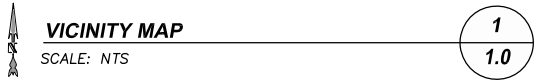
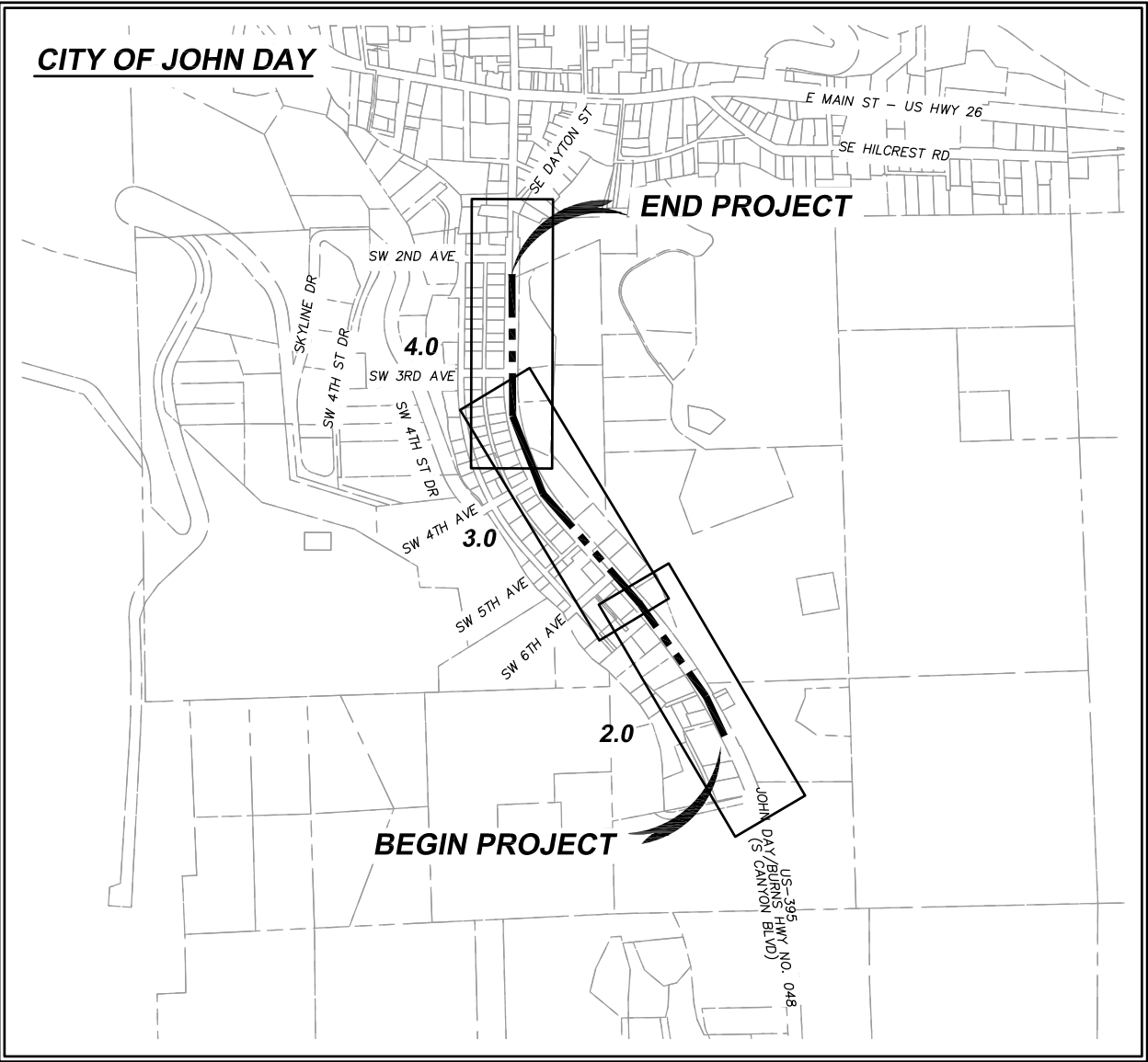


GRANT COUNTY DIGITAL // CITY OF JOHN DAY  
GRANT COUNTY ESD - 911 LATERAL

CITY OF JOHN DAY, GRANT COUNTY, OREGON  
TOWNSHIP 13 NORTH , RANGE 31 EAST, SECTION 26  
October 2018



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S.2	SITE PLAN / BUILDING ENTRANCE PLAN: JOHN DAY FIRE STATION
MCP.1	MASTER CABLE PLAN

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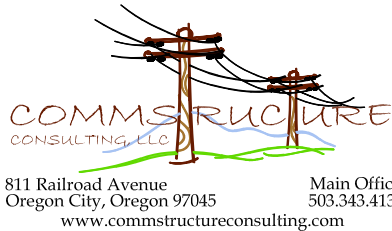
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Know what's below.  
Call before you dig.

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).



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✓	DESCRIPTION	DATE	BY	APPR.



GRANT COUNTY DIGITAL // CITY OF JOHN DAY  
GRANT COUNTY ESD - 911 LATERAL  
COVER SHEET - VICINITY MAP

CITY: JOHN DAY - TOWNSHIP 13 NORTH RANGE 31 EAST SECTION(S): 26		COUNTY: GRANT CO., OREGON	
PLOT DATE: 10/17/2018	SCALE: AS SHOWN	PROJECT NAME-FILENAME.DWG - TAB-SHEET # GRANT.ESD.911.LATERAL.CS00.DWG - CS00_1.0	SHEET 1.0

CONSTRUCTION SET

JOB SCOPE

JOHN DAY, OREGON  
GRANT COUNTY

TOWNSHIP 13N – RANGE 31E – SECTION 26

THIS PROJECT WILL CREATE A NEW FIBER OPTIC NETWORK CONNECTION BETWEEN THE GRANT COUNTY EDUCATION SERVICE DISTRICT BUILDING AND THE JOHN DAY FIRE STATION LOCATED IN JOHN DAY, OREGON.

PROJECT SUMMARY:

BEGINNING AT OREGON TRAIL ELECTRIC CO–OP (OTEC) POLE #190256217 LOCATED ON THE WEST SIDE OF S. CANYON BLVD APPROXIMATELY 300 FEET SOUTH OF THE GRANT COUNTY EDUCATION SERVICE DISTRICT BUILDING, A NEW AERIAL 6.6M STRAND PATHWAY WILL BE CONSTRUCTED ALONG THE WEST SIDE OF S. CANYON BLVD HEADING NORTH FOR APPROXIMATELY 3,020 FEET TO OTEC POLE #190256739. A NEW AERIAL 6.6M STRAND PATHWAY WILL ALSO BE CONSTRUCTED EAST ACROSS S. CANYON BLVD FOR APPROXIMATELY 75 FEET FROM OTEC POLE #190256439 TO OTEC POLE #19023963. A NEW 48F CABLE WILL BE LASHED TO THIS NEW STRAND BEGINNING AT OTEC POLE #190256120 TO OTEC POLE #190263963 AND THEN TRANSITION UNDERGROUND TO THE JOHN DAY FIRE STATION.

GRANT EDUCATION SERVICE DISTRICT (ESD) BUILDING ENTRY:

BEGINNING AT OTEC POLE #190256120 LASH NEW 12F OFNR CABLE TO NEW STRAND HEADING SOUTH FOR APPROXIMATELY 24 FEET. CREATE A MID–SPAN PULL OFF AND ATTACH TO PEAK OF ROOF OF THE GRANT EDUCATION SERVICE DISTRICT BUILDING. THE 12F OFNR CABLE WILL ENTER THE BUILDING NEAR THE PEAK OF ROOF AND ENTER INTO EXISTING ATTIC SPACE. A NEW 1–1/4" FLEX CONDUIT WILL BE SECURED TO RAFTER HANGERS IN THE EXISTING ATTIC SPACE. PLACE NEW 12F OFNR CABLE THROUGH NEW 1–1/4" FLEX CONDUIT. THE NEW 12F OFNR CABLE WILL THEN ENTER AN EXISTING 4" CEILING PENETRATION TO THE SERVER EQUIPMENT ROOM. ONCE IN THE SERVER EQUIPMENT ROOM A 1–1/4" FLEX CONDUIT WILL BE PLACED ALONG THE EXISTING CABLE LADDER RACKING TO AN EXISTING FIBER RACK LOCATION (RACK #4). PLACE NEW 12F OFNR CABLE THROUGH NEW 1–1/4" FLEX CONDUIT. LEAVE 30' SLACK STORAGE AT RACK LOCATION FOR TERMINATION. PLACE 12 PORT RACK MOUNT FIBER DELIVERY POINT (FDP) AND TERMINATE 12F OFNR CABLE.

JOHN DAY FIRE STATION BUILDING ENTRY:

A NEW CONDUIT RISER WILL BE PLACED ON EXISTING OTEC RISER BRACKETS AT OTEC POLE #190263963. CONSTRUCT A NEW CONDUIT PATHWAY TO NEW INTERCEPT VAULT LOCATED ON PRIVATE PROPERTY. NEW INTERCEPT VAULT WILL BE PLACED OVER EXISTING CONDUIT PATHWAY TO MECHANICAL ROOM. A NEW 48F CABLE WILL BE PLACED IN THE NEW RISER THROUGH THE EXISTING CONDUIT PATHWAY TO THE MECHANICAL ROOM IN NEW FIRE STATION. PLACE NEW 48F CABLE THROUGH EXISTING CONDUIT PATHWAY THROUGH CEILING SPACE FROM THE MECHANICAL ROOM TO NEW SERVER ROOM. LEAVE 30 FEET OF SLACK STORAGE FOR TERMINATION. PLACE 48 PORT WALL MOUNT FIBER DELIVERY POINT (FDP) AND TERMINATE 48F CABLE.

CONTRACTOR WILL BE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE CITY, COUNTY, STATE AND PRIVATE AGENCY RIGHT OF WAY AND POLE ATTACHMENT PERMIT REQUIREMENTS INCLUDING TRAFFIC CONTROL, WORK HOUR RESTRICTIONS, NOTIFICATIONS AND RESTORATION. CABLE REEL LOCATIONS ALONG WITH SLACK STORAGE IN THE FIBER CABLE WILL BE PLACED AT AERIAL STORAGE AND VAULT LOCATIONS AS DESIGNATED IN THE CONSTRUCTION DRAWINGS AND FIBER OWNERSHIP TAGS WILL BE PLACED ON THE CABLE AT EVERY POLE AND EVERY VAULT LOCATION. THE CONTRACTOR WILL PLUG ALL VACATED HOLES FROM ABANDON OR RELOCATED ATTACHMENTS PER POLE OWNER SPECIFICATIONS. CONTRACTOR WILL TEST AND VERIFY THE EXISTING CONDUIT PRIOR TO INSTALLATION OF THE NEW FIBER OPTIC CABLE AND LOCATE WIRE. CONTRACTOR WILL CLEAN AND TAG FIBER COILS; PREP FIBER FOR SPLICE; PLACE LOCATE WIRE, TEST STATIONS, GROUND RODS, AND GROUND WIRE AS REQUIRED AND DETAILED IN THE CONSTRUCTION DRAWINGS; AND REPLACE ANY MISSING LOCATE WIRE WITHIN THE EXISTING CONDUIT PATHWAYS.

PERMIT SUMMARY


OTEC JOINT USE PERMIT: 1  
ODOT PERMIT: 1

MATERIAL & INSTALLATION SUMMARY

DESCRIPTION	UOM	TOTALS
MATERIAL RAKE OFF:		
AERIAL QUANTITY:		
6.6M STRAND/MESSENGER:	FT	3,166
3/4" SCREW ANCHOR:	EA	4
6.6M DOWNGUY:	EA	7
S/W GUY ASSEMBLY:	EA	4
2" RISER (10' GRC REMAINING PVC):	EA	23
AERIAL SLACK STORAGE BRACKET (SNOW SHOE QTY. 2):	EA	2
UNDERGROUND QUANTITY:		
2" SCH–40 PVC OR SDR11 HDPE CONDUIT:	FT	13
24x36x36 HAND HOLE:	EA	1
#12 AWG LOCATE WIRE:	FT	13
LOCATE WIRE TEST STATION (TONE DETECTION SYSTEM–TDS):	EA	1
5/8"x5' GROUND ROD:	EA	1
PLACE NEW 2" 3–CELL MAXCELL INNERDUCT:	FT	190
INTERIOR QUANTITY:		
1–1/4" RISER FLEX CONDUIT:	FT	220
RACK MOUNT 12 PORT PANEL WITH SINGLEMODE SC/UPC PORTS:	EA	1
WALL MOUNT 48 PORT PANEL WITH SINGLEMODE SC/UPC PORTS:	EA	1
FIBER QUANTITY:		
48 CT ARMORED FIBER OPTIC CABLE:	FT	2957
48 CT ARMORED FIBER OPTIC CABLE SLACK:	FT	280
12 CT OFNR FIBER OPTIC CABLE:	FT	212
12 CT OFNR FIBER OPTIC CABLE SLACK:	FT	130
INSTALLATION RAKE OFF:		
AERIAL QUANTITY:		
PLACE NEW 6.6M STRAND/MESSENGER:	FT	3166
PLACE NEW ANCHOR:	EA	4
PLACE NEW DOWNGUY:	EA	7
PLACE NEW S/W GUY ASSEMBLY:	EA	4
PLACE NEW 2" RISER (10' GRC REMAINING PVC):	EA	1
PLACE NEW AERIAL SLACK STORAGE BRACKET (SNOW SHOE QTY. 2):	EA	2
REMOVE EXISTING ANCHOR:	EA	3
UNDERGROUND QUANTITY:		
PLACE NEW 2" SCH–40 PVC OR SDR11 HDPE CONDUIT:	FT	13
PLACE NEW 24X36X36 OPEN BOTTOM HAND HOLE:	EA	1
PLACE NEW #12 AWG LOCATE WIRE (AS REQUIRED):	FT	13
PLACE NEW LOCATE WIRE TEST STATION (AS REQUIRED):	EA	1
PLACE NEW 5/8"x5' GROUND ROD (AS REQUIRED):	EA	1
PLACE NEW 2" 3–CELL MAXCELL INNERDUCT:	FT	190
INTERIOR QUANTITY:		
PLACE NEW 1–1/4" RISER FLEX CONDUIT:	FT	220
PLACE NEW RACK MOUNT 12 PORT PANEL WITH SINGLEMODE SC/UPC PORTS:	EA	1
PLACE NEW WALL MOUNT 48 PORT PANEL WITH SINGLEMODE SC/UPC PORTS:	EA	1
FIBER QUANTITY:		
PLACE (LASH) FIBER OPTIC CABLE TO NEW STRAND:	FT	2,626
PULL NEW FIBER OPTIC CABLE THROUGH EXISTING CONDUIT:	FT	295
PULL NEW FIBER OPTIC CABLE THROUGH NEW CONDUIT:	FT	215
TOTAL POLES:	EA	23

\*\*\* NOTE:  
FOOTAGES SHOWN ARE MEASURED IN LINEAR FEET.  
TO ACCOMMODATE FOR SAG DISTANCE FROM POLE  
TO POLE, ADD 2% TO TOTAL CABLE & STRAND.

Plot Date: 06 Nov 2018, 11:22am By User:Mike  
Drawing Name: Z:\CITY OF JOHN DAY\GRANT ESD – 911 LATERAL (AIRPORT)\CAD\GRANT.ESD.911.LATERAL.CS00.DWG Layout (If Any): CS00\_1.1



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REVISIONS				
✓	DESCRIPTION	DATE	BY	APPR.



GRANT COUNTY DIGITAL // CITY OF JOHN DAY  
GRANT COUNTY ESD - 911 LATERAL  
JOB SCOPE - MATERIAL RAKE-OFF

CITY: JOHN DAY – TOWNSHIP 13 NORTH RANGE 31 EAST SECTION(S): 26		COUNTY: GRANT CO., OREGON	
PLOT DATE: 10/30/2018	SCALE: AS SHOWN	PROJECT NAME–FILENAME.DWG – TAB_SHEET # GRANT.ESD.911.LATERAL.CS00.DWG – CS00_1.1	SHEET 1.1

SPECIFICATION SET

SURFACE FEATURES / AERIAL UTILITIES - LINETYPES & SYMBOLS

EXISTING

CABLE

STRAND

CONDUIT

PLENUM / RISER  
RATED FLEX CONDUIT  
(AS SPECIFIED)

COMMUNICATIONS

(OWNERS SPECIFIED ON PLANS)

CATV

CATV

T

TELEPHONE

FO

FIBER OPTIC

POWER/ELECTRICAL

(OWNERS SPECIFIED ON PLANS)

P

PRIMARY

SL

STREET LIGHT

TS

TRAFFIC SIGNAL

OTHER UTILITIES

G

GAS

SS

SANITARY

ST

STORM

W

WATER

TOPO FEATURES

BOW

BACK OF WALK/SIDEWALK

BUILDING FOOTPRINT

CULVERT

CURB

CURB

EOC

EDGE OF CONCRETE

EOG

EDGE OF GRAVEL

EOP

EDGE OF PAVEMENT

DWY

DRIVEWAY

TOB

TOP OF BANK

FENCE

STRIPING

R/R TRACKS

C/L

RIGHT-OF-WAY CENTERLINE

R/W

RIGHT-OF-WAY

P/L

PROPERTY LINE

ESMT

EASEMENT

WALL

VEGETATION LINE

PROPOSED

CABLE

STRAND

CONDUIT

PLENUM / RISER  
RATED FLEX CONDUIT  
(AS SPECIFIED)

POLE TO POLE GUY

10+00

CENTERLINE

AERIAL MID-SPAN X-OVER

EXISTING

MST

UTILITY POLE

SPLICE

MID-SHEATH SPLICE

VAULT/BUILDING STORAGE

FIBER SYMBOL

FT

AERIAL STORAGE

POWER ANCHOR & GUY

POWER S/W ANCHOR & GUY

COMM ANCHOR & GUY

COMM S/W ANCHOR & GUY

VGR GROUND

INTERIOR BOND

PROPOSED

MST

UTILITY POLE

SPLICE

MID-SHEATH SPLICE

VAULT/BUILDING STORAGE

FIBER SYMBOL

FT

AERIAL STORAGE

DG TO EXTG POWER ANCHOR

DG TO EXTG POWER S/W ANCHOR

DG TO EXTG COMM ANCHOR

DG TO EXTG COMM S/W ANCHOR

ANCHOR & GUY

S/W ANCHOR & GUY

VGR GROUND

INTERIOR BOND

DETAILS AND SECTIONS CALLOUT SYMBOLOGY

STREET NAME OR DETAIL  
PLAN NAME OR DETAIL LINE

SCALE: 1" = 100'

1

1.2

DETAIL NUMBER

DRAWING NUMBER  
DETAIL IS LOCATED ON

A-A

1.2

SECTION LETTERS

DRAWING NUMBER  
SECTION IS LOCATED ON

P1

1.2

PICTURE NUMBER  
DRAWING NUMBER  
PICTURE IS LOCATED ON

INDICATES DIRECTION  
PICTURE WAS TAKEN

SCALE: N.T.S.

EXISTING

CABLE MARKER

CABLE MARKER  
E/W GROUND LUGS

LOCATE TERMINAL  
ACCESS POINT

GROUND ROD

MST

SIGNAL CONTROLLER

PEDESTAL

POWER

POWER TRANSFORMER

POWER METER

TRAFFIC

CROSS WALK SIGNAL

R/R CROSSING SIGNAL

JUNCTION BOX

TRAFFIC SIGNAL POLE

SIGNAL CONTROLLER

RAILROAD ARM

SIGN

STORM

AREA DRAIN

CATCH BASIN

STORM SEWER

WATER

BLOW OFF

FIRE CONNECTION

FIRE HYDRANT

IRRIGATION METER

IRRIGATION VALVE

WATER METER

WATER VALVE

WATER VAULT

TOPO

BOLLARD

GAS VALVE

GAS METER

LUMINAIRE

MAILBOX

PROPERTY CORNER

MONUMENT SURVEY

REPLACE

PARKING METER

CATV RISER

STEEL PILING

TELECOMM MANHOLE

SANITARY SEWER

TREE

PROPOSED

CABLE MARKER

CABLE MARKER  
E/W GROUND LUGS

LOCATE TERMINAL  
ACCESS POINT

GROUND ROD

MST

SIGNAL CONTROLLER

PEDESTAL

OMNI-BALL MARKER

45'/4/D(T)=POLE HT/CLASS/DISTRIBUTION(TRANSMISSION)  
P.O.A.=\_\_\_\_\_ <-EXISTING POINT OF ATTACHMENT  
P.O.A.=\_\_\_\_\_ <-PROPOSED POINT OF ATTACHMENT

ABBREVIATIONS

E/O	EAST OF	E	EAST	ABN	ABANDONED	DG	DOWNGUY	HT	HEIGHT	PWR	POWER
E/W	EQUIPPED WITH	N	NORTH	AE	AERIAL	DOC	DEPTH OF COVER	ID	INNERDUCT	RMV	REMOVE
N/O	NORTH OF	NE	NORTHEAST	AYA	ALLEY ARM	DWY	DRIVEWAY	IE	INTERIOR ENTRY	RPL	REPLACE
O/S	OFFSET	NW	NORTHWEST	BE	BUILDING ENTRY	EA	EACH	MGN	MULTI-GROUNDED NEUTRAL	SCA	SIDE CABLE ARM
S/O	SOUTH OF	S	SOUTH	BOC	BACK OF CURB	EXTG	EXISTING	MIN	MINIMUM	SL	STREET LIGHT
S/W	SIDEWALK	SE	SOUTHEAST	BOW	BACK OF WALK	FC	FIBERGLASS CONDUIT	MST	MULTIPOINT SMARTERMINAL	SLP	STREET LIGHT PROTECTED
W/O	WEST OF	SW	SOUTHWEST	BP	BORE PIT	FDC	FIBER DUCT IN CONCRETE	NT	NO TAG	SLU	STREET LIGHT UNPROTECTED
		W	WEST	BSP	BLACK STEEL PIPE	FGA	FIBERGLASS ARM	NV	NOT VISIBLE	TEL	TELEPHONE
				BT	BLANK TAG	FO	FIBER OPTIC	OD	OUTSIDE DIAMETER	UG	UNDERGROUND
				CAB	CABINET	FOC	FACE OF CURB	OHG	OVERHEAD GUY	VGR	VERTICAL GROUND ROD
				CATV	CABLE TELEVISION	FS	FIELD SIDE	P	POLE	W	WALL
				C&G	CURB & GUTTER	GRC	GALVANIZED RIGID CONDUIT	PL	PLACED	WH	WEATHERHEAD
				COMM	COMMUNICATIONS	HDG	HOT DIPPED GALVANIZED	PPG	POLE TO POLE GUY	WDA	WOOD ARM
								PUE	PUBLIC UTILITY EASEMENT	WT	WEIGHT

STANDARD PLANS FOR CONSTRUCTION

LEGEND

CITY: CITY - TOWNSHIP RANGE SECTION:				COUNTY: COUNTY CO., STATE	
PLOT DATE: 4/26/2018	SCALE: AS SHOWN	PROJECT NAME-FILENAME.DWG - TAB_SHEET # CCLLC-DT00.DWG - LG01_1.2			SHEET 1.2

Plot Date: 26 Apr 2018, 2:06pm By User: Owner  
Drawing Name: E:\SUPPORT\CCLLC CAD STANDARDS\CAD STANDARDS\_CCLLC\CCLLC CONSULT\CCLLC-DT00.DWG Layout (If Any): lg01\_1.2

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REVISIONS			
REV	DESCRIPTION	DATE	BY APPR.



SPECIFICATION SET

SITE CONDITIONS:

THE LOCATIONS OF EXISTING UTILITIES SHOWN IN THIS PLAN ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES. UTILITIES MAY EXIST IN THE AREA IN ADDITION TO THOSE SHOWN ON THE PLAN. THE CONTRACTOR SHALL CONTACT PROPERTY OWNERS WHEN WORKING WITHIN PRIVATE EASEMENTS FOR LOCATION OF UNDERGROUND TANKS, PIPELINES, DRAIN TILES, OR OTHER BURIED IMPROVEMENTS. THE CONTRACTOR SHALL ALSO NOTIFY THE UTILITY NOTIFICATION CENTER PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.

THE CONTRACTOR MUST ASSUME ALL BURIED UTILITIES ENCOUNTERED ARE LIVE AND ACTIVE UNLESS SPECIFICALLY INSTRUCTED OTHERWISE BY THE OWNERS OR OPERATORS OF SAID UTILITIES. REPAIR OF ANY DAMAGED CONDUIT CONTAINING CABLE SHALL BE MADE BY USE OF PVC SPLIT DUCT OR MATCH EXISTING. DAMAGE TO SUB-SURFACE STRUCTURES IS THE SOLE RESPONSIBILITY OF THE PLACING CONTRACTOR.

THE CONTRACTOR SHALL PROTECT THE EXISTING TRAFFIC CONTROL LOOPS. IF EXISTING TRAFFIC CONTROL LOOPS ARE DAMAGED DURING CONSTRUCTION, THE ENTIRE LOOP WIRE FROM TERMINAL TO TERMINAL SHALL BE REPLACED IN ACCORDANCE WITH GOVERNING AGENCY STANDARDS AND REGULATIONS AT CONTRACTOR'S EXPENSE.

REMOVAL OF EXISTING ASPHALT PAVEMENT, CONCRETE CURBS, AND CONCRETE SIDEWALKS WILL BE "NEAT LINE" WITH SAW OR PAVEMENT CUTTER, PER REQUIREMENTS AND SPECIFICATIONS OF THE AGENCY OR DEPARTMENT RESPONSIBLE FOR EACH LOCATION. IF CONCRETE PAVEMENT IS ENCOUNTERED WHILE EXCAVATING CONDUIT TRENCHES, THE CONCRETE REMOVAL WILL BE "NEAT LINE" WITH A PAVEMENT SAW.

IF CONCRETE CURB RETURNS AND/OR SIDEWALKS ARE REPLACED DUE TO CONDUIT OR MANHOLE INSTALLATION, THE CONTRACTOR SHALL PLACE APPROVED HANDICAPPED SIDEWALK AND CURB ACCESS RAMPS IN CONFORMANCE WITH STATE STATUTES.

ALL MATERIALS NECESSARY FOR THE REPAIR OF STREETS, CURBS, SIDEWALKS, SANITARY SEWERS, STORM SEWERS, AND PUBLIC SERVICE UTILITIES, AND THE INSTALLATION OF SUCH MATERIALS SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE AGENCY OR DEPARTMENT RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE REPAIRED FACILITY.

ALL OPEN TRENCH WILL BE CLEARLY MARKED WITH BARRICADES OR CONES. STEEL PLATES OR OTHER TYPES OF BRIDGING SHALL BE PROVIDED TO COVER OPEN TRENCH IN THE TRAVEL PORTION OF THE STREETS. THESE PLATES OR BRIDGING SHALL BE ADEQUATE TO SUPPORT THE NORMAL VEHICLE LOADS ANTICIPATED IN THIS AREA AND SHALL BE IN PLACE DURING ALL NON-WORKING AREAS.

ALL SURFACES TO BE RESTORED TO ORIGINAL CONDITION, AND BACKFILL TO BE COMPACTED AS SPECIFIED. TRENCH EXCAVATION IN SURFACES WHICH INCLUDE CONCRETE TREATED BASE SHALL FOLLOW LOCAL AREA SPECIFICATIONS.

ALL WORK SHALL CONFORM TO THE SPECIFICATIONS OF THE JURISDICTIONAL PERMIT AGENCY.

TEMPORARY BACKFILL:

THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN NORMAL TRAFFIC MOVEMENT DURING NON-WORK PERIODS FOR ALL CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF CITY STREETS BY THE USE OF STEEL PLATES (DESIGNED FOR H-20 LOADING) OR BACKFILLING THE TRENCH. IF THE CONTRACTOR ELECTS TO BACKFILL THE TRENCH HE SHALL "CAP" THE TRENCH WITH A 2"(COMPACTED MINIMUM) DEPTH OF CLASS "C" ASPHALTIC CONCRETE COLD MIX. IF THE CONTRACTOR ELECTS TO PLATE THE TRENCH THE PLATES SHALL BE PINNED AT EACH CORNER AND THE EDGES SHALL BE "RAMPED" WITH CLASS "C" ASPHALTIC CONCRETE COLD MIX TO PREVENT "WHEEL SHOCK" ON IMPACT. COLD MIX SHALL BE COMPACTED AND SMOOTH IN EITHER TYPE OF INSTALLATION. TO PREVENT SKIDDING, TRAFFIC PLATES SHALL BE TREATED WITH WELD BEADS TO PROVIDE TRACTION. WELD BEADS SHALL BE LOCATED 4" ON CENTER AND EXTEND THROUGH THE TRAVEL PORTIONS OF THE PLATES. USE OF STEEL PLATES IN THE ROW TO BE APPROVED BY THE GOVERNING PERMIT AGENCY.

BACKFILL:

BACKFILL OF CONDUIT TRENCH OR MANHOLE EXCAVATION SHALL BE 3/4" - 0 CRUSHED ROCK PLACED IN 6" LIFTS AND COMPACTED WITH MECHANICAL VIBRATING TYPE COMPACTION EQUIPMENT TO 95% OF MAXIMUM DRY DENSITY (ASTM D-1550 OR AASHTO T-180) UNDER ALL PAVED SURFACES UNLESS OTHERWISE SPECIFIED.

BACKFILL OF CONDUIT TRENCH OR MANHOLE EXCAVATION IN NON-PAVED AREAS SHALL BE CLEAN SAND OR SILTY LOAM SOILS PLACED IN 1'-0" LIFTS COMPACTED BY MECHANICAL VIBRATING TYPE COMPACTION EQUIPMENT TO 95% OF MAXIMUM DRY DENSITY (ASTM D698 OR AASHTO T-99) UNLESS OTHERWISE SPECIFIED.

BACKFILL AROUND ALL VAULTS SHOULD CONSIST OF COMPACTED SELECT BACKFILL MATERIAL OR IN ACCORDANCE WITH AGENCY SPECIFIED BACKFILL. IN NO CASE SHALL THE MATERIAL BE SATURATED OR CONTAIN LARGE ROCKS OR CHUNKS. NO VOIDS SHALL REMAIN BETWEEN THE VAULT WALLS AND THE NATIVE SOIL. BACKFILL AROUND VAULTS SHALL NOT BE PLACED UNTIL THE ENTIRE VAULT STRUCTURE IS IN PLACE INCLUDING ALL LIDS AND RISERS, BEING SURE TO COMPACT FILL MATERIAL FROM BOTTOM TO TOP SURFACE.

SAND MAY BE WATER SETTLED IF THAT TYPE OF COMPACTION IS ALLOWED BY THE PERMITTING AGENCY IN EITHER PAVED OR NON-PAVED SITUATIONS. THE CONTRACTOR SHALL VERIFY THE TYPE OF COMPACTION ALLOWED PRIOR TO BEGINNING ANY BACKFILL ACTIVITY.

BACKFILL SHALL BE PLACED IN ACCORDANCE WITH THE SPECIFICATIONS AND REGULATIONS OF THE JURISDICTIONAL PERMIT AGENCY.

HAZARDOUS MATERIALS:

THE CONTRACTOR SHALL NOTIFY THE JURISDICTIONAL PERMIT AGENCY IMMEDIATELY IF ANY MATERIALS ARE ENCOUNTERED THAT MAY BE CONSIDERED HAZARDOUS BY THE EPA, DEQ, OR OSHA. IF POTENTIALLY HAZARDOUS MATERIALS ARE ENCOUNTERED THE CONTRACTOR SHALL SECURE THE SITE AND PREVENT ACCIDENTAL EXPOSURE TO THE PUBLIC OR THE CONTRACTOR'S PERSONNEL.

THE CONTRACTOR MAY EXCAVATE UP TO, BUT SHALL NOT DISTURB KNOWN HAZARDOUS MATERIALS SUCH AS ASBESTOS, OILS, ACID, ETC. THE REMOVAL OF ALL HAZARDOUS MATERIALS MUST BE DONE BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR AND IN ACCORDANCE WITH JURISDICTIONAL AGENCY REQUIREMENTS.

LANDSCAPING:

TREE AND PLANT PROTECTION TO CONFORM WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) SECTION A300 PART 1 -10 AS APPLICABLE. ANY DEVIATION FROM INDUSTRY APPROVED TREE AND PLANT CARE TO BE CLEARED WITH THE GOVERNING PERMIT AGENCY REPRESENTATIVE AND OR ADJOINING PROPERTY OWNER PRIOR TO ANY PRUNING OR EXCAVATION.

AT NO POINT IN TIME SHALL THE CONTRACTOR REMOVE ANY TREES OR SHRUBS WITH OUT PREVIOUS AUTHORITY FROM THE GOVERNING PERMIT AGENCY.

EXCAVATION IN LAWN AREAS SHALL BE "NEAT LINED" WITH A SOD CUTTER TO ENSURE A SMOOTH MATCH LINE FOR REPAIR WITH APPROVED SOD.

ALL LAWN RESTORATION SHALL BE DONE BY USING SOD PLACED TO THE GROWER/SUPPLIERS SPECIFICATIONS AND ADJACENT PROPERTY OWNER'S SPECIFICATIONS.

SOD USED TO REPAIR EXISTING LAWN AREA SHALL BE OF A BLEND THAT WILL MATCH THE ADJACENT UNDISTURBED LAWN AREA FOR BOTH COLOR AND TEXTURE.

PRIVATE IRRIGATION SYSTEMS ARE OCCASIONALLY LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY OF ADJACENT STREET AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OPERATION AND REPAIR IF DAMAGE OCCURS DURING HIS CONSTRUCTION ACTIVITY. PRIVATE IRRIGATION SYSTEMS LOCATED ON PRIVATE PROPERTY DAMAGED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED IMMEDIATELY TO THE OWNER'S SATISFACTION AT NO COST TO THE OWNER.

IN DEVELOPED (PROFESSIONALLY) LANDSCAPED AREAS, NO WORK SHALL BE DONE WITHOUT THE OWNER'S WRITTEN PERMISSION OR AUTHORIZATION.

STRUCTURE PROTECTION:

VAULTS AND CONDUIT TO BE PLACED ADJACENT TO EXISTING STRUCTURES SUCH AS BRIDGE FOOTINGS, PIERS, BUILDING FOUNDATIONS, WALLS, POWER AND TELEPHONE POLES, AND OTHER UTILITIES SHALL MAINTAIN A MINIMUM CLEARANCE AS SHOWN. THE CONTRACTOR SHALL NOT UNDERMINE ANY ADJACENT STRUCTURE WITHOUT SPECIFIC WRITTEN PERMISSION FROM THE OWNER/OPERATOR OF SUCH STRUCTURE.

EXISTING UTILITIES EXPOSED DURING EXCAVATION SHALL BE 100% SUPPORTED BY BOTH TRENCH BRIDGING AND SUSPENSION OR BY THE USE OF LONGITUDINAL TRAYS OR PLATFORMS VERTICALLY SUPPORTED BY ADJUSTABLE BUILDING JACKS.

EXISTING SPLICE CASES AND CABLES SHALL BE SUPPORTED AT A MAXIMUM SPACING OF 4.0 FEET AND SHALL CONSIST OF A CANVAS SLING WITH NYLON BELTING OR ROPE. ALL CABLE SUPPORTS SHALL BE PLACED IN A MANNER THAT PREVENTS KINKS OR OTHER DAMAGE TO THE CABLE SHEATH.

AN ACCEPTABLE ALTERNATIVE TO CABLE SLINGS WOULD BE THE UTILIZATION OF A WIDE FLANGE "I" BEAM OR CHANNEL AS A "CABLE TRAY" WITH THE CABLES/CASES BANDED IN PLACE.

SHORING:

THE CONTRACTOR SHALL PROVIDE SHORING FOR CONDUIT TRENCH EXCAVATION 42" OR MORE IN DEPTH AS MEASURED FROM THE HIGH SIDE OF THE TRENCH AND FOR ALL MANHOLE EXCAVATION.

MANHOLE SHORING SHALL BE TIGHT-SHEETED.

ALL SHORING SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE JURISDICTIONAL PERMIT AGENCY AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

SHORING SHALL BE DESIGNED TO MEET H-20 HIGHWAY LOADING CRITERIA.

THE CONTRACTOR SHALL PROVIDE ALL SHORING AND DESIGN CALCULATIONS TO THE PERMIT ISSUING AGENCY PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY.

EXISTING UTILITY SERVICES:

ANY UTILITY DAMAGED BY CONSTRUCTION ACTIVITY SHALL BE RETURNED TO FULL SERVICE IMMEDIATELY AND ANY COST OR EXPENSE CONSIDERED TO BE LOST BY THE UTILITY USER SHALL BE THE CONTRACTOR'S RESPONSIBILITY. IN THE EVENT OF ANY DAMAGE TO AN EXISTING UTILITY THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER AND THE PROJECT MANAGER.


LANDSCAPE AREAS SERVED BY IRRIGATION SYSTEMS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION BY THE UTILIZATION OF TEMPORARY SOURCES OF IRRIGATION WATER OR BY MAKING TEMPORARY REPAIRS TO THE DAMAGED SYSTEM TO ALLOW ITS SATISFACTORY OPERATION.

SPECIAL UTILITY CLEARANCES:

ALL WORK CONDUCTED ADJACENT TO WATER MAINS, STORM SEWERS, OR SANITARY SEWERS SHALL CONFORM TO THE FOLLOWING CONDITIONS, UNLESS OTHERWISE SPECIFIED BY THE GOVERNING PERMIT AGENCY:

- A. PARALLEL CONDUIT SHALL MAINTAIN A HORIZONTAL SEPARATION OF 5.0 FEET, MEASURED SURFACE TO SURFACE. (OUTSIDE EDGE TO OUTSIDE EDGE)
- B. PERPENDICULAR CONDUIT PASSING UNDER OR OVER UTILITIES MUST MAINTAIN 12" VERTICAL CLEAR SEPARATION.
- C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING THIS REQUIRED VERTICAL SEPARATION BY EITHER EXPOSING THE UTILITY EVERY 100 FEET IN THOSE AREAS WHERE HORIZONTAL SEPARATION IS LESS THAN 5.0 FEET OR BY UTILIZING KNOWN DEPTHS OF ADJACENT FACILITIES. IF THE CONTRACTOR UTILIZES THE ADJACENT FACILITIES TO DETERMINE DEPTH, HE SHALL CONTACT THE GOVERNING AGENCY AT EACH SUCH LOCATION AND THE AGENCY WILL DETERMINE THE NECESSARY DEPTH OF THE TOP OF THE CONDUIT AT THAT POINT.
- D. THE VERTICAL AND HORIZONTAL SEPARATION SHALL BE MAINTAINED AT ALL TIMES UNLESS SPECIFICALLY STATED OTHERWISE BY THE JURISDICTIONAL PERMIT AGENCY. ANY SPECIFIC DEVIATION IN VERTICAL AND HORIZONTAL SEPARATION FROM THOSE DESCRIBED SHALL BE REPORTED TO THE OWNER BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING VERTICAL AND HORIZONTAL SEPARATION AT ALL TIMES AND SHALL BE RESPONSIBLE FOR ANY AND ALL ENCROACHMENTS.

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STANDARD PLANS FOR CONSTRUCTION

GENERAL NOTES

CITY: CITY - TOWNSHIP RANGE SECTION:			COUNTY: COUNTY CO., STATE	
PLOT DATE: 3/28/2018	SCALE: AS SHOWN	PROJECT NAME-FILENAME.DWG - TAB_SHEET # CCLLC-DT00.DWG - GN01_1.3	SHEET	1.3

SPECIFICATION SET

PROTECTION OF EXISTING SURVEY MONUMENTS:

THE CONTRACTOR SHALL REPLACE ALL MONUMENTS THAT DEFINE PROPERTY OWNERSHIP SUCH AS IRON RODS, IRON PIPES, BRASS SCREWS, AND REFERENCE POINTS AS REQUIRED BY THE GOVERNING STATE STATUTES. ANY CORNER OR REFERENCE TO A CORNER OF A RECORD OF SURVEY SHALL BE REPLACED BY A LICENSED SURVEYOR WITHIN 90 DAYS OF ITS REMOVAL.

REPLACEMENT MONUMENTS SHALL CONFORM TO STATE STATUTES AS TO TYPE AND STYLE OF IDENTIFICATION WITH THE NECESSARY RECORD OF SURVEY IDENTIFYING WHAT WAS FOUND ORIGINALLY AND WHAT WAS SET AND THE DATE THE REPLACEMENT WAS SET. THE RECORD OF SURVEY SHALL BE COMPLETED IN CONFORMANCE WITH THE REGULATIONS OF THE RELEVANT STATE AND THE JURISDICTIONAL PERMIT AGENCY SURVEYOR.

IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERSTAND AND COMPLY WITH THE JURISDICTIONAL STATUTES SET FORTH BY THE RELEVANT GOVERNING AGENCY.

CONSTRUCTION STAKING:

IN AREAS WHERE THE CONDUIT ALIGNMENT IS NOT CLEARLY DEFINED BY CURB LINES, FENCE LINES, OR OTHER EVIDENCE OF THE RIGHT-OF-WAY, IT IS RECOMMENDED THAT THE CONTRACTOR COORDINATE WITH A PROFESSIONAL SURVEYOR TO PROVIDE STAKING OR PAINT MARKS TO CLEARLY IDENTIFY THE PROPOSED ALIGNMENT.

IF ADDITIONAL FIELD STAKING OF PROPOSED CONDUIT ALIGNMENTS AND VAULT LOCATIONS IS REQUIRED, THE CONTRACTOR IS TO CONTACT THE INSPECTOR AND THE PROJECT DESIGNER TO SCHEDULE A FIELD MEET PRIOR TO CONSTRUCTION.

IF DISCREPANCIES BETWEEN PROFESSIONALLY SURVEYED RIGHT-OF-WAY AND THE PROPOSED ALIGNMENT ARE IDENTIFIED CONTRACTOR IS TO NOTIFY THE REGULATORY PERMIT AGENCY INSPECTOR AND THE PROJECT DESIGNER PRIOR TO CONSTRUCTION.

TRAFFIC CONTROL:

WORK ON ANY PUBLIC OR PRIVATE ROW WITH OR WITHOUT PERMIT THROUGH THE GOVERNING AGENCY MAY REQUIRE ADEQUATE TRAFFIC CONTROL TO PERFORM CONSTRUCTION ACTIVITIES.

TRAFFIC WARNING DEVICES AND SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS (U.S. GOVERNMENT PRINTING OFFICE) AND TO THE GOVERNING AGENCY STANDARD SPECIFICATIONS. HIGH LEVEL WARNING TYPE DEVICES ARE TO BE USED AT ALL TIMES AND SPECIAL WARNING DEVICES MAY BE STIPULATED BY THE JURISDICTIONAL PERMIT AGENCY AT ANY TIME THE USE WILL ADD TO THE SAFETY AND PROTECTION OF TRAFFIC OR PEDESTRIANS IN THE CONSTRUCTION AREA.

A TRAFFIC CONTROL PLAN SHALL BE PREPARED BY THE CONTRACTOR AS REQUIRED AND SUBMITTED TO EACH PERMITTING AGENCY REQUESTING SUCH PLAN FOR REVIEW AND APPROVAL OR REVISION PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY FOR THIS PROJECT. THE APPROVED PLAN SHALL BE SUBMITTED TO THE AGENCY AND A COPY OF THE PLAN SHALL BE KEPT AT THE CONSTRUCTION SITE AND MUST BE READILY AVAILABLE FOR REVIEW BY AGENCY REPRESENTATIVES.

PERMITS – FRANCHISES – EASEMENTS:

PHYSICAL WORK SHALL NOT BE STARTED UNTIL THE GOVERNING AGENCY INSPECTOR AND THE CONTRACTOR ARE IN POSSESSION OF AND HAVE CAREFULLY REVIEWED AND FULLY UNDERSTAND ALL CONDITIONS AND SPECIFICATIONS SET FORTH IN THE REQUIRED PERMITS, FRANCHISES, AND/OR EASEMENTS.

THE PLACING FOREMAN SHALL HAVE A COPY OF THE PERMITS/EASEMENTS ON SITE AT ALL TIMES.

ANY CONFLICT BETWEEN WORK PRINT SPECIFICATIONS AND SPECIFICATIONS SET FORTH UNDER RELATED PERMITS, FRANCHISES, AND/OR EASEMENTS MUST BE CLEARED BY PROPER COMPANY AUTHORITY BEFORE PROGRESSING WITH WORK INVOLVED.

AERIAL NOTES:

ALL AERIAL CONSTRUCTION IS TO BE PERFORMED TO INDUSTRY ACCEPTABLE STANDARDS.

ALL NEW OR EXISTING CABLE HEIGHTS OF ATTACHMENT TO BE DOCUMENTED AT TIME OF CONSTRUCTION.

6.6M STRAND TO BE USED WITH STANDARD 5/8"POLE LINE HARDWARE UNLESS OTHERWISE SPECIFIED. BOND STRAND TO POWER MGN WHERE APPLICABLE.

ALL EXTENSION ARMS TO BE PLACED WILL BE EPOXY ARMS UNLESS OTHERWISE NOTED OR APPROVED BY THE INSPECTOR.

PUPI ARMS TO BE TYPE TB2000 UNLESS OTHERWISE SPECIFIED AND ARE TO BE INSTALLED ACCORDING TO THE POLE OWNER SPECIFICATIONS OR MANUFACTURER SPECIFICATIONS. POLE OWNER SPECIFICATIONS MAY SUPERSEDE MANUFACTURER SPECIFICATION FOR INSTALLATION AS REQUIRED. TYPICAL INSTALLATION INCLUDES UTILIZING TWO (2) THROUGH BOLTS AND NO LAG BOLTS.

ALL ANCHORS TO BE USED WILL BE 3/4 SCREW IN TYPE.

ALL STRAPS WILL BE PLACED 4" BEFORE AND AFTER EVERY SUPPORTING CLAMP AT A MINIMUM OF 21" APART.

REPAIR / REPLACE EXISTING LASHING WIRE IF DAMAGED, AND ADD ANY MISSING GROUNDS.

CONTRACTOR TO PLUG ALL VACATED HOLES FROM ABANDONED OR RELOCATED ATTACHMENTS PER POLE OWNER SPECIFICATIONS.

IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN AND FOLLOW NATIONAL ELECTRIC SAFETY CODE ALONG WITH APPLICABLE LOCAL AND REGIONAL GOVERNING AUTHORITIES. ANY DISCREPANCIES BETWEEN THESE AUTHORITIES AND OR THE CONSTRUCTION PRINTS IS TO BE VALIDATED WITH THE DESIGNER OR OWNER PRIOR TO CONSTRUCTION.

CONDUITS:

ALL DIRECT BURIED CONDUIT SHALL BE PVC HEAVY WALL (SCH 40) OR HDPE SDR11 DIRECT BURIAL UNLESS OTHERWISE SPECIFIED.

CONTRACTOR SUPPLIED MATERIALS SHALL CONFORM TO THE JURISDICTIONAL PERMIT AGENCY AND OWNER SPECIFICATIONS.

ALL CONTRACTOR SUPPLIED MATERIALS SHALL INCLUDE A CERTIFIED TEST REPORT CLEARLY STATING THAT THOSE SUPPLIED MATERIALS COMPLY WITH ANY SUCH SPECIFICATION.

ALL CONDUIT IS TO BE PLACED IN THE LOCATION SHOWN ON THE DESIGN PRINTS WITH MINIMUM COVER OF 36 INCHES OR AS NOTED ON THE DRAWINGS OR SPECIFIED BY THE REGULATORY PERMIT AGENCY.

THE TOTAL LENGTH OF TRENCH OPEN AT ANY ONE TIME IS TO BE KEPT TO A MINIMUM.

ALL HDPE CONDUITS ENTERING VAULTS SHALL HAVE A MINIMUM 5.0 FOOT STRAIGHT SECTION OF SCH 40 PVC CONDUIT SLEEVE. THIS STRAIGHT SECTION SHALL BE PERPENDICULAR TO THE WALL OF SAID MANHOLE AND SHALL BE SMOOTH AND FREE OF ALL BURRS AND OTHER FEATURES THAT MAY DAMAGE CABLES. PLUGS SHALL BE UTILIZED TO ORGANIZE, SECURE AND SEAL THE HDPE CONDUITS WITHIN THE SLEEVE AS THEY ENTER THE VAULT.

ALL PVC OR HDPE CONDUITS ARE TO BE PLUGGED WITH COMPRESSION STYLE PLUGS. ANY CONDUITS CONTAINING FIBER CABLES WILL REQUIRE SIMPLEX COMPRESSION PLUGS SEALING THE CONDUIT AROUND THE CABLE.

CASINGS:

ANY REQUIRED STEEL CASING PIPE SHALL BE 100% FILET WELD (3/16") OR THREADED COUPLING.

IF WELDED THE CONTRACTOR SHALL PROVE THE INTERIOR DIMENSION BY PULLING A MANDREL COMPLETELY THROUGH THE WELDED JOINT IN BOTH DIRECTIONS. PIPE JOINTS SHALL BE STEEL BRUSHED AND PAINTED WITH A ZINC RICH FLAT BLACK METAL PRIMER PAINT.

VAULTS / HANDHOLES:

ALL VAULTS TO BE UTILITY VAULT PRECAST TYPE 444-LA UNLESS OTHERWISE SPECIFIED. 444-LA VAULTS ARE TO BE FULLY EQUIPPED WITH LADDERS, CABLE RACKS, SUPPORTS, AND PULLING IRONS AS SHOWN BELOW:

(4) "L" BRACKETS  
(4) 8 HOLE – 113/4" CUT RACKS  
(4) SPRING NUT & SCREWS – (1/2" NUT, 1/2" X 1 1/4" PLATED CAP SCREW)

MOUNT BRACKETS ON 2’ GALVANIZED "C" CHANNELS, 2 EA. SIDE, 18" APART

ALL VAULTS SHALL HAVE A SUMP CAST IN PLACE FOR DE-WATERING

GROUND COVER OVER ALL VAULTS SHOULD BE 36" MINIMUM DEPTH BELOW FINISHED STREET OR SIDEWALK ELEVATION UNLESS OTHERWISE SPECIFIED IN THE VAULT DETAILS OR ON ANY RIGHT-OF-WAY PERMIT ISSUED. IN ADDITION, DEPTH OF COVER OVER MANHOLES SHALL NOT EXCEED 60"OF COVER TO THE TOP OF THE VAULT OR PER VAULT MANUFACTURER'S SPECIFICATIONS.

EXCAVATION OVER VAULTS IS CONSIDERED PART OF THE TOTAL VAULT INSTALLATION.

IF ANY FIELD SLOTTING OF PRECAST CONCRETE VAULTS IS REQUIRED TO PROVIDE ACCESS FOR CABLES AND CONDUIT NOT PROVIDED WITH A BLOCKOUT FOR THAT PURPOSE; THE FIELD SLOT SHALL BE REPAIRED BY SPLICING ANY REINFORCING REBAR THAT HAS BEEN CUT TO ALLOW CABLE ENTRY AND SHALL BE SEALED WITH NON-SHRINK CONCRETE GROUT. THE CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF IT BECOMES EVIDENT FIELD SLOTTING WILL BE NECESSARY. FIELD SLOTS SHALL BE SAWCUT (SCORED INSIDE AND OUT) AND BRUSH HAMMER TO PROVIDE A ROUGHENED SURFACE FOR GROUT BONDING AND TO MINIMIZE REINFORCING SPLICES.

EXCAVATION FOR ALL PRECAST VAULTS AND HANDHOLES MUST ALLOW FOR OVERALL ASSEMBLED HEIGHT OF THE VAULT PLUS ADDED HEIGHT OF RISERS AND BEDDING MATERIAL CONSISTING OF 6" OF COMPACTED SAND OR GRAVEL, GRADED LEVEL. A MINIMUM EXCAVATION CLEARANCE OF 4" AROUND THE SIDEWALLS OF THE VAULT IS REQUIRED FOR EASE OF INSTALLATION.

BACKFILL AROUND ALL VAULTS SHOULD CONSIST OF COMPACTED SELECT BACKFILL MATERIAL OR IN ACCORDANCE WITH AGENCY SPECIFIED BACKFILL. IN NO CASE SHALL THE MATERIAL BE SATURATED SOIL, OR CONTAIN LARGE ROCKS OR CHUNKS. NO VOIDS SHOULD REMAIN BETWEEN THE VAULT WALLS AND NATIVE SOIL OF EXCAVATION. BACKFILLING SHOULD NOT BE DONE UNTIL THE VAULT IS COMPLETELY ASSEMBLED MAKING CERTAIN TO COMPACT THE BACKFILL PROGRESSIVELY IN 12"LIFTS FROM THE BOTTOM TO THE TOP SURFACE. WHEN USING MECHANICAL VIBRATORY EQUIPMENT TO OBTAIN 95% COMPACTION NEAR COMPOSITE VAULTS AND HANDHOLES, CONTRACTOR IS TO PLACE INTERNAL CROSS-BRACING PER MANUFACTURER SPECIFICATIONS.

ALL BACKFILLING IS THE RESPONSIBILITY OF THE CONTRACTOR.

ALL GROUTING OF RISERS, COVERS, CONDUIT, OR SPECIFIC SECTIONS OF VAULTS IS THE RESPONSIBILITY OF THE CONTRACTOR. NON-SHRINK CONCRETE GROUT WILL BE USED TO SEAL ALL JOINTS AND APPLIED IN A MANNER TO ENSURE COMPLETE FILLING OF VOIDS IN THE JOINT BEING SEALED.

ACCESS DOORS SHALL BE CONSTRUCTED OF STEEL, ALUMINUM, OR CONCRETE WITH AN APPROVED NON-SLIP SURFACE HAVING A STATIC COEFFICIENT OF FRICTION BETWEEN 0.60 AND 1.00 AS DETERMINED BY ASTM DESIGNATION C 1028-89. ACCESS DOORS ON INCLINED SURFACES GREATER THAN 4 % SHALL HAVE A COEFFICIENT OF FRICTION BETWEEN 0.80 AND 1.00.


OWNERS ARE RESPONSIBLE TO MAINTAIN THE NON-SLIP CHARACTERISTICS OF THE ACCESS DOOR OVER ITS LIFE IN THE SIDEWALK AREA.

STANDARD PLANS FOR CONSTRUCTION

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SPECIFICATION SET

EXISTING MANHOLE ACCESS:

THE CONTRACTOR SHALL CORE DRILL EXISTING CONCRETE WALLS TO PROVIDE ACCESS FOR CONDUIT AS SHOWN IN THE PLANS. CORE DRILLING SHALL PROVIDE A MINIMUM 1 INCH LARGER DIAMETER HOLE THAN THE SIZE OF CONDUIT BEING PLACED. THE CONTRACTOR SHALL SEAL THE VOID BETWEEN THE CONDUIT AND THE CONCRETE WITH NON-SHRINK EPOXY GROUT.

THE CONTRACTOR SHALL REPAIR ANY STRUCTURAL REINFORCING DAMAGED BY CORE DRILLING. REINFORCING REPAIR SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF CRSI (CONCRETE REINFORCED STEEL INSTITUTE).

IF THE CONTRACTOR ELECTS TO ADJUST AN ACCESS HOLE IN WHICH REINFORCING WAS FOUND TO AVOID DAMAGE TO THE REINFORCING STEEL HE SHALL FULLY EXPOSE THE SURFACE OF THE REBAR AND FIELD COAT THE BAR WITH A ZINC RICH PAINT BEFORE PLACING NON-SHRINK EPOXY GROUT TO REPAIR DAMAGE.

LOCATORS AND MARKERS:

THE CONTRACTOR IS RESPONSIBLE FOR PLACING APPROPRIATE MARKERS TO INSURE THAT OTHER UTILITIES WORKING IN THE AREA OF OWNER FACILITIES ARE AWARE OF THEIR PRESENCE BEFORE DAMAGE CAN OCCUR. MARKING WILL BE MADE BY USE OF "WARNING TAPE" AND "POST MARKERS" FOR CONDUIT, AND 3M ELECTRONIC MARKER SYSTEM (EMS) LOCATORS FOR VAULTS AND HANDHOLES.

"WARNING TAPE" SHOULD BE PLACED A MINIMUM OF 12" ABOVE ANY CONDUIT ALONG THE ENTIRE TRENCH ROUTE, WHILE ADDITIONALLY "POST MARKERS" SHOULD BE PLACED EVERY 500' IN SUBURBAN AREAS AND 1000' IN RURAL AREAS.

BOTH VAULTS AND HANDHOLES ARE TO BE EQUIPPED WITH EMS LOCATORS. VAULTS AND HANDHOLES SHALL HAVE EMS MARKERS INSTALLED SECURED ON THE WALL AT THE TOP TO EASE LOCATING.

LOCATE WIRE AND BONDING:

ALL UNDERGROUND TELECOMMUNICATIONS INFRASTRUCTURE CONDUIT SHALL HAVE A #12 AWG HDPE 30 MIL COPPER STRANDED LOCATE WIRE PLACED INSIDE OR ALONG THE CONDUIT ALIGNMENT UNLESS SPECIFIED OTHERWISE BY THE GOVERNING PERMIT AGENCY.

ALL LOCATE WIRE SHALL BE EFFECTIVELY GROUNDED PER INDUSTRY ACCEPTABLE STANDARDS. T-3 LOCATE WIRE ACCESS TERMINALS OR APPROVED EQUIVALENT SHALL BE INSTALLED AT VAULT/HANDHOLE LOCATIONS FOR TERMINATION OF LOCATE WIRE AND HAVE SUFFICIENT ACCESS FOR THE EASE OF LOCATING FACILITIES. LOCATE WIRE TERMINALS ARE TO BE MOUNTED ON AN ACCESSORY ANGLE BRACKET ON THE INTERIOR RISER / WALL OF A CONCRETE VAULT OR INTERIOR WALL OF A FIBERGLASS / COMPOSITE VAULT.

ALL NEW UTILITY VAULT OR HANDHOLE INSTALLATIONS SHALL REQUIRE THE INSTALLATION OF A 5/8" COPPER CLAD GROUND ROD IN OR THROUGH THE BOTTOM OF THE VAULT USING CAUTION NOT TO DAMAGE EXISTING SUBSTRUCTURE. GROUND ROD SHALL BE OF PROPER LENGTH AND PLACEMENT TO ACHIEVE AN EFFECTIVE ELECTRICAL GROUND PER NEC / NESC AND THE GOVERNING PERMIT AGENCY. #6 AWG COPPER WIRE IS TO BE PLACED FROM THE GROUND ROD TO THE GROUND LUG ON THE T-3 LOCATE WIRE TERMINAL. ALL #12 AWG LOCATE WIRE ENTERING VAULTS OR HANDHOLES SHALL BE TERMINATED TO THE T-3 LOCATE WIRE ACCESS TERMINAL USING MANUFACTURER SUPPLIED BINDING POSTS. BONDING STRAPS ARE TO BE INSTALLED BETWEEN ALL #12 BINDING POSTS AND THE #6 GROUND LUG EFFECTIVELY GROUNDING ALL LOCATE WIRE WITHIN THE STRUCTURE.

LOCATE WIRE PLACED THROUGH CONDUIT RISERS WHEN TRANSITIONING FROM UNDERGROUND TO AERIAL ON UTILITY POLES SHALL BE BONDED TO THE MGN ON THE POLE NEAR THE TOP OF THE RISER. IF NO MGN IS PRESENT A NEW #6 AWG VERTICAL GROUND AND 5/8" COPPER CLAD GROUND ROD SHALL BE PLACED PER NESC / NEC GUIDELINES TO ACCOMMODATE EFFECTIVE GROUNDING.

PRIOR TO TOUCHING, WORKING OR CONNECTING LOCATING EQUIPMENT TO LOCATE WIRE, THE SYSTEM MUST BE TESTED FOR INDUCED VOLTAGE. INSTALL FILTER PROTECTOR / ARRESTOR AS REQUIRED ON ONE OR BOTH LOCATE WIRES IF INDUCED VOLTAGE EXCEEDS 50VAC.

\*ALL LOCATE WIRE TERMINATION AND BONDING OF CONDUCTIVE MATERIALS TO BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRIC SAFETY CODE AND THE NATIONAL ELECTRIC CODE.

BUILDING CONSTRUCTION:

ALL WORK SHALL BE DONE IN A "NEAT AND WORKMAN" LIKE MANNER, IN CONFORMITY WITH LOCAL, STATE AND FEDERAL BUILDING CODES. ALL WORK MUST COMPLY WITH APPLICABLE DATA SYSTEM STANDARDS AND NATIONAL ELECTRIC CODE STANDARD SPECIFICATIONS. STANDARDS INCLUDE, BUT ARE NOT LIMITED TO, EIA/TIA 568-B COMMERCIAL BUILDING WIRING STANDARDS AND EIA/TIA 569-A COMMERCIAL BUILDING STANDARD FOR TELECOMMUNICATIONS PATHWAYS AND SPACES.

AS-BUILT DATA – METHOD OF PROCEDURE:

UPON NOTIFICATION OF COMPLETION OF THE WORK AND ACCEPTANCE BY THE OWNER, THE CONTRACTOR SHALL PROVIDE THE PROJECT MANAGER WITH A SET OF NEAT AND ACCURATE "AS-BUILT" DRAWINGS WITHIN 10 BUSINESS DAYS OF COMPLETION OF THE PROJECT.

AS-BUILT DATA SHALL BE UPDATED AND MAINTAINED DAILY ON FIELD COPY DRAWINGS FOR THE DURATION OF CONSTRUCTION. UPON COMPLETION OF THE PROJECT, THE AS-BUILT DATA SHALL BE TRANSFERRED TO A CLEAN SET OF CONSTRUCTION DRAWINGS FOR SUBMITTAL TO THE PROJECT MANAGER.

THE AS-BUILT DATA SHALL BE DETAILED ON THE DRAWINGS IN EITHER COLORED INK OR COLORED PENCIL ACCORDING TO THE FOLLOWING COLOR CODES:

RED: WORK PLACED ACCORDING TO DESIGN AND CHANGES TO THE DESIGN  
GREEN: WORK NOT PLACED ACCORDING TO THE DESIGN; OMIT FROM DESIGN  
BLUE: EXISTING UTILITIES, FACILITIES, COMMENTS AND NOTES

- 1) WORK PERFORMED ACCORDING TO THE DESIGN SHALL BE HIGHLIGHTED OR LOCATED IN RED.
- 2) WORK PERFORMED ACCORDING TO APPROVED CHANGES OR VARIATIONS TO THE DESIGN SHALL BE NEATLY DRAWN AND DETAILED ON THE DRAWINGS SHOWING HOW THE CHANGES WERE CONSTRUCTED IN THE FIELD.
- 3) WORK THAT WAS DESIGNED BUT NOT PERFORMED AS SHOWN ON THE DRAWINGS SHALL BE HIGHLIGHTED OR LOCATED IN GREEN TO SHOW THAT THE WORK FUNCTION WAS NOT CONSTRUCTED AS DESIGNED.

4) EXISTING FACILITIES OR UTILITIES ENCOUNTERED; CONSTRUCTION NOTES; ADDITIONAL CONSTRUCTION RELATED INFORMATION IDENTIFIED IN THE FIELD SHALL BE NEATLY DRAWN AND DETAILED IN BLUE.

COLORED HIGHLIGHTER PENS ACCORDING TO THE COLOR CODES AS DETAILED ABOVE ARE ACCEPTABLE. FLUORESCENT YELLOW HIGHLIGHTER PENS ARE NOT AN ACCEPTABLE FORM OF AS-BUILT COLORING.

AS-BUILT DRAWINGS SHALL CONTAIN THE FOLLOWING DATA AT A MINIMUM FOR EACH OF THE FOLLOWING WORK FUNCTIONS:

AERIAL SEGMENTS:

- 1) POINT OF ATTACHMENT HEIGHT FROM THE GROUND TO THE CABLE AND/OR STRAND ON ALL POLES.
- 2) CABLE FOOTAGE (SEQUENTIAL) MARKINGS AT ALL CABLE ENDS; START AND END OF SLACK STORAGE AND CONDUIT ENTRANCE / EXIT POINTS.
- 3) LOCATION OF ALL SLACK STORAGE AND CABLE SPLICE POINTS.
- 4) ANCHOR AND DOWN GUY SIZE PLACED AND LEAD LENGTH BETWEEN THE ANCHOR AND THE POLE.

UNDERGROUND SEGMENTS:

- 1) DEPTH OF CONDUIT MEASURED EVERY 25 FEET AND AT EVERY CHANGE IN DIRECTION ALONG THE CONDUIT ALIGNMENT.
- 2) OFFSET DISTANCE MEASURED EVERY 25 FEET AND AT EVERY CHANGE IN DIRECTION FROM THE ALIGNMENT TO A CURB, EDGE OF PAVEMENT OR OTHER PHYSICAL REFERENCE OBJECT.
- 3) LOCATION AND DEPTH OF VAULTS, HAND HOLES AND JUNCTION BOXES PLACED.
- 4) DEPTH, TYPE AND DIRECTION OF ANY EXISTING UTILITY ENCOUNTERED CROSSING THE CONDUIT ROUTE.
- 5) LOCATION OF MAGNETIC LOCATING TARGETS PLACED.
- 6) CABLE FOOTAGE (SEQUENTIAL) MARKINGS AT ALL CABLE ENDS, START AND END OF SLACK STORAGE, CONDUIT ENTRANCE / EXIT POINTS.
- 7) ACTUAL QUANTITY OF CABLE SLACK STORAGE LEFT IN VAULT LOCATIONS.
- 8) ACTUAL WALL TO WALL MEASUREMENTS OF CONDUIT SEGMENTS BETWEEN VAULTS.
- 9) PROVIDE DETAILED VAULT BUTTERFLY DRAWINGS INCLUDING CONDUIT ENTRY AND EXIT LOCATIONS; CONDUIT SIZE & TYPE; CABLE ROUTING; CABLE COILS; SPLICE CASES; RACKING; LOCATE WIRES; LOCATE TERMINALS; GROUND RODS; GROUNDING; AND GENERAL ORIENTATION.

AS-BUILT DATA – METHOD OF PROCEDURE:

DIRECTIONAL BORING:

- 1) DEPTH OF CONDUIT MEASURED EVERY 10 FEET WITH A RUNNING LINE OFFSET DISTANCE FROM A CURB, EDGE OF PAVEMENT OR OTHER PHYSICAL REFERENCE OBJECT.
- 2) BORE PLAN AND PROFILE DRAWING REFLECTING THE DEPTH AND RUNNING LINE OFFSET MEASUREMENT EVERY 10 FEET THROUGHOUT THE ENTIRE LENGTH OF THE BORE; DETAIL BORE PROFILES WITH DEPTH AND LOCATION OF ALL VISUALLY VERIFIED UTILITIES (I.E. ALL POT-HOLED UTILITIES EXPOSED ALONG THE BORE ALIGNMENT)
- 3) AS-BUILT DRAWINGS SHALL HAVE THE WORDS "AS-BUILT" WITH THE NAME OF THE CONTRACTOR AND THE DATE STAMPED ON EVERY SHEET IN THE DRAWING PACKAGE.

ANY CHANGES OR DEVIATIONS FROM THE CONSTRUCTION DRAWINGS MUST BE APPROVED BY THE PROJECT MANAGER OR THE OWNER PRIOR TO MAKING ANY OF THE SAID CHANGES OR DEVIATIONS.

PHOTO DOCUMENTATION:

ALL UNDERGROUND VAULTS; JUNCTION BOXES, CONDUIT INFRASTRUCTURE; TRENCHES; EXCAVATIONS; AND RESTORATION TO BE CLEARLY PHOTOGRAPHED BEFORE, DURING AND AFTER CONSTRUCTION TO VERIFY THAT CONSTRUCTION PROCEDURES ARE MET. FACILITY ENTRANCES, PULL BOXES, CABLE RACEWAYS, SPLICE CASES, SPLICE TRAYS, TERMINATION RACKS AND OTHER EQUIPMENT OR ELECTRONICS INSTALLED BY CONTRACTOR TO BE PHOTOGRAPHED AT THE TIME OF INSTALLATION TO ENSURE PROPER PROCEDURES ARE MET AND TO PROVIDE ADEQUATE DOCUMENTATION TO SERVE AS ASBUILT RECORD.

GENERAL SPECIFICATIONS DISCLAIMER

THE INFORMATION CONTAINED IN THESE SPECIFICATIONS PROVIDES GENERAL GUIDELINES NECESSARY TO FACILITATE THE INSTALLATION OF COMMUNICATIONS INFRASTRUCTURE. ANY DISCREPANCIES BETWEEN THESE SPECIFICATIONS AND THE LOCAL GOVERNING AUTHORITY OR PERMIT AGENCY IS TO BE VALIDATED WITH THE DESIGNER OR OWNER PRIOR TO CONSTRUCTION. WHERE DETAILS ARE SHOWN, THEY ARE PROVIDED AS A REFERENCE FOR PLACEMENT OF COMMUNICATIONS INFRASTRUCTURE AND ACCEPTABLE INDUSTRY STANDARDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE INSTALLATION OF ALL INFRASTRUCTURE MEETS THE APPLICABLE LOCAL, REGIONAL AND NATIONAL BUILDING CODES AND SAFETY STANDARDS. COMMSTRUCTURE CONSULTING, LLC. DOES NOT ASSUME LIABILITY FOR THE NEGLIGENCE OF THE INSTALLATION CONTRACTOR AND THEIR ABILITY TO PERFORM ANY ASPECT OF THE WORK HEREIN ACCORDING TO THESE STANDARDS.

REFERENCES:

- EIA/TIA COMMERCIAL BUILDING WIRING STANDARD, 606 AND ALL RECOGNIZED TSBS.
- NATIONAL ELECTRIC SAFETY CODE
- UNDERWRITER'S LABORATORIES (UL): APPLICABLE LISTINGS AND RATINGS

- 1) ALL CONDUIT PLACED ON PRIVATE PROPERTY IS TO BE SCH 40 PVC IF PLACED OUTSIDE THE BUILDING AND EMT IF PLACED WITHIN THE BUILDING. RISER CONDUIT ON THE EXTERIOR OF BUILDING IS TO BE GRC UNLESS OTHERWISE SPECIFIED.
- 2) ALL CONDUIT IS TO BE EQUIPPED WITH INNERDUCT AS SPECIFIED.
- 3) 90 BENDS ARE TO BE "SWEEP" BENDS, 3' RADIUS, UNLESS OTHERWISE SPECIFIED.
- 4) CONDUIT PATHWAYS WITHIN BUILDING INTERIORS SHALL BE SUPPORTED WITH APPROPRIATE HARDWARE SPECIFIC TO THE EXISTING MATERIAL OR STRUCTURE.
- 5) ALL EXTERIOR WALL PENETRATIONS ARE TO BE RESEALED PER BUILDING AND FIRE CODE.
- 6) ALL INTERIOR WALL PENETRATIONS ARE TO COMPLY WITH PERTINENT BUILDING AND FIRE CODES AND ARE TO BE CONSTRUCTED IN SUCH A MANNER AS TO INSURE THE INTEGRITY OF THE PENETRATED WALL.
- 7) ALL PULL BOXES ARE TO BE NEMA TYPE 3R OR EQUIVALENT.
- 8) NOTIFY THE "BUILDING CONTACT" PERSON A MINIMUM OF 48 HOURS PRIOR TO COMMENCING ANY WORK ON THE PREMISES.

STANDARD PLANS FOR CONSTRUCTION

GENERAL NOTES

CITY: CITY – TOWNSHIP RANGE SECTION:			COUNTY: COUNTY CO., STATE	
PLOT DATE: 3/28/2018	SCALE: AS SHOWN	PROJECT NAME-FILENAME.DWG – TAB_SHEET # CCLLC-DT00.DWG – GN03_1.5	SHEET	1.5

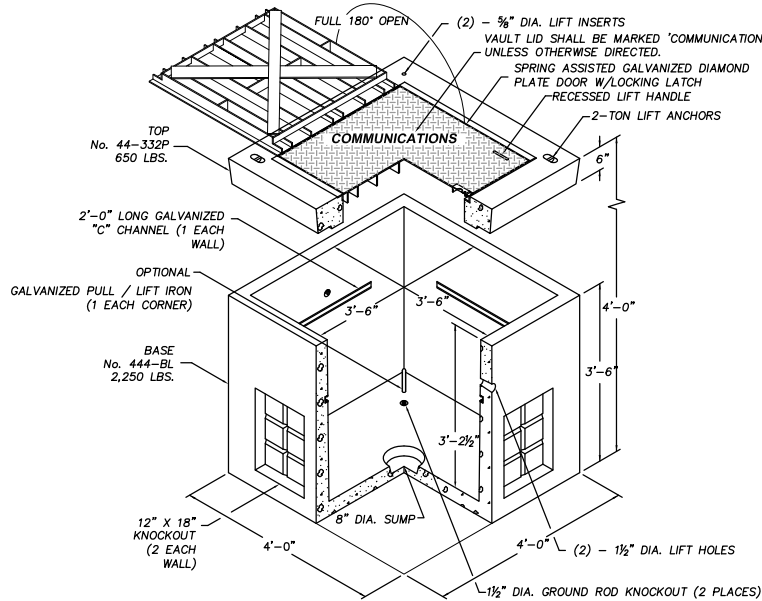
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811 Railroad Avenue  
Oregon City, Oregon 97045  
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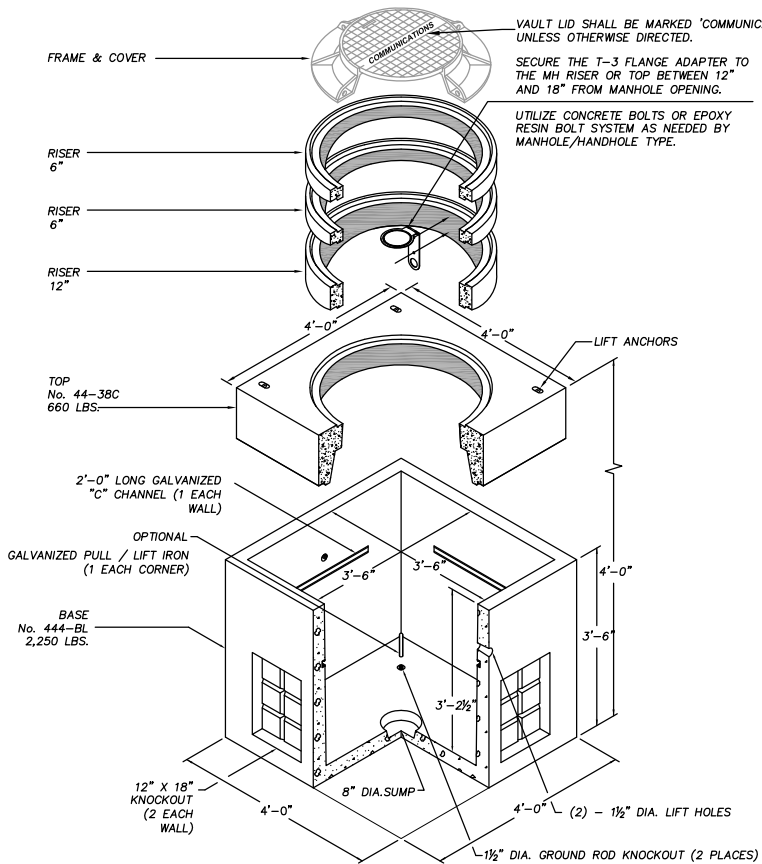
Main Office:  
503.343.4134

SPECIFICATION SET



(SIDEWALK / INCIDENTAL TRAFFIC LOC.)  
UTILITY VAULT PRE-CAST 444-LA  
SCALE: (ADDITIONAL DETAILS SEE 1.1/1.6 & 4/1.6)

1  
1.6

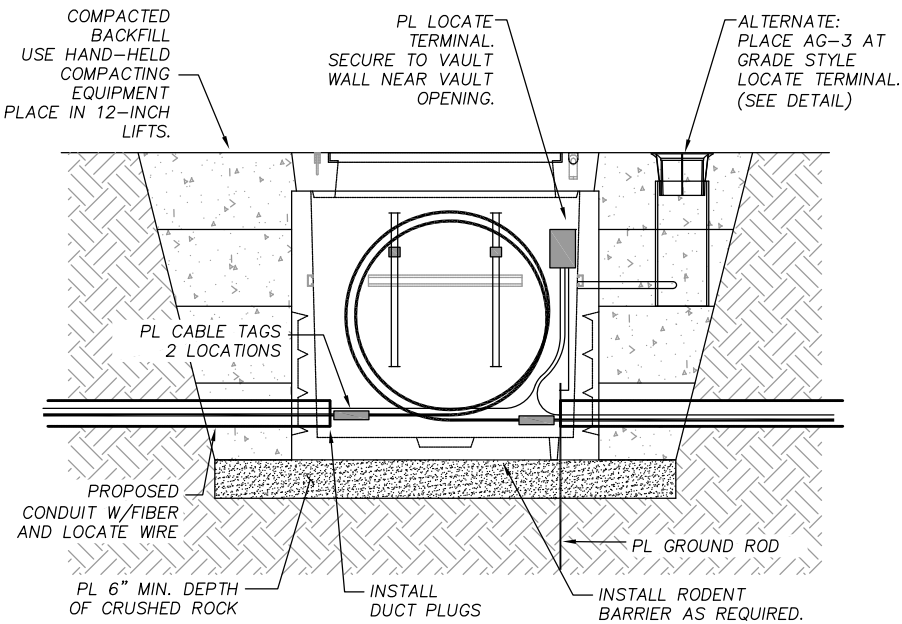


(ROADWAY / SUSTAINED TRAFFIC LOC.)  
UTILITY VAULT PRE-CAST 444-LA  
SCALE: (ADDITIONAL DETAILS SEE 1.1/1.6 & 4/1.6)

2  
1.6

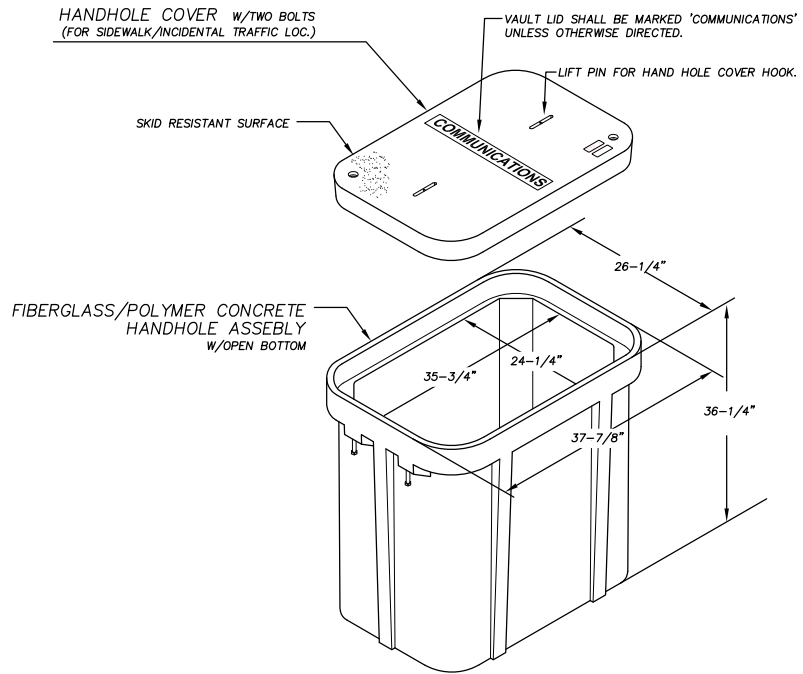
CONCRETE VAULTS:

GROUND WIRE TO BE CLAMPED TO GROUND ROD USING GROUND CLAMPS AND EXTENDED TO LOCATE TERMINAL STATION USING #10 LOCATE WIRE TO CENTER POST. RUN #10 LOCATE WIRE FROM EACH CONDUIT IN VAULT TO TERMINAL. TAG EACH LOCATE WIRE WITH DIRECTION IT LEAVES THE VAULT (N,S,E,W). #10 LOCATE WIRE BONDING STRAP TO GROUND ROD WILL NOT BE INSTALLED ON PASS THROUGH TEST STATIONS.



VAULT SECTION INTERIOR DETAIL  
UTILITY VAULT PRE-CAST MANHOLE  
SCALE: (ADDITIONAL DETAILS SEE 4/1.7 & 5/1.7)

1.1  
1.6

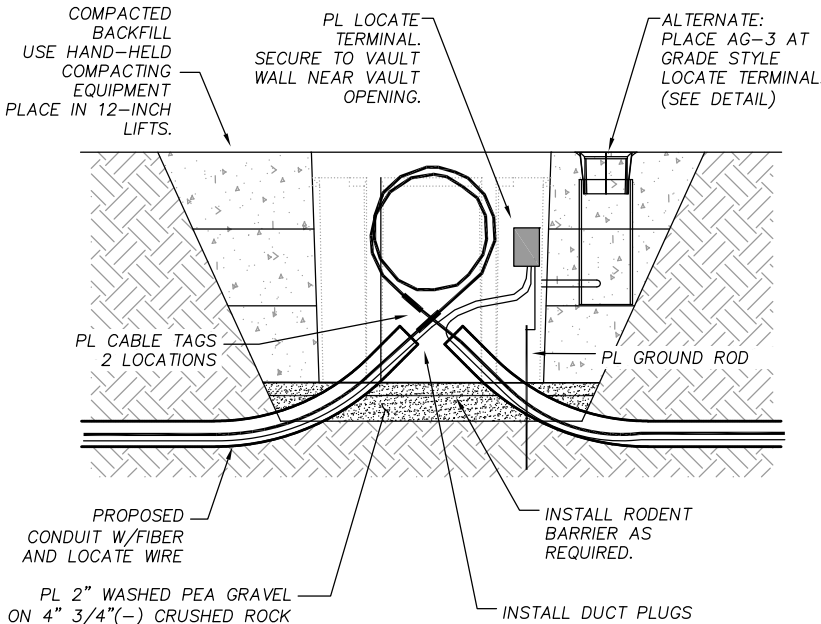


OPEN BOTTOM HANDHOLE  
SCALE: (ADDITIONAL DETAILS SEE 3.1/1.6)

3  
1.6

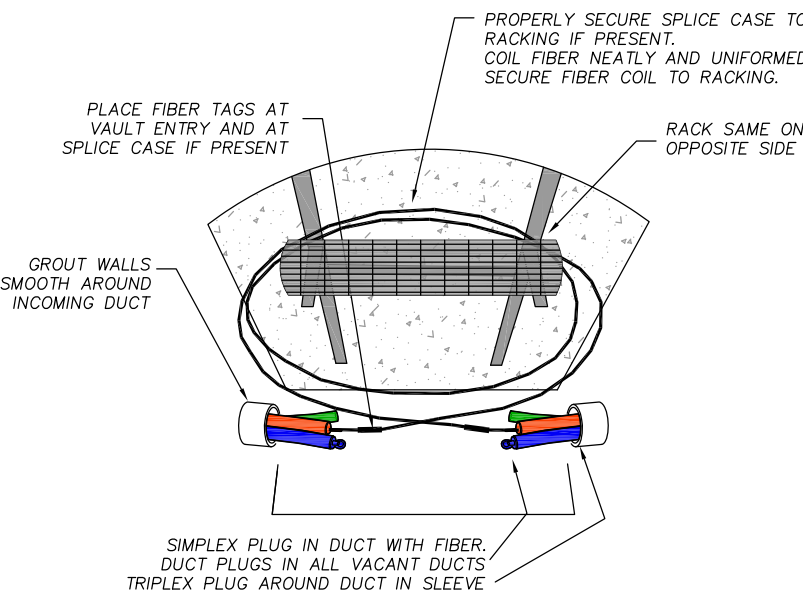
OPEN BOTTOM HANDHOLES:

#10 LOCATE WIRE BONDING STRAP TO GROUND ROD WILL NOT BE INSTALLED ON PASS THROUGH TEST STATIONS.



VAULT SECTION INTERIOR DETAIL  
OPEN BOTTOM HANDHOLE  
SCALE: (ADDITIONAL DETAILS SEE 4/1.7 & 5/1.7)

3.1  
1.6



VAULT SHALL BE FREE OF DIRT AND DEBRIS.

TYPICAL VAULT INTERIOR DETAIL  
SCALE: 1" = N.T.S.

4  
1.6

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503.343.4134

DESIGNED BY:	CCLLC	FIELD BY:	CCLLC
CHECKED BY:	CCLLC	DRAWN BY:	CCLLC
REVISIONS			
REV	DESCRIPTION	DATE	BY APPR.

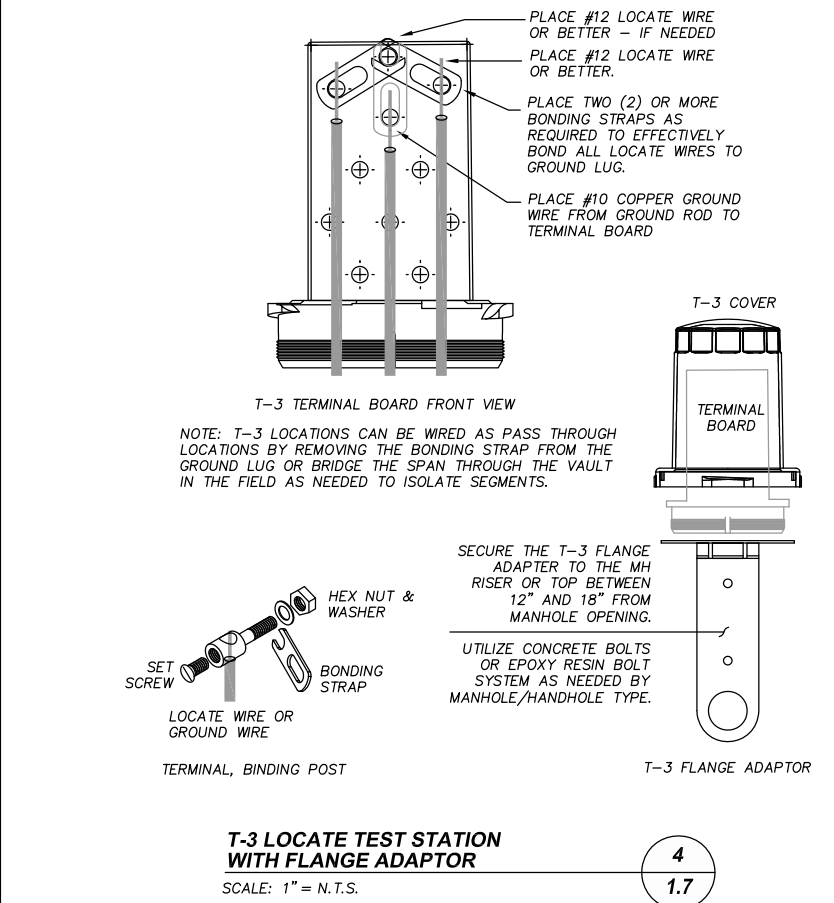
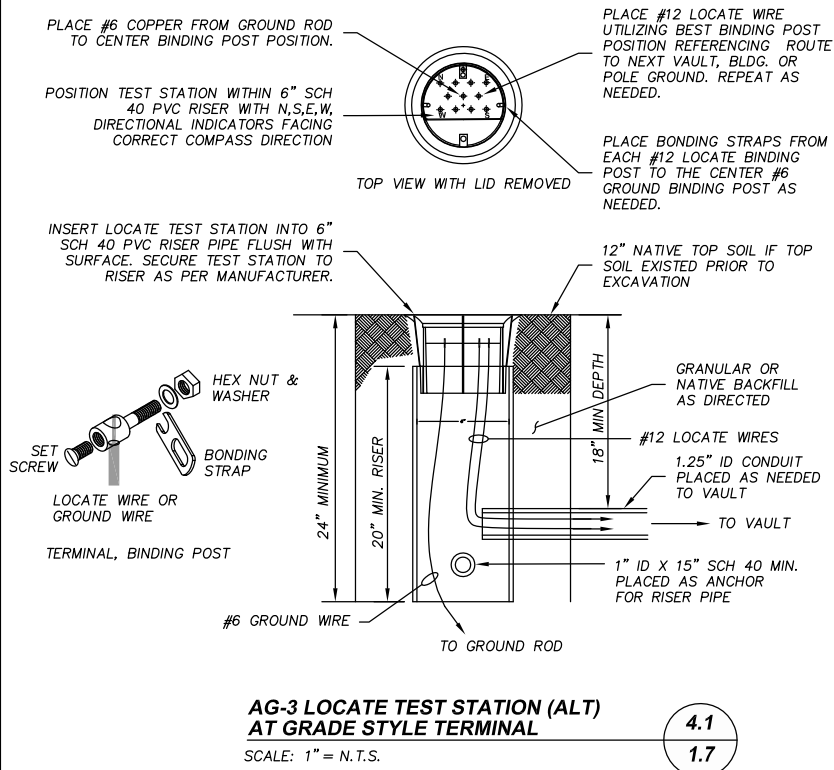
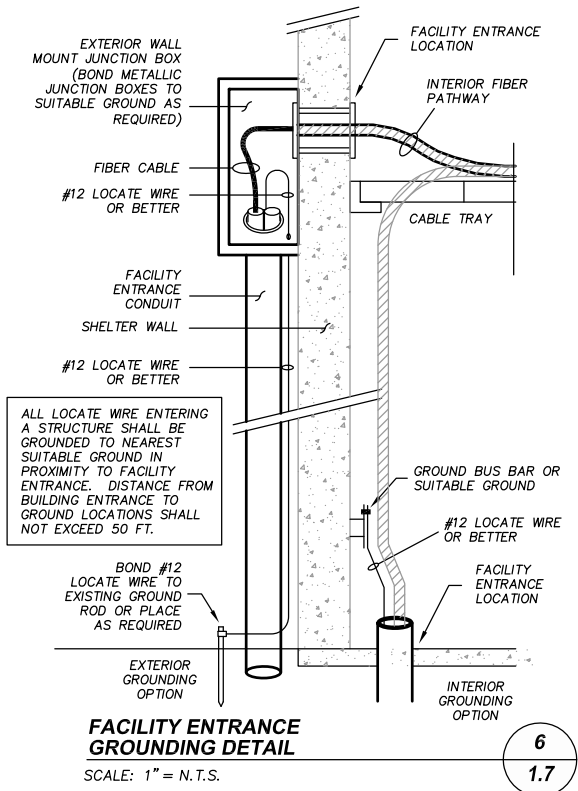
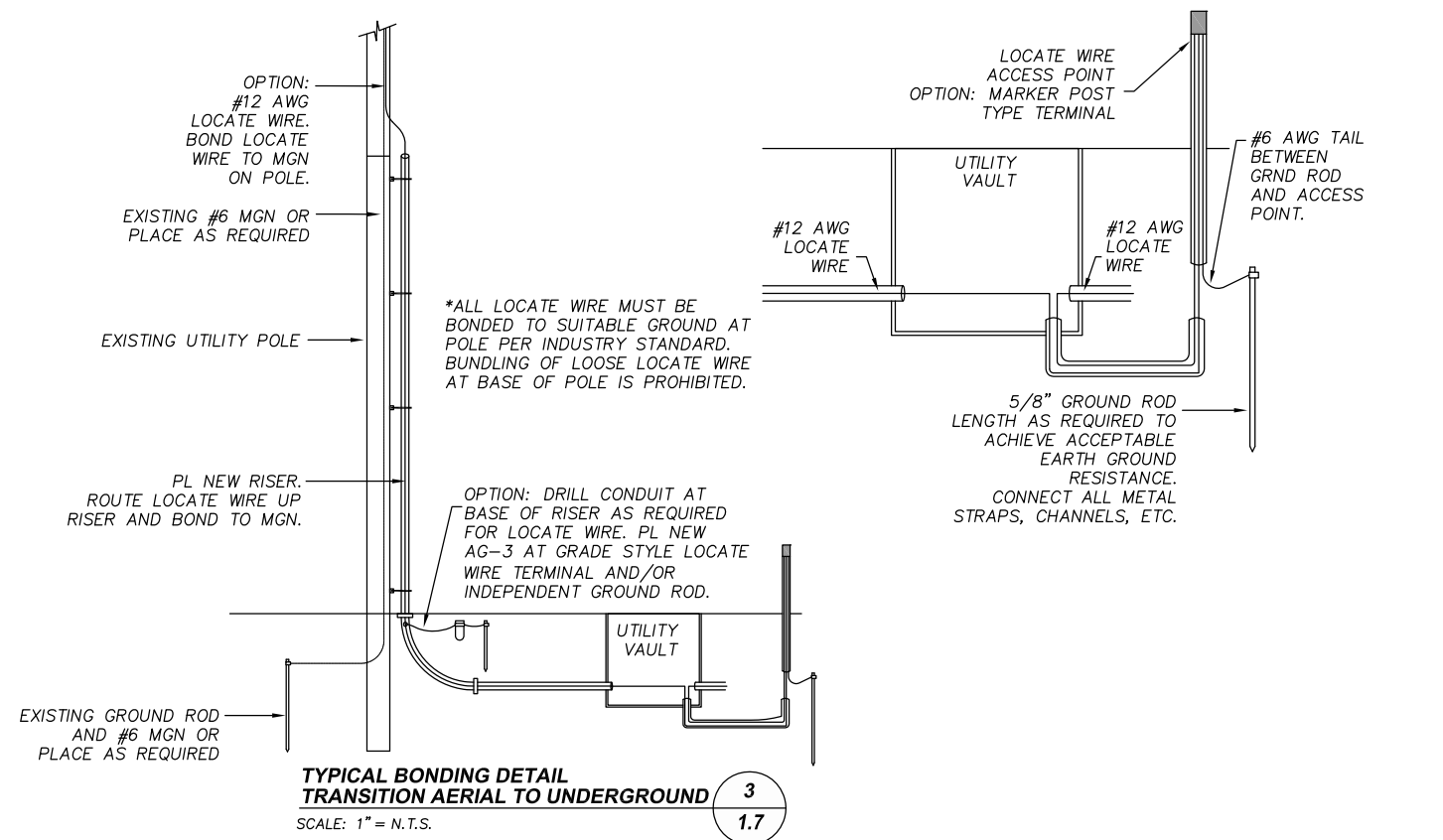
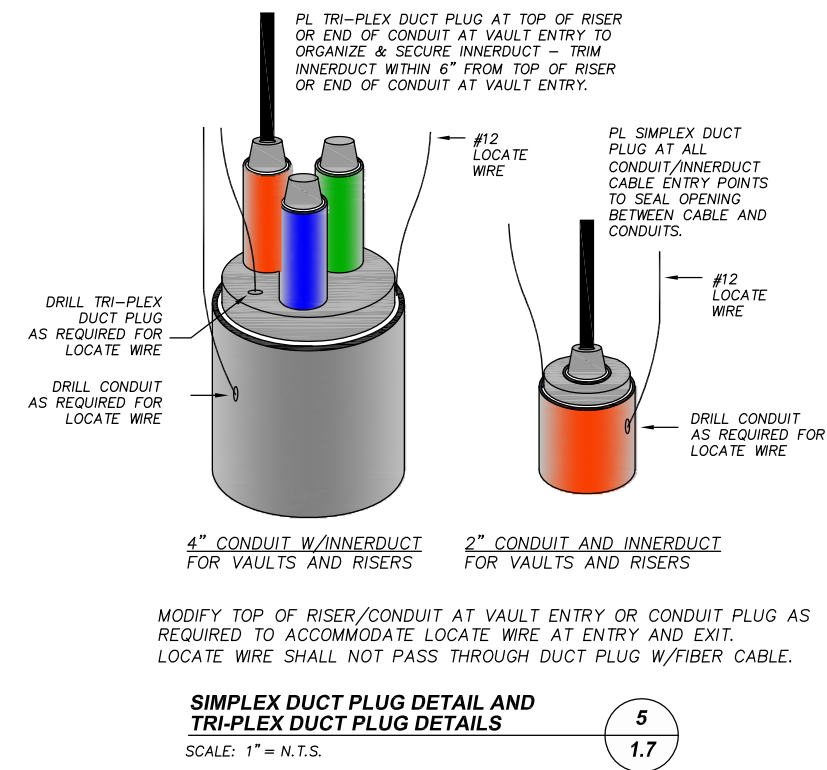
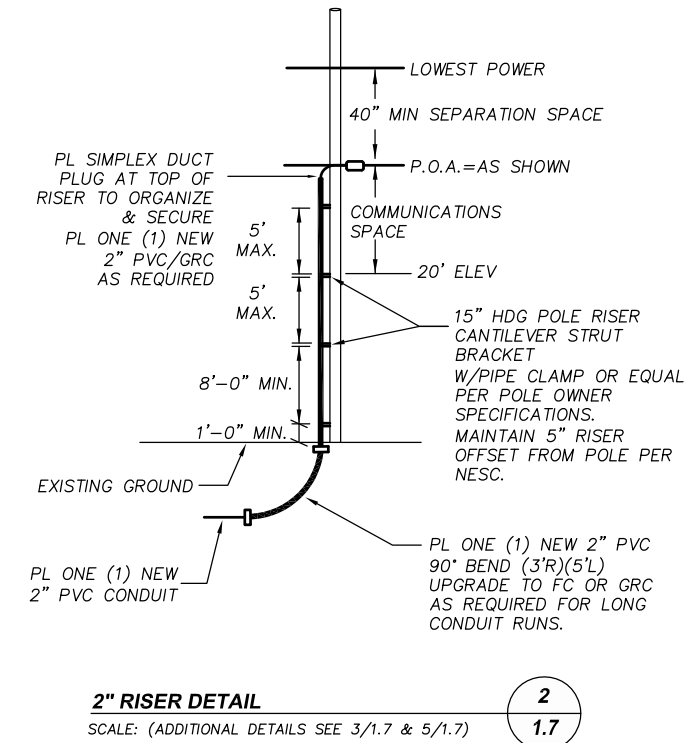
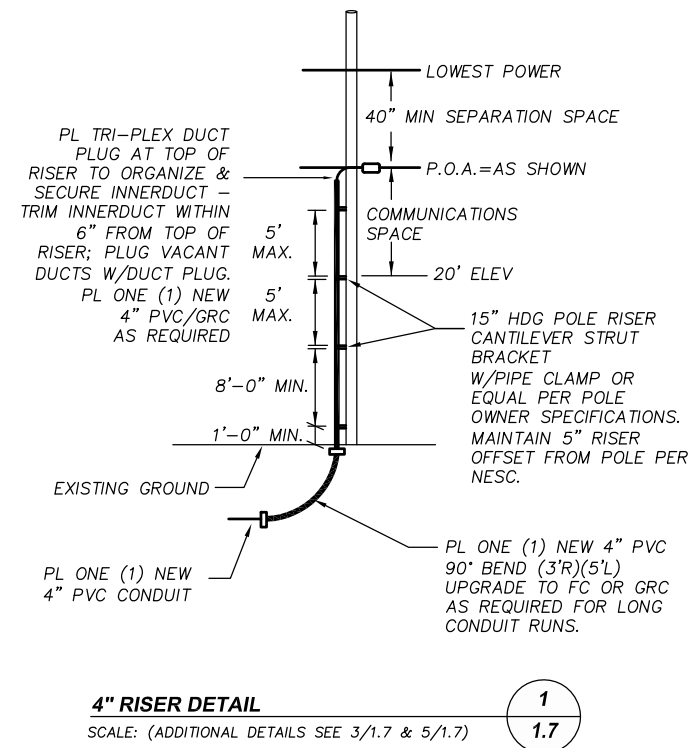
STANDARD PLANS FOR CONSTRUCTION

VAULT DETAILS

CITY: CITY — TOWNSHIP RANGE SECTION:			COUNTY: COUNTY CO., STATE
PLOT DATE: 3/28/2018	SCALE: AS SHOWN	PROJECT NAME-FILENAME.DWG — TAB-SHEET # CCLLC-DT00.DWG — DT01_1.6	SHEET 1.6



SPECIFICATION SET



Plot Date: 28 Mar 2018, 1:30pm By User: Owner Drawing Name: E:\SUPPORT\CCLLC CAD STANDARDS\CCLLC CONSULT\CCLLC-DT00.DWG Layout (If Any): dt02\_1.7

COMMSTRUCTURE CONSULTING, LLC

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DESIGNED BY:	CCLLC	FIELD BY:	CCLLC
CHECKED BY:	CCLLC	DRAWN BY:	CCLLC
REVISIONS			
REV	DESCRIPTION	DATE	BY APPR.

STANDARD PLANS FOR CONSTRUCTION

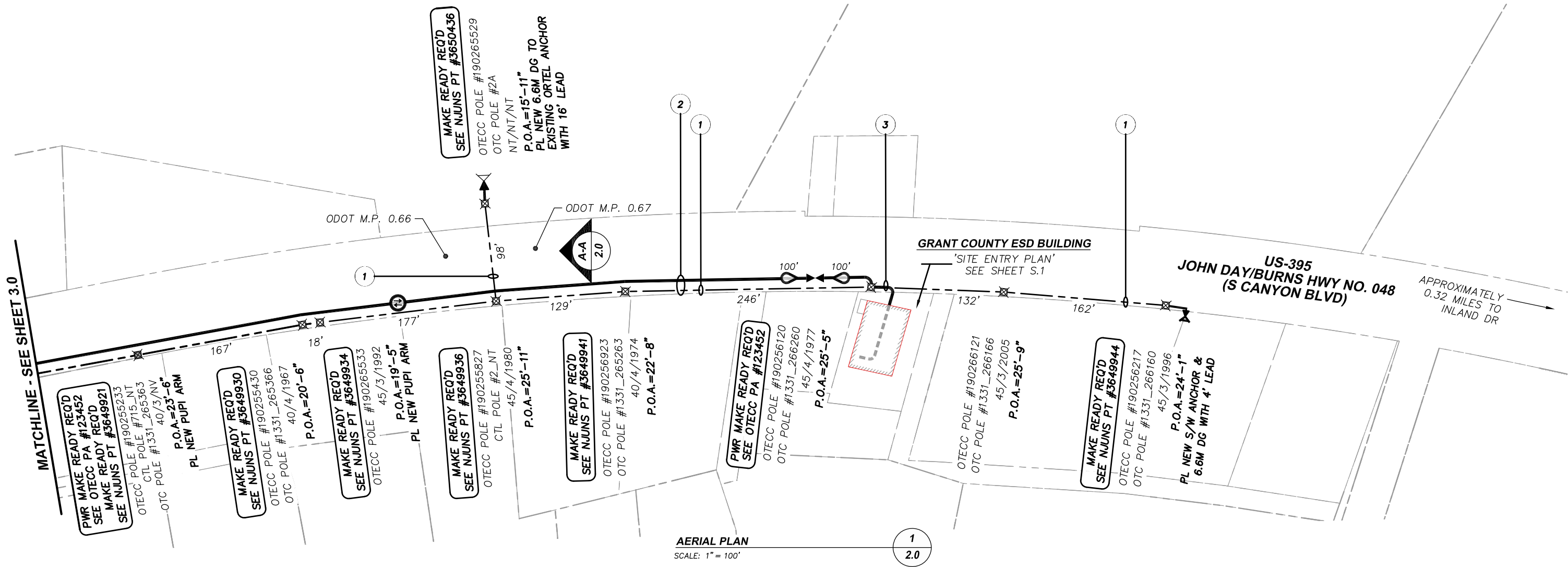
RISER DETAILS AND LOCATE WIRE / BONDING DETAILS

CITY: CITY - TOWNSHIP RANGE SECTION: COUNTY: COUNTY CO., STATE

PLOT DATE: 3/28/2018 SCALE: AS SHOWN PROJECT NAME-FILENAME.DWG - TAB\_SHEET # CCLLC-DT00.DWG - DT02\_1.7 SHEET 1.7

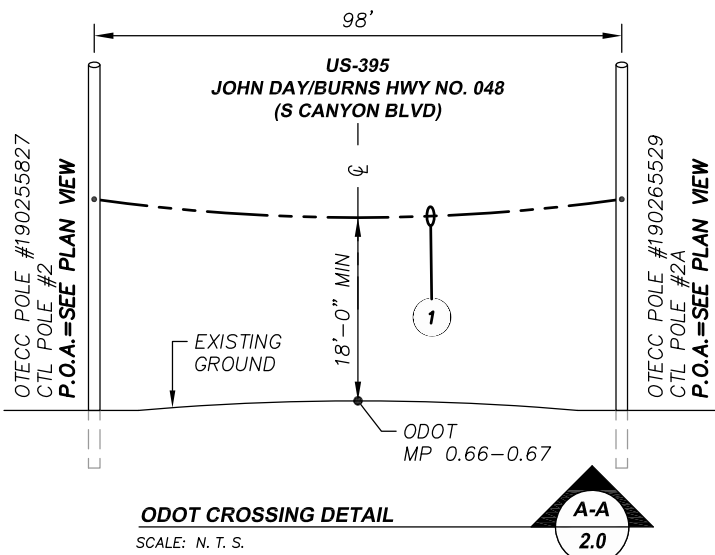


CONSTRUCTION SET

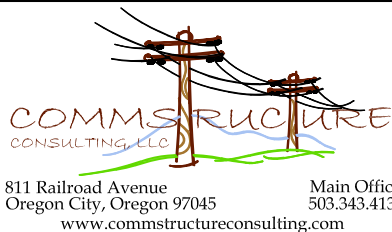
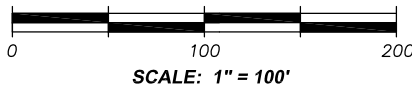


CONSTRUCTION NOTES

- 1 PL NEW 6.6M STRAND
- 2 LASH NEW 48F CABLE TO NEW STRAND (PL NEW FIBER TAG AT EACH POLE ATTACHMENT)
- 3 LASH NEW 12F OFNR CABLE TO NEW STRAND (PL NEW FIBER TAG AT EACH POLE ATTACHMENT)



**ODOT PERMIT REQUIRED**  
MILEPOST : 0.23 - 0.67  
PERMIT # \_\_\_\_\_



DESIGNED BY: J. HERBERT  
CHECKED BY: D. MCGRAW  
FIELD BY: J. HERBERT  
DRAWN BY: M. LENT


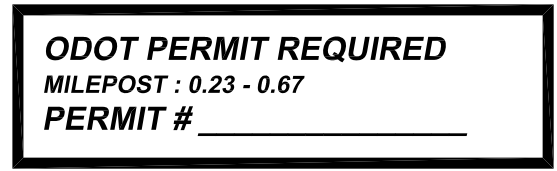
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REV	DESCRIPTION	DATE	BY	APPR.



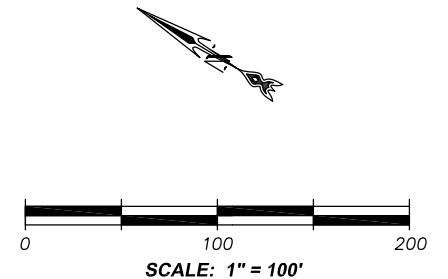
**GRANT COUNTY DIGITAL // CITY OF JOHN DAY**  
**GRANT COUNTY ESD - 911 LATERAL**

**AERIAL PLAN**

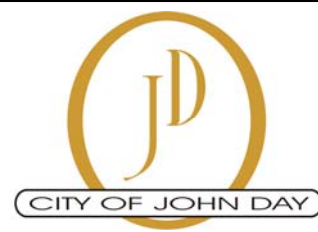
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COUNTY: GRANT CO., OREGON  
PLOT DATE: 10/16/2018  
SCALE: AS SHOWN  
PROJECT NAME-FILENAME.DWG - TAB\_SHEET #  
GRANT.ESD.911.LATERAL.AP00.DWG - AP00\_2.0  
SHEET **2.0**



- 1 PL NEW 6.6M STRAND
- 2 LASH NEW 48F CABLE TO NEW STRAND  
(PL NEW FIBER TAG AT EACH POLE ATTACHMENT)



DESIGNED BY: <u>J. HERBERT</u>		FIELD BY: <u>J. HERBERT</u>		
CHECKED BY: <u>D. MCGRAW</u>		DRAWN BY: <u>M. LENT</u>		
REVISIONS				
REV	DESCRIPTION	DATE	BY	APPR.



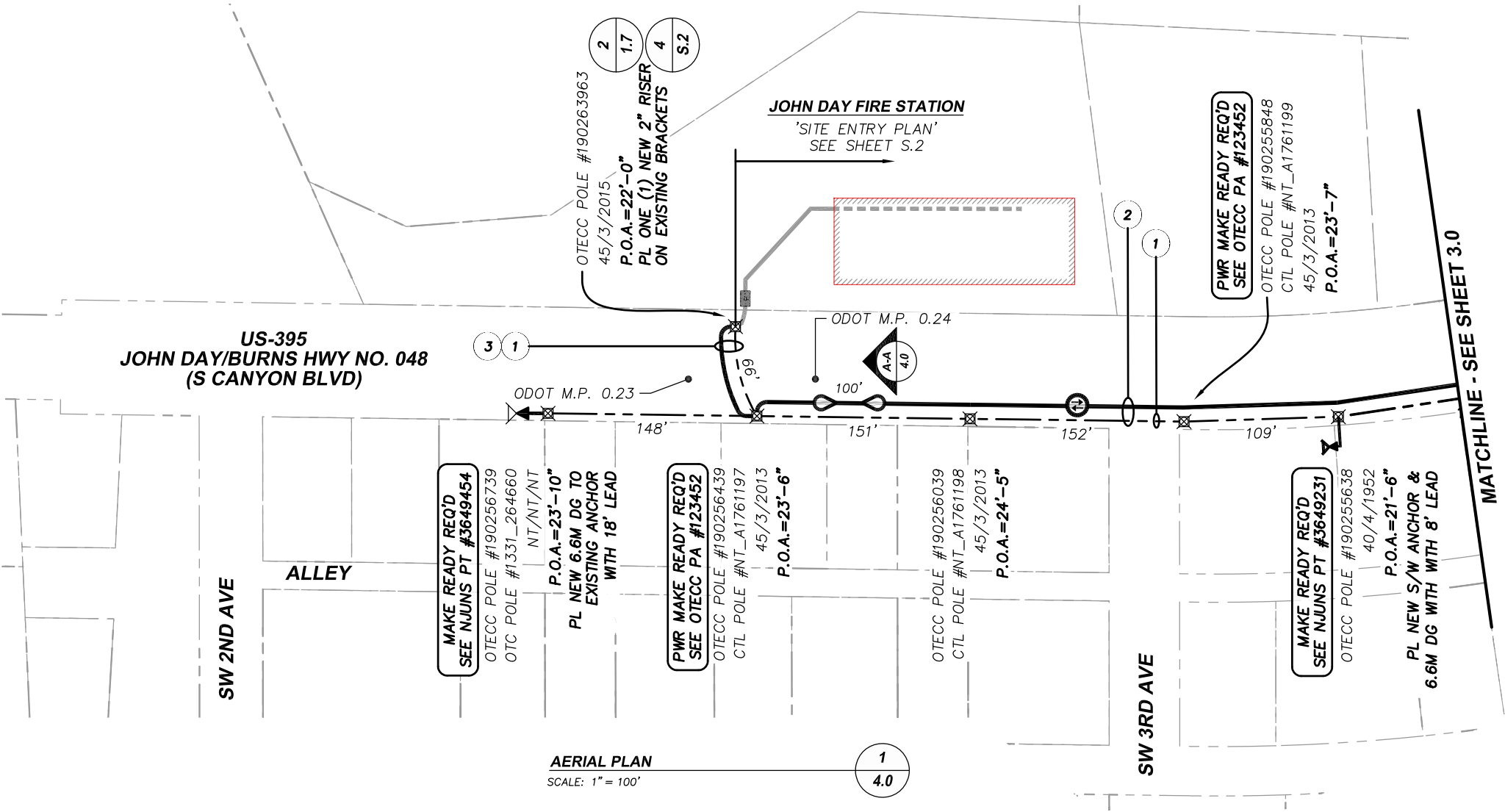
**GRANT COUNTY DIGITAL // CITY OF JOHN DAY**  
**GRANT COUNTY ESD - 911 LATERAL**

### **AERIAL PLAN**

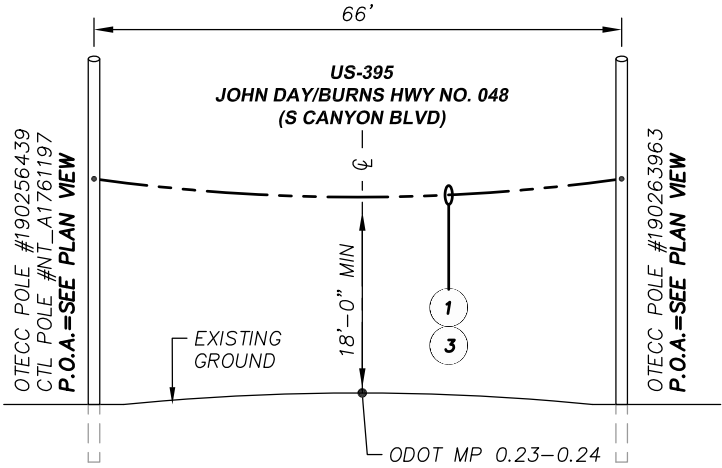
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PLOT DATE: 10/16/2018	SCALE: AS SHOWN	PROJECT NAME-FILENAME.DWG - TAB_SHEET # GRANT.ESD.911.LATERAL.AP00.DWG - AP00_3.0	SHEET <b>3.0</b>



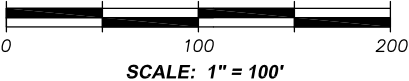
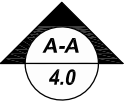
CONSTRUCTION SET



**ODOT PERMIT REQUIRED**  
MILEPOST: 0.23 - 0.67  
PERMIT # \_\_\_\_\_



**US-395 JOHN DAY/BURNS HWY NO.048**  
**ODOT CROSSING DETAIL**



CONSTRUCTION NOTES

- 1 PL NEW 6.6M STRAND
- 2 LASH NEW 48F CABLE TO NEW STRAND  
(PL NEW FIBER TAG AT EACH POLE LOCATION)
- 3 CONSTRUCT NEW SLACK SPAN  
LASH NEW 48F CABLE TO NEW STRAND  
(PL NEW FIBER TAG AT EACH POLE LOCATION)

**COMMS**  
STRUCTURE  
CONSULTING, LLC

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DESIGNED BY:	<u>J. HERBERT</u>	FIELD BY:	<u>J. HERBERT</u>	
CHECKED BY:	<u>D. MCGRAW</u>	DRAWN BY:	<u>M. LENT</u>	
REVISIONS				
✓	DESCRIPTION	DATE	BY	APPR.

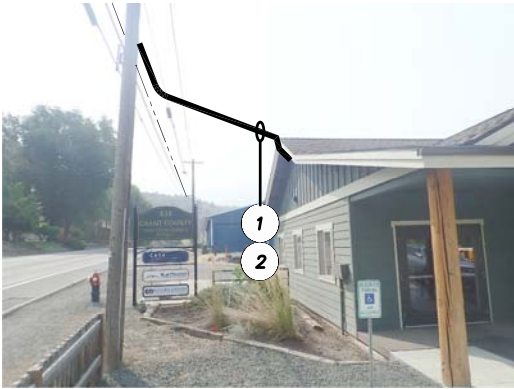


**GRANT COUNTY DIGITAL // CITY OF JOHN DAY**  
**GRANT COUNTY ESD - 911 LATERAL**

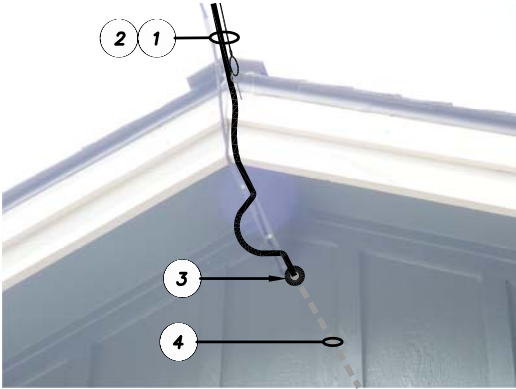
**AERIAL PLAN**

CITY: JOHN DAY - TOWNSHIP 13 NORTH RANGE 31 EAST SECTION(S): 26		COUNTY: GRANT CO., OREGON	
PLOT DATE: 10/16/2018	SCALE: AS SHOWN	PROJECT NAME-FILENAME.DWG - TAB-SHEET # GRANT.ESD.911.LATERAL.AP00.DWG - AP00_4.0	SHEET <b>4.0</b>

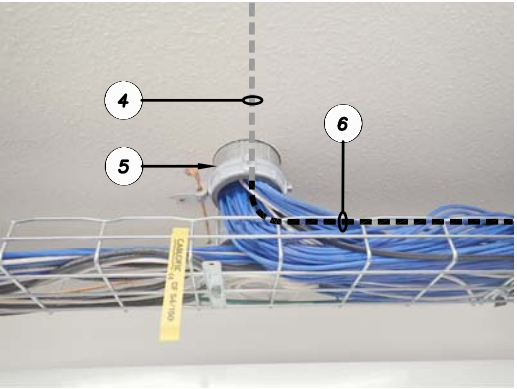
CONSTRUCTION SET



EXTERIOR  
PROPOSED MID-SPAN CABLE PHOTO DETAIL P1  
SCALE: 1" = N.T.S.



EXTERIOR  
EXISTING BUILDING ENTRY PHOTO DETAIL P2  
SCALE: 1" = N.T.S.



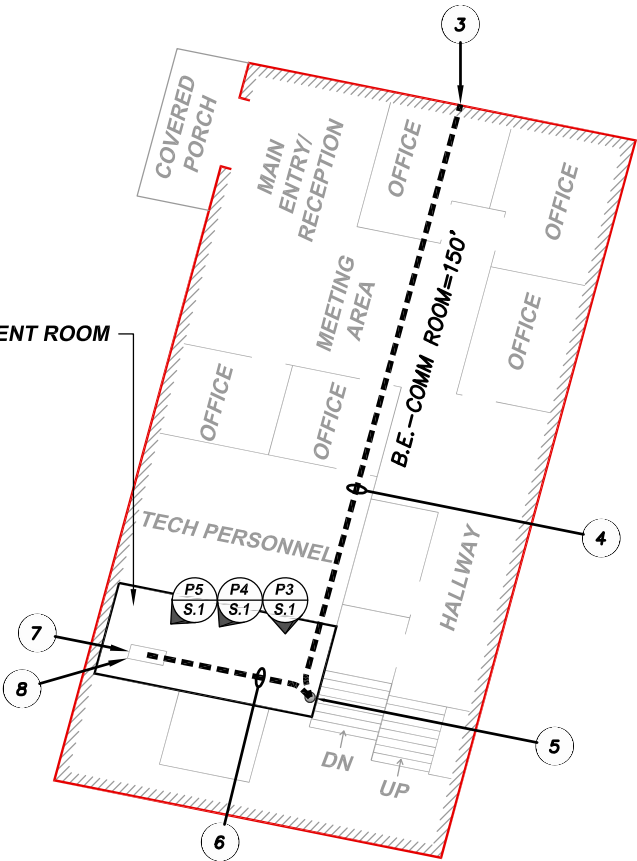
SERVER EQUIPMENT ROOM  
EXISTING CEILING PENETRATION PHOTO DETAIL P3  
SCALE: 1" = N.T.S.

SITE ENTRY PLAN - GRANT COUNTY ESD BUILDING 1  
SCALE: 1" = 40' S.1

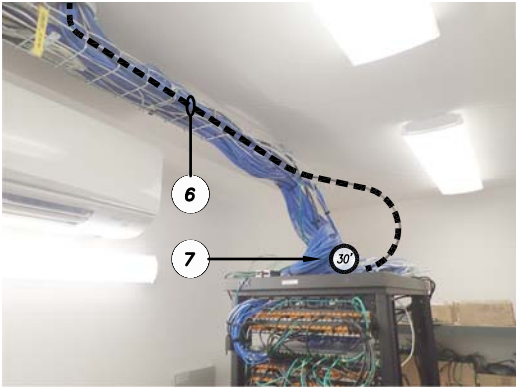
CONSTRUCTION NOTES

- 1 PL NEW 6.6M STRAND TO BUILDING – SECURE STRAND TO BUILDING EXTERIOR WITH EYE BOLT ATTACHED TO INTERIOR STRUCTURE
- 2 LASH NEW 12F OFNR CABLE TO NEW STRAND
- 3 DRILL NEW ENTRY POINT AND PLACE NEW 1–1/4" PVC SLEEVE THROUGH WALL NEXT TO EXISTING PENETRATION – SEAL BUILDING PENETRATION
- 4 PL NEW 1–1/4" RISER FLEX CONDUIT AND PULL NEW 12F OFNR CABLE THROUGH NEW 1–1/4" RISER FLEX CONDUIT
- 5 ENTER EXISTING 4" CEILING PENETRATION TO THE SERVER EQUIPMENT ROOM
- 6 PL NEW 1–1/4" RISER FLEX CONDUIT ALONG EXISTING CABLE LADDER TO EXISTING RACK LOCATION (RACK #4) IN SERVER EQUIPMENT ROOM AND PULL NEW 12F OFNR CABLE THROUGH NEW 1–1/4" RISER FLEX CONDUIT
- 7 LEAVE 30' SLACK STORAGE IN NEW 12F OFNR CABLE COILED AT EXISTING RACK LOCATION FOR TERMINATION
- 8 TERMINATE NEW 12F OFNR CABLE IN NEW 12 PORT RACK MOUNT FIBER DELIVERY POINT (FDP)

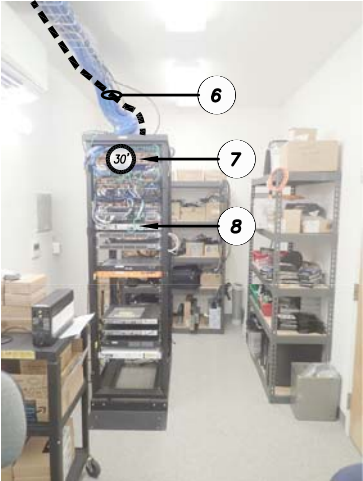
SERVER EQUIPMENT ROOM



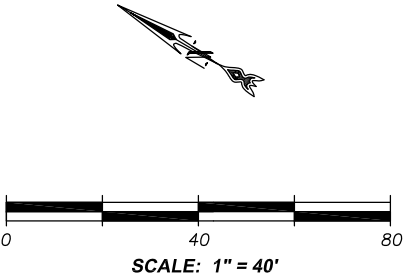
GRANT COUNTY ESD BUILDING  
BUILDING ENTRY PLAN 2  
SCALE: N. T. S. S.1



SERVER EQUIPMENT ROOM  
CONDUIT PATHWAY PHOTO DETAIL P4  
SCALE: 1" = N.T.S. S.1



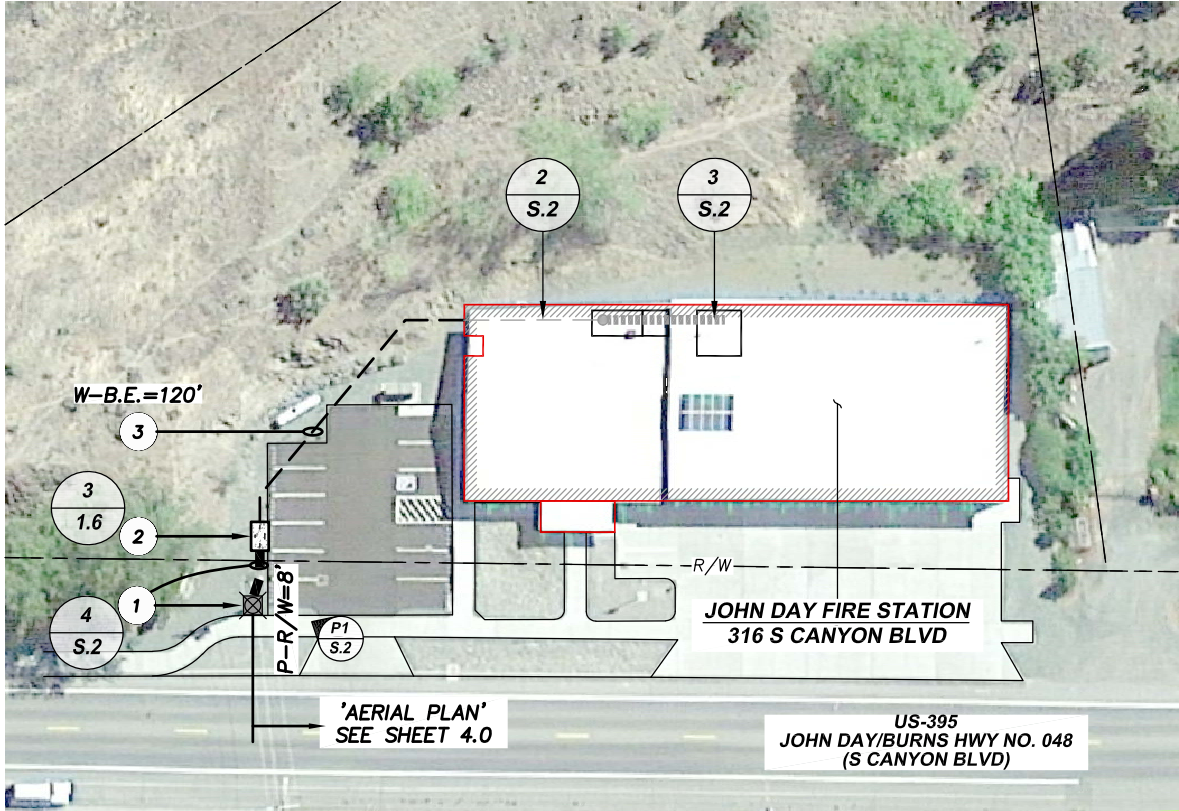
SERVER EQUIPMENT ROOM  
CONDUIT PATHWAY PHOTO DETAIL P5  
SCALE: 1" = N.T.S. S.1



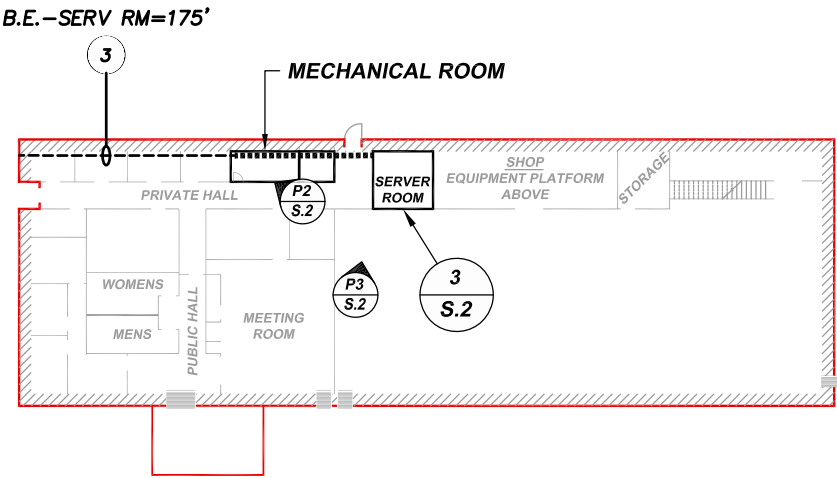
DESIGNED BY:	J. HERBERT	FIELD BY:	J. HERBERT
CHECKED BY:	D. MCGRAW	DRAWN BY:	M. LENT
REVISIONS			
REV	DESCRIPTION	DATE	BY APPR.



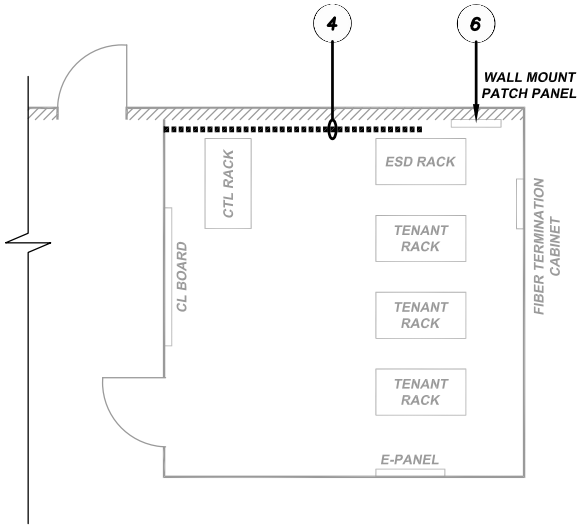
CONSTRUCTION SET



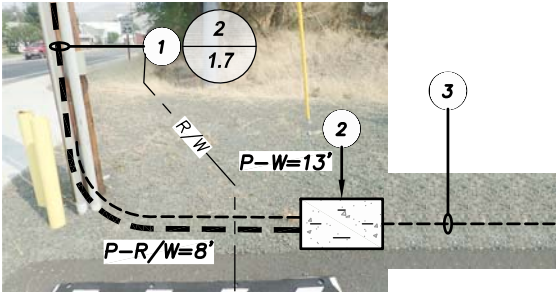
SITE ENTRY PLAN - JOHN DAY FIRE STATION  
SCALE: 1" = 60'



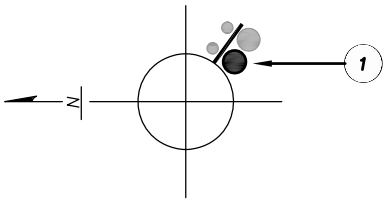
JOHN DAY FIRE STATION  
BUILDING ENTRY PLAN  
SCALE: N. T. S.



INTERIOR  
SERVER ROOM PLAN  
SCALE: N. T. S.

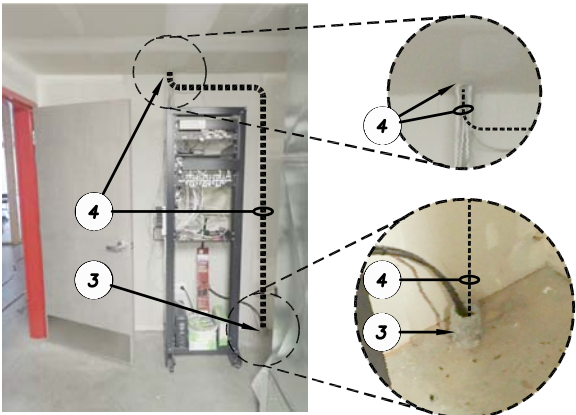


OTECC POLE # 190263963 / NEW VAULT  
EXTERIOR CONDUIT PATHWAY PHOTO DETAIL  
SCALE: 1" = N.T.S.

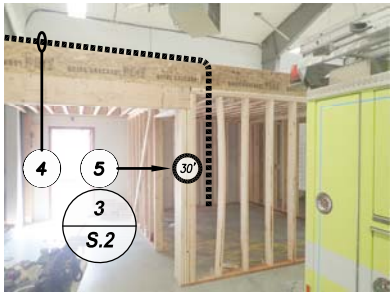


OTECC POLE #190263963 - RISER QUADRANT DETAIL  
SCALE: (SEE RISER DETAIL SHEET 1.7)

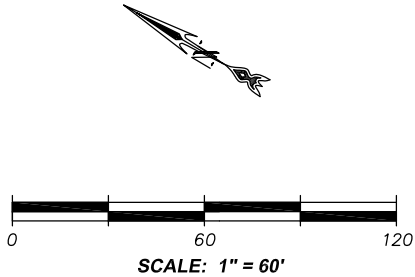
- 1 EXISTING OTECC POLE # 190263963  
PL ONE (1) NEW 2" RISER ON EXISTING BRACKETS  
PL #6 VERTICAL GROUND ON POLE AS REQUIRED - BOND LOCATE WIRE TO MGN ON POLE  
PL NEW 48F CABLE AND #12 AWG LOCATE WIRE THROUGH NEW RISER AND TRANSITION TO UNDERGROUND
- 2 PL NEW 24X36X36 OPEN BOTTOM UTILITY VAULT OVER EXISTING 2" BUILDING ENTRY CONDUIT ON PRIVATE PROPERTY  
INTERCEPT EXISTING 2" CONDUIT INSIDE VAULT - USE CAUTION NOT TO DAMAGE EXISTING CABLE  
PL NEW GROUND ROD, LOCATE WIRE ACCESS POINT AND GROUND WIRE IN VAULT  
PL NEW #6 AWG TAIL BETWEEN GROUND ROD AND TEST STATION GROUND LUG  
BOND #12 AWG LOCATE WIRE TO ACCESS POINT  
LEAVE 50' SLACK STORAGE IN NEW 48F CABLE COILED IN NEW 24X36X36 OPEN BOTTOM UTILITY VAULT
- 3 PL NEW 2" 3-CELL MAXCELL INNERDUCT IN EXISTING 2" BUILDING ENTRY CONDUIT ON PRIVATE PROPERTY  
PULL NEW 48F CABLE AND #12 AWG LOCATE WIRE THROUGH 1 (ONE) CELL OF NEW 2" 3-CELL MAXCELL INNERDUCT IN  
EXISTING 2" BUILDING ENTRY CONDUIT TO MECHANICAL ROOM FLOOR  
BOND #12 AWG LOCATE WIRE TO NEAREST SUITABLE BUILDING GROUND ON INTERIOR
- 4 PL NEW 1-1/4" RISER FLEX CONDUIT FROM EXISTING 2" CONDUIT IN MECHANICAL ROOM FLOOR THROUGH EXISTING 2"  
CONDUIT IN MECHANICAL ROOM CEILING TO SERVER ROOM  
PULL NEW 48F CABLE THROUGH NEW 1-1/4" RISER FLEX CONDUIT
- 5 LEAVE 30' SLACK STORAGE IN NEW 48F CABLE COILED FOR TERMINATION IN SERVER ROOM
- 6 TERMINATE NEW 48F CABLE IN NEW 48 PORT WALL MOUNT FIBER DELIVERY POINT (FDP) IN SERVER ROOM



INTERIOR - MECHANICAL ROOM  
CONDUIT PATHWAY PHOTO DETAIL  
SCALE: 1" = N.T.S.

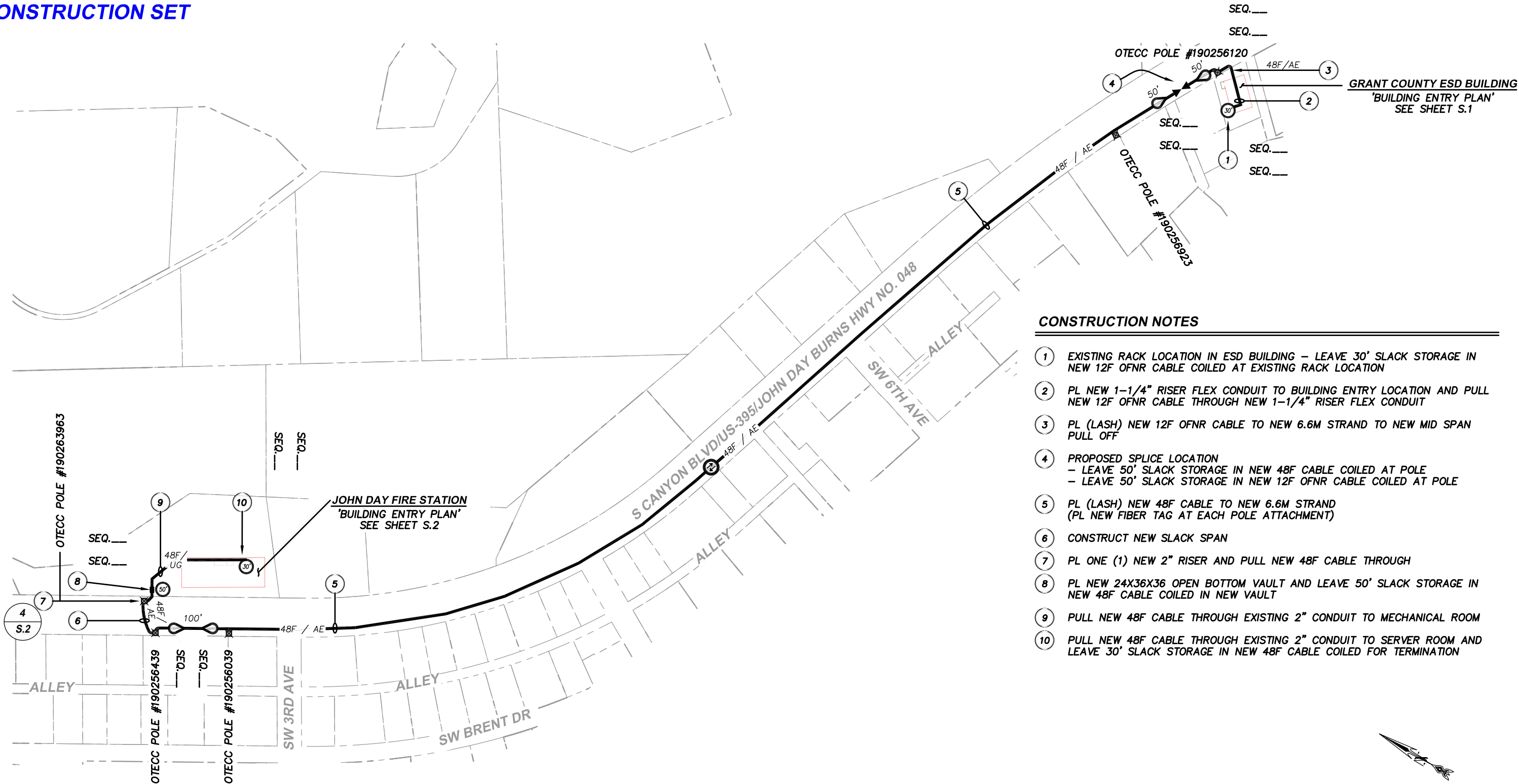


INTERIOR - SERVER ROOM  
CONDUIT PATHWAY PHOTO DETAIL  
SCALE: 1" = N.T.S.



DESIGNED BY:	J. HERBERT	FIELD BY:	J. HERBERT
CHECKED BY:	D. MCGRAW	DRAWN BY:	M. LENT
REVISIONS			
REV	DESCRIPTION	DATE	BY APPR.

CONSTRUCTION SET



CONSTRUCTION NOTES

- 1 EXISTING RACK LOCATION IN ESD BUILDING – LEAVE 30’ SLACK STORAGE IN NEW 12F OFNR CABLE COILED AT EXISTING RACK LOCATION
- 2 PL NEW 1–1/4” RISER FLEX CONDUIT TO BUILDING ENTRY LOCATION AND PULL NEW 12F OFNR CABLE THROUGH NEW 1–1/4” RISER FLEX CONDUIT
- 3 PL (LASH) NEW 12F OFNR CABLE TO NEW 6.6M STRAND TO NEW MID SPAN PULL OFF
- 4 PROPOSED SPLICE LOCATION
  - LEAVE 50’ SLACK STORAGE IN NEW 48F CABLE COILED AT POLE
  - LEAVE 50’ SLACK STORAGE IN NEW 12F OFNR CABLE COILED AT POLE
- 5 PL (LASH) NEW 48F CABLE TO NEW 6.6M STRAND (PL NEW FIBER TAG AT EACH POLE ATTACHMENT)
- 6 CONSTRUCT NEW SLACK SPAN
- 7 PL ONE (1) NEW 2” RISER AND PULL NEW 48F CABLE THROUGH
- 8 PL NEW 24X36X36 OPEN BOTTOM VAULT AND LEAVE 50’ SLACK STORAGE IN NEW 48F CABLE COILED IN NEW VAULT
- 9 PULL NEW 48F CABLE THROUGH EXISTING 2” CONDUIT TO MECHANICAL ROOM
- 10 PULL NEW 48F CABLE THROUGH EXISTING 2” CONDUIT TO SERVER ROOM AND LEAVE 30’ SLACK STORAGE IN NEW 48F CABLE COILED FOR TERMINATION

MASTER CABLE PLAN  
SCALE: N. T. S.

1  
MCP.1

Plot Date: 17 Oct 2018, 3:30pm By User:Mike  
Drawing Name: Z:\CITY OF JOHN DAY\GRANT ESD - 911 LATERAL (AIRPORT)\CAD\GRANT.ESD.911.LATERAL.MCP00.DWG Layout (If Any): MCP00MCP.1

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GRANT COUNTY DIGITAL // CITY OF JOHN DAY  
GRANT COUNTY ESD - 911 LATERAL  
MASTER CABLE PLAN

CITY: JOHN DAY – TOWNSHIP 13 NORTH RANGE 31 EAST SECTION(S): 26		COUNTY: GRANT CO., OREGON	
PLOT DATE: 10/16/2018	SCALE: AS SHOWN	PROJECT NAME-FILENAME.DWG – TAB_SHEET # GRANT.ESD.911.LATERAL.MCP00.DWG – MCP00MCP.1	SHEET MCP.1