

BARRANCA MESA TOWER TANK #2

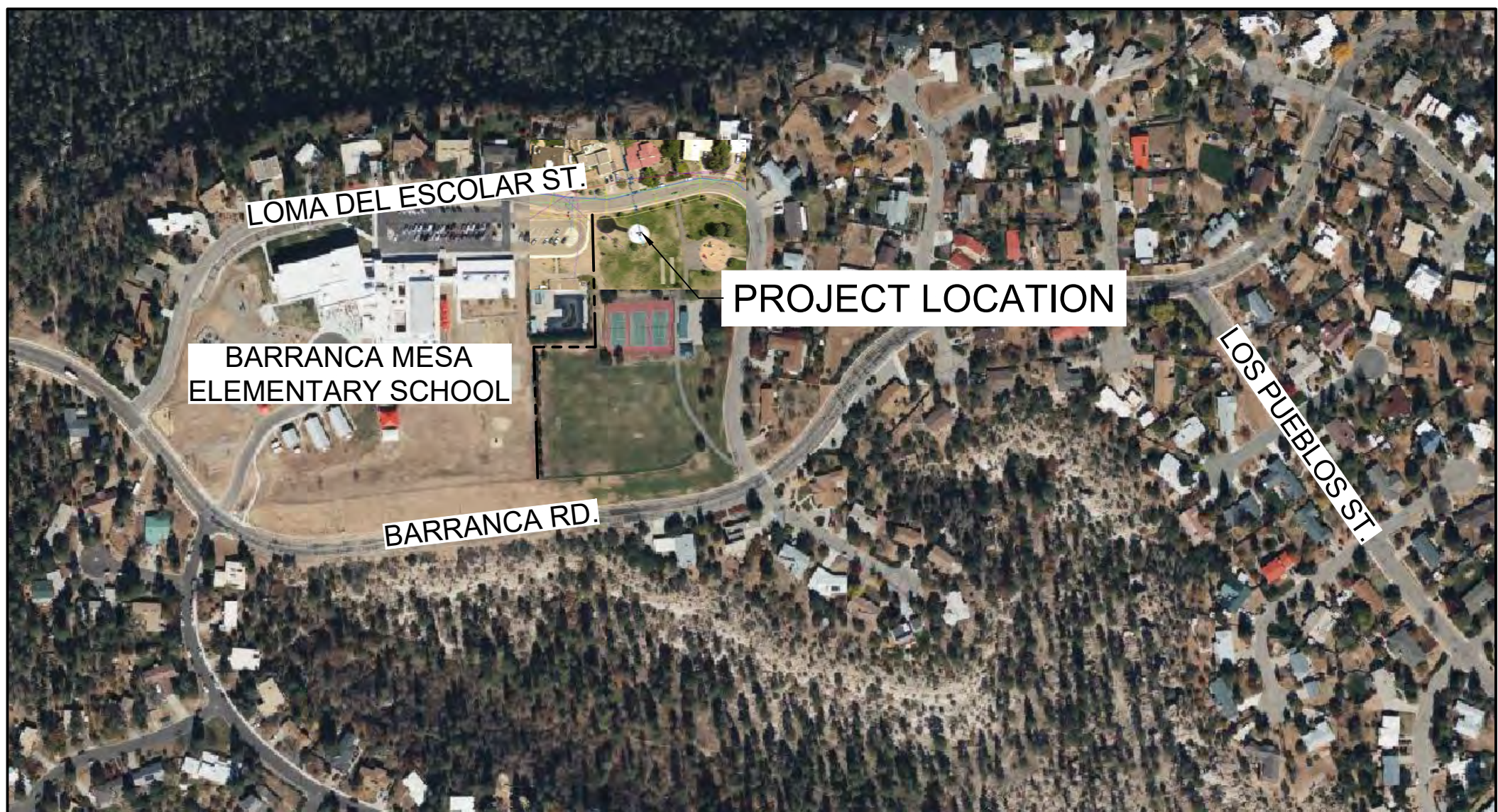
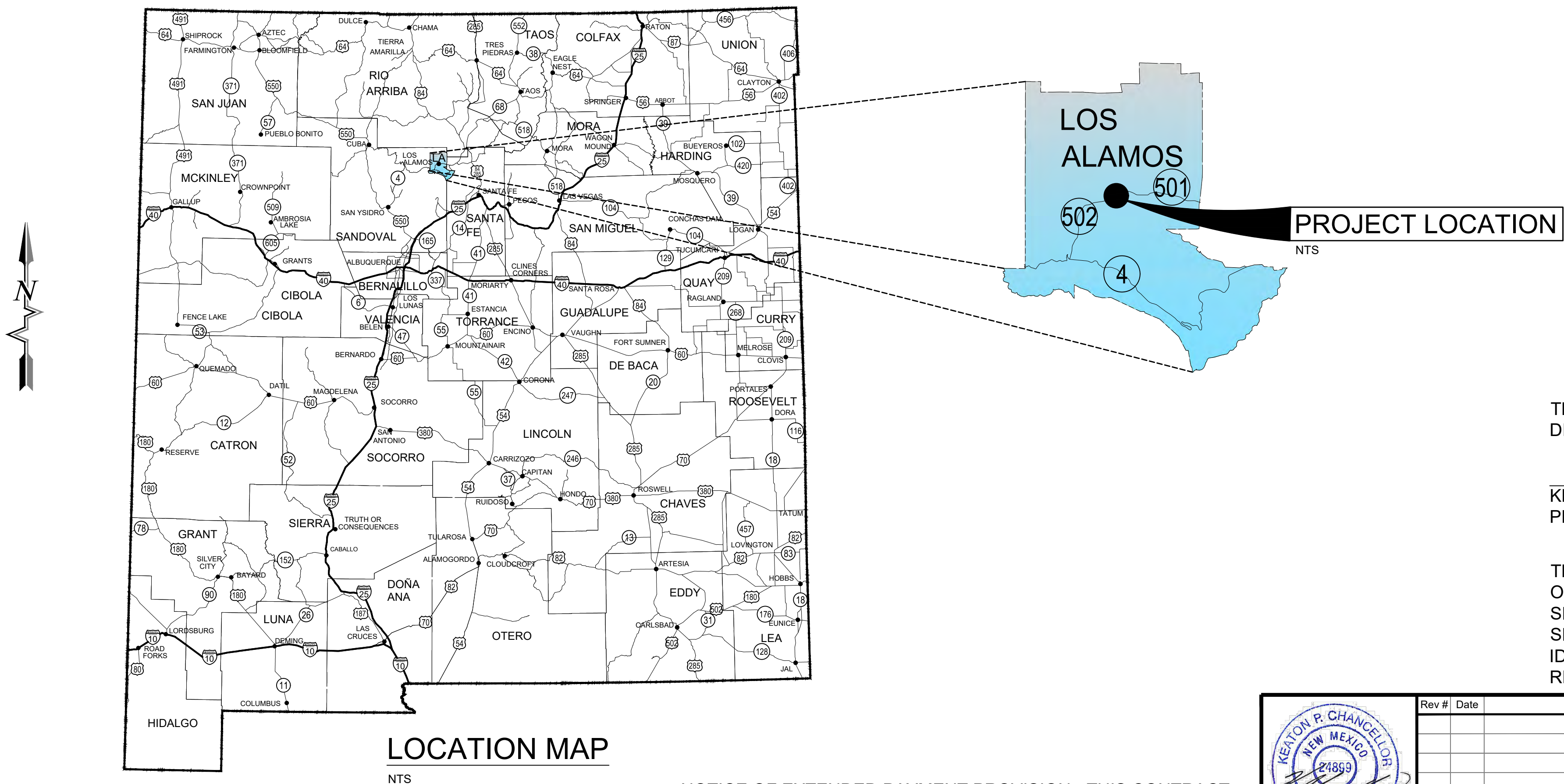
REHABILITATION PROJECT

DWSRF No.: DW5637
IFB 23-44



LOS ALAMOS COUNTY, LOS ALAMOS, NEW MEXICO
NOVEMBER 2022

PROJECT DESCRIPTION:
EXISTING ELEVATED WATER TANK REHABILITATION,
STRUCTURAL REPAIRS, NEW INTERIOR AND EXTERIOR
COATING SYSTEM, AND RELATED APPURTENANCES.



VICINITY MAP
NTS

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THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY
DIRECTION AND SUPERVISION ON BEHALF OF SOUDER, MILLER & ASSOCIATES.

Keaton Chancellor
KEATON CHANCELLOR, P.E.
PROJECT MANAGER
DATE 11/17/2022

THE SEAL AND SIGNATURE OF THE PROFESSIONAL REGISTRANT IDENTIFIED
ON THIS COVER SHEET DOES NOT SUGGEST RESPONSIBLE CHARGE FOR ALL
SHEETS CONTAINED WITHIN THIS PACKAGE; PLAN SHEETS NOT SIGNED AND
SEALED ARE NOT THE RESPONSIBILITY OF THE PROFESSIONAL REGISTRANT
IDENTIFIED ON THIS COVER SHEET. PLEASE REFER TO PROFESSIONAL
REGISTRANTS IDENTIFIED ON INDIVIDUAL PLAN SHEETS.

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	Rev #	Date	Description	By	Chk'd

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NOTICE OF EXTENDED PAYMENT PROVISION - THIS CONTRACT
ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER
SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT.



GENERAL NOTES

GENERAL

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND IS NOT LIABLE FOR PROBLEMS THAT ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY OR FOR PROBLEMS THAT ARISE FROM FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS.

PERMITS

ALL PERMITS REQUIRED FOR CONSTRUCTION, INCLUDING ALL IRRIGATION DISTRICT, LOCAL, CITY, COUNTY, STATE AND FEDERAL PERMITS, ARE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS ALREADY PROVIDED BY THE ENGINEER IN THE CONTRACT DOCUMENTS. ALL PERMIT FEES ARE PAYABLE BY THE CONTRACTOR, AND SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION UNLESS A SPECIFIC BID ITEM EXISTS FOR THE PERMIT WORK. . NO TIME EXTENSIONS WILL BE ALLOWED DUE TO THE NORMAL PERMITTING PROCESSES. ANY FINES ASSOCIATED WITH NOT OBTAINING NECESSARY PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR. IT IS THE ENGINEER'S RECOMMENDATION THAT ALL BIDDERS CONTACT THE APPROPRIATE AGENCIES PRIOR TO BIDDING TO ENSURE THAT ALL APPROPRIATE FEES, COSTS, AND SCHEDULES FOR THE PERMITS REQUIRED ARE KNOWN PRIOR TO BIDDING.

TRAFFIC CONTROL

THE CONTRACTOR SHALL MAINTAIN THE PROPER TRAFFIC CONTROL DEVICES DURING CONSTRUCTION IN COMPLIANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.THE CONTRACTOR IS SOLELY RESPONSIBLE FOR IMPLEMENTING, PROTECTING AND MAINTAINING ANY NECESSARY TRAFFIC CONTROL.

CONTRACTOR SHALL SUBMIT TEMPORARY TRAFFIC CONTROL PLAN AND DETOURS FOR ALL PHASES OF THE PROJECT TO THE ENGINEER AND OWNER FOR REVIEW PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT DETAILS, ROUTING PLANS, AND PROPOSED SIGNAGE AND LOCATIONS OF SIGNS FOR DETOURS THROUGHOUT CONSTRUCTION IN ACCORDANCE WITH MUTCD.

UTILITY LOCATION

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR UTILITY LOCATION, PROTECTION AND VERIFICATION PER STATE LAW. THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES AND THE OWNER'S REPRESENTATIVE WITH REGARD TO RELOCATING, ADJUSTING, REPLACING AND/OR REPAIRING UTILITIES. DURING CONSTRUCTION,ADDITIONALLY, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES AND OTHER OBSTRUCTIONS IN RELATION TO THE PROPOSED IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMAL DELAY. DELAYS CAUSED OR COSTS INCURRED BECAUSE OF UTILITY CONFLICTS OR OTHER OBSTRUCTIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. UTILITIES SHOWN IN THESE CONSTRUCTION PLANS ARE SHOWN IN THEIR APPROXIMATE LOCATION ONLY, AND SHALL NOT BE RELIED UPON BY THE CONTRACTOR. FIELD MARKS MADE BY THE INDIVIDUAL UTILITIES SHALL OVERRIDE ANY LOCATION SHOWN IN THESE PLANS.

THE EXISTING UTILITIES, STRUCTURES, AND CULVERTS SHOWN ON THESE PLANS ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR SHALL PERFORM A FIELD REVIEW OF THE ALIGNMENT TWO WEEKS PRIOR TO COMMENCEMENT OF CONSTRUCTION TO ALLOW APPROPRIATE TIME FOR REDESIGN IF NECESSARY. AFTER THE CONTRACTOR HAS HAD HIS SURVEYOR STAKE THE PROPOSED SEWER LINE AND THE EXISTING UTILITIES HAVE BEEN MARKED ON THE GROUND, THE CONTRACTOR SHALL CONDUCT A FIELD REVIEW OF THE SEWER LINE ALIGNMENT AS IT HAS BEEN STAKED. IF THE ALIGNMENT OF THE PROPOSED SEWER LINE WILL CREATE UTILITY CONFLICTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE ALIGNMENT CAN BE REVIEWED AND MODIFIED, IF NECESSARY. ALL MODIFICATIONS TO THE SEWER LINE ALIGNMENT AND PROFILE MUST BE APPROVED BY THE ENGINEER. ANY CONSTRUCTION DELAYS CAUSED BY THE CONTRACTOR'S FAILURE TO PERFORM THE FIELD REVIEW, OR BY THE CONTRACTOR'S FAILURE TO NOTIFY THE ENGINEER OF ANY CONFLICTS TWO WEEKS PRIOR TO CONSTRUCTION SHALL BE DEEMED TO BE DELAYS CAUSED BY THE CONTRACTOR, AND THE CONTRACT TIME WILL NOT BE EXTENDED FOR SUCH DELAYS.

PROTECTION OF EXISTING UTILITIES/STRUCTURES

THE CARE AND PROTECTION OF ALL OTHER UTILITIES, PAVEMENT, DRAINAGE STRUCTURES AND OTHER STREET APPURTENANCES IS THE RESPONSIBILITY OF THE CONTRACTOR. IF DAMAGED, LOST IN TRENCH, OR OTHERWISE DISTURBED, THESE ITEMS WILL BE REPAIRED OR REPLACED AT THE CONTRACTORS EXPENSE. WHERE TRENCHING BENEATH EXISTING UTILITY LINES OCCURS, THE CONTRACTOR WILL BE RESPONSIBLE FOR SUPPORTING THE LINE DURING CONSTRUCTION AND ENSURE THAT IT IS ADEQUATELY BACKFILLED AND COMPACTED.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING THE NECESSARY ADJUSTMENTS IN THE COMPACTION EQUIPMENT OR OPERATION FOR COMPACTION REQUIREMENTS SO THAT UNDERGROUND UTILITIES AND PERMANENT STRUCTURES ARE NOT DAMAGED.THE CONTRACTOR SHALL BE RESTRICTED TO A 35 TON (MAXIMUM) NON-VIBRATORY ROLLER FOR COMPACTION IN AREAS WHERE THE USE OF HEAVIER EQUIPMENT COULD DAMAGE UNDERGROUND UTILITIES OR PERMANENTLY DAMAGE ADJACENT STRUCTURES.

ALL IMPROVEMENTS (INCLUDING FENCES, DITCHES, GUARDRAIL, SIGNS, TRAFFIC CONTROL DEVICES, DRIVEWAYS, LANDSCAPING, ORNAMENTS) THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO THEIR ORIGINAL CONDITION OR BETTER. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING THE EXISTING CONDITIONS OF THE PROJECT SITE THROUGH VIDEO, PHOTOS OR OTHER METHODS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, AND NO ADDITIONAL PAYMENT SHALL BE MADE THEREFOR.

PLAN CHANGES, AS BUILT, RECORD DRAWINGS

IF THERE IS A CONFLICT BETWEEN THE PLANS, SPECIFICATIONS AND/OR MANUFACTURER'S RECOMMENDATIONS FOR ANY DEVICE, PART, OR MATERIAL USED IN THE PROJECT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER, IN WRITING, FOR CLARIFICATION AT LEAST TWO WEEKS PRIOR TO CONSTRUCTION OF SAID DEVICE, PART, OR MATERIAL.

THE CONTRACTOR SHALL MAINTAIN AN UP TO DATE SET OF AS-BUILT PLANS FOR THE PROJECT. THESE PLANS SHALL BE KEPT CURRENT, WITHIN TWO WEEKS, AT ALL TIMES. THESE PLANS SHALL BE SUBJECT TO REVIEW BY THE ENGINEER THROUGHOUT THE PROJECT AND WILL BE REVIEWED BY THE ENGINEER FOR ACCURACY AND COMPLETENESS AT LEAST ONCE EVERY 30 DAYS. PAYMENT MAY BE WITHHELD UNTIL AS BUILT PLANS ARE CURRENT. THE CONTRACTOR SHALL PHOTOGRAPH THE CONSTRUCTION AND AREA OF DISTURBANCE ON A DAILY BASIS. THESE PHOTOS, A LOG OF THE DAILY PHOTOS AND TWO (2) SETS OF THE FINAL AS-BUILT PLANS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO FINAL PAYMENT.

CONSTRUCTION DEBRIS/DISPOSAL

THE CONTRACTOR SHALL PROVIDE AN AREA TO STORE CONSTRUCTION DEBRIS WHERE IT WILL NOT BE A NUISANCE. ALL DEBRIS SHALL BE CONTAINED IN SUCH A MANNER THAT WILL PREVENT SCATTERING. ALL DEBRIS, INCLUDING TREES AND UNDERGROWTH, SHALL BE DISPOSED OF PROPERLY WITHIN A PROPERLY PERMITTED LANDFILL. ALL CONSTRUCTION DEBRIS SHALL BE REMOVED FROM SITE PRIOR TO SUBSTANTIAL COMPLETION.

UNSUITABLE MATERIAL FROM SITE GRADING AND REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE PRIOR TO SUBSTANTIAL COMPLETION.

ITEMS DESIGNATED FOR REMOVAL WITHOUT SALVAGE, UNSUITABLE CONSTRUCTION MATERIALS AND DEBRIS FROM CLEARING AND GRUBBING ARE TO BE PLACED IN AN ENVIRONMENTALLY SUITABLE DISPOSAL SITE SECURED AND COORDINATED BY THE CONTRACTOR, WITH THE APPROPRIATE REGULATORY AGENCIES' APPROVAL AND IN ACCORDANCE WITH THE SPECIFICATIONS FOR THIS

PROJECT. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, IN WRITING, OF THE DETAILS OF THE DISPOSAL OPERATIONS.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE STREETS FREE AND CLEAR OF ANY DEBRIS THAT IS TRACKED TO AND FROM THE SITE.

LEAD ABATEMENT

PART OF THE REHABILITATION EFFORTS WILL INCLUDE LEAD BASED PAINT ABATEMENT. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, LOCAL, EPA, OSHA, NMED AND NEW MEXICO DEPARTMENT OF TRANSPORTATION REGULATIONS PERTAINING TO EXPOSURE, HANDLING, CONTAINMENT, TRANSPORT, AND DISPOSAL OF LEAD-BASED PAINT MATERIALS. IF CONTRACTOR IS NOT LICENSED IN THE STATE OF NEW MEXICO TO PERFORM THESE SERVICES, CONTRACTOR SHALL RETAIN THE SERVICES OF A LICENSED LEAD-BASED PAINTED ABATEMENT SUB-CONTRACTOR TO PERFORM THESE SERVICES AS REQUIRED BY THE REGULATIONS. FURTHER, THE CONTRACTOR/SUB-CONTRACTOR MUST UTILIZE THE SERVICES OF A COMMERCIAL HAULER THAT IS REGISTERED WITH THE NEW MEXICO ENVIRONMENTAL DEPARTMENT TO TRANSPORT HAZARDOUS WASTE AS REQUIRED BY THE REGULATIONS. THE CONTRACTOR/SUB-CONTRACTOR MUST DISPOSE OF ANY HAZARDOUS WASTE MATERIAL GENERATED AT A SOLID WASTE FACILITY AUTHORIZED FOR LEAD-BASED PAINT DISPOSAL. CONTRACTOR, PER OSHA REQUIREMENTS, MUST TRAIN FIELD PERSONNEL IN THE IDENTIFICATION OF LEAD-BASED PAINT. REFER TO SECTION 02 83 33.13 LEAD-BASED PAINT REMOVAL AND DISPOSAL FOR SUBMITTAL REQUIREMENTS PRIOR TO CONSTRUCTION.

SITE ACCESS AND PROTECTION

THE CONTRACTOR IS RESPONSIBLE FOR SECURING A LOCATION FOR THE STAGING AND STORAGE OF EQUIPMENT AND SUPPLIES. THE OWNER SHALL NOT BE RESPONSIBLE FOR THE THEFT, LOSS, OR DAMAGE OF ANY CONTRACTOR EQUIPMENT OR SUPPLIES.

THE CONTRACTOR SHALL PROVIDE BARRIERS OR FENCING OR DIRECT OVERSIGHT TO PREVENT UNAUTHORIZED ENTRY TO CONSTRUCTION AREAS AND TO PROTECT EXISTING FACILITIES AND ADJACENT PROPERTIES FROM DAMAGE. ACCESS TO EXISTING FACILITIES ADJACENT TO THE CONSTRUCTION AREA SHALL BE SAFELY MAINTAINED THROUGHOUT CONSTRUCTION UNLESS APPROVED BY THE ENGINEER AND UNLESS PROPER NOTICE HAS BEEN GIVEN TO AFFECTED PARTIES.

ENVIRONMENTAL AND HISTORICAL PRESERVATION

IN THE EVENT THE CONTRACTOR ENCOUNTERS ITEMS OF HISTORICAL IMPORTANCE, THE ENGINEER AND OWNER SHALL BE NOTIFIED IMMEDIATELY AND WORK IN THE AREA SHALL IMMEDIATELY CEASE UNTIL THE SITE CAN BE CLEARED PROPERLY.

SITE RESTORATION

SITE RESTORATION, INCLUDING TEMPORARY EROSION CONTROL PROVISIONS, IS A PREREQUISITE FOR PERIODIC & FINAL PAYMENT.

CONSTRUCTION STANDARDS

THE CONSTRUCTION OF THE PROJECT WILL BE GOVERNED BY THE FOLLOWING SPECIFICATIONS AND GUIDELINES COPIES OF WHICH SHALL BE KEPT AT THE CONSTRUCTION SITE BY THE CONTRACTOR AT ALL TIMES.

- A. TECHNICAL SPECIFICATIONS.
- B. THE NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.
- C. NEW MEXICO ENVIRONMENT DEPARTMENT'S RECOMMENDED STANDARDS FOR WATER AND FACILITIES.
- D. WHERE NOT COVERED BY LOCAL ORDINANCE, THE "INTERNATIONAL BUILDING CODE" CURRENT EDITION (IBC) FOR APPLICABLE WORK.
- E. "OCCUPATIONAL SAFETY HEALTH ADMINISTRATION" REGULATIONS FOR TRENCHING, SHORING & EXCAVATION.

ANY CONFLICT BETWEEN THE REQUIREMENTS OF THE SPECIFICATIONS SHALL BE RESOLVED BY THE ENGINEER. IN GENERAL, THE MORE STRINGENT SPECIFICATION SHALL GOVERN. THE CONTRACTOR SHALL PROVIDE A COPY OF THE NMSSPWC TO THE FIELD REPRESENTATIVE OF THE ENGINEER AT THE BEGINNING OF THE PROJECT.

CONSTRUCTION LIMITS

THE CONTRACTOR SHALL CONFINE HIS OPERATIONS TO THE CONSTRUCTION LIMITS OF THE PROJECT AND SHALL IN NO WAY ENCR OACH ONTO ADJACENT PROPERTIES UNLESS LEGAL EASEMENTS ARE PROVIDED OR SECURED BY THE CONTRACTOR. ALL FILL AND CUT SLOPES FOR STRUCTURES SHALL BE SET BACK FROM THE PROPERTY LINE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY AGREEMENTS NECESSARY OR DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO PUBLIC OR PRIVATE PROPERTY, INCLUDING UTILITIES.

THE LIMITS OF CONSTRUCTION AND LOCATIONS OF THE CONTRACTORS STAGING AREAS SHALL BE IDENTIFIED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER AND OWNER. THE LIMITS OF CONSTRUCTION SHALL BE CLEARLY DELINEATED AND SHALL BE THE MINIMUM REQUIRED TO MAINTAIN ALL WORKERS IN A SAFE CONDITION, TO PROVIDE ACCESS, AND TO MEET O.S.H.A. REGULATIONS.

SAFETY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING AND CLEANUP OF SPILLS ASSOCIATED WITH PROJECT CONSTRUCTION AND SHALL REPORT AND RESPOND TO SPILLS OF HAZARDOUS MATERIALS SUCH AS GASOLINE, DIESEL, MOTOR OILS, SOLVENTS, CHEMICALS, TOXIC AND CORROSIVE SUBSTANCES, AND OTHER MATERIALS WHICH MAY BE A THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT. REPORTS SHALL BE MADE IMMEDIATELY TO THE NEW MEXICO ENVIRONMENT DEPARTMENT EMERGENCY RESPONSE TEAM AT (505) 827-4308 OR (505) 470-3657, THE NATIONAL RESPONSE TEAM AT 1-800-424-8802 AND TO THE ENGINEER.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY, AND FOR KNOWLEDGE AND COMPLIANCE WITH APPLICABLE O.S.H.A. STANDARDS. THE CONTRACTOR SHALL MAINTAIN ALL TRENCHES IN A SAFE CONDITION PROTECTING THE WORKERS AND THE GENERAL PUBLIC. TRENCH PROTECTION SHALL BE IN ACCORDANCE WITH APPLICABLE O.S.H.A. REGULATIONS. EXCAVATIONS SHALL BE SLOPED, BRACED, OR SHORED AS REQUIRED BY O.S.H.A. REGULATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SAFE HANDLING OF CONSTRUCTION EQUIPMENT AND MATERIALS TO AND FROM THE STAGING/STORAGE AREA AND FOR SITE SECURITY. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND NO ADDITIONAL COMPENSATION SHALL BE MADE THEREFOR.

NOISE ORDINANCE

EXCEPT IN CONNECTION WITH THE OPERATING OF A MOTOR VEHICLE ON A PUBLIC THOROUGHFARE AND OTHERWISE AS PROVIDED IN SUBSECTION (C) OF SECTION 18-73 OF THE LOS ALAMOS COUNTY, NM CODE OF ORDINANCES, IT SHALL BE A VIOLATION OF THIS ARTICLE FOR ANY PERSON TO CAUSE OR PERMIT THE PRODUCTION OF SOUND IN SUCH A MANNER AS TO LET ESCAPE MORE THAN 65 DBA ACROSS ANY RESIDENTIAL PROPERTY LINE, NOR MORE THAN 53 DBA DURING THE HOURS OF 9:00 P.M. TO 7:00 A.M.

BETWEEN THE HOURS OF 7:00 A.M. AND 9:00 P.M., THE NOISE LEVELS PERMITTED IN SUBSECTION (A) OF SECTION 18-73 OF THE LOS ALAMOS COUNTY, NM CODE OF ORDINANCES MAY BE INCREASED BY TEN DBA FOR A PERIOD NOT TO EXCEED TEN MINUTES IN ANY ONE HOUR. SPECIFICALLY EXCLUDED FROM THIS SUBSECTION ARE VEHICLES OPERATED BEYOND THE LIMITS OF A PUBLIC RIGHT-OF-WAY.

CONTRACTOR SHALL REFER TO SEC 18-73 OF THE LOS ALAMOS CODE OF ORDINANCES FOR PROHIBITED NOISE AND DECIBEL PROVISIONS

INSPECTION OF WORK

OWNER WILL HAVE FULL-TIME INSPECTION PERFORMED BY THE ENGINEER'S RESIDENT PROJECT REPRESENTATIVE (RPR) AS OUTLINED AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

CONTRACTOR SHALL COORDINATE SCHEDULES, ALL TESTING AND INSPECTIONS WITH THE ENGINEER'S RESIDENT PROJECT REPRESENTATIVE (RPR). CONTRACTOR SHALL PROVIDE AT LEAST 48-HOURS OF PRIOR NOTIFICATION OF ALL TESTING THAT SHALL BE COMPLETED PRIOR TO PERFORMING THE RESPECTIVE WORK.

CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE EQUIPMENT (E.G. SCAFFOLDING, LIGHTING, ANCHORS, ETC.) TO SAFELY CONDUCT ALL TESTING AND INSPECTIONS.

LEGEND

EXISTING



GATE VALVE



WATER METER



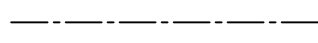
HYDRANT



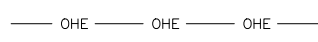
POWER POLE



ROAD SIGN



ROAD CENTER



OVERHEAD POWER LINE



UNDERGROUND POWER LINE



OVERHEAD TELEPHONE LINE

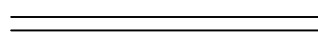


UNDERGROUND TELEPHONE LINE



UNDERGROUND GAS LINE

PROPOSED



WATER LINE PER PLAN



SANITARY MANHOLE

ABBREVIATIONS

AWWA	AMERICAN WATER WORKS ASSOCIATION	MH	MANHOLE
BIA	BUREAU OF INDIAN AFFAIRS	MRCGD	MIDDLE RIO GRANDE CONSERVANCY
CBC	CONCRETE BOX CULVERT		DISTRICT
CI	CAST IRON	N	NORTHING
CIPP	CURED-IN-PLACE PIPE	NE	NORTHEAST
CL or t	CENTERLINE	NGS	NATIONAL GEODETIC SURVEY
CMP	CORRUGATED METAL PIPE	NOAA	NATIONAL OCEANIC AND ATMOSPHERIC
CO	CLEANOUT		ADMINISTRATION
CONN	CONNECTION	NMED	NEW MEXICO ENVIRONMENT DEPARTMENT
D.I.	DUCTILE IRON	NTS	NOT TO SCALE
DIA	DIAMETER	NW	NORTHWEST
E	EASTING	OD	OUTER DIAMETER
E.G.	FOR EXAMPLE	OHD	OVERHEAD
E.A.E.	ENGINEER APPROVED EQUAL	PE	POLYETHYLENE
EG	EXISTING GROUND	psi	POUNDS PER SQUARE INCH
ELEC	ELECTRIC	PVC	POLYVINYL CHLORIDE
EX or EXIST.	EXISTING	R	RADIUS
FG	FINISH GRADE	RCP	REINFORCED CONCRETE PIPE
FIG.	FIGURE	ROW	RIGHT OF WAY
FL	FLANGE	SCH	SCHEDULE
FNPT	FEMALE NATIONAL PIPE THREAD	SE	SOUTHEAST
GALV	GALVANIZED	SPD	SURGE PROTECTION DEVICE
GFI	GROUND FAULT INTERRUPTER	SPECS	SPECIFICATIONS
GND	GROUND	SS	SANITARY SEWER
GP	GRINDER PUMP	STA	STATION
HDPE	HIGH DENSITY POLYETHYLENE PIPE	STD	STANDARD
ID	INNER DIAMETER	SVC	SERVICE
IE	INVERT ELEVATION	UGD	UNDERGROUND
INV	INVERT	SW	SOUTHWEST
KAIC	KILO AMPS INTERRUPTING CAPACITY	TELE	TELEPHONE
LF	LINEAR FEET	TP	TOP OF PIPE
LPSS	LOW PRESSURE SEWER SYSTEM	UTIL	UTILITY
LS	LIFT STATION	USBOR	UNITED STATES BUREAU OF RECLAMATION
MAX	MAXIMUM	WP	WEATHER PROOF
Ma	MILLIAMP (ONE THOUSANDTH OF AN AMP)	XING	CROSSING
MIN	MINIMUM		
MJ	MECHANICAL JOINT		

INCORPORATED COUNTY OF LOS ALAMOS

LOS ALAMOS, NEW MEXICO

BARRANCA MESA TOWER
TANK #2 REHABILITATION
LOS ALAMOS, NEW MEXICO

GENERAL NOTES & ABBREVIATIONS

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

Designed	Drawn	Checked
KPC	MVH	KLM

Date: November 2022

Scale: Horiz:
Vert:

Project No: 6231354

Sheet:
G-2

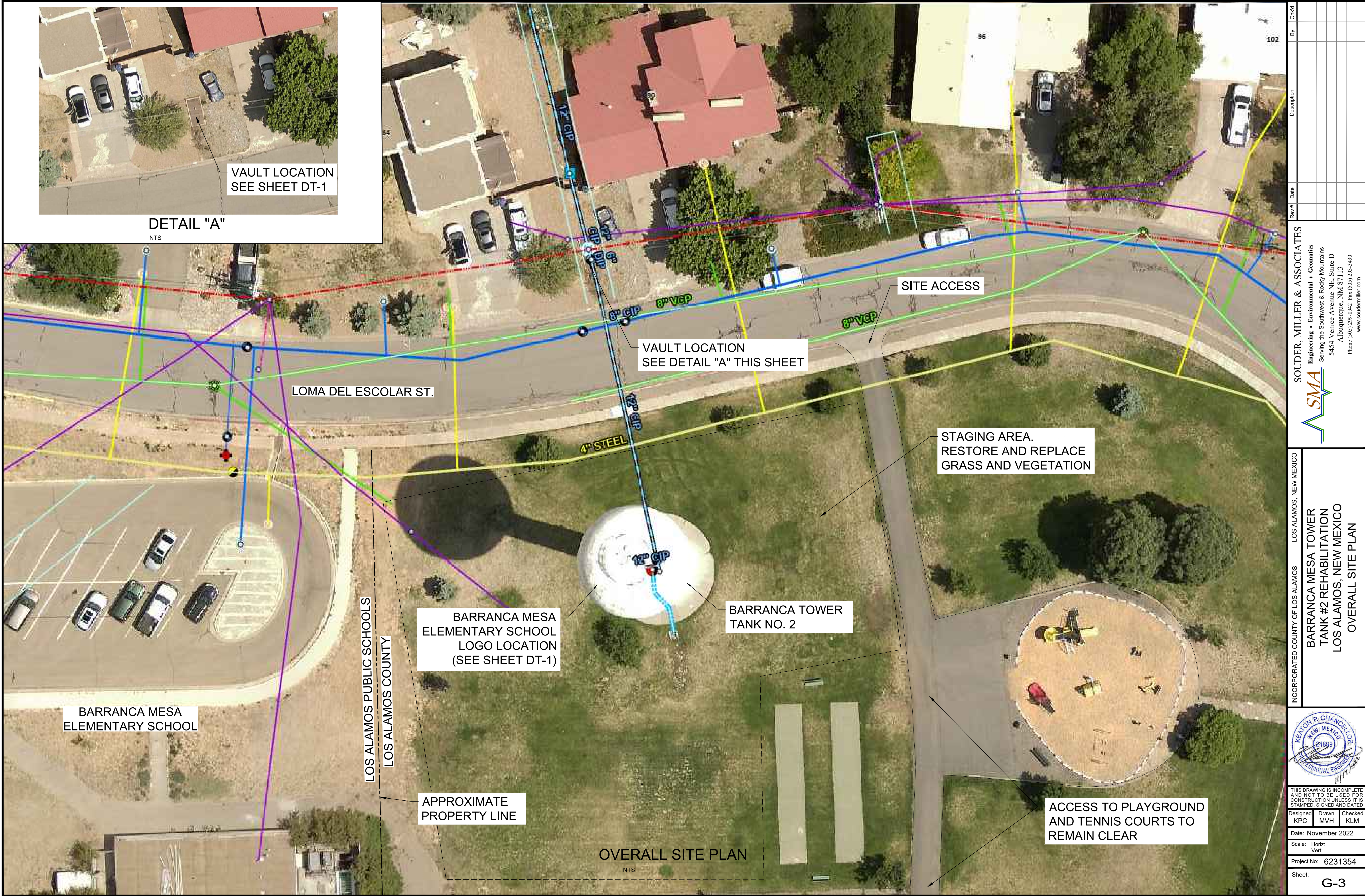
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Attachment A



1. THE CONTRACTOR SHALL FIELD VERIFY VAULT DIMENSIONS, AND SUBMIT DETAIL DRAWINGS FOR VAULT LID, INCLUDING REINFORCEMENT STAMPED BY A NEW MEXICO PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL.
2. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S OPERATIONAL STAFF FOR THE PREFERRED LOCATION OF THE ACCESS LADDER.



VAULT DETAIL
SCALE: 1" = 2'



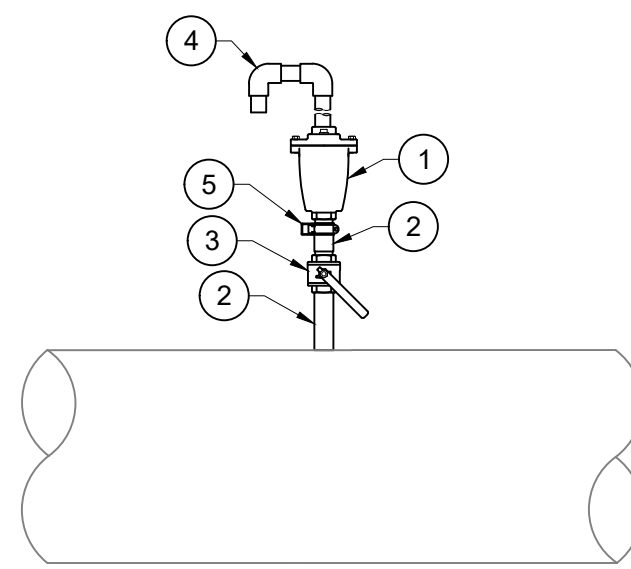
N.T.S.

KEYED NOTES - NEW SAMPLING PORT	
Item No.	Description
1	3/4" PIPE, BRASS NIPPLE, NPT
2	3/4" CROSS, BRASS, NPT
3	3/4" SMOOTH NOSE HOSE BIB WITH VACUUM BREAKER, NPT.
4	1" 90° BEND, NPT, BRASS
5	3/4" UNION
6	EXISTING GAUGE, TEE, PLUG AND 3/4" PIPING, TO BE RE-USED
7	EXISTING ISOLATION VALVES (TYP)

NOTES:
1. CONTRACTOR TO VERIFY AND MATCH EXISTING SIZES AND MATERIALS.

SAMPLING PORT DETAIL

N.T.S.



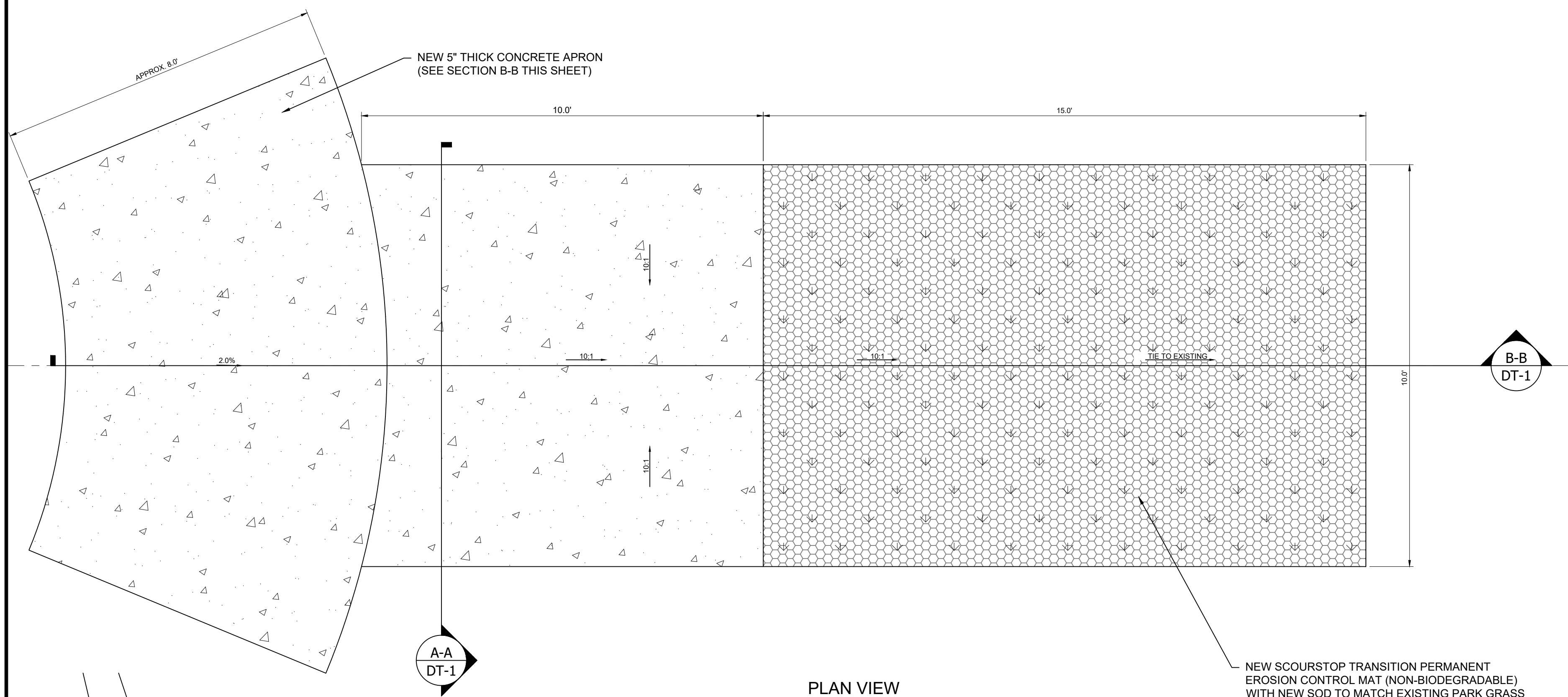
KEYED NOTES - 1" COMBINATION AIR VALVE	
Item No.	Description
1	1" VALMATIC MODEL NO. 202C.2SV COMBINATION AIR VALVE (SINGLE BODY TYPE), 300 psi
2	1" PIPE, SS SCH. 40, NPT
3	1" BALL VALVE, STAINLESS STEEL, NPT, 250 psi
4	1" DOWN SPOUT W/ SCREEN, SCHEDULE 80 PVC
5	UNISTRUT

NOTES:

1. ALL FLANGES SHALL BE ANSI CLASS 150 (STEEL) OR ANSI CLASS 125 (IRON).
2. ALL NON-STAINLESS METALLIC PIPE, VALVES AND FITTINGS SHALL BE FBE-COATED, INTERIOR AND EXTERIOR. ALL NON-STAINLESS METALLIC PIPE SHALL NOT BE IN CONTACT WITH SOIL.
3. CONTRACTOR SHALL USE THE EXISTING THREADED PIPE PENETRATION FOR THE LOCATION OF THE NEW CAV
4. ALL STAINLESS STEEL PIPE AND FITTINGS SHALL BE SCH 40.
5. ALL MATERIAL RATED TO AT LEAST 235 psi, UNLESS OTHERWISE NOTED.

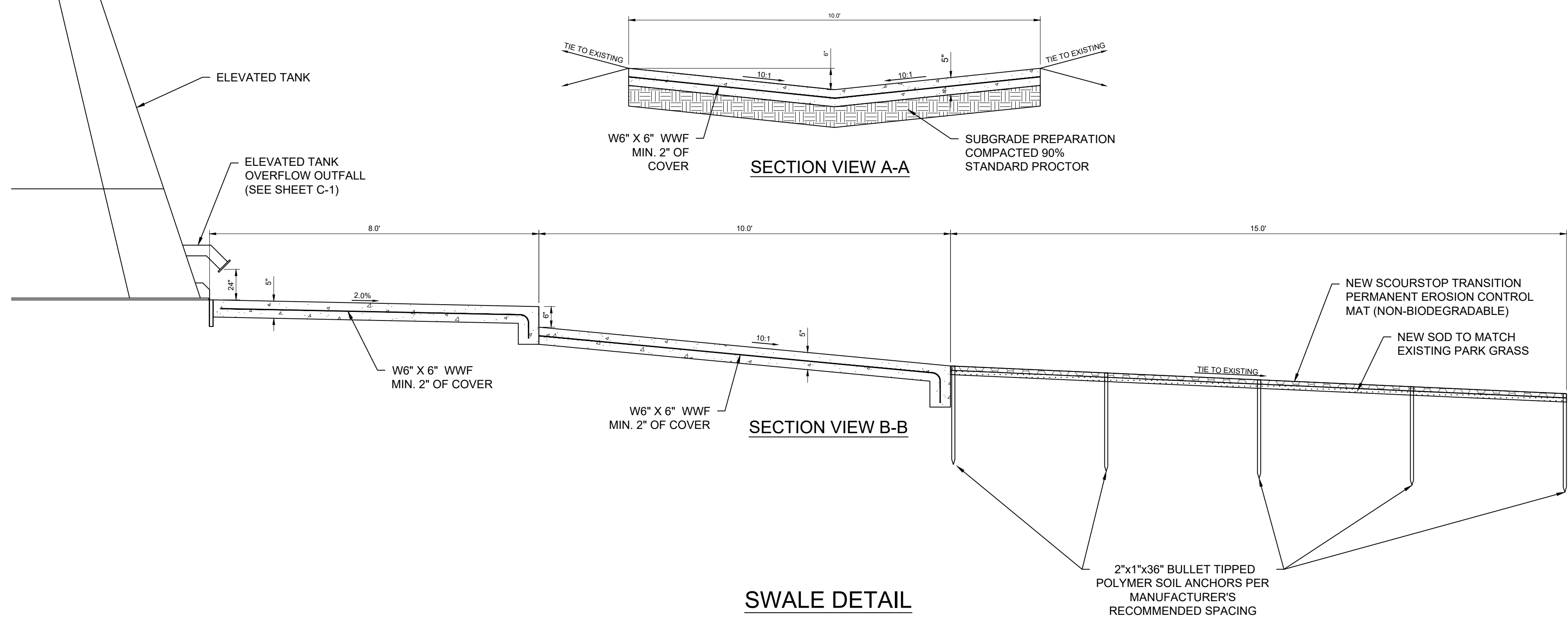
COMBINATION AIR VALVE DETAIL

N.T.S.



PLAN VIEW

- NEW SCOURSTOP TRANSITION PERMANENT EROSION CONTROL MAT (NON-BIODEGRADABLE) WITH NEW SOD TO MATCH EXISTING PARK GRASS (100 SQ. FT.)



SWALE DETAIL

SCALE: 1" = 2'

[illegible]

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INCORPORATED COUNTY OF LOS ALAMOS LOS ALAMOS, NEW MEXICO

BARRANCA MESA TOWER
TANK #2 REHABILITATION
LOS ALAMOS, NEW MEXICO
TANK REHABILITATION DETAILS



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Designed KPC	Drawn MVH	Checked KLM
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Project No: 6231354

Sheet:

DT-1

ELECTRICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	WALL OUTLET AND SURFACE MOUNTED FIXTURE
	LED OUTLET AND FIXTURE
	SINGLE POLE SWITCH, FLUSH MOUNTED 48" A.F.F.
	DUPLEX CONVENIENCE OUTLET, 18" A.F.F.
	WEATHERPROOF DUPLEX CONVENIENCE OUTLET, 18" A.F.F.
	DUPLEX CONVENIENCE OUTLET, GROUND FAULT CIRCUIT INTERRUPTER, 18" A.F.F.
	JUNCTION BOX INSTALLED ABOVE LAY-IN CEILING WITH FLEXIBLE CONDUIT CONNECTION TO LAY-IN FIXTURES. MAXIMUM 4'-0" LENGTH OF CONDUIT, WITH REQUIRED CONDUCTORS ALONG WITH GREEN GROUND CONDUCTOR
	JUNCTION BOX FLUSH IN WALL, HEIGHT AS INDICATED ON DRAWINGS, WITH CONNECTION TO EQUIPMENT
	CONCEALED BRANCH CIRCUIT WITH CONDUCTORS AS INDICATED. NEUTRAL, HOT, SWITCH LEG AND GROUND RESPECTIVELY
	BRANCH CIRCUIT OR CONDUIT INSTALLED UNDERGROUND OR UNDER FLOOR
	HOMERUN TO PANELBOARD WITH BRANCH CIRCUIT NUMBERS INDICATED
	SOLENOID VALVE
	LIMIT SWITCH
	PRESSURE TRANSMITTER
	FIRE ALARM SMOKE AND HEAT DETECTOR, PHOTOELECTRIC TYPE, 120V AUX CONTACTS
	MOTOR CONNECTION FOR FRACTIONAL HP MOTOR (1/3 HP OR LESS). PROVIDE THERMAL OVERLOAD SWITCH (WEATHERPROOF IF OUTSIDE) ADJACENT TO MOTOR UNLESS SWITCH IS SHOWN ELSEWHERE ON PLANS
	MOTOR CONNECTION FOR MOTOR WITH HP INDICATED
	DISCONNECT SWITCH, POLES AND RATING AS INDICATED OR AS REQUIRED, NEMA 3R IF INSTALLED OUTSIDE
	FUSED DISCONNECT SWITCH, FUSE, POLES AND RATING AS INDICATED OR AS REQUIRED, NEMA 3R IF INSTALLED OUTSIDE
	COMBINATION MAGNETIC MOTOR CONTROLLER/DISCONNECT SWITCH. SIZE, POLES, FUSES AND OVERLOADS PER MOTOR SERVED
	MAGNETIC MOTOR CONTROLLER, SIZE AND POLES PER MOTOR SERVED
	TRANSFORMER, DRY TYPE, SIZE AS INDICATED
	THERMOSTAT(M), 48" A.F.F.
	120V PANELBOARD, REFER TO PANEL SCHEDULE
	277V PANELBOARD, REFER TO PANEL SCHEDULE
	SPECIAL PURPOSE CABINET, AS INDICATED ON DRAWINGS
	INTRUSION ALARM DOOR CONTACT MAGNETIC
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	CONTACTOR
	MOTOR OVERLOADS
	RED PILOT LIGHT
	GREEN PILOT LIGHT
	TRANSFORMER
	RELAY
	SWITCH
	FUSE(S)
	CIRCUIT BREAKER
	PROGRAMMABLE LOGIC CONTROLLER
	REMOTE TERMINAL UNIT
	THERMOSTAT
	WEATHERPROOF (NEMA 3R)
	NOT IN CONTRACT
	NOT TO SCALE
	ABOVE FINISHED FLOOR
	ABOVE FINISHED GRADE
NOTES: • LIGHTING FIXTURES ARE OF TYPE AS INDICATED ON LIGHT FIXTURE SCHEDULE U.N.O. • MOUNTING HEIGHTS FOR DEVICES CALLED OUT AT 18" A.F.F. ARE TO THE BOTTOM OF THE DEVICE UNLESS OTHERWISE NOTED. • MOUNTING HEIGHTS FOR DEVICES CALLED OUT AT 48" A.F.F. ARE TO THE TOP OF THE DEVICE UNLESS OTHERWISE NOTED. • ANY SPECIFIC DETAILS ABOVE (MOUNTING HEIGHTS, PART NUMBERS, CONNECTION METHODS, ETC.) MAY BE MODIFIED OR REPLACED BY INFORMATION ON PLANS, SCHEDULES, DETAILS, RISERS, ETC. DETAILS NOT SPECIFICALLY MODIFIED REMAIN AS GIVEN ABOVE.	

GENERAL NOTES

SPECIFICATIONS

G1) IF THERE IS A CONFLICT BETWEEN PLANS/SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS FOR ANY DEVICE, PART, OR MATERIAL USED IN THE PROJECT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY IN WRITING THE ENGINEER FOR CLARIFICATION.

G2) THE CONTRACTOR SHALL FAMILIARIZE HIM/HERSELF WITH THE PLANS, AND THE SITE CONDITIONS PRIOR TO BID OPENING AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY AMBIGUITIES, CONTRADICTIONS OR IRREGULARITIES IN THE PLANS.

G3) IF, DURING BIDDING OR CONSTRUCTION, THE CONTRACTOR IS IN DOUBT AS TO THE TRUE MEANING OF ANY PART OF THE PLANS, SPECIFICATIONS, OR OTHER CONTRACT DOCUMENTS, OR DISCREPANCIES IN OR POSSIBLE OMISSIONS FROM THE DRAWINGS OR SPECIFICATIONS, THEY SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND REQUEST AN INTERPRETATION OF CORRECTION THEREOF. DURING THE BIDDING PROCESS AN ADDENDUM (IF NEEDED) WILL BE ISSUED.

G3.1) THE CONTRACT, IF AWARDED, WILL BE ON THE BASIS OF MATERIAL AND EQUIPMENT SPECIFIED OR DESCRIBED IN THE BIDDING DOCUMENTS WITHOUT CONSIDERATION OF POSSIBLE SUBSTITUTE OR "OR EQUAL" ITEMS. WHEREVER A BRAND NAME IS SPECIFIED OR DESCRIBED IN THE BIDDING DOCUMENTS A SUBSTITUTE "OR EQUAL" ITEM OF MATERIAL OR EQUIPMENT MAY BE FURNISHED OR USED BY CONTRACTOR IF ACCEPTABLE TO ENGINEER, APPLICATION FOR SUCH ACCEPTANCE WILL NOT BE CONSIDERED BY ENGINEER UNTIL AFTER THE EFFECTIVE DATE OF AGREEMENT. THE PROCEDURE FOR SUBMISSION OF ANY SUCH APPLICATION BY CONTRACTOR AND CONSIDERATION BY ENGINEER IS SET FORTH IN THE GENERAL CONDITIONS.

EXISTING UTILITIES & OBSTACLES TO WORK

G4) THE CONTRACTOR IS RESPONSIBLE TO INSTALL ALL ITEMS DESCRIBED IN THESE PLANS IN A MANNER THAT PROTECTS THE EXISTING FACILITY. THE CONTRACTOR MUST CONTACT THE ENGINEER IMMEDIATELY IF HE IS UNABLE TO PERFORM THIS WORK WITHOUT DAMAGE TO THE EXISTING FACILITY. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING INFORMATION SHOWN ON THESE PLANS. DESIGN ELEMENTS OF THIS PROJECT WILL NOT CHANGE WITHOUT CHANGE ORDER UNLESS THE CONTRACTOR NOTIFIES THE ENGINEER IN A TIMELY MANNER REGARDING ITEMS DESCRIBED IN THIS NOTE. CHANGES IN ALIGNMENT CAUSED BY UNKNOWN OR UNANTICIPATED SITE CONDITIONS SHALL BE ACCOUNTED FOR BY THE APPROPRIATE UNIT PRICES, AS RECOMMENDED BY THE ENGINEER AND APPROVED BY THE OWNER.

G5) THE EXISTENCE, CONDITION AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN IN THESE PLANS WAS OBTAINED BY A CAREFUL SEARCH OF AVAILABLE RECORDS. TO THE BEST OF THE ENGINEERS KNOWLEDGE, THERE ARE NO EXISTING UNDERGROUND UTILITIES EXCEPT THOSE SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN, AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS, AND IS RESPONSIBLE FOR THEIR LOCATING, PROTECTION OF, OR ANY DAMAGE TO THESE LINES OR STRUCTURES. THIS DOES NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES AND OBTAIN LINE SPOTS.

G6) THE FOLLOWING IS A LIST OF POSSIBLE OBSTRUCTIONS AND SHALL NOT BE CONSIDERED A COMPLETE LIST OF POSSIBLE OBSTRUCTIONS: EXISTING UTILITIES, STRUCTURE, GEOTECHNICAL FEATURES, ALL CONDUIT, CABLES, PIPES, WATERLINES, SEWER LINES, GAS LINES, POWER LINES, TELEPHONE AND TELEGRAPH LINES, TREES, MONUMENTS, TRAFFIC CONTROL DEVICES AND OTHER STRUCTURES, BOTH BELOW AND ABOVE GROUND.

G7) CONTRACTOR SHALL BE HELD RESPONSIBLE FOR COSTS OF REPAIR OF ANY AND ALL DAMAGE TO ANY UTILITY (WHICH IS PREVIOUSLY KNOWN AND DISCLOSED TO HIM BY THE UTILITY OR SHOWN ON THESE PLANS) AS MAY BE CAUSED BY HIS OPERATIONS.

G8) FIVE (5) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE-CALL SYSTEM, INC. (505) 260-1990, FOR LOCATION OF EXISTING UTILITIES.

G9) CONTRACTOR SHALL GIVE ALL PUBLIC AND PRIVATE UTILITY COMPANIES NOTICE AS SOON AS POSSIBLE, IN NO EVENT LESS THAN FORTY EIGHT (48) HOURS, FOR ANY WORK THAT IS UNDERSTOOD TO INTERFERE WITH THE SERVICE OF ANY EXISTING PUBLIC OR PRIVATE UTILITY. IF SUCH PUBLIC OR PRIVATE UTILITY DOES NOT COOPERATE FOR THE PROTECTION OF ITS SERVICES, CONTRACTOR SHALL NOTIFY ENGINEER.

G10) CONTRACTOR SHALL IMMEDIATELY REPORT ANY DAMAGES TO PUBLIC OR PRIVATE PROPERTY TO THE OWNER OF THE PROPERTY INVOLVED AND TO THE ENGINEER. CONTRACTOR SHALL REPAIR OR RESTORE AT HIS OWN EXPENSE ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY, FOR WHICH THEY ARE DIRECTLY OR INDIRECTLY RESPONSIBLE, TO A CONDITION EQUAL TO THAT EXISTING BEFORE DAMAGE. CONTRACTOR SHALL PROMPTLY NOTIFY HIS INSURANCE CARRIER OF SUCH DAMAGE. IF CONTRACTOR FAILS TO GIVE SUCH NOTICE TO HIS INSURANCE CARRIER OR REFUSES TO EFFECT SUCH REPAIRS OR RESTORATION, UPON RECEIPT OF NOTICE, THE ENGINEER MAY CAUSE SUCH REPAIRS OR RESTORATION AND DEDUCT THE COST THEREOF FROM MONEYS DUE, OR WHICH MAY BECOME DUE, TO THE CONTRACTOR.

G11) CONTRACTOR IS RESPONSIBLE FOR RECORDING EXISTING CONDITIONS IN ACCORDANCE WITH THE SUPPLEMENTARY CONDITIONS OF THE CONTRACT BEFORE CONSTRUCTION BEGINS. THE RECORD OF EXISTING CONDITIONS SHALL BE USED AS THE "EQUAL CONDITION BEFORE DAMAGE" IN THE EVENT OF DAMAGE TO PUBLIC OR PRIVATE PROPERTY. CONTRACTOR FAILURE TO RECORD EXISTING CONDITIONS WILL MAKE THE OWNERS CLAIM OF "EQUAL CONDITION BEFORE DAMAGE" THE STANDARD THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING AND THE ENGINEER WILL BE IN THE POSITION OF NOT BEING ABLE TO SUPPORT THE CONTRACTOR IN THE MEDIATION OF ANY DISPUTE.

G12) THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF LOCATION OF ALL EXISTING UTILITIES..

SITE CONDITIONS

G13) CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES ADJACENT TO THE CONSTRUCTION AREA.

G14) THE CONTRACTOR SHALL USE WATERING EQUIPMENT FOR DUST POLLUTION ABATEMENT AS REQUIRED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SUPPLYING WATER. THIS WORK AND MATERIAL SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

G15) EPA STORM WATER DISCHARGE REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE TO APPLICABLE PORTIONS OF THE EPA STORM WATER DISCHARGE REGULATIONS.

G16) CONTRACTOR SHALL FULLY COORDINATE ALL REPLACEMENT OF DAMAGED OR DESTROYED EQUIPMENT, GRASS, TURF, ETC. THAT WAS DAMAGED OR DESTROYED DURING CONSTRUCTION.

SITE DESIGN

G17) SUBGRADE. ALL SUBGRADE AND TRENCH BACKFILL SHALL BE COMPACTED TO 95 % OF STANDARD PROCTOR. ALL SUBGRADE AND BACKFILL SHALL BE COMPACTED IN MAXIMUM 8" LOOSE LIFTS. MOISTURE CONTENT AT THE TIME OF COMPACTION SHALL NOT EXCEED OPTIMUM OR BE LESS THAN 5 PERCENTAGE POINTS BELOW OPTIMUM. DRIVEWAYS, APRONS, FILLETS, CURB AND GUTTER, AND OTHER CONCRETE PAVEMENT SHALL BE PLACED ON 6" OF COMPACTED SUBGRADE.

G18) RESTORE SURFACE AT TRENCH TO EXISTING CONDITIONS.

COMMUNICATION

G19) CONTRACTOR SHALL KEEP THE OWNER AND THE ENGINEER UPDATED WEEKLY ON THE CONSTRUCTION SCHEDULE AND/OR PHASE SCHEDULE, AND PROGRESS TO DATE.

G20) CONTRACTOR SHALL FULLY COORDINATE ALL WORK WITH CITY OF LOS ALAMOS P.I. OFFICER INCLUDING BUT NOT LIMITED TO NOISE ORDINANCE, TIME OF WORK BEING PERFORMED, ETC..

STAGING STORAGE & DEBRIS DISPOSAL

G21) DEBRIS GENERATED BY CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF AT A PERMITTED LANDFILL OR OTHER DULY CERTIFIED REFUSE FACILITY. THE DISPOSAL OF DEBRIS IS NOT A PAY ITEM.

RECORD DRAWINGS

G22) THE CONTRACTOR SHALL PROVIDE A RECORD SKETCH ON THESE PLANS FOR THE AS-CONSTRUCTED CONDITIONS.

PHASE AND SCHEDULE

G23) CONTRACTOR SHALL PHASE AND SCHEDULE WORK IN SUCH A WAY AS TO PROVIDE MINIMAL POWER OUTAGES AT THE FACILITY. A PROJECT SCHEDULE SHALL BE SUBMITTED TO THE OWNER FOR REVIEW PRIOR TO ISSUANCE OF NOTICE-TO-PROCEED. CHANGES IN SCHEDULE SHALL BE PRESENTED TO OWNER AND ENGINEER AT LEAST 7 DAYS PRIOR TO PROPOSED IMPLEMENTATION. THESE SCHEDULES, SCHEMATICS AND DIAGRAMS SHALL BE UPDATED WEEKLY AS THE WORK PROGRESSES. MOST CHANGE OVER SHALL BE DONE ON WEEKENDS OR AFTER HOURS.

SUBMITTALS

G24) CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL EQUIPMENT, MATERIALS, PROCESSES AND SCHEDULES AND AS REQUESTED BY ENGINEER.

INSPECTION OF WORK

G25) OWNER SHALL HAVE ACCESS TO FULL TIME INSPECTION OF WORK BEING PERFORMED.



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25211

PROFESSIONAL ENGINEER

10031022

22295

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Designed

RHP

Drawn

RHP

Checked

TFR

Date: November 2022

Scale: Horiz:

Ver:

Project No: 6231354

Sheet:

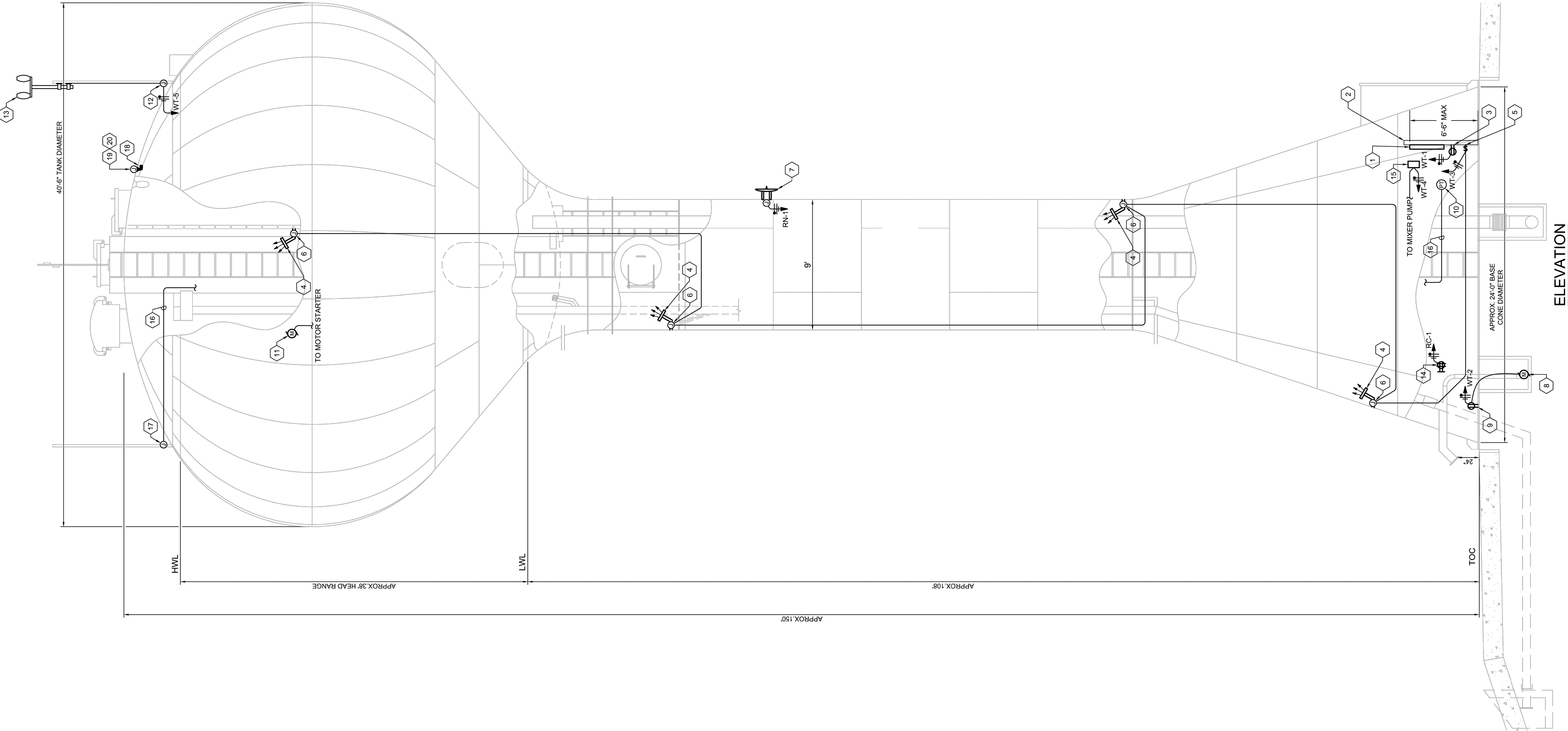
E-1

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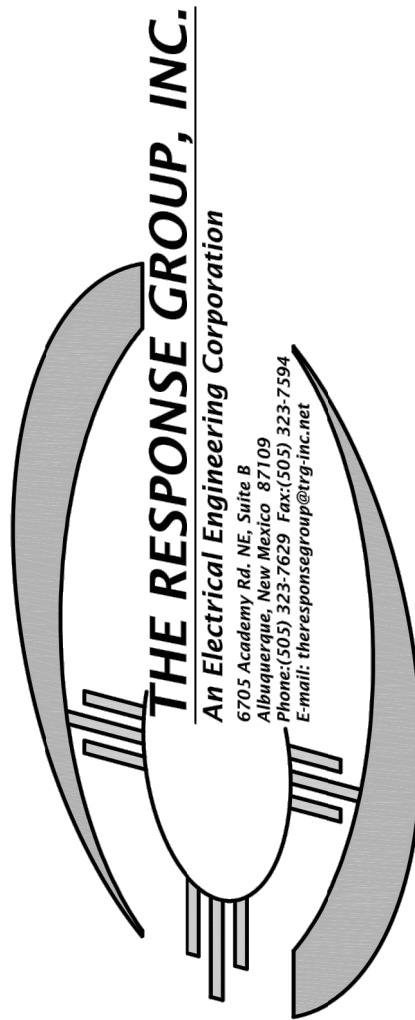
Attachment A





- GENERAL NOTES**
- A. REFER TO SHEET E-1 FOR "ELECTRICAL SYMBOL LEGEND" AND "GENERAL NOTES".
 - B. ALL INTERIOR CONDUIT SHALL BE EMT "RAIN TIGHT" TYPE OR APPROVED EQUAL.
 - C. ALL INTERIOR BRANCH CIRCUITS (INCLUDING BUT NOT LIMITED TO MOTORS, LIGHTING AND CONVENIENCE RECEPTACLES) SHALL BE GFCI PROTECTED WITH A GFCI TYPE CIRCUIT BREAKER AT THE PANELBOARD.
 - D. ALL CONDUIT SHALL BE SUPPORTED, BY NEC APPROVED METHOD, EVERY 10 FEET MINIMUM, AND WITHIN 3 FEET OF EVERY JUNCTION BOX, PULLBOX, OUTLET BOX ETC. PER NEC ART. 358.30 (A) AND 358.30 (B).
 - E. ALL JUNCTION BOXES WITHIN "DRY SPACE" SHALL BE WEATHERPROOF (NEMA 3R).
 - F. ALL WIRING DEVICES WITHIN "DRY SPACE" SHALL BE WEATHERPROOF AND PROVIDED WITH WEATHERPROOF-WHILE-IN-USE ENCLOSURES.
 - G. CONTRACTOR SHALL RECONNECT ALL EXISTING CIRCUITS THAT ARE REINSTALLED TO NEW PANELBOARDS AS REQUIRED.

- KEYED NOTES**
- 1. REPLACE EXISTING PANELBOARDS (2 PANEL BOARDS: 1 FOR WATER TOWER POWER, 1 FOR MIXER PUMP POWER) WITH 100 AMP, 2-POLE MAIN BREAKER AS SHOWN ON "POWER RISER DIAGRAM- NEW" AND PANEL SCHEDULES ON SHEET E-4.
 - 2. REUTILIZE EXISTING RACK, REWORK EXISTING RACK AS REQUIRED IN ORDER TO ACCOMMODATE NEW PANELBOARDS AS REQUIRED.
 - 3. PROVIDE AND INSTALL NEW NEMA 5-20R RECEPTACLE MOUNTED ON EXISTING RACK FOR TEST TRACE.
 - 4. FLOOD LIGHT FIXTURE SHALL BE MOUNTED POINTING UP (TO ILLUMINATE CLIMBING ON LADDER, AS WELL AS NOT BLINDING THE CLIMBER DURING CLIMBING OF LADDER). EXISTING LIGHT FIXTURE SHALL BE MOUNTED ON "STAND OFF BRACKETS" FIXTURE TYPE STONCO #FT30-NM-G1-K-FL-8 OR APPROVED EQUAL. WIRE WITH 2#10 THWN CU AND 1#10 THWN CU GROUND IN 3/4" CONDUIT (CONDUCTORS UPSIZED FOR ANTICIPATED VOLTAGE DROP).
 - 5. TOGGLE SWITCH FOR CONTROL OF "CLIMBING LIGHTS" MOUNTED ON EXISTING RACK. PROVIDE AND INSTALL HARD LABEL / PERMANENT PLAQUE READING "CLIMBING LIGHTS" DIRECTLY ABOVE TOGGLE SWITCH.
 - 6. BACKBOX FOR CONNECTION TO "CLIMBING LIGHTS".
 - 7. EXISTING REDNET EQUIPMENT TO BE REMOVED AND PROTECTED DURING REHABILITATION OF WATER TOWER AND REINSTALLED. COORDINATE ALL REQUIREMENTS WITH REDNET PRIOR TO ANY WORK COMMENCING.
 - 8. EXISTING SUMP PUMP TO BE REMOVED AND PROTECTED DURING REHABILITATION OF WATER TOWER AND REINSTALLED. COORDINATE ALL REQUIREMENTS WITH OWNER PRIOR TO ANY WORK COMMENCING.
 - 9. NEMA 5-20R RECEPTACLE FOR POWER CONNECTION TO SUMP PUMP. COORDINATE EXACT MOUNTING LOCATION AND REQUIREMENTS PRIOR TO ROUGH-IN.
 - 10. EXISTING PRESSURE TRANSDUCER AND ASSOCIATED WIRING TO BE REMOVED AND REINSTALLED. PROVIDE NEW PRESSURE TRANSDUCER TO BE CECOMP ELECTRONICS #DPG100L OR ENGINEER AND OWNER APPROVED EQUAL. COORDINATE ALL REQUIREMENTS WITH OWNER PRIOR TO ANY WORK COMMENCING.
 - 11. NEW MIXER PUMP TO BE INSTALLED SUSPENDED FROM WET TANK ROOF. COORDINATE ALL MOUNTING AND REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.
 - 12. WEATHERPROOF JUNCTION BOX FOR POWER CONNECTION TO AVIATION LIGHTS. HOMERUN SHALL BE RUN THROUGH ACCESS TUBE. WIRE WITH 2#10 THWN CU AND 1#10 THWN CU GROUND IN 3/4" CONDUIT (CONDUCTORS UPSIZED FOR ANTICIPATED VOLTAGE DROP).
 - 13. EXISTING AVIATION LIGHTS AND CONTROLS TO BE REMOVED AND PROTECTED DURING REHABILITATION OF WATER TOWER AND REINSTALLED. COORDINATE ALL REQUIREMENTS WITH OWNER PRIOR TO ANY WORK COMMENCING.
 - 14. PROVIDE AND INSTALL QUADPLEX GFCI TYPE NEMA 5-20R RECEPTACLE FOR POWER CONNECTION TO RADIO EQUIPMENT. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
 - 15. PROVIDE AND INSTALL NEW NEMA SIZE 0, 120V, SINGLE PHASE MOTOR STARTER WITH HAND-OFF-AUTO FOR MANUAL CONTROL OF MIXER PUMP. MOTOR STARTER SHALL BE MOUNTED ON UNISTRUT RACK AT THE BOTTOM OF THE TOWER.
 - 16. 1 1/4" CONDUIT WITH PULLSTRING FOR FUTURE ANTENNA CABLE. CONDUIT SHALL RUN BETWEEN PRESSURE TRANSDUCER AND WEATHERPROOF JUNCTION BOX AT TOP OF TANK.
 - 17. PROVIDE AND INSTALL WEATHERPROOF JUNCTION BOX FOR FUTURE ANTENNA CABLE. JUNCTION BOX SHALL BE MOUNTED ON ROOF OF WATER TANK. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION.
 - 18. PROVIDE AND INSTALL NEW LASER LEVEL TRANSMITTER LOCATED AT THE TOP OF THE WETTED AREA OF THE WATER TANK. LASER LEVEL TRANSMITTER TO BE ABB #LLT100 OR ENGINEER AND OWNER APPROVED EQUAL. COORDINATE EXACT LOCATION OF LASER LEVEL PRIOR TO MOUNTING.
 - 19. PROVIDE AND INSTALL WEATHERPROOF JUNCTION BOX FOR LASER LEVEL SENSOR WIRING. JUNCTION BOX SHALL BE MOUNTED ON ROOF OF WATER TANK. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION.
 - 20. THREADED CONDUIT PENETRATION BETWEEN LEVEL SENSOR AND WEATHERPROOF JUNCTION BOX. REFER TO "LEVEL SENSOR MOUNTING DETAIL" ON SHEET E-5 FOR ADDITIONAL INFORMATION.



22295

THOMAS F. MILLER

25211

PROFESSIONAL ENGINEER

10/6/12

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Designed: RHP

Drawn: RHP

Checked: TFR

Date: November 2022

Scale: Horiz:
Vert:

Project No: 6231354

Sheet: E-3

INCORPORATED COUNTY OF LOS ALAMOS

BARRANCA MESA TOWER
TANK #2 REHABILITATION
LOS ALAMOS, NEW MEXICO
ELECTRICAL TANK ELEVATION

LOS ALAMOS, NEW MEXICO

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Rev #	Date	Description	By	Chkd

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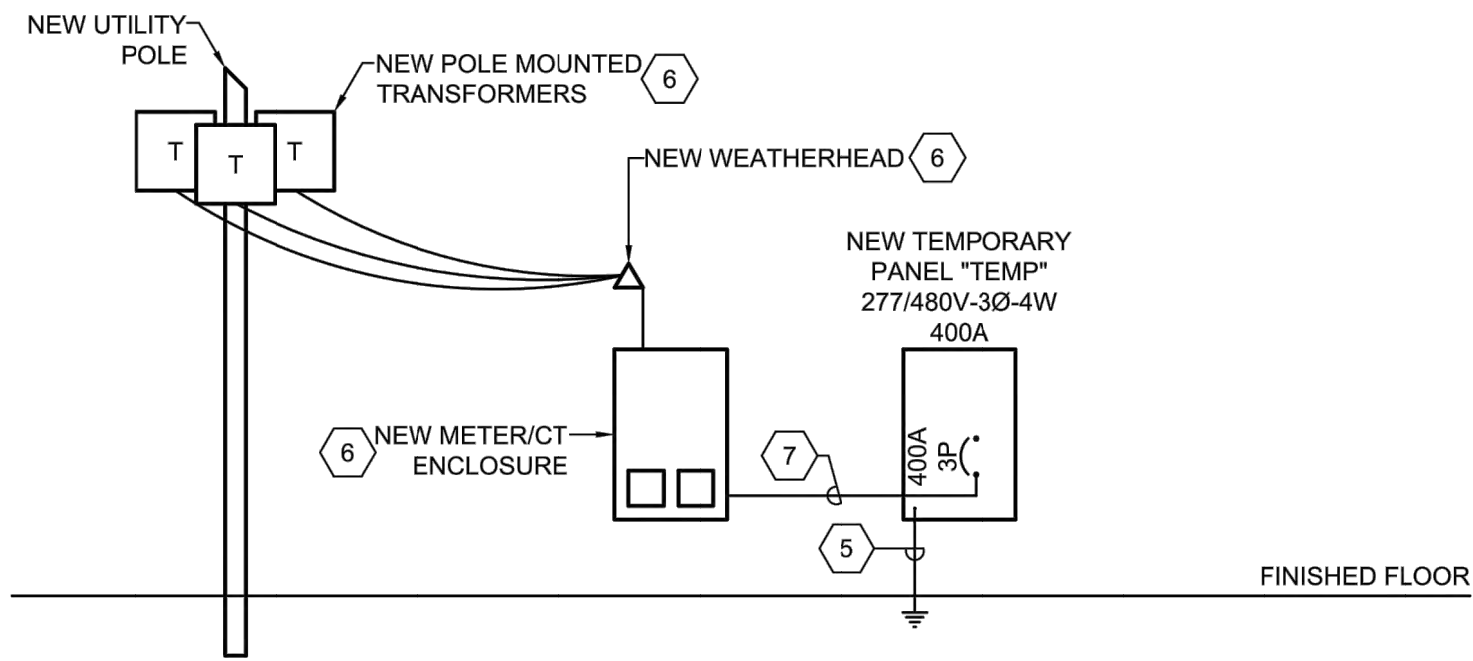
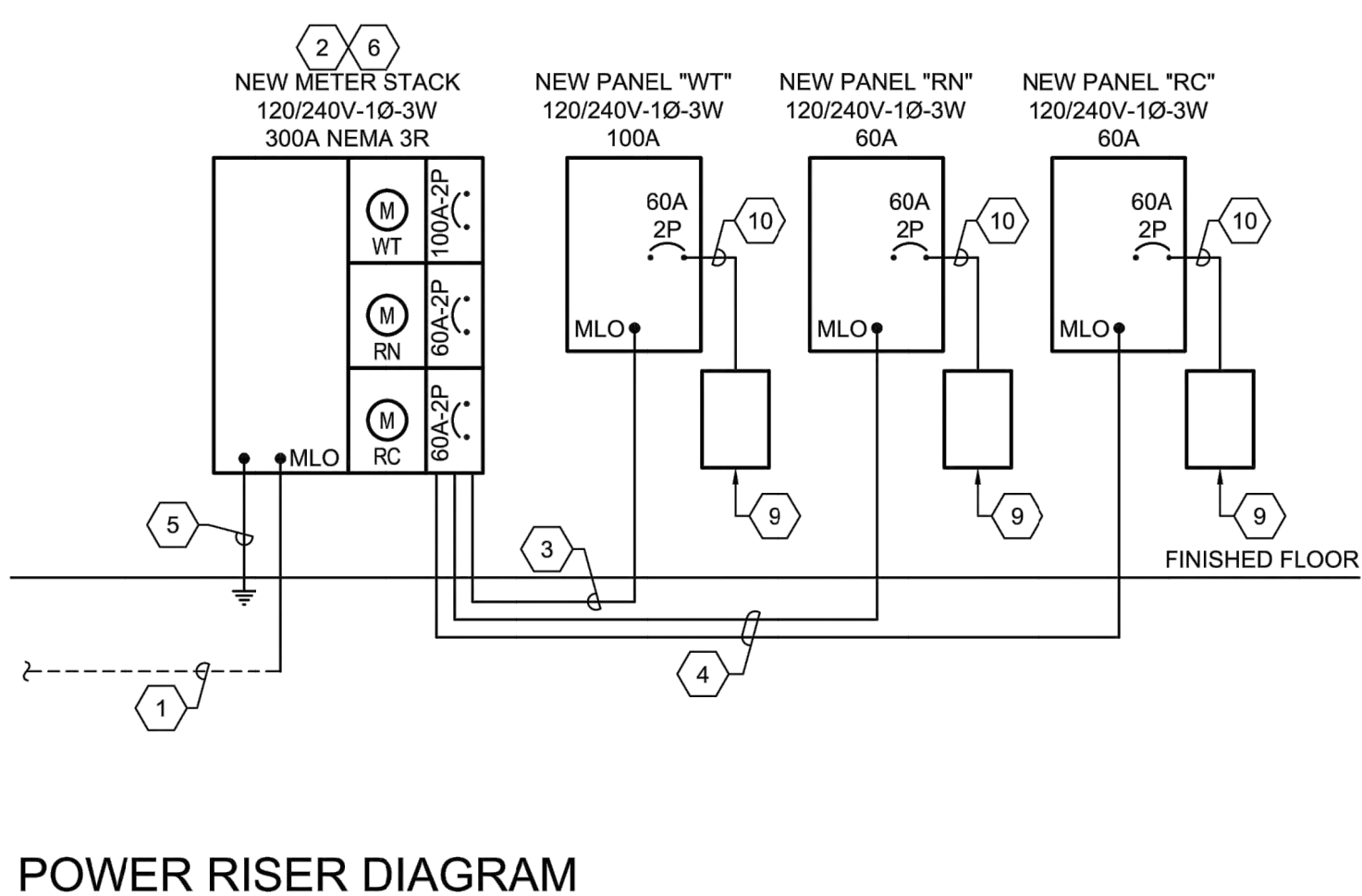
Attachment A

PANEL / LOAD SCHEDULE - NEW PANELBOARD "WT"												
LOCATION: Water Tower			VOLTAGE: 120/240V-1ø 3W			AMPACITY: 100 AMPERE			Main: MLO			
FED FROM: Utility Meter			ENCLOSURE: NEMA 3R			MOUNTING: SURFACE			AIC: 10,000			
BKR SIZE	DESCRIPTION	DEMAND CODE	LOAD (VA)	Ckt #	LOAD (VA)		Ckt #	LOAD (VA)	DEMAND CODE	DESCRIPTION	BKR SIZE	
					PHASE A	PHASE B						
20A-1P	HEAT TRACE	EQP	1500	1	2208		2	708	MECH	SUMP PUMP	20A-1P	
20A-1P	CLIMBING LIGHTS	LTG	120	3		1440	4	1320	LMECH	MIXER PUMP	20A-1P	
20A-1P	AVIATION LIGHT	LTG	1920	5	2920		6	1000	EX	EXISTING LOAD	20A-1P	
20A-1P	EXISTING LOAD	EX	1000	7		2000	8	1000	EX	EXISTING LOAD	20A-1P	
20A-1P	EXISTING LOAD	EX	1000	9	2000		10	1000	EX	EXISTING LOAD	20A-1P	
20A-1P	EXISTING LOAD	EX	1000	11		2000	12	1000	EX	EXISTING LOAD	20A-1P	
20A-1P	EXISTING LOAD	EX	1000	13	2000		14	1000	EX	EXISTING LOAD	20A-1P	
20A-1P	SPARE			15			16			SPARE	20A-1P	
20A-1P	SPARE			17			18			SPARE	20A-1P	
20A-1P	SPARE			19			20			SPARE	20A-1P	
20A-1P	SPARE			21			22			SPARE	20A-1P	
20A-1P	SPARE			23			24			SPARE	20A-1P	
20A-1P	SPARE			25			26			SPARE	20A-1P	
20A-1P	SPARE			27			28			SPARE	20A-1P	
20A-1P	SPARE			29			30			SPARE	20A-1P	
20A-1P	SPARE			31			32			SPARE	20A-1P	
20A-1P	SPARE			33			34			SPARE	20A-1P	
20A-1P	SPARE			35			36			SPARE	20A-1P	
20A-1P	SPARE			37			38					
20A-1P	SPARE			39			40			SURGE SUPPRESSION	60A-2P	

Total Phase Loads (VA): 9,128 5,440				Notes: 1. New Panelboard			
Total Phase Loads (Amps): 76.1 45.3				2. 40-Circuit, Lockable Enclosure			
Total Connected Loads (kVA): 14.6				3. Copper Neutral and Ground Bus Bars			
				4. Door-in-Door Enclosure.			

LOAD CALCULATIONS	Connected (kVA) by Type:		Estimated Demand (kVA) by Load Type:			
	EX	Existing	9.0	Existing at 125% (kVA):	11.3	Total Estimated Demand (kVA)
	LTG	Lighting:	2.0	Lighting at 125% (kVA):	2.6	Amps at 240/120V-1 Phase (Amps)
	REC	Receptacles:		Receptacles:		Panel Ampacity (Rating):
				10kVA at 100% (kVA):		
				Rest at 50% (kVA):	0.0	Spare Capacity:
	EQP	Equipment:	1.5	Eqp at 100% (kVA):	1.5	
	LMECH	Largest Mech:	1.3	Largest at 125% (kVA):	1.7	
	MECH	Mechanical:	0.7	Rest at 100% (kVA):	0.7	

PANEL / LOAD SCHEDULE - NEW PANELBOARD "RN"												
LOCATION: Water Tower			VOLTAGE: 120/240V-1ø, 3W			AMPACITY: 60 AMPERE			Main: MLO			
FED FROM: Utility Meter			ENCLOSURE: NEMA 3R			MOUNTING: SURFACE			AIC: 10,000			
BKR SIZE	DESCRIPTION	DEMAND CODE	LOAD (VA)	OKT #	LOAD (VA)		OKT #	LOAD (VA)	DEMAND CODE	DESCRIPTION	BKR SIZE	
					PHASE A	PHASE B						
20A-1P	REDNET EQUIPMENT	EQP	1920	1	2920		2	1000	EX	EXISTING LOAD	20A-1P	
20A-1P	EXISTING LOAD	EX	1000	3		2000	4	1000	EX	EXISTING LOAD	20A-1P	
20A-1P	EXISTING LOAD	EX	1000	5	2000		6	1000	EX	EXISTING LOAD	20A-1P	
20A-1P	SPARE			7			8			SPARE	20A-1P	
20A-1P	SPARE			9			10			SPARE	20A-1P	
20A-1P	SPARE			11			12			SPARE	20A-1P	
20A-1P	SPARE			13			14			SPARE	20A-1P	
20A-1P	SPARE			15			16			SPARE	20A-1P	
20A-1P	SPARE			17			18			SPARE	20A-1P	
20A-1P	SPARE			19			20			SPARE	20A-1P	
20A-1P	SPARE			21			22			SPARE	20A-1P	
20A-1P	SPARE			23			24			SPARE	20A-1P	
20A-1P	SPARE			25			26			SPARE	20A-1P	
20A-1P	SPARE			27			28					
20A-1P	SPARE			29			30			SURGE SUPPRESSION	60A-2P	
Total Phase Loads (VA):					4,920	2,000	Notes: 1. New Panelboard					
Total Phase Loads (Amps):					41.0	16.7	2. 30-Circuit, Lockable Enclosure					
Total Connected Loads (kVA):					6.9	3. Copper Neutral and Ground Bus Bars						
					4. Door-in-Door Enclosure.							
LOAD CALCULATIONS	Connected (kVA) by Type:			Estimated Demand (kVA) by Load Type:								
	EX	Existing	5.0	Existing at 125% (kVA):			6.3	Total Estimated Demand (kVA):			8.2	
	LTG	Lighting		Lighting at 125% (kVA):				Amps at 240/120V-1 Phase (Amps):			34.0	
	REC	Receptacles:		Receptacles:				Panel Ampacity (Rating):			60	
				10kVA at 100% (kVA):								
				Rest at 50% (kVA):			0.0	Spare Capacity:			43.3%	
	EQP	Equipment:	1.9	Eqp at 100% (kVA):			1.9					
	LMECH	Largest Mech:		Largest at 125% (kVA):								
	MECH	Mechanical:		Rest at 100% (kVA):								



- ### KEYED NOTES
- REUTILIZE EXISTING 2" RIGID METAL CONDUIT SECONDARY FROM UTILITY TRANSFORMER PREVIOUSLY FEEDING ELECTRICAL SERVICES TO WATER TOWER. PROVIDE AND INSTALL 3#4/0 THWN Cu. CONTRACTOR SHALL INTERCEPT EXISTING CONDUIT AND EXTEND TO UTILITY RACK TO METER STACK AT INTERCEPTION POINT.
 - PROVIDE AND INSTALL NEW METER STACK, 120/240V-1Ø-3W, 300 AMP, NEMA 3R ENCLOSURE. CONNECT NEW INCOMING 4/0 THWN Cu CONDUCTORS TO METER STACK.
 - 3#3 THWN Cu AND 1#8 THWN Cu GROUND IN 1 1/4" CONDUIT.
 - 3#4 THWN Cu AND 1#10 THWN Cu GROUND IN 1 1/4" CONDUIT.
 - REFER TO "GROUNDING SYSTEM DIAGRAM" ON SHEET E-5 FOR ADDITIONAL INFORMATION.
 - COORDINATE ALL REQUIREMENTS WITH UTILITY COMPANY PRIOR TO COMMENCEMENT OF WORK.
 - 4#500 KOMIL THWN Cu IN 3" CONDUIT OR (2) PARALLEL RUNS OF 4#250 KOMIL XHHW AI IN 2 1/2" CONDUIT.
 - PROVIDE AND INSTALL 20A-1P GFPE TYPE CIRCUIT BREAKER LISTED FOR USE IN NEW PANELBOARD FOR HEAT TAPE.
 - PROVIDE AND INSTALL NEW SURGE PROTECTION DEVICE. UL1449 4TH EDITION LISTED TYPE 1, INSTALLED EXTERNAL TO GEAR. SURGE CURRENT RATING TO BE A TESTED VALUE, 15 YEAR WARRANTY, TESTED WITH A PORTABLE SURGE GENERATOR-TEST SET. RECORD ALL LET-THRU VOLTAGES AND SUBMIT A REPORT TO TO ENGINEER. SURGE PROTECTION DEVICE TO BE TRANSGUARD #TG3-050-240-2G-MDT-M0-N OR ENGINEER APPROVED EQUAL.
 - 4#6 THWN Cu IN 3/4" CONDUIT.

LOAD SUMMARY METER STACK	
DESCRIPTION	
ESTIMATED DEMAND PER NEC 220	
EXISTING (14.0 KVA CONN) AT 125%	17.5 KVA
LIGHTING (2.0 KVA CONN) AT 125% (CONTINUOUS LOAD)	2.6 KVA
EQUIPMENT (5.3 KVA CONN) AT 100%	5.3 KVA
MECHANICAL UNITS (2.0 KVA CONN)	
LARGEST AT 125% (1.3 KVA)	1.7 KVA
REMAINING AT 100% (0.7 KVA)	0.7 KVA
TOTAL ESTIMATED LOAD:	
116 AMPERES AT 120/240V-1Ø-3W	
∴ MINIMUM RECOMMENDED SERVICE SIZE =	
300 AMPS	

PANEL / LOAD SCHEDULE - NEW PANELBOARD "RC"												
LOCATION: Water Tower			VOLTAGE: 120/240V-1ø, 3W			AMPACITY: 60 AMPERE			Main: MLO			
FED FROM: Utility Meter			ENCLOSURE: NEMA 3R			MOUNTING: SURFACE			AIC: 10,000			
BKR SIZE	DESCRIPTION	DEMAND CODE	LOAD (VA)	#	LOAD (VA)		#	LOAD (VA)	DEMAND CODE	DESCRIPTION	BKR SIZE	
				OK	PHASE A	PHASE B	OK					
20A-1P	HAM RADIO EQUIPMENT	EQP	1920	1	1920		2			SPARE	20A-1P	
20A-1P	SPARE			3			4			SPARE	20A-1P	
20A-1P	SPARE			5			6			SPARE	20A-1P	
20A-1P	SPARE			7			8			SPARE	20A-1P	
20A-1P	SPARE			9			10			SPARE	20A-1P	
20A-1P	SPARE			11			12			SPARE	20A-1P	
20A-1P	SPARE			13			14			SPARE	20A-1P	
20A-1P	SPARE			15			16			SPARE	20A-1P	
20A-1P	SPARE			17			18			SPARE	20A-1P	
20A-1P	SPARE			19			20			SPARE	20A-1P	
20A-1P	SPARE			21			22			SPARE	20A-1P	
20A-1P	SPARE			23			24			SPARE	20A-1P	
20A-1P	SPARE			25			26			SPARE	20A-1P	
20A-1P	SPARE			27			28					
20A-1P	SPARE			29			30			SURGE SUPPRESSION	60A-2P	
Total Phase Loads (VA):				1,920		Notes: 1. New Panelboard						
Total Phase Loads (Amps):				16.0		2. 30-Circuit, Lockable Enclosure						
Total Connected Loads (kVA):				1.9		3. Copper Neutral and Ground Bus Bars						
				4. Door-in-Door Enclosure.								
LOAD CALCULATIONS	Connected (kVA) by Type:			Estimated Demand (kVA) by Load Type:								
	EX	Existing		Existing at 125% (kVA)						Total Estimated Demand (kVA)		
	LTG	Lighting		Lighting at 125% (kVA)						Amps at 240/120V-1 Phase (Amps)		
	REC	Receptacles:		Receptacles:						Panel Ampacity (Rating):		
				10kVA at 100% (kVA)								
				Rest at 50% (kVA)			0.0			Spare Capacity		
	EQP	Equipment:	1.9	Eqp at 100% (kVA)			1.9					
	LMECH	Largest Mech:		Largest at 125% (kVA)								
	MECH	Mechanical:		Rest at 100% (kVA)								



GROUNDING SYSTEM GENERAL NOTES

THE GROUNDING ELECTRICAL SYSTEM SHALL CONSIST OF ITEMS **A** **B** **C** **D** **E** **F** AND **G**, WHERE APPLICABLE.

B. ITEMS **A **B** **C** **D** **E** AND **F** MUST BE BONDED TOGETHER AND TO THE GROUNDING ELECTRICAL SYSTEM WHEN THEY ARE PRESENT.**

C. ITEM **D, CONCRETE ENCASED ELECTRODE (UFER) SHALL HAVE UFER SUPPORT CONSISTING OF 5/8" x 10" COPPER GROUND ROD CUT INTO 2 SECTIONS AND DRIVEN FOR SUPPORT OF UFER CONDUCTOR. ONLY COPPER TO COPPER CONNECTIONS ARE ACCEPTABLE. DO NOT USE RE-BAR FOR UFER SUPPORT. (THIS IS TO AVOID THE HARMFUL EFFECTS OF DISSIMILAR METALS IN CONTACT.) A U.L. LISTED COPPER TO RE-BAR CLAMP (SUCH AS GRAVES' JONES BOND® SYSTEM) IS AN APPROVED ALTERNATIVE.**

D. THIS DETAIL IS PROVIDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, ARTICLE 250, PERTAINING TO THE "GROUNDING ELECTRICAL SYSTEM".

E. ALL SPLICING AND UNDERGROUND CONNECTIONS SHALL BE ACCOMPLISHED VIA EXOTHERMIC WELD (CAD-WELD) ONLY.

F. ALL CONDUCTOR SIZING INDICATED ON THE GROUNDING SCHEDULE ARE FOR COPPER CONDUCTORS. ALUMINUM IS NOT PERMITTED.

G. ANY VARIANCES FROM THIS DIAGRAM AND ASSOCIATED SCHEDULE AND NOTES MUST BE REQUESTED AND APPROVED IN WRITING PRIOR TO INSTALLATION.

H. ALL INSTALLATIONS SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF N.E.C. ARTICLE 250 (ALL SUBPARAGRAPHS) AND ALL STATE AND LOCAL REQUIREMENTS.

I. THE GROUNDING SYSTEM SHALL PROVIDE LESS THAN (4) FOUR OHMS RESISTANCE TO GROUND AT THE SERVICE CONNECTION. THE RESULTS SHALL BE VERIFIED BY AN INDEPENDENT TESTING AGENCY VIA GROUND TEST (FALL-OF-POTENTIAL) AND SUBMITTED TO ELECTRICAL ENGINEER UPON COMPLETION OF PROJECT.

J. IF A 20'-0" LONG (MINIMUM) CONCRETE ENCASED ELECTRODE IS NOT AVAILABLE, CONTRACTOR MAY INSTALL A 20'-0" (MINIMUM) UFER GROUND 30" BELOW GRADE WITH AT LEAST TWO GROUND RODS (ONE AT EACH END).

K. PROVIDE SECOND GROUND ROD AT LEAST 6'-0" FROM INITIAL GROUND ROD.

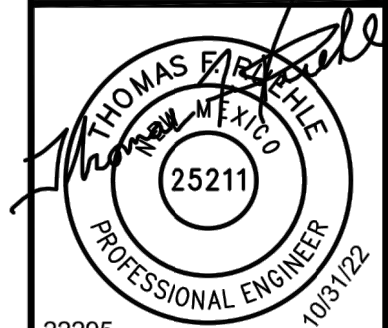
L. WHEN INDICATED ON DRAWINGS, PROVIDE AND INSTALL HORIZONTAL CHEMICAL GROUND ELECTRODE KIT. 10' COPPER ELECTRODE LENGTH, FACTORY ATTACHED #6 #40 COPPER PITGAIL, AND HIGH DENSITY POLYETHYLENE INSPECTION WELL & COVER, ERICO #1010000000 APPROVED ONLY. CONTRACTOR SHALL USE MANUFACTURER RECOMMENDED ELECTROLYTIC SALTS, BENTONITE CLAY BACKFILL MATERIAL, AND GROUND ENHANCEMENT MATERIAL (GEM). CONTRACTOR SHALL INSTALL PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL MAINTAIN 6'-0" SEPARATION (MINIMUM) BETWEEN GROUNDING ELECTRODES. INSPECTION WELL INSTALLED FLUSH WITH FINAL GRADE.

M. PROVIDE AND INSTALL 1/4" X 4" X 18" COPPER MAIN GROUNDING BUS WITH BRACKETS AND INSULATORS. CONTRACTOR SHALL COORDINATE PRE-DRILLED (12)-1/4" HOLES REQUIREMENTS WITH PNM (OWNER). ERICO OR APPROVED EQL. EXTEND 1/4#0 CU GROUNDING CONDUCTOR TO MAIN GROUND. COORDINATE EXACT LOCATION AND ROUTING IN THE FIELD. CONTRACTOR SHALL MAKE ALL FINAL TERMINATIONS AS REQUIRED.



LEVEL SENSOR MOUNTING DETAIL

—SHALL BE SIZED TO ACCOMMODATE ALL
GROUND WIRE LUGS AS INDICATED ON
GROUNDING DIAGRAM AND/OR REFERENCED
ELSEWHERE ON PLANS OR SPECIFICATIONS



22295

THIS DRAWING IS INCOMPLETE
AND NOT TO BE USED FOR
CONSTRUCTION UNLESS IT IS
STAMPED, SIGNED AND DATED

Designed RHP	Drawn RHP	Checked TFR
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Date: November 2022
Scale: Horiz: Vert:

Project No: 6231354

Sheet:

E-5