



Administrative Package Cover Page

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1. Summary of application (in plain language)
 - English
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 2. First Notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
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 3. Application materials
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Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

1. Resumen en lenguaje sencillo (PLS, por sus siglas en inglés) de la actividad propuesta
 - Inglés
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2. Primer aviso (NORI, por sus siglas en inglés)
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PLAIN LANGUAGE SUMMARY

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

CN600135198

RN103014577

TX0124800

WQ0010543013

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Austin (CN600135198) operates the Wild Horse Ranch wastewater treatment plant (RN103014577), a conventional activated sludge wastewater treatment plant. The facility is located at 10621 Blue Bluff Lane, near the City of Manor, Travis County, Texas 78653.

This application is for a renewal to discharge at an annual average flow of 750,000 gallons per day of treated domestic wastewater via Outfall 001.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package.

Domestic wastewater is treated primarily by an activated sludge process. The treatment units include a bar screen, a grit channel, aeration basins, aluminum sulfate addition for chemical phosphorus removal, final clarifier, disk filters and an ultraviolet disinfection system. Waste sludge is hauled to the City of Austin's Walnut Creek Wastewater Treatment Plant (WQ0010543011) with subsequent pumped transfer to the City of Austin's Biosolids Management Plant (WQ0003823000) for treatment and beneficial reuse.

RESUMEN EN LENGUAJE SENCILLO

Ciudad de Austin - Austin Water
Wild Horse Ranch WWTP
Permiso TCEQ - WQ0010543013
Solicitud de WWTP Doméstico

CN600135198

RN103014577

TX0124800

WQ0010543013

Se provee el siguiente resumen de esta solicitud pendiente de permiso de calidad de agua que la Comisión de Calidad Ambiental de Texas está revisando según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son declaraciones federales ejecutables de la solicitud de permiso.

La Ciudad de Austin (CN600135198) opera la planta de tratamiento de aguas residuales Wild Horse Ranch (RN103014577), una planta de tratamiento de aguas residuales convencional con lodos activados. Las instalaciones están ubicadas en 10621 Blue Bluff Lane, cerca de la Ciudad de Manor, Condado de Travis, Texas 78653.

Esta solicitud es para una renovación para descargar a un caudal promedio anual de 750,000 galones por día de agua residual doméstica tratada a través del Desagüe 001.

Se espera que las descargas de la planta tengan demanda bioquímica de oxígeno carbonoso a cinco días (CBOD 5), sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH₃-N) y *Escherichia coli*. Contaminantes potenciales adicionales se incluyen en el Informe Técnico Nacional 1.0, Sección 7. Análisis de contaminantes de efluentes tratados y hoja de trabajo doméstica 4.0 en el paquete de solicitud de permisos.

El agua residual doméstica se trata principalmente mediante un proceso de lodos activados. Las unidades de tratamiento incluyen una criba de barras, un canal de arenas, cuencas de aireación, adición de sulfato de aluminio para la remoción de fósforo químico, aclarador final, filtros de disco y un sistema de desinfección ultravioleta. Los lodos residuales se llevan a la Planta de Tratamiento de Aguas Residuales de Walnut Creek de la Ciudad de Austin (WQ0010543011) con bombeo subsiguiente que se transfiere a la Planta de Administración de Biosólidos de la Ciudad de Austin (WQ0003823000) para su tratamiento y reutilización beneficiosa.

简明摘要

Austin市 - Austin Water
Wild Horse Ranch WWT
TCEQ许可证号 -WQ0010543013
生活污水处理厂申请

CN600135198

RN103014577

TX0124800

WQ0010543013

根据《Texas州行政法规》第30篇第39章的规定，Texas州环境质量委员会正在审查水质许可证申请，现提供该待处理申请的以下摘要。本摘要中提供的信息可能会在该申请的技术审查过程中发生变化，这些信息并不属于联邦对许可证申请的强制性陈述。

Austin市（CN600135198）运营着Wild Horse Ranch污水处理厂（RN103014577），这是一座传统的活性污泥污水处理厂。该设施的地址是10621 Blue Bluff Lane, near the City of Manor, Travis County, Texas 78653。

该申请旨在续延其排放许可，以获准通过001号排放口排放经处理的生活废水，日均流量为75万加仑。

该设施排出的废水预计含有五日碳质生化需氧量（CBOD5）、总悬浮固体（TSS）、氨氮（NH₃-N）和大肠杆菌。其他潜在污染物载于许可申请材料中的《生活废水技术报告1.0》第7节、《经处理污水的污染物分析》和《生活废水工作表4.0》。

生活废水主要采用活性污泥工艺进行处理。处理单元包括条形筛、沉砂渠、曝气池、用于化学除磷的硫酸铝添加装置、终沉池、盘式过滤器和紫外线消毒系统。废弃污泥被运送至Austin市Walnut Creek污水处理厂（WQ0010543011），随后通过泵送转移至Austin市的生物固体管理厂（WQ0003823000）进行处理和有益再利用。

TÓM TẮT BẢNG NGÔN NGỮ ĐƠN GIẢN

Thành Phố Austin - Thủy Cục Austin

Wild Horse Ranch WWTP

Giấy Phép TCEQ - WQ0010543013

Đơn xin Giấy phép Xây dựng Hệ thống Xử lý Nước thải Sinh hoạt

CN600135198

RN103014577

TX0124800

WQ0010543013

Bản tóm tắt sau đây được cung cấp cho đơn xin giấy phép chất lượng nước đang chờ xử lý này đang được Ủy ban Chất lượng Môi trường Texas xem xét theo yêu cầu của 30 Bộ luật Hành chính Texas Chương 39. Thông tin cung cấp trong bản tóm tắt này có thể thay đổi trong quá trình duyệt xét chuyên môn đối với đơn đăng ký và không phải là thông tin đại diện có hiệu lực thi hành của liên bang đối với đơn xin giấy phép.

Thành phố Austin (CN600135198) vận hành nhà máy xử lý nước thải Wild Horse Ranch (RN103014577), một nhà máy xử lý nước thải bằng bùn hoạt tính thông thường. Cơ sở xử lý được đặt tại 10621 Blue Bluff Lane, gần Thành Phố Manor, Quận Travis, Texas 78653.

Đơn xin này nhằm mục đích gia hạn hoạt động xả nước thải sinh hoạt đã qua xử lý với lưu lượng trung bình hàng năm là 750,000 gallon mỗi ngày thông qua Cửa xả 001.

Chất thải từ cơ sở này dự kiến sẽ bao gồm nhu cầu oxy sinh hóa cacbon (CBOD5) trong 5 ngày, tổng chất rắn lơ lửng (TSS), nitơ amoniac (NH3-N), và *Escherichia coli*. Báo cáo Kỹ thuật Nước thải Sinh hoạt 1.0, Mục 7 có phần liệt kê các chất ô nhiễm tiềm năng bổ sung. Tài Liệu Phân Tích Chất Ô Nhiễm Trong Nước Thải Đã Qua Xử Lý Phiên Bản 4.0 nằm trong bộ hồ sơ xin cấp phép.

Nước thải sinh hoạt được xử lý chủ yếu bằng quá trình xử lý nước thải bùn hoạt tính. Các cơ sở xử lý bao gồm một lưới chắn thô, một kênh tách grit, các bể hiếu khí, thêm phèn nhôm để loại bỏ photpho hóa học, bể lắng cuối, các bộ lọc đĩa và một hệ thống khử trùng bằng tia cực tím. Bùn thải được vận chuyển đến Nhà máy Xử lý Nước thải Walnut Creek của Thành phố Austin (WQ0010543011), sau đó được bơm chuyển tiếp đến Nhà máy Quản lý Chất thải Sinh học của Thành phố Austin (WQ0003823000) để xử lý và tái sử dụng có ích.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT

PERMIT NO. WQ0010543013

APPLICATION. City of Austin, 625 East 10th Street, Suite 800, Austin, Texas 78701, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010543013 (EPA I.D. No. TX0124800) to authorize the discharge of treated wastewater at a volume not to exceed an annual average flow of 2,250,000 gallons per day. The domestic wastewater treatment facility is located at 10621 Blue Bluff Road, near the city of Manor, in Travis County, Texas 78653. The discharge route is from the plant site to an unnamed tributary of Gilleland Creek; thence to Gilleland Creek; thence to Colorado River. TCEQ received this application on September 12, 2024. The permit application will be available for viewing and copying at Austin Water-Waller Creek Center, 625 East 10th Street, Suite 315, Austin, in Travis County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.56805,30.317822&level=18>

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

El aviso de idioma alternativo en español está disponible en

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

Thông báo bằng tiếng Tây Ban Nha, tiếng Việt và tiếng Trung giản thể có sẵn tại

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

我们还提供西班牙语、越南语和简体中文版本的通知，请访问以下链接

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

ADDITIONAL NOTICE. TCEQ's Executive Director has determined the application is administratively complete and will conduct a technical review of the application. After technical review of the application is complete, the Executive Director may prepare a draft permit and will issue a preliminary decision on the application. **Notice of the Application and Preliminary Decision will be published and mailed to those who are on the county-wide mailing list and to those who are on the mailing list for this application. That notice will contain the deadline for submitting public comments.**

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. **Unless the application is directly referred for a contested case hearing, the response to comments, and the Executive Director's decision on the application, will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application.** If comments are received, the mailing will also provide instructions for requesting reconsideration of the Executive Director's decision and for requesting a contested case hearing. A contested case hearing is a legal proceeding similar to a civil trial in state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period and, the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.**

TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county.

If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at www.tceq.texas.gov/goto/cid. Search the database using the permit number for this application, which is provided at the top of this notice.

AGENCY CONTACTS AND INFORMATION. All public comments and requests must be submitted either electronically at <https://www14.tceq.texas.gov/epic/eComment/>, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from City of Austin at the address stated above or by calling Ms. Tammy West, Wastewater Regulatory Manager, at 512-972-0143.

Issuance Date: October 2, 2024

COMISIÓN DE CALIDAD AMBIENTAL DE TEXAS



AVISO DE RECIBO DE SOLICITUD E INTENCIÓN DE OBTENER UN PERMISO DE CALIDAD DE AGUA

PERMISO NRO. WQ0010543013

SOLICITUD. La Ciudad de Austin, 625 East 10th Street, Suite 800, Austin, Texas 78701, solicitó a la Comisión de Calidad Ambiental de Texas (TCEQ) que renueve el permiso del sistema de eliminación de vertidos contaminantes de Texas (TPDES) Nro. WQ0010543013 (ID de la EPA Nro. TX0124800) para autorizar la descarga de agua residual tratada a un volumen que no supere un caudal promedio anual de 2,250,000 galones por día. La instalación de tratamiento de agua residual doméstica está ubicada en 10621 Blue Bluff Lane, en la Ciudad de Manor, Condado de Travis, Texas 78653. La ruta de descarga va desde el predio de la planta hasta un tributario sin nombre de Gilleland Creek; a partir de allí al Gilleland Creek, a partir de allí al río Colorado. La TCEQ recibió esta solicitud el 12 de septiembre de 2024. La solicitud del permiso estará disponible para su visualización y copiado en el Austin Waller Creek Center, 625 East 10th Street, Suite 315, Austin, en el Condado de Travis, Texas antes de la fecha en que este aviso se publique en el periódico. La solicitud, incluso cualquier actualización, y los avisos asociados están disponibles electrónicamente en la siguiente página web:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

Este enlace a un mapa electrónico del predio o de la ubicación general de la instalación se proporciona como cortesía pública y no forma parte de la solicitud ni del aviso. Para conocer la ubicación exacta, remítase a la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.56805,30.317822&level=18>

AVISO DE IDIOMA ALTERNATIVO. El aviso está disponible en español como idioma alternativo en

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

El aviso de idioma alternativo en español está disponible en

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

Thông báo bằng tiếng Tây Ban Nha, tiếng Việt và tiếng Trung giản thể có sẵn tại

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AVISO ADICIONAL. El Director Ejecutivo de la TCEQ determinó que la solicitud está completa en materia administrativa y efectuará su revisión técnica. Una vez finalizada la revisión técnica de la solicitud, el Director Ejecutivo puede preparar un borrador del permiso y expedirá una decisión preliminar sobre la solicitud.

El Aviso de la solicitud y decisión preliminar se publicará y se enviará por correo a quienes estén en la lista de correo de todo el condado y a quienes estén en la lista de correo de esta solicitud. Ese aviso indicará el plazo para presentar comentarios públicos.

COMENTARIO PÚBLICO / REUNIÓN PÚBLICA. Puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es proporcionar la oportunidad de presentar comentarios o hacer preguntas sobre la solicitud. La TCEQ llevará a cabo una reunión pública si el Director Ejecutivo determina que existe un nivel significativo de interés público en la solicitud o si un legislador local lo requiere. Una reunión pública no es una audiencia de caso impugnado.

OPORTUNIDAD PARA UNA AUDIENCIA DE CASO IMPUGNADO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios oportunos y preparará una respuesta a todos los comentarios públicos esenciales y pertinentes, o significativos. **A menos que la solicitud se refiera directamente a una audiencia de caso impugnado, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud se enviarán a toda persona que haya presentado comentarios públicos y a aquellas personas que estén en la lista de correo de esta solicitud. Si se reciben comentarios, la correspondencia también proporcionará instrucciones para pedir la reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia de caso impugnado.** Una audiencia de caso impugnado es un procedimiento legal similar a un juicio civil en un tribunal de distrito del estado.

PARA PEDIR UNA AUDIENCIA DE CASO IMPUGNADO DEBE INCLUIR LOS SIGUIENTES PUNTOS EN SU SOLICITUD: su nombre, dirección, teléfono, nombre del solicitante y número de permiso propuesto; la ubicación y la distancia de su propiedad/actividad en relación a la planta propuesta; una descripción específica de la forma cómo usted sería afectado adversamente por la planta, de una manera no común al público en general; una lista de todos los asuntos de hechos en disputa que usted presenta durante el periodo de comentarios y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia administrativa de lo contencioso". Si el pedido de audiencia de caso impugnado se presenta en nombre de un grupo o una asociación, el pedido debe designar al representante del grupo para que reciba la futura correspondencia; identificar con nombre y dirección física a un miembro del grupo que se vería perjudicado por la instalación o actividad propuesta; proporcionar la información mencionada anteriormente sobre la ubicación del miembro afectado y su distancia de la instalación o actividad; explicar por qué y cómo el miembro se vería afectado y explicar cómo los intereses que el grupo procura proteger son pertinentes al propósito del grupo.

Tras el cierre de todo periodo correspondiente de comentarios o pedidos, el Director Ejecutivo enviará la solicitud y cualquier pedido de reconsideración o de audiencia de caso impugnado a los comisionados de la TCEQ para que los analicen en una asamblea programada de la Comisión.

La Comisión solo puede conceder un pedido de audiencia de caso impugnado sobre cuestiones que el solicitante haya presentado en sus comentarios oportunos y que no hayan sido retirados posteriormente. **En caso de concederse una audiencia, el tema de la audiencia se limitará a las cuestiones de hechos en disputa o preguntas mixtas de hechos y de derecho esenciales y pertinentes a las preocupaciones sobre calidad del agua presentadas durante el periodo de comentarios.**

La TCEQ puede actuar sobre una solicitud para renovar un permiso para descarga de agua residual sin proveer una oportunidad de una audiencia de caso impugnado si se satisfacen determinados criterios.

LISTA DE CORREO. Si envía comentarios públicos, un pedido de audiencia de caso impugnado o de reconsideración de la decisión del Director Ejecutivo, usted será agregado a la lista de correo para esta solicitud específica para recibir futuros avisos públicos que la Oficina del Secretario Oficial enviará por correo. Además, puede pedir que lo agreguen a: (1) la lista de correo permanente para un nombre de solicitante o número de permiso específicos; y/o (2) la lista de correo para un condado específico. Si quiere que lo agreguen a la lista de correo permanente y/o de un condado, especifique claramente a qué lista o listas y envíe su pedido a la Oficina del Secretario Oficial de la TCEQ a la dirección que figura abajo.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para conocer los detalles sobre el estado de la solicitud, visite la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Busque en la base de datos usando el número de permiso para esta solicitud, que se proporciona en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Todos los comentarios públicos y pedidos deben presentarse ya sea de forma electrónica en <https://www14.tceq.texas.gov/epic/eComment/> o por escrito ante la Comisión de Calidad Ambiental de Texas, Oficina del Secretario Principal, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga presente que toda información de contacto que proporcione, incluidos su nombre, número de teléfono, dirección de correo electrónico y dirección física, pasarán a integrar el registro público de la agencia. Para obtener información sobre esta solicitud de permiso o el proceso de obtención de permisos, llame gratis al Programa de Educación Pública de la TCEQ al 1-800-687-4040 o visite el sitio web en www.tceq.texas.gov/goto/pep. Si desea información en español, puede llamar al 1-800-687-4040.

Se puede obtener información adicional en la Ciudad de Austin en la dirección indicada anteriormente o llamando a la Sra. Tammy West, Administradora de reglamentación de aguas residuales/Austin Water, al 512-972-0143.

Fecha de publicación: 2 de octubre de 2024

ỦY BAN CHẤT LƯỢNG MÔI TRƯỜNG TEXAS



THÔNG BÁO VỀ VIỆC NHẬN ĐƠN XIN VÀ Ý ĐỊNH XIN GIẤY PHÉP CHẤT LƯỢNG NƯỚC

GIẤY PHÉP SỐ WQ0010543013

ĐƠN XIN. Thành phố Austin, 625 East 10th Street, Suite 800, Austin, Texas 78701, đã nộp đơn xin gia hạn Giấy Phép Sử Dụng Hệ Thống Loại Bỏ Chất Ô Nhiễm Texas (TPDES) số WQ0010543013 (EPA I.D. No. TX0124800) đến Ủy ban Chất lượng Môi trường Texas (TCEQ) để cho phép xả nước thải đã qua xử lý với lưu lượng không vượt quá lưu lượng trung bình hàng năm là 2,250,000 gallon mỗi ngày. Cơ sở xử lý nước thải sinh hoạt được đặt tại địa chỉ 10621 Blue Bluff Lane, thuộc thành phố Manor, quận Travis, Texas 78653. Tuyến xả thải đi từ vị trí nhà máy đến một nhánh sông không tên của Gilleland Creek; rồi đến Gilleland Creek; sau đó đến Sông Colorado. TCEQ nhận được đơn xin này vào ngày 12 tháng Chín, 2024. Đơn xin cấp phép sẽ có sẵn để xem và sao chép tại Cơ Quan Cung Cấp Nước Thành Phố Austin (Austin Water), Trung tâm Waller Creek, 625 East 10th Street, Suite 315, Austin, trong Quận Travis, Texas trước ngày thông báo này được đăng trên báo. Đơn xin, bao gồm mọi cập nhật, và thông báo liên quan đều có sẵn dưới dạng điện tử tại trang web sau:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

Liên kết đến bản đồ điện tử về vị trí tổng quan của địa điểm hoặc cơ sở được cung cấp như một phép lịch sự công cộng và không phải là một phần của đơn xin hoặc thông báo. Để biết địa điểm chính xác, vui lòng tham khảo đơn xin.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.56805,30.317822&level=18>

THÔNG BÁO BẰNG NGÔN NGỮ KHÁC. Thông báo bằng tiếng Tây Ban Nha có tại

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

El aviso de idioma alternativo en español está disponible en

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

Thông báo bằng tiếng Tây Ban Nha, tiếng Việt và tiếng Trung giản thể có sẵn tại

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

我们还提供西班牙语、越南语和简体中文版本的通知，请访问以下链接

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

THÔNG BÁO BỔ SUNG. Giám Đốc Điều Hành của TCEQ xác định rằng đơn xin đã hoàn tất về mặt hành chính và sẽ tiến hành đánh giá kỹ thuật. Sau khi đánh giá kỹ thuật của đơn xin hoàn tất, Giám đốc Điều hành có thể chuẩn bị một bản dự thảo giấy phép và sẽ ban hành quyết định sơ bộ về đơn xin. **Thông báo về Đơn xin và Quyết định Sơ bộ sẽ được công bố và gửi qua thư cho các đơn vị nằm trong danh sách gửi thư toàn địa hạt và các cá nhân nằm trong danh sách gửi thư cho đơn xin này. Thông báo sẽ bao gồm thời hạn nộp các ý kiến công khai.**

Ý KIẾN CÔNG KHAI / HỌP CÔNG KHAI. Quý vị có thể nộp ý kiến công khai hoặc yêu cầu một buổi họp công khai về đơn xin này. Mục đích của buổi họp công khai là cung cấp cơ hội để quý vị đệ trình ý kiến hoặc đặt câu hỏi về đơn xin. TCEQ sẽ tổ chức một buổi họp công khai nếu Giám đốc Điều hành xác định rằng có mức độ quan tâm đáng kể từ phía công chúng đối với đơn xin hoặc nếu được yêu cầu bởi một cơ quan lập pháp địa phương. Một buổi họp công khai không phải là một phiên điều trần tranh chấp.

CƠ HỘI ĐỂ MỞ MỘT PHIÊN ĐIỀU TRẦN TRANH CHẤP. Sau thời hạn đệ trình các ý kiến công khai, Giám đốc Điều hành sẽ xem xét tất cả ý kiến đúng hạn và chuẩn bị phản hồi cho tất cả ý kiến công khai có liên quan và quan trọng hoặc các ý kiến công khai có ảnh hưởng đáng kể. **Trừ khi đơn xin được trực tiếp chuyển đến một phiên điều trần tranh chấp, phản hồi cho các ý kiến, và quyết định của Giám đốc Điều hành về đơn xin, sẽ được gửi qua thư cho tất cả những người đã nộp ý kiến công khai và những cá nhân nằm trong danh sách gửi thư cho đơn xin này.** Nếu có ý kiến được nhận, thư sẽ cung cấp hướng dẫn về cách yêu cầu xem xét lại quyết định của Giám đốc Điều hành và yêu cầu một phiên điều trần tranh chấp. Một phiên điều trần tranh chấp là một thủ tục pháp lý tương tự như một phiên xử dân sự tại tòa án quận hạt.

ĐỂ YÊU CẦU MỘT PHIÊN ĐIỀU TRẦN TRANH CHẤP, QUÝ VỊ PHẢI BAO GỒM CÁC MỤC SAU TRONG YÊU CẦU CỦA QUÝ VỊ: tên của quý vị, địa chỉ, số điện thoại; tên của người đề nghị và số giấy phép đề xuất; vị trí và khoảng cách của phần đất/hoạt động của quý vị so với cơ sở được đề xuất; mô tả cụ thể về lý do mà quý vị cho là mình sẽ bị ảnh hưởng tiêu cực bởi cơ sở đó theo một cách không phổ biến đối với công chúng; danh sách tất cả các vấn đề tranh chấp về sự việc mà quý vị đệ trình trong thời hạn đề ra ý kiến; và, tuyên bố "[Tôi/chúng tôi] yêu cầu một phiên điều trần tranh chấp." Nếu yêu cầu phiên điều trần tranh chấp được nộp thay mặt cho một nhóm hoặc hiệp hội, yêu cầu phải chỉ định đại diện của nhóm để nhận thông tin phản hồi trong tương lai; xác định bằng tên và địa chỉ thực tế của một thành viên cá nhân trong nhóm sẽ bị ảnh hưởng tiêu cực bởi cơ sở hoặc hoạt động đề xuất; cung cấp thông tin đã thảo luận ở trên về vị trí và khoảng cách của thành viên bị ảnh hưởng từ cơ sở hoặc hoạt động; giải thích cách và tại sao thành viên sẽ bị ảnh hưởng; và giải thích lý do tại sao những lợi ích mà nhóm đang tìm cách bảo vệ liên quan đến mục đích của nhóm.

Sau khi kết thúc tất cả các thời hạn ý kiến và yêu cầu áp dụng, Giám đốc Điều hành sẽ chuyển đơn xin và bất kỳ yêu cầu xem xét lại hoặc một phiên điều trần tranh chấp đến Hội đồng Quản lý TCEQ để xem xét tại một cuộc họp Hội đồng được lên lịch.

Ủy ban chỉ có thể chấp thuận yêu cầu một phiên điều trần tranh chấp về các vấn đề mà người yêu cầu đã nộp trong ý kiến đúng hạn của họ mà sau đó không bị rút lại. **Nếu một phiên điều trần được chấp thuận, nội dung của phiên sẽ bị giới hạn chỉ đối với các vấn đề tranh chấp về sự thật hoặc các câu hỏi khác nhau về sự thật và luật liên quan đến các vấn đề về chất lượng nước có tính liên quan và quan trọng mà đã được đệ trình trong thời gian nêu ý kiến.**

TCEQ có thể xem xét và quyết định về đơn xin gia hạn giấy phép xả nước thải mà không cần mở thêm một phiên điều trần tranh chấp nếu các tiêu chí cụ thể được đáp ứng.

DANH SÁCH GỬI THƯ. Nếu quý vị nộp ý kiến công khai, yêu cầu một phiên điều trần tranh chấp hoặc xem xét lại quyết định của Giám đốc Điều hành, quý vị sẽ được thêm vào danh sách gửi thư cho đơn xin cụ thể này để nhận các thông báo công khai trong tương lai được gửi bằng thư bởi Văn phòng Thư ký Trường. Ngoài ra, quý vị có thể yêu cầu được đặt vào: (1) danh sách gửi thư cố định cho tên ứng viên và số giấy phép cụ thể; và/hoặc (2) danh sách gửi thư cho một địa hạt cụ thể. Nếu quý vị muốn được đặt vào danh sách gửi thư cố định và/hoặc danh sách gửi thư cho địa hạt cụ thể, hãy nêu rõ rằng quý vị muốn ở trong danh sách nào và gửi yêu cầu của quý vị đến Văn phòng Thư ký trường TCEQ theo địa chỉ dưới đây.

THÔNG TIN CÓ SẴN TRỰC TUYẾN. Để biết chi tiết về tình trạng đơn xin cấp phép, vui lòng truy cập Cơ sở dữ liệu Tích hợp của Ủy ban tại địa chỉ www.tceq.texas.gov/goto/cid. Sử dụng số giấy phép cho đơn xin này, mà quý vị được cung cấp ở đầu thông báo, để tìm kiếm trong cơ sở dữ liệu.

THÔNG TIN VÀ CÁCH LIÊN HỆ VỚI CƠ QUAN. Tất cả các ý kiến công khai và các yêu cầu phải được nộp thông qua hệ thống điện tử tại <https://www14.tceq.texas.gov/epic/eComment/>, hoặc bằng văn bản gửi đến Ủy Ban Chất Lượng Môi Trường Texas, Văn Phòng Thư Ký Trưởng, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Box 13087, Austin, Texas 78711-3087. Hãy lưu ý rằng mọi thông tin liên hệ quý vị cung cấp, bao gồm tên, số điện thoại, địa chỉ email và địa chỉ vật lý, sẽ trở thành một phần của hồ sơ công khai của cơ quan. Để biết thêm thông tin về đơn xin cấp phép này hoặc quy trình cấp phép, vui lòng gọi Chương trình Giáo dục Công chúng TCEQ, Miễn phí, tại số 1-800-687-4040 hoặc truy cập trang web của họ tại www.tceq.texas.gov/goto/pep. Si desea información en español, puede llamar al 1-800-687-4040.

Thông tin thêm có thể được thu thập từ Thành phố Austin theo địa chỉ đã nêu ở trên hoặc gọi Cô Tammy West, Quản Lý Quy Định Xử Lý Nước Thải/Austin Water, tại số 512-972-0143.

Ngày Ban Hành: Ngày 2 tháng 10 năm 2024

TEXAS 州环境质量委员会



收到申请及获得水质许可的意向之通知

许可证号: WQ0010543013

申请。 Austin 市 (625 East 10th Street, Suite 800, Austin, Texas 78701) 已向 Texas 州环境质量委员会 (Texas Commission on Environmental Quality, 简称 TCEQ) 申请延续 Texas 州污染物排放消除系统 (Texas Pollutant Discharge Elimination System, 简称 TPDES) 第 WQ0010543013 号许可 (美国国家环境保护局 ID 号: TX0124800), 以授权排放经处理的废水, 年均流量不超过 2,250,000 加仑。该生活废水处理设施位于 10621 Blue Bluff Lane, City of Manor, Travis County, Texas 78653。排放路线从厂区延伸至 Dry Creek 的一条未命名的支流; 然后依次延伸至 Dry Creek 和 Colorado River。TCEQ 于 2024 年 9 月 12 日收到了此申请。在本通知公开见报之前, 相关的许可证申请可前往位于 Texas 州 Travis 县的 Austin Water-Waller Creek Center (地址: 625 East 10th Street, Suite 315, Austin) 查看和复制。该申请 (包括任何更新) 以及相关通知的电子版可从以下网页获取: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>。显示工厂或设施总体位置的电子地图链接系为方便公众而提供, 并非申请或通知的组成部分。具体位置请参阅申请。

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.56805,30.317822&level=18>

备选语言版本的通知。 我们还提供西班牙语版本的通知, 前往以下链接即可查看:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

El aviso de idioma alternativo en español está disponible en

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

Thông báo bằng tiếng Tây Ban Nha, tiếng Việt và tiếng Trung giản thể có sẵn tại

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

我们还提供西班牙语、越南语和简体中文版本的通知, 请访问以下链接

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

附加通知。 经 TCEQ 执行董事确认, 申请已完成行政审核, 接下来将进行技术审核。当技术审核完成后, 执行董事可能会拟定一份许可草案并就申请做出初步决定。申请通知及初步决定将公布并邮寄给全县邮寄名单上的人员以及本申请的邮寄名单上的人员。该通知中还将公布提交公众意见的截止日期。

公众意见/公开会议。 您可以就此申请提交公众意见或请求举行公开会议。举行公开会议的目的是为了让相关人员有机会就申请提交意见或提出问题。若执行董事认为此申请涉及重大的公众利益, 或者当地议员有所要求, 则 TCEQ 将举行公开会议。公开会议并非争议案件听审会。

有机会召开争议案件听审会。在提交公众意见的截止日期过后，执行董事将考虑所有及时提出的公众意见，并就所有相关且重大的意见做好回应的准备。除非申请需直接移交至争议案件听审会，否则对公众意见的回应以及执行董事对申请的决定都将邮寄给所有提交公众意见的人以及本申请的邮寄名单上的所有人。对于收到回应的公众意见，邮寄资料中还将提供相关指示，说明如何就执行董事的决定提出复议申请以及如何请求召开争议案件听审会。争议案件听审会是类似于州地区法院民事审判的一道法律程序。

如想请求召开争议案件听审会，您必须提交以下信息：您的姓名、地址、电话号码；申请人的姓名及提议的许可证号；您的物业/活动与拟议设施之间的相对位置与距离；具体说明该设施会如何以某种大众所不常见的方式给您造成不良影响；公众评议期内您提交的所有事实争议的清单，以及明确提到“[我/我们]请求召开争议案件听审会”的声明。若是代某个团体或协会请求召开争议案件听审会，则在提交请求时必须指派代表来负责接收今后的通信内容；提供团体中某位会因为拟议设施或活动而受到不良影响的成员的姓名和实际地址；和前面提过的信息一样，提供该成员与拟议设施或活动之间的相对位置和距离；说明该成员会受到哪些影响以及为何会受到这些影响；以及解释团体想要保护的利益与他们的宗旨之间有何关联。

当适用的评议与请求提交期全部结束后，执行董事便会将申请及所有要求复议或召开争议案件听审会的请求都提交给 TCEQ 委员，供他们在定期召开的委员会大会上进行审议。

委员会只会应符合以下条件的请求准予召开争议案件听审会：在公众评议期内及时提交相关问题且后续没有撤销意见。对于准予召开的听审会，其主题将仅限于公众评议期内提交的涉及相关且重大的水质问题的事实争议或事实+法律争议。

在满足特定标准的情况下，TCEQ 有权对续延废水排放许可的申请采取行动，而无需提供召开争议案件听审会的机会。

邮寄名单。如果您提交了公众意见、请求召开争议案件听审会或对执行董事的决定予以复议，则您将被添加到这一特定申请的邮寄名单中，后续将收到书记官办公室（Office of the Chief Clerk）邮寄来的公告。此外，您还可以请求加入：(1) 具体某个申请人及许可证号的永久邮寄名单；和/或 (2) 具体某个县的邮寄名单。如果您想加入某个/某些永久邮寄名单和/或县级邮寄名单，请说明清楚并将请求发送至以下地址的 TCEQ 书记官办公室。

可在线上获取的信息。如想详细了解申请的状态，请访问委员会综合数据库（Commissioners' Integrated Database）：www.tceq.texas.gov/goto/cid。本通知开头部分提供了此申请的许可证号，您可以利用它来搜索数据库。

机构联系人及联系信息。公众意见和请求必须通过以下任一方式提交：一是通过<https://www14.tceq.texas.gov/epic/eComment/> 线上提交，二是邮寄信函至 Texas 州环境质量委员会书记官办公室（地址：Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087）。请注意，您提供的任何联系信息，包括您的姓名、电话号码、电子邮件地址和实际地址，都将成为该机构公共记录的一部分。如想了解有关此许可证申请或许可流程的更多信息，请致电 TCEQ 公共教育计划（Public Education Program）的免费电话 1-800-687-4040；或者您也可以访问他们的网站：www.tceq.texas.gov/goto/pep。Si desea información en español, puede llamar al 1-800-687-4040.

如想获取更多信息，您还可以前往 Austin 市的上述地址，或者拨打电话 512-972-0143，联系 Austin Water 废水监管经理 Tammy West 女士。

发布日期：2024 年 10 月 2 日

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013

**Application for Domestic WWTP
TCEQ Form 10053
Administrative Report**



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: City of Austin

PERMIT NUMBER (If new, leave blank): WQ00 10543013

Indicate if each of the following items is included in your application.

	Y	N		Y	N
Administrative Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Original USGS Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Administrative Report 1.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Affected Landowners Map	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SPIF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landowner Disk or Labels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Core Data Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Buffer Zone Map	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Involvement Plan Form	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Flow Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technical Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site Drawing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technical Report 1.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Original Photographs	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Design Calculations	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 2.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solids Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Balance	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 3.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 3.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 4.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Worksheet 5.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 6.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Worksheet 7.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

For TCEQ Use Only

Segment Number _____ County _____
Expiration Date _____ Region _____
Permit Number _____



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**DOMESTIC WASTEWATER PERMIT APPLICATION
ADMINISTRATIVE REPORT 1.0**

For any questions about this form, please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 26)

Indicate the amount submitted for the application fee (check only one).

Flow	New/Major Amendment	Renewal
<0.05 MGD	\$350.00 <input type="checkbox"/>	\$315.00 <input type="checkbox"/>
≥0.05 but <0.10 MGD	\$550.00 <input type="checkbox"/>	\$515.00 <input type="checkbox"/>
≥0.10 but <0.25 MGD	\$850.00 <input type="checkbox"/>	\$815.00 <input type="checkbox"/>
≥0.25 but <0.50 MGD	\$1,250.00 <input type="checkbox"/>	\$1,215.00 <input type="checkbox"/>
≥0.50 but <1.0 MGD	\$1,650.00 <input type="checkbox"/>	\$1,615.00 <input checked="" type="checkbox"/>
≥1.0 MGD	\$2,050.00 <input type="checkbox"/>	\$2,015.00 <input type="checkbox"/>

Minor Amendment (for any flow) \$150.00 ☐

Payment Information:

Mailed Check/Money Order Number:
Check/Money Order Amount:
Name Printed on Check:
EPAY Voucher Number:
Copy of Payment Voucher enclosed? Yes ☒ **See Attachment 1**

Section 2. Type of Application (Instructions Page 26)

a. Check the box next to the appropriate authorization type.

- ☒ Publicly-Owned Domestic Wastewater
☐ Privately-Owned Domestic Wastewater
☐ Conventional Wastewater Treatment

b. Check the box next to the appropriate facility status.

- ☒ Active ☐ Inactive

c. Check the box next to the appropriate permit type.

- ☒ TPDES Permit
☐ TLAP
☐ TPDES Permit with TLAP component
☐ Subsurface Area Drip Dispersal System (SADDS)

d. Check the box next to the appropriate application type

- ☐ New
☐ Major Amendment with Renewal
☐ Major Amendment without Renewal
☒ Renewal without changes
☐ Minor Amendment with Renewal
☐ Minor Amendment without Renewal
☐ Minor Modification of permit

e. For amendments or modifications, describe the proposed changes: [Click to enter text.](#)

f. For existing permits:

Permit Number: WQ00 10543013

EPA I.D. (TPDES only): TX 0124800

Expiration Date: 03/12/2025

Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 26)

A. The owner of the facility must apply for the permit.

What is the Legal Name of the entity (applicant) applying for this permit?

City of Austin-Austin Water

(The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal documents forming the entity.)

If the applicant is currently a customer with the TCEQ, what is the Customer Number (CN)?
You may search for your CN on the TCEQ website at <http://www15.tceq.texas.gov/crpub/>

CN: 600135198

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in 30 TAC § 305.44.

Prefix: Ms.

Last Name, First Name: Roalson, Shay Ralls

Title: Director

Credential: P.E.

B. **Co-applicant information.** Complete this section only if another person or entity is required to apply as a co-permittee.

What is the Legal Name of the co-applicant applying for this permit?

n/a

(The legal name must be spelled exactly as filed with the TX SOS, with the County, or in the legal documents forming the entity.)

If the co-applicant is currently a customer with the TCEQ, what is the Customer Number (CN)?
You may search for your CN on the TCEQ website at: <http://www15.tceq.texas.gov/crpub/>

CN: n/a

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in 30 TAC § 305.44.

Prefix: n/a

Last Name, First Name: n/a

Title: n/a

Credential: n/a

Provide a brief description of the need for a co-permittee: n/a

C. Core Data Form

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0. [See Attachment 2](#)

Section 4. Application Contact Information (Instructions Page 27)

This is the person(s) TCEQ will contact if additional information is needed about this application. Provide a contact for administrative questions and technical questions.

A. Prefix: Ms. Last Name, First Name: West, Tammy
Title: Wastewater Regulatory Manager Credential: Click to enter text.
Organization Name: Austin Water
Mailing Address: 625 East 10th Street, Ste 315 City, State, Zip Code: Austin, TX 78701
Phone No.: 512-972-0143 E-mail Address: tammy.yates.west@austintexas.gov
Check one or both: ☒ Administrative Contact ☒ Technical Contact

B. Prefix: Mr. Last Name, First Name: Weber, Agmed
Title: Operations Manager Credential: Click to enter text.
Organization Name: Austin Water
Mailing Address: 7113 FM969 City, State, Zip Code: Austin, TX 78724
Phone No.: 512-972-1428 E-mail Address: agmed.weber@austintexas.gov
Check one or both: ☐ Administrative Contact ☒ Technical Contact

Section 5. Permit Contact Information (Instructions Page 27)

Provide the names and contact information for two individuals that can be contacted throughout the permit term.

A. Prefix: Ms. Last Name, First Name: West, Tammy
Title: Wastewater Regulatory Manager Credential: Click to enter text.
Organization Name: Austin Water
Mailing Address: 625 East 10th Street, Ste 315 City, State, Zip Code: Austin, TX 78701
Phone No.: 512-972-0143 E-mail Address: tammy.yates.west@austintexas.gov

B. Prefix: Mr. Last Name, First Name: Weber, Agmed
Title: Operations Manager Credential: Click to enter text.
Organization Name: Austin Water-City of Austin
Mailing Address: 7113 FM 969 City, State, Zip Code: Austin, TX 78724
Phone No.: 512-972-1428 E-mail Address: agmed.weber@austintexas.gov

Section 6. Billing Contact Information (Instructions Page 27)

The permittee is responsible for paying the annual fee. The annual fee will be assessed to permits ***in effect on September 1 of each year***. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (using form TCEQ-20029).

Prefix: Ms. Last Name, First Name: West, Tammy
Title: Wastewater Regulatory Manager Credential: Click to enter text.
Organization Name: Austin Water
Mailing Address: 625 East 10th Street, Ste 315 City, State, Zip Code: Austin, TX 78701
Phone No.: 512-972-0143 E-mail Address: tammy.yates.west@austintexas.gov

Section 7. DMR/MER Contact Information (Instructions Page 27)

Provide the name and complete mailing address of the person delegated to receive and submit Discharge Monitoring Reports (DMR) (EPA 3320-1) or maintain Monthly Effluent Reports (MER).

Prefix: Ms. Last Name, First Name: West, Tammy
Title: Wastewater Regulatory Manager Credential: Click to enter text.
Organization Name: Austin Water
Mailing Address: 625 East 10th Street, Ste 315 City, State, Zip Code: Austin, TX 78701
Phone No.: 512-972-0143 E-mail Address: tammy.yates.west@austintexas.gov

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Ms. Last Name, First Name: West, Tammy
Title: Wastewater Regulatory Manager Credential: Click to enter text.
Organization Name: Austin Water
Mailing Address: 625 East 10th Street, Ste 315 City, State, Zip Code: Austin, TX 78701
Phone No.: 512-972-0143 E-mail Address: tammy.yates.west@austintexas.gov

B. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package

Indicate by a check mark the preferred method for receiving the first notice and instructions:

☒ E-mail Address

☐ Fax

☐ Regular Mail

C. Contact permit to be listed in the Notices

Prefix: Ms. Last Name, First Name: West, Tammy

Title: Wastewater Regulatory Manager Credential: Click to enter text.

Organization Name: Austin Water

Mailing Address: 625 East 10th Street, Ste 315 City, State, Zip Code: Austin, TX 78701

Phone No.: 512-972-0143 E-mail Address: tammy.yates.west@austintexas.gov

D. Public Viewing Information

If the facility or outfall is located in more than one county, a public viewing place for each county must be provided.

Public building name: Austin Water-Waller Creek Center

Location within the building: Suite 315

Physical Address of Building: 625 East 10th Street

City: Austin County: Travis

Contact (Last Name, First Name): West, Tammy

Phone No.: 512-972-0143 Ext.: Click to enter text.

E. Bilingual Notice Requirements

This information is required for new, major amendment, minor amendment or minor modification, and renewal applications.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required.

1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

☒ Yes ☐ No

If **no**, publication of an alternative language notice is not required; **skip to** Section 9 below.

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

☒ Yes ☐ No

3. Do the students at these schools attend a bilingual education program at another location?

☐ Yes ☒ No

4. Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC §89.1205(g)?

☐ Yes ☒ No

5. If the answer is **yes** to **question 1, 2, 3, or 4**, public notices in an alternative language are required. Which language is required by the bilingual program? Spanish, Vietnamese, and Simplified Chinese

F. Plain Language Summary Template

Complete the Plain Language Summary (TCEQ Form 20972) and include as an attachment.

Attachment: See Attachment 3

G. Public Involvement Plan Form

Complete the Public Involvement Plan Form (TCEQ Form 20960) for each application for a **new permit or major amendment to a permit** and include as an attachment.

Attachment: n/a

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 29)

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. RN 103014577

Search the TCEQ's Central Registry at <http://www15.tceq.texas.gov/crpub/> to determine if the site is currently regulated by TCEQ.

B. Name of project or site (the name known by the community where located):

Wild Horse Ranch Wastewater Treatment Plant

C. Owner of treatment facility: City of Austin-Austin Water

Ownership of Facility: ☒ Public ☐ Private ☐ Both ☐ Federal

D. Owner of land where treatment facility is or will be:

Prefix: Click to enter text.

Last Name, First Name: Click to enter text.

Title: Click to enter text.

Credential: Click to enter text.

Organization Name: Heart of Manor LP

Mailing Address: 5 Henley Rd

City, State, Zip Code: Wynnewood, PA 19096-3717

Phone No.:

E-mail Address: Click to enter text.

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: See Attachment 4

E. Owner of effluent disposal site:

Prefix: n/a

Last Name, First Name: n/a

Title: n/a

Credential: n/a

Organization Name: n/a

Mailing Address: n/a

City, State, Zip Code: n/a

Phone No.: n/a

E-mail Address: n/a

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: n/a

F. Owner sewage sludge disposal site (if authorization is requested for sludge disposal on property owned or controlled by the applicant):

Prefix: n/a

Last Name, First Name: n/a

Title: n/a

Credential: n/a

Organization Name: n/a

Mailing Address: n/a

City, State, Zip Code: n/a

Phone No.: n/a

E-mail Address: n/a

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: n/a

Section 10. TPDES Discharge Information (Instructions Page 31)

A. Is the wastewater treatment facility location in the existing permit accurate?

☒ Yes ☐ No

If **no**, or a new permit application, please give an accurate description:

n/a

B. Are the point(s) of discharge and the discharge route(s) in the existing permit correct?

☒ Yes ☐ No

If **no**, or a new or amendment permit application, provide an accurate description of the point of discharge and the discharge route to the nearest classified segment as defined in 30 TAC Chapter 307:

n/a

City nearest the outfall(s): Austin

County in which the outfalls(s) is/are located: Travis

C. Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

☐ Yes ☒ No

If **yes**, indicate by a check mark if:

- ☐ Authorization granted ☐ Authorization pending

For **new and amendment** applications, provide copies of letters that show proof of contact and the approval letter upon receipt.

Attachment: n/a

- D. For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge: n/a

Section 11. TLAP Disposal Information (Instructions Page 32)

- A. For TLAPs, is the location of the effluent disposal site in the existing permit accurate?

☐ Yes ☐ No **N/A**

If **no, or a new or amendment permit application**, provide an accurate description of the disposal site location:

n/a

- B. City nearest the disposal site: n/a

- C. County in which the disposal site is located: n/a

- D. For **TLAPs**, describe the routing of effluent from the treatment facility to the disposal site:

n/a

- E. For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: n/a

Section 12. Miscellaneous Information (Instructions Page 32)

- A. Is the facility located on or does the treated effluent cross American Indian Land?

☐ Yes ☒ No

- B. If the existing permit contains an onsite sludge disposal authorization, is the location of the sewage sludge disposal site in the existing permit accurate?

☐ Yes ☐ No ☒ Not Applicable

If No, or if a new onsite sludge disposal authorization is being requested in this permit application, provide an accurate location description of the sewage sludge disposal site.

n/a

C. Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?

☐ Yes ☒ No

If yes, list each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application: n/a

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If **yes**, provide the following information:

Account number: n/a

Amount past due: n/a

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If **yes**, please provide the following information:

Enforcement order number: n/a

Amount past due: n/a

Section 13. Attachments (Instructions Page 33)

Indicate which attachments are included with the Administrative Report. Check all that apply:

☒ Lease agreement or deed recorded easement, if the land where the treatment facility is located or the effluent disposal site are not owned by the applicant or co-applicant.

☒ Original full-size USGS Topographic Map with the following information:

- Applicant's property boundary **See Attachment 5**
- Treatment facility boundary
- Labeled point of discharge for each discharge point (TPDES only)
- Highlighted discharge route for each discharge point (TPDES only)
- Onsite sewage sludge disposal site (if applicable)
- Effluent disposal site boundaries (TLAP only)
- New and future construction (if applicable)
- 1 mile radius information
- 3 miles downstream information (TPDES only)
- All ponds.

☐ Attachment 1 for Individuals as co-applicants

☒ Other Attachments. Please specify: See table of attachments

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

Item Name	Attachment #	Reference
Application Fee	1	Admin Report, Section 1.
Core Data Form	2	Admin Report, Section 3.C.
Plain language summary	3	Admin Report, Section 8.F.
Easement	4	Admin Report, Section 9.D.
USGS Topo Map	5	Admin Report, Section 13
SPIF	6	Admin Report, SPIF
Treatment Process Description	7	Technical Report, Section 2.A.
Treatment Units	8	Technical Report, Section 2.B.
Process Flow Diagram	9	Technical Report, Section 2.C.
Site Diagram	10	Technical Report, Section 3
Unbuilt Phases	11	Technical Report, Section 4
Summary Transmittal Letters	12	Technical Report, Section 6.A.
Other Requirements	13	Technical Report, Section 6.C.
Laboratory Analysis	14	Technical Report, Section 7
Operator List	15	Technical Report, Section 8

Section 14. Signature Page (Instructions Page 34)

If co-applicants are necessary, each entity must submit an original, separate signature page.

Permit Number: WQ0010543013

Applicant: City of Austin-Austin Water

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code § 305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signatory name (typed or printed): Shay Ralls Roalson

Signatory title: Director, Austin Water

Signature: _____

Shay Ralls Roalson

(Use blue ink)

Date: _____

9/10/2024

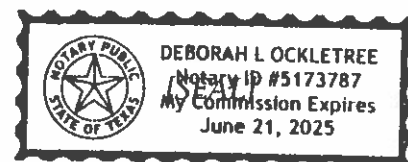
Subscribed and Sworn to before me by the said Shay Ralls Roalson

on this 10th day of September, 2024.

My commission expires on the 21st day of June, 2025.

Deborah L. Ockletree

Notary Public



Travis

County, Texas

DOMESTIC WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

This form applies to TPDES permit applications only. Complete and attach the Supplemental Permit information Form (SPIF) (TCEQ Form 20971).

Attachment: [See Attachment 6](#)

ATTACHMENT 1
APPLICATION FEE

Your transaction is complete. Thank you for using TCEQ ePay.

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt and the vouchers for your records. An email receipt has also been sent.

Transaction Information

Trace Number: 582EA000620563

Date: 08/07/2024 10:32 AM

Payment Method: CC - Authorization 0000018355

ePay Actor: SANDRA ZUNIGA

Actor Email: sandra.zuniga@austintexas.gov

IP: 162.89.0.62

TCEQ Amount: \$1,615.00

Texas.gov Price: \$1,651.59*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Payment Contact Information

Name: SANDRA ZUNIGA

Company: CITY OF AUSTIN

Address: 13309 SLOW POKE DRIVE, AUSTIN, TX 78727

Phone: 512-972-0080

Cart Items

Click on the voucher number to see the voucher details.

Voucher	Fee Description	AR Number	Amount
716193	WW PERMIT - FACILITY WITH FLOW >= .50 & < 1.0 MGD - RENEWAL		\$1,600.00
716194	30 TAC 305.53B WQ RENEWAL NOTIFICATION FEE		\$15.00
TCEQ Amount:			\$1,615.00

[ePay Again](#)

[Exit ePay](#)

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt for your records.

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Print this voucher for your records. If you are sending the TCEQ hardcopy documents related to this payment, include a copy of this voucher.

Transaction Information

Voucher Number: 716193

Trace Number: 582EA000620563

Date: 08/07/2024 10:32 AM

Payment Method: CC - Authorization 0000018355

Voucher Amount: \$1,600.00

Fee Type: WW PERMIT - FACILITY WITH FLOW $\geq .50$ & < 1.0 MGD - RENEWAL

ePay Actor: SANDRA ZUNIGA

Actor Email: sandra.zuniga@austintexas.gov

IP: 162.89.0.62

Payment Contact Information

Name: SANDRA ZUNIGA

Company: CITY OF AUSTIN

Address: 13309 SLOW POKE DRIVE, AUSTIN, TX 78727

Phone: 512-972-0080

Site Information

RN: RN103014577

Site Name: WILD HORSE RANCH

Site Address: 10621 BLUE BLUFF ROAD, MANOR, TX 78653

Customer Information

CN: CN600135198

Customer Name: SANDRA ZUNIGA

Customer Address: 625 E 10TH STREET, AUSTIN, TX 78701

Other Information

Program Area ID: WQ0010543013

Close

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Print this voucher for your records. If you are sending the TCEQ hardcopy documents related to this payment, include a copy of this voucher.

Transaction Information

Voucher Number: 716194

Trace Number: 582EA000620563

Date: 08/07/2024 10:32 AM

Payment Method: CC - Authorization 0000018355

Voucher Amount: \$15.00

Fee Type: 30 TAC 305.53B WQ RENEWAL NOTIFICATION FEE

ePay Actor: SANDRA ZUNIGA

Actor Email: sandra.zuniga@austintexas.gov

IP: 162.89.0.62

Payment Contact Information

Name: SANDRA ZUNIGA

Company: CITY OF AUSTIN

Address: 13309 SLOW POKE DRIVE, AUSTIN, TX 78727

Phone: 512-972-0080

Close

ATTACHMENT 2
CORE DATA FORM



TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input checked="" type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 600135198		RN 103014577

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)						
<input type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership								
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)								
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>								
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>				
City of Austin-Austin Water								
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)			
11. Type of Customer:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited			
Government: <input checked="" type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:				
12. Number of Employees				13. Independently Owned and Operated?				
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input checked="" type="checkbox"/> 501 and higher				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following								
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:								
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant								
15. Mailing Address:		Shay Ralls Roalson, Director, Austin Water						
		625 East 10th Street, STE 800						
City		Austin	State	TX	ZIP	78701	ZIP + 4	
16. Country Mailing Information (if outside USA)					17. E-Mail Address (if applicable)			
					shay.roalson@austintexas.gov			
18. Telephone Number			19. Extension or Code		20. Fax Number (if applicable)			

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected, a new permit application is also required.)								
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information								
<i>The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).</i>								
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)								
Wild Horse Ranch Wastewater Treatment Plant								
23. Street Address of the Regulated Entity: (No PO Boxes)	10621 Blue Bluff Lane							
	City	Manor	State	TX	ZIP	78653	ZIP + 4	
24. County	Travis							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:								
26. Nearest City					State		Nearest ZIP Code	
<i>Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).</i>								
27. Latitude (N) In Decimal:			30.318995			28. Longitude (W) In Decimal:		-97.567822
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
29. Primary SIC Code (4 digits)		30. Secondary SIC Code (4 digits)		31. Primary NAICS Code (5 or 6 digits)		32. Secondary NAICS Code (5 or 6 digits)		
4952				221320				
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)								
domestic wastewater treatment plant								
34. Mailing Address:		Darrell Devooght, Superintendent						
		7113 FM 969						
		City	Austin	State	TX	ZIP	78724	ZIP + 4
35. E-Mail Address:		darrell.devooght@austintexas.gov						
36. Telephone Number			37. Extension or Code			38. Fax Number (if applicable)		
(512) 972-1505						() -		

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.


<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:
	WQ0010543013			

SECTION IV: Preparer Information

40. Name:	Tammy Y West		41. Title:	Wastewater Regulatory manager
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address	
(512) 972-0143		() -	tammy.yates.west@austintexas.gov	

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	City of Austin-Austin Water	Job Title:	Director
Name (In Print):	Shay Ralls Roalson	Phone:	(512) 972- 0108
Signature:		Date:	9/10/2024

ATTACHMENT 3
PLAIN LANGUAGE SUMMARY

PLAIN LANGUAGE SUMMARY

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

CN600135198

RN103014577

TX0124800

WQ0010543013

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Austin (CN600135198) operates the Wild Horse Ranch wastewater treatment plant (RN103014577), a conventional activated sludge wastewater treatment plant. The facility is located at 10621 Blue Bluff Lane, near the City of Manor, Travis County, Texas 78653.

This application is for a renewal to discharge at an annual average flow of 750,000 gallons per day of treated domestic wastewater via Outfall 001.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package.

Domestic wastewater is treated primarily by an activated sludge process. The treatment units include a bar screen, a grit channel, aeration basins, aluminum sulfate addition for chemical phosphorus removal, final clarifier, disk filters and an ultraviolet disinfection system. Waste sludge is hauled to the City of Austin's Walnut Creek Wastewater Treatment Plant (WQ0010543011) with subsequent pumped transfer to the City of Austin's Biosolids Management Plant (WQ0003823000) for treatment and beneficial reuse.

简明摘要

Austin市 - Austin Water
Wild Horse Ranch WWT
TCEQ许可证号 -WQ0010543013
生活污水处理厂申请

CN600135198

RN103014577

TX0124800

WQ0010543013

根据《Texas州行政法规》第30篇第39章的规定，Texas州环境质量委员会正在审查水质许可证申请，现提供该待处理申请的以下摘要。本摘要中提供的信息可能会在该申请的技术审查过程中发生变化，这些信息并不属于联邦对许可证申请的强制性陈述。

Austin市（CN600135198）运营着Wild Horse Ranch污水处理厂（RN103014577），这是一座传统的活性污泥污水处理厂。该设施的地址是10621 Blue Bluff Lane, near the City of Manor, Travis County, Texas 78653。

该申请旨在续延其排放许可，以获准通过001号排放口排放经处理的生活废水，日均流量为75万加仑。

该设施排出的废水预计含有五日碳质生化需氧量（CBOD5）、总悬浮固体（TSS）、氨氮（NH₃-N）和大肠杆菌。其他潜在污染物载于许可申请材料中的《生活废水技术报告1.0》第7节、《经处理污水的污染物分析》和《生活废水工作表4.0》。

生活废水主要采用活性污泥工艺进行处理。处理单元包括条形筛、沉砂渠、曝气池、用于化学除磷的硫酸铝添加装置、终沉池、盘式过滤器和紫外线消毒系统。废弃污泥被运送至Austin市Walnut Creek污水处理厂（WQ0010543011），随后通过泵送转移至Austin市的生物固体管理厂（WQ0003823000）进行处理和有益再利用。

RESUMEN EN LENGUAJE SENCILLO

Ciudad de Austin - Austin Water
Wild Horse Ranch WWTP
Permiso TCEQ - WQ0010543013
Solicitud de WWTP Doméstico

CN600135198

RN103014577

TX0124800

WQ0010543013

Se provee el siguiente resumen de esta solicitud pendiente de permiso de calidad de agua que la Comisión de Calidad Ambiental de Texas está revisando según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son declaraciones federales ejecutables de la solicitud de permiso.

La Ciudad de Austin (CN600135198) opera la planta de tratamiento de aguas residuales Wild Horse Ranch (RN103014577), una planta de tratamiento de aguas residuales convencional con lodos activados. Las instalaciones están ubicadas en 10621 Blue Bluff Lane, cerca de la Ciudad de Manor, Condado de Travis, Texas 78653.

Esta solicitud es para una renovación para descargar a un caudal promedio anual de 750,000 galones por día de agua residual doméstica tratada a través del Desagüe 001.

Se espera que las descargas de la planta tengan demanda bioquímica de oxígeno carbonoso a cinco días (CBOD 5), sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH₃-N) y *Escherichia coli*. Contaminantes potenciales adicionales se incluyen en el Informe Técnico Nacional 1.0, Sección 7. Análisis de contaminantes de efluentes tratados y hoja de trabajo doméstica 4.0 en el paquete de solicitud de permisos.

El agua residual doméstica se trata principalmente mediante un proceso de lodos activados. Las unidades de tratamiento incluyen una criba de barras, un canal de arenas, cuencas de aireación, adición de sulfato de aluminio para la remoción de fósforo químico, aclarador final, filtros de disco y un sistema de desinfección ultravioleta. Los lodos residuales se llevan a la Planta de Tratamiento de Aguas Residuales de Walnut Creek de la Ciudad de Austin (WQ0010543011) con bombeo subsiguiente que se transfiere a la Planta de Administración de Biosólidos de la Ciudad de Austin (WQ0003823000) para su tratamiento y reutilización beneficiosa.

TÓM TẮT BẢNG NGÔN NGỮ ĐƠN GIẢN

Thành Phố Austin - Thủy Cục Austin

Wild Horse Ranch WWTP

Giấy Phép TCEQ - WQ0010543013

Đơn xin Giấy phép Xây dựng Hệ thống Xử lý Nước thải Sinh hoạt

CN600135198

RN103014577

TX0124800

WQ0010543013

Bản tóm tắt sau đây được cung cấp cho đơn xin giấy phép chất lượng nước đang chờ xử lý này đang được Ủy ban Chất lượng Môi trường Texas xem xét theo yêu cầu của 30 Bộ luật Hành chính Texas Chương 39. Thông tin cung cấp trong bản tóm tắt này có thể thay đổi trong quá trình duyệt xét chuyên môn đối với đơn đăng ký và không phải là thông tin đại diện có hiệu lực thi hành của liên bang đối với đơn xin giấy phép.

Thành phố Austin (CN600135198) vận hành nhà máy xử lý nước thải Wild Horse Ranch (RN103014577), một nhà máy xử lý nước thải bằng bùn hoạt tính thông thường. Cơ sở xử lý được đặt tại 10621 Blue Bluff Lane, gần Thành Phố Manor, Quận Travis, Texas 78653.

Đơn xin này nhằm mục đích gia hạn hoạt động xả nước thải sinh hoạt đã qua xử lý với lưu lượng trung bình hàng năm là 750,000 gallon mỗi ngày thông qua Cửa xả 001.

Chất thải từ cơ sở này dự kiến sẽ bao gồm nhu cầu oxy sinh hóa cacbon (CBOD5) trong 5 ngày, tổng chất rắn lơ lửng (TSS), nitơ amoniac (NH3-N), và *Escherichia coli*. Báo cáo Kỹ thuật Nước thải Sinh hoạt 1.0, Mục 7 có phần liệt kê các chất ô nhiễm tiềm năng bổ sung. Tài Liệu Phân Tích Chất Ô Nhiễm Trong Nước Thải Đã Qua Xử Lý Phiên Bản 4.0 nằm trong bộ hồ sơ xin cấp phép.

Nước thải sinh hoạt được xử lý chủ yếu bằng quá trình xử lý nước thải bùn hoạt tính. Các cơ sở xử lý bao gồm một lưới chắn thô, một kênh tách grit, các bể hiếu khí, thêm phèn nhôm để loại bỏ photpho hóa học, bể lắng cuối, các bộ lọc đĩa và một hệ thống khử trùng bằng tia cực tím. Bùn thải được vận chuyển đến Nhà máy Xử lý Nước thải Walnut Creek của Thành phố Austin (WQ0010543011), sau đó được bơm chuyển tiếp đến Nhà máy Quản lý Chất thải Sinh học của Thành phố Austin (WQ0003823000) để xử lý và tái sử dụng có ích.

ATTACHMENT 4
EASEMENT

THE STATE OF TEXAS §

COUNTY OF TRAVIS §

October 10, 2017

Page 1 of 9

warehouse and administration buildings, electric, telephone, water, and gas utility lines, access roads, security fencing, and all other structures, equipment, fixtures, facilities and appurtenances necessary or incidental to the construction, operation, maintenance, repair, upgrade, replacement, decommissioning and removal of the Interim WWTP (collectively, "Interim WWTP Facilities") and for making utility connections therewith in, upon, under, along and across the Easement Tract, for the purposes described above and for no other purposes subject to the conditions set forth below.

EASEMENT CONDITIONS: Grantor and Grantee agree that the Easement shall be subject to the following conditions and limitations:

1. Upon the commencement of construction of the Interim WWTP by Grantee, Grantor will cease any activities on the Easement Tract and Grantee will thereafter be solely responsible for the security of the Easement Tract and for the construction, operation, maintenance, inspection, repair, upgrade, replacement, decommissioning and removal of the Interim WWTP on the Easement Tract in accordance with the terms of this Easement for Interim Wastewater Treatment Plant and that certain Cost Reimbursement Agreement between the Grantor and Grantee executed to be effective June 12, 2003.
2. Grantor reserves the right to grant utility easements to third parties over, under, along and across the Easement Tract with the prior written consent of the Director of Grantee's Austin Water department, which shall not be unreasonably withheld or delayed, provided however, that any such utility easement proposed by Grantor shall not materially impair or interfere with the Grantee's use of the Easement Tract for the easement purposes described above.
3. Grantor reserves the right to construct, install and maintain a fence and landscaping (with irrigation) within the Easement not to extend beyond ten feet (10') from the perimeter of the Easement.
4. Grantee shall conduct all of its activities on the Easement Tract in accordance with all applicable federal, state and local laws and regulations applicable thereto.
5. Grantee shall take good care of the Easement Tract including the Interim WWTP Facilities to be constructed thereon in accordance with the standard of care employed by Grantee in the operation and maintenance of Grantee's other WWTP facilities or greater. Following the initial construction of the Interim WWTP Facilities, Grantee shall, at its own cost, keep the Easement Tract clear of high weeds, rubbish, and debris and shall suffer no waste or nuisance on the Easement Tract provided, however, that the normal construction, operation, maintenance, inspection, repair, upgrade, replacement, decommissioning and removal of the Interim WWTP Facilities on the Easement Tract in accordance with the conditions of its wastewater discharge permit(s) shall not be construed to constitute a nuisance, including but not limited to odors and noise at a level not reasonably expected to occur at a similarly sized wastewater treatment facility that is properly managed consistent with industry standards. Grantee shall be responsible for

ensuring that hazardous substances employed by Grantee in connection with the construction, operation and maintenance of the Interim WWTP Facilities are transported, stored, used and disposed of in accordance with all applicable laws and regulations regarding the same. Grantor shall remain responsible for the proper cleanup and disposal of any hazardous substances or environmental contaminants deposited on the Easement Tract by Grantor, whether before or after the date of this Easement for Interim Wastewater Treatment Plant.

6. Grantor shall have the right to inspect the Easement Tract and the Interim WWTP Facilities on twenty four (24) hours written or telephone notice to Grantee for the purpose of determining compliance with the terms and conditions of this Easement.
7. Grantee shall ensure that all contractors engaged to perform the construction of the Interim WWTP Facilities and appurtenances provide insurance with overages and liability limits no less stringent than those required for other major public works projects of Grantee and shall include Grantor as an additional insured with respect to all such coverages except builder's risk and worker's compensation.
8. Grantor and Grantee shall be solely responsible for injuries to persons or property caused by their respective employees performing activities on the Easement Tract and the employees of one shall not be deemed to be employees, agents or borrowed servants of the other for any reason nor shall the respective activities of Grantor and Grantee on the Easement Tract be construed as a joint enterprise under or in connection with the application of the Texas Tort Claims Act, as amended.
9. Upon the completion and final acceptance by Grantee of a subregional wastewater treatment plant downstream of the Interim WWTP to replace the Interim WWTP, and all wastewater interceptors and appurtenances necessary to transport wastewater from the Wild Horse Ranch to the new wastewater treatment plant (collectively, the "Subregional WWTP Facilities"), Grantee shall commence and diligently pursue the decommissioning and removal of the Interim WWTP Facilities, at its sole cost. Grantee will exercise its reasonable efforts to remove the Interim WWTP Facilities and all debris, materials, structures, waste and environmental contaminants created, constructed, deposited, or placed by Grantee during its use of the Easement Tract on or before the expiration of six (6) months after the construction and final acceptance of the Subregional WWTP Facilities or such other and further time as Grantor and Grantee may agree.
10. Upon the mutual agreement of Grantor and Grantee, Grantee may continue to operate the Interim WWTP Facilities on the Easement Tract for the purpose of providing treated wastewater for beneficial reuse to customers within Wild Horse Ranch for such period and on such terms and conditions as Grantor and Grantee may then agree.
11. Upon the substantial completion of the Subregional WWTP, Grantee and Grantor shall coordinate the diversion of wastewater flows generated within Wild Horse Ranch from the Interim WWTP Facilities to the Subregional WWTP Facilities in a safe and efficient

manner and so as to minimize interruptions in service to customers, injury to persons or property, or damage to the environment.

12. In the event that one party believes the other party has materially breached the terms and conditions of this Easement, the non-defaulting party will make written demand and notice to cure and give the defaulting party up to thirty (30) days to cure such material breach or, if the curative action cannot reasonably be completed within thirty (30) days of its receipt of such written demand and notice, then the defaulting party will commence the curative action within thirty (30) days and thereafter diligently pursue the curative action to completion. This period must pass before the non-defaulting party may initiate any remedies available to the non-defaulting party due to such breach unless such breach is a threat to health or safety which requires more immediate action.
 - a. The non-defaulting party shall mitigate direct or consequential damages, if any, arising from any breach or default to the extent reasonably possible under the circumstances.
 - b. The parties agree that they will use their best efforts to resolve any disputes in an amicable manner and may engage in non-binding arbitration or other alternative dispute resolution methods as recommended by the laws of the State of Texas before initiating any lawsuit to enforce their rights under this Agreement. Nothing in this Agreement shall be construed to limit either party's right to recover damages or to seek other appropriate curative remedies in the event that an action for breach of contract is filed.
13. Except as otherwise provided above, any notice provided under this Easement shall be made in accordance with the provisions for notice set out in the Cost Reimbursement Agreement previously entered into between Grantor and Grantee.
14. Unless otherwise agreed in writing by Grantor and Grantee, the easement rights granted herein shall terminate and expire upon: (a) the decommissioning and removal of the Interim WWTP from the Easement Tract, (b) the abandonment of the Easement and the Access Easement by official action of the City Council of Grantee, (c) approval of a Release of Easement by the Real Estate Division of Grantee's Department of Public Works and Transportation or its successor agency pursuant to the municipal authority delegated from the City Council of Grantee or (d) official action by the City Council of Grantee (i) abandoning its plan to construct the Interim WWTP Facilities on the Easement Tract or (ii) abandoning operations at the Interim WWTP following construction of the Interim WWTP Facilities on the Easement Tract, for any reason whatsoever. Upon such termination, the Easement Tract shall revert to Grantor and Grantor shall have the right to use and subdivide the Easement Tract as Grantor determines in its sole discretion, subject to compliance with applicable federal, state and local laws, ordinances and regulations governing such proposed subdivision or use.
15. This conveyance is subject to all encumbrances, restrictions, and matters of record, visible or apparent on the ground. Grantor makes no representations or warranties with respect to condition or suitability of the Easement Tract for its intended purpose.

TO HAVE AND TO HOLD the same unto Grantee, its successors and assigns subject to the conditions stated above until the Easement and the Access Easement terminate and expire in accordance with this Easement for Interim Wastewater Treatment Plant, and Grantor does hereby covenant and agree to WARRANT AND FOREVER DEFEND title to the Easement herein granted unto the Grantee, its successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof.

IN WITNESS WHEREOF, Grantor has caused this instrument to be executed on this 4th
day of OCTOBER, 2017.

GRANTOR:

HEART OF MANOR, L.P.,
a Texas limited partnership

By: MANOR GP, LLC
a Texas limited liability company, as General Partner

By: TITAN CAPITAL INVESTMENT GROUP, LLC,
a Delaware limited liability company, as Manager

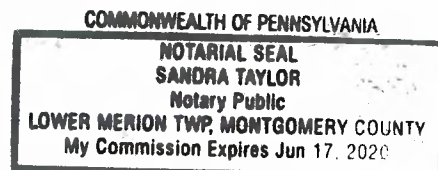
By: [Signature]
Name: William Peruzzi
Title: Manager
Date: 10-4-17

THE STATE OF PENNSYLVANIA §
§
COUNTY OF MONTGOMERY §

THIS INSTRUMENT was acknowledged before me on this 4th day of OCTOBER, 2017,
by WILLIAM PERUZZI, MANAGER of TITAN CAPITAL INVESTMENT GROUP, LLC, on behalf of said limited partnership.

[Signature]
Notary Public-State of Pennsylvania

(SEAL)



**ACCEPTED AND AGREED:
CITY OF AUSTIN, TEXAS**

By: _____

Greg Meszaros,
Director, Austin Water

Date: _____

AFTER RECORDING, RETURN TO:

Eric Sermeno
City of Austin
Austin Water
P.O. Box 1088
Austin, Texas 78767

CONSENT OF LIENHOLDER

THE UNDERSIGNED, being the holder of:

1. Deed of Trust dated February 27, 2009 executed by Heart of Manor, LP to Robert B. Barnes, Trustee, securing the payment of one note in the original amount of \$12,000,000.00, payable to International Bank of Commerce together with all other indebtedness of any kind whatsoever secured or to be secured thereby. Deed of Trust recorded under Document Number 2009031324, of the Official Public Records of Travis County, Texas, as modified in Document Number 2013208213, of the Official Public Records of Travis County, Texas. Additionally secured by Assignment of Leases and Rents recorded under Document 2009031325, of the Official Public Records of Travis County, Texas. Additionally secured by Assignment of Rights recorded under Document 2009079085, in the Official Public Records of Travis County, Texas;
2. Deed of Trust dated February 23, 2015 from Heart of Manor, LP to Robert B. Barnes, Trustee, securing the payment of one promissory note of even date therewith in the original principal amount of \$7,800,000.00 payable to International Bank of Commerce together with all other indebtedness of any kind whatsoever secured or to be secured thereby, and the terms, conditions, and stipulations contained therein. Deed of Trust of record under Document Number 2015028754, of the Official Public Records of Travis County, Texas. Said lien additionally secured by Assignment of Rights recorded under Document Number 2015029438, of the Official Public Records of Travis County, Texas. Said Lien being affected by that Ratification Agreement recorded under Document Number 2015029439, of the Official Public Records of Travis County, Texas;
3. Deed of Trust dated May 18, 2017 from Heart of Manor, LP to Robert B. Barnes, Trustee, securing the payment of one revolving promissory note of even date therewith in the original principal amount of \$8,700,000.00 and a promissory note of even date therewith in the original principal amount of \$4,000,000.00 payable to International Bank of Commerce together with all other indebtedness of any kind whatsoever secured or to be secured thereby, and the terms, conditions, and stipulations contained therein. Deed of Trust of record under Document Number 2017091846, of the Official Public Records of Travis County, Texas.

does hereby consent to the foregoing Easement for Interim Wastewater Treatment Plant, Access Easement and Right of Way ("Easement") and agrees that its lien is subject and subordinate to the described Easement, and that the undersigned has authority to execute and deliver this Consent of Lienholder, and that all acts necessary to bind the Lienholder have been taken.

LIENHOLDER:

INTERNATIONAL BANK OF COMMERCE, a
Texas banking association

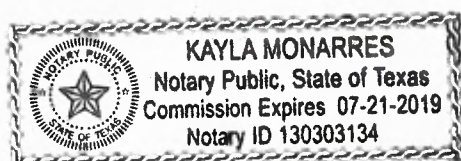
By: [Signature]
Name: JASON RANGEL
Title: VP

STATE OF Texas §
COUNTY OF Travis §

Before me, the undersigned notary, on this day personally appeared Jason Rangel
Vice president of International Bank of Commerce
Texas banking association, known to me through valid identification to be the
person whose name is subscribed to the preceding instrument and acknowledged to me that the
person executed the instrument in the person's official capacity for the purposes and
consideration expressed in the instrument.

Given under my hand and seal of office on October 5th 2017.

[Seal]



[Signature]
Notary Public, State of Texas

EXHIBIT "A"

WASTEWATER EASEMENT: 12.00
ACRES: WILD HORSE INVESTMENTS,
LTD. TO THE CITY OF AUSTIN, TEXAS

FIELD NOTES

FIELD NOTES FOR A TRACT OF LAND BEING 12.00 ACRES OF LAND, MORE OR LESS, FOR A WASTEWATER EASEMENT, OUT OF THE JAMES MANOR SURVEY NO. 39, AND ALSO BEING OUT OF A 1242.15 ACRES TRACT OF LAND CONVEYED TO WILD HORSE INVESTMENTS, LTD., BY DEED, AS RECORDED IN DOCUMENT NO. 2000056534 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, SAID 12.00 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

COMMENCING at a 1" iron pipe found at an angle point in the southerly line of the above-mentioned 1242.15 acres tract, said 1" iron pipe also being the northeasterly corner of a 633.40 acres tract of land conveyed to Wild Horse Investments, Ltd., by deed, as recorded in Document No. 2000175724, Official Public Records of Travis County, Texas, and from said 1" iron pipe, a ½" rebar with red cap in the easterly line of said 633.40 acres tract and at the northwesterly corner of a 57.1863 acres tract conveyed to Travis County, Texas, bears S28°17'59"W, 169.36 feet;

THENCE, with the northerly line of said 633.40 acres tract same being the southerly line of said 1242.15 acres tract, N62°29'50"W, 576.27 feet to a ½" rebar with red cap found, said rebar being in the southeasterly line of a 20.00 acres W&WWTP easement tract conveyed to the City of Austin, Texas as recorded in Document No. 2003249298 of the Official Public Records of Travis County, Texas;

THENCE, with the said southeasterly line of a 20.00 acres tract, N45°00'00"E, 365.86 feet to a ½" rebar with red cap found, said rebar being the most easterly corner of the said 20.00 acres W&WWTP easement tract;

THENCE, with the northeasterly line of the said 20.00 acres W&WWTP easement tract, N45°00'00"W, 532.34 feet to a calculated point for the POINT OF BEGINNING of the 12.00 acres easement tract herein described;

THENCE, continuing with the northeasterly line of the said 20.00 acres W&WWTP easement tract, N45°00'00"W, 247.66 feet to a calculated point for the most northerly corner of said 20.00 acres W&WWTP easement tract, said calculated point also being a corner of the 12.00 acres easement tract herein described;

THENCE, with the northwesterly line of said 20.00 acres W&WWTP easement tract, S45°00'00"W, 585.17 feet to a calculated point for a corner of the tract herein described;

THENCE, leaving the northwesterly line of said 20.00 acres W&WWTP easement tract and crossing over the above-mentioned 1242.15 acres tract, the following three courses and distances;

- 1) N26°39'26"W, 275.19 feet to a calculated point for a corner of the tract herein described;
- 2) N81°45'51"W, 93.58 feet to a calculated point for corner of the tract herein described;
- 3) N46°20'43"W, 365.84 feet to a calculated point for a corner of the tract herein described, said calculated point being in a southeasterly offset line, offset 200 feet from and parallel to the centerline of a pipeline easement with no listed width, as found in Volume 84, Page 405 and Volume 84, Page 515, Deed Records, Travis County, Texas;

THENCE, with the said southeasterly offset line of a pipeline easement, N62°24'11"E, 928.48 feet to a calculated point for a corner of the tract herein described, said calculated point being in the northeasterly line of an access easement as recorded in Document No. 2003249298 and in the southwesterly line of an electric and telephone easement as recorded in Document No. 2003249302;

THENCE, with the said northeasterly line of an access easement and the said southwesterly line of an electric and telephone easement, the following three courses and distances;

- 1) S38°23'09"E, 86.46 feet to a calculated point for a corner of the tract herein described;
- 2) S63°02'24"E, 307.88 feet to a calculated point for a corner of the tract herein described;
- 3) S26°51'04"W, 290.55 feet to a calculated point for a corner of the tract herein described;

THENCE, leaving said northeasterly line of an access easement and said southwesterly line of an electric and telephone easement, S11°54'34"E, 241.98 feet to the POINT OF BEGINNING of the tract herein described and containing 12.00 acres of land, more or less.

Prepared By:
Phillip M. Craft, RPLS #4463
Survey Supervisor
Distribution System Engineering
Austin Water Utility
City of Austin, Texas



Phillip M. Craft
06/13/17

EXHIBIT "A"

WASTEWATER EASEMENT: 12.00
ACRES: HEART OF MANOR, LP
TO THE CITY OF AUSTIN, TEXAS

FIELD NOTES

FIELD NOTES FOR A TRACT OF LAND BEING 12.00 ACRES OF LAND, MORE OR LESS, FOR A WASTEWATER EASEMENT, OUT OF THE JAMES MANOR SURVEY NO. 39, AND ALSO BEING OUT OF A 1242.15 ACRES TRACT OF LAND CONVEYED TO WILD HORSE INVESTMENTS, LTD., BY DEED, AS RECORDED IN DOCUMENT NO. 2000056534 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, SAID 12.00 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

COMMENCING at a 1" iron pipe found at an angle point in the southerly line of the above-mentioned 1242.15 acres tract, said 1" iron pipe also being the northeasterly corner of a 633.40 acres tract of land conveyed to Wild Horse Investments, Ltd., by deed, as recorded in Document No. 2000175724, Official Public Records of Travis County, Texas, and from said 1" iron pipe, a ½" rebar with red cap in the easterly line of said 633.40 acres tract and at the northwesterly corner of a 57.1863 acres tract conveyed to Travis County, Texas, bears S28°17'59"W, 169.36 feet;

THENCE, with the northerly line of said 633.40 acres tract same being the southerly line of said 1242.15 acres tract, N62°29'50"W, 576.27 feet to a ½" rebar with red cap found, said rebar being in the southeasterly line of a 20.00 acres W&WWTP easement tract conveyed to the City of Austin, Texas as recorded in Document No. 2003249298 of the Official Public Records of Travis County, Texas;

THENCE, with the said southeasterly line of a 20.00 acres tract, N45°00'00"E, 365.86 feet to a ½" rebar with red cap found, said rebar being the most easterly corner of the said 20.00 acres W&WWTP easement tract;

THENCE, with the northeasterly line of the said 20.00 acres W&WWTP easement tract, N45°00'00"W, 532.34 feet to a calculated point for the POINT OF BEGINNING of the 12.00 acres easement tract herein described;

THENCE, continuing with the northeasterly line of the said 20.00 acres W&WWTP easement tract, N45°00'00"W, 247.66 feet to a calculated point for the most northerly corner of said 20.00 acres W&WWTP easement tract, said calculated point also being a corner of the 12.00 acres easement tract herein described;



Scale
1" = 300'

BLUE BLUFF ROAD

ACCESS ESMT.
DOC#2003249298

30' WW ESMT.
DOC#2003249300

CL PIPELINE ESMT. V.84. P405
(NO WIDTH GIVEN) V.84. P515

11.75'

L7

L8

30' ELEC. & TEL. ESMT.
DOC#2003249302

12.00 AC.
WWTP ESMT.

L5

L4

L3

L2

L1

L10

POB

1242.15 AC.
WILDHORSE INVESTMENTS, LTD.
DOC#2000056534

20.00 AC.
W&WWTP ESMT.
DOC#2003249298

100 YEAR FLOOD PLAIN

DRAINAGE ESMT.
2004024414

633.40 AC.
WILD HORSE INVESTMENTS, LTD.
DOC#2000175724

The Bearings Described herein are
Texas State Plane Coordinates
and Bearings obtained using GPS -
(Texas Central Zone 4203,
NAD 1983(conus),
Geoid03 (conus),
US Survey Feet).

TRAVIS COUNTY
57.1863 AC.
DOC#2013223964

NOTE: 100 YEAR FLOOD PLAIN
AS SHOWN ON FIRM MAP NO.
48453C0480J

SKETCH TO ACCOMPANY FIELD NOTES

AUSTIN WATER UTILITY
D.S.E.

SKETCH PREPARED FROM SURVEY
DATA GATHERED FROM FIELD WORK
DIRECTLY OVERSEEN BY PHILLIP M.
CRAFT, R.P.L.S.#4463

Date: 06/13/17

Phillip M. Craft

- ½" Rebar with red cap
- ⊙ 1" Iron Pipe Found
- △ Calculated Point



LINE TABLE:

<u>LINE #</u>	<u>BEARING</u>	<u>DISTANCE</u>
L1	N45°00'00"W	247.66
L2	S45°00'00"W	585.17
L3	N26°39'26"W	275.19
L4	N81°45'51"W	93.58
L5	N46°20'43"W	365.84
L6	N62°24'11"E	928.48
L7	S38°23'09"E	86.46
L8	S63°02'24"E	307.88
L9	S26°51'04"W	290.55
LI0	S11°54'34"E	241.98

ATTACHMENT 5
USGS TOPO MAP

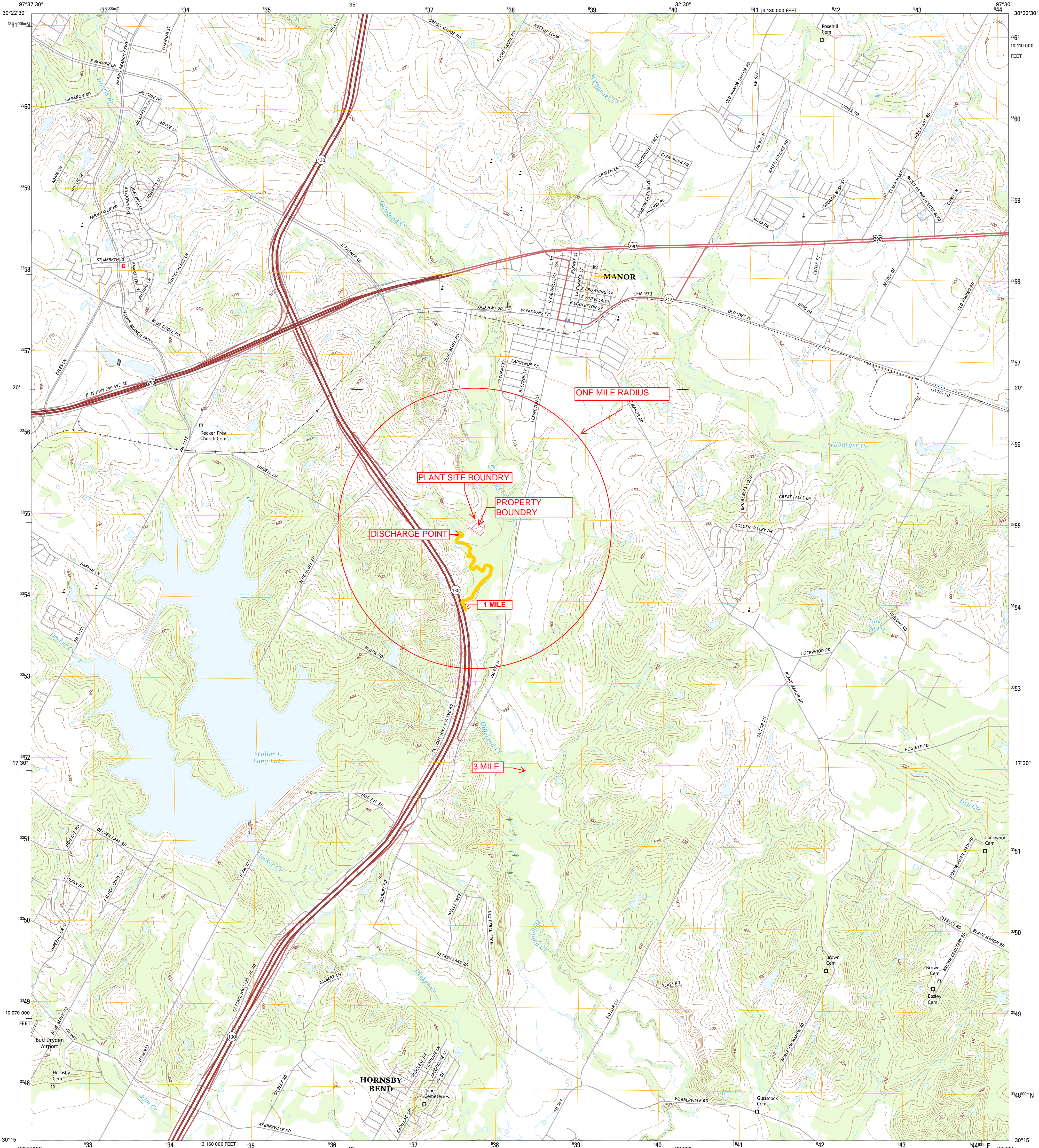
WILD HORSE RANCH WASTEWATER TREATMENT PLANT
ATTACHMENT NO.5, ADMIN REPORT 1.0, SECTION 13



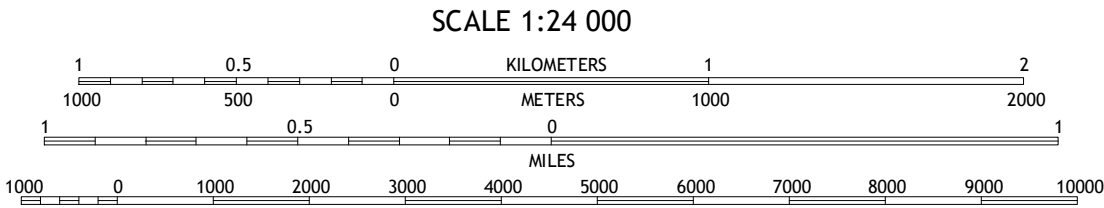
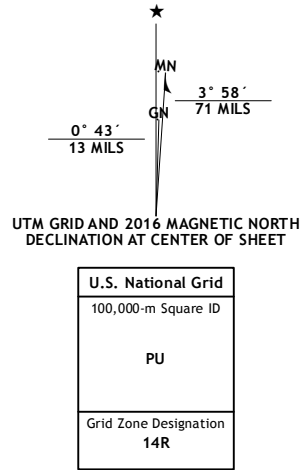
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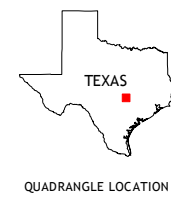
MANOR QUADRANGLE
TEXAS-TRAVIS CO.
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
1000-meter grid: Universal Transverse Mercator, Zone 14R
10 000-foot ticks: Texas Coordinate System of 1983 (central
zone)
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
entering private lands.
Imagery.....U.S. NAIP, October 2014
Roads.....U.S. Census Bureau, 2014 - 2015
Names.....GNIS, 2015
Hydrography.....National Hydrography Dataset, 2014
Contours.....National Elevation Dataset, 2002
Boundaries.....Multiple sources; see metadata file 1972 - 2015
Wetlands.....FWS National Wetlands Inventory 1977 - 2014



CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
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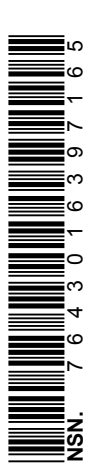
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4	5	6
7	8	9

ADJOINING QUADRANGLES

1 Pflugerville West
2 Pflugerville East
3 Coupland
4 Austin East
5 Egin West
6 Montopolis
7 Webberville
8 Utley

ROAD CLASSIFICATION	
Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD
Interstate Route	US Route
	State Route

MANOR, TX
2016



ATTACHMENT 6

SPIF

City Of Austin - Austin Water
Walnut Creek WWTP
TCEQ Permit -WQ0010543011

**APPLICATION FOR DOMESTIC WWTP
SUPPLEMENTAL PERMIT INFORMATION FORM
(SPIF)**

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:

Application type: ____Renewal ____Major Amendment ____Minor Amendment ____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

____ Texas Historical Commission

____ U.S. Fish and Wildlife

____ Texas Parks and Wildlife Department

____ U.S. Army Corps of Engineers

This form applies to TPDES permit applications only. (Instructions, Page 53)

Complete this form as a separate document. TCEQ will mail a copy to each agency as required by our agreement with EPA. If any of the items are not completely addressed or further information is needed, we will contact you to provide the information before issuing the permit. Address each item completely.

Do not refer to your response to any item in the permit application form. Provide each attachment for this form separately from the Administrative Report of the application. The application will not be declared administratively complete without this SPIF form being completed in its entirety including all attachments. Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: Wild Horse Ranch WWTP

Permit No. WQ00 10543013

EPA ID No. TX 0124800

Address of the project (or a location description that includes street/highway, city/vicinity, and county):

10621 Blue Bluff Lane, Manor, Texas 78653

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

Prefix (Mr., Ms., Miss): Ms.

First and Last Name: Tammy West

Credential (P.E, P.G., Ph.D., etc.):

Title: Wastewater Regulatory Manager

Mailing Address: 625 East 10th Street, Ste. 315

City, State, Zip Code: Austin, Texas 78701

Phone No.: 512-972-0143 Ext.: Fax No.:

E-mail Address: tammy.yates.west@austintexas.gov

2. List the county in which the facility is located: Travis
3. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

Heart of Manor, 5 Henley Rd, Wynnewood, PA 19096-3717

4. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

to an unnamed tributary of Gilleland Creek, thence to Gilleland Creek, thence to Colorado River in Segment No. 1428 of the Colorado River Basin

5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

Provide original photographs of any structures 50 years or older on the property.

Does your project involve any of the following? Check all that apply.

- ☐ Proposed access roads, utility lines, construction easements
- ☐ Visual effects that could damage or detract from a historic property's integrity
- ☐ Vibration effects during construction or as a result of project design
- ☒ Additional phases of development that are planned for the future
- ☐ Sealing caves, fractures, sinkholes, other karst features

☐ Disturbance of vegetation or wetlands

1. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

See Attachment B Engineering Reports

2. Describe existing disturbances, vegetation, and land use:

See Attachment B Engineering Reports

THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

3. List construction dates of all buildings and structures on the property:

n/a

4. Provide a brief history of the property, and name of the architect/builder, if known.

n/a

ATTACHMENT A
USGS TOPO MAP

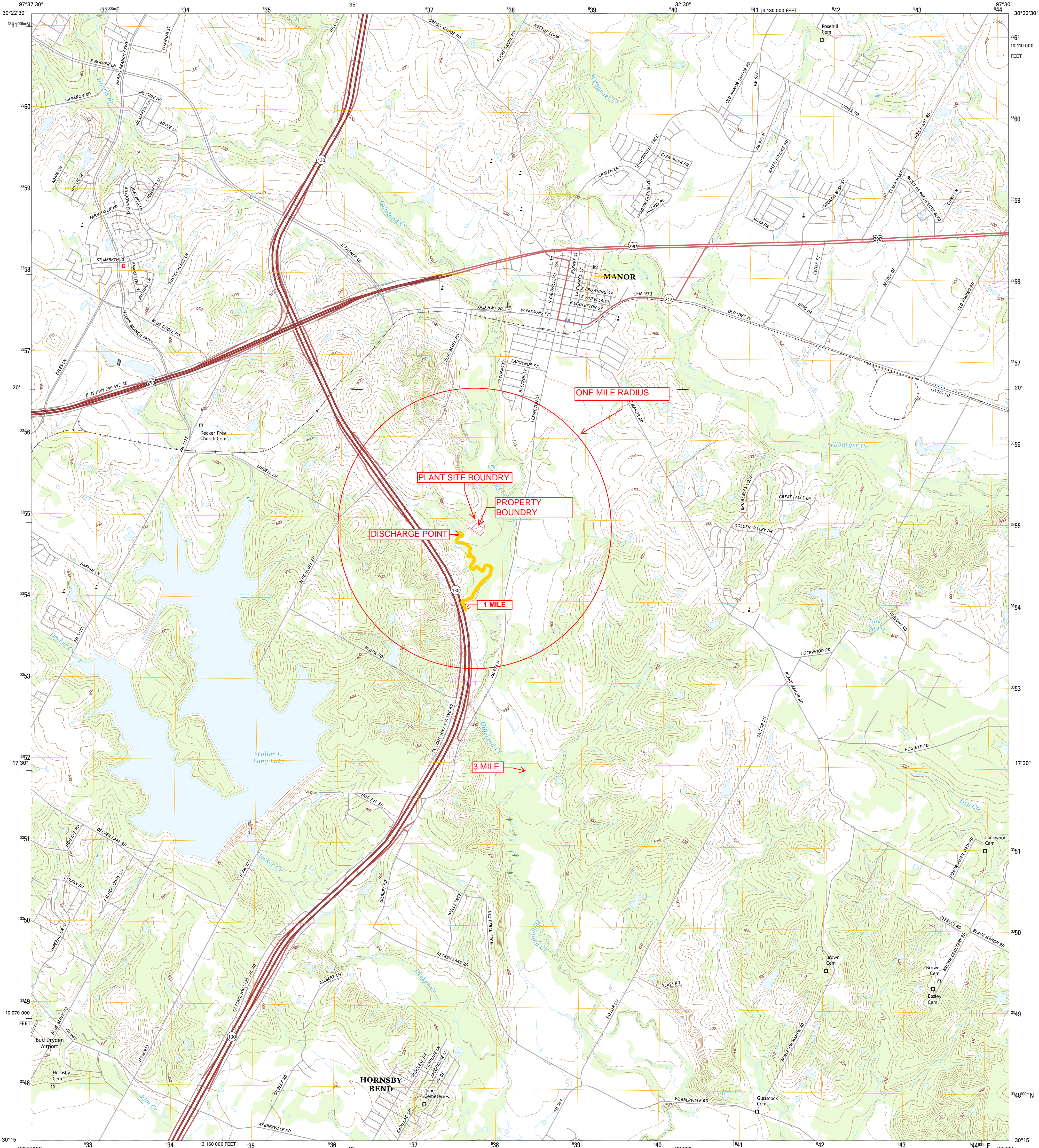
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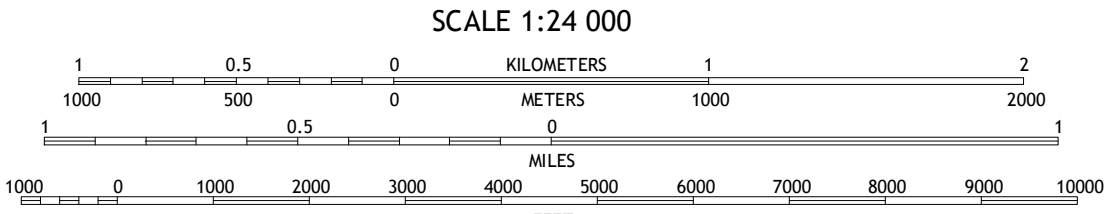
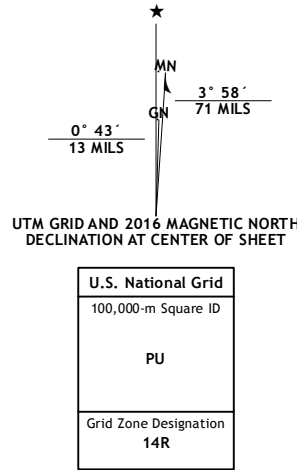
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



MANOR QUADRANGLE
TEXAS-TRAVIS CO.
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
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CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
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A metadata file associated with this product is draft version 0.6.19



1	2	3
4	5	6
7	8	9

ADJOINING QUADRANGLES

1 Pflugerville West
2 Pflugerville East
3 Coupland
4 Austin East
5 Egin West
6 Montopolis
7 Webberville
8 Utley

ROAD CLASSIFICATION	
Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD
Interstate Route	US Route
	State Route

MANOR, TX
2016



ATTACHMENT B
ENGINEERING REPORTS



City of Austin
Wild Horse Ranch Wastewater Treatment Plant
Expansion

FINAL ENGINEERING REPORT

FINAL | August 2022



City of Austin
Wild Horse Ranch Wastewater Treatment Plant Expansion
FINAL ENGINEERING REPORT

FINAL | August 2022

Digitally signed by Daniel M. Hurtado
Contact Info: Carollo Engineers, Inc.
Date: 2022.08.24 17:05:48-05'00'



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Abbreviations

A	amperes
AA	average annual
ADF	average daily flow
Alum	aluminum sulfate
AO	anaerobic-oxic
ASD	adjustable speed drive
ATS	automatic transfer switch
AW	Austin Water Utility
A2O	anaerobic-anoxic-oxic
BEC	Bluebonnet Electric Cooperative
BNR	biological nutrient removal
BOD	biological oxygen demand
Carollo	Carollo Engineers, Inc.
COA or the City	City of Austin
cu ft	cubic feet
EBPR	enhanced biological phosphorus removal
EBRT	empty bed residence time
ESS1	Electrical Power Service Station No. 1
fps	feet per second
FRP	fiberglass reinforced plastic
ft	foot/feet
gal/day/ft ²	gallons per day per square foot
gal/day/ft	gallons per day per foot
gpd/sf	gallons per day per square foot
gpm	gallons per minute
HO	high output
hp	horsepower
H ₂ S	hydrogen sulfide
IDIQ	indefinite delivery indefinite quantity
I/O	input/output
I&C	instrumentation and controls
lbs/day	pounds per day
lbs/day/kcf	pounds per day per thousand cubic feet
kVA	kilo-volt-ampere
MCC	motor control center
MCP	main control panel
MG	million gallons
mgd	million gallons per day

mg/L	milligrams per liter
MM	maximum month
NH ₃ -N	nitrogen ammonia
PC	personal computer
PDP	power distribution panel
PLC	programmable logic controller
ppm	parts per million
psi	pounds per square inch
psig	pounds per square inch gauge
RAS	return activated sludge
RDT	rotary drum thickener
SAR	South Austin Regional
SCADA	supervisory control and data acquisition
scfm	standard cubic feet per minute
Scum PS 1	first scum pump station
Scum PS 2	second scum pump station
TCEQ	Texas Commission on Environmental Quality
TDH	total dynamic head
TP	total phosphorus
TSS	total suspended solids
UV	ultra-violet
V	volt
VAC	voltage alternating current
VFD	variable frequency drive
WAS	waste activated sludge
WWTP	Wild Horse Ranch Wastewater Treatment Plant

Section 1

INTRODUCTION

The Wild Horse Ranch Wastewater Treatment Plant (WWTP), also referred to as the Northeast WWTP, was commissioned in 2007. It is located at 10621 Blue Bluff Road on the east side of the City of Austin (COA). The plant has a permitted average daily flow (ADF) capacity of 0.75 million gallons per day (mgd) with planned expansions to 1.5 mgd and 2.25 mgd and phasing up to approximately 10 mgd. The WWTP is in need of expansion to accommodate continued growth on the northeast side of Austin and the City of Manor and flow resulting from the recent decommissioning of the Harris Branch WWTP. Current growth projections show that an expanded plant capacity of 2.25 mgd would be adequate for about 20 years.

This Final Engineering Report identifies the modifications and new facilities required to expand the wastewater treatment plant to 2.25 mgd. It is intended that this report be used in conjunction with the final design drawings and specifications; however applicable final design drawings are included in Appendix A, and referenced herein, to allow the report to be self-contained.

1.1 Influent and Effluent Design Criteria

Table 1 summarizes the design flow and loading criteria for the plant expansion. The influent flow criteria is based on historical process and operation data collected over a period of approximately one year (July 1, 2018 to June 30, 2019).

Table 1 Influent Design Criteria

Annual Average Daily			Max. Month Average Daily	
	Concentration, mg/L	Flow (mgd) or Load (lbs/day)	Concentration, mg/L	Flow (mgd) or Load (lbs/day)
Flow		2.25		2.93
BOD ₅	190	3,570	220	5,355
Total Suspended Solids (TSS)	190	3,570	220	5,355
NH ₃ -N	45	840	45	1,092
TP	6.0	110	6.0	143

Note:

(1) Abbreviations - BOD = biological oxygen demand; lbs/day = pounds per day; mg/L = milligrams per liter; NH₃-N = nitrogen ammonia; TP = total phosphorus; TSS = total suspended solids.

Table 2 summarizes the design effluent criteria for the plant expansion.

Table 2 Effluent Design Criteria

Annual Average Daily		Max. Month (MM) Average Daily	
Concentration, mg/L	Flow (mgd) or Load (lbs/day)	Concentration, mg/L	Flow (mgd) or Load (lbs/day)
Flow	2.25		2.93
BOD ₅	5	5	122
TSS	5	5	122
NH ₃ -N	2	2	48
TP	0.5	0.5	12

1.2 Treatment Process Description

Conventional activated sludge with a biological nutrient removal (BNR) configuration was selected as the treatment process for the Wild Horse Ranch Wastewater Treatment expansion. BNR processes require unaerated and aerated zones. The unaerated zones promote selection for enhanced biological phosphorus removal (EBPR) microorganisms and denitrification. The aerated zones promote BOD removal, phosphorus (P) uptake, and nitrification.

Implementation of conventional BNR in the existing aeration basins would require modifying the existing aeration basins and constructing two aeration basins and two secondary clarifiers. Each basin would include unaerated (anaerobic and anoxic) zones with mechanical mixers, a mixed liquor recirculation system, and oxic zones with fine-bubble diffusers. The basins will be provided with the flexibility to operate under different BNR processes, including anaerobic-oxic (AO), anaerobic-anoxic-oxic (A2O), and Johannesburg.

Drawings 00G08-through 00G12 show schematics of the proposed plant treatment processes.

1.3 Hydraulic Profile

Hydraulic evaluations, including proposed improvements, were performed with average daily flow (2.25 mgd), peak 2-hour flow (9 mgd), and peak flow with one clarifier out of service (max flow).

Calculations were carried out from the outfall at the Tributary to Gilleland Creek backwards to the headworks. Below are the hydraulic elements that were included as part of this hydraulic evaluation:

- The WWTP on-site lift station will raise the influent wastewater and discharge into a new headworks structure.
- The new headworks structure will include grit removal and mechanical screening. Hydraulic calculations for the proposed headworks structure were performed with mechanical vortex grit removal system.
- Flow will be directed to an aeration influent splitter box located at the downstream end of the headworks.
- The aeration influent splitter box will split flow evenly between the four aeration basins (two existing and two new) for the 2.25 mgd expansion. Flow will leave the aeration splitter box via pipe to each basin.

- The front end of the aeration basins will include anaerobic and anoxic zones for BNR. The first zone will be an anaerobic zone where return activated sludge (RAS) will be introduced. Provisions will be made to allow screened influent flow to be added to the first or second zone.
- After leaving the last aerobic zone of the aeration basins, flow will be combined at the secondary clarifier (mixed liquor) splitter box and split evenly between the three secondary clarifiers (one existing and two new). Flow will leave the splitter box via pipe to each clarifier.
- After overflowing the clarifier effluent weir, flow from each clarifier will leave via pipe and be discharged into a filter influent box in front of the proposed cloth disk filters.
- Two modules of cloth disk filters are proposed. From the filter influent box, flow will be split evenly between the two filter modules via an entrance weir provided by the manufacturer. Flow will travel over the influent weir through the filter and over an effluent weir. Flow will leave each filter module via pipe. Each pipe from the filter modules will discharge into the existing ultra-violet (UV) disinfection channel. Filter backwash water will be pumped to the Headworks influent channel.
- After flowing through the UV channel, disinfected effluent will flow through a fixed weir trough to ensure a constant water surface elevation through the UV channel.
- After flowing through the weir trough, flow will pass through the existing Parshall Flume for effluent measurement and discharge down the existing cascade aeration structure.
- From the bottom of the existing cascade aeration structure, flow will convey out the existing outfall pipe to the Tributary to Gilleland Creek.

Drawing 00G13 shows the water surface elevations through each structure for the three flow scenarios described previously.

1.4 Site Plan

Figure 1 shows the service area for the WWTP. Drawing 00G06 presents the Overall Site plan in the design documents.

The proposed plant site plan for 2.25 mgd is shown in Drawing 00G08. New process structures would include the headworks, two aeration basins, two secondary clarifiers, RAS and waste activated sludge (WAS) pump stations, filters, UV disinfection facilities, sludge thickening, chemical building, and an additional sludge holding tank. A small new administration building would be provided with the understanding that it is intended to function only until the plant is expanded beyond 2.25 mgd.

The new headworks will be located north of the existing aeration basins. The new aeration basins and secondary clarifiers are in the locations outlined in the original design. The new Filter/UV Facility and the new administration building will be located in the area between the blower building and the existing filter structure. The new sludge holding tank will be south of the existing tank. The existing influent lift station and the sludge holding tank will receive additional equipment for increased capacity. The existing UV disinfection modules will be removed.

The proposed administration building is shown in an east-west orientation with the garage on the south side next to the existing roadway for ease of entrance. This orientation also locates the UV Panel Room close to the UV Disinfection operation. New parking stalls, including handicap

parking, will be located on the north side of the proposed admin building. The door and sidewalk on the north side will be handicap accessible.

The traffic pattern around the site would remain essentially as it currently is. The loop to the current screening dumpster shed will be replaced with a loop along the north edge of the aeration basins. The existing retaining wall will be demolished to allow for the roadway to be modified.



Figure 1 Wild Horse Ranch Wastewater Treatment Plant Service Area

1.5 Site Geotechnical Recommendations

The soils at the plant site consist of clay and clayshale. These soils are highly plastic with a very high shrink/swell potential. Some of the existing structures are showing the effects of the expansive soils. The recommendations of the project specific geotechnical investigation are to over excavate or use drilled shafts beneath the proposed structures. Recommended over excavations vary between 6 to 10 feet (ft), depending upon the structure. Select fill would be imported to backfill the over excavations. Recommended depth of the drilled shafts is 30 ft. Spacing would be based upon the structure loading.

After reviewing the geotechnical report options, Carollo Engineers, Inc.'s (Carollo) structural engineers recommend using 30-inch drilled shafts to support the various proposed structures.

Section 2

INFLUENT LIFT STATION

2.1 Design Criteria

The influent pump station has been designed per Texas Commission on Environmental Quality (TCEQ) and Austin Water Utilities (AW) requirements as applicable for influent lift stations at a WWTP. The existing influent lift station consist of a 20-foot diameter concrete wet well that is 31ft deep. The structure has space for five submersible pumps. Currently three submersible pumps rated at 1,100 gallons per minute (gpm) each are installed and provide a firm capacity of 3.17 mgd (0.75 mgd with a 4 times peaking factor). The remaining two bays are currently empty and were provided for additional future capacity.

2.2 Proposed Facilities

The influent lift station will be capable of providing a firm capacity of 9.0 mgd. The existing lift station will be utilized to achieve these conditions with improvements to the pump and piping components. To avoid slugging the plant with constant speed operation of the pumps, the station will be equipped with two jockey pumps, allowing the influent lift station to more closely match wastewater flows conveyed to the WWTP. The jockey pumps will work in conjunction with three 2,400 gpm pumps to provide a firm station capacity of 9.0 mgd. In addition to pump replacement, access hatch improvements, piping and valve replacement are proposed to accommodate the increased pumping capacity.

Drawing 10M01 shows the proposed modifications for the influent lift station. Figure 2 illustrates the system head curve with a single pump operations including variable frequency drive (VFD) turndown and the 4 pumps running at full speed demonstrating a firm capacity of 9 mgd.

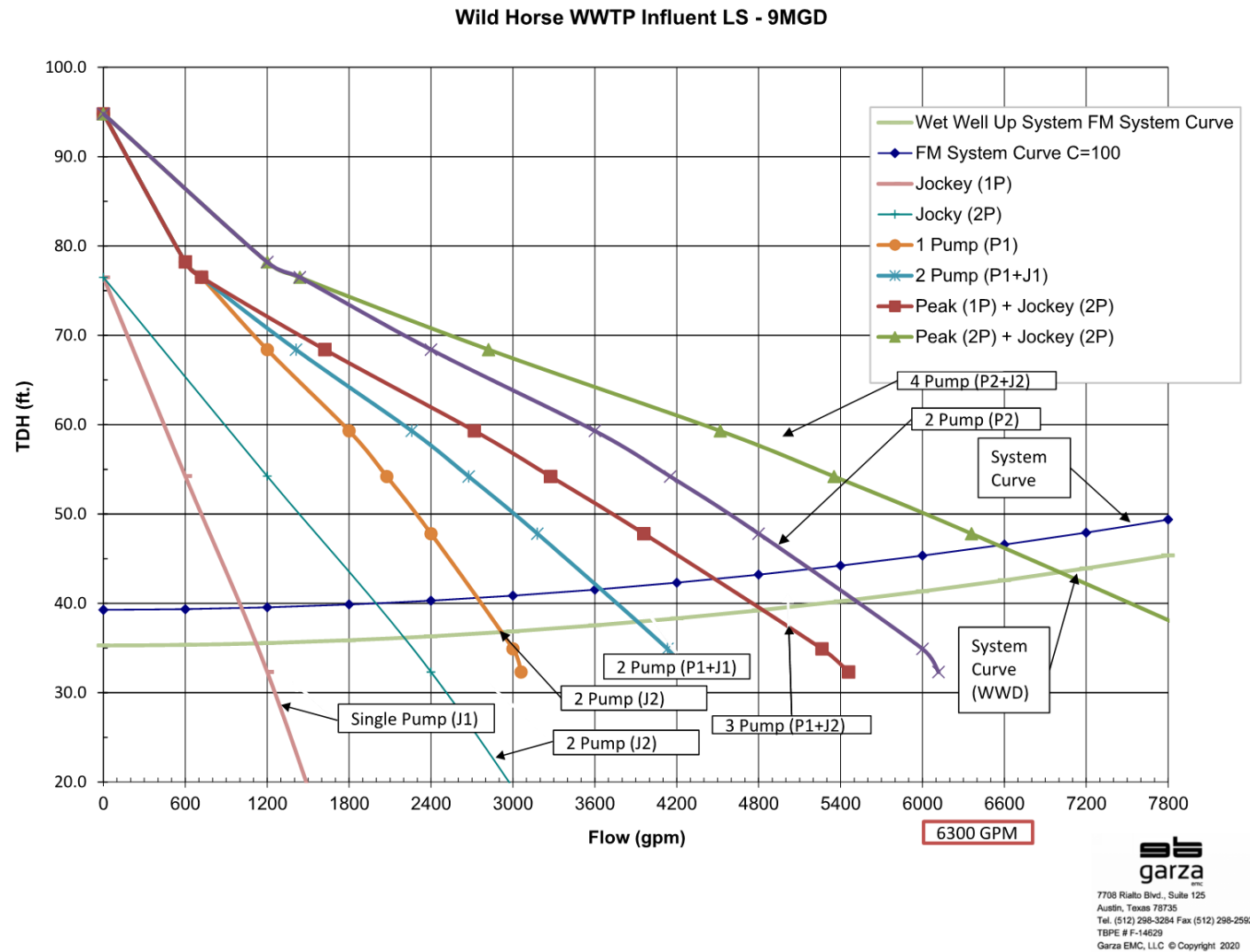


Figure 2 Influent Pump Station System Head Curve

Section 3

HEADWORKS

The existing headworks at the WWTP will be decommissioned and a new headworks structure is proposed to accommodate the design average daily flow and peak 2-hour flow conditions for the plant expansion, 2.25 mgd and 9.0 mgd respectively.

The proposed headworks structure will consist of fine screen units, screenings washing press units, a grit removal unit, and a grit washing unit.

3.1 Design Criteria

3.1.1 Flow

Flow into the headworks structure will be pumped from the influent lift station. Side stream flows will also be pumped to the start of the headworks structure from the plant return flow lift station which includes the filter backwash water and filtrate water from sludge thickening.

The headworks will be designed to process a design average daily flow of 2.25 mgd and a peak 2-hour flow of 9.0 mgd. Based on the current design of the influent pump station, the flow from one jockey pump on will be approximately 1,000 gpm.

3.1.2 Bypass/Redundancy

COA staff requested that two screen channels be provided with each channel capable of handling the peak 2-hour flow of 9.0 mgd. Thus, one channel is fully redundant. A passive bypass channel will be provided as well.

During preliminary engineering, it was recommended by COA staff that a redundant grit removal unit not be included for this expansion. A bypass channel will be provided for the grit removal unit.

3.1.3 Velocity in the Screen Channel

A straight channel ahead of the screens is required to ensure good velocity distribution across the screen for better removal efficiency. Ideally, the velocity in the channel ahead of the screens should be greater than 1.25 feet per second (fps) to avoid grit deposition (Manual of Practice No. 8). However, when the minimum velocity cannot be achieved, the velocity during peak 2-hour flow conditions should be at least 2.5 fps to achieve resuspension of deposits (Manual of Practice No. 8).

3.1.4 Velocity through the Screen

Design velocities of 2 to 4 fps through the openings of mechanically cleaned screens are recommended (Manual of Practice No. 8). Manufacturers typically recommend keeping the through screen velocity under 5 fps. However, if peak-to-average flow ratio is significant, then peak 2-hour flow velocity usually exceeds ideal design values.

3.1.5 Screen Channel Freeboard

General practice is to provide at least 24 inches of freeboard in a screen channel at peak 2-hour flow with 30 percent screen blinding.

3.1.6 Velocity through Grit Channel

The velocity in the influent channel should range from 2 to 3 fps for flows between 40 and 80 percent of the peak 2-hour flow (Manual of Practice No. 8). Per TCEQ Chapter 217.125(e)(2), the inlet velocity must be at least 2.0 fps at peak 2-hour flow. The minimum acceptable velocity for low flow is 0.5 fps to ensure grit is carried into the unit (Manual of Practice No. 8).

3.1.7 Screening and Debris Storage

Per TCEQ Chapter 217.123, a screening device must have a minimum storage capacity of one day of screenings and debris.

3.2 Proposed Facilities

3.2.1 Structure

The proposed headworks structure is two stories with approximate dimensions of 38 ft wide by 60 ft long. The upper operating floor level of the structure will be approximately 16 ft above existing grade. The proposed headworks structure is shown in Drawings 20M01 through 20M06.

Presented below is proposed sizing and equipment required for the headworks system. Each screen channel will be 3 ft wide by 18 ft long able to be isolated with slide gates. These dimensions result in the following design parameters in comparison to the design criteria as shown in Table 3.

Table 3 Screen Channel Design

	Design Criteria	Proposed Design
Screen Channel Velocity	> 1.25 fps or else > 2.5 fps at Peak	2.4 fps at Peak
Velocity thru Screen	2 to 5 fps	3.5 fps (Design flow through 1 screen)
Channel Freeboard at 30% Blinding	24 inches	24 inches

The grit channel will be 3 ft wide by 26 ft long able to be isolated with slide gates. The grit bypass channel will be 3 ft wide by 26 ft long able to be isolated with slide gates. These dimensions result in the following design parameters in comparison to the design criteria as shown in Table 4.

Table 4 Grit Channel Design

	Design Criteria	Proposed Design
Grit Channel Velocity	> 2 fps at Peak	1.8 fps at ADF 5.1 fps at Peak
Channel Freeboard	24 inches	43 inches

The channel and grit basin openings on the upper level will be covered with aluminum plate to provide access for mechanical unit operations and trap odors in the channels to be captured by an odor control system.

3.2.2 Screens

Based on the review of various screen types during preliminary engineering, it is proposed that multi-rake screens will be provided in both screen channels. Multi-rake screens consist of a stationary bar screen and multiple rakes mounted on a chain. The rakes clean from the front side of the screen. The multiple rakes minimize clogging possibility by quickly clearing accumulated material from the screen.

As discussed previously, two screens will be provided. Each screen will be capable of handling the peak 2-hour flow of 9.0 mgd. The turn down on these screens can accommodate flows as low as 0.9 mgd. Thus, the screens can operate with the one pump on scenario of 2.25 mgd. Due to the process needs and the nature of the influent at the WWTP, fine screens with 1/4-inch openings are proposed.

3.2.3 Screenings Washing Press

Screenings from each screen will be collected using a single screw conveyor. The combined screenings will be discharged by the screw conveyor into a single screenings washing press. The screw conveyor will also have the ability to bypass the screenings washing press and discharge directly into a dumpster on the lower level.

The screenings washing press proposed for this project is a spiral screw compactor type. The washing press unit forces the collected materials into a pipe system at an upward angle and is usually supplemented with a back pressure device to ensure adequate dewatering.

The screening washing press unit will be located on the lower operating floor. Washed and compacted screenings will be discharged directly to a dumpster on the ground level.

Based on the anticipated volume of captured screenings, the washing press unit will be sized to handle at least 10 cubic feet per hour of screenings.

3.2.4 Grit Removal

Based on the review of various grit removal types during preliminary engineering, it is proposed that a mechanical vortex grit removal unit be provided. Mechanical vortex grit removal relies on a mechanically enhanced vortex flow pattern that directs grit downward into a grit slurry hopper. The proposed mechanical vortex grit removal unit is a 12 foot diameter, 360-degree arrangement sized to treat up to 12 mgd.

Grit solids are removed by a flooded suction pump mounted by the bottom of the center hopper that will pump to a grit washing unit. One redundant pump will also be provided to alternate during maintenance. The grit pump will be rated for 250 gpm per manufacturer's recommendation with 4-inch diameter discharge piping. Grit Washing Unit

A grit washer will be used to achieve grit separation and dewatering. Based on the review of various grit washing types during preliminary engineering, it is proposed that a Coanda type washer unit be provided. The Coanda effect adheres the water to the walls of the classifier and aids in the separation process. The grit washer will be located on the lower operating floor. An

inclined screw will carry the grit up and dewater by gravity before discharging to a dumpster on the ground level.

Corresponding to the grit pump design flow rate, the grit washing unit should have a capacity up to 250 gpm.

3.2.5 Splitter Box

Downstream of the grit removal system, flow will be evenly split and distributed to each aeration basin through a splitter box with effluent weirs. Each weir will be four feet long.

3.2.6 Screening and Grit Disposal

Screenings removal projections are based on a volume of 9.5 cubic feet of screenings removed for every 1.0 mgd of average daily wastewater flow which is typical for 0.25 inch screens (see Figure 11.2 from Manual of Practice No. 8). This results in a volume of 0.79 cubic yards per day at 2.25 mgd and 23.7 cubic yards monthly.

Grit removal projections are based on a volume of 5.0 cubic feet of grit removed for every 1.0 mgd of average daily wastewater flow entering the headworks (see Table 5-15, Metcalf & Eddy, 5th Edition). This results in a volume of 0.42 cubic yards per day at 2.25 mgd and 12.6 cubic yards monthly.

According to recent conversation with the WWTP plant operator, the plant uses four 50-gallon trash carts to collect wet screenings from the existing mechanical step screen. With a current average daily flow of approximately 0.75 mgd, each trash cart is usually filled in three to seven days. The collected wet screenings are cleared and disposed of on a monthly basis. The current plant operation data indicates approximately one cubic yard of wet screenings per month. If this volume is projected for an expansion to 2.25 mgd, a conservative estimate results in approximately three cubic yards of total wet screenings per month.

The screenings and grit removal estimates per the Manual of Practice and Metcalf & Eddy guidelines is more generic since it is based on industrial data from very diverse influent conditions. Therefore, the current plant removal rates provide better insight into estimated future removal volumes. Assuming the same volume of removed grit and screening and a 40 percent volume reduction due to compacting, washing, and dewatering, the headworks at 2.25 mgd could collect four cubic yards of dry solids monthly.

Based on the TCEQ requirement for minimum storage capacity of one day and the desired collection frequency by operations staff, the size of the dumpster is proposed to be four cubic yards to accommodate a monthly collection schedule at 2.25 mgd.

Section 4

HEADWORKS/LIFT STATION ODOR CONTROL

The new headworks and lift station will be equipped with an odor control system to prevent the release of odorous compounds into the atmosphere and to reduce corrosion. Fresh air will be drawn in through strategically placed gravity ventilators, promoting sweep to the exhaust points in channels with the collected foul air conveyed to the odor scrubber units.

4.1 Design Criteria

The proposed lift station will be ventilated through a “push-pull” configuration using a supply fan in addition to exhaust fans to ensure air is exchanged at lower elevations in the structure. The lift station will be exhausted at 6 to 12 air changes per hour. The proposed headworks will be an open-aired structure. The channels will be covered and exhausted at 12 air changes per hour.

The collected foul air will be blown through a single stage biotrickling filter that will reduce the hydrogen sulfide (H_2S) concentrations by 99.9 percent, or below 0.25 parts per million (ppm), whichever is greater. Design empty bed residence time (EBRT) through the filter will be 15 seconds. Two fans will be provided (one duty and one standby). The preliminary estimate of required odorous air flow is 3,000 standard cubic feet per minute (scfm). An average and maximum inlet H_2S concentration of 100 ppm and 200 ppm, respectively, will be used for design.

4.2 Proposed Facilities

The Lift Station and Headworks will be equipped with separate odor control units, consisting of a biotrickling filter equipped with polyurethane media. The unit will be designed to operate in the “once-through” or recirculation mode. Because nutrient removal will be implemented at the WWTP, a supplemental nutrient feed system will most likely be needed for the irrigation water. The proposed odor control facilities are shown in Drawing 15M01 and 25M01. Presented below is a list of the equipment required for the Headworks odor control system:

Table 5 Required Equipment for Lift Station Odor Control System

Parameters	Values
Biotrickling Filter	
Number	1
Vessel Diameter	9 ft
Bed Depth	6 ft
Irrigation Mode	Once-through (normal operation)
Fans	
Type	Centrifugal
Number	1+1
Material	Fiberglass Reinforced Plastic (FRP)
Capacity	1,500 scfm
Static Pressure	8" approx.
Horsepower (each)	5 HP

Table 6 Required Equipment for Headworks Odor Control System

Parameters	Values
Biotrickling Filter	
Number	1
Vessel Width	7 ft
Vessel length	15 t
Bed Depth	7.14 ft
Height	11.5 ft
Irrigation Mode	Once-through (normal operation)
Fans	
Type	Centrifugal
Number	1+1
Material	Fiberglass Reinforced Plastic (FRP)
Capacity	3,000 scfm
Static Pressure	8" approx.
Horsepower (each)	7.5 HP

Section 5

AERATION BASINS

5.1 Existing Facilities

The original plant design included two aeration basins with a combined capacity of 0.75 mgd. The basins operate with flow entering on the north end and overflowing the weirs on the south end. Each basin has three air drop legs which supply individual grids of fine bubble diffusers. The diffusers are tapered through the length of the basin. The original design included two additional aeration basins for expansion to 1.5 mgd. The site plan included space for the fifth and sixth aeration basins for expansion to 2.25 mgd.

5.2 Proposed Facilities

With the current effluent requirements limiting the effluent phosphorus concentration, it is necessary to modify the existing aeration basins to operate with a BNR process. This will be done by providing internal baffling within the aeration basins. A total of four basins will be required to handle 2.25 mgd. Shown below is the sizing of the aeration basins.

Existing Basins (2)	95 ft x 30 ft x 16 ft; 45,600 cubic ft (cu ft); 341,130 gallons each basin
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New Basins (2)	95 ft x 30 ft x 16 ft; 45,600 cu ft.; 341,130 gallons each basin
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5.3 Design Criteria

The proposed facilities are shown in Drawings 30M01 through 30M08.

Presented below is a list of the equipment required for the aeration basins:

Table 7 Equipment Required for Aeration Basins

Component	Parameter	Value
Aeration Basins		
	Number	4
	Dimensions	95 x 30 ft
	Side water depth	16 ft
	Volume (each basin, MG)	
	Zone 1 (Pre-anoxic)	0.0341
	Zone 2 (Anaerobic)	0.0341
	Zone 3 (Anaerobic/Anoxic)	0.0341
	Zone 4 (Anoxic)	0.0341
	Zone 5 (Aerobic)	0.1023
	Zone 6 (Aerobic)	0.1023
	Total Basin Volume	0.3411 MG
	Combined Volume	1.364 MG
	Min. Aerobic Solids Retention Time at 17 degrees C	5.25 days
	Volumetric Loading	
	Average Annual (AA)	32.6 lbs/day/kcf
	Maximum Month (MM)	48.9 lbs/day/kcf
	Design MLSS	1,500 to 3,000 mg/L
	Oxygen Requirement at MM	8,460 lbs/day
	Air Requirement (all basins)	
	AA	1,980 scfm
	Peak	4,070 scfm
Aeration Basin Mixers		
	Type	Submersible wall mounted
	Number (each basin)	4
	Horsepower (each)	5
Aeration Basin Recirculation Pumps		
	Type	Submersible propeller
	Number (each basin)	2 (both duty)
	Capacity (each)	565 gpm
	Horsepower (each)	5 hp
	Drive	Constant Speed

Note:

(1) Abbreviations - AA = average annual; lbs/day/kcf = pounds per day per thousand cubic feet; MG = million gallons; MM = maximum month.

Section 6

BLOWERS

6.1 Existing Facilities

The existing aeration blower system consists of three, centrifugal blowers manufactured by Hibon. The blowers capacities are as follows: Blower 1 is 75 horsepower (hp) rated for 750 scfm at 8.2 pounds per square inch, gauge (psig), at Blower 2 and Blower 3 are 150 hp blowers rated for 2200 scfm at 8.2 psig each. There is an operational issue in starting Blower 1 when Blower 2 is in operation as the operating blower surges and shuts down. The rubber expansion joint of the header system to Blower 2 is also misaligned and leaking air.

6.2 Design Criteria

As noted in Section 5, the design average and peak air demand for the aeration basins is 1,980 scfm and 4,070 scfm, respectively. During plant start-up the average air demand could be less than half the design; therefore, the need for efficient turndown is important. While the existing blowers could be retrofitted with modulating inlet valves to vary airflow, this method of flow turndown is inefficient. In addition, with the addition of flow-control valves as part of the new aeration system, the existing blowers would be operating at a higher pressure than originally designed for and closer to their surge limit. Because of these reasons and considering the age of the existing equipment, it is recommended to move to a different blower technology.

Single-stage centrifugal blowers are an option that provides high efficiency without the use of a VFD, which the City prefers to avoid if possible. The City has positive experience with single stage integrally-gearred blowers at both the South Austin Regional (SAR) Wastewater Treatment Plant and the Walnut Creek Wastewater Treatment Plant. To provide a wide range of airflow turndown while maintaining efficiency, the single-stage blowers can be equipped with inlet guide vanes and outlet diffusers, as are the blowers at the SAR Wastewater Treatment Plant.

Because of the City's familiarity with this type of blower, the wide turndown range and the blower's efficiency without the need for a VFD, single-stage integrally-gearred blowers are recommended for the expansion of the Wild Horse Ranch WWTP.

6.3 Proposed Facilities

Presented below is a list of the blower equipment required for the plant expansion:

Table 8 Aeration Blowers

Aeration Blowers	
Type	Single-stage Integrally-gearred Centrifugal
Number	3
Capacity (each)	2050 scfm @ 9.0 psi
Horsepower (each)	150 Horsepower

The three new blowers will replace the three existing blowers. A discharge air header will be constructed to accommodate the new blowers and to facilitate a phased tie-in. A master blowoff silencer will be located so that it discharges outside of the blower room. The blowers will be controlled through a vendor-supplied master control panel, to modulate flow based on the air requirements in the aeration basins. The oxic zones in the aeration basins will be equipped dissolved oxygen sensors and the aeration header to each basin will be equipped with flow control valves.

Section 7

CHEMICAL POLISHING

7.1 Existing Facilities

The facility utilizes aluminum sulfate (Alum) to remove phosphorus from the wastewater after the aeration basins and prior to the secondary clarifier. The system consists of a 6,600 gallon storage tank and two LMI metering pumps to feed Alum to the application point.

7.2 Design Criteria

While the Aeration Basins will be configured for BNR, Alum will still be required for chemical polishing to ensure consistent phosphorus removal even during upsets in the BNR process. For this reason, the Alum feed system will be designed to be fully redundant to the BNR process and be capable of achieving the phosphorus removal in the case no enhanced biological phosphorus removal occurs.

Maximum Month Influent TP	7 mg/L
Daily Polishing Influent TP	3 mg/L
Maximum Month Flow	2.93 mgd
Effluent TP	0.25 mg/L
Maximum Alum Feed Rate	435 gpd (48 percent concentration)
Daily Polishing Alum Feed Rate	50 gpd (48 percent concentration)

7.3 Proposed Facilities

The chemical polishing system for the 2.25 mgd expansion will utilize the existing chemical storage tank, which has adequate storage for 15 days of storage at the maximum Alum feed rate. Alum will be fed at four locations in the plant. The primary feed points will be at the Aeration Basin effluent basins. An alternative feed point is the clarifier splitter box. The remaining feed points will be at each of the sludge holding tanks and will typically be used when recuperative thickening is occurring. Table 8 outlines the equipment required for the Alum feed system.

Table 9 Equipment Required for Alum Feed

Feed Point	No. Pumps
Aeration Basin Effluent Channel	2 duty + 1 standby
Sludge Holding Tanks	2 duty ¹

Note:

(1) Both metering pumps for the Sludge Holding Tanks will be configured to act as a backup for the other pump.

Section 8

SECONDARY CLARIFIERS

The existing secondary clarifier at the WWTP consists of a single 60-foot diameter circular center feed clarifier with 15.17 feet side water depth. The existing secondary clarifier has a floor slope of 1:12 and is equipped with a plow type/center hopper sludge collector mechanism with discrete scraper flights.

Additional clarifier units will be provided to accommodate the design average daily flow and peak 2-hour flow conditions for the plant expansion.

8.1 Design Criteria

8.1.1 Flow

Flow into the clarifier units will be via gravity from the flow split structure located at the Aeration Basins. The clarifier units will be designed to process a design average daily flow of 2.25 mgd and a peak 2-hour design flow of 9.0 mgd.

8.1.2 TCEQ Clarifier Requirements

The TCEQ requirements for secondary clarifier sizing using “Traditional Design Methods” include maximum hydraulic surface loading rates, minimum hydraulic retention time, and maximum hydraulic weir loading rates. These TCEQ design criteria are based on consideration of the design daily average or peak 2-hour influent flow rate only (return activated sludge flow is not included). The applicable secondary clarifier design criteria for the proposed expansion of the WWTP using a conventional activated sludge process with nitrification are summarized in Table 9.

Alternatively, TCEQ rules also allow sizing of final clarifiers using the “Volume Flux Design Method” in 30 TAC §217.154 in lieu of the “Traditional Method” design criteria. The two methods may not be combined or used interchangeably. The design of the secondary clarifiers for the WWTP expansion activated sludge process will conform to the TCEQ “Traditional Method” design criteria.

Table 10 TCEQ Minimum Design Criteria for Secondary/Final Clarifiers

TCEQ Rules and Design Parameters	Design Criteria
30 TAC §217.154.(c)(1) Maximum Surface Overflow Rate at 2-hour Peak Flow (gal/day/ft ²)	1,200
30 TAC §217.154.(c)(1) Minimum Hydraulic Retention Time at 2-hour Peak Flow (hrs)	1.8
30 TAC §217.152.(d)(5) Maximum Hydraulic Weir Loading Rate at 2-hour Peak Flow (gal/day/ft)	30,000 ⁽¹⁾

Notes:

- (1) Maximum Hydraulic Weir Loading Rate of 30,000 gpd/ft of weir length applies for wastewater treatment plants rated for 1.0 mgd ADF or larger.
- (2) Abbreviations - gal/day/ft² = gallons per day per square foot; gal/day/ft = gallons per day per foot

8.1.3 Stilling Well

For circular center-feed secondary clarifiers, TCEQ rules in 30 TAC §217.152(a)(4) requires that the vertical flow velocity through the inlet stilling well at peak 2-hour flow must not exceed 0.15 fps.

8.1.3.1 Clarifier Freeboard

TCEQ rules in 30 TAC §217.153(b)(2) state that a clarifier must have a minimum freeboard of 12 inches at the peak 2-hour flow.

8.1.4 Proposed Facilities

Based on the TCEQ criteria, design calculations were performed to determine the quantity and dimensions of secondary clarifiers required for treatment of the expansion design average daily and peak 2-hour flows. Design calculations assume single-weir inboard type launders similar to the existing clarifier configuration, with 2-foot launder width and 8-inch launder wall thickness.

8.1.5 Structure

The proposed clarifier structure is shown in Drawings 40M01 through 40M03. Presented below in Table 10 is the proposed secondary clarifier sizing and design parameters for proposed design flow rates. The number of clarifier units includes the existing unit.

Table 11 Proposed Secondary Clarifiers – Design Basis

Parameter	Units	Proposed Design	TCEQ Criteria
Average Daily Flow	mgd	2.25	-
Peak 2-hour Flow	mgd	9.0	-
No. of Clarifier Units	-	3	-
Basin Diameter	ft	60	-
Side Water Depth	ft	15.17	> 10
Weir Plate Diameter	ft	54.67	-
Peak 2-hour Flow Hydraulic Surface Overflow Rate	gpd/ft ²	1,061	< 1,200
Peak 2-hour Flow Hydraulic Retention Time	hours	2.6	> 1.8
Peak 2-hour Flow Hydraulic Weir Loading	gpd/ft	17,468	< 30,000

8.1.6 Clarifier Mechanism

Similar to the existing mechanism, scraper-type sludge collector mechanisms are proposed, with center-hopper withdrawal of the sludge underflow. Sludge removal will be achieved using spiral-flight scrapers in the proposed clarifiers. The existing clarifier will be retrofitted to include the spiral-flight scraper.

The secondary clarifier will also include an energy dissipating inlet well, a feedwell, Stamford baffles, and a single scum sweep.

A six-foot diameter by two and a half-foot deep energy dissipating inlet well with multiple inlets is proposed for the secondary clarifiers.

A sixteen-foot diameter by five-foot deep feedwell is proposed for the secondary clarifiers. A feedwell design extending through the water surface is recommended, equipped with outlet ports to allow scum passage.

Circular wall-mounted FRP Stamford baffles are proposed for the secondary clarifiers.

A single scum sweep is proposed, with a continuous scum baffle located inside the effluent weirs, and a single perimeter scum collection box, for withdrawal of scum from the secondary clarifier. Spray nozzles will be provided along the length of the secondary clarifier walkway bridge installed at a 45 degree angle to the water surface and toward the perimeter of the secondary clarifier, to assist in moving scum through the secondary clarifier toward the scum collection box.

It was requested by COA staff that the secondary clarifiers for the expansion be provided in 304 stainless steel.

8.1.7 Scum Collection and Pumping

The projected scum flow rate from each secondary clarifier may be low, depending on whether flush water is used at the secondary clarifier perimeter scum box, and if so on the quantity of flush water. Assuming approximately 10 gallons of scum and flush water delivered at each pass of a scum sweep arm over the scum box, and assuming the secondary clarifier sludge collector travels at approximately 20 feet per minute tip speed, a 60-foot diameter secondary clarifier with one scum box and dual scum sweep arms could produce a scum flow rate of approximately 2.1 gpm per secondary clarifier.

Based on review of various pump types during preliminary engineering and further evaluation during the basis of design, it is proposed that screw centrifugal pumps with pre-rotation basins be provided in the submersible/immersible configuration. Based on operating points, the flow rate produced by the smallest available screw centrifugal would significantly exceed the anticipated scum flow rate, resulting in long pump cycle times. In order to minimize scum accumulation in the wet well and maximize scum throughput during scum pumping cycles, high intensity surface spray in the wet well during scum pumping cycles will be provided.

Approximately 32 gpm of spray water is needed at each scum pump station. Additionally, the pre-rotation basin introduces the capability of pumping the wet well down completely which enhances scum collection and wet well maintenance.

A duplex scum pump station using two submersible/immersible screw centrifugal is recommended to convey scum and spray water from the scum pump station wet well to the Sludge Holding Tank. The duplex configuration would alternate one active pump with a redundant standby unit. Each proposed scum pump will be rated for 235 gpm at 25 feet of head.

8.1.8 Scum Collection Structure

The proposed scum pump station structure is shown in Drawing 40M01. Two scum pump station wet wells will be provided. The first scum pump station (Scum PS 1) wet well will be located between the existing secondary clarifier and the center secondary clarifier. The second scum pump station (Scum PS 2) wet well will be located near the third secondary clarifier. Scum PS 1 will handle collected scum from two clarifiers, while Scum PS 2 will handle scum from one clarifier.

A proposed concrete wet well is required, with sufficient volume to contain the working volume required for one pump, with a maximum water level below the inlet elevation of scum flow from the clarifiers. The proposed sizing will be five-foot wide by five-foot long and approximately eight-feet deep. With the design working volume, pumps in both pump stations will have a run time of approximately two minutes. The pump cycle time at Scum PS 1 is approximately 85 minutes and Scum PS 2 is approximately 168 minutes.

Section 9

RAS AND WAS PUMP STATIONS

The existing RAS/ WAS pump station at the WWTP will be incorporated into a new RAS pump station and new WAS pump station proposed to accommodate the design average daily flow and peak 2-hour flow conditions for the plant expansion to 2.25 mgd and 9.0 mgd respectively.

The proposed RAS pump station system will consist of dedicated RAS pumps for each clarifier. The proposed WAS pump station will consist of WAS pumps that will waste off of the RAS splitter box.

9.1 Design Criteria

9.1.1 RAS Flow Rate

Per the TCEQ Chapter 217.152(j), RAS pumps must be capable of pumping at least 200 gallons per day per square foot (gpd/sf) but not more than 400 gpd/sf, where square footage refers to clarifier surface area. For the WWTP, this equates to approximately 75 percent to 150 percent of the average daily flow.

According to a process model created for the proposed BNR process, the WWTP may operate RAS at a flow rate of 40 to 100 percent of the future average daily flow of 2.25 mgd. To cover the range proposed by the process model but also remain compliant with regulatory requirements, the RAS pumps will be designed to cover 75 percent to 120 percent of average daily forward flow per train with one pump out of service.

To accommodate this range, the RAS pumps will need to be provided with the ability to adjust the pumped flow. There are multiple variable speed alternatives, however, COA staff has expressed a reluctance to use a VFD so an alternative of permanent magnet adjustable speed drive (ASD) is provided.

9.1.2 WAS Flow Rate

Per the TCEQ Chapter 217.158(e)(2), sludge piping systems must accommodate a minimum velocity of 2.0 feet per second at the maximum wasting rate. Additionally, sludge piping must have a minimum diameter of 4-inches.

Per the BNR process model, a WAS flow rate of up to 110 gpm will be required for the 2.25 mgd expansion. The WAS system will be sized to convey 110 gpm while maintaining a minimum pipeline velocity of 2 feet per second. For the WAS pumps, the pumps will be constant speed and run with timers.

9.1.3 Redundancy

Each pumping system will be provided with a standby unit.

9.2 Proposed Facilities

The existing RAS pump station will continue to serve the existing clarifier with the existing one duty pump and one standby pump arrangement.

The proposed RAS pump station will serve the two new clarifiers with two duty pumps and one standby pump arrangement.

The proposed WAS pump station will be located adjacent to the proposed RAS splitter box with one duty pump and one standby pump arrangement.

9.2.1 RAS Pump Station Structure

The proposed RAS Pump Station is proposed to be a slab on grade structure. A canopy will be provided for protection of the pumps. This will be located near the existing RAS/WAS pump station.

A canopy will also be provided for the existing RAS/WAS pump station.

9.2.2 RAS Pumps

Based on the review of the various pump types during preliminary engineering, it is proposed to use self-priming centrifugal pumps which match the existing pump station arrangement.

For the proposed RAS pump station, each RAS pump will be rated for 625 gpm at 14 feet of total dynamic head (TDH) at this preliminary stage. The required pump discharge may need to be revised depending on final discharge location and elevation. RAS pumps will be equipped with a magnet ASD based on current system conditions. This will be adjusted as the design progresses and discharge conditions are finalized in order to meet the entire flow range as discussed earlier.

Modifications to the existing RAS pumps will be required to cover the entire flow range. It is our understanding that an additional smaller RAS pump is in the process of being installed as part of the Indefinite Delivery Indefinite Quantity (IDIQ) project to serve current operations. Additional investigation will be required to determine if the smaller pump can continue to be used.

Plug valves on the suction header will be used to dedicate one pump per clarifier.

9.2.3 WAS Pump Station Structure

The WAS Pump Station is also proposed to be a slab on grade structure. A canopy will be provided for protection of the WAS pumps. This will be located in the vicinity of the RAS splitter box.

9.2.4 WAS Pumps

Positive displacement rotary lobe pumps were chosen as the recommended pump option for the WAS pumping system.

Two pumps are proposed in the duty/standby arrangement. Each WAS pump will be rated for 110 gpm at 15 feet of TDH based on current system conditions. This will be adjusted as the design progresses and discharge conditions are finalized in order to meet the design criteria. The WAS pumps will be constant speed and run on timers.

It is understood that two rotary lobe WAS pumps are in the process of being installed in the existing RAS/WAS pump station as part of the IDIQ project. Additional investigation will be required to determine if the WAS pumps can be relocated and used at the proposed WAS pump station or if new pumps will need to be provided.

Section 10

FILTRATION

10.1 Existing Facilities

The WWTP currently utilizes two Infilco Automatic Backwash Filters to remove suspended solids upstream of the UV system. The filter structure was constructed over 15 years ago, and is in very poor condition. The influent flow splits unevenly, the filters have lost a significant amount of media, and the structure itself shows significant differential settlement. Due to the condition of the existing structure, the filter basins can neither be restored or retrofit with another automatic backwash system cost effectively. New filters will be required.

COA owns two 12-disk AquaDisk® units previously used as a temporary installation during construction of new filters at SAR Wastewater Treatment Plant. These 12-disk units would provide a total capacity of 12 mgd, and could be equipped with new filter cloth and controls.

10.2 Design Criteria

Each AquaDisk® filter has a capacity of 6 mgd for a total capacity of 12 mgd. The rated capacity of the filters is based on a maximum flow rate of 6.5 gpm per square foot, which is equal to the TCEQ maximum loading rate allowed for cloth media filters.

While Carollo is confident the two filters will be sufficient to provide the filtration capacity required until the facility is expanded beyond 2.25 mgd, TCEQ requires that a treatment facility using filtration to comply with a permit requirement must have enough filtration capacity to treat the peak flow with a filter unit out of service. Therefore the filter structure is designed to accommodate a third 12-disk filter unit.

10.3 Proposed Facilities

The proposed layout of the filters is shown in Drawings 50M01 through 50M04.

Section 11

DISINFECTION FACILITIES

When the WWTP was constructed over 15 years ago, it was the first AW plant to use UV for disinfection. The UV system was designed to treat 0.75 mgd average and a peak flow of 3.0 mgd. The system consists of a single 24.5-inch wide channel containing three Aquaray® 40 HO (high output) modules built by Ozonia. Plans for future expansion called for an additional three modules to be added for a total treatment capacity of 1.5 mgd.

11.1 Design Criteria

Expanding the plant to treat an average annual daily flow of 2.25 mgd will require the replacement of the three existing UV modules with new low pressure, HO UV lamps and the addition of two more UV modules in the existing channel. Installing 5 UV modules will generate up to 9-inches of hydraulic head loss during peak flows of 9 mgd. Based on the hydraulic profile shown previously, the first two modules will be required to be staggered in elevation in order to accommodate the 500 year flood condition at 9 mgd flows.

11.2 Proposed Facilities

See Drawings 50M01 through 50M04 for a plan and sections of the UV modules. Presented below is a list of the new UV equipment:

UV Disinfection:

Type	In-channel Ultraviolet
Disinfection standard	120 E. Coli/100 mL (average) 374 E. Coli/100 mL (max grab)
Number of Channels:	1
Design Firm Capacity:	9 mgd
Banks (per channel):	4 (3 duty, 1 standby)
Number of Lamps (per Bank):	12
Design Transmittance:	65 percent
Design UV Dose (T1):	17 millijoules per cubic centimeter

Section 12

SOLIDS HANDLING

12.1 Existing Facilities

The original plant design provided for storage of the sludge and transporting to Walnut Creek WWTP for treatment. The existing sludge holding tank has a capacity of 51,400 gallons. Plant staff has indicated that this capacity is too small at even the current plant flows. The only method available for thickening the sludge is by allowing solids to settle and decanting from the top with a drop-in pump. Because of the limited storage capacity and poor thickening options, at least 8 truckloads of sludge are hauled from the plant each week.

12.2 Design Criteria

The design approach for the plant expansion is to provide a means of thickening the sludge to at least 2.0 percent solids and to provide additional storage capacity with a second tank.

Shown below are the design criteria for the solids handling facilities for the first phase expansion.

MM WAS Load: 4,300 lbs/day.

WAS Flow: 65,000 gpd at 0.8 percent solids.

Air Requirement: 30 scfm/1,000 cubic feet.

12.3 Proposed Facilities

The expanded facility will incorporate two-stage solids storage. Dilute WAS will be pumped to Sludge Holding Tank No. 1 prior to thickening. This tank provides approximately 1.5 days of storage during max month. WAS is then pumped to the thickening facility using rotary lobe pumps (1 duty, 1 standby) before thickened WAS is stored in Sludge Holding Tank No. 2.

WAS thickening will be achieved with the use of a volute thickener that was used at the Walnut Creek WWTP and will be transferred to the Wild Horse WWTP. This mechanism uses a dewatering drum consisting of a series of fixed and moving rings separated by spacers that form a cylinder around a screw. As sludge is conveyed through the screw, water is released through the gaps between the rings. Polymer is added to a conditioning tank at the front of the volute thickener skid. Water (filtrate) separated from the sludge is conveyed to the drain pump station, which is then pumped back to the Headworks.

Thickened sludge is then pumped to Sludge Holding tank No. 2, using a progressing cavity pump adjacent to the volute thickener and stored before it is hauled off via tanker truck. The thickened WAS is taken to the Hornsby Bend Biosolids Management Plant for disposal.

Both sludge holding tanks will be mixed and aerated using fine-bubble membrane disk diffusers. One duty positive displacement blower is provided for each tank, with a common standby unit.

Drawings 70M01 through 75M03 provide plans and sections for the Sludge holding tanks, thickening facility and drain pump station.

Presented below is a list of the equipment required for the thickening operation:

Dilute WAS Holding Tank

Number of Tanks:	1
Diameter:	35 ft
Volume (each tank):	100,700 gallons
Side Water Depth:	14 ft

Thickened WAS Holding Tank

Number of Tanks:	1
Diameter:	25 ft
Volume (each tank):	51,400 gallons
Side Water Depth:	14 ft
Target Solids Concentration:	3%

Holding Tank Blowers

Type:	Positive Displacement, Tri-Lobe
Number:	3 (2 duty, 1 standby)
Capacity (each):	1 at 206 scfm (existing tank) 2 at 443 scfm (new tank plus standby)
Horsepower (each):	15, 30

Thickener Unit

Type:	Volute Thickener
Number:	1
Capacity (each):	3,000 lb/ hr
Horsepower (each):	7.5

Drain Pumps

Type:	Submersible
Number:	1 +1
Capacity (each):	500 gpm
Horsepower (each):	15

Polymer

Chemical Totes:	2
Stored Capacity:	660 gallons

Polymer Feed Pumps

Type:	Progressing Cavity
Number:	2
Capacity (each):	1-300 gallons per hour
Dose Rate:	10 lbs per dry ton
Horsepower (each):	0.5 hp

Thickener Feed Pump

Type:	Rotary Lobe
Number:	2
Capacity (each):	400 gpm
Horsepower (each):	7.5

Thickened WAS Pump

Type:	Progressing cavity
Number:	1
Capacity (each):	60 gpm
Horsepower (each):	5

Section 13

ADMINISTRATION BUILDING

The Administration Building at the WWTP is a 3,000 square foot structure that is roughly 50 feet wide by 64 feet long. The building has an eave height of 18 feet and peaks at the center of the 50 feet dimension. The floor plan for the Administration Building can be viewed in Figure 3.

The administration building's function will change in the future to become the dewatering facility and is intended to be the size necessary for this upgrade. At this time the administrative functions will be relocated to another location. As this is the case this building will have a heavy-duty slab designed to accommodate the large equipment and trucks that will be installed or used for the dewatering function. The building frame will have a minimum clear height of 18 feet. The building envelope will meet the needs of the future dewatering facility. The administration building's requirements will be met separately from the future dewatering functions, thus the administration portion of the building will have an independent building envelope from the superstructure.

In this way, the building can meet the current needs of the necessary admin functions, and in the future, be easily modified by having the admin portion removed. Any space within the structure when it serves its admin functions can be used for storage, covered workspace, or whatever the owner sees necessary.

The building materials are in flux. While a metal building is acceptable and is being considered, research is being done on a structural insulated panel type of product called Novidesa that offers a complete building envelope within one product.

The administration function will be served by a 1,556 square foot space within the structure. This space contains a conference area, three offices, a UV panel room, supervisory control and data acquisition (SCADA) control and server room, two restroom/shower rooms and a break room.

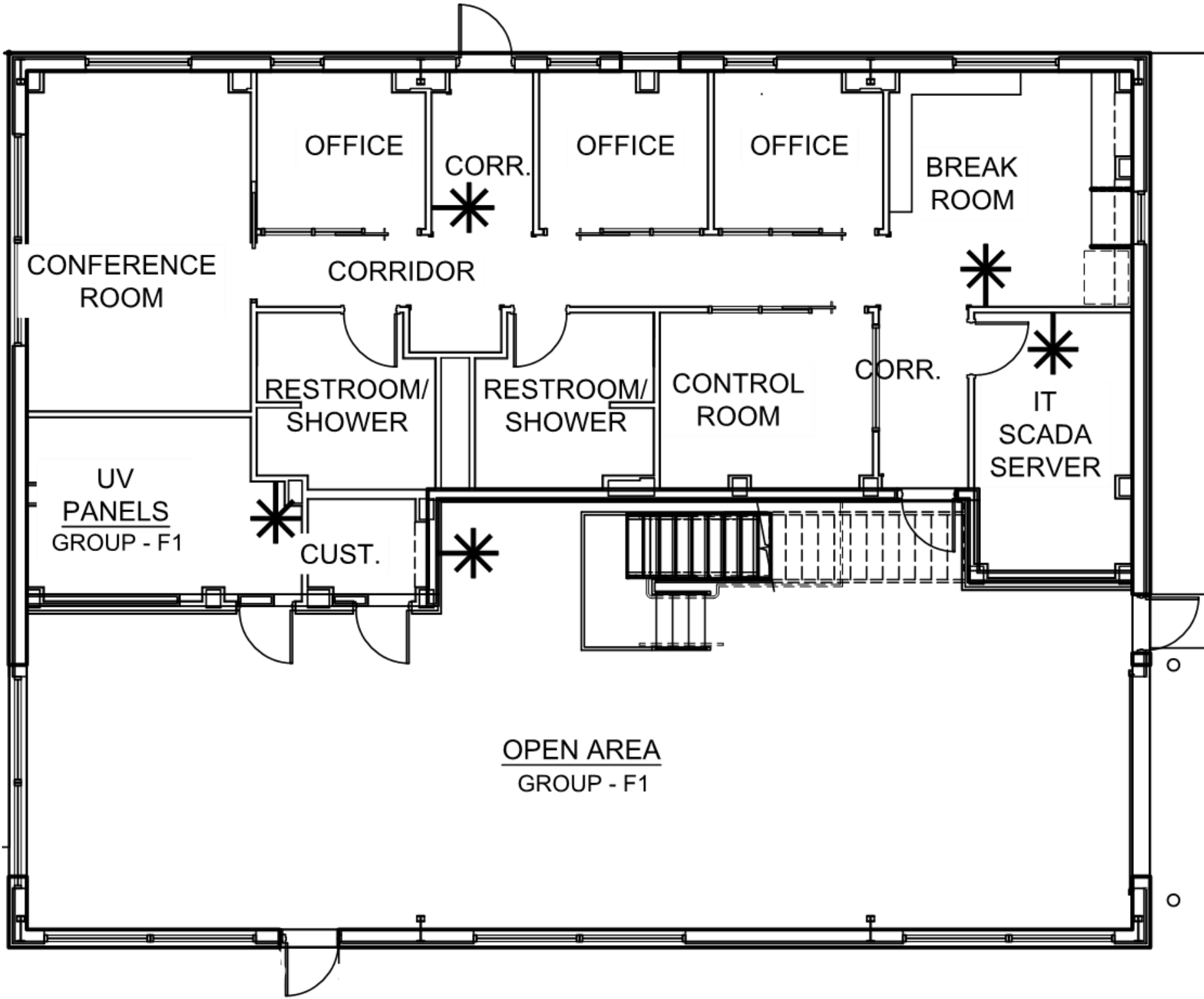


Figure 3 Administration Building - Floor Plan

Section 14

PLANT ELECTRICAL SYSTEM

14.1 Electrical System

The existing electrical distribution system is a secondary selective system originating from a 480 voltage alternating current (VAC), 1600 amperes (A) motor control center (MCC) line-up with a main-tie-main configuration, located in the existing Operations Building. This MCC is served by from two 1500 kilo-volt-ampere (kVA) Bluebonnet Electric Cooperative (BEC) pad mount service transformers. However, both transformers are served from the same BEC circuit originating from the BEC Shadow Glen Substation. The main-tie-main MCC serves an automatic transfer switch (ATS) and 480 volt (V) power distribution panel. There are two 208/120V dry type transformers, one dedicated to control power and the other serving lights and auxiliary power needs. Power is distributed throughout the site by means of a network of underground electrical duct banks. At each process area, the underground electrical system transitions to an above ground exposed raceway system for connection to equipment and devices.

The age of the existing electrical distribution equipment is approximately 13 years, and the equipment has been well maintained and is in good condition. The electrical distribution system was initially designed to accommodate the plant expansion from .75 to 1.5 mgd. As the proposed process/mechanical system is designed for 2.25 mgd and incorporates the addition of a Headworks facility while also significantly increasing the electrical load at the existing lift station, the existing electrical distribution system is not adequate.

The existing electrical system will remain in use and serve the additional loads associated with the proposed secondary clarifiers, expanded RAS/WAS pump station, and the new filter/disinfection systems. The existing Lift Station pumps will be removed from the existing electrical distribution system. A second BEC circuit originating from the BEC Harris Branch Substation will be routed to the Plant and connected to the existing pad mount service transformers to provide dual feed to the existing electrical distribution system.

A proposed electrical distribution system will be constructed to serve plant North areas including the renovated Lift Station, the renovated Aeration Basins, the renovated Sludge Handling Area, and the proposed Headworks/Odor Control facilities.

Two new structures will be constructed for the electrical distribution system. One will be a stand-alone building titled the "Electrical Power Service Station No. 1" (ESS1), refer to other sections of this memorandum for location and size. There will also be electrical equipment within the Headworks/Odor Control facilities and a proposed electrical room in the Sludge Handling facility for those localized loads.

The new electrical distribution architecture will also be a secondary selective system. This system configuration provides the capability of maintaining service to the plant even if one service transformer should fail and facilitates maintenance of electrical equipment. The main electrical gear will be located in ESS1 and will consist of two 480VAC switchboard line-ups with each having bus capacity of 2000A commensurate with the increased process load proposed. Each switchboard line-up will have a main circuit breaker and tie circuit breaker capable of serving the design load of the entirety of the plant North renovations. The distribution equipment will be served by two BEC pad mount transformers. The transformers will receive service from the two BEC circuits entering the plant.

The new switchboards will have branch circuit breakers to serve non-motor type loads and manufacturer packaged process systems. Each switchboard will also house a branch circuit breaker that will feed an associative MCC line-up to serve the Lift Station and Aeration Basin loads that require motor starters. The MCC line-ups will each be main lug only type and will have bus capacity of 800A. Motor starting devices associated with manufacturer packaged process systems such as motor operated valves will be located inside manufacturer provided local control panels/cabinets/compartments at the process equipment.

A branch circuit breaker in each switchboard will serve an ATS that will serve a 480VAC power distribution panel (PDP). The ATS and PDP will each be rated 400A.

The PDP will provide power to equipment critical to maintaining environmental control inside ESS1 to protect the power monitoring devices, PLCs and other microprocessor based devices that are sensitive to heat, humidity, and corrosive gases. The PDP will also serve dry type transformers that will feed 208/120VAC panel boards. The panel boards will serve controls and SCADA equipment as well as lighting and auxiliary power systems.

A branch circuit breaker in each switchboard will also serve a main-tie-tie-main configured MCC line-up within the proposed Headworks/Odor Control facilities. The MCCs will have a bus capacity of 600A and serve both motor and non-motor type loads in the facility. Each MCC line-up will have a main circuit breaker and tie circuit breaker capable of serving the design load of the entire facility.

A branch circuit breaker in each MCC will serve an ATS that will serve a 480VAC PDP. The ATS and PDP will each be rated 400A.

The PDP will provide power to equipment critical to maintaining environmental control inside the Headworks/Odor Control facilities to protect the power monitoring devices, PLCs and other microprocessor based devices that are sensitive to heat, humidity, and corrosive gases. The PDP will also serve dry type transformers that will feed 208/120VAC panel boards. The panel boards will serve controls and SCADA equipment as well as lighting and auxiliary power systems.

The electrical equipment located at the Headworks/Odor Control Facilities will be rated for outdoor use with stainless steel enclosures to endure the corrosive environment. It is anticipated that this equipment will be demolished with the Headworks/Odor Control Facilities during the future plant expansions.

A branch circuit breaker in each switchboard will also serve a main-tie-tie-main configured MCC line-up the proposed Sludge Handling facility. The MCCs will have a minimum bus capacity of 600A and serve both motor and non-motor type loads in the facility. Each MCC line-up will have

a main circuit breaker and tie circuit breaker capable of serving the design load of the entire facility.

A branch circuit breaker in each MCC will serve an ATS that will serve a 480VAC PDP. The ATS and PDP will each be rated 400A.

The PDP will provide power to equipment critical to maintaining environmental control inside the Sludge Handling Facility Electrical Room to protect the power monitoring devices, PLCs and other microprocessor based devices that are sensitive to heat, humidity, and corrosive gases. The PDP will also serve dry type transformers that will feed 208/120VAC panel boards. The panel boards will serve controls and SCADA equipment as well as lighting and auxiliary power systems.

Alternatively, the process equipment located in the Sludge Handling facility could be served from the power distribution equipment and monitored/controlled from the Main Control Panels (MCP) within the ESS1. This alternative would increase the size of the ESS1 building commensurately to the size of the proposed electrical room in the Sludge Handling facility and significantly increase the quantity of conduit/wire within the ductbanks routed between the two areas.

Building exterior lighting and any other outdoor lighting will be controlled through photovoltaic sensors and manual switches. Indoor lighting will be controlled using manual switches. Lighting contactor control panels will be incorporated to minimize switching devices. All lighting fixtures will be light emitting diode type, suitable for the environment. Due to the corrosive nature of the environment at the plant, receptacles in outdoor areas and indoors in areas that are not climate controlled will be pin and sleeve type receptacles. Twenty-five feet long extension cords will be furnished having a pin and sleeve male plug at one end and standard NEMA 5-20 female cord receptacle at the other. Receptacles located indoors in climate controlled areas will be NEMA 5-20 duplex receptacles. Ground fault protection for receptacles will be provided where required by the National Electrical Code, local Ordinances, and the Authority Having Jurisdiction.

Power will be distributed throughout the site by means of a network of new underground electrical duct banks. Underground duct banks will consist of PVC conduits encased in steel reinforced concrete. Where necessary for wiring installation and compliance with raceway bending allowances, manholes/hand holes will be installed in the underground system. At each process area, the underground electrical duct bank system will transition to an above ground exposed raceway system of aluminum rigid conduit for connection to equipment and devices. Support material for conduit, equipment and devices will be of 316 stainless steel material. Power wiring will be XHHW-2 insulated copper conductors. Where applicable, the existing underground raceway spare capacity designed for the 1.5 mgd expansion will be used.

14.2 Instrumentation and Control System

The control logic for the existing plant process/mechanical equipment is implemented using discrete hardwired control relays and devices contained within the Operations building main control panel and local packaged control panels for the Barscreens, Process Air Blowers, Clarifier, Motorized Valves, Filters, UV Disinfection System, and Chemical Feeder System. The packaged control panels are located near their respective equipment. Field instruments are installed at

specific locations within the system to provide measurement used for monitoring and control of the process equipment.

A Schneider Electric Modicon series programmable logic controller (PLC) is housed inside the Operations Main Control Panel. The PLC provides remote monitoring capability for the plant. The PLC communicates with the Telemetry System at the Walnut Creek Wastewater Treatment Plant via a single telephone dial-up voice grade type telemetry system.

The age of the existing instrumentation and controls (I&C) equipment is approximately 13 years and is in good working condition. There is currently spare capacity on the existing PLC input/output (I/O) remote racks to accommodate the expansion of the plant to 1.5 mgd. With the additional modifications to the process/mechanical systems, additional modifications to the PLC I/O architecture may be required. Further development of the process/mechanical system will be required to determine the extent of the modifications to the existing I&C system.

For the proposed Headworks/Odor Control facilities, Sludge Handling facility, and proposed process/mechanical changes at the Lift Station and Aeration Basin, additional Control Panels will be used for localized control. It is proposed to have a MCP located within the proposed ESS1 building, proposed electrical room in the Sludge Handling Area, as well as within the new Headworks/Odor Control facilities. A dual channel communication network using single-mode fiber optic cable media will connect the proposed system to the existing SCADA system in the Operations building. Minimal modifications to the existing Main Control Panel will be required to execute the overall proposed network architecture, namely the addition of fiber patch panels, and Ethernet switch, and communications card on the existing CPU rack.

The MCP in ESS1 will house a PLC system dedicated to serve the lift station and aeration basins, the MCP in the electrical room of the Sludge Handling facilities will house a PLC will be dedicated for that area, and the MCP in the Headworks/Odor Control facilities will be dedicated for that area. The MCP in the Headworks/Odor Control facilities will be rated for outdoor use, have a stainless steel enclosure and be equipped with an air conditioning unit. AW has standardized on the Modicon family of PLCs, with the general selection as follows: M340 series, or M580 series. The specific Modicon PLC family selected for use on this project will be made based upon cost effectiveness, spatial constraints, and performance requirements. Final PLC selection will be reviewed and finalized with AW during the course of the design phase. The PLC will allow for the remote monitoring and control of the plant. Should the PLC fail, the process equipment may be operated manually in LOCAL mode from local field control stations or equipment manufacturer packaged local control panels.

In addition to the above PLC, a dedicated Operator Workstation personal computer (PC) will be installed in the environmentally controlled ESS1 to serve as a means for local monitoring and control. The Operator Workstation PC provides detail overview of process variables (such as flow and level), process equipment status, and detailed alarms so that the operations staff may be aware of conditions such as shutdowns that disallow equipment start. The Operator Workstation PC also serves to aid in maintenance and troubleshooting. A dual channel communication network using single-mode fiber optic cable media will connect the Operator Workstation PC with the proposed SCADA system in ESS1.

A Plant SCADA control room and SCADA server will be established within the proposed Administration Building located west of the existing Operations Building. The control room will house computer stations for the Plant SCADA system and data communication/networking equipment needed for monitoring and control of the WWTP. The proposed control room is also to house a modern multi-monitor display, as well as proposed furniture to meet the Plant's operational needs.

Instrumentation will be installed to provide monitoring of the plants proposed process/mechanical equipment. Field instrument signals may be connected directly to the PLC or the data monitored by an instrument may be telemetered to the PLC by means of a communication link between the PLC and a manufacturer packaged local control panel. All outdoor located instrumentation shall be protected by sun shields. Instruments types will include temperature, flow, pressure, level, etc. as required by the process/mechanical and will be determined during further design.

I&C system wiring will be distributed throughout the site by means of a network of underground I&C duct banks. Underground duct banks will consist of PVC conduits encased in steel reinforced concrete. Where necessary for wiring installation and compliance with raceway bending allowances, manholes/hand holes will be installed in the underground system. Wherever possible, the I&C duct banks will be combined with the electrical duct banks described above in the Electrical System Section. At each process area, the underground I&C duct bank system will transition to an above ground exposed raceway system of aluminum rigid conduit for connection to equipment and devices. Support material for conduit, equipment and devices will be of 316 stainless steel material. Field control wiring will be XHHW-2 insulated copper conductors. Instrumentation wiring will be PVC insulated, shielded, twisted pair or triad copper conductors with tinned copper drain wire. Where applicable, the existing underground raceway spare capacity designed for the 1.5 mgd expansion will be used.

Section 15

PLANT WATER SYSTEM

Two submersible turbine pumps each located in a 12-inch diameter pipe provide plant water. Each pump has a capacity of 110 gpm at 80 pounds per square inch (psi). They are located at the end of the UV channel, pulling suction from the UV effluent channel.

The proposed plant water system will be upgraded to increase the quantity of water required for the existing and new equipment. Because the spray nozzles for the rotary drum thickeners (RDTs) require particle-free water, an automatic backwash screen will be provided to remove particles that would plug the spray nozzles.

15.1 Design Criteria

The required capacity of the plant water pump station is dependent on the water needs of the plant. This includes headworks equipment, clarifier spray bars, RDT washwater and hose stations throughout the plant. The estimated average continuous flow will be 100 gpm, with a maximum demand of approximately 300 gpm.

Plant staff has requested that wet well storage be provided instead of the pump suction pulling directly off the UV effluent channel and that the pump motors be accessible from grade. In addition, it is COA's preference to avoid variable frequency drives wherever possible. For these reasons, the design will be based on a recirculated flow system using vertical turbine pumps installed over a circular wet well. As is done at the City's Walnut Creek Wastewater Treatment Plant, a pressure sustaining recirculation valve will be used to recirculate any un-distributed flow back to the wet well.

15.2 Proposed Facilities

Drawing 65M01 shows the modified plan for the Plant Water Pump Station.

Presented below is a list of the equipment required for the plant water system:

Plant Water Pumps

Type:	Vertical Turbine
Number:	3 (1 duty, 1 standby)
Capacity (each):	150 gpm
Horsepower:	15 hp
Discharge Pressure:	90 psi

Wet Well

Type:	Precast Wet Well
Diameter:	10 ft
Operating Depth:	5 ft
Total Depth:	10 ft
Useable Volume:	3,000 gallons (approx.)

Appendix A

DESIGN DRAWINGS (APPLICABLE DRAWINGS FROM BID SET)

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CIP PROJECT NO. 7265.004 IFB NO. TBD WILD HORSE RANCH WWTP EXPANSION

VOLUME 1 OF 2

BID SET

JUNE 2022

MAYOR

STEVE ADLER

COUNCIL MEMBERS

MAYOR PRO TEM - DELIA GARZA

DISTRICT 1 - NATASHA HARPER-MADISON
DISTRICT 2 - VANESSA FUENTES
DISTRICT 3 - SABINO RENTERIA
DISTRICT 4 - JOSE VELA
DISTRICT 5 - ANN KITCHEN

DISTRICT 6 - MACKENZIE KELLY
DISTRICT 7 - LESLIE POOL
DISTRICT 8 - PAIGE ELLIS
DISTRICT 9 - KATHIE TOVO
DISTRICT 10 - ALISON ALTER

CITY MANAGER

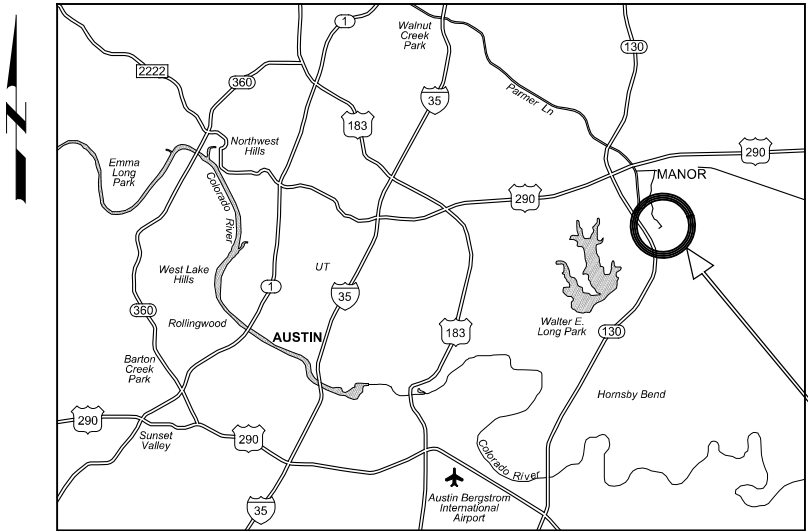
SPENCER CRONK

AUSTIN WATER DIRECTOR

GREG MESZAROS

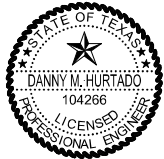
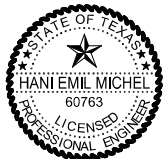
CONTACTS:

JOHN WEPRYK, P.E.
PUBLIC WORKS DEPARTMENT
PROJECT MANAGEMENT DIVISION
505 BARTON SPRINGS RD. SUITE: 900
AUSTIN, TEXAS 78704



VICINITY MAP
NO SCALE

PROJECT LOCATION:
10621 BLUE BLUFF RD.
MANOR, TEXAS 78653



SUBMITTED FOR APPROVAL BY:

Hani E. Michel

HANI EMIL MICHEL, P.E.
VICE PRESIDENT
CAROLLO ENGINEERS, INC.

DATE

Danny M. Hurtado

DANNY M. HURTADO, P.E.
PROJECT MANAGER
CAROLLO ENGINEERS, INC.

DATE

REVIEWED BY:

JOANETTE AIRO
PROJECT SPONSOR
AUSTIN WATER
FACILITY ENGINEERING DIVISION

DATE

JOHN WEPRYK, P.E.
PUBLIC WORKS DEPARTMENT
PROJECT MANAGEMENT DIVISION

DATE

APPROVAL FOR SITE DEVELOPMENT PERMIT:

PLANNING AND DEVELOPMENT
REVIEW DEPARTMENT

DATE

DEVELOPMENT PERMIT NUMBER

ANNUAL SITE DEVELOPMENT PERMIT NO.

SUBMITTAL DATE

TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT)

DATE

NOTES:

- CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT 24 HOURS PRIOR TO STARTING CONSTRUCTION OR CLEARING OPERATIONS.
- THIS PROJECT IS LOCATED WITHIN THE GILLELAND WATERSHED, WHICH IS CLASSIFIED AS A SUBURBAN WATER SUPPLY WATERSHED, AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
- NO PORTION OF THIS PROJECT IS LOCATED WITHIN PARKLAND OR LAND USED FOR PARK PURPOSES.
- THE SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN AND THE PROPOSED FACILITIES ARE NOT LOCATED WITHIN THE 100 YEAR FLOOD PLAIN AS SHOWN ON FEMA MAP NO. 48453C0480J, DATED AUGUST 18, 2014.
- THERE ARE NO CRITICAL ENVIRONMENTAL FEATURES WITHIN 150-FEET OF ANY PORTION OF THE PROJECT. A FIELD INVESTIGATION HAS NOT BEEN PERFORMED AS PART OF THIS PROJECT AND IS NOT REQUIRED. THIS SITE IS NOT LOCATED IN THE EDWARDS AQUIFIER ZONE, AS DEFINED BY THE CITY OF AUSTIN AND THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY.
- LEGAL DESCRIPTION: 20.00 AC WASTEWATER TREATMENT PLANT EASEMENT RECORDED IN DOCUMENT 200324928 O.P.R.T.C.Tx
- THIS PROJECT IS IN THE FULL PURPOSE JURISDICTION OF THE CITY OF AUSTIN.

NOTES CONT:

- INSTALLATION AND REMOVAL OF TEMPORARY AND PERMANENT EROSION/SEDIMENTATION CONTROLS MUST BE REFLECTED IN THE SCHEDULE BY STATION NUMBER.
- APPROPRIATE EASEMENTS/APPROVALS MUST BE SECURED AND DOCUMENTED FOR PROJECT AREAS LOCATED OUTSIDE OF RIGHT OF WAYS. NO WORK SHALL BE PERFORMED WITHIN THESE AREAS UNTIL ASSOCIATED RIGHT OF ENTRY HAS BEEN SECURED.
- CONTRACTOR SHALL STAKE ALL PROPOSED SERVICE CONNECTIONS LOCATED WITHIN THE CRITICAL ROOT ZONE OF TREES 8" IN CALIPER AND LARGER AT LEAST 21 CALENDAR DAYS PRIOR TO CONSTRUCTION OF SUCH SERVICES. STAKING SHALL CONSIST OF A LATH WITH NAIL AND PAINT MARKINGS. IN CASES WHERE A STAKE CANNOT BE PLACED WITHOUT DAMAGING PROPERTY, CONTRACTOR MAY USE PAINT ONLY. ONCE STAKING IS COMPLETED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM THE CITY OF AUSTIN'S CONSTRUCTION INSPECTOR WITHIN TWENTY-FOUR HOURS. THE CITY OF AUSTIN'S CONSTRUCTION INSPECTOR WILL THEN COORDINATE A FIELD REVIEW OF THE SERVICE LOCATIONS WITH THE PROPERTY OWNERS. SERVICE LINE LOCATIONS MAY BE ADJUSTED BASED ON THE REVIEW AND WILL BE RESTAKED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL SERVICE LINE STAKING SHALL BE MAINTAINED UNTIL THE SERVICE IS INSTALLED.
- THIS PROJECT IS IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA).



TBPELS No. F-882



CITY OF
AUSTIN

CITY OF AUSTIN

WILD HORSE RANCH WWTP EXPANSION

GENERAL

COVER SHEET

VERIFY SCALES

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ORIGINAL DRAWING
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SHEET NO.
1 OF 464

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SHEET NO. DRAWING NO. SHEET TITLE			SHEET NO. DRAWING NO. SHEET TITLE			SHEET NO. DRAWING NO. SHEET TITLE								
DEMOLITION (CONT)			ARCHITECTURAL (CONT)			STRUCTURAL (CONT)								
208	80DN10	AERATION BLOWER "OP-PAB-002" CONTROL WIRING SCHEMATICS - DEMOLITION - 2	291	85A02	SUBSTATION NO. 1 LEVEL ONE FLOOR PLAN	377	71S01	EXISTING SLUDGE HOLDING TANK 2 PLANS						
209	80DN11	AERATION BLOWER "OP-PAB-002" CONTROL WIRING SCHEMATICS - DEMOLITION - 3	292	85A03	SUBSTATION NO. 1 ROOF PLAN	378	72S01	PLANT DRAIN PUMP STATION PLANS						
210	80DN12	AERATION BLOWER "OP-PAB-003" CONTROL WIRING SCHEMATICS - DEMOLITION - 1	293	85A04	SUBSTATION NO. 1 EXTERIOR ELEVATIONS - NORTH & SOUTH	379	72S02	PLANT DRAIN PUMP STATION SECTIONS AND DETAILS						
211	80DN13	AERATION BLOWER "OP-PAB-003" CONTROL WIRING SCHEMATICS - DEMOLITION - 2	294	85A05	SUBSTATION NO. 1 EXTERIOR ELEVATIONS - EAST & WEST	380	75S01	THICKENING BUILDING FOUNDATION PLAN						
212	80DN14	AERATION BLOWER "OP-PAB-003" CONTROL WIRING SCHEMATICS - DEMOLITION - 3	295	85A06	SUBSTATION NO. 1 SECTIONS A & B	381	75S02	THICKENING BUILDING CANOPY FRAMING PLAN						
213	80DN15	EXHAUST FAN "OP-EF-002" CONTROL WIRING SCHEMATICS - DEMOLITION	296	85A07	SUBSTATION NO. 1 WALL SECTIONS	382	75S03	THICKENING BUILDING SECTIONS AND DETAILS 1						
214	80DN16	EXHAUST FAN "OP-EF-003" CONTROL WIRING SCHEMATICS - DEMOLITION	297	85A08	SUBSTATION NO. 1 REFLECTED CEILING PLAN	383	75S04	THICKENING BUILDING SECTIONS AND DETAILS 2						
215	80DN17	EXHAUST FAN "OP-EF-004" CONTROL WIRING SCHEMATICS - DEMOLITION	298	85A09	SUBSTATION NO. 1 SCHEDULES	384	80S01	EXISTING OPERATIONS BUILDING FOUNDATION PLAN						
216	80DN18	RAIN WATER SYSTEM CONTROL WIRING SCHEMATICS - DEMOLITION	299	85A10	SUBSTATION NO. 1 PARTITION TYPES	385	80S02	EXISTING OPERATIONS BUILDING SECTIONS AND DETAILS 1						
217	80DN19	RAIN WATER COLLECTION SYSTEM CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - DEMOLITION	300	90A01	ADMINISTRATION BUILDING CODE REVIEW DATA	386	80S03	EXISTING OPERATIONS BUILDING SECTIONS AND DETAILS 2						
218	80DN20	DRY CHEMICAL FEEDER FIELD INTERFACE WIRING SCHEMATIC - DEMOLITION	301	90A02	ADMINISTRATION BUILDING LEVEL ONE FLOOR PLAN	387	80S04	EXISTING OPERATIONS BUILDING SECTIONS AND DETAILS 3						
219	80DN21	EYE WASH STATION FIELD INTERFACE WIRING SCHEMATIC - DEMOLITION	302	90A03	ADMINISTRATION BUILDING EQUIPMENT PLATFORM FLOOR PLAN	388	85S01	SUBSTATION NO. 1 LOWER PLAN						
220	80DN22	CHEMICAL FEED PUMP INSTRUMENT WIRING SCHEMATICS - DEMOLITION	303	90A04	ADMINISTRATION BUILDING ROOF PLAN	389	85S02	SUBSTATION NO. 1 ROOF PLAN						
CIVIL			304	90A05	ADMINISTRATION BUILDING EXTERIOR ELEVATIONS - NORTH	390	85S03	SUBSTATION NO. 1 SECTIONS AND DETAILS 1						
221	00GC01	CIVIL LEGEND AND SYMBOLS	305	90A06	ADMINISTRATION BUILDING EXTERIOR ELEVATIONS - SOUTH	391	85S04	SUBSTATION NO. 1 SECTIONS AND DETAILS 2						
222	00GC02	GENERAL CIVIL CONSTRUCTION NOTES (SHEET 1 OF 2)	306	90A07	ADMINISTRATION BUILDING EXTERIOR ELEVATIONS - EAST	392	85S05	SUBSTATION NO. 1 SECTIONS AND DETAILS 3						
223	00GC03	GENERAL CIVIL CONSTRUCTION NOTES (SHEET 2 OF 2)	307	90A08	ADMINISTRATION BUILDING EXTERIOR ELEVATIONS - WEST	393	90S01	ADMINISTRATION BUILDING PLANS 1						
224	00GC04	EROSION SEDIMENTATION CONTROL DETAILS AND NOTES (SHEET 1 OF 2)	308	90A09	ADMINISTRATION BUILDING SECTIONS - A & B	394	90S02	ADMINISTRATION BUILDING PLANS 2						
225	00GC05	EROSION SEDIMENTATION CONTROL DETAILS AND NOTES (SHEET 2 OF 2)	309	90A10	ADMINISTRATION BUILDING WALL SECTIONS	395	90S03	ADMINISTRATION BUILDING SECTIONS AND DETAILS 1						
226	00GC06	TREE PROTECTION ENVIRONMENTAL DETAILS AND NOTES	310	90A11	ADMINISTRATION BUILDING ENLARGED FLOOR PLANS	396	90S04	ADMINISTRATION BUILDING SECTIONS AND DETAILS 2						
227	00GC07	EX. TOPO E/S CONTROL & TREE PROTECTION PLANT SITE PLAN - (SHEET 1 OF 2)	311	90A12	ADMINISTRATION BUILDING INTERIOR ELEVATIONS	397	90S05	ADMINISTRATION BUILDING SECTIONS AND DETAILS 3						
228	00GC08	EX. TOPO E/S CONTROL & TREE PROTECTION PLANT SITE PLAN - (SHEET 2 OF 2)	312	90A13	ADMINISTRATION BUILDING CABINET DETAILS	MECHANICAL								
229	00GC09	EX. TOPO, E/S CONTROL & TREE PROTECTION WATERLINE PLAN - (SHEET 1 OF 2)	313	90A14	ADMINISTRATION BUILDING LEVEL ONE REFLECTED CEILING PLAN	398	00GM01	MECHANICAL LEGEND AND SYMBOLS						
230	00GC10	EX. TOPO, E/S CONTROL & TREE PROTECTION WATERLINE PLAN - (SHEET 2 OF 2)	314	90A15	ADMINISTRATION BUILDING EQUIPMENT PLATFORM REFLECTED CEILING PLAN	399	10M01	INFLUENT LIFT STATION PLANS AND SECTION						
231	00GC11	TREE INVENTORY	315	90A16	ADMINISTRATION BUILDING SCHEDULES	400	15M01	INFLUENT LIFT STATION ODOR CONTROL PLAN						
232	00C01	EXISTING DRAINAGE MAP	316	90A17	ADMINISTRATION BUILDING PARTITION TYPES & DETAILS	401	15M02	INFLUENT LIFT STATION ODOR CONTROL SECTIONS						
233	00C02	EXISTING DRAINAGE CALCULATIONS	STRUCTURAL			402	20M01	HEADWORKS UPPER PLAN						
234	00C03	PROPOSED DRAINAGE MAP	317	00GS01	GENERAL STRUCTURAL NOTES	403	20M02	HEADWORKS LOWER PLAN						
235	00C04	PROPOSED DRAINAGE CALCULATIONS	318	00GS02	SPECIAL INSPECTION NOTES 1	404	20M03	HEADWORKS SECTION (SHEET 1 OF 4)						
236	00C05	WATER QUALITY POND PLAN	319	00GS03	SPECIAL INSPECTION NOTES 2	405	20M04	HEADWORKS SECTION (SHEET 2 OF 4)						
237	00C06	WATER QUALITY POND SECTIONS	320	00S01	SPLITTER STRUCTURE LOWER/UPPER PLANS AND SECTIONS	406	20M05	HEADWORKS SECTION (SHEET 3 OF 4)						
238	00C07	WATER QUALITY DETENTION POND NOTES AND CALCULATIONS	321	10S01	INFLUENT LIFT STATION FOUNDATION PLAN, SECTION AND DETAILS	407	20M06	HEADWORKS SECTION (SHEET 4 OF 4)						
239	00C08	STORM DRAIN PLAN AND PROFILE	322	20S01	HEADWORKS PIER LAYOUT PLAN	408	25M01	HEADWORKS ODOR CONTROL PLAN AND SECTIONS						
240	01C01	PAVING AND GRADING SITE PLAN SHEET 1 OF 2	323	20S02	HEADWORKS COLUMN LAYOUT PLAN - EL. 485.00'	409	30M01	AERATION BASIN 1 & 2 MODIFICATIONS LOWER PLAN						
241	01C02	PAVING AND GRADING SITE PLAN SHEET 2 OF 2	324	20S03	HEADWORKS INTERMEDIATE PLAN - EL. 494.00'	410	30M02	AERATION BASIN 1 & 2 MODIFICATIONS UPPER PLAN						
242	01C10	FLOOD PROTECTION LAYOUT SHEET 1 OF 2	325	20S04	HEADWORKS INTERMEDIATE PLAN - EL. 496.50'	411	30M03	AERATION BASIN 1 & 2 MODIFICATIONS SECTIONS 1						
243	01C11	FLOOD PROTECTION LAYOUT SHEET 2 OF 2	326	20S05	HEADWORKS UPPER PLAN - EL. 501.00'	412	30M04	AERATION BASIN 1 & 2 MODIFICATIONS SECTIONS 2						
244	01C13	FLOOD PROTECTION SECTIONS	327	20S06	HEADWORKS SECTIONS AND DETAILS 1	413	30M05	AERATION BASIN 3 & 4 MODIFICATIONS LOWER PLAN						
245	02C01	YARD PIPING SITE PLAN SHEET 1 OF 3	328	20S07	HEADWORKS SECTIONS AND DETAILS 2	414	30M06	AERATION BASIN 3 & 4 MODIFICATIONS UPPER PLAN						
246	02C02	YARD PIPING SITE PLAN SHEET 2 OF 3	329	20S08	HEADWORKS SECTIONS AND DETAILS 3	415	30M07	AERATION BASIN 3 & 4 MODIFICATIONS SECTIONS 1						
247	02C04	YARD PIPING SITE PLAN SHEET 3 OF 3	330	20S09	HEADWORKS SECTIONS AND DETAILS 4	416	30M08	AERATION BASIN 3 & 4 MODIFICATIONS SECTIONS 2						
248	02C10	YARD PIPING DETAIL (SHEET 1 OF 6)	331	20S10	HEADWORKS SECTIONS AND DETAILS 5	417	31M01	MLSS SPLITTER BOX PLAN AND SECTIONS						
249	02C11	YARD PIPING DETAIL (SHEET 2 OF 6)	332	20S11	HEADWORKS SECTIONS AND DETAILS 6	418	40M01	SECONDARY CLARIFIERS MECHANICAL LAYOUT						
250	02C12	YARD PIPING DETAIL (SHEET 3 OF 6)	333	20S12	HEADWORKS SECTIONS AND DETAILS 7	419	40M02	SECONDARY CLARIFIERS MECHANICAL SECTION						
251	02C13	YARD PIPING DETAIL (SHEET 4 OF 6)	334	20S13	HEADWORKS SECTIONS AND DETAILS 8	420	40M03	CLARIFIER SECTIONS AND DETAILS						
252	02C14	YARD PIPING DETAIL (SHEET 5 OF 6)	335	20S14	HEADWORKS SECTIONS AND DETAILS 9	421	40M05	SCUM PUMP STATION MECHANICAL PLAN AND SECTION						
253	02C15	YARD PIPING DETAIL (SHEET 6 OF 6)	336	25S01	HEADWORKS ODOR CONTROL FOUNDATION PLAN	422	45M01	EXISTING RAS PUMP STATION No. 1 MECHANICAL PLAN						
254	02C20	YARD PIPING PROFILES SHEET 1 OF 19	337	25S02	HEADWORKS ODOR CONTROL SECTIONS AND DETAILS 1	423	45M02	RAS PUMP STATION No. 2 MECHANICAL PLAN						
255	02C21	YARD PIPING PROFILES SHEET 2 OF 19	338	30S01	AERATION BASIN 1 & 2 FOUNDATION PLAN	424	45M03	RAS PUMP STATION No. 2 MECHANICAL SECTION						
256	02C22	YARD PIPING PROFILES SHEET 3 OF 19	339	30S02	AERATION BASIN 1 & 2 TOP PLAN	425	46M01	RAS SPLITTER BOX PLAN AND SECTIONS						
257	02C23	YARD PIPING PROFILES SHEET 4 OF 19	340	30S03	AERATION BASIN 1 & 2 SECTIONS AND DETAILS 1	426	47M01	WAS PUMP STATION MECHANICAL PLAN						
258	02C24	YARD PIPING PROFILES SHEET 5 OF 19	341	30S04	AERATION BASIN 1 & 2 SECTIONS AND DETAILS 2	427	50M01	FILTER / UV DISINFECTION COMPLEX UPPER PLAN						
259	02C25	YARD PIPING PROFILES SHEET 6 OF 19	342	30S05	AERATION BASIN 1 & 2 SECTIONS AND DETAILS 3	428	50M02	FILTER / UV DISINFECTION COMPLEX LOWER PLAN						
260	02C26	YARD PIPING PROFILES SHEET 7 OF 19	343	30S06	AERATION BASIN 3 & 4 FOUNDATION PLAN	429	50M03	FILTER / UV DISINFECTION COMPLEX SECTIONS - 1						
261	02C27	YARD PIPING PROFILES SHEET 8 OF 19	344	30S07	AERATION BASIN 3 & 4 UPPER PLAN	430	50M04	FILTER / UV DISINFECTION COMPLEX SECTIONS - 2						
262	02C28	YARD PIPING PROFILES SHEET 9 OF 19	345	30S08	AERATION BASIN 3 & 4 SECTIONS AND DETAILS 1	431	65M01	PLANT WATER PUMP STATION PLAN AND SECTIONS						
263	02C29	YARD PIPING PROFILES SHEET 10 OF 19	346	30S09	AERATION BASIN 3 & 4 SECTIONS AND DETAILS 2	432	70M01	SLUDGE HOLDING TANK NO. 1 PLAN						
264	02C30	YARD PIPING PROFILES SHEET 11 OF 19	347	30S10	AERATION BASIN 3 & 4 SECTIONS AND DETAILS 3	433	70M02	SLUDGE HOLDING TANK NO. 1 SECTIONS - 1						
265	02C31	YARD PIPING PROFILES SHEET 12 OF 19	348	30S11	TEMPORARY ALKALINITY ADDITION PAD PLAN AND SECTION	434	71M01	SLUDGE HOLDING TANK NO. 2 PLAN						
266	02C32	YARD PIPING PROFILES SHEET 13 OF 19	349	31S01	MIXED LIQUOR SPLITTER BOX PLANS	435	71M02	SLUDGE HOLDING TANK NO. 2 SECTIONS - 1						
267	02C33	YARD PIPING PROFILES SHEET 14 OF 19	350	31S02	MIXED LIQUOR SPLITTER BOX SECTIONS 1	436	72M01	PLANT DRAIN PUMP STATION PLAN AND SECTIONS						
268	02C34	YARD PIPING PROFILES SHEET 15 OF 19	351	31S03	MIXED LIQUOR SPLITTER BOX SECTIONS 2	437	75M01	THICKENING BUILDING PLAN						
269	02C35	YARD PIPING PROFILES SHEET 16 OF 19	352	40S01	CLARIFIER 2 AND 3 LOWER PLAN	438	75M02	THICKENING BUILDING SECTIONS - 1						
270	02C36	YARD PIPING PROFILES SHEET 17 OF 19	353	40S02	CLARIFIER 2 AND 3 UPPER PLAN	439	75M03	THICKENING SYSTEM PIPING PLAN AND SECTION						
271	02C37	YARD PIPING PROFILES SHEET 18 OF 19	354	40S03	CLARIFIER 2 AND 3 SECTIONS AND DETAILS 1	440	80M01	OPERATIONS BUILDING PLANS						
272	02C38	YARD PIPING PROFILES SHEET 19 OF 19	355	40S04	CLARIFIER 2 AND 3 SECTIONS AND DETAILS 2	441	80M02	OPERATIONS BUILDING SECTIONS						
273	02C51	ELECTRICAL SITE PLAN SHEET 1 OF 2	356	40S05	CLARIFIER 2 AND 3 SECTIONS AND DETAILS 3	442	80M03	OPERATIONS BUILDING ELEVATIONS						
274	02C52	ELECTRICAL SITE PLAN SHEET 2 OF 2	357	40S06	SCUM STATION 1 LOWER/UPPER PLANS AND SECTIONS	HVAC								
275	02C53	ELECTRICAL DUCTBANK CURVE TABLE	358	40S07	SCUM STATION 2 LOWER/UPPER PLANS AND SECTIONS	443	00H01	GENERAL NOTES, ABBREVIATIONS AND SYMBOLS						
276	02C60	ELECTRICAL DUCTBANKS PROFILES SHEET 1 OF 8	359	45S01	RAS PUMP STATION PLANS	444	00H02	EQUIPMENT SCHEDULES 1						
277	02C61	ELECTRICAL DUCTBANKS PROFILES SHEET 2 OF 8	360	45S02	RAS PUMP STATION SECTIONS 1	445	00H03	EQUIPMENT SCHEDULES 2						
278	02C62	ELECTRICAL DUCTBANKS PROFILES SHEET 3 OF 8	361	45S03	RAS PUMP STATION SECTIONS 2	446	10H01	INFLUENT LIFT STATION PLAN						
279	02C63	ELECTRICAL DUCTBANKS PROFILES SHEET 4 OF 8	362	46S01	RAS SPLITTER BOX PLANS	447	10H02	INFLUENT LIFT STATION AIRFLOW SCHEMATIC						
280	02C64	ELECTRICAL DUCTBANKS PROFILES SHEET 5 OF 8	363	46S02	RAS SPLITTER BOX SECTIONS	448	20H01	HEADWORKS BUILDING LOWER PLAN						
281	02C65	ELECTRICAL DUCTBANKS PROFILES SHEET 6 OF 8	364	47S01	WAS PUMP STATION PLANS	449	20H02	HEADWORKS BUILDING UPPER PLAN						
282	02C66	ELECTRICAL DUCTBANKS PROFILES SHEET 7 OF 8	365	47S02	WAS PUMP STATION SECTIONS 1	450	20H03	HEADWORKS BUILDING SECTIONS						
283	02C67	ELECTRICAL DUCTBANKS PROFILES SHEET 8 OF 8	366	47S03	WAS PUMP STATION SECTIONS 2	451	20H04	HEADWORKS BUILDING AIRFLOW SCHEMATIC						
284	04C01	OVERALL POTABLE WATER PIPELINE LAYOUT	367	50S01	FILTER/UV DISINFECTION COMPLEX PLANS	452	85H01	SUBSTATION NO. 1 PLAN						
285	04C02	POTABLE WATER LINE PLAN AND PROFILE STA 0+00 TO STA 6+50	368	50S02	FILTER/UV DISINFECTION COMPLEX ROOF PLAN	453	85H02	SUBSTATION NO. 1 SECTIONS						
286	04C03	POTABLE WATER LINE PLAN AND PROFILE STA 6+50 TO STA 13+24	369	50S03	FILTER/UV DISINFECTION COMPLEX SECTIONS AND DETAILS 1	45								

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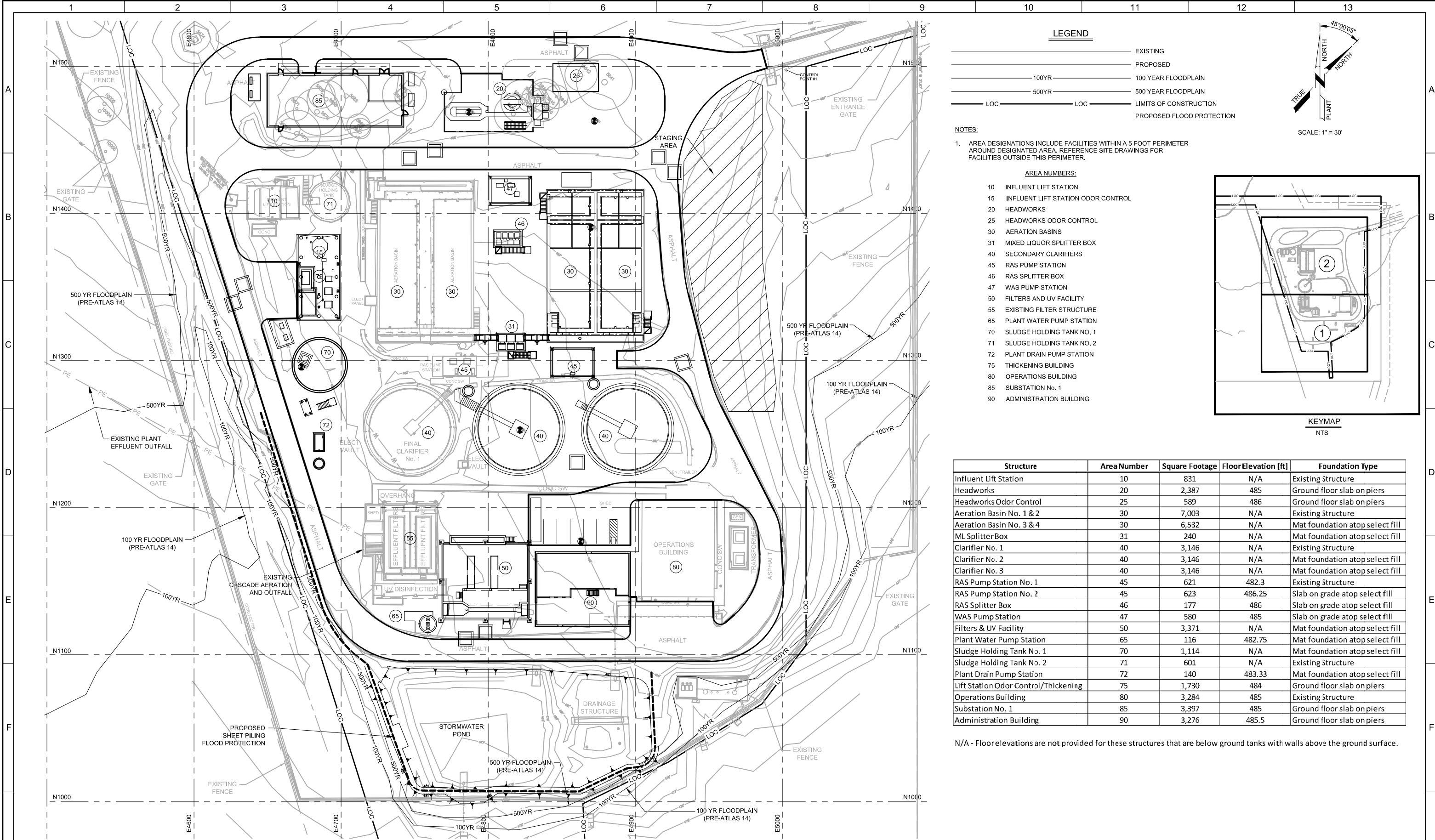
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Model Layout1

LAST SAVED BY: Witzel

1	2	3	4	5	6	7	8	9	10	11	12	13
SHEET NO. DRAWING NO. SHEET TITLE				SHEET NO. DRAWING NO. SHEET TITLE								
INSTRUMENTATION (CONT)				INSTRUMENTATION (CONT)								
260	50N07	SUMP PUMPS CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED		351	85N06	SWITCHBOARD "SUB1-SWBD-01" MAIN BREAKER CONTROL WIRING SCHEMATICS - PROPOSED						
261	50N08	UV DISINFECTION CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED - 1		352	85N07	SWITCHBOARD "SUB1-SWBD-01" TIE BREAKER CONTROL WIRING SCHEMATICS - PROPOSED						
262	50N09	UV DISINFECTION CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED - 2		353	85N08	SWITCHBOARD "SUB1-SWBD-01" FEEDER BREAKER CONTROL WIRING SCHEMATICS - PROPOSED						
263	50N10	UV DISINFECTION CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED - 3		354	85N09	SWITCHBOARD "SUB1-SWBD-02" MAIN BREAKER CONTROL WIRING SCHEMATICS - PROPOSED						
264	50N11	UV DISINFECTION CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED - 4		355	85N10	SWITCHBOARD "SUB1-SWBD-02" TIE BREAKER CONTROL WIRING SCHEMATICS - PROPOSED						
265	50N12	UV DISINFECTION CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED - 5		356	85N11	SWITCHBOARD "SUB1-SWBD-02" FEEDER BREAKER CONTROL WIRING SCHEMATICS - PROPOSED						
266	65N01	PARSHALL FLUME AND CASCADE AERATION PROCESS & INSTRUMENTATION DIAGRAM		357	85N12	MOTOR CONTROL CENTER "SUB1-MCC-01" MAIN BREAKER CONTROL WIRING SCHEMATICS - PROPOSED						
267	65N02	PARSHALL FLUME AND CASCADE AERATION INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED		358	85N13	MOTOR CONTROL CENTER "SUB1-MCC-01" TIE BREAKER CONTROL WIRING SCHEMATICS - PROPOSED						
268	65N01	PLANT WATER PUMP STATION PROCESS & INSTRUMENTATION DIAGRAM		359	85N14	MOTOR CONTROL CENTER "SUB1-MCC-02" MAIN BREAKER CONTROL WIRING SCHEMATICS - PROPOSED						
269	65N02	TYPICAL NPW PUMP CONTROL WIRING SCHEMATICS - PROPOSED - 1		360	85N15	MOTOR CONTROL CENTER "SUB1-MCC-02" TIE BREAKER CONTROL WIRING SCHEMATICS - PROPOSED						
270	65N03	TYPICAL NPW PUMP CONTROL WIRING SCHEMATICS - PROPOSED - 2		361	85N16	CONTROL PANEL "SUB1-CONTROLPANEL-01" POWER WIRING SCHEMATICS - PROPOSED - 1						
271	65N04	NPW INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 1		362	85N17	CONTROL PANEL "SUB1-CONTROLPANEL-01" POWER WIRING SCHEMATICS - PROPOSED - 2						
272	65N05	NPW INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 2		363	85N18	CONTROL PANEL "SUB1-CONTROLPANEL-01" POWER WIRING SCHEMATICS - PROPOSED - 3						
273	65N06	NPW PUMP STATION FIELD CONTROL STATION ELEVATION - PROPOSED		364	85N19	CONTROL PANEL "SUB1-CONTROLPANEL-01" POWER WIRING SCHEMATICS - PROPOSED - 4						
274	70N01	SLUDGE HOLDING TANK NO. 1 PROCESS & INSTRUMENTATION DIAGRAM		365	85N20	CONTROL PANEL "SUB1-CONTROLPANEL-02" POWER WIRING SCHEMATICS - PROPOSED - 1						
275	70N02	TYPICAL THICKENING FEED PUMP VFD CONTROL WIRING SCHEMATICS - PROPOSED - 1		366	85N21	CONTROL PANEL "SUB1-CONTROLPANEL-02" POWER WIRING SCHEMATICS - PROPOSED - 2						
276	70N03	TYPICAL THICKENING FEED PUMP VFD CONTROL WIRING SCHEMATICS - PROPOSED - 2		367	85N22	CONTROL PANEL "SUB1-CONTROLPANEL-02" POWER WIRING SCHEMATICS - PROPOSED - 3						
277	70N04	TYPICAL THICKENING FEED PUMP VFD CONTROL WIRING SCHEMATICS - PROPOSED - 3		368	85N23	CONTROL PANEL "SUB1-CONTROLPANEL-03" POWER WIRING SCHEMATICS - PROPOSED - 1						
278	70N05	TYPICAL THICKENING FEED PUMP VFD CONTROL WIRING SCHEMATICS - PROPOSED - 4		369	85N24	CONTROL PANEL "SUB1-CONTROLPANEL-03" POWER WIRING SCHEMATICS - PROPOSED - 2						
279	70N06	SLUDGE HOLDING TANK NO. 1 INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 1		370	85N25	MISCELLANEOUS WIRING SCHEMATICS - PROPOSED - 1						
280	70N07	SLUDGE HOLDING TANK NO. 1 INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 2		371	85N26	MISCELLANEOUS WIRING SCHEMATICS - PROPOSED - 2						
281	70N08	THICKENING FEED PUMP FIELD CONTROL STATION ELEVATION - PROPOSED		372	85N27	MISCELLANEOUS WIRING SCHEMATICS - PROPOSED - 3						
282	71N01	SLUDGE HOLDING TANK NO. 2 PROCESS & INSTRUMENTATION DIAGRAM		373	85N28	HVAC WIRING SCHEMATICS - PROPOSED						
283	71N02	SLUDGE HOLDING TANK NO. 2 INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 1		374	85N29	SUBSTATION NO. 1 INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 1						
284	71N03	SLUDGE HOLDING TANK NO. 2 INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 2		375	85N30	SUBSTATION NO. 1 INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 2						
285	71N04	SLUDGE HOLDING TANK NO. 2 INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 3		376	85N31	SUBSTATION NO. 1 MAIN CONTROL PANEL SUB1-CONTROLPANEL-01 FRONT ELEVATION - PROPOSED - 1						
286	71N05	SLUDGE HOLDING TANK NO. 2 INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 4		377	85N32	SUBSTATION NO. 1 MAIN CONTROL PANEL SUB1-CONTROLPANEL-01 FRONT ELEVATION - PROPOSED - 2						
287	72N01	PLANT DRAIN PUMP STATION PROCESS & INSTRUMENTATION DIAGRAM		378	85N33	SUBSTATION NO. 1 MAIN CONTROL PANEL SUB1-CONTROLPANEL-02 FRONT ELEVATION - PROPOSED - 1						
288	72N02	TYPICAL PLANT DRAIN PUMP CONTROL WIRING SCHEMATICS - PROPOSED - 1		379	85N34	SUBSTATION NO. 1 MAIN CONTROL PANEL SUB1-CONTROLPANEL-02 FRONT ELEVATION - PROPOSED - 2						
289	72N03	TYPICAL PLANT DRAIN PUMP CONTROL WIRING SCHEMATICS - PROPOSED - 2		380	85N35	SUBSTATION NO. 1 MAIN CONTROL PANEL SUB1-CONTROLPANEL-03 FRONT ELEVATION - PROPOSED						
290	72N04	TYPICAL PLANT DRAIN PUMP CONTROL WIRING SCHEMATICS - PROPOSED - 3		381	85N36	SUBSTATION NO. 1 TELEPHONE SYSTEM - PROPOSED (SHEET 1 OF 2)						
291	72N05	PLANT DRAIN PUMP STATION CONTROL WIRING SCHEMATICS - PROPOSED		382	85N37	SUBSTATION NO. 1 TELEPHONE SYSTEM - PROPOSED (SHEET 2 OF 2)						
292	72N06	PLANT DRAIN PUMP STATION INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED		383	90N01	ADMINISTRATION BUILDING POWER P&ID						
293	72N07	PLANT DRAIN PUMP STATION LOCAL CONTROL PANEL FRONT ELEVATION - PROPOSED		384	90N02	ADMINISTRATION BUILDING HVAC P&ID - 1						
294	75N01	THICKENER PROCESS & INSTRUMENTATION DIAGRAM - 1		385	90N03	ADMINISTRATION BUILDING HVAC P&ID - 2						
295	75N02	THICKENER PROCESS & INSTRUMENTATION DIAGRAM - 2		386	90N04	ADMINISTRATION BUILDING NETWORK ARCHITECTURE - PROPOSED						
296	75N03	SLUDGE HOLDING TANK BLOWER NO. 1 PROCESS & INSTRUMENTATION DIAGRAM		387	90N05	ADMINISTRATION BUILDING EXHAUST FAN CONTROL WIRING SCHEMATICS - PROPOSED						
297	75N04	SLUDGE HOLDING TANK BLOWER NO. 2 PROCESS & INSTRUMENTATION DIAGRAM		388	90N06	ADMINISTRATION BUILDING POWER WIRING SCHEMATICS - PROPOSED - 1						
298	75N05	SLUDGE HOLDING TANK BLOWER NO. 3 PROCESS & INSTRUMENTATION DIAGRAM		389	90N07	ADMINISTRATION BUILDING POWER WIRING SCHEMATICS - PROPOSED - 2						
299	75N06	THICKENER BUILDING NETWORK ARCHITECTURE - PROPOSED		390	90N08	ADMINISTRATION BUILDING POWER WIRING SCHEMATICS - PROPOSED - 3						
300	75N07	TYPICAL BLOWER CONTROL WIRING SCHEMATICS - PROPOSED - 1		391	90N09	ADMINISTRATION BUILDING POWER WIRING SCHEMATICS - PROPOSED - 4						
301	75N08	TYPICAL BLOWER CONTROL WIRING SCHEMATICS - PROPOSED - 2		392	90N10	ADMINISTRATION BUILDING HVAC WIRING SCHEMATICS - PROPOSED - 1						
302	75N09	TYPICAL BLOWER CONTROL WIRING SCHEMATICS - PROPOSED - 3		393	90N11	ADMINISTRATION BUILDING HVAC WIRING SCHEMATICS - PROPOSED - 2						
303	75N10	TYPICAL BLOWER CONTROL WIRING SCHEMATICS - PROPOSED - 4		394	90N12	ADMINISTRATION BUILDING INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED						
304	75N11	THICKENER BUIDLING LIGHTING CONTROL PANEL WIRING SCHEMATICS - PROPOSED		395	90N13	ADMINISTRATION BUILDING MAIN CONTROL PANEL AD-CONTROLPANEL-01/2 FRONT ELEVATION - PROPOSED						
305	75N12	THICKENER CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED		396	90N14	ADMINISTRATION BUILDING MAIN CONTROL PANEL AD-CONTROLPANEL-03 FRONT ELEVATION - PROPOSED						
306	75N13	THICKENING BUILDING INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 1		397	90N15	ADMINISTRATION BUILDING TELEPHONE SYSTEM - PROPOSED (SHEET 1 OF 2)						
307	75N14	THICKENING BUILDING INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 2		398	90N16	ADMINISTRATION BUILDING TELEPHONE SYSTEM - PROPOSED (SHEET 2 OF 2)						
308	75N15	THICKENING BUILDING INSTRUMENT LOOP WIRING SCHEMATICS - PROPOSED - 3										
309	75N16	THICKENING BUILDING BLOWER FIELD CONTROL STATION ELEVATION - PROPOSED										
310	80N01	PROCESS AIR BLOWER PROCESS & INSTRUMENTATION DIAGRAM - 1										
311	80N02	PROCESS AIR BLOWER PROCESS & INSTRUMENTATION DIAGRAM - 2										
312	80N03	PROCESS AIR BLOWER PROCESS & INSTRUMENTATION DIAGRAM - 3										
313	80N04	PROCESS AIR BLOWER PROCESS & INSTRUMENTATION DIAGRAM - 4										
314	80N05	PROCESS AIR BLOWER PROCESS & INSTRUMENTATION DIAGRAM - 5										
315	80N06	OPERATIONS BUILDING POWER P&ID										
316	80N07	OPERATIONS BUILDING NETWORK ARCHITECTURE - RENOVATION - 1										
317	80N08	OPERATIONS BUILDING NETWORK ARCHITECTURE - RENOVATION - 2										
318	80N09	AERATION BLOWER "OP-PAB-001" CONTROL WIRING SCHEMATICS - RENOVATION - 1										
319	80N10	AERATION BLOWER "OP-PAB-001" CONTROL WIRING SCHEMATICS - RENOVATION - 2										
320	80N11	AERATION BLOWER "OP-PAB-001" CONTROL WIRING SCHEMATICS - RENOVATION - 3										
321	80N12	AERATION BLOWER "OP-PAB-002" CONTROL WIRING SCHEMATICS - RENOVATION - 1										
322	80N13	AERATION BLOWER "OP-PAB-002" CONTROL WIRING SCHEMATICS - RENOVATION - 2										
323	80N14	AERATION BLOWER "OP-PAB-002" CONTROL WIRING SCHEMATICS - RENOVATION - 3										
324	80N15	AERATION BLOWER "OP-PAB-003" CONTROL WIRING SCHEMATICS - RENOVATION - 1										
325	80N16	AERATION BLOWER "OP-PAB-003" CONTROL WIRING SCHEMATICS - RENOVATION - 2										
326	80N17	AERATION BLOWER "OP-PAB-003" CONTROL WIRING SCHEMATICS - RENOVATION - 3										
327	80N18	BLOWER MASTER CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED										
328	80N19	TYPICAL BLOWER CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED - 1										
329	80N20	TYPICAL BLOWER CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED - 2										
330	80N21	TYPICAL BLOWER CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED - 3										
331	80N22	TYPICAL BLOWER CONTROL PANEL FIELD INTERFACE WIRING SCHEMATIC - PROPOSED - 4										
332	80N23	TYPICAL CHEMICAL FEED PUMP INSTRUMENT WIRING SCHEMATICS - RENOVATION										
333	80N24	TEMPERATURE INDICATING TRANSMITTER INSTRUMENT WIRING SCHEMATICS - RENOVATION										
334	80N25	OP-MCP-001 120VAC POWER WIRING SCHEMATICS - RENOVATION										
335	80N26	OP-MCP-001 24VDC POWER WIRING SCHEMATICS - RENOVATION										
336	80N27	OP-MCP-001 AUXILIARY POWER WIRING SCHEMATICS - RENOVATION										
337	80N28	OPERATIONS BUILDING MAIN CONTROL PANEL OP-MCP-001 FRONT ELEVATION - PROPOSED - 1										
338	80N29	OPERATIONS BUILDING MAIN CONTROL PANEL OP-MCP-001 FRONT ELEVATION - PROPOSED - 2										
339	80N30	DRY CHEMICAL FEEDER FIELD AND FLOW SWITCH FIELD INTERFACE WIRING SCHEMATIC - RENOVATION										
340	80N31	OPERATIONS BUILDING EXHAUST FAN - RENOVATION										
341	80N32	OPERATIONS BUILDING EXHAUST FAN - RENOVATION										
342	80N33	OPERATIONS BUILDING EXHAUST FAN - RENOVATION										
343	80N34	GENERATOR "OP-GEN-01" FIELD INTERFACE WIRING SCHEMATIC - RENOVATION										
344	80N35	OPERATIONS BUILDING TELEPHONE SYSTEM - PROPOSED (SHEET 1 OF 2)										
345	80N36	OPERATIONS BUILDING TELEPHONE SYSTEM - PROPOSED (SHEET 2 OF 2)										
346	85N01	SUBSTATION NO. 1 POWER P&ID - 1										
347	85N02	SUBSTATION NO. 1 POWER P&ID - 2										
348	85N03	SUBSTATION NO. 1 POWER P&ID - 3										
349	85N04	SUBSTATION NO. 1 HVAC P&ID										
350	85N05	SUBSTATION NO. 1 NETWORK ARCHITECTURE - PROPOSED										
<div><div><div>BID SET</div><div>DESIGNED DMH DRAWN SDW CHECKED JEA DATE FEBRUARY 2022</div></div><div><div>STATE OF TEXAS DANNY M. HURTADO 104266 LICENSED PROFESSIONAL ENGINEER</div><div><div>10976A1000G003A.dgn</div><div>10976A1000G003A.dgn</div></div></div></div>				<div><div><div>carollo</div><div>TBPELS No. F-882</div></div><div><div>CITY OF AUSTIN</div><div>FOUNDED 1839</div></div><div><div>CITY OF AUSTIN</div></div></div>				<div><div>CITY OF AUSTIN</div><div>WILD HORSE RANCH WWTP EXPANSION</div><div>GENERAL</div><div>DRAWING INDEX - 4</div></div>		<div><div>VERIFY SCALES</div><div>BAR IS ONE INCH ON ORIGINAL DRAWING</div><div>0 1"</div><div>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY</div></div>	<div><div>JOB NO. 10976A.00</div><div>DRAWING NO. 00G03A</div><div>SHEET NO. 5 OF 464</div></div>	
1	2	3	4	5	6	7	8	9	10	11	12	13
PROJECT NO. 10976A10				FILE NAME: 10976A1000G003A.dgn								



LEGEND

EXISTING

PROPOSED

100YR

100 YEAR FLOODPLAIN

500YR

500 YEAR FLOODPLAIN

LOC

LOC

LIMITS OF CONSTRUCTION

PROPOSED FLOOD PROTECTION

NOTES:

1. AREA DESIGNATIONS INCLUDE FACILITIES WITHIN A 5 FOOT PERIMETER AROUND DESIGNATED AREA. REFERENCE SITE DRAWINGS FOR FACILITIES OUTSIDE THIS PERIMETER.

- AREA NUMBERS:
- 10

INFLUENT LIFT STATION
- 15

INFLUENT LIFT STATION ODOR CONTROL
- 20

HEADWORKS
- 25

HEADWORKS ODOR CONTROL
- 30

AERATION BASINS
- 31

MIXED LIQUOR SPLITTER BOX
- 40

SECONDARY CLARIFIERS
- 45

RAS PUMP STATION
- 46

RAS SPLITTER BOX
- 47

WAS PUMP STATION
- 50

FILTERS AND UV FACILITY
- 55

EXISTING FILTER STRUCTURE
- 65

PLANT WATER PUMP STATION
- 70

SLUDGE HOLDING TANK NO. 1
- 71

SLUDGE HOLDING TANK NO. 2
- 72

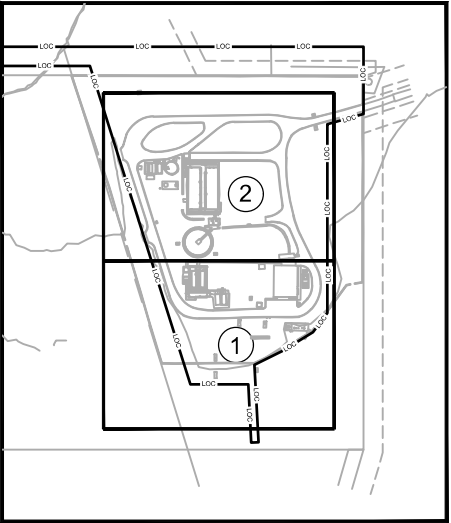
PLANT DRAIN PUMP STATION
- 75

THICKENING BUILDING
- 80

OPERATIONS BUILDING
- 85

SUBSTATION No. 1
- 90

ADMINISTRATION BUILDING



Structure	Area Number	Square Footage	Floor Elevation [ft]	Foundation Type
Influent Lift Station	10	831	N/A	Existing Structure
Headworks	20	2,387	485	Ground floor slab on piers
Headworks Odor Control	25	589	486	Ground floor slab on piers
Aeration Basin No. 1 & 2	30	7,003	N/A	Existing Structure
Aeration Basin No. 3 & 4	30	6,532	N/A	Mat foundation atop select fill
ML Splitter Box	31	240	N/A	Mat foundation atop select fill
Clarifier No. 1	40	3,146	N/A	Existing Structure
Clarifier No. 2	40	3,146	N/A	Mat foundation atop select fill
Clarifier No. 3	40	3,146	N/A	Mat foundation atop select fill
RAS Pump Station No. 1	45	621	482.3	Existing Structure
RAS Pump Station No. 2	45	623	486.25	Slab on grade atop select fill
RAS Splitter Box	46	177	486	Slab on grade atop select fill
WAS Pump Station	47	580	485	Slab on grade atop select fill
Filters & UV Facility	50	3,371	N/A	Mat foundation atop select fill
Plant Water Pump Station	65	116	482.75	Mat foundation atop select fill
Sludge Holding Tank No. 1	70	1,114	N/A	Mat foundation atop select fill
Sludge Holding Tank No. 2	71	601	N/A	Existing Structure
Plant Drain Pump Station	72	140	483.33	Mat foundation atop select fill
Lift Station Odor Control/Thickening	75	1,730	484	Ground floor slab on piers
Operations Building	80	3,284	485	Existing Structure
Substation No. 1	85	3,397	485	Ground floor slab on piers
Administration Building	90	3,276	485.5	Ground floor slab on piers

N/A - Floor elevations are not provided for these structures that are below ground tanks with walls above the ground surface.

LAST SAVED BY:

REV

DATE

BY

DESCRIPTION

BID SET

DESIGNED

CW

DRAWN

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CHECKED

SGE

DATE

FEBRUARY 2022

STATE OF TEXAS

CASEY G. WALTERS

93889

PROFESSIONAL ENGINEER

AECOM

AECOM TECHNICAL SERVICES INC.

13640 BRIARWICK DRIVE, SUITE 200

AUSTIN, TEXAS 78729

WWW.AECOM.COM

TBPE REG. NO. F-3580

carollo

TBPE No. F-882

CITY OF AUSTIN

FOUNDED 1839

CITY OF AUSTIN

WILD HORSE RANCH WWTP EXPANSION

GENERAL

OVERALL WWTP SITE PLAN

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.

10976A.10

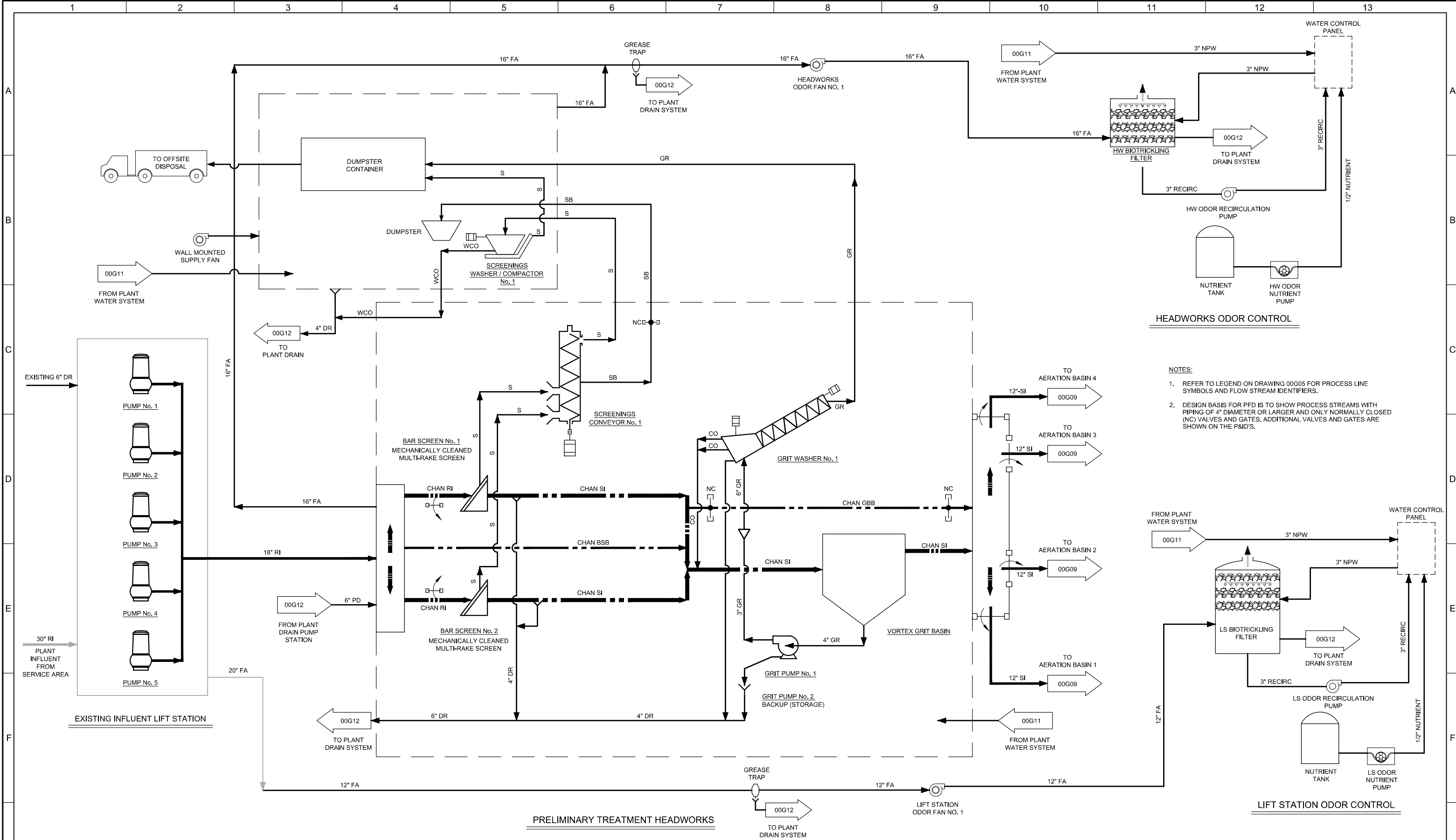
DRAWING NO.

00G06

SHEET NO.

8 OF 464

	1	2	3	4	5	6	7	8	9	10	11	12	13	
A	DESIGN PARAMETER			CRITERIA	UNIT	GRIT PUMPS			WAS PUMPS			THICKENING SLUDGE FEED PUMPS		
	DESIGN CRITERIA KEY					TYPE			TYPE			TYPE		
	BLACK FONT = PROPOSED					NUMBER			NUMBER			NUMBER		
	GRAY FONT = EXISTING					CAPACITY (EACH)			CAPACITY (EACH)			CAPACITY (EACH)		
	WASTEWATER CHARACTERISTICS					MOTOR SIZE (EACH)			MOTOR SIZE (EACH)			MOTOR SIZE (EACH)		
	INFLUENT FLOW					GRIT WASHER/CLASSIFIER			ROTARY LOBE			ROTARY LOBE		
	AVERAGE ANNUAL			2.25	MGD	TYPE			CONSTANT SPEED			-		
	MAXIMUM MONTH			2.93	MGD	NUMBER			100			400		
	PEAK 2-HOUR FLOW			9.00	MGD	LIQUID CAPACITY (EACH)			GPM			GPM		
	BIOCHEMICAL OXYGEN DEMAND (BOD)					MOTOR SIZE (EACH)			HP			HP		
B	AVERAGE ANNUAL					COANDA-TYPE								
	LOADING			3570	PPD	1								
	CONCENTRATION			190	MG/L	-								
	MAXIMUM MONTH					250			GPM					
	LOADING			5335	PPD	2.0			HP					
	CONCENTRATION			220	MG/L	-								
	TOTAL SUSPENDED SOLIDS					ODOR CONTROL SYSTEM								
	AVERAGE ANNUAL					BIOTRICKLING FILTERS								
	LOADING			3570	PPD	NUMBER								
	CONCENTRATION			190	MG/L	CONFIGURATION								
C	MAXIMUM MONTH					RECTANGULAR								
	LOADING			5355	PPD	7			FT					
	CONCENTRATION			220	MG/L	6			AC/H					
	TOTAL KJELDAHL NITROGEN (TKN)					12			AC/H					
	AVERAGE ANNUAL					ONCE-THROUGH			-					
	LOADING			1030	PPD	FANS								
	CONCENTRATION			55	MG/L	TYPE								
	MAXIMUM MONTH					CENTRIFUGAL								
	LOADING			1339	PPD	1			-					
	CONCENTRATION			55.0	MG/L	MATERIAL								
D	AMMONIA AS NITROGEN (NH3-N)					CAPACITY								
	AVERAGE ANNUAL					3,000			CFM					
	LOADING			840	PPD	8			INCHES WC					
	CONCENTRATION			45	MG/L	MOTOR SIZE (EACH)			HP					
	MAXIMUM MONTH					AERATION BASINS								
	LOADING			1092	PPD	NUMBER								
	CONCENTRATION			45	MG/L	DIMENSIONS (EACH BASIN)								
	TOTAL PHOSPHORUS (TP)					SIDE WATER DEPTH								
	AVERAGE ANNUAL					VOLUME (EACH BASIN)								
	LOADING			110	PPD	0.338			MG					
E	CONCENTRATION			6	MG/L	0.130			MG					
	MAXIMUM MONTH					0.209			MG					
	LOADING			143	PPD	1.364			MG					
	CONCENTRATION			6	MG/L	HYDRAULIC RETENTION TIME (HRT)								
	AERATION BASIN INFLUENT					AVERAGE ANNUAL			14.5			HRS		
	TEMPERATURE, 7-DAY AVERAGE					MAXIMUM MONTH			11.1			HRS		
	SUMMER			28	DEG C	MINIMUM AEROBIC SOLIDS RETENTION TIME								
	WINTER			17	DEG C	WINTER			5.25			DAYS		
	INFLUENT LIFT STATION					MAXIMUM ORGANIC LOADING @			48			LB BOD/		
	PUMPS					DESIGN MLSS			1500 to 3000			1000 CF/DAY		
F	TYPE			SUBMERSIBLE, NON-CLOG	--	AERATION BASIN MIXERS								
	DRIVE TYPE			CONSTANT SPEED	--	TYPE			SUBMERSIBLE					
	CAPACITY - PHASE 1 (1.5 MGD ADF)					NUMBER (EACH BASIN)			4					
	NUMBER OF JOCKEY PUMPS			2	--	MOTOR SIZE (EACH)			5			HP		
	DESIGN CAPACITY EACH			500	GPM	CAPACITY (EACH)			586			GPM		
	MOTOR SIZE (EACH)			10	HP	MOTOR SIZE (EACH)			5			HP		
	NUMBER OF LARGE PUMPS			3	--	DRIVE			CONSTANT SPEED			-		
	DESIGN CAPACITY EACH			1,800	GPM	AERATION BLOWERS								
	MOTOR SIZE (EACH)*			45	HP	TYPE			SINGLE-STAGE					
	CAPACITY - PHASE 2 (2.25 MGD ADF)					NUMBER			3					
G	NUMBER OF JOCKEY PUMPS			2	--	CAPACITY (EACH)			2,050			SCFM		
	DESIGN CAPACITY EACH			1,000	GPM	MOTOR SIZE (EACH)			150			HP		
	MOTOR SIZE (EACH)			20	HP	FIRM CAPACITY			4,100			SCFM		
	NUMBER OF LARGE PUMPS			3	--	DIFFUSER TYPE			FINE BUBBLE MEMBRANE					
	DESIGN CAPACITY EACH			2,400	GPM	SECONDARY CLARIFIERS								
	MOTOR SIZE (EACH)			45	HP	CLARIFIER NO. 1								
	INFLUENT FLOW METERING					TYPE			FLOW-TYPE			-		
	TYPE			MAGNETIC		NUMBER			1			-		
	DIAMETER					DIAMETER			60			FT		
	CALIBRATED RANGE			0 - 8000	GPM	SURFACE AREA (EACH)			2,827			SF		
H	ODOR CONTROL SYSTEM					SIDE WATER DEPTH			15.67			FT		
	BIOTRICKLING FILTERS					SURFACE OVERFLOW RATE @ PEAK			1,114			GPD/SF		
	NUMBER			1		2-HOUR FLOW			0.75			HP		
	CONFIGURATION			CYLINDRICAL		MOTOR SIZE			173			FT		
	BED HEIGHT			6	FT	WEIR LENGTH (EACH)			18,230			GPD/FT		
	AIR EXCHANGE RATIO					FLOW								
	IRRIGATION MODE			ONCE-THROUGH	AC/H	CLARIFIERS NO. 2 AND 3								
	FANS					TYPE			SPIRAL SCRAPER			-		
	TYPE			CENTRIFUGAL		NUMBER			2			-		
	NUMBER			1		DIAMETER			60			FT		
I	MATERIAL			FRP		SURFACE AREA (EACH)			2,827			SF		
	CAPACITY			1,500	CFM	SIDE WATER DEPTH			15.67			FT		
	STATIC PRESSURE			8	INCHES OF W.C.	SURFACE OVERFLOW RATE @ PEAK			1,114			GPD/SF		
	MOTOR SIZE (EACH)			5	HP	2-HOUR FLOW			0.75			HP		
	HEADWORKS					MOTOR SIZE			173			FT		
	INFLUENT SCREENS					WEIR LENGTH @ PEAK 2-HOUR			18,230			GPD/FT		
	TYPE			MULTI-RAKE	-	FLOW								
	NUMBER			2	-	SECONDARY CLARIFIER SCUM PUMPS								
	PEAK CAPACITY (EACH)			4.5	MGD	TYPE			SCREW CENTRIFUGAL			-		
	CLEAR SPACING			0.25	INCHES	NUMBER			4			-		
J	MOTOR SIZE (EACH)			2	HP	CAPACITY (EACH)			235			GPM		
	SCREENINGS CONVEYOR					MOTOR SIZE (EACH)			5			HP		
	NUMBER			1		DRIVE			CONSTANT SPEED			-		
	CAPACITY			155	CF/HR	RAS PUMPS								
	MOTOR SIZE			5	HP	TYPE			SELF PRIMING					
	WASHER/COMPACTOR					NUMBER			CENTRIFUGAL					
	NUMBER			1	-	CAPACITY			625			GPM		
	CAPACITY			100	CF/HR	MOTOR SIZE (EACH)			15			HP		
	MOTOR SIZE			5	HP	DRIVE			MAGNETIC VARIABLE					
	GRIT REMOVAL UNIT					FIRM RAS PUMPING CAPACITY			120% OF ADF					
K	TYPE			MECHANICAL FORCED VORTEX	-									
	NUMBER			1	-									
	CAPACITY			9.0	MGD									
	MOTOR SIZE (EACH)			1	HP									
	DESIGNED			DMH										
	DRAWN			LGD										
	CHECKED			JEA										
	DATE													
	FEBRUARY 2022													
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FEBRUARY 2022

AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBP REG. NO. F-3580

TBPE No. F-882

CITY OF AUSTIN

CITY OF AUSTIN

WILD HORSE RANCH WWTTP EXPANSION

GENERAL

INFLUENT LS AND HEADWORKS PFD

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

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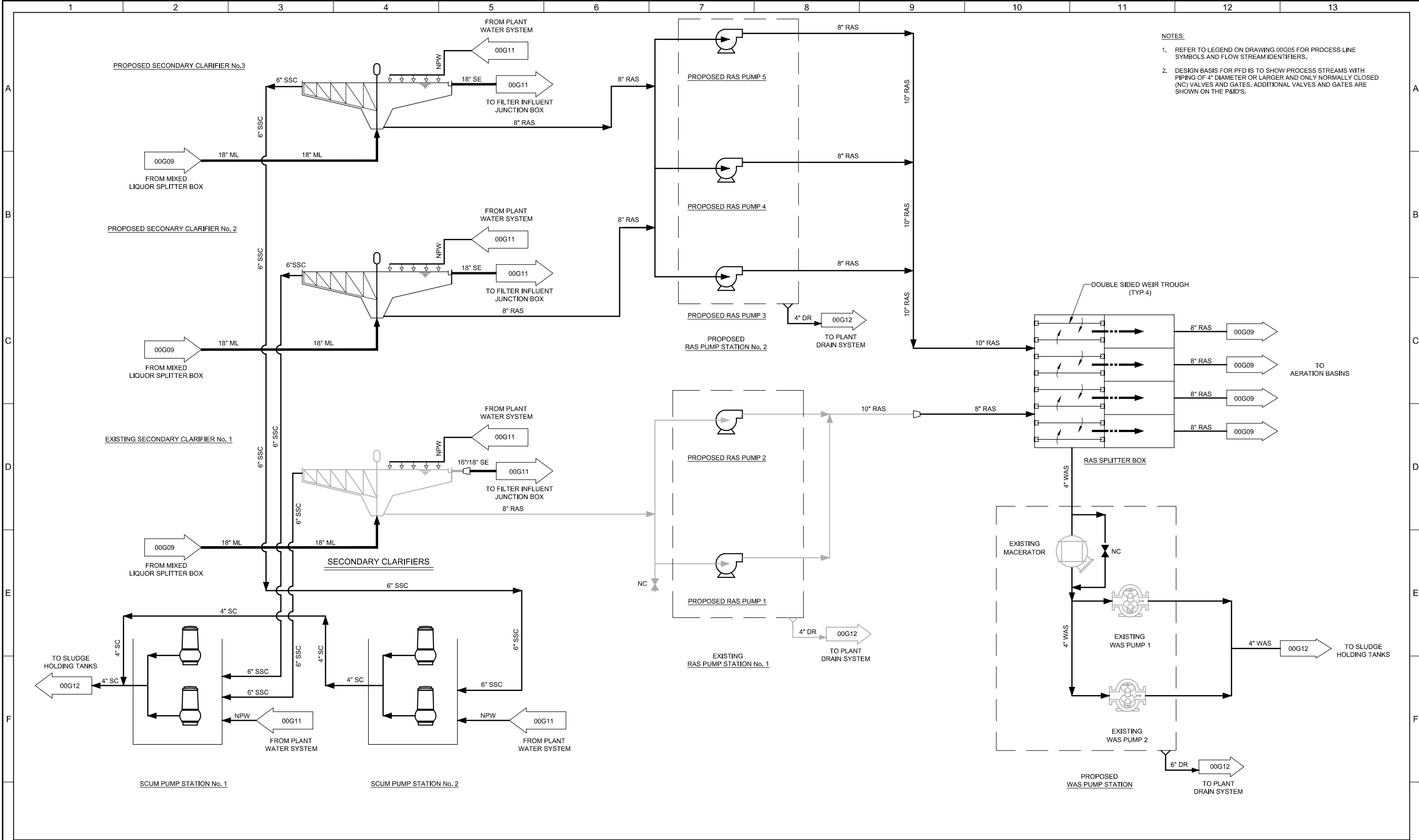
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JOB NO.
10976A.10

DRAWING NO.
00G08

SHEET NO.
10 OF 464





- NOTES:
1. REFER TO LEGEND ON DRAWING 00G05 FOR PROCESS LINE SYMBOLS AND FLOW STREAM IDENTIFIERS.
 2. DESIGN BASIS FOR PFD IS TO SHOW PROCESS STREAMS WITH PIPING OF 4" DIAMETER OR LARGER AND ONLY NORMALLY CLOSED (NC) VALVES AND GATES. ADDITIONAL VALVES AND GATES ARE SHOWN ON THE P&ID'S.

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CHECKED	SGE
DATE	FEBRUARY 2022
PROJECT NO. 9585A10	
FILE NAME: 9585A10_SheetSeed.dgn	

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

TBPE No. F-882

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

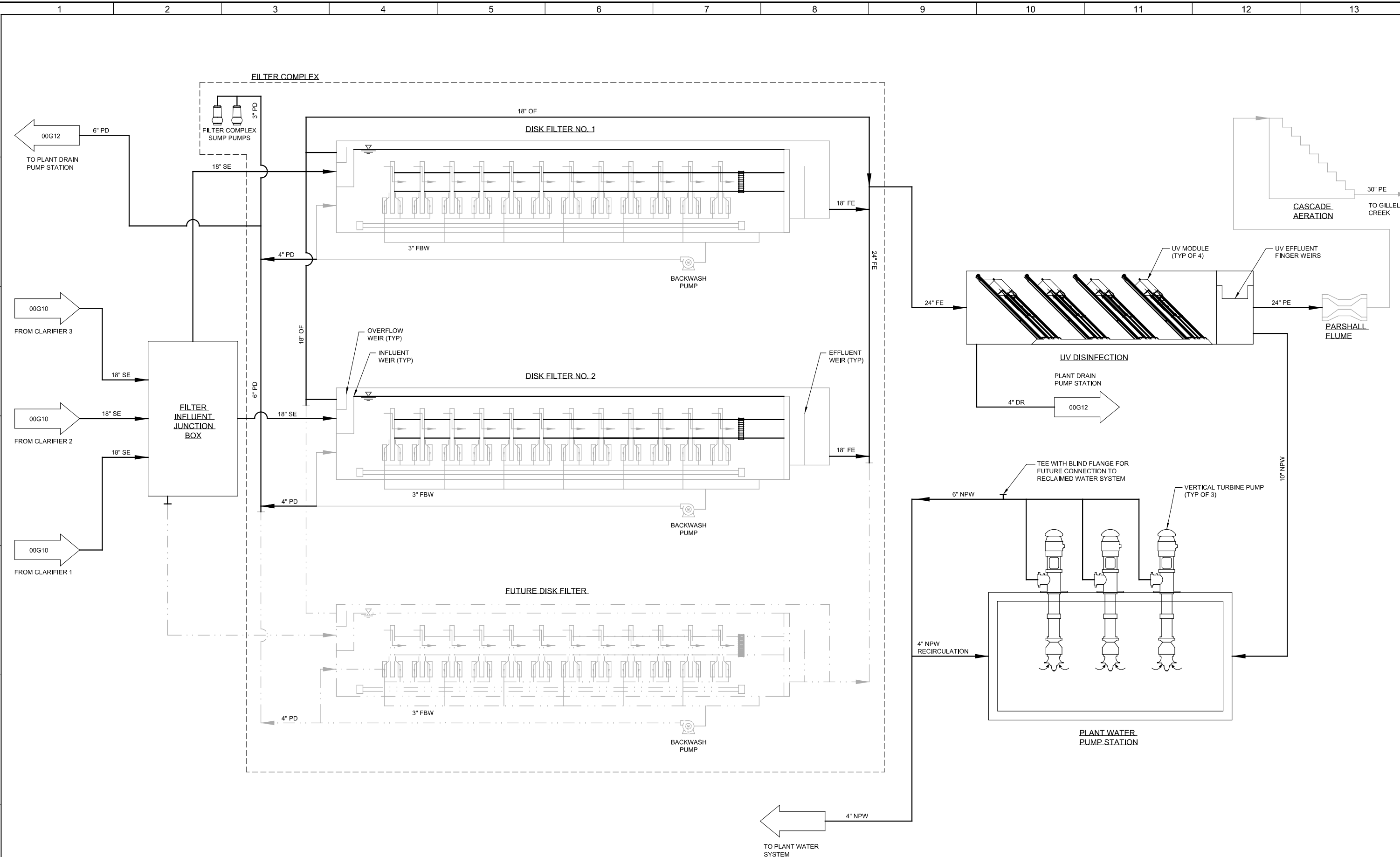
CITY OF AUSTIN	
WILD HORSE RANCH WWTP EXPANSION	
GENERAL	
SECONDARY CLARIFIERS AND RAS PS PFD	
VERIFY SCALES	JOB NO. 10976A.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. 00G10
0 1"	SHEET NO. 12 OF 464
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	

Plot Date: 21-FEB-2022 10:59:43 AM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo Std Pen v0905.pen PlotScale: 1:1

LAST SAVED BY: B.Schroeder



BID SET				DESIGNED DMH					CITY OF AUSTIN			VERIFY SCALES	JOB NO. 10976A.00
				DRAWN LGD					WILD HORSE RANCH WWTTP EXPANSION			BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. 00G11
				CHECKED JEA					GENERAL			0 1"	SHEET NO.
				DATE FEBRUARY 2022					FILTER-UV-EFFLUENT PROCESS FLOW DIAGRAM			IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	13 OF 464
REV	DATE	BY	DESCRIPTION										
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Plt Date: 21-FEB-2022 10:57:07 AM

User: svcPW

Model: Layout1

ColorTable: gshade.ctb

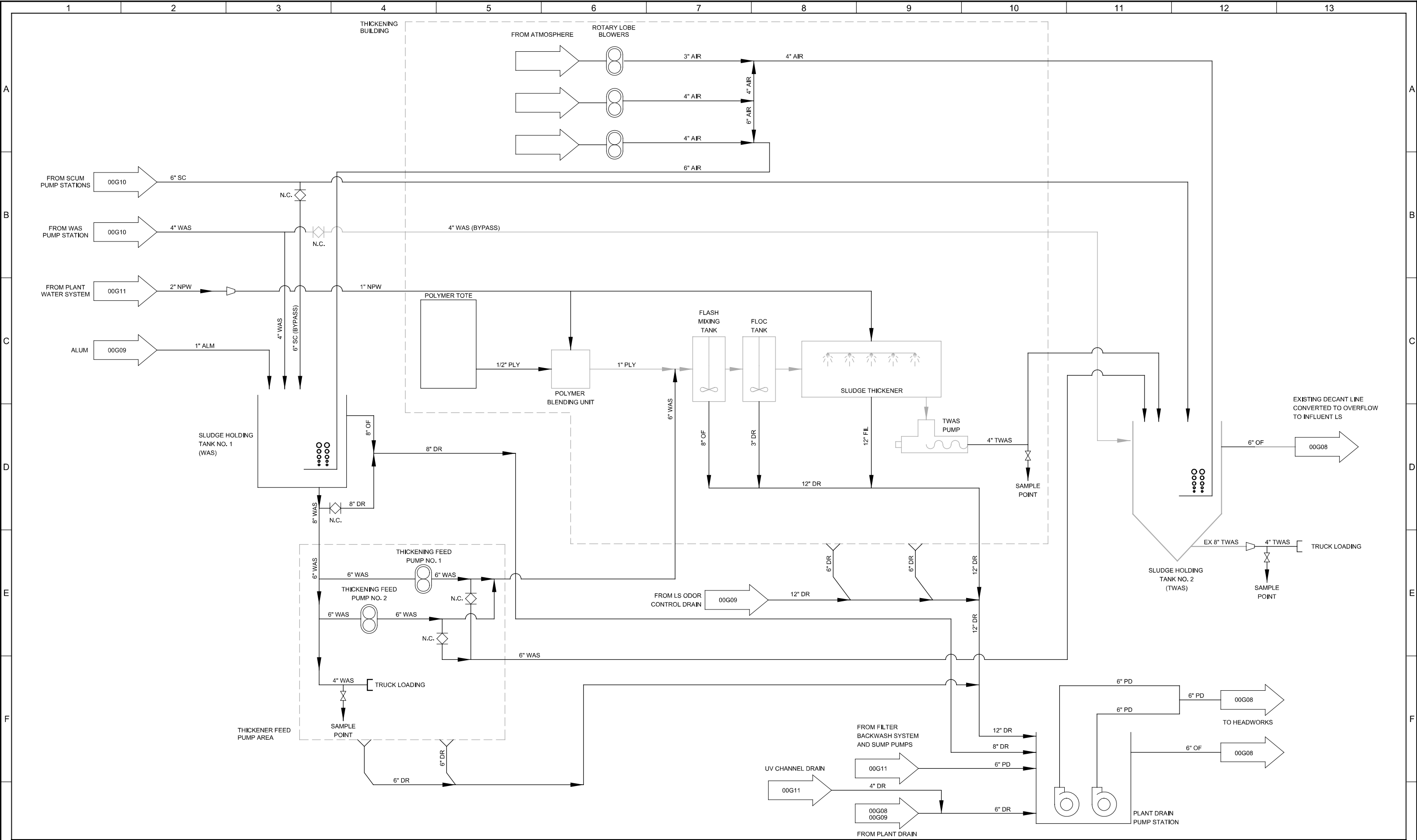
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PlotScale: 1:1

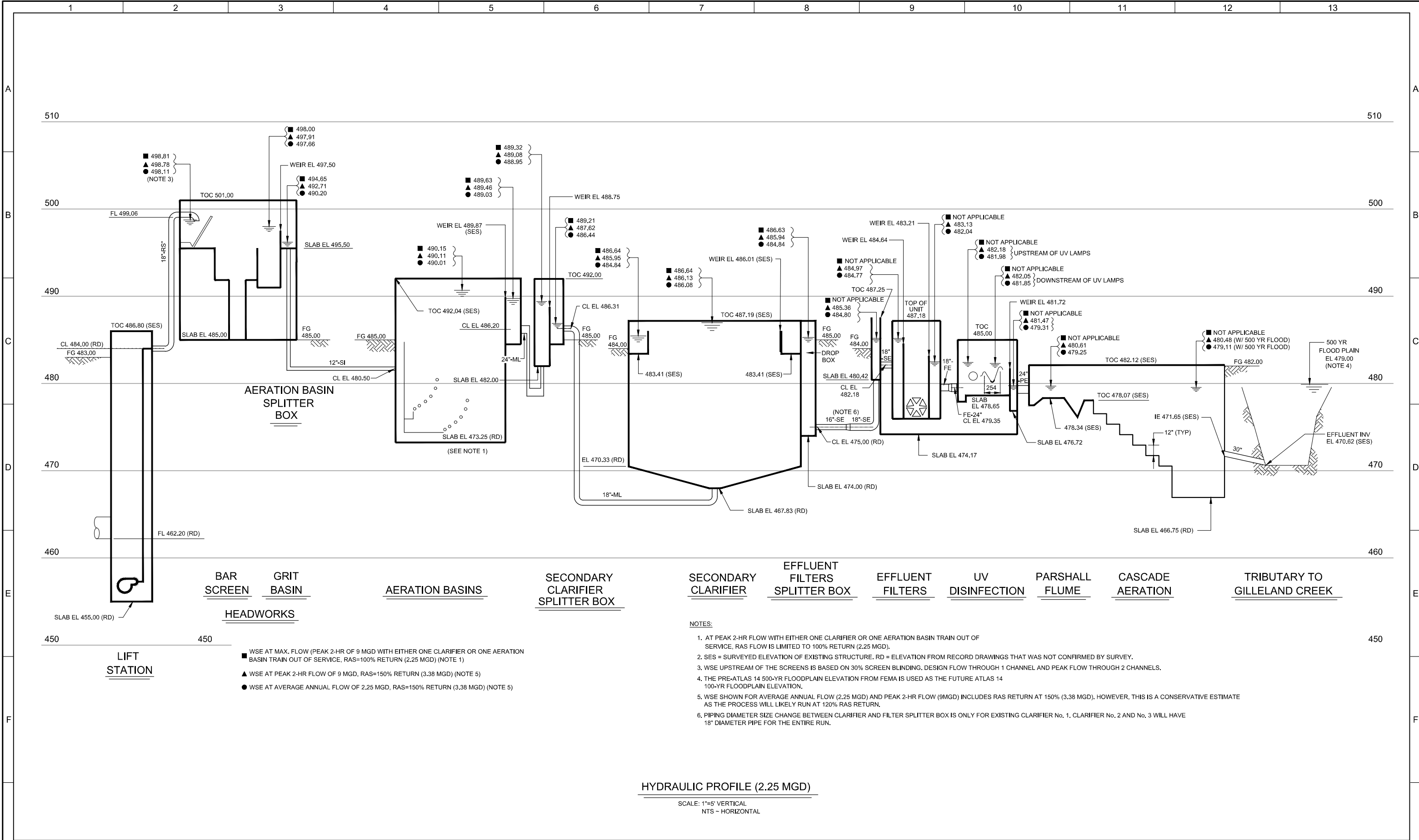
LAST SAVED BY: B.Schroeder

PROJECT NO. 10976A10

FILE NAME: 10976A1000G012.dgn



BID SET				DESIGNED DMH					CITY OF AUSTIN	CITY OF AUSTIN		VERIFY SCALES	JOB NO. 10976A.00
				DRAWN LGD						WILD HORSE RANCH WWTP EXPANSION		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO.
				CHECKED JEA						GENERAL		0 1"	00G12
				DATE FEBRUARY 2022						SLUDGE THICKENING AND STORAGE PROCESS FLOW DIAGRAM		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 14 OF 464
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AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
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TBPE REG. NO. F-3580

TBPE No. F-882

CITY OF
AUSTIN

CITY OF AUSTIN

WILD HORSE RANCH WWT EXPANSION

GENERAL

HYDRAULIC PROFILE (2.25 MGD)

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

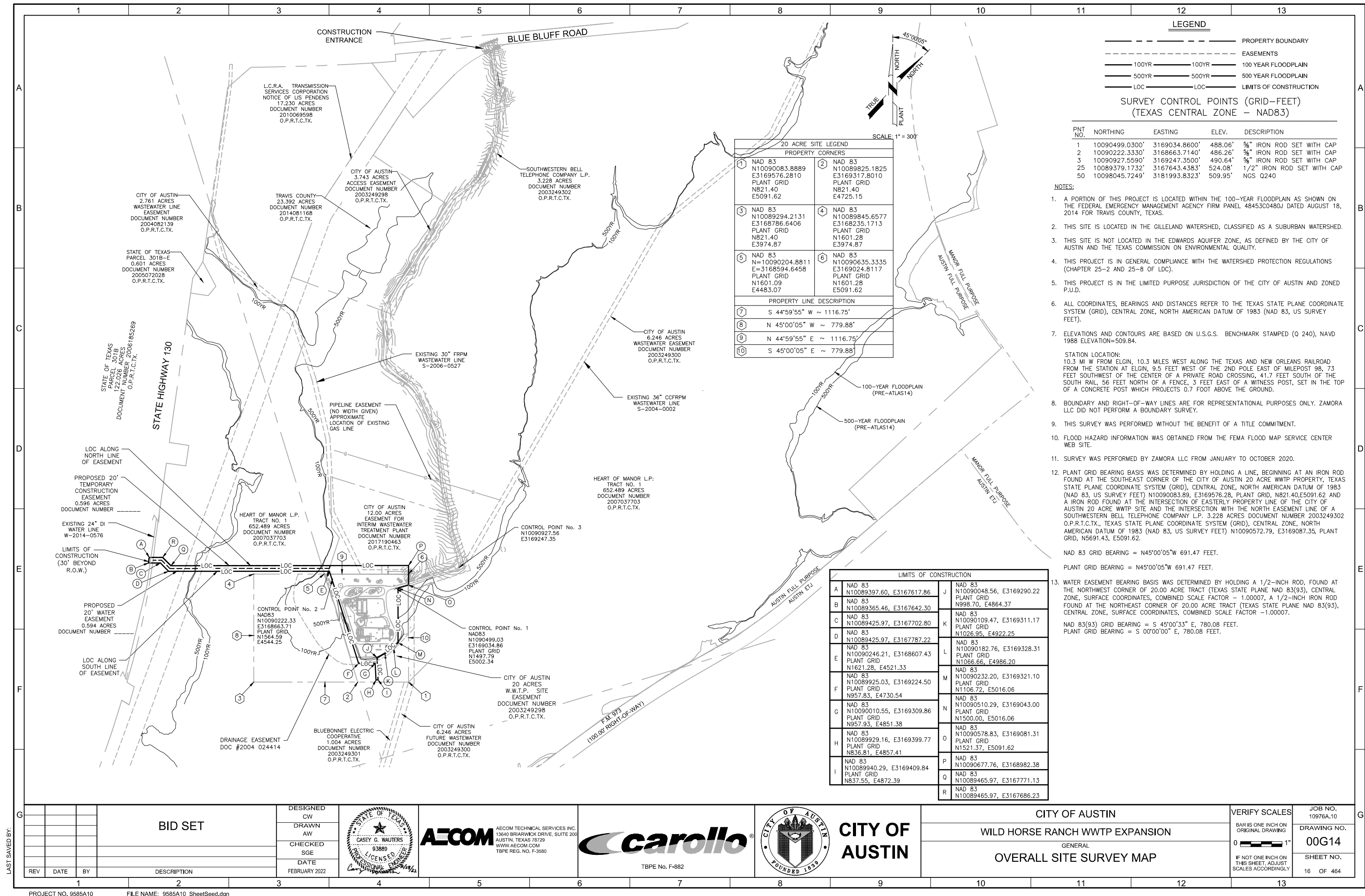
JOB NO.
10976A.10

DRAWING NO.
00G13

SHEET NO.
15 OF 464

PROJECT NO. 9585A10

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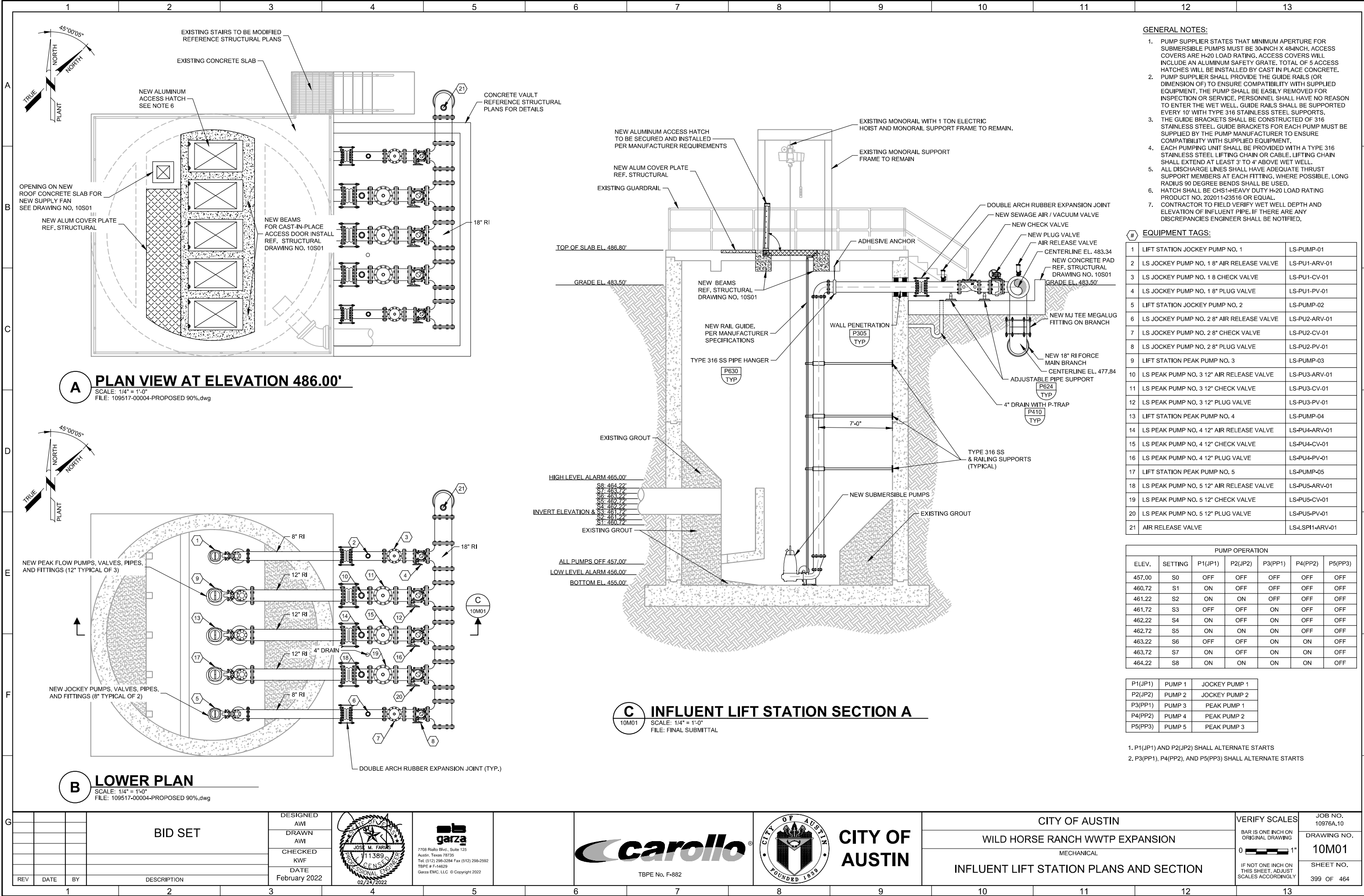
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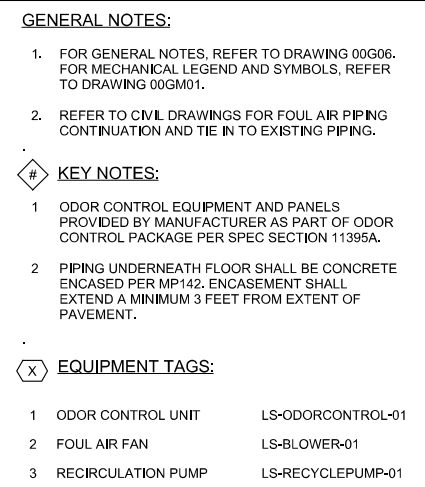
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LAST SAVED BY: vebz

PIPING SYMBOLS													MECHANICAL SYMBOLS																
DOUBLE LINE			SINGLE LINE			DESCRIPTION			DOUBLE LINE			SINGLE LINE			DESCRIPTION			SINGLE LINE			DESCRIPTION			SINGLE LINE			DESCRIPTION		
						WELDED JOINT									HUB & SPIGOT JOINT (RUBBER GASKET)						PUSH-ON JOINT (RESTRAINED)						ADAPTER SIDE GROOVED END ADAPTER FLANGE		
						FLANGED COUPLING ADAPTER									FLEXIBLE COUPLING						METAL BELLOWS EXP JOINT						ELASTOMER BELLOWS EXP JOINT		
						FLEXIBLE COUPLING ADAPTER									EXPANSION COMPENSATOR						ELBOW UP						ELBOW DOWN		
						TEE UP									TEE DOWN						LATERAL UP						CONCENTRIC REDUCER		
						ECCENTRIC REDUCER (FOT, FOB)									UNION						CAP						ANCHOR		
						CROSS									TEE						ELBOW, 45 DEGREE						ELBOW, 22.5 DEGREE		
						ELBOW, 11.25 DEGREE									LATERAL						GATE VALVE						KNIFE GATE VALVE		
						BUTTERFLY VALVE									CHARACTERIZED BALL CONTROL VALVE						3-WAY GLOBE TYPE MIXING VALVE						DIAPHRAGM VALVE		
						PLUG VALVE									ECCENTRIC PLUG VALVE						SWING CHECK VALVE						PINCH VALVE		
						BALL CHECK VALVE									DUAL CHECK VALVE						NEEDLE VALVE						CHECK BACKFLOW PREVENTER		
						PIPE MATERIAL CHANGE									AIR OR CHEMICAL DIFFUSER						BATCHMETER						AIR VENT		
						BASKET STRAINER									COMPRESSOR/TURBINE						COMPRESSOR: RECIPROCATING						DIAPHRAGM SEAL		
						DRAIN									EJECTOR OR EDUCTOR						EXPANSION JOINT, FLEXIBLE VIBRATION JOINT						FAN: EXHAUST/SUPPLY		
						FILTER									FLAME ARRESTER						FLOOR DRAIN						FLOW SWITCH		
						GAUGE: PRESSURE									WEIR						OIL OR MOISTURE TRAP						PRIMARY LEVEL ELEMENT: BUBBLER		
						PRIMARY LEVEL ELEMENT: ELECTRODE									PRIMARY LEVEL ELEMENT: FLUID						PRIMARY LEVEL ELEMENT: INVERTED COLUMN						PRIMARY LEVEL ELEMENT: INVERTED COLUMN		
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B PLAN
SCALE: 1/2" = 1'-0"
FILE: 10976A1015M101

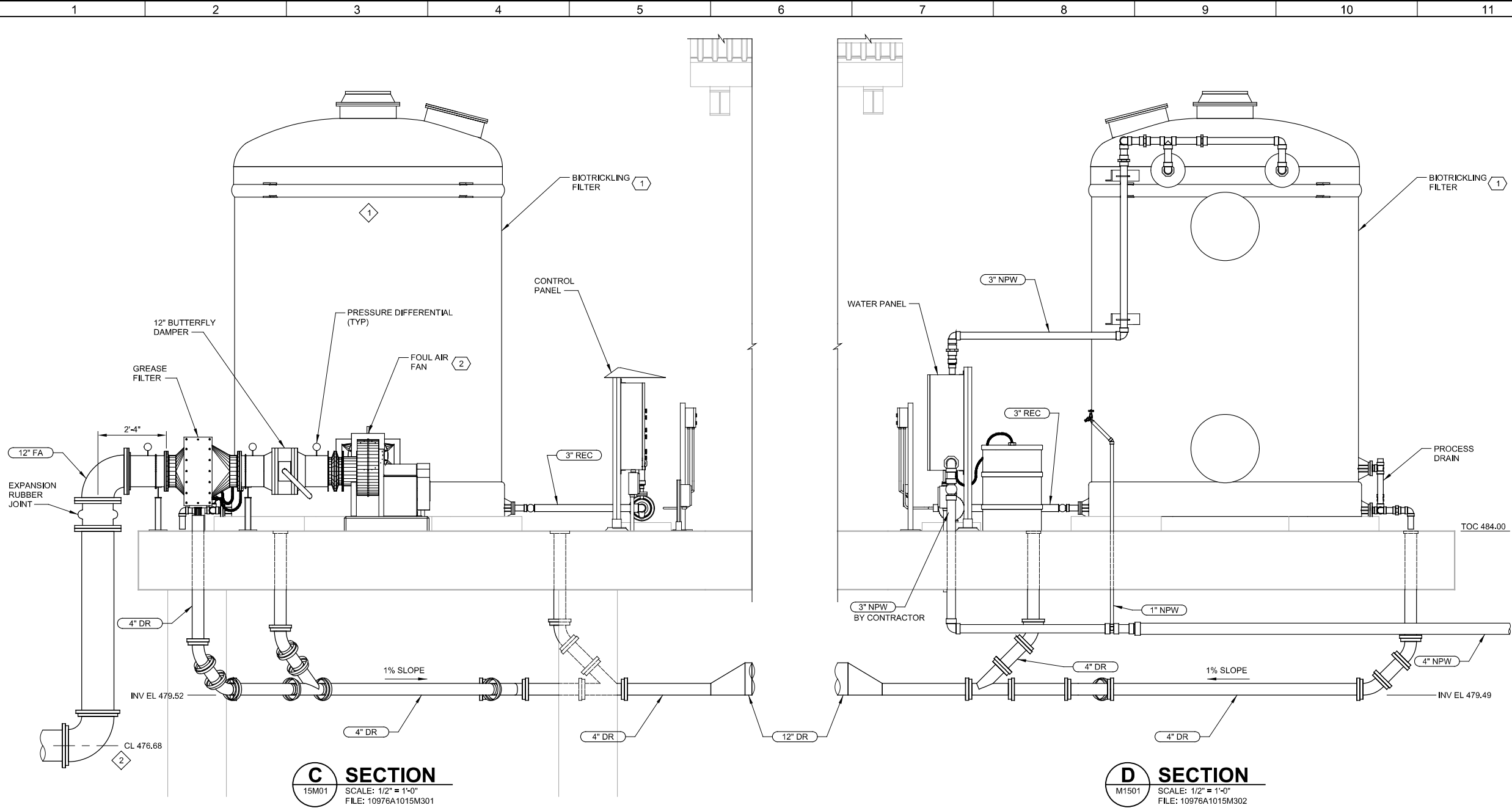
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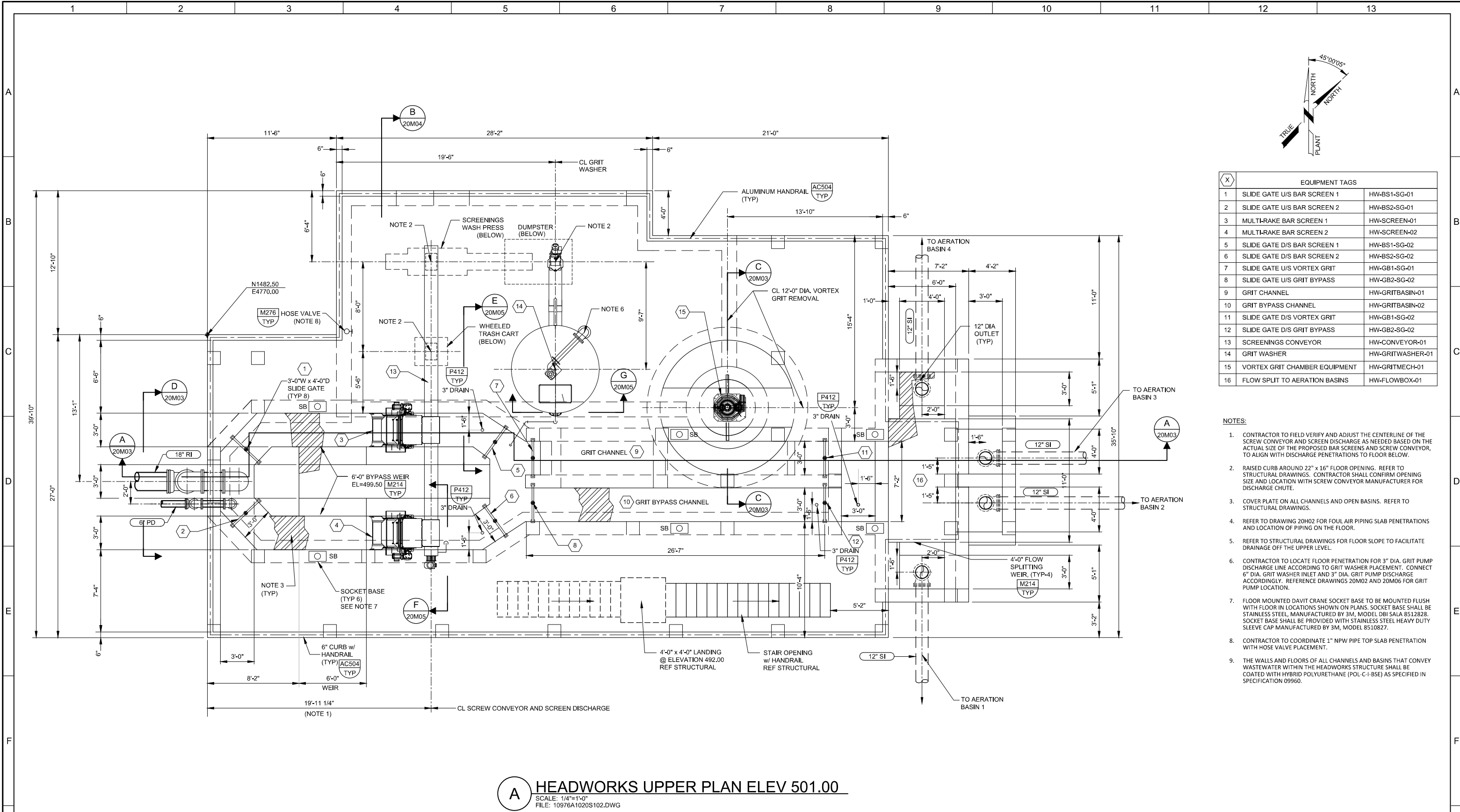
LAST SAVED BY: witzel



- GENERAL NOTES:**
- FOR GENERAL NOTES, REFER TO DRAWING 00G06. FOR MECHANICAL LEGEND AND SYMBOLS, REFER TO DRAWING 00GM01.
 - REFER TO CIVIL DRAWINGS FOR FOUL AIR PIPING CONTINUATION AND TIE IN TO EXISTING PIPING.
- KEY NOTES:**
- ODOR CONTROL EQUIPMENT AND PANELS PROVIDED BY MANUFACTURER AS PART OF ODOR CONTROL PACKAGE PER SPEC SECTION 11395A.
 - PROPOSED FOUL AIR PIPING SHALL BE THE SAME ELEVATION AS EXISTING FOUL AIR PIPING LEAVING THE LIFT STATION. CONTRACTOR TO VERIFY CENTERLINE ELEVATION OF EXISTING FOUL AIR PIPING IN THE FIELD.
- EQUIPMENT TAGS:**
- | | | |
|---|-------------------|-------------------|
| 1 | ODOR CONTROL UNIT | LS-ODORCONTROL-01 |
| 2 | FOUL AIR FAN | LS-BLOWER-01 |

BID SET				DESIGNED SMM					CITY OF AUSTIN	CITY OF AUSTIN		VERIFY SCALES	JOB NO. 10976A.00
				DRAWN LGD						WILD HORSE RANCH WWTP EXPANSION		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO.
				CHECKED DMH						MECHANICAL		0 1"	15M02
				DATE FEBRUARY 2022						INFLUENT LIFT STATION ODOR CONTROL SECTIONS		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 401 OF 464
REV	DATE	BY	DESCRIPTION										
1													

PROJECT NO. 10976A10 FILE NAME: 10976A1015M002.dgn



X	EQUIPMENT TAGS	
1	SLIDE GATE U/S BAR SCREEN 1	HW-BS1-SG-01
2	SLIDE GATE U/S BAR SCREEN 2	HW-BS2-SG-01
3	MULTI-RAKE BAR SCREEN 1	HW-SCREEN-01
4	MULTI-RAKE BAR SCREEN 2	HW-SCREEN-02
5	SLIDE GATE D/S BAR SCREEN 1	HW-BS1-SG-02
6	SLIDE GATE D/S BAR SCREEN 2	HW-BS2-SG-02
7	SLIDE GATE U/S VORTEX GRIT	HW-GB1-SG-01
8	SLIDE GATE U/S GRIT BYPASS	HW-GB2-SG-02
9	GRIT CHANNEL	HW-GRITBASIN-01
10	GRIT BYPASS CHANNEL	HW-GRITBASIN-02
11	SLIDE GATE D/S VORTEX GRIT	HW-GB1-SG-02
12	SLIDE GATE D/S GRIT BYPASS	HW-GB2-SG-02
13	SCREENINGS CONVEYOR	HW-CONVEYOR-01
14	GRIT WASHER	HW-GRITWASHER-01
15	VORTEX GRIT CHAMBER EQUIPMENT	HW-GRITMECH-01
16	FLOW SPLIT TO AERATION BASINS	HW-FLOWBOX-01

- NOTES:
- CONTRACTOR TO FIELD VERIFY AND ADJUST THE CENTERLINE OF THE SCREW CONVEYOR AND SCREEN DISCHARGE AS NEEDED BASED ON THE ACTUAL SIZE OF THE PROPOSED BAR SCREENS AND SCREW CONVEYOR, TO ALIGN WITH DISCHARGE PENETRATIONS TO FLOOR BELOW.
 - RAISED CURB AROUND 22" x 16" FLOOR OPENING. REFER TO STRUCTURAL DRAWINGS. CONTRACTOR SHALL CONFIRM OPENING SIZE AND LOCATION WITH SCREW CONVEYOR MANUFACTURER FOR DISCHARGE CHUTE.
 - COVER PLATE ON ALL CHANNELS AND OPEN BASINS. REFER TO STRUCTURAL DRAWINGS.
 - REFER TO DRAWING 20H02 FOR FOUL AIR PIPING SLAB PENETRATIONS AND LOCATION OF PIPING ON THE FLOOR.
 - REFER TO STRUCTURAL DRAWINGS FOR FLOOR SLOPE TO FACILITATE DRAINAGE OFF THE UPPER LEVEL.
 - CONTRACTOR TO LOCATE FLOOR PENETRATION FOR 3" DIA. GRIT PUMP DISCHARGE LINE ACCORDING TO GRIT WASHER PLACEMENT. CONNECT 6" DIA. GRIT WASHER INLET AND 3" DIA. GRIT PUMP DISCHARGE ACCORDINGLY. REFERENCE DRAWINGS 20M02 AND 20M06 FOR GRIT PUMP LOCATION.
 - FLOOR MOUNTED DAVIT CRANE SOCKET BASE TO BE MOUNTED FLUSH WITH FLOOR IN LOCATIONS SHOWN ON PLANS. SOCKET BASE SHALL BE STAINLESS STEEL, MANUFACTURED BY 3M, MODEL DBI SALA 8512828. SOCKET BASE SHALL BE PROVIDED WITH STAINLESS STEEL HEAVY DUTY SLEEVE CAP MANUFACTURED BY 3M, MODEL 8510827.
 - CONTRACTOR TO COORDINATE 1" NPW PIPE TOP SLAB PENETRATION WITH HOSE VALVE PLACEMENT.
 - THE WALLS AND FLOORS OF ALL CHANNELS AND BASINS THAT CONVEY WASTEWATER WITHIN THE HEADWORKS STRUCTURE SHALL BE COATED WITH HYBRID POLYURETHANE (POL-C-I-BSE) AS SPECIFIED IN SPECIFICATION 09960.

A HEADWORKS UPPER PLAN ELEV 501.00
SCALE: 1/4"=1'-0"
FILE: 10976A1020S102.DWG

LAST SAVED BY:

REV	DATE	BY	DESCRIPTION

BID SET

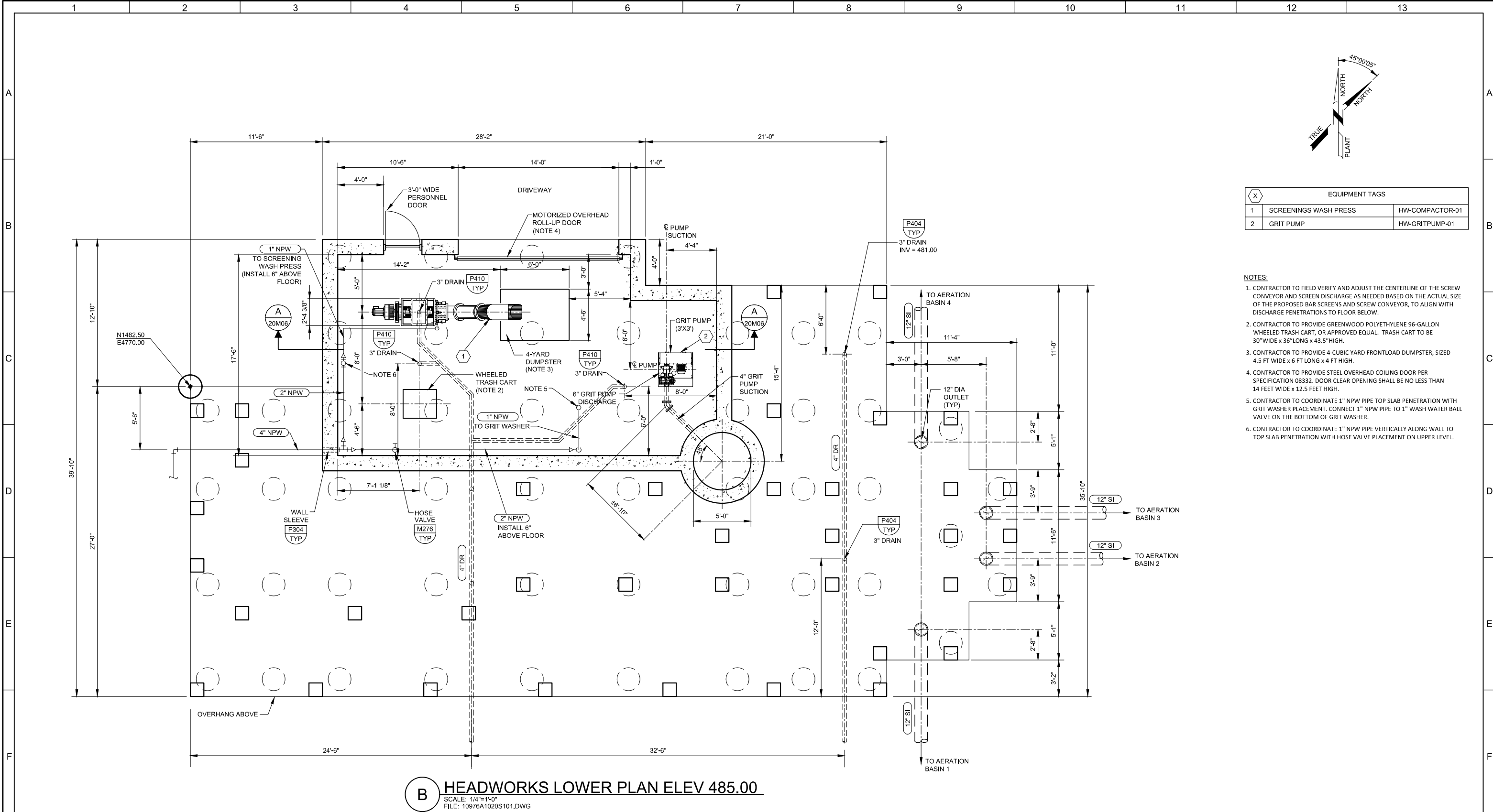
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CHECKED	SGE
DATE	FEBRUARY 2022

AECOM
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13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

TBPE No. F-882

CITY OF AUSTIN

CITY OF AUSTIN		VERIFY SCALES	JOB NO. 10976A.10
WILD HORSE RANCH WWT EXPANSION		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO.
MECHANICAL		0 1"	20M01
HEADWORKS UPPER PLAN		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 402 OF 464



EQUIPMENT TAGS		
1	SCREENINGS WASH PRESS	HW-COMPACTOR-01
2	GRIT PUMP	HW-GRITPUMP-01

- NOTES:
- CONTRACTOR TO FIELD VERIFY AND ADJUST THE CENTERLINE OF THE SCREW CONVEYOR AND SCREEN DISCHARGE AS NEEDED BASED ON THE ACTUAL SIZE OF THE PROPOSED BAR SCREENS AND SCREW CONVEYOR, TO ALIGN WITH DISCHARGE PENETRATIONS TO FLOOR BELOW.
 - CONTRACTOR TO PROVIDE GREENWOOD POLYETHYLENE 96-GALLON WHEELED TRASH CART, OR APPROVED EQUAL. TRASH CART TO BE 30" WIDE x 36" LONG x 43.5" HIGH.
 - CONTRACTOR TO PROVIDE 4-CUBIC YARD FRONTLOAD DUMPSTER, SIZED 4.5 FT WIDE x 6 FT LONG x 4 FT HIGH.
 - CONTRACTOR TO PROVIDE STEEL OVERHEAD COILING DOOR PER SPECIFICATION 08332. DOOR CLEAR OPENING SHALL BE NO LESS THAN 14 FEET WIDE x 12.5 FEET HIGH.
 - CONTRACTOR TO COORDINATE 1" NPW PIPE TOP SLAB PENETRATION WITH GRIT WASHER PLACEMENT. CONNECT 1" NPW PIPE TO 1" WASH WATER BALL VALVE ON THE BOTTOM OF GRIT WASHER.
 - CONTRACTOR TO COORDINATE 1" NPW PIPE VERTICALLY ALONG WALL TO TOP SLAB PENETRATION WITH HOSE VALVE PLACEMENT ON UPPER LEVEL.

B HEADWORKS LOWER PLAN ELEV 485.00
SCALE: 1/4"=1'-0"
FILE: 10976A1020S101.DWG

LAST SAVED BY:

REV	DATE	BY	DESCRIPTION

BID SET

DESIGNED	RL/CW
DRAWN	AW
CHECKED	SGE
DATE	FEBRUARY 2022

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AUSTIN, TEXAS 78729
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TBPE No. F-882

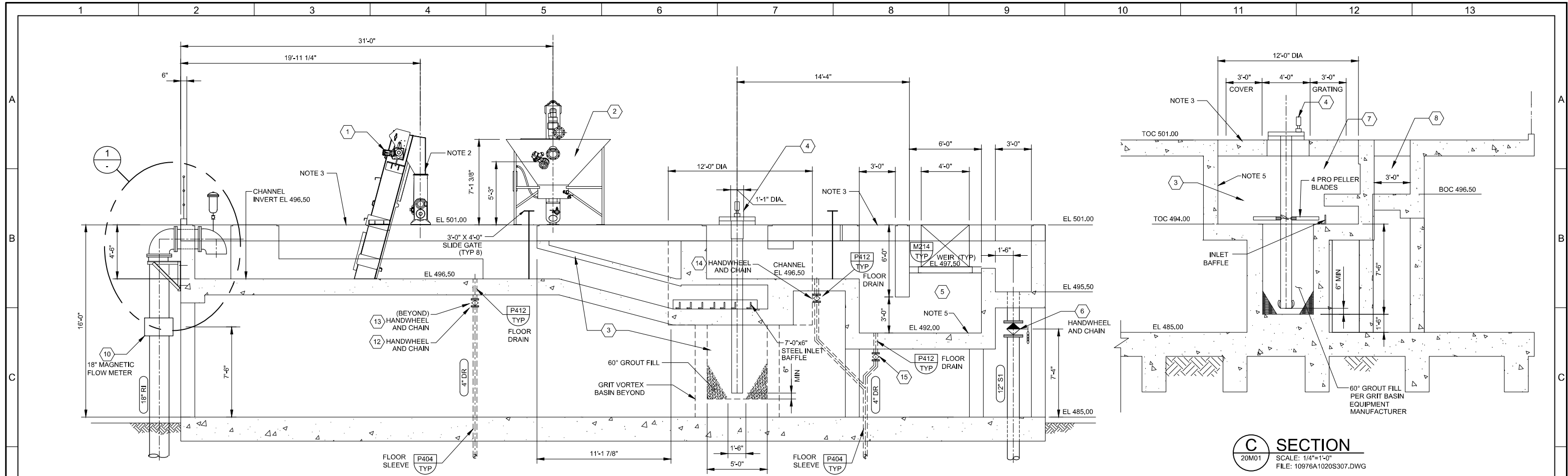
CITY OF AUSTIN

CITY OF AUSTIN	
WILD HORSE RANCH WWTP EXPANSION	
MECHANICAL	
HEADWORKS LOWER PLAN	

VERIFY SCALES	JOB NO. 10976A.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. 20M02
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 403 OF 464

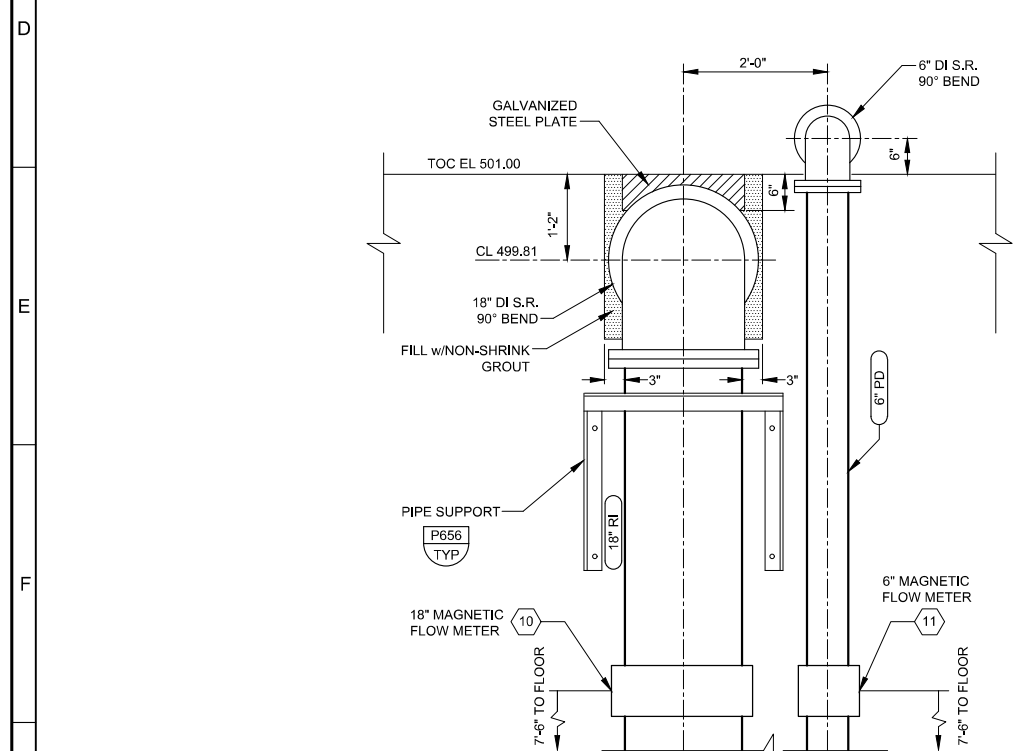
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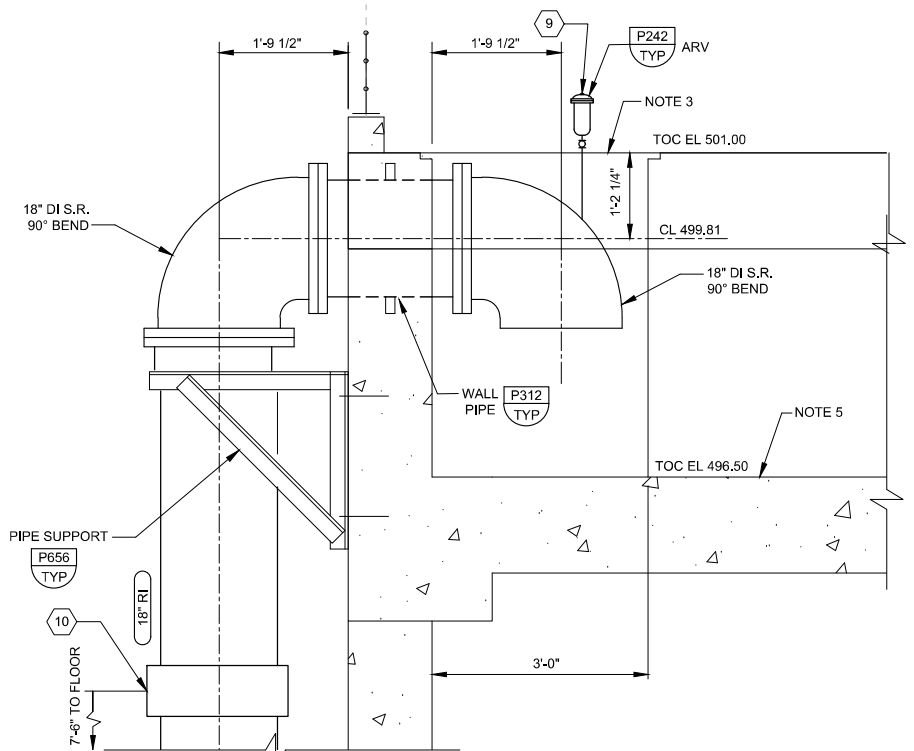


A SECTION
20M01
SCALE: 1/4"=1'-0"
FILE: 10976A1020S302.DWG

C SECTION
20M01
SCALE: 1/4"=1'-0"
FILE: 10976A1020S307.DWG



D SECTION
20M01
SCALE: 3/4"=1'-0"
FILE:



1 DETAIL
20M01
SCALE: 3/4"=1'-0"
FILE: 10976A1020S302.DWG

EQUIPMENT TAGS		
1	BAR SCREEN 1	HW-SCREEN-01
2	GRIT WASHER	HW-GRITWASHER-01
3	VORTEX GRIT CHAMBER	HW-GRITBASIN-01
4	VORTEX GRIT CHAMBER EQUIPMENT	HW-GRITMECH-01
5	FLOW SPLIT TO AERATION BASINS	HW-FLOWBOX-01
6	PLUG VALVE ISOLATION AB 2	HW-FLB1-PV-02
7	GRIT CHANNEL	HW-GRITBASIN-01
8	GRIT BYPASS CHANNEL	HW-GRITBASIN-02
9	AIR RELEASE VALVE	HW-YAPH1-ARV-01
10	RAW INFLUENT FLOW METER	HW-YAPH1-FIT-01
11	PUMPED DRAINAGE FLOW METER	HW-YAPH1-FIT-02

- NOTES:**
- CONTRACTOR TO FIELD VERIFY AND ADJUST THE CENTERLINE OF THE SCREW CONVEYOR AND SCREEN DISCHARGE AS NEEDED BASED ON THE ACTUAL SIZE OF THE PROPOSED BAR SCREENS AND SCREW CONVEYOR, TO ALIGN WITH DISCHARGE PENETRATIONS TO FLOOR BELOW.
 - DIVERTER CHUTE ASSEMBLY FOR EMERGENCY USE TO BE PROVIDED BY MANUFACTURER TO DIVERT SCREENINGS OVER THE SCREENINGS CONVEYOR AND INTO A TEMPORARY RECEPTACLE. REFER TO SPECIFICATION 11327 - MULTI-RAKE SCREENS.
 - COVER PLATE ON ALL CHANNELS AND OPEN BASINS. REFER TO STRUCTURAL DRAWINGS.
 - DIRECT DISCHARGE PIPE FROM AIR RELEASE VALVE TO CHANNEL.
 - THE WALLS AND FLOORS OF ALL CHANNELS AND BASINS THAT CONVEY WASTEWATER WITHIN THE HEADWORKS STRUCTURE SHALL BE COATED WITH HYBRID POLYURETHANE (POL-C-I-BSE) AS SPECIFIED IN SPECIFICATION 09960.

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BID SET

DESIGNED	RL/CW
DRAWN	AW
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DATE	FEBRUARY 2022

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AUSTIN, TEXAS 78729
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TBP# REG. NO. F-3580

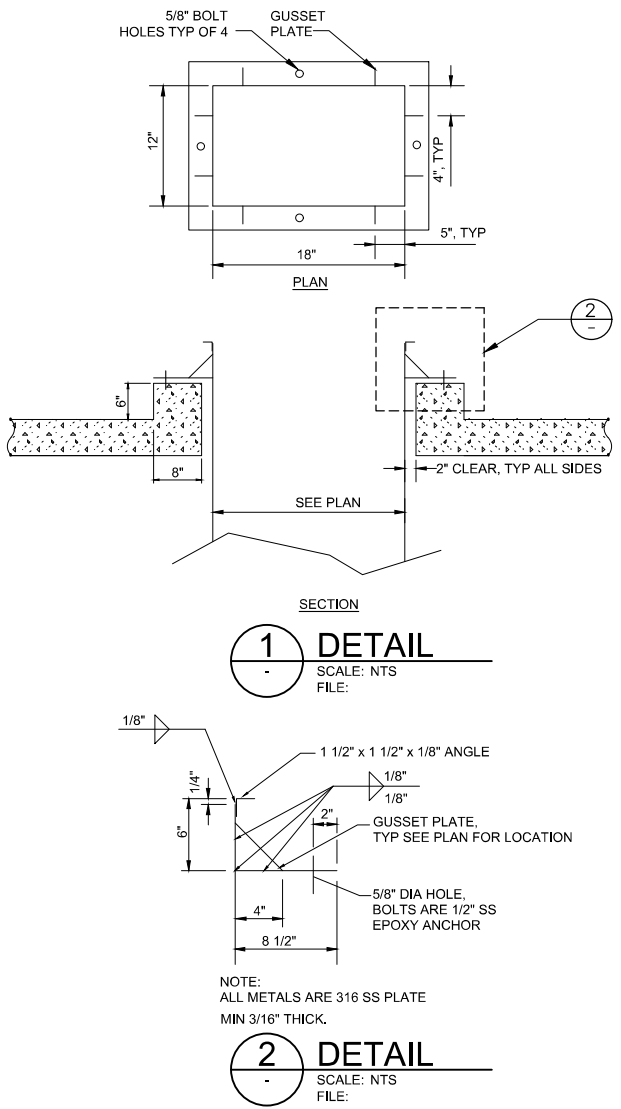
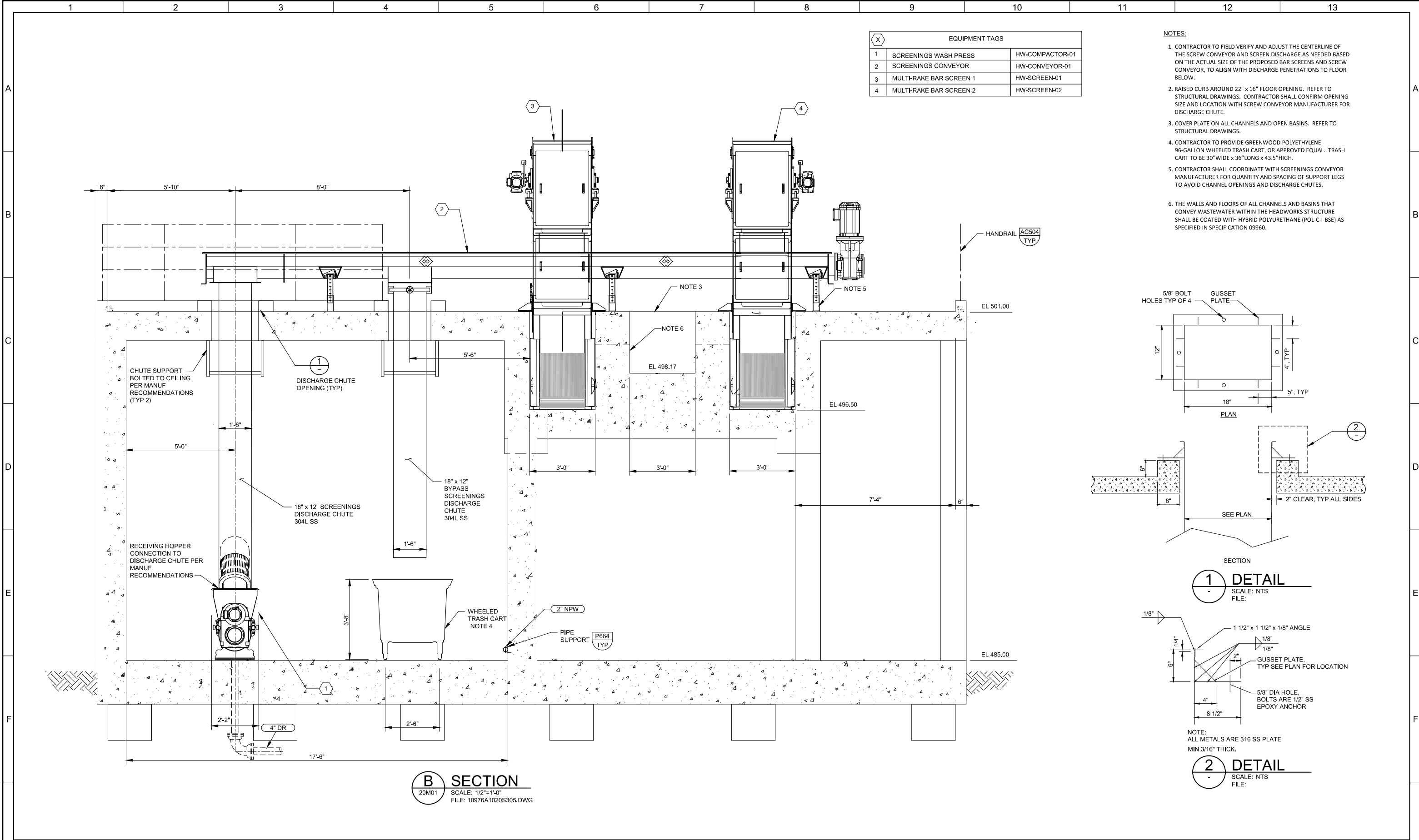
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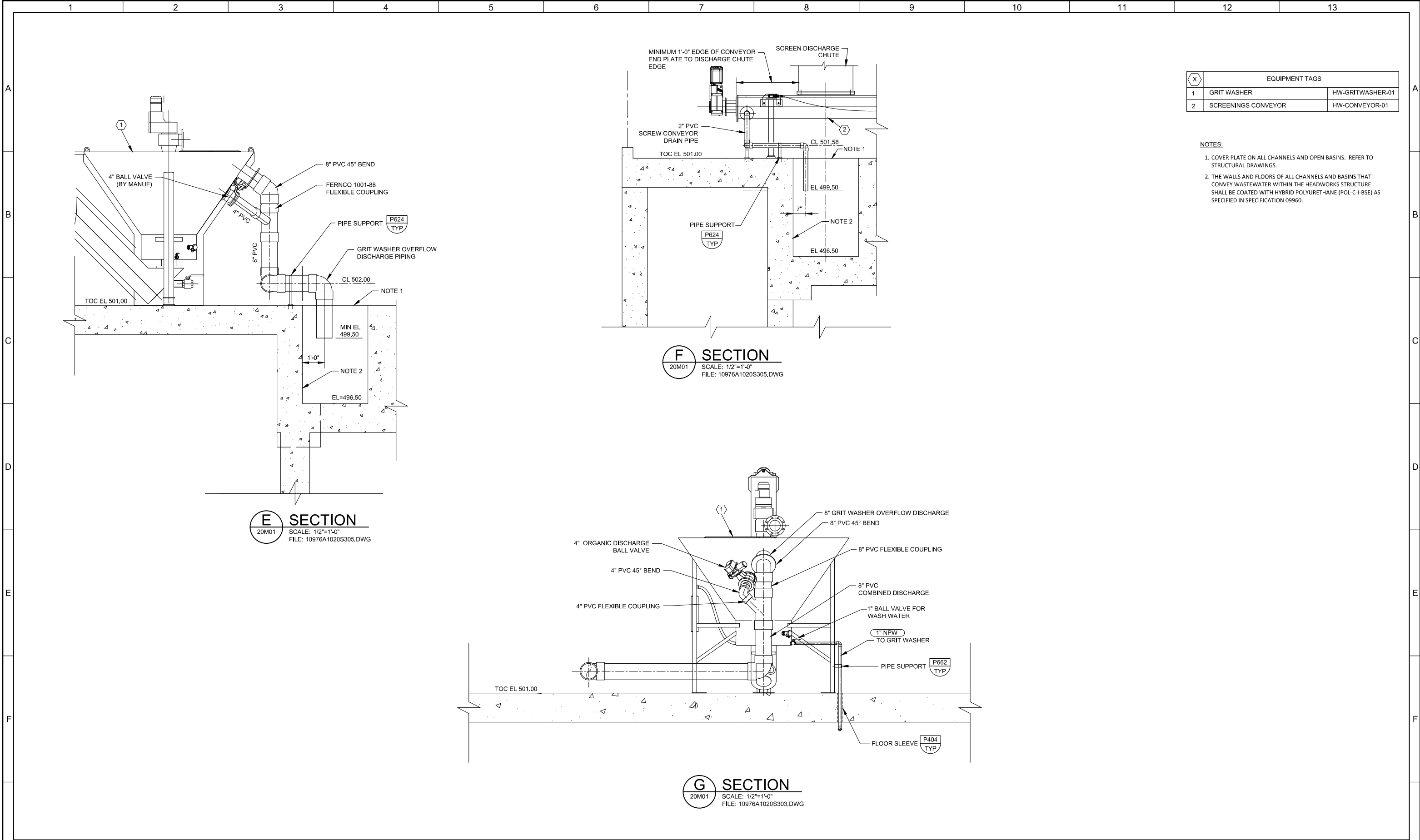
CITY OF AUSTIN

CITY OF AUSTIN		VERIFY SCALES	JOB NO.
WILD HORSE RANCH WWTP EXPANSION		BAR IS ONE INCH ON ORIGINAL DRAWING	10976A.10
MECHANICAL		0 1"	DRAWING NO.
HEADWORKS SECTION (SHEET 1 OF 4)		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	20M03
			SHEET NO.
			404 OF 464

PROJECT NO. 9585A10

FILE NAME:





EQUIPMENT TAGS		
1	GRIT WASHER	HW-GRITWASHER-01
2	SCREENINGS CONVEYOR	HW-CONVEYOR-01

- NOTES:
- COVER PLATE ON ALL CHANNELS AND OPEN BASINS. REFER TO STRUCTURAL DRAWINGS.
 - THE WALLS AND FLOORS OF ALL CHANNELS AND BASINS THAT CONVEY WASTEWATER WITHIN THE HEADWORKS STRUCTURE SHALL BE COATED WITH HYBRID POLYURETHANE (POL-C-I-BSE) AS SPECIFIED IN SPECIFICATION 09960.

E SECTION
20M01
SCALE: 1/2"=1'-0"
FILE: 10976A1020S305.DWG

F SECTION
20M01
SCALE: 1/2"=1'-0"
FILE: 10976A1020S305.DWG

G SECTION
20M01
SCALE: 1/2"=1'-0"
FILE: 10976A1020S303.DWG

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DATE	FEBRUARY 2022

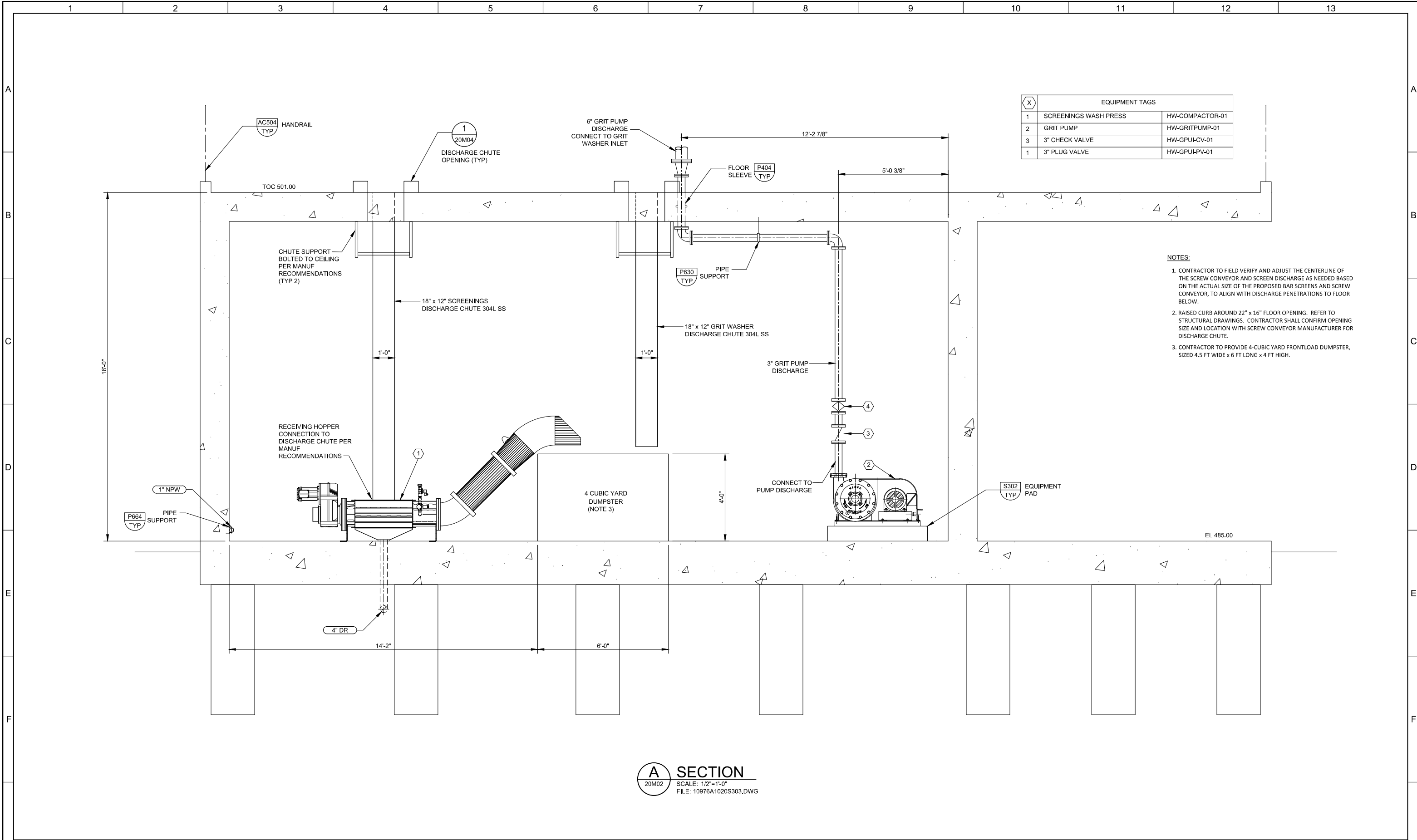
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

TBPE No. F-882

CITY OF AUSTIN

CITY OF AUSTIN	
WILD HORSE RANCH WWTP EXPANSION	
MECHANICAL	
HEADWORKS SECTION (SHEET 3 OF 4)	

VERIFY SCALES	JOB NO. 10976A.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. 20M05
0 1"	SHEET NO. 406 OF 464
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	



LAST SAVED BY:

REV	DATE	BY	DESCRIPTION

BID SET

DESIGNED	RL/CW
DRAWN	AW
CHECKED	SGE
DATE	FEBRUARY 2022

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TBPE REG. NO. F-3580

TBPE No. F-882

CITY OF AUSTIN

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
HEADWORKS SECTION
(SHEET 4 OF 4)

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

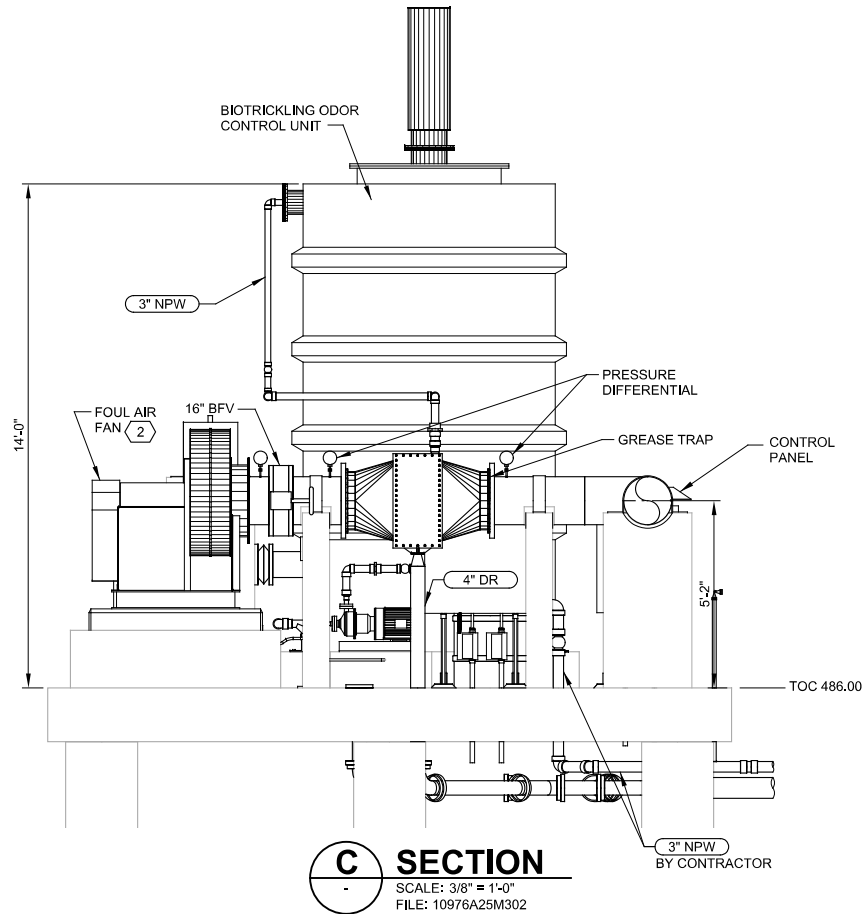
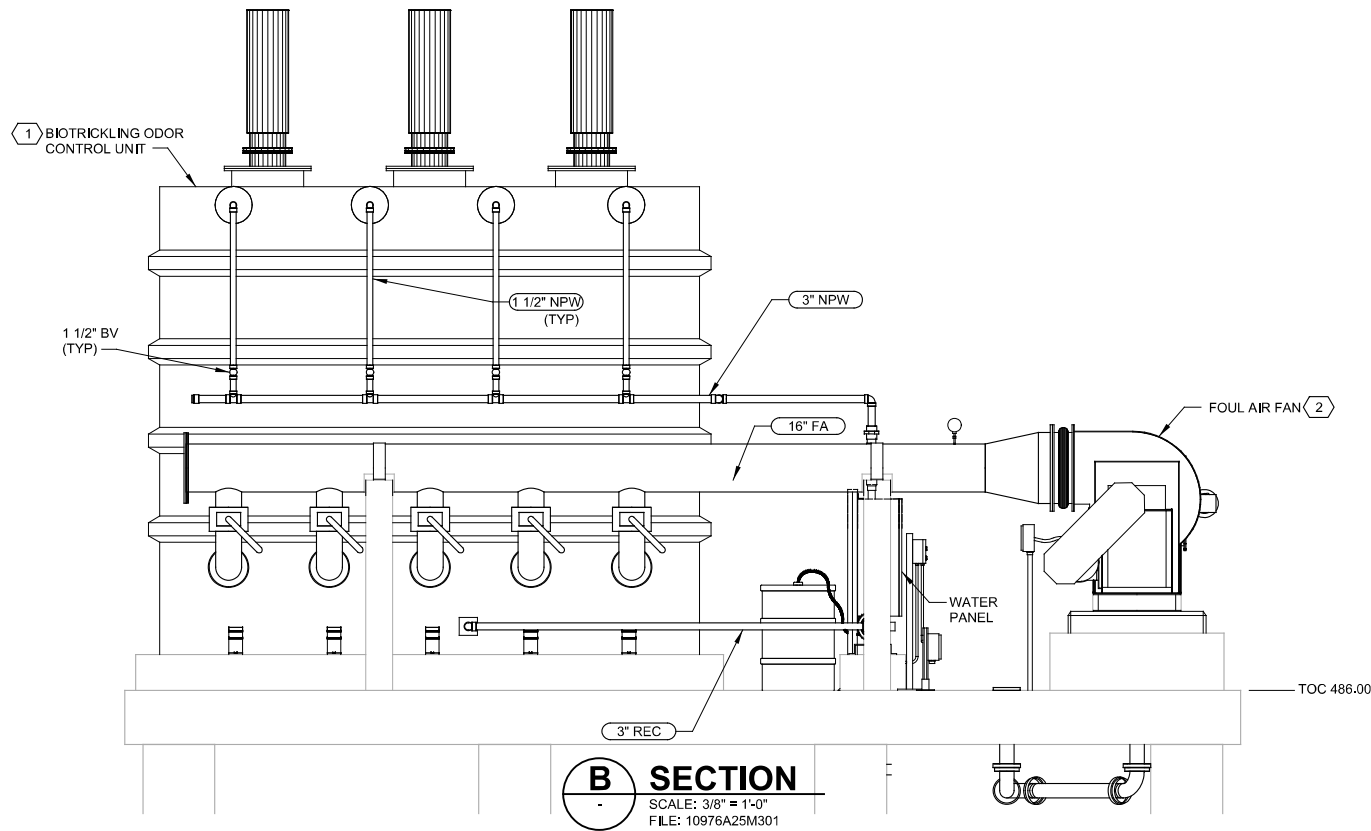
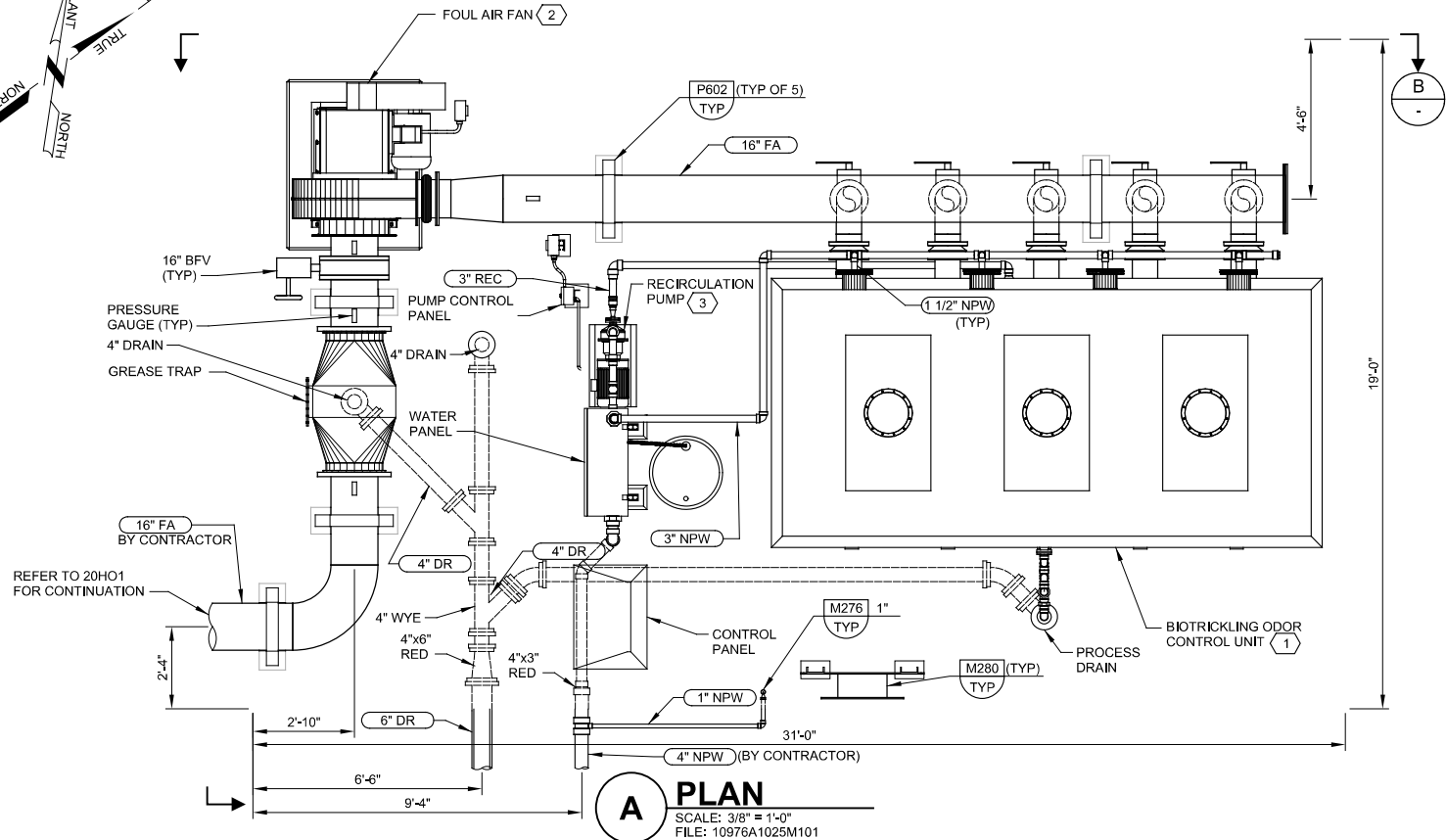
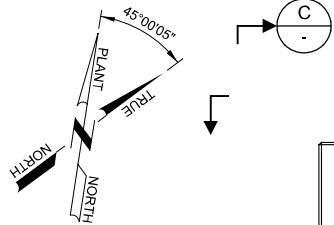
JOB NO.
10976A.10
DRAWING NO.
20M06
SHEET NO.
407 OF 464

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LAST SAVED BY: wjz



GENERAL NOTES:

- FOR GENERAL NOTES, REFER TO DRAWING 00G06. FOR MECHANICAL LEGEND AND SYMBOLS, REFER TO DRAWING 00GM01.
- REFER TO CIVIL DRAWINGS FOR FOUL AIR PIPING CONTINUATION AND HEADWORKS MECHANICAL DRAWINGS FOR ASSOCIATED HVAC.

KEY NOTES:

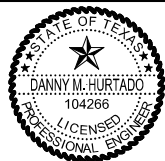
- ODOR CONTROL EQUIPMENT AND PANELS PROVIDED BY MANUFACTURER AS PART OF ODOR CONTROL PACKAGE PER SPEC SECTION 11395A.
- REFER TO CIVIL DRAWINGS FOR CONTINUATION OF PIPING.
- CONCRETE ENCASE PIPES UNDER SLAB PER TYPICAL DETAIL MP142.

EQUIPMENT TAGS:

- | | | |
|---|--------------------|-------------------|
| 1 | ODOR CONTROL UNIT | HW-ODORCONTROL-01 |
| 2 | FOUL AIR FAN | HW-BLOWER-01 |
| 3 | RECIRCULATION PUMP | HW-RECYCLEPUMP-01 |

BID SET

DESIGNED
SMM
DRAWN
LGD
CHECKED
DMH
DATE
FEBRUARY 2022



Digitally signed by Daniel Hurtado
Contact Info: Carollo Engineers, Inc.
Date: 2022.02.20 14:51:24 -0600

carollo

TBPELS No. F-882



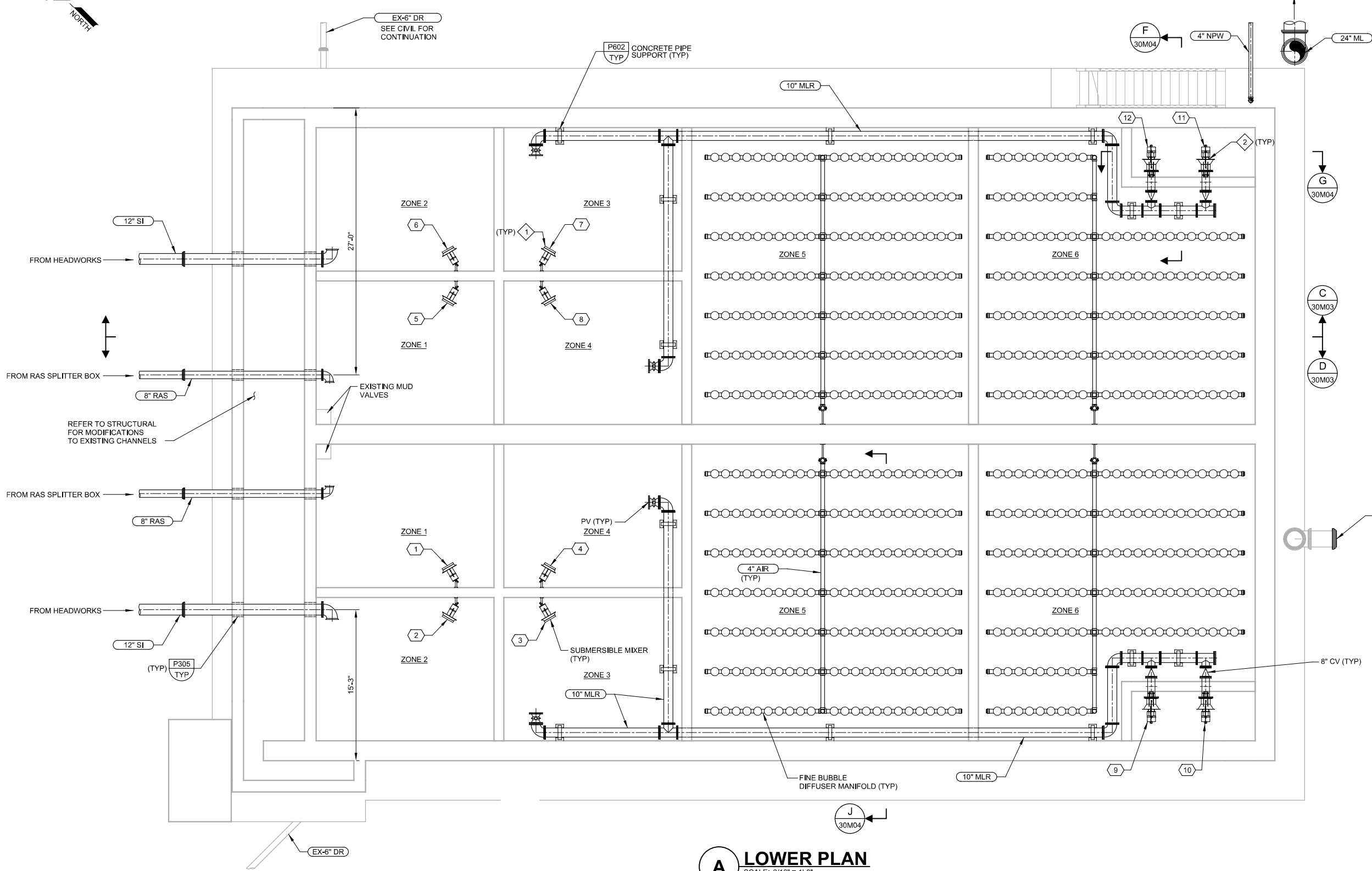
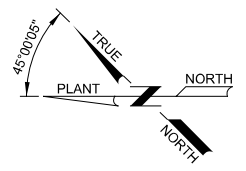
**CITY OF
AUSTIN**

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
HEADWORKS ODOR CONTROL
PLAN AND SECTIONS

VERIFY SCALES
BAR IS ONE INCH ON
ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

JOB NO.
10976A.00
DRAWING NO.
25M01
SHEET NO.
408 OF 464

Plot Date: 21-FEB-2022 11:09:57 AM
User: svcPW
Model: Layout1
CobriTable: gshade.ctb
DesignScript: Carollo Std Pen v0905.pen
PlotScale: 1:1
LAST SAVED BY: witzel



- GENERAL NOTES:**
1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO STARTING WORK.
 2. REFER TO SPECIFICATION 01140 - WORK RESTRICTIONS FOR SHUTDOWN REQUIREMENTS.
 3. DIFFUSER LAYOUT SHOWN IS ILLUSTRATIVE. REFER TO SPECIFICATIONS FOR EXACT SIZING REQUIREMENTS. COARSE BUBBLE DIFFUSER PER SPECIFICATION 11377A AND FINE BUBBLE DIFFUSER PER SPECIFICATION 11378A.
- KEY NOTES:**
1. SUBMERSIBLE MIXERS PER SPECIFICATION 11317. MIXER ANGLE AND DEPTH PER MANUFACTURER RECOMMENDATION.
 2. MIXED LIQUOR PROPELLER PUMPS PER SPECIFICATION 11312X.
- EQUIPMENT TAGS:**
- | Tag | Equipment | Tag |
|-----|----------------------------------------|-------------------|
| 1 | AB 1 MIXER 1 | AB-AB1-MIX-01 |
| 2 | AB 1 MIXER 2 | AB-AB1-MIX-02 |
| 3 | AB 1 MIXER 3 | AB-AB1-MIX-03 |
| 4 | AB 1 MIXER 4 | AB-AB1-MIX-04 |
| 5 | AB 2 MIXER 1 | AB-AB2-MIX-01 |
| 6 | AB 2 MIXER 2 | AB-AB2-MIX-02 |
| 7 | AB 2 MIXER 3 | AB-AB2-MIX-03 |
| 8 | AB 2 MIXER 4 | AB-AB2-MIX-04 |
| 9 | AB 1 MIXED LIQUOR RECYCLE (MLR) PUMP 1 | AB-RECYCLEPUMP-01 |
| 10 | AB 1 MLR PUMP 2 | AB-RECYCLEPUMP-02 |
| 11 | AB 2 MLR PUMP 1 | AB-RECYCLEPUMP-03 |
| 12 | AB 2 MLR PUMP 2 | AB-RECYCLEPUMP-04 |

A LOWER PLAN
SCALE: 3/16" = 1'-0"
FILE: 10976A11030M110

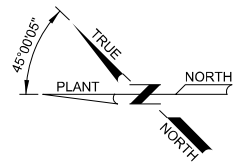
BID SET				DESIGNED SMM					CITY OF AUSTIN	CITY OF AUSTIN WILD HORSE RANCH WWTP EXPANSION MECHANICAL AERATION BASINS 1 & 2 MODIFICATIONS LOWER PLAN	VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1"	JOB NO. 10976A.00
REV	DATE	BY	DESCRIPTION	CHECKED DMH							DRAWING NO. 30M01	
DATE FEBRUARY 2022											SHEET NO. 409 OF 464	

Plt Date: 21-FEB-2022 11:09:34 AM

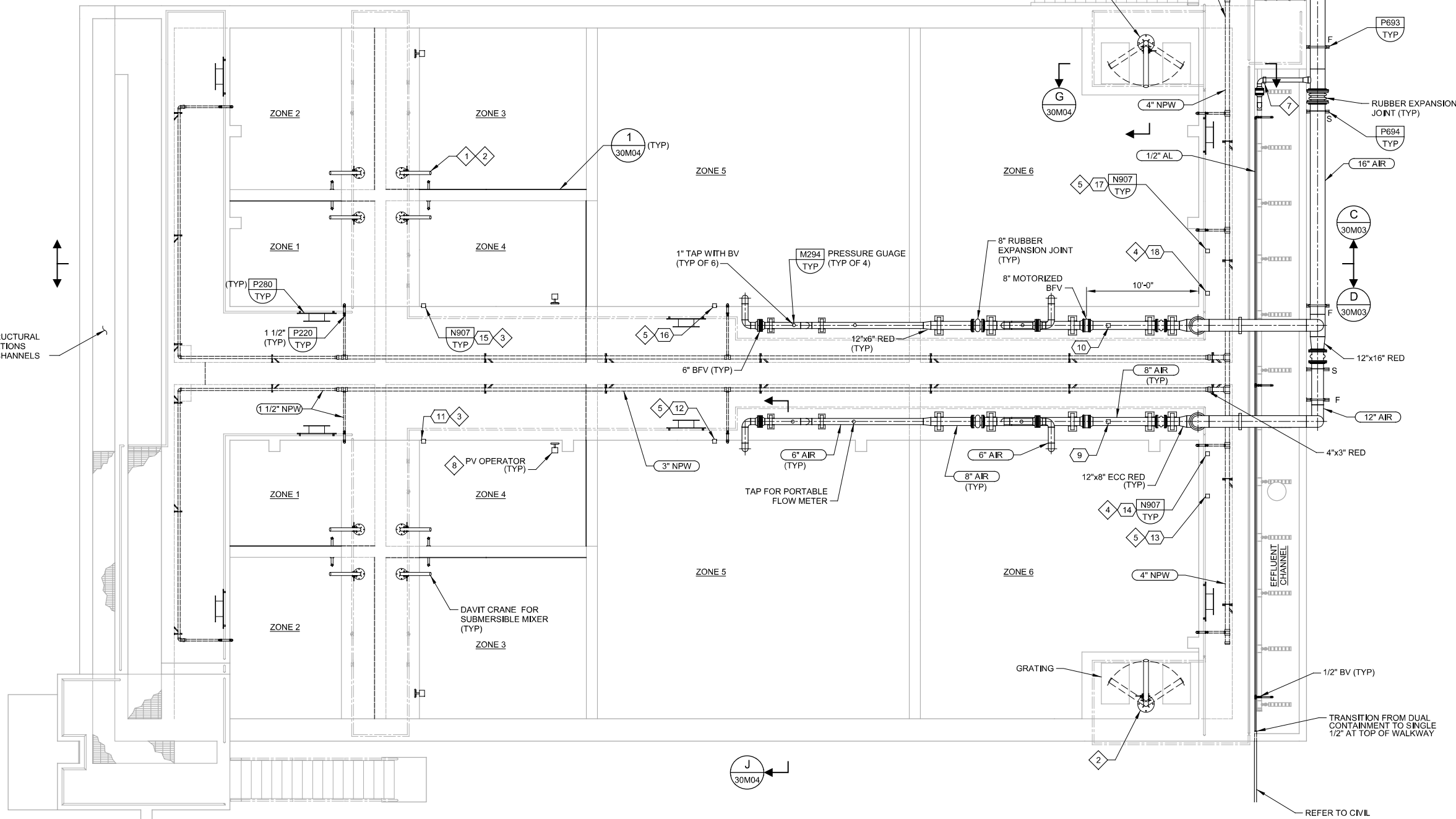
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Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo Std Pen v0905.pen PlotScale: 1:1

LAST SAVED BY: wjzfel



REFER TO STRUCTURAL
FOR MODIFICATIONS
TO EXISTING CHANNELS



B UPPER PLAN
SCALE: 3/16" = 1'-0"
FILE: 10976A11030M101

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO STARTING WORK.
2. REFER TO SPECIFICATION 01140 - WORK RESTRICTIONS FOR SHUTDOWN REQUIREMENTS.
3. DIFFUSER LAYOUT SHOWN IS ILLUSTRATIVE. REFER TO SPECIFICATIONS FOR EXACT SIZING REQUIREMENTS. COARSE BUBBLE DIFFUSER PER SPECIFICATION 11377A AND FINE BUBBLE DIFFUSER PER SPECIFICATION 11378A.
4. REFER TO SECTION 11375 FOR REQUIREMENTS ON DISSOLVED OXYGEN CONTROL SYSTEM.
5. PROVIDE ONE PORTABLE WASHDOWN MONITOR FOR AERATION BASINS 1&2. REFER TO SECTION 15120.

KEY NOTES:

1. SUBMERSIBLE MIXER ANGLE AND DEPTH ON GUIDE RAIL PER MANUFACTURER RECOMMENDATION.
2. LOCATION OF DAVIT CRANES SHALL BE COORDINATED WITH ANOXIC MIXER AND MLR PUMP MANUFACTURERS TO ENSURE PROPER FUNCTIONALITY.
3. ORP PROBE PER SPECIFICATION SECTION 17502.
4. TOTAL SUSPENDED SOLIDS PROBE PER SPECIFICATION SECTION 17522.
5. DISSOLVED OXYGEN PROBE PER SPECIFICATION SECTION 17506.
6. COORDINATE ALIGNMENT OF ML AND AIR PIPING WITH PLACEMENT OF MIXED LIQUOR SPLITTER BOX.
7. INSTALL PRESSURE REGULATING ORIFICE PER SECTION 11377A.
8. ALL SUBMERGED PLUG VALVES SHALL BE PROVIDED WITH TORQUE TUBE AND GEAR OPERATOR MOUNTED AT WALKWAY.

EQUIPMENT TAGS:

1	AB (AERATION BASIN) 1 MIXER 1	AB-AB1-MIX-01
2	AB 1 MIXER 2	AB-AB1-MIX-02
3	AB 1 MIXER 3	AB-AB1-MIX-03
4	AB 1 MIXER 4	AB-AB1-MIX-04
5	AB 2 MIXER 1	AB-AB2-MIX-01
6	AB 2 MIXER 2	AB-AB2-MIX-02
7	AB 2 MIXER 3	AB-AB2-MIX-03
8	AB 2 MIXER 4	AB-AB2-MIX-04
9	AB 1 AIR FLOW METER	AB-AB1-FIT-01
10	AB 2 AIR FLOW METER	AB-AB2-FIT-01
11	AB 1 ORP PROBE	AB-AB1-AIT-01
12	AB 1 ZONE 5 DO PROBE	AB-AB1-AIT-02
13	AB 1 ZONE 6 DO PROBE	AB-AB1-AIT-03
14	AB 1 TSS PROBE	AB-AB1-AIT-04
15	AB 2 ORP PROBE	AB-AB2-AIT-01
16	AB 2 ZONE 5 DO PROBE	AB-AB2-AIT-02
17	AB 2 ZONE 6 DO PROBE	AB-AB2-AIT-03
18	AB 2 TSS PROBE	AB-AB2-AIT-04

BID SET

DESIGNED
SMM
DRAWN
TBL
CHECKED
DMH
DATE
FEBRUARY 2022



Digitally signed by Daniel Hurtado
Contact Info: Carollo Engineers, Inc.
Date: 2022.02.20 14:58:34-0600

carollo

TBPELS No. F-882



**CITY OF
AUSTIN**

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
AERATION BASIN 1 & 2 MODIFICATIONS
UPPER PLAN

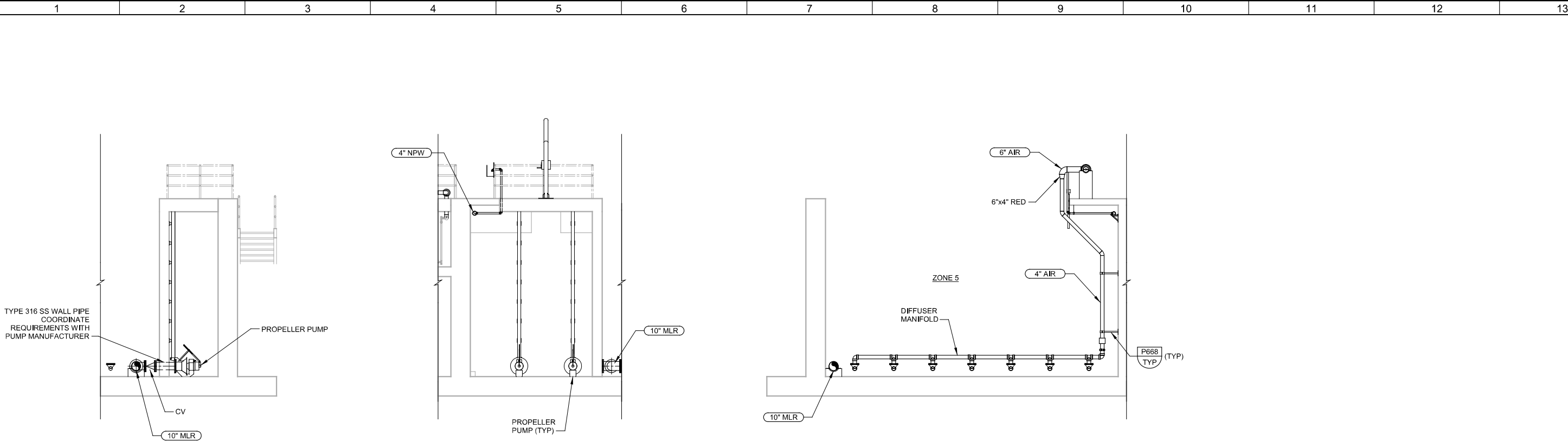
VERIFY SCALES
BAR IS ONE INCH ON
ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

JOB NO.
10976A.00
DRAWING NO.
30M02
SHEET NO.
410 OF 464



B				BID SET	DESIGNED		Digitally signed by Daniel Hurtado Contact Info: Carollo Engineers, Inc. Email: daniel@carollo.com Tel: 512-476-1000		CITY OF AUSTIN	CITY OF AUSTIN	VERIFY SCALES	JOB NO. 10976A.00
					DRAWN					WILD HORSE RANCH WWTP EXPANSION	BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO.
					CHECKED					MECHANICAL	0 1"	30M03
					DATE					AERATION BASIN 1 & 2 MODIFICATIONS	IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO.
	REV	DATE	BY		DESCRIPTION					FEBRUARY 2022	SECTIONS 1	411 OF 464

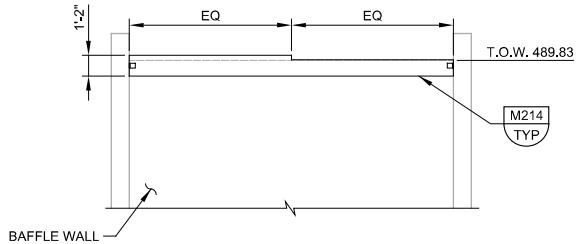
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DesignScript: Carollo Std Pen v0905.pen
PlotScale: 1:1
LAST SAVED BY: Witzel



F SECTION
30M01
SCALE: 3/16" = 1'-0"
FILE: 10976A1030M304

G SECTION
30M01
SCALE: 3/16" = 1'-0"
FILE: 10976A1030M306

J SECTION
30M01
SCALE: 3/16" = 1'-0"
FILE: 10976A1030M305

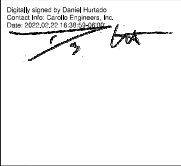


BAFFLE LOCATION	BASIN 1 & 3		BASIN 2 & 4	
	HIGH SIDE	LOW SIDE	HIGH SIDE	LOW SIDE
ZONE 1 TO 2	490.12	490.12	490.12	490.12
ZONE 2 TO 3	490.12 (WEST)	489.87 (EAST)	490.12 (WEST)	489.87 (EAST)
ZONE 3 TO 4	490.04 (SOUTH)	489.87 (NORTH)	490.04 (SOUTH)	489.87 (NORTH)
ZONE 4 TO 5	489.95	489.95	489.95	489.95

1 TYPICAL PLATE DETAIL
30M02
SCALE: 3/16" = 1'-0"
FILE: 10976A1030M401

REV				DATE				BY				DESCRIPTION			
1				2				3				4			

DESIGNED	SMM
DRAWN	TBL
CHECKED	DMH
DATE	FEBRUARY 2022



TBPELS No. F-882



CITY OF AUSTIN

CITY OF AUSTIN			
WILD HORSE RANCH WWTP EXPANSION			
MECHANICAL			
AERATION BASINS 1 & 2 MODIFICATIONS			
SECTIONS 2			

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

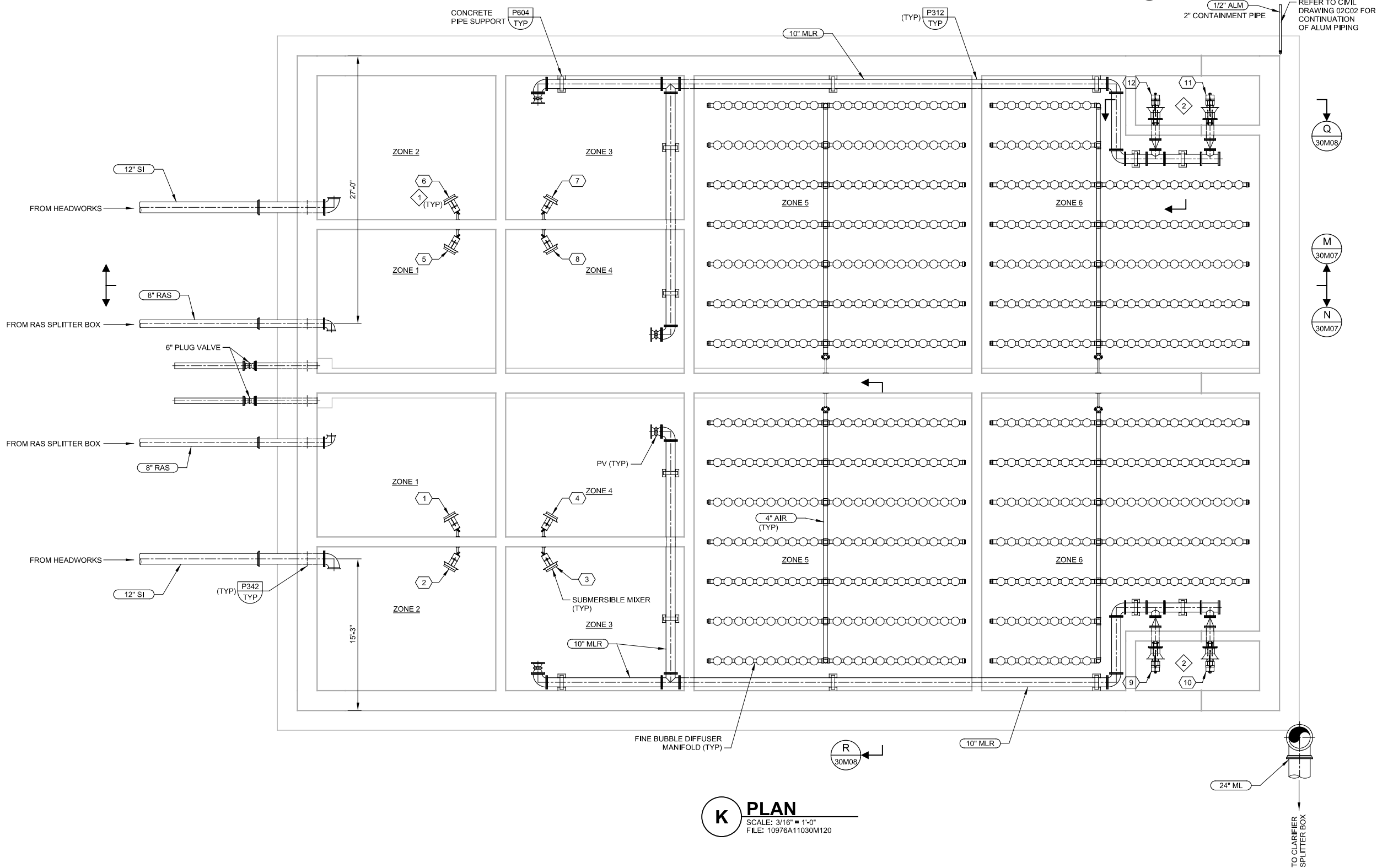
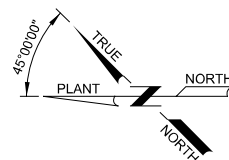
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DRAWING NO.	30M04
SHEET NO.	412 OF 464

Plt Date: 15-MAY-2022 10:54:24 AM

User: LDHizel

Model: Layout1 C:\p\Tables: gshades.ctb DesignScript: Carollo Std Pen v0905.pen PltScale: 1:1

LAST SAVED BY: LDHizel



K PLAN
SCALE: 3/16" = 1'-0"
FILE: 10976A11030M120

- GENERAL NOTES:**
- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO STARTING WORK.
 - REFER TO SPECIFICATION 01140 - WORK RESTRICTIONS FOR SHUTDOWN REQUIREMENTS.
 - DIFFUSER LAYOUT SHOWN IS ILLUSTRATIVE. REFER TO SPECIFICATIONS FOR EXACT SIZING REQUIREMENTS. COARSE BUBBLE DIFFUSER PER SPECIFICATION 11377A AND FINE BUBBLE DIFFUSER PER SPECIFICATION 11378A.
- KEY NOTES:**
- SUBMERSIBLE MIXERS PER SPECIFICATION 11317. MIXER ANGLE AND DEPTH PER MANUFACTURER RECOMMENDATION.
 - MIXED LIQUOR PROPELLER PUMPS PER SPECIFICATION 11312X.
- EQUIPMENT TAGS:**
- | Tag | Equipment | Tag |
|-----|----------------------------------------|-------------------|
| 1 | AB 1 MIXER 1 | AB-AB1-MIX-01 |
| 2 | AB 1 MIXER 2 | AB-AB1-MIX-02 |
| 3 | AB 1 MIXER 3 | AB-AB1-MIX-03 |
| 4 | AB 1 MIXER 4 | AB-AB1-MIX-04 |
| 5 | AB 2 MIXER 1 | AB-AB2-MIX-01 |
| 6 | AB 2 MIXER 2 | AB-AB2-MIX-02 |
| 7 | AB 2 MIXER 3 | AB-AB2-MIX-03 |
| 8 | AB 2 MIXER 4 | AB-AB2-MIX-04 |
| 9 | AB 1 MIXED LIQUOR RECYCLE (MLR) PUMP 1 | AB-RECYCLEPUMP-01 |
| 10 | AB 1 MLR PUMP 2 | AB-RECYCLEPUMP-02 |
| 11 | AB 2 MLR PUMP 1 | AB-RECYCLEPUMP-03 |
| 12 | AB 2 MLR PUMP 2 | AB-RECYCLEPUMP-04 |

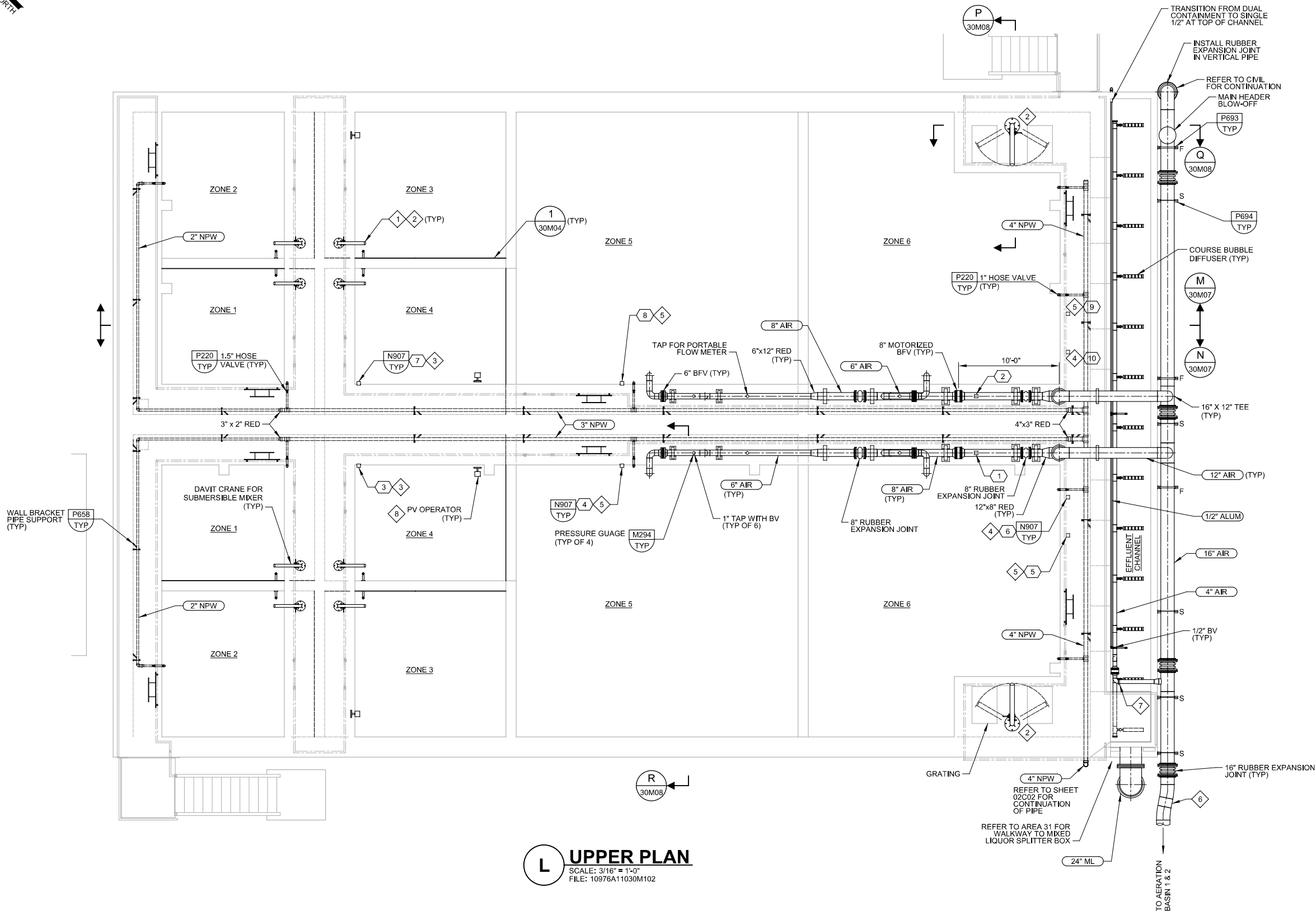
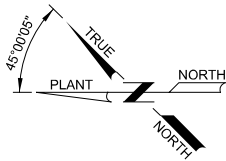
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				CHECKED DMH						MECHANICAL		0 1"	30M05
				DATE MAY 2022						AERATION BASIN 3 & 4 MODIFICATIONS LOWER PLAN		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 413 OF 464
REV	DATE	BY	DESCRIPTION										

Plot Date: 16-MAY-2022 7:16:35 AM

User: LDHitzel

Model: Layout1 C:\p\Tables: gshades.ctb DesignScript: Carollo Std Pen v0905.pen PlotScale: 1:1

LAST SAVED BY: LDHitzel



GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO STARTING WORK.
2. REFER TO SPECIFICATION 01140 - WORK RESTRICTIONS FOR SHUTDOWN REQUIREMENTS.
3. DIFFUSER LAYOUT SHOWN IS ILLUSTRATIVE. REFER TO SPECIFICATIONS FOR EXACT SIZING REQUIREMENTS. COARSE BUBBLE DIFFUSER PER SPECIFICATION 11377A AND FINE BUBBLE DIFFUSER PER SPECIFICATION 11378A.
4. REFER TO SECTION 11375 FOR REQUIREMENTS ON DISSOLVED OXYGEN CONTROL SYSTEM.
5. PROVIDE ONE PORTABLE WASHDOWN MONITOR FOR AERATION BASINS 3&4. REFER TO SECTION 15120.

KEY NOTES:

1. SUBMERSIBLE MIXER ANGLE AND DEPTH ON GUIDE RAIL PER MANUFACTURER RECOMMENDATION.
2. LOCATION OF DAVIT CRANES SHALL BE COORDINATED WITH ANOXIC MIXER AND MLR PUMP MANUFACTURERS TO ENSURE PROPER FUNCTIONALITY.
3. ORP PROBE PER SPECIFICATION SECTION 17502.
4. TOTAL SUSPENDED SOLIDS PROBE PER SPECIFICATION SECTION 17522.
5. DISSOLVED OXYGEN PROBE PER SPECIFICATION SECTION 17506.
6. COORDINATE ALIGNMENT OF ML AND AIR PIPING WITH PLACEMENT OF MIXED LIQUOR SPLITTER BOX.
7. INSTALL PRESSURE REGULATING ORIFICE PER SECTION 1377A.
8. ALL SUBMERGED PLUG VALVES SHALL BE PROVIDED WITH TORQUE TUBE AND GEAR OPERATOR MOUNTED AT WALKWAY.

EQUIPMENT TAGS:

1	AB 3 AIR FLOW METER	AB-AB3-FIT-01
2	AB 4 AIR FLOW METER	AB-AB4-FIT-01
3	AB 3 ORP PROBE	AB-AB3-AIT-01
4	AB 3 ZONE 5 DO PROBE	AB-AB3-AIT-02
5	AB 3 ZONE 6 DO PROBE	AB-AB3-AIT-03
6	AB 3 TSS PROBE	AB-AB3-AIT-04
7	AB 4 ORP PROBE	AB-AB4-AIT-01
8	AB 4 ZONE 5 DO PROBE	AB-AB4-AIT-02
9	AB 4 ZONE 6 DO PROBE	AB-AB4-AIT-03
10	AB 4 TSS PROBE	AB-AB4-AIT-04

UPPER PLAN
SCALE: 3/16" = 1'-0"
FILE: 10976A11030M102

BID SET

DESIGNED
SMM
DRAWN
TBL
CHECKED
DMH
DATE
MAY 2022



Digitally signed by Daniel M. Hurtado
Contact Info: Carollo Engineers, Inc.
Date: 2022.05.16 15:51:54 -0500

carollo

TBPELS No. F-882



**CITY OF
AUSTIN**

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION

MECHANICAL
AERATION BASIN 3 & 4 MODIFICATIONS
UPPER PLAN

VERIFY SCALES

BAR IS ONE INCH ON
ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

JOB NO.
10976A.00

DRAWING NO.

30M06

SHEET NO.

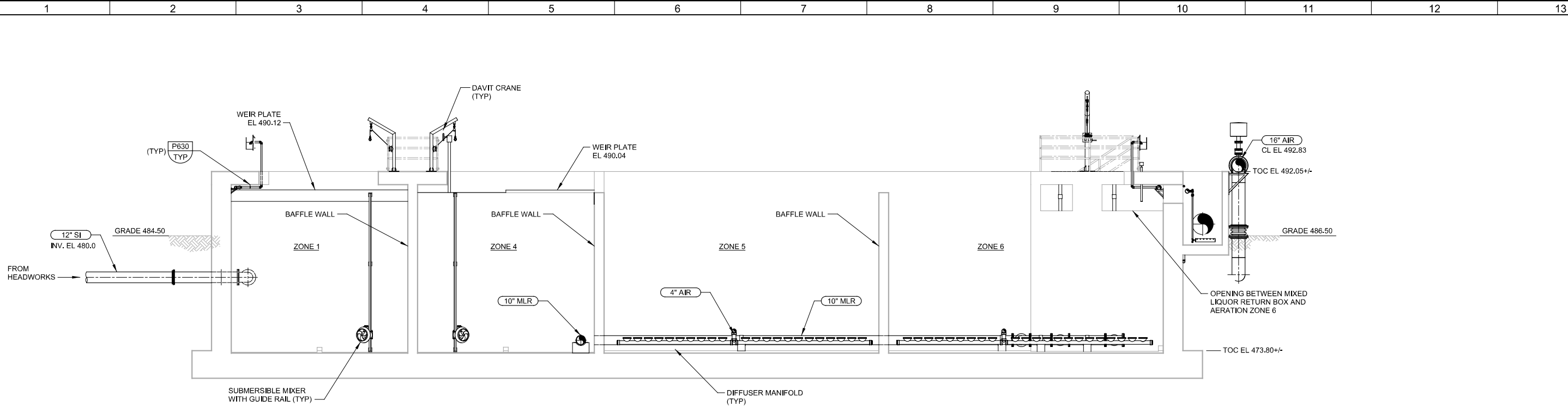
414 OF 464

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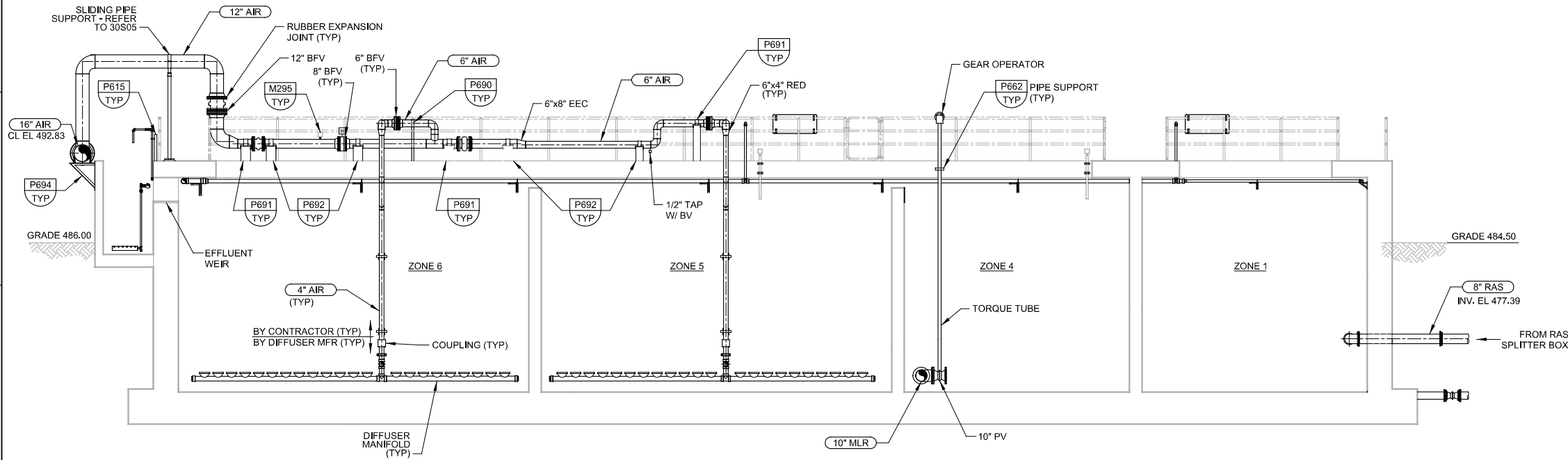
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LAST SAVED BY: witzel



M SECTION
30M05 SCALE: 3/16" = 1'-0"
FILE: 10976A1030M310



N SECTION
30M05 SCALE: 3/16" = 1'-0"
FILE: 10976A1030M311

REV	DATE	BY	DESCRIPTION

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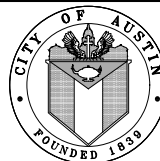
DESIGNED
SMM
DRAWN
TBL
CHECKED
DMH
DATE
FEBRUARY 2022



Digitally signed by Daniel Hurtado
Contact Info: Carollo Engineers, Inc.
Date: 2022.02.20 15:52:46-0600

carollo

TBPELS No. F-882



**CITY OF
AUSTIN**

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
AERATION BASIN 3 & 4 MODIFICATIONS
SECTIONS 1

VERIFY SCALES
BAR IS ONE INCH ON
ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

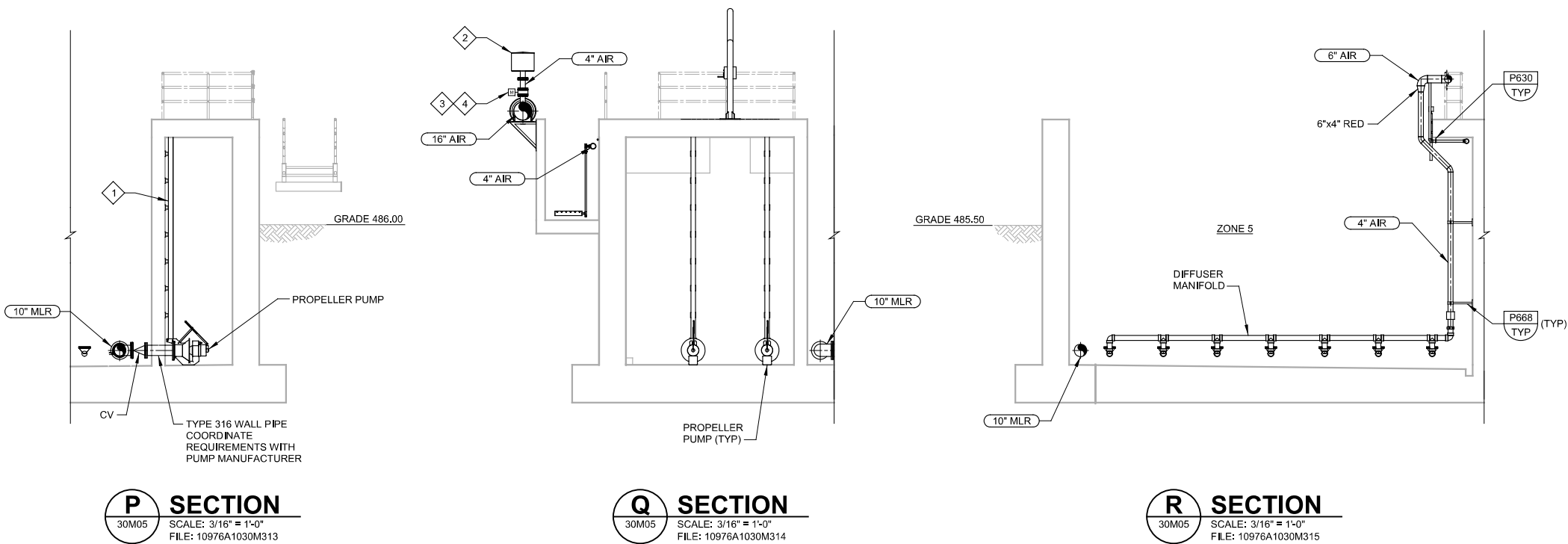
JOB NO.
10976A.00
DRAWING NO.
30M07
SHEET NO.
415 OF 464

Plt Date: 21-FEB-2022 11:13:10 AM

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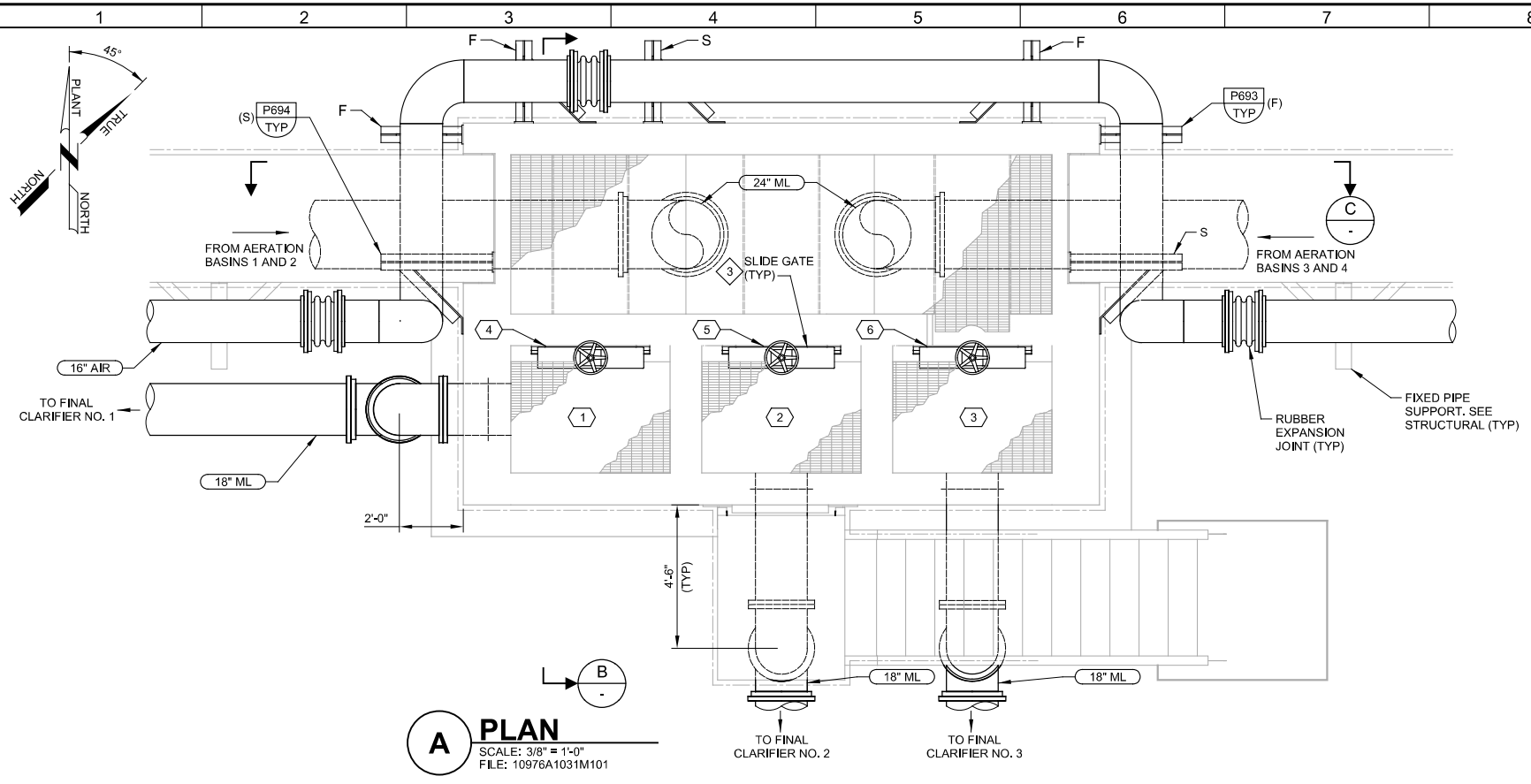
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LAST SAVED BY: witzel



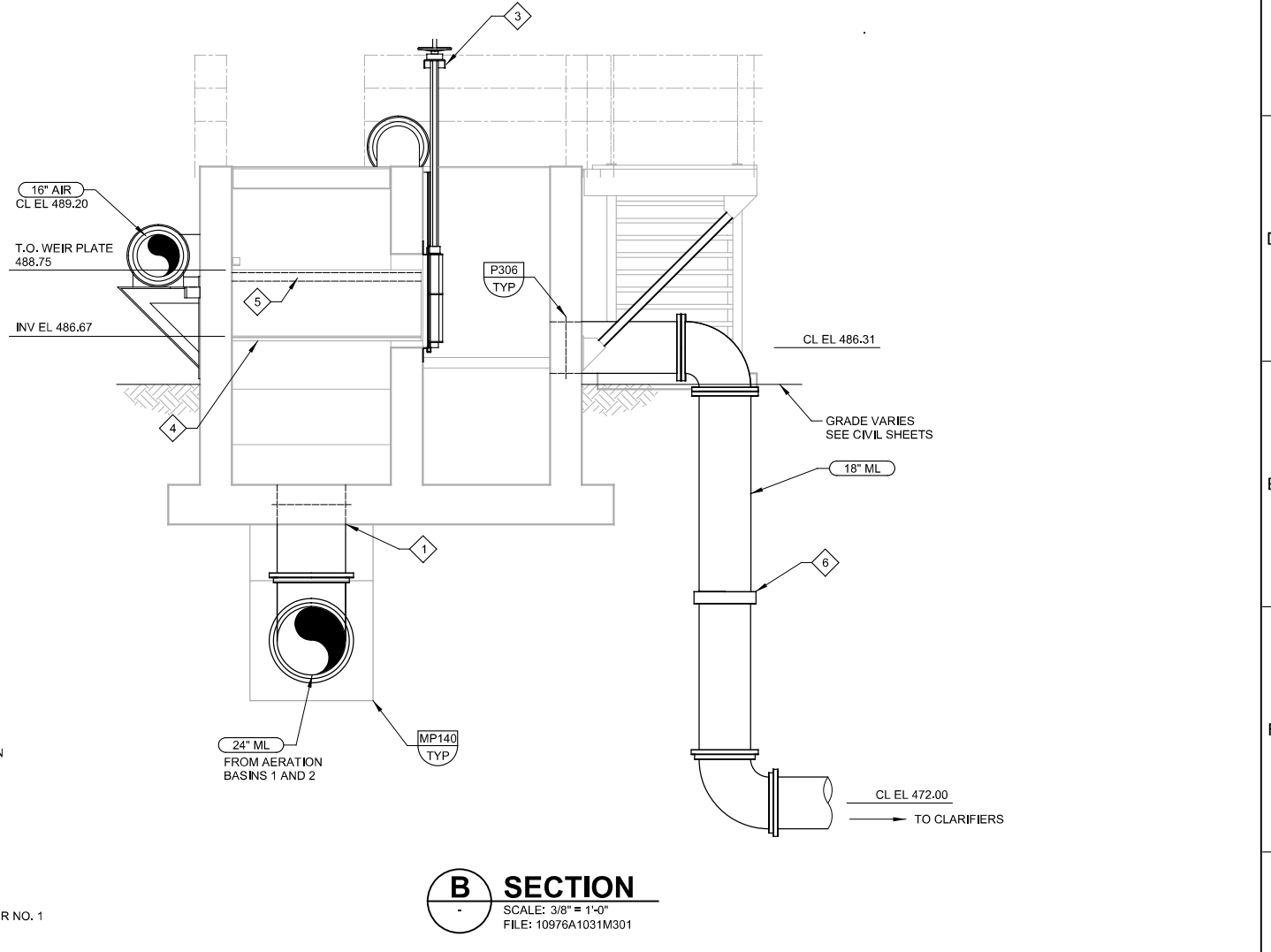
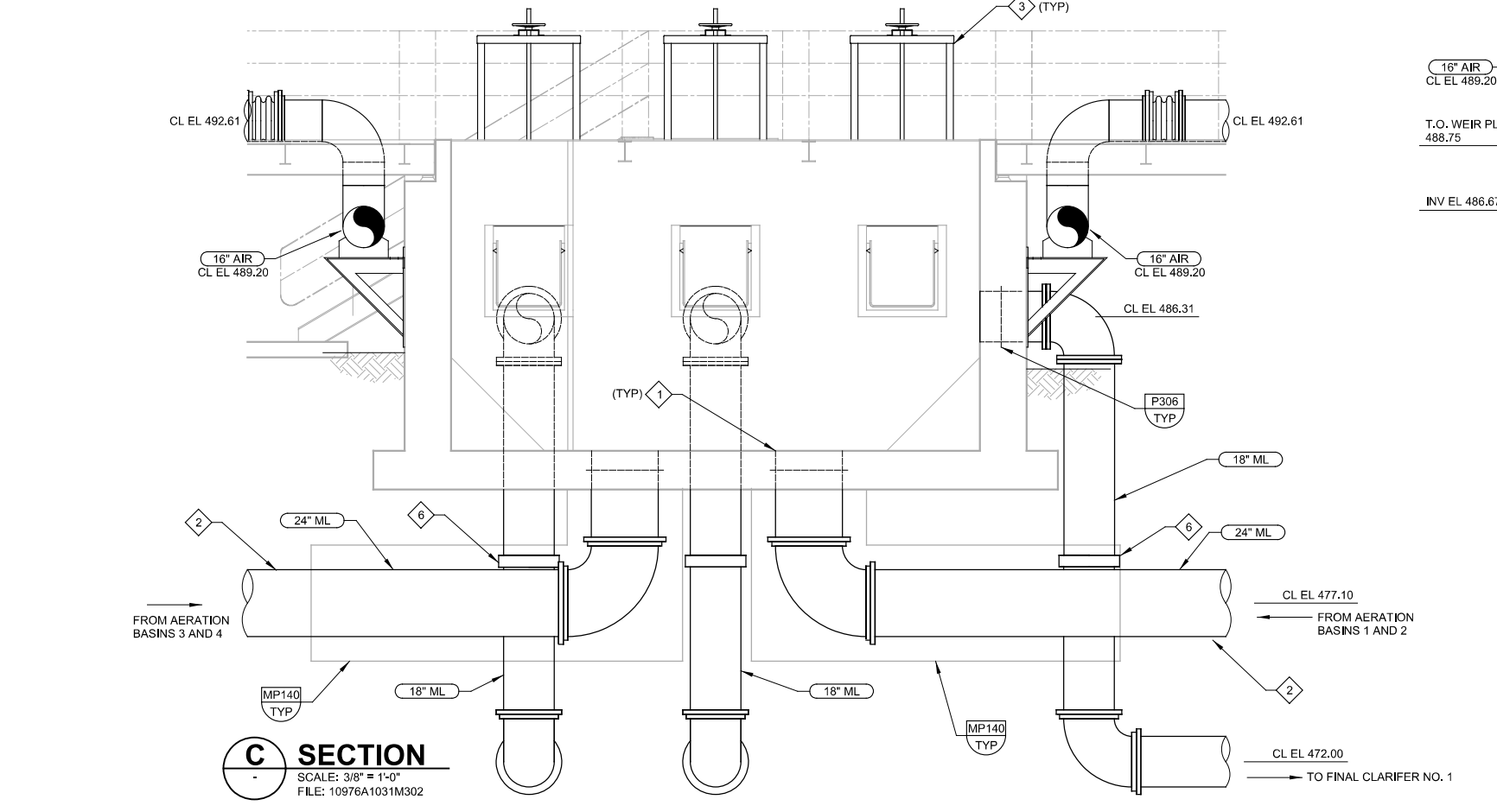
- # KEY NOTES:
- 1 COORDINATE PLACEMENT OF GUIDERAILS WITH PUMP MANUFACTURER
 - 2 SILENCER
 - 3 MAIN HEADER BLOW-OFF VALVE
 - 4 TO BE FURNISHED BY BLOWER SYSTEM MANUFACTURER. INSTALL AS SHOWN ON PLANS AND PER RECOMMENDATIONS OF MANUFACTURER.

Plot Date: 21-FEB-2022 11:08:30 AM
User: svcPW
Model: Layout1
ColorTable: gshade.ctb
DesignScript: Carollo Std Pen v0905.pen
PlotScale: 1:1
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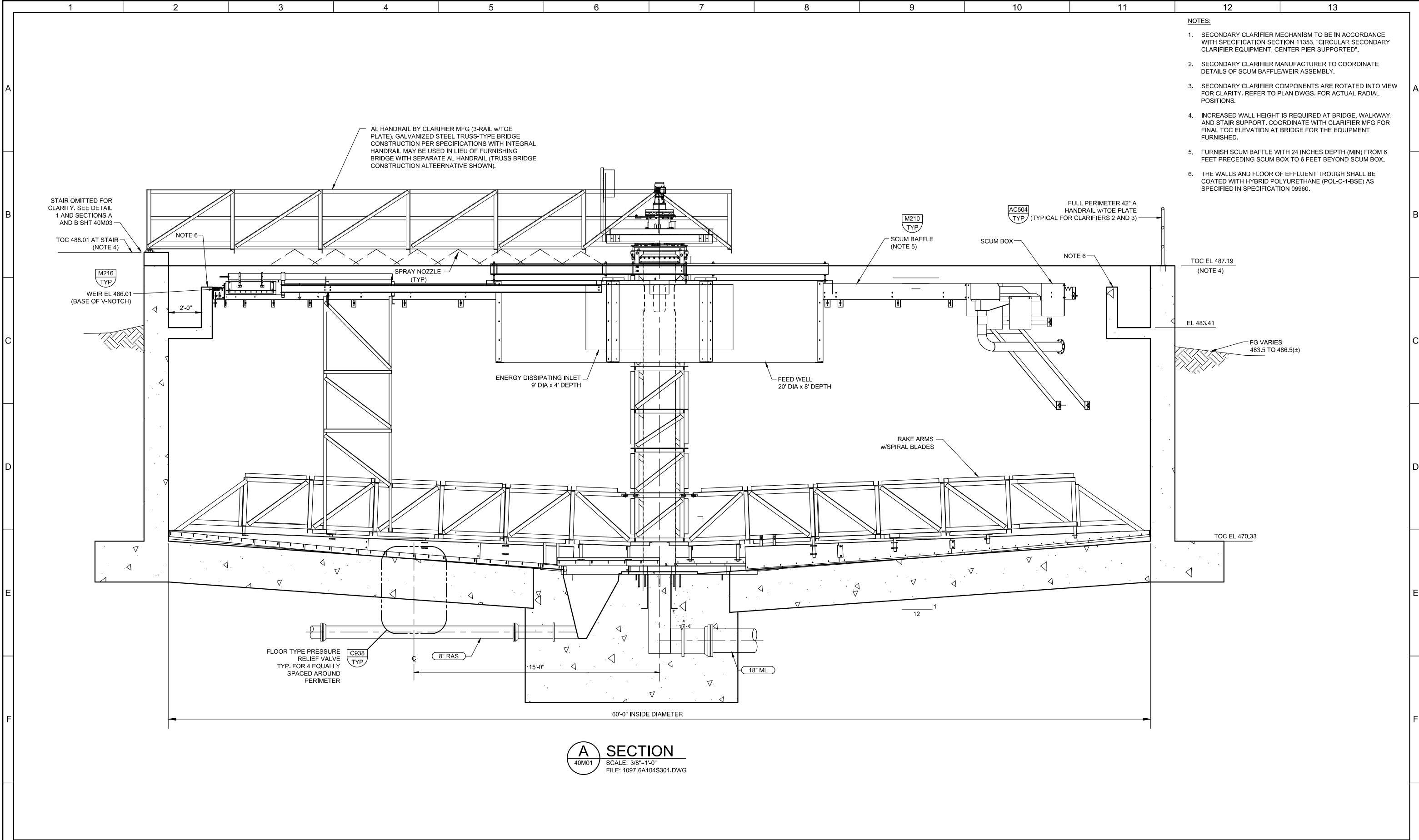
- GENERAL NOTES:**
- SEE YARD PIPING SHEETS FOR CONTINUATION OF ALL PIPING.
- KEY NOTES:**
- PIPES PENETRATE FLOOR SLAB PER DETAIL P342/TYP.
 - INSTALL RESTRAINED PUSH-ON JOINT ON PIPE AT A DISTANCE "L" PAST CONCRETE ENCASEMENT, AS SHOWN IN DETAIL P342/TYP.
 - MANUAL SLIDE GATE PER SECTION 11294C, TYPICAL OF 3.
 - 2'-0" WIDE RECTANGULAR FIBERGLASS TROUGH PER SECTION 13120.
 - EMBEDDED ANGLE STIFFENER EAR.
 - INSTALL RESTRAINED PUSH-ON JOINT ON BURIED PIPE.
- EQUIPMENT TAGS:**

1	AERATION BASIN FLOWBOX NO. 1	AB-FLOWBOX-01
2	AERATION BASIN FLOWBOX NO. 2	AB-FLOWBOX-02
3	AERATION BASIN FLOWBOX NO. 3	AB-FLOWBOX-03
4	AERATION BASIN FLOWBOX 1 SLIDE GATE	AB-FLB1-SG-01
5	AERATION BASIN FLOWBOX 2 SLIDE GATE	AB-FLB2-SG-01
6	AERATION BASIN FLOWBOX 3 SLIDE GATE	AB-FLB3-SG-01



BID SET			DESIGNED BMW				CITY OF AUSTIN	CITY OF AUSTIN		VERIFY SCALES	JOB NO. 10976A.00
			DRAWN LGD					WILD HORSE RANCH WWTP EXPANSION		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO.
			CHECKED DMH					MECHANICAL		0 1"	31M01
REV	DATE	BY	DESCRIPTION	DATE FEBRUARY 2022				MLSS SPLITTER BOX PLAN AND SECTIONS		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 417 OF 464
1								10	11	12	13

PROJECT NO. 10976A10 FILE NAME: 10976A1031M001.dgn



- NOTES:
1. SECONDARY CLARIFIER MECHANISM TO BE IN ACCORDANCE WITH SPECIFICATION SECTION 11353, "CIRCULAR SECONDARY CLARIFIER EQUIPMENT, CENTER PIER SUPPORTED".
 2. SECONDARY CLARIFIER MANUFACTURER TO COORDINATE DETAILS OF SCUM BAFFLE/WEIR ASSEMBLY.
 3. SECONDARY CLARIFIER COMPONENTS ARE ROTATED INTO VIEW FOR CLARITY. REFER TO PLAN DWGS. FOR ACTUAL RADIAL POSITIONS.
 4. INCREASED WALL HEIGHT IS REQUIRED AT BRIDGE, WALKWAY, AND STAIR SUPPORT. COORDINATE WITH CLARIFIER MFG FOR FINAL TOC ELEVATION AT BRIDGE FOR THE EQUIPMENT FURNISHED.
 5. FURNISH SCUM BAFFLE WITH 24 INCHES DEPTH (MIN) FROM 6 FEET PRECEDING SCUM BOX TO 6 FEET BEYOND SCUM BOX.
 6. THE WALLS AND FLOOR OF EFFLUENT TROUGH SHALL BE COATED WITH HYBRID POLYURETHANE (POL-C-1-BSE) AS SPECIFIED IN SPECIFICATION 09960.

LAST SAVED BY: dseibert

REV	DATE	BY	DESCRIPTION

BID SET

DESIGNED	RL/MR
DRAWN	AW
CHECKED	SGE
DATE	FEBRUARY 2022

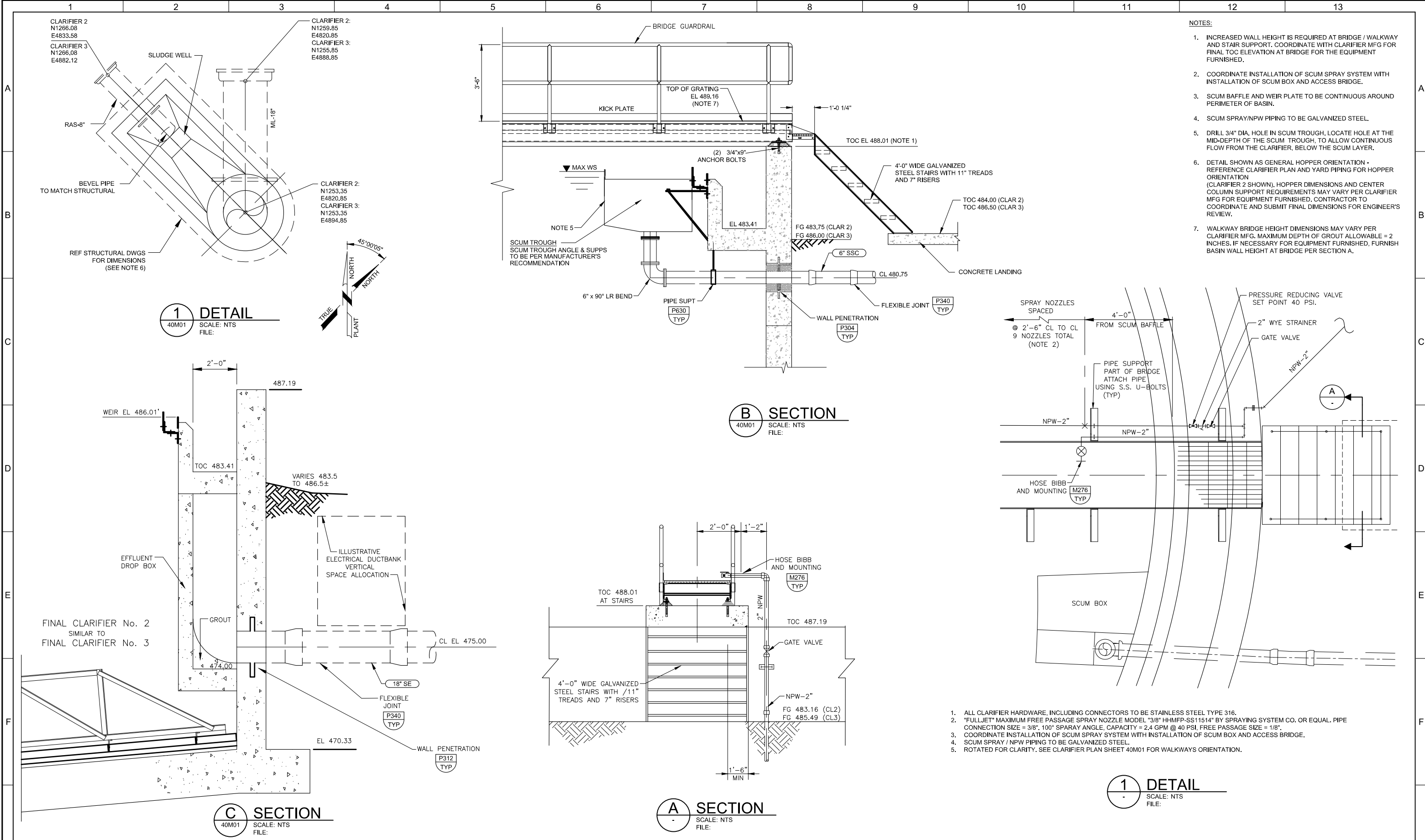
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBP REG. NO. F-3580

TBPE No. F-882

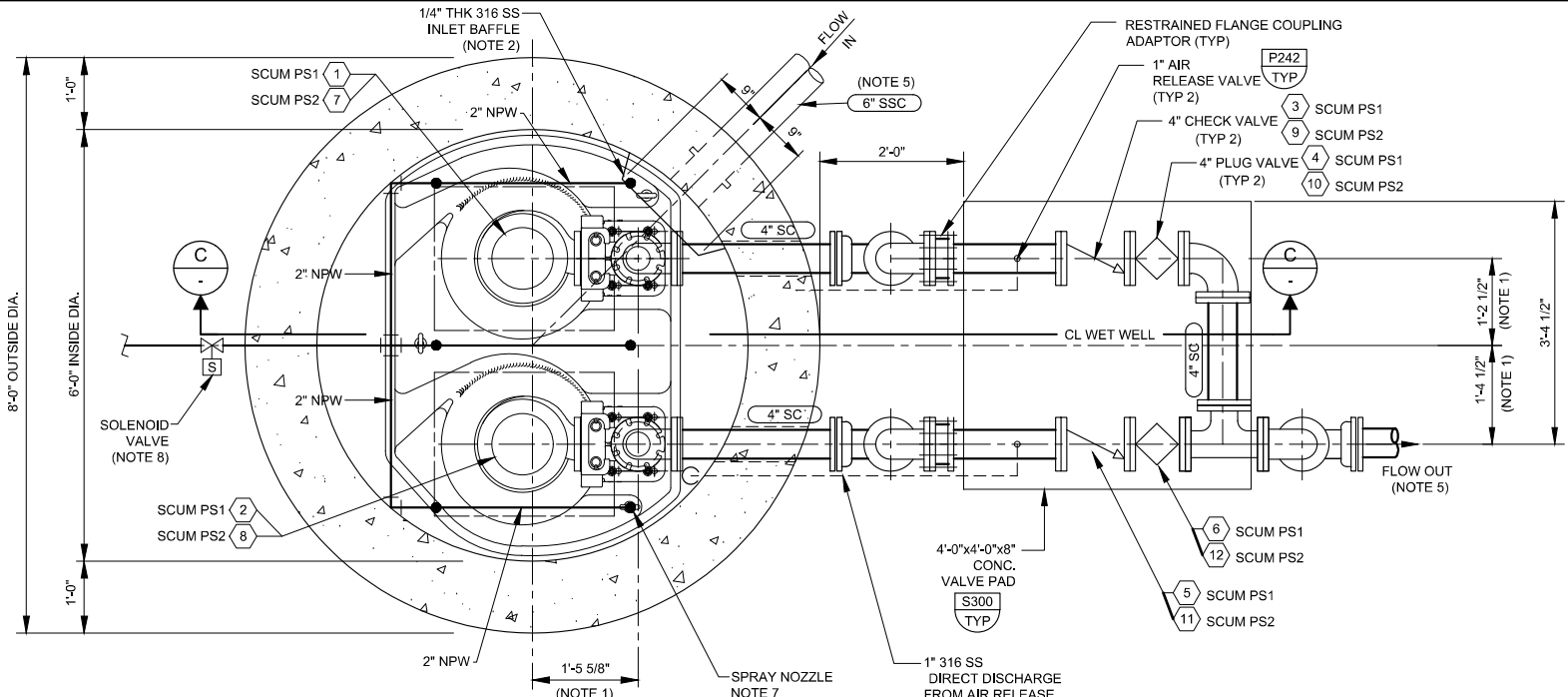
CITY OF AUSTIN
FOUNDED 1889

CITY OF AUSTIN	
WILD HORSE RANCH WWTP EXPANSION	
MECHANICAL	
SECONDARY CLARIFIERS	
MECHANICAL SECTION	

VERIFY SCALES	JOB NO. 10976A.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. 40M02
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 419 OF 464

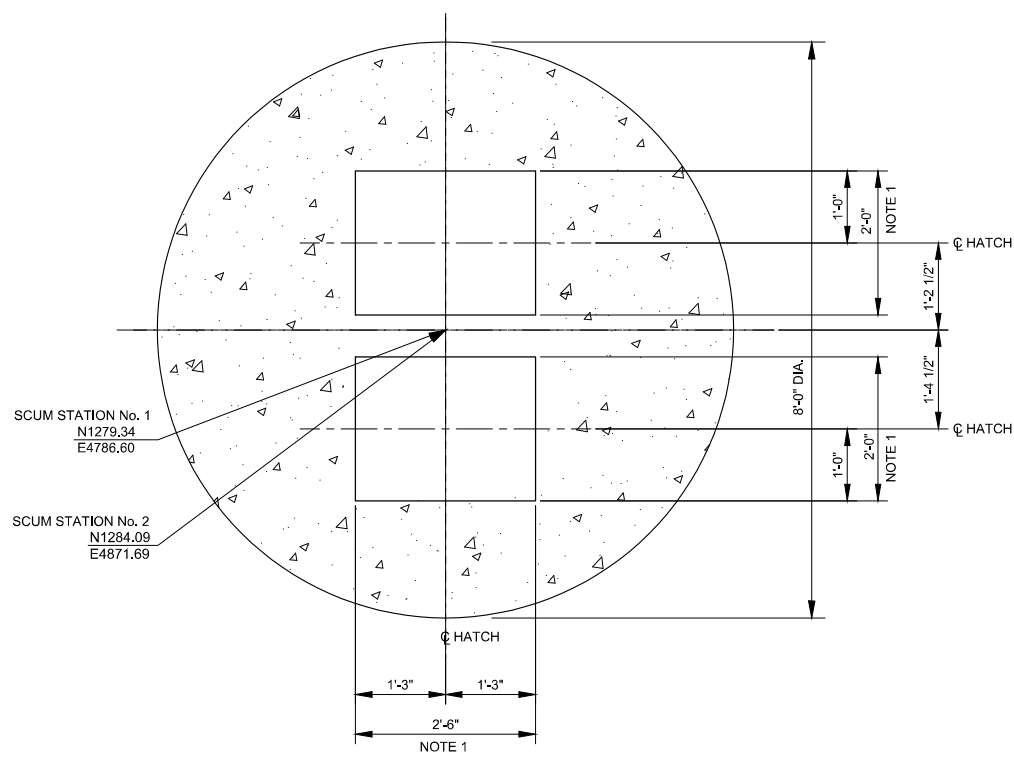


EQUIPMENT TAGS		
1	SCUM PUMP No. 1	SC-SCUMPUMP-01
2	SCUM PUMP No. 2	SC-SCUMPUMP-02
3	SCUM PUMP No. 1 DISCHARGE CHECK VALVE	SC-SCPU1-CV-01
4	SCUM PUMP No. 1 DISCHARGE PLUG VALVE	SC-SCPU1-PV-01
5	SCUM PUMP No. 2 DISCHARGE CHECK VALVE	SC-SCPU2-CV-01
6	SCUM PUMP No. 2 DISCHARGE PLUG VALVE	SC-SCPU2-PV-01
7	SCUM PUMP No. 3	SC-SCUMPUMP-03
8	SCUM PUMP No. 4	SC-SCUMPUMP-04
9	SCUM PUMP No. 3 DISCHARGE CHECK VALVE	SC-SCPU3-CV-01
10	SCUM PUMP No. 3 DISCHARGE PLUG VALVE	SC-SCPU3-PV-01
11	SCUM PUMP No. 4 DISCHARGE CHECK VALVE	SC-SCPU4-CV-01
12	SCUM PUMP No. 4 DISCHARGE PLUG VALVE	SC-SCPU4-PV-01

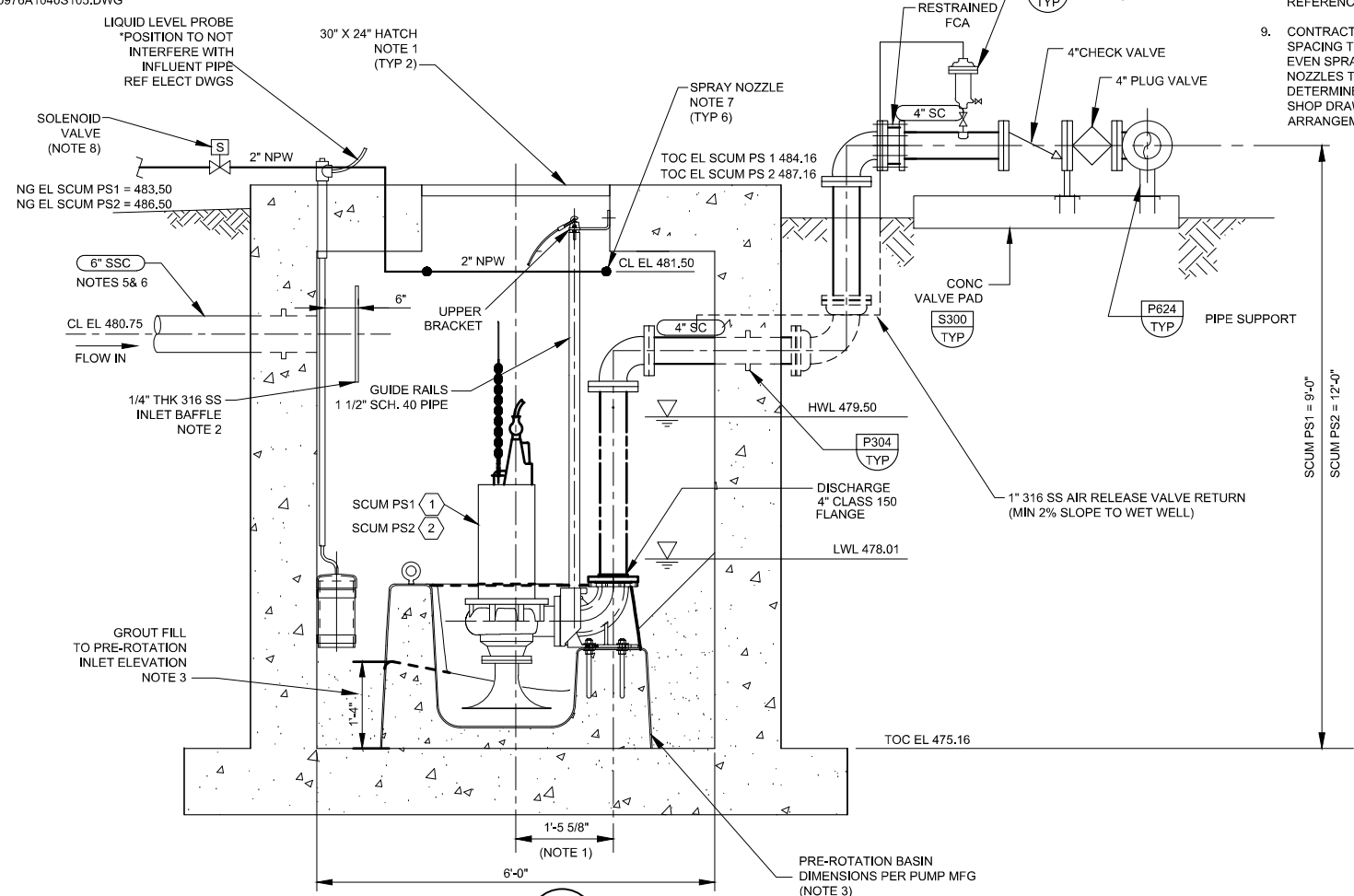


A SCUM PUMP STATION PLAN ELEV 477.50
SCALE: 3/4" = 1'-0"
FILE: 10976A1040S105.DWG

- NOTES:**
- PUMP INSTALLATION AND HATCH DIMENSIONS MAY VARY PER PUMP MFG. COORDINATE WITH PUMP MANUFACTURER AND SUBMIT FINAL DIMENSIONS FOR ENGINEER'S APPROVAL.
 - INSTALL Baffle HEIGHT 18". INSTALL TO EXTEND 9" ABOVE TO 9" BELOW SSC-6" INLET PIPE CENTER LINE.
 - WET WELL PRE-ROTATION BASIN DIMENSIONS MAY VARY PER PUMP MFG. SUBMIT FINAL PRE-ROTATION BASIN DIMENSIONS FOR ENGINEER'S APPROVAL.
 - RCP WET WELL WITH CAST-IN-PLACE UPPER AND LOWER SLAB MAY BE USED IN LIEU OF MONOLITHIC CONSTRUCTION (CONTRACTOR'S OPTION). SEE STRUCTURAL DRAWINGS.
 - PIPING ORIENTATION FOR SCUM PUMP STATION 2 IS SHOWN. SCUM PUMP STATION 1 PIPE ORIENTATION SIMILAR. REFERENCE DRAWING 40M01 AND YARD PIPING SHEETS FOR CONNECTION POINTS AND ORIENTATION OF PIPING.
 - SCUM STATION COMPONENTS AND PIPING ARE ROTATED INTO VIEW FOR CLARITY. REFER TO PLAN DRAWINGS FOR ACTUAL RADIAL POSITIONS.
 - PROVIDE SPRAY NOZZLE BY "SPRAYING SYSTEM CO." OR EQUAL. PIPE CONNECTION SIZE = 1/2" 108" SPRAY ANGLE, CAPACITY = 4 GPM @ 40 PSIG. ALL MATERIAL TO BE TYPE 316 STAINLESS STEEL.
 - OPENING AND CLOSING OF SOLENOID VALVE TO BE CONTROLLED BY LIQUID LEVEL PROBE IN WET WELL. REFERENCE ELECTRICAL DRAWINGS FOR DETAILS.
 - CONTRACTOR TO DETERMINE SPRAY NOZZLE LOCATIONS AND SPACING TO ENSURE FULL WATER SURFACE COVERAGE AND EVEN SPRAYING DISTRIBUTION. NPW SUPPLY PIPING FOR SPRAY NOZZLES TO BE SCH 80 STEEL PIPE. CONTRACTOR TO DETERMINE NPW PIPE SUPPORT TYPE AND LOCATIONS. SUBMIT SHOP DRAWINGS OF NPW PIPING AND SPRAY NOZZLE ARRANGEMENT FOR OWNER / ENGINEER'S APPROVAL.

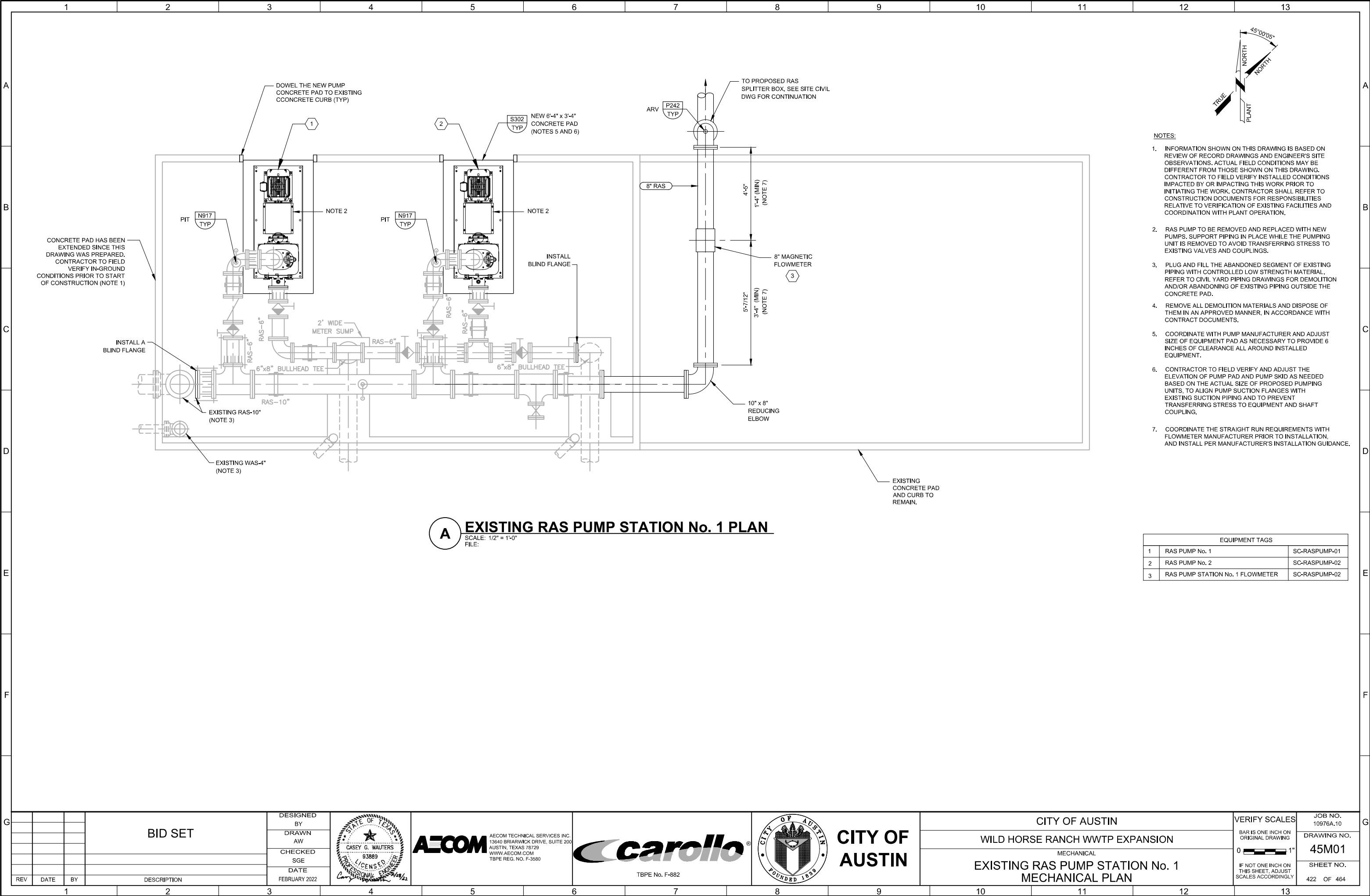


B SCUM PUMP STATION PLAN - GRADE
SCALE: 3/4" = 1'-0"
FILE: 10976A1040S106.DWG



C SECTION
SCALE: 3/4" = 1'-0"
FILE: 10976A1040S305.DWG

BID SET				DESIGNED RL/MR					CITY OF AUSTIN		VERIFY SCALES	JOB NO. 10976A.10
				DRAWN AW					WILD HORSE RANCH WWTP EXPANSION		0	DRAWING NO.
				CHECKED SGE					MECHANICAL		1"	40M05
				DATE FEBRUARY 2022					SCUM PUMP STATION MECHANICAL PLAN AND SECTION		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 421 OF 464
REV	DATE	BY	DESCRIPTION									
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- NOTES:
1. INFORMATION SHOWN ON THIS DRAWING IS BASED ON REVIEW OF RECORD DRAWINGS AND ENGINEER'S SITE OBSERVATIONS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTED BY OR IMPACTING THIS WORK PRIOR TO INITIATING THE WORK. CONTRACTOR SHALL REFER TO CONSTRUCTION DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO VERIFICATION OF EXISTING FACILITIES AND COORDINATION WITH PLANT OPERATION.
 2. RAS PUMP TO BE REMOVED AND REPLACED WITH NEW PUMPS. SUPPORT PIPING IN PLACE WHILE THE PUMPING UNIT IS REMOVED TO AVOID TRANSFERRING STRESS TO EXISTING VALVES AND COUPLINGS.
 3. PLUG AND FILL THE ABANDONED SEGMENT OF EXISTING PIPING WITH CONTROLLED LOW STRENGTH MATERIAL. REFER TO CIVIL YARD PIPING DRAWINGS FOR DEMOLITION AND/OR ABANDONING OF EXISTING PIPING OUTSIDE THE CONCRETE PAD.
 4. REMOVE ALL DEMOLITION MATERIALS AND DISPOSE OF THEM IN AN APPROVED MANNER, IN ACCORDANCE WITH CONTRACT DOCUMENTS.
 5. COORDINATE WITH PUMP MANUFACTURER AND ADJUST SIZE OF EQUIPMENT PAD AS NECESSARY TO PROVIDE 6 INCHES OF CLEARANCE ALL AROUND INSTALLED EQUIPMENT.
 6. CONTRACTOR TO FIELD VERIFY AND ADJUST THE ELEVATION OF PUMP PAD AND PUMP SKID AS NEEDED BASED ON THE ACTUAL SIZE OF PROPOSED PUMPING UNITS. TO ALIGN PUMP SUCTION FLANGES WITH EXISTING SUCTION PIPING AND TO PREVENT TRANSFERRING STRESS TO EQUIPMENT AND SHAFT COUPLING.
 7. COORDINATE THE STRAIGHT RUN REQUIREMENTS WITH FLOWMETER MANUFACTURER PRIOR TO INSTALLATION, AND INSTALL PER MANUFACTURER'S INSTALLATION GUIDANCE.

A EXISTING RAS PUMP STATION No. 1 PLAN
SCALE: 1/2" = 1'-0"
FILE:

EQUIPMENT TAGS		
1	RAS PUMP No. 1	SC-RASPUMP-01
2	RAS PUMP No. 2	SC-RASPUMP-02
3	RAS PUMP STATION No. 1 FLOWMETER	SC-RASPUMP-02

REV

DATE

BY

DESCRIPTION

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BID SET

DESIGNED BY

DRAWN AW

CHECKED SGE

DATE

FEBRUARY 2022

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

TBPE No. F-882

FOUNDED 1839

CITY OF AUSTIN

CITY OF AUSTIN

WILD HORSE RANCH WWTP EXPANSION

MECHANICAL

EXISTING RAS PUMP STATION No. 1

MECHANICAL PLAN

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.

10976A.10

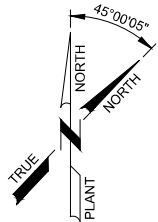
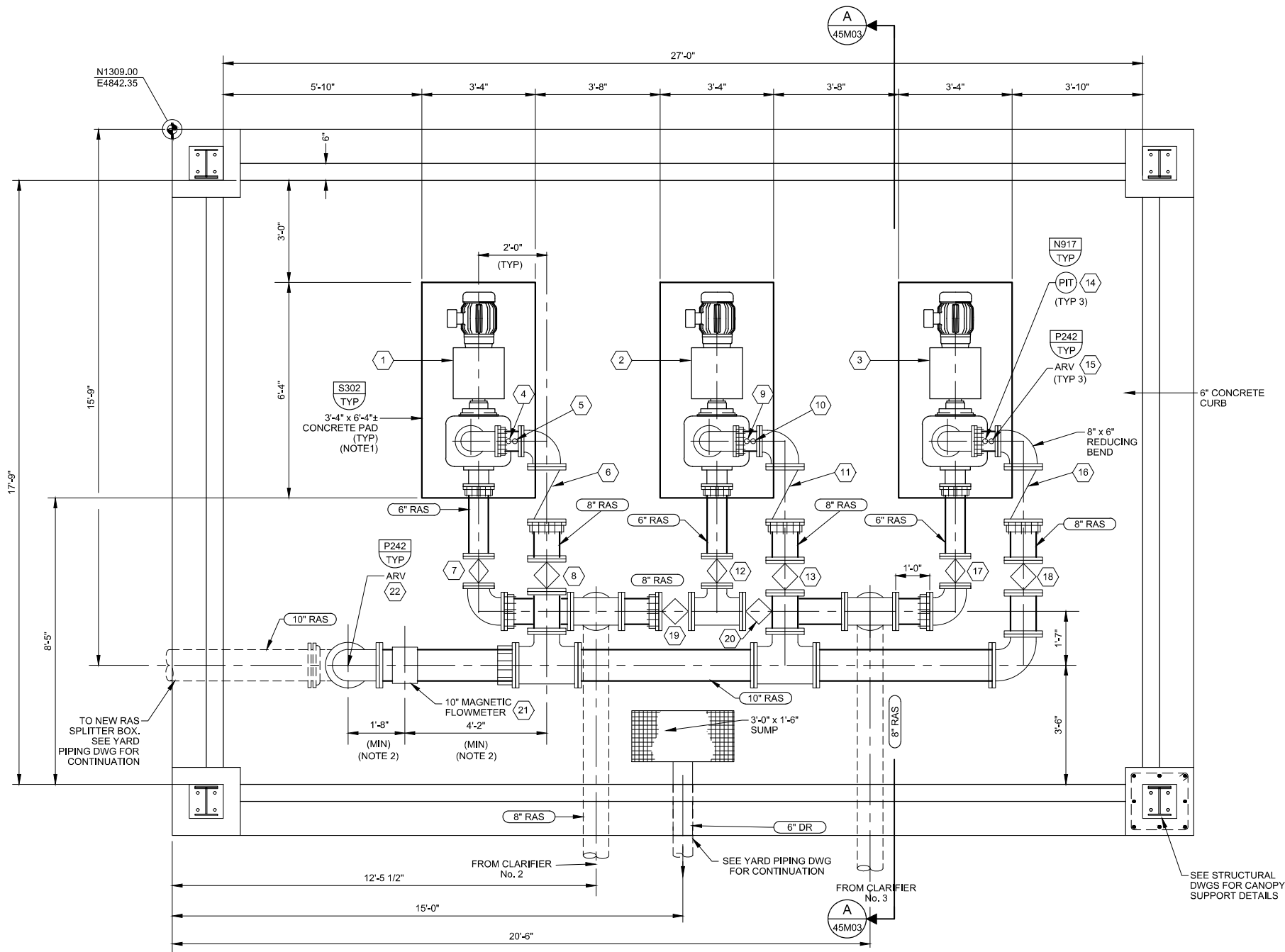
DRAWING NO.

45M01

SHEET NO.

422 OF 464

LAST SAVED BY:



- NOTES:
- COORDINATE WITH PUMP MANUFACTURER AND ADJUST SIZE OF EQUIPMENT PAD AS NECESSARY TO PROVIDE 6 INCHES OF CLEARANCE ALL AROUND INSTALLED EQUIPMENT.
 - COORDINATE THE STRAIGHT RUN REQUIREMENTS WITH FLOWMETER MANUFACTURER PRIOR TO INSTALLATION, AND INSTALL PER MANUFACTURER'S INSTALLATION GUIDANCE.
 - SEE SHEET 02C11 FOR LOCATION OF AREA WASHDOWN HOSE BIBB FOR THIS FACILITY

EQUIPMENT TAGS		
1	RAS PUMP No. 3	SC-RASPUMP-03
2	RAS PUMP No. 4	SC-RASPUMP-04
3	RAS PUMP No. 5	SC-RASPUMP-05
4	PRESSURE TRANSMITTER RAS PUMP No. 3	SC-RAPU3-PIT-01
5	AIR RELEASE VALVE RAS PUMP No. 3	SC-RAPU3-ARV-01
6	CHECK VALVE RAS PUMP No. 3	SC-RAPU3-CV-01
7	PLUG VALVE U/S RAS PUMP No. 3	SC-RAPU3-PV-01
8	PLUG VALVE D/S RAS PUMP No. 3	SC-RAPU3-PV-02
9	PRESSURE TRANSMITTER RAS PUMP No. 4	SC-RAPU4-PIT-01
10	AIR RELEASE VALVE RAS PUMP No. 4	SC-RAPU4-ARV-01
11	CHECK VALVE RAS PUMP No. 4	SC-RAPU4-CV-01
12	PLUG VALVE U/S RAS PUMP No. 4	SC-RAPU4-PV-01
13	PLUG VALVE D/S RAS PUMP No. 4	SC-RAPU4-PV-02
14	PRESSURE TRANSMITTER RAS PUMP No. 5	SC-RAPU5-PIT-01
15	AIR RELEASE VALVE RAS PUMP No. 5	SC-RAPU5-ARV-01
16	CHECK VALVE RAS PUMP No. 5	SC-RAPU5-CV-01
17	PLUG VALVE U/S RAS PUMP No. 5	SC-RAPU5-PV-01
18	PLUG VALVE D/S RAS PUMP No. 5	SC-RAPU5-PV-02
19	PLUG VALVE ISOLATION BTWN PUMP 3 & 4	SC-RAP13-PV-01
20	PLUG VALVE ISOLATION BTWN PUMP 4 & 5	SC-RAP13-PV-02
21	RAS PUMP STATION No. 2 FLOWMETER	SC-RAP14-FIT-01
22	AIR RELEASE VALVE D/S FLOWMETER	SC-RAP14-ARV-01

A RAS PUMP STATION No. 2 PLAN
SCALE: 1/2" = 1'-0"
FILE: 10976A104S101.DWG

LAST SAVED BY:

REV	DATE	BY	DESCRIPTION

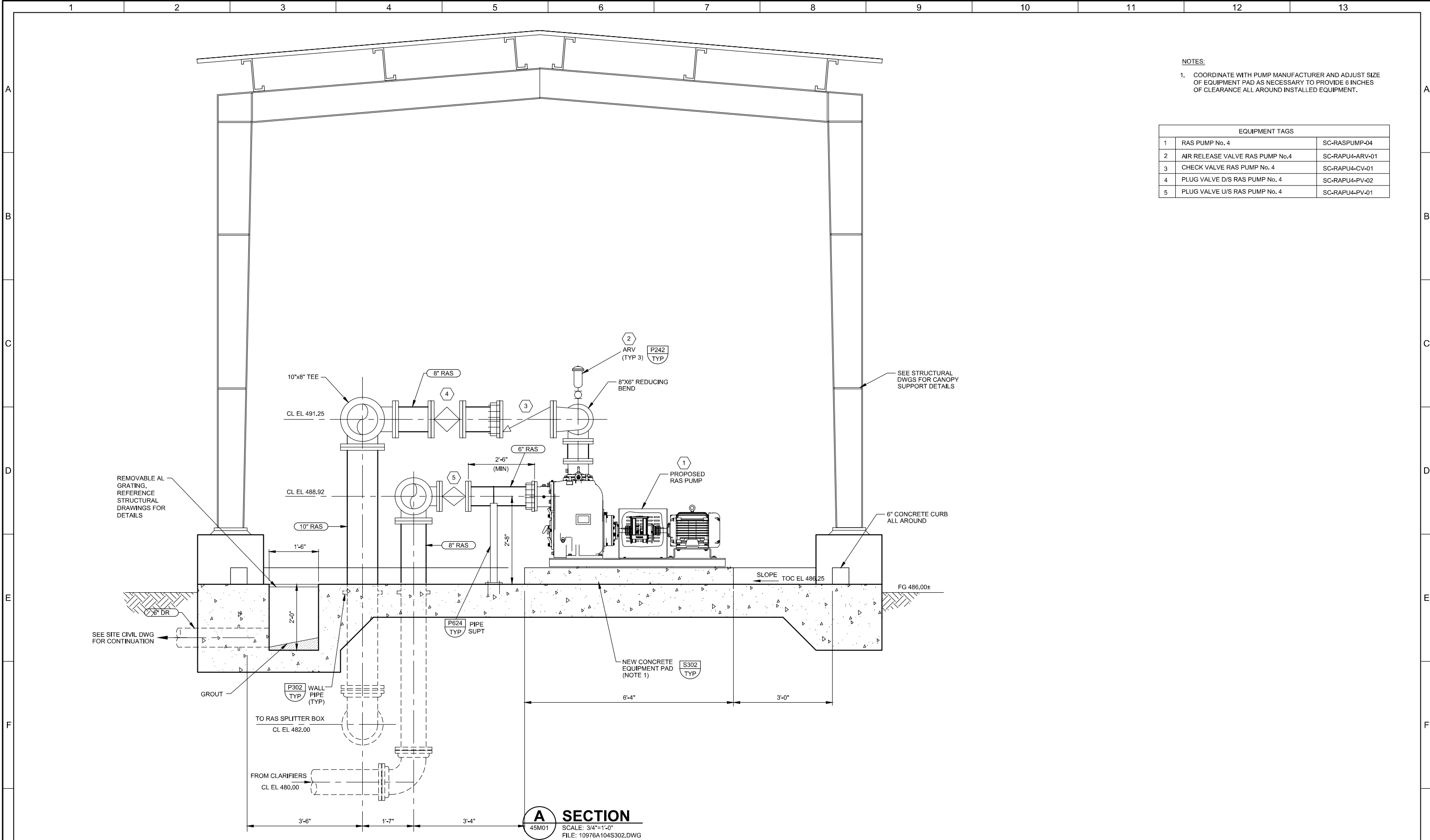
DESIGNED BY	AW
CHECKED	SGE
DATE	FEBRUARY 2022



CITY OF AUSTIN

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
RAS PUMP STATION No. 2
MECHANICAL PLAN

VERIFY SCALES	JOB NO. 10976A.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. 45M02
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 423 OF 464



- NOTES:
- COORDINATE WITH PUMP MANUFACTURER AND ADJUST SIZE OF EQUIPMENT PAD AS NECESSARY TO PROVIDE 6 INCHES OF CLEARANCE ALL AROUND INSTALLED EQUIPMENT.

EQUIPMENT TAGS		
1	RAS PUMP No. 4	SC-RASPUMP-04
2	AIR RELEASE VALVE RAS PUMP No.4	SC-RAPU4-ARV-01
3	CHECK VALVE RAS PUMP No. 4	SC-RAPU4-CV-01
4	PLUG VALVE D/S RAS PUMP No. 4	SC-RAPU4-PV-02
5	PLUG VALVE U/S RAS PUMP No. 4	SC-RAPU4-PV-01

LAST SAVED BY:

REV	DATE	BY	DESCRIPTION

BID SET

DESIGNED BY	AW
DRAWN	SGE
CHECKED	DATE
DATE	FEBRUARY 2022

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBP REG. NO. F-3580

TBPE No. F-882

CITY OF AUSTIN
FOUNDED 1859

CITY OF AUSTIN

WILD HORSE RANCH WWTP EXPANSION

MECHANICAL

RAS PUMP STATION No. 2

MECHANICAL SECTION

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 10976A.10

DRAWING NO. 45M03

SHEET NO. 424 OF 464

PROJECT NO. 9585A10

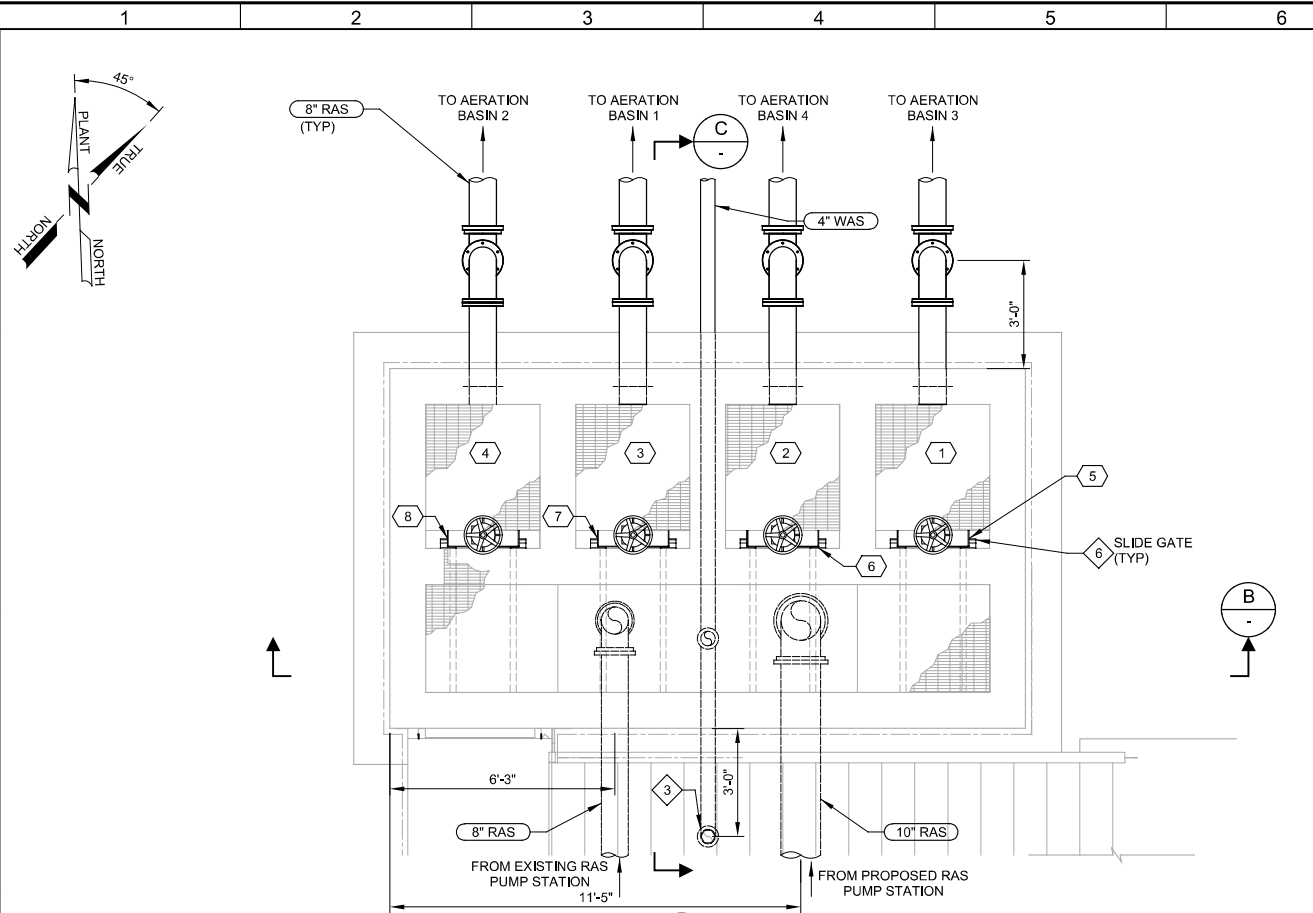
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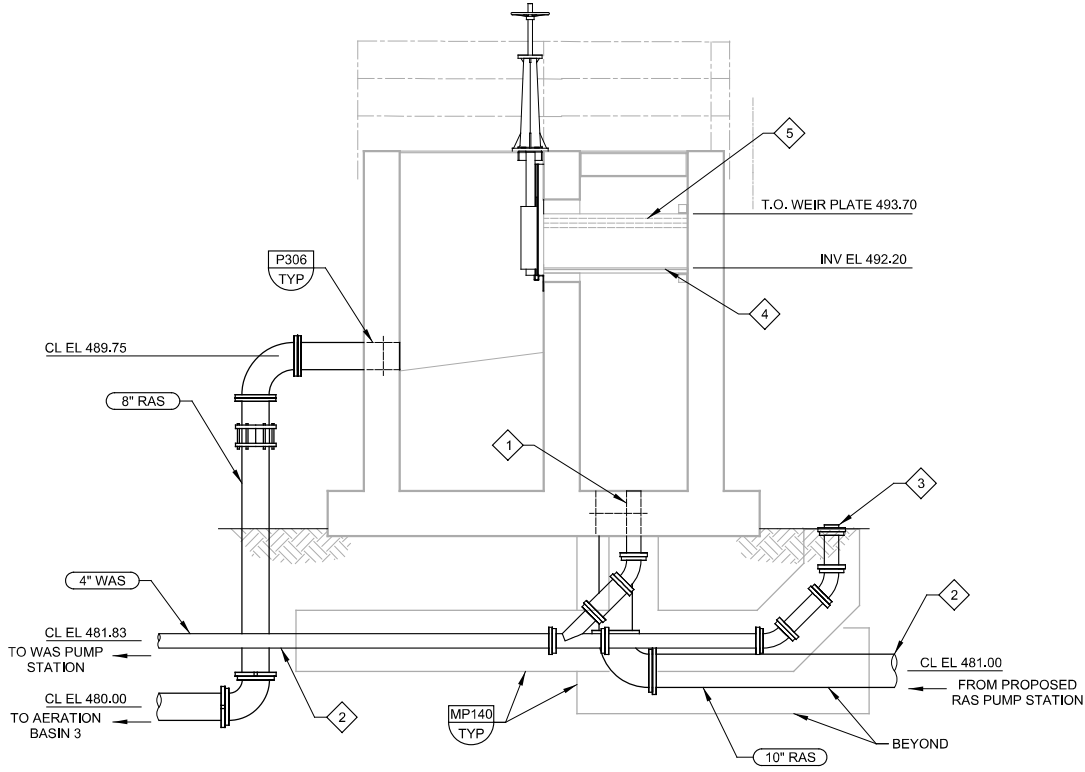
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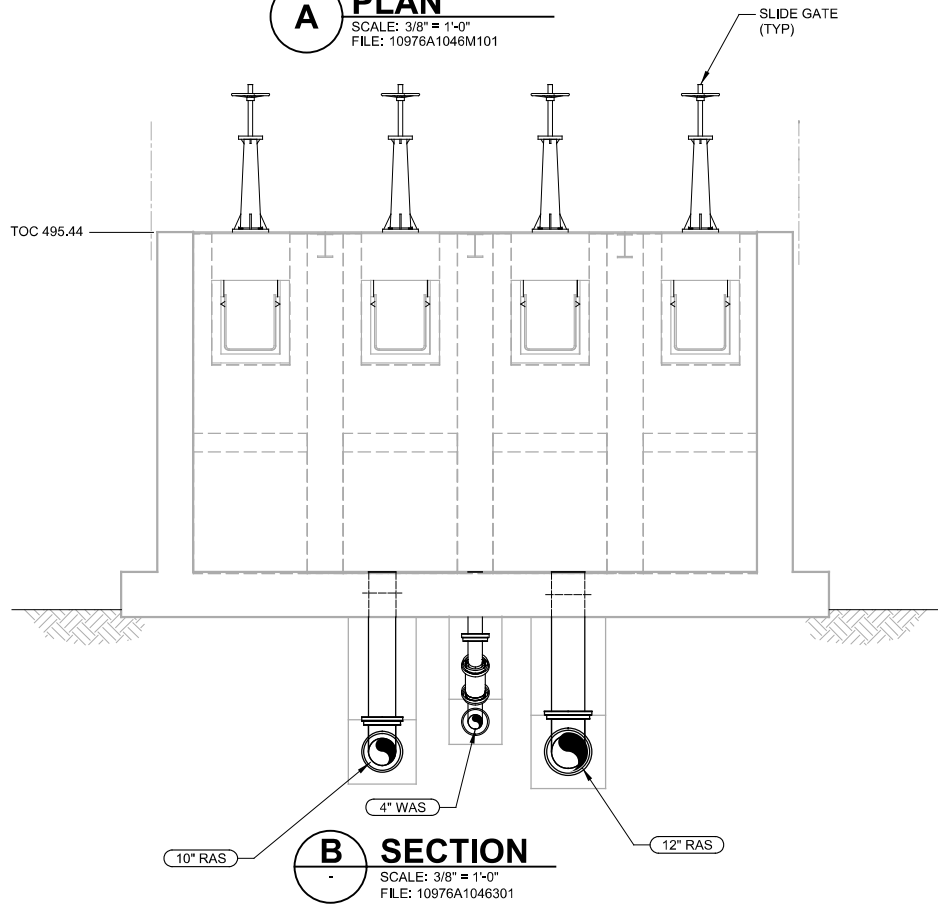
LAST SAVED BY: sWhite



A PLAN
SCALE: 3/8" = 1'-0"
FILE: 10976A1046M101



C SECTION
SCALE: 3/8" = 1'-0"
FILE: 10976A1046302



B SECTION
SCALE: 3/8" = 1'-0"
FILE: 10976A1046301

GENERAL NOTES:

- SEE YARD PIPING SHEETS FOR CONTINUATION OF ALL PIPING.

KEY NOTES:

- PIPES PENETRATE FLOOR SLAB PER DETAIL P342/TYP.
- INSTALL RESTRAINED PUSH-ON JOINT ON PIPE AT A DISTANCE "L" PAST CONCRETE ENCASEMENT, AS SHOWN IN DETAIL P342/TYP.
- INSTALL CLEANOUT AT GRADE.
- 1'-6" WIDE RECTANGULAR FIBERGLASS TROUGH PER SECTION 13120.
- EMBEDDED ANGLE STIFFENER EAR.
- MANUAL SLIDE GATE PER SECTION 11294C, TYPICAL OF 4.

EQUIPMENT TAGS:

1	AERATION BASIN FLOWBOX NO. 4	AB-FLOWBOX-04
2	AERATION BASIN FLOWBOX NO. 5	AB-FLOWBOX-05
3	AERATION BASIN FLOWBOX NO. 6	AB-FLOWBOX-06
4	AERATION BASIN FLOWBOX NO. 7	AB-FLOWBOX-07
5	AERATION BASIN FLOWBOX 4 SLIDE GATE	AB-FLB4-SG-01
6	AERATION BASIN FLOWBOX 5 SLIDE GATE	AB-FLB5-SG-01
7	AERATION BASIN FLOWBOX 6 SLIDE GATE	AB-FLB6-SG-01
8	AERATION BASIN FLOWBOX 7 SLIDE GATE	AB-FLB7-SG-01

REV	DATE	BY	DESCRIPTION

DESIGNED	BMW
DRAWN	LGD
CHECKED	DMH
DATE	FEBRUARY 2022



Digitally signed by Daniel Hurtado
Contact Info: Carollo Engineers, Inc.
Date: 2022.02.20 10:46:03 -0600



TBPELS No. F-882

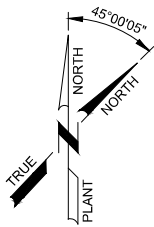
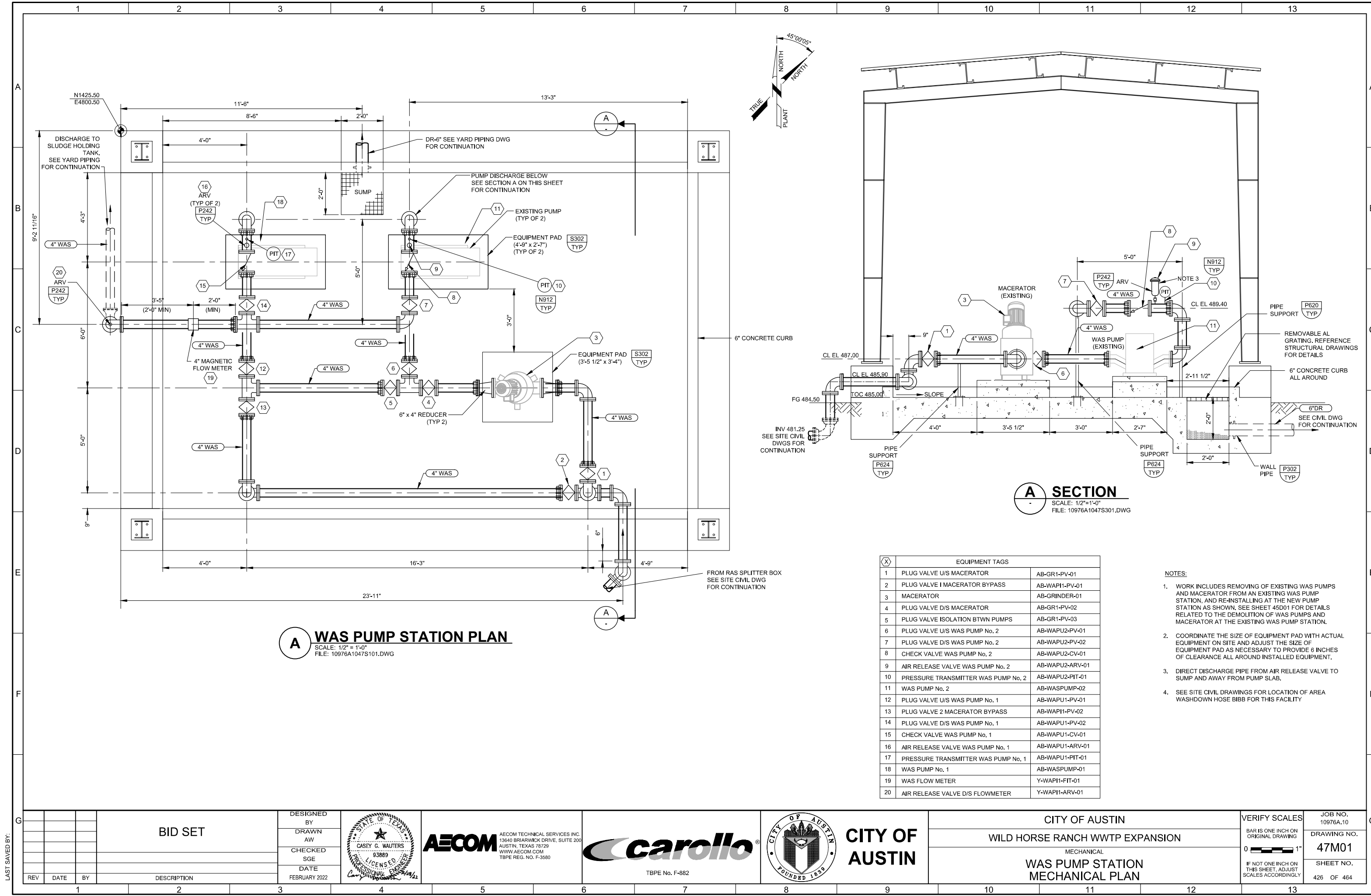


CITY OF AUSTIN

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
**RAS SPLITTER BOX
PLAN AND SECTIONS**

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

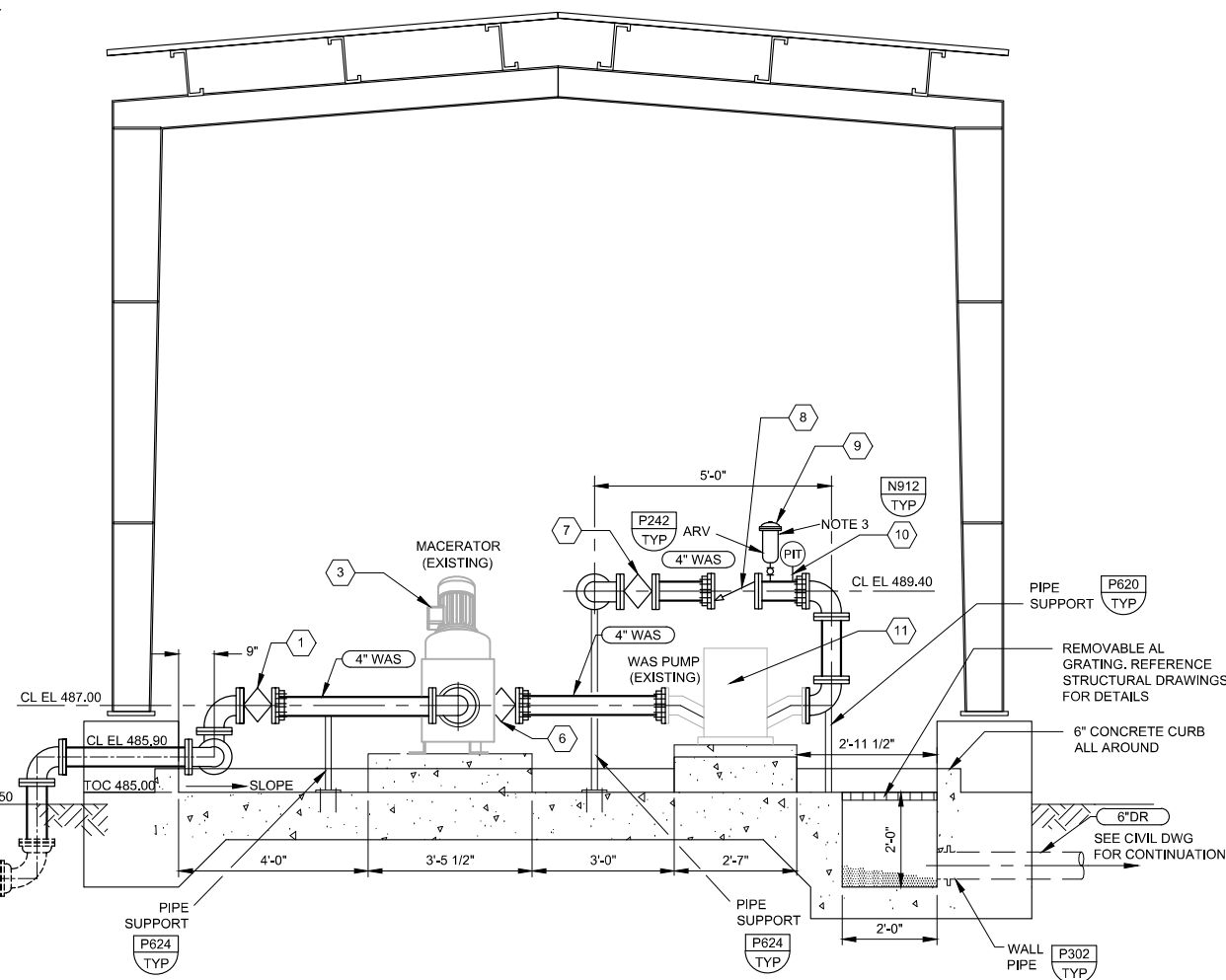
JOB NO.
10976A.00
DRAWING NO.
46M01
SHEET NO.
425 OF 464



6" CONCRETE CURB

INV 481.25
SEE SITE CIVIL
DWGS FOR
CONTINUATION

FROM RAS SPLITTER BOX
SEE SITE CIVIL DWG
FOR CONTINUATION



A SECTION
SCALE: 1/2"=1'-0"
FILE: 10976A1047S301.DWG

EQUIPMENT TAGS		
1	PLUG VALVE U/S MACERATOR	AB-GR1-PV-01
2	PLUG VALVE I MACERATOR BYPASS	AB-WAP11-PV-01
3	MACERATOR	AB-GRINDER-01
4	PLUG VALVE D/S MACERATOR	AB-GR1-PV-02
5	PLUG VALVE ISOLATION BTWN PUMPS	AB-GR1-PV-03
6	PLUG VALVE U/S WAS PUMP No. 2	AB-WAPU2-PV-01
7	PLUG VALVE D/S WAS PUMP No. 2	AB-WAPU2-PV-02
8	CHECK VALVE WAS PUMP No. 2	AB-WAPU2-CV-01
9	AIR RELEASE VALVE WAS PUMP No. 2	AB-WAPU2-ARV-01
10	PRESSURE TRANSMITTER WAS PUMP No. 2	AB-WAPU2-PIT-01
11	WAS PUMP No. 2	AB-WASPUMP-02
12	PLUG VALVE U/S WAS PUMP No. 1	AB-WAPU1-PV-01
13	PLUG VALVE 2 MACERATOR BYPASS	AB-WAP11-PV-02
14	PLUG VALVE D/S WAS PUMP No. 1	AB-WAPU1-PV-02
15	CHECK VALVE WAS PUMP No. 1	AB-WAPU1-CV-01
16	AIR RELEASE VALVE WAS PUMP No. 1	AB-WAPU1-ARV-01
17	PRESSURE TRANSMITTER WAS PUMP No. 1	AB-WAPU1-PIT-01
18	WAS PUMP No. 1	AB-WASPUMP-01
19	WAS FLOW METER	Y-WAP11-FIT-01
20	AIR RELEASE VALVE D/S FLOWMETER	Y-WAP11-ARV-01

- NOTES:
1. WORK INCLUDES REMOVING OF EXISTING WAS PUMPS AND MACERATOR FROM AN EXISTING WAS PUMP STATION, AND RE-INSTALLING AT THE NEW PUMP STATION AS SHOWN, SEE SHEET 45001 FOR DETAILS RELATED TO THE DEMOLITION OF WAS PUMPS AND MACERATOR AT THE EXISTING WAS PUMP STATION.
 2. COORDINATE THE SIZE OF EQUIPMENT PAD WITH ACTUAL EQUIPMENT ON SITE AND ADJUST THE SIZE OF EQUIPMENT PAD AS NECESSARY TO PROVIDE 6 INCHES OF CLEARANCE ALL AROUND INSTALLED EQUIPMENT.
 3. DIRECT DISCHARGE PIPE FROM AIR RELEASE VALVE TO SUMP AND AWAY FROM PUMP SLAB.
 4. SEE SITE CIVIL DRAWINGS FOR LOCATION OF AREA WASHDOWN HOSE BIBB FOR THIS FACILITY

A WAS PUMP STATION PLAN
SCALE: 1/2" = 1'-0"
FILE: 10976A1047S101.DWG

LAST SAVED BY:

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BID SET

DESIGNED BY
DRAWN
AW
CHECKED
SGE
DATE
FEBRUARY 2022

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

TBPE No. F-882

CITY OF AUSTIN

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
WAS PUMP STATION
MECHANICAL PLAN

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
10976A.10
DRAWING NO.
47M01
SHEET NO.
426 OF 464

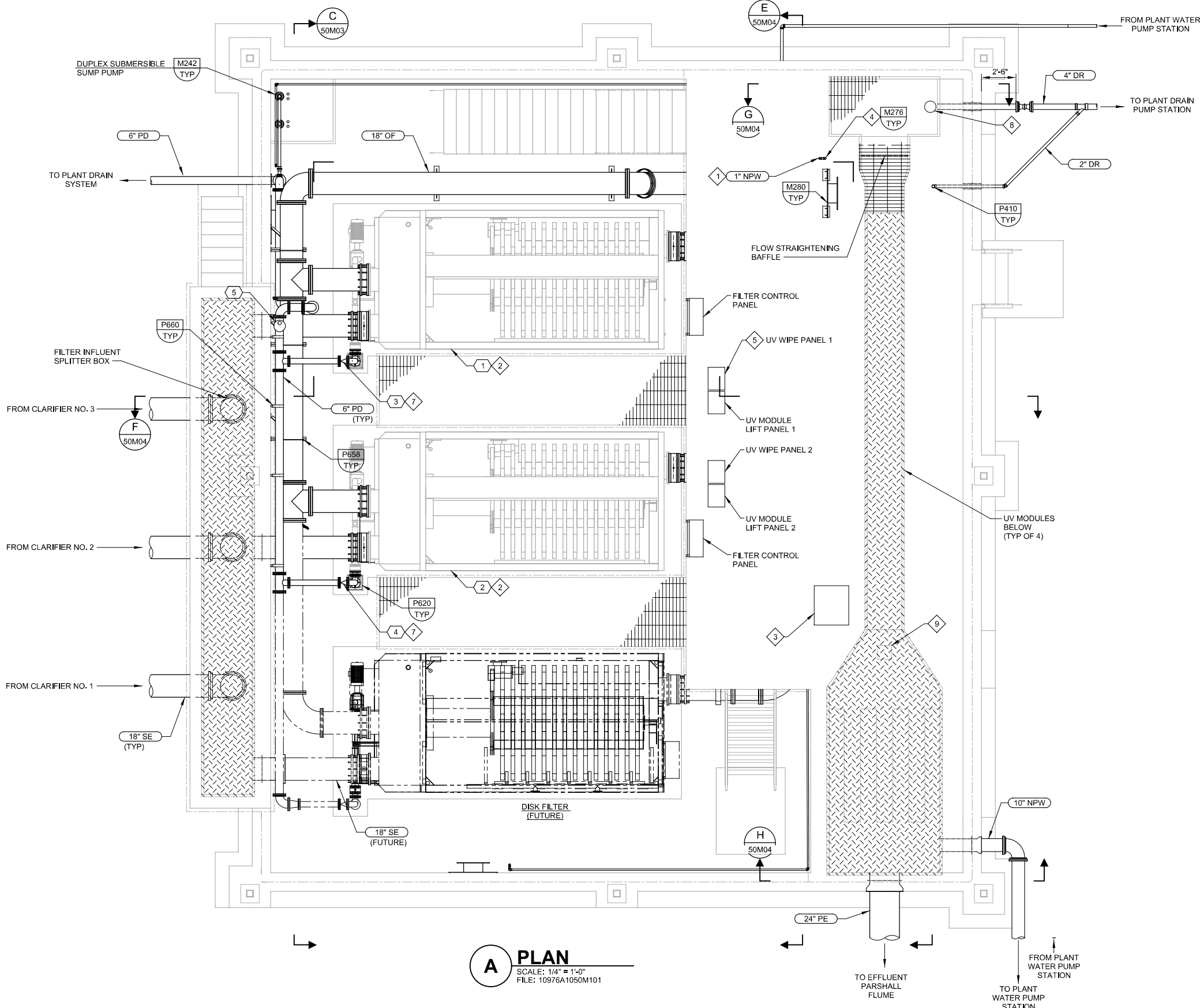
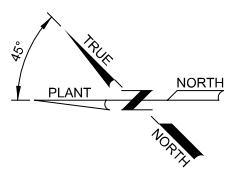
PROJECT NO. 9585A10
FILE NAME:

Plot Date: 23-FEB-2022 8:37:16 AM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo Std Pen v0905.pen PlotScale: 1:1

LAST SAVED BY: utzel



A PLAN
SCALE: 1/4" = 1'-0"
FILE: 10976A1050M101

GENERAL NOTES:

- FOR REHABILITATION OF FILTERS AND FILTER NO. 3 ADDITIVE ALTERNATE, SEE SECTION 11366B.
- CONTRACTOR SHALL REVIEW UV DISINFECTION SYSTEM SUPPLIER SUBMITTAL FOR ADDITIONAL INSTALLATION DETAILS.
- UNLESS OTHERWISE SPECIFIED, NEW PIPE SUPPORTS PER SPECIFICATION SECTION 15061.

KEY NOTES:

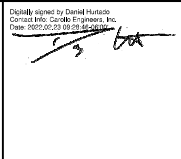
- 1" NPW PIPE CONTINUED FROM FILTER COMPLEX BELOW. SEE SHEET 50M02 FOR CONTINUATION.
- EXISTING AQUADISK DISK FILTERS. CONTRACTOR TO COORDINATE WITH FILTER MANUFACTURER FOR INSTALLATION DETAILS. SEE SHEET 50D01 FOR INFORMATION REGARDING TEMPORARY FILTER RELOCATION.
- PROVIDE AUTOMATIC EFFLUENT SAMPLER FROM TELEDYNE ISCO, MODEL 5800 REFRIGERATED SAMPLER AND MODEL 4B SAMPLER SHELTER, OR EQUAL. INCLUDE 24 ONE LITER POLYPROPYLENE BOTTLES AND 1 TWENTY LITER ROUTE POLYETHYLENE BOTTLE.
- 1" HOSE BIBB ADJACENT TO FREE STANDING HOSE RACK.
- VENDOR PROVIDED ELECTRIC WIPE CONTROL PANEL AND MODULE LIFT CONTROL BOX.
- PIPE CONTINUED TO PLANT WATER PUMP STATION ON SHEET 65M01.
- 4" SWING CHECK VALVE, TYPICAL OF 3.
- UV TRANSMITTANCE METER INSTALLED IN STILLING WELL.
- ACCESS HATCH FOR GRAB SAMPLING.
- UV LAMP CLEANING TABLE TO BE PROVIDED BY CONTRACTOR. REFER TO ALLOWANCE IN BID FORM.

EQUIPMENT TAGS:

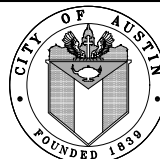
1	DISK FILTER NO. 1	FLTR-FILTER-01
2	DISK FILTER NO. 2	FLTR-FILTER-02
3	FILTER NO. 1 BACKWASH PUMP CHECK VALVE	FLTR-BWPU1-CV-01
4	FILTER NO. 2 BACKWASH PUMP CHECK VALVE	FLTR-BWPU2-CV-01
5	BACKWASH PIPING COMBINATION AIR VALVE	FLTR-BWPH-ARV-01

REV	DATE	BY	DESCRIPTION

DESIGNED	BMW
DRAWN	LGD
CHECKED	DMH
DATE	FEBRUARY 2022



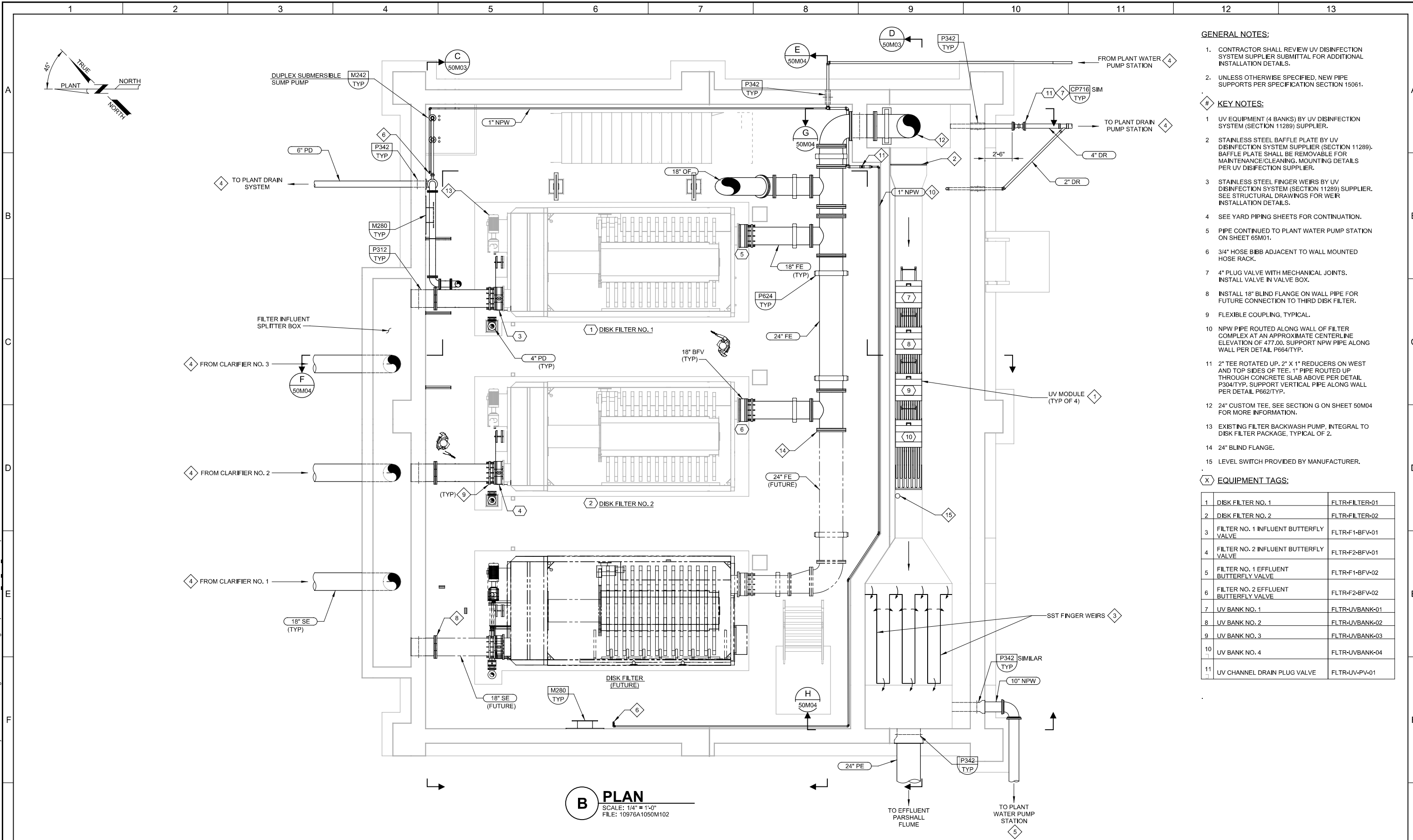
TBPELS No. F-882



CITY OF AUSTIN

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
FILTER / UV DISINFECTION COMPLEX
UPPER PLAN

VERIFY SCALES	JOB NO. 10976A.00
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. 50M01
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 427 OF 464



GENERAL NOTES:

- CONTRACTOR SHALL REVIEW UV DISINFECTION SYSTEM SUPPLIER SUBMITTAL FOR ADDITIONAL INSTALLATION DETAILS.
- UNLESS OTHERWISE SPECIFIED, NEW PIPE SUPPORTS PER SPECIFICATION SECTION 15061.

KEY NOTES:

- UV EQUIPMENT (4 BANKS) BY UV DISINFECTION SYSTEM (SECTION 11289) SUPPLIER.
- STAINLESS STEEL BAFFLE PLATE BY UV DISINFECTION SYSTEM SUPPLIER (SECTION 11289). BAFFLE PLATE SHALL BE REMOVABLE FOR MAINTENANCE/CLEANING. MOUNTING DETAILS PER UV DISINFECTION SUPPLIER.
- STAINLESS STEEL FINGER WEIRS BY UV DISINFECTION SYSTEM (SECTION 11289) SUPPLIER. SEE STRUCTURAL DRAWINGS FOR WEIR INSTALLATION DETAILS.
- SEE YARD PIPING SHEETS FOR CONTINUATION.
- PIPE CONTINUED TO PLANT WATER PUMP STATION ON SHEET 65M01.
- 3/4\" HOSE BIB ADJACENT TO WALL MOUNTED HOSE RACK.
- 4\" PLUG VALVE WITH MECHANICAL JOINTS. INSTALL VALVE IN VALVE BOX.
- INSTALL 18\" BLIND FLANGE ON WALL PIPE FOR FUTURE CONNECTION TO THIRD DISK FILTER.
- FLEXIBLE COUPLING, TYPICAL.
- NPW PIPE ROUTED ALONG WALL OF FILTER COMPLEX AT AN APPROXIMATE CENTERLINE ELEVATION OF 477.00. SUPPORT NPW PIPE ALONG WALL PER DETAIL P664/TYP.
- 2\" TEE ROTATED UP. 2\" X 1\" REDUCERS ON WEST AND TOP SIDES OF TEE. 1\" PIPE ROUTED UP THROUGH CONCRETE SLAB ABOVE PER DETAIL P304/TYP. SUPPORT VERTICAL PIPE ALONG WALL PER DETAIL P662/TYP.
- 24\" CUSTOM TEE. SEE SECTION G ON SHEET 50M04 FOR MORE INFORMATION.
- EXISTING FILTER BACKWASH PUMP, INTEGRAL TO DISK FILTER PACKAGE, TYPICAL OF 2.
- 24\" BLIND FLANGE.
- LEVEL SWITCH PROVIDED BY MANUFACTURER.

EQUIPMENT TAGS:

1	DISK FILTER NO. 1	FLTR-FILTER-01
2	DISK FILTER NO. 2	FLTR-FILTER-02
3	FILTER NO. 1 INFLUENT BUTTERFLY VALVE	FLTR-F1-BFV-01
4	FILTER NO. 2 INFLUENT BUTTERFLY VALVE	FLTR-F2-BFV-01
5	FILTER NO. 1 EFFLUENT BUTTERFLY VALVE	FLTR-F1-BFV-02
6	FILTER NO. 2 EFFLUENT BUTTERFLY VALVE	FLTR-F2-BFV-02
7	UV BANK NO. 1	FLTR-UVBANK-01
8	UV BANK NO. 2	FLTR-UVBANK-02
9	UV BANK NO. 3	FLTR-UVBANK-03
10	UV BANK NO. 4	FLTR-UVBANK-04
11	UV CHANNEL DRAIN PLUG VALVE	FLTR-UV-PV-01

B PLAN

SCALE: 1/4\" = 1'-0\"
FILE: 10976A1050M102

BID SET

DESIGNED
BMW
DRAWN
LGD
CHECKED
DMH
DATE
FEBRUARY 2022



Digitally signed by Daniel Hurtado
Contact Info: Carollo Engineers, Inc.
Date: 2022.02.23 09:05:30-0600

carollo

TBPELS No. F-882



CITY OF AUSTIN

CITY OF AUSTIN

WILD HORSE RANCH WWTP EXPANSION

MECHANICAL

FILTER / UV DISINFECTION COMPLEX
LOWER PLAN

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
10976A.00

DRAWING NO.
50M02

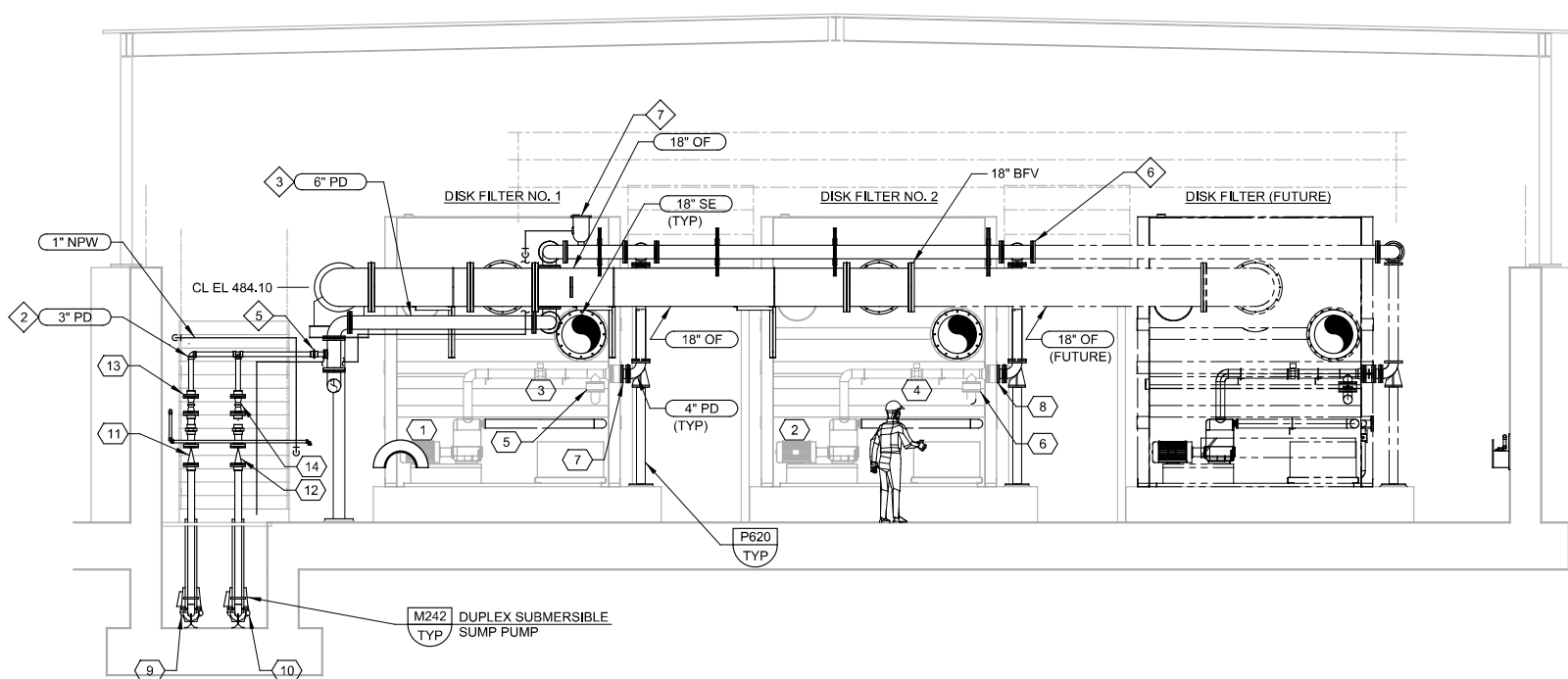
SHEET NO.
428 OF 464

Plot Date: 21-FEB-2022 11:09:38 AM

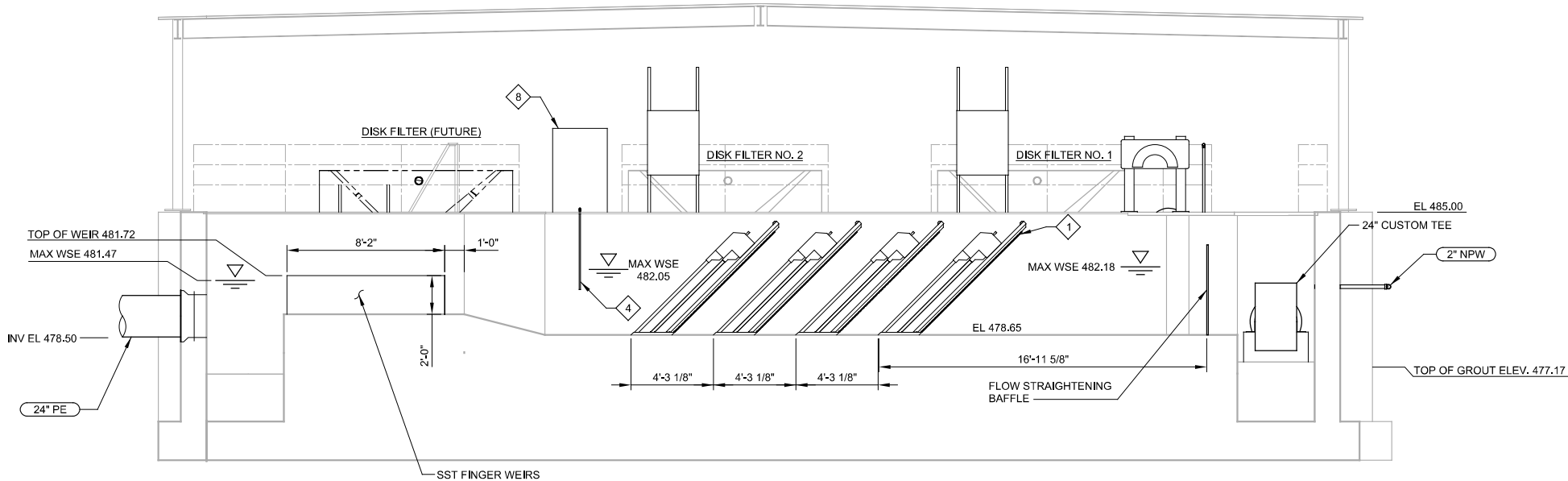
User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo Std Pen v0905.pen PlotScale: 1:1

LAST SAVED BY: witzel



C SECTION
50M01 SCALE: 1/4" = 1'-0"
FILE: 1076A1050M301



D SECTION
50M01 SCALE: 1/4" = 1'-0"
FILE: 1076A1050M302

GENERAL NOTES:

- CONTRACTOR SHALL REVIEW UV DISINFECTION SYSTEM SUPPLIER SUBMITTAL FOR ADDITIONAL INSTALLATION DETAILS.
- UNLESS OTHERWISE SPECIFIED, NEW PIPE SUPPORTS PER SPECIFICATION SECTION 15061.

KEY NOTES:

- UV MODULE (TYP OF 4).
- SUPPORT PIPE ALONG WALL PER DETAIL P662/TYP.
- SUPPORT PIPE ALONG WALL PER DETAIL P658/TYP.
- AUTOSAMPLER SUCTION PIPING.
- 6" X 3" REDUCING TEE.
- 6" BLIND FLANGE.
- 2" COMBINATION AIR VALVE.
- EFFLUENT AUTOSAMPLER.

(X) EQUIPMENT TAGS:

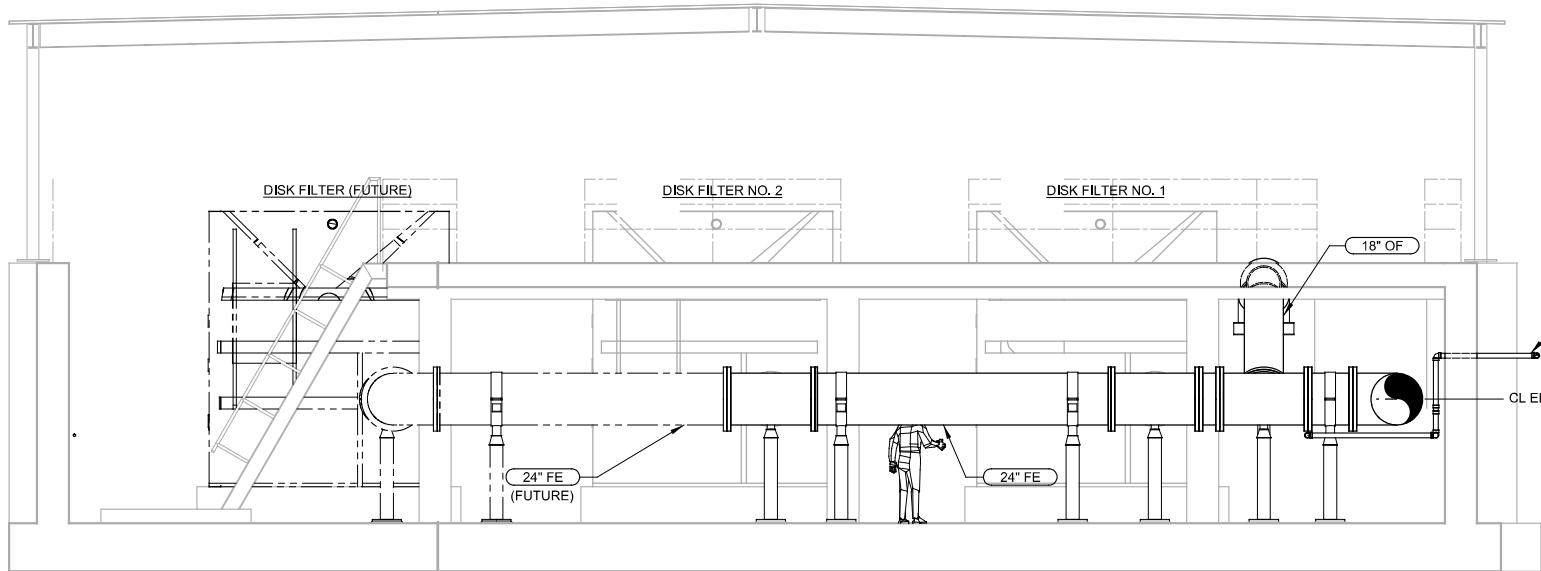
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2	FILTER NO. 2 BACKWASH PUMP	FLTR-BACKWASHPUMP-02
3	FILTER NO. 1 BACKWASH PUMP FLOW METER	FLTR-BWPU1-FIT-01
4	FILTER NO. 2 BACKWASH PUMP FLOW METER	FLTR-BWPU2-FIT-01
5	FILTER NO. 1 BACKWASH PUMP BUTTERFLY VALVE 1	FLTR-BWPU1-BFV-01
6	FILTER NO. 2 BACKWASH PUMP BUTTERFLY VALVE 1	FLTR-BWPU2-BFV-01
7	FILTER NO. 1 BACKWASH PUMP BUTTERFLY VALVE 2	FLTR-BWPU1-BFV-02
8	FILTER NO. 2 BACKWASH PUMP BUTTERFLY VALVE 2	FLTR-BWPU2-BFV-02
9	SUMP PUMP NO. 1	FLTR-SUMPPUMP-01
10	SUMP PUMP NO. 2	FLTR-SUMPPUMP-02
11	SUMP PUMP NO. 1 CHECK VALVE	FLTR-SP1-CV-01
12	SUMP PUMP NO. 2 CHECK VALVE	FLTR-SP2-CV-01
13	SUMP PUMP NO. 1 PLUG VALVE	FLTR-SP1-PV-01
14	SUMP PUMP NO. 2 PLUG VALVE	FLTR-SP2-PV-01

Plot Date: 21-FEB-2022 11:12:43 AM

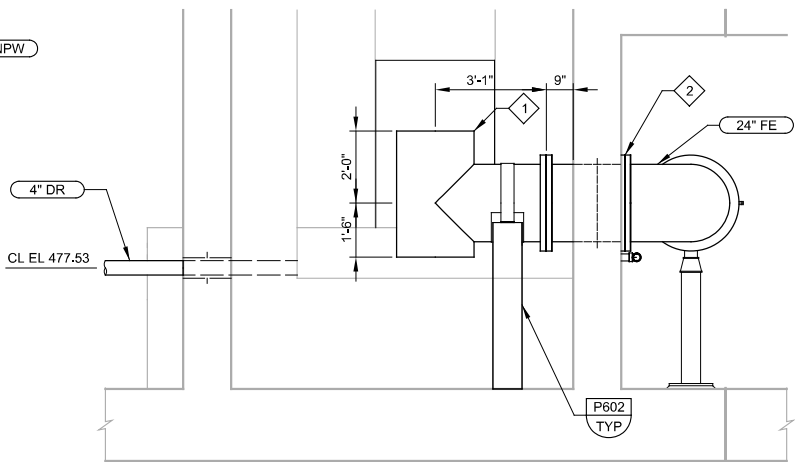
User: svcPW

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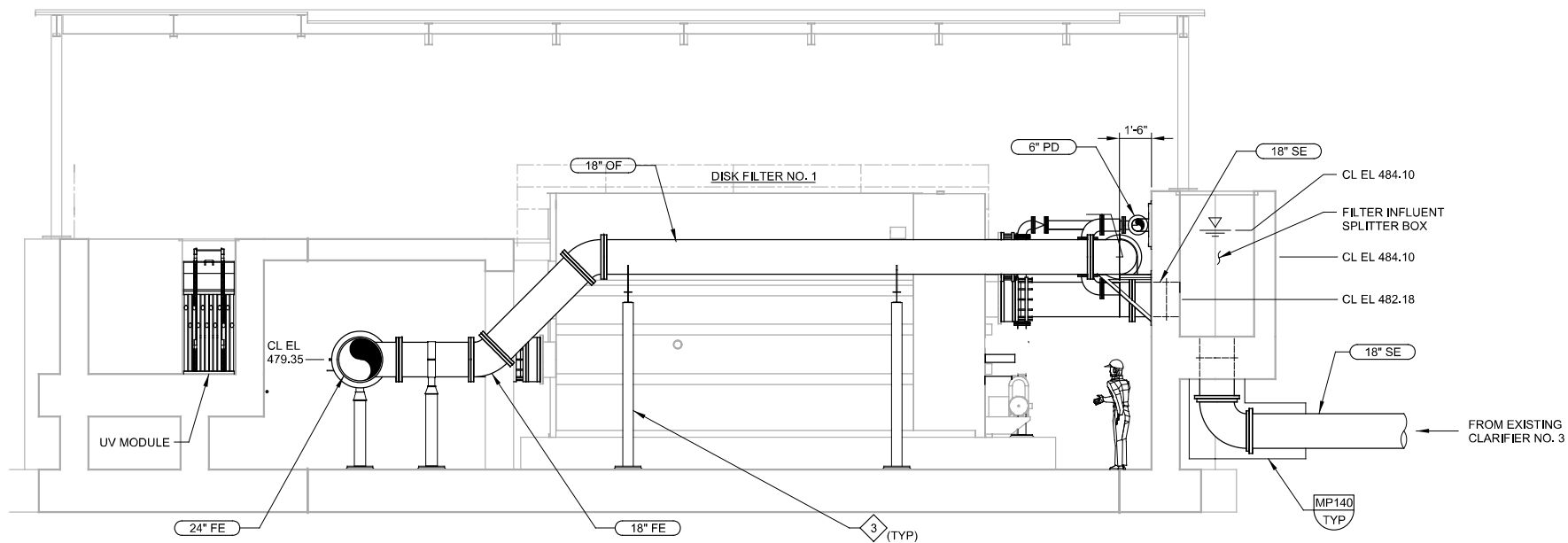
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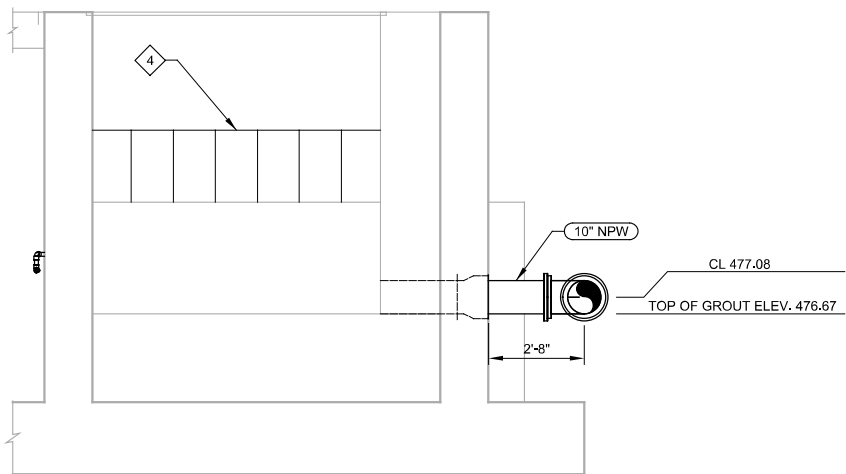
E SECTION
50M01
SCALE: 1/4" = 1'-0"
FILE: 1076A1050M303



G SECTION
50M02
SCALE: 3/8" = 1'-0"
FILE: 1076A1050M306



F SECTION
50M01
SCALE: 1/4" = 1'-0"
FILE: 1076A1050M304



H SECTION
50M02
SCALE: 3/8" = 1'-0"
FILE: 1076A1050M305

GENERAL NOTES:

1. CONTRACTOR SHALL REVIEW UV DISINFECTION SYSTEM SUPPLIER SUBMITTAL FOR ADDITIONAL INSTALLATION DETAILS.
2. UNLESS OTHERWISE SPECIFIED, NEW PIPE SUPPORTS PER SPECIFICATION SECTION 15061.

KEY NOTES:

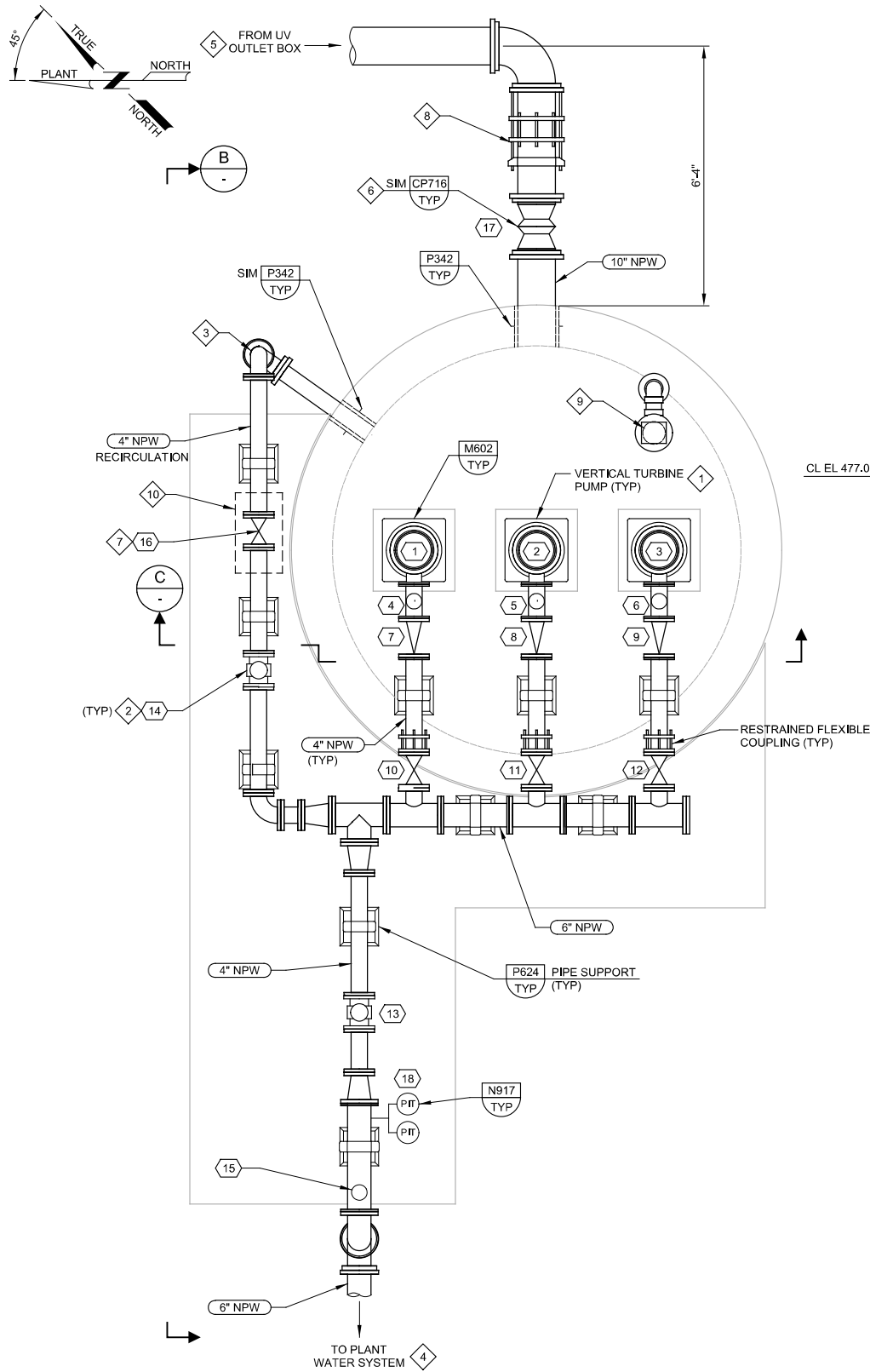
1. CUSTOM 24" PAINTED STEEL TEE CENTERED AT THE CENTERLINE OF THE UV CHANNEL INFLUENT BOX.
2. PAINTED STEEL WALL THIMBLE WITH TAPPED FLANGE ON NORTH SIDE OF WALL, SIMILAR TO TYPICAL DETAIL P314/TYP AND FLANGED END ON SOUTH SIDE OF WALL, SIMILAR TO DETAIL P312/TYP. DIELECTRIC ISOLATOR BETWEEN DISSIMILAR PIPE MATERIALS.
3. STEEL PIPE SUPPORT, SEE TO DETAIL 5 ON SHEET 30S05.
4. FINGER WEIRS PROVIDED BY UV MANUFACTURER.

Plt Date: 21-FEB-2022 11:11:19 AM

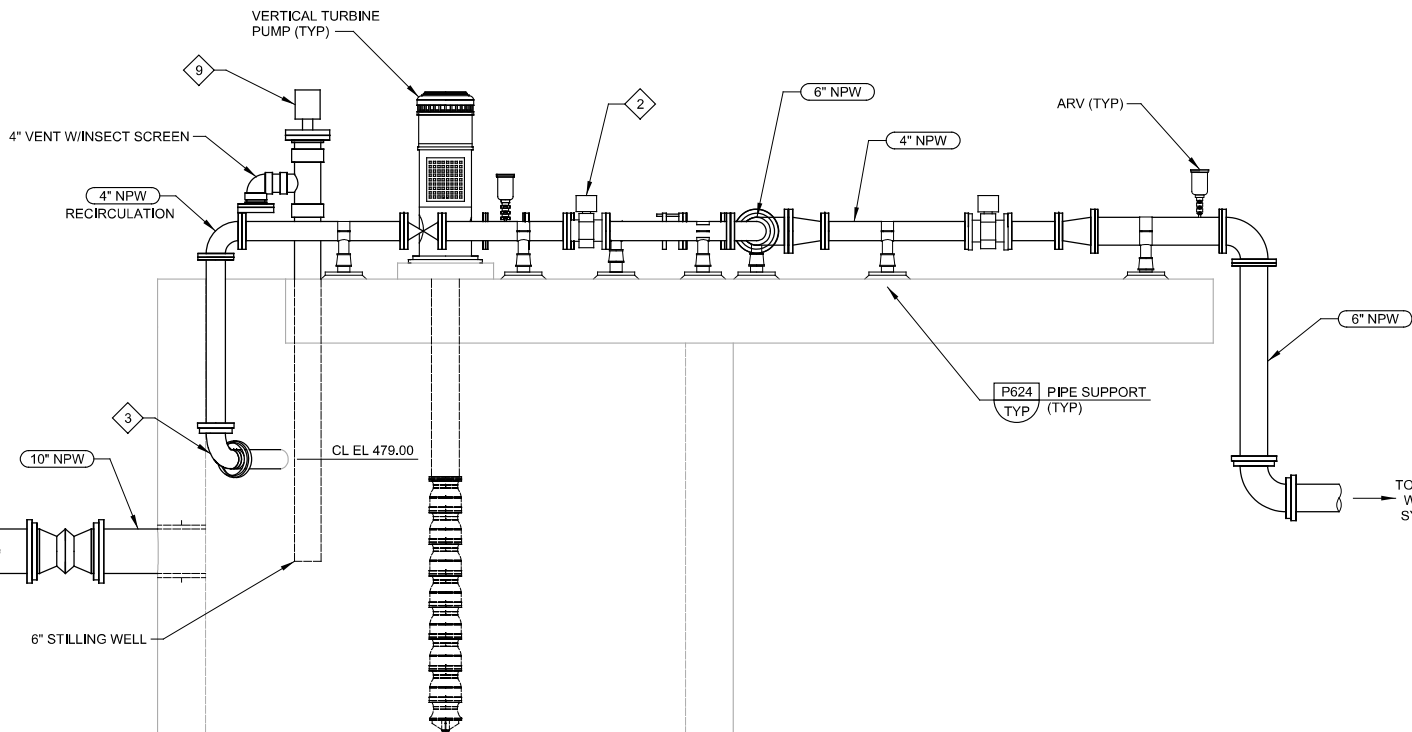
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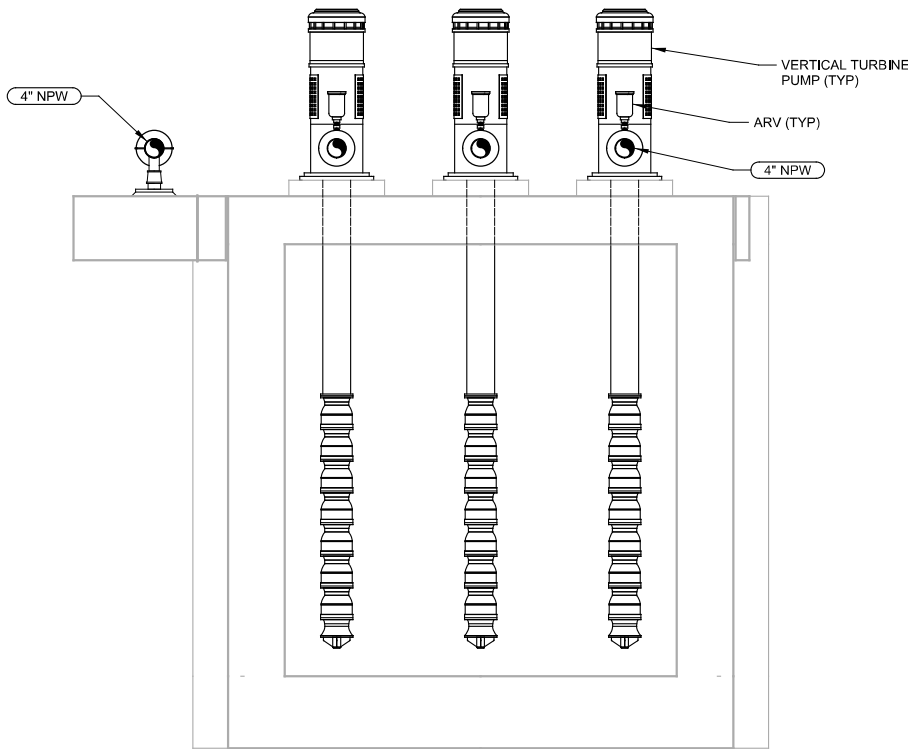
LAST SAVED BY: WJZ



A PLAN
SCALE: 1/2" = 1'-0"
FILE: 10976A1065M101



B SECTION
SCALE: 1/2" = 1'-0"
FILE: 10976A10M301



C SECTION
SCALE: 1/2" = 1'-0"
FILE: 10976A10M302

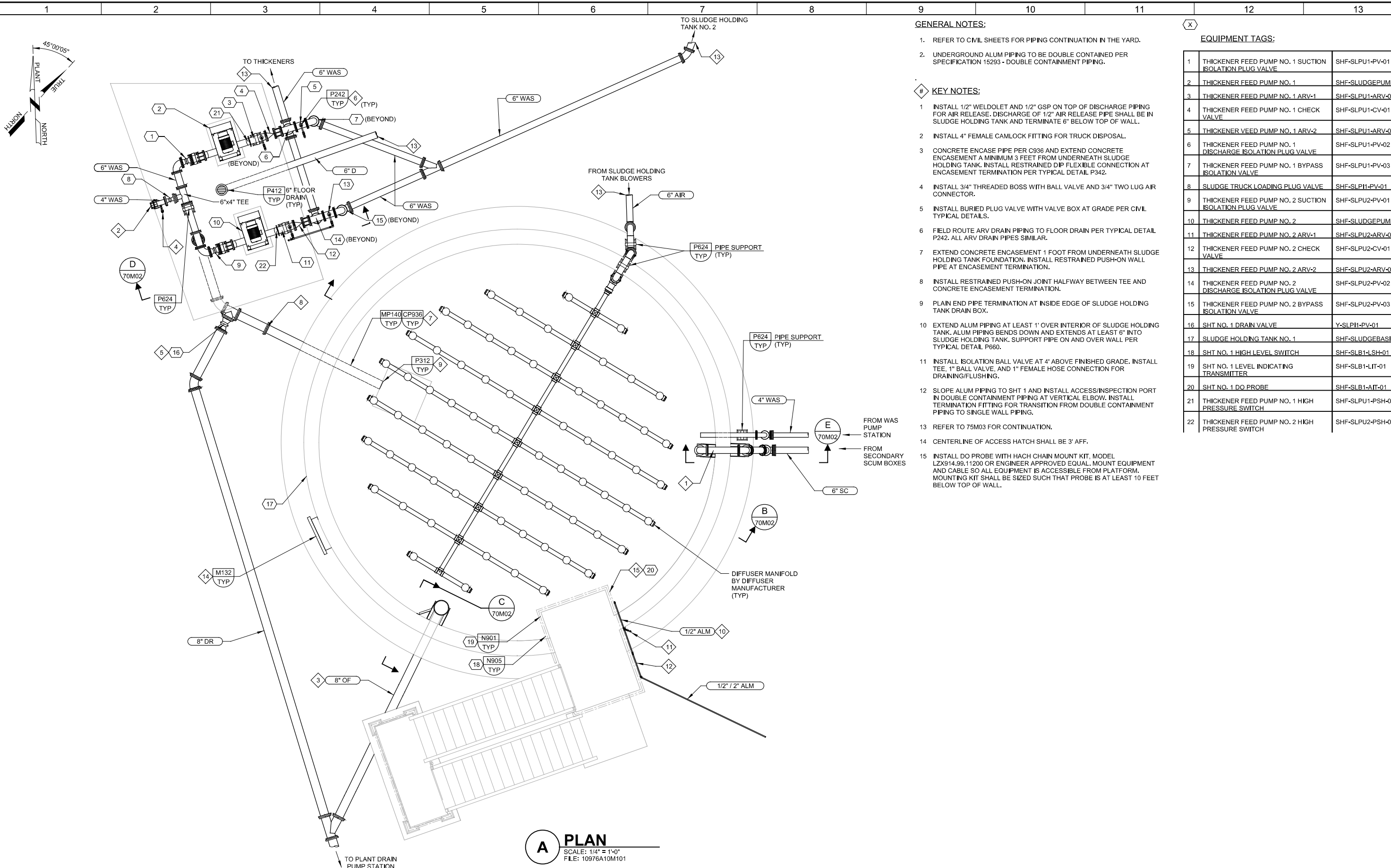
- KEY NOTES:**
- 1 VERTICAL TURBINE PUMP, TYPICAL OF 3, PER SECTION 11312D.
 - 2 4 INCH MAGNETIC FLOW METER, TYPICAL OF 2.
 - 3 MECHANICALLY RESTRAINED 90 DEGREE BEND ON BURIED NPW RECIRCULATION PIPE.
 - 4 SEE YARD PIPING SHEETS FOR CONTINUATION.
 - 5 CONTINUED ON SHEET 50M02.
 - 6 6" PLUG VALVE WITH MECHANICAL JOINTS.
 - 7 PRESSURE SUSTAINING/RELIEF VALVE SET TO 90 PSIG.
 - 8 RESTRAINED FLEXIBLE COUPLING.
 - 9 LOW LEVEL FLOAT SWITCH INSTALLED IN STILLING WELL.
 - 10 PROVIDE HEATED VALVE ENCLOSURE. CONTRACTOR SHALL COORDINATE SIZE WITH VALVE MANUFACTURER. ENCLOSURE SHALL BE HOT BOX MODEL HB2 BY HUBBELL, OR EQUAL.

EQUIPMENT TAGS:

1	PLANT WATER PUMP NO. 1	FLTR-NPWPUMP-01
2	PLANT WATER PUMP NO. 2	FLTR-NPWPUMP-02
3	PLANT WATER PUMP NO. 3	FLTR-NPWPUMP-03
4	PLANT WATER PUMP NO. 1 AIR RELEASE VALVE	FLTR-NPWP1-ARV-01
5	PLANT WATER PUMP NO. 2 AIR RELEASE VALVE	FLTR-NPWP2-ARV-01
6	PLANT WATER PUMP NO. 3 AIR RELEASE VALVE	FLTR-NPWP3-ARV-01
7	PLANT WATER PUMP NO. 1 CHECK VALVE	FLTR-NPWP1-CV-01
8	PLANT WATER PUMP NO. 2 CHECK VALVE	FLTR-NPWP2-CV-01
9	PLANT WATER PUMP NO. 3 CHECK VALVE	FLTR-NPWP3-CV-01
10	PLANT WATER PUMP NO. 1 ISOLATION GATE VALVE	FLTR-NPWP1-GV-01
11	PLANT WATER PUMP NO. 2 ISOLATION GATE VALVE	FLTR-NPWP2-GV-01
12	PLANT WATER PUMP NO. 3 ISOLATION GATE VALVE	FLTR-NPWP3-GV-01
13	PLANT WATER DISCHARGE HEADER FLOW METER	FLTR-NPW11-FIT-01
14	PLANT WATER RECIRCULATION FLOW METER	FLTR-NPW12-FIT-01
15	PLANT WATER DISCHARGE HEADER ARV	FLTR-NPW11-ARV-01
16	PLANT WATER RECIRCULATION PRESSURE SUSTAINING/RELIEF VALVE	FLTR-NPW12-PRLV-01
17	PLANT WATER PUMP STATION INFLUENT PLUG VALVE	FLTR-NPWP-PV-01
18	PLANT WATER PRESSURE INDICATING TRANSMITTER	FLTR-NPW11-PIT-01

BID SET				DESIGNED BMW DRAWN LGD CHECKED DMH DATE FEBRUARY 2022				CITY OF AUSTIN WILD HORSE RANCH WWTP EXPANSION MECHANICAL PLANT WATER PUMP STATION PLAN AND SECTIONS	VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 10976A.00 DRAWING NO. 65M01 SHEET NO. 431 OF 464
REV	DATE	BY	DESCRIPTION							
1										
2										
3										
4										
5										
6										
7										
8										
9										
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11										
12										
13										

Plot Date: 21-FEB-2022 11:14:30 AM
User: svcPW
Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo Std Pen v0905.pen PlotScale: 1:1
LAST SAVED BY: witzel



GENERAL NOTES:

- REFER TO CIVIL SHEETS FOR PIPING CONTINUATION IN THE YARD.
- UNDERGROUND ALUM PIPING TO BE DOUBLE CONTAINED PER SPECIFICATION 15293 - DOUBLE CONTAINMENT PIPING.

KEY NOTES:

- INSTALL 1/2" WELDOLET AND 1/2" GSP ON TOP OF DISCHARGE PIPING FOR AIR RELEASE. DISCHARGE OF 1/2" AIR RELEASE PIPE SHALL BE IN SLUDGE HOLDING TANK AND TERMINATE 6" BELOW TOP OF WALL.
- INSTALL 4" FEMALE CAMLOCK FITTING FOR TRUCK DISPOSAL.
- CONCRETE ENCASE PIPE PER C936 AND EXTEND CONCRETE ENCASEMENT A MINIMUM 3 FEET FROM UNDERNEATH SLUDGE HOLDING TANK. INSTALL RESTRAINED DIP FLEXIBLE CONNECTION AT ENCASEMENT TERMINATION PER TYPICAL DETAIL P342.
- INSTALL 3/4" THREADED BOSS WITH BALL VALVE AND 3/4" TWO LUG AIR CONNECTOR.
- INSTALL BURIED PLUG VALVE WITH VALVE BOX AT GRADE PER CIVIL TYPICAL DETAILS.
- FIELD ROUTE ARV DRAIN PIPING TO FLOOR DRAIN PER TYPICAL DETAIL P242. ALL ARV DRAIN PIPES SIMILAR.
- EXTEND CONCRETE ENCASEMENT 1 FOOT FROM UNDERNEATH SLUDGE HOLDING TANK FOUNDATION. INSTALL RESTRAINED PUSH-ON WALL PIPE AT ENCASEMENT TERMINATION.
- INSTALL RESTRAINED PUSH-ON JOINT HALFWAY BETWEEN TEE AND CONCRETE ENCASEMENT TERMINATION.
- PLAIN END PIPE TERMINATION AT INSIDE EDGE OF SLUDGE HOLDING TANK DRAIN BOX.
- EXTEND ALUM PIPING AT LEAST 1' OVER INTERIOR OF SLUDGE HOLDING TANK. ALUM PIPING BENDS DOWN AND EXTENDS AT LEAST 6" INTO SLUDGE HOLDING TANK. SUPPORT PIPE ON AND OVER WALL PER TYPICAL DETAIL P660.
- INSTALL ISOLATION BALL VALVE AT 4' ABOVE FINISHED GRADE. INSTALL TEE, 1" BALL VALVE, AND 1" FEMALE HOSE CONNECTION FOR DRAINING/FLUSHING.
- SLOPE ALUM PIPING TO SHT 1 AND INSTALL ACCESS/INSPECTION PORT IN DOUBLE CONTAINMENT PIPING AT VERTICAL ELBOW. INSTALL TERMINATION FITTING FOR TRANSITION FROM DOUBLE CONTAINMENT PIPING TO SINGLE WALL PIPING.
- REFER TO 75M03 FOR CONTINUATION.
- CENTERLINE OF ACCESS HATCH SHALL BE 3' AFF.
- INSTALL DO PROBE WITH HACH CHAIN MOUNT KIT, MODEL LZ914.99.11200 OR ENGINEER APPROVED EQUAL. MOUNT EQUIPMENT AND CABLE SO ALL EQUIPMENT IS ACCESSIBLE FROM PLATFORM. MOUNTING KIT SHALL BE SIZED SUCH THAT PROBE IS AT LEAST 10 FEET BELOW TOP OF WALL.

EQUIPMENT TAGS:

1	THICKENER FEED PUMP NO. 1 SUCTION ISOLATION PLUG VALVE	SHF-SLPV1-PV-01
2	THICKENER FEED PUMP NO. 1	SHF-SLUDGE PUMP-01
3	THICKENER FEED PUMP NO. 1 ARV-1	SHF-SLPV1-ARV-01
4	THICKENER FEED PUMP NO. 1 CHECK VALVE	SHF-SLPV1-CV-01
5	THICKENER FEED PUMP NO. 1 ARV-2	SHF-SLPV1-ARV-02
6	THICKENER FEED PUMP NO. 1 DISCHARGE ISOLATION PLUG VALVE	SHF-SLPV1-PV-02
7	THICKENER FEED PUMP NO. 1 BYPASS ISOLATION VALVE	SHF-SLPV1-PV-03
8	SLUDGE TRUCK LOADING PLUG VALVE	SHF-SLPH1-PV-01
9	THICKENER FEED PUMP NO. 2 SUCTION ISOLATION PLUG VALVE	SHF-SLPU2-PV-01
10	THICKENER FEED PUMP NO. 2	SHF-SLUDGE PUMP-02
11	THICKENER FEED PUMP NO. 2 ARV-1	SHF-SLPU2-ARV-01
12	THICKENER FEED PUMP NO. 2 CHECK VALVE	SHF-SLPU2-CV-01
13	THICKENER FEED PUMP NO. 2 ARV-2	SHF-SLPU2-ARV-02
14	THICKENER FEED PUMP NO. 2 DISCHARGE ISOLATION PLUG VALVE	SHF-SLPU2-PV-02
15	THICKENER FEED PUMP NO. 2 BYPASS ISOLATION VALVE	SHF-SLPU2-PV-03
16	SHT NO. 1 DRAIN VALVE	Y-SLPI1-PV-01
17	SLUDGE HOLDING TANK NO. 1	SHF-SLUGEBASIN-01
18	SHT NO. 1 HIGH LEVEL SWITCH	SHF-SLB1-SH-01
19	SHT NO. 1 LEVEL INDICATING TRANSMITTER	SHF-SLB1-LIT-01
20	SHT NO. 1 DO PROBE	SHF-SLB1-AIT-01
21	THICKENER FEED PUMP NO. 1 HIGH PRESSURE SWITCH	SHF-SLPV1-PSH-01
22	THICKENER FEED PUMP NO. 2 HIGH PRESSURE SWITCH	SHF-SLPU2-PSH-01

A PLAN

SCALE: 1/4" = 1'-0"
FILE: 10976A10M101



TBPELS No. F-882



CITY OF AUSTIN

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
SLUDGE HOLDING TANK NO. 1
PLAN

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

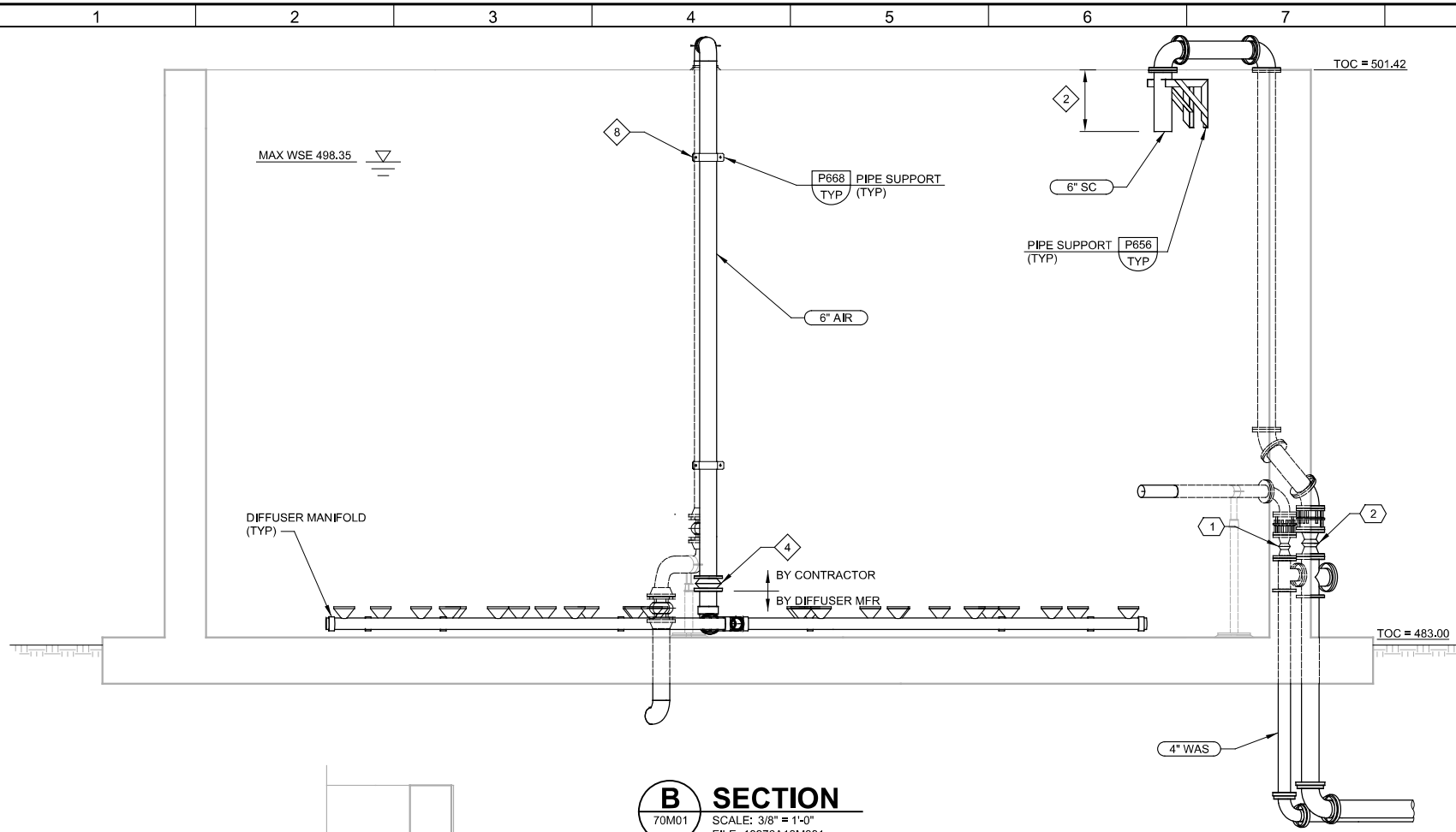
JOB NO.
10976A.00
DRAWING NO.
70M01
SHEET NO.
432 OF 464

Plot Date: 21-FEB-2022 11:14:54 AM

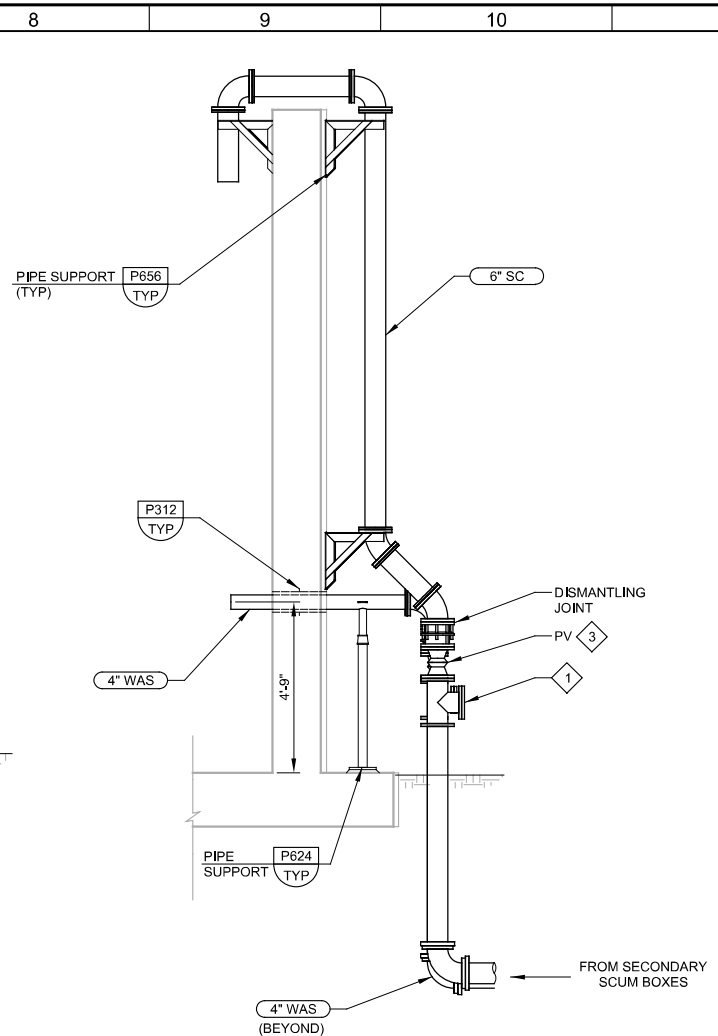
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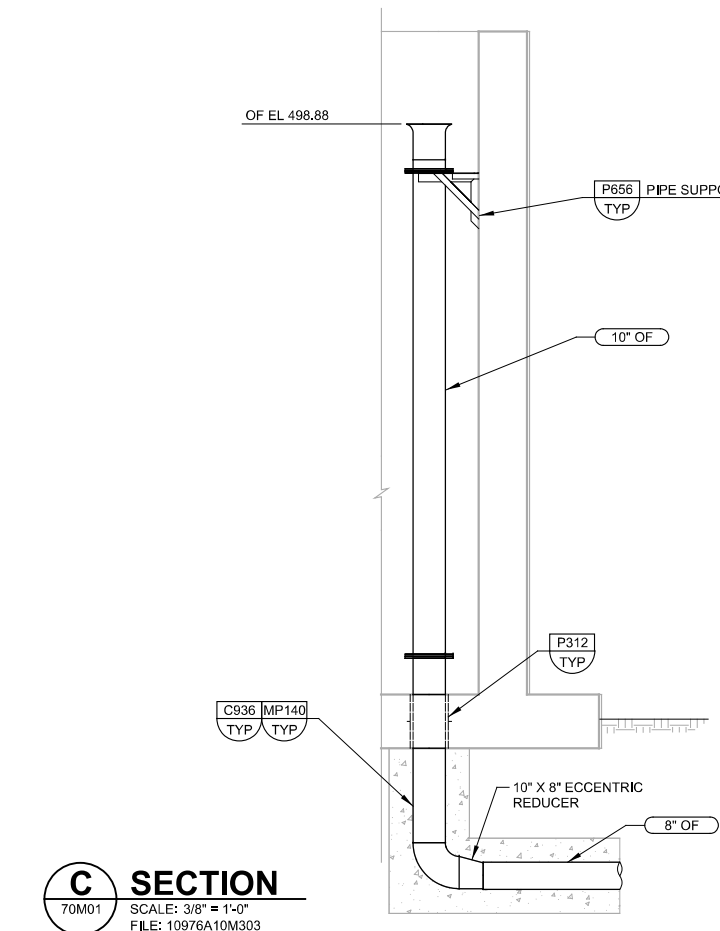
LAST SAVED BY: wjz



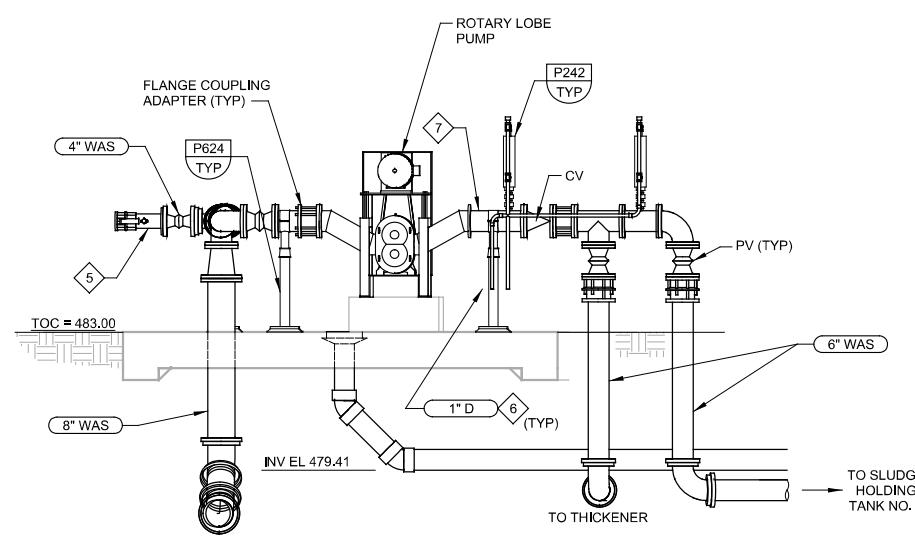
B SECTION
70M01 SCALE: 3/8" = 1'-0"
FILE: 10976A10M301



E SECTION
70M01 SCALE: 3/8" = 1'-0"
FILE: 10976A10M304



C SECTION
70M01 SCALE: 3/8" = 1'-0"
FILE: 10976A10M303



D SECTION
70M01 SCALE: 3/8" = 1'-0"
FILE: 10976A10M302

GENERAL NOTES:

- REFER TO CIVIL SHEETS FOR PIPE CONTINUATION IN THE YARD.
- INSTALL BLIND FLANGE AND FLUSHING CONNECTION PER TYPICAL DETAIL P202. WAS PIPE SIMILAR.
- EXTEND DISCHARGE PIPES 2 FEET BELOW TOP OF WALL.
- PLUG VALVE ON 6" SC PIPING NORMALLY CLOSED.
- INSTALL RUBBER EXPANSION JOINT PER SPECIFICATION 15121 - PIPE COUPLINGS.
- INSTALL 1" THREADED BOSS AND SAMPLE VALVE AT SPRING LINE ON PIPE. REFER TO SPECIFICATION 15117 - SPECIALTY VALVES FOR SAMPLE VALVE REQUIREMENTS.
- FIELD ROUTE 1" DRAIN PIPE TO FLOOR DRAIN.
- INSTALL PRESSURE SWITCH WITH ANNULAR SEAL PER TYPICAL DETAIL M296. TYPICAL OF BOTH ROTARY LOBE PUMPS.
- INSTALL PIPE SWAY BRACES PER TYPICAL DETAIL P668 ON AIR PIPING OUTSIDE OF TANK SIMILAR TO PIPE SUPPORTS ON INTERIOR OF TANK. SWAY BRACES ON ALL AIR PIPING ARE TO BE STAINLESS STEEL.

EQUIPMENT TAGS:

1	SHT NO. 1 WAS ISOLATION PLUG VALVE	Y-WAPI1-PV-01
2	SHT NO. 1 SCUM ISOLATION PLUG VALVE	Y-SCPI1-PV-01

REV	DATE	BY	DESCRIPTION

BID SET

DESIGNED
JPH
DRAWN
LGD
CHECKED
DMH
DATE
FEBRUARY 2022



Digitally signed by Jonathan Herrboldt
Contact Info: Carollo Engineers, Inc.
Date: 2022.02.08 11:14:54 -0500



TBPELS No. F-882



**CITY OF
AUSTIN**

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
SLUDGE HOLDING TANK NO. 1
SECTIONS - 1

VERIFY SCALES
BAR IS ONE INCH ON
ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

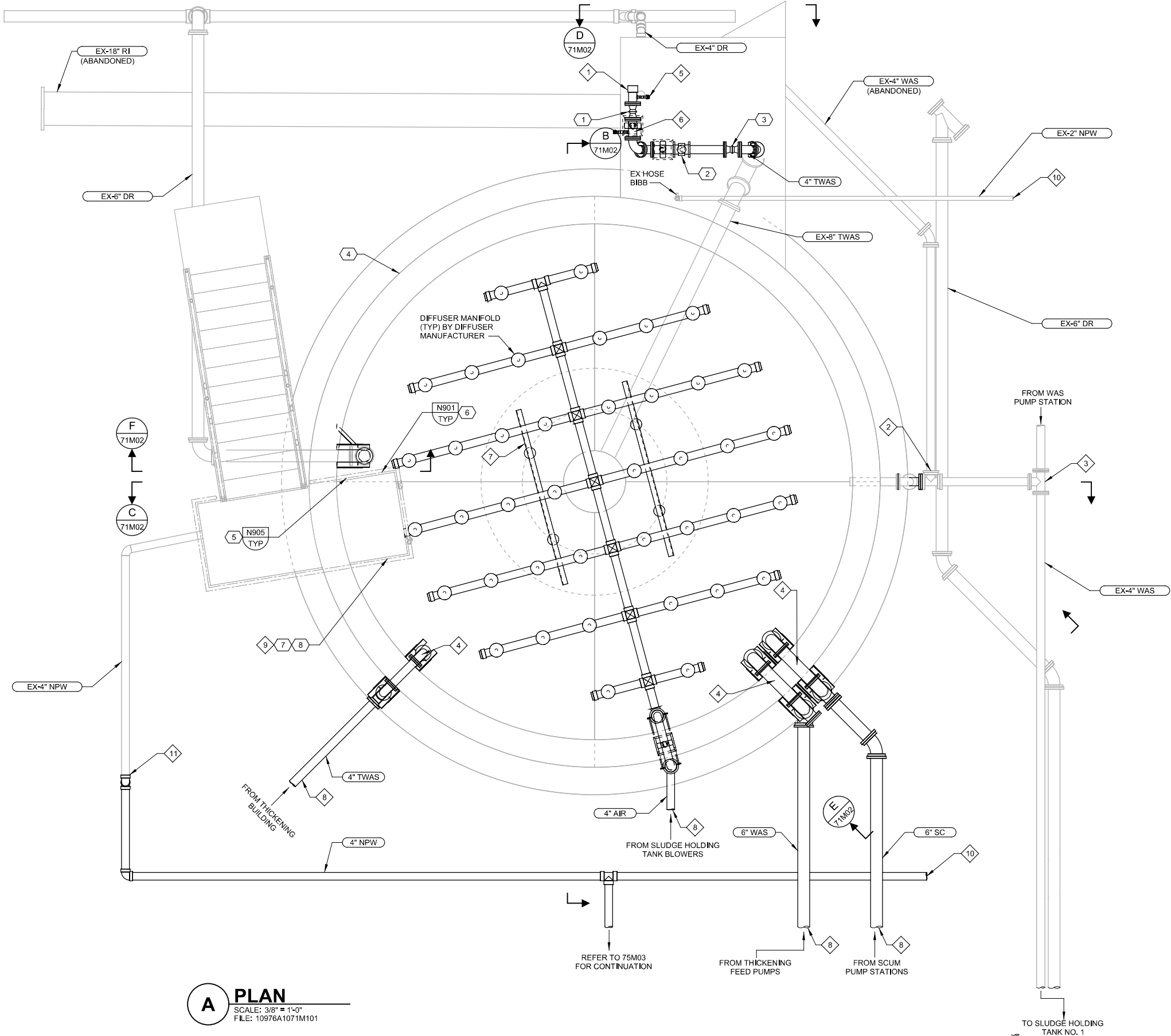
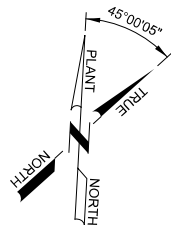
JOB NO.
10976A.00
DRAWING NO.
70M02
SHEET NO.
433 OF 464

Plot Date: 21-FEB-2022 11:13:28 AM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo Std Pen v0905.pen PlotScale: 1:1

LAST SAVED BY: wjz



- GENERAL NOTES:**
1. INFORMATION ON THIS SHEET IS BASED ON RECORD DRAWINGS. CONTRACTOR SHALL FIELD VERIFY CONDITIONS PRIOR TO COMMENCING WORK.
 2. NOT ALL EXISTING PIPING SHOWN FOR CLARITY.
 3. REFER TO CIVIL SHEETS FOR YARD PIPING CONTINUATION.

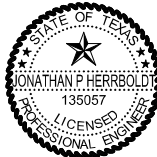
- KEY NOTES:**
1. INSTALL TYPE 304 SST 4\"/>
 2. INSTALL BLIND FLANGE ON TEE AND PLUG ABANDONED 4\"/>
 3. REPLACE EXISTING ELBOW WITH TEE.
 4. INSTALL 1/2\"/>
 5. INSTALL 3/4\"/>
 6. INSTALL 1\"/>
 7. DIFFUSER MANUFACTURER RESPONSIBLE FOR DIFFUSER PIPING SUPPORT DESIGN. SUPPORT DESIGN TO BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL.
 8. REFER TO 75M03 FOR PIPING CONTINUATION.
 9. INSTALL DO PROBE WITH HACH CHAIN MOUNT KIT, MODEL LZ914.99.11200 OR ENGINEER APPROVED EQUAL. INSTALL TSS PROBE WITH POLE MOUNT KIT WITH ALUMINUM POLE. MOUNT EQUIPMENT AND CABLE SO ALL EQUIPMENT IS ACCESSIBLE FROM PLATFORM. MOUNTING KIT SHALL BE SIZED SUCH THAT PROBE CAN REACH AT LEAST 10 FEET BELOW TOP OF WALL.
 10. CONNECT TO NEW 6\"/>
 11. CONNECT TO EXISTING 4\"/>

EQUIPMENT TAGS:		
1	SHT NO. 2 TRUCK OFFLOADING PLUG VALVE 2	DIG-THP11-PV-02
2	SHT NO. 2 TRUCK OFFLOADING FLOW METER	DIG-THP11-FIT-01
3	SHT NO. 2 TRUCK OFFLOADING PV 1	DIG-THP11-PV-01
4	SLUDGE HOLDING TANK NO. 2	DIG-SLUDGEBASIN-01
5	SHT NO. 2 HIGH LEVEL SWITCH	DIG-SLB1-LSH-01
6	SHT NO. 2 LEVEL INDICATING TRANSMITTER	DIG-SLB1-LIT-01
7	SHT NO. 2 DO PROBE	DIG-SLB1-AIT-01
8	SHT NO. 2 TSS PROBE	DIG-SLB1-AIT-02

A PLAN
SCALE: 3/8" = 1'-0"
FILE: 10976A1071M101

REV				DESCRIPTION			
1				2		3	

DESIGNED	JPH
DRAWN	LGD
CHECKED	DMH
DATE	FEBRUARY 2022



Digitally signed by Jonathan Herrboldt
Contact Info: Carollo Engineers, Inc.
Date: 2022.02.28 11:13:28 -0500



TBPELS No. F-882



CITY OF AUSTIN

CITY OF AUSTIN	
WILD HORSE RANCH WWTP EXPANSION	
MECHANICAL	
SLUDGE HOLDING TANK NO. 2	
PLAN	

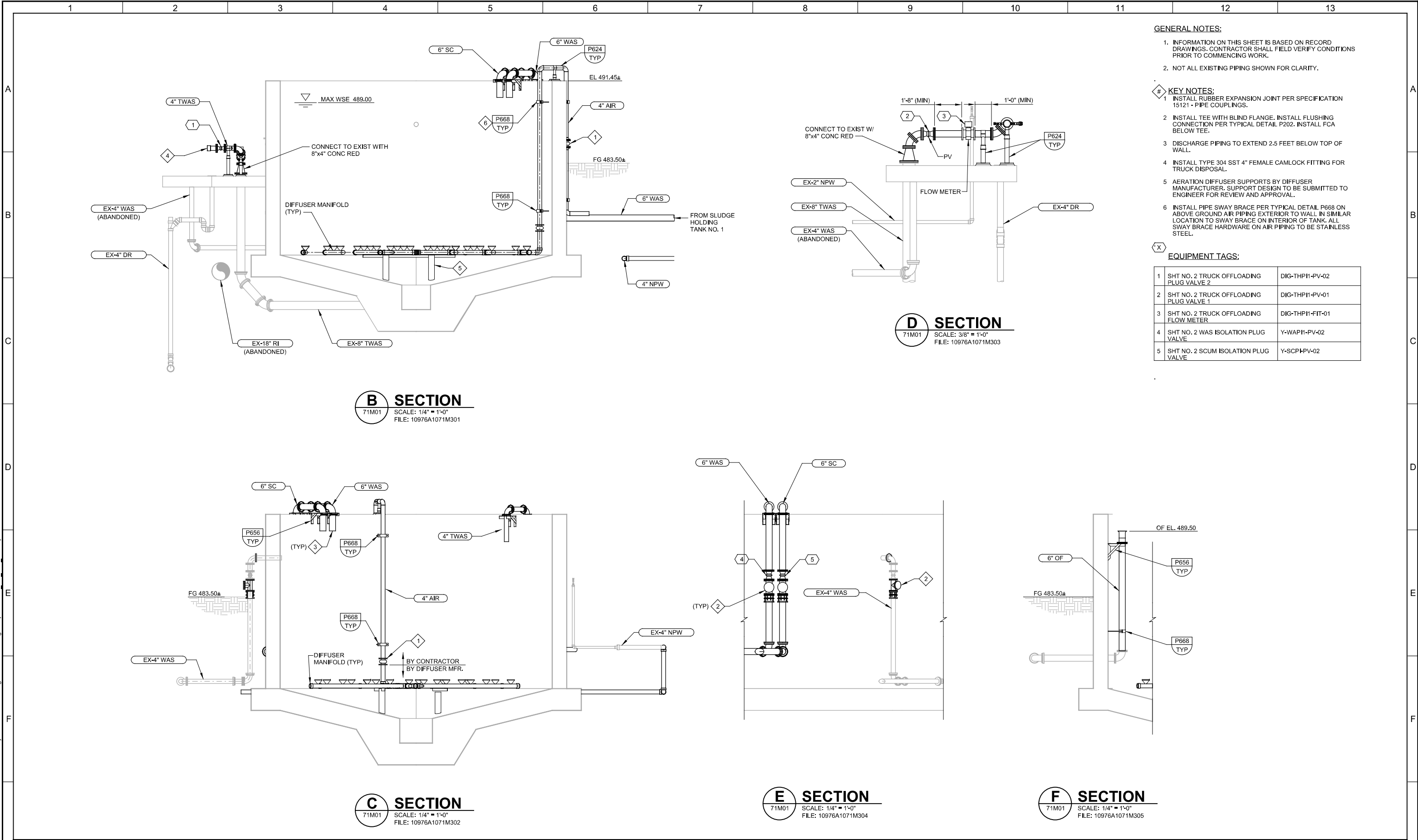
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Plot Date: 21-FEB-2022 11:13:05 AM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo Std Pen v0905.pen PlotScale: 1:1

LAST SAVED BY: witzel



DESIGNED JPH				DRAWN LGD				CHECKED DMH				DATE FEBRUARY 2022			
REV				DATE				BY				DESCRIPTION			
1				2				3				4			
5				6				7				8			
9				10				11				12			
13				14				15				16			

BID SET

DESIGNED
JPH

DRAWN
LGD

CHECKED
DMH

DATE
FEBRUARY 2022

STATE OF TEXAS

JONATHAN P. HERRBOLDT

135057

PROFESSIONAL ENGINEER

Carollo

TBPELS No. F-882

CITY OF AUSTIN

FOUNDED 1859

CITY OF AUSTIN

WILD HORSE RANCH WWTP EXPANSION

MECHANICAL

SLUDGE HOLDING TANK NO. 2

SECTIONS - 1

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
10976A.00

DRAWING NO.
71M02

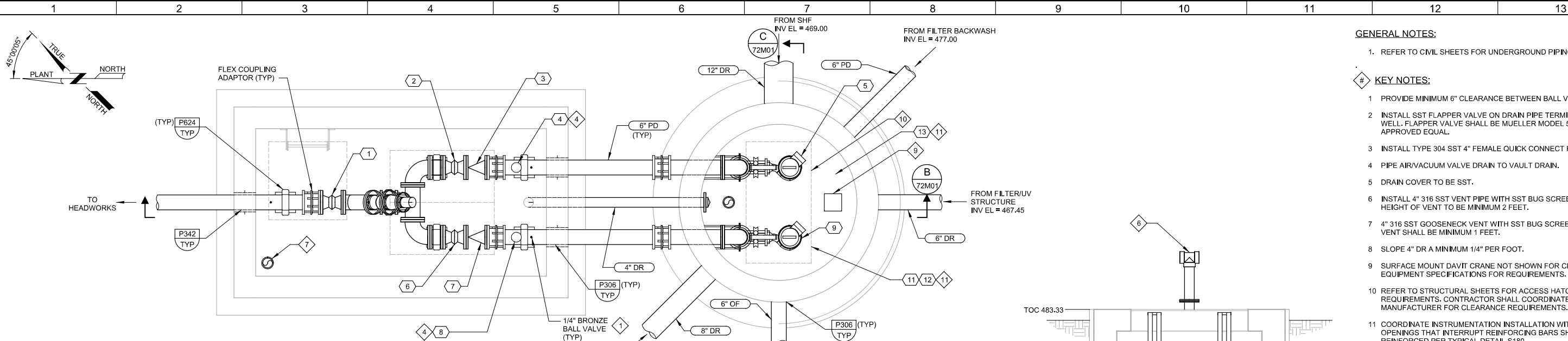
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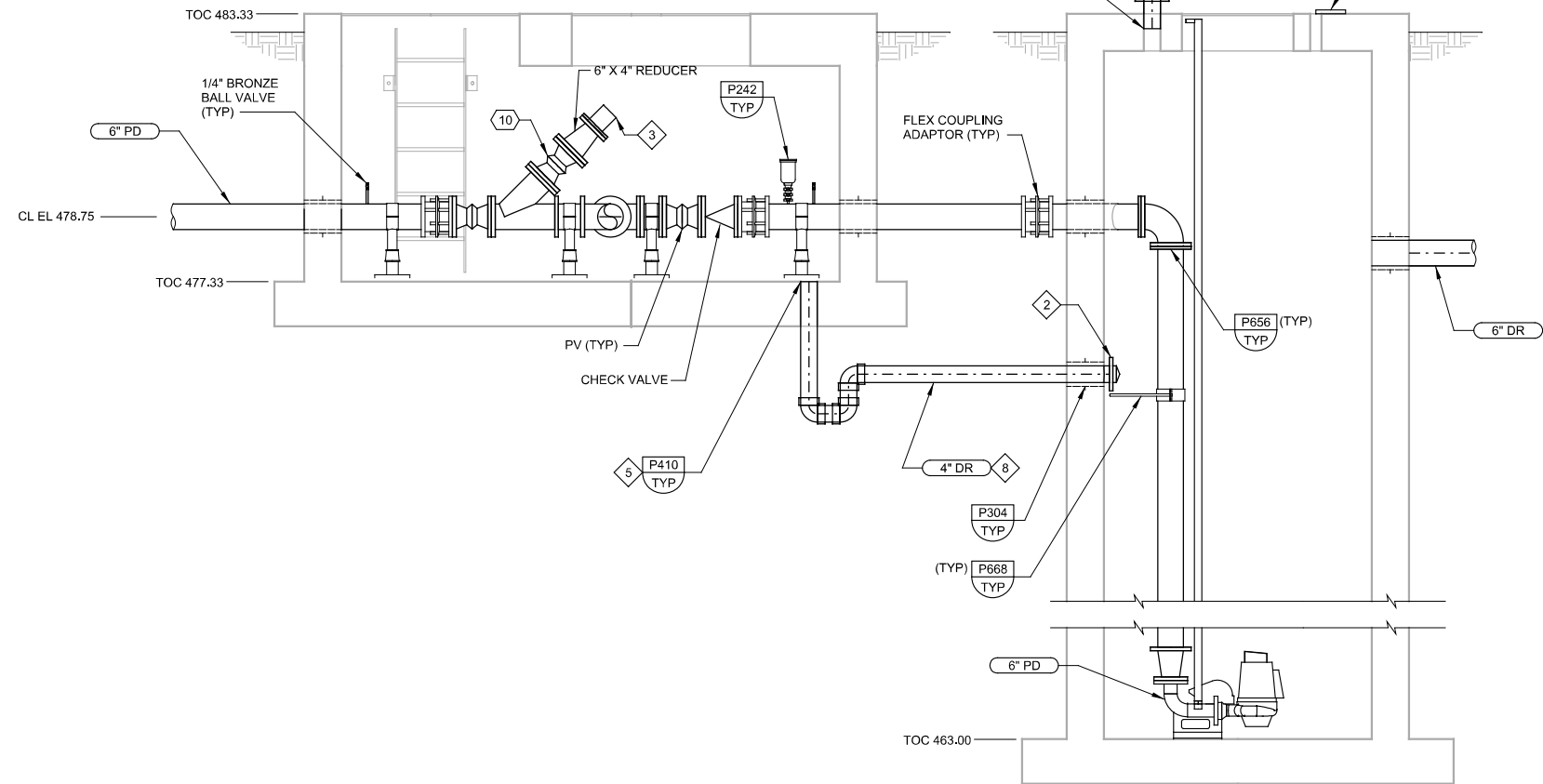
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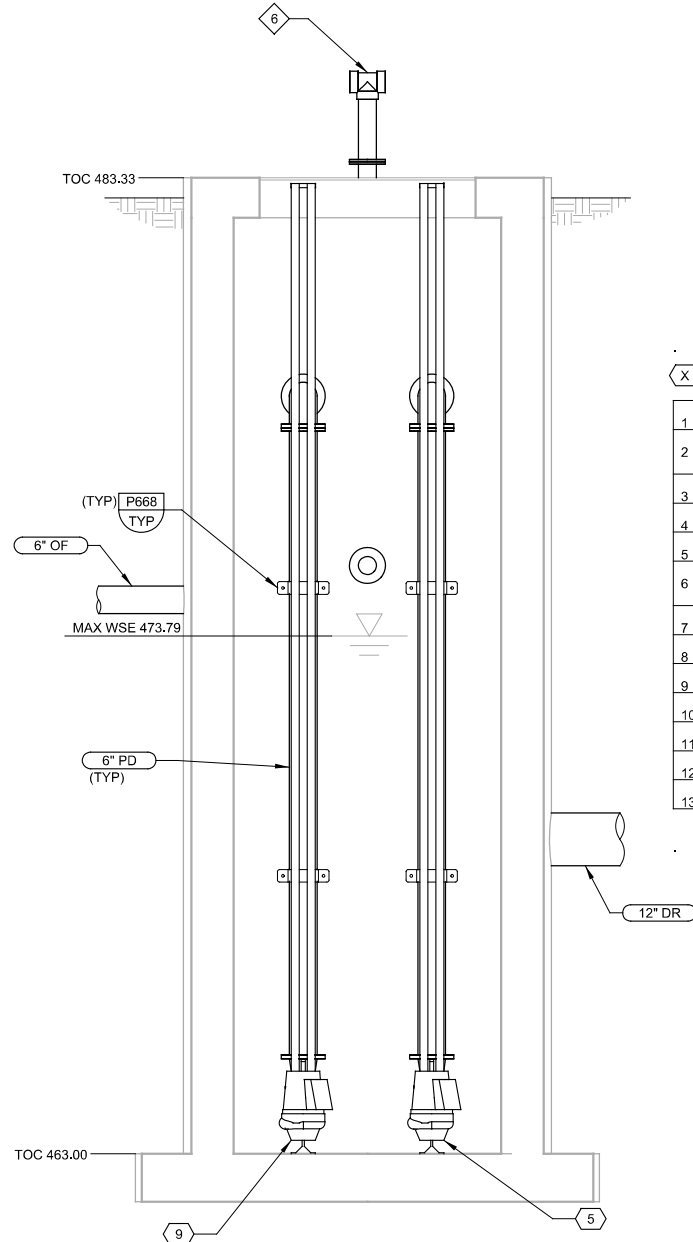
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A PLAN
SCALE: 1/2" = 1'-0"
FILE: 10976A1072M101



B SECTION
SCALE: 1/2" = 1'-0"
FILE: 10976A1072M301



C SECTION
SCALE: 1/2" = 1'-0"
FILE: 10976A1072M302

GENERAL NOTES:

1. REFER TO CIVIL SHEETS FOR UNDERGROUND PIPING CONTINUATION.

KEY NOTES:

1. PROVIDE MINIMUM 6" CLEARANCE BETWEEN BALL VALVE AND WALL.
2. INSTALL SST FLAPPER VALVE ON DRAIN PIPE TERMINATION IN WET WELL. FLAPPER VALVE SHALL BE MUELLER MODEL 50C OR ENGINEER APPROVED EQUAL.
3. INSTALL TYPE 304 SST 4" FEMALE QUICK CONNECT FITTING.
4. PIPE AIR/VACUUM VALVE DRAIN TO VAULT DRAIN.
5. DRAIN COVER TO BE SST.
6. INSTALL 4" 316 SST VENT PIPE WITH SST BUG SCREEN AT OPENINGS. HEIGHT OF VENT TO BE MINIMUM 2 FEET.
7. 4" 316 SST GOOSENECK VENT WITH SST BUG SCREEN. HEIGHT OF VENT SHALL BE MINIMUM 1 FEET.
8. SLOPE 4" DR A MINIMUM 1/4" PER FOOT.
9. SURFACE MOUNT DAVIT CRANE NOT SHOWN FOR CLARITY. REFER TO EQUIPMENT SPECIFICATIONS FOR REQUIREMENTS.
10. REFER TO STRUCTURAL SHEETS FOR ACCESS HATCH REQUIREMENTS. CONTRACTOR SHALL COORDINATE WITH PUMP MANUFACTURER FOR CLEARANCE REQUIREMENTS.
11. COORDINATE INSTRUMENTATION INSTALLATION WITH STRUCTURAL. OPENINGS THAT INTERRUPT REINFORCING BARS SHALL BE REINFORCED PER TYPICAL DETAIL S180.
12. INSTALL 4" DIP WALL PIPE WITH FLANGED END 4" ABOVE TOC FOR CONNECTION TO SST VENT PIPE. INSTALL DIELECTRIC HARDWARE FOR JOINING DISSIMILAR METALS. INSTALLATION FOR GOOSENECK VENT SIMILAR.

EQUIPMENT TAGS:

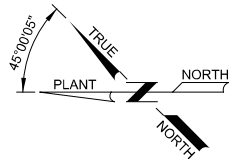
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2	PLANT DRAIN PUMP NO. 1 ISOLATION PLUG VALVE	SHF-LSPU1-PV-01
3	PLANT DRAIN PUMP NO. 1 CHECK VALVE	SHF-LSPU1-CV-01
4	PLANT DRAIN PUMP NO. 1 AVV	SHF-LSPU1-ARV-01
5	PLANT DRAIN PUMP NO. 1	SHF-LSPUMP-01
6	PLANT DRAIN PUMP NO. 2 ISOLATION PLUG VALVE	SHF-LSPU2-PV-01
7	PLANT DRAIN PUMP NO. 2 CHECK VALVE	SHF-LSPU2-CV-01
8	PLANT DRAIN PUMP NO. 2 AVV	SHF-LSPU2-ARV-01
9	PLANT DRAIN PUMP NO. 2	SHF-LSPUMP-02
10	PDPS FLUSHING PLUG VALVE	SHF-YAP11-PV-01
11	PDPS LOW LEVEL SWITCH	SHF-WW-LSL-01
12	PDPS HIGH LEVEL SWITCH	SHS-WW-LSL-02
13	PDPS LEVEL INDICATING TRANSMITTER	SHS-WW-LIT-01

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Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo Std Pen v0905.pen PlotScale: 1:1

LAST SAVED BY: utzel



GENERAL NOTES:

- REFER TO CIVIL SHEETS FOR PIPING CONTINUATION IN THE YARD.
- THICKENER SKID SUPPLIED BY OWNER FOR INSTALLATION BY CONTRACTOR. CONTRACTOR TO CONFIRM DIMENSIONS OF EQUIPMENT AND LOCATIONS OF PIPE CONNECTIONS AND INFORM ENGINEER OF DEVIATIONS FROM DRAWINGS PRIOR TO CONSTRUCTION. REFER TO SPECIFICATIONS FOR REQUIREMENTS.
- PER SECTION 15082, ALL ABOVE GROUND NPW, PW, AND CHEMICAL PIPING SHALL BE INSULATED. THIS INCLUDES NPW AND CHEMICAL PIPING ON THE THICKENER SKID.

KEY NOTES:

- CONNECT 2" NPW TO THICKENER SPRAY SYSTEM AND POLYMER BLENDER. NOT ALL FITTINGS SHOWN. CONTRACTOR SHALL CONFIRM REQUIREMENTS AND FIELD ROUTE NPW AS REQUIRED.
- CHEMICAL TOTE SCALE. REFER TO SPECIFICATIONS FOR REQUIREMENTS.
- POLYMER PIPING TO RUN ABOVE GRATING AND TO BE SUPPORTED BY PIPE SUPPORT STYLE P615. CONTRACTOR TO MODIFY GRATING AS NEEDED TO INSTALL PIPE SUPPORTS.
- PIPING UNDERNEATH THICKENER FLOOR SHALL BE CONCRETE ENCASED PER MP142. ENCASEMENT SHALL EXTEND A MINIMUM 3 FEET FROM EXTENT OF PAVEMENT.
- INSERTION STYLE THERMAL DISPERSION FLOW METER.
- INSTALL 1" NPT THREADED BOSS AND SAMPLE VALVE AT SPRING LINE ON PIPE. REFER TO SPECIFICATION 15117 - SPECIALTY VALVES FOR REQUIREMENTS.
- INSTALL RUBBER EXPANSION JOINT PER SPECIFICATION 15121 - PIPE COUPLINGS.
- INSTALL TEE WITH BLIND FLANGE AND FLUSHING CONNECTION PER TYPICAL DETAIL P202.
- MINIMUM DEPTH OF AIR PIPING IS 3' BELOW FINISHED GRADE. SLOPE PIPE TOWARD SLUDGE HOLDING TANK.
- PIPING UNDERNEATH PAVEMENT SHALL BE CONCRETE ENCASED PER TYPICAL DETAIL C936. ENCASEMENT SHALL EXTEND A MINIMUM 3 FEET FROM EXTENT OF PAVEMENT.
- REFER TO 75M03 FOR AIR PIPING SUPPORT CONFIGURATION.
- PROVIDE MINIMUM 6" CLEAR SPACE BETWEEN TRENCH AND PIPE PENETRATION THROUGH SLAB.
- MINIMUM DISTANCE BETWEEN FLOW METER AND DOWNSTREAM FITTINGS IS 31.5'.
- UPSTREAM OF PLUG VALVE, INSTALL PRESSURE SWITCH WITH ANNULAR SEAL PER TYPICAL DETAIL M296.
- PROVIDE BLANKET STYLE 120V TOTE WARMER SIZED FOR 275 GALLONS. TOTE WARMER TO BE BY POWERBLANKET OR ENGINEER APPROVED EQUAL.

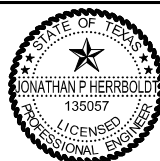
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3	SHT AIR HEADER ISOLATION BFV NO. 1	Y-API11-BFV-01
4	SHT NO. 1 AIR FLOW METER	Y-API11-FIT-01
5	SHF BLOWER NO. 3 ISOLATION BFV	SHF-BLWR3-BFV-01
6	SHF BLOWER NO. 3 FLAPPER CHECK VALVE	SHF-BLWR3-CV-01
7	SHF BLOWER NO. 3	SHF-BLOWER-03
8	SHF BLOWER NO. 2 ISOLATION BFV	SHF-BLWR2-BFV-01
9	SHF BLOWER NO. 2 FLAPPER CHECK VALVE	SHF-BLWR2-CV-01
10	SHF BLOWER NO. 2	SHF-BLOWER-02
11	SHF BLOWER NO. 1 ISOLATION BFV	SHF-BLWR1-BFV-01
12	SHF BLOWER NO. 1 FLAPPER CHECK VALVE	SHF-BLWR1-CV-01
13	SHF BLOWER NO. 1	SHF-BLOWER-01
14	THICKENER CENTRATE DISCHARGE ISOLATION PLUG VALVE	SHF-YAPI2-PV-01
15	SLUDGE THICKENER	SHF-THICKENER-01
16	THICKENER FEED ISOLATION PLUG VALVE	SHF-WAPI2-PV-01
17	TWAS DISCHARGE ISOLATION PLUG VALVE	Y-THPI1-PV-01
18	POLYMER TANK NO. 2	SHF-POLYMERTANK-02
19	POLYMER TANK NO. 1	SHF-POLYMERTANK-02
20	TWAS PUMP	SHF-SLUDGE PUMP-03
21	TWAS PUMP HIGH DISCHARGE PRESSURE SWITCH	SHF-SLP03-PSH-01

A PLAN
SCALE: 3/8" = 1'-0"
FILE: 10976A1075M01

BID SET			
REV	DATE	BY	DESCRIPTION

DESIGNED
JPH
DRAWN
LGD
CHECKED
DMH
DATE
FEBRUARY 2022



Drawn by Jonathan Herrboldt
Contact Info: Carollo Engineers, Inc.
Date: 2022.02.28
File: 10976A1075M01

carollo

TBPELS No. F-882



CITY OF AUSTIN

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
THICKENING BUILDING
PLAN

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

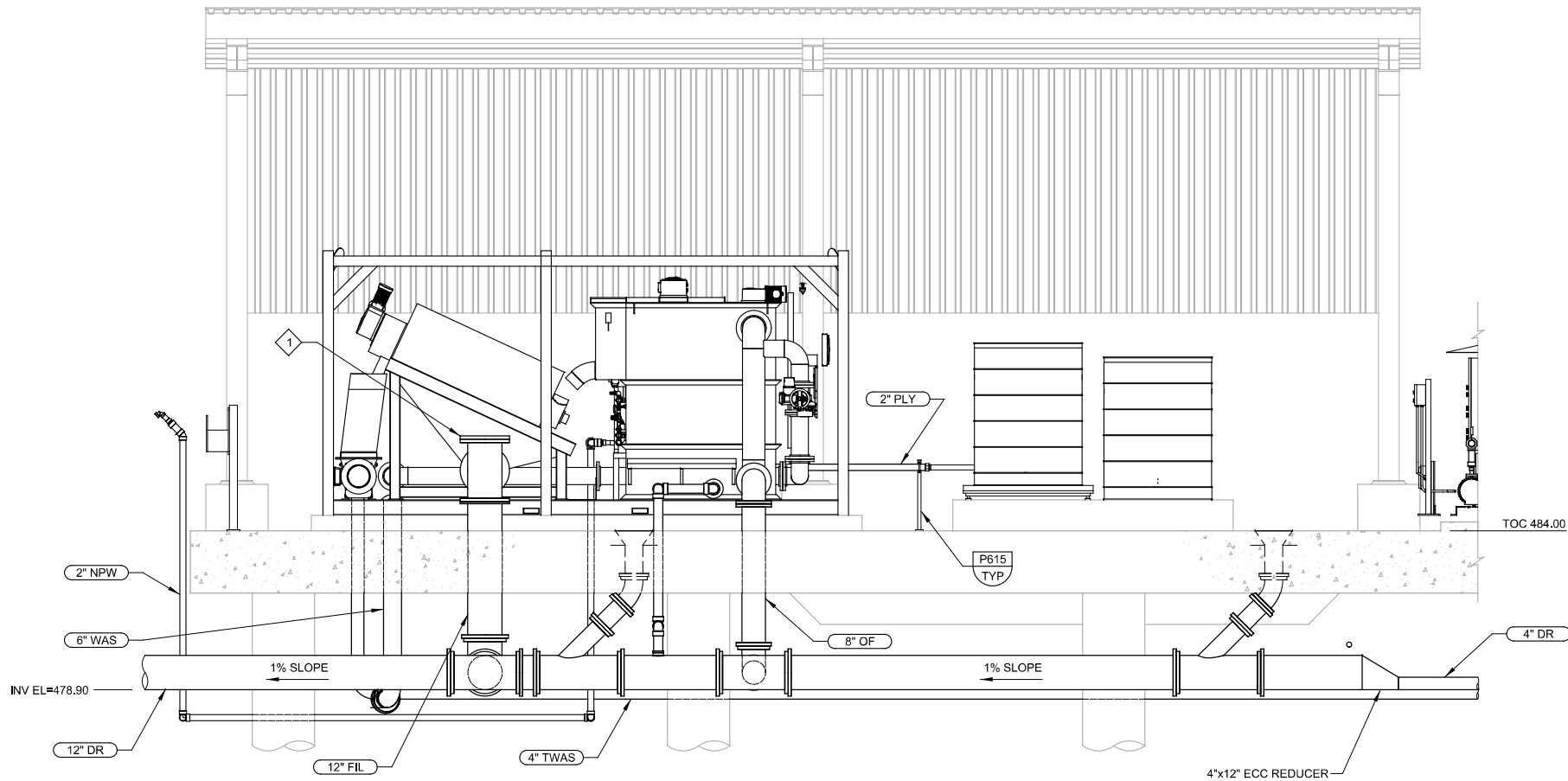
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10976A.00
DRAWING NO.
75M01
SHEET NO.
436 OF 464

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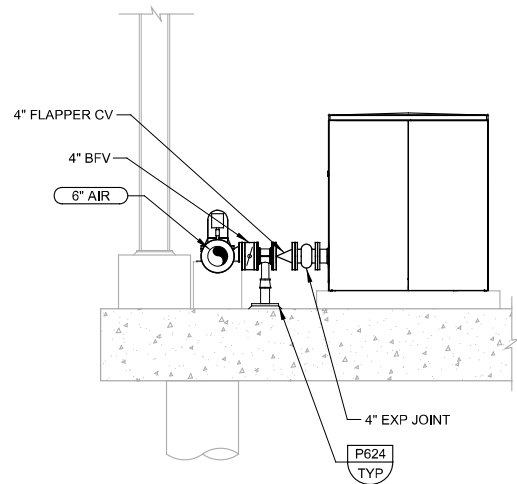
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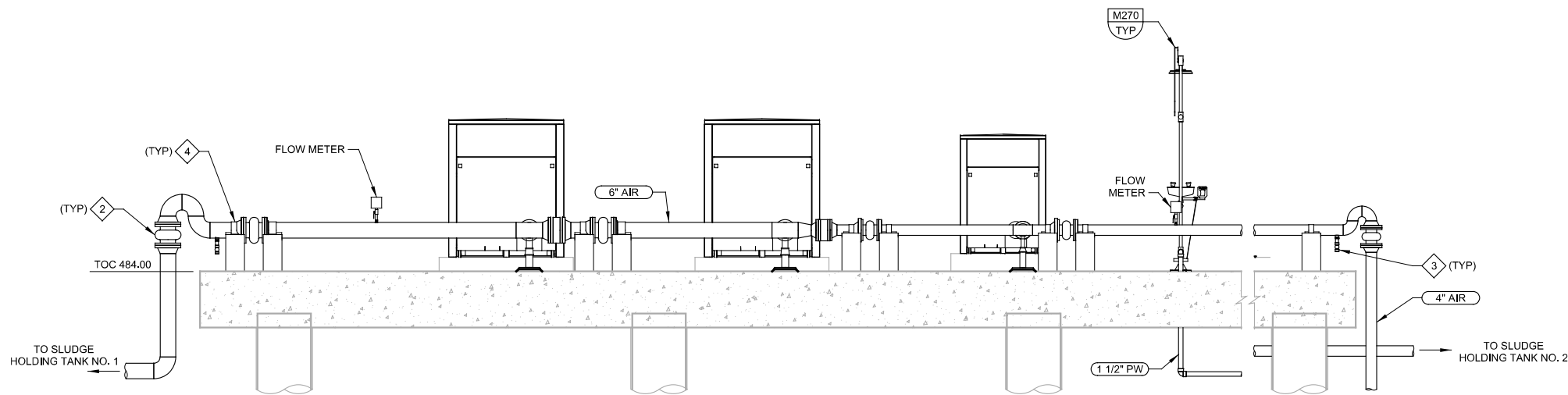
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B SECTION
75M01 SCALE: 3/8" = 1'-0"
FILE: 10976A1075M301



D SECTION
75M01 SCALE: 3/8" = 1'-0"
FILE: 10976A1075M303



C SECTION
75M01 SCALE: 3/8" = 1'-0"
FILE: 10976A1075M302

GENERAL NOTES:

- THICKENER SKID SUPPLIED BY OWNER FOR INSTALLATION BY CONTRACTOR. CONTRACTOR TO CONFIRM DIMENSIONS OF EQUIPMENT AND LOCATIONS OF PIPE CONNECTIONS AND INFORM ENGINEER OF DEVIATIONS FROM DRAWINGS PRIOR TO CONSTRUCTION. REFER TO SPECIFICATIONS FOR REQUIREMENTS.
- PER SECTION 15082, ALL ABOVE GROUND NPW, PW, AND CHEMICAL PIPING SHALL BE INSULATED. THIS INCLUDES NPW AND CHEMICAL PIPING ON THE THICKENER SKID.

KEY NOTES:

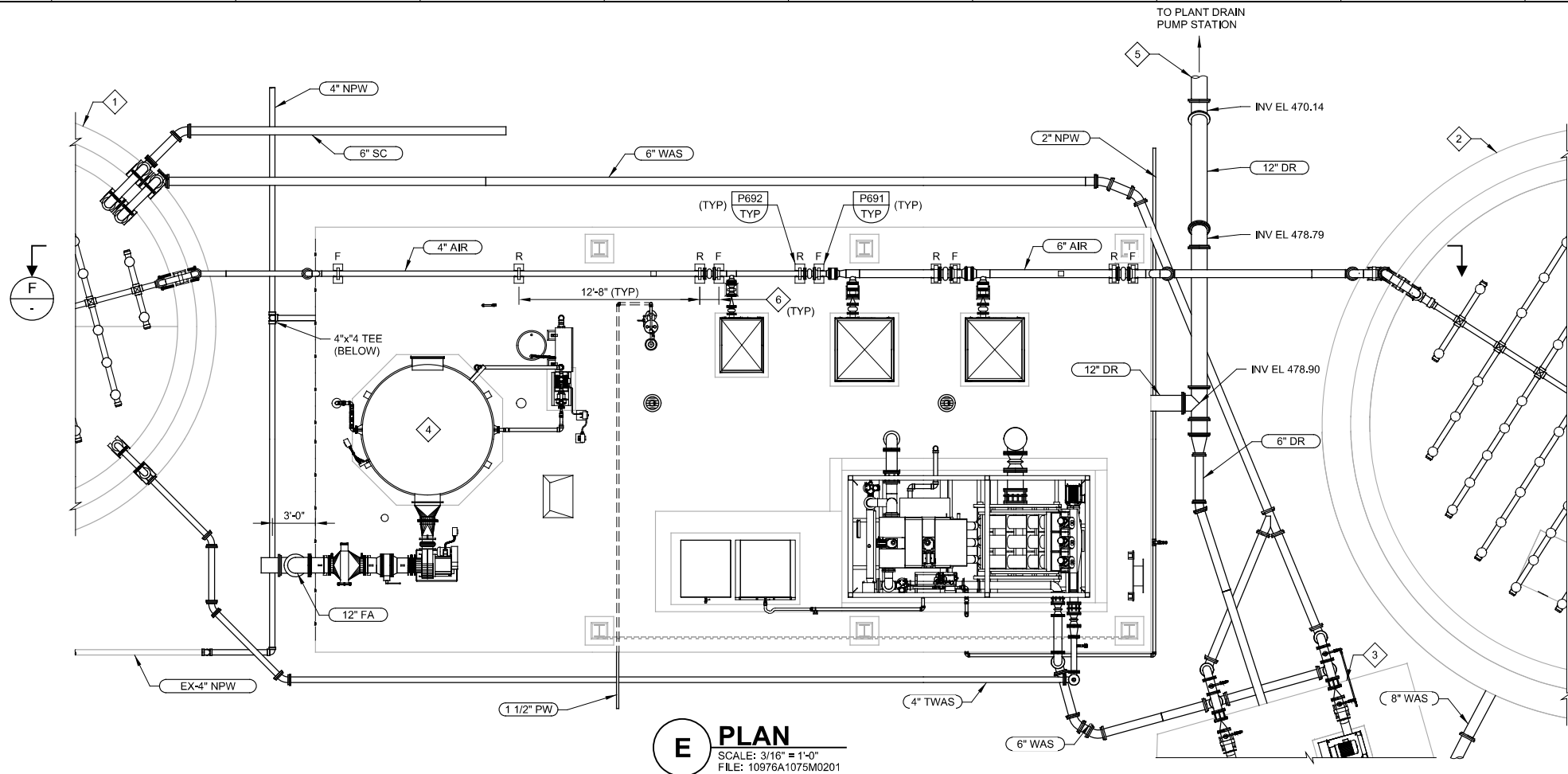
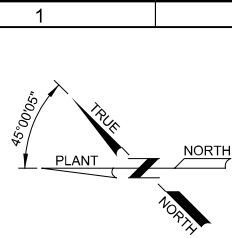
- INSTALL TEE WITH 304 SST BLIND FLANGE. BLIND FLANGE SHALL BE CONSTRUCTED WITH SAMPLE HATCH CONSISTING OF QUICK RELEASE HINGE AND GASKET SEALING DRAW LATCH.
- INSTALL RUBBER EXPANSION JOINT PER SPECIFICATION 15121 - PIPE COUPLINGS.
- INSTALL 1" THREADED BOSS AND BALL VALVE FOR MOISTURE BLOWOFF.
- REFER TO 75M03 FOR AIR PIPING SUPPORT CONFIGURATION.

Plt Date: 21-FEB-2022 11:11:15 AM

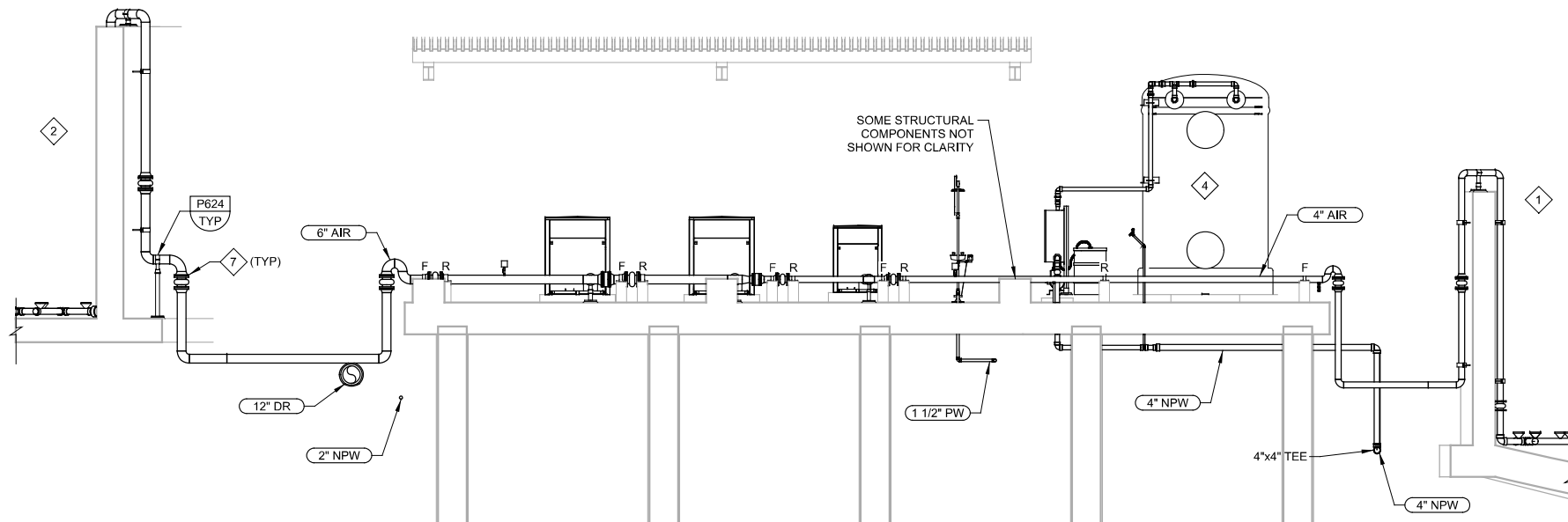
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LAST SAVED BY: wjz



E PLAN
SCALE: 3/16" = 1'-0"
FILE: 10976A1075M0201



F SECTION
SCALE: 3/16" = 1'-0"
FILE: 10976A1075M0305

GENERAL NOTES:

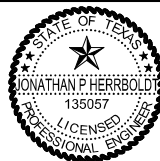
- THICKENER SKID SUPPLIED BY OWNER FOR INSTALLATION BY CONTRACTOR. CONTRACTOR TO CONFIRM DIMENSIONS OF EQUIPMENT AND LOCATIONS OF PIPE CONNECTIONS AND INFORM ENGINEER OF DEVIATIONS FROM DRAWINGS PRIOR TO CONSTRUCTION. REFER TO SPECIFICATIONS FOR REQUIREMENTS.
- PER SECTION 15082, ALL ABOVE GROUND NPW, PW, AND CHEMICAL PIPING SHALL BE INSULATED. THIS INCLUDES NPW AND CHEMICAL PIPING ON THE THICKENER SKID.
- REFER TO CIVIL SHEETS FOR PIPING CONTINUATION IN THE YARD.

KEY NOTES:

- REFER TO 71M01 FOR SLUDGE HOLDING TANK NO. 2.
- REFER TO 70M01 FOR SLUDGE HOLDING TANK NO. 1.
- REFER TO 70M01 FOR THICKENER FEED PUMP AREA.
- REFER TO 15M01 FOR LIFT STATION ODOR CONTROL.
- APPROXIMATE LOCATION OF CONNECTION WITH 45 DEGREE ELBOW IN YARD. REFER TO 02C12 FOR CONTINUATION.
- SPACING BETWEEN PIPE SUPPORTS AT EXPANSION JOINTS SHALL BE COORDINATED SUCH THAT THE SUPPORT DOES NOT INTERFERE WITH EXPANSION JOINT FLANGES.
- INSTALL RUBBER EXPANSION JOINT PER SPECIFICATION 15121 - PIPE COUPLINGS.

BID SET

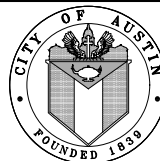
DESIGNED
JPH
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JPC
CHECKED
DMH
DATE
FEBRUARY 2022



Drawn by Jonathan Herrboldt
Contact Info: Carollo Engineers, Inc.
Date: 02/02/2022

carollo

TBPELS No. F-882



**CITY OF
AUSTIN**

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
THICKENING SYSTEM
PIPING PLAN AND SECTION

VERIFY SCALES
BAR IS ONE INCH ON
ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

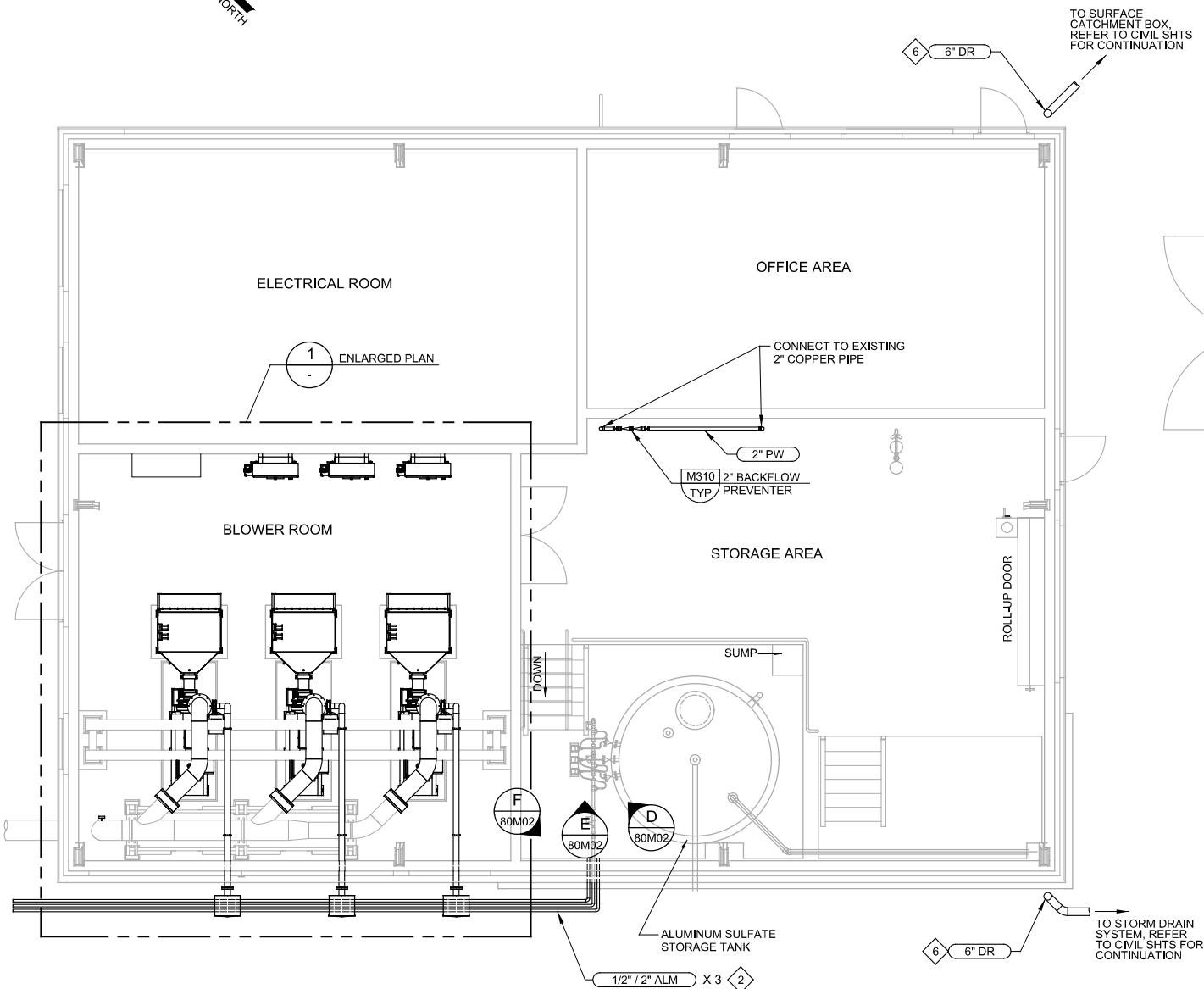
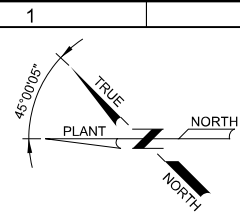
JOB NO.
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DRAWING NO.
75M03
SHEET NO.
439 OF 486

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LAST SAVED BY: witzel

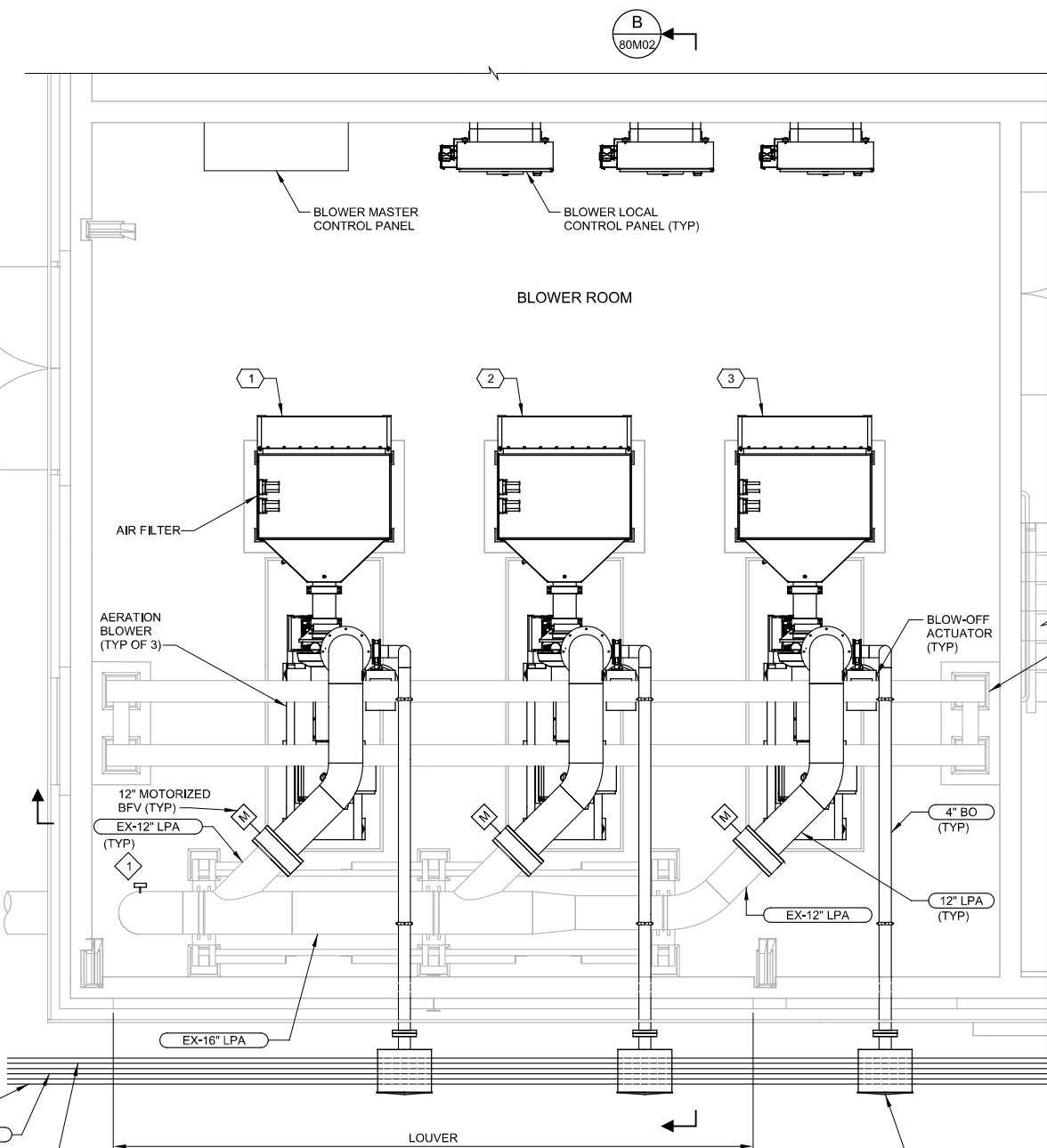


A PLAN
SCALE: 3/16" = 1'-0"
FILE: 10976A1081M101

TO SURFACE
CATCHMENT BOX,
REFER TO CIVIL SHTS
FOR CONTINUATION

TO STORM DRAIN
SYSTEM, REFER
TO CIVIL SHTS FOR
CONTINUATION

1/2" / 2" ALM
1/2" / 2" ALM
1/2" / 2" ALM



1 ENLARGED PLAN
SCALE: 3/8" = 1'-0"
FILE: 10976A1081M101

GENERAL NOTES:

- FOR MECHANICAL GENERAL NOTES, LEGEND, AND SYMBOLS, SEE DRAWING 00GM01.
- REFER TO CIVIL SHEETS FOR PIPING CONTINUATION IN THE YARD.

KEY NOTES:

- MOUNT PRESSURE INDICATING TRANSMITTER ON EXISTING 1-1/4\"/>
- REFER TO PIPE SCHEDULE ON SHEET 00G21 FOR DOUBLE CONTAINMENT PIPE REQUIREMENTS.
- TO AERATION BASIN 4, REFER TO YARD PIPING SHEETS FOR CONTINUATION.
- TO AERATION BASIN 1, REFER TO YARD PIPING SHEETS FOR CONTINUATION.
- TO SLUDGE HOLDING TANK NO. 1, REFER TO YARD PIPING SHEETS FOR CONTINUATION.
- 6\"/>

EQUIPMENT TAGS:

1	AERATION BLOWER NO. 1	OPS-BLOWER-01
2	AERATION BLOWER NO. 2	OPS-BLOWER-02
3	AERATION BLOWER NO. 3	OPS-BLOWER-03

REV	DATE	BY	DESCRIPTION

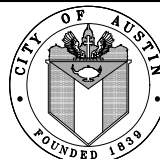
DESIGNED
JPH
DRAWN
LGD
CHECKED
DMH
DATE
FEBRUARY 2022



Digitally signed by Daniel Hurtado
Contact Info: Carollo Engineers, Inc.
Date: 2022.02.20 14:41:36 -0500

carollo

TBPELS No. F-882



**CITY OF
AUSTIN**

CITY OF AUSTIN
WILD HORSE RANCH WWTP EXPANSION
MECHANICAL
OPERATIONS BUILDING
PLANS

VERIFY SCALES
BAR IS ONE INCH ON
ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

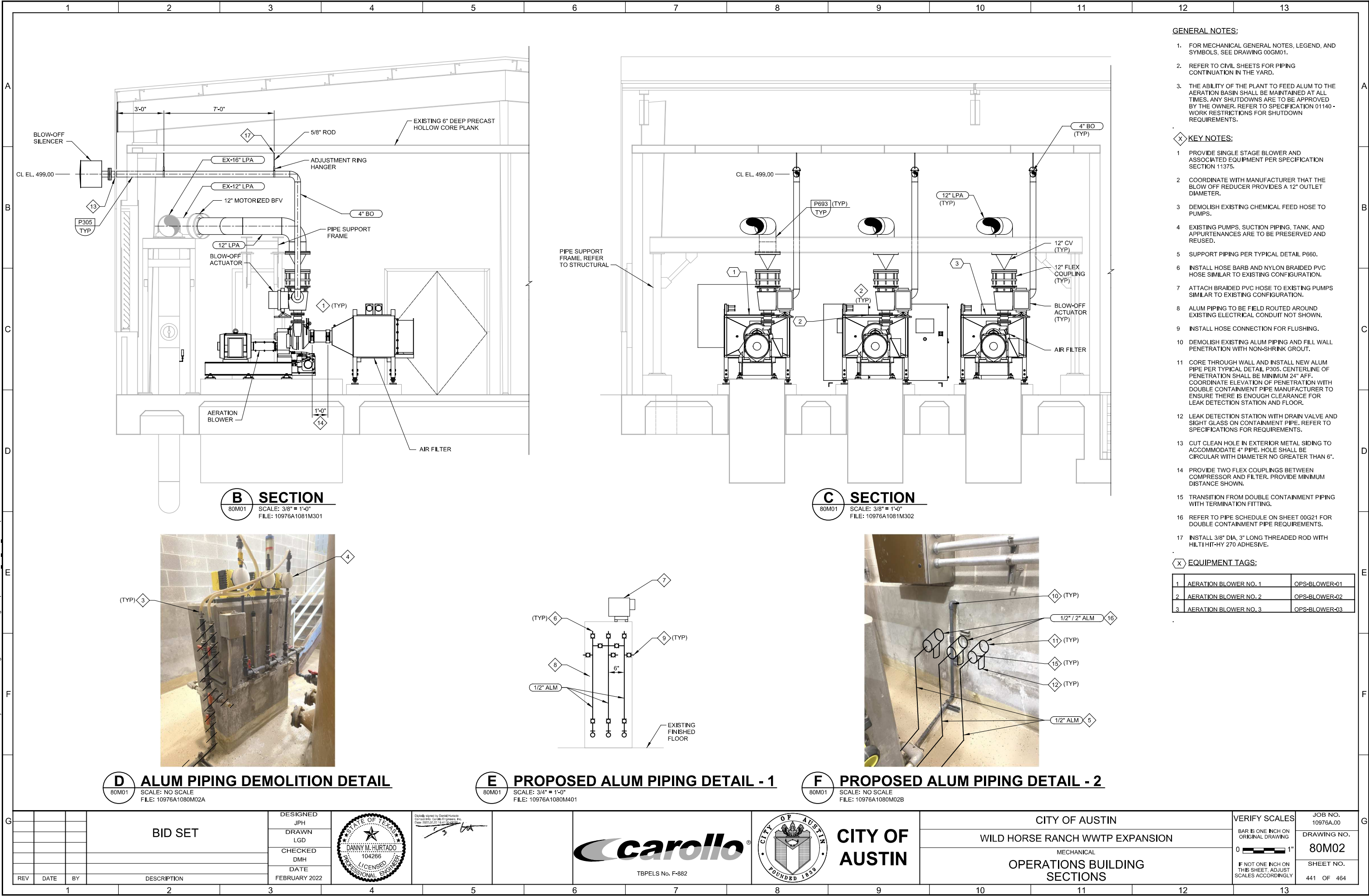
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10976A.00
DRAWING NO.
80M01
SHEET NO.
440 OF 464

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Model: Layout1 C:\p\table: gshade.ctb DesignScript: Carollo Std Pen v0905.pen PlotScale: 1:1

LAST SAVED BY: utizel



City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013

**Application for Domestic WWTP
TCEQ Form 10054
Technical Report**



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

For any questions about this form, please contact the Domestic Wastewater Permitting Team at 512-239-4671.

The following information is required for all renewal, new, and amendment applications.

Section 1. Permitted or Proposed Flows (Instructions Page 43)

A. Existing/Interim I Phase

Design Flow (MGD): 0.75

2-Hr Peak Flow (MGD): 3.0

Estimated construction start date: 2004

Estimated waste disposal start date: 02/22/2006

B. Interim II Phase

Design Flow (MGD): 1.5

2-Hr Peak Flow (MGD): 6.0

Estimated construction start date: 03/13/2023

Estimated waste disposal start date: 12/09/2025

C. Final Phase

Design Flow (MGD): 2.25

2-Hr Peak Flow (MGD): 9.0

Estimated construction start date: n/a

Estimated waste disposal start date: n/a

D. Current Operating Phase

Provide the startup date of the facility: 02/22/2006

Section 2. Treatment Process (Instructions Page 43)

A. Current Operating Phase

Provide a detailed description of the treatment process. **Include the type of treatment plant, mode of operation, and all treatment units.** Start with the plant's head works and

finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed, a description of *each phase* must be provided.**

See Attachment 7

B. Treatment Units

In Table 1.0(1), provide the treatment unit type, the number of units, and dimensions (length, width, depth) of each treatment unit, accounting for *all* phases of operation.

Table 1.0(1) - Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
See Attachment 8		

C. Process Flow Diagram

Provide flow diagrams for the existing facilities and **each** proposed phase of construction.

Attachment: **See Attachment 9**

Section 3. Site Information and Drawing (Instructions Page 44)

Provide the TPDES discharge outfall latitude and longitude. Enter N/A if not applicable.

- Latitude: 30.317106
- Longitude: -97.569847

Provide the TLAP disposal site latitude and longitude. Enter N/A if not applicable.

- Latitude: n/a
- Longitude: n/a

Provide a site drawing for the facility that shows the following:

- The boundaries of the treatment facility;
- The boundaries of the area served by the treatment facility;
- If land disposal of effluent, the boundaries of the disposal site and all storage/holding ponds; and
- If sludge disposal is authorized in the permit, the boundaries of the land application or disposal site.

Attachment: **See Attachment 10**

Provide the name **and** a description of the area served by the treatment facility.

The service area includes Sterling Bridge, Belhaven, Speyside, Edinburgh Gardens, Shady Lake Acres, and Wild Horse Ranch subdivisions within the City of Austin.

Collection System Information **for wastewater TPDES permits only**: Provide information for each **uniquely owned** collection system, existing and new, served by this facility, including satellite collection systems. **Please see the instructions for a detailed explanation and examples.**

Collection System Information

Collection System Name	Owner Name	Owner Type	Population Served
n/a		Choose an item.	
		Choose an item.	
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 45)

Is the application for a renewal of a permit that contains an unbuilt phase or phases?

☒ Yes ☐ No

If **yes**, does the existing permit contain a phase that has not been constructed **within five years** of being authorized by the TCEQ?

☒ Yes ☐ No

If **yes**, provide a detailed discussion regarding the continued need for the unbuilt phase. **Failure to provide sufficient justification may result in the Executive Director recommending denial of the unbuilt phase or phases.**

See Attachment 11-Unbuilt Phases

Section 5. Closure Plans (Instructions Page 45)

Have any treatment units been taken out of service permanently, or will any units be taken out of service in the next five years?

☐ Yes ☒ No

If **yes**, was a closure plan submitted to the TCEQ?

☐ Yes ☐ No **n/a**

If **yes**, provide a brief description of the closure and the date of plan approval.

n/a

Section 6. Permit Specific Requirements (Instructions Page 45)

For applicants with an existing permit, check the Other Requirements or Special Provisions of the permit.

A. Summary transmittal

Have plans and specifications been approved for the existing facilities and each proposed phase?

☒ Yes ☐ No

If **yes**, provide the date(s) of approval for each phase: February 21, 2023

Provide information, including dates, on any actions taken to meet a *requirement or provision* pertaining to the submission of a summary transmittal letter. **Provide a copy of an approval letter from the TCEQ, if applicable.**

See Attachment 12

B. Buffer zones

Have the buffer zone requirements been met?

☒ Yes ☐ No

Provide information below, including dates, on any actions taken to meet the conditions of the buffer zone. If available, provide any new documentation relevant to maintaining the buffer zones.

n/a

C. Other actions required by the current permit

Does the *Other Requirements* or *Special Provisions* section in the existing permit require submission of any other information or other required actions? Examples include Notification of Completion, progress reports, soil monitoring data, etc.

☒ Yes ☐ No

If **yes**, provide information below on the status of any actions taken to meet the conditions of an *Other Requirement* or *Special Provision*.

See Attachment 13

D. Grit and grease treatment

1. Acceptance of grit and grease waste

Does the facility have a grit and/or grease processing facility onsite that treats and decants or accepts transported loads of grit and grease waste that are discharged directly to the wastewater treatment plant prior to any treatment?

☐ Yes ☒ No

If **No**, stop here and continue with Subsection E. Stormwater Management.

2. Grit and grease processing

Describe below how the grit and grease waste is treated at the facility. In your description, include how and where the grit and grease is introduced to the treatment works and how it is separated or processed. Provide a flow diagram showing how grit and grease is processed at the facility.

N/A

3. Grit disposal

Does the facility have a Municipal Solid Waste (MSW) registration or permit for grit disposal?

☐ Yes ☒ No

If **No**, contact the TCEQ Municipal Solid Waste team at 512-239-2335. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

N/A

4. Grease and decanted liquid disposal

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-2335.

Describe how the decant and grease are treated and disposed of after grit separation.

N/A

E. Stormwater management

1. Applicability

Does the facility have a design flow of 1.0 MGD or greater in any phase?

☒ Yes ☐ No

Does the facility have an approved pretreatment program, under 40 CFR Part 403?

☒ Yes ☐ No

If **no to both of the above**, then skip to Subsection F, Other Wastes Received.

2. MSGP coverage

Is the stormwater runoff from the WWTP and dedicated lands for sewage disposal currently permitted under the TPDES Multi-Sector General Permit (MSGP), TXR050000?

☐ Yes ☒ No

If **yes**, please provide MSGP Authorization Number and skip to Subsection F, Other Wastes Received:

TXR05 [Click to enter text.](#) or TXRNE [Click to enter text.](#)

If **no**, do you intend to seek coverage under TXR050000?

☒ Yes ☐ No

3. Conditional exclusion

Alternatively, do you intend to apply for a conditional exclusion from permitting based TXR050000 (Multi Sector General Permit) Part II B.2 or TXR050000 (Multi Sector General Permit) Part V, Sector T 3(b)?

☐ Yes ☒ No

If yes, please explain below then proceed to Subsection F, Other Wastes Received:

n/a

4. Existing coverage in individual permit

Is your stormwater discharge currently permitted through this individual TPDES or TLAP permit?

☐ Yes ☒ No

If yes, provide a description of stormwater runoff management practices at the site that are authorized in the wastewater permit then skip to Subsection F, Other Wastes Received.

n/a

5. Zero stormwater discharge

Do you intend to have no discharge of stormwater via use of evaporation or other means?

☐ Yes ☒ No

If yes, explain below then skip to Subsection F. Other Wastes Received.

N/A

Note: If there is a potential to discharge any stormwater to surface water in the state as the result of any storm event, then permit coverage is required under the MSGP or an individual discharge permit. This requirement applies to all areas of facilities with treatment plants or systems that treat, store, recycle, or reclaim domestic sewage, wastewater or sewage sludge (including dedicated lands for sewage sludge disposal located within the onsite property boundaries) that meet the applicability criteria of above. You have the option of obtaining coverage under the MSGP for direct discharges, (recommended), or obtaining coverage under this individual permit.

6. Request for coverage in individual permit

Are you requesting coverage of stormwater discharges associated with your treatment plant under this individual permit?

☐ Yes ☒ No

If yes, provide a description of stormwater runoff management practices at the site for which you are requesting authorization in this individual wastewater permit and describe whether you intend to comingle this discharge with your treated effluent or discharge it via a separate dedicated stormwater outfall. Please also indicate if you

intend to divert stormwater to the treatment plant headworks and indirectly discharge it to water in the state.

N/A

Note: Direct stormwater discharges to waters in the state authorized through this individual permit will require the development and implementation of a stormwater pollution prevention plan (SWPPP) and will be subject to additional monitoring and reporting requirements. Indirect discharges of stormwater via headworks recycling will require compliance with all individual permit requirements including 2-hour peak flow limitations. All stormwater discharge authorization requests will require additional information during the technical review of your application.

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

If yes, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions.
[Click to enter text.](#)

G. Other wastes received including sludge from other WWTPs and septic waste

1. Acceptance of sludge from other WWTPs

Does or will the facility accept sludge from other treatment plants at the facility site?

☐ Yes ☒ No

If yes, attach sewage sludge solids management plan. See Example 5 of instructions.

In addition, provide the date the plant started or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the sludge, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

N/A

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

☐ Yes ☒ No

If yes, does the facility have a Type V processing unit?

☐ Yes ☒ No

If yes, does the unit have a Municipal Solid Waste permit?

☐ Yes ☒ No

If **yes to any of the above**, provide the date the plant started or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the septic waste, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

N/A

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

3. Acceptance of other wastes (not including septic, grease, grit, or RCRA, CERCLA or as discharged by IUs listed in Worksheet 6)

Is or will the facility accept wastes that are not domestic in nature excluding the categories listed above?

☐ Yes ☒ No

If **yes**, provide the date that the plant started accepting the waste, an estimate how much waste is accepted on a monthly basis (gallons or millions of gallons), a description of the entities generating the waste, and any distinguishing chemical or other physical characteristic of the waste. Also note if this information has or has not changed since the last permit action.

N/A

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 50)

Is the facility in operation?

☒ Yes ☐ No

See Attachment 14

If **no**, this section is not applicable. Proceed to Section 8.

If **yes**, provide effluent analysis data for the listed pollutants. **Wastewater treatment facilities** complete Table 1.0(2). **Water treatment facilities** discharging filter backwash water, complete Table 1.0(3). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

Note: The sample date must be within 1 year of application submission.

Table1.0(2) – Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
CBOD ₅ , mg/l	<2	<2	49	Composite	08/08/2023-07/10/2024
Total Suspended Solids, mg/l	0.91	7.4	49	Composite	08/08/2023-07/10/2024
Ammonia Nitrogen, mg/l	0.17	0.90	49	Composite	08/08/2023-07/10/2024
Nitrate Nitrogen, mg/l	30.5	37.3	4	Composite	05/06/2024-05/29/2024
Total Kjeldahl Nitrogen, mg/l	1.12	1.27	5	Composite	05/06/2024-06/03/2024
Sulfate, mg/l	138	147	5	Composite	05/06/2024-05/29/2024
Chloride, mg/l	107.4	114	4	Composite	05/06/2024-05/29/2024
Total Phosphorus, mg/l	0.68	1.13	49	Composite	08/08/2023-07/10/2024
pH, standard units	7.68	8.17	363	Grab	08/01/2023-07/28/2024
Dissolved Oxygen*, mg/l	8.10	10.15	363	Grab	08/01/2023-07/28/2024
Chlorine Residual, mg/l	N/A	N/A	N/A	N/A	N/A
<i>E.coli</i> (CFU/100ml) freshwater	1.2	25.6	352	Grab	08/-8/2023-07/15/2024
Enterococci (CFU/100ml) saltwater	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	657	712	4	Composite	05/06/2024-05/29/2024
Electrical Conductivity, µmohs/cm, †	N/A	N/A	N/A	N/A	N/A
Oil & Grease, mg/l	<2.50	<2.50	4	Grab	05/06/2024-05/28/2024
Alkalinity (CaCO ₃)*, mg/l	111.3	164	49	Composite	08/08/2023-07/10/2024

*TPDES permits only

†TLAP permits only

Table1.0(3) – Pollutant Analysis for Water Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	N/A	N/A	N/A	N/A	N/A
pH, standard units	N/A	N/A	N/A	N/A	N/A

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Fluoride, mg/l	N/A	N/A	N/A	N/A	N/A
Aluminum, mg/l	N/A	N/A	N/A	N/A	N/A
Alkalinity (CaCO ₃), mg/l	N/A	N/A	N/A	N/A	N/A

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: Darrell Devooght

See Attachment 15

Facility Operator's License Classification and Level: Category A facility – Darrell Devooght- Class A

Facility Operator's License Number: WW0062004

Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 51)

A. WWTP's Biosolids Management Facility Type

Check all that apply. See instructions for guidance

- ☐ Design flow >= 1 MGD
- ☐ Serves >= 10,000 people
- ☐ Class I Sludge Management Facility (per 40 CFR § 503.9)
- ☐ Biosolids generator
- ☐ Biosolids end user – land application (onsite)
- ☐ Biosolids end user – surface disposal (onsite)
- ☐ Biosolids end user – incinerator (onsite)

N/A

Wastewater sludge is hauled to Walnut Creek WWTP, WQ0010543011, sludge receiving station and is then piped to Hornsby Bend Biosolids Management Plant, WQ0003823000, for further processing

B. WWTP's Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- ☐ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting
- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation
- ☐ Pasteurization
- ☐ Preliminary Operation (e.g. grinding, de-gritting, blending)

- ☐ Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)
- ☐ Sludge Lagoon
- ☐ Temporary Storage (< 2 years)
- ☐ Long Term Storage (>= 2 years)
- ☐ Methane or Biogas Recovery
- ☒ Other Treatment Process: Wastewater sludge is hauled to Walnut Creek WWTP, WQ0010543011, sludge receiving station and is then piped to Hornsby Bend Biosolids Management Plant, WQ0003823000, for further processing

C. Biosolids Management

Provide information on the *intended* biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize all biosolids management practices listed in the instructions. Rather indicate the management practice the facility plans to use.

Biosolids Management

Management Practice	Handler or Preparer Type	Bulk or Bag Container	Amount (dry metric tons)	Pathogen Reduction Options	Vector Attraction Reduction Option
Other	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

If "Other" is selected for Management Practice, please explain (e.g. monofill or transport to another WWTP): Sludge produced at Wild Horse Ranch Wastewater Treatment Plant, WQ0010543013, is hauled via liquid Waste Haulers to Walnut Creek WWTP, WQ0010543011, sludge receiving station and is then piped an Austin Water permitted sludge processing facility, Hornsby Bend Biosolids Management Plant, WQ0003823000.

D. Disposal site

Disposal site name: Hornsby Bend Biosolids Management Plant (BMP)

TCEQ permit or registration number: WQ0003823000

County where disposal site is located: Travis

E. Transportation method

Method of transportation (truck, train, pipe, other): hauled to Walnut Creek WWTP

Name of the hauler: City of Austin

Hauler registration number: 22083

Sludge is transported as a:

Liquid ☒ semi-liquid ☐ semi-solid ☐ solid ☐

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 53)

A. Beneficial use authorization

Does the existing permit include authorization for land application of sewage sludge for beneficial use?

☐ Yes ☒ No

If **yes**, are you requesting to continue this authorization to land apply sewage sludge for beneficial use?

☐ Yes ☐ No

If **yes**, is the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)** attached to this permit application (see the instructions for details)?

☐ Yes ☐ No

B. Sludge processing authorization

Does the existing permit include authorization for any of the following sludge processing, storage or disposal options?

Sludge Composting	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Marketing and Distribution of sludge	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Sludge Surface Disposal or Sludge Monofill	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Temporary storage in sludge lagoons	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

If **yes** to any of the above sludge options and the applicant is requesting to continue this authorization, is the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)** attached to this permit application?

☐ Yes ☐ No

Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

☐ Yes ☒ No

If yes, complete the remainder of this section. If no, proceed to Section 12.

A. Location information

The following maps are required to be submitted as part of the application. For each map, provide the Attachment Number.

- Original General Highway (County) Map:
Attachment: n/a
- USDA Natural Resources Conservation Service Soil Map:
Attachment: n/a
- Federal Emergency Management Map:

Attachment: n/a

- Site map:

Attachment: n/a

Discuss in a description if any of the following exist within the lagoon area. Check all that apply.

- ☐ Overlap a designated 100-year frequency flood plain
- ☐ Soils with flooding classification
- ☐ Overlap an unstable area
- ☐ Wetlands
- ☐ Located less than 60 meters from a fault
- ☐ None of the above

Attachment: n/a

If a portion of the lagoon(s) is located within the 100-year frequency flood plain, provide the protective measures to be utilized including type and size of protective structures:

n/a

B. Temporary storage information

Provide the results for the pollutant screening of sludge lagoons. These results are in addition to pollutant results in *Section 7 of Technical Report 1.0*.

Nitrate Nitrogen, mg/kg: n/a

Total Kjeldahl Nitrogen, mg/kg: n/a

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: n/a

Phosphorus, mg/kg: n/a

Potassium, mg/kg: n/a

pH, standard units: n/a

Ammonia Nitrogen mg/kg: n/a

Arsenic: n/a

Cadmium: n/a

Chromium: n/a

Copper: n/a

Lead: n/a

Mercury: n/a

Molybdenum: n/a

Nickel: n/a

Selenium: n/a

Zinc: n/a

Total PCBs: n/a

Provide the following information:

Volume and frequency of sludge to the lagoon(s): n/a

Total dry tons stored in the lagoons(s) per 365-day period: n/a

Total dry tons stored in the lagoons(s) over the life of the unit: n/a

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec?

☐ Yes ☐ No

If yes, describe the liner below. Please note that a liner is required.

n/a

D. Site development plan

Provide a detailed description of the methods used to deposit sludge in the lagoon(s):

n/a

Attach the following documents to the application.

- Plan view and cross-section of the sludge lagoon(s)

Attachment: n/a

- Copy of the closure plan

Attachment: n/a

- Copy of deed recordation for the site

Attachment: n/a

- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

Attachment: n/a

- Description of the method of controlling infiltration of groundwater and surface water from entering the site

Attachment: n/a

- Procedures to prevent the occurrence of nuisance conditions

Attachment: n/a

E. Groundwater monitoring

Is groundwater monitoring currently conducted at this site, or are any wells available for groundwater monitoring, or are groundwater monitoring data otherwise available for the sludge lagoon(s)?

☐ Yes ☒ No

If groundwater monitoring data are available, provide a copy. Provide a profile of soil types encountered down to the groundwater table and the depth to the shallowest groundwater as a separate attachment.

Attachment: n/a

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 55)

A. Additional authorizations

Does the permittee have additional authorizations for this facility, such as reuse authorization, sludge permit, etc?

☐ Yes ☒ No

If yes, provide the TCEQ authorization number and description of the authorization:

Click to enter text.

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

☐ Yes ☒ No

Is the permittee required to meet an implementation schedule for compliance or enforcement?

☐ Yes ☒ No

If yes to either question, provide a brief summary of the enforcement, the implementation schedule, and the current status:

n/a

Section 13. RCRA/CERCLA Wastes (Instructions Page 55)

A. RCRA hazardous wastes

Has the facility received in the past three years, does it currently receive, or will it receive RCRA hazardous waste?

☐ Yes ☒ No

B. Remediation activity wastewater

Has the facility received in the past three years, does it currently receive, or will it receive CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

☐ Yes ☒ No

C. Details about wastes received

If yes to either Subsection A or B above, provide detailed information concerning these wastes with the application.

Attachment: n/a

Section 14. Laboratory Accreditation (Instructions Page 56)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
 - periodically inspected by the TCEQ; or
 - located in another state and is accredited or inspected by that state; or
 - performing work for another company with a unit located in the same site; or
 - performing pro bono work for a governmental agency or charitable organization.
- The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review 30 TAC Chapter 25 for specific requirements.


The following certification statement shall be signed and submitted with every application. See the Signature Page section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*.

Printed Name: Shay Ralls Roalson, P.E.

Title: Director, Austin Water

Signature: 

Date: 9/10/2024

DOMESTIC WASTEWATER PERMIT APPLICATION

WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

Section 1. Domestic Drinking Water Supply (Instructions Page 64)

Is there a surface water intake for domestic drinking water supply located within 5 miles downstream from the point or proposed point of discharge?

☐ Yes ☒ No

If **no**, proceed to Section 2. If **yes**, provide the following:

Owner of the drinking water supply: [Click to enter text.](#)

Distance and direction to the intake: [Click to enter text.](#)

Attach a USGS map that identifies the location of the intake.

Attachment: [Click to enter text.](#)

Section 2. Discharge into Tidally Affected Waters (Instructions Page 64)

Does the facility discharge into tidally affected waters?

☐ Yes ☒ No

If **no**, proceed to Section 3. If **yes**, complete the remainder of this section. If no, proceed to Section 3.

A. Receiving water outfall

Width of the receiving water at the outfall, in feet: N/A

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☒ No

If **yes**, provide the distance and direction from outfall(s).

N/A

C. Sea grasses

Are there any sea grasses within the vicinity of the point of discharge?

☐ Yes ☒ No

If **yes**, provide the distance and direction from the outfall(s).

N/A

Section 3. Classified Segments (Instructions Page 64)

Is the discharge directly into (or within 300 feet of) a classified segment?

☐ Yes ☒ No

If **yes**, this Worksheet is complete.

If **no**, complete Sections 4 and 5 of this Worksheet.

Section 4. Description of Immediate Receiving Waters (Instructions Page 65)

Name of the immediate receiving waters: Unnamed Tributary of Gilleland Creek

A. Receiving water type

Identify the appropriate description of the receiving waters.

- ☒ Stream
- ☐ Freshwater Swamp or Marsh
- ☐ Lake or Pond

Surface area, in acres: Click to enter text.

Average depth of the entire water body, in feet: Click to enter text.

Average depth of water body within a 500-foot radius of discharge point, in feet:
Click to enter text.

- ☐ Man-made Channel or Ditch
- ☐ Open Bay
- ☐ Tidal Stream, Bayou, or Marsh
- ☐ Other, specify: Click to enter text.

B. Flow characteristics

If a stream, man-made channel or ditch was checked above, provide the following. For existing discharges, check one of the following that best characterizes the area *upstream* of the discharge. For new discharges, characterize the area *downstream* of the discharge (check one).

- ☒ Intermittent - dry for at least one week during most years
- ☐ Intermittent with Perennial Pools - enduring pools with sufficient habitat to maintain significant aquatic life uses
- ☐ Perennial - normally flowing

Check the method used to characterize the area upstream (or downstream for new dischargers).

- ☐ USGS flow records
- ☐ Historical observation by adjacent landowners
- ☒ Personal observation
- ☐ Other, specify: Click to enter text.

C. Downstream perennial confluences

List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point.

Gilleland Creek

D. Downstream characteristics

Do the receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.)?

☒ Yes ☐ No

If yes, discuss how.

Confluence with Gilleland Creek

E. Normal dry weather characteristics

Provide general observations of the water body during normal dry weather conditions.

Water is clear to slightly turbid. Creek bottom is soft mud, banks are slightly sloped and covered with vegetation and brush.

Date and time of observation: 05/09/2024 @ 9:00am

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☒ No

Section 5. General Characteristics of the Waterbody (Instructions Page 66)

A. Upstream influences

Is the immediate receiving water upstream of the discharge or proposed discharge site influenced by any of the following? Check all that apply.

- | | |
|-----------------------------------------------|-------------------------------------------------------------------------|
| <input type="checkbox"/> Oil field activities | <input checked="" type="checkbox"/> Urban runoff |
| <input type="checkbox"/> Upstream discharges | <input checked="" type="checkbox"/> Agricultural runoff |
| <input type="checkbox"/> Septic tanks | <input type="checkbox"/> Other(s), specify: <u>Click to enter text.</u> |

B. Waterbody uses

Observed or evidences of the following uses. Check all that apply.

- | | |
|--------------------------------------------------------|----------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Livestock watering | <input type="checkbox"/> Contact recreation |
| <input type="checkbox"/> Irrigation withdrawal | <input type="checkbox"/> Non-contact recreation |
| <input type="checkbox"/> Fishing | <input type="checkbox"/> Navigation |
| <input type="checkbox"/> Domestic water supply | <input type="checkbox"/> Industrial water supply |
| <input type="checkbox"/> Park activities | <input type="checkbox"/> Other(s), specify: Click to enter text. |

C. Waterbody aesthetics

Check one of the following that best describes the aesthetics of the receiving water and the surrounding area.

- ☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional
- ☒ Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored
- ☐ Common Setting: not offensive; developed but uncluttered; water may be colored or turbid
- ☐ Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

DOMESTIC WASTEWATER PERMIT APPLICATION

WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works.

Section 1. All POTWs (Instructions Page 89)

A. Industrial users (IUs)

Provide the number of each of the following types of industrial users (IUs) that discharge to your POTW and the daily flows from each user. See the Instructions for definitions of Categorical IUs, Significant IUs - non-categorical, and Other IUs.

If there are no users, enter 0 (zero).

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs - non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: [Click to enter text.](#)

Average Daily Flows, in MGD: [Click to enter text.](#)

B. Treatment plant interference

In the past three years, has your POTW experienced treatment plant interference (see instructions)?

☐ Yes ☒ No

If yes, identify the dates, duration, description of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IUs that may have caused the interference.

N/A

C. Treatment plant pass through

In the past three years, has your POTW experienced pass through (see instructions)?

☐ Yes ☒ No

If **yes**, identify the dates, duration, a description of the pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass through event. Include the names of the IUs that may have caused pass through.

N/A

D. Pretreatment program

Does your POTW have an approved pretreatment program?

☒ Yes ☐ No

If **yes**, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

☐ Yes ☒ No

If **yes**, complete Section 2.c. and 2.d. only, and skip Section 3.

If **no to either question above**, skip Section 2 and complete Section 3 for each significant industrial user and categorical industrial user.

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 90)

A. Substantial modifications

Have there been any **substantial modifications** to the approved pretreatment program that have not been submitted to the TCEQ for approval according to *40 CFR §403.18*?

☐ Yes ☒ No

If **yes**, identify the modifications that have not been submitted to TCEQ, including the purpose of the modification.

N/A

B. Non-substantial modifications

Have there been any **non-substantial modifications** to the approved pretreatment program that have not been submitted to TCEQ for review and acceptance?

☐ Yes ☒ No

If yes, identify all non-substantial modifications that have not been submitted to TCEQ, including the purpose of the modification.

N/A

C. Effluent parameters above the MAL

In Table 6.0(1), list all parameters measured above the MAL in the POTW’s effluent monitoring during the last three years. Submit an attachment if necessary.

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date
n/a				

D. Industrial user interruptions

Has any SIU, CIU, or other IU caused or contributed to any problems (excluding interferences or pass throughs) at your POTW in the past three years?

☐ Yes ☒ No

If **yes**, identify the industry, describe each episode, including dates, duration, description of the problems, and probable pollutants.

N/A

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 90)

A. General information

Company Name: N/A

SIC Code: Click to enter text.

Contact name: Click to enter text.

Address: Click to enter text.

City, State, and Zip Code: Click to enter text.

Telephone number: Click to enter text.

Email address: Click to enter text.

B. Process information

Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (i.e., process and non-process wastewater).

N/A

C. Product and service information

Provide a description of the principal product(s) or services performed.

N/A

D. Flow rate information

See the Instructions for definitions of “process” and “non-process wastewater.”

Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the instructions?

☐ Yes ☐ No

Is the SIU or CIU subject to categorical pretreatment standards found in *40 CFR Parts 405-471*?

☐ Yes ☐ No

If subject to categorical pretreatment standards, indicate the applicable category and subcategory for each categorical process.

Category: Subcategories: N/A

Click or tap here to enter text. Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

F. Industrial user interruptions

Has the SIU or CIU caused or contributed to any problems (e.g., interferences, pass through, odors, corrosion, blockages) at your POTW in the past three years?

☐ Yes ☐ No

If yes, identify the SIU, describe each episode, including dates, duration, description of problems, and probable pollutants.

N/A

ATTACHMENT 7
TREATMENT PROCESS DESCRIPTION

**CITY OF AUSTIN | AUSTIN WATER
WILD HORSE RANCH WASTEWATER TREATMENT PLANT
TPDES Permit No. WQ0010543013
PERMIT APPLICATION**

Treatment Process Description

Existing Phase

The existing Wild Horse Ranch WWTP has four main treatment steps and a solids treatment step. The expansion will modify the treatment steps to a significant degree to meet the new treatment and capacity requirements of the proposed permit. The details of each existing treatment step follow in their order of occurrence:

Preliminary treatment (Headworks)	Mechanical barscreen receives flow from onsite influent lift station. Screenings are collected, transported and disposed at offsite landfill; Aerated grit channel with coarse bubble aeration allows for periodic grit removal and disposal at offsite landfill.
Secondary treatment (Activated Sludge)	Conventional plug flow activated sludge with extended and tapered aeration (using fine bubble diffusers) as process modifications. Final clarification and scum removal in circular sedimentation basin. Alum is dosed into the aeration basin influent for chemical phosphorus removal.
Tertiary treatment (Cloth Media Disk Filters)	Outside-inside, vertically oriented cloth media disks in painted steel tanks.
Disinfection (Ultraviolet Light)	Three banks of ultraviolet lamps in a vertical configuration producing light at 254 nm wavelength are used to disinfect the filter effluent.
Aerobic Digester/Sludge Holding Tank	Secondary sludge and scum is transferred onsite to an aerobic digester/sludge holding tank. Sludge is aerated using coarse bubble diffusers until transport is ordered. Solids are pumped and transported for offsite treatment.

**CITY OF AUSTIN | AUSTIN WATER
WILD HORSE RANCH WASTEWATER TREATMENT PLANT
TPDES Permit No. WQ0010543013
PERMIT APPLICATION**

Interim II Phase

The first phase of expansion for the Wild Horse Ranch WWTP will improve and increase all aspects of treatment and capacity. The onsite lift station will be upgraded with additional and larger pumps. Preliminary treatment will be upgraded by adding screens, screenings compaction and grit removal to the Headworks. Secondary treatment will be increased and improved by adding basin volume and selector zones for biological nutrient removal. Tertiary treatment will be increased and upgraded to cloth disk filtration in concrete tanks. UV disinfection capacity will be increased and improved with new UV equipment, and thickening will be upgraded by adding bonafide thickening equipment for solids treatment, primarily to reduce sludge hauling. The details of each step are as follows in order of occurrence:

Preliminary treatment Headworks (Screening)	New and redundant mechanical barscreens will receive flow from the larger pumps in the onsite influent lift station. Screenings will be collected, washed, compacted and transported for disposal at offsite landfill;
(Grit Removal and Washing)	A vortex grit unit will be added to allow for continuous removal of grit that will then be washed in a Coanda grit washer and dewatered before transport for disposal at offsite landfill.
Secondary treatment (Activated Sludge)	New aeration basins will be added and some aeration volume in the existing basins will be converted to anoxic and anaerobic zones to achieve biological nutrient removal, for alkalinity recovery and biological phosphorus removal, using the Johannesburg process. New larger aeration blowers will also be added. Alum addition will be maintained to provide phosphorus polishing as needed to meet the more stringent effluent limitation. Additional clarification and scum removal capacity will be provided by adding 2 new circular secondary clarifiers.
Tertiary treatment (Cloth Media Disk Filtration)	New cloth disk filters in concrete tanks will replace the existing cloth disk filters in painted steel tanks. Clarifier effluent will be filtered continuously (with intermittent backwash not interrupting filtration) prior to disinfection.
Disinfection (Ultraviolet Light)	The existing UV system will be replaced by new banks of ultraviolet lamps in an angled configuration producing light at 254 nm wavelength. The proposed UV system will disinfect the total filter effluent flow.
Sludge treatment (Volute Thickeners and Aerobic Digester/Sludge Holding Tank)	Secondary sludge and scum will be pumped to a new sludge holding tank. Unthickened sludge will be aerated by coarse bubble diffusers. Once enough unthickened sludge has accumulated to run the thickener, the sludge will be pumped into the volute thickener along with some polymer. The resulting thickened sludge will be pumped into the existing sludge holding tank and aerated with coarse bubble diffusers until transport for offsite treatment.

CITY OF AUSTIN | AUSTIN WATER
WILD HORSE RANCH WASTEWATER TREATMENT PLANT
TPDES Permit No. WQ0010543013
PERMIT APPLICATION

Odor control
(Biotrickling filters)

Biotrickling filter systems will be added to treat odorous air from the onsite liftstation, the sludge treatment units and the headworks.

**CITY OF AUSTIN | AUSTIN WATER
WILD HORSE RANCH WASTEWATER TREATMENT PLANT
TPDES Permit No. WQ0010543013
PERMIT APPLICATION**

Final Phase

The second and final phase of expansion for the Wild Horse Ranch WWTP will have the same number of treatment steps and the same amount of solids treatment as the Interim II phase except additional capacity will be added to the onsite lift station. The details of each step are as follows in the order of occurrence:

Preliminary treatment (Headworks)	Preliminary treatment capacity to meet the Final phase capacity will be provided as part of the Interim II phase project.
Secondary treatment (Activated Sludge)	Anaerobic, anoxic and aeration treatment equipment and basins to meet the Final phase capacity will be provided to achieve biological nutrient removal as part of the Interim II phase project. Final clarification and scum removal capacity as provided by the Interim II phase project will also be adequate to meet the Final phase capacity.
Tertiary treatment (Cloth Disk Filtration)	Tertiary treatment capacity (cloth disk filters) to meet the Final phase capacity will be provided as part of the Interim II phase project.
Disinfection (Ultraviolet light)	The disinfection capacity of the new UV system provided as part of the Interim II phase project will meet the Final phase disinfection capacity requirement.
Sludge Thickening (Volute Thickener) Aerobic Digester/Sludge Holding Tank	Thickening and aerobic digester capacity provided for the Interim II phase project will be adequate to meet the Final phase capacity requirements.
Odor control (Biotrickling filter)	Odor control system capacity provided for the Interim II phase project will be adequate to meet the Final phase capacity.

ATTACHMENT 8
TREATMENT UNITS

CITY OF AUSTIN | AUSTIN WATER
WILD HORSE RANCH WASTEWATER TREATMENT PLANT
TPDES Permit No. WQ0010543013
PERMIT APPLICATION

Treatment Units

Existing Phase		
Treatment Unit Type	Number of Units Each Train	Dimensions (L x W x D)
Mechanical Step Screen	1	12 ft L x 2 ft W x 4 ft D
Aeration Basin	2	95 ft x 30 ft x 16 ft SWD
Aeration Blowers	2	2200 cfm @ 8.2 psi
Final Settling (Clarifier)	1	60 ft dia. x 15.17 ft SWD
Cloth media Disk Filters	2	6 disks each, 3 MGD average day capacity and 6 MGD peak capacity per filter
UV Disinfection	3 in series	10.5 L x 2 ft W x 5 ft D
Aerobic Digester/Sludge Holding Tank	1	25 ft dia., 15 ft Max. D

CITY OF AUSTIN | AUSTIN WATER
WILD HORSE RANCH WASTEWATER TREATMENT PLANT
TPDES Permit No. WQ0010543013
PERMIT APPLICATION

Treatment Units

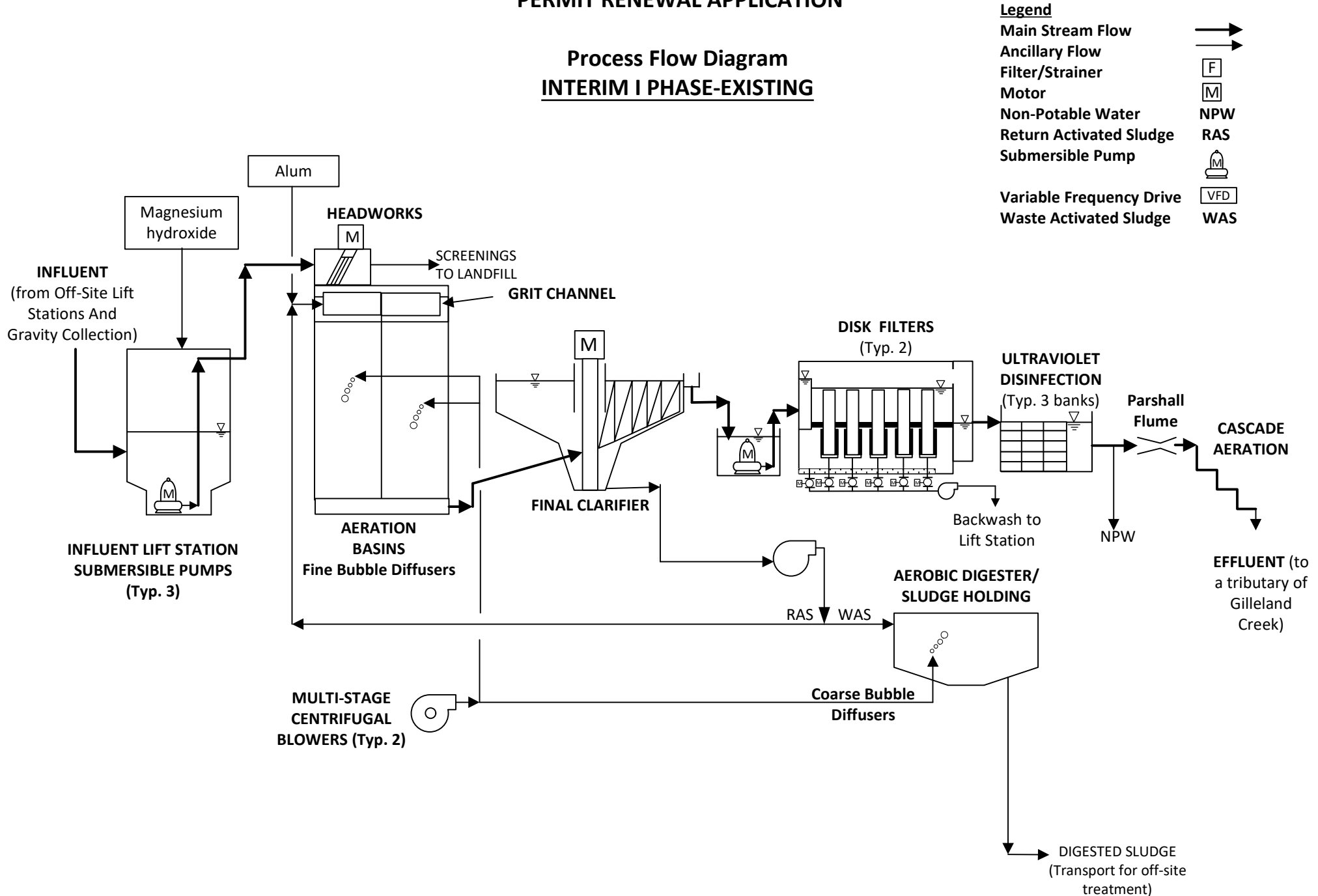
Interim II Phase (includes Existing Phase Equipment that is reused)		
Treatment Unit Type	Number of Units Each Train	Dimensions (L x W x D)
Influent Lift Station Pumps	3 Main 2 Jockey	2023 gpm @ 48.0 ft 559 gpm @ 40.8 ft
Multirake Bar Screens	2	Approx. 14.33 ft x 3 ft x 2 ft
Vortex Grit Removal	1	12-ft dia. x 14.5 ft deep
Coanda Grit Washer	1	Approx. 5-ft dia. x 5 ft tall
Aeration Basins (includes anaerobic and anoxic selector zones)	4 (2 existing, 2 new)	95 ft x 30 ft x 16 ft SWD
Aeration Blowers	3	2050 SCFM @ 9 psi
Final Settling (Clarifier)	3 (1 existing, 2 new)	60-ft dia. x approx. 16 ft SWD
Cloth Disk Filter	3	12 disks each, 3 MGD average day capacity and 6 MGD peak capacity per filter
UV Disinfection	4 in series	(Overall) 34.5 ft x 2.5 ft x 5.5 ft
Solids Thickening (Thickener)	1	Approx. 17 ft x 8 ft x 7.5 ft tall
Aerobic Digester/Sludge Holding Tank	2 (1 existing, 1 new)	(Ex.) 25 ft dia., ~16 ft SWD (New) 35 ft dia., ~16 ft SWD
Odor Control System (Biotrickling filter)	(Influent Lift Station) 1 bed (Hwks) 1 bed with 3 stacks	9-ft dia. x 6 ft bed depth (bd) 15 ft L x 7 ft W x 7.17 ft bd

Final Phase (plus all Interim II Phase Equipment except ILS Pump Impellers)		
Treatment Unit Type	Number of Units Each Train	Dimensions (L x W D)
Influent Lift Station Pumps	3 Main 2 Jockey	2537 gpm @ 48.5 ft 1010 gpm @ 43.3 ft

ATTACHMENT 9
PROCESS FLOW DIAGRAM

CITY OF AUSTIN | AUSTIN WATER
WILD HORSE RANCH WASTEWATER TREATMENT PLANT
TPDES Permit No. WQ0010543013
PERMIT RENEWAL APPLICATION

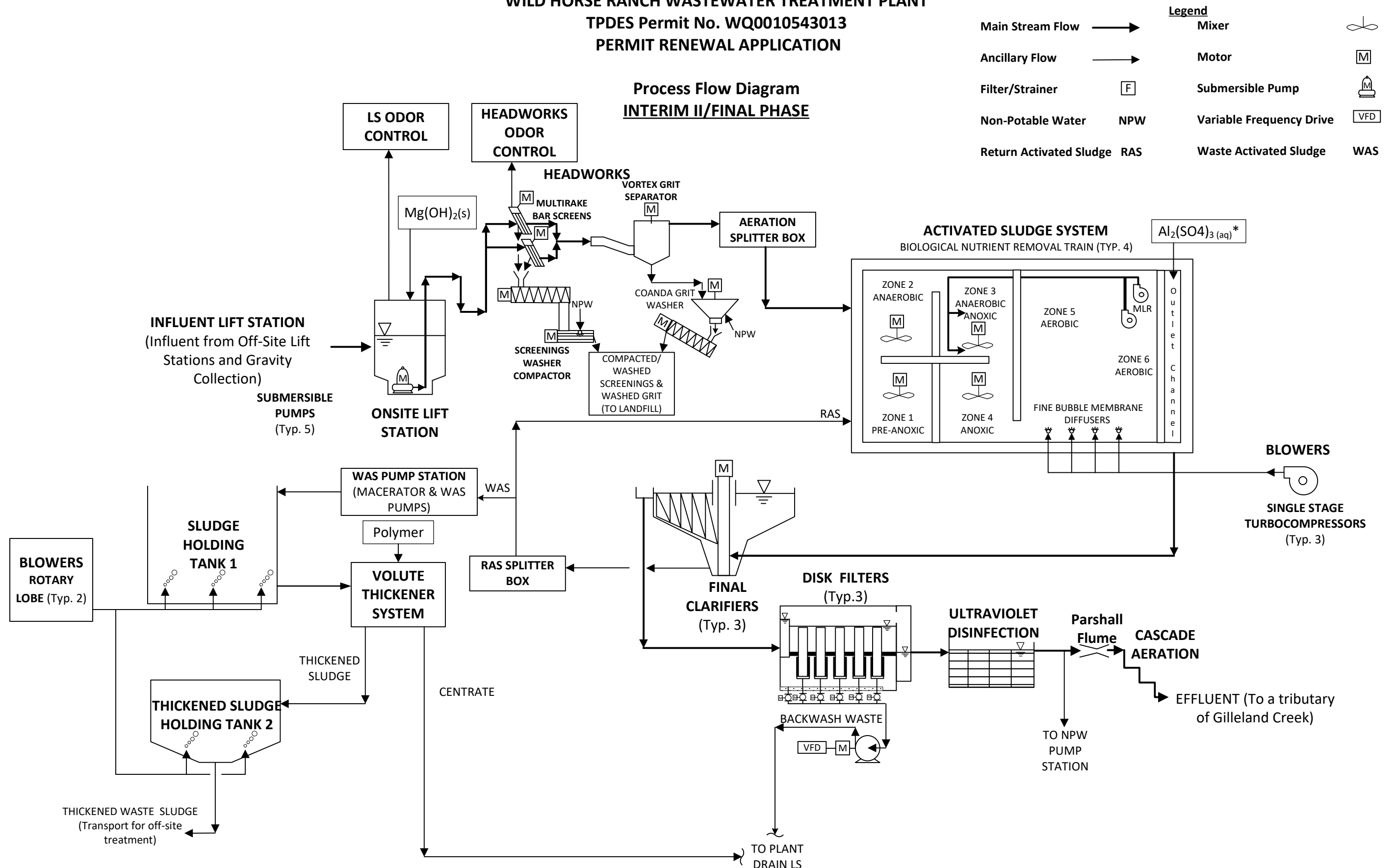
Process Flow Diagram
INTERIM I PHASE-EXISTING



**CITY OF AUSTIN | AUSTIN WATER
WILD HORSE RANCH WASTEWATER TREATMENT PLANT
TPDES Permit No. WQ0010543013
PERMIT RENEWAL APPLICATION**

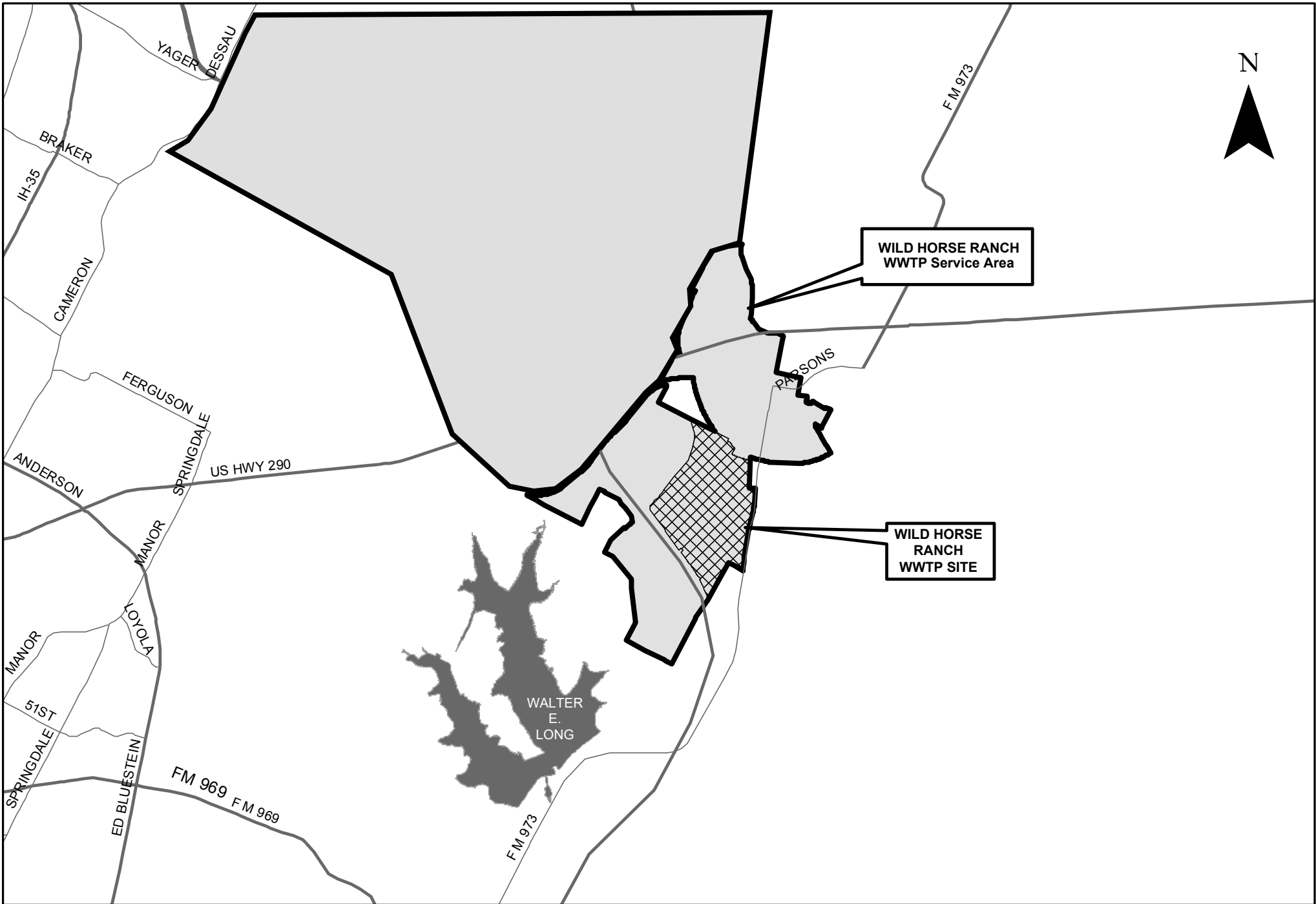
Process Flow Diagram

INTERIM II/FINAL PHASE



* Alum as needed for polishing

ATTACHMENT 10
SITE DRAWING



Wildhorse Plant Site



Wildhorse WWTP Service Area

0 0.5 1 Miles



WILD HORSE RANCH WASTEWATER
TREATMENT PLANT SITE DRAWING
ATTACHMENT 10
TECHNICAL REPORT 1.0, SECTION 3

ATTACHMENT 11

UNBUILT PHASES

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

UNBUILT PHASES

Interim II and the Final Interim expansion to 2.25 MGD, included in this attachment, of the 2020 permit are unbuilt to date. However, plans and specifications were submitted to TCEQ on August 24, 2022. These plans and specifications were approved by TCEQ February 21, 2023. A copy of the engineering report for the entire expansion to 2.25 MGD is included in the SPIF.

INTERIM II EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001

1. During the period beginning upon the completion of expansion to the 1.50 million gallons per day (MGD) facility and lasting through the completion of expansion to the 2.25 MGD facility, the permittee is authorized to discharge subject to the following effluent limitations:

The annual average flow of effluent shall not exceed 1.50 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 4,167 gpm.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Daily Max. Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	5 (63)	10	20	30	Two/week	Composite
Total Suspended Solids	5 (63)	10	20	30	Two/week	Composite
Ammonia Nitrogen	2 (25)	5	10	15	Two/week	Composite
Total Phosphorus	0.5 (6.3)	1	2	3	Two/week	Composite
<i>E. coli</i> , CFU or MPN/100 ml	120	N/A	374	N/A	Daily	Grab

2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 5.0 mg/l and shall be monitored twice per week by grab sample.
7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001

1. During the period beginning upon the completion of expansion to the 2.25 million gallons per day (MGD) facility and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

The annual average flow of effluent shall not exceed 2.25 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 6,250 gpm.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Daily Max. Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	5 (94)	10	20	30	Two/week	Composite
Total Suspended Solids	5 (94)	10	20	30	Two/week	Composite
Ammonia Nitrogen	2 (38)	5	10	15	Two/week	Composite
Total Phosphorus	0.5 (9.4)	1	2	3	Two/week	Composite
<i>E. coli</i> , CFU or MPN/100 ml	120	N/A	374	N/A	Daily	Grab

2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 5.0 mg/l and shall be monitored twice per week by grab sample.
7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

D	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Successors		2023	2024	2025	2026						
									Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2
1		Wild Horse Ranch WWTP	798 days	Mon 02/20/23	Wed 03/11/26													
2		Pre-Construction	360 days	Mon 02/20/23	Fri 07/05/24													
3		Submittal/Procure	360 days	Mon 02/20/23	Fri 07/05/24		32											
4		S/P Aeration Prop Pumps	135 days	Mon 02/20/23	Fri 08/25/23		32											
5		S/P Aeration Mixers	135 days	Mon 02/20/23	Fri 08/25/23		32											
6		S/P Aeration Diffusers	140 days	Mon 02/20/23	Fri 09/01/23		32											
7		S/P Clarifiers	240 days	Mon 02/20/23	Fri 01/19/24		41											
8		S/P Scum Pumps	285 days	Mon 02/20/23	Fri 03/22/24		41											
9		S/P Slide Gates	180 days	Mon 02/20/23	Fri 10/27/23		48,103,117											
10		S/P Screen & Grit Equip	200 days	Mon 02/20/23	Fri 11/24/23		48											
11		S/P Substation Gear	360 days	Mon 02/20/23	Fri 07/05/24		62											
12		S/P Disk Filters	280 days	Mon 02/20/23	Fri 03/15/24		89											
13		S/P UV Equipment	160 days	Mon 02/20/23	Fri 09/29/23		89											
14		S/P Sludge Pumps	120 days	Mon 02/20/23	Fri 08/04/23		96											
15		S/P Sludge Blowers	210 days	Mon 02/20/23	Fri 12/08/23		96											
16		S/P RAS Pumps	285 days	Mon 02/20/23	Fri 03/22/24		124											
17		S/P Lift Station Pumps	140 days	Mon 02/20/23	Fri 09/01/23		133											
18		S/P Odor Control	280 days	Mon 02/20/23	Fri 03/15/24		141											
19		S/P Thickener	100 days	Mon 02/20/23	Fri 07/07/23		141											
20		S/P Aeration Bowers	250 days	Mon 02/20/23	Fri 02/02/24		157											
21		Construction	783 days	Mon 03/13/23	Wed 03/11/26													
22		Notice to Proceed	1 day	Mon 03/13/23	Mon 03/13/23		23											
23		Mobilization	5 days	Tue 03/14/23	Mon 03/20/23	22	24											
24		Surveying / Site Layout	5 days	Tue 03/21/23	Mon 03/27/23	23	26,149,155											
25		Relocate Existing Site Piping	20 days	Tue 03/28/23	Mon 04/24/23													
26		Pothole Existing Utilities	5 days	Tue 03/28/23	Mon 04/03/23	24	27											
27		Relocate LPA Piping	15 days	Tue 04/04/23	Mon 04/24/23	26	29											
28		Aeration Basin No. 3 & 4	554 days	Tue 04/25/23	Fri 06/06/25													
29		Machine Excavation	20 days	Tue 04/25/23	Mon 05/22/23	27	30,36											
30		Select Fill Under Structure	15 days	Tue 05/23/23	Mon 06/12/23	29	31,37											
31		Concrete Structure	180 days	Tue 06/13/23	Mon 02/19/24	30	32,34,100,161,166											
32		Mechanical Install	120 days	Mon 07/08/24	Fri 12/20/24	31,3,4,5,6	33FS-60 days											
33		Electrical	180 days	Mon 09/30/24	Fri 06/06/25	32FS-60 days	169											
34		Backfill Structure	20 days	Tue 02/20/24	Mon 03/18/24	31	171											
35		Clarifier No. 2 & 3	530 days	Tue 05/23/23	Mon 06/02/25													
36		Excavation Safety	10 days	Tue 05/23/23	Mon 06/05/23	29	37											
37		Machine Excavation	20 days	Tue 06/13/23	Mon 07/10/23	30,36	38											

Project: Wild Horse Ranch WW

Date: Wed 02/08/23

Task

Split

Milestone

Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

Critical

Critical Split

Progress

Manual Progress

Page 1

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Successors
38		Select Fill Under Structure	15 days	Tue 07/11/23	Mon 07/31/23	37	39,45
39		Concrete Structure - Clarifier No. 2	180 days	Tue 08/01/23	Mon 04/08/24	38	40SS+60 days
40		Concrete Structure - Clarifier No. 3	180 days	Tue 10/24/23	Mon 07/01/24	39SS+60 days	41,43,93,162,164
41		Mechanical Install	120 days	Tue 07/02/24	Mon 12/16/24	40,7,8	42
42		Electrical	120 days	Tue 12/17/24	Mon 06/02/25	41	169
43		Backfill Structures	20 days	Tue 07/02/24	Mon 07/29/24	40	171
44		Headworks	560 days	Tue 08/01/23	Mon 09/22/25		
45		Machine Excavation	5 days	Tue 08/01/23	Mon 08/07/23	38	46
46		Pier Drilling	15 days	Tue 08/08/23	Mon 08/28/23	45	47,51
47		Concrete Structure	240 days	Tue 08/29/23	Mon 07/29/24	46	48,84,161,165
48		Mechanical Install	120 days	Tue 07/30/24	Mon 01/13/25	47,10,9	49
49		Electrical	180 days	Tue 01/14/25	Mon 09/22/25	48	169
50		Substation Bldg.	515 days	Tue 08/29/23	Mon 08/18/25		
51		Machine Excavation	10 days	Tue 08/29/23	Mon 09/11/23	46	52
52		Pier Drilling	10 days	Tue 09/12/23	Mon 09/25/23	51	53,65
53		Electrical Rough-In	120 days	Tue 09/26/23	Mon 03/11/24	52	54
54		Concrete Foundation	40 days	Tue 03/12/24	Mon 05/06/24	53	55
55		Masonry	60 days	Tue 05/07/24	Mon 07/29/24	54	56
56		Roof Joists & Decking	15 days	Tue 07/30/24	Mon 08/19/24	55	57
57		Rough Carpentry	10 days	Tue 08/20/24	Mon 09/02/24	56	58
58		Standing Seam Roof	10 days	Tue 09/03/24	Mon 09/16/24	57	59,62
59		Metal Exterior Panels	5 days	Tue 09/17/24	Mon 09/23/24	58	60
60		Doors & Hardware	5 days	Tue 09/24/24	Mon 09/30/24	59	61
61		Paint	15 days	Tue 10/01/24	Mon 10/21/24	60	171
62		Electrical	240 days	Tue 09/17/24	Mon 08/18/25	58,11	63SF+30 days,169
63		HVAC	20 days	Tue 10/01/24	Mon 10/28/24	62SF+30 days	
64		Administration Bldg.	335 days	Tue 09/26/23	Mon 01/06/25		
65		Machine Excavation	10 days	Tue 09/26/23	Mon 10/09/23	52	66
66		Pier Drilling	10 days	Tue 10/10/23	Mon 10/23/23	65	67
67		Electrical Rough-In	15 days	Tue 10/24/23	Mon 11/13/23	66	68
68		Plumbing Rough-In	5 days	Tue 11/14/23	Mon 11/20/23	67	69
69		Concrete Foundation	30 days	Tue 11/21/23	Mon 01/01/24	68	70
70		Pre-Eng Metal Building	20 days	Tue 01/02/24	Mon 01/29/24	69	71
71		Masonry	40 days	Tue 01/30/24	Mon 03/25/24	70	72
72		Misc. Steel Mezzanine	15 days	Tue 03/26/24	Mon 04/15/24	71	73
73		Framing/Carpentry	30 days	Tue 04/16/24	Mon 05/27/24	72	74
74		Drywall / Tape/Float/Texture	15 days	Tue 05/28/24	Mon 06/17/24	73	75

Project: Wild Horse Ranch WW
Date: Wed 02/08/23

Task

Split

Milestone

Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

Critical

Critical Split

Progress

Manual Progress

Page 2

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Successors	Timeline															
								2023	2024				2025				2026						
								Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	
75		Doors	5 days	Tue 06/18/24	Mon 06/24/24	74	76																
76		Windows	5 days	Tue 06/25/24	Mon 07/01/24	75	77																
77		Painting	15 days	Tue 07/02/24	Mon 07/22/24	76	78,82																
78		Flooring	15 days	Tue 07/23/24	Mon 08/12/24	77	79																
79		Casework	5 days	Tue 08/13/24	Mon 08/19/24	78	80																
80		Plumbing Finish-Out	5 days	Tue 08/20/24	Mon 08/26/24	79	81																
81		Arch Specialties	30 days	Tue 08/27/24	Mon 10/07/24	80	171																
82		Electrical	120 days	Tue 07/23/24	Mon 01/06/25	77	156,171																
83		Filter Complex	330 days	Tue 07/30/24	Mon 11/03/25																		
84		Relocate Exist Filters	10 days	Tue 07/30/24	Mon 08/12/24	47	85																
85		Excavation Safety	10 days	Tue 08/13/24	Mon 08/26/24	84	86																
86		Machine Excavation	15 days	Tue 08/27/24	Mon 09/16/24	85	87																
87		Select Fill Under Structure	15 days	Tue 09/17/24	Mon 10/07/24	86	88																
88		Concrete Structure	180 days	Tue 10/08/24	Mon 06/16/25	87	89,91,163,166																
89		Mechanical Install	60 days	Tue 06/17/25	Mon 09/08/25	88,12,13	90																
90		Piping / Valves	30 days	Tue 09/09/25	Mon 10/20/25	89	145,169																
91		Electrical	100 days	Tue 06/17/25	Mon 11/03/25	88	169																
92		Sludge Holding Tank	160 days	Tue 07/02/24	Mon 02/10/25																		
93		Machine Excavation	10 days	Tue 07/02/24	Mon 07/15/24	40	94																
94		Select Fill Under Structure	10 days	Tue 07/16/24	Mon 07/29/24	93	95																
95		Concrete Structure	80 days	Tue 07/30/24	Mon 11/18/24	94	96,98																
96		Mechanical Install	20 days	Tue 11/19/24	Mon 12/16/24	95,14,15	97																
97		Piping/Valves	10 days	Tue 12/17/24	Mon 12/30/24	96	169																
98		Electrical	60 days	Tue 11/19/24	Mon 02/10/25	95	169																
99		RAS Splitter Box	60 days	Tue 02/20/24	Mon 05/13/24																		
100		Machine Excavation	5 days	Tue 02/20/24	Mon 02/26/24	31	101																
101		Select Fill Under Structure	5 days	Tue 02/27/24	Mon 03/04/24	100	102																
102		Concrete Structure	30 days	Tue 03/05/24	Mon 04/15/24	101	103,105,107,164																
103		Mechanical Install	10 days	Tue 04/16/24	Mon 04/29/24	102,9	104																
104		Piping/Valves	10 days	Tue 04/30/24	Mon 05/13/24	103	169																
105		Electrical	20 days	Tue 04/16/24	Mon 05/13/24	102	169																
106		WAS Pump Station	60 days	Tue 04/16/24	Mon 07/08/24																		
107		Machine Excavation	5 days	Tue 04/16/24	Mon 04/22/24	102	108																
108		Select Fill Under Structure	5 days	Tue 04/23/24	Mon 04/29/24	107	109																
109		Concrete Structure	30 days	Tue 04/30/24	Mon 06/10/24	108	110,112,114,164																
110		Mechanical Install (Relocate)	10 days	Tue 06/11/24	Mon 06/24/24	109	111																
111		Piping/Valves	10 days	Tue 06/25/24	Mon 07/08/24	110	169																

Project: Wild Horse Ranch WW

Date: Wed 02/08/23

Task

Split

Milestone

Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

Critical

Critical Split

Progress

Manual Progress

Page 3

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Successors																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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112		Electrical	20 days	Tue 06/11/24	Mon 07/08/24	109	169																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

Project: Wild Horse Ranch WW
Date: Wed 02/08/23

Task

Split

Milestone

Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

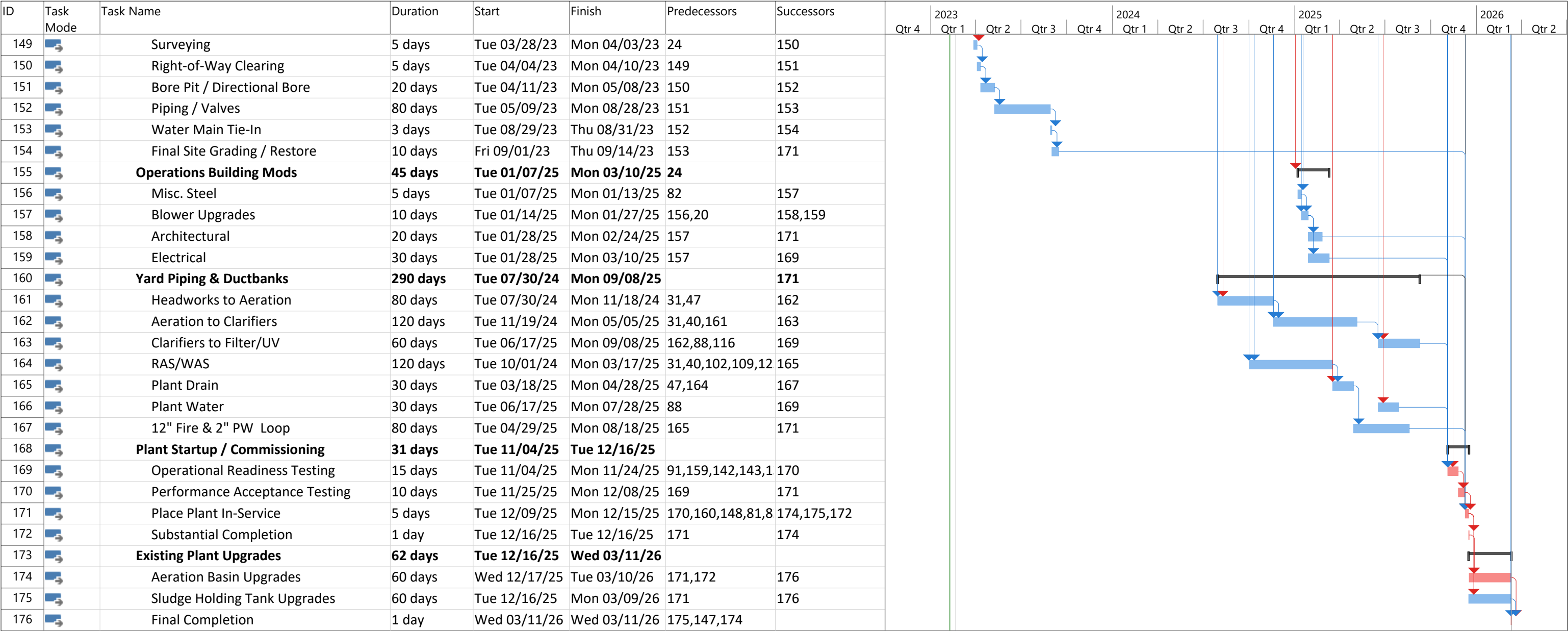
Deadline

Critical

Critical Split

Progress

Manual Progress



Project: Wild Horse Ranch WW
Date: Wed 02/08/23

Task

Split

Milestone

Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

Critical

Critical Split

Progress

Manual Progress

ATTACHMENT 12
TRANSMITTAL LETTER

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Erin Chancellor, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 21, 2023

Danny M. Hurtado, P.E.
Carollo Engineers, Inc.
8911 Capital of Texas Highway North, Suite 2200
Austin, Texas 78759

Re: City of Austin
Wild Horse Ranch Wastewater Treatment Plant Expansion
Permit No. WQ0010543-013
WWPR Log No. 0822/119
CN600135198, RN103014577
Travis County

Dear Mr. Hurtado:

On August 29, 2022, TCEQ received the project summary transmittal letter dated August 24, 2022, which provided the details of an expansion project for the City of Austin's Wild Horse Ranch wastewater treatment plant in Travis County, Texas. The current expansion project will expand to the plant to a treatable average daily flow (ADF) of 2.25 MGD from the current 0.75 MGD, and to have a treatable peak daily flow of 9.0 MGD. The 2.25 MGD represents the current permit's final flow phase. The Wild Horse Ranch wastewater plant is regulated by Water Quality permit WQ0010543013 which contains effluent concentration limits which the plant must meet for the 2.25 MGD ADF flow phase of 5 mg/l of CBOD₅, 5 mg/l for TSS, 2.0 mg/l of NH₃-N, 0.50 mg/l of total phosphorus, and 120 cfu/100 ml of E.Coli while maintaining a minimum dissolved oxygen concentration of 5.0 mg/l. The details of the project's scope of work efforts are listed below.

The rules which regulate the design, installation and testing of domestic wastewater projects are found in 30 TAC, Chapter 217, of the Texas Commission on Environmental Quality (TCEQ) rules titled, Design Criteria for Wastewater Systems.

The in-scope work efforts for this plant expansion project consist of the following work items:

- Existing onsite lift station
 - Using the current 20 ft. diameter, 31 ft. deep lift station structure
 - Replacing the submersible lift station pumps
 - Removing 3 -1,100 gpm pumps
 - Installing 3- 2,200 gpm pumps
 - Installing 2 jockey pumps
 - Upgraded firm pumping capacity to 9.0 MGD
 - Replacing and upgrading access hatches, internal piping and valves
- Decommissioning the existing headworks structure

Project's scope of work continued:

- Constructing a new headwork structure and equipment, 38 ft. x 60 ft.
 - Installing new fine screens
 - Installing a new screenings washer press
 - Installing a new grit removal unit and spiral screw grit washing units
 - 2 screen channels and 1 passive bypass channel
- Installing headworks and lift station odor control
 - Single stage bio-trickling filter (15 seconds retention time)
 - Separate lift station and headworks odor control units
- Aeration Basins
 - 2 existing basins; 95 ft. x 30 ft. x 16 ft., 45,600 ft³ volume each
 - Constructing 2 new basins with same dimensions
 - Partitions added to existing aeration basins
 - All 4 aeration basins to be portioned as follows:
 - Zone 1 Pre-anoxic zone - 34,100 gallons (4,559 ft³)
 - Zone 2 Anaerobic Zone - 34,100 gallons (4,559 ft³)
 - Zone 3 Anaerobic/Anoxic Zone - 34,100 gallons (4,559 ft³)
 - Zone 4 Anoxic Zone - 34,100 gallons (4,559 ft³)
 - Zone 5 Aerobic Zone - 102,300 gallons (13,676 ft³)
 - Zone 6 Aerobic Zone - 102,300 gallons (13,676 ft³)
 - Total aeration volume of 109,408 ft³
 - Fine bubble diffusers in all aeration basins
 - Mixers in all basins
 - New mixed liquor return lines
- Secondary clarifiers
 - 1 existing 60 ft. diameter clarifier, 15.17 ft. SWD
 - Construct 2 new 60 ft. secondary clarifiers, 15.17 ft. SWD
- Blowers
 - 3 existing blowers (to be decommissioned)
 - B1 75 HP, 750 scfm
 - B2 and B3 each 150 HP, 2200 scfm
 - Installing 3 new 150 HP, 2,050 scfm single stage centrifugal blowers
 - Supplying peak demand of 4,070 scfm
 - Use of single stage centrifugal blowers with turndown by inlet guide vanes and outlet diffusers
- Chemical polishing using aluminum sulfate ($\text{Al}_2(\text{SO}_4)_3$) for phosphorus removal
 - Possible feed points
 - Aeration basin's effluent basin (4 basins)
 - Clarifier splitter box
- Construction of a new RAS pump station and RAS flow splitter box
- Construction of a new waste activated sludge (WAS) pump station
- Construction of a new mixed liquor flow splitter box
- Construction of two new scum pump wet wells
- Decommissioning the existing Infilco automatic backwash filters

Project's scope of work continued:

- Construction of new filter system
 - Structure to house accommodate 3 12-disk filter unit
 - Installing 2 -12 disk AquaDisk units (previously used as temporary filter system at South Austin Regional during
 - Total filter able capacity of 12 MGD
- Construct a new in channel UV disinfection system
 - Single channel
 - Design firm treatment capacity is 9.0 MGD
 - Replacing the 3 existing UV modules
 - Installation of 5 new low pressure, HO UV lamp modules
 - 4 UV banks (3 duty, 1 standby)
 - 12 lamps per bank
 - 65% transmittance
 - Design dosage of 17 millijoules per cubic centimeter
- Solids handling
 - Construction of a two-stage solids storage
 - Sludge holding tank No 1-initial sludge storage, sized for 1.5 days, 100,700 gals.
 - WAS pumped from sludge holding tank 1 to thickening facility
 - Thickened sludge stored in sludge holding tank 2, 51,400 gallons
 - 2 rotary lobe sludge pumps (1 duty, 1 standby)
 - Thickened sludge hauled to Hornsby Bend Biosolids Management facility
 - Polymer addition
 - Installation of 3 blowers (2 duty, 1 standby)
 - 2 443 scfm
 - 1 206 scfm
 - Fine bubble diffusers in sludge holding tank
- Construction of new plant water pump station
- Construction new plant drain pump station
- Construction of a new administration building
- Construction of new electrical substation
- Plant SCADA system
- Construction of stepped cascade reaeration outfall

The TCEQ review of the submitted plans, summary transmittal letter, and engineering report seems to indicate that the expanded plant design meets at least the minimum requirements of 30 TAC Chapter 217: Design Criteria for Wastewater Treatment. Given the result of the TCEQ review, the project as relayed in the submitted documentation for the plant expansion to an ADF of 2.25 MGD with a corresponding 9.0 MGD PDF is conditionally approved for completion. The conditions of this approval are:

- **sufficient back up power be placed to meet the requirements of 30 TAC Chapter 217.36.**

TCEQ does have a concern with the relayed organic loading to the plant; 190-220 mg/l. These influent concentrations are considerably lower than the normal values TCEQ has seen throughout the state. If these values are from testing of the current flows to the existing Wildhorse Plant, TCEQ understands that these are

Danny M. Hurtado, P.E.

Page 4

February 21, 2023

probably representative. However, given the expected flow from the north with the planned decommissioning of and routing of flow to the Wild Horse Ranch plant from the City of Austin Dessau plant, and all the new construction with the latest water conservation devices in the areas surrounding the Wild Horse Ranch facility TCEQ expects the organic loading concentration to increase. An increase in organic loading to this expanded plant may require additional aeration basin resource to ensure compliance with permitted effluent limits.

You must keep certain materials on file for the life of the project and provide them to TCEQ upon request. These materials include an engineering report, test results, a summary transmittal letter, and the final version of the project plans and specifications. These materials shall be prepared and sealed by a Professional Engineer licensed in the State of Texas and must show substantial compliance with Chapter 217. All plans and specifications must conform to any waste discharge requirements authorized in a permit by the TCEQ. Certain specific items which shall be addressed in the engineering report are discussed in §217.10. Additionally, the engineering report must include all constants, graphs, equations, and calculations needed to show substantial compliance with Chapter 217.

No variances of any 30 TAC Chapter 217 requirements were requested or granted as part of this project review. If in the future, any variances from the Chapter 217 requirements are desired for the project, each variance must be requested in writing by the design engineer. Then, the TCEQ will consider granting a written approval to the variance from the rules for the specific project and the specific circumstances.

Within 60 days of the completion of construction, an appointed engineer shall notify both the Wastewater Permits Section of the TCEQ and the appropriate Region Office of the date of completion. The engineer shall also provide written certification that all construction, materials, and equipment were substantially in accordance with the approved project, the rules of the TCEQ, and any change orders filed with the TCEQ. All notifications, certifications, and change orders must include the signed and dated seal of a Professional Engineer licensed in the State of Texas.

Please be reminded of 30 TAC §217.7(a) of the rules which states, "Approval given by the executive director or other authorized review authority does not relieve an owner of any liability or responsibility with respect to designing, constructing, or operating a collection system or treatment facility in accordance with applicable commission rules and the associated wastewater permit".

Danny M. Hurtado, P.E.
Page 5
February 21, 2023

If you have any questions, or if we can be of any further assistance, please call me at (512) 239-1372.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul A. Brochi", with a stylized flourish at the end.

Paul A. Brochi, P.E.
Wastewater Permits Section (MC 148)
Water Quality Division
Texas Commission on Environmental Quality

Cc: Ms. Tammy West, Wastewater Regulatory Manager, Austin Water
PAB/tc

bcc: TCEQ, Region 11 Office

ATTACHMENT 13
OTHER REQUIREMENTS

OTHER REQUIREMENTS

1. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations, and, in particular, 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.

This Category C facility must be operated by a chief operator or an operator holding a Category C license or higher in the Interim I phase. This Category B facility must be operated by a chief operator or an operator holding a Category B license or higher in the Interim II and Final phases. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift that does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.

2. The facility is not located in the Coastal Management Program boundary.
3. There is no mixing zone established for this discharge to an intermittent stream. Acute toxic criteria apply at the point of discharge.
4. The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC § 309.13(e).
5. The permittee shall provide facilities for the protection of its wastewater treatment facility from a 100-year flood.
6. In accordance with 30 TAC § 319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Wastewater Permitting Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, daily may be reduced to 5/week in all three phases. **A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater Permitting Section (MC 148).** The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.
7. Prior to construction of the Interim II and Final phase treatment facilities, the permittee shall submit to the TCEQ Wastewater Permitting Section (MC 148) a summary transmittal letter in accordance with the requirements in 30 TAC § 217.6(d). If requested by the

Wastewater Permitting Section, the permittee shall submit plans, specifications, and a final engineering design report which comply with 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems. The permittee shall clearly show how the treatment system will meet the effluent limitations required on Page 2a and 2b of this permit. A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.

8. The permittee shall notify the TCEQ Regional Office (MC Region 11) and the Applications Review and Processing Team (MC 148) of the Water Quality Division, in writing at least forty-five (45) days prior to the completion of the Interim II and Final facilities on Notification of Completion Form 20007.

ATTACHMENT 14
LABORATORY ANALYSIS

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

Austin Water Laboratory-Environmental Analytical Services

7113 FM 9696

Austin, TX 78724

Pollutant Analysis of Treated Effluent

CBOD SM 5210 B

Horizon	Analyte			
Sample Nbr.	Collect Date	(Abbrev.)	Final Result	Units
48443301	08/08/2023	CBOD	<2	mg/L
48527001	08/14/2023	CBOD	<2	mg/L
48640601	08/21/2023	CBOD	<2	mg/L
48739001	08/28/2023	CBOD	<2	mg/L
48853501	09/05/2023	CBOD	<2	mg/L
48961701	09/11/2023	CBOD	<2	mg/L
49058401	09/18/2023	CBOD	<2	mg/L
49176701	09/25/2023	CBOD	<2	mg/L
49283701	10/02/2023	CBOD	<2	mg/L
49400301	10/09/2023	CBOD	<2	mg/L
49553901	10/17/2023	CBOD	<2	mg/L
49699401	10/25/2023	CBOD	<2	mg/L
49775501	10/30/2023	CBOD	<2	mg/L
49889101	11/06/2023	CBOD	<2	mg/L
50004701	11/13/2023	CBOD	<2	mg/L
50137301	11/21/2023	CBOD	<2	mg/L
50200801	11/27/2023	CBOD	<2	mg/L
50306901	12/04/2023	CBOD	<2	mg/L
50433901	12/12/2023	CBOD	<2	mg/L
50536701	12/18/2023	CBOD	<2	mg/L
50653501	12/27/2023	CBOD	<2	mg/L
50723801	01/02/2024	CBOD	<2	mg/L
50809301	01/07/2024	CBOD	<2	mg/L
50987501	01/18/2024	CBOD	<2	mg/L
51039001	01/22/2024	CBOD	<2	mg/L
51134701	01/29/2024	CBOD	<2	mg/L
51243901	02/05/2024	CBOD	<2	mg/L
51376801	02/13/2024	CBOD	<2	mg/L
51480301	02/20/2024	CBOD	<2	mg/L
51566601	02/26/2024	CBOD	<2	mg/L
51669401	03/04/2024	CBOD	<2	mg/L
51768701	03/11/2024	CBOD	<2	mg/L
51891301	03/19/2024	CBOD	<2	mg/L
52000001	03/25/2024	CBOD	<2	mg/L
52106801	03/31/2024	CBOD	<2	mg/L
52238201	04/09/2024	CBOD	<2	mg/L
52337701	04/15/2024	CBOD	<2	mg/L
52460901	04/23/2024	CBOD	<2	mg/L

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

Austin Water Laboratory-Environmental Analytical Services

7113 FM 9696

Austin, TX 78724

Pollutant Analysis of Treated Effluent

CBOD SM 5210 B

Horizon	Analyte			
Sample Nbr.	Collect Date	(Abbrev.)	Final Result	Units
52553001	04/29/2024	CBOD	<2	mg/L
52645001	05/06/2024	CBOD	<2	mg/L
52774301	05/14/2024	CBOD	<2	mg/L
52865301	05/20/2024	CBOD	<2	mg/L
52996501	05/29/2024	CBOD	<2	mg/L
53062101	06/03/2024	CBOD	<2	mg/L
53238301	06/13/2024	CBOD	<2	mg/L
53291901	06/17/2024	CBOD	<2	mg/L
53408501	06/25/2024	CBOD	<2	mg/L
53501501	07/01/2024	CBOD	<2	mg/L
53650901	07/10/2024	CBOD	<2	mg/L

Average Concentration= <2

Maximum= <2

of samples= 49

Sample Type= Composite

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

Austin Water Laboratory-Environmental Analytical Services

7113 FM 969 Austin, TX 78724

Pollutant Analysis of Treated Effluent

Total Suspended Solids SM 2540 D

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
48443301	08/08/2023	TSS	<0.50	mg/L
48527001	08/14/2023	TSS	<0.50	mg/L
48640601	08/21/2023	TSS	<0.50	mg/L
48739001	08/28/2023	TSS	<0.50	mg/L
48853501	09/05/2023	TSS	<0.50	mg/L
48961701	09/11/2023	TSS	0.5	mg/L
49058401	09/18/2023	TSS	<0.50	mg/L
49176701	09/25/2023	TSS	<0.50	mg/L
49283701	10/02/2023	TSS	<0.50	mg/L
49400301	10/09/2023	TSS	0.5	mg/L
49553901	10/17/2023	TSS	0.7	mg/L
49699401	10/25/2023	TSS	<0.50	mg/L
49775501	10/30/2023	TSS	0.5	mg/L
49889101	11/06/2023	TSS	0.6	mg/L
50004701	11/13/2023	TSS	0.7	mg/L
50137301	11/21/2023	TSS	0.5	mg/L
50200801	11/27/2023	TSS	<0.50	mg/L
50306901	12/04/2023	TSS	0.5	mg/L
50433901	12/12/2023	TSS	<0.50	mg/L
50536701	12/18/2023	TSS	0.5	mg/L
50653501	12/27/2023	TSS	0.5	mg/L
50723801	01/02/2024	TSS	0.6	mg/L
50809301	01/07/2024	TSS	<0.50	mg/L
50987501	01/18/2024	TSS	1.2	mg/L
51039001	01/22/2024	TSS	0.7	mg/L
51134701	01/29/2024	TSS	1.2	mg/L
51243901	02/05/2024	TSS	<0.50	mg/L
51376801	02/13/2024	TSS	0.8	mg/L
51480301	02/20/2024	TSS	0.9	mg/L
51566601	02/26/2024	TSS	<0.50	mg/L
51669401	03/04/2024	TSS	3.5	mg/L
51768701	03/11/2024	TSS	0.7	mg/L
51891301	03/19/2024	TSS	1.2	mg/L
52000001	03/25/2024	TSS	0.8	mg/L
52106801	03/31/2024	TSS	1.0	mg/L
52238201	04/09/2024	TSS	0.7	mg/L
52337701	04/15/2024	TSS	0.9	mg/L
52460901	04/23/2024	TSS	0.8	mg/L

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

Austin Water Laboratory-Environmental Analytical Services

7113 FM 969 Austin, TX 78724

Pollutant Analysis of Treated Effluent

Total Suspended Solids SM 2540 D

Horizon Sample Nbr.	Collect Date	Analyte	Final	Units
		(Abbrev.)	Result	
52553001	04/29/2024	TSS	2.6	mg/L
52645001	05/06/2024	TSS	1.1	mg/L
52774301	05/14/2024	TSS	<0.50	mg/L
52865301	05/20/2024	TSS	1.0	mg/L
52996501	05/29/2024	TSS	1.3	mg/L
53062101	06/03/2024	TSS	<0.50	mg/L
53238301	06/13/2024	TSS	<0.50	mg/L
53291901	06/17/2024	TSS	0.7	mg/L
53408501	06/25/2024	TSS	<0.50	mg/L
53501501	07/01/2024	TSS	7.4	mg/L
53650901	07/10/2024	TSS	0.8	mg/L

Average Concentration= 0.91

Maximum= 7.4

of samples= 49

Sample Type= Composite

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
Ammonia SM 4500-NH3 D

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
48443301	08/08/2023	NH3-N	0.11	mg/L
48527001	08/14/2023	NH3-N	<0.1	mg/L
48640601	08/21/2023	NH3-N	0.19	mg/L
48739001	08/28/2023	NH3-N	0.90	mg/L
48853501	09/05/2023	NH3-N	<0.1	mg/L
48961701	09/11/2023	NH3-N	<0.1	mg/L
49058401	09/18/2023	NH3-N	<0.1	mg/L
49176701	09/25/2023	NH3-N	<0.1	mg/L
49283701	10/02/2023	NH3-N	<0.1	mg/L
49400301	10/09/2023	NH3-N	<0.1	mg/L
49553901	10/17/2023	NH3-N	0.10	mg/L
49699401	10/25/2023	NH3-N	<0.1	mg/L
49775501	10/30/2023	NH3-N	0.11	mg/L
49889101	11/06/2023	NH3-N	0.18	mg/L
50004701	11/13/2023	NH3-N	<0.1	mg/L
50137301	11/21/2023	NH3-N	<0.1	mg/L
50200801	11/27/2023	NH3-N	0.18	mg/L
50306901	12/04/2023	NH3-N	0.21	mg/L
50433901	12/12/2023	NH3-N	0.18	mg/L
50536701	12/18/2023	NH3-N	0.28	mg/L
50653501	12/27/2023	NH3-N	0.20	mg/L
50723801	01/02/2024	NH3-N	0.45	mg/L
50809301	01/07/2024	NH3-N	0.27	mg/L
50987501	01/18/2024	NH3-N	0.19	mg/L
51039001	01/22/2024	NH3-N	0.13	mg/L
51134701	01/29/2024	NH3-N	0.16	mg/L
51243901	02/05/2024	NH3-N	0.57	mg/L
51376801	02/13/2024	NH3-N	0.16	mg/L
51480301	02/20/2024	NH3-N	0.12	mg/L
51566601	02/26/2024	NH3-N	0.26	mg/L
51669401	03/04/2024	NH3-N	0.13	mg/L
51768701	03/11/2024	NH3-N	<0.1	mg/L
51891301	03/19/2024	NH3-N	0.12	mg/L
52000001	03/25/2024	NH3-N	<0.1	mg/L
52106801	03/31/2024	NH3-N	0.14	mg/L
52238201	04/09/2024	NH3-N	0.18	mg/L
52337701	04/15/2024	NH3-N	0.25	mg/L

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Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
Ammonia SM 4500-NH3 D

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
52460901	04/23/2024	NH3-N	0.16	mg/L
52553001	04/29/2024	NH3-N	0.12	mg/L
52645001	05/06/2024	NH3-N	<0.1	mg/L
52774301	05/14/2024	NH3-N	0.10	mg/L
52865301	05/20/2024	NH3-N	<0.1	mg/L
52996501	05/29/2024	NH3-N	0.16	mg/L
53062101	06/03/2024	NH3-N	0.12	mg/L
53238301	06/13/2024	NH3-N	0.12	mg/L
53291901	06/17/2024	NH3-N	0.14	mg/L
53408501	06/25/2024	NH3-N	<0.1	mg/L
53501501	07/01/2024	NH3-N	0.12	mg/L
53650901	07/10/2024	NH3-N	0.12	mg/L

Average Concentration= 0.17

Maximum= 0.90

of samples= 49

Sample Type= Composite

City of Austin - Austin Water
Wild Horse Ranch WWTP
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Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
Nitrate SM 4500-NO3 D

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
52645001	05/06/2024	NO3-N	27.6	mg/L
52774301	05/14/2024	NO3-N	37.3	mg/L
52865301	05/20/2024	NO3-N	27.2	mg/L
52996501	05/29/2024	NO3-N	30	mg/L

Average Concentration= 30.5

Maximum= 37.3

of samples= 4

Sample Type= Composite

City of Austin - Austin Water
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Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724

Pollutant Analysis of Treated Effluent

TKN EPA 351.2

Horizon Sample		Analyte	Final	
Nbr.	Collect Date	(Abbrev.)	Result	Units
52645001	05/06/2024	TKN	1.19	mg/L
52774301	05/14/2024	TKN	1.01	mg/L
52865301	05/20/2024	TKN	1.08	mg/L
52996501	05/29/2024	TKN	1.27	mg/L
53062101	06/03/2024	TKN	1.07	mg/L

Average Concentration= 1.12

Maximum= 1.27

of samples= 5

Sample Type= Composite

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Wild Horse Ranch WWTP
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Austin Water Laboratory-Environmental Analytical Services
7113 FM969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
Sulfate EPA Method 300.0

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Unit
52645001	05/06/2024	SO4	146	mg/L
52774301	05/14/2024	SO4	138	mg/L
52865301	05/20/2024	SO4	147	mg/L
52996501	05/29/2024	SO4	121	mg/L

Average Concentration= 138

Maximum= 147

of samples= 4

Sample Type= Composite

City of Austin - Austin Water
Wild Horse Ranch WWTP
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Application for Domestic WWTP

Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
Chloride EPA Method 300.0

Horizon Sample		Analyte	Final	
Nbr.	Collect Date	(Abbrev.)	Result	Units
52645001	05/06/2024	Chloride	97.4	mg/L
52774301	05/14/2024	Chloride	110	mg/L
52865301	05/20/2024	Chloride	108	mg/L
52996501	05/29/2024	Chloride	114	mg/L

Average Concentration= 107.4

Maximum= 114

of samples= 4

Sample Type= Composite

City of Austin - Austin Water
Wild Horse Ranch WWTP
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Application for Domestic WWTP

Austin Water Laboratory-Environmental Analytical Services
7113 FM969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
Phosphorus (T) SM 4500-P BH

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
48443301	08/08/2023	TP	0.72	mg/L
48527001	08/14/2023	TP	0.62	mg/L
48640601	08/21/2023	TP	0.69	mg/L
48739001	08/28/2023	TP	0.78	mg/L
48853501	09/05/2023	TP	0.85	mg/L
48961701	09/11/2023	TP	1.03	mg/L
49058401	09/18/2023	TP	0.71	mg/L
49176701	09/25/2023	TP	0.69	mg/L
49283701	10/02/2023	TP	0.73	mg/L
49400301	10/09/2023	TP	0.51	mg/L
49553901	10/17/2023	TP	0.79	mg/L
49699401	10/25/2023	TP	0.88	mg/L
49775501	10/30/2023	TP	0.19	mg/L
49889101	11/06/2023	TP	0.72	mg/L
50004701	11/13/2023	TP	0.58	mg/L
50137301	11/21/2023	TP	0.72	mg/L
50200801	11/27/2023	TP	0.7	mg/L
50306901	12/04/2023	TP	0.77	mg/L
50433901	12/12/2023	TP	1.07	mg/L
50536701	12/18/2023	TP	0.51	mg/L
50653501	12/27/2023	TP	0.19	mg/L
50723801	01/02/2024	TP	0.25	mg/L
50809301	01/07/2024	TP	0.28	mg/L
50987501	01/18/2024	TP	0.86	mg/L
51039001	01/22/2024	TP	1.03	mg/L
51134701	01/29/2024	TP	0.47	mg/L
51243901	02/05/2024	TP	0.23	mg/L
51376801	02/13/2024	TP	0.84	mg/L
51480301	02/20/2024	TP	0.79	mg/L
51566601	02/26/2024	TP	0.78	mg/L
51669401	03/04/2024	TP	0.84	mg/L
51768701	03/11/2024	TP	0.67	mg/L
51891301	03/19/2024	TP	1.13	mg/L
52000001	03/25/2024	TP	0.46	mg/L
52106801	03/31/2024	TP	0.56	mg/L
52238201	04/09/2024	TP	0.67	mg/L

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Austin Water Laboratory-Environmental Analytical Services
7113 FM969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
Phosphorus (T) SM 4500-P BH

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
52337701	04/15/2024	TP	0.69	mg/L
52460901	04/23/2024	TP	1.06	mg/L
52553001	04/29/2024	TP	1.01	mg/L
52645001	05/06/2024	TP	0.26	mg/L
52774301	05/14/2024	TP	0.72	mg/L
52865301	05/20/2024	TP	0.64	mg/L
52996501	05/29/2024	TP	0.94	mg/L
53062101	06/03/2024	TP	0.83	mg/L
53238301	06/13/2024	TP	1	mg/L
53291901	06/17/2024	TP	0.86	mg/L
53408501	06/25/2024	TP	0.32	mg/L
53501501	07/01/2024	TP	0.57	mg/L
53650901	07/10/2024	TP	0.19	mg/L

Average Concentration= 0.68

Maximum= 1.13

of samples= 49

Sample Type= Composite

City of Austin - Austin Water
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Pollutant Analysis of Treated Effluent
Field Measurements of pH

Date	Analyte	Result	Collection Time	Analysis Time
8/1/2023	pH	7.5	12:25	12:35
8/2/2023	pH	7.6	11:55	12:05
8/3/2023	pH	7.7	13:20	13:30
8/4/2023	pH	7.4	13:40	13:50
8/5/2023	pH	7.5	8:30	8:40
8/6/2023	pH	7.4	8:45	8:55
8/7/2023	pH	7.1	6:45	6:55
8/8/2023	pH	7.2	14:20	14:30
8/9/2023	pH	7.3	13:30	13:40
8/10/2023	pH	7.6	12:15	12:25
8/11/2023	pH	7.6	13:15	13:25
8/12/2023	pH	7.5	6:20	6:30
8/13/2023	pH	7.2	6:00	6:10
8/14/2023	pH	7.7	12:00	12:15
8/15/2023	pH	7.7	12:15	12:30
8/16/2023	pH	7.6	12:00	12:15
8/17/2023	pH	7.4	12:30	12:40
8/18/2023	pH	7.6	12:30	12:40
8/19/2023	pH	7.5	7:00	7:10
8/20/2023	pH	7.6	7:30	7:40
8/21/2023	pH	7.6	12:30	12:45
8/22/2023	pH	7.5	12:15	12:30
8/23/2023	pH	7.7	12:15	12:30
8/24/2023	pH	7.6	12:30	12:45
8/25/2023	pH	7.7	12:15	12:30
8/26/2023	pH	7.3	7:45	7:55
8/27/2023	pH	7.4	8:30	8:40
8/28/2023	pH	7.8	12:15	12:30
8/29/2023	pH	7.8	12:30	12:45
8/30/2023	pH	7.8	12:30	12:45
8/31/2023	pH	7.7	7:50	7:58
9/1/2023	pH	7.6	12:55	13:05
9/2/2023	pH	7.5	5:40	5:50
9/3/2023	pH	7.7	5:50	6:00
9/4/2023	pH	7.7	7:50	7:58
9/5/2023	pH	7.5	12:00	12:05
9/6/2023	pH	7.5	12:00	12:05
9/7/2023	pH	7.5	12:00	12:05
9/8/2023	pH	7.7	11:00	11:05
9/9/2023	pH	7.6	7:30	7:40

City of Austin - Austin Water
Wild Horse Ranch WWTP
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Pollutant Analysis of Treated Effluent
Field Measurements of pH

Date	Analyte	Result	Collection Time	Analysis Time
9/10/2023	pH	7.6	7:30	7:40
9/11/2023	pH	7.5	7:30	7:35
9/12/2023	pH	7.4	11:00	11:05
9/13/2023	pH	7.5	12:00	12:05
9/14/2023	pH	7.6	7:50	7:58
9/15/2023	pH	7.6	12:15	12:20
9/16/2023	pH	7.6	6:50	7:00
9/17/2023	pH	7.5	7:40	7:50
9/18/2023	pH	8	12:25	12:35
9/19/2023	pH	7.6	11:00	11:05
9/20/2023	pH	7.5	12:10	12:15
9/21/2023	pH	7.6	13:15	13:25
9/22/2023	pH	7.7	12:00	12:05
9/23/2023	pH	7.6	7:50	7:58
9/24/2023	pH	7.7	6:05	6:10
9/25/2023	pH	7.6	12:00	12:05
9/26/2023	pH	7.7	13:20	13:30
9/27/2023	pH	7.5	12:00	12:05
9/28/2023	pH	7.6	11:30	11:35
9/29/2023	pH	7.5	6:50	6:55
9/30/2023	pH	7.5	6:30	6:40
10/1/2023	pH	7.6	5:40	5:50
10/2/2023	pH	7.5	1:45	1:55
10/3/2023	pH	7.6	12:20	12:30
10/4/2023	pH	7.7	12:25	12:35
10/5/2023	pH	7.7	13:30	13:35
10/6/2023	pH	7.5	1:00	1:10
10/7/2023	pH	7.6	6:00	6:10
10/8/2023	pH	7.7	6:45	6:55
10/9/2023	pH	7.7	12:50	13:00
10/10/2023	pH	7.6	12:30	12:40
10/11/2023	pH	7.5	10:00	10:10
10/12/2023	pH	7.7	9:00	9:10
10/13/2023	pH	7.5	10:00	10:10
10/14/2023	pH	7.6	12:30	12:40
10/15/2023	pH	7.6	8:10	8:20
10/16/2023	pH	7.4	5:45	5:55
10/17/2023	pH	7.5	5:45	5:55
10/18/2023	pH	7.6	6:00	6:10
10/19/2023	pH	7.7	5:45	5:55

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Pollutant Analysis of Treated Effluent
Field Measurements of pH

Date	Analyte	Result	Collection Time	Analysis Time
10/20/2023	pH	7.6	5:50	5:55
10/21/2023	pH	7.6	6:20	6:25
10/22/2023	pH	7.6	10:00	10:10
10/23/2023	pH	7.3	6:15	6:25
10/24/2023	pH	7.6	1:15	1:25
10/25/2023	pH	7.5	12:30	12:40
10/26/2023	pH	7.5	12:15	12:25
10/27/2023	pH	7.54	12:10	12:15
10/28/2023	pH	7.55	7:30	7:40
10/29/2023	pH	7.61	7:30	7:40
10/30/2023	pH	7.8	1:00	1:10
10/31/2023	pH	7.7	12:00	12:15
11/1/2023	pH	7.67	12:00	12:15
11/2/2023	pH	7.7	12:40	12:50
11/3/2023	pH	7.83	12:20	12:30
11/4/2023	pH	7.69	7:50	7:58
11/5/2023	pH	7.77	6:15	6:25
11/6/2023	pH	7.84	12:00	12:10
11/7/2023	pH	7.77	6:15	6:25
11/8/2023	pH	7.91	12:15	12:25
11/9/2023	pH	7.81	6:00	6:15
11/10/2023	pH	7.77	9:00	9:10
11/11/2023	pH	7.65	9:00	9:10
11/12/2023	pH	7.65	9:00	9:10
11/13/2023	pH	7.83	12:00	12:15
11/14/2023	pH	7.66	5:50	6:00
11/15/2023	pH	7.75	12:30	12:40
11/16/2023	pH	7.67	6:10	6:20
11/17/2023	pH	7.75	7:30	7:45
11/18/2023	pH	7.66	5:30	5:35
11/19/2023	pH	7.64	5:30	5:40
11/20/2023	pH	7.77	12:00	12:15
11/21/2023	pH	7.61	13:30	13:40
11/22/2023	pH	7.67	9:00	9:10
11/23/2023	pH	7.67	6:35	6:45
11/24/2023	pH	7.7	6:35	6:45
11/25/2023	pH	7.71	6:35	6:45
11/26/2023	pH	7.68	7:00	7:10
11/27/2023	pH	7.82	12:00	12:15
11/28/2023	pH	7.71	6:40	6:50

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Pollutant Analysis of Treated Effluent
Field Measurements of pH

Date	Analyte	Result	Collection Time	Analysis Time
11/29/2023	pH	7.77	12:30	12:40
11/30/2023	pH	7.68	7:05	7:15
12/1/2023	pH	7.71	12:00	12:15
12/2/2023	pH	7.64	6:20	6:30
12/3/2023	pH	7.67	6:15	6:25
12/4/2023	pH	7.82	12:20	12:30
12/5/2023	pH	7.84	7:00	7:10
12/6/2023	pH	7.78	11:30	11:40
12/7/2023	pH	7.76	7:30	7:40
12/8/2023	pH	7.71	1:00	1:10
12/9/2023	pH	7.61	8:40	8:50
12/10/2023	pH	7.73	8:40	8:50
12/11/2023	pH	7.55	12:00	12:15
12/12/2023	pH	7.29	8:30	8:40
12/13/2023	pH	7.53	12:00	12:15
12/14/2023	pH	7.57	9:00	9:10
12/15/2023	pH	7.52	7:30	7:40
12/16/2023	pH	7.67	9:05	9:15
12/17/2023	pH	7.73	9:10	9:20
12/18/2023	pH	7.47	1:00	1:10
12/19/2023	pH	7.47	6:50	7:00
12/20/2023	pH	7.45	12:30	12:40
12/21/2023	pH	7.51	7:00	7:05
12/22/2023	pH	7.7	7:00	7:10
12/23/2023	pH	7.75	9:00	9:10
12/24/2023	pH	7.77	9:30	9:40
12/25/2023	pH	7.73	6:50	7:00
12/26/2023	pH	7.74	7:00	7:10
12/27/2023	pH	7.71	1:00	1:10
12/28/2023	pH	7.74	6:00	6:10
12/29/2023	pH	7.75	7:15	7:25
12/30/2023	pH	7.74	6:40	6:50
12/31/2023	pH	7.72	6:20	6:30
1/1/2024	pH	7.73	6:45	6:55
1/2/2024	pH	7.77	7:20	7:30
1/3/2024	pH	7.88	7:30	7:40
1/4/2024	pH	7.76	7:20	7:30
1/5/2024	pH	7.85	12:00	12:15
1/6/2024	pH	7.74	8:00	8:10
1/7/2024	pH	7.79	8:15	8:20

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Pollutant Analysis of Treated Effluent
Field Measurements of pH

Date	Analyte	Result	Collection Time	Analysis Time
1/8/2024	pH	7.81	13:10	13:20
1/9/2024	pH	7.75	7:00	7:10
1/10/2024	pH	7.73	6:40	6:50
1/11/2024	pH	7.88	12:20	12:30
1/12/2024	pH	7.841	13:30	13:40
1/13/2024	pH	7.622	6:35	6:45
1/14/2024	pH	7.8	6:30	6:40
1/15/2024	pH	7.753	7:45	7:50
1/16/2024	pH	7.528	7:20	7:30
1/17/2024	pH	7.4	12:00	12:15
1/18/2024	pH	7.533	7:45	7:55
1/19/2024	pH	7.566	14:10	14:20
1/20/2024	pH	7.173	7:15	7:25
1/21/2024	pH	7.444	6:55	7:05
1/22/2024	pH	7.82	12:00	12:15
1/23/2024	pH	7.85	12:10	12:20
1/24/2024	pH	7.882	12:00	12:15
1/25/2024	pH	7.831	12:20	12:30
1/26/2024	pH	7.746	7:30	7:40
1/27/2024	pH	7.83	10:10	10:20
1/28/2024	pH	7.793	7:20	7:30
1/29/2024	pH	7.807	11:00	11:10
1/30/2024	pH	7.758	12:20	12:30
1/31/2024	pH	7.564	12:20	12:30
2/1/2024	pH	7.511	7:20	7:30
2/2/2024	pH	7.59	12:20	12:30
2/3/2024	pH	7.495	7:00	7:10
2/4/2024	pH	7.545	6:35	6:45
2/5/2024	pH	7.69	12:20	12:30
2/6/2024	pH	7.765	12:30	12:40
2/7/2024	pH	7.731	12:45	12:55
2/8/2024	pH	7.779	12:30	12:40
2/9/2024	pH	7.579	13:40	13:50
2/10/2024	pH	7.373	8:00	8:10
2/11/2024	pH	7.753	8:30	8:40
2/12/2024	pH	7.707	12:30	12:40
2/13/2024	pH	7.534	12:30	12:40
2/14/2024	pH	7.627	12:30	12:40
2/15/2024	pH	7.74	12:30	12:40
2/16/2024	pH	7.641	12:30	12:40

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Pollutant Analysis of Treated Effluent
Field Measurements of pH

Date	Analyte	Result	Collection Time	Analysis Time
2/17/2024	pH	7.655	9:00	9:05
2/18/2024	pH	7.652	9:00	9:05
2/19/2024	pH	7.759	11:50	12:00
2/20/2024	pH	7.763	12:30	12:40
2/21/2024	pH	7.705	12:30	12:40
2/22/2024	pH	7.658	12:30	12:40
2/23/2024	pH	7.735	12:30	12:40
2/24/2024	pH	7.596	12:30	12:40
2/25/2024	pH	7.564	6:25	6:35
2/26/2024	pH	7.758	12:30	12:40
2/27/2024	pH	7.632	12:30	12:40
2/28/2024	pH	7.705	12:30	12:40
2/29/2024	pH	7.714	12:30	12:40
3/1/2024	pH	7.705	12:30	12:40
3/2/2024	pH	7.586	9:35	9:40
3/3/2024	pH	7.655	10:00	10:05
3/4/2024	pH	7.693	13:50	14:00
3/5/2024	pH	7.534	6:40	6:50
3/6/2024	pH	7.725	13:40	13:50
3/7/2024	pH	7.578	6:25	6:35
3/8/2024	pH	7.694	9:00	9:10
3/9/2024	pH	7.61	6:30	6:40
3/10/2024	pH	7.613	6:25	6:35
3/11/2024	pH	7.615	12:00	12:10
3/12/2024	pH	7.583	7:00	7:10
3/13/2024	pH	7.617	10:00	10:10
3/14/2024	pH	7.866	7:00	7:05
3/15/2024	pH	7.754	7:00	7:05
3/16/2024	pH	7.56	9:00	9:10
3/17/2024	pH	7.426	8:30	8:40
3/18/2024	pH	7.024	10:00	10:10
3/19/2024	pH	7.276	10:00	10:10
3/20/2024	pH	7.483	10:00	10:10
3/21/2024	pH	7.726	12:05	12:15
3/22/2024	pH	7.663	12:10	12:20
3/23/2024	pH	7.528	10:00	10:10
3/24/2024	pH	7.722	10:00	10:10
3/25/2024	pH	7.92	7:00	7:10
3/26/2024	pH	7.867	7:30	7:40
3/27/2024	pH	7.613	7:25	7:30

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Pollutant Analysis of Treated Effluent
Field Measurements of pH

Date	Analyte	Result	Collection Time	Analysis Time
3/28/2024	pH	7.49	7:05	7:10
3/29/2024	pH	7.593	7:00	7:10
3/30/2024	pH	7.978	10:00	10:10
3/31/2024	pH	7.811	6:00	6:10
4/1/2024	pH	7.574	11:30	11:40
4/2/2024	pH	7.517	8:00	8:05
4/3/2024	pH	7.56	10:00	10:05
4/4/2024	pH	7.571	8:00	8:05
4/5/2024	pH	7.626	8:00	8:05
4/6/2024	pH	7.641	7:00	7:05
4/7/2024	pH	7.706	8:00	8:05
4/8/2024	pH	7.676	9:00	9:05
4/9/2024	pH	7.782	12:00	12:10
4/10/2024	pH	7.858	12:00	12:10
4/11/2024	pH	7.821	8:00	8:05
4/12/2024	pH	7.812	8:00	8:05
4/13/2024	pH	8.17	8:00	8:10
4/14/2024	pH	7.883	8:15	8:20
4/15/2024	pH	7.838	8:00	8:05
4/16/2024	pH	7.817	8:00	8:05
4/17/2024	pH	7.804	6:30	6:35
4/18/2024	pH	7.823	11:40	11:45
4/19/2024	pH	7.67	6:00	6:05
4/20/2024	pH	7.528	9:00	9:10
4/21/2024	pH	7.904	9:00	9:10
4/22/2024	pH	7.843	12:00	12:10
4/23/2024	pH	7.863	12:00	12:05
4/24/2024	pH	7.833	6:00	6:05
4/25/2024	pH	7.812	6:00	6:05
4/26/2024	pH	7.92	6:15	6:25
4/27/2024	pH	7.759	7:30	7:40
4/28/2024	pH	7.671	7:30	7:40
4/29/2024	pH	7.484	9:00	9:08
4/30/2024	pH	7.661	12:50	13:02
5/1/2024	pH	7.844	1:00	1:12
5/2/2024	pH	7.94	6:00	6:12
5/3/2024	pH	8.003	1:00	1:12
5/4/2024	pH	7.713	7:07	7:12
5/5/2024	pH	7.484	6:58	7:03
5/6/2024	pH	7.736	1:05	1:10

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Pollutant Analysis of Treated Effluent
Field Measurements of pH

Date	Analyte	Result	Collection Time	Analysis Time
5/7/2024	pH	7.734	7:05	7:15
5/8/2024	pH	7.712	1:00	1:05
5/9/2024	pH	7.674	7:10	7:15
5/10/2024	pH	7.749	12:30	12:34
5/11/2024	pH	7.972	7:00	7:05
5/12/2024	pH	8.011	7:00	7:05
5/13/2024	pH	7.755	6:55	7:00
5/14/2024	pH	7.689	8:00	8:07
5/15/2024	pH	7.77	1:00	1:05
5/16/2024	pH	7.756	6:39	6:50
5/17/2024	pH	7.805	12:53	13:00
5/18/2024	pH	7.649	7:00	7:05
5/19/2024	pH	7.757	7:00	7:05
5/20/2024	pH	7.8	12:48	12:55
5/21/2024	pH	7.744	7:13	7:20
5/22/2024	pH	7.814	12:51	12:58
5/23/2024	pH	7.844	6:35	6:40
5/24/2024	pH	7.804	7:00	7:05
5/25/2024	pH	7.761	8:00	8:10
5/26/2024	pH	7.895	7:45	7:55
5/27/2024	pH	7.82	8:15	8:25
5/28/2024	pH	7.828	8:30	8:35
5/29/2024	pH	7.692	1:00	1:05
5/30/2024	pH	7.742	7:05	7:09
5/31/2024	pH	7.703	12:40	12:45
6/1/2024	pH	7.805	7:00	7:10
6/2/2024	pH	7.802	7:00	7:10
6/3/2024	pH	7.823	12:25	12:30
6/4/2024	pH	7.672	6:45	6:50
6/5/2024	pH	7.725	12:55	13:01
6/6/2024	pH	7.696	11:45	11:50
6/7/2024	pH	7.502	11:00	11:05
6/8/2024	pH	7.553	7:10	7:20
6/9/2024	pH	7.465	6:35	6:45
6/10/2024	pH	7.358	6:20	6:27
6/11/2024	pH	7.294	6:36	6:45
6/12/2024	pH	7.597	6:40	6:48
6/13/2024	pH	7.679	6:38	6:45
6/14/2024	pH	7.713	6:15	6:25
6/15/2024	pH	7.921	8:05	8:10

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Field Measurements of pH

Date	Analyte	Result	Collection Time	Analysis Time
6/16/2024	pH	7.749	9:15	9:25
6/17/2024	pH	7.721	6:20	6:28
6/18/2024	pH	7.721	6:30	6:39
6/19/2024	pH	7.771	7:06	7:10
6/20/2024	pH	7.873	7:20	7:25
6/21/2024	pH	7.883	12:05	12:10
6/22/2024	pH	8.108	6:41	6:47
6/23/2024	pH	7.734	6:50	6:55
6/24/2024	pH	7.974	12:05	12:10
6/25/2024	pH	7.943	7:14	7:20
6/26/2024	pH	7.985	1:00	1:05
6/27/2024	pH	7.832	7:00	7:06
6/28/2024	pH	7.868	8:00	8:06
6/29/2024	pH	8.058	8:00	8:10
6/30/2024	pH	7.842	8:10	8:20
7/1/2024	pH	7.944	12:35	12:40
7/2/2024	pH	7.9	9:00	9:05
7/3/2024	pH	7.925	1:00	1:05
7/4/2024	pH	7.866	6:30	6:40
7/5/2024	pH	7.549	1:00	1:05
7/6/2024	pH	7.637	6:05	6:15
7/7/2024	pH	7.642	8:45	8:55
7/8/2024	pH	7.717	12:00	12:05
7/9/2024	pH	7.436	7:45	7:55
7/10/2024	pH	7.777	7:25	7:31
7/11/2024	pH	7.852	6:45	6:55
7/12/2024	pH	7.811	5:35	5:45
7/13/2024	pH	7.394	10:00	10:10
7/14/2024	pH	7.888	11:20	11:30
7/15/2024	pH	7.926	12:05	12:10
7/16/2024	pH	7.7	8:10	8:15
7/17/2024	pH	7.66	12:06	12:13
7/18/2024	pH	7.66	6:45	6:50
7/19/2024	pH	7.55	4:50	4:55
7/20/2024	pH	7.77	7:15	7:20
7/21/2024	pH	7.82	10:25	10:30
7/22/2024	pH	7.78	11:45	11:50
7/23/2024	pH	7.77	6:40	6:45
7/24/2024	pH	7.79	12:05	12:10
7/25/2024	pH	7.73	6:55	7:00

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Field Measurements of pH

Date	Analyte	Result	Collection Time	Analysis Time
7/26/2024	pH	7.72	6:05	6:10
7/27/2024	pH	7.74	10:10	10:15
7/28/2024	pH	7.85	6:30	6:35

Average Concentration= 7.68

Maximum= 8.17

of samples= 363

Sample Type= Grab

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Pollutant Analysis of Treated Effluent
Field Measurements of Dissolved Oxygen

Date	Analyte	Result	Collection Time	Analysis Time
8/1/2023	DO	7.93	12:25	12:35
8/2/2023	DO	7.83	11:55	12:05
8/3/2023	DO	7.67	13:20	13:30
8/4/2023	DO	7.83	13:40	13:50
8/5/2023	DO	6.89	8:30	8:40
8/6/2023	DO	7.13	8:45	8:55
8/7/2023	DO	7.78	6:45	6:55
8/8/2023	DO	7.81	14:20	14:30
8/9/2023	DO	7.63	13:30	13:40
8/10/2023	DO	7.86	12:15	12:25
8/11/2023	DO	7.41	13:15	13:25
8/12/2023	DO	7.78	6:20	6:30
8/13/2023	DO	7.75	6:00	6:10
8/14/2023	DO	7.79	12:00	12:15
8/15/2023	DO	8.05	12:15	12:30
8/16/2023	DO	7.87	12:00	12:15
8/17/2023	DO	7.87	12:30	12:40
8/18/2023	DO	7.71	12:30	12:40
8/19/2023	DO	7.29	7:00	7:10
8/20/2023	DO	6.29	7:30	7:40
8/21/2023	DO	7.15	12:30	12:45
8/22/2023	DO	7.87	12:15	12:30
8/23/2023	DO	7.79	12:15	12:30
8/24/2023	DO	7.96	12:30	12:45
8/25/2023	DO	7.74	12:15	12:30
8/26/2023	DO	7.6	7:45	7:55
8/27/2023	DO	7.63	8:30	8:40
8/28/2023	DO	7.56	12:15	12:30
8/29/2023	DO	7.96	12:30	12:45
8/30/2023	DO	8.9	12:30	12:45
8/31/2023	DO	7.87	7:50	7:58
9/1/2023	DO	8.07	12:55	13:05
9/2/2023	DO	7.88	5:40	5:50
9/3/2023	DO	7.69	5:50	6:00
9/4/2023	DO	7.22	7:50	7:58
9/5/2023	DO	7.92	12:00	12:05
9/6/2023	DO	7.74	12:00	12:05
9/7/2023	DO	7.35	12:00	12:05
9/8/2023	DO	7.48	11:00	11:05
9/9/2023	DO	6.38	7:30	7:40

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Pollutant Analysis of Treated Effluent
Field Measurements of Dissolved Oxygen

Date	Analyte	Result	Collection Time	Analysis Time
9/10/2023	DO	7.99	7:30	7:40
9/11/2023	DO	7.71	7:30	7:35
9/12/2023	DO	7.62	11:00	11:05
9/13/2023	DO	7.39	12:00	12:05
9/14/2023	DO	7.41	7:50	7:58
9/15/2023	DO	7.25	12:15	12:20
9/16/2023	DO	7.22	6:50	7:00
9/17/2023	DO	7.51	7:40	7:50
9/18/2023	DO	6.71	12:25	12:35
9/19/2023	DO	7.45	11:00	11:05
9/20/2023	DO	7.81	12:10	12:15
9/21/2023	DO	7.63	13:15	13:25
9/22/2023	DO	7.23	12:00	12:05
9/23/2023	DO	7.35	7:50	7:58
9/24/2023	DO	7.48	6:05	6:10
9/25/2023	DO	7.27	12:00	12:05
9/26/2023	DO	7.31	13:20	13:30
9/27/2023	DO	7.51	12:00	12:05
9/28/2023	DO	7.62	11:30	11:35
9/29/2023	DO	7.84	6:50	6:55
9/30/2023	DO	7.48	6:30	6:40
10/1/2023	DO	7.88	5:40	5:50
10/2/2023	DO	6.88	1:45	1:55
10/3/2023	DO	7.83	12:20	12:30
10/4/2023	DO	6.75	12:25	12:35
10/5/2023	DO	7.97	13:30	13:35
10/6/2023	DO	7.8	1:00	1:10
10/7/2023	DO	7.95	6:00	6:10
10/8/2023	DO	8.27	6:45	6:55
10/9/2023	DO	7.93	12:50	13:00
10/10/2023	DO	7.81	12:30	12:40
10/11/2023	DO	7.73	10:00	10:10
10/12/2023	DO	7.75	9:00	9:10
10/13/2023	DO	7.67	10:00	10:10
10/14/2023	DO	8.26	12:30	12:40
10/15/2023	DO	8.25	8:10	8:20
10/16/2023	DO	8.55	5:45	5:55
10/17/2023	DO	8.08	5:45	5:55
10/18/2023	DO	8.27	6:00	6:10
10/19/2023	DO	8.11	5:45	5:55

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Field Measurements of Dissolved Oxygen

Date	Analyte	Result	Collection Time	Analysis Time
10/20/2023	DO	8.01	5:50	5:55
10/21/2023	DO	7.93	6:20	6:25
10/22/2023	DO	7.59	10:00	10:10
10/23/2023	DO	7.78	6:15	6:25
10/24/2023	DO	7.89	1:15	1:25
10/25/2023	DO	7.9	12:30	12:40
10/26/2023	DO	7.87	12:15	12:25
10/27/2023	DO	7.91	12:15	12:25
10/28/2023	DO	7.78	7:30	7:40
10/29/2023	DO	7.6	7:30	7:40
10/30/2023	DO	8.85	1:00	1:10
10/31/2023	DO	8.72	12:00	12:15
11/1/2023	DO	9.03	12:00	12:15
11/2/2023	DO	8.81	12:40	12:50
11/3/2023	DO	8.67	12:20	12:30
11/4/2023	DO	8.9	7:50	7:58
11/5/2023	DO	8.42	6:15	6:25
11/6/2023	DO	8.29	12:00	12:10
11/7/2023	DO	8.76	6:15	6:25
11/8/2023	DO	8.3	12:15	12:25
11/9/2023	DO	8.33	6:00	6:15
11/10/2023	DO	8.55	9:00	9:10
11/11/2023	DO	8.78	9:00	9:10
11/12/2023	DO	8.77	9:00	9:10
11/13/2023	DO	8.81	12:00	12:15
11/14/2023	DO	8.68	5:50	6:00
11/15/2023	DO	8.59	12:30	12:40
11/16/2023	DO	8.92	9:00	9:10
11/17/2023	DO	8.56	7:30	7:45
11/18/2023	DO	8.47	5:30	5:35
11/19/2023	DO	8.57	5:30	5:40
11/20/2023	DO	8.35	12:00	12:15
11/21/2023	DO	8.27	13:30	13:40
11/22/2023	DO	8.71	9:00	9:10
11/23/2023	DO	8.8	6:35	6:45
11/24/2023	DO	8.87	6:35	6:45
11/25/2023	DO	8.89	6:35	6:45
11/26/2023	DO	8.7	7:00	7:10
11/27/2023	DO	9.1	12:00	12:15
11/28/2023	DO	9.07	6:40	6:50

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Field Measurements of Dissolved Oxygen

Date	Analyte	Result	Collection Time	Analysis Time
11/29/2023	DO	8.85	12:30	12:40
11/30/2023	DO	8.5	7:05	7:15
12/1/2023	DO	8.63	12:00	12:15
12/2/2023	DO	8.64	6:20	6:30
12/3/2023	DO	8.74	6:15	6:25
12/4/2023	DO	8.92	12:20	12:30
12/5/2023	DO	8.99	7:00	7:10
12/6/2023	DO	9.03	11:30	11:40
12/7/2023	DO	8.73	7:30	7:40
12/8/2023	DO	8.81	1:00	1:10
12/9/2023	DO	8.16	8:40	8:50
12/10/2023	DO	9.17	8:40	8:50
12/11/2023	DO	9.16	12:00	12:15
12/12/2023	DO	8.6	8:30	8:40
12/13/2023	DO	8.93	12:00	12:15
12/14/2023	DO	8.92	9:00	9:10
12/15/2023	DO	8.9	7:30	7:40
12/16/2023	DO	8.15	9:05	9:15
12/17/2023	DO	8.55	9:10	9:20
12/18/2023	DO	8.52	1:00	1:10
12/19/2023	DO	8.99	6:50	7:00
12/20/2023	DO	8.23	12:30	12:40
12/21/2023	DO	8.53	7:00	7:05
12/22/2023	DO	8.62	7:00	7:10
12/23/2023	DO	8.54	9:00	9:10
12/24/2023	DO	8.54	9:30	9:40
12/25/2023	DO	9.21	6:50	7:00
12/26/2023	DO	9.15	7:00	7:10
12/27/2023	DO	8.73	1:00	1:10
12/28/2023	DO	8.99	6:00	6:10
12/29/2023	DO	8.86	7:15	7:25
12/30/2023	DO	9.11	6:40	6:50
12/31/2023	DO	8.76	6:20	6:30
1/1/2024	DO	8.9	6:45	6:55
1/2/2024	DO	8.93	7:20	7:30
1/3/2024	DO	9.13	7:30	7:40
1/4/2024	DO	9.12	7:20	7:30
1/5/2024	DO	8.84	12:00	12:15
1/6/2024	DO	9.3	8:00	8:10
1/7/2024	DO	9.43	8:15	8:20

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Field Measurements of Dissolved Oxygen

Date	Analyte	Result	Collection Time	Analysis Time
1/8/2024	DO	8.96	13:10	13:20
1/9/2024	DO	8.98	7:00	7:10
1/10/2024	DO	8.53	6:40	6:50
1/11/2024	DO	8.92	12:20	12:30
1/12/2024	DO	9.11	13:30	13:40
1/13/2024	DO	9.26	6:35	6:45
1/14/2024	DO	9.47	6:30	6:40
1/15/2024	DO	9.99	7:45	7:50
1/16/2024	DO	10.15	7:20	7:30
1/17/2024	DO	9.73	12:00	12:15
1/18/2024	DO	9.22	7:45	7:55
1/19/2024	DO	9.45	14:10	14:20
1/20/2024	DO	9.66	7:15	7:25
1/21/2024	DO	9.16	6:55	7:05
1/22/2024	DO	8.57	12:00	12:15
1/23/2024	DO	8.91	12:10	12:20
1/24/2024	DO	9.37	12:00	12:15
1/25/2024	DO	9.22	12:20	12:30
1/26/2024	DO	9.32	7:30	7:40
1/27/2024	DO	9.41	10:10	10:20
1/28/2024	DO	9.73	7:20	7:30
1/29/2024	DO	8.99	13:35	13:45
1/30/2024	DO	8.98	12:20	12:30
1/31/2024	DO	8.9	12:20	12:30
2/1/2024	DO	8.96	7:20	7:30
2/2/2024	DO	8.71	12:20	12:30
2/3/2024	DO	9.09	7:00	7:10
2/4/2024	DO	8.92	6:35	6:45
2/5/2024	DO	9.08	12:20	12:30
2/6/2024	DO	9.01	12:30	12:40
2/7/2024	DO	8.76	12:45	12:55
2/8/2024	DO	8.65	12:30	12:40
2/9/2024	DO	9.65	13:40	13:50
2/10/2024	DO	8.75	8:00	8:10
2/11/2024	DO	8.75	8:30	8:40
2/12/2024	DO	8.98	12:30	12:40
2/13/2024	DO	8.85	12:30	12:40
2/14/2024	DO	8.83	12:30	12:40
2/15/2024	DO	8.63	12:30	12:40
2/16/2024	DO	8.63	12:30	12:40

City of Austin - Austin Water
Wild Horse Ranch WWTP
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Pollutant Analysis of Treated Effluent
Field Measurements of Dissolved Oxygen

Date	Analyte	Result	Collection Time	Analysis Time
2/17/2024	DO	9.04	9:00	9:05
2/18/2024	DO	8.95	9:00	9:05
2/19/2024	DO	8.89	11:50	12:00
2/20/2024	DO	8.66	12:30	12:40
2/21/2024	DO	8.57	12:30	12:40
2/22/2024	DO	8.48	12:30	12:40
2/23/2024	DO	8.7	12:30	12:40
2/24/2024	DO	8.82	12:30	12:40
2/25/2024	DO	7.52	6:25	6:35
2/26/2024	DO	8.09	12:30	12:40
2/27/2024	DO	8.06	12:30	12:40
2/28/2024	DO	8.65	12:30	12:40
2/29/2024	DO	8.68	12:30	12:40
3/1/2024	DO	8.4	12:30	12:40
3/2/2024	DO	8.44	9:35	9:40
3/3/2024	DO	8.02	10:00	10:05
3/4/2024	DO	8.21	13:50	14:00
3/5/2024	DO	8.17	6:40	6:50
3/6/2024	DO	8.21	13:40	13:50
3/7/2024	DO	8.65	6:25	6:35
3/8/2024	DO	8.16	9:00	9:10
3/9/2024	DO	8.52	6:30	6:40
3/10/2024	DO	8.55	6:25	6:35
3/11/2024	DO	8.36	12:00	12:10
3/12/2024	DO	8.09	7:00	7:10
3/13/2024	DO	7.73	10:00	10:10
3/14/2024	DO	7.26	7:00	7:05
3/15/2024	DO	7.46	7:00	7:05
3/16/2024	DO	7.62	9:00	9:10
3/17/2024	DO	7.1	8:30	8:40
3/18/2024	DO	7.93	10:00	10:10
3/19/2024	DO	8.5	10:00	10:10
3/20/2024	DO	7.37	10:00	10:10
3/21/2024	DO	7.4	12:05	12:15
3/22/2024	DO	7.51	12:10	12:20
3/23/2024	DO	7.28	6:20	6:30
3/24/2024	DO	7.64	10:00	10:10
3/25/2024	DO	7.02	7:00	7:10
3/26/2024	DO	7.42	7:30	7:40
3/27/2024	DO	7.76	7:25	7:30

City of Austin - Austin Water
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Pollutant Analysis of Treated Effluent
Field Measurements of Dissolved Oxygen

Date	Analyte	Result	Collection Time	Analysis Time
3/28/2024	DO	7.48	7:05	7:10
3/29/2024	DO	7.51	7:05	7:10
3/30/2024	DO	6.86	10:00	10:10
3/31/2024	DO	7.62	6:00	6:10
4/1/2024	DO	8.02	11:30	11:40
4/2/2024	DO	8.11	8:00	8:05
4/3/2024	DO	7.92	10:00	10:05
4/4/2024	DO	7.87	8:00	8:05
4/5/2024	DO	7.71	8:00	8:05
4/6/2024	DO	7.33	7:00	7:05
4/7/2024	DO	6.09	8:00	8:05
4/8/2024	DO	7.23	9:00	9:05
4/9/2024	DO	7.5	12:00	12:10
4/10/2024	DO	7.56	12:00	12:10
4/11/2024	DO	7.81	8:00	8:05
4/12/2024	DO	7.73	8:00	8:05
4/13/2024	DO	5.81	8:00	8:10
4/14/2024	DO	7.86	8:15	8:20
4/15/2024	DO	7.72	8:00	8:05
4/16/2024	DO	7.68	8:00	8:05
4/17/2024	DO	7.79	6:30	6:35
4/18/2024	DO	7.91	11:40	11:45
4/19/2024	DO	8.17	6:00	6:05
4/20/2024	DO	7.58	9:00	9:10
4/21/2024	DO	8.58	9:00	9:10
4/22/2024	DO	8.75	12:00	12:10
4/23/2024	DO	8.13	12:00	12:05
4/24/2024	DO	8.09	6:00	6:05
4/25/2024	DO	8.11	6:00	6:05
4/26/2024	DO	7.92	6:15	6:25
4/27/2024	DO	7.12	7:30	7:40
4/28/2024	DO	7.1	7:30	7:40
4/29/2024	DO	7.28	9:00	9:08
4/30/2024	DO	8.11	12:50	13:02
5/1/2024	DO	8.11	1:00	1:12
5/2/2024	DO	8.09	6:00	6:12
5/3/2024	DO	7.86	1:00	1:12
5/4/2024	DO	7.91	7:07	7:12
5/5/2024	DO	7.91	6:58	7:03
5/6/2024	DO	7.57	1:05	1:10

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Pollutant Analysis of Treated Effluent
Field Measurements of Dissolved Oxygen

Date	Analyte	Result	Collection Time	Analysis Time
5/7/2024	DO	7.65	7:05	7:15
5/8/2024	DO	7.58	1:00	1:05
5/9/2024	DO	7.57	7:10	7:15
5/10/2024	DO	7.83	12:30	12:34
5/11/2024	DO	7.73	7:00	7:05
5/12/2024	DO	7.65	7:00	7:05
5/13/2024	DO	7.76	6:55	7:00
5/14/2024	DO	6.61	8:00	8:07
5/15/2024	DO	8.05	1:00	1:05
5/16/2024	DO	7.88	6:39	6:50
5/17/2024	DO	8.13	12:53	13:00
5/18/2024	DO	8.03	7:00	7:05
5/19/2024	DO	7.84	7:00	7:05
5/20/2024	DO	8	12:48	12:55
5/21/2024	DO	7.84	7:13	7:20
5/22/2024	DO	7.8	12:51	12:58
5/23/2024	DO	7.78	6:35	6:40
5/24/2024	DO	7.82	7:00	7:05
5/25/2024	DO	7.98	8:00	8:10
5/26/2024	DO	7.83	7:45	7:55
5/27/2024	DO	7.95	8:15	8:25
5/28/2024	DO	7.95	8:30	8:35
5/29/2024	DO	8.17	1:00	1:05
5/30/2024	DO	7.76	7:05	7:09
5/31/2024	DO	8	12:40	12:45
6/1/2024	DO	7.2	7:00	7:10
6/2/2024	DO	7.57	7:00	7:10
6/3/2024	DO	7.7	12:25	12:30
6/4/2024	DO	7.68	6:45	6:50
6/5/2024	DO	7.83	12:55	13:01
6/6/2024	DO	7.93	11:45	11:50
6/7/2024	DO	7.79	11:00	11:05
6/8/2024	DO	7.69	7:10	7:20
6/9/2024	DO	7.61	6:35	6:45
6/10/2024	DO	7.65	6:20	6:27
6/11/2024	DO	7.77	6:36	6:45
6/12/2024	DO	7.66	6:40	6:48
6/13/2024	DO	7.8	6:38	6:45
6/14/2024	DO	7.4	6:15	6:25
6/15/2024	DO	7.77	8:05	8:10

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Pollutant Analysis of Treated Effluent
Field Measurements of Dissolved Oxygen

Date	Analyte	Result	Collection Time	Analysis Time
6/16/2024	DO	8.33	9:15	9:25
6/17/2024	DO	7.61	6:20	6:28
6/18/2024	DO	7.64	6:30	6:39
6/19/2024	DO	7.97	7:06	7:10
6/20/2024	DO	7.86	7:20	7:25
6/21/2024	DO	7.79	12:05	12:10
6/22/2024	DO	7.89	6:41	6:47
6/23/2024	DO	7.4	6:50	6:55
6/24/2024	DO	7.67	12:05	12:10
6/25/2024	DO	7.67	7:14	7:20
6/26/2024	DO	7.76	1:00	1:05
6/27/2024	DO	7.59	7:00	7:06
6/28/2024	DO	7.75	8:00	8:06
6/29/2024	DO	7.65	8:00	8:10
6/30/2024	DO	7.84	8:10	8:20
7/1/2024	DO	7.84	12:35	12:40
7/2/2024	DO	7.81	9:00	9:05
7/3/2024	DO	7.74	1:00	1:05
7/4/2024	DO	7.3	6:30	6:40
7/5/2024	DO	7.49	1:00	1:05
7/6/2024	DO	7.83	6:05	6:15
7/7/2024	DO	7.6	8:45	8:55
7/8/2024	DO	7.75	12:00	12:05
7/9/2024	DO	7.78	7:45	7:55
7/10/2024	DO	7.67	7:25	7:31
7/11/2024	DO	7.83	6:45	6:55
7/12/2024	DO	7.75	5:35	5:45
7/13/2024	DO	7.89	10:00	10:10
7/14/2024	DO	7.61	11:20	11:30
7/15/2024	DO	7.78	12:05	12:10
7/16/2024	DO	7.79	8:10	8:15
7/17/2024	DO	7.76	12:06	12:13
7/18/2024	DO	7.68	6:45	6:50
7/19/2024	DO	6.94	4:50	4:55
7/20/2024	DO	7.83	7:15	7:20
7/21/2024	DO	6.79	10:25	10:30
7/22/2024	DO	7.75	11:45	11:50
7/23/2024	DO	7.62	6:40	6:45
7/24/2024	DO	7.84	12:05	12:10
7/25/2024	DO	7.79	6:55	7:00

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Pollutant Analysis of Treated Effluent
Field Measurements of Dissolved Oxygen

Date	Analyte	Result	Collection Time	Analysis Time
7/26/2024	DO	7.72	6:05	6:10
7/27/2024	DO	7.73	10:10	10:15
7/28/2024	DO	7.55	6:30	6:35

Average Concentration= 8.10

Maximum= 10.15

of samples= 363

Sample Type= Grab

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Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
E.Coli SM 9223

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
48319701	08/01/2023	E. Coli	< 1	MPN/100mL
48347101	08/02/2023	E. Coli	< 1	MPN/100mL
48362001	08/03/2023	E. Coli	1.0	MPN/100mL
48384901	08/04/2023	E. Coli	15.6	MPN/100mL
48390401	08/05/2023	E. Coli	< 2	MPN/100mL
48397701	08/06/2023	E. Coli	LE	MPN/100mL
48397701	08/06/2023	E. Coli	LE	MPN/100mL
48397701	08/06/2023	E. Coli	LE	MPN/100mL
48418701	08/07/2023	E. Coli	LE	MPN/100mL
48443302	08/08/2023	E. Coli	15.8	MPN/100mL
48455001	08/09/2023	E. Coli	< 1	MPN/100mL
48474801	08/10/2023	E. Coli	LE	MPN/100mL
48494901	08/11/2023	E. Coli	2.0	MPN/100mL
48497901	08/12/2023	E. Coli	1.0	MPN/100mL
48507301	08/13/2023	E. Coli	1.0	MPN/100mL
48527002	08/14/2023	E. Coli	3.1	MPN/100mL
48549501	08/15/2023	E. Coli	< 1	MPN/100mL
48571001	08/16/2023	E. Coli	11.0	MPN/100mL
48588901	08/17/2023	E. Coli	< 1	MPN/100mL
48609301	08/18/2023	E. Coli	2.0	MPN/100mL
48614001	08/19/2023	E. Coli	8.6	MPN/100mL
48620401	08/20/2023	E. Coli	2.0	MPN/100mL
48620402	08/21/2023	E. Coli	1.0	MPN/100mL
48620403	08/22/2023	E. Coli	< 1	MPN/100mL
48665701	08/23/2023	E. Coli	2.0	MPN/100mL
48684801	08/24/2023	E. Coli	< 1	MPN/100mL
48702001	08/25/2023	E. Coli	2.0	MPN/100mL
48711201	08/26/2023	E. Coli	2.0	MPN/100mL
48717801	08/27/2023	E. Coli	< 1	MPN/100mL
48739002	08/28/2023	E. Coli	1.0	MPN/100mL
48755001	08/29/2023	E. Coli	< 1	MPN/100mL
48768501	08/30/2023	E. Coli	< 1	MPN/100mL
48783101	08/31/2023	E. Coli	< 1	MPN/100mL
48802101	09/01/2023	E. Coli	2.0	MPN/100mL
48805601	09/02/2023	E. Coli	< 1	MPN/100mL
48812201	09/03/2023	E. Coli	< 1	MPN/100mL
48819001	09/04/2023	E. Coli	< 1	MPN/100mL

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Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
E.Coli SM 9223

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
48853502	09/05/2023	E. Coli	1.0	MPN/100mL
48874001	09/06/2023	E. Coli	1.0	MPN/100mL
48904301	09/07/2023	E. Coli	LE	MPN/100mL
48919001	09/08/2023	E. Coli	1.0	MPN/100mL
48925501	09/09/2023	E. Coli	< 1	MPN/100mL
48933301	09/10/2023	E. Coli	1.0	MPN/100mL
48961702	09/11/2023	E. Coli	< 1	MPN/100mL
48976401	09/12/2023	E. Coli	< 1	MPN/100mL
49000901	09/13/2023	E. Coli	2.0	MPN/100mL
49011701	09/14/2023	E. Coli	< 1	MPN/100mL
49026801	09/15/2023	E. Coli	1.0	MPN/100mL
49032201	09/16/2023	E. Coli	1.0	MPN/100mL
49039301	09/17/2023	E. Coli	1.0	MPN/100mL
49058402	09/18/2023	E. Coli	< 1	MPN/100mL
49080601	09/19/2023	E. Coli	< 1	MPN/100mL
49093201	09/20/2023	E. Coli	< 1	MPN/100mL
49120601	09/21/2023	E. Coli	< 1	MPN/100mL
49138301	09/22/2023	E. Coli	1.0	MPN/100mL
49145301	09/23/2023	E. Coli	< 1	MPN/100mL
49149002	09/24/2023	E. Coli	< 1	MPN/100mL
49176702	09/25/2023	E. Coli	< 1	MPN/100mL
49191401	09/26/2023	E. Coli	< 1	MPN/100mL
49204901	09/27/2023	E. Coli	1.0	MPN/100mL
49221001	09/28/2023	E. Coli	< 1	MPN/100mL
49239601	09/29/2023	E. Coli	7.5	MPN/100mL
49245901	09/30/2023	E. Coli	2.0	MPN/100mL
49249801	10/01/2023	E. Coli	1.0	MPN/100mL
49283702	10/02/2023	E. Coli	< 1	MPN/100mL
49308501	10/03/2023	E. Coli	< 1	MPN/100mL
49326501	10/04/2023	E. Coli	< 1	MPN/100mL
49350301	10/05/2023	E. Coli	1.0	MPN/100mL
49368201	10/06/2023	E. Coli	3.1	MPN/100mL
49372301	10/07/2023	E. Coli	< 1	MPN/100mL
49379001	10/08/2023	E. Coli	< 1	MPN/100mL
49400302	10/09/2023	E. Coli	< 1	MPN/100mL
49427601	10/10/2023	E. Coli	< 1	MPN/100mL
49448701	10/11/2023	E. Coli	< 1	MPN/100mL

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Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
E.Coli SM 9223

Horizon Sample		Analyte	Final	
Nbr.	Collect Date	(Abbrev.)	Result	Units
49483101	10/12/2023	E. Coli	< 1	MPN/100mL
49502001	10/13/2023	E. Coli	< 1	MPN/100mL
49512501	10/14/2023	E. Coli	< 1	MPN/100mL
49518401	10/15/2023	E. Coli	2.0	MPN/100mL
49527201	10/16/2023	E. Coli	1.0	MPN/100mL
49553902	10/17/2023	E. Coli	< 1	MPN/100mL
49580501	10/18/2023	E. Coli	< 1	MPN/100mL
49597101	10/19/2023	E. Coli	3.1	MPN/100mL
49612501	10/20/2023	E. Coli	1.0	MPN/100mL
49628901	10/21/2023	E. Coli	< 1	MPN/100mL
49635501	10/22/2023	E. Coli	LE	MPN/100mL
49660801	10/23/2023	E. Coli	1.0	MPN/100mL
49678101	10/24/2023	E. Coli	< 1	MPN/100mL
49699402	10/25/2023	E. Coli	1.0	MPN/100mL
49719501	10/26/2023	E. Coli	< 1	MPN/100mL
49737901	10/27/2023	E. Coli	1.0	MPN/100mL
49742101	10/28/2023	E. Coli	1.0	MPN/100mL
49750201	10/29/2023	E. Coli	1.0	MPN/100mL
49775502	10/30/2023	E. Coli	1.0	MPN/100mL
49788501	10/31/2023	E. Coli	1.0	MPN/100mL
49806801	11/01/2023	E. Coli	< 1	MPN/100mL
49833601	11/02/2023	E. Coli	1.0	MPN/100mL
49850801	11/03/2023	E. Coli	< 1	MPN/100mL
49862001	11/04/2023	E. Coli	1.0	MPN/100mL
49868601	11/05/2023	E. Coli	1.0	MPN/100mL
49889102	11/06/2023	E. Coli	< 1	MPN/100mL
49905501	11/07/2023	E. Coli	2.0	MPN/100mL
49940201	11/08/2023	E. Coli	2.0	MPN/100mL
49959701	11/09/2023	E. Coli	< 1	MPN/100mL
49969101	11/10/2023	E. Coli	8.6	MPN/100mL
49975301	11/11/2023	E. Coli	< 1	MPN/100mL
49984301	11/12/2023	E. Coli	< 1	MPN/100mL
50004702	11/13/2023	E. Coli	< 1	MPN/100mL
50022701	11/14/2023	E. Coli	< 1	MPN/100mL
50036801	11/15/2023	E. Coli	1.0	MPN/100mL
50062301	11/16/2023	E. Coli	< 1	MPN/100mL
50078901	11/17/2023	E. Coli	< 1	MPN/100mL

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TCEQ Permit -WQ0010543013
Application for Domestic WWTP

Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
E.Coli SM 9223

Horizon Sample		Analyte	Final	
Nbr.	Collect Date	(Abbrev.)	Result	Units
50081901	11/18/2023	E. Coli	2.0	MPN/100mL
50089901	11/19/2023	E. Coli	< 1	MPN/100mL
50112001	11/20/2023	E. Coli	< 1	MPN/100mL
50137302	11/21/2023	E. Coli	< 1	MPN/100mL
50152001	11/22/2023	E. Coli	1.0	MPN/100mL
50163001	11/23/2023	E. Coli	< 1	MPN/100mL
50174001	11/24/2023	E. Coli	< 1	MPN/100mL
50178001	11/25/2023	E. Coli	< 1	MPN/100mL
50183201	11/26/2023	E. Coli	< 1	MPN/100mL
50200802	11/27/2023	E. Coli	< 1	MPN/100mL
50214301	11/28/2023	E. Coli	< 1	MPN/100mL
50237501	11/29/2023	E. Coli	2.0	MPN/100mL
50251501	11/30/2023	E. Coli	< 1	MPN/100mL
50270101	12/01/2023	E. Coli	< 1	MPN/100mL
50276801	12/02/2023	E. Coli	< 1	MPN/100mL
50283901	12/03/2023	E. Coli	< 1	MPN/100mL
50306902	12/04/2023	E. Coli	< 1	MPN/100mL
50322301	12/05/2023	E. Coli	< 1	MPN/100mL
50351701	12/06/2023	E. Coli	< 1	MPN/100mL
50367101	12/07/2023	E. Coli	< 1	MPN/100mL
50385101	12/08/2023	E. Coli	< 1	MPN/100mL
50393301	12/09/2023	E. Coli	1.0	MPN/100mL
50401301	12/10/2023	E. Coli	1.0	MPN/100mL
50419601	12/11/2023	E. Coli	1.0	MPN/100mL
50433902	12/12/2023	E. Coli	< 1	MPN/100mL
50464401	12/13/2023	E. Coli	2.0	MPN/100mL
50481201	12/14/2023	E. Coli	1.0	MPN/100mL
50497801	12/15/2023	E. Coli	< 1	MPN/100mL
50500101	12/16/2023	E. Coli	< 1	MPN/100mL
50506901	12/17/2023	E. Coli	< 1	MPN/100mL
50536702	12/18/2023	E. Coli	1.0	MPN/100mL
50548201	12/19/2023	E. Coli	2.0	MPN/100mL
50571201	12/20/2023	E. Coli	< 1	MPN/100mL
50590901	12/21/2023	E. Coli	< 1	MPN/100mL
50606501	12/22/2023	E. Coli	< 1	MPN/100mL
50611001	12/23/2023	E. Coli	< 1	MPN/100mL
50617801	12/24/2023	E. Coli	< 1	MPN/100mL

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7113 FM 969 Austin, TX 78724
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E.Coli SM 9223

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
50625201	12/25/2023	E. Coli	< 1	MPN/100mL
50633501	12/26/2023	E. Coli	1.0	MPN/100mL
50653502	12/27/2023	E. Coli	1.0	MPN/100mL
50663101	12/28/2023	E. Coli	< 1	MPN/100mL
50680801	12/29/2023	E. Coli	1.0	MPN/100mL
50686201	12/30/2023	E. Coli	< 1	MPN/100mL
50694701	12/31/2023	E. Coli	< 1	MPN/100mL
50703101	01/01/2024	E. Coli	< 1	MPN/100mL
50723802	01/02/2024	E. Coli	2.0	MPN/100mL
50746901	01/03/2024	E. Coli	13.4	MPN/100mL
50763601	01/04/2024	E. Coli	< 1	MPN/100mL
50780501	01/05/2024	E. Coli	< 1	MPN/100mL
50787701	01/06/2024	E. Coli	1.0	MPN/100mL
50794301	01/07/2024	E. Coli	< 1	MPN/100mL
50809302	01/08/2024	E. Coli	1.0	MPN/100mL
50824401	01/09/2024	E. Coli	< 1	MPN/100mL
50854101	01/10/2024	E. Coli	1.0	MPN/100mL
50873601	01/11/2024	E. Coli	< 1	MPN/100mL
50909901	01/12/2024	E. Coli	< 1	MPN/100mL
50915701	01/13/2024	E. Coli	< 1	MPN/100mL
50922801	01/14/2024	E. Coli	< 1	MPN/100mL
50930301	01/15/2024	E. Coli	< 1	MPN/100mL
50946601	01/16/2024	E. Coli	< 1	MPN/100mL
50969301	01/17/2024	E. Coli	< 1	MPN/100mL
50987505	01/18/2024	E. Coli	1.0	MPN/100mL
51009901	01/19/2024	E. Coli	< 1	MPN/100mL
51012801	01/20/2024	E. Coli	1.0	MPN/100mL
51022301	01/21/2024	E. Coli	1.0	MPN/100mL
51039002	01/22/2024	E. Coli	17.1	MPN/100mL
51058201	01/23/2024	E. Coli	5.2	MPN/100mL
51072501	01/24/2024	E. Coli	< 1	MPN/100mL
51084301	01/25/2024	E. Coli	3.1	MPN/100mL
51101801	01/26/2024	E. Coli	6.3	MPN/100mL
51110001	01/27/2024	E. Coli	5.2	MPN/100mL
51115901	01/28/2024	E. Coli	LE	MPN/100mL
51134702	01/29/2024	E. Coli	4.1	MPN/100mL
51150101	01/30/2024	E. Coli	< 1	MPN/100mL

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Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
E.Coli SM 9223

Horizon Sample		Analyte	Final	
Nbr.	Collect Date	(Abbrev.)	Result	Units
51170901	01/31/2024	E. Coli	< 1	MPN/100mL
51187901	02/01/2024	E. Coli	2.0	MPN/100mL
51208201	02/02/2024	E. Coli	< 1	MPN/100mL
51214901	02/03/2024	E. Coli	1.0	MPN/100mL
51221501	02/04/2024	E. Coli	< 1	MPN/100mL
51243902	02/05/2024	E. Coli	25.6	MPN/100mL
51258801	02/06/2024	E. Coli	2.0	MPN/100mL
51286901	02/07/2024	E. Coli	< 1	MPN/100mL
51310001	02/08/2024	E. Coli	< 1	MPN/100mL
51326701	02/09/2024	E. Coli	< 1	MPN/100mL
51330701	02/10/2024	E. Coli	< 1	MPN/100mL
51340101	02/11/2024	E. Coli	< 1	MPN/100mL
51357201	02/12/2024	E. Coli	< 1	MPN/100mL
51376802	02/13/2024	E. Coli	2.0	MPN/100mL
51404901	02/14/2024	E. Coli	< 1	MPN/100mL
51422501	02/15/2024	E. Coli	< 1	MPN/100mL
51443301	02/16/2024	E. Coli	< 1	MPN/100mL
51449201	02/17/2024	E. Coli	< 1	MPN/100mL
51458401	02/18/2024	E. Coli	< 1	MPN/100mL
51467101	02/19/2024	E. Coli	1.0	MPN/100mL
51480302	02/20/2024	E. Coli	< 1	MPN/100mL
51499601	02/21/2024	E. Coli	1.0	MPN/100mL
51519101	02/22/2024	E. Coli	< 1	MPN/100mL
51536401	02/23/2024	E. Coli	2.0	MPN/100mL
51540101	02/24/2024	E. Coli	< 1	MPN/100mL
51546701	02/25/2024	E. Coli	2.0	MPN/100mL
51566602	02/26/2024	E. Coli	< 1	MPN/100mL
51590801	02/27/2024	E. Coli	< 1	MPN/100mL
51602901	02/28/2024	E. Coli	1.0	MPN/100mL
51621201	02/29/2024	E. Coli	< 1	MPN/100mL
51640001	03/01/2024	E. Coli	< 1	MPN/100mL
51646301	03/02/2024	E. Coli	1.0	MPN/100mL
51653301	03/03/2024	E. Coli	< 1	MPN/100mL
51669402	03/04/2024	E. Coli	1.0	MPN/100mL
51685901	03/05/2024	E. Coli	< 1	MPN/100mL
51707201	03/06/2024	E. Coli	< 1	MPN/100mL
51720501	03/07/2024	E. Coli	2.0	MPN/100mL

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Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
E.Coli SM 9223

Horizon Sample		Analyte	Final	
Nbr.	Collect Date	(Abbrev.)	Result	Units
51736401	03/08/2024	E. Coli	1.0	MPN/100mL
51741701	03/09/2024	E. Coli	1.0	MPN/100mL
51745401	03/10/2024	E. Coli	1.0	MPN/100mL
51768702	03/11/2024	E. Coli	2.0	MPN/100mL
51787701	03/12/2024	E. Coli	< 1	MPN/100mL
51809801	03/13/2024	E. Coli	1.0	MPN/100mL
51824401	03/14/2024	E. Coli	1.0	MPN/100mL
51840901	03/15/2024	E. Coli	< 1	MPN/100mL
51846801	03/16/2024	E. Coli	< 1	MPN/100mL
51853602	03/17/2024	E. Coli	< 1	MPN/100mL
51874001	03/18/2024	E. Coli	< 1	MPN/100mL
51891201	03/19/2024	E. Coli	< 1	MPN/100mL
51910501	03/20/2024	E. Coli	< 1	MPN/100mL
51939201	03/21/2024	E. Coli	< 1	MPN/100mL
51958401	03/22/2024	E. Coli	< 1	MPN/100mL
51962801	03/23/2024	E. Coli	< 1	MPN/100mL
51973001	03/24/2024	E. Coli	1.0	MPN/100mL
52000005	03/25/2024	E. Coli	< 1	MPN/100mL
52018101	03/26/2024	E. Coli	1.0	MPN/100mL
52032801	03/27/2024	E. Coli	1.0	MPN/100mL
52052801	03/28/2024	E. Coli	< 1	MPN/100mL
52072701	03/29/2024	E. Coli	2.0	MPN/100mL
52080701	03/30/2024	E. Coli	1.0	MPN/100mL
52083001	03/31/2024	E. Coli	< 1	MPN/100mL
52106802	04/01/2024	E. Coli	< 1	MPN/100mL
52130601	04/02/2024	E. Coli	4.1	MPN/100mL
52153401	04/03/2024	E. Coli	2.0	MPN/100mL
52177301	04/04/2024	E. Coli	< 1	MPN/100mL
52180001	04/05/2024	E. Coli	1.0	MPN/100mL
52200801	04/06/2024	E. Coli	< 1	MPN/100mL
52206101	04/07/2024	E. Coli	< 1	MPN/100mL
52222501	04/08/2024	E. Coli	< 1	MPN/100mL
52238202	04/09/2024	E. Coli	5.2	MPN/100mL
52253401	04/10/2024	E. Coli	3.0	MPN/100mL
52272601	04/11/2024	E. Coli	< 1	MPN/100mL
52293201	04/12/2024	E. Coli	1.0	MPN/100mL
52303101	04/13/2024	E. Coli	1.0	MPN/100mL

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Austin Water Laboratory-Environmental Analytical Services
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Pollutant Analysis of Treated Effluent
E.Coli SM 9223

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
52311601	04/14/2024	E. Coli	1.0	MPN/100mL
52337702	04/15/2024	E. Coli	3.1	MPN/100mL
52350701	04/16/2024	E. Coli	1.0	MPN/100mL
52374001	04/17/2024	E. Coli	< 1	MPN/100mL
52393101	04/18/2024	E. Coli	2.0	MPN/100mL
52412001	04/19/2024	E. Coli	3.1	MPN/100mL
52421201	04/20/2024	E. Coli	< 1	MPN/100mL
52427801	04/21/2024	E. Coli	1.0	MPN/100mL
52441901	04/22/2024	E. Coli	< 1	MPN/100mL
52460902	04/23/2024	E. Coli	< 1	MPN/100mL
52482801	04/24/2024	E. Coli	< 1	MPN/100mL
52500501	04/25/2024	E. Coli	< 1	MPN/100mL
52517601	04/26/2024	E. Coli	< 1	MPN/100mL
52525101	04/27/2024	E. Coli	1.0	MPN/100mL
52531801	04/28/2024	E. Coli	2.0	MPN/100mL
52553002	04/29/2024	E. Coli	22.8	MPN/100mL
52566001	04/30/2024	E. Coli	1.0	MPN/100mL
52580201	05/01/2024	E. Coli	< 1	MPN/100mL
52591101	05/02/2024	E. Coli	7.4	MPN/100mL
52611401	05/03/2024	E. Coli	8.4	MPN/100mL
52616701	05/04/2024	E. Coli	1.0	MPN/100mL
52623601	05/05/2024	E. Coli	1.0	MPN/100mL
52645002	05/06/2024	E. Coli	11.0	MPN/100mL
52667501	05/07/2024	E. Coli	< 1	MPN/100mL
52696701	05/08/2024	E. Coli	2.0	MPN/100mL
52711301	05/09/2024	E. Coli	< 1	MPN/100mL
52725001	05/10/2024	E. Coli	1.0	MPN/100mL
52728901	05/11/2024	E. Coli	1.0	MPN/100mL
52738401	05/12/2024	E. Coli	< 1	MPN/100mL
52753601	05/13/2024	E. Coli	< 1	MPN/100mL
52774302	05/14/2024	E. Coli	< 1	MPN/100mL
52794101	05/15/2024	E. Coli	< 1	MPN/100mL
52813701	05/16/2024	E. Coli	< 1	MPN/100mL
52831801	05/17/2024	E. Coli	1.0	MPN/100mL
52839801	05/18/2024	E. Coli	1.0	MPN/100mL
52848001	05/19/2024	E. Coli	< 1	MPN/100mL
52865302	05/20/2024	E. Coli	< 1	MPN/100mL

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Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
E.Coli SM 9223

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
52880401	05/21/2024	E. Coli	< 1	MPN/100mL
52898101	05/22/2024	E. Coli	1.0	MPN/100mL
52916001	05/23/2024	E. Coli	1.0	MPN/100mL
52930401	05/24/2024	E. Coli	1.0	MPN/100mL
52936501	05/25/2024	E. Coli	< 1	MPN/100mL
52944301	05/26/2024	E. Coli	1.0	MPN/100mL
52952401	05/27/2024	E. Coli	< 1	MPN/100mL
52981002	05/28/2024	E. Coli	< 1	MPN/100mL
52996502	05/29/2024	E. Coli	< 1	MPN/100mL
53014301	05/30/2024	E. Coli	1.0	MPN/100mL
53033801	05/31/2024	E. Coli	1.0	MPN/100mL
53040201	06/01/2024	E. Coli	1.0	MPN/100mL
53043901	06/02/2024	E. Coli	< 1	MPN/100mL
53062102	06/03/2024	E. Coli	< 1	MPN/100mL
53089101	06/04/2024	E. Coli	1.0	MPN/100mL
53113501	06/05/2024	E. Coli	1.0	MPN/100mL
53127501	06/06/2024	E. Coli	< 1	MPN/100mL
53150301	06/07/2024	E. Coli	< 1	MPN/100mL
53154401	06/08/2024	E. Coli	< 1	MPN/100mL
53161201	06/09/2024	E. Coli	< 1	MPN/100mL
53177801	06/10/2024	E. Coli	< 1	MPN/100mL
53194101	06/11/2024	E. Coli	< 1	MPN/100mL
53217701	06/12/2024	E. Coli	< 1	MPN/100mL
53238302	06/13/2024	E. Coli	< 1	MPN/100mL
53249701	06/14/2024	E. Coli	< 1	MPN/100mL
53264501	06/15/2024	E. Coli	< 1	MPN/100mL
53270002	06/16/2024	E. Coli	< 1	MPN/100mL
53291101	06/17/2024	E. Coli	< 1	MPN/100mL
53311601	06/18/2024	E. Coli	< 1	MPN/100mL
53315701	06/19/2024	E. Coli	< 1	MPN/100mL
53334401	06/20/2024	E. Coli	< 1	MPN/100mL
53356901	06/21/2024	E. Coli	< 1	MPN/100mL
53360801	06/22/2024	E. Coli	< 1	MPN/100mL
53373501	06/23/2024	E. Coli	< 1	MPN/100mL
53392101	06/24/2024	E. Coli	< 1	MPN/100mL
53408502	06/25/2024	E. Coli	5.2	MPN/100mL
53430401	06/26/2024	E. Coli	< 1	MPN/100mL

City of Austin - Austin Water
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Application for Domestic WWTP

Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
E.Coli SM 9223

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Units
53443301	06/27/2024	E. Coli	< 1	MPN/100mL
53464401	06/28/2024	E. Coli	< 1	MPN/100mL
53472001	06/29/2024	E. Coli	< 1	MPN/100mL
53482201	06/30/2024	E. Coli	< 1	MPN/100mL
53501502	07/01/2024	E. Coli	< 1	MPN/100mL
53524001	07/02/2024	E. Coli	< 1	MPN/100mL
53539001	07/03/2024	E. Coli	< 1	MPN/100mL
53545001	07/04/2024	E. Coli	< 1	MPN/100mL
53562101	07/05/2024	E. Coli	< 1	MPN/100mL
53568601	07/06/2024	E. Coli	< 1	MPN/100mL
53576401	07/07/2024	E. Coli	1.0	MPN/100mL
53610601	07/08/2024	E. Coli	< 1	MPN/100mL
53629901	07/09/2024	E. Coli	< 1	MPN/100mL
53650902	07/10/2024	E. Coli	< 1	MPN/100mL
53669801	07/11/2024	E. Coli	< 1	MPN/100mL
53687501	07/12/2024	E. Coli	< 1	MPN/100mL
53694201	07/13/2024	E. Coli	1.0	MPN/100mL
53702401	07/14/2024	E. Coli	< 1	MPN/100mL
53718101	07/15/2024	E. Coli	< 1	MPN/100mL

Average Concentration (geomean)= 1.2
Maximum= 25.6
of samples= 352
Sample Type= Grab

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Austin Water Laboratory-Environmental Analytical Services
7113 FM969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
Total Dissolved Solids SM 2540 C

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Unit
52645001	05/06/2024	TDS	572	mg/L
52774301	05/14/2024	TDS	712	mg/L
52865301	05/20/2024	TDS	684	mg/L
52996501	05/29/2024	TDS	660	mg/L

Average Concentration= 657
Maximum= 712
of samples= 4
Sample Type= Composite

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Austin Water Laboratory-Environmental Analytical Services
7113 FM969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
Oil & Grease EPA 1664 A

Horizon Sample Nbr.	Collect Date	Analyte (Abbrev.)	Final Result	Unit
52645001	05/06/2024	OG	<2.50	mg/L
52774301	05/14/2024	OG	<2.50	mg/L
52865301	05/20/2024	OG	<2.50	mg/L
52981001	05/28/2024	OG	<2.50	mg/L

Average Concentration= <2.50

Maximum= <2.50

of samples= 4

Sample Type= Grab

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Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
Alkalinity -SM 2320B

Horizon Sample		Analyte		
Nbr.	Collect Date	(Abbrev.)	Final Result	Units
48443301	08/08/2023	ALK	91.4	mg/L
48527001	08/14/2023	ALK	88	mg/L
48640601	08/21/2023	ALK	105	mg/L
48739001	08/28/2023	ALK	98.8	mg/L
48853501	09/05/2023	ALK	101	mg/L
48961701	09/11/2023	ALK	95.1	mg/L
49058401	09/18/2023	ALK	97.6	mg/L
49176701	09/25/2023	ALK	106	mg/L
49283701	10/02/2023	ALK	94.5	mg/L
49400301	10/09/2023	ALK	101	mg/L
49553901	10/17/2023	ALK	108	mg/L
49699401	10/25/2023	ALK	109	mg/L
49775501	10/30/2023	ALK	116	mg/L
49889101	11/06/2023	ALK	114	mg/L
50004701	11/13/2023	ALK	114	mg/L
50137301	11/21/2023	ALK	108	mg/L
50200801	11/27/2023	ALK	114	mg/L
50306901	12/04/2023	ALK	109	mg/L
50433901	12/12/2023	ALK	83.7	mg/L
50536701	12/18/2023	ALK	127	mg/L
50653501	12/27/2023	ALK	163	mg/L
50723801	01/02/2024	ALK	164	mg/L
50809301	01/07/2024	ALK	149	mg/L
50987501	01/18/2024	ALK	58.2	mg/L
51039001	01/22/2024	ALK	82.3	mg/L
51134701	01/29/2024	ALK	139	mg/L
51243901	02/05/2024	ALK	143	mg/L
51376801	02/13/2024	ALK	135	mg/L
51480301	02/20/2024	ALK	134	mg/L
51566601	02/26/2024	ALK	LE	mg/L
51669401	03/04/2024	ALK	122	mg/L
51768701	03/11/2024	ALK	112	mg/L
51891301	03/19/2024	ALK	42.4	mg/L
52000001	03/25/2024	ALK	121	mg/L
52106801	03/31/2024	ALK	120	mg/L
52238201	04/09/2024	ALK	108	mg/L
52337701	04/15/2024	ALK	123	mg/L

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

Austin Water Laboratory-Environmental Analytical Services
7113 FM 969 Austin, TX 78724
Pollutant Analysis of Treated Effluent
Alkalinity -SM 2320B

Horizon Sample		Analyte			
Nbr.	Collect Date	(Abbrev.)	Final Result	Units	
52460901	04/23/2024	ALK	118	mg/L	
52553001	04/29/2024	ALK	85.8	mg/L	
52645001	05/06/2024	ALK	135	mg/L	
52774301	05/14/2024	ALK	108	mg/L	
52865301	05/20/2024	ALK	113	mg/L	
52996501	05/29/2024	ALK	98.6	mg/L	
53062101	06/03/2024	ALK	103	mg/L	
53238301	06/13/2024	ALK	94.1	mg/L	
53291901	06/17/2024	ALK	113	mg/L	
53408501	06/25/2024	ALK	144	mg/L	
53501501	07/01/2024	ALK	143	mg/L	
53650901	07/10/2024	ALK	91.6	mg/L	

Average Concentration= 111.3
Maximum= 164
of samples= 49
Sample Type= Composite

ATTACHMENT 15
OPERATOR LIST

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

Austin Water
Remote Treatment Facilities

Operator	License Number	Expiration Date	Class
DARRELL DEVOOGHT	WW0062004	4/22/2025	A
MARCUS RUIZ	WW0070108	9/8/2025	A
DON R MILLER	WW0062045	9/18/2025	A
FRANCISCO SILVA	WW0052790	6/23/2024	B
RICHARD REES	WW0070916	11/14/2025	B
DANA LORENZEN	WW0062864	10/25/2025	C
THOMAS JUSTIN BLEDSOE	WW0072156	3/23/2026	C
CARLOS MOORE	WW0066907	10/20/2024	D
CHUKWUNONSO OKPALAEZE	WW0074259	11/10/2026	D
ENRIQUE QUIROZ	WW0074118	10/25/2026	D
ELI MENDOZA	WW0074335	12/15/2026	D
TRISTAN SOTO	WW0074261	12/5/2026	D
MARSHALL HARRIS	WW0074383	12/14/2026	D
JOSHUA ARROYO	WW0075028	3/1/2027	D
SAMUEL CALIP	WW0075032	3/1/2027	D

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013

**Application for Authorization for Re-Use of
Domestic Reclaimed Water**



Authorization for Re-Use of Domestic Reclaimed Water

This application is for the beneficial reuse of domestic reclaimed water in accordance with 30 Texas Administrative Code (TAC) Chapter 210, Subchapters A, B, C, and D.

REASON FOR APPLICATION:

Select the reason you are submitting this application:

- ☒ New authorization
☐ Amendment of reuse authorization number: R

SOURCE OF THE RECLAIMED WATER:

What is the permit number for the wastewater treatment plant where the reclaimed water is produced: WQ00 10543013

What is the expiration date of the wastewater permit? 03/12/2025

Section 1. Producer (Applicant)

- a) What is the Customer Number (CN) issued to this entity? CN 600135198
- b) What is the Legal Name of the entity (applicant) applying for this authorization? (The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)

City of Austin - Austin Water

Section 2. Provider

Is the Provider the same as the Producer?

- ☒ Yes, go to Section 3)
☐ No, complete section below

- a) What is the Customer Number (CN) issued to this entity? CN n/a
- b) What is the Legal Name of the entity (applicant) applying for this authorization? (The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)
n/a

Section 3. Application Contact

This is the person TCEQ will contact if additional information is needed about this application.

Prefix (Mr. Ms. or Miss): Ms.

First and Last Name: Tammy West

Suffix:

Title: Wastewater Regulatory Manager

Credentials:

Fax Number:

Mailing Address: 625 E 10th St, Ste 315

City, State, and Zip Code: Austin, TX 78701

For this section, provide the requested information for the wastewater treatment plant (WWTP) where the reclaimed water is produced.

- a) What is the Regulated Entity Number (RN) issued to the WWTP? RN 103014577
- b) What is the Site Name for the WWTP? Wild Horse Ranch WWTP

a) Type of reclaimed water being used:

- ☐ Type I
☐ Type II
☒ Both

- b) Identify additional treatment processes that may be needed to achieve the effluent quality.

Type I: n/aType II: n/a

- c) Provide the following effluent limits in the WWTP discharge permit.

1. Flow, in million gallons per day:

Current: 0.75

Proposed, if applicable: n/a

2. Oxygen Demand. Select the appropriate limit and provide the limit value.

- ☐ BOD₅
 - ☒ CBOD₅

Limit value, in milligrams per liter: 5 Daily Average

3. Bacteria. Select the appropriate limit and provide the limit value.

- ☒ *Escherichia coli*
☐ *Enterococci*

Limit value, in colony forming units per 100 milliliters: 120 Daily Average

a) Is the reclaimed water stored in a fabricated tank that is leak proof certified?

- ☐ Yes, go to Section 7
- ☒ No, complete section below

- b) Are any of the reclaimed water storage or usage sites located in the Edwards Aquifer Recharge Zone?

☐ Yes ☒ No

c) Are any of the reclaimed water usage sites located outside the Edwards Aquifer Recharge Zone, but within the DRASTIC Designated Areas having a pollution potential index figure of 110 or greater?

☐ Yes ☒ No

d) If you answered Yes to questions b) or c), complete the following questions.

1. Do pond construction materials meet 30 TAC §210.23(c)(1), (2), and (4)?

☐ Yes ☐ No ☒ NA

2. Do liners meet the requirements in 30 TAC §210.23(c)(3) or (5)?

☐ Yes ☐ No ☒ NA

3. Have the liners been certified according to 30 §TAC 210.23(c)(6)?

☐ Yes ☐ No ☒ NA

4. Do the soil embankment walls meet the requirements in 30 TAC §210.23(c)(7)?

☐ Yes ☐ No ☒ NA

5. If you answered No or NA to questions 1) - 4), provide an explanation.

n/a

e) If you answered No to questions b) and c), complete the following questions.

1. Do pond construction materials meet 30 TAC §210.23(d)(1) and (2)?

☐ Yes ☐ No ☒ NA

2. Do liners meet the requirements in 30 TAC §210.23(d)(3) or (4)?

☐ Yes ☐ No ☒ NA

3. Have the liners been certified according to 30 §TAC 210.23(d)(5)?

☐ Yes ☐ No ☒ NA

4. Do the soil embankment walls meet the requirements in 30 TAC §210.23(d)(6)?

☐ Yes ☐ No ☒ NA

5. If you answered No or NA to questions 1) - 4), provide an explanation.

see Attachment 3 for the Bulk Filling Facility diagram

Section 7. Reclaimed Water Uses

a) Describe all potential uses of the reclaimed water at the WWTP.

On-site irrigation, wash down of basins and dust suppression at construction sites, Future uses include off-site irrigation. Initial Reclaim use will be via a Bulk Filling Facility, see Attachment 3 for the Bulk Filling Facility diagram.

- b) Describe all potential uses of the reclaimed water at other sites.

Soil compaction or dust control in construction areas where application procedures minimize aerosol drift to public areas. Off-site irrigation.

Section 8. Reclaimed Water Users

- a) Is the producer, provider, and user the same entity?

- ☒ Yes, go to Section 9
☐ No, attach a copy of the contract template and complete this section.

- b) Does the contract have an operation and maintenance plan as required by 30 TAC 210.4(a)(4)?

- ☒ Yes, attach a copy of the operation and maintenance plan.
☐ No. Do not submit this form until an operation and maintenance plan has been developed.

- c) For each user, provide the following information. If there are more than two users, complete Attachment A.

1. Name of the User: [REDACTED]

2. What is the contact information for this User?

Prefix (Mr. Ms. or Miss): [REDACTED]

First and Last Name: [REDACTED] Suffix: [REDACTED]

Title: [REDACTED] Credentials: [REDACTED]

Phone Number: [REDACTED] Fax Number: [REDACTED]

Email: [REDACTED]

Mailing Address: [REDACTED]

City, State, and Zip Code: [REDACTED]

3. Types of Uses (irrigation, dust suppression, cooling water, etc): [REDACTED]

4. Is there a contract, legal agreement, or ordinance between this user and the provider?

- ☐ Yes
☐ No

If no, please explain: [REDACTED]

5. Is the reclaimed water being supplied to the user on a "demand only" basis as required by 30 TAC §210.7?

- ☐ Yes
☐ No

If no, please explain: [REDACTED]

1. Name of the User:
2. What is the contact information for this User?

Prefix (Mr. Ms. or Miss):
First and Last Name: Suffix:
Title: Credentials:
Phone Number: Fax Number:
Email:
Mailing Address:
City, State, and Zip Code:
3. Types of Uses (irrigation, dust suppression, cooling water, etc):
4. Is there a contract, legal agreement, or ordinance between this user and the provider?
☐ Yes
☐ No
If no, please explain:
5. Is the reclaimed water being supplied to the user on a “demand only” basis as required by 30 TAC §210.7?
☐ Yes
☐ No
If no, please explain:

Section 9. Attachments

This application must include the following attachments:

- a) A completed Core Data Form (TCEQ-10400); **See Attachment 1**
- b) A map of the service area for the reclaimed water; **See Attachment 2**
- c) A map showing the location of all reclaimed water storage ponds; **See Attachment 3**
- d) A copy of the user contracts, if the user is a different entity than the producer and provider; and **See Attachment 4-Reclaim Customer Contract & Ordinance**
- e) A copy of the operation and maintenance plan for each contract.
See Attachment 5 - O&M Plan

Section 10. Producer Certification

I understand that if there is a major change in the use of reclaimed water, the producer/provider must notify the TCEQ of the change at least 45 days before the planned implementation. Examples of major changes include:

- a change in the boundary of the approved service area;
- the addition of a new user;
- a change in the intended uses; and
- a change from Type I to Type II reclaimed water or vice versa.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Producer Signatory Name: Shay Ralls Roalson, P.E.

Producer Signatory Title: Director, Austin Water-City of Austin

Signature (use blue ink): Shay Ralls Roalson Date: 9/10/2021

Section 11. Provider Certification

If the provider is a different entity than the producer, the provider must complete this section.

I understand that if there is a major change in the use of reclaimed water, the producer/provider must notify the TCEQ of the change at least 45 days before the planned implementation. Examples of major changes include:

- a change in the boundary of the approved service area;
- the addition of a new user;
- a change in the intended uses; and
- a change from Type I to Type II reclaimed water or vice versa.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Provider Signatory Name: Shay Ralls Roalson, P.E.

Provider Signatory Title: Director, Austin Water-City of Austin

Signature (use blue ink): Shay Ralls Roalson Date: 9/10/2024

ATTACHMENT 1
CORE DATA FORM



TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 600135198		RN 103014577

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)						
<input type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership								
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)								
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>								
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>				
City of Austin-Austin Water								
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)			
11. Type of Customer:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited			
Government: <input checked="" type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:				
12. Number of Employees				13. Independently Owned and Operated?				
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input checked="" type="checkbox"/> 501 and higher				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following								
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:								
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant								
15. Mailing Address:		Shay Ralls Roalson, Director, Austin Water						
		625 East 10th Street, STE 800						
City		Austin	State	TX	ZIP	78701	ZIP + 4	
16. Country Mailing Information (if outside USA)					17. E-Mail Address (if applicable)			
					shay.roalson@austintexas.gov			
18. Telephone Number			19. Extension or Code		20. Fax Number (if applicable)			

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected, a new permit application is also required.)								
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information								
<i>The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).</i>								
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)								
Wild Horse Ranch Wastewater Treatment Plant								
23. Street Address of the Regulated Entity: (No PO Boxes)	10621 Blue Bluff Lane							
	City	Manor	State	TX	ZIP	78653	ZIP + 4	
24. County	Travis							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:								
26. Nearest City					State		Nearest ZIP Code	
<i>Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).</i>								
27. Latitude (N) In Decimal:			30.318995			28. Longitude (W) In Decimal:		-97.567822
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
29. Primary SIC Code (4 digits)		30. Secondary SIC Code (4 digits)		31. Primary NAICS Code (5 or 6 digits)		32. Secondary NAICS Code (5 or 6 digits)		
4952				221320				
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)								
domestic wastewater treatment plant								
34. Mailing Address:		Darrell Devooght, Superintendent						
		7113 FM 969						
		City	Austin	State	TX	ZIP	78724	ZIP + 4
35. E-Mail Address:		darrell.devooght@austintexas.gov						
36. Telephone Number			37. Extension or Code			38. Fax Number (if applicable)		
(512) 972-1505						() -		

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.


<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:
	WQ0010543013			

SECTION IV: Preparer Information

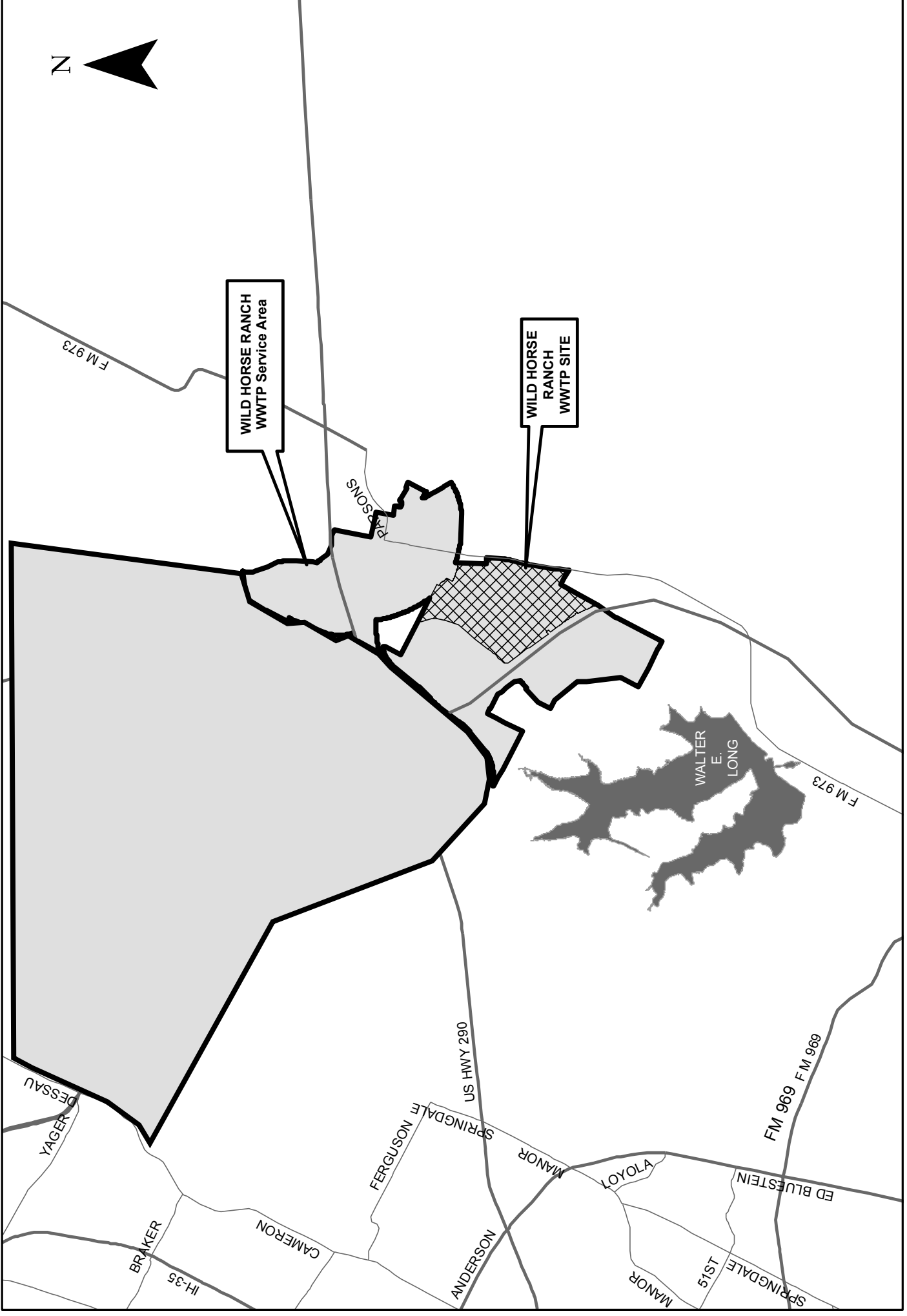
40. Name:	Tammy Y West		41. Title:	Wastewater Regulatory manager
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address	
(512) 972-0143		() -	tammy.yates.west@austintexas.gov	

SECTION V: Authorized Signature



46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	City of Austin-Austin Water	Job Title:	Director
Name (In Print):	Shay Ralls Roalson	Phone:	(512) 972- 0108
Signature:		Date:	9/19/2024

ATTACHMENT 2
RECLAIM SERVICE AREA MAP



WILD HORSE RANCH WASTEWATER
TREATMENT PLANT SITE DRAWING

-  Wildhorse Plant Site
-  Wildhorse WWTP Service Area

ATTACHMENT 3
BULK FILLING FACILITY DIAGRAM

RECORD DRAWING

NO. BY DATE CONTRACT MODIFICATION TO OTHER REGION

1 TO 7/19/12

EXISTING	PROPOSED
1" DIA	1" DIA
2" DIA	2" DIA
3" DIA	3" DIA
4" DIA	4" DIA
6" DIA	6" DIA
8" DIA	8" DIA
10" DIA	10" DIA
12" DIA	12" DIA
15" DIA	15" DIA
18" DIA	18" DIA
21" DIA	21" DIA
24" DIA	24" DIA
30" DIA	30" DIA
36" DIA	36" DIA
42" DIA	42" DIA
48" DIA	48" DIA
54" DIA	54" DIA
60" DIA	60" DIA
66" DIA	66" DIA
72" DIA	72" DIA
78" DIA	78" DIA
84" DIA	84" DIA
90" DIA	90" DIA
96" DIA	96" DIA
102" DIA	102" DIA
108" DIA	108" DIA
114" DIA	114" DIA
120" DIA	120" DIA
126" DIA	126" DIA
132" DIA	132" DIA
138" DIA	138" DIA
144" DIA	144" DIA
150" DIA	150" DIA
156" DIA	156" DIA
162" DIA	162" DIA
168" DIA	168" DIA
174" DIA	174" DIA
180" DIA	180" DIA
186" DIA	186" DIA
192" DIA	192" DIA
198" DIA	198" DIA
204" DIA	204" DIA
210" DIA	210" DIA
216" DIA	216" DIA
222" DIA	222" DIA
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252" DIA	252" DIA
258" DIA	258" DIA
264" DIA	264" DIA
270" DIA	270" DIA
276" DIA	276" DIA
282" DIA	282" DIA
288" DIA	288" DIA
294" DIA	294" DIA
300" DIA	300" DIA
306" DIA	306" DIA
312" DIA	312" DIA
318" DIA	318" DIA
324" DIA	324" DIA
330" DIA	330" DIA
336" DIA	336" DIA
342" DIA	342" DIA
348" DIA	348" DIA
354" DIA	354" DIA
360" DIA	360" DIA
366" DIA	366" DIA
372" DIA	372" DIA
378" DIA	378" DIA
384" DIA	384" DIA
390" DIA	390" DIA
396" DIA	396" DIA
402" DIA	402" DIA
408" DIA	408" DIA
414" DIA	414" DIA
420" DIA	420" DIA
426" DIA	426" DIA
432" DIA	432" DIA
438" DIA	438" DIA
444" DIA	444" DIA
450" DIA	450" DIA
456" DIA	456" DIA
462" DIA	462" DIA
468" DIA	468" DIA
474" DIA	474" DIA
480" DIA	480" DIA
486" DIA	486" DIA
492" DIA	492" DIA
498" DIA	498" DIA
504" DIA	504" DIA
510" DIA	510" DIA
516" DIA	516" DIA
522" DIA	522" DIA
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552" DIA	552" DIA
558" DIA	558" DIA
564" DIA	564" DIA
570" DIA	570" DIA
576" DIA	576" DIA
582" DIA	582" DIA
588" DIA	588" DIA
594" DIA	594" DIA
600" DIA	600" DIA
606" DIA	606" DIA
612" DIA	612" DIA
618" DIA	618" DIA
624" DIA	624" DIA
630" DIA	630" DIA
636" DIA	636" DIA
642" DIA	642" DIA
648" DIA	648" DIA
654" DIA	654" DIA
660" DIA	660" DIA
666" DIA	666" DIA
672" DIA	672" DIA
678" DIA	678" DIA
684" DIA	684" DIA
690" DIA	690" DIA
696" DIA	696" DIA
702" DIA	702" DIA
708" DIA	708" DIA
714" DIA	714" DIA
720" DIA	720" DIA
726" DIA	726" DIA
732" DIA	732" DIA
738" DIA	738" DIA
744" DIA	744" DIA
750" DIA	750" DIA
756" DIA	756" DIA
762" DIA	762" DIA
768" DIA	768" DIA
774" DIA	774" DIA
780" DIA	780" DIA
786" DIA	786" DIA
792" DIA	792" DIA
798" DIA	798" DIA
804" DIA	804" DIA
810" DIA	810" DIA
816" DIA	816" DIA
822" DIA	822" DIA
828" DIA	828" DIA
834" DIA	834" DIA
840" DIA	840" DIA
846" DIA	846" DIA
852" DIA	852" DIA
858" DIA	858" DIA
864" DIA	864" DIA
870" DIA	870" DIA
876" DIA	876" DIA
882" DIA	882" DIA
888" DIA	888" DIA
894" DIA	894" DIA
900" DIA	900" DIA
906" DIA	906" DIA
912" DIA	912" DIA
918" DIA	918" DIA
924" DIA	924" DIA
930" DIA	930" DIA
936" DIA	936" DIA
942" DIA	942" DIA
948" DIA	948" DIA
954" DIA	954" DIA
960" DIA	960" DIA
966" DIA	966" DIA
972" DIA	972" DIA
978" DIA	978" DIA
984" DIA	984" DIA
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DESIGNED BY: D. CARROLL
DRAWN BY: R. SPENCER
CHECKED BY: T. DUMALL



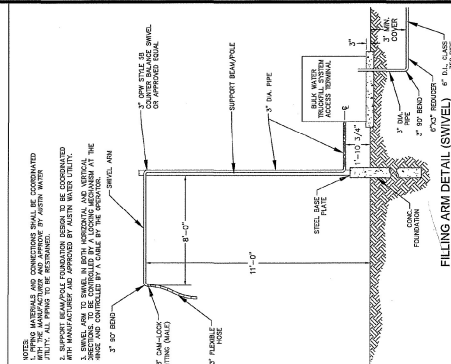
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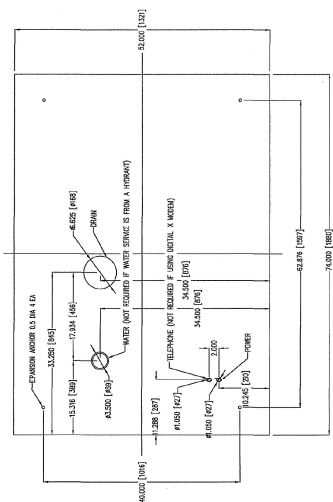
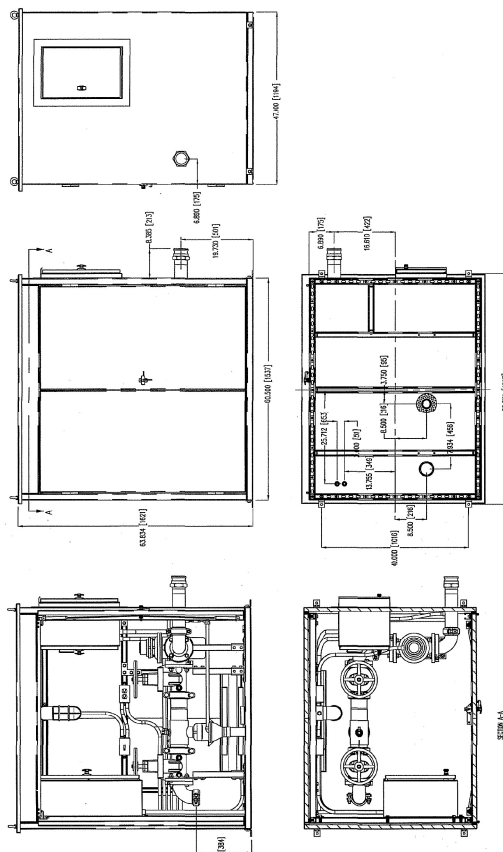
DAVCAR
ENGINEERING
1010 Land Creek Cove, Ste 200
Austin, Texas 78746
p: (512) 328-4428
f: (512) 306-8330



RECORD DRAWING

2011-0013



NOTE: SEE SPECIFICATIONS ITEM NO. SS02675 IN PROJECT SPECIFICATIONS BOOK.

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MUNICIPAL SOLUTIONS										WALTER GENERAL	KEY					
CONNECTIONS AND MOUNTING										10-20-40	FORMING NO.					

ATTACHMENT 4
RECLAIM CUSTOMER CONTRACT



Reclaimed Water Tap Permit Application

6310 Wilhelmina Delco Drive | 512-972-0101 | AWTaps@austintexas.gov

CONDITIONS & INSTRUCTIONS

Permanent installation of a reclaimed water service line and meter requires passing a final plumbing inspection. Separate applications are required for separate structures or dwelling units on same property.

This application must be complete and required documents submitted before the tap permit can be sold.

EXPIRATION

The Tap Permit will expire two years after the date of issue; refund requests will not be accepted after the expiration date. To keep the tap permit active after the two-year period, for properties inside Austin city limits, you must have an active site plan or building permit. For properties outside the city limits, you must have an active plumbing permit with the City of Austin.

PROPERTY INFORMATION - Address must be approved by [Address Management Services](#)

Service Address: _____

Lot: _____ Block: _____

Subdivision/Land Status: _____ Plat Date*: _____

**Attach plat date document from County records; if plat date is not verified the current Impact Fee is charged.*

APPLICANT INFORMATION - Responsible party for tap fees and monthly utility billing

Purchaser Name: _____

Name/Company: _____

Type of Company: ☐ Corporation ☐ LLC ☐ Partnership ☐ LLP ☐ Sole Proprietorship

Tax ID: _____

Phone: _____ Email: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

RECLAIMED WATER METER/CONNECTION INFORMATION

Requested Reclaimed Meter Size: _____

Type of Use (check all that apply): ☐ Landscape ☐ Construction ☐ Industrial ☐ Commercial
☐ Agricultural ☐ Cooling ☐ Toilet flushing ☐ _____

Will the reclaimed water discharge to the City Sanitary System (wastewater)? ☐ Yes ☐ No

Austin Water Taps Permitting Office Staff Only

Type of Service/Rate: (SP) ☐ Mandatory ☐ Non-mandatory

(SA) ☐ Residential ☐ Commercial ☐ City of Austin ☐ Parkland
(SA contract qty)

AGREEMENT

I understand and agree to the conditions in this document and all permitting requirements. I hereby apply for a tap connection to the reclaimed water system at the service address listed on this application. If any of the information I provided is incorrect, I understand that I may have to pay fees or other costs associated with relocation of water or wastewater connections. I understand that upon request for a reclaimed meter inspection and installation, a City of Austin utility billing account will be set up in the name of the Applicant, and monthly charges will be billed to this party. Applicant hereby agrees to allow Austin Water on their property to inspect the reclaimed water system. The Applicant agrees to hold the City harmless from claims arising out of the applicant's operation and maintenance of reclaimed water service. Applications submitted electronically imply your signature.

Printed Name

Signature

Date

ATTACHMENT A

General Requirements for Reclaimed Water Users

I. General Requirements:

- a) The user shall use the reclaimed water in accordance with this agreement, City ordinances, and TAC Chapter 210 relating to reclaimed water.
- b) The City of Austin will not be liable for misapplication of reclaimed water by users.
- c) The City of Austin may conduct periodic audits of appropriate controls implemented by reclaimed water users.
- d) There shall be no nuisance conditions resulting from the user's distribution, use, and/or storage of reclaimed water.
- e) Use of hose bibs and faucets are prohibited unless specifically approved by the City of Austin, Austin Water, Director.
- f) Backflow prevention devices shall be installed on the potable water service line.
- g) One of the following requirements must be met by the user for any area where reclaimed water is stored or where there exist hose bibs or faucets: Signs having a minimum size of eight inches shall be posted at all storage areas and on all hose bibs and faucets reading, in both English and Spanish, "Reclaimed Water, Do Not Drink" and "Agua Reclamada, No Tome el Agua" or similar warning; or the area shall be secured to prevent access by the public.
- h) The reclaimed water user shall provide reasonable control of the application rates for reclaimed water applied to irrigation areas. These controls shall encourage the efficient use of reclaimed water and avoid excessive application of reclaimed water that results in surface runoff or excessive percolation below the root zone.
- i) A user is responsible for ensuring that reclaimed water overflow, crop stress, and undesirable soil contamination by salt does not occur.
- j) All exposed piping and piping within a building shall be marked according to the City of Austin adopted Plumbing Code. All buried piping installed after the effective date of these rules shall be marked according to the City of Austin adopted Plumbing Code
- k) A user may not resell, trade or transfer reclaimed water to any other person or legal entity. The user is also prohibited from conveying reclaimed water to any other premises or location.
- l) The user is solely responsible for any private distribution system costs, including the initial construction cost, and operation and maintenance of the private reclaimed water system on the user's property.
- m) A user may construct storage facilities for reclaimed water. Storage facilities shall be designed, constructed, and operated in accordance with 30 TAC, Chapter 210.
- n) Reclaimed water shall not be utilized in a way that degrades ground water quality to a degree adversely affecting its actual or potential uses.
- o) Reclaimed water managed in storage ponds must be prevented from discharge into waters in the state, except for discharges directly resulting from rainfall events or in accordance with a permit issued by the Texas Commission on Environmental Quality (TCEQ). All other discharges are unauthorized. If any unauthorized overflow of a storage pond occurs causing discharge into or adjacent to waters in the state, the user shall report any non-compliance within five working days to the TCEQ and to the City of Austin.
- p) Irrigation sites must be maintained with a vegetative cover or be under cultivation during times when reclaimed water is applied. Distribution systems must be designed to prevent operation by unauthorized personnel. Irrigation operations shall be managed in a manner to minimize the inadvertent contact of reclaimed water with humans. Operational or tail water controls shall be provided to preclude discharge of reclaimed water from irrigation sites.
- q) Food crops that may be consumed raw by humans shall not be spray irrigated. Food crops including orchard crops that will be substantially processed prior to human consumption may be spray irrigated. Other types of irrigation that avoid contact of reclaimed water with edible portions of food crops are acceptable.

ATTACHMENT B

Operation and Maintenance Plan for Reclaimed Water Users

I. Labeling and Separation:

- a) To indicate that reclaimed water is in use a sign, in both English and Spanish, shall be posted at each storage area, hose bib, and faucet reading "Reclaimed Water, Do Not Drink" and "Agua Reclamada, No Tome el Agua."
- b) All exposed piping and piping within a building shall be marked according to the City of Austin adopted Plumbing Code.
- c) All buried piping installed shall be one of the following: manufactured in purple, painted purple, taped with purple metallic tape, or bagged in purple.

II. Unauthorized Access:

- a) Distribution systems shall be designed to prevent operation by unauthorized personnel.

III. Transfers and Use:

- a) The reclaimed water user shall provide reasonable control of the application rates for reclaimed water. These controls shall encourage the efficient use of reclaimed water and avoid excessive application of reclaimed water.
- b) Irrigation practices shall be designed to prevent incidental ponding or standing water.
- c) There shall be no application of reclaimed water when the ground is saturated or frozen.

IV. Minimizing Human Exposure:

- a) Backflow prevention devices shall be installed on both the reclaimed service line and the potable water service line.
- b) Irrigation operations shall be at night or when the potential for human contact is low.
- c) Irrigation rates and times shall be managed to minimize "wet grass" conditions in unrestricted landscaped areas during the periods the area could be in use.
- d) Irrigation systems shall be designed so that the irrigation spray does not reach any privately owned premises outside the designated irrigation area or reach public drinking fountains.

V. Routine Maintenance:

- a) Broken equipment shall be repaired promptly.

VI. Training and Safety:

- a) Backflow prevention devices shall be inspected annually per City of Austin's ordinances.

VII. Contingency Plan:

- a) Any unauthorized reclaimed water discharge into or adjacent to waters in the state shall be reported to the City of Austin Water and the Texas Commission on Environmental Quality within five working days of becoming aware of the discharge.

**Austin Texas -Code of Ordinances
Title 25 Land Development
Chapter 25-9 Water**

ARTICLE 4. - RECLAIMED WATER.

§ 25-9-381 - APPLICABILITY.

This article applies in the planning jurisdiction of the City except as otherwise provided in this article.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-382 - DEFINITIONS.

In this article:

(1)APPROVED USE means an application of reclaimed water authorized by a reclaimed water agreement.(2)APPROVED USE AREA means a site designated in a reclaimed water agreement to receive reclaimed water for an approved use.(3)COMMISSION means the Texas Natural Resources Conservation Commission.(4)DRAWINGS mean plans, working drawings, detail drawings, profiles, typical cross sections, or reproductions that show locations, character, dimensions, or details of work related to a reclaimed water system and its components.(5)INDUSTRIAL USE means an approved use of reclaimed water for industrial or commercial processes as defined by 30 Texas Administrative Code, Chapter 210.(6)IRRIGATION USE means an approved use of reclaimed water for landscape, horticultural, or agricultural irrigation as defined by 30 Texas Administrative Code, Chapter 210.(7)MUNICIPAL WASTEWATER means wastewater collected from dwelling units, commercial buildings, and institutions including process wastes of industry, groundwater infiltration, miscellaneous waste liquids, spent water from building water supply, and waste materials from bathrooms, kitchens and laundries.(8)OFFSITE FACILITIES means reclaimed water distribution, storage, or delivery facilities upstream of the point of connection to an approved use area.(9)ONSITE FACILITIES means reclaimed water distribution facilities downstream of the point of connection to an approved use area.(10)POINT OF CONNECTION means a location where offsite facilities connect to onsite facilities, at the downstream end of the Utility's reclaimed water service meter.(11)RECLAIMED WATER SERVICE means furnishing reclaimed water to a user through a metered connection to onsite facilities.(12)RECLAIMED WATER means reclaimed municipal wastewater that is under the direct control of the City treatment plants, satellite facilities, or a treatment plant with which the City contracts, and that has been treated to a quality that meets or exceeds 30 Texas Administrative Code, Chapter 210 requirements.(13)SATELLITE FACILITY means a package wastewater treatment plant.(14)SERVICE AREA means the territory within the City and within its extraterritorial jurisdiction.(15)STORAGE FACILITY means an impoundment or structural tank that receives reclaimed water from a producer.(16)USER means a party to a reclaimed water agreement with the City.(17)UTILITY means the Water and Wastewater Utility.(18)UTILITY STANDARD means a design criterion of the City, American Water Works Association, or the Commission.(19)WATER RIGHT means a real property right to divert, use, or consume water flowing to, over, or under land.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-383 - AVAILABILITY OF RECLAIMED WATER SERVICE.

(A)The director of the Water and Wastewater Utility may make reclaimed water available to properties within the service area as the Utility extends the reclaimed water distribution system(B)The director of the Water and Wastewater Utility shall prescribe design requirements for reclaimed water facilities, the manner of construction, the method of operation, and conditions of service.(C)The director of the Water and Wastewater Utility may refuse to provide service for the following reasons:(1)reclaimed water service would be detrimental to the potable water system;(2)City supply of treated wastewater is inadequate to meet the anticipated needs of the proposed use area;(3)required fees have not been paid;(4)reclaimed water service to the area would not benefit the City;(5)the proposed use is inappropriate for reclaimed water; or(6)known safeguards are not in place to protect the public health or the environment.(D)In determining whether to provide reclaimed water service to an applicant, the director of the Water and Wastewater Utility may consider the following factors:(1)the existence of a reclaimed water main adjacent to or near the premises of an applicant; and(2)the applicant's offer to pay the cost of service extension.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-384 - RECLAIMED WATER SERVICE APPLICATION.

An applicant for a subdivision plat, building permit, site plan, water service extension, or water connection within the service area may submit an application to use reclaimed water. The director of the Water and Wastewater Utility shall prescribe an application form for reclaimed water service.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-385 - APPLICATION REVIEW.

(A)The director of the Water and Wastewater Utility shall review an application for reclaimed water service and investigate the proposed service. The investigation may include a site visit with the user to determine the feasibility of reclaimed water service.(B)The director of the Water and Wastewater Utility shall determine whether the application meets the requirements of this article and of the Commission.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-386 - APPROVAL REQUIRED FOR SYSTEM DESIGN AND OPERATION.

(A)A user must submit design drawings and specifications to the director of the Water and Wastewater Utility for approval before the user may construct or retrofit an onsite facility that will use or receive reclaimed water.(B)A user must submit to the Utility drawings of the final installed onsite reclaimed water system and the entire approved use area before beginning operation.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-387 - BACKFLOW PREVENTION.

A user must install a backflow prevention assembly on the reclaimed water service line before the director may provide reclaimed water service.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-388 - STORAGE.

A user must design storage facilities used for storing reclaimed water in accordance with 30 Texas Administrative Code, Chapter 210.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-389 - RECLAIMED WATER AGREEMENT.

(A)If the director of the Water and Wastewater Utility approves the application, the Utility may enter a reclaimed water service agreement with a user.(B)A reclaimed water agreement must incorporate the requirements of this article and additional utility standards, if any, prescribed by the director of the Water and Wastewater Utility.(C)The user must sign the reclaimed water agreement acknowledging that the user is responsible for onsite activities and must agree to hold the City harmless from claims arising out of user's operation and maintenance of reclaimed water service.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-390 - DISCONTINUANCE OF SERVICE.

(A)The City may discontinue reclaimed and potable water service to a user if the user:(1)violates this article;(2)fails to pay water bills;(3)tampers with the service;(4)cross-connects with a potable water source;(5)refuses to permit an authorized city representative to enter its premises to inspect the user's reclaimed water system; or(6)performs an act that may be detrimental to the water or wastewater system.(B)A user who seeks to discontinue service must pay for the reclaimed water used until the service is discontinued.(C)A user may not reconnect a discontinued service without the director of the Water and Wastewater Utility's approval.(D)If a user reconnects a discontinued service without the director of the Water and Wastewater Utility's approval, the Utility may remove the service and charge an additional fee.(E)The Utility may not charge a fee for discontinued reclaimed water service.(F)A user may apply for reinstatement of service after paying the fees or charges authorized by this article.(G)The director of the Water and Wastewater Utility shall charge a fee for service reinstatement.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-391 - UTILITY RESPONSIBILITIES.

(A)The Utility and its authorized agents, employees, or contractors are responsible for the operation, management, and control of the offsite facilities and the oversight of reclaimed water.(B)The Utility shall:(1)obtain necessary Commission permits for the offsite use of reclaimed water under 30 Texas Administrative Code, Chapter 210;(2)conduct reclaimed water quality assessments to comply with the requirements of the regulatory agencies; and(3)inspect the user's onsite facilities and their operations for conformance with this article.(C)Before the Utility requests council approval to construct new reclaimed water satellite facilities the Utility shall request the recommendations of the Water and Wastewater Commission, Environmental Board, and Land Use Commission.

Source: Ord. 001214-70; Ord. 010607-8; Ord. 031211-11.

§ 25-9-392 - USER RESPONSIBILITIES.

(A)A user may not make a connection to existing Utility facilities without the approval of the director of the Water and Wastewater Utility.(B)A user is responsible for constructing an onsite service line to an established point of connection.(C)A user shall provide supervision of onsite facilities to assure compliance with this article and Chapter 15-1 (Cross-Connection Regulations) of the City Code.(D)A user shall provide access at reasonable times for inspections.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-393 - USE OF RECLAIMED WATER.

(A)A user may use reclaimed water for the following purposes:(1)turf and general landscape irrigation;(2)non-food processing industrial processes;(3)non-residential toilet and urinal flushing;(4)construction activities;(5)vehicle washing;(6)air conditioning cooling towers; and(7)other uses authorized by the director of the Water and Wastewater Utility.(B)A user may use reclaimed water only in areas authorized by the director of the Water and Wastewater Utility.(C)A user may not give, sell, trade, or transfer reclaimed water to another area without the written approval of the director of the Water and Wastewater Utility.(D)A user may not discharge airborne or surface reclaimed water from the user's property, other than to a wastewater treatment system or wastewater collection system, without obtaining a permit from the Commission authorizing the discharge. The user must notify the Utility of the permit application.(E)A user who uses reclaimed water for cooling or processing must discharge the water to a sanitary sewer or use another method of discharge approved by the director of the Water and Wastewater Utility.(F)A user may not interrupt reclaimed water service in a portion of the Utility system without the approval of the director of the Water and Wastewater Utility. The director of the Water and Wastewater Utility may direct, inspect, and determine the time for an interruption of service to an existing system.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-394 - INSPECTION OF RECLAIMED WATER CONSTRUCTION.

(A)The Utility may inspect, remove, or secure devices installed by the user to control reclaimed water.(B)Utility personnel may inspect during normal business hours without notice to the user.(1)The Utility and regulatory agencies may make periodic unannounced inspections of the onsite reclaimed water system.(2)The user and its operations personnel shall cooperate with inspectors and assist in performing operational tests.(C)An onsite reclaimed water system must pass an operational test before the Utility may approve the system.(D)The director of the Water and Wastewater Utility may grant user final approval for reclaimed water service if:(1)the director of the Water and Wastewater Utility approves the drawings;(2)the system passes an inspection and cross connection control test; and(3)the user makes corrections required by the Utility.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-395 - IDENTIFICATION OF RECLAIMED WATER FACILITY.

A user must identify reclaimed water facilities in accordance with utility standards.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-396 - PROHIBITIONS.

A user may not:

(1)use reclaimed water for a purpose not approved in the reclaimed water agreement;(2)use or apply reclaimed water for a purpose, including approved uses, directly or by windblown spray, to an area other than that approved in the reclaimed water agreement;(3)use hose bibs on an onsite reclaimed water system unless the director approves the use of hose bibs; or(4)allow obstructions to impede access to meter boxes or other facilities.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-397 - RATES AND CHARGES.

(A)The Utility shall charge the rate provided by separate ordinance for the following:(1)reclaimed water fee;(2)tap fee;(3)meter set charges;(4)engineering or inspection fees;(5)reconnection fee; and(6)service reinstatement fee.(B)A user of reclaimed water service must pay an additional fee set by separate ordinance for discharge of reclaimed water to the sanitary sewer.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-398 - METER READINGS.

If a reclaimed water meter fails to register or registers inaccurately, the Utility may charge an average daily consumption rate based on a reading of the meter when in use and registering accurately during the same season or as close to the same season as is reasonably possible.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-399 - BILLING.

(A)The Utility may bill for reclaimed water monthly.(B)An active account becomes delinquent when full payment is not received in the Utility customer service office by the due date on the bill.(C)The Utility may discontinue a delinquent account, regardless of location, until the billing is paid.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-400 - WATER RIGHT.

The delivery of reclaimed water by the Utility and the acceptance and use of the reclaimed water by the user is not a transfer by the Utility or an acquisition by the user of a water right.

Source: Ord. 001214-70; Ord. 031211-11.

§ 25-9-401 - OFFENSES.

(A)A person commits an offense if the person knowingly violates any provision of this article.(B)An offense under this subsection is a Class C misdemeanor punishable by a fine not to exceed \$2000.(C)Each instance of a violation of this article is a separate offense.

Source: Ord. 001214-70; Ord. 031211-11.

ARTICLE 5. - ADDITIONAL WATER CONSERVATION REQUIREMENTS.[1]

Footnotes:

--- (1) ---

Editor's note— Ord. No. 20210930-117 , Pt. 5, effective 12-1-21 added article 5 to read as herein set out.

§ 25-9-410 - DEFINITIONS.

In this article:

(1)DIRECTOR means the director of Austin Water.(2)LARGE DEVELOPMENT PROJECT means the construction of one or more multi-family, mixed use, or commercial buildings on one or more parcels in accordance with a phased plan or approved site plan, with a total gross floor area for the building(s) of 250,000 square feet or more.(3)ONSITE WATER REUSE SYSTEM means a system that collects, treats, and uses alternative water sources for non-potable uses at the building to district or neighborhood scale,

generally at a location near the point of generation.(4)SMALL DEVELOPMENT PROJECT means the construction of one or more multi-family, mixed use, or commercial buildings on one or more parcels in accordance with a phased plan or approved site plan, with a total gross floor area for the building(s) of less than 250,000 square feet.(5)WATER BENCHMARKING APPLICATION means the form approved by the director that provides information on a proposed development project's anticipated water usage by source, and that provides a water balance calculation for the project.

(Ord. No. 20210930-117 , Pt. 1, 12-1-21)

§ 25-9-411 - RECLAIMED WATER CONNECTION REQUIREMENTS.

(A)A small development project located within 250 feet of a reclaimed water line shall connect to a reclaimed water line and use reclaimed water for irrigation, cooling, toilet flushing, and other significant non-potable water uses identified in the water balance calculator.(B)A large development project located within 500 feet of a reclaimed water line shall connect to a reclaimed water line and use reclaimed water for irrigation, cooling, toilet flushing and other significant non-potable water uses identified in the water balance calculator.(C)The director may grant a variance for the requirements of this section for:(1)small development projects if site conditions are such that compliance would represent a significant financial hardship or health risk to the applicant or the public;(2)large development projects if site conditions are such that compliance would represent a health risk to the applicant or the public; or(3)municipal uses associated with law enforcement or public health and safety.(D)The director shall grant a variance for the requirements of this section for a large development with a multifamily component that is more than 250 feet from and within 500 feet of a reclaimed water line until December 1, 2023.

(Ord. No. 20210930-117 , Pt. 2, 12-1-21)

§ 25-9-412 - DEVELOPMENT PROJECT REQUIREMENTS.

(A)Water Benchmarking Application.(1)Applicability. This subsection applies to a small or large development project for which a site plan application is submitted under Chapter 25-5 (Site Plans).(2)Director's Review and Approval.(a)A site plan application must include a completed water benchmarking application.(b)Approval of the water benchmarking application by the director is required as a condition of site plan approval.(B)Director Consultation Required. In addition to the requirements in Subsection (A), an applicant requesting approval of a large development project must meet with the director prior to site plan release to discuss water efficiency code requirements, water use benchmarking data, and incentives and rebates for alternative water use.

(Ord. No. 20210930-117 , Pt. 3, 12-1-21)

§ 25-9-413 - ONSITE WATER REUSE SYSTEM REQUIREMENT.

An onsite water reuse system is required for a large development project for which a site plan application is submitted under Chapter 25-5 (Site Plans).

(Ord. No. 20210930-117 , Pt. 4, 12-1-23)

§ 25-8-691 - THREATENED OR ENDANGERED SPECIES NOTIFICATION.

ATTACHMENT 5
OPERATION & MAINTENANCE PLAN

Operation and Maintenance Plan for Reclaimed Water Users

I. Labeling and Separation:

- a) To indicate that reclaimed water is in use a sign, in both English and Spanish, shall be posted at each storage area, hose bib, and faucet reading "Reclaimed Water, Do Not Drink" and "Agua Reclamada, No Tome el Agua."
- b) All exposed piping and piping within a building shall be marked according to the City of Austin adopted Plumbing Code.
- c) All buried piping installed shall be one of the following: manufactured in purple, painted purple, taped with purple metallic tape, or bagged in purple.

II. Unauthorized Access:

- a) Distribution systems shall be designed to prevent operation by unauthorized personnel.

III. Transfers and Use:

- a) The reclaimed water user shall provide reasonable control of the application rates for reclaimed water. These controls shall encourage the efficient use of reclaimed water and avoid excessive application of reclaimed water.
- b) Irrigation practices shall be designed to prevent incidental ponding or standing water.
- c) There shall be no application of reclaimed water when the ground is saturated or frozen.

IV. Minimizing Human Exposure:

- a) Backflow prevention devices shall be installed on both the reclaimed service line and the potable water service line.
- b) Irrigation operations shall be at night or when the potential for human contact is low.
- c) Irrigation rates and times shall be managed to minimize "wet grass" conditions in unrestricted landscaped areas during the periods the area could be in use.
- d) Irrigation systems shall be designed so that the irrigation spray does not reach any privately owned premises outside the designated irrigation area or reach public drinking fountains.

V. Routine Maintenance:

- a) Broken equipment shall be repaired promptly.

VI. Training and Safety:

- a) Backflow prevention devices shall be inspected annually per City of Austin's ordinances.

VII. Contingency Plan:

- a) Any unauthorized reclaimed water discharge into or adjacent to waters in the state shall be reported to the City of Austin Water and the Texas Commission on Environmental Quality within five working days of becoming aware of the discharge.

Rainee Trevino

From: Klein, Misty <Misty.Klein@austintexas.gov>
Sent: Friday, September 27, 2024 6:55 AM
To: Rainee Trevino
Cc: West, Tammy
Subject: RE: Application to Renew Permit No. WQ0010543013- Notice of Deficiency Letter
Attachments: 219724_wq0010543013-English NORI Draft_Vietnamese.docx; wq0010543013-English NORI Draft.pdf; 219724_wq0010543013-English NORI Draft_Simplified Chinese.docx; 219724_wq0010543013-English NORI Draft_Spanish.docx

Follow Up Flag: Follow up
Flag Status: Completed

Good morning,

Please find attached the required translated NORI documents in response to item #4.

Regards,



Misty Klein

Wastewater Regulatory Coordinator

[Austin Water](#)

512-972-0249 | cell: 903-517-4747

misty.klein@austintexas.gov



From: West, Tammy <Tammy.Yates.West@austintexas.gov>
Sent: Tuesday, September 24, 2024 10:49 AM
To: Rainee Trevino <Rainee.Trevino@tceq.texas.gov>
Cc: Weber, Agmed <Agmed.Weber@austintexas.gov>; Zuniga, Sandra <Sandra.Zuniga@austintexas.gov>; Klein, Misty <Misty.Klein@austintexas.gov>
Subject: RE: Application to Renew Permit No. WQ0010543013- Notice of Deficiency Letter

Rainee,
Please see attached the response to item #1 in the NOD.
Regards,



Tammy Y West

Wastewater Regulatory Manager

[Austin Water](#)

Office: 512-972-0143

Cell: 512-636-1670

Rainee Trevino

From: West, Tammy <Tammy.Yates.West@austintexas.gov>
Sent: Tuesday, September 24, 2024 10:49 AM
To: Rainee Trevino
Cc: Weber, Agmed; Zuniga, Sandra; Klein, Misty
Subject: RE: Application to Renew Permit No. WQ0010543013- Notice of Deficiency Letter
Attachments: NOD_permit fee response.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Rainee,
Please see attached the response to item #1 in the NOD.
Regards,



Tammy Y West

Wastewater Regulatory Manager

[Austin Water](#)

Office: 512-972-0143

Cell: 512-636-1670

Tammy.yates.west@austintexas.gov



From: Rainee Trevino <Rainee.Trevino@tceq.texas.gov>
Sent: Wednesday, September 18, 2024 8:40 AM
To: West, Tammy <Tammy.Yates.West@austintexas.gov>
Cc: Weber, Agmed <Agmed.Weber@austintexas.gov>; Zuniga, Sandra <Sandra.Zuniga@austintexas.gov>; Klein, Misty <Misty.Klein@austintexas.gov>
Subject: RE: Application to Renew Permit No. WQ0010543013- Notice of Deficiency Letter

You don't often get email from rainee.trevino@tceq.texas.gov. [Learn why this is important](#)

External Email - Exercise Caution

Good morning, Ms. West,

The domestic wastewater application fees are always based on the final phase flow. This is mentioned in the application instructions on page 26.

Please let me know if you have any questions.

Best Regards,

Rainee Trevino

From: West, Tammy <Tammy.Yates.West@austintexas.gov>
Sent: Wednesday, September 18, 2024 12:03 PM
To: Rainee Trevino
Cc: Weber, Agmed; Klein, Misty
Subject: RE: Application to Renew Permit No. WQ0010543013- Notice of Deficiency Letter
Attachments: Plain Language Summary_English_Updated.pdf; 201924_Plain Language Summary_English_Updated_Vietnamese.pdf; 201924_Plain Language Summary_English_Updated_Spanish.pdf; 201924_Plain Language Summary_English_Updated_Simplified_Chinese.pdf; Easement Recorded deed.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Rainee,
Please see attached the following:
Item #2-Updated plain language summary for English, Spanish, Simplified Chinese, and Vietnamese.
Item #3-Recorded Easement
Item #4-The NORI is correct.
I have requested a check for the difference in permit fee and will send that as soon as it is possible.
Regards,



Tammy Y West

Wastewater Regulatory Manager

[Austin Water](#)

Office: 512-972-0143

Cell: 512-636-1670

Tammy.yates.west@austintexas.gov



From: Rainee Trevino <Rainee.Trevino@tceq.texas.gov>
Sent: Tuesday, September 17, 2024 3:26 PM
To: West, Tammy <Tammy.Yates.West@austintexas.gov>
Cc: Weber, Agmed <Agmed.Weber@austintexas.gov>
Subject: Application to Renew Permit No. WQ0010543013- Notice of Deficiency Letter

Some people who received this message don't often get email from rainee.trevino@tceq.texas.gov. [Learn why this is important](#)

External Email - Exercise Caution

Dear Ms. West

The attached Notice of Deficiency letter sent on September 17, 2024, requests additional information needed to declare the application administratively complete. Please send the complete response to my attention by October 1, 2024.

Best Regards,

Rainee Trevino

Water Quality Division | ARP Team

Texas Commission on Environmental Quality

512-239-4324



CAUTION: This is an EXTERNAL email. Please use caution when clicking links or opening attachments. If you believe this to be a malicious or phishing email, please report it using the "Report Message" button in Outlook. For any additional questions or concerns, contact CSIRT at "cybersecurity@austintexas.gov".

简明摘要

Austin市 - Austin Water
Wild Horse Ranch WWT
TCEQ许可证号 -WQ0010543013
生活污水处理厂申请

CN600135198

RN103014577

TX0124800

WQ0010543013

根据《Texas州行政法规》第30篇第39章的规定，Texas州环境质量委员会正在审查水质许可证申请，现提供该待处理申请的以下摘要。本摘要中提供的信息可能会在该申请的技术审查过程中发生变化，这些信息并不属于联邦对许可证申请的强制性陈述。

Austin市（CN600135198）运营着Wild Horse Ranch污水处理厂（RN103014577），这是一座传统的活性污泥污水处理厂。该设施的地址是10621 Blue Bluff Lane, near the City of Manor, Travis County, Texas 78653。

该申请旨在续延其排放许可，以获准通过001号排放口排放经处理的生活废水，日均流量为75万加仑。

该设施排出的废水预计含有五日碳质生化需氧量（CBOD5）、总悬浮固体（TSS）、氨氮（NH₃-N）和大肠杆菌。其他潜在污染物载于许可申请材料中的《生活废水技术报告1.0》第7节、《经处理污水的污染物分析》和《生活废水工作表4.0》。

生活废水主要采用活性污泥工艺进行处理。处理单元包括条形筛、沉砂渠、曝气池、用于化学除磷的硫酸铝添加装置、终沉池、盘式过滤器和紫外线消毒系统。废弃污泥被运送至Austin市Walnut Creek污水处理厂（WQ0010543011），随后通过泵送转移至Austin市的生物固体管理厂（WQ0003823000）进行处理和有益再利用。



Water Quality Receipt Report

SEP-30-24 09:00 PM

Paid In By: AUSTIN ELEMENTS INC

<u>Acct.Name</u>	<u>Fee</u>	<u>Endorse. #</u>	<u>Ref#2</u>	<u>PayTyp</u>	<u>Check#</u>	<u>Card#</u>	<u>Tran.Date</u>	<u>Rec.Amnt</u>
WATER QUALITY	WQP	M418075		MO	195599775		10-JUN-24	-\$100.00
PERMIT APPLICATION					55			

Paid In By: AUSTIN EVETTS

<u>Acct.Name</u>	<u>Fee</u>	<u>Endorse. #</u>	<u>Ref#2</u>	<u>PayTyp</u>	<u>Check#</u>	<u>Card#</u>	<u>Tran.Date</u>	<u>Rec.Amnt</u>
WATER QUALITY	WQP	PI00977344	718578	IFCE	582EA0006		27-AUG-24	-\$1200.00
PERMIT APPLICATION					22833			
NOTICE FEES WQP	PTGQ	PI00977345	718579	IFCE	582EA0006		27-AUG-24	-\$50.00
WATER QUALITY PMT					22833			

Paid In By: AUSTIN KARNES

<u>Acct.Name</u>	<u>Fee</u>	<u>Endorse. #</u>	<u>Ref#2</u>	<u>PayTyp</u>	<u>Check#</u>	<u>Card#</u>	<u>Tran.Date</u>	<u>Rec.Amnt</u>
WATER QUALITY	WQP	PI00960474	705505	IFCE	582EA0006		17-MAY-24	-\$300.00
PERMIT APPLICATION					10389			
NOTICE FEES WQP	PTGQ	PI00960473	705506	IFCE	582EA0006		17-MAY-24	-\$50.00
WATER QUALITY PMT					10389			

Paid In By: AUSTIN PERK

<u>Acct.Name</u>	<u>Fee</u>	<u>Endorse. #</u>	<u>Ref#2</u>	<u>PayTyp</u>	<u>Check#</u>	<u>Card#</u>	<u>Tran.Date</u>	<u>Rec.Amnt</u>
WATER QUALITY	WQP	PI00953388	700300	IFCE	582EA0006		08-APR-24	-\$1200.00
PERMIT APPLICATION					05429			
NOTICE FEES WQP	PTGQ	PI00953389	700301	IFCE	582EA0006		08-APR-24	-\$15.00
WATER QUALITY PMT					05429			

Paid In By: AUSTIN, CITY OF

<u>Acct.Name</u>	<u>Fee</u>	<u>Endorse. #</u>	<u>Ref#2</u>	<u>PayTyp</u>	<u>Check#</u>	<u>Card#</u>	<u>Tran.Date</u>	<u>Rec.Amnt</u>
WATER QUALITY	WQP	M401156A	14459001	CK	4670784		13-OCT-23	-\$500.00
PERMIT APPLICATION								
NOTICE FEES WQP	PTGQ	M401156B	14459001	CK	4670784		13-OCT-23	-\$15.00
WATER QUALITY PMT								
WATER QUALITY	WQP	M404984A		CK	4675411		27-NOV-23	-\$2000.00
PERMIT APPLICATION								
NOTICE FEES WQP	PTGQ	M404984B		CK	4675411		27-NOV-23	-\$15.00
WATER QUALITY PMT								
WATER QUALITY	WQP	M408406A	01887000	CK	4679523		29-DEC-23	-\$300.00
PERMIT APPLICATION								
NOTICE FEES WQP	PTGQ	M408406B	01887000	CK	4679523		29-DEC-23	-\$50.00
WATER QUALITY PMT								
WATER QUALITY	WQP	M413084A		CK	4690340		21-FEB-24	-\$1200.00
PERMIT APPLICATION								
NOTICE FEES WQP	PTGQ	M413084B		CK	4690340		21-FEB-24	-\$15.00
WATER QUALITY PMT								
WATER QUALITY	WQP	M413580A		CK	4690339		27-FEB-24	-\$100.00
PERMIT APPLICATION								
NOTICE FEES WQP	PTGQ	M413580B		CK	4690339		27-FEB-24	-\$50.00
WATER QUALITY PMT								
WATER QUALITY	WQP	M414227A	04351000	CK	4679524		05-MAR-24	-\$2000.00
PERMIT APPLICATION								
NOTICE FEES WQP	PTGQ	M414227B	04351000	CK	4679524		05-MAR-24	-\$15.00
WATER QUALITY PMT								
WATER QUALITY	WQP	M417916A	10543012	CK	4706545		04-JUN-24	-\$2000.00
PERMIT APPLICATION								
NOTICE FEES WQP	PTGQ	M417916B	10543012	CK	4706545		04-JUN-24	-\$15.00
WATER QUALITY PMT								
WATER QUALITY	WQP	M540792	10543013	CK	4726504		30-SEP-24	-\$400.00
PERMIT APPLICATION								

RESUMEN EN LENGUAJE SENCILLO

Ciudad de Austin - Austin Water
Wild Horse Ranch WWTP
Permiso TCEQ - WQ0010543013
Solicitud de WWTP Doméstico

CN600135198

RN103014577

TX0124800

WQ0010543013

Se provee el siguiente resumen de esta solicitud pendiente de permiso de calidad de agua que la Comisión de Calidad Ambiental de Texas está revisando según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son declaraciones federales ejecutables de la solicitud de permiso.

La Ciudad de Austin (CN600135198) opera la planta de tratamiento de aguas residuales Wild Horse Ranch (RN103014577), una planta de tratamiento de aguas residuales convencional con lodos activados. Las instalaciones están ubicadas en 10621 Blue Bluff Lane, cerca de la Ciudad de Manor, Condado de Travis, Texas 78653.

Esta solicitud es para una renovación para descargar a un caudal promedio anual de 2,250,000 galones por día de agua residual doméstica tratada a través del Desagüe 001.

Se espera que las descargas de la planta tengan demanda bioquímica de oxígeno carbonoso a cinco días (CBOD 5), sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH₃-N) y *Escherichia coli*. Contaminantes potenciales adicionales se incluyen en el Informe Técnico Nacional 1.0, Sección 7. Análisis de contaminantes de efluentes tratados y hoja de trabajo doméstica 4.0 en el paquete de solicitud de permisos.

El agua residual doméstica se trata principalmente mediante un proceso de lodos activados. Las unidades de tratamiento incluyen una criba de barras, un canal de arenas, cuencas de aireación, adición de sulfato de aluminio para la remoción de fósforo químico, aclarador final, filtros de disco y un sistema de desinfección ultravioleta. Los lodos residuales se llevan a la Planta de Tratamiento de Aguas Residuales de Walnut Creek de la Ciudad de Austin (WQ0010543011) con bombeo subsiguiente que se transfiere a la Planta de Administración de Biosólidos de la Ciudad de Austin (WQ0003823000) para su tratamiento y reutilización beneficiosa.



TRV

2017190463

13 PGS

15

EASEMENT FOR INTERIM WASTEWATER TREATMENT PLANT

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

KNOW ALL BY THESE PRESENTS:**DATE:**October 10, 2017**GRANTOR:**

HEART OF MANOR, L.P.,
a Texas limited partnership

GRANTOR'S**MAILING ADDRESS:**

401 E. City Ave., Ste. 812
Bala Cynwyd, PA 19004-11305

GRANTEE:

CITY OF AUSTIN, TEXAS, a Texas municipal corporation
chartered under Article XI, Sec. 5 of the Texas Constitution, its
successors and assigns.

GRANTEE'S**MAILING ADDRESS:**

P.O. Box 1088
Austin, Texas 78767-8839
ATTN: Director, Austin Water

CONSIDERATION:

TEN DOLLARS and no/100 (\$10.00) and other good and valuable
consideration, the receipt and sufficiency of which are hereby
acknowledged and for which no lien or encumbrance, express or
implied, is retained.

EASEMENT**TRACT:**

That certain tract consisting of 12.0 acres, more or less, more
particularly described on **EXHIBIT A** attached hereto and made a
part hereof for all purposes.

For the consideration, Grantor does hereby GRANT, SELL and CONVEY to Grantee, a non-exclusive easement (the "Easement") for the construction, operation, maintenance, inspection, repair, upgrade, replacement, decommissioning and removal of an interim wastewater treatment plant (the "Interim WWTP"), and related influent, effluent and Interim WWTP process pipelines, tanks, lift stations, sludge handling facilities, wastewater reuse facilities, storage,

warehouse and administration buildings, electric, telephone, water, and gas utility lines, access roads, security fencing, and all other structures, equipment, fixtures, facilities and appurtenances necessary or incidental to the construction, operation, maintenance, repair, upgrade, replacement, decommissioning and removal of the Interim WWTP (collectively, "Interim WWTP Facilities") and for making utility connections therewith in, upon, under, along and across the Easement Tract, for the purposes described above and for no other purposes subject to the conditions set forth below.

EASEMENT CONDITIONS: Grantor and Grantee agree that the Easement shall be subject to the following conditions and limitations:

1. Upon the commencement of construction of the Interim WWTP by Grantee, Grantor will cease any activities on the Easement Tract and Grantee will thereafter be solely responsible for the security of the Easement Tract and for the construction, operation, maintenance, inspection, repair, upgrade, replacement, decommissioning and removal of the Interim WWTP on the Easement Tract in accordance with the terms of this Easement for Interim Wastewater Treatment Plant and that certain Cost Reimbursement Agreement between the Grantor and Grantee executed to be effective June 12, 2003.
2. Grantor reserves the right to grant utility easements to third parties over, under, along and across the Easement Tract with the prior written consent of the Director of Grantee's Austin Water department, which shall not be unreasonably withheld or delayed, provided however, that any such utility easement proposed by Grantor shall not materially impair or interfere with the Grantee's use of the Easement Tract for the easement purposes described above.
3. Grantor reserves the right to construct, install and maintain a fence and landscaping (with irrigation) within the Easement not to extend beyond ten feet (10') from the perimeter of the Easement.
4. Grantee shall conduct all of its activities on the Easement Tract in accordance with all applicable federal, state and local laws and regulations applicable thereto.
5. Grantee shall take good care of the Easement Tract including the Interim WWTP Facilities to be constructed thereon in accordance with the standard of care employed by Grantee in the operation and maintenance of Grantee's other WWTP facilities or greater. Following the initial construction of the Interim WWTP Facilities, Grantee shall, at its own cost, keep the Easement Tract clear of high weeds, rubbish, and debris and shall suffer no waste or nuisance on the Easement Tract provided, however, that the normal construction, operation, maintenance, inspection, repair, upgrade, replacement, decommissioning and removal of the Interim WWTP Facilities on the Easement Tract in accordance with the conditions of its wastewater discharge permit(s) shall not be construed to constitute a nuisance, including but not limited to odors and noise at a level not reasonably expected to occur at a similarly sized wastewater treatment facility that is properly managed consistent with industry standards. Grantee shall be responsible for

ensuring that hazardous substances employed by Grantee in connection with the construction, operation and maintenance of the Interim WWTP Facilities are transported, stored, used and disposed of in accordance with all applicable laws and regulations regarding the same. Grantor shall remain responsible for the proper cleanup and disposal of any hazardous substances or environmental contaminants deposited on the Easement Tract by Grantor, whether before or after the date of this Easement for Interim Wastewater Treatment Plant.

6. Grantor shall have the right to inspect the Easement Tract and the Interim WWTP Facilities on twenty four (24) hours written or telephone notice to Grantee for the purpose of determining compliance with the terms and conditions of this Easement.
7. Grantee shall ensure that all contractors engaged to perform the construction of the Interim WWTP Facilities and appurtenances provide insurance with overages and liability limits no less stringent than those required for other major public works projects of Grantee and shall include Grantor as an additional insured with respect to all such coverages except builder's risk and worker's compensation.
8. Grantor and Grantee shall be solely responsible for injuries to persons or property caused by their respective employees performing activities on the Easement Tract and the employees of one shall not be deemed to be employees, agents or borrowed servants of the other for any reason nor shall the respective activities of Grantor and Grantee on the Easement Tract be construed as a joint enterprise under or in connection with the application of the Texas Tort Claims Act, as amended.
9. Upon the completion and final acceptance by Grantee of a subregional wastewater treatment plant downstream of the Interim WWTP to replace the Interim WWTP, and all wastewater interceptors and appurtenances necessary to transport wastewater from the Wild Horse Ranch to the new wastewater treatment plant (collectively, the "Subregional WWTP Facilities"), Grantee shall commence and diligently pursue the decommissioning and removal of the Interim WWTP Facilities, at its sole cost. Grantee will exercise its reasonable efforts to remove the Interim WWTP Facilities and all debris, materials, structures, waste and environmental contaminants created, constructed, deposited, or placed by Grantee during its use of the Easement Tract on or before the expiration of six (6) months after the construction and final acceptance of the Subregional WWTP Facilities or such other and further time as Grantor and Grantee may agree.
10. Upon the mutual agreement of Grantor and Grantee, Grantee may continue to operate the Interim WWTP Facilities on the Easement Tract for the purpose of providing treated wastewater for beneficial reuse to customers within Wild Horse Ranch for such period and on such terms and conditions as Grantor and Grantee may then agree.
11. Upon the substantial completion of the Subregional WWTP, Grantee and Grantor shall coordinate the diversion of wastewater flows generated within Wild Horse Ranch from the Interim WWTP Facilities to the Subregional WWTP Facilities in a safe and efficient

manner and so as to minimize interruptions in service to customers, injury to persons or property, or damage to the environment.

12. In the event that one party believes the other party has materially breached the terms and conditions of this Easement, the non-defaulting party will make written demand and notice to cure and give the defaulting party up to thirty (30) days to cure such material breach or, if the curative action cannot reasonably be completed within thirty (30) days of its receipt of such written demand and notice, then the defaulting party will commence the curative action within thirty (30) days and thereafter diligently pursue the curative action to completion. This period must pass before the non-defaulting party may initiate any remedies available to the non-defaulting party due to such breach unless such breach is a threat to health or safety which requires more immediate action.
 - a. The non-defaulting party shall mitigate direct or consequential damages, if any, arising from any breach or default to the extent reasonably possible under the circumstances.
 - b. The parties agree that they will use their best efforts to resolve any disputes in an amicable manner and may engage in non-binding arbitration or other alternative dispute resolution methods as recommended by the laws of the State of Texas before initiating any lawsuit to enforce their rights under this Agreement. Nothing in this Agreement shall be construed to limit either party's right to recover damages or to seek other appropriate curative remedies in the event that an action for breach of contract is filed.
13. Except as otherwise provided above, any notice provided under this Easement shall be made in accordance with the provisions for notice set out in the Cost Reimbursement Agreement previously entered into between Grantor and Grantee.
14. Unless otherwise agreed in writing by Grantor and Grantee, the easement rights granted herein shall terminate and expire upon: (a) the decommissioning and removal of the Interim WWTP from the Easement Tract, (b) the abandonment of the Easement and the Access Easement by official action of the City Council of Grantee, (c) approval of a Release of Easement by the Real Estate Division of Grantee's Department of Public Works and Transportation or its successor agency pursuant to the municipal authority delegated from the City Council of Grantee or (d) official action by the City Council of Grantee (i) abandoning its plan to construct the Interim WWTP Facilities on the Easement Tract or (ii) abandoning operations at the Interim WWTP following construction of the Interim WWTP Facilities on the Easement Tract, for any reason whatsoever. Upon such termination, the Easement Tract shall revert to Grantor and Grantor shall have the right to use and subdivide the Easement Tract as Grantor determines in its sole discretion, subject to compliance with applicable federal, state and local laws, ordinances and regulations governing such proposed subdivision or use.
15. This conveyance is subject to all encumbrances, restrictions, and matters of record, visible or apparent on the ground. Grantor makes no representations or warranties with respect to condition or suitability of the Easement Tract for its intended purpose.

TO HAVE AND TO HOLD the same unto Grantee, its successors and assigns subject to the conditions stated above until the Easement and the Access Easement terminate and expire in accordance with this Easement for Interim Wastewater Treatment Plant, and Grantor does hereby covenant and agree to **WARRANT AND FOREVER DEFEND** title to the Easement herein granted unto the Grantee, its successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof.

IN WITNESS WHEREOF, Grantor has caused this instrument to be executed on this 4th
day of OCTOBER, 2017.

GRANTOR:

HEART OF MANOR, L.P.,
a Texas limited partnership

By: MANOR GP, LLC
a Texas limited liability company, as General Partner

By: TITAN CAPITAL INVESTMENT GROUP, LLC,
a Delaware limited liability company, as Manager

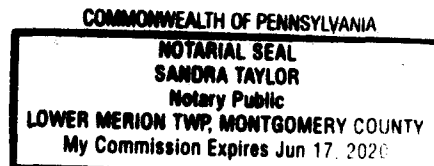
By: [Signature]
Name: William Peruzzi
Title: Manager
Date: 10-4-17

THE STATE OF PENNSYLVANIA §
§
COUNTY OF MONTGOMERY §

THIS INSTRUMENT was acknowledged before me on this 4th day of OCTOBER, 2017,
by WILLIAM PERUZZI, MANAGER of TITAN CAPITAL INVESTMENT GROUP, LLC, on behalf of said limited partnership.

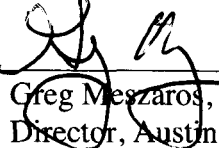
[Signature]
Notary Public-State of Pennsylvania

(SEAL)



**ACCEPTED AND AGREED:
CITY OF AUSTIN, TEXAS**

By: _____


Greg Meszaros,
Director, Austin Water

Date: _____



AFTER RECORDING, RETURN TO:

Eric Sermeno
City of Austin
Austin Water
P.O. Box 1088
Austin, Texas 78767

CONSENT OF LIENHOLDER

THE UNDERSIGNED, being the holder of:

1. Deed of Trust dated February 27, 2009 executed by Heart of Manor, LP to Robert B. Barnes, Trustee, securing the payment of one note in the original amount of \$12,000,000.00, payable to International Bank of Commerce together with all other indebtedness of any kind whatsoever secured or to be secured thereby. Deed of Trust recorded under Document Number 2009031324, of the Official Public Records of Travis County, Texas, as modified in Document Number 2013208213, of the Official Public Records of Travis County, Texas. Additionally secured by Assignment of Leases and Rents recorded under Document 2009031325, of the Official Public Records of Travis County, Texas. Additionally secured by Assignment of Rights recorded under Document 2009079085, in the Official Public Records of Travis County, Texas;
2. Deed of Trust dated February 23, 2015 from Heart of Manor, LP to Robert B. Barnes, Trustee, securing the payment of one promissory note of even date therewith in the original principal amount of \$7,800,000.00 payable to International Bank of Commerce together with all other indebtedness of any kind whatsoever secured or to be secured thereby, and the terms, conditions, and stipulations contained therein. Deed of Trust of record under Document Number 2015028754, of the Official Public Records of Travis County, Texas. Said lien additionally secured by Assignment of Rights recorded under Document Number 2015029438, of the Official Public Records of Travis County, Texas. Said Lien being affected by that Ratification Agreement recorded under Document Number 2015029439, of the Official Public Records of Travis County, Texas;
3. Deed of Trust dated May 18, 2017 from Heart of Manor, LP to Robert B. Barnes, Trustee, securing the payment of one revolving promissory note of even date therewith in the original principal amount of \$8,700,000.00 and a promissory note of even date therewith in the original principal amount of \$4,000,000.00 payable to International Bank of Commerce together with all other indebtedness of any kind whatsoever secured or to be secured thereby, and the terms, conditions, and stipulations contained therein. Deed of Trust of record under Document Number 2017091846, of the Official Public Records of Travis County, Texas.

does hereby consent to the foregoing Easement for Interim Wastewater Treatment Plant, Access Easement and Right of Way ("Easement") and agrees that its lien is subject and subordinate to the described Easement, and that the undersigned has authority to execute and deliver this Consent of Lienholder, and that all acts necessary to bind the Lienholder have been taken.

LIENHOLDER:

INTERNATIONAL BANK OF COMMERCE, a
Texas banking association

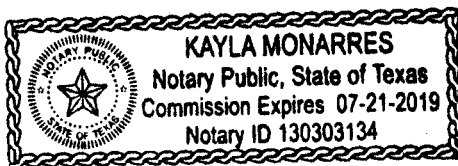
By: [Signature]
Name: JASON RANGEL
Title: VP

STATE OF Texas §
COUNTY OF Travis §

Before me, the undersigned notary, on this day personally appeared JASON RANGEL
Vice president of International Bank of Commerce
Texas banking association, known to me through valid identification to be the
person whose name is subscribed to the preceding instrument and acknowledged to me that the
person executed the instrument in the person's official capacity for the purposes and
consideration expressed in the instrument.

Given under my hand and seal of office on October 5th 2017.

[Seal]



[Signature]
Notary Public, State of Texas

EXHIBIT "A"

WASTEWATER EASEMENT: 12.00
ACRES: HEART OF MANOR, LP
TO THE CITY OF AUSTIN, TEXAS

FIELD NOTES

FIELD NOTES FOR A TRACT OF LAND BEING 12.00 ACRES OF LAND, MORE OR LESS, FOR A WASTEWATER EASEMENT, OUT OF THE JAMES MANOR SURVEY NO. 39, AND ALSO BEING OUT OF A 1242.15 ACRES TRACT OF LAND CONVEYED TO WILD HORSE INVESTMENTS, LTD., BY DEED, AS RECORDED IN DOCUMENT NO. 2000056534 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, SAID 12.00 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

COMMENCING at a 1" iron pipe found at an angle point in the southerly line of the above-mentioned 1242.15 acres tract, said 1" iron pipe also being the northeasterly corner of a 633.40 acres tract of land conveyed to Wild Horse Investments, Ltd., by deed, as recorded in Document No. 2000175724, Official Public Records of Travis County, Texas, and from said 1" iron pipe, a ½" rebar with red cap in the easterly line of said 633.40 acres tract and at the northwesterly corner of a 57.1863 acres tract conveyed to Travis County, Texas, bears S28°17'59"W, 169.36 feet;

THENCE, with the northerly line of said 633.40 acres tract same being the southerly line of said 1242.15 acres tract, N62°29'50"W, 576.27 feet to a ½" rebar with red cap found, said rebar being in the southeasterly line of a 20.00 acres W&WWTP easement tract conveyed to the City of Austin, Texas as recorded in Document No. 2003249298 of the Official Public Records of Travis County, Texas;

THENCE, with the said southeasterly line of a 20.00 acres tract, N45°00'00"E, 365.86 feet to a ½" rebar with red cap found, said rebar being the most easterly corner of the said 20.00 acres W&WWTP easement tract;

THENCE, with the northeasterly line of the said 20.00 acres W&WWTP easement tract, N45°00'00"W, 532.34 feet to a calculated point for the POINT OF BEGINNING of the 12.00 acres easement tract herein described;

THENCE, continuing with the northeasterly line of the said 20.00 acres W&WWTP easement tract, N45°00'00"W, 247.66 feet to a calculated point for the most northerly corner of said 20.00 acres W&WWTP easement tract, said calculated point also being a corner of the 12.00 acres easement tract herein described;

THENCE, with the northwesterly line of said 20.00 acres W&WWTP easement tract, S45°00'00"W, 585.17 feet to a calculated point for a corner of the tract herein described;

THENCE, leaving the northwesterly line of said 20.00 acres W&WWTP easement tract and crossing over the above-mentioned 1242.15 acres tract, the following three courses and distances;

- 1) N26°39'26"W, 275.19 feet to a calculated point for a corner of the tract herein described;
- 2) N81°45'51"W, 93.58 feet to a calculated point for corner of the tract herein described;
- 3) N46°20'43"W, 365.84 feet to a calculated point for a corner of the tract herein described, said calculated point being in a southeasterly offset line, offset 200 feet from and parallel to the centerline of a pipeline easement with no listed width, as found in Volume 84, Page 405 and Volume 84, Page 515, Deed Records, Travis County, Texas;

THENCE, with the said southeasterly offset line of a pipeline easement, N62°24'11"E, 928.48 feet to a calculated point for a corner of the tract herein described, said calculated point being in the northeasterly line of an access easement as recorded in Document No. 2003249298 and in the southwesterly line of an electric and telephone easement as recorded in Document No. 2003249302;

THENCE, with the said northeasterly line of an access easement and the said southwesterly line of an electric and telephone easement, the following three courses and distances;

- 1) S38°23'09"E, 86.46 feet to a calculated point for a corner of the tract herein described;
- 2) S63°02'24"E, 307.88 feet to a calculated point for a corner of the tract herein described;
- 3) S26°51'04"W, 290.55 feet to a calculated point for a corner of the tract herein described;

THENCE, leaving said northeasterly line of an access easement and said southwesterly line of an electric and telephone easement, S11°54'34"E, 241.98 feet to the POINT OF BEGINNING of the tract herein described and containing 12.00 acres of land, more or less.

Prepared By:
Phillip M. Craft, RPLS #4463
Survey Supervisor
Distribution System Engineering
Austin Water Utility
City of Austin, Texas



Phillip M. Craft
06/13/17



Scale
1" = 300'

BLUE BLUFF ROAD

ACCESS ESMT.
DOC#2003249298

30' WW ESMT.
DOC#2003249300

CL PIPELINE ESMT. V.84, P405
(NO WIDTH GIVEN) V.84, P515

12.00 AC.
WWTP ESMT.

30' ELEC. & TEL. ESMT.
DOC#2003249302

1242.15 AC.
WILDHORSE INVESTMENTS, LTD.
DOC#2000056534

20.00 AC.
W&WWTP ESMT.
DOC#2003249298

100 YEAR FLOOD PLAIN

DRAINAGE ESMT.
2004024414

633.40 AC.
WILD HORSE INVESTMENTS, LTD.
DOC#2000175724

The Bearings Described herein are
Texas State Plane Coordinates
and Bearings obtained using GPS -
(Texas Central Zone 4203,
NAD 1983(conus),
Geoid03 (conus),
US Survey Feet)

TRAVIS COUNTY
57.1863 AC.
DOC#2013223964

NOTE: 100 YEAR FLOOD PLAIN
AS SHOWN ON FIRM MAP NO.
48453C0480J

SKETCH TO ACCOMPANY FIELD NOTES

AUSTIN WATER UTILITY
D.S.E.

SKETCH PREPARED FROM SURVEY
DATA GATHERED FROM FIELD WORK
DIRECTLY OVERSEEN BY PHILLIP M.
CRAFT, R.P.L.S.#4463

Date: 06/13/17

Phillip M. Craft



LINE TABLE:

<u>LINE #</u>	<u>BEARING</u>	<u>DISTANCE</u>
L1	N45°00'00"W	247.66
L2	S45°00'00"W	585.17
L3	N26°39'26"W	275.19
L4	N81°45'51"W	93.58
L5	N46°20'43"W	365.84
L6	N62°24'11"E	928.48
L7	S38°23'09"E	86.46
L8	S63°02'24"E	307.88
L9	S26°51'04"W	290.55
L10	S11°54'34"E	241.98

FILED AND RECORDED

OFFICIAL PUBLIC RECORDS

Dana DeBeauvoir

Dec 01, 2017 03:14 PM

2017190463

GONZALESM: \$74.00

Dana DeBeauvoir, County Clerk

Travis County TEXAS

Recorders Memorandum-At the time of recordation this instrument was found to be inadequate for the best reproduction, because of illegibility, carbon or photocopy, discolored paper, etc. All blockouts, additions and changes were present at the time the instrument was filed and recorded.

TÓM TẮT BẢNG NGÔN NGỮ ĐƠN GIẢN

Thành Phố Austin - Thủy Cục Austin

Wild Horse Ranch WWTP

Giấy Phép TCEQ - WQ0010543013

Đơn xin Giấy phép Xây dựng Hệ thống Xử lý Nước thải Sinh hoạt

CN600135198

RN103014577

TX0124800

WQ0010543013

Bản tóm tắt sau đây được cung cấp cho đơn xin giấy phép chất lượng nước đang chờ xử lý này đang được Ủy ban Chất lượng Môi trường Texas xem xét theo yêu cầu của 30 Bộ luật Hành chính Texas Chương 39. Thông tin cung cấp trong bản tóm tắt này có thể thay đổi trong quá trình duyệt xét chuyên môn đối với đơn đăng ký và không phải là thông tin đại diện có hiệu lực thi hành của liên bang đối với đơn xin giấy phép.

Thành phố Austin (CN600135198) vận hành nhà máy xử lý nước thải Wild Horse Ranch (RN103014577), một nhà máy xử lý nước thải bằng bùn hoạt tính thông thường. Cơ sở xử lý được đặt tại 10621 Blue Bluff Lane, gần Thành Phố Manor, Quận Travis, Texas 78653.

Đơn xin này nhằm mục đích gia hạn hoạt động xả nước thải sinh hoạt đã qua xử lý với lưu lượng trung bình hàng năm là 2,250,000 gallon mỗi ngày thông qua Cửa xả 001.

Chất thải từ cơ sở này dự kiến sẽ bao gồm nhu cầu oxy sinh hóa cacbon (CBOD5) trong 5 ngày, tổng chất rắn lơ lửng (TSS), nitơ amoniac (NH3-N), và *Escherichia coli*. Báo cáo Kỹ thuật Nước thải Sinh hoạt 1.0, Mục 7 có phần liệt kê các chất ô nhiễm tiềm năng bổ sung. Tài Liệu Phân Tích Chất Ô Nhiễm Trong Nước Thải Đã Qua Xử Lý Phiên Bản 4.0 nằm trong bộ hồ sơ xin cấp phép.

Nước thải sinh hoạt được xử lý chủ yếu bằng quá trình xử lý nước thải bùn hoạt tính. Các cơ sở xử lý bao gồm một lưới chắn thô, một kênh tách grit, các bể hiếu khí, thêm phèn nhôm để loại bỏ photpho hóa học, bể lắng cuối, các bộ lọc đĩa và một hệ thống khử trùng bằng tia cực tím. Bùn thải được vận chuyển đến Nhà máy Xử lý Nước thải Walnut Creek của Thành phố Austin (WQ0010543011), sau đó được bơm chuyển tiếp đến Nhà máy Quản lý Chất thải Sinh học của Thành phố Austin (WQ0003823000) để xử lý và tái sử dụng có ích.

简明摘要

Austin市 - Austin Water
Wild Horse Ranch WWT
TCEQ许可证号 -WQ0010543013
生活污水处理厂申请

CN600135198

RN103014577

TX0124800

WQ0010543013

根据《Texas州行政法规》第30篇第39章的规定，Texas州环境质量委员会正在审查水质许可证申请，现提供该待处理申请的以下摘要。本摘要中提供的信息可能会在该申请的技术审查过程中发生变化，这些信息并不属于联邦对许可证申请的强制性陈述。

Austin市（CN600135198）运营着Wild Horse Ranch污水处理厂（RN103014577），这是一座传统的活性污泥污水处理厂。该设施的地址是10621 Blue Bluff Lane, near the City of Manor, Travis County, Texas 78653。

该申请旨在续延其排放许可，以获准通过001号排放口排放经处理的生活废水，日均流量为2,250万加仑。

该设施排出的废水预计含有五日碳质生化需氧量（CBOD₅）、总悬浮固体（TSS）、氨氮（NH₃-N）和大肠杆菌。其他潜在污染物载于许可申请材料中的《生活废水技术报告1.0》第7节、《经处理污水的污染物分析》和《生活废水工作表4.0》。

生活废水主要采用活性污泥工艺进行处理。处理单元包括条形筛、沉砂渠、曝气池、用于化学除磷的硫酸铝添加装置、终沉池、盘式过滤器和紫外线消毒系统。废弃污泥被运送至Austin市Walnut Creek污水处理厂（WQ0010543011），随后通过泵送转移至Austin市的生物固体管理厂（WQ0003823000）进行处理和有益再利用。



City of Austin | Austin Water

P.O. Box 1088 Austin, TX 78767

AustinWater.org

Certified Mail

Article No.: 9589 0710 5270 1492 2686 61

Return Receipt Requested

September 25, 2024

Texas Commission on Environmental Quality

Revenue Section (MC214)

P.O. Box 13088

Austin, Texas 78711-3088

RE: Domestic Wastewater Permit Renewal Application Additional Permit Fee
City of Austin, Austin Water, Wild Horse Ranch Wastewater Treatment Plant
CN600135198, RN103014577; TX0124800; WQ0010543013

Dear Madam/Sir:

An additional permit fee of \$400.00 was required by Rainee Trevino of the Applications Review and Processing Team (MC148) of TCEQ. Attached is the TCEQ letter dated September 17, 2024, with the highlighted portion that instructed payment for your reference, the Payment Submittal Form, and a check in the amount of \$400.00.

Should you have any questions or require additional information, please feel free to contact me via email at tammy.yates.west@austintexas.gov or via telephone at 512.972.0143.

Sincerely,

A handwritten signature in blue ink that reads "Tammy Y West".

Tammy Y West
Wastewater Regulatory Manager

CC: Ayman Benyamin
Brian Haws

Agmed Weber
Yuejiao "Amy" Liu

Darrell Devooght
Misty Klein



*The City of Austin is committed to compliance with the Americans with Disabilities Act (ADA).
Reasonable modifications and equal access to communications will be provided upon request.*

Jon Niermann, *Chairman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 17, 2024

Ms. Tammy West
Wastewater Regulatory Manager
Austin Water
625 East 10th Street, Suite 315
Austin, Texas 78701

RE: Application to Renew Permit No.: WQ0010543013 (EPA I.D. No. TX0124800)
Applicant Name: City of Austin (CN600135198)
Site Name: Wild Horse Ranch WWTP (RN103014577)
Type of Application: Renewal

VIA EMAIL

Dear Ms. West:

We have received the application for the above referenced permit, and it is currently under review. Your attention to the following item(s) are requested before we can declare the application administratively complete. Please submit responses to the following items via email.

1. Administrative Report 1.0, Section 1. Application Fees:
Thank you for submitting the renewal application fee. However, the renewal application fee provided of \$1,615 is based upon the flow greater than 0.50 MGD but less than 1.0 MGD. The application indicates a Final Phase Flow of 2.25 MGD. Therefore, the correct renewal application fee is \$2,015. Please submit an additional \$400 to complete the renewal fee. The payment should be mailed to TCEQ, Revenue Section (MC 214), P.O. Box 13088 Austin, TX 78711-3088. Please provide a copy of the check in your response to this letter.
2. Plain Language Summary (PLS):
Please update all the Plain Language Summaries to reflect the correct Final Phase Flow of 2.25 MGD.
3. Administrative Report 1.0, Section 9 Regulated Entity and Permitted Site Information, Item D:
The copy of the easement provided is not recorded. Please provide a recorded copy of the easement.
4. The following is a portion of the NORI which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

APPLICATION. City of Austin, 625 East 10th Street, Suite 800, Austin, Texas 78701, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010543013 (EPA I.D. No. TX0124800) to authorize the discharge of treated wastewater at a volume not to exceed an annual average flow of 2,250,000 gallons per day. The domestic wastewater treatment facility is located at 10621 Blue Bluff Lane, in the city of Manor, in Travis County, Texas 78653. The discharge route is from the plant site to an unnamed tributary of Gilleland Creek, thence to Gilleland Creek, thence to Colorado River. TCEQ received this application on September 12, 2024. The permit application will be available for viewing and copying at Austin Water-Waller Creek Center, 625 East 10th Street, Suite 315, Austin, in Travis County, Texas prior to the date this notice is published in the newspaper.

The application, including any updates, and associated notices are available electronically at the following webpage: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.56805,30.317822&level=18>

Further information may also be obtained from City of Austin at the address stated above or by calling Ms. Tammy West, Wastewater Regulatory Manager/Austin Water, at 512-972-0143.

5. The application indicates that public notices in Spanish are required. After confirming the portion of the NORI above does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.

Templates for Simplified Chinese and Vietnamese are not available, but the complete draft English NORI is also attached to assist with the translation to these languages.

Please submit the complete response, addressed to my attention by October 1, 2024. If you should have any questions, please do not hesitate to contact me by phone at (512) 239-4324 or by email at rainee.trevino@tceq.texas.gov

Sincerely,



Raine Trevino
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission of Environmental Quality

RT

Ms. Tammy West
Page 3
September 17, 2024
Permit No. WQ0010543013

Enclosure(s)
Municipal Renewal Discharge Spanish NORI
English NORI Draft

cc: Mr. Agmed Weber, Operations Manager, Austin Water, 7113 FM 969, Austin, Texas 78724

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if the mailing the payment.

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- **Do not mail this form with the application form.**
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, Texas 78753

Fee Code: WQP **Waste Permit No:** WQ0010543013

1. Check or Money Order Number: 4726504
2. Check or Money Order Amount: 400.00
3. Date of Check or Money Order: 09/23/2024
4. Name on Check or Money Order: TCEQ
5. APPLICATION INFORMATION

Name of Project or Site: Wild Horse Ranch WWTP

Physical Address of Project or Site: 10621 Blue Bluff Ln, Manor, TX 78653

If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application.

Staple Check or Money Order in This Space

PLAIN LANGUAGE SUMMARY

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

CN600135198

RN103014577

TX0124800

WQ0010543013

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Austin (CN600135198) operates the Wild Horse Ranch wastewater treatment plant (RN103014577), a conventional activated sludge wastewater treatment plant. The facility is located at 10621 Blue Bluff Lane, near the City of Manor, Travis County, Texas 78653.

This application is for a renewal to discharge at a volume not to exceed an annual average flow of 2,250,000 gallons per day of treated domestic wastewater via Outfall 001.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package.

Domestic wastewater is treated primarily by an activated sludge process. The treatment units include a bar screen, a grit channel, aeration basins, aluminum sulfate addition for chemical phosphorus removal, final clarifier, disk filters and an ultraviolet disinfection system. Waste sludge is hauled to the City of Austin's Walnut Creek Wastewater Treatment Plant (WQ0010543011) with subsequent pumped transfer to the City of Austin's Biosolids Management Plant (WQ0003823000) for treatment and beneficial reuse.

PLAIN LANGUAGE SUMMARY

City of Austin - Austin Water
Wild Horse Ranch WWTP
TCEQ Permit -WQ0010543013
Application for Domestic WWTP

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The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Austin (CN600135198) operates the Wild Horse Ranch wastewater treatment plant (RN103014577), a conventional activated sludge wastewater treatment plant. The facility is located at 10621 Blue Bluff Lane, near the City of Manor, Travis County, Texas 78653.

This application is for a renewal to discharge at an annual average flow of 750,000 gallons per day of treated domestic wastewater via Outfall 001.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), ammonia nitrogen (NH3-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package.

Domestic wastewater is treated primarily by an activated sludge process. The treatment units include a bar screen, a grit channel, aeration basins, aluminum sulfate addition for chemical phosphorus removal, final clarifier, disk filters and an ultraviolet disinfection system. Waste sludge is hauled to the City of Austin's Walnut Creek Wastewater Treatment Plant (WQ0010543011) with subsequent pumped transfer to the City of Austin's Biosolids Management Plant (WQ0003823000) for treatment and beneficial reuse.

RESUMEN EN LENGUAJE SENCILLO

Ciudad de Austin - Austin Water
Wild Horse Ranch WWTP
Permiso TCEQ - WQ0010543013
Solicitud de WWTP Doméstico

CN600135198

RN103014577

TX0124800

WQ0010543013

Se provee el siguiente resumen de esta solicitud pendiente de permiso de calidad de agua que la Comisión de Calidad Ambiental de Texas está revisando según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son declaraciones federales ejecutables de la solicitud de permiso.

La Ciudad de Austin (CN600135198) opera la planta de tratamiento de aguas residuales Wild Horse Ranch (RN103014577), una planta de tratamiento de aguas residuales convencional con lodos activados. Las instalaciones están ubicadas en 10621 Blue Bluff Lane, cerca de la Ciudad de Manor, Condado de Travis, Texas 78653.

Esta solicitud es para una renovación para descargar a un caudal promedio anual de 750,000 galones por día de agua residual doméstica tratada a través del Desagüe 001.

Se espera que las descargas de la planta tengan demanda bioquímica de oxígeno carbonoso a cinco días (CBOD 5), sólidos suspendidos totales (TSS), nitrógeno amoniacal (NH₃-N) y *Escherichia coli*. Contaminantes potenciales adicionales se incluyen en el Informe Técnico Nacional 1.0, Sección 7. Análisis de contaminantes de efluentes tratados y hoja de trabajo doméstica 4.0 en el paquete de solicitud de permisos.

El agua residual doméstica se trata principalmente mediante un proceso de lodos activados. Las unidades de tratamiento incluyen una criba de barras, un canal de arenas, cuencas de aireación, adición de sulfato de aluminio para la remoción de fósforo químico, aclarador final, filtros de disco y un sistema de desinfección ultravioleta. Los lodos residuales se llevan a la Planta de Tratamiento de Aguas Residuales de Walnut Creek de la Ciudad de Austin (WQ0010543011) con bombeo subsiguiente que se transfiere a la Planta de Administración de Biosólidos de la Ciudad de Austin (WQ0003823000) para su tratamiento y reutilización beneficiosa.

TÓM TẮT BẢNG NGÔN NGỮ ĐƠN GIẢN

Thành Phố Austin - Thủy Cục Austin

Wild Horse Ranch WWTP

Giấy Phép TCEQ - WQ0010543013

Đơn xin Giấy phép Xây dựng Hệ thống Xử lý Nước thải Sinh hoạt

CN600135198

RN103014577

TX0124800

WQ0010543013

Bản tóm tắt sau đây được cung cấp cho đơn xin giấy phép chất lượng nước đang chờ xử lý này đang được Ủy ban Chất lượng Môi trường Texas xem xét theo yêu cầu của 30 Bộ luật Hành chính Texas Chương 39. Thông tin cung cấp trong bản tóm tắt này có thể thay đổi trong quá trình duyệt xét chuyên môn đối với đơn đăng ký và không phải là thông tin đại diện có hiệu lực thi hành của liên bang đối với đơn xin giấy phép.

Thành phố Austin (CN600135198) vận hành nhà máy xử lý nước thải Wild Horse Ranch (RN103014577), một nhà máy xử lý nước thải bằng bùn hoạt tính thông thường. Cơ sở xử lý được đặt tại 10621 Blue Bluff Lane, gần Thành Phố Manor, Quận Travis, Texas 78653.

Đơn xin này nhằm mục đích gia hạn hoạt động xả nước thải sinh hoạt đã qua xử lý với lưu lượng trung bình hàng năm là 750,000 gallon mỗi ngày thông qua Cửa xả 001.

Chất thải từ cơ sở này dự kiến sẽ bao gồm nhu cầu oxy sinh hóa cacbon (CBOD5) trong 5 ngày, tổng chất rắn lơ lửng (TSS), nitơ amoniac (NH3-N), và *Escherichia coli*. Báo cáo Kỹ thuật Nước thải Sinh hoạt 1.0, Mục 7 có phần liệt kê các chất ô nhiễm tiềm năng bổ sung. Tài Liệu Phân Tích Chất Ô Nhiễm Trong Nước Thải Đã Qua Xử Lý Phiên Bản 4.0 nằm trong bộ hồ sơ xin cấp phép.

Nước thải sinh hoạt được xử lý chủ yếu bằng quá trình xử lý nước thải bùn hoạt tính. Các cơ sở xử lý bao gồm một lưới chắn thô, một kênh tách grit, các bể hiếu khí, thêm phèn nhôm để loại bỏ photpho hóa học, bể lắng cuối, các bộ lọc đĩa và một hệ thống khử trùng bằng tia cực tím. Bùn thải được vận chuyển đến Nhà máy Xử lý Nước thải Walnut Creek của Thành phố Austin (WQ0010543011), sau đó được bơm chuyển tiếp đến Nhà máy Quản lý Chất thải Sinh học của Thành phố Austin (WQ0003823000) để xử lý và tái sử dụng có ích.