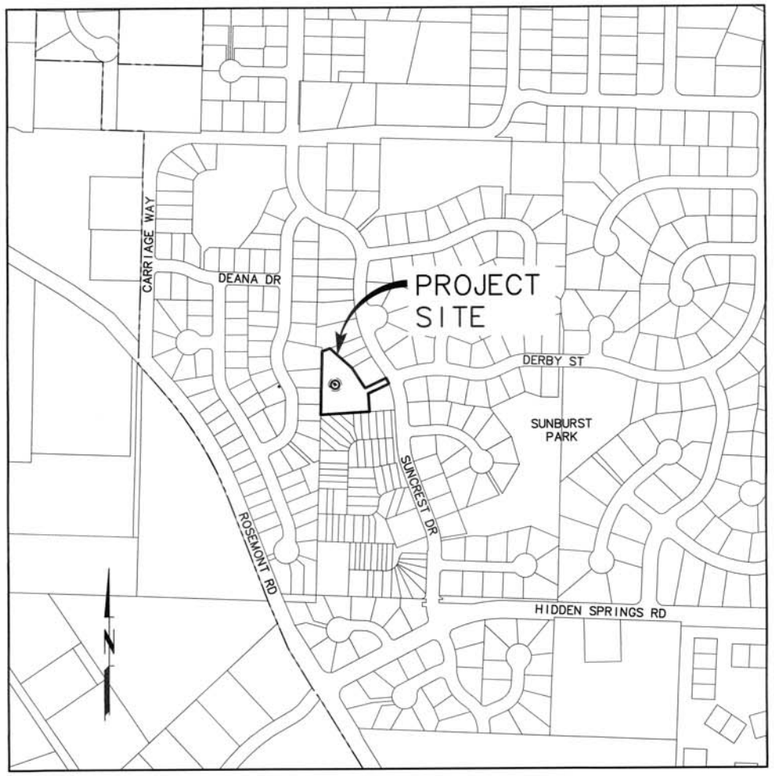
CITY OF WEST LINN, OREGON
ROSEMONT RESERVOIR
SAFETY AND MAINTENANCE IMPROVEMENTS
PROJECT NO. PW-14-04

JULY 2014

INDEX OF DRAWINGS

ATTENTION: OREGON LAW REQUIRES THE CONTRACTOR TO FOLLOW THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. THE CONTRACTOR MAY OBTAIN COPIES OF THE RULES BY CALLING THE UTILITY NOTIFICATION CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS 503-246-6699.)



LOCATION MAP
SCALE: 1"=300'

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 13, 1990
THOMAS P. SCHULTZ
EXPIRES: 12-31-15

NO. | DATE | REVISION | BY

DESIGNED: JHF
DRAWN: DKH
CHECKED: TPB
APPROVED: TLB

SHEET G-1
1 of 11

SCALE: VERT: AS SHOWN HORIZ: AS SHOWN
NOTICE 0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

PROJECT NAME: CITY OF WEST LINN, OREGON
ROSEMONT RESERVOIR
SAFETY AND MAINTENANCE IMPROVEMENTS

SHEET TITLE: COVER SHEET
INDEX OF DRAWINGS AND LOCATION MAP

Murray, Smith & Associates, Inc.
Engineers/Planners
121 S.W. Salmon, Suite 900 Portland, Oregon 97204
PHONE 503-225-9010 FAX 503-225-9022

MSA PROJECT: 14-1537.201 DATE: JULY 2014

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GENERAL NOTES

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY LOCAL, COUNTY, STATE, AND UTILITY CONSTRUCTION PERMITS, AND SHALL CONTACT EACH PERMITTING AGENCY AT LEAST TWO (2) BUSINESS DAYS PRIOR TO STARTING WORK. CONTRACTOR SHALL OBTAIN ALL REQUIRED LICENSES BEFORE STARTING CONSTRUCTION.

2. ATTENTION: OREGON LAW REQUIRES THE CONTRACTOR TO FOLLOW THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. THE CONTRACTOR MAY OBTAIN COPIES OF THE RULES BY CALLING THE UTILITY NOTIFICATION CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS 503-246-6699.)

3. CONTRACTOR SHALL PROTECT ALL PROPERTY CORNERS, SURVEY MONUMENTS AND CONTROL POINTS TO THE EXTENT POSSIBLE.

4. CONTRACTOR SHALL KEEP AND MAINTAIN A CURRENT SET OF DRAWINGS ON SITE. CONTRACTOR TO KEEP ACCURATE "AS-BUILT" RECORD COPY OF PLANS. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL SUBMIT A CLEAN SET OF FIELD RECORD DRAWINGS CONTAINING ALL AS-BUILT INFORMATION FOR USE IN THE PREPARATION OF AS-BUILT DRAWINGS FOR SUBMITTAL TO THE CITY.

5. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL HOMES AND BUSINESSES AT ALL TIMES. PROVIDE WRITTEN NOTICE TO ALL PROPERTY OWNERS AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE OF WORK IN AND/OR CROSSING DRIVEWAYS.

6. CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS BEFORE STARTING CONSTRUCTION, AND 24 HOURS BEFORE RESUMING WORK AFTER SHUTDOWNS EXCEPT FOR NORMAL RESUMPTION OF WORK FOLLOWING SATURDAYS, SUNDAYS, OR HOLIDAYS. CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS PRIOR TO ANY TESTING OR REQUIRED INSPECTION.

7. ANY ALTERATION OR VARIANCE FROM THESE PLANS, EXCEPT MINOR FIELD ADJUSTMENT NOT AFFECTING DESIGN NEEDED TO MEET EXISTING FIELD CONDITIONS, SHALL FIRST BE APPROVED BY THE ENGINEER. ANY ALTERATIONS OR VARIANCE FROM THESE PLANS SHALL BE DOCUMENTED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE ENGINEER. ANY PROPOSED CHANGE IN CONSTRUCTION PLANS MUST BE SUBMITTED IN WRITING AND APPROVED BY ENGINEER PRIOR TO COMMENCING WORK.

8. CONTRACTOR SHALL DISPOSE OF ALL REMOVED OR REPLACED MATERIAL AND EQUIPMENT IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS, EXCEPT THOSE ITEMS DESIGNATED BY THE OWNER FOR SALVAGING. SALVAGED ITEMS SHALL REMAIN THE PROPERTY OF THE OWNER, AND SHALL BE CAREFULLY REMOVED AND STORED AS DIRECTED.

9. CONTRACTOR SHALL RESTORE ALL STRUCTURES, LOTS, SWALES, DITCHES, CURBS, FENCES, WALLS, MAILBOXES, SIGNS, POLES, GUY WIRES, PIPING, AND UTILITIES DISTURBED DURING CONSTRUCTION TO EXISTING CONDITIONS UNLESS OTHERWISE SPECIFIED.

10. CONTRACTOR SHALL OBSERVE FIELD CONDITIONS, INCLUDING WORK ON PRIVATE PROPERTY, PRIOR TO BIDDING AND ADJUST BID ACCORDINGLY.

11. CONTRACTOR TO MAINTAIN THE INTEGRITY OF PRIVATELY OWNED AND MAINTAINED DRIVEWAYS. DAMAGED SURFACES SHALL BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SUCH REPAIRS SHALL BE CONSIDERED INCIDENTAL.

12. ALL EXISTING FACILITIES SHALL BE MAINTAINED IN-PLACE BY THE CONTRACTOR UNLESS OTHERWISE SHOWN OR DIRECTED. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO SUPPORT, MAINTAIN, OR OTHERWISE PROTECT EXISTING UTILITIES AND OTHER FACILITIES AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR TO LEAVE EXISTING FACILITIES IN AN EQUAL OR BETTER CONDITION AND TO THE SATISFACTION OF THE ENGINEER.

13. THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO CAREFULLY PRESERVE BENCHMARKS, REFERENCE POINTS AND STAKES, AND IN THE CASE OF DESTRUCTION THEREOF BY THE CONTRACTOR RESULTING FROM ITS NEGLIGENCE, THE CONTRACTOR SHALL BE CHARGED WITH THE EXPENSE AND DAMAGE RESULTING THEREFORE AND SHALL BE RESPONSIBLE FOR ANY MISTAKES THAT MAY BE CAUSED BY THE UNNECESSARY LOSS OR DISTURBANCE OF SUCH BENCHMARKS, REFERENCE POINTS AND STAKES.

14. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE PLANS, PROJECT SPECIFICATIONS, AND CITY OF WEST LINN PUBLIC WORKS DESIGN STANDARDS.

15. ALL COATINGS, GASKETS AND OTHER MATERIALS COMING INTO CONTACT WITH POTABLE WATER SHALL BE NSF 61 APPROVED.

16. OPERATION OF ALL VALVES SHALL BE PERFORMED BY AUTHORIZED CITY OF WEST LINN PERSONNEL ONLY.

SURVEY NOTES

1. TOPOGRAPHIC MAP WAS COMPLETED BY SUMMIT SOLUTIONS.

2. THE ELEVATION DATUM FOR THIS SURVEY IS NAVD 88. SITE BENCHMARK ELEVATION=753.0'.

3. THE HORIZONTAL DATUM FOR THIS SURVEY IS NAD 83(2011), STATE PLANE OREGON NORTH (ZONE 3601). THE COORDINATES AT THE TANK CENTER ARE:
LATITUDE – 45°22'46.53" N
LONGITUDE – 122°39'20.65" W

4. THE UNDERGROUND UTILITIES SHOWN HEREON WERE BASED ON UTILITY LOCATE PAINT MARKS SUPPLIED BY THE OREGON UTILITY NOTIFICATION CENTER AS WELL AS SURFACE EVIDENCE AND PRIVATE AS-BUILT RECORDS. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED.

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
ABAN(D)	ABANDON(ED)
APPROX	APPROXIMATELY
APPVD	APPROVED
ASPH	ASPHALT(IC)
ASSY	ASSEMBLY
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BOTTOM OF CURB
BCR	BEGIN CURB RETURN
BETW	BETWEEN
BFILL	BACKFILL
BLDG	BUILDING
BM	BENCH MARK
BRK	BREAK
BTM	BOTTOM
BV	BALL VALVE
BVC	BEGIN VERTICAL CURVE
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
℄	CENTER LINE
CB	CATCH BASIN
CDF	CONTROLLED DENSITY FILL
CI	CAST IRON
CIPP	CAST IN PLACE PIPE
CJ	CONTROL JOINT
CL	CLASS
CLR	CLEARANCE
CND	CONDUIT
CONC	CONCRETE
CONST	CONSTRUCT(ION)
COORD	COORDINATE
COP	COPPER
COWL	CITY OF WEST LINN
CPP	CORRUGATED POLYETHYLENE PIPE
CR	CRUSHED ROCK
CSP	CONCRETE SEWER PIPE
CTL	CENTURY LINK
CY	CUBIC YARD
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DP	DIAMOND PLATE
DWG	DRAWING
DWY	DRIVEWAY
E, ELEC	ELECTRIC OR ELECTRICAL
EA	EACH
ECR	END CURB RETURN
EL	ELEVATION
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EXIST	EXISTING
FAB	FABRICATE (D)
FIN	FINISH
FNDN	FOUNDATION
FO	FIBER OPTIC
FT	FOOT/FEET
G	GAS
GALV	GALVANIZED
GEN	GENERAL
GR	GRADE
GRVL	GRAVEL
HGT	HEIGHT
HPT	HIGH POINT
HWY	HIGHWAY
IE	INVERT ELEVATION
INSTL	INSTALL
IRR	IRRIGATION
JT(S)	JOINT(S)
L	LENGTH
LOC	LOCATION
LF	LINEAR FOOT
℄	LANE LINE
LPT	LOW POINT
LT	LEFT

MATL(S)	MATERIAL(S)
MAX	MAXIMUM
MB	MAILBOX
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
NTS	NOT TO SCALE
NIC	NOT IN CONTRACT
NWN	NORTHWEST NATURAL GAS
OC	ON CENTER
OD	OUTSIDE DIAMETER
ODOT	OREGON DEPARTMENT OF TRANSPORTATION
OVHD	OVERHEAD POWER LINE
PC	POINT OF CURVATURE
PCC	PORTLAND CEMENT CONCRETE
PERF	PERFORATED
PERP	PERPENDICULAR
PGE	PORTLAND GENERAL ELECTRIC
PL	PROPERTY LINE
℄	PLATE
PROP	PROPOSED
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL CURVATURE
PVMT	PAVEMENT
PW	PUBLIC WORKS
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REINF	REINFORCE(D)(ING)(MENT)
RES	RESERVOIR
RESTR	RESTRAIN(ED)
REQ'D	REQUIRED
RO	ROUGH OPENING
RT	RIGHT
R/W	RIGHT OF WAY
SCHED	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SHT(S)	SHEET(S)
SLP	SLOPE
SLV	SLEEVE
SPECS	SPECIFICATIONS
SQ	SQUARE
SRVC	SERVICE
SS	SANITARY SEWER
SSCO	SANITARY SERVICE CLEANOUT
SSMH	SANITARY SEWER MANHOLE
SST	STAINLESS STEEL
STA	STATION
STL	STEEL
STD	STANDARD
S/W	SIDEWALK
SHT	SHEET
STRUC	STRUCTURAL
T, TEL	TELEPHONE
TC	TOP OF CURB
TELECOM	TELECOMMUNICATIONS
TEMP	TEMPORARY
THK	THICKNESS
THRD	THREADED
THRU	THROUGH
TYP	TYPICAL
UG	UNDERGROUND
UGP	UNDERGROUND POWER
VARS	VARIES
VERT	VERTICAL(LY)
VC	VERTICAL CURVE
W	WATER
W/	WITH
W/IN	WITHIN
W/O	WITHOUT
WSVC	WATER SERVICE

BY | REVISION | NO. | DATE

DESIGNED: JHF
DRAWN: DKH
CHECKED: TPB
APPROVED: TLB

SHEET G-2 2 of 11

REGISTERED PROFESSIONAL ENGINEER OREGON JULY 13, 2001 THOMAS P. BOB AND
EXPIRES 12-31-15

SCALE VERT: AS SHOWN HORIZ: AS SHOWN
NOTICE: IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

PROJECT NAME: CITY OF WEST LINN, OREGON
ROSEMONT RESERVOIR
SAFETY AND MAINTENANCE IMPROVEMENTS

SHEET TITLE: GENERAL NOTES AND ABBREVIATIONS

Murray, Smith & Associates, Inc.
Engineers/Planners
121 S.W. Salmon, Suite 900 Portland, Oregon 97204
PHONE 503-225-9010 FAX 503-225-9022

DATE: JULY 2014

MSA PROJECT: 14-1537.201

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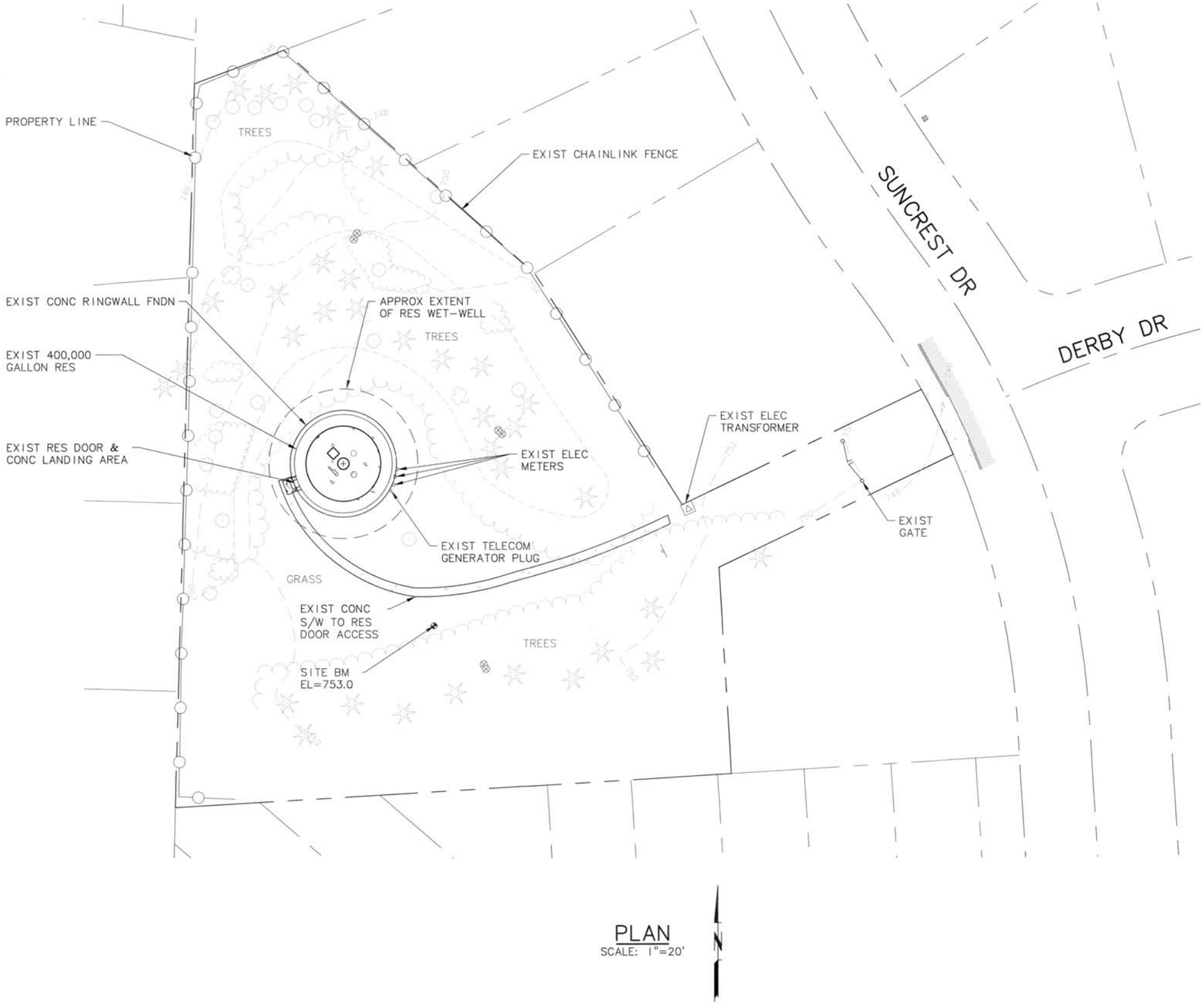


PLAN
SCALE: 1"=20'

N

NO.	DATE	REVISION	BY

DESIGNED: JHF
DRAWN: DKH
CHECKED: TPB
APPROVED: TLB

SHEET C-1 3 of 11

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 13, 1984
THOMAS P. BOND
59976
EXPIRES 12-31-15

SCALE VERT: AS SHOWN HORIZ:AS SHOWN

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

PROJECT NAME:
CITY OF WEST LINN, OREGON
ROSEMONT RESERVOIR
SAFETY AND MAINTENANCE IMPROVEMENTS

SHEET TITLE:
SITE PLAN

MSA
Murray, Smith & Associates, Inc.
Engineers/Planners
121 S.W. Salmon, Suite 900 Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022

MSA PROJECT: 14-1537.201 DATE: JULY 2014

SHEET NOTES:

1. EXISTING DRYWELL TUBE ROOF ACCESS HATCH SHALL BE REPLACED AS DESCRIBED IN SPECIFICATIONS SECTION 05500. FURNISH AND INSTALL NEW HINGED HATCH WITH SCREENED ADJUSTABLE LOUVERS AND LIMIT SWITCH.

2. NEW CABLE SHAFT THROUGH WET-WELL SHALL INCLUDE A WEATHERPROOF SHROUD ON THE RESERVOIR ROOF AS DESCRIBED IN SPECIFICATIONS SECTION 05500.

3. FURNISH AND INSTALL A REPLACEMENT 24-INCH DIAMETER PEDESTAL ACCESS HATCH COMPLETE WITH INTEGRAL LOUVER AS DESCRIBED IN SPECIFICATIONS SECTION 05500.

4. FURNISH AND INSTALL A REPLACEMENT RESERVOIR ACCESS DOOR COMPLETE WITH INTEGRAL LOUVER AS DESCRIBED IN SPECIFICATIONS SECTION 05500.

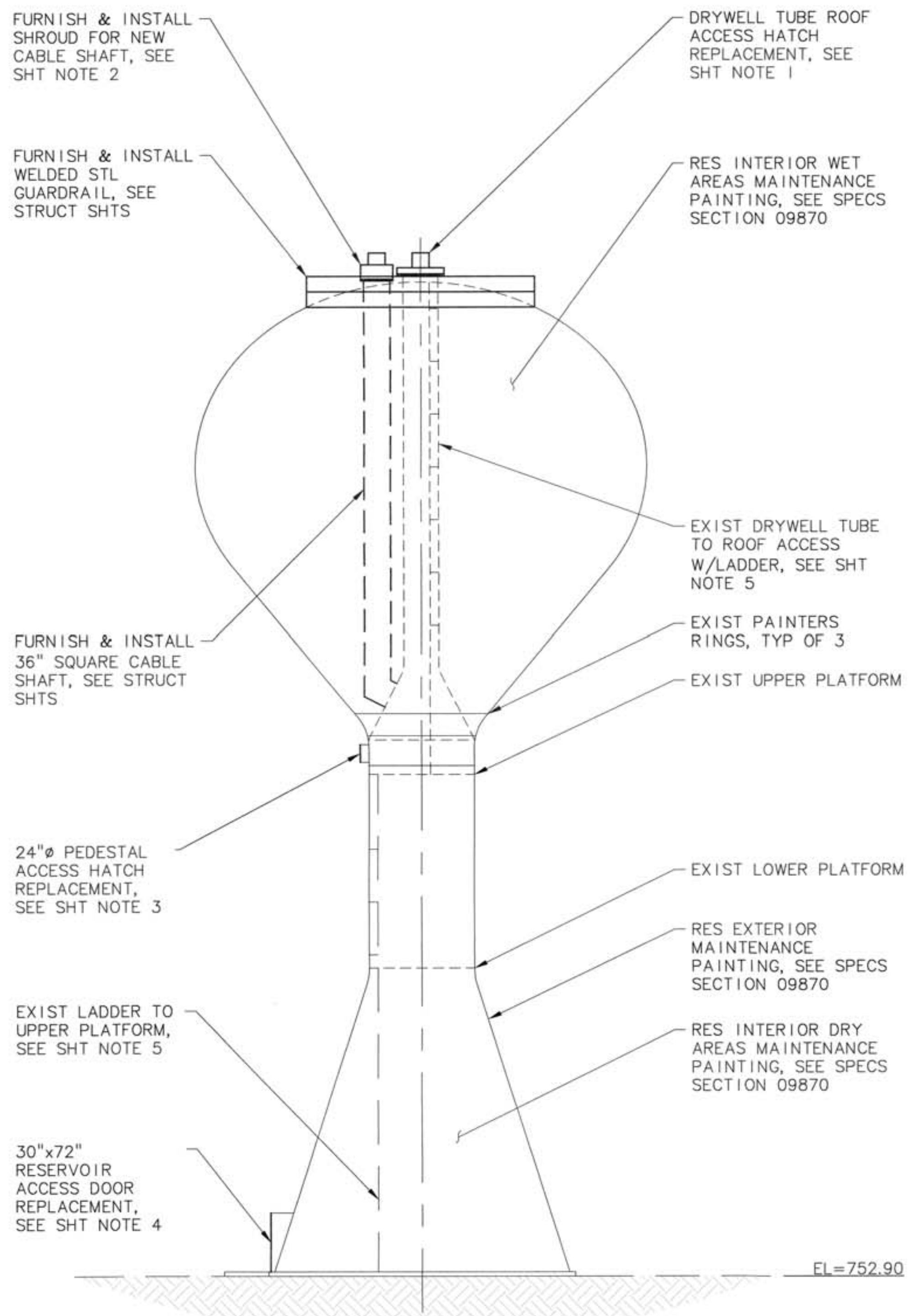
5. ALL EXISTING NOTCHED RAIL FALL PREVENTION SYSTEMS ARE TO BE REMOVED FROM THE RESERVOIR LADDERS. FURNISH AND INSTALL FALL PREVENTION SYSTEMS AS SPECIFIED IN SECTION 11900 FOR THE FOLLOWING LADDERS: 1) FROM GROUND TO UPPER PLATFORM (APPROXIMATELY 65 FEET); 2) FROM UPPER PLATFORM TO RESERVOIR ROOF (APPROXIMATELY 60 FEET); AND 3) FROM RESERVOIR ROOF TO BOTTOM OF WET-WELL (APPROXIMATELY 50 FEET).

6. INSTALL CONDUIT PENETRATIONS THROUGH EXISTING WET-WELL HATCH COLLAR FOR EXISTING FLOAT SWITCH AND NEW HATCH LIMIT SWITCH PER ELECTRICAL SHEETS.

7. ALL EXISTING BOLTED CONNECTIONS THROUGH RESERVOIR SHELL SHALL BE REMOVED, PLATE PATCHED AND SEAL WELDED.

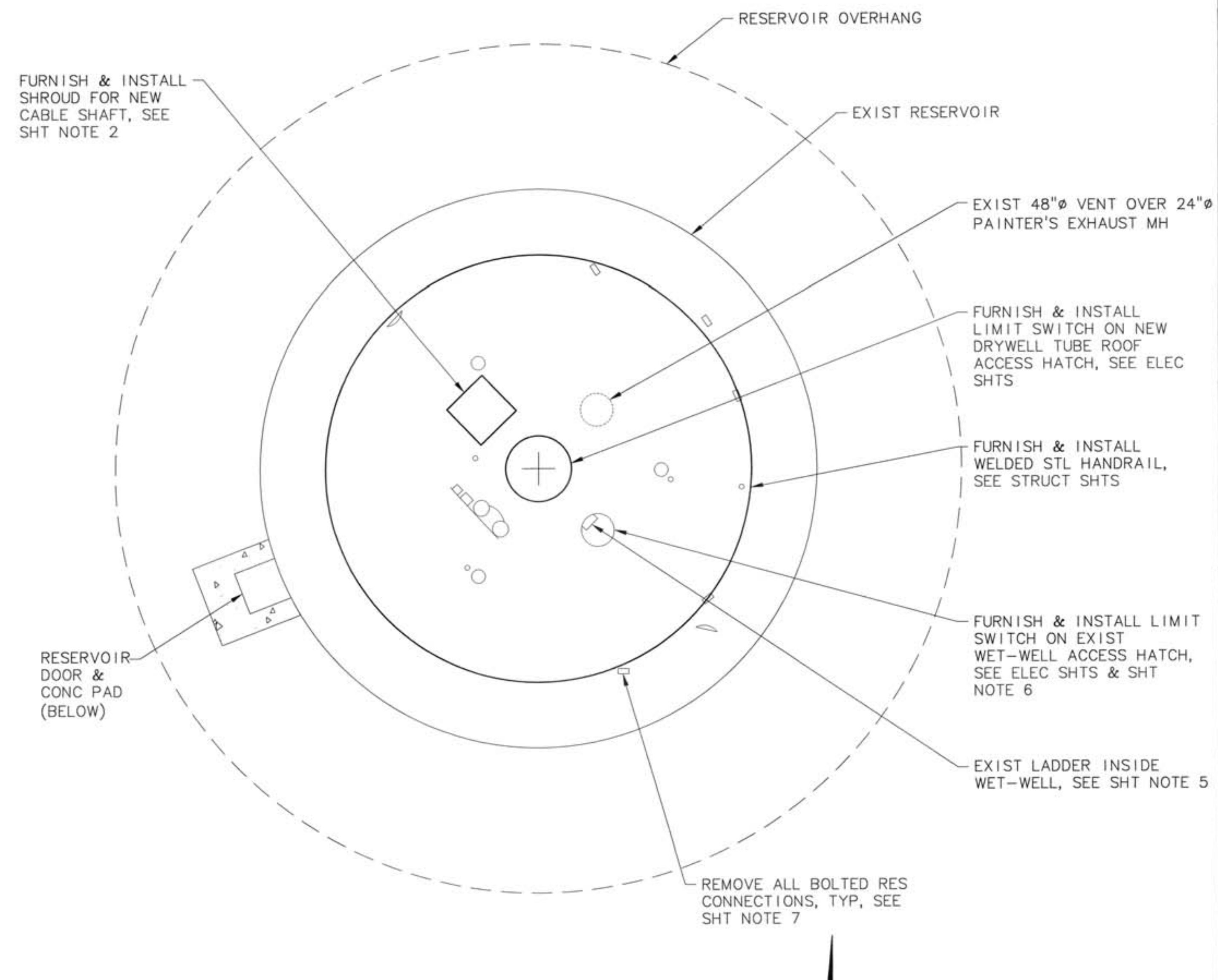
8. AFTER WELDING OF NEW ITEMS TO TANK, TELECOMMUNICATIONS PROVIDERS AND OTHER ROOFTOP EQUIPMENT OWNERS SHALL BE CONTACTED TO TRANSFER EQUIPMENT TO THE NEW INFRASTRUCTURE.

9. SEE SPECIFICATIONS SECTION 05500 FOR NEW INSTALLATIONS OR MODIFICATIONS TO EXISTING RESERVOIR APPURTENANCES.



RESERVOIR ELEVATION

SCALE: 1"=10'



RESERVOIR ROOF PLAN

SCALE: 1"=5'-0"

NO.	DATE	REVISION	BY

DESIGNED: JHF
DRAWN: DKH
CHECKED: TPB
APPROVED: TLB

REGISTERED PROFESSIONAL ENGINEER 59976 OREGON JULY 13, 1999 THOMAS P. BOLAND
EXPIRES 12-31-15

SCALE VERT: AS SHOWN HORIZ: AS SHOWN

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

PROJECT NAME: CITY OF WEST LINN, OREGON ROSEMONT RESERVOIR SAFETY AND MAINTENANCE IMPROVEMENTS

SHEET TITLE: ELEVATION AND ROOF PLAN

MSA Murray, Smith & Associates, Inc. Engineers/Planners
121 S.W. Salmon, Suite 900 Portland, Oregon 97204 PHONE 503-225-9010 FAX 503-225-9022

DATE: JULY 2014

MSA PROJECT: 14-1537.201

SHEET C-2

STRUCTURAL SHEETS:

S1 GENERAL STRUCTURAL NOTES
S2 ELEVATION AND ROOF PLAN
S3 STRUCTURAL DETAILS
S4 STRUCTURAL DETAILS

GENERAL STRUCTURAL NOTES:

1. THESE NOTES ARE GENERAL IN NATURE AND ARE INTENDED TO SET MINIMUM STANDARDS FOR CONSTRUCTION. THE CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH THE CONTRACT DOCUMENTS AND HAVE A COPY OF THEM ON SITE AT ALL TIMES.

2. FOR ANY PORTION OF THE CONSTRUCTION WHICH THE CONTRACTOR IS UNABLE TO ASCERTAIN THE REQUIRED CONSTRUCTION OR WHERE CONFLICTS EXIST, IT IS THE CONTRACTORS RESPONSIBILITY TO REQUEST ADDITIONAL INFORMATION (RFIs) AND/OR CLARIFICATIONS BEFORE CONSTRUCTION.

3. ALL WORK SHALL BE IN STRICT CONFORMANCE WITH THE 2009 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED BY THE 2010 OREGON STATE STRUCTURAL SPECIALTY (OSSC) BUILDING CODE. ALL BUILDING ELEMENTS AND COMPONENTS NOT SPECIFICALLY DETAILED IN THESE STRUCTURAL CONSTRUCTION DOCUMENTS SHALL BE FABRICATED AND CONSTRUCTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CONTAINED IN THE IBC AS AMENDED BY THE STATE OF OREGON.

4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS BEFORE CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.

5. THE CONTRACT STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE. METHODS, PROCEDURES, AND SEQUENCE OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

6. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LIVE LOAD FOR THE STRUCTURE. PROVIDE SHORING AND/OR BRACING WHERE LOADS EXCEED DESIGN CAPACITY AND WHERE STRUCTURES HAVE NOT ATTAINED DESIGN STRENGTH.

DESIGN LOADS: PER 2009 IBC & 2010 OSSC

1603.1.2 – ROOF LOADS:
LIVE LOAD ..... 20 PSF
SNOW LOAD ..... 25 PSF

ANTENNA LOADS:
DESIGN LOADING FOR ANTENNAS PROVIDED BY CLIENT, AS SUMMARIZED BELOW BY CARRIER
T–MOBILE (GUARDRAIL MOUNTED ARRAYS):
DESIGN WIND PRESSURE – 28.3 PSF
DEAD LOAD – PER COMPONENT WEIGHTS
AT&T (ROOF MOUNTED ARRAYS):
DESIGN ANTENNA ARRAY REACTIONS
VERTICAL LEG
WIND – 1550 LB (VERTICAL)
DEAD – 950 LB (VERTICAL)
ANGLED LEG
WIND – 1550 LB (VERTICAL)
1200 LB (HORIZONTAL)
VERIZON (PEDESTAL MOUNTED ARRAYS):
DESIGN ANTENNA ARRAY REACTIONS
UPPER AND LOWER FRAME MOUNTS
VERTICAL REACTION – 350 LB (PER MOUNT)
HORIZONTAL REACTION – 260 LB (PER MOUNT)

STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING GRADES, UNLESS NOTED OTHERWISE ON THE PLANS:

PLATES & BARS– ASTM A36
TUBES – ASTM A500, GRADE B (Fy = 46 ksi)
PIPES – ASTM A53, GRADE B
HSS (RECTANGULAR) – ASTM A500, GRADE B (Fy = 46 ksi)
HSS (ROUND) – ASTM A500, GRADE B (Fy = 42 ksi)
CHANNELS & ANGLES – ASTM A36

2. WELD ACCORDING TO CURRENT AWS STANDARDS WITH E70XX ELECTRODES.

3. ALL STEEL EXPOSED TO WEATHER SHALL BE PAINTED OR HOT–DIP GALVANIZED, UNLESS NOTED OTHERWISE.

4. ALL STRUCTURAL CONNECTION BOLTS SHALL BE ASTM A325, UNLESS NOTED OTHERWISE. HOOKED, HEADED, THREADED, AND NUTTED ANCHOR RODS SHALL BE ASTM F1554 (Fy = 36 ksi), UNLESS NOTED OTHERWISE.

SUBMITTALS:

THE CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL SUBMITTALS FOR APPROVAL , PRIOR TO CONSTRUCTION, FOR THE FOLLOWING ITEMS:

1. STEEL FABRICATION SHOP DRAWINGS, MATERIAL CERTIFICATIONS & WELDING PROCEDURES.

SPECIAL INSPECTIONS:

1. AN INDEPENDENT TESTING LABORATORY CHOSEN BY THE OWNER SHALL PROVIDE SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE AS OUTLINED IN TABLE 2 FOR THE STRUCTURAL SYSTEMS OUTLINED HEREIN. ALL OTHER ELEMENTS SHALL COMPLY WITH THE SPECIAL INSPECTION & TESTING REQUIREMENTS OF CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE.

2. THE TESTING AGENCY SHALL PROVIDE THE ENGINEER OF RECORD, THE OWNER, AND THE BUILDING OFFICIAL COPIES OF ALL RELEVANT TEST REPORTS AND SPECIAL INSPECTIONS.

TABLE 2
REQUIRED STRUCTURAL SPECIAL INSPECTIONS

SYSTEM or MATERIAL	INSPECTION: IBC CODE REFERENCE	INSPECTION: CODE or STANDARD REFERENCE	FREQUENCY: Continuous	FREQUENCY: Periodic	REMARKS
FABRICATORS					
FABRICATORS	1704.2			X	SPECIAL INSPECTIONS APPLY TO VERIFICATION OF DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES INCLUDING REVIEW FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS
STEEL					
FABRICATION OF STRUCTURAL ELEMENTS	1704.2			X	REFER TO INSPECTION OF FABRICATOR REQUIREMENTS
MATERIAL VERIFICATION OF STRUCTURAL STEEL	1704.3 2203.1	ASTM A6 AISC 360 A3.1		X (a)	CERTIFIED MILL TEST REPORTS
MATERIAL VERIFICATION OF HIGH STRENGTH BOLTS	1704.3	AISC 360 A3.3		X	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF ANCHOR BOLTS AND THREADED RODS	1704.3	AISC 360 A3.4		X	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF WELD FILLER METALS	1704.3	AISC 360 A3.5		X	MANUFACTURER'S CERTIFIED TEST REPORTS
VERIFYING USE OF PROPER WPS'S				X	COPY OF WELDING PROCEDURE SPECIFICATIONS
VERIFYING WELDER QUALIFICATIONS				X	COPY OF QUALIFICATION CARDS
COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	1704.3.1	AWS D1.1 SECTION 6	X		ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9
MULTIPASS FILLET WELDS			X		
SINGLE PASS FILLET WELDS GREATER THAN 5/16"			X		
SINGLE PASS FILLET WELDS LESS THAN OR EQUAL TO 5/16"				X	
SNUG-TIGHT HIGH STRENGTH BOLT INSTALLATION	1704.3.3.2	RCSC SPECIFICATION FOR		X	ALL CONNECTIONS VISUALLY INSPECTED
MATERIAL VERIFICATION OF REINFORCING STEEL FOR WELDING	1704.3.1	ACI 318 3.5.2 AWS D1.4 SECTION 7		X	CERTIFIED MILL TEST REPORTS
MATERIAL VERIFICATION OF WELD FILLER METALS				X	MANUFACTURER'S CERTIFIED TEST REPORTS
VERIFYING USE OF PROPER WPS'S				X	COPY OF WELDING PROCEDURE SPECIFICATIONS
VERIFYING WELDER QUALIFICATIONS				X	COPY OF QUALIFICATION CARDS
WELDING REINFORCING EXCEPT AS NOTED OTHERWISE				X	ALL WELDS VISUALLY INSPECTED PER AWS D1.4 7.5
WELDING REINFORCING STEEL IN MOMENT RESISTING FRAMES	1704.3.1	ACI 318 3.5.2 AWS D1.4 SECTION 7	X		ALL WELDS VISUALLY INSPECTED PER AWS D1.4 7.5

STRUCTURAL OBSERVATION REQUIREMENTS:

1. THE OWNER SHALL EMPLOY THE ENGINEER OF RECORD OR AN ALTERNATE OREGON LICENSED PROFESSIONAL ENGINEER, APPROVED BY THE ENGINEER OF RECORD, TO PERFORM STRUCTURAL OBSERVATIONS IN ACCORDANCE WITH SECTION 1702 OF THE INTERNATIONAL BUILDING CODE.

2. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM BY A REGISTERED DESIGN PROFESSIONAL FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR ANY OTHER INSPECTION CRITERIA, INCLUDING SPECIAL INSPECTION, AS REQUIRED BY THE BUILDING OFFICIAL OR AS INDICATED WITHIN THE INTERNATIONAL BUILDING CODE.

3. DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER AND THE BUILDING OFFICIAL (AND THE ENGINEER OF RECORD IF AN ALTERNATE ENGINEER IS USED FOR STRUCTURAL OBSERVATION). AT THE CONCLUSION OF THE STRUCTURAL SYSTEMS, INCLUDED WITHIN THE PERMIT, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL AND THE OWNER (AND THE ENGINEER OF RECORD IF AN ALTERNATE ENGINEER IS USED FOR STRUCTURAL OBSERVATION) A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFY ANY REPORTED DEFICIENCIES WHICH, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

4. THE CONTRACTOR SHALL MAKE AVAILABLE ALL MEANS AND METHODS NECESSARY FOR THE STRUCTURAL OBSERVER TO PERFORM THE REQUIRED STRUCTURAL OBSERVATIONS. IN ADDITION, THE CONTRACTOR SHALL NOTIFY THE OWNER AND STRUCTURAL OBSERVER A MINIMUM OF 48 HOURS BEFORE THE TIME AT WHICH THE SPECIFIED STRUCTURAL OBSERVATIONS MAY BE PERFORMED. IN ADDITION THE CONTRACTOR SHALL UPDATE THE STRUCTURAL OBSERVER OF THE CONSTRUCTION PROGRESS.

5. STRUCTURAL OBSERVATIONS SHALL BE PERFORMED FOR THE FOLLOWING AREAS OF WORK:
5.1. FOLLOWING THE COMPLETION OF ALL STRUCTURAL ELEMENTS CONTAINED HEREIN.

PSE
Peterson Structural Engineers, Inc.
5319 S.W. Westgate Dr., Suite 215
Portland, Oregon 97221
(503) 292–1635
PSE PROJECT NO. 14–090

NO.	DATE	REVISION	BY

DESIGNED: JWC/EFL
DRAWN: JWC/EFL
CHECKED: TGM
APPROVED: TLB

REGISTERED PROFESSIONAL ENGINEER OREGON JULY 9, 2004 TRAVIS GREGORY NELSON
EXPIRES: 12/31/14

SCALE VERT: AS SHOWN HORIZ: AS SHOWN
NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SHEET S–1 5 of 11

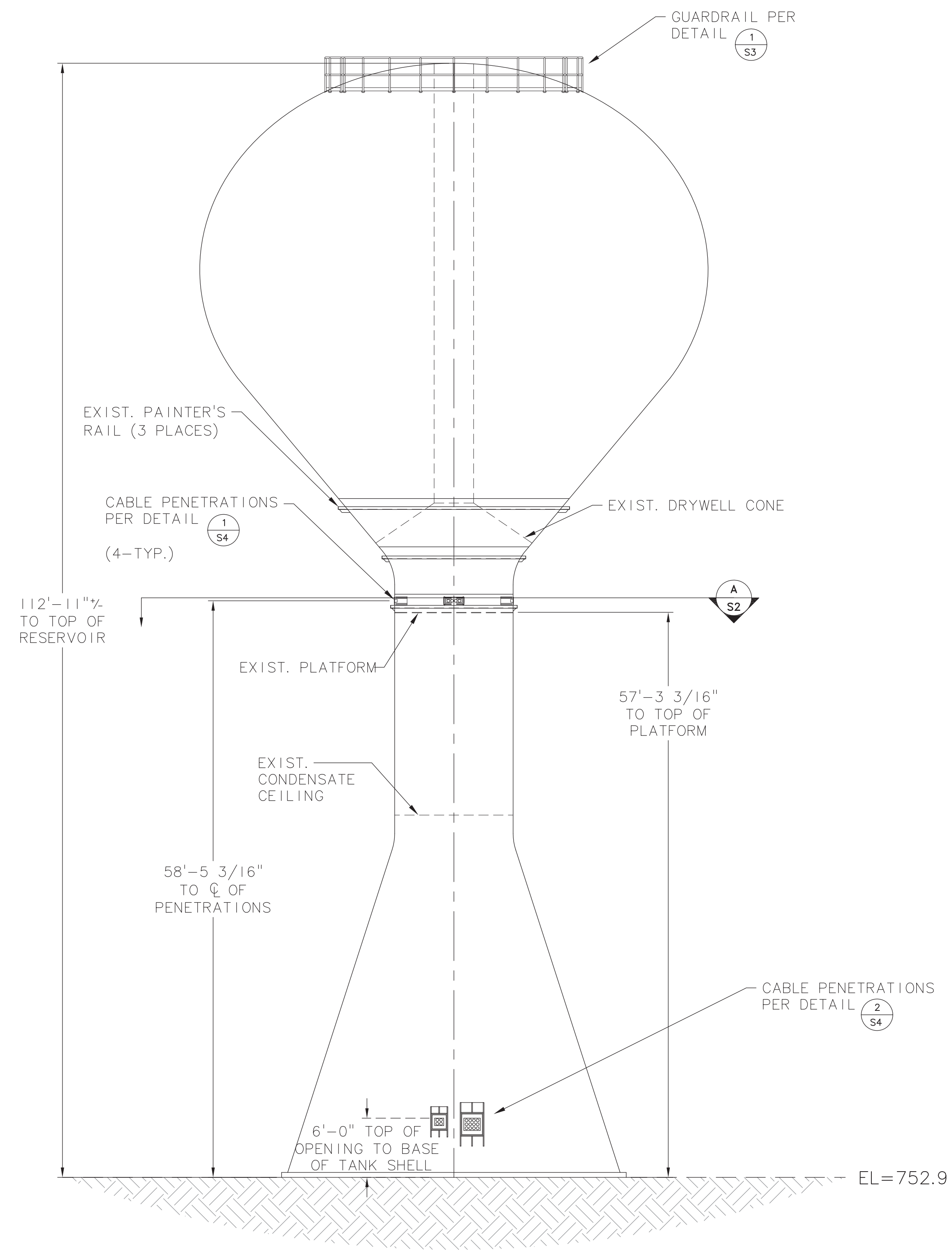
PROJECT NAME: CITY OF WEST LINN, OREGON
ROSEMONT RESERVOIR
SAFETY AND MAINTENANCE IMPROVEMENTS

SHEET TITLE: GENERAL STRUCTURAL NOTES

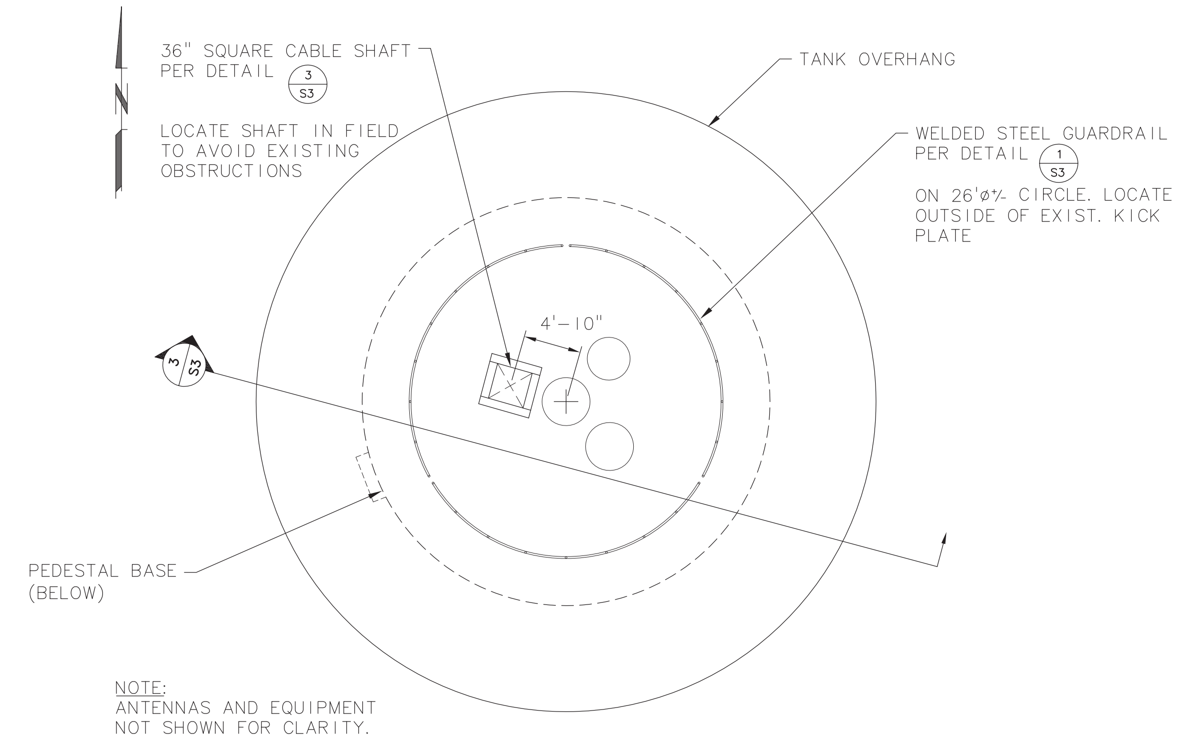
Murray, Smith & Associates, Inc.
Engineers/Planners
121 S.W. Salmon, Suite 900
Portland, Oregon 97204
PHONE 503–225–9010
FAX 503–225–9022

DATE: JULY 2014
MSA PROJECT: 14–1537.201

NOTE:
- PENETRATIONS HAVE BEEN ROTATED IN-LINE FOR CLARITY. SEE PLANS FOR ACTUAL POSITIONS.
- ANTENNAS AND EQUIPMENT NOT SHOWN FOR CLARITY.

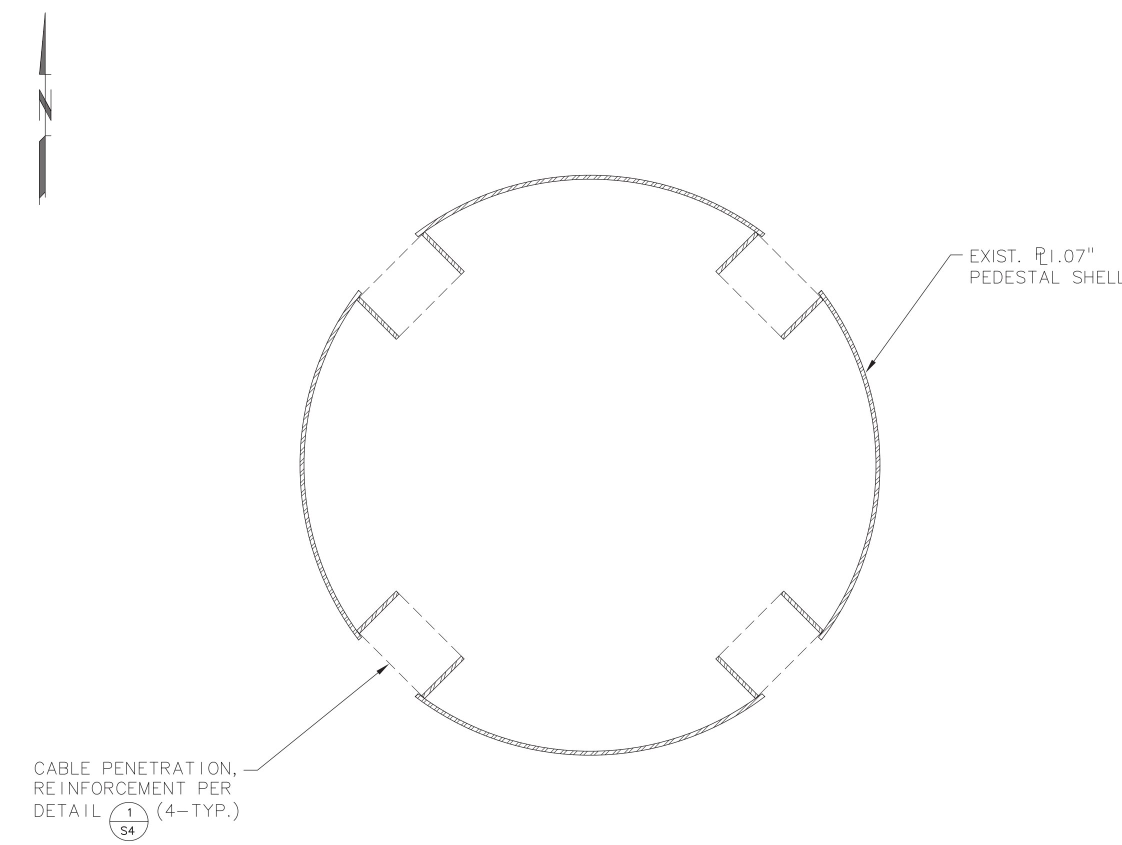


RESERVOIR ELEVATION
SCALE: 1/8"=1'-0"



NOTE:
ANTENNAS AND EQUIPMENT NOT SHOWN FOR CLARITY.

RESERVOIR ROOF PLAN
SCALE: 1/8"=1'-0"



NOTE:
ANTENNAS AND EQUIPMENT NOT SHOWN FOR CLARITY.

PEDESTAL SECTION (A/S2)
SCALE: 1/2"=1'-0"

PSE
Peterson Structural Engineers, Inc.
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Portland, Oregon 97221
(503) 292-1635

PSE PROJECT NO. 14-090

NO.	DATE	REVISION	BY

DESIGNED: JWC/EFL
DRAWN: JWC/EFL
CHECKED: TGM
APPROVED: TLB

REGISTERED PROFESSIONAL ENGINEER — OREGON — TRAVIS GREGORY MAFFETON — EXPIRES 12/31/14

SCALE: VERT: AS SHOWN HORIZ: AS SHOWN

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

PROJECT NAME:
CITY OF WEST LINN, OREGON
ROSEMONT RESERVOIR
SAFETY AND MAINTENANCE IMPROVEMENTS

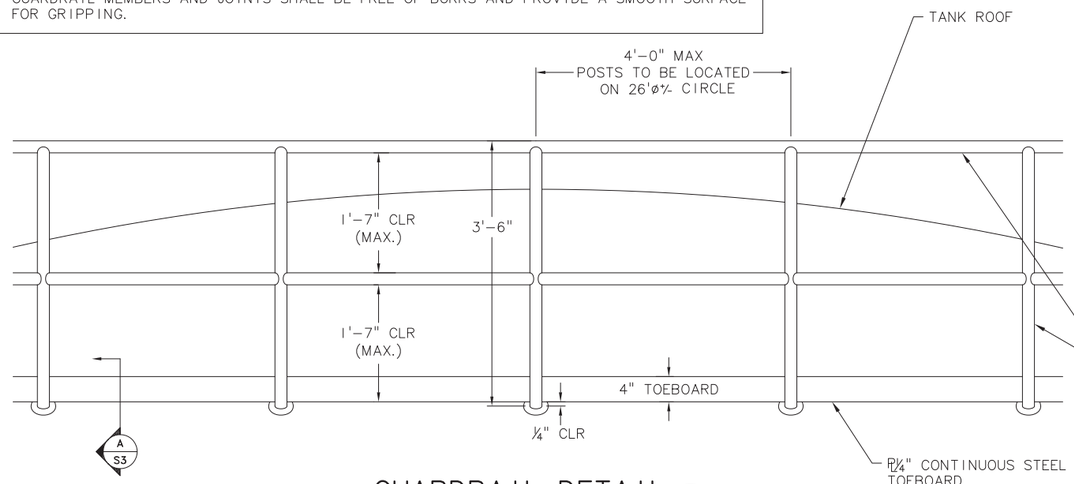
SHEET TITLE:
ELEVATION AND ROOF PLAN

MSA Murray, Smith & Associates, Inc. Engineers/Planners
121 S.W. Salmon, Suite 900 Portland, Oregon 97204 PHONE 503-225-9010 FAX 503-225-9022

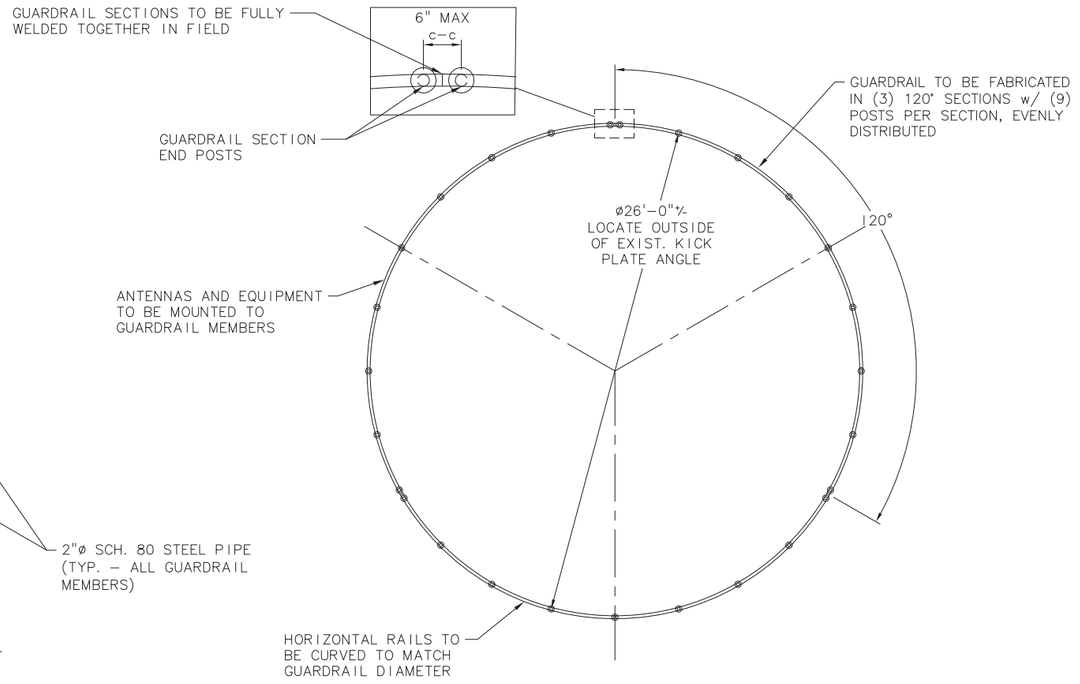
DATE: JULY 2014
MSA PROJECT: 14-1537.201

GUARDRAIL CONSTRUCTION NOTES:

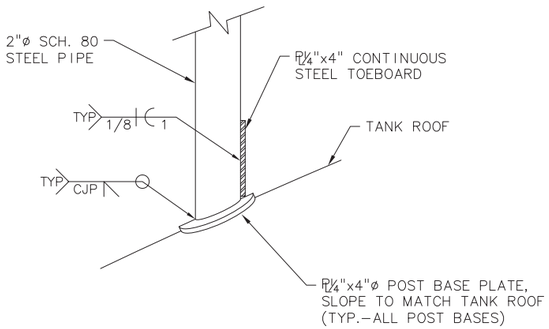
- ALL GUARDRAIL MEMBER CONNECTIONS TO BE FULLY WELDED ALL AROUND.
- HORIZONTAL RAIL MEMBERS SHALL BE CURVED TO MATCH DIAMETER OF GUARDRAIL CIRCLE.
- INTERMEDIATE RAILS SHALL HAVE ENDS COPED TO FIT POSTS. POSTS SHALL NOT BE CUT OR OTHERWISE COMPROMISED TO FIT INTERMEDIATE RAILS.
- GUARDRAIL TO BE FABRICATED IN (3) EVEN SECTIONS AND JOINED IN FIELD. HORIZONTAL RAILS SHALL BE FULLY WELDED IN FIELD BETWEEN GUARDRAIL SECTION END POSTS TO PROVIDE A CONTINUOUS GUARDRAIL.
- GUARDRAIL MEMBERS AND JOINTS SHALL BE FREE OF BURRS AND PROVIDE A SMOOTH SURFACE FOR GRIPPING.



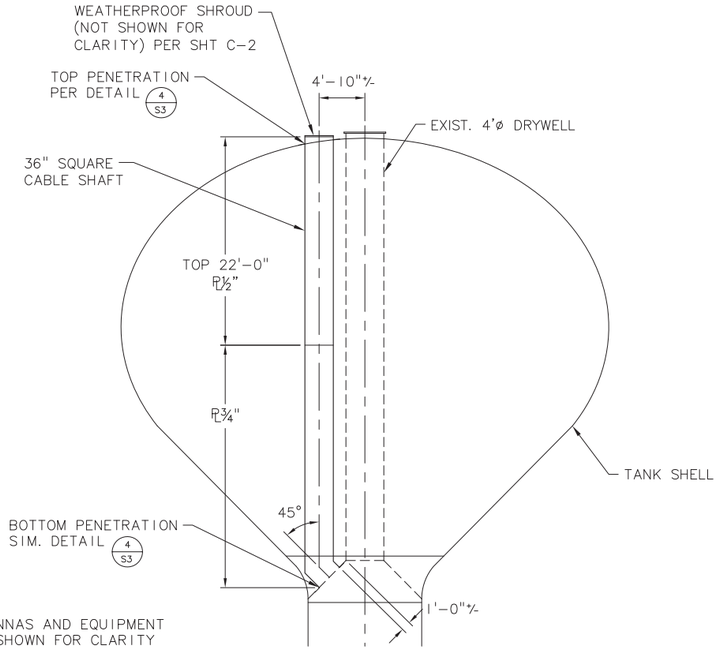
GUARDRAIL DETAIL (1/S3)
SCALE: 1"=1'-0"



GUARDRAIL PLAN (2/S3)
SCALE: 1/4"=1'-0"

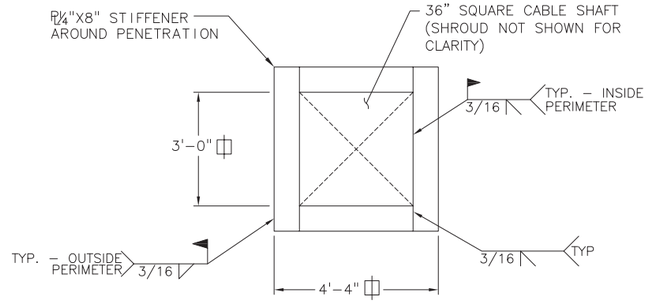


GUARDRAIL DETAIL (A/S3)
SCALE: 3"=1'-0"



CABLE SHAFT SECTION (3/S3)
SCALE: 1/8"=1'-0"

NOTE: PLATE REINFORCING MUST BE INSTALLED PRIOR TO CUTTING OF RESERVOIR SHELL PENETRATIONS



CABLE SHAFT DETAIL (4/S3)
SCALE: 1/2"=1'-0"

PSE
Peterson Structural Engineers, Inc.
5319 S.W. Westgate Dr., Suite 215
Portland, Oregon 97221
(503) 292-1635
PSE PROJECT NO. 14-090

NO.	DATE	REVISION	BY

DESIGNED: JWC/EFL
DRAWN: JWC/EFL
CHECKED: TGM
APPROVED: TLB

REGISTERED PROFESSIONAL ENGINEER
OREGON
TRAVIS GREGORY
EXPIRES: 12/31/14

SCALE: VERT: AS SHOWN
HORIZ: AS SHOWN
NOTICE
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE
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SHEET S-3
7 of 11

PROJECT NAME:
CITY OF WEST LINN, OREGON
ROSEMONT RESERVOIR
SAFETY AND MAINTENANCE IMPROVEMENTS

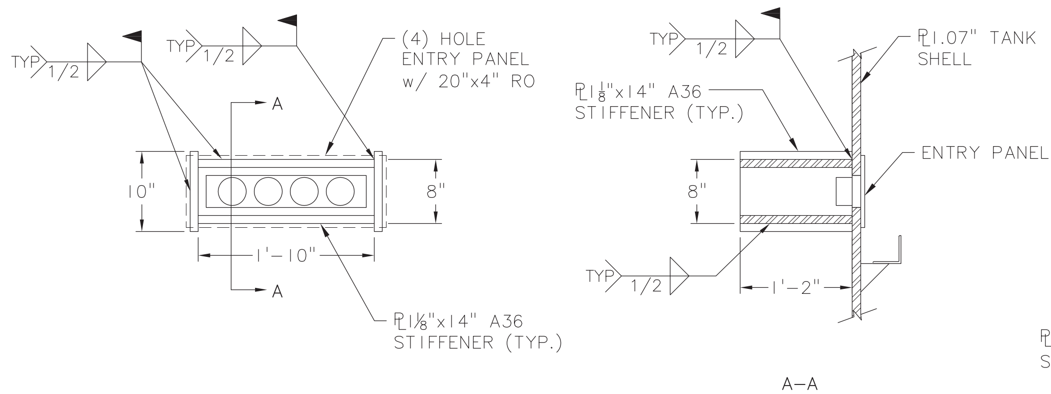
SHEET TITLE:
STRUCTURAL DETAILS

Murray, Smith & Associates, Inc.
Engineers/Planners
121 S.W. Salmon, Suite 900 Portland, Oregon 97204
PHONE 503-225-9010 FAX 503-225-9022

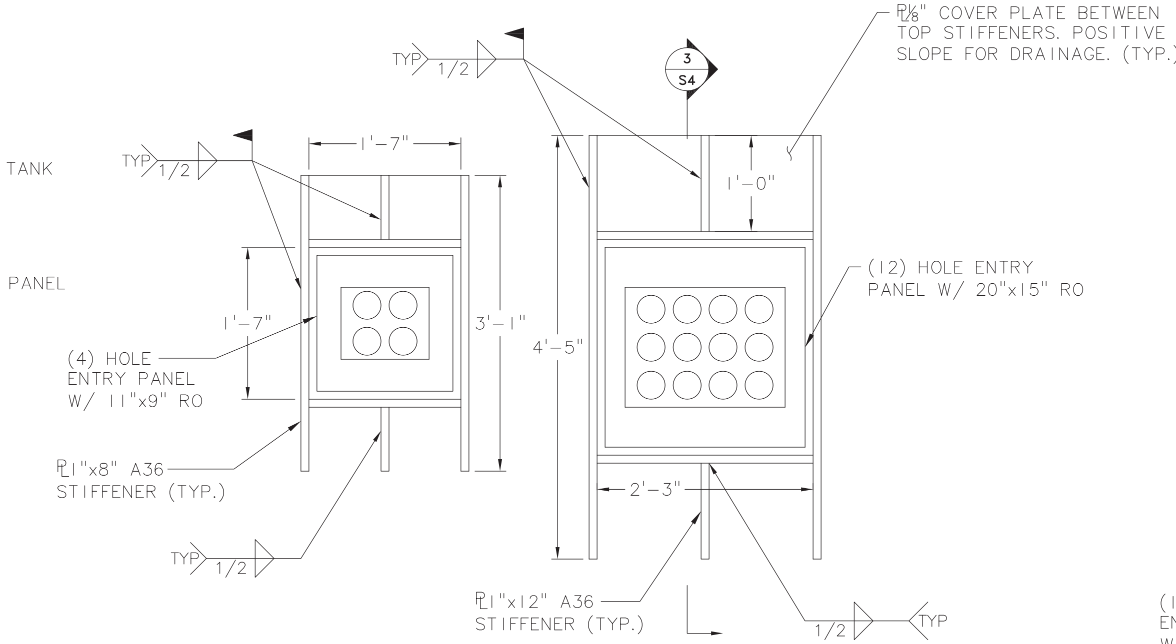
MSA PROJECT: 14-1537.201
DATE: JULY 2014

X:\2014\14-076 to 14-100\14-090\Acad\14-090-01.3 Rosemont Structural Drawings.dwg S-3 7/23/2014 2:07 PM PSE-006 18.2s (LMS Tech)

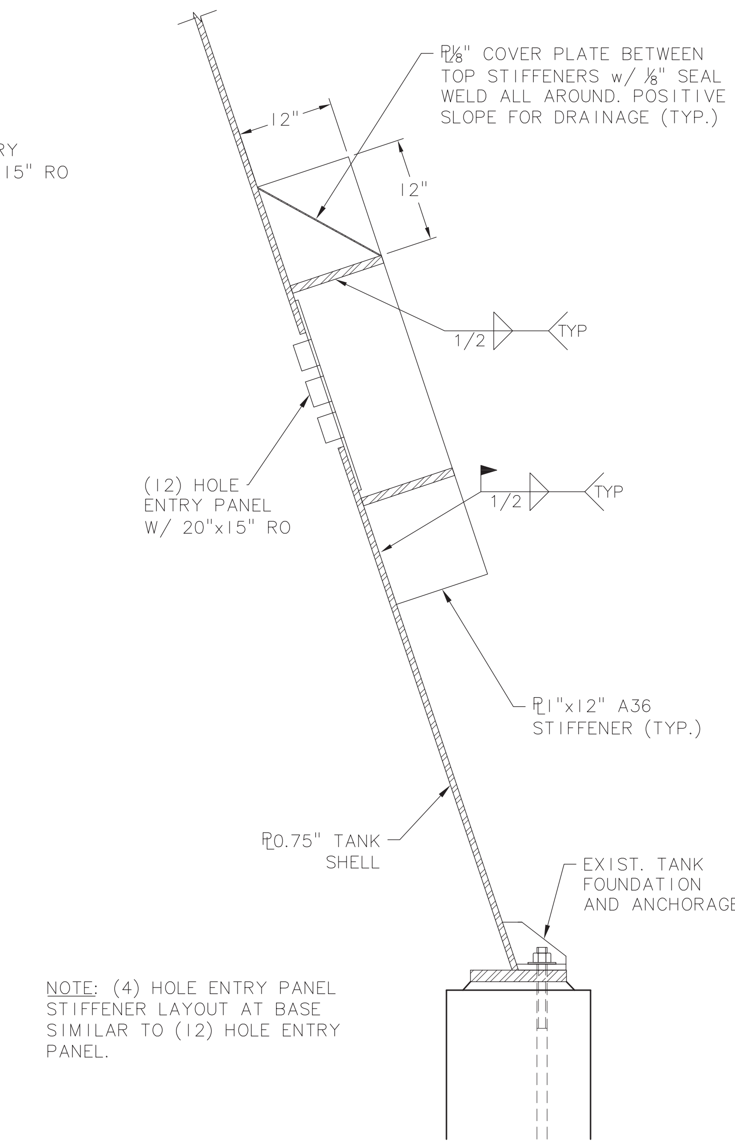
NOTE: PLATE REINFORCING MUST BE INSTALLED PRIOR TO CUTTING OF RESERVOIR SHELL PENETRATIONS



PEDESTAL PENETRATION DETAIL (1/S4)
SCALE: 1"=1'-0"

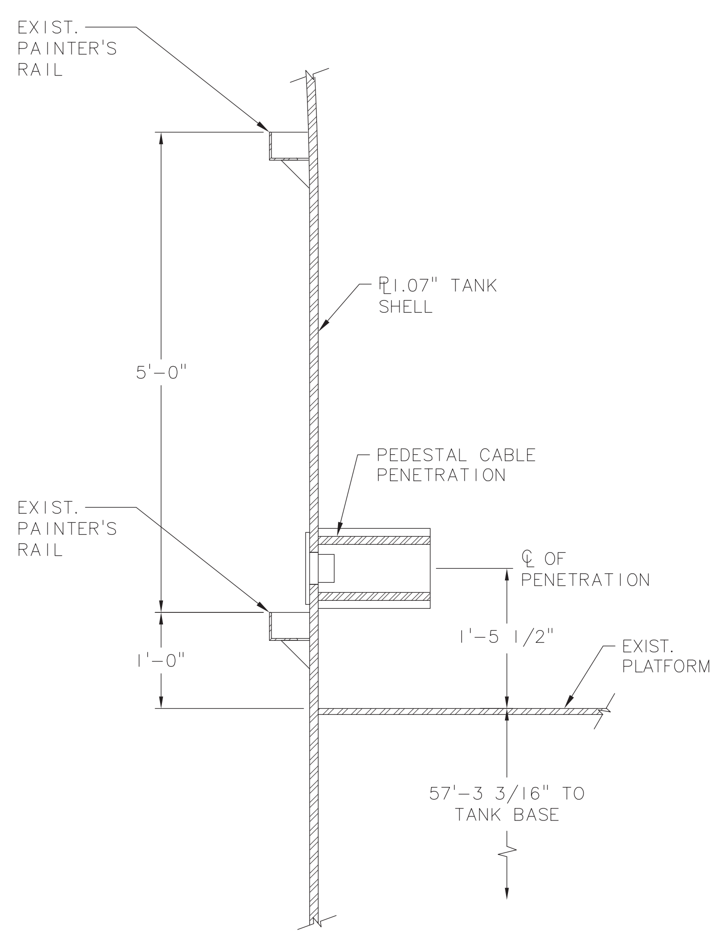


BASE PENETRATION DETAIL (2/S4)
SCALE: 1"=1'-0"



NOTE: (4) HOLE ENTRY PANEL STIFFENER LAYOUT AT BASE SIMILAR TO (12) HOLE ENTRY PANEL.

BASE PENETRATION SECTION (3/S4)
SCALE: 1"=1'-0"



PEDESTAL PENETRATION SECTION (4/S4)
SCALE: 1"=1'-0"

PSE
Peterson Structural Engineers, Inc.
5319 S.W. Westgate Dr., Suite 215
Portland, Oregon 97221
(503) 292-1635

PSE PROJECT NO. 14-090

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MSA Murray, Smith & Associates, Inc. Engineers/Planners
121 S.W. Salmon, Suite 900 Portland, Oregon 97204 PHONE 503-225-9010 FAX 503-225-9022

MSA PROJECT: 14-1537.201 DATE: JULY 2014

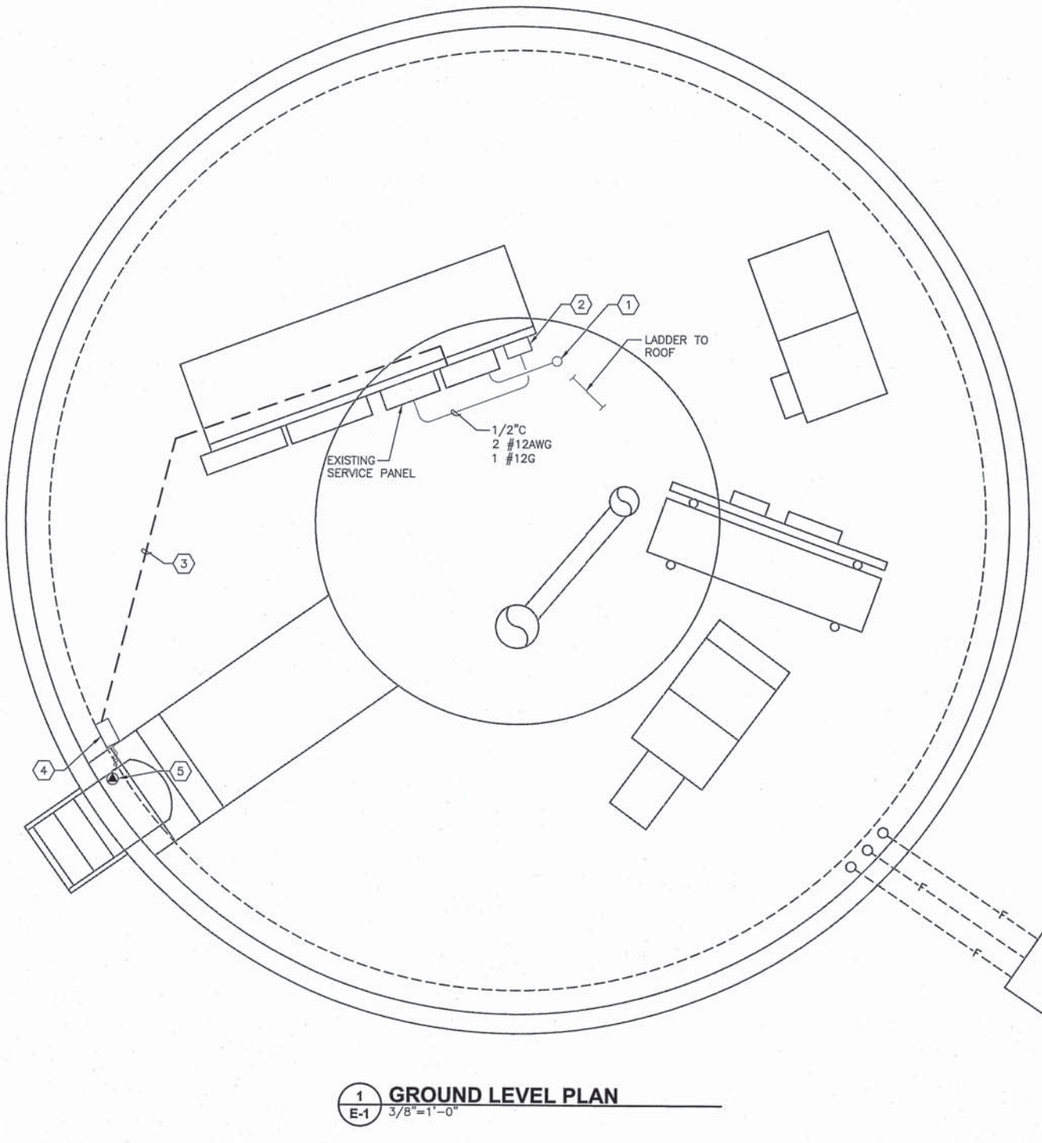
PROJECT NAME: CITY OF WEST LINN, OREGON ROSEMONT RESERVOIR SAFETY AND MAINTENANCE IMPROVEMENTS
SHEET TITLE: STRUCTURAL DETAILS

SCALE VERT: AS SHOWN HORIZ: AS SHOWN
NOTICE 0 1" IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

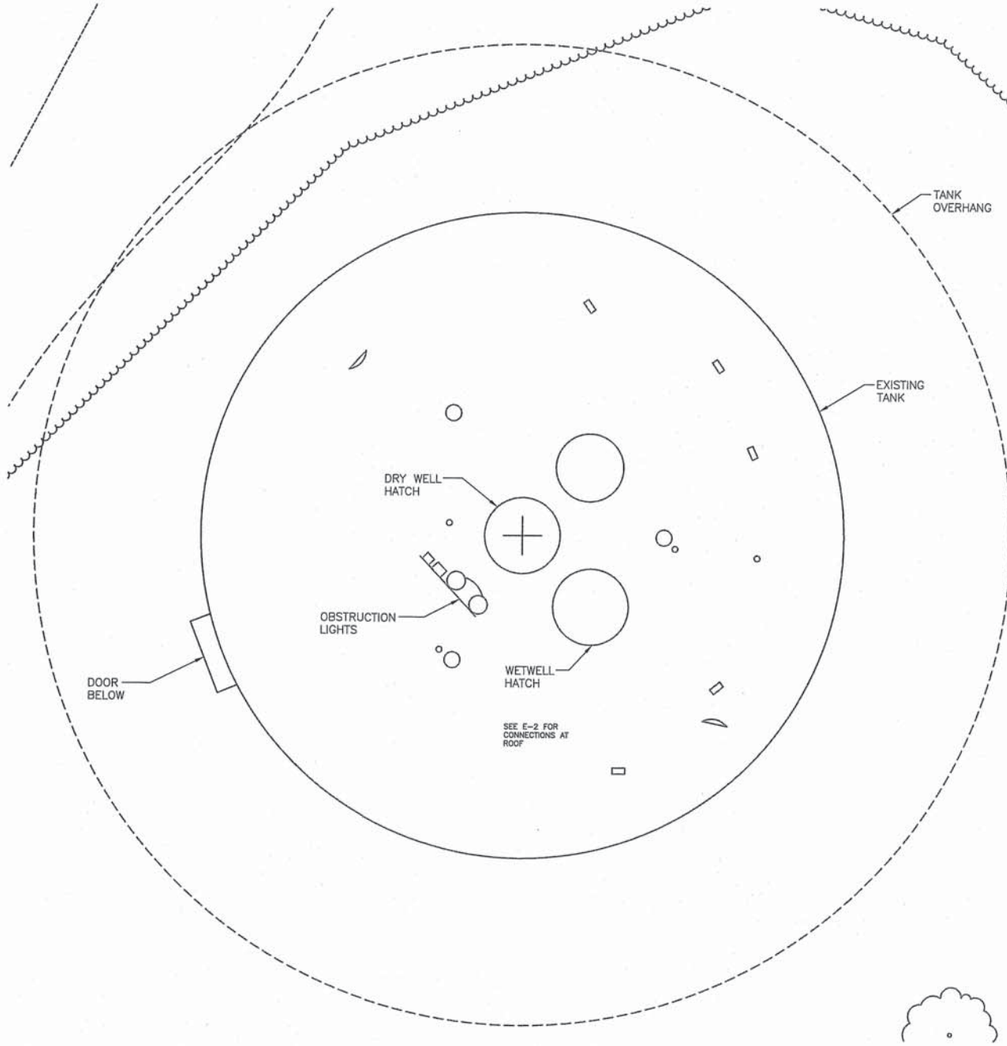
REGISTERED PROFESSIONAL ENGINEER OREGON TRAVIS GREGORY MATHEWS EXPIRES 12/31/14

NO. | DATE | REVISION | BY

DESIGNED: JWC/EFL
DRAWN: JWC/EFL
CHECKED: TGM
APPROVED: TLB



1 E-1 **GROUND LEVEL PLAN**
3/8"=1'-0"



2 E-1 **ROOF PLAN**
1/4"=1'-0"

NOTES THIS SHEET

1. NEW CONDUIT TO JUNCTION BOX ON ROOF FOR OVERFLOW FLOAT AND TWO HATCH SENSORS. ROUTE CONDUIT ON EXISTING RACKS WHERE POSSIBLE. 1" RGS CONDUIT WITH 6 #14 AWG, 1 #12 AWG, G.
2. NEW OBSTRUCTION LIGHT CONTROLLER. PROVIDE NEW CONDUCTORS IN EXISTING CONDUITS TO NEW OBSTRUCTION LIGHTS ON ROOF.
3. NEW (2) 1" RGS CONDUIT. ONE CONDUIT CONTAINS CAT 6E CABLE FOR ETHERNET COMMUNICATION. SECOND CONDUIT CONTAINS 10 #14 AWG, 1 #12 AWG, G FOR STATUS AND POWER.
4. DOOR ENTRY TOUCH PANEL PROVIDED BY CONTROL SYSTEM INTEGRATOR. MOUNT AND CONNECT COMPLETE AS REQUIRED.
5. INSTALL LIMIT SWITCH AT ENTRY DOOR.

R&W ENGINEERING, INC. "Engineering Integrated Solutions"
9615 S.W. Allen Boulevard
Suite 107
Beaverton, Oregon 97005
Phone: (503) 726-3300
Fax: (503) 726-3326
E-mail: rweng@rweng.com
Project No.: 483.080.001 Contact: GREGG SCHOLZ

NO.	DATE	REVISION	BY

DESIGNED: GHS
DRAWN: MJP
CHECKED: GHS
APPROVED: GHS

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 15, 1978
GREGG H. SCHOLZ
EXPIRES: 6/30/2016

SHEET E-1
9 of 11

SCALE VERT: AS SHOWN HORIZ: AS SHOWN

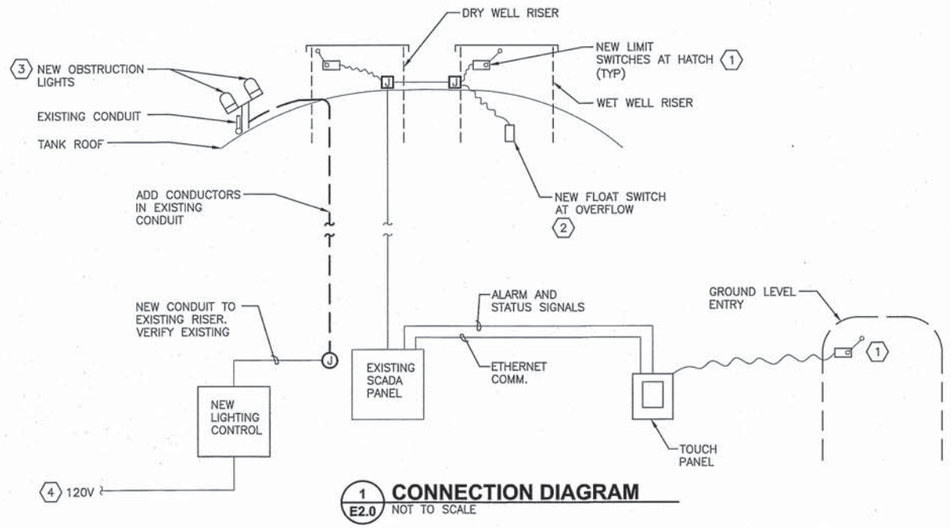
NOTICE
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE
0 1

PROJECT NAME:
CITY OF WEST LINN, OREGON
ROSEMONT RESERVOIR
SAFETY AND MAINTENANCE IMPROVEMENTS

SHEET TITLE:
ELECTRICAL PLAN

Murray, Smith & Associates, Inc.
Engineers/Planners
121 S.W. Salmon, Suite 900 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022

MSA PROJECT: 14-1537.201 DATE: JULY 2014



1 E2.0 **CONNECTION DIAGRAM**
NOT TO SCALE

NOTES THIS SHEET

1. LIMIT SWITCHES PROVIDED BY CONTROL SYSTEM INTEGRATOR.
2. FLOAT SWITCH PROVIDED BY CONTROL SYSTEM INTEGRATOR. PROVIDE CORD GRIP SUPPORT AT ELEVATION DIRECTED BY ENGINEER.
3. PROVIDE AND INSTALL NEW OBSTRUCTION LIGHT WITH ALARMED CONTROLLER. LIGHTS SHALL BE SPECIALTY TOWER LIGHTING MODEL SL-2 LED OR EQUAL. CONTROLLER SHALL BE SPECIALTY TOWER LIGHTING MODEL RL-OMLED OR EQUAL.
4. PROVIDE 120V, 20A CIRCUIT FROM EXISTING PANEL.

NO.	DATE	REVISION	BY

DESIGNED: GHS
DRAWN: MJP
CHECKED: GHS
APPROVED: GHS

SHEET E-2
10 of 11

REGISTERED PROFESSIONAL ENGINEER
OREGON JULY 13, 1982
GREGG H. SCHOLZ
EXPIRES 6/30/2016

SCALE VERT: AS SHOWN HORIZ: AS SHOWN

NOTICE
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0 1

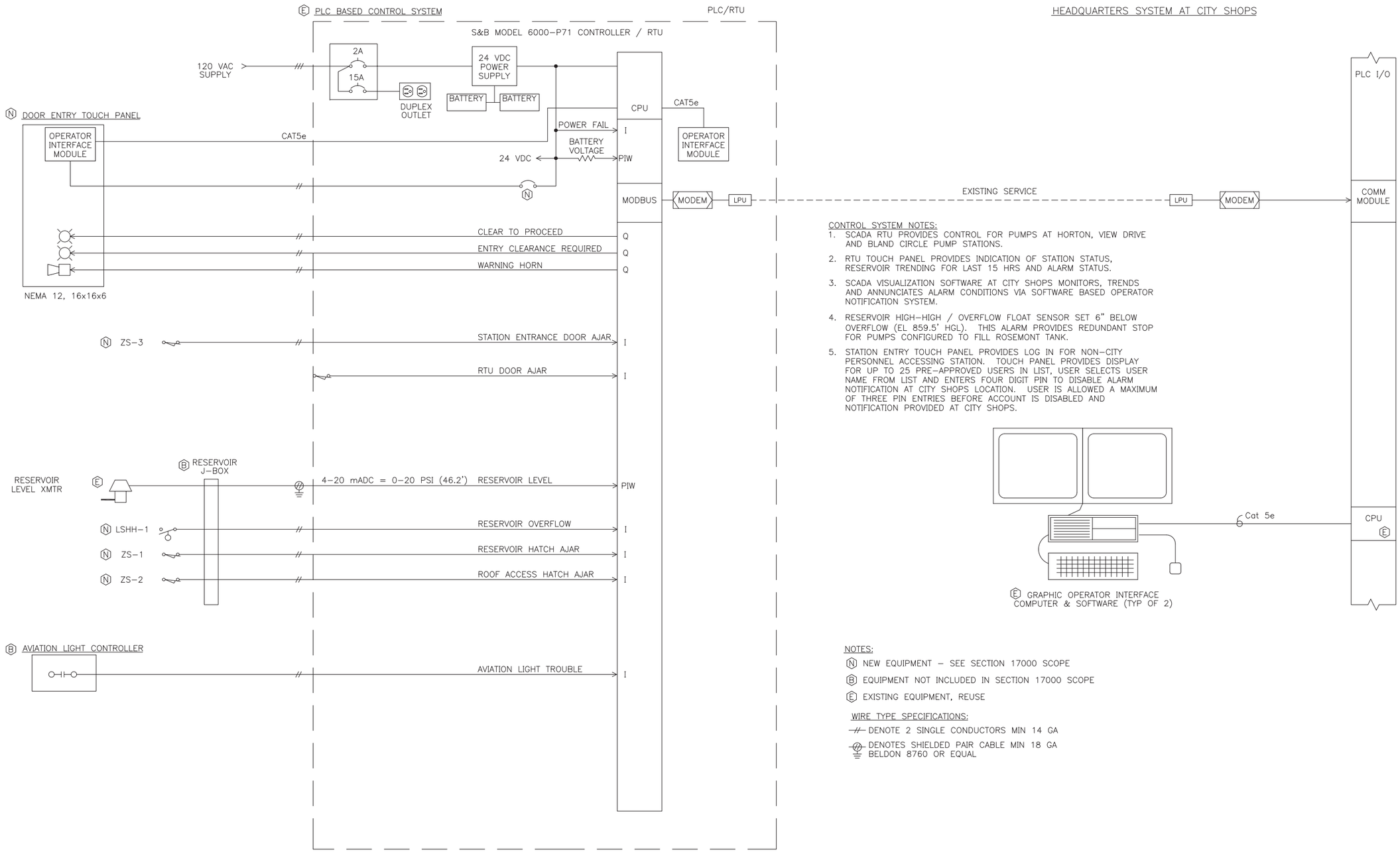
R&W ENGINEERING, INC.
"Engineering Integrated Solutions"
9615 S.W. Allen Boulevard
Suite 107
Beaverton, Oregon 97005
Phone: (503) 726-3300
Fax: (503) 726-3326
E-mail: rweng@rweng.com
Project No.: 483.060.001 Contact: GREGG SCHOLZ

MSA Murray, Smith & Associates, Inc.
Engineers/Planners
121 S.W. Salmon, Suite 900 Portland, Oregon 97204
PHONE 503-225-9010 FAX 503-225-9022

PROJECT NAME:
CITY OF WEST LINN, OREGON
ROSEMONT RESERVOIR
SAFETY AND MAINTENANCE IMPROVEMENTS

SHEET TITLE:
ELECTRICAL DETAILS

MSA PROJECT: 14-1537.201 DATE: JULY 2014



CONTROL SYSTEM NOTES:

1. SCADA RTU PROVIDES CONTROL FOR PUMPS AT HORTON, VIEW DRIVE AND BLAND CIRCLE PUMP STATIONS.
2. RTU TOUCH PANEL PROVIDES INDICATION OF STATION STATUS, RESERVOIR TRENDING FOR LAST 15 HRS AND ALARM STATUS.
3. SCADA VISUALIZATION SOFTWARE AT CITY SHOPS MONITORS, TRENDS AND ANNUNCIATES ALARM CONDITIONS VIA SOFTWARE BASED OPERATOR NOTIFICATION SYSTEM.
4. RESERVOIR HIGH-HIGH / OVERFLOW FLOAT SENSOR SET 6" BELOW OVERFLOW (EL 859.5' HGL). THIS ALARM PROVIDES REDUNDANT STOP FOR PUMPS CONFIGURED TO FILL ROSEMONT TANK.
5. STATION ENTRY TOUCH PANEL PROVIDES LOG IN FOR NON-CITY PERSONNEL ACCESSING STATION. TOUCH PANEL PROVIDES DISPLAY FOR UP TO 25 PRE-APPROVED USERS IN LIST, USER SELECTS USER NAME FROM LIST AND ENTERS FOUR DIGIT PIN TO DISABLE ALARM NOTIFICATION AT CITY SHOPS LOCATION. USER IS ALLOWED A MAXIMUM OF THREE PIN ENTRIES BEFORE ACCOUNT IS DISABLED AND NOTIFICATION PROVIDED AT CITY SHOPS.

NOTES:

(N) NEW EQUIPMENT – SEE SECTION 17000 SCOPE

(B) EQUIPMENT NOT INCLUDED IN SECTION 17000 SCOPE

(E) EXISTING EQUIPMENT, REUSE

WIRE TYPE SPECIFICATIONS:

-//- DENOTE 2 SINGLE CONDUCTORS MIN 14 GA

DENOTES SHIELDED PAIR CABLE MIN 18 GA
BELDON 8760 OR EQUAL

BY:
REVISION
NO. DATE
DESIGNED: RTS
DRAWN: JRB
CHECKED: RTS
APPROVED: RTS
SHEET IC – 1
11 OF 11

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 28, 1978
RYAN T. STEAD
RENEWAL DATE: 6/30/16

SCALE VERT: HORIZ:
NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

PROJECT NAME:
CITY OF WEST LINN, OREGON
ROSEMONT RESERVOIR SAFETY AND MAINTENANCE IMPROVEMENTS

SHEET TITLE:
SCADA SYSTEM MODIFICATIONS

Murray, Smith & Associates, Inc.
Engineers/Planners
121 S.W. Salmon, Suite 900 Portland, Oregon 97204
PHONE 503-225-9010 FAX 503-225-9022

MSA PROJECT: 14-1537.201
DATE: JULY 2014