

ADDENDUM NUMBER TWO

FOR THE

SOLID WASTE SCALE AND FEE BOOTH RELOCATION

DATE OF ADDENDUM: April 12, 2024

TO ALL BIDDERS BIDDING ON THE ABOVE PROJECT:

The following addendum shall be made part of the Project Specifications and Contract Documents. All other provisions of the Contract Documents remain unchanged. The Bidder shall acknowledge receipt of this Addendum page 12 of the Bid Proposal form, in addition to signing below and returning this form with the bid package. The contents of this Addendum shall be given full consideration in the preparation of the Bid.

Questions and Answers to Date:

Emailed Question: What type of landscaping is required in the area around the booth structure?

Response: The entire area around the fee booth has been updated to be 4” concrete. Sheet 14 of the plan set has been revised to depict this change.

Emailed Question: The Booth structure does not show gutters on it, is this correct?

Response: The fee booth should include gutters and a down spout. This addendum includes an exhibit depicting the updates to include the gutters and down spout.

Emailed Question: Can Inert debris from the project be hauled to the solid waste facility free of charge?

Response: It is permissible that clean inert debris from the project be hauled to the solid waste facility free of charge. It is required that the material be delivered and pushed up by the contractor in coordination with the Solid Waste Team.

Emailed Question: Would it be acceptable to list the Streets site as a staging yard for the solid waste project that bids Thursday?

Response: That is acceptable.

Emailed Question: How are the outside lights controlled?

Response: Photocell on each light. The model shall include “PIR” for a motion/ambient sensor.

Emailed Question: What is the symbol (open triangle) on the power plans?

Response: This is a data outlet as shown in the legend on sheet 23.

Emailed Question: What do we need to do for the cameras? Conduit? Run where?

Response: Conduit back to where the communication rack will be in the building.

Emailed Question: Where is the existing service?

Response: The meter main service is on the administration building feeding the panel we are pulling power from in the large warehouse building.

Emailed Question: Where is the existing distribution panel?

Response: In the electrical room in the warehouse building.

Emailed Question: Where is the existing conduit run from the dist. panel?

Response: Between the existing pull box indicated on the plans and the panel.

Emailed Question: Need location and quantity of the pole lights. Need a site plan.

Response: The pole lights are shown on sheet 25 of the plan set. Plans and Bid Form call for 3 pole lights.

Emailed Question: There are security cameras shown on detail 2 sheet 32. Are these cameras a part of the bid or owner provided?

Response: The cameras are part of the bid.

Plan Revisions

The following changes have been made to the plans. An updated plan set has been attached to this Addendum 1, this plan set supersedes and replaces the previous set issued for this project.

Sheet 14 – Updated concrete limits within the Fee Booth Island.

Sheet 25 – Added conduit and pull boxes for communications lines from administration building to the fee booth.

Sheet 28 – Updated conduit and conductor table.

Sheet 29 – Added detail conduit thru wall detail.

Special Provisions Revisions

Remove and Replace Special Provisions with those attached to this Addendum 1, which supersedes and replaces previous Special Provisions issued for this project.

- **Added Pay Item 340.9 – 4” Concrete, Quad City Std. Dtl. 230Q**
- **Added Pay Item 406.16 SP – 48 Strand SMFO**
- **Added Pay Item 406.17 SP – CAT 6**
- **Added Pay Item 406.18 SP – 3” Schedule-40 PVC Conduit**

Bid Schedule Revisions

Remove and Replace Bid Schedule with the attached to this Addendum 1, which supersedes and replaces previous Bid Schedule issued for this project. Below is a summary of the changes.

- **Added Bid Item 340.9 – 4” Concrete, Quad City Std. Dtl. 230Q**
- **Updated Bid Item 406.1 SP – Quantity 3 EA to 5 EA**
- **Added Bid Item 406.16 SP – 48 Strand SMFO**
- **Added Bid Item 406.17 SP – CAT 6**
- **Added Bid Item 406.18 SP – 3” Scheule-40 PVC Conduit**

- END -

City of Prescott Public Works Department

Gwen
Rowitsch

Digitally signed by Gwen
Rowitsch
Date: 2024.04.12
10:00:44 -07'00'

Gwen Rowitsch, Public Works Director

Date

Acknowledgement: (must be signed and turned in with the bid documents)

Company Name

Signature of Company Official

Date

Number	ASI 01
Date Issued	04.05.24
MOR Studio Project Number	2214
Project	Prescott Solid Waste Fee Booth
ASI Created By	Lisa Blanchard

TO CONTRACTOR:

The Work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents. Proceeding with the Work in accordance with these instructions indicates your acknowledgement that there will be no change in the Contract Sum or Contract Time unless Owner is notified and agrees otherwise.

Gutters and downspout have been added per Owners' request. Gutters shall be integral with the standing seam roof system. Downspout location as show in attached drawing, ASK 01. The contractor shall provide shop drawings for the proposed gutter and roof system for Architect approval.

ATTACHMENT DESCRIPTION:

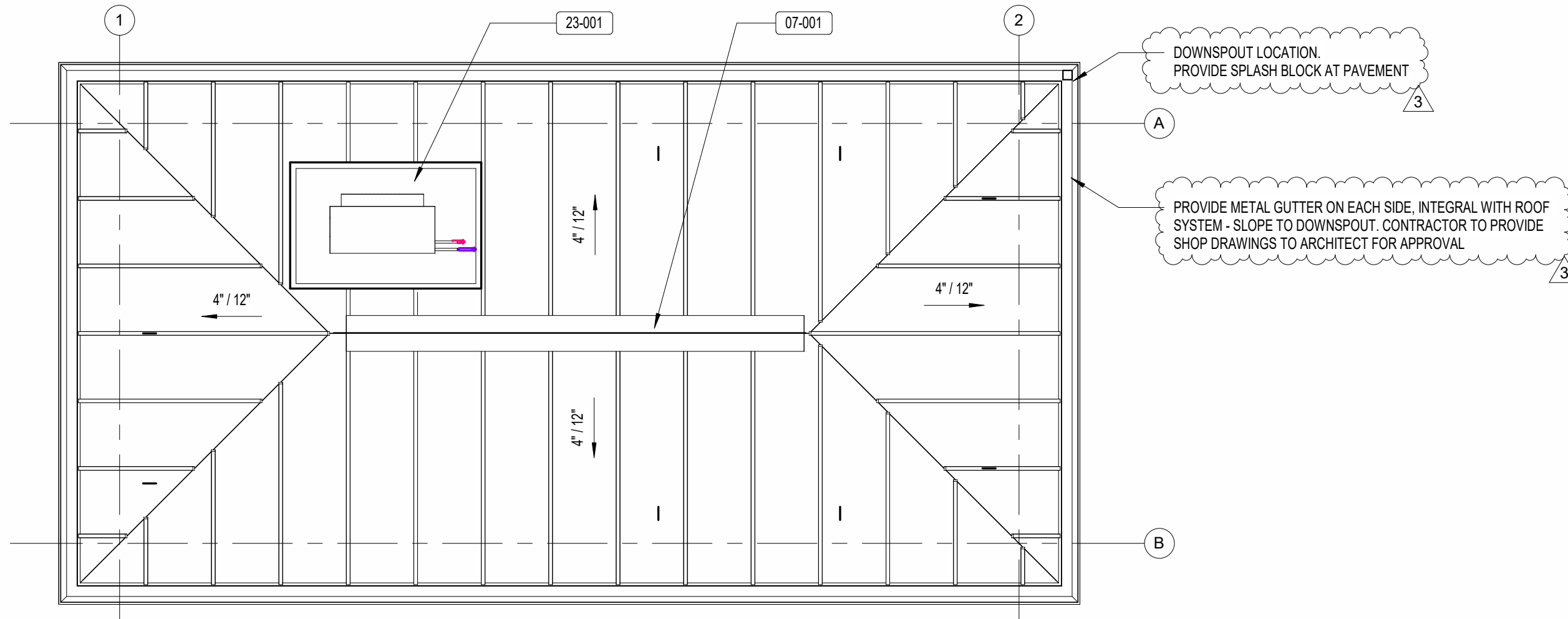
ASK 01 Addition of Gutters & Downspout

SIGNATURE: _____

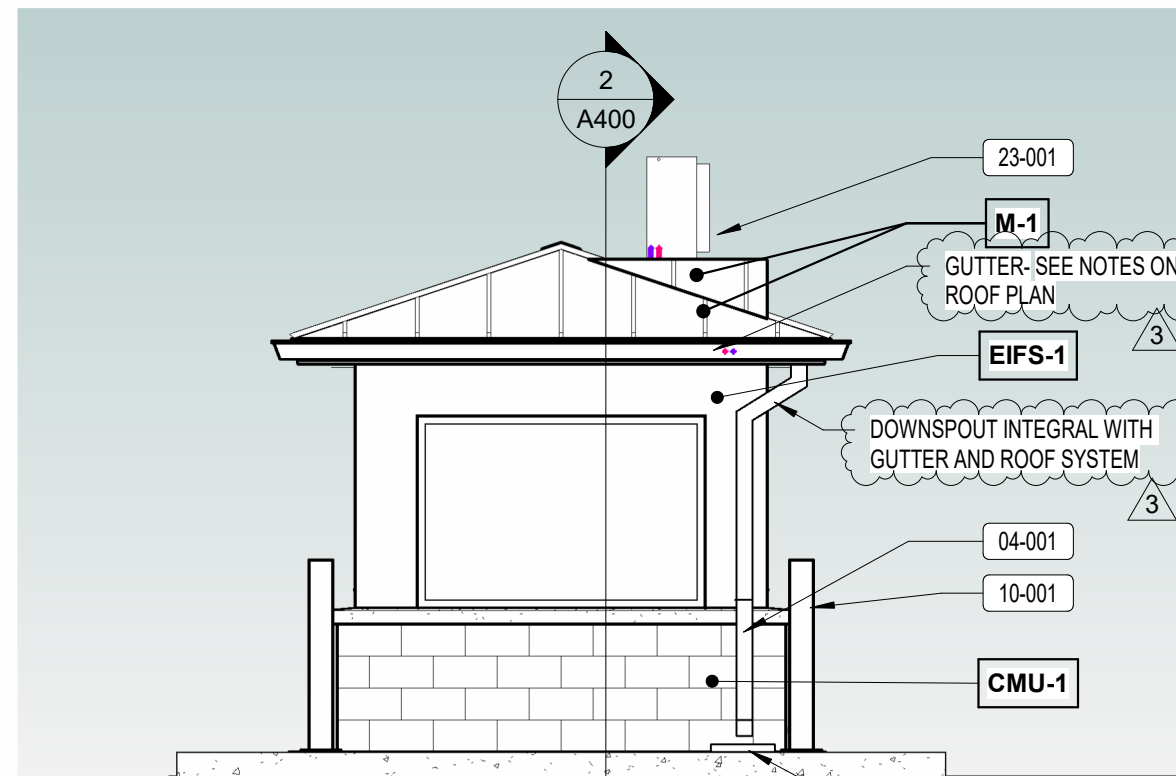


Michelle Rutkowski, AIA / Owner MOR Studio

DATE: 04/05/24

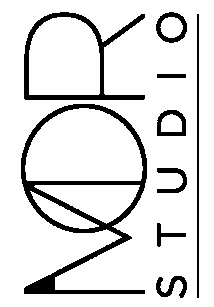


1 ROOF PLAN - ASK 01
3/8" = 1'-0"



2 NORTH ELEVATION
1/4" = 1'-0"

www.morstudio.net
15169 N. Scottsdale Rd. Ste. 205
Scottsdale, AZ 85254
Contact: Michelle Rutkowski, RA
602.617.3552
michelle@morstudio.net



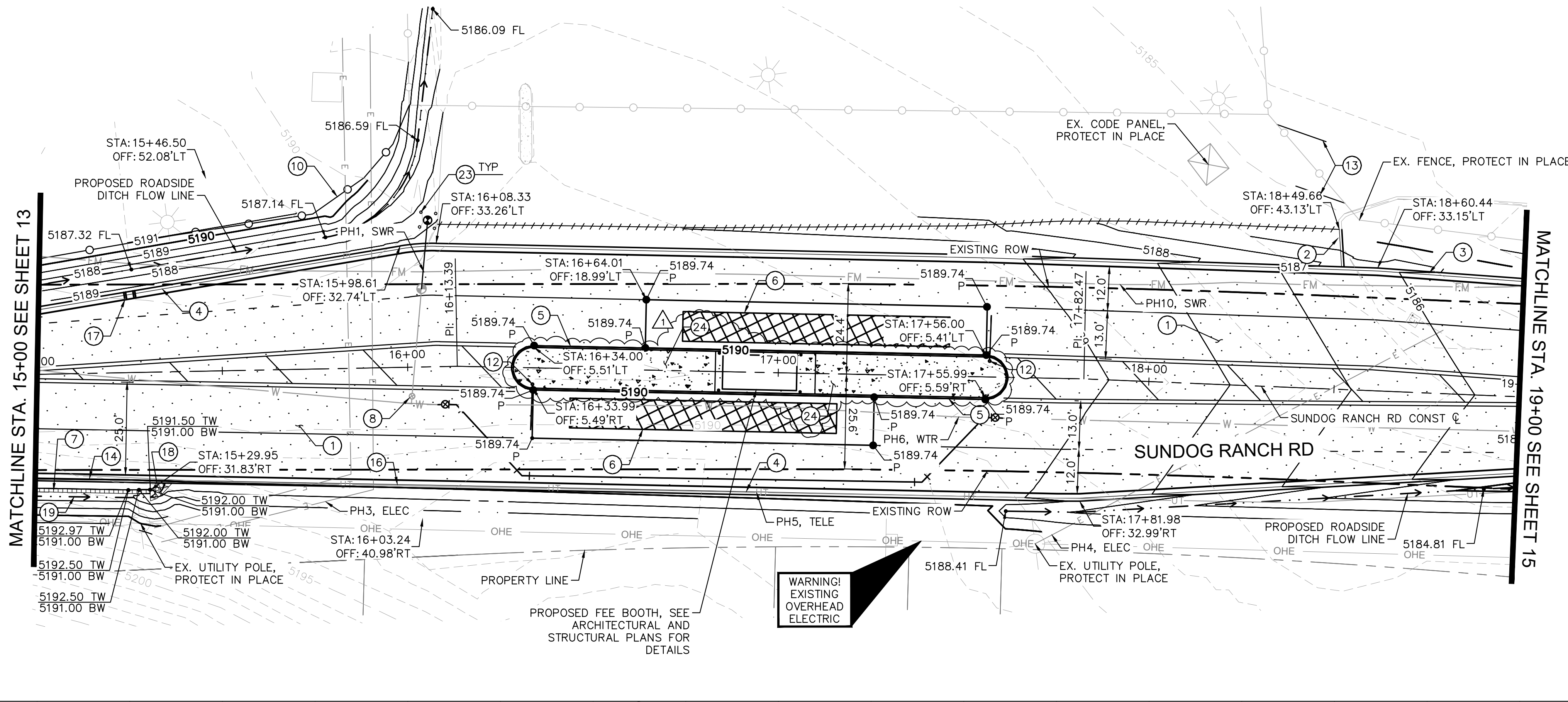
PRESKOTT SOLID WASTE FEE BOOTH



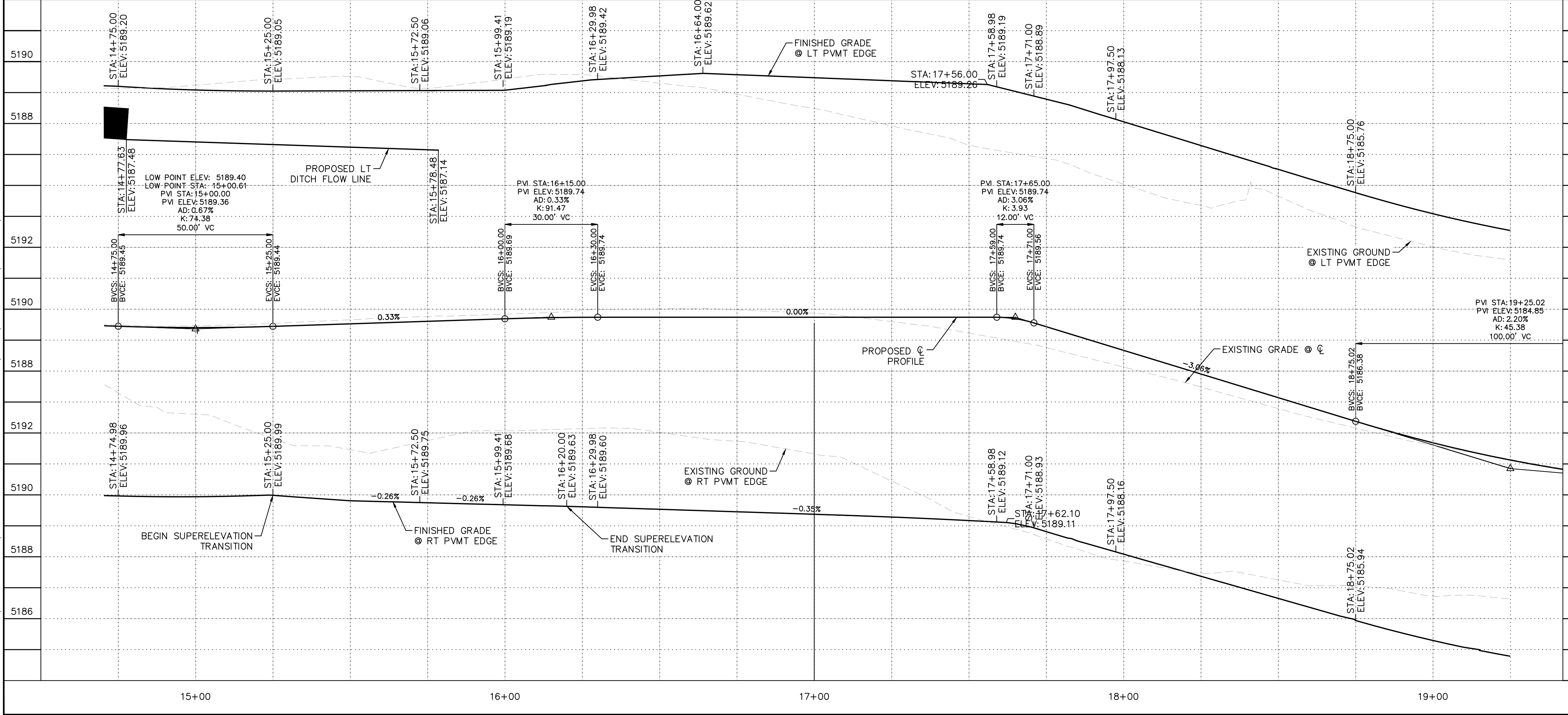
EXPIRES: 03-31-26

PROJECT NUMBER
2214

Addition of
Gutters &
Downspout
ASK 01

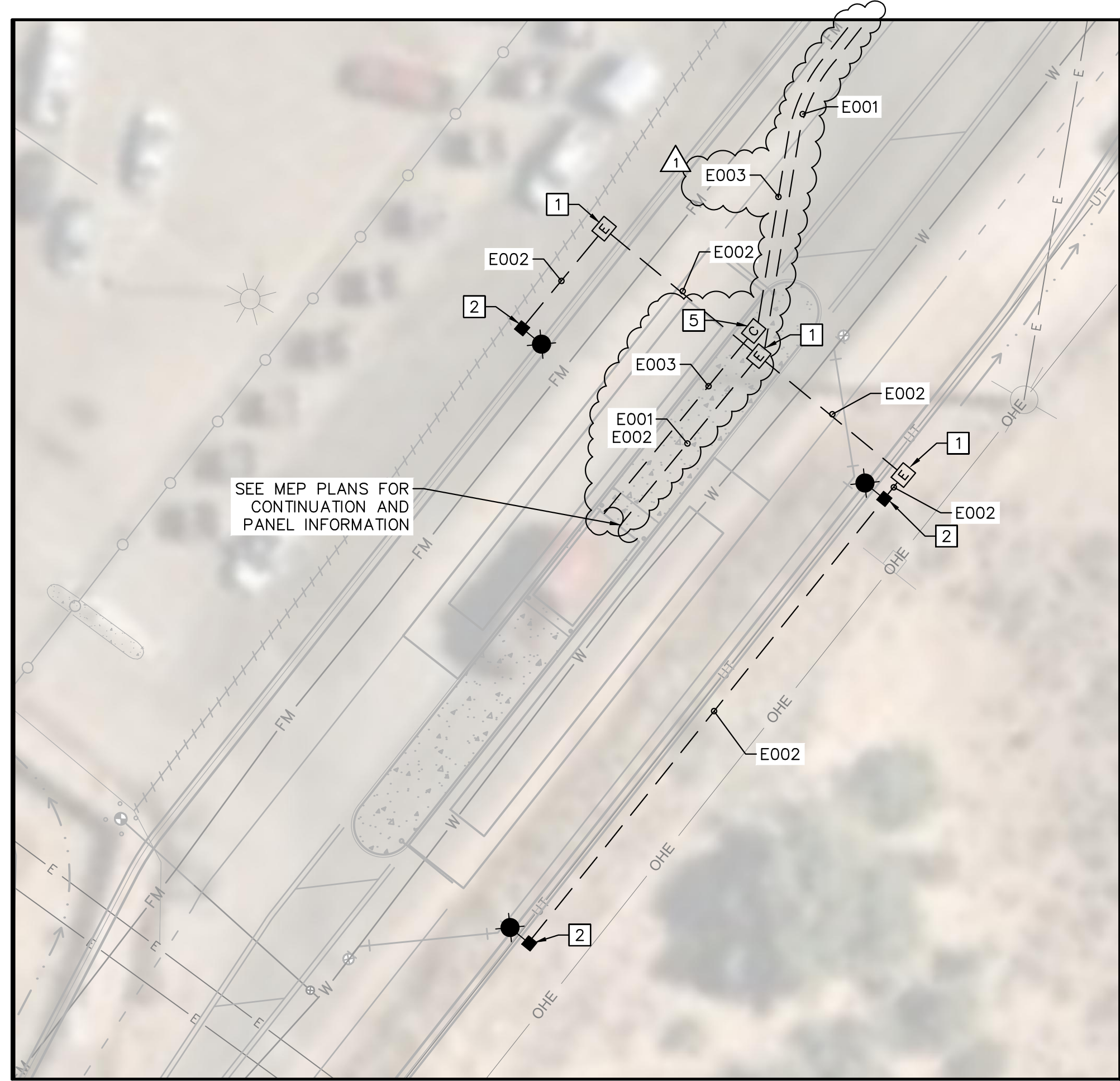


CONSTRUCTION NOTES	
NO	DESCRIPTION
1	5" ASPHALT PAVEMENT ON 8" AGGREGATE BASE COURSE PER STRUCTURAL SECTION ON SHEET 06.
2	CURB TRANSITION PER MAG STD. DTL. 221Q.
3	6" VERTICAL CURB AND GUTTER PER QUAD CITY STD. DTL. 220Q-1.
4	ROLL CURB AND GUTTER 'TYPE C' PER QUAD CITY STD. DTL. 220Q-1.
5	6" SINGLE CURB 'TYPE A' PER MAG STD. DTL. 222.
6	CONSTRUCT NEW WEIGH SCALES SEE STRUCTURAL PLANS FOR DETAILS.
7	CONSTRUCT VERSA-LOK BLOCK RETAINING WALL OR APPROVED EQUAL PER MANUFACTURER'S RECOMMENDATIONS. SEE PLAN SHEETS FOR WALL HEIGHTS.
8	ADJUST WATER VALVE BOX AND COVER PER QUAD CITY STD. DTL. 391Q.
10	RESET EXISTING CHAIN LINK FENCE. SET NEW POSTS AND FOUNDATIONS PER MAG STD. DTL. 160.
12	INSTALL 12'-FT WIDE SAVE-TY YELLOW ROTATING DRIVEWAY GATE OR APPROVED EQUAL PER DETAIL ON SHEET 4. YELLOW IN COLOR WITH REFLECTIVE TAPE.
13	REPLACE EXISTING SLIDING GATE WITH 24' DOUBLE SWING GATE PER MAG STD. DTL. 160. EACH GATE SHALL INCLUDE AN AUTOMATIC OPENER/CLOSER.
14	ROLL CURB AND GUTTER 'TYPE D' PER QUAD CITY STD. DTL. 220Q-1.
16	INSTALL TRANSITION FROM ROLL CURB AND GUTTER 'TYPE C' TO 'TYPE D'.
17	INSTALL CURB OPENING PER MAG STD. DTL. 226-1.
18	RIPRAP, D/50=6", DEPTH=12"
19	INSTALL TOP OF WALL SWALE PER DETAIL ON SHEET 4.
23	INSTALL FIRE HYDRANT PROTECTION POLE PER COP STD. DTL. 364P.
24	INSTALL 4" CONCRETE PER QUAD CITY STD. DTL. 230Q.

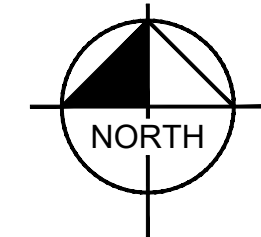
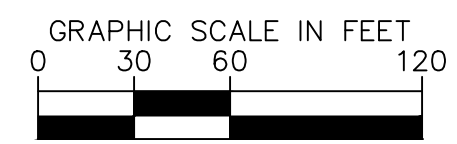
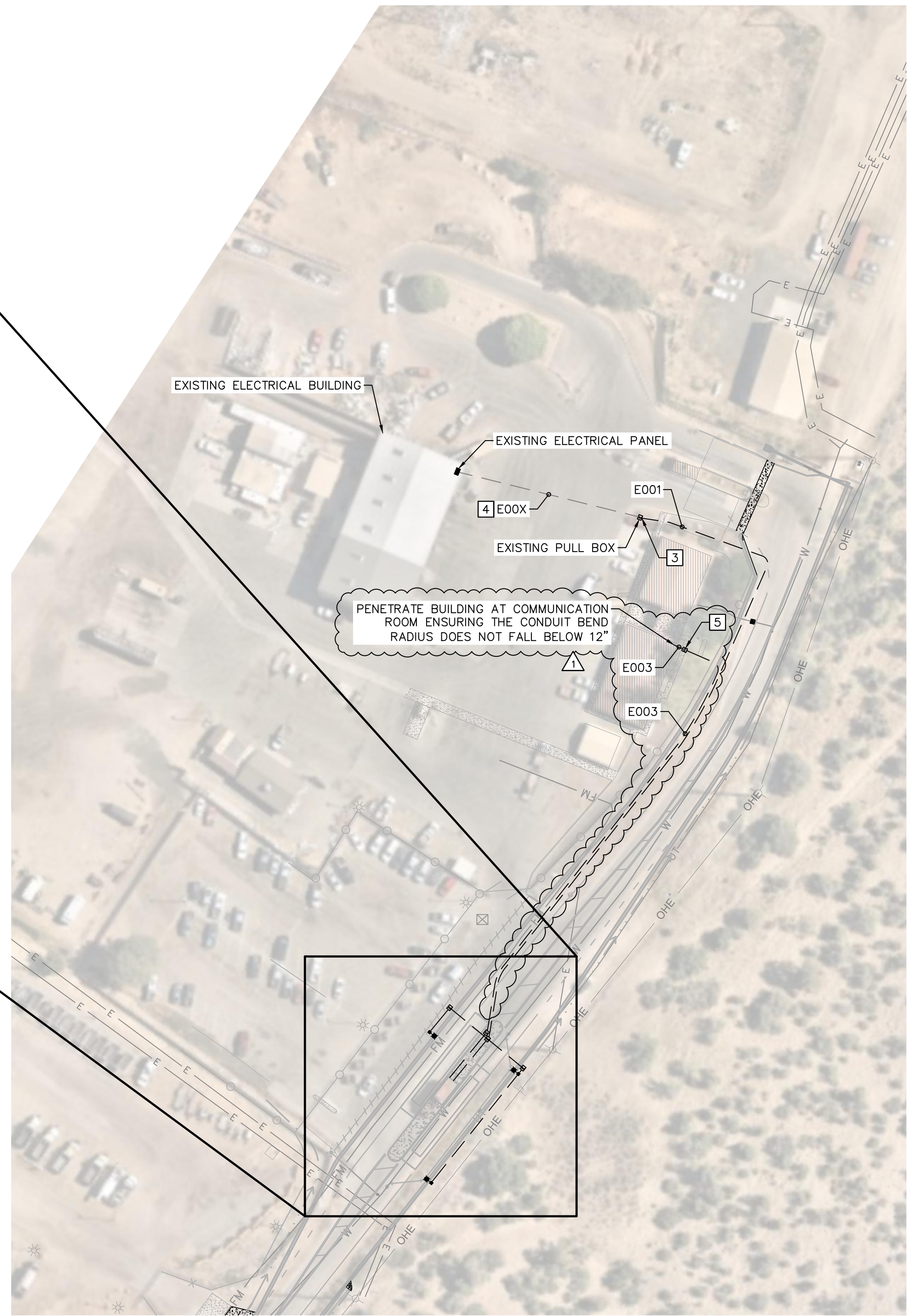
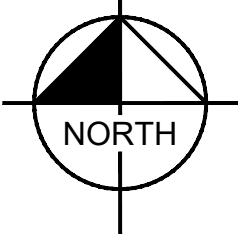
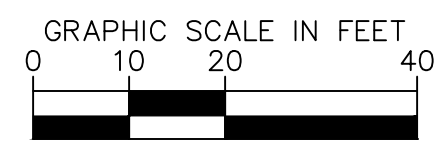


CITY OF PRESCOTT PUBLIC WORKS
SOLID WASTE SCALE AND FEE BOOTH RELOCATION ROADWAY PLAN
 DWG. NO. RD03
 DATE 04/05/2024
 SHEET NO. 14 OF 52
 PREPARED BY: DLP
 CHECKED BY: JRW
 FOR: COP

Kimley-Horn & Associates, Inc.
 2024 KIMLEY-HORN & ASSOCIATES, INC. 303 101 W. GOODWIN ST., SUITE 303 PHOENIX, AZ 85003
 WWW.KIMLEY-HORN.COM
 REVISIONS: _____
 APPROV. DATE: _____ CITY: _____
 REVIEW: _____
 CIP #: 2208-002



ENLARGEMENT



CONSTRUCTION NOTES

- 1 INSTALL PULL BOX PER DETAIL E ON SHEET 29.
- 2 INSTALL STREET LIGHT POLE WITH D-SERIES SIZE 1 LED AREA LUMINAIRE MODEL NO.: DSX1 LED P1 30K 70CRI T3M MVOLT SPA. SEE DETAIL H ON SHEET 29 AND DETAIL J ON SHEET 30 FOR MORE INFORMATION.
- 3 TIE PROPOSED CONDUIT INTO EXISTING PULL BOX.
- 4 CONTRACTOR TO REMOVE EXISTING FEE BOOTH FACILITY CONDUCTORS AND REPLACE WITH PROPOSED FEE BOOTH FACILITY CONDUCTORS. COORDINATE WITH OWNER PRIOR TO DISCONNECTING EXISTING FACILITY.
- 5 INSTALL PULL BOX PER DETAIL E ON SHEET 29. MODIFIED WITH A COMMUNICATION COVER.

<p style="font-size: small;">CITY OF PRESCOTT Everybody's Home town</p>	<p style="font-size: x-small;">PREPARED BY: DLP CHECKED BY: JRW FOR: COP</p>	<p style="font-size: x-small;">Registered Professional Engineer MICHAEL A. COLOMBO 50368 Date Signed 04/05/24 ARIZONA USA Exp. Date 12/31/24</p>	<p style="font-size: x-small;">© 2024 KIMLEY-HORN & ASSOCIATES, INC. SUITE 303 101 W. GOODWIN ST., PHOENIX, AZ 85003 PHONE: 602-498-9700 WWW.KIMLEY-HORN.COM</p>	<p style="font-size: x-small;">APPRV. DATE CITY</p>	<p style="font-size: x-small;">REVISIONS</p>	<p style="font-size: x-small;">NO. BY DATE ENGINEER</p>
CITY OF PRESCOTT PUBLIC WORKS SOLID WASTE SCALE AND FEE BOOTH RELOCATION ELECTRICAL PLAN						
DWG. NO. ELO2 DATE 04/05/2024 SHEET NO. 25 OF 52						

NEW PANEL											
PANEL NAME: L1											
LOCATION: Fee Booth			VOLTS: 120/240V			AIC RATING: 10K Fully Rated					
SUPPLY FROM: UTILITY XFMR			PHASES: 1			MAINS TYPE: MCB					
MOUNTING: FLUSH			WIRES: 3			MCCB RATING: 100 A					
ENCLOSURE: NEMA 1						MCB RATING: 100 A					
CKT	CIRCUIT DESCRIPTION	LOAD TYPE	TRIP	POLES	A (VA)	B (VA)	POLES	TRIP	LOAD TYPE	CIRCUIT DESCRIPTION	CKT
1	REC - DATA CABINET	R	20	1	1,500	2,400		25	H	CU-1 & IU-1	2
3	REC - CONV. & EXT	R	20	1		540	2,400		H		4
5	REC - CONV.	R	20	1	360	76			L	LTG - POLES	6
7	REC - WORKSTATION	R	20	1		180	76		L		8
9	REC - WORKSTATION	R	20	1	180	1,440		2	E	WEIGHT DETECTION SYSTEM	10
11	AUTO WINDOW OPEN	E	20	1		360	1,440		E		12
13	AUTO WINDOW OPEN	E	20	1	360	1,440		2	E	WEIGHT DETECTION SYSTEM	14
15	REC - WINDOW	R	20	1		180	1,440		E		16
17	REC - WINDOW	R	20	1	180	73		1	L	LTG - INTERIOR	18
19	REC - WINDOW	R	20	1		180	72	1	L	LTG - EXTERIOR	20
21	REC - WINDOW	R	20	1	180	180		1	R	REC - ROOF CONV.	22
23	SPACE									SPACE	24
TOTAL LOAD:					8,369 VA	6,868 VA					
TOTAL AMPS:					69.7 A	57.2 A					
LOAD CLASSIFICATION				CONNECTED LOAD (VA)	DEMAND FACTOR	EST. DEMAND (VA)	PANEL TOTALS				
LARGEST MOTOR LOAD (M)				0.0	125.00%	0.0	TOTAL CONN. LOAD (VA): 15237				
HVAC (H) & ALL OTHER MOTORS (M)				4800.0	100.00%	4800.0	TOTAL EST. DEMAND (VA): 15311.25				
RECEPTACLE (R)				3660.0	100.00%	3660.0	TOTAL CONN. (A): 63.5				
LIGHTING (L)				297.0	125.00%	371.3	TOTAL EST. DEMAND (A): 63.8				
EQUIPMENT (E)				6480.0	100.00%	6480.0	PERCENT LOADED: 64%				
OTHER (O) (SEE NOTES)				0.0	0.00%	0.0					

A PANEL SCHEDULE
SCALE: N.T.S.

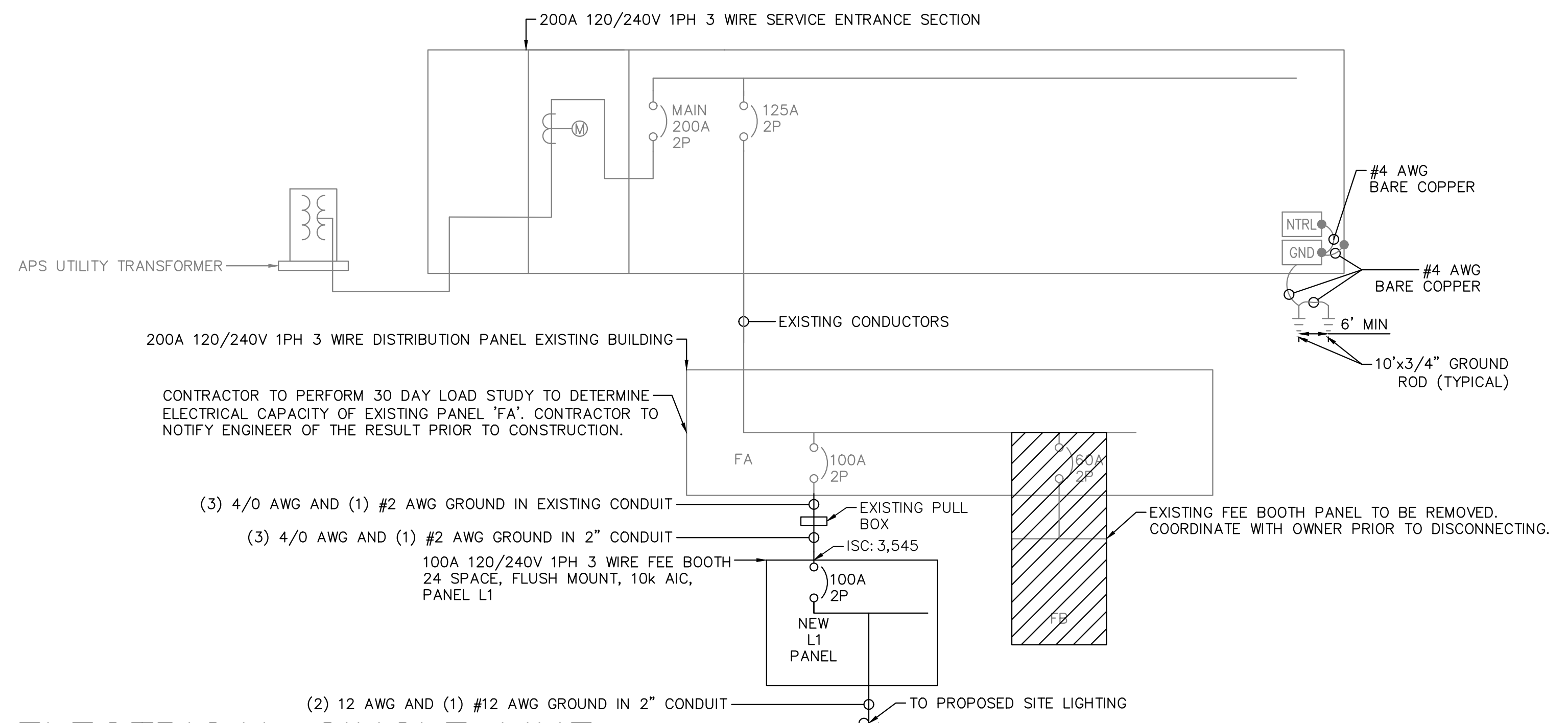
Point	Point Name	Source* Point	Source Amps	Conduit Type	Conductor Type	Wire Size/Quantity	Load (A)	Distance	Voltage	Phase	*** Vdrop	Point
1	120 / 240 1 ph 25	12175	12,175									1
2	PB 1 - (INITIAL)	1	12,175	NM	Copper	1 Set of 12	0.84	200	240	1	0.24%	2
3	PB 2 - (ISLAND)	2	698	NM	Copper	1 Set of 12	0.84	375	240	1	0.68%	3
4	PB 3 - (TOP)	3	252	NM	Copper	1 Set of 12	0.63	50	240	1	0.73%	4
5	Light 1 - 51W	4	232	NM	Copper	1 Set of 12	0.21	30	240	1	0.74%	5
6	PB 4 - (BOTTOM)	3	252	NM	Copper	1 Set of 12	0.42	40	240	1	0.71%	6
7	Light 2 - 51W	6	236	NM	Copper	1 Set of 12	0.21	10	240	1	0.71%	7
8	Light 3 - 51W	6	236	NM	Copper	1 Set of 12	0.21	120	240	1	0.74%	8
9	Light 3 (Top of 25ft Pole)	8	198	NM	Copper	1 Set of 12	0.21	25	240	1	0.75%	9

Point	Point Name	Source* Point	Source Amps	Conduit Type	Conductor Type	Wire Size/Quantity	Load (A)	Distance	Voltage	Phase	"C" Value	"f" Value	"M" Value	Isc	*** Vdrop	Point
1	120 / 240 1 ph 25	12175	12,175											12,175		1
2	PB 1 - (INITIAL)	1	12,175	NM	Copper	1 Set of 4/0	60	150	240	1	16673	0.456389	0.68663	8,360	0.56%	2
3	PB 2 - (ISLAND)	2	8,360	NM	Copper	1 Set of 3/0	60	495	240	1	13923	1.238376	0.446752	3,735	2.73%	3
4	Panel	3	3,735	NM	Copper	1 Set of 3/0	60	48	240	1	13923	0.053648	0.949083	3,545	2.94%	4

B VOLTAGE DROP TABLES
SCALE: N.T.S.

FEE BOOTH AND SCALE ELECTRICAL CONDUIT AND CONDUCTOR SCHEDULE					
CONDUIT				CONDUCTORS/CABLES	REMARKS
PATH NO.	SIZE	STATUS	QTY		
E00X	EX	EX	1	(3) #4/0 AWG CONDUCTORS AND (1) #2 GROUND	Existing Electrical Conduit
E001	2"	NEW	1	(3) #4/0 AWG CONDUCTORS AND (1) #2 GROUND	Panel L1
E002	2"	NEW	1	(2) #12 AWG CONDUCTORS AND (1) #12 GROUND	Light Poles
E003	3"	NEW	1	(1) 48 STRAND SMFO AND (2) CAT 6	Communication

C CONDUIT AND CONDUCTOR SCHEDULE
SCALE: N.T.S.



D ELECTRICAL SINGLE LINE
SCALE: N.T.S.

CITY OF PRESCOTT PUBLIC WORKS

SOLID WASTE SCALE AND FEE BOOTH RELOCATION ELECTRICAL SCHEDULES

DWG. NO. ELO3

DATE 04/05/2024

SHEET NO. 28

OF 52

CITY OF PRESCOTT
Everybody's HomeTown

PREPARED BY: DLP

CHECKED BY: JRW

FOR: COP

Exp. Date 12/31/24

Kimley-Horn & Associates, Inc.
2024 KIMLEY-HORN & ASSOCIATES, INC. SUITE 303
101 W. GOODWIN ST., SUITE 303
PHOENIX, AZ 85003
PHONE: 602-498-9700
WWW.KIMLEY-HORN.COM

REVISIONS

APPR/ DATE CITY

ENGINEER

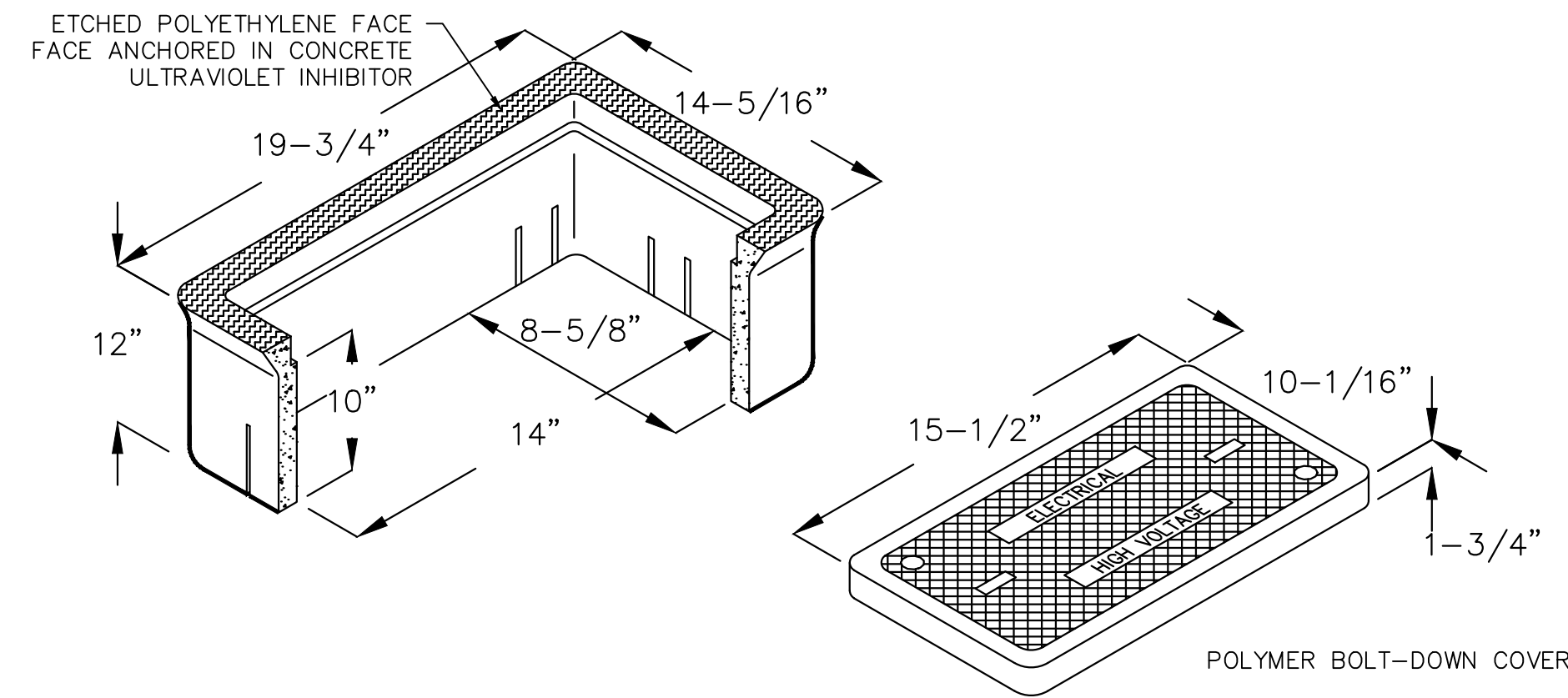
NO. BY DATE

CIP #: 2208-002

REVIEW:

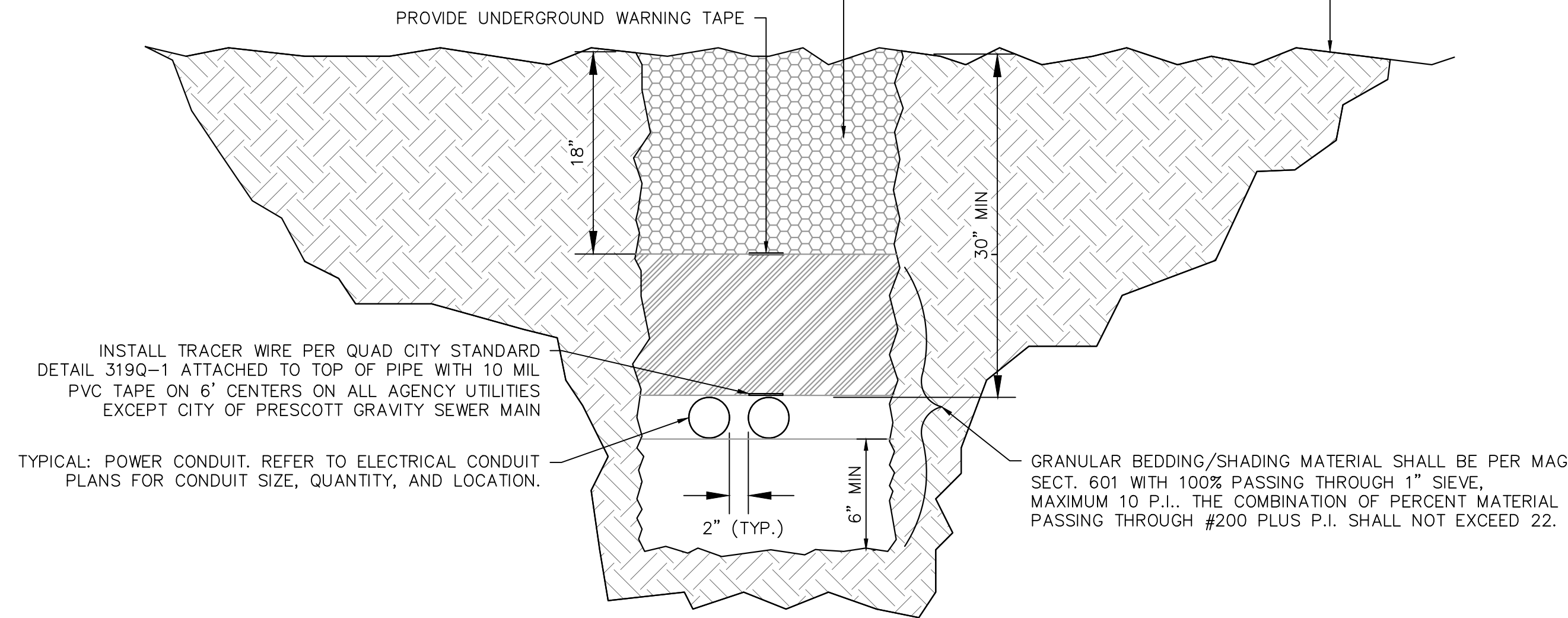


FILE NAME&PATH: K:\PRS_ROADWAY\091345040-FEE BOOTH AND SCALE\CADD\07-SHEETS\LIGHTING\ELO2.DWG

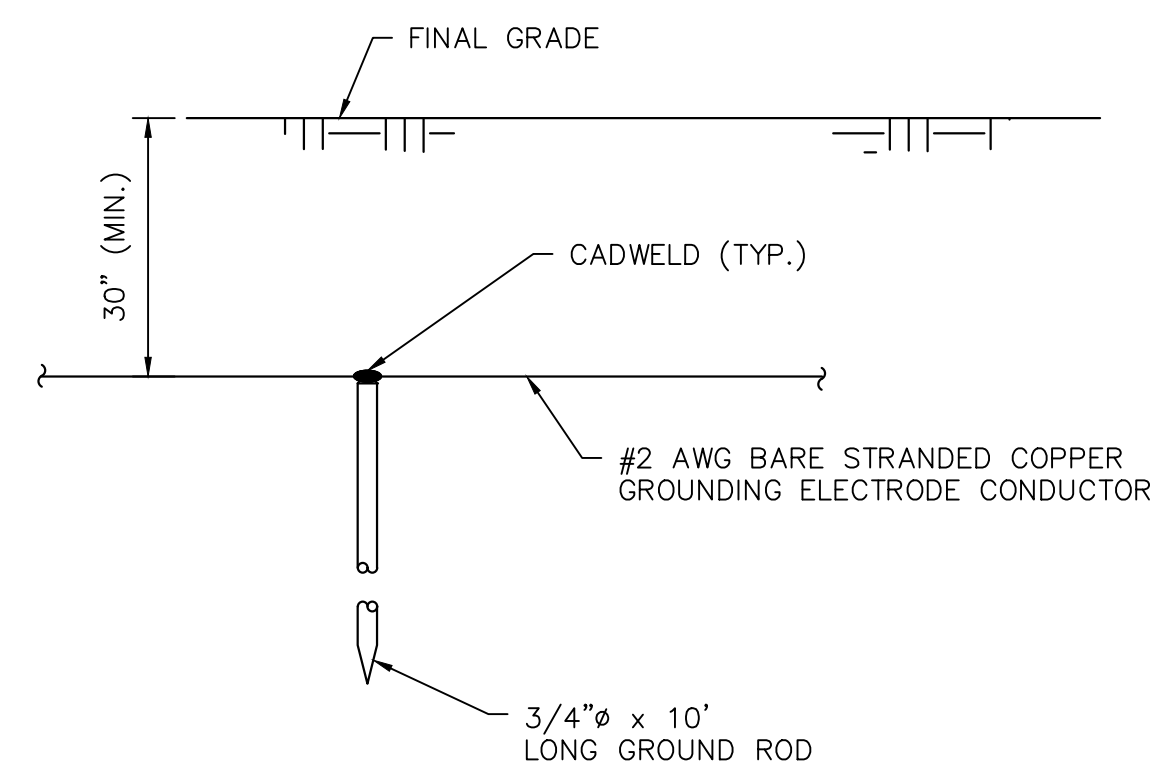


E PULL BOX DETAIL
SCALE: N.T.S.

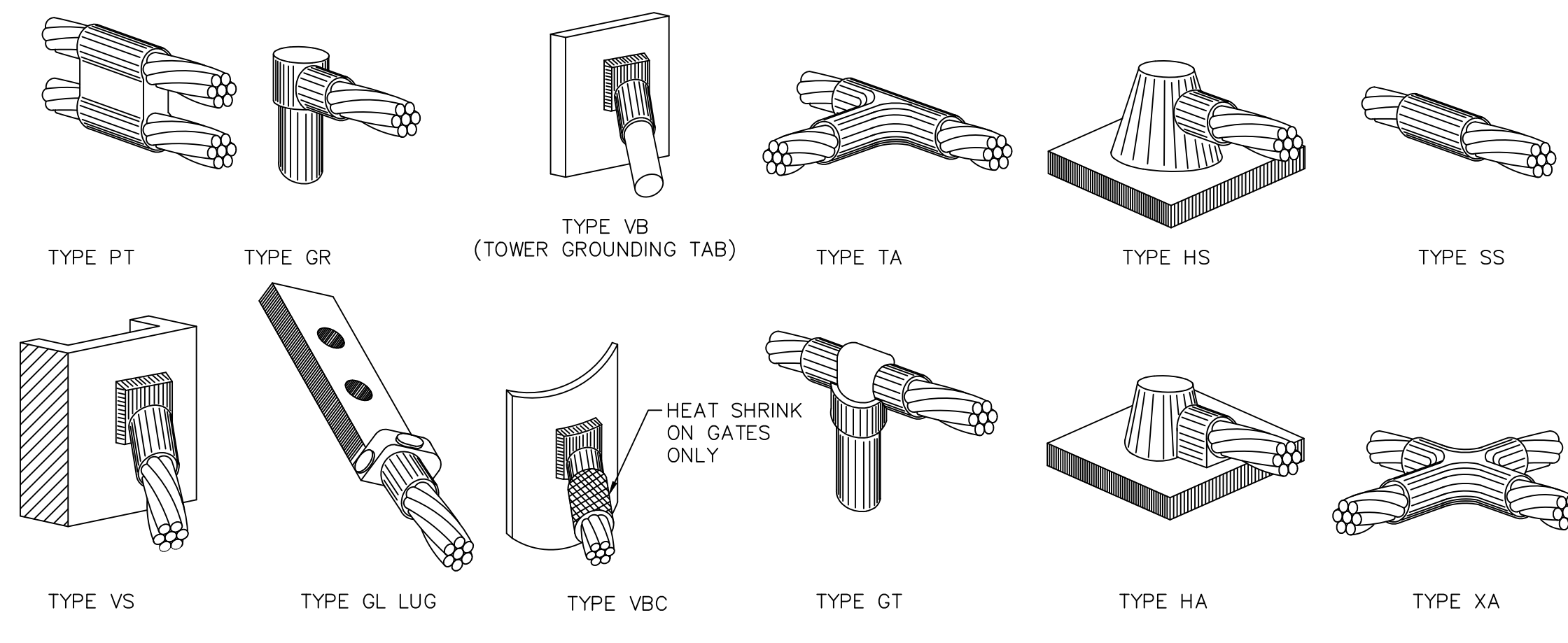
FOR TRENCHES IN PAVEMENT AND PERPENDICULAR TO TRAFFIC FLOW, BACKFILL WITH 1/2 SACK CLSM (CONSOLIDATED METHOD) PER MAG SECT. 728; AND PARALLEL TO TRAFFIC, BACKFILL WITH ABC PER MAG SECT. 702. FOR TRENCHES IN UNPAVED AREAS OR NEW STREET CONSTRUCTION, BACKFILL TRENCH TO SURFACE WITH 3" MINUS SCREENED NATIVE MATERIAL.



F TRENCH DETAIL
SCALE: N.T.S.

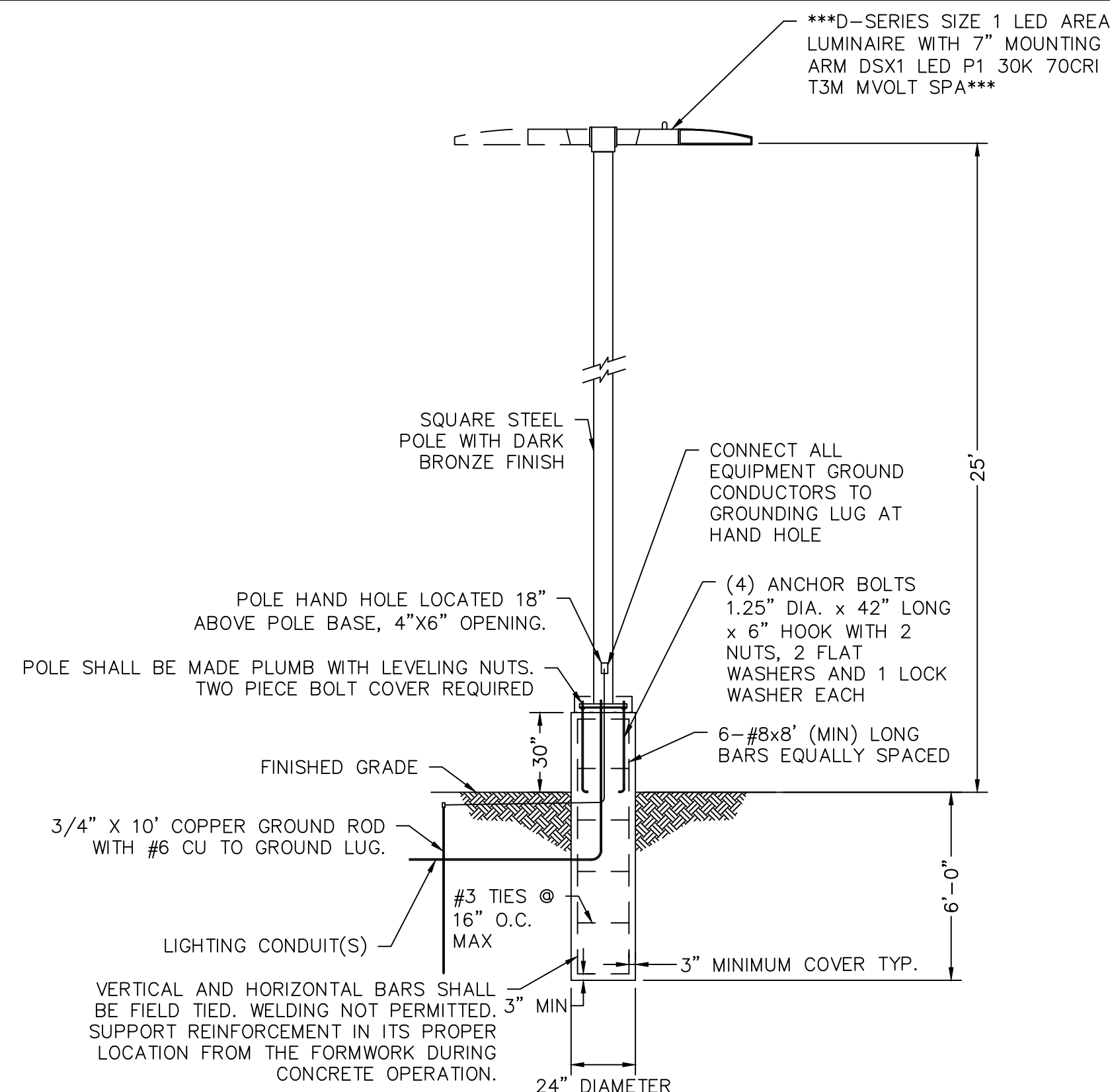


G GROUND ROD DETAIL
SCALE: N.T.S.



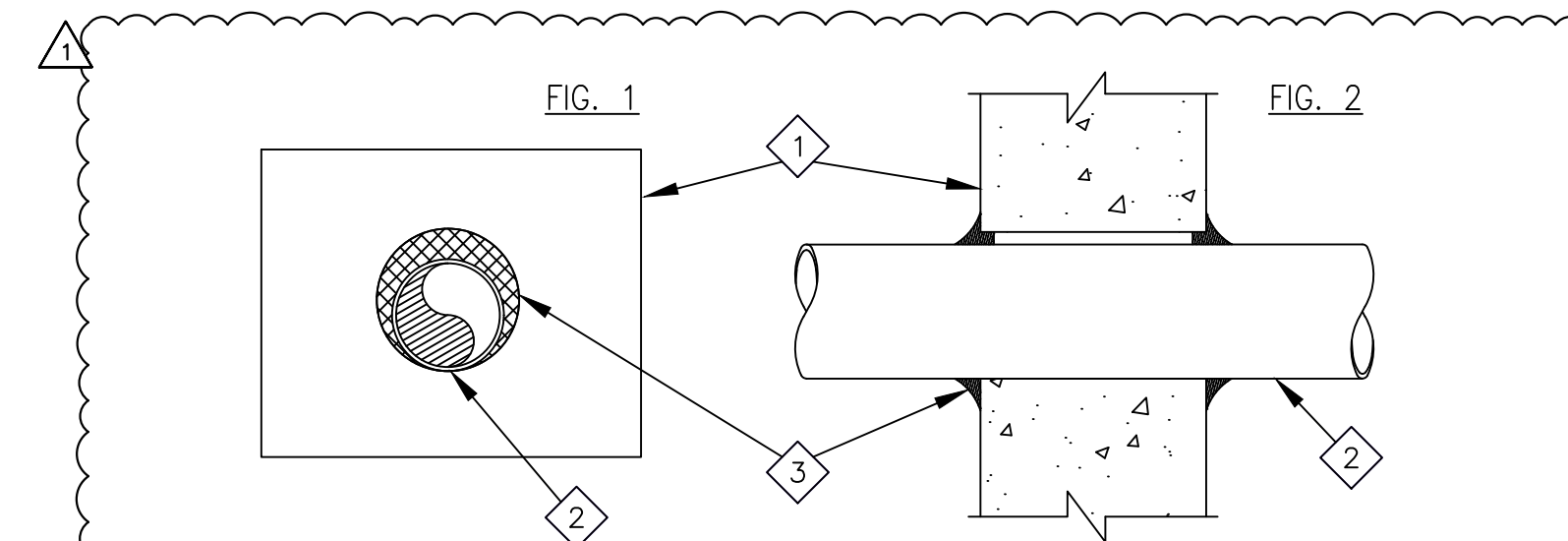
NOTES:
1. CADWELD "TYPES" SHOWN ABOVE ARE EXAMPLES. PROVIDE APPROPRIATE TYPES AS REQUIRED.

I TYPICAL CADWELDS DETAIL
SCALE: N.T.S.



- NOTES:
- 3500 PSI MIN. 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL
 - IF WATER IS PRESENT IN HOLE, REMOVE BEFORE POURING CONCRETE.
 - FOUNDATION EXCAVATION SHALL BE BY 24" AUGER IN UNDISTURBED OR PROPERLY COMPACTED FILL PER SPECIFICATIONS.
 - FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE END BEARING OF 2000 PSF.
 - FOUNDATION HAS BEEN DESIGNED FOR A COHESIVE SOIL BASED ON A MINIMUM COHESIVE VALUE OF 1000 PSF.
 - FOUNDATION HAS BEEN DESIGNED FOR A GRANULAR SOIL BASED ON A MINIMUM LATERAL SOIL PRESSURE OF 1000 PSF, UTILIZING AASHTO FIGURE 1.8.2C(4) OF "EMBEDMENT OF POSTS WITH OVERTURNING LOADS".

H STREET LIGHT POLE DETAIL
SCALE: N.T.S.



- 1 LAYER OF 5/8" U.L. CLASSIFIED GYPSUM WALL BOARD ASSEMBLY.
- MAX. 12" STEEL OR IRON PIPE, 6" COPPER PIPE OR TUBE. CONDUIT, UP TO 4" EMT OR 1" FLEXIBLE. FIRESTOP SYSTEM SHALL RANGE FROM POINT CONTACT TO 1-3/4" MAX.
- SPECSEAL® LC150 SEALANT INSTALLED TO A 5/8" DEPTH, FLUSH WITH BOTH SURFACES OF WALL. AT CONTACT POINT, INSTALL 3/8" THICK COVE BEAD OF MATERIAL AT PIPE/CONCRETE WALL INTERFACE.

NOTE:
THE PRODUCTS USED IN THIS DESIGN SYSTEM HAVE BEEN TESTED AS FOLLOWS:
• ASTM E814 (UL1479). 'I' RATING = 0:00 HOURS; 'F' RATING = 2:00 HOURS
• ASTM E119 (TIME/ TEMP. EXPOSURE) (COTTON WASTE IGNITION)
• ANNULAR SPACE REQUIREMENTS

K CONDUIT THRU 1 HR. OR 2 HR. CONC. WALL
SCALE: N.T.S.

CITY OF PRESCOTT PUBLIC WORKS
SOLID WASTE SCALE AND FEE BOOTH RELOCATION ELECTRICAL DETAILS

DWG. NO. ELO4
DATE 04/05/2024
SHEET NO. 29 OF 52

CITY OF PRESCOTT
Everybody's HomeTown

PREPARED BY: JRP
CHECKED BY: JRP
FOR: COP
DLP

Professional Engineer
MICHAEL A. COLOMBO
50368
Date Signed 02/23/24
ARIZONA USA

Exp. Date 12/31/24

Kimley-Horn & Associates, Inc.
2024 KIMLEY-HORN & ASSOCIATES, INC. SUITE 303
101 W. GOODWIN ST., PHOENIX, AZ 85003
PHONE: 602-498-9700
WWW.KIMLEY-HORN.COM

NO.	BY	DATE	REVISIONS

APPRV/ DATE CITY

REVIEW: CIP #: 2208-002



CIP: 2208-002
Solid Waste Division
Scale and Fee Booth Relocation Project

Project Special Provisions

SPONSOR:

CITY OF PRESCOTT, ARIZONA
DEPARTMENT OF PUBLIC WORKS

ENGINEER:

KIMLEY-HORN
101 WEST GOODWIN STREET
SUITE 303
PRESCOTT, AZ 86303



April 2024

THE SPECIAL PROVISIONS SHALL MODIFY AND SUPERSEDE THE VARIOUS SECTIONS OF THE CITY OF PRESCOTT (COP) SUPPLEMENT TO THE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION, TECHNICAL SPECIFICATIONS.

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SPECIAL PROVISIONS

104 SCOPE OF WORK

104.1.1 General

B. Project Description and Location:

Site improvements include widening the existing roadway to accommodate an additional lane of traffic in each direction. The fee booth and scales will be relocated from the current location to Sundog Ranch Rd. These improvements will necessitate the revision of existing features including the relocation of water main and hydrants, an existing gate, and replacement of storm drainpipe.

The Solid Waste Department will allow the Contractor to stage equipment and materials within the adjacent Transfer Station property. The Contractor may also stockpile material within the property. Any stockpiled material will need to be removed prior to the completion of the project. The size and location of the area available to the Contractor shall be coordinated with the City of Prescott Solid Waste Department.

It is the intent that the Solid Waste Transfer Station stay in operation throughout construction. It will be the Contractor's responsibility to maintain both inbound and outbound access during the hours that the transfer station is open to the public. Outside of these hours access may be reduced with an approved traffic control plan. Night work is an option to limit the impact of construction on the operation of the facility. Any plans for night work must be submitted and approved by the City of Prescott Public Works Department. The plans include a Temporary Access Plan depicting an option for maintaining traffic during construction activities. The plan routes traffic north of the proposed fee booth location through the existing recycling area. The Contractor will need to take care in the order of demolition of the paved surface. Other methods of maintaining access to the Transfer Station must be approved by the City of Prescott Public Works and Solid Waste Departments. It will be the Contractor's responsibility to coordinate the work zone and traffic control plan with City of Prescott Public Works, Solid Waste, Police and Fire Departments.

All construction elements, as identified in the Bid Schedule, shown on the plans or details or described in the Special Provisions, are required for construction and are to include all costs associated with removals, earthwork, trenching, subgrade construction, concrete slab, structure, valves, fittings, appurtenances, utility boxes, bedding, pavement replacement, hauling, placing, disposing of material, testing, certifying, or any other associated work and materials required for a complete in place and operable items of construction. All work items and materials not specifically itemized in the bid schedule and that are required for the construction are to be considered incidental to the total project bid amount.

104.1.6 Site Maintenance

To maintain a clean construction site, all demolished materials, to include but not limited to, asphalt pavement, concrete, rock, dirt, pipes, and so on shall be removed from the site by the end of each work shift. Stock piling of excess materials on site shall be allowed only within the solid waste property after coordination with City staff.

No separate payment shall be made for meeting these requirements.

205 ROADWAY EXCAVATION

Work under this item shall be performed per the Geotechnical Report performed by ETC dated March 24, 2023.

205.7 Measurement

Replace Section 205.7 of the COP Technical Specifications:

The following earthwork operations will be measured as roadway excavation for the quantities of material involved.

Roadway excavating shall include the excavating, loading, and stockpiling of excess material for the roadway construction and scale pits. Excess material shall be removed from the site and disposed of by the Contractor. No additional payment will be made for the hauling and disposal of the material.

Measurement for unsuitable material shall be to the nearest cubic yard as calculated in the field.

205.8 Payment

Pay Item: 205.1 – Roadway Excavation (CY)

205.2 – Unsuitable Material Remediation – (Provisionary Item May Not be Used) (CY)

206 STRUCTURE EXCAVATION AND BACKFILL

Work under this item shall be performed per the Geotechnical Report performed by ETC dated March 24, 2023.

206.1.1 Over Excavation for Fee Booth and Scale Pit

The over excavation shall consist of the removal of the material adjacent to the fee booth and scale pits in accordance with the Geotechnical report mentioned above. The over excavation will be measured to the nearest cubic yard. The unit price bid shall include all costs associated with the removal, hauling, disposal of any excess material, and all other labor, equipment, and tools necessary.

206.5.2 Payment

Pay Item: 206.1 SP – Over Excavation for Fee Booth and Scale Pits (CY)

211 FILL CONSTRUCTION

Work under this item shall be performed per the Geotechnical Report prepared by ETC dated March 24, 2023.

211.1 Description

Add the following to Section 211.1 of the COP Technical Specifications:

It is anticipated that fill material will be needed along portions of the roadway and adjacent to the curb near the existing administration building. Fill material to be placed adjacent to the curb to provide a uniform traversable slope from the existing ground to the top back of curb. The grading activities shall be completed in a manner to maintain the existing drainage patterns. On-site excavated material may be used as fill material upon verification that it meets the requirements outlined in the Geotechnical Report prepared by ETC dated March 24, 2023.

211.6 Payment

Pay Item: 211.1 – Embankment Material (CY)

220 RIPRAP CONSTRUCTION

MAG220.8 Payment: ADD the following:

Pay Item: 220.1 – Riprap, D50=6” (CY)

301 SUB-GRADE PREPARATION

301.8 Payment

Pay Item: 301.1 – 8” Subgrade Preparation (SY)

310 PLACEMENT AND CONSTRUCTION OF AGGREGATE BASE COURSE

310.8 Payment

Pay Item: 310.1 SP – 6” Aggregate Base Course (CY)

Pay Item: 310.2 SP – 8” Aggregate Base Course (CY)

Pay Item: 310.3 SP – Temporary 6” Aggregate Base Course (CY)

Pay Item: 310.4 SP – 6” Aggregate Surface Course (CY)

321 ASPHALT CONCRETE PAVEMENT

321.13 Payment: ADD the following:

Pay Item: 321.1 – 5” Asphalt Concrete (AC) Pavement (SY)

Pay Item: 321.2 – Temporary 3” Asphalt Concrete (AC) Pavement (SY)

329 TACK COAT

329.6 Measurement: Remove in its entirety and replace with the following.

Measurement shall be per applied area of diluted material.

TS329.7 Payment: ADD the following:

Pay Item: 329.1 AC Bituminous Tack Coat, Type SS-1h (SY)

340 CONCRETE CURB, GUTTER, SIDEWALK, SIDEWALK RAMPS, DRIVEWAY, & ALLEY ENTRANCE

TS340.7 Payment: ADD the following:

Pay Item: 340.1 6” Concrete Driveway (SY)

340.2 Roll Curb and Gutter Type C, Quad City Std. Dtl. 220Q-1 (LF)

340.3 Roll Curb and Gutter Type D, Quad City Std. Dtl. 220Q-1 (LF)

340.4 Vertical Curb and Gutter Type A, Quad City Std. Dtl. 220Q-1 (LF)

340.5 6” Single Curb Type A, MAG Std. Dtl. 222 (LF)

340.6 Curb Transition (EA)

340.7 Curb Opening, MAG Std. Dtl. 226-1 (EA)

340.8 Valley Gutter, Quad City Std. Dtl. 240Q-1 (SF)

340.9 4” Concrete, Quad City Std. Dtl. 230Q (SF)

345 ADJUST FRAMES, COVERS, VALVE BOXES, WATER METER BOXES AND PULL BOXES

345.5 Payment: ADD the following:

Pay Item: 345.1 Adjust Existing Water Valve Box and Cover, Quad City Std. Dtl. 391Q (EA)

350 REMOVAL OF EXISTING IMPROVEMENTS

350.8 Add the following.

Areas where fence is to be removed and reset. The fence material shall be rolled and stored in a manner to avoid damage to the fencing and poles. Any fencing and pole that had been damaged shall be replaced. The unit price bid shall include all costs associated with the removal, storing, resetting, and all other labor, equipment, and tools necessary.

350.10 Remove in its entirety and replace with the following.

Payment for removing existing asphalt concrete pavement (AC) shall be at the unit price per square yard of removal. The average depth of the existing AC Pavement is 3” per boring logs in the Geotechnical Report. The removal of the ABC section below the AC Pavement is not included in this removal item and shall be covered under Item 205.1- Roadway Excavation.

Payment for the removal and resetting of existing signs shall be at the unit price of each, measured as a single unit per assembly. Measurement and payment for the new post, foundation, and slip base associated with the resetting of the sign assembly shall be made under separate items under Section 403.

Payment for the removing of existing curb shall be at the unit price per linear foot.

- Pay Item: 350.1 SP Remove and Dispose Asphalt Pavement (SY)**
- 350.2 SP Remove and Dispose Single Curb (LF)**
- 350.3 SP Remove and Dispose Roll Curb and Gutter (LF)**
- 350.4 SP Remove and Dispose Concrete Pavement (SF)**
- 350.5 SP Remove and Dispose Slotted Drain and Valley Gutter (SF)**
- 350.6 SP Remove and Dispose Hydrant (EA)**
- 350.7 SP Remove and Dispose Storm Drain Pipe (LF)**
- 350.8 SP Remove and Relocate Existing Sign (EA)**
- 350.9 SP Remove and Reset Existing Chain Link Fence (LF)**

401 TRAFFIC CONTROL

401.5.1 Add the following.

Temporary Access Plan provides an option for maintaining traffic to the Transfer Station and the Police/Fire Training Facility during construction of the waterline, fee booth and scales. The plan depicts areas where temporary pavement and existing pavement shall be preserved to provide a 24’ wide access. Care will need to be taken while removing the existing feature to maintain this access. The work zone will be protected by 10’ k-rail barriers. The Contractor shall provide and maintain the traffic control devices to guide traffic around the work area. At any time during construction the Contractor anticipates the need for a road closure or disruption of traffic the Contractor shall inform and coordinate with the City of Prescott Public Works Department. All cost associated with maintaining traffic shall be included in the bid items found on the Temporary Access Plan. The unit prices shall include all costs associated with the delivering, erecting and all other labor, equipment, and tools necessary.

- Pay Item: 401.1 – Traffic Control Plan (LS)**
- Pay Item: 401.2a – Barricades and Storage (LS)**
- Pay Item: 401.2b – Message Boards (Each per Day) (EA)**
- Pay Item: 401.2c – Incidental Traffic Related Items (LS)**
- Pay Item: 401.3a – Flaggers (HR)**
- Pay Item: 401.2e – Uniformed Off-Duty Law Enforcement Officers Allowance (ALL)**

402 PAVEMENT MARKINGS AND STRIPING

402.4 Payment: ADD the following:

- Pay Item: 402.1 SP – 4” Solid Double Yellow Stripe (paint), Quad City Std.Dtl. 106P-1 (LF)**
- 402.2 SP – 6” Solid White Stripe (paint), Qaud City StdIDtl. 106P-1 (LF)**
- 402.3 SP – 6” Broken White Stripe (paint), Quad City Std. Dtl. 106P-1 (LF)**
- 402.4 SP – 12” Solid White Stripe (paint), Quad City Std. Dtl. 106P-1 (LF)**
- 402.5 SP – 18” Solid White Thermoplastic Stop Bar, Quad City Std. Dtl. 632Q and 106P-1 (LF)**
- 402.6 SP – Obliterate Existing Marking (LF)**
- 402.7 SP – Temporary 4” Solid White Stripe (paint), Quad City Std. Dtl. 632Q and 106P-1 (LF)**
- 402.8 SP – Temporary 4” Solid Yellow Stripe (paint), Quad City Std. Dtl. 632Q and 106P-1 (LF)**

403 PERMANENT SIGNING, SIGN POSTS AND DELINEATORS

403.4 Payment: ADD the following:

- Pay Item: 403.1 SP - Aluminum Sign Panel (Diamond Grade), Quad City Std. Dtl. 106-P and 131Q (SF)**
- 403.2 SP - Sign Post, Quad City Std. Dtl. 131Q (EA)**
- 403.3 SP – Sign Post Foundation, Quad City Std. Dtl. 131Q (EA)**
- 403.4 SP - Sign Post Slip Base, Quad City Std. Dtl. 131Q (EA)**
- 403.5 SP – Flexible Tubular Marker, White (EA)**
- 403.6 SP – Type 3 Barricade with Sign (EA)**

406 ELECTRICAL

Add the following to the COP Technical Specifications:

406.1 Grounding and Bonding for Electrical Systems

406.1.1 - GENERAL

406.1.1.1 Summary

- A. Section Includes:
 - 1. Rod electrodes.
 - 2. Active electrodes.
 - 3. Wire.
 - 4. Grounding well components.
 - 5. Mechanical connectors.
 - 6. Exothermic connections.

406.1.1.2 References

- A. Institute of Electrical and Electronics Engineers (IEEE):
 - 1. IEEE 142 - Recommended Practice for Grounding of Industrial and Commercial Power Systems.
 - 2. IEEE 1100 - Recommended Practice for Powering and Grounding Electronic Equipment.
- B. National Fire Protection Association:
 - 1. NFPA 70 - National Electrical Code.

406.1.1.3 System Description

- A. Grounding systems use the following elements as grounding electrodes:
 - 1. Metal underground water pipe.
 - 2. Metal building frame.
 - 3. Concrete-encased electrode.
 - 4. Rod electrode.
 - 5. Plate electrode.
- B. Grounding conductors for all distribution grounding to be insulated copper, uninsulated where in contact with earth. Copper conductors shall, at a minimum, be used in the following areas: grounding of transformer neutrals, service entrance switch ground of neutral, pad mount transformer grounding, ground rider conductors from main ground station to sub-closets, telephone and data system grounds and circuits rated less than 60 amps. Where type ACM conductors are used for circuits rated 60 amps or greater, type ACM bonding conductor is permitted.

406.1.1.4 Performance Requirements

- A. Grounding System Resistance: 25 ohms maximum.

406.1.1.5 Quality Assurance

- A. Provide grounding materials conforming to requirements of NEC, IEEE 142, and UL labeled.
- B. Maintain one copy of each document on site.

406.1.1.6 Qualifications

- A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing work of this section with minimum three years documented experience approved by manufacturer.

406.1.1.7 Pre-Installation Meetings

- A. General Conditions - Administrative Requirements: Pre-installation meeting.

406.1.1.8 Delivery, Storage, And Handling

- A. General Conditions - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

- B. Accept materials on site in original factory packaging, labeled with manufacturer's identification.
- C. Protect from weather and construction traffic, dirt, water, chemical, and mechanical damage, by storing in original packaging.
- D. Do not deliver items to project before time of installation. Limit shipment of bulk and multiple-use materials to quantities needed for immediate installation.

406.1.1.9 Coordination

- A. General Conditions - Administrative Requirements: Requirements for coordination.
- B. Complete grounding and bonding of building reinforcing steel prior concrete placement.

406.1.2 PRODUCTS

406.1.2.1 Rod Electrodes

- A. Product Description:
 - 1. Material: Copper clad steel.
 - 2. Diameter: 3/4 inch (19 mm).
 - 3. Length: 10 feet (3.0 m).
- B. Connector: Connector for exothermic welded connection.

406.1.2.2 Wire

- A. Material: Stranded copper.
- B. Grounding Electrode Conductor: Bare stranded copper, soft annealed, size as indicated.
- C. Bonding Conductor: Bare stranded copper, soft annealed, size as indicated.
- D. Insulated grounding conductors: green, type TW.

406.1.2.3 Mechanical Connectors

- A. Description: Bronze connectors, suitable for grounding and bonding applications, in configurations required for particular installation.

406.1.2.4 Exothermic Connections

- A. Product Description: Exothermic materials, accessories, and tools for preparing and making permanent field connections between grounding system components.

406.1.3 EXECUTION

406.1.3.1 Examination

- A. General Conditions - Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify final backfill and compaction has been completed before driving rod electrodes.

406.1.3.2 Preparation

- A. Remove paint, rust, mill oils, surface contaminants at connection points.

406.1.3.3 Installation

- A. Install in accordance with IEEE 142.
- B. Install rod electrodes at locations as indicated on Drawings. Install additional rod electrodes to achieve specified resistance to ground.
- C. Install isolated grounding conductor for circuits supplying indicated in accordance with IEEE 1100.
- D. Equipment Grounding Conductor: Install separate, insulated conductor within each feeder and branch circuit raceway. Terminate each end on suitable lug, bus, or bushing.
- E. Permanently ground entire light and power system in accordance with NEC, including service equipment, distribution panels, lighting panelboards, switch and starter enclosures, motor frames, grounding type receptacles, and other exposed non-current carrying metal parts of electrical equipment.
- F. Install branch circuits feeding isolated ground receptacles with separate insulated grounding conductor, connected only at isolated ground receptacle, ground terminals, and at ground bus of serving panel.
- G. Accomplish grounding of electrical system by using insulated grounding conductor installed with feeders and branch circuit conductors in conduits. Size grounding conductors in accordance with NEC. Install from grounding bus of serving panel to ground bus of served panel, grounding screw of receptacles, lighting fixture housing, light switch outlet boxes or metal enclosures of service equipment. Ground conduits by means of grounding bushings on terminations at panelboards with installed number 12 conductor to grounding bus.
- H. Grounding electrical system using continuous metal raceway system enclosing circuit conductors in accordance with NEC.
- I. Permanently attach equipment and grounding conductors prior to energizing equipment.

406.1.3.4 Field Quality Control

- A. General Conditions - Quality Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Inspect and test in accordance with NETA ATS, except Section 4.
- C. Grounding and Bonding: Perform inspections and tests listed in NETA ATS, Section 7.13.
- D. Perform ground resistance testing in accordance with IEEE 142.
- E. Perform continuity testing in accordance with IEEE 142.
- F. When improper grounding is found on receptacles, check receptacles in entire project and correct. Perform retest.

406.1.4 PAYMENT

406.1.4.1 Method of Measurement

- A. This specification is provided for reference only. All Work associated with this Item shall be considered incidental to other elements of the project and no separate measurement or payment will be made for the work involved with this item.

406.2 Payment

- Pay Item: 406.1 SP – No. 5 Pull Box (EA)**
- Pay Item: 406.2 SP – Pull Box – Traffic Rated (EA)**
- Pay Item: 406.3 SP – 100A Subpanel (EA)**
- Pay Item: 406.4 SP – 12”x12”x6” Metal Junction Box (EA)**
- Pay Item: 406.5 SP – 25’ Light Pole (EA)**
- Pay Item: 406.6 SP – D-Series Size 1 LED Area Luminaire (EA)**
- Pay Item: 406.7 SP – #12 AWG Conductors (LF)**
- Pay Item: 406.8 SP – #12 AWG Ground (LF)**
- Pay Item: 406.9 SP – #3/0 AWG Conductors (LF)**
- Pay Item: 406.10 SP – #4 AWG Ground (LF)**
- Pay Item: 406.11 SP – 2" Schedule-40 PVC Conduit (LF)**
- Pay Item: 406.12 SP – 2x4 LED Flat Panel (EA)**
- Pay Item: 406.13 SP – 2X4 LED Flat Panel with 90-Minute Emergency Battery Backup (EA)**
- Pay Item: 406.14 SP – Architectural Wall Luminaire with Photocell Control (EA)**
- Pay Item: 406.15 SP – Architectural Wall Luminaire with 90-Minute Emergency Battery Backup and Photocell Control (EA)**
- Pay Item: 406.16 SP – 48 Strand SMFO (LF)**
- Pay Item: 406.17 SP – CAT 6 (LF)**
- Pay Item: 406.18 SP – 3" Schedule-40 PVC Conduit (LF)**

430 LANDSCAPING AND PLANTING

Add the following Section 430.1 to the COP Technical Specifications:

430.1 Description

Due to the impairments of Watson Lake any revegetation practices shall not utilize nitrogen or phosphorus containing fertilizers.

Remove the following to Section 430.3.2 of the COP Technical Specifications:

430.3.2 (D) General

Remove the Starter Fertilizer: Ammonium Phosphate from the Slurry Mix table.

Remove the Nitrogen and Phosphoric Acid from the Ingredients for Slurry Application table.

Add the following to Section 430.3.2 of the COP Technical Specifications:

430.3.2 Seeding (Hydraulic)

- Pay Item: 430.1 SP – Hydroseeding (AC)**

505 CONCRETE STRUCTURES

505.11 Measurement and Payment

Add the following to Section 505.11 of the COP Technical Specifications:

505.11.6 Top of Wall Concrete Lined Swale

Top of Wall Concrete Line Swale will be measured to the nearest square foot. Price per square foot shall include concrete, reinforcement, and granular base material as shown on the Project Plans or called for by the block wall manufacturer's recommendations. Concrete shall conform to MAG Section 505. The unit price bid shall include all costs associated with the delivering, erecting and all other labor, equipment, and tools necessary.

505.11.7 Slab-on-Grade Concrete and Reinforcement

Slab-on-Grade Concrete and Reinforcement will be measured to the nearest square foot and shall include the area for the fee booth structure slab-on-grade. Price per square foot shall include concrete, reinforcement, and granular base material as shown on the Project Plans, called for in the geotechnical investigation or as approved by the Engineer. Concrete and reinforcement shall conform to MAG Section 505.

505.11.8 Foundation Concrete and Reinforcement

Foundation Concrete and Reinforcement will not be measured and will be paid for as a lump sum, including all concrete and reinforcement as shown on the Project Plans or as approved by the Engineer for foundations and scale pits. Concrete and reinforcement shall conform to MAG Section 505.

Pay Item: 505.1 SP – Temporary 10' K-Rail Barrier (EA)

Pay Item: 505.2 SP – Top of Wall Concrete Lined Swale (SF)

Pay Item: 505.3 SP – Slab-on-Grade Concrete and Reinforcement (SF)

Pay Item: 505.4 SP – Fee Booth, Foundation Concrete and Reinforcement (LS)

Pay Item: 505.5 SP – Scale, Foundation Concrete and Reinforcement (LS)

515 STRUCTURES MISCELLANEOUS

515.6 Measurement and Payment

Add the following to Section 515.6 of the COP Technical Specifications:

515.6.1 Chain Link Double Swing Gate

The existing entry gate shall be replaced with a double swing style gate. The gate on each side should open in the direction away from the vehicle. The controller for the gate must connect to the existing keypad and sensor to open the gate. The lump sum bid item shall include all costs associated with the fabrication, delivering, erecting and all other labor, equipment, and tools necessary.

515.6.2 Save-ty Yellow Rotating Driveway Gate

Rotating Gates shall be constructed at the leading edge of each of the scales. The gate shall consist of Safety Yellow SYP-DWGR-012 12' Rotating Driveway Gate manufactured by The Safety Source LLC or approved equal. The installation shall be according to the manufacturer's recommendations and as shown on the Project Plans. Each gate shall have a means to secure the gate in the open and closed position. The gates shall be safety yellow in color with reflective tape on the barrier facing traffic. The gate is to be placed over a bollard according to the manufacture and as shown in the plans. The cost of the bollard, foundation, and means of securing shall be included in the unit price for the gate. The unit price bid shall include all costs associated with the delivering,

fabricating, erecting and all other labor, equipment, and tools necessary.

515.6.3 Block Retaining Wall

Retaining Wall: Work under this item shall be performed per the plans and the manufacturers recommendation. The work covered under this section includes furnishing and installing, all excavation, backfill, supports, anchors, modular block units and interceptor ditch to the lines and grades shown on the plans or as directed, per the manufacturer's recommendations.

TS515.2 Measurement and Payment: ADD the following:

Measurement and payment for this item shall be per the nearest square foot of the front facing surface of the retaining wall, complete in place in accordance with the details, and includes all features of the wall system as noted on the plans and per manufacturer's recommendations. The front face measurement shall include the wall face area from the top of the leveling pad up to and including the wall top block, but exclusive of the top caps.

515.6.4 Fee Booth, Structural Elements

The structural elements will not be measured and will be paid for as a lump sum, including all framing members, beams, sheathing, plates, connectors, bolts, nuts, washers, and fasteners. The lump sum bid item shall include all costs associated with the fabrication, delivering, erecting and all other labor, equipment, and tools necessary.

Pay Item: 515.1 SP – Chain Link Double Swing Gate (LS)

Pay Item: 515.2 SP – 12' Save-ty Yellow Rotating Driveway Gate (EA)

Pay Item: 515.3 SP – Block Retaining Wall (SF)

Pay Item: 515.4 – Fire Hydrant Protection Pole (EA)

Pay Item: 515.5 SP – Fee Booth, Structural Elements (LS)

516 TRUCK SCALE

Add the following to Section 516 of the COP Technical Specifications:

516.1 GENERAL

516.1.1 SUMMARY

A. Section Includes:

1. Install truck scale including all accessories within the newly constructed scale pit. Setting up and calibrating new scales to be ready for operation.

516.1.2 SYSTEM DESCRIPTION

- A. Furnish and install two, 72-foot steel deck motor truck scales, foundation and scale pit to support scale and associated electronic controls from the concrete scale pits to the new fee booth.
- B. The scales shall have a clear and unobstructed weighting surface of not less than 72 feet long and 11 feet wide.
- C. The scale platforms shall have man-way access for maintenance and repair of load cells.
- D. The scales shall not incorporate any mechanical weighing elements, check rods, or check stays.
- E. The scales shall have a gross weighing capacity of 100 tons.

- F. The scales shall be designed to accept vehicles that generate up to 60,000 pounds concentrated load capacity (CLC).
- G. The scales shall be designed to accept an average daily traffic volume of up to 250 vehicles per day, 365 days per year.
- H. The scales shall be calibrated to 200,000 pounds by 20-pound increments.
- I. The junction boxes, load cells, load cell mounting hardware, cover bolts, and fasteners shall be constructed of stainless steel. The cables shall be stainless steel sheathed.
- J. The scales shall meet the requirements set forth by the current edition of the National Institute of Standards and Technology Handbook 44 (NIST H-44). The scale manufacturer shall provide a Certificate of Conformance (NTEP Certification) to these standards.
- K. The design and manufacture of the scale weighbridge, load cells, digital instrument, printer, and associated accessories shall be of one manufacturer as to maximize compatibility and availability of components. The manufacturer shall have a quality system that has been registered to the standards of ISO 9001.
- L. The manufacturer shall provide, with the technical submittal, a listing of major spare parts and their prices including (but not limited to) replacement load cells, digital instrument, junction box circuit boards, and associated parts.
- M. New conduits shall be provided as necessary from the scale pits to the fee booth.

516.1.3 DESIGN REQUIREMENTS

- A. The Scale manufacturer shall coordinate with the CONTRACTOR to ensure that the scale and load cell foundations are installed at the proper locations and to the proper dimensions.
- B. Contractor shall provide the design of scale foundation modifications if any are proposed.
- C. The scale foundation shall be as per manufacturer's standard detail and recommendation and as approved by the ENGINEER.
- D. The foundation shall meet all local requirements and the minimum specifications as stated in this section.
- E. The foundation shall extend the full length and width of the scale platform.
- F. The foundation shall be poured and constructed of concrete with a minimum strength of 4,000 psi at a 28-day cure with 5 to 7% air entrainment.
- G. The foundation shall be reinforced in all load-bearing areas.
- H. The foundation shall be designed to include approaches on both ends of the scales in accordance to local regulations and the guidelines of NIST H-44 as indicated on the drawings.

516.1.4 SUBMITTALS

- A. Shop Drawings:

1. Submit six (6) copies of MANUFACTURER'S literature describing scales and accessories
 2. Submit six (6) copies of scale detail drawings indicating clear dimensions to edges of structure, clear dimensions from top of deck to top of concrete foundations, number and sizes of conduit, wiring for operation, electrical characteristics of various items, etc.
 3. Submit six (6) copies of scale foundation design modifications.
- B. Product Data: Submit six (6) copies MANUFACTURER'S literature describing scale and accessories for specified products.
- C. Manufacturer's Certificates: Certify Products meet or exceed the specified requirements.
- D. Warranty: Submit MANUFACTURER WARRANTY.

516.1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Submit installation instructions, servicing requirements, assembly views, lubrication instructions, and replacement parts list.

516.1.6 QUALITY ASSURANCE

- A. Products Requiring Electrical Connection: Listed and classified by UL as suitable for the purpose specified and indicated.

516.1.7 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this section shall have minimum five years documented experience.
- B. Installer: Company specializing in performing work of this section with minimum three years documented experience and approved by MANUFACTURER.

516.1.8 WARRANTY

- A. Correct defective Work throughout a one-year period after Date of Substantial Completion.
- B. Provide ten-year manufacturer warranty for failures due to a defect in manufacturing, water and moisture damage, lightning or surge voltages for all scale components.
- C. The manufacturer shall bear the charges and expenses associated with replacement parts, equipment, on-site labor and any associated freight or handling expenses incurred in the repair or replacement of the scale assembly due to failed or damaged items under warranty.
- D. Provide for one year of regular maintenance and calibration service, including the cost of inspections. Inspections shall occur a minimum of once every six months and shall comply with the guidelines set forth by the manufacturer, local regulations and NIST H-44.

516.1.9 DELIVERY, STORAGE AND HANDLING

- A. Prepare truck scale equipment and accessories for shipment to prevent entry of foreign matter into product body.
- B. Store products in areas protected from weather, moisture, or possible damage; do not store products directly on ground; handle products to prevent damage to interior or exterior surfaces.

516.1.10 ENVIRONMENTAL REQUIREMENTS

- A. Conduct operations not to interfere with, interrupt, damage, destroy, or endanger integrity of surface or subsurface structures or utilities, in immediate or adjacent areas.

516.1.11 COORDINATION

- A. Coordinate work with other construction, utilities within construction area and the operation of the facility.

516.1.12 MEASUREMENT AND PAYMENT

- A. Measurement and payment for installation of Pit Scales will be per each as specified within the plans and specifications. The unit price per each shall be full compensation include all costs for labor, equipment, materials, tools, CQC sampling, testing, and incidentals necessary for supplying, transporting, and installation of a fully operational and calibrated truck scales.

Pay Item: 516.1 SP – Scale – B Tek Steel Deck Centurion Truck Scale or Equal (EA)

516.2 PRODUCTS

516.2.1 MONO-PLATFORM WEIGH BRIDGE

- A. The scale weighbridge shall be capable of weighing trucks that have dual tandem up to 60,000 pounds.
- B. All welding shall be performed in accordance with the American Welding Society (AWS) D1.1 Structural Welding Code.
- C. All welding shall be performed by welding operators that have been certified to the AWS D1.1 Structural Welding Code.
- D. The weighbridge shall consist of prefabricated modules and shall not require special wide load permits for shipping.
- E. The weighbridge shall be designed to allow access to the junction boxes, load cell cables, base plates, and all foundation anchor bolts from the top of the scale platform.
- F. All required junction boxes, load cell cables, and interconnecting cables shall be installed and pre-wired prior to shipment by the manufacturer.
- G. The weighbridge and load cell mounting assemblies shall be designed to allow installation or replacement of a load cell with only one additional inch of clearance required between the top of the foundation and the bottom of the weighbridge on pitless installations.

- H. There shall be no bolted connections between the load cell and weighbridge assemblies.
- I. The weighbridge shall be shot blasted to a minimum SSPC-A-SP8 specification prior to painting.
- J. All enclosed chambers created by joining two steel members must be hermetically sealed to eliminate internal corrosion.
- K. All exterior surfaces of the scale shall have a two-part epoxy finish of Carboline 15LO, or approved equal, providing a total Dry Film Thickness of 6-8 mils.
- L. The finish shall be force cured in order to reduce risk of contamination and ensure durability of the surface.

516.2.2 LOAD CELLS

- A. Each load cell shall have a minimum capacity of 25 metric tons (50,000 pounds).
- B. Load cells shall be certified by NTEP and meet the specifications as set forth by NIST H-44 for Class IIII devices. The manufacturer upon request shall provide a Certificate of Conformance to these standards.
- C. Electronic load cells shall conform to the follow specifications:
 1. Load cells shall be digital with an integral microprocessor and analog to digital conversion function located within the load cell housing
 2. Load cells shall output only converted digital information to the scale instrument. Analog output of signals from the load cell is not acceptable. The load cell assembly shall be constructed so as to perform as a rocker pin and shall have no positive fixed mechanical connectors, such as bolts or links that are required in mounting the load cell to the weighbridge or foundation base plates.
 3. The load cell shall not require check rods or chain links for stabilization
 4. The load cell shall be of stainless steel construction and hermetically sealed with a minimum NEMA 6P (submersible) rating.
 5. The load cell shall contain integral Transient Voltage Suppressors (TVS) for all input and communication lines. Each TVS should contain self- resetting thermal breakers to protect the load cell components from voltage and current surges.
 6. The load cell shall have a coating on all bearing surfaces to reduce load cell wear.
 7. The load cell shall come equipped with a neoprene rubber boot to keep debris from contaminating the lower bearing surface.

8. The load cell shall have a positive lock quick connector integral to its housing for connecting and disconnecting the load cell interface cable at the load cell. The connector shall be of type construction to maintain a hermetic seal.
 9. The load cell shall have the following specifications:
 - a. Vmin: 3.1 pounds maximum
 - b. Hysteresis: $\pm 0.025\%$ of full scale
 - c. Non-Linearity: $\pm 0.015\%$ of full scale
 - d. Creep (30 minutes): $\pm 0.017\%$ of applied load
 - e. Temperature range: $-10^{\circ} \text{C} + 40^{\circ} \text{C}$
 10. The load cell interface cable shall be stainless steel sheathed for environmental and rodent protection.
 11. Load cells shall be Southwestern Scale Company, Inc., Mettler-Toledo, Inc., Fairbank Scales or Engineer approved equal.
- D. The scale manufacturer/representative shall submit a plan showing minimum response time that will ensure that the scale will not be down for more than 8 hours from the time the facility contacts the manufacturer/representative during facilities hours of operation.

516.2.3 SCALE INSTRUMENT

- A. The scale instrument shall be NTEP approved and meet or exceed the specifications set forth by NIST H-44 for Class II, III, and IIII Devices. The manufacturer shall provide a Certificate of Conformance to these standards.
- B. The scale instrument shall be housed in an enclosure that is suitable for desktop mounting. The instrument housing shall be metal and have a NEMA 4 environmental rating.
- C. The scale instrument shall be capable of performing calibration, span, zero, and shift adjustment through software calculations that require no in scale adjustment.
- D. The scale instrument shall use English language prompts to lead the start-up personnel through all phases of set-up, calibration, and testing. Entry of information shall be accomplished through the instrument's keyboard.
- E. The scale instrument shall be capable of communicating with the necessary load cell assemblies, to properly operate the two new scales.
- F. The operator shall be able to enter up to 20 alphanumeric I.D. fields through the instrument keyboard.
- G. The scale instrument shall have gross/net weight switching and the ability to recall the gross or tare weights in the net mode.
- H. The scale instrument shall be capable of being programmed and calibrated in pounds or kilograms.
- I. The scale instrument shall have a standard communication port configured in bit serial ASCII, bi-directional, RS232C, or 20mA current loop. The port shall be selectable for on demand or

- continuous communications at up to 9600 baud. The port shall be capable of receiving a remote print command via serial communication or hard wire input.
- J. The scale instrument shall have a standard second data output port in the future that is capable of being configured in a bit serial ASCII, bi-directional, RS232C, 4 wire RS422, or 2 wire RS485 format with up to 9600 baud communication rates.
 - K. The scale instrument shall have a standard 2.5 M/ baud local area network for sharing printers and keyboard/displays between up to 5 scales or for communicating to a personal computer.
 - L. The scale instrument shall have a transaction counter to automatically assign sequence numbers to transactions.
 - M. The scale instrument shall output the following information:
 - 1. Gross, Tare, and Net Weight
 - 2. 12 x 40 character alphanumeric IDs
 - 3. Transaction Counter
 - 4. Time and Date
 - N. The scale instrument shall be capable of being programmed for sign corrected net weighing so that all net weights are positive.
 - O. The scale instrument shall have automatic zero capture on power-up selectable to capture zero at a range of the full-scale capacity.
 - P. The scale instrument shall have a programmable power-up time to delay operation until after a warm-up period.
 - Q. The scale instrument shall have adjustable digital filtering.
 - R. The scale instrument shall have adjustable automatic zero maintenance selectable for a range of displayed increments.
 - S. The scale instrument shall have push-button zero selectable for a range of full- scale capacity.
 - T. Tare, Zero, and Print functions shall be selectable while the weight display is changing. Motion detection shall be selectable for a range of increments.
 - U. The scale instrument shall support upload and download of reports, configurations, and custom programs via the Internet.
 - V. The scale instrument shall provide a 10BaseT (RJ-45) port at a minimum and support the following protocols: TCP/IP, SMTP, HTTP, FTP, PPP.
 - W. The scale instrument configuration, reporting and diagnostics shall be accessible from standard Microsoft Internet Explorer, V5.0 or higher.
 - X. The scale instrument shall support automated maintenance planning, condition monitoring, calibration checking, fault recognition and recovery, and ISO compliance functions, including automatic e-mail notification of above problems.

- Y. The scale instrument shall provide a true embedded web-based server for configuration and diagnostics.
- Z. The scale instrument shall be UL/cUL listed.
- AA. The scale instrument at the Transfer Station shall communicate with scale house or work independently as necessary.
- BB. The CONTRACTOR is responsible for installation of all necessary components, cable and conduit as necessary to provide communication and data transmission between the scales and Fee Booth.
- CC. The scale instrument shall be a Southwestern Scale Company, Inc., Mettler-Toledo, Inc., Fairbank Scales or Engineer approved equal.

516.2.4 JUNCTION BOXES AND CABLES

- A. All junction boxes shall be NEMA 4X rated and constructed of stainless steel.
- B. Junction boxes shall be accessible for inspection and maintenance from the top of the scale platform.
- C. Load cell and scale platform to scale instrument cables shall be stainless steel sheathed for environmental and rodent protection.

516.2.5 LIGHTNING PROTECTION

- A. A comprehensive lightning protection system shall be provided with the scales.
- B. The system shall not require complicated wiring or devices to provide this protection.
- C. Major scale components including load cells, scale instrument, summing network and printer shall be included in the lightning protection system.
- D. Grounding of all scale components including load cells, scale instrument, summing network, printer, and accessories shall be to one common point. Multiple ground point systems are not acceptable.
- E. An AC line surge protector shall conveniently plug into a common electrical outlet and have receptacles for the scale instrument, ticket printer, and other scale accessories.
- F. Each AC line surge protector required shall have a single isolated grounding, hospital grade duplex receptacles, and an internal 15 amp circuit breaker.
- G. Verification of lightning protection system performance shall be available in writing from the manufacturer upon request.
- H. The lightning protection system shall be a Southwestern Scale Company, Inc., Mettler-Toledo, Inc., Fairbank Scales or Engineer approved equal.

516.3 EXECUTION

516.3.1 INSTALLATION

- A. Install in accordance with manufacturer's instructions.

516.3.2 FIELD QUALITY CONTROL

- A. Upon completion of installation, examine, adjust and test each scale for proper operation.

516.3.3 MANUFACTURER'S FIELD SERVICES

- A. Provide manufacturer's field representative to prepare and start systems.
- B. Adjust for proper operation within manufacturer's published tolerances.
- C. Provide services of manufacturer's representative for period of not less than one man day to inspect installations and for performance testing.

601 TRENCH EXCAVATION, BACKFILLING AND COMPACTION

601.2.12 Backfill

Add the following to Section 601.2.12 of the COP Technical Specifications:

- (A) When high water levels cause saturated materials, or when unstable materials are encountered in the utility trenches, the Contractor shall contact the Public Works Director or his designee. The trench shall be over excavated to a depth 2 feet below the 6 inches of bedding for a total of 2.5 feet below the new utility pipe to be free of deleterious materials. Trench width shall be 2' wide plus outside diameter of the pipe. The trench bottom and sides in the over excavation area shall be lined with filter fabric approved by the City. The bottom 2 feet shall be backfilled with leach aggregate that is clean graded hard rock, volcanic rock or gravel of uniform size ¾" to 2-1/2" in diameter, washed or prepared to be free of fine materials. The filter fabric shall be folded over the top of the leach rock to prevent infiltration of fine materials from the bedding and shading material. Bedding material shall be placed over the fabric. A piped pathway shall be provided for collected water to daylight to the surface and drain out of the trench.
- (B) The over excavation shall be jointly measured by the Owner and Contractor. The pay item covers over excavation, removal and disposal of over excavated material, imported and placement of leach rock, filter fabric, all labor and equipment cost. The Contractor may not claim additional delay change order cost because of encountering saturated materials, or unstable materials but may claim additional time.

601.4.2 Bedding

Add the following to Section 601.4.2 of the COP Technical Specifications:

Granular Bedding/Shading Material is acceptable for hydrant and service installation.

601.8 Measurement and Payment

Add the following to Section 601.8 of the COP Technical Specifications:

Pay Item: 601.8.1 SP - Trench Stabilization (Provisionary Item – May Not Be Used) (CY)

610 WATER LINE CONSTRUCTION

610.1 Description: ADD the following:

Add the following to Section 610.1 of the COP Technical Specifications:

The construction includes the relocation and removal of a portion of the existing 6-inch main located within Sundog Ranch Road.

The trench backfill for all water line installation shall consist of a one sack non-shrink slurry. The slurry shall be placed above the pipe shading to the sub-grade level. All costs associated with the slurry backfill shall be incidental to the unit cost for installation of the water lines.

610.4.5 Testing

Add the following to Section 610.4.5 of the COP Technical Specifications:

The Contractor shall provide a testing, disinfecting and flushing plan for the water line construction for approval by the City Utilities Manager prior to commencement of work. Water testing shall be performed using isolated vessels.

All caps, piping, appurtenances, and work required to achieve required testing results shall be incidental to the unit cost for installation of the water lines.

610.9 Fire Hydrants: ADD the following:

Add the following to Section 610.9 of the COP Technical Specifications:

The trench backfill for the Fire Hydrant installation shall consist of a one sack non-shrink slurry. The slurry shall be placed above the pipe shading to the sub-grade level. All costs associated with the slurry backfill shall be incidental to the unit cost for installation of the fire hydrant.

610.11 SP Connection to Existing Mains

Add the following to Section 610.11 of the COP Technical Specifications:

- A. The Contractor shall notify customers of scheduled water service disruption a minimum of forty-eight (48) hours in advance of disruption. Customers shall not be without water service nor shall the main line be out of operation for a total time greater than six (6) hours.
- B. Only City personnel shall operate existing valves. The Contractor shall not operate valves in the existing system.
- C. The new water line shall be constructed up to a maximum distance of one pipe length to the point of connection to the existing system. The new system shall be disinfected and tested with approval of construction before the connection to the existing system can occur. The Contractor shall provide all temporary appurtenances needed to successfully complete the testing of the new system at no additional cost. After the new work passes the required tests, the new line shall then be connected to the existing system and turned over to the City with all branch lines and tie-in valves closed.
- D. When a shutdown of an existing water main is necessary, the Contractor shall notify the Public Works Inspection, and Water Distribution personnel seven (7) days prior to proposed shut down. If necessary, to minimize inconvenience to customers, shutdowns may be scheduled during other than normal working hours. After the procedures and time for a shutdown are agreed upon, it shall be the Contractor's responsibility to notify all affected customers in advance that the water will be turned off. Customers shall be notified a minimum of 48 hours in advance and in no case, except in emergency, shall notification be less than 30 minutes. Notification shall be in writing, giving the reason for the shutdown and the time and duration the water service will be shut off.

- E. The City will close existing valves but will not guarantee a bone-dry shutdown.
- F. The connection to the existing pipe shall be made by installing a Romac 501 Trans Coupler.
- G. Concrete thrust blocking shall be installed at each point of connection to existing water mains per Quad City Standard Details 303Q-3 and 303Q-4 or using restrained joints per 303Q-1 and 303Q-2.
- H. Payment will be made at the unit price bid for each Connection to Existing Water Main with Coordinated Shutdown and shall be full compensation for labor, materials (other than pipe), equipment, connection, thrust blocking and all other necessary incidentals.

610.16 Measurement and Payment

Add the following to Section 610.16 of the COP Technical Specifications:

- Pay Item: 610.1 SP - 6” Fully Restrained Class 350 DIP Waterline, Slurry Backfill (LF)**
- Pay Item: 610.2 SP – Fire Hydrant Assembly (EA)**
- Pay Item: 610.3 SP – Connect to Existing System (EA)**
- Pay Item: 610.4 SP – 6” Tapping Sleeve and Valve, Quad City Std. Dtl. 340Q-1 (EA)**
- Pay Item: 610.5 SP – Meter Box and Cover, Traffic Rated, MAG Std. Dtl. 319 (EA)**
- Pay Item: 610.16.8 SP – Extra Protection, COP Std. Dtls. 404P-1 and 404P-2 (EA)**

615 SANITARY SEWER LINE CONSTRUCTION

615.1 Description: ADD the following:

Add the following Section 615.1 to the COP Technical Specifications:

The construction includes the installation of 8” sanitary sewer main crossing Sundog Ranch Road for connection to a future Storm Ranch system.

The trench backfill for the sanitary sewer line installation shall consist of a one sack non-shrink slurry. The slurry shall be placed above the pipe shading to the sub-grade level. All costs associated with the slurry backfill shall be incidental to the unit cost for installation of the sewer line.

615.2 Payment

Add the following to Section 615.2 of the COP Technical Specifications:

- Pay Item: 615.1 SP - 8” SDR 26 PVC Sewer Main, Slurry Backfill (LF)**

618 STORM DRAIN CONSTRUCTION

618.7 Payment: ADD the following:

Post construction video of the storm drain shall be included in the cost of the storm drain construction complete in place.

- Pay Item: 618.1 12” HDPE Storm Drain (LF)**
- Pay Item: 618.2 18” HDPE Storm Drain (LF)**

630 TAPPING SLEEVES, VALVES AND VALVE BOXES ON WATER LINES

630.9 Payment

Add the following to Section 630.9 of the COP Technical Specifications:

Pay Item: 630.1 SP - 6" Gate Valve, Box and Cover, Quad City Std. Dtl. 391Q (EA)

650 ABANDONMENT AND REMOVAL OF WATER MAIN

650.2 Water Main Removal

650.4 Payment

Add the following to Section 650.4 of the COP Technical Specifications:

Pay Item: 650.1 SP – Remove and Dispose Water Main (LF)

APPENDIX A
Geotechnical Report



ENGINEERING & TESTING CONSULTANTS INC.

March 24, 2023

Kimley-Horn & Associates, Inc.
Attn: Mr. Andrew Baird
7740 N. 16th Street, STE 300
Phoenix, Arizona 85020

**SUBJECT: SUBSURFACE SOIL EXPLORATION FOR SOLID WASTE SCALE AND
FEE BOOTH RELOCATION, PRESCOTT, AZ**

Dear Mr. Baird:

Engineering & Testing Consultants, Inc., (ETC) has completed the geotechnical soil exploration for the above referenced project along Sundog Ranch Road.

The purpose of this geotechnical exploration is to evaluate the general subsurface soil conditions at the site, and present geotechnical engineering recommendations with regard to foundation support, slabs-on-grade, site grading, pavement structure, and lateral soil pressures.

SITE & PROJECT INFORMATION

ETC understand the project will include construction of a new solid waste scale and fee booth along Sundog Ranch Road, adjacent to the City's Solid Waste facility. The project will also include widening and reconstruction of Sundog Ranch Road, approximately 950 linear feet, to accommodate new scale, drop-off, and bypass lanes.

The elevated hilly land along the southeast side of Sundog Ranch Road tends to drain toward the road with poor control of surface water drainage.

GEOTECHNICAL ENGINEERING • SOILS & MATERIALS TESTING • SPECIAL INSPECTION

**417 NORTH ARIZONA AVENUE • PRESCOTT, ARIZONA 86301
928-778-9001**



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SUBSURFACE SOIL CONDITIONS

ETC performed three (3) exploratory test borings at selected locations along Sundog Ranch Road. The borings were drilled with our truck-mounted Mobile B-47 drill rig equipped with 4-inch diameter continuous flight augers and cutter head with carbide finger bit inserts.

The exploratory borings were performed to determine general subsurface soil conditions and to collect representative soil samples for laboratory analysis. If soil conditions encountered during construction differ from those presented herein, this firm should be contacted for review.

More detailed descriptions of the subsurface soil conditions encountered by the test borings are shown on the boring logs included in Appendix A. A Boring Location Map is attached to this report as Figure 1.

Boring B-1

The northern boring, B-1 encountered 3 inches asphaltic concrete on 6¼ inches base course material. Subgrade soils consist of medium dense Clayey Sand (SC) with a high percentage of medium plasticity clayey fines. The subgrade soils are medium dense, becoming weaker below a depth of 3 feet.

Boring B-3

The southern boring, B-3 encountered 3¼ inches asphaltic concrete on 3 inches of base course material. Subgrade soils were clayey sand. However, what appeared to be lean concrete slurry was observed on one side of the borehole. Due to the potential of the slurry being utility trench backfill material, the boring was terminated at a depth of 18 inches.

Boring B-2

In the area of the proposed Scale and Fee Booth, boring B-2 encountered 3¼ inches asphaltic concrete. Only 1 inch of base course material was observed. Additional base course, if present, was contaminated with clayey subgrade soil.

The upper subgrade soils encountered at boring B-2 consist of Clayey Sand (SC) with a high percentage of medium plasticity clayey fines. The subgrade soils became weaker, or medium dense to loose at a depth of 18 inches. *At a depth of 3.5 feet, the subgrade soils are very loose.* The very loose soils extend to a depth of 8 feet, where the soil becomes firm, or medium dense.



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The hills to the southeast appear to drain to this area of Sundog Ranch Road, likely contributing to the depth of very loose soils encountered.

ETC is recommending the loose soils be removed to at least 5 feet outside of the scales and fee booth footprint. Removal shall include the concrete pavement around the scales. The removed soils may be replaced in moisture conditioned and compacted lifts, in accordance with the compaction criteria herein.

LABORATORY

Atterberg limits, gradation, and moisture content laboratory testing was performed for representative soil samples collected during the drilling operation. A summary of the laboratory test results is presented below in Table 1. Laboratory testing was performed in accordance with applicable ASTM standards.

As shown in Table 1, the clayey site soils tested have a high percentage of low to medium plasticity clayey fines.

**TABLE 1
SUMMARY OF LABORATORY TEST RESULTS**

Boring	Depth (feet)	Liquid Limit (%)	Plasticity Index	Moisture Content (%)	Fines Content (%)	Gravel Content (%)	USCS
B – 1	Base Course Material	22	1	4.2	13	53	GC
B – 3							
B – 1	1 – 3	32	15	14.4	39	3	SC
B – 2	0.5 – 6	35	14	15.1	41	3	SC

An expansion index test (ASTM D4829) was performed for a sample of the clayey soil collected from the upper 6 feet in the area of the proposed new fee booth (B-2). The soil sample was compacted to approximately 52% saturation and inundated. With an applied surcharge load of



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144psf, the sample swelled almost 4%, with a **Moderate Expansion Index of 40**. The soil was tested at a compacted dry density of 103.4pcf with an initial moisture content of 12.1%.

FOUNDATIONS

Due to the potential for excessive settlement caused by the very loose soils, ETC is recommending the loose soils be removed and replaced in the area of the fee booth and scales, in accordance with the compaction criteria herein. ETC is recommending removal of loose soils extend at least 5 feet outside of the scales and fee booth footprint. Removal shall include the concrete pavement around the scales.

After removal of the loose soils, and compaction of the exposed ground surface, the removed soils may be replaced in controlled, compacted lifts.

Due to the mild expansive characteristics of the clayey site soils, ETC recommends foundations excavated into native soils be seated at a minimum embedment depth of **2 feet** below lowest, adjacent, finished grade. Deepened foundations shall be achieved with increased footing height, or stem wall height.

Alternatively, if the constructed pad for the fee booth is completed with 2 feet of compacted, granular, non-expansive engineered fill, footings may be seated at a minimum embedment depth of 18 inches, seated in the compacted engineered fill.

Minimum foundation embedment depths shall be measured from lowest, adjacent finished grade within 5 feet of the foundation for exterior footings, and may be measured from finished floor elevation for interior footings. Uncontrolled landscaping material shall not be considered as finished grade.

Special attention shall be given to design, final grading, and landscaping improvements to ensure efficient drainage away from foundations, slabs, pavements, and other soil-supported structures.

The cavity above the footings and between stem walls and trench sidewalls shall be adequately backfilled and compacted, to avoid creating a loose soil zone immediately above or adjacent to foundations.

For site preparation and foundation construction, performed as recommended herein, ETC recommends a maximum allowable foundation pressure of **2,000psf** be used for design, including design dead load and live loads.



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The allowable foundation pressure provided may be increased by one-third when considering total loads including wind and seismic forces.

Footings excavations shall be free of all loose, wet, or otherwise unstable material. *ETC shall be contacted to observe the compacted bottom of over-excavated areas prior to fill placement to ensure adequate depth and extent of removal. ETC shall also be contacted to observe foundation excavations prior to placement of reinforcing steel or concrete to verify foundation-bearing soils and footing dimensions are in conformance with our recommendations presented herein.*

Foundations and stem walls should be reinforced to distribute stresses arising from small differential movements and long exposed walls should be provided with control joints to accommodate these movements. Reinforcement and control joints are suggested to allow slight movement and minimize cracking.

Providing that the site preparation is carried out as set forth herein, differential movements under design loads are estimated to be less than 3/4 inches. Increased movements can occur if soils are not adequately compacted, efficient positive drainage is not maintained around the perimeter of the building, or if foundation soils experience significant changes in moisture content.

If needed, ETC recommends a Soil Site Class of “C” be used for seismic considerations, per 2018 IBC and ASCE 7.

SLABS-ON-GRADE

Site preparation, as discussed herein, will include removal and replacement of the loose soils below the fee booth in controlled, compacted lifts.

Due to the moisture sensitivity of the native clayey soils, ETC recommends a minimum thickness of **10 inches** of granular material be placed between the prepared clayey subgrade and conventional concrete floor slabs. The granular material shall consist of at least 4 inches aggregate base course, in accordance with MAG Specifications, Section 702, placed on 6 inches of non-expansive, compacted, engineered fill or additional ABC.

It is noted that ETC has also discussed completing the building pad with at least 2 feet of compacted engineered fill for shallower footing embedment requirements.



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Additional Considerations

ETC recommends the American Concrete Institute (ACI) be used as a reference for placement, curing, and finishing of Portland cement concrete (PCC). Concrete should be placed at the appropriate slump determined by mix design, required strength, and application. After placement, concrete should be properly cured, and special attention shall be given to ensure adequate moisture is present during the initial curing process to prevent/reduce shrinkage and stress cracks.

Concrete slabs should be properly jointed, with maximum joint spacing of 24 to 36 times the slab thickness, unless noted otherwise. Any required saw cutting should be performed to an appropriate depth and in a timely manner, typically within 12 hours of concrete finishing.

EARTHWORK

As discussed herein, boring B-2, performed in the area of the fee booth and scales, encountered weak loose to medium dense soils at a depth of 18 inches, becoming very loose from approximately 3.5 to 8 feet. The very loose soils become firm, or medium dense at a depth of approximately 8 feet.

ETC is recommending the loose soils be removed from the area of the booth and scales. Removal shall extend at least 5 feet outside of the footprint of the booth and scales and should include the area of the concrete pavement around the scales.

After the loose soils have been removed, the exposed ground surface shall be scarified, moisture conditioned, and compacted. The removed loose soils may be re-used and replaced in controlled, compacted lifts, placed and compacted in accordance with the criteria herein.

The areas where fill is required must be stripped of soft/loose soils, vegetation, debris, or other unstable soils and such material should be removed. Depressions and sloped ground should be widened or benched as necessary to accommodate compaction equipment and provide a relatively level base for fill placement.

Prior to fill placement, the exposed ground surface shall be scarified, moisture conditioned, and compacted to a minimum depth of 8 inches, to the specifications herein. Special attention shall be given to ensure adequate moisture is present throughout the entire 8-inch depth. The materials testing firm shall be contacted to observe that the exposed ground surface has been adequately prepared prior to fill placement.



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Any pavement subgrade areas that cannot be adequately stabilized with conventional compaction methods will require over-excavation or other stabilization methods, as determined by the engineer.

It is ETC’s intention that the on-site soils be used for general site grading. However, engineered fill material shall be used for backfill of any retaining walls, for fill inside of stem walls, and to the depth required under concrete slabs.

Engineered fill, where specified, shall be clean, granular soil free of vegetation, debris, organic soil, and shall conform to the following requirements, as approved by the engineer:

- 100 percent passing 4” sieve;
- 3 to 36 percent passing No. 200 sieve;
- 30 to 97 percent passing No. 4 sieve;
- Maximum Plasticity Index (PI) of 15;
- Maximum expansion index of 20.

All subbase fill required to bring the structured areas up to subgrade elevation shall be placed in horizontal lifts not exceeding 8 inches compacted thickness.

Soils shall be compacted to meet the criteria listed in Table 2. ETC recommends the observation of the site grading operation with sufficient tests to verify proper compaction.

TABLE 2
SOIL COMPACTION CRITERIA
(ASTM D698)

Operation		Moisture Content	Degree of Compaction
I	Site Grading, Utility Trench Backfill and Pavement Areas		
	A. Clayey Soils	±2 % of Optimum	Minimum of 95% of Maximum Dry Density
	B. Granular Soils	±2 % of Optimum	Minimum of 95% of Maximum Dry Density

All fill slopes and cut slopes shall be constructed at a maximum slope angle of 2H:1V. Water shall be intercepted and prevented from flowing down the face of any significant slope.



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DRAINAGE

Positive drainage is critical to the successful performance of any foundation or slab system. Excess moisture infiltration into foundation soils is often the primary cause of soil-related problems below structures. Efficient surface and subsurface drainage should be established prior to and maintained during and after construction to prevent water from ponding and/or saturating the soils within or adjacent to the building, slabs, pavements, and other soil-supported elements of the project.

As discussed herein, there appears to be poor control of surface water drainage from the elevated land just southeast side of Sundog Ranch Road.

The design should divert water away from where it could penetrate the ground, particularly if granular fills are used. Care should be taken in design and construction to assure that water is contained to prevent seepage into the underlying soils. Roof water down pipes shall not discharge storm water adjacent to foundations with the use of piping and/or splash blocks with drainage swales.

ETC recommends vegetation not be planted within 5 feet of the building, and trees not be planted within 15 feet of the building, or the mature foliage radius, whichever distance is greater. Efficient drainage shall also be provided for any nearby planters, which can trap storm water.

Backfill against footings, exterior walls, and in utility trenches shall be compacted to reduce the possibility of moisture infiltration through loose soil. *The cavity above the footings or between the stem walls and trench side walls shall be adequately backfilled and compacted.*

Minimizing irrigation water near the structures with positive drainage, and adequate compaction of all soils in structural areas and in utility trenches is very important for the long-term stability of foundation soils.

LATERAL DESIGN PARAMETERS

ETC recommends the following parameters be used for design of retaining walls. Wall foundations shall be constructed in accordance with the recommendations herein for conventional foundations.



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Retaining wall backfill should consist of granular, non-expansive, engineered fill, as specified herein. Retaining walls shall be waterproofed prior to being backfilled against, and drains shall be installed to help prevent saturation of wall backfill.

¹ Foundation Toe Pressure	1.33 x allowable bearing pressure
² Lateral Backfill Pressure:	
Unrestrained walls	35 psf/foot
Restrained walls	58 psf/foot
Lateral Passive Pressures:	
Firm native/compacted fill	350 psf/foot
Coefficient of Base Friction:	
Firm native/compacted fill	0.36

¹ Increase in allowable foundation bearing pressure (provided herein) for foundation toe pressure due to eccentric or lateral loading. The entire footing-bearing surface should remain in compression.

² Equivalent fluid pressures for vertical walls and horizontal backfill surfaces (maximum 12-foot height). Pressures do not include temporary forces imposed during compaction of the backfill, swelling pressures developed by over compacted clayey backfill, hydrostatic pressures from inundation or saturation of backfill, or surcharge loads. Walls should be suitably braced during backfilling to prevent damage and deflection.

When calculating the stability of the wall against sliding, independent of passive resistance, ETC recommends the factor of safety be 1.5 minimum. When calculating the stability of the wall against sliding, in conjunction with the passive pressure, ETC recommends the factor of safety be 2.0 minimum.

PAVEMENT DESIGN

Site grading for pavement areas should be as outlined herein to provide subgrade support for the pavement structure. This includes removal and replacement of the very loose soils encountered in the area of the fee booth. ETC is recommending removal of loose soils extend at least 5 feet



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 Prescott, AZ
 March 24, 2023
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outside of the scales and fee booth footprint and include the concrete pavement around the scales.

Any pavement subgrade areas that cannot be adequately stabilized with conventional compaction methods, if encountered, will require over-excavation and/or other stabilization methods, as determined by the engineer.

Prepared subgrade soils shall be proof-rolled to verify stable subgrade soil conditions prior to placement of ABC.

ETC has reviewed 2020 traffic counts provided to us. Based upon the traffic data, and the soil subgrade testing data provided, the recommended pavement sections provided in Table 2 were determined using design methods outlined in the Asphalt Institute’s “Thickness Design - Asphalt Pavements for Highways and Streets,” (MS-1) 9th ed., and other selected design parameters from ADOT’s “Pavement Design Manual” based upon AASHTO design guidelines.

The recommended pavement sections discussed herein are expected to function with periodic maintenance or overlays when the subgrade, base, and pavement are constructed in accordance with accepted construction standards.

ETC recommends the pavement structural sections presented below in Table 3 for the proposed roadway improvements.

**TABLE 3
 PAVEMENT STRUCTURAL SECTIONS**

Description	Alternative	Portland Cement Concrete Thickness (inches)	Asphaltic Concrete Thickness (inches)	Aggregate Base Thickness (inches)	Prepared Subgrade Thickness (inches)
Sundog Ranch Road	1	---	5	8	8
	2	6	---	6	8

In accordance with MAG Specification 725, Table 725-1 Class AA, Portland Cement Concrete Pavement shall have a minimum 28-day compressive strength of 4,000 psi with entrained air and slump as specified by the approved mix design and tolerances specified in MAG Section 725.9.



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A thickened edge is recommended for Portland cement concrete pavement on all sides without integral edge curb support. A thickened edge should be increased by at least 2 inches over a minimum distance of 3 feet.

It should be noted that for exterior concrete, the use of deicing salt within the first year of concrete placement can cause damage to the concrete surface. This can be avoided by using 4,500psi concrete with a water/cement ratio of 0.45, or as recommended by the supplier.

Efficient control of surface water drainage water must be provided and maintained to help prevent excessive moisture infiltration into the subgrade soils.

Fiber reinforced asphaltic concrete may also be considered to help improve the strength characteristics and long-term performance of the asphaltic concrete, including increased resistance to stress cracking.

LIMITATIONS

The figures and recommendations in this report were prepared in accordance with accepted professional engineering principles and soil mechanics practices. We make no other guarantee or warranty, either implied or expressed. If during subsequent planning and construction, conditions are different than as indicated, this firm should be notified for evaluation.

We like to inform our clients that Portland cement concrete is not a perfect construction material. Due to the characteristics of Portland cement itself, cracking of the concrete may occur. Cracking will be minimized, but not eliminated, by providing appropriate control, isolation, construction joints, and quality control testing. Drying and thermal shrinkage of the slabs with resultant hairline cracking or curling may occur even if the slabs are cured under optimum curing conditions. In short, there is no practical method of ensuring that all floor cracking is eliminated utilizing slab-on-grade construction at the site.

This report is not a bidding document. Any contractor reviewing this report must draw his own conclusions regarding site conditions and specific construction techniques to be used on this project.

For your use. Should you have any questions or concerns, please contact us at (928) 778-9001.



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Prescott, AZ
March 24, 2023
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Sincerely,

ENGINEERING & TESTING CONSULTANTS, INC.



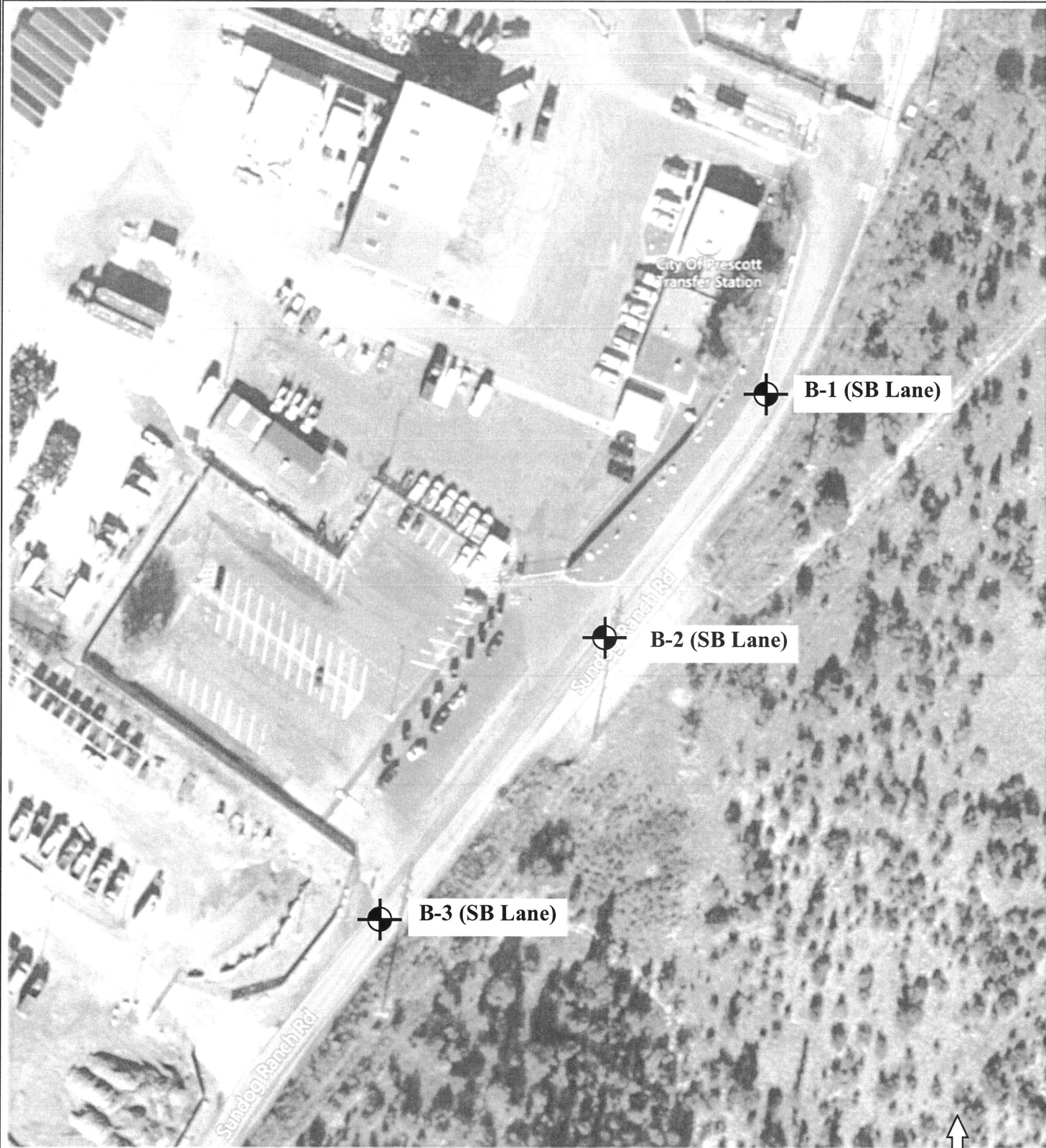
Michael P. Wilson, P.E.
Project Engineer



Reviewed by: Richard G. Kelley, P.E.
Project Manager

Attachments: Figure 1 and Appendix A

cc: ETC File No. 12118



Legend

 Approximate Boring Location



Engineering & Testing Consultants, Inc.
 •Subsurface Drilling •Geotechnical •Environmental Support

FIGURE 1
BORING LOCATION MAP

Solid Waste Scale and Fee Booth Relocation
 Prescott, AZ



Drawn by: others Date: 02/28/23
 Project No: ETC 12118 Page No:

APPENDIX A
FIELD EXPLORATION

GENERAL NOTES

DESCRIPTIVE SOIL CLASSIFICATION:

Soil Classification is based on the Unified Soil Classification System and ASTM Designations D-2487 and D-2488. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; they are described as: boulders, cobbles, gravel or sand. Fine grained soils have less than 50% of their dry weight retained on a #200 sieve; they are described as: Clays, if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse grained soils are defined on the basis of their relative in-place density and fine grained soils on the basis of their consistency. Example: Lean clay with sand, trace gravel, stiff (CL); silty sand, trace gravel, medium dense (SM).

CONSISTENCY OF FINE-GRAINED SOILS:

N-Blows/ft.	Consistency
0-2	Very Soft
3-4	Soft
5-8	Medium
9-16	Stiff
17-32	Very Stiff
33+	Hard

RELATIVE DENSITY OF COARSE-GRAINED SOILS:

N-Blows/ft.	Relative Density
0-3	Very Loose
4-9	Loose
10-29	Medium Dense
30-49	Dense
50+	Very Dense

RELATIVE PROPORTIONS OF SAND AND GRAVEL:

Description Term(s) (of Components Also Present in Sampling)	Percent of Dry Weight
Trace	< 15
With	15 - 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY:

Major Component of Sampling	Size Range
Boulders	Over 12 in. (300mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm)
Silt or Clay	Passing #200 sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES:

Description Term(s) (of Components Also Present in Sampling)	Percent of Dry Weight
Trace	< 5
With	5 - 12
Modifier	> 12



UNIFIED SOIL CLASSIFICATION SYSTEM*

		Soil Classification	
		Group Symbol	Group Name ^B
COARSE-GRAINED SOILS More than 50 % retained on No. 200 sieve	Gravels More than 50 % of coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5 % fines ^C	$Cu \geq 4$ and $1 \leq Cc \leq 3^E$ GW Well-graded gravel ^F
		Gravels with Fines More than 12 % fines ^C	$Cu < 4$ and/or $1 > Cc > 3^E$ GP Poorly graded gravel ^F
			Fines classify as ML or MH GM Silty gravel ^{F,G,H}
			Fines classify as CL or CH GC Clayey gravel ^{F,G,H}
	Sands 50 % or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5 % fines ^D	$Cu \geq 6$ and $1 \leq Cc \leq 3^E$ SW Well-graded sand ^I
		Sands with Fines More than 12 % fines ^D	$Cu < 6$ and/or $1 > Cc > 3^E$ SP Poorly graded sand ^I
			Fines classify as ML or MH SM Silty sand ^{G,H,I}
			Fines classify as CL or CH SC Clayey sand ^{G,H,I}
FINE-GRAINED SOILS 50 % or more passes the No. 200 sieve	Silts and Clays Liquid limit less than 50	inorganic	$PI > 7$ and plots on or above "A" line ^J CL Lean clay ^{K,L,M}
			$PI < 4$ or plots below "A" line ^J ML Silt ^{K,L,M}
		organic	Liquid limit - oven dried Liquid limit - not dried < 0.75 OL Organic clay ^{K,L,M,N} Organic silt ^{K,L,M,O}
	Silts and Clays Liquid limit 50 or more	inorganic	PI plots on or above "A" line CH Fat clay ^{K,L,M}
			PI plots below "A" line MH Elastic silt ^{K,L,M}
		organic	Liquid limit - oven dried Liquid limit - not dried < 0.75 OH Organic clay ^{K,L,M,P} Organic silt ^{K,L,M,O}
HIGHLY ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor	PT	Peat

^A Based on the material passing the 3-in. (75-mm) sieve.

^B If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

^C Gravels with 5 to 12 % fines require dual symbols:

- GW-GM well-graded gravel with silt
- GW-GC well-graded gravel with clay
- GP-GM poorly graded gravel with silt
- GP-GC poorly graded gravel with clay

^D Sands with 5 to 12 % fines require dual symbols:

- SW-SM well-graded sand with silt
- SW-SC well-graded sand with clay
- SP-SM poorly graded sand with silt
- SP-SC poorly graded sand with clay

$$C_u = D_{60}/D_{10} \quad C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^E If soil contains ≥ 15 % sand, add "with sand" to group name.

^G If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

^H If fines are organic, add "with organic fines" to group name.

^I If soil contains ≥ 15 % gravel, add "with gravel" to group name.

^J If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.

^K If soil contains 15 to 29 % plus No. 200, add "with sand" or "with gravel," whichever is predominant.

^L If soil contains ≥ 30 % plus No. 200, predominantly sand, add "sandy" to group name.

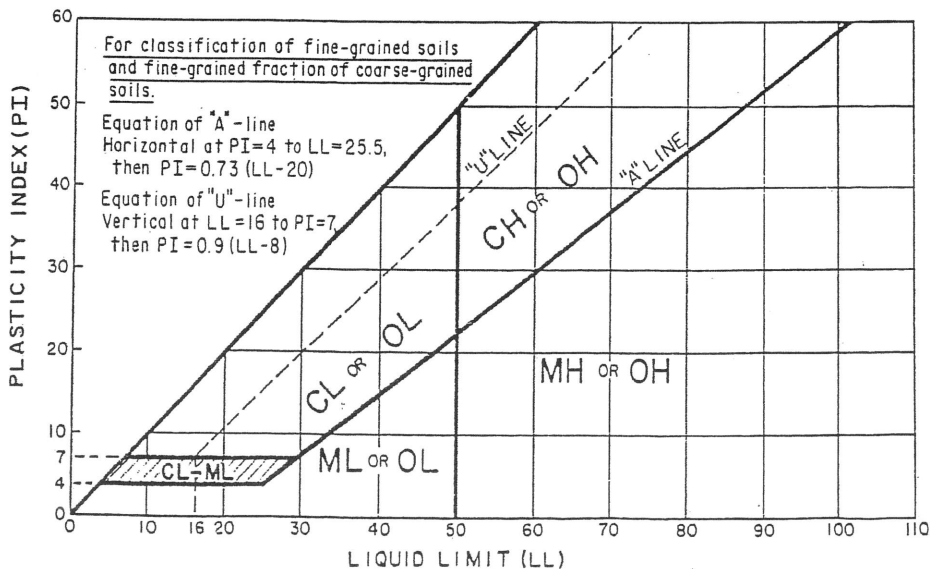
^M If soil contains ≥ 30 % plus No. 200, predominantly gravel, add "gravelly" to group name.

^N $PI \geq 4$ and plots on or above "A" line.

^O $PI < 4$ or plots below "A" line.

^P PI plots on or above "A" line.

^Q PI plots below "A" line.



LOG OF BORING NO. B-1



ENGINEERING & TESTING CONSULTANTS, INC.

PROJECT: Solid Waste Scale & Fee Booth

PROJECT NO.: 12118

CLIENT: Kimley-Horn

DATE: 2-28-2023

LOCATION: See Boring Location Map

ELEVATION: ---

DRILLER: ETC

LOGGED BY: M. Wilson

DRILLING METHOD: Continuous flight auger

This information pertains only to this boring and should not be interpreted as being indicative of the site.

DEPTH (feet)	Description	GROUP SYMBOL	SOIL TYPE	TEST RESULTS		Remarks
				Plastic Limit	Liquid Limit	
	3" ASPHALTIC CONCRETE	AC	■			
	6-1/4" BASE COURSE MATERIAL	AB	□			
	CLAYEY SAND, dark brown, moist, Med PI, High Clayey Fines, Medium Dense	SC	▨			
2				●	-----	
	Loose to Medium Dense					
4						
	Boring terminated at 4.5 feet depth					
6						
8						
10						
12						
14						

LOG OF BORING NO. B-2



ENGINEERING & TESTING CONSULTANTS, INC.

PROJECT: Solid Waste Scale & Fee Booth

PROJECT NO.: 12118

CLIENT: Kimley-Horn

DATE: 2-28-2023

LOCATION: See Boring Location Map

ELEVATION: ---

DRILLER: ETC

LOGGED BY: M. Wilson

DRILLING METHOD: Continuous flight auger

This information pertains only to this boring and should not be interpreted as being indicative of the site.

DEPTH (feet)	Description	GROUP SYMBOL	SOIL TYPE	TEST RESULTS		Remarks
				Plastic Limit	Liquid Limit	
0 - 0.25	3-1/4" ASPHALTIC CONCRETE	AC	[Hatched]			
0.25 - 0.5	1" BASE COURSE MATERIAL	AB	[Dotted]			Base course likely contaminated with clayey subgrade
0.5 - 2.0	CLAYEY SAND, brown to dark, moist, Med PI, High Clayey Fines, Medium Dense	SC	[Dotted]			Medium Dense to Loose
2.0 - 4.0	Medium Dense to Loose		[Dotted]			
4.0 - 6.0	Very Loose		[Dotted]	●	—	Very Loose
6.0 - 9.5	With fine sand layers (SC or SC-SM)		[Dotted]			SPT=1.5/1.5/1.5
9.5 - 10.0	Boring terminated at 9.5 feet depth		[Dotted]			Medium Dense
10.0 - 12.0						
12.0 - 14.0						

LOG OF BORING NO. B-3



ENGINEERING & TESTING CONSULTANTS, INC.

PROJECT: Solid Waste Scale & Fee Booth **PROJECT NO.:** 12118
CLIENT: Kimley-Horn **DATE:** 2-28-2023
LOCATION: See Boring Location Map **ELEVATION:** ---
DRILLER: ETC **LOGGED BY:** M. Wilson
DRILLING METHOD: Continuous flight auger


This information pertains only to this boring and should not be interpreted as being indicative of the site.

DEPTH (feet)	Description	GROUP SYMBOL	SOIL TYPE	SAMPLERS	TEST RESULTS				Remarks
					Plastic Limit	Liquid Limit	Water Content - ●	Penetration - ▨	
	3-1/4" ASPHALTIC CONCRETE	AC							
	3" BASE COURSE MATERIAL	AB							
1	CLAYEY SAND, brown to dark, moist, Med PI, High Clayey Fines, Medium Dense	SC							
	ONE SIDE OF BOREHOLE APPEARED TO BE SLURRY (TRENCH BACKFILL?)								
	Boring terminated at 1.5 feet depth								POSSIBLE TRENCH BACKFILL NOTED - BORING TERMINATED
2									
3									
4									
5									
6									
7									


KEY TO SYMBOLS

Symbol Description


Strata symbols


 Asphaltic Concrete

 Aggregate base material

 Clayey sand

Soil Samplers

 Bulk sample taken
from 4 in. auger

 Standard penetration test

Notes:

1. Exploratory borings were drilled on 2-28-2023 using a 4-inch diameter continuous flight power auger.
2. No free water was observed at the time of drilling.
3. Boring locations were estimated from existing site features using a preliminary site plan.
4. These logs are subject to the limitations, conclusions, and recommendations in this report.
5. Results of tests conducted on samples recovered are reported on the logs.

Bidding Schedule - REVISED 4/12/2024

Solid Waste Scale and Fee Booth Relocation Project						
CIP #: 2208-002						
Line No.	Item	Description	Qty	Unit	Unit Cost	Amount
General Construction Items						
1	105.8	Construction Stakes, Lines and Grade	1	LS		
2	107.15	Public Relations	1	ALL	\$25,000.00	\$25,000.00
3	107.16	Storm Water Pollution Prevention Plan (SWPPP)	1	LS		
4	109.1	Mobilization/Demobilization	1	LS		
5	109.11	Contract Allowance	1	ALL	\$250,000.00	\$250,000.00
6	401.1	Traffic Control Plan	1	LS		
7	401.2a	Barricades and Storage	1	LS		
8	401.2b	Message Boards (Each per Day)	120	EA		
9	401.2c	Incidental Traffic Related Items	1	LS		
10	401.3a	Flaggers	400	HR		
11	401.2e	Uniformed Off-Duty Law Enforcement Officers Allowance	1	ALL	\$12,000.00	\$12,000.00
					<i>General Construction Items Subtotal</i> \$	
Removal Items						
12	205.1	Roadway Excavation	1,510	CY		
13	205.2	Unsuitable Material Remediation - (Provisionary Item May Not be Used)	400	CY		
14	350.1SP	Remove and Dispose Asphalt Pavement	4,374	SY		
15	350.2SP	Remove and Dispose Single Curb	210	LF		
16	350.3SP	Remove and Dispose Roll Curb and Gutter	145	LF		
17	350.4SP	Remove and Dispose Concrete Pavement	960	SF		
18	350.5SP	Remove and Dispose Slotted Drain and Valley Gutter	490	SF		
19	350.6SP	Remove and Dispose Hydrant	2	EA		
20	350.7SP	Remove and Dispose Storm Drain Pipe	130	LF		
21	350.8SP	Remove and Relocate Existing Sign	2	EA		
22	350.9SP	Remove and Reset Existing Chain Link Fence	426	LF		
23	650.1 SP	Remove and Dispose Water Main	150	LF		
					<i>Removal Items Subtotal</i> \$	
Roadway Improvements						
24	211.1	Embankment Material	200	CY		
25	220.1	RipRap, D50=6"	4	CY		
26	301.1	8" Subgrade Preparation	4,873	SY		
27	310.1SP	6" Aggregate Base Course	0	CY		
28	310.2SP	8" Aggregate Base Course	1,200	CY		
29	310.3SP	Temporary 6" Aggregate Base Course	14	CY		

Bidding Schedule - REVISED 4/12/2024

Solid Waste Scale and Fee Booth Relocation Project						
CIP #: 2208-002						
Line No.	Item	Description	Qty	Unit	Unit Cost	Amount
30	310.4 SP	6" Aggregate Surface Course	56	CY		
31	321.1	5" Asphalt Concrete (AC) Pavement	5,372	SY		
32	321.2	Temporary 3" Asphalt Concrete (AC) Pavement	20	SY		
33	329.1	AC Bituminous Tack Coat, Type SS-1h	5,372	SY		
34	340.1	6" Concrete Driveway	64	SY		
35	340.2	Roll Curb and Gutter Type C, Quad City Std. Dtl. 220Q-1	912	LF		
36	340.3	Roll Curb and Gutter Type D, Quad City Std. Dtl. 220Q-1	280	LF		
37	340.4	Vertical Curb and Gutter Type A, Quad City Std. Dtl. 220Q-1	325	LF		
38	340.5	6" Single Curb Type A, MAG Std. Dtl. 222	242	LF		
39	340.6	Curb Transition	2	EA		
40	340.7	Curb Opening, MAG Std. Dtl. 226-1	2	EA		
41	340.8	Valley Gutter, Quad City Std. Dtl. 240Q-1	360	SF		
42	340.9	4" Concrete, Quad City Std. Dtl. 230Q	1,141	SF		
43	345.1	Adjust Existing Water Valve Box and Cover, Quad City Std. Dtl. 391Q	3	EA		
44	402.1	4" Solid Double Yellow Stripe (paint), Quad City Std. Dtl. 106P-1	3,510	LF		
45	402.2	6" Solid White Stripe (paint), Quad City Std. Dtl. 106P-1	806	LF		
46	402.3	6" Broken White Stripe (paint), Quad City Std. Dtl. 106P-1	522	LF		
47	402.4	12" Solid White Stripe (paint), Quad City Std. Dtl. 106P-1	187	LF		
48	402.5	18" Solid White Thermoplastic Stop Bar, Quad City Std. Dtl. 632Q and 106P-1	26	LF		
49	402.6	Obliterate Existing Markings	108	LF		
50	402.7	Temporary 4" Solid White Stripe (paint), Quad City Std. Dtl. 106P-1	782	LF		
51	402.8	Temporary 4" Solid Yellow Stripe (paint), Quad City Std. Dtl. 106P-1	742	LF		
52	403.1 SP	Aluminum Sign Panel (Diamond Grade), Quad City Std. Dtl. 106-P and 131Q	50	SF		
53	403.2 SP	Sign Post, Quad City Std. Dtl. 131Q	8	EA		
54	403.3 SP	Sign Post Foundation, Quad City Std. Dtl. 131Q	8	EA		
55	403.4 SP	Sign Post Slip Base, Quad City Std. Dtl. 131Q	8	EA		
56	403.5 SP	Flexible Tubular Marker, White	25	EA		
57	403.6 SP	Type 3 Barricade with Sign	2	EA		
58	430.1 SP	Hydroseeding	0	AC		
59	505.1 SP	Temporary 10' K-Rail Barrier	25	EA		
60	505.2 SP	Top of Wall Concrete Lined Swale	380	SF		
61	515.1 SP	Chain Link Double Swing Gate	1	LS		
62	515.2 SP	12' Save-ty Yellow Rotating Driveway Gate	2	EA		
63	515.3 SP	Block Retaining Wall	570	SF		

Bidding Schedule - REVISED 4/12/2024

Solid Waste Scale and Fee Booth Relocation Project						
CIP #: 2208-002						
Line No.	Item	Description	Qty	Unit	Unit Cost	Amount
64	515.4	Fire Hydrant Protection Pole	4	EA		
65	618.1	12" HDPE Storm Pipe	70	LF		
66	618.2	18" HDPE Storm Pipe	66	LF		
<i>Roadway Improvements Subtotal</i>					\$	
Water Improvements						
67	601.8.1 SP	Trench Stabilization (Provisionary Item - May Not Be Used)	55	CY		
68	610.1 SP	6" Fully Restrained Class 350 DIP Waterline, Slurry Backfill	162	LF		
69	610.2 SP	Fire Hydrant Assembly	2	EA		
70	610.3 SP	Connect to Existing System	2	EA		
71	610.4 SP	6" Tapping Sleeve and Valve, Quad City Std. Dtl. 340Q-1	1	EA		
72	610.5 SP	Meter Box and Cover, Traffic Rated, MAG Std. Dtl. 319	1	EA		
73	610.16.8 SP	Extra Protection, COP Std. Dtls. 404P-1 and 404P-2	1	EA		
74	630.1 SP	6" Gate Valve, Box and Cover, Quad City Std. Dtl. 391Q	2	EA		
<i>Water Improvements Subtotal</i>					\$	
Sewer Improvements						
75	615.1 SP	8" SDR 26 PVC Sewer Main, Slurry Backfill	89	LF		
<i>Sewer Improvements Subtotal</i>					\$	
Electrical Improvements						
76	406.1 SP	No. 5 Pull Box	5	EA		
77	406.2 SP	Pull Box - Traffic Rated	1	EA		
78	406.3 SP	100A Subpanel	1	EA		
79	406.4 SP	12"x12"x6" Metal Junction Box	12	EA		
80	406.5 SP	25' Light Pole	3	EA		
81	406.6 SP	D-Series Size 1 LED Area Luminaire	3	EA		
82	406.7 SP	#12 AWG Conductors	650	LF		
83	406.8 SP	#12 AWG Ground	325	LF		
84	406.9 SP	#3/0 AWG Conductors	1,260	LF		
85	406.10 SP	#4 AWG Ground	420	LF		
86	406.11 SP	2" Schedule-40 PVC Conduit	650	LF		
87	406.12 SP	2x4 LED Flat Panel	1	EA		
88	406.13 SP	2x4 LED Flat Panel with 90-Minute Emergency Battery Backup	1	EA		
89	406.14 SP	Architectural Wall Luminaire with Photocell Control	2	EA		
90	406.15 SP	Architectural Wall Luminaire with 90-Minute Emergency Battery Backup and Photo Cell Control	1	EA		
91	406.16 SP	48 Stand SMFO	406	LF		

Bidding Schedule - REVISED 4/12/2024

Solid Waste Scale and Fee Booth Relocation Project						
CIP #: 2208-002						
Line No.	Item	Description	Qty	Unit	Unit Cost	Amount
92	406.17 SP	CAT 6	812	LF		
93	406.18 SP	3" Schedule-40 PVC Conduit	404	LF		
<i>Electrical Improvements Subtotal</i>					\$	

Structural Improvements						
94	206.1 SP	Over Excavation for Fee Booth and Scale Pits	1,065	CY		
95	505.3 SP	Slab-on-Grade Concrete and Reinforcement	200	SF		
96	505.4 SP	Fee Booth, Foundation Concrete and Reinforcement	1	LS		
97	505.5 SP	Scale, Foundation Concrete and Reinforcement	1	LS		
98	515.5 SP	Fee Booth, Structural Elements	1	LS		
99	516.1 SP	Scale - B Tek Steel Deck Centurion Truck Scale or Equal	2	EA		
<i>Structural Improvements Subtotal</i>					\$	

Mechanical Improvements						
100		HVAC System	1	LS		
<i>Mechanical Improvements Subtotal</i>					\$	

Architectural Improvements						
101		Fee Booth	1	LS		
<i>Architectural Improvements Subtotal</i>					\$	

Total Bid Amount						
-------------------------	--	--	--	--	--	--

TOTAL BID AMOUNT:

Dollars and Cents

(In Written Words)

Company Name

Company Address

Signature of Company Official

Date Signed

Title

Email