

C-900 - ADDENDUM

Addendum No. 3

Date:	<u>March 29, 2019</u>
Issued To:	<u>Plan Holders</u>
From:	<u>Alan Plummer Associates</u>
Project:	<u>Wastewater Treatment Plant Expansion</u>

This Addendum forms a part of the Contract for the project above. The original Contract Documents and any prior Addenda remain in full force and effect except as modified by the following which shall take precedence over any contrary provisions in the prior documents.

Each Bidder shall acknowledge receipt of this Addendum by affixing his signature below, by noting this Addendum on his Bid Form and attaching this Addendum acknowledgment page to his Bid.

The undersigned acknowledges receipt of this Addendum and the Bid submitted is in accordance with information, instructions and stipulations set forth herein.

BIDDER

Firm's Name

By:

<u>Signature</u>	<u>Date</u>
<u>Print Name</u>	<u>Title</u>

GENERAL DESCRIPTION

- A. This addendum forms a part of the Bidding and Contract Documents and clarifies, corrects or modifies the Project Manual and Drawings as described below.
- B. This addendum consists of 6 page(s) and the following attachments:
 - 1. C-400 –Bid Form (REVISED per Addendum 1)
 - 2. Illumination Works Light Fixture Package
 - 3. Sheet No. C1-01: Overall Site Plan
 - 4. Sheet No. C1-02: Existing Yard Piping and Demolition Plan
 - 5. Sheet No. C1-03: Overall Site Improvements
 - 6. Sheet No. C1-04: Yard Piping Plan
 - 7. Sheet No. C1-05: Yard Piping Schedules
 - 8. Sheet No. C1-06: Overall Site Grading Plan
 - 9. Sheet No. C1-07: Erosion Control Plan
 - 10. Sheet No. C4-04: Erosion Control Details and Notes
 - 11. Sheet No. M-2: Mechanical Piping Plan

PROJECT QUESTIONS

- A. Plan Sheet C1-03 & 4: Could point info (N/E, & Inv. Elev.) be provided where the 8" Feed Forward Lines enter the New treatment Bldg.
 - 1. Response: Refer to revisions for Sheet No.'s C1-04 and C1-05 included in this Addendum.
- B. Plan Sheet C1-04 & 5: Could point info (N/E, & Inv. Elev.) be provided where the 14" RAS Line Riser leaves the New Treatment Bldg?
 - 1. Response: Refer to revisions for Sheet No.'s C1-04 and C1-05 included in this Addendum.
- C. Plan Sheet C1-04 & 5: Could point info (N/E, & Inv. Elev.) be provided where the (2) 4" WAS Lines leave the New Treatment Bldg?
 - 1. Response: Response: Refer to revisions for Sheet No.'s C1-04 and C1-05 included in this Addendum.
- D. What is scale on C1-04?
 - 1. Response: The scale for Sheet No. C1-04 is 1" = 30'. Refer to revisions for Sheet No. C1-04 included below in this Addendum.
- E. Plan sheet P1-02 shows the 8" DIP from Feed Forward Wet Wells Leaving the Bldg toward the Post Anoxic Basin, please provide a section and appropriate details for this insulated Pipe leaving the Bldg. (i.e. where does the Thermacor insulation Begin? Will there be Pipe supports? What type of Wall penetration ought to be used?)
 - 1. Response: Extend the Thermacor insulation 6 inches inside the building. Pipe will be supported using either Detail 3/P4-02, 6/P4-02, or 8/P4-02. The pipe penetration detail will be coordinated with the metal building manufacturer's system-specific details.

- F. Detail sheet P4-03: There are multiple wall penetrations detailed. It is unclear which type is expected at each location. Could each wall penetration be called out by type or a schedule of penetrations be put together?
1. Response: For concrete wall penetrations, Detail 2/P4-03 is required.
- G. Plan Sheet P1-02: there are several pipe penetrations through the Metal Building Structure, please provide details for these penetrations.
1. Response: The pipe penetration details will be coordinated with the metal building manufacturer's system-specific details.
- H. P1-02 - Note 4 says to reference mechanical for lift station - where is this reference? What is spec on lift station pumps?
1. Response: Refer to Mechanical Sheet No. M2 for the lift station location. Refer to Pump Schedule in Mechanical Sheet No. M4 for pump model.
- I. Do the MBR tanks need a thickened pad/foundation in addition to the 4" equip. pad?
1. Response: No.
- J. On A7-the drawing calls out a non-standard R5.6 continuous insulation. Can a standard R-11 faced or un-faced batt insulation be used instead?
1. Response: The R-value energy code requirements from the 2009 IECC are shown on the drawings. Insulation systems that are equal in energy code compliance with different components than that shown on the drawings are acceptable.
- K. Requirements for temp filtration skid? Temp service and transformer from Kit Carson Electric?
1. Response: The temporary skid will require 3-Phase 480VAC, 200A. Contractor can mount a 200A fused disconnect switch on the electric building wall and splice/tap the line side of the 480VAC feeder going to the dewatering building to power the skid.
- L. Plan Sheet C1-02: There are several Caps called out on this sheet, will these caps be Zinc Coated, C110 MJ caps?
1. Response: No.
- M. Will you accept the attached light fixture package from Illumination Works as an "or equal" product?
1. Response: Yes; this package is acceptable as an "or equal".
- N. Spec 15100, 2.2, 4: Is TR-Flex acceptable as "restrained push-on joint" pipe?
1. Response: No.
- O. Plan sheet P4-04, Detail 3: Is this V-Notch Weir a Stainless Steel fabrication? Will it be anchored to the adjacent concrete wall? Please provide a detail of how this plate attaches to the existing conditions.
1. Response: Yes, the V-Notch Weir is a stainless steel fabrication. It will not be anchored to a concrete wall. Please also refer to Note 1 added to Sheet No. P4-04 in Addendum No. 2.

- P. On Addendum #2, Valve Sched and Sheet I0-07 & 08: Valve Sched shows Tags V-050203, 050302, 050303 as not by MBR supplier, while I0-07 shows that they are by MBR Supplier. Please confirm whether they will be by MBR Supplier.
1. Response: Valve Tags V-050203, 050302, 050303 are supplied by the MBR Supplier.
- Q. On Addendum #2, Valve Sched and Sheet I0-12: Valve Sched shows Tags V-070020 as 12" Plug Valve, while I0-07 shows Tags V-070220 as 12" Plug Valve. Please confirm whether this is the same valve. Add #2, Valve Sched calls for the 2" Check Valves at the discharge of the NPW Pump to be "SWING" Check Valves. Could these be provided as PVC BALL Check valves per 15105, 2.8?
1. Response: Valve Sched Tags V-070020, 12" Plug Valve is the same valve as I0-07 Tag V-070220, 12" Plug Valve. For the question concerning 2" check valves at the discharge of the NPW pump, provide as 2" Swing Check Valves.
- R. On Addendum #2, Plan Sheet P1-04: Note #19 Calls for a 3" Camlock. Will this be a Male or Female? AL or SS?
1. Response: 3" Aluminum Male Camlock.
- S. Sheet C1-02, Note 1, states contractor is to drain, clean and remove sludge from existing tanks. What is the estimated quantity in each tank? Can we use the existing dewatering bldg. to dewater the sludge.
1. Response: Yes, the existing dewatering system is to be used for processing the sludge. Please also refer to Response to Question T, Addendum No. 1.
- T. Please provide bottom of footer and top of wall elevations for the retaining wall NE of the new building.
1. Response: Refer to revised Sheet No. C1-06 for retaining wall top of wall elevations. Refer to Structural Sheet No. S1-03 Retaining Wall Typical Section for bottom of footer elevations.
- U. Will buried DI Pipe require Polywrap?
1. Response: Yes.
- V. Our DI Fitting manufacturer has recommended the use of Tnemec N140 as opposed to the Epoxyline II-69 ("TN69") as Spec'd for coating system E-1. Is the Tnemec N140 acceptable?
1. Response: No.
- W. On Sheet S4-01 under Concrete Notes, Note 7 states that 6" PVC waterstop is required in retaining walls except where indicated otherwise. In the drawings, the retaining walls are detailed without waterstop. Please clarify if waterstop is required in the retaining wall, and also in the walls for the new building.
1. Response: Waterstop is not required in either the retaining wall or in the walls for the new building.
- X. On Sheets C1 – 01, 02, 03 and 06, it calls out to demo the existing underground tank. In order for this to be done, we need to know:
1. How deep the tank is?
 - a. Response: The existing underground tank is to remain. Refer to revised Civil Sheets in this Addendum.
 2. Is there any material in it: liquid or solid? How much material?

- a. Response: The existing underground tank is to remain. Refer to revised Civil Sheets in this Addendum.
- 3. What should be done with the giant hole in the ground once the demo is complete; leave the hole or it backfill it? (We need finish design contours for the final grading of the excavation.)
 - a. Response: The existing underground tank is to remain. Refer to revised Civil Sheets in this Addendum.
- Y. Please indicate the wall heights of the breakroom and restroom, office and chem storage areas.
 - 1. Response: Wall heights are 9 feet.
- Z. A5 – detail 4 states that there is an equipment platform above the restroom – what is this for and what are structural requirements?
 - 1. Response: The platform is used for placement of a furnace and hot water heater.
- AA. Per bid item 20, is the contractor expected to operate the temp plant? We are not a certified operator.
 - 1. Response: No, the Contractor will not be required to operate the temporary treatment system.
- BB. Please specify whether concrete floor coatings are required for both existing and new buildings and if so, which system?
 - 1. Response: No concrete floor coatings are required for either the existing or the new buildings.
- CC. Both of the overhead coiling doors are manually operated, is this correct?
 - 1. Response: Yes.

PROJECT MANUAL

- A. DIVISION 0 – BIDDING / CONTRACT DOCUMENTS
 - 1. C-410 – Bid Form
 - a. ***Replace in its entirety.***
- B. DIVISION 15 - MECHANICAL
 - 1. 15100: Process Pipe
 - a. 15100, Page 5, 2.2, E. – ***Add 3.*** High Temperature Gasket for ductile iron air piping shall be: Manufacturer: FNW, Model: Non-Asbestos 150# Full Face Gasket.

CONTRACT DRAWINGS

- A. REVISIONS TO DRAWINGS
 - 1. Sheet No. C1-01: Overall Site Plan
 - a. ***Replace*** Sheet No. C1-01 in its entirety.
 - 2. Sheet No. C1-02: Existing Yard Piping and Demolition Plan
 - a. ***Replace*** Sheet No. C1-02 in its entirety.
 - 3. Sheet No. C1-03: Overall Site Improvements
 - a. ***Replace*** Sheet No. C1-03 in its entirety.

4. Sheet No. C1-04: Yard Piping Plan
 - a. ***Replace*** Sheet No. C1-04 in its entirety.
5. Sheet No. C1-05: Yard Piping Schedules
 - a. ***Replace*** Sheet No. C1-05 in its entirety.
6. Sheet No. C1-06: Overall Site Grading Plan
 - a. ***Replace*** Sheet No. CL-06 in its entirety.
7. Sheet No. M-2: Mechanical Piping Plan
 - a. ***Replace*** Sheet No. M-2 in its entirety.

B. NEW DRAWINGS

1. C1-07 – Erosion Control Plan
2. C4-04 – Erosion Control Details & Notes

END OF ADDENDUM

**C-410 - BID FORM
TABLE OF CONTENTS**

	Page
ARTICLE 1 – Bid Recipient	1
ARTICLE 2 – Bidder’s Acknowledgements	1
ARTICLE 3 – Bidder’s Representations.....	1
ARTICLE 4 – Bidder’s Certification	2
ARTICLE 5 – Basis of Bid	3
ARTICLE 6 – Time of Completion.....	5
ARTICLE 7 – Attachments to this Bid	5
ARTICLE 8 – Defined Terms.....	5
ARTICLE 9 – Bid Submittal.....	6

THIS PAGE INTENTIONALLY BLANK.

ARTICLE 1 – BID RECIPIENT

- 1.01 This Bid is submitted to:
Village of Taos Ski Valley
Attn: Nancy Grabowski
7 Firehouse Road, P.O. Box 100
Taos Ski Valley, NM 87525
- 1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

- 2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 calendar days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

- 3.01 In submitting this Bid, Bidder represents that:

- A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum Date</u>
1	03/25/19
2	03/27/19
3	03/29/19
4	

- B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work and including all American Iron and Steel requirements.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and

performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 **Lump Sum Bid Items:** Bidder will complete the Work in accordance with the Contract Documents for the following lump sum price(s):

Item No.	Description	Lump Sum Bid Price
1.	Bonding, Mobilization, and Insurance (5% maximum)	\$
2.	Demolition of Existing Structures	\$
3.	Site Work	\$
4.	Yard Piping	\$
5.	Headworks Process Improvements Total (Per Addendum 1)	
6.	Process Areas Total	\$
6a.	Existing Basin Retrofits	\$
7.	Process Materials, Equipment & Installation Total	\$
7a.	Alkalinity, PACl, and Carbon Feed Systems	\$
7b.	Process Piping, Valves, and Ancillary Equipment	\$
8.	Main Treatment Plant Buildings Systems Total	\$
8a.	Existing Metal Building Upgrades	\$
8b.	Existing Metal Building Interior Building Upgrades	\$
8c.	New Metal Building and Interior Building Systems	\$
8d.	Misc Metals	\$
9.	Electrical/Instrumentation and Controls Systems Total	\$
9a.	New MCC	\$
9b.	Electrical Systems	
9c.	Coordination and Integration of Ovivo Controls	\$
9d.	Instrumentation and Controls Systems	\$
9e.	SCADA Upgrades	\$
9f.	Back-up Generator	\$
10.	Geotechnical Allowance	\$ 10,000
SUBTOTAL LUMP SUM BID ITEMS (1 through 10)		\$

5.02 **Unit Price Bid Items:** Bidder will complete the Work in accordance with the Contract Documents for the Bid Unit Price(s).

A. Bidder acknowledges:

- Each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item.
- Estimated quantities are not guaranteed and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Item No.	Description	Unit	Est. Qty	Unit Price	Bid Price
11	Existing Steel Sludge Tanks Cleaning and Inspection	Lump Sum	2 <i>(Per Add 2)</i>		
12.	Dewatering Plan, Permit, and Installation, and Decommissioning.	Lump Sum	1		
13.	Dewatering Operations	Per week	15		
14.	Rock Excavation	Cubic Yard	100		
15.	Material Hauling Off-Site	Cubic Yard	200		
16.	Import of Structural Fill	Cubic Yard	200		
17.	Metal Roof Panel Replacement – Materials and Installation	Square Foot	TBD		
18.	Metal Wall Panel Replacement – Materials and Installation	Square Foot	TBD		
19.	Temporary Treatment System Set-up	Lump Sum	1		
20.	Temporary Treatment System Operations	Per Month	6		
SUBTOTAL OF ALL UNIT PRICE BID ITEMS				\$	

- 5.03 Assignment of Contract: Allowance for Contractor's payment obligation to **Ovivo**, as "Seller", for goods and special services set forth in assigned Procurement Contract. Bidder to include in other Bid item(s) the other costs (if any) associated with accepting such assignment and administering the assigned contract. ***(Per Addendum 1)***

SUBTOTAL OF LUMP SUM + UNIT BID PRICES	\$	
NMGRT @ 9.25%	\$	
<i>TOTAL OF LUMP SUM + UNIT BID PRICES</i>	\$	
ASSIGNMENT OF OVIVO CONTRACT	\$	
Allowance for Ovivo Contract Amount	\$ 3,347,476.00	
Contractor Mark-Up of Assigned Contract PLUS NMGRT @ 9.25%	\$	
<i>ASSIGNMENT OF CONTRACT SUBTOTAL</i>	\$	
TOTAL BID PRICE	\$	

- 5.04 Additive Alternate: NOT USED.

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. C-414 - Affidavit of Non-Collusions
 - B. C-430 - Bid Bond
 - C. C-435 – Compliance Statement
 - D. C-436 - Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
 - E. C-437 - RD Instruction 1940-Q, Exhibit A.1.
 - F. C-451 - Qualification Statement
 - G. C-455 - Subconsultants and Suppliers Qualifications
 - H. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - I. Contractor's License No.: _____ or Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
 - J. Manufacturers' Certification letter of compliance with Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference for all equals or substitutes approved by Addenda for American Iron and Steel products as provided in these Contract Documents.
 - K. If Bid amount exceeds \$10,000, signed Compliance Statement (RD 400-6). Refer to specific equal opportunity requirements set forth in the Supplemental General Conditions;
 - L. If Bid amount exceeds \$25,000, signed Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions (AD-1048);
 - M. If Bid amount exceeds \$100,000, signed RD Instruction 1940-Q, Exhibit A-1, Certification for Contracts, Grants, and Loans

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER

Bidder's Name _____ FEIN _____

By: _____
Signature _____ Date _____

_____ Title _____

(If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____
Signature _____ Date _____

_____ Title _____

Address for giving notices: _____

Telephone Number: _____

E-mail address: _____



Illumination Works, LLC.

Date: Mar 22, 2019

Illumination Works, LLC.
139 HEADINGLY NW
ALBUQUERQUE NM 87107
Phone: (505) 821-0056
Fax: (505) 821-0039

Job Name

VILLAGE OF TAOS SKI VALLEY WASTEWATER TREATMENT PLANT EXPANSION

IWI ALBQ.19-22774

TAOS SKI VALLEY NM

Bid Date

Apr 5, 2019

Submittal Date

Mar 20, 2019



Illumination Works, LLC.

Transmittal

Illumination Works, LLC.
 139 HEADINGLY NW
 ALBUQUERQUE NM 87107
 Phone: (505) 821-0056
From: Leanne Early

Project VILLAGE OF TAOS SKI VALLEY
 WASTEWATER TREATMENT PLANT
 EXPANSION

Quote# IWI ALBQ.19-22774

Location TAOS SKI VALLEY NM
 Contact:

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- | | | |
|-----------------------------------|--|--------|
| ☐ Drawings | ☐ Specifications | Other: |
| ☐ Prints | ☐ Information | |
| ☐ Plans | ☒ Submittals | |

THESE ARE TRANSMITTED FOR:

- | | | |
|--|---|---------------------------------|
| ☒ Prior Approval | ☐ Resubmittal for Approval | ☐ Record |
| ☐ Approval | ☐ Corrections | Bids due on: |
| ☐ Approval as Submitted | ☐ Your Use | Other: |
| ☐ Approval as Noted | ☐ Review and Comment | |

Type	MFG	Part
A	LEGION LIGHTING	1285 217 ACP EBO
B	LIGHTOLIER	CP6RB10930W CP6RN
B	DAYBRITE/CHLORIDE	DWAE232-UNV-1/2-EB
C	LEDALITE	7406LCEQG047DEW
D	DAYBRITE/CHLORIDE	2STG228-D-UNV-1/2-EB
E	DAYBRITE/CHLORIDE	CFS2GPF232UNV-1/2-EB
F	STONCO	LPW16-51BZPCB

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**
1285 217 ACP EBO

Notes:

Type:**A**

IWI ALBQ.19-22774

PRISMALIER®

Series **1285****APPLICATIONS**

The finest in over mirror powder and bath-room lighting. Delivering maximum light to the task with minimum amount of energy. The white front which emits a soft pleasing glow and the protruding "U" shape acts as a baffle eliminating glare. The bottom design of embossed lineal clear prisms directs the light to the task, the upper portion has internal micro lineal clear prisms for ease of maintenance, yet providing maximum uplight.

This unique design combined with the Lock-Tite construction and clear anodized aluminum ends makes PRISMALIER® the specifiers choice.

**SPECIFICATIONS**

CONSTRUCTION: Die formed of 20 gauge cold rolled prime steel, rigidly fabricated, to insure true and perfect alignment. End caps are satin anodized aluminum.

SHIELDING: One piece precision extruded acrylic plastic, to exceed IES-SPI-NEMA minimum standards. With clear linear prismatic top and bottom, to provide evenly distributed illumination downward, and generous uplight. Front face is translucent white which glows warmly and keeps direct light from the eyes. The lens has the exclusive "Lock-Tite" design which prevents dust accumulation.

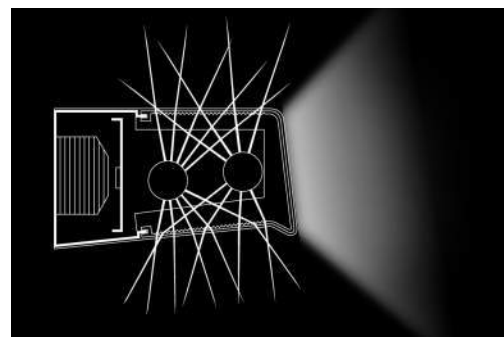
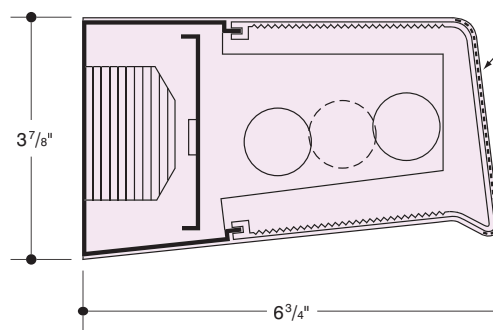
MOUNTING: Ample knockouts and mounting holes on back for individual wall installation. Supplied with joiner bands for continuous runs. (ADVISE FACTORY).

ELECTRICAL: 1 or 2 lamp thermally protected class "P" Energy Saving Rapid Start HPF 265MA-T8, 270MA-Biax (Twin Tube) electronic ballasts standard for 118V 60Hz operation. Other ballasts, voltages and frequencies available, consult factory.

FINISH: All steel components parts are completely protected against rust and discoloration after fabrication through an automated conveyorized multi-stage phosphate bonding process. Finished with an electrostatic baked white polyester thermosetting powder coating. This electronic computer controlled integrated system assures consistent 88%+ reflectance efficiency and maximum durability. Ends are aluminum-satin anodized.

CERTIFICATION: The PRISMALIER® Series 1285 is U.L. and C.U.L. listed and bears the label of the I.B.E.W./AFL-CIO, Local #3. Optionally U.L. and C.U.L. listed for damp locations "DL".

PRISMALIER® and LEGION® are registered trademarks of LEGION LIGHTING CO., INC.

Optional Perforated
Metal Facia (see OPTIONS)

CROSS SECTION SHOWING PRECISE CONTROL OF LIGHT

LEGION®
LIGHTING CO., INC.

221 Glenmore Ave., Brooklyn, NY 11207 • Tel: 718/498-1770 • Fax: 718/498-0128
E-mail: sales@legionlighting.com • Website: www.legionlighting.com • Toll Free Tel: 800/4-LEGION

2/04

Section C - Page 63

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**
1285 217 ACP EBO

Notes:

Type:**A**

IWI ALBQ.19-22774

Series 1285**Prismalier®****ORDERING DATA**

Catalog No.	No. and Type Lamps	Nominal Length	Wt.
1285-1BX18-ACP	** 1-F18TT/RS	12"	5
* 1285-117-ACP EBO	1-FO17-OCT-T8		10
1285-1BX40-ACP	** 1-F40TT/RS	24"	10
* 1285-217-ACP EBO	2-FO17-OCT-T8		11
* 1285-125-ACP EBO	1-FO25-OCT-T8	36"	13
* 1285-225-ACP EBO	2-FO25-OCT-T8		14
* 1285-132-ACP EBO	1-FO32-OCT-T8		15
* 1285-232-ACP EBO	2-FO32-OCT-T8	48"	15
1285-2BX40-ACP	** 2-F40TT/RS		16

**F18TT/RS, F50TT/RR and F40TT/RS is the ANSI designation of various lamp manufacturers, i.e. G.E. Lighting "BIAX", Phillips "PL", Osram "Dulux L", Sylvania TWIN-TUBE.

- For **F50TT/RS lamp, change cat. no. Ex.: **WH1285-2BX50-ACP**

☼ Tandem Lamps 

CAN BE SUPPLIED IN CONTINUOUS RUNS ON REQUEST.
CONSULT FACTORY.

OCTRON™ is a registered trademark of SYLVANIA

As a Energy Star® Partner, Legion Lighting Co., Inc. has determined that the Series 1285 Wall Bracket Starred * meets the Energy Star® guidelines for energy efficiency. Please consult factory for specific information.

★



Energy Star® and Logo are registered trademarks of the U.S. Govt. and EPA.

OPTIONS

Suffix "DIM" after catalog no. for dimming ballast.
Suffix "LT" after catalog no. for cold weather ballast.
Suffix "EM" after cat. no. for emergency battery pack, see price list for types.

Suffix "DL" after catalog no. for damp location.
Suffix "GCO" after catalog no. for grounded convenience outlet.
Suffix "RSW" after catalog no. for positive position rocker switch.
Suffix "PS1C" after catalog no. for single circuit pull switch.
Suffix "PERF" after catalog no. for perforated metal facia over lens.

ENERGY SAVING BALLASTS Where applicable (consult factory).
Suffix "ESB" after catalog number, then / and then one of the following:

MAGNETIC

"OCT"-Octron T8 Ballast

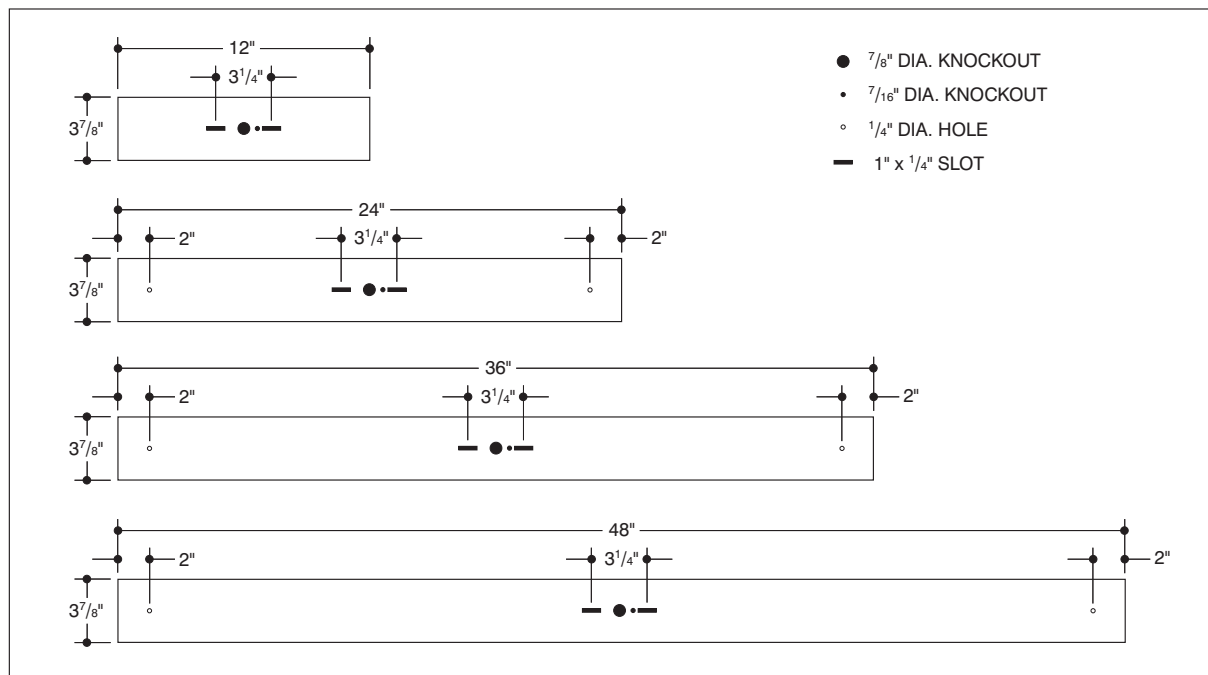
ELECTRONIC

"EBO"-Electronic T8 Octron Ballast

"EBDO"-Electronic T8 Dimming Ballast



Perforated metal facia over lens. See OPTIONS.

BACK PLANS

Information supplied primarily for illustrative purposes, subject to change.
Consult factory for verification and minimum quantity orders.

LEGION®
LIGHTING CO., INC.

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

CP6RB10930W CP6RN

Notes:**Type:****B**

IWI ALBQ.19-22774

**PHILIPS
LIGHTOLIER****Downlighting****CorePro LED**Attractive, affordable, and
easy to use 6" downlight

Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____

Qty: _____

Notes: _____

Core value LED downlight for new
construction and remodel applications
that installs in many existing residential
and commercial applications.**Ordering guide**

example: CP6RB07830W

Catalog Number	Aperture	CRI	CCT	Lumens	System Watts (Max)	Efficacy (lm/W)	Voltage
CP6RB07830W	6-inch	80	3000K	835lm	11	75	120
CP6RB10930W	6-inch	90	3000K	1,000lm	16	63	120
CP6RB10830W	6-inch	80	3000K	1,200lm	14	86	120
CP6RB10840W	6-inch	80	4000K	1,250lm	14	89	120

Features

- Reflector/Flange:** One piece self flange cast aluminum, powder coated, non yellowing, white baffle and flange.
- Lens:** High transmittance lens allowing for smooth, diffused light pattern.
- Power supply:** Class 2 driver. Factory wired electronic LED driver (see Electrical section for specifications).
- LED board:** Light emitted source.
- Friction spring:** Stainless steel.
- Power connection:** Trim features quick connect plug installed as standard installation into CP6RN and CP6RR housings with mating connector. Trim ships with a medium base socket adapter whip for installation into 6" incandescent housings with medium base sockets.
- Lifetime:** Expected lifetime 50,000 hours and backed by a 5-year warranty (see Philips.com/warranties for details).

Electrical**Electronic power supply:** RoHS compliant* Class 2 power unit for use in a dry and damp locations. Complies with FCC.**Dimming:** All luminaires are intended for use with TRIAC type dimmers. Go to <http://www.lightolier.com/MKACatpdfs/LED-DIM>. PDF for the latest dimming switch capability information. 10%-100% dimming range.

Lumen Output	Input Voltage	Input Frequency	Max. Input Current	Max. Input Power	Max THD	Power Factor	Min. Temp. Operating
835lm	120V	50/60Hz	0.11A	11W	< 30%	> .9	-20° C
1,200lm	120V	50/60Hz	0.11A	14W	< 30%	> .9	-20° C

Performance data based on 80 CRI 3000K.

* Restrictions on Hazardous Substances (RoHS) is a European directive (2002/95/EC) designed to limit the content of 6 substances [lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE)] in electrical and electronic products. For products used in North America compliance to RoHS is voluntary and self-certified.

LabelscULus listed for wet locations.
Energy Star certified.

Title 24 Certified to meet high efficiency requirements; 90 CRI configuration only.



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

CP6RB10930W CP6RN

Notes:**Type:****B**

IWI ALBQ.19-22774

CP6 CorePro LED Downlight

Attractive, affordable, and easy to install 6" downlight

CP6RN: 6" IC/Airseal frame-in kit housing

Housing

Constructed of formed aluminum. For use in direct contact with thermal insulation. Adjusts vertically in plaster frame to accommodate ceilings 1/2" to 1-1/2" thick. Ceiling opening 6-3/8".

Electrical Connection

LED quick-connect adapter.

Junction Box

Galvanized steel with two snap-on covers and grounding pigtail. Knockouts for 1/2" & 3/4" conduit and Romex knockouts with strain relief.

Bar Hangers

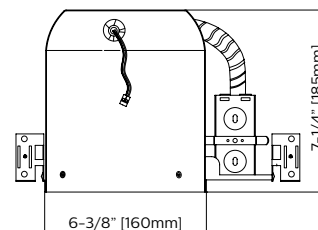
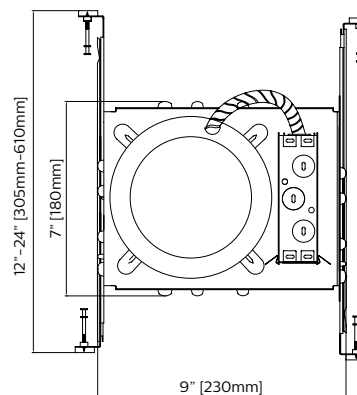
Pre-installed pre-nailed style bar hangers telescope from 12" to 24". Vertical design of interlocking bar hangers prevents sagging even at full 24" extension. Style bar hangers may be used on either long or short axis of housing.

IC frame-in Kit

Housing is cULus Listed for direct contact with thermal insulation cULus Listed for Damp Locations and Through Branch Wiring, 4 in/4 out.

AirSeal

Fixture is AirSeal rated according to ASTM E283 to no more than 2.0 cubic feet of air per minute at 75 pascals. Fixture meets Washington State Energy Code and Energy Conservation Code.



CP6RR: 6" IC/Airseal Remodeler Housing

Housing

Constructed of formed aluminum. Adjusts vertically in plaster frame to accommodate ceilings 1/2" to 1-1/4" thick. Housing can be pulled through plaster frame for access to junction box. Ceiling opening of 6".

Electrical Connection

LED quick-connect adapter.

Junction Box

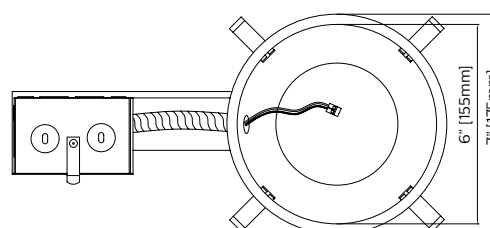
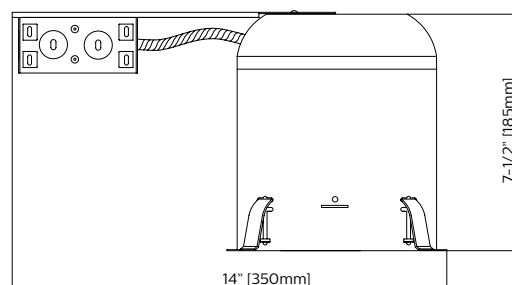
Galvanized steel with two snap-on covers and grounding pigtail. Knockouts for 1/2" & 3/4" conduit and Romex knockouts with strain relief.

IC Frame-in Kit

Housing is cULus Listed for direct contact with thermal insulation cULus Listed for Damp Locations and Through Branch Wiring, 4 in/4 out.

AirSeal

Fixture is AirSeal rated according to ASTM E283 to no more than 2.0 cubic feet of air per minute at 75 pascals. Fixture meets Washington State Energy Code and Energy Conservation Code.



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

CP6RB10930W CP6RN

Notes:

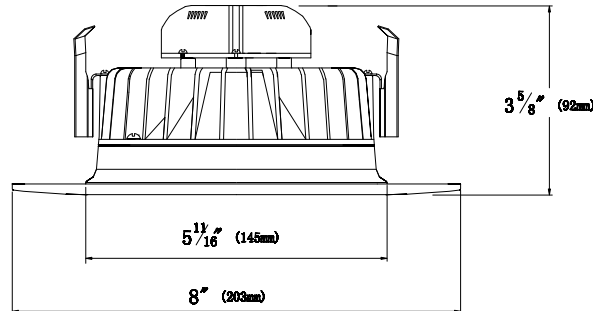
Type:**B**

IWI ALBQ.19-22774

CP6 CorePro LED Downlight

Attractive, affordable, and easy to install 6" downlight

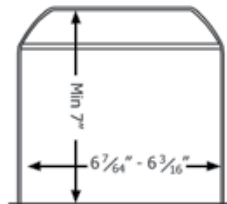
Dimensions



E26 Compatibility*

Manufacturer	Model
Philips	CP6RN
	CP6RR
	1104IC
	CR1NBQP
	QL6NBQP
	P6GU
	P6RGU
	PR75ASIC
	PRR75ICX
	FD2IC6V90
Halo	H7T
	H7RT
	H7ICAT
	H7RICAT
Lithonia	L7X
Juno	IC22
Progress	P87-A1

* Any other luminaires meeting these dimensions as shown are also compatible.



CP6RN: IC c/w LED Connector
New Construction Housing



The 6" unit is shown with a standard (E26) adapter to fit medium base sockets

CP6RR: IC c/w LED Connector
Remodeler Housing



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

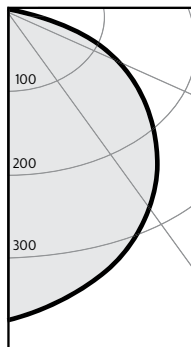
CP6RB10930W CP6RN

Notes:**Type:****B**

IWI ALBQ.19-22774

CP6 CorePro LED Downlight

Attractive, affordable, and easy to install 6" downlight

CP6RB07830W**Candela Curves****Report¹: BTS165315**Output lumens: 839.1 lms
Input Watts²: 11.1W
Spacing Criterion: 1.2Efficacy: 75.6 lm/w
CCT³: 3000 K
CRI: >80**Single unit data**

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	13	6.0
6'	9	7.2
7'	7	8.4
8'	5	9.6
9'	4	10.8

* Beam diameter is where foot-candles
drop to 50% of maximum.**Multiple unit data - RCR 2**

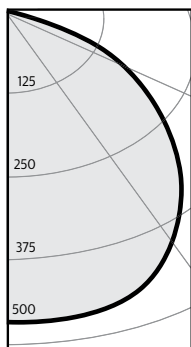
Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	34.6	0.49
6'	22.7	0.32
7'	16.2	0.23
8'	13.5	0.19
9'	10.8	0.15

38'x38'x10' Room, Workplane 2.5'
above floor, 80/50/20% Reflectances**Coefficients of utilization**

Ceiling	80%				70%				50%				30%				0%
Wall	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%																
Room Cavity Ratio	0	119	119	119	116	116	111	111	106	106	100	100	100	100	100	100	100
1	110	106	102	99	104	97	99	94	96	91	86	86	86	86	86	86	86
2	101	93	87	82	91	81	88	79	85	77	73	73	73	73	73	73	73
3	92	83	75	69	81	68	78	67	75	66	63	63	63	63	63	63	63
4	85	73	65	59	72	58	70	58	67	57	54	54	54	54	54	54	54
5	78	66	57	51	65	51	63	50	61	50	47	47	47	47	47	47	47
6	72	59	51	45	58	44	57	44	55	44	41	41	41	41	41	41	41
7	67	54	46	40	53	39	52	39	50	39	37	37	37	37	37	37	37
8	62	49	41	35	49	35	47	35	46	35	33	33	33	33	33	33	33
9	58	45	37	32	45	32	44	32	43	31	30	30	30	30	30	30	30
10	55	42	34	29	41	29	40	29	39	29	27	27	27	27	27	27	27

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	257	30.6%
0-40	417	49.7%
0-60	717	85.5%
0-90	839	100.0%

CP6RB10830W**Candela Curves****Report¹: BTS165316**Output lumens: 1227 lms
Input Watts²: 13.7W
Spacing Criterion: 1.2Efficacy: 89.6 lm/w
CCT³: 3000 K
CRI: >80**Single unit data**

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	20	6.0
6'	14	7.2
7'	10	8.4
8'	8	9.6
9'	6	10.8

* Beam diameter is where foot-candles
drop to 50% of maximum.**Multiple unit data - RCR 2**

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	50.8	0.61
6'	33.3	0.40
7'	23.8	0.28
8'	19.8	0.24
9'	15.9	0.19

38'x38'x10' Room, Workplane 2.5'
above floor, 80/50/20% Reflectances**Coefficients of utilization**

Ceiling	80%				70%				50%				30%				0%
Wall	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%																
Room Cavity Ratio	0	119	119	119	116	116	111	111	106	106	100	100	100	100	100	100	100
1	110	106	102	99	104	97	99	94	96	91	86	86	86	86	86	86	86
2	101	93	87	82	91	81	88	79	85	77	74	74	74	74	74	74	74
3	92	83	75	69	81	68	78	67	76	66	63	63	63	63	63	63	63
4	85	74	65	59	72	59	70	58	68	57	54	54	54	54	54	54	54
5	78	66	58	51	65	51	63	50	61	50	47	47	47	47	47	47	47
6	72	60	51	45	59	45	57	44	55	44	42	42	42	42	42	42	42
7	67	54	46	40	53	40	52	39	51	39	37	37	37	37	37	37	37
8	63	50	41	36	49	36	48	35	46	35	33	33	33	33	33	33	33
9	59	46	38	32	45	32	44	32	43	32	30	30	30	30	30	30	30
10	55	42	34	29	42	29	41	29	40	29	27	27	27	27	27	27	27

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	382	31.1%
0-40	617	50.3%
0-60	1051	85.7%
0-90	1227	100.0%

Adjustment factors

Color temperature (CCT)
4000K = 107%

1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Wattage: controlled to within 5%
3. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

CP6RB10930W CP6RN

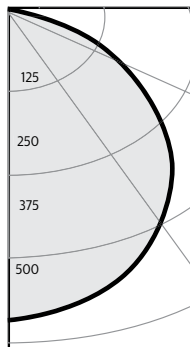
Notes:

Type:**B**

IWI ALBQ.19-22774

CP6 CorePro LED Downlight

Attractive, affordable, and easy to install 6" downlight

CP6RB10930W**Candela Curves****Report#: BTS165317**

Output lumens: 1113 lms
Input Watts²: 15.9 W
Spacing Criterion: 1.2

Angle	Mean CP	Lumens
0	468	
5	464	44
10	456	
15	442	125
20	424	
25	401	185
30	374	
35	345	217
40	313	
45	279	216
50	240	
55	197	178
60	153	
65	108	109
70	64	
75	27	34
80	9	
85	3	4
90	0	

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	19	6.0
6'	13	7.2
7'	10	8.4
8'	7	9.6
9'	6	10.8

* Beam diameter is where foot-candles
drop to 50% of maximum.**Multiple unit data - RCR 2**

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	46.3	0.70
6'	30.4	0.46
7'	21.7	0.33
8'	18.1	0.28
9'	14.5	0.22

38'x38'x10' Room, Workplane 2.5'
above floor, 80/50/20% Reflectances**Coefficients of utilization**

Ceiling	80%				70%				50%				30%				0%
Wall	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%																
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	100	106	106	100	
1	110	106	102	99	104	97	100	94	96	92	87			96	92	87	
2	101	94	88	83	92	82	88	80	85	78	74			85	78	74	
3	93	83	76	70	82	69	79	68	76	67	64			76	67	64	
4	85	74	66	60	73	59	70	59	68	58	55			68	58	55	
5	79	67	58	52	66	52	63	51	62	51	48			62	51	48	
6	73	60	52	46	59	45	57	45	56	45	42			56	45	42	
7	68	55	46	40	54	40	52	40	51	40	38			51	40	38	
8	63	50	42	36	49	36	48	36	47	36	34			47	36	34	
9	59	46	38	33	45	33	44	32	43	32	30			43	32	30	
10	55	43	35	30	42	30	41	30	40	29	28			40	29	28	

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	354	31.8%
0-40	571	51.3%
0-60	965	86.7%
0-90	1113	100.0%

1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Wattage: controlled to within 5%
3. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

© 2016 Philips Lighting Holding B.V. All rights reserved.
Philips reserves the right to make changes in specifications
and/or to discontinue any product at any time without notice
or obligation and will not be liable for any consequences
resulting from the use of this publication.
philips.com/luminaires

CP6 12/16 page 5 of 5



Philips Lighting, North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

Philips Lighting Canada Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008



Illumination Works

Job Name:VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

DWAE232-UNV-1/2-EB

Notes:

Type:**B**

IWI ALBQ.19-22774

Day-Brite**CFI**

by @ignify

Industrial

Vaporlume DW

4' sealed industrial,
T5, T5HO, T8 or T12

Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____ Qty: _____

Notes: _____

Day-Brite / CFI Vaporlume sealed industrial DW is a wet location
listed luminaire with a non-metal exterior, housing and lens assembly.

Ordering guide**Example: DWAE232-UNV-1/2-EBLHE**

Family	Application	Lens	Hubs Installed	No. of Lamps Per Cross Section	Lamp Type	Voltage	Options
D	W	A	E		—	—	
D Sealed industrial	W Wet Location	A DR Acrylic	E Ends only	(not included) 1 2	28 28WT5 (46") 32 32WT8 (48") 48 38WT12 Slimline (48") 44HO 44WT8 380mA (48") 48HO 60WT12 800mA (48") 54HO 54WT5HO (46")	UNV Universal voltage 120/277V 120 120V 277 277V 347 347V	1/1 One 1-lamp ballast 1/2 One 2-lamp ballast EB Electronic ballast, <10% THD EB10R T8 electronic ballast, program rapid start, <10% THD EBHE T8 electronic ballast, high efficiency, std. ballast factor EBLHE T8 electronic ballast, high efficiency, low ballast factor EBHHE T8 electronic ballast, high efficiency, high ballast factor EBSD T8 electronic step dimming ballast, .88 ballast factor EBD7 Advance Mark 7 dimming ballast, 0-10V (low voltage) control EBDX Advance Mark 10 dimming ballast, phase control EBD Electronic dimming ballast, customer specified LT20 ~20°F start option (use in conjunction with ballast option) E1 B100 emerg. ballast, T8, 350-450 lumens, 120/277V E7 B60 emerg. ballast, T8/T12, 600-700 lumens, 120/277V E5 B50 emerg. ballast, U.S. or Canada market, T8/T12, 1100-1400 lumens, UNV E5ST B50ST emerg. ballast w/self test, U.S. or Canada market, T8, 1100-1400 lumens, UNV E7LP LP550 emerg. ballast T5/T5HO, 430-700 lumens, 120/277V E6LP LP600 emerg. ballast U.S. or Canada market, T5/T5HO, 750-1325 lumens, 120/277V GLR Fusing, fast blow MD360W Wet location occupancy sensor, external See section 1600-OA for options info. and sheet 1455-IF for mounting hardware.

Accessories (order separately)

- **TBK** Stainless Steel Top Bracket Kit (pair of brackets plus mounting hardware)
- **EBK** Stainless Steel End Bracket Kit (pair of brackets plus mounting hardware)
- **WBK** Stainless Steel Wraparound Kit (pair of brackets plus mounting hardware)
- **FKR-126** Chain hanger set (requires TBK)



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

DWAE232-UNV-1/2-EB

Notes:**Type:****B**

IWI ALBQ.19-22774

DW Vaporlume sealed industrial

4', T5, T5HO, T8, or T12

Application

- Acceptable for outdoor as well as indoor installations.
- Can be surface (wall/ceiling) or suspended mounted unless otherwise specified.
- Wet Location-Areas of high humidity, water vapor, rain, incidental water spray, or other non-corrosive or non-flammable liquid.
- Mounting brackets available, order separately.
- IP65 rating standard. IP67 configuration available.
- NSF Certified for non food zone installations.

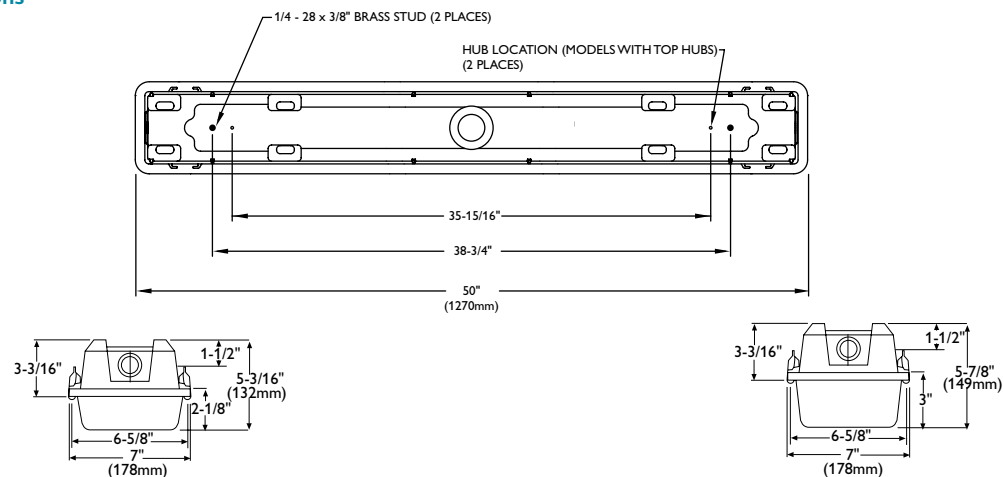
Construction/Finish

- Non-conductive, non-corrosive housing.
- Smooth exterior surface for easy cleaning.
- White, molded fiberglass reinforced polyester body.
- High impact DR acrylic molded lens.
- Continuous closed cell, foam in-place gasket.
- ABS cam action latches.
- Lighting channel has high reflectance baked white enamel finish.
- Two gasketed threaded (1/2" trade size) wet location hubs installed.

Electrical

- Electronic ballasts are standard on high output (44HO and 48HO) models, please include EB ballast designator in catalog number. Magnetic HO ballasts are more expensive than electronic and are suitable for cold ambient applications only.
- Day-Brite's standard fixtures for high output T8 (380mA) and T12 (800mA) include ballasts rated for -20° F starting temperature where available.
- cULus listed for wet locations. Also suitable for damp locations.
- Self-contained fluorescent emergency ballasts available.

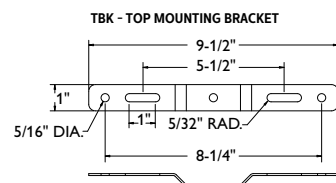
Dimensions



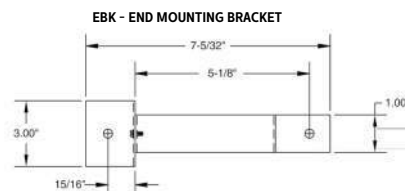
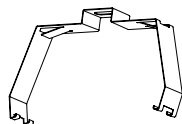
SHALLOW LENS VERSION (STANDARD)

DEEP LENS VERSION FOR HIGH AMBIENT, OR WHEN 800mA LAMPS
ARE OPERATED ON MAGNETIC BALLAST.

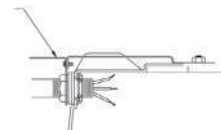
Mounting Brackets



WBK - WRAPAROUND MOUNTING BRACKET



EBK - END MOUNTING BRACKET



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

DWAE232-UNV-1/2-EB

Notes:

Type:**B**

IWI ALBQ.19-22774

DW Vaporlume sealed industrial

4', T5, T5HO, T8, or T12

Photometry**DW 4' 2 Lamp F32T8**

Efficiency – 85.1%

LER – 79

TER – 45

Catalog No.	DWAE232-120-1/2-EB	Candlepower				Light Distribution				Average Luminance			
		Angle	End	45	Cross	Degrees	Lumens	% Lamp	% Luminaire	Angle	End	45'	Cross
Test No.	20017D1	0	1109	1109	1109	0-30	905	15.9	18.7	45	5162	5457	5986
S/MH	1.5	5	1102	1105	1104	0-40	1532	26.9	31.6	55	4608	5337	6090
Lamp Type	F32T8	15	1066	1096	1116	0-60	2923	51.3	60.3	65	3872	5287	6339
Lumens/Lamp	2850	25	988	1063	1117	0-90	4438	77.9	91.5	75	3090	5685	6743
Ballast Factor	0.88	35	871	1007	1110	0-180	4850	85.1	100.0	85	2194	5573	6459
Input Watts	54	45	717	921	1065								
		55	528	796	973								
		65	336	661	867								
		75	174	552	739								
		85	53	369	511								
		95	19	199	323								
		105	15	112	190								
		115	7	56	83								
		125	3	28	39								
		135	2	13	23								
		145	4	7	13								
		155	4	4	6								
		165	5	5	7								
		175	6	7	8								

Comparative yearly lighting energy cost per 1000 lumens – **\$3.04** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.



Some luminaires use fluorescent or high intensity discharge (HID) lamps that contain small amounts of mercury. Such lamps are labeled, "Contain Mercury" and/or the symbol "HG". Lamps that contain mercury must be disposed of in accordance with local requirements. Information regarding lamp recycling and disposal can be found at www.lamprecycle.org



Illumination Works

Job Name:VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

7406LCEQG047DEW

Notes:

Type:**C**

IWI ALBQ.19-22774

**Linear****Sync****Suspended**

With its slim, uncluttered design, Sync is the epitome of compact style.
Sync offers true direct/indirect lighting distribution and luminous aesthetics with exceptional glare control.

Project: _____
Location: _____
Cat.No: _____
Type: _____
Line ID: _____ Qty: _____
Notes: _____

Ordering guide

example: 7406LBCQN087DEW, A1-24

Family	Source	CRI/CCT ¹	Lumens ¹	Optics	Distribution	Run Length	Wiring ²	Voltage	Driver
7406	L			Q					E
7406 Sync Suspended	L LED	A 80CRI/4000K B 80CRI/3500K C 80CRI/3000K	A 6500 lm/4ft C 4600 lm/4ft E 3400 lm/4ft	Q MesoOptics Lens	N Lightguide D 55% Down Kit G 80% Down Kit J 100% Down Kit	04 4ft 08 8ft xx Continuous Run (4ft increments)	7 1cct Dimming E 2cct A/B Dimming (Alt. 4ft sections) M 1cct Dimming + EM Wiring N 1cct Dimming + EM Batt. Pack	D UNV 120-277V 3 347V	E Advance 0-10V (1% Dim)

Finish	Mount Type	Suspension
W Standard White	A1 Non-accessible ceiling, 0°-15° Slope Mount	24 24"
T Titanium Silver	A2 T-grid Fixed Position Mount	48 48"
B Black	A3 Non-accessible ceiling, 0°-90° Slope Mount	96 96"
C Custom	A5 T-grid 24" Span Mount (non regular tile only)	144 144"
	A6-1 T-grid On-grid Mount 15/16" (non regular tile only)	
	A6-2 T-grid On-grid Mount 9/16" (non regular tile only)	
	A6-3 T-grid On-grid Mount 9/16" x 5/16" (slot tee & tegular tile)	

1. Nominal values within a range. Down kits reduce output & efficacy. Consult photometry data for color temp, lumens & distribution of chosen configuration.
2. Not all wiring types are available with all configurations. Consult Ledalite for a complete list of available options



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

7406LCEQG047DEW

Notes:

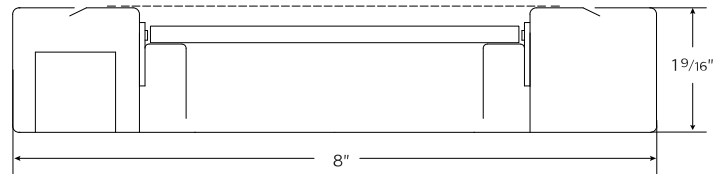
Type:**C**

IWI ALBQ.19-22774

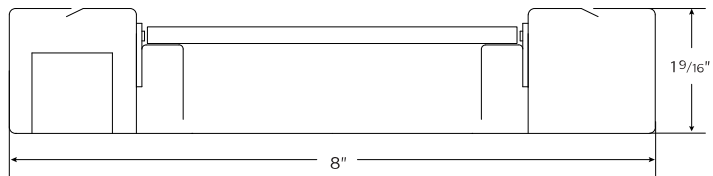
Sync linear suspended

Cross Section View

With Down Kit

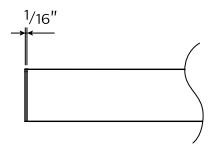


Lightguide

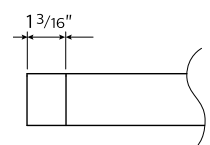
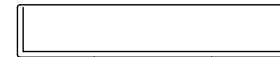


Cross Section View – Endcaps

Flat (standard)

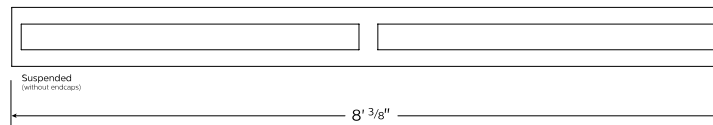


Sculpted



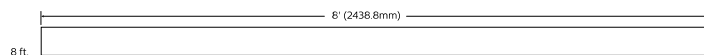
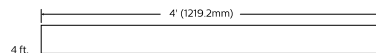
Cross Section View – Optics Details

Lens View



Module Details & Dimensions

Module length excludes end caps. Nominal mounting spacing for individually mounted modules.



Note: Refer to installation instructions for exact mount.

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

7406LCEQG047DEW

Notes:**Type:****C**

IWI ALBQ.19-22774

Sync linear suspended

Specifications

Optical System

The optical system contains arrays of LEDs edge-lighting a low profile light-guide panel, using total internal reflection to homogenize the sources. The microstructured surface of the panel optimizes light extraction to create an efficacious direct/indirect distribution. Light is purified and controlled by MesoOptics film as it passes through a non-glare acrylic lens. Standard distribution is 75% up / 25% down for suspended and 65% up / 35% down for wall mount version.

Endcaps

Diecast aluminum endcaps, available in flat (standard) or sculpted (optional).

Finish

Standard finish is a textured matte powder coat in white, black or titanium silver.

Housing

Precision formed 18 gauge cold-rolled steel.

Weight

Maximum: Suspended 3.75lb/ft & Wall 3.0lb/ft.

Electrical

Factory pre-wired to section ends with quick-wire connectors.

Standard Driver

Advance Xitanium 0-10V, 1-100%. Class 2 rated output. Consult Ledalite for other available drivers.

Standard Battery Pack

Bodine, 90 min, 10W, Class 2 rated output, Emergency lumen output = 10W x luminaire efficacy x 1.1. Typical output: 1100lm.

Lumen Maintenance

LEDs have been tested by the manufacturer in accordance with IESNA LM-80-08. At an ambient temperature of 25°C, the LED lumen maintenance expectation according to IES TM-21-11 is:
L80 (12k) >72,000 hrs (Reported methodology).

Source Color

LEDs rated for color rendering CRI >80 and fixture to fixture color accuracy within 2 SDCM.

Mounting

Tamper-resistant aircraft cable gripper provides unlimited vertical adjustment. Aircraft cable, crimp and cable gripper are independently tested to meet stringent safety requirements.

Joints

Self-aligning joining system with hands-free pre-joining wire access.

Approvals

Certified to UL, CSA and IES standards. Certain suspended versions without down kits are DesignLights Consortium® qualified. Please see the DLC QPL list for exact catalog numbers (www.designlights.org/QPL).

Warranty

Signify indoor professional luminaires 5 year LED warranty: www.signify.com/warranties.

Environment

Rated for dry or damp locations in operating ambient temperatures 0-40°C (32-104°F). Certain luminaire components may be adversely affected by contaminants. Damage caused by sulfur, chlorine, petroleum based solutions or other contaminants are not covered under warranty. Not suitable for natatorium environments.

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

7406LCEQG047DEW

Notes:

Type:**C**

IWI ALBQ.19-22774

Sync linear suspended

Photometrics

MesoOptics + Lightguide Distribution (QN)

(Click "PDF" and "IES" text to Download)

Lumen Package	Nominal CRI & CCT	Flux (lm)	Watts (W)	Efficacy (LPW)	CRI	RP-1 VDT	DLC*	Photometry Report	IES File
6500 lm/4ft	80CRI, 4000K	6636	56.5	117.5	83	Critical spaces	Standard	PDF	IES
	80CRI, 3500K	6453	56.7	113.8	82	Critical spaces	Standard	PDF	IES
	80CRI, 3000K	6180	56.9	108.6	84	Critical spaces	Standard	PDF	IES
4600 lm/4ft	80CRI, 4000K	4739	39.2	120.9	83	Critical spaces	Standard	PDF	IES
	80CRI, 3500K	4608	39.4	117.0	82	Critical spaces	Standard	PDF	IES
	80CRI, 3000K	4412	39.5	111.7	84	Critical spaces	Standard	PDF	IES
3400 lm/4ft	80CRI, 4000K	3513	28.3	124.1	83	Critical spaces	Standard	PDF	IES
	80CRI, 3500K	3416	28.4	120.3	82	Critical spaces	Standard	PDF	IES
	80CRI, 3000K	3271	28.5	114.8	84	Critical spaces	Standard	PDF	IES

*DLC is only available wwith Advance 0-10V (1% dim) drivers. EM Batt. Packs are also not available on DLC.

CANDELA DISTRIBUTION						Flux
	0	22.5	45	67.5	90	Lumens
0	229	229	229	229	229	
5	230	231	233	236	236	23
15	244	250	269	288	295	77
25	261	276	320	361	378	147
35	259	274	315	350	363	193
45	206	210	221	229	232	170
55	137	135	136	140	142	124
65	81	80	82	85	88	82
75	33	34	35	36	36	38
85	6	7	7	7	8	9
90	0	0	0	0	0	
95	99	115	162	226	252	180
105	259	308	458	665	767	502
115	341	397	556	761	862	567
125	350	394	510	645	708	465
135	330	363	422	490	519	331
145	316	338	365	394	406	230
155	309	324	343	352	353	157
165	304	313	323	329	330	91
175	300	303	305	307	308	29
180	299	299	299	299	299	

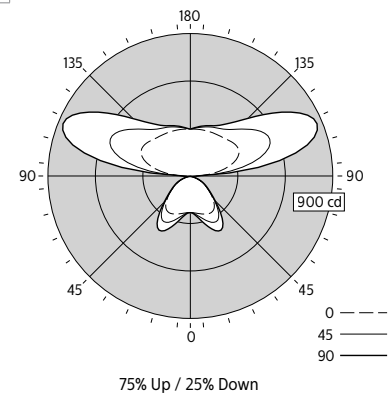
*Photometric data shown is for 3400 lm/
4ft, 3500K, 80 CRI configuration.

COEFFICIENTS OF UTILIZATION (%)												
Pc---	80				70				50			
Pw---	70	50	30	10	70	50	30	10	70	50	30	10
RCR												
0	101	101	101	101	90	90	90	70	70	70	70	25
1	92	88	85	81	82	79	76	61	59	57	57	22
2	84	77	71	67	75	69	64	54	50	48	48	18
3	77	68	61	56	68	61	55	47	43	40	40	16
4	70	60	53	47	62	54	47	42	38	34	34	13
5	64	53	46	40	57	48	41	37	33	29	29	12
6	59	48	40	34	52	43	36	34	29	25	25	10
7	54	43	35	30	48	38	32	30	26	22	22	9
8	50	39	31	26	45	35	28	27	23	19	19	8
9	47	35	28	23	42	32	25	25	20	17	17	7
10	44	32	25	20	39	29	23	23	18	15	15	6

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Fixture	%Lamp
0-30	247	7.2%	7.2%
0-40	440	12.9%	12.9%
0-60	734	21.5%	21.5%
0-90	862	25.2%	25.2%
90-130	1715	50.2%	50.2%
90-150	2277	66.7%	66.7%
90-180	2554	74.8%	74.8%
0-180	3416	100.0%	100.0%

Electrical				
120V: P(W), I(A), THD(%), PF	28.4	0.238	8.0	0.994
277V: P(W), I(A), THD(%), PF	28.4	0.107	11.6	0.962
347V: P(W), I(A), THD(%), PF	N/A	N/A	N/A	N/A

AVG LUMINANCE (cd/m²)			
	0	45	90
0	2222	2222	2222
5	2240	2269	2299
15	2451	2702	2963
25	2794	3426	4047
35	3068	3731	4300
45	2827	3033	3184
55	2318	2301	2402
65	1860	1883	2020
75	1237	1312	1350
85	668	779	891



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

7406LCEQG047DEW

Notes:**Type:****C**

IWI ALBQ.19-22774

Sync linear suspended

Photometrics

MesoOptics + 55% Down Kit Distribution (QD)

Spacing Criteria: 1.50/1.62

(Click "PDF" and "IES" text to Download)

Lumen Package	Nominal CRI & CCT	Flux (lm)	Watts (W)	Efficacy (LPW)	CRI	RP-1 VDT	DLC*	Photometry Report	IES File
6500 lm/4ft	80CRI, 4000K	5655	56.5	100.1	83	N/A	N/A	PDF	IES
	80CRI, 3500K	5499	56.7	97.0	82	N/A	N/A	PDF	IES
	80CRI, 4000K	5265	56.9	92.5	84	Normal spaces	N/A	PDF	IES
4600 lm/4ft	80CRI, 4000K	4039	39.2	103.0	83	Normal spaces	N/A	PDF	IES
	80CRI, 3500K	3927	39.4	99.7	82	Normal spaces	N/A	PDF	IES
	80CRI, 4000K	3760	39.5	95.2	84	Normal spaces	N/A	PDF	IES
3400 lm/4ft	80CRI, 4000K	2993	28.3	105.8	83	Critical spaces	N/A	PDF	IES
	80CRI, 3500K	2910	28.4	102.5	82	Critical spaces	N/A	PDF	IES
	80CRI, 4000K	2787	28.5	97.8	84	Critical spaces	N/A	PDF	IES

*DLC is only available w/with Advance 0-10V (1% dim) drivers. EM Batt. Packs are also not available on DLC.

CANDELA DISTRIBUTION						Flux
	0	22.5	45	67.5	90	Lumens
0	506	506	506	506	506	
5	508	509	513	516	518	50
15	525	533	564	592	601	161
25	540	560	622	679	699	285
35	512	529	580	616	628	354
45	398	396	401	402	402	310
55	260	254	252	254	256	229
65	153	152	155	159	162	154
75	63	65	66	68	68	72
85	11	13	14	15	15	16
90	0	0	0	0	0	
95	28	35	52	70	77	70
105	122	152	217	309	366	238
115	171	205	282	370	417	282
125	182	208	264	328	355	239
135	175	192	224	255	264	174
145	172	181	200	212	212	124
155	173	176	187	192	191	86
165	172	172	175	176	176	50
175	167	167	167	167	167	16
180	166	166	166	166	166	

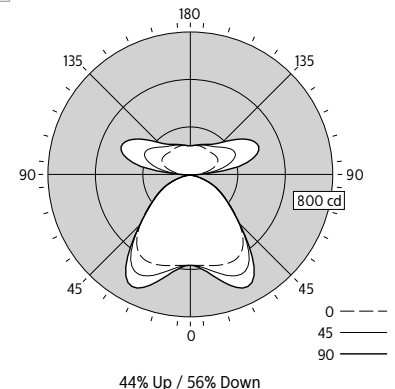
*Photometric data shown is for 3400 lm/4ft, 3500K, 80 CRI configuration.

COEFFICIENTS OF UTILIZATION (%)												
Pc---	80				70				50			
Pw---	70	50	30	10	70	50	30	10	70	50	30	10
RCR												
0	109	109	109	109	101	101	101	87	87	87	87	56
1	100	95	92	88	93	89	86	77	74	72	48	
2	91	84	78	73	84	78	73	68	64	60	41	
3	83	74	67	61	77	69	63	60	55	51	35	
4	76	66	58	52	71	61	55	54	48	44	30	
5	70	59	51	45	65	55	48	48	42	38	26	
6	65	53	45	39	60	49	42	43	37	33	23	
7	60	48	40	34	56	45	38	39	33	29	21	
8	55	43	35	30	52	41	34	36	30	26	18	
9	52	39	32	27	48	37	30	33	27	23	17	
10	48	36	29	24	45	34	27	30	25	21	15	

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Fixture	%Lamp
0-30	495	17.0%	17.0%
0-40	850	29.2%	29.2%
0-60	1389	47.7%	47.7%
0-90	1631	56.1%	56.1%
90-130	830	28.5%	28.5%
90-150	1127	38.7%	38.7%
90-180	1278	43.9%	43.9%
0-180	2910	100.0%	100.0%

Electrical					
120V: P(W), I(A), THD(%), PF	28.4	0.238	8.0	0.994	
277V: P(W), I(A), THD(%), PF	28.4	0.107	11.6	0.962	
347V: P(W), I(A), THD(%), PF	N/A	N/A	N/A	N/A	

AVG LUMINANCE (cd/m²)			
	0	45	90
0	4913	4913	4913
5	4952	4993	5044
15	5275	5663	6041
25	5779	6662	7489
35	6059	6876	7445
45	5458	5501	5515
55	4398	4256	4327
65	3523	3547	3715
75	2348	2466	2544
85	1278	1511	1627



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

7406LCEQG047DEW

Notes:**Type:****C**

IWI ALBQ.19-22774

Sync linear suspended

Photometrics

MesoOptics + 80% Down Kit Distribution (QG)

Spacing Criteria: 1.45/1.54

(Click "PDF" and "IES" text to Download)

Lumen Package	Nominal CRI & CCT	Flux (lm)	Watts (W)	Efficacy (LPW)	CRI	RP-1 VDT	DLC*	Photometry Report	IES File
6500 lm/4ft	80CRI, 4000K	5232	56.5	92.6	83	N/A	N/A	PDF	IES
	80CRI, 3500K	5087	56.7	89.7	82	N/A	N/A	PDF	IES
	80CRI, 3000K	4871	56.9	85.6	84	N/A	N/A	PDF	IES
4600 lm/4ft	80CRI, 4000K	3736	39.2	95.3	83	Normal spaces	N/A	PDF	IES
	80CRI, 3500K	3633	39.4	92.2	82	Normal spaces	N/A	PDF	IES
	80CRI, 3000K	3478	39.5	88.1	84	Normal spaces	N/A	PDF	IES
3400 lm/4ft	80CRI, 4000K	2769	28.3	97.8	83	Normal spaces	N/A	PDF	IES
	80CRI, 3500K	2692	28.4	94.8	82	Normal spaces	N/A	PDF	IES
	80CRI, 3000K	2578	28.5	90.5	84	Normal spaces	N/A	PDF	IES

*DLC is only available w/with Advance 0-10V (1% dim) drivers. EM Batt. Packs are also not available on DLC.

CANDELA DISTRIBUTION						Flux
	0	22.5	45	67.5	90	Lumens
0	737	737	737	737	737	
5	739	740	744	749	750	72
15	755	763	798	830	840	227
25	762	781	851	910	932	389
35	707	720	769	802	812	472
45	540	532	527	524	523	410
55	351	342	335	335	337	306
65	208	205	206	211	214	206
75	85	86	87	89	91	95
85	15	17	18	19	19	21
90	0	0	0	0	0	
95	10	11	14	15	15	20
105	56	65	85	98	104	85
115	76	87	111	138	143	109
125	79	87	108	128	129	95
135	75	79	89	105	108	71
145	73	75	79	85	86	50
155	73	75	77	77	77	35
165	73	74	75	76	76	21
175	72	72	72	73	73	7
180	72	72	72	72	72	

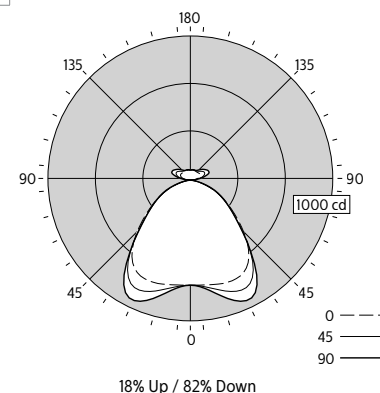
*Photometric data shown is for 3400 lm/
4ft, 3500K, 80 CRI configuration.

COEFFICIENTS OF UTILIZATION (%)												
Pc---	80				70				50			
Pw---	70	50	30	10	70	50	30	10	50	30	10	0
RCR												
0	115	115	115	115	110	110	110	101	101	101	82	
1	106	101	98	94	101	97	94	90	87	85	70	
2	97	89	83	78	93	86	80	80	75	71	60	
3	89	79	72	66	85	76	69	71	65	61	51	
4	81	70	62	56	78	68	61	63	57	52	44	
5	75	63	55	49	72	61	53	57	50	45	39	
6	69	57	49	43	66	55	47	51	45	40	34	
7	64	52	43	38	62	50	42	47	40	35	30	
8	60	47	39	34	57	46	38	43	36	32	27	
9	56	43	35	30	54	42	35	39	33	29	24	
10	52	40	32	27	50	39	32	36	30	26	22	

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Fixture	%Lamp
0-30	688	25.6%	25.6%
0-40	1160	43.1%	43.1%
0-60	1875	69.7%	69.7%
0-90	2197	81.6%	81.6%
90-130	309	11.5%	11.5%
90-150	431	16.0%	16.0%
90-180	494	18.4%	18.4%
0-180	2692	100.0%	100.0%

Electrical					
120V: P(W), I(A), THD(%), PF	28.4	0.238	8.0	0.994	
277V: P(W), I(A), THD(%), PF	28.4	0.107	11.6	0.962	
347V: P(W), I(A), THD(%), PF	N/A	N/A	N/A	N/A	

AVG LUMINANCE (cd/m²)			
	0	45	90
0	7152	7152	7152
5	7199	7250	7301
15	7582	8012	8442
25	8159	9109	9981
35	8372	9114	9621
45	7406	7235	7177
55	5934	5669	5704
65	4770	4722	4914
75	3170	3249	3405
85	1627	1976	2092



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

7406LCEQG047DEW

Notes:

Type:**C**

IWI ALBQ.19-22774

Sync linear suspended

Photometrics

MesoOptics + 100% Down Kit Distribution (QJ)

Spacing Criteria: 1.44/1.50

(Click "PDF" and "IES" text to Download)

Lumen Package	Nominal CRI & CCT	Flux (lm)	Watts (W)	Efficacy (LPW)	CRI	RP-1 VDT	DLC*	Photometry Report	IES File
6500 lm/4ft	80CRI, 4000K	4985	56.5	88.2	83	N/A	N/A	PDF	IES
	80CRI, 3500K	4848	56.7	85.5	82	N/A	N/A	PDF	IES
	80CRI, 3000K	4641	56.9	81.6	84	N/A	N/A	PDF	IES
4600 lm/4ft	80CRI, 4000K	3560	39.2	90.8	83	N/A	N/A	PDF	IES
	80CRI, 3500K	3462	39.4	87.9	82	N/A	N/A	PDF	IES
	80CRI, 3000K	3315	39.5	83.9	84	N/A	N/A	PDF	IES
3400 lm/4ft	80CRI, 4000K	2639	28.3	93.3	83	Normal spaces	N/A	PDF	IES
	80CRI, 3500K	2565	28.4	90.3	82	Normal spaces	N/A	PDF	IES
	80CRI, 3000K	2457	28.5	86.2	84	Normal spaces	N/A	PDF	IES

*DLC is only available wwith Advance 0-10V (1% dim) drivers. EM Batt. Packs are also not available on DLC.

CANDELA DISTRIBUTION						Flux
	0	22.5	45	67.5	90	Lumens
0	877	877	877	877	877	
5	880	880	884	888	889	85
15	896	903	940	974	983	267
25	900	917	989	1049	1071	453
35	830	840	886	918	922	544
45	627	619	611	600	594	473
55	408	400	388	385	385	354
65	242	239	240	243	248	239
75	100	101	102	104	105	112
85	19	20	22	22	22	26
90	0	0	0	0	0	
95	1	1	1	1	0	1
105	1	2	2	3	1	2
115	2	2	3	2	2	2
125	2	3	2	2	2	2
135	2	2	2	3	3	2
145	2	2	2	3	3	2
155	2	2	2	2	3	1
165	2	2	2	1	2	1
175	1	1	1	1	1	0
180	1	1	1	1	1	

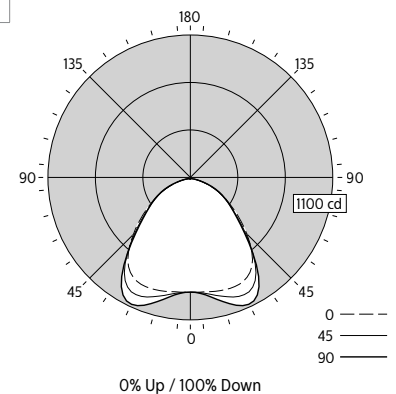
*Photometric data shown is for 3400 lm/4ft, 3500K, 80 CRI configuration.

COEFFICIENTS OF UTILIZATION (%)												
Pc---	80				70				50			
Pw---	70	50	30	10	70	50	30	50	30	10	0	0
RCR												
0	119	119	119	119	116	116	116	111	111	111	100	
1	110	106	102	98	107	103	100	99	96	93	86	
2	101	93	87	82	98	91	86	88	83	79	73	
3	92	83	75	69	90	81	74	78	72	67	63	
4	85	74	66	59	83	72	65	70	63	58	54	
5	78	66	58	51	76	65	57	63	56	51	47	
6	73	60	51	45	71	59	51	57	50	45	42	
7	67	54	46	40	66	54	46	52	45	40	37	
8	63	50	42	36	61	49	41	48	41	36	33	
9	59	46	38	32	57	45	38	44	37	32	30	
10	55	42	35	29	54	42	34	41	34	29	27	

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Fixture	%Lamp
0-30	805	31.4%	31.4%
0-40	1349	52.6%	52.6%
0-60	2176	84.8%	84.8%
0-90	2553	99.5%	99.5%
90-130	8	0.3%	0.3%
90-150	11	0.4%	0.4%
90-180	12	0.5%	0.5%
0-180	2565	100.0%	100.0%

Electrical				
120V: P(W), I(A), THD(%), PF	28.4	0.238	8.0	0.994
277V: P(W), I(A), THD(%), PF	28.4	0.107	11.6	0.962
347V: P(W), I(A), THD(%), PF	N/A	N/A	N/A	N/A

AVG LUMINANCE (cd/m²)			
	0	45	90
0	8509	8509	8509
5	8572	8613	8664
15	8998	9438	9879
25	9635	10585	11468
35	9831	10499	10919
45	8610	8381	8151
55	6905	6570	6517
65	5561	5513	5705
75	3757	3836	3953
85	2092	2441	2441



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

2STG228-D-UNV-1/2-EB

Notes:**Type:****D**

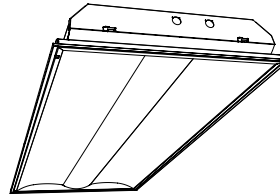
IWI ALBQ.19-22774

PHILIPS
Day-Brite
CFI

Recessed

SofTrace 2X4

T5, T5HO, or T8



Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____

Qty: _____

Notes: _____

The Philips Day-Brite / Philips CFI SofTrace recessed brings new meaning to the concept of combining style with performance. Equipped with a fresh streamlined design and innovative technology, SofTrace provides a huge step forward for the lighting industry. The sleek profile design belies the true "horsepower under the hood". This architectural product now delivers leading edge performance for the most environmentally conscious user.

Ordering guide**Example: 2STG232-D-UNV-1/2-EBLHE-LPT835HL**

Width	Family	Ceiling Type	No. of Lamps (not included)	Lamp Type	Center Diffusers	Voltage	Ballast	Ballast Type	Options
2	ST		2				1/2		
2 2'	ST Softrace	G Grid F Flange Z Z Spline/ Modular	2	28 28WT5 (46") 32 32WT8 (48") 54HO 54WT5HO (46")	D Diffuse (Ribbed) DS Diffuse (Smooth) PMW Round perf w/ white overlay	120 120V 277 277V 347 347V UNV Universal Voltage 120-277V	1/2 One 2 lamp ballast	EB95 T5 electronic ballast, .95 ballast factor EB115 T5 electronic ballast, 1.15 ballast factor EBSD95 T5 electronic step dimming ballast, .95 ballast factor EBSD115 T5 electronic step dimming ballast, 1.15 ballast factor EBSD T8 electronic step dimming ballast, .88 ballast factor EBD7 Advance Mark 7 dimming ballast, 0-10V (low voltage) control EBDX Advance Mark 10 dimming ballast, phase control EBD Electronic dimming ballast, customer specified EB Electronic ballast, < 10% THD std. ballast factor EBHE T8 electronic ballast, high efficiency std. ballast factor EBLHE T8 electronic ballast, high efficiency low ballast factor EBHHE T8 electronic ballast, high efficiency high ballast factor EB10R T8 electronic ballast, <10% THD, program rapid start	F1 3/8" flex, 3 wire 18 gauge 6' F2 3/8" flex, 4 wire 18 gauge 6' F2/5W 3/8" flex, 5 wire 18 gauge 6' E1 B100 emerg. ballast, T8, 350-450 lumens, 120/277V E1CAN B100-CAN emerg. ballast, Canada market, T8, 350-450 lumens, 120/347V E7 B60 emerg. ballast, T8, 600-700 lumens, 120/277V E5 B50 emerg. ballast, U.S. or Canada market, T8, 1100-1400 lumens, UNV E5CAN B50-CAN emerg. ballast, Canada market, T8, 1100-1400 lumens, 120/347V E5ST B50ST emerg. ballast w/self test, U.S. or Canada, T8, 1100-1400 lumens, UNV E7LP LP550 emerg. ballast T5/T5HO, 430-700 lumens, 120/277V E6LP LP600 emerg. ballast U.S. or Canada market, T5/T5HO, 750-1325 lumens, 120/277V GLR Fusing, fast blow LPT830HL Installed T8/T5 hi lumen lamps, 80+ CRI, 3000K LPT835HL Installed T8/T5 hi lumen lamps, 80+ CRI, 3500K LPT841HL Installed T8/T5 hi lumen lamps, 80+ CRI, 4100K LPT830 Installed T8/T5/T5HO lamps, 80+ CRI, 3000K LPT835 Installed T8/T5/T5HO lamps, 80+ CRI, 3500K LPT841 Installed T8/T5/T5HO lamps, 80+ CRI, 4100K PAF Housing painted after fabrication RIB Ribbed side diffusers CHIC Chicago plenum rated IC Suitable for Type-IC (insulated ceiling)

Accessories (order separately)

- **FMA24** 2'x4' "F" mounting frame for NEMA "F" mounting
- **FKDP24** Flange conversion kit 2'x4'

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

2STG228-D-UNV-1/2-EB

Notes:**Type:****D**

IWI ALBQ.19-22774

2ST SofTrace recessed 2x4

T5, T5HO, T8, or CFTT5

Application

- Subtle enclosure curves provide architectural styling to complement any space.
- Smooth brightness across the face of the luminaire prevents glare and provides excellent visual comfort.
- Directs a controlled amount of light to higher angles to eliminate "cave effect" without creating glare.
- Ideal for modern offices, schools and retail environments.
- Excellent optical efficiency and luminaire efficacy provide significant energy savings.
- Many ballast/lamp systems are available, providing flexibility to tailor the luminaire to specific applications.
- Step dimming ballasts can be switched to less than 50% input power for energy savings to meet most energy codes while maintaining symmetrical illumination.
- Grid, Flange or Z-spline/ Modular models available.

Construction/Finish

- One piece die-formed embossed steel housing provides added rigidity, resists damage during shipment/handling.
- Wireway cover is easily removable without tools for quick ballast or wiring access from below.
- T-bar grid clips are built into luminaire ends for quick and easy installation, no extra parts required.
- Suitable for end-to-end mounting.
- End K.O.s for thru wiring or conduit entry in shallow plenums.

Electrical

- cULus listed for damp locations.
- Emergency ballasts available.
- Systems are available offering electrical system efficacy ratings up to 102 Lumens/Watt.
- Total luminaire efficacy as high as 88 LPW.

Enclosure

- Center section is flush with outer panels, eliminating the dirt and debris collection typical of suspended "baskets."
- One-piece enclosure hinges down as an assembly for easy access to lamps and ballast from below without tools.
- T-hinges provide secure retention of enclosure and eliminate non-captive parts to hold during servicing.
- Guide-post spring loaded latches allow easy opening and closing of the enclosure.
- Choice of center sections: smooth or ribbed acrylic, or round perforated steel with overlay.
- Smooth side diffusers standard, ribbed optional.
- Any center section can be used with either side diffuser.

Energy Data

Lamp Type	Ballast Type	Input Power (120/277V)	Electrical System Lumens/Watt	
			Std. Lamps*	Hi-Lumen Lamps
28	EB95	59W / 58W	95	100
	EBSD95@hi	59W / 58W	95	100
	EBSD95@lo	28W / 28W	73	76
	EB115	71W / 69W	97	102
	EBSD115@hi	71W / 71W	94	99
	EBSD115@lo	35W / 35W	80	81
	EB	66W / 64W	91	95
32	EB	58W / 58W	85	94
	EB10R	62W / 60W	82	91
	EBHE	55W / 54W	90	100
	EBLHE	47W / 47W	92	102
	EBHHE	74W / 73W	91	100
	EBSD@hi	57W / 56W	88	97
	EBSD@lo	28W / 28W	60	66
54HO	EB	120W / 117W	85	—

*Standard Lamp T8 values assume 70+CRI 32W lamp. 80+CRI lamps or energy savings lamps are also available.

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

2STG228-D-UNV-1/2-EB

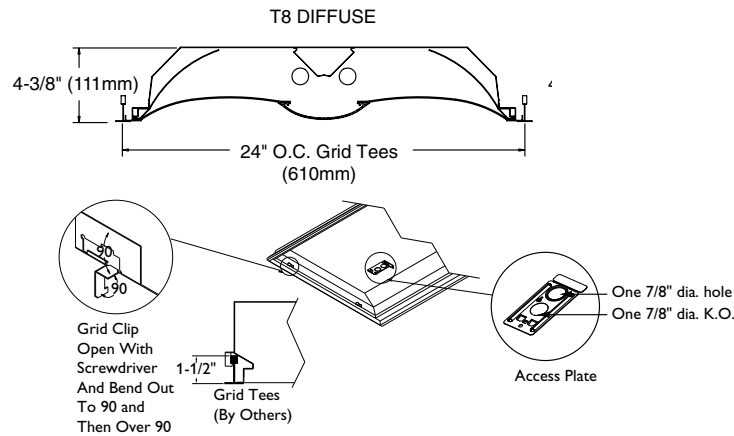
Notes:**Type:****D**

IWI ALBQ.19-22774

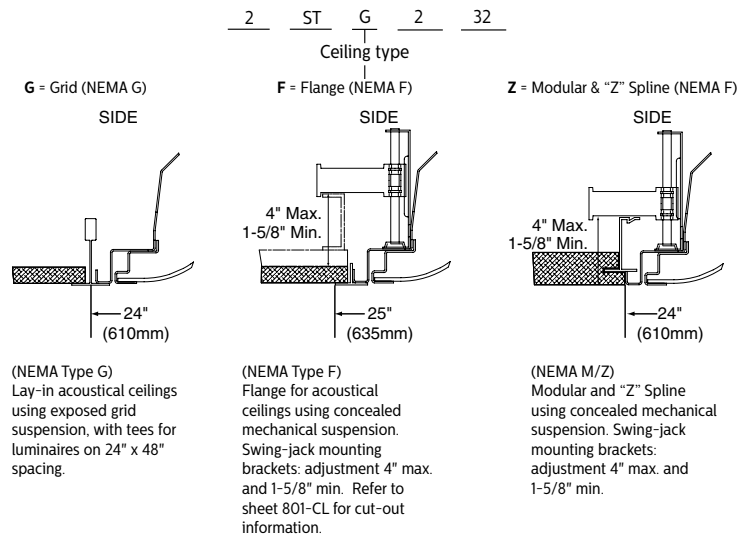
2ST SofTrace recessed 2x4

T5, T5HO, T8, or CFTT5

Dimensions



Ceiling configuration



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

2STG228-D-UNV-1/2-EB

Notes:**Type:****D**

IWI ALBQ.19-22774

2ST SofTrace recessed 2x4

T5, T5HO, T8, or CFTT5

ST 2x4 2 Lamp T8 Diffuse***Efficiency – 85.2%****LER – 72****TER – 63**

Catalog No.	2STG232-D-1/2-EB	Candlepower				Light Distribution			
		Angle	End	45	Cross	Degrees	Lumens	% Lamp	% Luminaire
Test No.	27034	0	1725	1725	1725	0-30	1331	23.4	27.4
S/MH	1.2	5	1730	1719	1707	0-40	2175	38.2	44.8
Lamp Type	F32T8	10	1701	1693	1680	0-60	3856	67.7	79.4
Lumens/Lamp	2850	15	1661	1653	1639	0-90	4854	85.2	100.0
Ballast Factor	.88	20	1608	1597	1584				
Input Watts	59	25	1533	1525	1515				
		30	1444	1439	1443				
		35	1334	1345	1372				
		40	1219	1241	1294				
		45	1089	1137	1214				
		50	944	1020	1120				
		55	814	895	996				
		60	642	756	850				
		65	492	606	688				
		70	359	462	517				
		75	236	320	355				
		80	135	195	188				
		85	56	73	66				

Comparative yearly lighting energy cost per 1000 lumens – \$3.33 based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

*smooth or ribbed center, smooth or ribbed sides

ST 2x4 2 Lamp T5 Diffuse***Efficiency – 95.1%****LER – 78****TER – 68**

Catalog No.	2STG228-D-1/2-EB95	Candlepower				Light Distribution			
		Angle	End	45	Cross	Degrees	Lumens	% Lamp	% Luminaire
Test No.	27100	0	1759	1759	1759	0-30	1354	26.0	27.4
S/MH	1.2	5	1757	1749	1745	0-40	2205	42.4	44.6
Lamp Type	F28T5	10	1732	1723	1718	0-60	3906	75.1	79.0
Lumens/Lamp	2600	15	1690	1682	1675	0-90	4943	95.1	100.0
Ballast Factor	.95	20	1636	1626	1608				
Input Watts	60	25	1559	1549	1534				
		30	1466	1456	1451				
		35	1358	1354	1374				
		40	1232	1249	1306				
		45	1093	1139	1237				
		50	941	1024	1154				
		55	791	903	1046				
		60	640	768	903				
		65	495	624	739				
		70	356	476	565				
		75	236	335	390				
		80	136	203	203				
		85	54	74	65				

Comparative yearly lighting energy cost per 1000 lumens – \$3.08 based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

*smooth or ribbed center, smooth or ribbed sides

ST 2x4 2 Lamp T8 Perf.***Efficiency – 72.2%****LER – 59****TER – 52**

Catalog No.	2STG232-PMW-1/2-EB	Candlepower				Light Distribution			
		Angle	End	45	Cross	Degrees	Lumens	% Lamp	% Luminaire
Test No.	27092	0	1394	1394	1394	0-30	1091	19.1	26.5
S/MH	1.3	5	1395	1390	1383	0-40	1803	31.6	43.8
Lamp Type	F32T8	10	1373	1372	1369	0-60	3254	57.1	79.1
Lumens/Lamp	2850	15	1339	1343	1349	0-90	4115	72.2	100.0
Ballast Factor	.88	20	1293	1306	1322				
Input Watts	61	25	1230	1258	1288				
		30	1157	1198	1251				
		35	1075	1132	1213				
		40	970	1057	1162				
		45	869	979	1105				
		50	755	889	1023				
		55	632	783	918				
		60	506	666	790				
		65	385	529	651				
		70	279	403	508				
		75	184	279	348				
		80	103	158	156				
		85	40	38	39				

Comparative yearly lighting energy cost per 1000 lumens – \$4.07 based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

*smooth or ribbed sides

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

2STG228-D-UNV-1/2-EB

Notes:**Type:****D**

IWI ALBQ.19-22774

2ST SofTrace recessed 2x4

T5, T5HO, T8, or CFTT5

ST 2x4 2 Lamp T5 Perf.***Efficiency – 80.6%****LER – 66****TER – 65**

		Candlepower				Light Distribution			
Catalog No.	2STG228-PMW-1/2-EB95	Angle	End	45	Cross	Degrees	Lumens	% Lamp	% Luminaire
Test No.	27099	0	1403	1403	1403	0-30	1098	21.1	26.2
S/MH	1.3	5	1407	1401	1390	0-40	1815	34.9	43.3
Lamp Type	F28T5	10	1382	1380	1377	0-60	3293	63.3	78.6
Lumens/Lamp	2600	15	1348	1348	1355	0-90	4189	80.6	100.0
Ballast Factor	.95	20	1300	1314	1326				
Input Watts	60	25	1242	1265	1290				
		30	1169	1205	1252				
		35	1086	1141	1217				
		40	986	1069	1178				
		45	880	990	1127				
		50	760	900	1054				
		55	640	801	953				
		60	514	683	827				
		65	394	553	688				
		70	287	418	544				
		75	190	294	361				
		80	106	165	161				
		85	43	40	40				

Comparative yearly lighting energy cost per 1000
lumens – **\$3.64** based on 3000 hrs. and \$.08 pwr KWH.The photometric results were obtained in the Philips
Day-Brite laboratory which is NVLAP accredited by the
National Institute of Standards and Technology.

*smooth or ribbed sides

Coefficients of Utilization**EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)**

pcc	80			70			50		
pw	70	50	30	70	50	30	50	30	
RCR									
0	105	105	105	102	102	102	97	97	
1	96	93	89	93	91	88	86	84	
2	89	81	76	85	80	75	77	72	
3	81	71	66	79	70	65	68	63	
4	75	65	56	72	63	56	60	55	
5	68	57	50	67	56	50	55	48	
6	64	52	45	61	52	44	50	44	
7	58	47	40	57	46	40	46	39	
8	55	44	35	54	42	35	41	35	
9	52	40	33	50	40	33	39	32	
10	47	36	29	46	36	29	35	29	



Some luminaires use fluorescent or high intensity discharge (HID) lamps that contain small amounts of mercury. Such lamps are labeled, "Contain Mercury" and/or the symbol "HG". Lamps that contain mercury must be disposed of in accordance with local requirements. Information regarding lamp recycling and disposal can be found at www.lamprecycle.org

© 2017 Philips Lighting Holding B.V. All rights reserved.
Philips reserves the right to make changes in specifications
and/or to discontinue any product at any time without notice
or obligation and will not be liable for any consequences
resulting from the use of this publication.

SofTrace_2x4 10/17 page 5 of 5



Philips Lighting North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

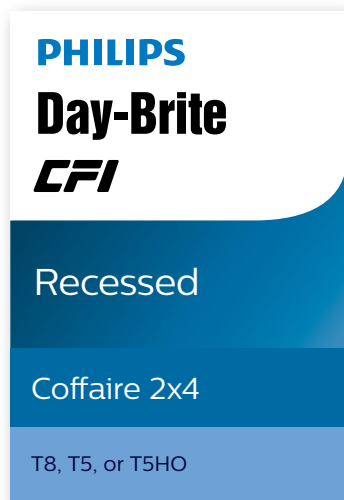
Philips Lighting Canada Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

CFS2GPF232UNV-1/2-EB

Notes:**Type:****E**

IWI ALBQ.19-22774



Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____ Qty: _____

Notes: _____

The Philips Day-Brite / Philips CFI Coffaire recessed adds a new dimension to recessed, indirect, perforated basket luminaires, air return! Coffaire combines a perforated mesh lamp shield with a white acrylic overlay in an indirect cove to create an aesthetically pleasing direct/indirect luminaire.

Ordering guide**Example: CFS2GPF232UNV-1/2-EB**

Family	Air Function	Width	Ceiling Type	Diffuser	Overlay	No. of Lamps	Lamp Type (by others)	Voltage	Options
CF		2	G	P					
CF	H Air return. S Static A Air supply and return	2 2'	G Fits both standard and slot grid	P Perforated lamp shield, matte white	F Acrylic overlay G Dust shield D Insect shield	2 2 lamp 3 3 lamp	32 32WT8 28 28WT5 54 54WT5HO	UNV Universal voltage, 120-277V 120 120V 277 277V 347 347V	1/2 One 2-lamp ballast 1/3 One 3-lamp ballast 1/21 2-lamp and 1-lamp ballasts EB Electronic ballast, <10% THD std. ballast factor EB10R T8 electronic ballast, <10% THD, program rapid start EBHE T8 electronic ballast, high efficiency std. ballast factor EBLHE T8 electronic ballast, high efficiency low ballast factor EBHHE T8 electronic ballast, high efficiency high ballast factor EBSD T8 electronic step dimming ballast, 88 ballast factor EBD7 Advance Mark 7 dimming ballast, 0-10V (low voltage) control EBDX Advance Mark 10 dimming ballast, phase control EBD Electronic dimming ballast, customer specified E1 B100 emerg. ballast, T8, 350-450 lumens, 120/277V E1CAN B100-CAN emerg. ballast, Canada market, T8, 350-450 lumens, 120/347V E7 B60 emerg. ballast, T8, 600-700 lumens, 120/277V E5 B50 emerg. ballast, U.S. or Canada market, T8, 1100-1400 lumens, UNV E5CAN B50-CAN emerg. ballast, Canada market, T8, 1100-1400 lumens, 120/347V ESST B50ST emerg. ballast w/self test, U.S. or Canada market, T8, 1100-1400 lumens, UNV E7LP LP550 emerg. ballast T5/T5HO, 430-700 lumens, 120/277V E6LP LP600 emerg. ballast U.S. or Canada market, T5/T5HO, 750-1325 lumens, 120/277V F1 3/8" flex, 3 wire 18 gauge 6' F2 3/8" flex, 4 wire 18 gauge 6' F2/5W 3/8" flex, 5 wire 18 gauge 6' GLR Fusing, fast blow LPT830 Installed T8/T5/T5HO lamps, 80+ CRI, 3000K LPT835 Installed T8/T5/T5HO lamps, 80+ CRI, 3500K LPT841 Installed T8/T5/T5HO lamps, 80+ CRI, 4100K LPT830HL Installed T8/T5 hi lumen lamps, 80+ CRI, 3000K LPT835HL Installed T8/T5 hi lumen lamps, 80+ CRI, 3500K LPT841HL Installed T8/T5 hi lumen lamps, 80+ CRI, 4100K CHIC Chicago plenum rated

Accessories (order separately)

- FMA24 – 2'x4' "F" mounting frame for NEMA "F" installations

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

CFS2GPF232UNV-1/2-EB

Notes:**Type:****E**

IWI ALBQ.19-22774

CFH, CFS, & CFA Coffaire recessed 2x4

T8, T5, or T5HO

Features

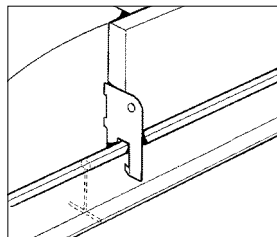
- Direct/indirect lamp shield appearance.
- Perforated mesh lamp shield with white acrylic overlay.
- Contoured body and ends.
- 63.8% efficient (2 lamp 32WT8), 60.2% efficient (3 lamp 32WT8), 65.0% efficient (2 lamp 28WT5), 70.8% efficient (2 lamp 54WT5HO).
- Spacing to mounting ratio of 1.4 (2 lamp T8), 1.3 (3 lamp T8), 1.3 (T5, T5HO).
- Only 5" deep.
- Tension bars secure ends to body.
- Same fixture fits both G and T ceiling types.
- Fits flush to face of slot grid (T) ceiling.
- Static models have injection molded light stop at basket ends.
- Perforated lamp shield hinges from either side.
- Ballast accessible from room side.
- Can be continuous row mounted.
- Wiring access plate standard.
- Air return slots located above lamp shield (CFH, CFA models).
- Air supply slot located on either side of the reflector, visible from below (CFA models only).

Specifications

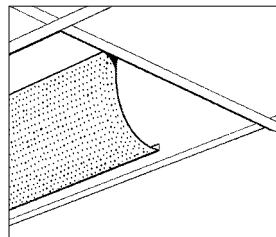
- **Performance:** In an installation of 2 lamp 32WT8 luminaires in a room cavity ratio of 1, with reflectance 80% ceiling, 50% wall, 20% floor, the C.U. shall not be less than .66. To reduce glare the average brightness at 65° shall not exceed 2093 candelas per square meter. To control veiling reflections, luminaire output in the 30°-90° zone shall not be less than 74.6%.
In an installation of 2 lamp 28WT5 luminaires in a room cavity ratio of 1, with reflectance 80% ceiling, 50% wall, 20% floor, the C.U. shall not be less than .68. To reduce glare the average brightness at 65° shall not exceed 1690 candelas per square meter. To control veiling reflections, luminaire output in the 30°-90° zone shall not be less than 73.4%.
- **Materials:** Chassis parts – die-formed code gauge steel. Lamp Shield – steel perforated mesh lamp shield with white acrylic overlay.
- **Finish:** Chassis exterior – baked white polyester enamel. Cavity – baked matte white polyester enamel. Reflector – baked matte white polyester enamel, minimum 86% reflectance. Phosphate undercoating. Lamp Shield – baked matte white polyester enamel.
- **Electrical:** Thermally protected class "P" ballast, non PCB. If K.O. is within 3" of ballast, use wire suitable for at least 90°.
- **Labels:** cULus listed, suitable for damp locations.

Hg

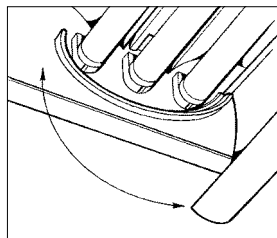
Some luminaires use fluorescent or high intensity discharge (HID) lamps that contain small amounts of mercury. Such lamps are labeled, "Contain Mercury" and/or the symbol "HG". Lamps that contain mercury must be disposed of in accordance with local requirements. Information regarding lamp recycling and disposal can be found at www.lamprecycle.org



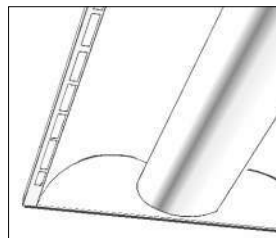
built-in earthquake clips



lamp shield hinges either side

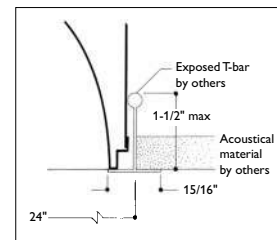


light stop, static models only

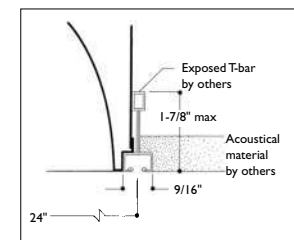


air slots for CFA models

Mounting methods (CFS, CFH)

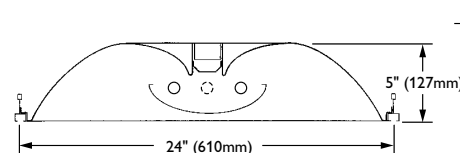


exposed t-grid ceiling

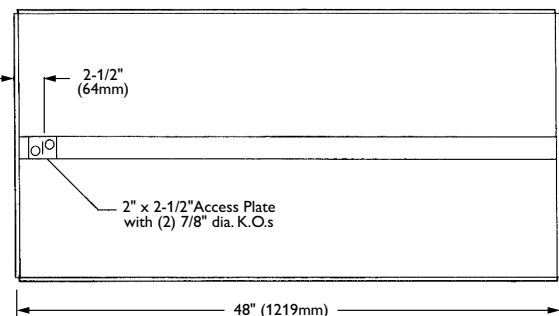


exposed slot t-grid ceiling

Dimensions



Coffaire_2x4_T8_



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

CFS2GPF2321UNV-1/2-EB

Notes:**Type:****E**

IWI ALBQ.19-22774

CFH, CFS, & CFA Coffaire recessed 2x4

T8, T5, or T5HO

Photometry**Model No. CFH2GPF232120-1/2-EB**

LER = FP - 54.7 IW - 58.0 BF - 0.87
Comparative yearly lighting energy cost per
1000 lumens = \$4.39

Report Number: G2004255**Catalog Number:** CFH2GPF232120-1/2-EB**Lamps:** F32/T8 TL841**Luminaire:** Coffaire with perforated basket**Ballast:** Triad B2321UNV-HP, 58 watts

Report is based on 2850 Lumens per lamp.

Efficiency: 63.8%**CIE Type:** Direct**Plane:** 0-Deg 90-Deg**Spacing Criteria:** 1.2 1.4**Shielding Angles:** 90 90**Plane:** 0-Deg 90-Deg**Luminous Length:** 46.920 22.920**CANDELA DISTRIBUTION**

	0.0	45.0	90.0	FLUX
0	1179	1179	1179	
5	1172	1174	1176	112
15	1120	1135	1151	321
25	1028	1067	1105	492
35	899	972	1031	606
45	742	851	931	651
55	555	705	794	618
65	357	528	614	504
75	175	308	243	281
85	37	43	47	52
90	0	0	0	

Model No. CFH2GPF332120-1/3-EB

LER = FP - 53.3 IW - 85 BF - 0.88
Comparative yearly lighting energy cost per
1000 lumens = \$4.50

Report Number: G2004256**Catalog Number:** CFH2GPF332120-1/3-EB**Lamps:** F32/T8 TL841**Luminaire:** Coffaire with perforated basket**Ballast:** SYL QT3X32T8 120, 89.0 watts

Report is based on 2850 Lumens per lamp.

Efficiency: 60.2%**CIE Type:** Direct**Plane:** 0-Deg 90-Deg**Spacing Criteria:** 1.2 1.3**Shielding Angles:** 90 90**Plane:** 0-Deg 90-Deg**Luminous Length:** 46.920 22.920**CANDELA DISTRIBUTION**

	0.0	45.0	90.0	FLUX
0	1733	1733	1733	
5	1722	1725	1729	164
15	1645	1668	1693	472
25	1507	1563	1613	720
35	1316	1412	1483	879
45	1076	1213	1310	930
55	801	983	1083	863
65	504	712	809	682
75	244	394	335	369
85	51	58	63	72
90	0	0	0	

**COEFFICIENTS OF UTILIZATION -
ZONAL CAVITY METHOD, EFFECTIVE
FLOOR CAVITY REFLECTANCE 0.20**

RC	80	50	30
RW	70	50	30
1	69	66	63
2	63	57	53
3	57	50	45
4	52	44	38
5	48	39	33
6	44	35	29
7	41	32	26
8	38	29	23
9	35	27	21
10	33	25	19

LUMINANCE DATA IN CANDELA/SQ. METER

AVERAGE IN DEG.	AVERAGE 0-DEG.	AVERAGE 45-DEG.	AVERAGE 90-DEG.
45	1512	1734	1897
55	1394	1771	1994
65	1217	1800	2093
75	974	1715	1353
85	612	711	777

ZONAL LUMEN SUMMARY

ZONE	LUMENS	% LAMP	% FIXT
0- 30	925	16.2	25.4
0- 40	1531	26.9	42.1
0- 60	2800	49.1	77.0
0- 90	3636	63.8	100.0

**COEFFICIENTS OF UTILIZATION -
ZONAL CAVITY METHOD, EFFECTIVE
FLOOR CAVITY REFLECTANCE 0.20**

RC	80	50	30
RW	70	50	30
1	66	63	60
2	59	54	51
3	54	48	45
4	49	42	37
5	45	37	32
6	42	34	27
7	39	30	24
8	36	28	21
9	34	25	20
10	32	23	18

LUMINANCE DATA IN CANDELA/SQ. METER

AVERAGE IN DEG.	AVERAGE 0-DEG.	AVERAGE 45-DEG.	AVERAGE 90-DEG.
45	2192	2472	2669
55	2012	2469	2720
65	1718	2427	2758
75	1358	2193	1865
85	843	959	1041

ZONAL LUMEN SUMMARY

ZONE	LUMENS	% LAMP	% FIXT
0- 30	1356	15.9	26.3
0- 40	2235	26.1	43.4
0- 60	4027	47.1	78.2
0- 90	5150	60.2	100.0

Model No. CFH2GPF228120-1/2-EB

LER = FP - 57.2 IW - 54.9 BF - 0.93
Comparative yearly lighting energy cost per
1000 lumens = \$4.20

Report Number: G2004258**Catalog Number:** CFH2GPF228120-1/2-EB**Lamps:** F28/T5**Luminaire:** Coffaire 2'x4' with perforated basket**Ballast:** WA

Report is based on 2600 Lumens per lamp.

Efficiency: 65.0%**CIE Type:** Direct**Plane:** 0-Deg 90-Deg**Spacing Criteria:** 1.2 1.4**Shielding Angles:** 55 65**Plane:** 0-Deg 90-Deg**Luminous Length:** 46.800 22.800**CANDELA DISTRIBUTION**

	0.0	45.0	90.0	FLUX
0	1151	1151	1151	
5	1143	1146	1150	109
15	1091	1108	1125	313
25	999	1038	1076	479
35	871	940	997	586
45	714	814	880	622
55	531	661	730	578
65	333	476	492	441
75	163	206	199	213
85	32	34	34	40
90	2	2	2	

LUMINANCE DATA IN CANDELA/SQ. METER

AVERAGE IN DEG.	AVERAGE 0-DEG.	AVERAGE 45-DEG.	AVERAGE 90-DEG.
45	1466	1672	1807
55	1344	1673	1848
65	1144	1636	1690
75	915	1156	1116
85	533	566	566

ZONAL LUMEN SUMMARY

ZONE	LUMENS	% LAMP	% FIXT
0- 30	901	17.3	26.6
0- 40	1487	28.6	44.0
0- 60	2687	51.7	79.4
0- 90	3382	65.0	100.0

Model No. CFH2GPF254120-UNV-1/2-EB

LER = FP - 50.7 IW - 123.2 BF - 1.00
Comparative yearly lighting energy cost per
1000 lumens = \$4.73

Report Number: G2004261**Catalog Number:** CFH2GPF254120-UNV-1/2-EB**Lamps:** FP54/835**Luminaire:** Coffaire direct/indirect with
perforated basket**Ballast:** QT2X54/120

Report is based on 4400 Lumens per lamp.

Efficiency: 70.8%**CIE Type:** Direct**Plane:** 0-Deg 90-Deg**Spacing Criteria:** 1.3 1.4**Shielding Angles:** 55 65**Plane:** 0-Deg 90-Deg**Luminous Length:** 46.920 22.920**CANDELA DISTRIBUTION**

	0.0	45.0	90.0	FLUX
0	2082	2082	2082	
5	2069	2073	2078	197
15	1986	2006	2035	568
25	1834	1885	1947	871
35	1621	1711	1803	1072
45	1354	1488	1593	1143
55	1040	1212	1324	1071
65	690	878	905	828
75	323	388	373	401
85	63	67	65	78
90	0	0	0	

LUMINANCE DATA IN CANDELA/SQ. METER

AVERAGE IN DEG.	AVERAGE 0-DEG.	AVERAGE 45-DEG.	AVERAGE 90-DEG.
45	2759	3032	3246
55	2612	3044	3326
65	2352	2993	3085
75	1798	2160	2076
85	1041	1108	1075

ZONAL LUMEN SUMMARY

ZONE	LUMENS	% LAMP	% FIXT
0- 30	1636	18.6	26.3
0- 40	2708	30.8	43.5
0- 60	4921	55.9	79.0
0- 90	6229	70.8	100.0

© 2017 Philips Lighting Holding B.V. All rights reserved.
Philips reserves the right to make changes in specifications
and/or to discontinue any product at any time without notice
or obligation and will not be liable for any consequences
resulting from the use of this publication.
philips.com/luminaires

Coffaire_2x4_T8_T5_T5HO 02/17 page 3 of 3



Philips Lighting North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

Philips Lighting Canada Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008

**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**
LPW16-51BZPCB

Notes:

Type:**F**

IWI ALBQ.19-22774



Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____ Qty: _____

Notes: _____

Stonco LytePro LED small wall sconce LPW16 features outstanding value in a compact, architectural design. This wall sconce features state-of-the-art, long-life and maintenance savings, in a combined discreet LED package with high precision over-optic design. This powerful and precise combination offers outstanding energy savings with excellent photometric performance. LPW16 is ideal for entryways and corridors in addition to wall lighting applications requiring strong lateral spacing and forward pattern projection.

Stocked luminaires – Ordering guide (LPW16 products are only available in the following stock luminaire configurations shown)

Catalog Number	Description	Master Pack, Qty	UPC Code
LPW16-58BZ	LPW16, 30W, 530mA, 4000K, 120-277V, Bronze textured paint	6	786034960540
LPW16-51BZPCB	LPW16, 30W, 530mA, 4000K, 120V, Bronze textured paint, w/button photocell	6	786034960557
LPW16-78BZ	LPW16, 40W, 700mA, 4000K, 120-277V, Bronze textured paint	6	786034960502
LPW16-78DGY	LPW16, 40W, 700mA, 4000K, 120-277V, Dark gray textured paint	6	786034960489
LPW16-71BZPCB	LPW16, 40W, 700mA, 4000K, 120V, Bronze textured paint, w/button photocell	6	786034960519

Stocked accessories – Ordering guide (Must be ordered separately)

Catalog Number	Description	Master Pack, Qty	UPC Code
LPWCVRPLT-BZ	LPW Universal wall cover mounting plate, Bronze textured paint	(none)	786034960618



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

LPW16-51BZPCB

Notes:

Type:**F**

IWI ALBQ.19-22774

LPW16 LytePro LED small wall sconce

Features

LPW16 wall sconce delivers 3,374 lumens at 36W, with an efficacy of 93 lumens per watt. Other wattages available per charts noted below--.

- LP16W-5, 30W LED may effectively replace 70-100W HID luminaires²
- LP16W-7, 40W LED may effectively replace 100-150W HID luminaires¹
- 4000K neutral white at 70 CRI (minimum) is standard
- Button photocell available in 120V, bronze luminaires only
- 5-year limited warranty, see philips.com/warranties for specific details

Performance/Specifications (LP16W-7)

Distribution	Type 3
Initial Lumens	3,374
Average Wattage	36
Lumens/Watt	93
BUG Rating*	B1/U0/G1
Luminaire Weight	~6lbs (2.7Kg)

Performance/Specifications (LP16W-5)

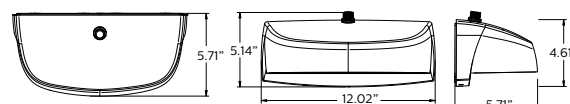
Distribution	Type 3
Initial Lumens	2,698
Average Wattage	28
Lumens/Watt	96
BUG Rating	B1/U0/G1
Luminaire Weight	~6lbs (2.7Kg)

Ratings/Approbations/Certifications

Ingress Protection	IP65 Optical
DLC Listed	DLC QPL
cETLus	Certified for use in wet locations
Rated Ambient Temperature	-40°C (-40°F) to 40°C (104°F)

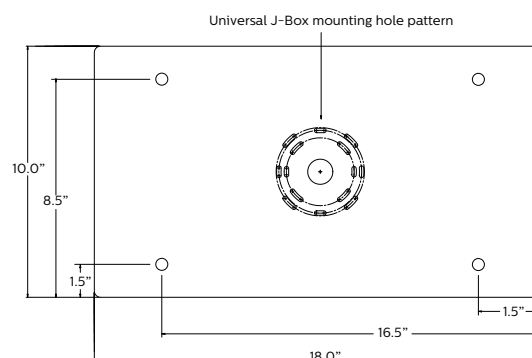
2. Comparable equivalency to HID and other lamp sources depends on multiple criteria including mounting height, fixture spacing, efficiency, performance and classification of the luminaire being replaced and application lighting criteria required for the given project.
3. PCB shown for placement only, available on specific models only (see ordering guide).

Fixture Dimensions³



Accessory Dimensions (ordered separately)

LPWCVRPLT-BZ LPW Universal wall cover mounting plate, 0.08" aluminum, bronze textured paint (used to cover larger pre-existing opening or surfaces, field installed). Offers same J-Box pattern as luminaire or may lagged to wall using (4) knockouts.

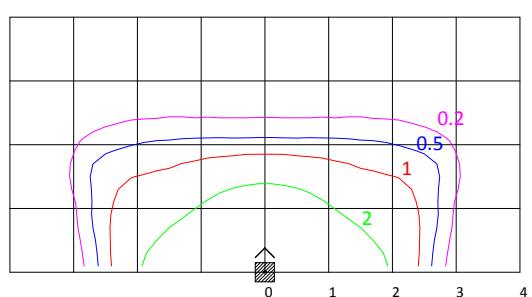


Distribution Pattern

LPW16-7 10' MOUNTING HEIGHT

MOUNTING HEIGHT	8'	10'	12'
MULTIPLIER	1.60	1.0	0.70

- Isolines shown at 2.0, 1.0, 0.5, & 0.2 FC.
- Choose mounting height. Use MULTIPLIER (X) EXISTING FC VALUE = NEW FC VALUE.
- FC values are based on initial lumen output.
- Gridline spacing is in units of chosen mounting height
- For LPW16-5 configuration, scale down by 29%.



**Job Name:**VILLAGE OF TAOS SKI VALLEY WASTEWATER
TREATMENT PLANT EXPANSION**Catalog Number:**

LPW16-51BZPCB

Notes:**Type:****F**

IWI ALBQ.19-22774

LPW16 LytePro LED small wall sconce

General Description

The Stonco LytePro LED small wall sconce LPW16 combines excellent performance, design and value to meet the needs of the energy and budget conscious. The LPW16 is available for use in downward facing, surface wall mount applications, over recessed j-boxes or where power can be directly fed through back surface, whereby connections splices can be made inside the luminaire housing. Five SKU's are available as in-stock configurations only (2-day quick ship).

40W Model: Two standard units are available in two different finishes. 120V button photocell is available in bronze only. **30W Model:** Standard units available in bronze only, with and without photocell. 30W model is California Title 24 compliant.

Housing

Die-cast housing houses both the LED and driver assemblies. Design incorporates an integrated heat sink to maximize thermal performance and reliability. Backplate is corrosion free, composite polycarbonate, with built-in level bubble, offers integral interlocking hook and mount design for easy installation.

Mounting

Easy interlocking hook and mount housing/backplate design for easy installation. Mounts over 3.5", 4" octagonal j-boxes and single gang switch boxes or can be directly lagged to surface. Ensure proper steps for gasket/sealing luminaire to surface.

IP Rating

Optical compartment is IP65 rated.

LED Board and Array

Provides up to 93 lm/W in LPW16-7 and 96 lm/W in LPW16-5 at the system level. Standard color temp is 4000K +/- 250K, minimum 70 CRI.

Electrical

Driver efficiency (>90% standard). 120-277V. Temp range: -40°C (-40°F) to 40°C (104°F). Open/short circuit protection. Inherent surge protection up to (4KVA). RoHS compliant.

Listings

Product is cETLus listed suitable for Wet Locations. Suitable for use in ambients from -40°C to 40°C (-40°F to 104°F). DesignLights Consortium® qualified. Stocked SKUs of the LPW family are made in China.

Finish

Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish.

Warranty

LPW16 luminaires, the LED arrays, and the drivers are all covered by a 5-year limited warranty. See philips.com/warranties for details.

LED Performance:

PREDICTED LUMEN DEPRECIATION DATA^{4,6}

Ambient Temp. °C	Calculated L70 hrs ⁵	Reported L70 Per TM-21 ^{5,6}	Calculated Lumen Maint. % @60,000 hrs
up to 40°C	>200,000 hrs	>60,000 hrs	94.0%

4. Calculated performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology.

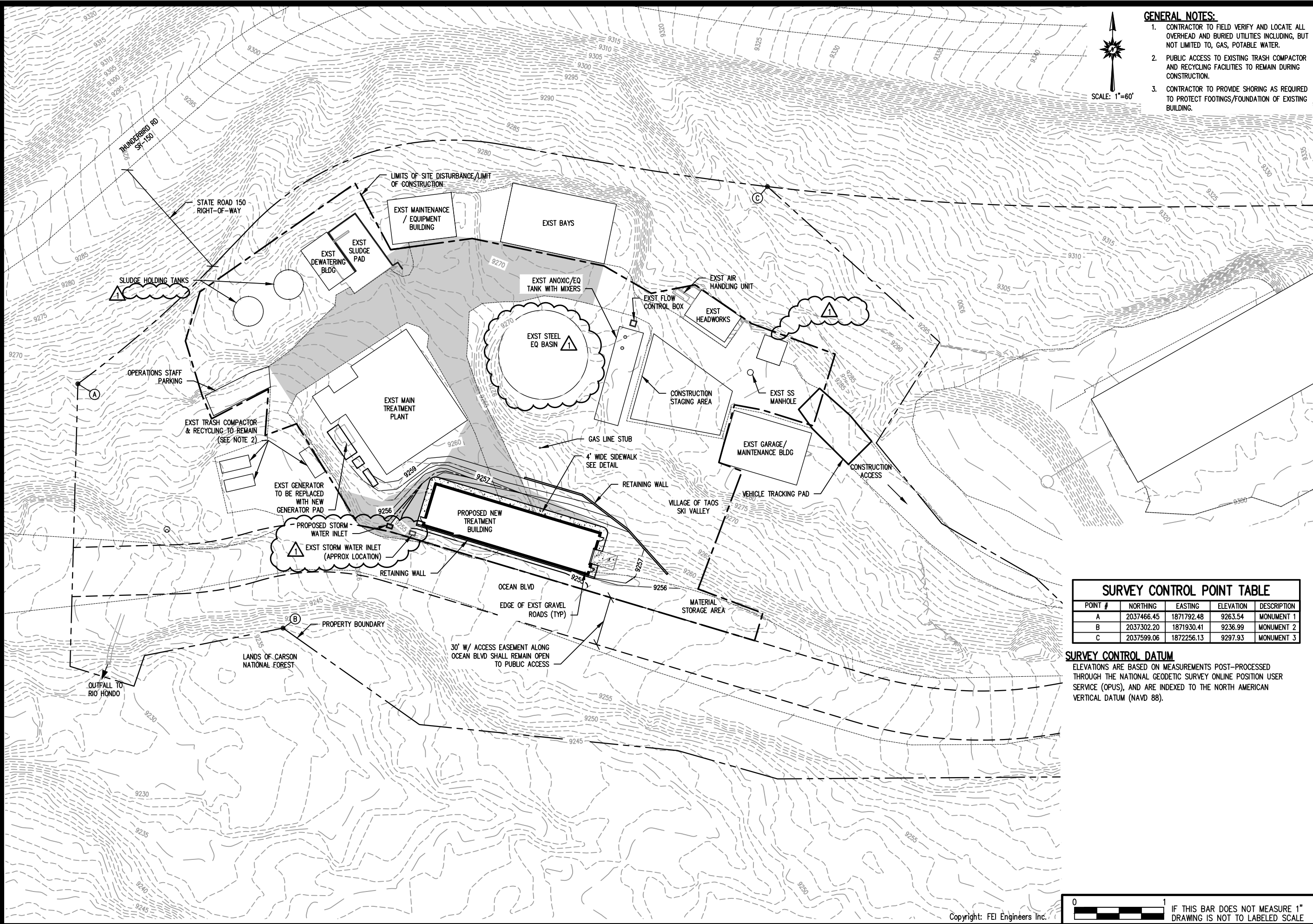
Actual experience may vary due to field application conditions.

5. L70 is the predicted time when LED performance depreciates to 70% of initial lumen output.

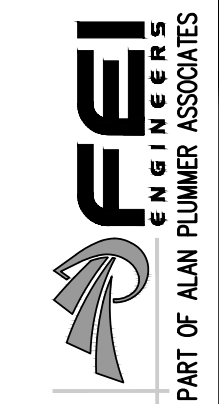
6. Reported per IESNA TM21-11. Published L70 hours limited to 6 times actual LED test hours.



LOCATION: F:\projects\3172\002-02\2-0 Wrk Prod\2-1 ACAD\SHEETFILES\C1-01.dwg PLOTTED: 3/29/2019 2:49 PM BY: Pemberton,Ron



- GENERAL NOTES:**
1. CONTRACTOR TO FIELD VERIFY AND LOCATE ALL OVERHEAD AND BURIED UTILITIES INCLUDING, BUT NOT LIMITED TO, GAS, POTABLE WATER.
 2. PUBLIC ACCESS TO EXISTING TRASH COMPACTOR AND RECYCLING FACILITIES TO REMAIN DURING CONSTRUCTION.
 3. CONTRACTOR TO PROVIDE SHORING AS REQUIRED TO PROTECT FOOTINGS/FOUNDATION OF EXISTING BUILDING.



REV. No.	DATE	DESCRIPTION
-	03/2019	BID SET
1	03/2019	ADDENDUM No. 3

SURVEY CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
A	2037466.45	1871792.48	9263.54	MONUMENT 1
B	2037302.20	1871930.41	9236.99	MONUMENT 2
C	2037599.06	1872256.13	9297.93	MONUMENT 3

SURVEY CONTROL DATUM
ELEVATIONS ARE BASED ON MEASUREMENTS POST-PROCESSED THROUGH THE NATIONAL GEODETIC SURVEY ONLINE POSITION USER SERVICE (OPUS), AND ARE INDEXED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).

VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

OVERALL SITE PLAN

PROJECT No.: VTSV-0262
DATE: 3/27/2019
DESIGNED BY: MAD
DRAWN BY: BB
CHECKED BY: PJO

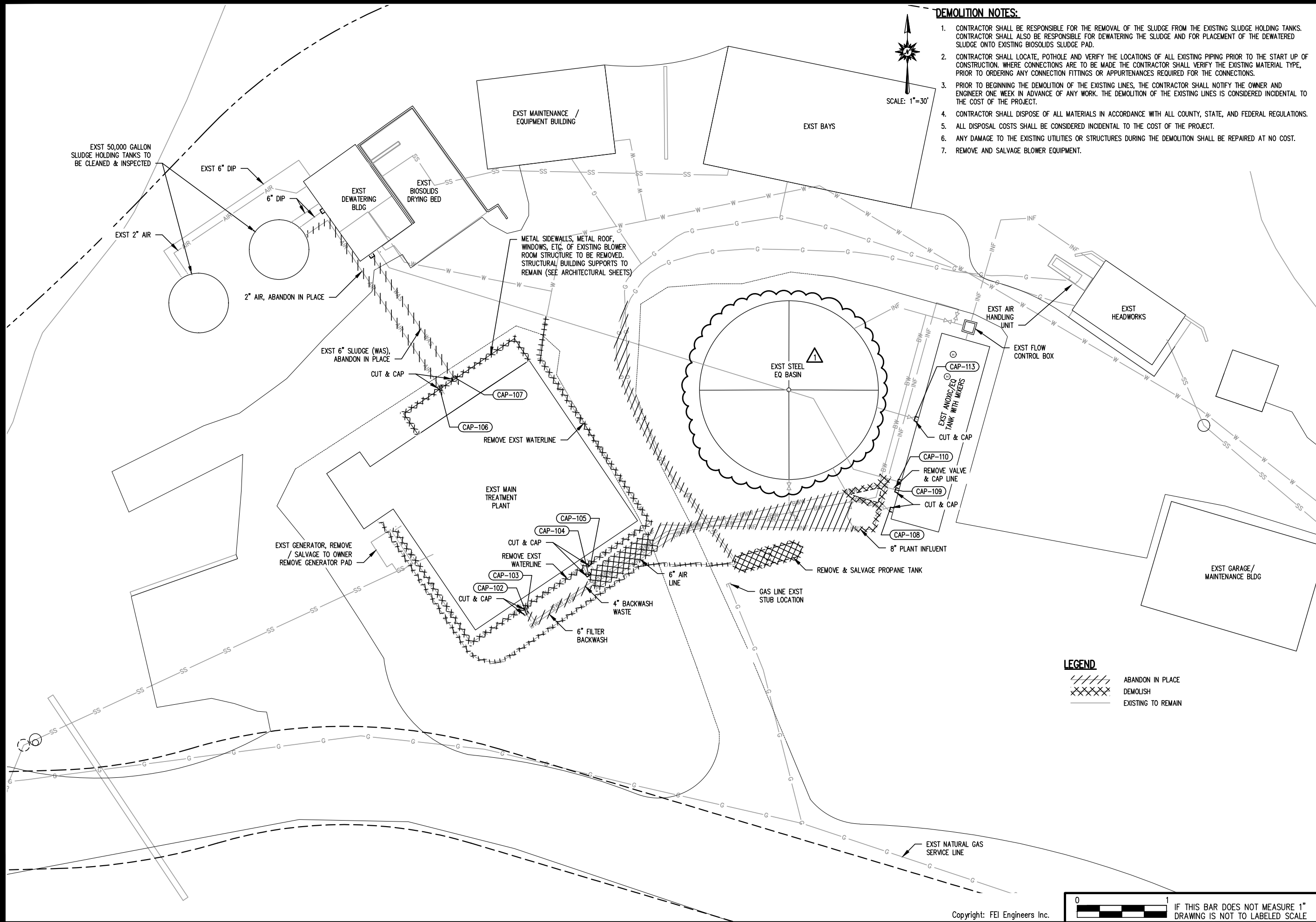
C1-01

Copyright: FEI Engineers Inc.



IF THIS BAR DOES NOT MEASURE 1"
DRAWING IS NOT TO LABELED SCALE

LOCATION: W:\VTSV-0262 WWTP RE-DESIGN\CI-02.dwg PLOTTED: 3/29/2019 2:57 PM BY: Pemberton,Ron





PART OF ALAN PLUMMER ASSOCIATES

REV. No.	DATE	DESCRIPTION
1	03/2019	ADDENDUM No. 3

VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

EXISTING YARD PIPING &
DEMOLITION PLAN

PROJECT No.: VTSV-0262

DATE: 3/27/2019

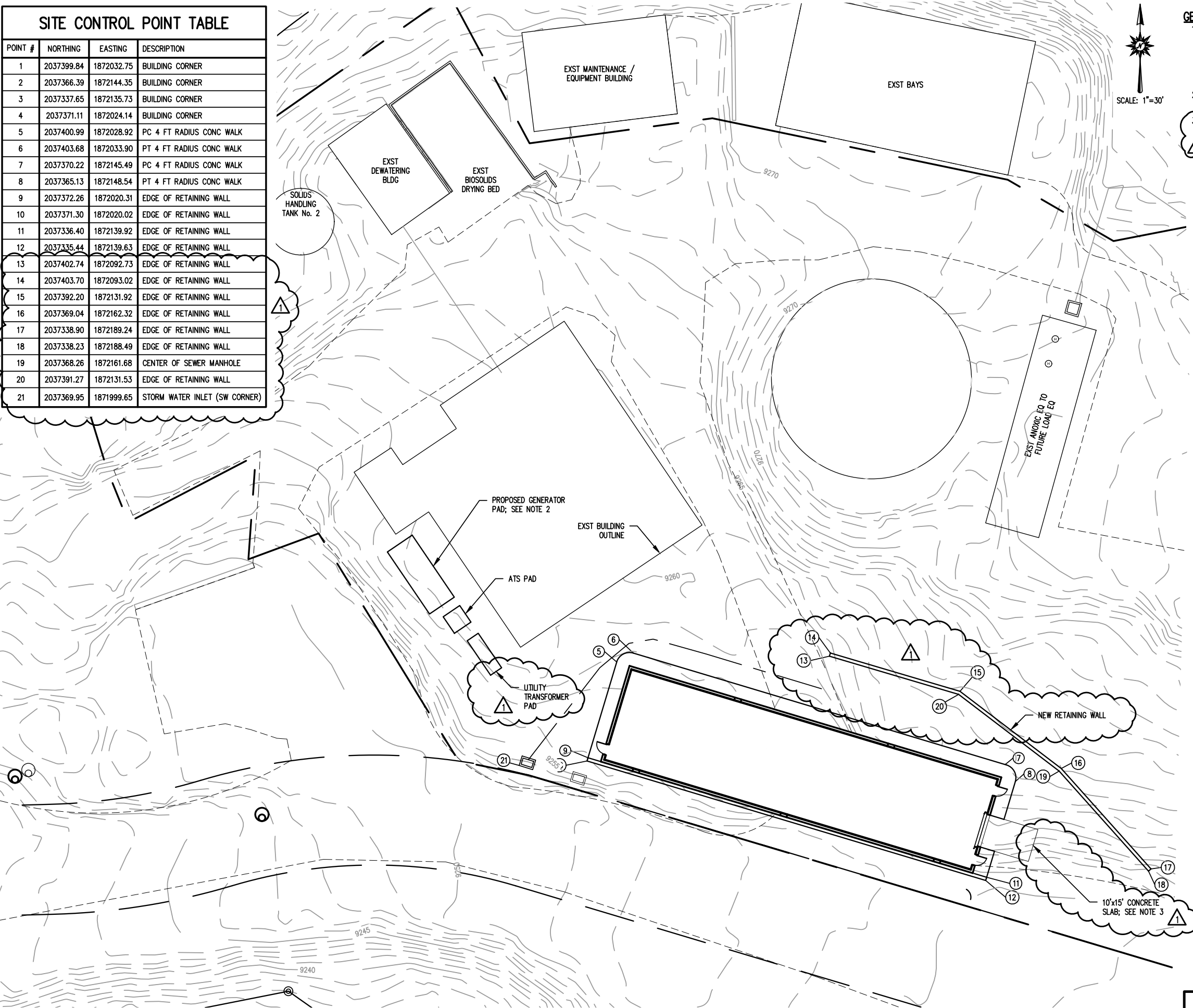
DESIGNED BY: KAF

DRAWN BY: KPR

CHECKED BY: PJO

C1-02

POINT #	NORTHING	EASTING	DESCRIPTION
1	2037399.84	1872032.75	BUILDING CORNER
2	2037366.39	1872144.35	BUILDING CORNER
3	2037337.65	1872135.73	BUILDING CORNER
4	2037371.11	1872024.14	BUILDING CORNER
5	2037400.99	1872028.92	PC 4 FT RADIUS CONC WALK
6	2037403.68	1872033.90	PT 4 FT RADIUS CONC WALK
7	2037370.22	1872145.49	PC 4 FT RADIUS CONC WALK
8	2037365.13	1872148.54	PT 4 FT RADIUS CONC WALK
9	2037372.26	1872020.31	EDGE OF RETAINING WALL
10	2037371.30	1872020.02	EDGE OF RETAINING WALL
11	2037336.40	1872139.92	EDGE OF RETAINING WALL
12	2037335.44	1872139.63	EDGE OF RETAINING WALL
13	2037402.74	1872092.73	EDGE OF RETAINING WALL
14	2037403.70	1872093.02	EDGE OF RETAINING WALL
15	2037392.20	1872131.92	EDGE OF RETAINING WALL
16	2037369.04	1872162.32	EDGE OF RETAINING WALL
17	2037338.90	1872189.24	EDGE OF RETAINING WALL
18	2037338.23	1872188.49	EDGE OF RETAINING WALL
19	2037368.26	1872161.68	CENTER OF SEWER MANHOLE
20	2037391.27	1872131.53	EDGE OF RETAINING WALL
21	2037369.95	1871999.65	STORM WATER INLET (SW CORNER)



1. CONTRACTOR SHALL LOCATE, POTHOLE AND VERIFY THE LOCATIONS OF ALL EXISTING PIPING PRIOR TO THE START UP OF CONSTRUCTION. WHERE CONNECTIONS ARE TO BE MADE THE CONTRACTOR SHALL VERIFY THE EXISTING MATERIAL TYPE, PRIOR TO ORDERING ANY CONNECTION FITTINGS OR APPURTENANCES REQUIRED FOR THE CONNECTIONS.
2. 2'-0" THICK CONCRETE SLAB W/ #5@12 EW T&B. EXTEND 1'-0" BEYOND GENERATOR FOOTPRINT ON ALL SIDES.
3. 1'-0" THICK CONCRETE PAD WITH #5 @ 12" EACH WAY TOP AND BOTTOM. COMPACT SUBGRADE TO 95% OF MODIFIED PROCTOR (ASTM D1557) MAXIMUM DENSITY.



REV. No.	DATE	DESCRIPTION
-	03/2019	BID SET
1	03/2019	ADDENDUM No. 3

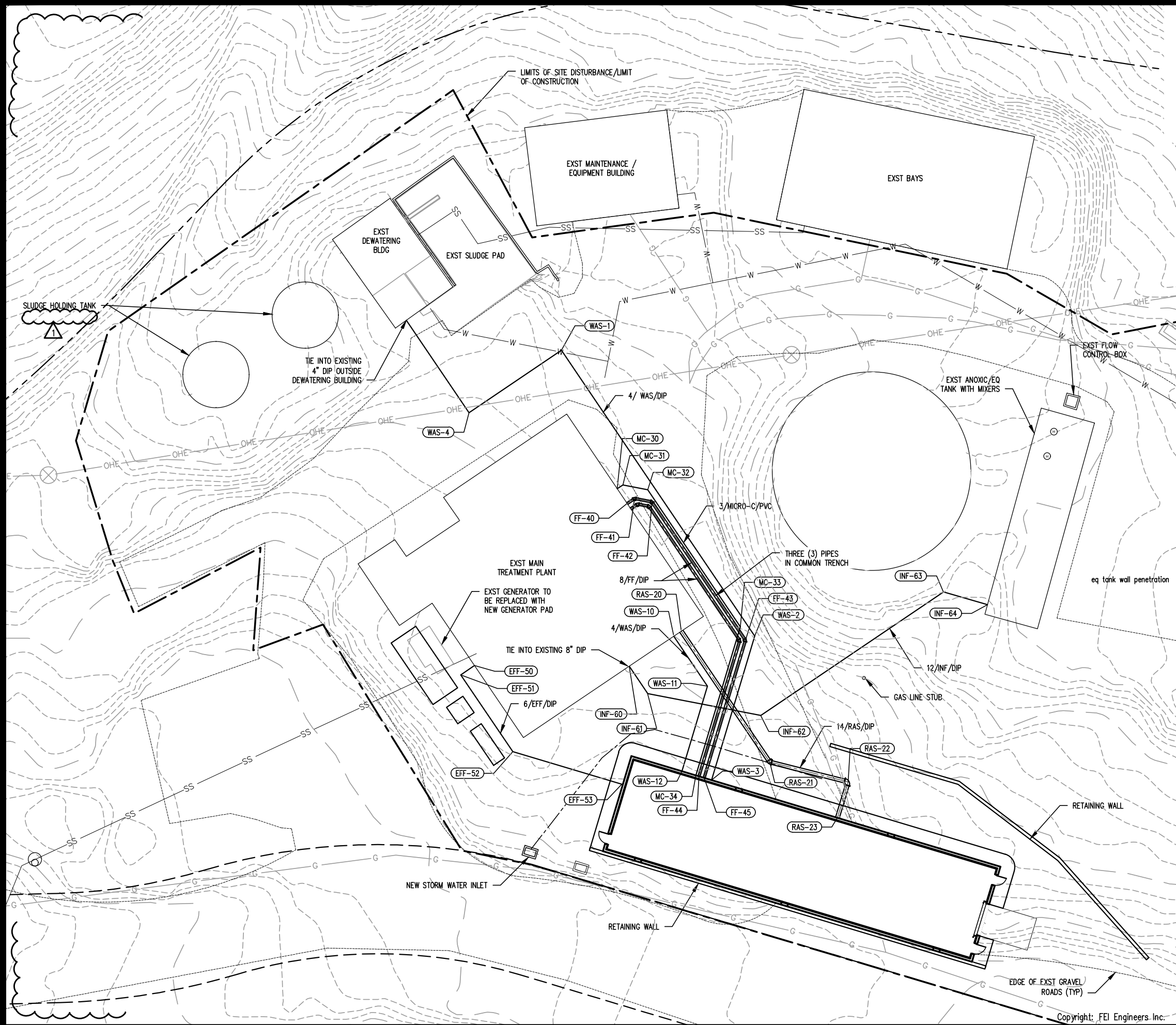
**VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION**

SITE IMPROVEMENTS

CHECKED BY: PJO

C1-03

LOCATION: F:\projects\3172\002-02\2-0 Wrk Prod\2-1 ACAD\SHEETFILES\C1-04.dwg PLOTTED: 3/29/2019 3:33 PM BY: Rindt, Keith



- GENERAL NOTES:**
1. SEE C1-05 FOR HORIZONTAL CONTROL POINT TABLE AND PIPE SCHEDULE TABLE.
 2. CONTRACTOR SHALL LOCATE, POTHOLE AND VERIFY THE LOCATIONS OF ALL EXISTING PIPING PRIOR TO THE START UP OF CONSTRUCTION. WHERE CONNECTIONS ARE TO BE MADE THE CONTRACTOR SHALL VERIFY THE EXISTING MATERIAL TYPE, PRIOR TO ORDERING ANY CONNECTION FITTINGS OR APPURTENANCES REQUIRED FOR THE CONNECTIONS.
 3. CONTRACTOR TO FIELD VERIFY AND LOCATE ALL OVERHEAD AND BURIED UTILITIES INCLUDING, BUT NOT LIMITED TO, GAS, POTABLE WATER, NPW.
 4. PUBLIC ACCESS TO EXISTING TRASH COMPACTOR AND RECYCLING FACILITIES TO REMAIN DURING CONSTRUCTION.
 5. PROVIDE KICKBLOCK FOR EVERY BEND OF DIP YARD PIPE. REFER TO DETAIL 1/C4-03 FOR KICKBLOCK DETAIL.
 6. PROVIDE DRESSER COUPLING ON ALL DIP BURIED YARD PIPING BEFORE ENTERING OR PENETRATING BUILDING WALL OR FOUNDATION. PROVIDE FERCO COUPLING ON PVC BURIED YARD PIPING BEFORE ENTERING OR PENETRATING BUILDING WALL OR FOUNDATION.
 7. MINIMUM OF 8' BURY DEPTH REQUIRED FOR ALL NEW BURIED YARD PIPING.



PART OF ALAN PLUMMER ASSOCIATES

REV. No.	DATE	DESCRIPTION
-	03/2019	BID SET
1	03/2019	ADDENDUM No. 3

VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

YARD PIPING PLAN

PROJECT No.: VTSV-0262

DATE: 3/29/2019

DESIGNED BY: MAD

DRAWN BY: BB

CHECKED BY: PJO

C1-04

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

Copyright: FEI Engineers Inc.

LOCATION: F:\projects\3172\002-02\2-0 Wrk Prod\2-1 ACAD\SHEETFILES\C1-04.dwg PLOTTED: 3/29/2019 3:31 PM BY: Rindi,Keith

WASTE ACTIVATED SLUDGE (WAS) PIPING CONTROL POINT TABLE

POINT #	NORTHING	EASTING	INV ELEVATION	DESCRIPTION
WAS-1	2037522.57	1872011.60	9254.45	4" DIP 90° BEND
WAS-2	2037436.11	1872070.03	9252.69	4" DIP 45° BEND
WAS-3	2037392.58	1872056.98	9247.50	CONNECTION TO PROPOSED TREATMENT BLDG
WAS-4	2037503.66	1871983.62	9252.00	4" DIP 90° BEND
WAS-10	2037436.04	1872045.59	9251.68	BASIN WALL PENETRATION
WAS-11	2037421.00	1872055.75	9251.68	4" DIP 45° BEND
WAS-12	2037395.26	1872048.04	9247.50	CONNECTION TO PROPOSED TREATMENT BLDG

RECYCLED ACTIVATED SLUDGE (RAS) PIPING CONTROL POINT TABLE

POINT #	NORTHING	EASTING	INV ELEVATION	DESCRIPTION
RAS-20	2037437.57	1872047.86	9250.86	BASIN WALL PENETRATION
RAS-21	2037398.03	1872074.59	9246.50	14" DIP 45° BEND
RAS-22	2037392.03	1872098.31	9246.50	14" DIP 90° BEND
RAS-23	2037381.17	1872095.06	9246.50	CONNECTION TO PROPOSED TREATMENT BLDG

MICRO-C (MC) PIPING CONTROL POINT TABLE

POINT #	NORTHING	EASTING	INV ELEVATION	DESCRIPTION
MC-30	2037480.65	1872028.46	9253.62	90° BEND
MC-31	2037481.84	1872030.21	9253.62	3" PVC 45° BEND
MC-32	2037480.39	1872037.69	9253.62	3" PVC 45° BEND
MC-33	2037438.93	1872065.71	9252.88	3" PVC 45° BEND
MC-34	2037394.00	1872052.24	9247.75	CONNECTION TO PROPOSED TREATMENT BLDG

FEED FORWARD (FF) PIPING CONTROL POINT TABLE

POINT #	NORTHING	EASTING	INV ELEVATION	DESCRIPTION
FF-40	2037476.21	1872031.46	9253.25	90° BEND
FF-41	2037477.72	1872033.70	9253.25	8" DIP 45° BEND
FF-42	2037476.70	1872038.98	9253.25	8" DIP 45° BEND
FF-43	2037434.89	1872067.23	9252.08	8" DIP 45° BEND
FF-44	2037393.72	1872053.20	9247.25	CONNECTION TO PROPOSED TREATMENT BLDG
FF-45	2037393.25	1872054.75	9247.25	CONNECTION TO PROPOSED TREATMENT BLDG

*NOTE: 18-INCH MIN OFFSET CENTERLINE TO CENTERLINE BETWEEN FEED FORWARD PIPES

EFFLUENT (EFF) PIPING CONTROL POINT TABLE

POINT #	NORTHING	EASTING	INV ELEVATION	DESCRIPTION
EFF-50	2037427.21	1871985.28	9250.48	90° BEND
EFF-51	2037424.40	1871981.15	9250.48	6" DIP 90° BEND
EFF-52	2037401.20	1871996.90	9250.15	6' DIP 45° BEND
EFF-53	2037391.33	1872029.83	9246.50	CONNECTION TO PROPOSED TREATMENT BLDG

INFLUENT (INF) PIPING CONTROL POINT TABLE

POINT #	NORTHING	EASTING	INV ELEVATION	DESCRIPTION
* INF-60	2037426.97	1872032.10	9252.10	CONNECTIONN TO EXST PIPING
INF-61	2037418.73	1872037.67	9252.10	12" DIP 45° BEND
INF-62	2037412.13	1872071.83	9252.10	12" DIP 45° BEND
INF-63	2037449.49	1872127.11	9264.02	12" DIP 45° BEND
INF-64	2037445.61	1872140.43	9260.50	EQ TANK WALL PENETRATION

* CONTRACTOR TO FIELD VERIFY EXISTING PIPE ELEVATION PRIOR TO NEW PIPE INSTALLATION. REPORT ANY DISCREPANCY TO ENGINEER.

DEMO CUT / CAP CONTROL POINT TABLE

POINT #	NORTHING	EASTING	DESCRIPTION
CAP-102	2037410.62	1872017.30	CUT & CAP EXST 6" BACKWASH
CAP-103	2037412.37	1872017.33	CUT & CAP EXST 4" BACKWASH WASTE
CAP-104	2037423.62	1872038.19	CUT & CAP EXST 6" AIR
CAP-105	2037427.35	1872038.75	CUT & CAP EXST 8" INF
CAP-106	2037487.34	1871987.88	CUP & CAP EXST 2" AIR
CAP-107	2037490.49	1871992.57	CUT & CAP EXST 6" WAS
CAP-108	2037445.96	1872139.27	CUT & CAP EXST 8" INF
CAP-109	2037452.50	1872141.06	CUT & CAP EXST 4" BACKWASH WASTE
CAP-110	2037455.31	1872141.85	CUT & CAP EXST PIPE
CAP-113	2037476.37	1872147.58	CUT & CAP EXST PIPE



REV. No.	DATE	DESCRIPTION
-	03/2019	BID SET
1	03/2019	ADDENDUM No. 3

VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

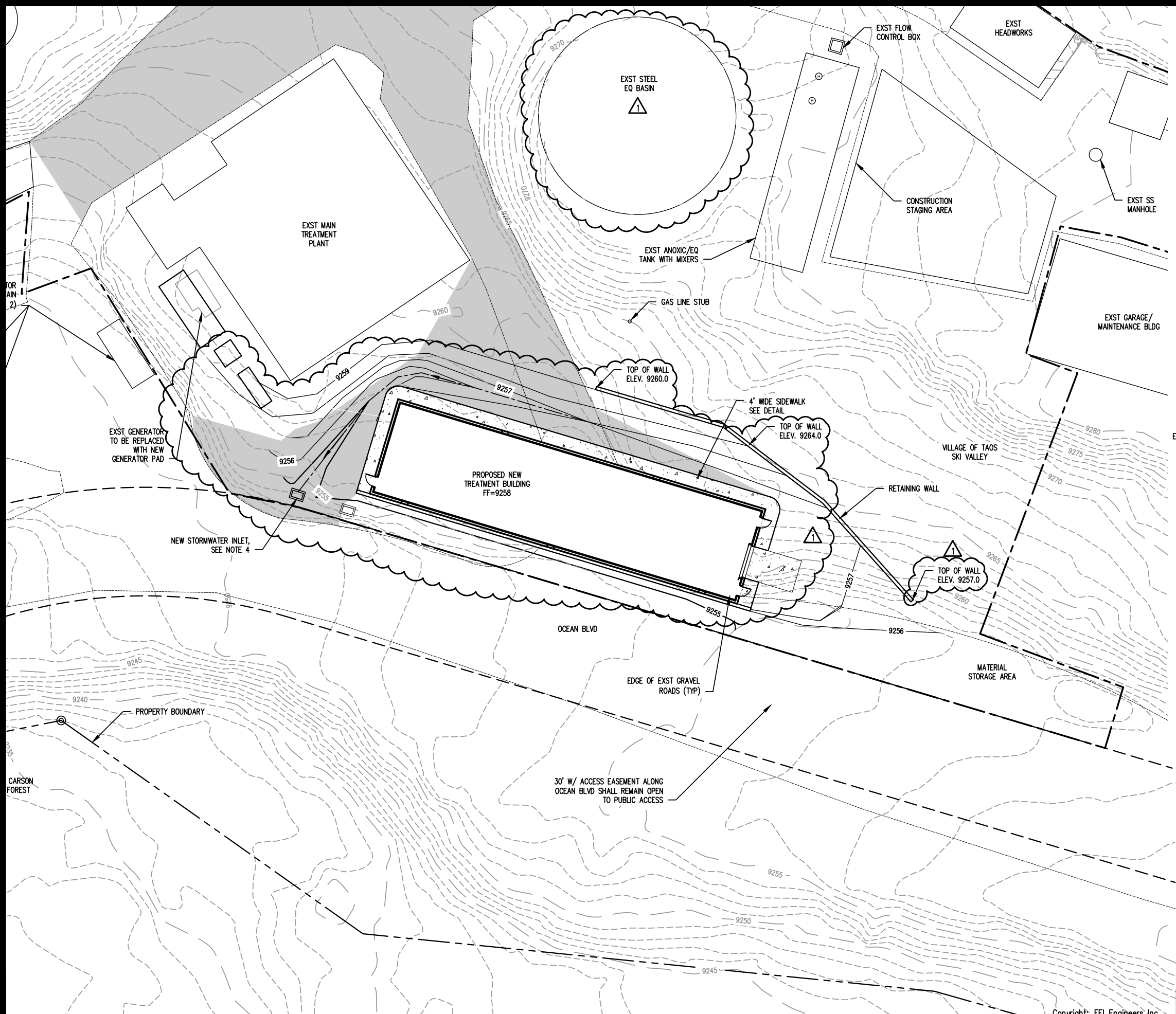
YARD PIPING SCHEDULES

PROJECT No.: VTSV-0262
DATE: 3/29/2019
DESIGNED BY: MAD
DRAWN BY: BB
CHECKED BY: PJO

C1-05



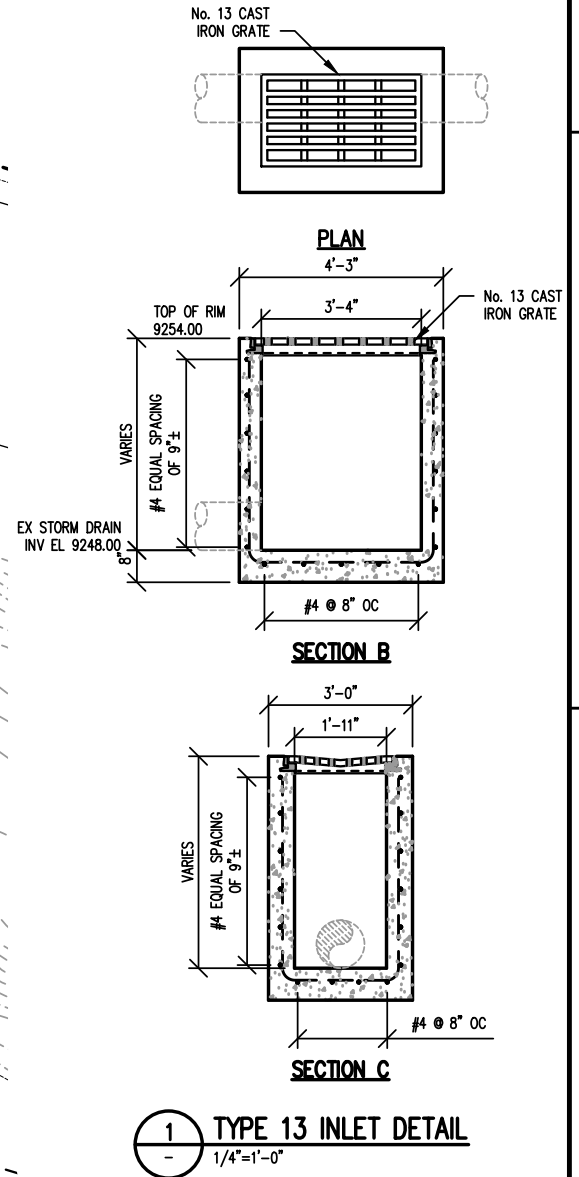
LOCATION: F:\projects\3172\002-02\2-0 Wrk Prod\2-1 ACAD\SHEETFILES\C1-06.dwg PLOTTED: 3/29/2019 3:40 PM BY: Pemberton,Ron



SCALE: 1"=30'

GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY AND LOCATE ALL OVERHEAD AND BURIED UTILITIES INCLUDING, BUT NOT LIMITED TO, GAS, POTABLE WATER, NPW.
2. PUBLIC ACCESS TO EXISTING TRASH COMPACTOR AND RECYCLING FACILITIES TO REMAIN DURING CONSTRUCTION.
3. CONTRACTOR TO PROVIDE SHORING AS REQUIRED TO PROTECT FOOTINGS/ FOUNDATION OF EXISTING BUILDING.
4. CONSTRUCT NEW STORMWATER INLET AND TIE INTO EXISTING BURIED STORM DRAIN. SEE DETAIL.





PART OF ALAN PLUMMER ASSOCIATES

REV. No.	DATE	DESCRIPTION
1	03/2019	BID SET
	03/2019	ADDENDUM No. 3

VILLAGE OF TAOS SKI VALLEY
WASTEWATER TREATMENT PLANT EXPANSION

OVERALL SITE GRADING PLAN

PROJECT No.: VTSV-0262

DATE: 3/27/2019

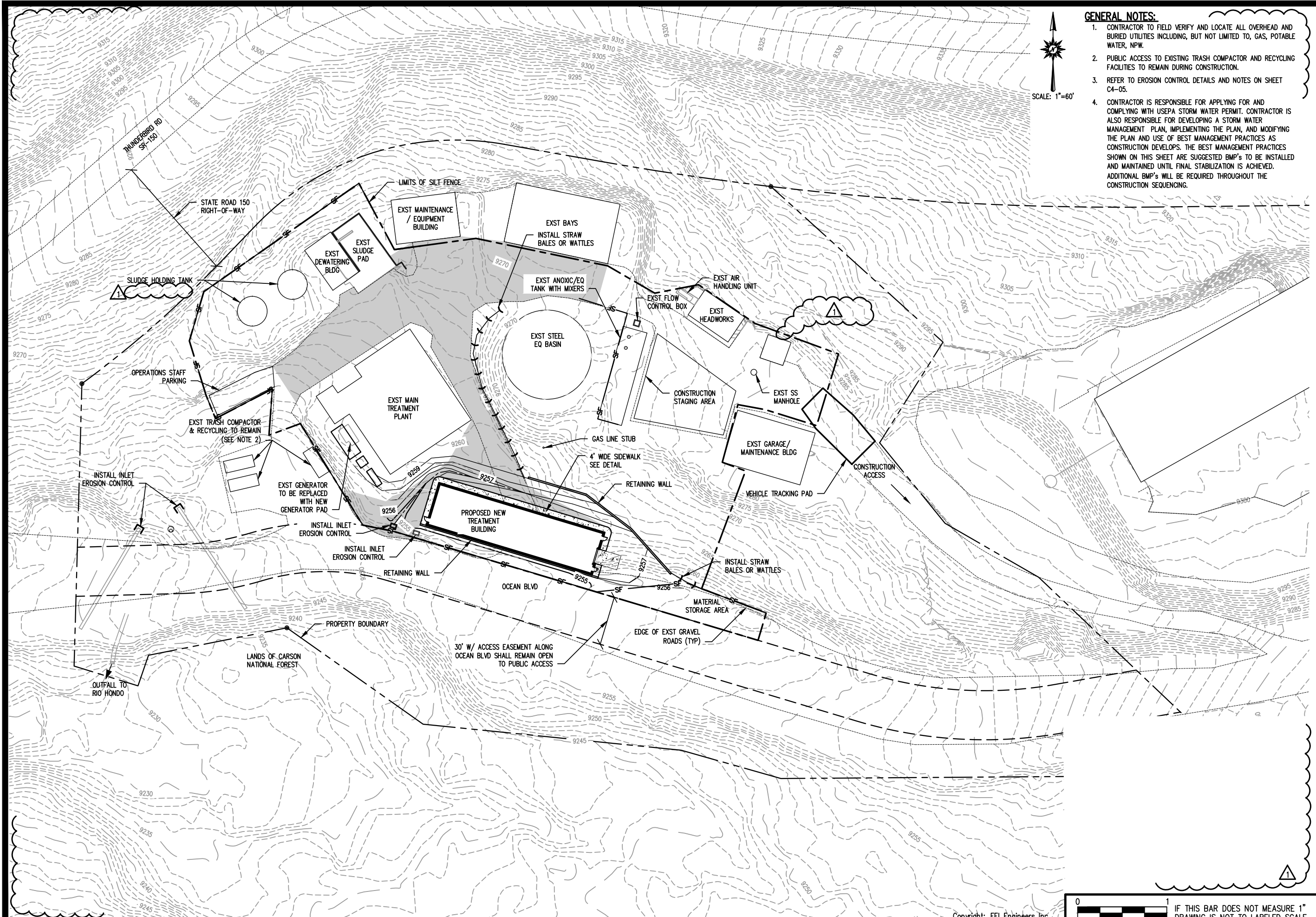
DESIGNED BY: MAD

DRAWN BY: BB

CHECKED BY: PJO

C1-06

LOCATION: W:\VTSV-0262 WWTP RE-DESIGN\01-07.dwg PLOTTED: 3/29/2019 3:48 PM BY: Pemberton,Ron



GENERAL NOTES:

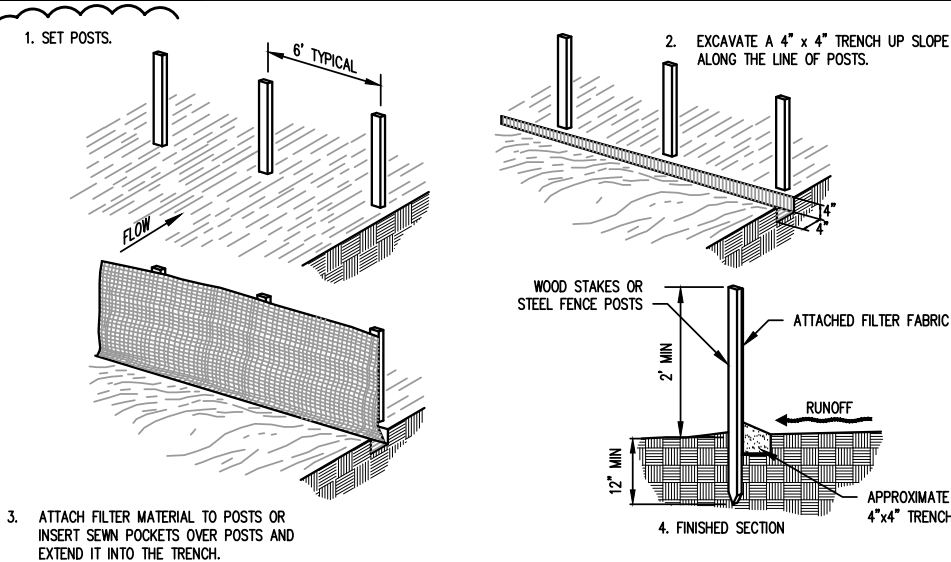
1. CONTRACTOR TO FIELD VERIFY AND LOCATE ALL OVERHEAD AND BURIED UTILITIES INCLUDING, BUT NOT LIMITED TO, GAS, POTABLE WATER, NPW.
2. PUBLIC ACCESS TO EXISTING TRASH COMPACTOR AND RECYCLING FACILITIES TO REMAIN DURING CONSTRUCTION.
3. REFER TO EROSION CONTROL DETAILS AND NOTES ON SHEET C4-05.
4. CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR AND COMPLYING WITH USEPA STORM WATER PERMIT. CONTRACTOR IS ALSO RESPONSIBLE FOR DEVELOPING A STORM WATER MANAGEMENT PLAN, IMPLEMENTING THE PLAN, AND MODIFYING THE PLAN AND USE OF BEST MANAGEMENT PRACTICES AS CONSTRUCTION DEVELOPS. THE BEST MANAGEMENT PRACTICES SHOWN ON THIS SHEET ARE SUGGESTED BMP'S TO BE INSTALLED AND MAINTAINED UNTIL FINAL STABILIZATION IS ACHIEVED. ADDITIONAL BMP'S WILL BE REQUIRED THROUGHOUT THE CONSTRUCTION SEQUENCING.



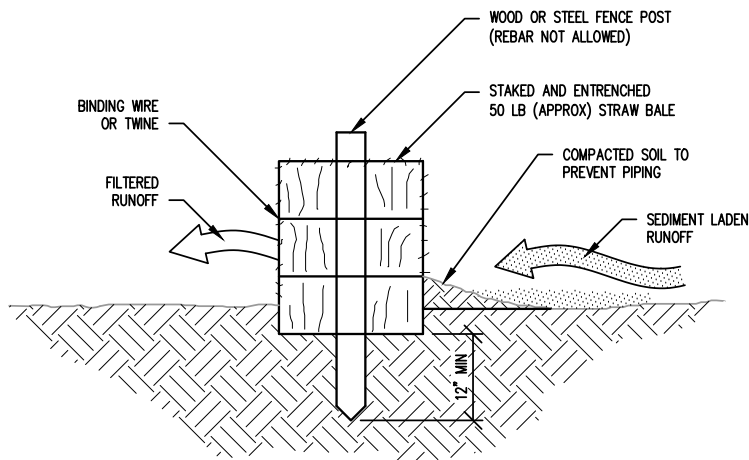
VILLAGE OF TAOS SKI VALLEY WASTEWATER TREATMENT PLANT EXPANSION		REV. No.	DATE	DESCRIPTION
EROSION CONTROL PLAN		1	03/2019	BID SET
				ADDENDUM No. 3
PROJECT No.: VTSV-0262				
DATE: 3/27/2019				
DESIGNED BY: MAD				
DRAWN BY: BB				
CHECKED BY: PJO				

C1-07

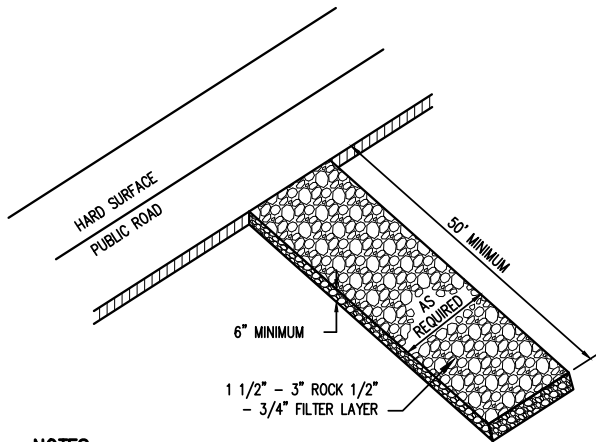
LOCATION: W:\VTSV-0262 WWTP RE-DESIGN\C4-04.dwg PLOTTED: 3/29/2019 3:50 PM BY: Pemberton,Ron



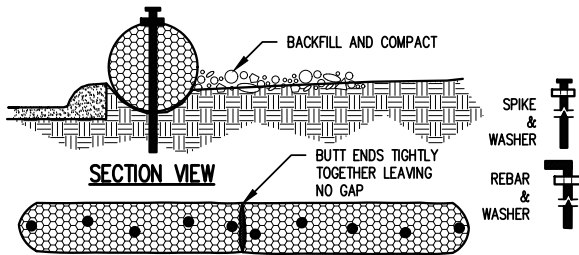
1 SILT FENCE INSTALLATION DETAIL
NTS



3 STRAW BALE SEDIMENT BARRIER DETAIL
NTS



2 VEHICLE TRACKING CONTROL DETAIL
NTS



LOG/WATTLE DIAMETER	SPIKE/REBAR LENGTH	SPIKE/REBAR DIAMETER (MIN)	TRENCH DEPTH
6 INCH	12 INCHES	.375 INCHES (#3)	2 INCHES
9 INCH	15 INCHES	.500 INCHES (#4)	3 INCHES
12 INCH	18 INCHES	.750 INCHES (#6)	4 INCHES
20 INCH	36 INCHES	1.000 INCHES (#8)	6 INCHES

- NOTES:
1. DRIVE SPIKE OR REBAR AND WASHER TIGHT TO TOP OF WATTLE/LOG. DO NOT COMPRESS WATTLE/LOG AT STAKE LOCATION.
 2. 6 INCH MINIMUM DEPTH OF SPIKE OR REBAR IN UNDISTURBED SOIL.
 3. ANCHOR EVERY 2 LINEAR FEET MIN.
 4. REBAR TO HAVE 2 INCH BEND AT TOP.

4 WATTLE/LOG SEDIMENT BARRIER DETAIL
NTS

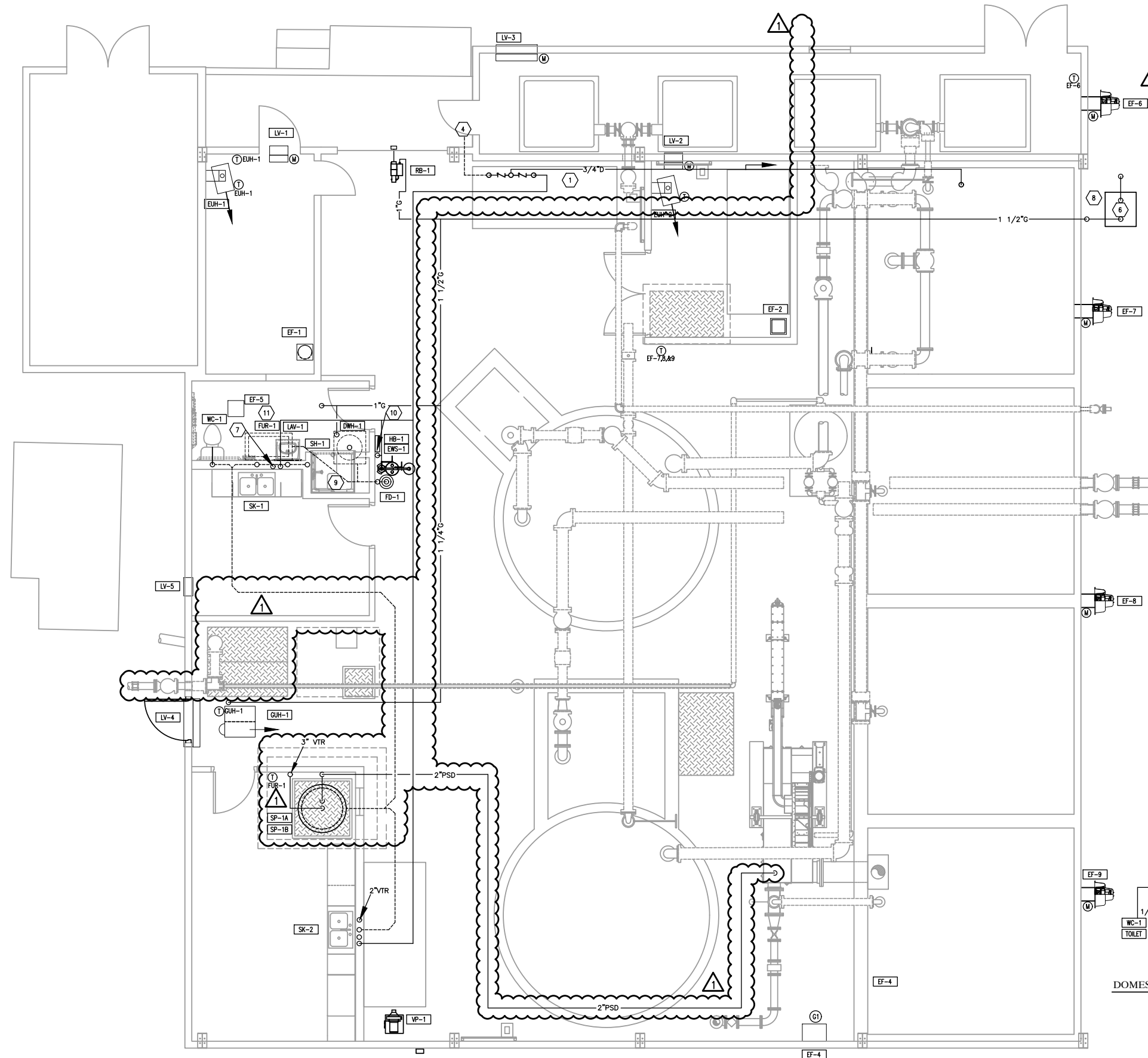
EROSION AND SEDIMENTATION CONTROL NOTES

1. CONTRACTOR SHALL APPLY FOR, AND COMPLY WITH THE USEPA GENERAL PERMIT PER "STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY" AND DEVELOP A STORMWATER MANAGEMENT PLAN FOR THE PROJECT. OBTAINING ALL REQUIRED PERMITTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. GRADING, DRILLING, CLEARING, EXCAVATING, BACK-FILLING, SOIL STRIPPING OR ANY OTHER FORM OF EARTH MOVING SHALL NOT COMMENCE UNTIL ANY REQUIRED GRADING/EXCAVATION PERMITS HAVE BEEN ISSUED.
3. ALL EROSION AND SEDIMENT CONTROL BMPs SHALL BE INSTALLED ACCORDING TO THE STORMWATER MANAGEMENT PLAN (SWMP), INSTALLATION NOTES AND DETAILS.
4. THE CONTRACTOR SHALL REVISE OR MODIFY THE EROSION AND SEDIMENT CONTROL MEASURES AS REQUIRED TO ELIMINATE SEDIMENT DISCHARGE, OR POTENTIAL SEDIMENT DISCHARGE FROM THE SITE.
5. ALL TOPSOIL, WHERE PHYSICALLY PRACTICAL, SHALL BE SALVAGED AND NO TOPSOIL SHALL BE REMOVED FROM THE SITE. TOPSOIL AND OVERBURDEN SHALL BE SEGREGATED AND STOCKPILED SEPARATELY. TOP SOIL AND OVERBURDEN SHALL BE REDISTRIBUTED WITHIN THE GRADED AREA AFTER ROUGH GRADING TO PROVIDE A SUITABLE BASE FOR AREAS WHICH WILL BE SEEDED AND PLANTED. RUNOFF FROM STOCKPILED AND STAGING AREAS SHALL BE CONTROLLED TO PREVENT EROSION AND RESULTANT SEDIMENTATION OF RECEIVING WATER.
6. A COPY OF THE GRADING/EXCAVATION PERMIT, APPROVED CONSTRUCTION BMP PLAN(S), INSPECTION REPORTS AND SWMP, AS APPLICABLE, SHALL BE KEPT ONSITE AT ALL TIMES.
7. ALL AREAS RECEIVING PERMANENT SEEDING SHALL BE PROPERLY AMENDED WITH THE SPECIFIED AMOUNT OF TOPSOIL. IF NATIVE TOP SOIL FROM THE SITE IS NOT AVAILABLE, TOP SOIL AND/OR SOIL AMENDMENTS MAY BE IMPORTED.
8. SOIL THAT IS STOCKPILED ONSITE SHALL BE ENCLOSED WITH SILT FENCE AT THE DISCRETION OF THE SWMP INSPECTOR. IF THE SOIL IS TO REMAIN EXPOSED FOR MORE THAN 30 DAYS, IT SHALL BE SEEDED AND MULCHED ACCORDING TO THE MUNICIPAL OR COUNTY REQUIREMENTS.
9. ALL INITIAL-STAGE BMPs MUST BE INSTALLED ON SITE PRIOR TO ANY GRADING, DRILLING, CLEARING, EXCAVATING, BACK-FILLING, TOPSOIL STRIPPING OR ANY OTHER FORM OF EARTH MOVING. DESIGNATION OF INITIAL-STAGE LBPS WILL BE IDENTIFIED AT THE PRE-CONSTRUCTION MEETING.
10. ANY LAND DISTURBANCE THAT REMAINS INACTIVE FOR MORE THAN 14 CONSECUTIVE DAYS MUST RECEIVE SURFACE ROUGHENING.
11. ANY LAND DISTURBANCE THAT REMAINS INACTIVE FOR MORE THAN 30 CONSECUTIVE DAYS, MUST RECEIVE SURFACE ROUGHENING, SEEDING, MULCHING, AND CRIMPING.
12. ANY STORMWATER MANAGEMENT OR EROSION AND SEDIMENT CONTROL BMPs THAT ARE FOUND TO BE DAMAGED OR IN NEED OF MAINTENANCE OR REPLACEMENT DURING INSPECTION PERFORMED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY.
13. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL STREETS, CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS, PARKING LOTS, ALLEYS, TRICKLE CHANNELS, AND/OR OTHER IMPERVIOUS SURFACES IMPACTED BY CONSTRUCTION ACTIVITIES ARE CLEAN BY 5 P.M. EACH DAY. WASHING OF ANY STREETS, CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS, PARKING LOTS, ALLEYS, TRICKLE CHANNELS, AND/OR OTHER IMPERVIOUS SURFACES IS STRICTLY PROHIBITED.
14. ALL CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE THROUGH THE APPROVED ACCESS POINT(S) DELINEATED ON THE SWMP. A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT ALL APPROVED ACCESS POINTS TO THE SITE.
15. NO PERMANENT EARTH SLOPES GREATER THAN 2.5:1 (HORIZONTAL TO VERTICAL) ARE ALLOWED.
16. ALL PERMANENT EARTH SLOPES 3:1 (HORIZONTAL TO VERTICAL) OR STEEPER SHALL REQUIRE EROSION CONTROL BLANKET(S).
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ADVERSE IMPACTS THAT OCCUR TO NEIGHBORING PROPERTIES. THE CONTRACTOR MUST OBTAIN PERMISSION FROM LAND OWNERS PRIOR TO ENTERING THEIR PROPERTY.
18. A WATER SOURCE SHALL BE AVAILABLE ONSITE DURING CONSTRUCTION ACTIVITIES, AND UTILIZED TO MINIMIZE FUGITIVE DUST. ALTERNATIVE BMPs MAY BE REQUIRED IF INITIAL ATTEMPTS ARE UNSUCCESSFUL TO SUPPRESS DUST.
19. ALL CHEMICAL OR HAZARDOUS MATERIAL SPILLS, INCLUDING CONCRETE WASHOUT WATER, WHICH MAY ENTER WATERS OF THE STATE OF NEW MEXICO, WHICH INCLUDES BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER, DRY GULLIES OR STORM SEWERS LEADING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE NEW MEXICO ENVIRONMENT DEPARTMENT (NMED), AND THE MUNICIPALITY OR COUNTY. RELEASES OF PETROLEUM PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE FEDERAL CLEAN WATER ACT (40 CFR PART 116) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AND THE NMED. SPILLS THAT POSE AN IMMEDIATE SAFETY HAZARD SHALL BE REPORTED TO 911.
20. THE CLEANING OF CONCRETE TRUCKS AND EQUIPMENT IS RESTRICTED TO THE APPROVED CONCRETE WASHOUT LOCATION ON THE JOB SITE. THE DISCHARGE OF CONCRETE, CONCRETE WASHOUT WATER OR ANY OTHER BUILDING MATERIAL THAT MAY NEGATIVELY IMPACT WATER QUALITY IS STRICTLY PROHIBITED.
21. VEHICLE AND EQUIPMENT WASHING/DEGREASING IS STRICTLY PROHIBITED ON THE JOB SITE.
22. ALL DEWATERING ON SITE SHALL BE COORDINATED WITH THE MUNICIPALITY OR COUNTY AND BE FREE OF POLLUTANTS, INCLUDING SEDIMENT. A STATE PERMIT MAY BE REQUIRED FOR DEWATERING. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS PRIOR TO BEGINNING THE DEWATERING ACTIVITIES.
23. ALL CONSTRUCTION BMPs SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL ALL LANDSCAPING HAS BEEN INSTALLED AND THE DESIRABLE VEGETATION HAS REACHED A POINT IN WHICH EROSION AND SEDIMENTATION IS NO LONGER A CONCERN AS DETERMINED BY THE SWMP INSPECTOR.
24. SEEDED AREAS SHALL BE EVALUATED AFTER ONE GROWING SEASON TO DETERMINE WHETHER ADDITIONAL MAINTENANCE AND/OR WEED CONTROL WILL BE REQUIRED. ACCEPTANCE OF SEEDED AREAS AFTER THE SECOND GROWING SEASON SHALL DEPEND UPON WHETHER A SATISFACTORY STAND OF GRASS IS DEFINED AS A DENSE, UNIFORM SURFACE OF GRASS WITH NO AREA GREATER THAN ONE SQUARE FOOT THAT IS BARREN OF DESIRABLE VEGETATION. DESIRABLE VEGETATION DEFINED TO MEAN PREDOMINATELY WEED FREE.
25. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS.
26. ANY SETTLEMENT OR SOIL ACCUMULATIONS BEYOND THE LIMITS OF CONSTRUCTION DUE TO GRADING OR EROSION SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR OBTAINING ACCESS RIGHTS TO ADJACENT PROPERTY, IF NEEDED, AND REMEDIATING ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, PROPERTIES, ETC. RESULTING FROM WORK DONE AS PART OF THIS PROJECT.

REV. No.	DATE	DESCRIPTION
1	03/2019	BID SET
	03/2019	ADDENDUM No. 3

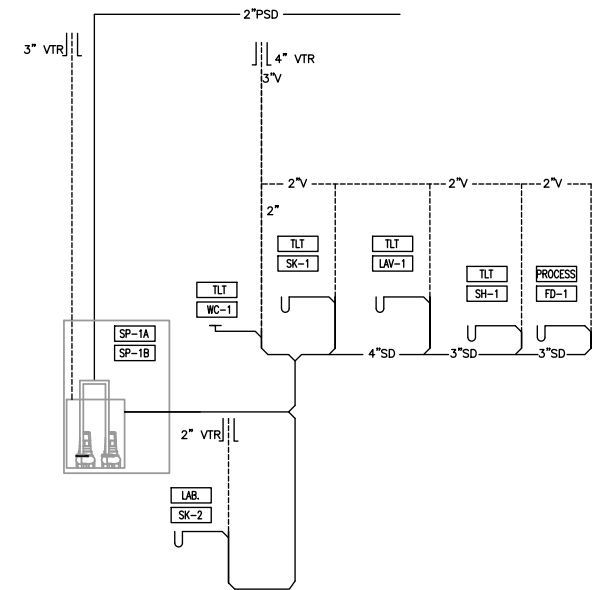
VILLAGE OF TAOS SKI VALLEY WASTEWATER TREATMENT PLANT EXPANSION	EROSION CONTROL DETAILS & NOTES
--	---------------------------------

PROJECT No.: VTSV-0262
DATE: 3/25/2019
DESIGNED BY: KAF
DRAWN BY: KPR
CHECKED BY: PJO



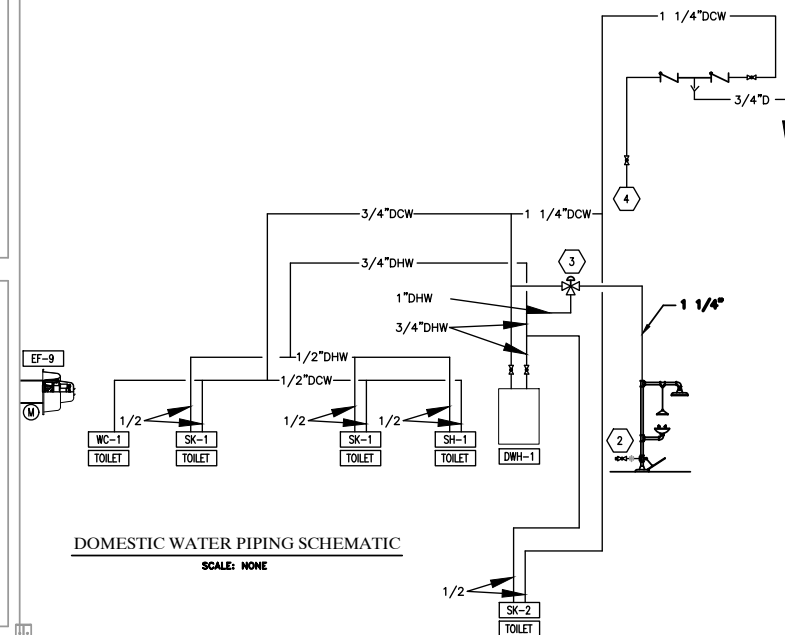
CONSTRUCTION NOTES

- 1 LOCATE THE REDUCED BACK PRESSURE BACK FLOW PREVENTOR 8'-0" ABOVE FINISH FLOOR. PIPE THE EQUIPMENT DRAIN TO THE BASIN.
- 2 PROVIDE A HOSE END BALL VALVE TO FLUSH THE EYEWASH SHOWER.
- 3 PROVIDE A MIXING VALVE AND SET THE TEMPERATURE FOR 80°F TO EWS-1.
- 4 CONNECT INTO THE EXISTING DOMESTIC COLD WATER ENTERING INTO THE BUILDING.
- 5 PUMPER SANITARY DRAIN PIPE CONTINUE ON "C" SERIES DRAWINGS.
- 6 PROPOSED LOCATION OF THE GAS METER.
- 7 REFER TO THE PIPING SCHMATIC FOR CONTINUATION OF DOMESTIC WATER PIPING.
- 8 PROPOSED LOCATION FOR THE GAS METER.
- 9 3/4" EQUIPMENT DRAIN CONTINUE PIPED TO FLOOR DRAIN.
- 10 PROVIDE A HOSE BIBB AND HOSE REEL ADEQUATE FOR 100' OF HOSE.
- 11 ELEVATE FUR-1 IF REQUIRED TO PROVIDE GRAVITY FLOW FOR THE EQUIPMENT DRAIN PAN .



DWV PIPING SCHEMATIC

SCALE: NONE



DOMESTIC WATER PIPING SCHEMATIC
SCALE: NONE

MECHANICAL PIPING PLAN

SCALE: 1/4"=1'-0"



IF THIS BAR DOES NOT MEASURE 1"
DRAWING IS NOT TO LABELED SCALE

Copyright: FEI Engineers Inc.

VILLAGE OF TAOS SKI VALLEY WASTEWATER TREATMENT PLANT EXPANSION MECHANICAL PIPING PLAN	REV. No.	DATE	DESCRIPTION
	-	03/2019	BID SET
	1	03/2019	ADDENDUM No. 3
PROJECT No.: VTSV-0262 DATE: 3/27/2019 DESIGNED BY: GE DRAWN BY: GE CHECKED BY: MAD			



FEL
ENGINEERS

M2