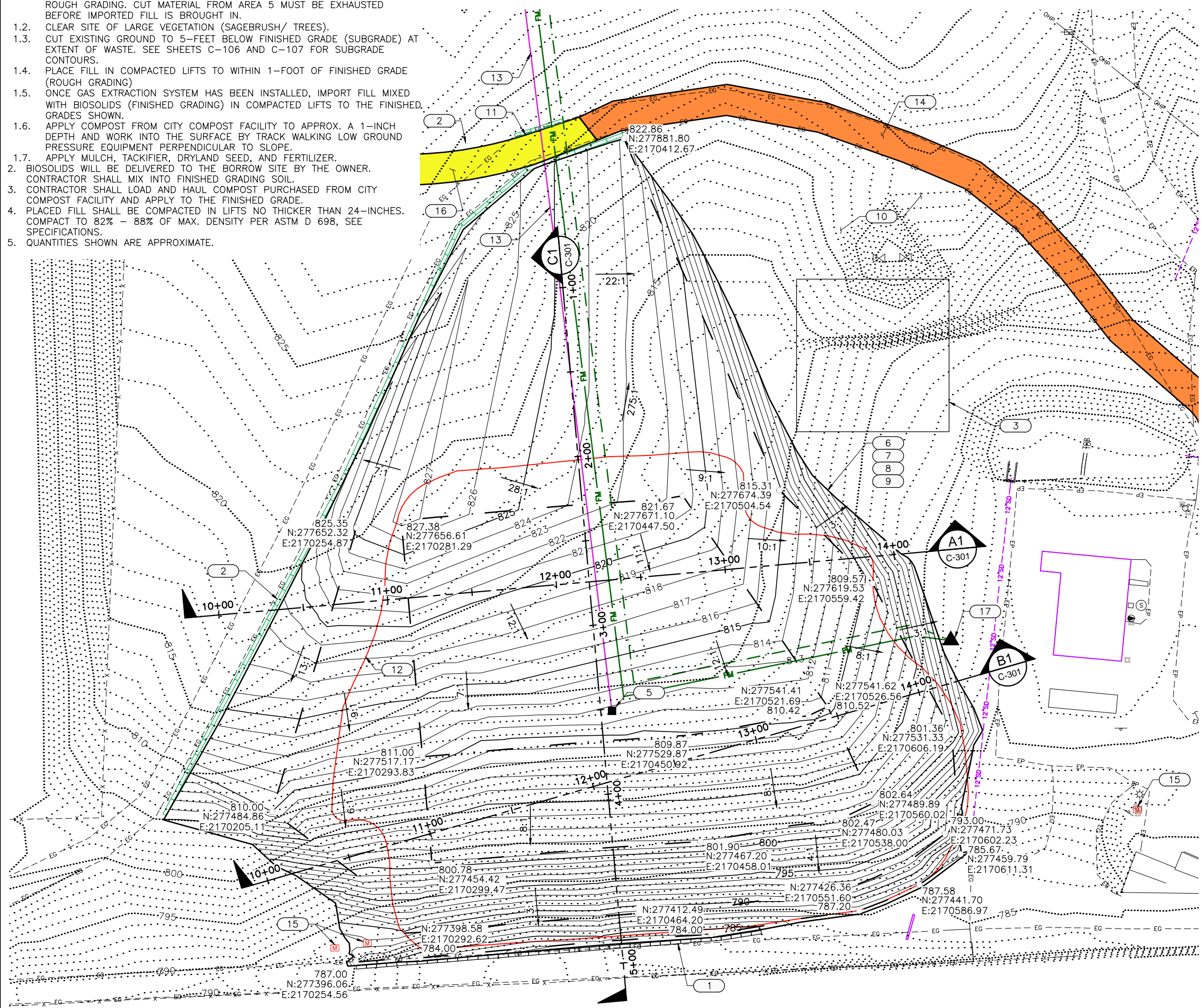
NO.	DESCRIPTION	BY	DATE

CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIAL ACTION
GRADING & DRAINAGE PLAN - AREA 2

FILE: 30-11-012.C-101
JUB PROJ. # 30-11-012
DRAWN BY: MCH
DESIGN BY: BBH
CHECKED BY: BBH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
LAST UPDATED: 1/29/2016

SHEET NUMBER:
C-101

Plot Date: 1/29/2016 3:34 PM Plotted By: Lisa Rich
 Date Created: 1/29/2016 10:00 AM Project: JUB30-11-012 - SUDBURY LANDFILL REMEDIAL SERVICES CAD SHEET 30-11-012 C-101.DWG



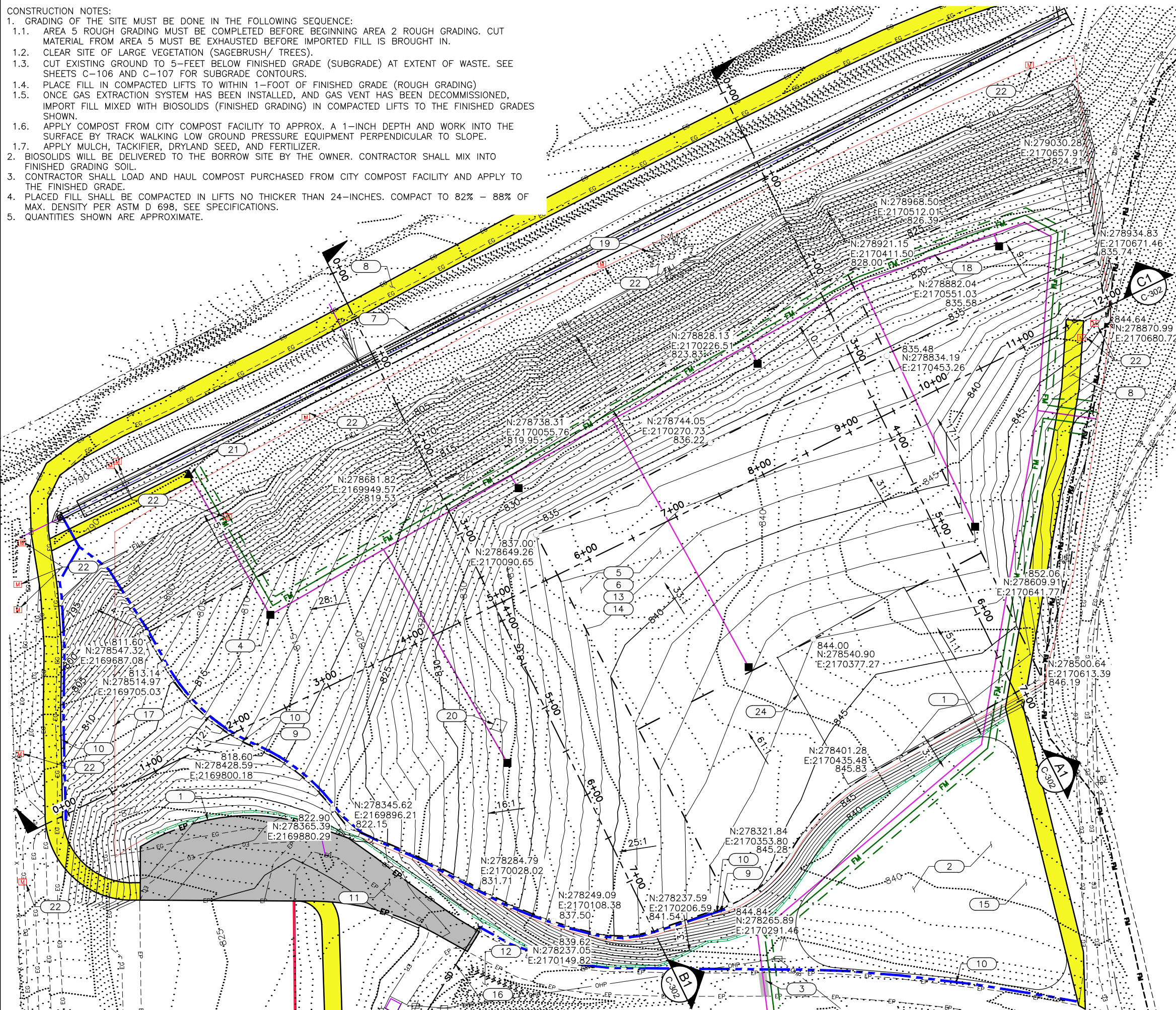
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

CONSTRUCTION NOTES:

1. GRADING OF THE SITE MUST BE DONE IN THE FOLLOWING SEQUENCE:
 - 1.1. AREA 5 ROUGH GRADING MUST BE COMPLETED BEFORE BEGINNING AREA 2 ROUGH GRADING. CUT MATERIAL FROM AREA 5 MUST BE EXHAUSTED BEFORE IMPORTED FILL IS BROUGHT IN.
 - 1.2. CLEAR SITE OF LARGE VEGETATION (SAGEBRUSH/ TREES).
 - 1.3. CUT EXISTING GROUND TO 5- FEET BELOW FINISHED GRADE (SUBGRADE) AT EXTENT OF WASTE. SEE SHEETS C-106 AND C-107 FOR SUBGRADE CONTOURS.
 - 1.4. PLACE FILL IN COMPACTED LIFTS TO WITHIN 1-FOOT OF FINISHED GRADE (ROUGH GRADING)
 - 1.5. ONCE GAS EXTRACTION SYSTEM HAS BEEN INSTALLED, AND GAS VENT HAS BEEN DECOMMISSIONED, IMPORT FILL MIXED WITH BIOSOLIDS (FINISHED GRADING) IN COMPACTED LIFTS TO THE FINISHED GRADES SHOWN.
 - 1.6. APPLY COMPOST FROM CITY COMPOST FACILITY TO APPROX. A 1-INCH DEPTH AND WORK INTO THE SURFACE BY TRACK WALKING LOW GROUND PRESSURE EQUIPMENT PERPENDICULAR TO SLOPE.
 - 1.7. APPLY MULCH, TACKIFIER, DRYLAND SEED, AND FERTILIZER.
2. BIOSOLIDS WILL BE DELIVERED TO THE BORROW SITE BY THE OWNER. CONTRACTOR SHALL MIX INTO FINISHED GRADING SOIL.
3. CONTRACTOR SHALL LOAD AND HAUL COMPOST PURCHASED FROM CITY COMPOST FACILITY AND APPLY TO THE FINISHED GRADE.
4. PLACED FILL SHALL BE COMPACTED IN LIFTS NO THICKER THAN 24-INCHES. COMPACT TO 82% - 88% OF MAX. DENSITY PER ASTM D 698, SEE SPECIFICATIONS.
5. QUANTITIES SHOWN ARE APPROXIMATE.

KEYED NOTES

- 1 FORM CONCRETE BARRIER WALL FROM EXISTING CONCRETE BARRIERS SHOWN ON SHEET V-102. 1,080± LF
- 2 STOCKPILE LOCATION FOR AREA 5
- 3 ROAD CROSSING. PATCH, SEE SHEET DETAIL C2 ON C-501.
- 4 LANDFILL GAS WELL, SEE SHEET D-101. PLACE 10'x10'x4" DEEP PAD OF CRUSHED CONCRETE. PLACE BOLLARDS AROUND WELL PER DETAIL A1 ON C-501. TYP. OF 7, THIS SHEET.
- 5 CUT/FILL TO SUBGRADE LEVEL (SEE SHEET C-107) THEN CUT/FILL TO ROUGH GRADING LEVEL.
- 6 IMPORT FINISHED GRADING APPROX. 21,860 CY± (DOES NOT INCLUDE COMPOST OR BIOSOLIDS) SEE CONSTRUCTION NOTES
- 7 NORTH DITCH IMPROVEMENTS, SEE SHEET C-201
- 8 HAUL ROAD, SEE SHEET V-102
- 9 RUNOFF CONTROL BERM 416± LF. SEE DETAIL A2 ON SHEET C-501
- 10 EROSION CONTROL DITCH 1,200± LF, SEE DETAIL B1 ON SHEET C-502
- 11 COMPOST ACCESS ROAD. SEE SHEET C-202
- 12 CONCRETE RUBBLE PILE. SEE SHEET V-102
- 13 APPLY 1-INCH THICK COMPOST OVER AREA 5. 2,070± CY
- 14 APPLY MULCH, TACKIFIER AND DRYLAND SEED TO AREA 5. 16± ACRES
- 15 APPLY MULCH, TACKIFIER, DRY LAND SEED AND FERTILIZER TO DISTURBED AREAS OUTSIDE OF AREA 5. 5± ACRES (IN VICINITY OF AREA 5)
- 16 STORM DRAIN CULVERT, SEE C-202.
- 17 APPROXIMATE EXTENTS OF AREA 5 WASTE
- 18 GAS COLLECTION SYSTEM, SEE SHEET D-101
- 19 REMOVE AND DISPOSE OF EXIST. TREE
- 20 VENT FOR DECOMMISSIONING, SEE D-101
- 21 CONDENSATE SUMP AND PUMP, SEE SHEET D-101. PLACE 10'x10'x4" DEEP PAD OF CRUSHED CONCRETE. PLACE BOLLARDS AROUND SUMP PER DETAIL A1 ON C-501.
- 22 MAINTAIN AND PROTECT EXISTING MONITORING WELLS. FINE WILL BE GIVEN IF DAMAGED. SEE SPECIFICATIONS. TYP. OF 13, THIS SHEET
- 23 NOT USED
- 24 PROPOSED 2,500 S.Y. TEST SECTION TO VERIFY MEANS AND METHODS TO MEET DENSITIES AND MOISTURE TOLERANCES OF SOIL COVER, SEE TECHNICAL SPECIFICATION 02211

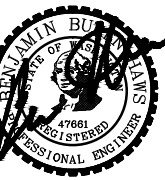


Plot Date: 1/29/2016 3:35 PM Plotted By: Lisa Rich
 Date Created: 1/29/2016 WORKFILES\PUBLIC\PROJECT\JUB30-1-012 - SUDBURY LANDFILL REMEDIAL SERVICES\CAD\SHEET30-1-012 C-102.DWG



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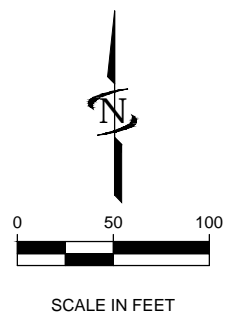
1-29-2016

NO.	DESCRIPTION	BY	DATE

CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIAL ACTION
GRADING & DRAINAGE PLAN - AREA 5

FILE: 30-11-012 C-102
JUB PROJ. #: 30-11-012
DRAWN BY: MCH
DESIGN BY: BBH
CHECKED BY: BBH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 1/29/2016

SHEET NUMBER:
C-102



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Plot Date: 1/29/2016 3:36 PM Plotted By: Lisa Rich
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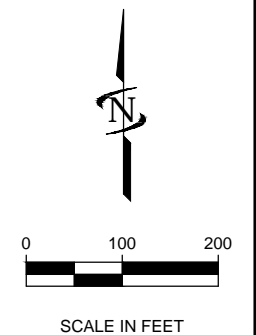


KEYED NOTES

- 1 IMPROVE HAUL ROAD, SEE SHEET V-102
- 2 LIMITS OF BORROW AREA. FOLLOW CONTOUR 827' ON SOUTH, WEST AND NORTHWEST SIDE. SURVEY BEFORE AND AFTER GRADING FOR DETERMINATION OF IMPORTED FILL QUANTITIES. SEE SPECIFICATIONS.
- 3 TEMPORARY HAUL ROUTE AS REQUIRED FOR BORROW HAUL. GRADE AS NEEDED FOR EQUIPMENT ACCESS. APPLY SEED, FERTILIZER AND MULCH TO RESTORE GROUND WHEN PROJECT IS COMPLETED. ALIGNMENT FOR HAUL ROUTE IS SHOWN SCHEMATICALLY.
- 4 STOCKPILE LOCATION FOR BORROW AREA GRUBBED MATERIAL.
- 5 CLEAR AREA WHERE BORROW AREA IS CUT. APPROX. 261,081± SF.
- 6 GRUB TOP 4-INCHES AND STOCKPILE. SEE DESIGNATED STOCKPILE LOCATION. ONCE GRADING IS COMPLETED, SPREAD GRUB MATERIAL EVENLY OVER DISTURBED BORROW AREA.
- 7 APPLY MULCH, TACKIFIER, DRY LAND SEED AND FERTILIZER TO DISTURBED AREAS.
- 8 FINAL FOOT OF SOIL COVER OVER AREA 2 AND AREA 5 SHALL BE IMPORTED FROM BORROW AREA. INCORPORATE CITY PROVIDED BIOSOLIDS INTO THE MIX, SEE CONSTRUCTION NOTES.
- 9 RETAIN AND PROTECT EXISTING FENCE AND GATE.
- 10 REMOVE EXISTING GATE DURING HAUL. REINSTALL EXISTING GATE AFTER HAUL.

CONSTRUCTION NOTES:

1. GRADE BORROW AREA IN SYSTEMATIC MANNER BASED UPON THE CONTOURS SHOWN.
2. REMOVE SOIL ONLY AS REQUIRED FOR FILL AT OTHER LOCATIONS ON THE PROJECT. IT MAY NOT BE NECESSARY TO REMOVE ALL THE SOIL REQUIRED TO ACHIEVE THE FINAL CONTOURS SHOWN.
3. GRADE BORROW AREA TO ENSURE DRAINAGE FLOWS SOUTHWEST AT THE END OF THE PROJECT.
4. COORDINATE WITH OWNER FOR THE DELIVERY OF BIOSOLIDS TO THE BORROW AREA.
5. CONTRACTOR SHALL MIX THE BIOSOLIDS EVENLY WITH SCRAPERS INTO THE SOIL IN ORDER TO ACHIEVE APPROXIMATELY 22 CY OF BIOSOLIDS PER ACRE OF FINAL SOIL COVER. THIS SUMS TO THE FOLLOWING BIOSOLID QUANTITIES:
 AREA 2 = 61 CY.
 AREA 5 = 341 CY.



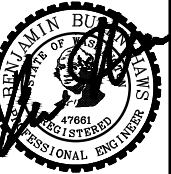
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CITY OF WALLA WALLA
 SUDBURY ROAD LANDFILL REMEDIAL ACTION

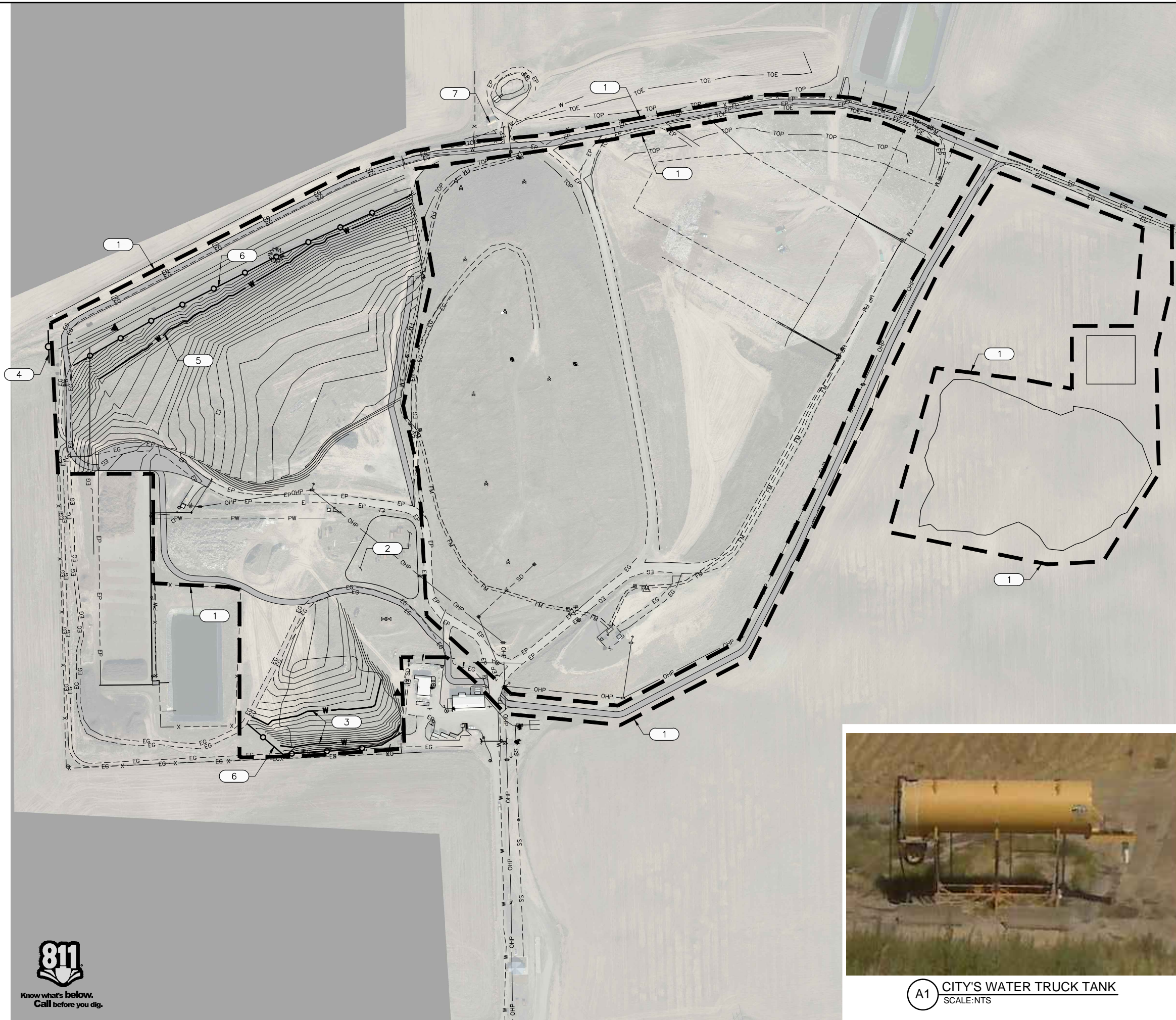
GRADING PLAN - BORROW AREA

FILE: 30-11-012 C-103
 JUB PROJ. #: 30-11-012
 DRAWN BY: MGH
 DESIGN BY: BBH
 CHECKED BY: BBH
 ONE INCH
 AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
 LAST UPDATED: 1/29/2016

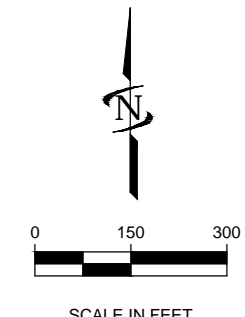
SHEET NUMBER:

C-103

Plot Date: 1/20/2016 4:31 PM Plotted By: Ben Hawes
 Date Created: 1/20/2016 10:00:00 AM Project: JUB-20-11-012 - SUDBURY LANDFILL REMEDIAL SERVICES CAD SHEET 30-11-012 C-104.DWG



A1 CITY'S WATER TRUCK TANK
 SCALE: NTS



KEYED NOTES

- 1 CONSTRUCTION LIMITS.
- 2 STAGING AREA AND LOCATION TO BE COORDINATED WITH THE CITY.
- 3 WATTLES TO BE PLACED ON 20' CONTOURS FINISHED (CONTOUR ELEVATION 790 AND 810) ON AREA 2. SEE DETAIL SHEET C-105.
- 4 SILT FENCE TO BE EXTENDED ACROSS CHANNEL. SEE DETAIL SHEET C-105.
- 5 WATTLES TO BE PLACED ON 20' CONTOURS (FINISHED CONTOUR ELEVATION 810) ON AREA 5 WITH SIDE SLOPES STEEPER THAN 6H:1V. SEE DETAIL SHEET C-105.
- 6 SILT FENCE, PER DETAIL ON C-105, 1,760 LF±
- 7 CITY'S WATER TRUCK TANK MAY BE USED BY CONTRACTOR DURING CONSTRUCTION. SEE DETAIL A1 THIS SHEET.

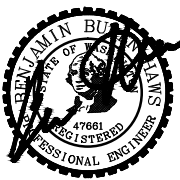
CONSTRUCTION NOTES

1. SHEETS C-104 AND C-105 ARE DRAFT TEMPORARY EROSION AND SEDIMENT CONTROL PLANS. CONTRACTOR SHALL PREPARE STORMWATER POLLUTION PREVENTION PLAN (SWPP) AND OBTAIN EPA'S CONSTRUCTION STORMWATER GENERAL PERMIT. SEE SPECIFICATION 01500.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL BY APPLYING SUFFICIENT WATER TO PREVENT FUGITIVE DUST.



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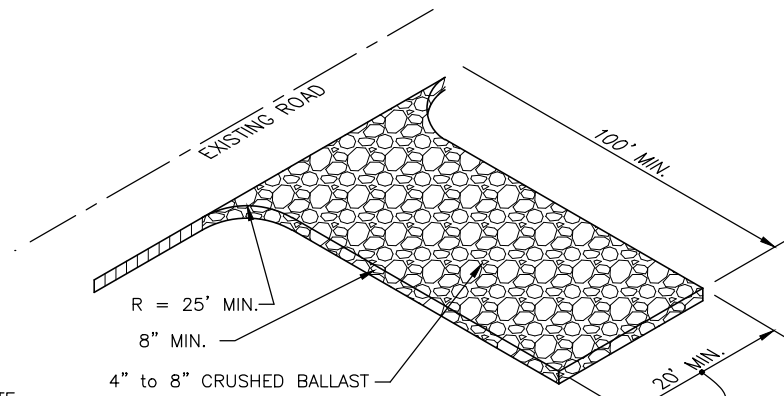
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CITY OF WALLA WALLA
 SUDBURY ROAD LANDFILL REMEDIAL ACTION
 EROSION & SEDIMENT CONTROL PLAN

FILE: 30-11-012 C-104
 JUB PROJ. #: 30-11-012
 DRAWN BY: MCH
 DESIGN BY: BBH
 CHECKED BY: BBH
 AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
 LAST UPDATED: 1/29/2016
 SHEET NUMBER:
C-104

TESC NOTES

1. THE TEMPORARY EROSION CONTROL SILT FENCING AND CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO ALL OTHER CONSTRUCTION.
2. ALL CLEARING LIMITS AND/OR EASEMENTS SETBACKS, SENSITIVE/CRITICAL AREAS AND THEIR BUFFERS, SIGNIFICANT TREES AND DRAINAGE COURSES SHALL BE CLEARLY STAKED AND MARKED AS SHOWN ON PLANS.
3. PROPERTIES ADJACENT TO THE PROJECT SITE THAT ARE SUBJECT TO POTENTIAL EROSION CAUSED BY CONSTRUCTION ACTIVITIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION THROUGH THE USE OF SILT FENCE, HAY BALES, OR OTHER BMP SELECTED BY THE CONTRACTOR.
4. ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE COVERED WITH FILTER FABRIC TO PREVENT SEDIMENT FROM ENTERING THE SYSTEM. THE FILTER FABRIC SHALL BE INSPECTED REGULARLY AND CLEANED WHEN NECESSARY.
5. WHEREVER CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED ROADS, A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED (SEE DETAIL SHEET) TO MINIMIZE THE TRANSPORT OF SEDIMENT (MUD) ONTO THE PAVED ROAD. IF SEDIMENT IS TRANSPORTED ONTO A ROAD SURFACE, THE ROADS SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. A MINIMUM OF ONE (1) ON-SITE STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED.
6. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.
7. ALL POLLUTANTS OTHER THAN SEDIMENT THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORM WATER OR THE SITE.
8. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE INSPECTED, MAINTAINED, AND REPAIRED BY THE CONTRACTOR AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED USE.
9. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ADDITIONAL EROSION CONTROL MEASURES, INCLUDING BUT NOT LIMITED TO SILT FENCING, SEDIMENT PONDS/TRAPS, DIVERSIONS SWALES, CHECK DAMS, SEDIMENT BARRIERS, FILTER FABRIC, MULCH, AND SEEDING, AS CONDITIONS REQUIRE. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER.
10. THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE AT ALL TIMES FOR PREVENTING SILT-LADEN RUNOFF FROM DISCHARGING FROM THE PROJECT SITE.
11. AT NO TIME SHALL CONCRETE, CONCRETE BY-PRODUCTS, VEHICLE FLUIDS, PAINT, CHEMICALS, OR OTHER POLLUTING MATTER BE PERMITTED TO DISCHARGE TO THE TEMPORARY OR PERMANENT DRAINAGE SYSTEM, OR TO DISCHARGE FROM THE PROJECT SITE.
12. AT ALL TIMES OF THE YEAR, THE CONTRACTOR SHALL HAVE SUFFICIENT MATERIALS, EQUIPMENT AND LABOR ON-SITE TO STABILIZE AND PREVENT EROSION FROM ALL GRUBBED AREAS WITHIN 12-HOURS AS SITE AND WEATHER CONDITIONS DICTATE.
13. CONTRACTOR SHALL PROVIDE DUST CONTROL, AS NECESSARY, TO BE COMPLIANT WITH ALL LOCAL AND STATE CLEAN AIR/DUST CONTROL POLICIES. THE SPRAYING OF WATER ON DRY AREAS SHALL BE USED TO CONTROL DUST. CONTRACTOR SHALL SUPPLY ALL THE NECESSARY WATER FOR DUST CONTROL.
14. CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE ALL ADJACENT PROPERTIES TO THEIR ORIGINAL CONDITION DUE TO ANY CONSTRUCTION RELATED ACTIVITIES AT NO ADDITIONAL COST TO THE OWNER.

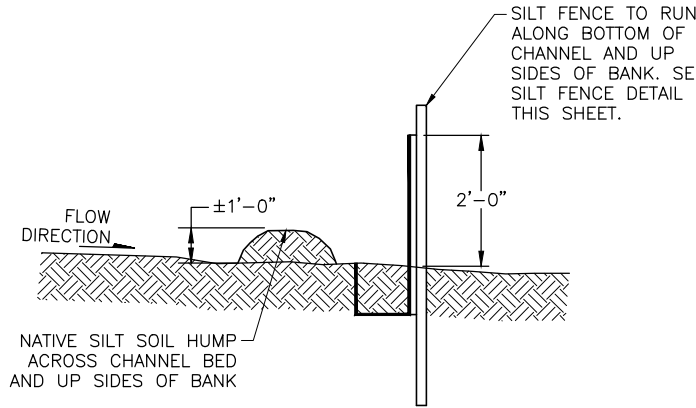


ENTRANCE NOTE:

LOCATION OF CONSTRUCTION ENTRANCE TO BE DETERMINED BY CONTRACTOR AND SHALL BE INSTALLED BEFORE START OF CONSTRUCTION.

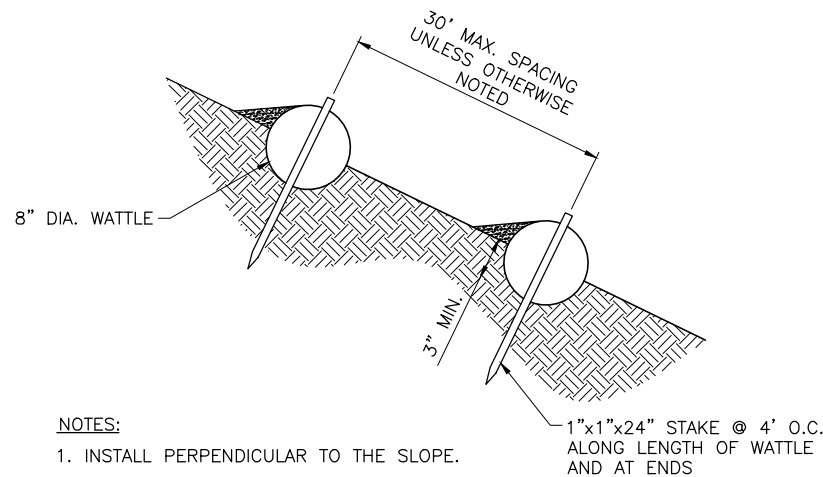
1. THE TEMPORARY CONSTRUCTION ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHOULD BE CONSTRUCTED ACCORDING TO NOTE #4 IN THIS PLAN. IF WASH RACKS ARE USED, THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURES SPECIFICATIONS.
2. GRAVEL SHALL BE CRUSHED BALLAST ROCK, 8" TO 12" IN DEPTH AND INSTALLED TO THE SPECIFIED DIMENSIONS AT THE ENTRANCE.
3. THE GRAVEL BALLAST ROCK SHALL BE 4" TO 8" IN DIAMETER AND PLACED ACROSS THE FULL WIDTH OF VEHICULAR INGRESS AND EGRESS AREA. THE LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 100 FEET.
4. IF CONDITIONS ON THE SITE ARE SUCH THAT MOST OF THE MUD IS NOT REMOVED FROM VEHICLE TIRES BY CONTACT WITH GRAVEL, THEN THE TIRES MUST BE WASHED BEFORE VEHICLES ENTER ONTO A PUBLIC ROAD. WASH WATER MUST BE CARRIED AWAY FROM ENTRANCE TO A SETTLING AREA TO REMOVE SEDIMENT. A WASH RACK MAY ALSO BE USED TO MAKE WASHING MORE CONVENIENT AND EFFECTIVE.
5. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2" STONE, AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAY OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



CHANNEL CROSSING DETAIL

N.T.S.

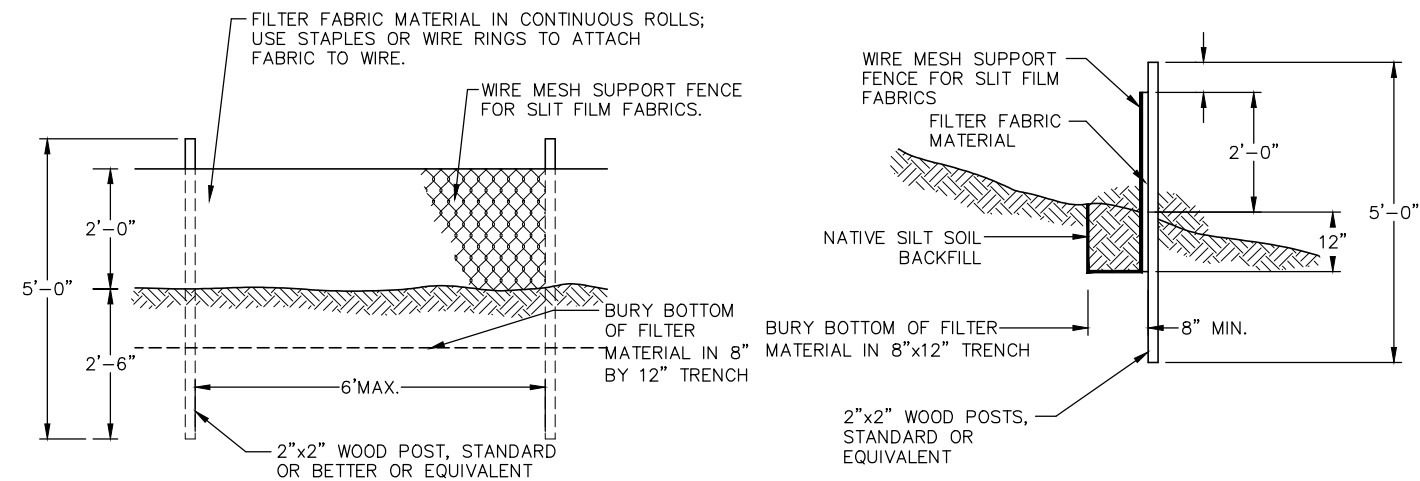


NOTES:

1. INSTALL PERPENDICULAR TO THE SLOPE.
2. WATTLES SHALL BE TRENCHED INTO THE EXISTING GROUND 3" MIN. - 4" MAX.

WATTLE DETAIL

N.T.S.



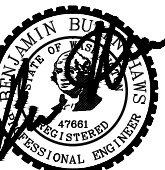
SILT FENCE DETAIL

N.T.S.



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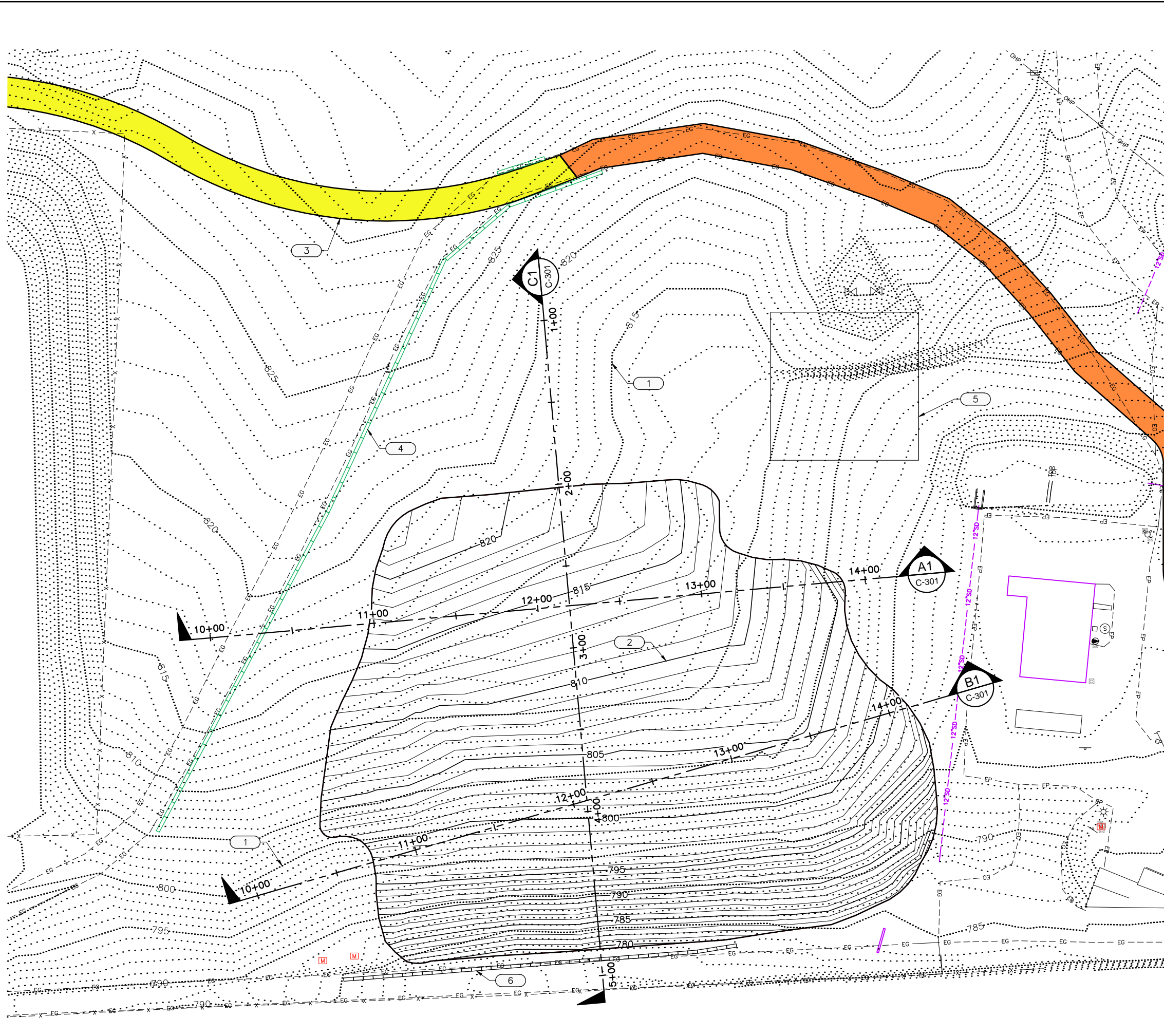
CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIAL ACTION
EROSION & SEDIMENT CONTROL PLAN

FILE: 30-11-012-C-105
JUB PROJ. #: 30-11-012
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DESIGN BY: BBH
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LAST UPDATED: 1/29/2016

SHEET NUMBER:

C-105

Plot Date: 1/29/2016 3:37 PM Plotted By: Lisa Rich
 Date Created: 1/29/2016 10:00 AM Project: JUB09-1-012 - SUDBURY LANDFILL REMEDIAL SERVICES CAD SHEET 30-11-012 C-106.DWG



KEYED NOTES

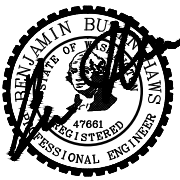
- 1 EXISTING CONTOURS.
- 2 SUBGRADE CONTOURS (5' BELOW FINISHED SURFACE).
- 3 HAUL ROAD, SEE SHEET V-102
- 4 CONCRETE BARRIER WALL, SEE SHEET C-101.
- 5 STOCKPILE LOCATION, SEE SHEET C-101.
- 6 ECOLOGY BLOCK WALL, SEE SHEET C-101.

CONSTRUCTION NOTES:

1. CONSTRUCTION SURVEYORS MAY NEED TO BE CALLED ON SITE MULTIPLE TIMES IN ORDER TO STAKE SUBGRADE AND VERIFY TO RESIDENT PROJECT REPRESENTATIVE THAT SUBGRADE HAS BEEN MET.



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CITY OF WALLA WALLA
 SUDBURY ROAD LANDFILL REMEDIAL ACTION
 SUBGRADE - AREA 2



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FILE: 30-11-012 C-106
 JUB PROJ. #: 30-11-012
 DRAWN BY: MCH
 DESIGN BY: BBH
 CHECKED BY: BBH
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SHEET NUMBER:
C-106

Plot Date: 1/29/2016 5:38 PM Plotted By: Lisa Rich
 Date Created: 1/29/2016 \\WORKFILES\PUBLIC\PROJECT\JUB09-1-012 - SUDBURY LANDFILL REMEDIAL SERVICES\CAD\SHETS\09-1-012 C-107.DWG

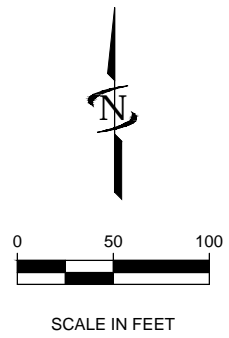


KEYED NOTES

- 1 EXISTING CONTOURS.
- 2 SUBGRADE CONTOUR (5' BELOW FINISHED SURFACE).
- 3 HAUL ROAD, SEE SHEET V-102.
- 4 STOCKPILE LOCATION, SEE SHEET C-101.
- 5 DECOMMISSION WELL, SEE SHEET D-101.
- 6 COMPOST ACCESS ROAD, SEE SHEET C-202.
- 7 SUMP ACCESS ROAD. SEE SHEET V-102.
- 8 AREA 5 ACCESS ROAD, SEE SHEET V-102.

CONSTRUCTION NOTES:

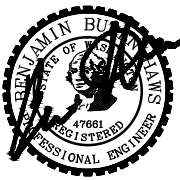
- 1. CONSTRUCTION SURVEYORS MAY NEED TO BE CALLED ONSITE MULTIPLE TIMES IN ORDER TO STAKE SUBGRADE AND VERIFY TO RESIDENT PROJECT REPRESENTATIVE THAT SUBGRADE HAS BEEN MET.



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



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CITY OF WALLA WALLA
 SUDBURY ROAD LANDFILL REMEDIAL ACTION
 SUBGRADE - AREA 5

FILE: 09-11-012_C-107
 JUB PROJ. #: 09-11-012
 DRAWN BY: MCH
 DESIGN BY: BBH
 CHECKED BY: BBH
 AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
 LAST UPDATED: 1/29/2016

SHEET NUMBER:
C-107



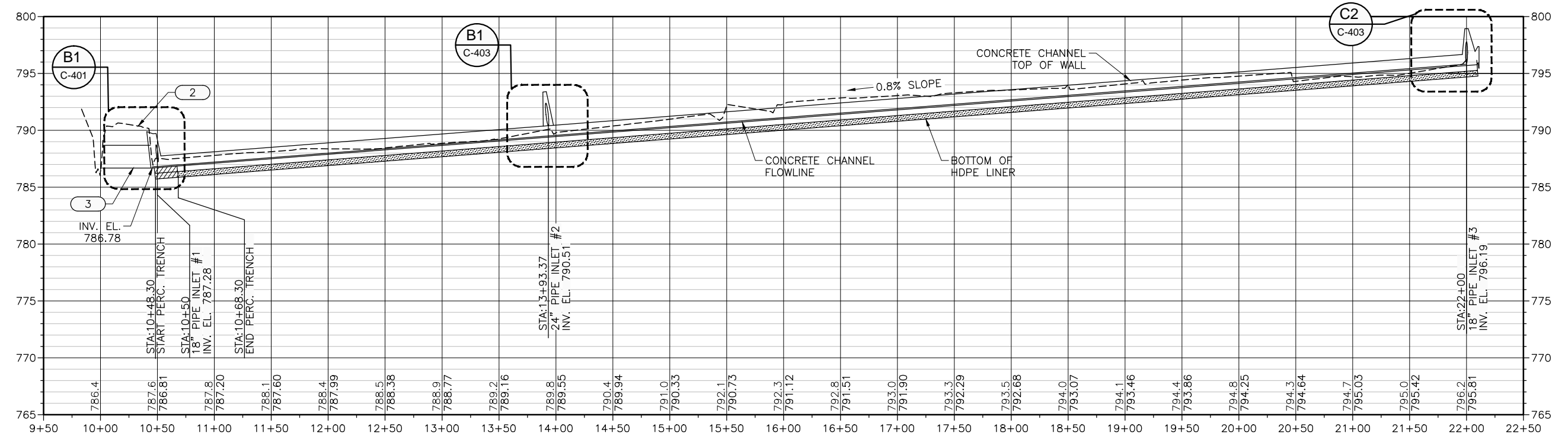
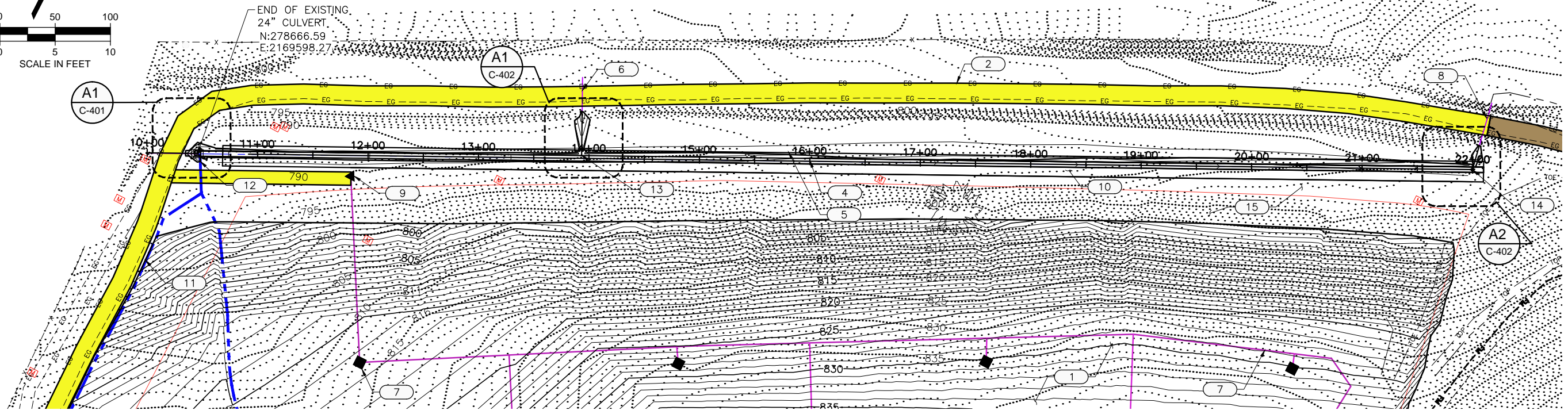
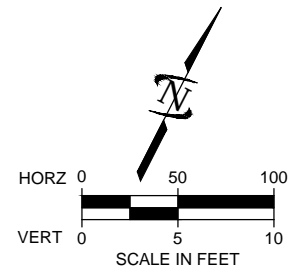
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CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIAL ACTION
NORTH DITCH - PLAN & PROFILE

FILE: 30-11-012_C-201
JUB PROJ. # 30-11-012
DRAWN BY: MCH
DESIGN BY: BBH
CHECKED BY: BBH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
LAST UPDATED: 1/29/2016

SHEET NUMBER:
C-201



KEYED NOTES

- 1 AREA 5 GRADING, SEE SHEET C-102
- 2 HAUL ROAD, SEE SHEET V-102
- 3 RETAIN AND PROTECT EXIST. 24" CMP PIPE
- 4 REMOVE AND DISPOSE OF EXIST. PYRAMAT MAT. APPROX. 18' WIDE x 1180± LF
- 5 CONSTRUCT CONCRETE CHANNEL PER DETAIL C1 ON SHEET C-402 (STA. 10+68 TO STA. 22+00)
- 6 EXIST. 24"Ø CULVERT, INV. OUT. 793.72 (INLET #2)
- 7 GAS COLLECTION SYSTEM, SEE D-101
- 8 EXIST. 18"Ø CULVERT, INV. IN: 797.07, INV. OUT: 796.38 (INLET #3)
- 9 CONDENSATE SUMP, SEE D-502
- 10 IMPORT FILL IN COMPACTED LIFTS (98% COMPACTION) FROM TOP OF CONCRETE CHANNEL WALL TO EXISTING GROUND.
- 11 EROSION CONTROL DITCH, SEE SHEET C-102.
- 12 NORTH DITCH INLET #1. SEE C-401.
- 13 NORTH DITCH INLET #2. SEE C-402.
- 14 NORTH DITCH INLET #3. SEE C-402.
- 15 RESTORE DISTURBED AREAS WITH MULCH, FERTILIZER, TACKIFIER AND DRYLAND SEED

Plot Date: 1/29/2016 5:38 PM Plotted By: Lisa Rich
 Date Created: 1/29/2016 10:00 AM Project: SUDBURY LANDFILL REMEDIAL SERVICES CAD SHEET 30-11-012 C-201.DWG

NO.	DESCRIPTION	BY	DATE

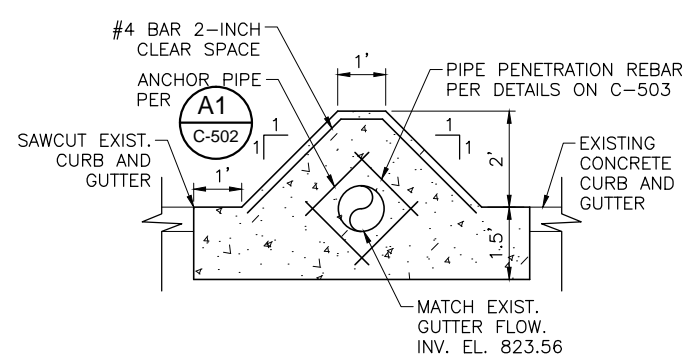
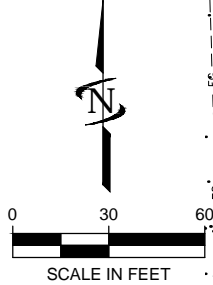
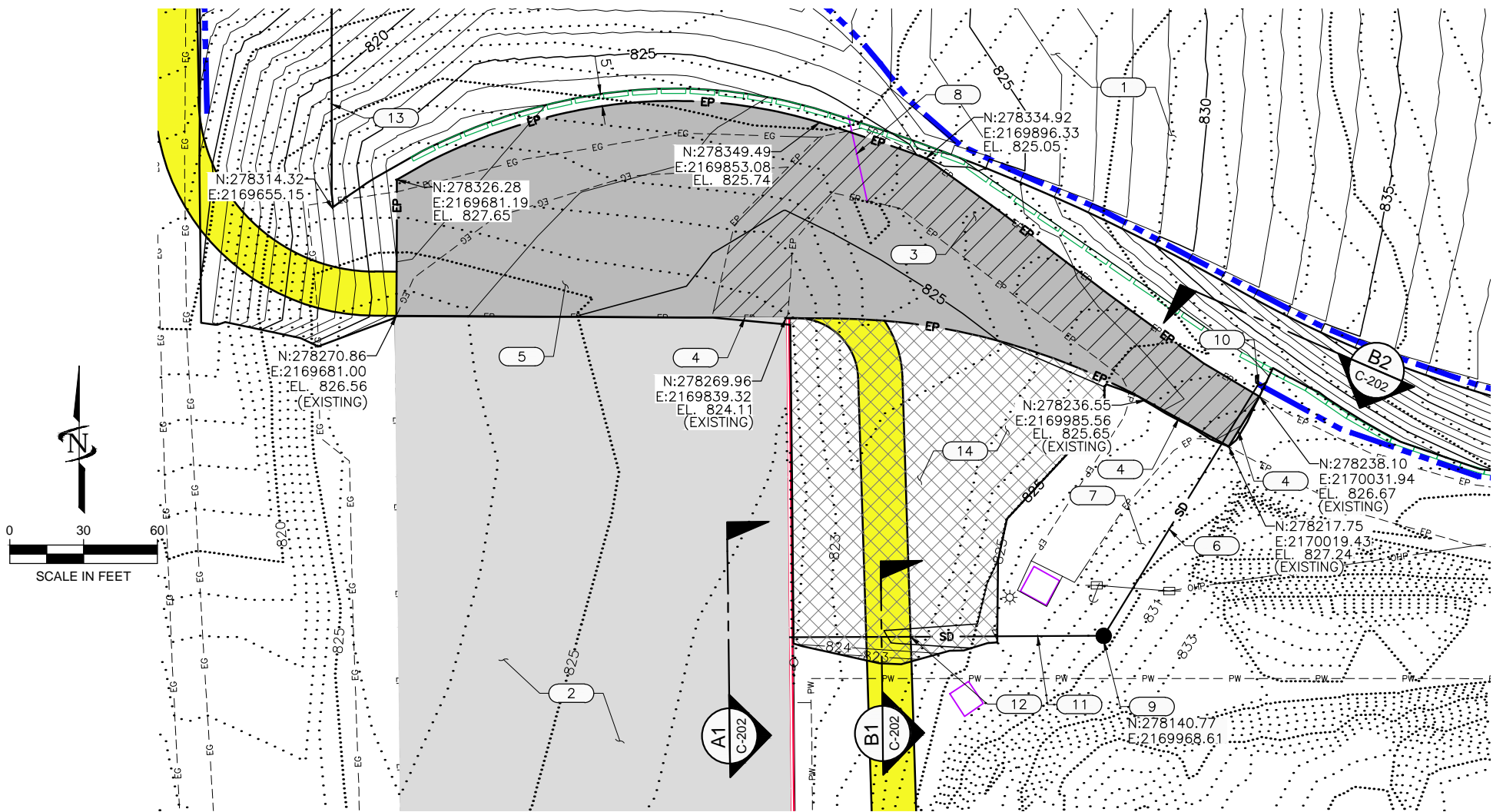
CITY OF WALLA WALLA
 SUDBURY ROAD LANDFILL REMEDIAL ACTION
 COMPOST ACCESS ROAD - PLAN & PROFILE

FILE: 30-11-012_C-202
 JUB PROJ. #: 30-11-012
 DRAWN BY: MCH
 DESIGN BY: BBH
 CHECKED BY: BBH

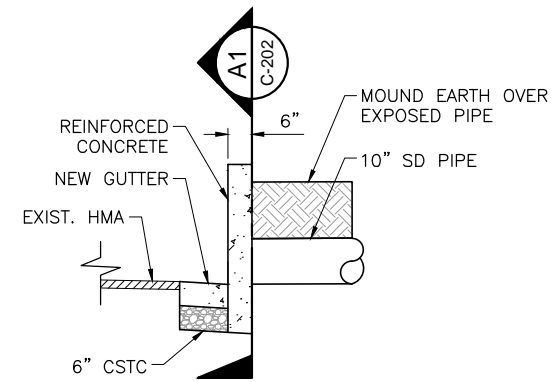
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
 LAST UPDATED: 1/29/2016
 SHEET NUMBER:
C-202

KEYED NOTES

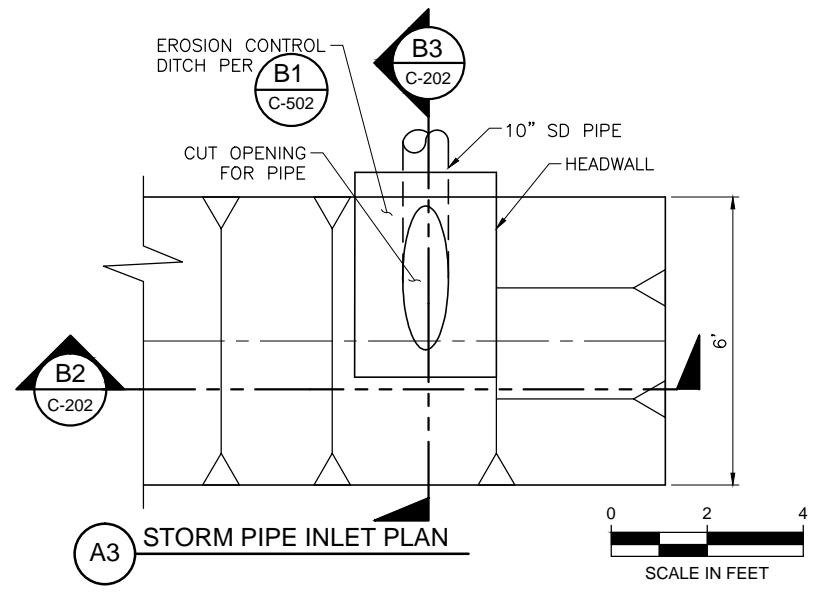
- 1 AREA 5, SEE SHEET C-102.
- 2 EXIST. COMPOST ASPHALT PAD. RETAIN AND PROTECT.
- 3 REMOVE AND DISPOSE OF EXIST. HMA ROADWAY BEING REPLACED BY NEW HMA ROADWAY, 6,710 SF±.
- 4 SAW-CUT EDGE, APPLY TACK COAT, MATCH GRADE TO EXIST. PAVEMENT.
- 5 HMA PAVEMENT, SEE DETAIL B3 ON SHEET C-501, 22,336± SF. SLOPE AT 2% TOWARDS COMPOST FACILITY.
- 6 INSTALL 10 IN. HDPE STORM PIPE. 63 LF± @ 0.50% SLOPE
- 7 RESTORE ALL DISTURBED AREAS WITH SEED, FERTILIZE, MULCH.
- 8 REMOVE AND DISPOSE OF EXIST. 10 IN. CULVERT.
- 9 48"Ø WSDOT TYPE 3 MANHOLE WITH SOLID LID PER WSDOT STD. PLAN B-15.60. RIM: 829.62± INV. IN: 824.57, 10" (N) INV. OUT: 824.55, 10" (W)
- 10 STORM PIPE INLET. SEE DETAILS A3 AND B2, THIS SHEET.
- 11 INSTALL 10" HDPE STORM PIPE. 128 LF± @ 0.50% SLOPE.
- 12 PROVIDE 1' OF SOIL COVER OVER STORM PIPE. AT ROADWAY CROSSING PROVIDE 2' OF COVER OVER PIPE BY COMPACTING 1' THICK CRUSHED CONCRETE. SEE DETAIL B1, THIS SHEET.
- 13 LIMITS OF AREA 5
- 14 PLACE IMPORTED FILL BETWEEN NEW ASPHALT AND EXISTING COMPOST PAD. GRADE FLAT FROM TOP OF CURB TO ELEVATION 825'. APPROXIMATELY 890 CY± FILL. APPLY FERTILIZER, TACKIFIER, AND DRYLAND SEED



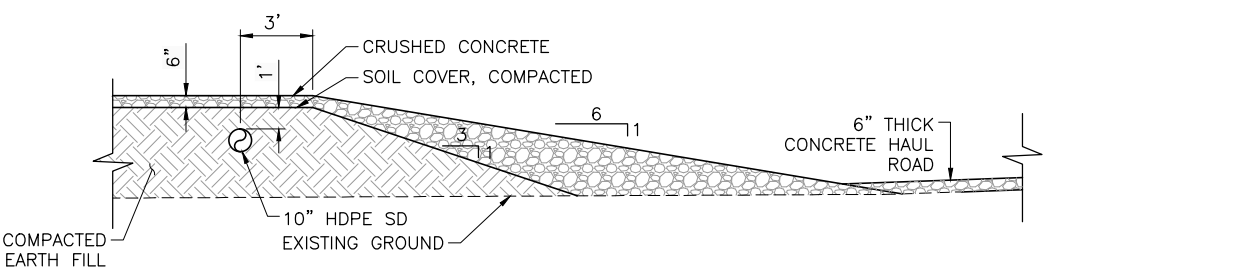
A1 COMPOST PAD CONNECTION DETAIL
 SCALE: 1" = 2'



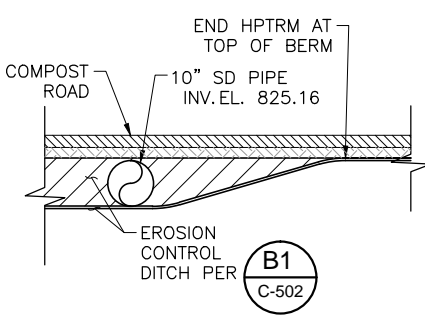
A2 COMPOST PAD CONNECTION DETAIL
 SCALE: 1" = 2'



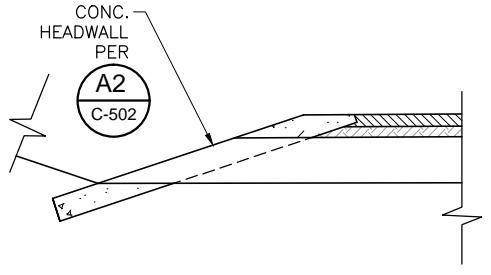
B2 STORM PIPE INLET PLAN
 SCALE IN FEET



B1 HAUL ROAD CROSSING DETAIL
 SCALE: 1" = 4'



B2 DITCH SECTION
 SCALE: 1" = 2'



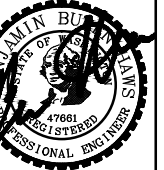
B3 STORM PIPE INLET SECTION
 SCALE: 1" = 2'

Plot Date: 1/29/2016 5:40 PM Plotted By: Lisa Rich Date Created: 1/29/2016 WORKFILES\PUBLIC\PROJECT\JUB30-1-012 - SUDBURY LANDFILL REMEDIAL SERVICES\CAD\SHEET30-1-012_C-202.DWG



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1-29-2016

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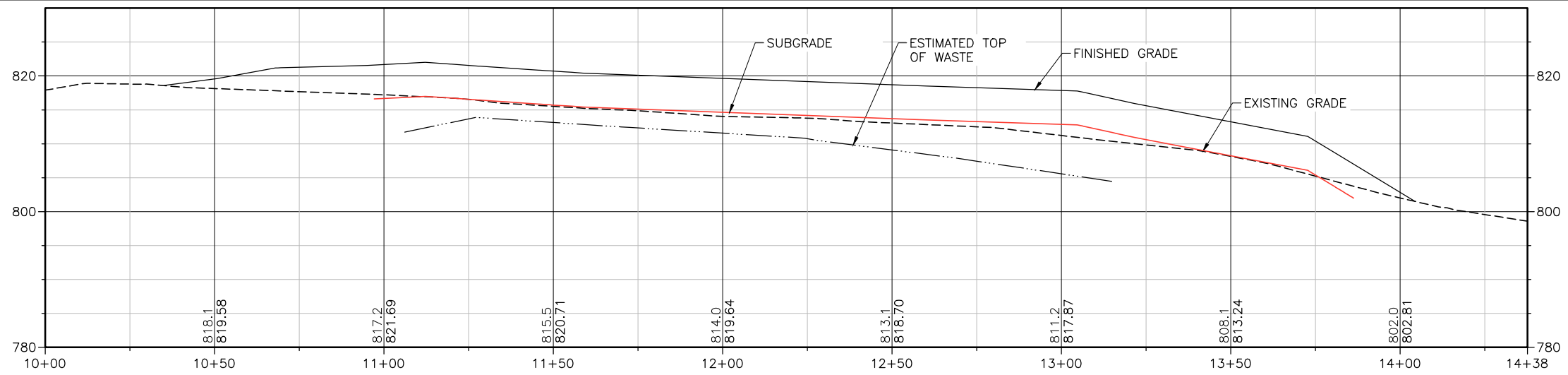
CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIAL ACTION
AREA 2 PROFILES

FILE: 30-11-012-C-301
JUB PROJ. #: 30-11-012
DRAWN BY: MGH
DESIGN BY: BBH
CHECKED BY: BBH

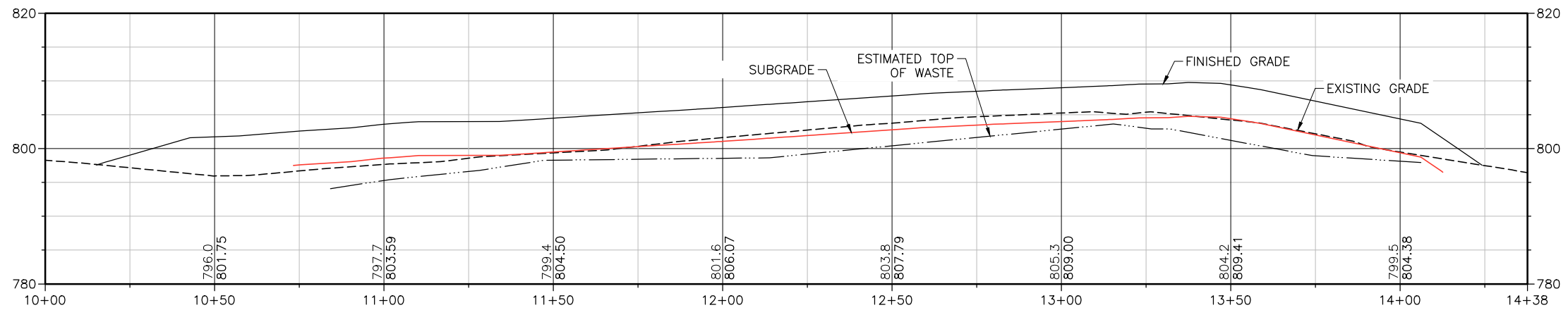
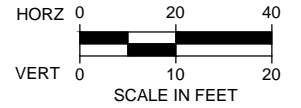
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
LAST UPDATED: 1/29/2016

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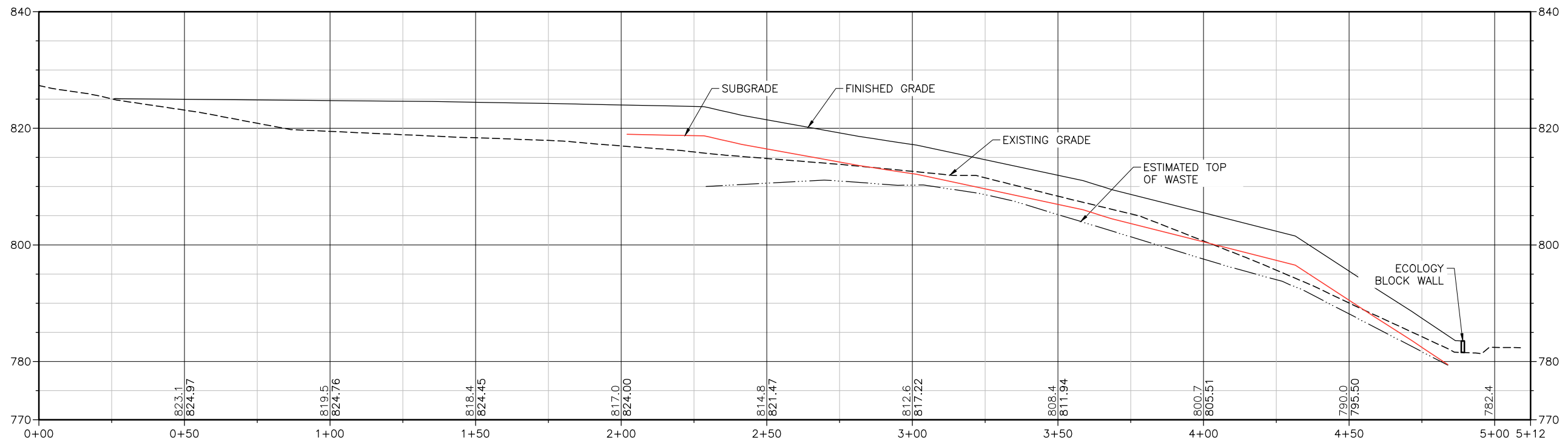
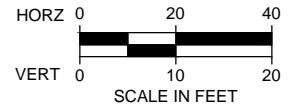
C-301



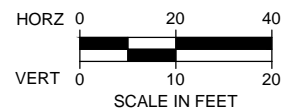
A1 EAST-WEST PROFILE (SEE SHEET C-101)



B1 EAST-WEST PROFILE (SEE SHEET C-101)



C1 NORTH-SOUTH PROFILE (SEE SHEET C-101)

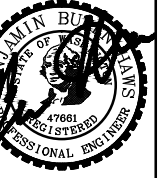


Plot Date: 1/29/2016 5:41 PM Plotted By: Lisa Rich Date Created: 1/29/2016 \\WORKFILES\PUBLIC\PROJECT\JUB30-11-012 - SUDBURY LANDFILL REMEDIAL SERVICES\CAD\SHEET\30-11-012-C-301.DWG



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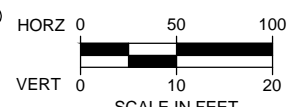
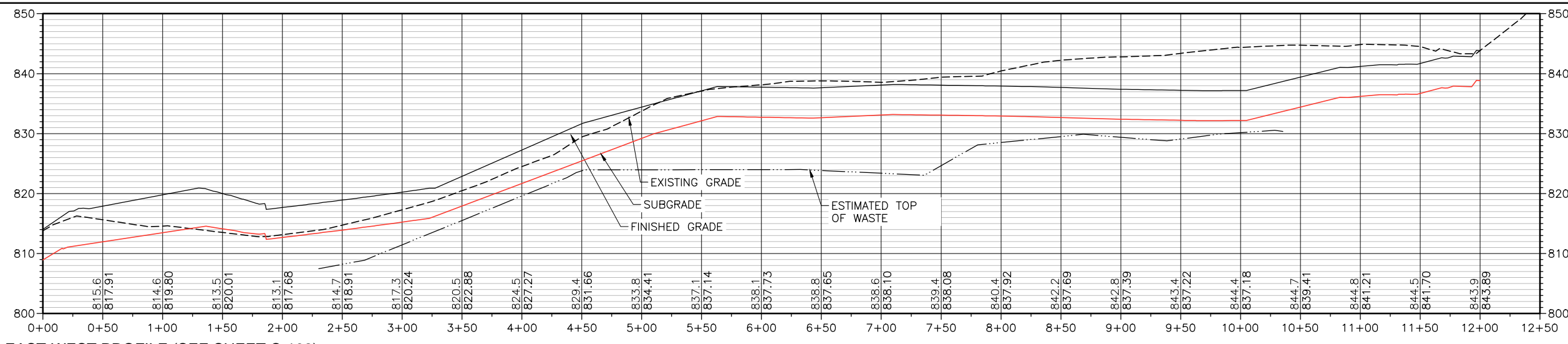
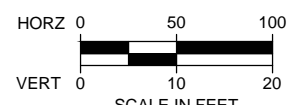
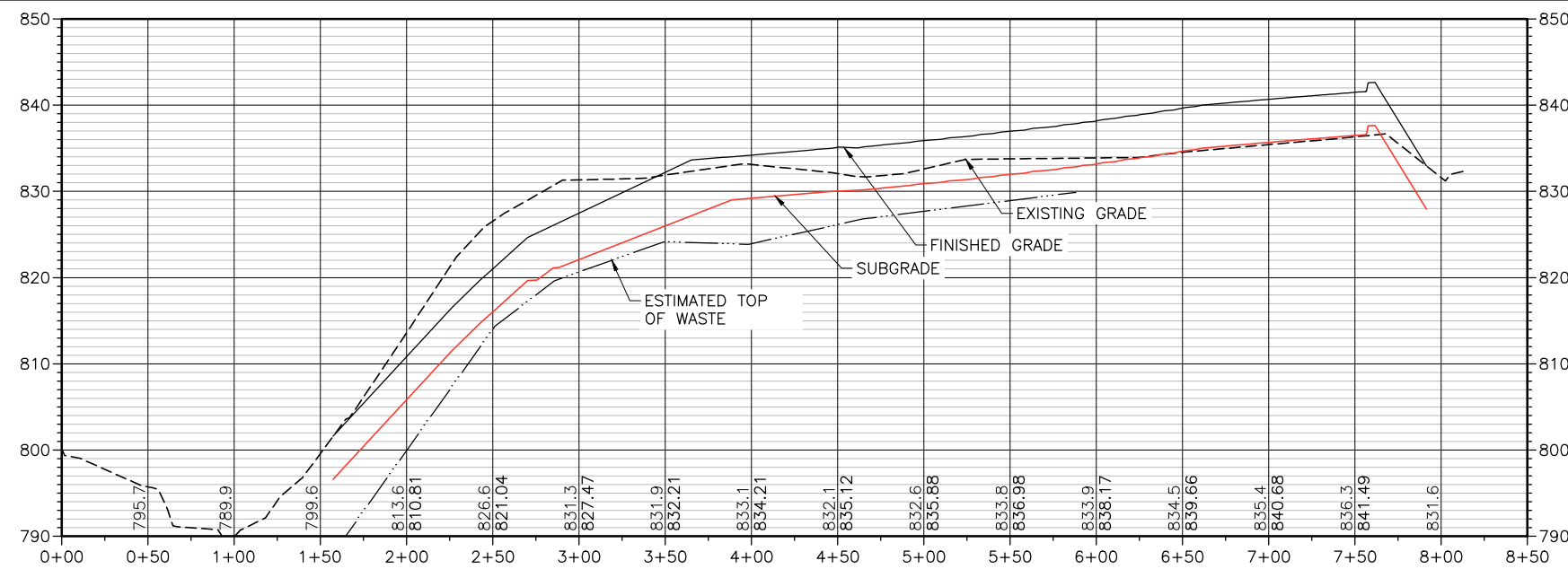
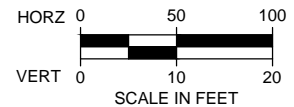
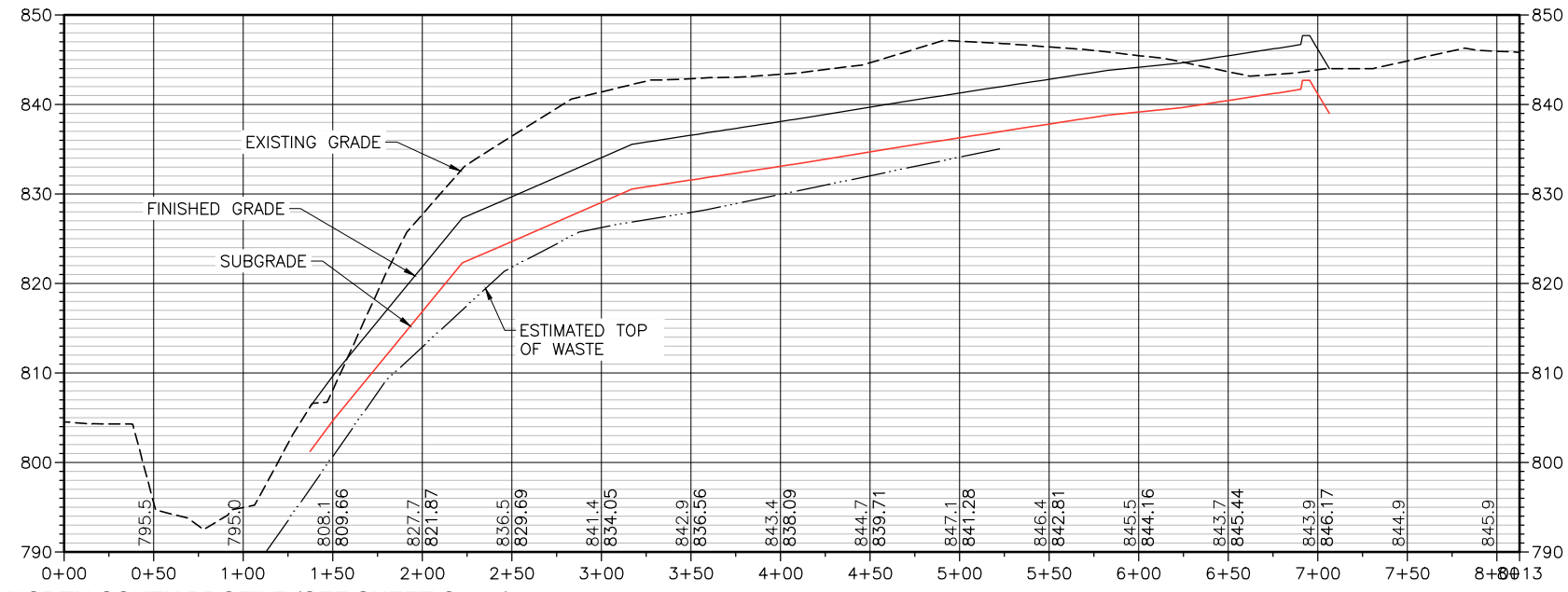
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1-29-2016

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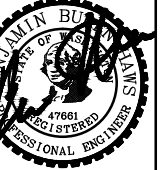
CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIAL ACTION
AREA 5 PROFILES

FILE: 30-11-012-C-302
JUB PROJ. #: 30-11-012
DRAWN BY: MGH
DESIGN BY: BBH
CHECKED BY: BBH

ONE INCH
AT FULL SIZE, IF NOT ONE
INCH SCALE ACCORDINGLY
LAST UPDATED: 1/29/2016

SHEET NUMBER:
C-302

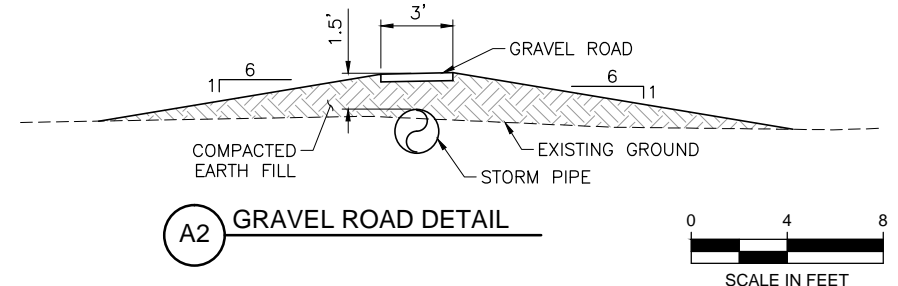
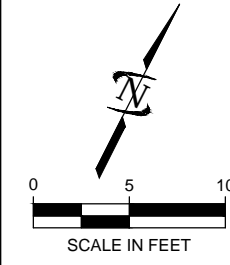
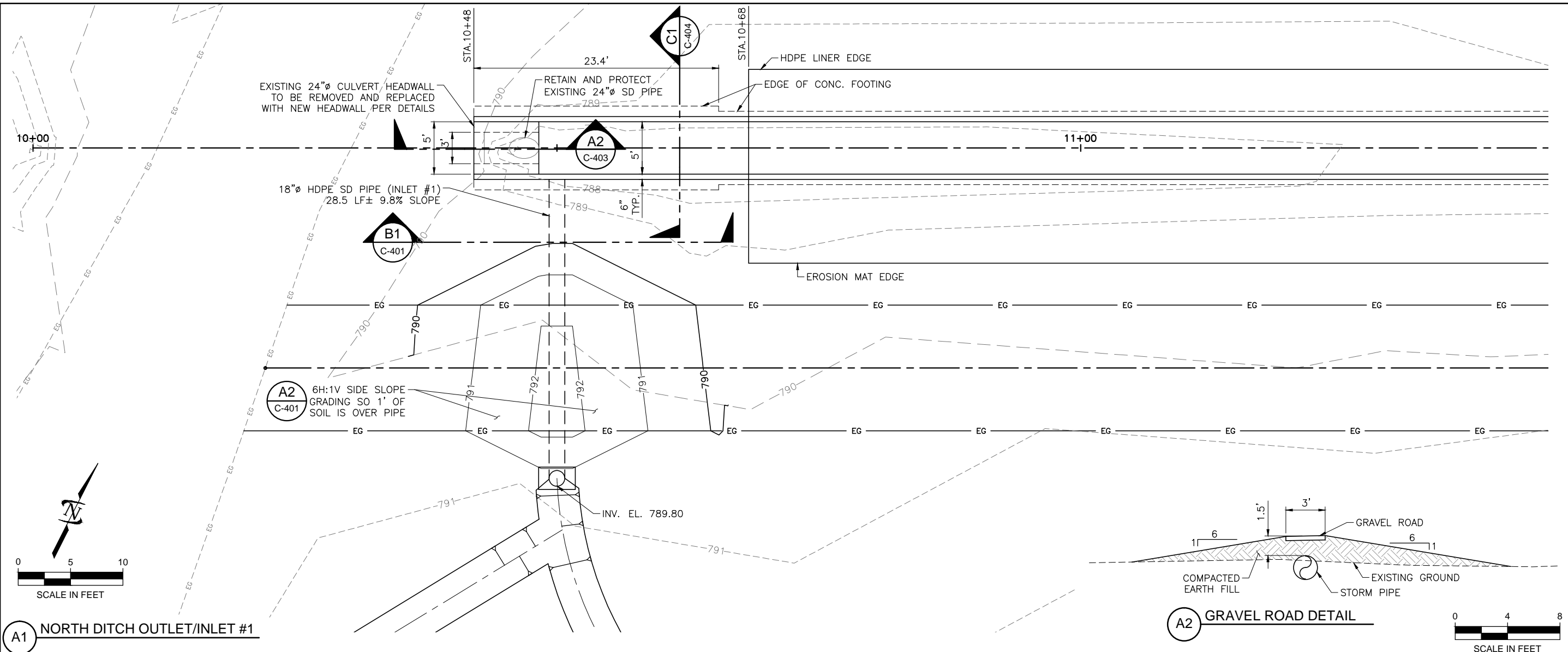
Plot Date: 1/29/2016 5:42 PM Plotted By: Lisa Rich
Date Created: 1/29/2016 WORKFILES\PUBLIC\PROJECT\JUB30-1-012 - SUDBURY LANDFILL REMEDIAL SERVICES\CAD\SHEET30-1-012-C-302.DWG



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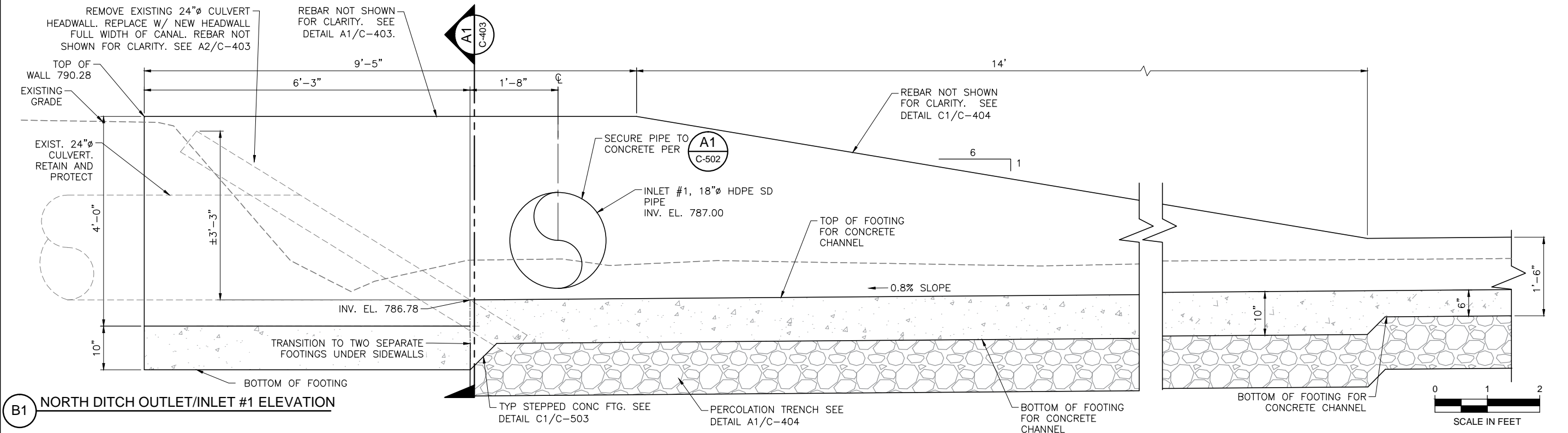
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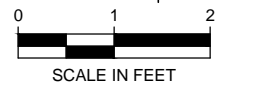


A1 NORTH DITCH OUTLET/INLET #1

A2 GRAVEL ROAD DETAIL



B1 NORTH DITCH OUTLET/INLET #1 ELEVATION



CITY OF WALLA WALLA
 SUDBURY ROAD LANDFILL REMEDIAL ACTION
 NORTH DITCH DETAILS

FILE:	30-11-012-C-401
JUB PROJ. #:	30-11-012
DRAWN BY:	MCH
DESIGN BY:	BBH
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SCALE:	ONE INCH = AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
LAST UPDATED:	1/29/2016

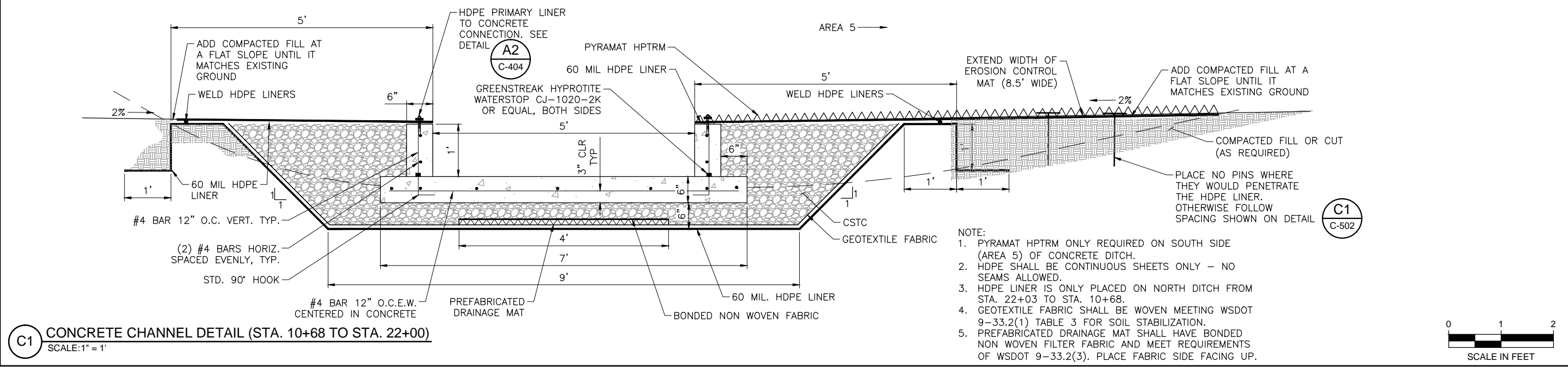
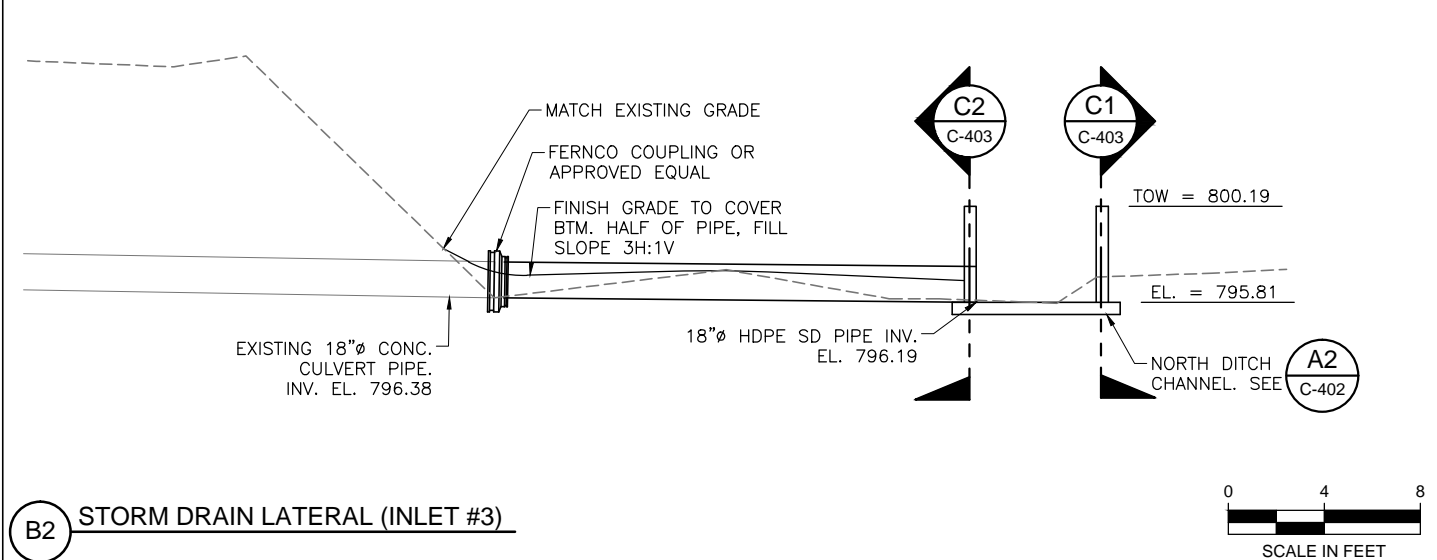
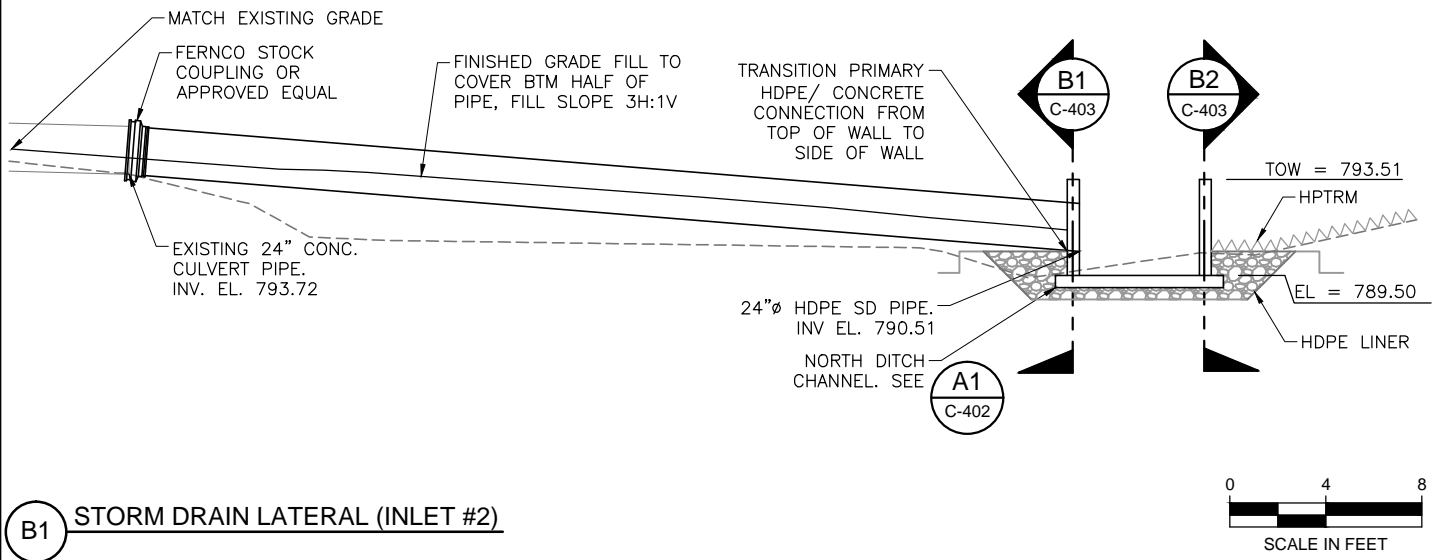
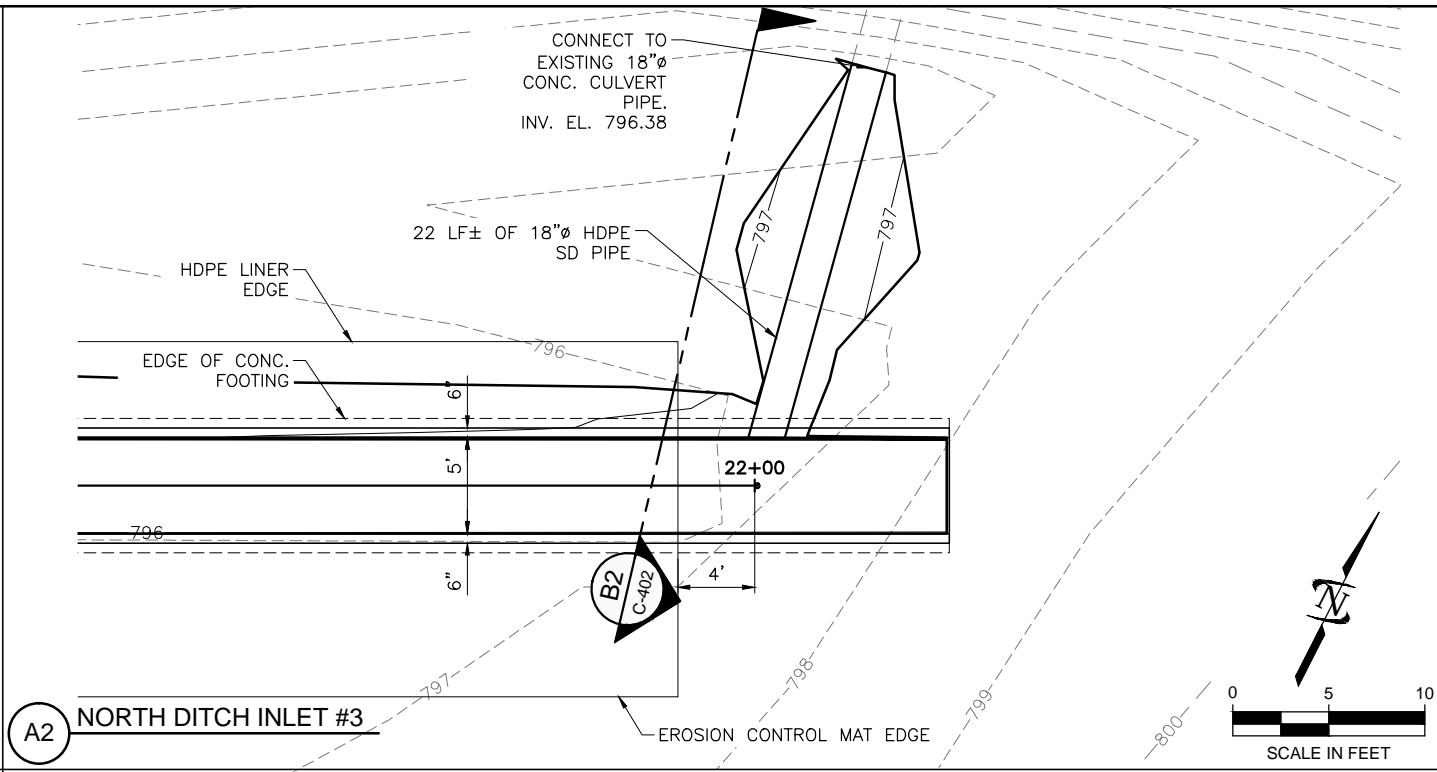
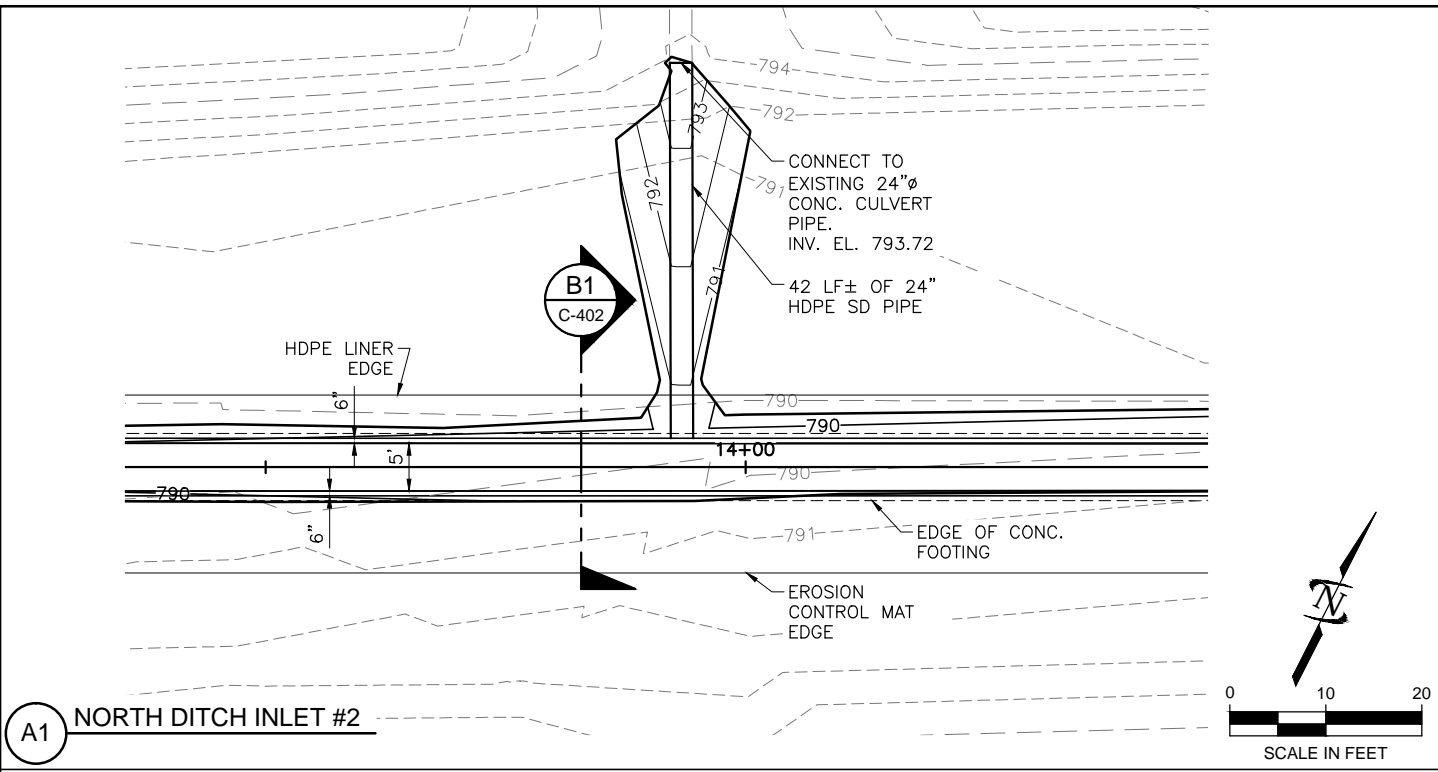
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NO.	DESCRIPTION	BY	DATE

CITY OF WALLA WALLA
 SUDBURY ROAD LANDFILL REMEDIAL ACTION
 NORTH DITCH DETAILS

FILE: 30-11-012_C-402
JUB PROJ. # 30-11-012
DRAWN BY: MCH
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LAST UPDATED: 1/29/2016



Plot Date: 1/29/2016 5:42 PM Plotted By: Lisa Rich
 Date Created: 1/29/2016 10:05 AM Project: SUDBURY LANDFILL REMEDIAL SERVICES CAD SHEET 30-11-012_C-402.DWG

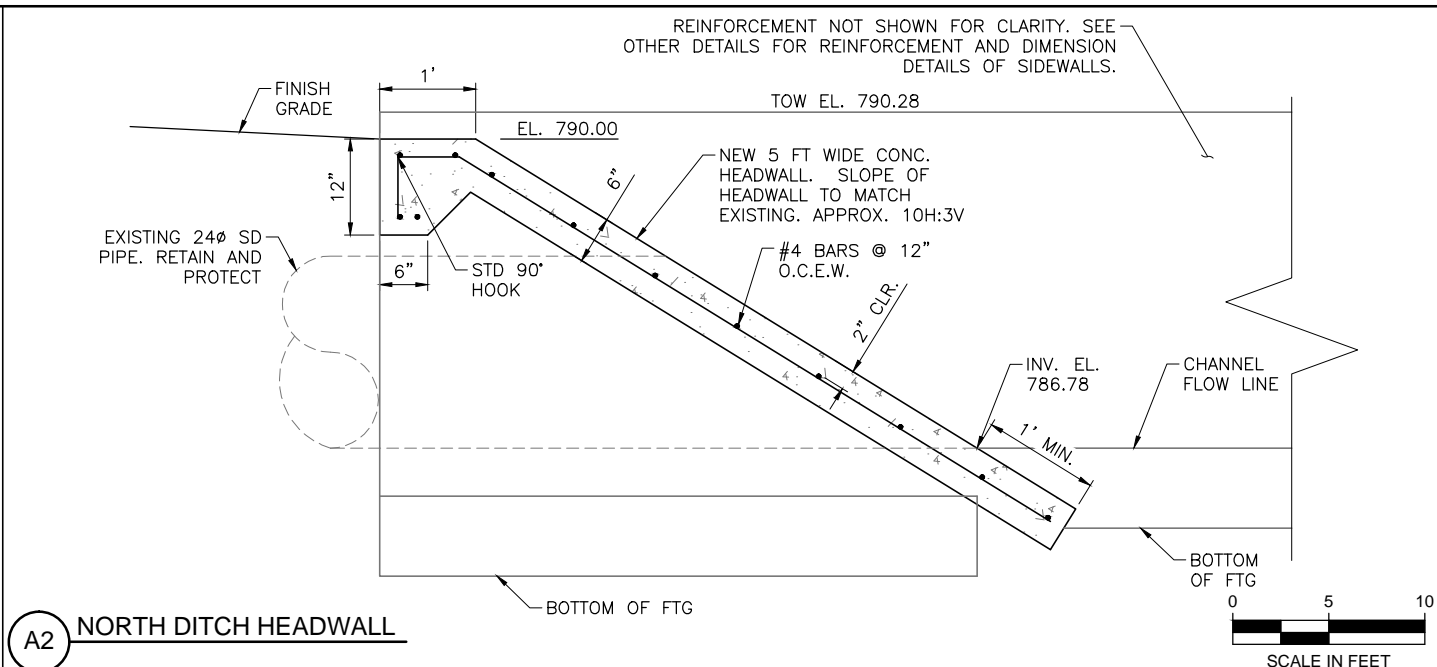
NO.	REVISION	DESCRIPTION	BY	DATE

CITY OF WALLA WALLA
 SUDBURY ROAD LANDFILL REMEDIAL ACTION
 NORTH DITCH DETAILS

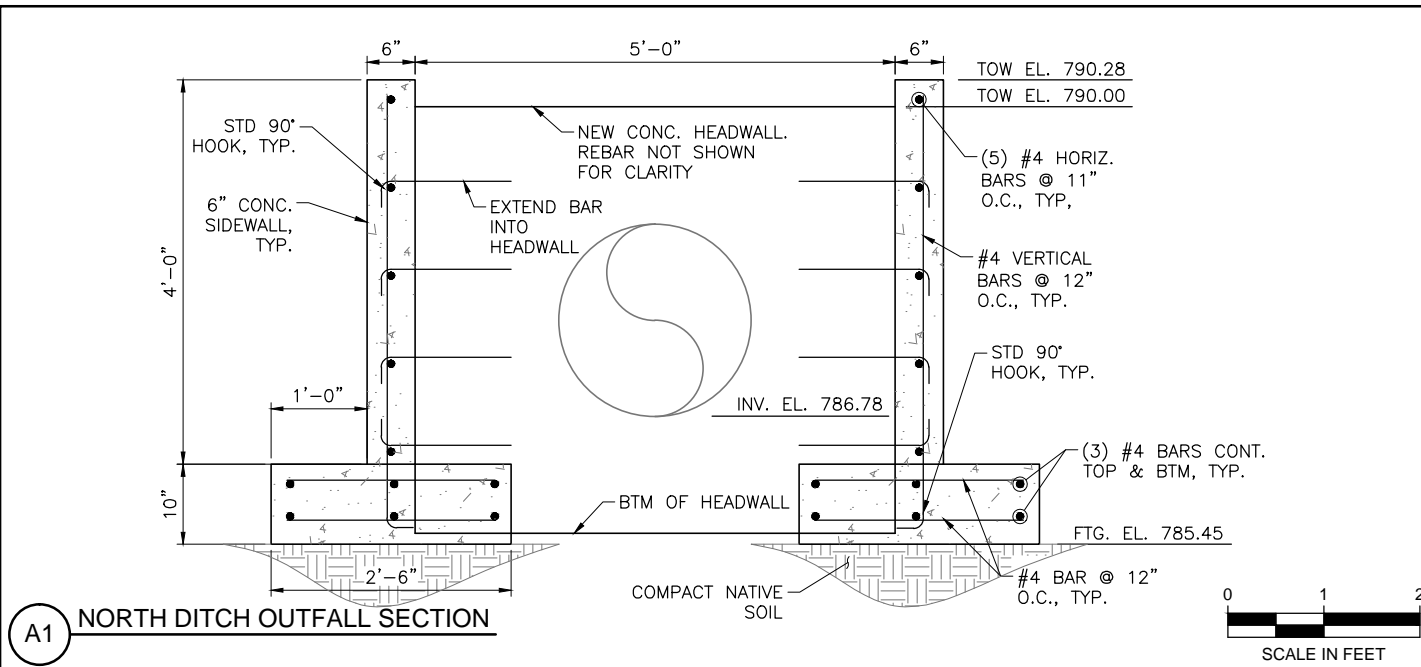
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JUB PROJ. # 30-11-012
DRAWN BY: MCH
DESIGN BY: BBH
CHECKED BY: BBH
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LAST UPDATED: 1/29/2016

SHEET NUMBER:

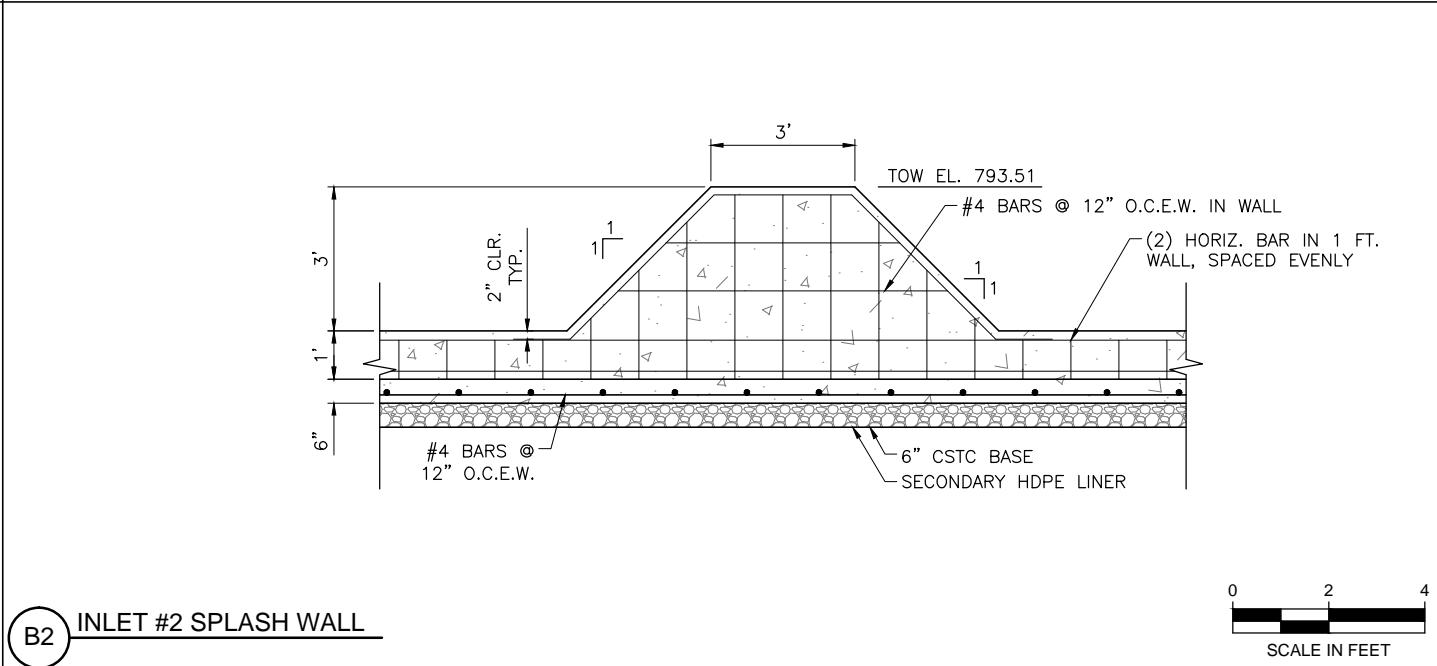
C-403



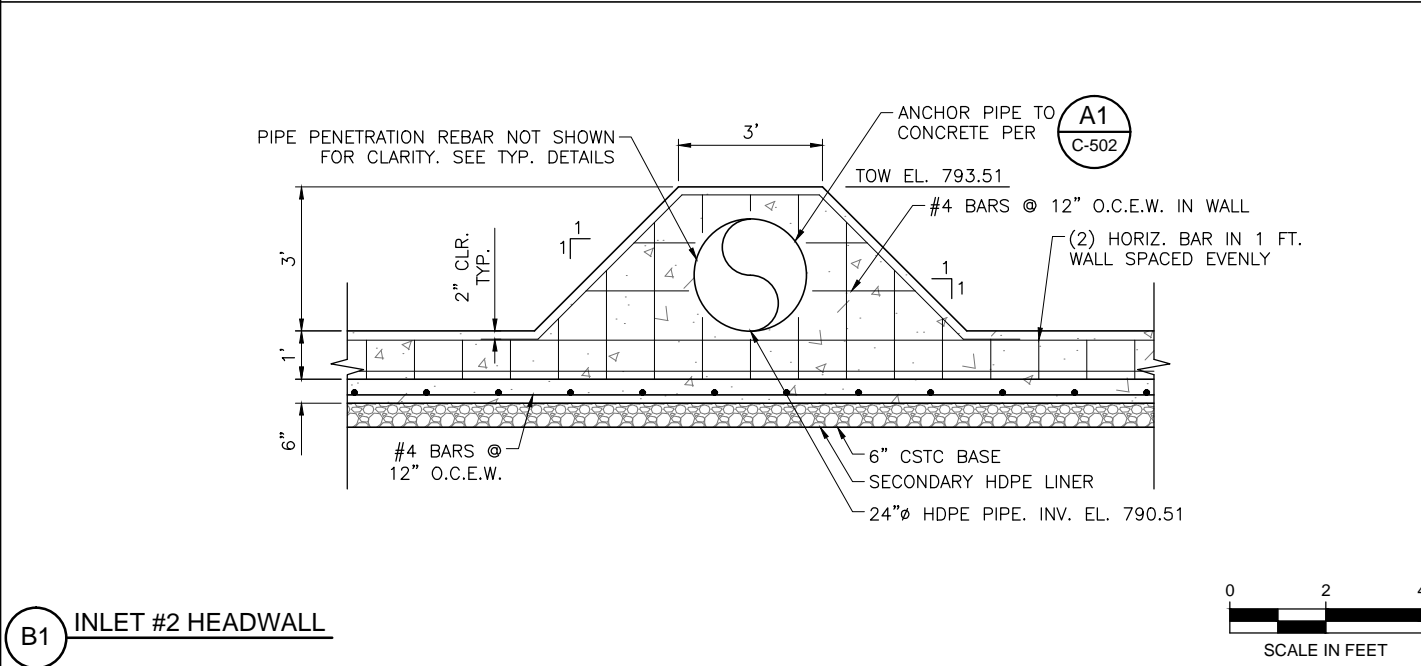
A2 NORTH DITCH HEADWALL



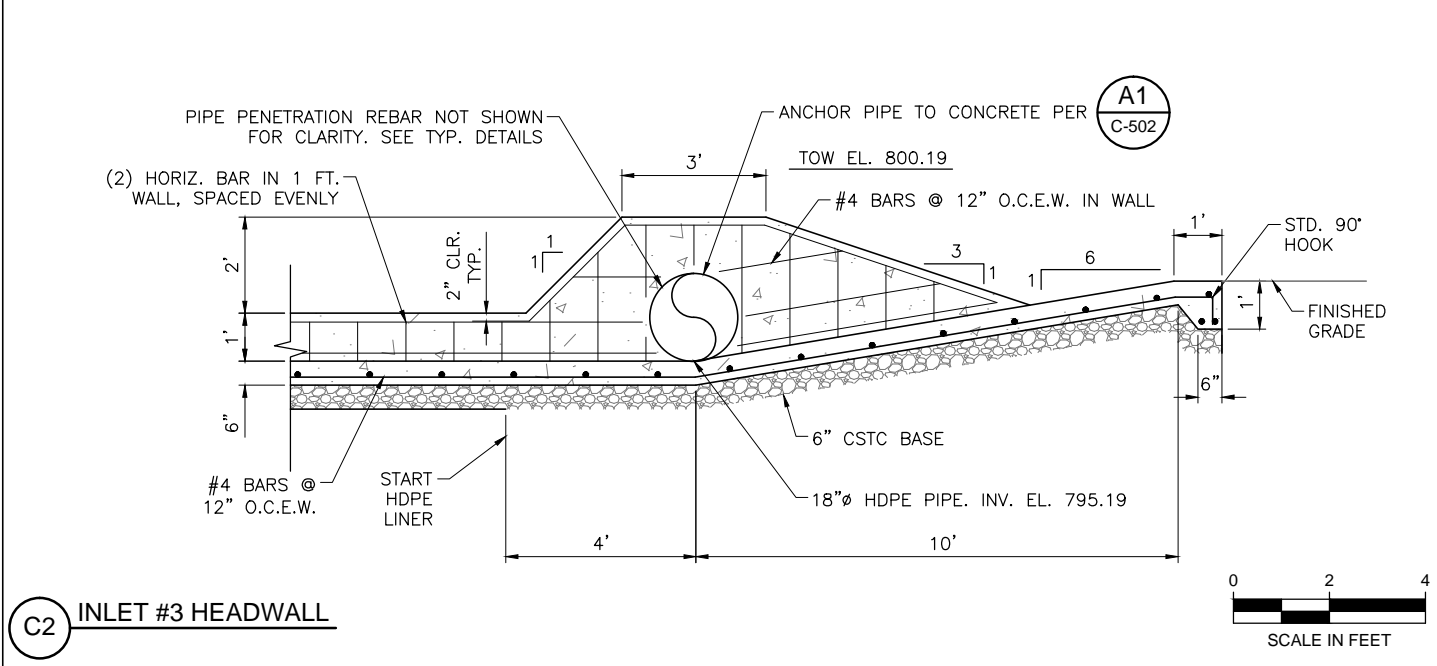
A1 NORTH DITCH OUTFALL SECTION



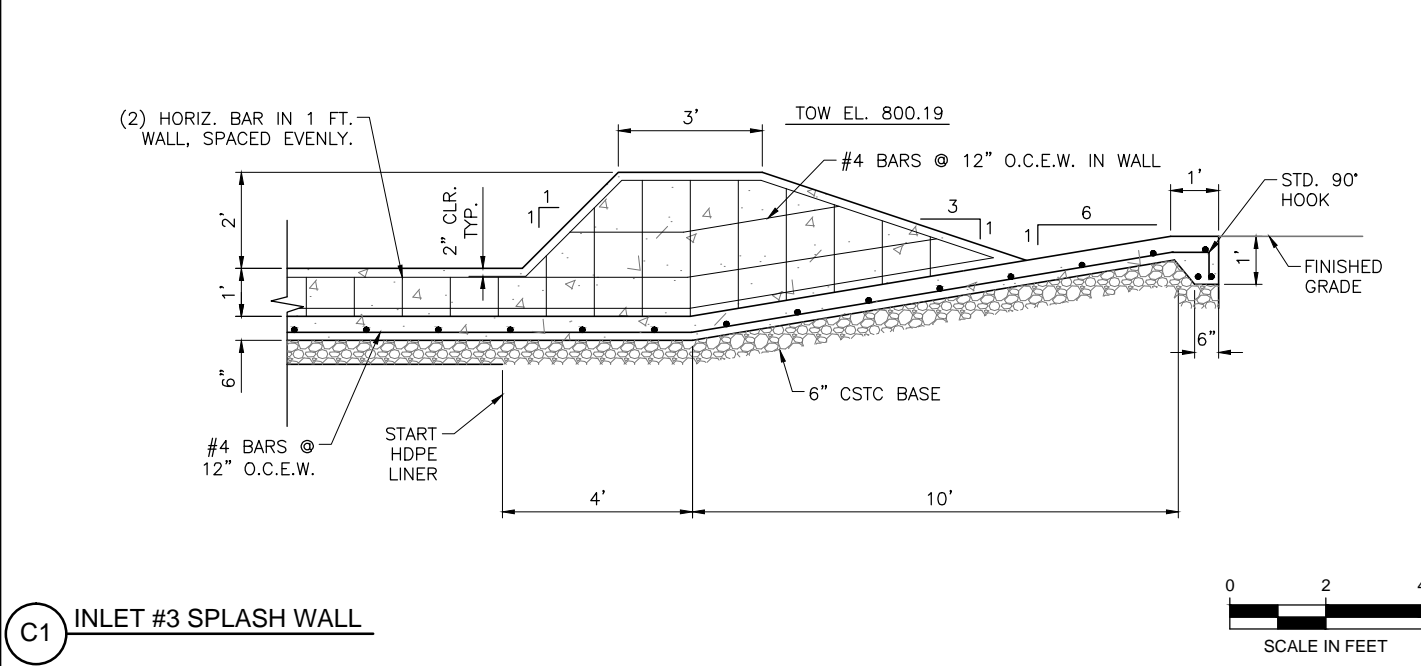
B2 INLET #2 SPLASH WALL



B1 INLET #2 HEADWALL

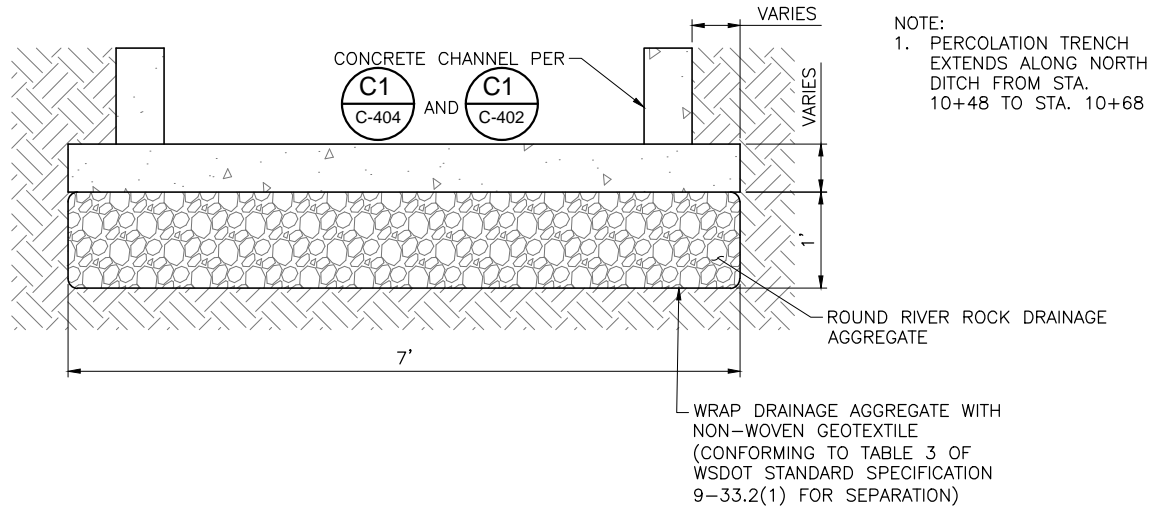


C2 INLET #3 HEADWALL

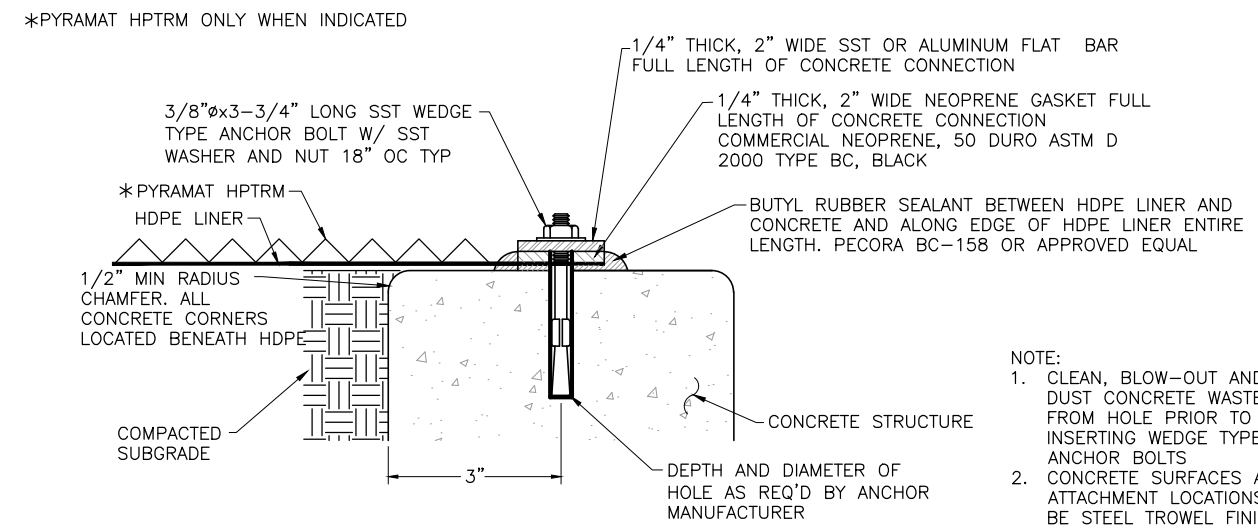


C1 INLET #3 SPLASH WALL

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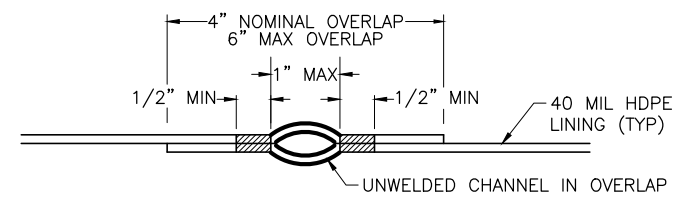


A1 PERCOLATION TRENCH DETAIL (STA. 10+48 TO STA. 10+68)



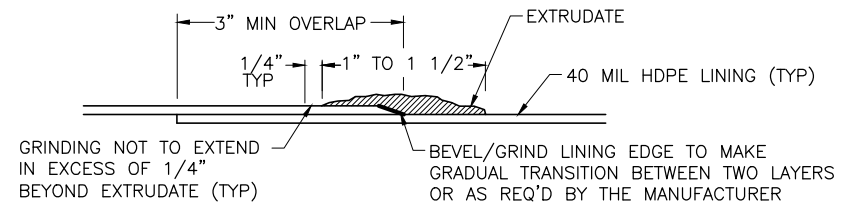
- NOTE:
- CLEAN, BLOW-OUT AND DUST CONCRETE WASTE FROM HOLE PRIOR TO INSERTING WEDGE TYPE ANCHOR BOLTS
 - CONCRETE SURFACES AT ATTACHMENT LOCATIONS TO BE STEEL TROWEL FINISHED OR GROUND SMOOTH PRIOR TO FASTENING HDPE LINER
 - SST - STAINLESS STEEL TYPE 304L

A2 HDPE LINER CONCRETE CONNECTION DETAIL
SCALE:NTS



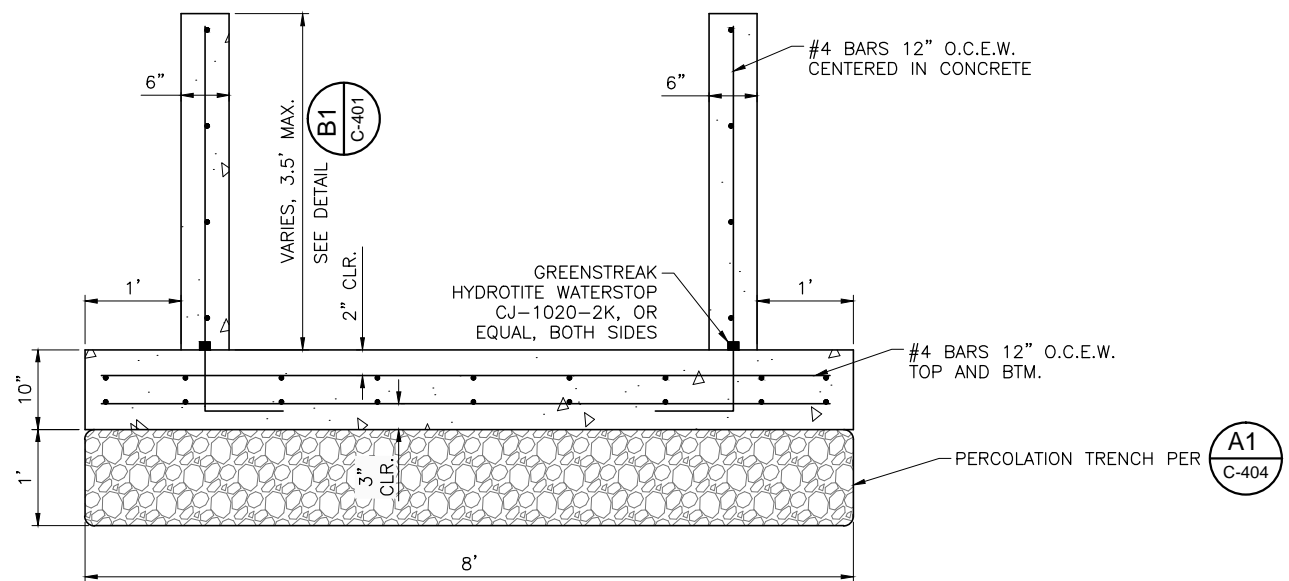
NOTE: AIR PRESSURE TESTING IS THE PRIMARY METHOD FOR TESTING FUSION WELDING

B1 FUSION WELD DETAIL
SCALE:NTS



- NOTE: LINER SHEETS TO BE TACK WELDED TOGETHER AT OVERLAP TO FORM TEMPORARY BOND PRIOR TO WELDING.
- GRINDING NOT TO EXCEED 1/4" PAST "SQUEEZE-OUT" ON EITHER SIDE. PROPER CARE MUST BE TAKEN TO ENSURE TOO MUCH MATERIAL IS NOT REMOVED DURING GRINDING.
- VACUUM TESTING WILL BE THE NON-DESTRUCTIVE TEST METHOD FOR EXTRUSION WELDS.

B2 EXTRUSION WELD - DETAIL
SCALE:NTS

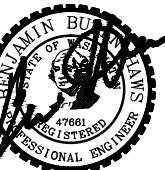


C1 CONCRETE CHANNEL DETAIL (STA. 10+48 TO STA. 10+70)



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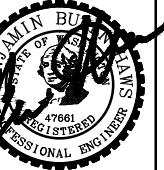
NO.	REVISION	DESCRIPTION	BY	DATE

CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIAL ACTION
NORTH DITCH DETAILS

FILE: 30-11-012-C-404
JUB PROJ. #: 30-11-012
DRAWN BY: MCH
DESIGN BY: BBH
CHECKED BY: BBH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 1/29/2016

SHEET NUMBER:
C-404

Plot Date: 1/29/2016 5:45 PM Plotted By: Lisa Rich
 Date Created: 1/29/2016 10:00 AM Project: SUDBURY LANDFILL REMEDIAL SERVICES CAD SHEET 30-11-012-C-404.DWG



NO.	REVISION	DESCRIPTION	BY	DATE

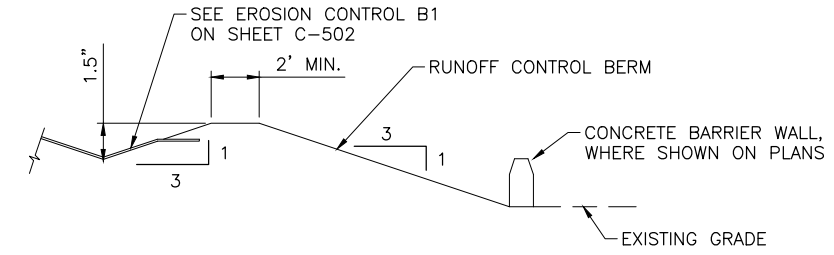
CITY OF WALLA WALLA
 SUDBURY ROAD LANDFILL REMEDIAL ACTION
 CIVIL DETAILS

FILE: 30-11-012_C-501
JUB PROJ. #: 30-11-012
DRAWN BY: MCH
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CHECKED BY: BBH

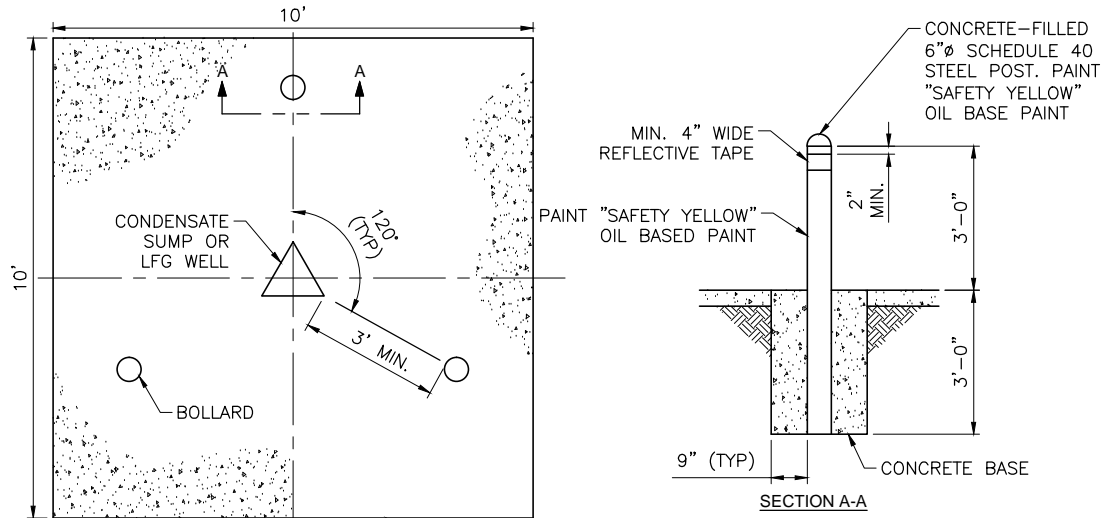
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 LAST UPDATED: 1/29/2016

SHEET NUMBER:

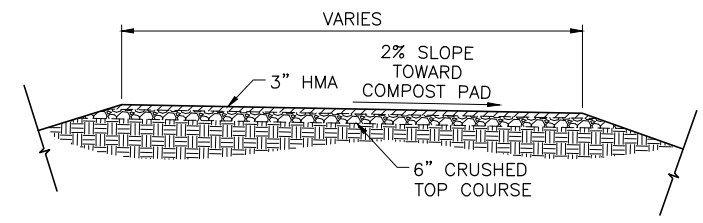
C-501



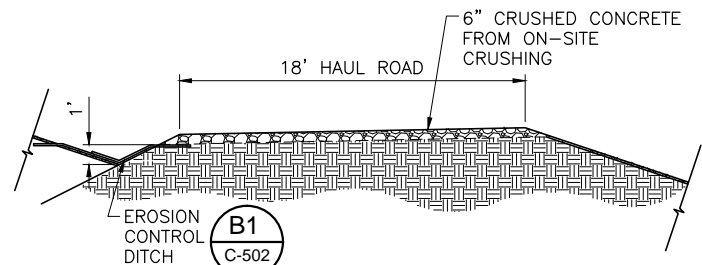
A2 RUNOFF CONTROL BERM DETAIL



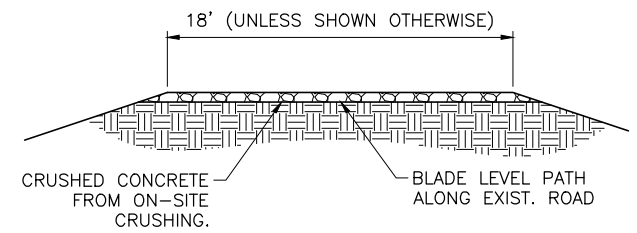
A1 BOLLARD PLACEMENT DETAIL



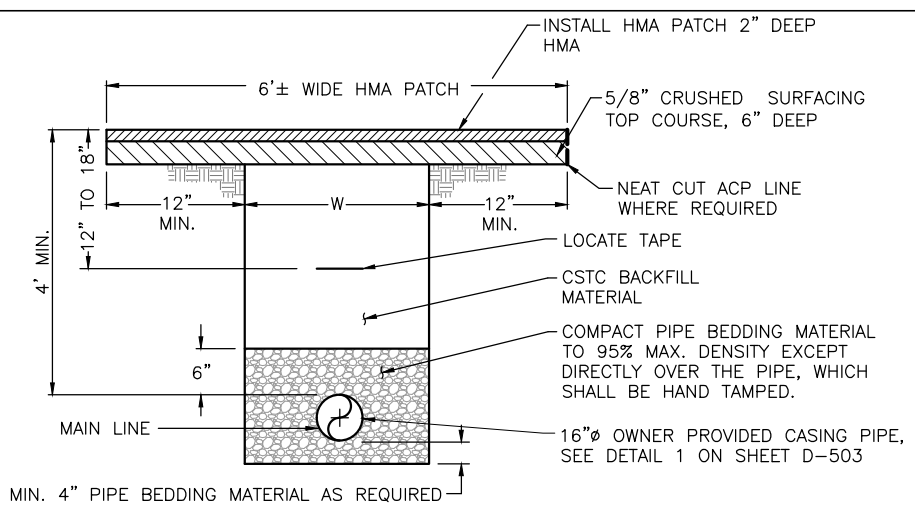
B3 PAVED COMPOST ROAD DETAIL



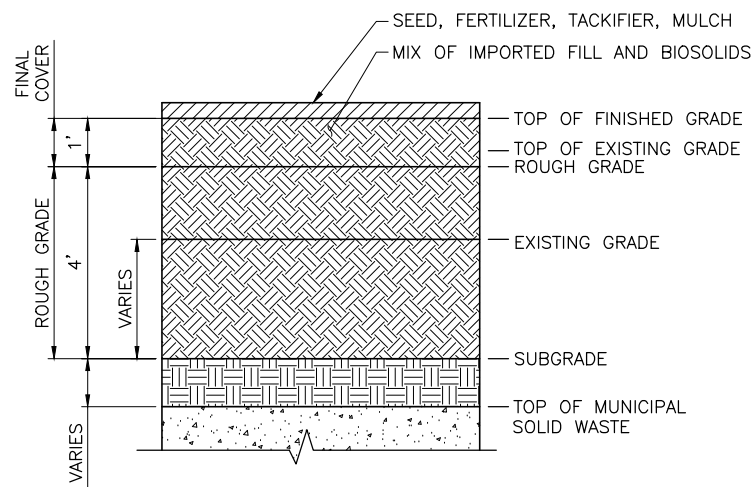
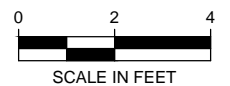
B2 HAUL ROAD WEST OF AREA 5



B1 HAUL ROAD DETAIL



C2 ROADWAY CROSSING DETAIL

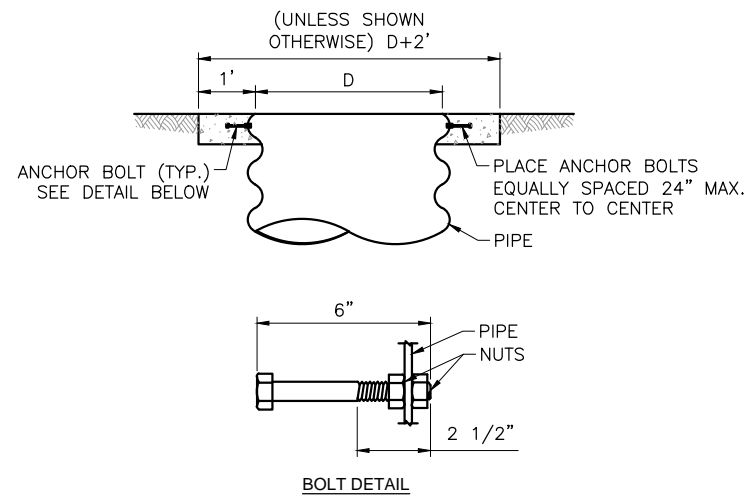


C1 AREA 2/5 COVER

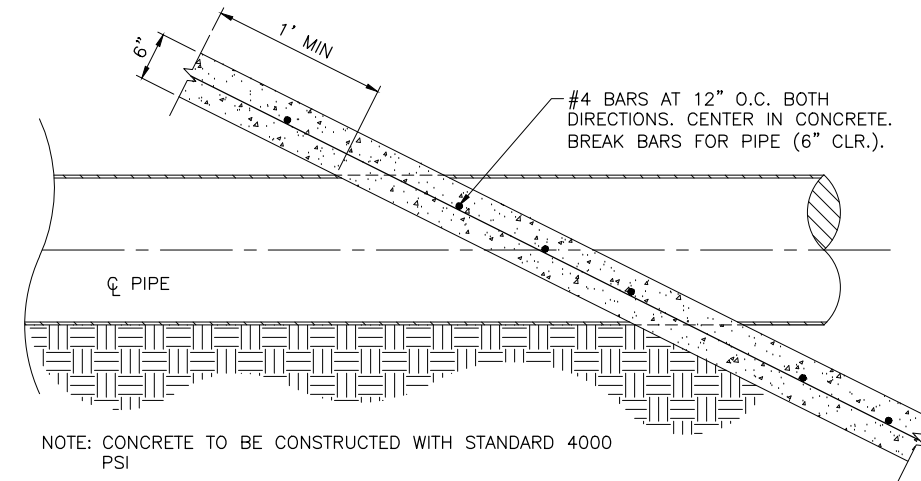
- NOTES:
1. IN SOME LOCATIONS THE FINISHED GRADE IS BELOW THE EXISTING GRADE.
 2. A MINIMUM 4.8' OF SOIL COVER IS REQUIRED OVER THE TOP OF THE MUNICIPAL SOLID WASTE.

- NOTES:
1. CRUSHED CONCRETE AGGREGATE DEPTH IS 6 INCHES UNLESS NOTED OTHERWISE IN THE PLANS.
 2. CONTRACTOR MAY NEED TO ADD ADDITIONAL DEPTH OF CRUSHED CONCRETE DURING CONSTRUCTION.

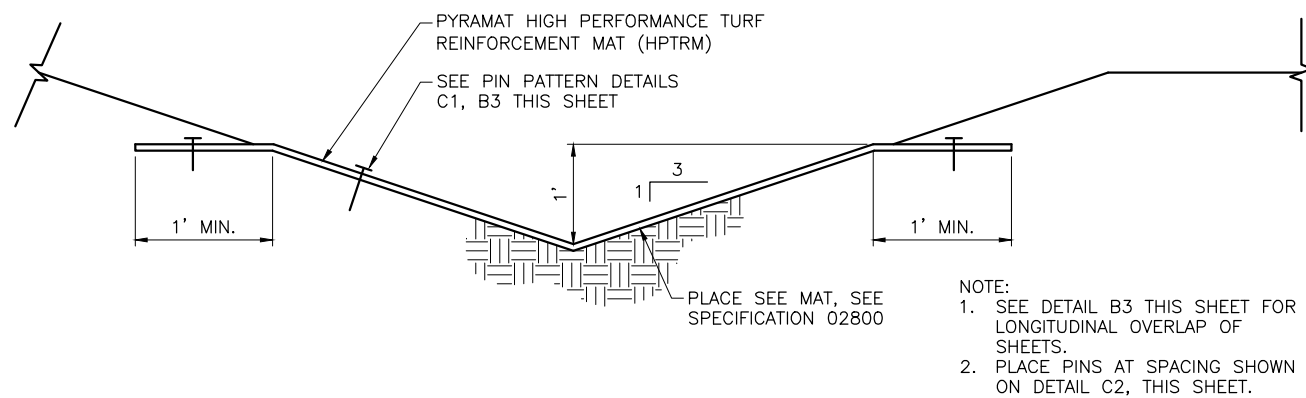
Plot Date: 1/29/2016 4:15 PM Plotted By: Ben Haines
 Date Created: 1/29/2016 3:00 PM Project: SUDBURY LANDFILL REMEDIAL SERVICE/CAD/SHEET/30-11-012_C-501.DWG



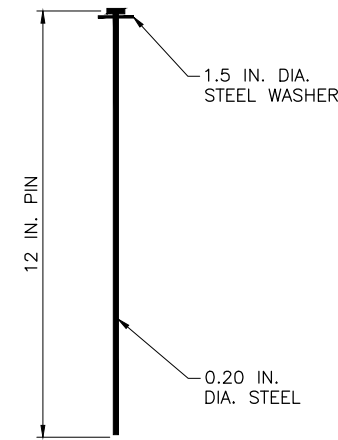
A1 CONCRETE/ PIPE CONNECTION DETAIL
SCALE: NOT TO SCALE



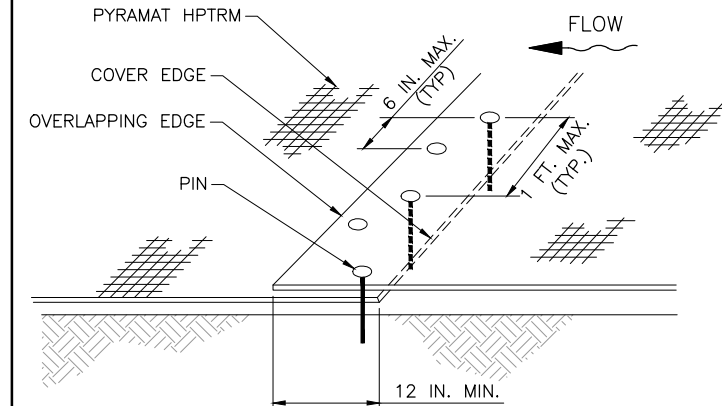
A2 HEADWALL DETAIL



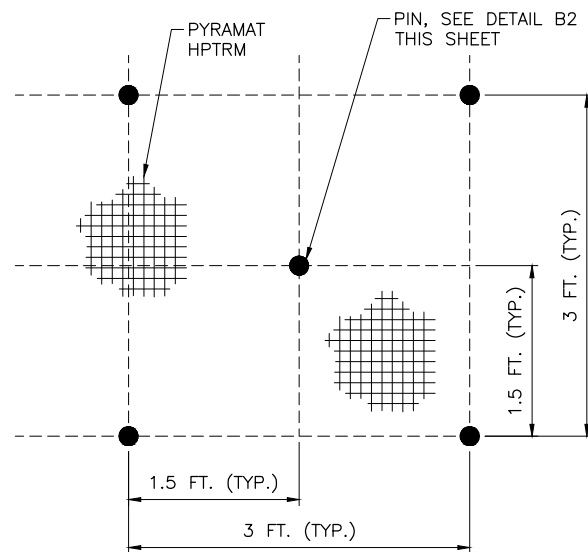
B1 EROSION CONTROL DITCH DETAIL



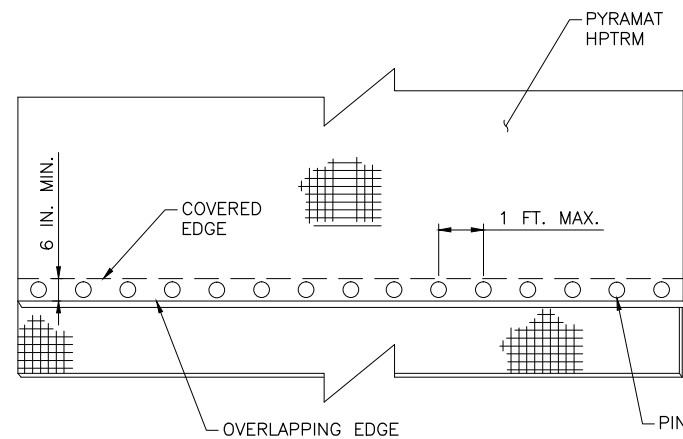
B2 HPTRM PIN DETAIL
SCALE: NTS



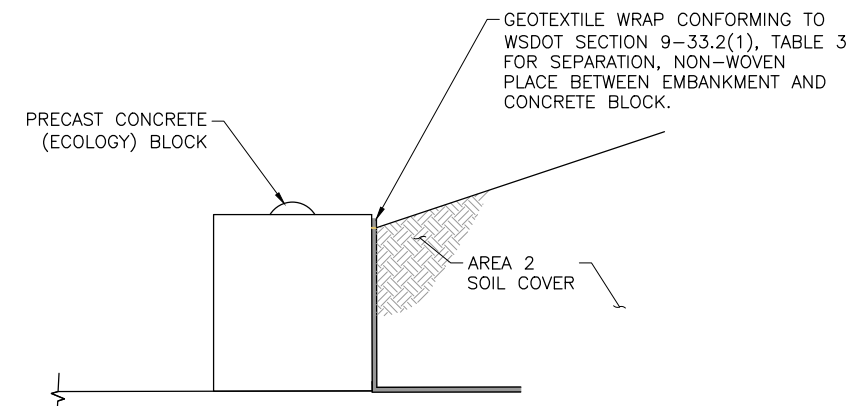
B3 HPTRM OVERLAP AT ROLL END DETAIL
SCALE: NTS



C1 HPTRM PIN PATTERN DETAIL
SCALE: NTS



C2 HPTRM OVERLAP AT ROLL EDGE DETAIL
SCALE: NTS

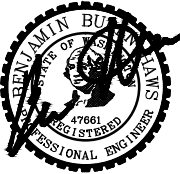


C3 ECOLOGY BLOCK WALL DETAIL
SCALE: NTS



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1-29-2016

NO.	REVISION	DESCRIPTION	BY	DATE

CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIAL ACTION

CIVIL DETAILS

FILE: 30-11-012-C-502
JUB PROJ. #: 30-11-012
DRAWN BY: MCH
DESIGN BY: BBH
CHECKED BY: BBH

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

LAST UPDATED: 1/29/2016

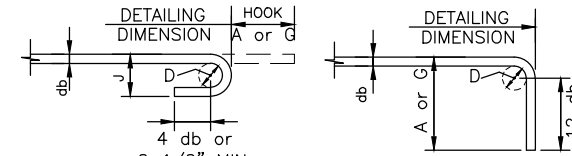
SHEET NUMBER:
C-502

STRUCTURAL MATERIALS.

- A. PROJECT CONCRETE MIX TYPES: CONCRETE SHALL BE PROPORTIONED AND FURNISHED FOR THE VARIOUS PROJECT USES AS INDICATED ON THE PLANS AND AS FOLLOWS:
 i M4000-STD: STANDARD EXTERIOR STRUCTURAL CONCRETE MIX FOR ALL CONCRETE INCLUDING FOOTINGS, ABOVE GRADE STRUCTURAL WALLS, COLUMNS, SLABS AND BEAMS: $f'_c = 4,000$ PSI, ABSOLUTE WATER-CEMENT RATIO BY WEIGHT = 0.45, AIR CONTENT = 6% (+/- 1.5%)
 B. CONCRETE MIX COMPONENTS.
 i A WATER-REDUCING ADMIXTURE CONFORMING TO ASTM C494, USED IN STRICT CONFORMANCE WITH THE MANUFACTURERS INSTRUCTIONS, SHALL BE INCORPORATED IN ALL CONCRETE MIX DESIGNS.
 ii FOR ALL WATER-RETAINING CONCRETE STRUCTURAL WALLS AND SLABS, A HIGH-RANGE WATER-REDUCING (HRWR) ADMIXTURE CONFORMING TO ASTM C494, TYPE F OR G, SHALL BE USED. THE TOTAL SLUMP SHALL BE LESS THAN 10-IN.
 iii HIGHER WATER-CEMENT RATIOS THAN SHOWN ABOVE MAY BE USED IF SUBSTANTIATED IN ACCORDANCE WITH ACI 318-89, CHAPTER 5.
 iv FLY-ASH CONFORMING TO ASTM C618 TYPE F OR C, MAY REPLACE UP TO 20% OF THE CEMENT CONTENT, PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA.
 v CEMENT: ASTM C150 TYPE I OR II.
 vi WATER: CLEAN & POTABLE.
 vii AIR ENTRAINING AGENT: ASTM C260. EXCEPT WHERE NOTED NON-AIR ENTRAINED.
 viii AGGREGATE: 0.75-INCH MAXIMUM AGGREGATE PER ASTM C33. UNLESS NOTED OTHERWISE.
 ix MIX PROPORTIONING: ACI 211.1 AND 350R.
 C. CONCRETE ACCESSORIES:
 i REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60; #3 BARS MAY BE GRADE 40.
 ii REINFORCING STEEL TO BE WELDED: ALL REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706 GRADE 60, LOW-ALLOY, DEFORMED REINFORCING STEEL.
 iii WELDED WIRE FABRIC: ASTM A185 OR A497.
 iv WIRE: PLAIN WIRE SHALL CONFORM TO ASTM A 82. DEFORMED WIRE SHALL CONFORM TO ASTM A 496, AND EPOXY COATED WIRE SHALL CONFORM TO ASTM A 884.
 v JOINTING MATERIALS: IN ACCORDANCE WITH ACI 350 SECTION 4.5.2. ALL JOINTING MATERIALS INCLUDING WATER-STOPS, EXPANSION JOINTS AND SEALANTS, SHALL BE RESISTANT TO CHEMICAL ATTACK FOR THE DESIGN LIFE OF THE FACILITY. SEALANTS SHALL CONFORM TO ASTM C 920 AND FEDERAL SPECIFICATION TT-S-00277E AND PVC WATER-STOP SHALL CONFORM TO ASTM D 570, ASTM D 746, STM D 1149 AND CRD-0572.
 D. NON-SHRINK GROUT: ALL NON-SHRINK GROUT NOTED ON THE PLANS SHALL BE NON-SHRINK, NON-METALLIC GROUT WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 7,000 PSI.
 E. GEOSYNTHETIC FABRIC SHALL MEET THE REQUIREMENTS OF WSDOT STANDARD SPECIFICATIONS 9-33.2(1) TABLE 3 FOR NON-WOVEN SOIL STABILIZATION.

TYPICAL LAP SPLICE LENGTHS IN INCHES, PER ACI 318									
BAR SIZE	LAP CLASS	$f'_c=3,000$ psi		$f'_c=4,000$ psi		$f'_c=5,000$ psi		$f'_c=6,000$ psi	
		CAT.1	CAT.2	CAT.1	CAT.2	CAT.1	CAT.2	CAT.1	CAT.2
#4	A B	22 28	33 43	19 25	28 37	17 22	25 33	15 20	23 30
#5	A B	27 36	41 53	24 31	36 46	21 28	32 41	19 25	29 38
#6	A B	33 43	49 64	28 37	43 55	25 33	38 50	23 30	35 45
#7	A B	48 62	72 93	42 54	62 81	37 48	56 72	34 44	51 66
#8	A B	55 71	82 106	47 61	71 92	42 55	64 83	39 50	58 76
#9	A B	62 80	92 120	53 69	80 104	48 62	72 93	44 57	65 85

- NOTES: 1. FOR GRADE 60 REINFORCING STEEL BARS.
 2. ALL LAP SPLICES SHALL BE CLASS B, UNLESS NOTED OTHERWISE.
 3. CATEGORY 1: CLEAR COVER $\geq db$ & CLR. SPACING $\geq db$, AND STIRRUPS OR TIES THROUGHOUT LD ARE PROVIDED.
 CATEGORY 1: CLEAR COVER $\geq db$ & CLR. SPACING $\geq 2db$.
 CATEGORY 2: CLEAR COVER $< db$ OR CLR. SPACING $< 2db$.
 4. FOR TOP BARS MULTIPLY LAP LENGTH LISTED BY 1.30 TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
 5. ALL LAP SPLICES SHALL BE CATEGORY 1, CLASS B UNLESS OTHERWISE NOTED.



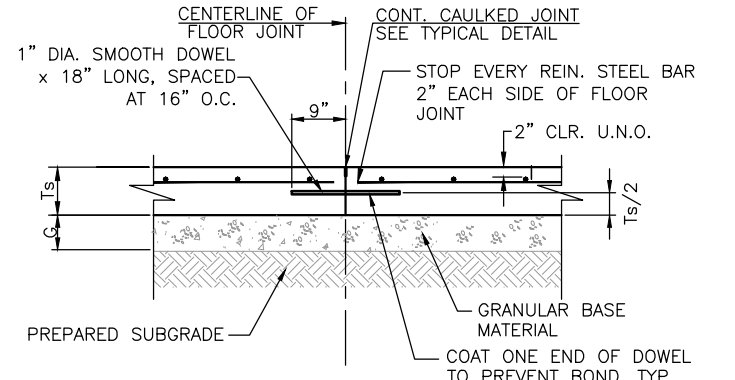
BAR SIZE	D	180° HOOKS		90° HOOKS	
		A or G	J	A or G	A or G
#3	2 1/4"	5"	3"	6"	6"
#4	3"	6"	4"	8"	8"
#5	3 3/4"	7"	5"	10"	10"
#6	4 1/2"	8"	6"	1'-0"	1'-0"
#7	5 1/4"	10"	7"	1'-2"	1'-2"
#8	6"	11"	8"	1'-4"	1'-4"
#9	9 1/2"	1'-3"	11 3/4"	1'-7"	1'-7"
#10	10 3/4"	1'-5"	1'-1 1/4"	1'-10"	1'-10"
#11	12"	1'-7"	1'-2 3/4"	2'-0"	2'-0"

- NOTES: 1. db = NOMINAL BAR DIAMETER.
 2. D = FINISHED INSIDE BEND DIAMETER.
 3. MINIMUM D = 6 db FOR #3 TO #8 BARS
 4. MINIMUM D = 8 db FOR #9 TO #11 BARS
 5. TYPICAL MINIMUM END HOOKS, ALL GRADES OF STEEL.

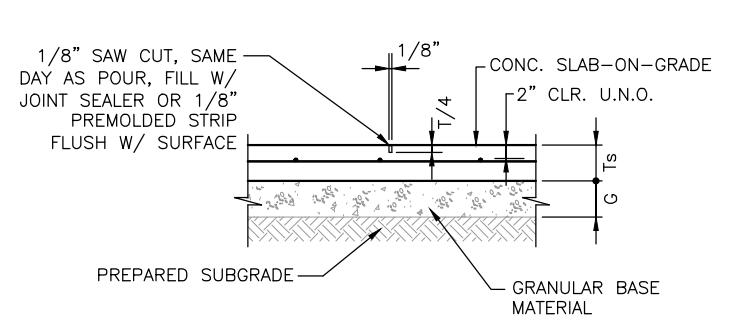
A1 GENERAL NOTES

A2 TYPICAL REBAR LAP SPLICE SCHEDULE

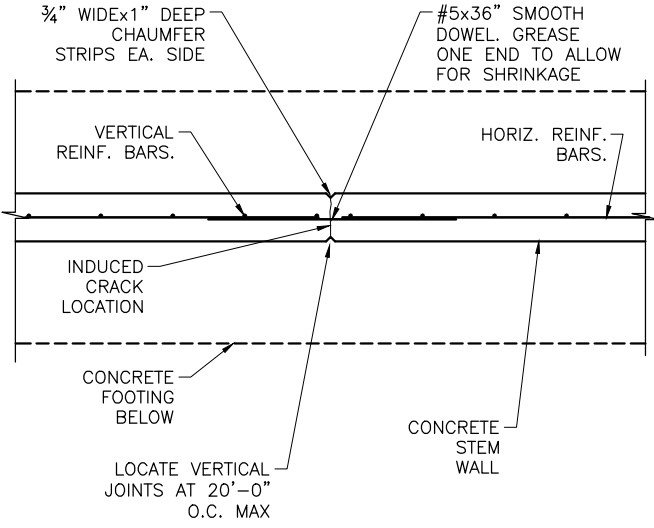
A3 TYPICAL REBAR BEND & HOOK DETAILS



- NOTES: 1. REFER TO C1/C-402 FOR SLAB AND GRANULAR MATERIAL THICKNESS T_s AND G, AND SLAB REINFORCING REQUIREMENTS.
 2. CONTROL JOINTS TO BE SPACED AS NOTED ON PLANS OR AS APPROVED.
 3. DOWELS MAY BE A 1" ϕ SOLID ROD OR 1" ϕ O.D. PIPE W/ ENDS PLUGGED.
 4. DOWELS MAY BE CAST-IN-PLACE OR DRILLED & SET INTO CONCRETE.



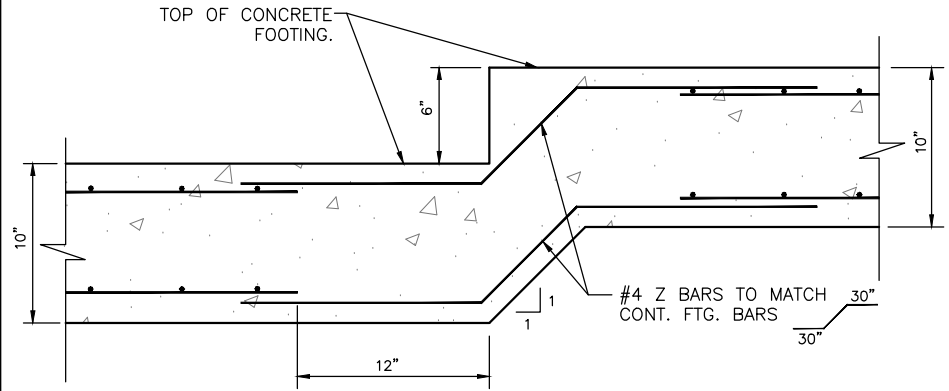
- NOTES: 1. REFER TO C1/C-402 FOR SLAB AND GRANULAR MATERIAL THICKNESS T_s AND G, AND SLAB REINFORCING REQUIREMENTS.
 2. CONTROL JOINTS TO BE 20'-0" ON CENTER, MAXIMUM, UNLESS NOTED OTHERWISE.
 3. CUT EVERY OTHER BAR CROSSING CONTROL JOINTS.



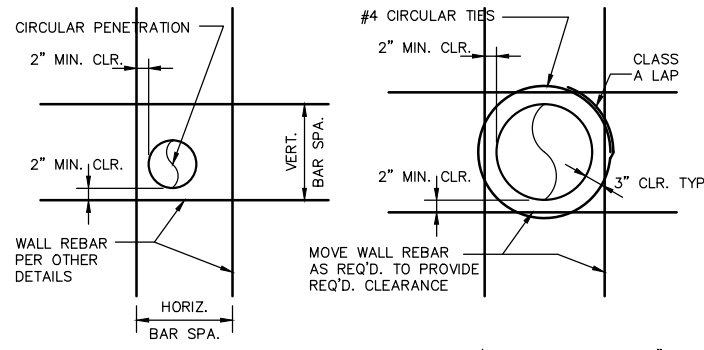
B3 TYP. CONC. WALL VERTICAL CONTROL JOINT

B1 TYP. SLAB-ON-GRADE CONSTRUCTION JT. DETAIL

B2 TYP. SLAB-ON-GRADE CONTROL JOINT DETAIL

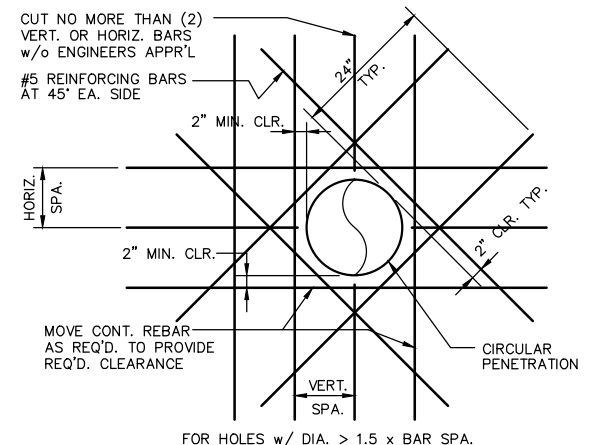


C1 TYP. STEPPED CONC. FTG.



- FOR HOLES w/ DIA. $< BAR SPA. + 4"$
 NOTE: NO SPECIAL REINFORCEMENT IS REQUIRED AROUND THE PENETRATION.
 FOR HOLES w/ DIA. $> BAR SPA. + 4"$ AND w/ DIA. $< 1.5 \times BAR SPA.$
 NOTE: PROVIDE (1) CIRCULAR TIE FOR WALLS w/ ONE MAT OF REBAR & (2) TIES FOR WALLS w/ TWO MATS OF REBAR
 NOTE: REFER TO GENERAL NOTES FOR REBAR CLEARANCE REQUIREMENTS. REFER TO OTHER DETAILS FOR WALL/SLAB REINFORCING SIZE AND SPACING. BAR SPACING REFERS TO THE LESSER OF THE VERT. OR HORIZ. BAR SPACING. DETAIL IS SIMILAR FOR EITHER VERTICAL WALL OR HORIZONTAL SLAB LOCATIONS.

C2 TYP. CONC. WALL OR SLAB PENETRATION DETAIL

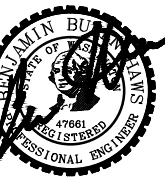


- FOR HOLES w/ DIA. $> 1.5 \times BAR SPA.$
 NOTE: PROVIDE (4) REINFORCING BARS FOR WALLS w/ ONE MAT OF REBAR & (4) REINFORCING BARS EA. FACE FOR WALLS w/ TWO MATS OF REBAR.
 NOTE: REFER TO OTHER DETAILS FOR REBAR SIZE AND SPACING REQUIREMENTS. BAR SPACING REFERS TO THE LESSER OF THE VERT. OR HORIZ. BAR SPACING. DETAIL IS SIMILAR FOR EITHER VERTICAL WALL OR HORIZONTAL SLAB LOCATIONS.

C3 TYP. CONC. WALL OR SLAB PENETRATION DETAIL



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1-29-2016

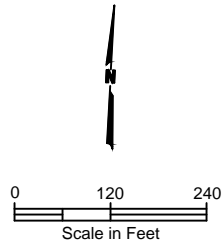
NO.	REVISION	DESCRIPTION	BY	DATE

CITY OF WALLA WALLA
 SUDBURY ROAD LANDFILL REMEDIAL ACTION
 CIVIL DETAILS

FILE: 30-11-012-C-503
 JUB PROJ. #: 30-11-012
 DRAWN BY: MCH
 DESIGN BY: BBH
 CHECKED BY: BBH
 AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
 LAST UPDATED: 1/29/2016

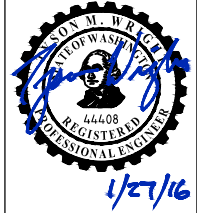
SHEET NUMBER:
C-503

Plot Date: 1/29/2016 4:19 PM Plotted By: Ben Hawes
 Date Created: 1/29/2016 10:00:00 AM Project: C:\Users\ben\Documents\Projects\CAD\Sheet\30-11-012-C-503.DWG

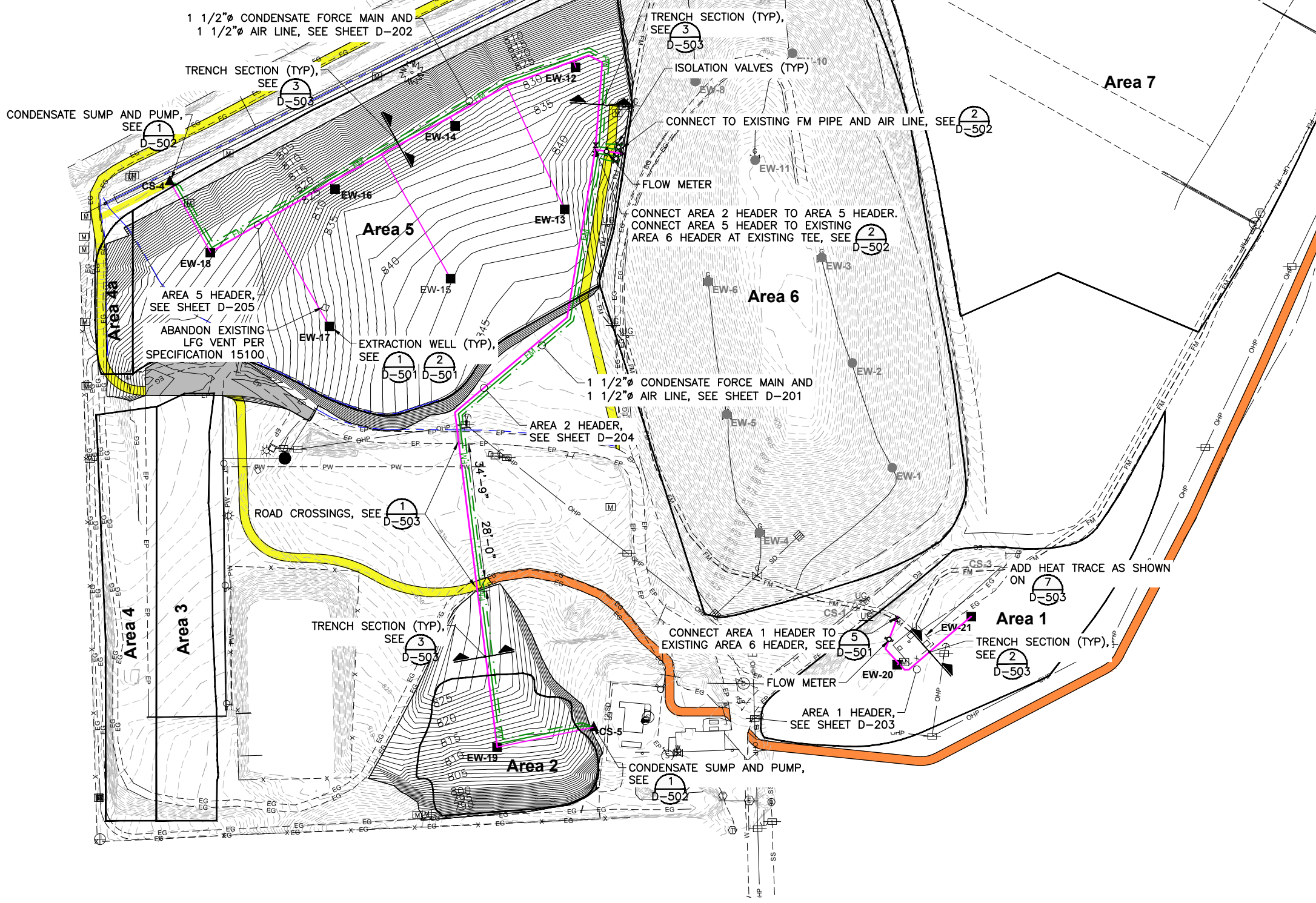


EXTRACTION WELL SCHEDULE				
WELL	EST. DRILL DEPTH (FI-BRG)	EST. PERF PIPE (FI-BRG)	NORTHING	EASTING
EW-12	55	36 TO 54	278947.24	2170568.37
EW-13	67	44 TO 66	278654.55	2170546.21
EW-14	55	36 TO 54	278826.65	2170320.02
EW-15	68	44 TO 67	278511.52	2170310.35
EW-16	54	35 TO 53	278696.31	2170072.16
EW-17	58	38 TO 57	278412.78	2170060.37
EW-18	42	27 TO 41	278564.81	2169814.77
EW-19	34	22 TO 33	277544.30	2170406.48
EW-20	52	34 TO 51	277714.55	2171231.71
EW-21	52	34 TO 51	277814.02	2171384.67

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 2200 6th Ave Suite 1100
 Seattle, WA 98121
 Phone: 206.441.9080
 www.herrerainc.com



NOTES
 1. LOCATIONS OF VERTICAL WELLS, SUMPS, AND VALVES AND ALIGNMENT OF PIPING ARE APPROXIMATE AND MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER TO SUIT ACTUAL FIELD CONDITIONS.



NO.	REVISION	DESCRIPTION	BY	DATE

CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIATION ACTION
 LFG EXTRACTION WELL AND PIPING PLAN

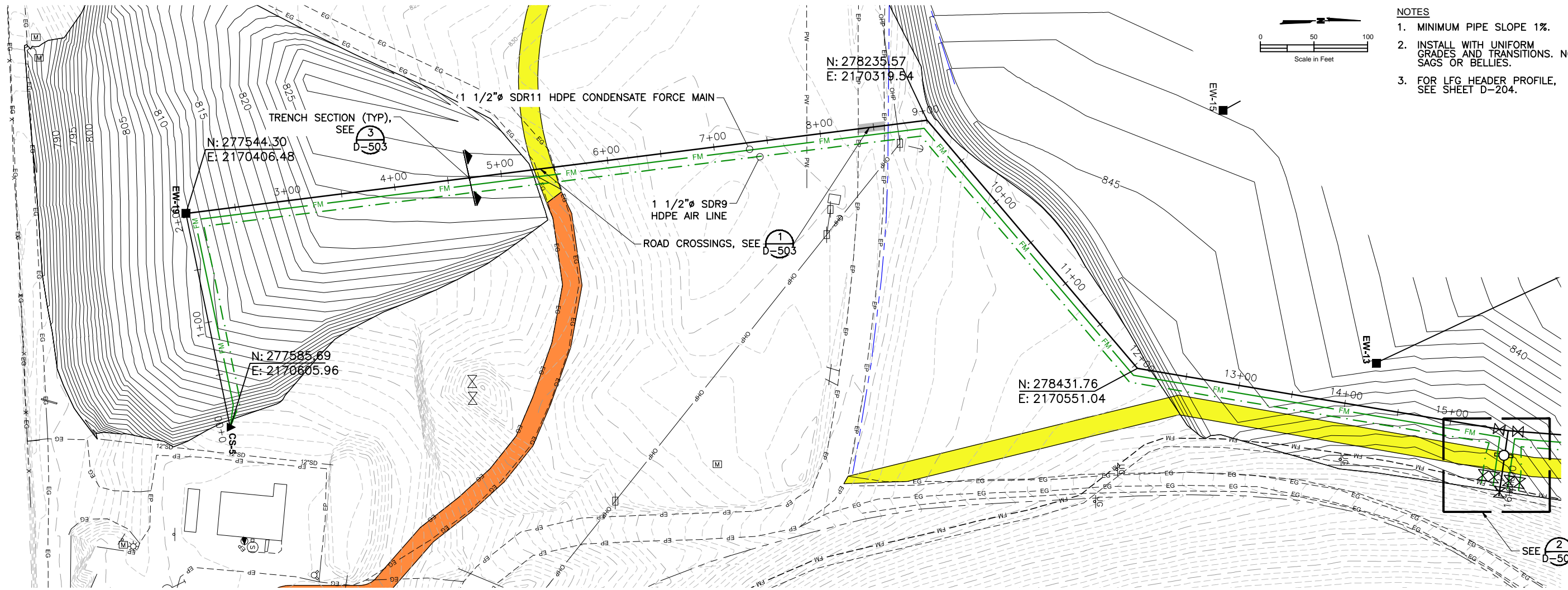
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 DESIGN BY: TW
 CHECKED BY: -

ONE INCH
 AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
 LAST UPDATED: 1/27/2016

SHEET NUMBER:
D-101

Plot Date: 1/27/2016 2:45 PM Printed By: Eric Menehall
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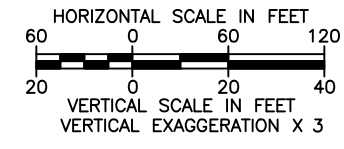
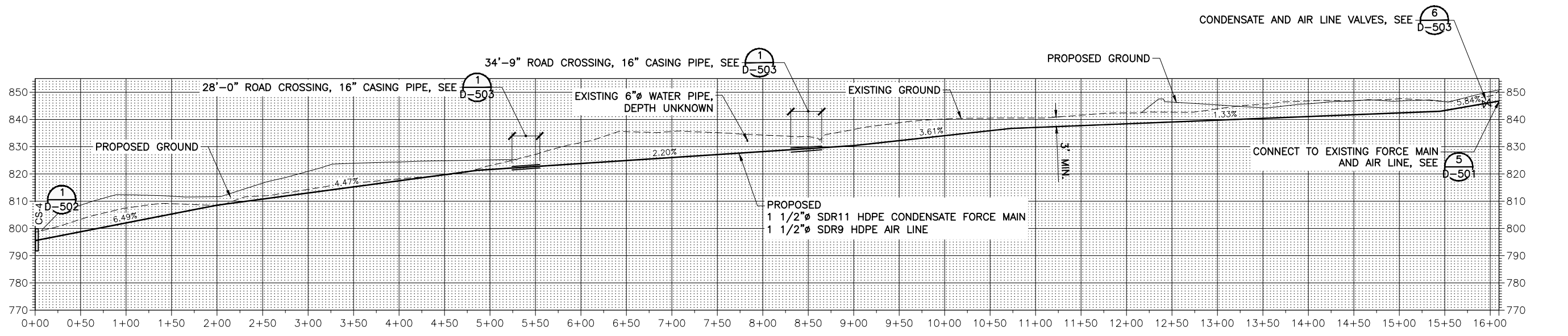
- NOTES**
1. MINIMUM PIPE SLOPE 1%.
 2. INSTALL WITH UNIFORM GRADES AND TRANSITIONS. NO SAGS OR BELLIES.
 3. FOR LFG HEADER PROFILE, SEE SHEET D-204.

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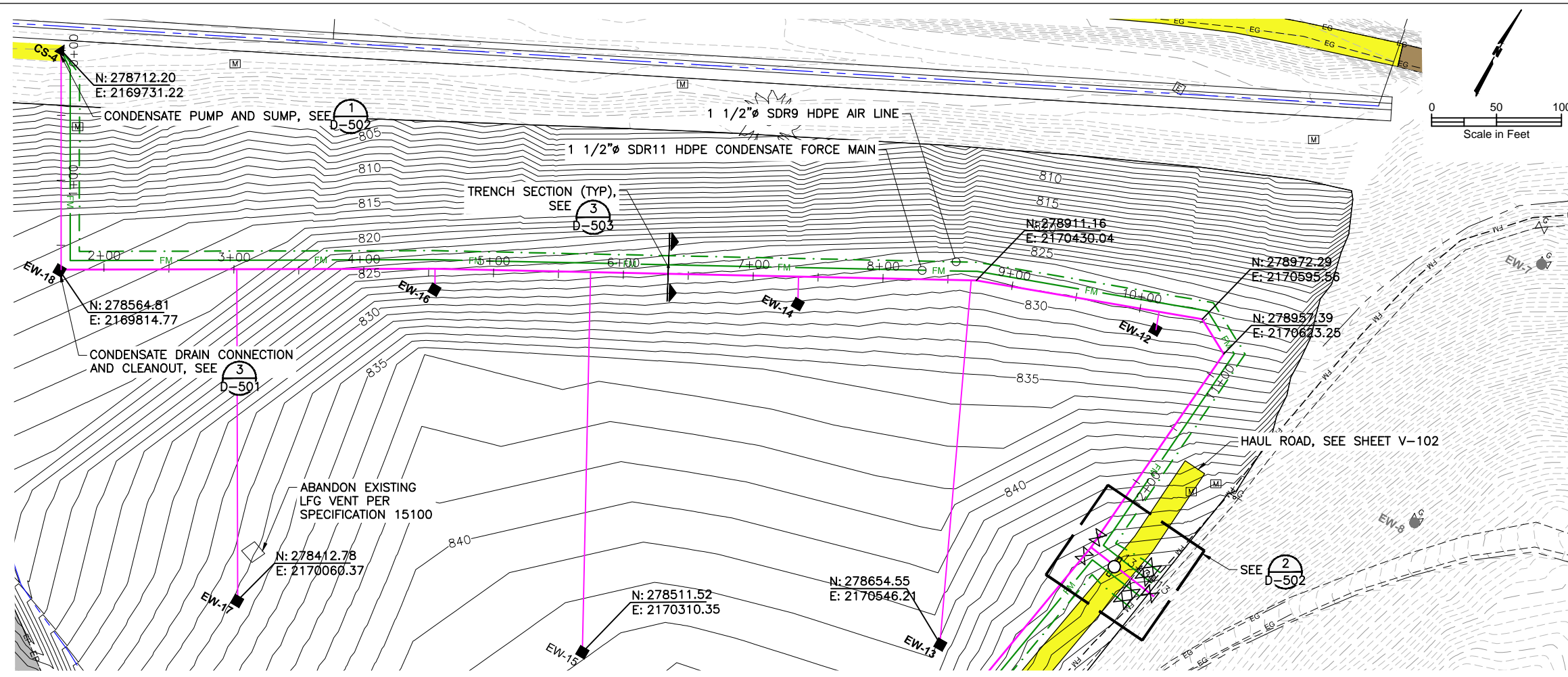
NO.	REVISION	DESCRIPTION	BY	DATE



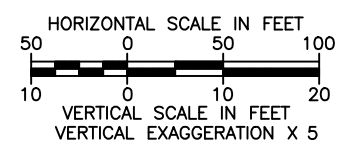
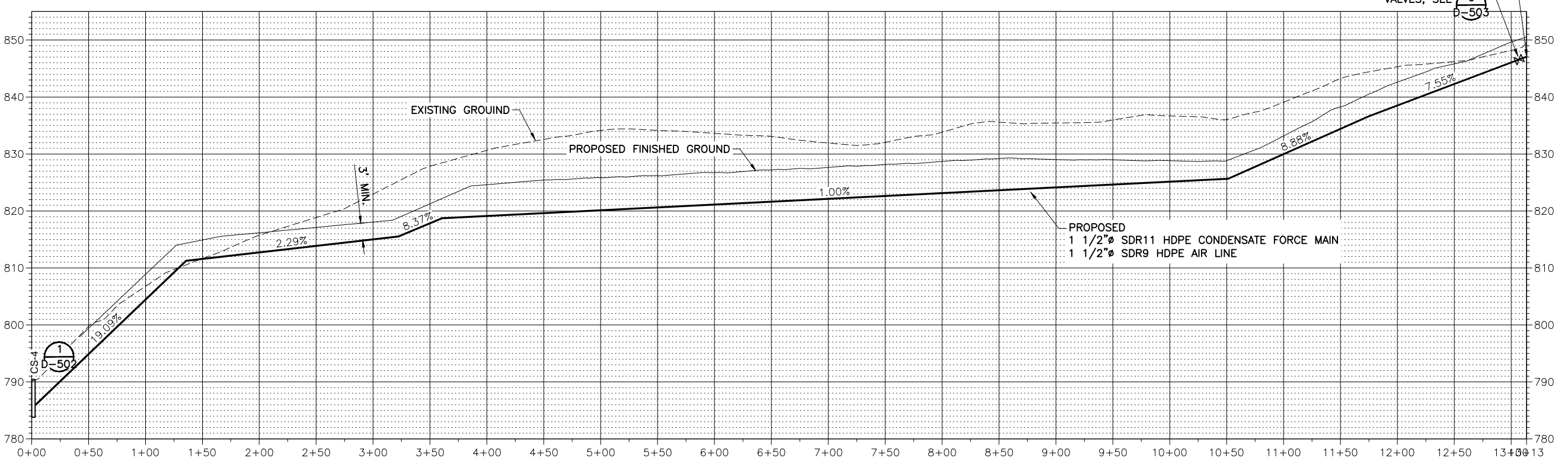
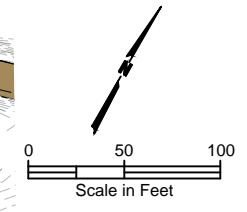
CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIATION ACTION
 CONDENSATE PIPE: AREA 2 PLAN & PROFILE

FILE: D-201
 JUB PROJ. #: 30-11-012
 DRAWN BY: EM
 DESIGN BY: TW
 CHECKED BY: -
 AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
 LAST UPDATED: 1/28/2016
 SHEET NUMBER:
D-201

Plot Date: 1/28/2016 9:00 AM. Printed By: Eric Marshall
 Date Created: 2/2/2015 10:49:59 AM. Project: 30-11-012-DWG-D-201.DWG

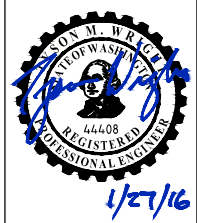


- NOTES
1. MINIMUM PIPE SLOPE 1%.
 2. INSTALL WITH UNIFORM GRADES AND TRANSITIONS. NO SAGS OR BELLIES.
 3. FOR LFG HEADER PROFILE, SEE SHEET D-204.



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NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

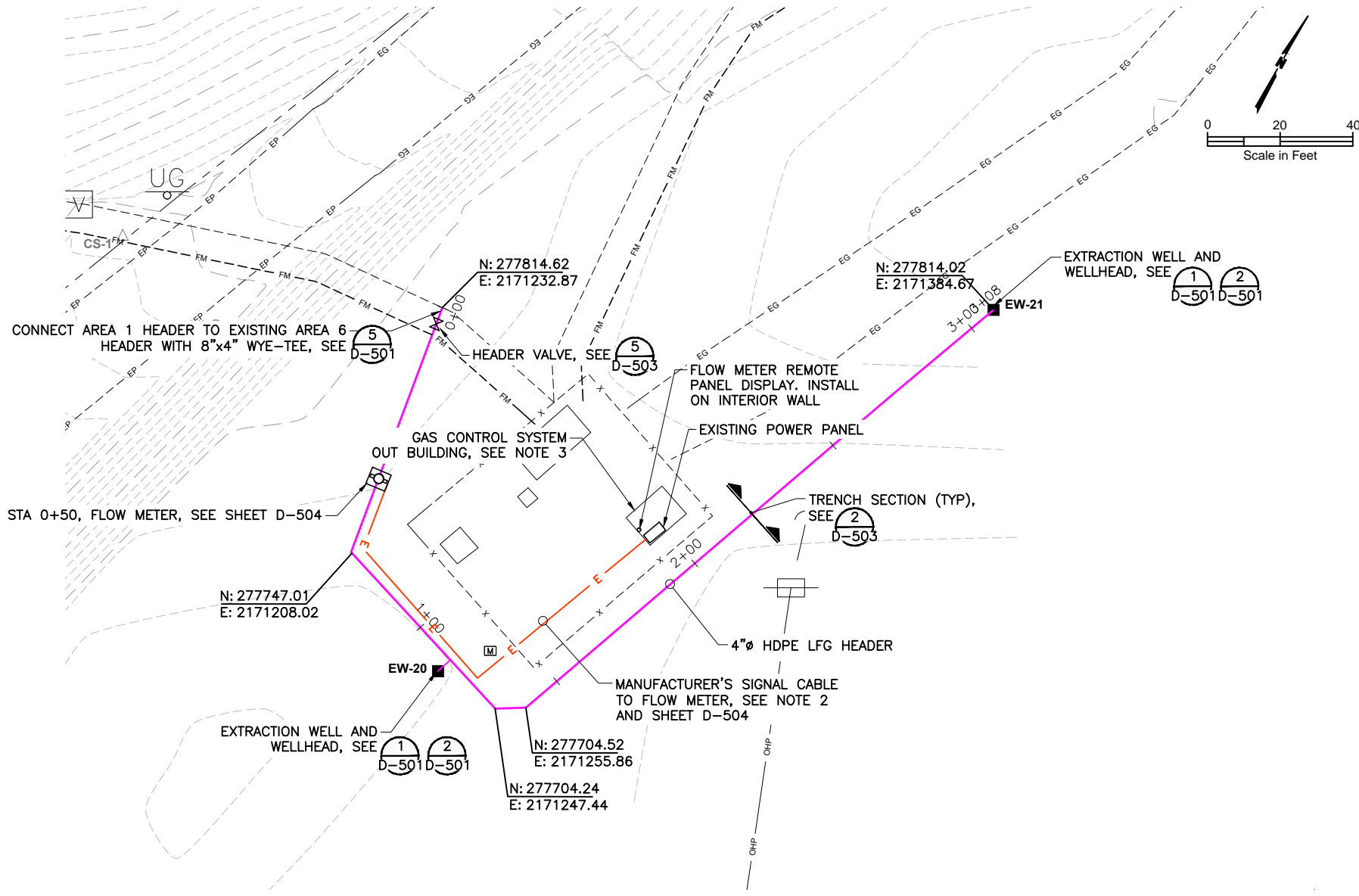
CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIATION ACTION

CONDENSATE PIPE: AREA 5 PLAN & PROFILE

FILE: D-202
JUB PROJ. #: 30-11-012
DRAWN BY: EM
DESIGN BY: TW
CHECKED BY: -
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 1/28/2016
SHEET NUMBER:
D-202



Plot Date: 1/27/2016 2:26 PM Printed By: Eric Marshall
Date Created: 2/2/2015 0:00:00 File Path: C:\DWG\2016\01\20160127\20160127.DWG



NOTES

1. MINIMUM PIPE SLOPE 1% FOR LATERAL TO HEADER.
2. 2-1 INCH CONDUITS: MANUFACTURER'S SIGNAL CABLE, AND STUB UP SPARE.
3. PROVIDE 15/1 120V CIRCUIT BREAKER IN EXISTING POWER PANEL CONNECT BREAKER TO REMOTE DISPLAY FOR FLOW METER WITH 3#12 IN CONDUIT. MOUNT FLOW METER DISPLAY NEXT TO POWER PANEL.
4. ALL ELECTRICAL WORK SHALL COMPLY WITH SPECIFICATIONS BELOW.
5. INSTALL CARSONITE STAKES ABOVE LFG HEADER EVERY 50 FEET AND AT BENDS.

1 GENERAL

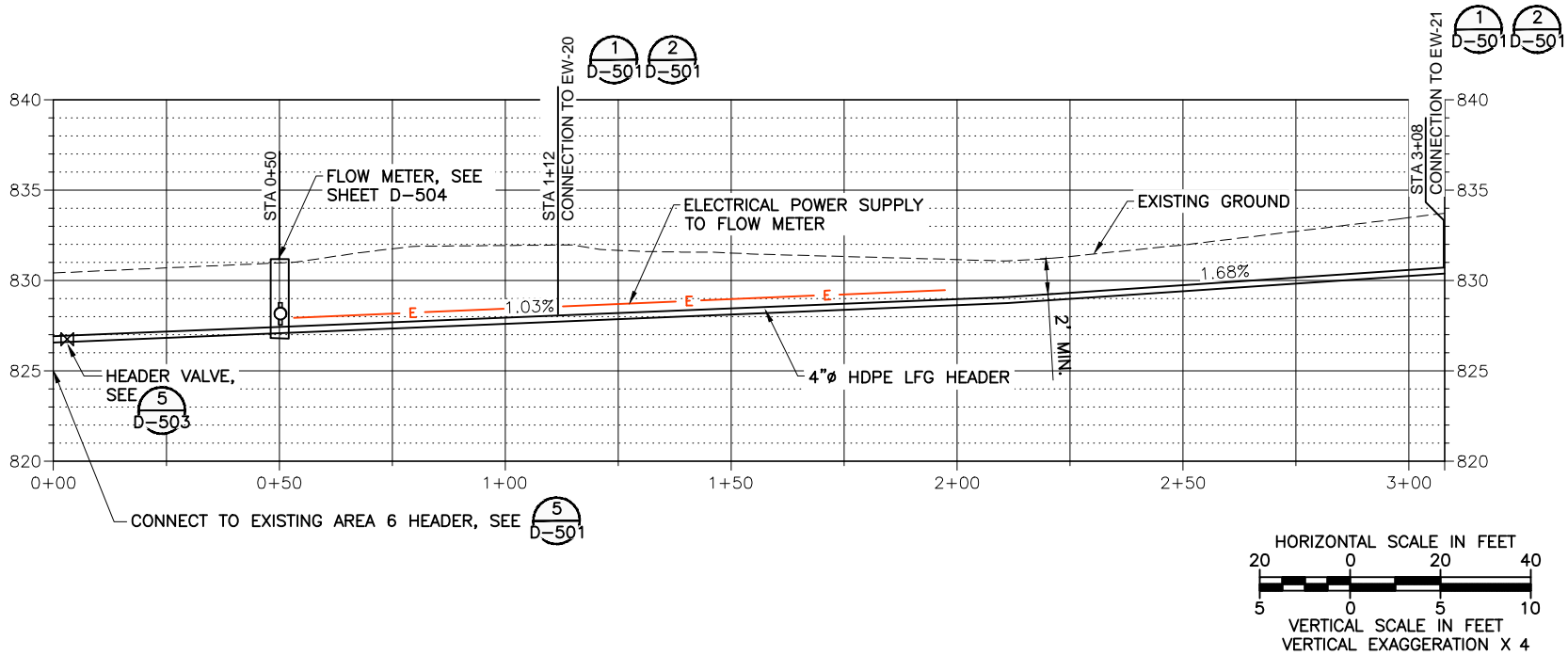
- A. PERMITS, LICENSES, APPROVALS AND OTHER ARRANGEMENTS FOR WORK SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR AND INCLUDED IN THE BID PRICE.
- B. ELECTRICAL WORK SHALL BE EXECUTED IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND LOCAL ORDINANCES AND REGULATIONS.
- C. ALL EQUIPMENT SHALL BE UL LISTED.
- D. CONTRACTOR SHALL SUBMIT BY EMAIL A PDF DOCUMENT OF EQUIPMENT CUT SHEETS AND CATALOG DATA SHOWING MATERIAL INFORMATION AND CONFORMANCE TO THE SPECIFICATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO ANY PANEL FABRICATION OR EQUIPMENT INSTALLATION. PROVIDE AN INDEX WITH EACH ITEM IDENTIFIED.
- E. PHENOLIC NAMEPLATES SHALL BE PROVIDED ON ALL ELECTRICAL DEVICES WITH (NAME, NUMBER, CIRCUIT#, AND FUNCTION)
- F. PROVIDE GROUNDING PER NEC. ALL RACEWAYS SHALL CONTAIN A GROUND CONDUCTOR SIZED PER THE NEC.
- G. ALL CONDUCTORS SHALL BE INSTALLED IN RACEWAYS. PROVIDE RACEWAYS AND WIRING FOR ALL DEVICES CALLED OUT ON THE PLANS.
- H. PROVIDE SEAL FITTINGS AND INSTALLATIONS PER CODE REQUIREMENTS IN HAZARDOUS AREAS

2 PRODUCTS

- A. ALL WIRES SHALL BE STRANDED CONDUCTORS THWN AND SHALL BE PROVIDED WITH WIRE TYPED WIRE MARKERS ON EACH END OF THE WIRE.
- B. ALL SUPPORTS AND HARDWARE (BOLTS, NUTS, SCREWS, ETC.) SHALL BE 316 STAINLESS STEEL.
- C. UNDERGROUND RACEWAYS SHALL BE SCHEDULE 40 PVC. EXPOSED RACEWAYS SHALL BE GRS (GALVANIZED RIGID STEEL).
- D. BOXES SHALL BE NEMA 4X
- E. SUPPORTS SHALL BE STAINLESS STEEL, ALUMINUM OR NON-METALLIC.

3 EXECUTION

- A. ALL RACEWAYS SHALL BE HAVE A PHENOLIC MARKER ON EACH END.
- B. ALL WORK WILL BE INSPECTED AND TESTED PRIOR TO ACCEPTANCE.
- C. CONTRACTOR SHALL MAINTAIN A MARKED UP RECORD DRAWING SHOWING ANY CHANGES AND CONDUIT AND WIRE TAG NUMBERING.
- D. INSTALL EQUIPMENT AND INSTRUMENTATION PER MANUFACTURERS INSTRUCTIONS.



NOTES

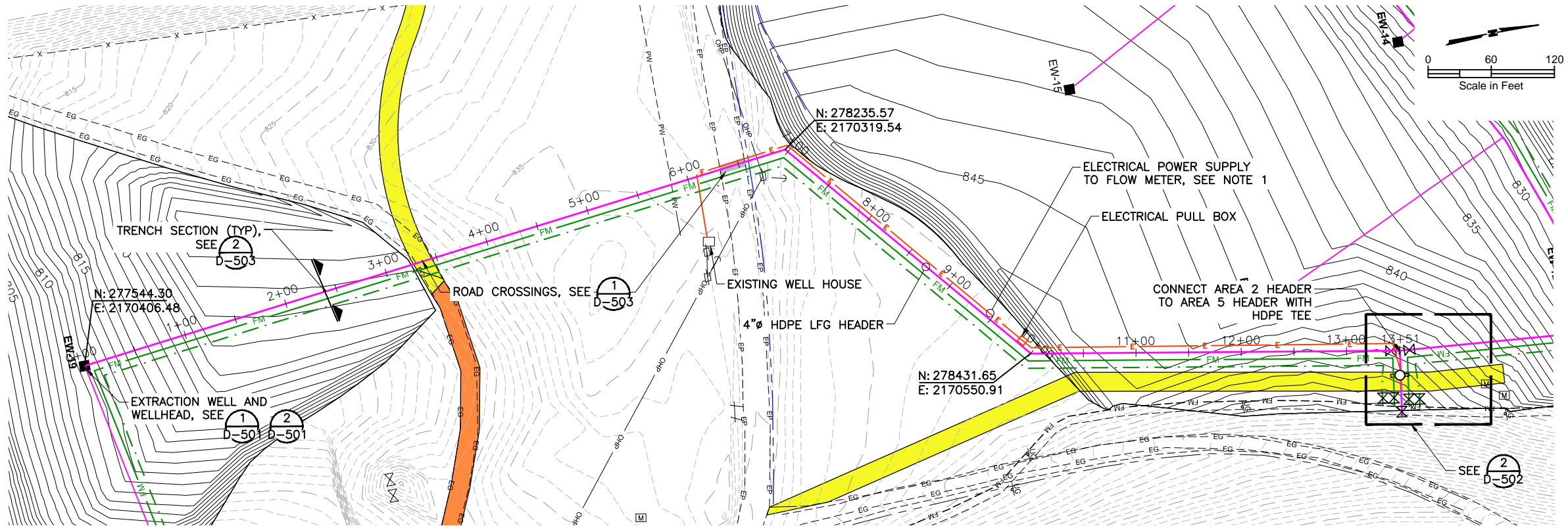
1. MINIMUM PIPE SLOPE 1% FOR LATERAL TO HEADER.
2. 2-1 INCH CONDUITS: MANUFACTURER'S SIGNAL CABLE, AND STUB UP SPARE.
3. PROVIDE 15/1 120V CIRCUIT BREAKER IN EXISTING POWER PANEL CONNECT BREAKER TO REMOTE DISPLAY FOR FLOW METER WITH 3#12 IN CONDUIT. MOUNT FLOW METER DISPLAY NEXT TO POWER PANEL.
4. ALL ELECTRICAL WORK SHALL COMPLY WITH SPECIFICATIONS BELOW.
5. INSTALL CARSONITE STAKES ABOVE LFG HEADER EVERY 50 FEET AND AT BENDS.



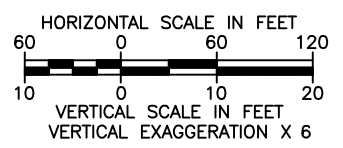
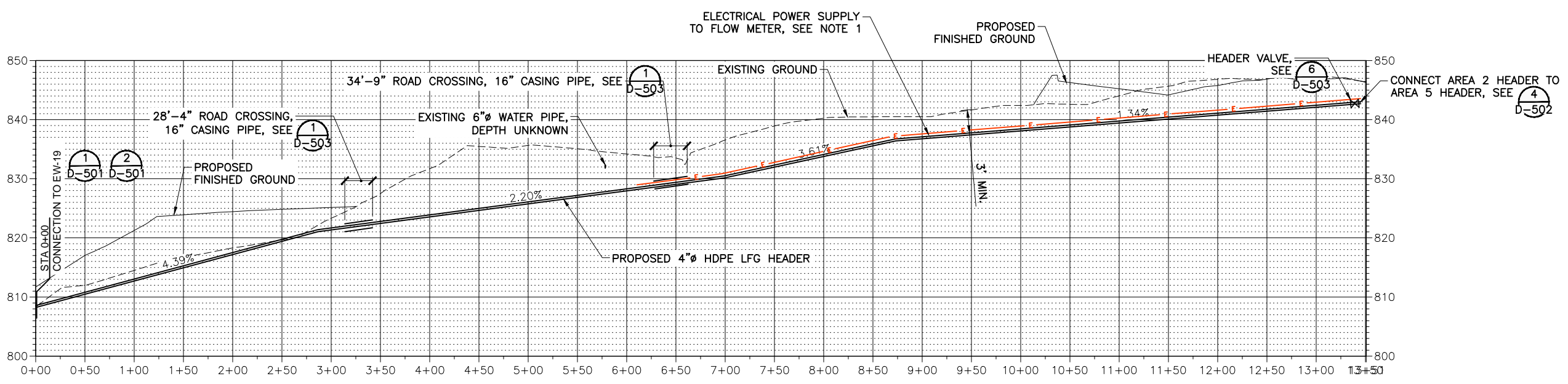
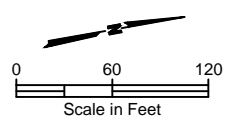
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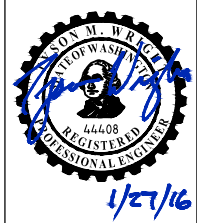
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- NOTES**
- ELECTRICAL POWER SUPPLY BETWEEN FLOW METER TERMINAL AND PANEL IN WELL HOUSE. 2-1 INCH CONDUITS; 3#12 TO PANEL BOARD FOR POWER, AND STUB UP SPARE.
 - LFG HEADER PIPE TO BE INSTALLED IN CASING PIPE AT ROAD CROSSING.
 - INSTALL CARSONITE STAKES ABOVE LFG HEADER EVERY 50 FEET AND AT BENDS.



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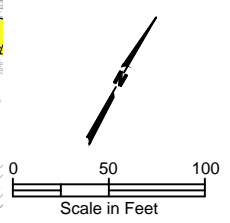
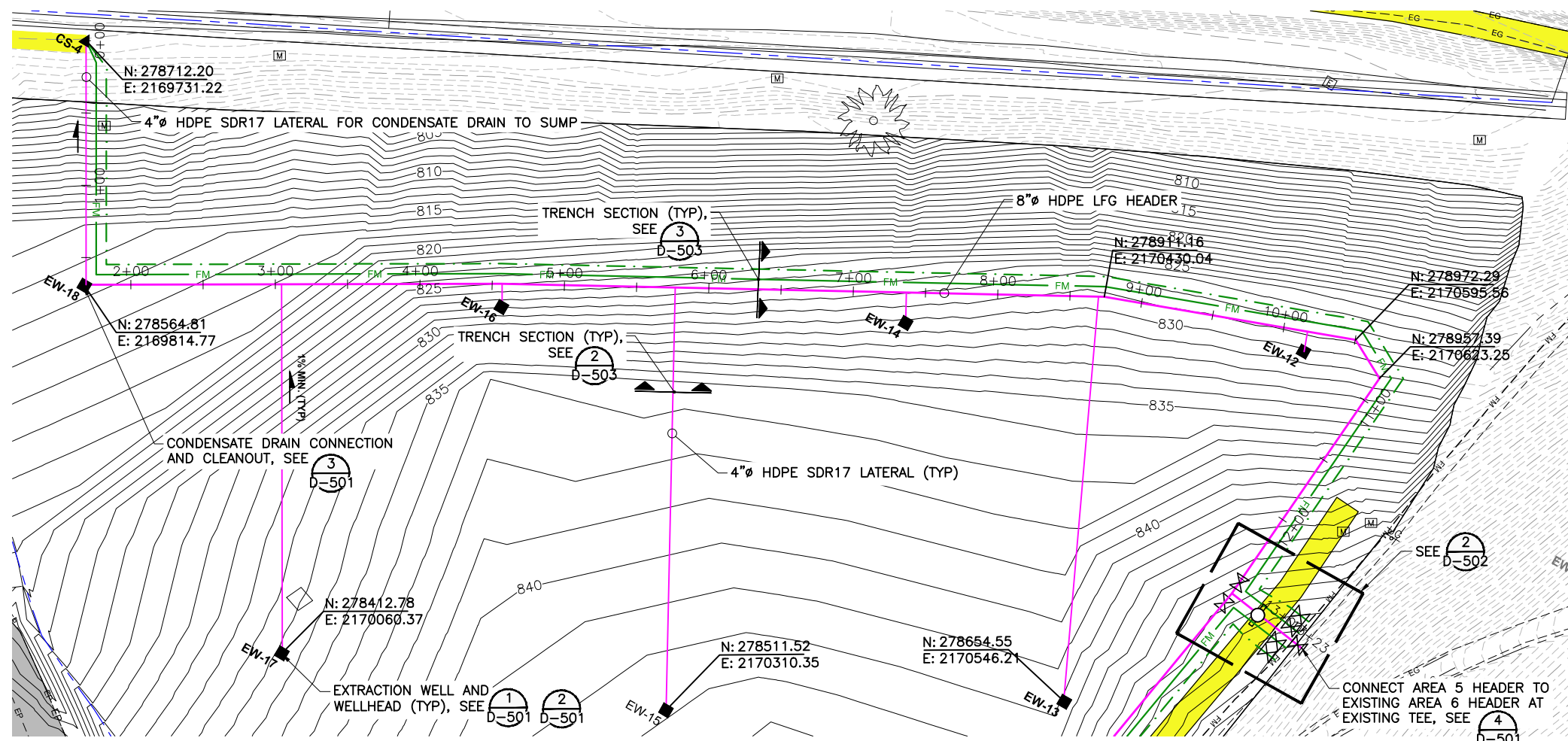
CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIATION ACTION
 LFG PIPE: AREA 2 PLAN & PROFILE

FILE: D-204
 JUB PROJ. #: 30-11-012
 DRAWN BY: EM
 DESIGN BY: TW
 CHECKED BY: -
 AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
 LAST UPDATED: 1/26/2016
 SHEET NUMBER:

D-204

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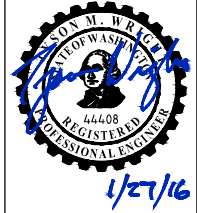




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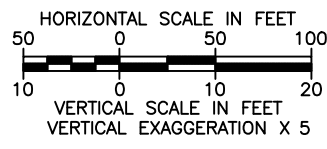
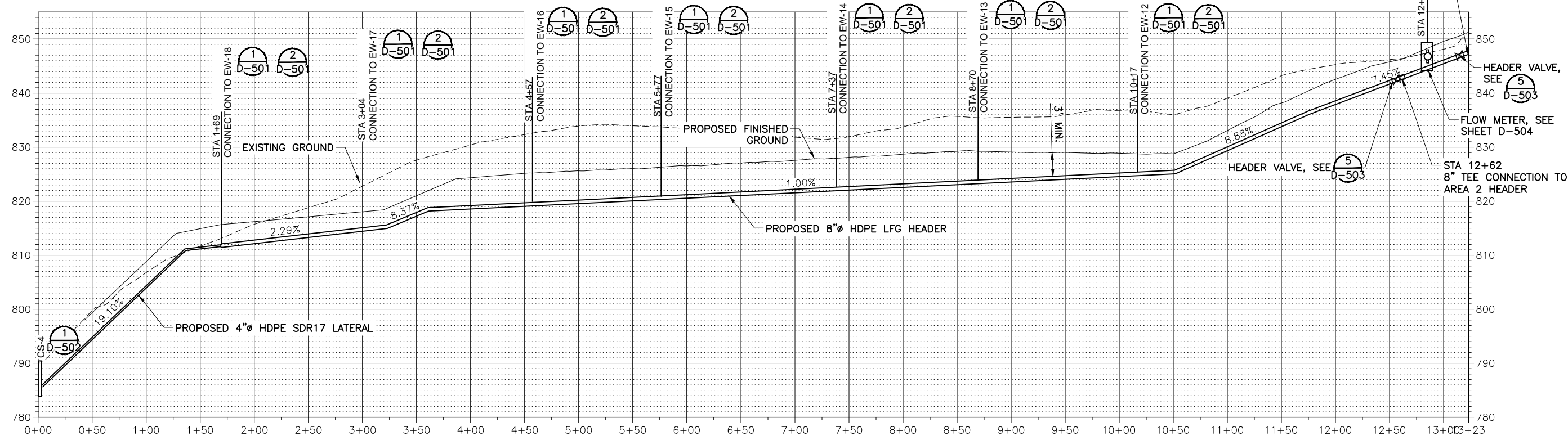
1. INSTALL CARSONITE STAKES ABOVE LFG HEADER EVERY 50 FEET AND AT BENDS.

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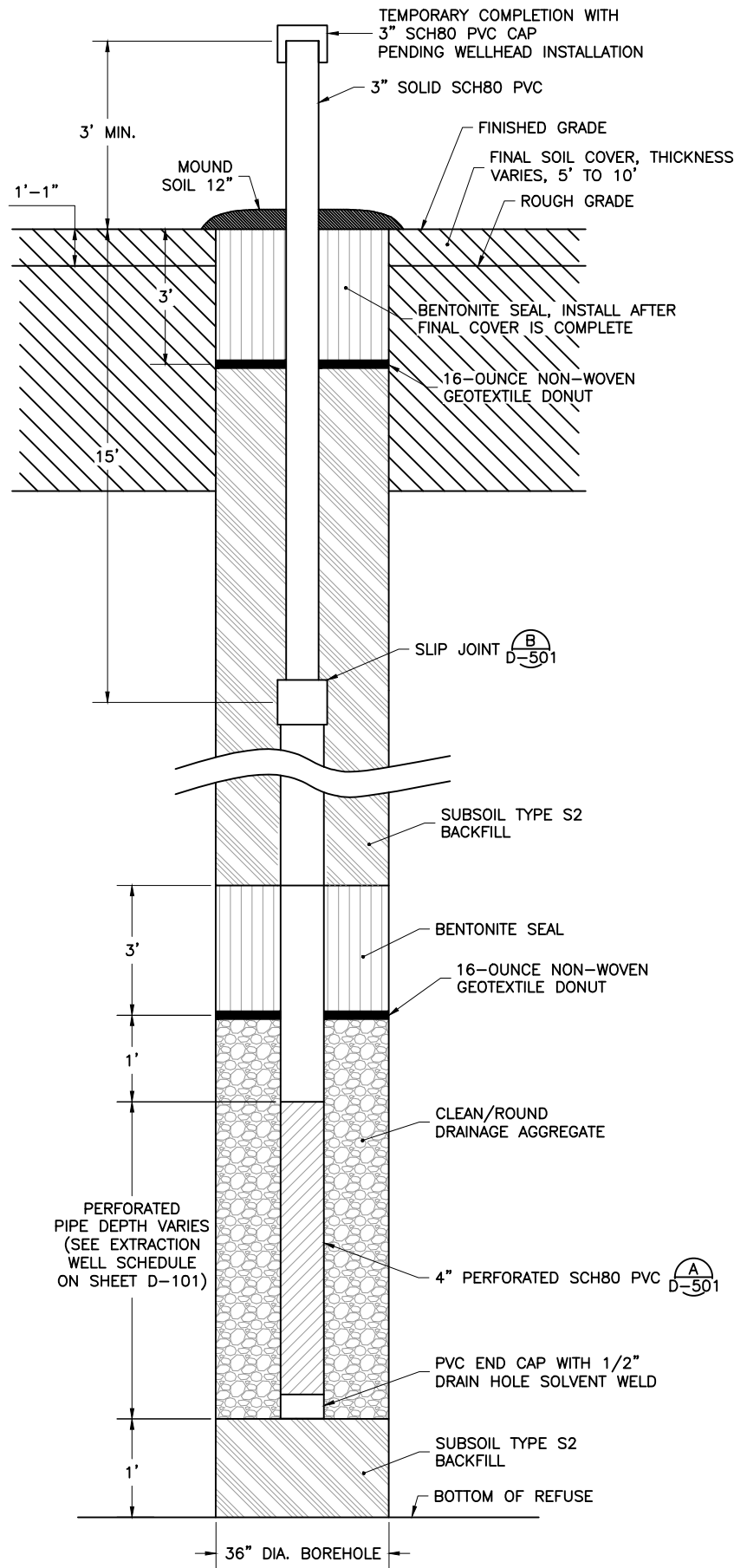
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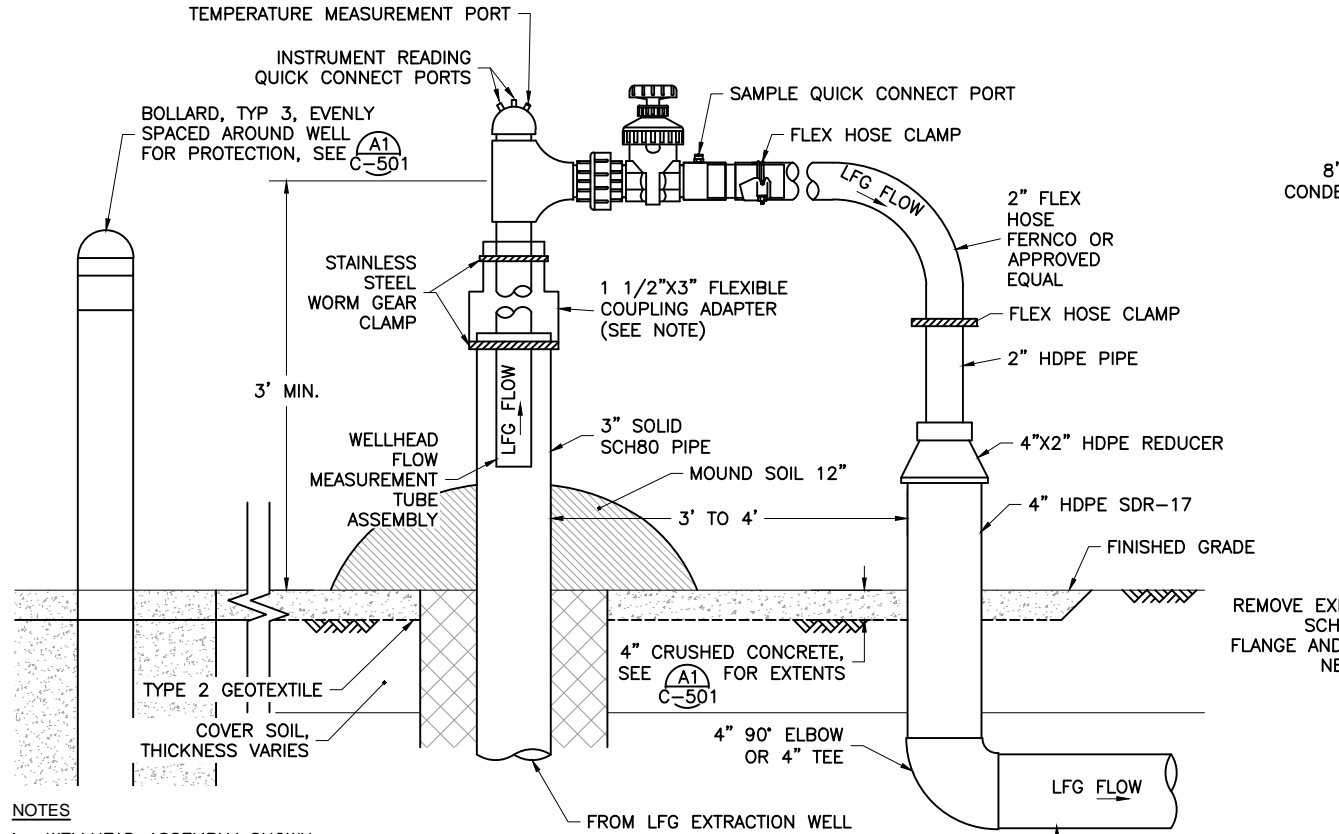
CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIATION ACTION
 LFG PIPE: AREA 5 PLAN & PROFILE

FILE: D-205
 JUB PROJ. #: 30-11-012
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 DESIGN BY: TW
 CHECKED BY: -
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 LAST UPDATED: 1/26/2016
 SHEET NUMBER:
D-205

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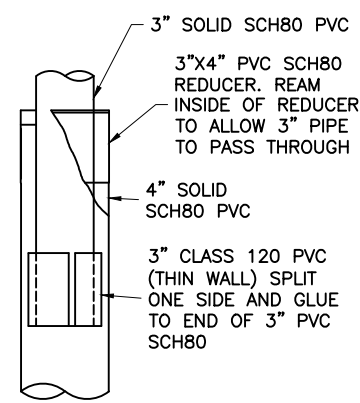


1 LFG EXTRACTION WELL DETAIL
D-101 NOT TO SCALE



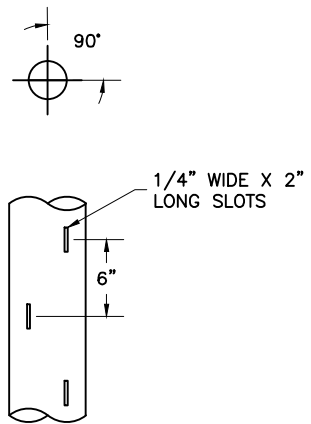
NOTES
1. WELLHEAD ASSEMBLY SHOWN REPRESENTS 1-1/2" LANDTEC ACCU-FLOW MODEL AF2V-PV-015-2-G AND ADAPTER AKT-EP-015-030S.

2 WELLHEAD DETAIL
D-101 NOT TO SCALE



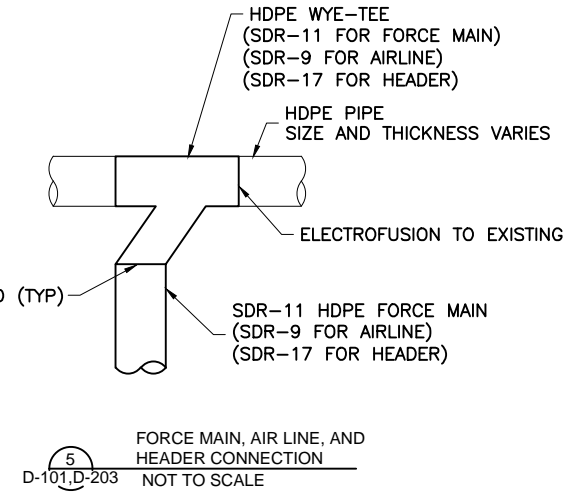
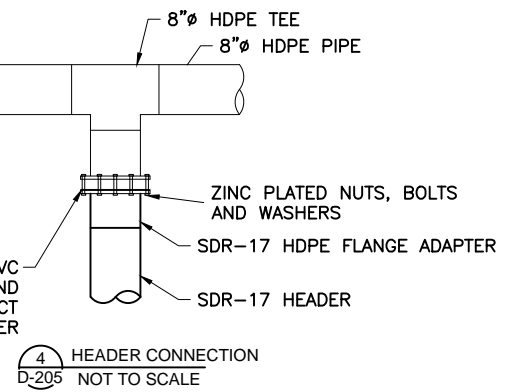
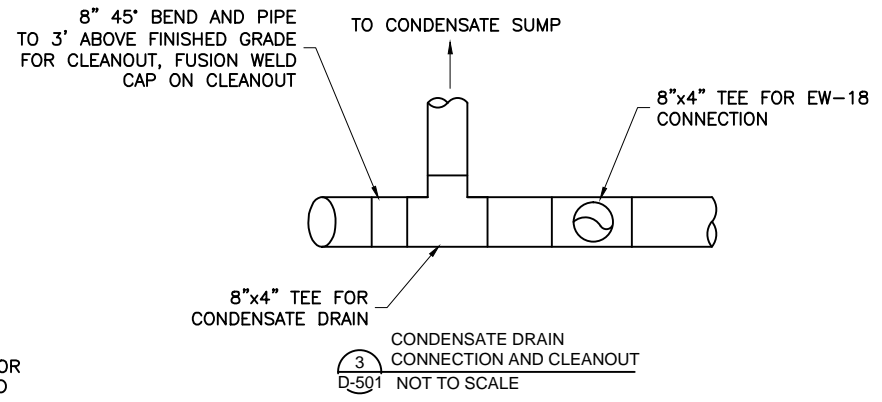
NOTES
1. ALTERNATE SLIP JOINT CONSTRUCTION MUST BE APPROVED BY ENGINEER.

B SLIP JOINT DETAIL
NOT TO SCALE



NOTES
1. PREFABRICATED PERFORATIONS MUST BE APPROVED BY ENGINEER.
2. SLOTS SHALL PROVIDE A MINIMUM OF 4 SQUARE INCHES OF OPEN AREA PER LINEAL FOOT OF PIPE.

A PERFORATED PIPE DETAIL
NOT TO SCALE



5 FORCE MAIN, AIR LINE, AND HEADER CONNECTION
D-101, D-203 NOT TO SCALE

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CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIATION ACTION
LFG EXTRACTION WELL AND CONNECTION DETAILS

FILE: 30-11-012_D-501
JUB PROJ. #: 30-11-012
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DESIGN BY: TW
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ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 1/27/2016

SHEET NUMBER:
D-501

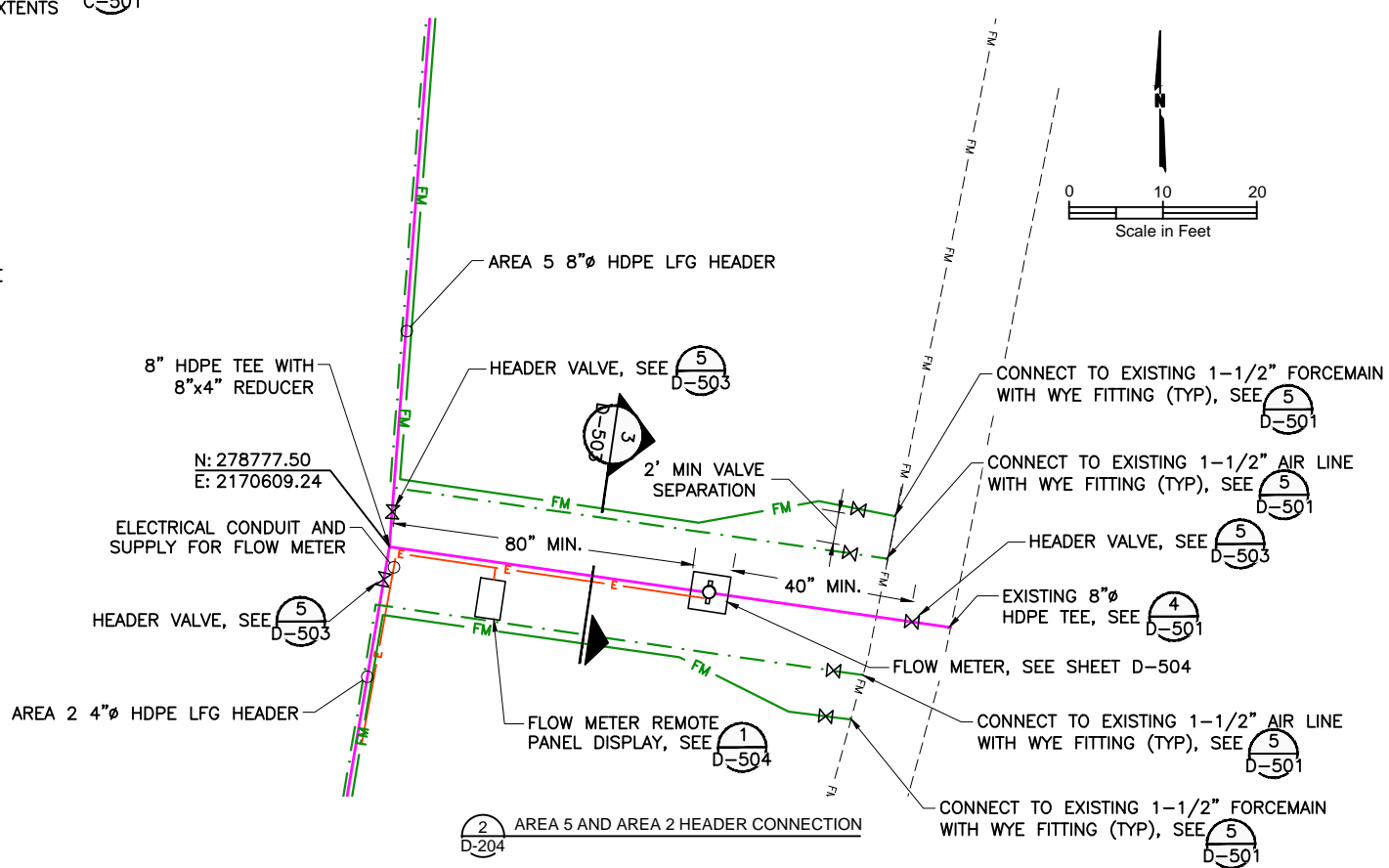
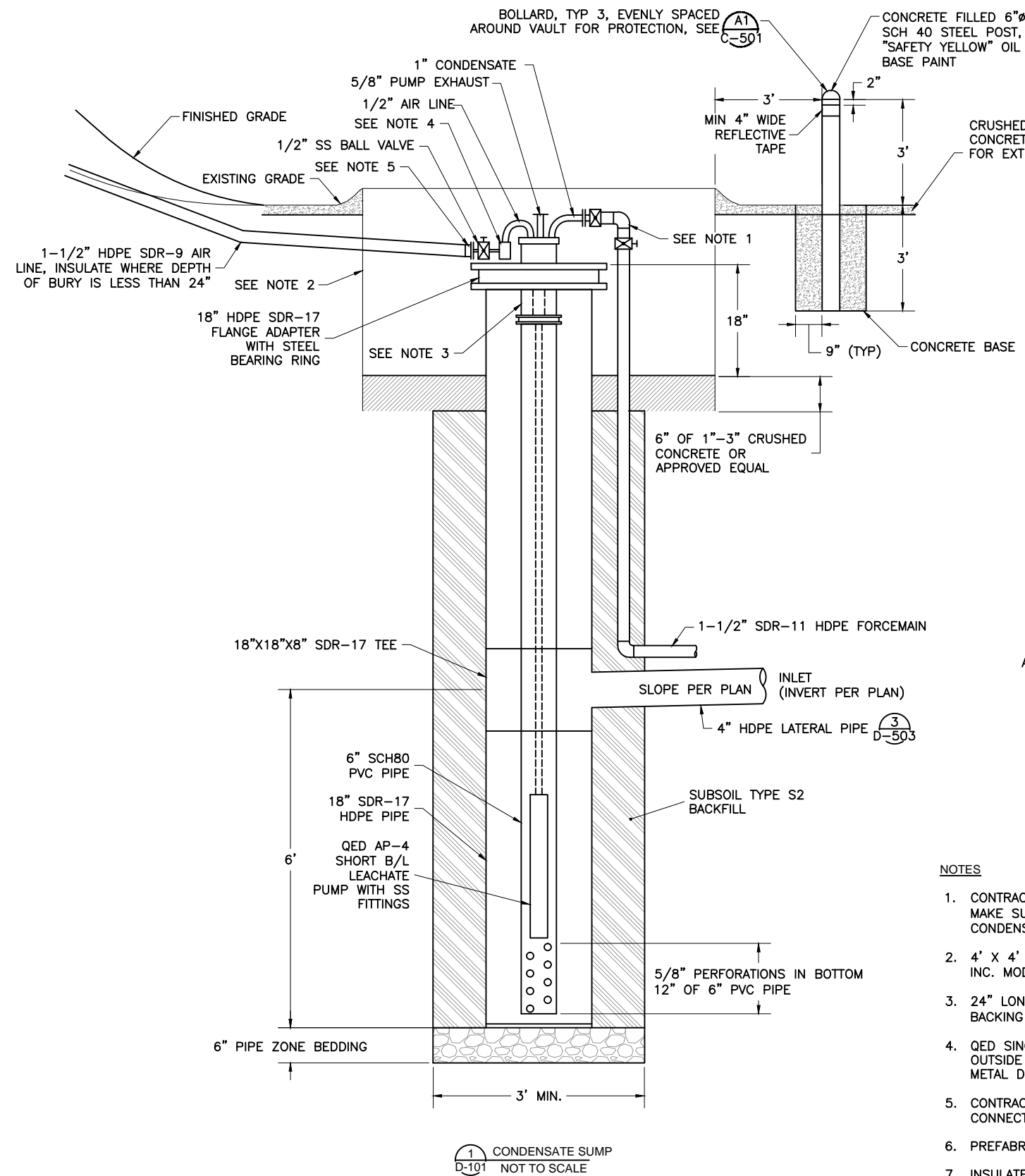


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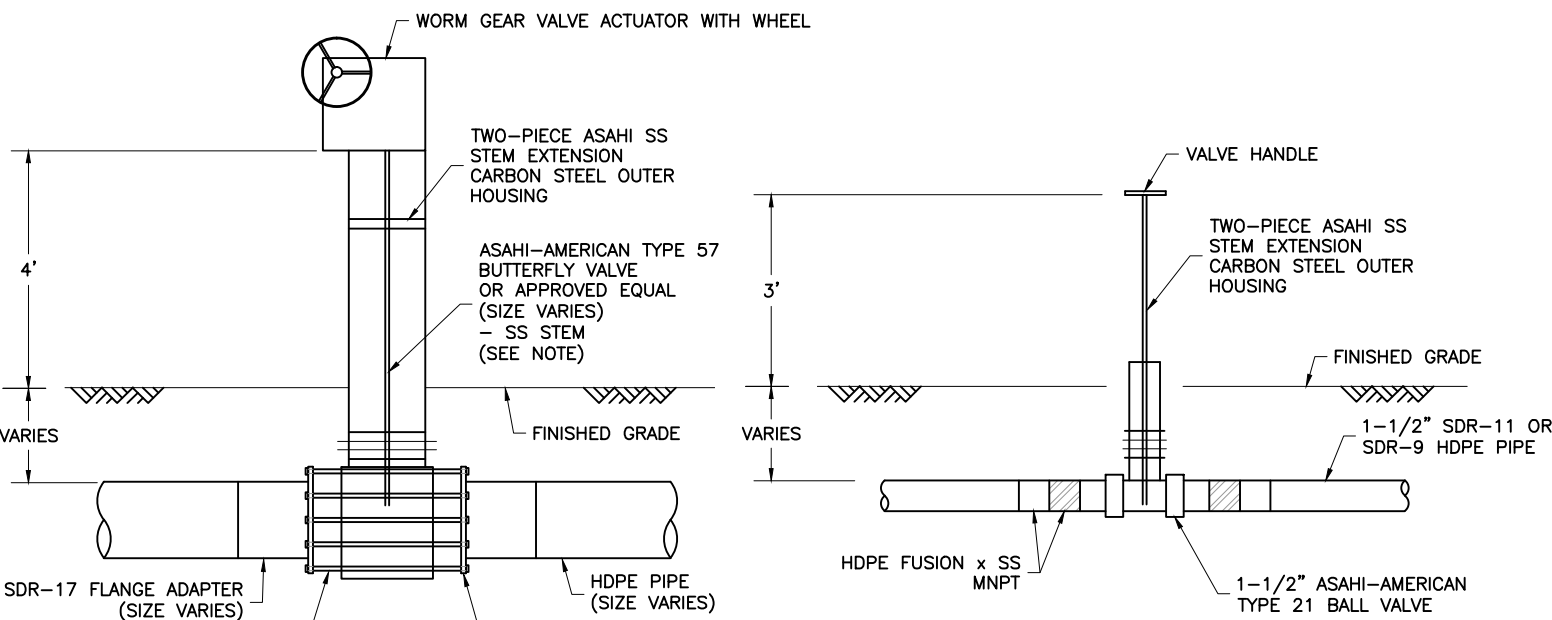
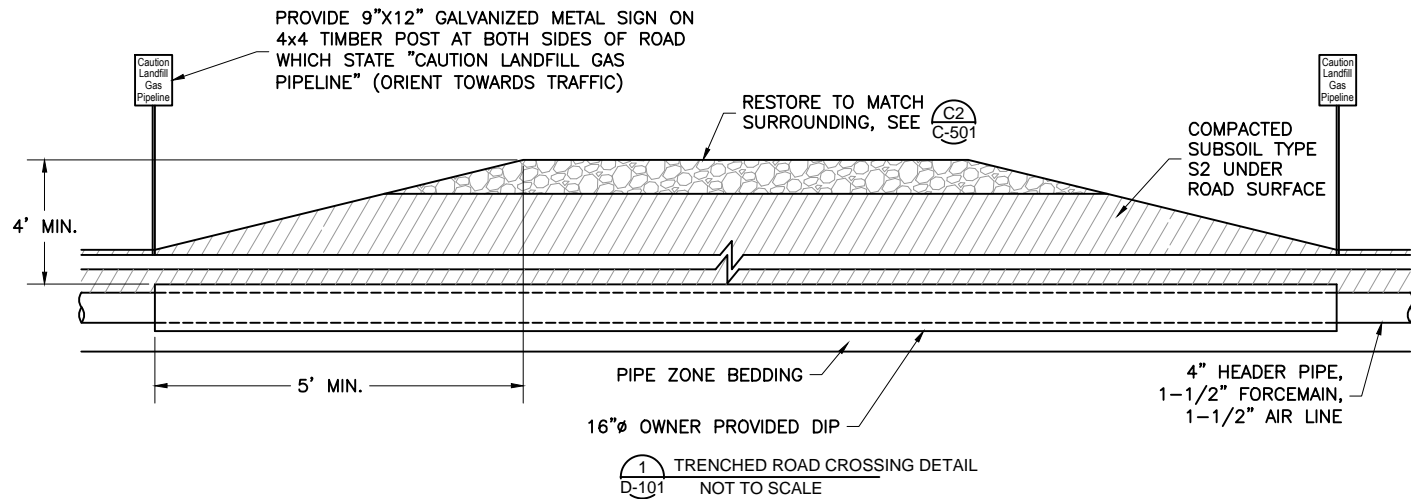
NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIATION ACTION
CONDENSATE VALVE AND CONNECTION DETAILS



NOTES

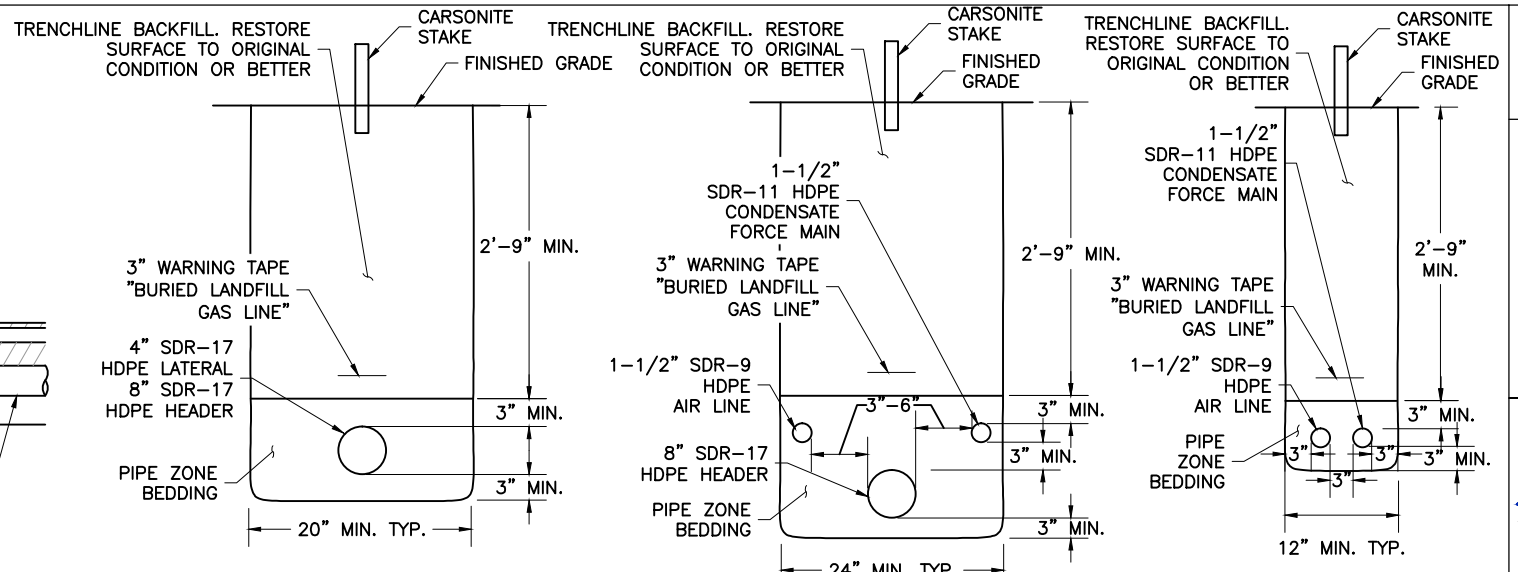
- CONTRACTOR SHALL INSTALL 1-1/2" PVC CHECK VALVE AND 1-1/2" BALL VALVE ON CONDENSATE OUTLET LINE TO MAKE SUITABLE CONNECTIONS FROM 1" CONDENSATE DISCHARGE TO 1-1/2" PVC AND 1-1/2" SDR-11 HDPE CONDENSATE FORCEMAIN.
- 4' X 4' X 52" HIGH PRE-CAST OPEN BOTTOM VAULT WITH SPRING ASSISTED LID. AS PROVIDED BY WILBERT PRECAST INC. MODEL NO. 1960-OPEN BOTTOM WITH HALLIDAY SA-3030 LID OR APPROVED EQUAL.
- 24" LONG 6" SDR-17 HDPE PIPE WELDED TO 18" BLIND FLANGE EQUIPPED WITH 6" SS FLANGE ADAPTER AND BACKING RING TO FLANGED CONNECTION OF 6" PVC PIPE.
- QED SINGLE STAGE FILTER AND PRESSURE REGULATOR WITH CYDE COUNTER MOUNTED IN WEATHER-PROOF CASE ON OUTSIDE OF SUMP. MODEL NO. MS1050. REPLACE POLYCARBONATE CONDENSATE TRAP BOWL WITH MANUAL DRAIN AND METAL DRAIN BOWL.
- CONTRACTOR TO CONNECT 1-1/2" SDR-9 HDPE TO 1/2" SS BALL VALVE THREADED CONNECTION. SLOPE AIR LINE TO CONNECTION FOR CONDENSATION DRAINAGE TO PRESSURE REGULATOR.
- PREFABRICATED HDPE SUMP MAY BE SUBSTITUTED AS APPROVED BY ENGINEER.
- INSULATE AIR AND CONDENSATE PIPES WITHIN VAULT WITH ALL-WEATHER INSULATION.



- NOTES
1. VALVE ASSEMBLY SHOWN REPRESENTS AN ASAHI-AMERICAN TYPE 21 BALL VALVE WITH STEM EXTENSION.

6 BUTTERFLY VALVE DETAIL D-502 NOT TO SCALE

5 LFG COLLECTION SYSTEM BUTTERFLY VALVE DETAIL (4" AND 8" HEADER AND LATERALS) D-502 NOT TO SCALE

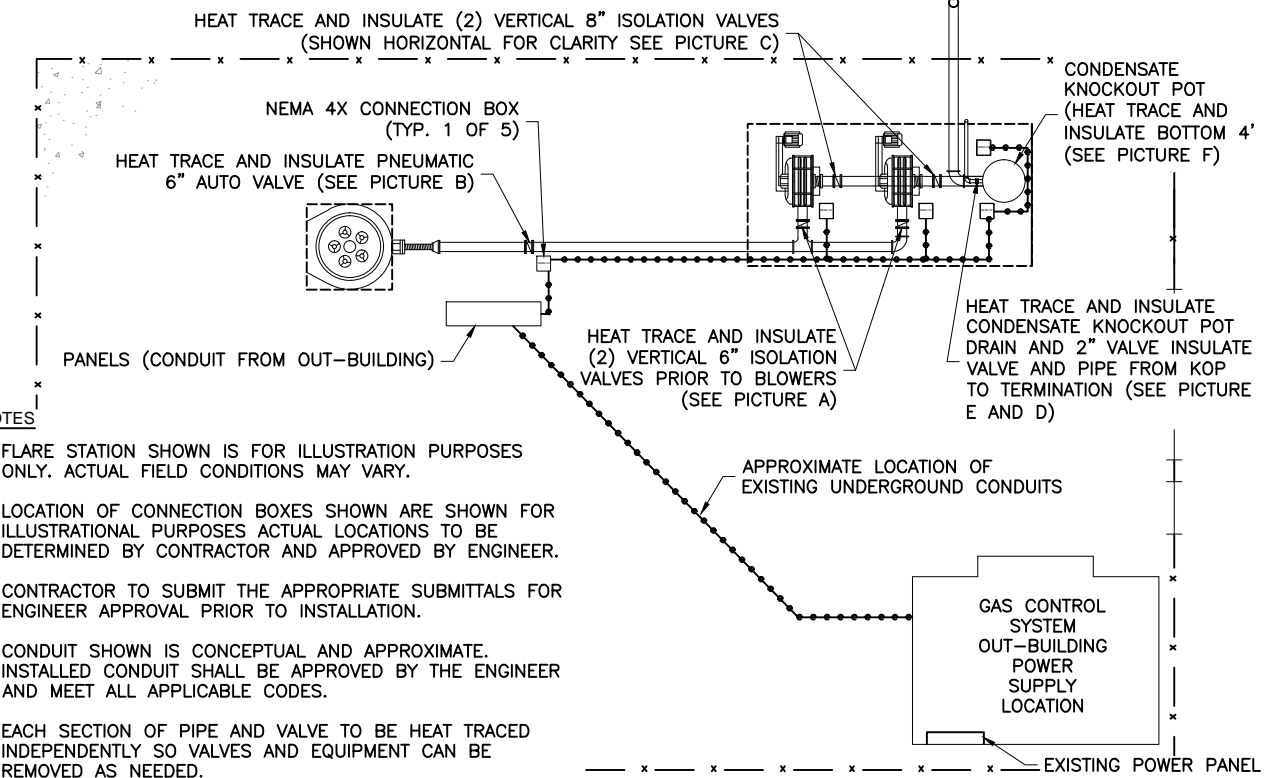


TRENCH NOTES

1. IF EXCAVATION ENCOUNTERS REFUSE, REMOVE 1 FOOT OF REFUSE AND REPLACE WITH TRENCHLINE BACKFILL, THEN INSTALL PIPE BEDDING.
2. INSTALL CARSONITE STAKES ABOVE LFG HEADER EVERY 50 FEET AND AT BENDS.

2 TRENCH TYPE 1 DETAIL D-501 NOT TO SCALE

3 TRENCH TYPE 2 DETAIL D-501 NOT TO SCALE



NOTES

1. FLARE STATION SHOWN IS FOR ILLUSTRATION PURPOSES ONLY. ACTUAL FIELD CONDITIONS MAY VARY.
2. LOCATION OF CONNECTION BOXES SHOWN ARE SHOWN FOR ILLUSTRATIONAL PURPOSES ACTUAL LOCATIONS TO BE DETERMINED BY CONTRACTOR AND APPROVED BY ENGINEER.
3. CONTRACTOR TO SUBMIT THE APPROPRIATE SUBMITTALS FOR ENGINEER APPROVAL PRIOR TO INSTALLATION.
4. CONDUIT SHOWN IS CONCEPTUAL AND APPROXIMATE. INSTALLED CONDUIT SHALL BE APPROVED BY THE ENGINEER AND MEET ALL APPLICABLE CODES.
5. EACH SECTION OF PIPE AND VALVE TO BE HEAT TRACED INDEPENDENTLY SO VALVES AND EQUIPMENT CAN BE REMOVED AS NEEDED.



PICTURE A



PICTURE B



PICTURE C



PICTURE D



PICTURE E



PICTURE F

7 FLARE STATION LAYOUT WITH FROST PROTECTION D-101 NOT TO SCALE



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CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIATION ACTION

PIPE, VALVE, AND FLARE WINTERIZATION DETAILS

FILE: 30-11-012_D-503
JOB PROJ. #: 30-11-012
DRAWN BY: EM
DESIGN BY: TW
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SHEET NUMBER:

D-503

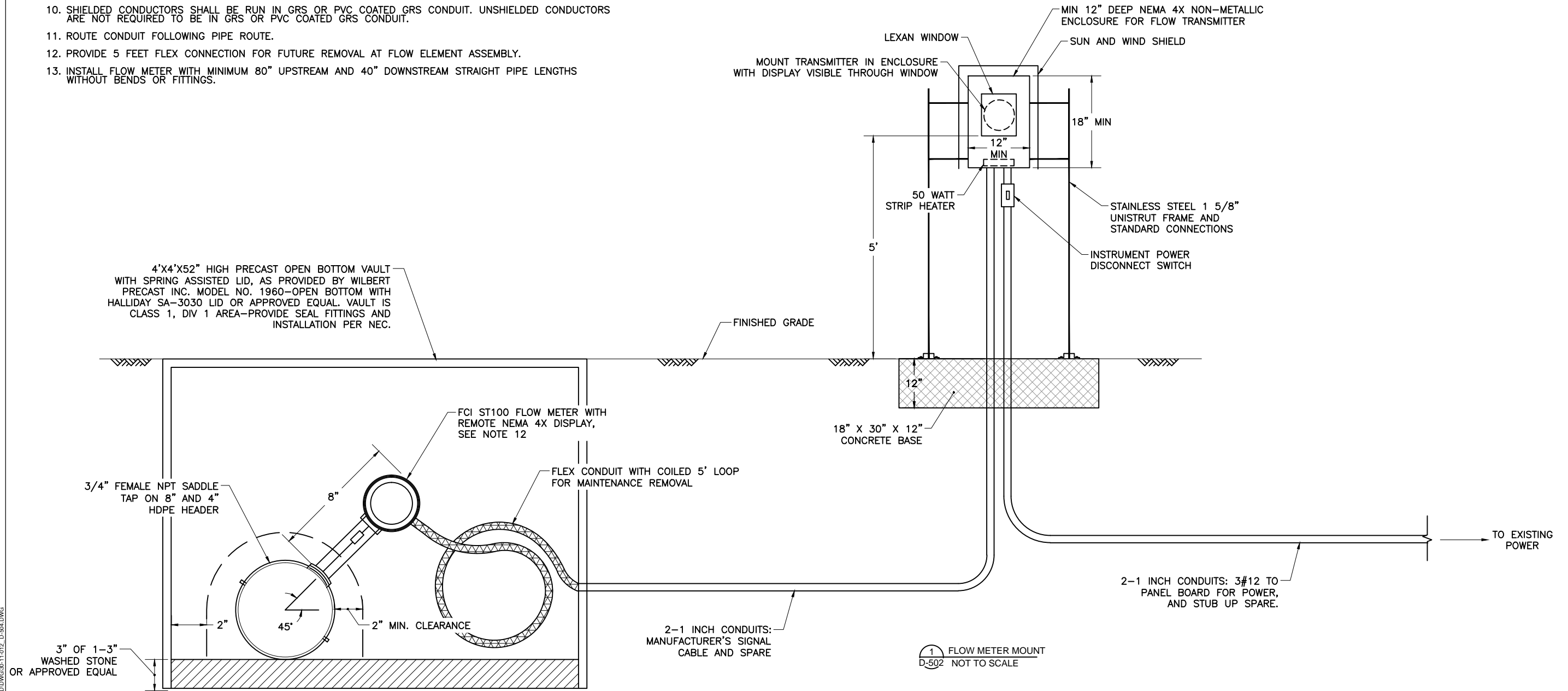


GENERAL NOTES

- THIS DRAWING SHOWS PROCESS INSTRUMENTATION AND CONTROL WIRING REQUIREMENTS. AC POWER AND GROUNDING CONDUCTORS ARE ALSO SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WIRING, WHETHER SHOWN OR NOT, NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.
- THIS DRAWING SHOWS RELATIVE LOCATIONS OF DEVICES AND PANELS AND IS NOT DRAWN TO SCALE.
- ALL SHIELDED AND UNSHIELDED CONDUCTORS SHALL BE RUN IN CONDUIT. SHIELDED CONDUCTORS SHALL NOT BE COMBINED WITH UNSHIELDED CONDUCTORS IN ANY CONDUIT.
- THIS DRAWING DOES NOT SHOW CONDUIT SYSTEMS. PROVIDE, AS A MINIMUM, PULL BOXES AS RECOMMENDED BY CONDUIT MANUFACTURER. CONDUIT SHALL NOT BE USED AS PULL BOX.
- CONDUIT SIZED FOR CONDUCTORS SHOWN.
- SHIELDED AND UNSHIELDED CONDUCTORS SHALL HAVE A MINIMUM OF 6" SEPARATION BETWEEN CONDUIT ON PARALLEL RUNS.
- SHIELDED CONDUCTORS SHALL BE SEPARATED FROM UNSHIELDED CONDUCTORS BY STEEL BARRIERS IN ALL TERMINAL AND PULL BOXES.
- FOR EACH CONDUIT CONTAINING MORE THAN TWO CONDUCTORS, PROVIDE A MINIMUM OF TWO CONDUCTORS OR 10% OF TOTAL CONDUCTORS IN CONDUIT, WHICHEVER IS GREATER AS SPARES. TAG BOTH ENDS OF EACH SPARE. TERMINATE EACH END OF SPARE CONDUCTOR AT TERMINALS WHENEVER POSSIBLE.
- CONDUCTORS SHALL NOT BE SPLICED EXCEPT AT TERMINALS.
- SHIELDED CONDUCTORS SHALL BE RUN IN GRS OR PVC COATED GRS CONDUIT. UNSHIELDED CONDUCTORS ARE NOT REQUIRED TO BE IN GRS OR PVC COATED GRS CONDUIT.
- ROUTE CONDUIT FOLLOWING PIPE ROUTE.
- PROVIDE 5 FEET FLEX CONNECTION FOR FUTURE REMOVAL AT FLOW ELEMENT ASSEMBLY.
- INSTALL FLOW METER WITH MINIMUM 80" UPSTREAM AND 40" DOWNSTREAM STRAIGHT PIPE LENGTHS WITHOUT BENDS OR FITTINGS.

AREA NOTES

- CLASS 1, DIV 2 AREAS ARE DEFINED BY INTERPRETATION OF NFPA 497, 820 TABLE 4-2 AND ANNEX A, FIGURES A.6.2. A-G. AREAS WITHIN 10 FEET OF VALVES, METERS, GAS CHECK VALVES, CONDENSATE TRAPS AND OTHER PIPING APPURTENANCES AND AREAS WITHIN 3 FEET OF ENCLOSED ABOVE GRADE PIPING. AREAS OUTSIDE THIS ENVELOPE ARE UNCLASSIFIED.
- CLASS 1, DIV 1 OUTDOOR AREAS ARE DEFINED BY INTERPRETATION OF APPLICATION OF NFPA 497, 820 TABLE 4-2 AND ANNEX A, FIGURES A.6.2. A-G. AREAS WITHIN 5 FEET OF VENTS AND BELOW GRADE AREAS SUCH AS WELLS, SUMPS.



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CITY OF WALLA WALLA
SUDBURY ROAD LANDFILL REMEDIATION ACTION
 FLOW METER DETAILS

FILE: 30-11-012_D-504
 JUB PROJ. #: 30-11-012
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